SPURIOUS CONDUCTED EMISSIONS

XMit 2015.01.14

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

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFN	2/10/2015	15
Block - DC	Fairview Microwave	SD3379	AMI	9/18/2015	12
Attenuator	Fairview Microwave	18B5W-26	RFY	7/6/2015	12
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	9/18/2015	12
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	36

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.

SPURIOUS CONDUCTED EMISSIONS

NORTHWEST EMC

XMit 2015.01.14

EUT:	Zoll CF Card Module			**Work Order:**	LGPD0179
Serial Number:	0216M00003			**Date:**	03/11/16
Customer:	ZOLL Medical Corp.			**Temperature:**	22.4°C
Attendees:	Adam Ford			**Humidity:**	27%
Project:	None			**Barometric Pres.:**	991.5
Tested by:	Jared Ison	**Power:**	5 VDC	**Job Site:**	MN08

TEST SPECIFICATIONS	Test Method
FCC 15.247:2016	ANSI C63.10:2013

COMMENTS

None

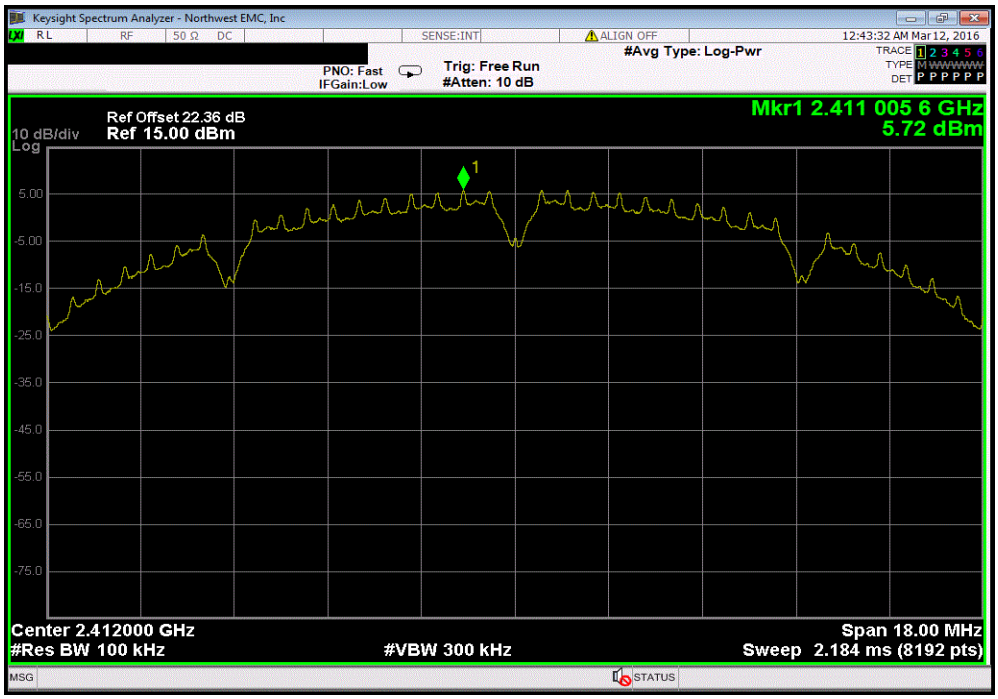
DEVIATIONS FROM TEST STANDARD

None

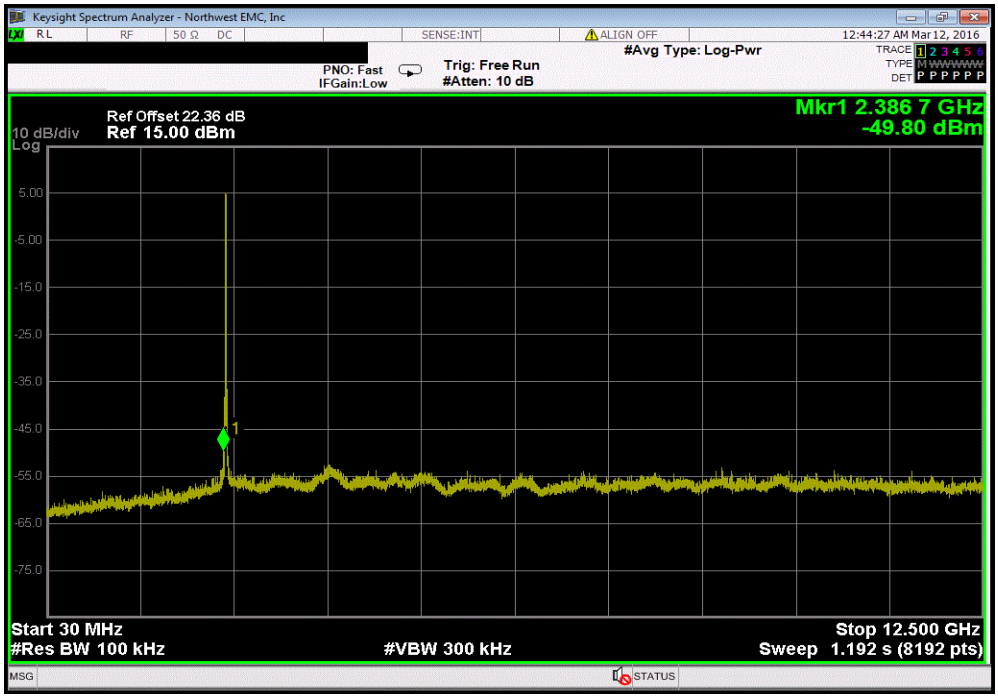
Configuration #	1	Signature

	Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	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	-55.53	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-56.52	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-60.66	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-59.21	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-61.35	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-59.75	-20	Pass
802.11(b) 11 Mbps				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-55.63	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-56.37	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-62.47	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-59.52	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-62.02	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-59.91	-20	Pass
802.11(g) 6 Mbps				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-52.51	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-56.18	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-61.1	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-58.93	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-55.62	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-54	-20	Pass
802.11(g) 36 Mbps				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-50.99	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-49.47	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-50.79	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-48.79	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-50.27	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-49.47	-20	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	-48.84	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-47.42	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-50.01	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-47.36	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-48.77	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-47.29	-20	Pass
802.11(n) MCS0				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-50.19	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-50.2	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-53.43	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-52.39	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-53.46	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-52.78	-20	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	-47.68	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-46.54	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-48.21	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-46.61	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-48.13	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-46.6	-20	Pass

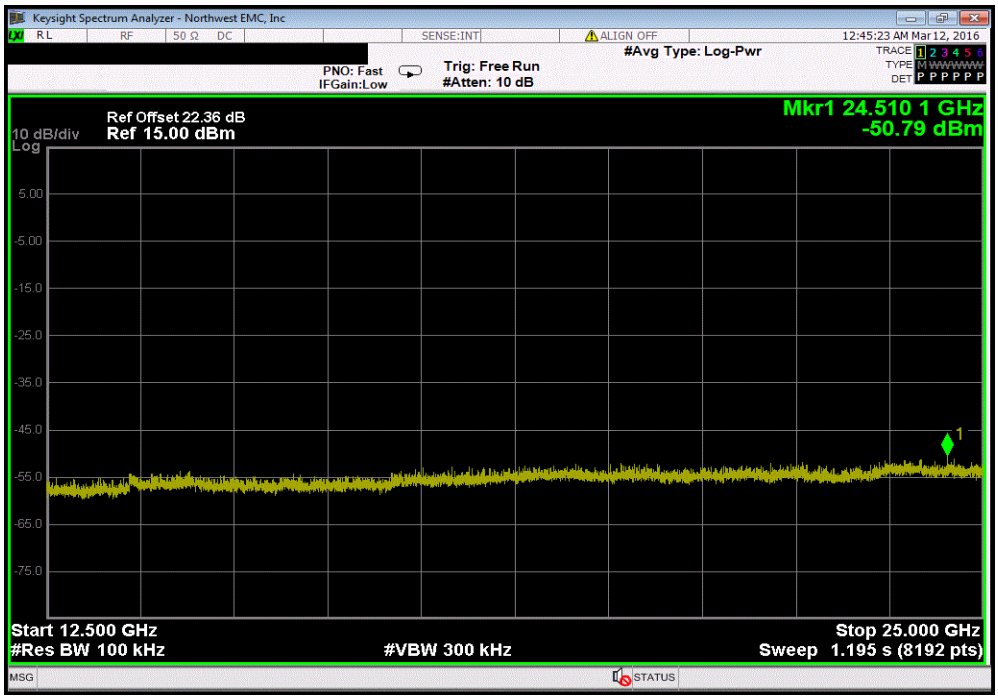
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



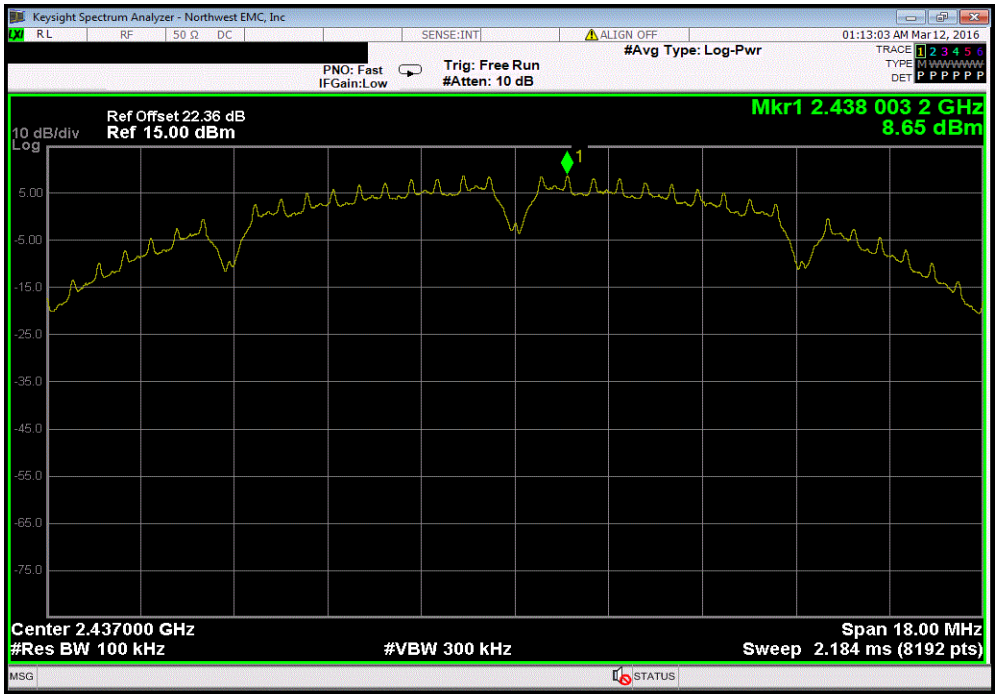
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-55.53	-20	Pass



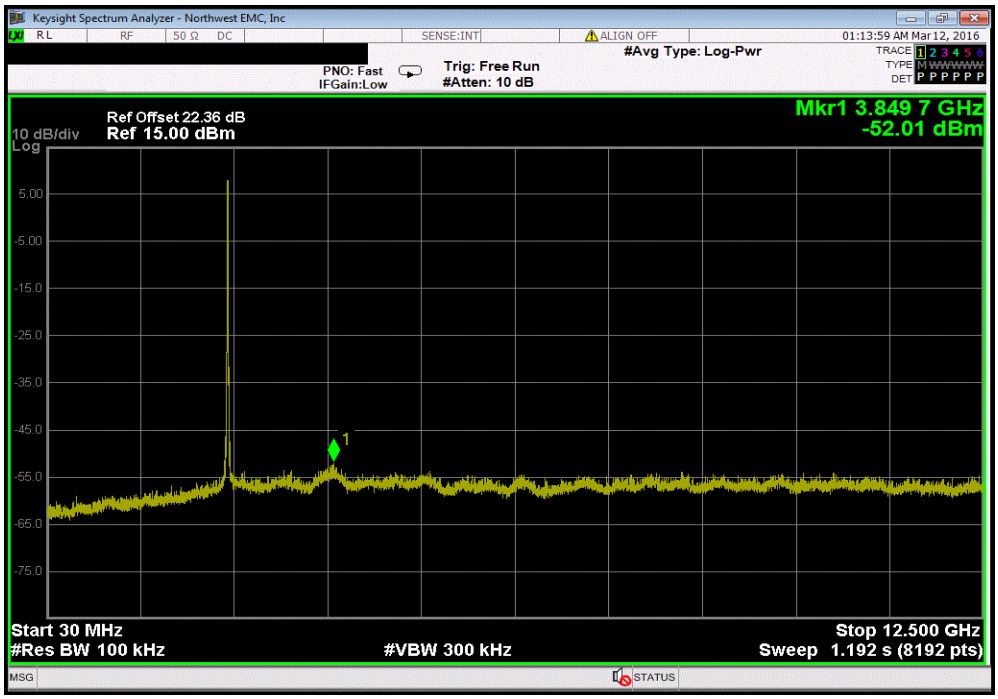
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz		-56.52	-20	Pass



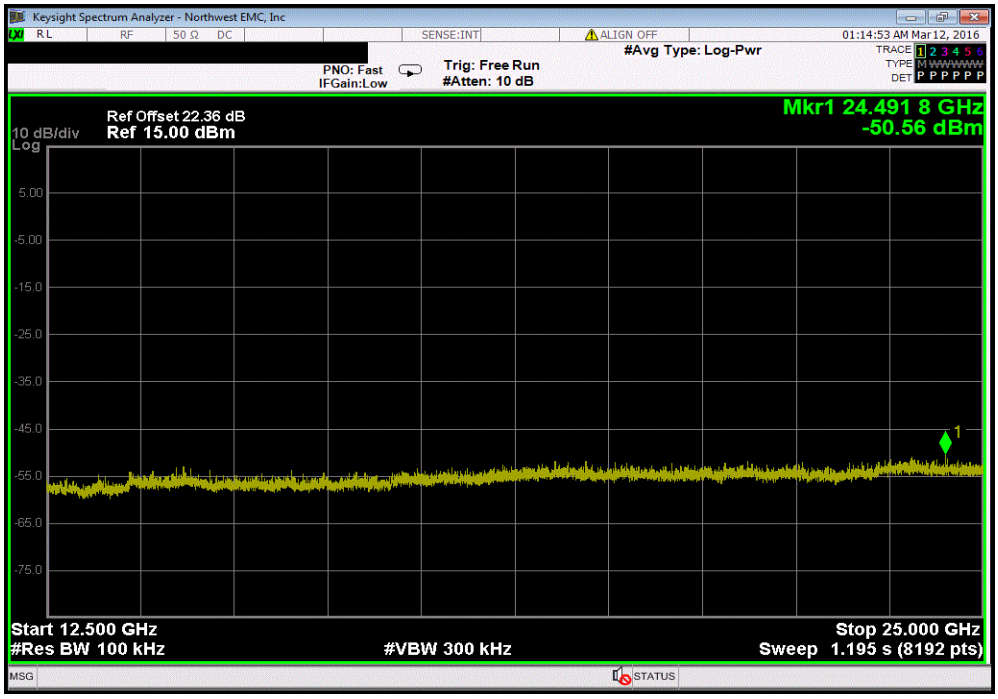
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental		N/A	N/A	N/A



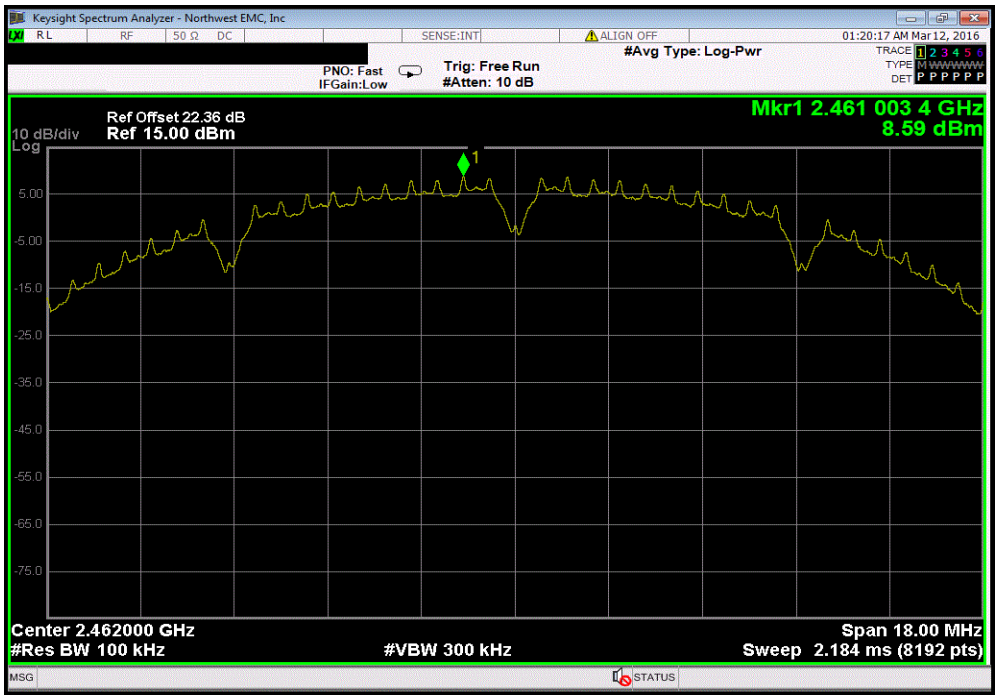
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-60.66	-20	Pass



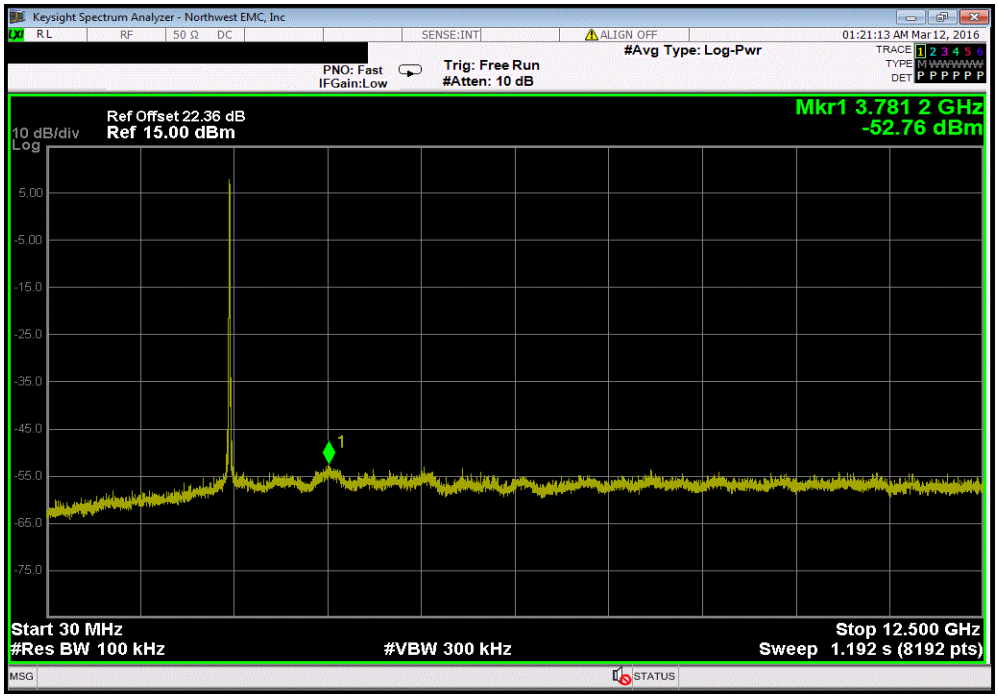
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-59.21	-20	Pass



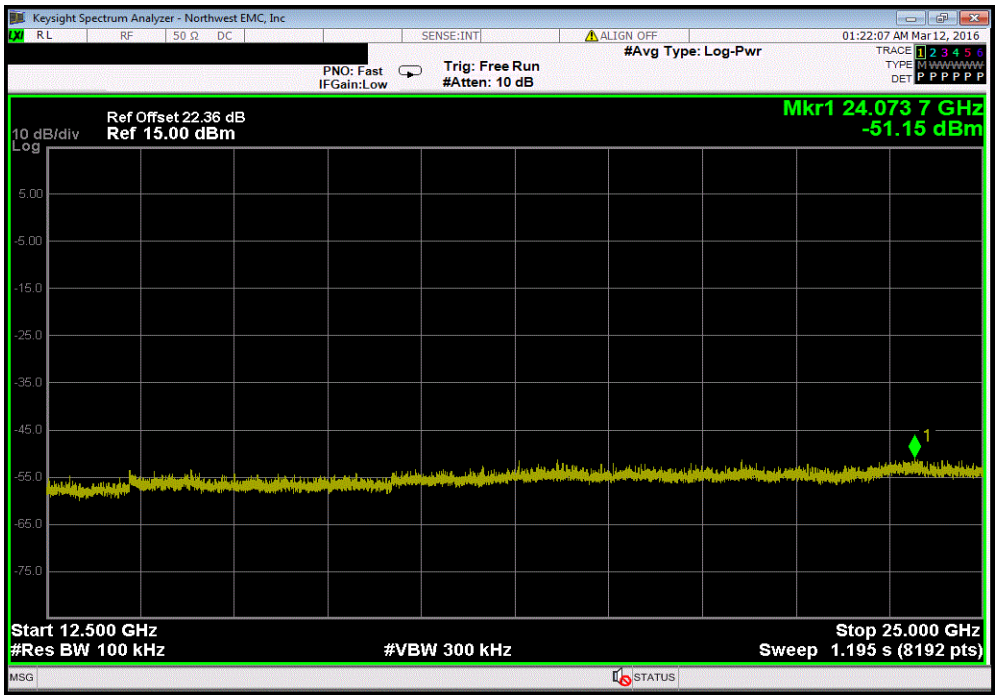
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



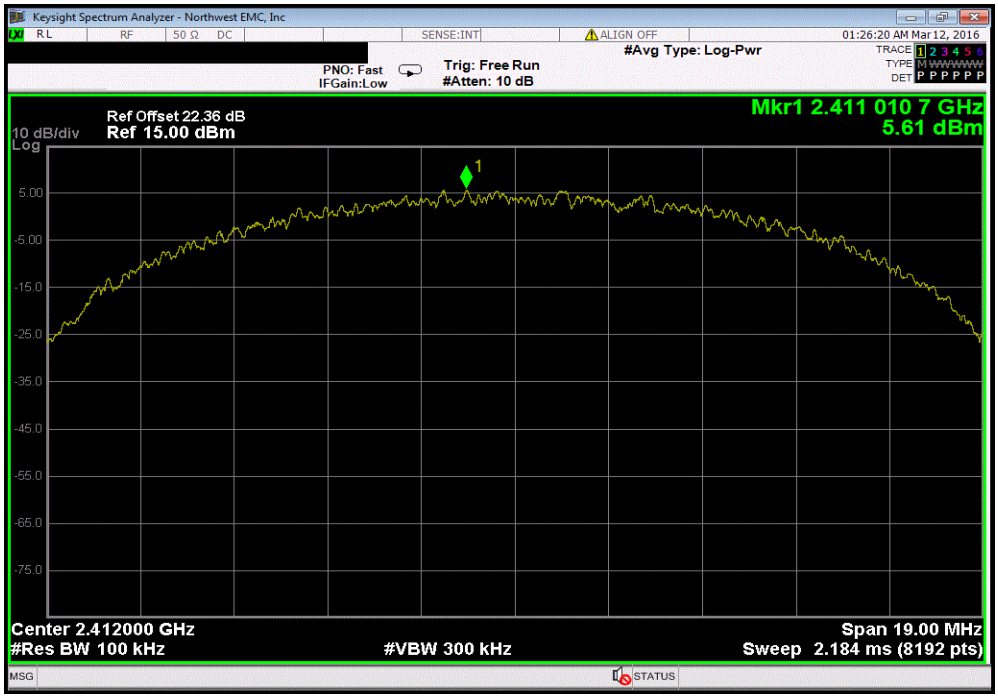
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-61.35	-20	Pass



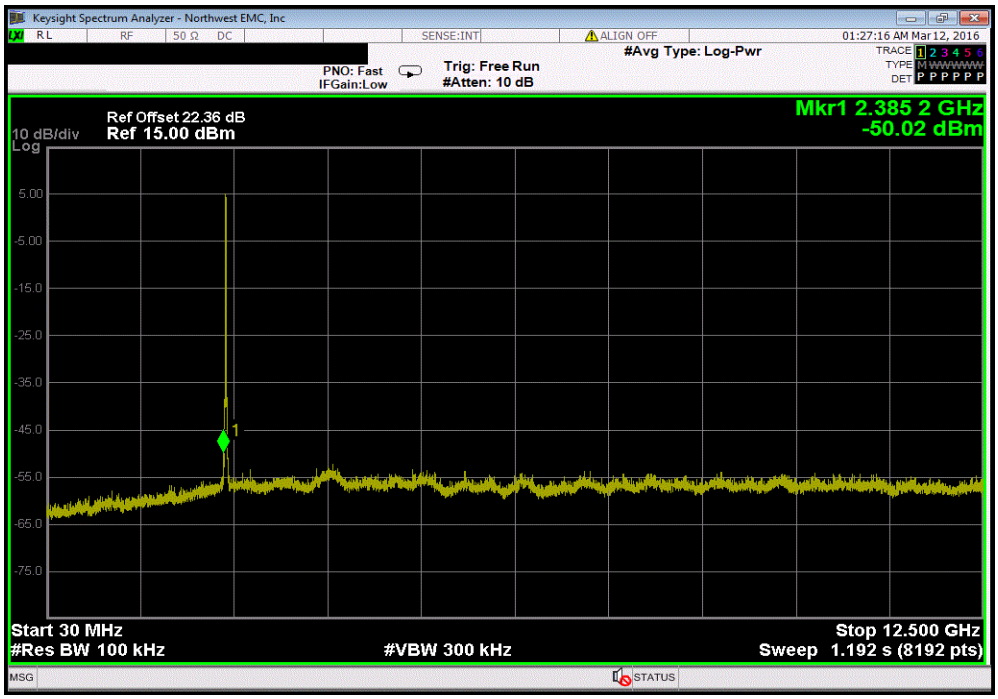
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-59.75	-20	Pass



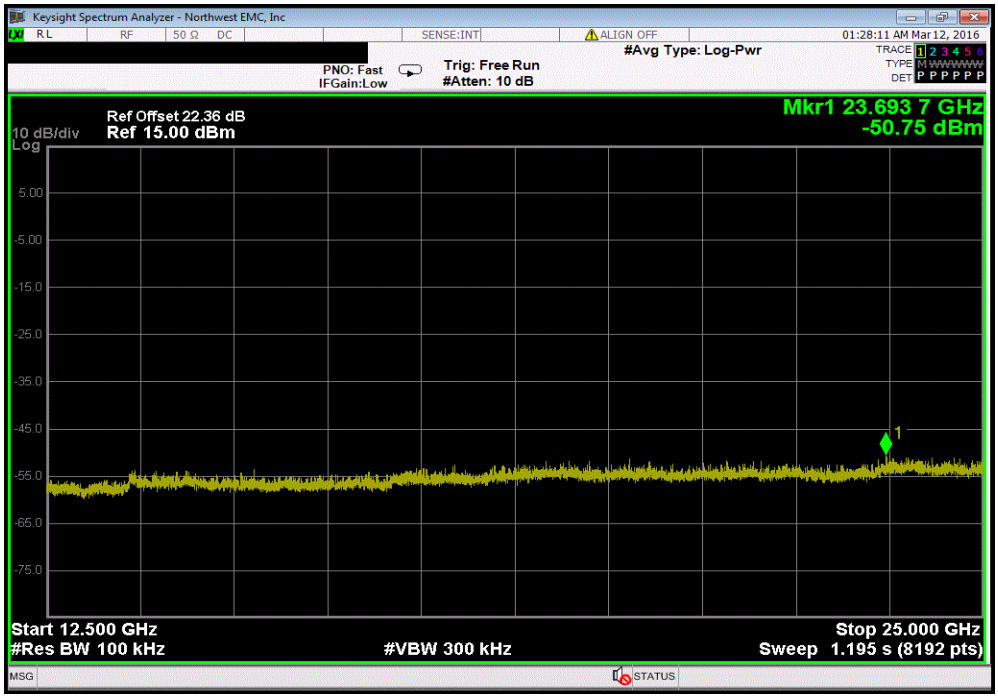
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



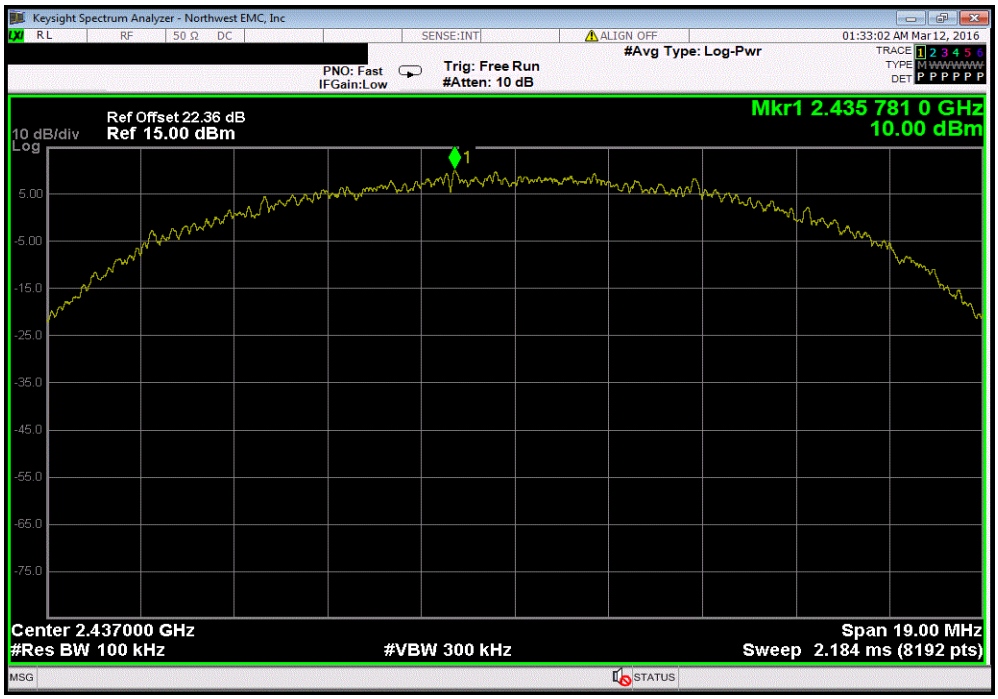
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-55.63	-20	Pass



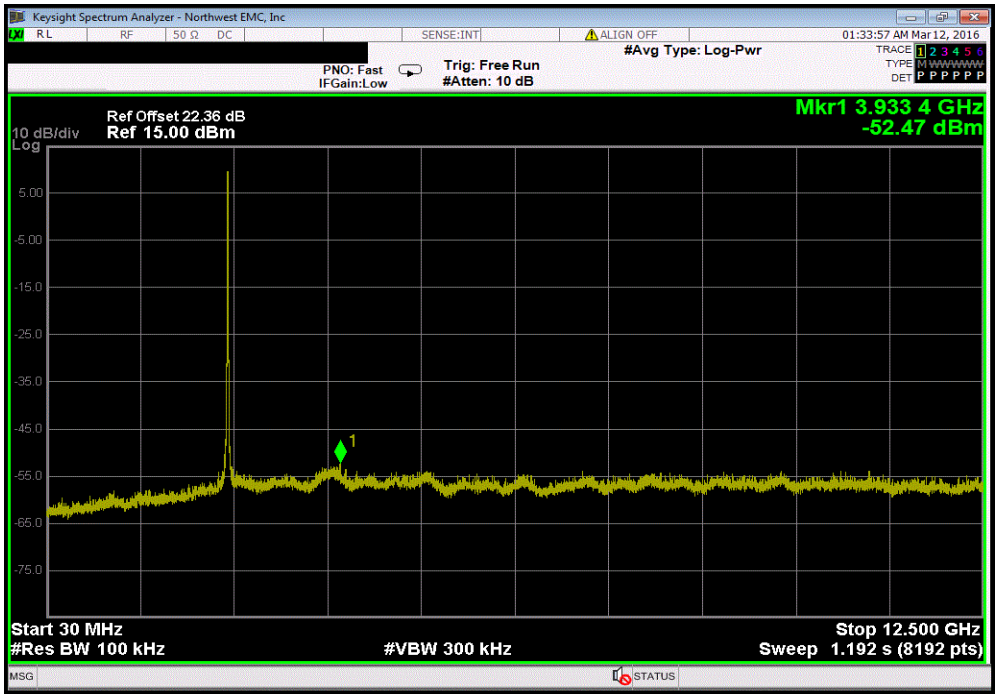
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-56.37	-20	Pass



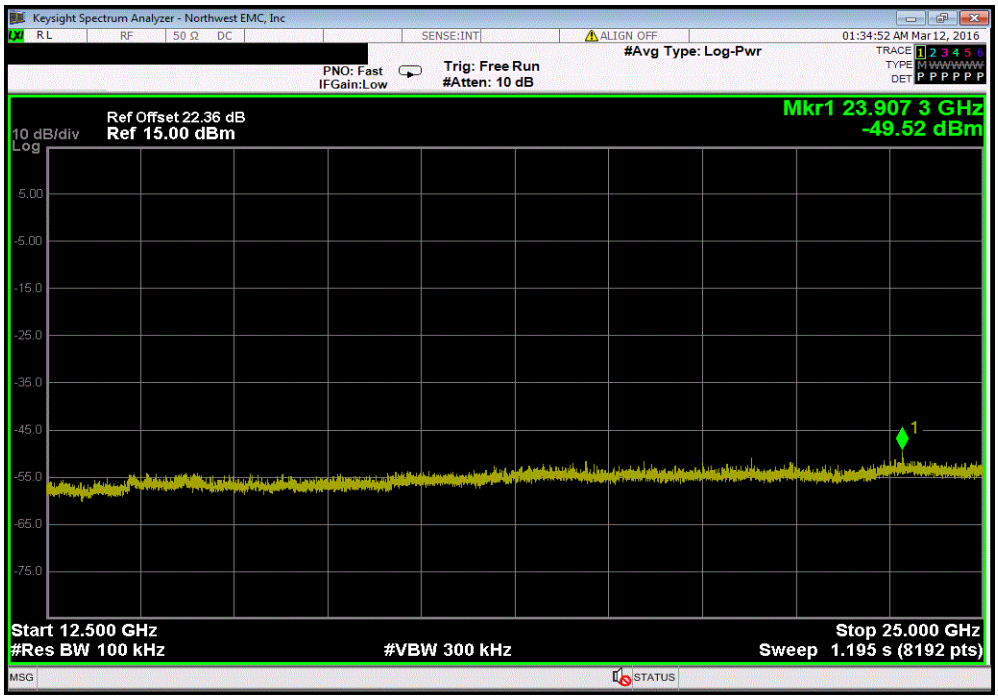
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



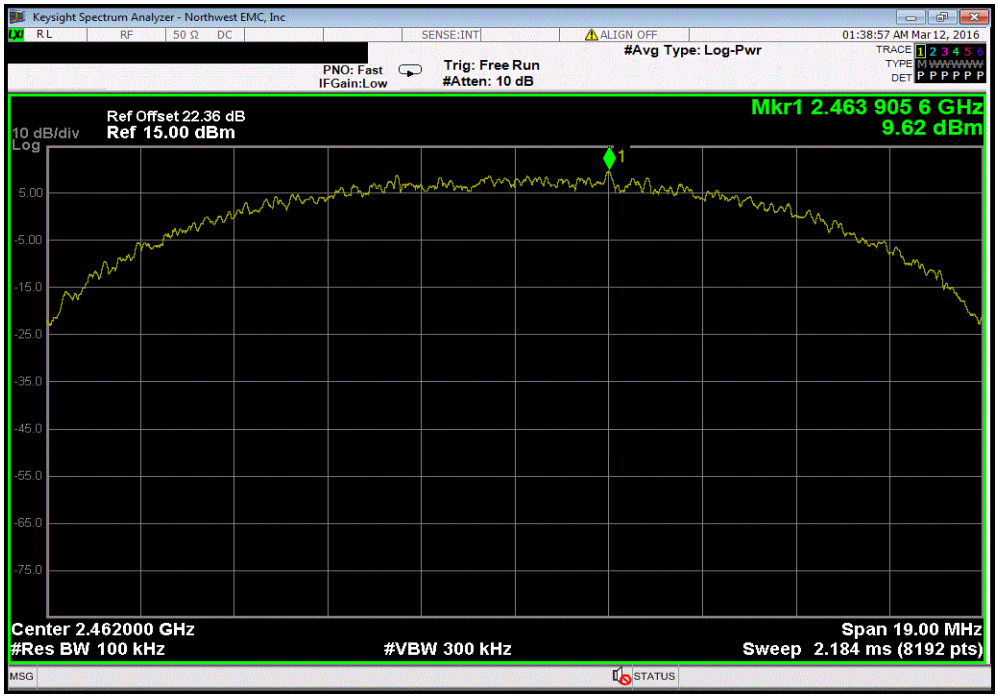
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-62.47	-20	Pass



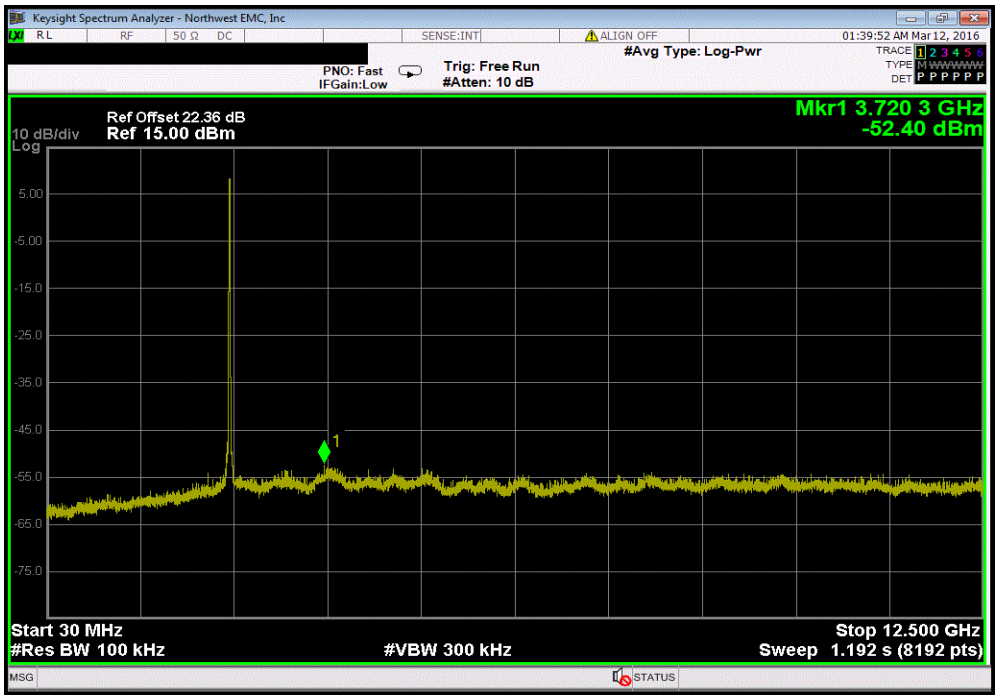
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz		-59.52	-20	Pass



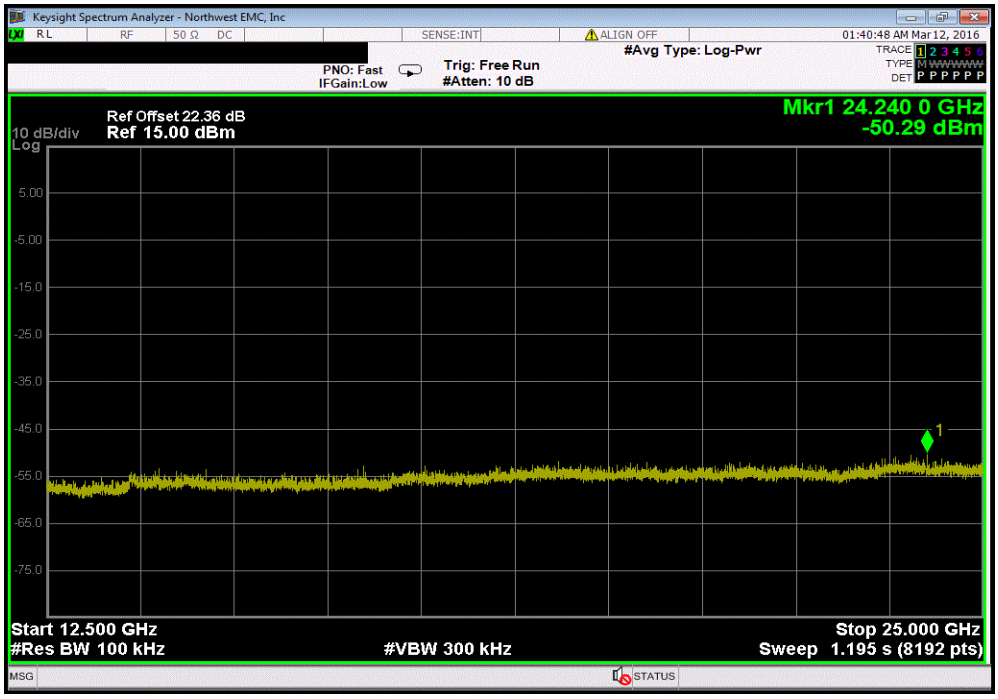
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



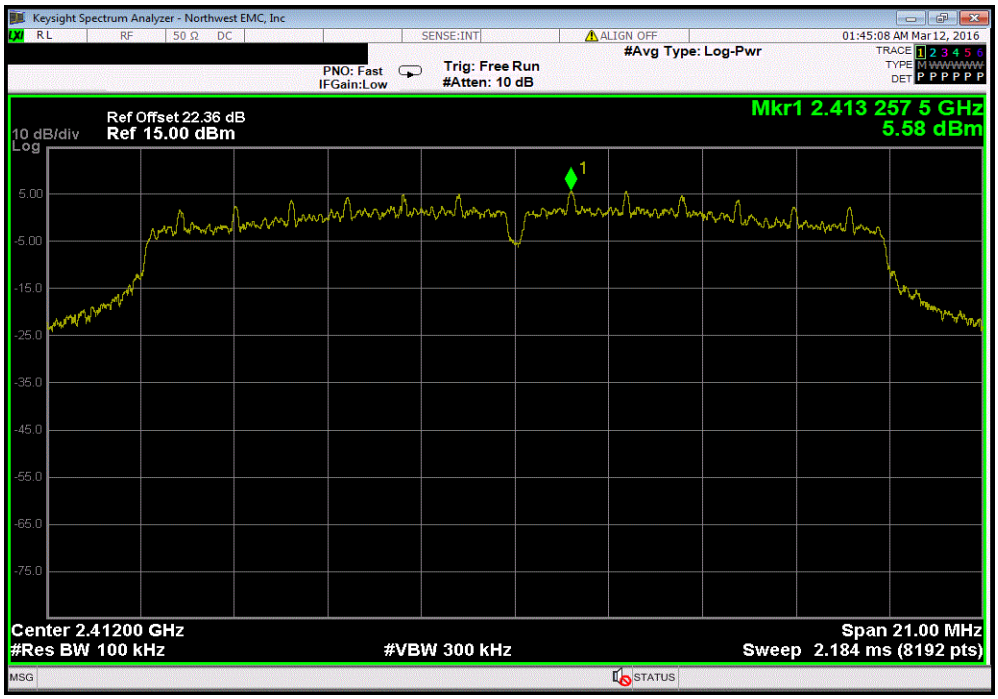
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-62.02	-20	Pass



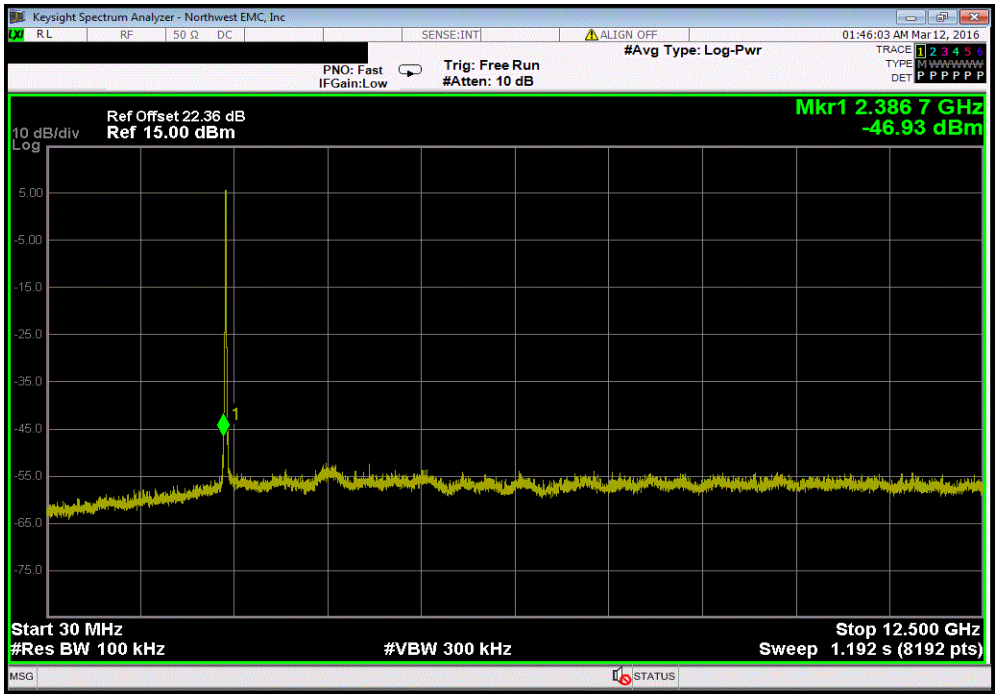
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-59.91	-20	Pass



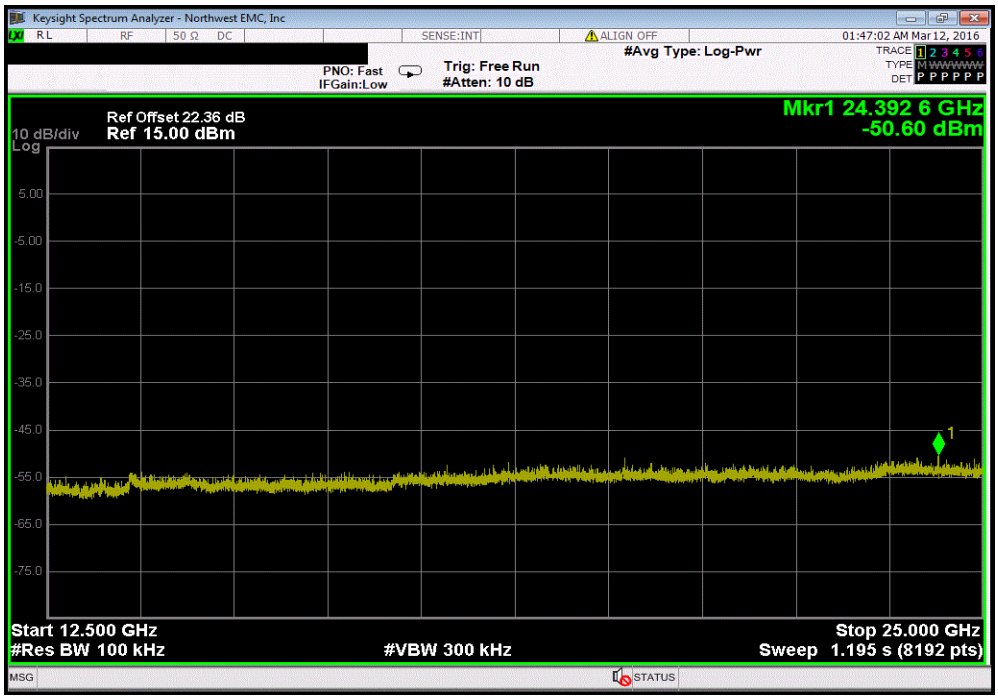
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



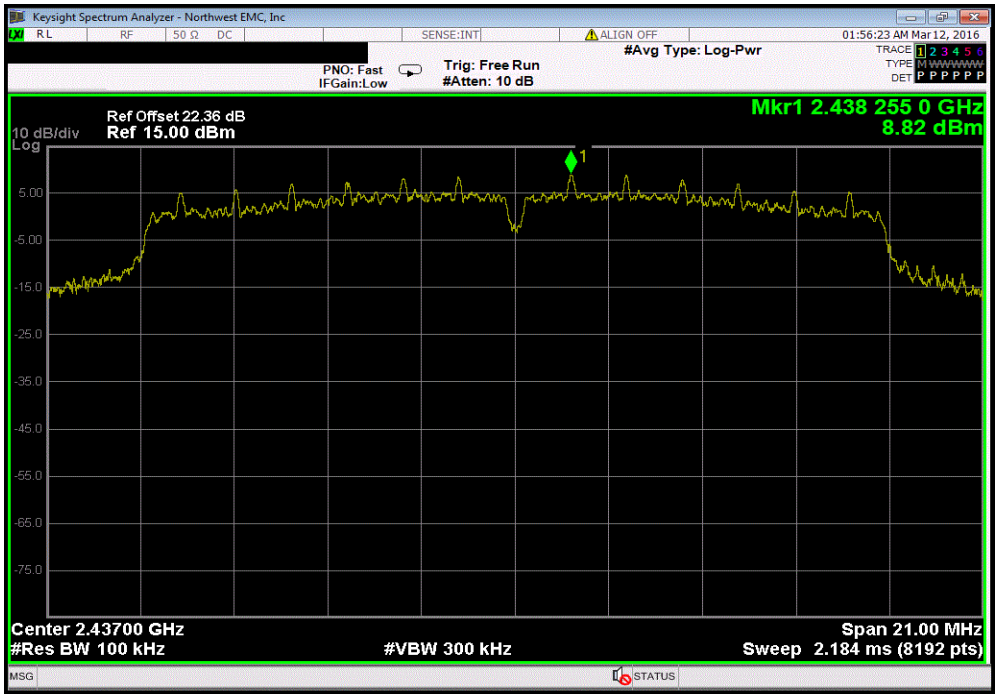
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-52.51	-20	Pass



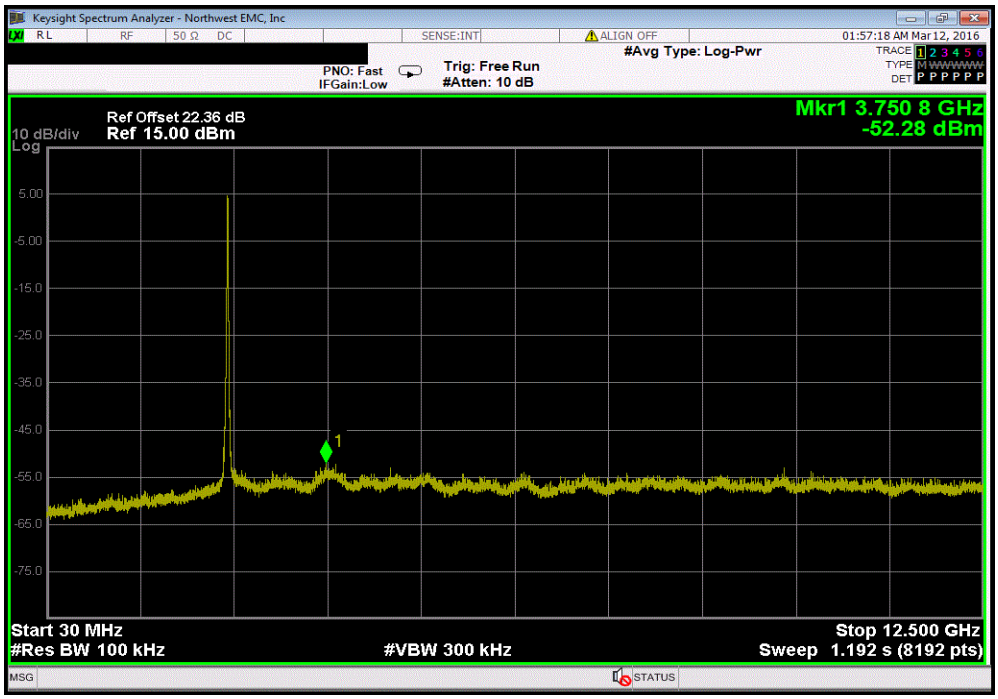
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz		-56.18	-20	Pass



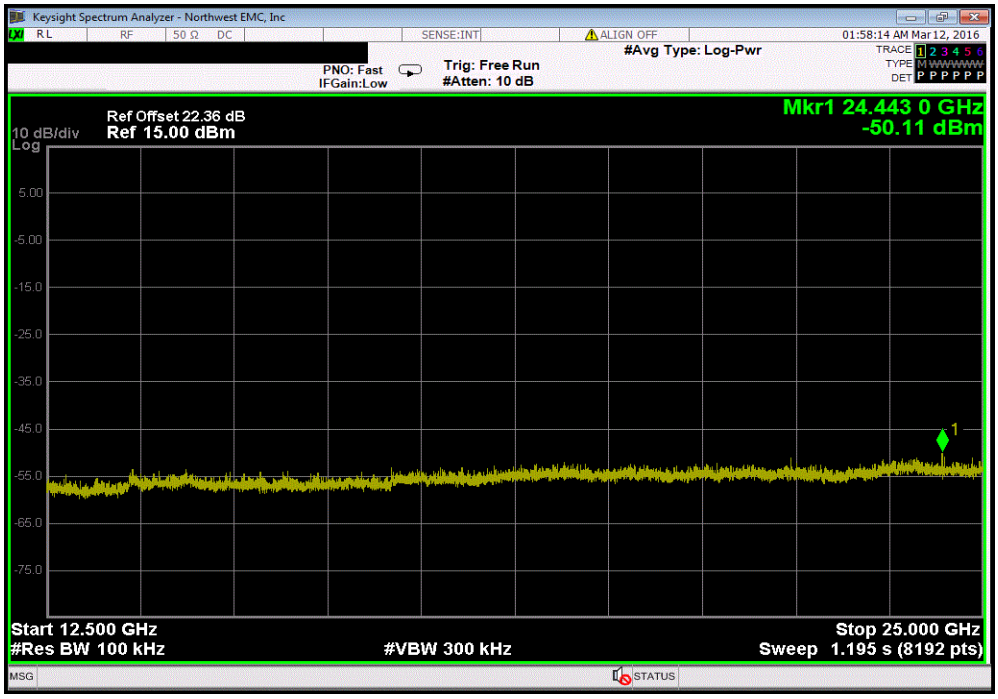
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
Frequency Range				Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



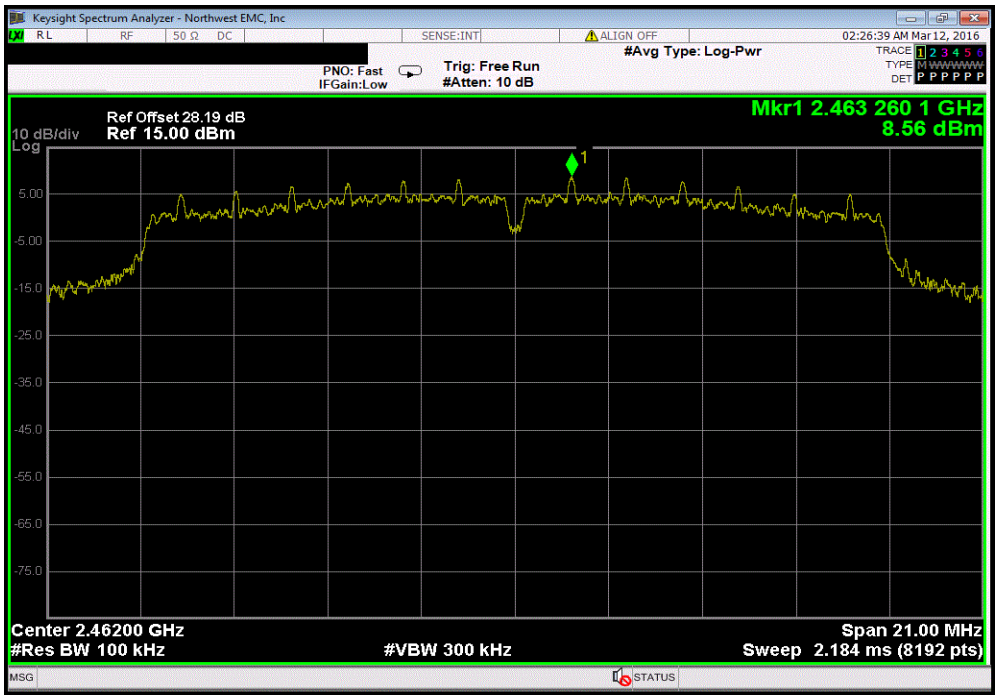
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-61.1	-20	Pass



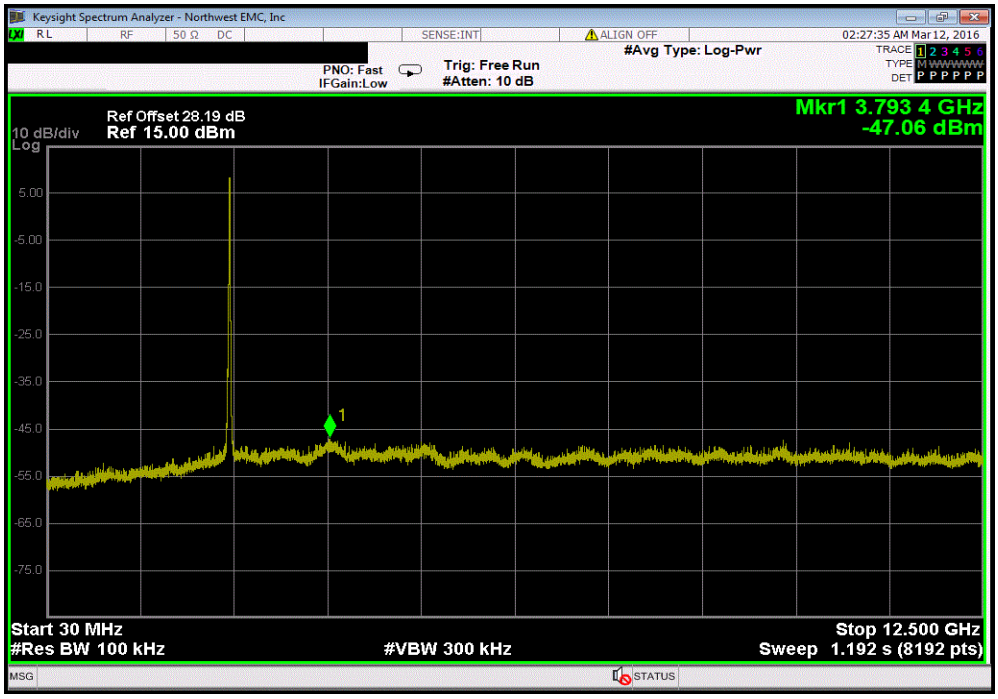
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-58.93	-20	Pass



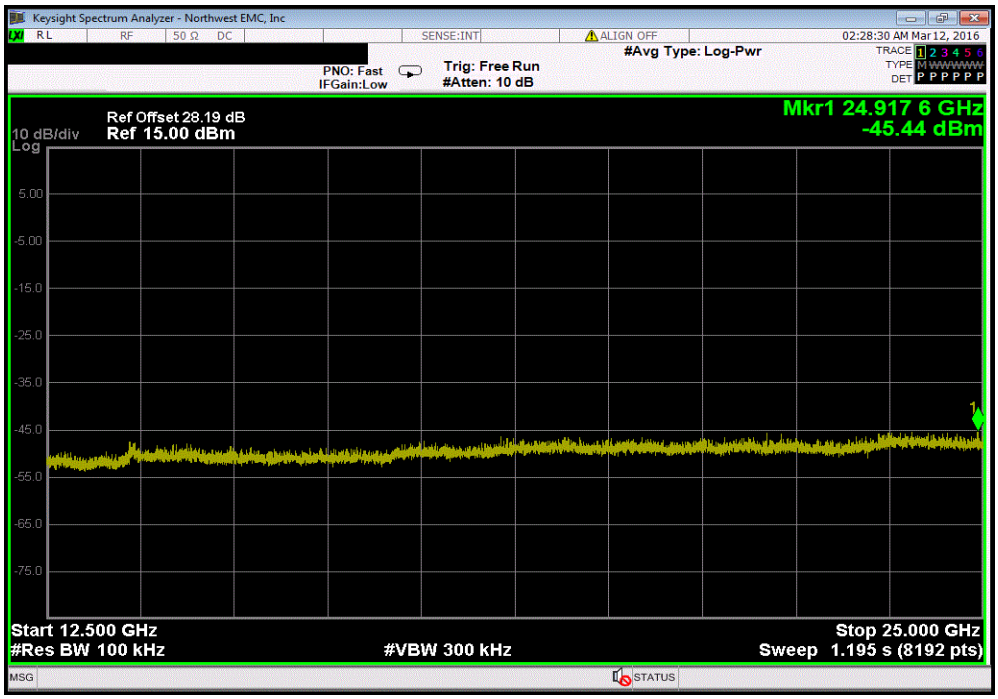
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



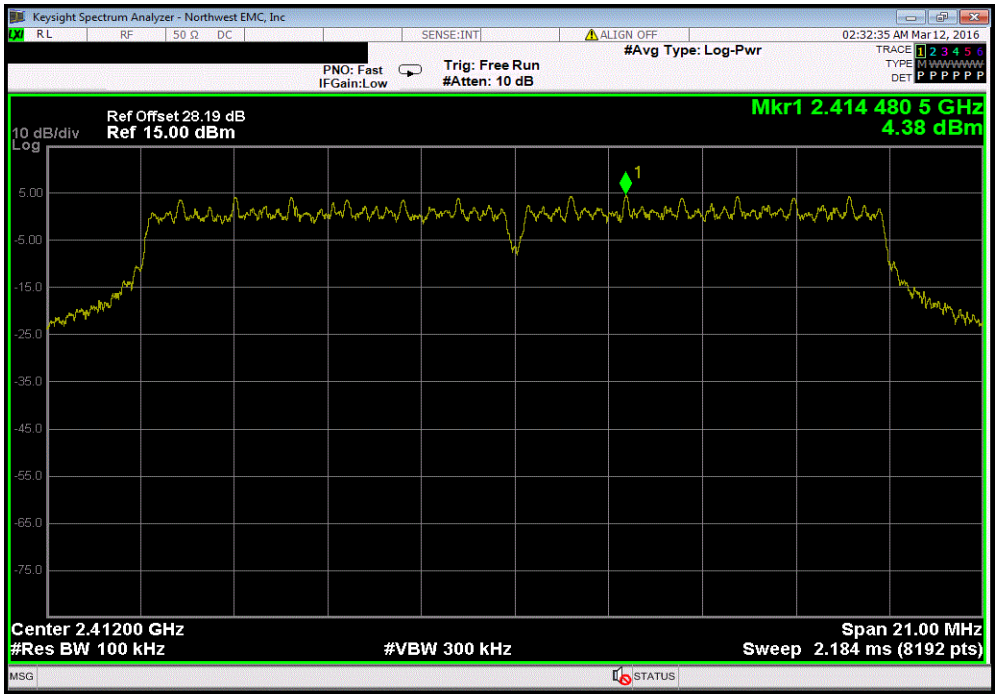
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-55.62	-20	Pass



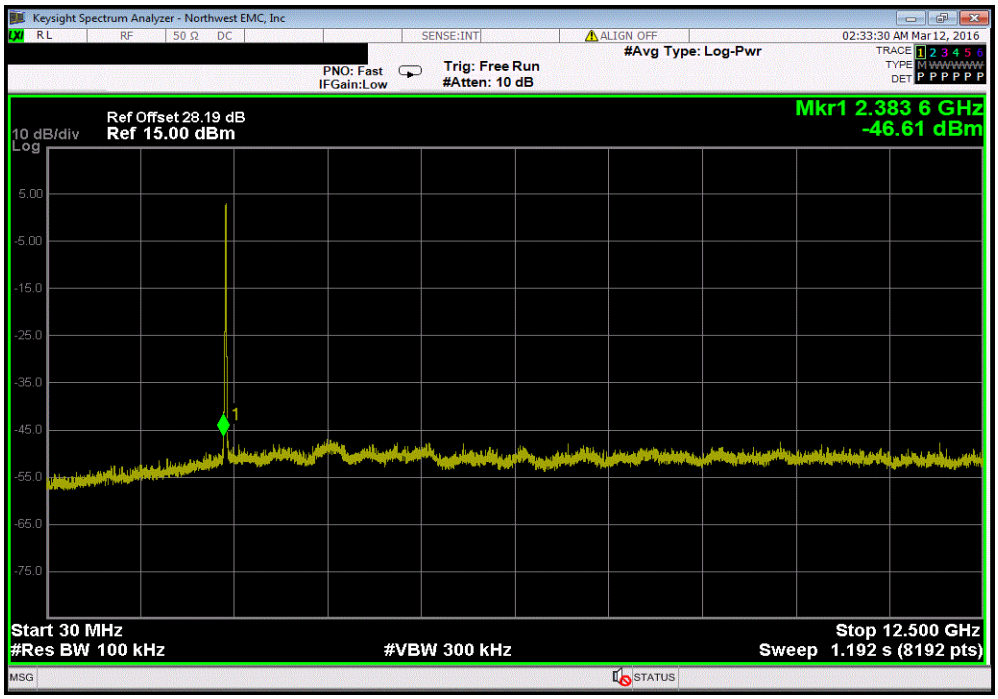
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz				
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz		-54	-20	Pass



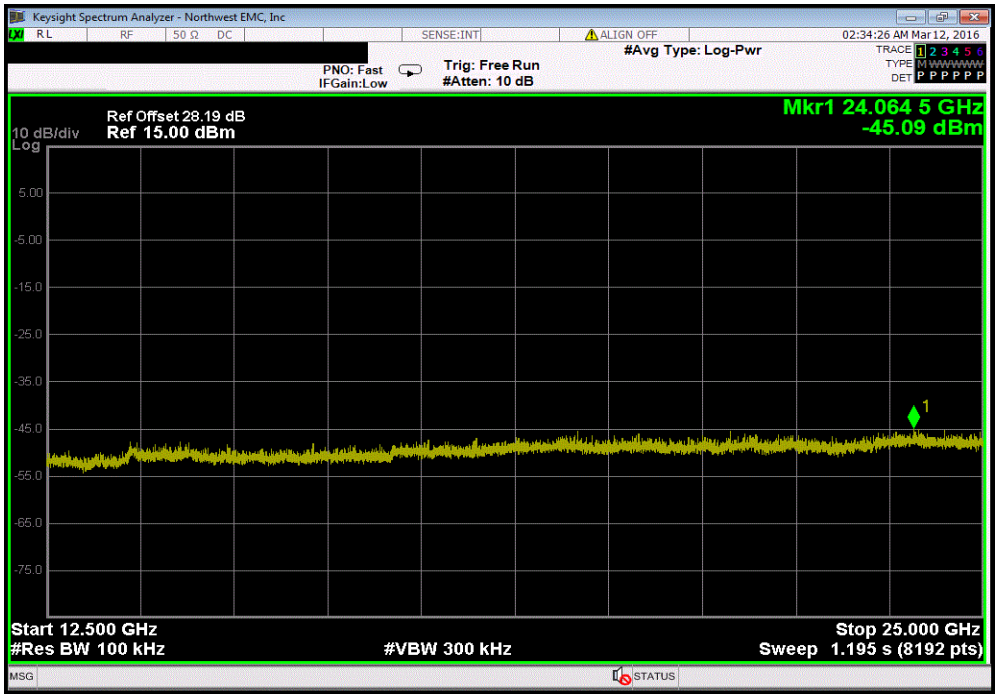
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



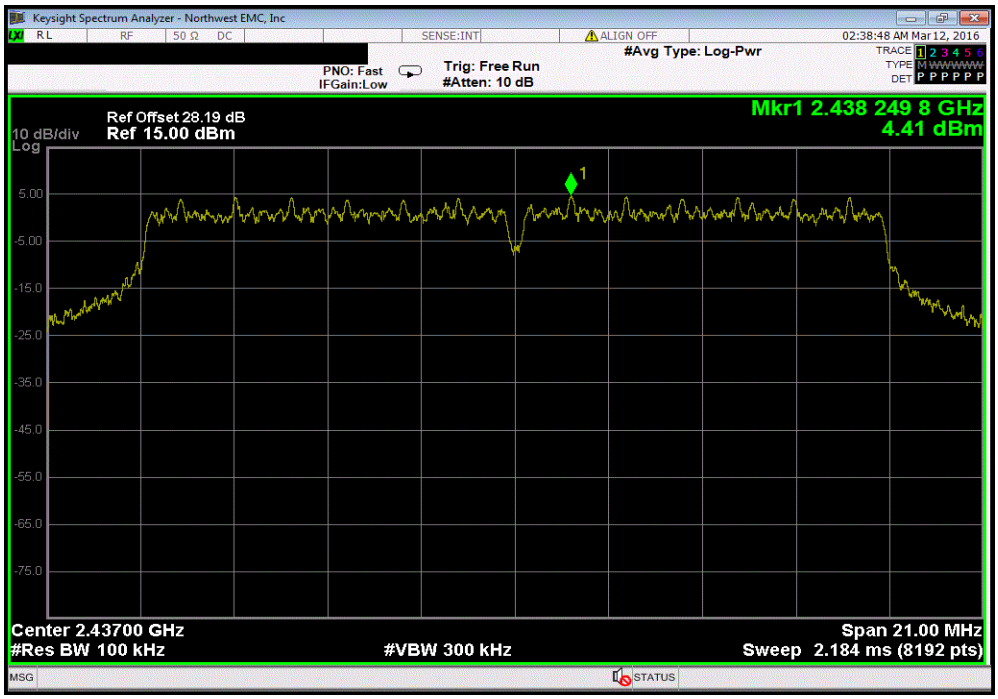
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-50.99	-20	Pass



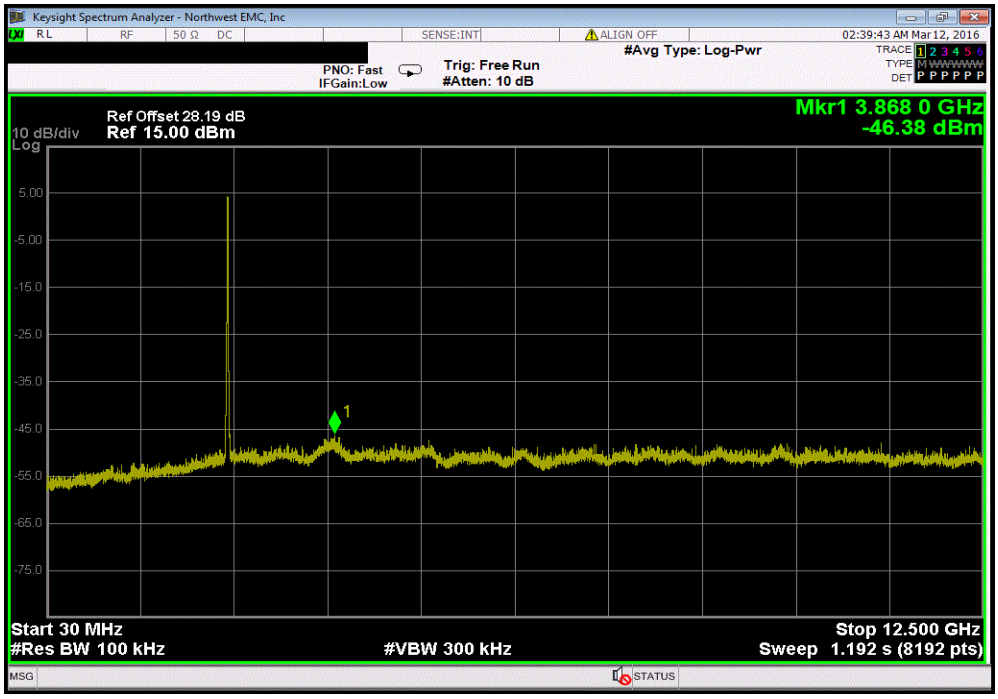
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-49.47	-20	Pass



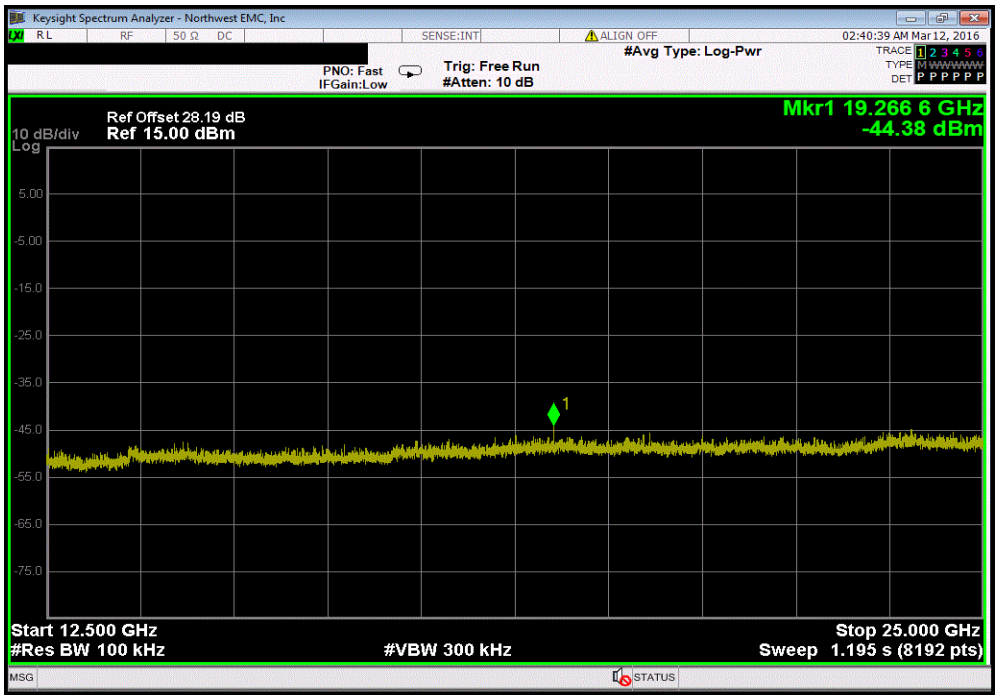
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



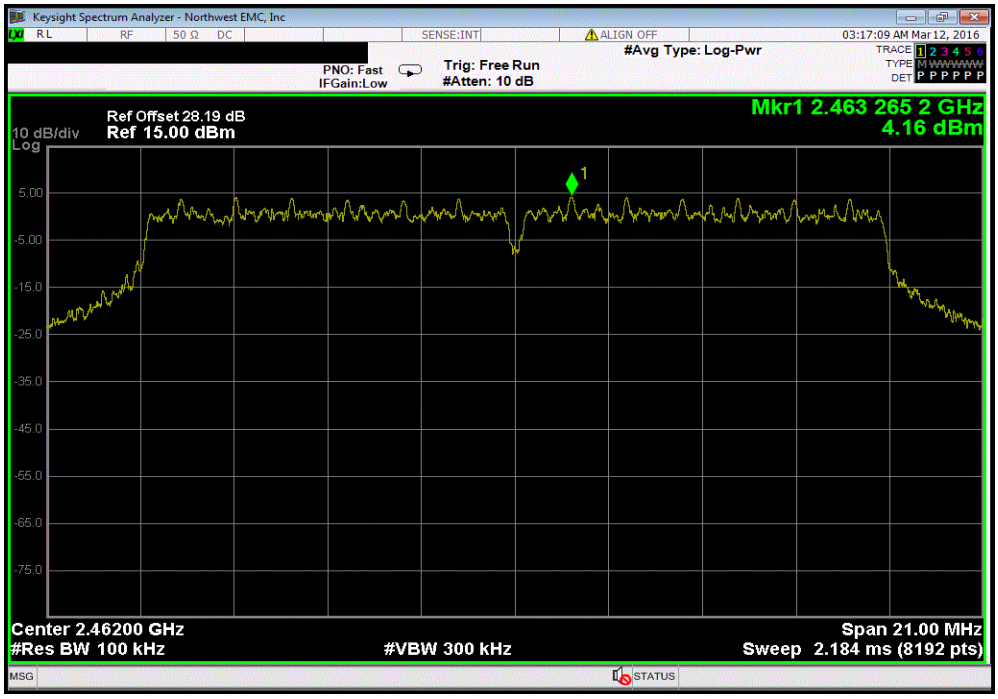
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-50.79	-20	Pass



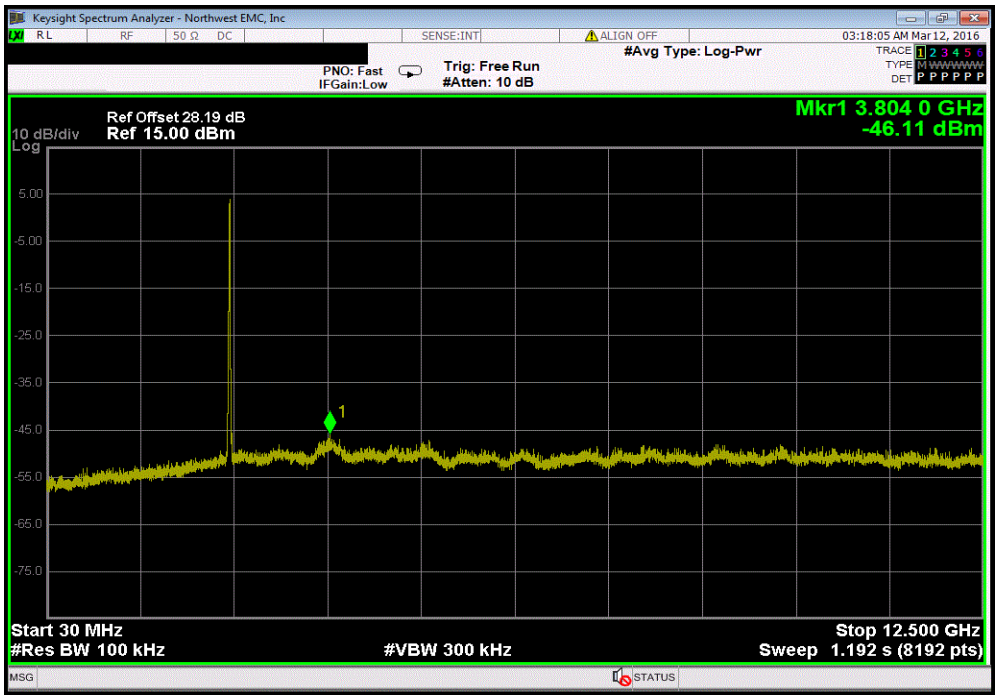
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz		-48.79	-20	Pass



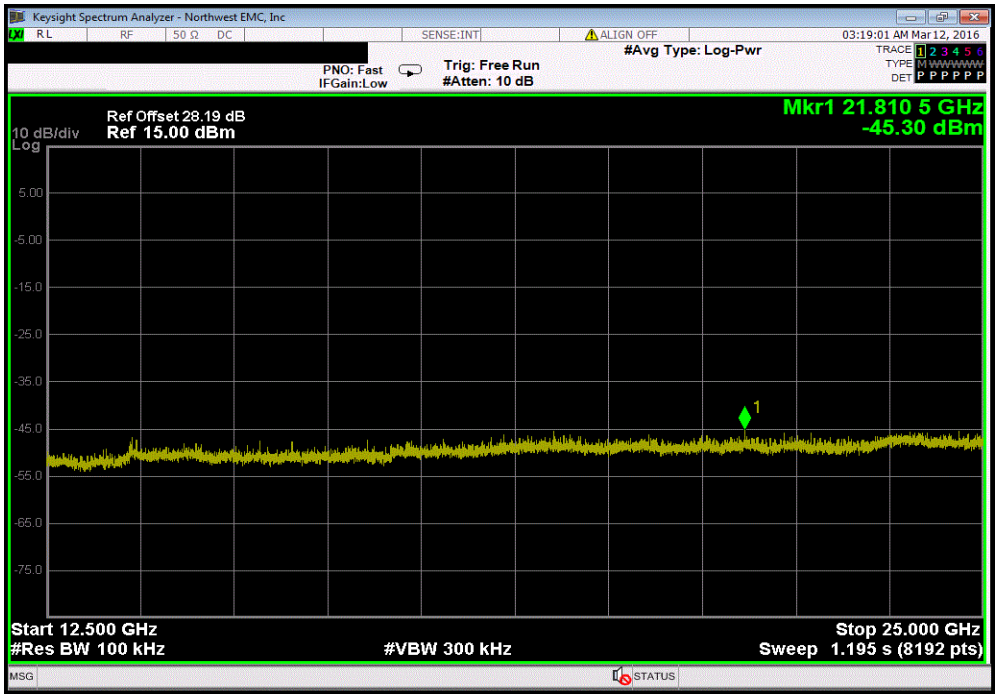
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



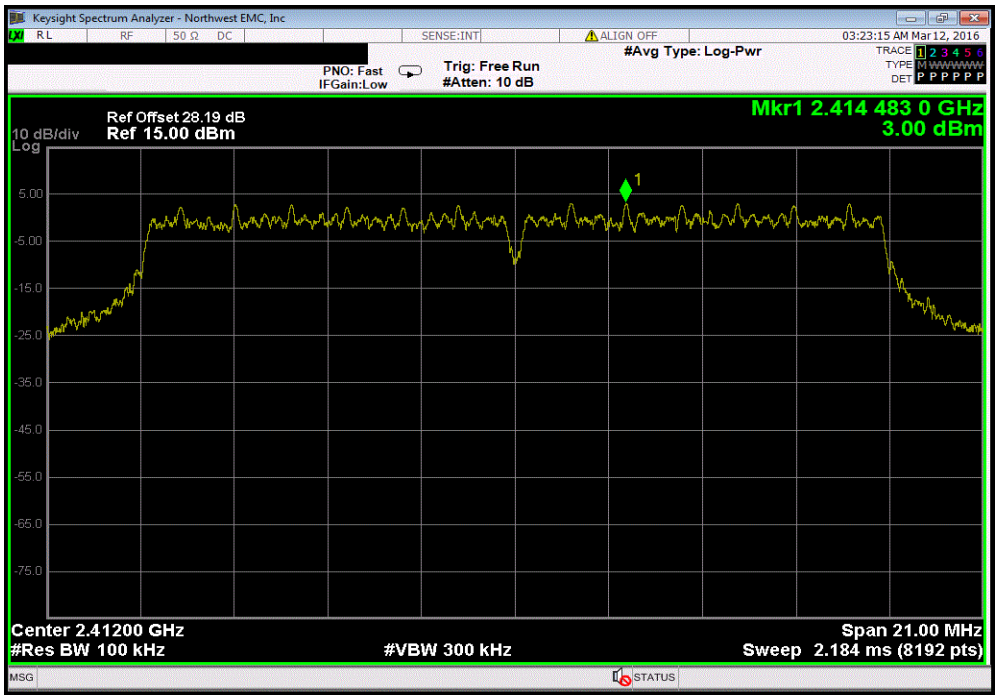
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-50.27	-20	Pass



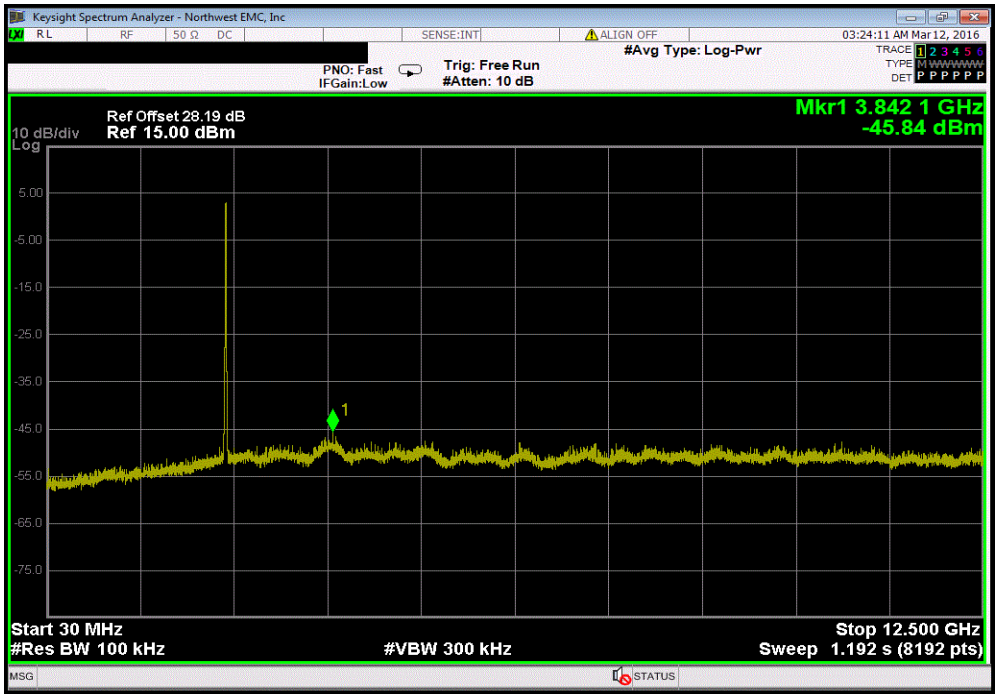
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-49.47	-20	Pass



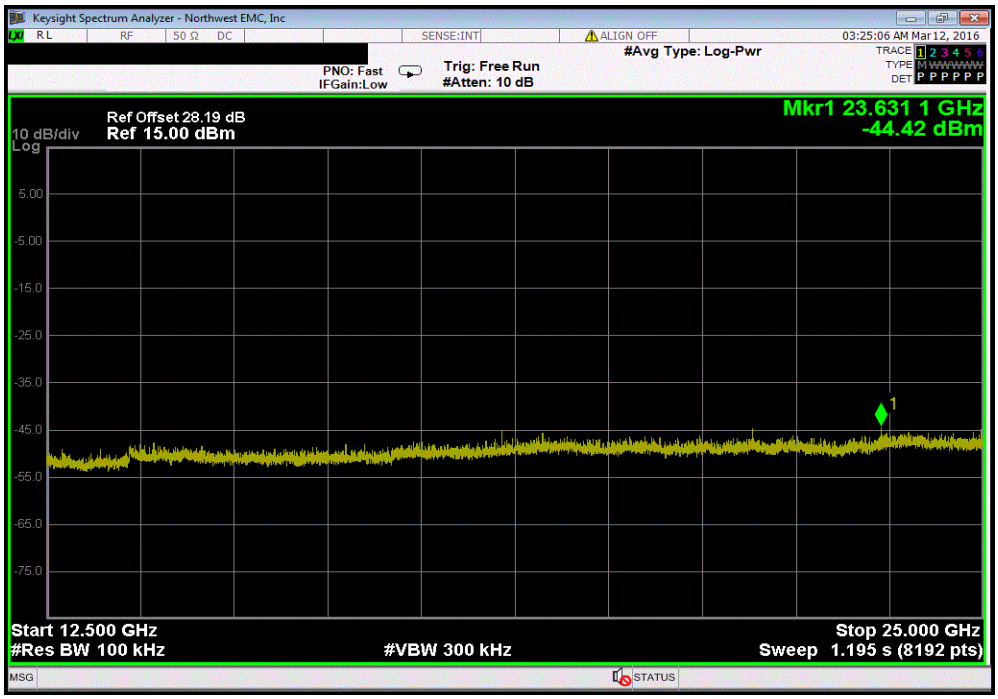
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



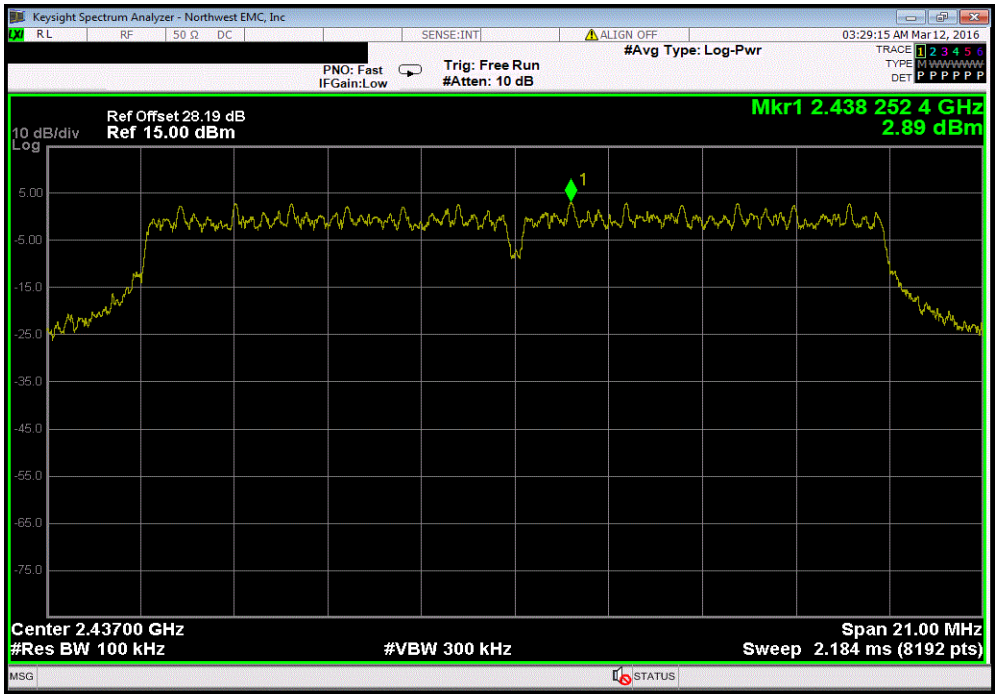
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-48.84	-20	Pass



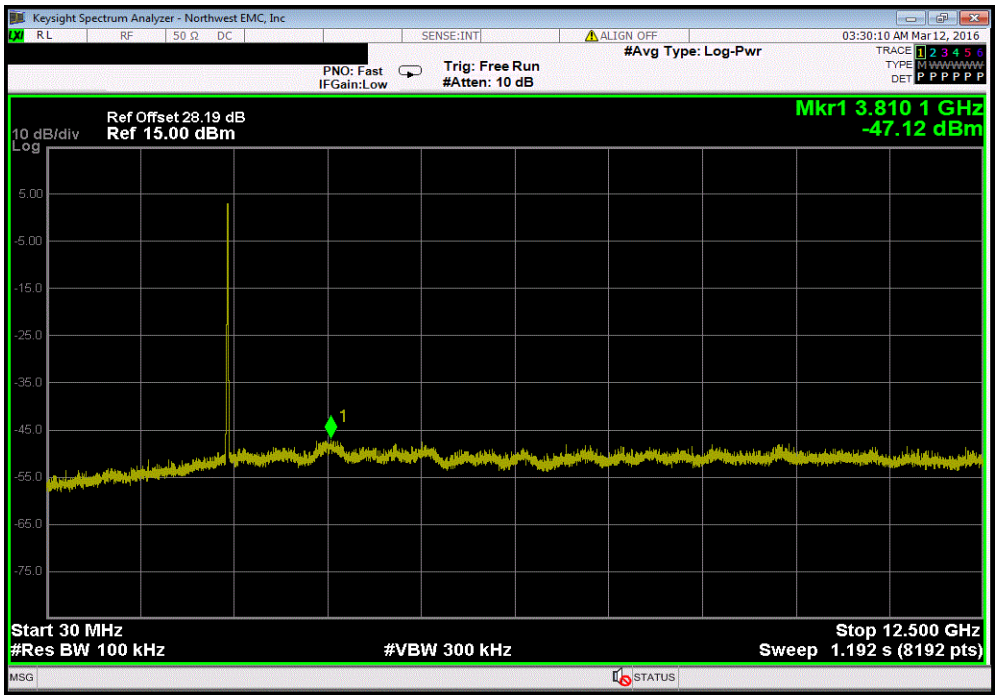
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz		-47.42	-20	Pass



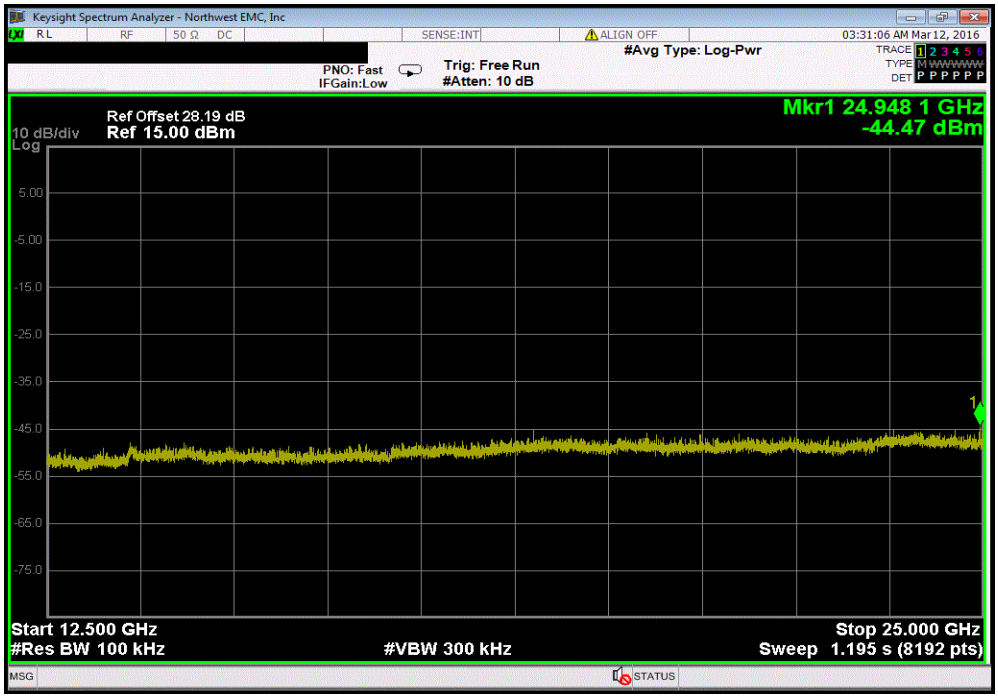
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



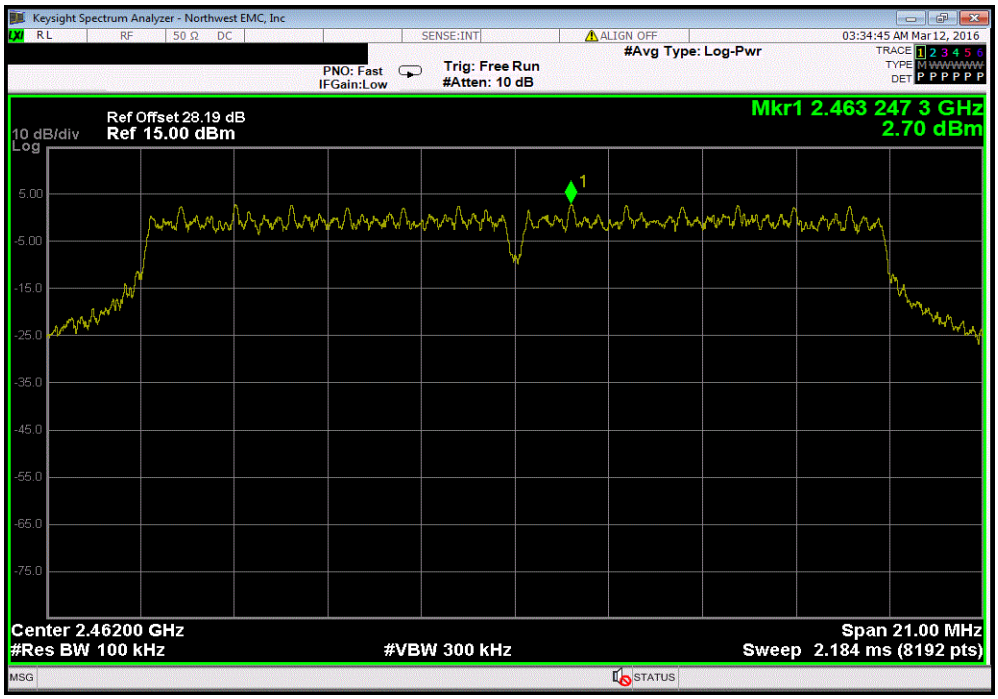
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-50.01	-20	Pass



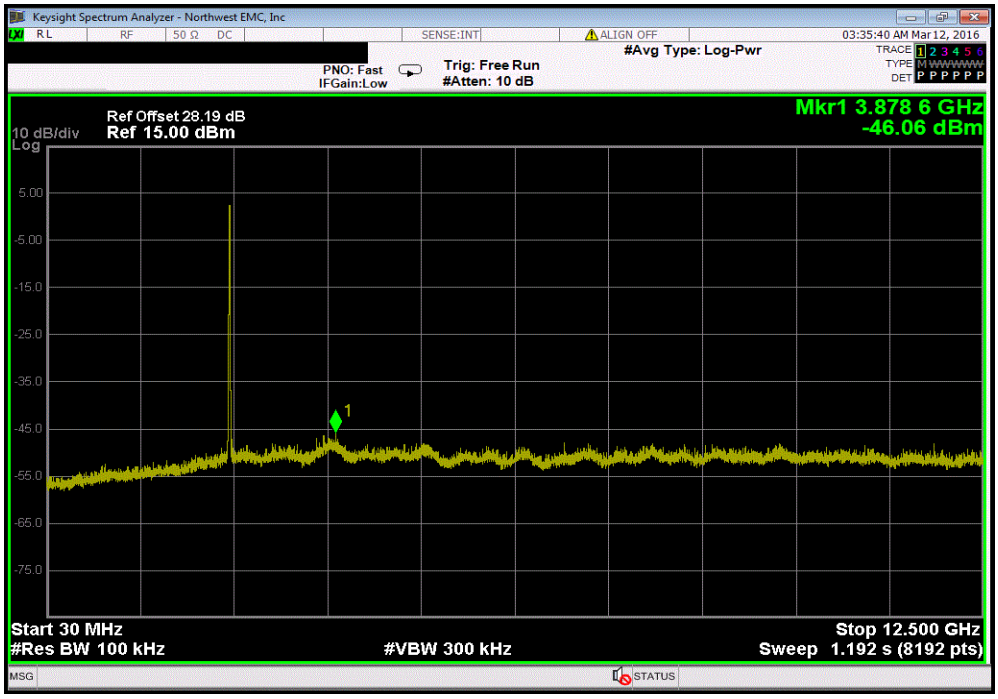
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-47.36	-20	Pass



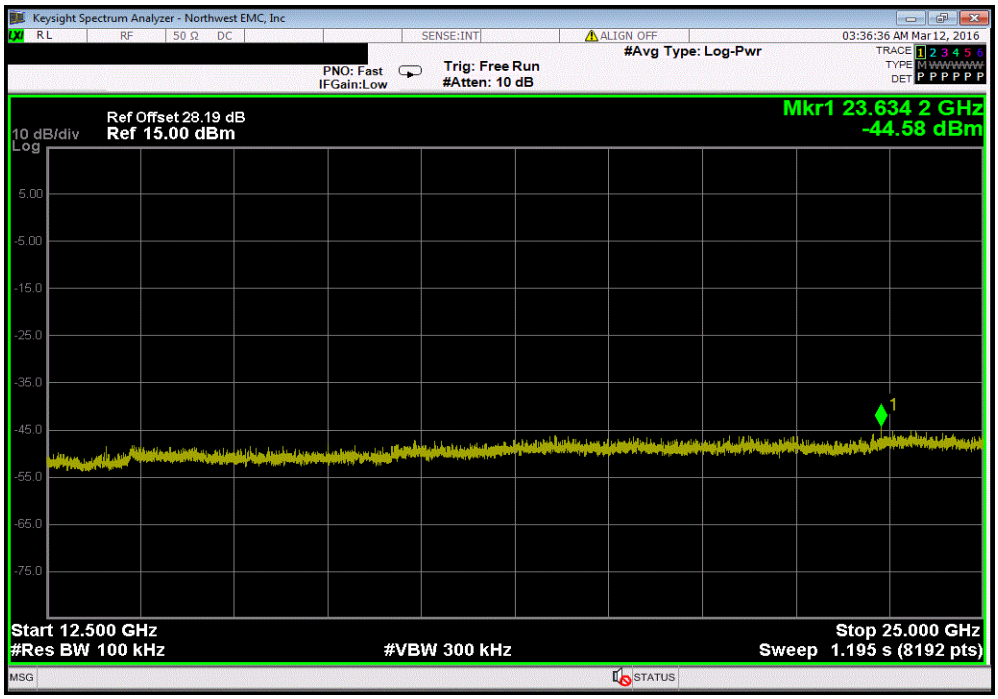
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



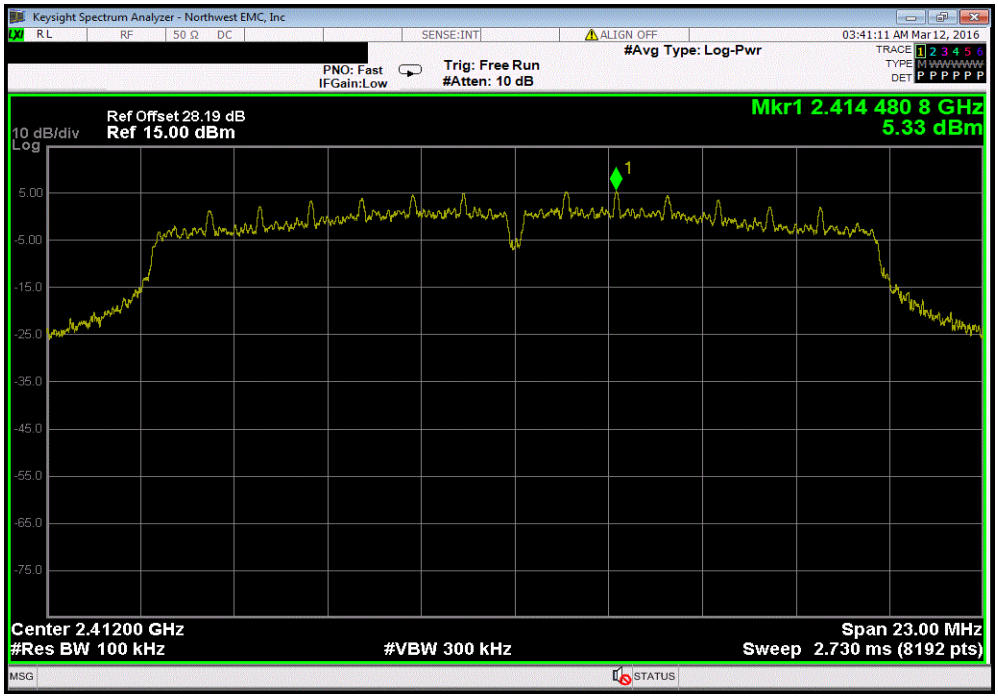
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-48.77	-20	Pass



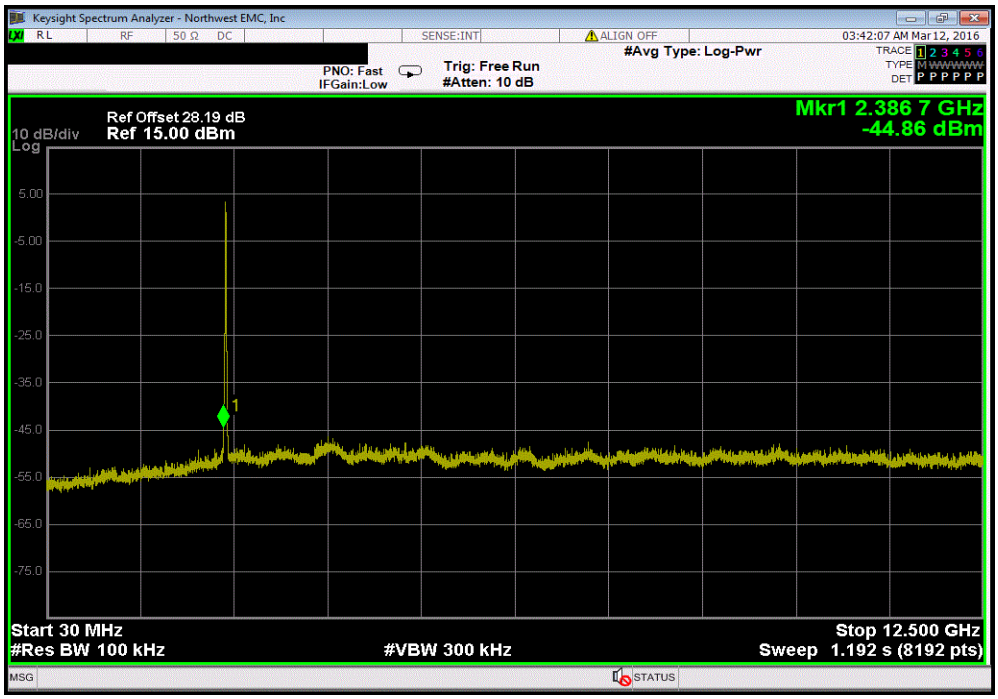
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-47.29	-20	Pass



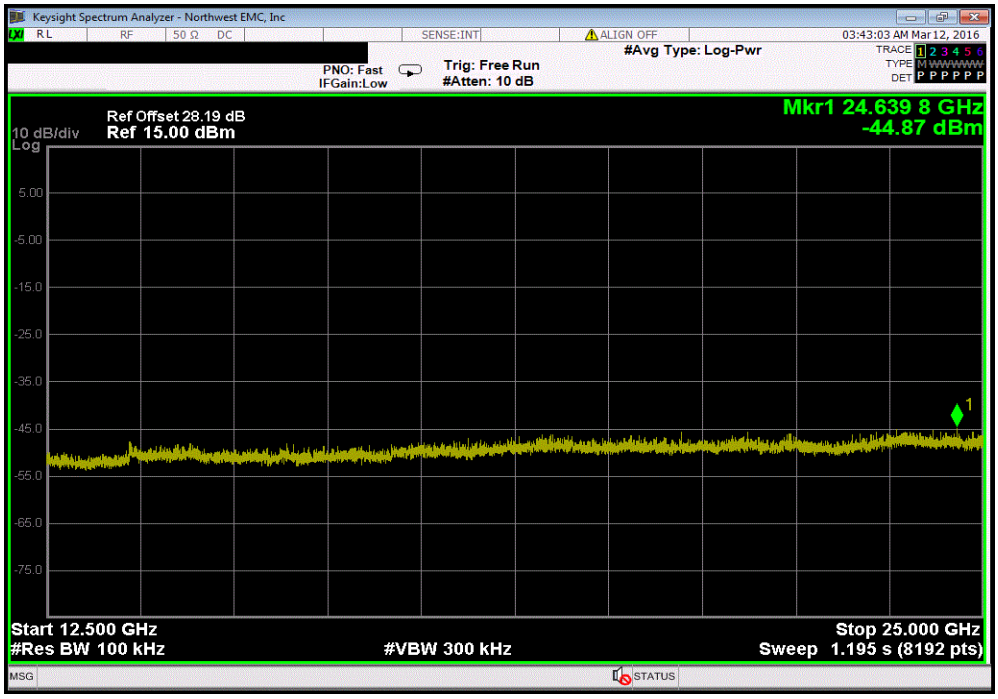
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



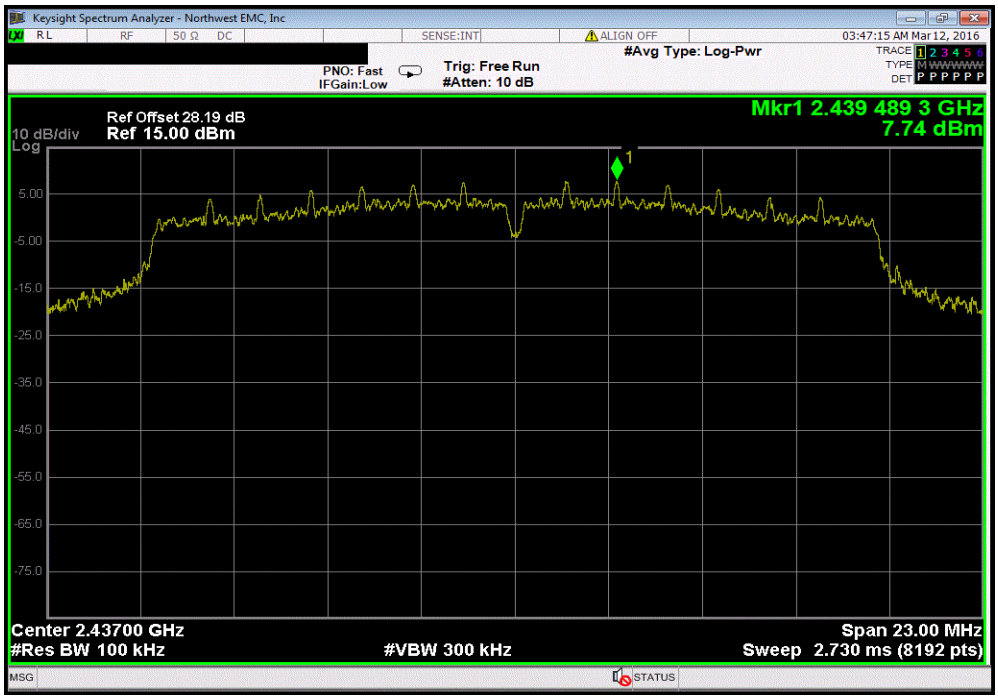
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-50.19	-20	Pass



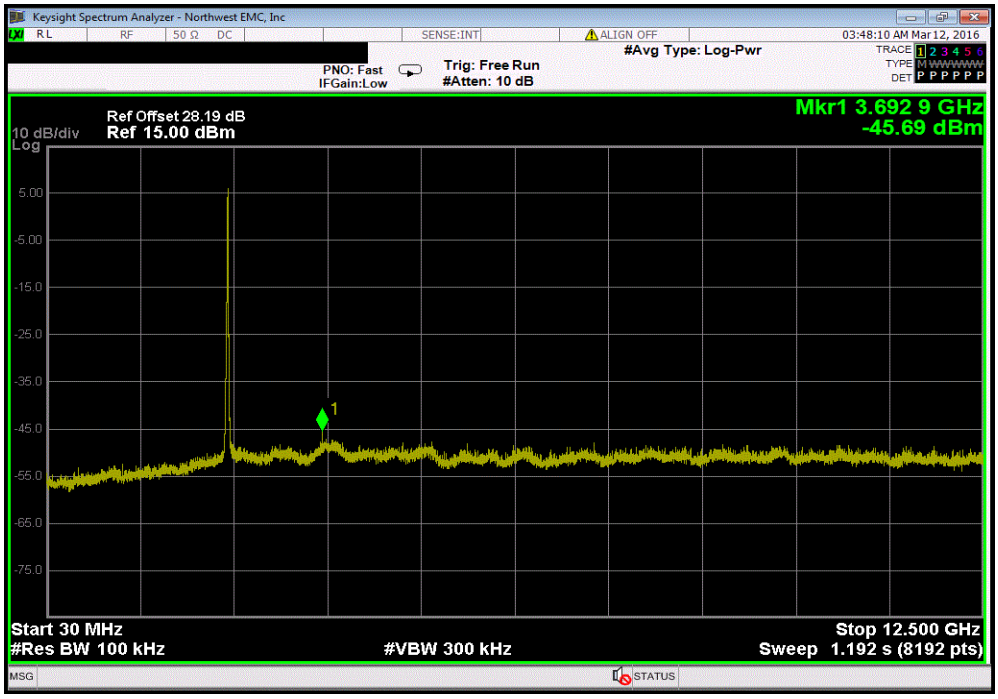
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-50.2	-20	Pass



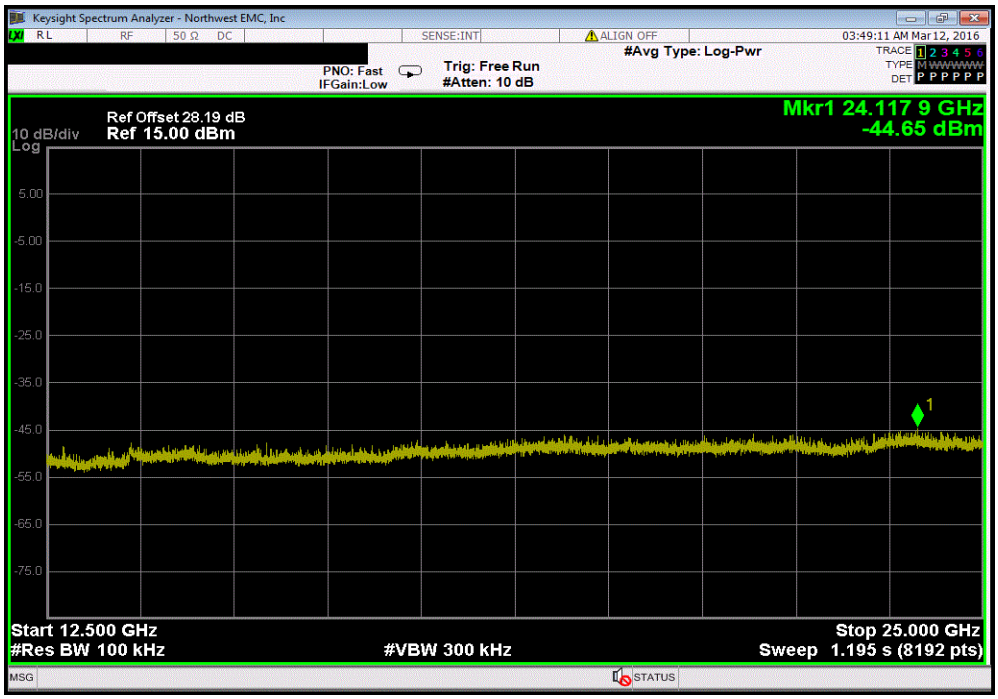
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



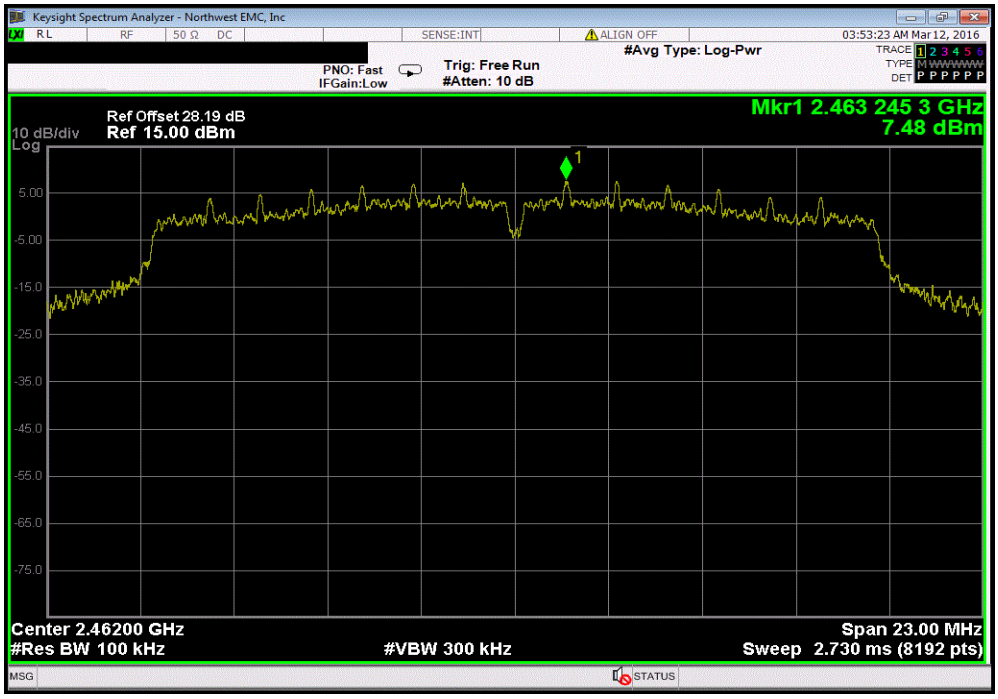
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-53.43	-20	Pass



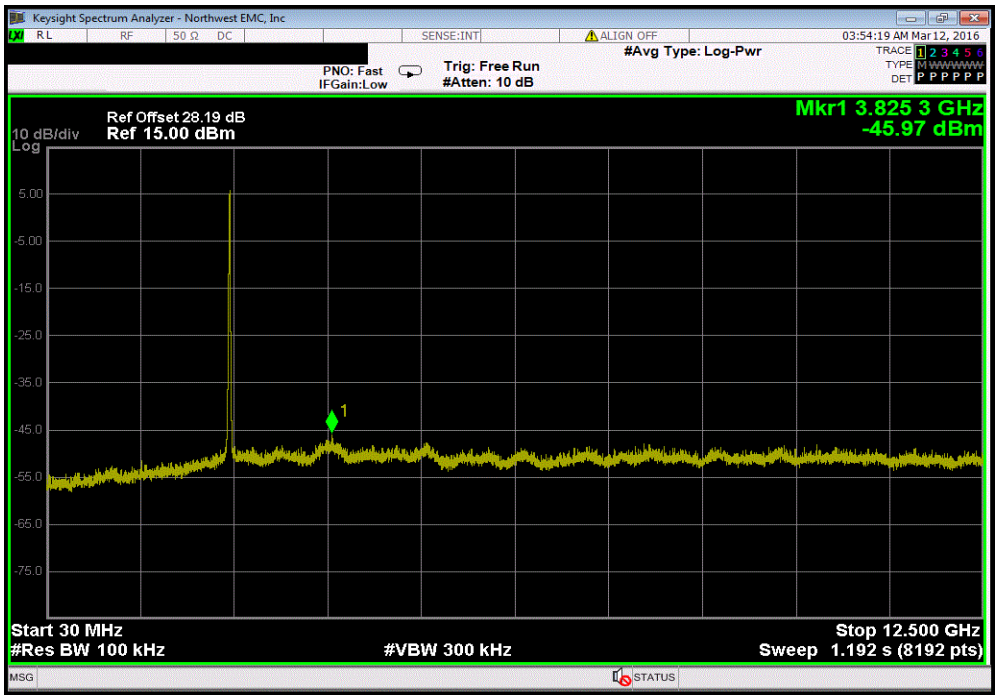
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz				
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz		-52.39	-20	Pass



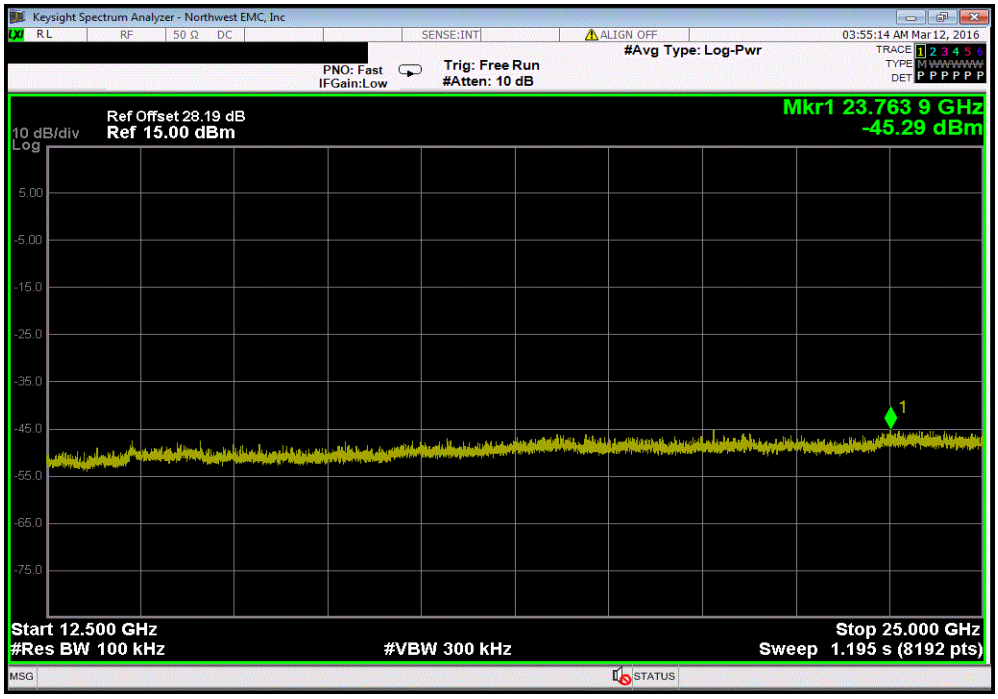
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



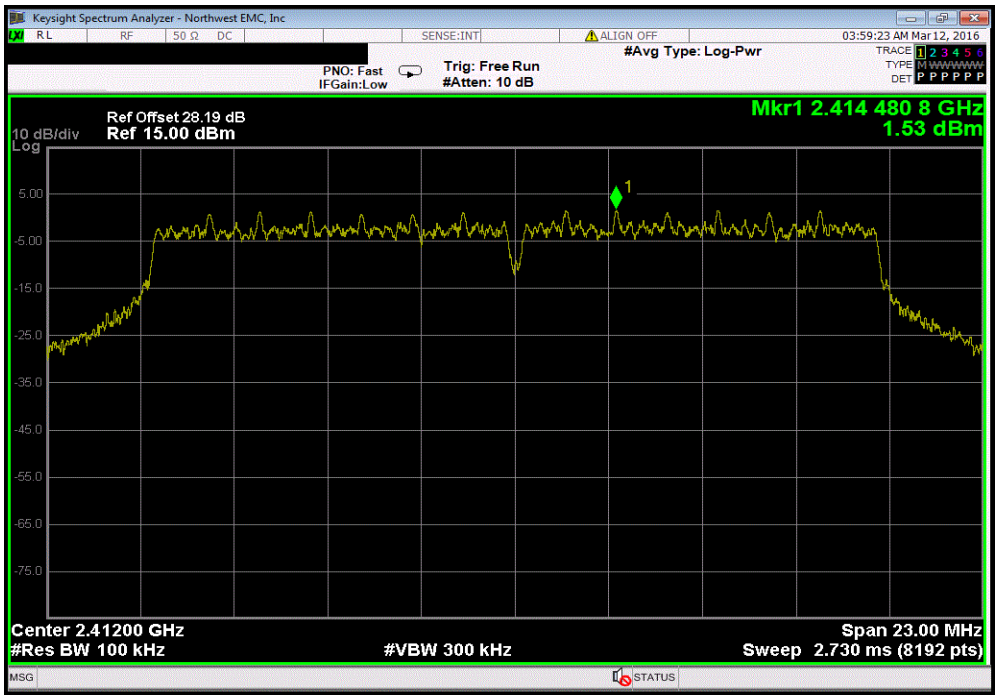
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-53.46	-20	Pass



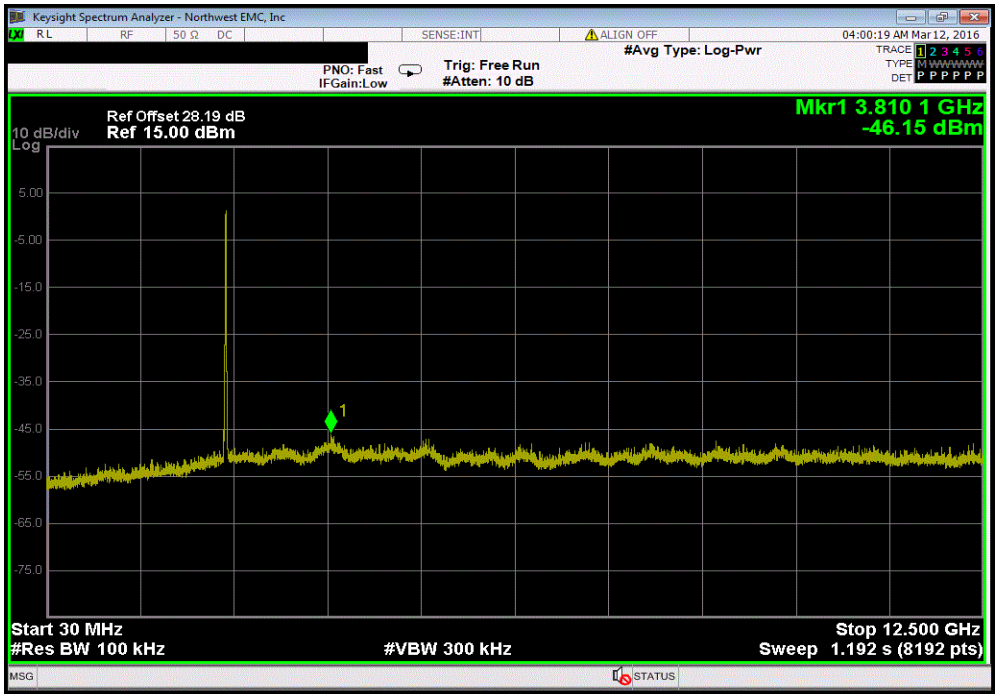
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-52.78	-20	Pass



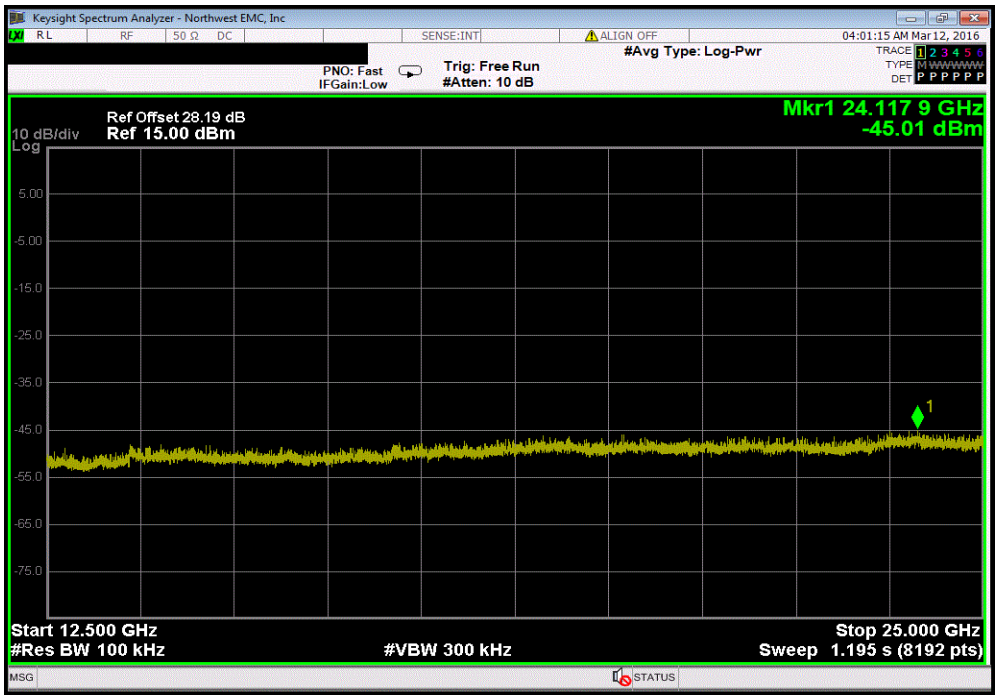
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



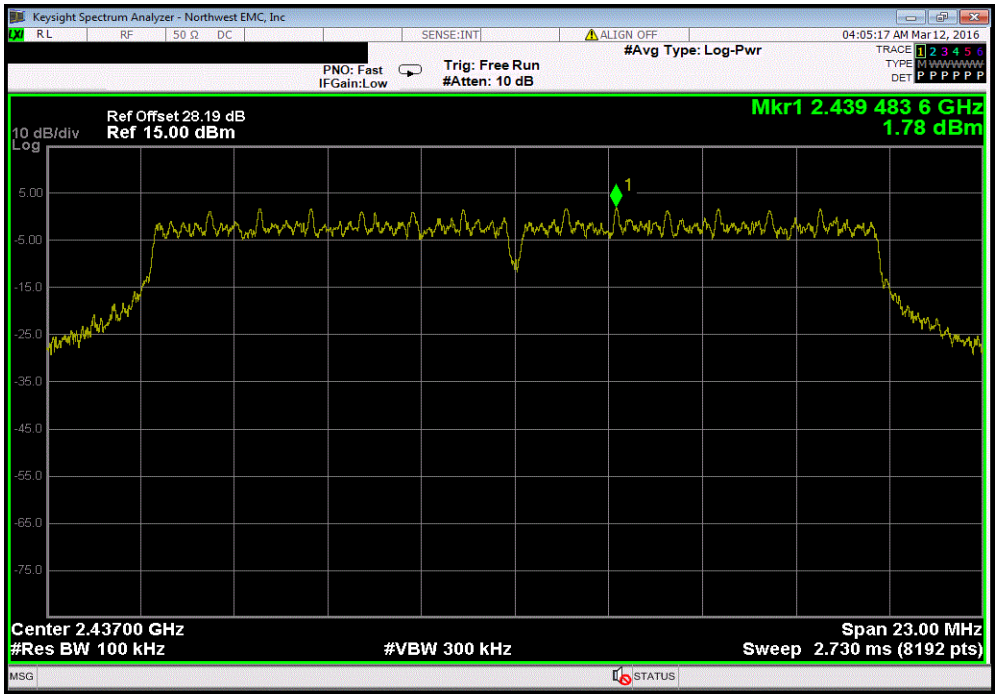
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-47.68	-20	Pass



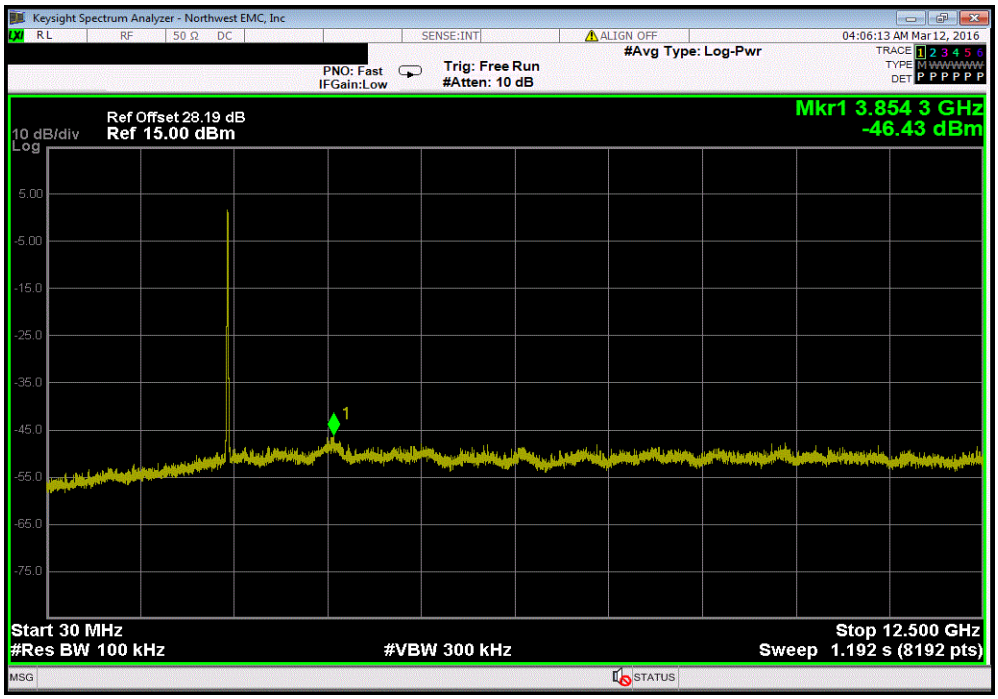
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz				
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz		-46.54	-20	Pass



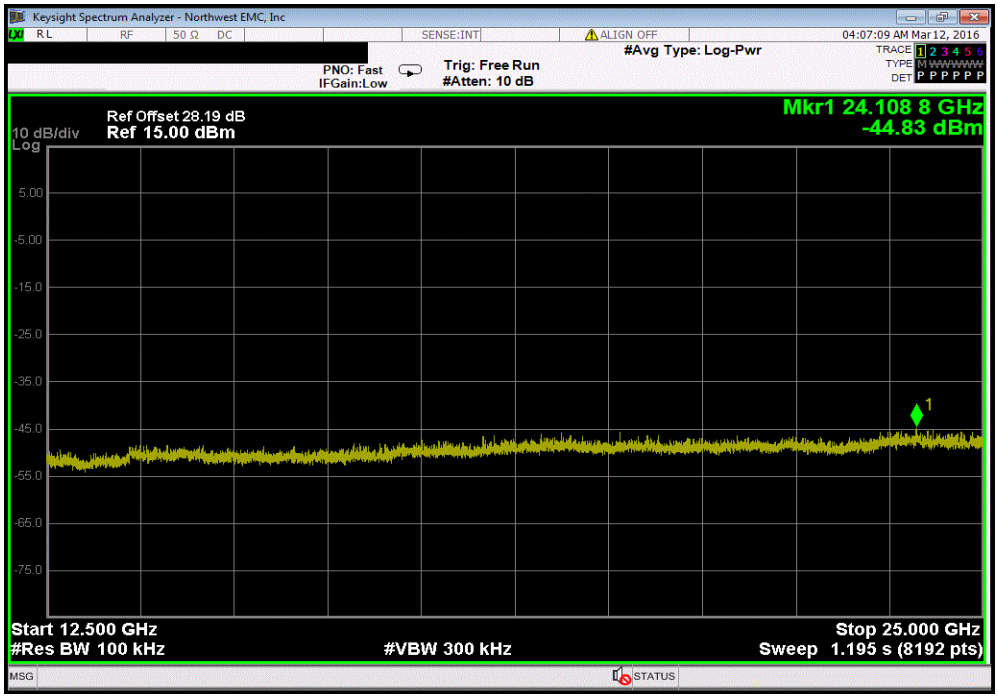
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
Frequency Range				Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



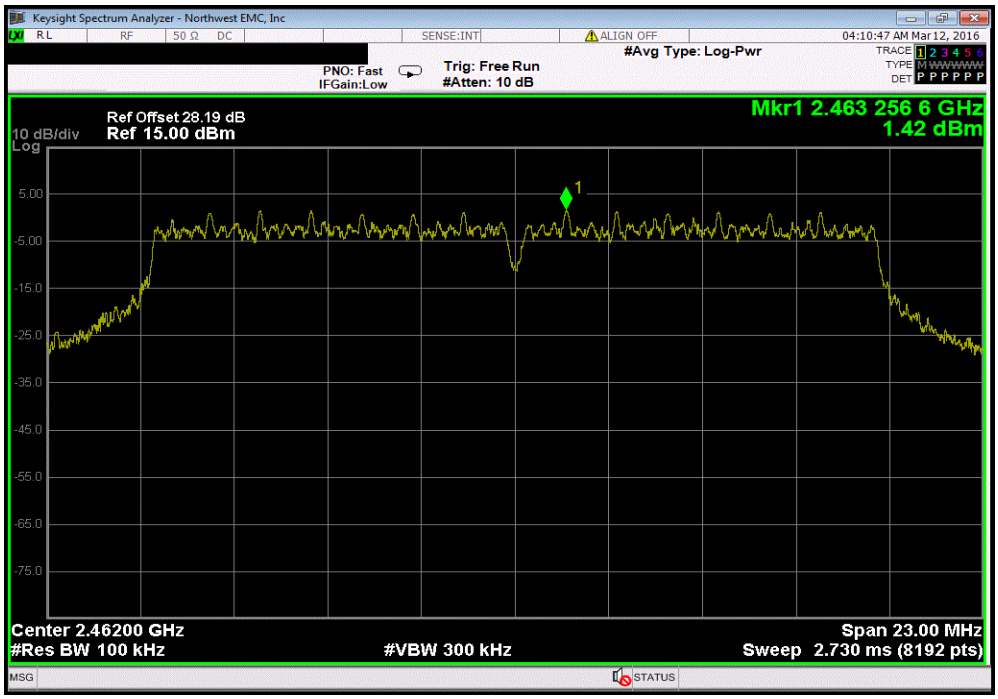
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz				
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz		-48.21	-20	Pass



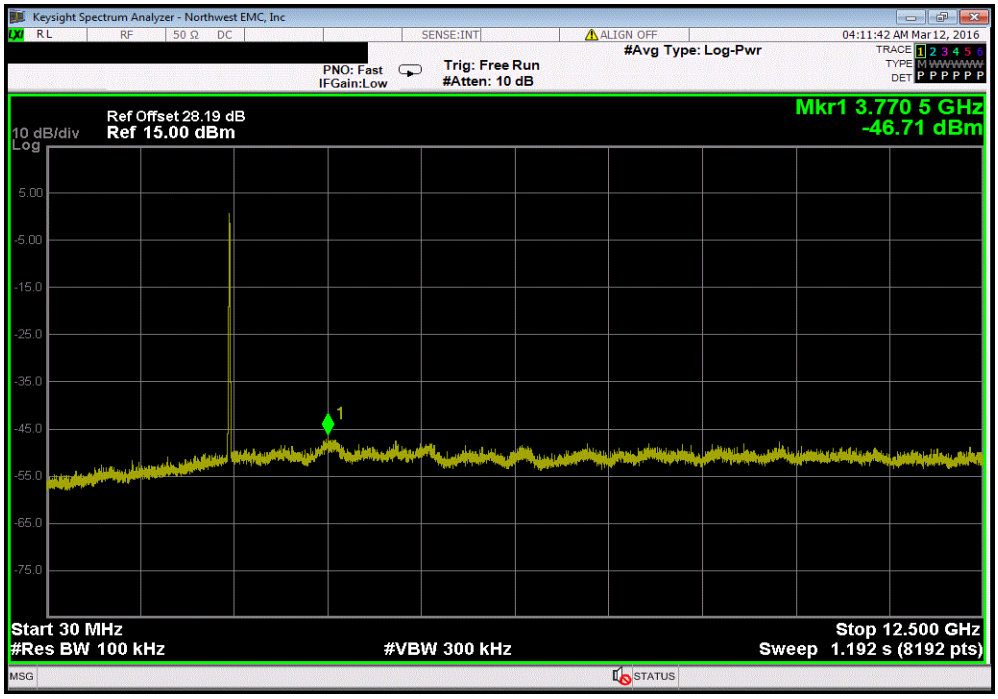
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz				
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz		-46.61	-20	Pass



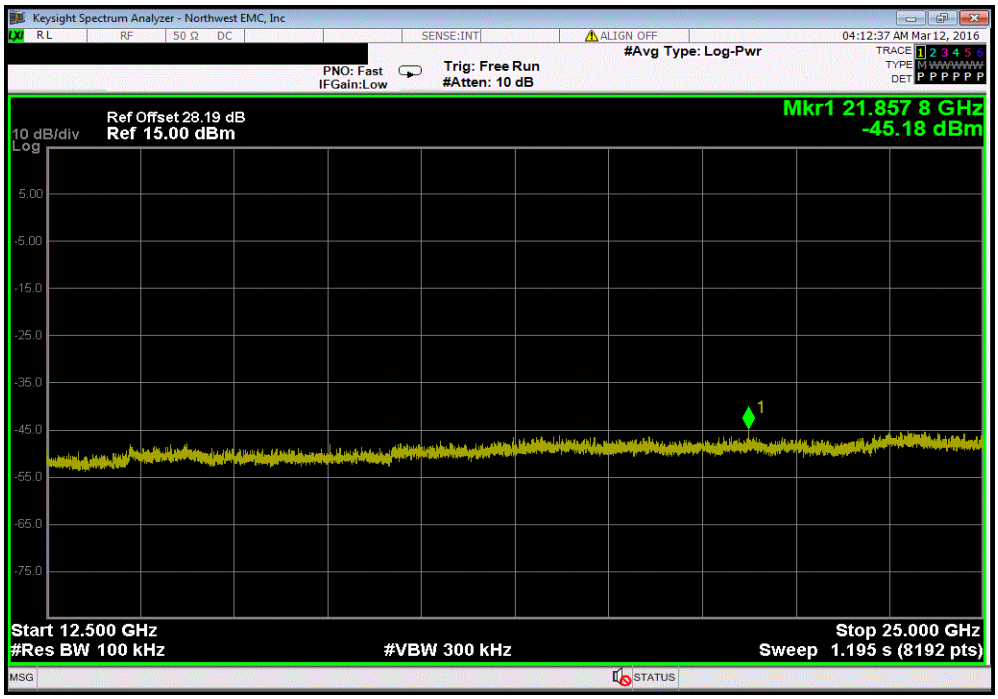
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz					
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz		-48.13	-20	Pass



2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-46.6	-20	Pass



SPURIOUS RADIATED EMISSIONS

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. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION

Transmitting 802.11 - low channel (2412 MHz), mid channel (2437 MHz), and high channel (2462 MHz); 1 Mbps, 6 Mbps, 11 Mbps, 36 Mbps, 54 Mbps, MCS0, and MCS7 data rates.

POWER SETTINGS INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

LGPD0165 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	26500 MHz

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Filter - Low Pass	Micro-Tronics	LPM50004	LFK	10/21/2015	12
Filter - High Pass	Micro-Tronics	HPM50111	LFN	10/21/2015	12
Attenuator	Fairview Microwave	SA18E-20	TWZ	10/21/2015	12
Amplifier - Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	9/18/2015	12
Cable	Northwest EMC	18-26GHz Standard Gain Horn Cable	MNP	9/18/2015	12
Antenna - Standard Gain	ETS Lindgren	3160-09	AHG	NCR	0
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVW	3/2/2015	12
Antenna - Standard Gain	ETS Lindgren	3160-08	AIQ	NCR	0
Cable	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	12/7/2015	12
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	3/2/2015	12
Antenna - Standard Gain	ETS Lindgren	3160-07	AXP	NCR	0
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVT	3/10/2015	12
Cable	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	12/7/2015	12
Antenna - Double Ridge	ETS Lindgren	3115	AJA	6/3/2014	24
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	AVO	12/10/2015	12
Cable	ESM Cable Corp.	Bilog Cables	MNH	12/7/2015	12
Antenna - Biconilog	Teseq	CBL 6141B	AYD	1/6/2016	24
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFN	2/10/2015	12

MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

TEST DESCRIPTION

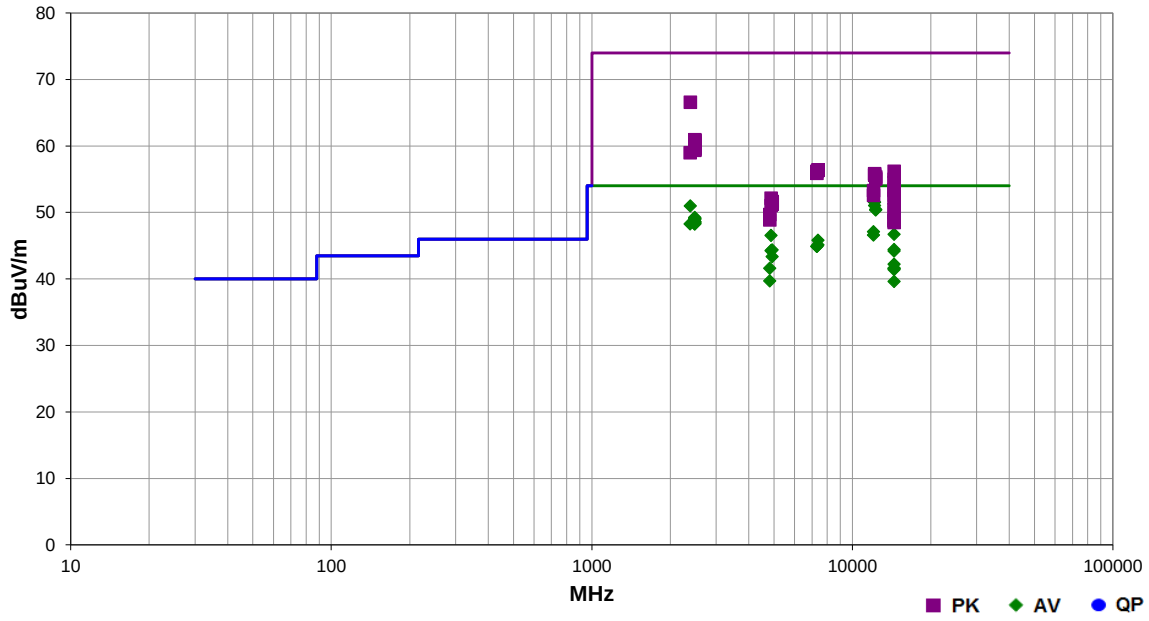
The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization. A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

SPURIOUS RADIATED EMISSIONS

Work Order:	LGPD0165	**Date:**	01/21/16		
Project:	None	**Temperature:**	22.4 °C		
Job Site:	MN05	**Humidity:**	18.4% RH		
Serial Number:	0216M00003	**Barometric Pres.:**	999 mbar	**Tested by:**	Dustin Sparks
EUT:	Zoll CF Card Module				
Configuration:	1				
Customer:	ZOLL Medical Corp.				
Attendees:	Adam Ford				
EUT Power:	110VAC/60Hz				
Operating Mode:	Transmitting 802.11 - low channel (2412 MHz), mid channel (2437 MHz), and high channel (2462 MHz); 1 Mbps, 6 Mbps, 11 Mbps, 36 Mbps, 54 Mbps, MCS0, and MCS7 data rates.				
Deviations:	None				
Comments:	None				

Test Specifications	**N/A**	**Test Method**
FCC 15.247:2016		ANSI C63.10:2013

Run #	36	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
14471.980	45.4	7.6	1.3	0.0	3.0	0.0	Horz	AV	0.0	53.0	54.0	-1.0	Low ch, EUT on side, 1 Mbps
12185.890	52.1	-0.6	1.4	32.0	3.0	0.0	Horz	AV	0.0	51.5	54.0	-2.5	Mid ch, EUT on side, 1 Mbps
14472.020	43.7	7.6	2.6	15.1	3.0	0.0	Vert	AV	0.0	51.3	54.0	-2.7	Low ch, EUT vert, 1 Mbps
12186.070	51.6	-0.6	1.7	33.1	3.0	0.0	Vert	AV	0.0	51.0	54.0	-3.0	Mid ch, EUT vert, 1 Mbps
2389.958	34.2	-3.2	2.8	221.1	3.0	20.0	Horz	AV	0.0	51.0	54.0	-3.0	Low ch, EUT horz, 6 Mbps
12310.890	50.7	-0.3	1.8	26.1	3.0	0.0	Vert	AV	0.0	50.4	54.0	-3.6	High ch, EUT vert, 1 Mbps
12311.100	50.6	-0.3	2.1	58.1	3.0	0.0	Horz	AV	0.0	50.3	54.0	-3.7	High ch, EUT on side, 1 Mbps
2487.108	32.2	-3.0	1.0	110.0	3.0	20.0	Horz	AV	0.0	49.2	54.0	-4.8	High ch, EUT horz, 1 Mbps
2483.500	32.1	-3.0	1.0	211.0	3.0	20.0	Horz	AV	0.0	49.1	54.0	-4.9	High ch, EUT horz, 6 Mbps
2487.917	32.0	-3.0	1.9	351.9	3.0	20.0	Horz	AV	0.0	49.0	54.0	-5.0	High ch, EUT horz, 11 Mbps
2483.600	31.9	-3.0	1.0	91.1	3.0	20.0	Vert	AV	0.0	48.9	54.0	-5.1	High ch, EUT on side, 6 Mbps
2483.833	31.6	-3.0	2.9	136.0	3.0	20.0	Horz	AV	0.0	48.6	54.0	-5.4	High ch, EUT on side, 6 Mbps
2483.650	31.6	-3.0	1.0	57.0	3.0	20.0	Horz	AV	0.0	48.6	54.0	-5.4	High ch, EUT on side, 54 Mbps
2484.000	31.5	-3.0	1.0	301.9	3.0	20.0	Horz	AV	0.0	48.5	54.0	-5.5	High ch, EUT horz, 36 Mbps
2483.683	31.5	-3.0	1.0	131.1	3.0	20.0	Vert	AV	0.0	48.5	54.0	-5.5	High ch, EUT vert, 6 Mbps
2483.600	31.4	-3.0	1.0	329.0	3.0	20.0	Horz	AV	0.0	48.4	54.0	-5.6	High ch, EUT horz, MCS7
14472.040	40.8	7.6	1.5	336.0	3.0	0.0	Vert	AV	0.0	48.4	54.0	-5.6	Low ch, EUT on side, 1 Mbps
2483.892	31.3	-3.0	1.0	55.1	3.0	20.0	Horz	AV	0.0	48.3	54.0	-5.7	High ch, EUT vert, 6 Mbps
2483.550	31.3	-3.0	3.4	107.0	3.0	20.0	Horz	AV	0.0	48.3	54.0	-5.7	High ch, EUT horz, MCS0
2386.183	31.5	-3.2	1.0	311.0	3.0	20.0	Horz	AV	0.0	48.3	54.0	-5.7	Low ch, EUT horz, 1 Mbps
2486.017	31.2	-3.0	1.0	66.1	3.0	20.0	Vert	AV	0.0	48.2	54.0	-5.8	High ch, EUT horz, 6 Mbps
14472.060	40.6	7.6	2.0	0.0	3.0	0.0	Vert	AV	0.0	48.2	54.0	-5.8	Low ch, EUT horz, 1 Mbps
12060.030	48.4	-1.3	1.4	14.0	3.0	0.0	Horz	AV	0.0	47.1	54.0	-6.9	Low ch, EUT on side, 1 Mbps
14471.960	39.1	7.6	1.7	294.9	3.0	0.0	Horz	AV	0.0	46.7	54.0	-7.3	Low ch, EUT vert, 1 Mbps
12060.040	47.9	-1.3	1.7	31.0	3.0	0.0	Vert	AV	0.0	46.6	54.0	-7.4	Low ch, EUT vert, 1 Mbps

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2389.975	49.8	-3.2	2.8	221.1	3.0	20.0	Horz	PK	0.0	66.6	74.0	-7.4	Low ch, EUT horz, 6 Mbps
4874.017	40.8	5.7	1.9	340.0	3.0	0.0	Horz	AV	0.0	46.5	54.0	-7.5	Mid ch, EUT on side, 1 Mbps
7386.667	31.8	14.0	1.0	92.0	3.0	0.0	Horz	AV	0.0	45.8	54.0	-8.2	High ch, EUT on side, 1 Mbps
7386.092	31.1	14.0	1.0	219.0	3.0	0.0	Vert	AV	0.0	45.1	54.0	-8.9	High ch, EUT vert, 1 Mbps
7310.758	30.8	14.1	1.0	28.0	3.0	0.0	Vert	AV	0.0	44.9	54.0	-9.1	Mid ch, EUT vert, 1 Mbps
7312.742	30.8	14.1	2.0	275.9	3.0	0.0	Horz	AV	0.0	44.9	54.0	-9.1	Mid ch, EUT on side, 1 Mbps
14472.020	36.8	7.6	1.4	348.9	3.0	0.0	Horz	AV	0.0	44.4	54.0	-9.6	Low ch, EUT on side, 6 Mbps
4924.025	38.4	6.0	1.5	9.0	3.0	0.0	Horz	AV	0.0	44.4	54.0	-9.6	High ch, EUT on side, 1 Mbps
4873.967	38.5	5.7	3.0	13.0	3.0	0.0	Vert	AV	0.0	44.2	54.0	-9.8	Mid ch, EUT vert, 1 Mbps
14472.000	36.6	7.6	1.0	351.9	3.0	0.0	Horz	AV	0.0	44.2	54.0	-9.8	Low ch, EUT on side, 11 Mbps
4924.075	37.4	6.0	2.2	350.0	3.0	0.0	Vert	AV	0.0	43.4	54.0	-10.6	High ch, EUT vert, 1 Mbps
14472.020	34.6	7.6	1.0	351.9	3.0	0.0	Horz	AV	0.0	42.2	54.0	-11.8	Low ch, EUT on side, MCS0
14471.990	34.0	7.6	1.0	351.9	3.0	0.0	Horz	AV	0.0	41.6	54.0	-12.4	Low ch, EUT on side, 36 Mbps
14471.960	34.0	7.6	1.0	351.9	3.0	0.0	Horz	AV	0.0	41.6	54.0	-12.4	Low ch, EUT on side, 54 Mbps
4823.942	36.1	5.5	1.9	16.1	3.0	0.0	Horz	AV	0.0	41.6	54.0	-12.4	Low ch, EUT on side, 1 Mbps
14471.960	33.8	7.6	1.0	351.9	3.0	0.0	Horz	AV	0.0	41.4	54.0	-12.6	Low ch, EUT on side, MCS7
2483.750	43.9	-3.0	1.0	57.0	3.0	20.0	Horz	PK	0.0	60.9	74.0	-13.1	High ch, EUT on side, 54 Mbps
2487.267	43.8	-3.0	1.0	131.1	3.0	20.0	Vert	PK	0.0	60.8	74.0	-13.2	High ch, EUT vert, 6 Mbps
2485.858	43.8	-3.0	1.9	351.9	3.0	20.0	Horz	PK	0.0	60.8	74.0	-13.2	High ch, EUT horz, 11 Mbps
2484.017	43.7	-3.0	1.0	329.0	3.0	20.0	Horz	PK	0.0	60.7	74.0	-13.3	High ch, EUT horz, MCS7
2483.767	43.4	-3.0	2.9	136.0	3.0	20.0	Horz	PK	0.0	60.4	74.0	-13.6	High ch, EUT on side, 6 Mbps
2485.567	43.2	-3.0	1.0	211.0	3.0	20.0	Horz	PK	0.0	60.2	74.0	-13.8	High ch, EUT horz, 6 Mbps
2484.225	43.0	-3.0	1.0	91.1	3.0	20.0	Vert	PK	0.0	60.0	74.0	-14.0	High ch, EUT on side, 6 Mbps
2487.183	42.7	-3.0	1.0	66.1	3.0	20.0	Vert	PK	0.0	59.7	74.0	-14.3	High ch, EUT horz, 6 Mbps
4824.017	34.2	5.5	1.3	3.0	3.0	0.0	Vert	AV	0.0	39.7	54.0	-14.3	Low ch, EUT vert, 1 Mbps
2487.058	42.6	-3.0	1.0	110.0	3.0	20.0	Horz	PK	0.0	59.6	74.0	-14.4	High ch, EUT horz, 1 Mbps
14471.910	32.0	7.6	2.0	317.0	3.0	0.0	Horz	AV	0.0	39.6	54.0	-14.4	Low ch, EUT horz, 1 Mbps
2485.158	42.5	-3.0	1.0	301.9	3.0	20.0	Horz	PK	0.0	59.5	74.0	-14.5	High ch, EUT horz, 36 Mbps
2487.167	42.4	-3.0	1.0	55.1	3.0	20.0	Horz	PK	0.0	59.4	74.0	-14.6	High ch, EUT vert, 6 Mbps
2486.675	42.3	-3.0	3.4	107.0	3.0	20.0	Horz	PK	0.0	59.3	74.0	-14.7	High ch, EUT horz, MCS0
2386.967	42.2	-3.2	1.0	311.0	3.0	20.0	Horz	PK	0.0	59.0	74.0	-15.0	Low ch, EUT horz, 1 Mbps
7386.375	42.4	14.0	1.0	219.0	3.0	0.0	Vert	PK	0.0	56.4	74.0	-17.6	High ch, EUT vert, 1 Mbps
7386.358	42.3	14.0	1.0	92.0	3.0	0.0	Horz	PK	0.0	56.3	74.0	-17.7	High ch, EUT on side, 1 Mbps
14471.910	48.6	7.6	1.3	0.0	3.0	0.0	Horz	PK	0.0	56.2	74.0	-17.8	Low ch, EUT on side, 1 Mbps
7312.692	42.1	14.1	2.0	275.9	3.0	0.0	Horz	PK	0.0	56.2	74.0	-17.8	Mid ch, EUT on side, 1 Mbps
7311.750	41.8	14.1	1.0	28.0	3.0	0.0	Vert	PK	0.0	55.9	74.0	-18.1	Mid ch, EUT vert, 1 Mbps
12185.870	56.4	-0.6	1.4	32.0	3.0	0.0	Horz	PK	0.0	55.8	74.0	-18.2	Mid ch, EUT on side, 1 Mbps
12185.030	56.2	-0.6	1.7	33.1	3.0	0.0	Vert	PK	0.0	55.6	74.0	-18.4	Mid ch, EUT vert, 1 Mbps
12309.850	55.6	-0.3	1.8	26.1	3.0	0.0	Vert	PK	0.0	55.3	74.0	-18.7	High ch, EUT vert, 1 Mbps
12309.930	55.3	-0.3	2.1	58.1	3.0	0.0	Horz	PK	0.0	55.0	74.0	-19.0	High ch, EUT on side, 1 Mbps
14472.120	47.4	7.6	1.4	348.9	3.0	0.0	Horz	PK	0.0	55.0	74.0	-19.0	Low ch, EUT on side, 6 Mbps
14472.050	46.9	7.6	2.6	15.1	3.0	0.0	Vert	PK	0.0	54.5	74.0	-19.5	Low ch, EUT vert, 1 Mbps
14471.980	45.8	7.6	1.0	351.9	3.0	0.0	Horz	PK	0.0	53.4	74.0	-20.6	Low ch, EUT on side, 11 Mbps
14472.090	45.7	7.6	1.5	336.0	3.0	0.0	Vert	PK	0.0	53.3	74.0	-20.7	Low ch, EUT on side, 1 Mbps
12060.180	54.6	-1.3	1.4	14.0	3.0	0.0	Horz	PK	0.0	53.3	74.0	-20.7	Low ch, EUT on side, 1 Mbps
14471.930	45.0	7.6	2.0	0.0	3.0	0.0	Vert	PK	0.0	52.6	74.0	-21.4	Low ch, EUT horz, 1 Mbps
12059.890	53.9	-1.3	1.7	31.0	3.0	0.0	Vert	PK	0.0	52.6	74.0	-21.4	Low ch, EUT vert, 1 Mbps
4873.825	46.4	5.7	1.9	340.0	3.0	0.0	Horz	PK	0.0	52.1	74.0	-21.9	Mid ch, EUT on side, 1 Mbps
14472.210	44.4	7.6	1.7	294.9	3.0	0.0	Horz	PK	0.0	52.0	74.0	-22.0	Low ch, EUT vert, 1 Mbps
4924.075	45.7	6.0	1.5	9.0	3.0	0.0	Horz	PK	0.0	51.7	74.0	-22.3	High ch, EUT on side, 1 Mbps
4924.092	45.3	6.0	2.2	350.0	3.0	0.0	Vert	PK	0.0	51.3	74.0	-22.7	High ch, EUT vert, 1 Mbps
4873.983	45.3	5.7	3.0	13.0	3.0	0.0	Vert	PK	0.0	51.0	74.0	-23.0	Mid ch, EUT vert, 1 Mbps
14471.930	42.9	7.6	1.0	351.9	3.0	0.0	Horz	PK	0.0	50.5	74.0	-23.5	Low ch, EUT on side, 36 Mbps
14472.120	42.4	7.6	1.0	351.9	3.0	0.0	Horz	PK	0.0	50.0	74.0	-24.0	Low ch, EUT on side, MCS0
4823.667	44.2	5.5	1.9	16.1	3.0	0.0	Horz	PK	0.0	49.7	74.0	-24.3	Low ch, EUT on side, 1 Mbps
4823.867	43.4	5.5	1.3	3.0	3.0	0.0	Vert	PK	0.0	48.9	74.0	-25.1	Low ch, EUT vert, 1 Mbps
14472.130	41.2	7.6	1.0	351.9	3.0	0.0	Horz	PK	0.0	48.8	74.0	-25.2	Low ch, EUT on side, MCS7
14471.930	41.1	7.6	1.0	351.9	3.0	0.0	Horz	PK	0.0	48.7	74.0	-25.3	Low ch, EUT on side, 54 Mbps
14472.260	40.9	7.6	2.0	317.0	3.0	0.0	Horz	PK	0.0	48.5	74.0	-25.5	Low ch, EUT horz, 1 Mbps

AC – POWERLINE CONDUCTED EMISSIONS

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Per the standard, an insulating material was also added to ground plane between the EUT's power and remote I/O cables. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50ohm measuring port is terminated by a 50ohm EMI meter or a 50ohm resistive load. All 50ohm measuring ports of the LISN are terminated by 50ohm. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
LISN	Solar Electronics	9252-50-R-24-BNC	LIY	3/23/2015	3/23/2016
Filter - High Pass	TTE	H97-100K-50-720B	HGN	NCR	NCR
Cable - Conducted Cable Assembly	Northwest EMC	None	MNC	NCR	NCR
Receiver	Rohde & Schwarz	ESR7	ARI	5/21/2015	5/21/2016

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	2.4 dB	-2.4 dB

CONFIGURATIONS INVESTIGATED

LGPD0165-1

MODES INVESTIGATED

Single channel continuous transmission. Channel 1 2412 MHz, 1 Mbps.
Single channel continuous transmission. Channel 11 2462 MHz, 1 Mbps.
Single channel continuous transmission. Channel 6 2437 MHz, 1 Mbps.

AC – POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Zoll CF Card Module	Work Order:	LGPD0165
Serial Number:	0216M00003	Date:	02/02/2016
Customer:	ZOLL Medical Corp.	Temperature:	22.5°C
Attendees:	Adam Ford	Relative Humidity:	22.6%
Customer Project:	None	Bar. Pressure:	985.4 mb
Tested By:	Jared Ison	Job Site:	MN03
Power:	5 VDC	Configuration:	LGPD0165-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	1	Line:	Positive Lead	Add. Ext. Attenuation (dB):	0

COMMENTS

None

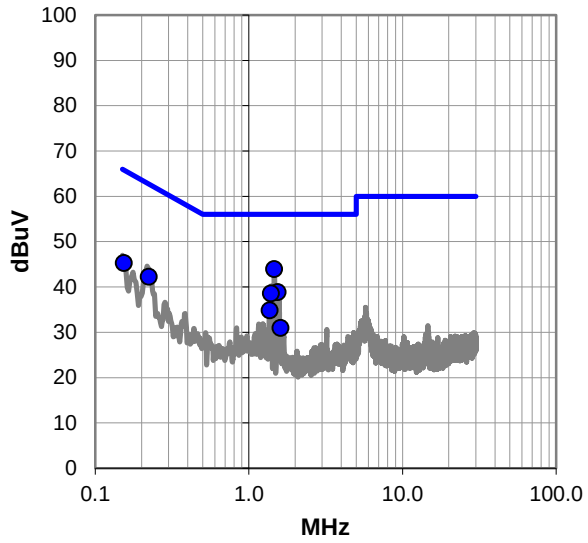
EUT OPERATING MODES

Single channel continuous transmission. Channel 1 2412 MHz, 1 Mbps.

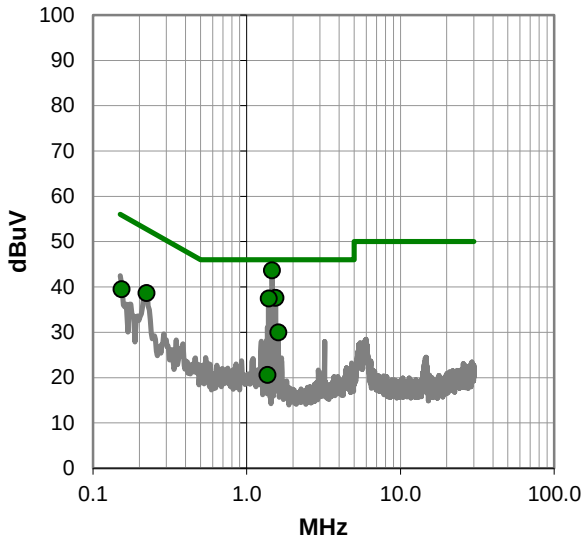
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC – POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #1

Quasi Peak Data - vs - Quasi Peak Limit

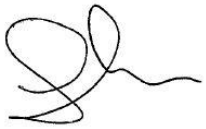
Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.465	23.8	20.1	43.9	56.0	-12.1
1.541	18.7	20.2	38.9	56.0	-17.1
1.391	18.4	20.1	38.5	56.0	-17.5
0.223	22.0	20.3	42.3	62.7	-20.4
0.153	24.9	20.4	45.3	65.8	-20.5
1.364	14.7	20.1	34.8	56.0	-21.2
1.606	10.8	20.2	31.0	56.0	-25.0

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.465	23.5	20.1	43.6	46.0	-2.4
1.541	17.4	20.2	37.6	46.0	-8.4
1.391	17.3	20.1	37.4	46.0	-8.6
0.223	18.4	20.3	38.7	52.7	-14.0
1.606	9.8	20.2	30.0	46.0	-16.0
0.153	19.1	20.4	39.5	55.8	-16.3
1.364	0.4	20.1	20.5	46.0	-25.5

CONCLUSION

Pass



Tested By

AC – POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Zoll CF Card Module	Work Order:	LGPD0165
Serial Number:	0216M00003	Date:	02/02/2016
Customer:	ZOLL Medical Corp.	Temperature:	22.5°C
Attendees:	Adam Ford	Relative Humidity:	22.6%
Customer Project:	None	Bar. Pressure:	985.4 mb
Tested By:	Jared Ison	Job Site:	MN03
Power:	5 VDC	Configuration:	LGPD0165-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	2	Line:	Negative Lead	Add. Ext. Attenuation (dB):	0

COMMENTS

None

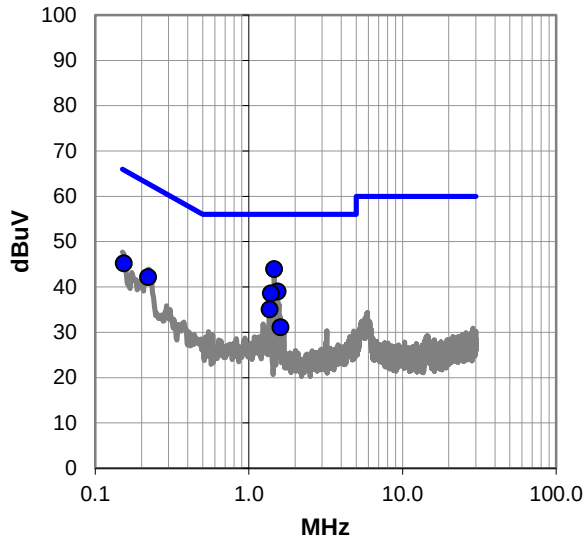
EUT OPERATING MODES

Single channel continuous transmission. Channel 1 2412 MHz, 1 Mbps.

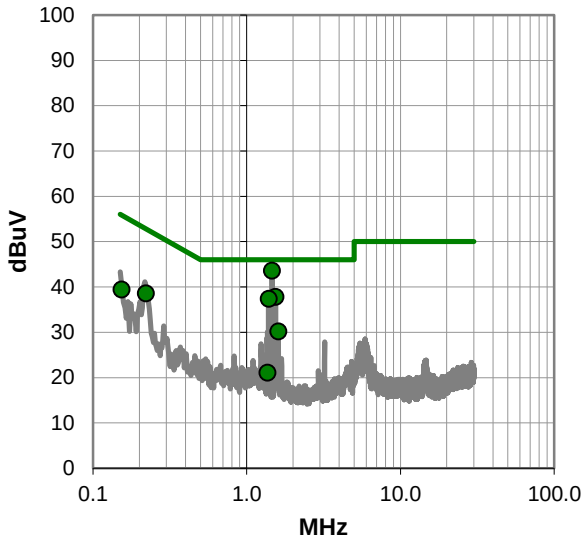
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC – POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #2

Quasi Peak Data - vs - Quasi Peak Limit

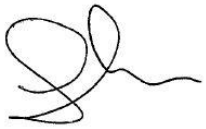
Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.464	23.8	20.1	43.9	56.0	-12.1
1.539	18.8	20.2	39.0	56.0	-17.0
1.391	18.4	20.1	38.5	56.0	-17.5
0.153	24.8	20.4	45.2	65.8	-20.6
0.221	21.9	20.3	42.2	62.8	-20.6
1.366	14.9	20.1	35.0	56.0	-21.0
1.606	10.9	20.2	31.1	56.0	-24.9

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.464	23.4	20.1	43.5	46.0	-2.5
1.539	17.6	20.2	37.8	46.0	-8.2
1.391	17.2	20.1	37.3	46.0	-8.7
0.221	18.3	20.3	38.6	52.8	-14.2
1.606	10.0	20.2	30.2	46.0	-15.8
0.153	19.0	20.4	39.4	55.8	-16.4
1.366	0.9	20.1	21.0	46.0	-25.0

CONCLUSION

Pass



Tested By

AC – POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Zoll CF Card Module	Work Order:	LGPD0165
Serial Number:	0216M00003	Date:	02/02/2016
Customer:	ZOLL Medical Corp.	Temperature:	22.5°C
Attendees:	Adam Ford	Relative Humidity:	22.6%
Customer Project:	None	Bar. Pressure:	985.4 mb
Tested By:	Jared Ison	Job Site:	MN03
Power:	5 VDC	Configuration:	LGPD0165-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	3	Line:	Negative Lead	Add. Ext. Attenuation (dB):	0

COMMENTS

None

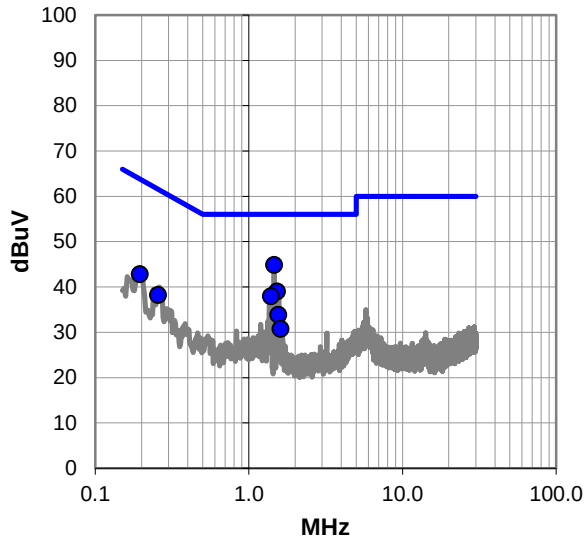
EUT OPERATING MODES

Single channel continuous transmission. Channel 11 2462 MHz, 1 Mbps.

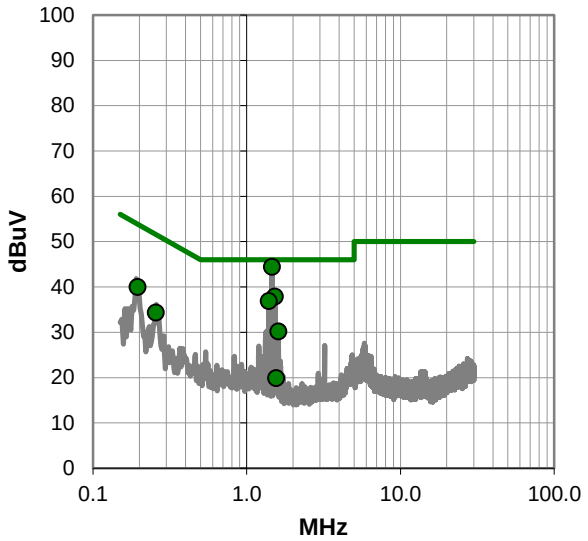
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC – POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #3

Quasi Peak Data - vs - Quasi Peak Limit

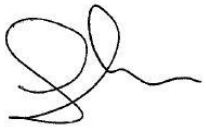
Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.460	24.7	20.1	44.8	56.0	-11.2
1.525	18.8	20.2	39.0	56.0	-17.0
1.393	17.8	20.1	37.9	56.0	-18.1
0.195	22.5	20.3	42.8	63.8	-21.0
1.558	13.7	20.2	33.9	56.0	-22.1
0.257	18.0	20.2	38.2	61.5	-23.3
1.606	10.6	20.2	30.8	56.0	-25.2

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.460	24.3	20.1	44.4	46.0	-1.6
1.525	17.7	20.2	37.9	46.0	-8.1
1.393	16.7	20.1	36.8	46.0	-9.2
0.195	19.7	20.3	40.0	53.8	-13.8
1.606	10.0	20.2	30.2	46.0	-15.8
0.257	14.1	20.2	34.3	51.5	-17.2
1.558	-0.3	20.2	19.9	46.0	-26.1

CONCLUSION

Pass



Tested By

AC – POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Zoll CF Card Module	Work Order:	LGPD0165
Serial Number:	0216M00003	Date:	02/02/2016
Customer:	ZOLL Medical Corp.	Temperature:	22.5°C
Attendees:	Adam Ford	Relative Humidity:	22.6%
Customer Project:	None	Bar. Pressure:	985.4 mb
Tested By:	Jared Ison	Job Site:	MN03
Power:	5 VDC	Configuration:	LGPD0165-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	4	Line:	Positive Lead	Add. Ext. Attenuation (dB):	0

COMMENTS

None

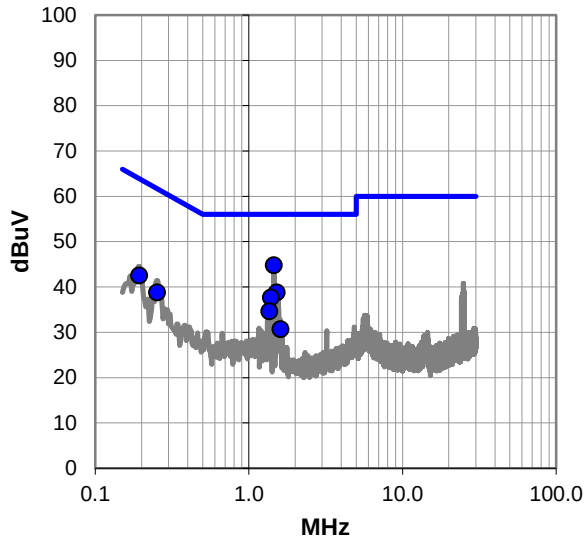
EUT OPERATING MODES

Single channel continuous transmission. Channel 11 2462 MHz, 1 Mbps.

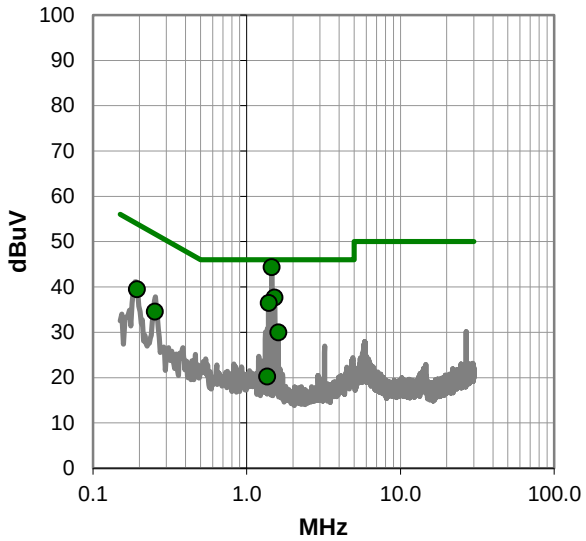
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC – POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #4

Quasi Peak Data - vs - Quasi Peak Limit

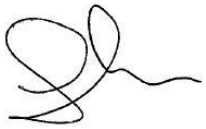
Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.457	24.6	20.1	44.7	56.0	-11.3
1.521	18.6	20.2	38.8	56.0	-17.2
1.393	17.5	20.1	37.6	56.0	-18.4
1.362	14.5	20.1	34.6	56.0	-21.4
0.193	22.2	20.3	42.5	63.9	-21.4
0.253	18.5	20.2	38.7	61.7	-22.9
1.606	10.5	20.2	30.7	56.0	-25.3

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.457	24.2	20.1	44.3	46.0	-1.7
1.521	17.5	20.2	37.7	46.0	-8.3
1.393	16.3	20.1	36.4	46.0	-9.6
0.193	19.2	20.3	39.5	53.9	-14.4
1.606	9.8	20.2	30.0	46.0	-16.0
0.253	14.3	20.2	34.5	51.7	-17.1
1.362	0.1	20.1	20.2	46.0	-25.8

CONCLUSION

Pass



Tested By

AC – POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Zoll CF Card Module	Work Order:	LGPD0165
Serial Number:	0216M00003	Date:	02/02/2016
Customer:	ZOLL Medical Corp.	Temperature:	22.5°C
Attendees:	Adam Ford	Relative Humidity:	22.6%
Customer Project:	None	Bar. Pressure:	985.4 mb
Tested By:	Jared Ison	Job Site:	MN03
Power:	5 VDC	Configuration:	LGPD0165-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	5	Line:	Positive Lead	Add. Ext. Attenuation (dB):	0

COMMENTS

None

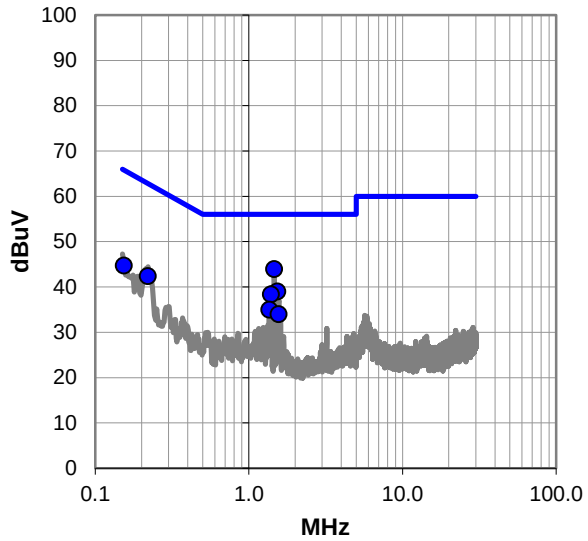
EUT OPERATING MODES

Single channel continuous transmission. Channel 6 2437 MHz, 1 Mbps.

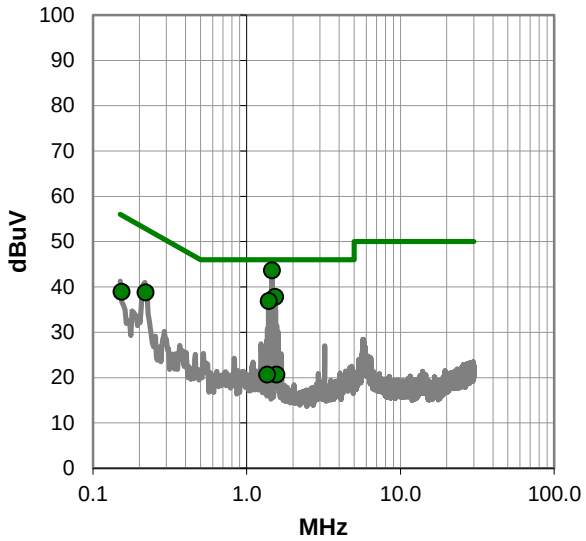
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC – POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #5

Quasi Peak Data - vs - Quasi Peak Limit

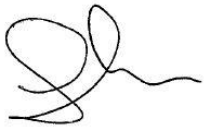
Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.464	23.8	20.1	43.9	56.0	-12.1
1.536	18.8	20.2	39.0	56.0	-17.0
1.391	18.2	20.1	38.3	56.0	-17.7
0.220	22.1	20.3	42.4	62.8	-20.5
1.363	14.8	20.1	34.9	56.0	-21.1
0.153	24.3	20.4	44.7	65.8	-21.1
1.564	13.8	20.2	34.0	56.0	-22.0

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.464	23.5	20.1	43.6	46.0	-2.4
1.536	17.6	20.2	37.8	46.0	-8.2
1.391	16.7	20.1	36.8	46.0	-9.2
0.220	18.5	20.3	38.8	52.8	-14.1
0.153	18.5	20.4	38.9	55.8	-16.9
1.564	0.5	20.2	20.7	46.0	-25.3
1.363	0.5	20.1	20.6	46.0	-25.4

CONCLUSION

Pass



Tested By

AC – POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Zoll CF Card Module	Work Order:	LGPD0165
Serial Number:	0216M00003	Date:	02/02/2016
Customer:	ZOLL Medical Corp.	Temperature:	22.5°C
Attendees:	Adam Ford	Relative Humidity:	22.6%
Customer Project:	None	Bar. Pressure:	985.4 mb
Tested By:	Jared Ison	Job Site:	MN03
Power:	5 VDC	Configuration:	LGPD0165-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	6	Line:	Negative Lead	Add. Ext. Attenuation (dB):	0

COMMENTS

None

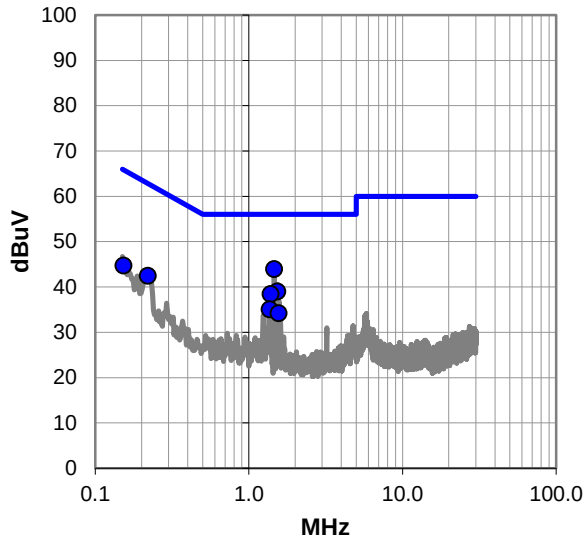
EUT OPERATING MODES

Single channel continuous transmission. Channel 6 2437 MHz, 1 Mbps.

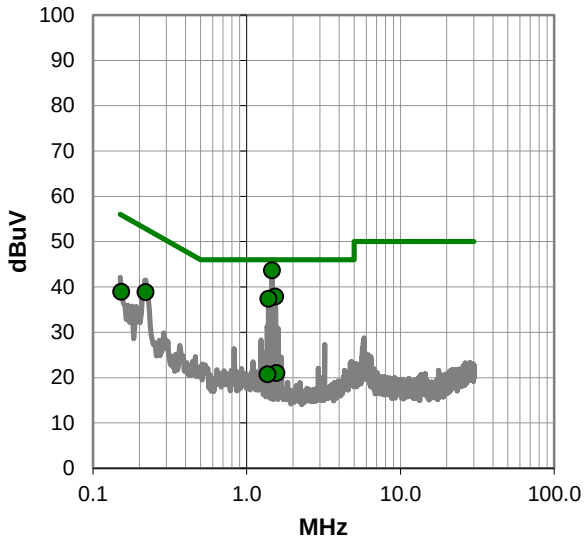
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC – POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #6

Quasi Peak Data - vs - Quasi Peak Limit

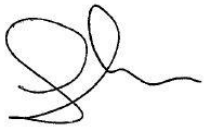
Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.463	23.8	20.1	43.9	56.0	-12.1
1.537	18.8	20.2	39.0	56.0	-17.0
1.390	18.3	20.1	38.4	56.0	-17.6
0.220	22.2	20.3	42.5	62.8	-20.4
1.365	14.9	20.1	35.0	56.0	-21.0
0.153	24.3	20.4	44.7	65.8	-21.1
1.567	14.0	20.2	34.2	56.0	-21.8

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.463	23.5	20.1	43.6	46.0	-2.4
1.537	17.7	20.2	37.9	46.0	-8.1
1.390	17.2	20.1	37.3	46.0	-8.7
0.220	18.6	20.3	38.9	52.8	-14.0
0.153	18.5	20.4	38.9	55.8	-16.9
1.567	0.8	20.2	21.0	46.0	-25.0
1.365	0.6	20.1	20.7	46.0	-25.3

CONCLUSION

Pass



Tested By