

Microsoft Corporation Model 1631

FCC 15.247:2014

FCC 15.207:2014

Report #: MCSO1698 PART 5 OF 7



Report Prepared By Northwest EMC Inc.

NORTHWEST EMC – (888) 364-2378 – www.nwemc.com

California – Minnesota – Oregon – New York – Washington



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

					Interval
Description	Manufacturer	Model	ID	Last Cal.	(mo.)
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
MXG Analog Signal Generator	Agilent	N5181A	TIG	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24

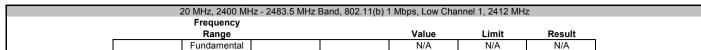
TEST DESCRIPTION

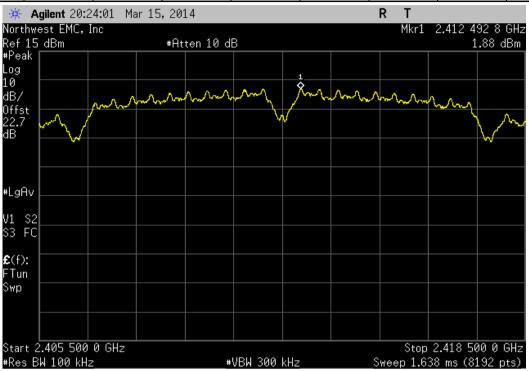
The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.



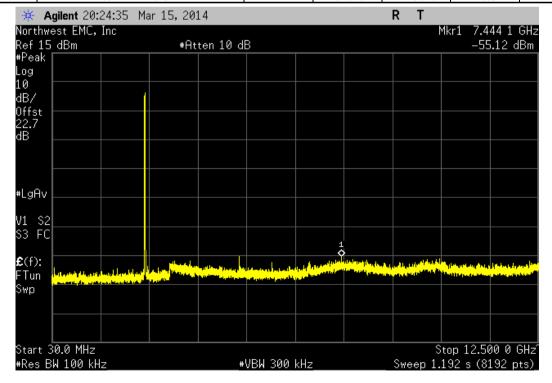
	Model 1631		Work Order: N		
Serial Number:	Microsoft Corporation		Date: 0 Temperature: 2		
Attendees:			Humidity: 2		
Project:		P 440VA 0/00U-		007	
TEST SPECIFICATI	Brandon Hobbs, Jared Ison	Power: 110VAC/60Hz Test Method	Job Site: E	:V06	
FCC 15.247:2014		ANSI C63.10:2009			
COMMENTS Modes of operation	tested were client provided.				
moudo di oporazioni	Toolog Holo Gilotti providodi				
DEVIATIONS FROM	I TEST STANDARD				
None	TESTSTANDARD				
Configuration #	1	2 /1 1			
Configuration #	Signature	Jan X Jan			
		Frequency			- "
20 MHz		Range	Value	Limit	Result
	2400 MHz - 2483.5 MHz Band				
	802.11(b) 1 Mbps Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-57 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-54.13 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-56.13 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz High Channel 11, 2462 MHz	12.5 GHz - 25 GHz Fundamental	-56.38 dBc N/A	≤ -20 dBc N/A	Pass N/A
	High Channel 11, 2462 MHz High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-54.32 dBc	N/A ≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-56.5 dBc	≤ -20 dBc	Pass
	802.11(b) 11 Mbps				
	Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1, 2412 MHz Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-57.64 dBc -54.48 dBc	≤ -20 dBc ≤ -20 dBc	Pass Pass
	Mid Channel 1, 2412 MHz	Fundamental	-54.48 dBC N/A	≤ -20 dBc N/A	Pass N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-59.73 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-56.67 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-58.79 dBc -56.26 dBc	≤ -20 dBc ≤ -20 dBc	Pass
	High Channel 11, 2462 MHz 802.11(g) 6 Mbps	12.5 GHz - 25 GHz	-50.26 UBC	≤ -20 dBC	Pass
	Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-52.49 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz Fundamental	-51.71 dBc N/A	≤ -20 dBc N/A	Pass N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-57.93 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-53.57 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.5 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz 802.11(g) 36 Mbps	12.5 GHz - 25 GHz	-55.16 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-52.4 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-51.85 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	Fundamental	N/A 57.46.dDa	N/A	N/A
	Mid Channel 6, 2437 MHz Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-57.46 dBc -55.08 dBc	≤ -20 dBc ≤ -20 dBc	Pass Pass
	High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.14 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-55.38 dBc	≤ -20 dBc	Pass
	802.11(g) 54 Mbps Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-52.47 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-51.81 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz Mid Channel 6, 2437 MHz	Fundamental 30 MHz - 12.5 GHz	N/A -57.81 dBc	N/A ≤ -20 dBc	N/A Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 12.5 GHz	-54.41 dBc	≤ -20 dBc ≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.91 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz 802.11(n) MCS0	12.5 GHz - 25 GHz	-54.52 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-52.66 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-51.46 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz Mid Channel 6, 2437 MHz	Fundamental 30 MHz - 12.5 GHz	N/A -57.21 dBc	N/A ≤ -20 dBc	N/A Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-53.92 dBc	≤ -20 dBc ≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.9 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz 802.11(n) MCS7	12.5 GHz - 25 GHz	-54.3 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-52.38 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz Fundamental	-52.14 dBc N/A	≤ -20 dBc N/A	Pass N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-58.29 dBc	N/A ≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-54.96 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.01 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-54.55 dBc	≤ -20 dBc	Pass



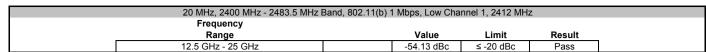


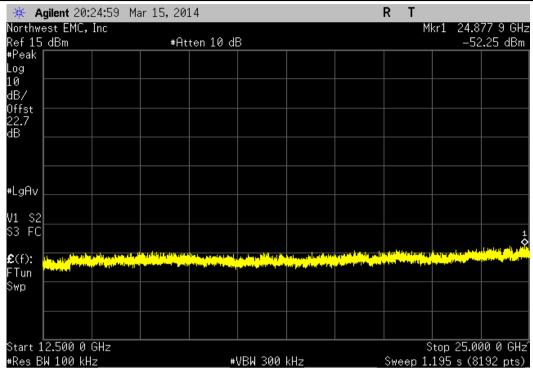


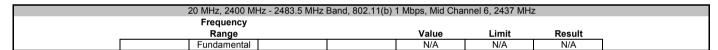
20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz				
Frequency				
Range	Value	Limit	Result	
30 MHz - 12.5 GHz	-57 dBc	≤ -20 dBc	Pass	

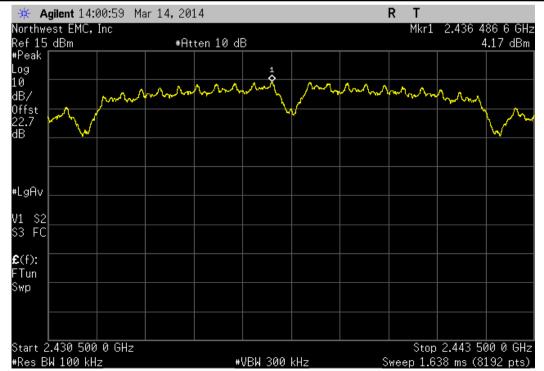




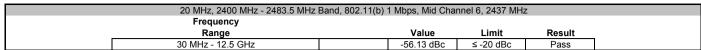


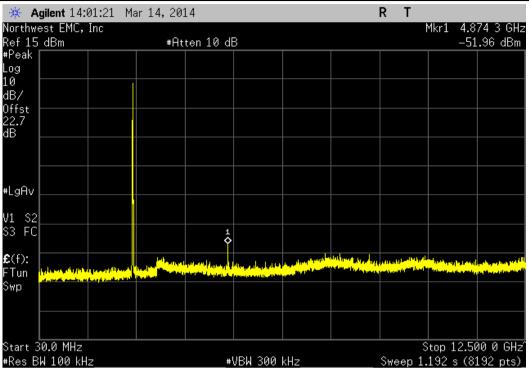




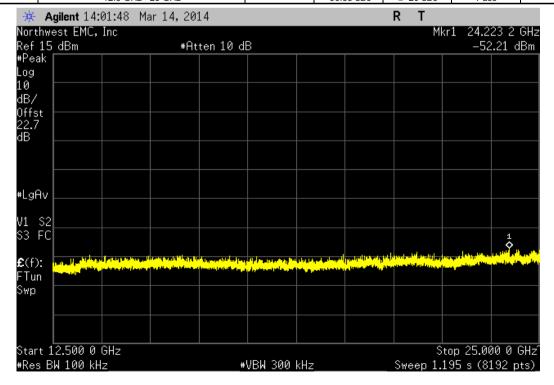




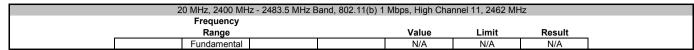


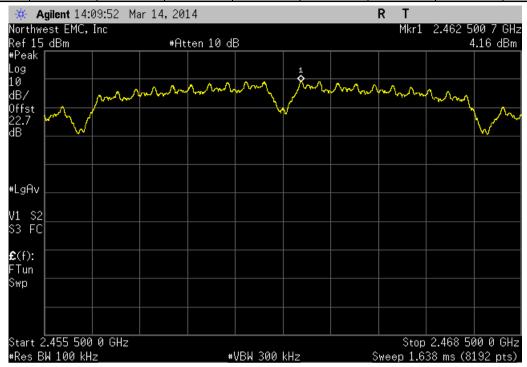


20 MHz, 2400 MHz - 2483.5 MHz	Band, 802.11(b) 1	Mbps, Mid Chai	nnel 6, 2437 MHz	
Frequency				
Range		Value	Limit	Result
12.5 GHz - 25 GHz		-56.38 dBc	≤ -20 dBc	Pass

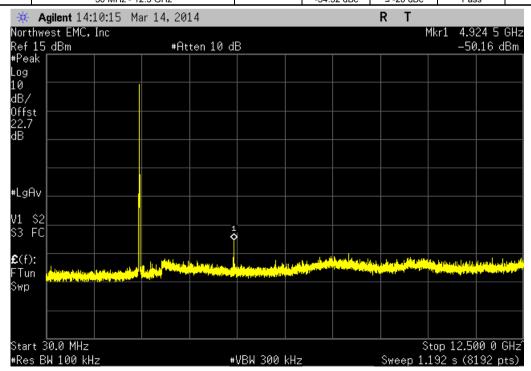




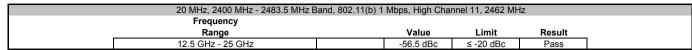


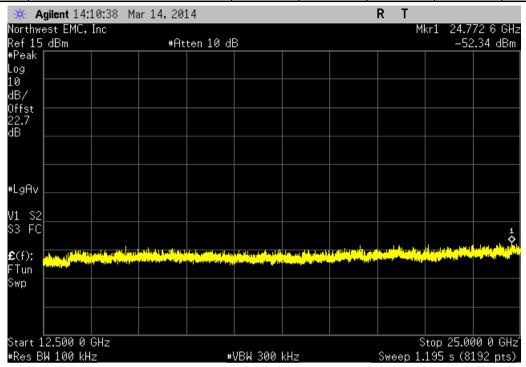


20 MHz, 2400 MHz - 2483.5 MHz I	Band, 802.11(b) 1 Mbps, High Cha	nnel 11, 2462 MH	Z
Frequency			
Range	Value	Limit	Result
30 MHz - 12 5 GHz	-54 32 dBc	< -20 dBc	Pass

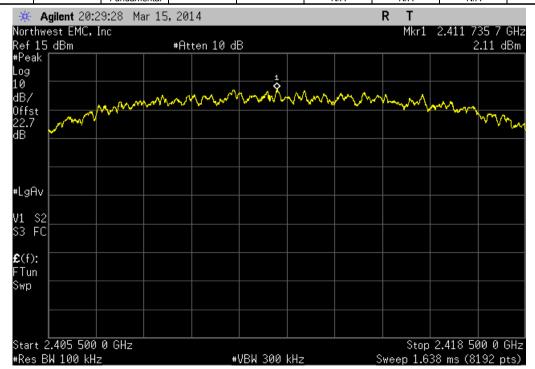




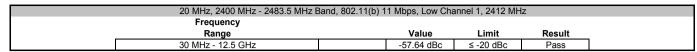


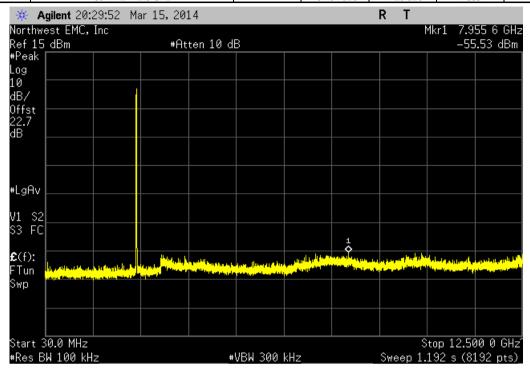


20 MHz, 2400 Mi	Hz - 2483.5 MHz Band, 802.11(b)	11 Mbps, Low Cha	annel 1, 2412 MH	Z
Frequency				
Range		Value	Limit	Result
Fundamental		N/A	N/A	N/A

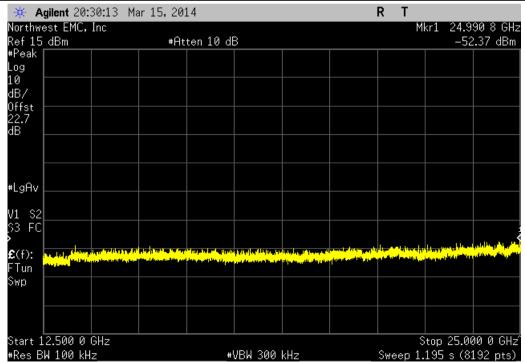




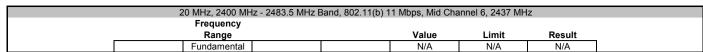


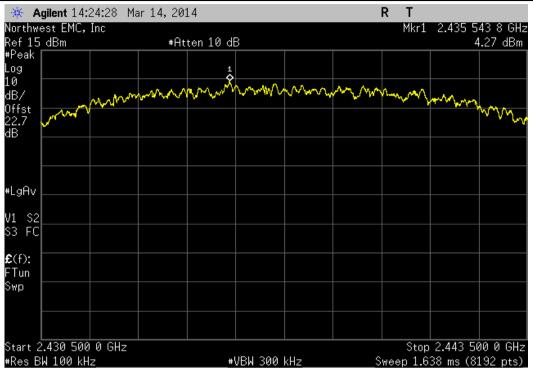


20 MHz, 2400 MHz - 2483.5 MHz E	3and, 802.11(b) 1	1 Mbps, Low Cha	annel 1, 2412 MH	Z	
Frequency					
Range		Value	Limit	Result	
90		Tuiuo		rtoouit	

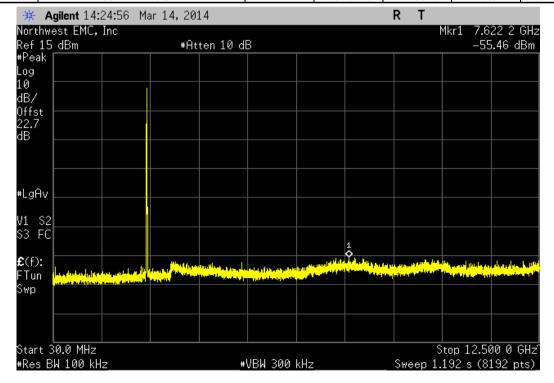




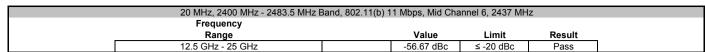


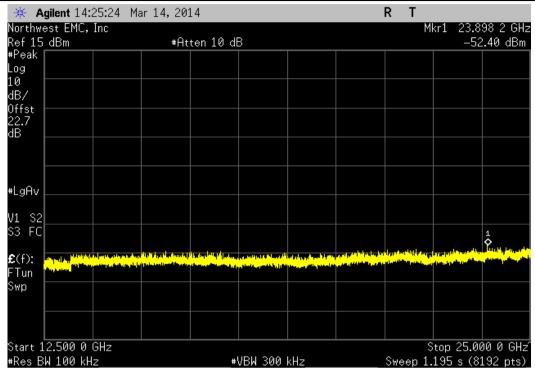


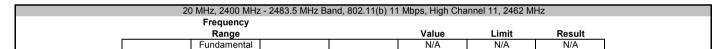
20 MHz, 2400 MHz - 2483.5 MHz	Band, 802.11(b) 11 Mbps, Mid Cha	innel 6, 2437 MHz	Z
Frequency			
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-59.73 dBc	≤ -20 dBc	Pass

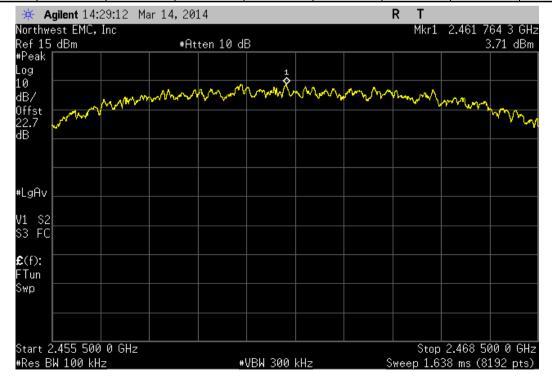




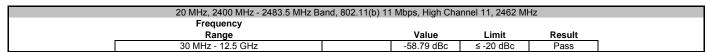


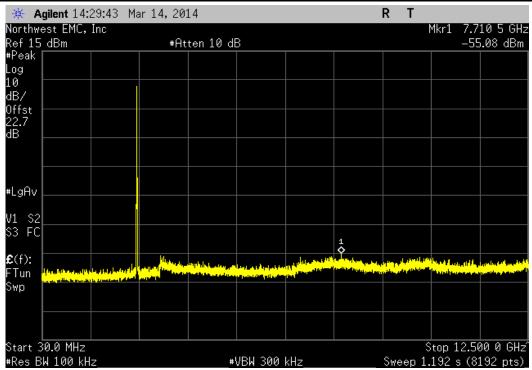




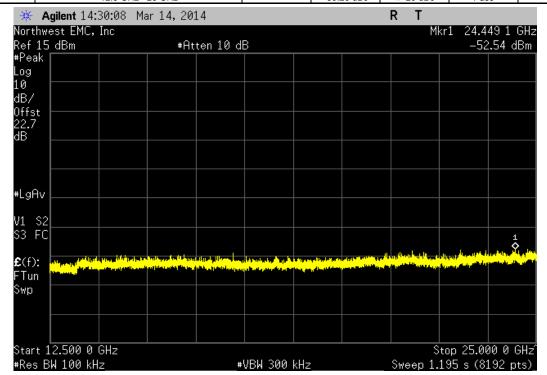




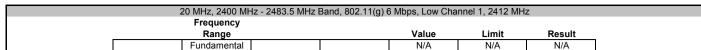


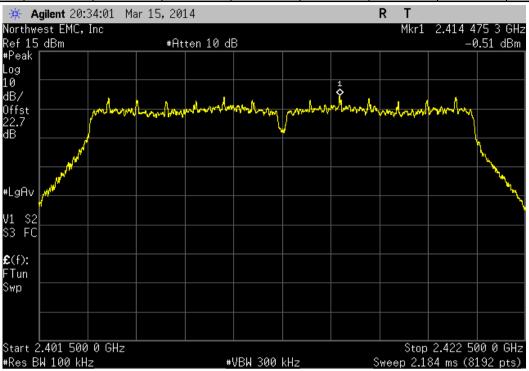


20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz				
_ ′			_	
Frequency				
Range	Value	Limit	Result	
Kange	value	Lillit	Nesuit	
12.5 GHz - 25 GHz	-56.26 dBc	≤ -20 dBc	Pass	

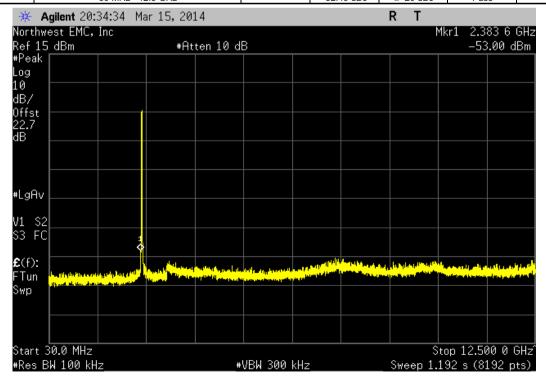




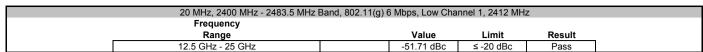


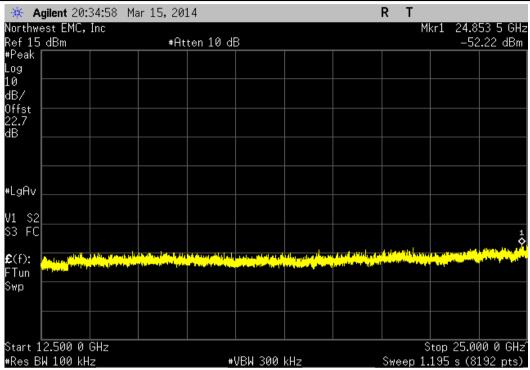


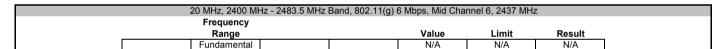
20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz				
	Frequency			
	Range	Value	Limit	Result
	30 MHz - 12 5 GHz	-52.49 dBc	≤ -20 dBc	Pass

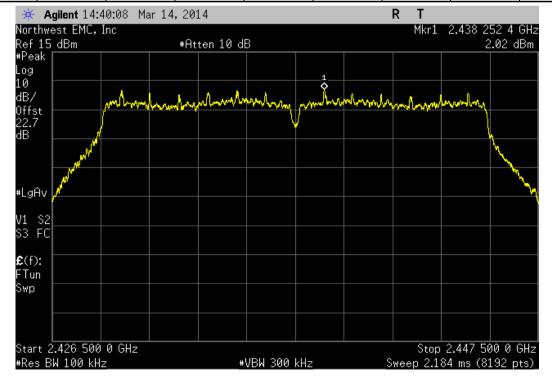


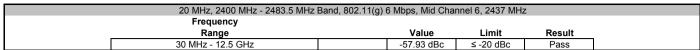


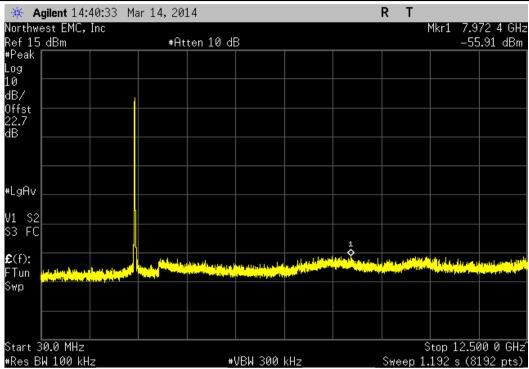




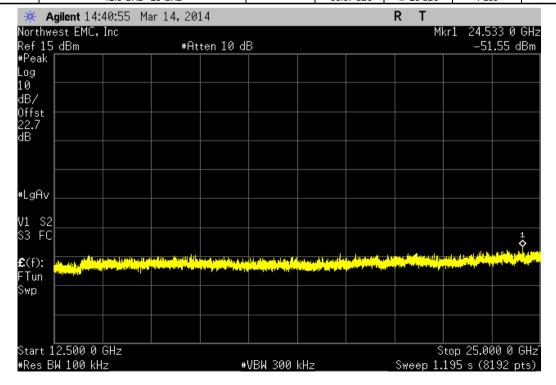




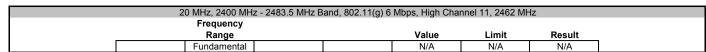


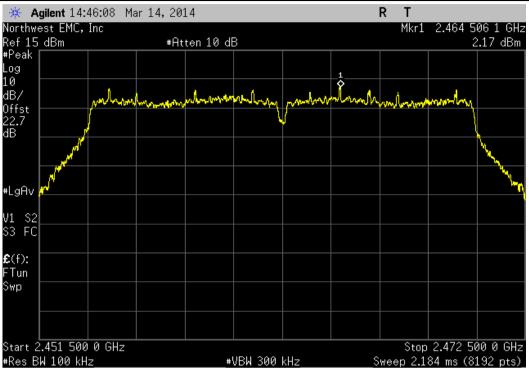


20 MHz, 2400 MHz - 2483.5 MHz Band, 8	302.11(g) 6 Mbps, Mid Char	nnel 6, 2437 MHz	
Frequency			
Range	Value	Limit	Result
12 5 GHz - 25 GHz	-53.57 dBc	≤ -20 dBc	Pass

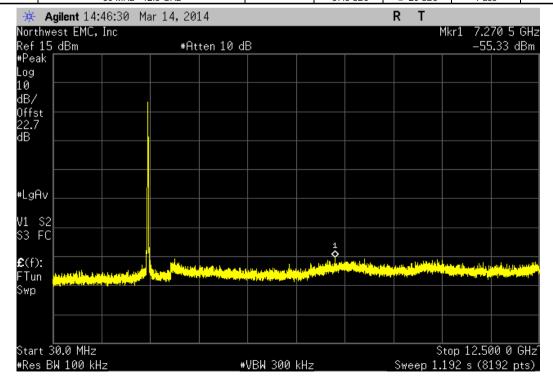




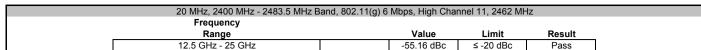


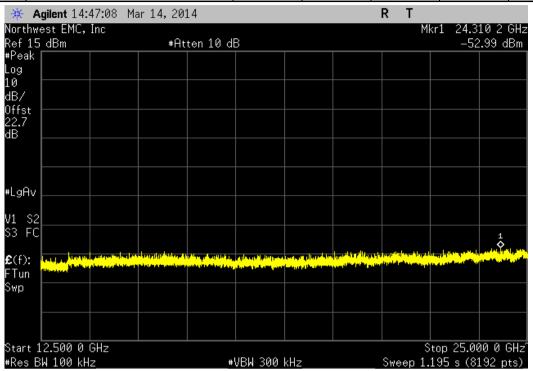


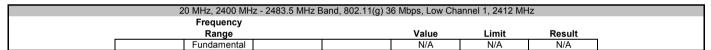
20 MHz, 2400 MHz - 2483.5 MHz Bai	nd, 802.11(g) 6 Mbps, High Char	nnel 11, 2462 MH:	Z
Frequency			
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-57.5 dBc	≤ -20 dBc	Pass

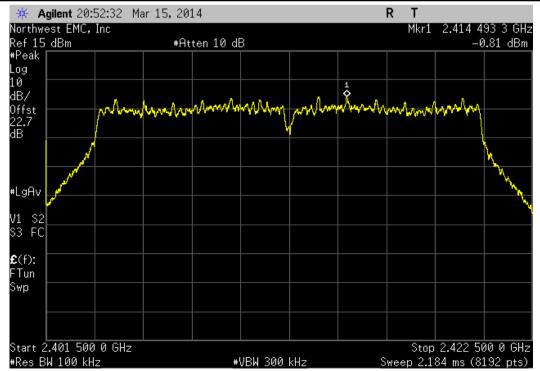


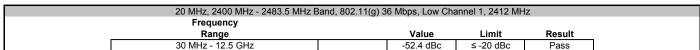


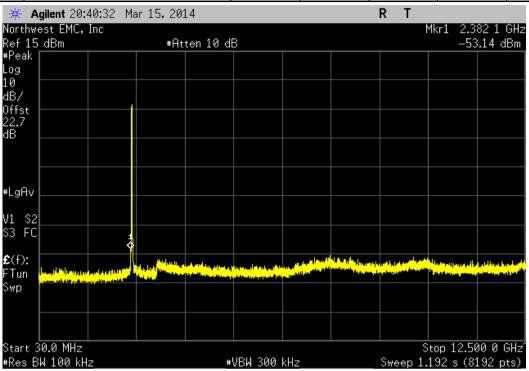




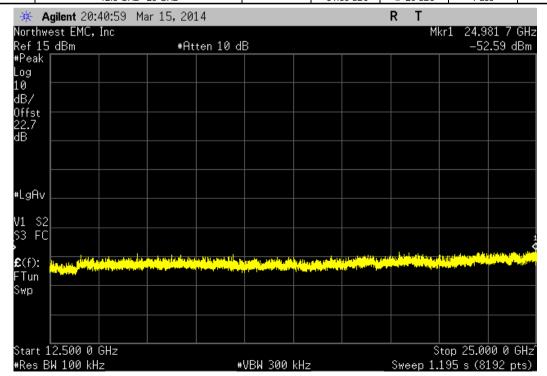




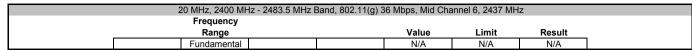


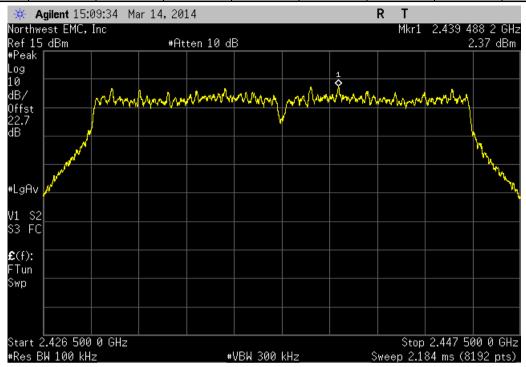


20 MHz, 2400 MHz - 2483.5 MHz Band,	802.11(g) 36 Mbps, Low Cha	nnel 1, 2412 MHz	2
Frequency	, ,		
Range	Value	Limit	Result
12.5 GHz - 25 GHz	-51.85 dBc	≤ -20 dBc	Pass

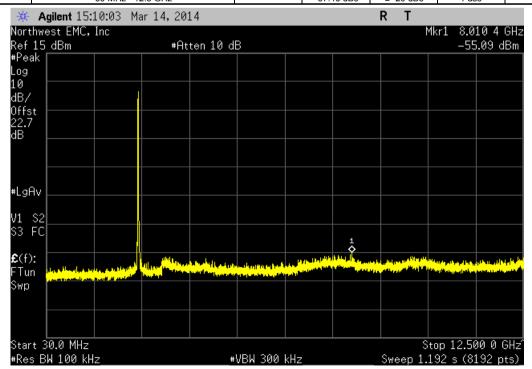




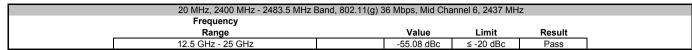


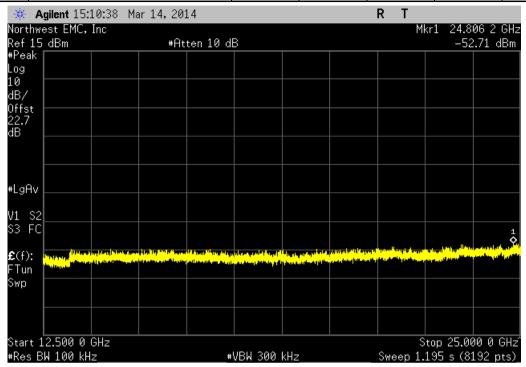


20 MHz, 2400 MHz - 2483.5 MHz Bar	nd, 802.11(g) 36 Mbps, Mid Cha	nnel 6, 2437 MHz	7
Frequency			
Range	Value	Limit	Result
30 MHz - 12 5 GHz	-57 46 dBc	≤ -20 dBc	Pass

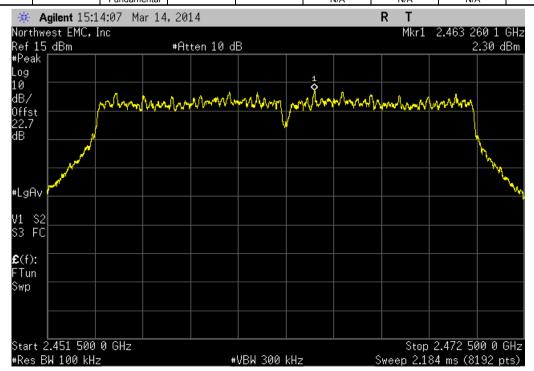


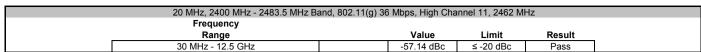


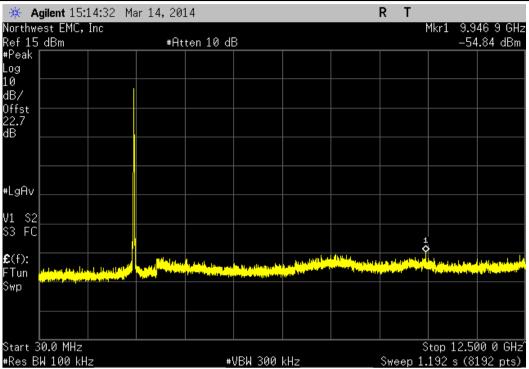




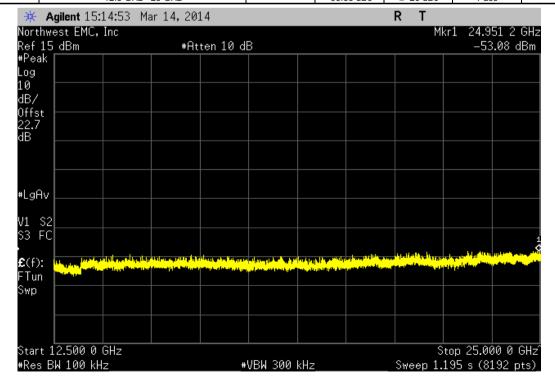
20 MHz, 2400 MHz	: - 2483.5 MHz B	and, 802.11(g) 36	6 Mbps, High Cha	nnel 11, 2462 Mł	Ηz
Frequency					
Range			Value	Limit	Result
Fundamental			N/A	N/A	N/A



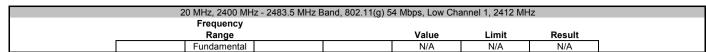


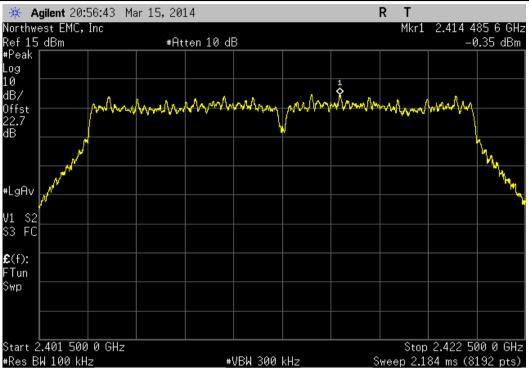


20 MHz, 2400 MHz - 2483.5 MHz Band,	802.11(g) 36 Mbps, High Cha	nnel 11, 2462 MH	lz
Frequency			
Range	Value	Limit	Result
12.5 GHz - 25 GHz	-55.38 dBc	≤ -20 dBc	Pass

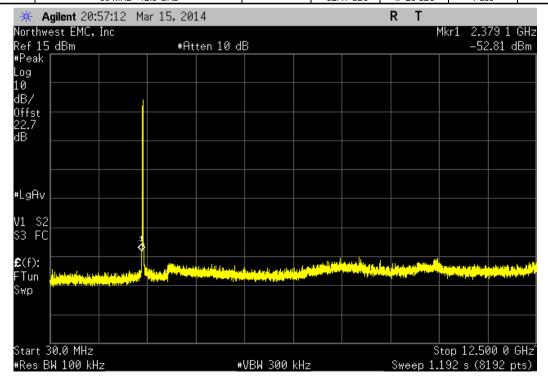




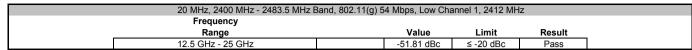


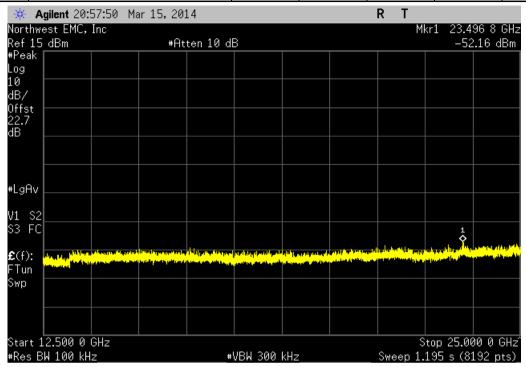


20 MHz, 2400 MHz - 2483.5 MHz	Band, 802.11(g) 54 M	lbps, Low Cha	nnel 1, 2412 MHz	
Frequency				
Range		Value	Limit	Result
30 MHz - 12 5 GHz	_	-52 47 dBc	≤ -20 dBc	Pass

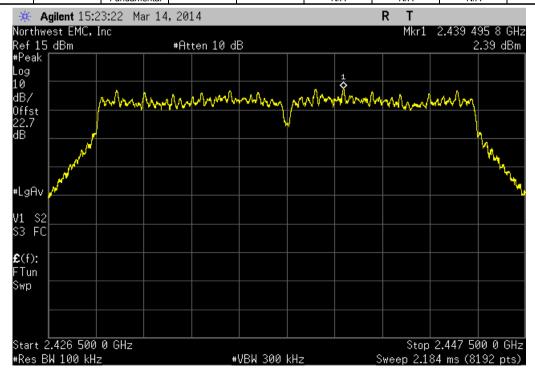


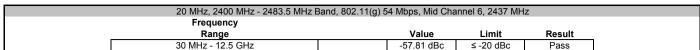


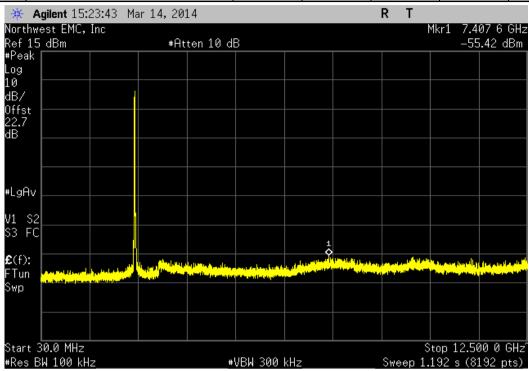




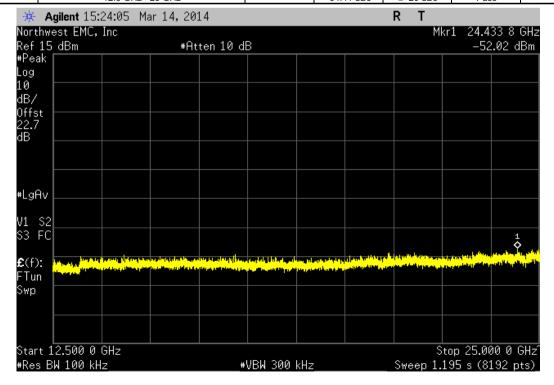
	20 MHz, 2400 MHz - 2483.5	MHz Band, 802.11(g)	54 Mbps, Mid Cha	annel 6, 2437 MH	Z
	Frequency				
_	Range		Value	Limit	Result
ľ	Fundamental		N/A	N/A	N/A



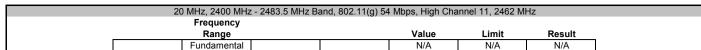


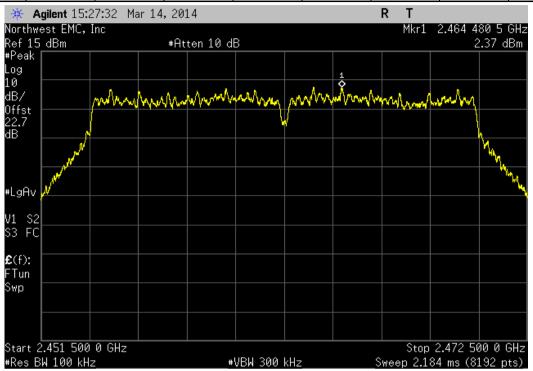


20 MHz, 2400 MHz - 2483.5 MHz Ban	d, 802.11(g) 54 Mbps, Mid Cha	annel 6, 2437 MHz	7
Frequency			
Range	Value	Limit	Result
12 5 GHz - 25 GHz	-54 41 dBc	≤ -20 dBc	Pass

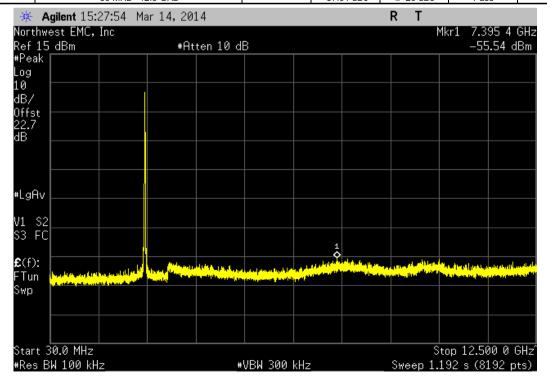




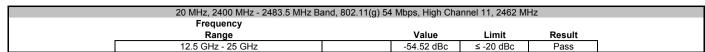


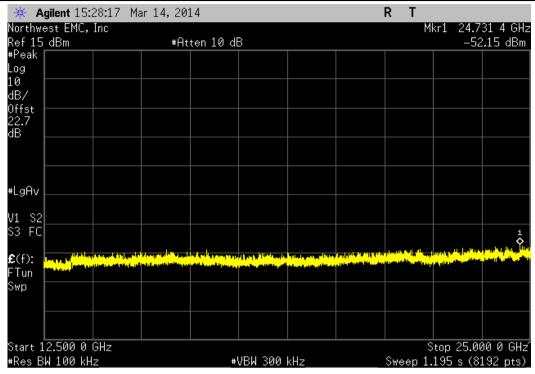


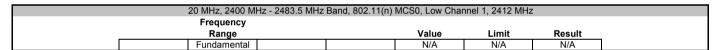
20 MHz, 2400 MHz - 2483.5 MHz Band	, 802.11(g) 54 Mbps, High Cha	nnel 11, 2462 MH	Z
Frequency	, , , , , ,		
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-57.91 dBc	≤ -20 dBc	Pass

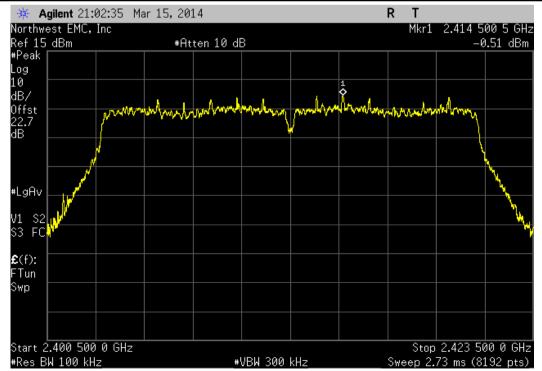




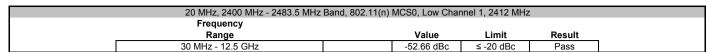


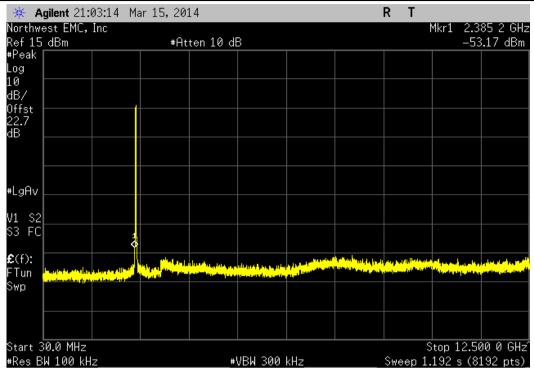




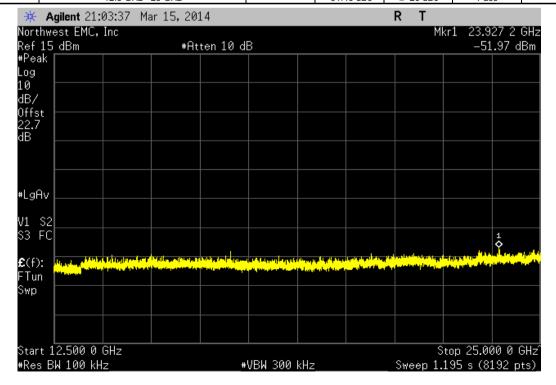


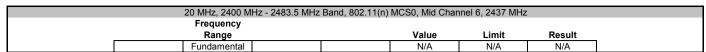


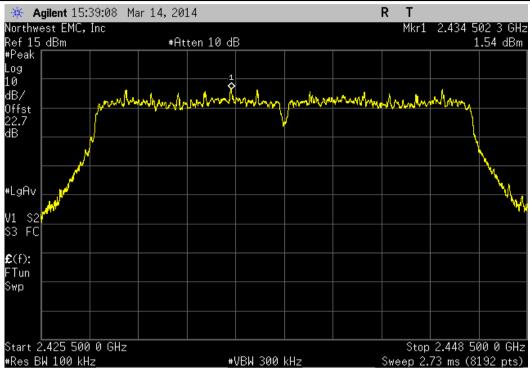




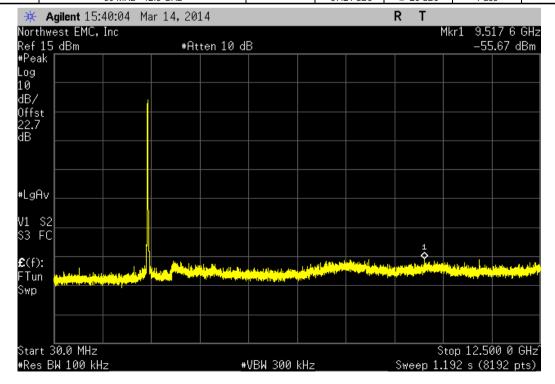
20 MHz, 2400 MHz -	2483.5 MHz Band, 802.11(n)	MCS0, Low Char	nel 1, 2412 MHz	
Frequency				
Range		Value	Limit	Result
12 5 GHz - 25 GHz		-51 46 dBc	≤ -20 dBc	Pass

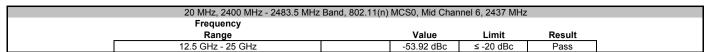


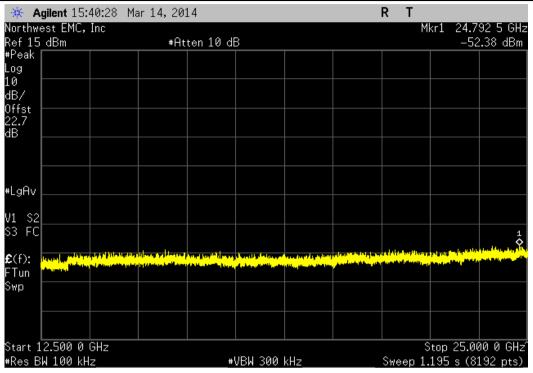


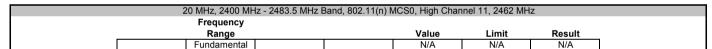


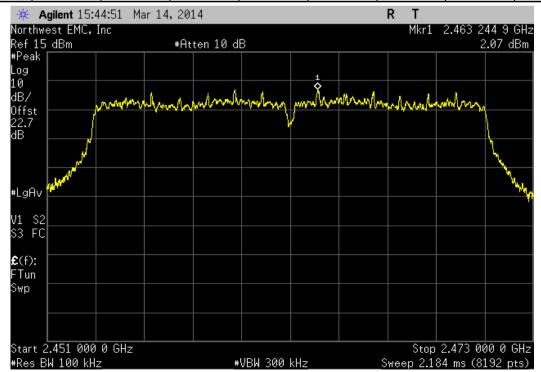
20 MHz, 2400 MHz - 2483.5 MHz Ba	and, 802.11(n) MCS0, Mid Chan	nel 6, 2437 MHz	
Frequency			
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-57,21 dBc	≤ -20 dBc	Pass



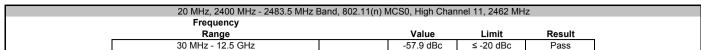


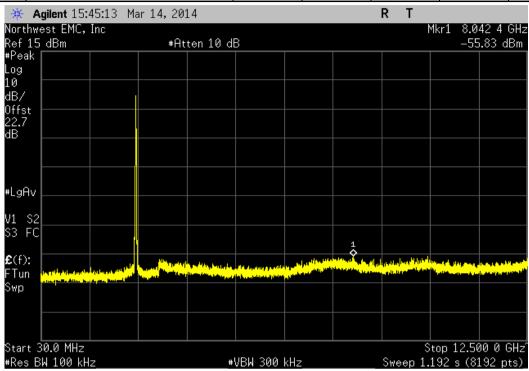




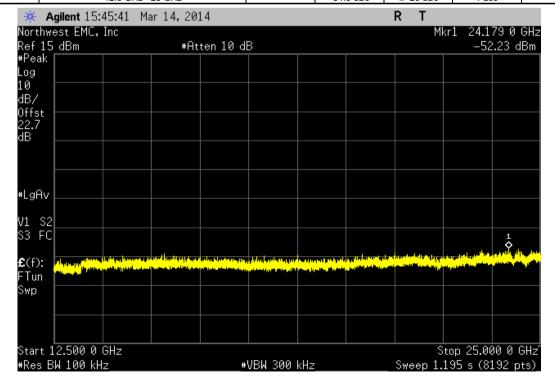




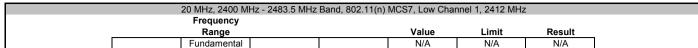


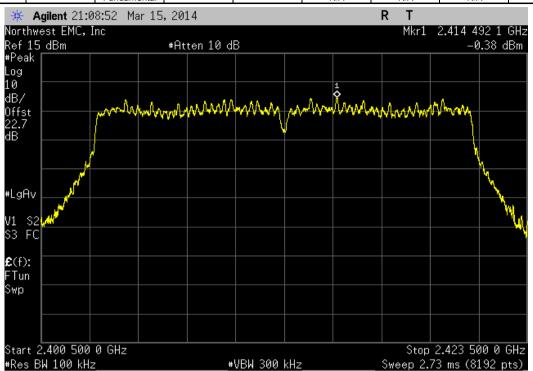


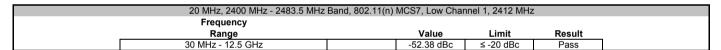
00 MIL 0400 MIL 0400 FMIL D	1 000 44/) 14000 11: 1 01	1 44 0 400 1411	
20 MHz, 2400 MHz - 2483.5 MHz Ba	and, 802.11(n) MCS0, High Chan	nei 11, 2462 MHz	
Frequency			
Range	Value	Limit	Result
12.5 GHz - 25 GHz	-54.3 dBc	≤ -20 dBc	Pass

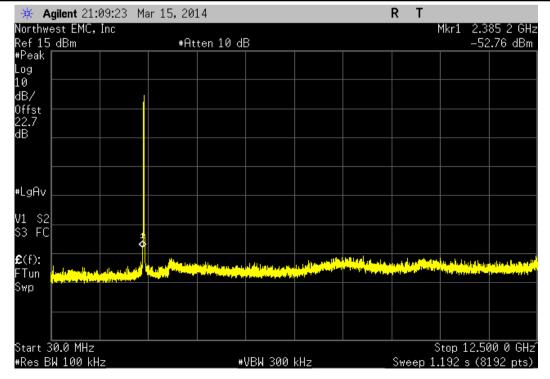




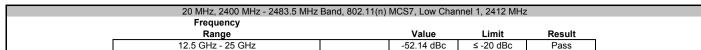


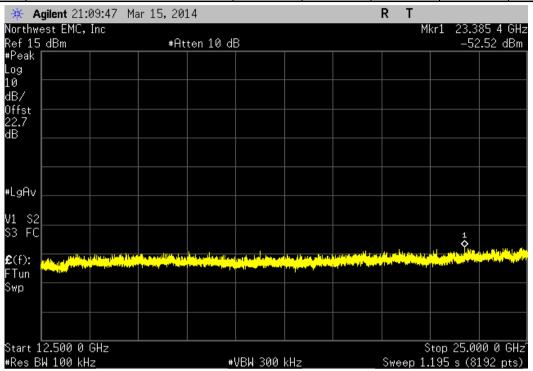


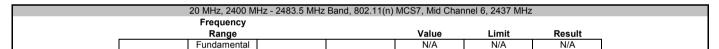


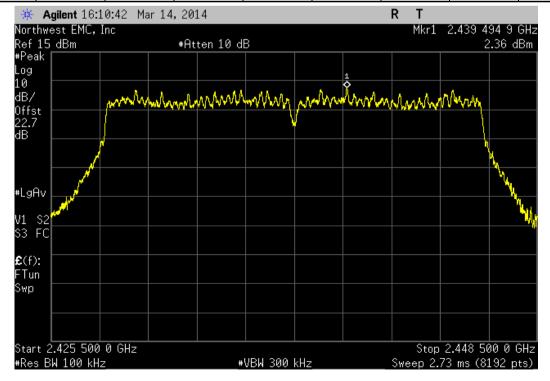




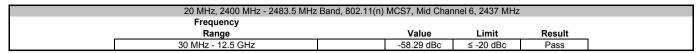


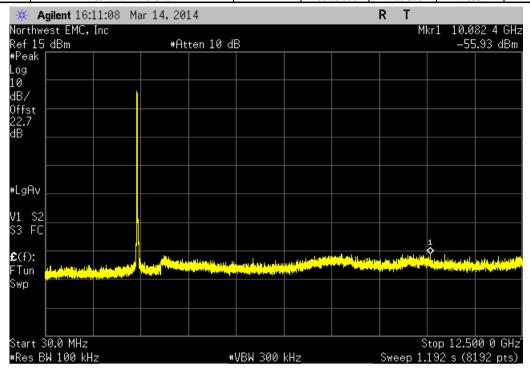




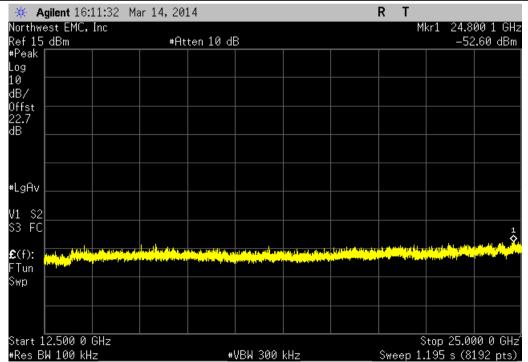




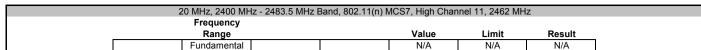


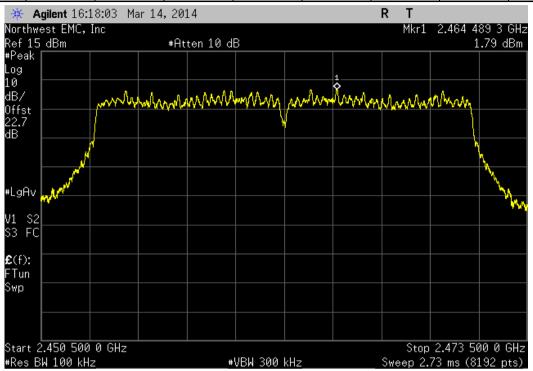


20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz								
Frequency								
Range		Value	Limit	Result				
12.5 GHz - 25 GHz		-54.96 dBc	≤ -20 dBc	Pass				

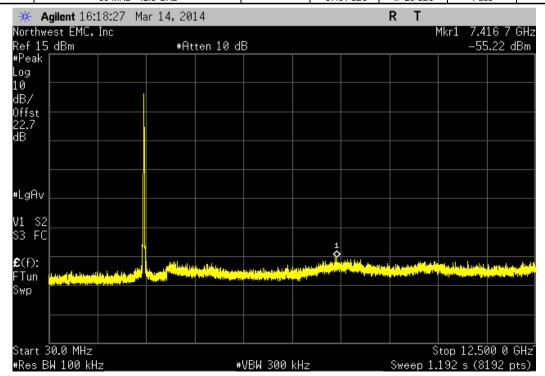




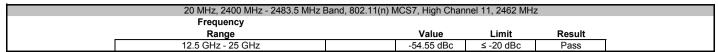


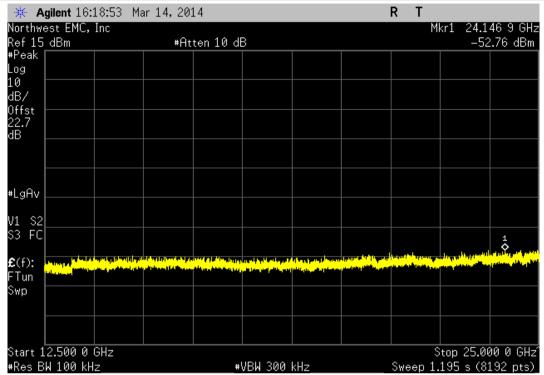


20 MHz, 2400 MHz - 2483.5 MHz Ba	and 802 11(n) MCS7 High Chan	nel 11 2462 MHz	
Frequency	a, 302.11(1.) 1.1331, 1.1g.1 3.1a.1		
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-57.01 dBc	≤ -20 dBc	Pass











Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

					Interval
Description	Manufacturer	Model	ID	Last Cal.	(mo.)
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Power Meter	Agilent	N1913A	SQR	4/29/2013	36
Power Sensor	Agilent	E9300H	SQO	4/29/2013	36
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24

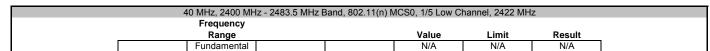
TEST DESCRIPTION

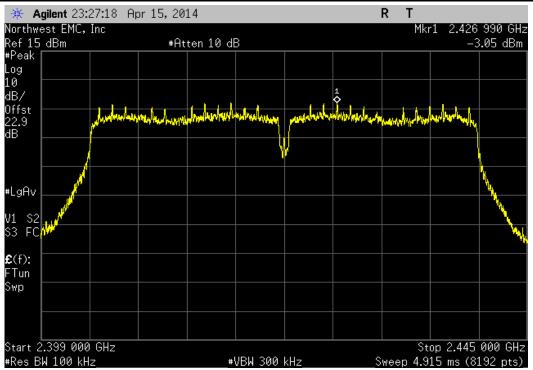
The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.



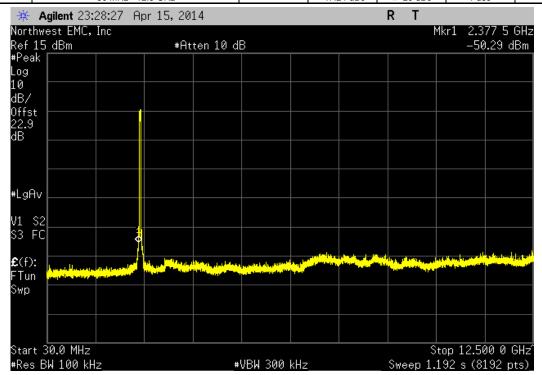
	odel 1631	-	Work Order:	MCSO1698	
Serial Number: 00	6840341053		Date:	04/16/14	
Customer: Mi	crosoft Corporation		Temperature:	22.3°C	
Attendees: No	one		Humidity:	32%	
Project: No	one		Barometric Pres.:	1014	
Tested by: Ja	red Ison	Power: 110VAC/60Hz	Job Site:	EV06	
ST SPECIFICATION	S	Test Method			
CC 15.247:2014		ANSI C63.10:2009			
OMMENTS					
odes of operation te	sted were client provided. Reference power level table for	channel power setting.			
EVIATIONS FROM T	EST STANDARD				
one					
onfiguration #	6	\bigcirc			
ŭ .	Signature				
		Frequency Range	Value	Limit	Result
MHz					
24	00 MHz - 2483.5 MHz Band 802.11(n) MCS0				
	1/5 Low Channel, 2422 MHz	Fundamental	N/A	N/A	N/A
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz	Fundamental 30 MHz - 12.5 GHz	N/A -47.24 dBc	N/A ≤ -20 dBc	N/A Pass
	1/5 Low Channel, 2422 MHz	30 MHz - 12.5 GHz	-47.24 dBc	≤ -20 dBc	Pass
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-47.24 dBc -43.64 dBc	≤ -20 dBc ≤ -20 dBc	Pass Pass N/A
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental	-47.24 dBc -43.64 dBc N/A	≤ -20 dBc ≤ -20 dBc N/A	Pass Pass N/A
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz 4/8 Mid Channel, 2437 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz	-47.24 dBc -43.64 dBc N/A -50.63 dBc	≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc	Pass Pass N/A Pass
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz 4/8 Mid Channel, 2437 MHz 4/8 Mid Channel, 2437 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-47.24 dBc -43.64 dBc N/A -50.63 dBc -44.13 dBc	≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc	Pass Pass N/A Pass Pass N/A
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz 4/8 Mid Channel, 2437 MHz 4/8 Mid Channel, 2437 MHz 7/11 High Channel, 2452 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz Fundamental	-47.24 dBc -43.64 dBc N/A -50.63 dBc -44.13 dBc N/A	≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc N/A	Pass Pass N/A Pass Pass N/A
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz 4/8 Mid Channel, 2437 MHz 4/8 Mid Channel, 2437 MHz 4/8 Mid Channel, 2452 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz	-47.24 dBc -43.64 dBc N/A -50.63 dBc -44.13 dBc N/A -50.5 dBc	≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc	Pass Pass N/A Pass Pass N/A Pass
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz	-47.24 dBc -43.64 dBc N/A -50.63 dBc -44.13 dBc N/A -50.5 dBc	≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc	Pass Pass N/A Pass Pass N/A Pass
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz 802.11(n) MCS7	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-47.24 dBc -43.64 dBc N/A -50.63 dBc -44.13 dBc N/A -50.5 dBc -42.79 dBc	≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc	Pass Pass N/A Pass Pass N/A Pass Pass
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2422 MHz 802.11(n) MCS7 1/5 Low Channel, 2422 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-47.24 dBc -43.64 dBc N/A -50.63 dBc -44.13 dBc N/A -50.5 dBc -42.79 dBc	≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc	Pass Pass N/A Pass Pass N/A Pass N/A Pass Pass
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz 802.11(n) MCS7 1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz	-47.24 dBc -43.64 dBc N/A -50.63 dBc -44.13 dBc N/A -50.5 dBc -42.79 dBc N/A -50.87 dBc	≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc	Pass Pass N/A Pass Pass N/A Pass N/A Pass Pass
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz 802.11(n) MCS7 1/5 Low Channel, 2422 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz	-47.24 dBc -43.64 dBc N/A -50.63 dBc -44.13 dBc N/A -50.5 dBc -42.79 dBc N/A -50.87 dBc -43.65 dBc	\$ -20 dBc \$ -20 dBc N/A \$ -20 dBc \$ -20 dBc N/A \$ -20 dBc \$ -20 dBc	Pass Pass N/A Pass Pass N/A Pass N/A Pass Pass N/A Pass Pass
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2452 MHz 7/11 High Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2423 MHz 4/8 Mid Channel, 2423 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 13.5 GHz - 12.5 GHz Fundamental 40 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 50 Hz - 25 GHz Fundamental	-47.24 dBc -43.64 dBc N/A -50.63 dBc -44.13 dBc N/A -50.5 dBc -42.79 dBc N/A -50.87 dBc -43.65 dBc N/A	≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc ≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc N/A	Pass Pass N/A Pass Pass N/A Pass N/A Pass Pass N/A Pass
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz 7/11 High Channel, 2452 MHz 1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2423 MHz 4/8 Mid Channel, 2437 MHz 4/8 Mid Channel, 2437 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 30 MHz - 12.5 GHz	-47.24 dBc -43.64 dBc N/A -50.63 dBc -44.13 dBc N/A -50.5 dBc -42.79 dBc N/A -50.87 dBc -43.65 dBc N/A -50.31 dBc	≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc	Pass Pass N/A Pass Pass N/A Pass Pass N/A Pass N/A Pass N/A Pass
	1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 4/8 Mid Channel, 2437 MHz 7/11 High Channel, 2452 MHz 1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2422 MHz 1/5 Low Channel, 2423 MHz 4/8 Mid Channel, 2437 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-47.24 dBc -43.64 dBc N/A -50.63 dBc -44.13 dBc N/A -50.5 dBc -42.79 dBc N/A -50.87 dBc -43.65 dBc N/A -50.31 dBc -42.97 dBc	≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc ≤ -20 dBc N/A ≤ -20 dBc N/A ≤ -20 dBc S -20 dBc S -20 dBc S -20 dBc S -20 dBc	Pass Pass N/A Pass N/A Pass N/A Pass Pass N/A Pass Pass Pass N/A Pass Pass



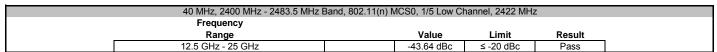


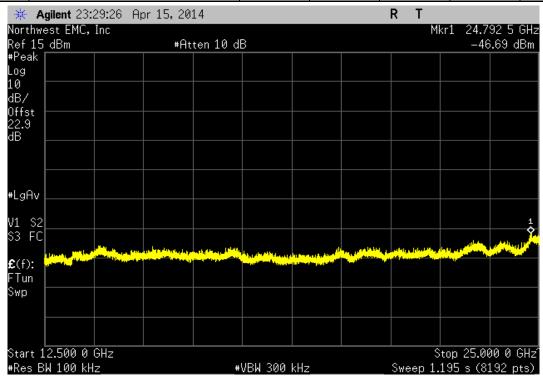


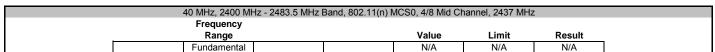
40 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, 1/5 Low Channel, 2422 MHz						
	302()330, 2011 3		_			
Frequency						
<u>-</u> 1,						
Range	Value	Limit	Result			
00 MH= 40 5 OH=	47.04 JD-	< 00 dD-	D			
30 MHz - 12.5 GHz	-47.24 dBc	≤ -20 dBc	Pass			

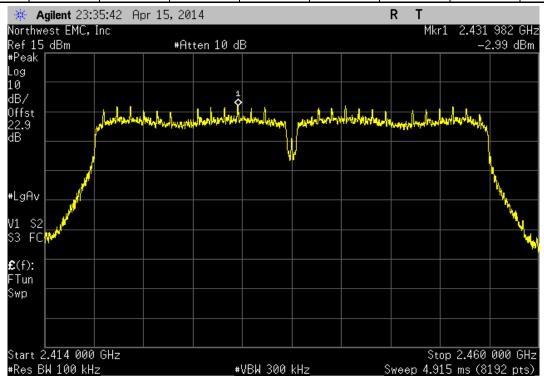




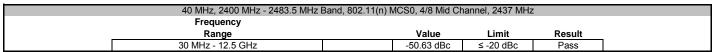


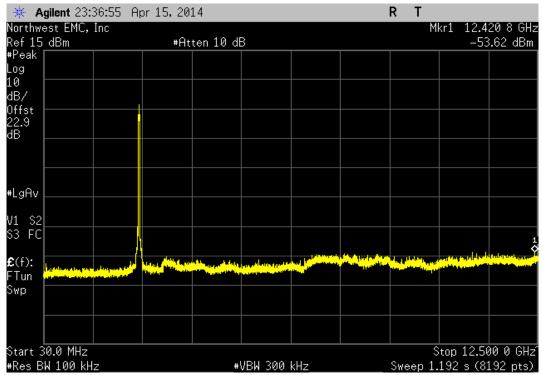


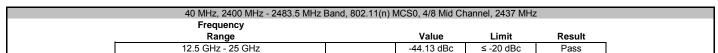


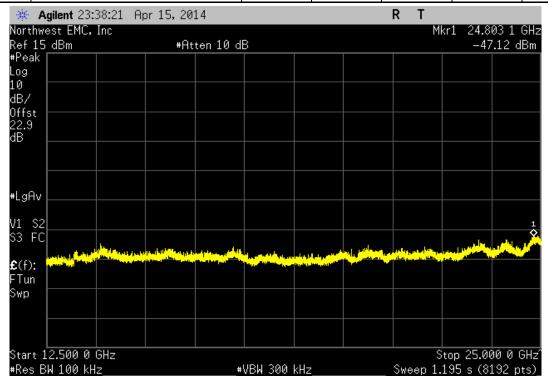


NORTHWEST SPURIOUS CONDUCTED EMISSIONS

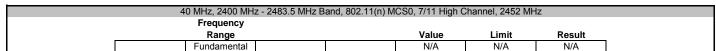


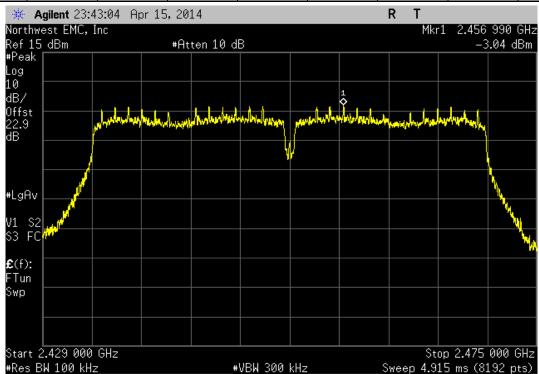


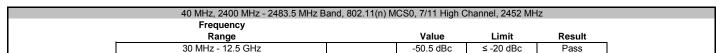


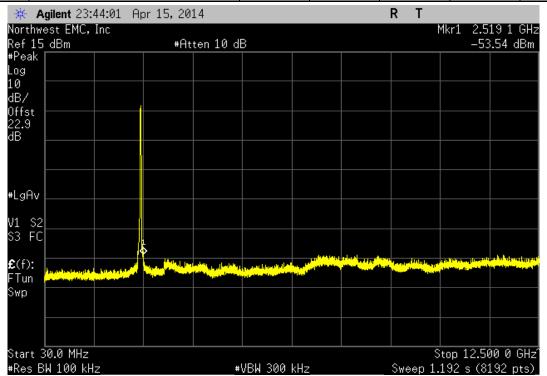


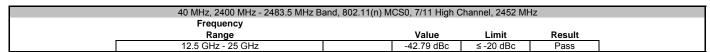


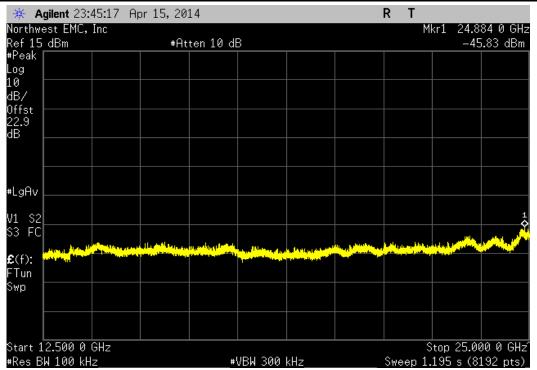


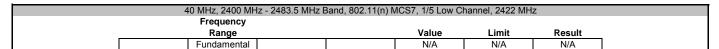


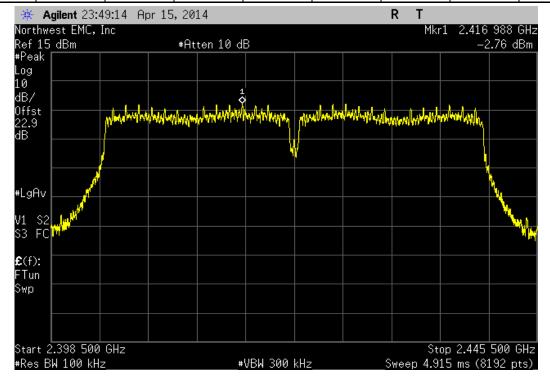


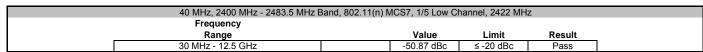


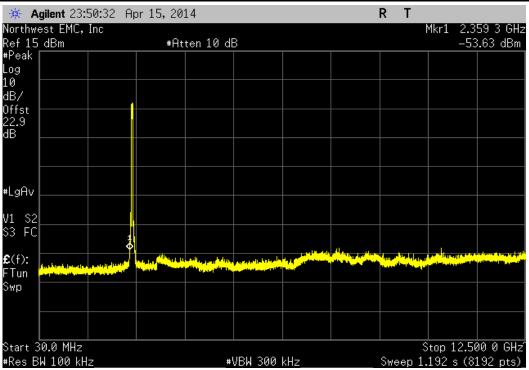




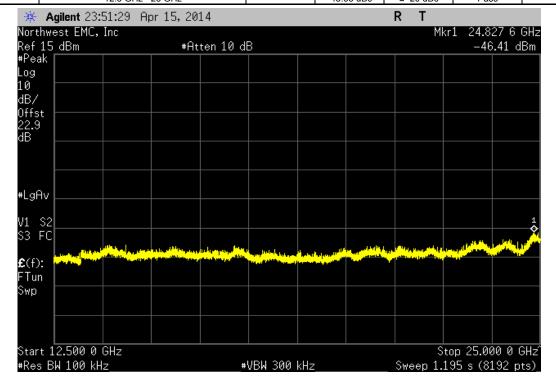




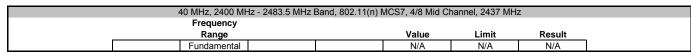


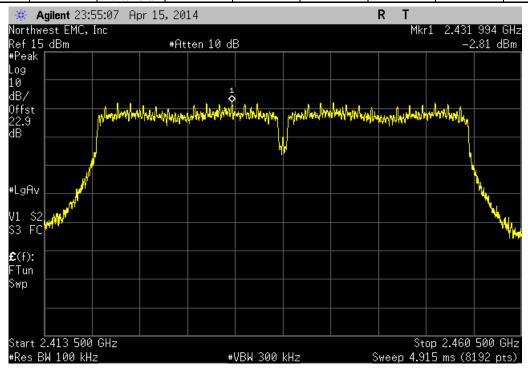


40 MHz, 2400 MHz - 2483.5 MHz I	Band, 802.11(n) MCS7, 1/5 Low Cl	hannel, 2422 MHz	_
Frequency			
Range	Value	Limit	Result
12 5 GHz - 25 GHz	-43 65 dBc	< -20 dBc	Pass

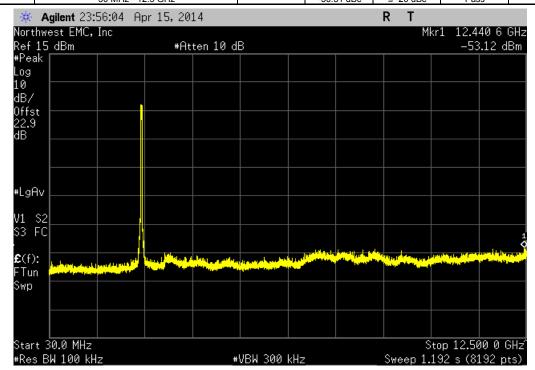




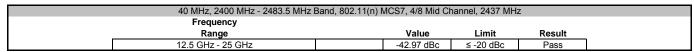


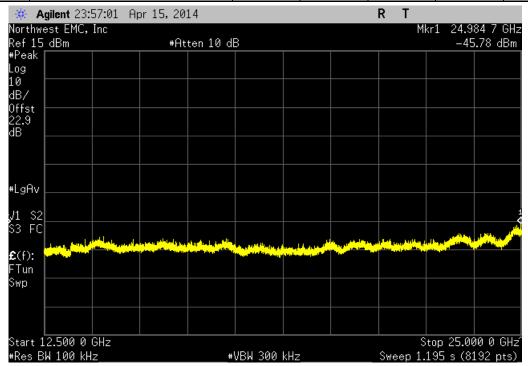


40 MHz, 2400 MHz - 2483.5 MHz Ban	d, 802.11(n) MCS7, 4/8 Mid Ch	nannel, 2437 MHz	2
Frequency			
Range	Value	Limit	Result
30 MHz - 12 5 GHz	-50.31 dBc	< -20 dBc	Pass

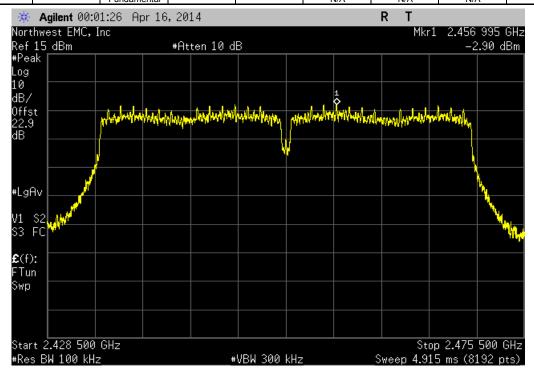




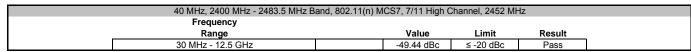


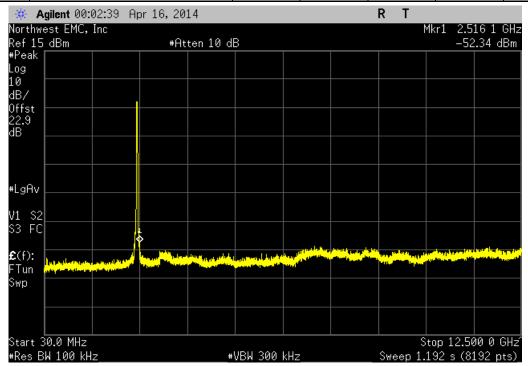


40 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, 7/11 High Channel, 2452 MHz						
Frequency						
Range			Value	Limit	Result	
Fundamental			N/A	N/A	N/A	

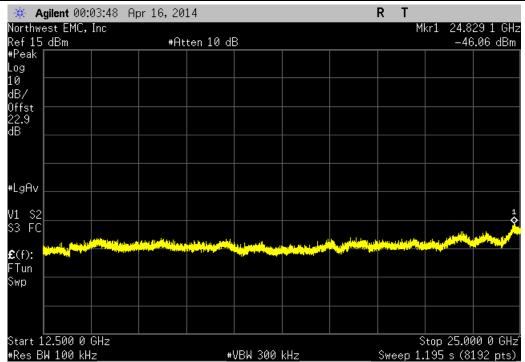








40 MHz, 2400 MHz - 2483.5 MHz B	and, 802.11(n) M	CS7, 7/11 High C	Channel, 2452 MF	łz	
Frequency					
Range		Value	Limit	Result	
12.5 GHz - 25 GHz		-43.16 dBc	≤ -20 dBc	Pass	





Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

					Interval
Description	Manufacturer	Model	ID	Last Cal.	(mo.)
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
MXG Analog Signal Generator	Agilent	N5181A	TIG	NCR	0
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24

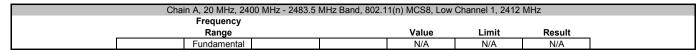
TEST DESCRIPTION

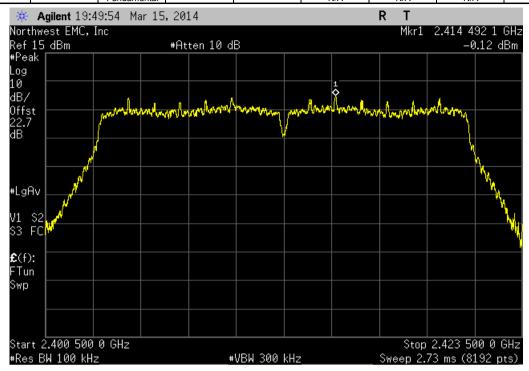
The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.



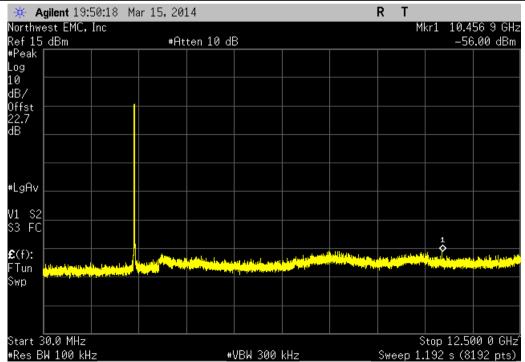
	Model 1631			Work Order:		
Serial Number:					03/22/14	
	Microsoft Corporation			Temperature:		
Attendees:				Humidity:		
Project:		laan	Power: 110VAC/60Hz	Barometric Pres.:		
ST SPECIFICAT	Brandon Hobbs, Jared I	son	Test Method	Job Site:	EVU6	
	IONS		ANSI C63.10:2009			
C 15.247:2014			ANSI C63. 10.2009			
OMMENTS						
	n tested were client provi	ided.				
	M TEST STANDARD					
one						
onfiguration #	1		-111			
•		Signature	7			
			Frequency			
			Range	Value	Limit	Result
nain A						
	20 MHz	0400 5 MH - Daniel				
	2400 MHZ -	2483.5 MHz Band 802.11(n) MCS8				
		Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
		Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-55.88 dBc	≤ -20 dBc	Pass
		Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-52.29 dBc	≤ -20 dBc	Pass
		Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
		Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-56.98 dBc	≤ -20 dBc	Pass
		Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-53.52 dBc	≤ -20 dBc	Pass
		High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
		High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.6 dBc	≤ -20 dBc	Pass
		High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-54.47 dBc	≤ -20 dBc	Pass
		802.11(n) MCS15	12.5 GHZ - 25 GHZ	-54.47 UBC	≥ -20 UBC	F d 5 5
		Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
		Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-54.96 dBc	≤ -20 dBc	Pass
		Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-51.63 dBc	≤ -20 dBc	Pass
		Mid Channel 6, 2437 MHz	Fundamental	-51:03 dBC N/A	≥ -20 dBc N/A	N/A
		Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-57.14 dBc	≤ -20 dBc	Pass
		Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-54.6 dBc	≤ -20 dBc	Pass
		High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
		High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-58.15 dBc	≤ -20 dBc	Pass
ain D		High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-54.87 dBc	≤ -20 dBc	Pass
ain B	20 MHz					
		2483.5 MHz Band				
		802.11(n) MCS8				
		Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
		Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-59.62 dBc	≤ -20 dBc	Pass
		Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-52.21 dBc	≤ -20 dBc	Pass
		Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
		Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-57.71 dBc	≤ -20 dBc	Pass
		Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-54.87 dBc	≤ -20 dBc	Pass
		High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
		High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.78 dBc	≤ -20 dBc	Pass
		High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-54.02 dBc	≤ -20 dBc	Pass
		802.11(n) MCS15				
		Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
		Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-54.23 dBc	≤ -20 dBc	Pass
		Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-52.36 dBc	≤ -20 dBc	Pass
		Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
		Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-57.86 dBc	≤ -20 dBc	Pass
		Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-54.86 dBc	≤ -20 dBc	Pass
			0 0112	07.00 dD0		
		High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
		High Channel 11, 2462 MHz	Fundamental	N/A -57.15.dBc	N/A < -20 dBc	N/A Pass
		High Channel 11, 2462 MHz High Channel 11, 2462 MHz High Channel 11, 2462 MHz	Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	N/A -57.15 dBc -54.76 dBc	N/A ≤ -20 dBc ≤ -20 dBc	N/A Pass Pass



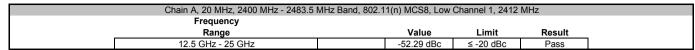


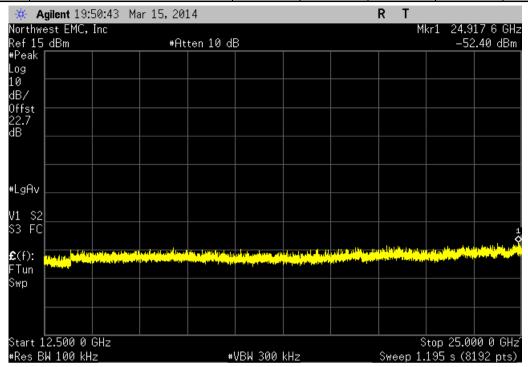


Chain A, 20 MHz, 2400 MHz - 2483.5 I	MHz Band, 802.1	1(n) MCS8, Low	Channel 1, 2412	MHz	
Frequency					
Range		Value	Limit	Result	
30 MHz - 12.5 GHz		-55.88 dBc	≤ -20 dBc	Pass	

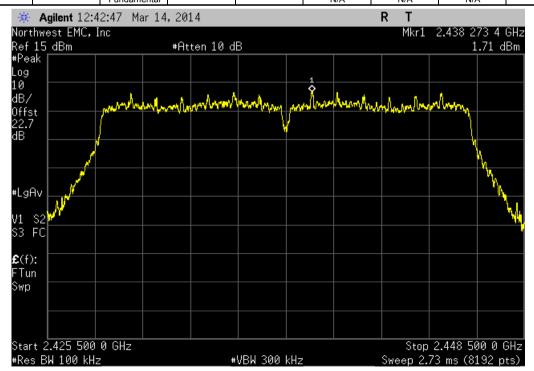




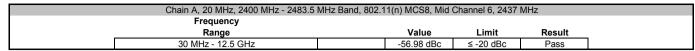


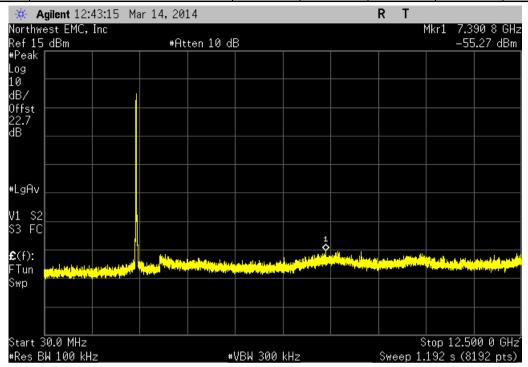


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz						
Frequency						
Range			Value	Limit	Result	
Fundamental			N/A	N/A	N/A	

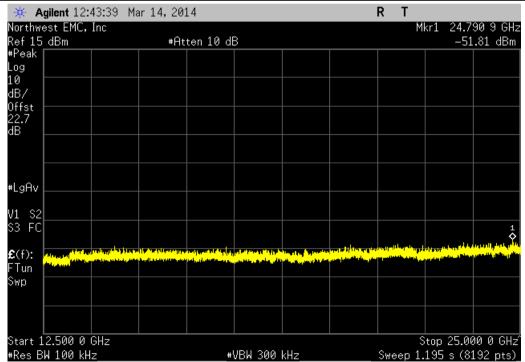




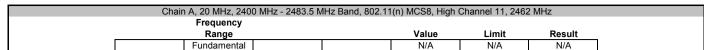


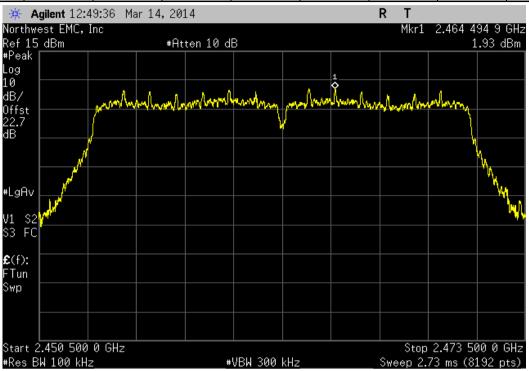


Chain A, 20 MHz, 2400 MHz - 2483.5	MHz Band, 802.1	1(n) MCS8, Mid (Channel 6, 2437	MHz	
Frequency					
Range		Value	Limit	Result	
Runge		• uiuo		rtoouit	

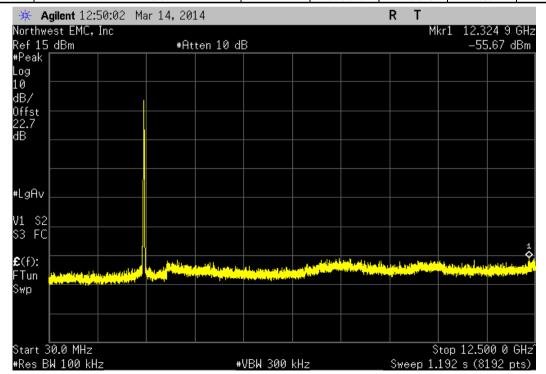




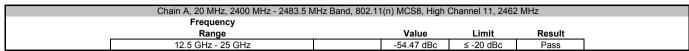


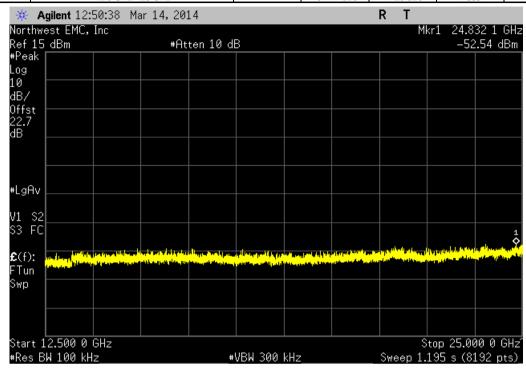


Chain A, 20 MHz, 2400 MHz - 2483.5 MH	z Band, 802.11(n) MCS8, High	Channel 11, 2462	MHz
Frequency	• • • • • • • • • • • • • • • • • • • •		
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-57.6 dBc	≤ -20 dBc	Pass

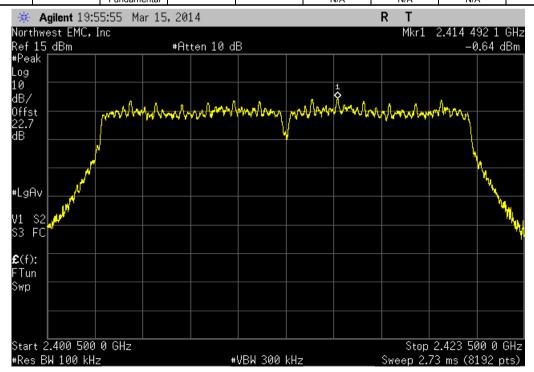




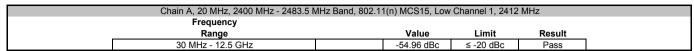


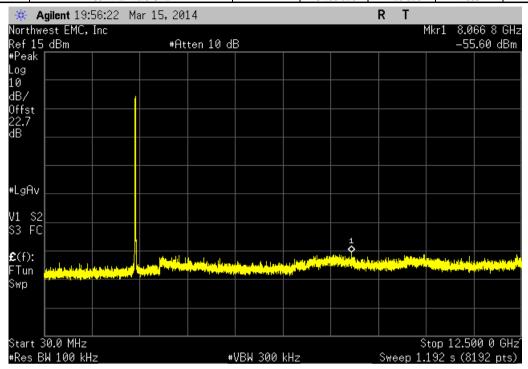


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz					
Frequency					
Range		Value	Limit	Result	
Fundamental		N/A	N/A	N/A	

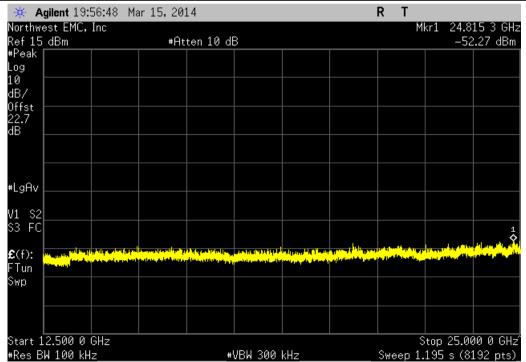




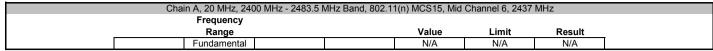


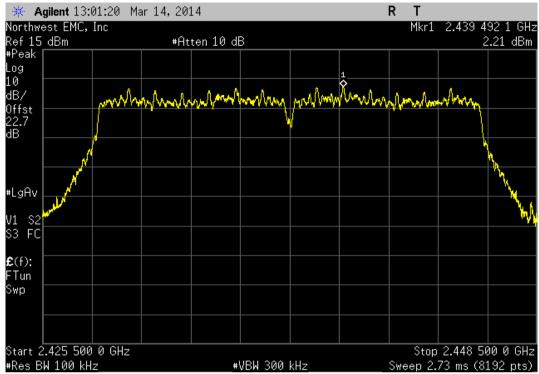


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz								
	Frequency							
	Range		Value	Limit	Result			
	12.5 GHz - 25 GHz		-51.63 dBc	≤ -20 dBc				

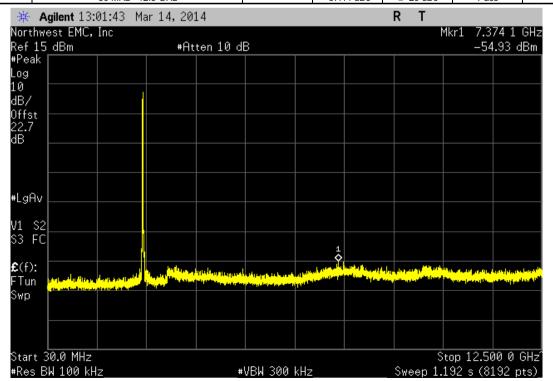




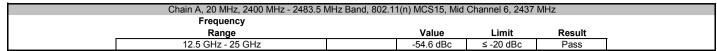


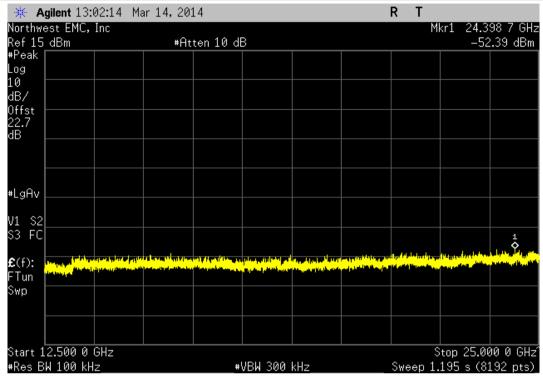


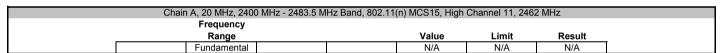
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz							
Frequency							
Range	Value	Limit	Result				
30 MHz - 12 5 GHz	-57 14 dB	c < -20 dBc	Pass	7			

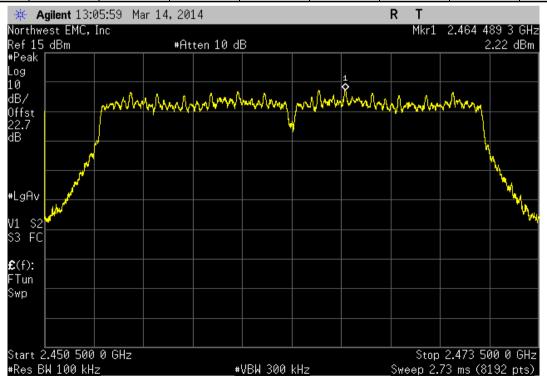




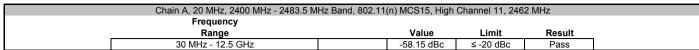


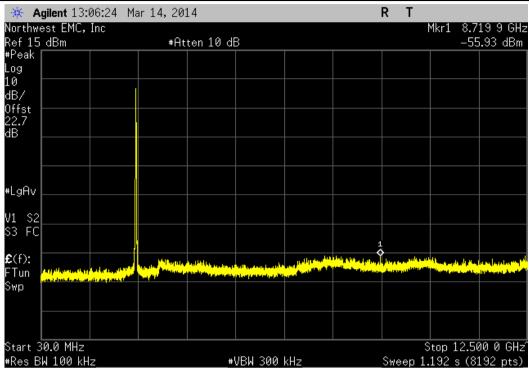




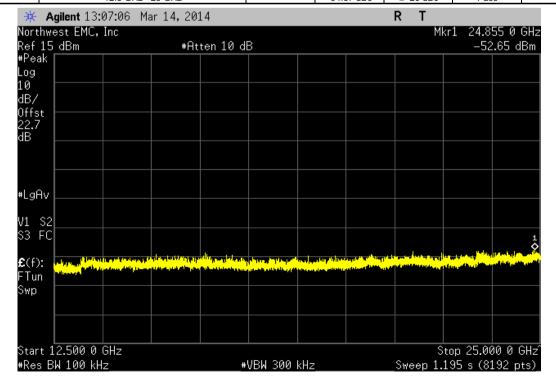




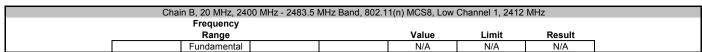


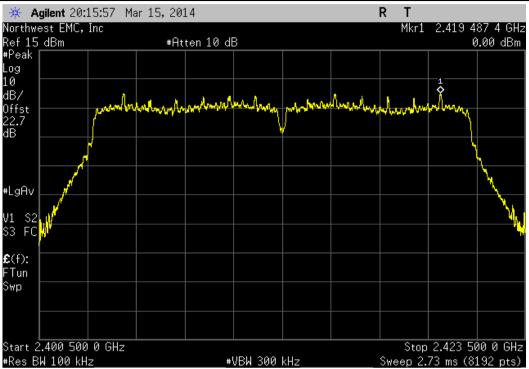


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz					
Frequency	,,,,,,,	.,			
Range	Value	Limit	Result		
12.5 GHz - 25 GHz	-54.87 dBc	≤ -20 dBc	Pass		

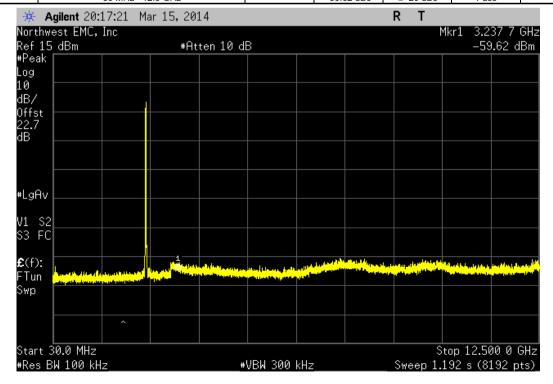




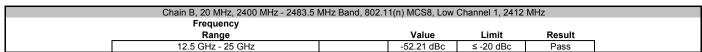


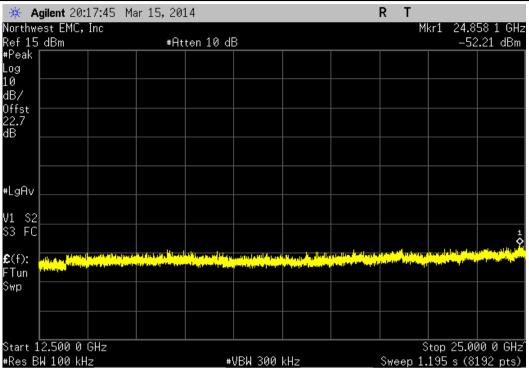


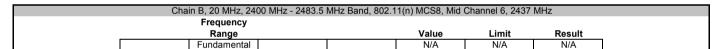
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz						
Frequency	, , , ,	,				
Range	Value	Limit	Result			
30 MHz - 12.5 GHz	-59.62 dBc	≤ -20 dBc	Pass			

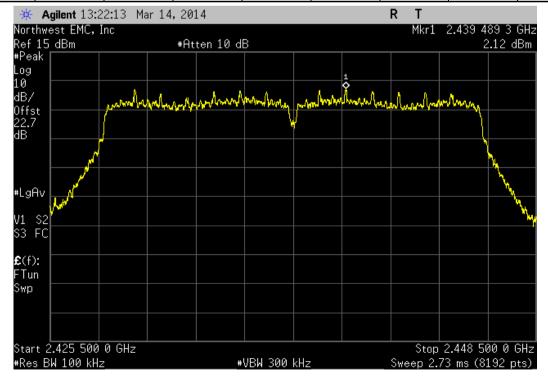




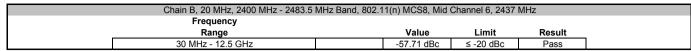


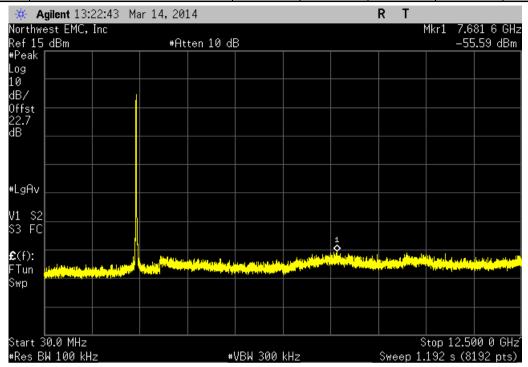




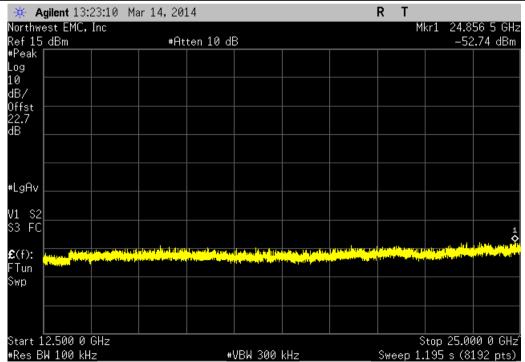


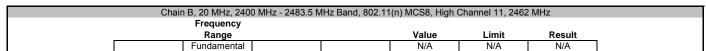


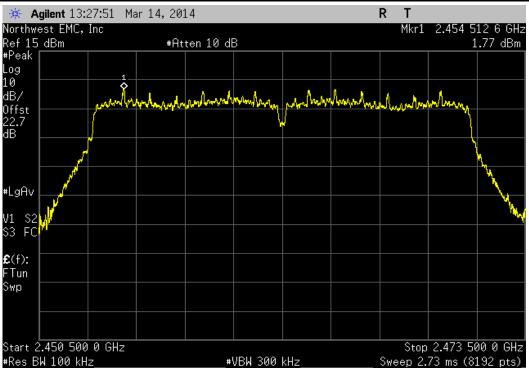




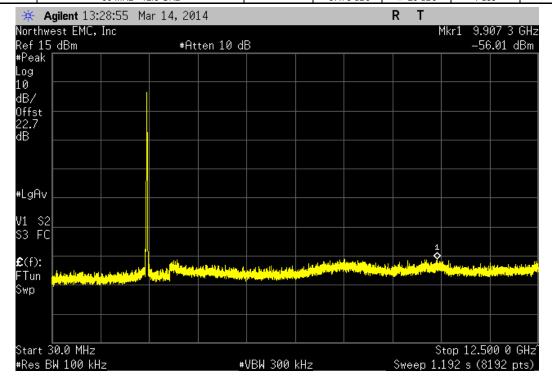
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz							
	Frequency						
	Danna		Value	Limit	Result		
	Range		value	LIIIIL	Result		



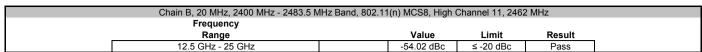


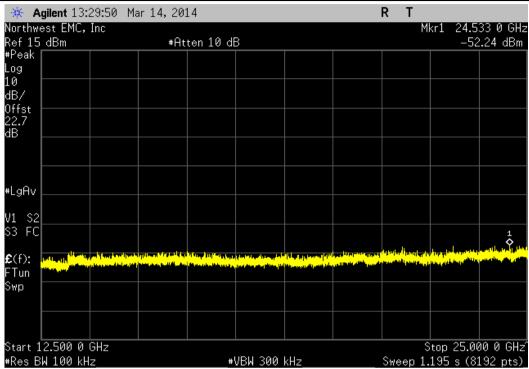


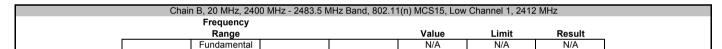
Chair	n B, 20 MHz, 2400 MHz - 2483.5 M	Hz Band, 802.11	(n) MCS8, High (Channel 11, 2462	MHz
	Frequency	,	, ,	,	
	Range		Value	Limit	Result
3	0 MHz - 12.5 GHz		-57.78 dBc	≤ -20 dBc	Pass

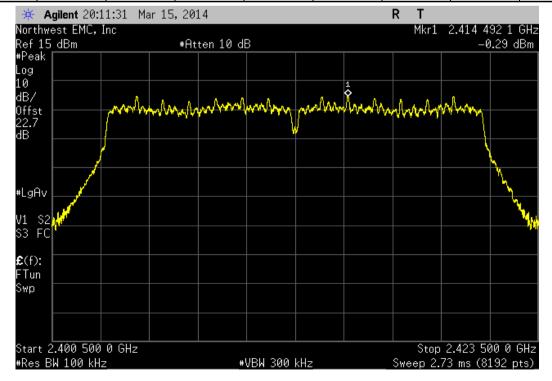


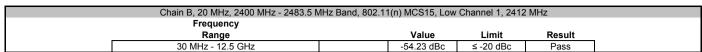


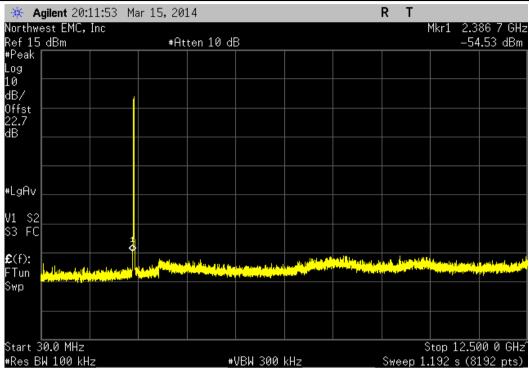




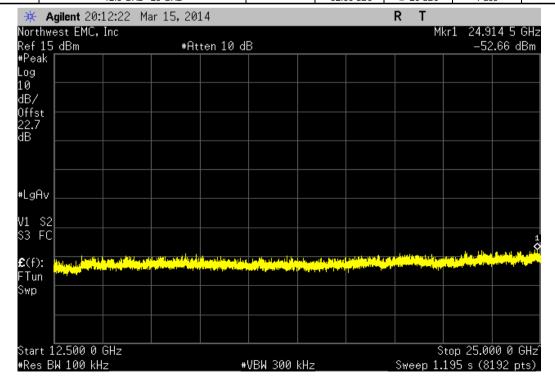




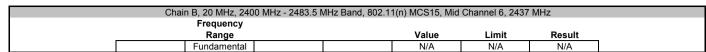


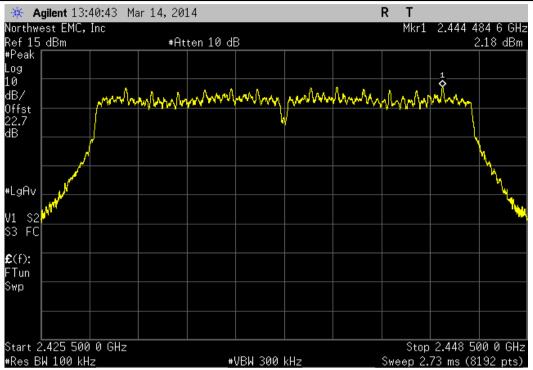


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz E	Band, 802.11(n) MCS15, Low	Channel 1, 2412	MHz
Frequency	` ` ` ` `		
Range	Value	Limit	Result
12.5 GHz - 25 GHz	-52.36 dBc	≤ -20 dBc	Pass

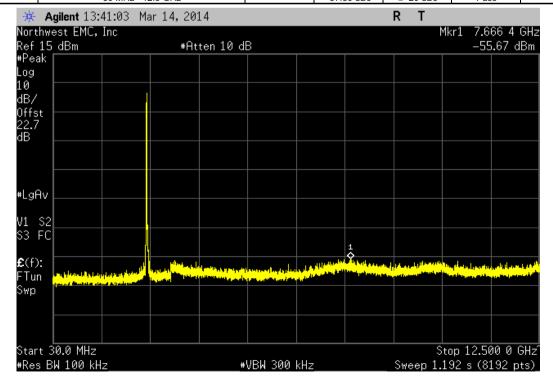




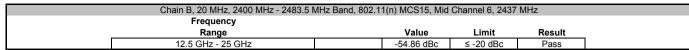


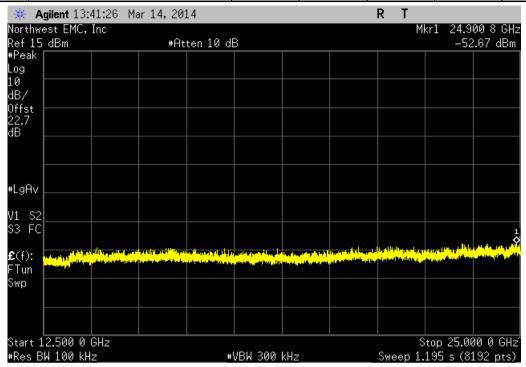


		01 10 010=				
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz						
Frequency						
Range	Value	Limit	Result			
30 MHz - 12.5 GHz	-57.86 dBc	≤ -20 dBc	Pass			

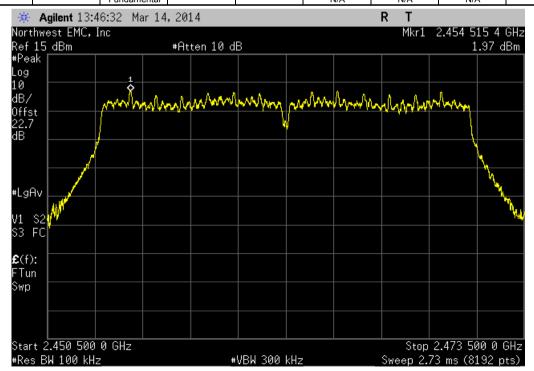




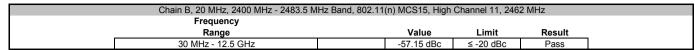


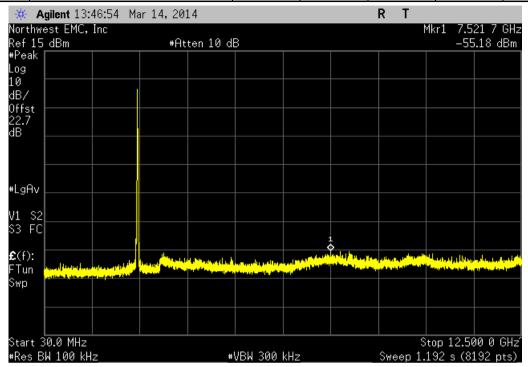


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz					
Frequency					
Range			Value	Limit	Result
Fundamental			N/A	N/A	N/A

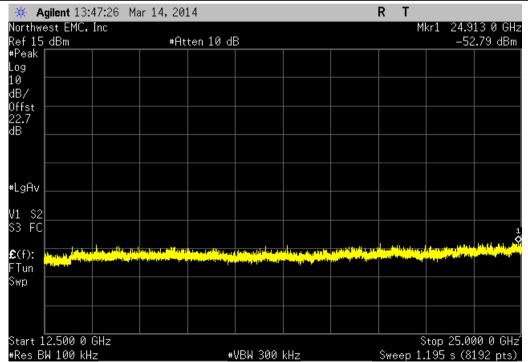








Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz								
	Frequency							
	Range		Value	Limit	Result			





Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

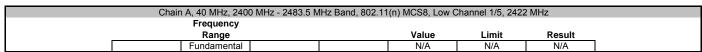
					Interval
Description	Manufacturer	Model	ID	Last Cal.	(mo.)
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Power Meter	Agilent	N1913A	SQR	4/29/2013	36
Power Sensor	Agilent	E9300H	SQO	4/29/2013	36
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24

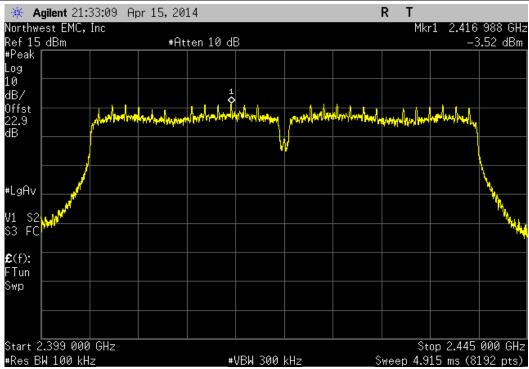
TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

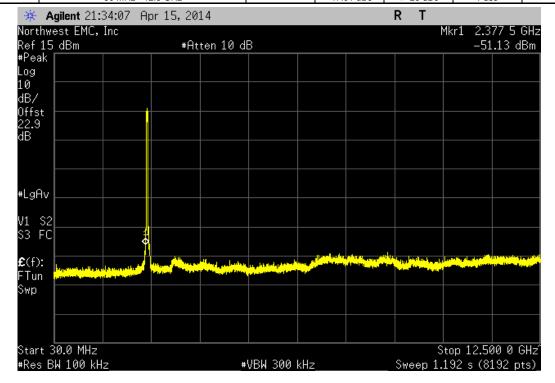


		H.H.H.K.				
EUT	: Model 1631			Work Order:	MCSO1698	
	: 006840341053				04/16/14	
	: Microsoft Corporation			Temperature:		
Attendees				Humidity:		
Project				Barometric Pres.:		
	: Jared Ison		Power: 110VAC/60Hz	Job Site:		
TEST SPECIFICAT	TONS		Test Method			
FCC 15.247:2014			ANSI C63.10:2009			
COMMENTS						
Modes of operatio	n tested were client provi	ided. Reference power level table for channel po	ower setting.			
	M TEST STANDARD					
None			~			
Configuration #	6		$\supset \mathcal{O}$			
Comiguration #	•	Signature				
		Signature	Frequency			
l			Range	Value	Limit	Result
Chain A			runge	value		resuit
C.I.G.II / I	40 MHz					
		2483.5 MHz Band				
		802.11(n) MCS8				
		Low Channel 1/5, 2422 MF	Fundamental	N/A	N/A	N/A
		Low Channel 1/5, 2422 MF	30 MHz - 12.5 GHz	-47.61 dBc	≤ -20 dBc	Pass
		Low Channel 1/5, 2422 MF	12.5 GHz - 25 GHz	-43.13 dBc	≤ -20 dBc	Pass
		Mid Channel 4/8, 2437 MH	Fundamental	N/A	N/A	N/A
		Mid Channel 4/8, 2437 MH	30 MHz - 12.5 GHz	-50.05 dBc	≤ -20 dBc	Pass
		Mid Channel 4/8, 2437 MH	12.5 GHz - 25 GHz	-42.92 dBc	≤ -20 dBc	Pass
		High Channel 7/11, 2452 N	Fundamental	N/A	N/A	N/A
		High Channel 7/11, 2452 N	30 MHz - 12.5 GHz	-49.44 dBc	≤ -20 dBc	Pass
		High Channel 7/11, 2452 N	12.5 GHz - 25 GHz	-42.8 dBc	≤ -20 dBc	Pass
		802.11(n) MCS15				
		Low Channel 1/5, 2422 MF	Fundamental	N/A	N/A	N/A
		Low Channel 1/5, 2422 MF	30 MHz - 12.5 GHz	-47.11 dBc	≤ -20 dBc	Pass
		Low Channel 1/5, 2422 MF Mid Channel 4/8, 2437 MH	12.5 GHz - 25 GHz Fundamental	-43.22 dBc N/A	≤ -20 dBc N/A	Pass N/A
		Mid Channel 4/8, 2437 MH Mid Channel 4/8, 2437 MH	30 MHz - 12.5 GHz	-50.32 dBc	N/A ≤ -20 dBc	Pass
		Mid Channel 4/8, 2437 MH	12.5 GHz - 25 GHz	-50.32 dBC -42.83 dBc	≤ -20 dBc ≤ -20 dBc	Pass
		High Channel 7/11, 2452 N	Fundamental	N/A	N/A	N/A
		High Channel 7/11, 2452 N	30 MHz - 12.5 GHz	-50.15 dBc	≤ -20 dBc	Pass
		High Channel 7/11, 2452 N	12.5 GHz - 25 GHz	-43.48 dBc	≤ -20 dBc	Pass
Chain B		riigii Chainioi 7711, 2102 ii	12.0 01 12 20 01 12	10.10 420	_ 20 050	1 400
	40 MHz					
		2483.5 MHz Band				
		802.11(n) MCS8				
		Low Channel 1/5, 2422 MF	Fundamental	N/A	N/A	N/A
		Low Channel 1/5, 2422 MF	30 MHz - 12.5 GHz	-47.41 dBc	≤ -20 dBc	Pass
		Low Channel 1/5, 2422 MF	12.5 GHz - 25 GHz	-43.85 dBc	≤ -20 dBc	Pass
		Mid Channel 4/8, 2437 MH	Fundamental	N/A	N/A	N/A
		Mid Channel 4/8, 2437 MH	30 MHz - 12.5 GHz	-50.62 dBc	≤ -20 dBc	Pass
		Mid Channel 4/8, 2437 MH	12.5 GHz - 25 GHz	-43.56 dBc	≤ -20 dBc	Pass
		High Channel 7/11, 2452 N	Fundamental 30 MHz - 12.5 GHz	N/A -50.86 dBc	N/A ≤ -20 dBc	N/A Pass
		High Channel 7/11, 2452 N				
		High Channel 7/11, 2452 N	12.5 GHz - 25 GHz	-43.27 dBc	≤ -20 dBc	Pass
		802.11(n) MCS15 Low Channel 1/5, 2422 MF	Fundamental	N/A	N/A	N/A
		Low Channel 1/5, 2422 MF	30 MHz - 12.5 GHz	-46.01 dBc	N/A ≤ -20 dBc	Pass
		Low Channel 1/5, 2422 MF	12.5 GHz - 25 GHz	-46.01 dBC -43.34 dBc	≤ -20 dBc ≤ -20 dBc	Pass
		Mid Channel 4/8, 2437 MH	Fundamental	N/A	N/A	N/A
		Mid Channel 4/8, 2437 MH	30 MHz - 12.5 GHz	-51.05 dBc	≤ -20 dBc	Pass
		Mid Channel 4/8, 2437 MH	12.5 GHz - 25 GHz	-43.98 dBc	≤ -20 dBc	Pass
		High Channel 7/11, 2452 N	Fundamental	N/A	N/A	N/A
		High Channel 7/11, 2452 N	30 MHz - 12.5 GHz	-51.19 dBc	≤ -20 dBc	Pass
		High Channel 7/11, 2452 N	12.5 GHz - 25 GHz	-43.91 dBc	≤ -20 dBc	Pass
		· · · · · ·				

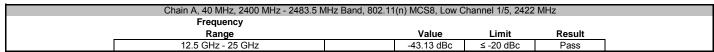


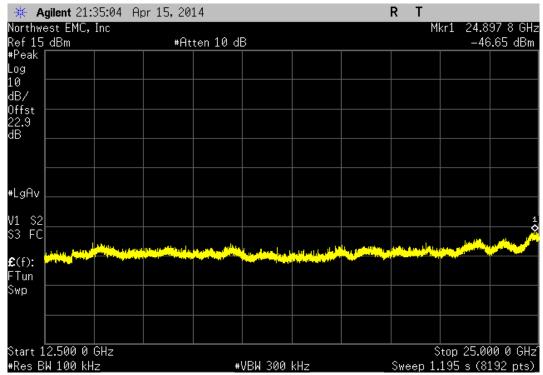


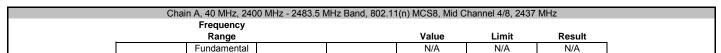
Chain A, 40 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1/5, 2422 MHz					
Frequency					
Range		Value	Limit	Result	
30 MHz - 12.5 GHz		-47 61 dBc	≤ -20 dBc	Pass	

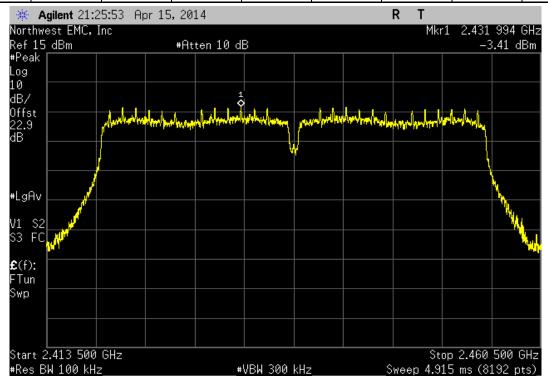


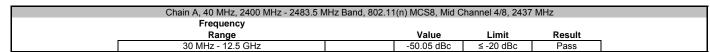


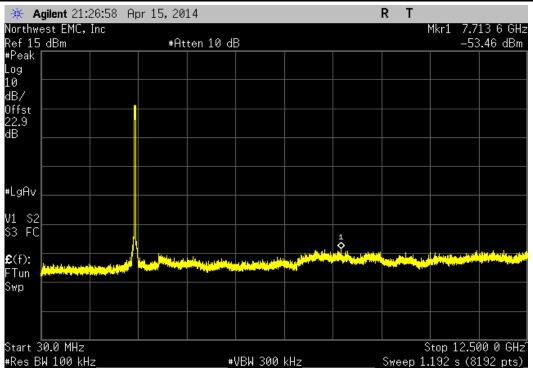




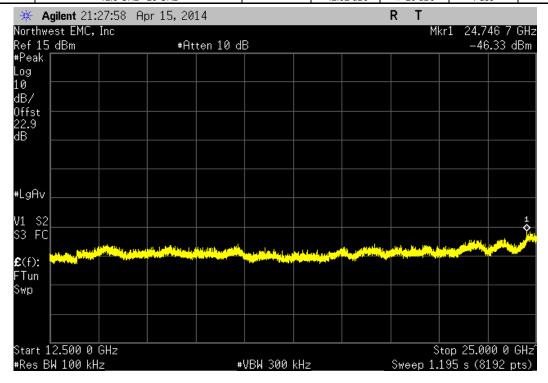


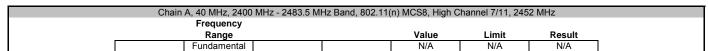


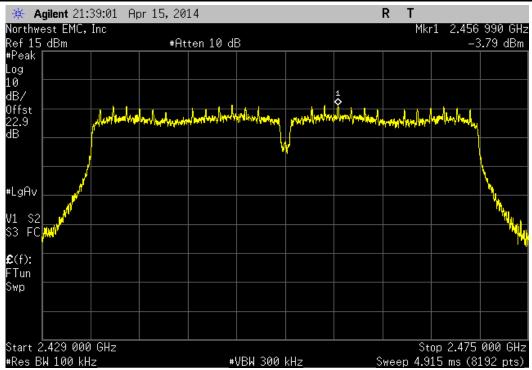




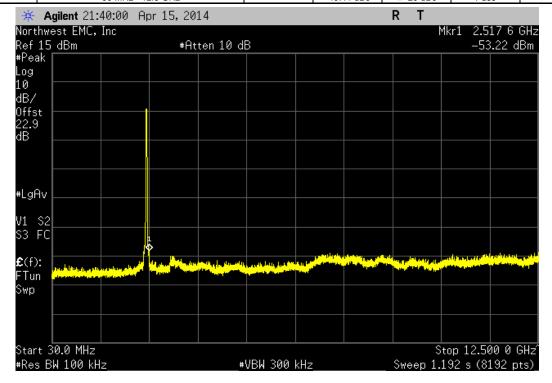
Chain A, 40 MHz, 2400 MHz - 2483.5 MH	Hz Band, 802.11(n) MCS8, Mid C	hannel 4/8, 2437	MHz
Frequency			
Range	Value	Limit	Result
12.5 GHz - 25 GHz	-42.92 dBc	≤ -20 dBc	Pass

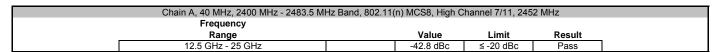


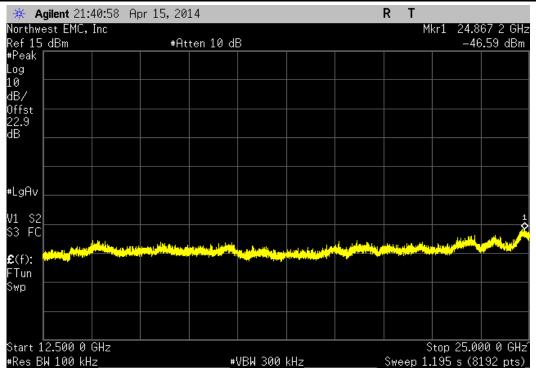


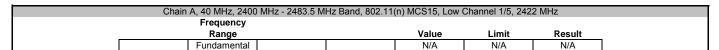


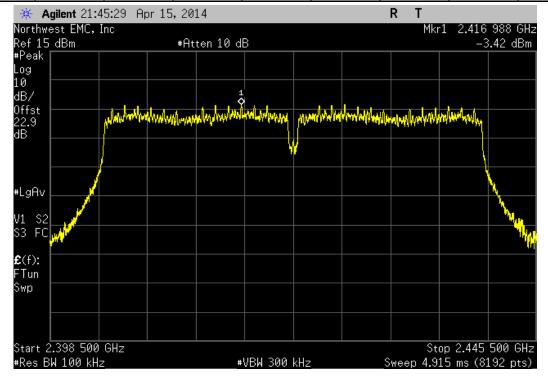
Chain A, 40 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 7/11, 2452 MHz					
· _ · · · ·	, () , 3 .	, ,			
Frequency					
Range	Value	Limit	Result		
30 MHz - 12.5 GHz	-49.44 dBc	≤ -20 dBc	Pass		

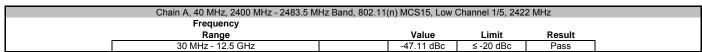


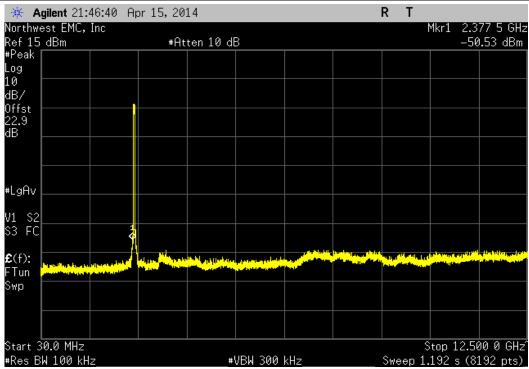




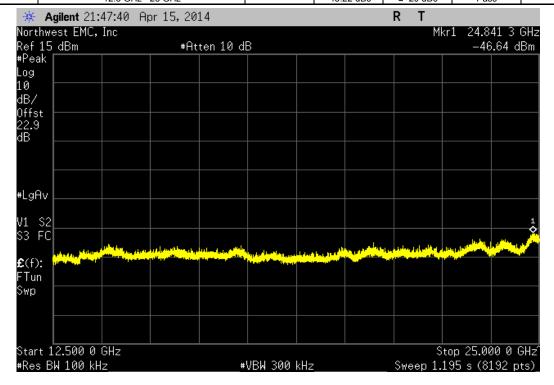


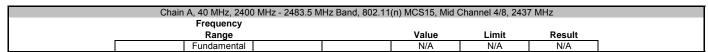


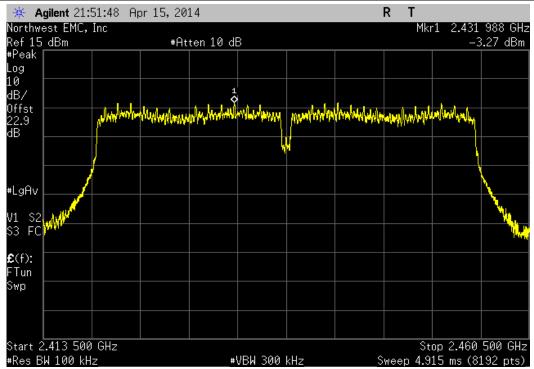


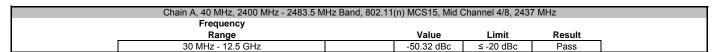


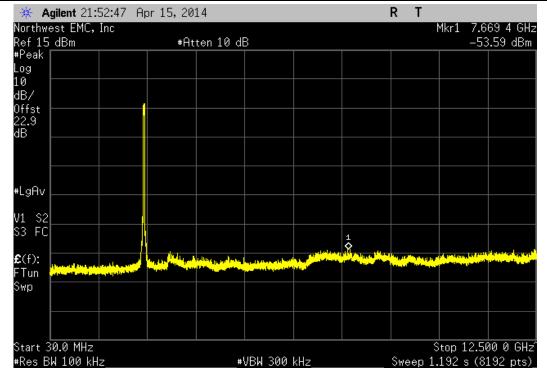
Chain A, 40 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Low Channel 1/5, 2422 MHz				
Frequency				
Range		Value	Limit	Result
12 5 GHz - 25 GHz		-43 22 dBc	< -20 dBc	Pass

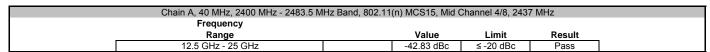


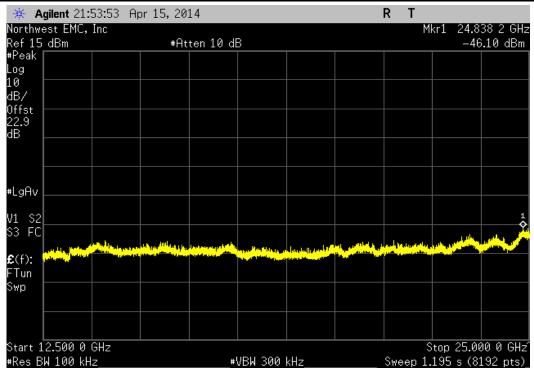


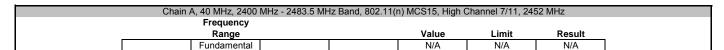


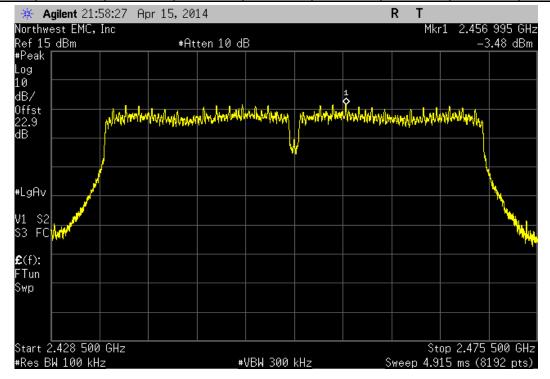




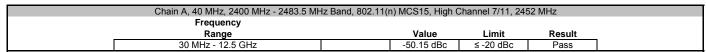


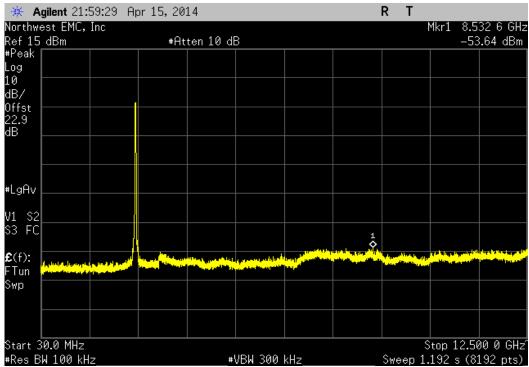




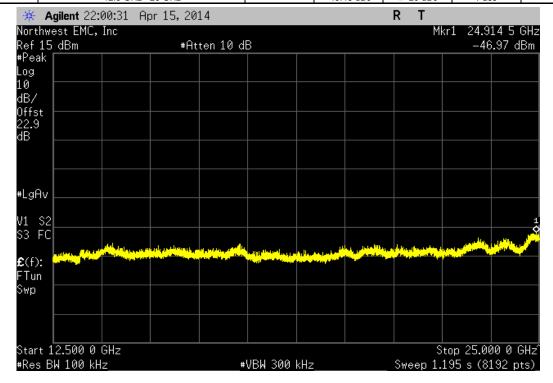


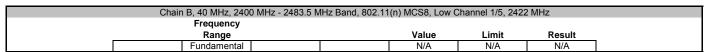


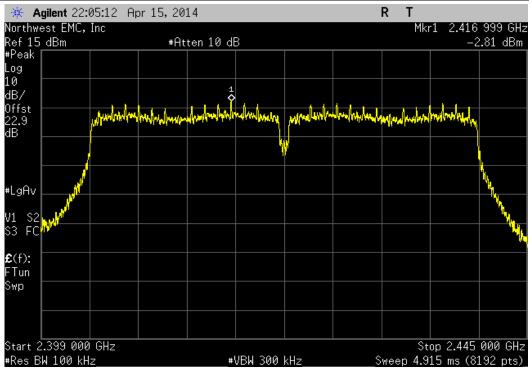




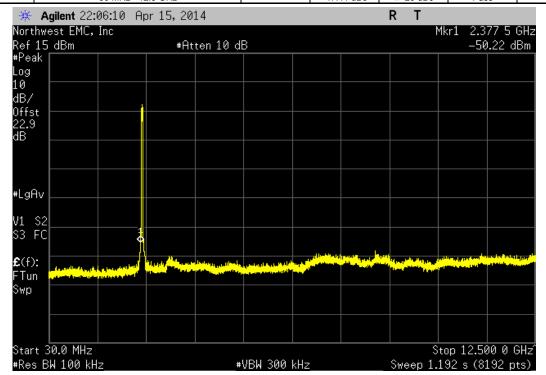
Chain A, 40 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 7/11, 2452 MHz				
Frequency	. , ,			
Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-43 48 dBc	≤ -20 dBc	Pass	





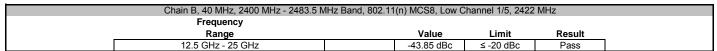


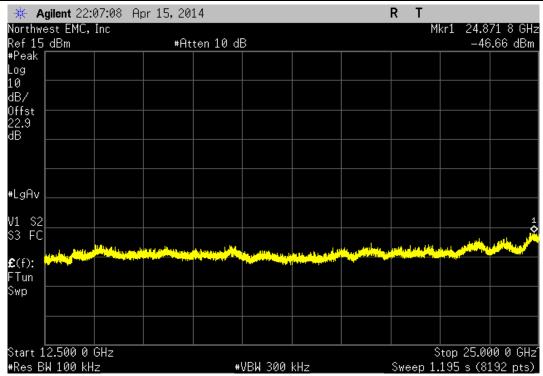
Chain B, 40 MHz, 2400 MHz - 2483.5 MH	Iz Band, 802,11(n) MCS8, Low C	hannel 1/5, 2422	MHz
Frequency			
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-47.41 dBc	≤ -20 dBc	Pass

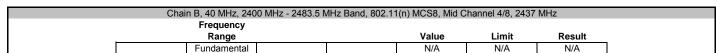


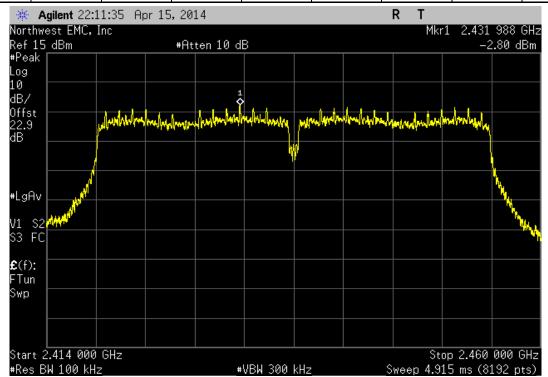




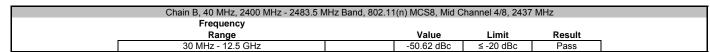


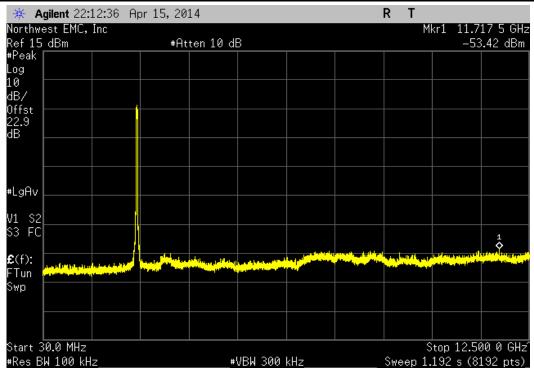




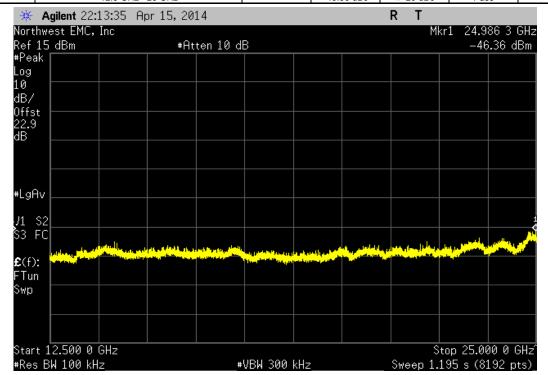


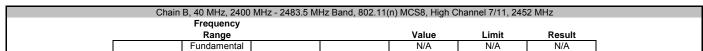


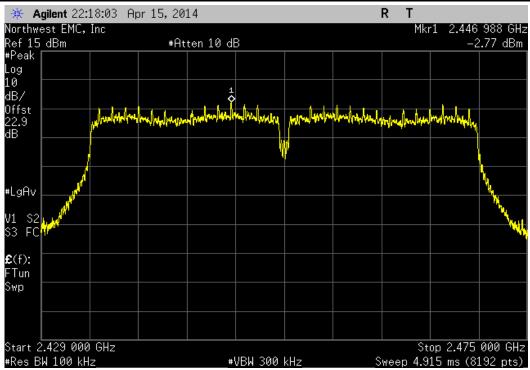




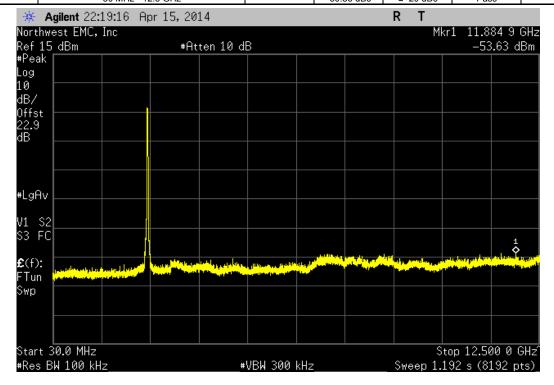
Chain B, 40 MHz, 2400 MHz - 2483.5 MH	Hz Band, 802.11(n) MCS8, Mid C	hannel 4/8, 2437	MHz
Frequency	, , ,	,	
Range	Value	Limit	Result
12.5 GHz - 25 GHz	-43 56 dBc	≤ -20 dBc	Pass

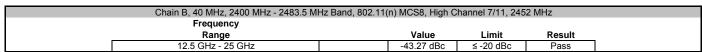


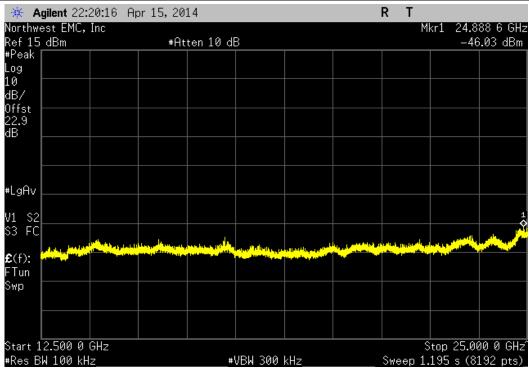


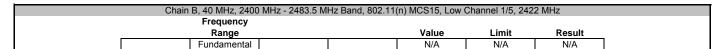


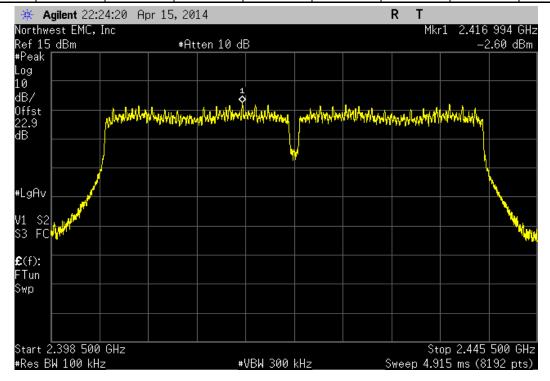
Chain B, 40 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 7/11, 2452 MHz			
Frequency			
Range	Value	Limit	Result
30 MHz - 12 5 GHz	-50.86 dBc	≤ -20 dBc	Pass

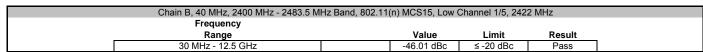


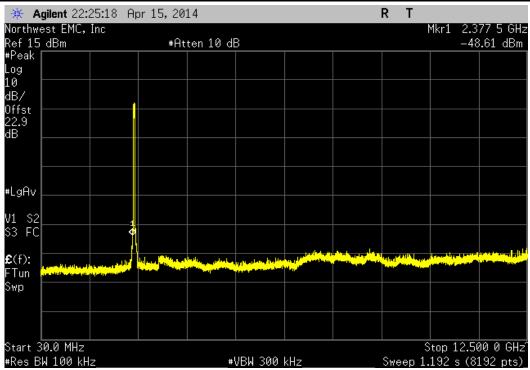




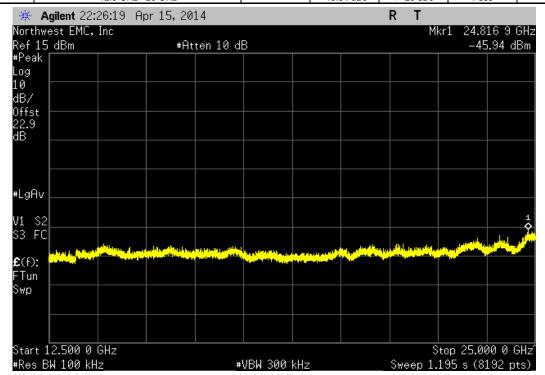


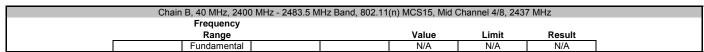


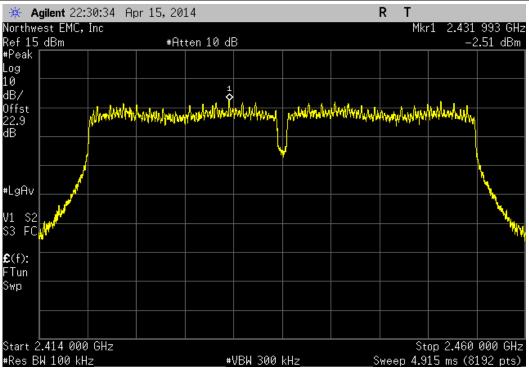




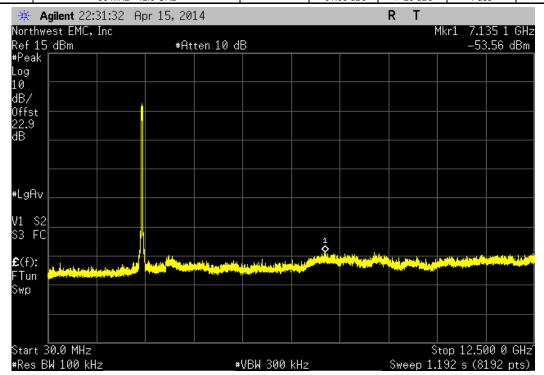
Chain B, 40 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Low Channel 1/5, 2422 MHz				
Frequency	, ,			
Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-43 34 dBc	≤ -20 dBc	Pass	

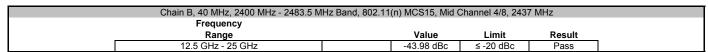


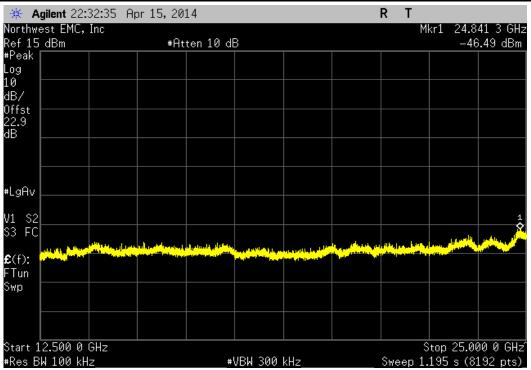


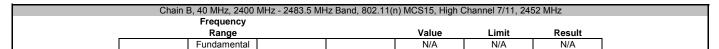


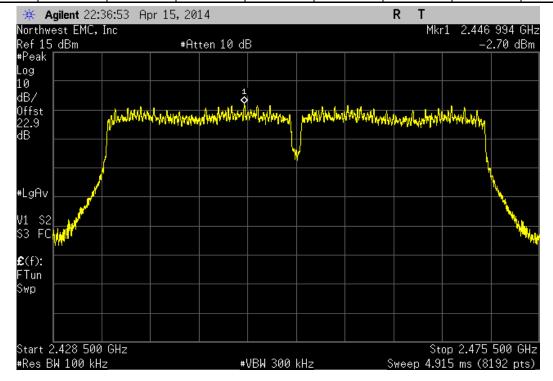
Chain B, 40 MHz, 2400 MHz - 2483.5 MHz	Band, 802.11(n) MCS15, Mid (Channel 4/8, 2437	7 MHz
Frequency	, ,		
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-51.05 dBc	≤ -20 dBc	Pass



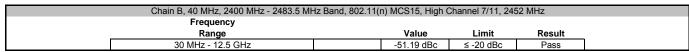


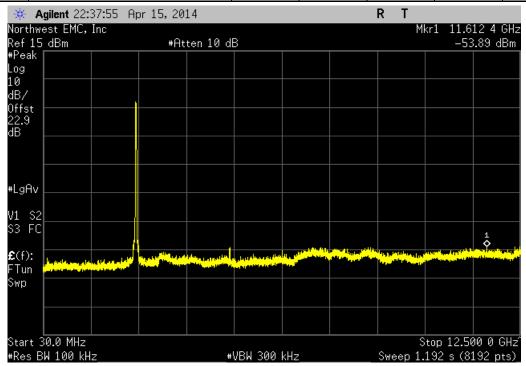




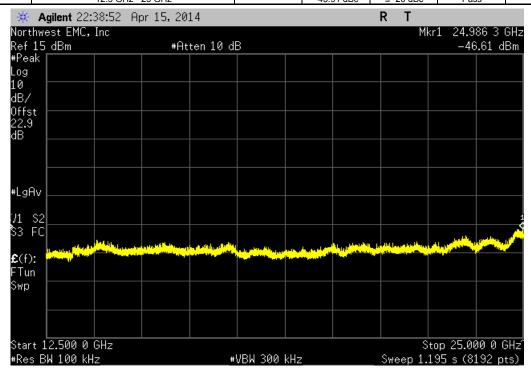








Chain B, 40 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 7/11, 2452 MHz					
	Frequency				
	Range		Value	Limit	Result
	12 5 GHz - 25 GHz		-43 91 dBc	< -20 dBc	Pass





Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

					Interval
Description	Manufacturer	Model	ID	Last Cal.	(mo.)
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
MXG Analog Signal Generator	Agilent	N5181A	TIG	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24

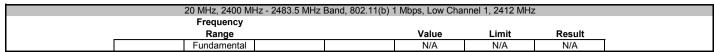
TEST DESCRIPTION

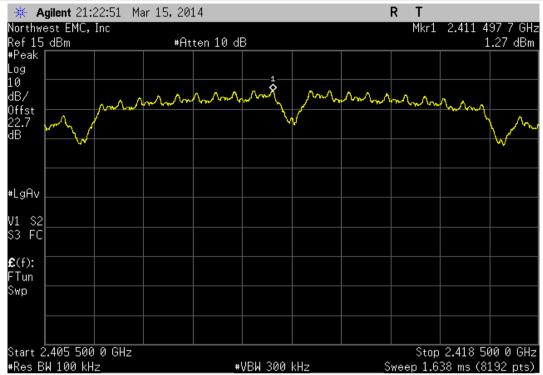
The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.



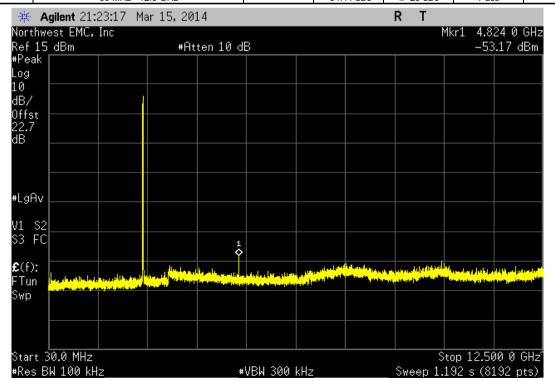
	Model 1631		Work Order: M		
Serial Number:	Microsoft Corporation		Date: 0: Temperature: 2		
Attendees:			Humidity: 2		
Project:		D		007	
TEST SPECIFICATI	Brandon Hobbs, Jared Ison	Power: 110VAC/60Hz Test Method	Job Site: E	V06	
FCC 15.247:2014		ANSI C63.10:2009			
COMMENTS Modes of operation	tested were client provided.				
modes of operation	rested were enem provided.				
DEVIATIONS EDON	TEST STANDARD				
None	TEST STANDARD				
Configuration #	4	2 1 1			
Configuration #	1 Signature	Jan Jan			
	3,3	Frequency			
20 MHz		Range	Value	Limit	Result
	2400 MHz - 2483.5 MHz Band				
	802.11(b) 1 Mbps	Fire days entel	N/A	N1/A	NI/A
	Low Channel 1, 2412 MHz Low Channel 1, 2412 MHz	Fundamental 30 MHz - 12.5 GHz	N/A -54.44 dBc	N/A ≤ -20 dBc	N/A Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-54.16 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-52.4 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-55.41 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz High Channel 11, 2462 MHz	Fundamental 30 MHz - 12.5 GHz	N/A -51.46.dBc	N/A < -20 dBc	N/A Page
	High Channel 11, 2462 MHz High Channel 11, 2462 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-51.46 dBc -56.83 dBc	≤ -20 dBc ≤ -20 dBc	Pass Pass
	802.11(b) 11 Mbps	12.3 OHZ - 23 OHZ	-30.03 UDC	⊒ -20 UDU	1 455
	Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-54.25 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-54.29 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
	Mid Channel 6, 2437 MHz Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-60.13 dBc -55.03 dBc	≤ -20 dBc ≤ -20 dBc	Pass Pass
	High Channel 11, 2462 MHz	Fundamental	-55.03 dBC N/A	N/A	N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-58.85 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-56.89 dBc	≤ -20 dBc	Pass
	802.11(g) 6 Mbps	<u> </u>			
	Low Channel 1, 2412 MHz Low Channel 1, 2412 MHz	Fundamental 30 MHz - 12.5 GHz	N/A -54.37 dBc	N/A ≤ -20 dBc	N/A Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 12.5 GHz	-54.37 dBC -53.22 dBc	≤ -20 dBc ≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-57.44 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-54.08 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.9 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz 802.11(g) 36 Mbps	12.5 GHz - 25 GHz	-54.24 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-55.29 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-52.1 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-57.67 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz High Channel 11, 2462 MHz	12.5 GHz - 25 GHz Fundamental	-53.51 dBc N/A	≤ -20 dBc N/A	Pass N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.91 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-54.69 dBc	≤ -20 dBc	Pass
	802.11(g) 54 Mbps	First 11		- N/A	NI/A
	Low Channel 1, 2412 MHz Low Channel 1, 2412 MHz	Fundamental	N/A -56.32 dBc	N/A ≤ -20 dBc	N/A Page
	Low Channel 1, 2412 MHz Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-56.32 dBc -51.57 dBc	≤ -20 dBc ≤ -20 dBc	Pass Pass
	Mid Channel 6, 2437 MHz	Fundamental	-51.57 dBC N/A	N/A	N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-57.55 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-54.59 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
	High Channel 11, 2462 MHz High Channel 11, 2462 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-57.51 dBc -54.98 dBc	≤ -20 dBc ≤ -20 dBc	Pass Pass
	802.11(n) MCS0	12.5 GHZ - 25 GHZ	-54.96 dbC	≥ -20 UBC	rass
	Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-54.05 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-52.06 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz Mid Channel 6, 2437 MHz	Fundamental 30 MHz - 12.5 GHz	N/A -57.94 dBc	N/A ≤ -20 dBc	N/A Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-57.94 dBc -54 dBc	≤ -20 dBc ≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.45 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-53.36 dBc	≤ -20 dBc	Pass
	802.11(n) MCS7 Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-54.64 dBc	≤ -20 dBc	Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-52.67 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-57.67 dBc	≤ -20 dBc	Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-54.63 dBc	≤ -20 dBc	Pass
	High Channel 11, 2462 MHz High Channel 11, 2462 MHz	Fundamental 30 MHz - 12.5 GHz	N/A -56.49 dBc	N/A ≤ -20 dBc	N/A Pass
	High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-53.53 dBc	≤ -20 dBc ≤ -20 dBc	Pass
	5 ·············				



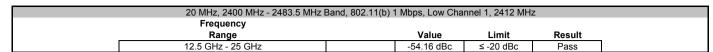


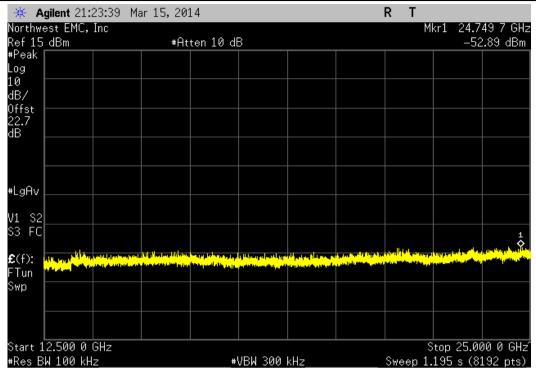


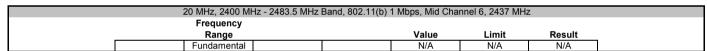
20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz				
Frequency				
Range		Value	Limit	Result
30 MHz - 12 5 GHz		-54 44 dBc	< -20 dBc	Pass

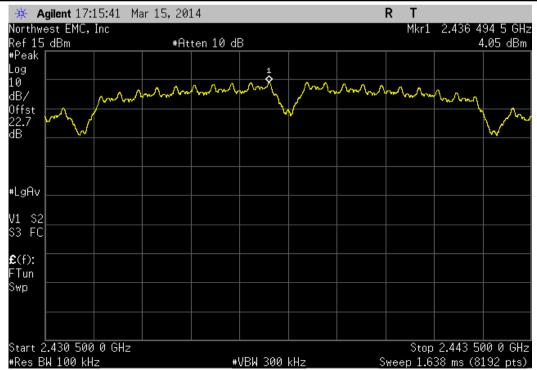




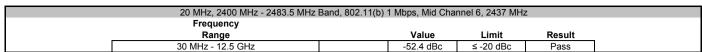


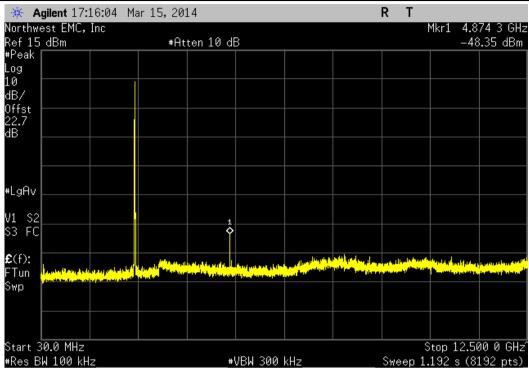




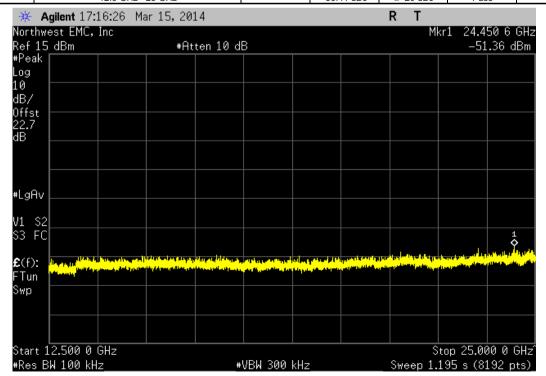




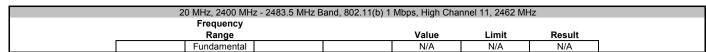


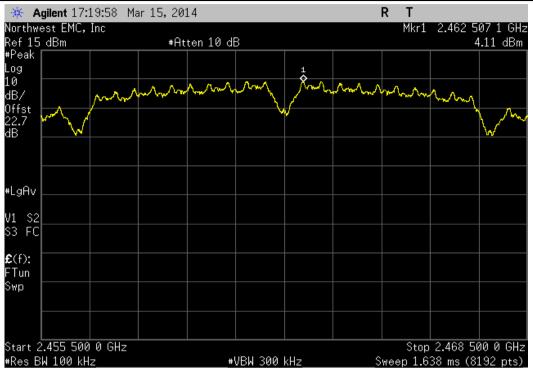


20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz				
	Frequency			
	Range	Value	Limit	Result
	12.5 GHz - 25 GHz	-55.41 dBc	≤ -20 dBc	Pass

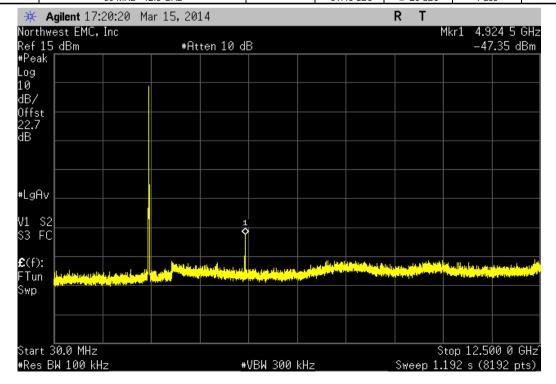




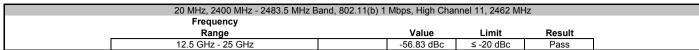


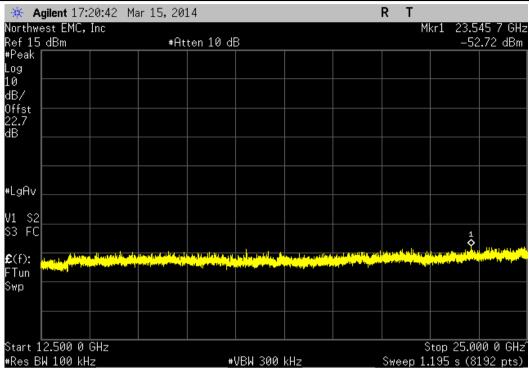


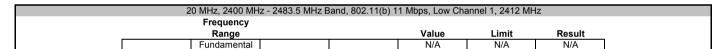
20 MHz, 2400 MHz - 2483.5 MHz Bar	id, 802.11(b) 1 Mbps, High Char	nnel 11, 2462 MH	Z
Frequency			
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-51.46 dBc	≤ -20 dBc	Pass

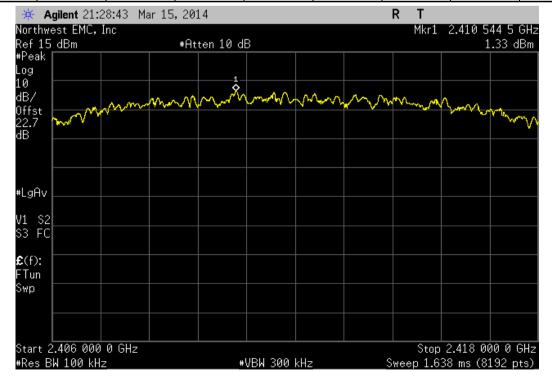




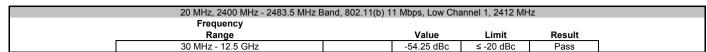


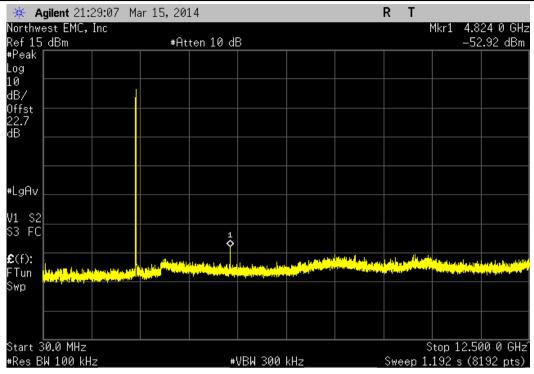




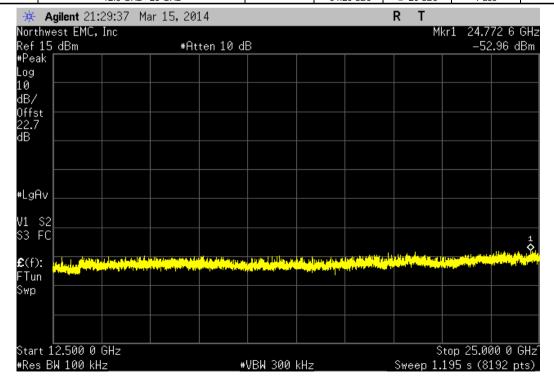




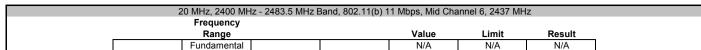


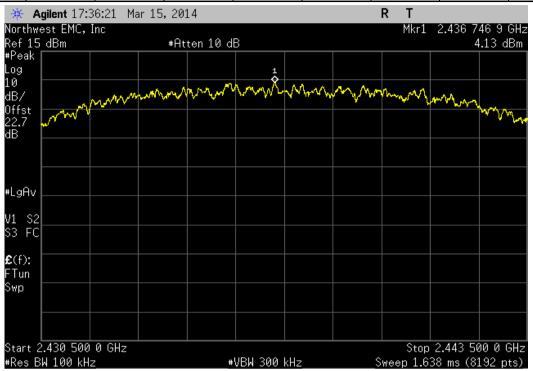


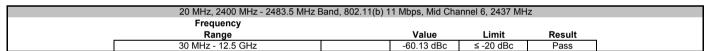
20 MHz, 2400 MHz - 2483.5 MHz	Band, 802.11(b) 11	Mbps, Low Cha	annel 1, 2412 MHz	<u>z</u>
Frequency	• • • • • • • • • • • • • • • • • • • •		·	
Range		Value	Limit	Result
12.5 GHz - 25 GHz		-54.29 dBc	≤ -20 dBc	Pass

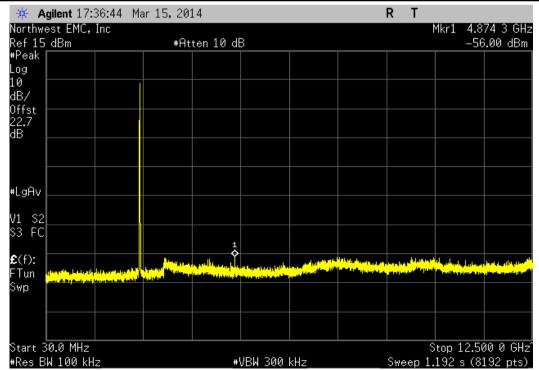




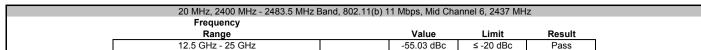


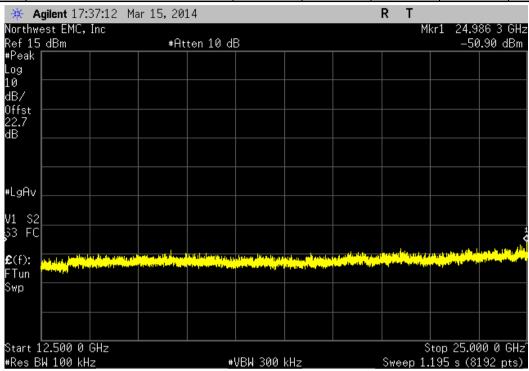


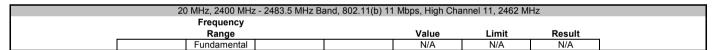


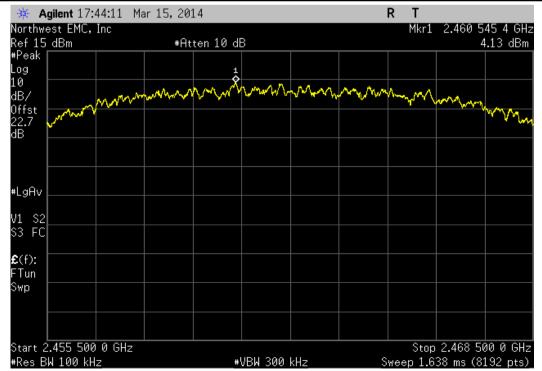




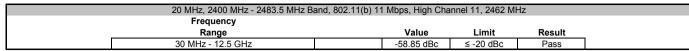


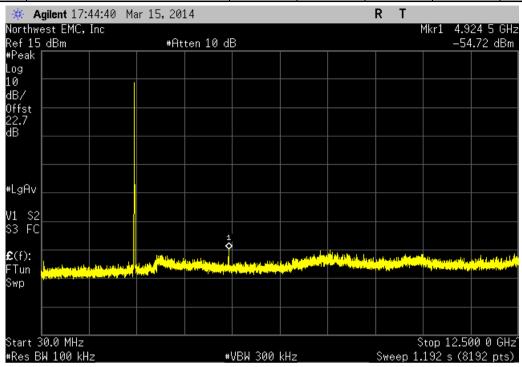




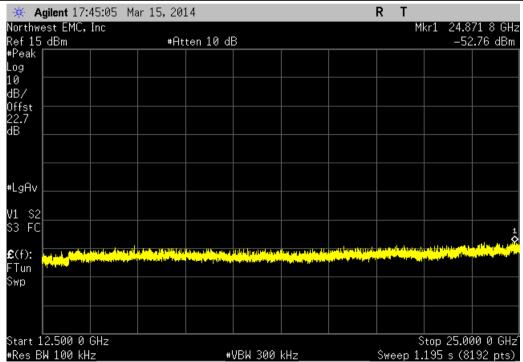




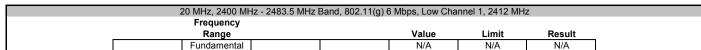


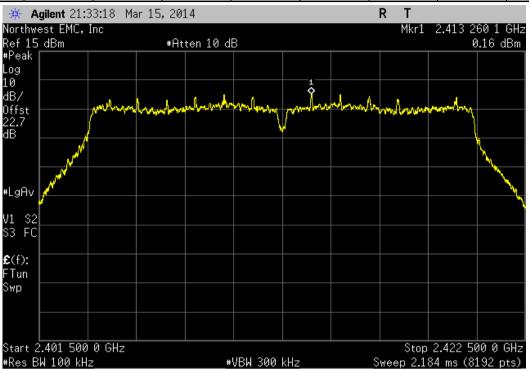


20 MHz, 2400 MHz - 2483.5 MHz Ba	and, 802.11(b) 11	Mbps, High Cha	ınnel 11, 2462 Mł	Ηz	
Frequency					
Range		Value	Limit	Result	
12.5 GHz - 25 GHz		-56.89 dBc	≤ -20 dBc	Pass	

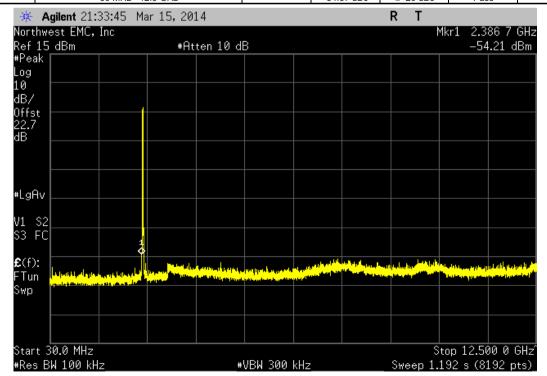




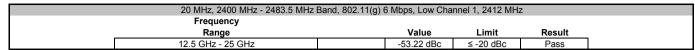


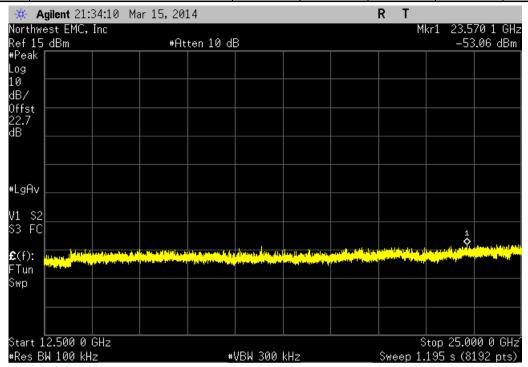


20 MHz, 2400 MHz - 2483.5 MHz Band,	802.11(g) 6 Mbps, Low Char	nel 1, 2412 MHz	
Frequency			
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-54.37 dBc	≤ -20 dBc	Pass

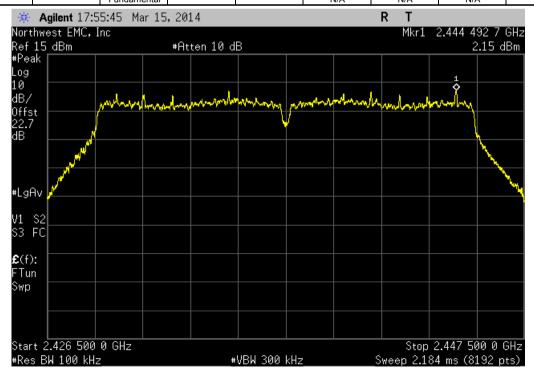




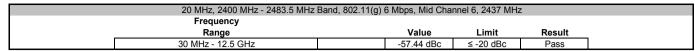


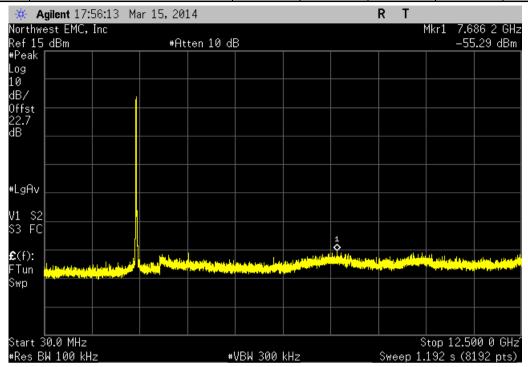


20 MHz, 2400 MH	lz - 2483.5 MHz	Band, 802.11(g)	6 Mbps, Mid Cha	nnel 6, 2437 MHz	<u>z</u>
Frequency					
Range			Value	Limit	Result
Fundamental			N/A	N/A	N/A

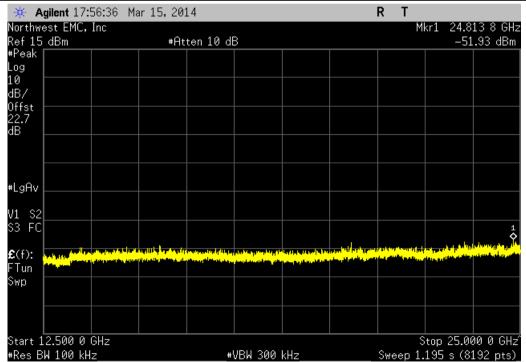




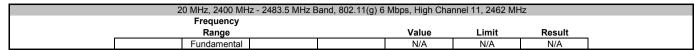


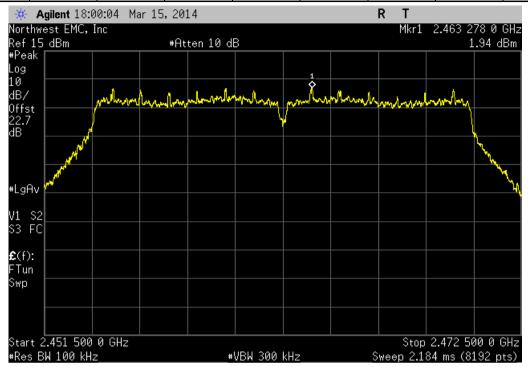


ı	20 MHz, 2400 MHz - 24	3.5 MHz Band, 802.11(g) (6 Mbps, Mid Cha	nnel 6, 2437 MHz	1	
I	Frequency					
	Range		Value	Limit	Result	
ı	Kange		Value		Result	

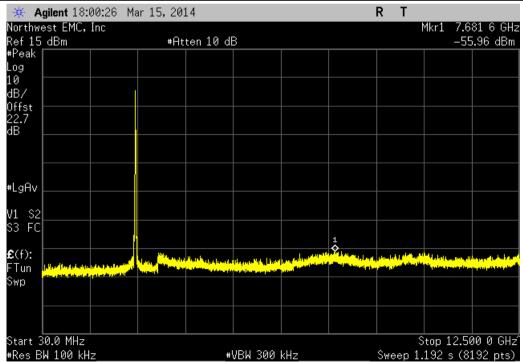




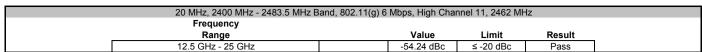


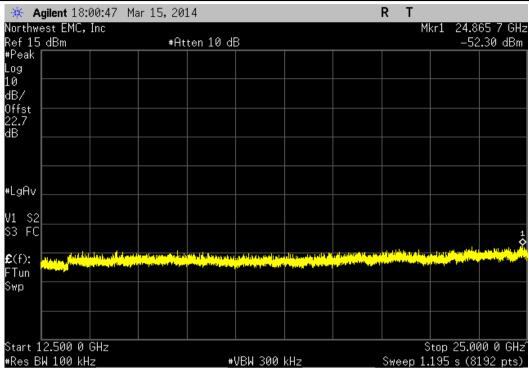


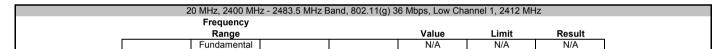
20 MHz, 2400 MHz - 2483.5 MHz B	and, 802.11(g) 6	Mbps, High Chai	nnel 11, 2462 MH	z	
Frequency					
Range		Value	Limit	Result	
rungo		Tuiuo		Nosuit	

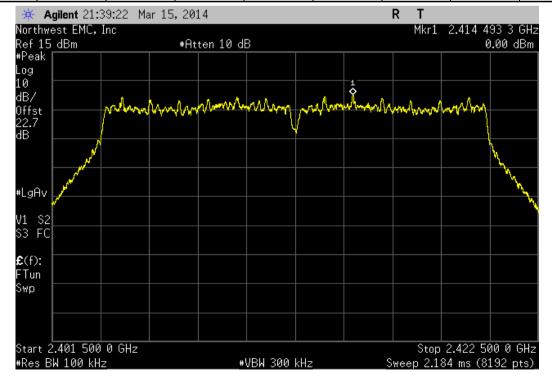




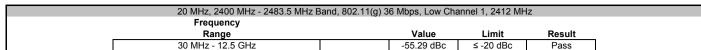


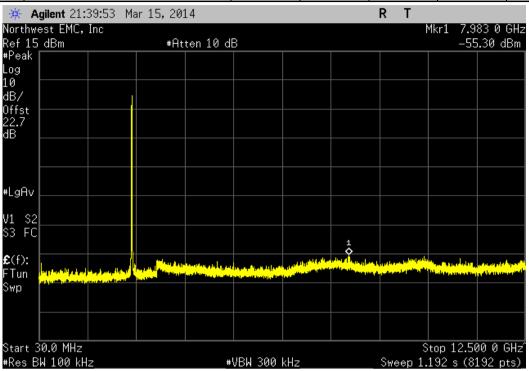




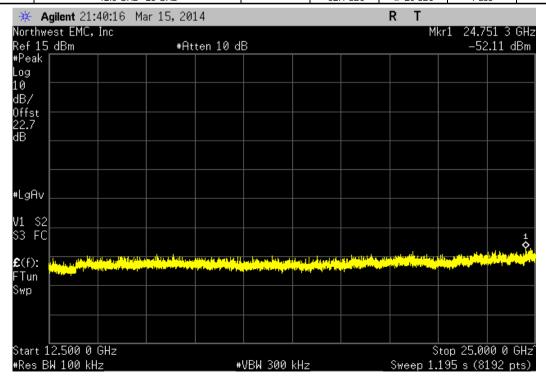




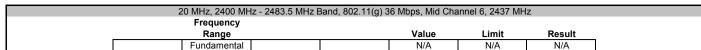


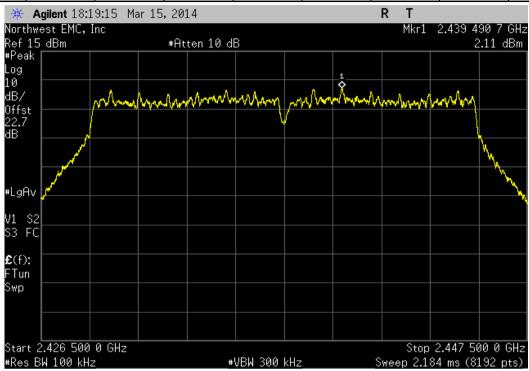


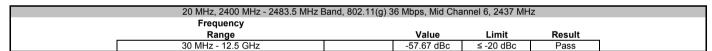
20 MHz, 2400 MHz - 2483.5 MHz	Band, 802.11(g) 3	6 Mbps, Low Cha	annel 1, 2412 MHz	<u>z</u>
Frequency				
Range		Value	Limit	Result
12.5 GHz - 25 GHz		-52 1 dBc	≤ -20 dBc	Pass

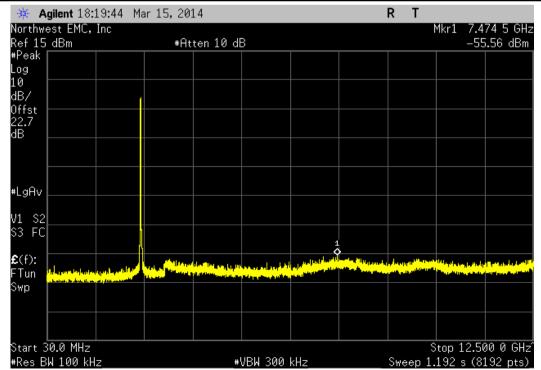




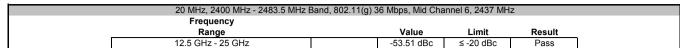


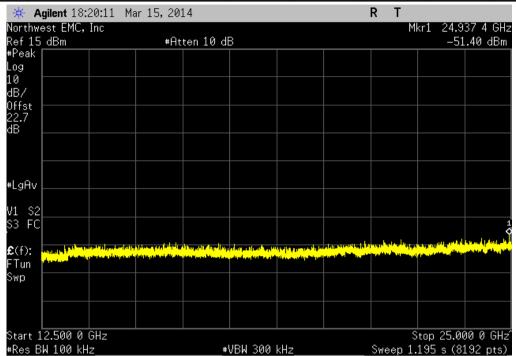


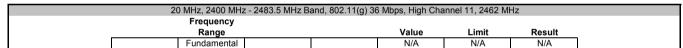


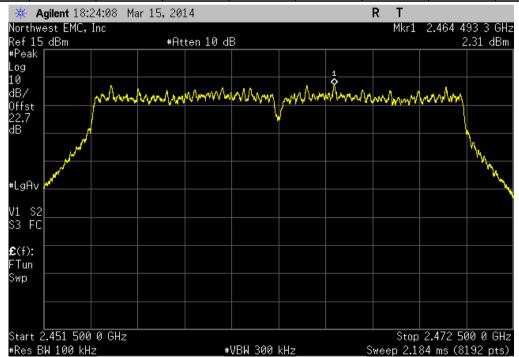




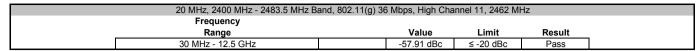


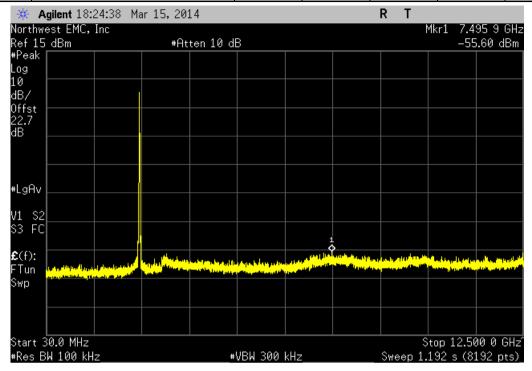




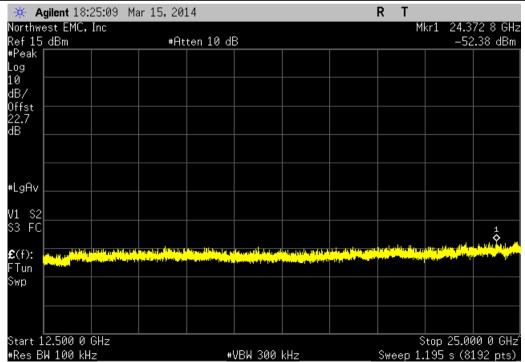




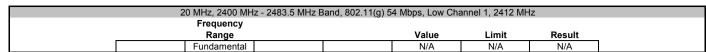


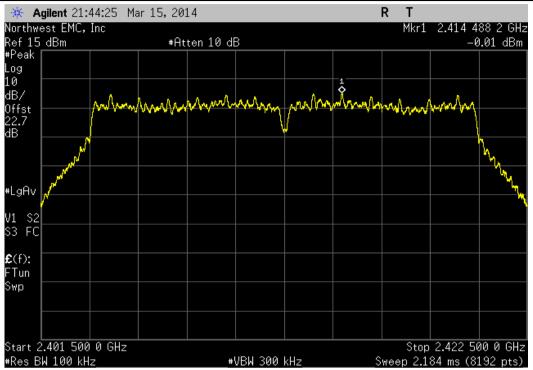


20 MHz, 2400 MHz - 2483.5 MHz Ba	and, 802.11(g) 36	6 Mbps, High Cha	nnel 11, 2462 MF	Ηz	
Frequency					
Range		Value	Limit	Result	
				rtoouit	

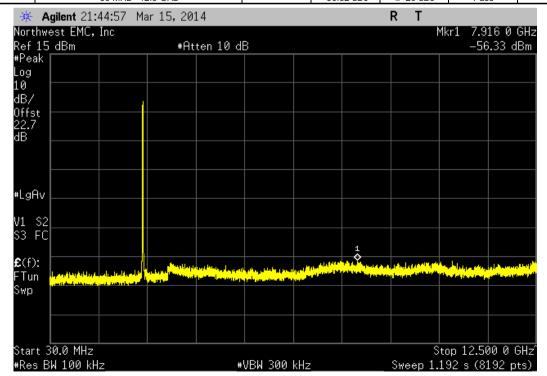




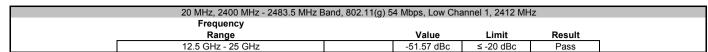


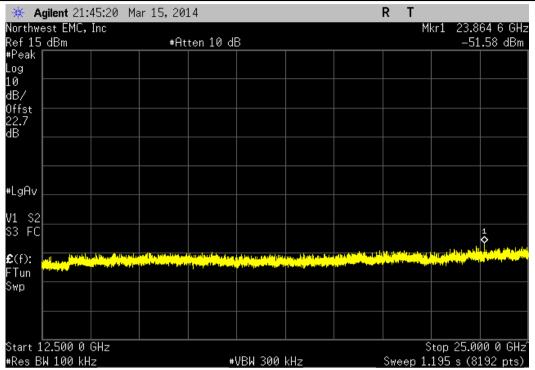


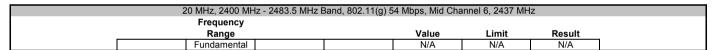
20 MHz, 2400 MHz - 2483.5 MHz Band,	802.11(g) 54 Mbps, Low Cha	nnel 1, 2412 MHz	2
Frequency	, ,	·	
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-56.32 dBc	≤ -20 dBc	Pass

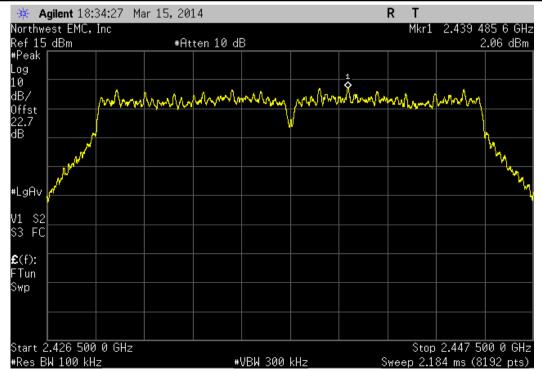




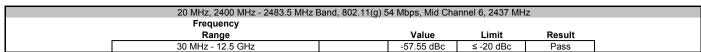


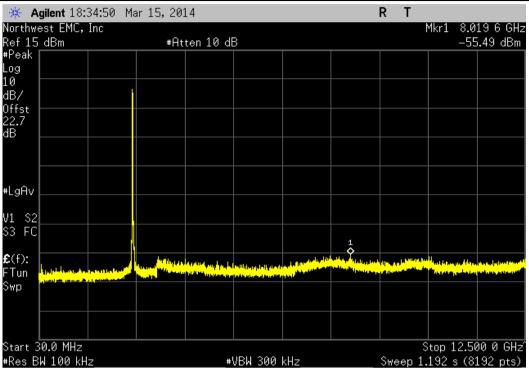




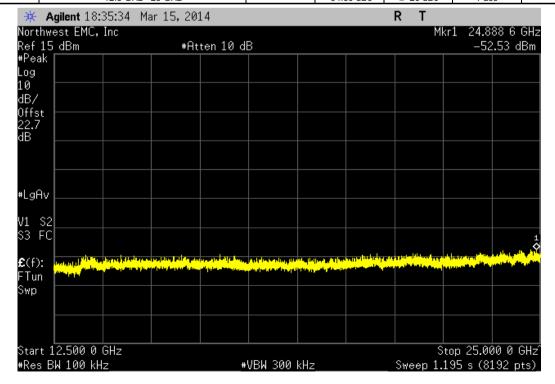




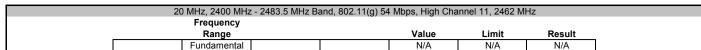


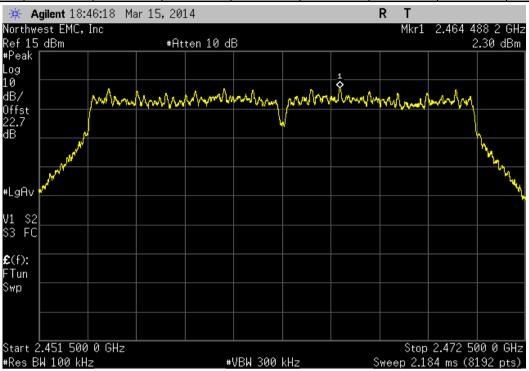


20 MHz, 2400 MHz - 2483.5 MHz Band, 8	02.11(g) 54 Mbps, Mid Cha	nnel 6, 2437 MHz	2
Frequency			
Range	Value	Limit	Result
12.5 GHz - 25 GHz	-54.59 dBc	≤ -20 dBc	Pass

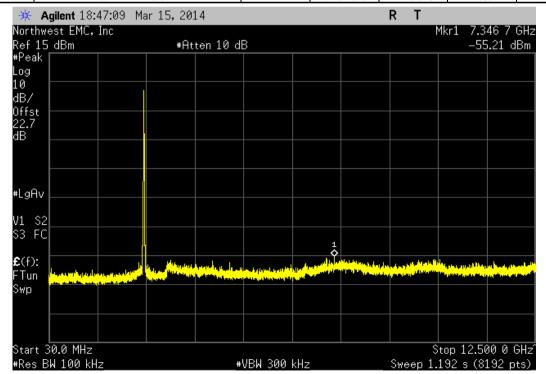




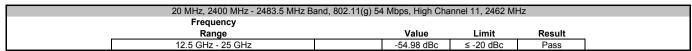


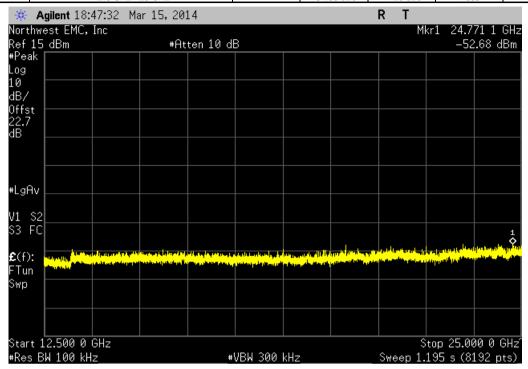


20 MHz, 2400 MHz -	2483.5 MHz Band, 802.11(g	j) 54 Mbps, High Chai	nnel 11, 2462 MF	-lz
Frequency				
Range		Value	Limit	Result
30 MHz - 12.5 GHz		-57.51 dBc	≤ -20 dBc	Pass





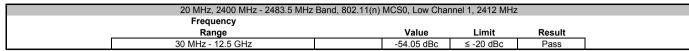


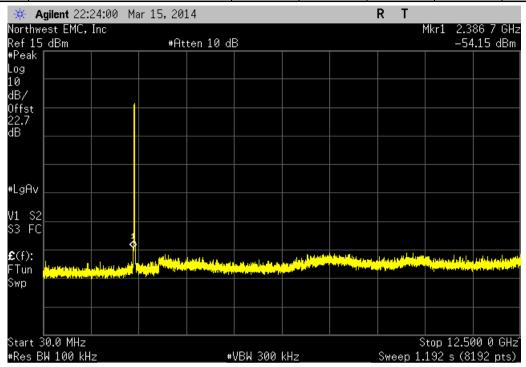


20 MHz, 2400 M	Hz - 2483.5 MHz	Band, 802.11(n)	MCS0, Low Chai	nnel 1, 2412 MHz	
Frequency					
Range			Value	Limit	Result
Fundamental			N/A	N/A	N/A

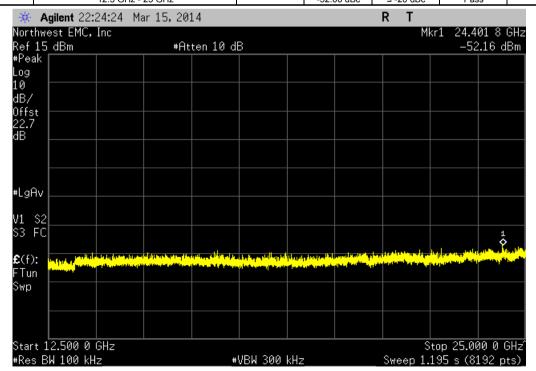


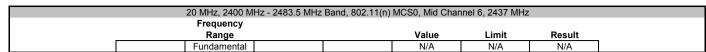


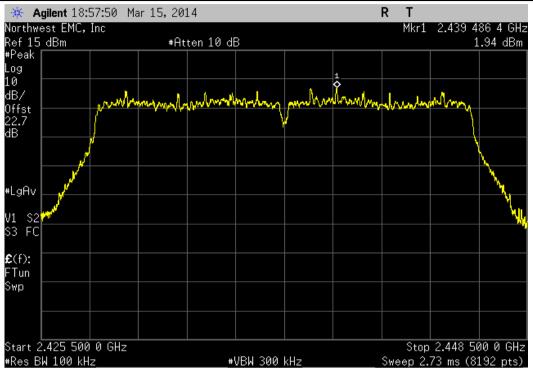




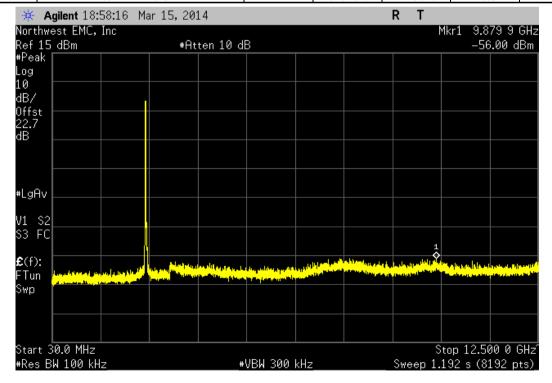
20 MHz, 2400 MHz - 2483.5 MHz I	Band, 802.11(n) MCS0, Low Char	nel 1, 2412 MHz	
Frequency			
Range	Value	Limit	Result
12 5 GHz - 25 GHz	-52 06 dBc	< -20 dBc	Pass

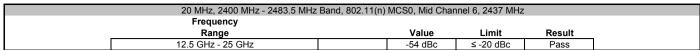


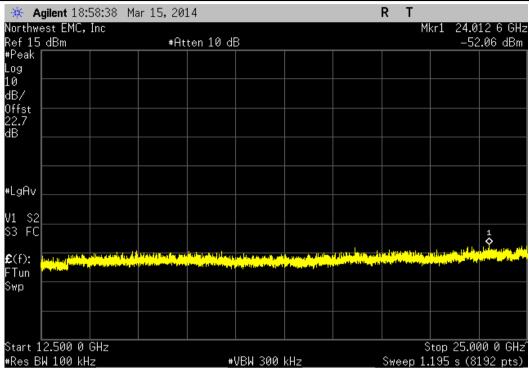


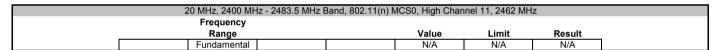


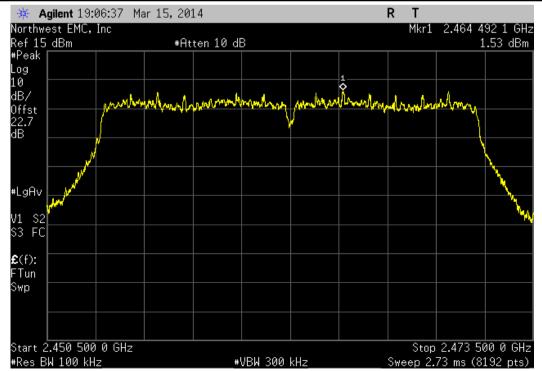
20 MHz, 2400 MHz - 2483.5 MHz Ba	and, 802,11(n) MCS0, Mid Char	nel 6. 2437 MHz	
Frequency	(, ,	- ·, ·	
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-57.94 dBc	≤ -20 dBc	Pass



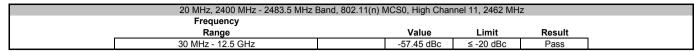


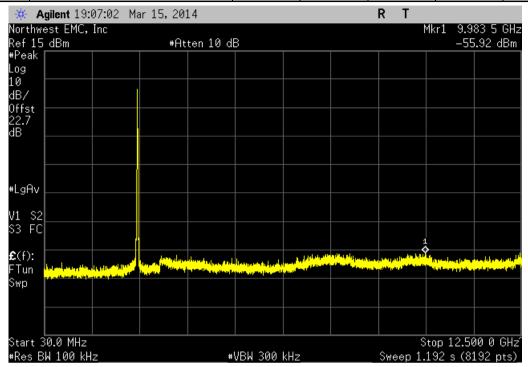




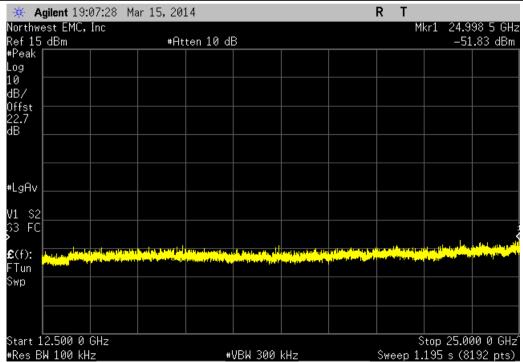




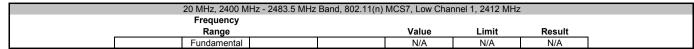


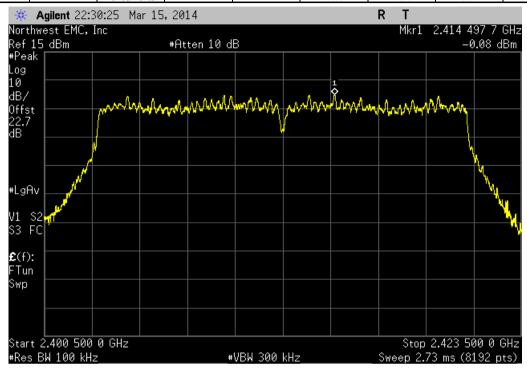


	20 MHz, 2400 MHz - 2483.5 MHz E	3and, 802.11(n) N	/ICS0, High Chan	inel 11, 2462 MH:	Z	
	Frequency					
	Range		Value	Limit	Result	
1	Kange		value	Lilling	Nesuit	

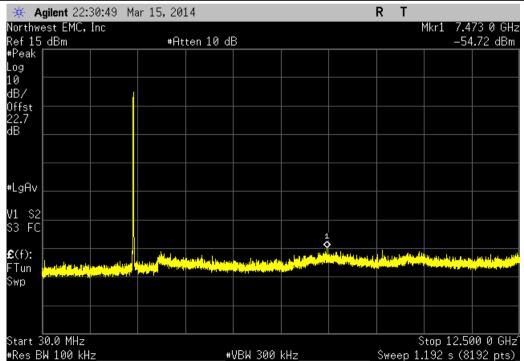




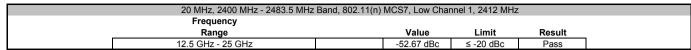


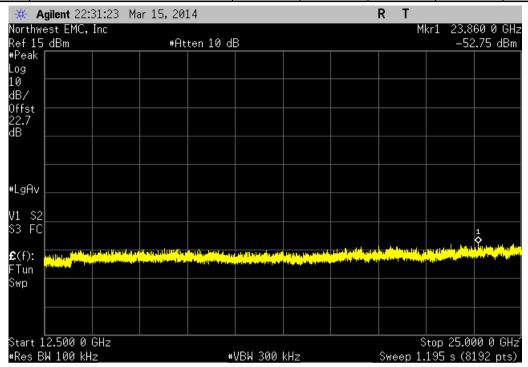


20 MHz, 2400 MHz - 2483.5 MHz	Band, 802.11(n)	MCS7, Low Char	nnel 1, 2412 MHz		
Frequency					
Range		Value	Limit	Result	
30 MHz - 12.5 GHz		-54.64 dBc	≤ -20 dBc	Pass	

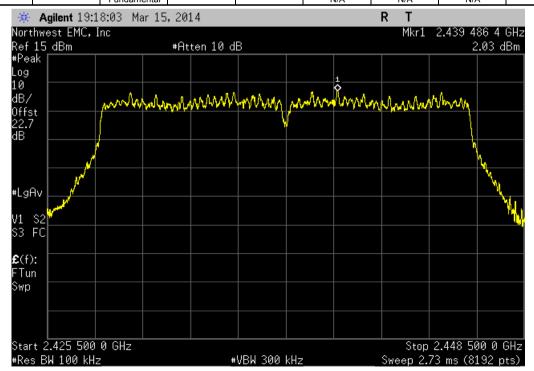




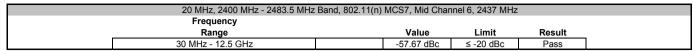


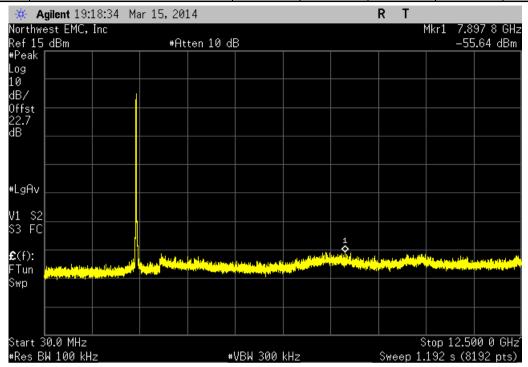


	20 MHz, 2400 M	Hz - 2483.5 MHz	Band, 802.11(n)	MCS7, Mid Char	nnel 6, 2437 MHz	
	Frequency					
	Range			Value	Limit	Result
ľ	Fundamental			N/A	N/A	N/A

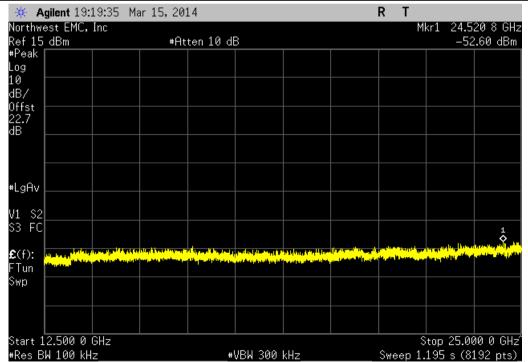




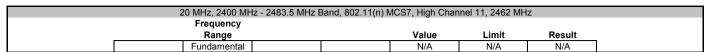


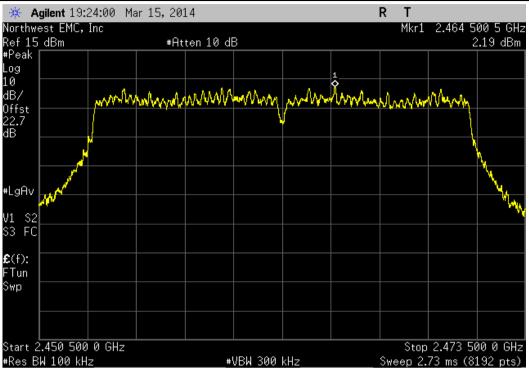


20 MHz, 2400 MHz - 2483.5 MHz	Band, 802.11(n)	MCS7, Mid Char	nnel 6, 2437 MHz		
Frequency					
Range		Value	Limit	Result	
12.5 GHz - 25 GHz		-54.63 dBc	≤ -20 dBc	Pass	









20 MHz, 2400 MHz - 2483.5 MHz Band	, 802.11(n) MCS7, High Chan	nel 11, 2462 MHz	
Frequency	, , .		
Range	Value	Limit	Result
30 MHz - 12.5 GHz	-56.49 dBc	≤ -20 dBc	Pass

