FCC TEST REPORT (15.407)

REPORT NO.:	RF980302H02-1
MODEL NO.:	AR5BDT92
RECEIVED:	Mar. 04, 2009
TESTED:	Mar. 14 to 16, 2009
ISSUED:	Mar. 19, 2009

APPLICANT:	Atheros Communications, Inc.
ADDRESS:	5480 Great America Parkway, Santa Clara, CA 95054

ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
TEST LOCATION:	No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan

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1. CERTIFICATION

PRODUCT:	802.11n 2x2 Minicard
BRAND NAME:	Atheros
MODEL NO.:	AR5BDT92
TEST SAMPLE:	R&D SAMPLE
TESTED:	Mar. 14 to 16, 2009
APPLICANT:	Atheros Communications, Inc.
STANDARDS:	FCC Part 15, Subpart E (Section 15.407), ANSI C63.4-2003

The above equipment (Model: AR5BDT92) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and was in compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : _____ , **DATE:** Mar. 19, 2009
(Midoli Peng, Specialist)

TECHNICAL ACCEPTANCE : _____ , **DATE:** Mar. 19, 2009
Responsible for RF
(Hank Chung, Deputy Manager)

APPROVED BY : _____ , **DATE:** Mar. 19, 2009
(May Chen, Deputy Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:
For 802.11a

APPLIED STANDARD: FCC Part 15, Subpart E (Section 15.407)			
Standard Section	**Test Type**	**Result**	**Remark**
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is –10.57dB at 0.197MHz
15.407(b/1/2/3)(b)(5)	Electric Field Strength Spurious Emissions, 30MHz ~ 40000MHz	PASS	Meet the requirement of limit. Minimum passing margin is –0.45dB at 5150.00MHz
15.407(a/1/2/3)	Peak Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.

NOTE:

1. The EUT was operating in 2400 ~ 2483.5MHz, 5.15~5.35GHz, 5.47~5.725GHz and 5.725~5.850GHz frequencies band. This report was recorded the RF parameters including 5.15~5.35GHz and 5.47~5.725GHz. For the 2400 ~ 2483.5MHz and 5.725~5.850GHz RF parameters was recorded in another test report.

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Conducted emissions	2.44 dB
Radiated emissions (30MHz-1GHz)	3.94 dB
Radiated emissions (1GHz -18GHz)	2.49 dB
Radiated emissions (18GHz -40GHz)	2.70 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	802.11n 2x2 Minicard
MODEL NO.	AR5BDT92
FCC ID	PPD-AR5BDT92
POWER SUPPLY	DC 3.3V from host equipment
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: 11 / 5.5 / 2 / 1Mbps 802.11a / g: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps HT20 MCS0~7 (800ns GI): 65 / 58.5 / 52 / 39 / 26 / 19.5 / 13 / 6.5Mbps. HT20 MCS8~15 (800ns GI): 130 / 117 / 104 / 78 / 52 / 39 / 26 / 13Mbps. HT40 MCS0~7 (800ns GI): 135 / 121.5 / 108 / 81 / 54 / 40.5 / 27 / 13.5Mbps. HT40 MCS8~15 (800ns GI): 270 / 243 / 216 / 162 / 108 / 81 / 54 / 27Mbps. HT40 MCS0~7 (400ns GI): 150 / 135 / 120 / 90 / 60 /45 / 30 / 15 HT40 MCS8~15 (400ns GI): 300 / 270 / 240 / 180 / 120 / 90 / 60 / 30
FREQUENCY RANGE	For 15.407 802.11a: 5.18 ~ 5.24GHz, 5.26 ~ 5.32GHz, 5.50 ~ 5.70GHz
	For 15.247 802.11b & 802.11g: 2412 ~ 2462MHz 802.11a: 5.745 ~ 5.825GHz

NUMBER OF CHANNEL	**For 15.407** 19 for 802.11a, draft 802.11n (20MHz) 9 for draft 802.11n (40MHz)
	For 15.247(2.4GHz) 11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz) **For 15.247(5GHz)** 5 for 802.11a, draft 802.11n (20MHz) 2 for draft 802.11n (40MHz)
MAXIMUM OUTPUT POWER	**For 15.407** 802.11a: 101.983mW draft 802.11n (20MHz): 112.601mW draft 802.11n (40MHz): 106.796mW **For 15.247(2.4GHz)** 802.11b: 214.815mW 802.11g: 785.481mW draft 802.11n (20MHz): 784.234mW draft 802.11n (40MHz): 882.267mW **For 15.247(5GHz)** 802.11a: 414.769mW draft 802.11n (20MHz): 417.146mW draft 802.11n (40MHz): 433.680mW
ANTENNA TYPE	Please see note 1
DATA CABLE	NA
I/O PORT	NA
ASSOCIATED DEVICES	NA

NOTE:

1. There are two antennas provided to this EUT, please refer to the following table:

Transmitter Circuit	Brand	Model	Antenna Type	Antenna Gain (dBi) For 2.4GHz	Antenna Gain (dBi) For 5GHz	Antenna Connector
Chain(0)	Tyco	1513327-1	Dipole	3	4	RPSMA
Chain(1)	Tyco	1513327-1	Dipole	3	4	RPSMA

2. The EUT incorporates CDD function with 802.11a, 802.11b, 802.11g and MIMO function with draft 802.11n .

3. The EUT is 2 * 2 spatial MIMO (2Tx & 2Rx) without beam forming function. The antenna configurations are two transmitter antennas and two receiver antennas, as there are 2 Dipole antennas. Spatial multiplexing modes for simultaneous transmission using 2 antennas, and for simultaneous receiver using 2 antennas.

4. When the EUT operating in draft 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 15.

5. The EUT have MIMO power save mode, one transmitter may be active (chain 0) while other is inactive (chain 1). Output power is no different compared to operation when both transmitter chains are active. Transmitter power is not increased or decreased for chain 0 when in single chain mode, compared to dual chain active mode.

6. The EUT complies with draft 802.11n standards and backwards compatible with 802. 11a, 802.11b, 802.11g products.

7. The EUT was pre-tested under the following modes:

Test Mode	Data rate
Mode A	400ns GI
Mode B	**800ns GI**

From the above modes, the worst case was found in **Mode B**. Therefore only the test data of the mode was recorded in this report.

8. The EUT was pre-tested under the following versions:

Test Version	Description
Version A	With RPSMA connector
Version B	**Without RPSMA connector**

From the above Versions, the worst case was found in **Version B**. Therefore only the test data of the version was recorded in this report.

(Both with RPSMA and without RPSMA connector boards were evaluated on conducted emissions and radiated emission (antenna gain was used in section 3.1(1)) test to find the worst case.)

9. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 DESCRIPTION OF ANTENNA

3.2.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.
And according to FCC 47 CFR Section 15.407(a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

3.2.2 ANTENNA CONNECTED CONSTRUCTION

There are two antennas provided to this EUT, please refer to the following table:

Transmitter Circuit	Brand	Model	Antenna Type	Antenna Gain (dBi) For 5GHz	Antenna Connector
Chain(0)	Tyco	1513327-1	Dipole	4	RPSMA
Chain(1)	Tyco	1513327-1	Dipole	4	RPSMA

3.3 DESCRIPTION OF TEST MODES

Operated in 5150MHz ~ 5350MHz bands:

Eight channels are provided for 802.11a and draft 802.11n (20MHz):

CHANNEL	FREQUENCY
1	5180 MHz
2	5200 MHz
3	5220 MHz
4	5240 MHz
5	5260 MHz
6	5280 MHz
7	5300 MHz
8	5320 MHz

Four channels are provided for draft 802.11n (40MHz):

CHANNEL	FREQUENCY
1	5190 MHz
2	5230 MHz
3	5270 MHz
4	5310 MHz

Operated in 5470MHz ~ 5725MHz bands:

Eleven channels are provided for 802.11a and draft 802.11n (20MHz):

CHANNEL	FREQUENCY
9	5500 MHz
10	5520 MHz
11	5540 MHz
12	5560 MHz
13	5580 MHz
14	5600 MHz
15	5620 MHz
16	5640 MHz
17	5660 MHz
18	5680 MHz
19	5700 MHz

Five channels are provided for draft 802.11n (40MHz):

CHANNEL	FREQUENCY
5	5510 MHz
6	5550 MHz
7	5590 MHz
8	5630 MHz
9	5670 MHz

3.3.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE < 1G	RE ≥ 1G	APCM	
-	√	√	√	√	-

Where **PLC:** Power Line Conducted Emission **RE < 1G:** Radiated Emission below 1GHz

RE ≥ 1G: Radiated Emission above 1GHz **APCM:** Antenna Port Conducted Measurement

ANTENNA COMBINATION MODE:

COMBINATION MODE	OPERATION MODE	CHAIN(0) (TX)	CHAIN(1) (TX)
A	802.11a	√	√
B	DRAFT 802.11n(20MHz)	√	√
C	DRAFT 802.11n(40MHz)	√	√

Note:
1. The above information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.
2. Antenna 1 and Antenna 2 are Dipole antennas.

POWER LINE CONDUCTED EMISSION TEST:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1	OFDM	BPSK	6	A

RADIATED EMISSION TEST (BELOW 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1	OFDM	BPSK	6	A

RADIATED EMISSION TEST (ABOVE 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1, 2, 4, 5, 7, 8, 9, 14, 19	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 19	1, 2, 4, 5, 7, 8, 9, 14, 19	OFDM	BPSK	6.5	B
For 5 GHz Draft 802.11n (40MHz)	1 to 9	1, 2, 3, 4, 5, 7, 9	OFDM	BPSK	13.5	C

BANDEDGE MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1, 8, 9, 19	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 19	1, 8, 9, 19	OFDM	BPSK	6.5	B
For 5 GHz Draft 802.11n (40MHz)	1 to 9	1, 4, 5, 9	OFDM	BPSK	13.5	C

ANTENNA PORT CONDUCTED MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1, 2, 4, 5, 7, 8, 9, 14, 19	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 19	1, 2, 4, 5, 7, 8, 9, 14, 19	OFDM	BPSK	6.5	B
For 5 GHz Draft 802.11n (40MHz)	1 to 9	1, 2, 3, 4, 5, 7, 9	OFDM	BPSK	13.5	C

3.4 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is an 802.11n 2x2 Minicard. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart E (15.407)

ANSI C63.4-2003

All test items have been performed and recorded as per the above standards.

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.5 DESCRIPTION OF SUPPORT UNITS

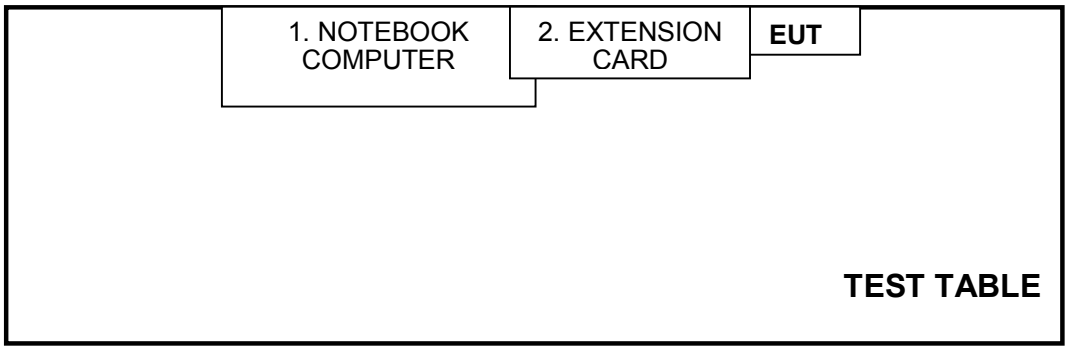
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	Lenovo	0769	L3-BE248 08/01	FCC DoC
2	EXTENSION CARD	Atheros	NA	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	NA

NOTE: All power cords of the above support units are non shielded (1.8m).

3.6 CONFIGURATION OF SYSTEM UNDER TEST



4.TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver	ESCS 30	100375	April 01, 2008	Mar. 31, 2009
Line-Impedance Stabilization Network (for EUT)	ENV-216	100071	Nov. 26, 2008	Nov. 25, 2009
Line-Impedance Stabilization Network (for Peripheral)	ESH3-Z5	848773/004	Nov. 05, 2008	Nov. 04, 2009
RF Cable (JYEBAO)	5DFB	COBCAB-001	Aug 15, 2008	Aug 14, 2009
50 ohms Terminator	50	3	Nov. 05, 2008	Nov. 04, 2009
Software	BV ADT_Cond_V7.3.7	NA	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. B.
3 The VCCI Con B Registration No. is C-2193.

4.1.3 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs

b. provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

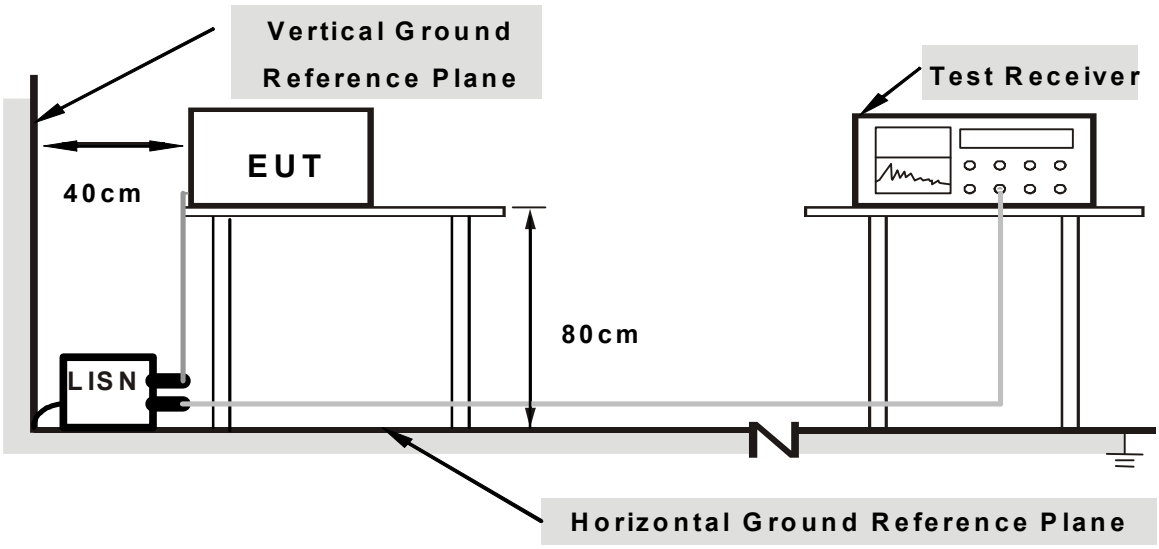
c. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

d. The frequency range from 150kHz to 30MHz was searched. Emission level under (Limit – 20dB) was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.6 EUT OPERATING CONDITIONS

a. Connect the EUT with support unit 1 (Notebook computer) which placed on a testing table.

b. Support unit 1 (Notebook computer) run test program “ART V0 9 b4” to allow EUT to transmit continuously at specific channel frequency.

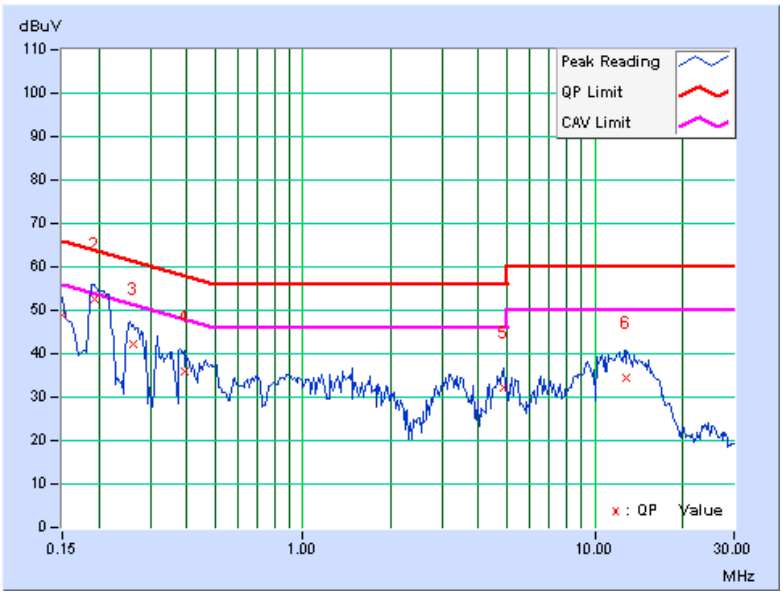
4.1.7 TEST RESULTS

802.11a OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line (L)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH, 962hPa	TESTED BY	Phoenix Huang

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	0.19	48.70	-	48.89	-	66.00	56.00	-17.11	-
2	0.193	0.22	52.30	-	52.52	-	63.91	53.91	-11.39	-
3	0.263	0.30	42.08	-	42.38	-	61.33	51.33	-18.95	-
4	0.392	0.45	35.60	-	36.05	-	58.02	48.02	-21.97	-
5	4.871	0.60	31.49	-	32.09	-	56.00	46.00	-23.91	-
6	12.855	0.93	33.64	-	34.57	-	60.00	50.00	-25.43	-

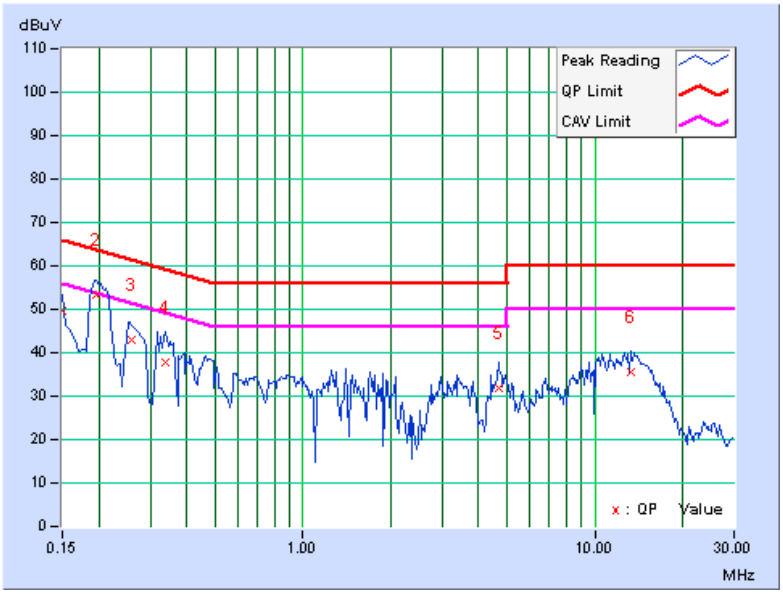
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Neutral (N)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH, 962hPa	TESTED BY	Phoenix Huang

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	0.12	49.57	-	49.69	-	66.00	56.00	-16.31	-
2	**0.197**	**0.15**	**53.02**	**-**	**53.17**	**-**	**63.74**	**53.74**	**-10.57**	**-**
3	0.259	0.22	42.77	-	42.99	-	61.45	51.45	-18.46	-
4	0.338	0.32	37.60	-	37.92	-	59.26	49.26	-21.34	-
5	4.688	0.52	31.48	-	32.00	-	56.00	46.00	-24.00	-
6	13.371	0.78	34.82	-	35.60	-	60.00	50.00	-24.40	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.2.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBμV/m) *note 3
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-27 *note 1	68.3
	-17 *note 2	78.3

NOTE:

1. For frequencies 10MHz or greater above or below the band edge.
2. All emissions within the frequency range from the band edge to 10MHz above or below the band edge.
3. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts)

4.2.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Spectrum Analyzer	FSP40	100036	Dec. 09, 2008	Dec.0 8, 2009
HP Pre_Amplifier	8449B	3008A01923	Nov. 10, 2008	Nov. 09, 2009
ROHDE & SCHWARZ Test Receiver	ESCS30	847124/029	Sep. 09, 2008	Sep. 08, 2009
SCHWARZBECK TRILOG Broadband Antenna	VULB 9168	138	April 30, 2008	April 29, 2009
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 09, 2008	Dec. 08, 2009
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 22, 2009	Jan. 21, 2010
RF Switches	EMH-011	08009	Oct. 07, 2008	Oct. 06, 2009
RF CABLE (Chaintek)	Sucoflex 106	28077	Aug. 15, 2008	Aug. 14, 2009
RF Cable	8DFB	STCCAB-30M-1GHz	Oct. 07, 2008	Oct. 06, 2009
Software	ADT_Radiated_V7.6.15.9.2	NA	NA	NA
CT Antenna Tower & Turn Table	NA	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, HP preamplifier (model: 8449B) and Spectrum Analyzer (model: FSP40) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in Open Site No. C.
4. The FCC Site Registration No. is 656396.
5. The VCCI Site Registration No. is R-1626.
6. The CANADA Site Registration No. is IC 7450G-3.

4.2.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 1 or 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

g. Shorter measurement distances may be used to improve the measurement system's noise floor. As Subpart E description is based on the measurement in distance of 3 meters, the data obtained at 1-meter distance was extrapolate results to the 3-m distance:

Test value at 3-meter distance (dBuV)

= Test value at 1 meter distance (dBuV) -20log(3/1)(dB)

= Test value at 1 meter distance (dBuV) -9.54(dB)

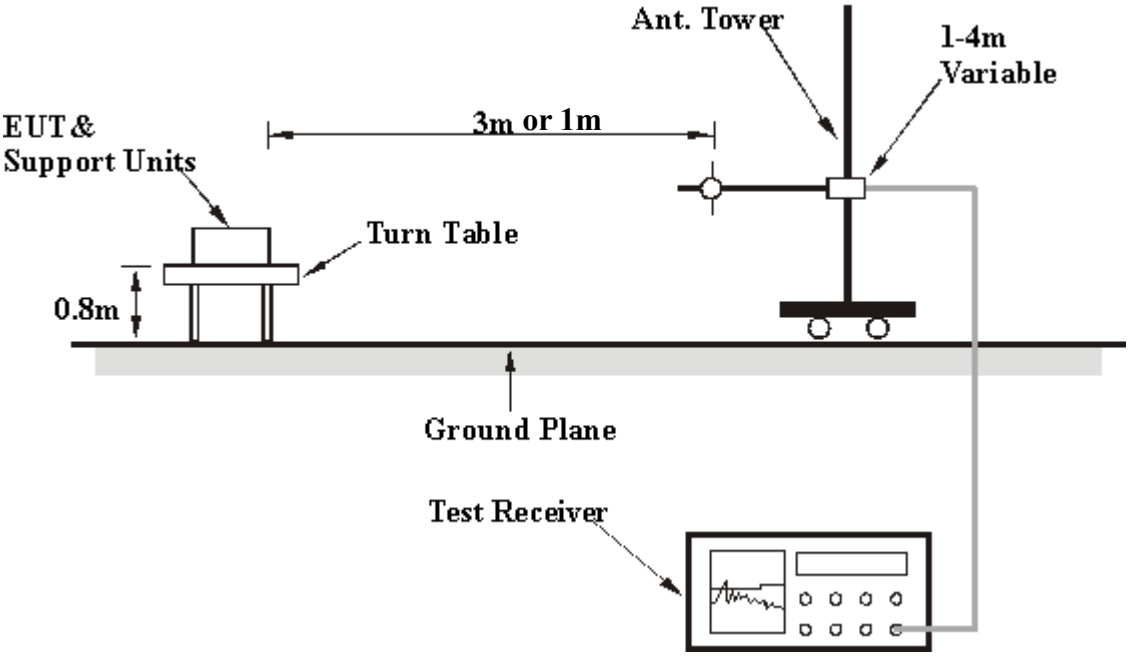
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.

4.2.5 DEVIATION FROM TEST STANDARD

No deviation

4.2.6 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.7 EUT OPERATING CONDITION

Same as 4.1.6

Below 1GHz Test Data

4.2.8 TEST RESULTS

802.11a OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH, 962hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	166.47	42.05 QP	43.50	-1.45	1.55 H	71	28.53	13.52
2	299.74	44.27 QP	46.00	-1.73	1.05 H	98	27.72	16.55
3	399.66	42.85 QP	46.00	-3.15	2.05 H	165	24.10	18.75
4	499.58	40.25 QP	46.00	-5.75	1.54 H	136	18.99	21.26
5	719.87	35.25 QP	46.00	-10.75	1.00 H	308	9.49	25.76
6	899.41	37.45 QP	46.00	-8.55	1.06 H	284	8.98	28.47
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	33.34	36.19 QP	40.00	-3.81	1.05 V	73	22.58	13.61
2	133.53	34.84 QP	43.50	-8.66	1.01 V	48	20.23	14.61
3	299.75	34.26 QP	46.00	-11.74	1.41 V	304	17.25	17.01
4	399.65	41.37 QP	46.00	-4.63	1.91 V	166	20.24	21.13
5	675.25	31.55 QP	46.00	-14.45	1.59 V	317	5.07	26.48
6	899.41	34.81 QP	46.00	-11.19	1.54 V	235	3.81	31.00

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

Above 1GHz Test Data

4.2.9 TEST RESULTS

802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	70.76 PK	61.22 PK	74.00	-12.78	1.07 H	164	34.76	36.00
2	5150.00	58.41 AV	48.87 AV	54.00	-5.13	1.07 H	164	22.41	36.00
3	*5180.00	117.50 PK	107.96 PK			1.03 H	158	81.45	36.05
4	*5180.00	104.20 AV	94.66 AV			1.03 H	158	68.15	36.05
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	77.75 PK	68.21 PK	74.00	-5.79	1.21 V	314	41.75	36.00
2	**5150.00**	**63.09 AV**	**53.55 AV**	**54.00**	**-0.45**	**1.21 V**	**314**	**27.09**	**36.00**
3	*5180.00	124.60 PK	115.06 PK			1.20 V	316	88.55	36.05
4	*5180.00	111.40 AV	101.86 AV			1.20 V	316	75.35	36.05

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3453.00	49.20 PK	68.30	-19.10	1.20 H	8	16.93	32.27
2	#10360.00	53.20 PK	68.30	-15.10	1.21 H	214	7.28	45.92
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3453.00	51.40 PK	68.30	-16.90	1.24 V	104	19.13	32.27
2	#10360.00	55.10 PK	68.30	-13.20	1.82 V	200	9.18	45.92

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Test value converted to account for 3-meter measurement distance.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	118.20 PK	108.66 PK			1.03 H	164	82.12	36.08
2	*5200.00	105.30 AV	95.76 AV			1.03 H	164	69.22	36.08
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	126.30 PK	116.76 PK			1.21 V	330	90.22	36.08
2	*5200.00	113.10 AV	103.56 AV			1.21 V	330	77.02	36.08

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3466.00	49.60 PK	68.30	-18.70	1.24 H	12	17.32	32.28
2	#10400.00	54.10 PK	68.30	-14.20	1.12 H	219	8.11	45.99
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3466.00	52.30 PK	68.30	-16.00	1.20 V	101	20.02	32.28
2	#10400.00	56.20 PK	68.30	-12.10	1.93 V	203	10.21	45.99

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	118.40 PK	108.86 PK			1.04 H	157	82.26	36.14
2	*5240.00	105.60 AV	96.06 AV			1.04 H	157	69.46	36.14
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	126.50 PK	116.96 PK			1.25 V	313	90.36	36.14
2	*5240.00	113.60 AV	104.06 AV			1.25 V	313	77.46	36.14

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3493.00	49.50 PK	68.30	-18.80	1.18 H	15	17.20	32.30
2	#10480.00	54.90 PK	68.30	-13.40	1.08 H	231	8.78	46.12
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3493.00	52.10 PK	68.30	-16.20	1.21 V	97	19.80	32.30
2	#10480.00	56.10 PK	68.30	-12.20	1.79 V	219	9.98	46.12

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	117.30 PK	107.76 PK			1.03 H	142	81.12	36.18
2	*5260.00	105.20 AV	95.66 AV			1.03 H	142	69.02	36.18
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	126.30 PK	116.76 PK			1.24 V	312	90.12	36.18
2	*5260.00	113.40 AV	103.86 AV			1.24 V	312	77.22	36.18

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3506.00	50.20 PK	68.30	-18.10	1.17 H	32	17.87	32.33
2	#10520.00	55.40 PK	68.30	-12.90	1.07 H	223	9.21	46.19
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3506.00	52.90 PK	68.30	-15.40	1.20 V	94	20.57	32.33
2	#10520.00	57.20 PK	68.30	-11.10	1.83 V	212	11.01	46.19

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	118.40 PK	108.86 PK			1.04 H	153	82.16	36.24
2	*5300.00	106.30 AV	96.76 AV			1.04 H	153	70.06	36.24
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	126.60 PK	117.06 PK			1.27 V	310	90.36	36.24
2	*5300.00	113.80 AV	104.26 AV			1.27 V	310	77.56	36.24

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3533.00	50.60 PK	68.30	-17.70	1.24 H	21	18.20	32.40
2	10600.00	55.60 PK	74.00	-18.40	1.00 H	213	9.23	46.37
3	10600.00	45.80 AV	54.00	-8.20	1.00 H	213	-0.57	46.37
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3533.00	53.10 PK	68.30	-15.20	1.21 V	89	20.70	32.40
2	10600.00	58.30 PK	74.00	-15.70	1.82 V	210	11.93	46.37
3	10600.00	42.60 AV	54.00	-11.40	1.82 V	210	-3.77	46.37

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	116.90 PK	107.36 PK			1.01 H	159	80.63	36.27
2	*5320.00	105.10 AV	95.56 AV			1.01 H	159	68.83	36.27
3	5350.00	70.31 PK	60.77 PK	74.00	-13.23	1.04 H	157	33.99	36.32
4	5350.00	56.08 AV	46.54 AV	54.00	-7.46	1.04 H	157	19.76	36.32
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	125.30 PK	115.76 PK			1.18 V	330	89.03	36.27
2	*5320.00	112.10 AV	102.56 AV			1.18 V	330	75.83	36.27
3	5350.00	77.30 PK	67.76 PK	74.00	-6.24	1.18 V	334	40.98	36.32
4	5350.00	61.55 AV	52.01 AV	54.00	-1.99	1.18 V	334	25.23	36.32

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3546.00	51.20 PK	68.30	-17.10	1.21 H	18	18.77	32.43
2	10640.00	55.90 PK	74.00	-18.10	1.12 H	240	9.44	46.46
3	10640.00	46.10 AV	54.00	-7.90	1.12 H	240	-0.36	46.46
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3546.00	53.70 PK	68.30	-14.60	1.23 V	92	21.27	32.43
2	10640.00	59.40 PK	74.00	-14.60	1.84 V	203	12.94	46.46
3	10640.00	42.80 AV	54.00	-11.20	1.84 V	203	-3.66	46.46

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M

NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	65.84 PK	56.30 PK	74.00	-17.70	1.07 H	162	29.34	36.50
2	5460.00	51.38 AV	41.84 AV	54.00	-12.16	1.07 H	162	14.88	36.50
3	#5470.00	70.20 PK	60.66 PK	68.30	-7.64	1.06 H	159	33.69	36.51
4	*5500.00	115.20 PK	105.66 PK			1.00 H	162	78.64	36.56
5	*5500.00	103.20 AV	93.66 AV			1.00 H	162	66.64	36.56

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M

NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	74.03 PK	64.49 PK	74.00	-9.51	1.18 V	324	37.53	36.50
2	5460.00	61.28 AV	51.74 AV	54.00	-2.26	1.18 V	324	24.78	36.50
3	#5470.00	77.30 PK	67.76 PK	68.30	-0.54	1.18 V	320	40.79	36.51
4	*5500.00	123.40 PK	113.86 PK			1.19 V	321	86.84	36.56
5	*5500.00	110.10 AV	100.56 AV			1.19 V	321	73.54	36.56

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3666.00	53.80 PK	74.00	-20.20	1.12 H	24	21.06	32.74
2	3666.00	46.00 AV	54.00	-8.00	1.12 H	24	13.26	32.74
3	11000.00	57.20 PK	74.00	-16.80	1.13 H	241	9.95	47.25
4	11000.00	47.30 AV	54.00	-6.70	1.13 H	241	0.05	47.25

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3666.00	56.30 PK	74.00	-17.70	1.16 V	105	23.56	32.74
2	3666.00	48.60 AV	54.00	-5.40	1.16 V	105	15.86	32.74
3	11000.00	59.10 PK	74.00	-14.90	1.87 V	192	11.85	47.25
4	11000.00	44.50 AV	54.00	-9.50	1.87 V	192	-2.75	47.25

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 14	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	64.30 PK	54.76 PK	68.30	-13.54	1.04 H	162	27.79	36.51
2	*5600.00	116.90 PK	107.36 PK			1.00 H	167	80.08	36.82
3	*5600.00	105.20 AV	95.66 AV			1.00 H	167	68.38	36.82
4	#5725.00	59.10 PK	49.56 PK	68.30	-18.74	1.04 H	162	21.95	37.15
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	70.38 PK	60.84 PK	68.30	-7.46	1.10 V	351	33.87	36.51
2	*5600.00	125.40 PK	115.86 PK			1.17 V	314	88.58	36.82
3	*5600.00	112.30 AV	102.76 AV			1.17 V	314	75.48	36.82
4	#5725.00	65.00 PK	55.46 PK	68.30	-12.84	1.16 V	314	27.85	37.15

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3733.00	54.10 PK	74.00	-19.90	1.13 H	21	21.18	32.92
2	3733.00	46.30 AV	54.00	-7.70	1.13 H	21	13.38	32.92
3	11200.00	58.60 PK	74.00	-15.40	1.26 H	241	11.44	47.16
4	11200.00	48.10 AV	54.00	-5.90	1.26 H	241	0.94	47.16
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3733.00	56.50 PK	74.00	-17.50	1.15 V	98	23.58	32.92
2	3733.00	48.90 AV	54.00	-5.10	1.15 V	98	15.98	32.92
3	11200.00	59.30 PK	74.00	-14.70	1.82 V	194	12.14	47.16
4	11200.00	44.60 AV	54.00	-9.40	1.82 V	194	-2.56	47.16

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance

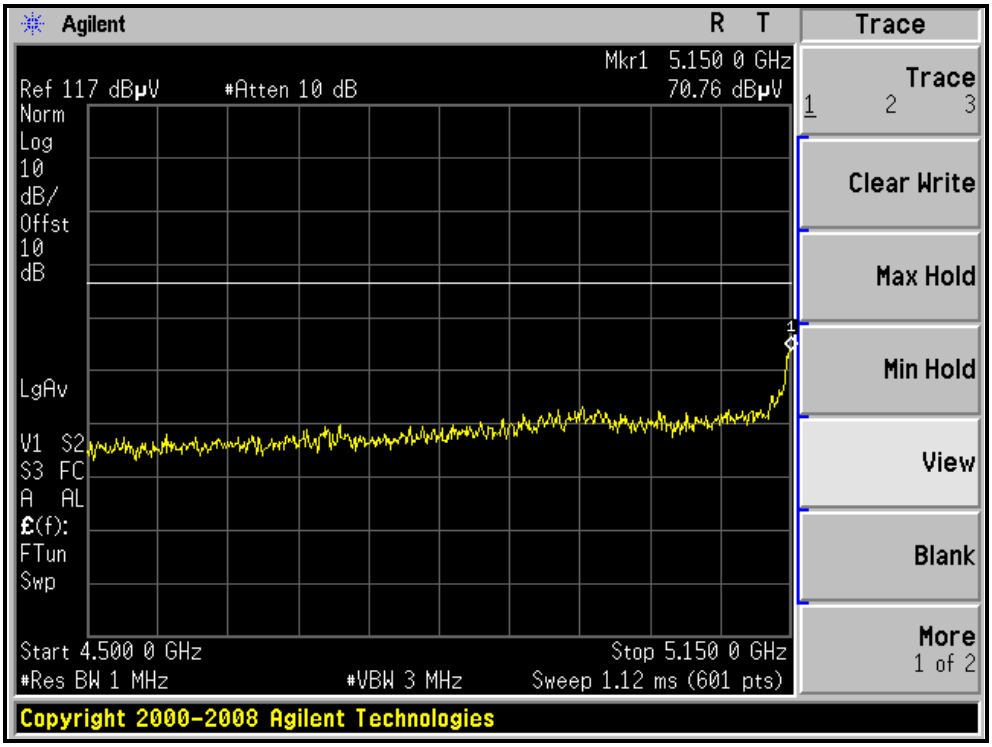
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 19	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

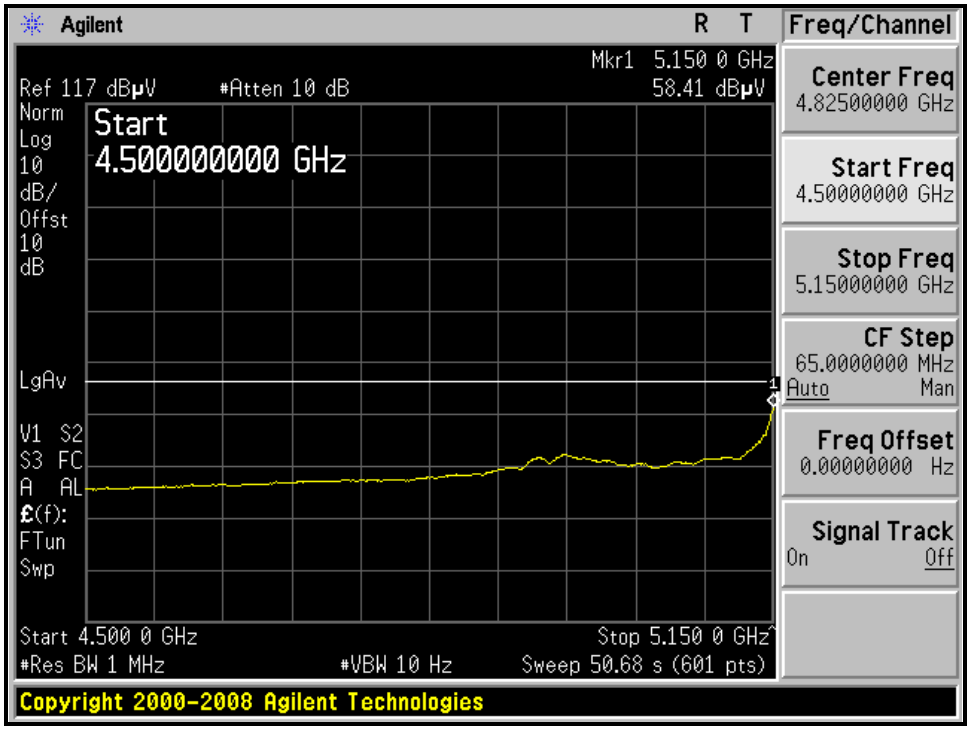
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	113.80 PK	104.26 PK			1.00 H	164	76.71	37.09
2	*5700.00	102.70 AV	93.16 AV			1.00 H	164	65.61	37.09
3	#5725.00	70.20 PK	60.66 PK	68.30	-7.64	1.02 H	163	33.05	37.15
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	122.90 PK	113.36 PK			1.16 V	318	85.81	37.09
2	*5700.00	109.70 AV	100.16 AV			1.16 V	318	72.61	37.09
3	#5725.00	76.85 PK	67.31 PK	68.30	-0.99	1.18 V	328	39.70	37.15

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3800.00	54.10 PK	74.00	-19.90	1.24 H	53	21.00	33.10
2	3800.00	47.20 AV	54.00	-6.80	1.24 H	53	14.10	33.10
3	11400.00	59.10 PK	74.00	-14.90	1.07 H	246	12.03	47.07
4	11400.00	48.30 AV	54.00	-5.70	1.07 H	246	1.23	47.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3800.00	56.80 PK	74.00	-17.20	1.18 V	114	23.70	33.10
2	3800.00	49.30 AV	54.00	-4.70	1.18 V	114	16.20	33.10
3	11400.00	60.30 PK	74.00	-13.70	1.79 V	201	13.23	47.07
4	11400.00	45.10 AV	54.00	-8.90	1.79 V	201	-1.97	47.07

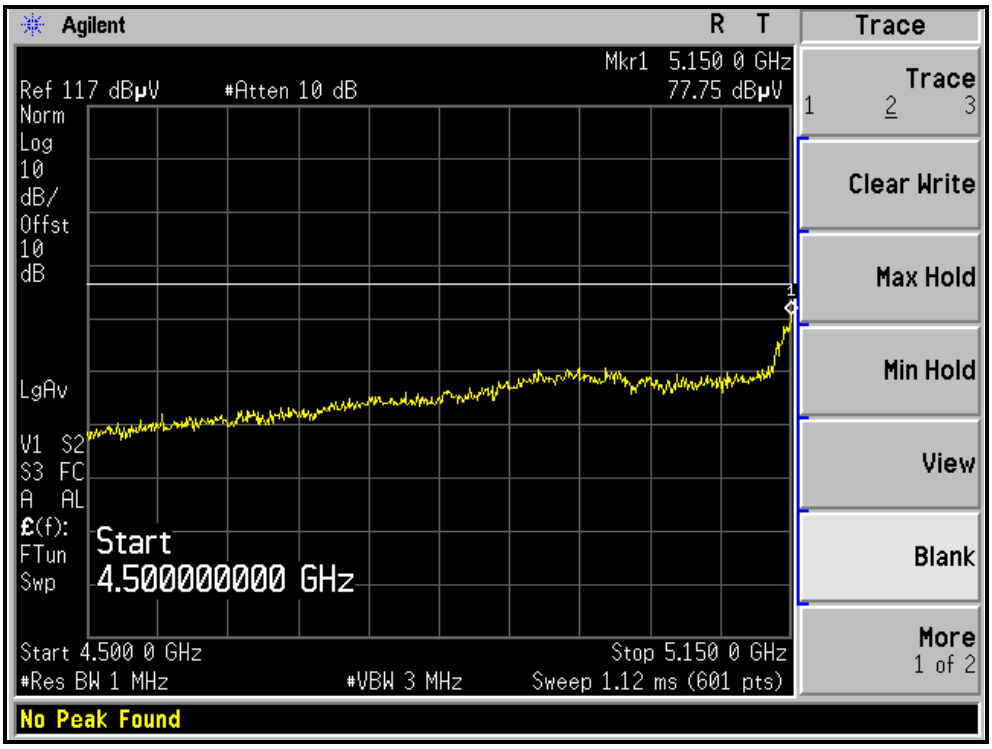
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance

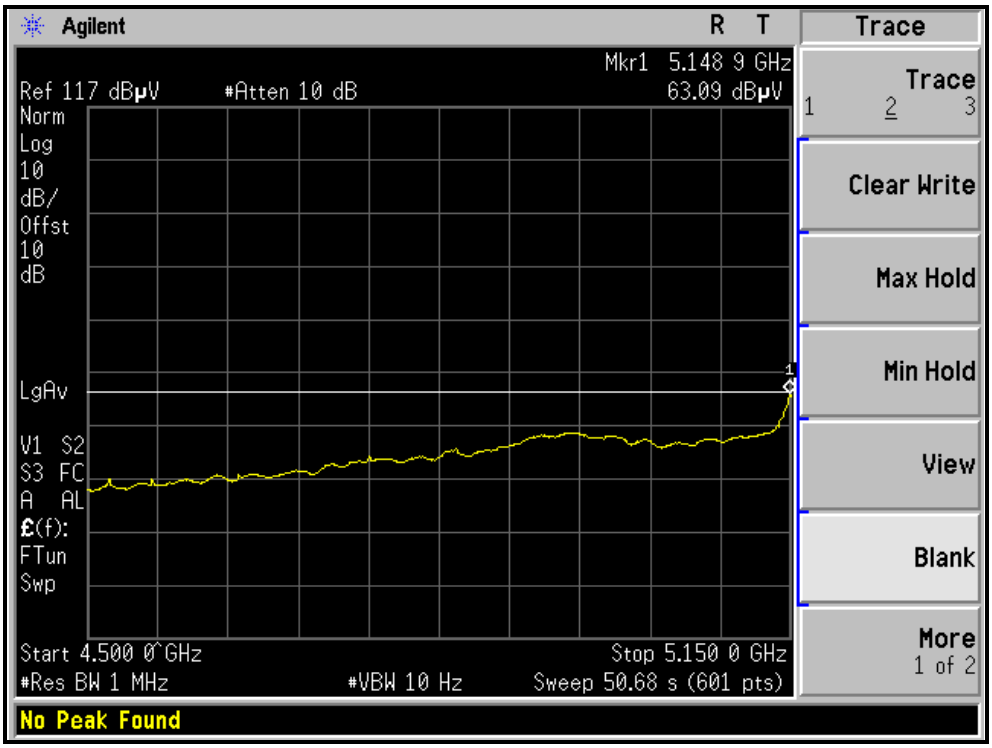
RESTRICTED BANDEDGE (802.11a MODE, CH1, HORIZONTAL)





RESTRICTED BANDEDGE (802.11a MODE, CH1, VERTICAL)





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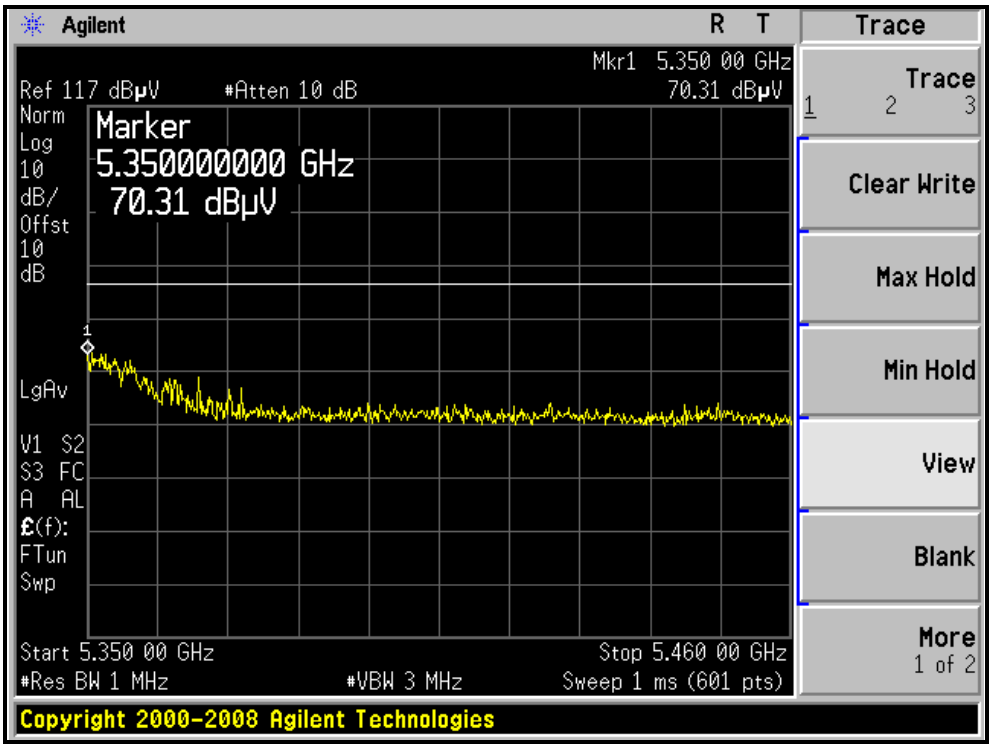
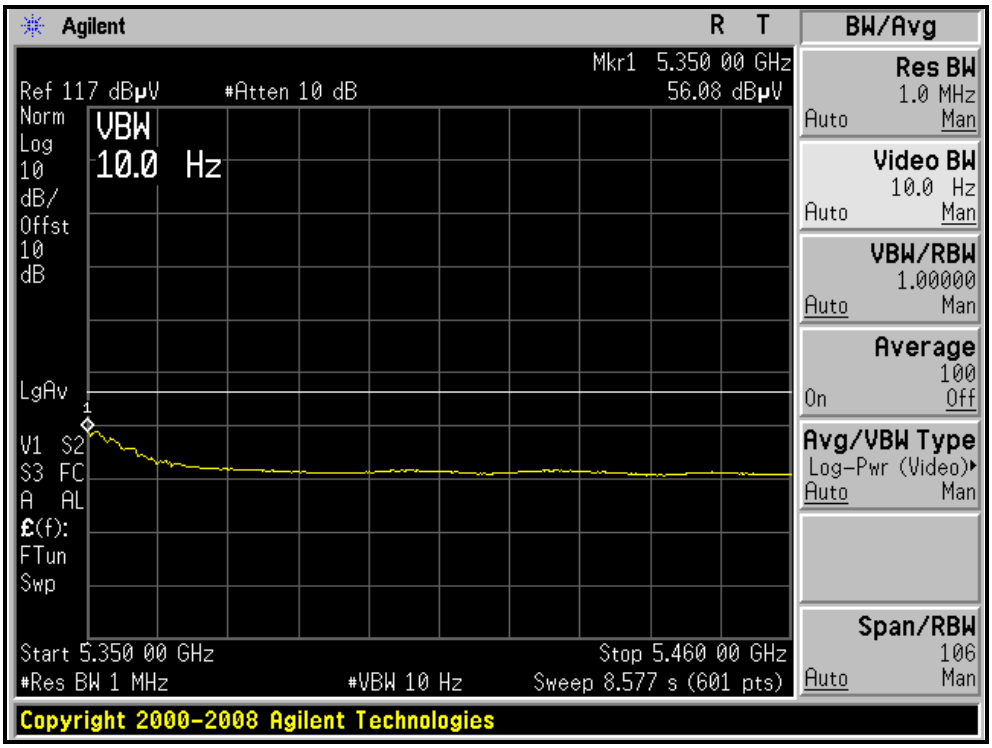
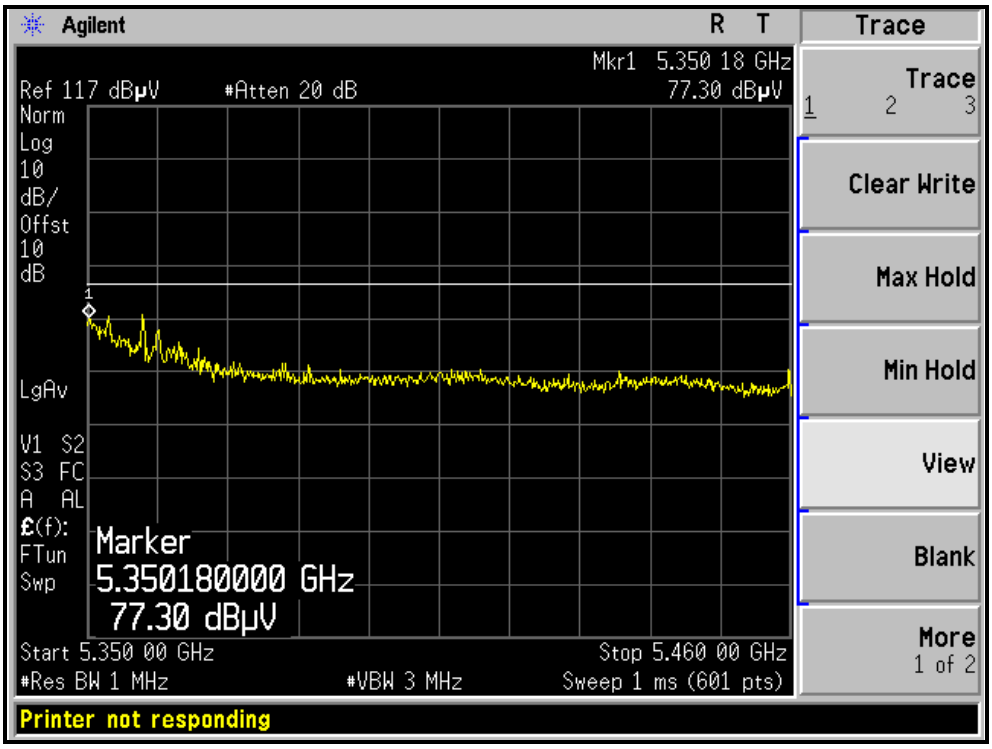
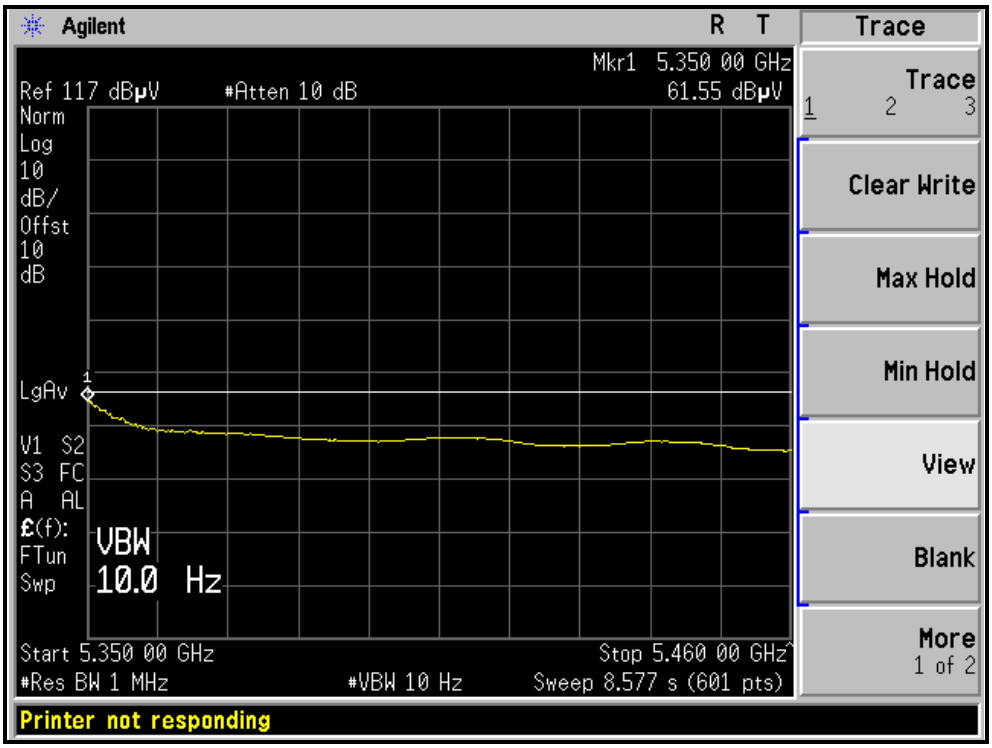


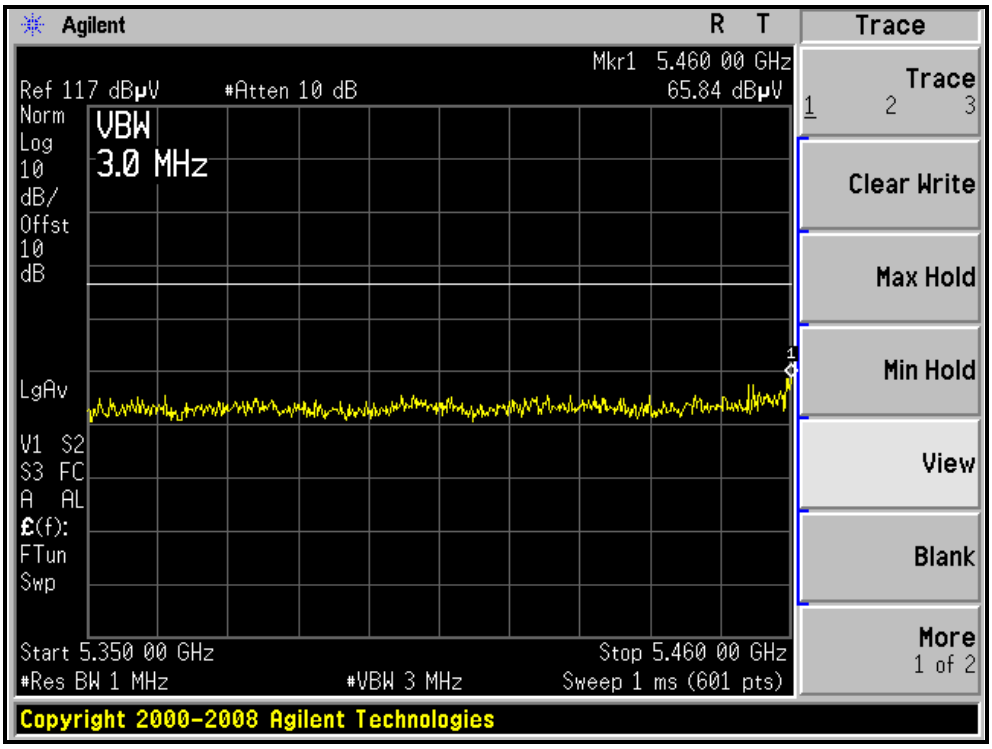


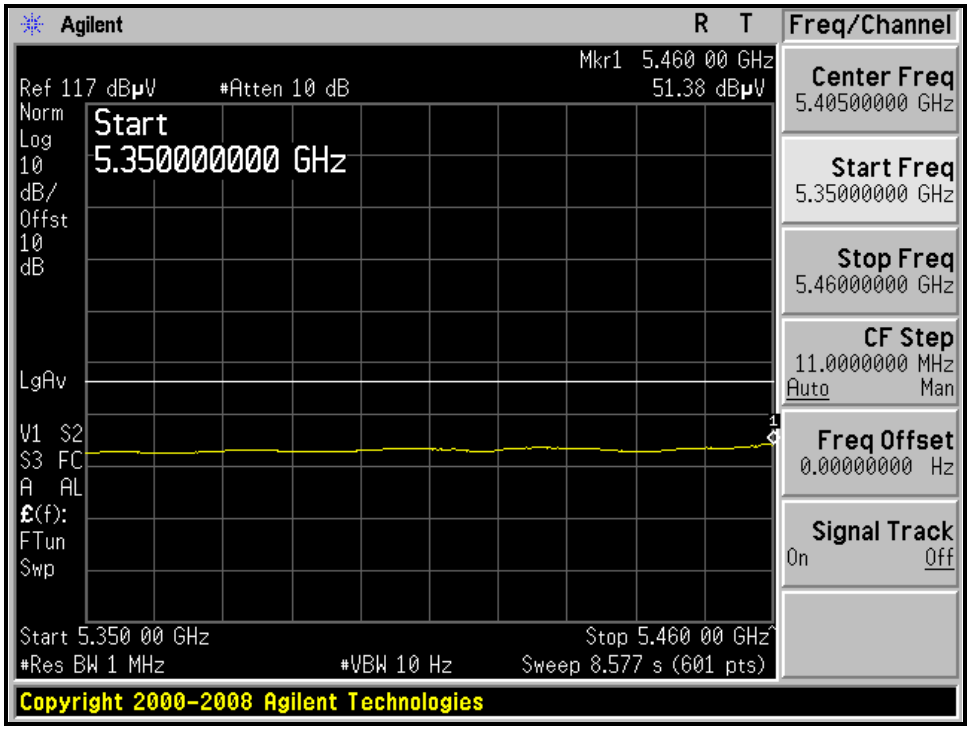
RESTRICTED BANDEDGE (802.11a MODE, CH8, VERTICAL)



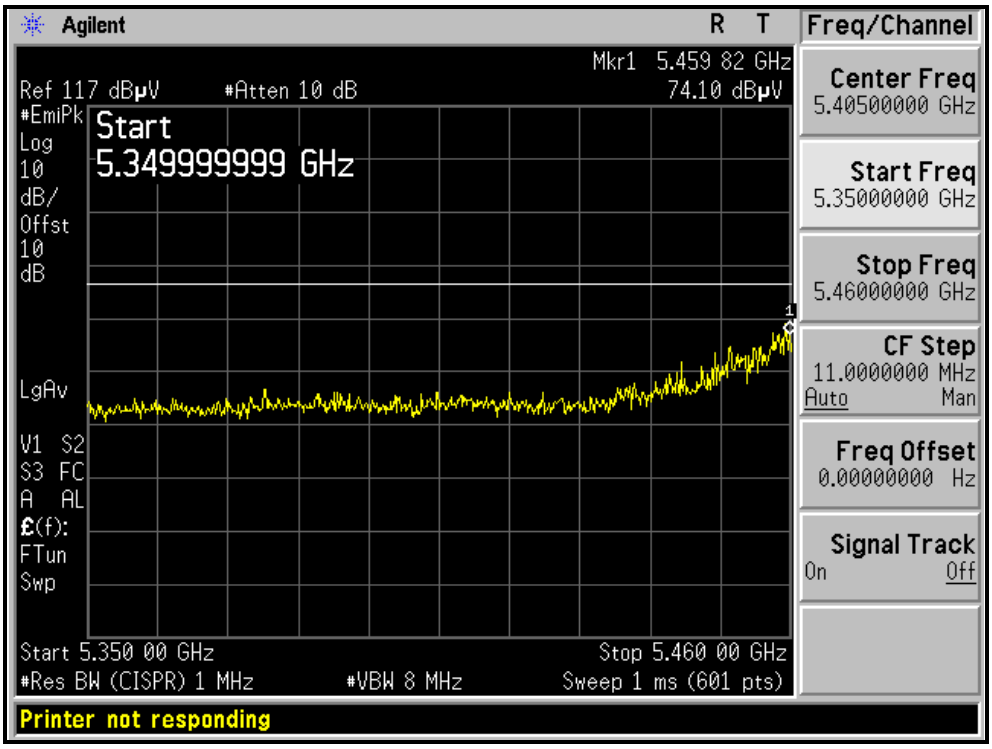


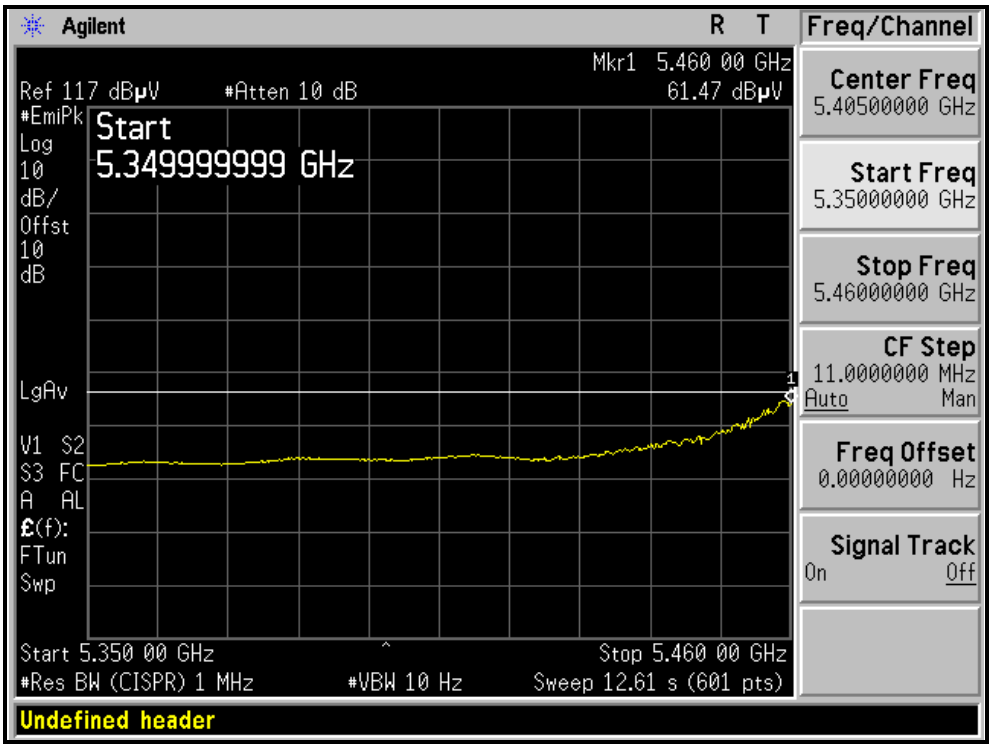
RESTRICTED BANDEDGE (802.11a MODE, CH9, HORIZONTAL)





RESTRICTED BANDEDGE (802.11a MODE, CH9, VERTICAL)





DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M

NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.67 PK	64.46 PK	74.00	-15.87	1.07 H	164	31.67	36.00
2	5150.00	57.02 AV	44.46 AV	54.00	-6.52	1.07 H	164	21.02	36.00
3	*5180.00	114.30 PK	104.76 PK			1.07 H	102	78.25	36.05
4	*5180.00	101.20 AV	91.66 AV			1.07 H	102	65.15	36.05

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M

NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	76.33 PK	66.79 PK	74.00	-7.21	1.18 V	320	40.33	36.00
2	5150.00	62.95 AV	53.41 AV	54.00	-0.59	1.18 V	320	26.95	36.00
3	*5180.00	125.10 PK	115.56 PK			1.21 V	319	89.05	36.05
4	*5180.00	111.70 AV	102.16 AV			1.21 V	319	75.65	36.05

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3453.00	49.30 PK	68.30	-19.00	1.34 H	20	17.03	32.27
2	#10360.00	56.20 PK	68.30	-12.10	1.12 H	215	10.28	45.92

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3453.00	51.70 PK	68.30	-16.60	1.07 V	94	19.43	32.27
2	#10360.00	57.10 PK	68.30	-11.20	1.79 V	185	11.18	45.92

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	114.20 PK	104.66 PK			1.09 H	161	78.12	36.08
2	*5200.00	100.30 AV	90.76 AV			1.09 H	161	64.22	36.08
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	125.60 PK	116.06 PK			1.24 V	320	89.52	36.08
2	*5200.00	112.80 AV	103.26 AV			1.24 V	320	76.72	36.08

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3466.00	49.60 PK	68.30	-18.70	1.27 H	26	17.32	32.28
2	#10400.00	56.60 PK	68.30	-11.70	1.13 H	203	10.61	45.99
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3466.00	52.30 PK	68.30	-16.00	1.08 V	110	20.02	32.28
2	#10400.00	57.60 PK	68.30	-10.70	1.90 V	166	11.61	45.99

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	114.60 PK	105.06 PK			1.08 H	174	78.46	36.14
2	*5240.00	100.30 AV	90.76 AV			1.08 H	174	64.16	36.14
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	125.80 PK	116.26 PK			1.23 V	324	89.66	36.14
2	*5240.00	112.90 AV	103.36 AV			1.23 V	324	76.76	36.14

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3493.00	50.30 PK	68.30	-18.00	1.24 H	31	18.00	32.30
2	#10480.00	56.80 PK	68.30	-11.50	1.17 H	236	10.68	46.12
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3493.00	53.10 PK	68.30	-15.20	1.06 V	104	20.80	32.30
2	#10480.00	58.20 PK	68.30	-10.10	1.92 V	167	12.08	46.12

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	115.30 PK	105.76 PK			1.07 H	168	79.12	36.18
2	*5260.00	102.40 AV	92.86 AV			1.07 H	168	66.22	36.18
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	126.10 PK	116.56 PK			1.21 V	318	89.92	36.18
2	*5260.00	113.10 AV	103.56 AV			1.21 V	318	76.92	36.18

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3506.00	51.20 PK	68.30	-17.10	1.28 H	33	18.87	32.33
2	#10520.00	57.30 PK	68.30	-11.00	1.17 H	212	11.11	46.19
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3506.00	53.80 PK	68.30	-14.50	1.07 V	82	21.47	32.33
2	#10520.00	59.30 PK	68.30	-9.00	1.95 V	164	13.11	46.19

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	115.80 PK	106.26 PK			1.09 H	174	79.56	36.24
2	*5300.00	103.10 AV	93.56 AV			1.09 H	174	66.86	36.24
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	126.40 PK	116.86 PK			1.24 V	320	90.16	36.24
2	*5300.00	113.20 AV	103.66 AV			1.24 V	320	76.96	36.24

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3533.00	51.60 PK	68.30	-16.70	1.25 H	26	19.20	32.40
2	10600.00	58.10 PK	74.00	-15.90	1.16 H	238	11.73	46.37
3	10600.00	47.60 AV	54.00	-6.40	1.16 H	238	1.23	46.37
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3533.00	53.80 PK	68.30	-14.50	1.05 V	89	21.40	32.40
2	10600.00	60.10 PK	74.00	-13.90	1.04 V	179	13.73	46.37
3	10600.00	45.20 AV	54.00	-8.80	1.04 V	179	-1.17	46.37

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	116.10 PK	106.56 PK			1.06 H	169	79.83	36.27
2	*5320.00	102.60 AV	93.06 AV			1.06 H	169	66.33	36.27
3	5350.00	71.41 PK	61.87 PK	74.00	12.13	1.07 H	162	35.09	36.32
4	5350.00	54.57 AV	45.03 AV	54.00	-8.97	1.07 H	162	18.25	36.32
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	125.90 PK	116.36 PK			1.28 V	317	89.63	36.27
2	*5320.00	112.80 AV	103.26 AV			1.28 V	317	76.53	36.27
3	5350.00	75.61 PK	66.07 PK	74.00	-7.93	1.18 V	328	39.29	36.32
4	5350.00	62.48 AV	52.94 AV	54.00	-1.06	1.18 V	328	26.16	36.32

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3456.00	52.30 PK	68.30	-16.00	1.29 H	32	20.03	32.27
2	10640.00	58.70 PK	74.00	-15.30	1.14 H	230	12.24	46.46
3	10640.00	48.30 AV	54.00	-5.70	1.14 H	230	1.84	46.46
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3456.00	53.90 PK	68.30	-14.40	1.08 V	90	21.63	32.27
2	10640.00	60.20 PK	74.00	-13.80	1.82 V	193	13.74	46.46
3	10640.00	45.60 AV	54.00	-8.40	1.82 V	193	-0.86	46.46

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	68.12 PK	58.58 PK	74.00	-15.42	1.07 H	162	31.62	36.50
2	5460.00	54.83 AV	45.29 AV	54.00	-8.71	1.07 H	162	18.33	36.50
3	#5470.00	70.40 PK	60.86 PK	68.30	-7.44	1.07 H	154	33.89	36.51
5	*5500.00	115.40 PK	105.86 PK			1.02 H	159	78.84	36.56
6	*5500.00	101.30 AV	91.76 AV			1.02 H	159	64.74	36.56
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	73.46 PK	63.92 PK	74.00	-10.08	1.18 V	327	36.96	36.50
2	5460.00	59.86 AV	50.32 AV	54.00	-3.68	1.18 V	327	23.36	36.50
3	#5470.00	77.10 PK	67.56 PK	68.30	-0.74	1.20 V	344	40.59	36.51
5	*5500.00	122.20 PK	112.66 PK			1.13 V	304	85.64	36.56
6	*5500.00	109.40 AV	99.86 AV			1.13 V	304	72.84	36.56

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3666.60	53.90 PK	74.00	-20.10	1.19 H	8	21.15	32.75
2	3666.60	45.30 AV	54.00	-8.70	1.19 H	8	12.55	32.75
3	11000.00	59.30 PK	74.00	-14.70	1.20 H	213	12.05	47.25
4	11000.00	49.10 AV	54.00	-4.90	1.20 H	213	1.85	47.25
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3666.60	55.80 PK	74.00	-18.20	1.13 V	99	23.05	32.75
2	3666.60	48.40 AV	54.00	-5.60	1.13 V	99	15.65	32.75
3	11000.00	61.20 PK	74.00	-12.80	1.68 V	294	13.95	47.25
4	11000.00	47.30 AV	54.00	-6.70	1.68 V	294	0.05	47.25

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 14	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5600.00	115.60 PK	106.06 PK			1.01 H	148	78.78	36.82
2	*5600.00	101.60 AV	92.06 AV			1.01 H	148	64.78	36.82
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5600.00	122.30 PK	112.76 PK			1.14 V	329	85.48	36.82
2	*5600.00	109.80 AV	100.26 AV			1.14 V	329	72.98	36.82

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3733.00	54.10 PK	74.00	-19.90	1.17 H	12	21.18	32.92
2	3733.00	46.20 AV	54.00	-7.80	1.17 H	12	13.28	32.92
3	11200.00	59.70 PK	74.00	-14.30	1.17 H	230	12.54	47.16
4	11200.00	49.60 AV	54.00	-4.40	1.17 H	230	2.44	47.16
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3733.00	56.30 PK	74.00	-17.70	1.14 V	89	23.38	32.92
2	3733.00	49.20 AV	54.00	-4.80	1.14 V	89	16.28	32.92
3	11200.00	62.30 PK	74.00	-11.70	1.79 V	290	15.14	47.16
4	11200.00	48.10 AV	54.00	-5.90	1.79 V	290	0.94	47.16

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

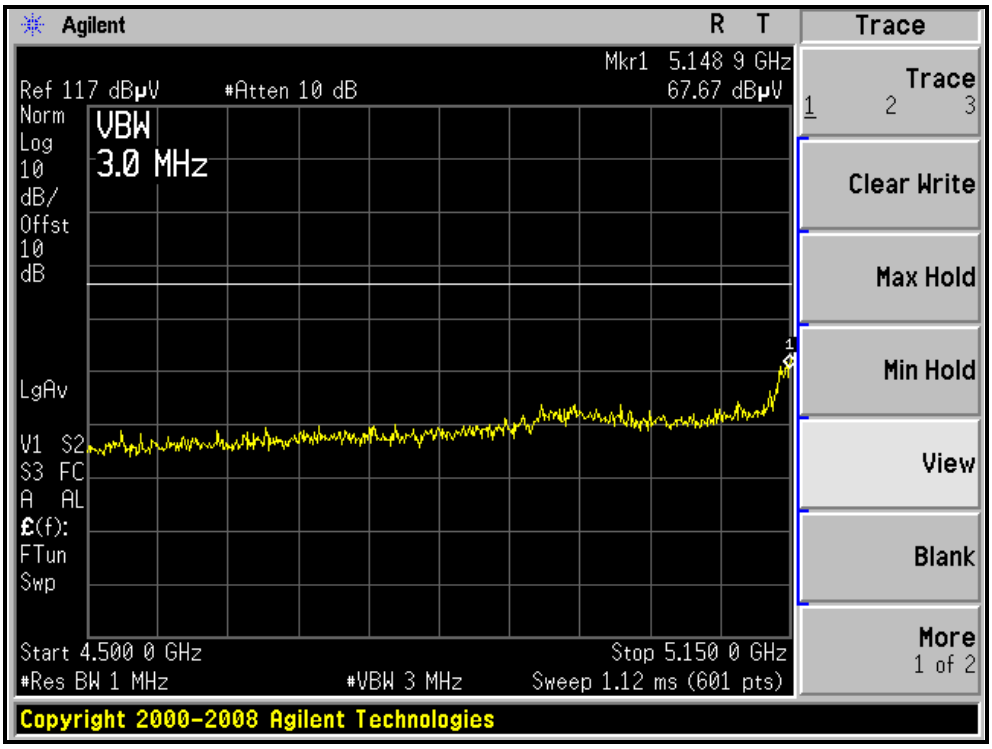
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 19	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

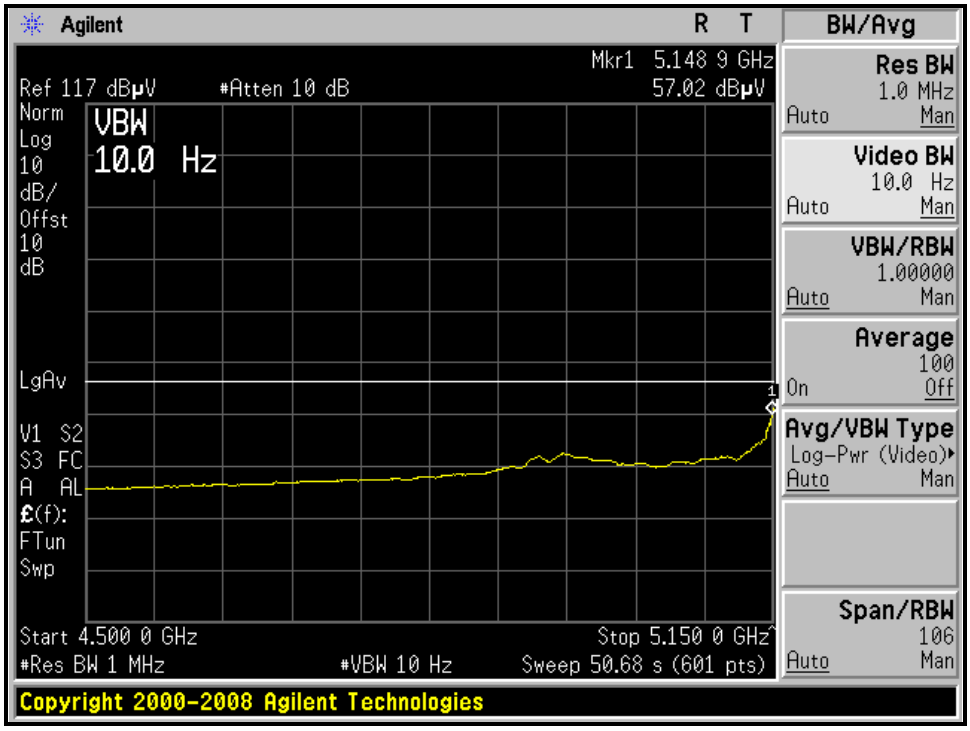
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	115.40 PK	105.86 PK			1.03 H	156	78.31	37.09
2	*5700.00	101.40 AV	91.86 AV			1.03 H	156	64.31	37.09
3	#5725.00	71.20 PK	61.66 PK	68.30	-6.64	1.04 H	153	34.05	37.15
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	121.10 PK	111.56 PK			1.13 V	327	84.01	37.09
2	*5700.00	108.60 AV	99.06 AV			1.13 V	327	71.51	37.09
3	#5725.00	77.10 PK	67.56 PK	68.30	-0.74	1.21 V	354	39.95	37.15

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3800.00	53.30 PK	74.00	-20.70	1.16 H	26	20.20	33.10
2	3800.00	48.20 AV	54.00	-5.80	1.16 H	26	15.10	33.10
3	11400.00	60.10 PK	74.00	-13.90	1.21 H	214	13.03	47.07
4	11400.00	50.30 AV	54.00	-3.70	1.21 H	214	3.23	47.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3800.00	56.70 PK	74.00	-17.30	1.13 V	93	23.60	33.10
2	3800.00	49.50 AV	54.00	-4.50	1.13 V	93	16.40	33.10
3	11400.00	62.70 PK	74.00	-11.30	1.79 V	258	15.63	47.07
4	11400.00	48.30 AV	54.00	-5.70	1.79 V	258	1.23	47.07

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, HORIZONTAL)





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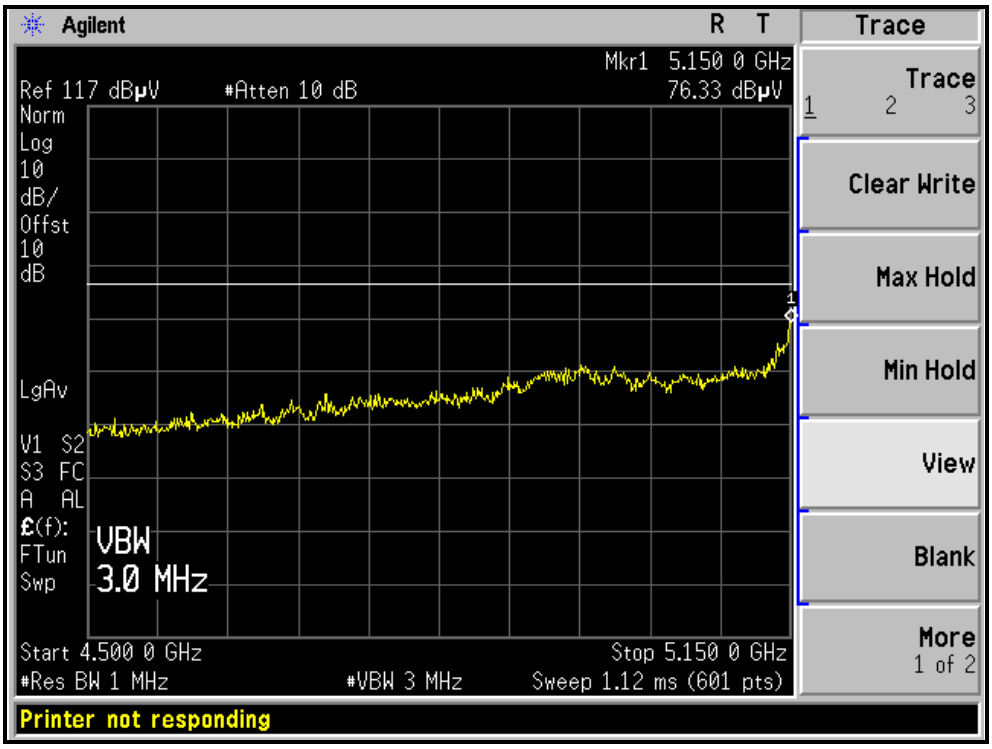
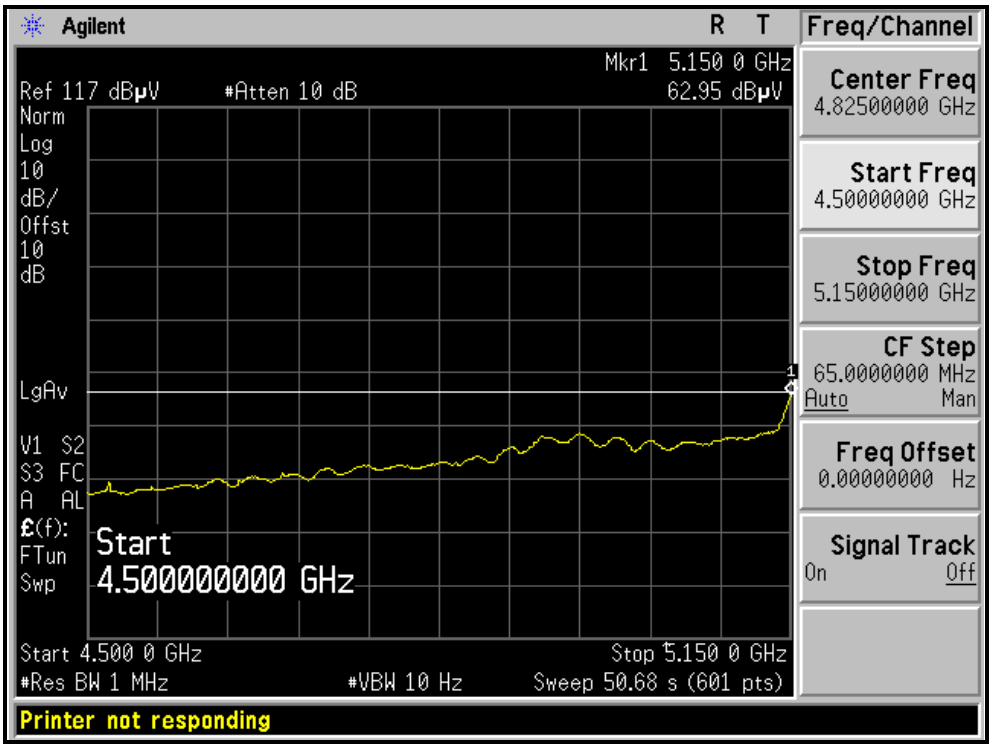
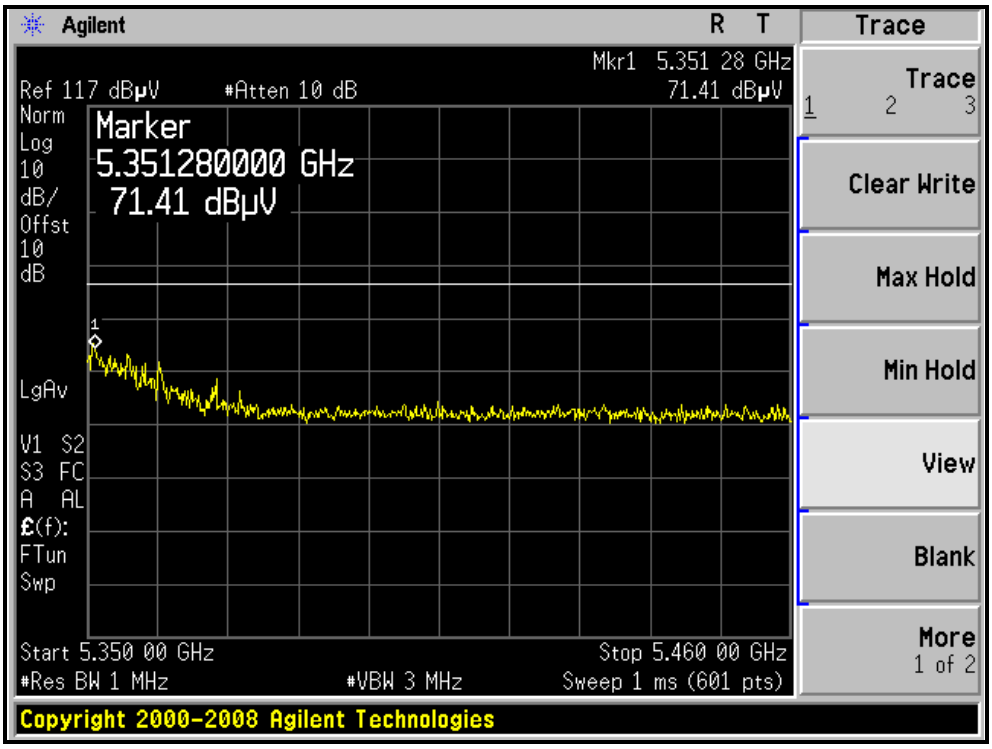
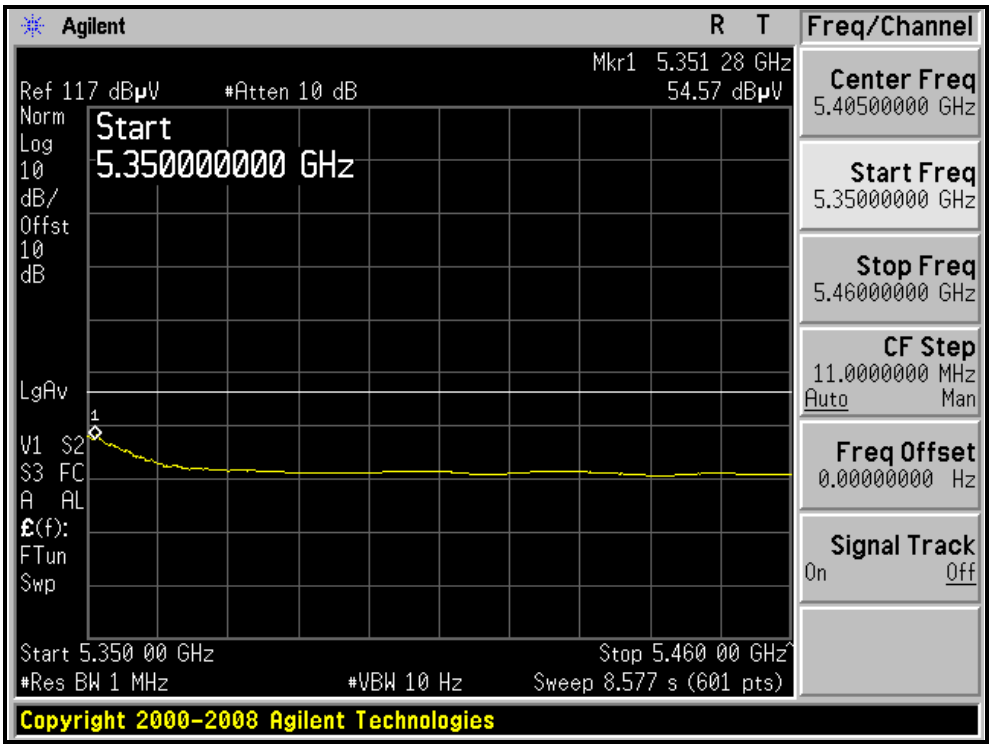


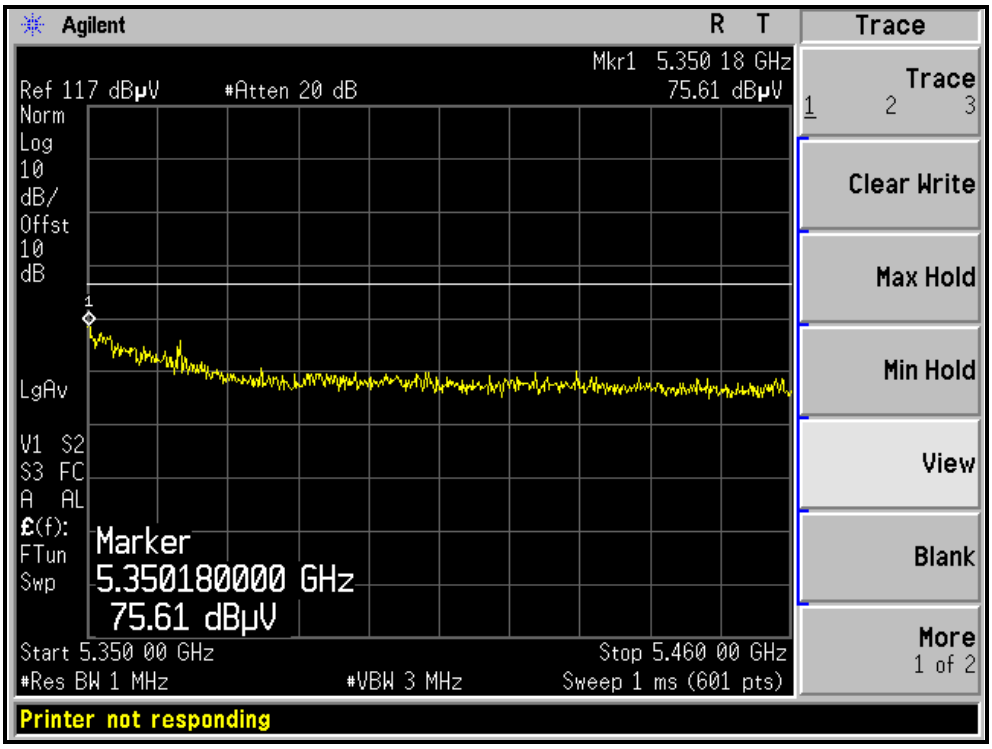


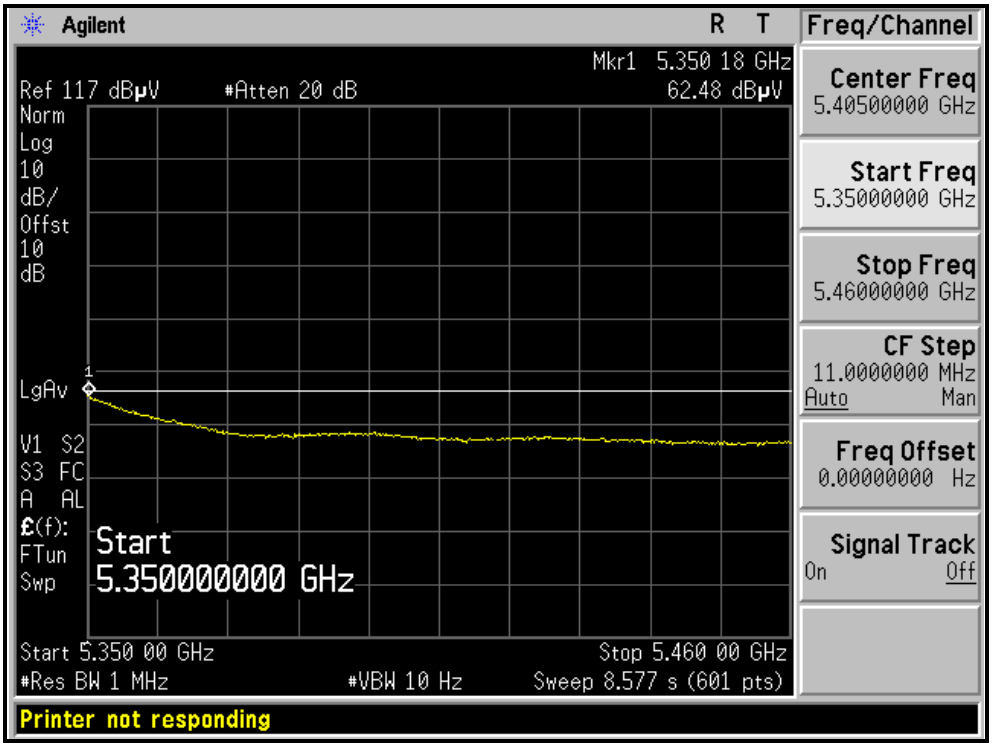
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH8, HORIZONTAL)



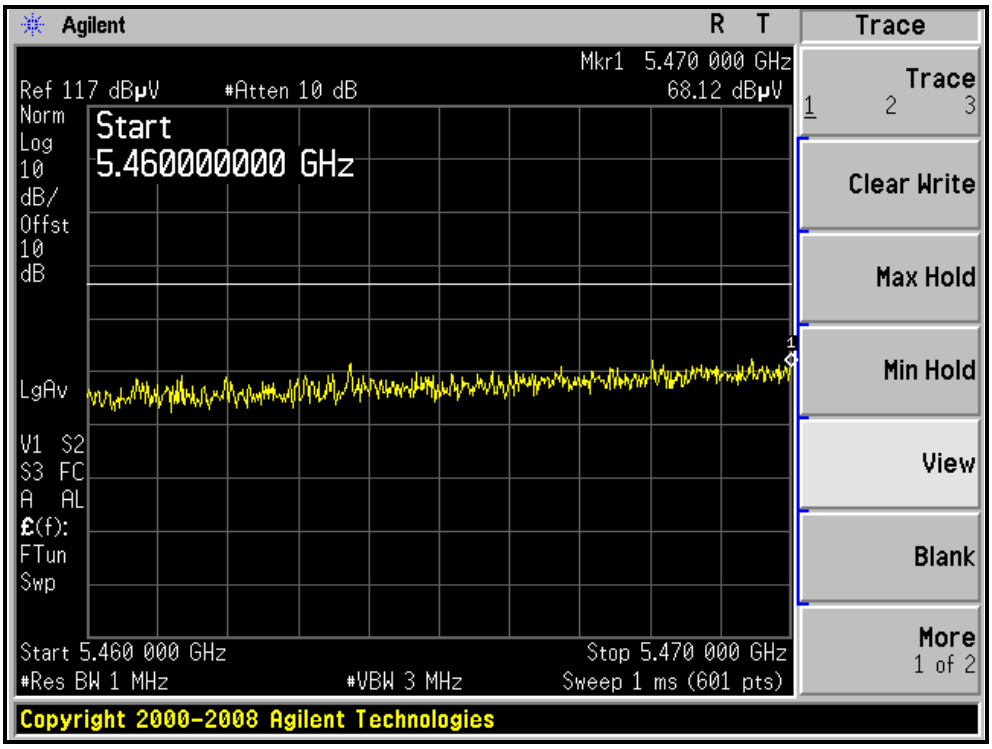


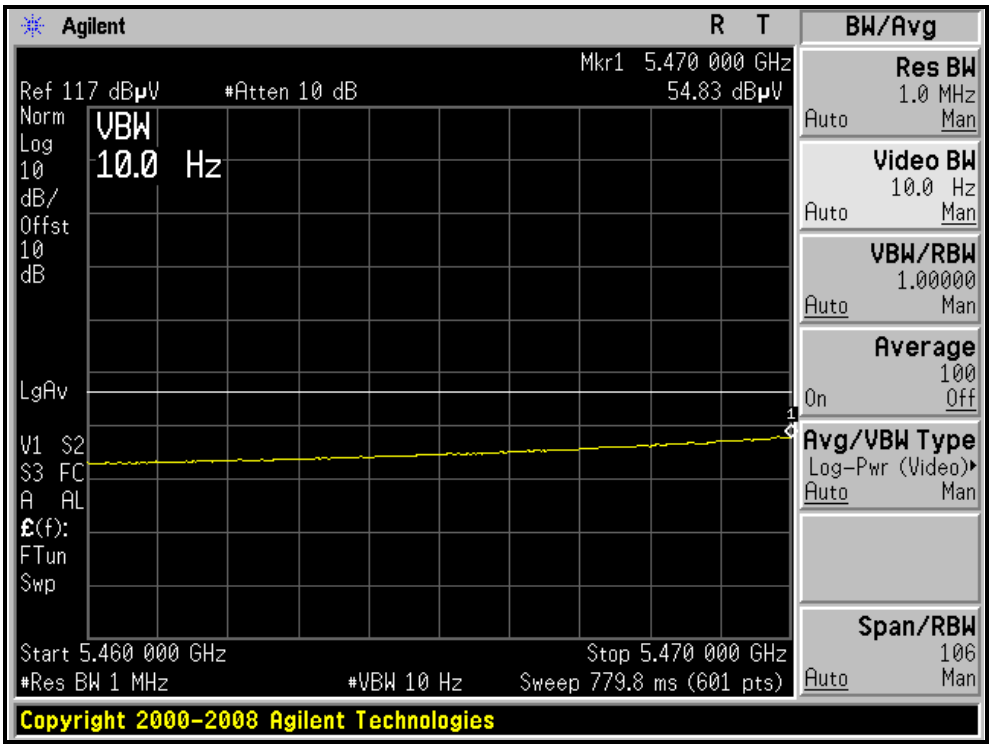
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH8, VERTICAL)



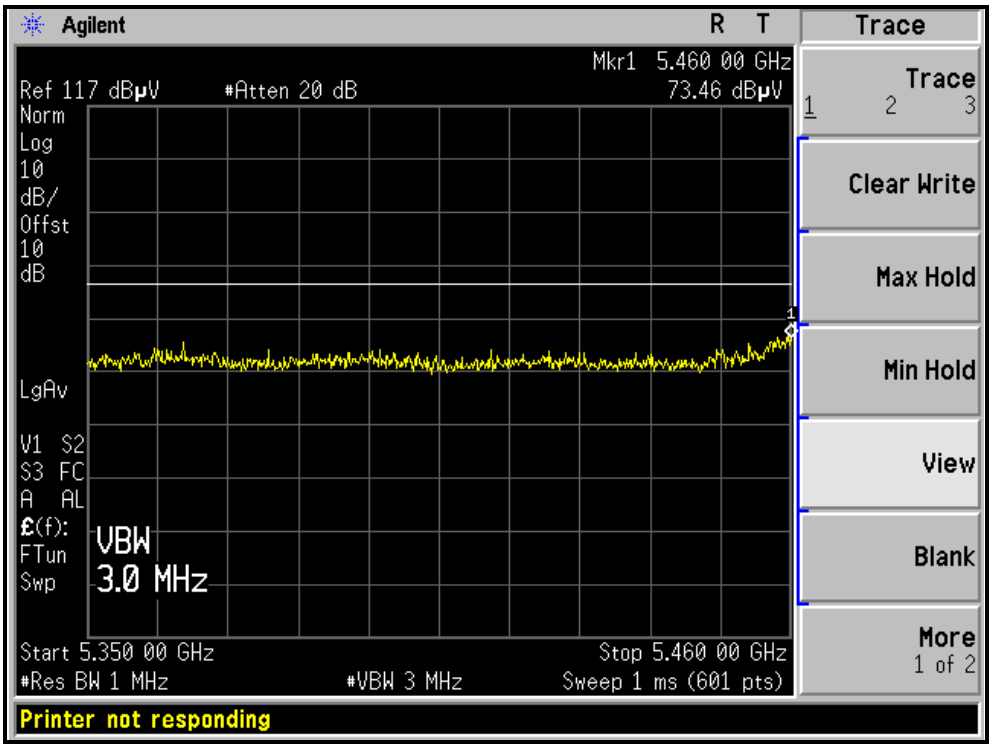


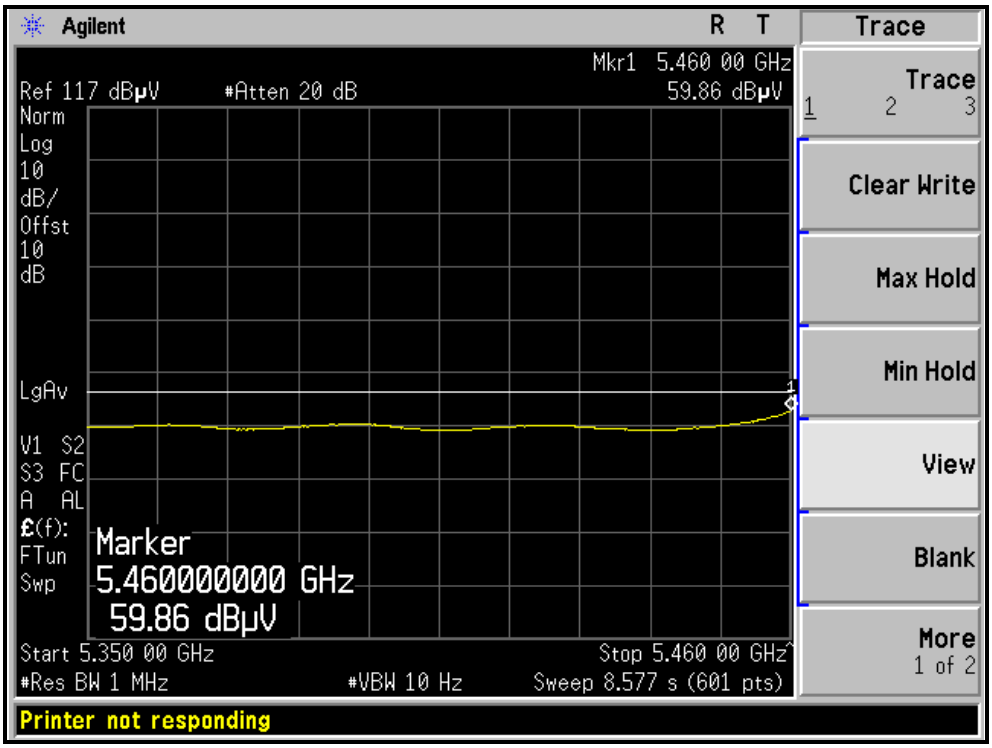
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH9, HORIZONTAL)





RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH9, VERTICAL)





DRAFT 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M

NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	71.62 PK	62.08 PK	74.00	-11.92	1.07 H	162	35.62	36.00
2	5150.00	58.17 AV	48.63 AV	54.00	-5.37	1.07 H	162	22.17	36.00
3	*5190.00	109.80 PK	100.26 PK			1.03 H	169	73.74	36.06
4	*5190.00	97.60 AV	88.06 AV			1.03 H	169	61.54	36.06

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M

NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	80.16 PK	70.62 PK	74.00	-3.38	1.18 V	320	44.16	36.00
2	5150.00	63.03 AV	53.49 AV	54.00	-0.51	1.18 V	320	27.03	36.00
3	*5190.00	114.30 PK	104.76 PK			1.18 V	320	78.24	36.06
4	*5190.00	102.50 AV	92.96 AV			1.18 V	320	66.44	36.06

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3460.00	49.20 PK	68.30	-19.10	1.18 H	4	16.92	32.28
2	#10380.00	54.50 PK	68.30	-13.80	1.08 H	220	8.54	45.96

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3460.00	51.10 PK	68.30	-17.20	1.13 V	79	18.82	32.28
2	#10380.00	54.10 PK	68.30	-14.20	1.76 V	264	8.14	45.96

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	111.40 PK	101.86 PK			1.04 H	154	75.27	36.13
2	*5230.00	100.30 AV	90.76 AV			1.04 H	154	64.17	36.13
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	119.30 PK	109.76 PK			1.18 V	317	83.17	36.13
2	*5230.00	107.90 AV	98.36 AV			1.18 V	317	71.77	36.13

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3486.60	49.80 PK	68.30	-18.50	1.21 H	3	17.50	32.30
2	#10460.00	55.10 PK	68.30	-13.20	1.10 H	213	9.01	46.09
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3486.60	52.30 PK	68.30	-16.00	1.14 V	83	20.00	32.30
2	#10460.00	54.60 PK	68.30	-13.70	1.79 V	257	8.51	46.09

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	111.30 PK	101.76 PK			1.05 H	168	75.11	36.19
2	*5270.00	100.20 AV	90.66 AV			1.05 H	168	64.01	36.19
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	118.80 PK	109.26 PK			1.16 V	320	82.61	36.19
2	*5270.00	107.60 AV	98.06 AV			1.16 V	320	71.41	36.19

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3513.30	50.30 PK	68.30	-18.00	1.24 H	12	17.96	32.34
3	#10540.00	55.30 PK	68.30	-13.00	1.15 H	243	9.06	46.24
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3513.30	53.00 PK	68.30	-15.30	1.21 V	91	20.66	32.34
3	#10540.00	55.10 PK	68.30	-13.20	1.82 V	268	8.86	46.24

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	110.20 PK	100.66 PK			1.02 H	159	73.94	36.26
2	*5310.00	98.10 AV	88.56 AV			1.02 H	159	61.84	36.26
3	5350.00	74.22 PK	64.68 PK	74.00	-9.32	1.04 H	153	37.90	36.32
4	5350.00	56.51 AV	46.97 AV	54.00	-7.03	1.04 H	153	20.19	36.32
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	115.00 PK	105.46 PK			1.18 V	327	78.74	36.26
2	*5310.00	103.00 AV	93.46 AV			1.18 V	327	66.74	36.26
3	5350.00	82.69 PK	73.15 PK	74.00	-0.85	1.17 V	313	46.37	36.32
4	5350.00	62.30 AV	52.76 AV	54.00	-1.24	1.17 V	313	25.98	36.32

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3540.00	50.60 PK	68.30	-17.70	1.20 H	15	18.19	32.41
2	10620.00	55.70 PK	74.00	-18.30	1.20 H	254	9.29	46.41
3	10620.00	44.20 AV	54.00	-9.80	1.20 H	254	-2.21	46.41
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3540.00	53.40 PK	68.30	-14.90	1.24 V	90	20.99	32.41
2	10620.00	55.80 PK	74.00	-18.20	1.81 V	293	9.39	46.41
3	10620.00	43.60 AV	54.00	-10.40	1.81 V	293	-2.81	46.41

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	71.47 PK	61.93 PK	74.00	-12.07	1.01 H	165	34.97	36.50
2	5460.00	58.10 AV	48.56 AV	54.00	-5.44	1.01 H	165	21.60	36.50
3	#5470.00	70.10 PK	60.56 PK	68.30	-7.74	1.05 H	166	33.59	36.51
4	*5510.00	106.30 PK	96.76 PK			1.04 H	159	69.71	36.59
5	*5510.00	94.30 AV	84.76 AV			1.04 H	159	57.71	36.59
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	77.08 PK	67.54 PK	74.00	-6.46	1.18 V	325	40.58	36.50
2	5460.00	62.78 AV	53.24 AV	54.00	-0.76	1.18 V	325	26.28	36.50
3	#5470.00	77.08 PK	67.54 PK	68.30	-0.76	1.21 V	326	40.57	36.51
4	*5510.00	113.10 PK	103.56 PK			1.18 V	323	76.51	36.59
5	*5510.00	101.70 AV	92.16 AV			1.18 V	323	65.11	36.59

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3673.30	50.20 PK	74.00	-23.80	1.21 H	29	17.44	32.76
2	3673.30	45.30 AV	54.00	-8.70	1.21 H	29	12.54	32.76
3	11020.00	56.10 PK	74.00	-17.90	1.20 H	211	8.86	47.24
4	11020.00	44.80 AV	54.00	-9.20	1.20 H	211	-2.44	47.24
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3673.30	53.80 PK	74.00	-20.20	1.12 V	93	21.04	32.76
2	3673.30	47.10 AV	54.00	-6.90	1.12 V	93	14.34	32.76
3	11020.00	59.10 PK	74.00	-14.90	1.07 V	264	11.86	47.24
4	11020.00	45.10 AV	54.00	-8.90	1.07 V	264	-2.14	47.24

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5590.00	112.80 PK	103.26 PK			1.07 H	162	76.00	36.80
2	*5590.00	101.10 AV	91.56 AV			1.07 H	162	64.30	36.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5590.00	119.10 PK	109.56 PK			1.17 V	326	82.30	36.80
2	*5590.00	108.10 AV	98.56 AV			1.17 V	326	71.30	36.80

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3726.60	50.60 PK	74.00	-23.40	1.28 H	211	17.70	32.90
2	3726.60	45.70 AV	54.00	-8.30	1.28 H	211	12.80	32.90
3	11180.00	56.90 PK	74.00	-17.10	1.21 H	219	9.73	47.17
4	11180.00	45.30 AV	54.00	-8.70	1.21 H	219	-1.87	47.17
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3726.60	54.20 PK	74.00	-19.80	1.17 V	96	21.30	32.90
2	3726.60	47.30 AV	54.00	-6.70	1.17 V	96	14.40	32.90
3	11180.00	59.70 PK	74.00	-14.30	1.62 V	273	12.53	47.17
4	11180.00	45.30 AV	54.00	-8.70	1.62 V	273	-1.87	47.17

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

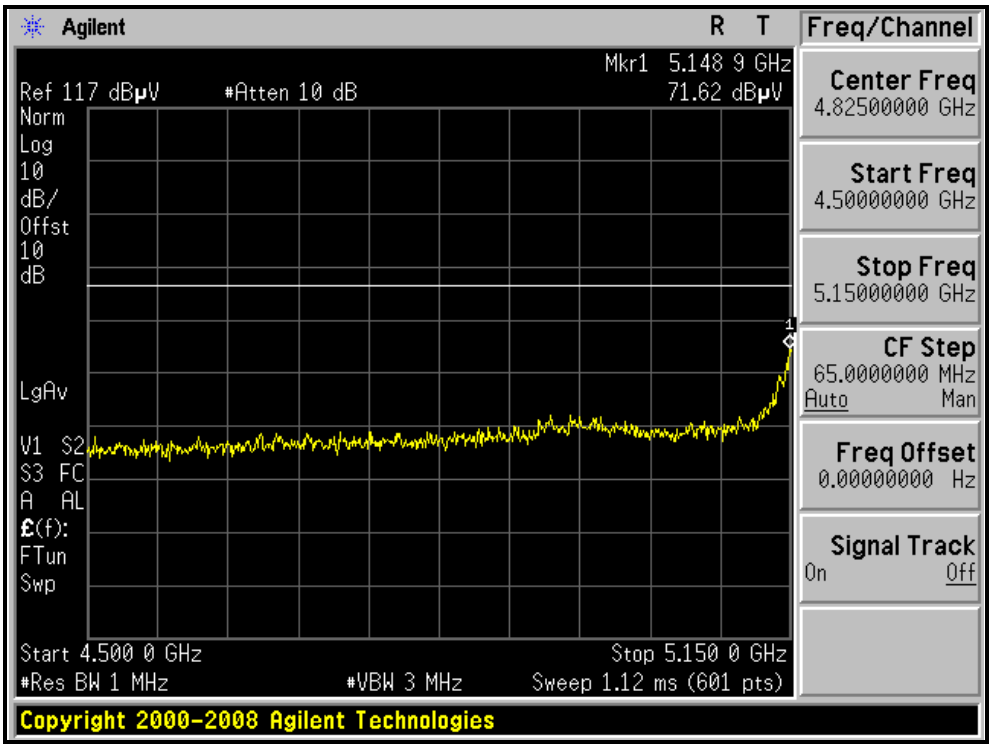
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	13deg. C, 70%RH 962hPa	TESTED BY	Frank Liu

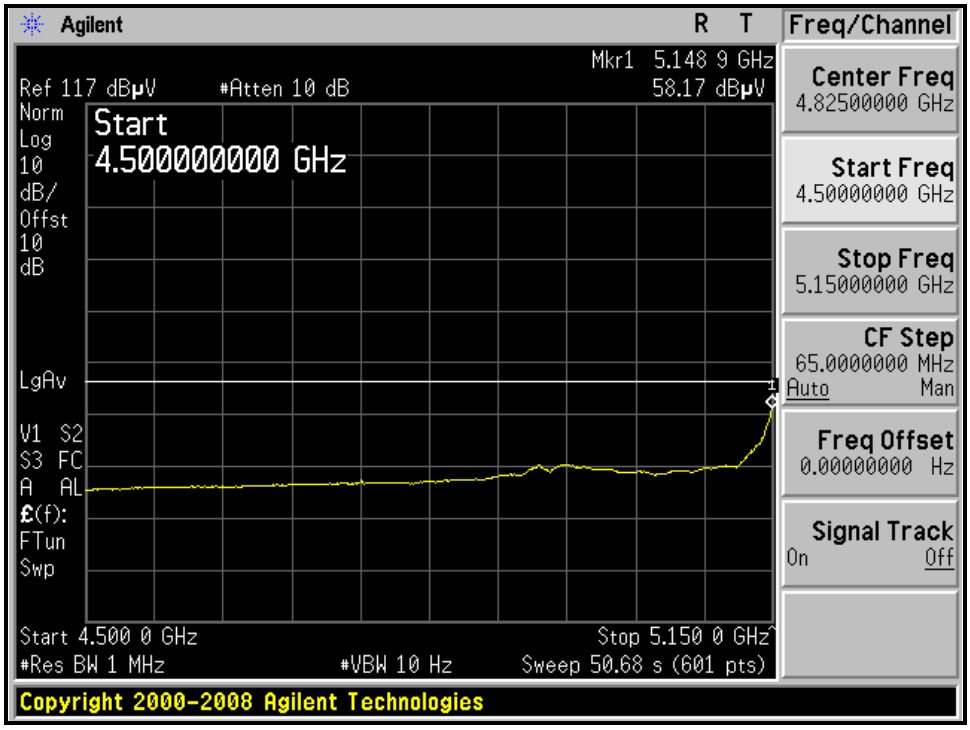
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5373.00	70.10 PK	60.56 PK	74.00	-13.44	1.03 H	152	33.74	36.36
2	5373.00	56.20 AV	46.66 AV	54.00	-7.34	1.03 H	152	19.84	36.36
3	*5670.00	110.40 PK	100.86 PK			1.04 H	157	73.39	37.01
4	*5670.00	99.30 AV	89.76 AV			1.04 H	157	62.29	37.01
5	#5725.00	70.80 PK	61.26 PK	68.30	-7.04	1.05 H	153	33.65	37.15
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 1 M									
NO.	FREQ. (MHz)	EMISSION LEVEL at 1m (dBuV/m)	EMISSION LEVEL at 3m (dBuV/m)	LIMIT at 3m (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5373.00	74.80 PK	65.26 PK	74.00	-8.74	1.18 V	322	38.44	36.36
2	5373.00	61.50 AV	51.96 AV	54.00	-2.04	1.18 V	322	25.14	36.36
3	*5670.00	117.40 PK	107.86 PK			1.18 V	329	80.39	37.01
4	*5670.00	106.30 AV	96.76 PK			1.18 V	329	69.29	37.01
5	#5725.00	77.20 PK	67.66 AV	68.30	-0.64	1.17 V	327	40.05	37.15

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3780.00	51.30 PK	74.00	-22.70	1.24 H	39	18.26	33.04
2	3780.00	46.10 AV	54.00	-7.90	1.24 H	39	13.06	33.04
3	11340.00	57.30 PK	74.00	-16.70	1.24 H	231	10.20	47.10
4	11340.00	45.60 AV	54.00	-8.40	1.24 H	231	-1.50	47.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3780.00	55.30 PK	74.00	-18.70	1.17 V	112	22.26	33.04
2	3780.00	48.40 AV	54.00	-5.60	1.17 V	112	15.36	33.04
3	11340.00	60.10 PK	74.00	-13.90	1.34 V	269	13.00	47.10
4	11340.00	46.10 AV	54.00	-7.90	1.34 V	269	-1.00	47.10

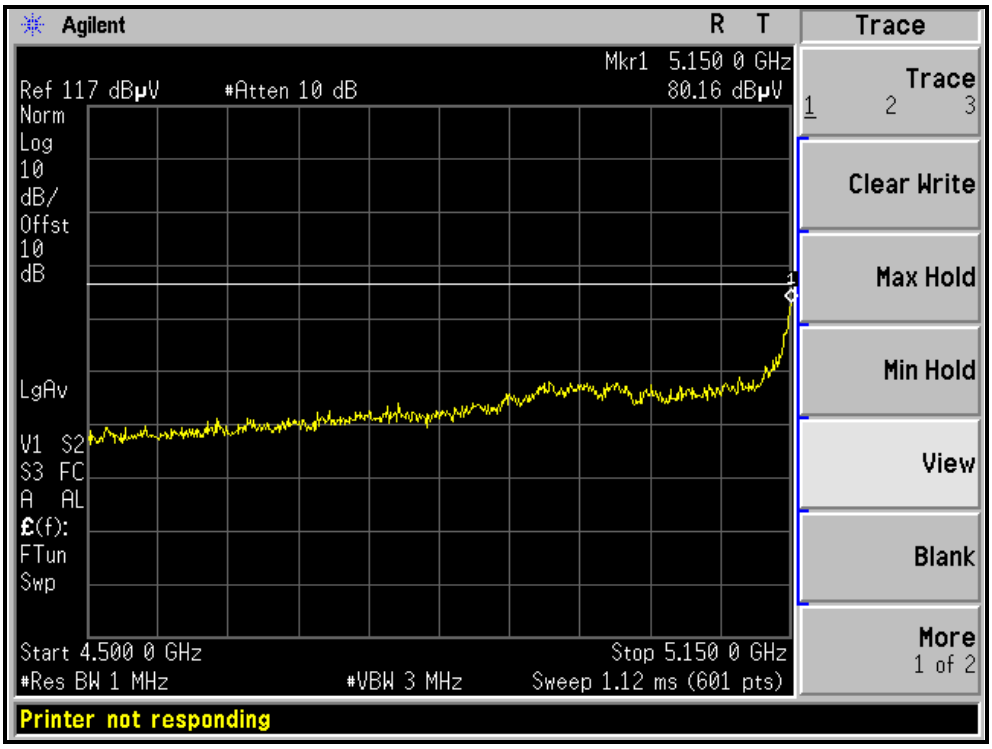
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.
7. Limit line converted to account for 1-meter measurement distance.

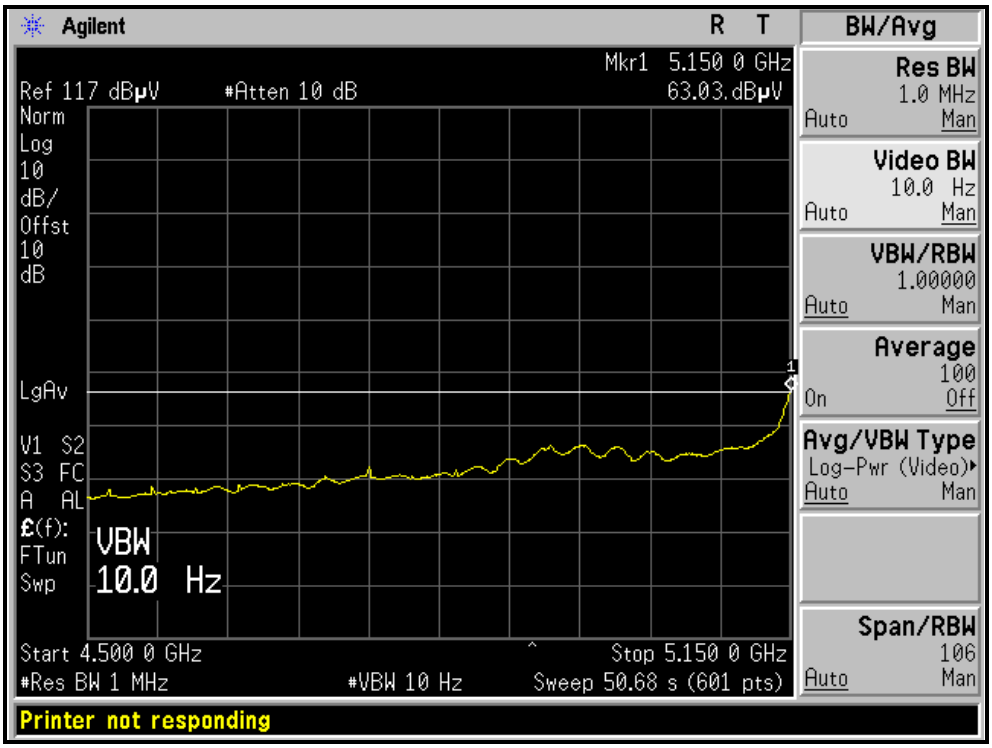
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH1, HORIZONTAL)



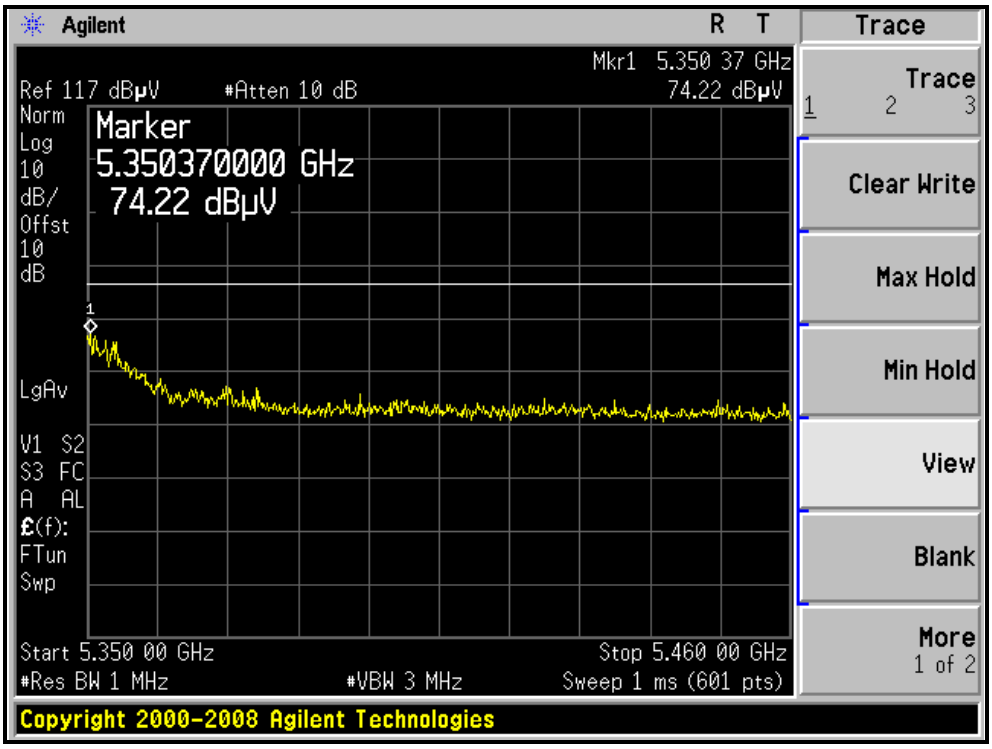


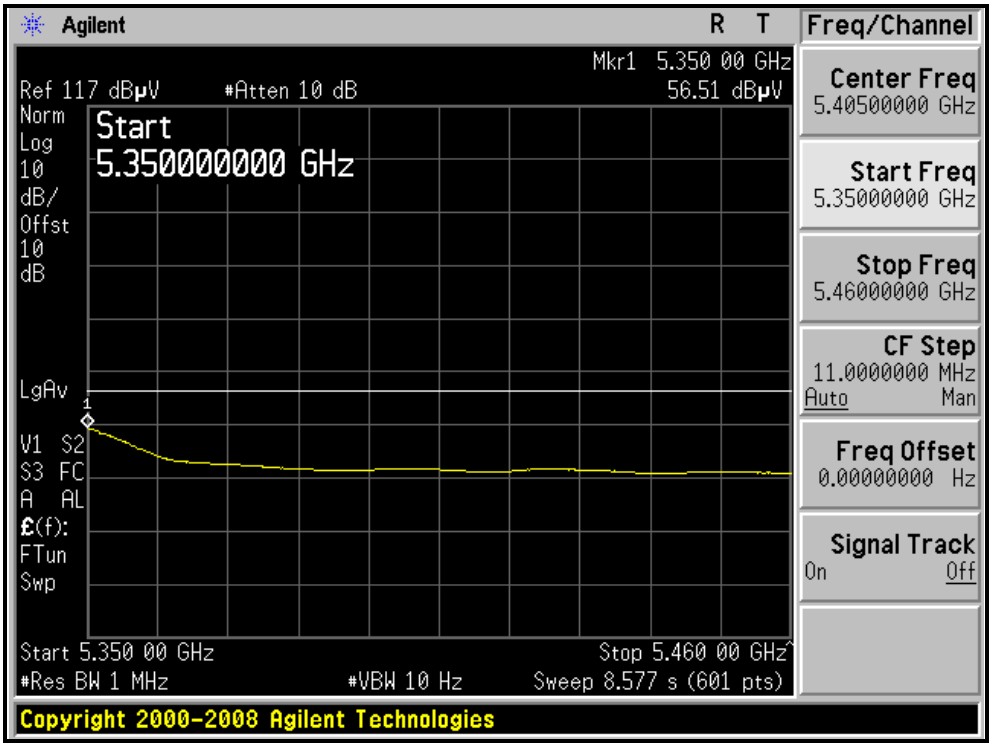
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE,CH1, VERTICAL)



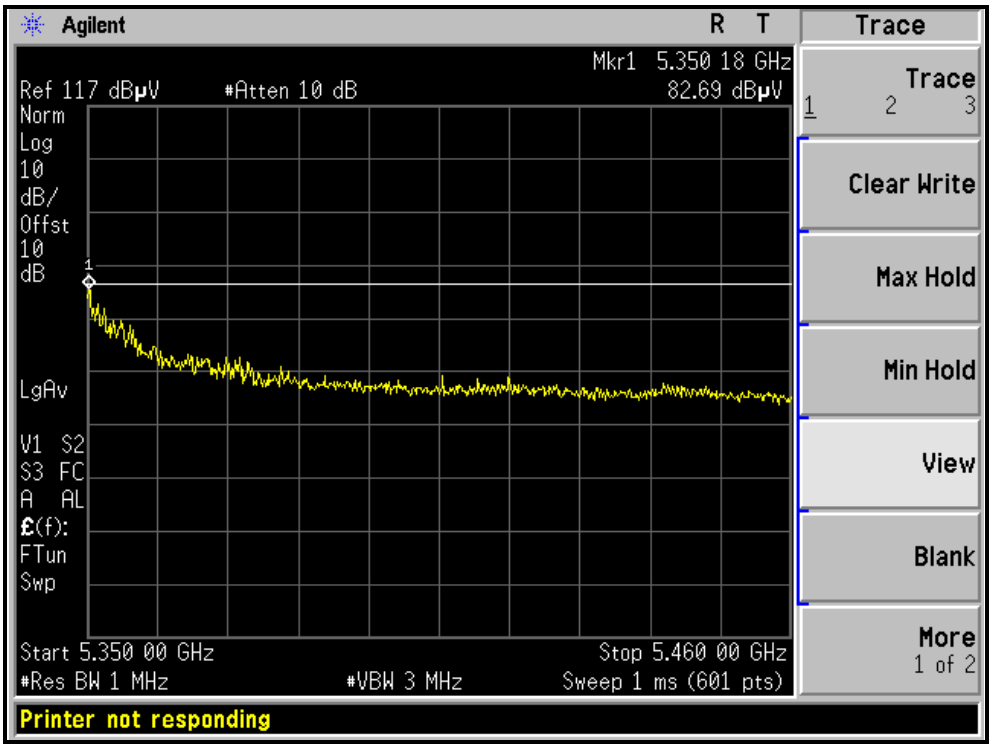


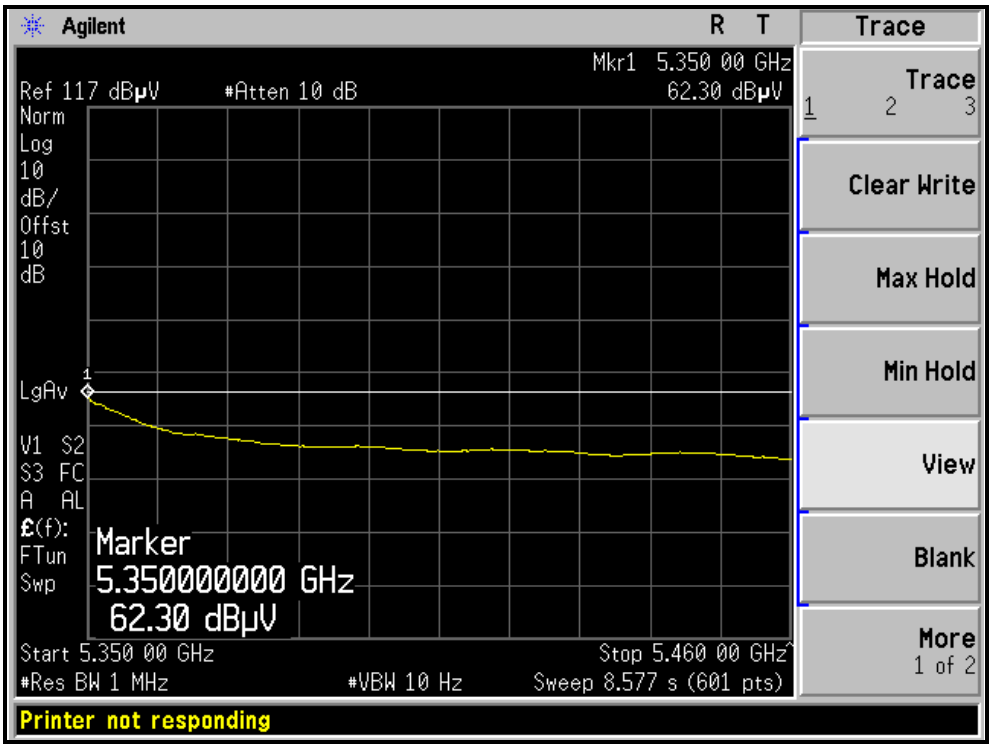
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH4, HORIZONTAL)



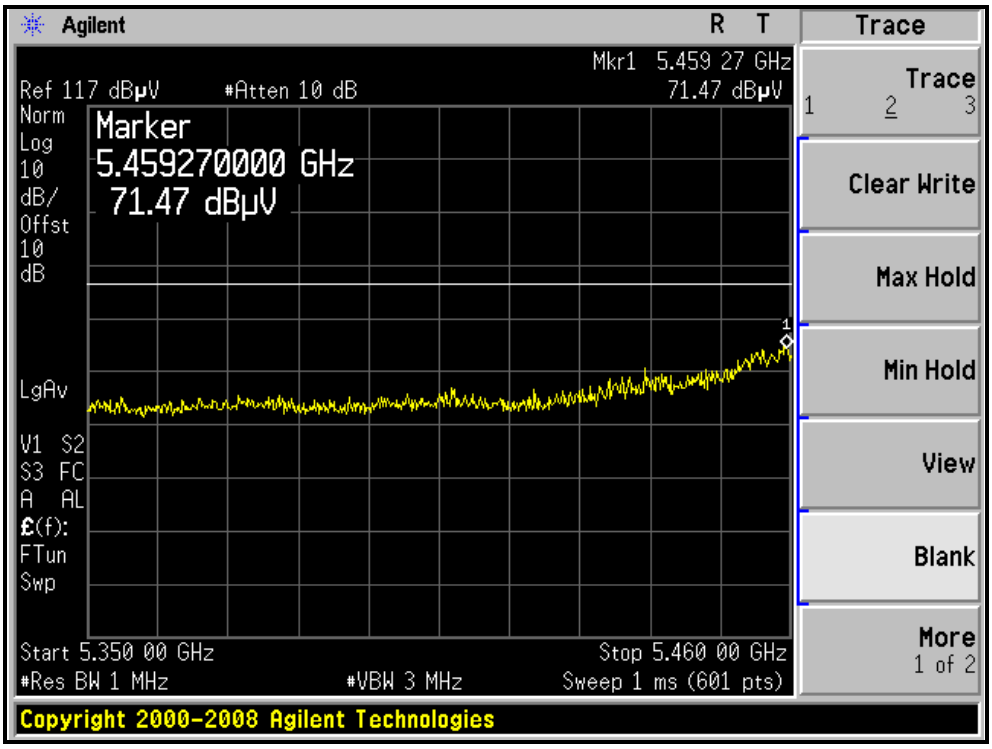


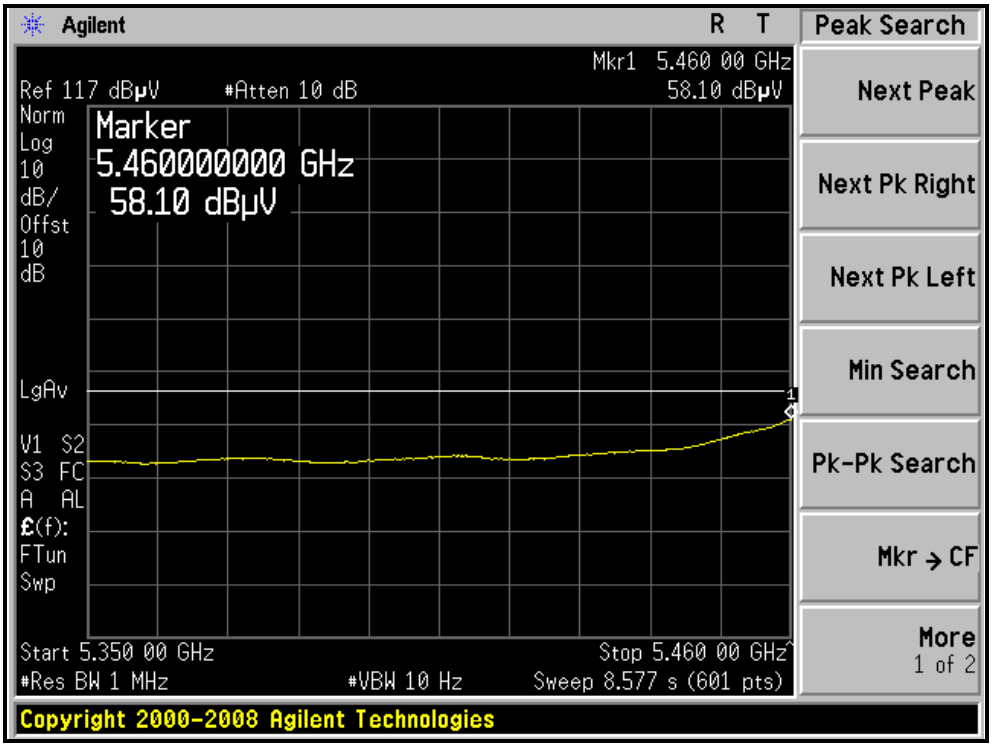
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH4, VERTICAL)



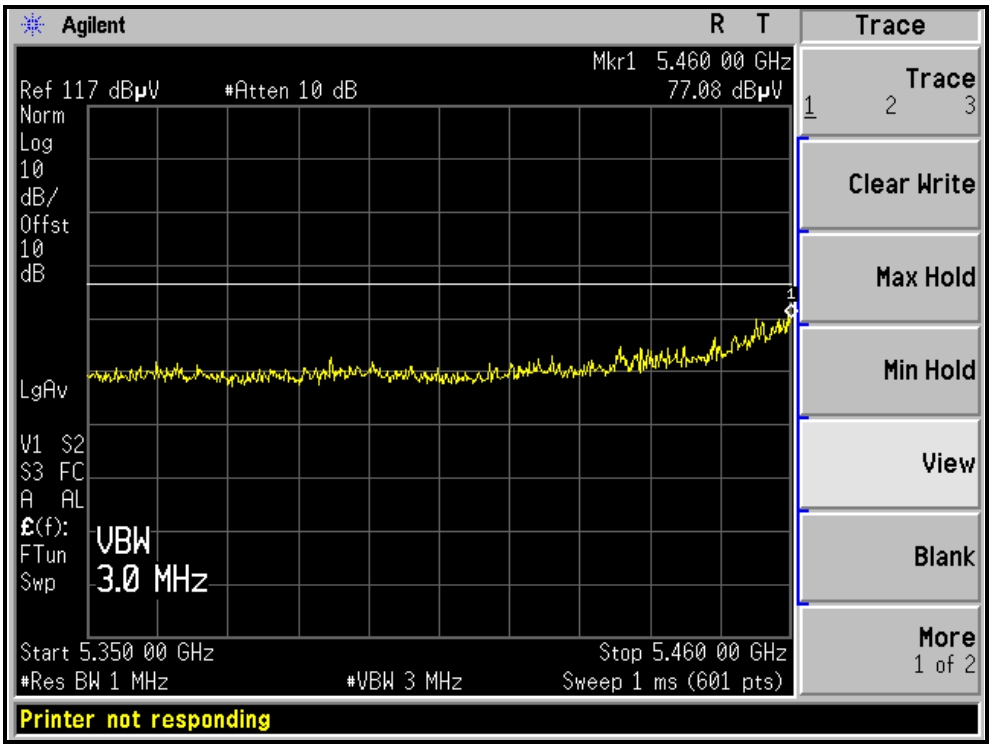


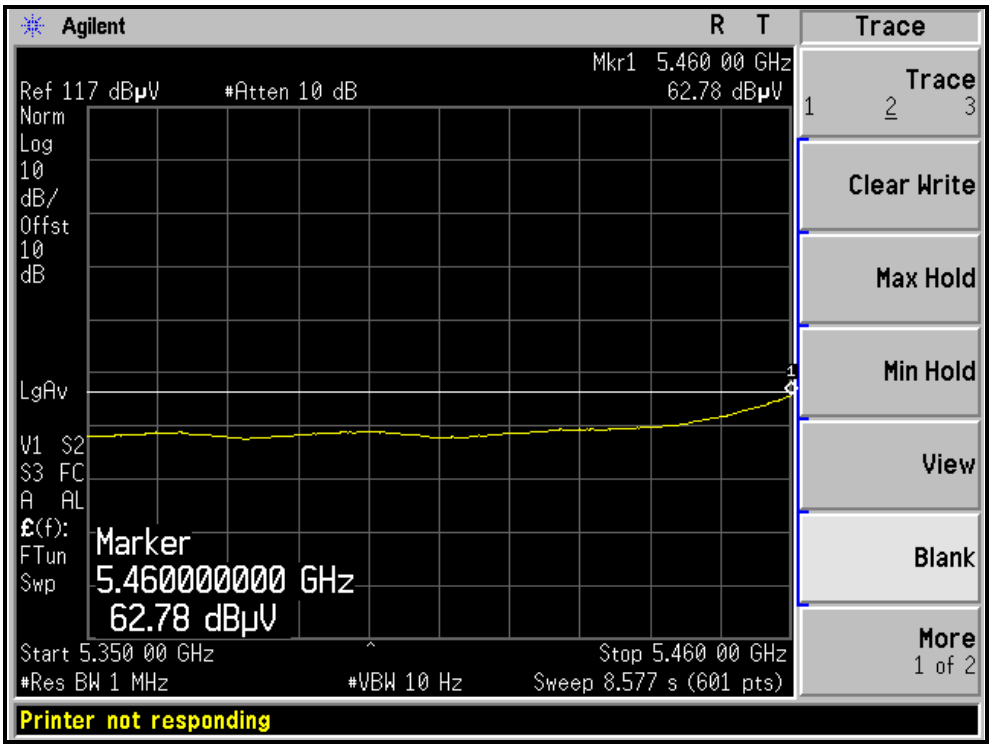
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH5, HORIZONTAL)





RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH5, VERTICAL)





4.3 PEAK TRANSMIT POWER MEASUREMENT

4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

Frequency Band	Limit
5.15 – 5.25GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.25 – 5.35GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.47 – 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.725 – 5.825GHz	The lesser of 1W (30dBm) or 17dBm + 10logB

NOTE: Where B is the 26dB emission bandwidth in MHz.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ADVANTEST SPECTRUM ANALYZER	U3772	160100280	July 26, 2008	July 25, 2009

NOTE:

1.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.3.3 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set span to encompass the entire emission bandwidth of the signal.
3. Set RBW to 1MHz, VBW to 3MHz.
4. Using the spectrum analyzer's channel power measurement function to measure the output power.

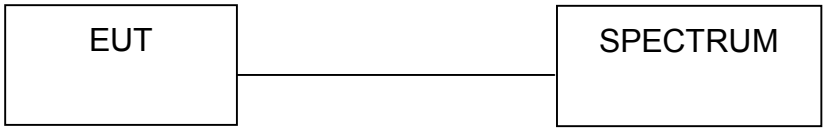
NOTE:
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

The transmitter output operates continuously therefore Method # 1 is used.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP



4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.3.7 TEST RESULTS

802.11a OFDM MODULATION:

MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25d110eg.C, 60%RH, 962hPa
TESTED BY	Wen Yu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)		PEAK POWER OUTPUT (mW)		TOTAL PEAK POWER (dBm)	TOTAL PEAK POWER (mW)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)		PASS/ FAIL
		Chain 0	Chain 1	Chain 0	Chain 1				Chain 0	Chain 1	
1	5180	11.40	11.53	13.804	14.223	14.48	28.027	16	23.92	23.92	PASS
2	5200	11.20	11.41	13.183	13.836	14.32	27.019	16	24.38	22.93	PASS
4	5240	11.57	11.12	14.355	12.942	14.36	27.297	16	24.5	24.09	PASS
5	5260	17.08	17.07	51.050	50.933	20.09	101.983	23	25.61	25.67	PASS
7	5300	17.12	17.02	51.523	50.350	20.08	101.873	23	25.72	26.48	PASS
8	5320	16.14	16.30	41.115	42.658	19.23	83.773	23	25.55	24.15	PASS
9	5500	13.25	13.76	21.135	23.768	16.52	44.903	23	24.44	23.74	PASS
14	5600	17.02	17.08	50.350	51.050	20.06	101.400	23	24.38	24.21	PASS
19	5700	14.35	14.43	27.227	27.733	17.40	54.960	23	24.44	23.98	PASS

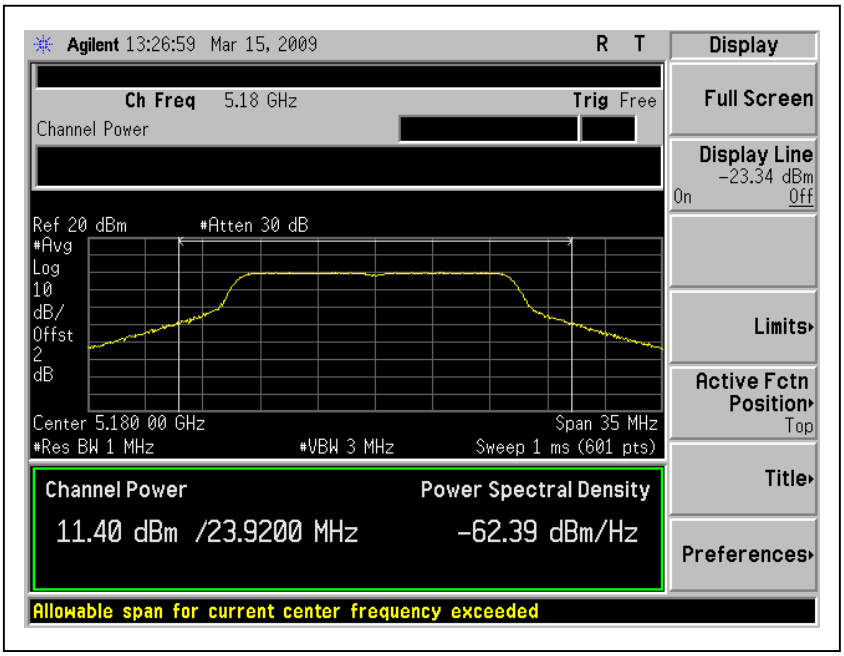
NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

Directional gain = gain of antenna element + 10 log (# of TX antenna elements)

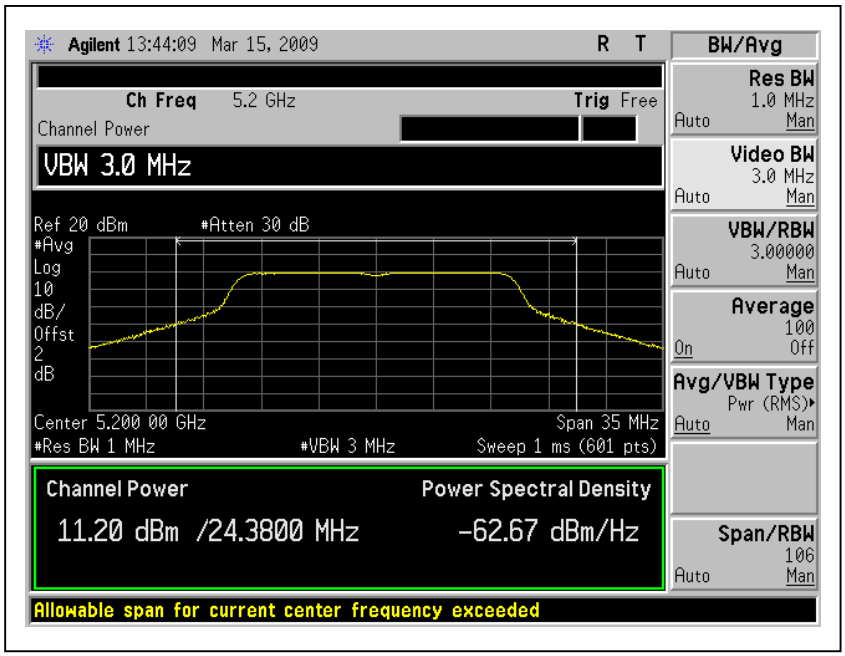
Effective Legacy Gain (dBi)=7

The effective legacy gain is 7dBi, therefore the limit reduce to 16dBm and 23dBm for 5150~5250MHz , 5250~5350 and 5470~5725MHz.

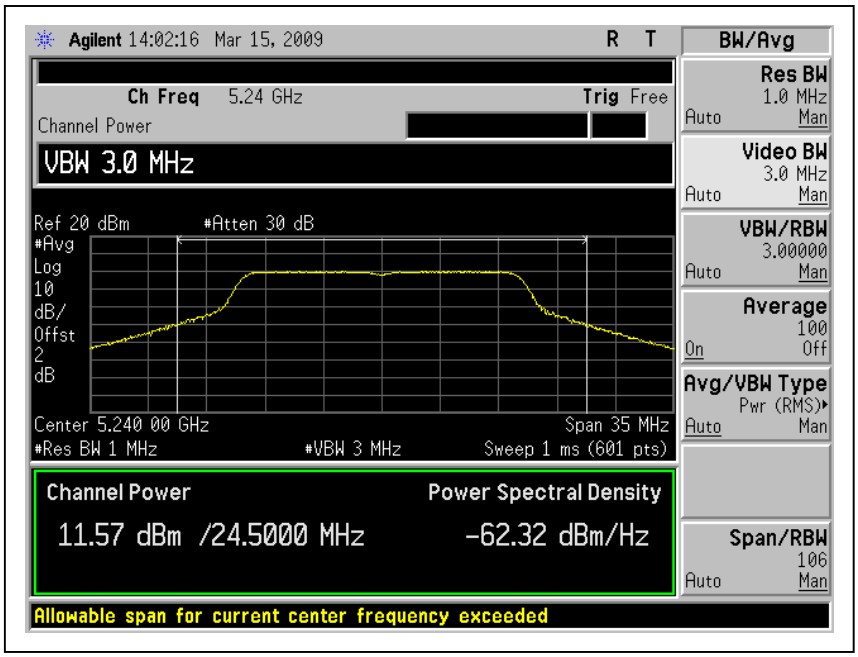
Peak Power Output:
For Chain (0) :CH1



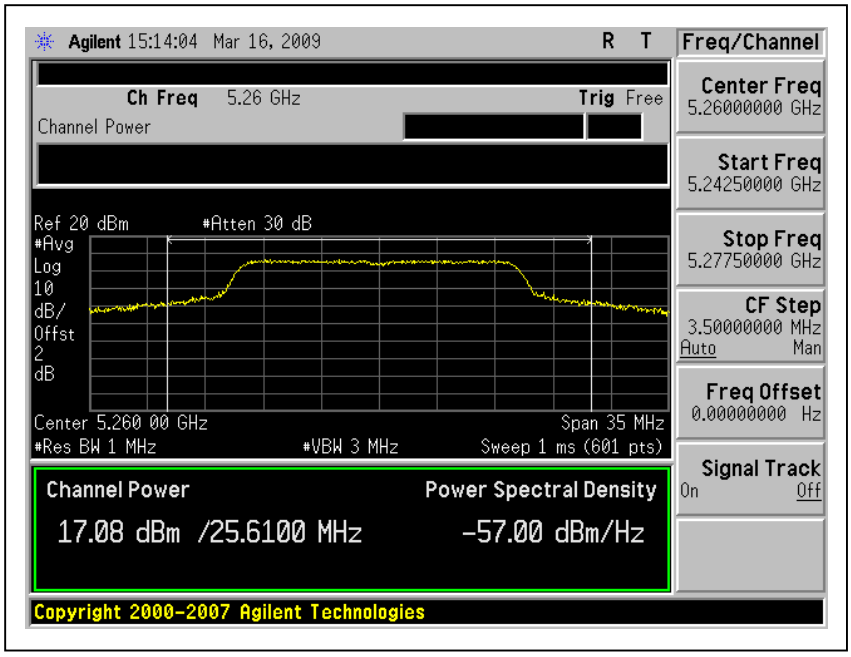
CH2



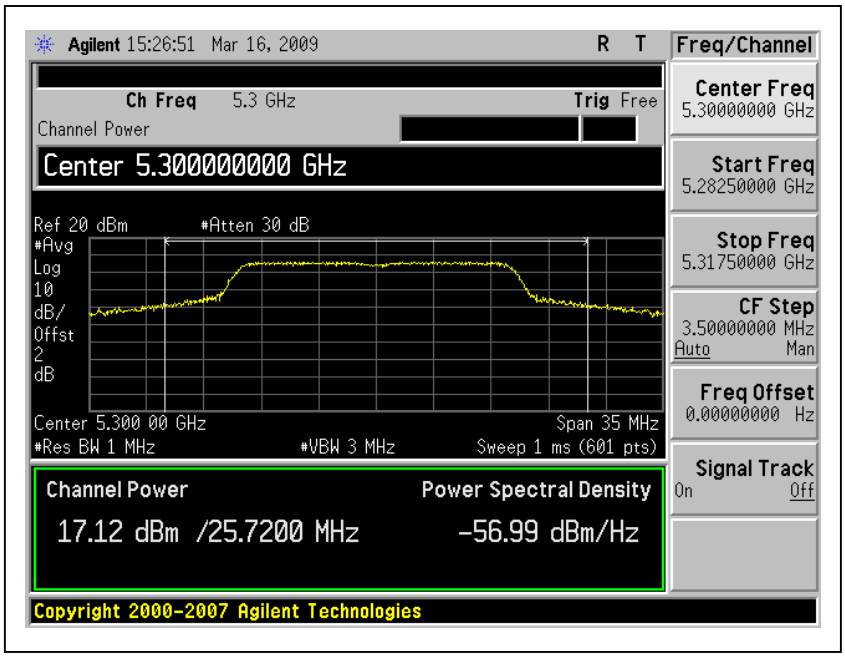
CH4


Agilent 14:02:16 Mar 15, 2009
R T
BW/Avg
Ch Freq 5.24 GHz
Trig Free
Channel Power
VBW 3.0 MHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.240 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
11.57 dBm /24.5000 MHz
Power Spectral Density
-62.32 dBm/Hz
Allowable span for current center frequency exceeded
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man

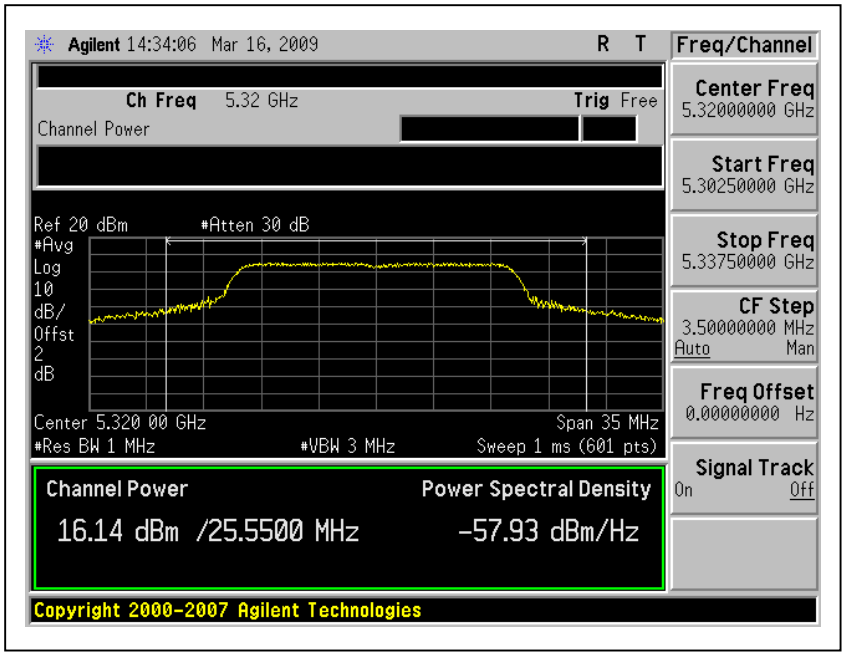
CH5


Agilent 15:14:04 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.26 GHz
Trig Free
Channel Power
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.260 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.08 dBm /25.6100 MHz
Power Spectral Density
-57.00 dBm/Hz
Copyright 2000-2007 Agilent Technologies
Center Freq
5.26000000 GHz
Start Freq
5.24250000 GHz
Stop Freq
5.27750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off

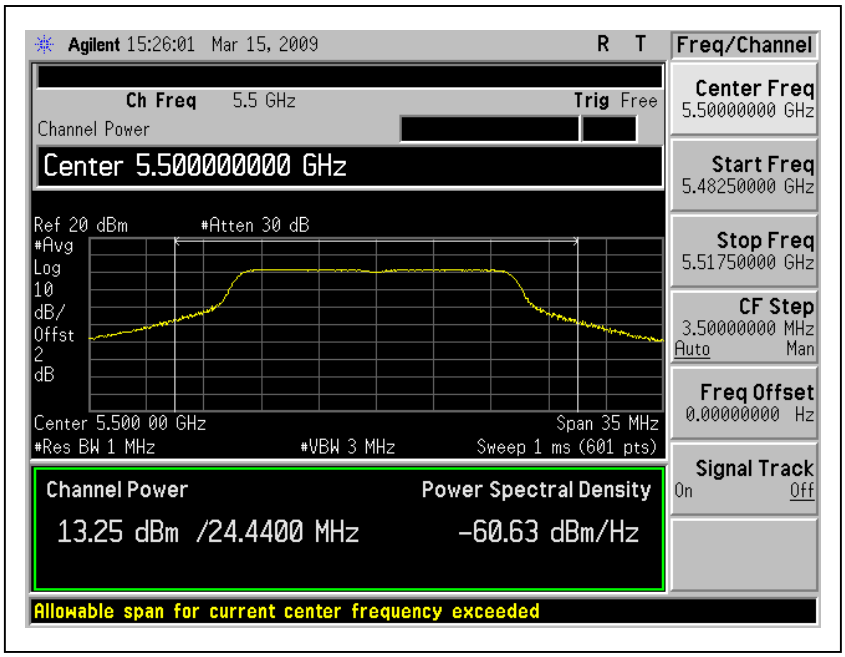
CH7


Agilent 15:26:51 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.3 GHz
Trig Free
Channel Power
Center 5.300000000 GHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.300 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.12 dBm /25.7200 MHz
Power Spectral Density
-56.99 dBm/Hz
Center Freq
5.30000000 GHz
Start Freq
5.28250000 GHz
Stop Freq
5.31750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2007 Agilent Technologies

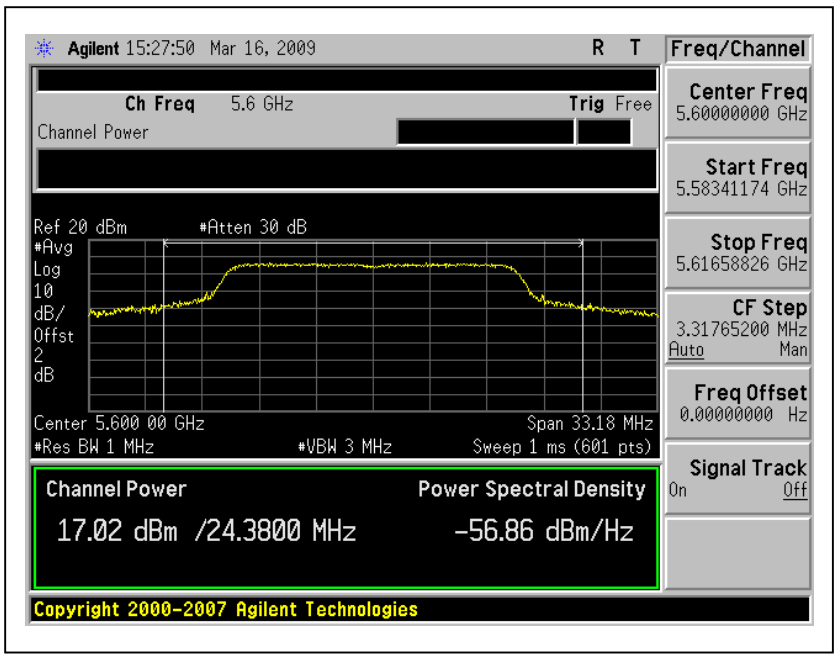
CH8


Agilent 14:34:06 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.32 GHz
Trig Free
Channel Power
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.320 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.14 dBm /25.5500 MHz
Power Spectral Density
-57.93 dBm/Hz
Center Freq
5.32000000 GHz
Start Freq
5.30250000 GHz
Stop Freq
5.33750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2007 Agilent Technologies

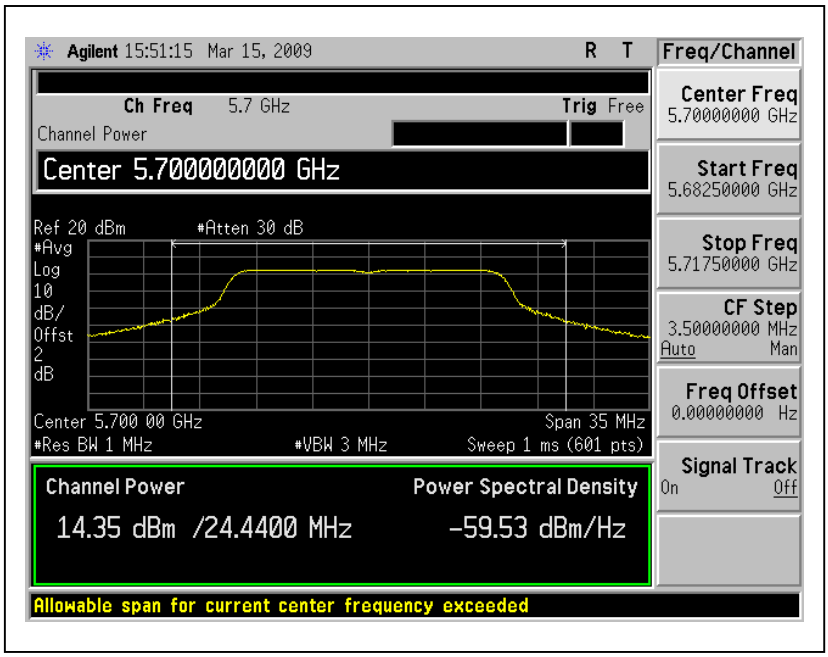
CH9


Agilent 15:26:01 Mar 15, 2009
R T
Freq/Channel
Ch Freq 5.5 GHz
Trig Free
Channel Power
Center 5.500000000 GHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.500 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
13.25 dBm /24.4400 MHz
Power Spectral Density
-60.63 dBm/Hz
Allowable span for current center frequency exceeded
Center Freq
5.50000000 GHz
Start Freq
5.48250000 GHz
Stop Freq
5.51750000 GHz
CF Step
3.50000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off

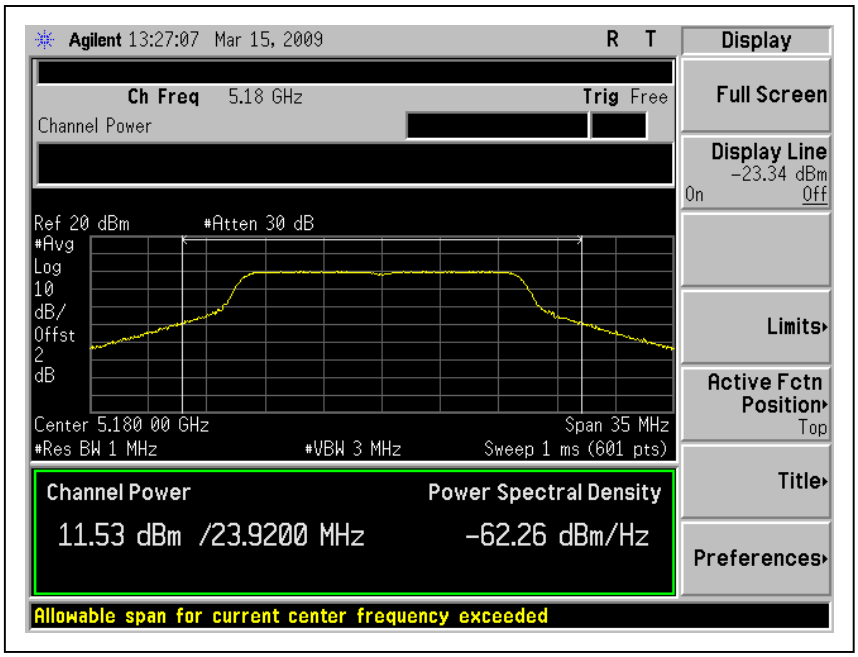
CH14


Agilent 15:27:50 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.6 GHz
Trig Free
Channel Power
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.600 00 GHz
Span 33.18 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.02 dBm /24.3800 MHz
Power Spectral Density
-56.86 dBm/Hz
Copyright 2000-2007 Agilent Technologies
Center Freq
5.60000000 GHz
Start Freq
5.58341174 GHz
Stop Freq
5.61658826 GHz
CF Step
3.31765200 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off

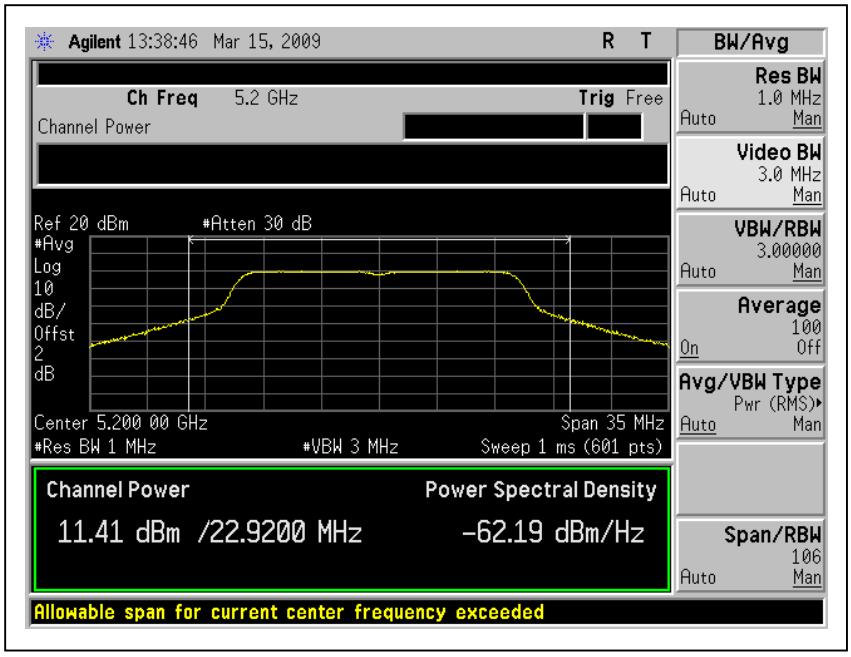
CH19


Agilent 15:51:15 Mar 15, 2009
R T
Freq/Channel
Ch Freq 5.7 GHz
Trig Free
Channel Power
Center 5.700000000 GHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.700 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Channel Power
14.35 dBm /24.4400 MHz
Power Spectral Density
-59.53 dBm/Hz
Allowable span for current center frequency exceeded
Center Freq
5.70000000 GHz
Start Freq
5.68250000 GHz
Stop Freq
5.71750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off

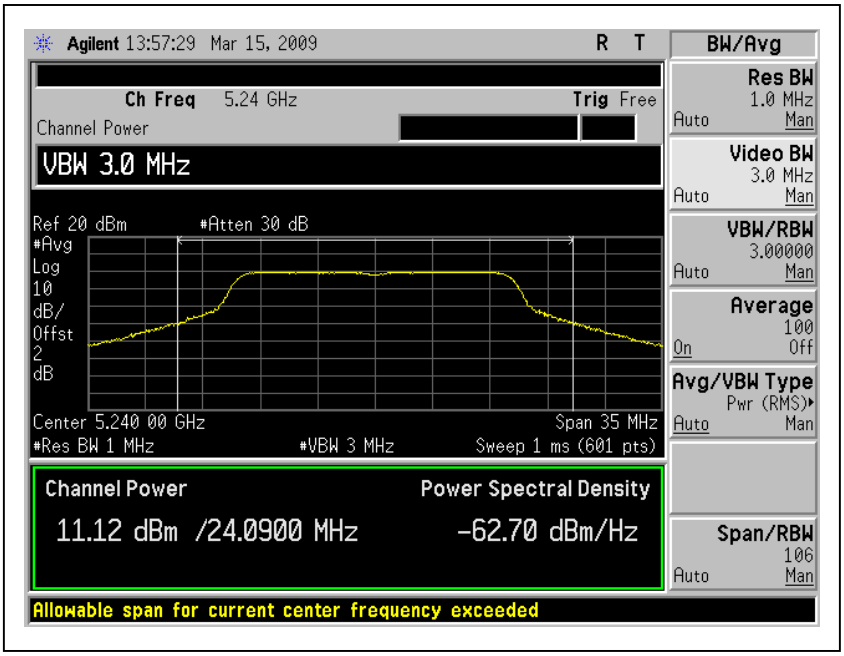
For Chain (1) :CH1



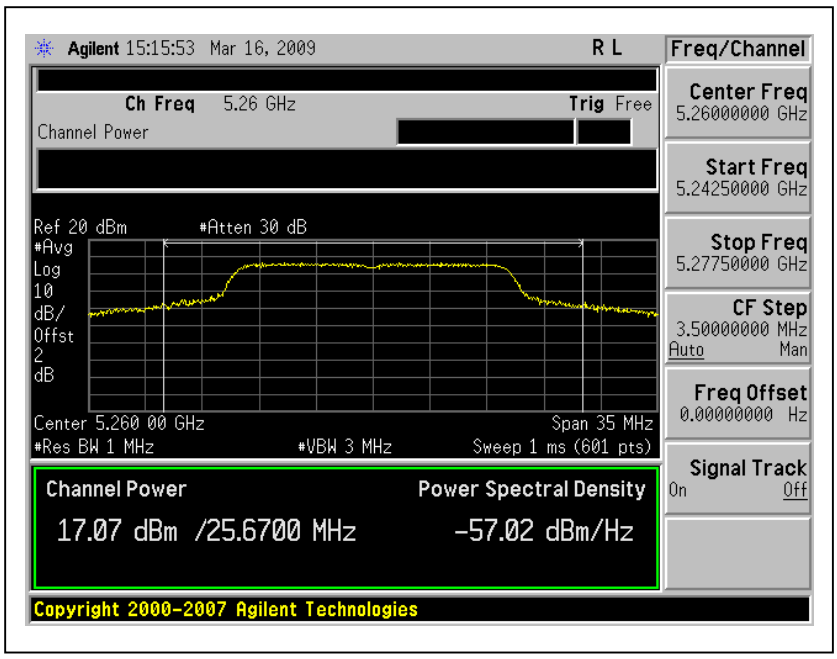
CH2



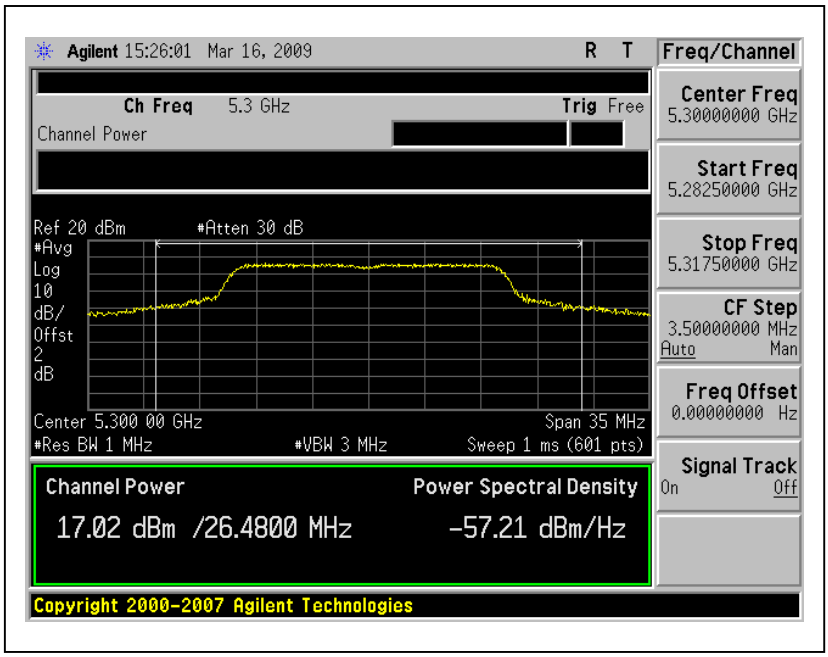
CH4


Agilent 13:57:29 Mar 15, 2009
R T
BW/Avg
Ch Freq 5.24 GHz
Trig Free
Channel Power
VBW 3.0 MHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.240 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
11.12 dBm /24.0900 MHz
Power Spectral Density
-62.70 dBm/Hz
Allowable span for current center frequency exceeded
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man

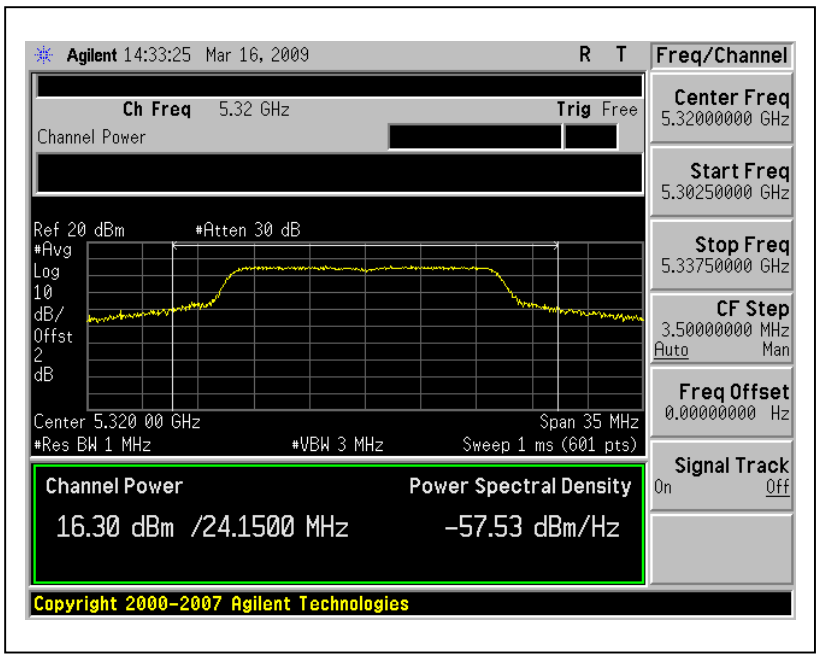
CH5


Agilent 15:15:53 Mar 16, 2009
R L
Freq/Channel
Ch Freq 5.26 GHz
Trig Free
Channel Power
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.260 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.07 dBm /25.6700 MHz
Power Spectral Density
-57.02 dBm/Hz
Copyright 2000-2007 Agilent Technologies
Center Freq
5.26000000 GHz
Start Freq
5.24250000 GHz
Stop Freq
5.27750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off

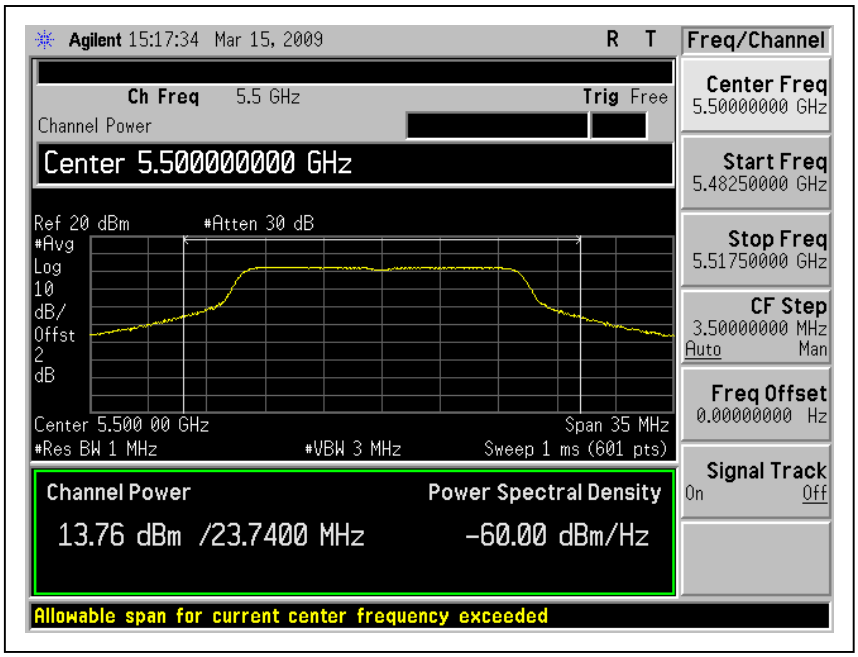
CH7


Agilent 15:26:01 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.3 GHz
Trig Free
Channel Power
Center Freq
5.30000000 GHz
Start Freq
5.28250000 GHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Stop Freq
5.31750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Center 5.300 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Signal Track
On Off
Channel Power
Power Spectral Density
17.02 dBm /26.4800 MHz
-57.21 dBm/Hz
Copyright 2000-2007 Agilent Technologies

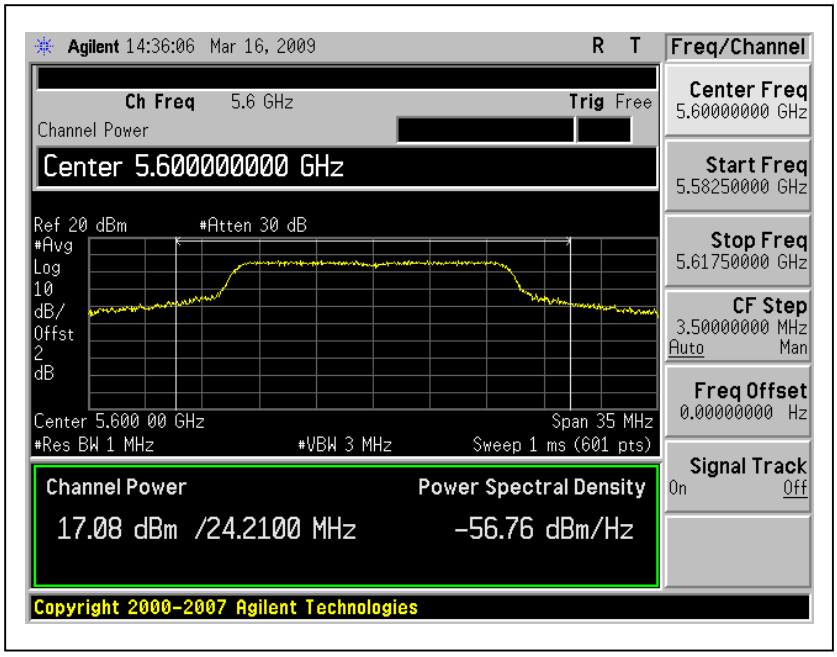
CH8


Agilent 14:33:25 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.32 GHz
Trig Free
Channel Power
Center Freq
5.32000000 GHz
Start Freq
5.30250000 GHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Stop Freq
5.33750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Center 5.320 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Signal Track
On Off
Channel Power
Power Spectral Density
16.30 dBm /24.1500 MHz
-57.53 dBm/Hz
Copyright 2000-2007 Agilent Technologies

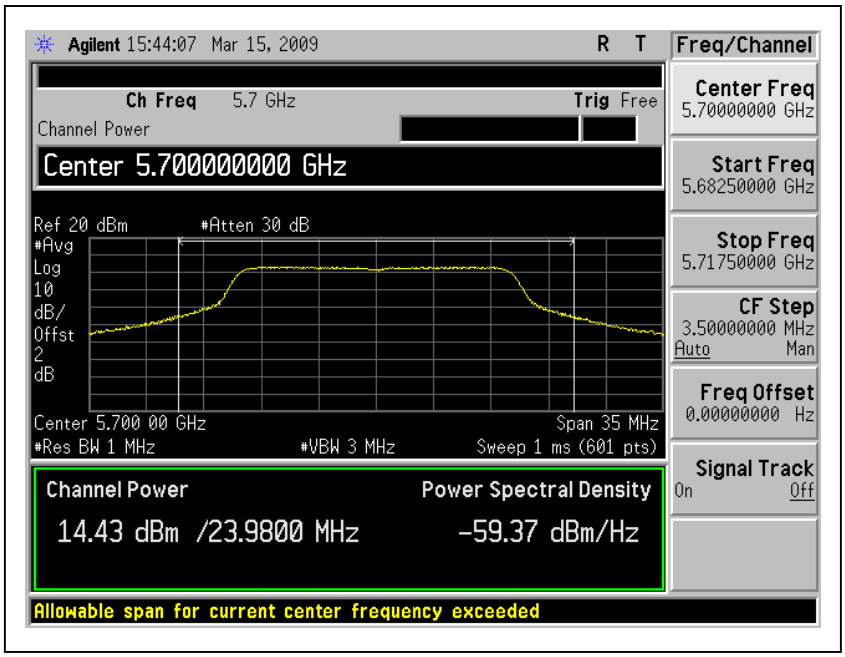
CH9


Agilent 15:17:34 Mar 15, 2009
R T
Freq/Channel
Ch Freq 5.5 GHz
Trig Free
Channel Power
Center 5.500000000 GHz
Center Freq
5.50000000 GHz
Start Freq
5.48250000 GHz
Stop Freq
5.51750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.500 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
13.76 dBm /23.7400 MHz
Power Spectral Density
-60.00 dBm/Hz
Allowable span for current center frequency exceeded

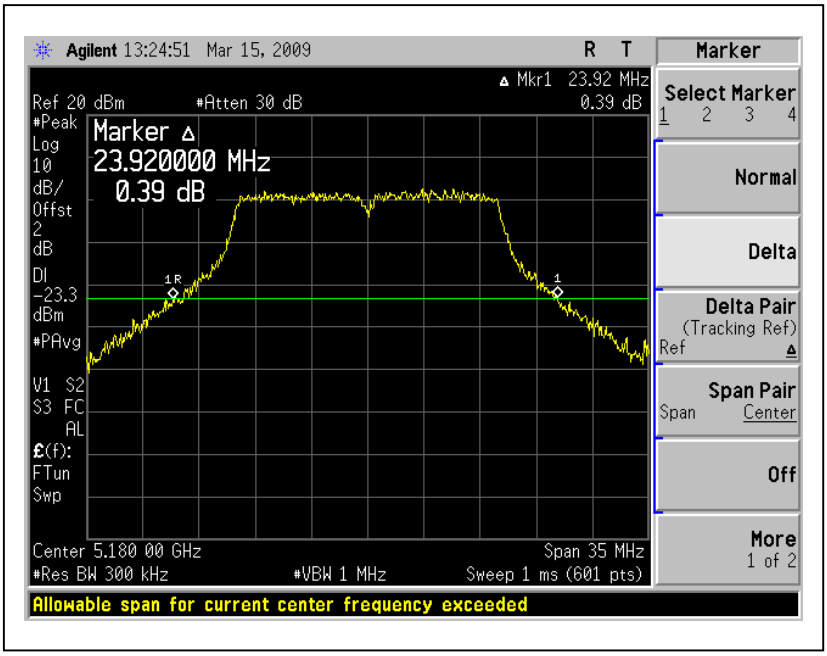
CH14


Agilent 14:36:06 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.6 GHz
Trig Free
Channel Power
Center 5.600000000 GHz
Center Freq
5.60000000 GHz
Start Freq
5.58250000 GHz
Stop Freq
5.61750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.600 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.08 dBm /24.2100 MHz
Power Spectral Density
-56.76 dBm/Hz
Copyright 2000-2007 Agilent Technologies

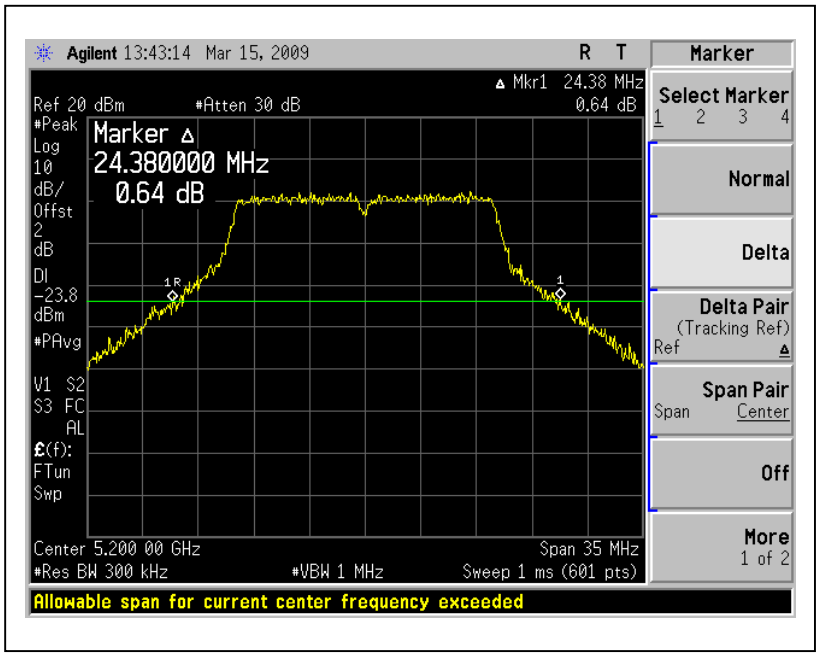
CH19


Agilent 15:44:07 Mar 15, 2009
R T
Freq/Channel
Ch Freq 5.7 GHz
Trig Free
Channel Power
Center 5.700000000 GHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.700 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
14.43 dBm /23.9800 MHz
Power Spectral Density
-59.37 dBm/Hz
Allowable span for current center frequency exceeded
Center Freq
5.70000000 GHz
Start Freq
5.68250000 GHz
Stop Freq
5.71750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off

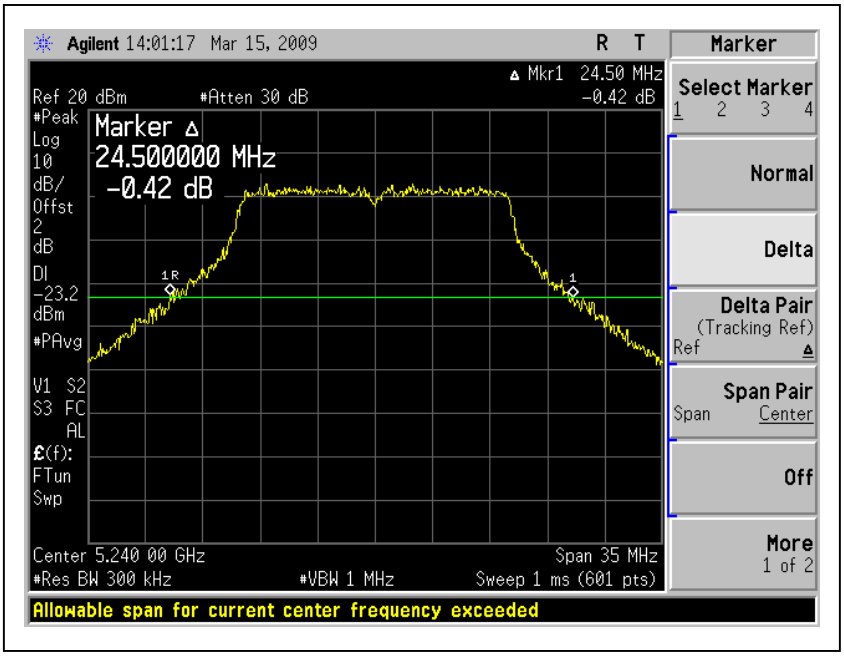
26dB Occupied Bandwidth:
For Chain (0) :CH1



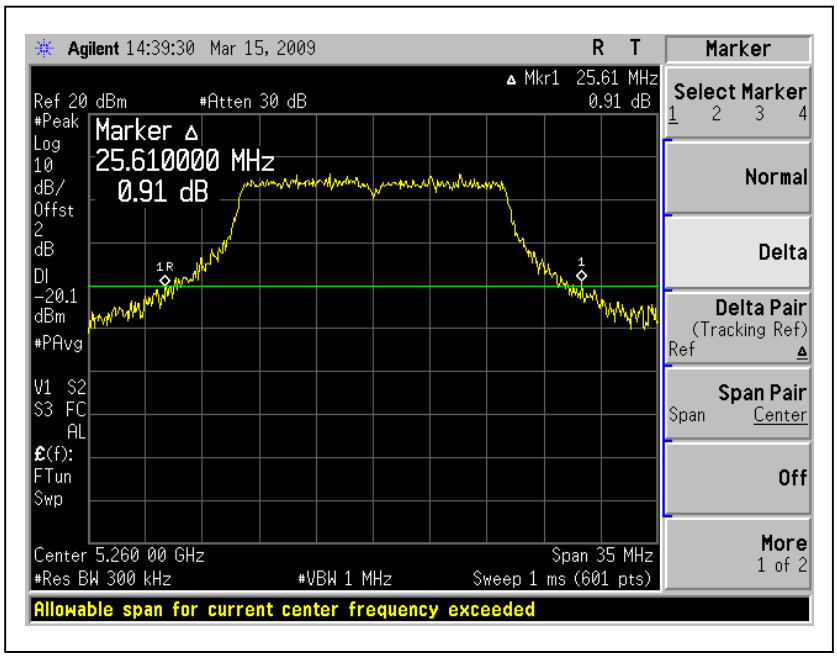
CH2



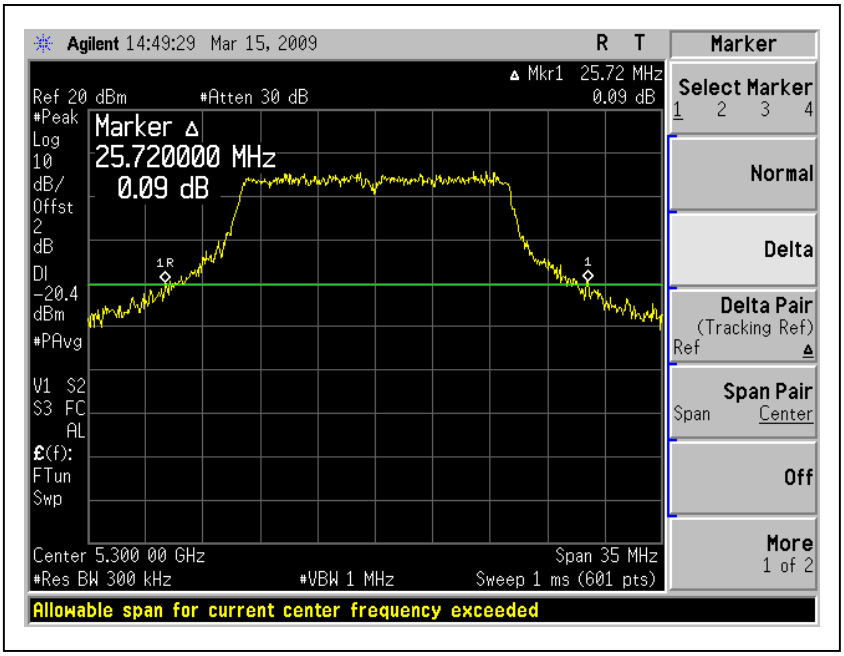
CH4


Agilent 14:01:17 Mar 15, 2009
R T
Marker
Mkr1 24.50 MHz
-0.42 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-23.2
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
24.500000 MHz
-0.42 dB
1R
1
Center 5.240 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

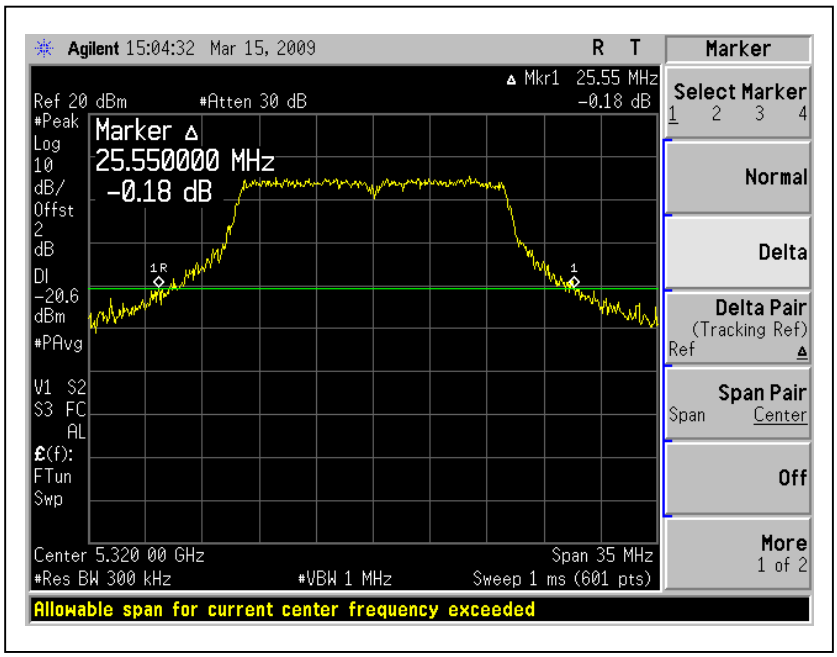
CH5


Agilent 14:39:30 Mar 15, 2009
R T
Marker
Mkr1 25.61 MHz
0.91 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.1
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
25.610000 MHz
0.91 dB
1R
1
Center 5.260 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

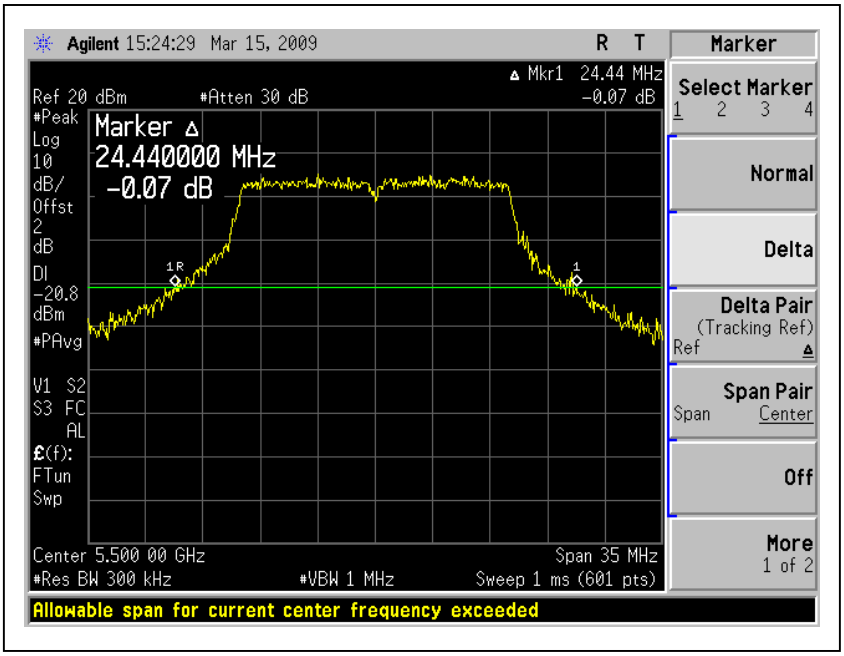
CH7


Agilent 14:49:29 Mar 15, 2009
R T
Marker
Mkr1 25.72 MHz
0.09 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.4
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
25.720000 MHz
0.09 dB
1R
1
Center 5.300 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2

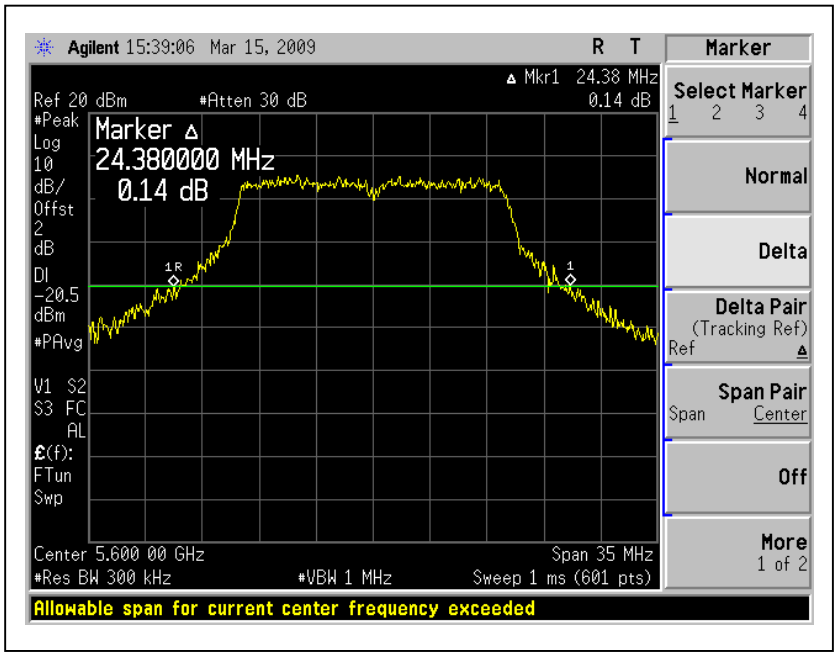
CH8


Agilent 15:04:32 Mar 15, 2009
R T
Marker
Mkr1 25.55 MHz
-0.18 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.6
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
25.550000 MHz
-0.18 dB
1R
1
Center 5.320 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2

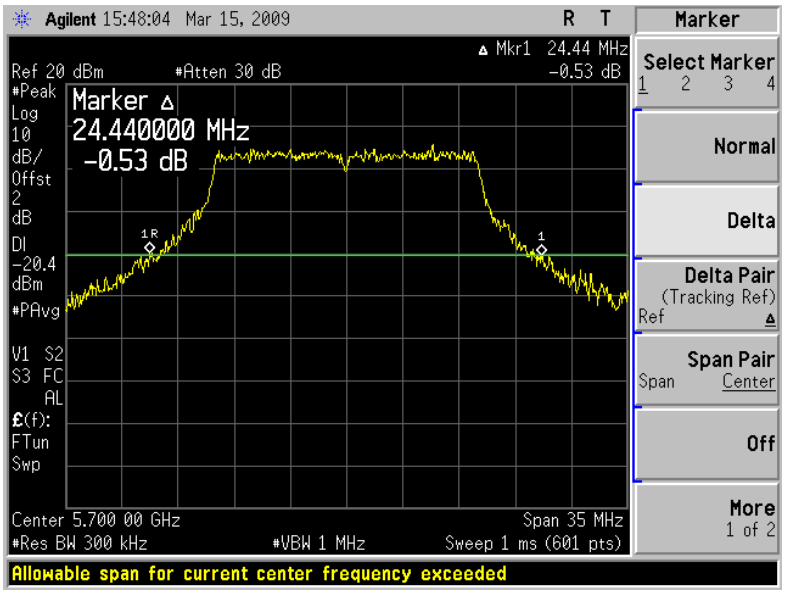
CH9


Agilent 15:24:29 Mar 15, 2009
R T
Marker
Mkr1 24.44 MHz
-0.07 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.8
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
24.440000 MHz
-0.07 dB
1R
1
Center 5.500 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

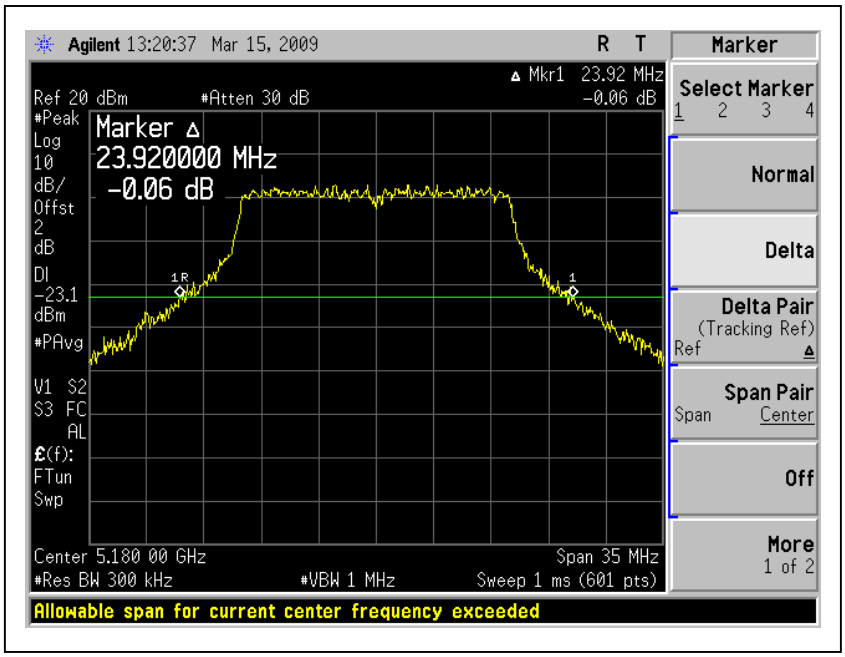
CH14


Agilent 15:39:06 Mar 15, 2009
R T
Marker
Mkr1 24.38 MHz
0.14 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.5
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
24.380000 MHz
0.14 dB
1R
1
Center 5.600 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

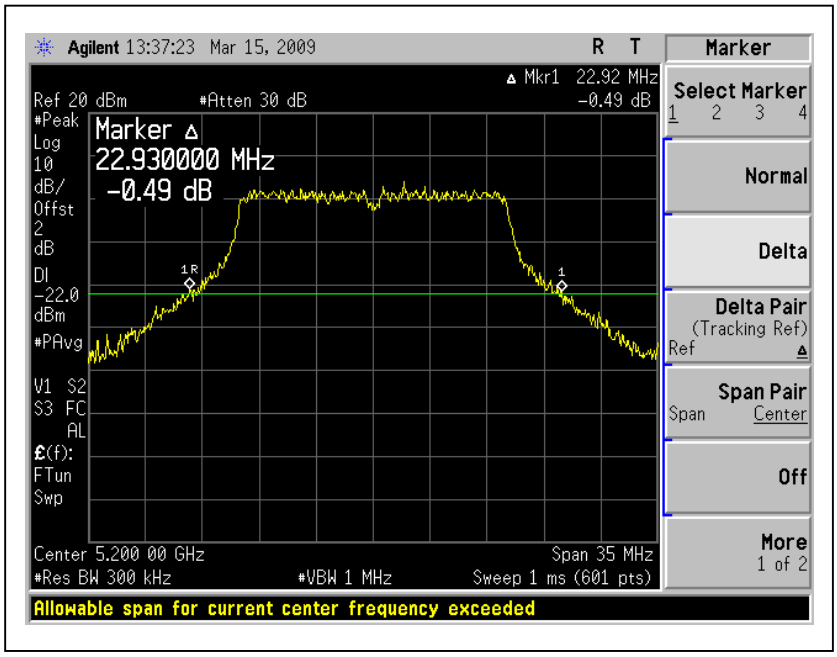
CH19


Agilent 15:48:04 Mar 15, 2009
R T
Marker
Mkr1 24.44 MHz
-0.53 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.4
dBm
#PAvg
Marker Δ
24.440000 MHz
-0.53 dB
1R
1
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.700 00 GHz
Span 35 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

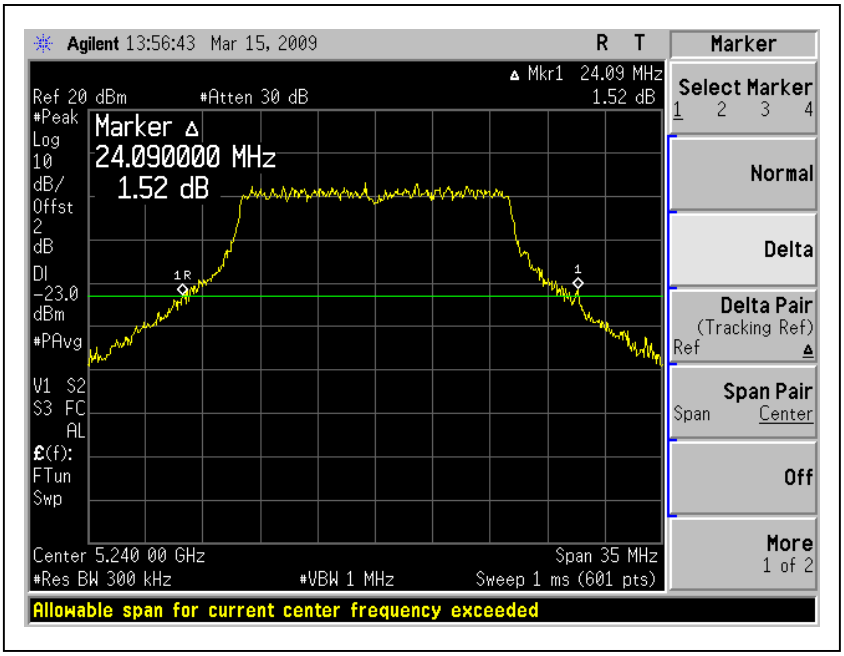
For Chain (1) :CH1



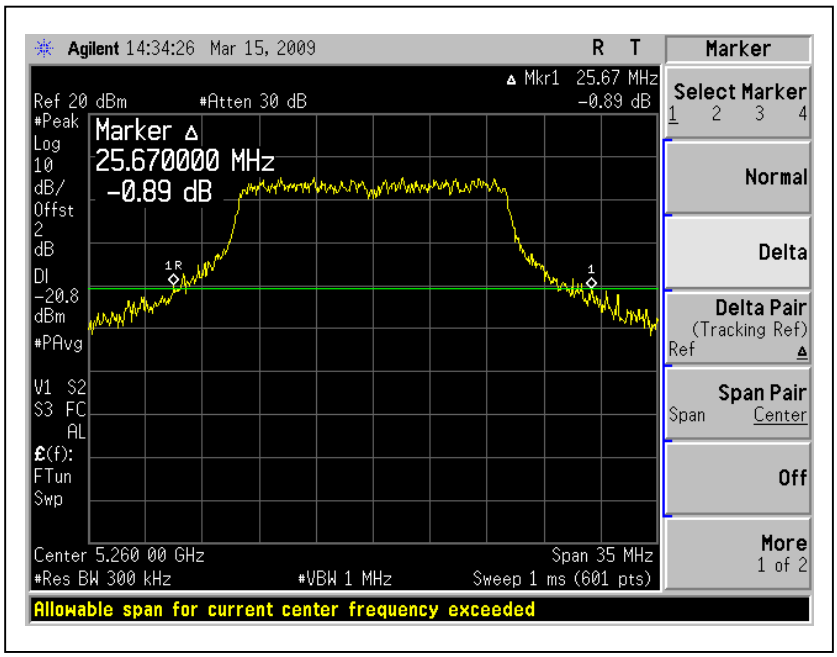
CH2



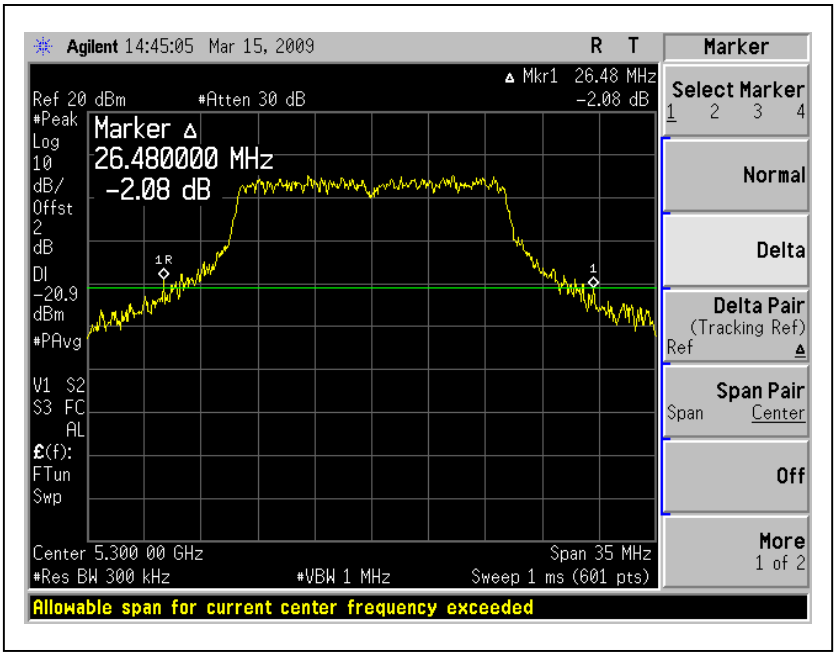
CH4


Agilent 13:56:43 Mar 15, 2009
R T
Marker
Mkr1 24.09 MHz
1.52 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-23.0
dBm
#PAvg
Marker Δ
24.090000 MHz
1.52 dB
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.240 00 GHz
Span 35 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

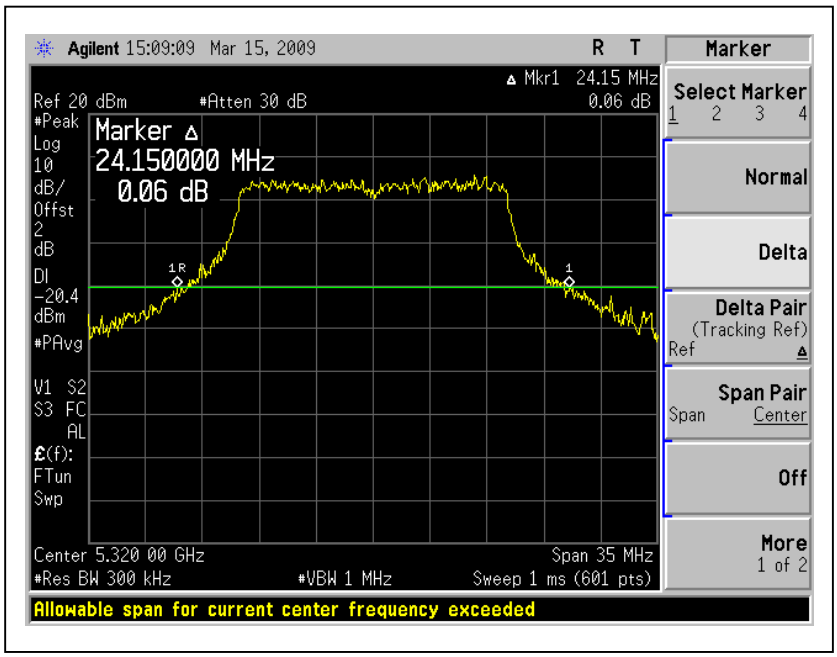
CH5


Agilent 14:34:26 Mar 15, 2009
R T
Marker
Mkr1 25.67 MHz
-0.89 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.8
dBm
#PAvg
Marker Δ
25.670000 MHz
-0.89 dB
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.260 00 GHz
Span 35 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

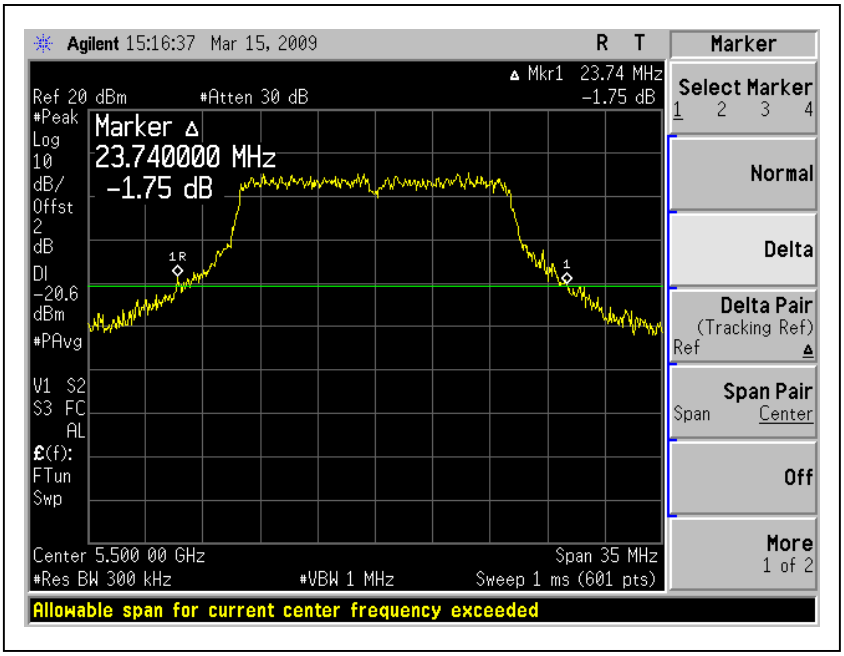
CH7


Agilent 14:45:05 Mar 15, 2009
R T
Marker
Mkr1 26.48 MHz
-2.08 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.9
dBm
#PAvg
Marker Δ
26.480000 MHz
-2.08 dB
1R
1
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.300 00 GHz
Span 35 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

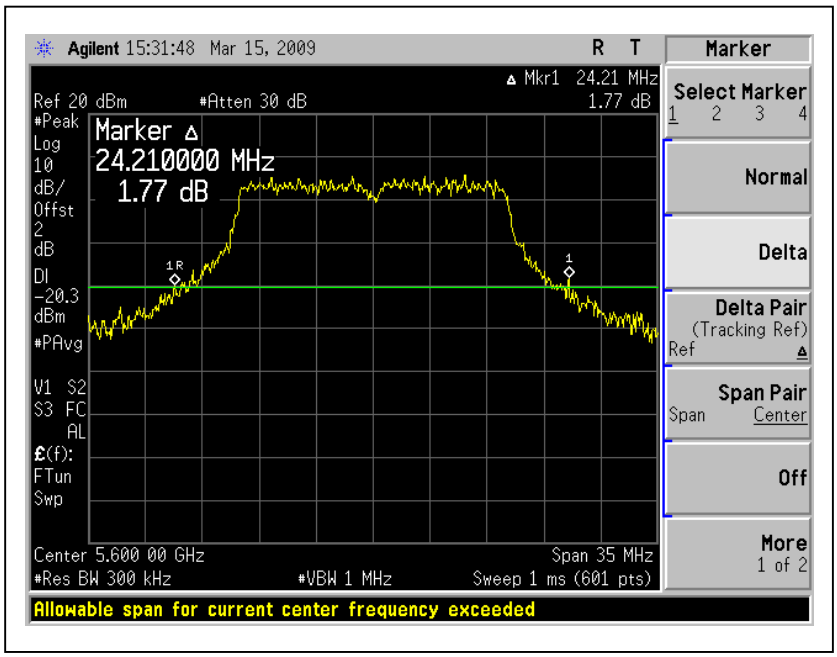
CH8


Agilent 15:09:09 Mar 15, 2009
R T
Marker
Mkr1 24.15 MHz
0.06 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.4
dBm
#PAvg
Marker Δ
24.150000 MHz
0.06 dB
1R
1
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.320 00 GHz
Span 35 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

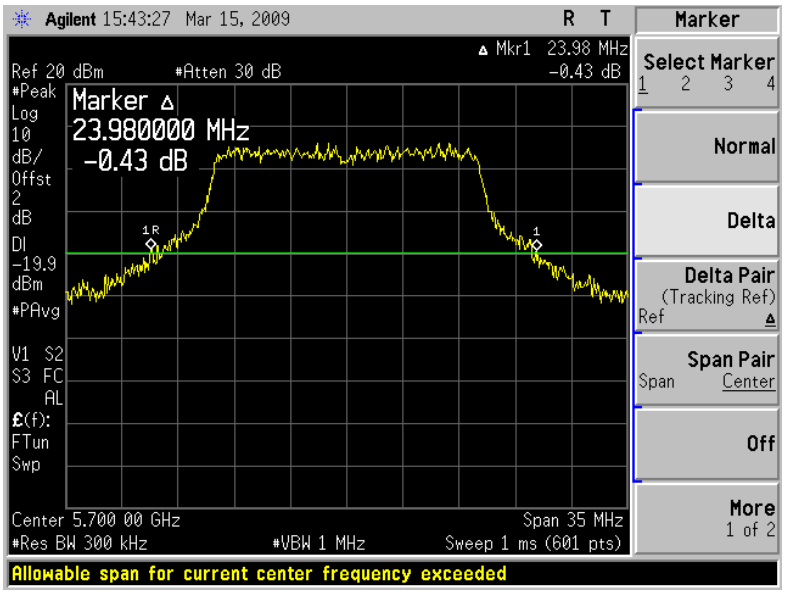
CH9


Agilent 15:16:37 Mar 15, 2009
R T
Marker
Mkr1 23.74 MHz
-1.75 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.6
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
23.740000 MHz
-1.75 dB
1R
1
Center 5.500 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

CH14


Agilent 15:31:48 Mar 15, 2009
R T
Marker
Mkr1 24.21 MHz
1.77 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.3
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
24.210000 MHz
1.77 dB
1R
1
Center 5.600 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

CH19


Agilent 15:43:27 Mar 15, 2009
R T
Marker
Mkr1 23.98 MHz
-0.43 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-19.9
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
23.980000 MHz
-0.43 dB
1R
1
Center 5.700 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

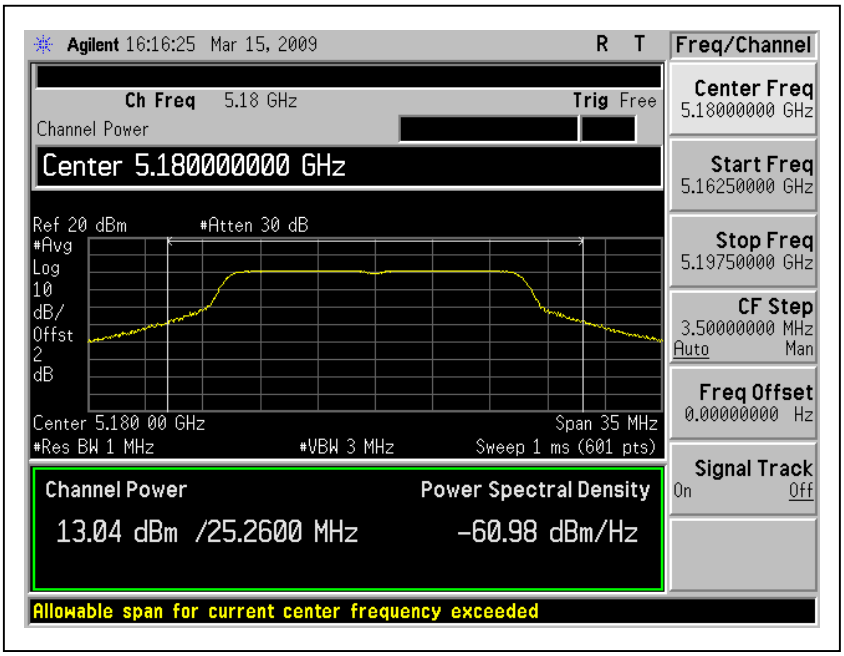
DRAFT 802.11n (20MHz) OFDM modulation:

MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 60%RH, 962hPa
TESTED BY	Wen Yu		

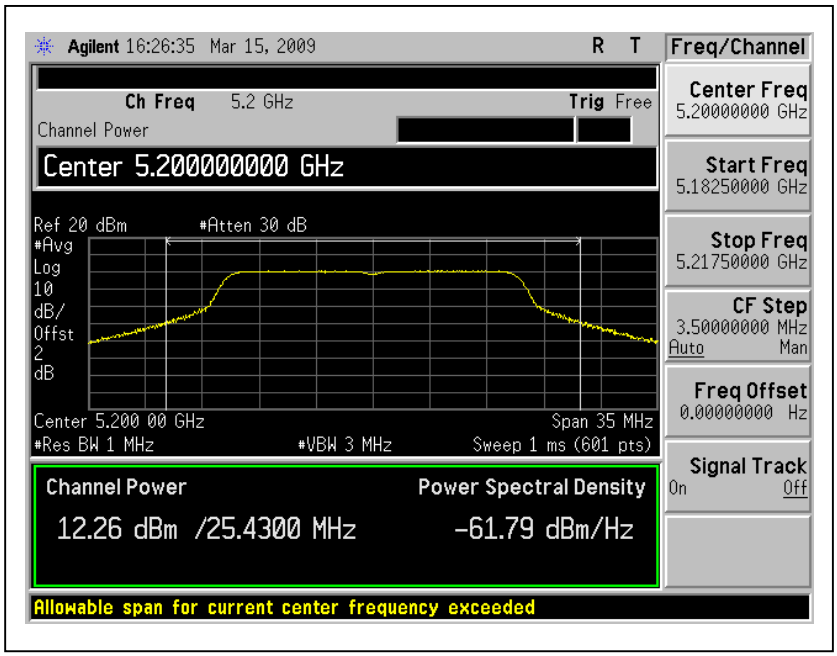
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)		PEAK POWER OUTPUT (mW)		TOTAL PEAK POWER (dBm)	TOTAL PEAK POWER (mW)	**PEAK POWER LIMIT (dBm)**	26dBc Occupied Bandwidth (MHz)		PASS/ FAIL
		Chain 0	Chain 1	Chain 0	Chain 1				Chain 0	Chain 1	
1	5180	13.04	12.77	20.137	18.923	15.92	39.060	17.00	25.26	24.68	PASS
2	5200	12.26	12.28	16.827	16.904	15.28	33.731	17.00	25.43	25.14	PASS
4	5240	12.47	12.37	17.660	17.258	15.43	34.918	24.00	25.26	24.15	PASS
5	5260	17.31	17.21	53.827	52.602	20.27	106.429	24.00	28.06	32.03	PASS
7	5300	17.14	17.07	51.761	50.933	20.12	102.694	24.00	29.11	28.29	PASS
8	5320	17.47	17.54	55.847	56.754	20.52	112.601	24.00	28.23	29.11	PASS
9	5500	14.78	15.57	30.061	36.058	18.20	66.119	24.00	26.31	27.83	PASS
14	5600	17.24	17.10	52.966	51.286	20.18	104.252	24.00	25.55	27.30	PASS
19	5700	13.59	13.84	22.856	24.210	16.73	47.066	24.00	25.49	25.67	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

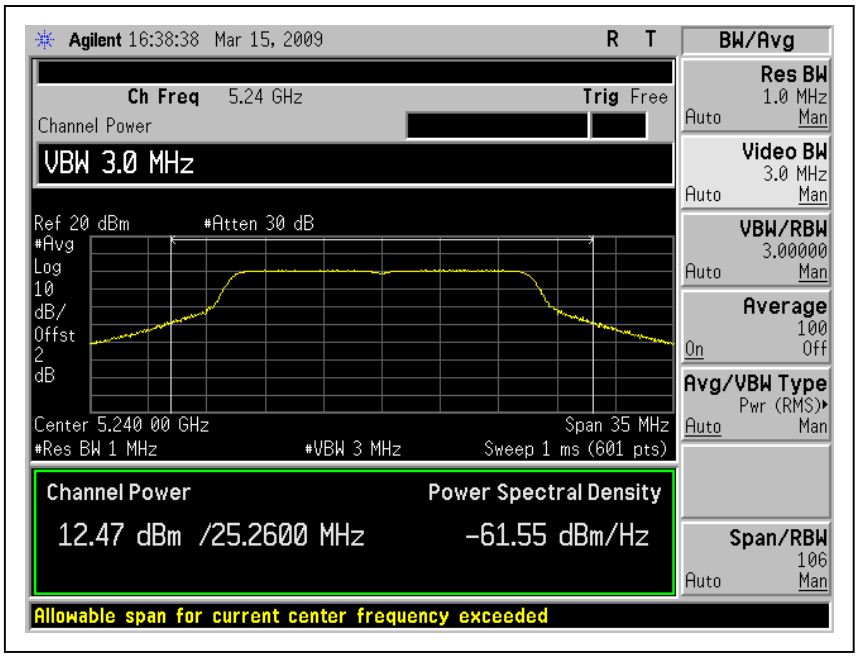
Peak Power Output:
For Chain (0) :CH1



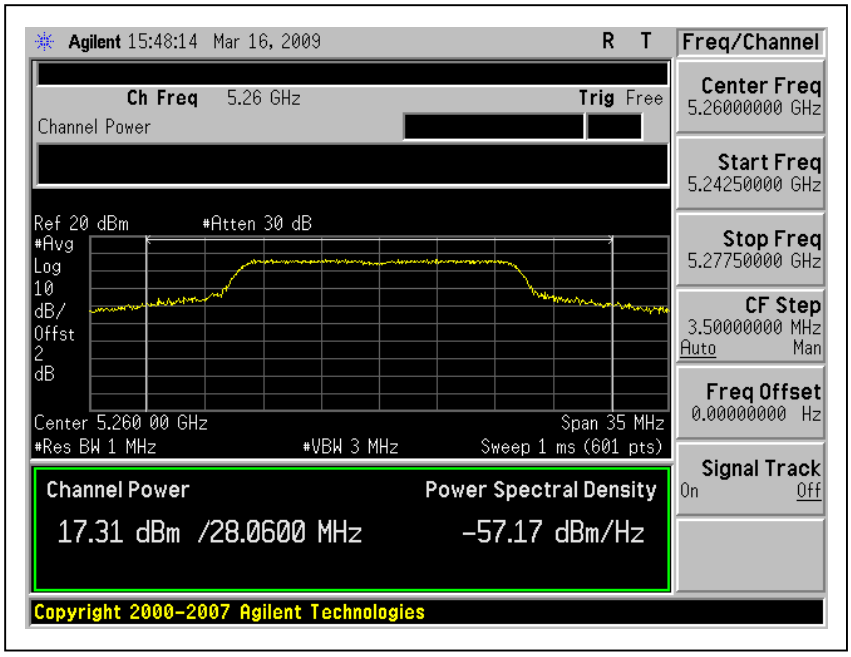
CH2



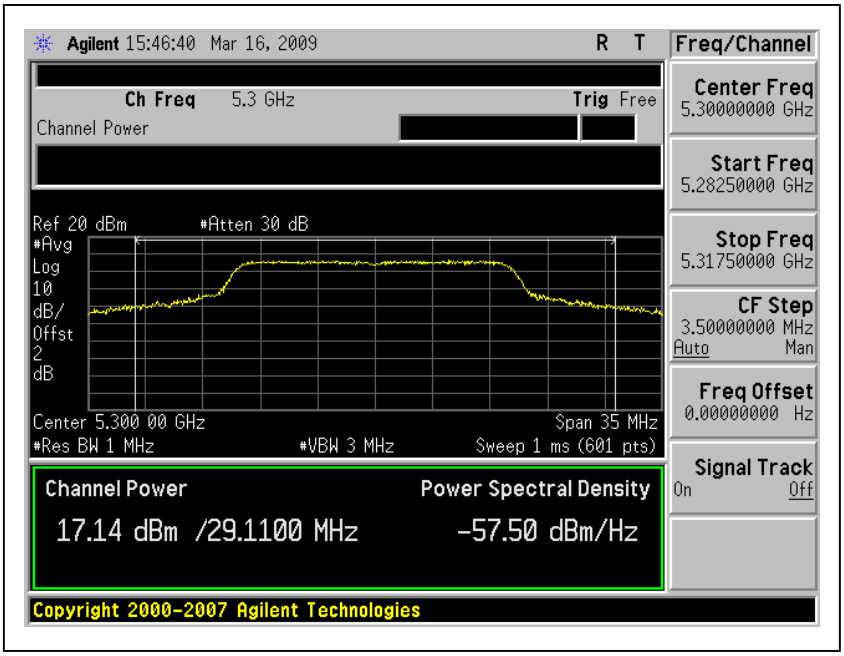
CH4


Agilent 16:38:38 Mar 15, 2009
R T
BW/Avg
Ch Freq 5.24 GHz
Trig Free
Channel Power
VBW 3.0 MHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.240 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
12.47 dBm /25.2600 MHz
Power Spectral Density
-61.55 dBm/Hz
Allowable span for current center frequency exceeded
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man

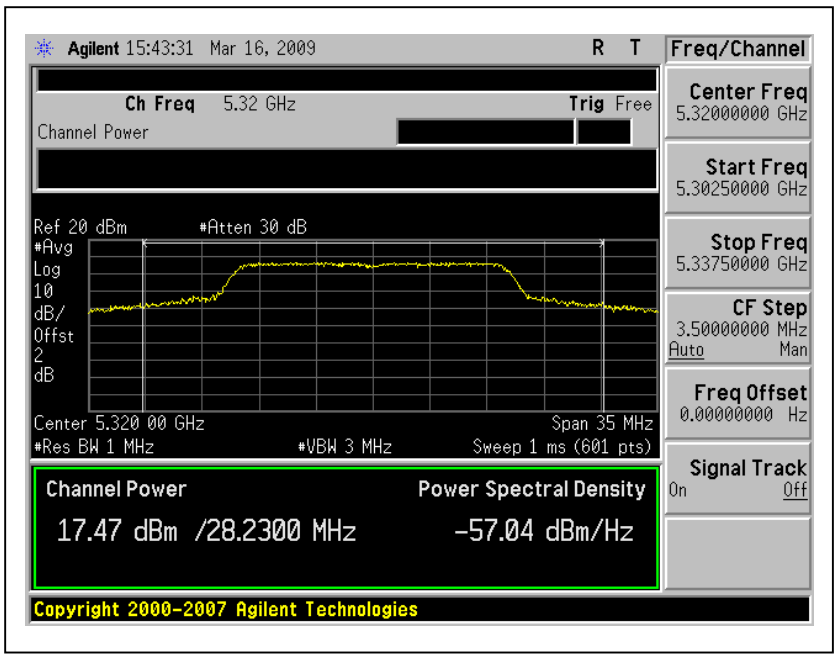
CH5


Agilent 15:48:14 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.26 GHz
Trig Free
Channel Power
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.260 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.31 dBm /28.0600 MHz
Power Spectral Density
-57.17 dBm/Hz
Copyright 2000-2007 Agilent Technologies
Center Freq
5.26000000 GHz
Start Freq
5.24250000 GHz
Stop Freq
5.27750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off

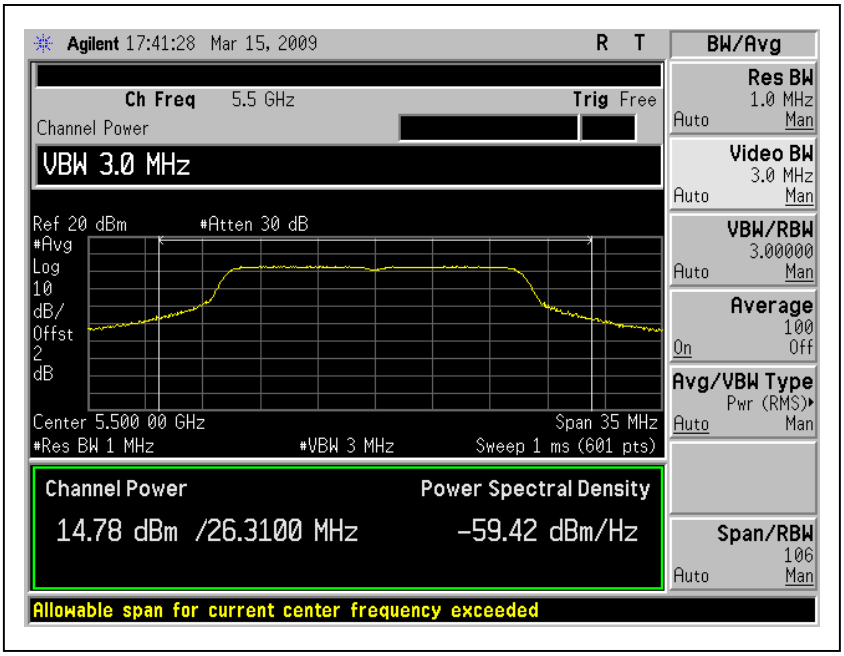
CH7


Agilent 15:46:40 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.3 GHz
Trig Free
Channel Power
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.300 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.14 dBm /29.1100 MHz
Power Spectral Density
-57.50 dBm/Hz
Center Freq
5.30000000 GHz
Start Freq
5.28250000 GHz
Stop Freq
5.31750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2007 Agilent Technologies

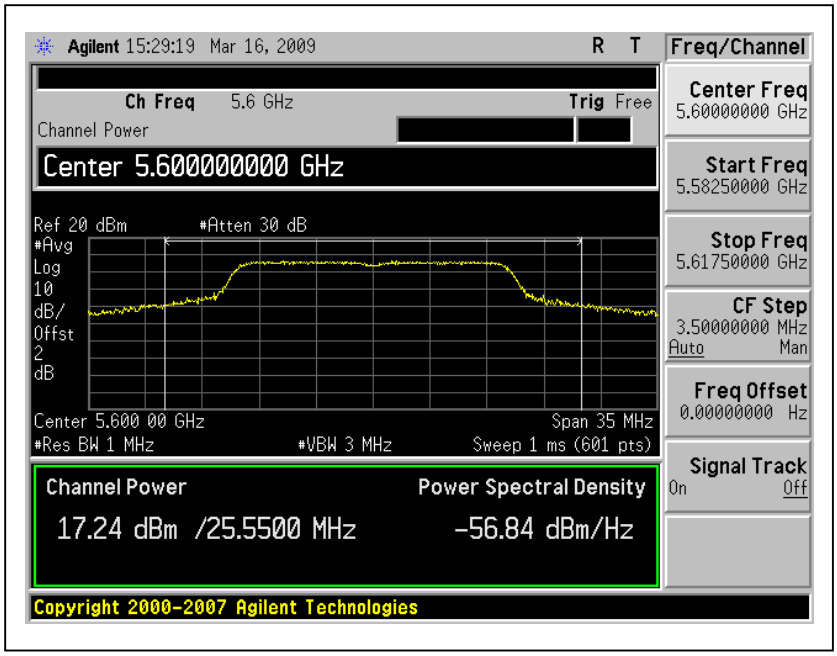
CH8


Agilent 15:43:31 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.32 GHz
Trig Free
Channel Power
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.320 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.47 dBm /28.2300 MHz
Power Spectral Density
-57.04 dBm/Hz
Center Freq
5.32000000 GHz
Start Freq
5.30250000 GHz
Stop Freq
5.33750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2007 Agilent Technologies

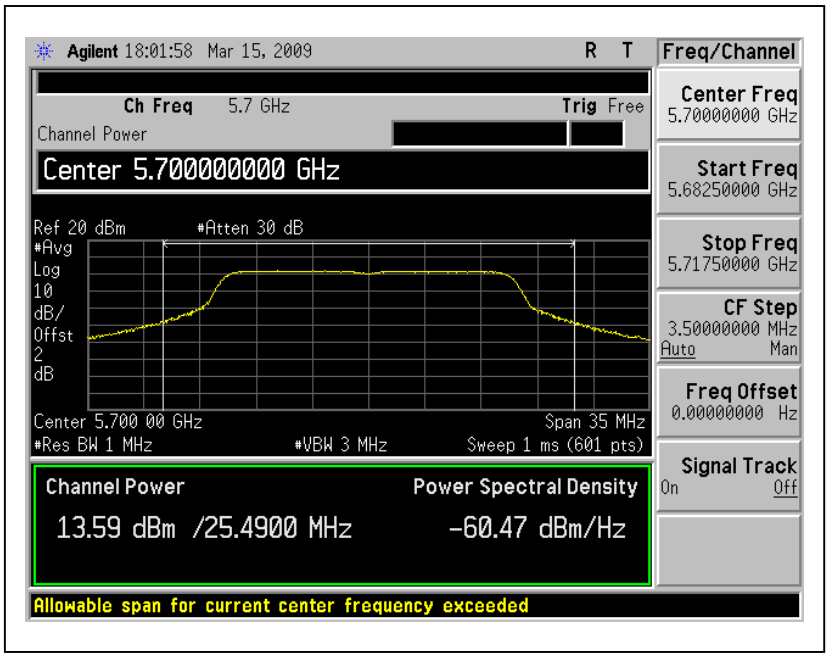
CH9


Agilent 17:41:28 Mar 15, 2009
R T
BW/Avg
Ch Freq 5.5 GHz
Trig Free
Channel Power
VBW 3.0 MHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.500 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
14.78 dBm /26.3100 MHz
Power Spectral Density
-59.42 dBm/Hz
Allowable span for current center frequency exceeded
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man

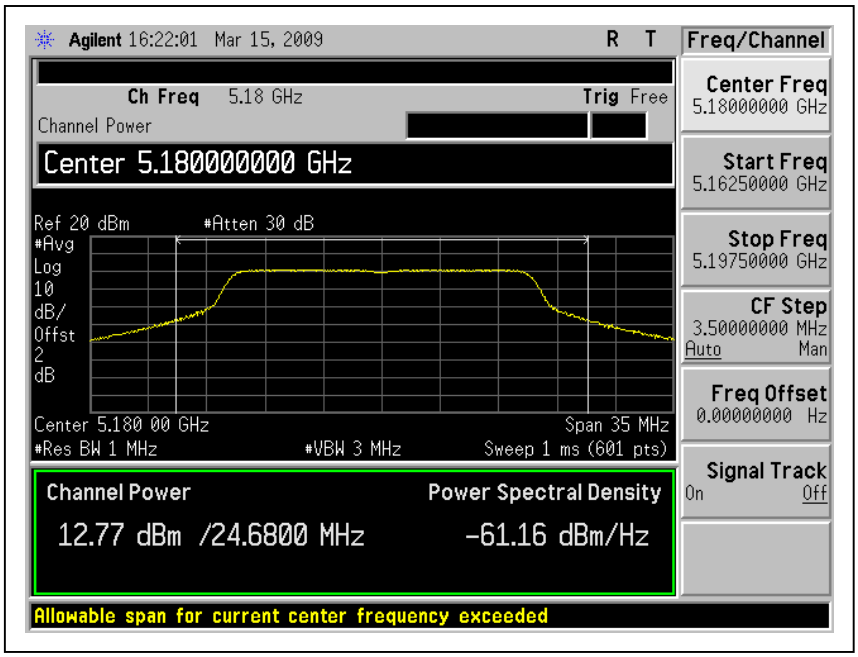
CH14


Agilent 15:29:19 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.6 GHz
Trig Free
Channel Power
Center 5.600000000 GHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.600 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.24 dBm /25.5500 MHz
Power Spectral Density
-56.84 dBm/Hz
Copyright 2000-2007 Agilent Technologies
Center Freq
5.60000000 GHz
Start Freq
5.58250000 GHz
Stop Freq
5.61750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off

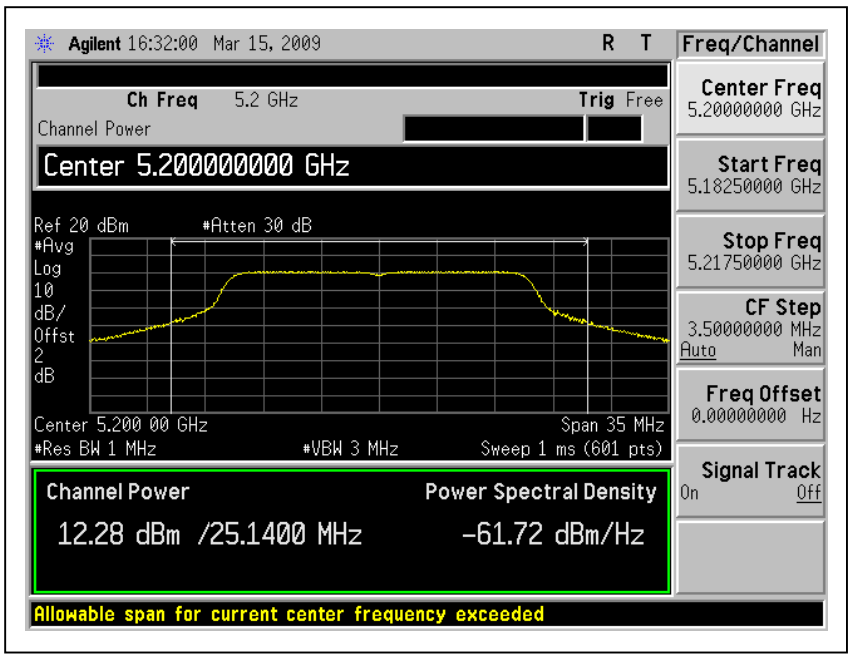
CH19


Agilent 18:01:58 Mar 15, 2009
R T
Freq/Channel
Ch Freq 5.7 GHz
Trig Free
Channel Power
Center 5.700000000 GHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.700 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Channel Power
13.59 dBm /25.4900 MHz
Power Spectral Density
-60.47 dBm/Hz
Allowable span for current center frequency exceeded
Center Freq
5.70000000 GHz
Start Freq
5.68250000 GHz
Stop Freq
5.71750000 GHz
CF Step
3.50000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off

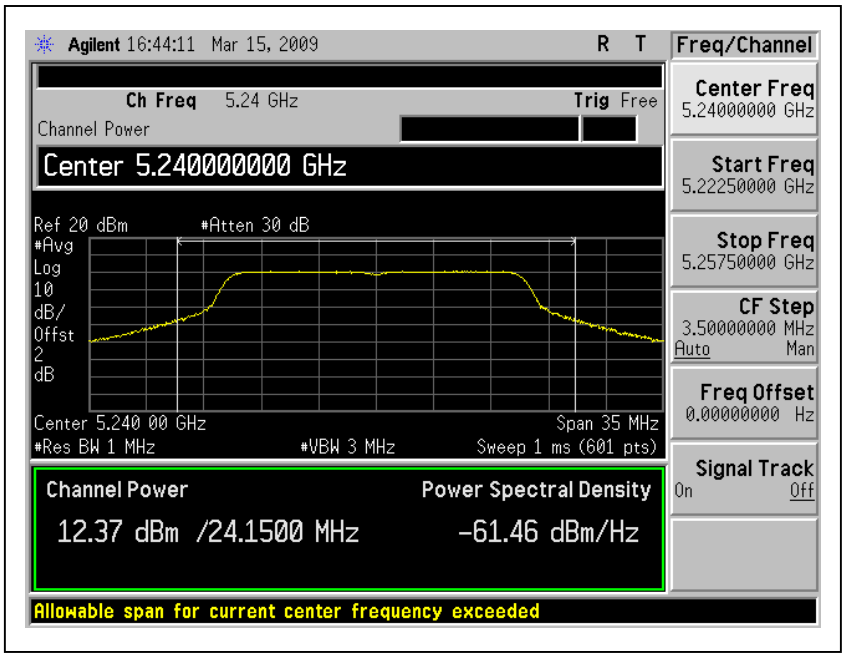
For Chain (1) :CH1



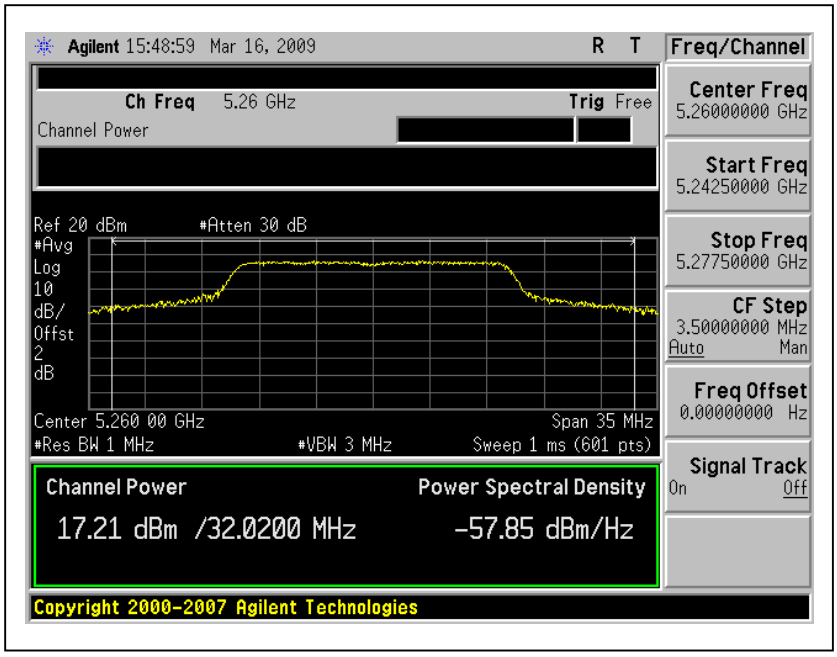
CH2



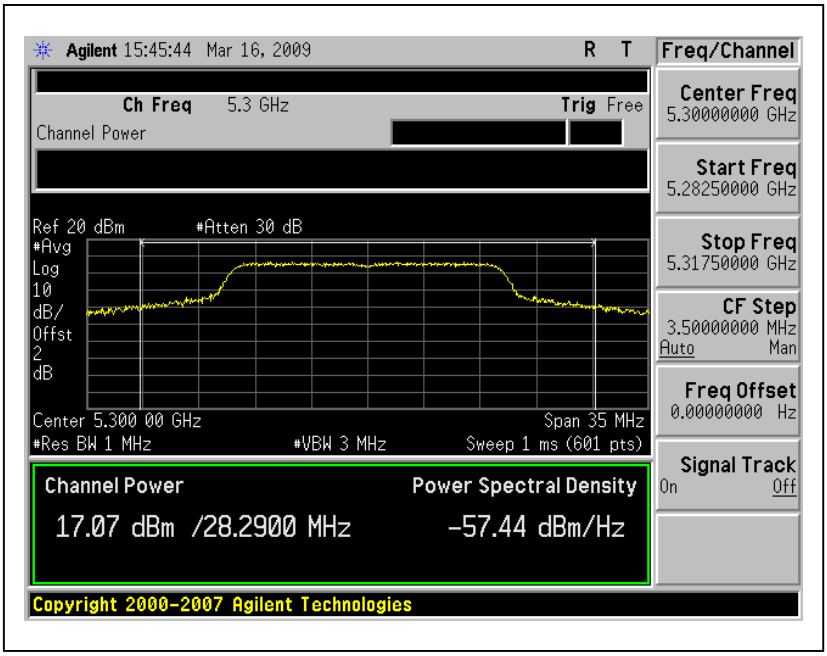
CH4


Agilent 16:44:11 Mar 15, 2009
R T
Freq/Channel
Ch Freq 5.24 GHz
Trig Free
Channel Power
Center 5.240000000 GHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.240 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
12.37 dBm /24.1500 MHz
Power Spectral Density
-61.46 dBm/Hz
Allowable span for current center frequency exceeded
Center Freq
5.24000000 GHz
Start Freq
5.22250000 GHz
Stop Freq
5.25750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off

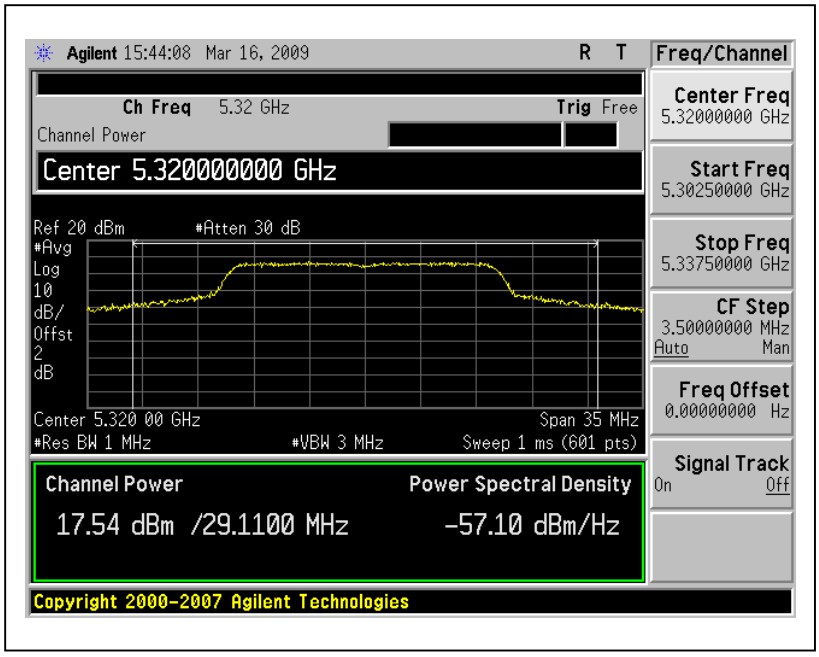
CH5


Agilent 15:48:59 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.26 GHz
Trig Free
Channel Power
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.260 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.21 dBm /32.0200 MHz
Power Spectral Density
-57.85 dBm/Hz
Copyright 2000-2007 Agilent Technologies
Center Freq
5.26000000 GHz
Start Freq
5.24250000 GHz
Stop Freq
5.27750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off

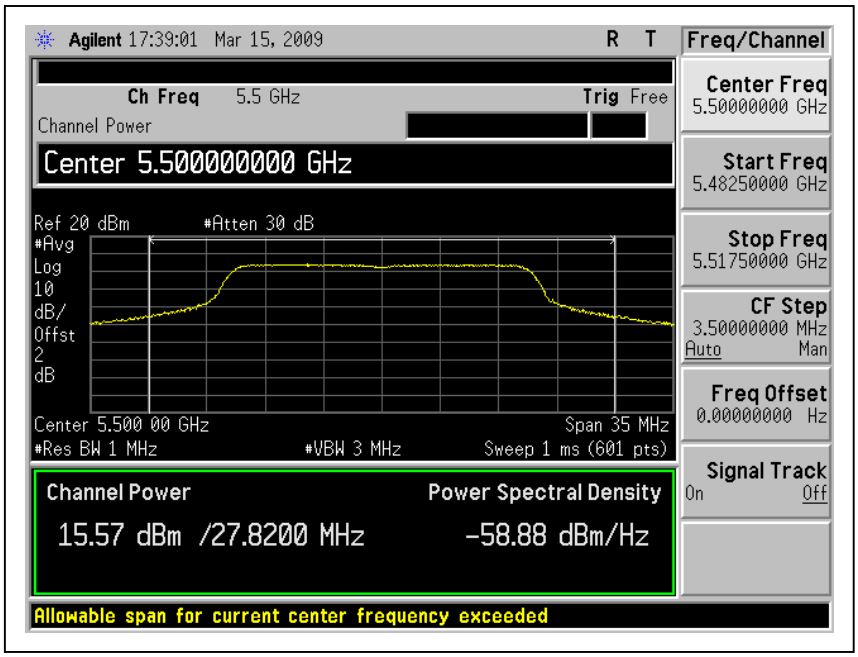
CH7


Agilent 15:45:44 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.3 GHz
Trig Free
Channel Power
Center Freq
5.30000000 GHz
Start Freq
5.28250000 GHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Stop Freq
5.31750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Center 5.300 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Signal Track
On Off
Channel Power
Power Spectral Density
17.07 dBm /28.2900 MHz
-57.44 dBm/Hz
Copyright 2000-2007 Agilent Technologies

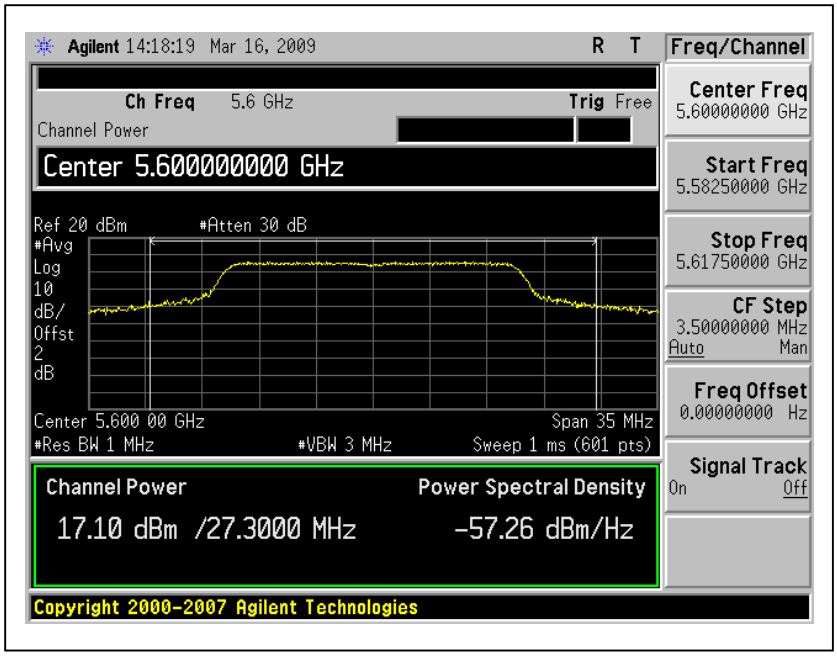
CH8


Agilent 15:44:08 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.32 GHz
Trig Free
Channel Power
Center Freq
5.32000000 GHz
Center 5.320000000 GHz
Start Freq
5.30250000 GHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Stop Freq
5.33750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Center 5.320 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Signal Track
On Off
Channel Power
Power Spectral Density
17.54 dBm /29.1100 MHz
-57.10 dBm/Hz
Copyright 2000-2007 Agilent Technologies

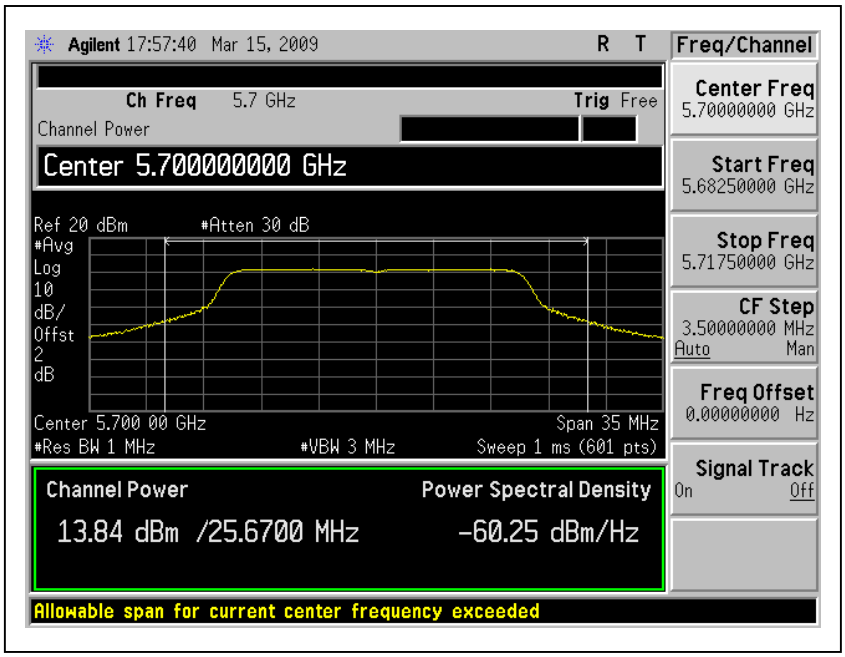
CH9


Agilent 17:39:01 Mar 15, 2009
R T
Freq/Channel
Ch Freq 5.5 GHz
Trig Free
Channel Power
Center 5.500000000 GHz
Center Freq
5.50000000 GHz
Start Freq
5.48250000 GHz
Stop Freq
5.51750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.500 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
15.57 dBm /27.8200 MHz
Power Spectral Density
-58.88 dBm/Hz
Allowable span for current center frequency exceeded

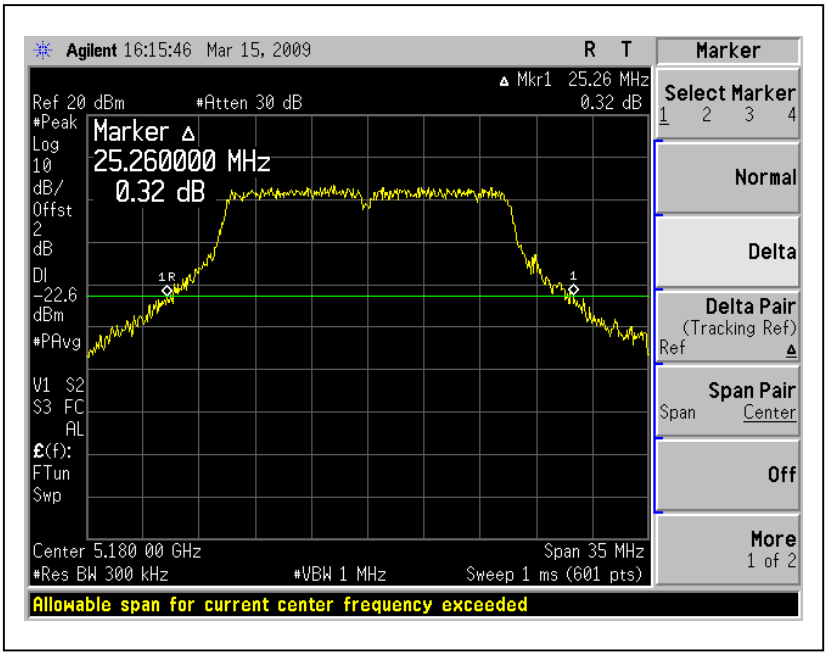
CH14


Agilent 14:18:19 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.6 GHz
Trig Free
Channel Power
Center 5.600000000 GHz
Center Freq
5.60000000 GHz
Start Freq
5.58250000 GHz
Stop Freq
5.61750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.600 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.10 dBm /27.3000 MHz
Power Spectral Density
-57.26 dBm/Hz
Copyright 2000-2007 Agilent Technologies

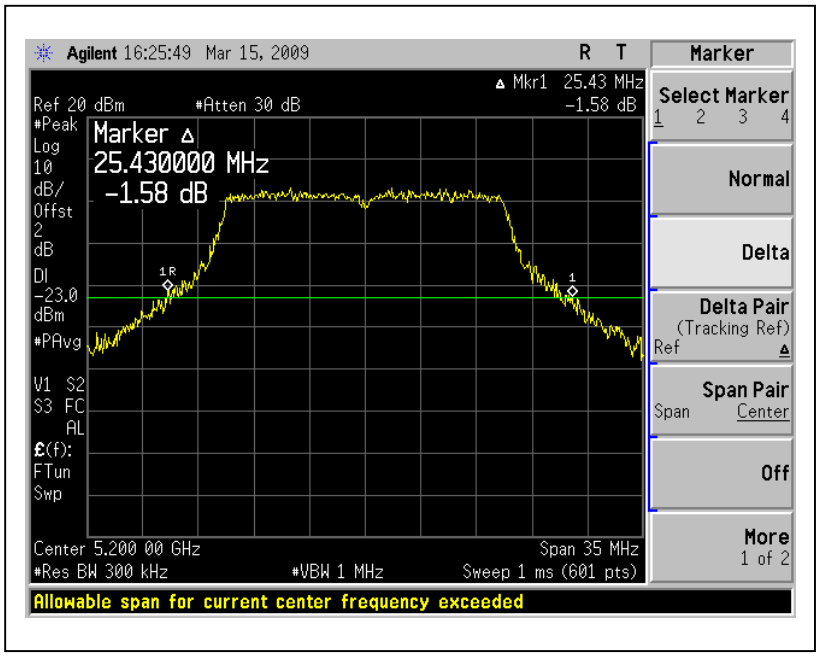
CH19


Agilent 17:57:40 Mar 15, 2009
R T
Freq/Channel
Ch Freq 5.7 GHz
Trig Free
Channel Power
Center 5.700000000 GHz
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.700 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
13.84 dBm /25.6700 MHz
Power Spectral Density
-60.25 dBm/Hz
Allowable span for current center frequency exceeded
Center Freq
5.70000000 GHz
Start Freq
5.68250000 GHz
Stop Freq
5.71750000 GHz
CF Step
3.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off

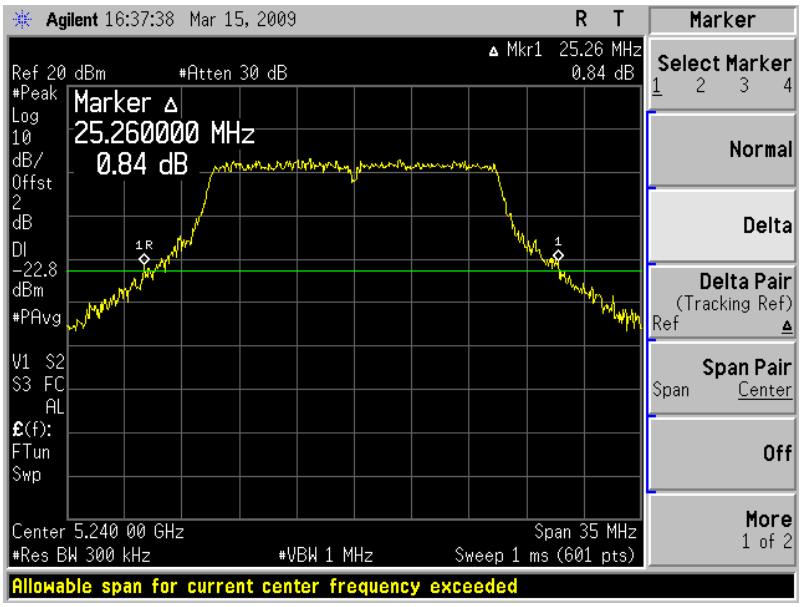
26dB Occupied Bandwidth:
For Chain (0) :CH1



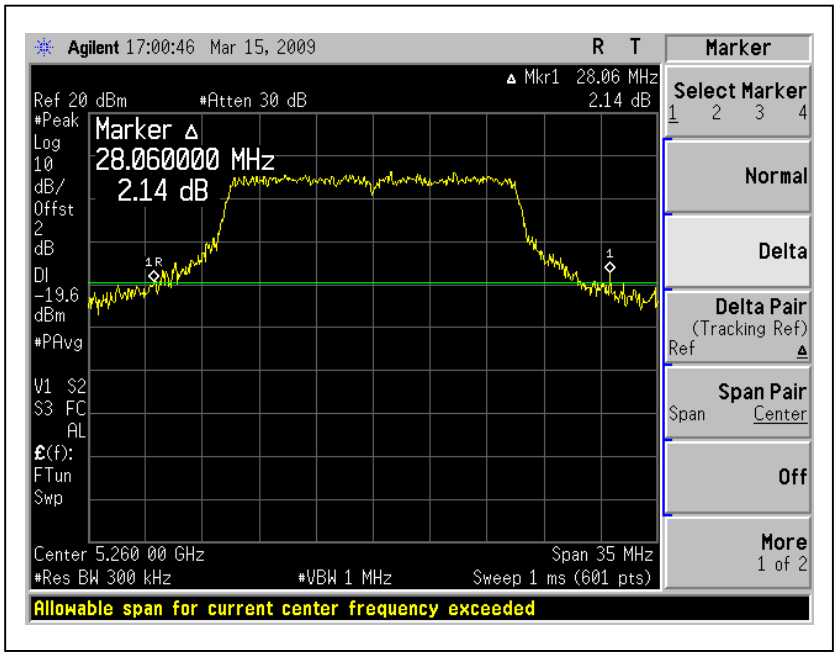
CH2



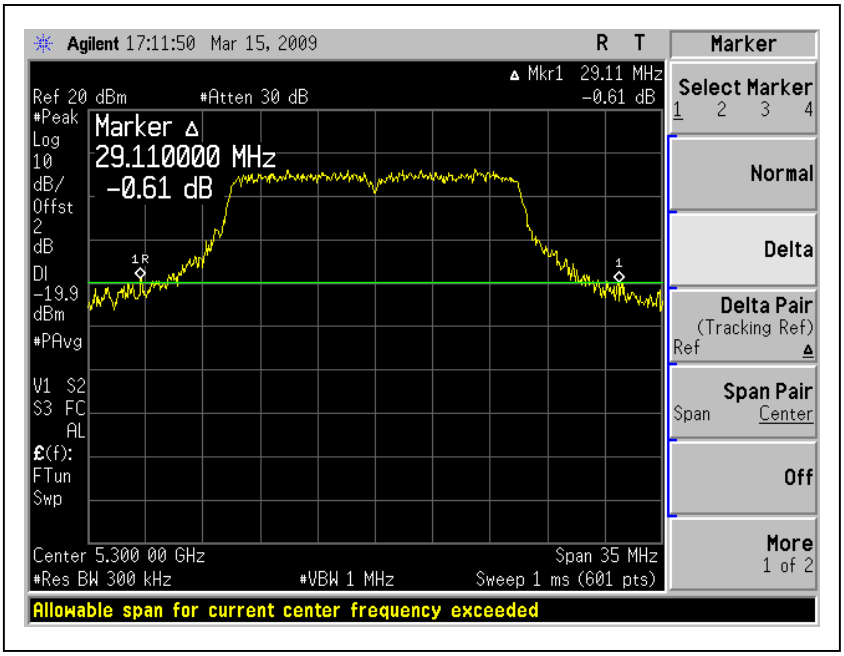
CH4


Agilent 16:37:38 Mar 15, 2009
R T
Marker
Mkr1 25.26 MHz
0.84 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-22.8
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
25.260000 MHz
0.84 dB
1R
1
Center 5.240 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2

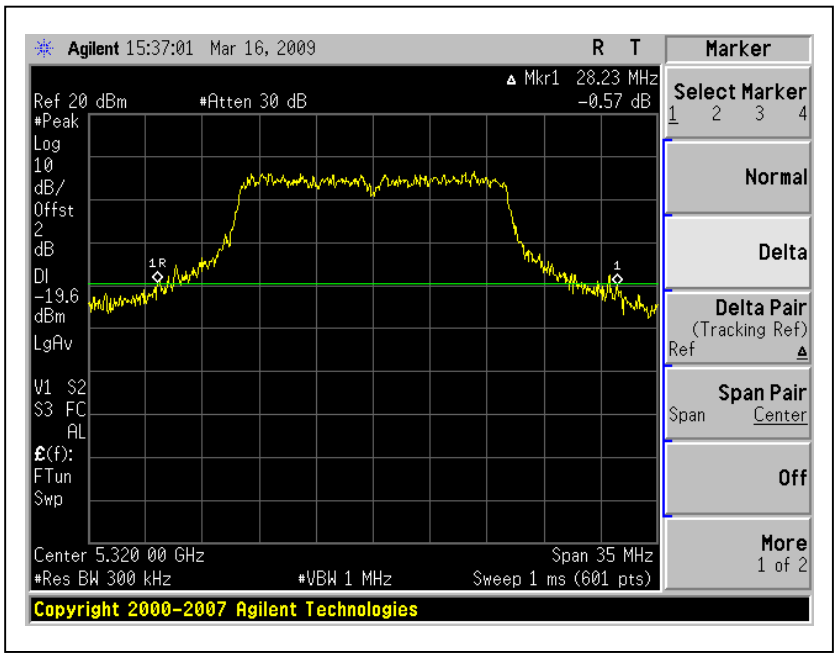
CH5


Agilent 17:00:46 Mar 15, 2009
R T
Marker
Mkr1 28.06 MHz
2.14 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-19.6
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
28.060000 MHz
2.14 dB
1R
1
Center 5.260 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2

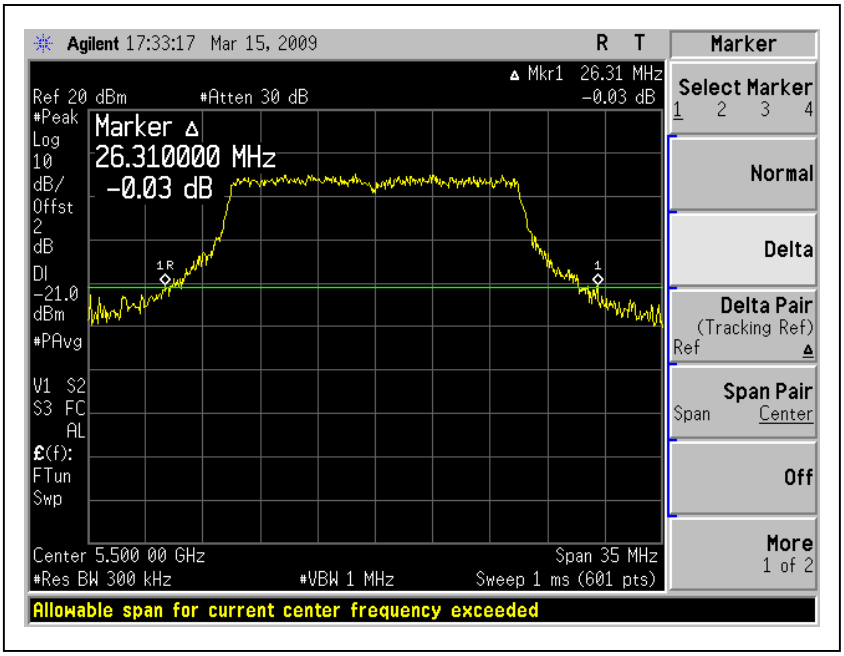
CH7


Agilent 17:11:50 Mar 15, 2009
R T
Marker
Mkr1 29.11 MHz
-0.61 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-19.9
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
29.110000 MHz
-0.61 dB
1R
1
Center 5.300 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

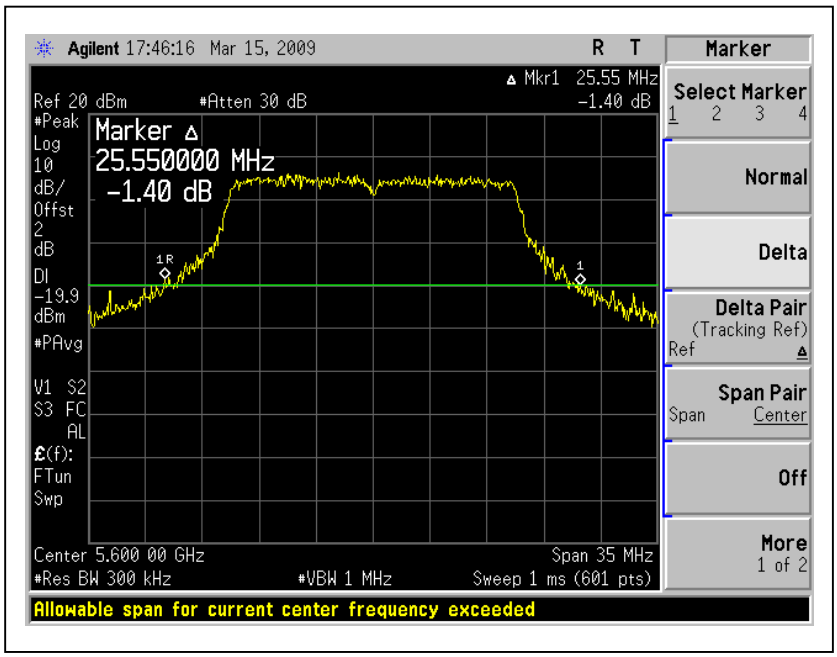
CH8


Agilent 15:37:01 Mar 16, 2009
R T
Marker
Mkr1 28.23 MHz
-0.57 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-19.6
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
1R
1
Center 5.320 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Copyright 2000-2007 Agilent Technologies

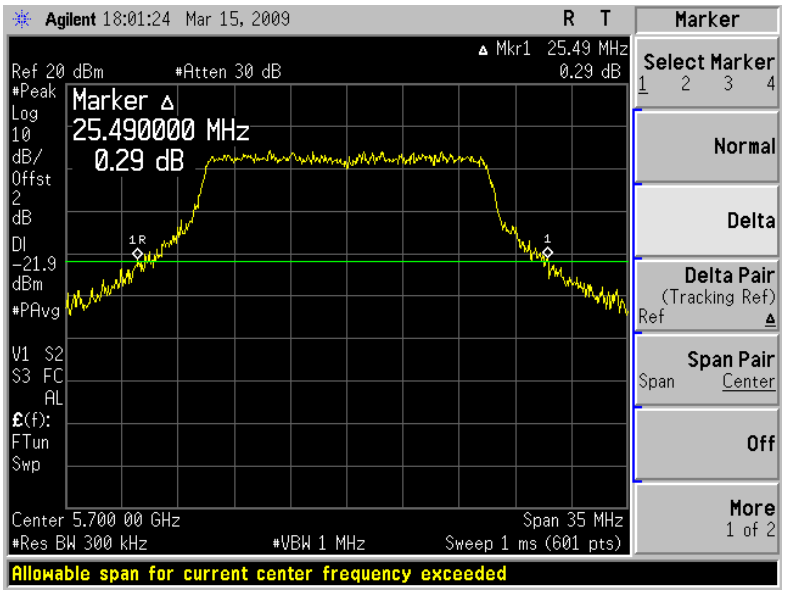
CH9


Agilent 17:33:17 Mar 15, 2009
R T
Marker
Mkr1 26.31 MHz
-0.03 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-21.0
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
26.310000 MHz
-0.03 dB
1R
1
Center 5.500 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

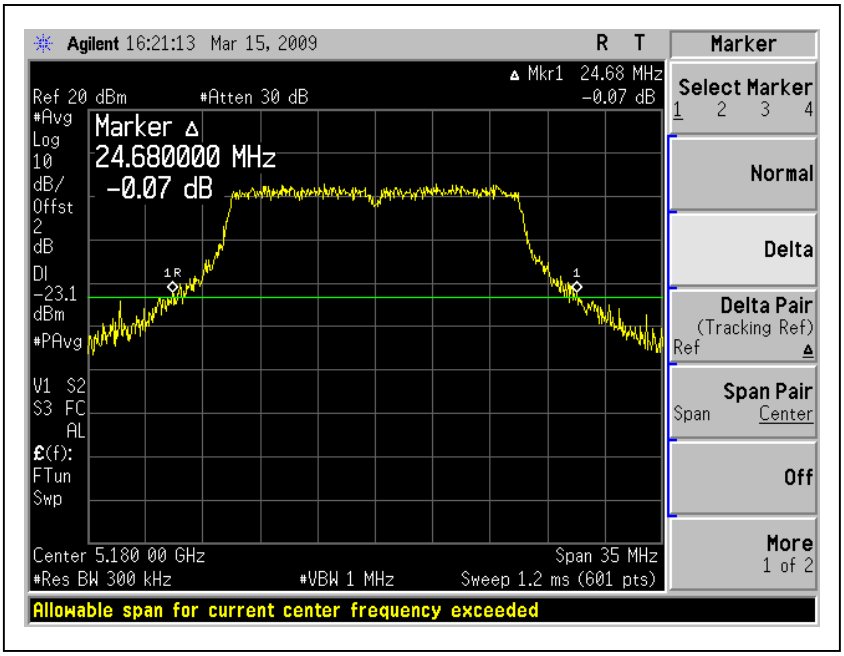
CH14


Agilent 17:46:16 Mar 15, 2009
R T
Marker
Mkr1 25.55 MHz
-1.40 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-19.9
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
25.550000 MHz
-1.40 dB
1R
1
Center 5.600 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

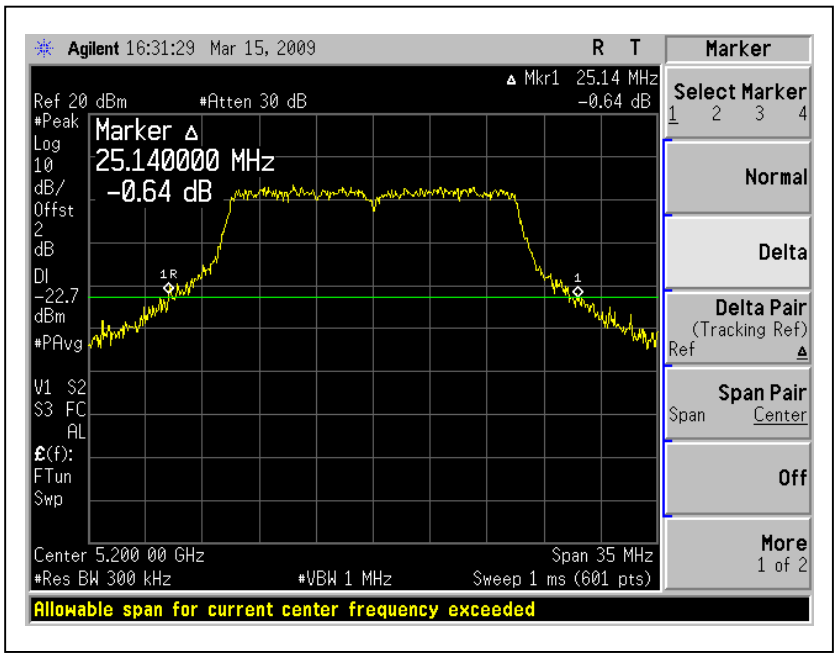
CH19


Agilent 18:01:24 Mar 15, 2009
R T
Marker
Mkr1 25.49 MHz
0.29 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-21.9
dBm
#PAvg
Marker Δ
25.490000 MHz
0.29 dB
1R
1
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.700 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

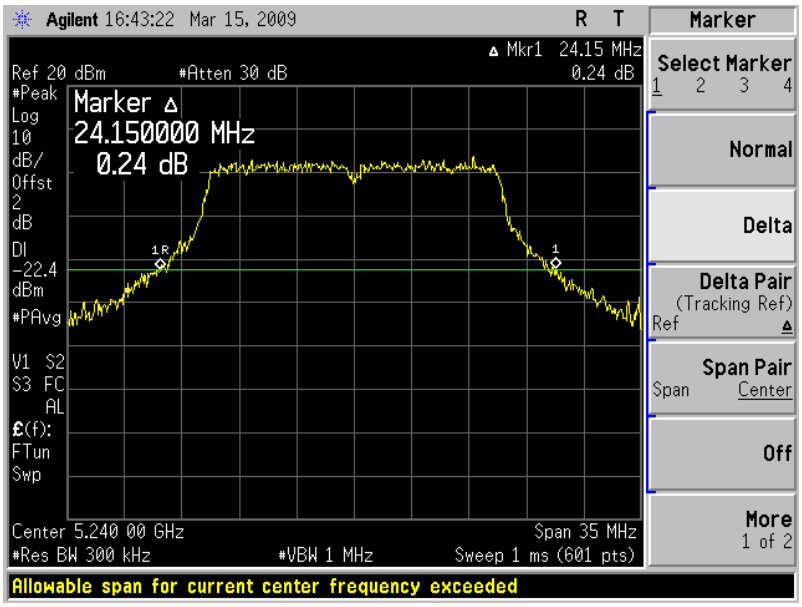
For Chain (1) :CH1



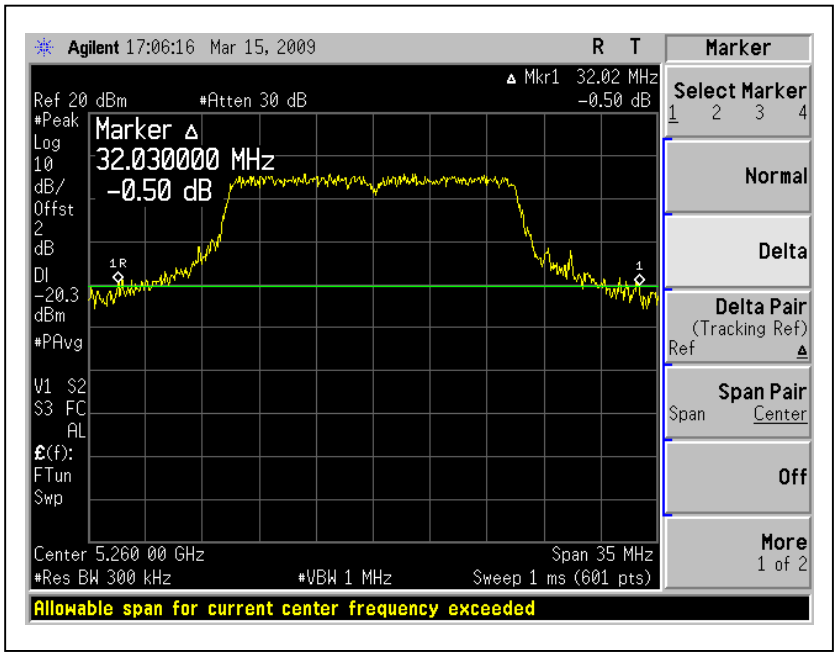
CH2



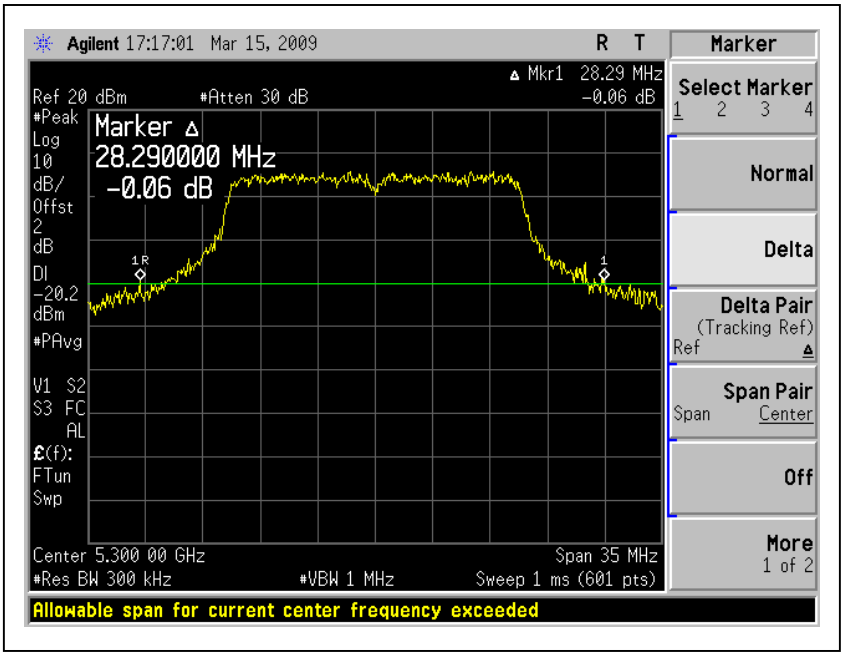
CH4


Agilent 16:43:22 Mar 15, 2009
R T
Marker
Mkr1 24.15 MHz
0.24 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-22.4
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
24.150000 MHz
0.24 dB
1R
1
Center 5.240 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

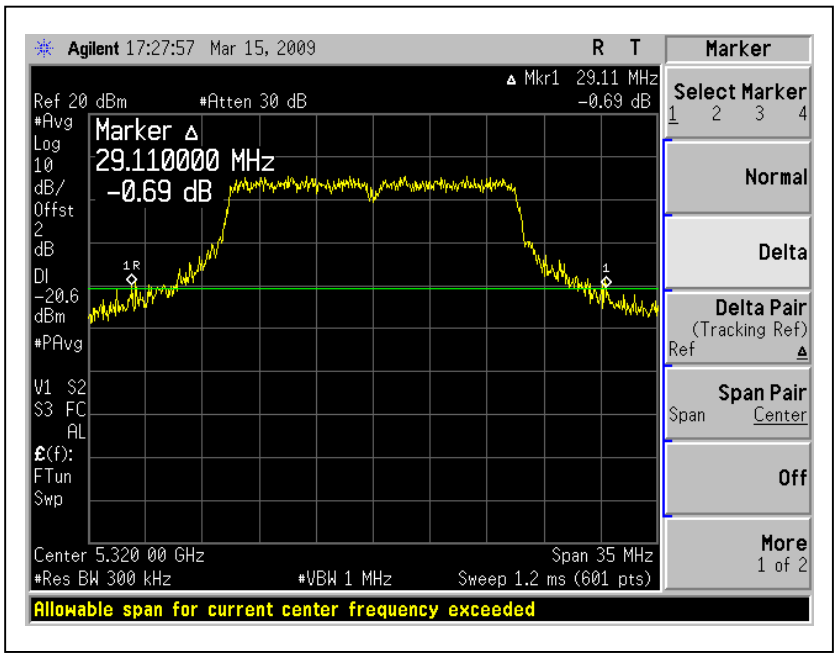
CH5


Agilent 17:06:16 Mar 15, 2009
R T
Marker
Mkr1 32.02 MHz
-0.50 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.3
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
32.030000 MHz
-0.50 dB
1R
1
Center 5.260 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

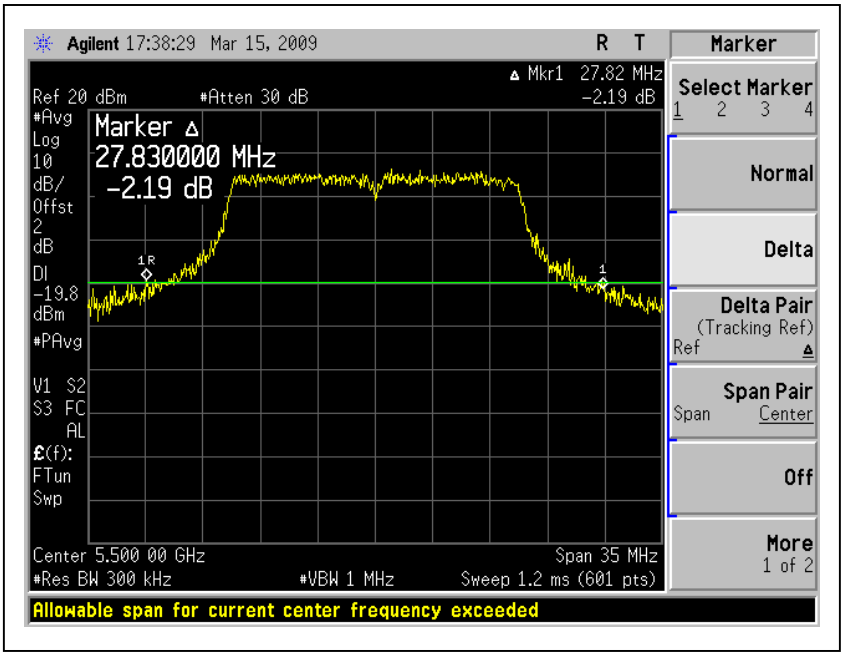
CH7


Agilent 17:17:01 Mar 15, 2009
R T
Marker
Mkr1 28.29 MHz
-0.06 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.2
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
28.290000 MHz
-0.06 dB
1R
1
Center 5.300 00 GHz
Span 35 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

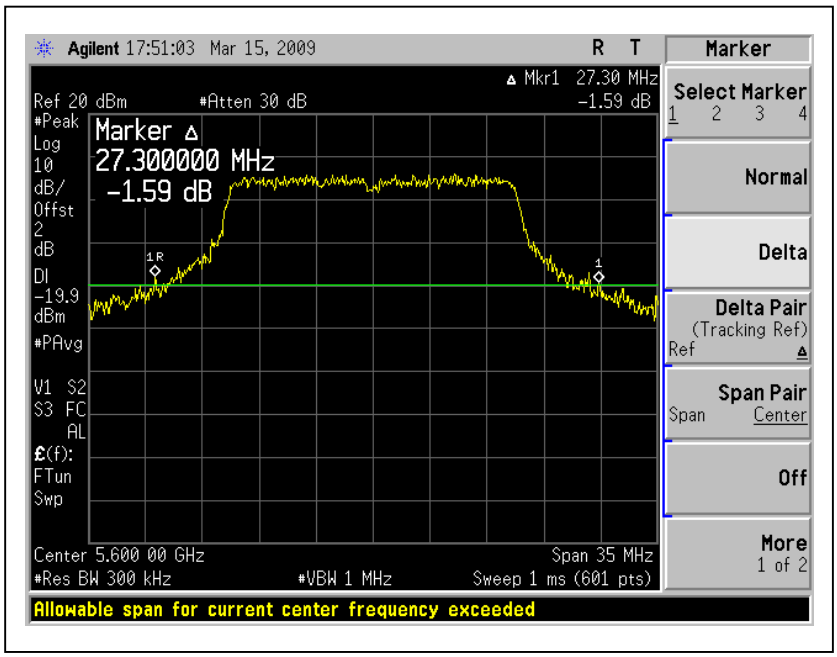
CH8


Agilent 17:27:57 Mar 15, 2009
R T
Marker
Mkr1 29.11 MHz
-0.69 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Dl
-20.6
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
29.110000 MHz
-0.69 dB
1R
1
Center 5.320 00 GHz
Span 35 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1.2 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

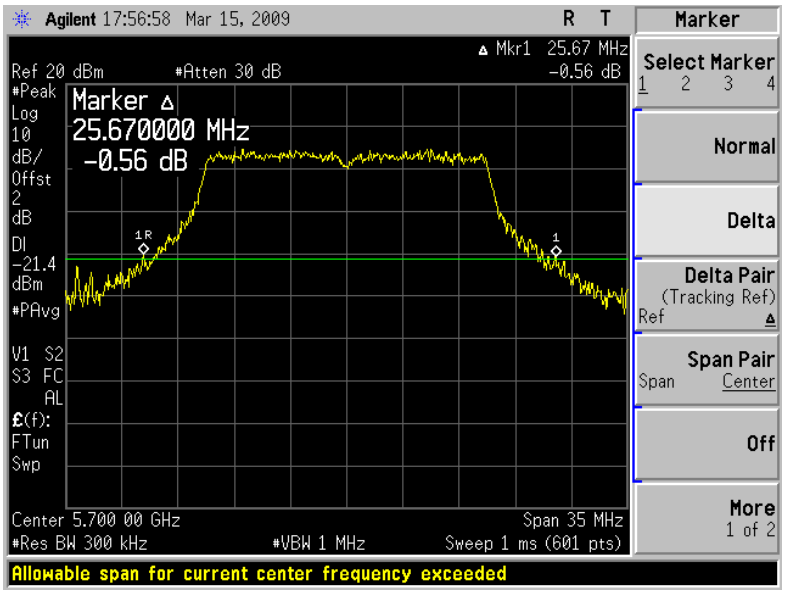
CH9


Agilent 17:38:29 Mar 15, 2009
R T
Marker
Mkr1 27.82 MHz
-2.19 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Dl
-19.8
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
27.830000 MHz
-2.19 dB
1R
1
Center 5.500 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1.2 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

CH14


Agilent 17:51:03 Mar 15, 2009
R T
Marker
Mkr1 27.30 MHz
-1.59 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-19.9
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
27.300000 MHz
-1.59 dB
1R
1
Center 5.600 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

CH19


Agilent 17:56:58 Mar 15, 2009
R T
Marker
Mkr1 25.67 MHz
-0.56 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-21.4
dBm
#PAvg
Marker Δ
25.670000 MHz
-0.56 dB
1R
1
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Center 5.700 00 GHz
Span 35 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

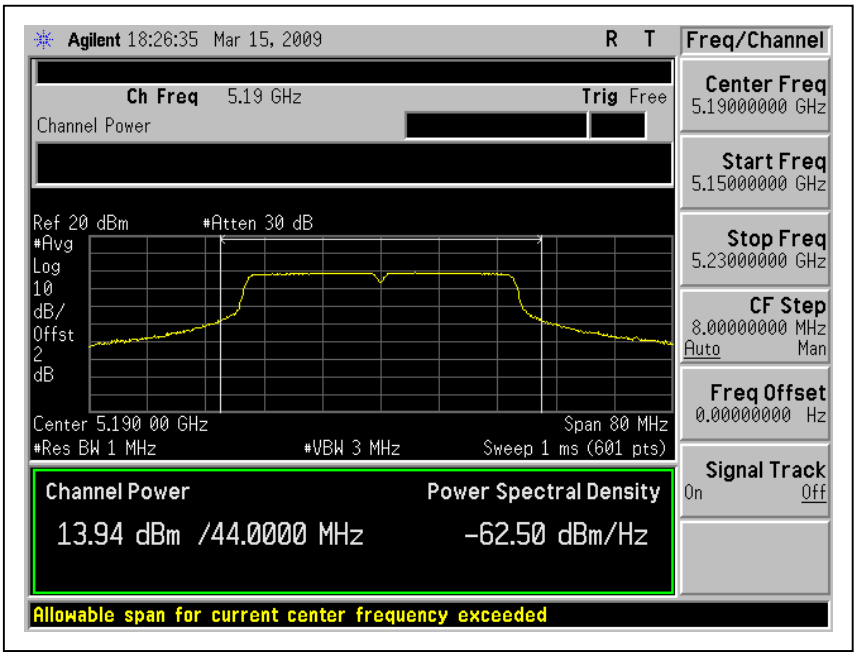
DRAFT 802.11n (40MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 60%RH, 962hPa
TESTED BY	Wen Yu		

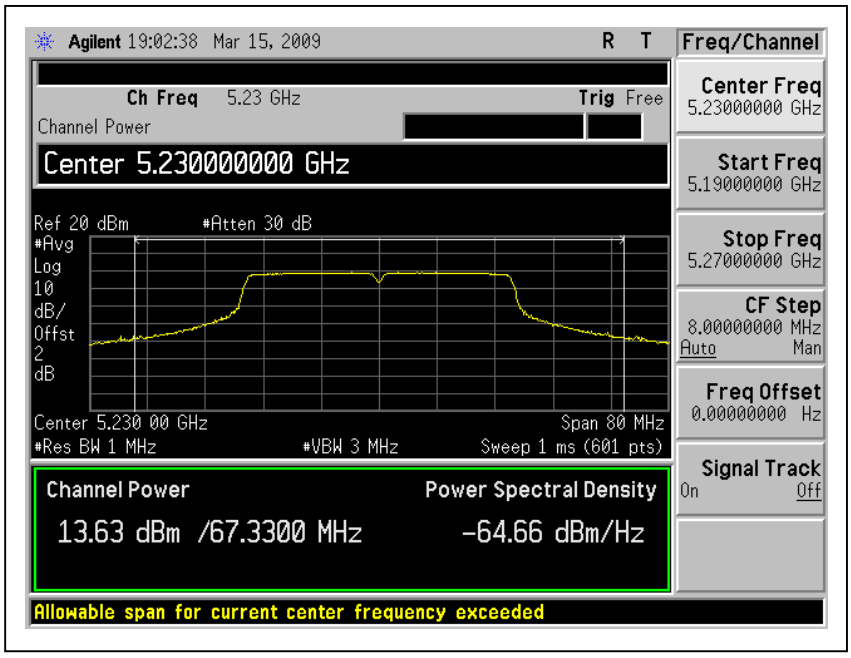
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)		PEAK POWER OUTPUT (mW)		TOTAL PEAK POWER (dBm)	TOTAL PEAK POWER (mW)	**PEAK POWER LIMIT (dBm)**	26dBc Occupied Bandwidth (MHz)		PASS/ FAIL
		Chain 0	Chain 1	Chain 0	Chain 1				Chain 0	Chain 1	
1	5190	13.94	13.50	24.774	22.387	16.74	47.161	17.00	44.00	62.80	PASS
2	5230	13.63	13.38	23.067	21.777	16.52	44.844	17.00	67.33	62.00	PASS
3	5270	17.16	17.38	52.000	54.702	20.28	106.702	24.00	71.60	75.07	PASS
4	5310	13.60	13.29	22.909	21.330	16.46	44.239	24.00	51.33	52.67	PASS
5	5510	11.88	11.69	15.417	14.757	14.80	30.174	24.00	43.20	51.73	PASS
7	5590	17.23	17.32	52.845	53.951	20.29	106.796	30.00	68.40	75.47	PASS
9	5670	15.84	16.04	38.371	40.179	18.95	78.550	30.00	71.73	76.00	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

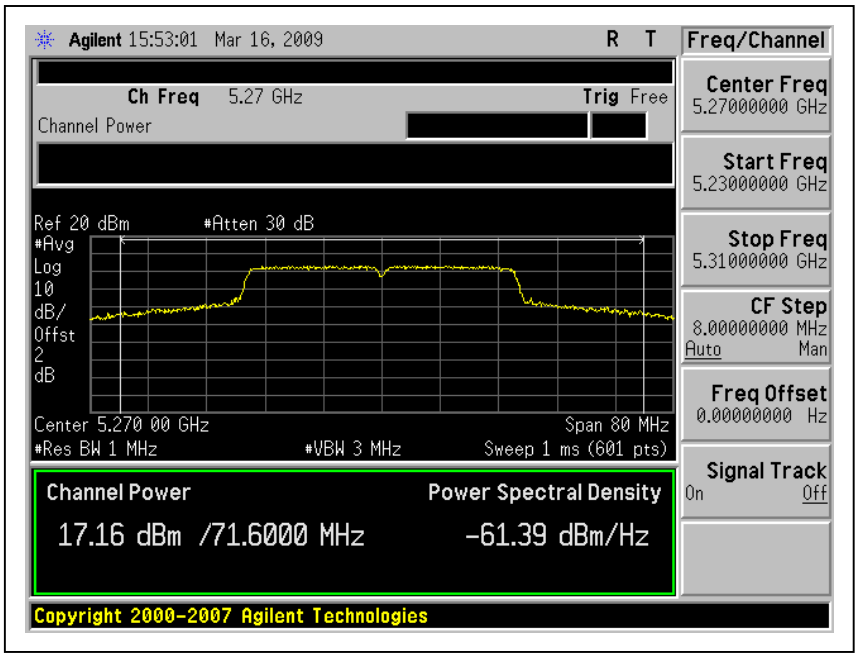
Peak Power Output:
For Chain (0) :CH1



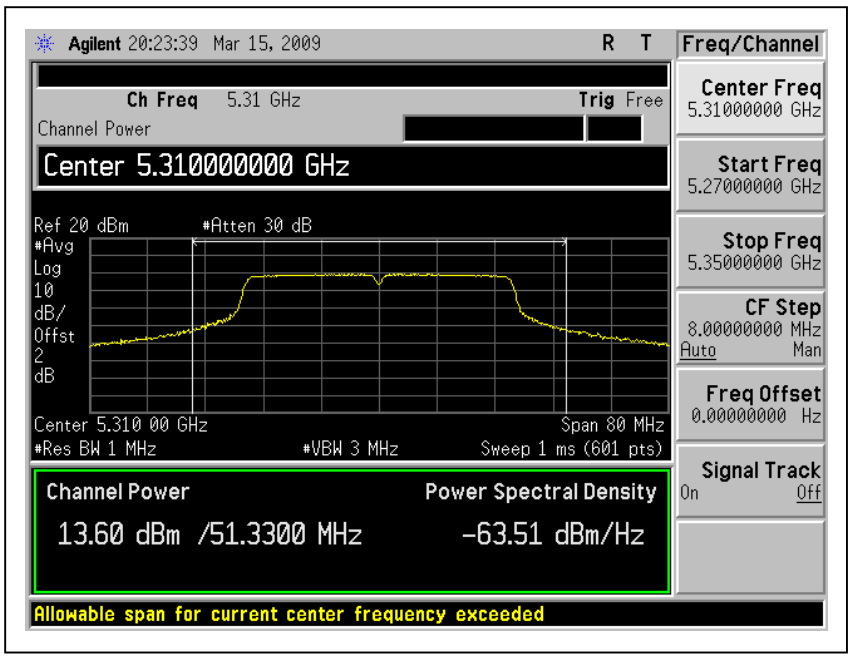
CH2



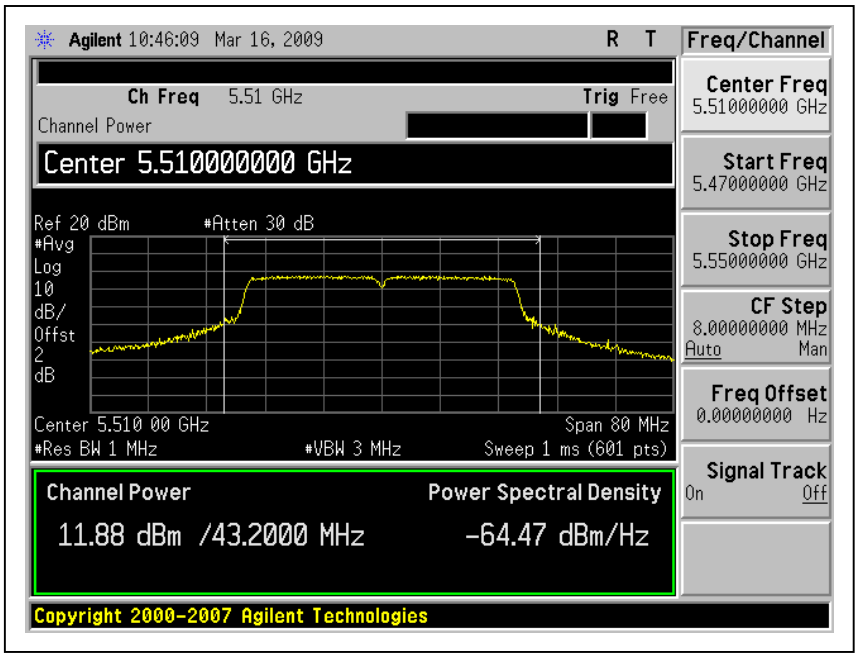
CH3


Agilent 15:53:01 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.27 GHz
Trig Free
Channel Power
Center Freq
5.27000000 GHz
Start Freq
5.23000000 GHz
Stop Freq
5.31000000 GHz
CF Step
8.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.270 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.16 dBm /71.6000 MHz
Power Spectral Density
-61.39 dBm/Hz
Copyright 2000-2007 Agilent Technologies

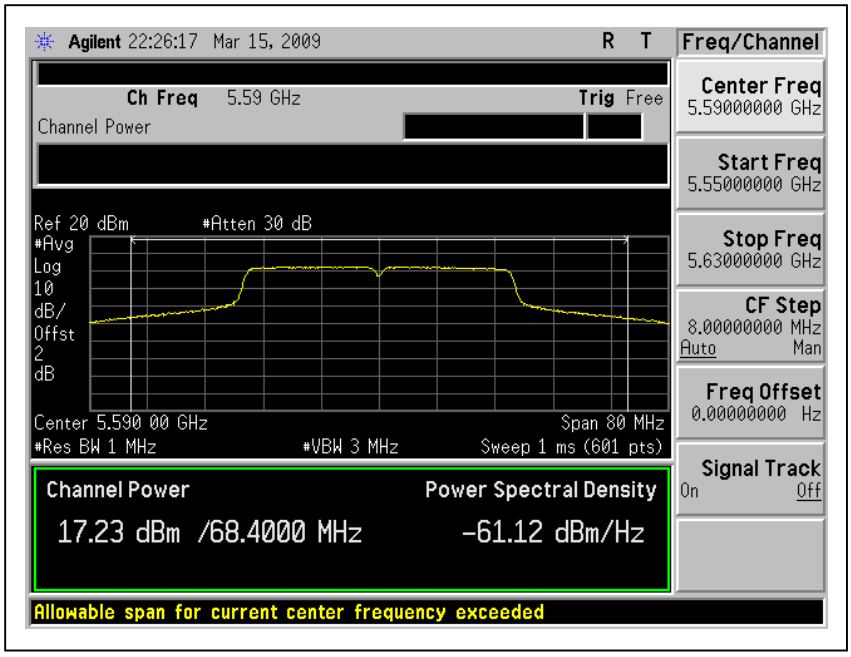
CH4


Agilent 20:23:39 Mar 15, 2009
R T
Freq/Channel
Ch Freq 5.31 GHz
Trig Free
Channel Power
Center 5.310000000 GHz
Center Freq
5.31000000 GHz
Start Freq
5.27000000 GHz
Stop Freq
5.35000000 GHz
CF Step
8.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.310 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
13.60 dBm /51.3300 MHz
Power Spectral Density
-63.51 dBm/Hz
Allowable span for current center frequency exceeded

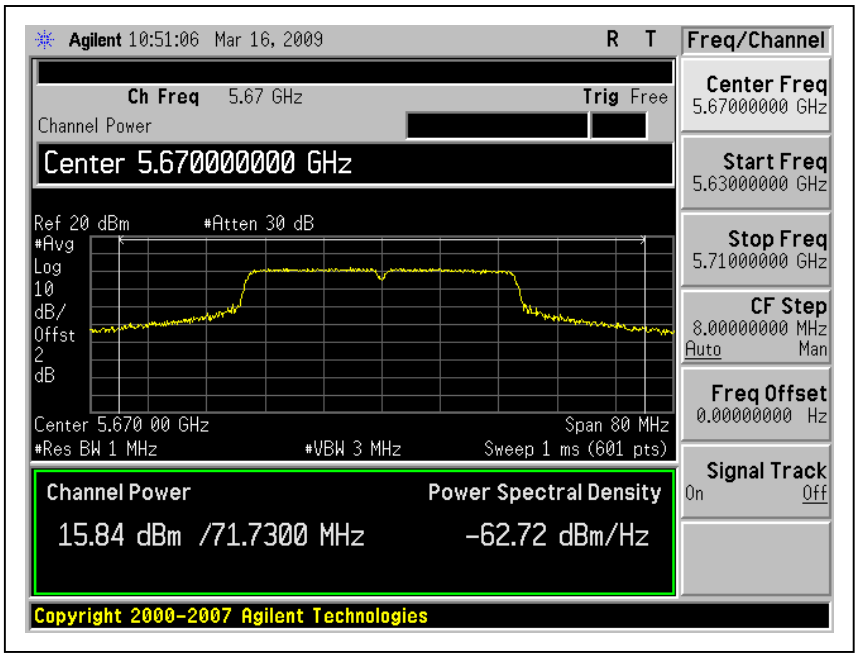
CH5


Agilent 10:46:09 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.51 GHz
Trig Free
Channel Power
Center 5.510000000 GHz
Center Freq
5.51000000 GHz
Start Freq
5.47000000 GHz
Stop Freq
5.55000000 GHz
CF Step
8.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.510 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
11.88 dBm /43.2000 MHz
Power Spectral Density
-64.47 dBm/Hz
Copyright 2000-2007 Agilent Technologies

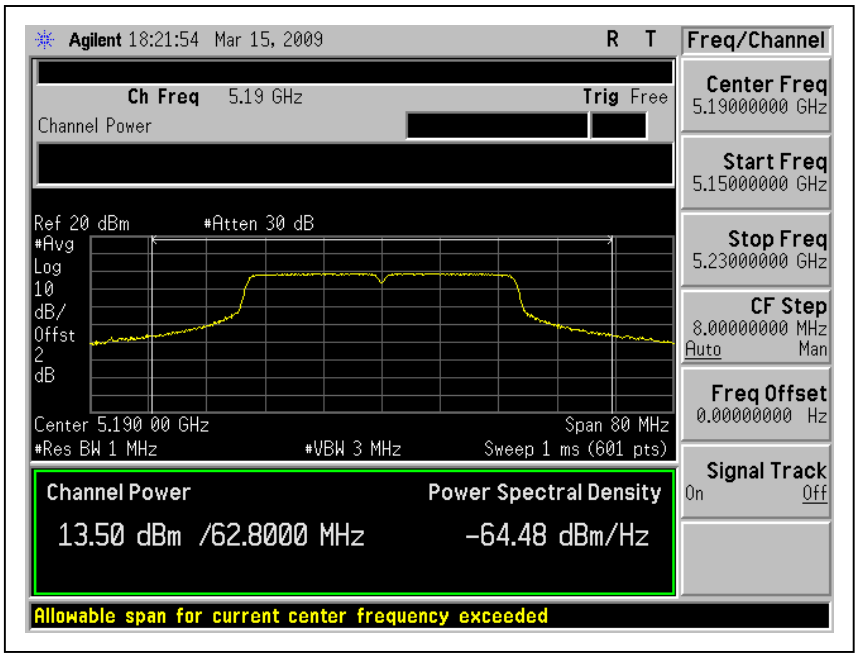
CH7


Agilent 22:26:17 Mar 15, 2009
R T
Freq/Channel
Ch Freq 5.59 GHz
Trig Free
Channel Power
Center Freq
5.59000000 GHz
Start Freq
5.55000000 GHz
Stop Freq
5.63000000 GHz
CF Step
8.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.590 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.23 dBm /68.4000 MHz
Power Spectral Density
-61.12 dBm/Hz
Allowable span for current center frequency exceeded

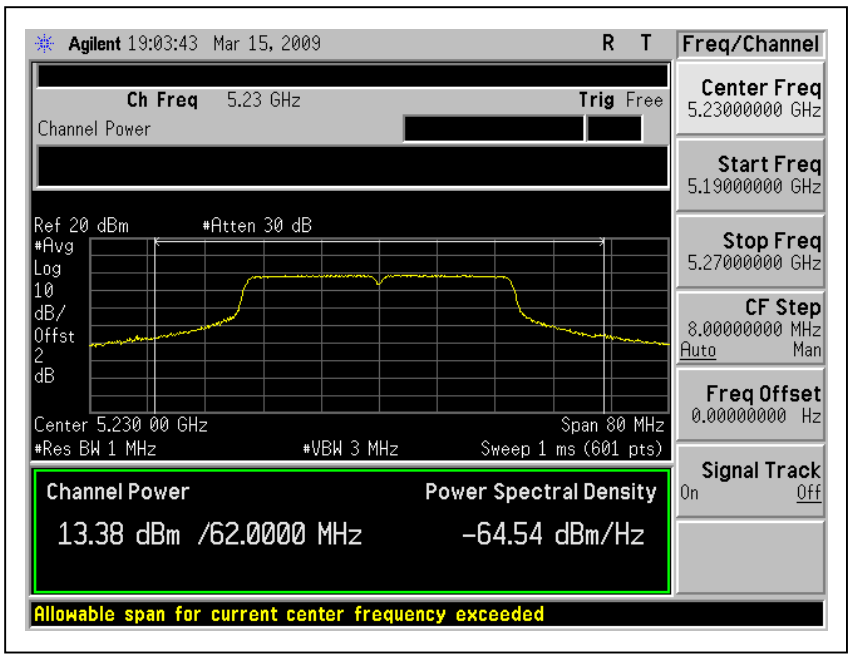
CH9


Agilent 10:51:06 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.67 GHz
Trig Free
Channel Power
Center 5.670000000 GHz
Center Freq
5.67000000 GHz
Start Freq
5.63000000 GHz
Stop Freq
5.71000000 GHz
CF Step
8.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.670 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
15.84 dBm /71.7300 MHz
Power Spectral Density
-62.72 dBm/Hz
Copyright 2000-2007 Agilent Technologies

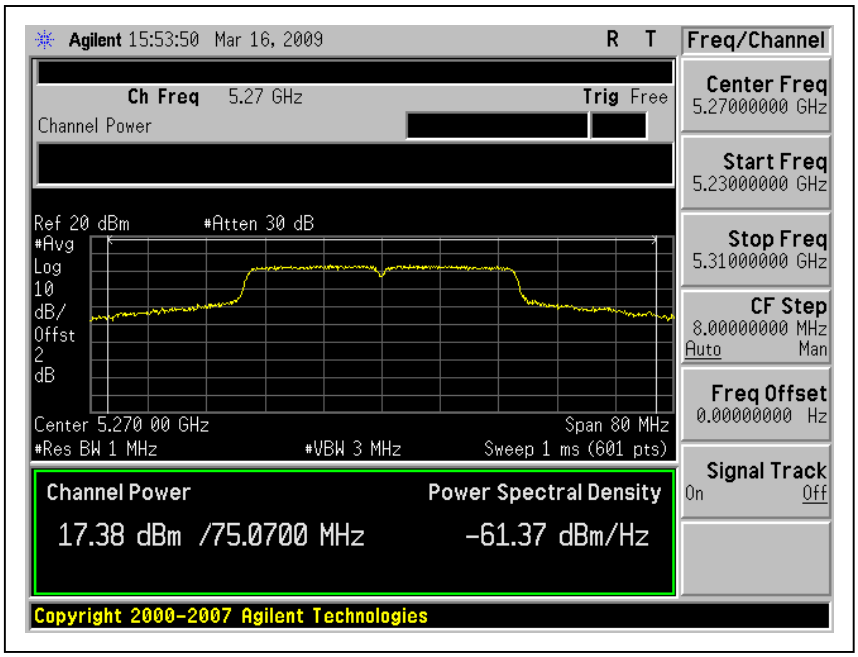
For Chain (1) :CH1



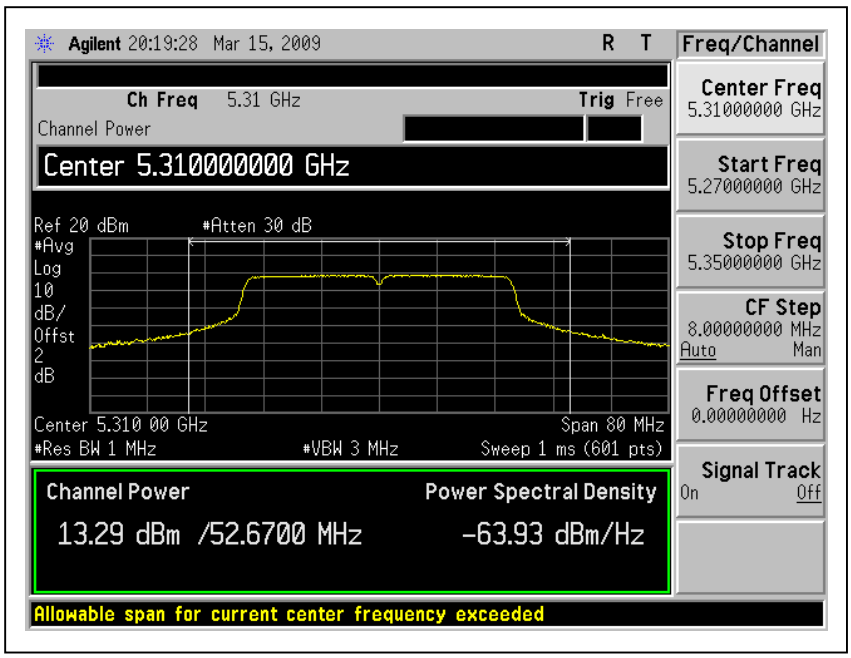
CH2



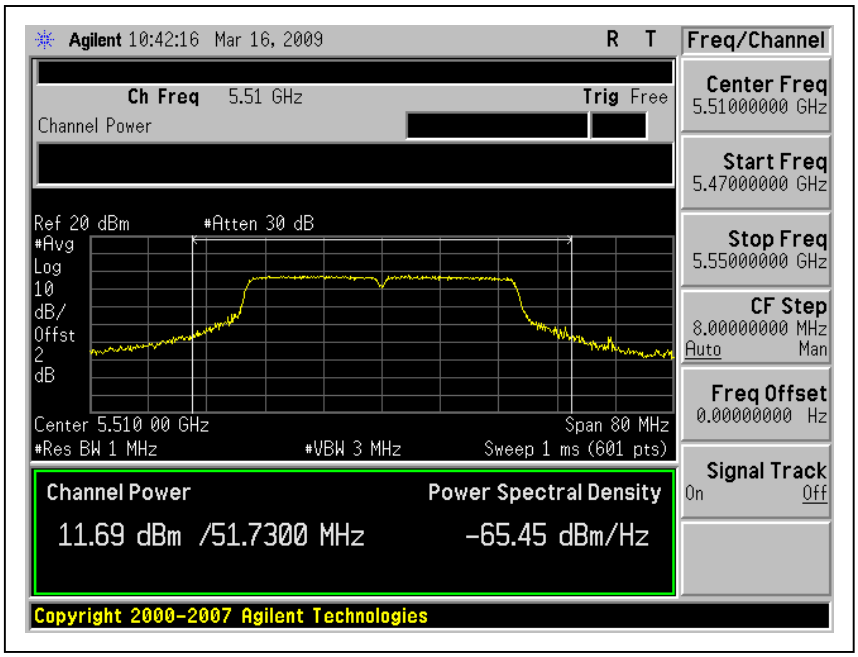
CH3


Agilent 15:53:50 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.27 GHz
Trig Free
Channel Power
Center Freq
5.27000000 GHz
Start Freq
5.23000000 GHz
Stop Freq
5.31000000 GHz
CF Step
8.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.270 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.38 dBm /75.0700 MHz
Power Spectral Density
-61.37 dBm/Hz
Copyright 2000-2007 Agilent Technologies

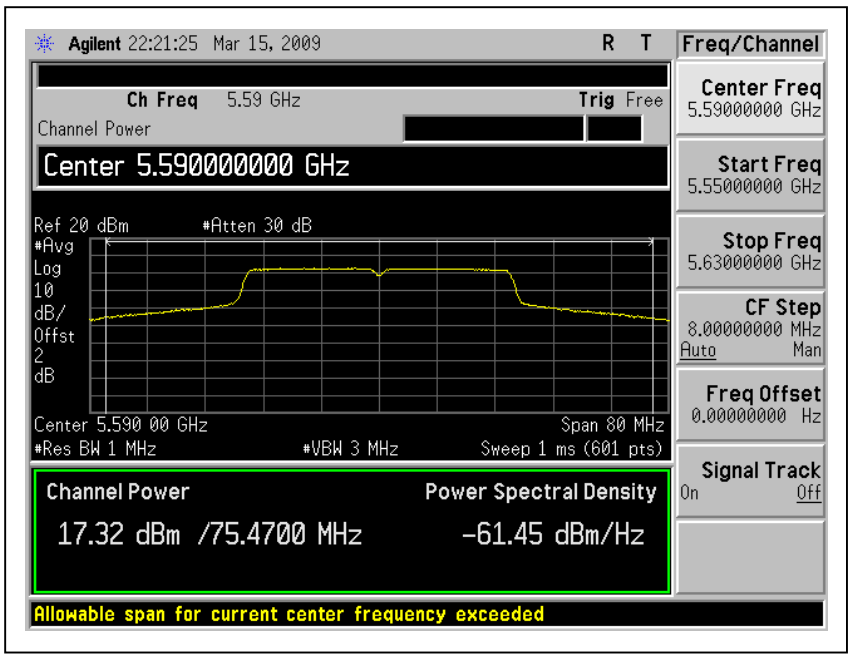
CH4


Agilent 20:19:28 Mar 15, 2009
R T
Freq/Channel
Ch Freq 5.31 GHz
Trig Free
Channel Power
Center 5.310000000 GHz
Center Freq
5.31000000 GHz
Start Freq
5.27000000 GHz
Stop Freq
5.35000000 GHz
CF Step
8.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.310 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
13.29 dBm /52.6700 MHz
Power Spectral Density
-63.93 dBm/Hz
Allowable span for current center frequency exceeded

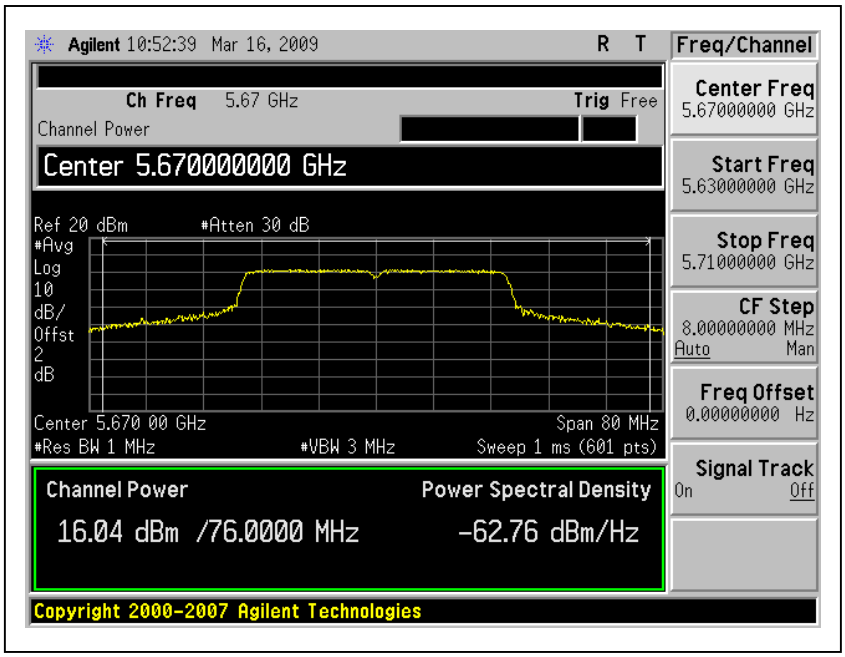
CH5


Agilent 10:42:16 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.51 GHz
Trig Free
Channel Power
Center Freq
5.51000000 GHz
Start Freq
5.47000000 GHz
Stop Freq
5.55000000 GHz
CF Step
8.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.510 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
11.69 dBm /51.7300 MHz
Power Spectral Density
-65.45 dBm/Hz
Copyright 2000-2007 Agilent Technologies

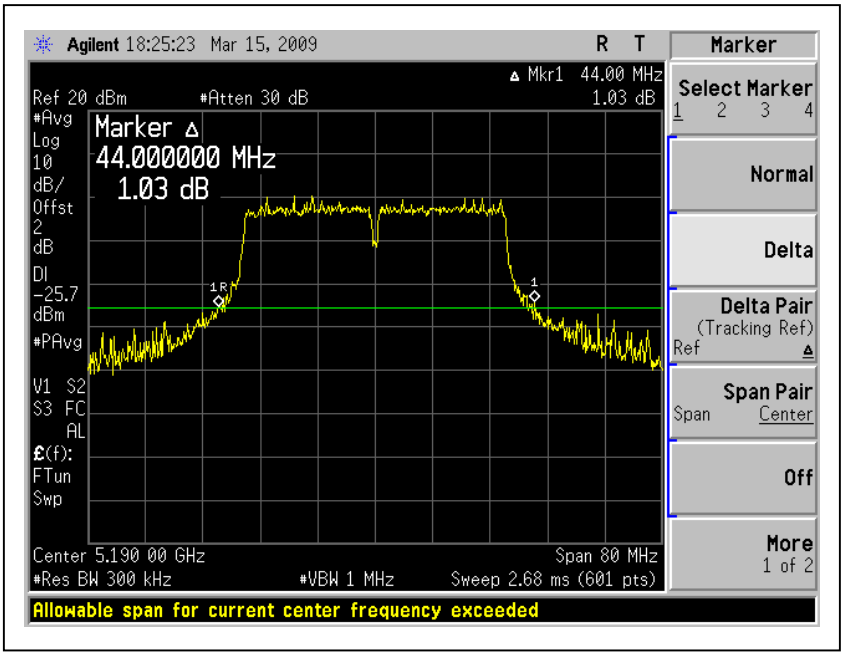
CH7


Agilent 22:21:25 Mar 15, 2009
R T
Freq/Channel
Ch Freq 5.59 GHz
Trig Free
Channel Power
Center 5.590000000 GHz
Center Freq
5.59000000 GHz
Start Freq
5.55000000 GHz
Stop Freq
5.63000000 GHz
CF Step
8.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.590 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.32 dBm /75.4700 MHz
Power Spectral Density
-61.45 dBm/Hz
Allowable span for current center frequency exceeded

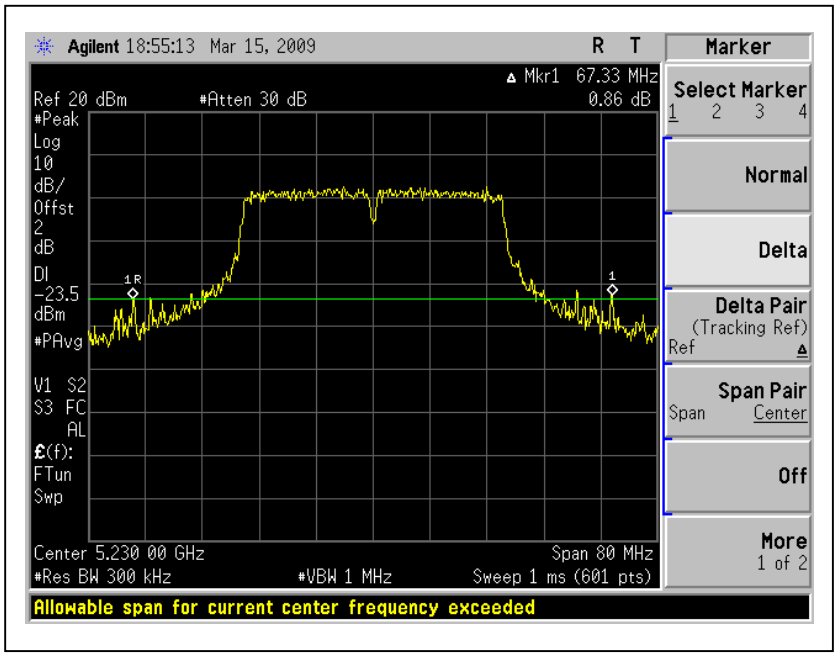
CH9


Agilent 10:52:39 Mar 16, 2009
R T
Freq/Channel
Ch Freq 5.67 GHz
Trig Free
Channel Power
Center 5.670000000 GHz
Center Freq
5.67000000 GHz
Start Freq
5.63000000 GHz
Stop Freq
5.71000000 GHz
CF Step
8.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Center 5.670 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.04 dBm /76.0000 MHz
Power Spectral Density
-62.76 dBm/Hz
Copyright 2000-2007 Agilent Technologies

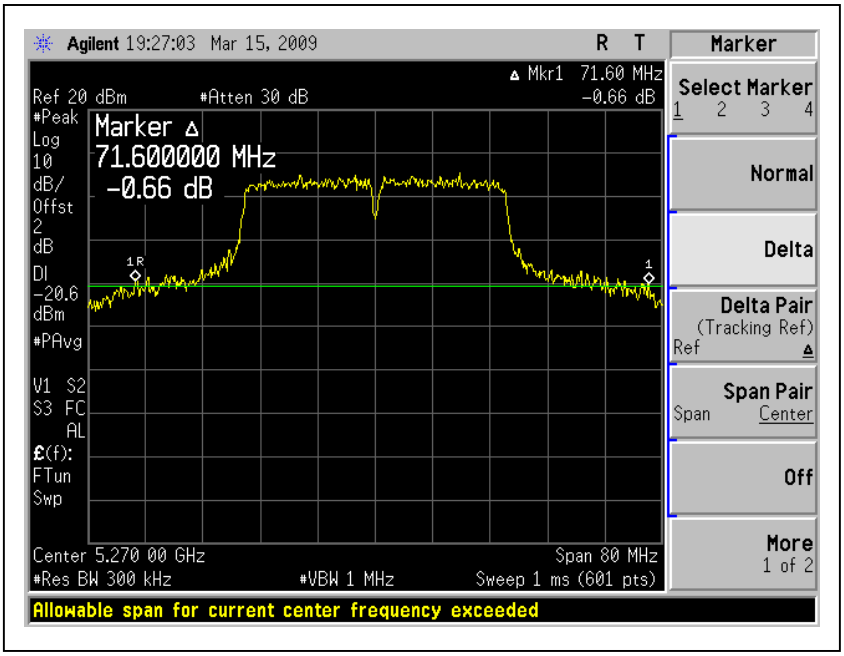
26dB Occupied Bandwidth:
For Chain (0) :CH1



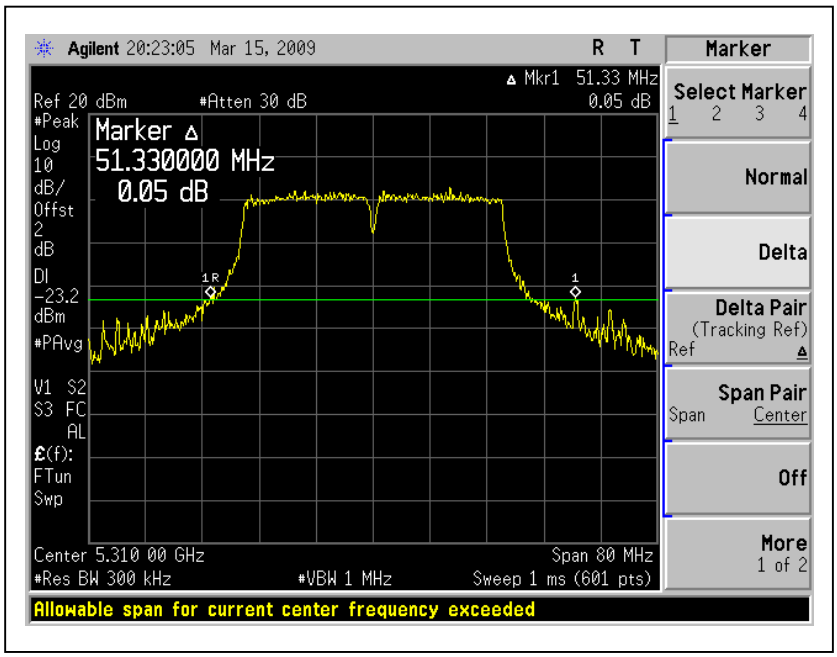
CH2



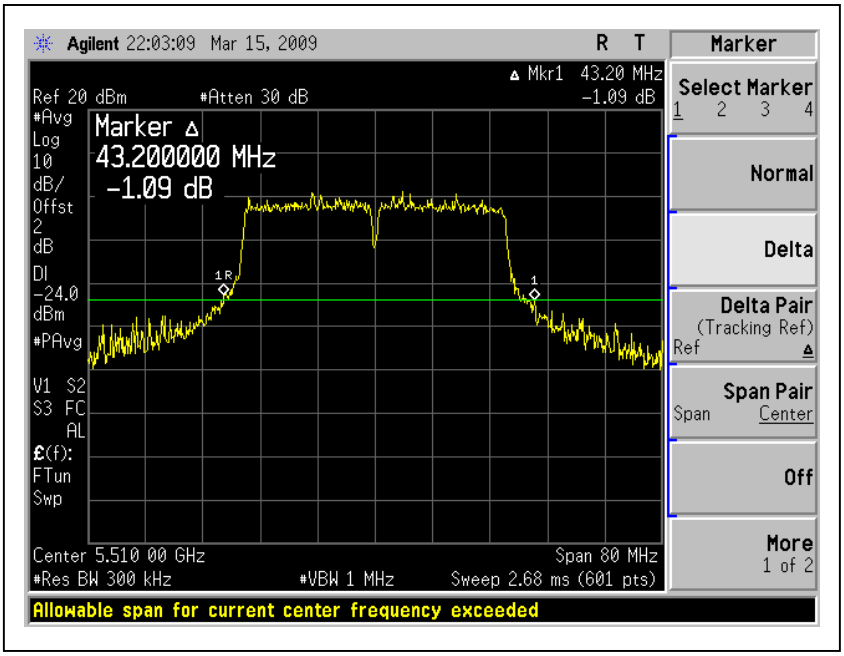
CH3


Agilent 19:27:03 Mar 15, 2009
R T
Marker
Mkr1 71.60 MHz
-0.66 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.6
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
71.600000 MHz
-0.66 dB
1R
1
Center 5.270 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 80 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

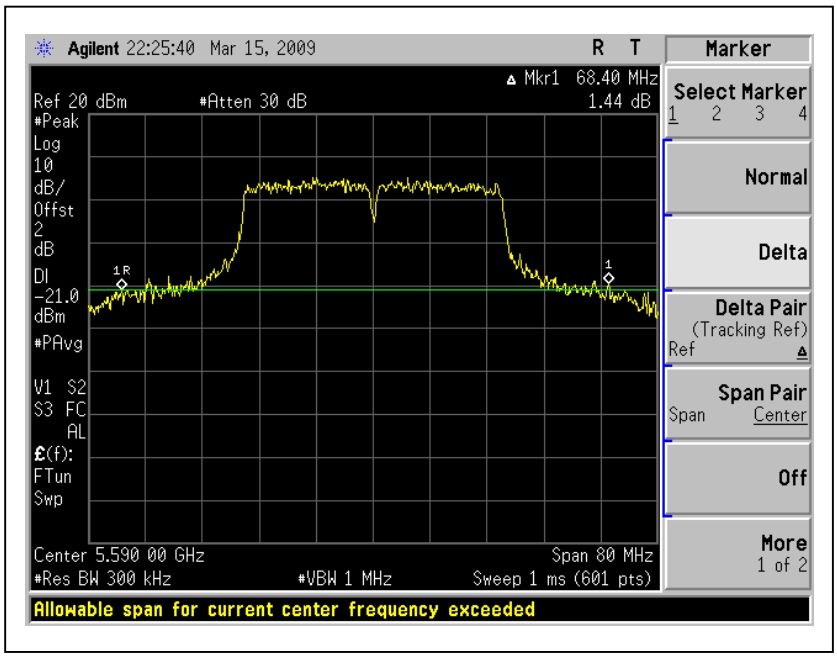
CH4


Agilent 20:23:05 Mar 15, 2009
R T
Marker
Mkr1 51.33 MHz
0.05 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-23.2
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
51.330000 MHz
0.05 dB
1R
1
Center 5.310 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 80 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

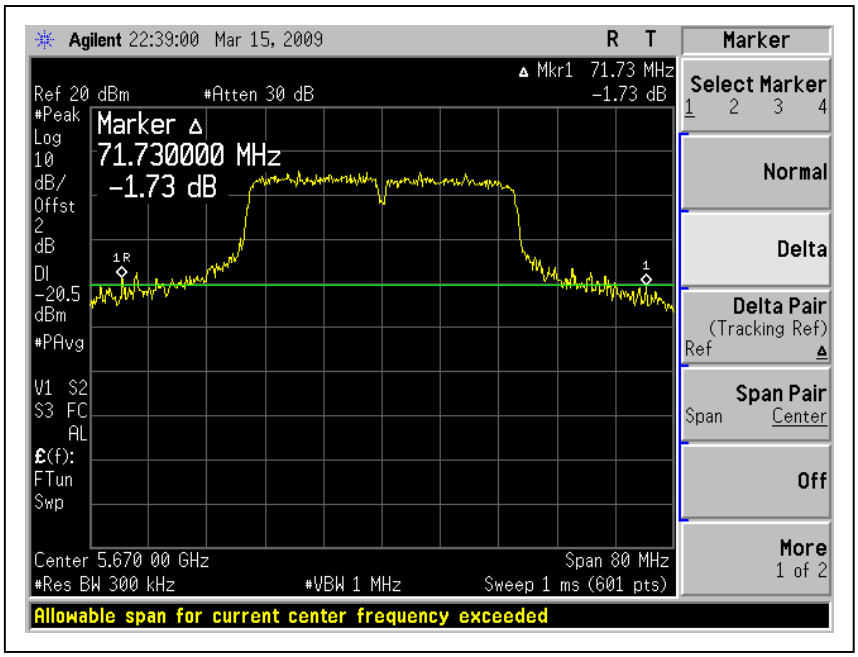
CH5


Agilent 22:03:09 Mar 15, 2009
R T
Marker
Mkr1 43.20 MHz
-1.09 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Dl
-24.0
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
43.200000 MHz
-1.09 dB
1R
1
Center 5.510 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 80 MHz
Sweep 2.68 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

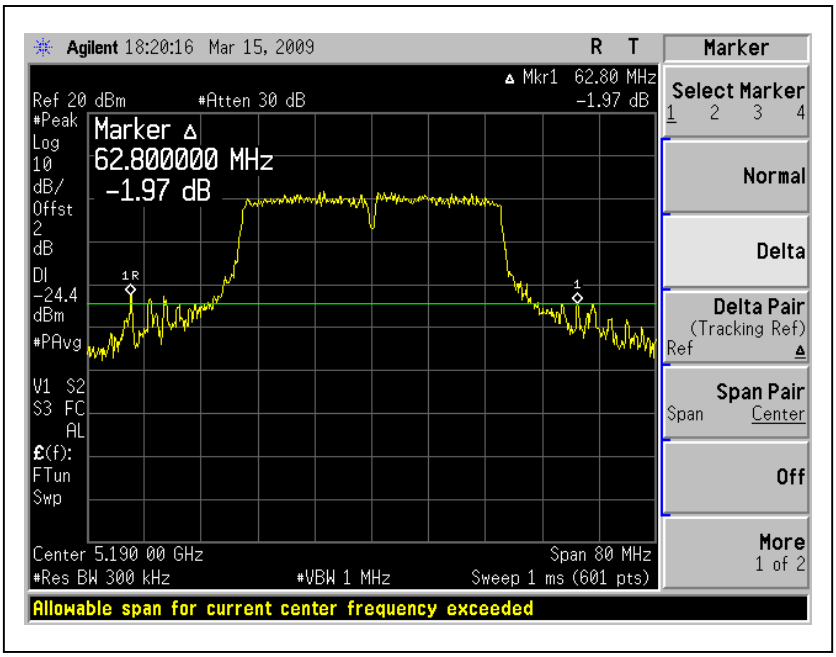
CH7


Agilent 22:25:40 Mar 15, 2009
R T
Marker
Mkr1 68.40 MHz
1.44 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-21.0
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
1R
1
Center 5.590 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 80 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

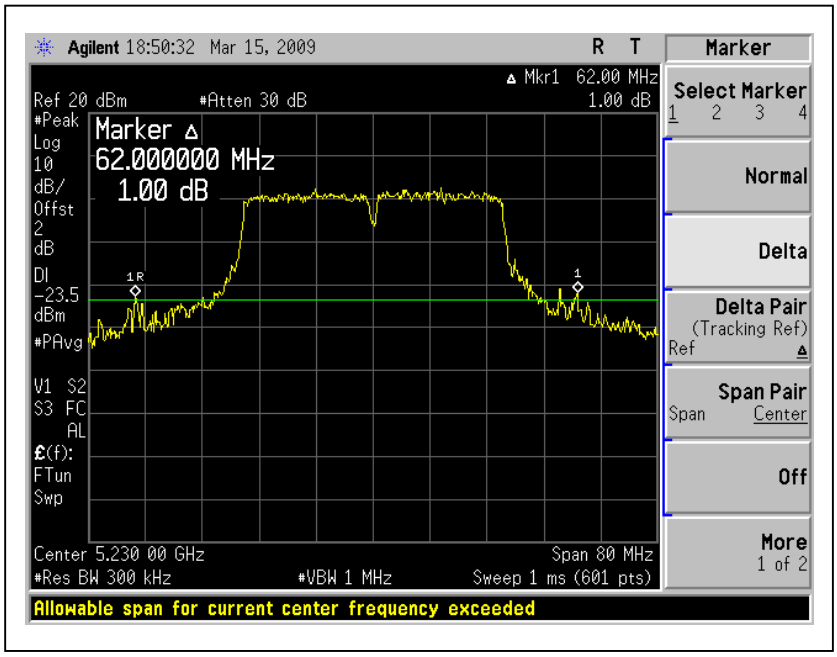
CH9


Agilent 22:39:00 Mar 15, 2009
R T
Marker
Mkr1 71.73 MHz
-1.73 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.5
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
71.730000 MHz
-1.73 dB
1R
1
Center 5.670 00 GHz
Span 80 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

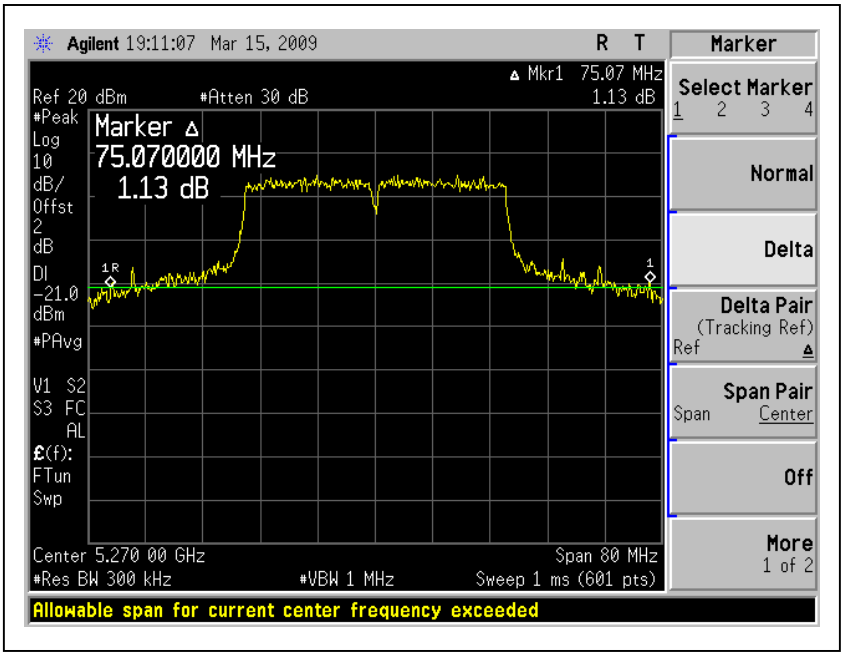
For Chain (1) :CH1



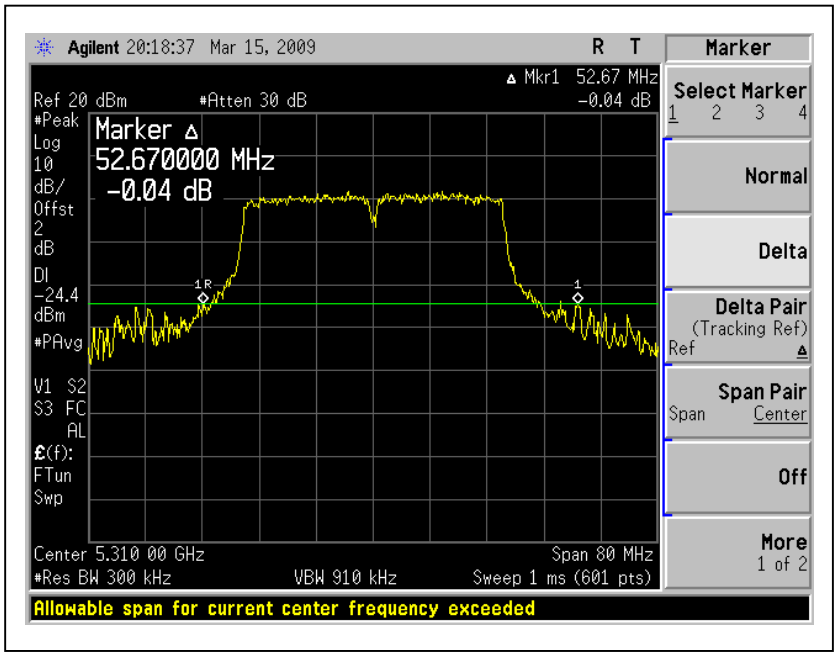
CH2



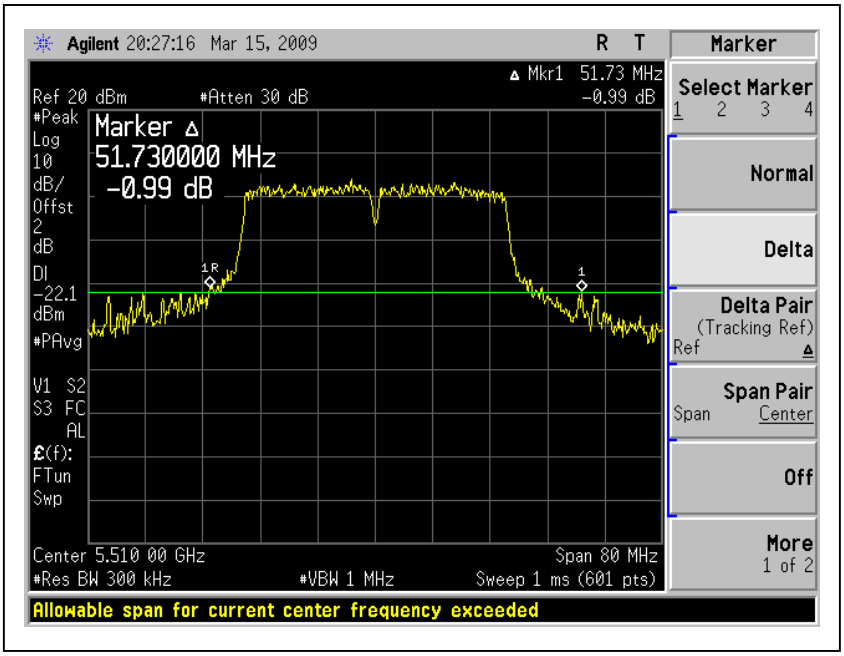
CH3


Agilent 19:11:07 Mar 15, 2009
R T
Marker
Mkr1 75.07 MHz
1.13 dB
Ref 20 dBm
#Atten 30 dB
Marker Δ
75.070000 MHz
1.13 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-21.0
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.270 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 80 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

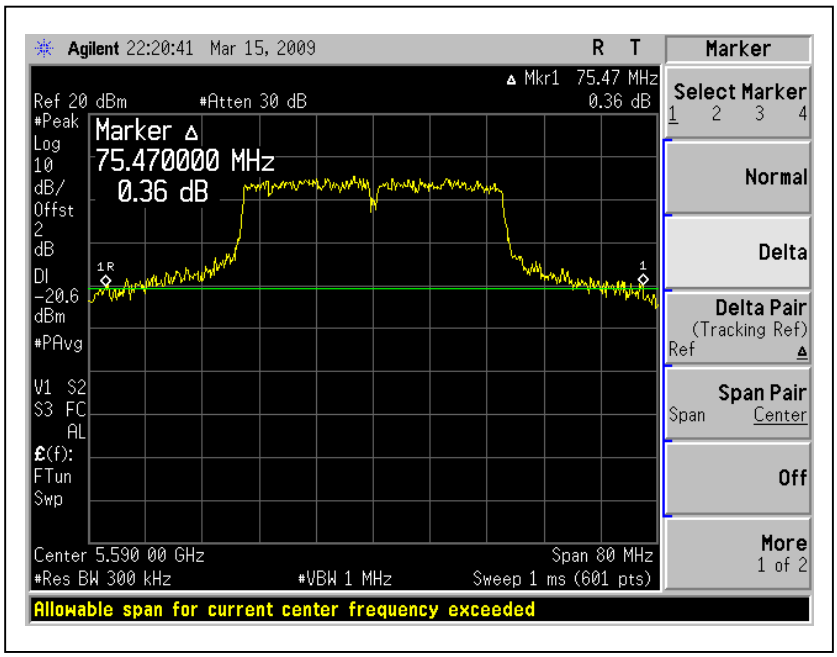
CH4


Agilent 20:18:37 Mar 15, 2009
R T
Marker
Mkr1 52.67 MHz
-0.04 dB
Ref 20 dBm
#Atten 30 dB
Marker Δ
52.670000 MHz
-0.04 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-24.4
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.310 00 GHz
#Res BW 300 kHz
VBW 910 kHz
Span 80 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

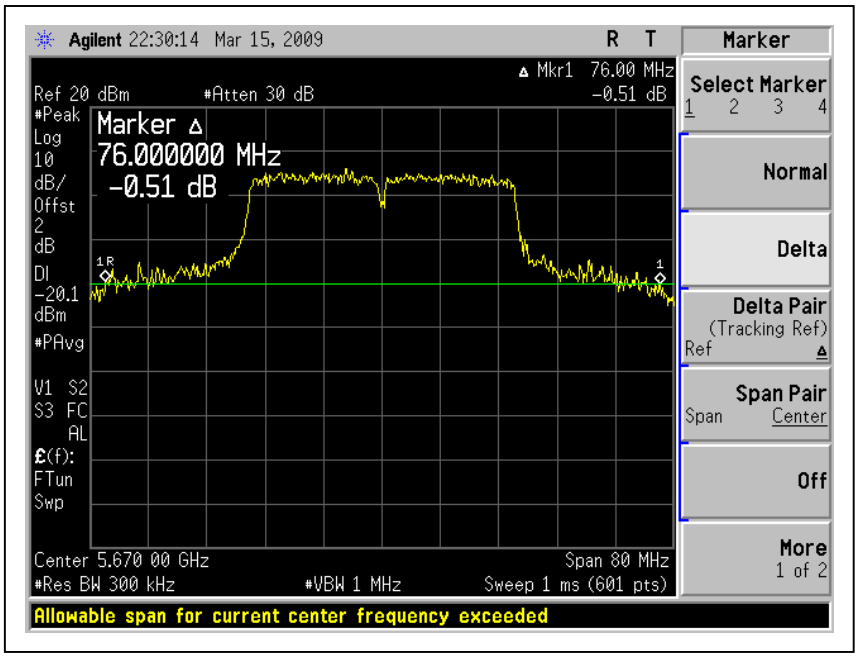
CH5


Agilent 20:27:16 Mar 15, 2009
R T
Marker
Mkr1 51.73 MHz
-0.99 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Marker Δ
51.730000 MHz
-0.99 dB
Dl
-22.1
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.510 00 GHz
Span 80 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

CH7


Agilent 22:20:41 Mar 15, 2009
R T
Marker
Mkr1 75.47 MHz
0.36 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Marker Δ
75.470000 MHz
0.36 dB
Dl
-20.6
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.590 00 GHz
Span 80 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Allowable span for current center frequency exceeded

CH9


Agilent 22:30:14 Mar 15, 2009
R T
Marker
Mkr1 76.00 MHz
-0.51 dB
Ref 20 dBm
#Atten 30 dB
#Peak
Log
10
dB/
Offst
2
dB
Dl
-20.1
dBm
#PAvg
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
76.000000 MHz
-0.51 dB
1R
1
Center 5.670 00 GHz
Span 80 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2

4.4 AVERAGE OUTPUT POWER

4.4.1 FOR REFERENCE.

4.4.2 TEST INSTRUMENTS

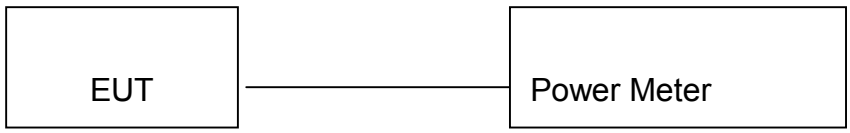
DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Anritsu Power Meter	ML2495A	0824006	June 14, 2008	June 13, 2009
Pulse Power Sensor	MA2411B	0738172	April 17, 2008	April 16, 2009

NOTE:
The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.4.3 TEST PROCEDURES

1. The transmitter output was connected to the power meter through an attenuator, the bandwidth of the fundamental frequency was measured with the power meter.
2. Record the average power level.

4.4.4 TEST SETUP



4.4.5 EUT OPERATING CONDITIONS

Same as Item 4.3.5

4.4.6 TEST RESULTS

802.11a OFDM MODULATION:

MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 962hPa
TESTED BY	Wen Yu		

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER OUTPUT (dBm)		TOTAL AVERAGE POWER (dBm)
		Chain 0	Chain 1	
1	5180	11.51	11.90	14.72
2	5200	11.69	11.75	14.73
4	5240	11.58	11.26	14.433
5	5260	17.11	17.08	20.105
7	5300	17.03	17.10	20.075
8	5320	16.34	16.52	19.441
9	5500	14.21	14.61	17.425
14	5600	17.12	17.33	20.237
19	5700	14.24	14.61	17.439

DRAFT 802.11n (20MHz) OFDM modulation:

MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 60%RH, 962hPa
TESTED BY	Wen Yu		

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER OUTPUT (dBm)		TOTAL AVERAGE POWER (dBm)
		Chain 0	Chain 1	
1	5180	13.18	12.82	16.014
2	5200	12.55	12.62	15.595
4	5240	12.77	12.41	15.604
5	5260	17.12	17.08	20.11
7	5300	17.02	17.01	20.025
8	5320	17.05	17.03	20.05
9	5500	15.42	16.17	18.821
14	5600	17.14	17.33	20.246
19	5700	13.71	14.07	16.904

DRAFT 802.11n (40MHz) OFDM modulation:

MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 60%RH, 962hPa
TESTED BY	Wen Yu		

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER OUTPUT (dBm)		TOTAL AVERAGE POWER (dBm)
		Chain 0	Chain 1	
1	5190	13.86	13.31	16.604
2	5230	13.96	13.27	16.639
3	5270	17.17	17.19	20.19
4	5310	13.91	13.56	16.749
5	5510	12.65	12.79	15.731
7	5590	17.38	17.48	20.441
9	5670	16.08	16.15	19.125

4.5 PEAK POWER EXCURSION MEASUREMENT

4.5.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Frequency Band	Limit
5.15 – 5.25 GHz	13dB
5.25 – 5.35 GHz	13dB
5.47 – 5.725GHz	13dB
5.725 – 5.825 GHz	13dB

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100037	Aug. 09, 2008	Aug. 08, 2009

NOTE:

1.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

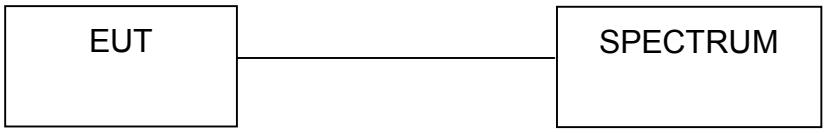
4.5.3 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set the spectrum bandwidth span to view the entire spectrum.
3. Using peak detector and Max-hold function for Trace 1 (RB=1MHz, VB=3MHz) and 2 (RB=1MHz, VB=300KHz).
4. The largest difference between Trace 1 and Trace 2 in any 1MHz band on any frequency was recorded.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

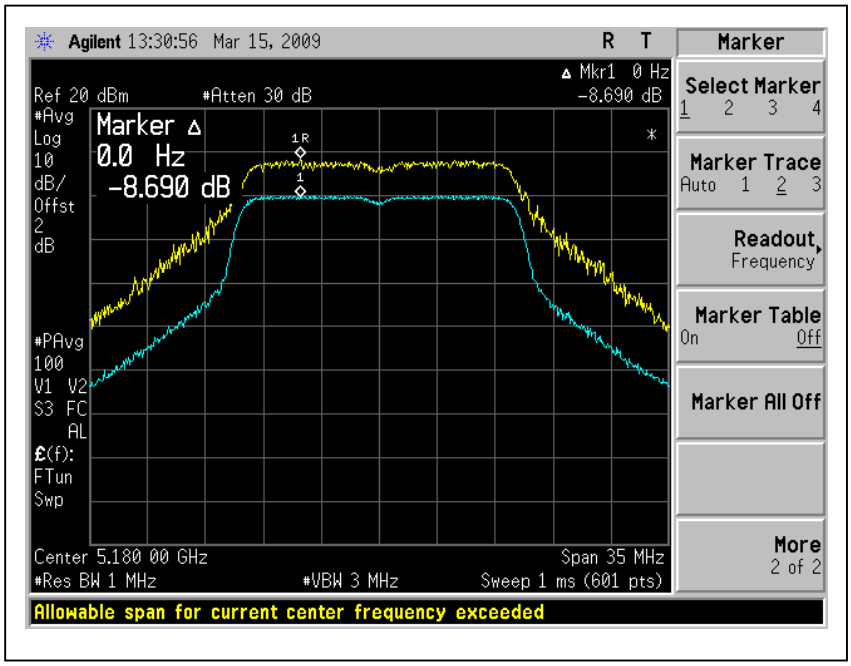
4.5.7 TEST RESULTS

802.11a OFDM modulation

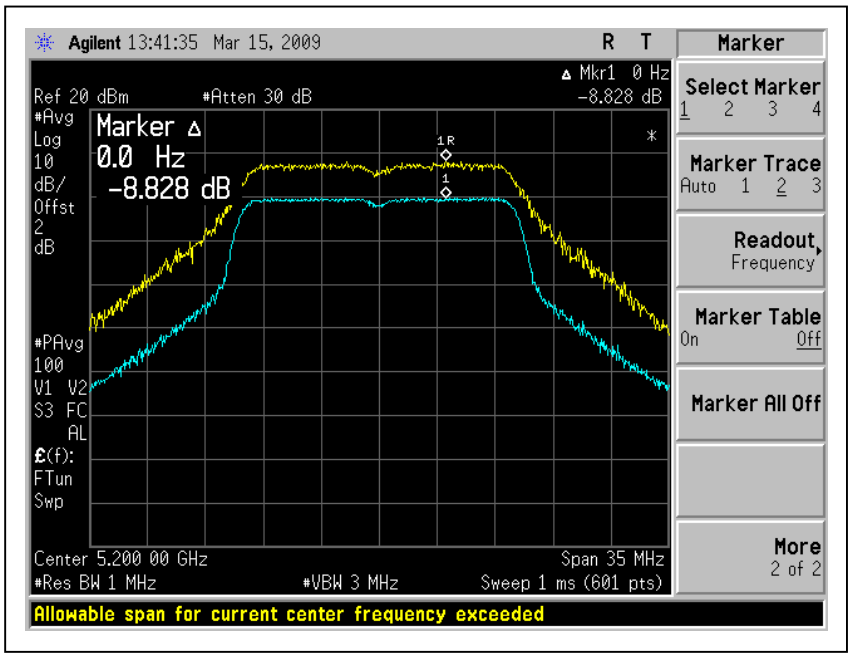
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 962hPa
TESTED BY	Wen Yu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)		PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		Chain (0)	Chain(1)		
1	5180	8.690	10.245	13	PASS
2	5200	8.828	9.809	13	PASS
4	5240	9.394	10.269	13	PASS
5	5260	9.178	10.279	13	PASS
7	5300	8.182	10.339	13	PASS
8	5320	9.644	9.898	13	PASS
9	5500	8.474	10.536	13	PASS
14	5600	9.024	10.288	13	PASS
19	5700	9.261	9.493	13	PASS

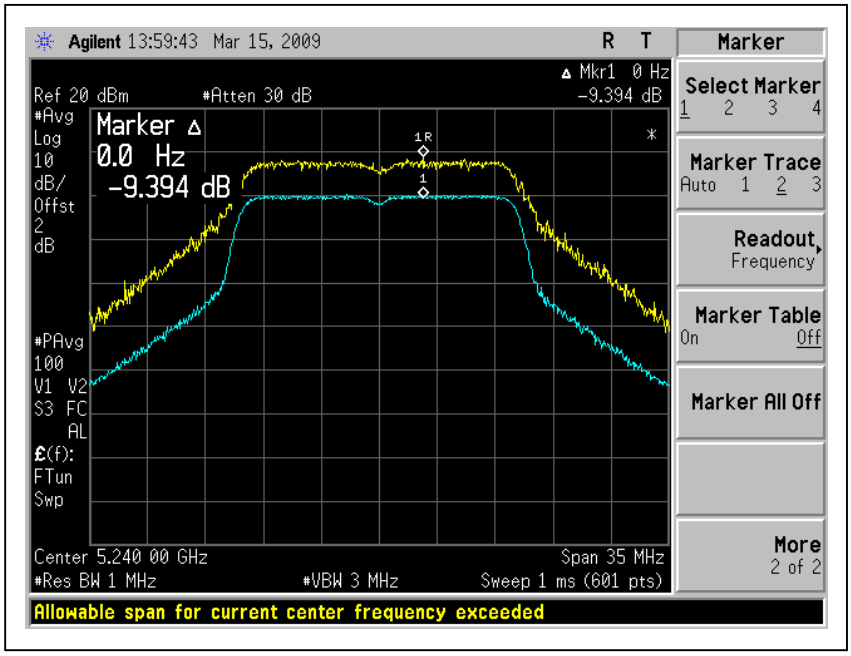
For Chain (0) : CH1



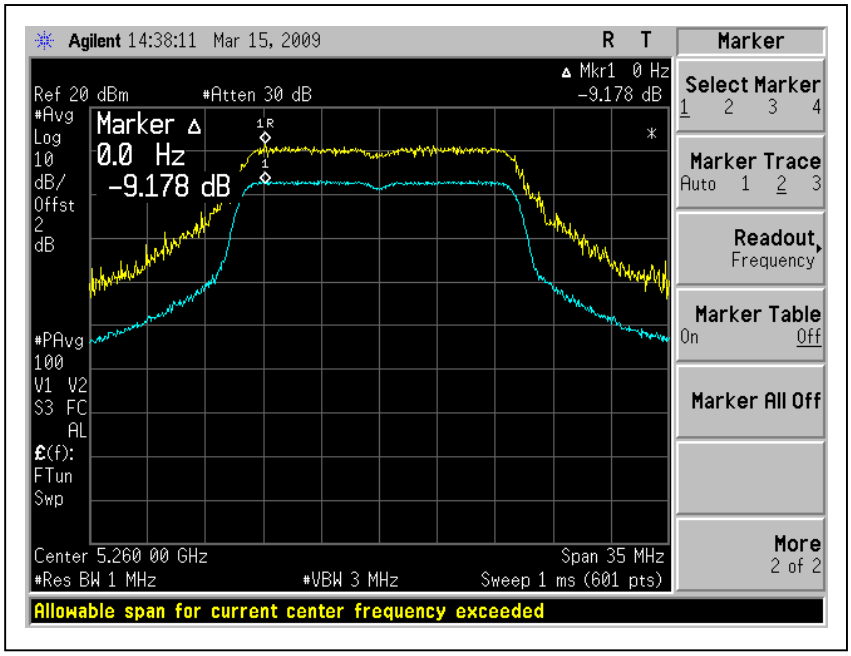
CH2



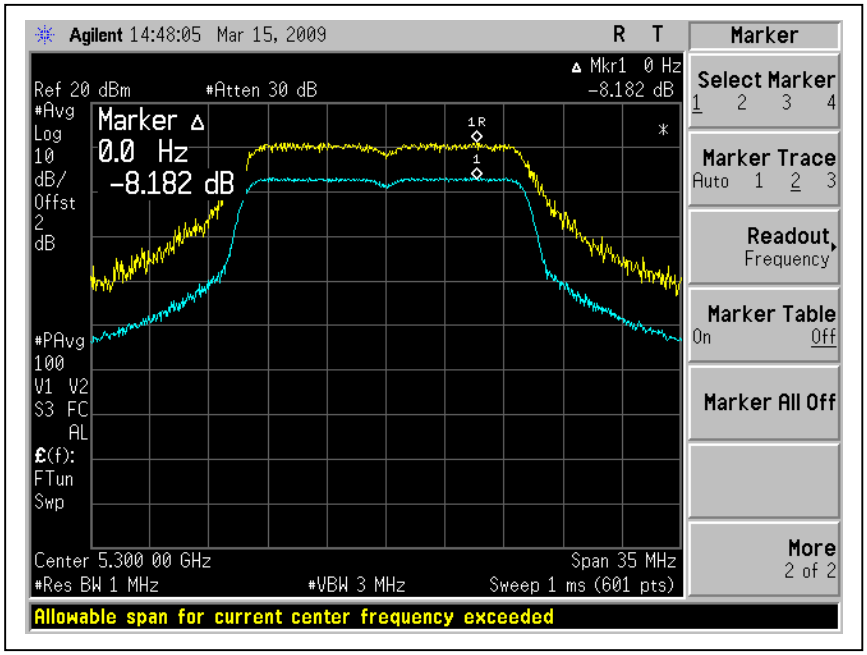
CH4


Agilent 13:59:43 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-9.394 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.394 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.240 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

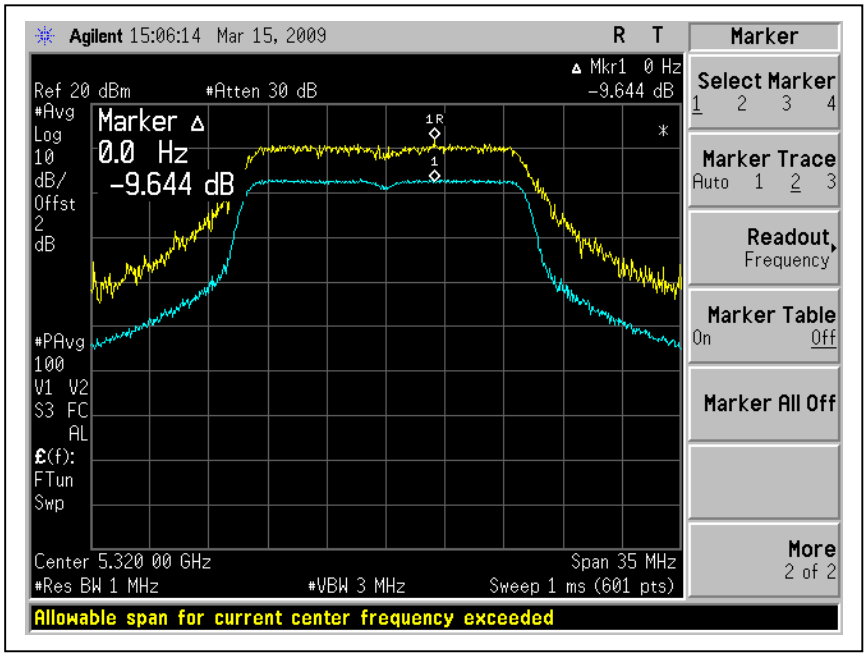
CH5


Agilent 14:38:11 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-9.178 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.178 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.260 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

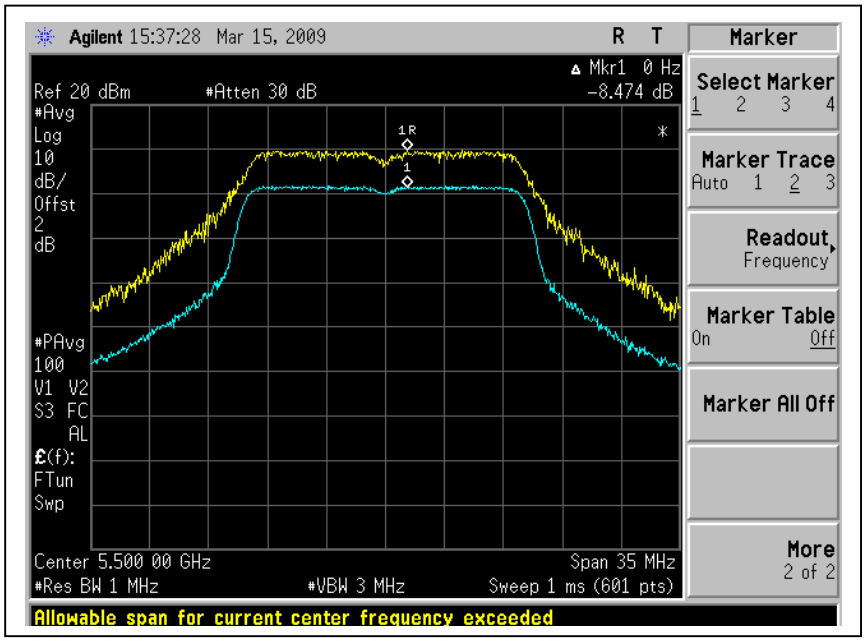
CH7


Agilent 14:48:05 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.182 dB
Ref 20 dBm
#Atten 30 dB
Marker Δ
0.0 Hz
-8.182 dB
#Avg
Log
10
dB/
Offst
2
dB
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.300 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2

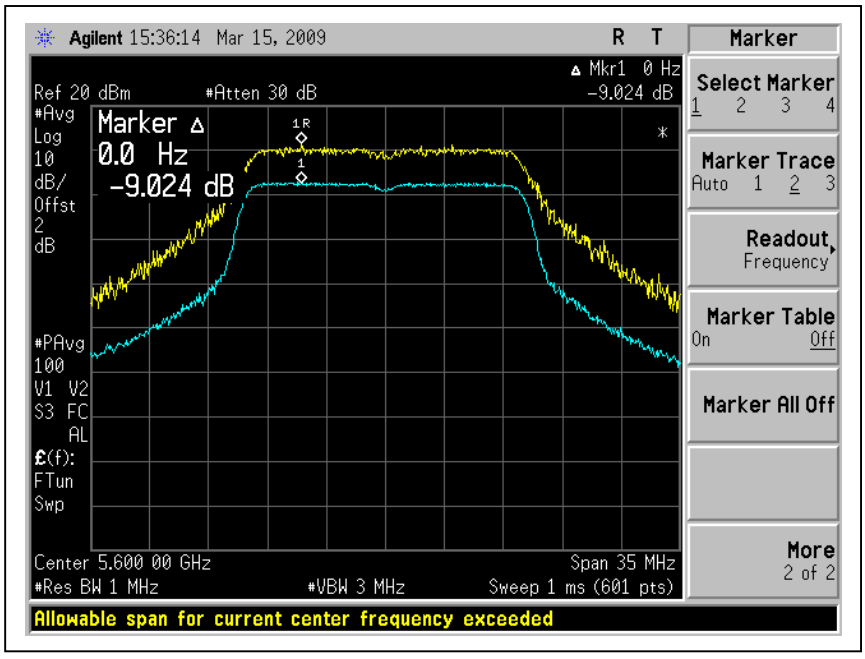
CH8


Agilent 15:06:14 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-9.644 dB
Ref 20 dBm
#Atten 30 dB
Marker Δ
0.0 Hz
-9.644 dB
#Avg
Log
10
dB/
Offst
2
dB
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.320 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2

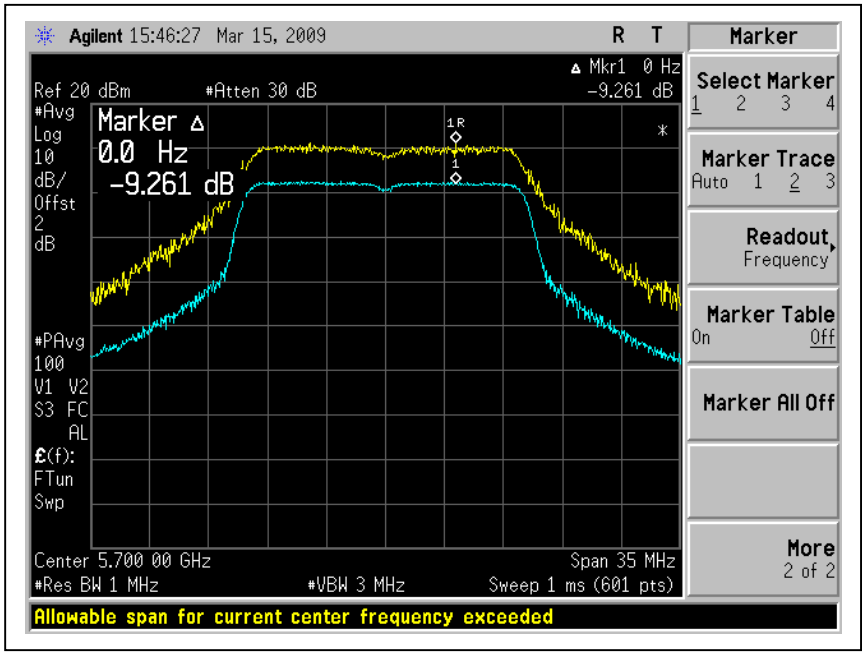
CH9


Agilent 15:37:28 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.474 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.500 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

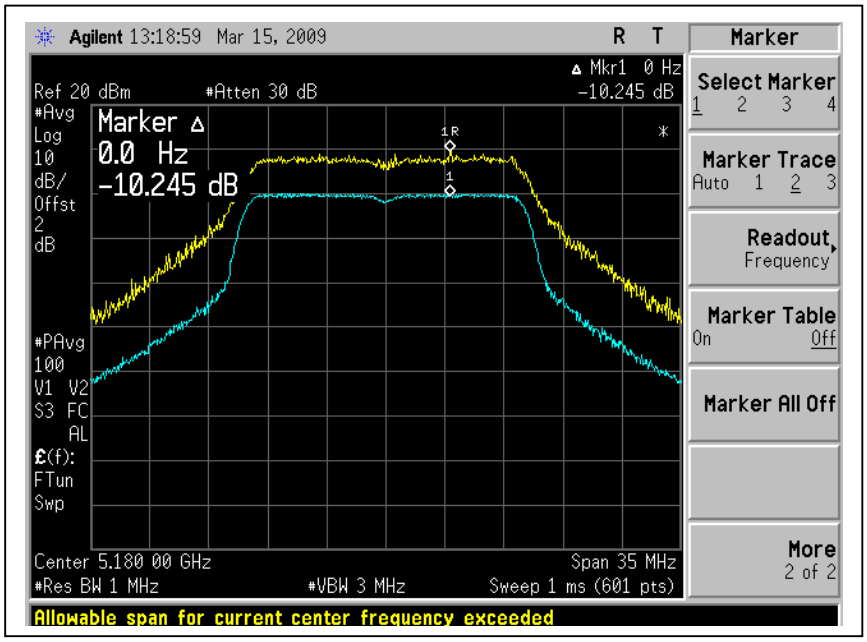
CH14


Agilent 15:36:14 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-9.024 dB
Ref 20 dBm
#Atten 30 dB
Marker Δ
0.0 Hz
-9.024 dB
#Avg
Log
10
dB/
Offst
2
dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.600 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

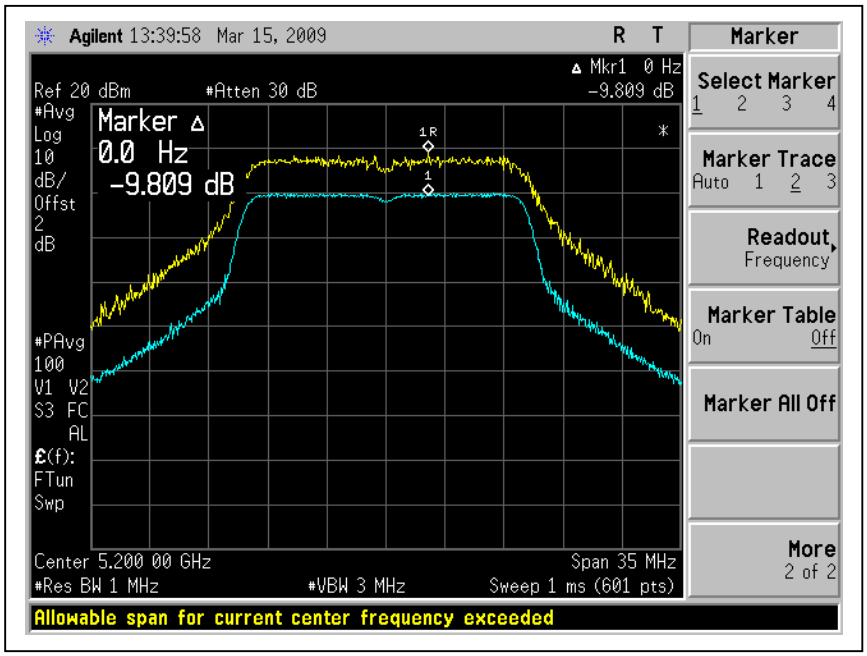
CH19


Agilent 15:46:27 Mar 15, 2009
R T
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-9.261 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.261 dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.700 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

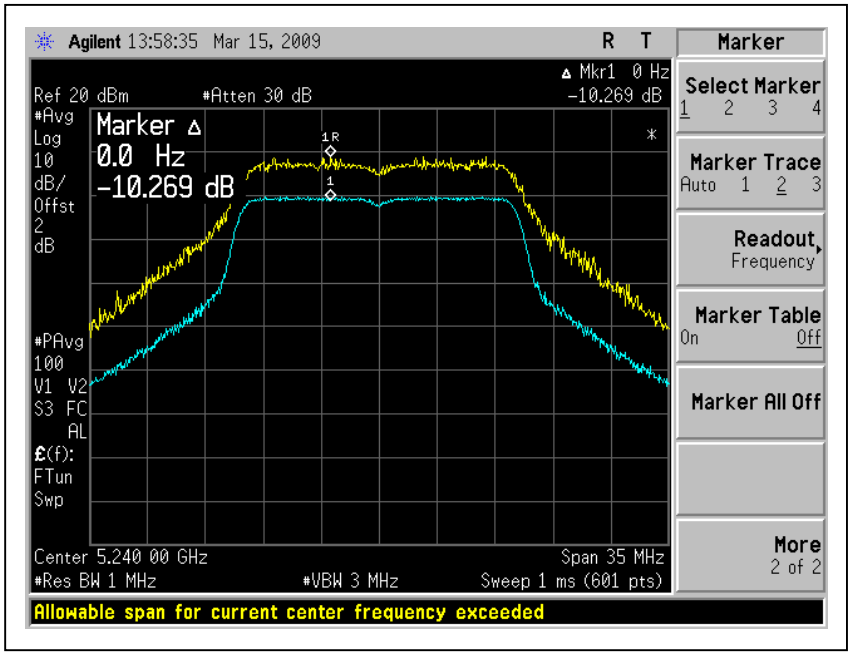
For Chain (1) : CH1



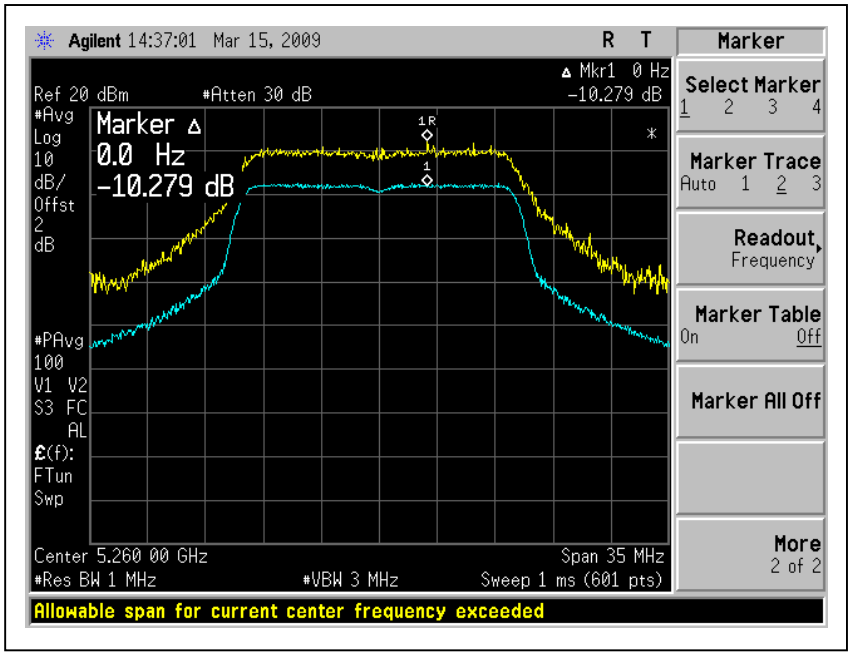
CH2



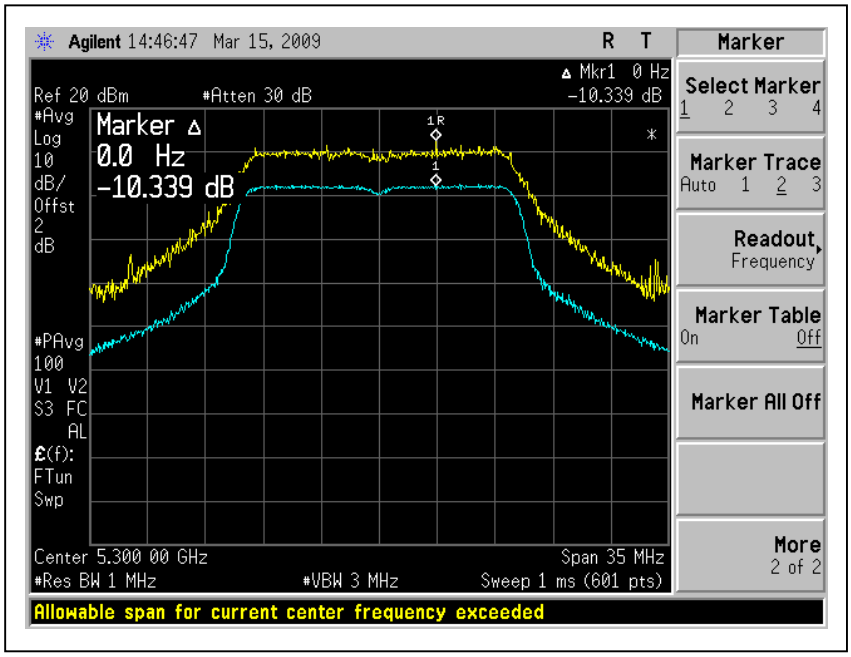
CH4


Agilent 13:58:35 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-10.269 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-10.269 dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.240 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

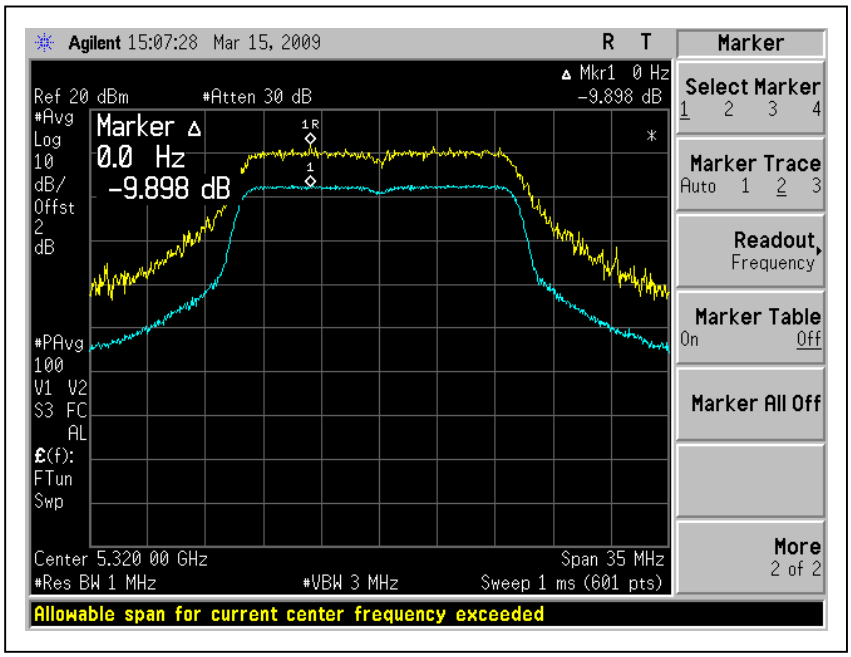
CH5


Agilent 14:37:01 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-10.279 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-10.279 dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.260 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

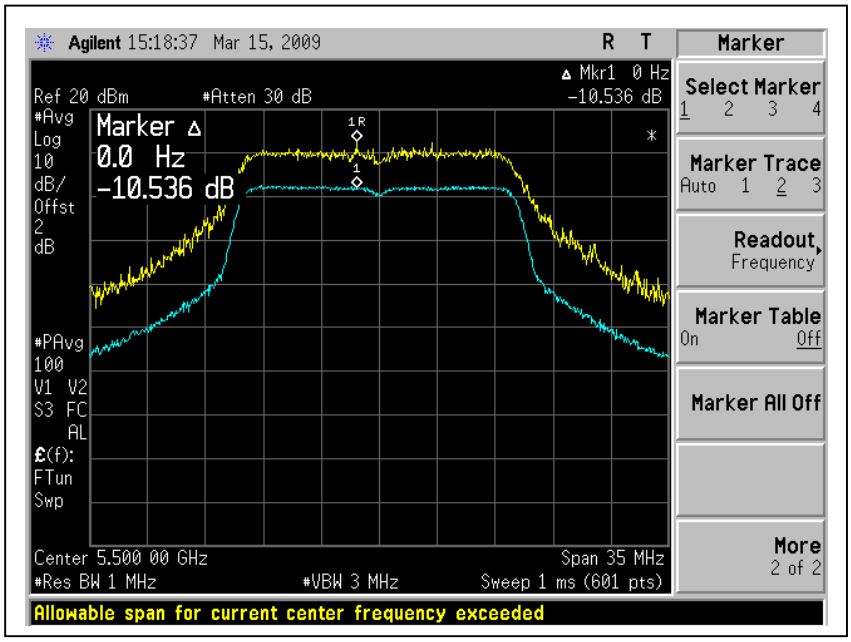
CH7


Agilent 14:46:47 Mar 15, 2009
R T
Marker
Δ Mkr1 0 Hz
-10.339 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-10.339 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.300 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

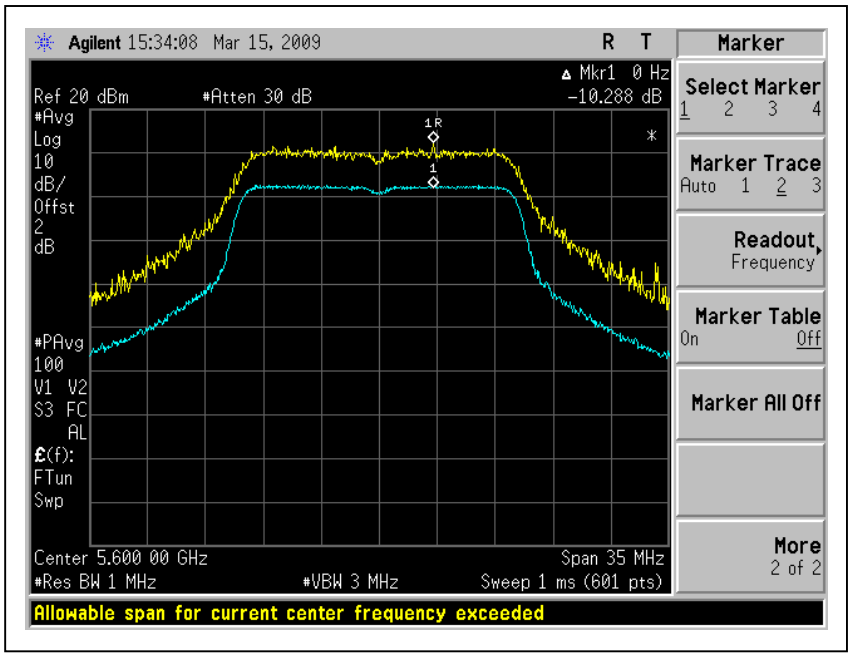
CH8


Agilent 15:07:28 Mar 15, 2009
R T
Marker
Δ Mkr1 0 Hz
-9.898 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.898 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.320 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

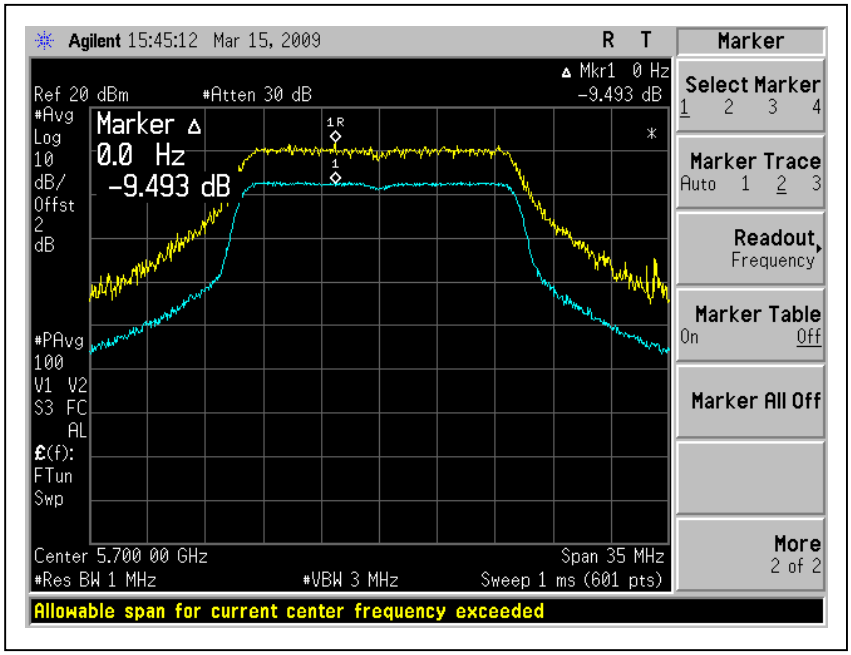
CH9


Agilent 15:18:37 Mar 15, 2009
R T
Marker
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-10.536 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-10.536 dB
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.500 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

CH14


Agilent 15:34:08 Mar 15, 2009
R T
Marker
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-10.288 dB
#Avg
Log
10
dB/
Offst
2
dB
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.600 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

CH19

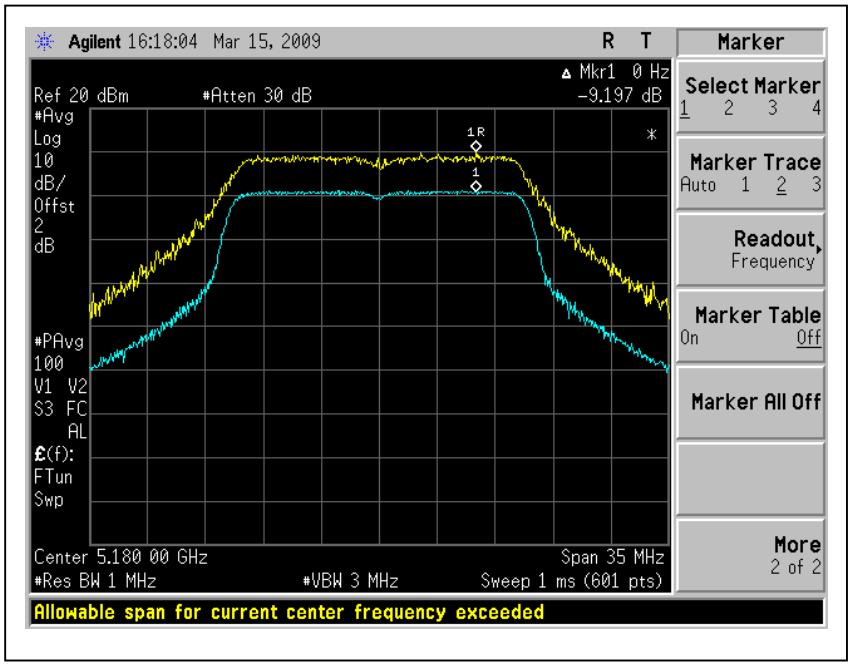

Agilent 15:45:12 Mar 15, 2009
R T
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-9.493 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.493 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.700 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

DRAFT 802.11n (20MHz) OFDM MODULATION:

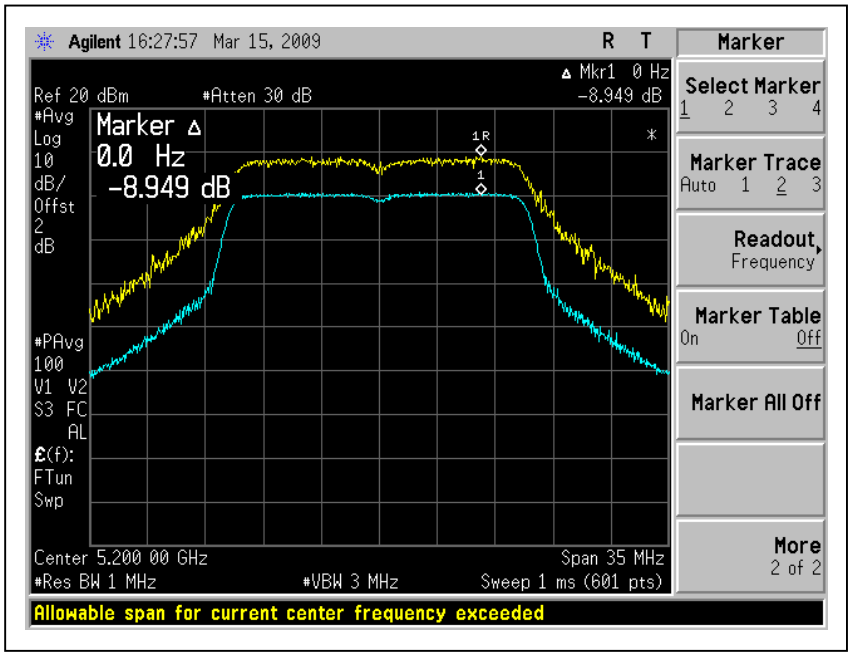
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 962hPa
TESTED BY	Wen Yu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)		PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		Chain (0)	Chain(1)		
1	5180	9.197	9.014	13	PASS
2	5200	8.949	9.668	13	PASS
4	5240	9.322	9.645	13	PASS
5	5260	8.304	8.505	13	PASS
7	5300	9.043	8.895	13	PASS
8	5320	9.269	8.601	13	PASS
9	5500	9.102	8.971	13	PASS
14	5600	8.312	9.191	13	PASS
19	5700	8.449	8.770	13	PASS

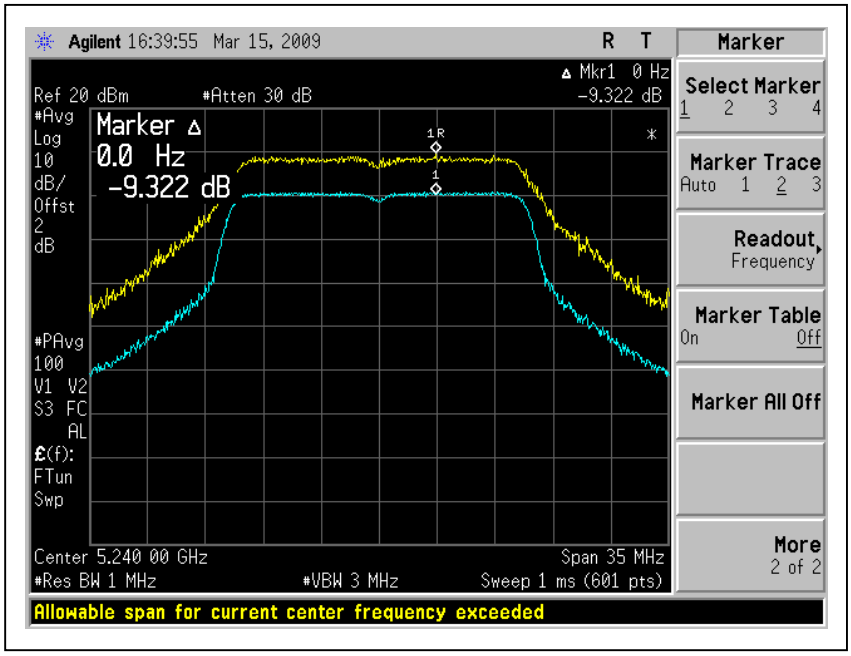
For Chain (0) : CH1



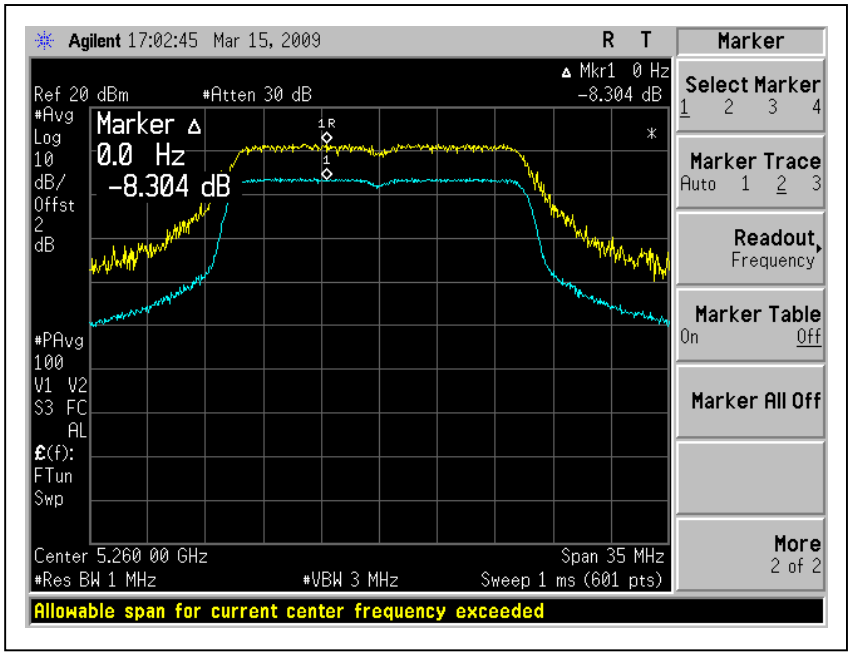
CH2



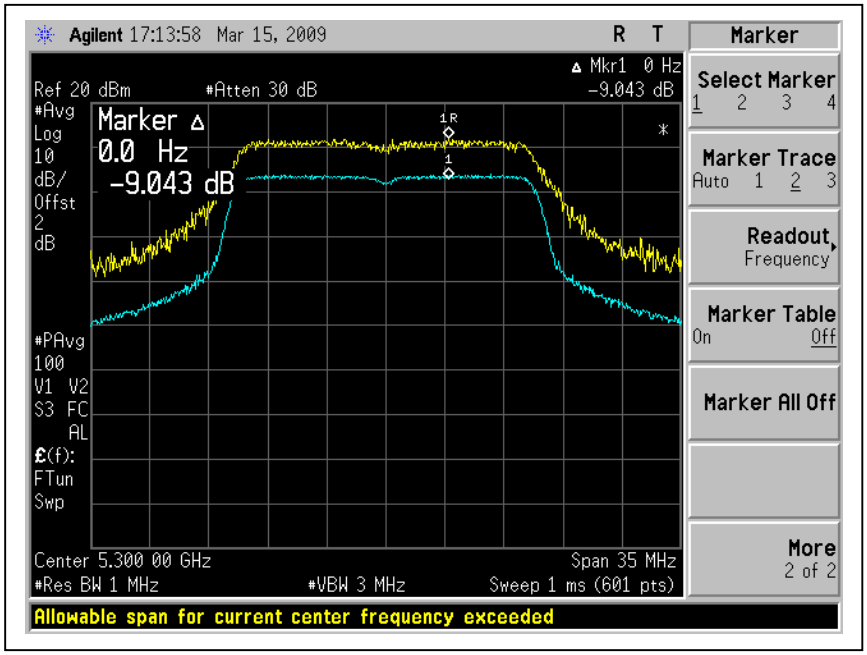
CH4


Agilent 16:39:55 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-9.322 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.322 dB
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.240 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

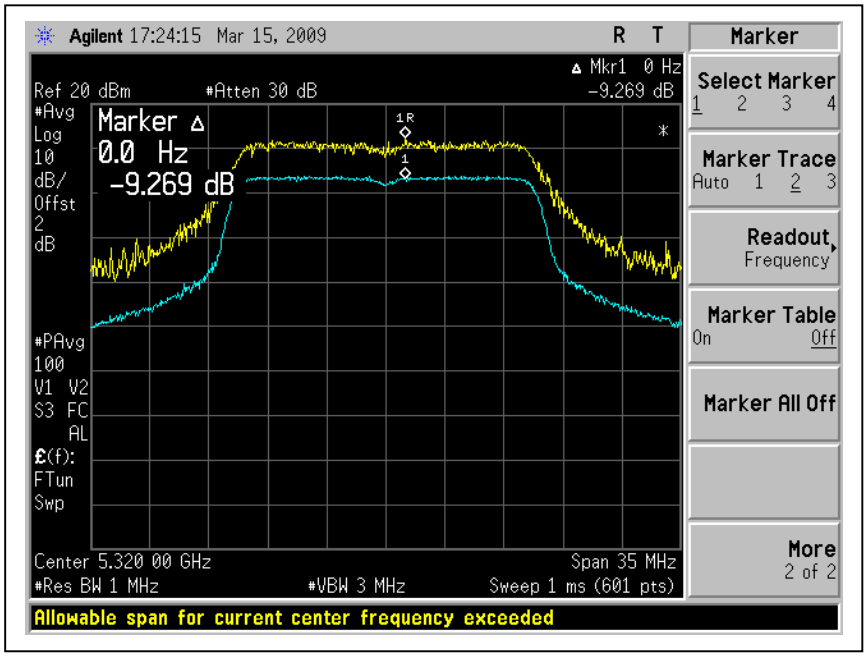
CH5


Agilent 17:02:45 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.304 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-8.304 dB
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.260 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

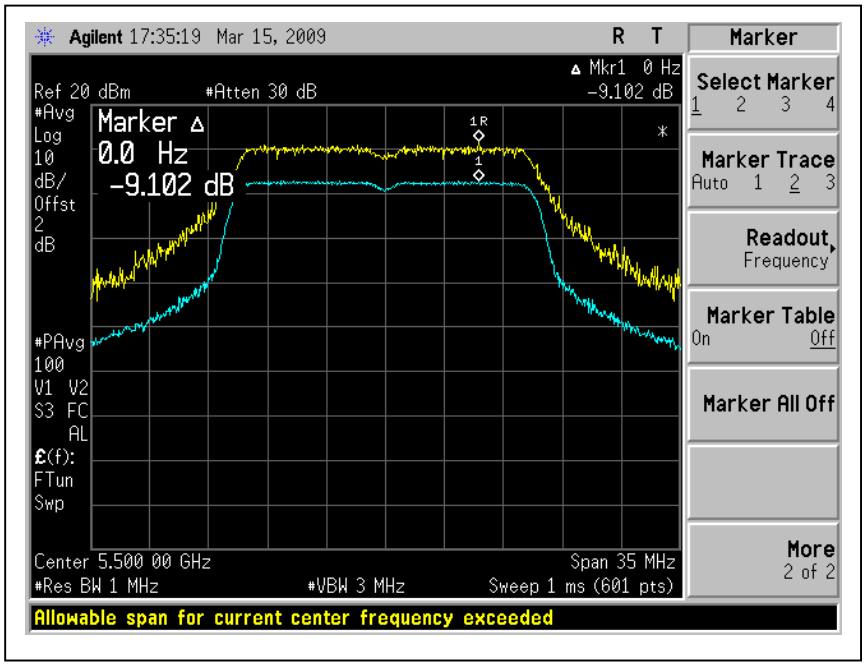
CH7


Agilent 17:13:58 Mar 15, 2009
R T
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-9.043 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.043 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.300 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

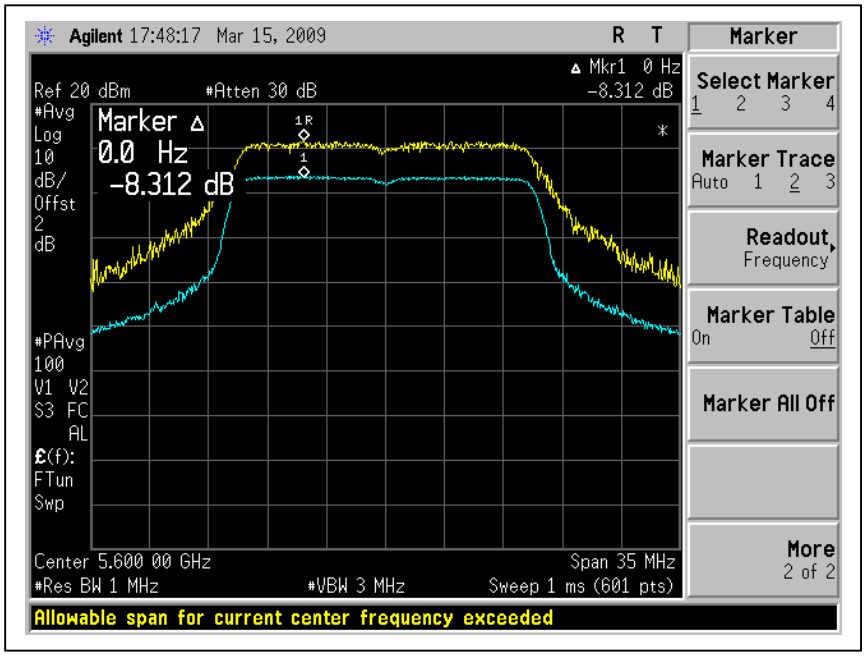
CH8


Agilent 17:24:15 Mar 15, 2009
R T
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-9.269 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.269 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.320 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

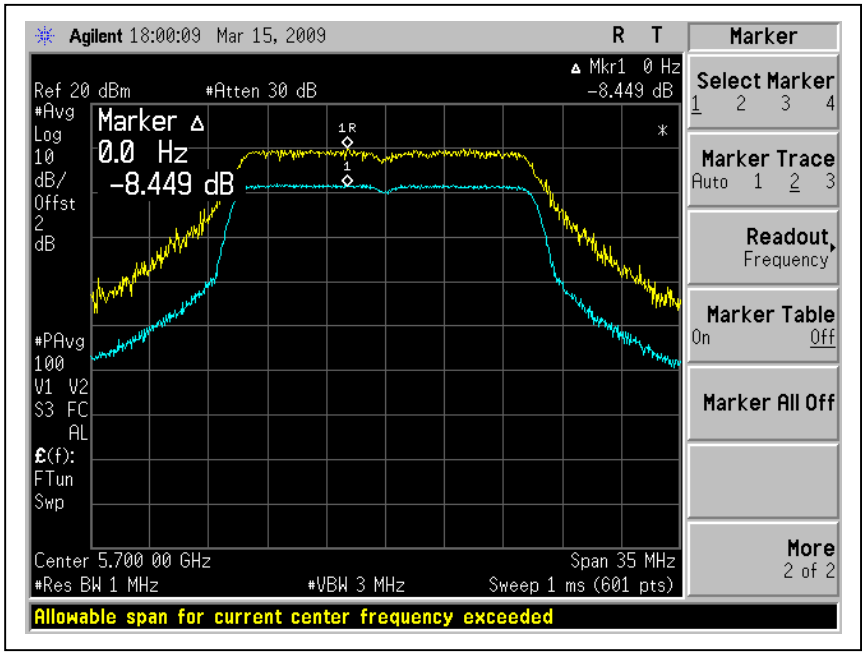
CH9


Agilent 17:35:19 Mar 15, 2009
R T
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-9.102 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.102 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.500 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

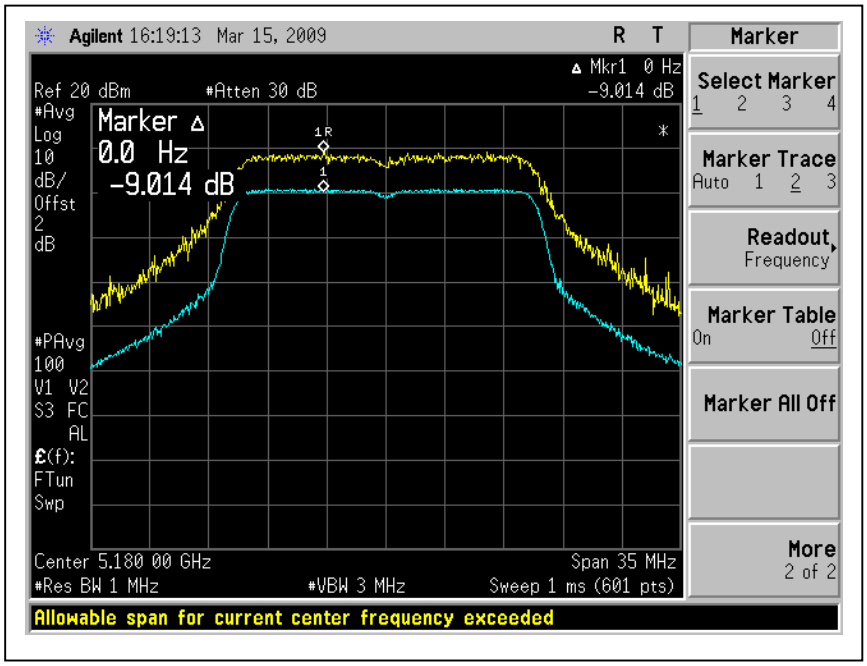
CH14


Agilent 17:48:17 Mar 15, 2009
R T
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-8.312 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-8.312 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.600 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

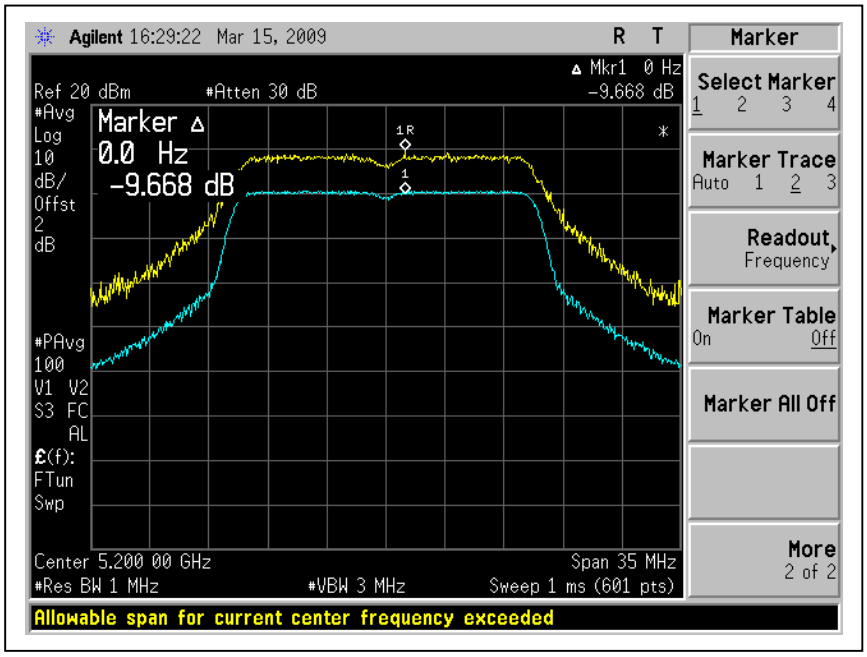
CH19


Agilent 18:00:09 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.449 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-8.449 dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.700 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

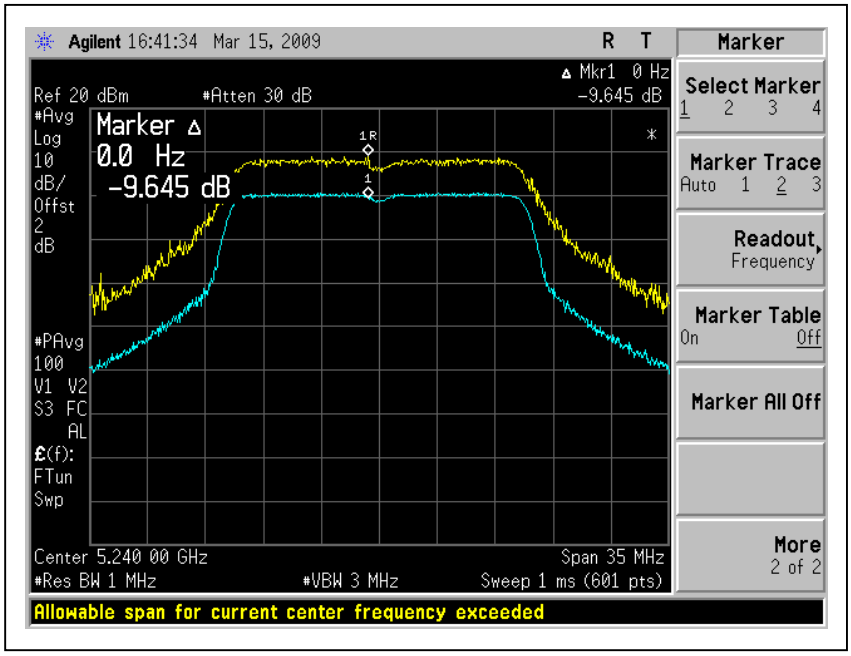
For Chain (1) : CH1



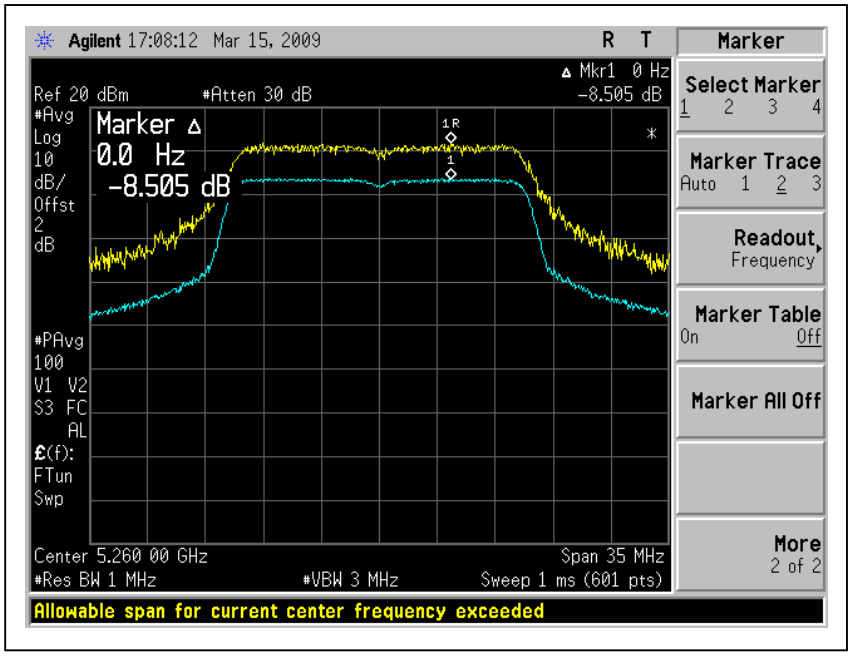
CH2



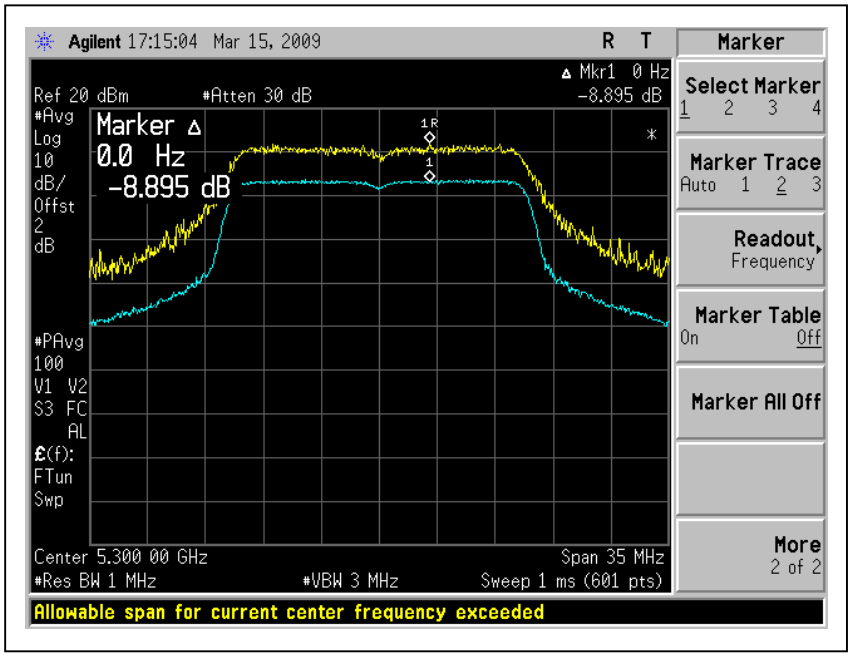
CH4


Agilent 16:41:34 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-9.645 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.645 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.240 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

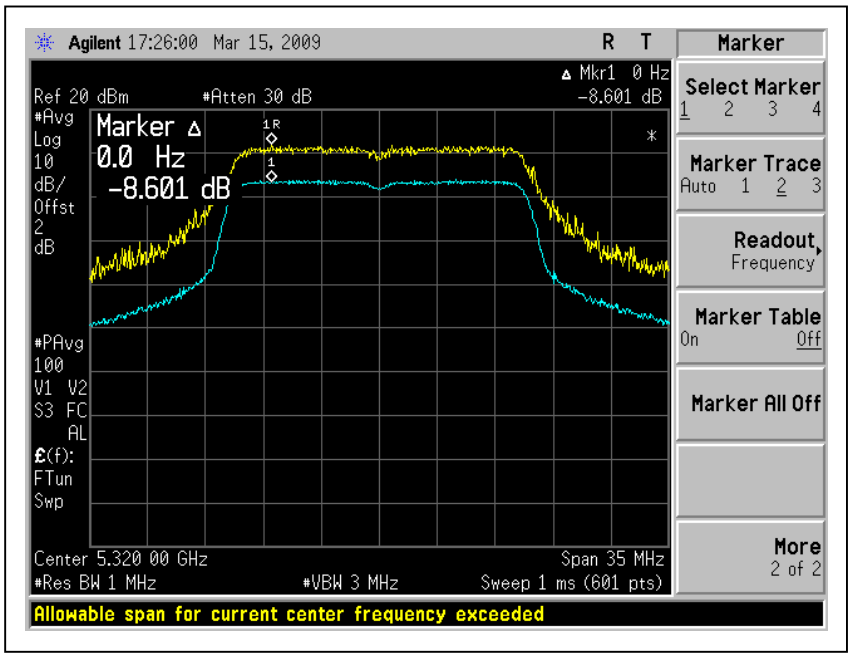
CH5


Agilent 17:08:12 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.505 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-8.505 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.260 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

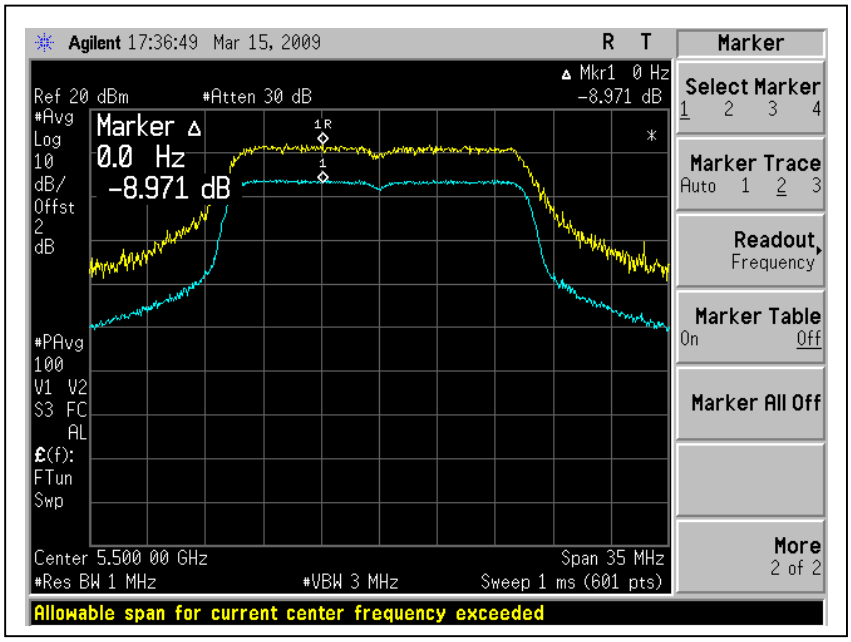
CH7


Agilent 17:15:04 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.895 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-8.895 dB
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.300 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

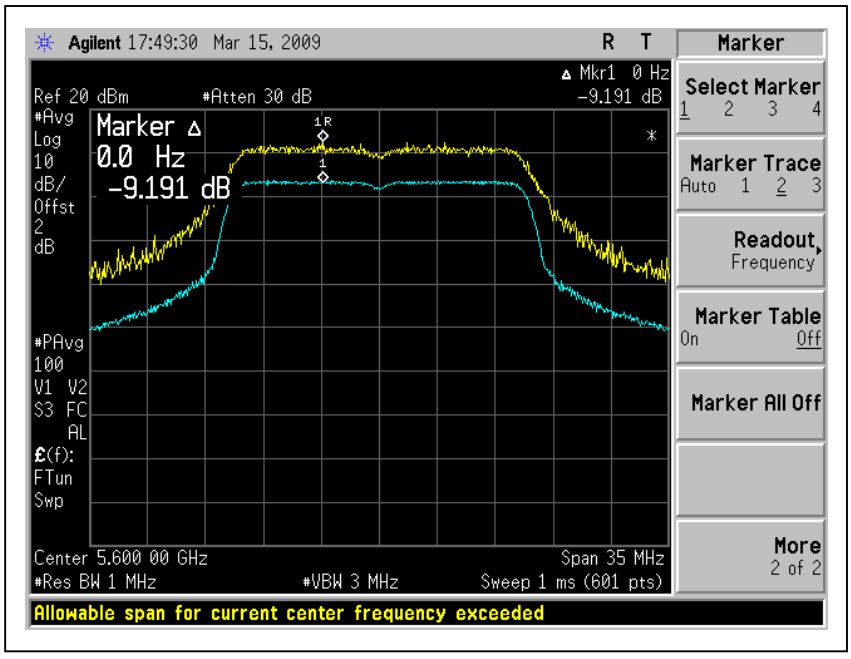
CH8


Agilent 17:26:00 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.601 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-8.601 dB
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.320 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

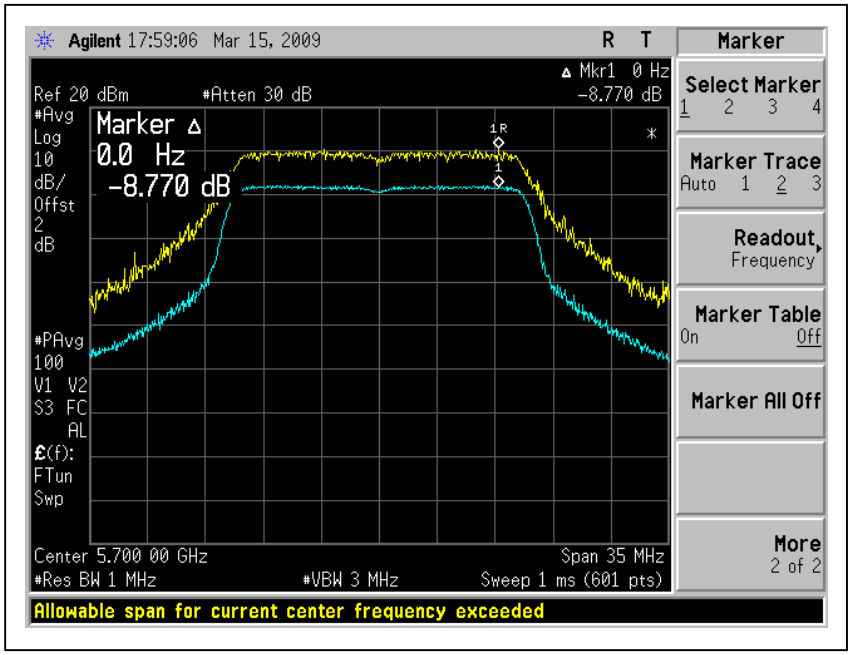
CH9


Agilent 17:36:49 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.971 dB
Ref 20 dBm
#Atten 30 dB
Marker Δ
0.0 Hz
-8.971 dB
#Avg
Log
10
dB/
Offst
2
dB
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.500 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

CH14


Agilent 17:49:30 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-9.191 dB
Ref 20 dBm
#Atten 30 dB
Marker Δ
0.0 Hz
-9.191 dB
#Avg
Log
10
dB/
Offst
2
dB
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.600 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

CH19

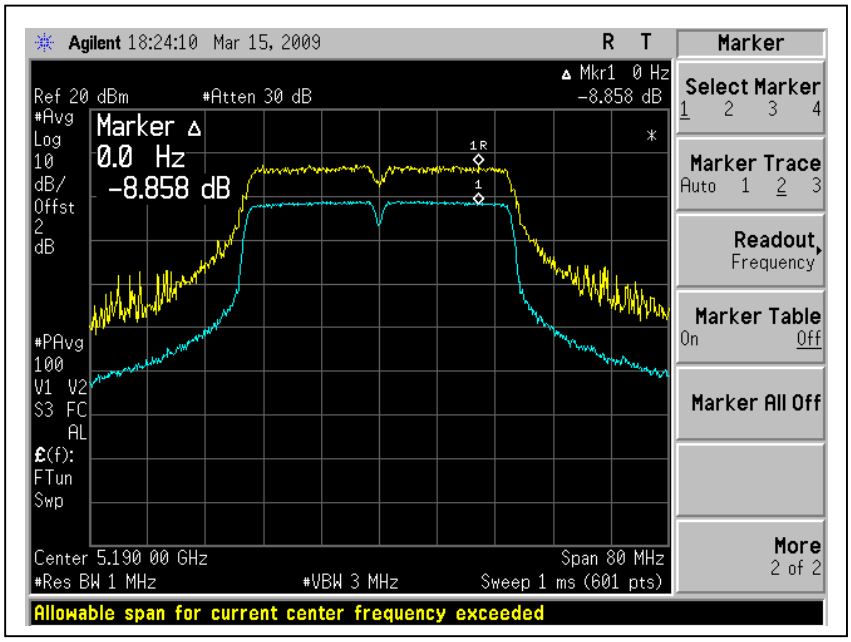

Agilent 17:59:06 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.770 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-8.770 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.700 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

DRAFT 802.11n (40MHz) OFDM MODULATION:

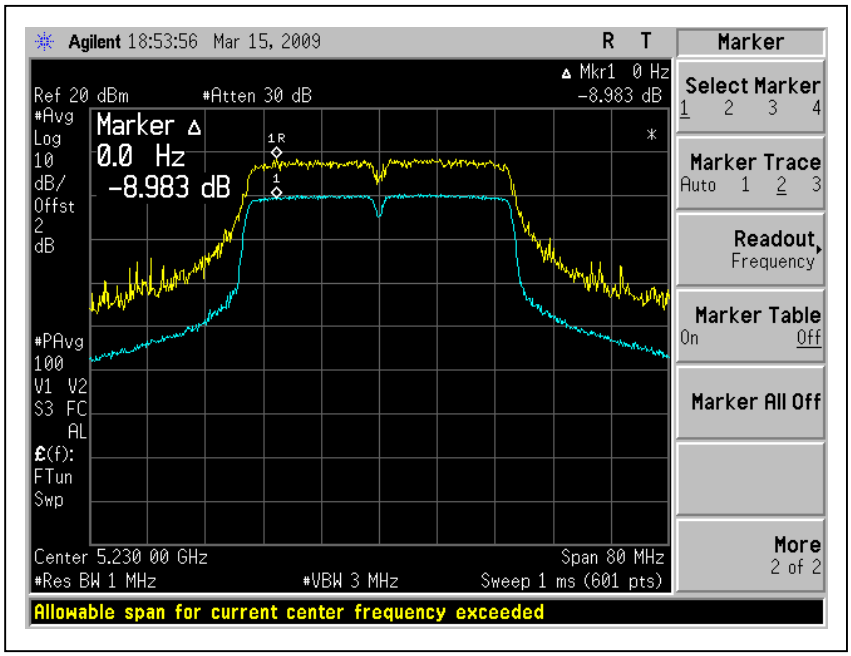
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 962hPa
TESTED BY	Wen Yu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)		PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		Chain (0)	Chain(1)		
1	5190	8.858	9.941	13	PASS
2	5230	8.983	8.676	13	PASS
3	5270	9.356	8.970	13	PASS
4	5310	8.954	8.874	13	PASS
5	5510	9.122	10.202	13	PASS
7	5590	8.296	9.090	13	PASS
9	5670	8.557	9.453	13	PASS

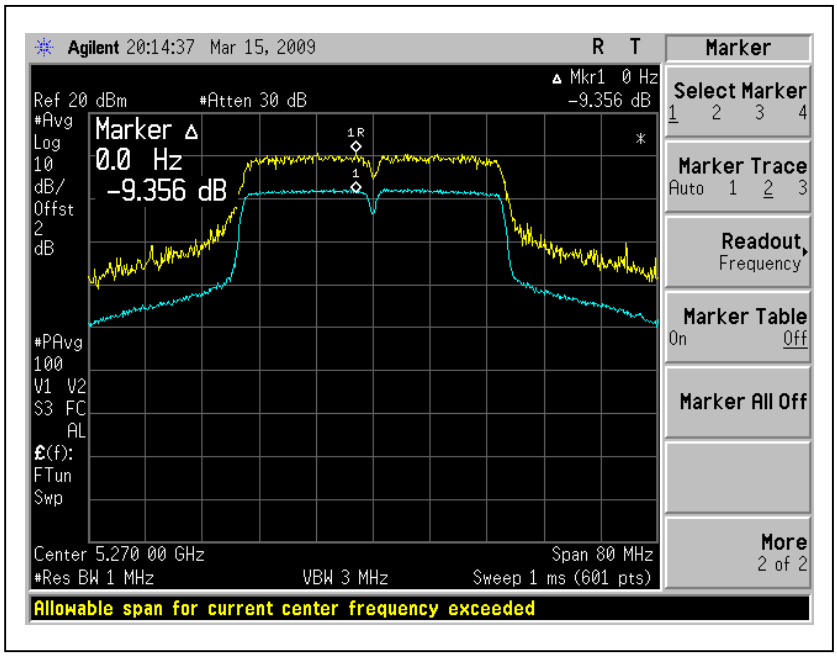
For Chain (0) : CH1



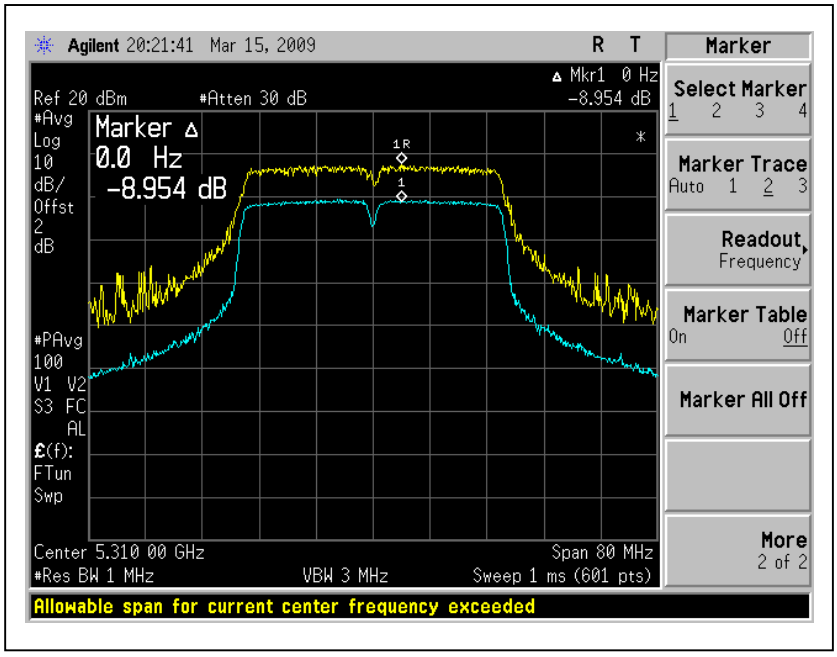
CH2



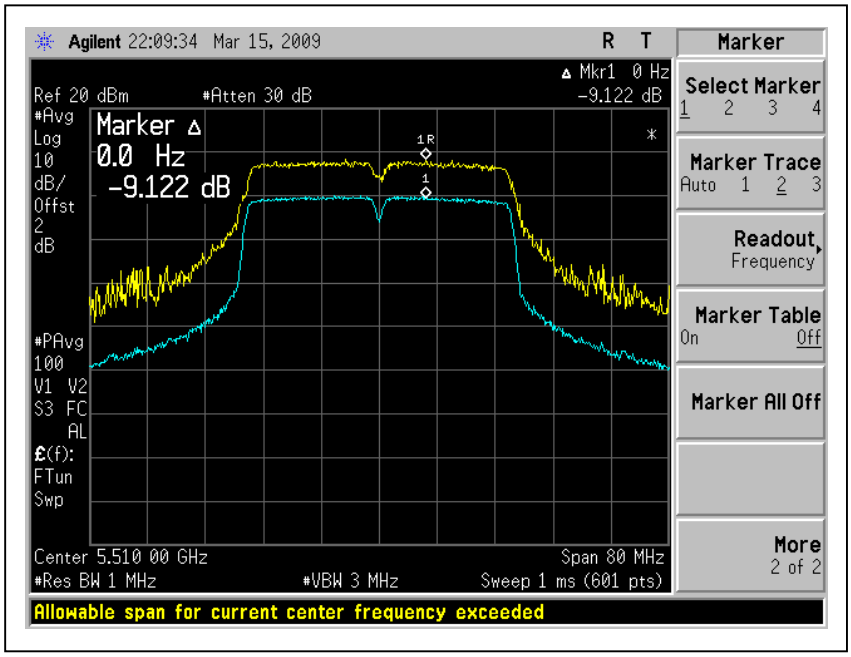
CH3


Agilent 20:14:37 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-9.356 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.356 dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.270 00 GHz
Span 80 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

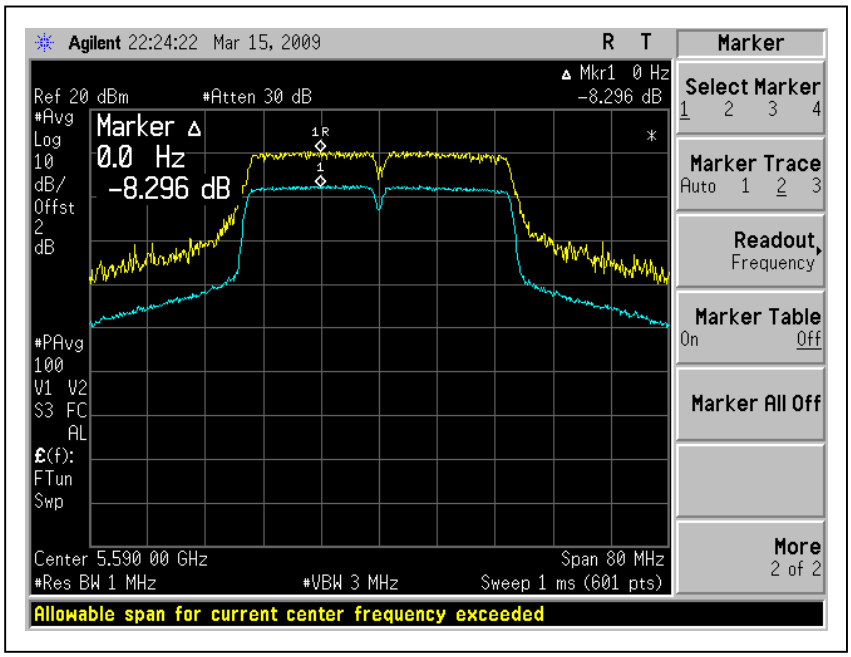
CH4


Agilent 20:21:41 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.954 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-8.954 dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.310 00 GHz
Span 80 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

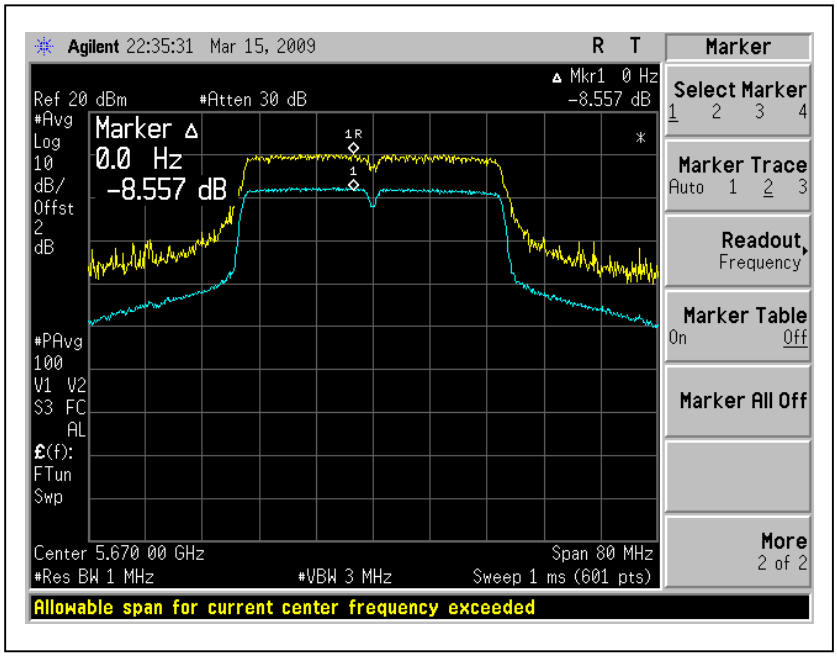
CH5


Agilent 22:09:34 Mar 15, 2009
R T
Marker
Δ Mkr1 0 Hz
-9.122 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.122 dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.510 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

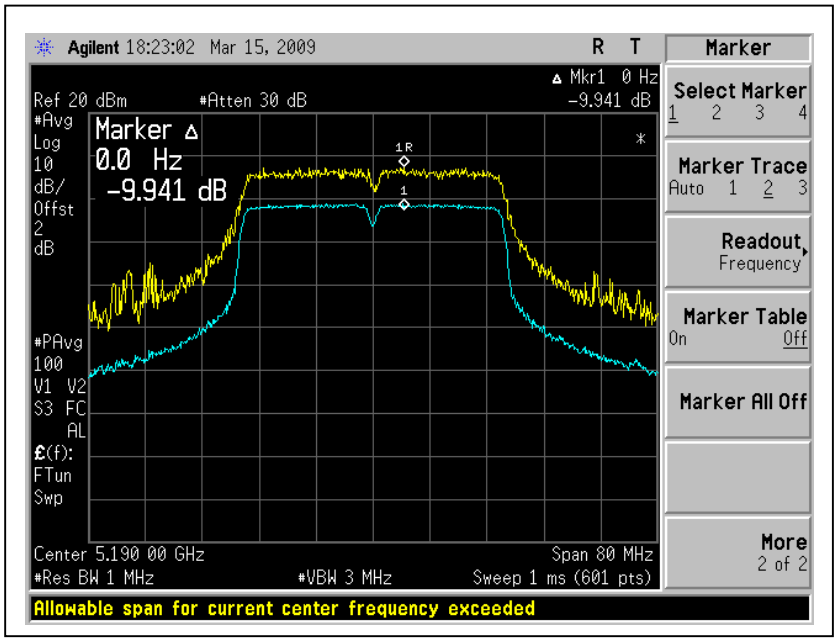
CH7


Agilent 22:24:22 Mar 15, 2009
R T
Marker
Δ Mkr1 0 Hz
-8.296 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-8.296 dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.590 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

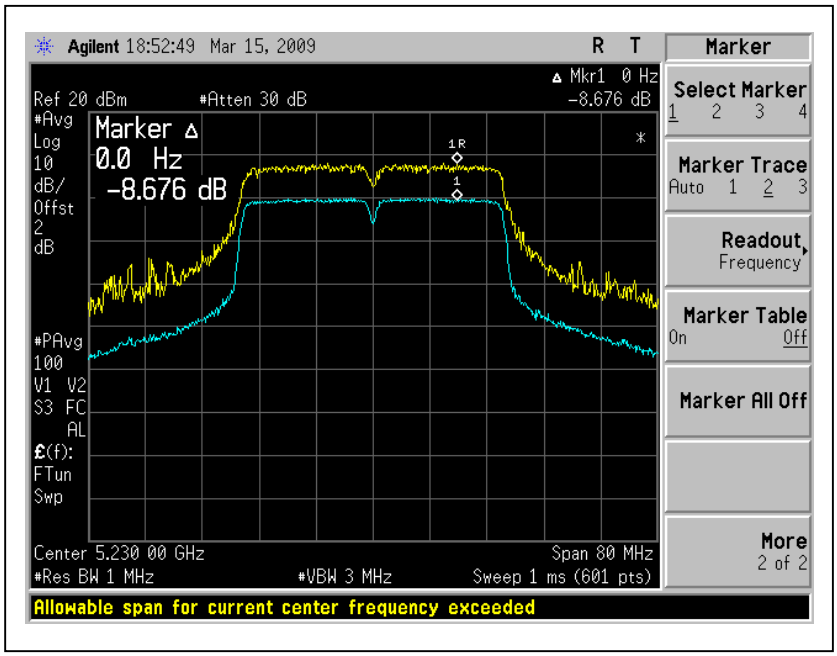
CH9


Agilent 22:35:31 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.557 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-8.557 dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.670 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2

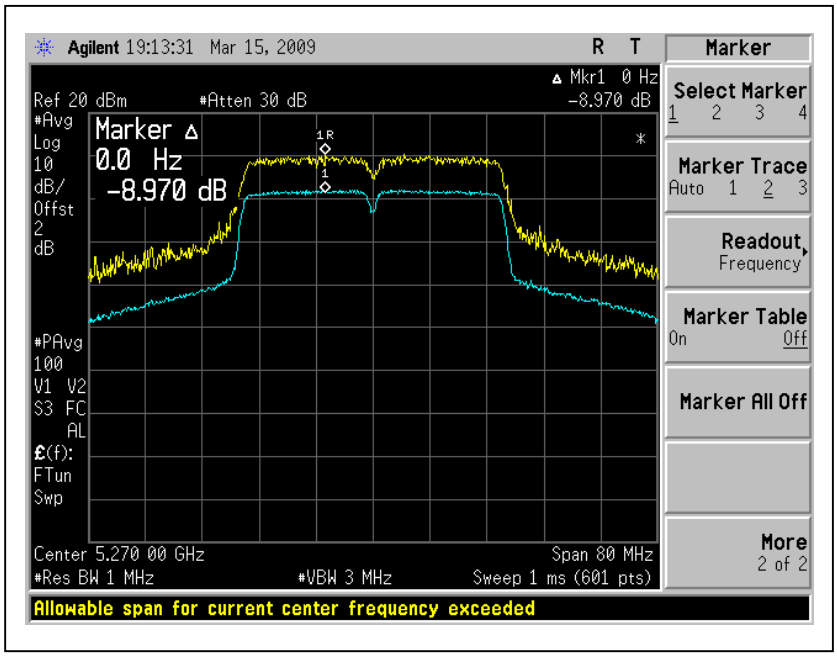
For Chain (1) : CH1



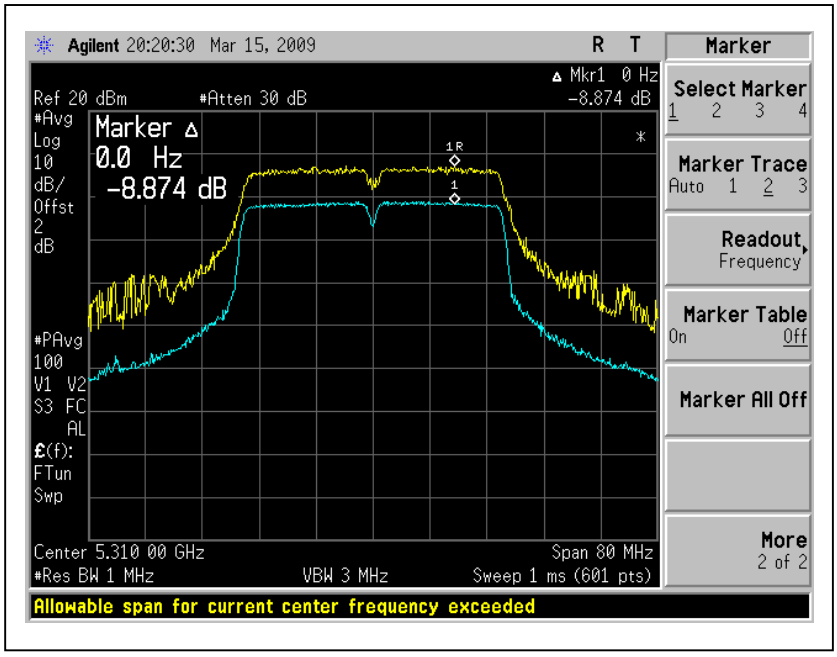
CH2



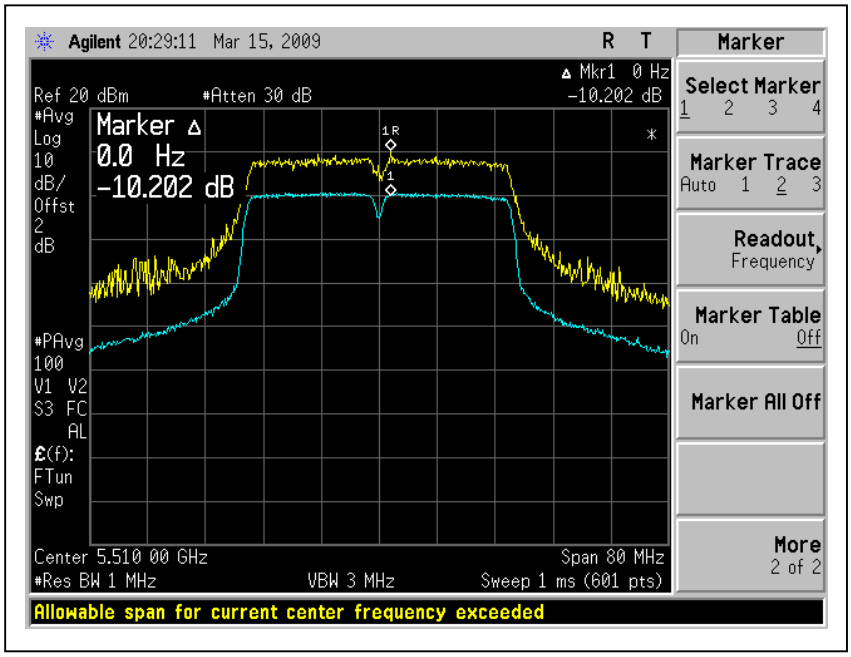
CH3


Agilent 19:13:31 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.970 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-8.970 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.270 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

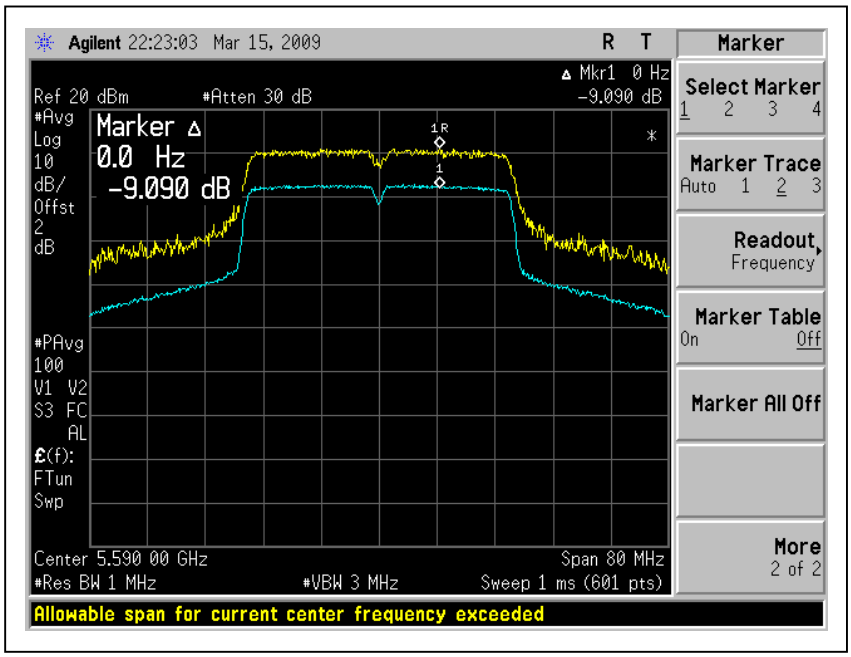
CH4


Agilent 20:20:30 Mar 15, 2009
R T
Marker
Mkr1 0 Hz
-8.874 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-8.874 dB
1R
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.310 00 GHz
Span 80 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

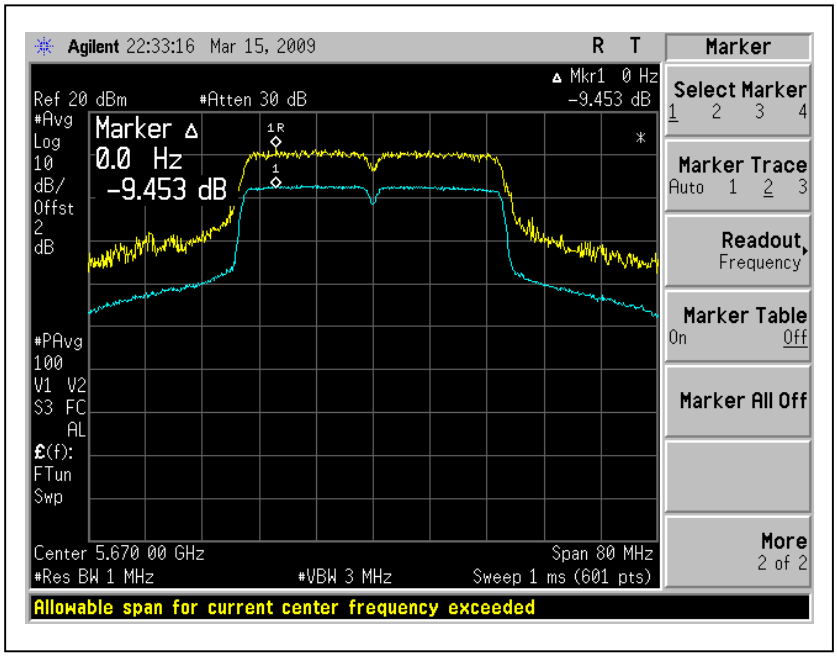
CH5


Agilent 20:29:11 Mar 15, 2009
R T
Marker
Δ Mkr1 0 Hz
-10.202 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-10.202 dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.510 00 GHz
Span 80 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

CH7


Agilent 22:23:03 Mar 15, 2009
R T
Marker
Δ Mkr1 0 Hz
-9.090 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.090 dB
1R
1
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.590 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Allowable span for current center frequency exceeded

CH9


Agilent 22:33:16 Mar 15, 2009
R T
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-9.453 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker Δ
0.0 Hz
-9.453 dB
1R
1
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
#PAvg
100
V1 V2
S3 FC
AL
£(f):
FTun
Swp
Center 5.670 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
More
2 of 2
Allowable span for current center frequency exceeded

4.6 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.6.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Frequency Band	Limit
5.15 ~ 5.25GHz	4dBm
5.25 ~ 5.35GHz	11dBm
5.47 – 5.725GHz	11dBm
5.725 ~ 5.825GHz	17dBm

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100037	Aug. 09, 2008	Aug. 08, 2009

NOTE:

1.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

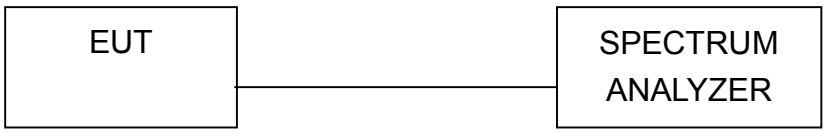
4.6.3 TEST PROCEDURES

1. The transmitter output was connected to the spectrum analyzer.
2. Set RBW=1MHz, VBW=3MHz. The PPSD is the highest level found across the emission in any 1MHz band.
3. The measurement include through a combiner with both chain and each chain when operate simultaneously.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 TEST SETUP



4.6.6 EUT OPERATING CONDITIONS

Same as 4.3.6

4.6.7 TEST RESULTS

802.11a OFDM modulation

MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 962hPa
TESTED BY	Wen Yu		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)		TOTAL POWER DENSITY –With Combiner(dBm)	TOTAL OUTPUT POWER DENSITY (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
		Chain (0)	Chain(1)				
1	5180	-0.195	0.138	2.932	2.98	3	PASS
2	5200	-0.391	0.046	2.945	2.84	3	PASS
4	5240	-0.008	-0.135	2.891	2.94	3	PASS
5	5260	5.131	4.809	8.414	7.98	10	PASS
7	5300	5.200	5.439	8.557	8.33	10	PASS
8	5320	4.919	4.824	8.073	7.88	10	PASS
9	5500	1.827	2.613	5.68	5.25	10	PASS
14	5600	5.437	5.480	9.053	8.47	10	PASS
19	5700	2.611	2.876	6.304	5.76	10	PASS

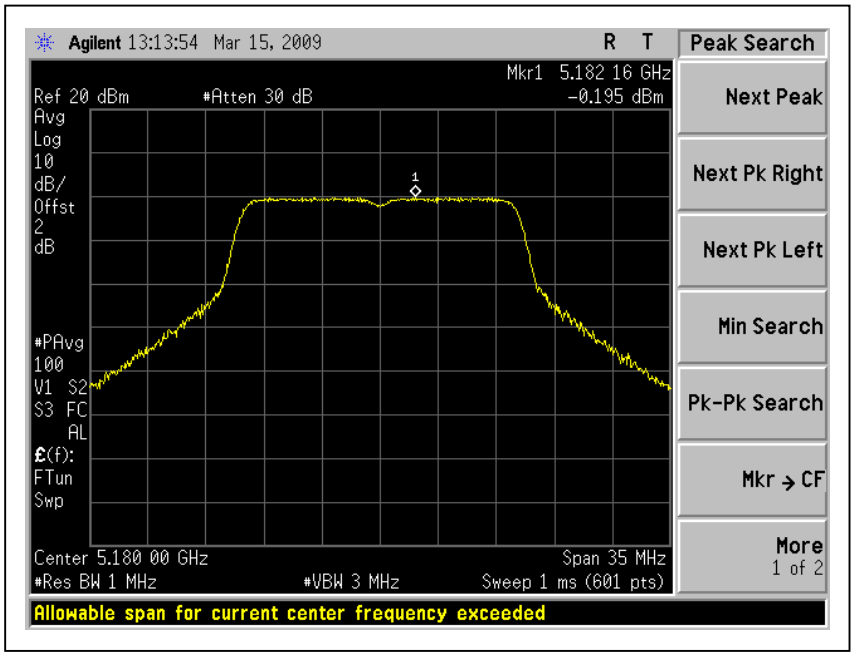
* Aggregate PSD across transmitters in linear power units across each transmitter output.

Directional gain = gain of antenna element + 10 log (# of TX antenna elements)

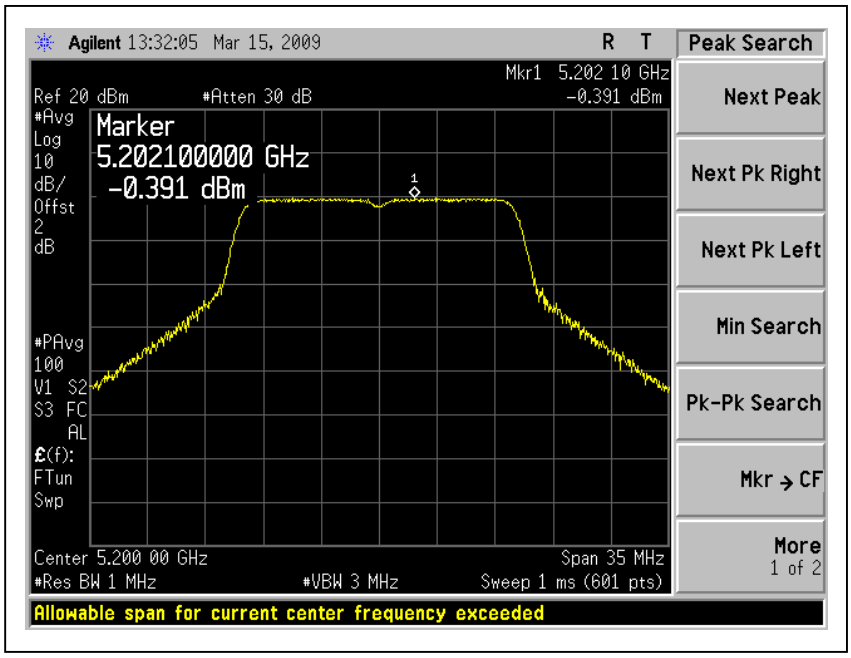
Effective Legacy Gain (dBi)=7

The combined antenna gain is 7dBi, therefore the limit reduce to 3dBm and 10dBm for 5150~5250MHz ,5250~5350 and 5470~5725MHz.

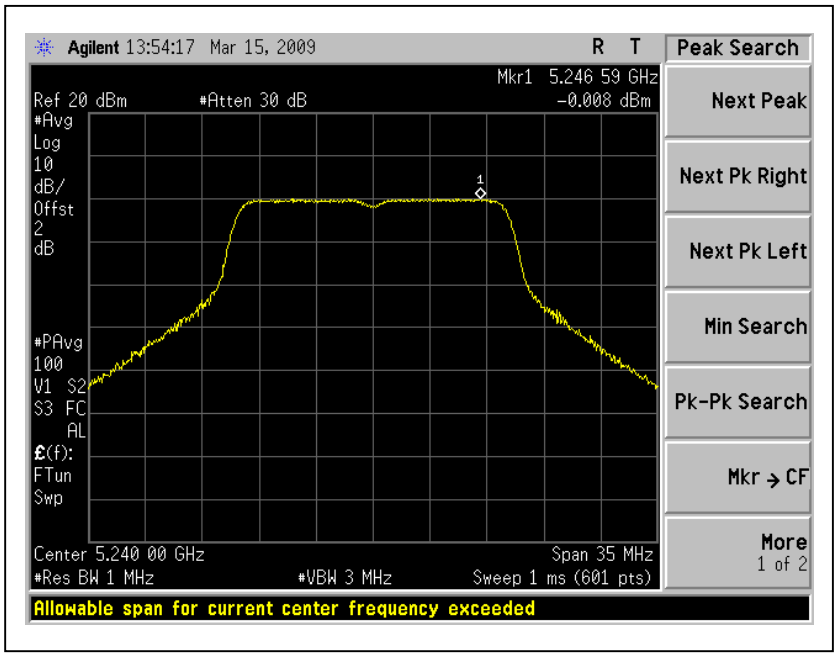
For Chain (0) :CH1



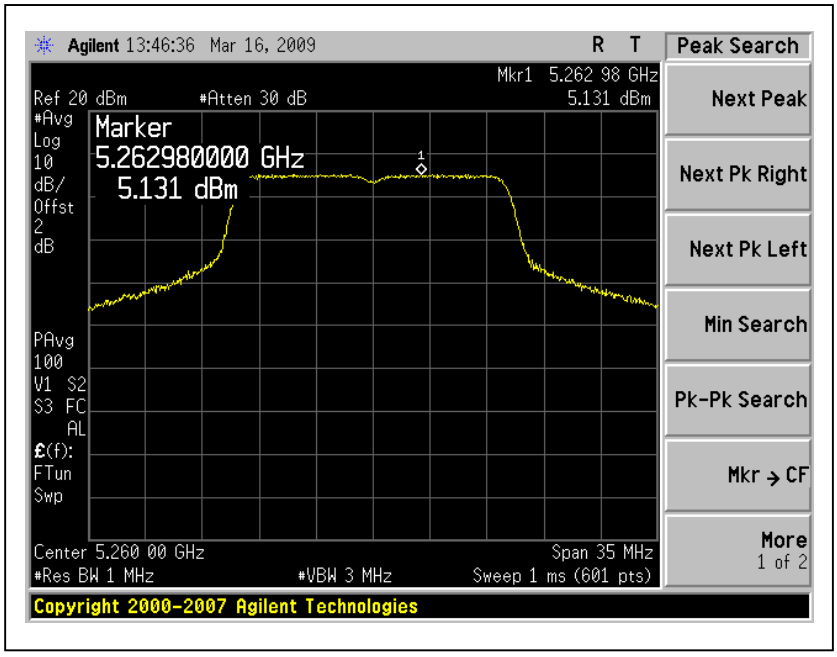
CH2



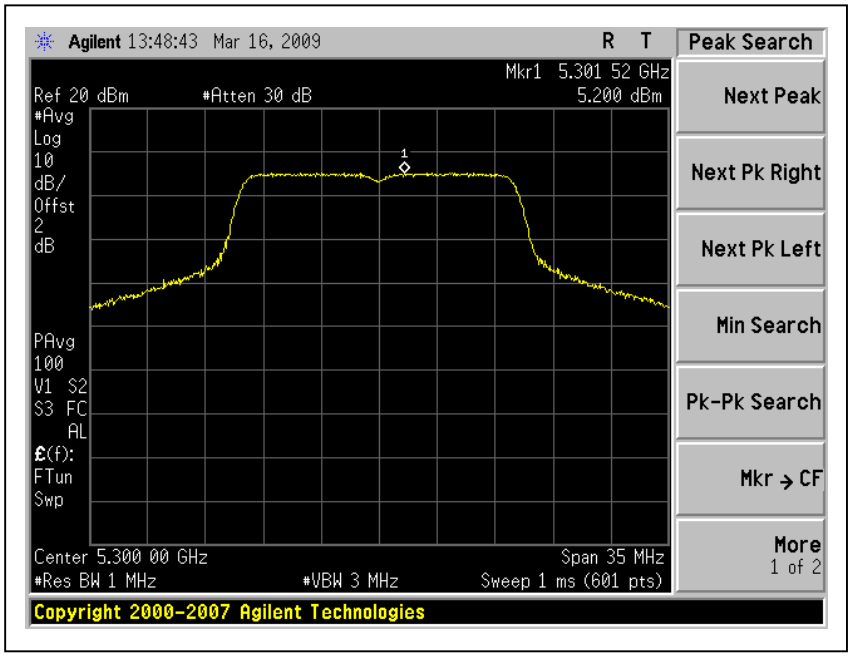
CH4


Agilent 13:54:17 Mar 15, 2009
R T
Peak Search
Mkr1 5.246 59 GHz
Ref 20 dBm
#Atten 30 dB
-0.008 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.240 00 GHz
Span 35 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

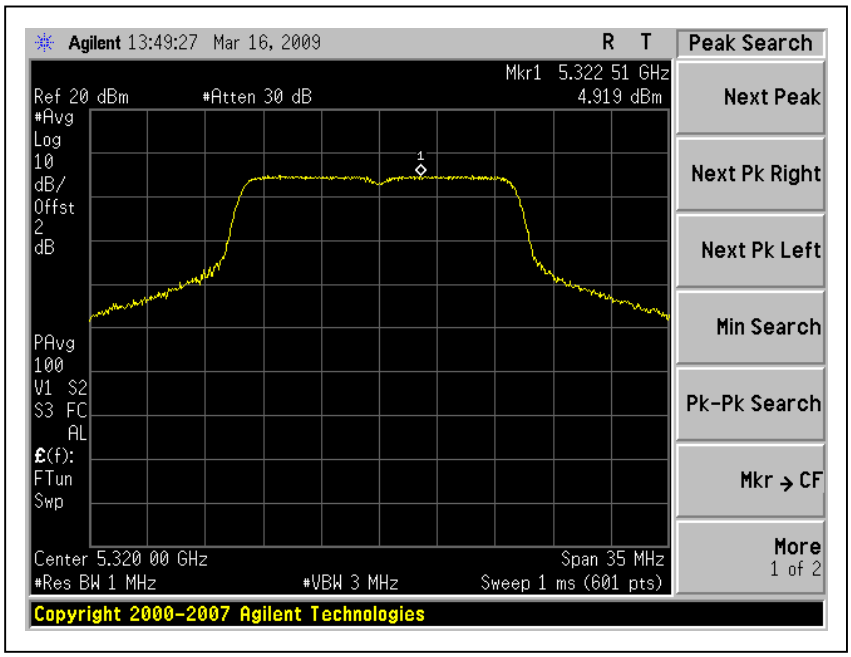
CH5


Agilent 13:46:36 Mar 16, 2009
R T
Peak Search
Mkr1 5.262 98 GHz
Ref 20 dBm
#Atten 30 dB
5.131 dBm
Next Peak
Marker
5.262980000 GHz
5.131 dBm
#Avg
Log
10
dB/
Offst
2
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.260 00 GHz
Span 35 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

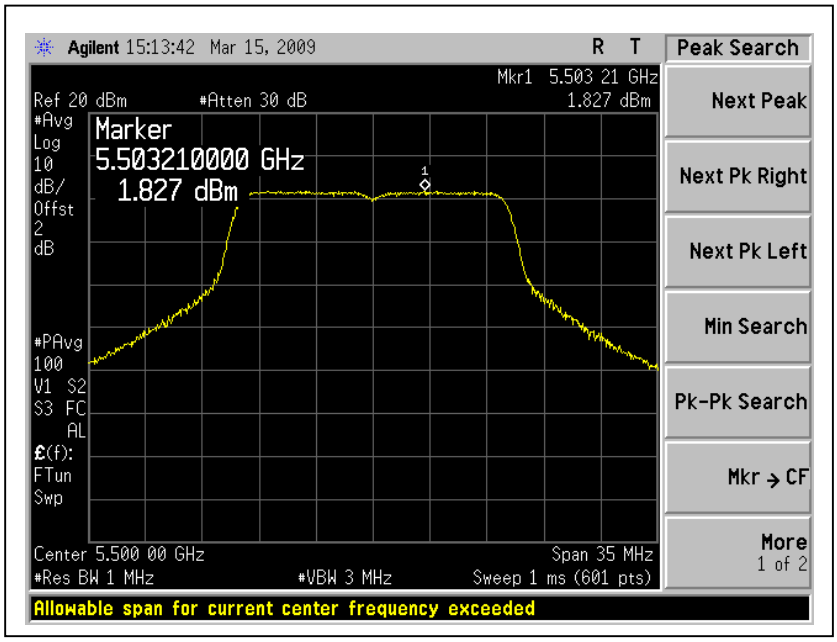
CH7


Agilent 13:48:43 Mar 16, 2009
R T
Peak Search
Mkr1 5.301 52 GHz
5.200 dBm
Ref 20 dBm
#Atten 30 dB
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.300 00 GHz
Span 35 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

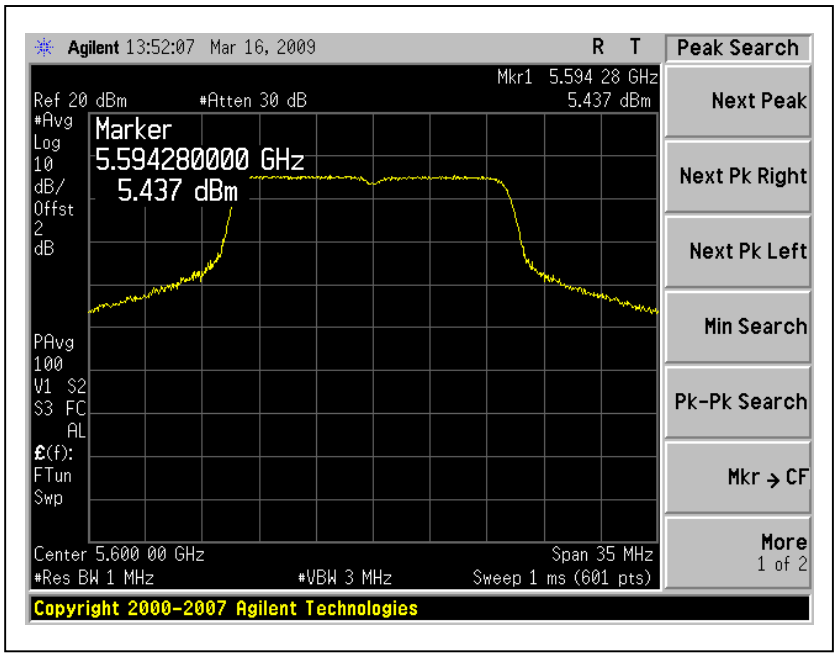
CH8


Agilent 13:49:27 Mar 16, 2009
R T
Peak Search
Mkr1 5.322 51 GHz
4.919 dBm
Ref 20 dBm
#Atten 30 dB
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.320 00 GHz
Span 35 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

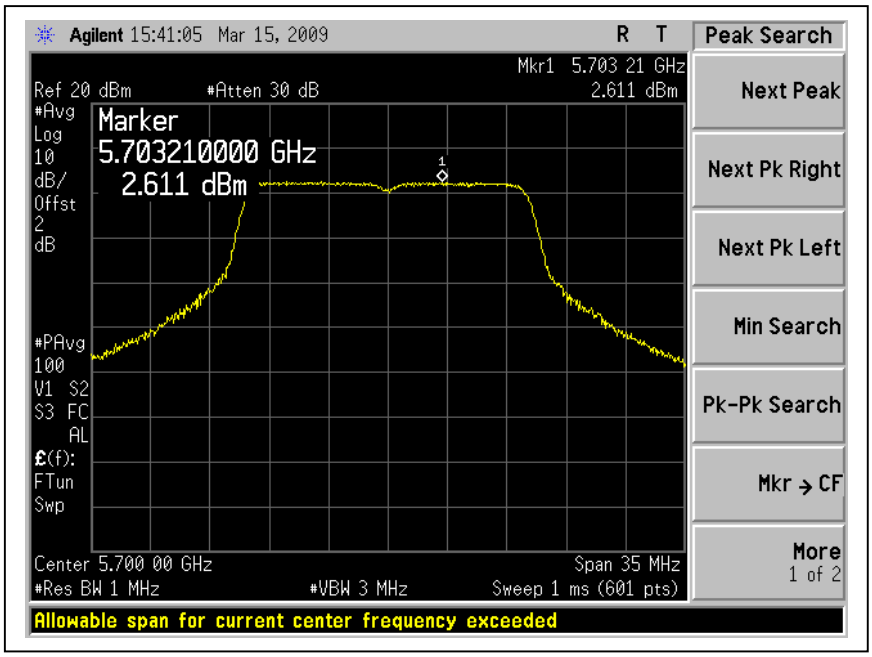
CH9


Agilent 15:13:42 Mar 15, 2009
R T
Peak Search
Mkr1 5.503 21 GHz
Ref 20 dBm
#Atten 30 dB
1.827 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.503210000 GHz
1.827 dBm
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.500 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

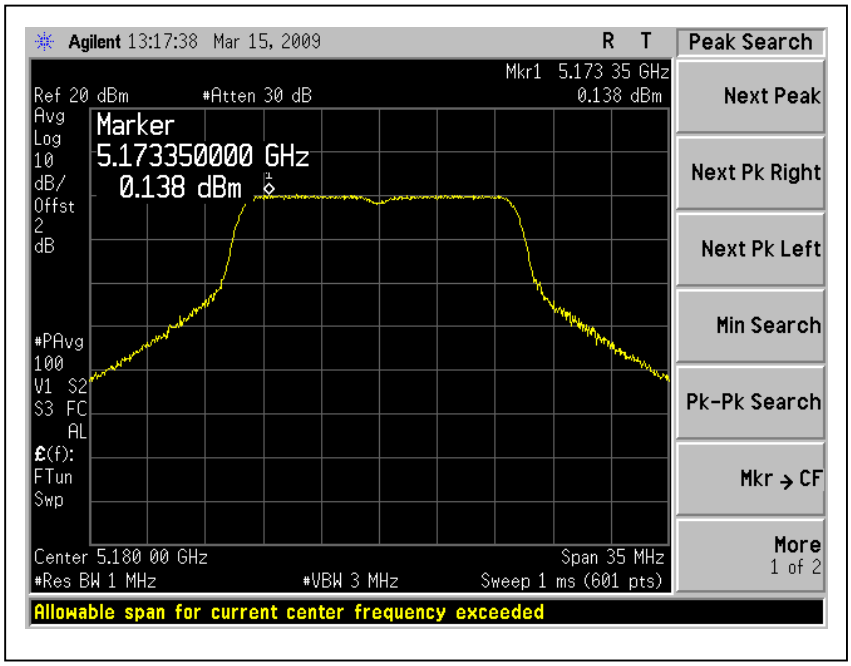
CH14


Agilent 13:52:07 Mar 16, 2009
R T
Peak Search
Mkr1 5.594 28 GHz
Ref 20 dBm
#Atten 30 dB
5.437 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.594280000 GHz
5.437 dBm
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.600 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

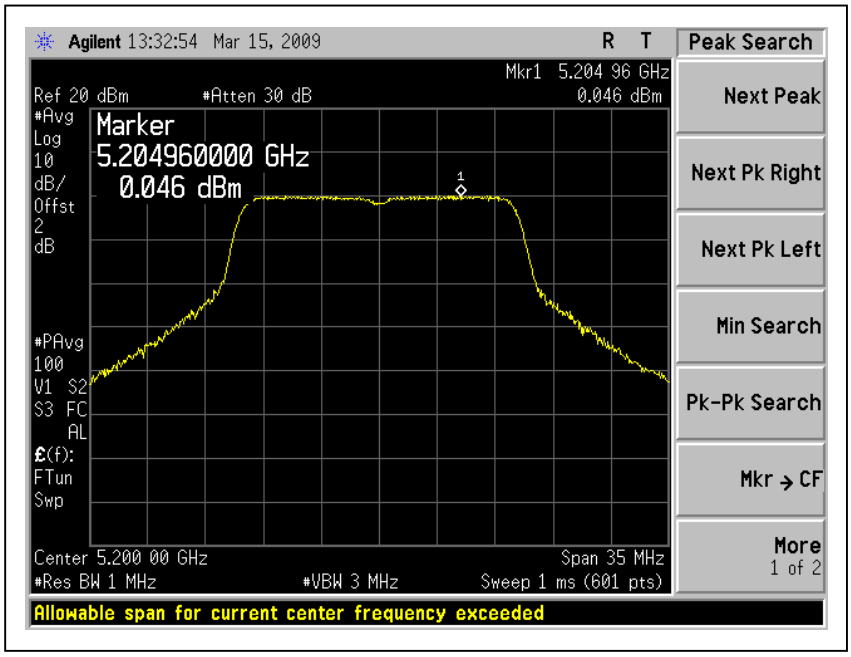
CH19


Agilent 15:41:05 Mar 15, 2009
R T
Peak Search
Mkr1 5.703 21 GHz
2.611 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.703210000 GHz
2.611 dBm
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.700 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

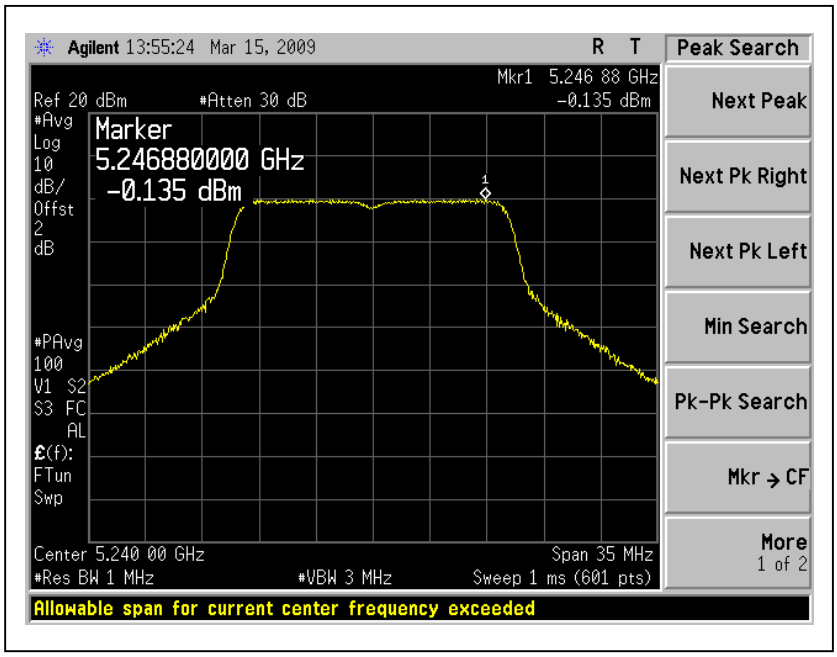
For Chain (1) : CH1



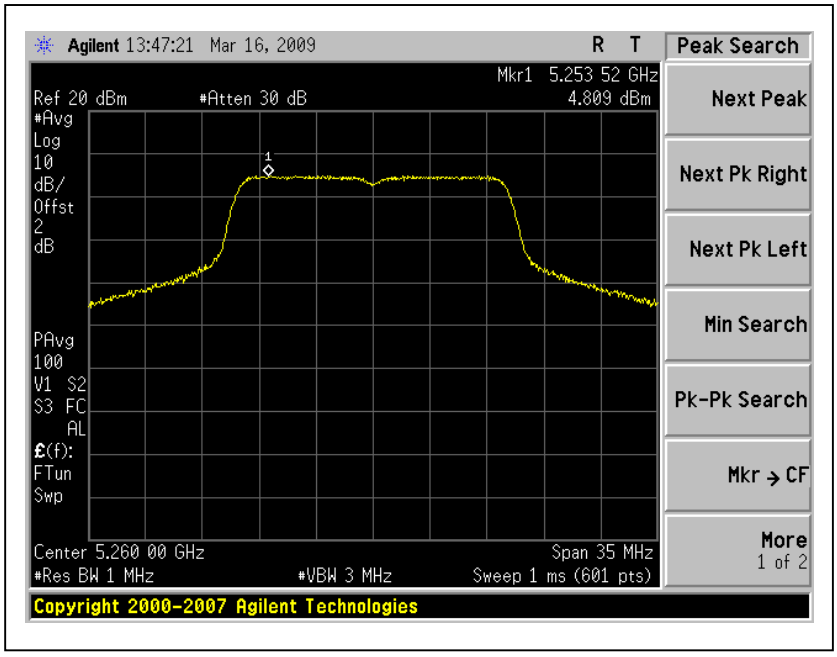
CH2



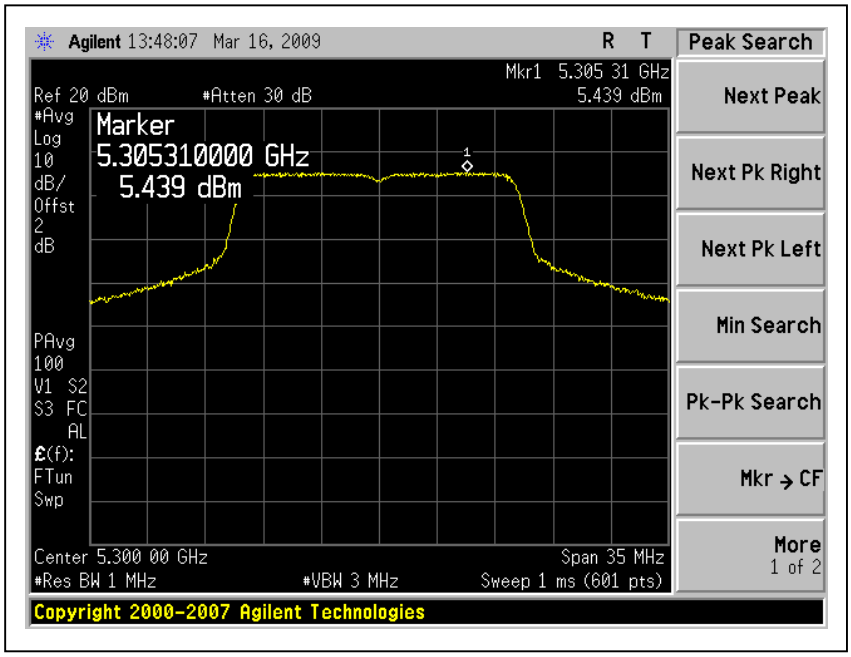
CH4


Agilent 13:55:24 Mar 15, 2009
R T
Peak Search
Mkr1 5.246 88 GHz
-0.135 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.246880000 GHz
-0.135 dBm
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.240 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

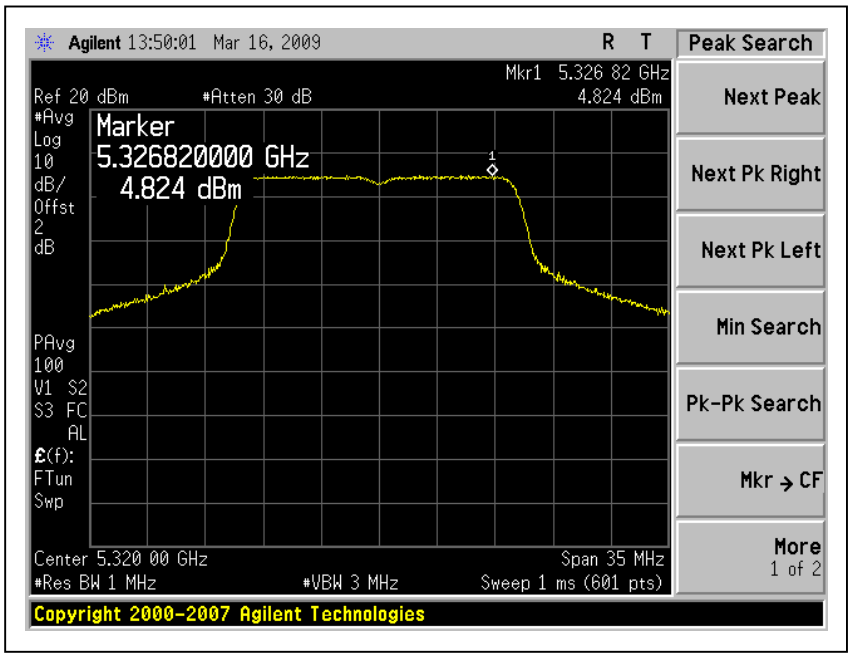
CH5


Agilent 13:47:21 Mar 16, 2009
R T
Peak Search
Mkr1 5.253 52 GHz
4.809 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.260 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

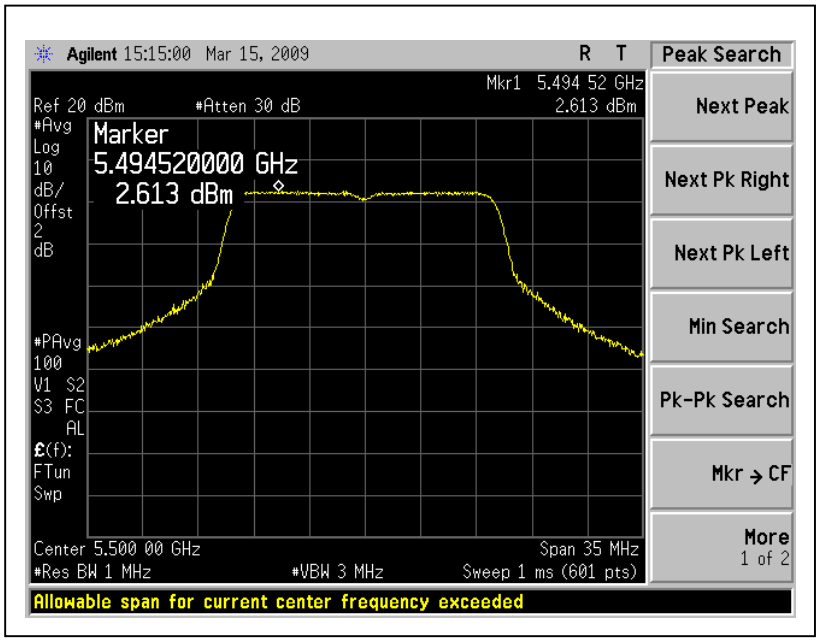
CH7


Agilent 13:48:07 Mar 16, 2009
R T
Peak Search
Mkr1 5.305 31 GHz
5.439 dBm
Ref 20 dBm
#Atten 30 dB
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.305310000 GHz
5.439 dBm
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.300 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

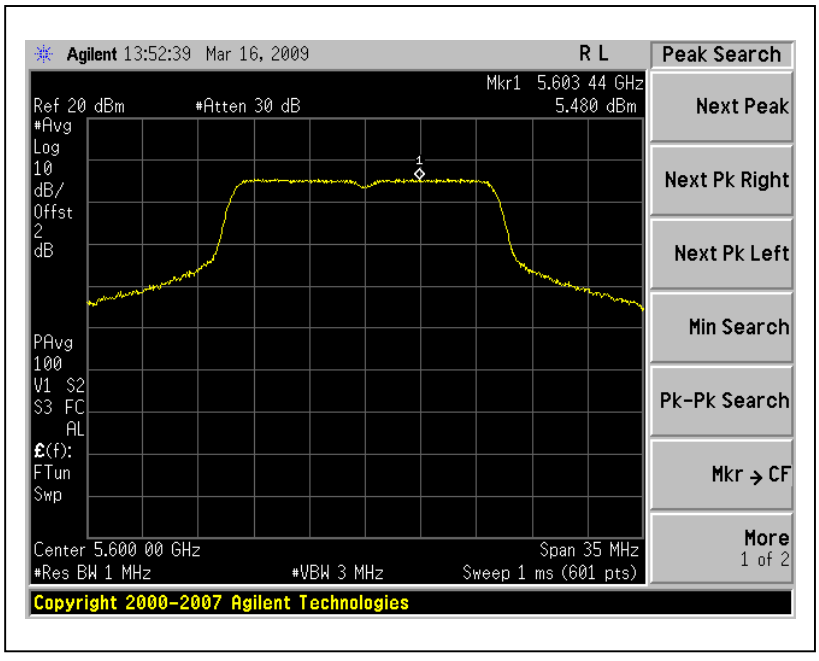
CH8


Agilent 13:50:01 Mar 16, 2009
R T
Peak Search
Mkr1 5.326 82 GHz
4.824 dBm
Ref 20 dBm
#Atten 30 dB
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.326820000 GHz
4.824 dBm
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.320 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

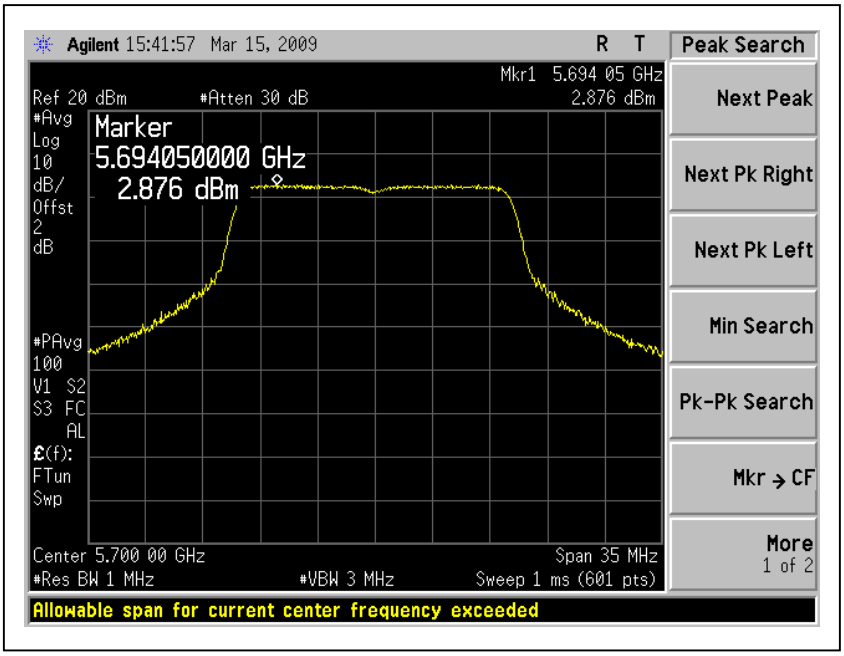
CH9


Agilent 15:15:00 Mar 15, 2009
R T
Peak Search
Mkr1 5.494 52 GHz
Ref 20 dBm
#Atten 30 dB
2.613 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.494520000 GHz
2.613 dBm
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.500 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

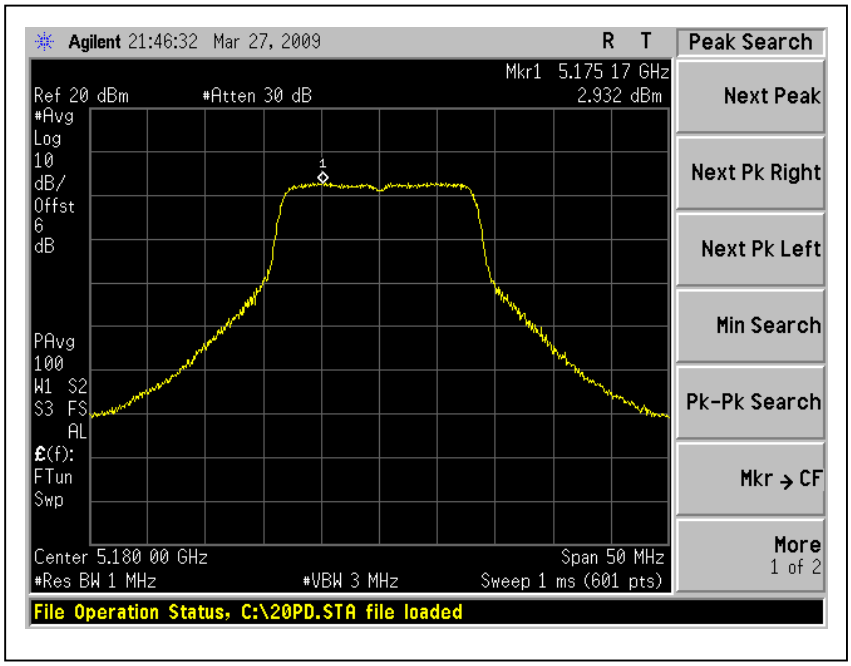
CH14


Agilent 13:52:39 Mar 16, 2009
R L
Peak Search
Mkr1 5.603 44 GHz
Ref 20 dBm
#Atten 30 dB
5.480 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.600 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

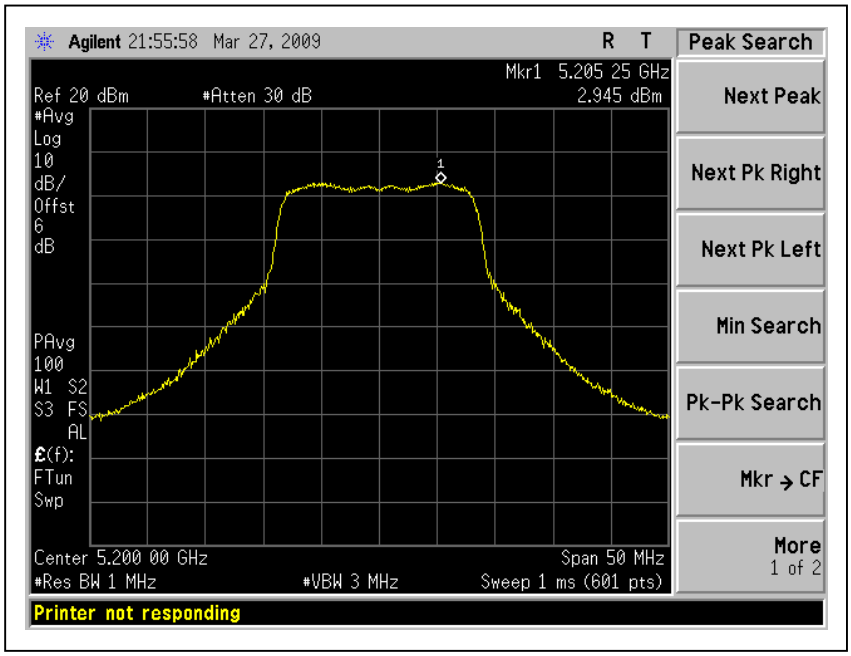
CH19


Agilent 15:41:57 Mar 15, 2009
R T
Peak Search
Mkr1 5.694 05 GHz
2.876 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.694050000 GHz
2.876 dBm
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.700 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

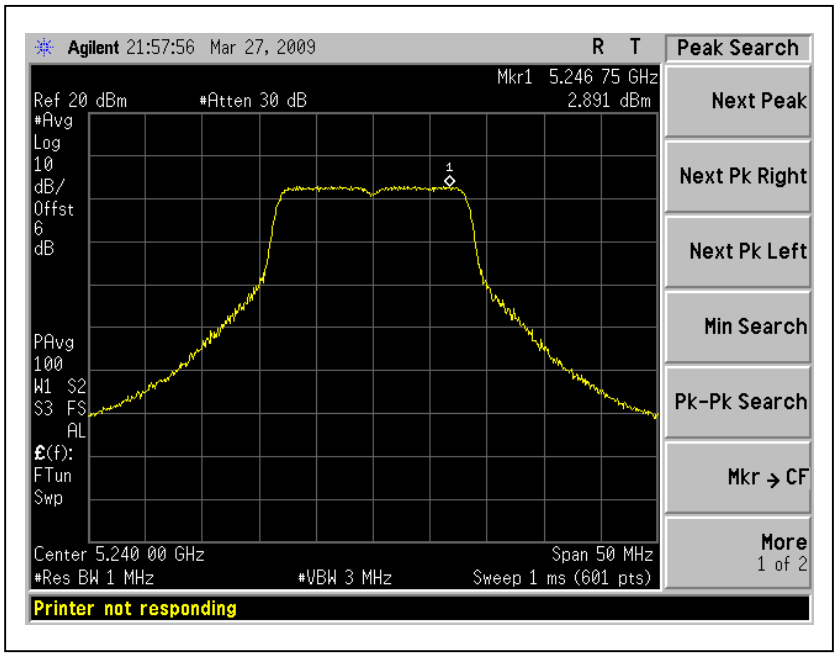
With Combiner: CH1



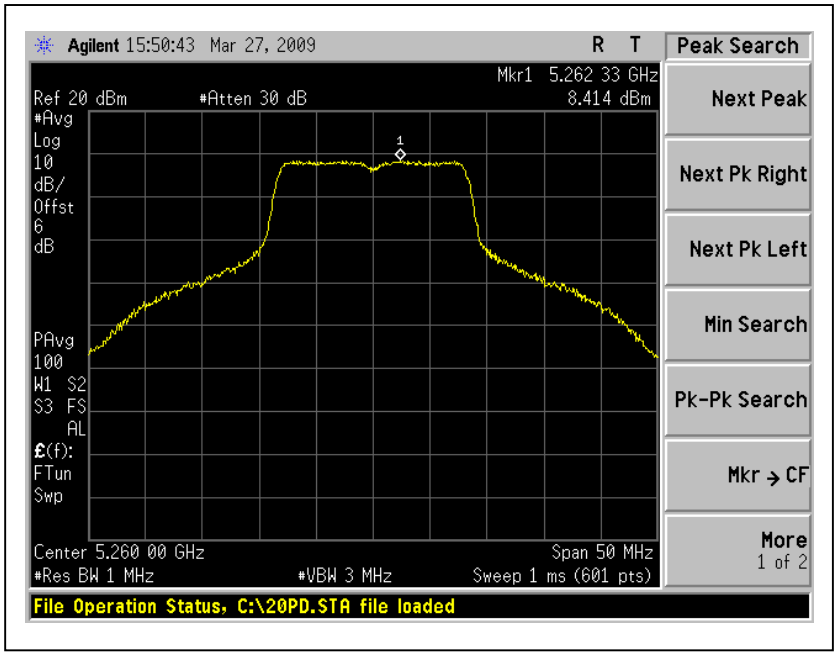
CH2



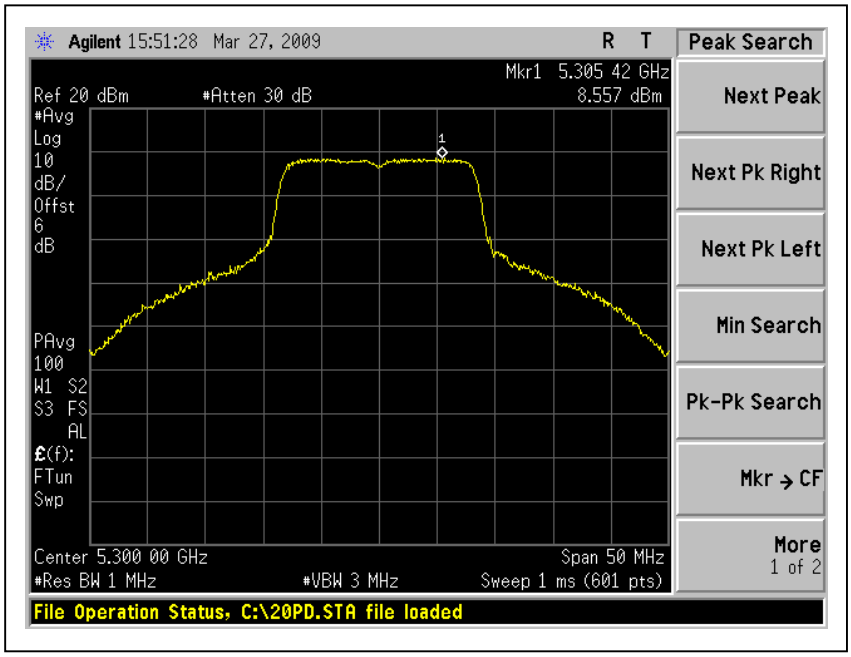
CH4


Agilent 21:57:56 Mar 27, 2009
R T
Peak Search
Mkr1 5.246 75 GHz
Ref 20 dBm
#Atten 30 dB
2.891 dBm
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.240 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Printer not responding

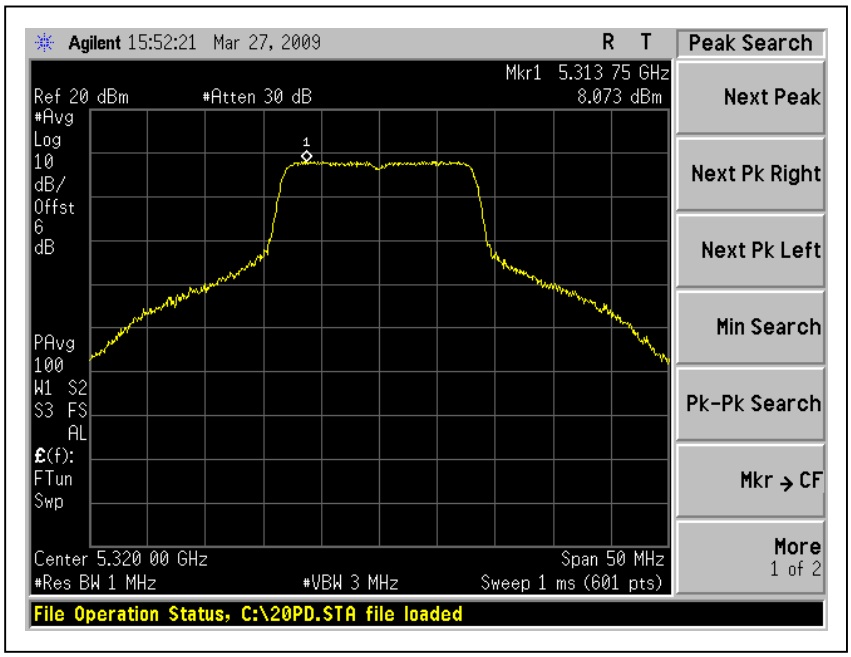
CH5


Agilent 15:50:43 Mar 27, 2009
R T
Peak Search
Mkr1 5.262 33 GHz
Ref 20 dBm
#Atten 30 dB
8.414 dBm
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.260 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

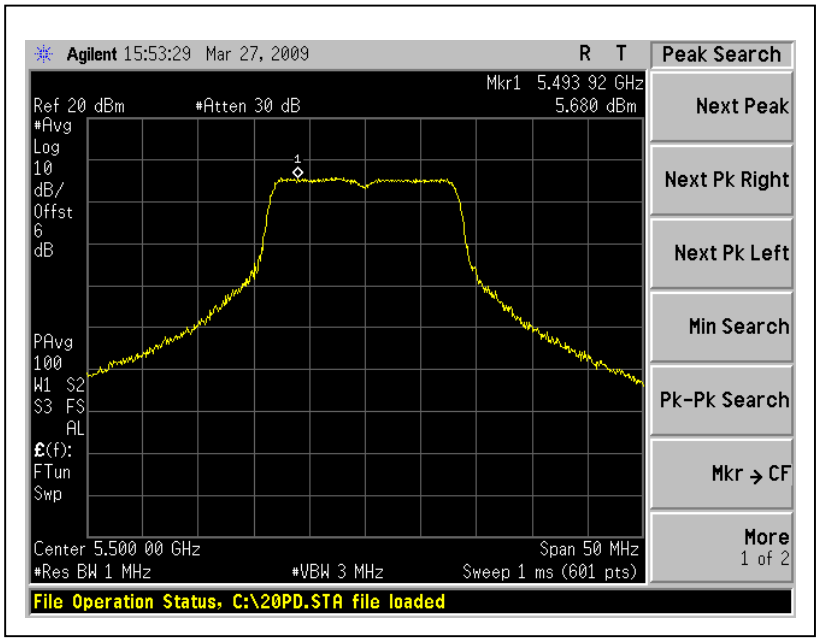
CH7


Agilent 15:51:28 Mar 27, 2009
R T
Peak Search
Mkr1 5.305 42 GHz
8.557 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
6
dB
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.300 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

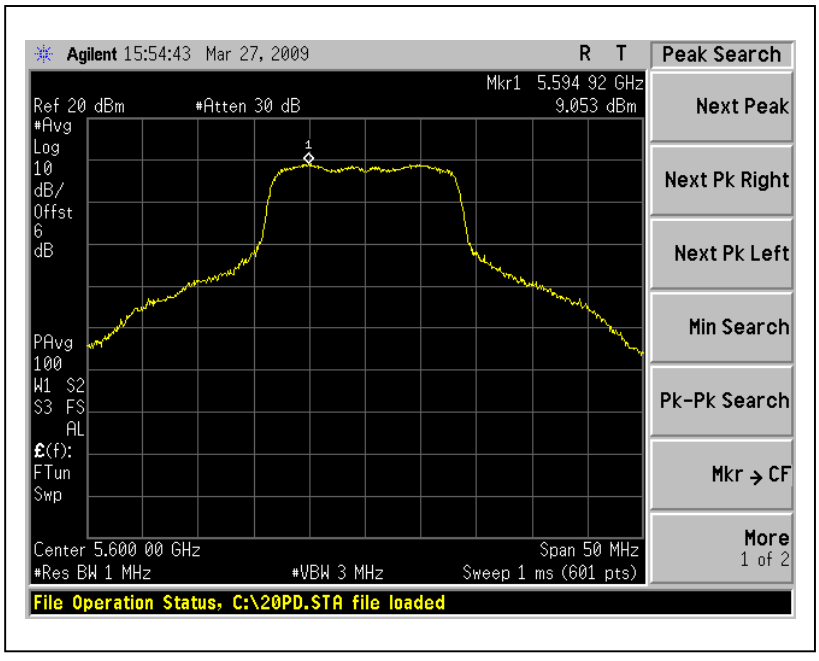
CH8


Agilent 15:52:21 Mar 27, 2009
R T
Peak Search
Mkr1 5.313 75 GHz
8.073 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
6
dB
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.320 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

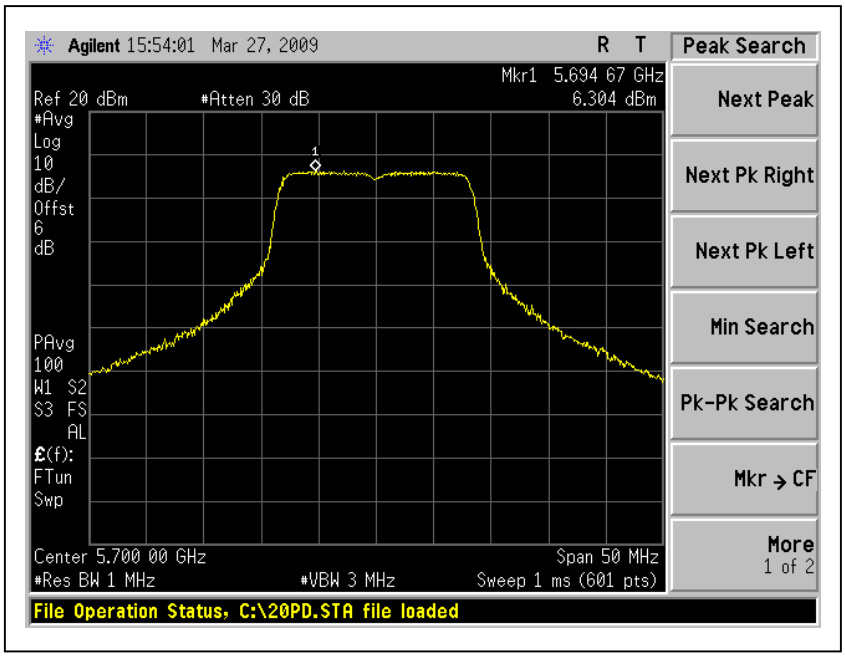
CH9


Agilent 15:53:29 Mar 27, 2009
R T
Peak Search
Mkr1 5.493 92 GHz
Ref 20 dBm
#Atten 30 dB
5.680 dBm
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.500 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

CH14


Agilent 15:54:43 Mar 27, 2009
R T
Peak Search
Mkr1 5.594 92 GHz
Ref 20 dBm
#Atten 30 dB
9.053 dBm
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.600 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

CH19


Agilent 15:54:01 Mar 27, 2009
R T
Peak Search
Mkr1 5.694 67 GHz
6.304 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
6
dB
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.700 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

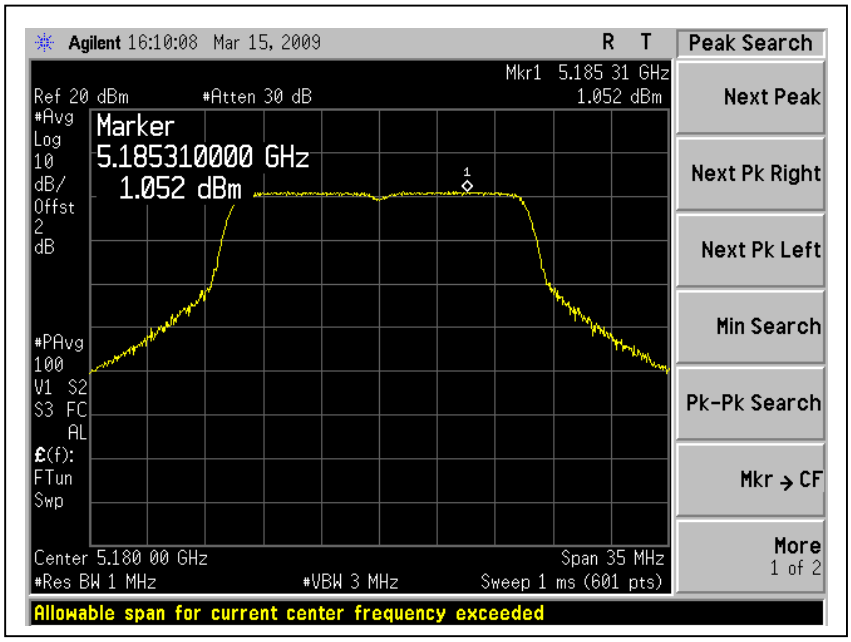
DRAFT 802.11n (20MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 60%RH, 962hPa
TESTED BY	Wen Yu		

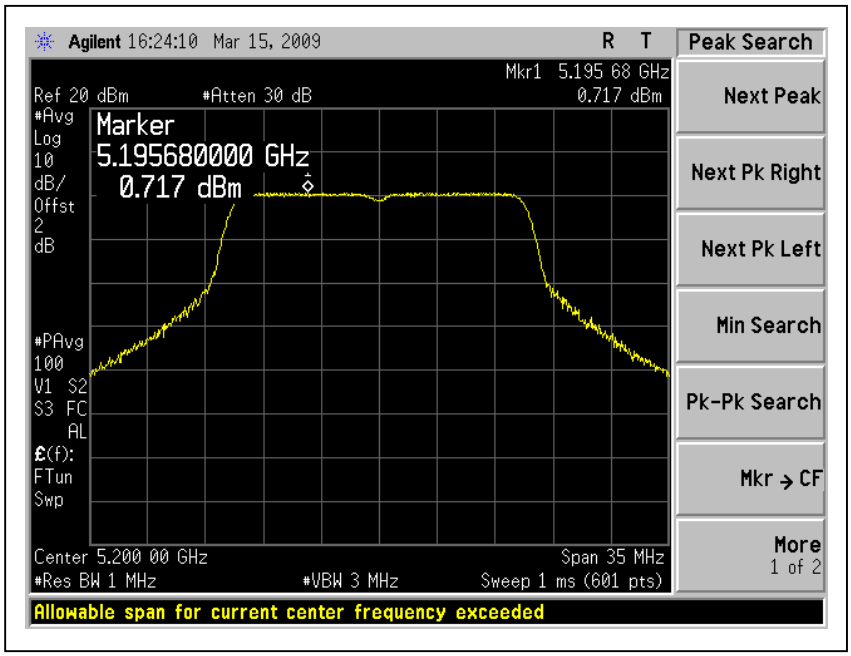
CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)		TOTAL POWER DENSITY –With Combiner(dBm)	TOTAL OUTPUT POWER DENSITY (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
		Chain (0)	Chain(1)				
1	5180	1.052	0.778	3.984	3.93	4	PASS
2	5200	0.717	0.819	3.731	3.78	4	PASS
4	5240	1.025	0.480	3.838	3.77	4	PASS
5	5260	4.812	4.517	8.313	7.68	11	PASS
7	5300	4.864	4.792	8.37	7.84	11	PASS
8	5320	4.817	4.632	8.672	7.74	11	PASS
9	5500	3.011	3.840	6.449	6.46	11	PASS
14	5600	4.943	5.109	8.296	8.04	11	PASS
19	5700	2.001	2.124	5.697	5.07	11	PASS

* Aggregate PSD across transmitters in linear power units across each transmitter output.

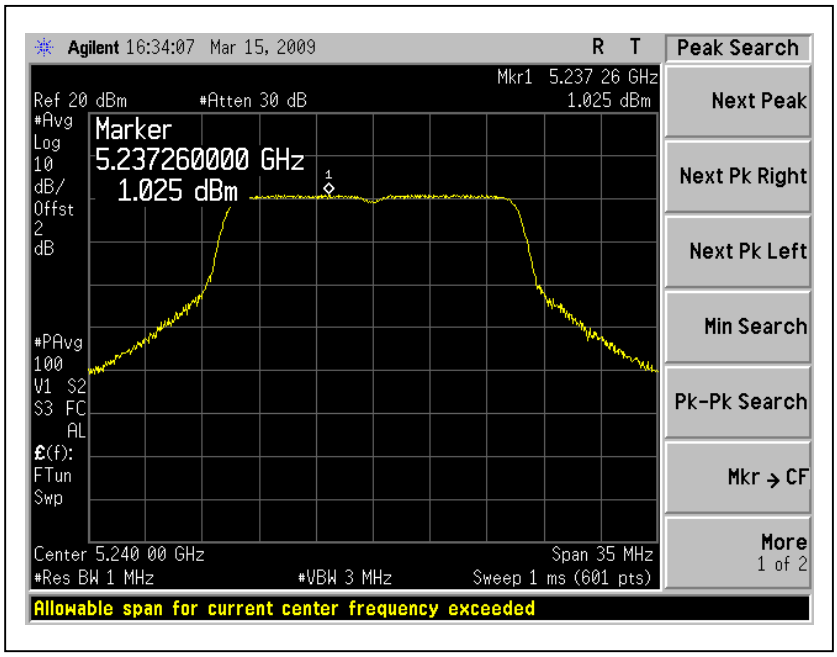
For Chain (0) : CH1



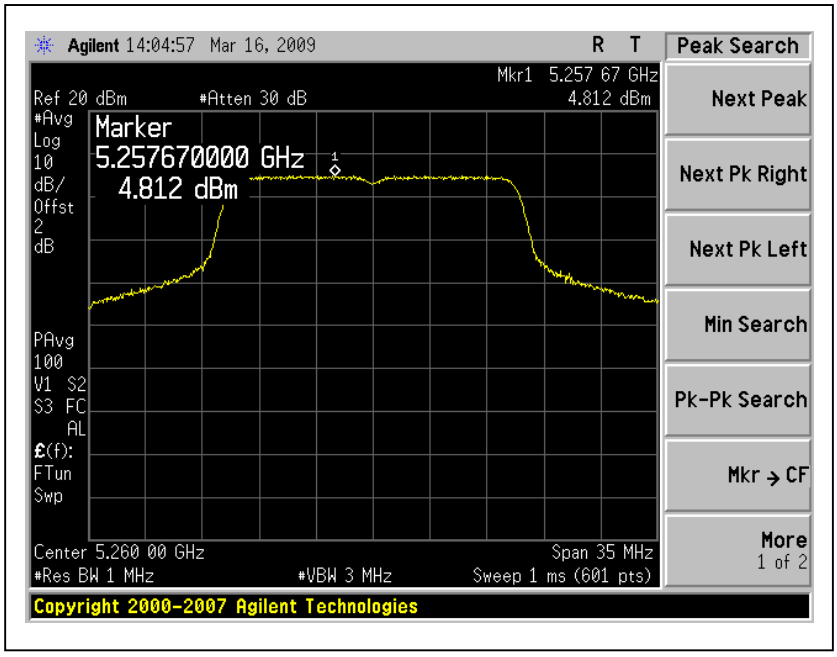
CH2



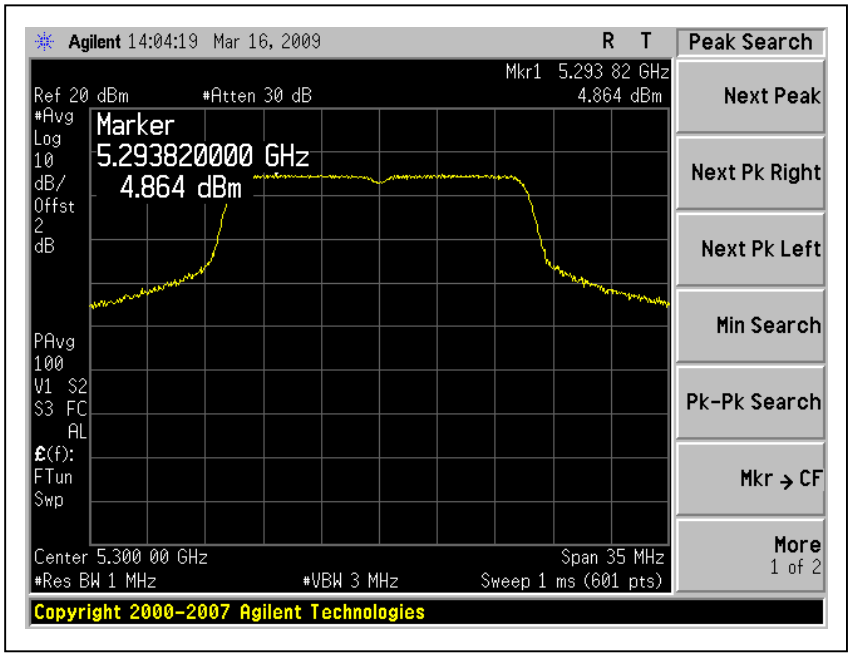
CH4


Agilent 16:34:07 Mar 15, 2009
R T
Peak Search
Mkr1 5.237 26 GHz
1.025 dBm
Ref 20 dBm
#Atten 30 dB
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.237260000 GHz
1.025 dBm
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.240 00 GHz
Span 35 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

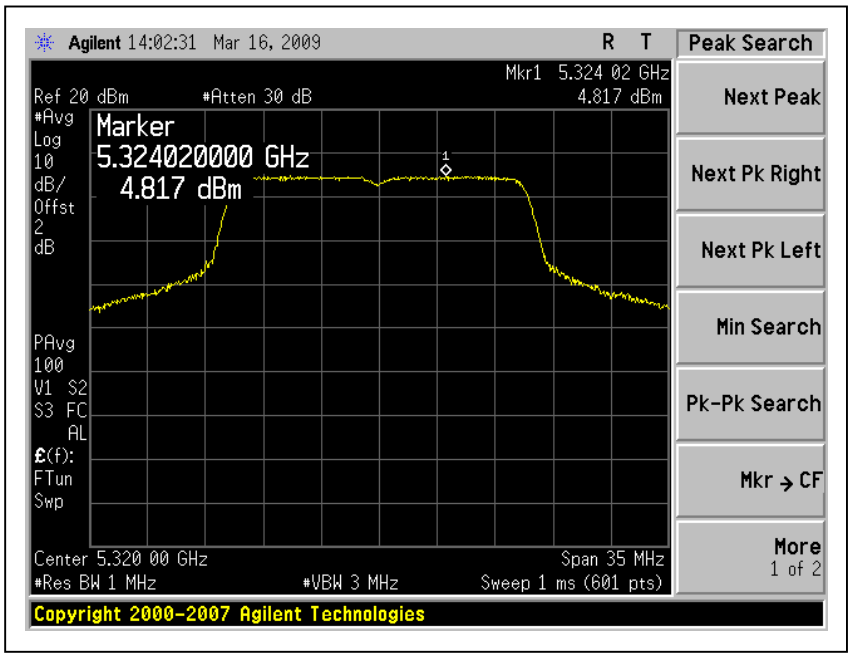
CH5


Agilent 14:04:57 Mar 16, 2009
R T
Peak Search
Mkr1 5.257 67 GHz
4.812 dBm
Ref 20 dBm
#Atten 30 dB
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.257670000 GHz
4.812 dBm
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.260 00 GHz
Span 35 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

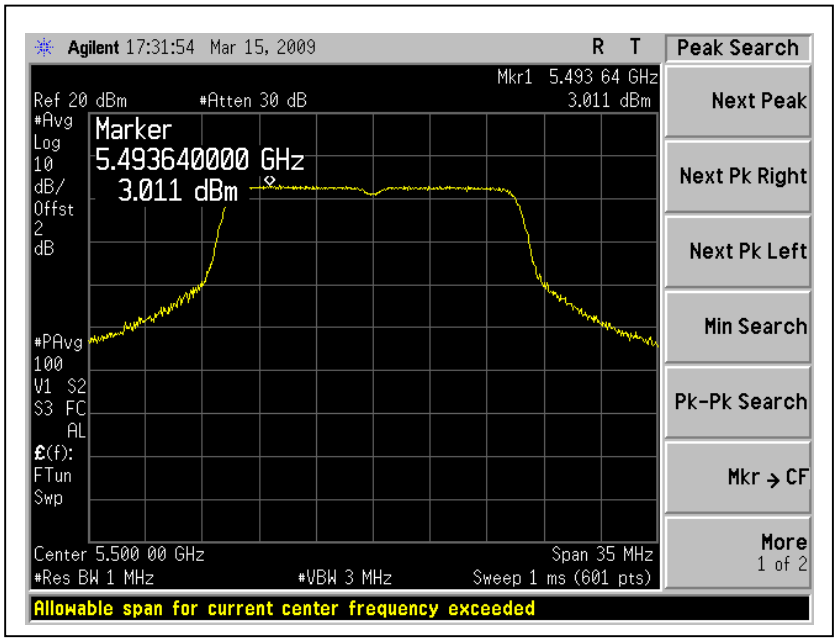
CH7


Agilent 14:04:19 Mar 16, 2009
R T
Peak Search
Mkr1 5.293 82 GHz
4.864 dBm
Ref 20 dBm
#Atten 30 dB
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.293820000 GHz
4.864 dBm
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.300 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

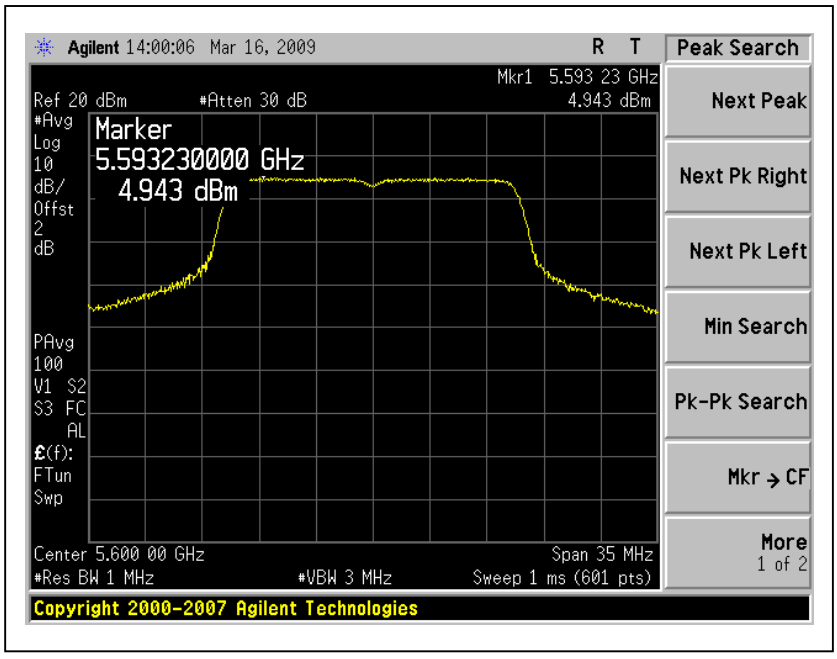
CH8


Agilent 14:02:31 Mar 16, 2009
R T
Peak Search
Mkr1 5.324 02 GHz
4.817 dBm
Ref 20 dBm
#Atten 30 dB
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.324020000 GHz
4.817 dBm
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.320 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

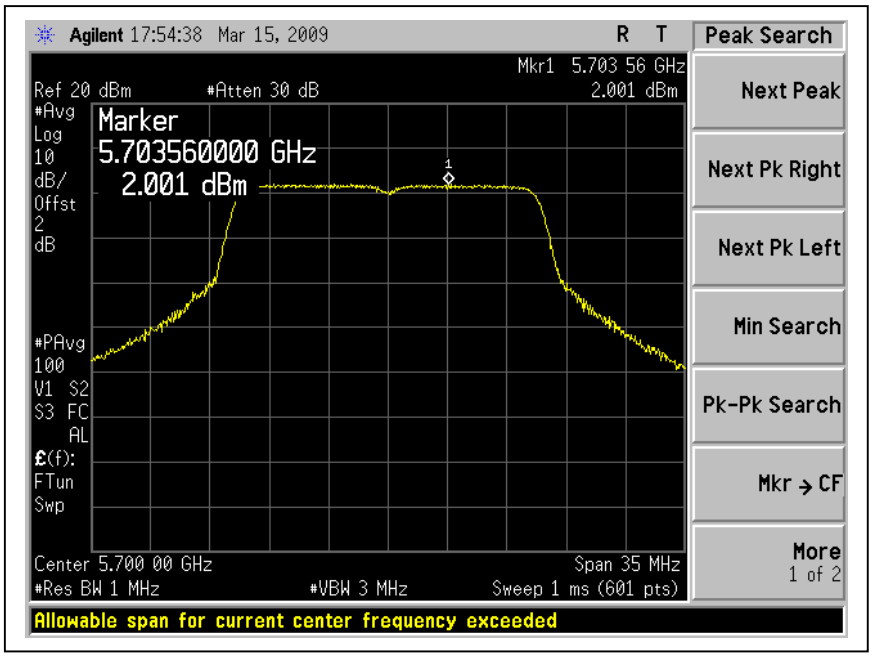
CH9


Agilent 17:31:54 Mar 15, 2009
R T
Peak Search
Mkr1 5.493 64 GHz
3.011 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.493640000 GHz
3.011 dBm
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.500 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

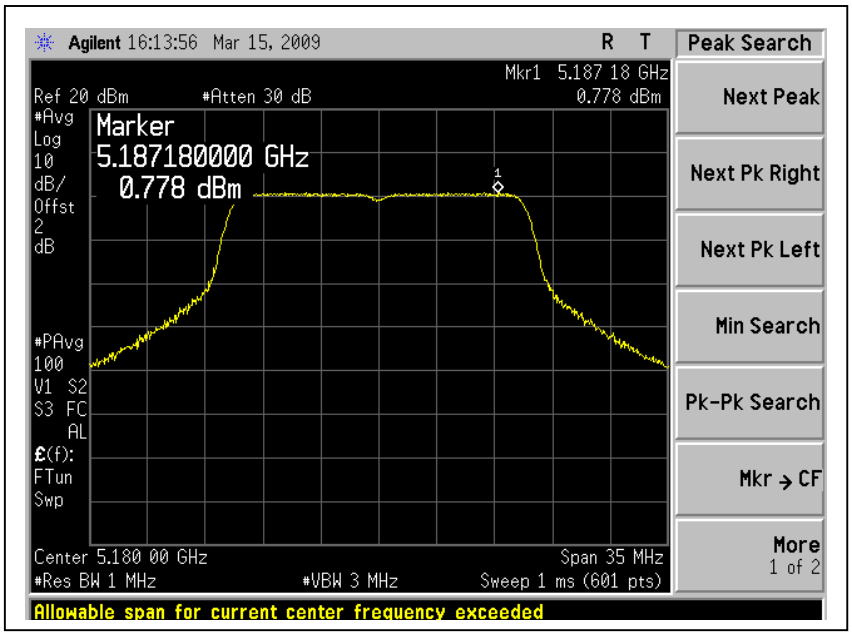
CH14


Agilent 14:00:06 Mar 16, 2009
R T
Peak Search
Mkr1 5.593 23 GHz
4.943 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.593230000 GHz
4.943 dBm
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.600 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

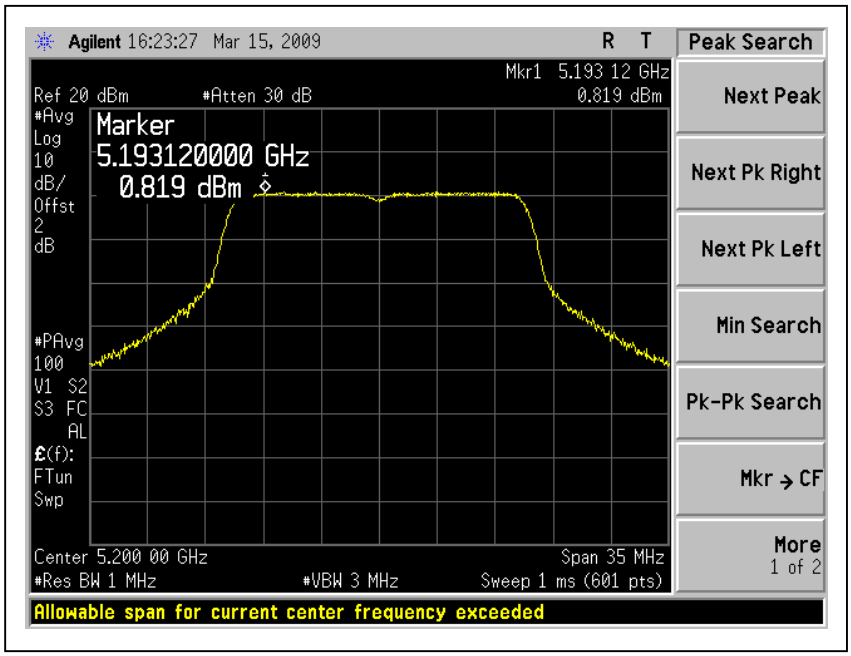
CH19


Agilent 17:54:38 Mar 15, 2009
R T
Peak Search
Mkr1 5.703 56 GHz
2.001 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.703560000 GHz
2.001 dBm
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.700 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

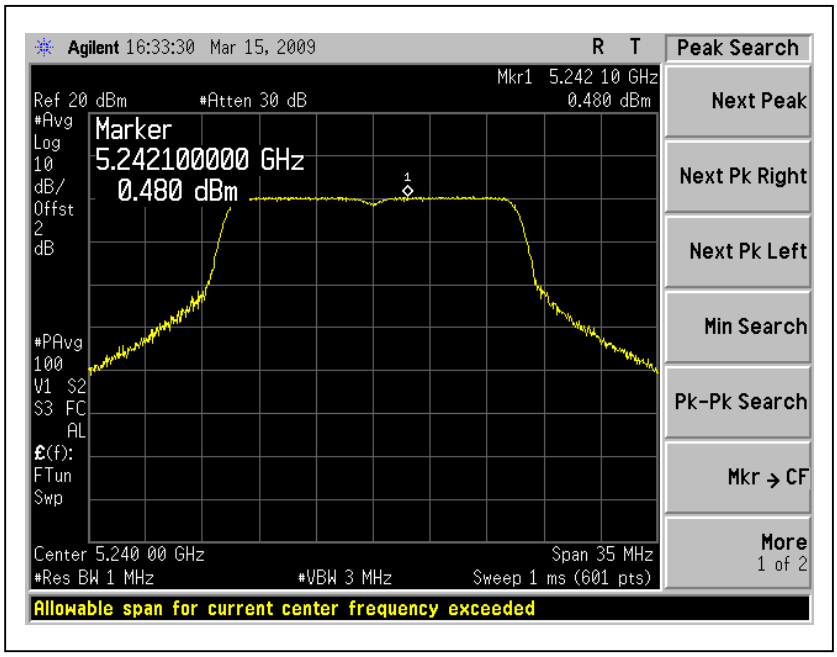
For Chain (1) : CH1



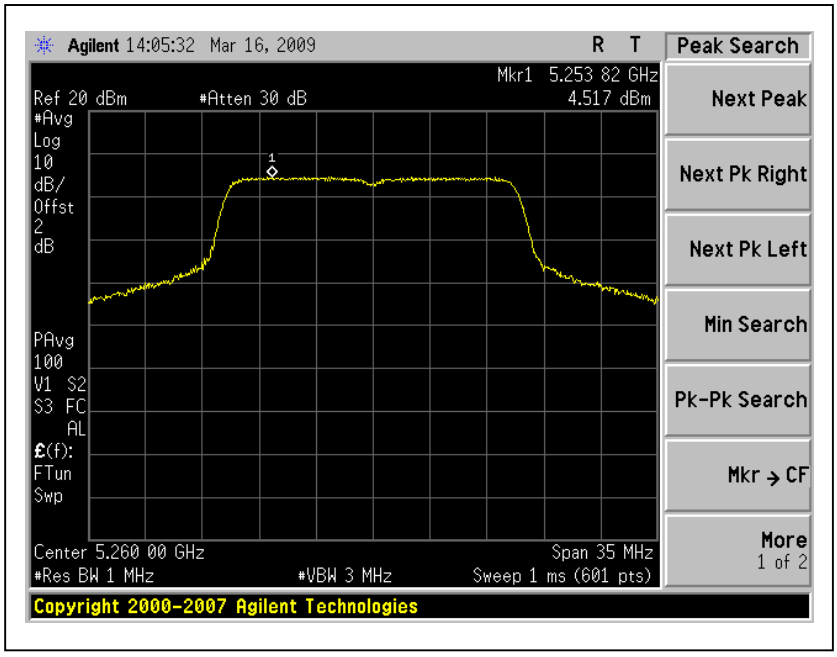
CH2



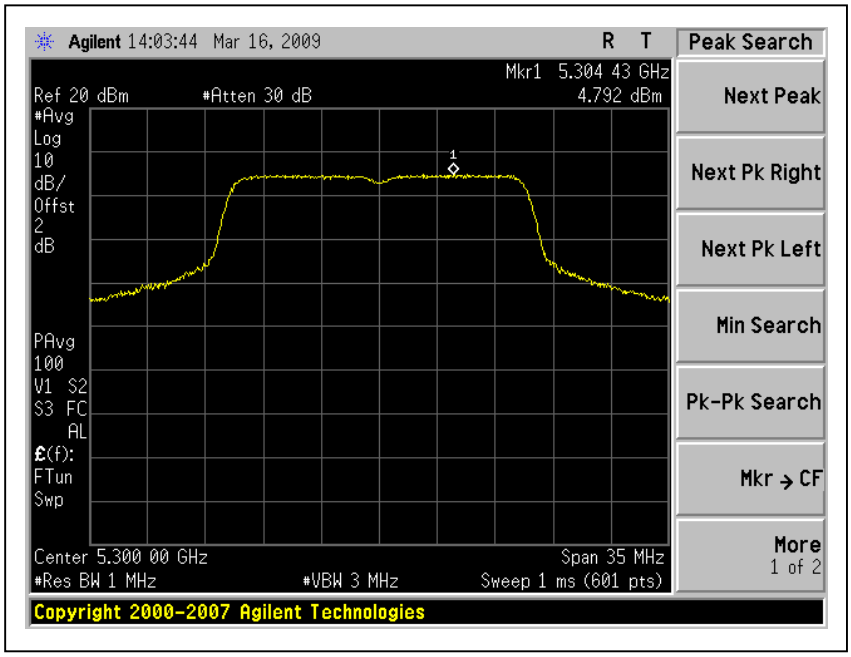
CH4


Agilent 16:33:30 Mar 15, 2009
R T
Peak Search
Mkr1 5.242 10 GHz
0.480 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.242100000 GHz
0.480 dBm
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.240 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

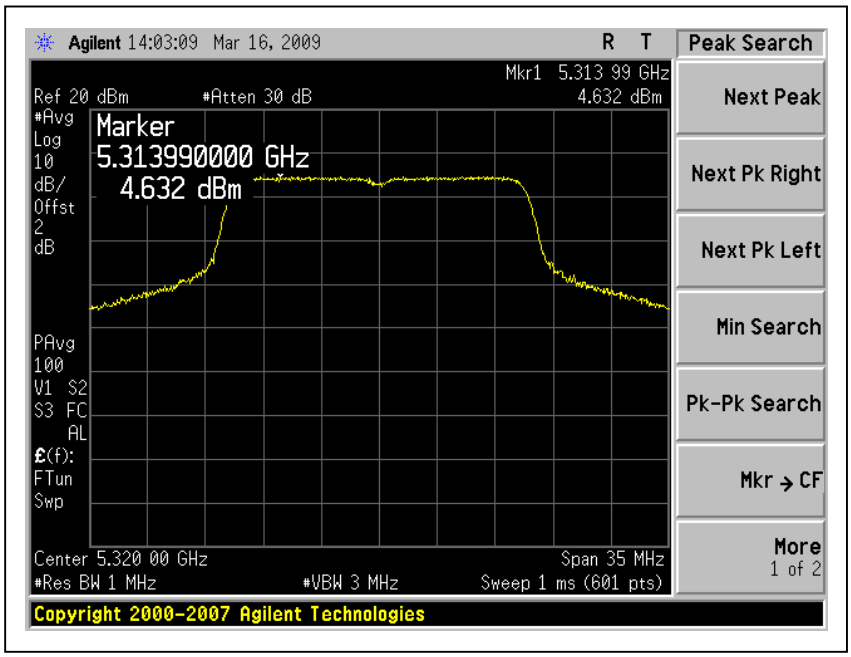
CH5


Agilent 14:05:32 Mar 16, 2009
R T
Peak Search
Mkr1 5.253 82 GHz
4.517 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.260 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 35 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

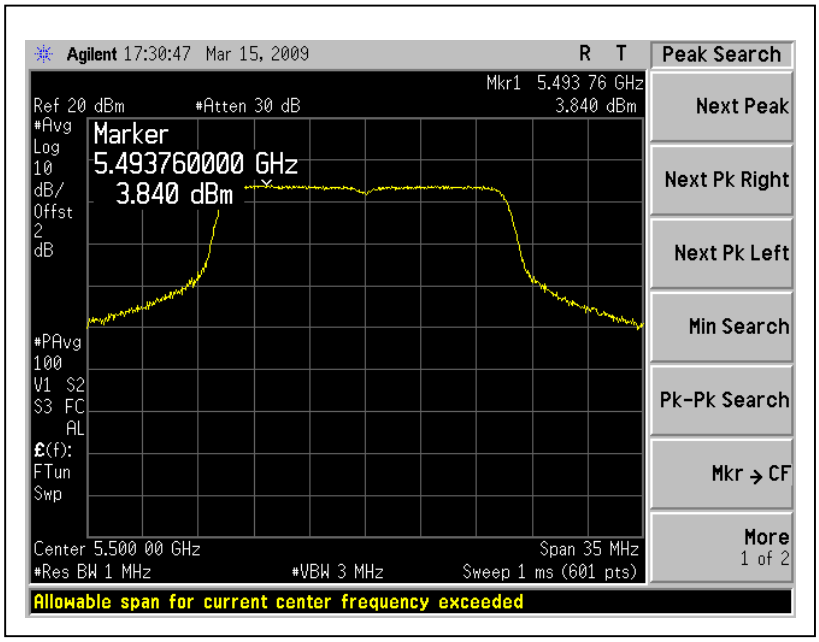
CH7


Agilent 14:03:44 Mar 16, 2009
R T
Peak Search
Mkr1 5.304 43 GHz
Ref 20 dBm
#Atten 30 dB
4.792 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.300 00 GHz
Span 35 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

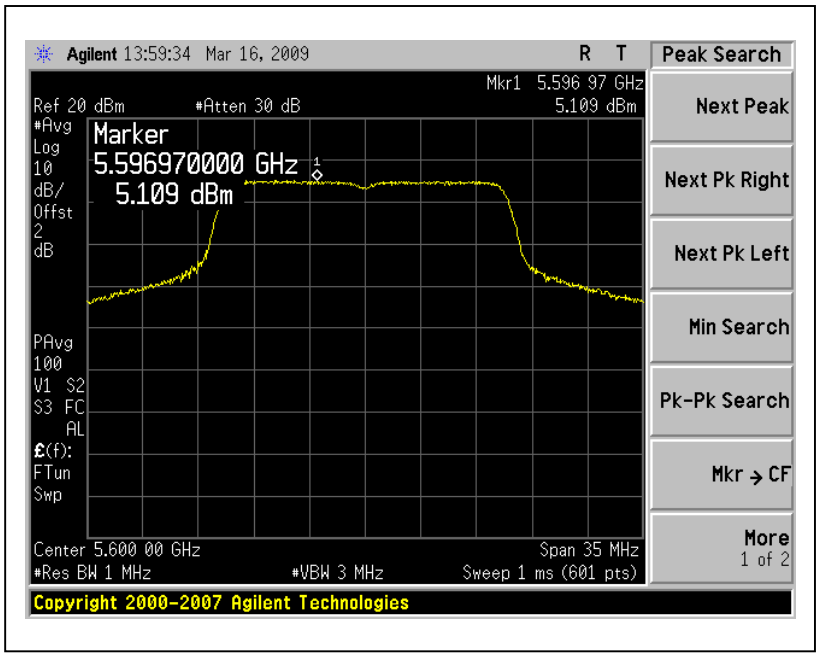
CH8


Agilent 14:03:09 Mar 16, 2009
R T
Peak Search
Mkr1 5.313 99 GHz
Ref 20 dBm
#Atten 30 dB
4.632 dBm
Next Peak
Marker
5.313990000 GHz
4.632 dBm
#Avg
Log
10
dB/
Offst
2
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.320 00 GHz
Span 35 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

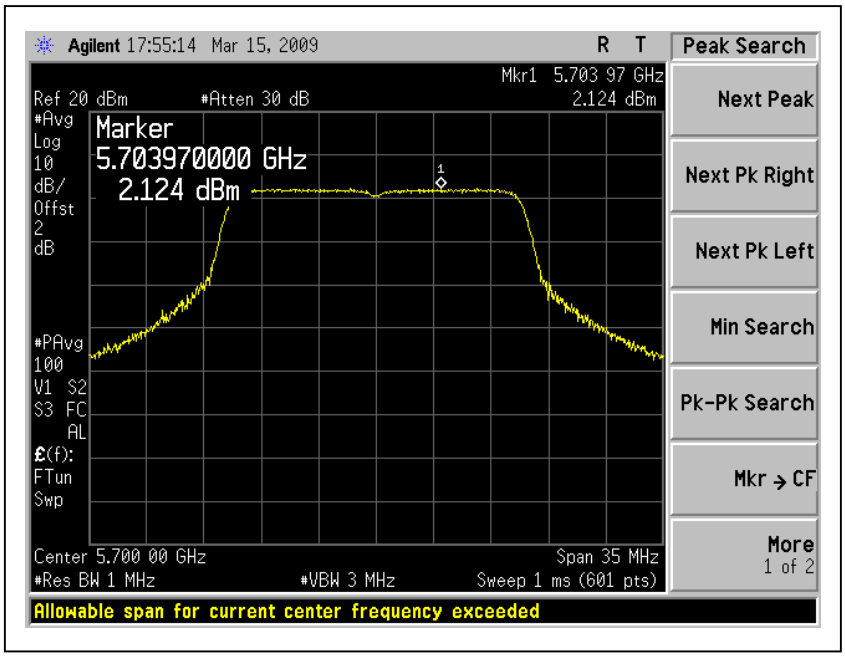
CH9


Agilent 17:30:47 Mar 15, 2009
R T
Peak Search
Mkr1 5.493 76 GHz
Ref 20 dBm
#Atten 30 dB
3.840 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.493760000 GHz
3.840 dBm
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.500 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

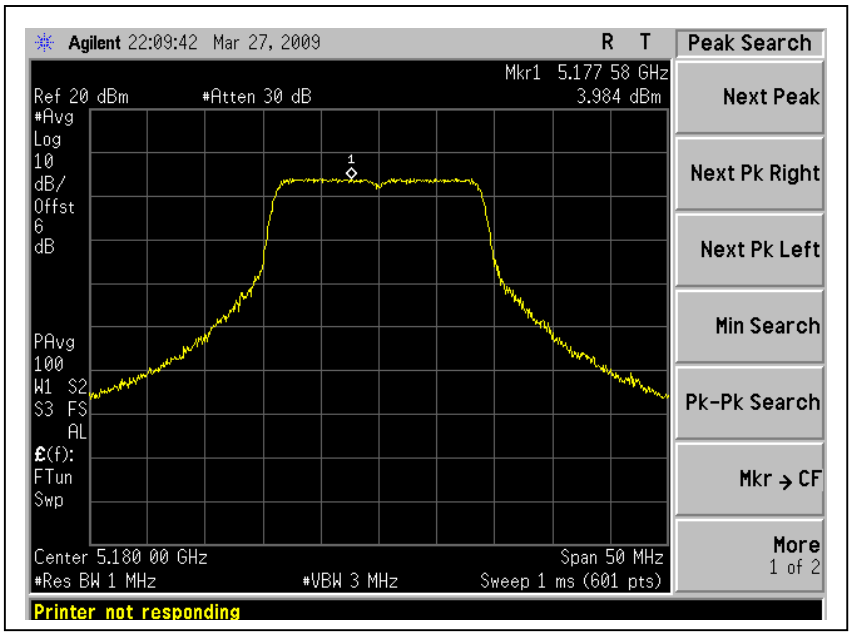
CH14


Agilent 13:59:34 Mar 16, 2009
R T
Peak Search
Mkr1 5.596 97 GHz
Ref 20 dBm
#Atten 30 dB
5.109 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.596970000 GHz
5.109 dBm
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.600 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

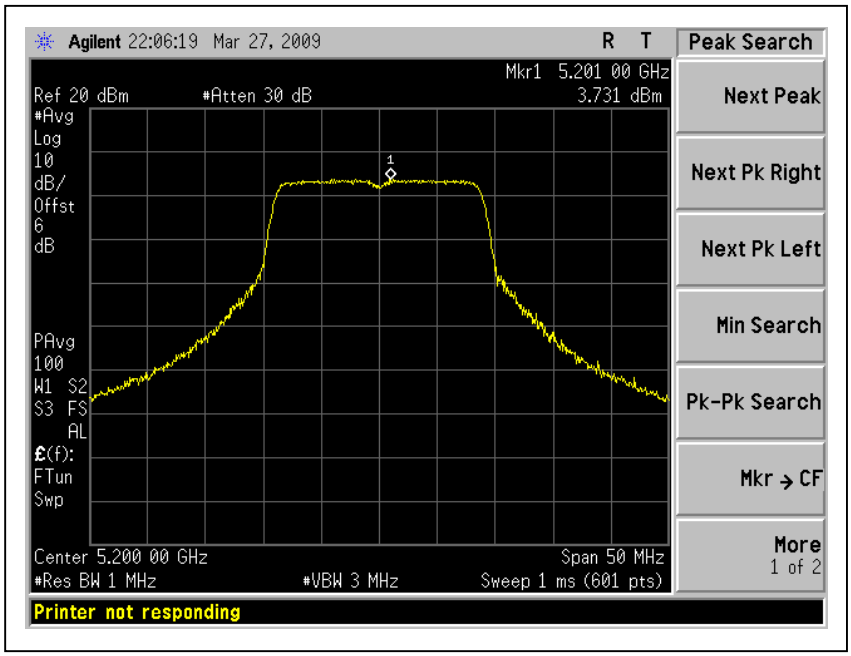
CH19


Agilent 17:55:14 Mar 15, 2009
R T
Peak Search
Mkr1 5.703 97 GHz
2.124 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.703970000 GHz
2.124 dBm
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.700 00 GHz
Span 35 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

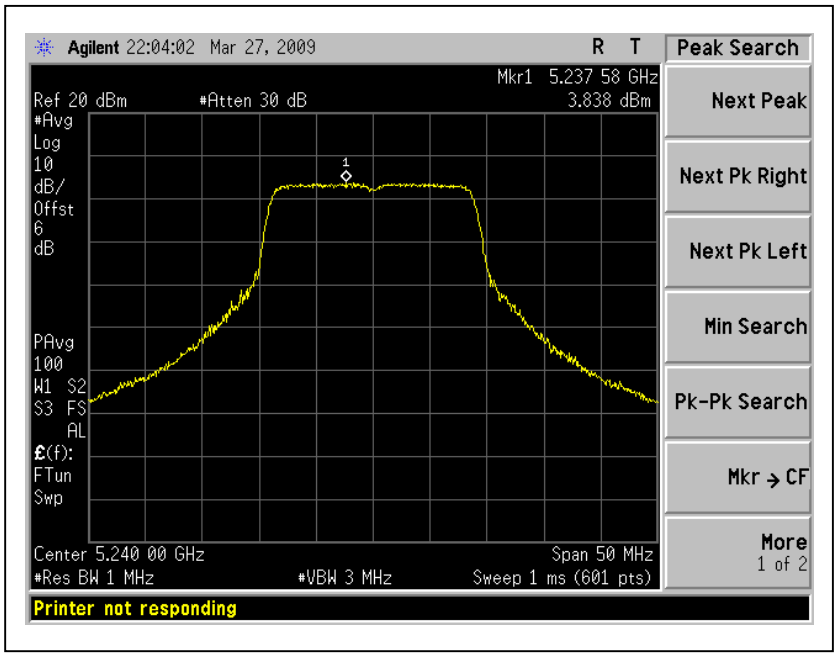
With Combiner : CH1



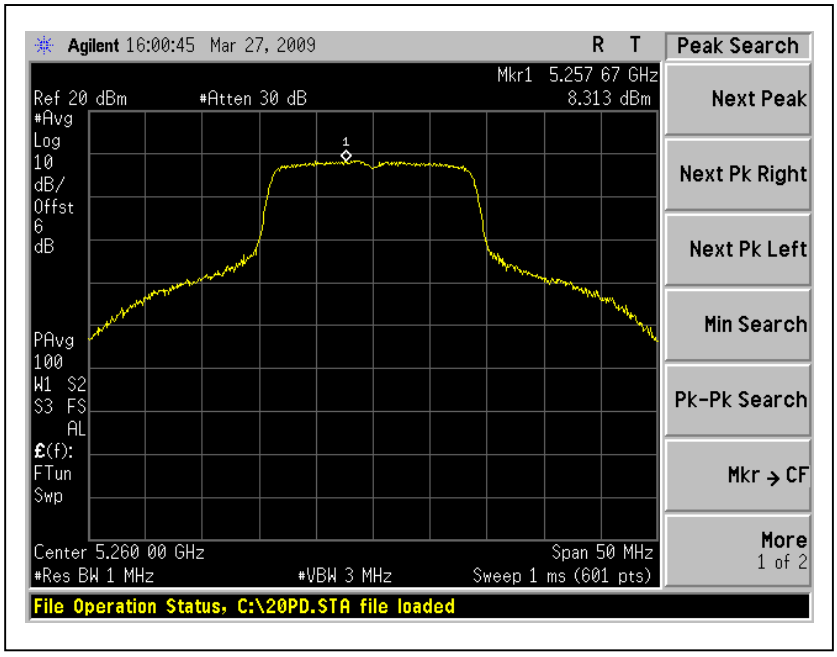
CH2



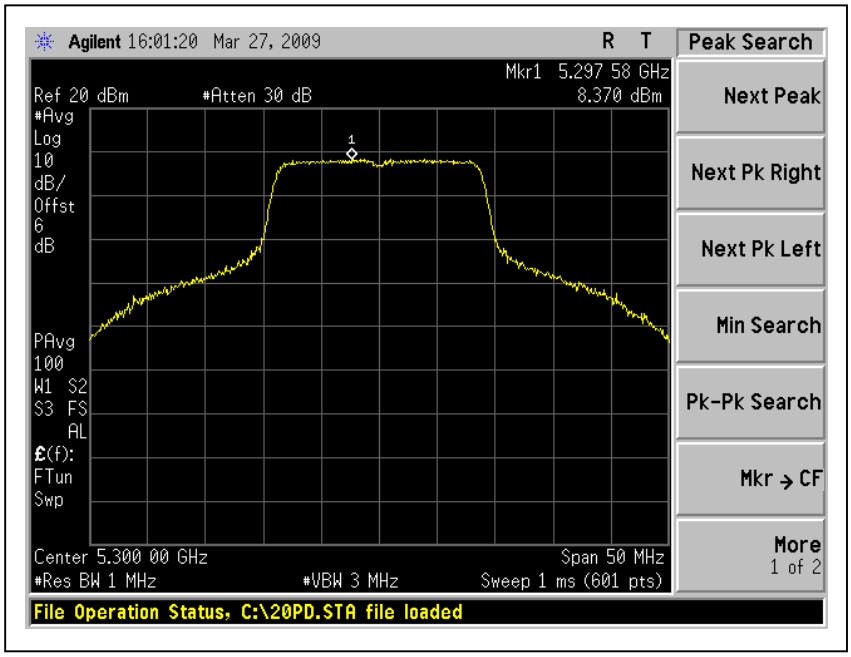
CH4


Agilent 22:04:02 Mar 27, 2009
R T
Peak Search
Mkr1 5.237 58 GHz
Ref 20 dBm
#Atten 30 dB
3.838 dBm
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.240 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Printer not responding

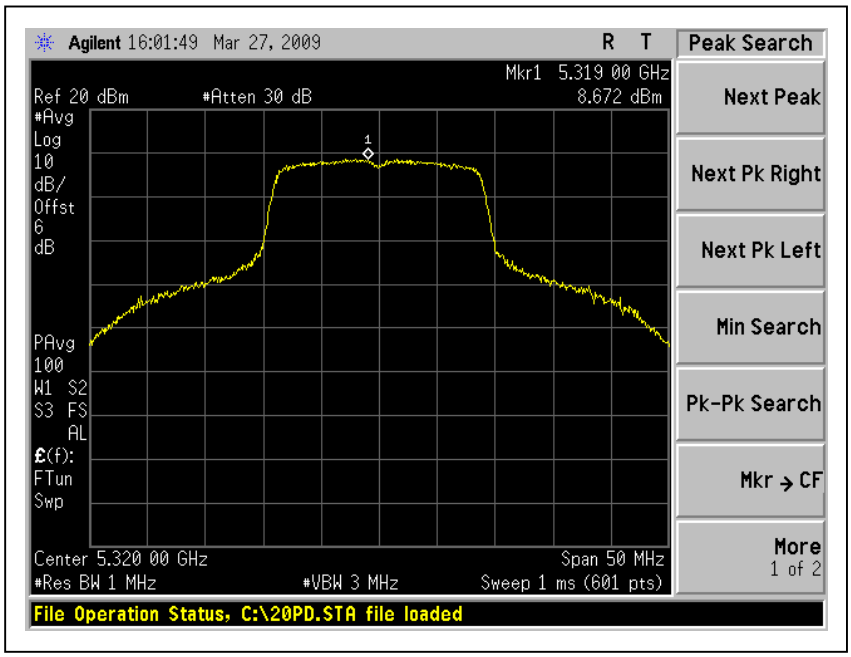
CH5


Agilent 16:00:45 Mar 27, 2009
R T
Peak Search
Mkr1 5.257 67 GHz
Ref 20 dBm
#Atten 30 dB
8.313 dBm
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.260 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

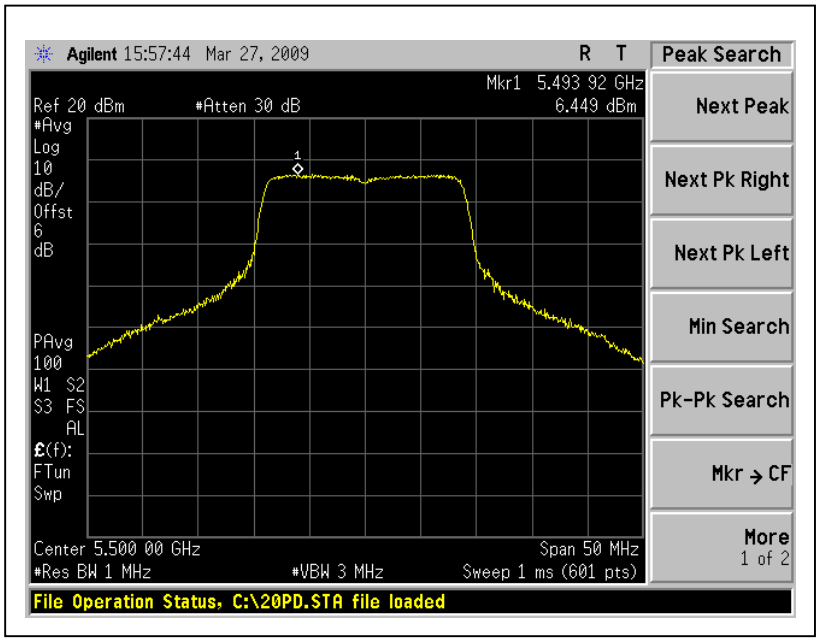
CH7


Agilent 16:01:20 Mar 27, 2009
R T
Peak Search
Mkr1 5.297 58 GHz
Ref 20 dBm
#Atten 30 dB
8.370 dBm
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.300 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

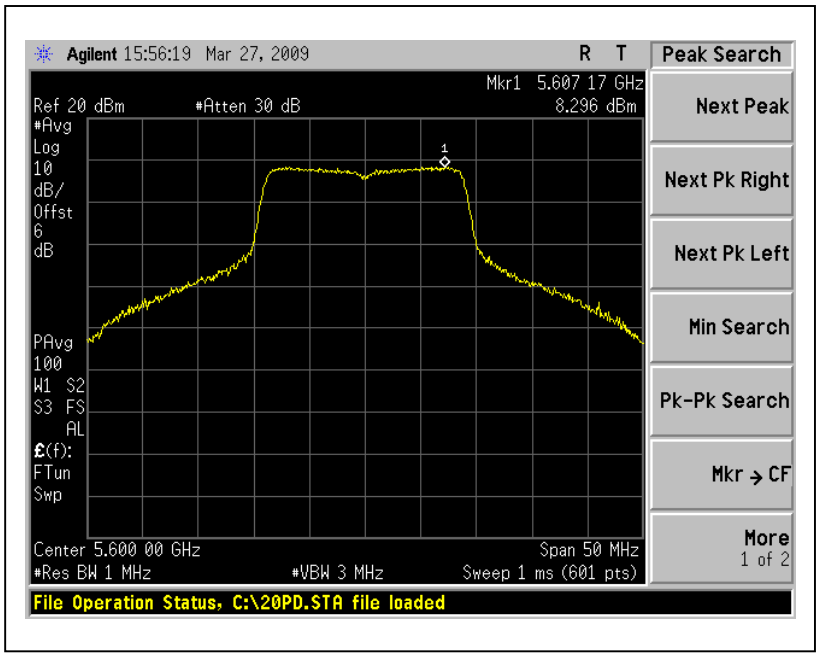
CH8


Agilent 16:01:49 Mar 27, 2009
R T
Peak Search
Mkr1 5.319 00 GHz
Ref 20 dBm
#Atten 30 dB
8.672 dBm
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.320 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

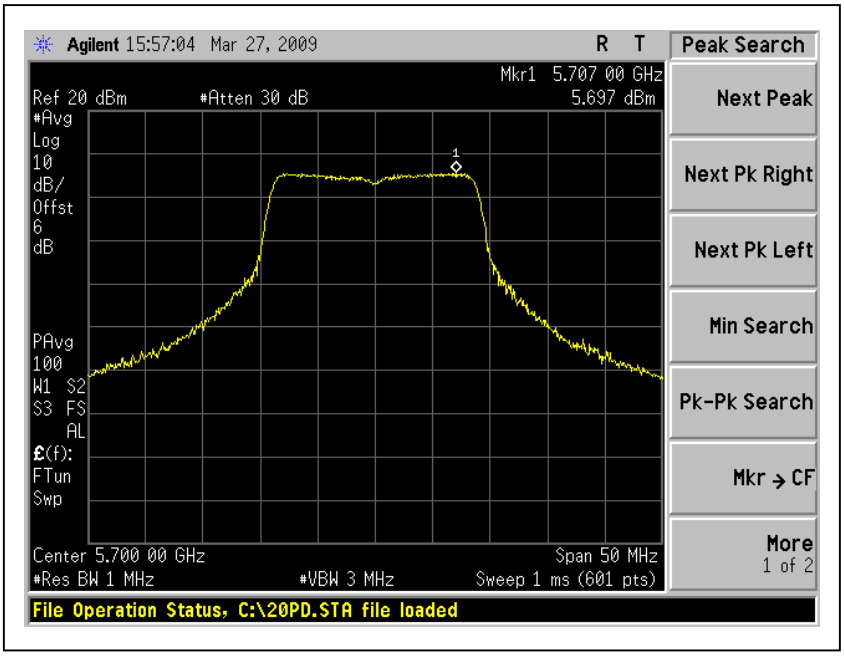
CH9


Agilent 15:57:44 Mar 27, 2009
R T
Peak Search
Mkr1 5.493 92 GHz
6.449 dBm
Ref 20 dBm
#Atten 30 dB
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.500 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

CH14


Agilent 15:56:19 Mar 27, 2009
R T
Peak Search
Mkr1 5.607 17 GHz
8.296 dBm
Ref 20 dBm
#Atten 30 dB
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.600 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

CH19


Agilent 15:57:04 Mar 27, 2009
R T
Peak Search
Mkr1 5.707 00 GHz
Ref 20 dBm
#Atten 30 dB
5.697 dBm
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.700 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

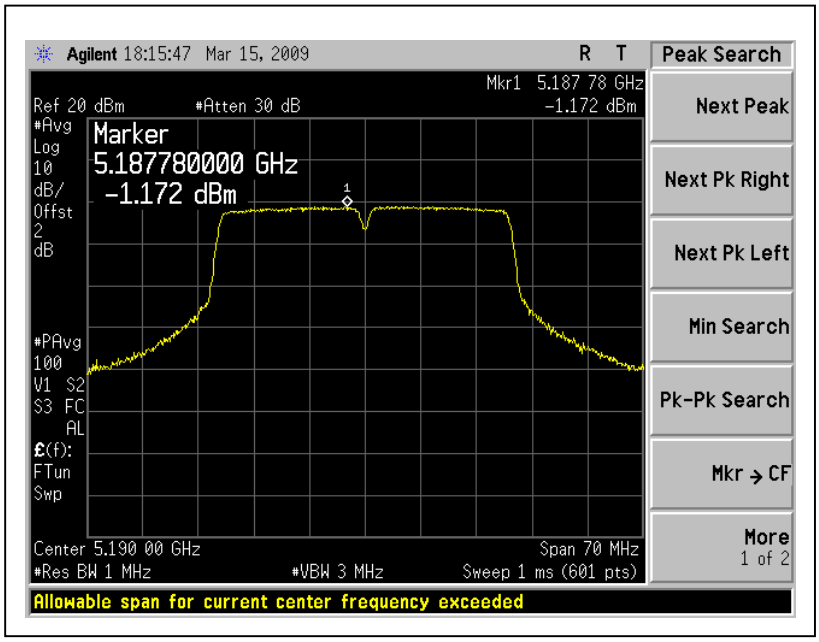
DRAFT 802.11n (40MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 60%RH, 962hPa
TESTED BY	Wen Yu		

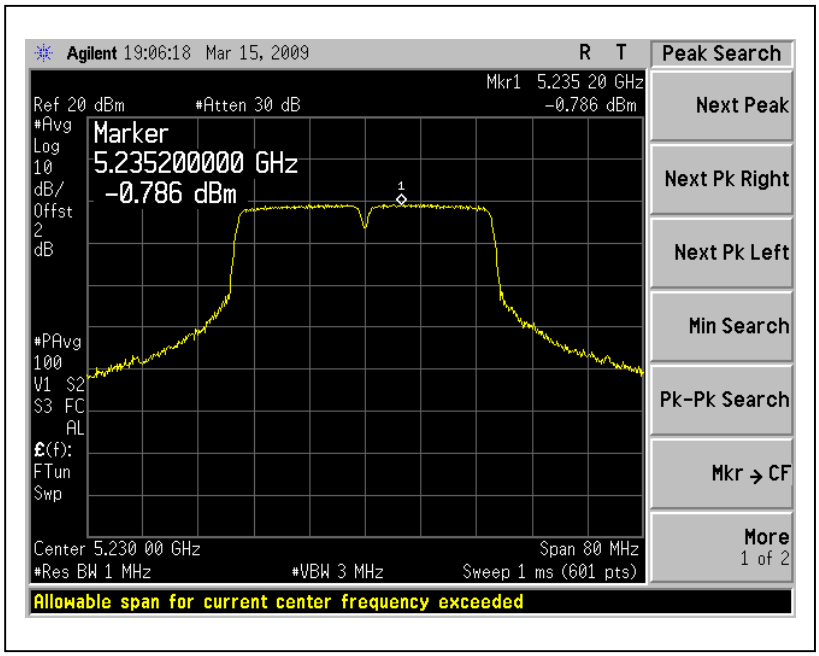
CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)		TOTAL POWER DENSITY –With Combiner(dBm)	TOTAL OUTPUT POWER DENSITY (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
		Chain (0)	Chain(1)				
1	5190	-1.172	-1.324	2.563	1.76	4	PASS
2	5230	-0.786	-1.265	2.807	1.99	4	PASS
3	5270	2.301	1.992	5.643	5.16	11	PASS
4	5310	-1.007	-1.028	2.447	1.99	11	PASS
5	5510	-2.978	-2.860	0.622	0.09	11	PASS
7	5590	2.610	2.762	6.01	5.70	11	PASS
9	5670	1.192	1.329	4.762	4.27	11	PASS

* Aggregate PSD across transmitters in linear power units across each transmitter output.

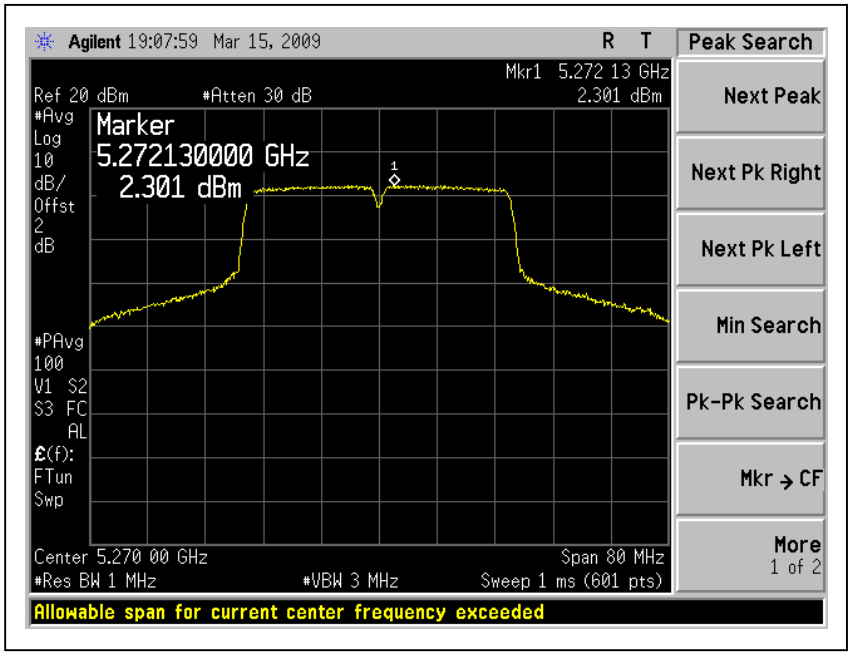
For Chain (0) : CH1



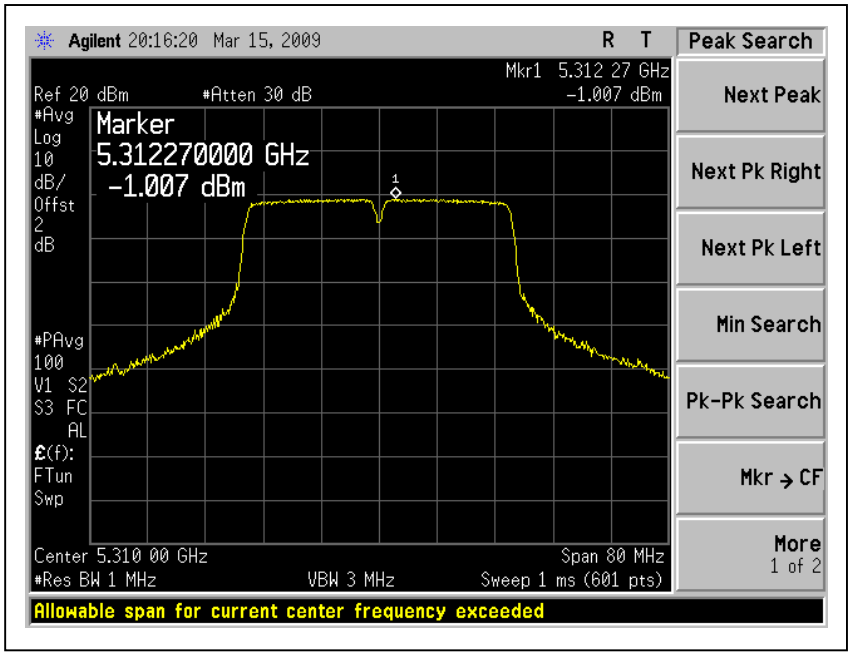
CH2



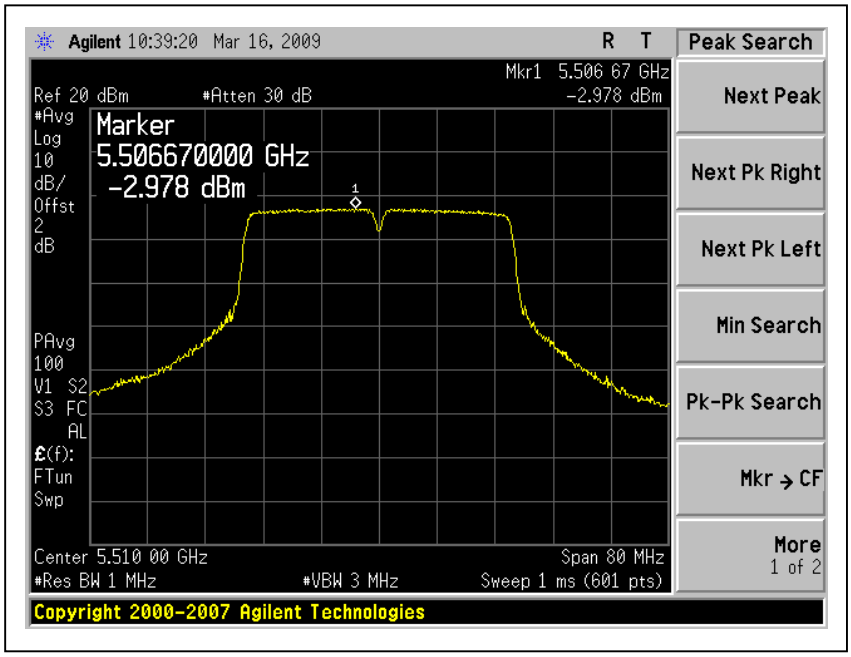
CH3


Agilent 19:07:59 Mar 15, 2009
R T
Peak Search
Mkr1 5.272 13 GHz
Ref 20 dBm
#Atten 30 dB
2.301 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.272130000 GHz
2.301 dBm
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.270 00 GHz
Span 80 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

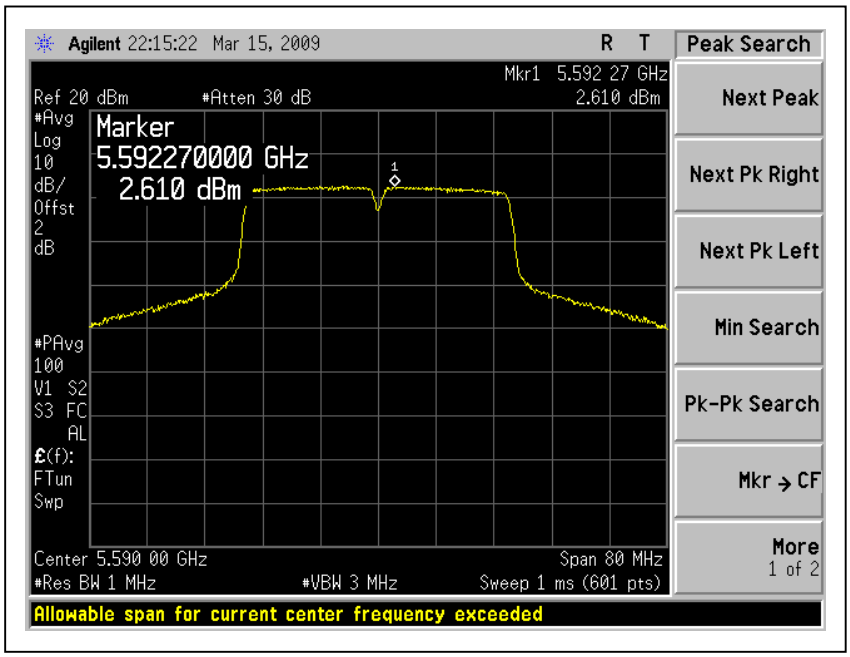
CH4


Agilent 20:16:20 Mar 15, 2009
R T
Peak Search
Mkr1 5.312 27 GHz
Ref 20 dBm
#Atten 30 dB
-1.007 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.312270000 GHz
-1.007 dBm
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.310 00 GHz
Span 80 MHz
More
1 of 2
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

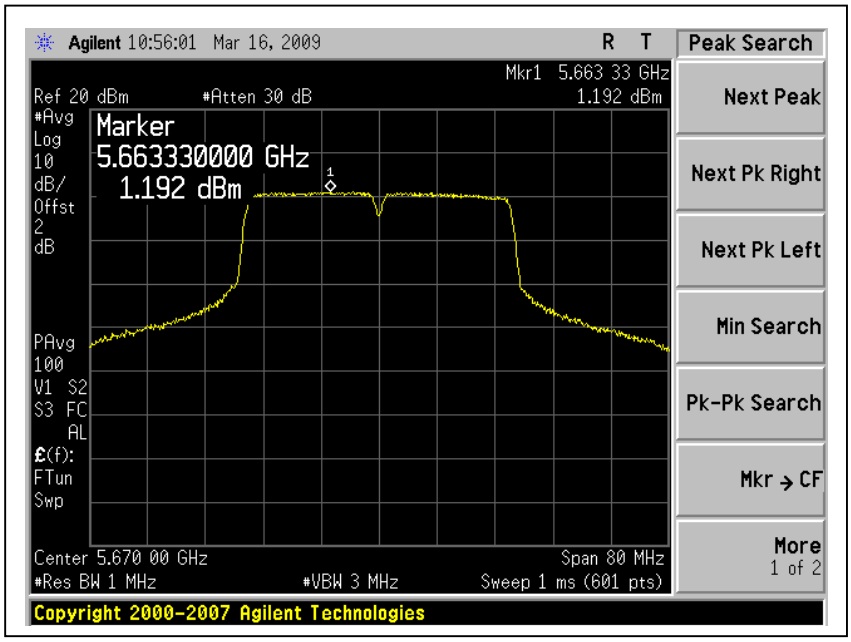
CH5


Agilent 10:39:20 Mar 16, 2009
R T
Peak Search
Mkr1 5.506 67 GHz
Ref 20 dBm
#Atten 30 dB
-2.978 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.506670000 GHz
-2.978 dBm
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.510 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

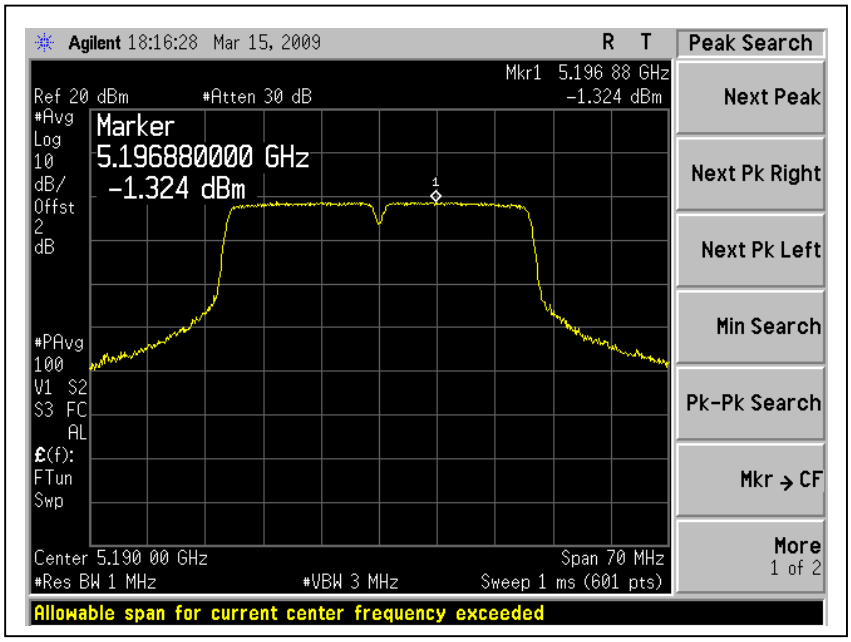
CH7


Agilent 22:15:22 Mar 15, 2009
R T
Peak Search
Mkr1 5.592 27 GHz
Ref 20 dBm
#Atten 30 dB
2.610 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.592270000 GHz
2.610 dBm
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.590 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

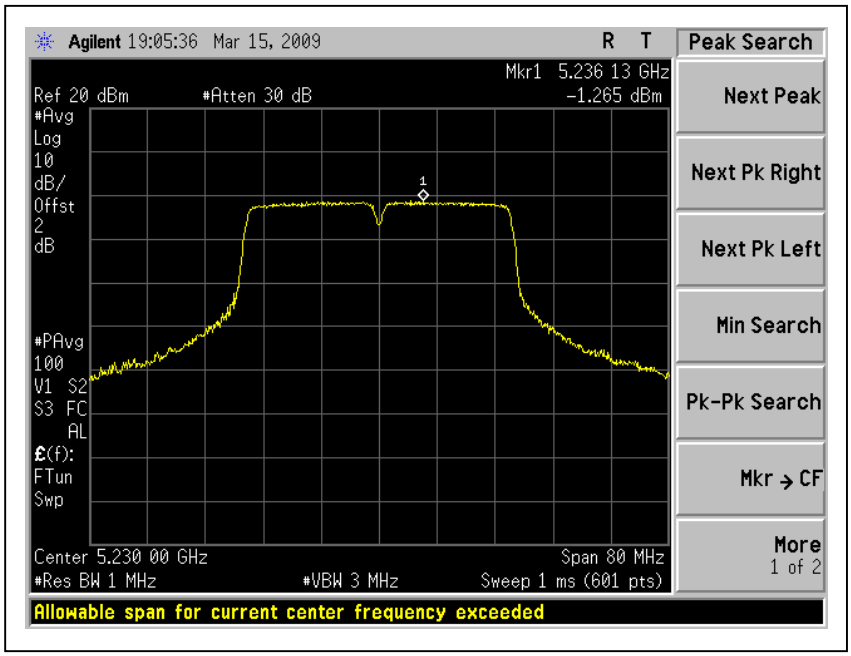
CH9


Agilent 10:56:01 Mar 16, 2009
R T
Peak Search
Mkr1 5.663 33 GHz
1.192 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.663330000 GHz
1.192 dBm
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.670 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

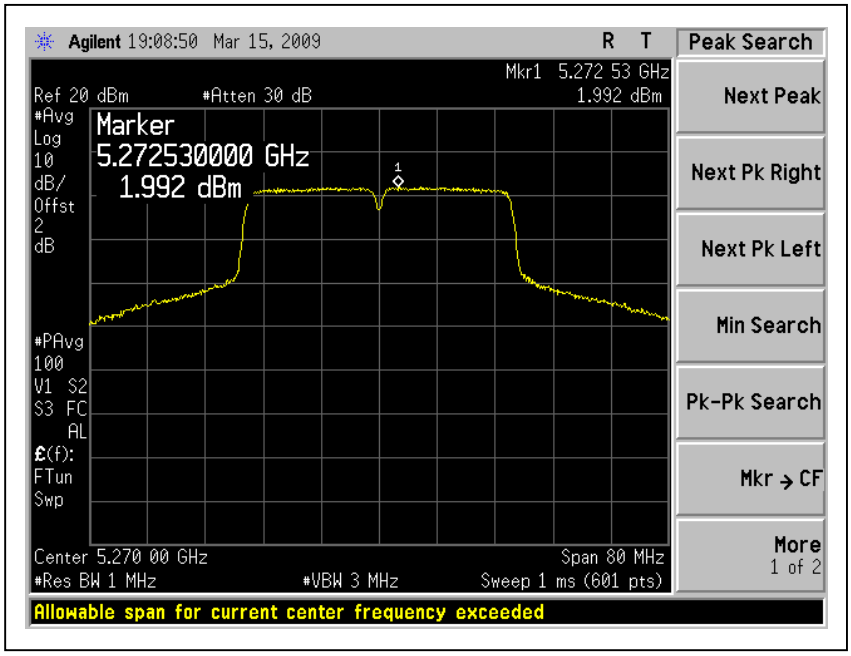
For Chain (1) : CH1



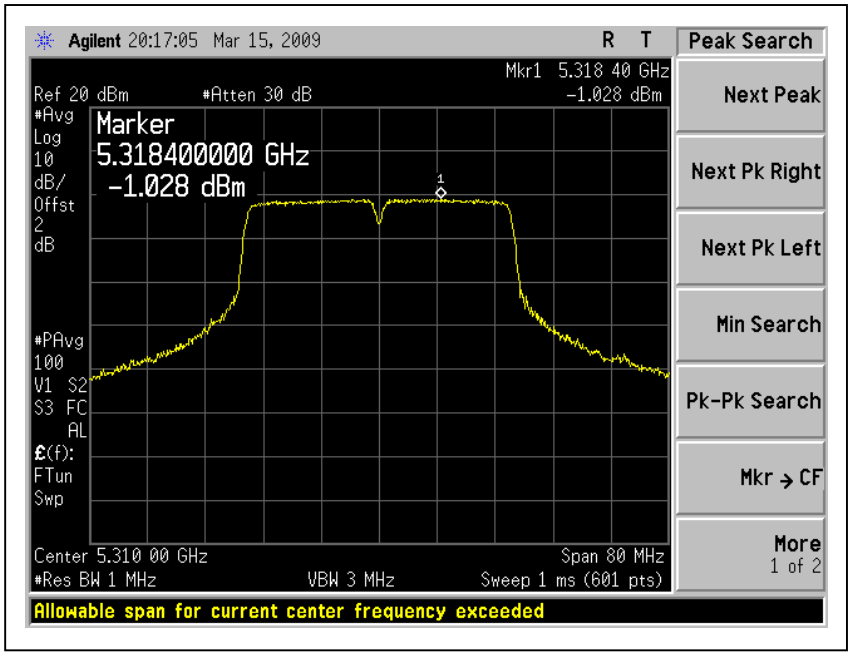
CH2



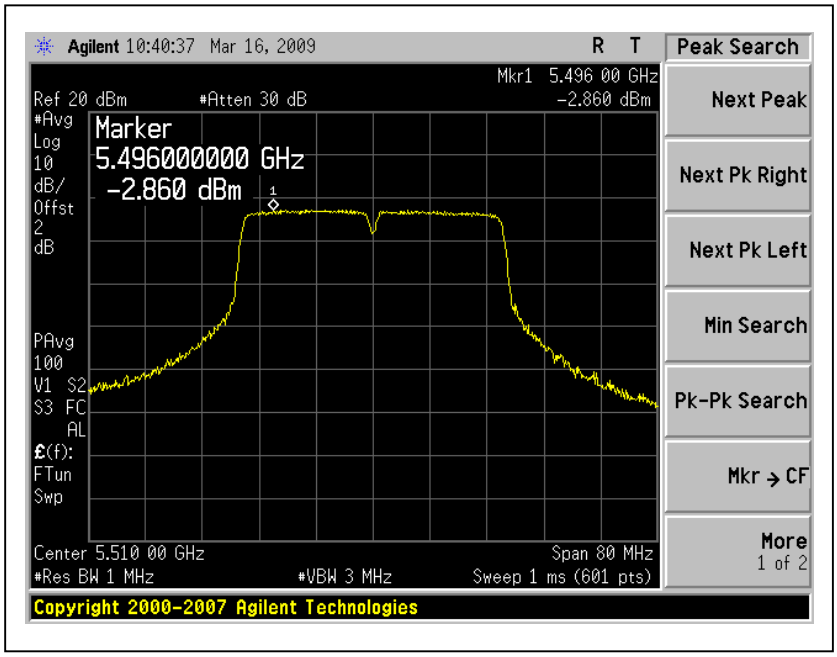
CH3


Agilent 19:08:50 Mar 15, 2009
R T
Peak Search
Mkr1 5.272 53 GHz
1.992 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.272530000 GHz
1.992 dBm
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.270 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

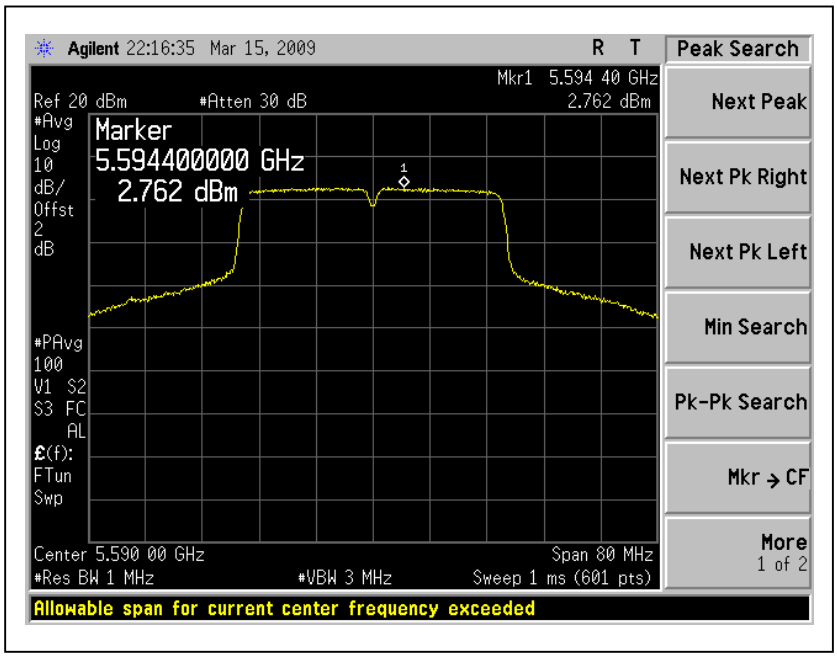
CH4


Agilent 20:17:05 Mar 15, 2009
R T
Peak Search
Mkr1 5.318 40 GHz
-1.028 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.318400000 GHz
-1.028 dBm
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.310 00 GHz
Span 80 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

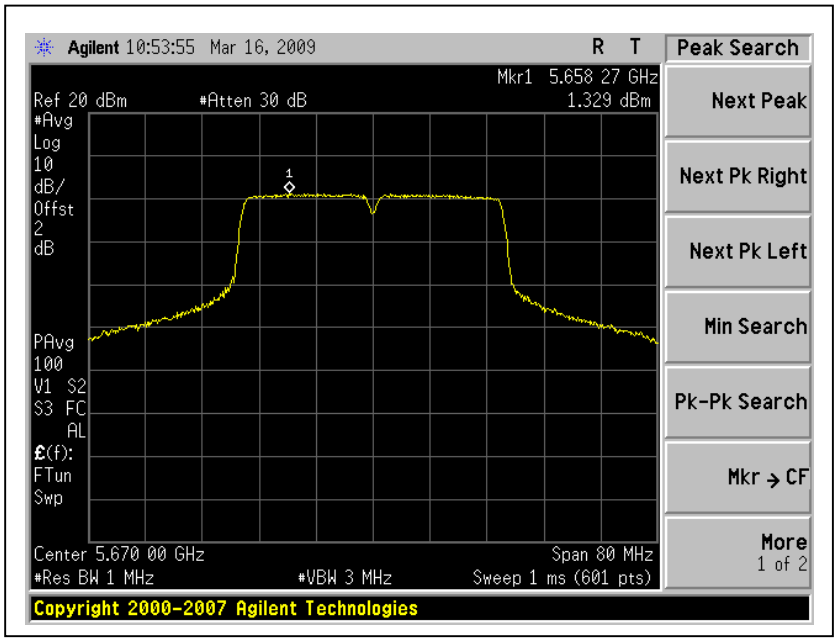
CH5


Agilent 10:40:37 Mar 16, 2009
R T
Peak Search
Mkr1 5.496 00 GHz
-2.860 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.496000000 GHz
-2.860 dBm
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.510 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

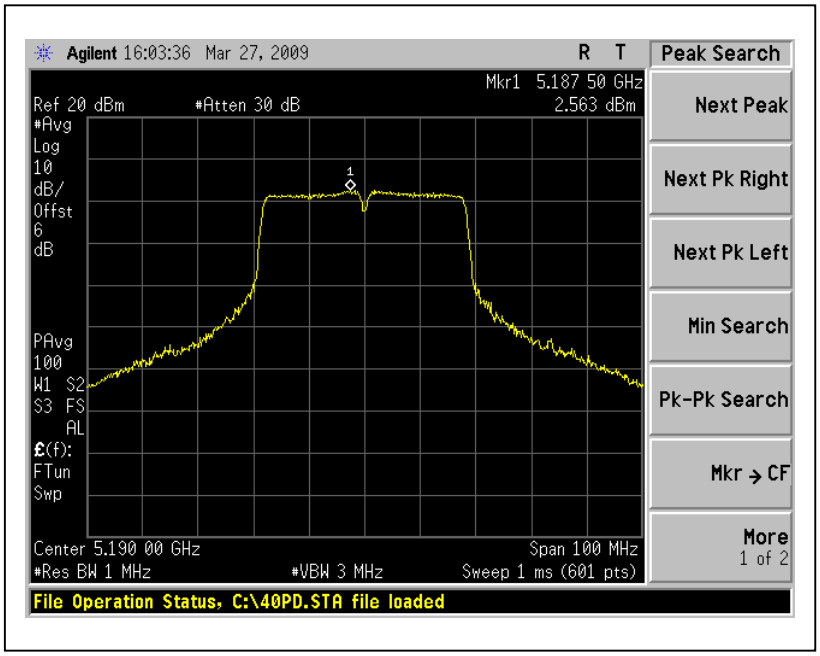
CH7


Agilent 22:16:35 Mar 15, 2009
R T
Peak Search
Mkr1 5.594 40 GHz
2.762 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
2
dB
Marker
5.594400000 GHz
2.762 dBm
#PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.590 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Allowable span for current center frequency exceeded

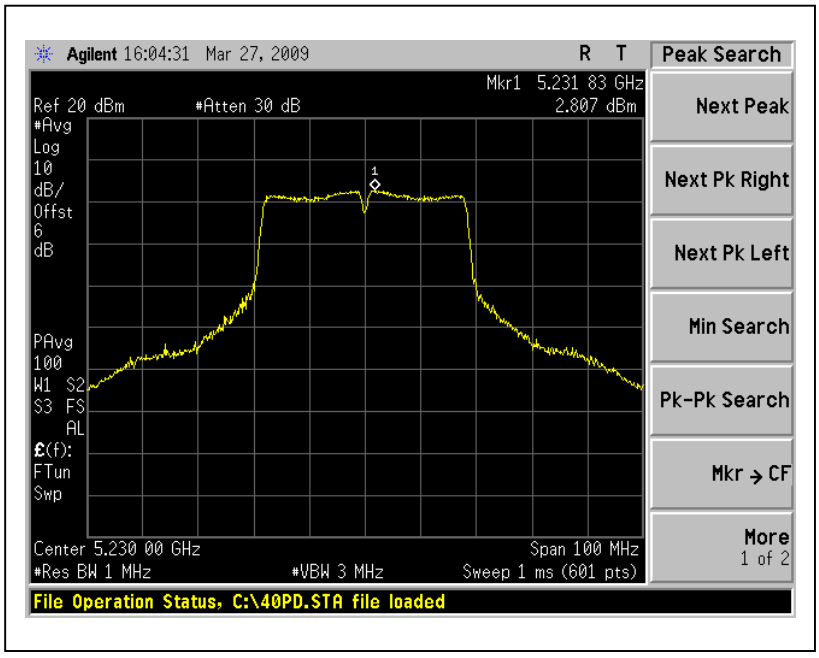
CH9


Agilent 10:53:55 Mar 16, 2009
R T
Peak Search
Mkr1 5.658 27 GHz
Ref 20 dBm
#Atten 30 dB
1.329 dBm
Next Peak
#Avg
Log
10
dB/
Offst
2
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.670 00 GHz
Span 80 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2007 Agilent Technologies

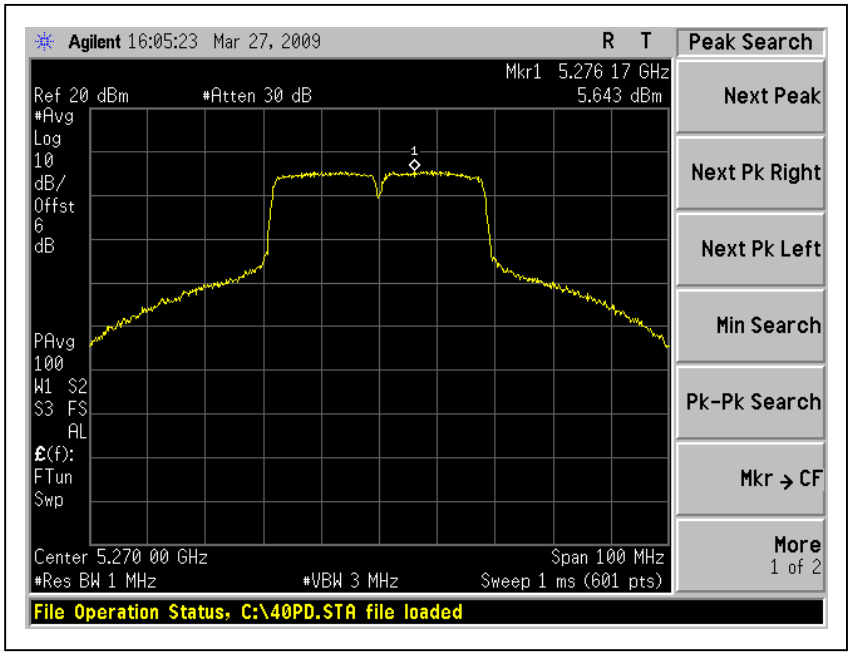
With Combiner : CH1



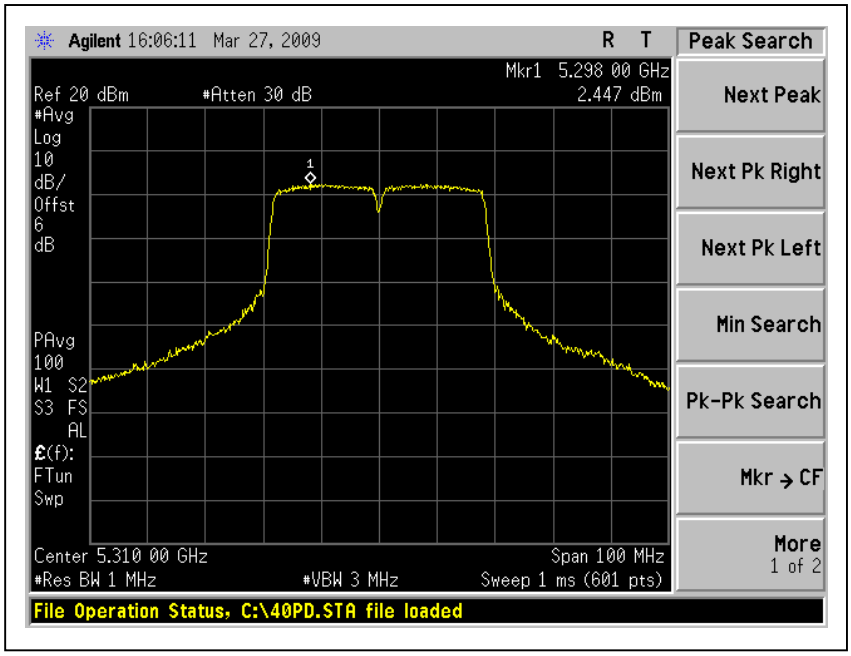
CH2



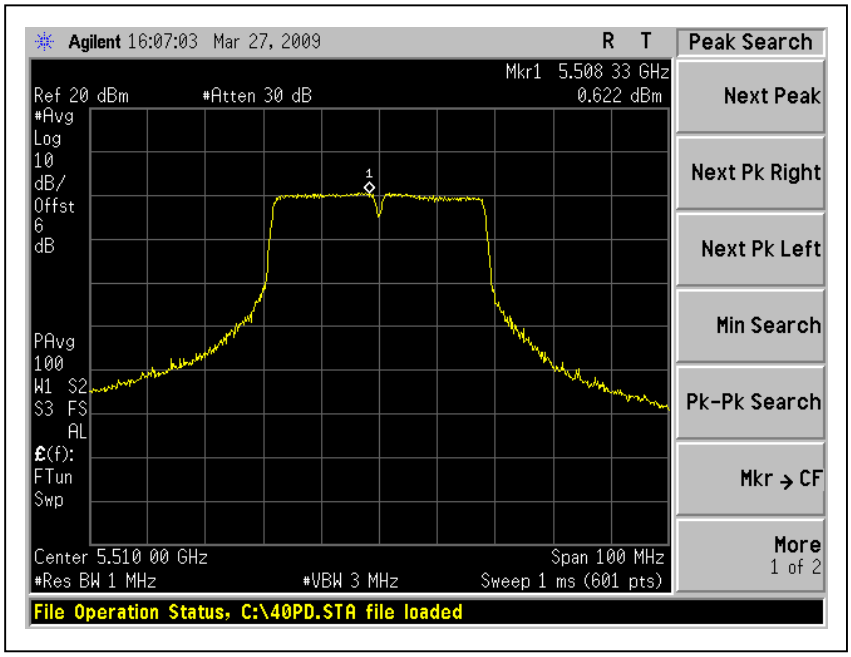
CH3


Agilent 16:05:23 Mar 27, 2009
R T
Peak Search
Mkr1 5.276 17 GHz
5.643 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
6
dB
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.270 00 GHz
Span 100 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

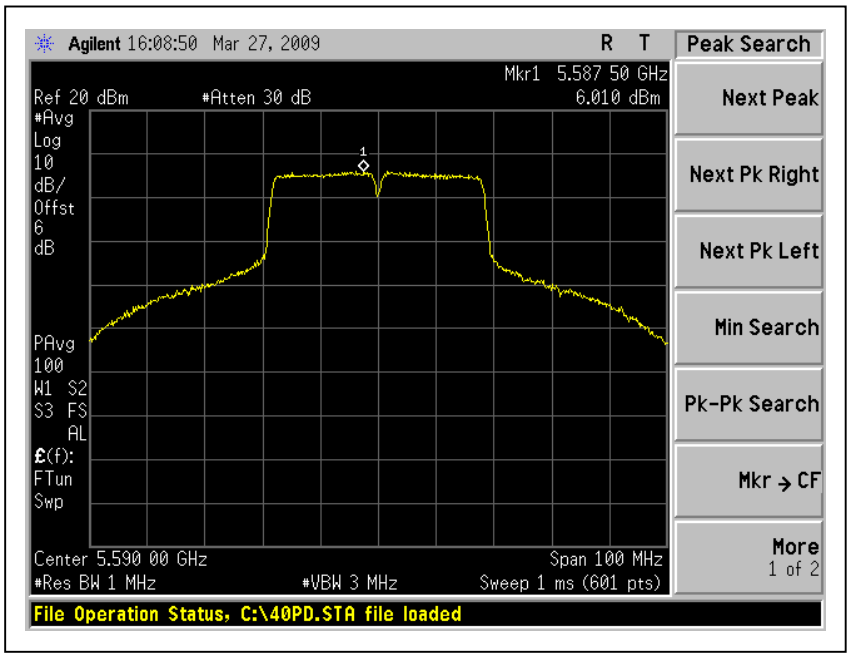
CH4


Agilent 16:06:11 Mar 27, 2009
R T
Peak Search
Mkr1 5.298 00 GHz
2.447 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
6
dB
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.310 00 GHz
Span 100 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

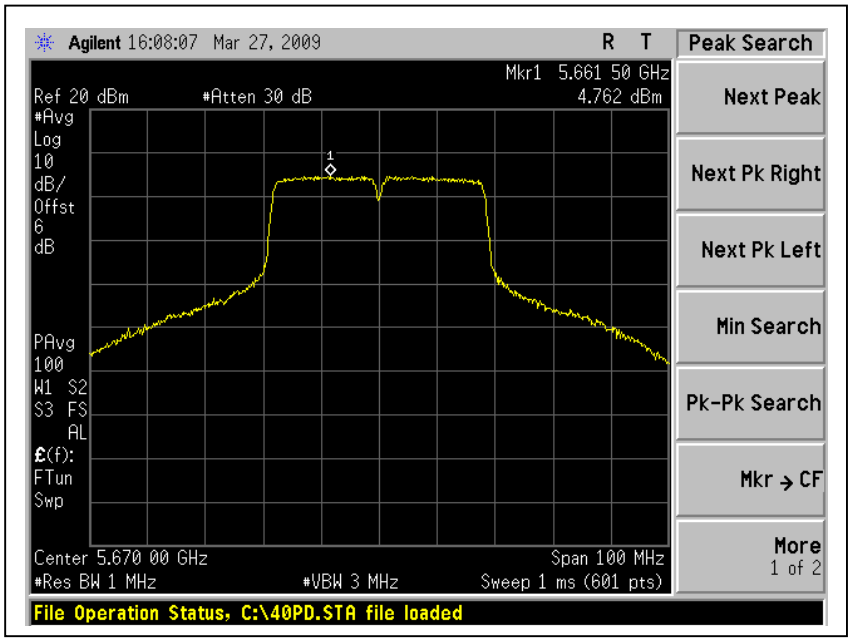
CH5


Agilent 16:07:03 Mar 27, 2009
R T
Peak Search
Mkr1 5.508 33 GHz
Ref 20 dBm
#Atten 30 dB
0.622 dBm
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.510 00 GHz
Span 100 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

CH7


Agilent 16:08:50 Mar 27, 2009
R T
Peak Search
Mkr1 5.587 50 GHz
Ref 20 dBm
#Atten 30 dB
6.010 dBm
Next Peak
#Avg
Log
10
dB/
Offst
6
dB
Next Pk Right
Next Pk Left
Min Search
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.590 00 GHz
Span 100 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

CH9


Agilent 16:08:07 Mar 27, 2009
R T
Peak Search
Mkr1 5.661 50 GHz
4.762 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
6
dB
PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.670 00 GHz
Span 100 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

4.7 CONDUCTED OUT-BAND EMISSION MEASUREMENT

4.7.1 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100037	Aug. 09, 2008	Aug. 08, 2009

NOTE:

1.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.7.2 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer via a low lose cable. Set RBW of spectrum analyzer to 1MHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.
2. The measurement include through a combiner with both chain and each chain when operate simultaneously.

4.7.3 EUT OPERATING CONDITION

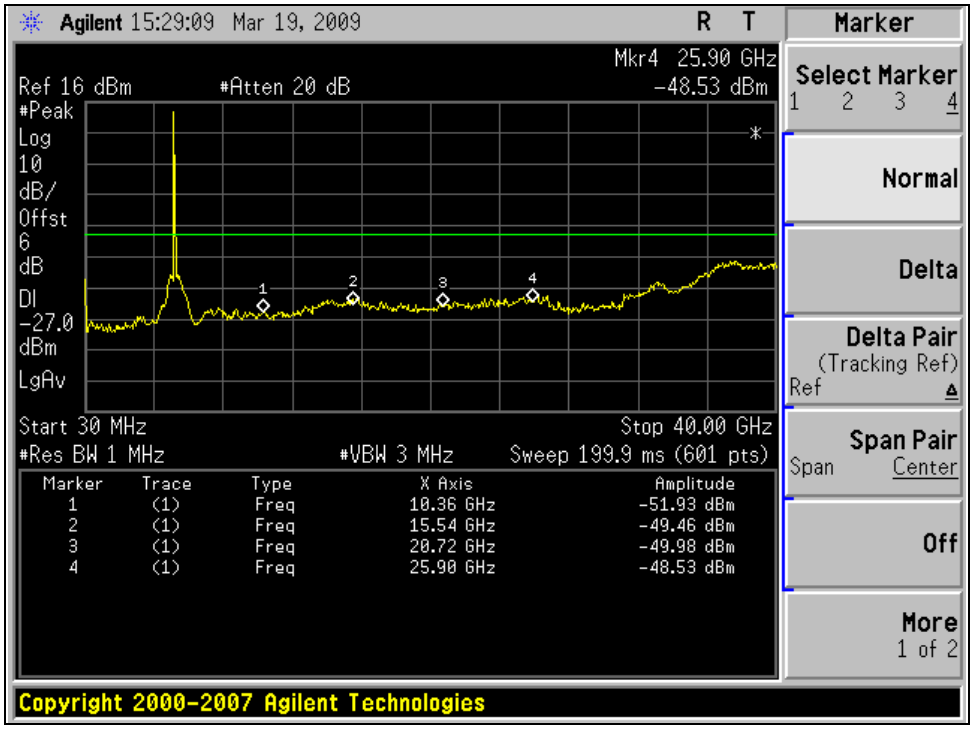
The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.7.4 TEST RESULTS

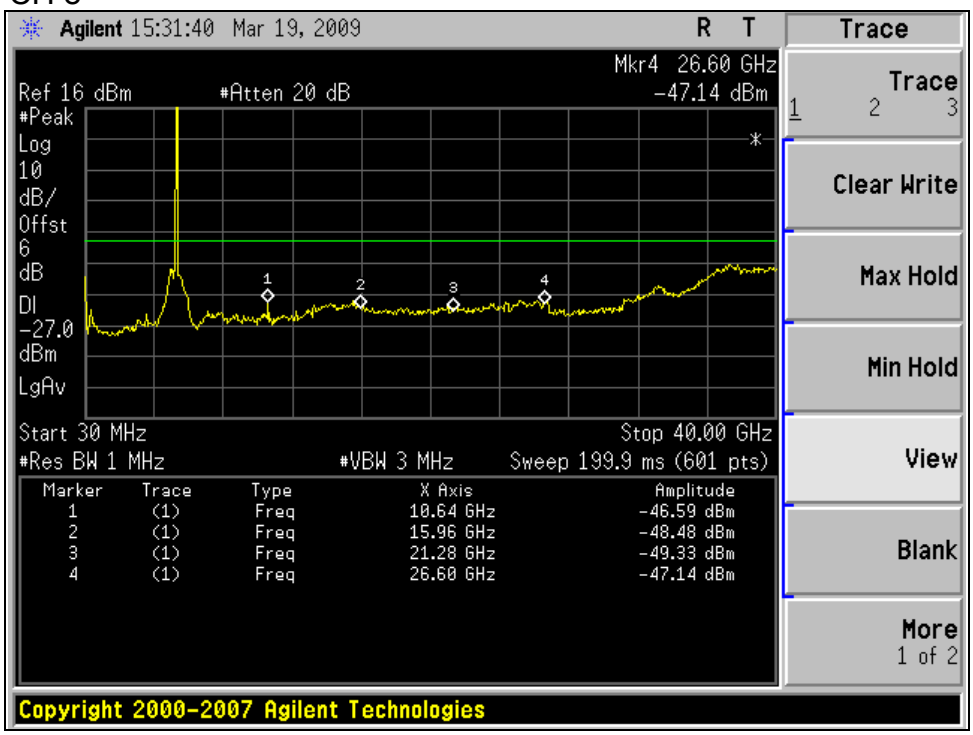
For 5.15 to 5.35GHz band:
The spectrum plots (Peak RBW=1MHz, VBW=3MHz) are attached on the following pages.

802.11a OFDM modulation

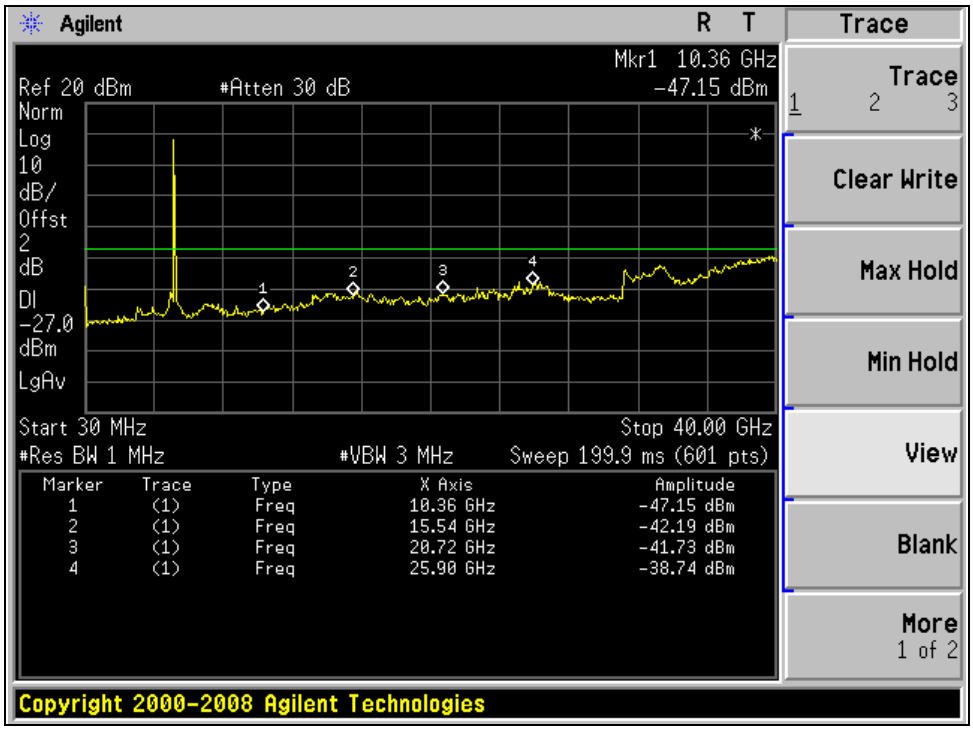
With combiner: CH 1



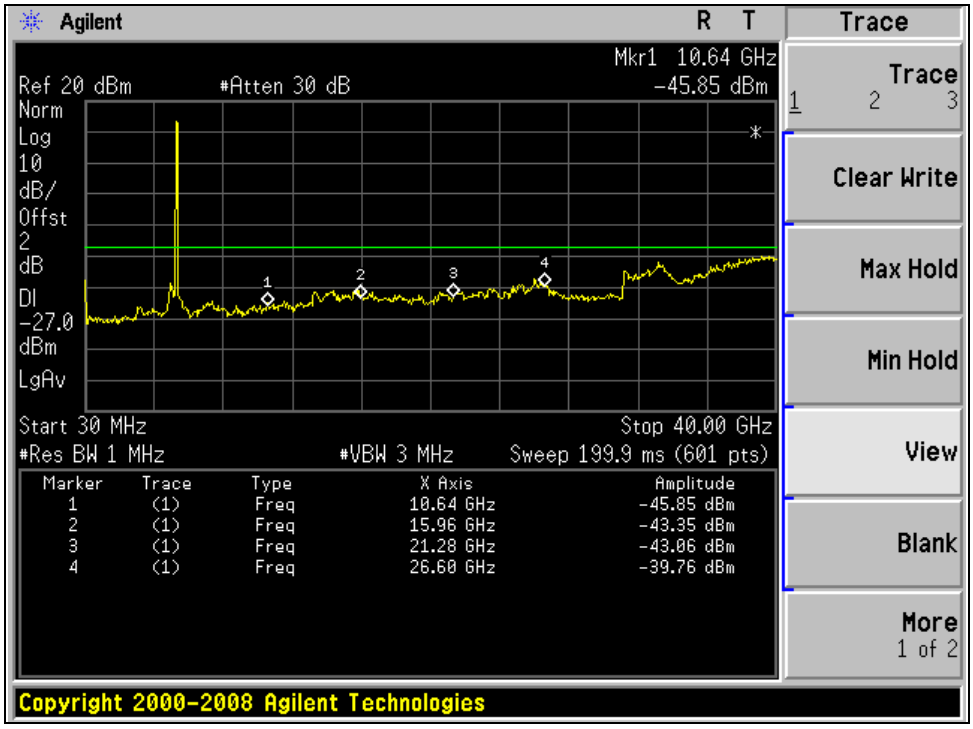
CH 8



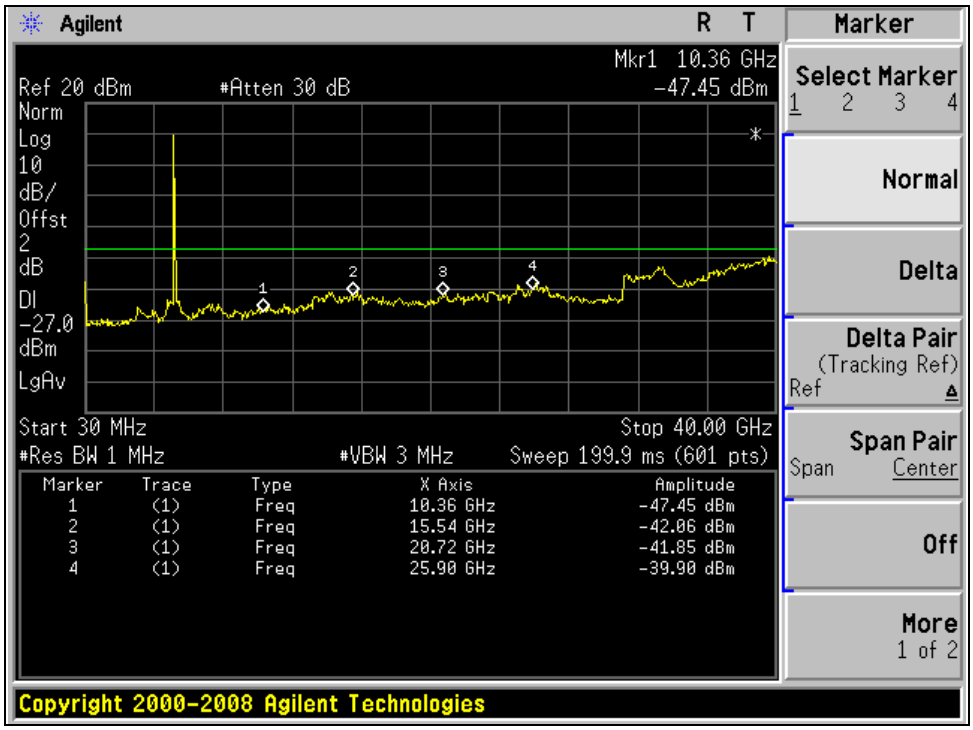
For Chain 0: CH 1



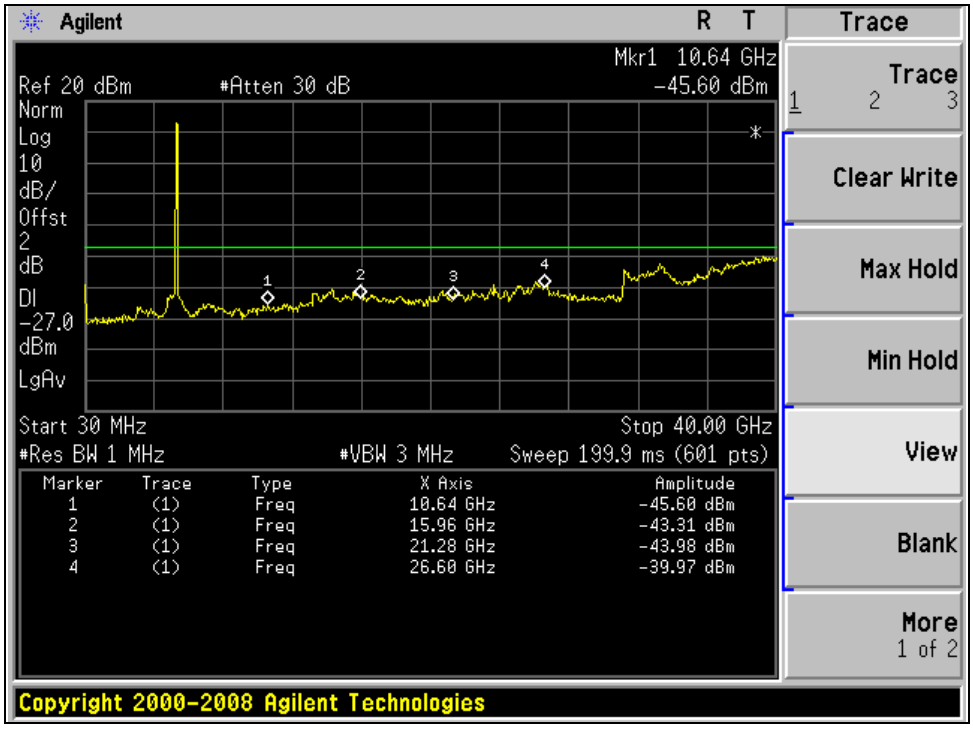
CH 8



For Chain 1: CH 1

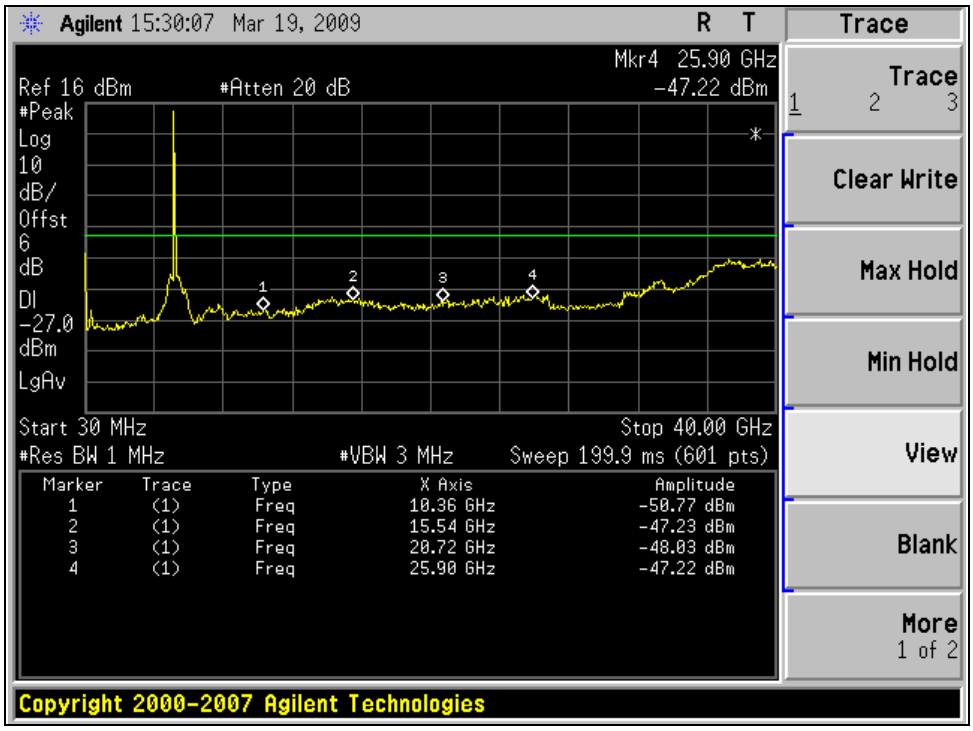


CH 8

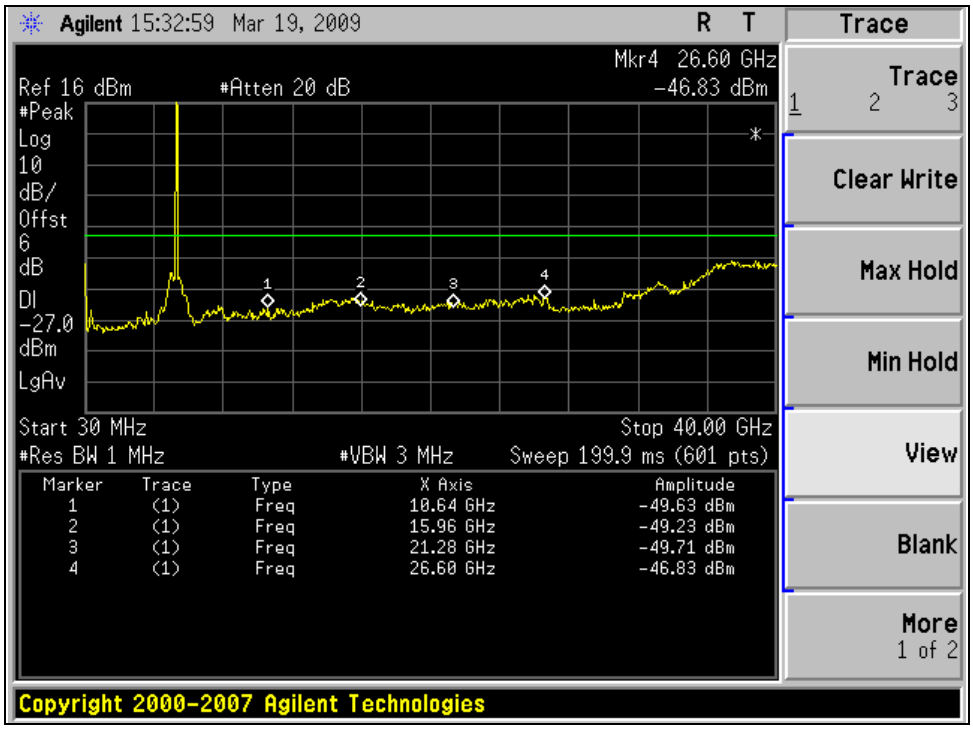


DRAFT 802.11n (20MHz) OFDM MODULATION:

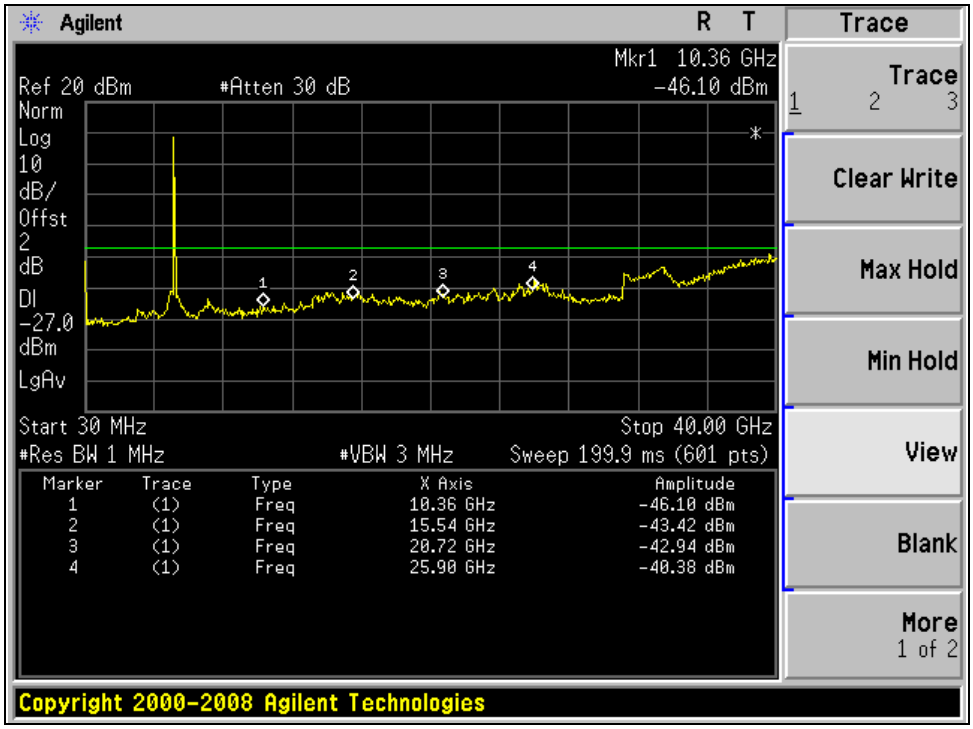
With combiner: CH1



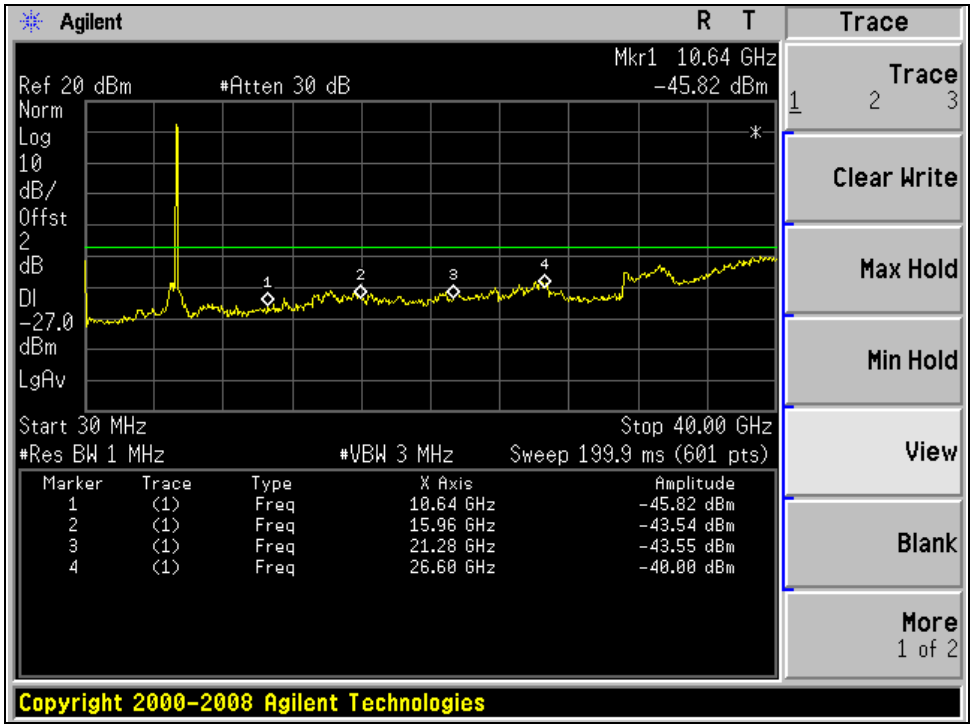
CH8



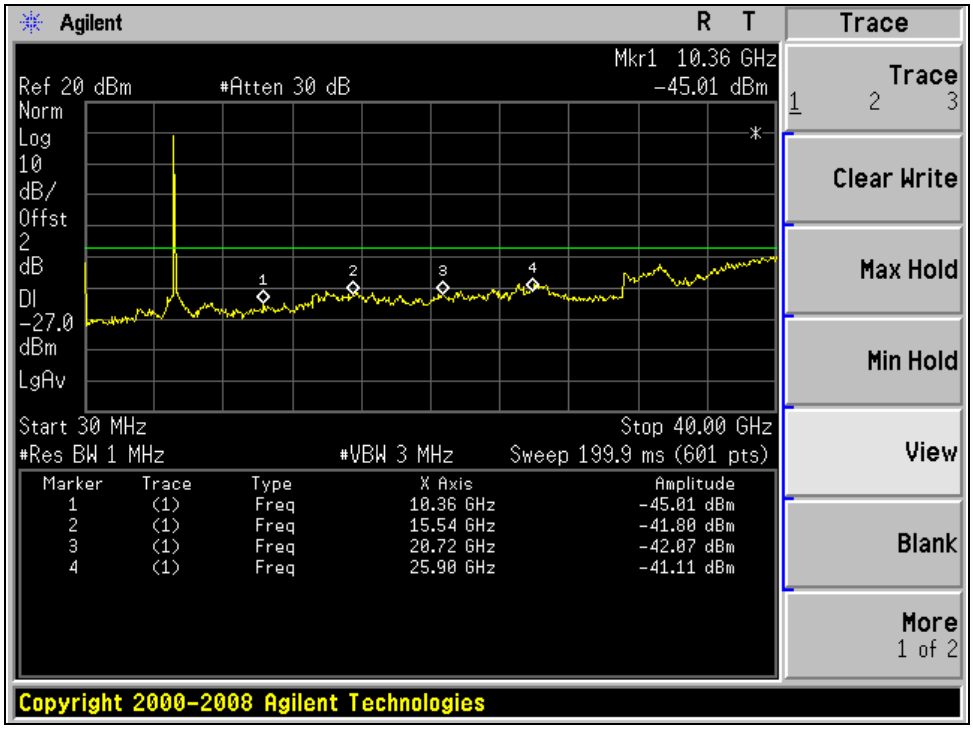
For chain 0: CH1



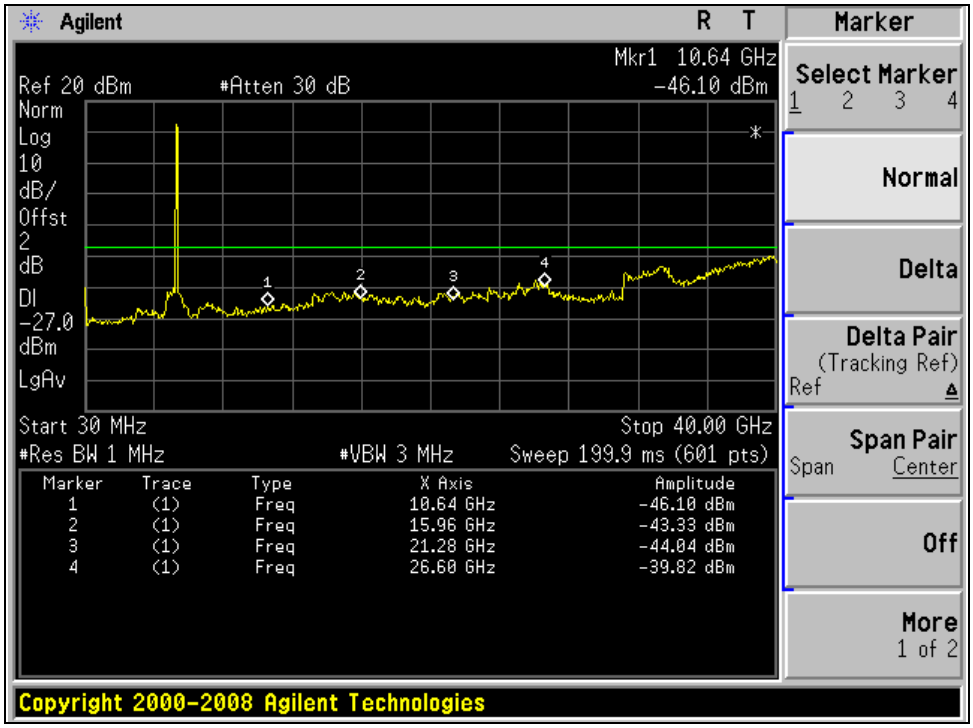
CH8



For chain 1: CH1

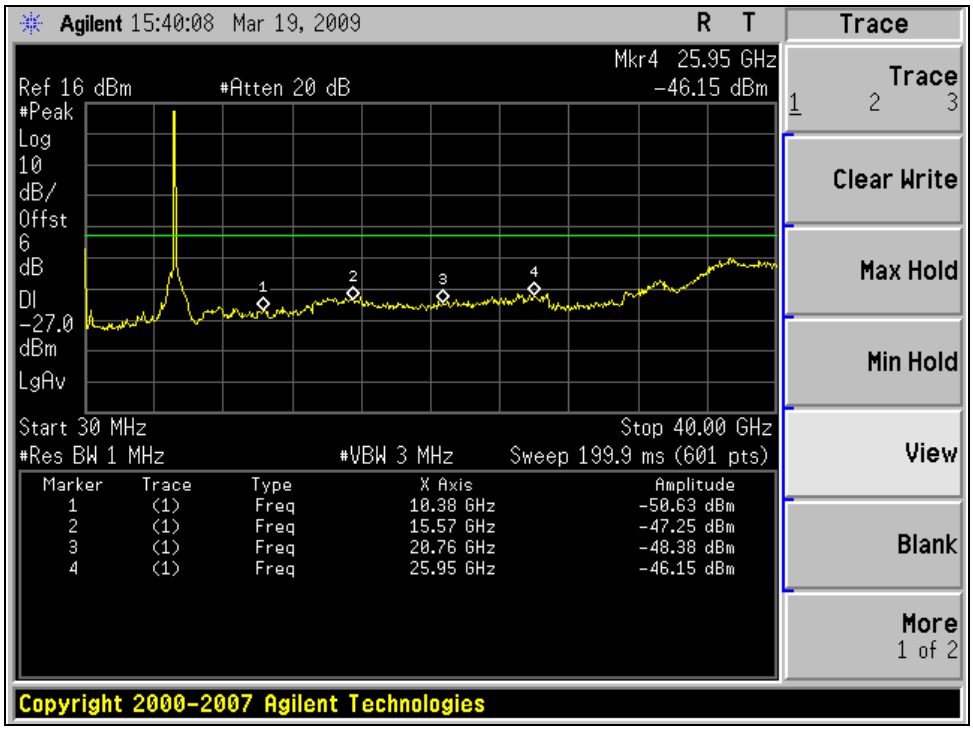


CH8

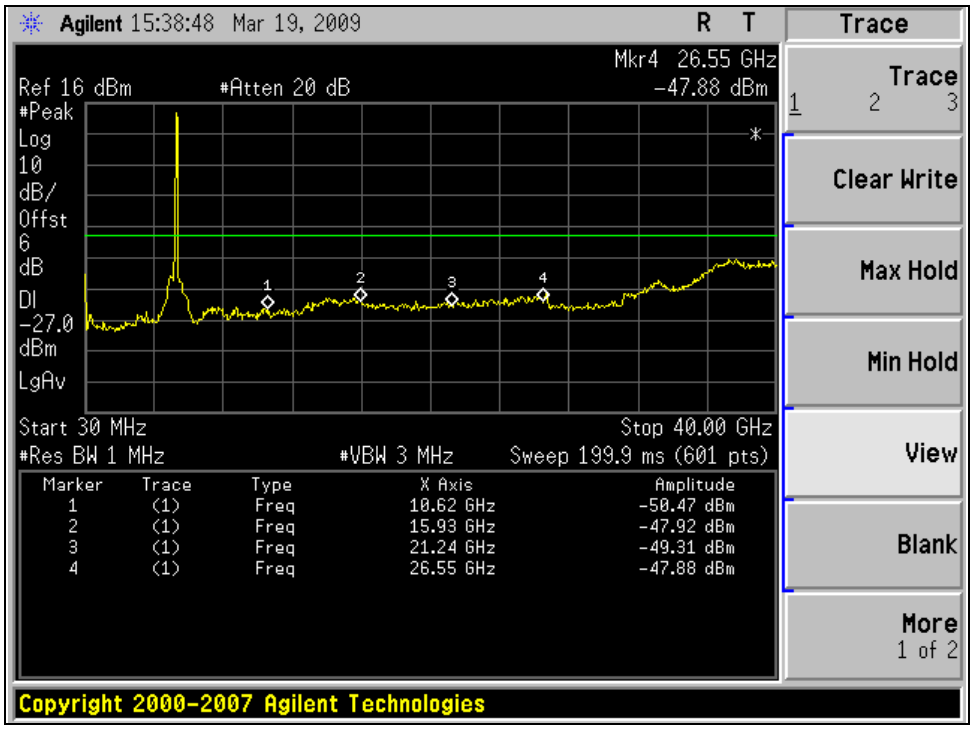


DRAFT 802.11n (40MHz) OFDM MODULATION:

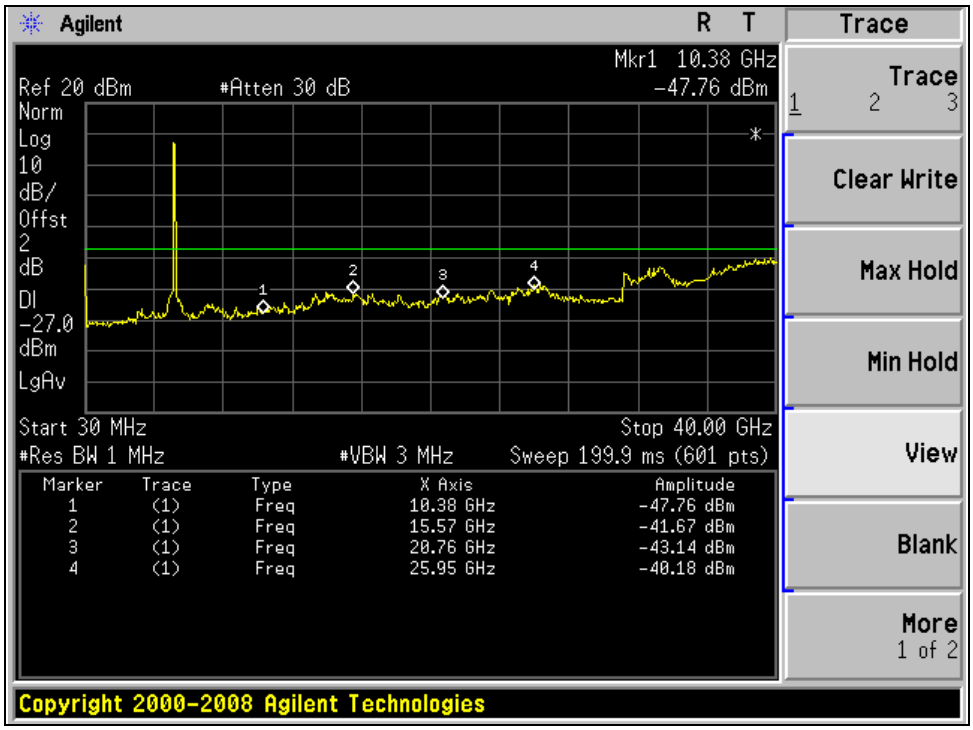
With combiner: CH1



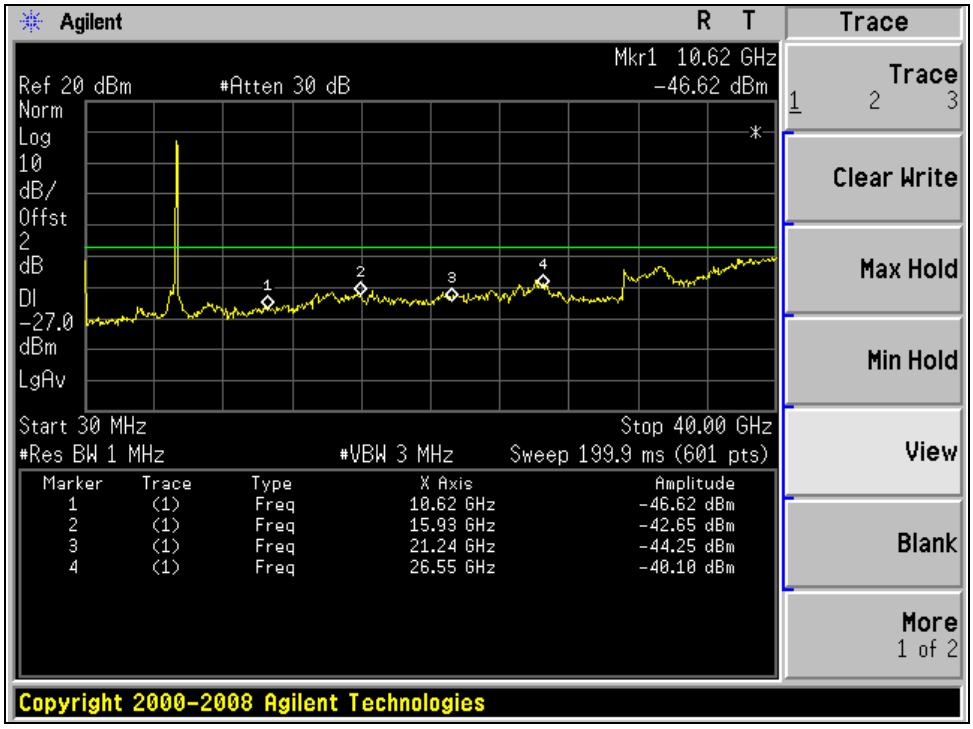
CH4



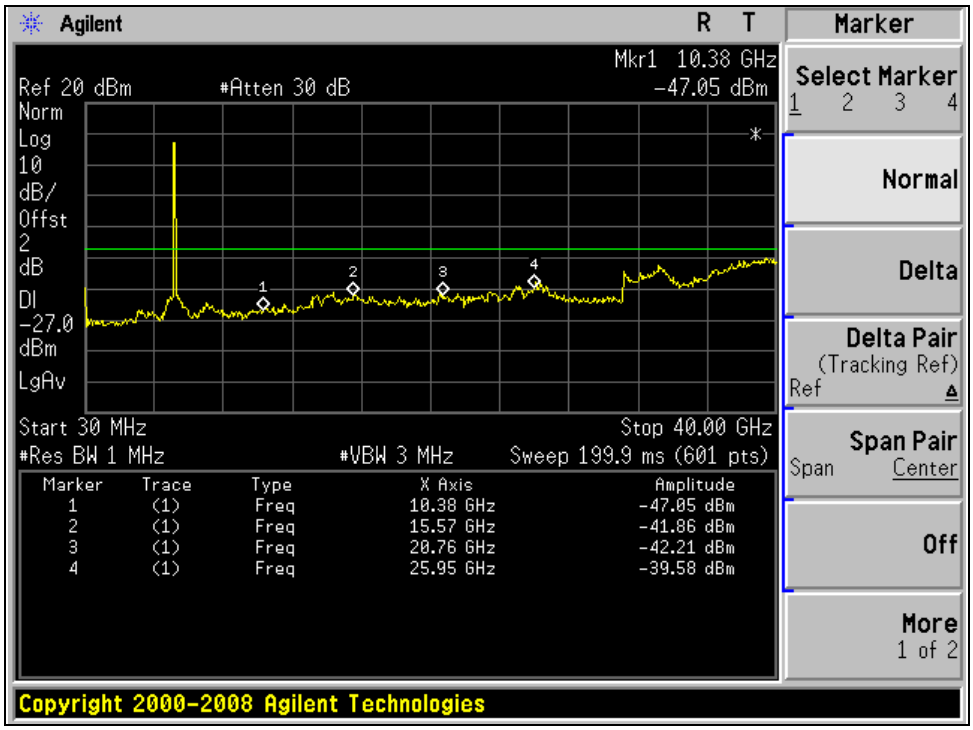
For chain 0: CH1



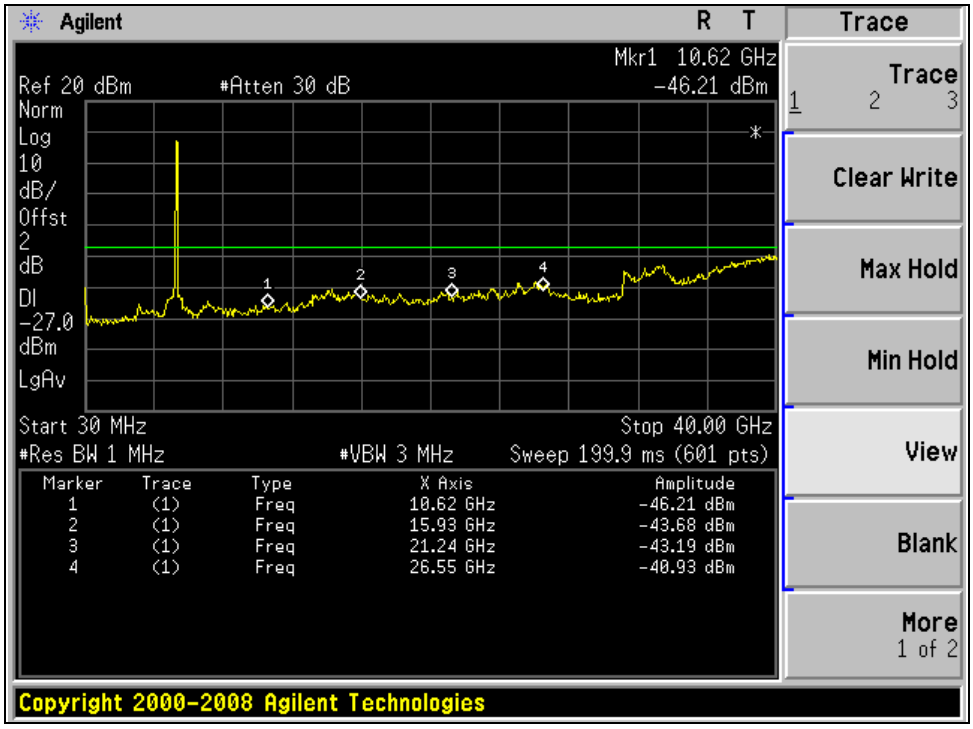
CH4



For chain 1: CH1



CH4

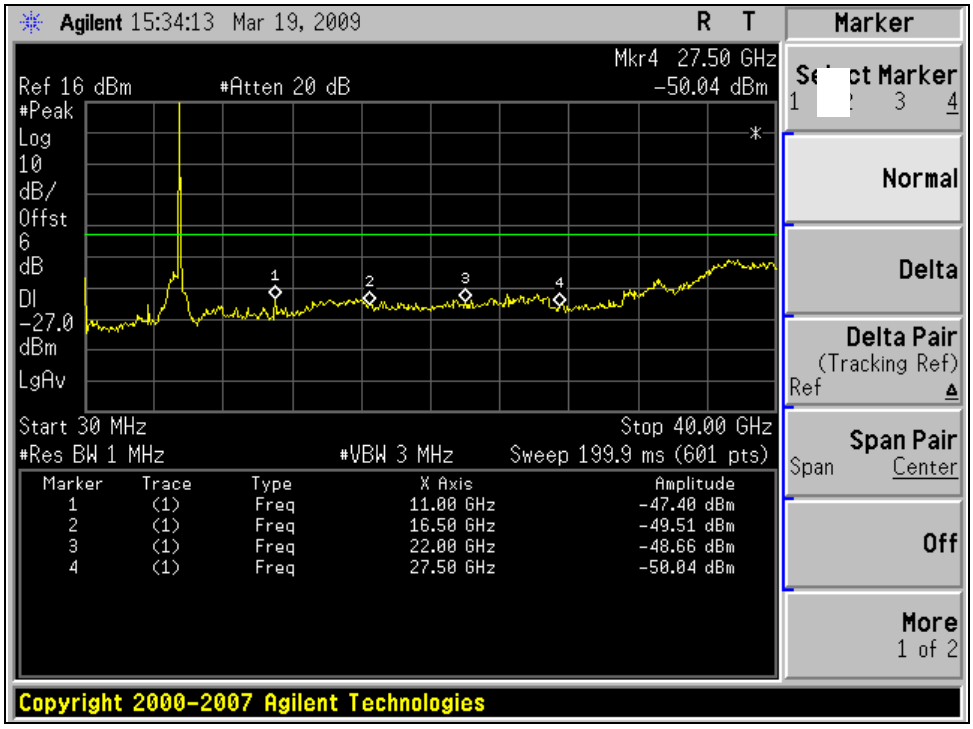


For 5.47 to 5.725GHz band:

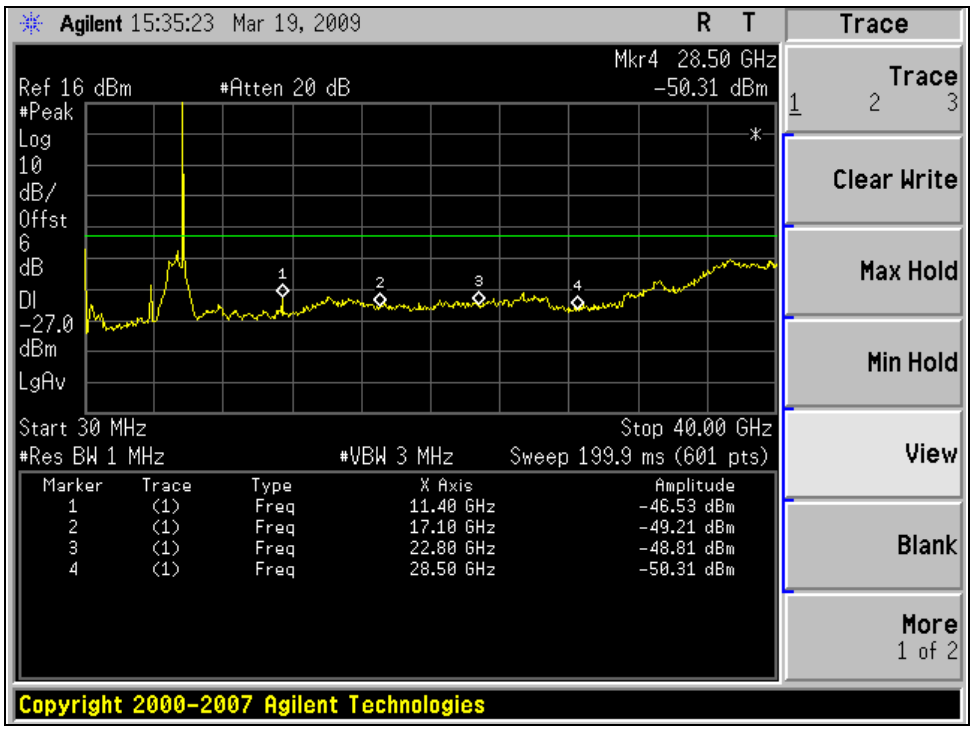
The spectrum plots (Peak RBW=1MHz, VBW=3MHz) are attached on the following pages.

802.11a OFDM modulation

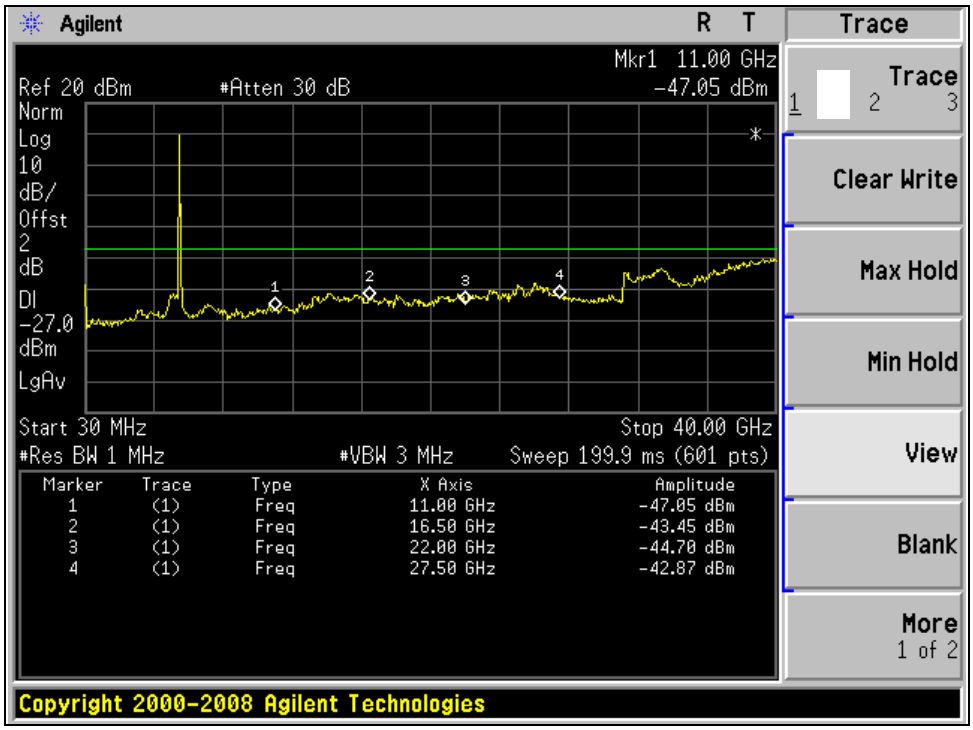
With combiner: CH 9



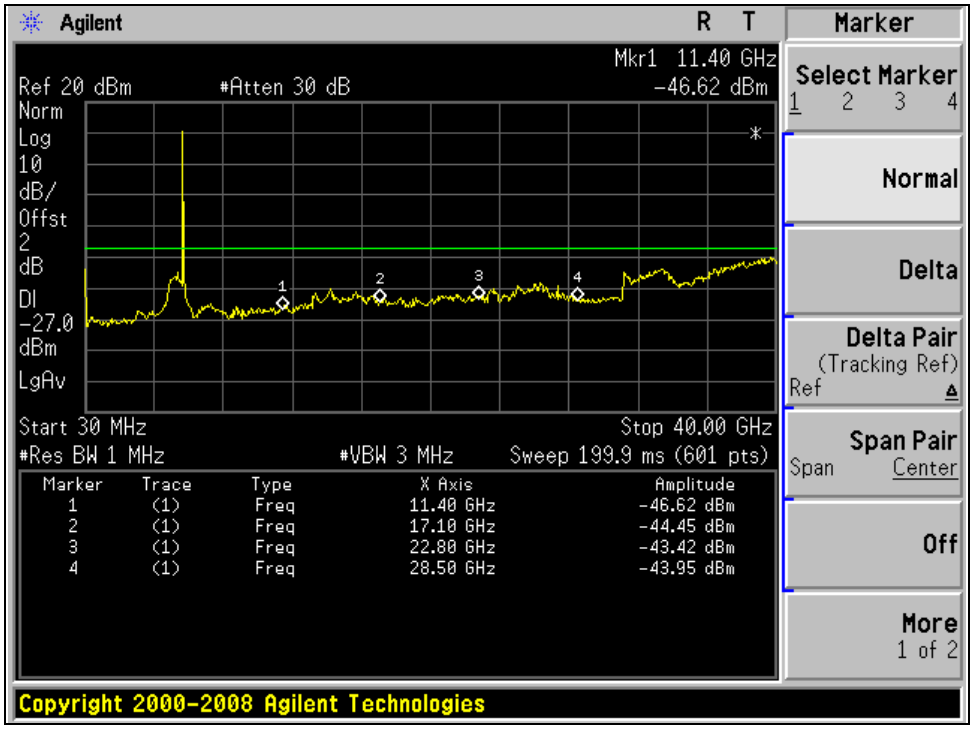
CH 19



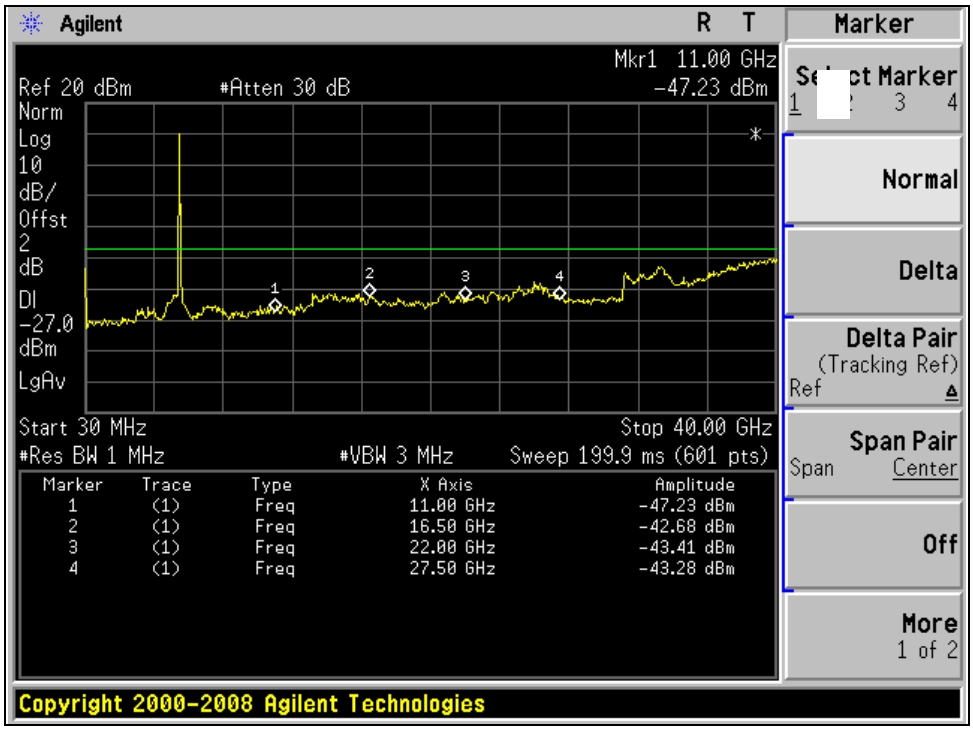
For chain 0: CH 9



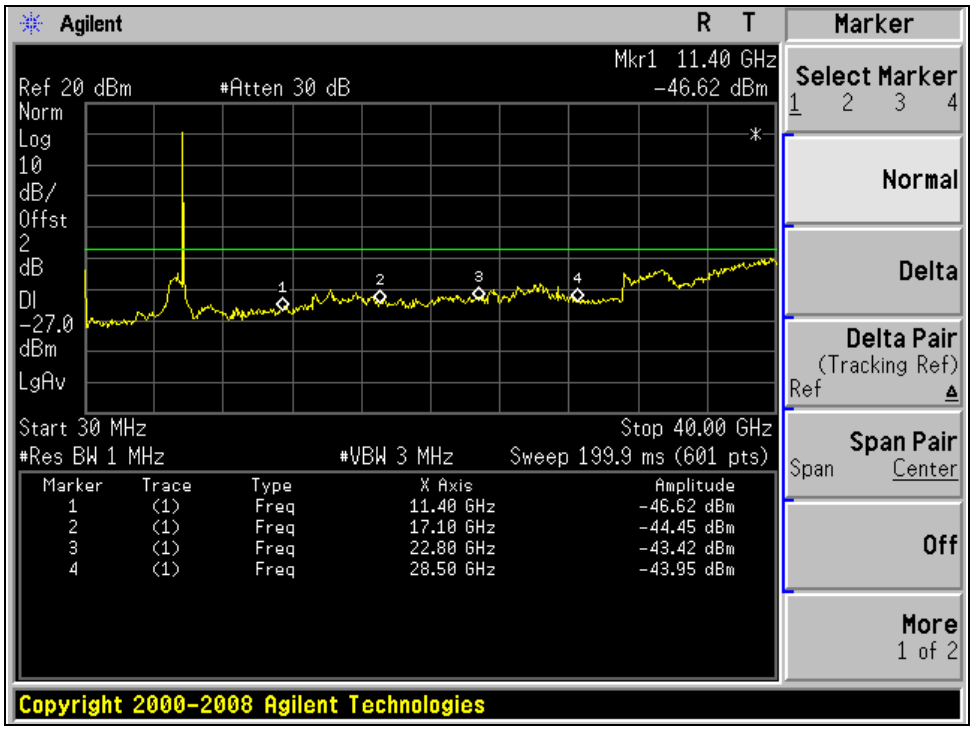
CH 19



For chain 1: CH 9

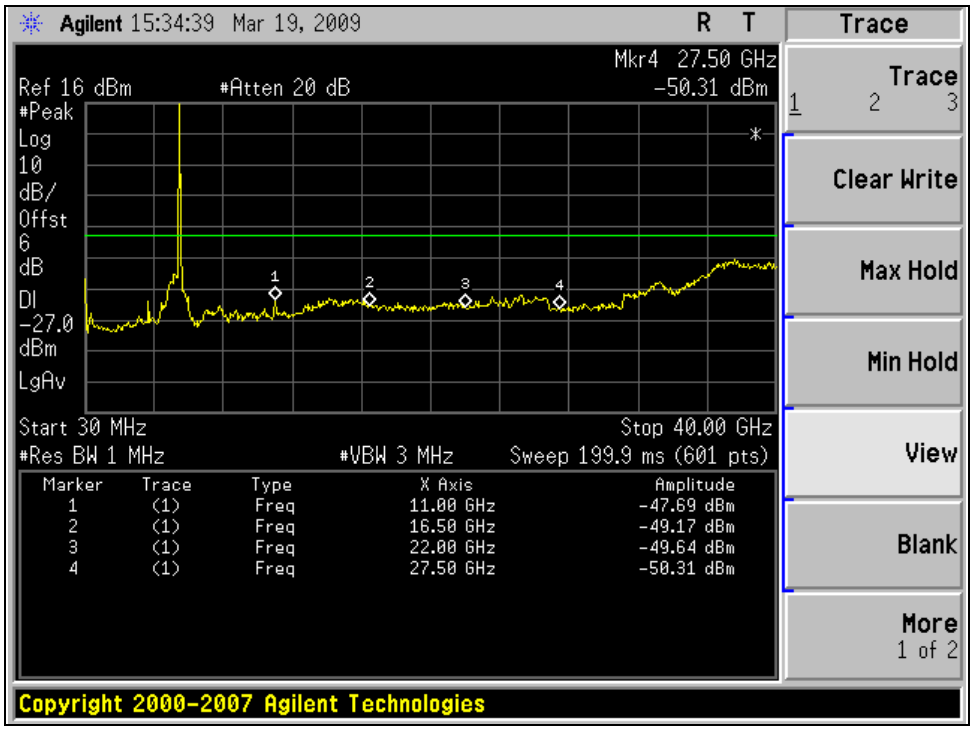


CH 19

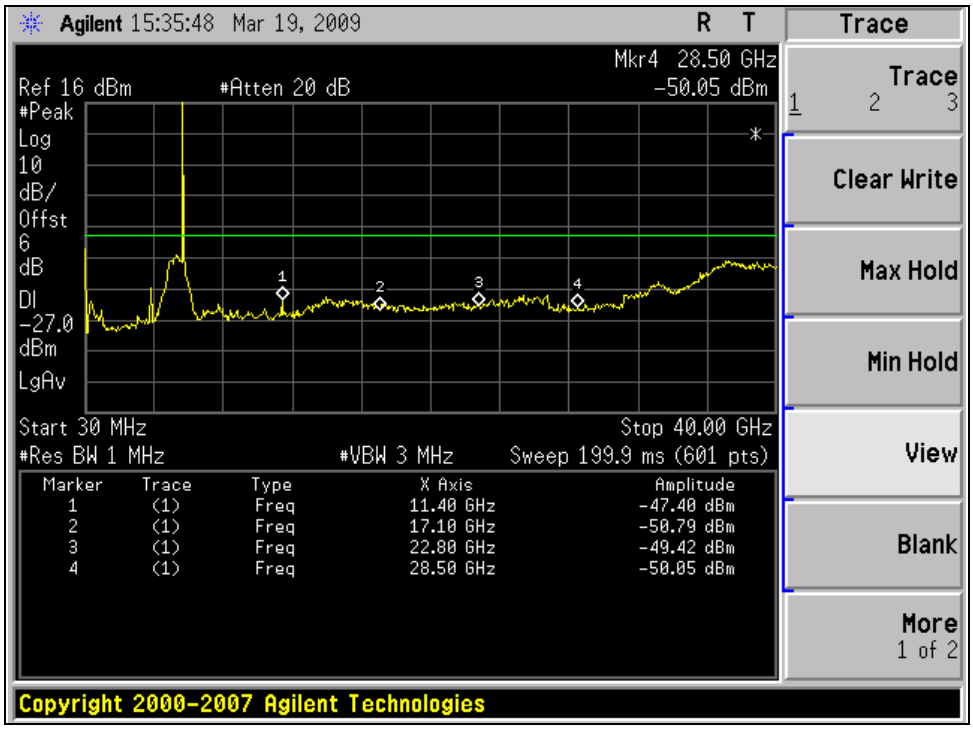


DRAFT 802.11n (20MHz) OFDM MODULATION:

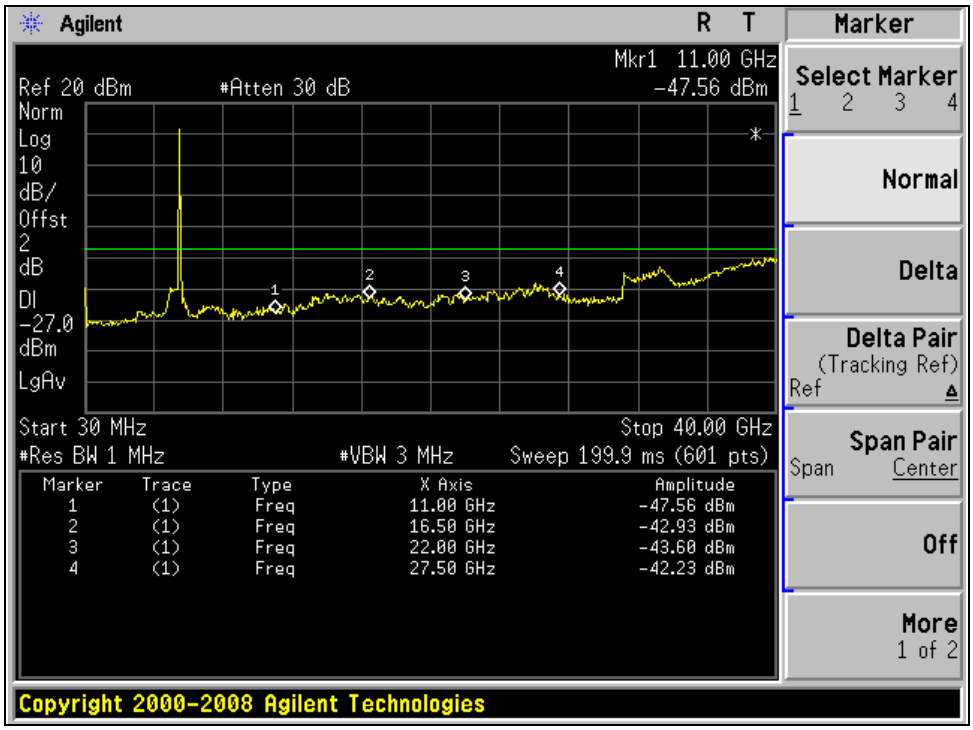
With combiner: CH9



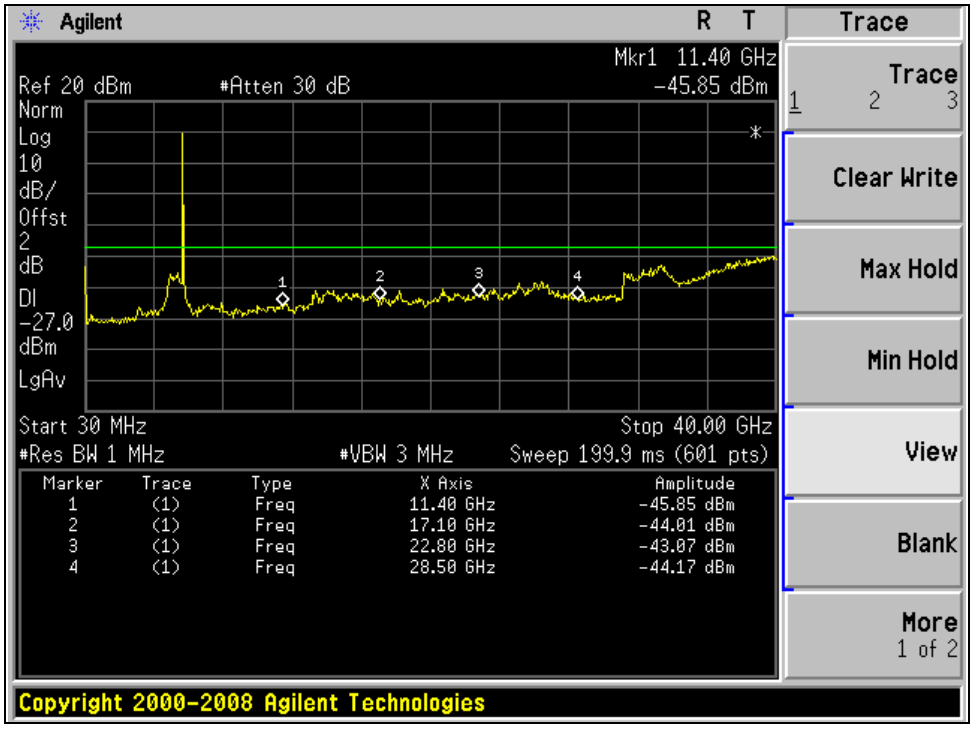
CH19



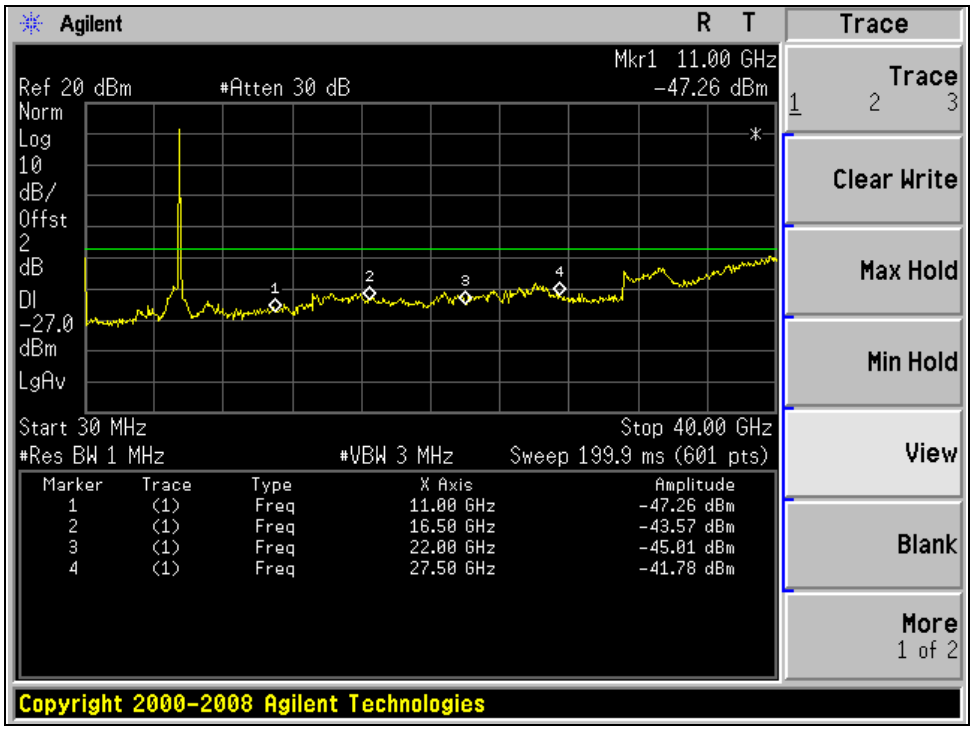
For chain 0: CH9



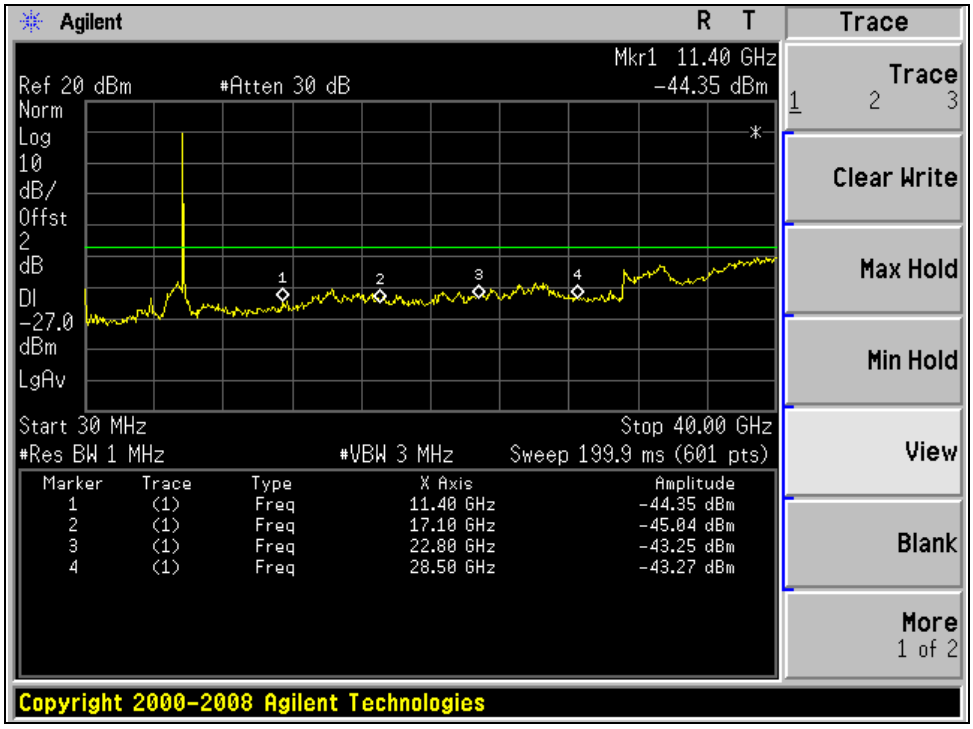
CH19



For chain 1: CH9

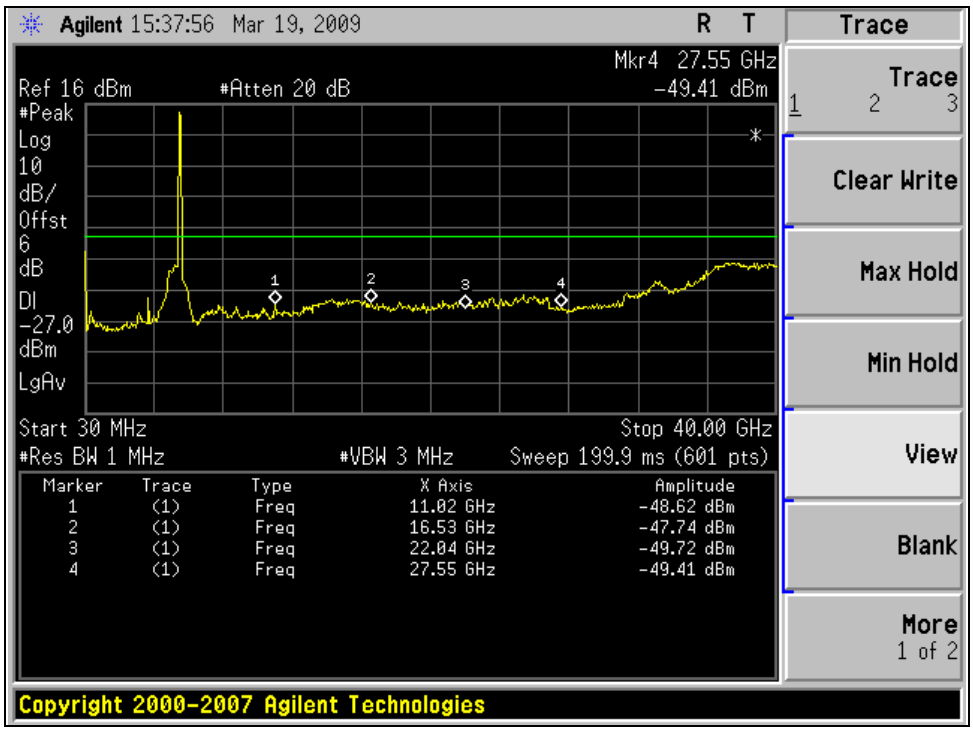


CH19

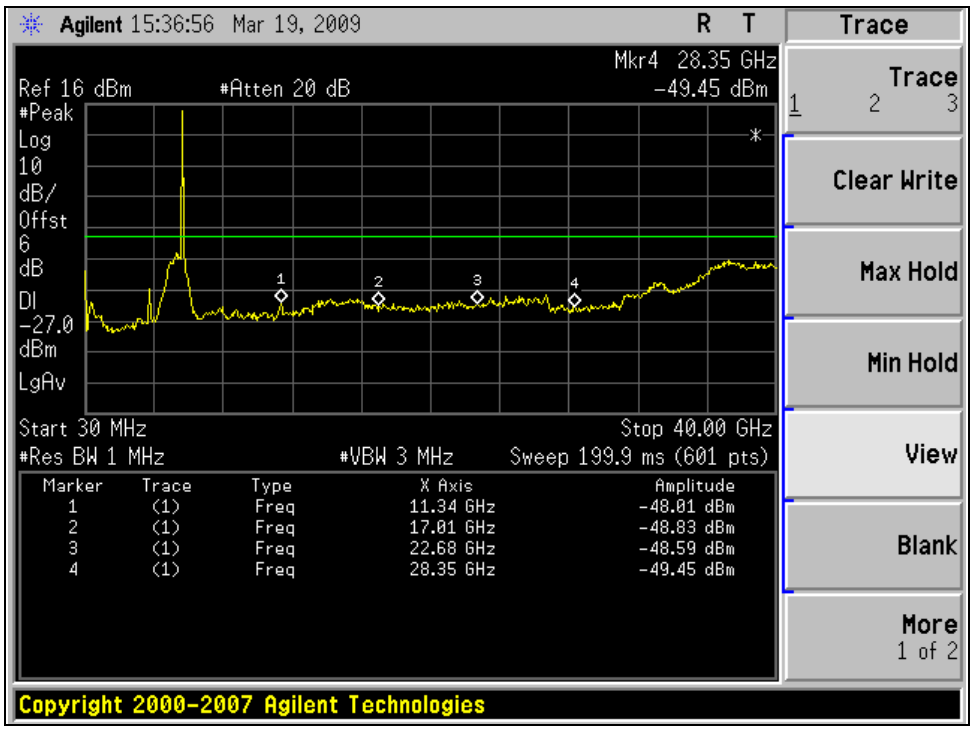


DRAFT 802.11n (40MHz) OFDM MODULATION:

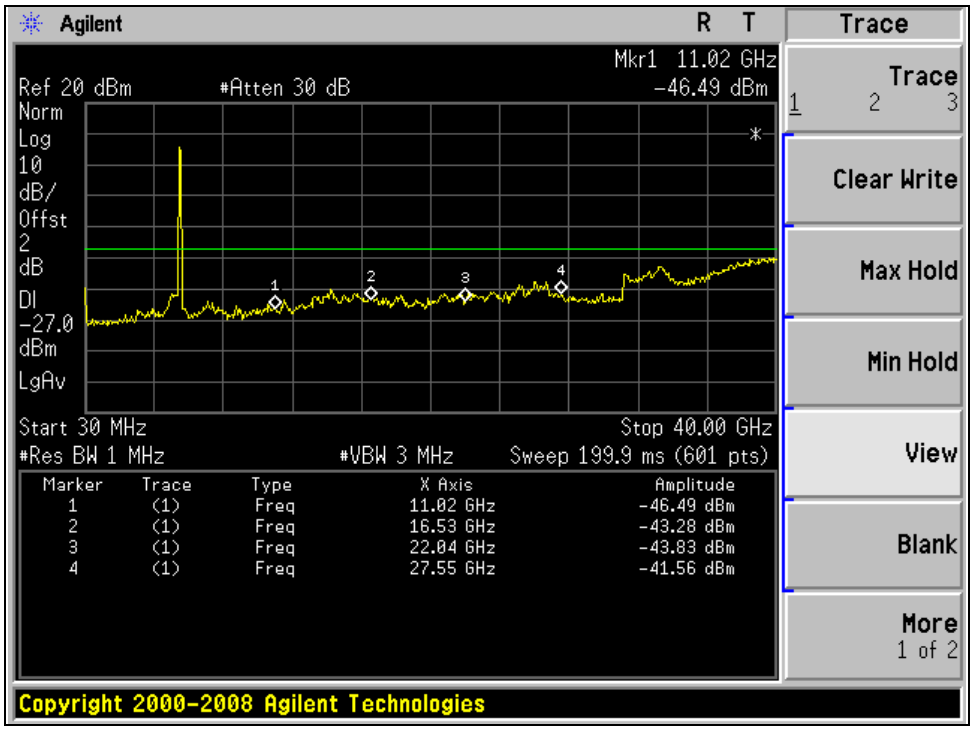
With combiner: CH5



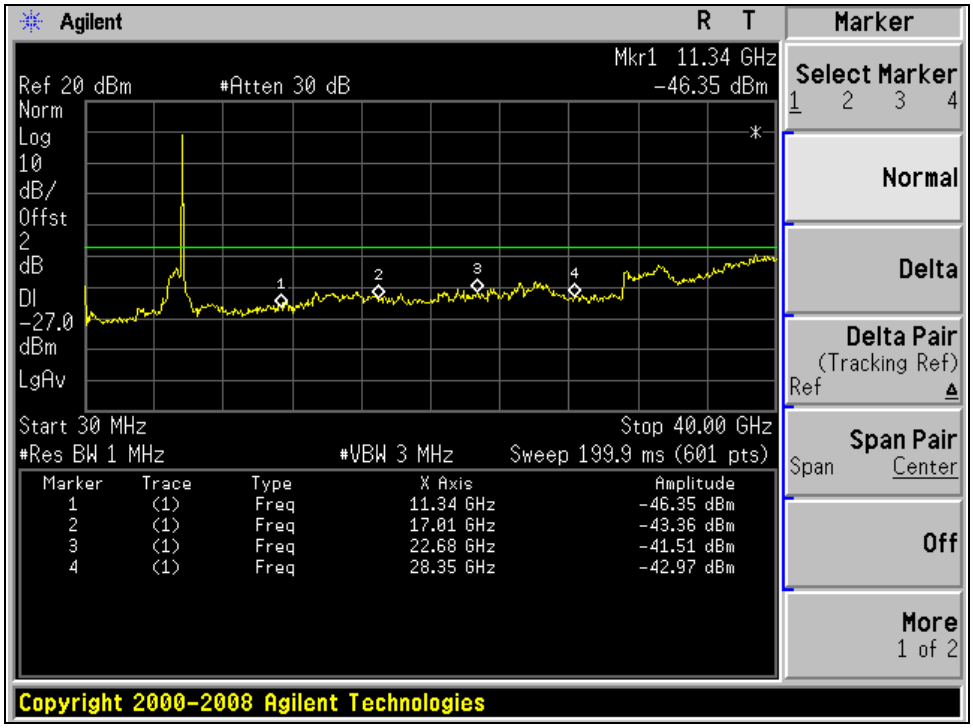
CH9



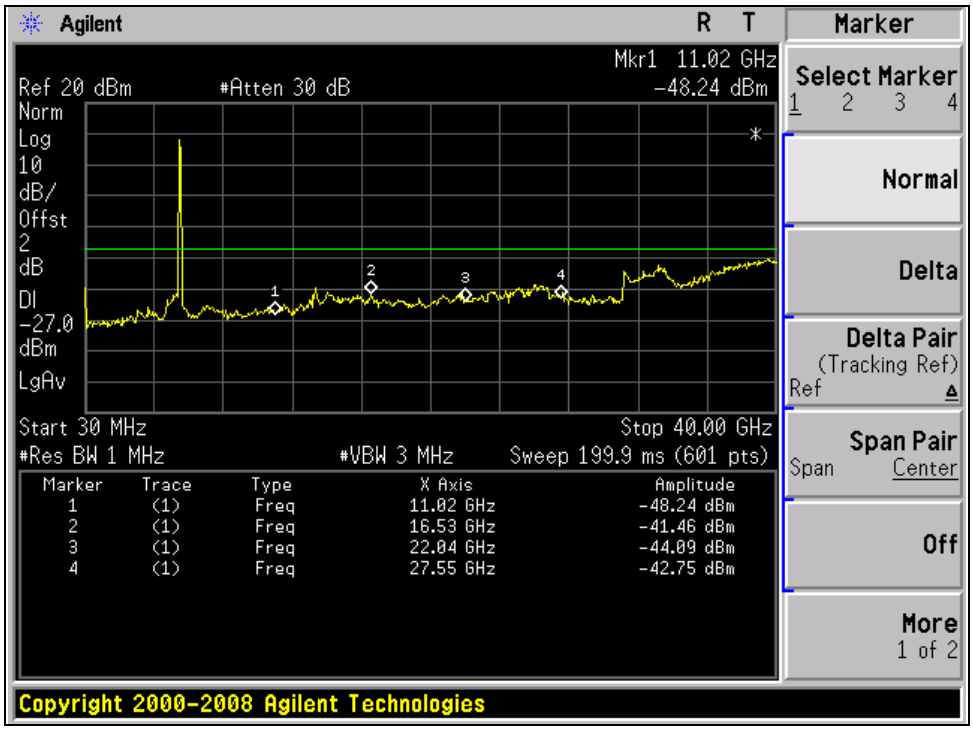
For chain 0: CH5



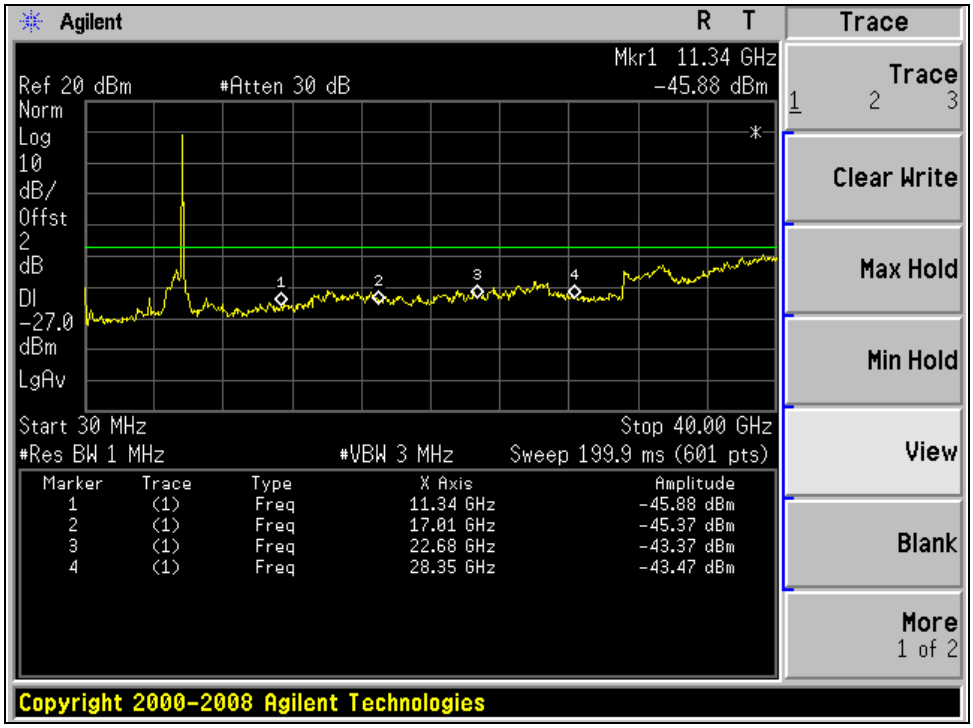
CH9



For chain 1: CH5



CH9



5.INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025:

USA	FCC, NVLAP
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	TAF, BSMI, NCC
Netherlands	Telefication
Singapore	GOST-ASIA(MOU)
Russia	CERTIS(MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26052943

Hsin Chu EMC/RF Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also

6.APPENDIX-A- MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

---END---