

FCC Test Report

Report No.: RF190308C34

FCC ID: HD5-CN85L0N

Test Model: CN85L0N

Received Date: Mar. 08, 2019

Test Date: Apr. 19 to May 08, 2019

Issued Date: May 30, 2019

Applicant: Honeywell International Inc.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
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**FCC Registration /
Designation Number:** 723255 / TW2022



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Release Control Record

Issue No.	Description	Date Issued
RF190308C34	Original release.	May 30, 2019

1 Certificate of Conformity

Product: Mobile computer

Brand: Honeywell

Test Model: CN85L0N

Sample Status: ENGINEERING SAMPLE

Applicant: Honeywell International Inc.

Test Date: Apr. 19 to May 08, 2019

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.247)
ANSI C63.10: 2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found 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 : Phoenix Huang, **Date:** May 30, 2019
Phoenix Huang / Specialist

Approved by : May Chen, **Date:** May 30, 2019
May Chen / Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	NA	Without AC power port of the EUT.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -2.2dB at 2483.50MHz.
15.247(d)	Antenna Port Emission	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is POGO pin not a standard connector.

Note:

Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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:

Measurement	Frequency	Expanded Uncertainty (k=2) ($\pm$)
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.1 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.1 dB
	6GHz ~ 18GHz	5.0 dB
	18GHz ~ 40GHz	5.2 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Mobile computer
Brand	Honeywell
Test Model	CN85L0N
Status of EUT	ENGINEERING SAMPLE
HW Version	V1.0
HW P/N	V2.0 (DVT)
Software Version	OS.02.001-HON.01.102
SW P/N	86.00.00-Debug(0633)
Power Supply Rating	3.85Vdc from battery
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode and VHT (20/40) mode in 2.4GHz
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: up to 11Mbps 802.11a/g: up to 54Mbps 802.11n: up to 300Mbps 802.11ac: up to 866.7Mbps
Operating Frequency	2.4GHz: 2.412 ~ 2.462GHz 5GHz: 5.18~ 5.24GHz, 5.26GHz ~ 5.32GHz, 5.50GHz ~ 5.72GHz, 5.745 ~ 5.825GHz
Number of Channel	2.4GHz: 802.11b, 802.11g, 802.11n (HT20), VHT20: 11 802.11n (HT40), VHT40: 7 5GHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 25 802.11n (HT40), 802.11ac (VHT40): 12 802.11ac (VHT80): 6
Output Power	2.4GHz: 456.377 mW 5.18 ~ 5.24GHz: 87.866 mW 5.26 ~ 5.32GHz: 98.082 mW 5.5 ~ 5.72GHz: 100.379 mW 5.745 ~ 5.825GHz: 95.722 mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Battery x 1, Touch pen x 1, Handstrap x 1
Data Cable Supplied	NA

Note:

- There're 2 configurations for the EUT listed as below.

Item
Sample A: Scanner: N6703ER with Keypad 1 (Number) + 4G RAM
Sample B: Scanner: N6703ER with Keypad 2 (Letter) + 4G RAM
Note: From the above samples, the Sample B was selected for the test and its data was recorded in this report.

- There are WLAN, Bluetooth, Zigbee and NFC technology used for the EUT. The EUT has below radios as following table:

Radio 1	Radio 2	Radio 3	Radio 4
WLAN+BT 1	Zigbee+BT 2	NFC	Wireless charger (Rx)

Note: For Bluetooth technology the Radio 1 support BT 5.0 dual mode, the Radio 2 support BT-LE (4.2) single mode only.

- Simultaneously transmission condition.

Condition	Technology		
1	WLAN 2.4GHz	NFC	Zigbee
2	WLAN 5GHz	NFC	Zigbee
3	Bluetooth (Radio 1)	NFC	Zigbee

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

- The EUT needs to be supplied from battery, the information is as below table:

Brand	Model No.	Spec.
Inventus Power, Inc. / Honeywell	CW-BAT	3.85Vdc, 5800mAh, 22.3Wh

- The antennas provided to the EUT, please refer to the following table:

The antennas provided to the ECU, please refer to the following table.

Radio 1					
WLAN Antenna Spec. / Bluetooth Antenna No. 1 Spec.					
Chain No.	Antenna Gain include trace loss (dBi)	Frequency range (GHz)	Antenna type	Connector type	Trace loss (dB)
Chain 0	0.4	2.4~2.4835	PIFA	POGO pin	1.4
	1.62	5.15~5.25			2
	1.62	5.25~5.35			2
	1.15	5.47~5.725			2.4
	1.15	5.725~5.85			2.4
Chain 1	1.7	2.4~2.4835	PIFA	POGO pin	0.3
	1.3	5.15~5.25			0.9
	1.3	5.25~5.35			0.9
	2	5.47~5.725			0.9
	2	5.725~5.85			0.9
Radio 2					
Bluetooth Antenna No. 2 Spec. / Zigbee Antenna Spec.					
Antenna Gain include trace loss (dBi)	Frequency range (GHz)	Antenna type	Connector type	Trace loss (dB)	
-0.1	2.4~2.4835	PIFA	POGO pin	0.5	
Radio 3					
NFC Antenna Spec.					
Frequency range (MHz)		Antenna type		Connector type	
13~14		Loop		NA	

6. The EUT incorporates a MIMO function.

2.4GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11b	2TX	2RX
802.11g	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
VHT20	2TX	2RX
VHT40	2TX	2RX
5GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11a	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
802.11ac (VHT20)	2TX	2RX
802.11ac (VHT40)	2TX	2RX
802.11ac (VHT80)	2TX	2RX

Note: The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz) and 802.11ac mode for 20MHz (40MHz), therefore investigated worst case to representative mode in test report.

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

3.2 Description of Test Modes

11 channels are provided for 802.11b, 802.11g and 802.11n (HT20), VHT20:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437		

7 channels are provided for 802.11n (HT40), VHT40:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	7	2442
4	2427	8	2447
5	2432	9	2452
6	2437		

3.2.1 Test Mode Applicability and Tested Channel Detail

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

Where **RE≥1G**: Radiated Emission above 1GHz & Bandedge Measurement
RE<1G: Radiated Emission below 1GHz
PLC: Power Line Conducted Emission
APCM: Antenna Port Conducted Measurement

Note:

1. No need to concern of Conducted Emission due to the EUT is powered by battery.
2. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Y-plane (below 1GHz)** & **Z-plane (above 1GHz)**.

Radiated Emission Test (Above 1GHz):

- ☒ 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)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

Radiated Emission Test (Below 1GHz):

- ☒ 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)
802.11g	1 to 11	6	OFDM	BPSK	6

Antenna Port Conducted Measurement:

- ☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- ☒ 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)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE $\geq$ 1G	24deg. C, 71%RH	3.85Vdc	Andy Ho
RE<1G	23deg. C, 68%RH	3.85Vdc	Andy Ho
APCM	25deg. C, 60%RH	3.85Vdc	Anderson Chen

3.3 Duty Cycle of Test Signal

If duty cycle of test signal is $\geq 98\%$, duty factor is not required.

If duty cycle of test signal is $< 98\%$, duty factor shall be considered.

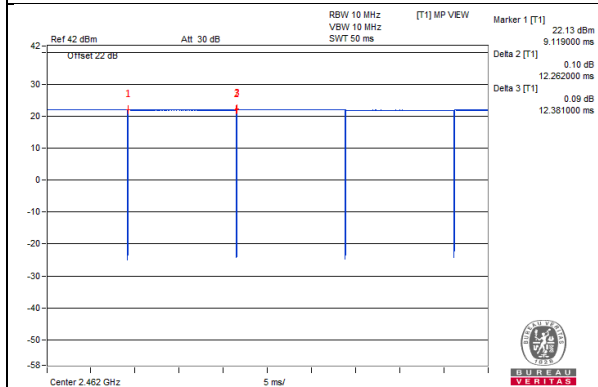
802.11b: Duty cycle = $12.262 \text{ ms} / 12.381 \text{ ms} = 0.99$

802.11g: Duty cycle = $2.026 \text{ ms} / 2.135 \text{ ms} = 0.949$, Duty factor = $10 * \log (1/\text{Duty cycle}) = 0.23$

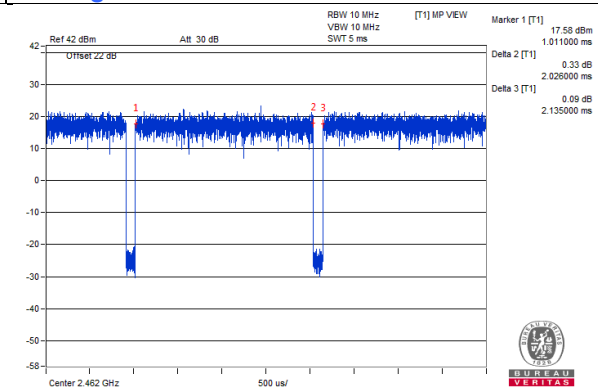
802.11n (HT20): Duty cycle = $1.889 \text{ ms} / 1.996 \text{ ms} = 0.946$, Duty factor = $10 * \log (1/\text{Duty cycle}) = 0.24$

802.11n (HT40): Duty cycle = $0.925 \text{ ms} / 1.057 \text{ ms} = 0.875$, Duty factor = $10 * \log (1/\text{Duty cycle}) = 0.58$

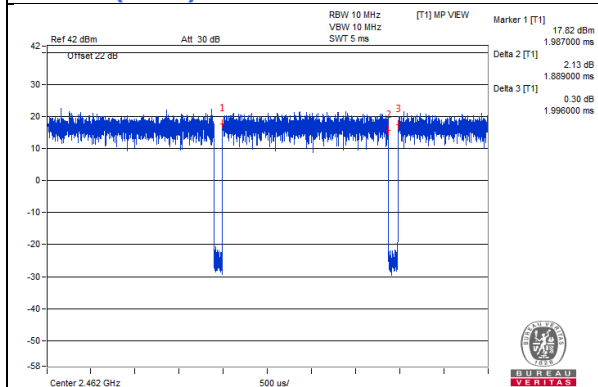
802.11b



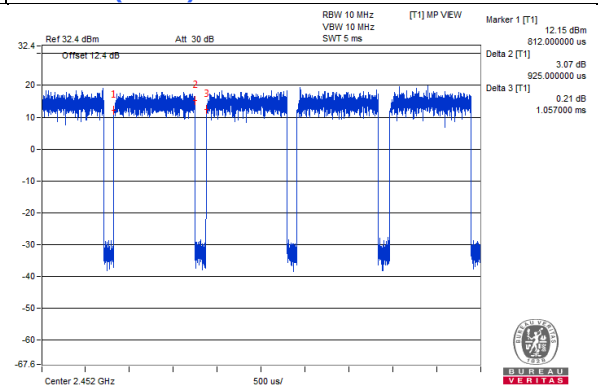
802.11g



802.11n (HT20)



802.11n (HT40)

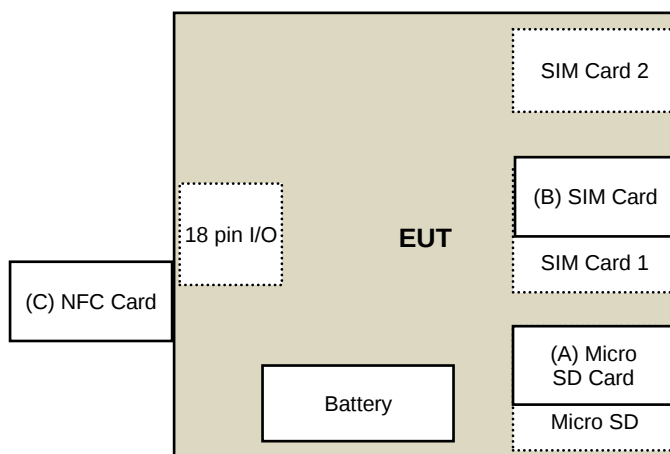


3.4 Description of Support Units

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.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	MicroSD Card	Transcend	NA	NA	NA	Provided by Lab
B.	SIM Card	R&S	CRT-Z3	NA	NA	Provided by Lab
C.	NFC Card	UGSI	NA	NA	NA	Supplied by client

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C (15.247)

KDB 558074 D01 15.247 Meas Guidance v05r02

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

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. 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.

4.1.2 Test Instruments

For Radiated Emission Test: (Except for 802.11n (HT40))

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY50010156	July 12, 2018	July 11, 2019
Pre-Amplifier EMCI	EMC001340	980142	Jan. 25, 2019	Jan. 24, 2020
Loop Antenna Electro-Metrics	EM-6879	269	Sep. 07, 2018	Sep. 06, 2019
RF Cable	NA	LOOPCAB-001	Jan. 14, 2019	Jan. 13, 2020
RF Cable	NA	LOOPCAB-002	Jan. 14, 2019	Jan. 13, 2020
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-05	May 05, 2018	May 04, 2019
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Nov. 22, 2018	Nov. 21, 2019
RF Cable	8D	966-3-1	Mar. 18, 2019	Mar. 17, 2020
RF Cable	8D	966-3-2	Mar. 18, 2019	Mar. 17, 2020
RF Cable	8D	966-3-3	Mar. 18, 2019	Mar. 17, 2020
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Sep. 27, 2018	Sep. 26, 2019
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Nov. 25, 2018	Nov. 24, 2019
Pre-Amplifier EMCI	EMC12630SE	980384	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC104-SM-SM-1200	160922	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC104-SM-SM-2000	180601	June 12, 2018	June 11, 2019
RF Cable	EMC104-SM-SM-6000	180602	June 12, 2018	June 11, 2019
Spectrum Analyzer Keysight	N9030A	MY54490679	July 23, 2018	July 22, 2019
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 28, 2019	Jan. 27, 2020
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 25, 2018	Nov. 24, 2019
RF Cable	EMC102-KM-KM-1200	160924	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC102-KM-KM-1200	160925	Jan. 28, 2019	Jan. 27, 2020
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	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 966 Chamber No. 3.
3. Loop antenna was used for all emissions below 30 MHz.
4. Tested Date: Apr. 19 to 29, 2019

For Other Test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY50010156	July 12, 2018	July 11, 2019
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Nov. 25, 2018	Nov. 24, 2019
Pre-Amplifier EMCI	EMC12630SE	980384	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC104-SM-SM-1200	160922	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC104-SM-SM-2000	180601	June 12, 2018	June 11, 2019
RF Cable	EMC104-SM-SM-6000	180602	June 12, 2018	June 11, 2019
Spectrum Analyzer Keysight	N9030A	MY54490679	July 23, 2018	July 22, 2019
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 28, 2019	Jan. 27, 2020
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 25, 2018	Nov. 24, 2019
RF Cable	EMC102-KM-KM-1200	160924	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC102-KM-KM-1200	160925	Jan. 28, 2019	Jan. 27, 2020
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Spectrum Analyzer R&S	FSV40	100964	June 20, 2018	June 19, 2019
Power meter Anritsu	ML2495A	1014008	May 09, 2018	May 08, 2019
Power sensor Anritsu	MA2411B	0917122	May 09, 2018	May 08, 2019
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 15, 2019	Apr. 14, 2020

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 966 Chamber No. 3.
3. Loop antenna was used for all emissions below 30 MHz.
4. Tested Date: May 02 to 08, 2019

4.1.3 Test Procedures

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case 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 Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

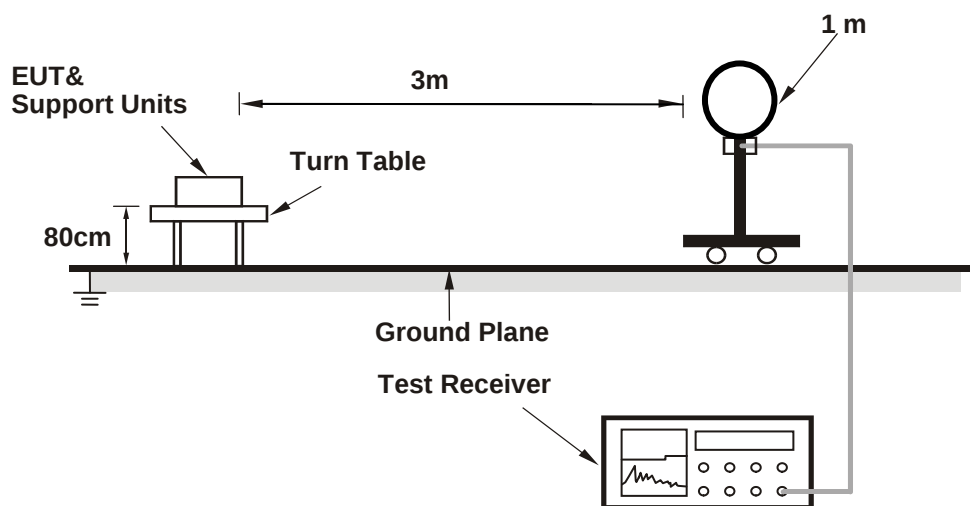
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

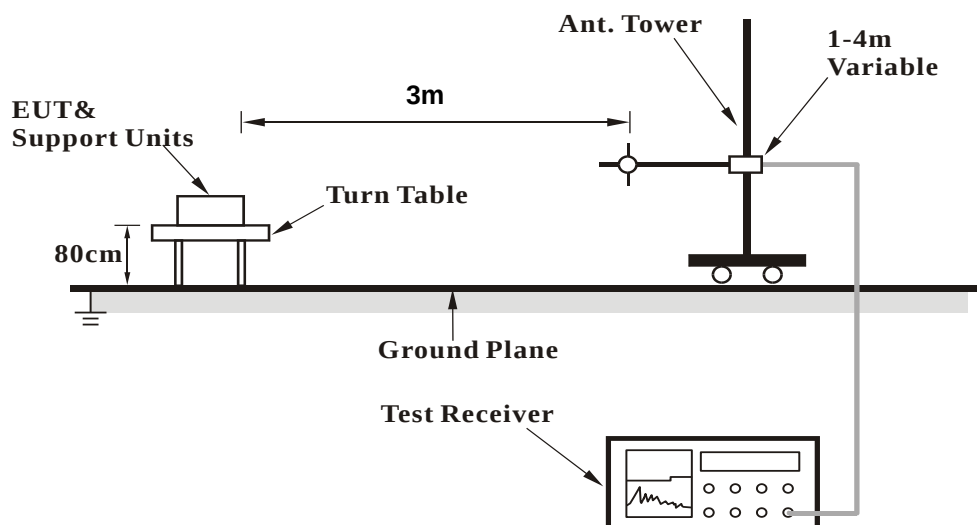
No deviation.

4.1.5 Test Setup

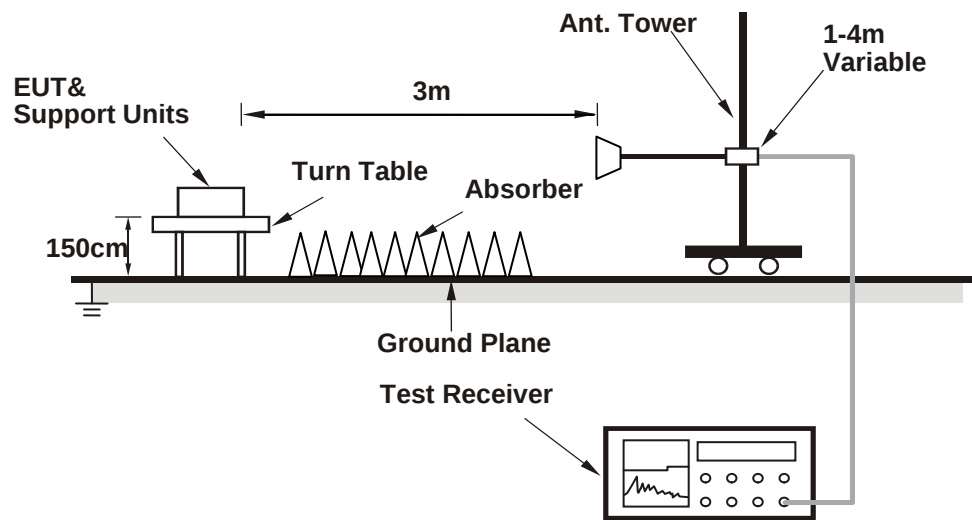
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT Operating Conditions

- a. Placed the EUT on the testing table.
- b. Controlling software (QRCT_V3.0.298.0) has been activated to set the EUT under transmission condition continuously.

4.1.7 Test Results

Above 1GHz Data:

802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	54.4 PK	74.0	-19.6	2.61 H	236	56.5	-2.1
2	2390.00	41.3 AV	54.0	-12.7	2.61 H	236	43.4	-2.1
3	*2412.00	108.6 PK			2.61 H	236	110.7	-2.1
4	*2412.00	106.4 AV			2.61 H	236	108.5	-2.1
5	4824.00	43.9 PK	74.0	-30.1	1.93 H	146	41.8	2.1
6	4824.00	36.1 AV	54.0	-17.9	1.93 H	146	34.0	2.1
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	2390.00	56.2 PK	74.0	-17.8	1.19 V	67	58.3	-2.1
2	2390.00	43.1 AV	54.0	-10.9	1.19 V	67	45.2	-2.1
3	*2412.00	109.9 PK			1.19 V	67	112.0	-2.1
4	*2412.00	107.6 AV			1.19 V	67	109.7	-2.1
5	4824.00	47.7 PK	74.0	-26.3	1.47 V	200	45.6	2.1
6	4824.00	38.0 AV	54.0	-16.0	1.47 V	200	35.9	2.1

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	54.7 PK	74.0	-19.3	2.72 H	265	56.8	-2.1
2	2390.00	40.9 AV	54.0	-13.1	2.72 H	265	43.0	-2.1
3	*2437.00	109.5 PK			2.72 H	265	111.8	-2.3
4	*2437.00	106.7 AV			2.72 H	265	109.0	-2.3
5	2483.50	54.7 PK	74.0	-19.3	2.72 H	265	57.1	-2.4
6	2483.50	42.3 AV	54.0	-11.7	2.72 H	265	44.7	-2.4
7	4874.00	43.4 PK	74.0	-30.6	1.88 H	128	41.3	2.1
8	4874.00	36.2 AV	54.0	-17.8	1.88 H	128	34.1	2.1
9	7311.00	46.9 PK	74.0	-27.1	1.28 H	267	38.9	8.0
10	7311.00	34.7 AV	54.0	-19.3	1.28 H	267	26.7	8.0

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	2390.00	55.6 PK	74.0	-18.4	1.47 V	56	57.7	-2.1
2	2390.00	42.0 AV	54.0	-12.0	1.47 V	56	44.1	-2.1
3	*2437.00	110.9 PK			1.47 V	56	113.2	-2.3
4	*2437.00	107.8 AV			1.47 V	56	110.1	-2.3
5	2483.50	54.8 PK	74.0	-19.2	1.47 V	56	57.2	-2.4
6	2483.50	42.7 AV	54.0	-11.3	1.47 V	56	45.1	-2.4
7	4874.00	48.0 PK	74.0	-26.0	1.32 V	198	45.9	2.1
8	4874.00	38.4 AV	54.0	-15.6	1.32 V	198	36.3	2.1
9	7311.00	47.1 PK	74.0	-26.9	2.33 V	142	39.1	8.0
10	7311.00	35.2 AV	54.0	-18.8	2.33 V	142	27.2	8.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	*2462.00	109.4 PK			2.69 H	249	111.7	-2.3
2	*2462.00	106.9 AV			2.69 H	249	109.2	-2.3
3	2483.50	55.6 PK	74.0	-18.4	2.69 H	249	58.0	-2.4
4	2483.50	43.3 AV	54.0	-10.7	2.69 H	249	45.7	-2.4
5	4924.00	42.8 PK	74.0	-31.2	1.93 H	140	40.5	2.3
6	4924.00	35.0 AV	54.0	-19.0	1.93 H	140	32.7	2.3
7	7386.00	46.2 PK	74.0	-27.8	1.22 H	292	38.1	8.1
8	7386.00	34.3 AV	54.0	-19.7	1.22 H	292	26.2	8.1
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	*2462.00	110.7 PK			1.51 V	70	113.0	-2.3
2	*2462.00	108.2 AV			1.51 V	70	110.5	-2.3
3	2483.50	55.2 PK	74.0	-18.8	1.51 V	70	57.6	-2.4
4	2483.50	43.5 AV	54.0	-10.5	1.51 V	70	45.9	-2.4
5	4924.00	48.1 PK	74.0	-25.9	1.39 V	192	45.8	2.3
6	4924.00	38.7 AV	54.0	-15.3	1.39 V	192	36.4	2.3
7	7386.00	46.7 PK	74.0	-27.3	2.30 V	152	38.6	8.1
8	7386.00	34.6 AV	54.0	-19.4	2.30 V	152	26.5	8.1

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

802.11g

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	67.9 PK	74.0	-6.1	2.57 H	246	70.0	-2.1
2	2390.00	50.4 AV	54.0	-3.6	2.57 H	246	52.5	-2.1
3	*2412.00	107.3 PK			2.57 H	246	109.4	-2.1
4	*2412.00	97.0 AV			2.57 H	246	99.1	-2.1
5	4824.00	42.5 PK	74.0	-31.5	1.03 H	76	40.4	2.1
6	4824.00	30.7 AV	54.0	-23.3	1.03 H	76	28.6	2.1
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	2390.00	68.9 PK	74.0	-5.1	1.48 V	79	71.0	-2.1
2	2390.00	51.3 AV	54.0	-2.7	1.48 V	79	53.4	-2.1
3	*2412.00	108.7 PK			1.48 V	79	110.8	-2.1
4	*2412.00	98.1 AV			1.48 V	79	100.2	-2.1
5	4824.00	42.6 PK	74.0	-31.4	1.09 V	360	40.5	2.1
6	4824.00	31.4 AV	54.0	-22.6	1.09 V	360	29.3	2.1

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	53.3 PK	74.0	-20.7	2.68 H	243	55.4	-2.1
2	2390.00	41.1 AV	54.0	-12.9	2.68 H	243	43.2	-2.1
3	*2437.00	108.2 PK			2.68 H	243	110.5	-2.3
4	*2437.00	98.1 AV			2.68 H	243	100.4	-2.3
5	2483.50	54.4 PK	74.0	-19.6	2.68 H	243	56.8	-2.4
6	2483.50	41.3 AV	54.0	-12.7	2.68 H	243	43.7	-2.4
7	4874.00	42.5 PK	74.0	-31.5	1.03 H	90	40.4	2.1
8	4874.00	30.3 AV	54.0	-23.7	1.03 H	90	28.2	2.1
9	7311.00	43.8 PK	74.0	-30.2	2.24 H	220	35.8	8.0
10	7311.00	32.1 AV	54.0	-21.9	2.24 H	220	24.1	8.0

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	2390.00	54.8 PK	74.0	-19.2	1.43 V	71	56.9	-2.1
2	2390.00	42.7 AV	54.0	-11.3	1.43 V	71	44.8	-2.1
3	*2437.00	109.6 PK			1.43 V	71	111.9	-2.3
4	*2437.00	99.9 AV			1.43 V	71	102.2	-2.3
5	2483.50	56.2 PK	74.0	-17.8	1.43 V	71	58.6	-2.4
6	2483.50	42.9 AV	54.0	-11.1	1.43 V	71	45.3	-2.4
7	4874.00	42.7 PK	74.0	-31.3	1.11 V	359	40.6	2.1
8	4874.00	31.1 AV	54.0	-22.9	1.11 V	359	29.0	2.1
9	7311.00	43.9 PK	74.0	-30.1	1.59 V	245	35.9	8.0
10	7311.00	33.4 AV	54.0	-20.6	1.59 V	245	25.4	8.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	*2462.00	109.2 PK			2.70 H	245	111.5	-2.3
2	*2462.00	97.5 AV			2.70 H	245	99.8	-2.3
3	2483.50	69.8 PK	74.0	-4.2	2.70 H	245	72.2	-2.4
4	2483.50	50.2 AV	54.0	-3.8	2.70 H	245	52.6	-2.4
5	4924.00	43.1 PK	74.0	-30.9	1.00 H	94	40.8	2.3
6	4924.00	30.6 AV	54.0	-23.4	1.00 H	94	28.3	2.3
7	7386.00	43.6 PK	74.0	-30.4	2.12 H	237	35.5	8.1
8	7386.00	31.7 AV	54.0	-22.3	2.12 H	237	23.6	8.1
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	*2462.00	110.2 PK			1.52 V	64	112.5	-2.3
2	*2462.00	98.6 AV			1.52 V	64	100.9	-2.3
3	2483.50	71.5 PK	74.0	-2.5	1.52 V	64	73.9	-2.4
4	2483.50	51.8 AV	54.0	-2.2	1.52 V	64	54.2	-2.4
5	4924.00	43.4 PK	74.0	-30.6	1.03 V	356	41.1	2.3
6	4924.00	31.1 AV	54.0	-22.9	1.03 V	356	28.8	2.3
7	7386.00	44.8 PK	74.0	-29.2	1.53 V	242	36.7	8.1
8	7386.00	32.5 AV	54.0	-21.5	1.53 V	242	24.4	8.1

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

802.11n (HT20)

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	67.2 PK	74.0	-6.8	2.61 H	255	69.3	-2.1
2	2390.00	50.0 AV	54.0	-4.0	2.61 H	255	52.1	-2.1
3	*2412.00	107.3 PK			2.61 H	255	109.4	-2.1
4	*2412.00	97.2 AV			2.61 H	255	99.3	-2.1
5	4824.00	40.8 PK	74.0	-33.2	1.04 H	77	38.7	2.1
6	4824.00	29.0 AV	54.0	-25.0	1.04 H	77	26.9	2.1
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	2390.00	69.0 PK	74.0	-5.0	1.24 V	73	71.1	-2.1
2	2390.00	51.5 AV	54.0	-2.5	1.24 V	73	53.6	-2.1
3	*2412.00	108.0 PK			1.24 V	73	110.1	-2.1
4	*2412.00	97.9 AV			1.24 V	73	100.0	-2.1
5	4824.00	44.4 PK	74.0	-29.6	1.06 V	360	42.3	2.1
6	4824.00	32.1 AV	54.0	-21.9	1.06 V	360	30.0	2.1

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	56.1 PK	74.0	-17.9	2.69 H	242	58.2	-2.1
2	2390.00	41.4 AV	54.0	-12.6	2.69 H	242	43.5	-2.1
3	*2437.00	108.2 PK			2.69 H	242	110.5	-2.3
4	*2437.00	98.3 AV			2.69 H	242	100.6	-2.3
5	2483.50	55.9 PK	74.0	-18.1	2.66 H	242	58.3	-2.4
6	2483.50	42.1 AV	54.0	-11.9	2.66 H	242	44.5	-2.4
7	4874.00	41.9 PK	74.0	-32.1	1.03 H	90	39.8	2.1
8	4874.00	30.3 AV	54.0	-23.7	1.03 H	90	28.2	2.1
9	7311.00	44.0 PK	74.0	-30.0	2.24 H	239	36.0	8.0
10	7311.00	32.5 AV	54.0	-21.5	2.24 H	239	24.5	8.0

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	2390.00	57.6 PK	74.0	-16.4	1.28 V	52	59.7	-2.1
2	2390.00	42.9 AV	54.0	-11.1	1.28 V	52	45.0	-2.1
3	*2437.00	109.7 PK			1.28 V	52	112.0	-2.3
4	*2437.00	99.7 AV			1.28 V	52	102.0	-2.3
5	2483.50	56.4 PK	74.0	-17.6	1.28 V	52	58.8	-2.4
6	2483.50	42.7 AV	54.0	-11.3	1.28 V	52	45.1	-2.4
7	4874.00	42.8 PK	74.0	-31.2	1.02 V	350	40.7	2.1
8	4874.00	31.2 AV	54.0	-22.8	1.02 V	350	29.1	2.1
9	7311.00	43.9 PK	74.0	-30.1	1.72 V	240	35.9	8.0
10	7311.00	32.2 AV	54.0	-21.8	1.72 V	240	24.2	8.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	*2462.00	107.2 PK			2.66 H	252	109.5	-2.3
2	*2462.00	97.5 AV			2.66 H	252	99.8	-2.3
3	2483.50	70.0 PK	74.0	-4.0	2.66 H	252	72.4	-2.4
4	2483.50	51.2 AV	54.0	-2.8	2.66 H	252	53.6	-2.4
5	4924.00	41.9 PK	74.0	-32.1	1.00 H	76	39.6	2.3
6	4924.00	30.6 AV	54.0	-23.4	1.00 H	76	28.3	2.3
7	7386.00	44.1 PK	74.0	-29.9	2.21 H	225	36.0	8.1
8	7386.00	32.1 AV	54.0	-21.9	2.21 H	225	24.0	8.1
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	*2462.00	108.3 PK			1.14 V	55	110.6	-2.3
2	*2462.00	98.4 AV			1.14 V	55	100.7	-2.3
3	2483.50	70.2 PK	74.0	-3.8	1.14 V	55	72.6	-2.4
4	2483.50	51.7 AV	54.0	-2.3	1.14 V	55	54.1	-2.4
5	4924.00	42.5 PK	74.0	-31.5	1.00 V	355	40.2	2.3
6	4924.00	30.6 AV	54.0	-23.4	1.00 V	355	28.3	2.3
7	7386.00	44.6 PK	74.0	-29.4	1.62 V	243	36.5	8.1
8	7386.00	33.0 AV	54.0	-21.0	1.62 V	243	24.9	8.1

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

802.11n (HT40)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	66.7 PK	74.0	-7.3	2.68 H	238	68.8	-2.1
2	2390.00	50.9 AV	54.0	-3.1	2.68 H	238	53.0	-2.1
3	*2422.00	101.7 PK			2.68 H	238	103.9	-2.2
4	*2422.00	91.5 AV			2.68 H	238	93.7	-2.2
5	4844.00	41.3 PK	74.0	-32.7	1.00 H	78	39.2	2.1
6	4844.00	30.2 AV	54.0	-23.8	1.00 H	78	28.1	2.1
7	7266.00	44.3 PK	74.0	-29.7	2.24 H	222	36.1	8.2
8	7266.00	32.4 AV	54.0	-21.6	2.24 H	222	24.2	8.2
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	2390.00	66.9 PK	74.0	-7.1	1.50 V	98	69.0	-2.1
2	2390.00	51.3 AV	54.0	-2.7	1.50 V	98	53.4	-2.1
3	*2422.00	102.8 PK			1.50 V	98	105.0	-2.2
4	*2422.00	92.4 AV			1.50 V	98	94.6	-2.2
5	4844.00	43.0 PK	74.0	-31.0	1.00 V	360	40.9	2.1
6	4844.00	30.8 AV	54.0	-23.2	1.00 V	360	28.7	2.1
7	7266.00	44.3 PK	74.0	-29.7	1.61 V	256	36.1	8.2
8	7266.00	32.7 AV	54.0	-21.3	1.61 V	256	24.5	8.2

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	2390.00	66.8 PK	74.0	-7.2	2.64 H	230	68.9	-2.1
2	2390.00	50.8 AV	54.0	-3.2	2.64 H	230	52.9	-2.1
3	*2437.00	103.2 PK			2.64 H	230	105.5	-2.3
4	*2437.00	93.6 AV			2.64 H	230	95.9	-2.3
5	2483.50	63.0 PK	74.0	-11.0	2.64 H	230	65.4	-2.4
6	2483.50	45.1 AV	54.0	-8.9	2.64 H	230	47.5	-2.4
7	4874.00	42.1 PK	74.0	-31.9	1.00 H	65	40.0	2.1
8	4874.00	30.5 AV	54.0	-23.5	1.00 H	65	28.4	2.1
9	7311.00	44.8 PK	74.0	-29.2	2.17 H	209	36.8	8.0
10	7311.00	32.5 AV	54.0	-21.5	2.17 H	209	24.5	8.0

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	2390.00	67.3 PK	74.0	-6.7	1.50 V	74	69.4	-2.1
2	2390.00	51.4 AV	54.0	-2.6	1.50 V	74	53.5	-2.1
3	*2437.00	104.3 PK			1.50 V	74	106.6	-2.3
4	*2437.00	94.5 AV			1.50 V	74	96.8	-2.3
5	2483.50	63.9 PK	74.0	-10.1	1.50 V	74	66.3	-2.4
6	2483.50	45.5 AV	54.0	-8.5	1.50 V	74	47.9	-2.4
7	4874.00	43.2 PK	74.0	-30.8	1.00 V	349	41.1	2.1
8	4874.00	30.8 AV	54.0	-23.2	1.00 V	349	28.7	2.1
9	7311.00	44.1 PK	74.0	-29.9	1.64 V	269	36.1	8.0
10	7311.00	32.5 AV	54.0	-21.5	1.64 V	269	24.5	8.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	*2452.00	104.5 PK			2.67 H	229	106.8	-2.3
2	*2452.00	94.8 AV			2.67 H	229	97.1	-2.3
3	2483.50	66.4 PK	74.0	-7.6	2.67 H	229	68.8	-2.4
4	2483.50	50.7 AV	54.0	-3.3	2.67 H	229	53.1	-2.4
5	4904.00	42.0 PK	74.0	-32.0	1.00 H	84	39.8	2.2
6	4904.00	30.7 AV	54.0	-23.3	1.00 H	84	28.5	2.2
7	7356.00	44.2 PK	74.0	-29.8	2.22 H	212	36.1	8.1
8	7356.00	32.2 AV	54.0	-21.8	2.22 H	212	24.1	8.1
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	*2452.00	105.7 PK			1.50 V	63	108.0	-2.3
2	*2452.00	95.7 AV			1.50 V	63	98.0	-2.3
3	2483.50	66.8 PK	74.0	-7.2	1.50 V	63	69.2	-2.4
4	2483.50	51.4 AV	54.0	-2.6	1.50 V	63	53.8	-2.4
5	4904.00	43.6 PK	74.0	-30.4	1.05 V	344	41.4	2.2
6	4904.00	31.0 AV	54.0	-23.0	1.05 V	344	28.8	2.2
7	7356.00	44.1 PK	74.0	-29.9	1.66 V	268	36.0	8.1
8	7356.00	32.6 AV	54.0	-21.4	1.66 V	268	24.5	8.1

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Below 1GHz Data:

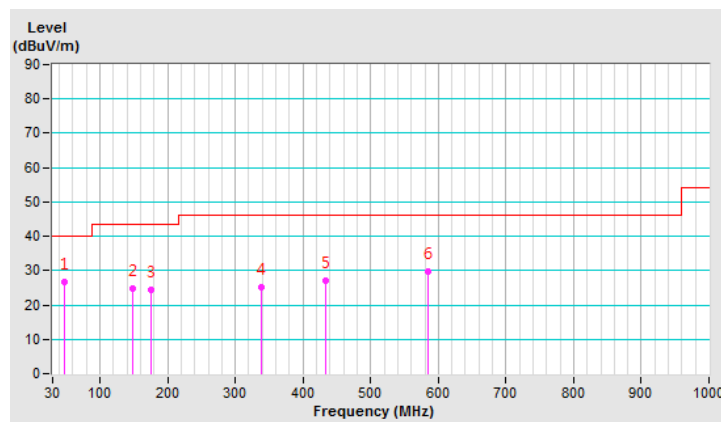
802.11g

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	47.90	26.8 QP	40.0	-13.2	1.50 H	244	35.4	-8.6
2	148.34	24.6 QP	43.5	-18.9	2.50 H	134	32.4	-7.8
3	176.25	24.3 QP	43.5	-19.2	1.50 H	241	33.4	-9.1
4	338.99	25.3 QP	46.0	-20.7	1.00 H	269	31.0	-5.7
5	433.50	27.0 QP	46.0	-19.0	2.00 H	195	30.3	-3.3
6	585.23	29.6 QP	46.0	-16.4	1.00 H	302	29.4	0.2

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

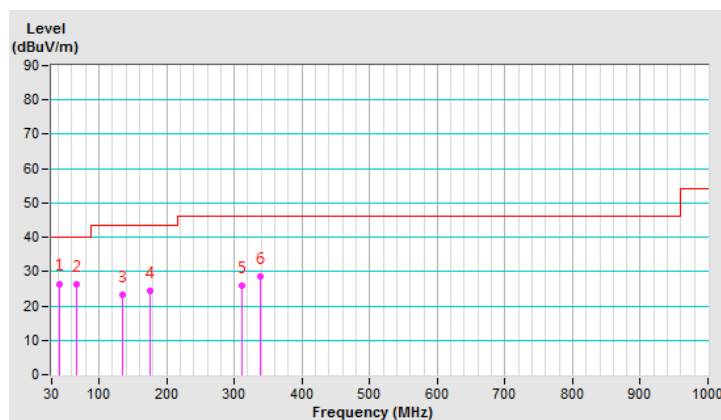


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	40.72	26.5 QP	40.0	-13.5	1.50 V	269	35.7	-9.2
2	67.78	26.4 QP	40.0	-13.6	1.00 V	271	36.5	-10.1
3	134.35	23.3 QP	43.5	-20.2	1.50 V	224	32.2	-8.9
4	176.30	24.3 QP	43.5	-19.2	1.00 V	263	33.4	-9.1
5	311.88	26.0 QP	46.0	-20.0	1.50 V	193	32.2	-6.2
6	339.02	28.6 QP	46.0	-17.4	1.50 V	206	34.3	-5.7

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

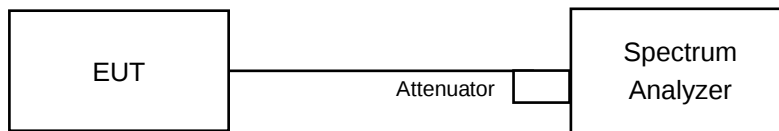


4.2 6dB Bandwidth Measurement

4.2.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.2.2 Test Setup



4.2.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.2.4 Test Procedure

- Set resolution bandwidth (RBW) = 100kHz
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

4.2.5 Deviation from Test Standard

No deviation.

4.2.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.2.7 Test Result

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	8.56	7.60	0.5	Pass
6	2437	8.07	8.07	0.5	Pass
11	2462	7.59	8.06	0.5	Pass

802.11g

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	16.38	16.45	0.5	Pass
6	2437	16.42	16.44	0.5	Pass
11	2462	16.40	16.45	0.5	Pass

802.11n (HT20)

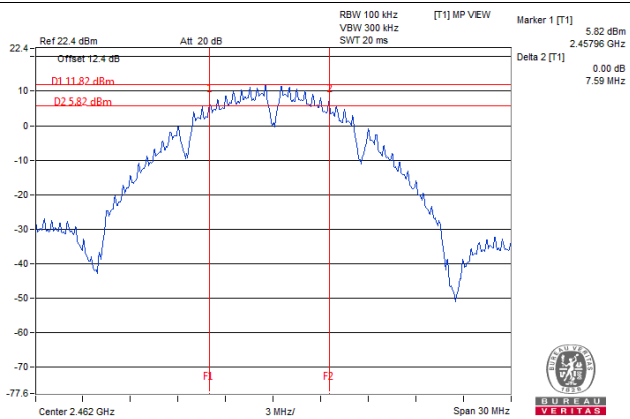
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	17.58	17.68	0.5	Pass
6	2437	17.68	17.68	0.5	Pass
11	2462	17.63	17.68	0.5	Pass

802.11n (HT40)

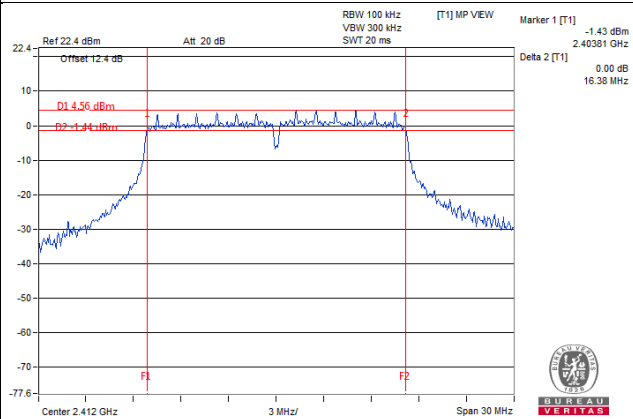
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
3	2422	35.88	36.45	0.5	Pass
6	2437	36.49	36.40	0.5	Pass
9	2452	35.87	36.43	0.5	Pass

Spectrum Plot of Worst Value

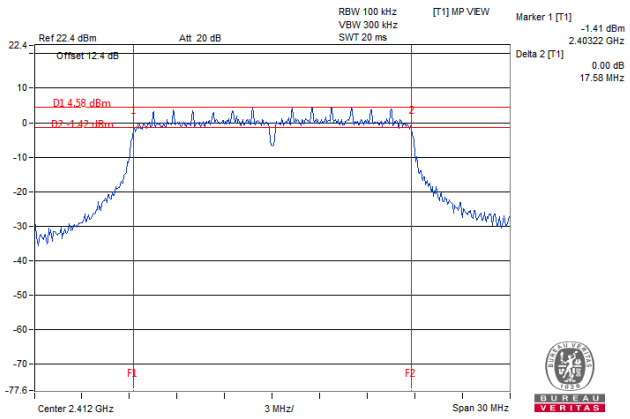
802.11b_Chain 0 / CH11



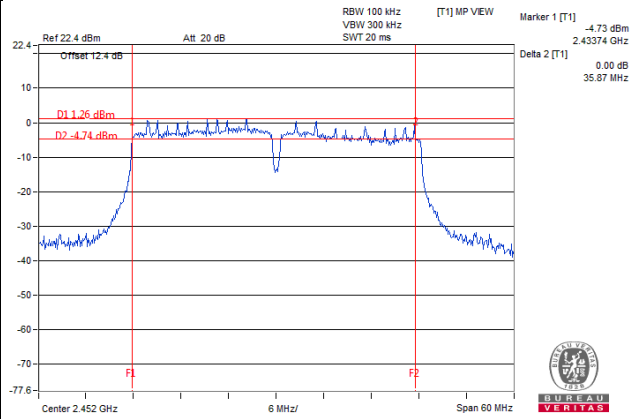
802.11g_Chain 0 / CH1



802.11n (HT20)_Chain 0 / CH1



802.11n (HT40)_Chain 0 / CH9



4.3 Conducted Output Power Measurement

4.3.1 Limits of Conducted Output Power Measurement

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

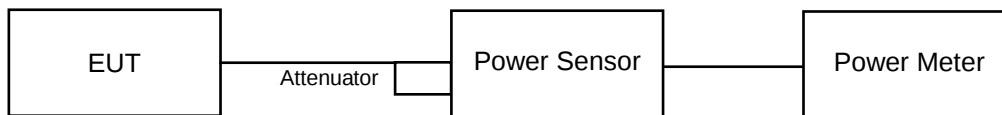
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedures

A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

Average power sensor was used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

Same as Item 4.2.6.

4.3.7 Test Results

FOR PEAK POWER

802.11b

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	22.48	21.98	334.772	25.25	30	Pass
6	2437	22.53	21.72	327.655	25.15	30	Pass
11	2462	22.57	21.87	334.532	25.24	30	Pass

802.11g

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	22.84	22.26	360.576	25.57	30	Pass
6	2437	23.96	23.17	456.377	26.59	30	Pass
11	2462	23.41	22.91	414.714	26.18	30	Pass

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	22.43	22.03	334.573	25.24	30	Pass
6	2437	23.54	23.54	451.888	26.55	30	Pass
11	2462	23.40	23.25	430.125	26.34	30	Pass

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	20.50	20.21	217.156	23.37	30	Pass
6	2437	22.03	21.71	307.84	24.88	30	Pass
9	2452	21.74	21.26	282.939	24.52	30	Pass

FOR AVERAGE POWER

802.11b

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	19.66	19.26	176.803	22.47
6	2437	19.77	19.15	177.066	22.48
11	2462	19.85	19.24	180.551	22.57

802.11g

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	15.88	15.08	70.937	18.51
6	2437	16.77	16.02	87.528	19.42
11	2462	16.38	15.63	80.01	19.03

802.11n (HT20)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	15.81	15.21	71.296	18.53
6	2437	16.86	16.05	88.801	19.48
11	2462	16.32	15.60	79.163	18.99

802.11n (HT40)

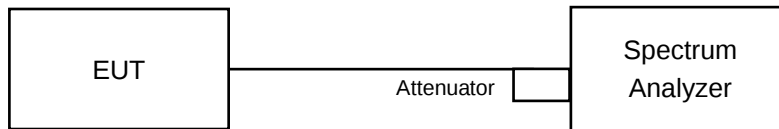
Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
3	2422	13.29	12.98	41.191	16.15
6	2437	14.72	14.59	58.422	17.67
9	2452	14.41	14.02	52.841	17.23

4.4 Power Spectral Density Measurement

4.4.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm in any 3 kHz.

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedure

- Set analyzer center frequency to DTS channel center frequency.
- Set the span to 1.5 times the DTS bandwidth.
- Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- Set the VBW $\geq 3 \times \text{RBW}$.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum amplitude level within the RBW.

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Condition

Same as Item 4.2.6

4.4.7 Test Results

802.11b

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
0	1	2412	-0.54	3.01	2.47	8.00	Pass
	6	2437	-1.24	3.01	1.77	8.00	Pass
	11	2462	-1.13	3.01	1.88	8.00	Pass
1	1	2412	-1.81	3.01	1.20	8.00	Pass
	6	2437	-2.44	3.01	0.57	8.00	Pass
	11	2462	-2.41	3.01	0.60	8.00	Pass

802.11g

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
0	1	2412	-8.20	3.01	-5.19	8.00	Pass
	6	2437	-8.01	3.01	-5.00	8.00	Pass
	11	2462	-7.73	3.01	-4.72	8.00	Pass
1	1	2412	-9.35	3.01	-6.34	8.00	Pass
	6	2437	-7.16	3.01	-4.15	8.00	Pass
	11	2462	-9.61	3.01	-6.60	8.00	Pass

802.11n (HT20)

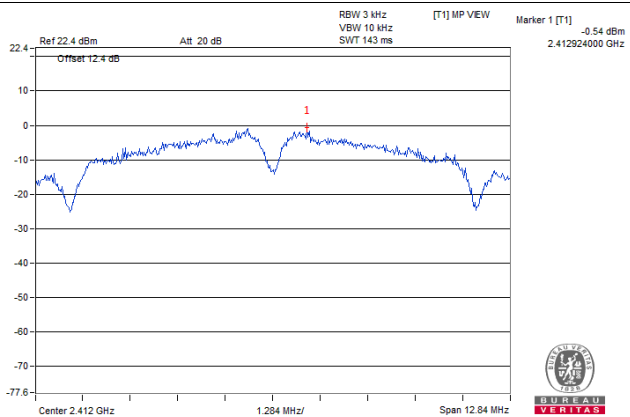
TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
0	1	2412	-9.52	3.01	-6.51	8.00	Pass
	6	2437	-8.42	3.01	-5.41	8.00	Pass
	11	2462	-8.44	3.01	-5.43	8.00	Pass
1	1	2412	-10.06	3.01	-7.05	8.00	Pass
	6	2437	-9.00	3.01	-5.99	8.00	Pass
	11	2462	-9.51	3.01	-6.50	8.00	Pass

802.11n (HT40)

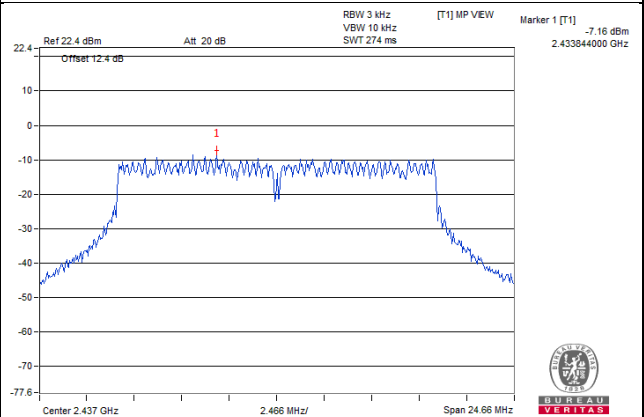
TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
0	3	2422	-13.16	3.01	-10.15	8.00	Pass
	6	2437	-12.56	3.01	-9.55	8.00	Pass
	9	2452	-12.48	3.01	-9.47	8.00	Pass
1	3	2422	-15.14	3.01	-12.13	8.00	Pass
	6	2437	-13.29	3.01	-10.28	8.00	Pass
	9	2452	-13.15	3.01	-10.14	8.00	Pass

Spectrum Plot of Worst Value

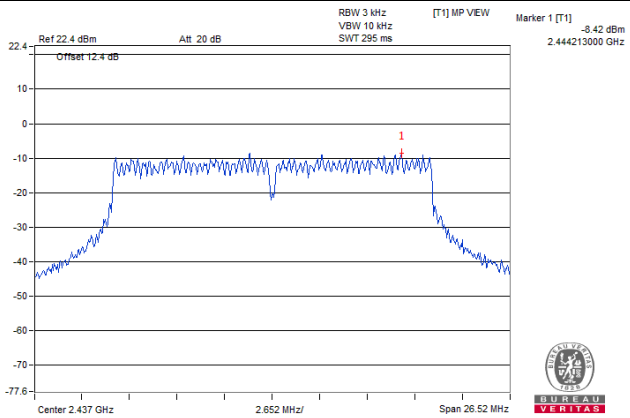
802.11b_Chain 0 / CH1



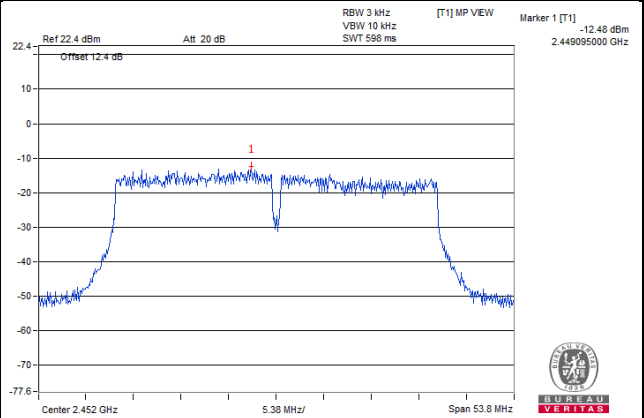
802.11g_Chain 1 / CH6



802.11n (HT20)_Chain 0 / CH6



802.11n (HT40)_Chain 0 / CH9

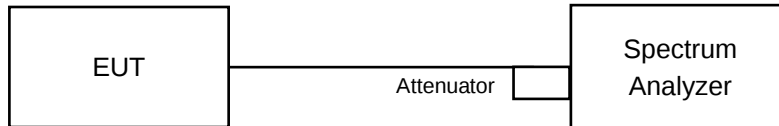


4.5 Conducted Out of Band Emission Measurement

4.5.1 Limits of Conducted Out of Band Emission Measurement

Below 20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOB

1. Set RBW = 100 kHz.
2. Set VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

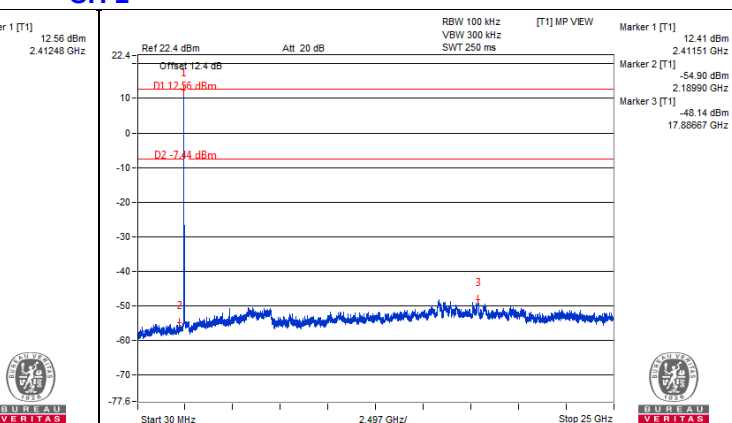
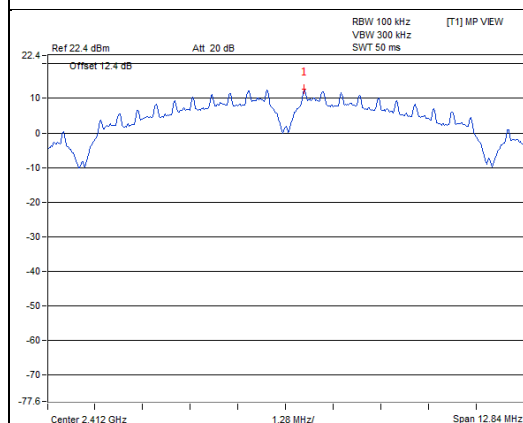
Same as Item 4.2.6

4.5.7 Test Results

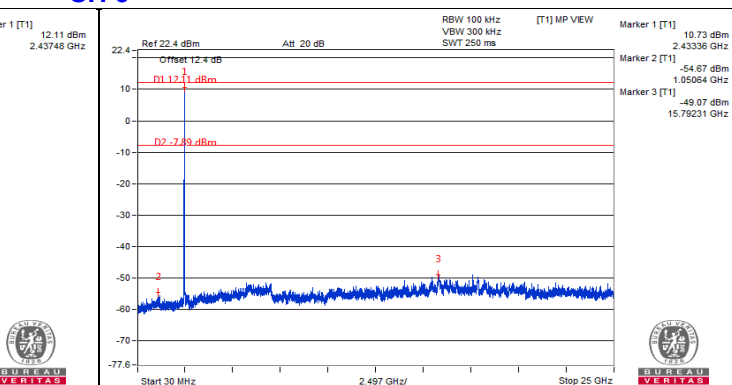
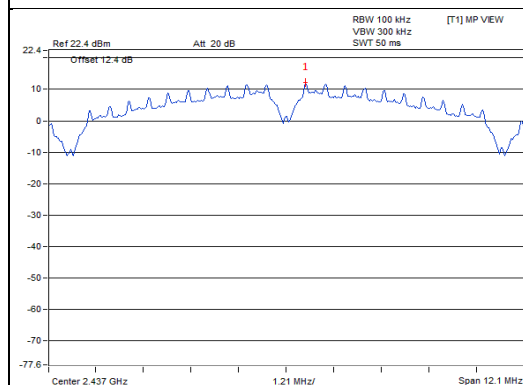
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

802.11b Chain 0

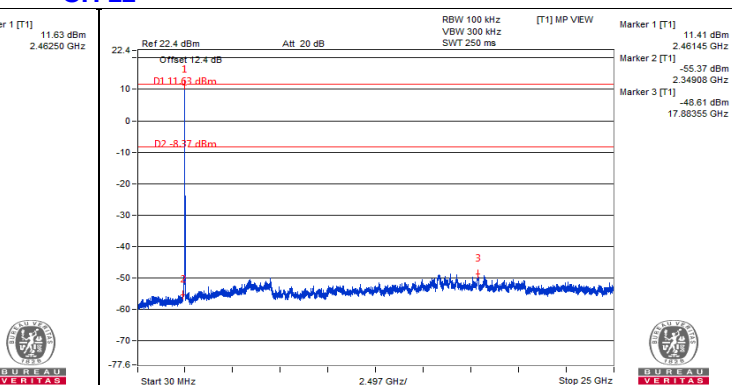
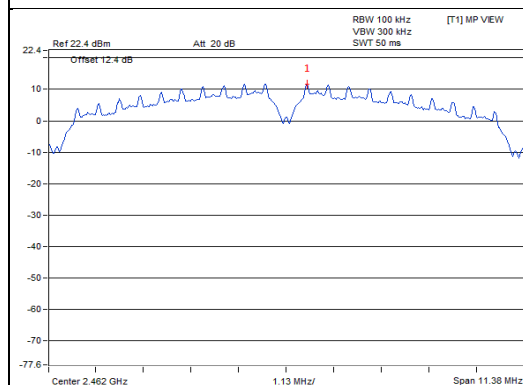
CH 1



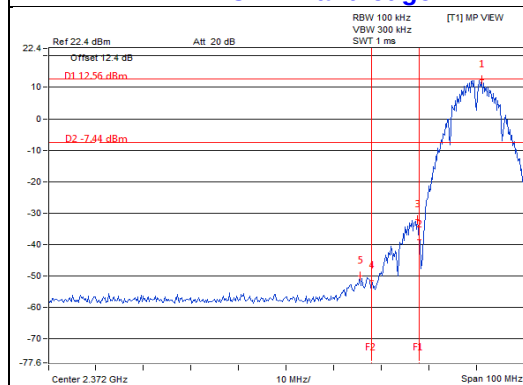
CH 6



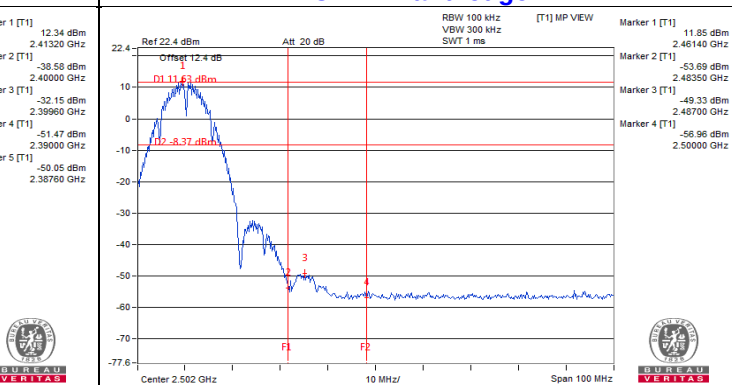
CH 11



CH 1 Band edge

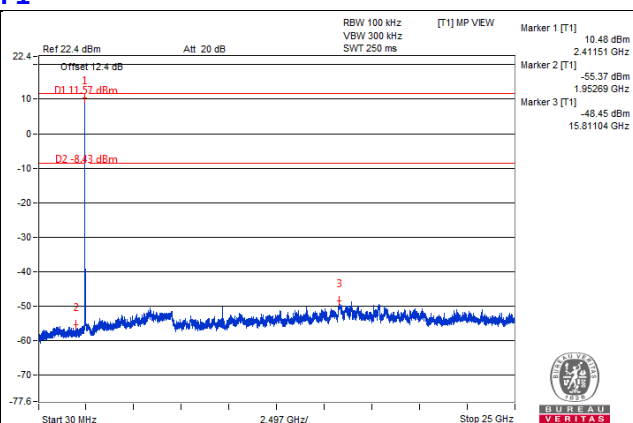
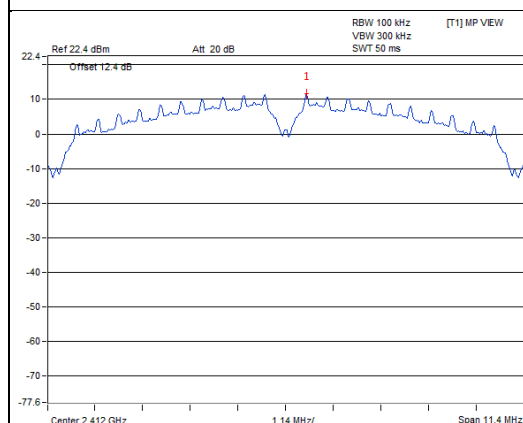


CH 11 Band edge

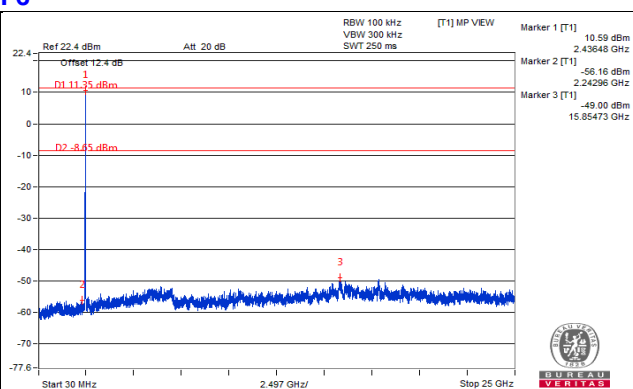
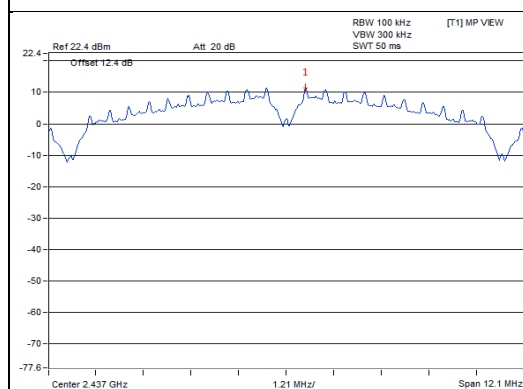


Chain 1

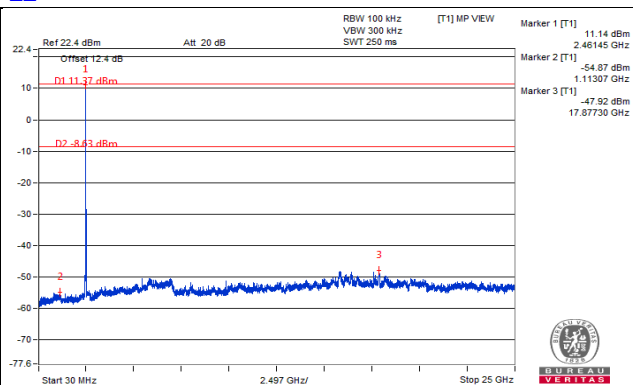
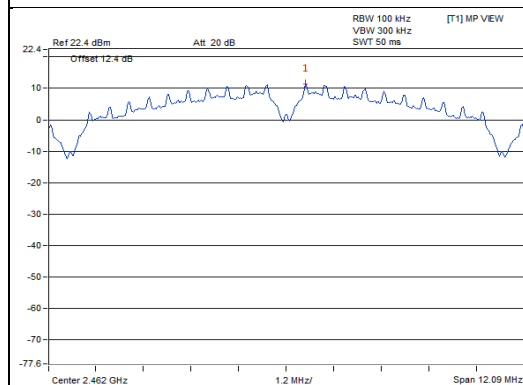
CH 1



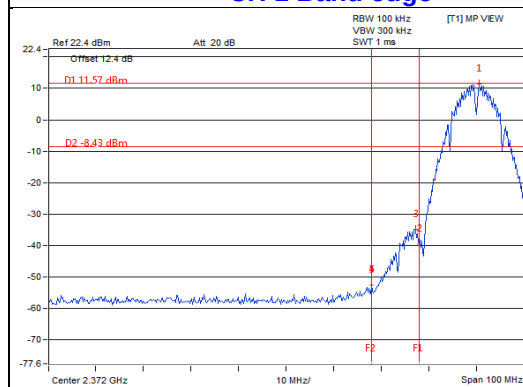
CH 6



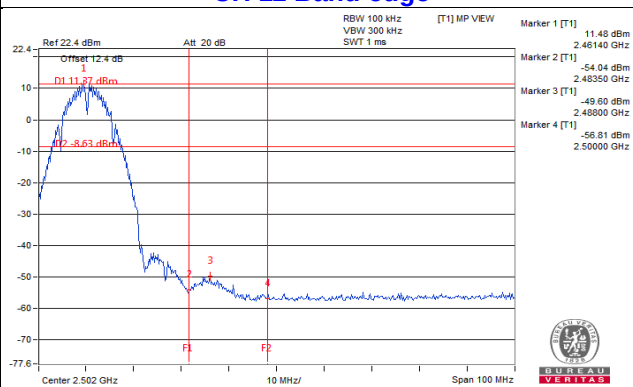
CH 11



CH 1 Band edge

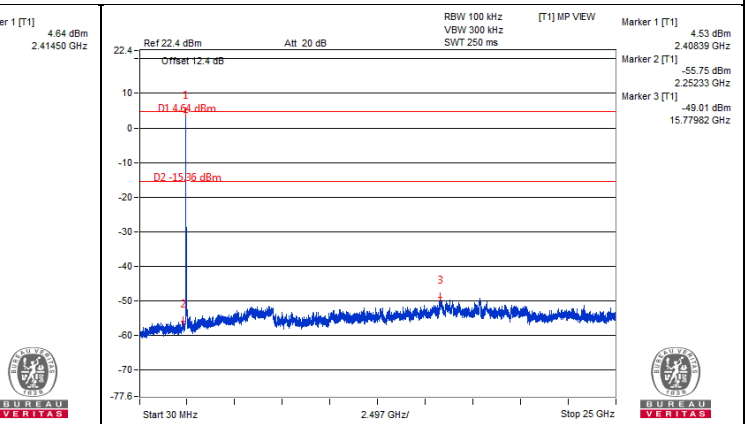
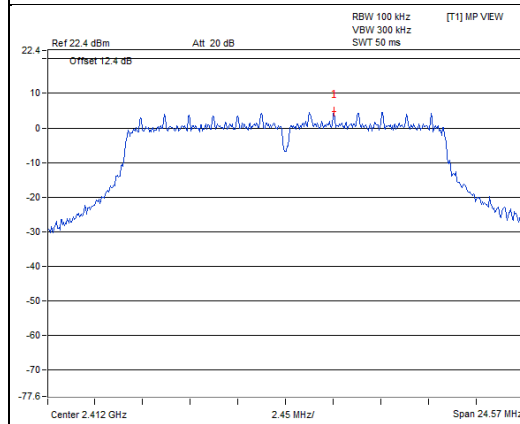


CH 11 Band edge

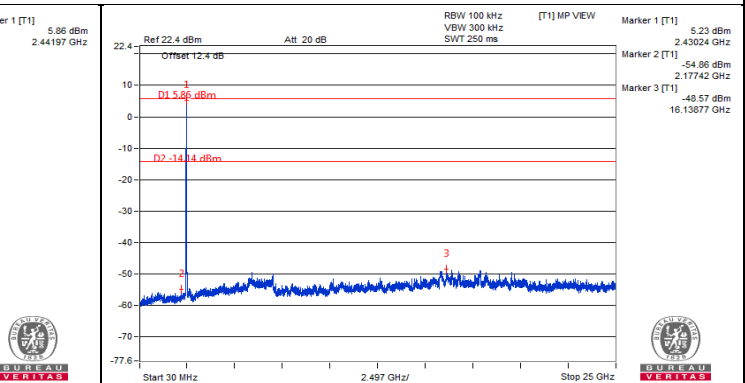
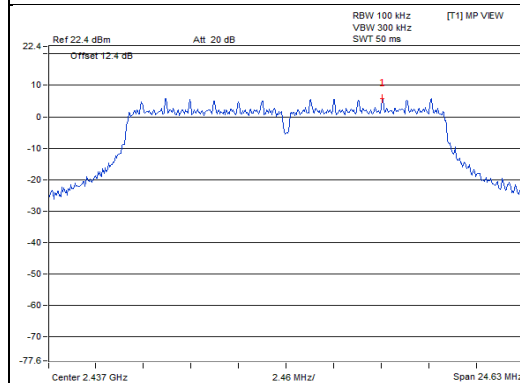


802.11g Chain 0

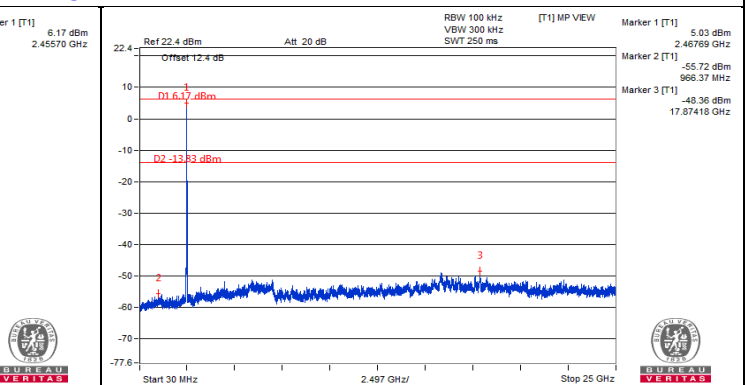
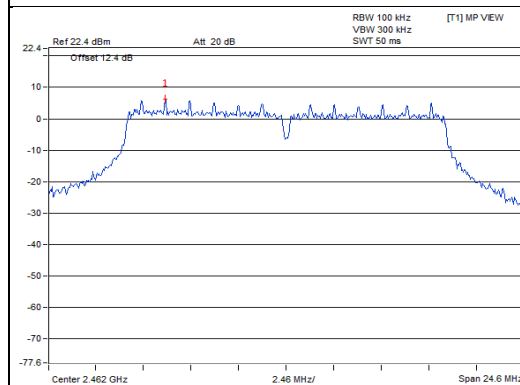
CH 1



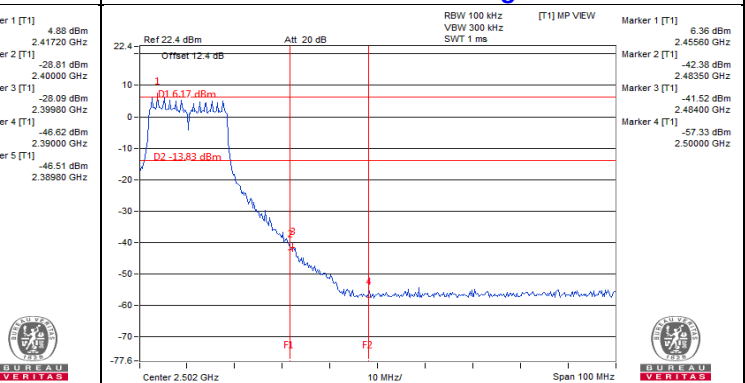
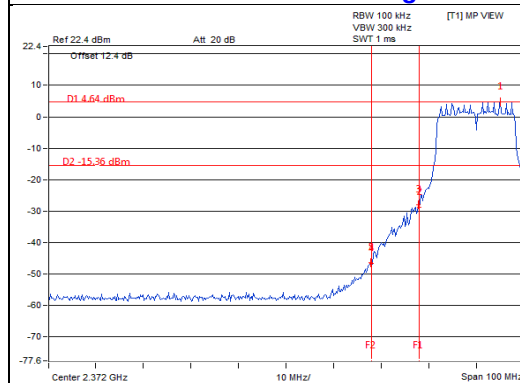
CH 6



CH 11

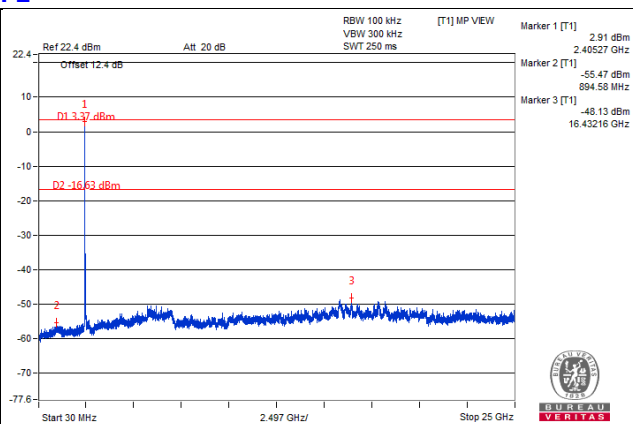
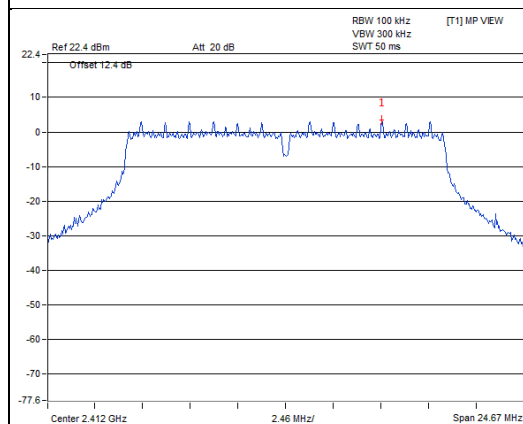


CH 1 Band edge

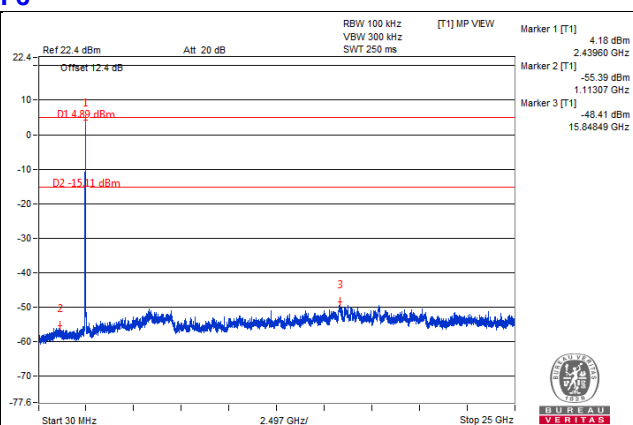
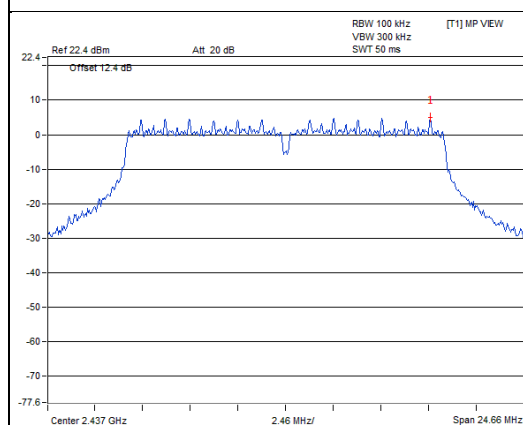


Chain 1

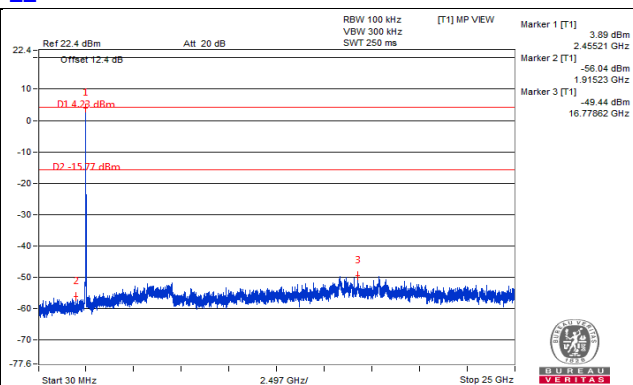
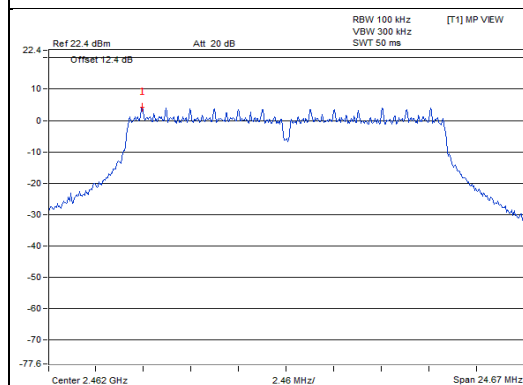
CH 1



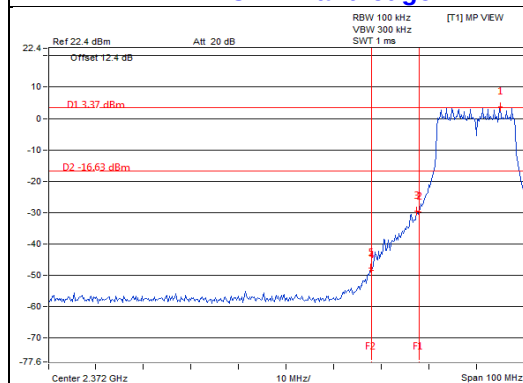
CH 6



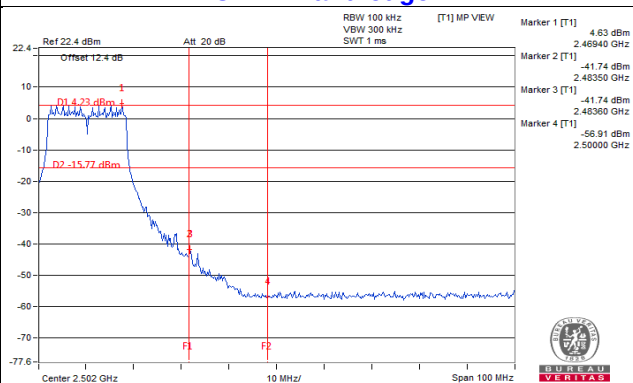
CH 11



CH 1 Band edge



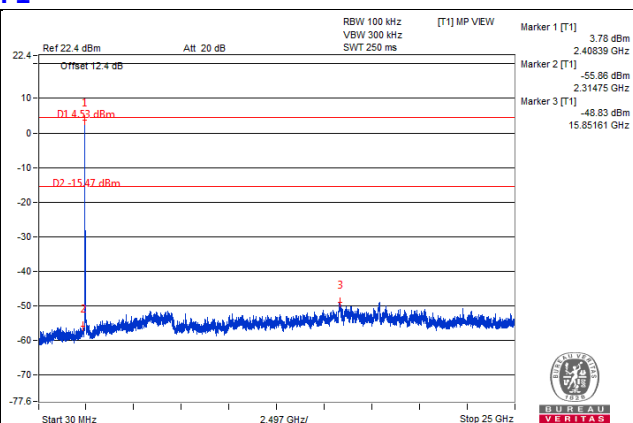
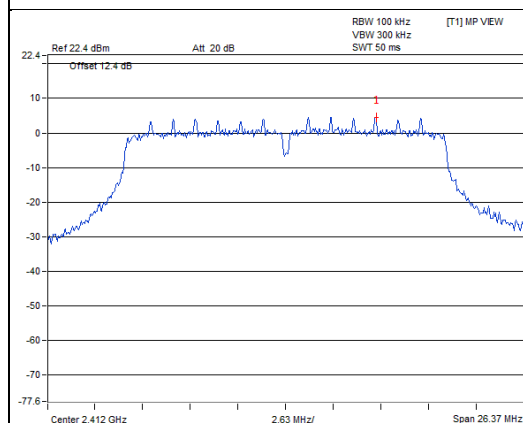
CH 11 Band edge



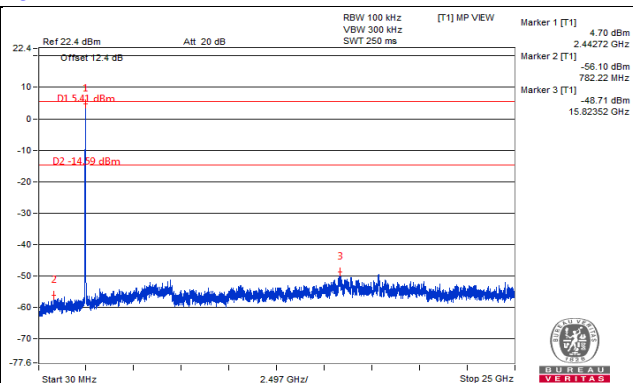
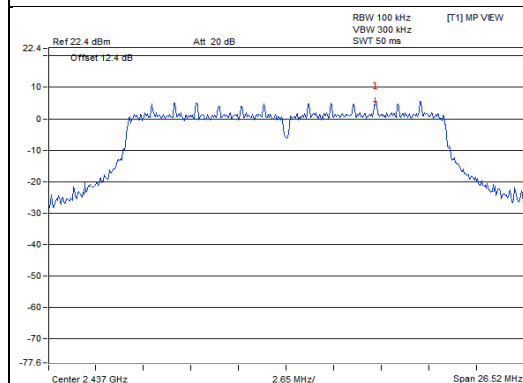
802.11n (HT20)

Chain 0

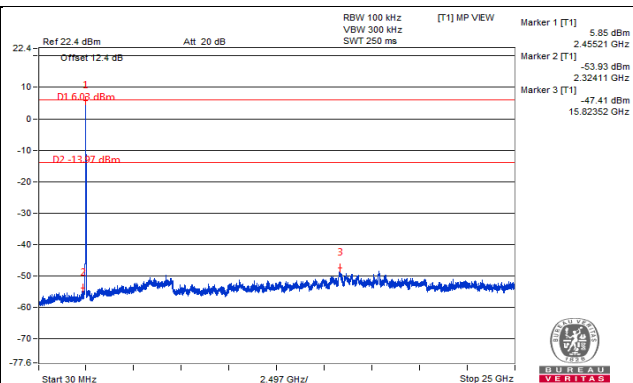
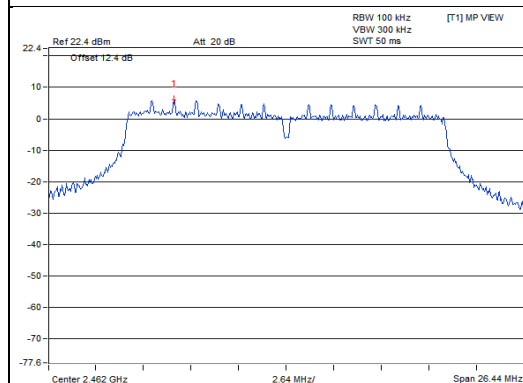
CH 1



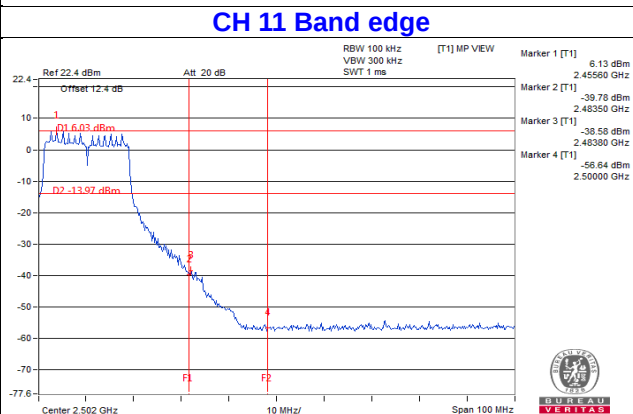
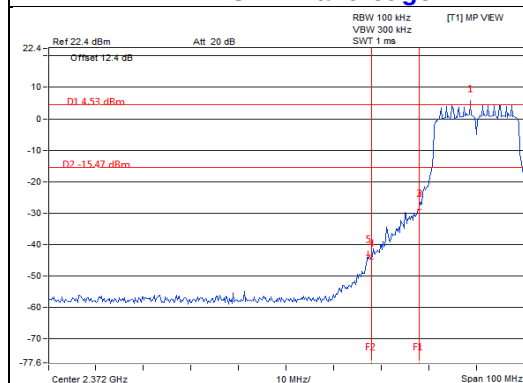
CH 6



CH 11

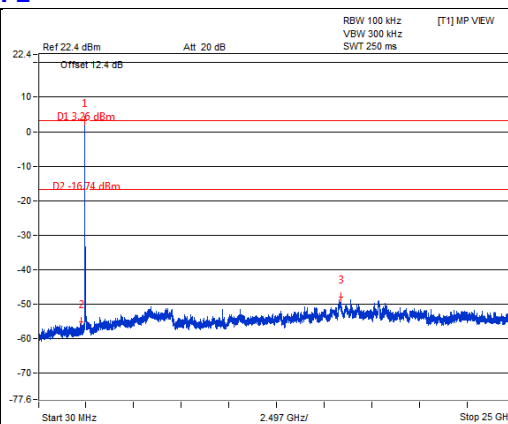
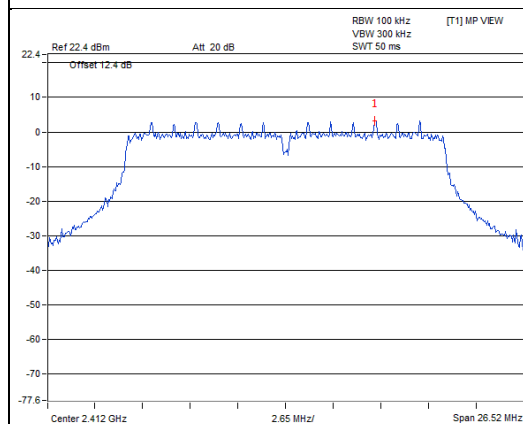


CH 1 Band edge

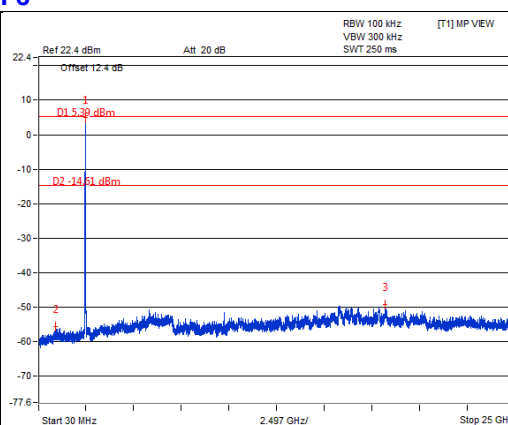
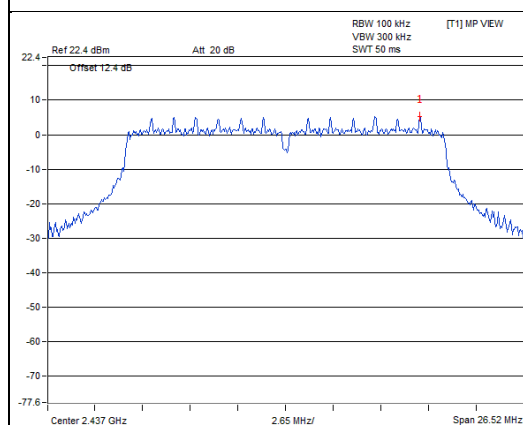


Chain 1

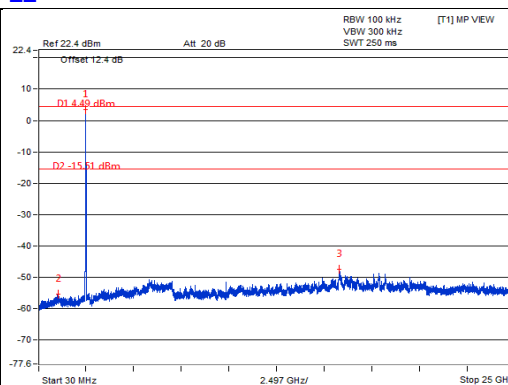
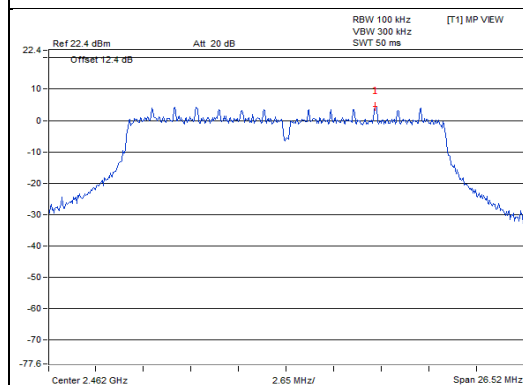
CH 1



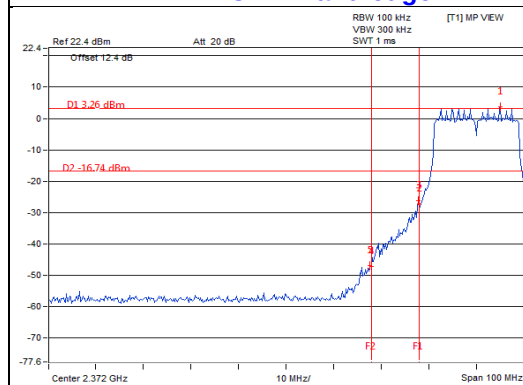
CH 6



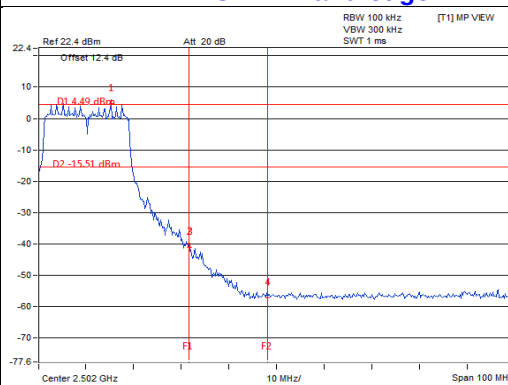
CH 11



CH 1 Band edge



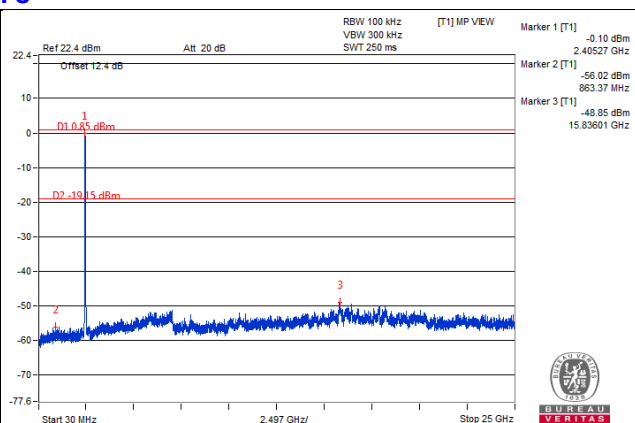
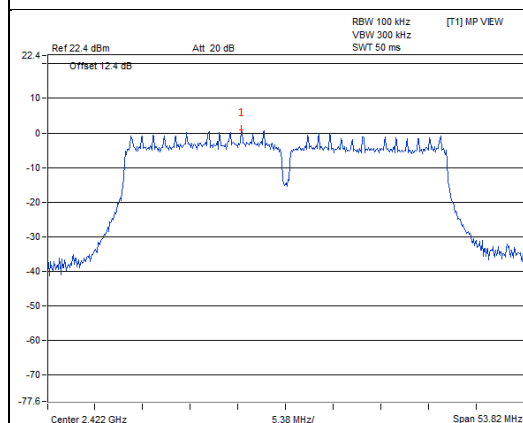
CH 11 Band edge



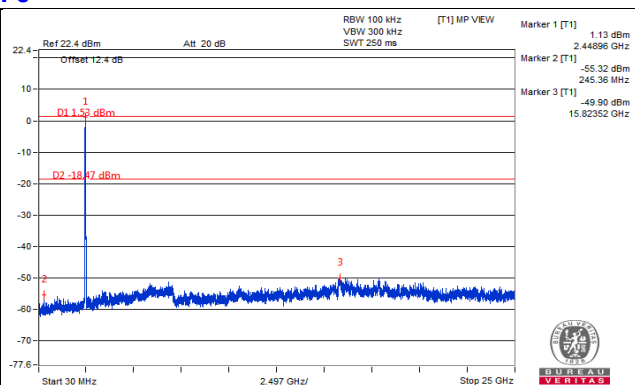
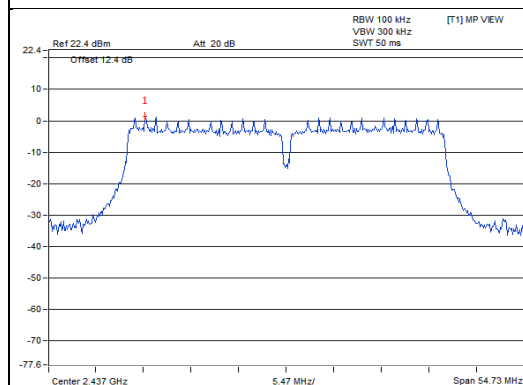
802.11n (HT40)

Chain 0

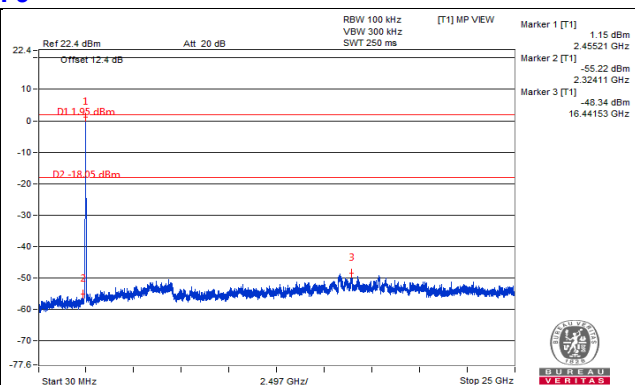
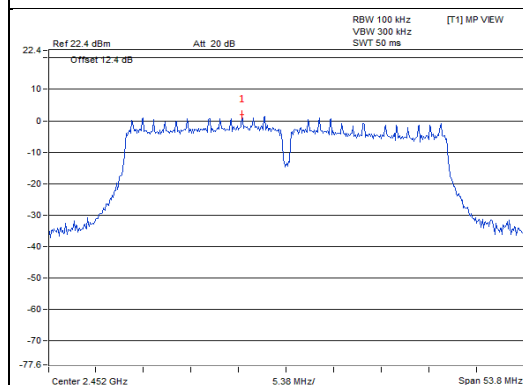
CH 3



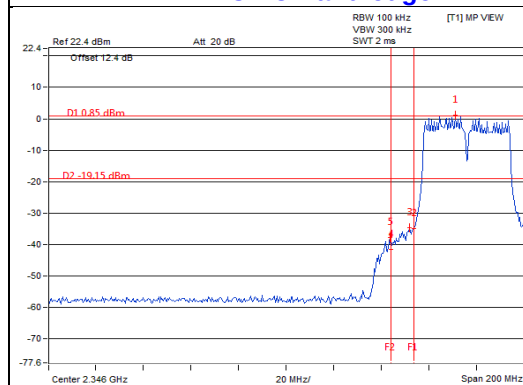
CH 6



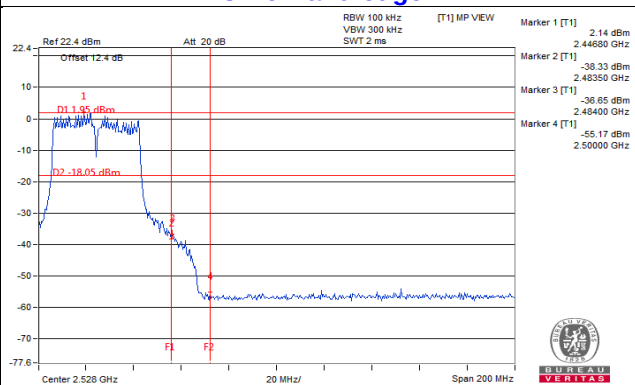
CH 9



CH 3 Band edge

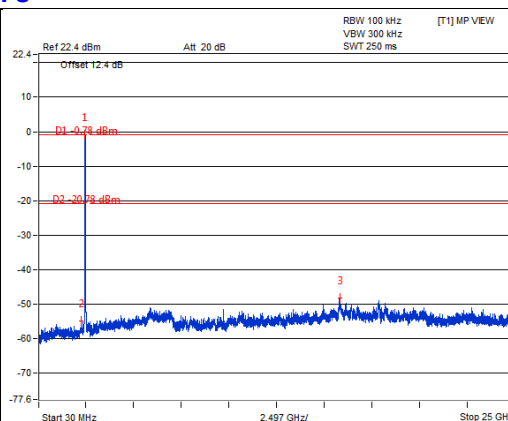
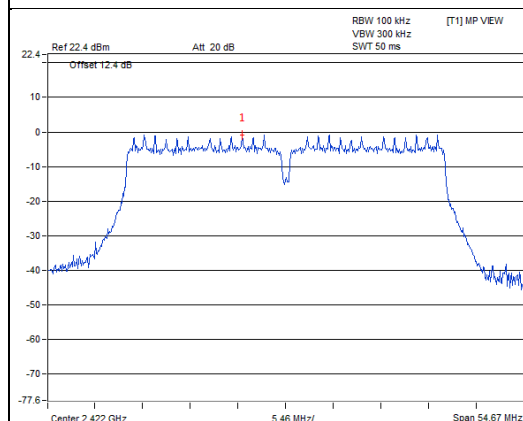


CH 9 Band edge

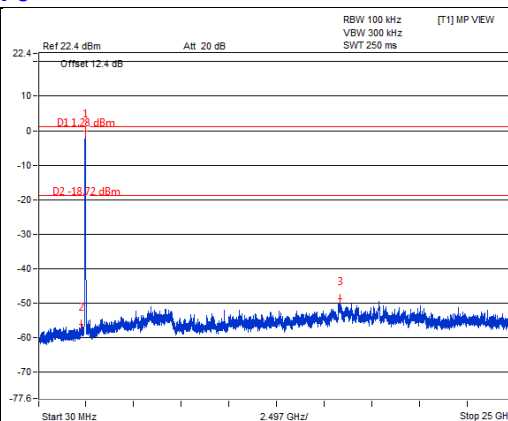
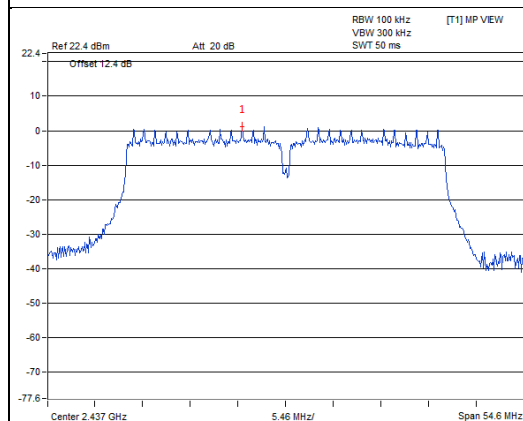


Chain 1

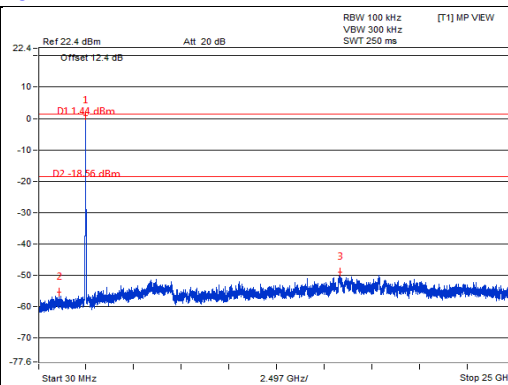
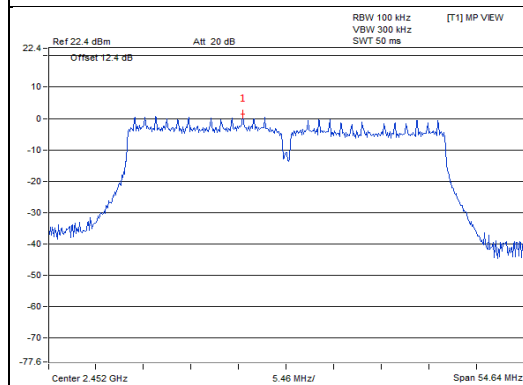
CH 3



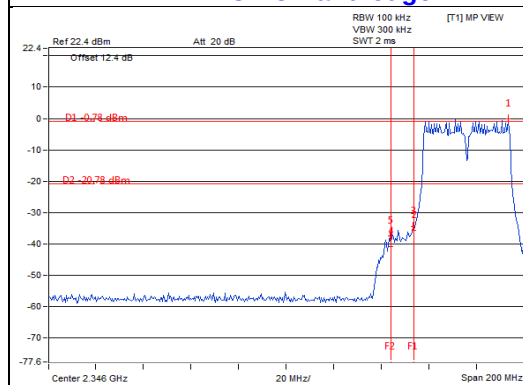
CH 6



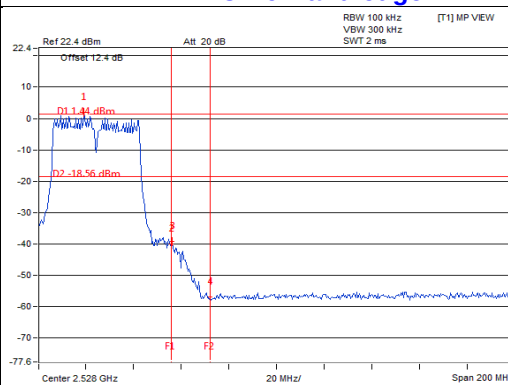
CH 9



CH 3 Band edge



CH 9 Band edge



5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information of 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 FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Fax: 886-3-6668323

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Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

--- END ---