



motorola
a *lenovo* company

**ADR TESTING SERVICES
EMC LABORATORY
EMC TEST REPORT**

Test Report Number – 26015-1 BT

The test results and statements contained herein relate only to the model(s) identified and tested. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics.

As the responsible EMC Engineer, I hereby declare that the equipment tested as specified in this report conforms to the requirements indicated.

A handwritten signature in black ink, appearing to read 'Thanigai.P'.

Signature:

Name: Thanigaiselvan Palaniswami

Title: EMC Engineer

Date: July 27, 2015

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TESTING CERT# 3465.01

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Test Report Details

Tests Performed By: ADR Testing Services
 Motorola Mobility LLC
 Product Safety and Compliance Group
 222 W. Merchandise Mart, Suite 1800
 Chicago, IL 60654

Tests Requested By: Motorola Mobility LLC
 222 W. Merchandise Mart, Suite 1800
 Chicago, IL 60654

Product Type : Smart Watch

Signaling Capability: Bluetooth V3.0, Bluetooth LE V4.0 + EDR,
 802.11b/g/n HT20

FCC ID: IHDT6UA1

Serial Numbers: LD4X310148, LD4X310171, LD4X240119

Testing Complete Date: July 22, 2015

Applicable Standards

All tests and measurements indicated in this document were performed in accordance with the Code of Federal Regulations Title 47 Part 2, Sub-part J as well as the following parts:

 X Part 15 Subpart C – Intentional Radiators

Applicable Standards: ANSI 63.4 2009, ANSI C63.10 2009

DA 00-705, “Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems” published by the Federal Communications Commission was also used in the testing of this product.

Revision History

Revision Version	Date	Notes
Rev. 0	07/23/15	Initial issue of report.
Rev. 1	07/27/15	Updated FCC ID and removed KDB reference.

Summary of Testing

Test	Test Name	Pass/Fail
1	Carrier Frequency Separation	Pass
2	Number of Hopping Frequencies	Pass
3	Time of Occupancy (Dwell Time)	Pass
4	20 dB Bandwidth	Pass
5	Spurious RF Conducted Emissions	Pass
6	Max Power	N/A
7	Band Edges	Pass
8	AC Line Conducted Spurious Emissions	Pass

Test	Test Name	Results
1	Carrier Frequency Separation	See plots
2	Number of Hopping	See plots
3	Time of Occupancy (Dwell Time)	See plots
4	20 dB Bandwidth	See plots
5	Spurious RF Conducted Emissions	See plots
6	Max Power	See plots
7	Band Edges	See plots
8	AC Line Conducted Spurious Emissions	See plots

General and Special Conditions

This product utilizes an internal battery that is not removable. All EMC radiated testing was performed with the internal battery fully charged. All Conducted testing was performed with a board level pigtail unit which was powered using an external power supply.

All testing was done in an indoor controlled environment. The temperature and the relative humidity were maintained within the ANSI C63.4 2009 Standard requirements during the entire duration of testing.

Equipment and Cable Configurations

For all radiated testing the EUT was tested in a standalone and while charging in a Wireless Charger configuration that is representative of typical use. In standalone configuration the EUT was evaluated in X, Y and Z orientation.

Measuring Equipment and Calibration Information

Manufacturer	Equipment Type	Model No.	Serial Number	Calibration Due Date
Rohde & Schwarz	Receiver	ESU40	100286	10/04/15
Agilent	Signal Generator	83623B	3844A00935	04/03/16
ETS-Lindgren	Horn Antenna	3115	6222	09/10/15
ETS-Lindgren	Horn Antenna	3116	00071568	03/12/16
TDK RF Solutions	Biconical Antenna	MBA-2060	130401	03/12/16
ETS	Log-Periodic Antenna	PLP-3003	130395	03/12/16
Weinschel	Attenuator	AS-6	7074	NCR
Agilent	Attenuator	8491A	50772	02/09/16
Agilent	Attenuator	8491A	56248	02/09/16
ETS-Lindgren	LISN	3810/2NM	00023630	09/12/15
ETS-Lindgren	Loop Antenna	6507	00049471	03/11/16
Agilent	Call Box	N1912A	MY45100116	04/03/16
Agilent	Signal Analyzer	N9020A	US46470586	01/13/16
Rohde & Schwarz	Signal Generator	SMF100A	102150	10/14/15
Agilent	Power Meter	N1912A	MY45100116	04/03/16
Agilent	Power Sensor	N1912A	MY45240662	04/03/16
Tektronix	Power Supply	PS282C	TW50294	NCR
Rohde & Schwarz	Preamplifier	TS-PR18	100068	10/01/15
Rohde & Schwarz	Preamplifier	TS-PR26	100039	10/01/15

Note that the signal analyzer and power meter are on a two-year calibration cycle. All test equipment was within their calibration date during the time of testing. When equipment went out of calibration during testing it was replaced using a similar piece of calibrated equipment. All these equipments are listed in the equipment list. All other equipment is on a one-year calibration cycle.

Description of Bluetooth Transmitter

The EUT offers Bluetooth + EDR as a feature. The Bluetooth antenna is mounted inside of the EUT. The antenna installation is permanent. For a more thorough description of the functionality please refer to Exhibit 12 of this package.

As a Bluetooth transmitter, it is designed operate with other Bluetooth devices as defined by the industrial standard. In this application, the device is battery operated.

De Facto EIRP Limit – Pursuant 47 CFR 15.247(b) (4)

Criterion: The conducted output power limit of 1-watt is based on the use of antennas with directional gains that do not exceed 6dB_i. If transmitting antennas of directional gain greater than 6dB_i are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dB_i.

The peak antenna gain of the antenna employed by this transmitter is less than 6dB_i

Measurement Procedures and Data

Carrier Frequency Separation

CFR 47 Part 15.247(a)(1)

Measurement Procedure

The RF output port of the EUT is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 20 dB passive attenuator.

The Bluetooth transmitter of the EUT had its hopping function enabled. The following spectrum analyzer settings were used:

1. Span = wide enough to capture the peaks of two adjacent channels
2. Resolution (or IF) Bandwidth (RBW) \geq 1% of the span
3. Video (or Average) Bandwidth (VBW) \geq RBW
4. Sweep = auto
5. Detector function = peak
6. Trace = max hold

The trace was allowed to stabilize. The marker-delta function was used to determine the separation between the peaks of the adjacent channels.

Measurement Results

See attached.



Carrier Frequency Separation 1Mbps Data Rate

Number of Hopping Frequencies

CFR 47 Part 15.247(a)(1)

Measurement Procedure

The RF output port of the EUT is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 20 dB passive attenuator.

The Bluetooth frequency hopping function of the EUT was enabled. The spectrum analyzer used the following settings:

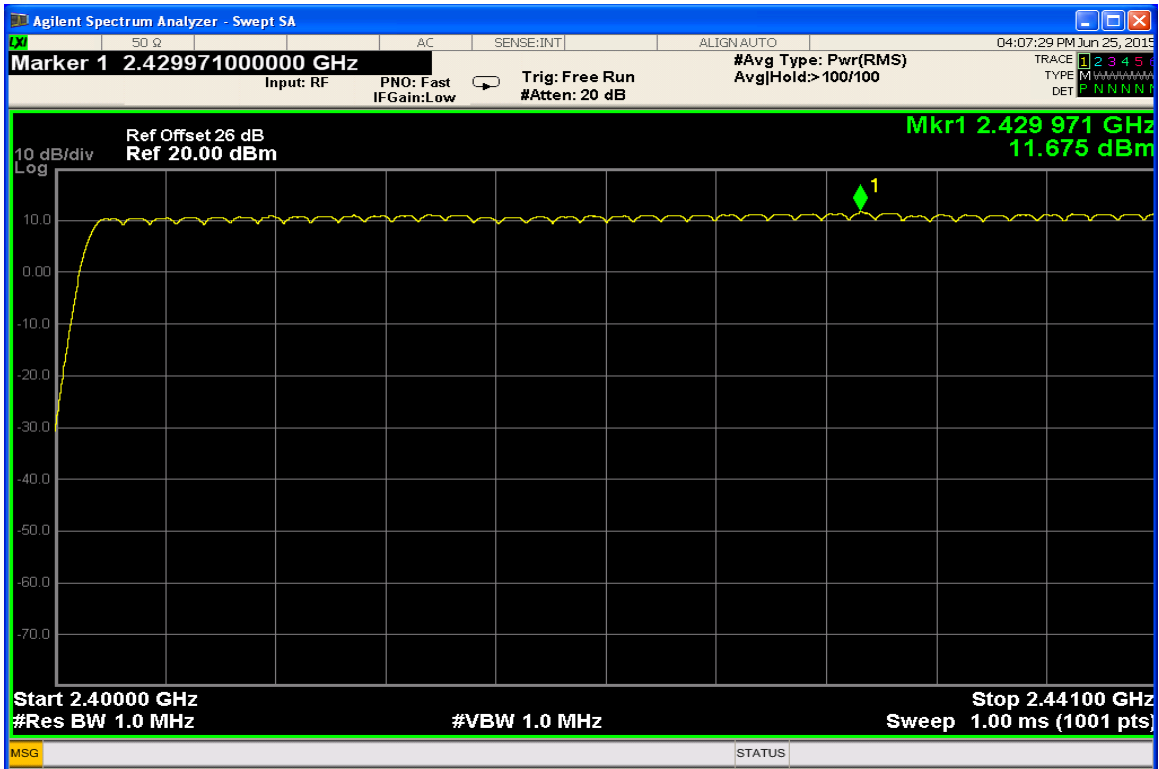
1. Span = the frequency band of operation
2. RBW \geq 1% of the span
3. VBW \geq RBW
4. Sweep = auto
5. Detector function = peak
6. Trace = max hold

The trace was allowed to stabilize.

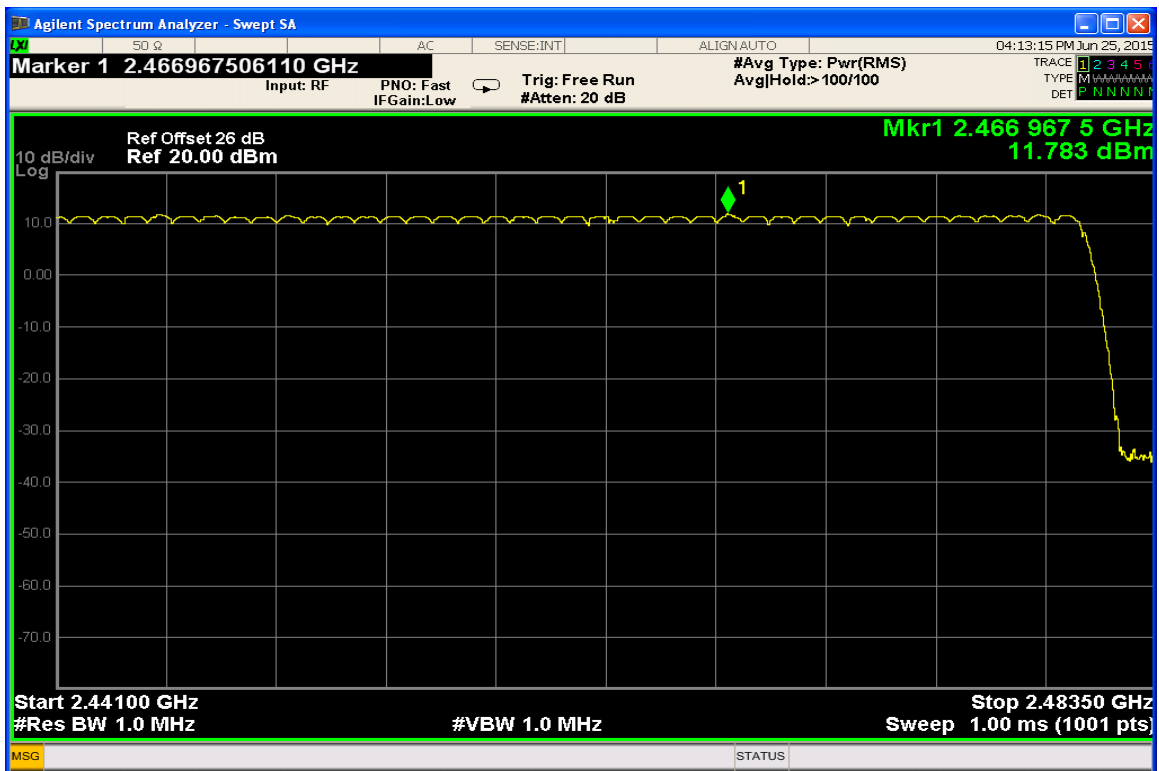
By design, the minimum number of hopping channels in AFH mode for the EUT is 20 channels.

Measurement Results

See attached.



Number of Hopping Frequencies (Channels 0 – 39) 1Mbps Data Rate



Number of Hopping Frequencies (Channels 39 – 78) 1Mbps Data Rate

Time of Occupancy (Dwell Time)

CFR47 Part 15.247(a)(1)

Measurement Procedure

The RF output port of the EUT is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 20 dB passive attenuator.

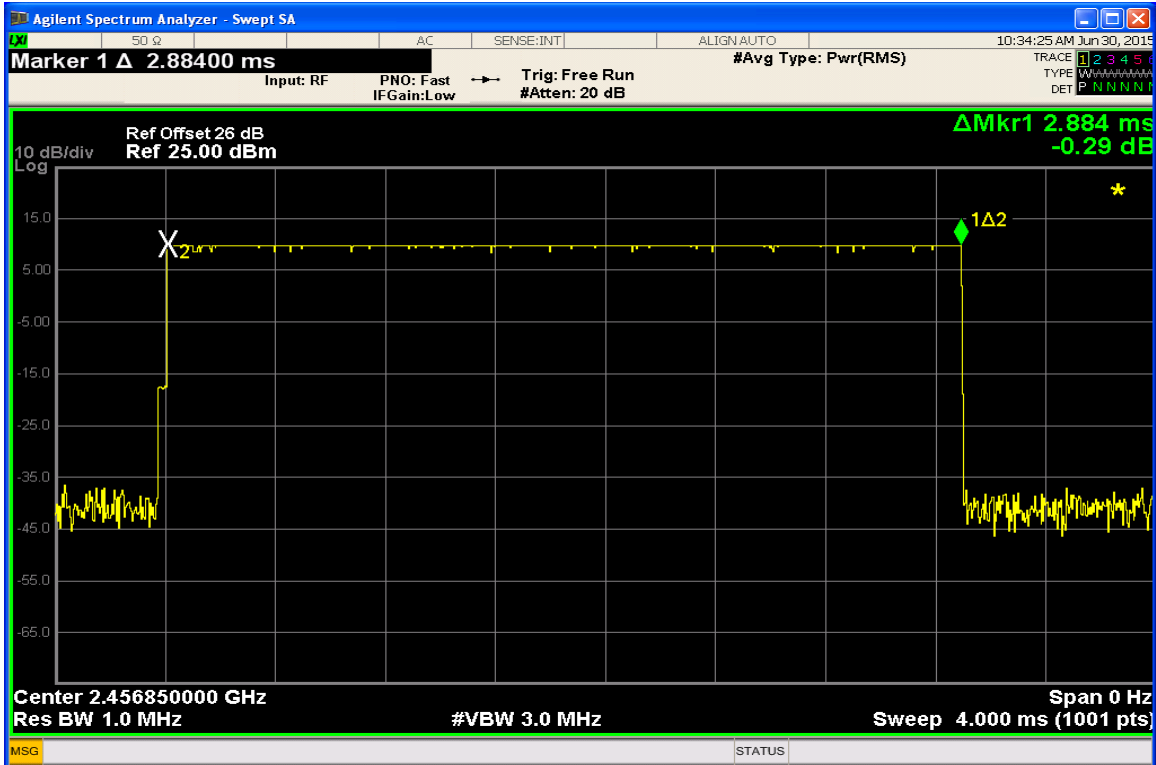
The Bluetooth hopping function of the EUT was enabled. The following spectrum analyzer settings were used:

1. Span = zero span, centered on a hopping channel
2. RBW = 1 MHz
3. VBW \geq RBW
4. Sweep = as necessary to capture the entire dwell time per hopping channel
5. Detector function = peak
6. Trace = max hold

The marker-delta function was used to determine the dwell time.

Measurement Results

See attached



Dwell Time 3 Mbps Data Rate

Bluetooth Time of Occupancy Calculation

Typically, Bluetooth 1x/EDR mode has a channel hopping rate of 1600 hops/s. Since 1x/EDR modes use 5 transmit and 1 receive slot, for a total of 6 slots, the Bluetooth transmitter is actually hopping at a rate of $1600 \div 6 = 266.67$ hops/s/slot.

- $400\text{ms} \times 79$ hopping channels = 31.6sec (Time of Occupancy Limit)
- Worst case BT has 266.67hops/sec (for 1x/EDR modes with DH5 operation)
- $266.67\text{hops/sec} \div 79$ channels = 3.38hops/sec (# hops/sec on one channel)
- 3.38 hops/sec/channel \times 31.6sec = 106.67hops (# hops over a 31.6sec period)
- $106.67\text{hops} \times 2.884\text{ms/channel} = 307.6\text{ms}$ (worst case dwell time for on channel in 1x/EDR modes)

With AFH, the number of channels is reduced to a minimum of 20 channels and the channel hopping rate is reduced by 50% to 800 hops/sec. AFH mode also uses 6 total slots so the Bluetooth transmitter hops at a rate of $800 \div 6 = 133.3$ hops/sec/slot

- $400\text{ms} \times 20$ hopping channels = 8sec (Time of Occupancy Limit)
- Worst case BT has 133.3hops/sec/slot (for AFH mode with DH5 operation)
- $133.3\text{hops/sec} \div 20$ channels = 6.67 hops/sec (# of hops/sec on one channel)
- 6.67 hops/sec/channel \times 8sec = 53.34hops (# of hops over an 8 sec period)
- $53.34\text{hops} \times 2.884\text{ms/channel} = 153.8\text{ms}$ (worst case dwell time for one channel in AFH mode)

20dB Bandwidth

CFR 47 Part 15.247(a)(1)

Measurement Procedure

The RF output port of the EUT is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 20 dB passive attenuator.

The Bluetooth frequency hopping function of the EUT was disabled. The spectrum analyzer used the following settings:

1. Span = 2MHz, centered on the center channel frequency
2. RBW \geq 1% of the 20 dB span
3. VBW \geq RBW
4. Sweep = auto
5. Detector function = peak
6. Trace = max hold

The trace was allowed to stabilize. The EUT was transmitting at its maximum data rate. The marker-to-peak function was used to set the marker to the peak of the emission. The marker-delta function was used to measure 20dB down one side of the emission. The marker-delta function and marker was moved to the other side of the emission until it was even with the reference marker. The marker-delta reading at this point was the 20dB bandwidth of the emission.

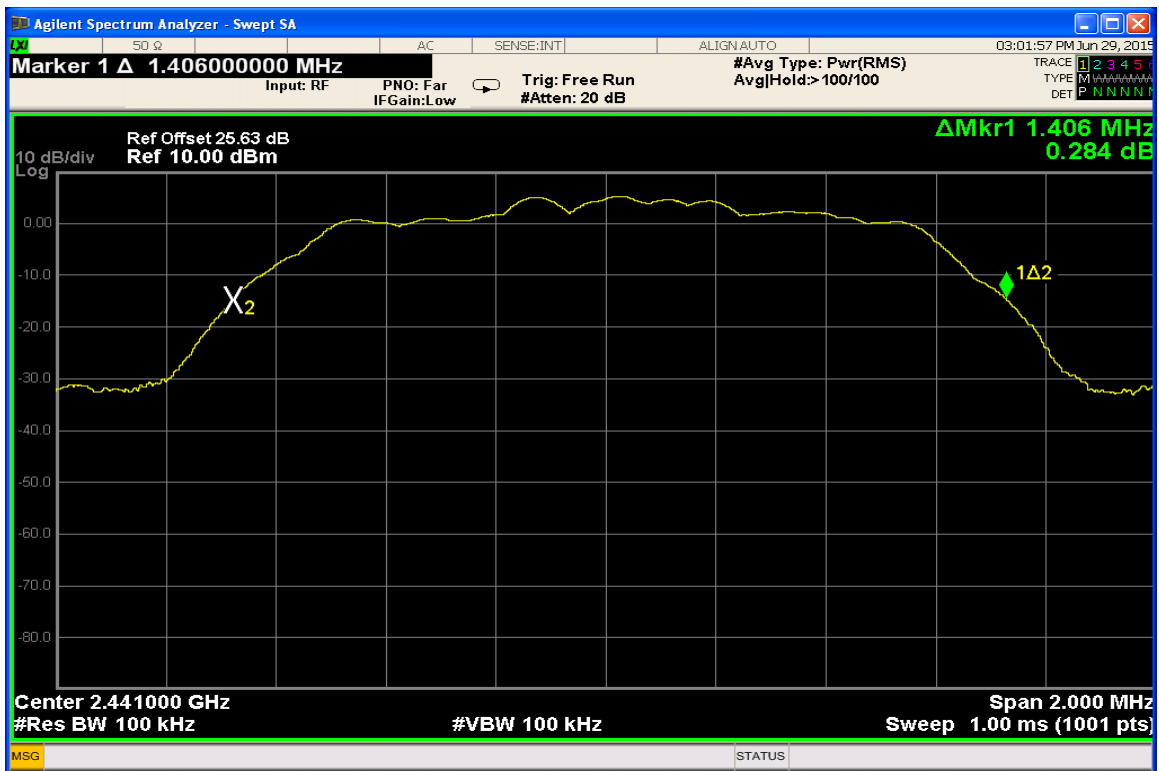
Measurement Results

See attached

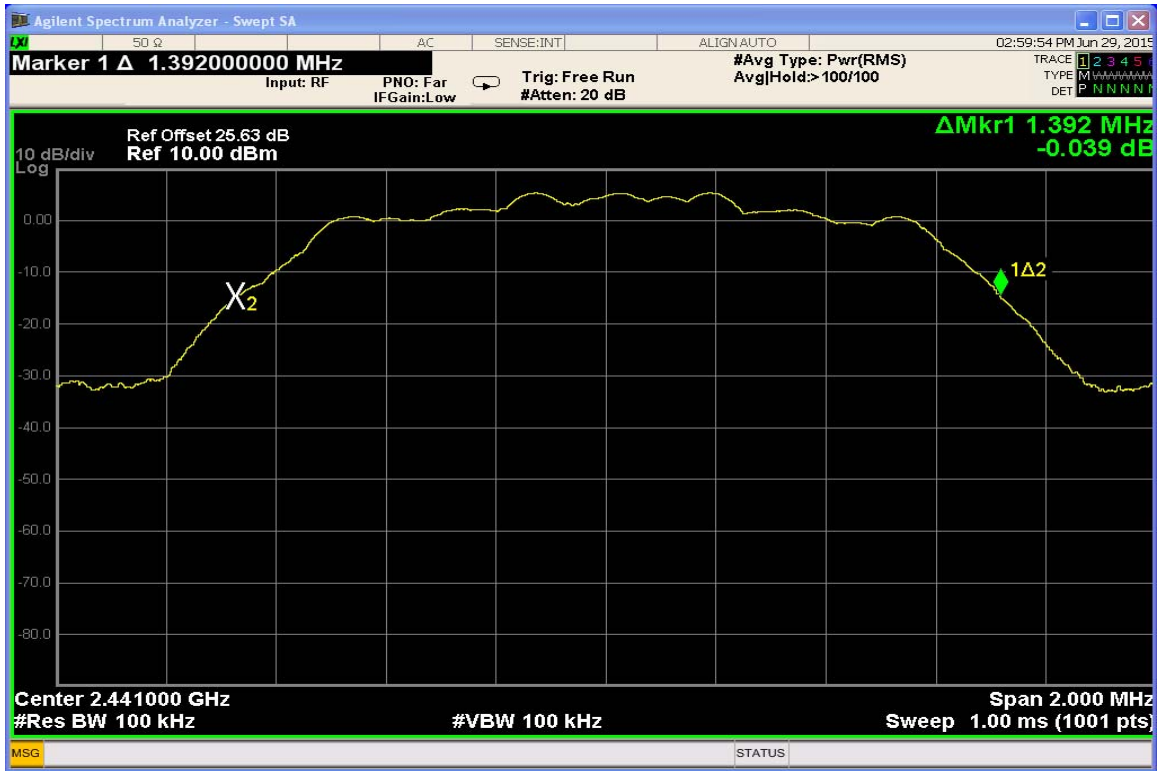
Channel	Frequency (Mhz)	20dB Bandwidth (kHz)
39 (1Mbps)	2441	1120
39 (2Mbps)	2441	1406
39 (3Mbps)	2441	1392



20dB Bandwidth 1Mbps Data Rate



20dB Bandwidth EDR Mode 2Mbps Data Rate



20dB Bandwidth EDR Mode 3Mbps Data Rate

Peak Output Power

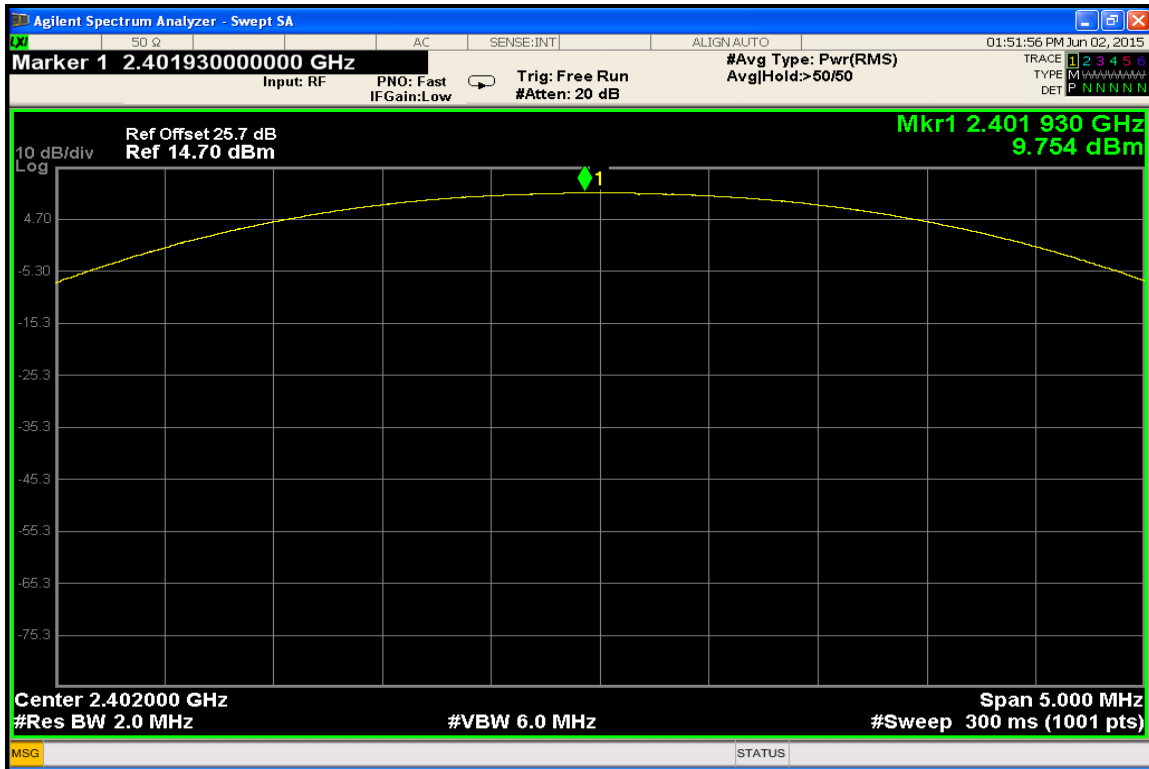
CFR 47 Part 15.247(b)(1)

Measurement Procedure

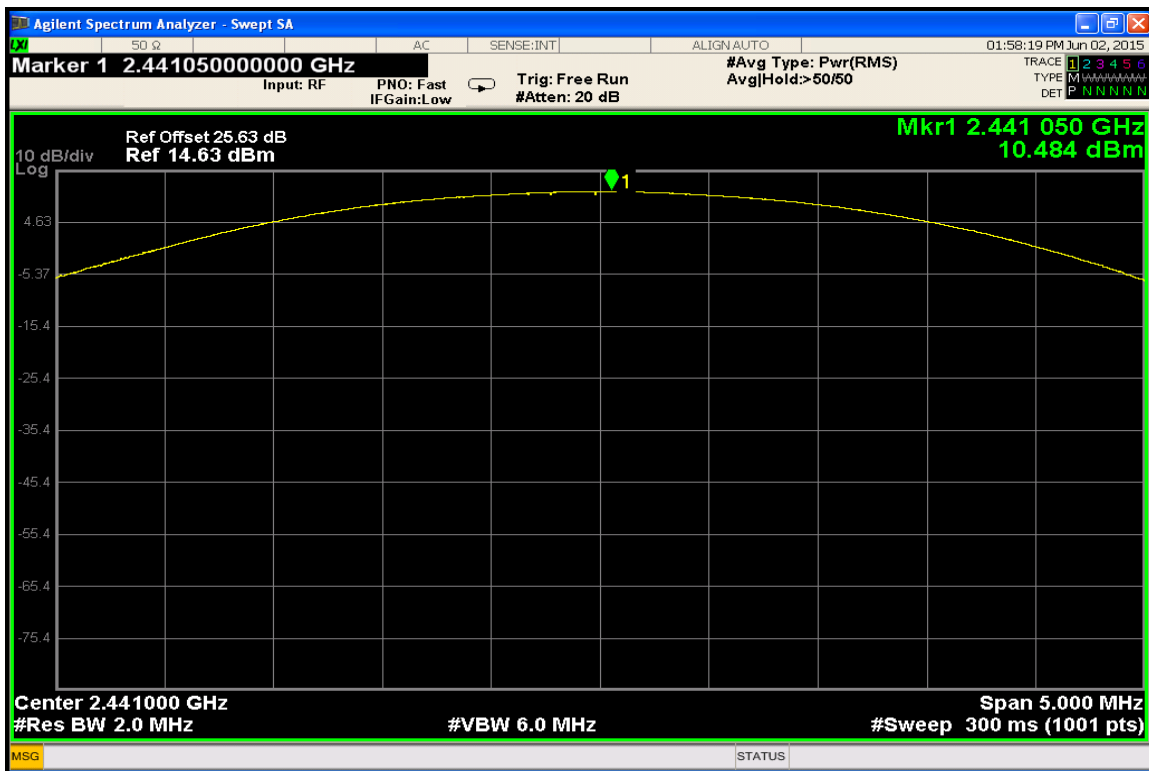
The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 20 dB passive attenuator. The peak output power was measured with the Hopping mode disabled.

Measurement Results

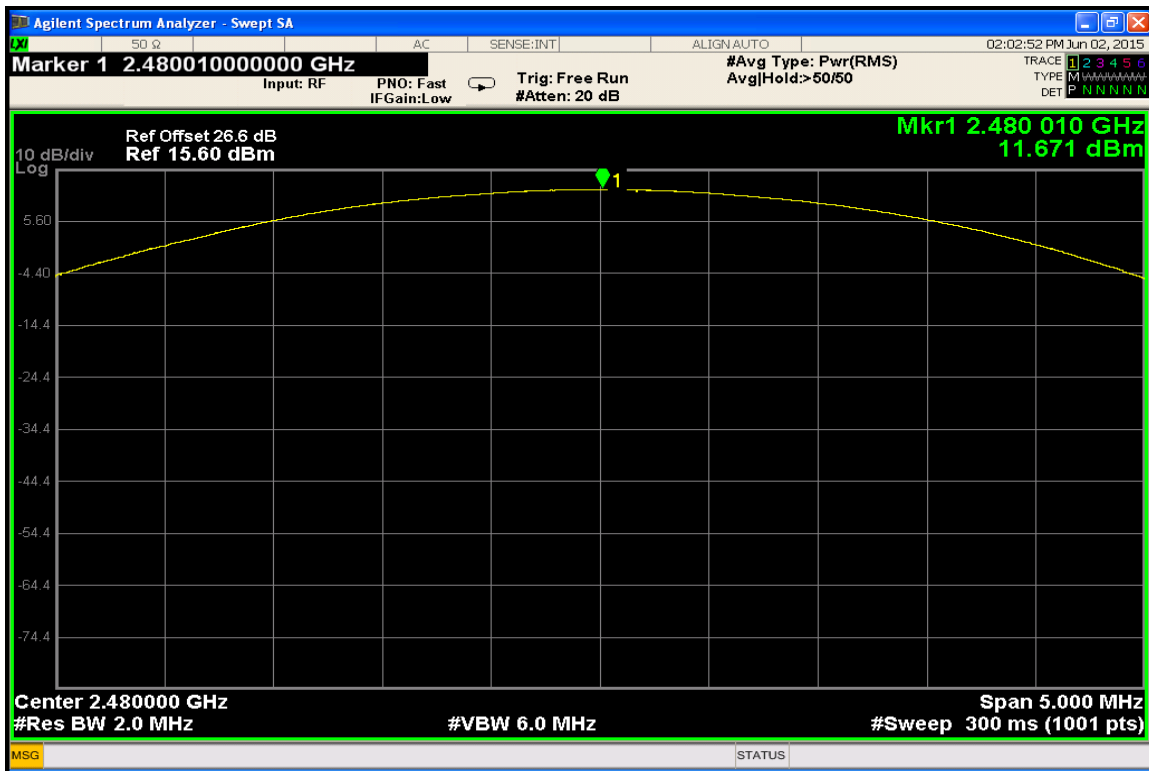
See Attached



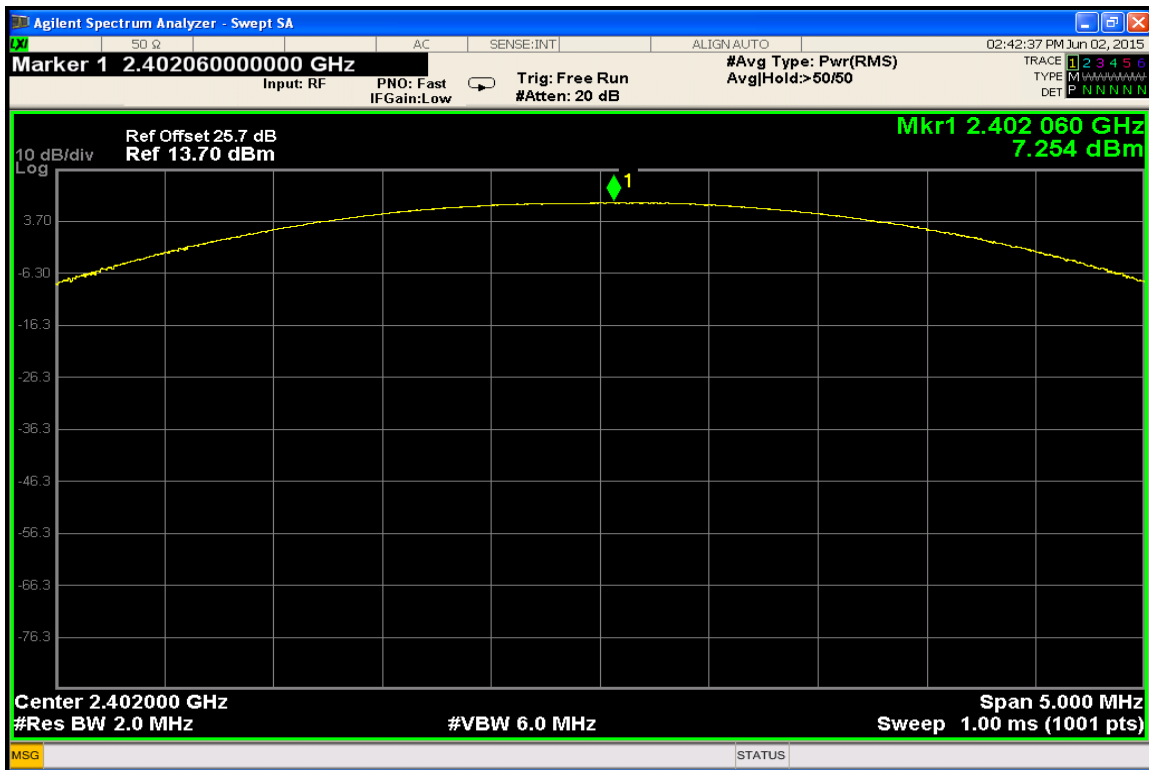
Peak Output Power – Low Channel 1Mbps Data Rate



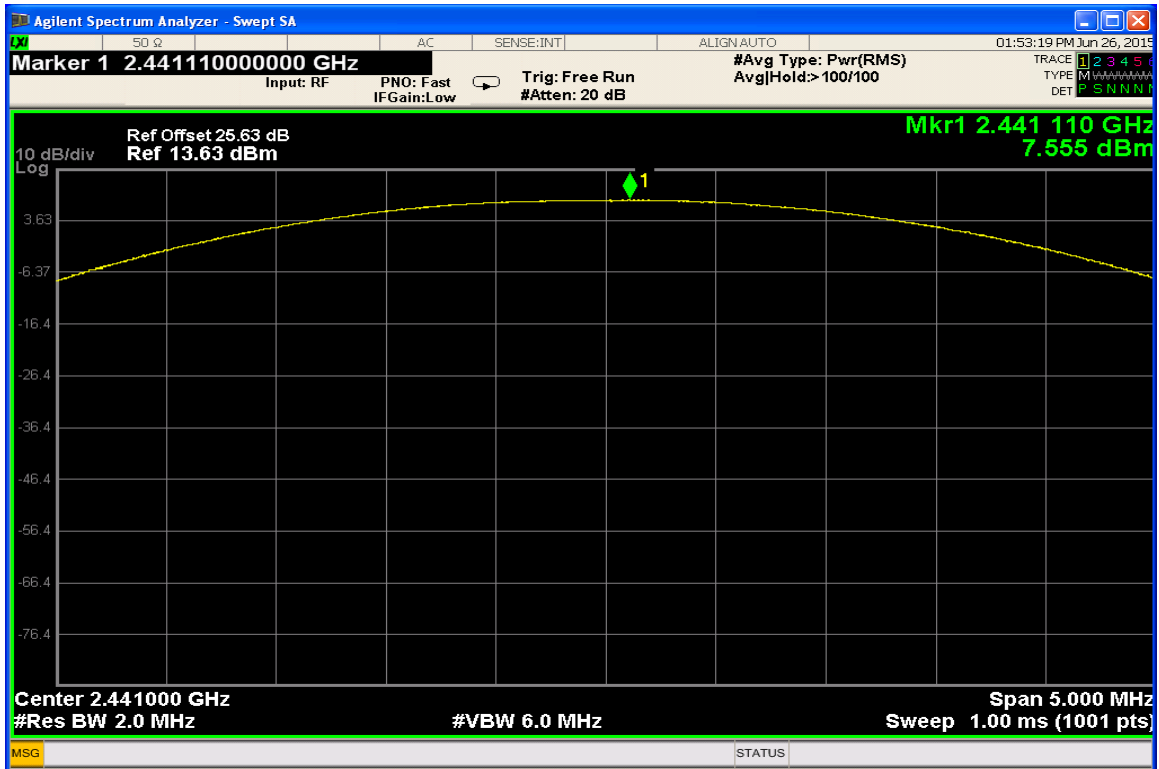
Peak Output Power – Mid Channel 1Mbps Data Rate



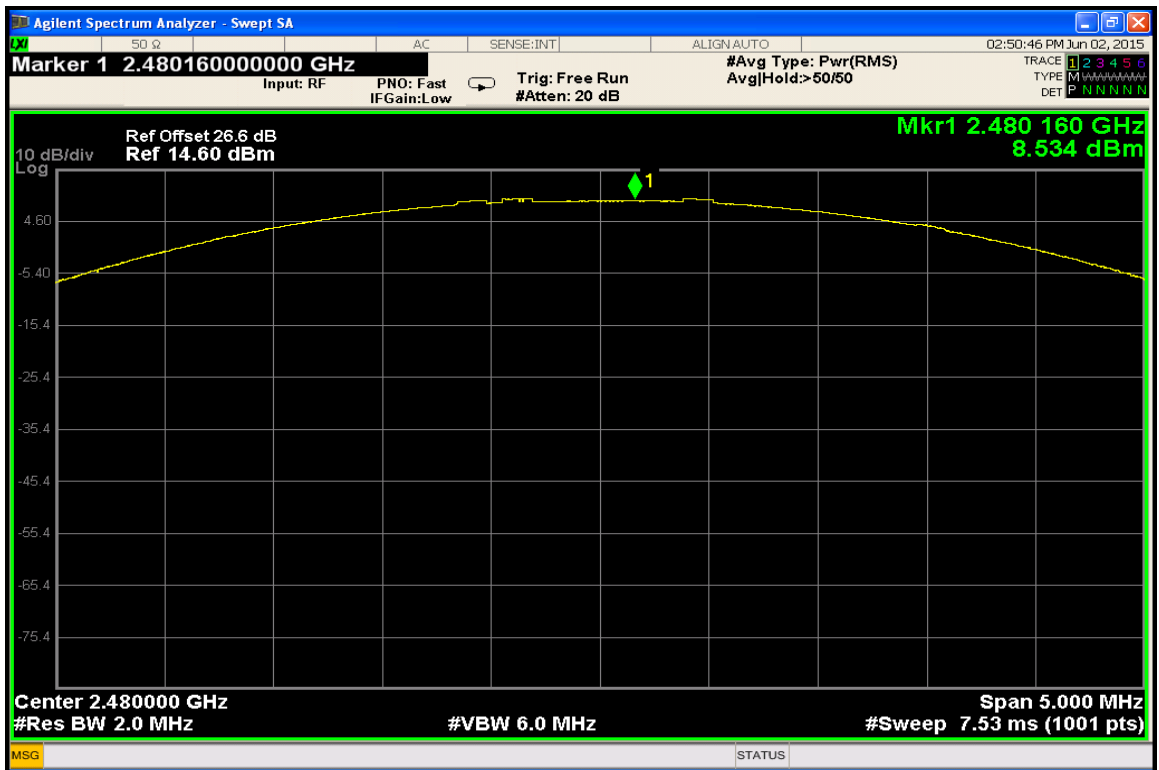
Peak Output Power – High Channel 1Mbps Data Rate



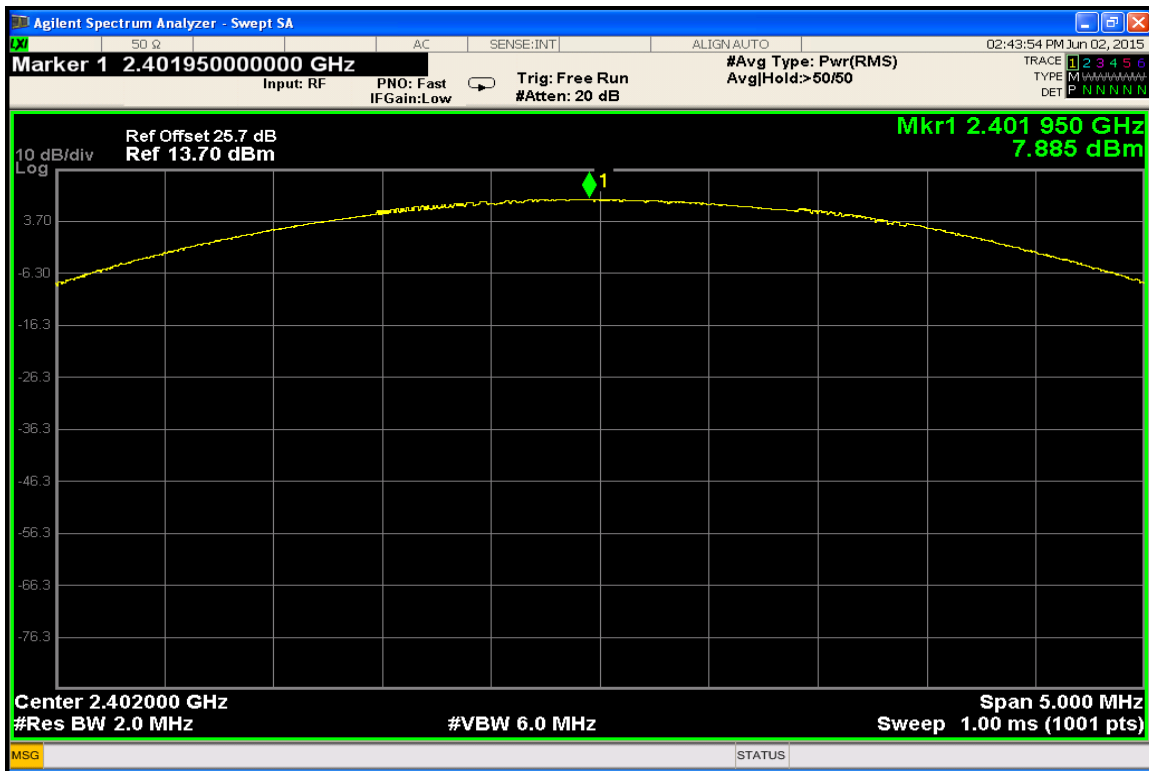
Peak Output Power EDR Mode – Low Channel 2Mbps Data Rate



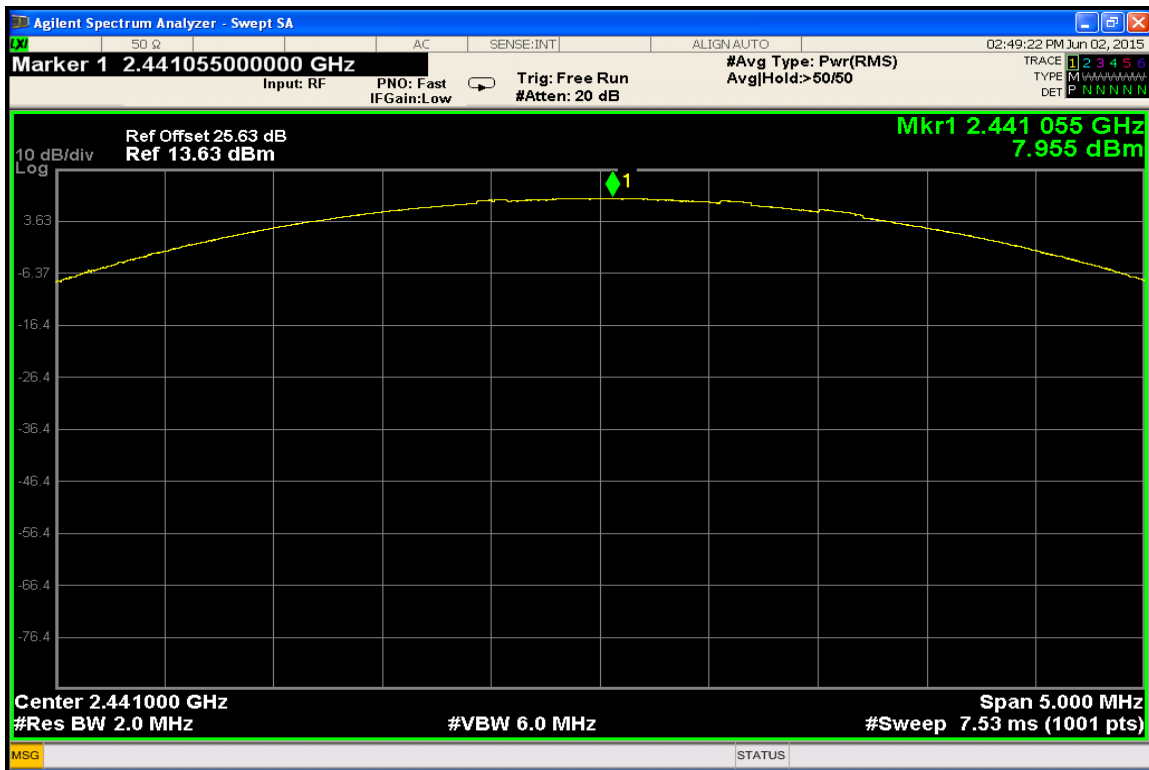
Peak Output Power EDR Mode – Mid Channel 2Mbps Data Rate



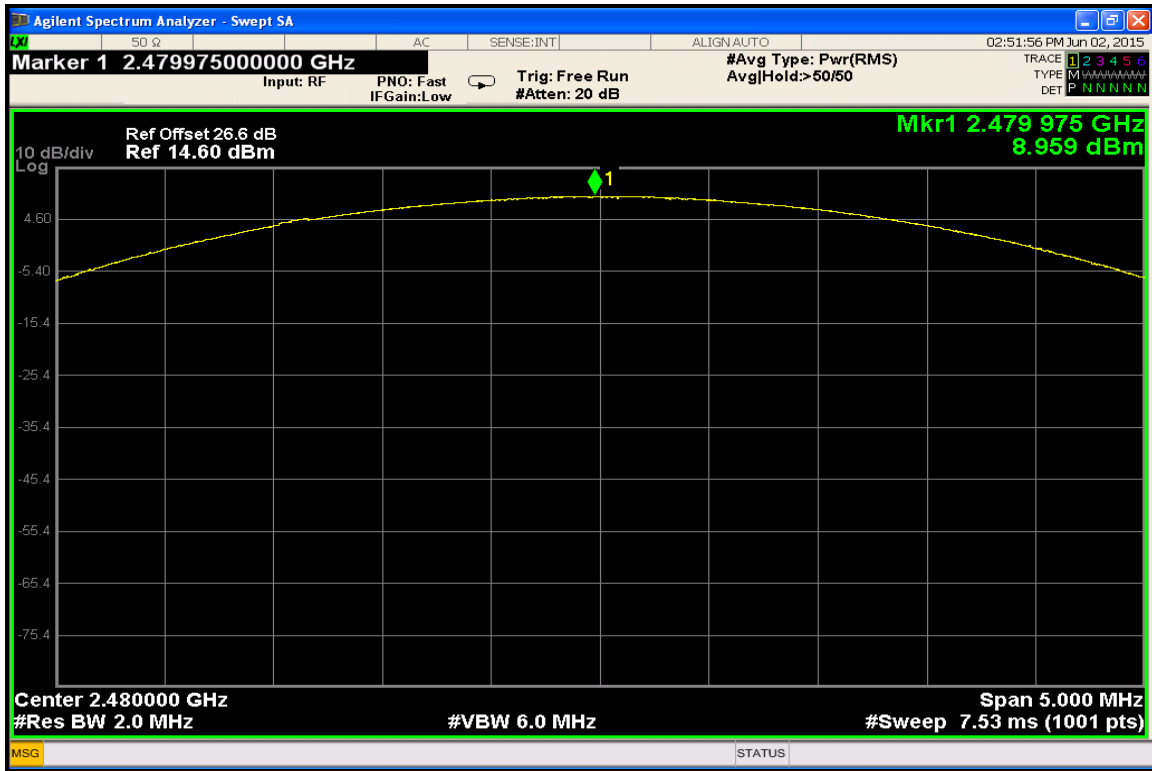
Peak Output Power EDR Mode – High Channel 2Mbps Data Rate



Peak Output Power EDR Mode – Low Channel 3Mbps Data Rate



Peak Output Power EDR Mode – Mid Channel 3Mbps Data Rate



Peak Output Power EDR Mode – High Channel 3Mbps Data Rate

Band-Edge Compliance of RF Conducted Emissions

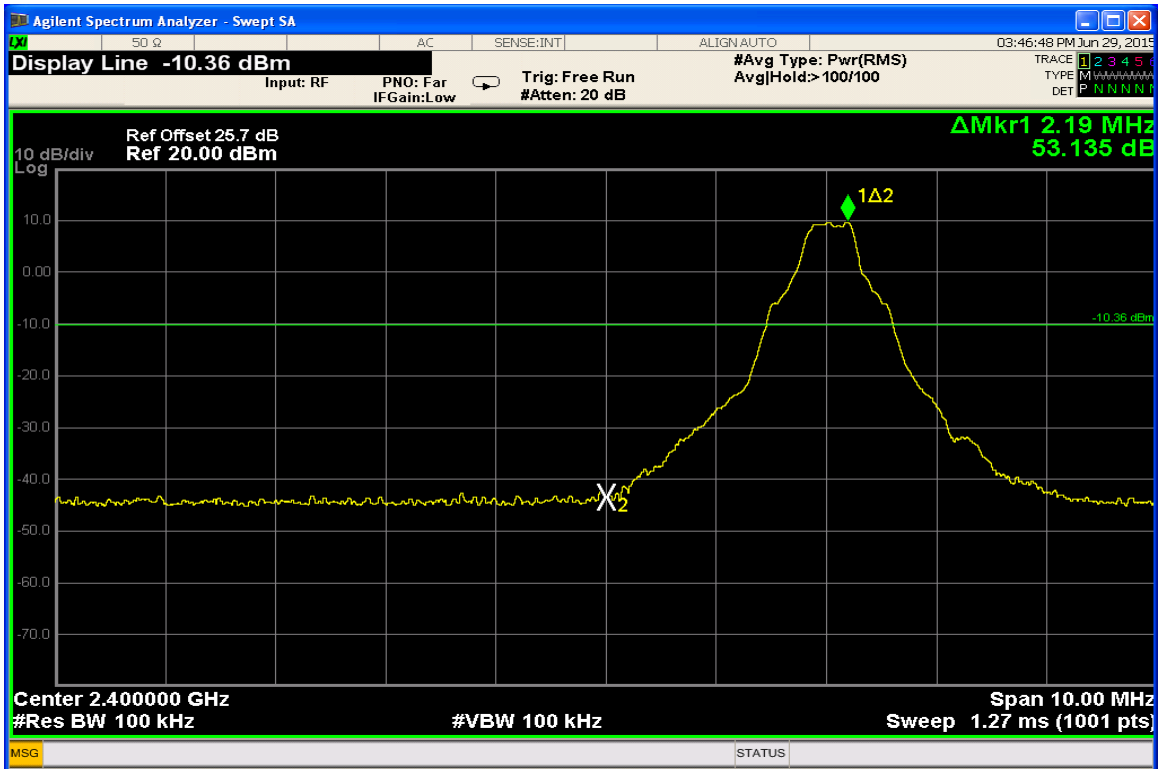
CFR 47 Part 15.247(d)

Measurement Procedure

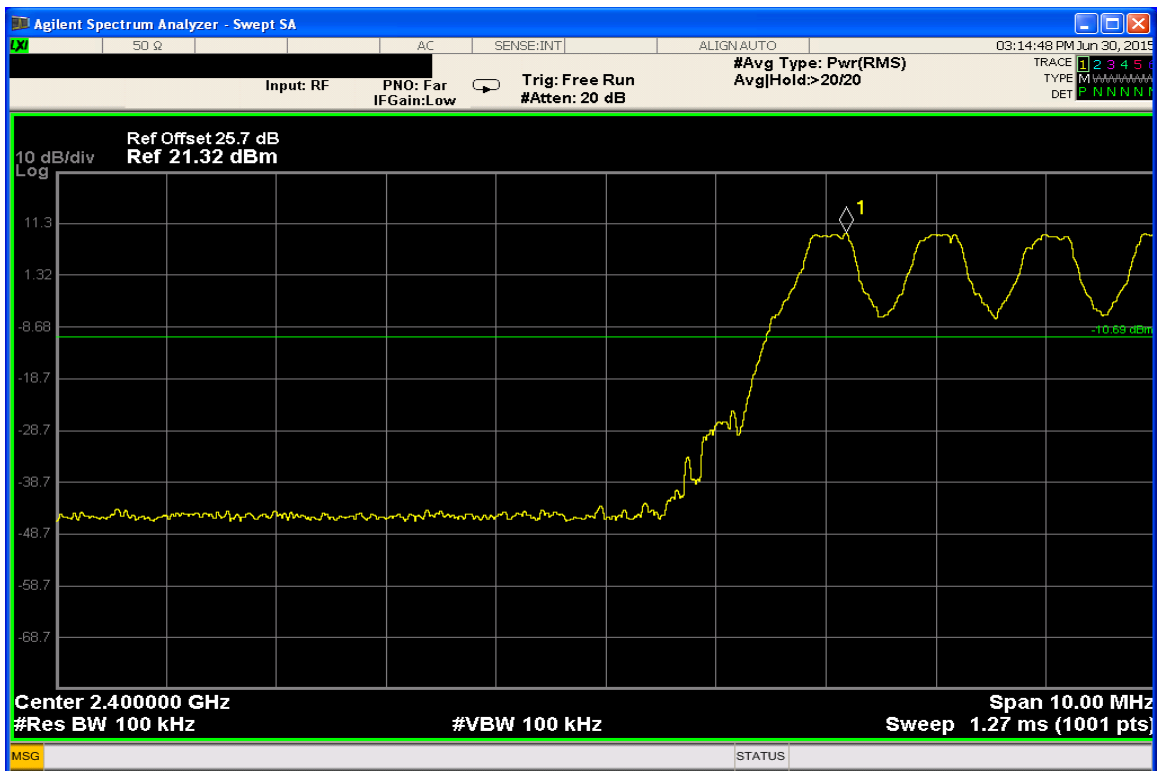
The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 20 dB passive attenuator.

Measurement Results

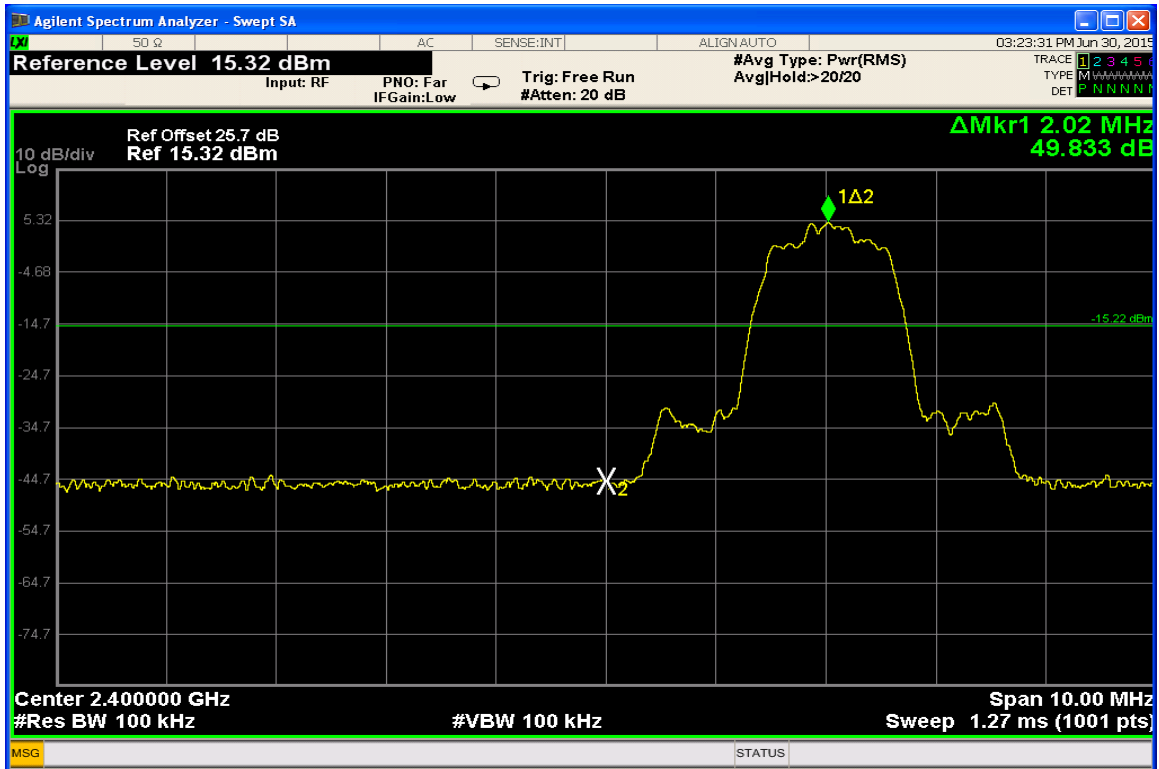
See Attached:



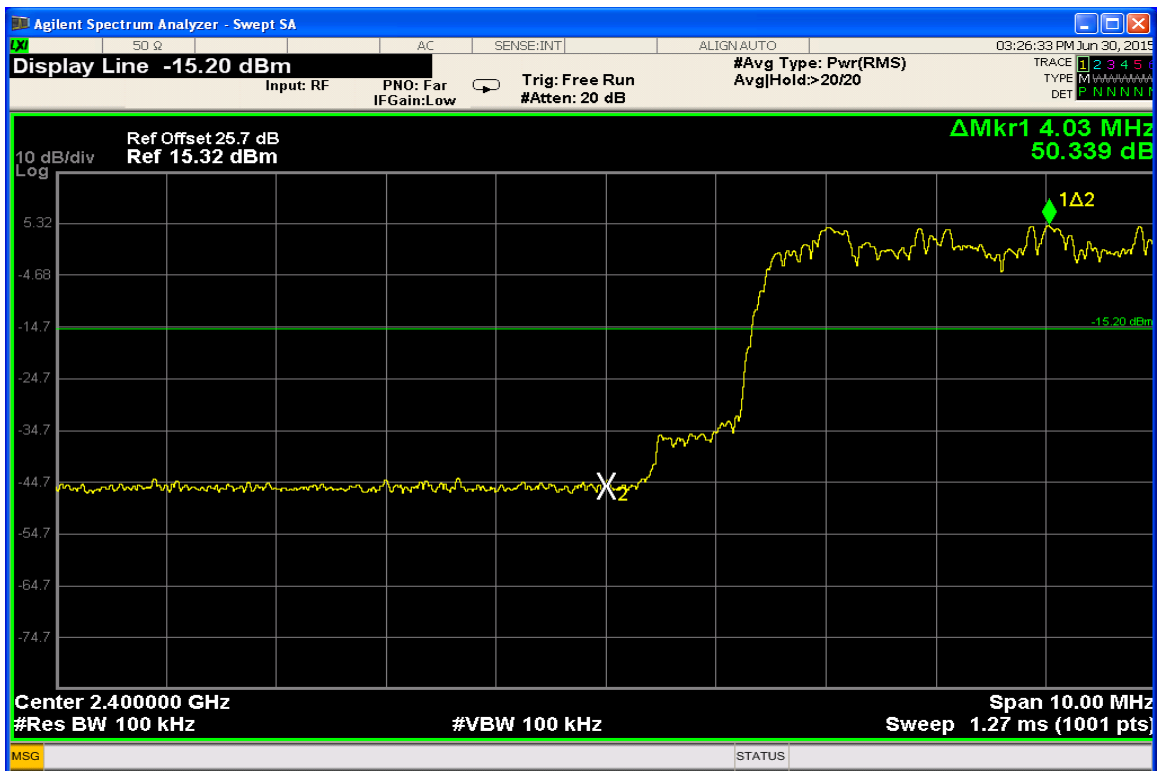
Low Band Edge with Hopping Disabled 1Mbps Data Rate



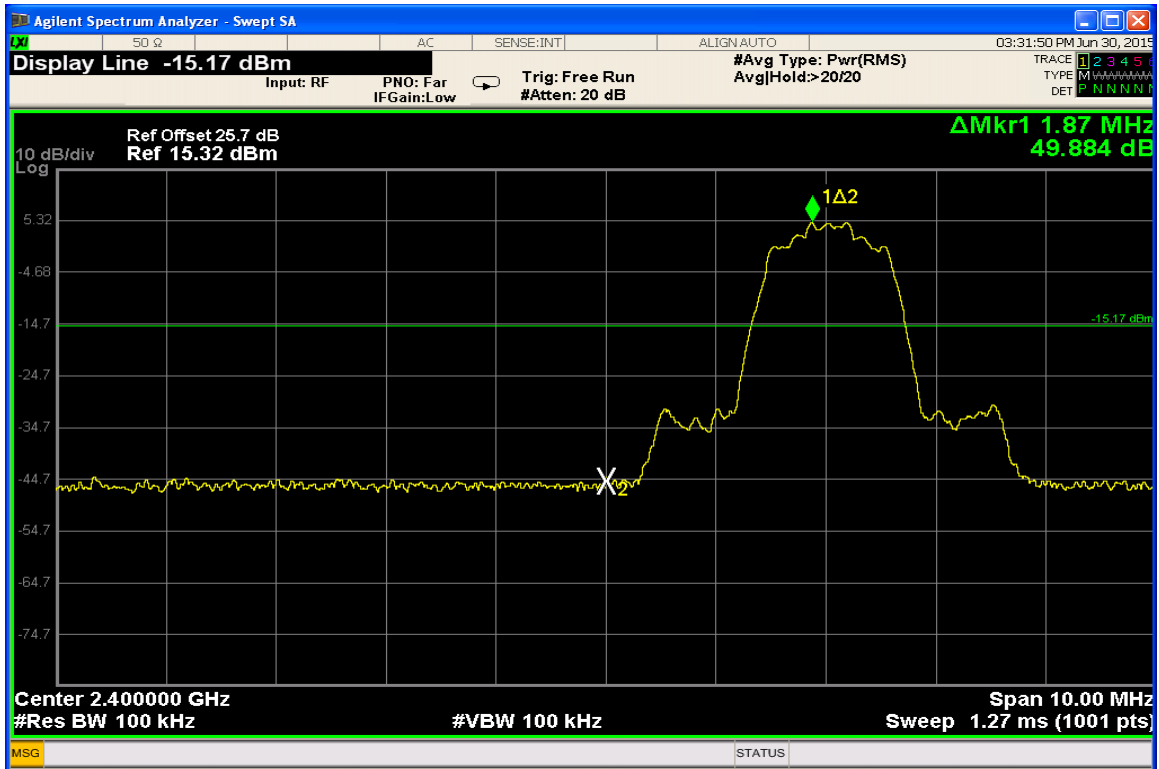
Low Band Edge with Hopping Enabled 1Mbps Data Rate



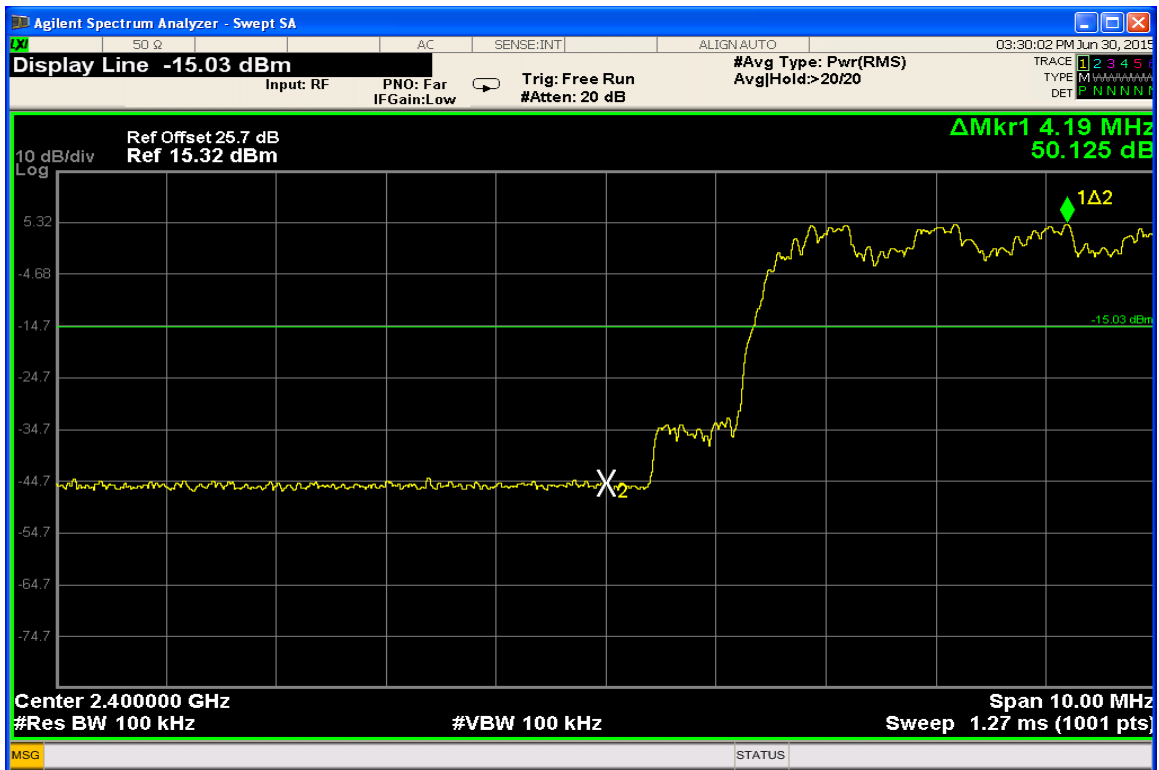
Low Band Edge with Hopping Disabled 2Mbps Data Rate



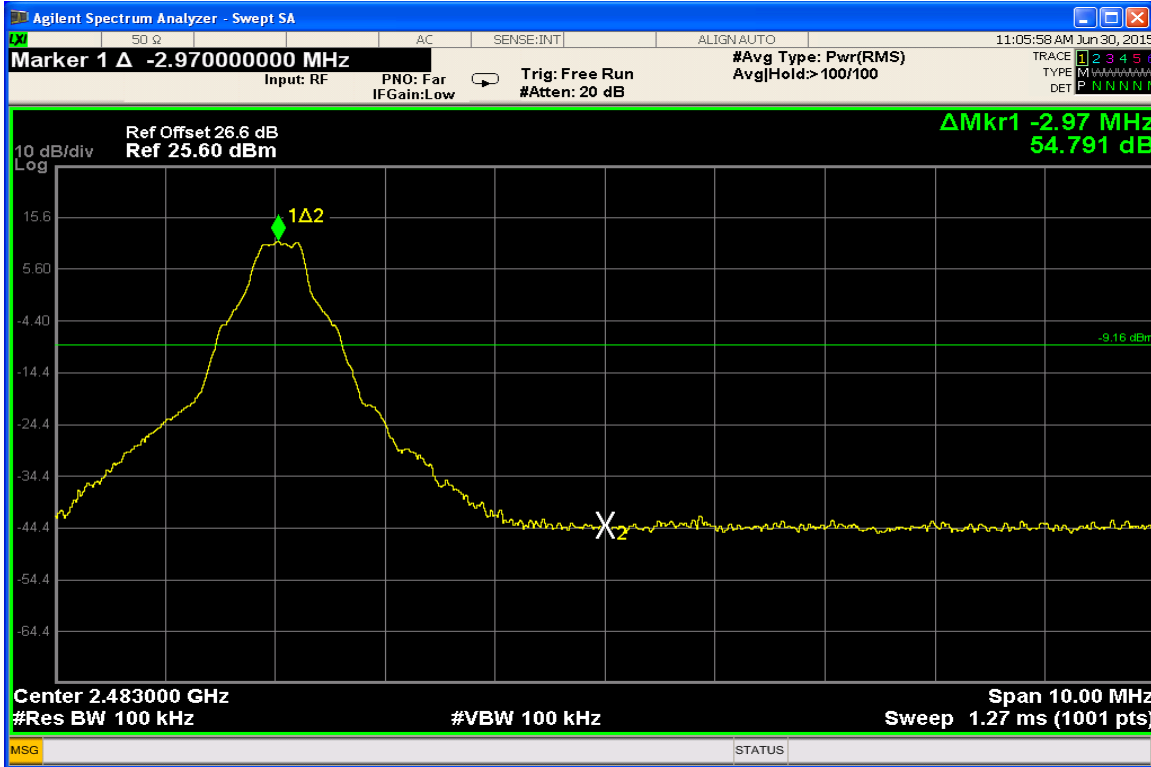
Low Band Edge with Hopping Enabled 2Mbps Data Rate



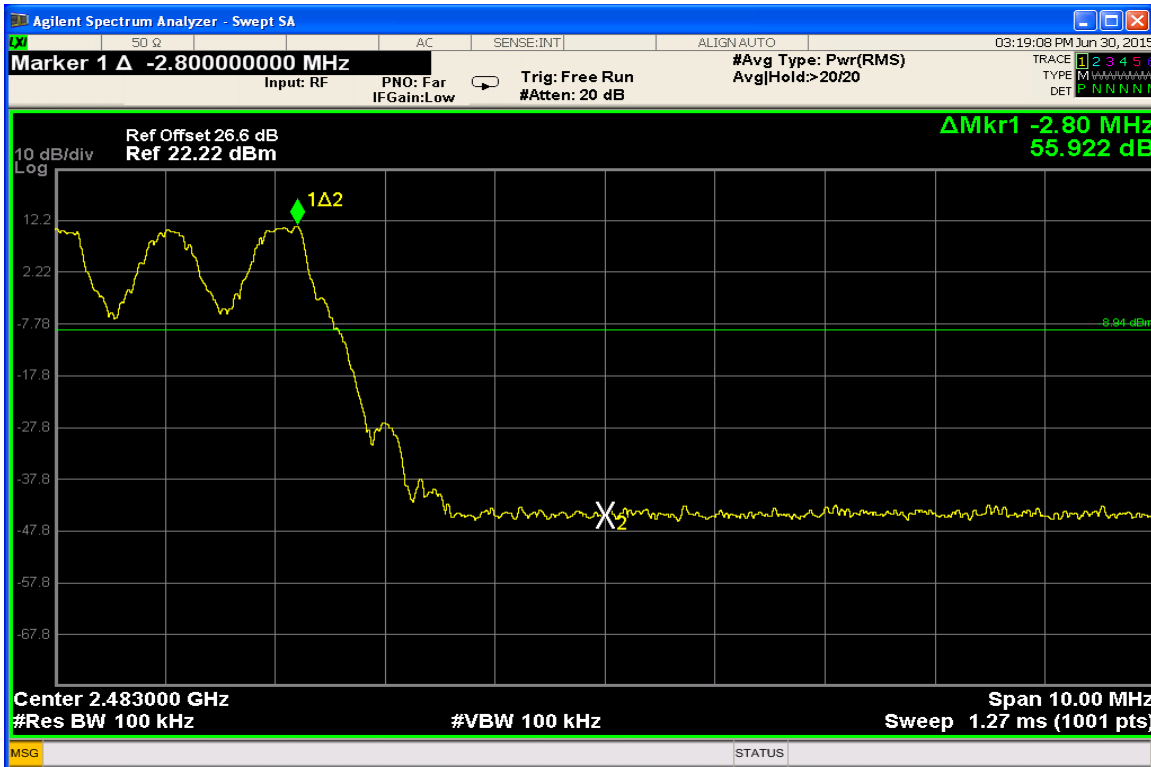
Low Band Edge with Hopping Disabled 3Mbps Data Rate



Low Band Edge with Hopping Enabled 3Mbps Data Rate



High Band edge with Hopping Disabled 1Mbps Data Rate



High Band edge with Hopping Enabled 1Mbps Data Rate

Spurious RF Conducted Emissions

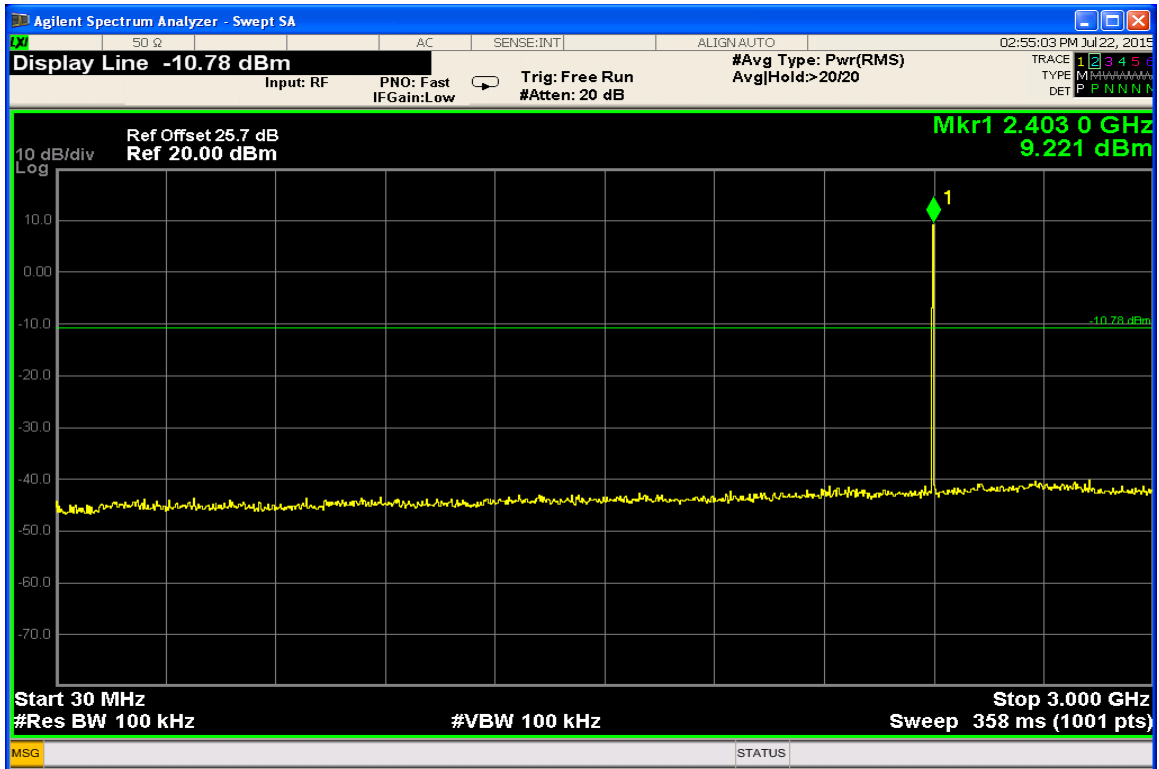
CFR 47 Part 15.247(d)

Measurement Procedure

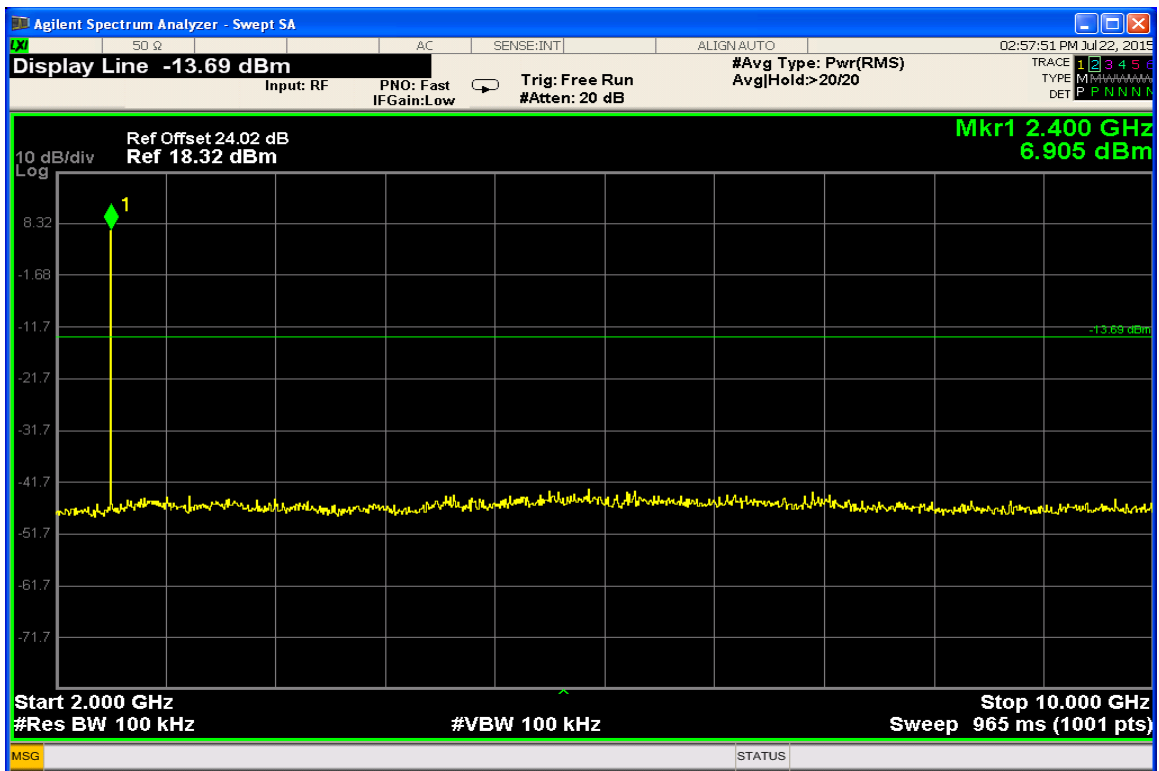
The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 20 dB passive attenuator.

Measurement Results

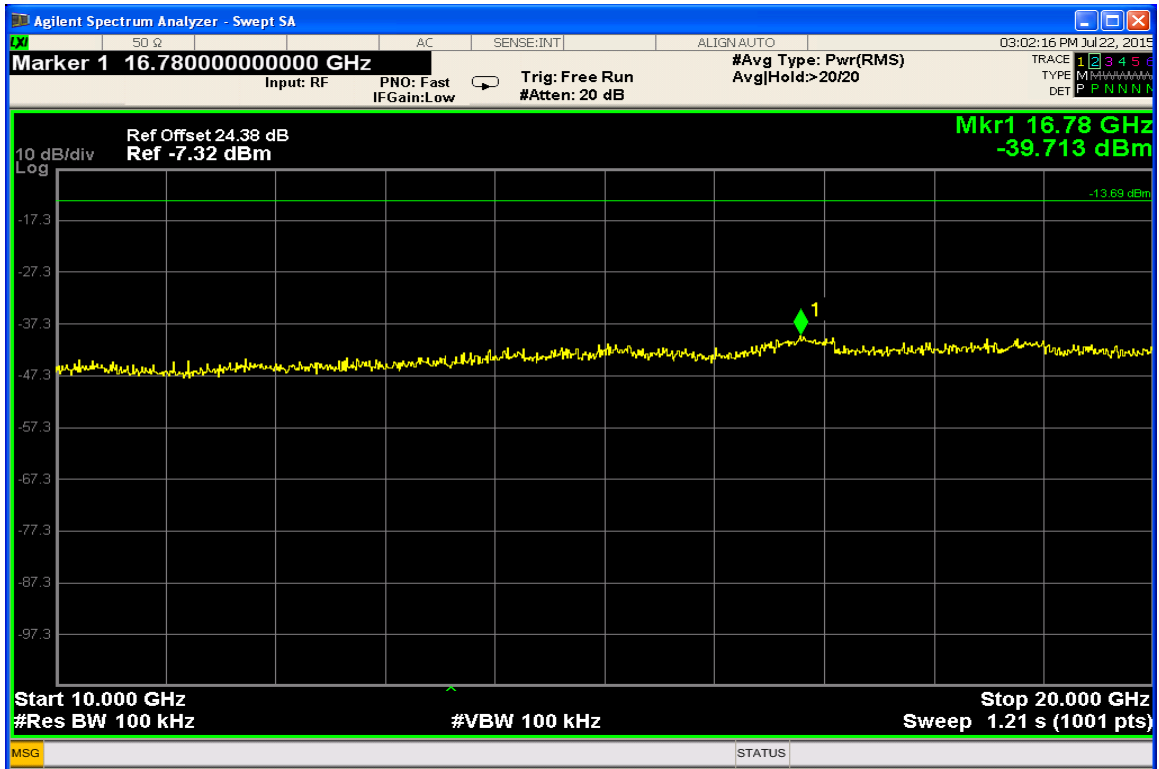
See attached:



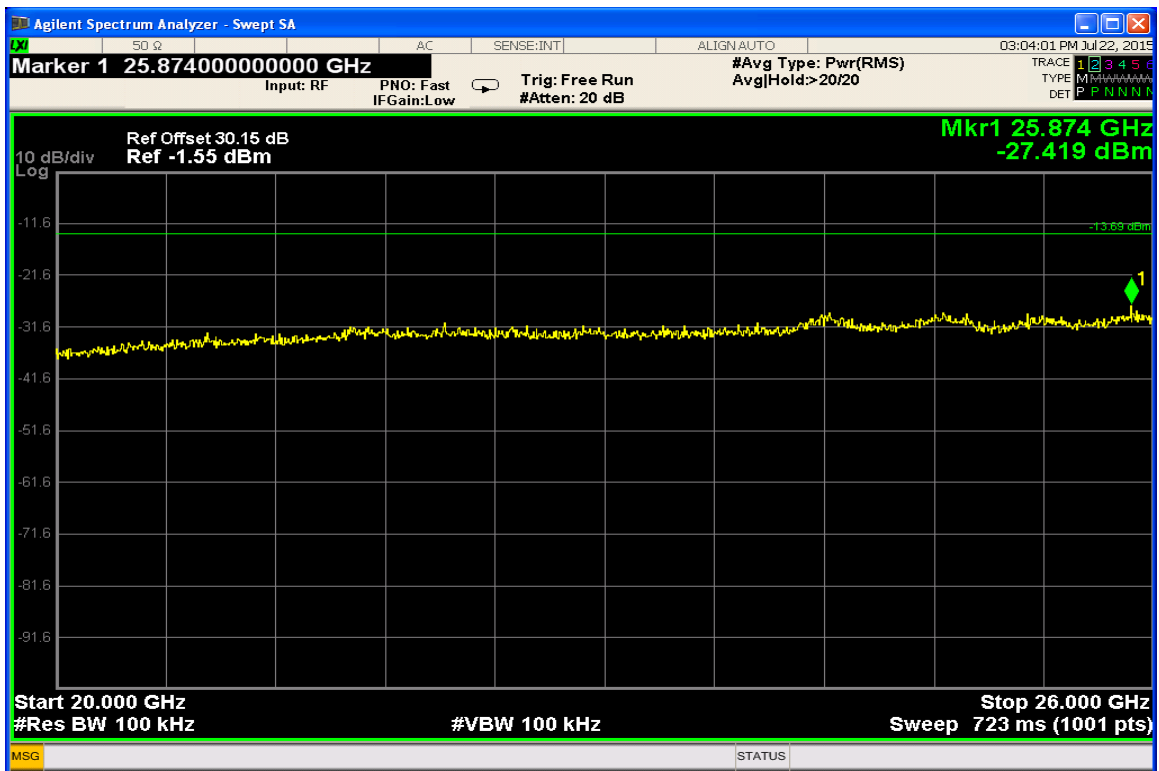
30 MHz – 3000 MHz (Low Channel @ 1Mbps)



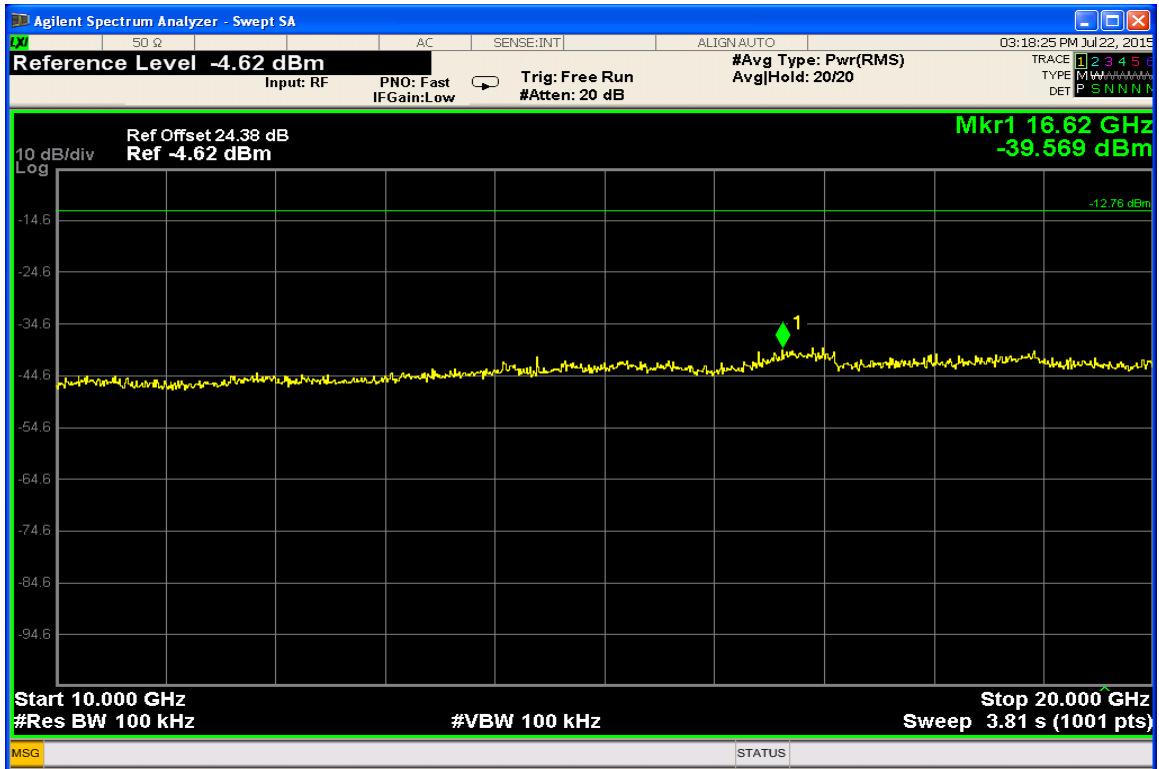
2 GHz – 10 GHz (Low Channel @ 1Mbps)



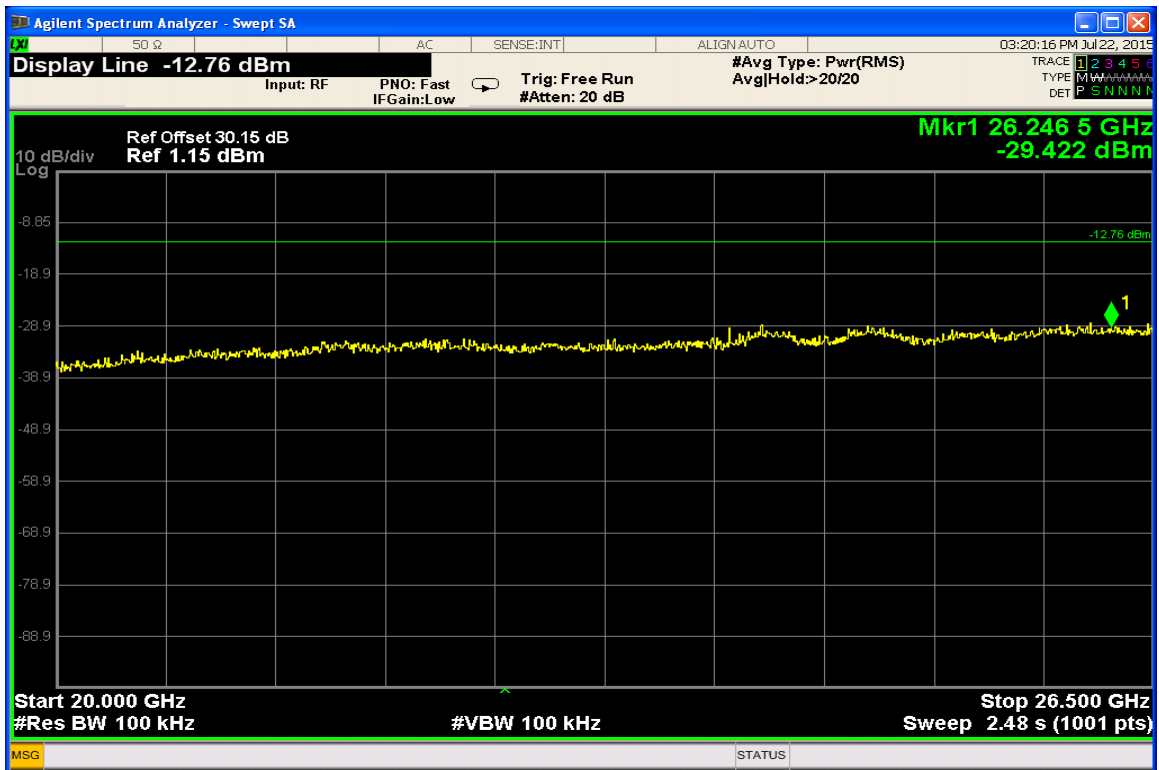
10 GHz – 20 GHz (Low Channel @ 1Mbps)



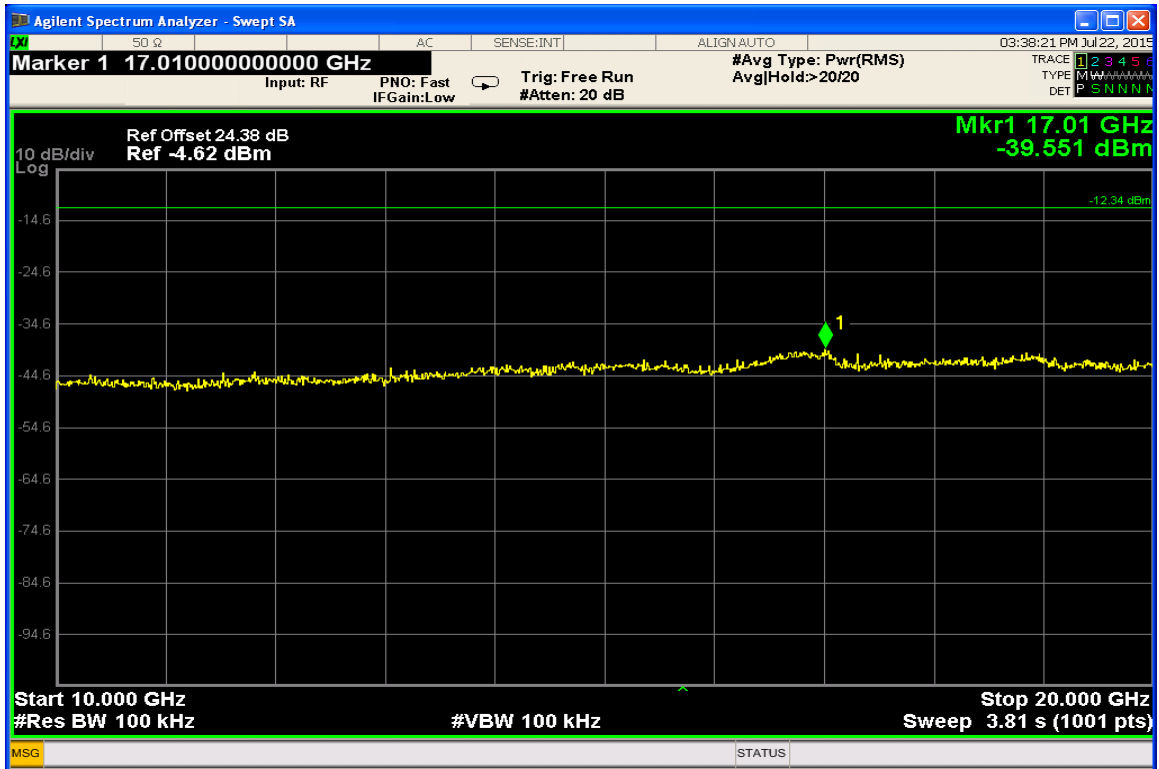
20 GHz - 26.5 GHz (Low Channel @ 1Mbps)



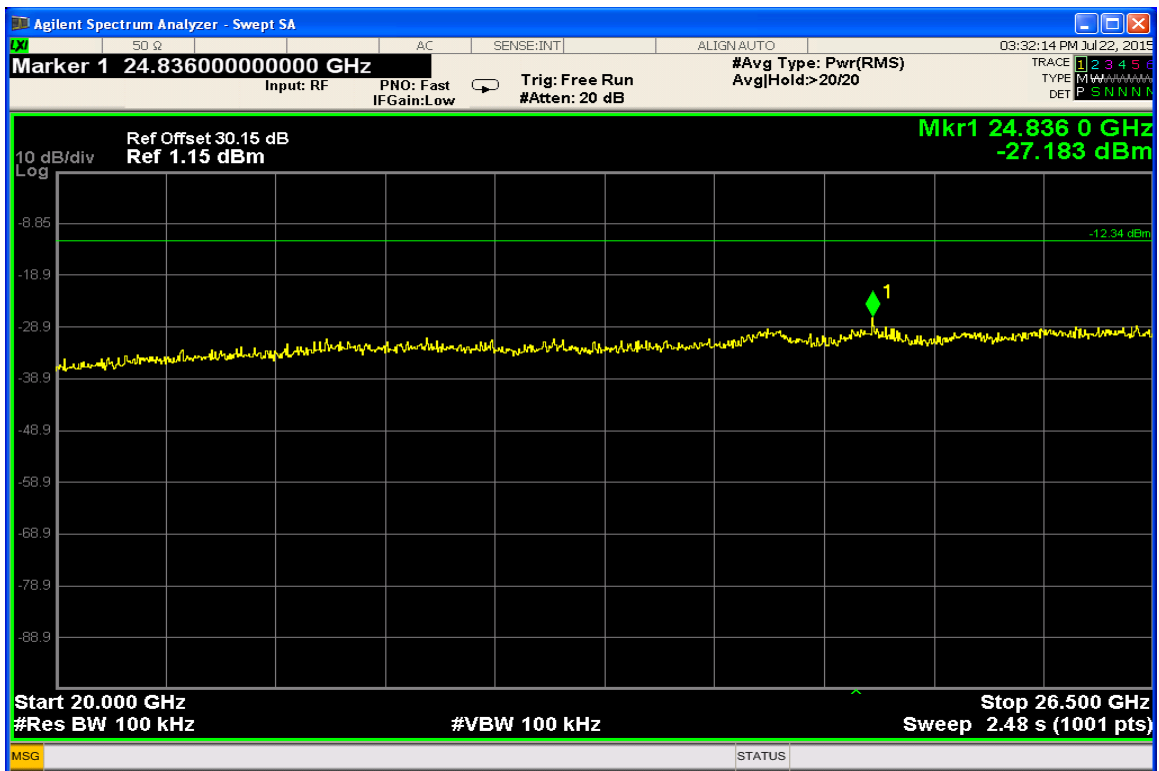
10 GHz – 20 GHz (Mid Channel @ 1Mbps)



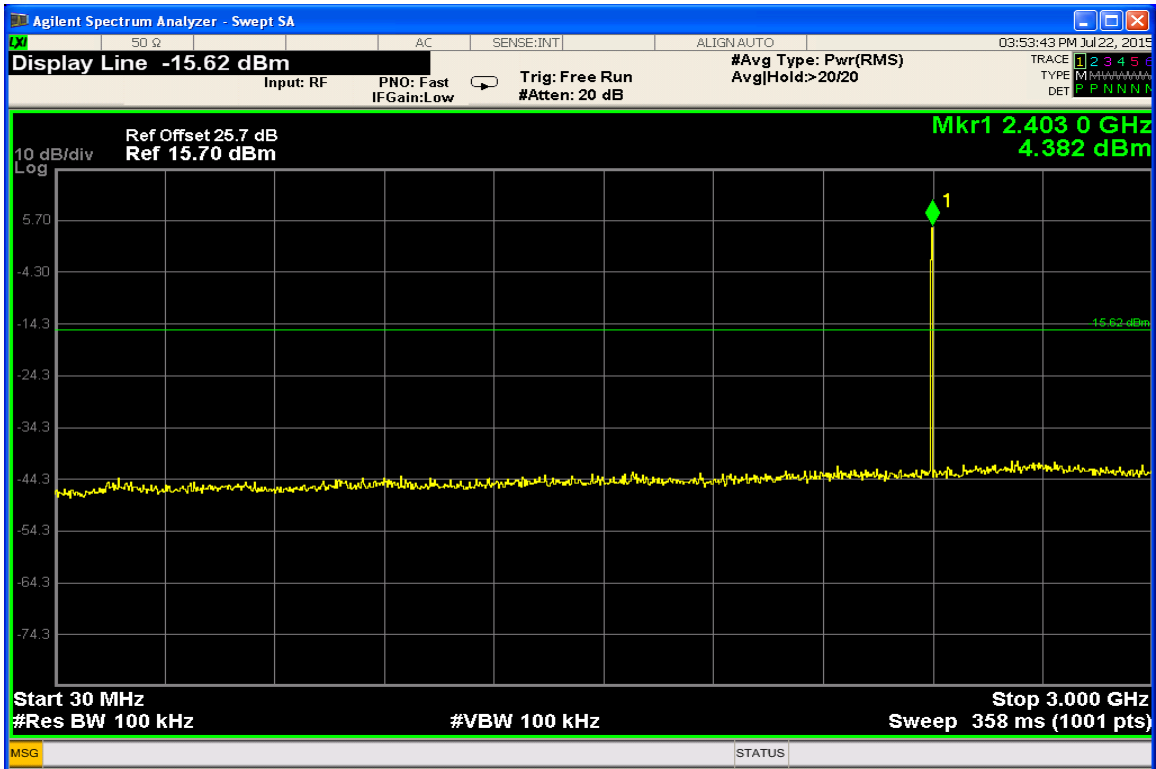
20 GHz - 26.5 GHz (Mid Channel @ 1Mbps)



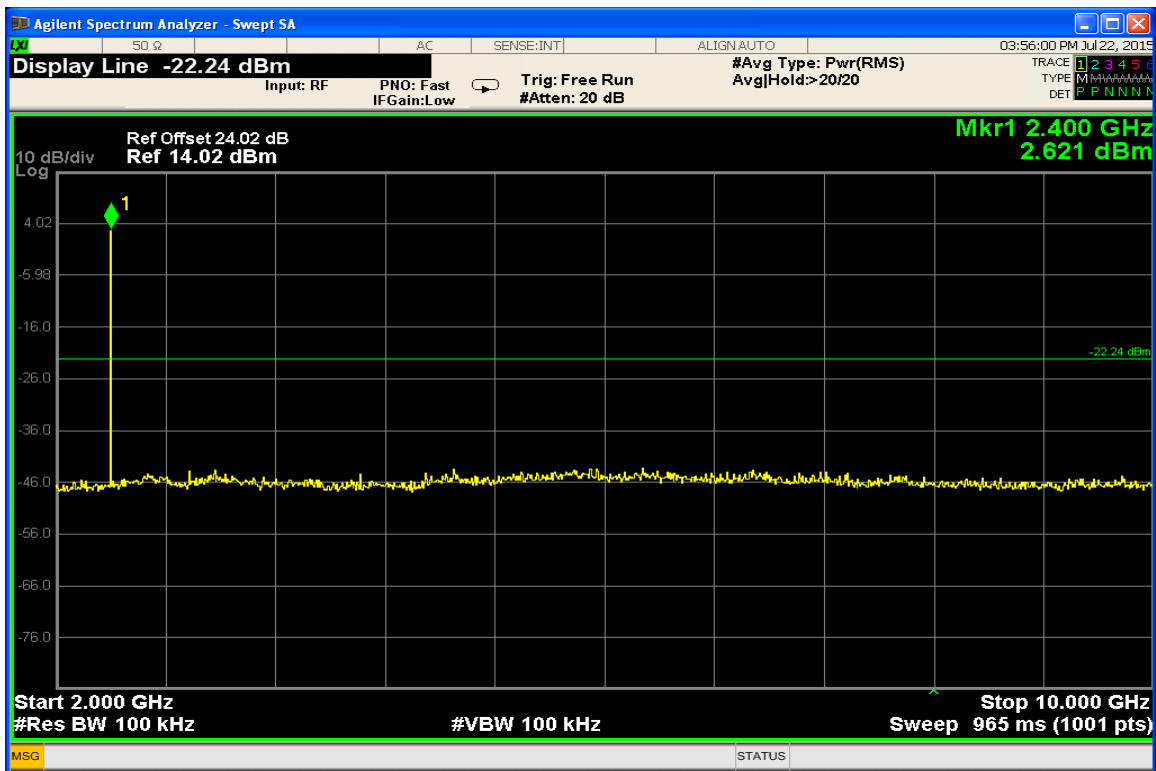
10 GHz – 20 GHz (High Channel @ 1Mbps)



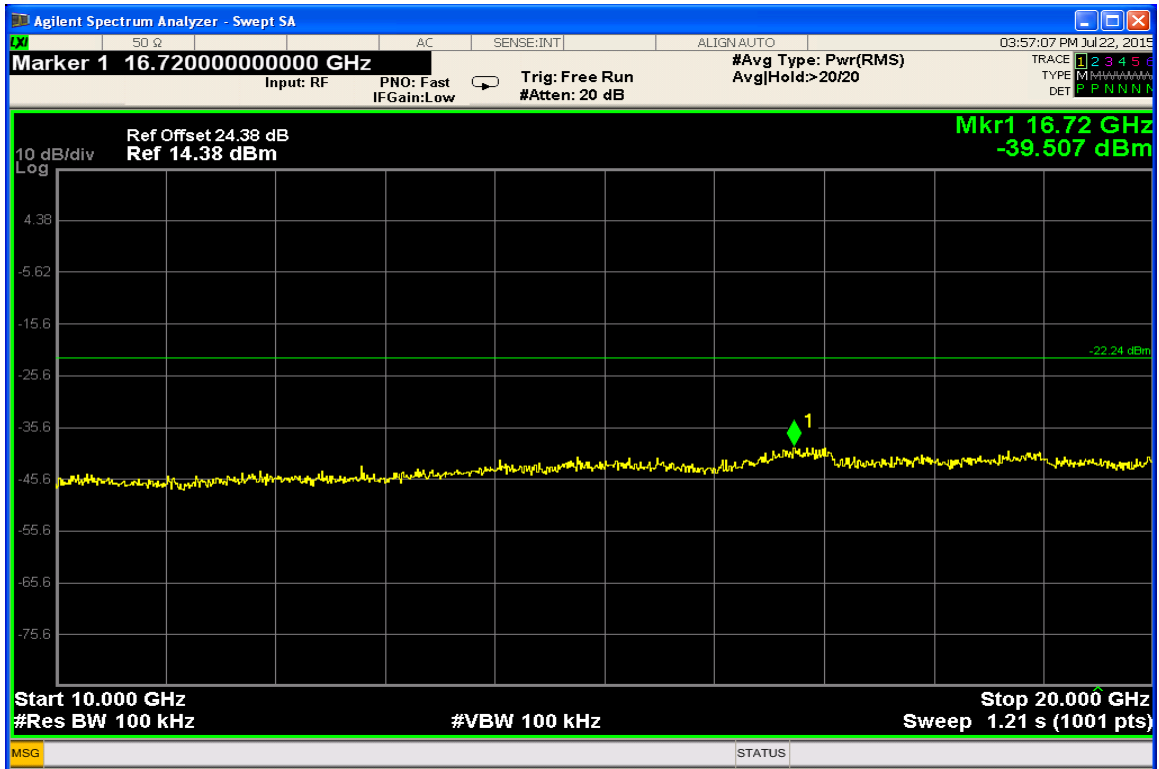
20 GHz - 26.5 GHz (High Channel @ 1Mbps)



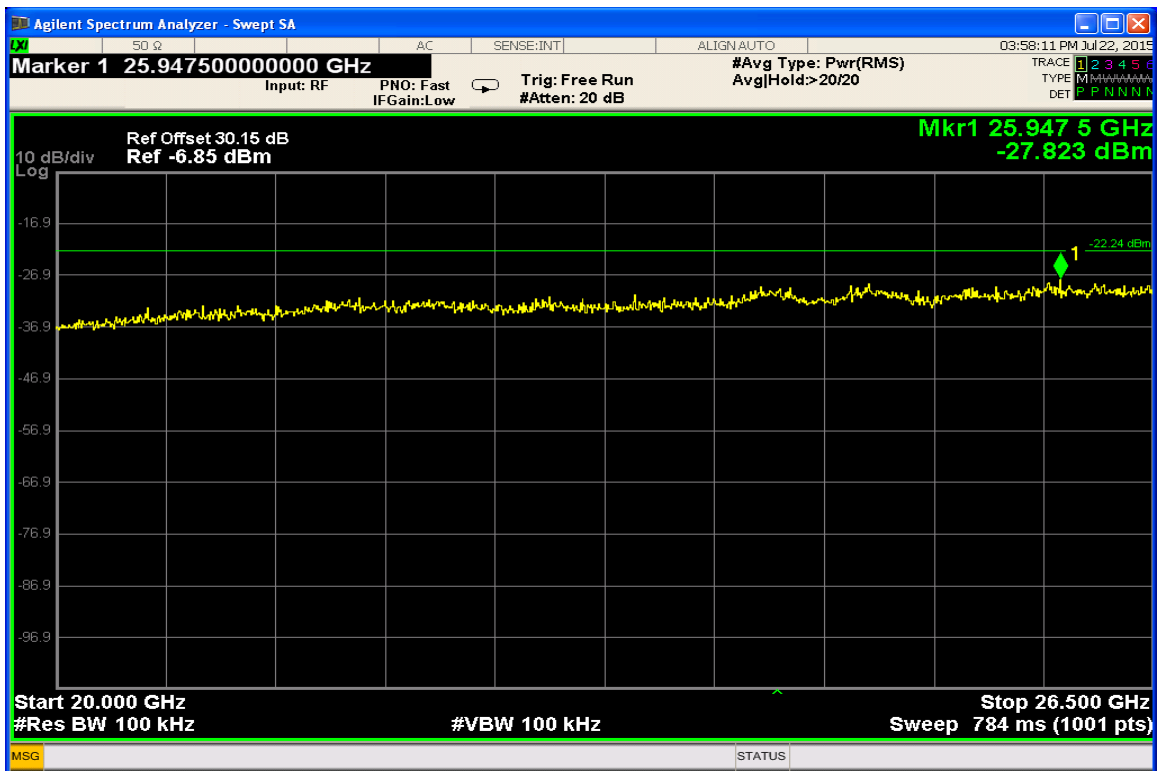
30 MHz – 3000 MHz (Low Channel @ 2Mbps)



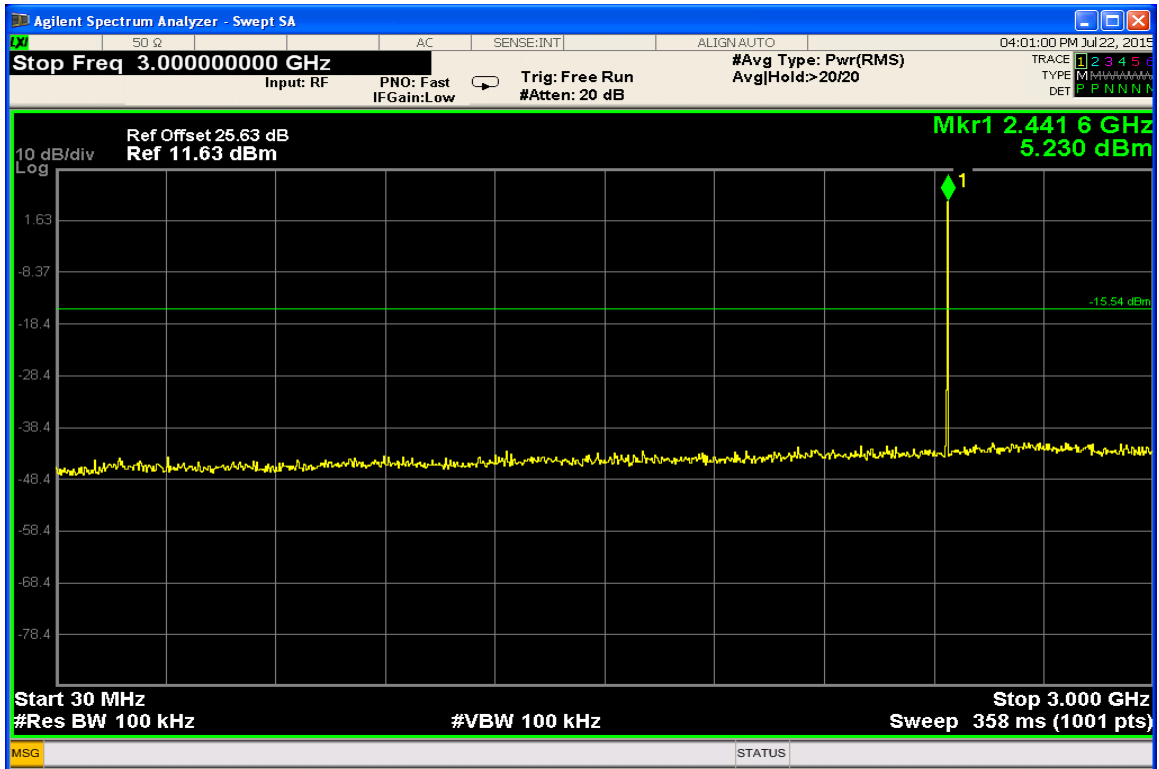
2 GHz – 10 GHz (Low Channel @ 2Mbps)



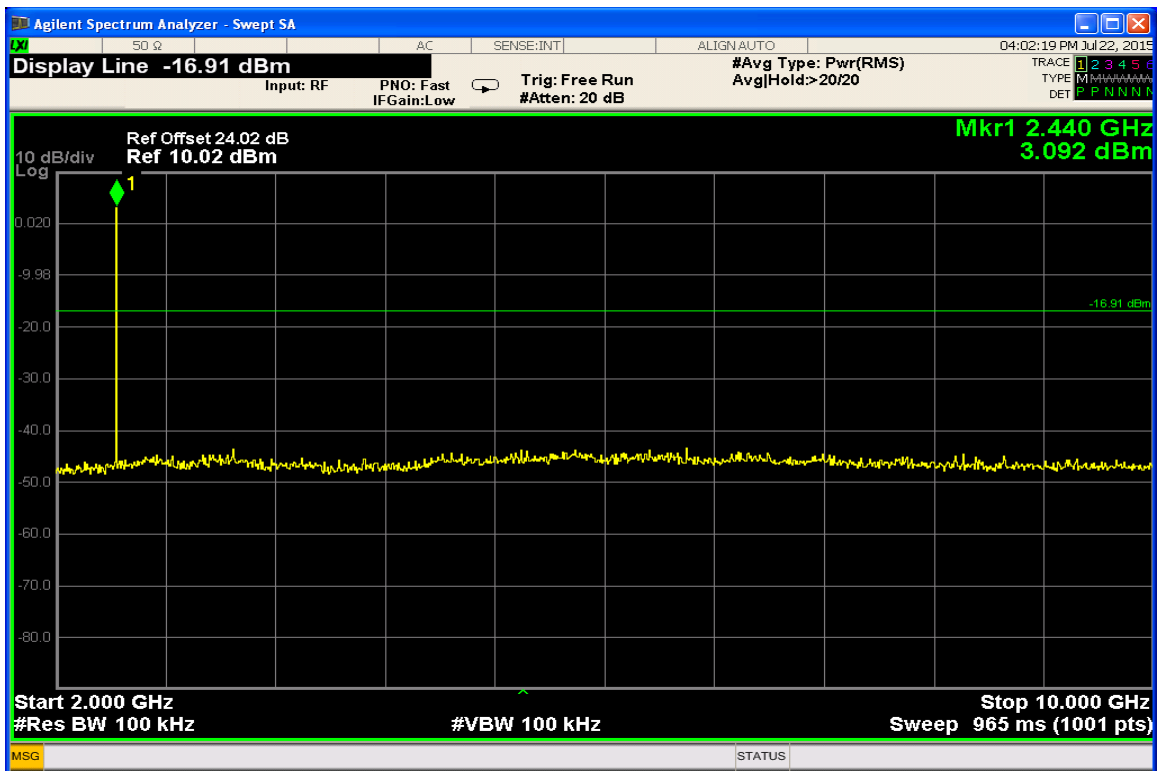
10 GHz – 20 GHz (Low Channel @ 2Mbps)



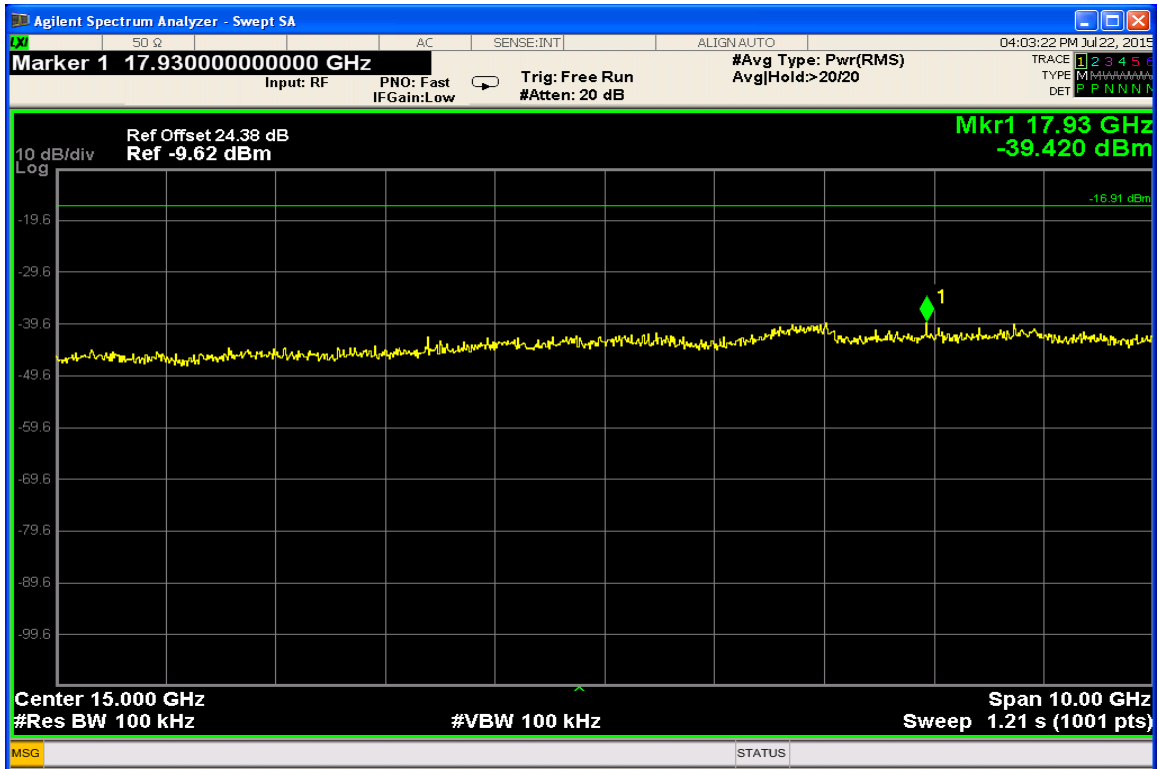
20 GHz - 26.5 GHz (Low Channel @ 2Mbps)



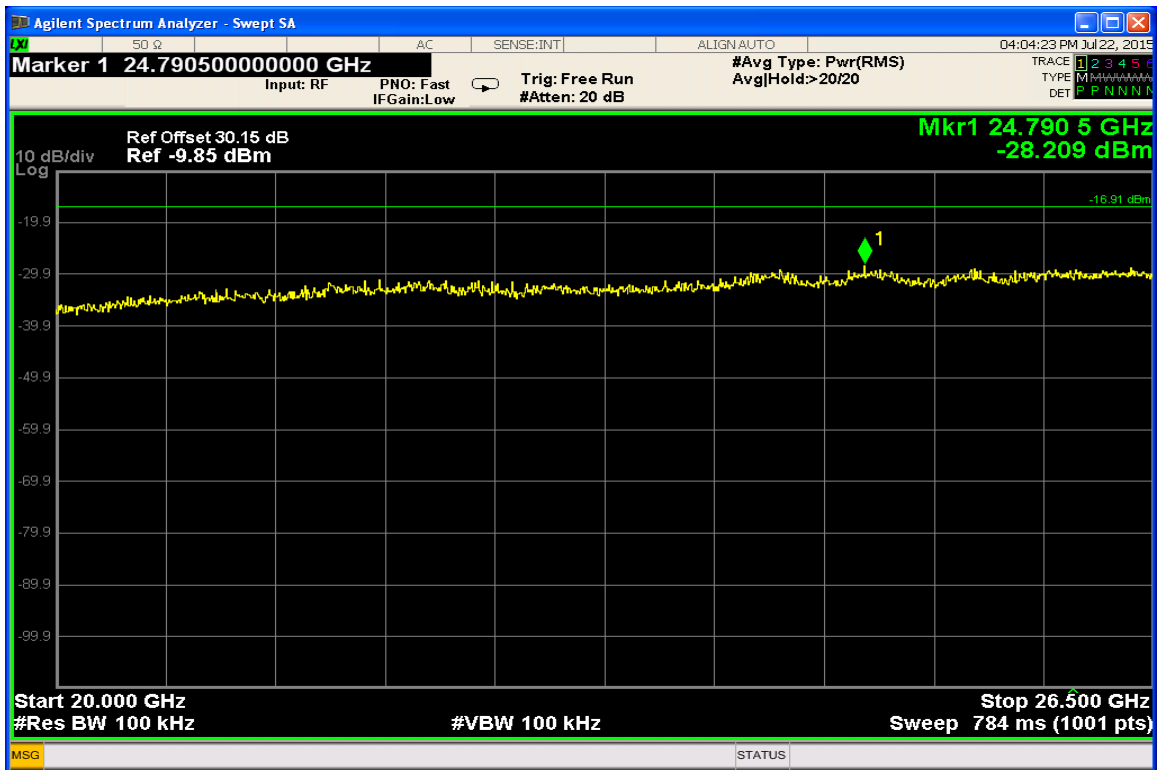
30 MHz – 3000 MHz (Mid Channel @ 2Mbps)



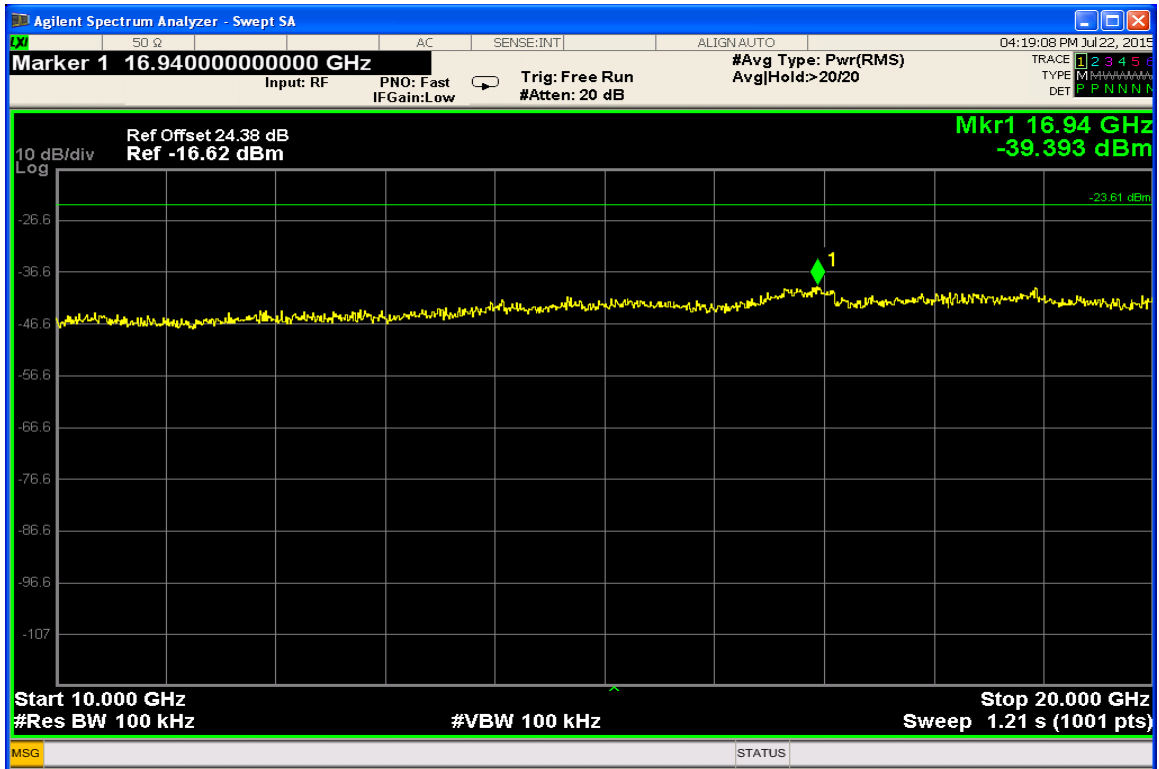
2 GHz – 10 GHz (Mid Channel @ 2Mbps)



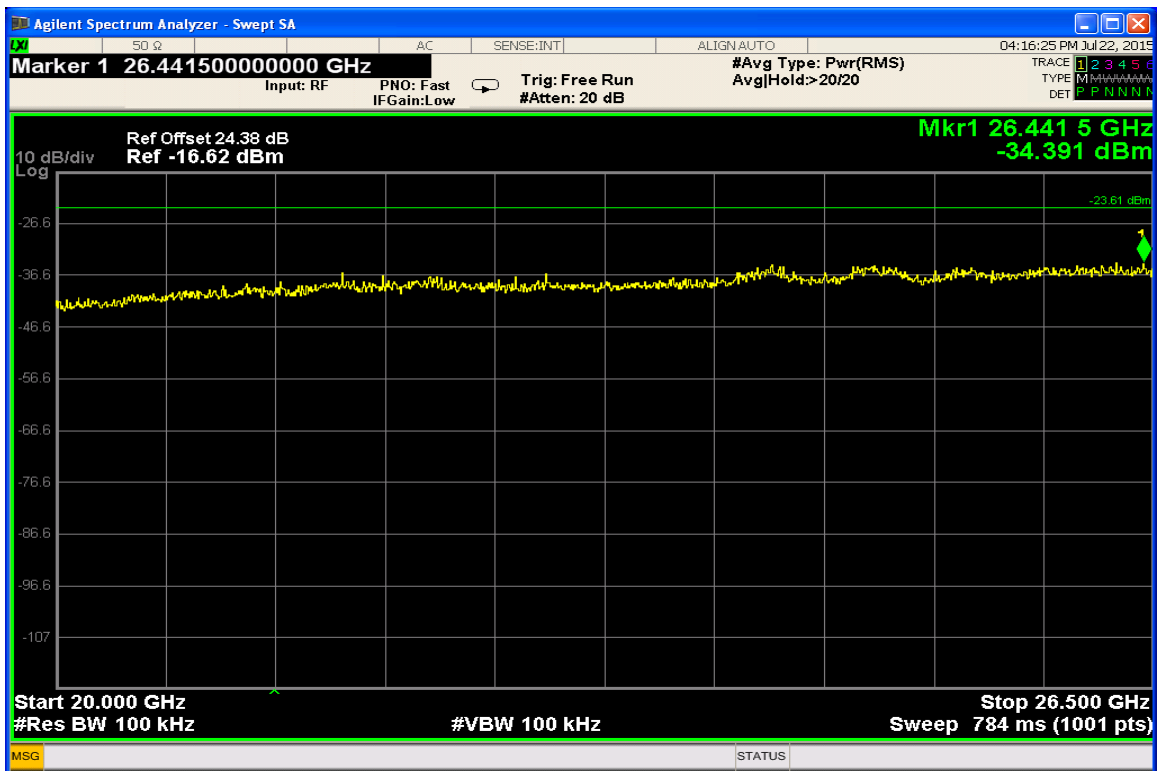
10 GHz – 20 GHz (Mid Channel @ 2Mbps)



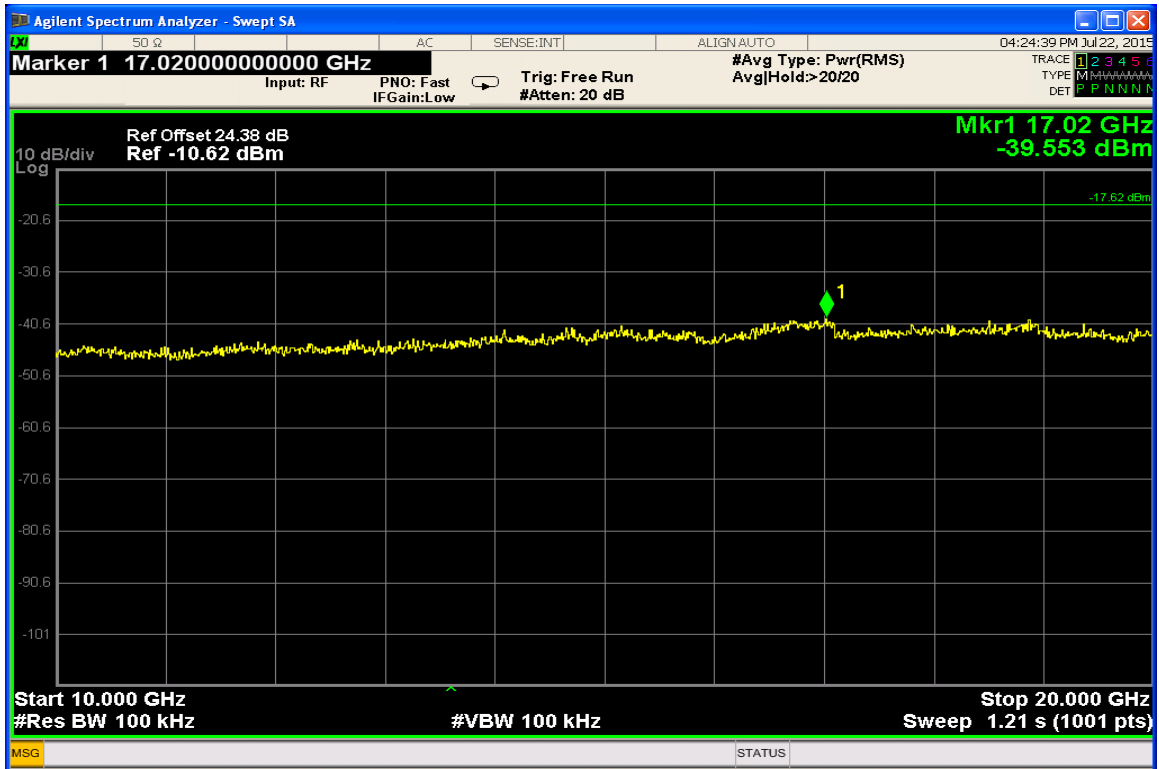
20 GHz - 26.5 GHz (Mid Channel @ 2Mbps)



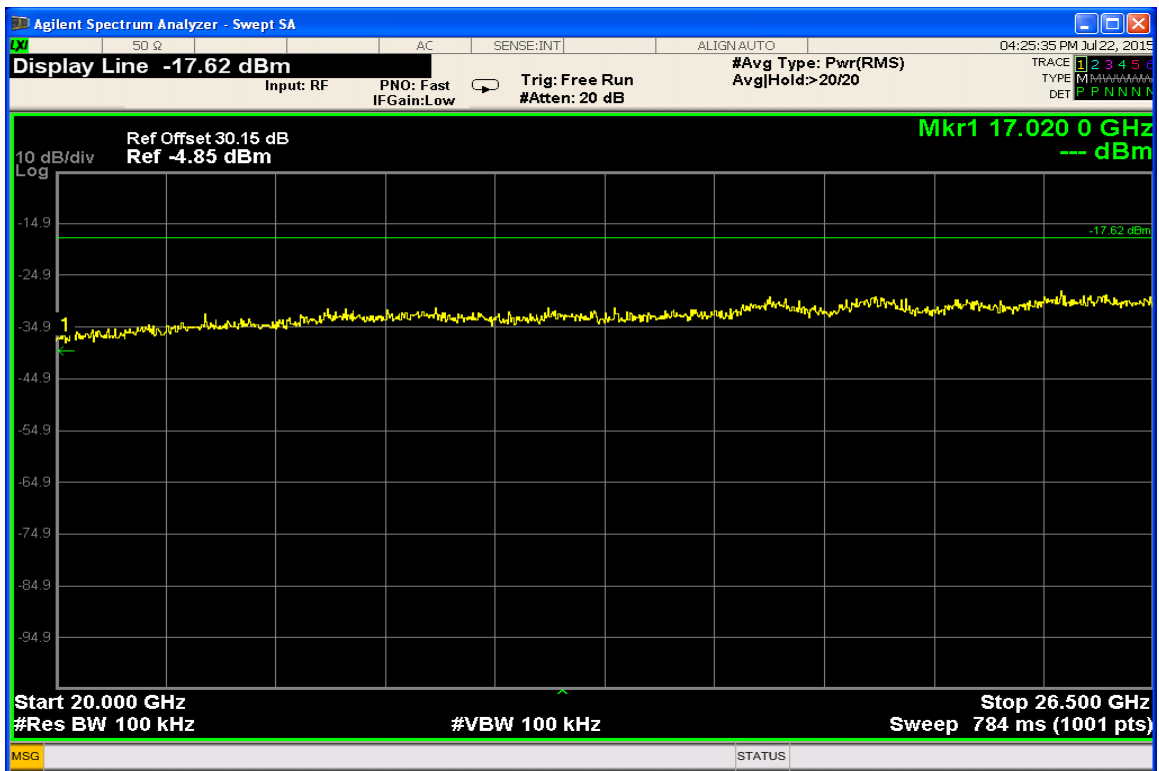
10 GHz – 20 GHz (High Channel @ 2Mbps)



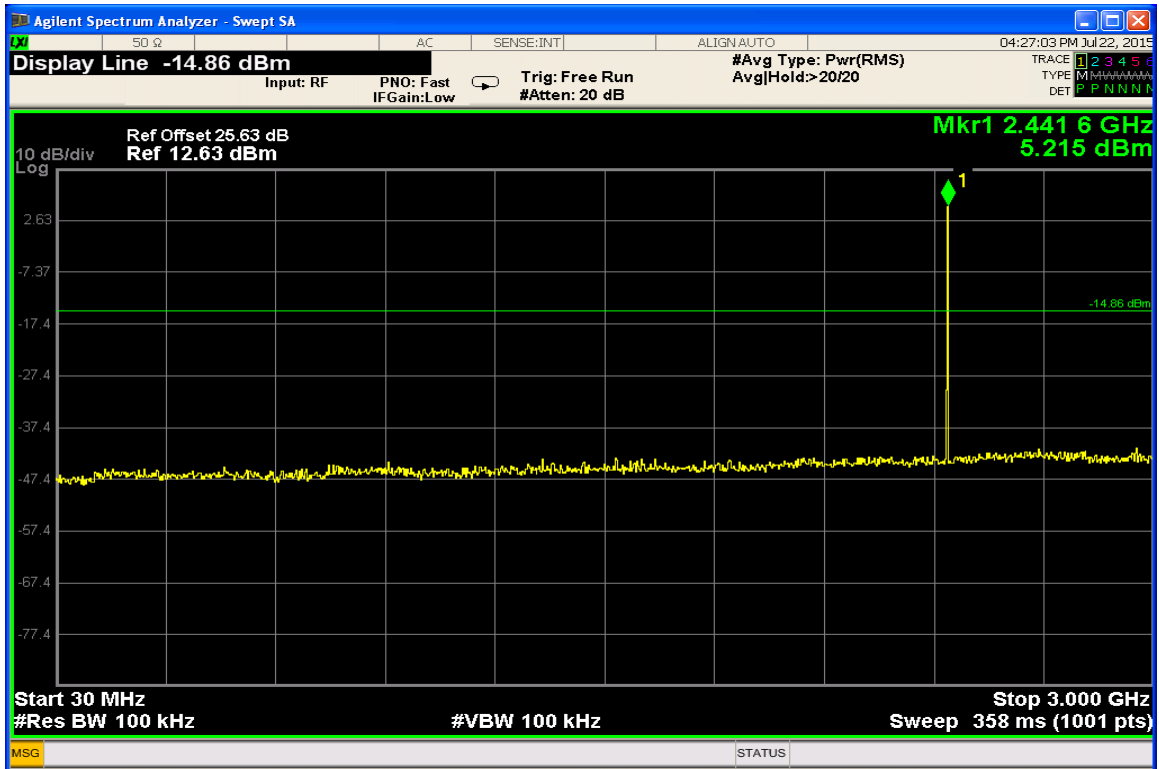
20 GHz - 26.5 GHz (High Channel @ 2Mbps)



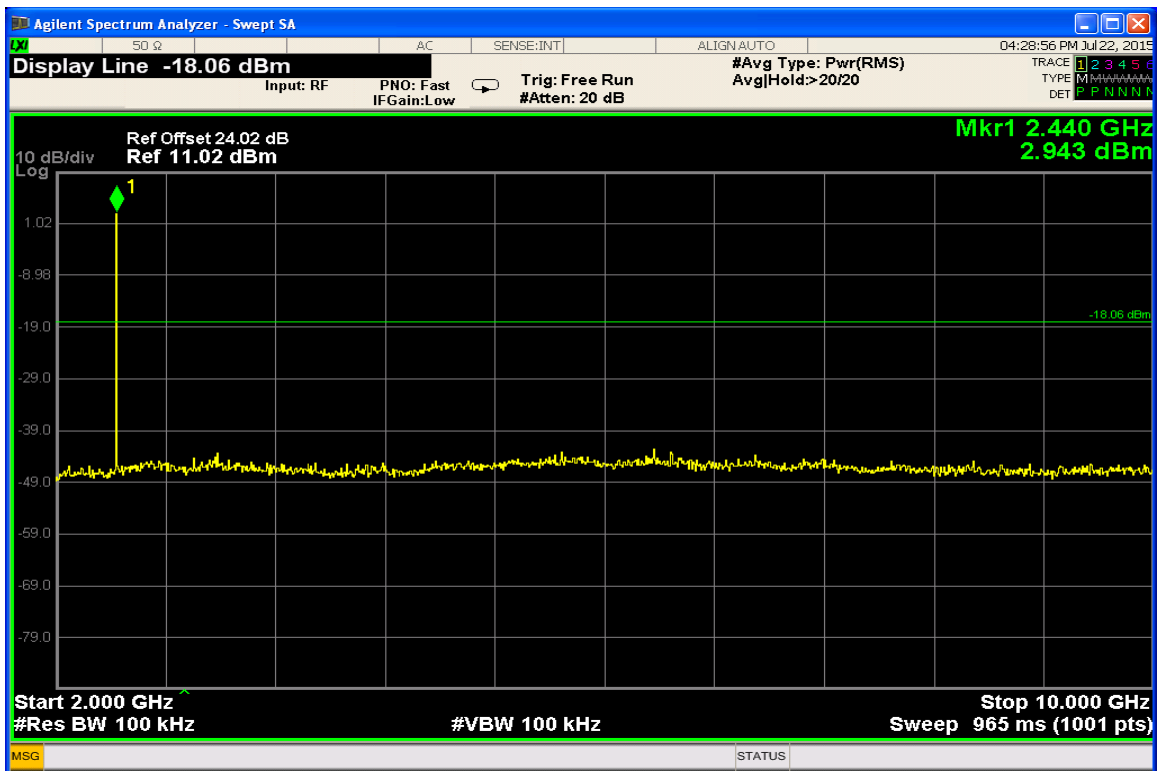
10 GHz – 20 GHz (Low Channel @ 3Mbps)



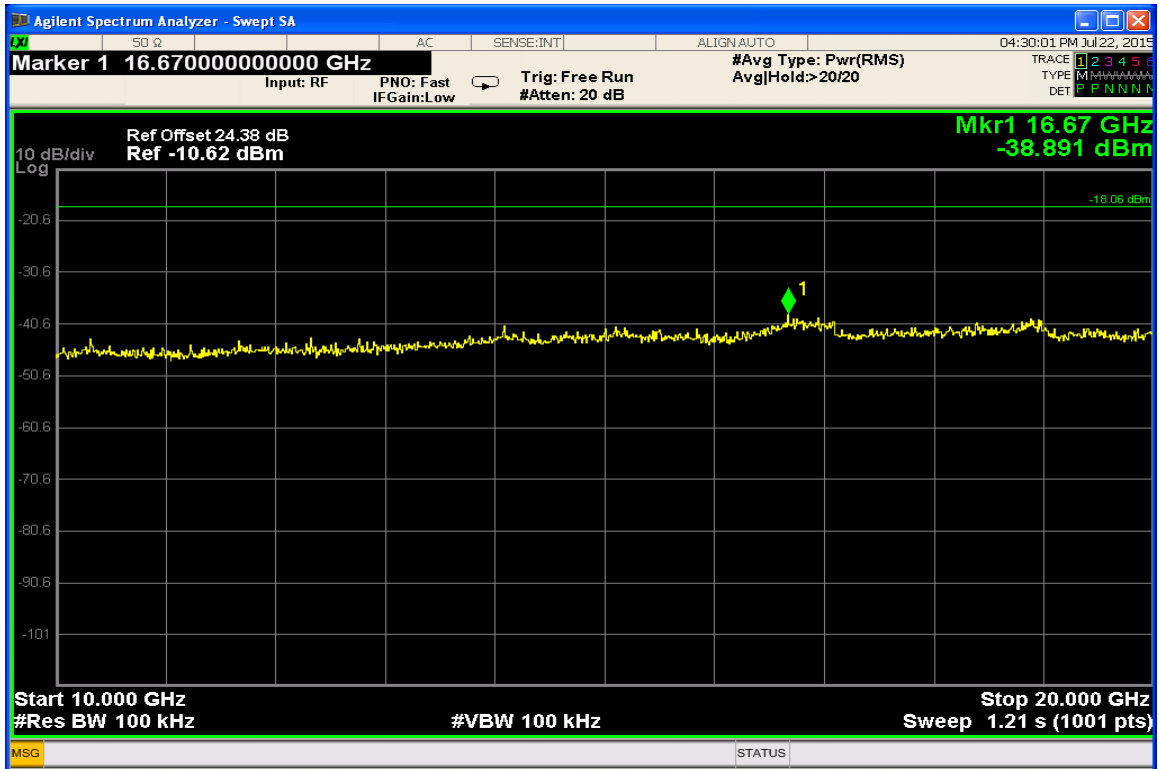
20 GHz - 26.5 GHz (Low Channel @ 3Mbps)



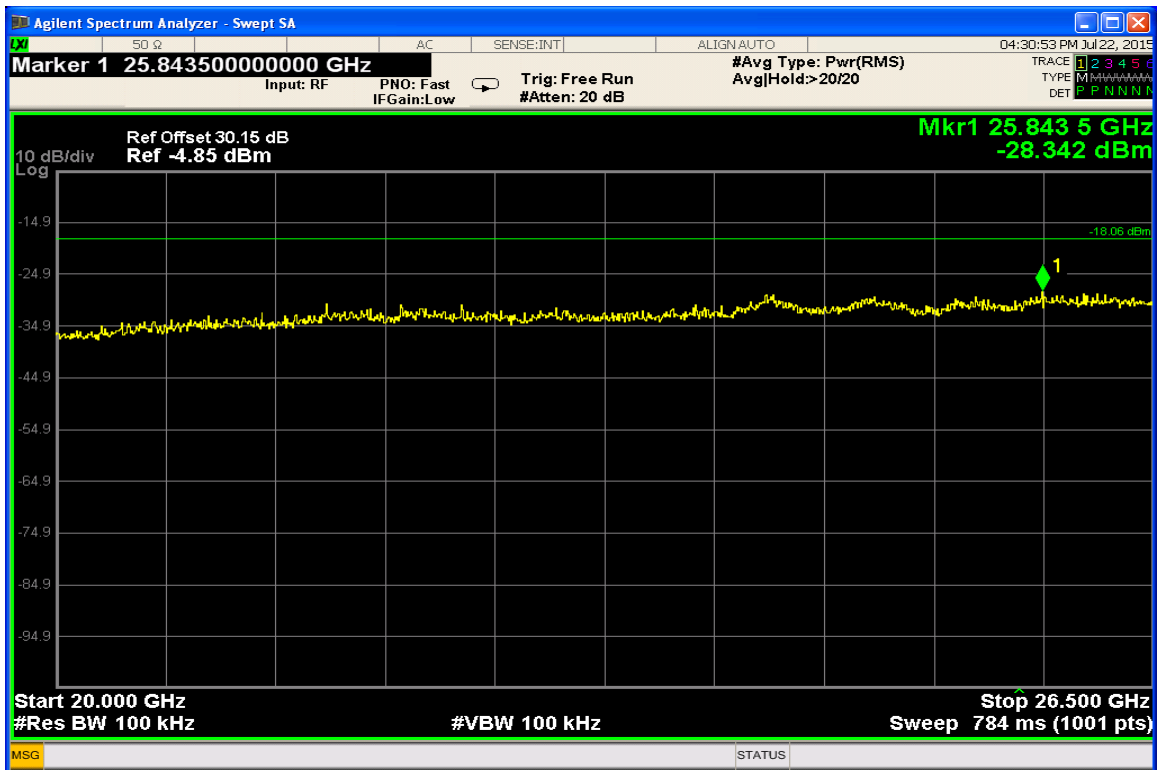
30 MHz – 3000 MHz (Mid Channel @ 3Mbps)



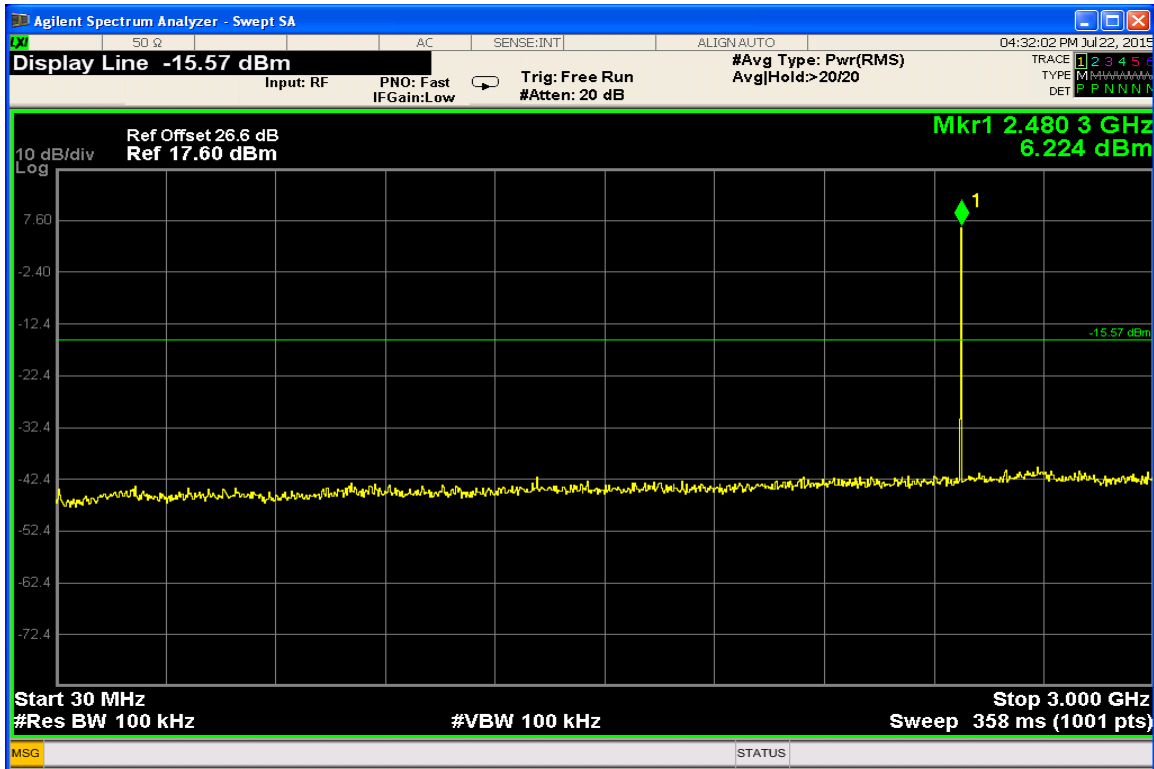
2 GHz – 10 GHz (Mid Channel @ 3Mbps)



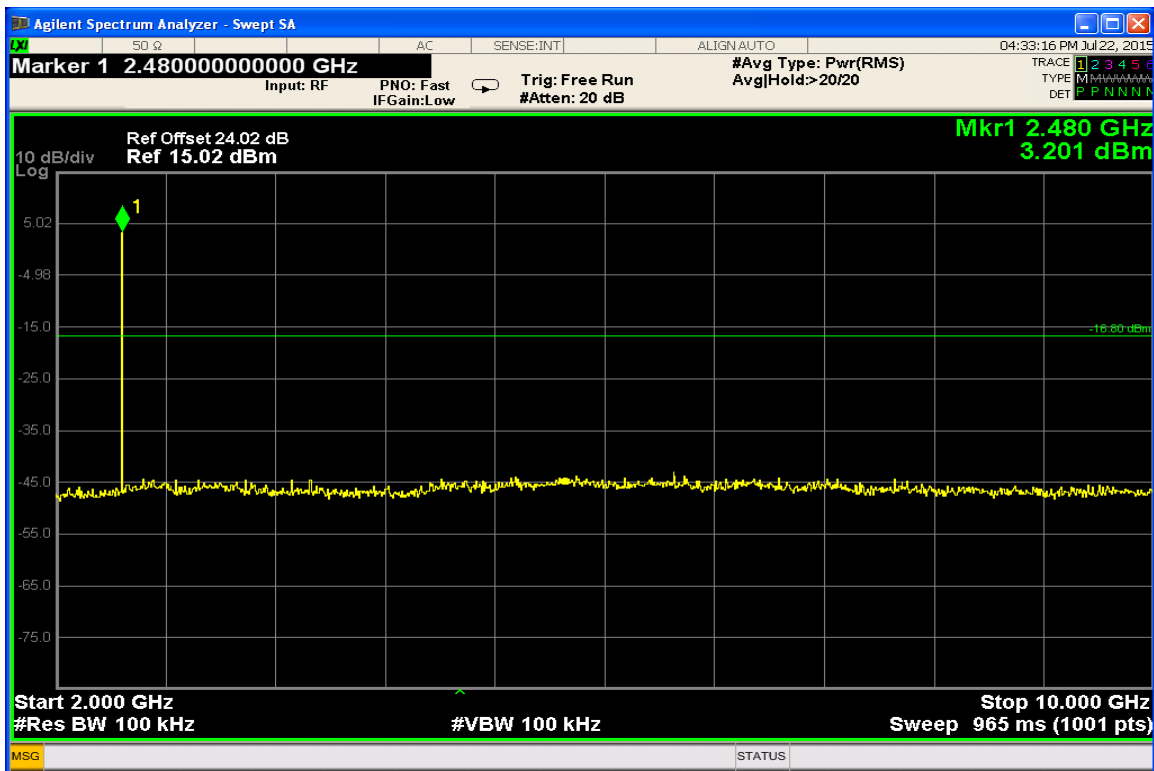
10 GHz – 20 GHz (Mid Channel @ 3Mbps)



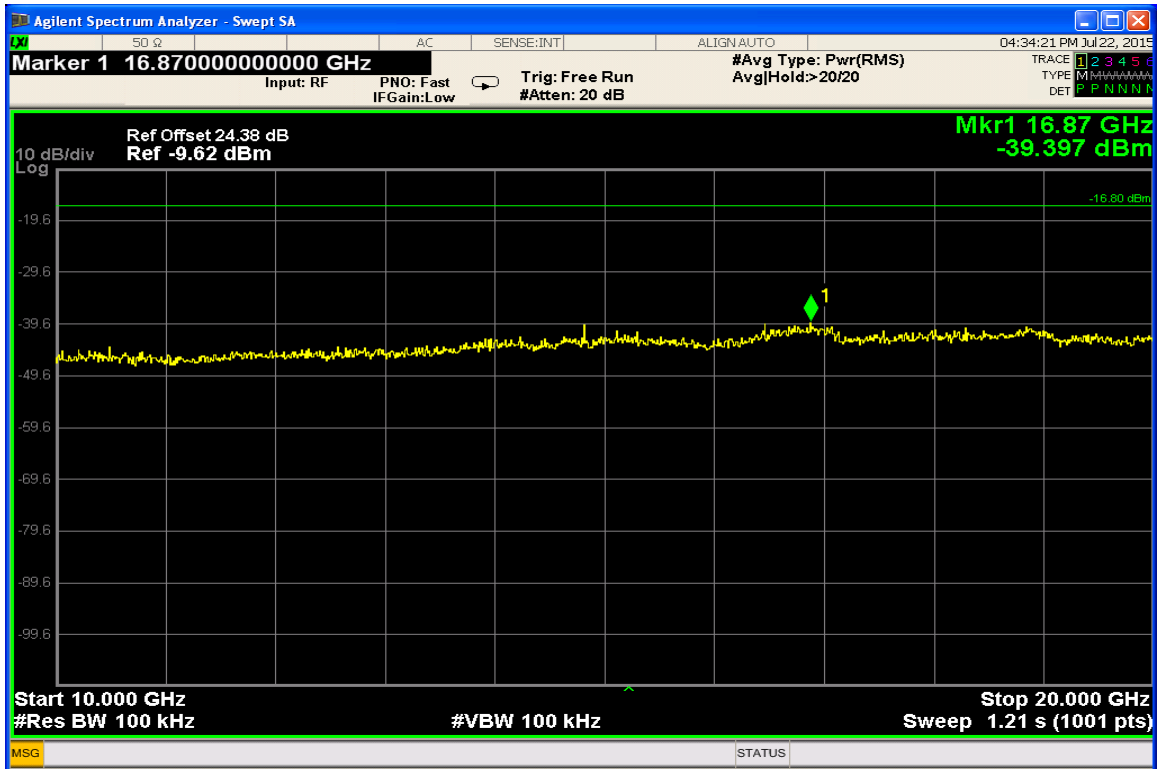
20 GHz - 26.5 GHz (Mid Channel @ 3Mbps)



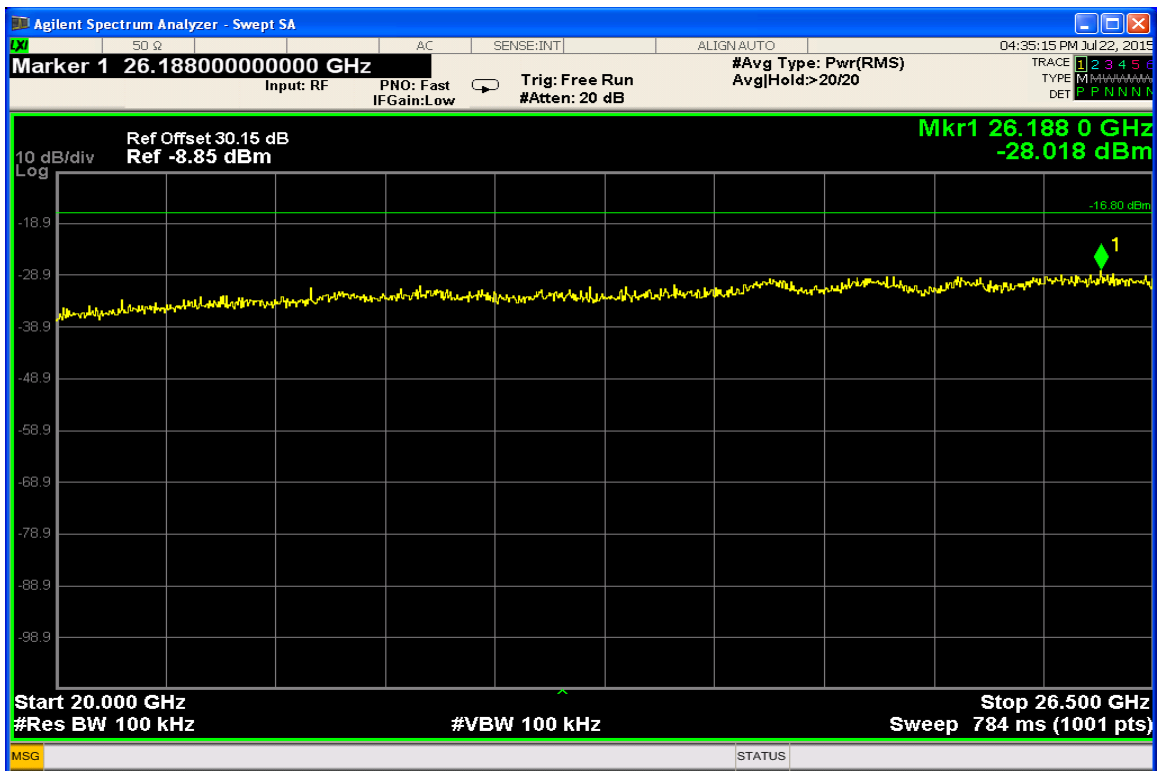
30 MHz – 3000 MHz (High Channel @ 3Mbps)



2 GHz – 10 GHz (High Channel @ 3Mbps)



10 GHz – 20 GHz (High Channel @ 3Mbps)



20 GHz - 26.5 GHz (High Channel @ 3Mbps)

Radiated Spurious Emissions – Restricted Band

CFR 47 Part 15.247(d) 15.209(a)

Measurement Procedure

The EUT is placed inside the semi-anechoic chamber on a Styrofoam table at the turntable center. The Styrofoam table is 0.8 meter above the ground plane. For each spurious frequency, the antenna mast is raised and lowered from 1 to 4 meters and the turntable is rotated 360 degrees to obtain a maximum reading on the spectrum analyzer. This is repeated for both horizontal and vertical polarizations of the receive antenna.

For all measurements up to 12 GHz the EUT was 3 meters from the measuring antenna. All emissions above 12 GHz were measured at 1 meter measuring distance.

The EUT was tested in a standalone and while charging in a Wireless Charger configuration that is representative of typical use. In standalone configuration the EUT was evaluated in X, Y and Z orientation.

Field Strength dBuV/m = Measured Level + Antenna Factor + Cable Loss – Preamp Gain

The below Spectrum Analyzer settings were used for measurements

RBW = 100 kHz for $f < 1$ GHz and 1 MHz for $f > 1$ GHz

VBW \geq RBW for $F < 1$ GHz

VBW – 3 MHz for Peak Measurements for $f > 1$ GHz

VBW – 3 kHz for Average Measurements for $f > 1$ GHz

Detector – Peak

Sweep – auto couple

Trace – max hold

Measurement Results

See attached:

No significant emissions were found in the below frequency range.

9 kHz – 30 MHz

30 MHz – 1 GHz

12 GHz – 26.5 GHz

Worst case emissions reported.

Regular BT

Channel 0

Frequency	Peak Level	Average Level	Peak Measured	Average Measured	Peak Limit	Average Limit	Peak Margin	Average Margin	Pol
MHz	dBµV/m	dBµV/m	dBµV	dBµV	dBµV/m	dBµV/m	dB	dB	
4804	56.948	50.248	43.81	37.11	74.00	54.00	-17.05	-3.75	H
	55.768	49.098	42.63	35.96	74.00	54.00	-18.23	-4.90	V
7206	56.61	44.03	38.18	25.6	74.00	54.00	-17.39	-9.97	H
	57.18	43.93	38.75	25.5	74.00	54.00	-16.82	-10.07	V
9608	60.32	47.27	38.05	25	74.00	54.00	-13.68	-6.73	H
	60.07	47.05	37.8	24.78	74.00	54.00	-13.93	-6.95	V
12010	62.893	50.023	37.53	24.66	74.00	54.00	-11.11	-3.98	H
	63.273	50.103	37.91	24.74	74.00	54.00	-10.73	-3.90	V

Channel 39

Frequency	Peak Level	Average Level	Peak Measured	Average Measured	Peak Limit	Average Limit	Peak Margin	Average Margin	Pol
MHz	dBµV/m	dBµV/m	dBµV	dBµV	dBµV/m	dBµV/m	dB	dB	
4882	54.972	44.982	41.38	31.39	74.00	54.00	-19.03	-9.02	H
	55.102	46.452	41.51	32.86	74.00	54.00	-18.90	-7.55	V
7323	56.42	43.84	37.99	25.41	74.00	54.00	-17.58	-10.16	H
	56.9	43.97	38.47	25.54	74.00	54.00	-17.10	-10.03	V
9764	60.15	47.27	37.88	25	74.00	54.00	-13.85	-6.73	H
	60.31	47.16	38.04	24.89	74.00	54.00	-13.69	-6.84	V
12205	63.215	51.395	37.52	25.7	74.00	54.00	-10.79	-2.61	H
	63.505	50.595	37.81	24.9	74.00	54.00	-10.50	-3.41	V

Channel 78

Frequency	Peak Level	Average Level	Peak Measured	Average Measured	Peak Limit	Average Limit	Peak Margin	Average Margin	Pol
MHz	dBµV/m	dBµV/m	dBµV	dBµV	dBµV/m	dBµV/m	dB	dB	
4960	54.385	45.195	40.71	31.52	74.00	54.00	-19.62	-8.81	H
	55.395	46.685	41.72	33.01	74.00	54.00	-18.61	-7.32	V
7440	57.05	43.59	38.62	25.16	74.00	54.00	-16.95	-10.41	H
	57.79	44.03	39.36	25.6	74.00	54.00	-16.21	-9.97	V
9920	59.96	46.34	37.69	24.07	74.00	54.00	-14.04	-7.66	H
	60.47	47.37	38.2	25.1	74.00	54.00	-13.53	-6.63	V
12400	63.934	50.704	38.01	24.78	74.00	54.00	-10.07	-3.30	H
	64.914	50.744	38.99	24.82	74.00	54.00	-9.09	-3.26	V

Radiated Band Edge

Regular BT

Channel 0 and 78

Frequency	Peak Level	Average Level	Peak Measured	Average Measured	Peak Limit	Average Limit	Peak Margin	Average Margin	Pol
MHz	dB μ V/m	dB μ V/m	dB μ V	dB μ V	dB μ V/m	dB μ V/m	dB	dB	
2310-2390	53.39	40.54	47.17	34.32	74.00	54.00	-20.61	-13.46	H
	57.83	44.95	51.61	38.73	74.00	54.00	-16.17	-9.05	V
2483.5-2500	50.46	43.62	43.76	36.92	74.00	54.00	-23.54	-10.38	H
	51.65	46.11	44.95	39.41	74.00	54.00	-22.35	-7.89	V

AC Line Conducted

CFR 47 Part 15.207(a)

Measurement Procedure

AC power-line conducted emission measurements are made over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from all of the EUT current-carrying power input terminals that are directly or indirectly connected to a public power network. The measurements are made on each current-carrying conductor at the plug end of the EUT power cord or calibrated extension cord by the use of mating plugs and receptacles on the EUT and LISN.

Preliminary measurements are made using a peak detector and final measurements are performed using Quasi Peak and Average Detectors. The RBW of the EMI receiver is set to 9 kHz for all final measurements. If there is enough margin using the peak detector then no final measurements are performed.

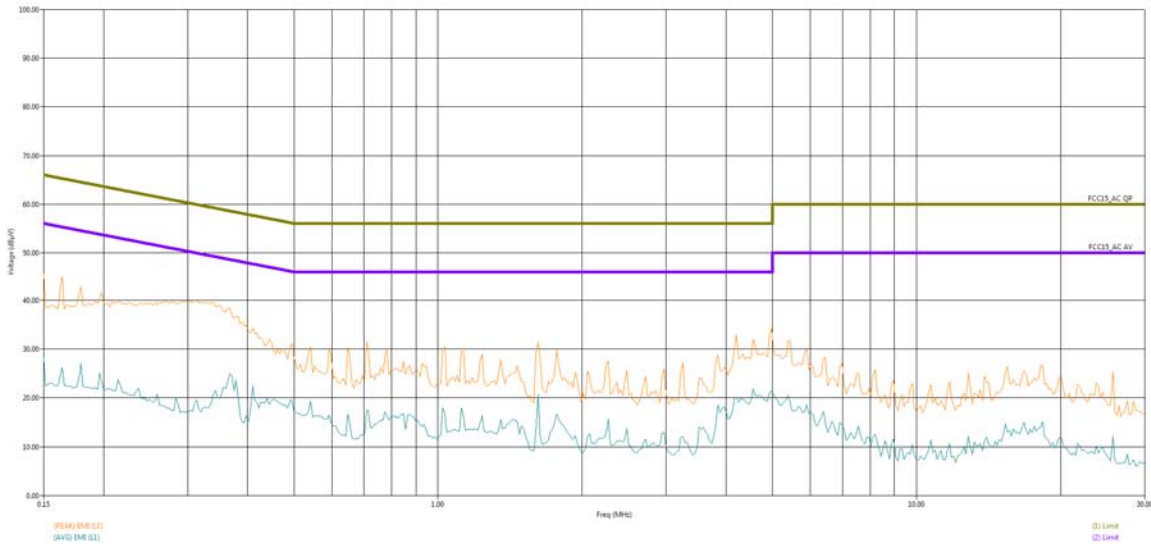
Conducted Emission (dBuV) = EMI Receiver Level (dBuV) + Loss (dB)

The EUT is setup according to the procedures in ANSI C63.10-2009. The test is performed with the EUT connected to the LISN while charging in the Wireless Charger.

Measurement Results

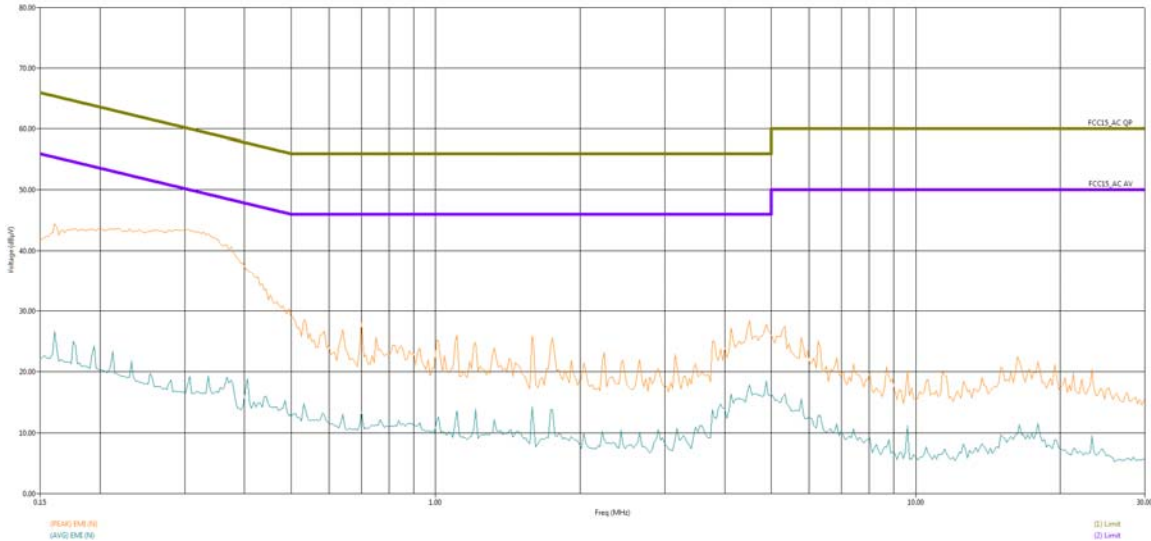
See attached:

Bluetooth – Hopping - Tx Mode - Line Coupling 1Mbps Data Rate



Freq	(PEAK) EMI (L1)	(AVG) EMI (L1)	QP Limit	AVG Limit	QP Margin	AVG Margin
MHz	dBuV	dBuV	dBuV	dBuV	dB	dB
0.16	44.37	26.55	65.42	55.42	21.05	28.87
0.28	43.05	16.98	60.96	50.96	17.91	33.98
0.54	28.32	13.45	56	46	27.68	32.55
0.64	26.93	12.96	56	46	29.07	33.04
0.7	28.02	13.37	56	46	27.98	32.63
1.11	25.97	13.5	56	46	30.03	32.5
1.59	25.9	14.28	56	46	30.1	31.72
1.75	25.55	13.68	56	46	30.45	32.32
4.51	28.43	17.83	56	46	27.57	28.17
6.26	24.98	12.79	60	50	35.02	37.21
9.6	20.11	11.18	60	50	39.89	38.82
16.27	22.4	9.82	60	50	37.6	40.18
17.62	20	9	60	50	40	41
23.28	20.4	9.63	60	50	39.6	40.37

Bluetooth – Hopping - Tx Mode - Neutral Coupling 1Mbps Data Rate



Freq	(PEAK) EMI (N)	(AVG) EMI (N)	QP Limit	AVG Limit	QP Margin	AVG Margin
MHz	dBuV	dBuV	dBuV	dBuV	dB	dB
0.16	44.37	26.55	65.42	55.42	21.05	28.87
0.22	43.75	19.49	62.86	52.86	19.11	33.37
0.33	42.99	16.38	59.47	49.47	16.48	33.09
0.53	28.5	14.69	56	46	27.5	31.31
0.64	26.93	12.96	56	46	29.07	33.04
0.7	28.02	13.37	56	46	27.98	32.63
0.75	25.56	11.29	56	46	30.44	34.71
1.11	25.97	13.5	56	46	30.03	32.5
1.59	25.9	14.28	56	46	30.1	31.72
1.75	25.55	13.68	56	46	30.45	32.32
4.51	28.43	17.83	56	46	27.57	28.17
5.34	27.43	16.3	60	50	32.57	33.7
8.69	20.78	7.62	60	50	39.22	42.38
16.27	22.4	9.82	60	50	37.6	40.18
23.3	20.4	9.63	60	50	39.6	40.37

End of Test Report