FCC 47 CFR PART 15 SUBPART C AND ANSI C63.10:2013 TEST REPORT

For

ICG

Model: ICG-100-NA-R

Trade Name: Intwine connect

Issued for

Foxconn International Inc

NO 2 ZIYOU ST TUCHENG DISTRICT NEW TAIPEI 236

Issued by

Compliance Certification Services Inc.
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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	08/27/2015	Initial Issue	All Page 123	Vera Hsu

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1. TEST REPORT CERTIFICATION

Applicant	:	Foxconn International Inc
Address	:	NO 2 ZIYOU ST TUCHENG DISTRICT NEW TAIPEI 236
Equipment Under Test	:	ICG
Model	:	ICG-100-NA-R
Trade Name	:	Intwine connect
Tested Date	:	July 15 ~ August 26, 2015

APPLICABLE STANDARD	
Standard	**Test Result**
FCC Part 15 Subpart C AND ANSI C63.10:2013	PASS

WE HEREBY CERTIFY THAT: The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved by:

Jacky Chen
Section Manager

Reviewed by:

Sb. Lu
Sr. Engineer

2. EUT DESCRIPTION

Product Name	ICG
Model Number	ICG-100-NA-R
Identify Number	T150715D02
Received Date	July 15, 2015
Frequency Range	For WiFi mode: IEEE 802.11b/g, 802.11gn HT20: 2412MHz ~ 2462MHz IEEE 802.11gn HT40: 2422MHz ~ 2452MHz For Bluetooth 4.0 mode: 2402MHz ~ 2480MHz For Zigbee mode: 2405MHz ~ 2480MHz
Transmit Power	For WiFi mode: IEEE 802.11b mode: 14.55 dBm (0.0285 W) IEEE 802.11g mode: 17.81 dBm (0.0604 W) IEEE 802.11gn HT20 mode: 17.64 dBm (0.0581 W) IEEE 802.11gn HT40 mode: 17.19 dBm (0.0524 W) For Bluetooth 4.0 mode: 7.19 dBm (0.0052W) For Zigbee mode: 14.27dBm (0.0267W)
Channel Spacing	For WiFi mode: IEEE 802.11b/g, 802.11gn HT20/HT40: 5MHz For Bluetooth 4.0 mode: 2MHz For Zigbee mode: 5MHz
Channel Number	IEEE 802.11b/g, 802.11gn HT20: 11 Channels IEEE 802.11gn HT40: 7 Channels Bluetooth 4.0: 40 Channels Zigbee: 16 Channels
Transmit Data Rate	For WiFi mode: IEEE 802.11b mode: up to 11 Mbps IEEE 802.11g mode: up to 54 Mbps IEEE 802.11gn HT20 mode (800ns GI): up to 65.00 Mbps IEEE 802.11gn HT20 mode (400ns GI): up to 72.20 Mbps IEEE 802.11gn HT40 mode (800ns GI): up to 135.0 Mbps IEEE 802.11gn HT40 mode (400ns GI): up to 150.00 Mbps For Bluetooth 4.0 mode: 1Mbps For Zigbee mode: 250kbps

Type of Modulation	For WiFi mode: IEEE 802.11b mode: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g mode: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11gn HT20/40 mode: OFDM (64QAM, 16QAM, QPSK, BPSK) For Bluetooth 4.0 mode: GFSK For Zigbee mode: OQPSK
Antenna Type	(1) Brand Name: LUXSHARE-ICT, P/N: L02RF018-DT-R a. Black: Dipole Antenna × 1, WiFi / BT Antenna Gain : 5dBi Dipole Antenna × 1, Zigbee Antenna Gain : 5dBi b. White: Dipole Antenna × 1, WiFi / BT Antenna Gain : 5dBi Dipole Antenna × 1, Zigbee Antenna Gain : 5dBi (2) Brand Name: FOXCONN, P/N: ANEP2M2-CZZ06-EF a. Black: Dipole Antenna × 1, WiFi / BT Antenna Gain : 5dBi Dipole Antenna × 1, Zigbee Antenna Gain : 5dBi b. White: Dipole Antenna × 1, WiFi / BT Antenna Gain : 5dBi Dipole Antenna × 1, Zigbee Antenna Gain : 5dBi
Power Rating	12Vdc
Test Voltage	120Vac, 60Hz
DC Power Cable Type	Non-shielded cable, 1.5m (Non-detachable)
I/O Port	RJ-45 Port × 1, USB Port × 1, Power Port × 1

Power Adapter:

No.	Manufacturer	Model No.	Power Input	Power Output
1	DVE	DSA-18PFM-12 FUS 120150	100-240Vac, 50/60Hz, 0.6A	12Vdc, 1.5A

Remark:

1. *The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.*
2. *For more details, please refer to the User's manual of the EUT.*
3. *This submittal(s) (test report) is intended for FCC ID: SIB-ICG100NAR filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.*

3. DESCRIPTION OF TEST MODES

The EUT is a 802.11b/g/n + Bluetooth + Zigbee transceiver in ICG.

For WiFi mode:

IEEE 802.11b/g, 802.11gn HT20/HT40 mode: 1TX / 1RX

For Bluetooth 4.0 mode: 1TX / 1RX

For Zigbee mode: 1TX/1RX

The EUT comes with four types for sales, the detail information please refer the table as below:

Antenna List		Select
Brand Name: LUXSHARE-ICT, P/N: L02RF018-DT-R	Dipole Antenna(Black) × 2, Antenna Gain : 5dBi	V
	Dipole Antenna(White) × 2, Antenna Gain : 5dBi	
Brand Name: FOXCONN, P/N: ANEP2M2-CZZ06-EF	Dipole Antenna(Black) × 2, Antenna Gain : 5dBi	
	Dipole Antenna(White) × 2, Antenna Gain : 5dBi	

Conducted Emission / Radiated Emission Test (Below 1 GHz)

1. The following test modes were scanned during the preliminary test:

No.	Pre-Test mode
1	TX mode

2. After the preliminary scan, the following test mode was found to produce the highest emission level.

Final Test mode		
Emission	Radiated Emission	Mode 1
	Conducted Emission	Mode 1

Remark: *Then, the above highest emission mode of the configuration of the EUT and cable was chosen for all final test items.*

Conducted / Radiated Emission Test (Above 1 GHz)

For WiFi mode:

IEEE 802.11b, IEEE 802.11g, IEEE 802.11gn HT20 mode:

The EUT had been tested under operating condition.

There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2412
Middle	2437
High	2462

IEEE 802.11b mode: 1Mbps data rate (worst case) was chosen for full testing.
IEEE 802.11g mode: 6Mbps data rate (worst case) was chosen for full testing.
IEEE 802.11gn HT20 mode: 6.5Mbps data rate (worst case) was chosen for full testing.

IEEE 802.11gn HT40 mode:

The EUT had been tested under operating condition.

There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2422
Middle	2437
High	2452

IEEE 802.11gn HT40 mode: 13.5Mbps data rate (worst case) was chosen for full testing.

For Bluetooth 4.0 mode:

The EUT had been tested under operating condition.

There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2402
Middle	2440
High	2480

For Zigbee mode:

The EUT had been tested under operating condition.

There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2405
Middle	2440
High	2480

4. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10:2013 and FCC CFR 47, 15.207, 15.209 and 15.247.

5. FACILITIES AND ACCREDITATION

5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

No.989-1, Wenshan Rd., Shangshan Village,
Qionglin Township, Hsinchu County 30741, Taiwan (R.O.C.)

The sites are constructed in conformance with the requirements of ANSI C63.10:2013 and CISPR 22. All receiving equipment conforms to CISPR 16-1-1, CISPR 16-1-2, CISPR 16-1-3, CISPR 16-1-4 and CISPR 16-1-5.

5.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

Taiwan	TAF

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada	INDUSTRY CANADA
Japan	VCCI
Taiwan	BSMI
USA	FCC MRA

Copies of granted accreditation certificates are available for downloading from our web site, http:///www.ccsrf.com

Remark: *FCC Designation Number TW1027.*

5.3 MEASUREMENT UNCERTAINTY

The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4-2.

PARAMETER	UNCERTAINTY
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 30 to 1000 MHz	+/- 3.97
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 1 to 18GHz	+/- 3.58
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 18 to 26 GHz	+/- 3.59
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 26 to 40 GHz	+/- 3.81
Conducted Emission (Mains Terminals), 9kHz to 30MHz	+/- 2.48

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

Consistent with industry standard (e.g. CISPR 22, clause 11, Measurement Uncertainty) determining compliance with the limits shall be base on the results of the compliance measurement. Consequently the measure emissions being less than the maximum allowed emission result in this be a compliant test or passing test.

The acceptable measurement uncertainty value without requiring revision of the compliance statement is base on conducted and radiated emissions being less than U_{CISPR} which is 3.6dB and 5.2dB respectively. CCS values (called U_{Lab} in CISPR 16-4-2) is less than U_{CISPR} as shown in the table above. Therefore, MU need not be considered for compliance.

6. SETUP OF EQUIPMENT UNDER TEST

SUPPORT EQUIPMENT

No.	Product	Manufacturer	Model No.	Serial No.
1	Notebook PC	HP	ProBook 4421s	CNF03242PJ

No.	Signal Cable Description
1	Shielded Micro USB cable, 1.8m × 1

SETUP DIAGRAM FOR TESTS

EUT & peripherals setup diagram is shown in appendix setup photos.

EUT OPERATING CONDITION

For WiFi mode:

1. EUT & peripherals setup diagram is shown in appendix setup photos.
2. TX mode:
   - ⇨ **TX Data Rate:** 1Mbps Bandwidth 20 (IEEE 802.11b mode)
     6Mbps Bandwidth 20 (IEEE 802.11g mode)
     6.5Mbps Bandwidth 20 (IEEE 802.11gn HT20 mode)
     13.5Mbps Bandwidth 40 (IEEE 802.11gn HT40 mode)
   - ⇨ **Power control**
     IEEE 802.11b Channel Low (2412MHz) Power set 20
     IEEE 802.11b Channel Mid (2437MHz) Power set 20
     IEEE 802.11b Channel High (2462MHz) Power set 50
     IEEE 802.11g Channel Low (2412MHz) Power set 18.5
     IEEE 802.11g Channel Mid (2437MHz) Power set 20
     IEEE 802.11g Channel High (2462MHz) Power set 18
     IEEE 802.11gn HT20 Channel Low (2412MHz) Power set 17.5
     IEEE 802.11gn HT20 Channel Mid (2437MHz) Power set 20
     IEEE 802.11gn HT20 Channel High (2462MHz) Power set 18
     IEEE 802.11gn HT40 Channel Low (2422MHz) Power set 20
     IEEE 802.11gn HT40 Channel Mid (2437MHz) Power set 20
     IEEE 802.11gn HT40 Channel High (2452MHz) Power set 16
3. All of the functions are under run.
4. Start test.

For Bluetooth 4.0 mode:

1. EUT & peripherals setup diagram is shown in appendix setup photos.
2. TX mode:
   ⇨ **Power control:**
   Channel Low (2402MHz) Power set Default.
   Channel Mid (2440MHz) Power set Default.
   Channel High (2480MHz) Power set Default.
3. All of the functions are under run.
4. Start test

For Zigbee mode:

1. EUT & peripherals setup diagram is shown in appendix setup photos.
2. Run Test software.
   ⇨ **Channel select:**
   Channel Low (2405MHz)
   Channel Mid (2440MHz)
   Channel High (2480MHz)
3. All of the functions are under run.
4. Start test.

7. FCC PART 15.247 REQUIREMENTS

7.1 6dB BANDWIDTH

LIMITS

§ 15.247(a) (2) For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz.

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EXA Signal Analyzer	Agilent	N9010A	MY52220817	03/19/2016

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP

TEST PROCEDURE

1. The transmitter output was connected to a spectrum analyzer.
2. Set RBW = 100 kHz.
3. Set the video bandwidth (VBW) ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

TEST RESULTS

For WiFi mode:

IEEE 802.11b mode

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (kHz)	Pass / Fail
Low	2412	9.577	500	PASS
Middle	2437	9.567	500	PASS
High	2462	9.631	500	PASS

IEEE 802.11gmode

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (kHz)	Pass / Fail
Low	2412	15.010	500	PASS
Middle	2437	14.180	500	PASS
High	2462	13.860	500	PASS

IEEE 802.11gn HT20 mode

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (kHz)	Pass / Fail
Low	2412	13.800	500	PASS
Middle	2437	13.860	500	PASS
High	2462	12.660	500	PASS

IEEE 802.11gn HT40 mode

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (kHz)	Pass / Fail
Low	2422	35.070	500	PASS
Middle	2437	33.830	500	PASS
High	2452	33.800	500	PASS

For Bluetooth 4.0 mode:

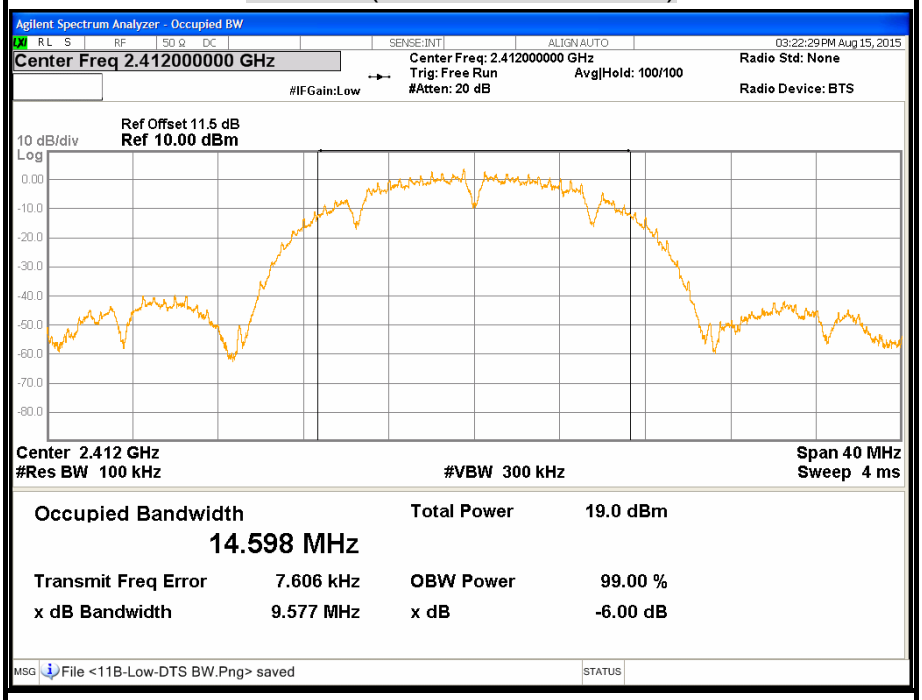
Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (kHz)	Pass / Fail
Low	2402	0.6525	500	PASS
Middle	2440	0.6476	500	PASS
High	2480	0.6559	500	PASS

For Zigbee mode:

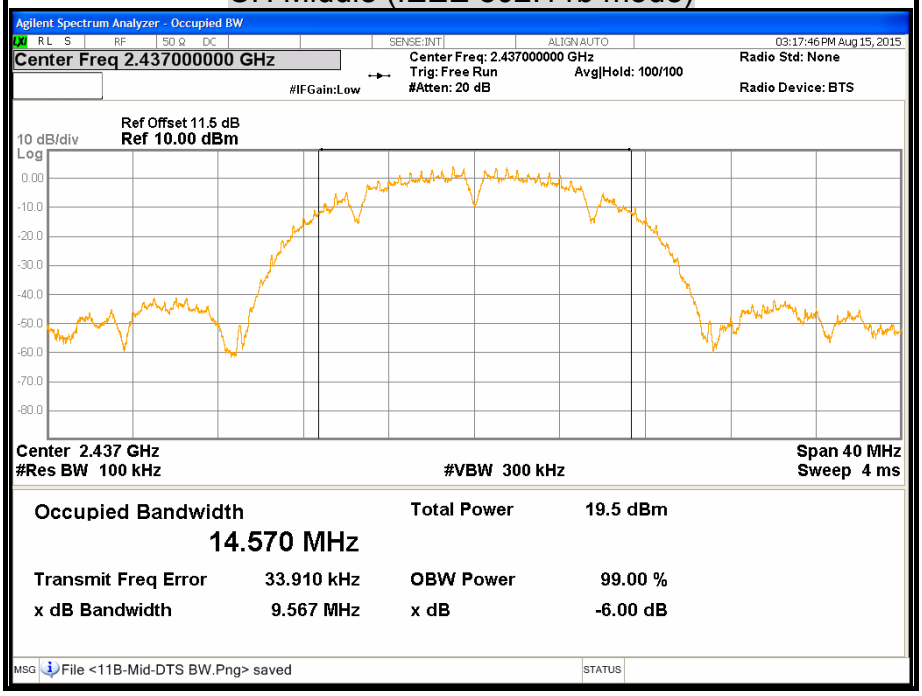
Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (kHz)	Pass / Fail
Low	2405	1.577	500	PASS
Middle	2440	1.563	500	PASS
High	2480	1.591	500	PASS

6dB BANDWIDTH

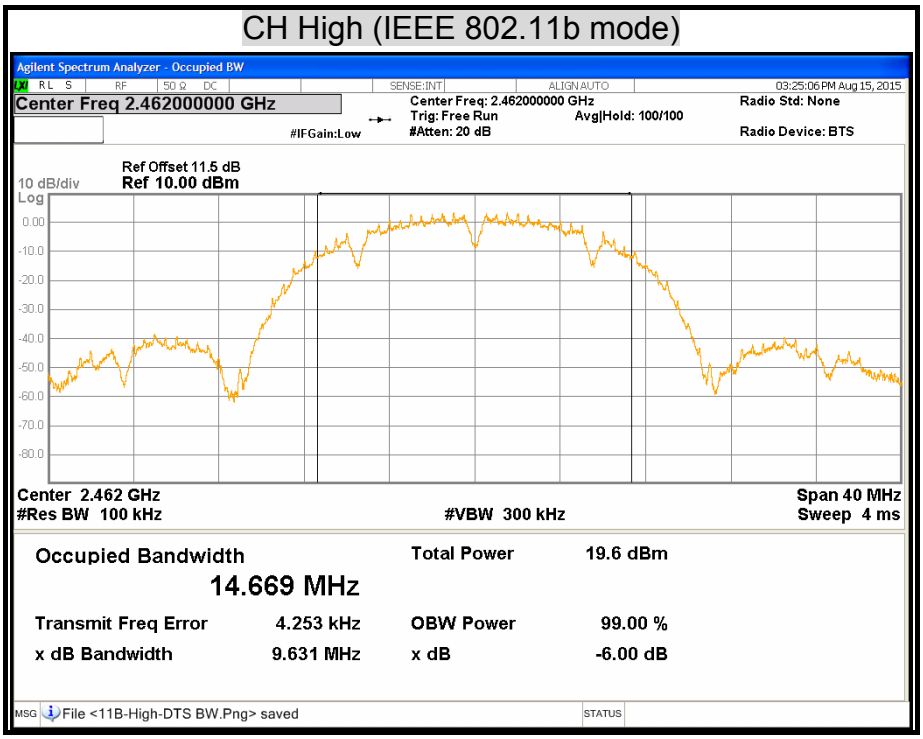
CH Low (IEEE 802.11b mode)



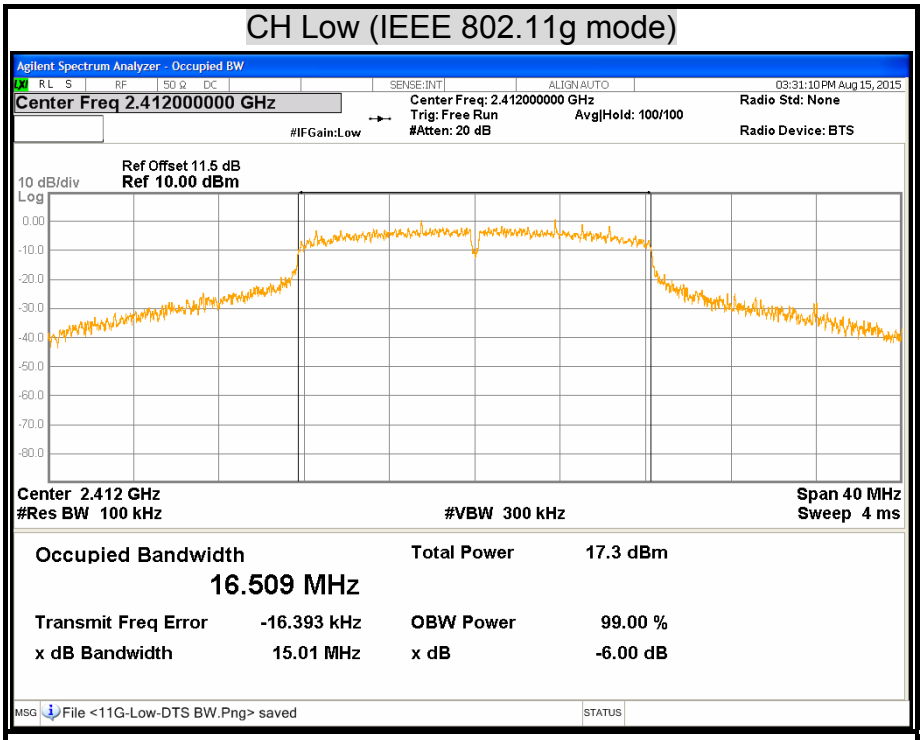
CH Middle (IEEE 802.11b mode)



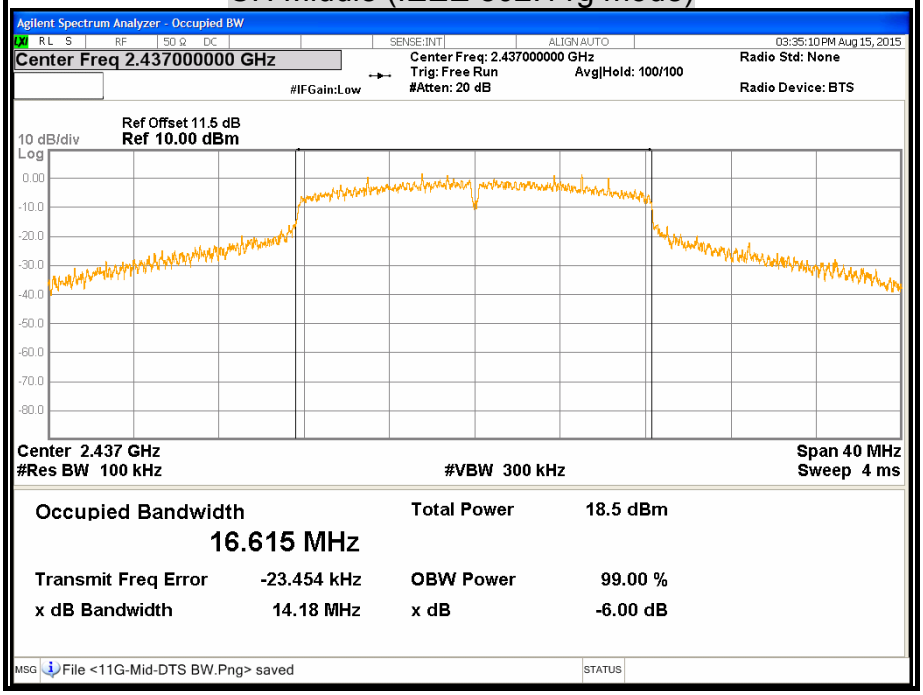
CH High (IEEE 802.11b mode)



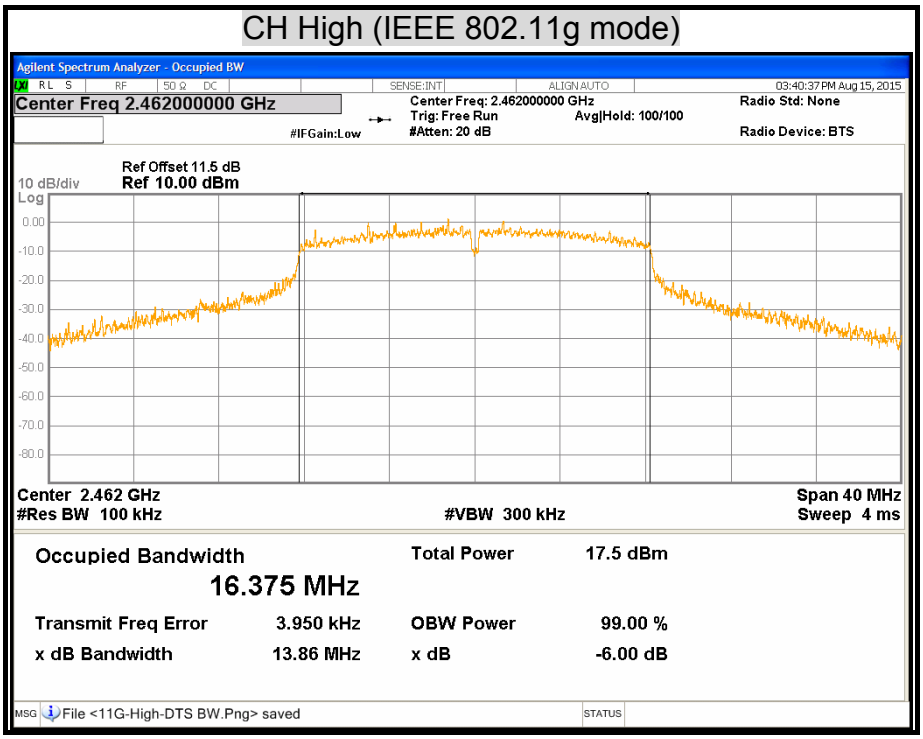
CH Low (IEEE 802.11g mode)



CH Middle (IEEE 802.11g mode)



CH High (IEEE 802.11g mode)



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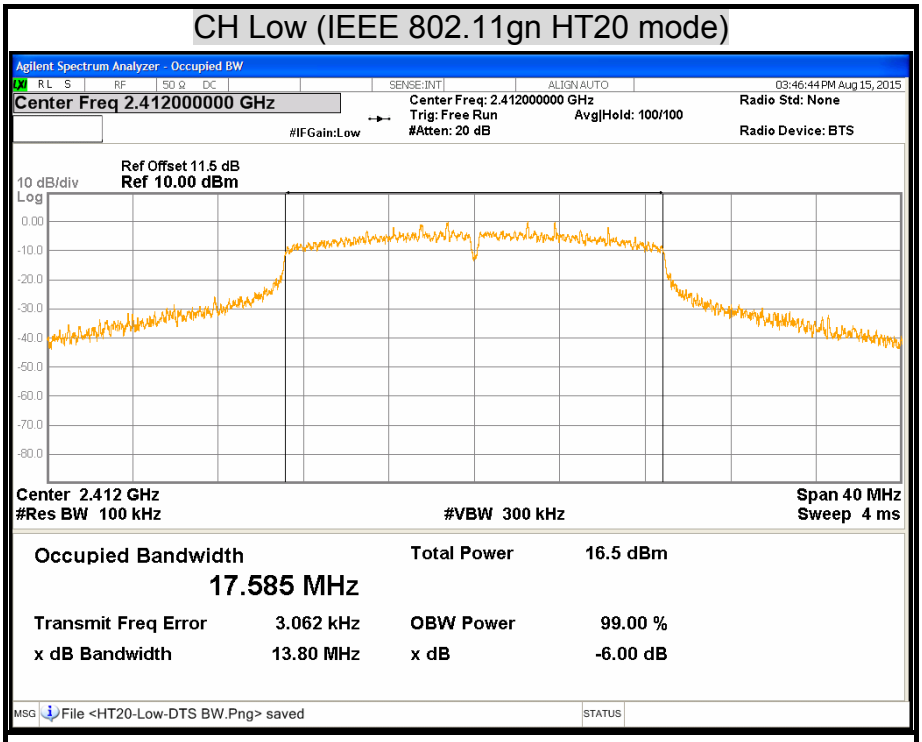

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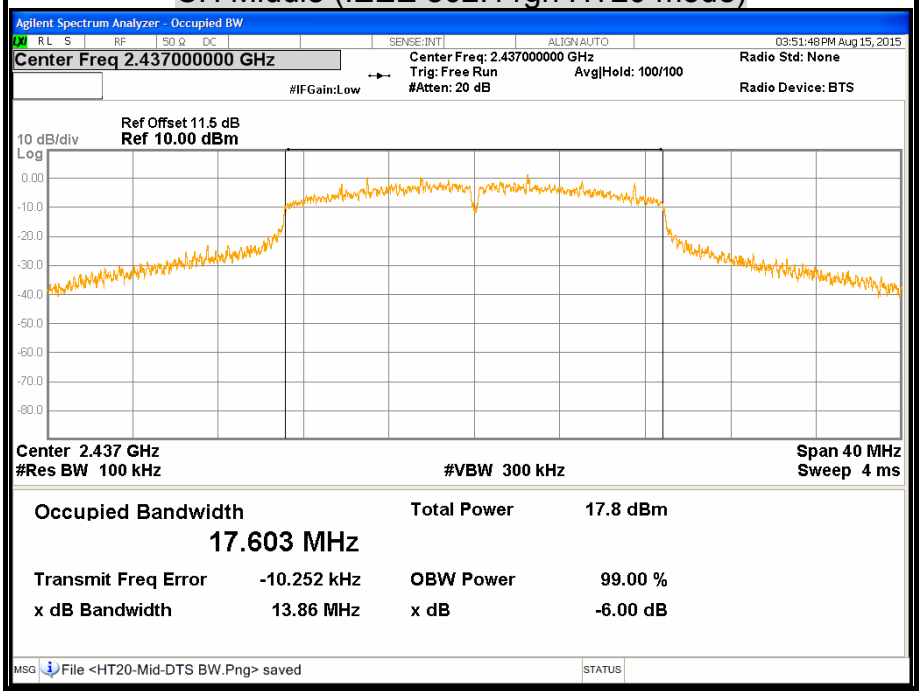
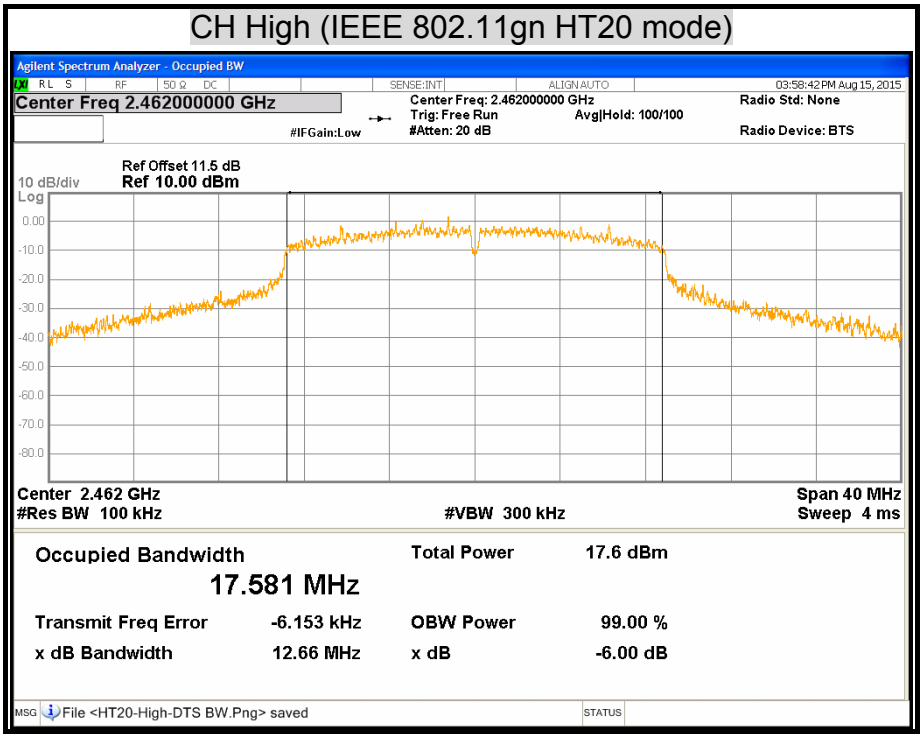
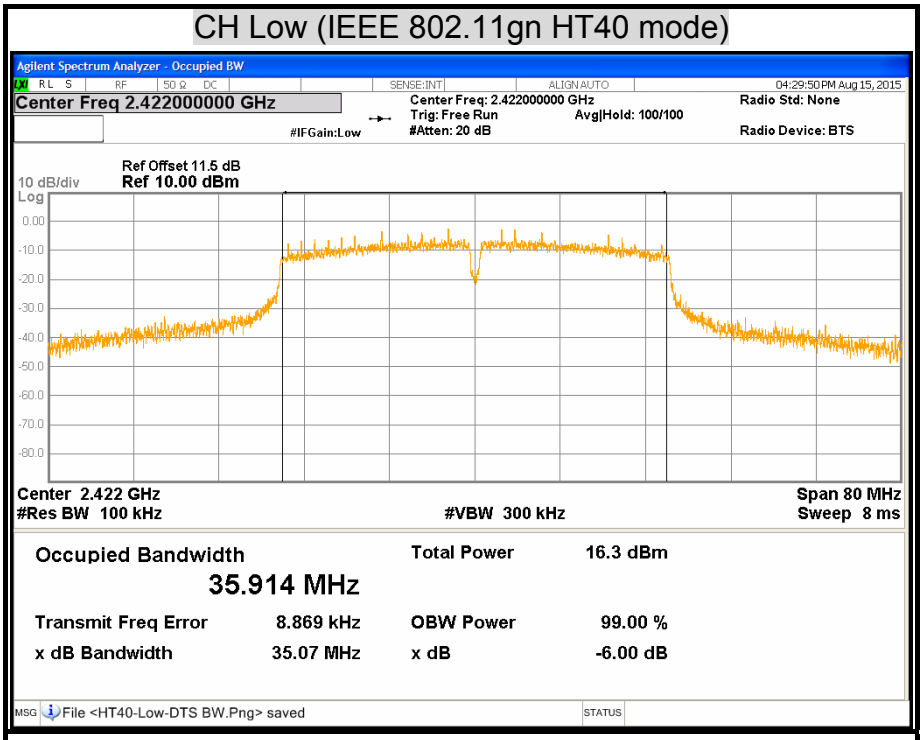


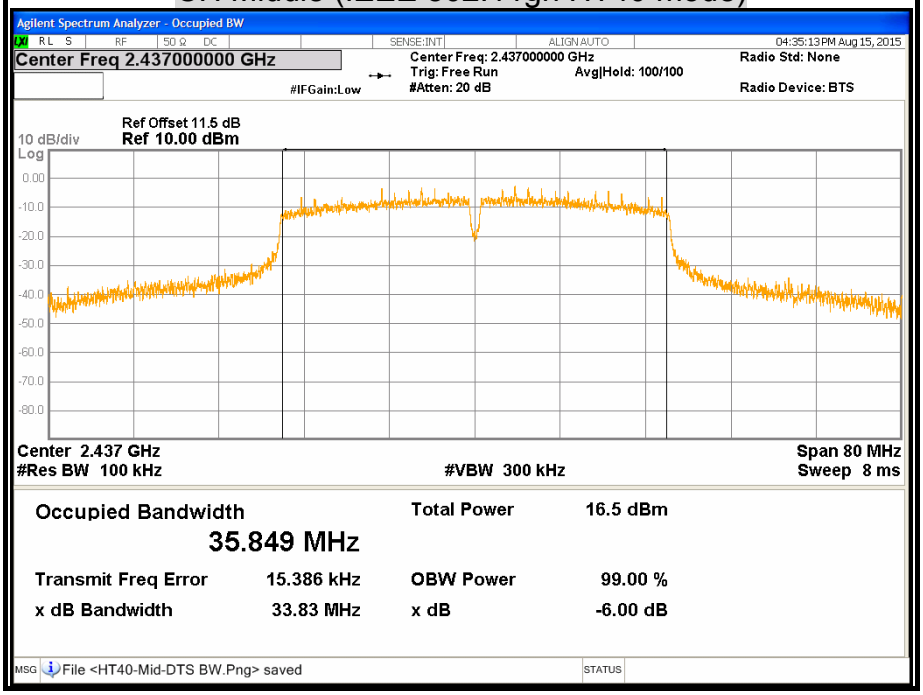
CH High (IEEE 802.11gn HT20 mode)



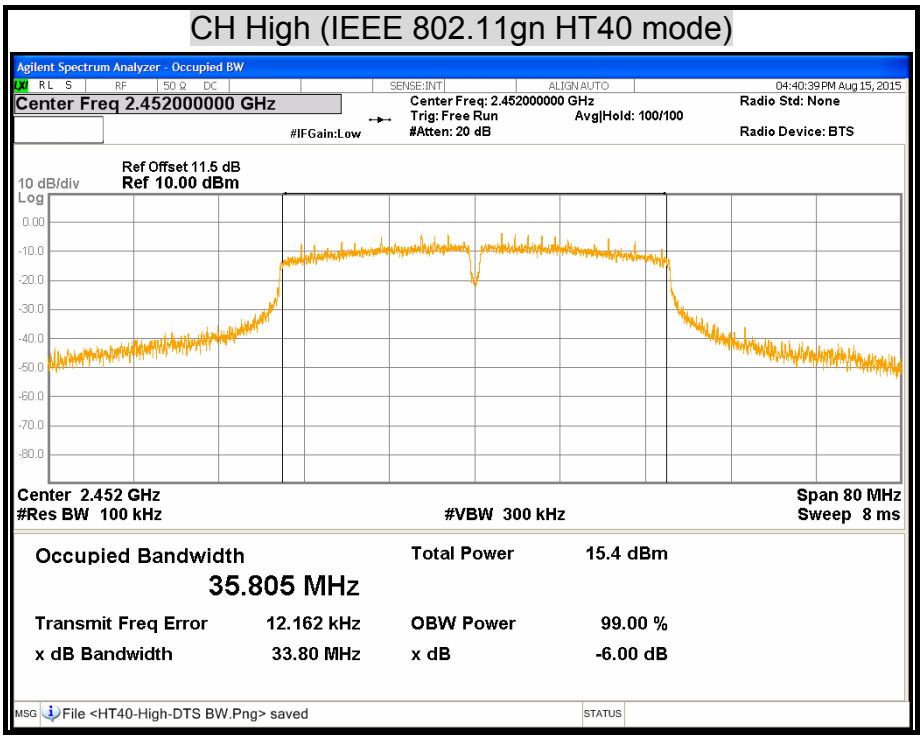
CH Low (IEEE 802.11gn HT40 mode)



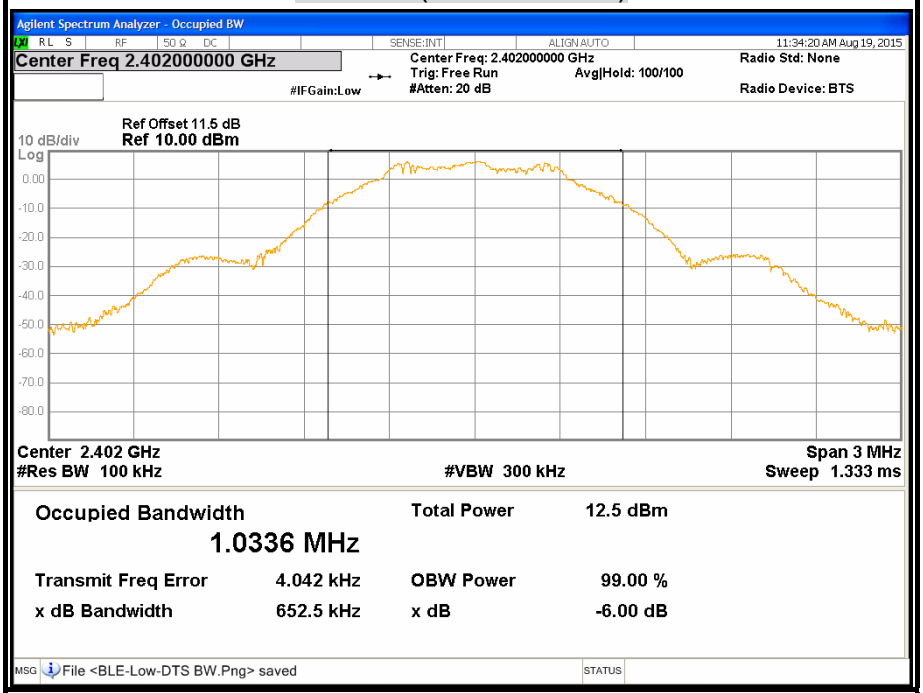
CH Middle (IEEE 802.11gn HT40 mode)



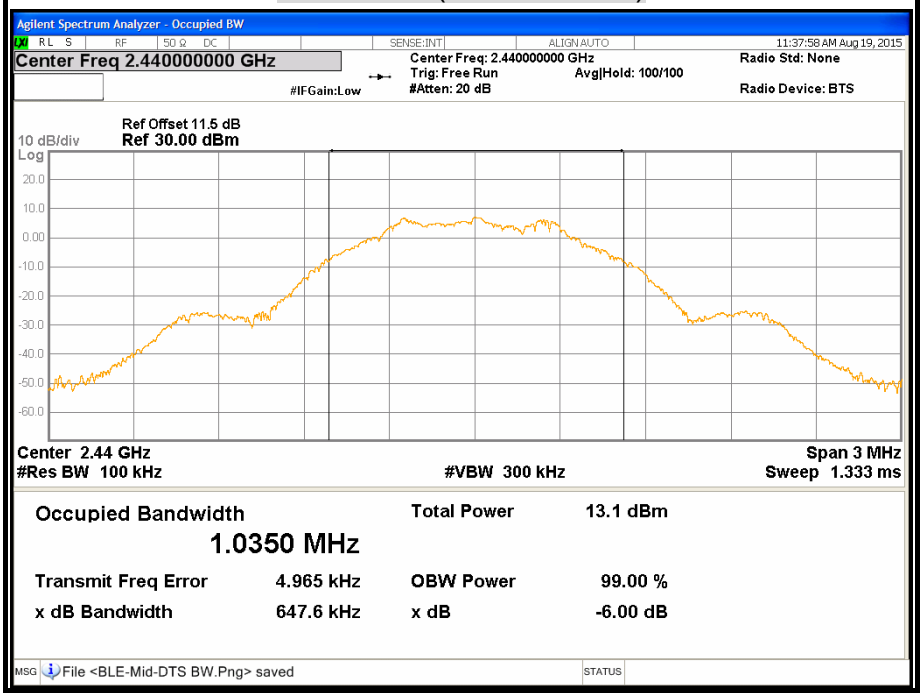
CH High (IEEE 802.11gn HT40 mode)



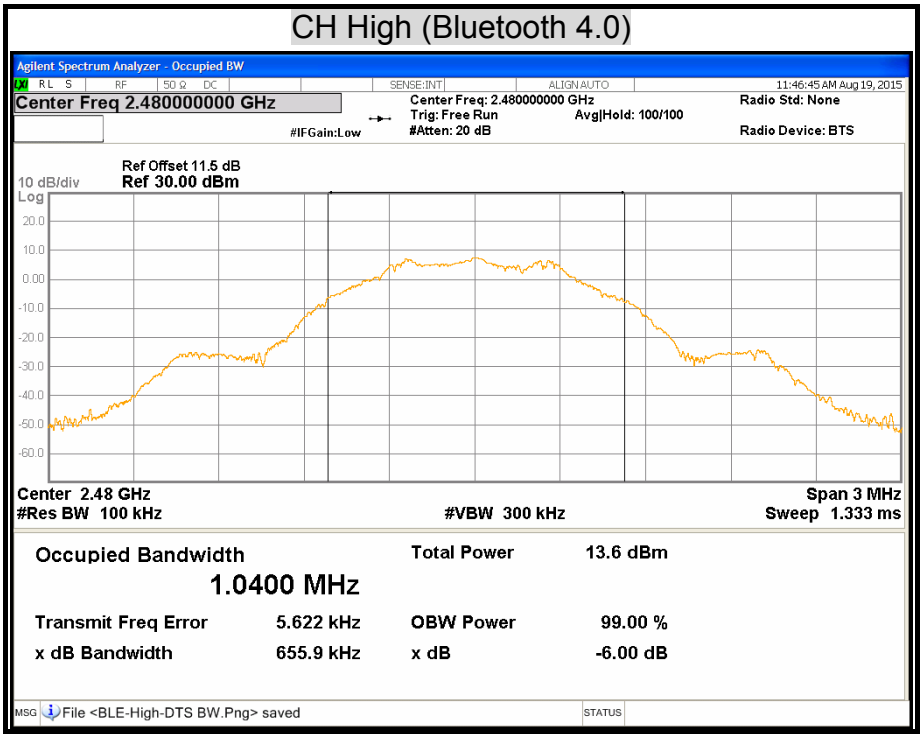
CH Low (Bluetooth 4.0)



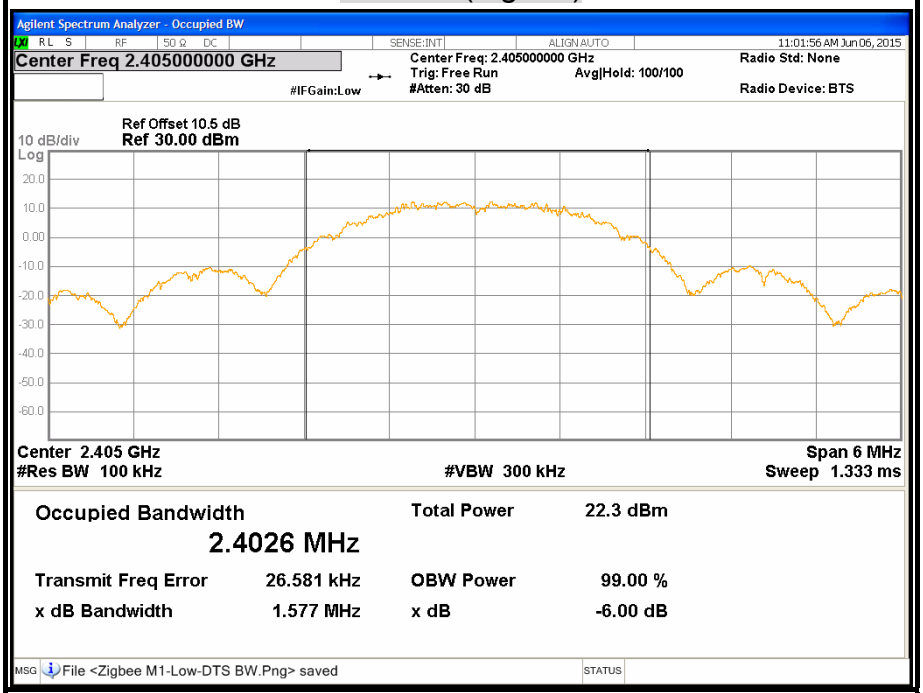
CH Middle (Bluetooth 4.0)



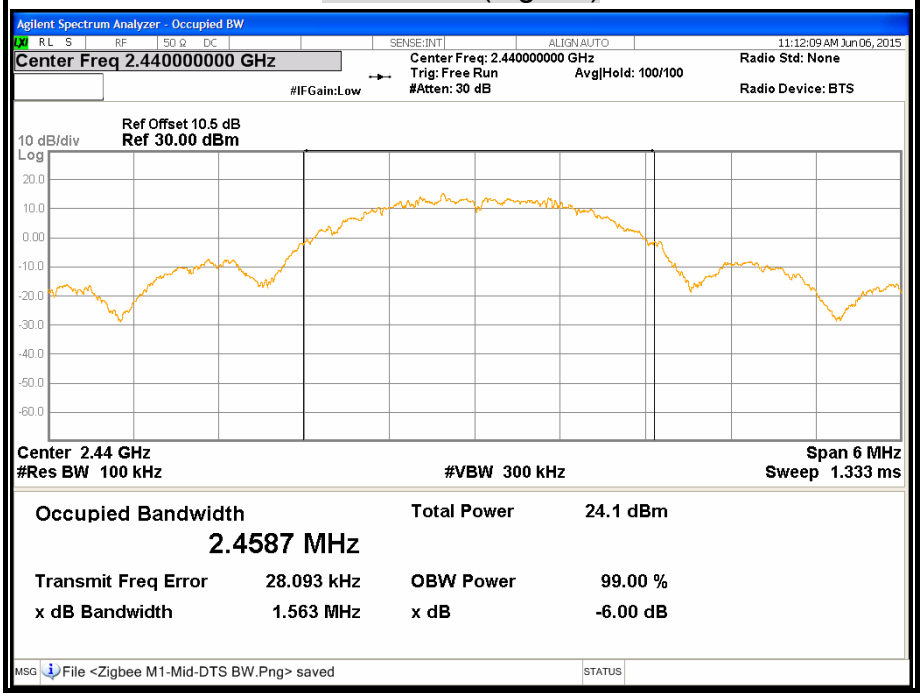
CH High (Bluetooth 4.0)



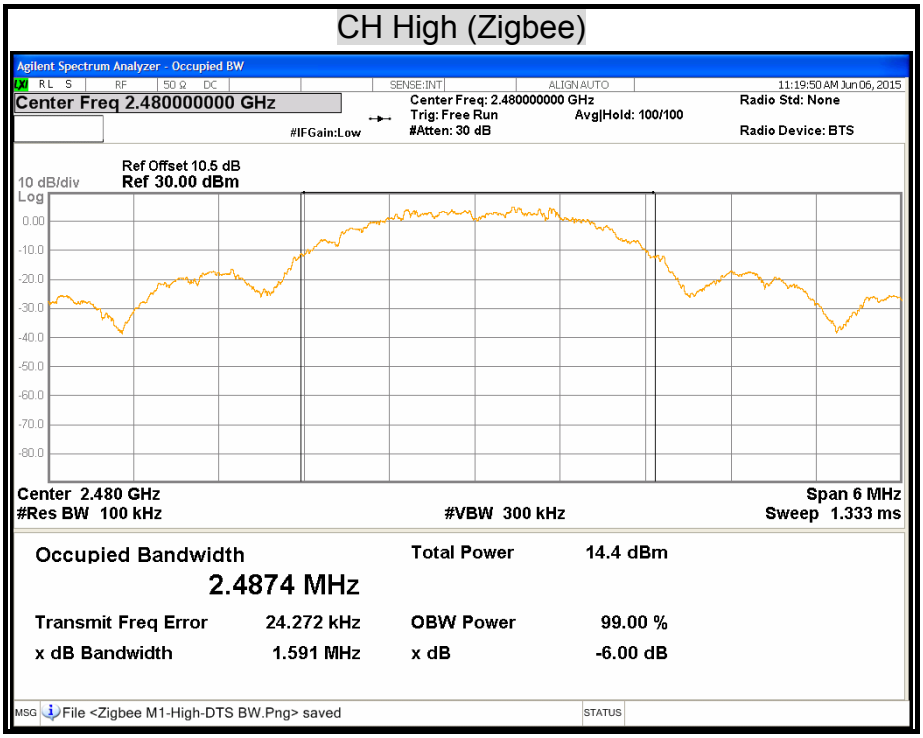
CH Low (Zigbee)



CH Middle (Zigbee)



CH High (Zigbee)



7.2 MAXIMUM PEAK OUTPUT POWER

LIMITS

§ 15.247(b) The maximum peak output power of the intentional radiator shall not exceed the following:
§ 15.247(b) (3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 watt.
§ 15.247(b) (4) Except as shown in paragraphs (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used the peak output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1) or (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

§ KDB 662911: For power measurements on IEEE 802.11 devices
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Power Meter	Anritsu	ML2495A	1149001	12/11/2015
Power Sensor	Anritsu	MA2411B	1126148	12/11/2015

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP

TEST PROCEDURE

The transmitter output is connected to the power meter. The power meter is set to the peak power detection.

TEST RESULTS

For WiFi mode:

IEEE 802.11b mode

Channel	Channel Frequency (MHz)	Peak Power		Peak Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	2412	14.22	0.0264	30.00	1.0000	PASS
Middle	2437	14.55	0.0285	30.00	1.0000	PASS
High	2462	14.44	0.0278	30.00	1.0000	PASS

Remark:

1. *At finial test to get the worst-case emission at 1Mbps.*
2. *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the power meter to allow for direct reading of power.*

IEEE 802.11g mode

Channel	Channel Frequency (MHz)	Peak Power		Peak Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	2412	17.23	0.0528	30.00	1.0000	PASS
Middle	2437	17.81	0.0604	30.00	1.0000	PASS
High	2462	17.66	0.0583	30.00	1.0000	PASS

Remark:

1. *At finial test to get the worst-case emission at 6Mbps.*
2. *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the power meter to allow for direct reading of power.*

IEEE 802.11gn HT20 mode

Channel	Channel Frequency (MHz)	Peak Power		Peak Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	2412	17.04	0.0506	30.00	1.0000	PASS
Middle	2437	17.57	0.0571	30.00	1.0000	PASS
High	2462	17.64	0.0581	30.00	1.0000	PASS

Remark:

1. *At finial test to get the worst-case emission at 6.5Mbps.*
2. *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the power meter to allow for direct reading of power.*

IEEE 802.11gn HT40 mode

Channel	Channel Frequency (MHz)	Peak Power		Peak Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	2422	17.02	0.0504	30.00	1.0000	PASS
Middle	2437	17.19	0.0524	30.00	1.0000	PASS
High	2452	16.72	0.0470	30.00	1.0000	PASS

Remark:
1. *At finial test to get the worst-case emission at 13.5Mbps.*
2. *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the power meter to allow for direct reading of power.*

For Bluetooth 4.0 mode:

Channel	Channel Frequency (MHz)	Peak Power		Peak Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	2402	6.12	0.0041	30.00	1.0000	PASS
Middle	2440	6.67	0.0046	30.00	1.0000	PASS
High	2480	7.19	0.0052	30.00	1.0000	PASS

Remark: *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the power meter to allow for direct reading of power.*

For Zigbee mode:

Channel	Channel Frequency (MHz)	Peak Power		Peak Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	2405	13.88	0.0244	30.00	1.0000	PASS
Middle	2440	14.27	0.0267	30.00	1.0000	PASS
High	2480	5.98	0.0040	30.00	1.0000	PASS

Remark: *The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was entered as an offset in the power meter to allow for direct reading of power.*

7.3 POWER SPECTRAL DENSITY

LIMITS

§ 15.247(e) For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EXA Signal Analyzer	Agilent	N9010A	MY52220817	03/19/2016

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP

TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set analyzer center frequency to DTS channel center frequency.
3. Set the span to 1.5 times the DTS channel bandwidth.
4. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
5. Set the VBW ≥ 3 x RBW.
6. Detector = peak.
7. Sweep time = auto couple.
8. Trace mode = max hold.
9. Allow trace to fully stabilize.
10. Use the peak marker function to determine the maximum amplitude level within the RBW.
11. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST RESULTS

For WiFi mode:

IEEE 802.11b mode

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	2412	-4.83	8	PASS
Middle	2437	-4.21	8	PASS
High	2462	-4.34	8	PASS

Remark:

1. *At finial test to get the worst-case emission at 1Mbps.*
2. *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.*

IEEE 802.11g mode

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	2412	-7.32	8	PASS
Middle	2437	-5.53	8	PASS
High	2462	-6.88	8	PASS

Remark:

1. *At finial test to get the worst-case emission at 6Mbps.*
2. *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.*

IEEE 802.11gn HT20 mode

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	2412	-8.84	8	PASS
Middle	2437	-5.37	8	PASS
High	2462	-7.72	8	PASS

Remark:

1. *At finial test to get the worst-case emission at 6.5Mbps.*
2. *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.*

IEEE 802.11gn HT40 mode

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	2422	-12.29	8	PASS
Middle	2437	-11.55	8	PASS
High	2452	-11.42	8	PASS

Remark:
1. *At finial test to get the worst-case emission at 13.5Mbps.*
2. *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.*

Bluetooth 4.0 mode

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	2402	-1.38	8	PASS
Middle	2440	-0.87	8	PASS
High	2480	-0.66	8	PASS

Remark: *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.*

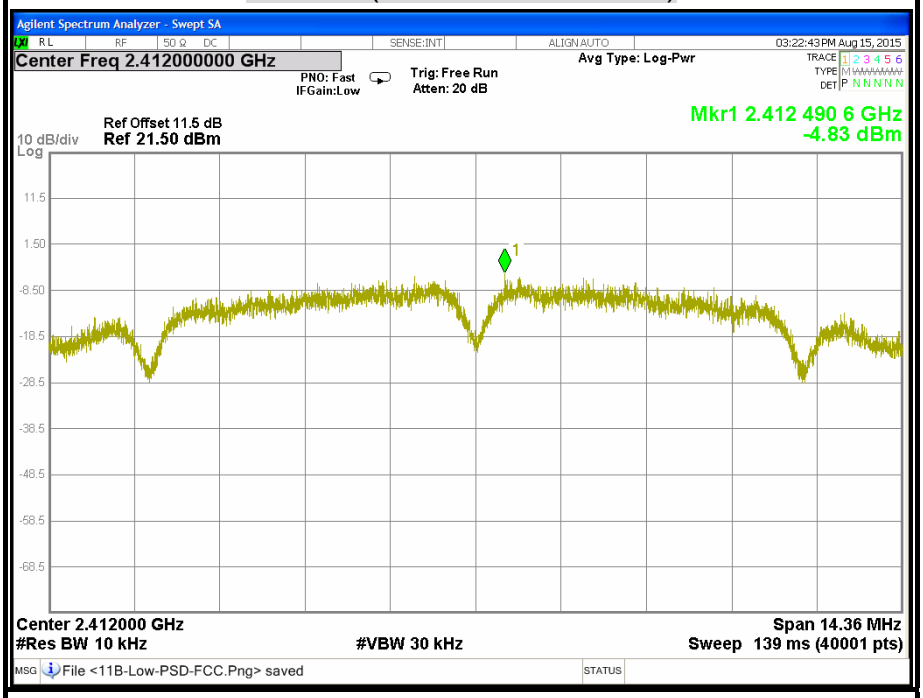
Zigbee mode

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	2405	4.91	8	PASS
Middle	2440	6.77	8	PASS
High	2480	6.01	8	PASS

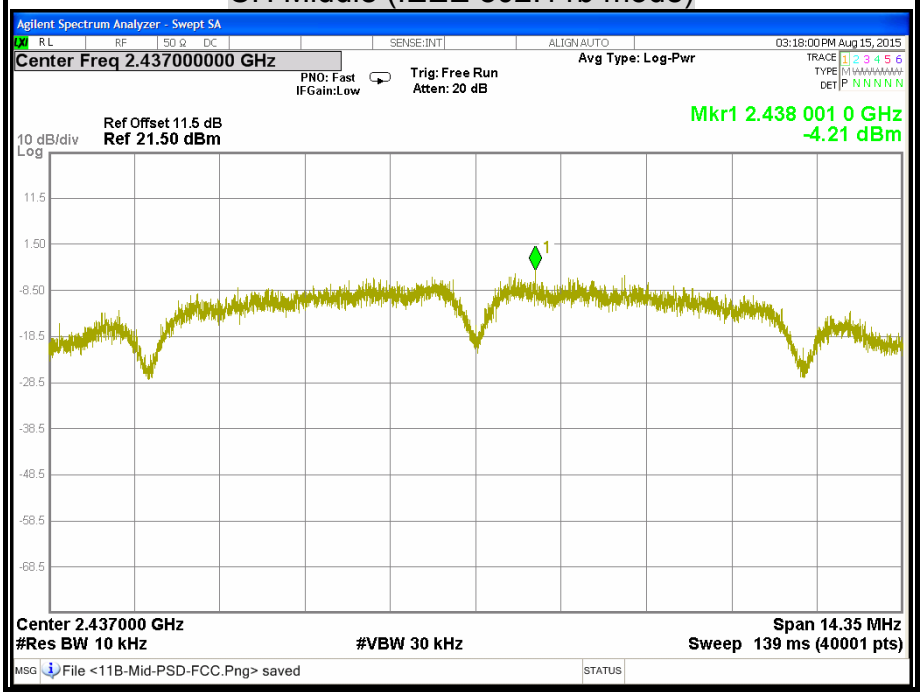
Remark: *The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.*

POWER SPECTRAL DENSITY

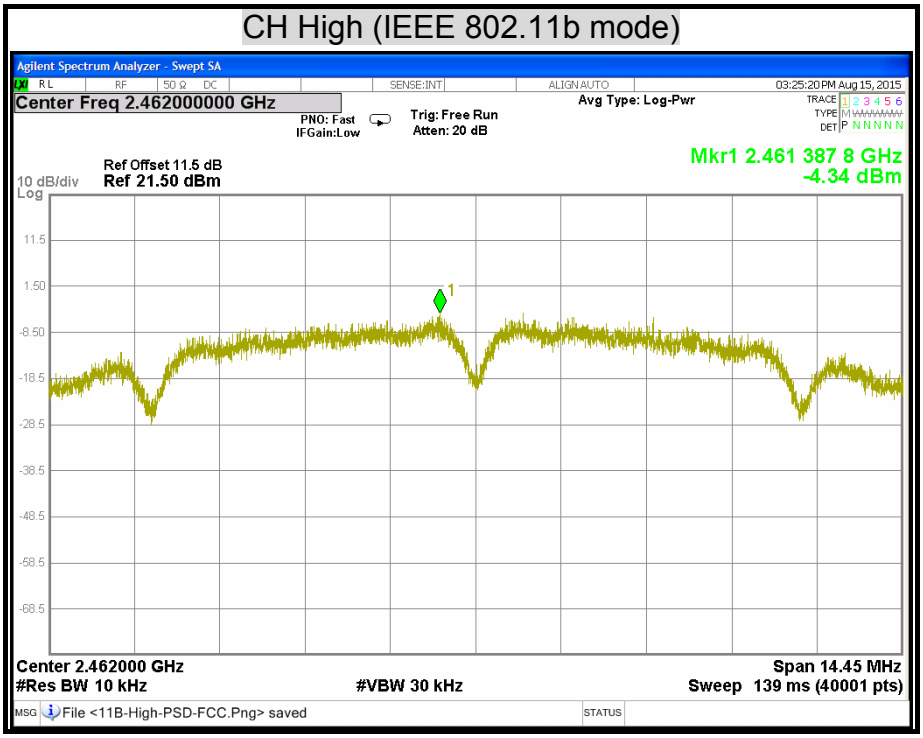
CH Low (IEEE 802.11b mode)



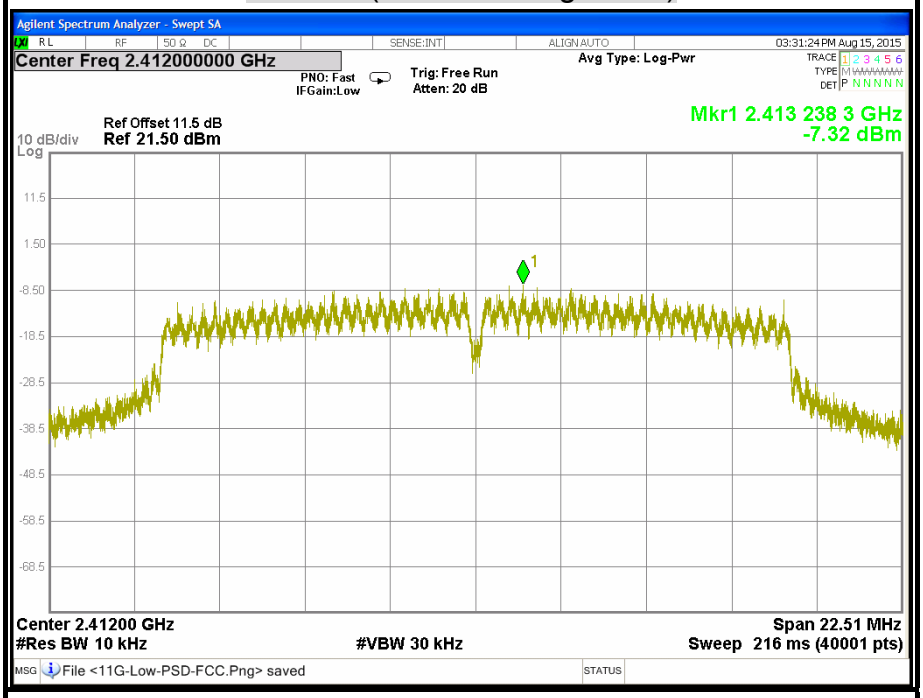
CH Middle (IEEE 802.11b mode)



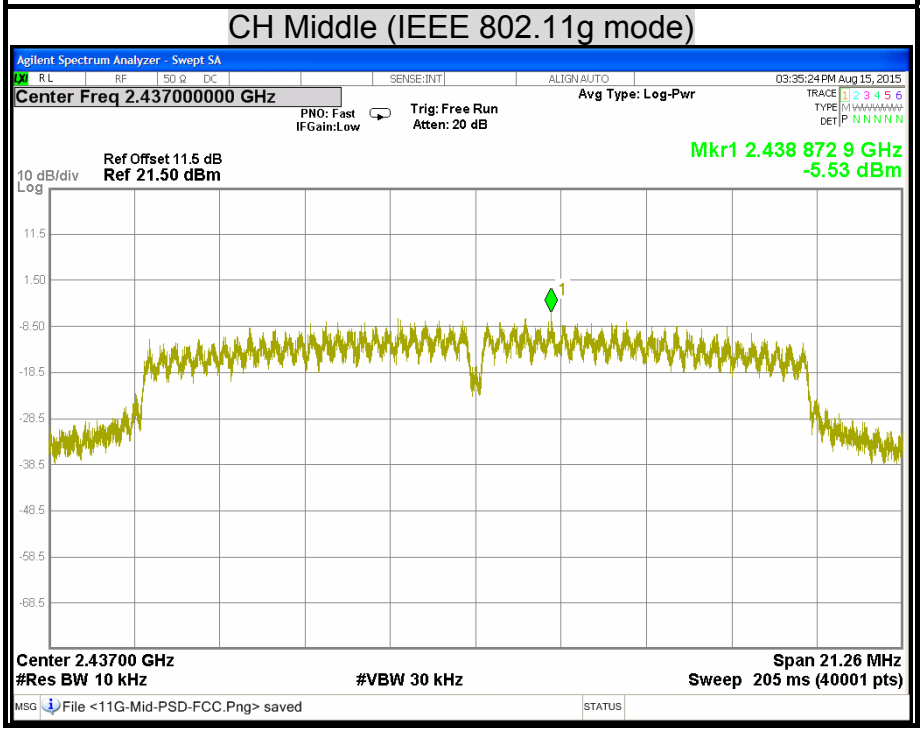
CH High (IEEE 802.11b mode)



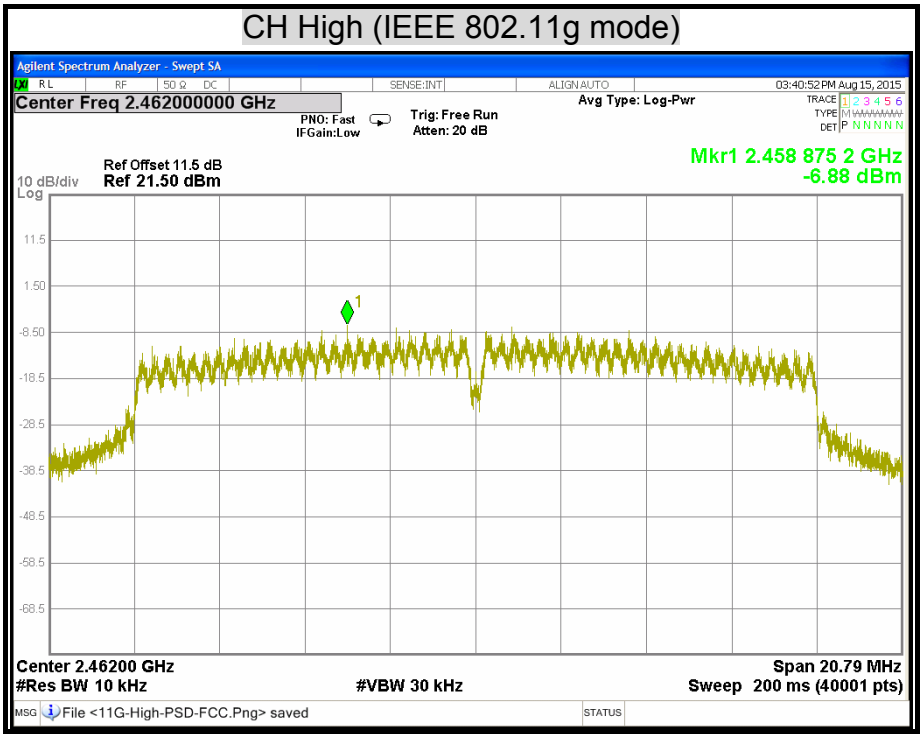
CH Low (IEEE 802.11g mode)



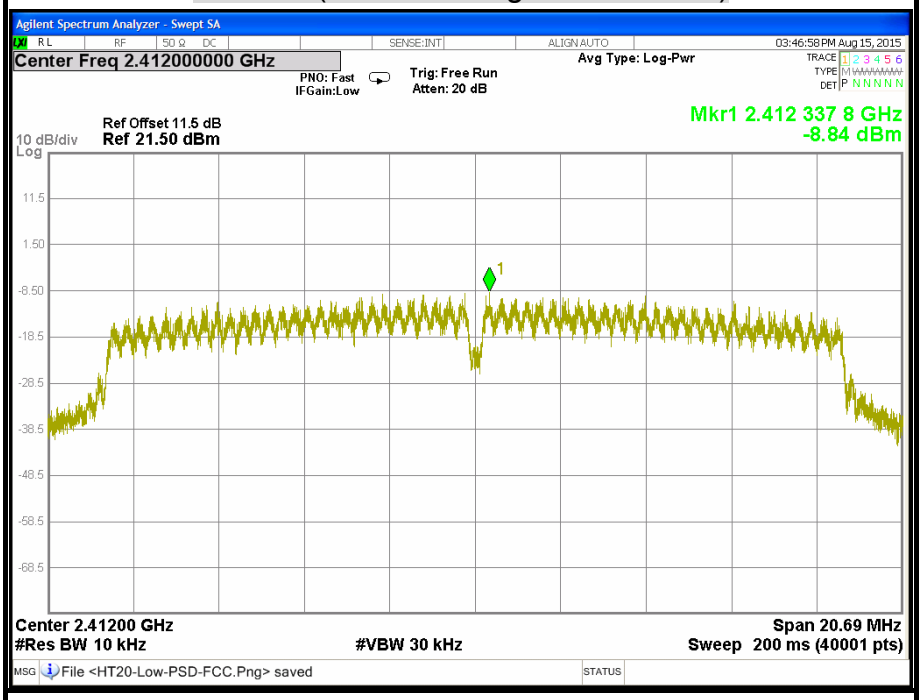
CH Middle (IEEE 802.11g mode)



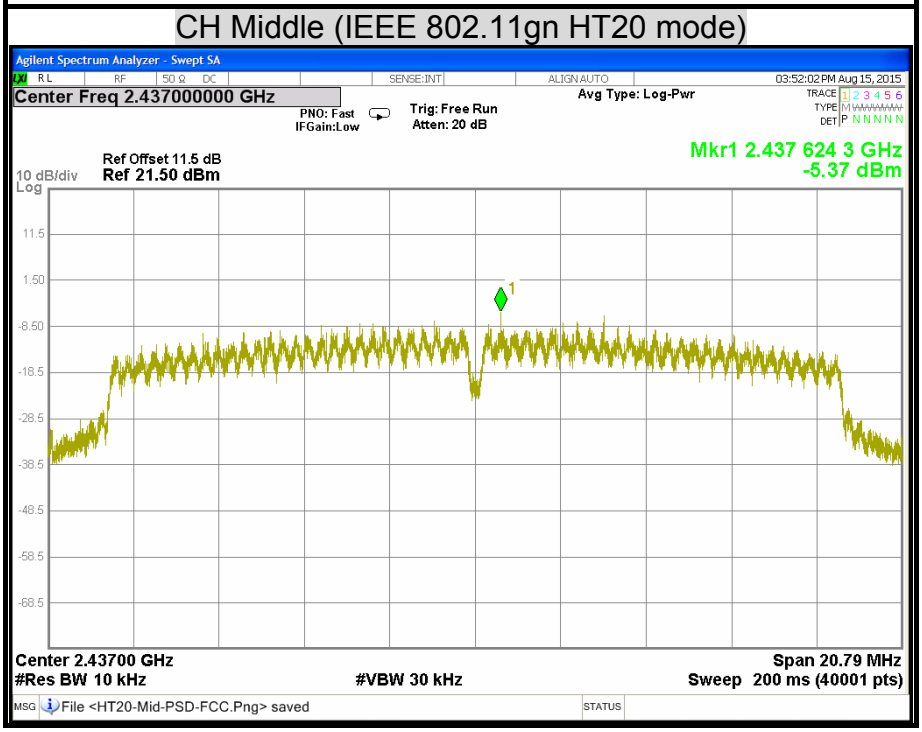
CH High (IEEE 802.11g mode)



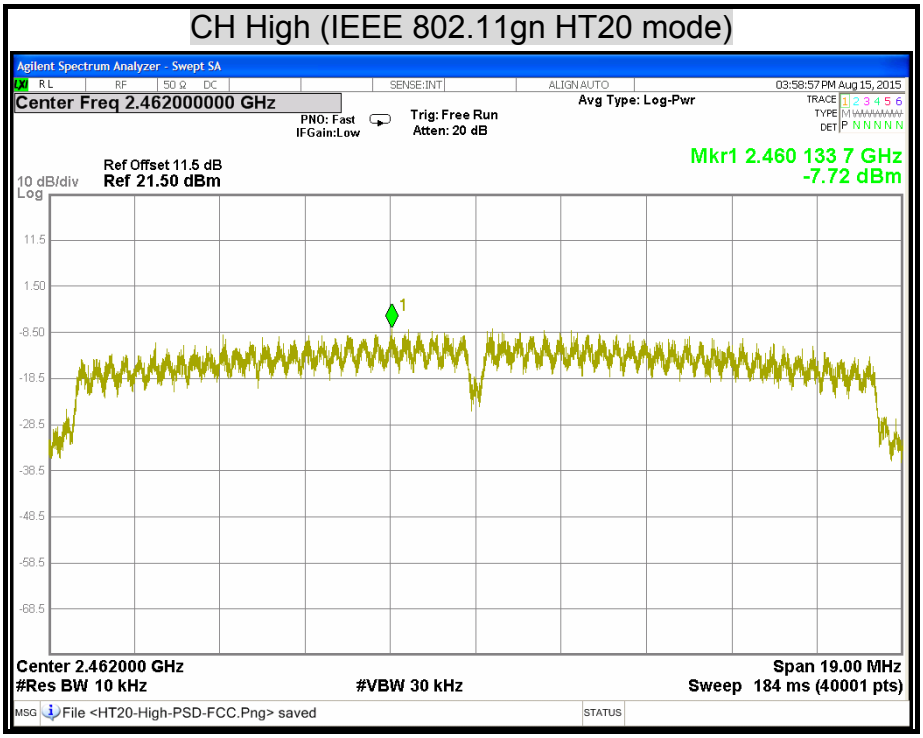
CH Low (IEEE 802.11gn HT20 mode)



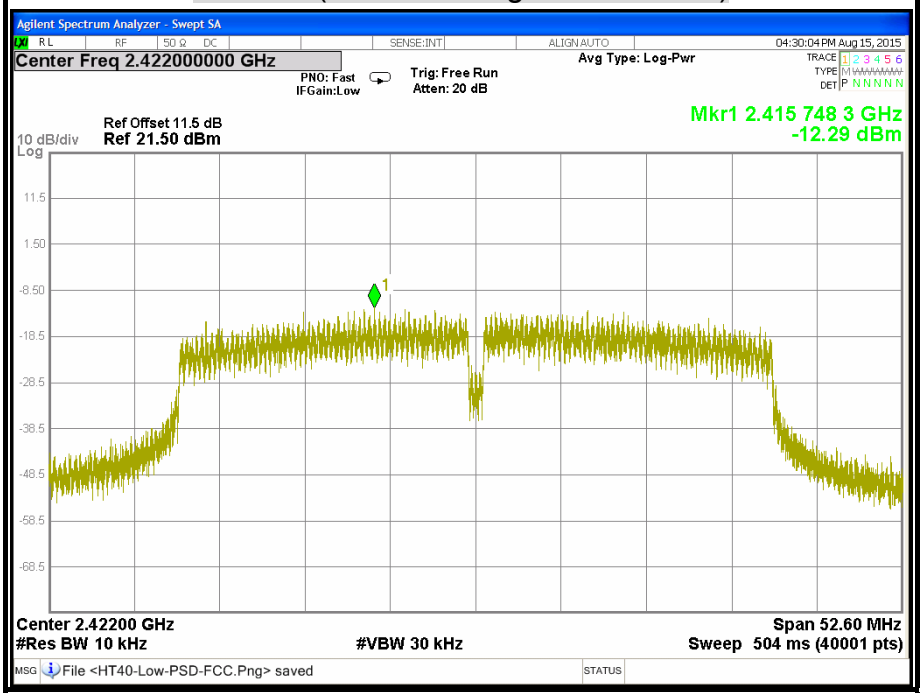
CH Middle (IEEE 802.11gn HT20 mode)



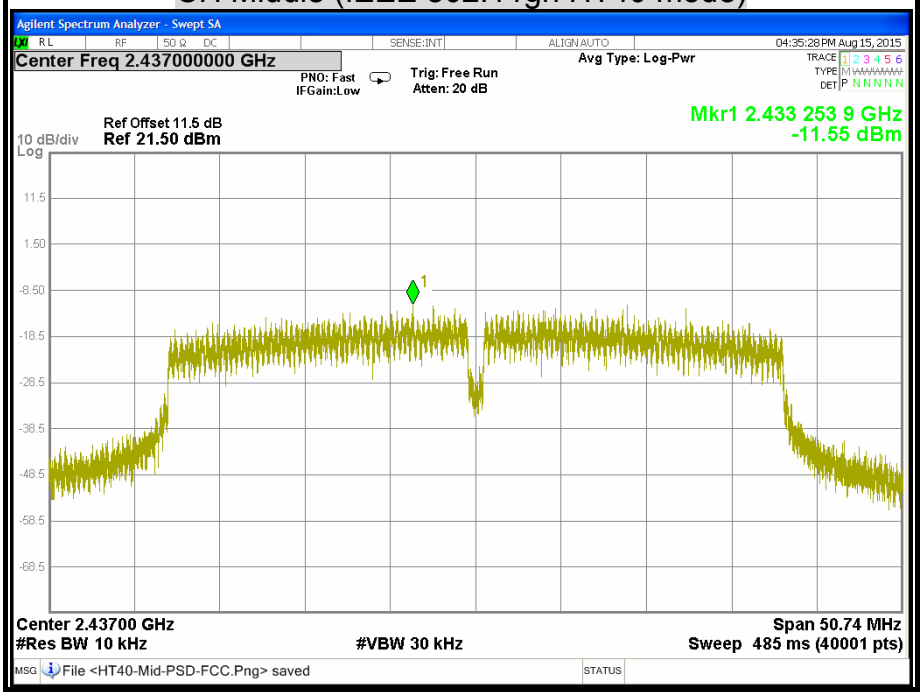
CH High (IEEE 802.11gn HT20 mode)



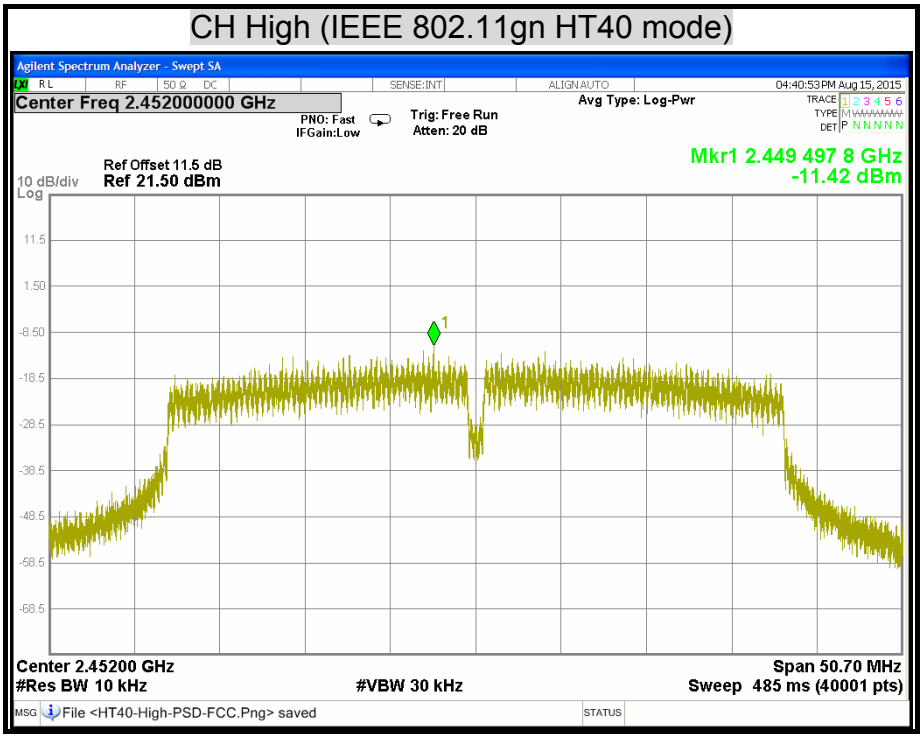
CH Low (IEEE 802.11gn HT40 mode)



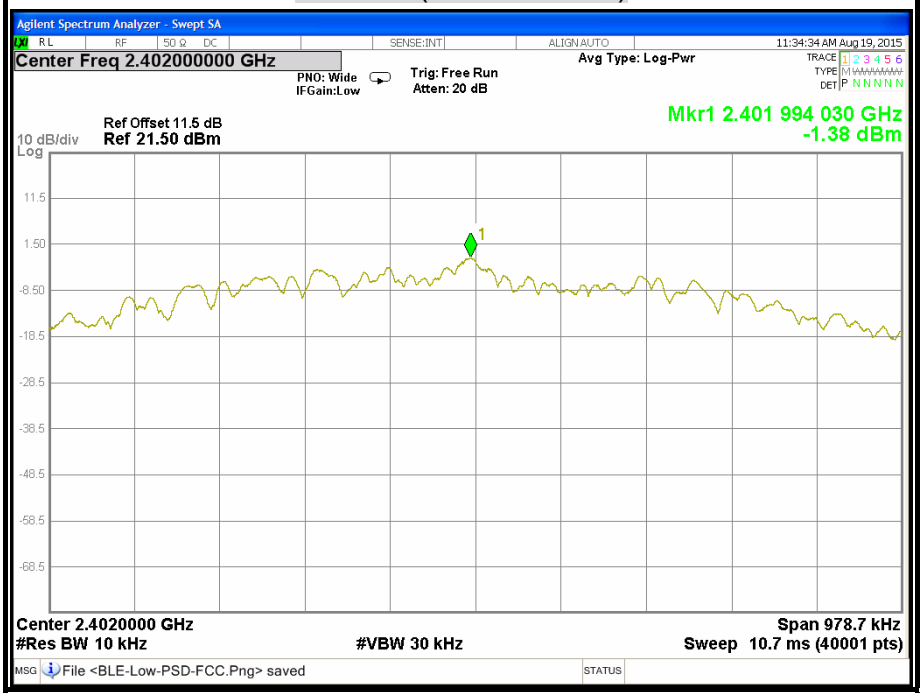
CH Middle (IEEE 802.11gn HT40 mode)



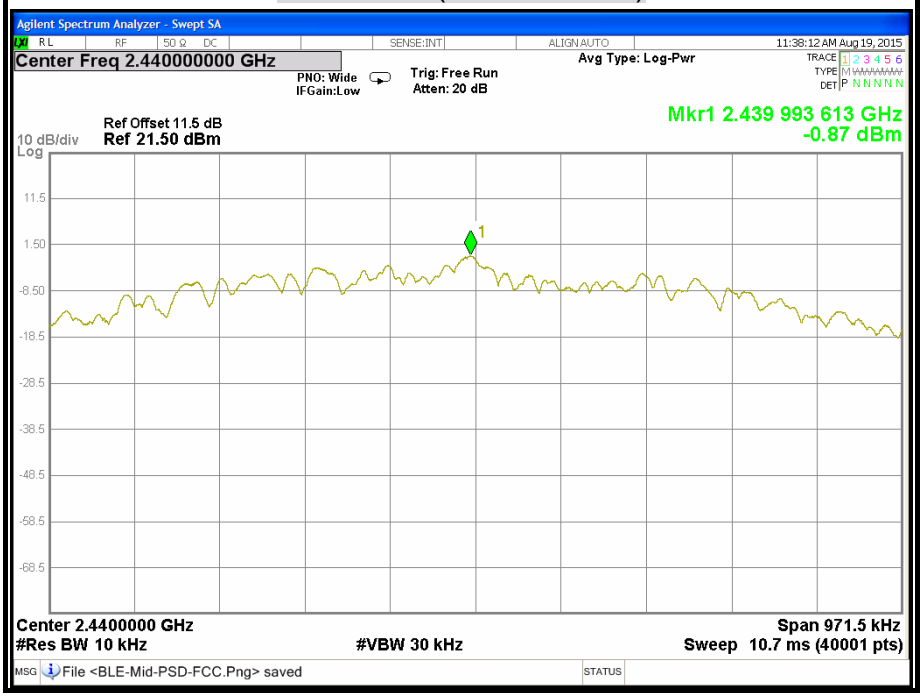
CH High (IEEE 802.11gn HT40 mode)



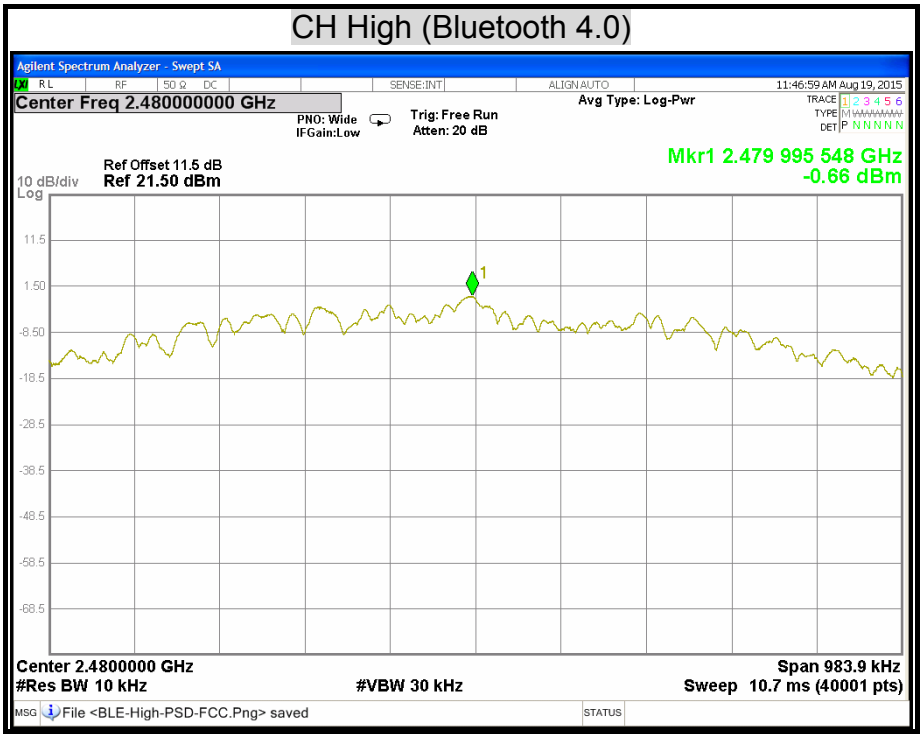
CH Low (Bluetooth 4.0)



CH Middle (Bluetooth 4.0)



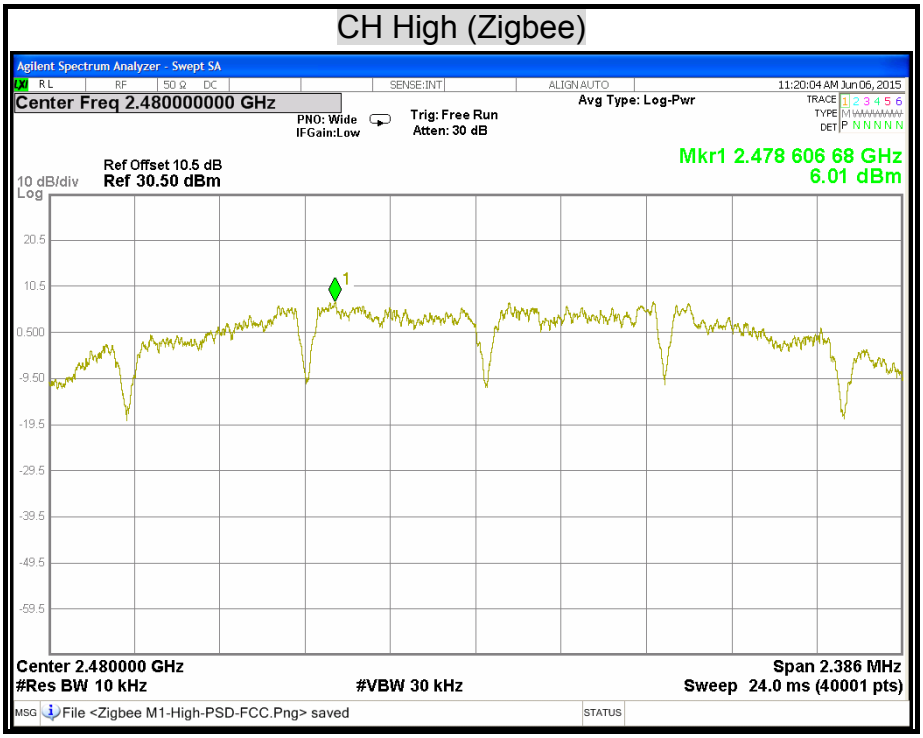
CH High (Bluetooth 4.0)



CH Low (Zigbee)

CH Middle (Zigbee)

CH High (Zigbee)



7.4 CONDUCTED SPURIOUS EMISSION

LIMITS

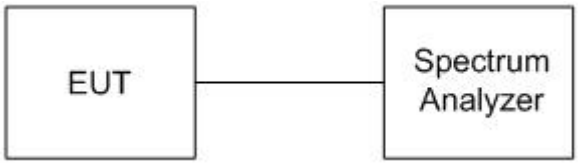
§ 15.247(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the and that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EXA Signal Analyzer	Agilent	N9010A	MY52220817	03/19/2016

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP



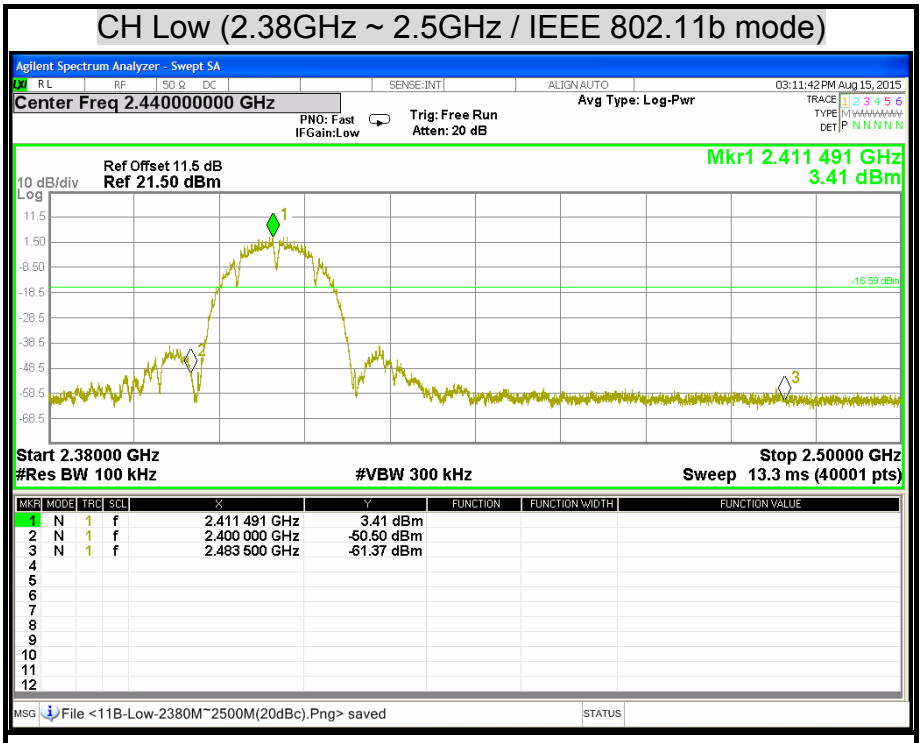
TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.
The spectrum from 30 MHz to 26.5 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

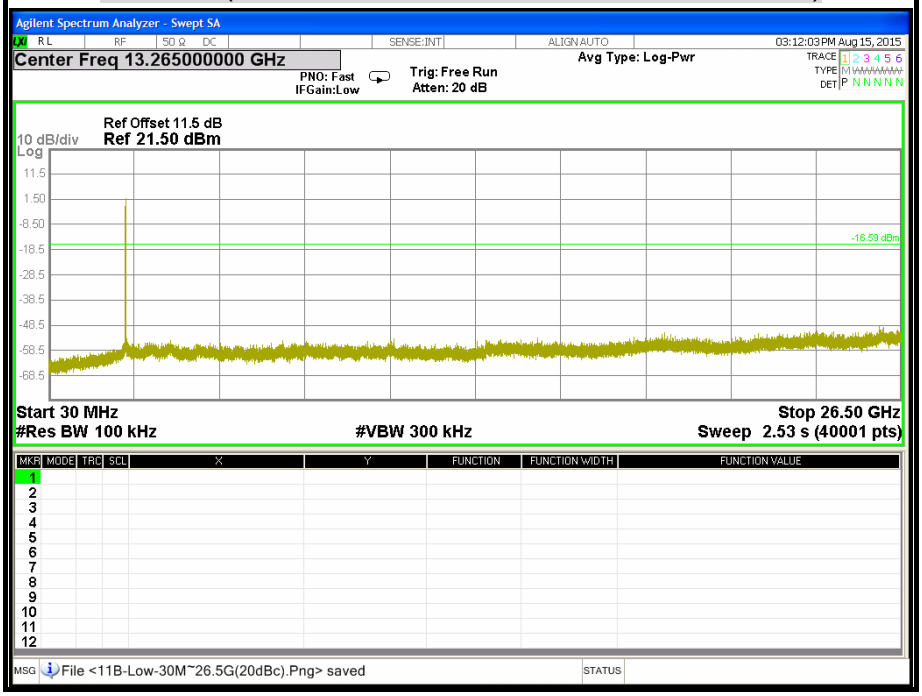
TEST RESULTS

OUT-OF-BAND SPURIOUS EMISSIONS-CONDUCTED MEASUREMENT

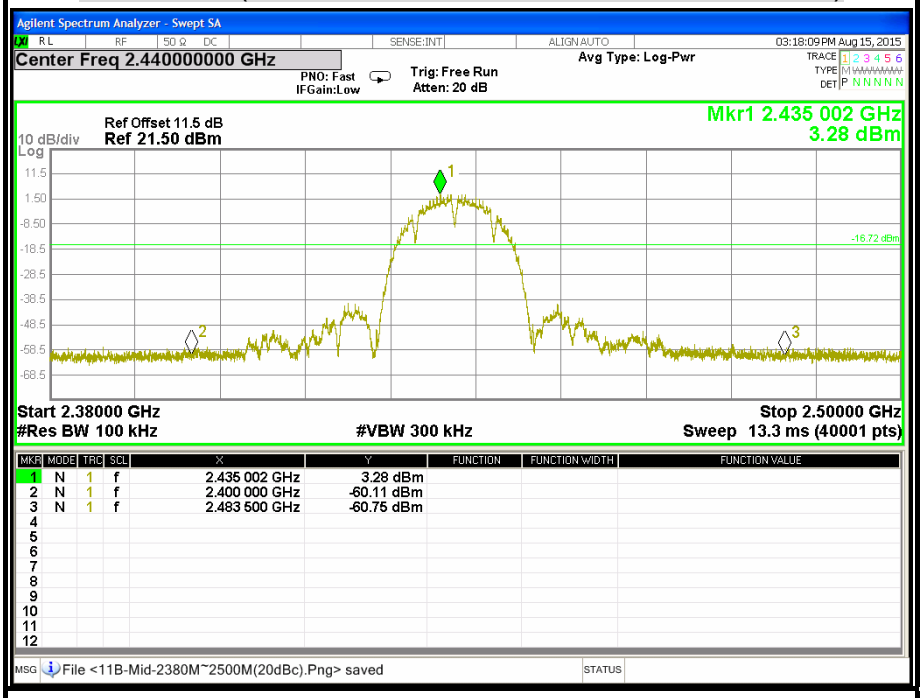
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11b mode)



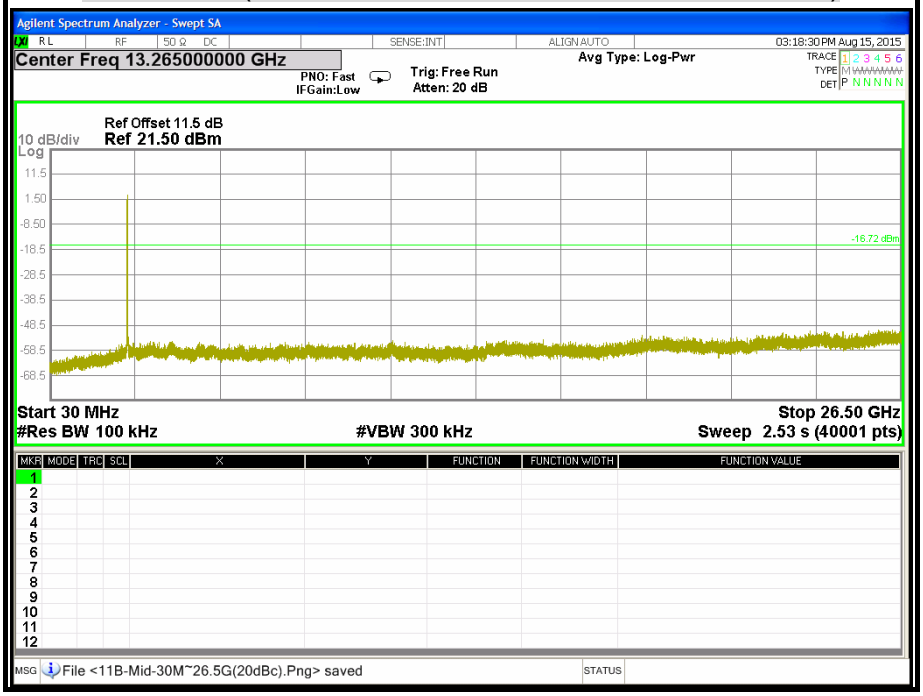
CH Low (30MHz ~ 26.5GHz / IEEE 802.11b mode)



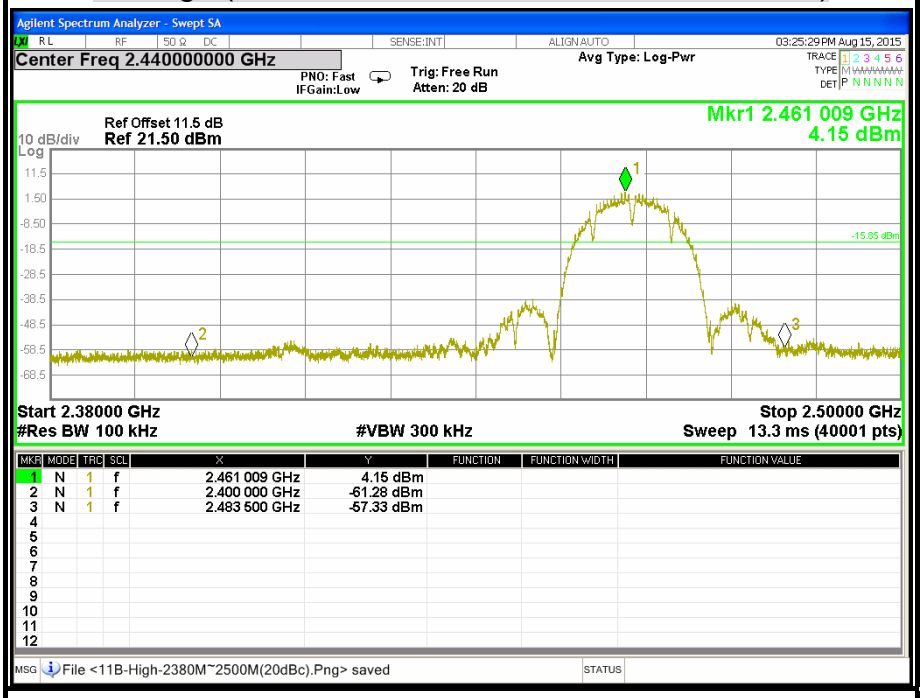
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11b mode)



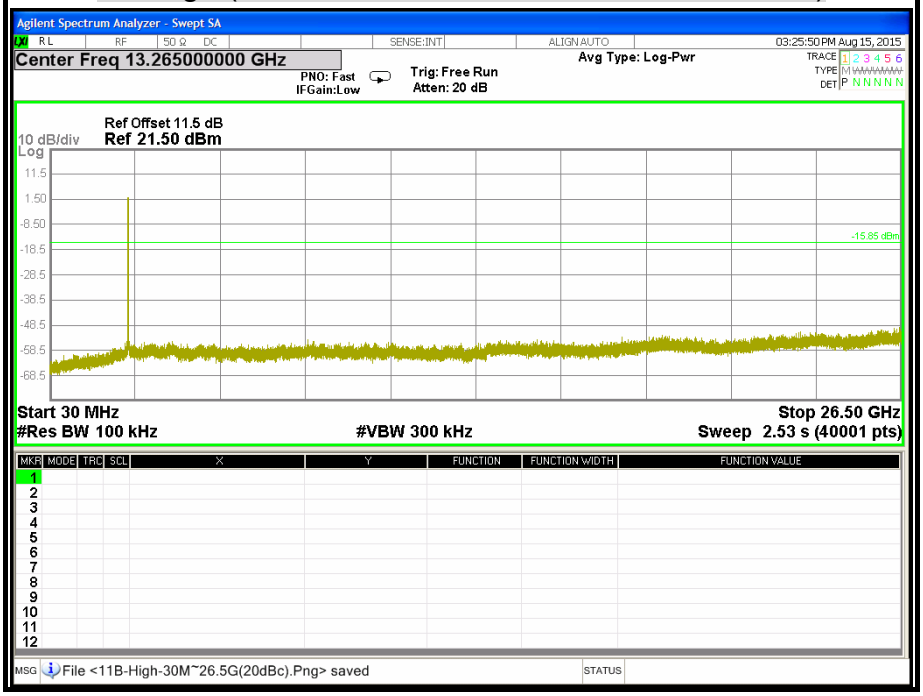
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11b mode)



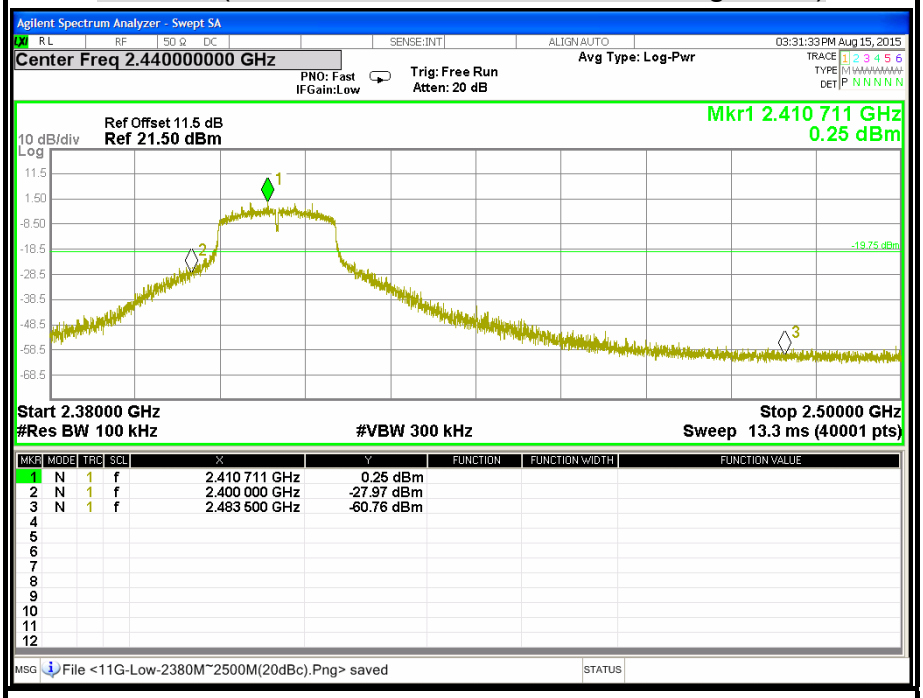
CH High (2.38GHz ~ 2.5GHz / IEEE 802.11b mode)



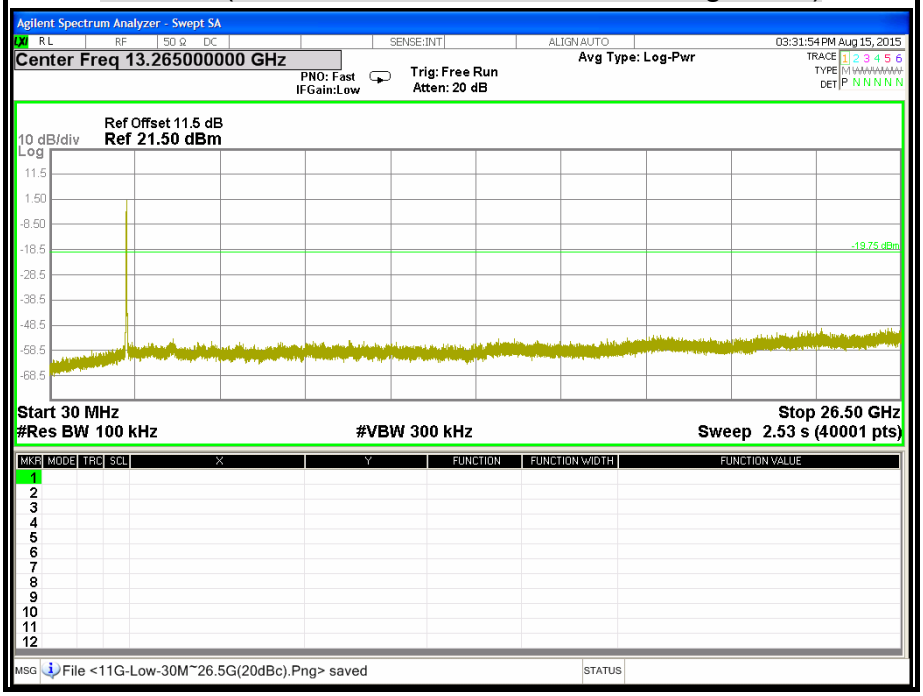
CH High (30MHz ~ 26.5GHz / IEEE 802.11b mode)



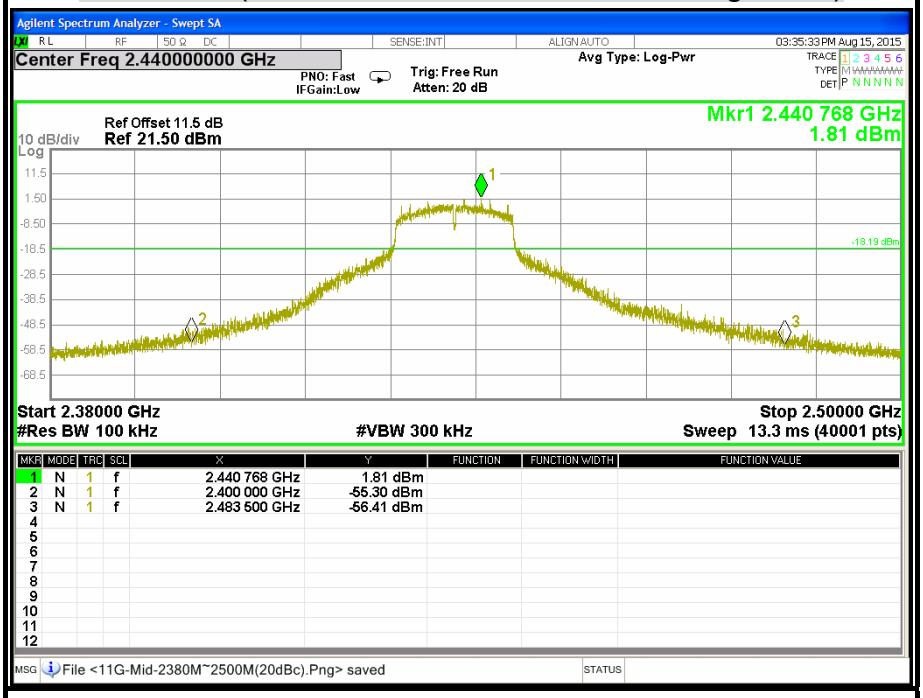
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11g mode)



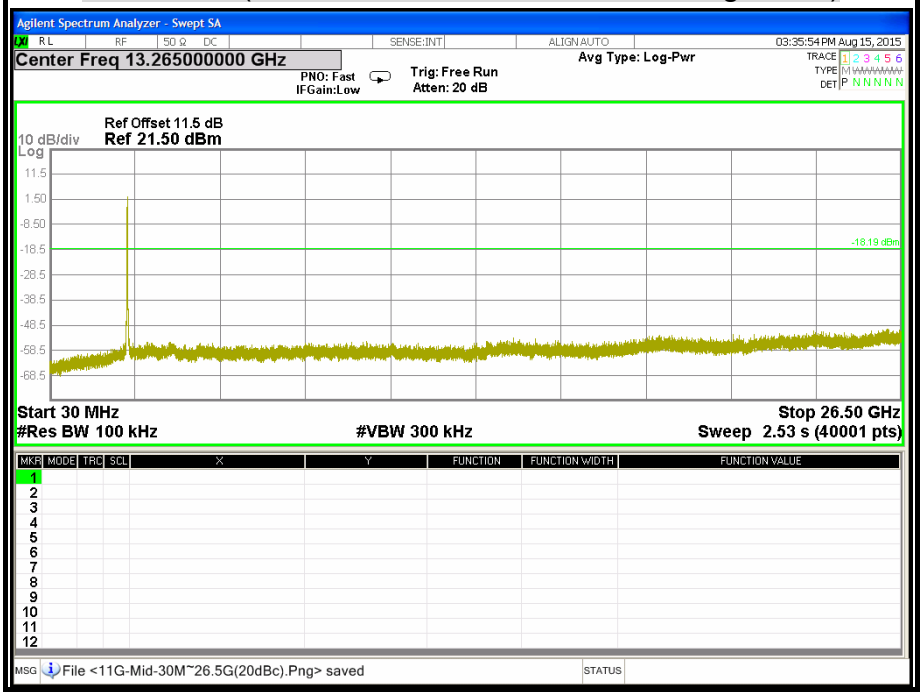
CH Low (30MHz ~ 26.5GHz / IEEE 802.11g mode)



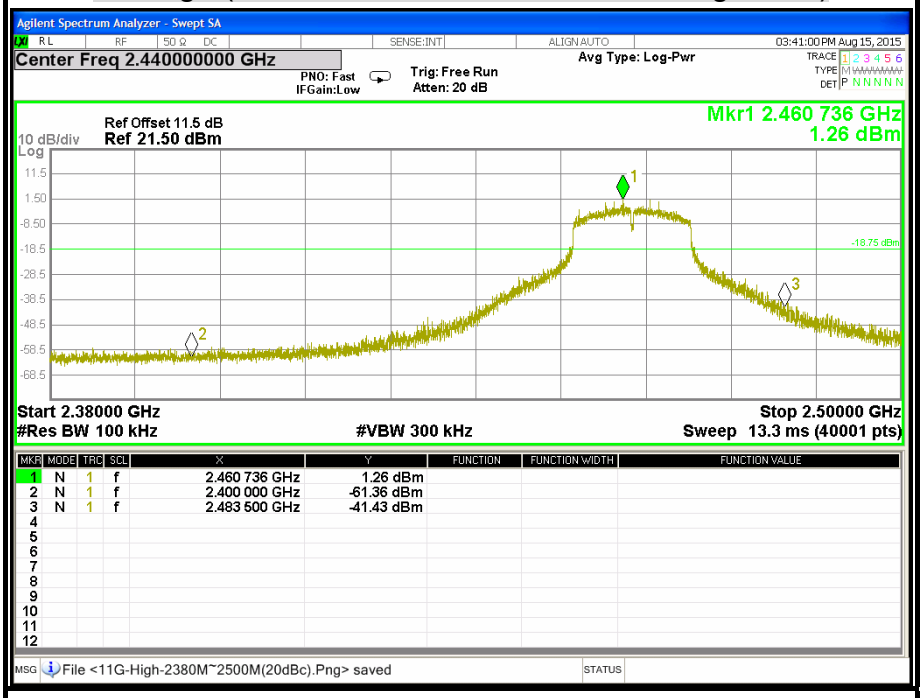
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11g mode)



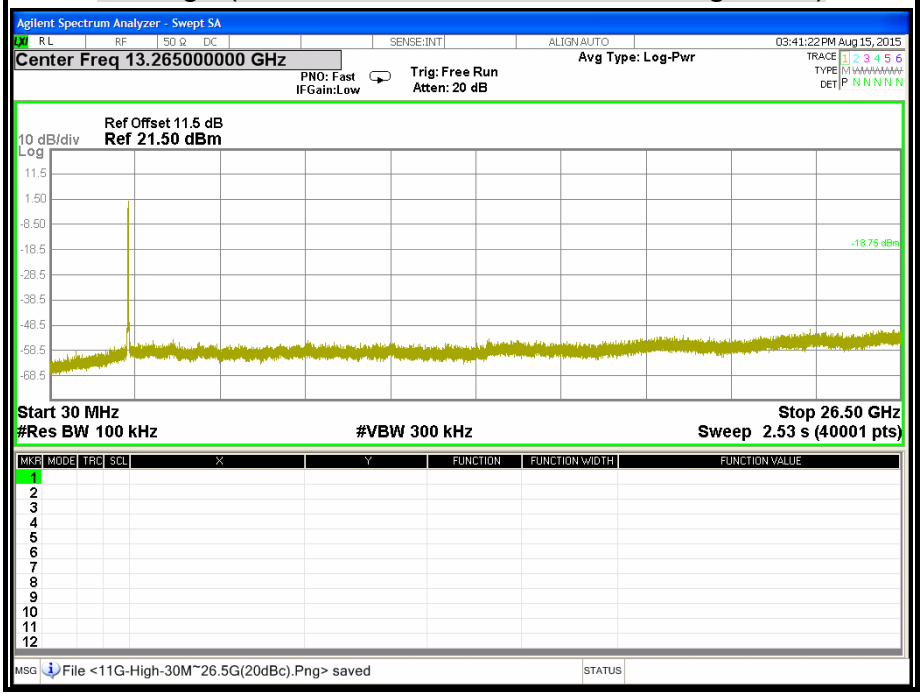
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11g mode)



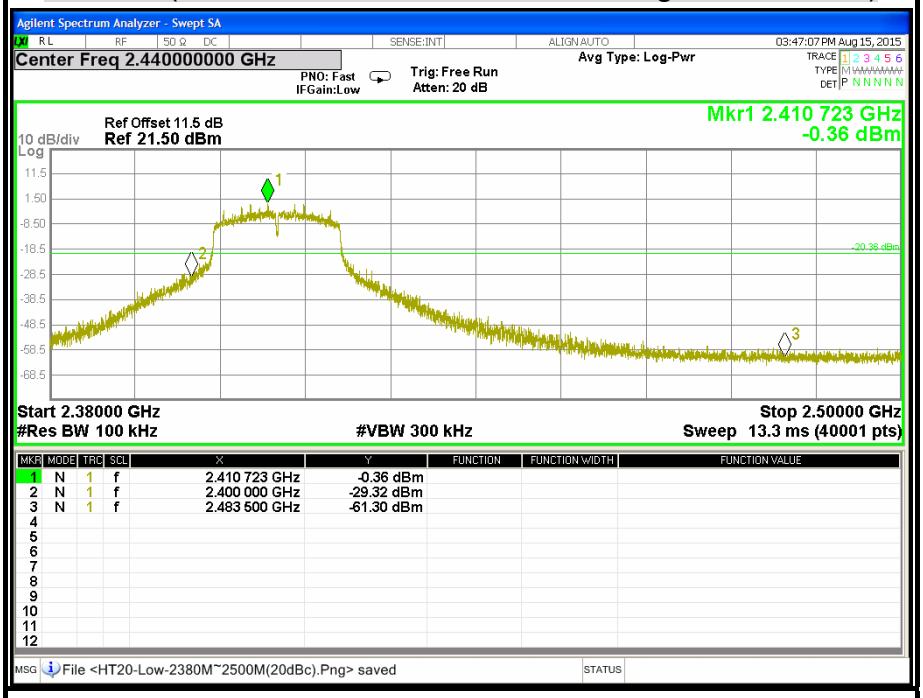
CH High (2.38GHz ~ 2.5GHz / IEEE 802.11g mode)



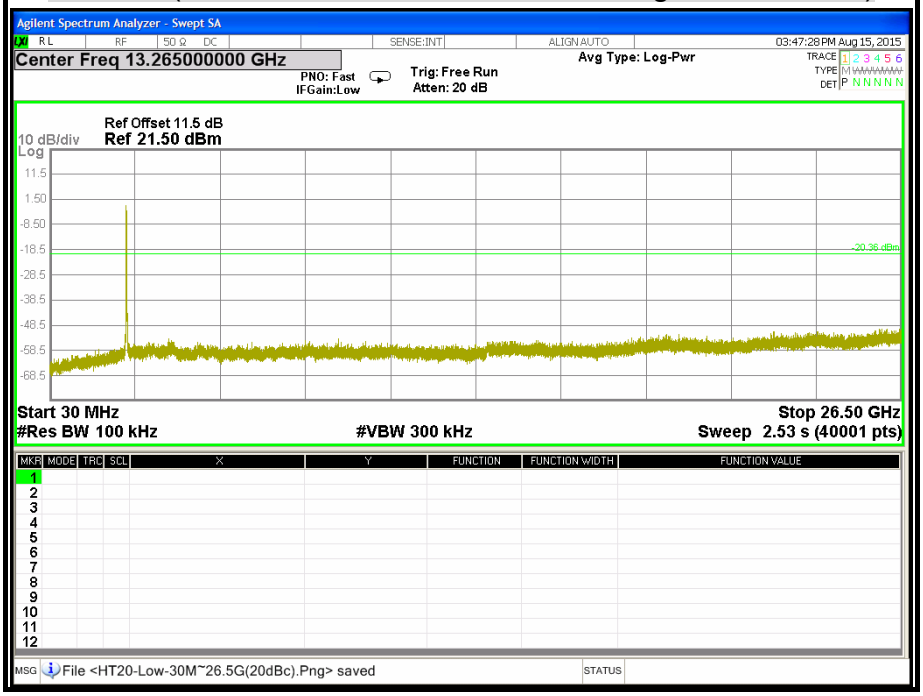
CH High (30MHz ~ 26.5GHz / IEEE 802.11g mode)



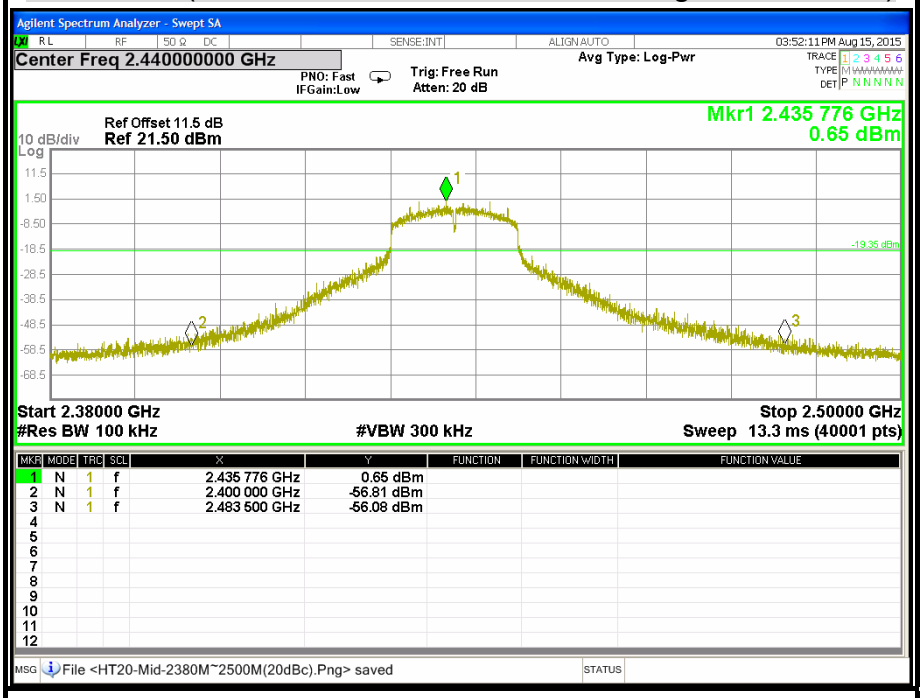
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT20 mode)



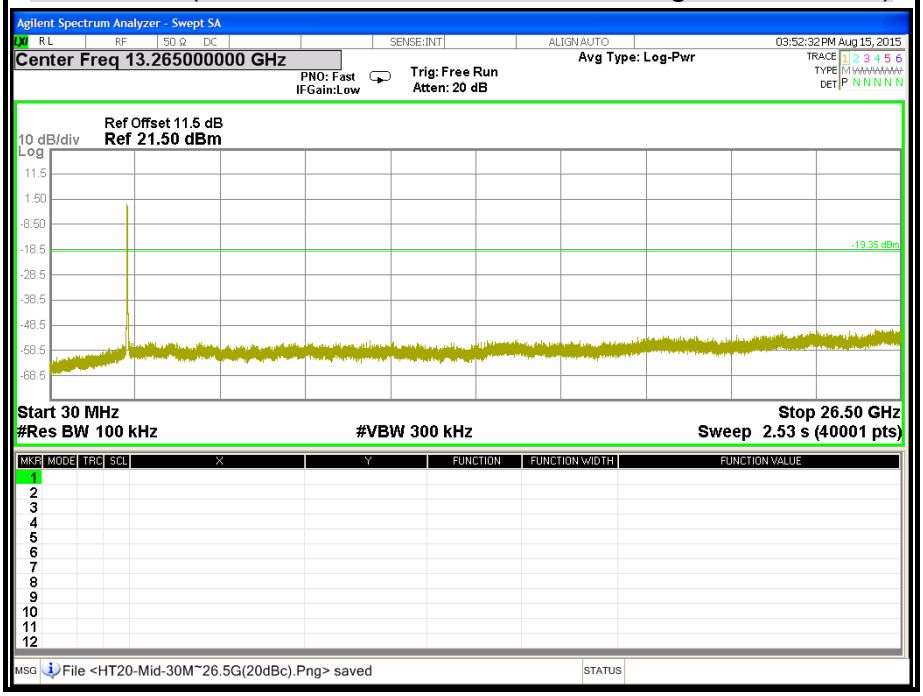
CH Low (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 mode)



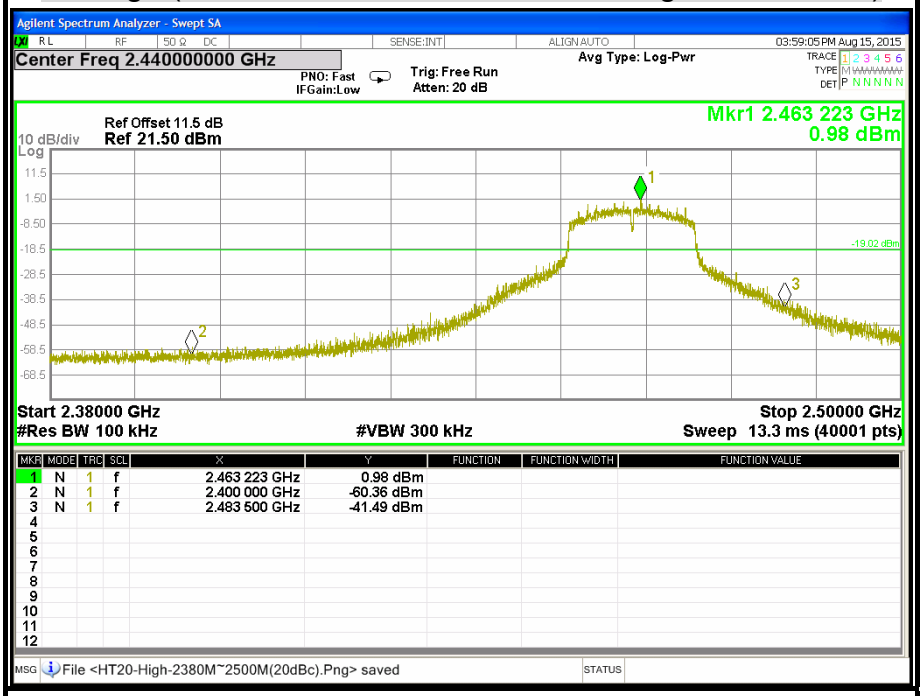
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT20 mode)



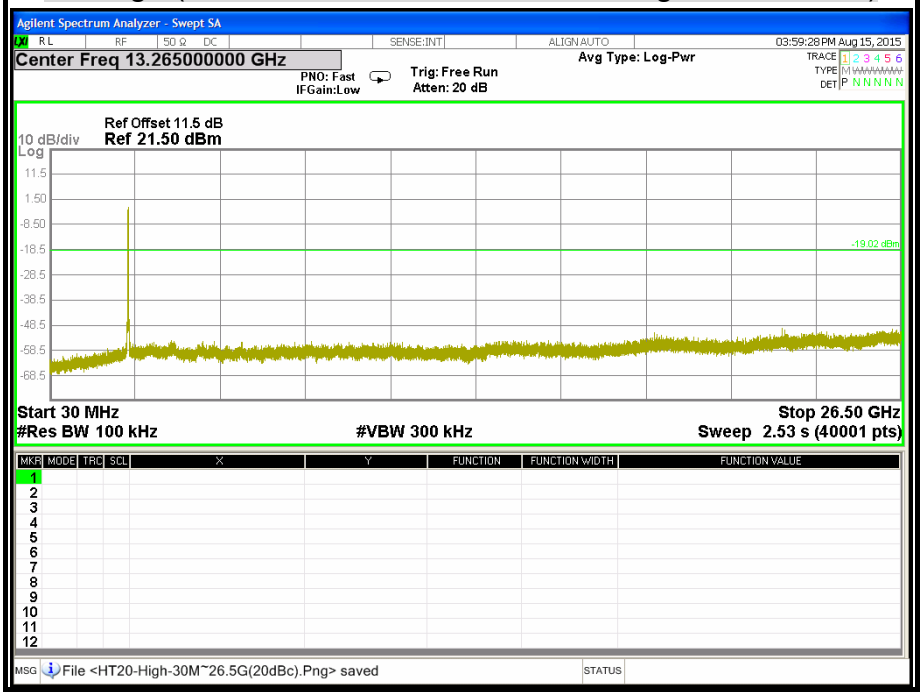
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 mode)



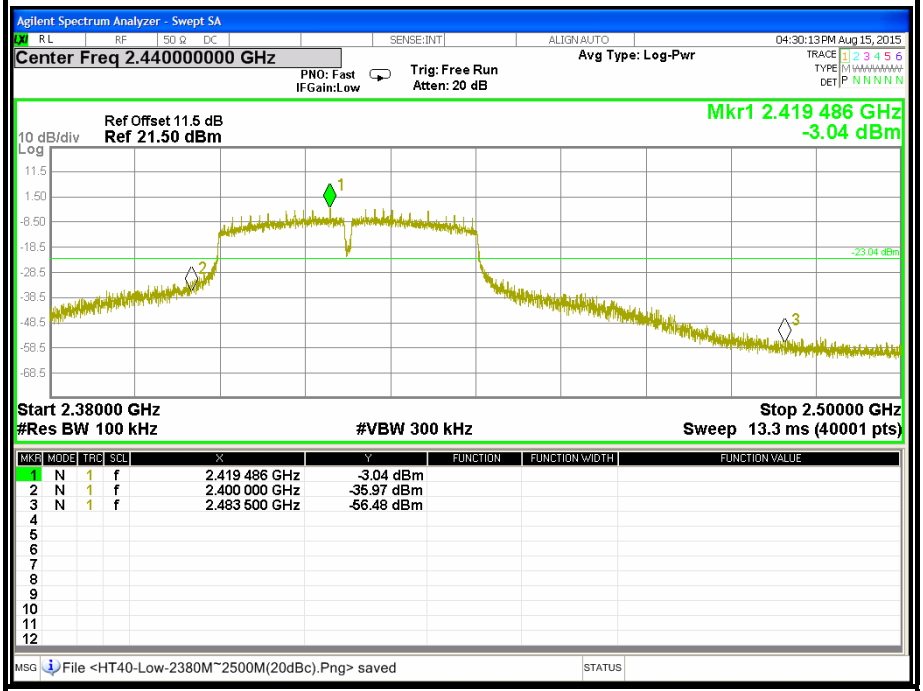
CH High (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT20 mode)



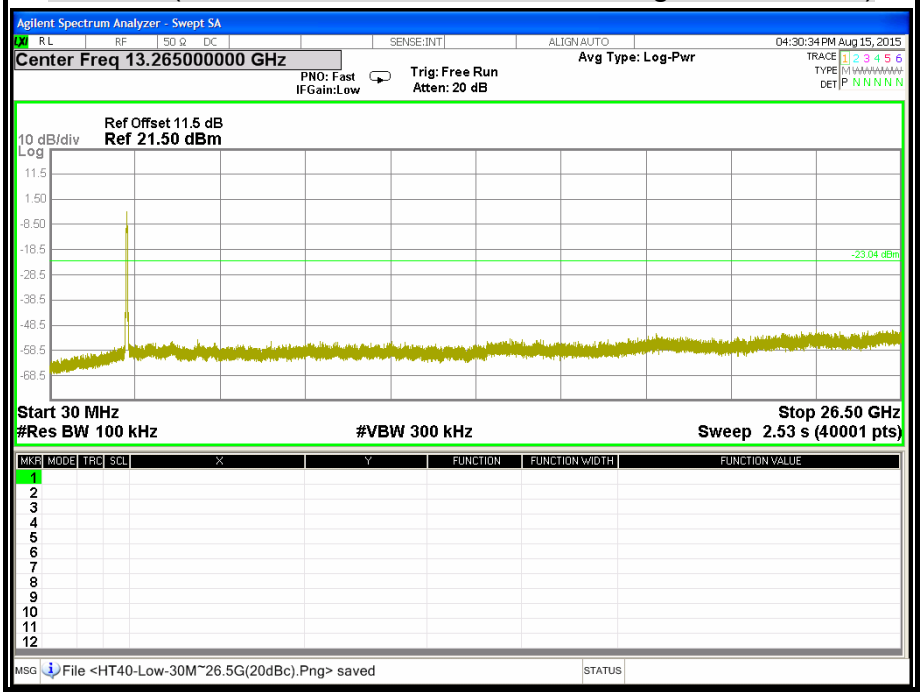
CH High (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 mode)



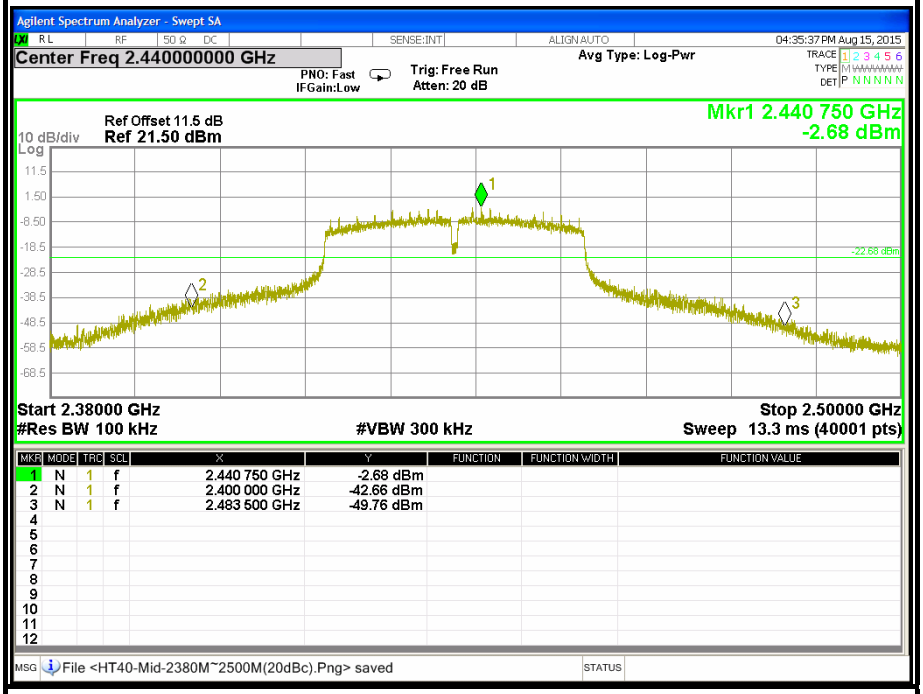
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 mode)



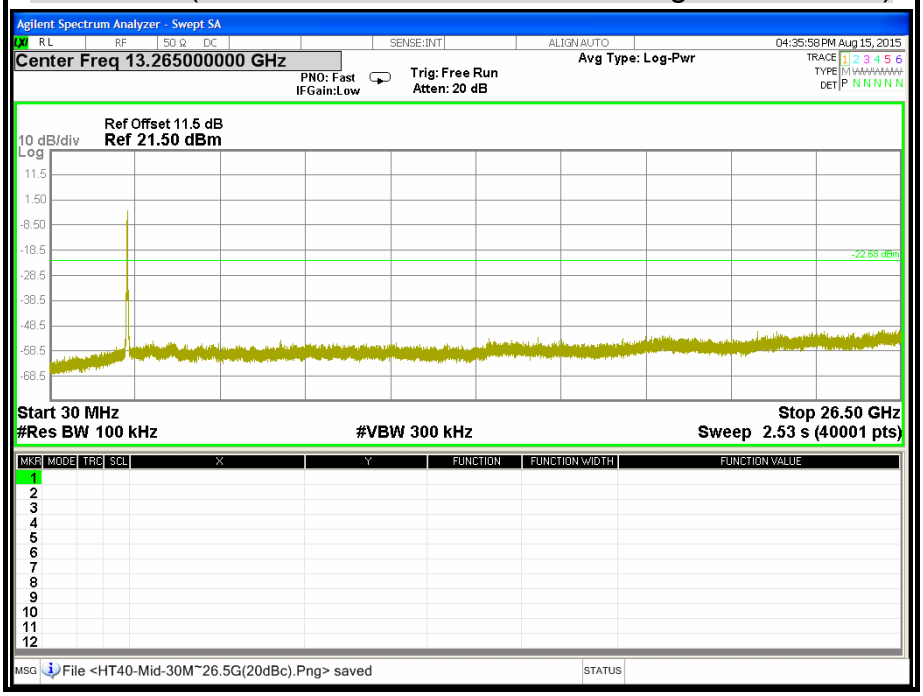
CH Low (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 mode)



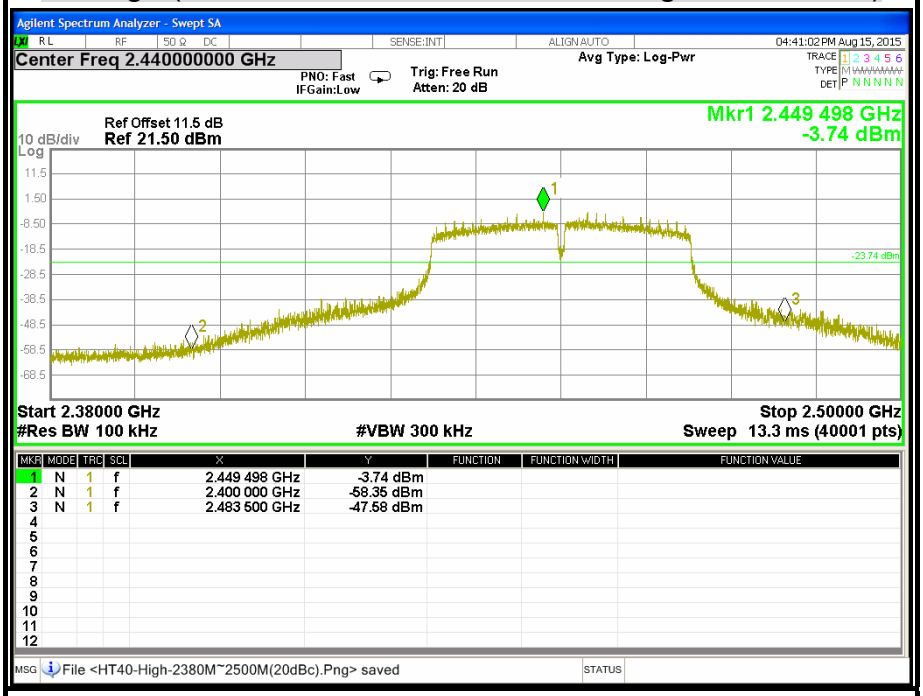
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 mode)



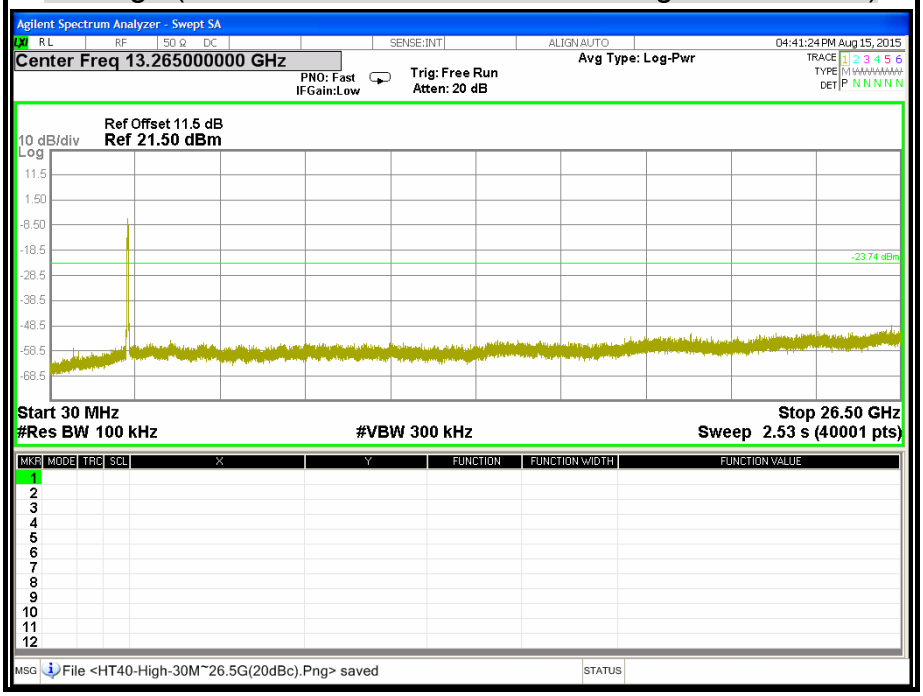
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 mode)



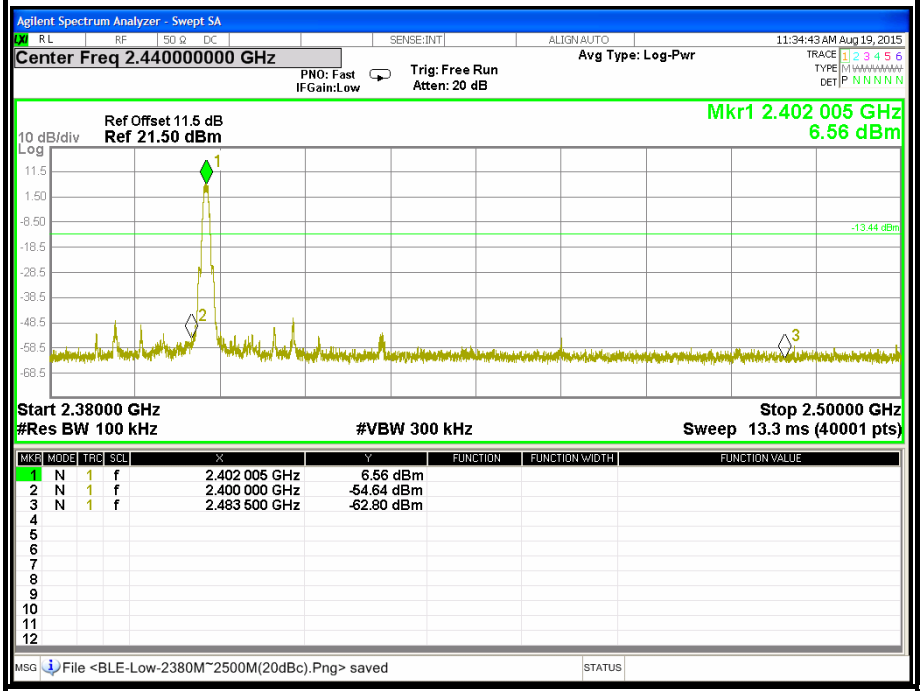
CH High (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 mode)



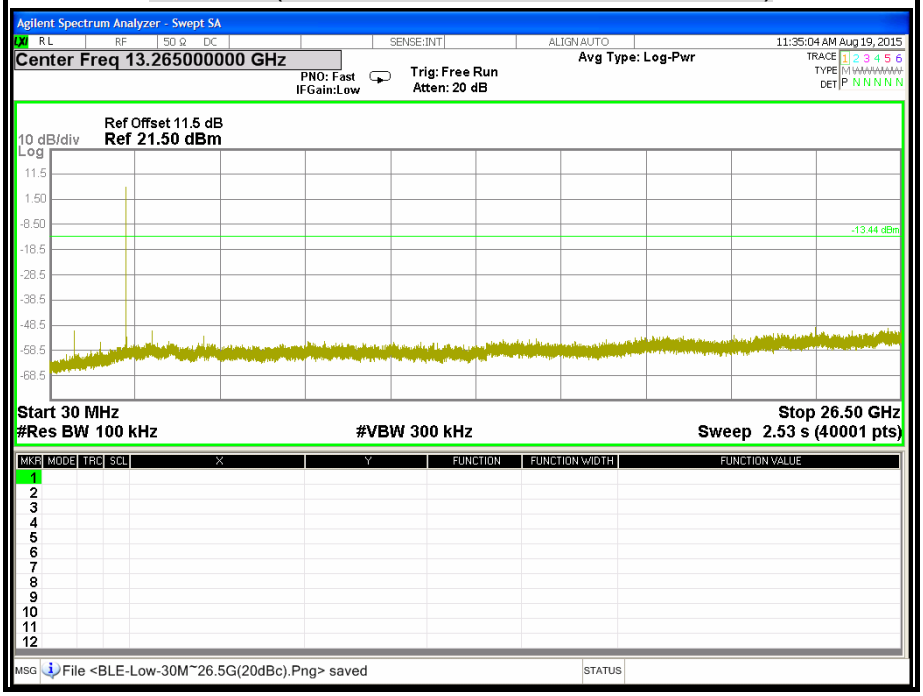
CH High (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 mode)



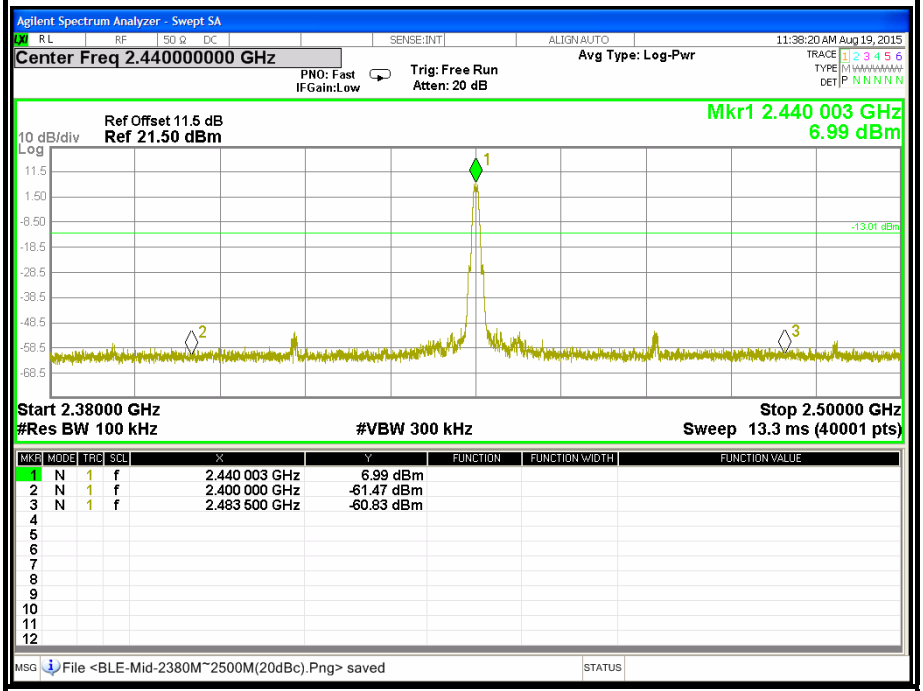
CH Low (2.38GHz ~ 2.5GHz / Bluetooth 4.0)



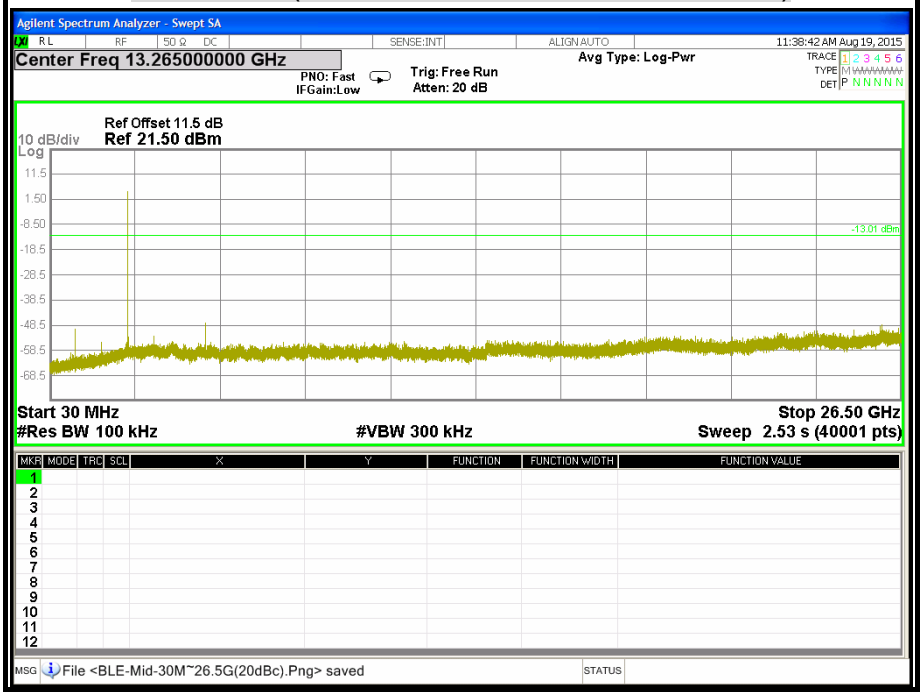
CH Low (30MHz ~ 26.5GHz / Bluetooth 4.0)



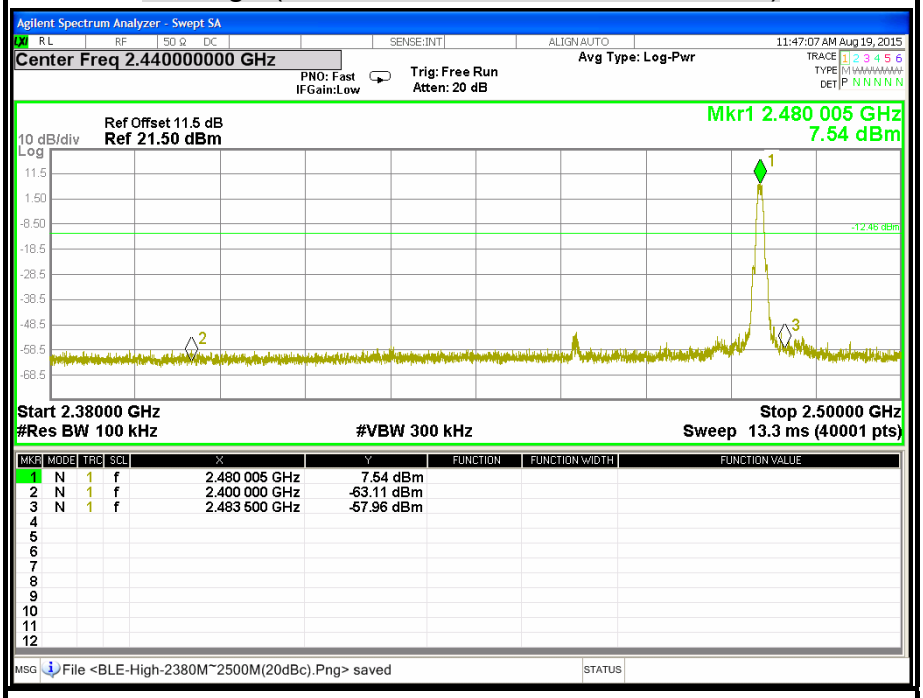
CH Middle (2.38GHz ~ 2.5GHz / Bluetooth 4.0)



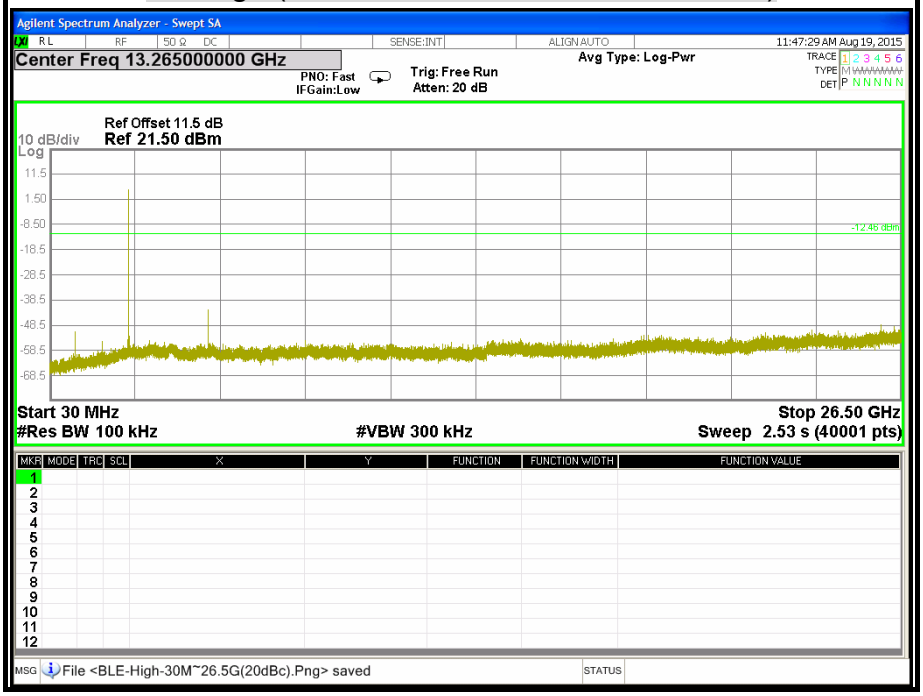
CH Middle (30MHz ~ 26.5GHz / Bluetooth 4.0)



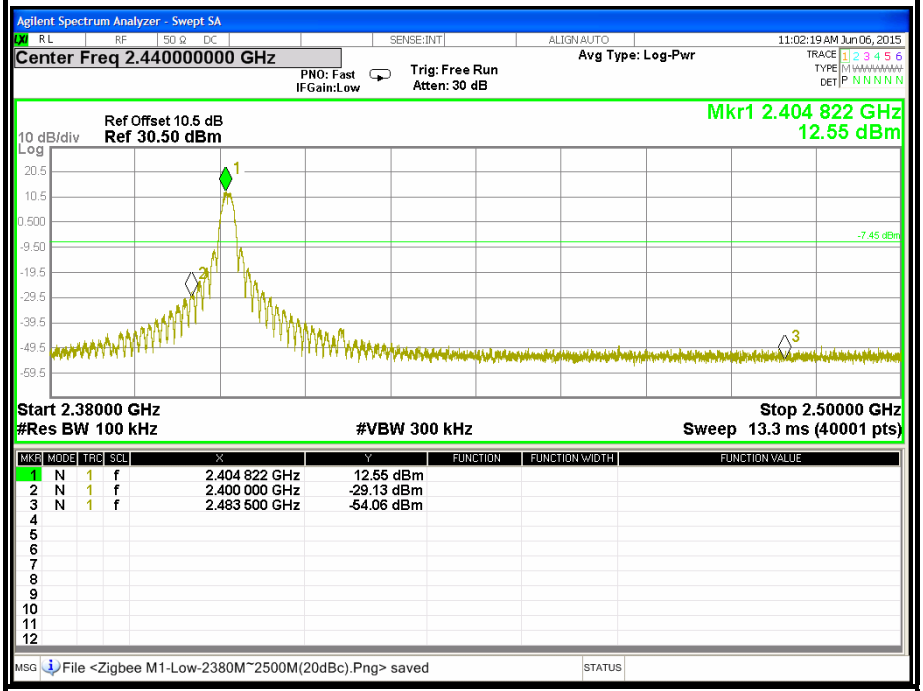
CH High (2.38GHz ~ 2.5GHz / Bluetooth 4.0)



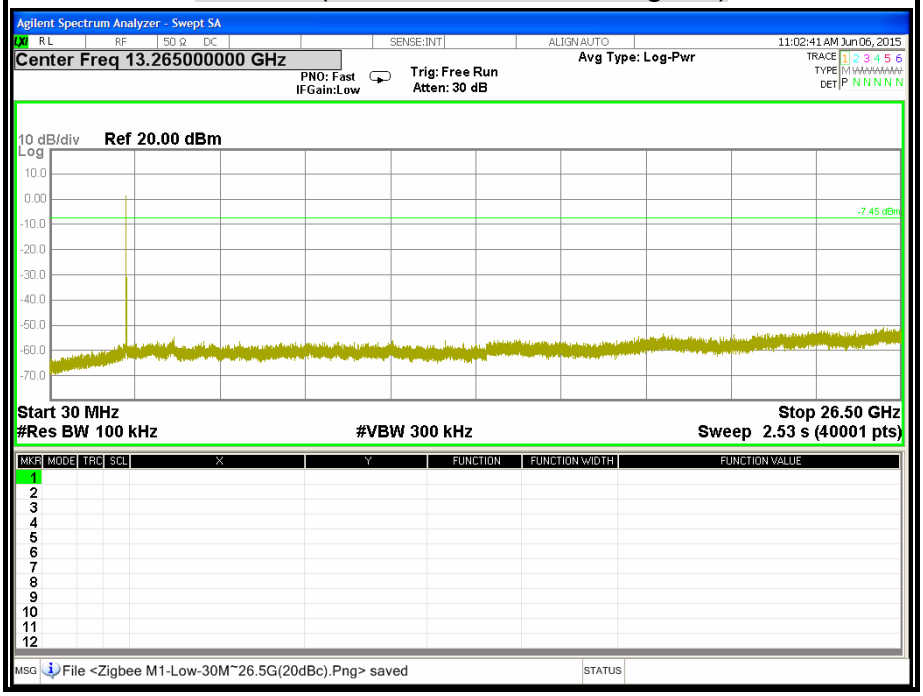
CH High (30MHz ~ 26.5GHz / Bluetooth 4.0)



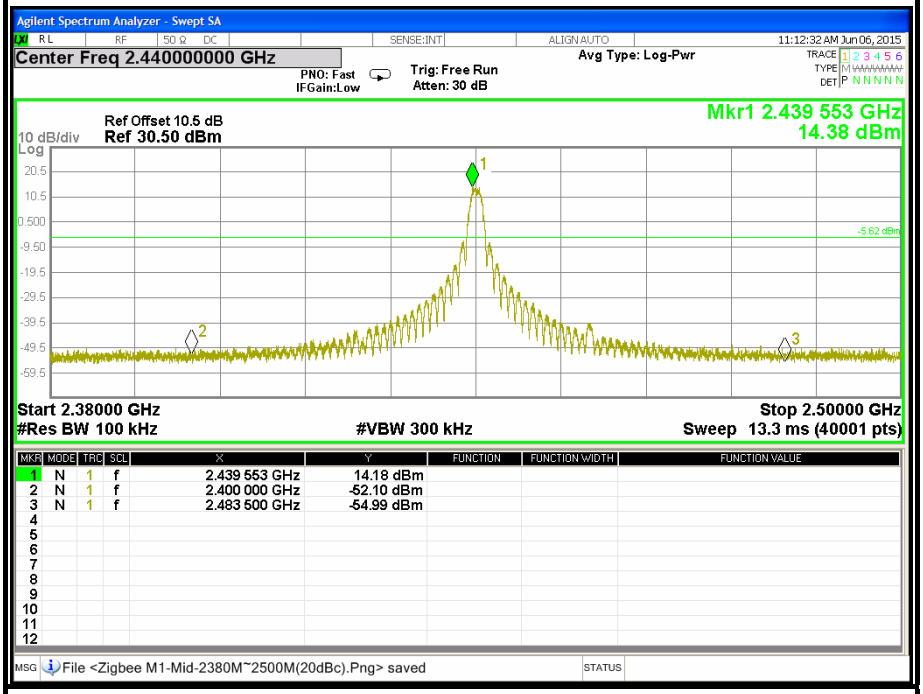
CH Low (2.38GHz ~ 2.5GHz / Zigbee)



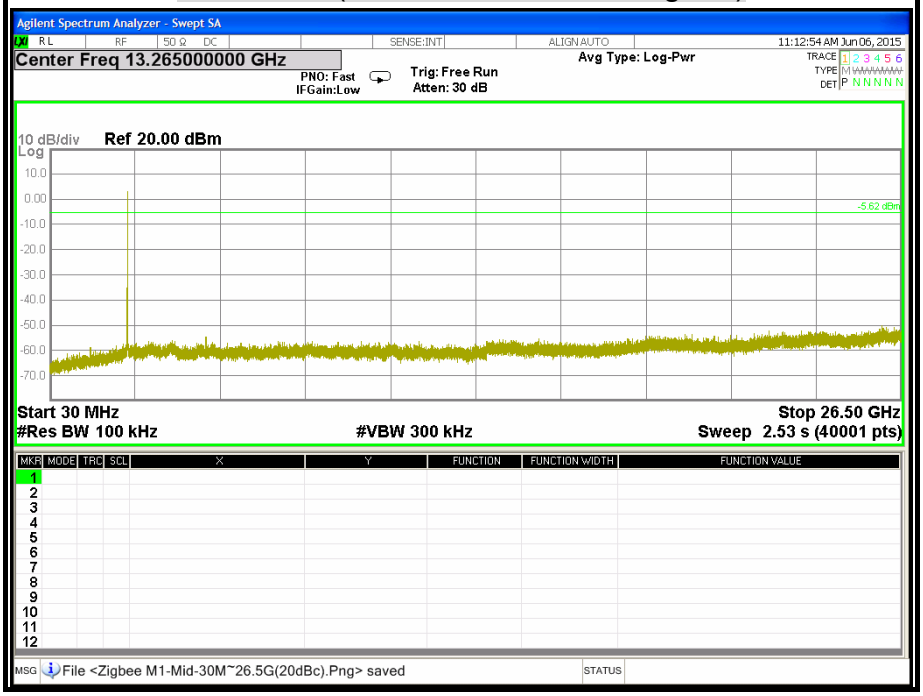
CH Low (30MHz ~ 26.5GHz / Zigbee)



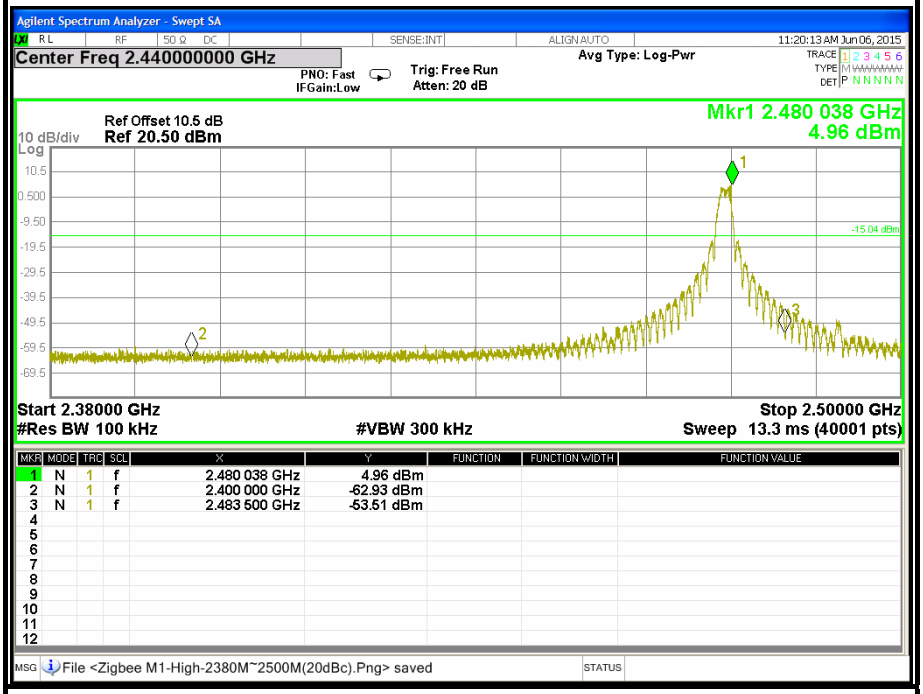
CH Middle (2.38GHz ~ 2.5GHz / Zigbee)



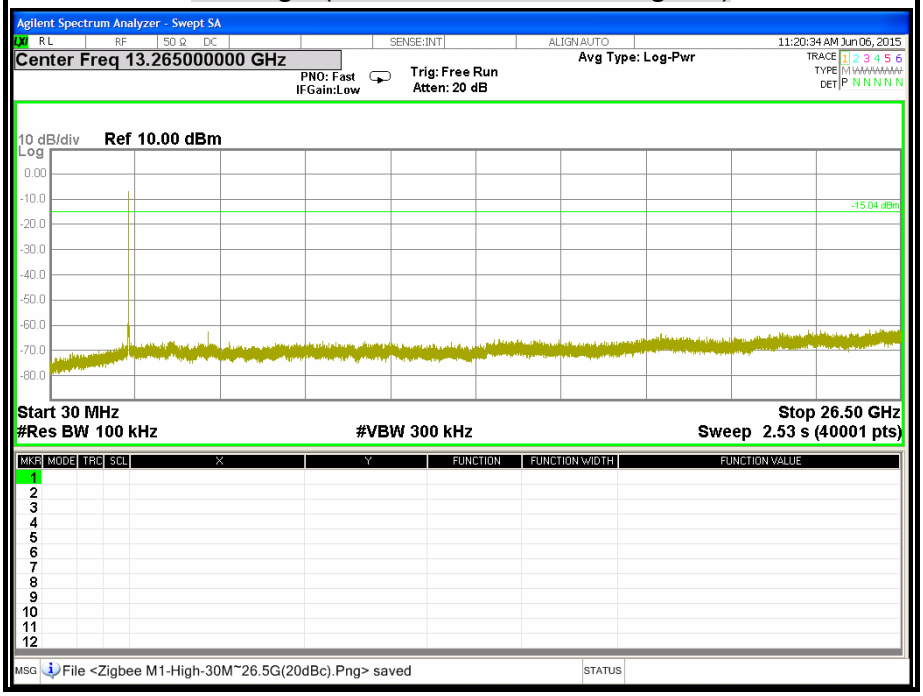
CH Middle (30MHz ~ 26.5GHz / Zigbee)



CH High (2.38GHz ~ 2.5GHz / Zigbee)



CH High (30MHz ~ 26.5GHz / Zigbee)



7.5 RADIATED EMISSION

LIMITS

(1) According to § 15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 -1710	10.6 -12.7
6.26775 - 6.26825	108 -121.94	1718.8 - 1722.2	13.25 -13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 – 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 -16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3338	36.43 - 36.5
12.57675 - 12.57725	322 -335.4	3600 - 4400	([2])
13.36 - 13.41			

Remark:
1. [1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
2. [2] Above 38.6

(2) According to § 15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown is Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

(3) According to § 15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(KHz)	300
0.490 – 1.705	24000/F(KHz)	30
1.705 – 30.0	30	30
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

Remark: ***Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.*

(4) According to § 15.209 (b) In the emission table above, the tighter limit applies at the band edges.

TEST EQUIPMENT

Radiated Emission / 966Chamber_B

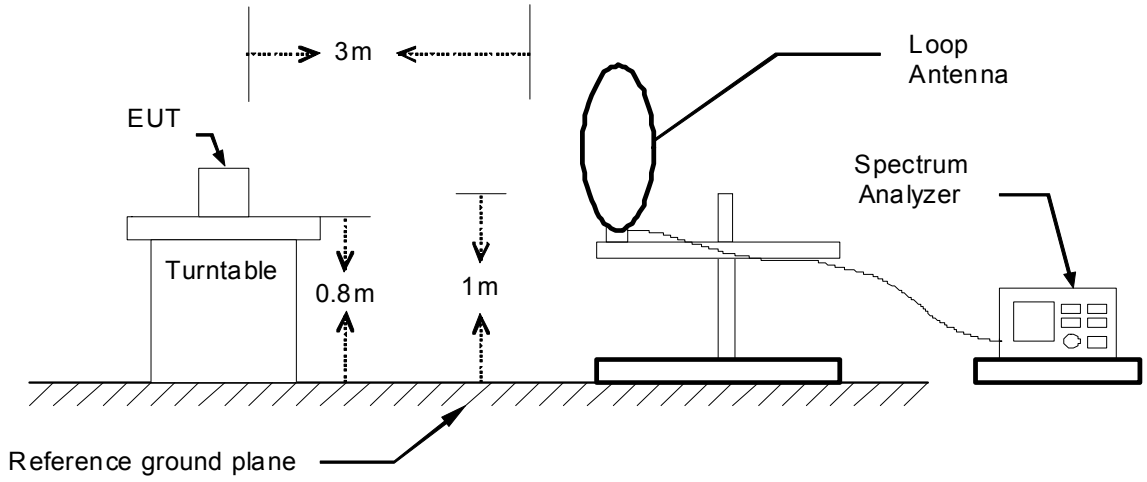
Name of Equipment	Manufacture	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY46180323	04/14/2016
EMI Test Receiver	ROHDE & SCHWARZ	ESCS 30	835418/008	10/14/2015
Bi-log Antenna	TESEQ	CBL6112D	35403	08/04/2016
Broad-Band Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-778	08/09/2016
Double-Ridged Waveguide Horn	ETS-LINDGREN	3117	00078733	12/02/2015
Horn Antenna	COM-POWER	AH-840	03077	12/17/2015
Pre-Amplifier	Agilent	8447D	2944A10052	07/14/2016
Pre-Amplifier	Agilent	8449B	3008A01916	07/14/2016
Notch Filters Band Reject	Micro-Tronics	BRM05702-01	026	N.C.R
LOOP Antenna	COM-POWER	AL-130	121060	05/24/2016

Remark: *1. Each piece of equipment is scheduled for calibration once a year.*
2. N.C.R = No Calibration Request.

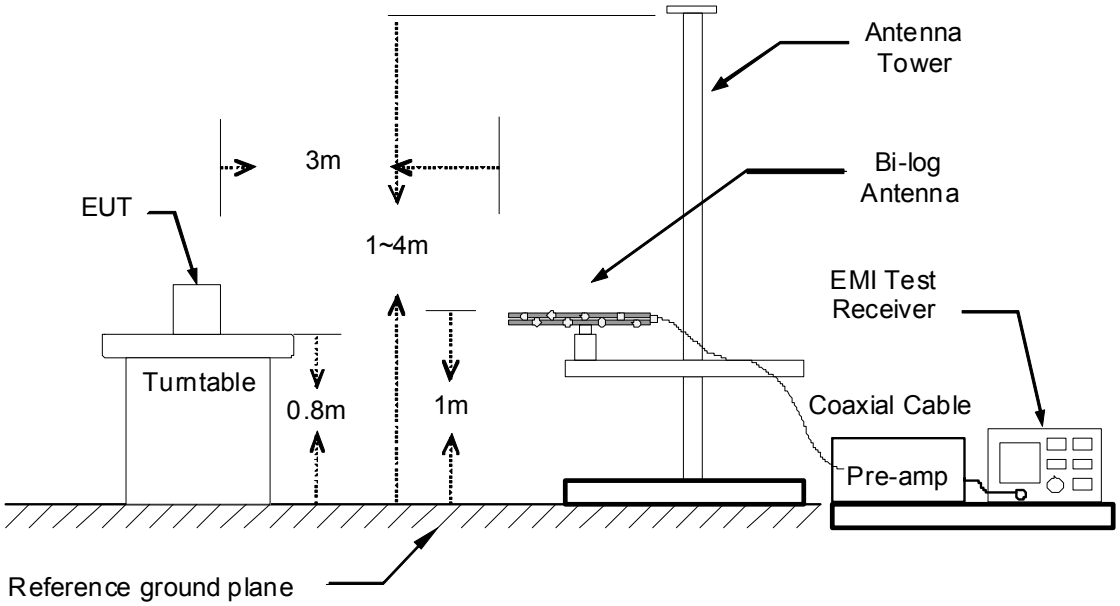
TEST SETUP

The diagram below shows the test setup that is utilized to make the measurements for emission below 1GHz.

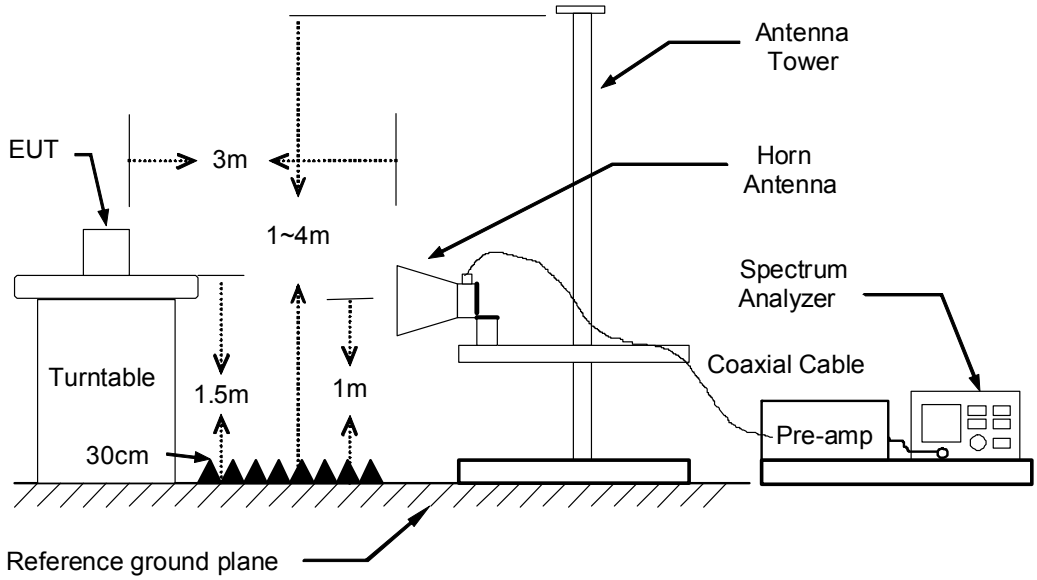
9kHz ~ 30MHz



30MHz ~ 1GHz



The diagram below shows the test setup that is utilized to make the measurements for emission above 1GHz.



TEST PROCEDURE

1. The EUT was placed on the top of a rotating table 0.8 and 1.5 meters above the ground. The table was rotated 360 degrees to determine the position of the highest radiation.
2. While measuring the radiated emission below 1GHz, the EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. While measuring the radiated emission above 1GHz, the EUT was set 3 meters away from the interference-receiving antenna.
3. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarization of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold mode.
6. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Remark：

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

TEST RESULTS

Below 1 GHz (9kHz ~ 30MHz)

No emission found between lowest internal used/generated frequency to 30MHz.

Below 1 GHz (30MHz ~ 1GHz)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/15
Test mode	WiFi / Mode 1	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
83.35	46.83	-19.76	27.07	40.00	-12.93	47	200	Peak
167.74	52.57	-16.77	35.80	43.50	-7.70	247	200	Peak
256.01	54.70	-12.71	41.99	46.00	-4.01	207	100	Peak
263.77	53.46	-12.39	41.07	46.00	-4.93	200	100	Peak
719.67	42.25	-6.37	35.88	46.00	-10.12	195	100	Peak
768.17	42.53	-5.61	36.92	46.00	-9.08	195	100	Peak
815.70	40.44	-4.88	35.56	46.00	-10.44	184	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
30.00	42.16	-8.52	33.64	40.00	-6.36	150	100	Peak
51.34	56.21	-19.45	36.76	40.00	-3.24	326	100	Peak
120.21	45.55	-14.85	30.70	43.50	-12.80	216	100	Peak
167.74	48.05	-16.77	31.28	43.50	-12.22	278	100	Peak
252.13	50.35	-13.07	37.28	46.00	-8.72	312	200	Peak
276.38	53.62	-12.57	41.05	46.00	-4.95	166	100	Peak
624.61	45.15	-7.23	37.92	46.00	-8.08	40	100	Peak

Remark:

1. *Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.*
2. *Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) – PreAmp.Gain (dB)*
3. *Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)*
4. *Margin (dB) = Remark result (dBuV/m) - Quasi-peak limit (dBuV/m).*

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/15
Test mode	Bluetooth 4.0 / Mode 1	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
167.74	51.14	-16.77	34.37	43.50	-9.13	254	200	Peak
251.16	55.26	-13.16	42.10	46.00	-3.90	216	100	Peak
263.77	53.65	-12.39	41.26	46.00	-4.74	205	100	Peak
275.41	52.15	-12.56	39.59	46.00	-6.41	12	200	Peak
719.67	42.23	-6.37	35.86	46.00	-10.14	193	100	Peak
768.17	42.36	-5.61	36.75	46.00	-9.25	182	100	Peak
813.76	45.58	-4.91	40.67	46.00	-5.33	310	100	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
51.34	54.82	-19.45	35.37	40.00	-4.63	52	200	Peak
120.21	44.70	-14.85	29.85	43.50	-13.65	243	100	Peak
167.74	48.86	-16.77	32.09	43.50	-11.41	284	100	Peak
251.16	50.78	-13.16	37.62	46.00	-8.38	301	200	Peak
624.61	45.77	-7.23	38.54	46.00	-7.46	43	100	Peak
813.76	45.58	-4.91	40.67	46.00	-5.33	8	100	Peak

Remark:

1. *Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.*
2. *Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) – PreAmp.Gain (dB)*
3. *Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)*
4. *Margin (dB) = Remark result (dBuV/m) - Quasi-peak limit (dBuV/m).*

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/15
Test mode	Zigbee / Mode 1	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal						
Frequency (MHz)	Reading (dBμV)	Correction Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
49.40	41.39	-13.66	27.73	40.00	-12.27	Peak
103.72	52.95	-18.11	34.84	43.50	-8.66	Peak
249.22	46.46	-13.78	32.68	46.00	-13.32	Peak
384.05	45.80	-10.30	35.50	46.00	-10.50	Peak
549.92	44.11	-7.65	36.46	46.00	-9.54	Peak
949.56	38.25	-0.75	37.51	46.00	-8.49	Peak

966Chamber_B at 3Meter / Vertical						
Frequency (MHz)	Reading (dBμV)	Correction Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
48.43	49.86	-13.73	36.13	40.00	-3.87	QP
104.69	56.59	-17.99	38.60	43.50	-4.90	Peak
124.09	51.16	-15.66	35.50	43.50	-8.00	Peak
384.05	44.43	-10.30	34.12	46.00	-11.88	Peak
549.92	44.28	-7.65	36.63	46.00	-9.37	Peak
949.56	37.06	-0.75	36.32	46.00	-9.68	Peak

Remark:

1. *Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.*
2. *Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) – PreAmp.Gain (dB)*
3. *Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)*
4. *Margin (dB) = Remark result (dBuV/m) - Quasi-peak limit (dBuV/m).*

Above 1 GHz

Product Name	ICG	Test By	Rex Chiu
Test Model	ICG-100-NA-R	Test Date	2015/08/13
Test mode	IEEE 802.11b TX / CH Low	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2050.00	47.63	1.90	49.53	74.00	-24.47	182	200	Peak
2182.00	47.69	2.23	49.92	74.00	-24.08	44	200	Peak
2654.00	48.02	3.32	51.34	74.00	-22.66	109	100	Peak
4830.00	39.51	8.00	47.51	74.00	-26.49	120	100	Peak
6390.00	37.75	11.63	49.38	74.00	-24.62	241	200	Peak
9840.00	37.24	14.42	51.66	74.00	-22.34	270	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1996.00	47.75	1.74	49.49	74.00	-24.51	69	200	Peak
2306.00	47.79	2.53	50.32	74.00	-23.68	274	200	Peak
2560.00	48.58	3.13	51.71	74.00	-22.29	85	200	Peak
4830.00	40.06	8.00	48.06	74.00	-25.94	74	100	Peak
7140.00	37.37	11.99	49.36	74.00	-24.64	218	200	Peak
10110.00	36.26	14.83	51.09	74.00	-22.91	360	200	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/15
Test mode	IEEE 802.11b TX / CH Middle	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2016.00	47.67	1.82	49.49	74.00	-24.51	47	200	Peak
2192.00	47.81	2.25	50.06	74.00	-23.94	178	200	Peak
2532.00	47.73	3.08	50.81	74.00	-23.19	360	200	Peak
4875.00	38.04	8.04	46.08	74.00	-27.92	344	100	Peak
6945.00	36.81	12.24	49.05	74.00	-24.95	0	100	Peak
9660.00	36.35	14.16	50.51	74.00	-23.49	269	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2008.00	48.22	1.80	50.02	74.00	-23.98	182	200	Peak
2352.00	48.25	2.65	50.90	74.00	-23.10	102	100	Peak
2698.00	47.68	3.41	51.09	74.00	-22.91	163	100	Peak
4875.00	39.54	8.04	47.58	74.00	-26.42	21	100	Peak
7020.00	37.05	12.26	49.31	74.00	-24.69	244	100	Peak
9630.00	36.37	14.12	50.49	74.00	-23.51	190	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/15
Test mode	IEEE 802.11b TX / CH High	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2110.00	47.46	2.05	49.51	74.00	-24.49	178	100	Peak
2378.00	47.84	2.71	50.55	74.00	-23.45	270	100	Peak
2504.00	47.70	3.02	50.72	74.00	-23.28	302	100	Peak
4785.00	38.20	7.97	46.17	74.00	-27.83	184	100	Peak
8535.00	36.62	12.73	49.35	74.00	-24.65	84	100	Peak
10755.00	35.13	16.91	52.04	74.00	-21.96	229	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2078.00	47.79	1.97	49.76	74.00	-24.24	55	100	Peak
2330.00	47.79	2.59	50.38	74.00	-23.62	92	200	Peak
2646.00	47.60	3.31	50.91	74.00	-23.09	184	200	Peak
4920.00	39.36	8.08	47.44	74.00	-26.56	28	100	Peak
7020.00	36.98	12.26	49.24	74.00	-24.76	75	100	Peak
9675.00	36.40	14.18	50.58	74.00	-23.42	0	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/13
Test mode	IEEE 802.11g TX / CH Low	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2146.00	46.94	2.14	49.08	74.00	-24.92	167	100	Peak
2232.00	47.62	2.35	49.97	74.00	-24.03	31	100	Peak
2604.00	46.86	3.22	50.08	74.00	-23.92	48	200	Peak
4440.00	39.01	7.53	46.54	74.00	-27.46	75	100	Peak
6420.00	37.65	11.63	49.28	74.00	-24.72	295	100	Peak
10800.00	35.31	17.15	52.46	74.00	-21.54	46	100	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2016.00	47.51	1.82	49.33	74.00	-24.67	151	200	Peak
2288.00	46.93	2.49	49.42	74.00	-24.58	81	100	Peak
2546.00	47.72	3.10	50.82	74.00	-23.18	206	100	Peak
4950.00	38.50	8.10	46.60	74.00	-27.40	325	200	Peak
6900.00	37.28	12.18	49.46	74.00	-24.54	221	100	Peak
10800.00	35.08	17.15	52.23	74.00	-21.77	147	200	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/13
Test mode	IEEE 802.11g TX / CH Middle	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2068.00	46.99	1.95	48.94	74.00	-25.06	170	200	Peak
2276.00	47.65	2.46	50.11	74.00	-23.89	346	100	Peak
2536.00	48.67	3.08	51.75	74.00	-22.25	202	200	Peak
4515.00	39.19	7.75	46.94	74.00	-27.06	58	200	Peak
6720.00	37.27	11.94	49.21	74.00	-24.79	157	200	Peak
10575.00	36.02	15.92	51.94	74.00	-22.06	180	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2326.00	47.43	2.58	50.01	74.00	-23.99	356	200	Peak
2390.00	48.82	2.74	51.56	74.00	-22.44	320	100	Peak
2486.00	36.67	2.98	39.65	54.00	-14.35	156	200	Average
2486.00	52.92	2.98	55.90	74.00	-18.10	156	200	Peak
4845.00	38.62	8.02	46.64	74.00	-27.36	103	200	Peak
7275.00	38.03	11.68	49.71	74.00	-24.29	3	100	Peak
10320.00	36.34	15.20	51.54	74.00	-22.46	11	200	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/14
Test mode	IEEE 802.11g TX / CH High	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2144.00	47.50	2.13	49.63	74.00	-24.37	224	200	Peak
2284.00	48.06	2.48	50.54	74.00	-23.46	316	100	Peak
2522.00	47.70	3.05	50.75	74.00	-23.25	0	200	Peak
4800.00	38.54	7.98	46.52	74.00	-27.48	251	200	Peak
7245.00	37.53	11.75	49.28	74.00	-24.72	359	100	Peak
10290.00	36.25	15.14	51.39	74.00	-22.61	206	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2060.00	47.72	1.93	49.65	74.00	-24.35	180	100	Peak
2266.00	47.57	2.43	50.00	74.00	-24.00	88	100	Peak
2510.00	43.88	3.03	46.91	54.00	-7.09	162	200	Average
2510.00	53.88	3.03	56.91	74.00	-17.09	162	200	Peak
4875.00	38.51	8.04	46.55	74.00	-27.45	330	200	Peak
6465.00	37.80	11.64	49.44	74.00	-24.56	276	100	Peak
9585.00	36.51	14.06	50.57	74.00	-23.43	226	200	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/13
Test mode	IEEE 802.11gn HT20 TX / CH Low	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1896.00	47.59	0.81	48.40	74.00	-25.60	0	200	Peak
2124.00	49.05	2.09	51.14	74.00	-22.86	48	200	Peak
2584.00	47.66	3.18	50.84	74.00	-23.16	238	100	Peak
4800.00	38.69	7.98	46.67	74.00	-27.33	110	100	Peak
6990.00	36.87	12.30	49.17	74.00	-24.83	24	200	Peak
9600.00	36.32	14.08	50.40	74.00	-23.60	15	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1978.00	48.37	1.58	49.95	74.00	-24.05	86	200	Peak
2226.00	48.27	2.34	50.61	74.00	-23.39	286	100	Peak
2692.00	47.22	3.40	50.62	74.00	-23.38	193	200	Peak
4950.00	37.97	8.10	46.07	74.00	-27.93	54	200	Peak
6930.00	36.80	12.22	49.02	74.00	-24.98	122	200	Peak
9495.00	36.72	13.92	50.64	74.00	-23.36	359	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/13
Test mode	IEEE 802.11gn HT20 TX / CH Middle	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2126.00	47.67	2.09	49.76	74.00	-24.24	90	100	Peak
2296.00	47.42	2.51	49.93	74.00	-24.07	351	200	Peak
2568.00	47.66	3.15	50.81	74.00	-23.19	222	100	Peak
4860.00	38.30	8.03	46.33	74.00	-27.67	262	100	Peak
6465.00	37.49	11.64	49.13	74.00	-24.87	192	200	Peak
10500.00	36.04	15.51	51.55	74.00	-22.45	108	100	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1992.00	50.47	1.71	52.18	74.00	-21.82	349	100	Peak
2386.00	48.00	2.73	50.73	74.00	-23.27	106	200	Peak
2486.00	35.20	2.98	38.18	54.00	-15.82	41	100	Average
2486.00	49.80	2.98	52.78	74.00	-21.22	41	100	Peak
4380.00	39.10	7.32	46.42	74.00	-27.58	152	100	Peak
6900.00	36.83	12.18	49.01	74.00	-24.99	201	200	Peak
10335.00	36.61	15.22	51.83	74.00	-22.17	134	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/13
Test mode	IEEE 802.11gn HT20 TX / CH High	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2016.00	47.64	1.82	49.46	74.00	-24.54	144	200	Peak
2354.00	47.60	2.65	50.25	74.00	-23.75	206	200	Peak
2508.00	48.02	3.03	51.05	74.00	-22.95	260	100	Peak
4800.00	39.32	7.98	47.30	74.00	-26.70	247	200	Peak
6945.00	36.70	12.24	48.94	74.00	-25.06	224	100	Peak
10635.00	35.60	16.25	51.85	74.00	-22.15	63	100	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2068.00	47.36	1.95	49.31	74.00	-24.69	312	100	Peak
2346.00	47.37	2.63	50.00	74.00	-24.00	66	200	Peak
2504.00	36.20	3.02	39.22	54.00	-14.78	64	100	Average
2504.00	52.14	3.02	55.16	74.00	-18.84	64	100	Peak
4800.00	38.77	7.98	46.75	74.00	-27.25	210	100	Peak
6915.00	36.71	12.20	48.91	74.00	-25.09	51	100	Peak
9465.00	37.34	13.83	51.17	74.00	-22.83	91	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/13
Test mode	IEEE 802.11gn HT40 TX / CH Low	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2084.00	47.73	1.99	49.72	74.00	-24.28	210	200	Peak
2260.00	48.55	2.42	50.97	74.00	-23.03	229	100	Peak
2620.00	47.74	3.25	50.99	74.00	-23.01	38	100	Peak
4890.00	38.77	8.05	46.82	74.00	-27.18	95	200	Peak
7005.00	37.05	12.30	49.35	74.00	-24.65	346	200	Peak
9810.00	36.64	14.37	51.01	74.00	-22.99	9	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1994.00	50.62	1.72	52.34	74.00	-21.66	341	100	Peak
2288.00	47.55	2.49	50.04	74.00	-23.96	225	200	Peak
2488.00	48.30	2.98	51.28	74.00	-22.72	110	200	Peak
4845.00	38.82	8.02	46.84	74.00	-27.16	173	100	Peak
6810.00	37.22	12.06	49.28	74.00	-24.72	17	100	Peak
10230.00	36.38	15.04	51.42	74.00	-22.58	224	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/13
Test mode	IEEE 802.11gn HT40 TX / CH Middle	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2052.00	47.40	1.91	49.31	74.00	-24.69	258	100	Peak
2390.00	36.10	2.74	38.84	54.00	-15.16	212	100	Average
2390.00	52.44	2.74	55.18	74.00	-18.82	212	100	Peak
2662.00	48.07	3.34	51.41	74.00	-22.59	302	100	Peak
4935.00	38.03	8.09	46.12	74.00	-27.88	266	100	Peak
6810.00	37.30	12.06	49.36	74.00	-24.64	39	200	Peak
9930.00	37.07	14.54	51.61	74.00	-22.39	208	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2140.00	47.30	2.12	49.42	74.00	-24.58	225	200	Peak
2390.00	42.10	2.74	44.84	54.00	-9.16	124	100	Average
2390.00	58.41	2.74	61.15	74.00	-12.85	124	100	Peak
2484.00	40.78	2.97	43.75	54.00	-10.25	137	200	Average
2484.00	54.79	2.97	57.76	74.00	-16.24	137	200	Peak
4410.00	38.96	7.42	46.38	74.00	-27.62	163	100	Peak
6945.00	37.60	12.24	49.84	74.00	-24.16	161	100	Peak
9645.00	37.34	14.14	51.48	74.00	-22.52	90	200	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/13
Test mode	IEEE 802.11gn HT40 TX / CH High	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
4800.00	38.58	7.98	46.56	74.00	-27.44	196	100	Peak
7140.00	37.42	11.99	49.41	74.00	-24.59	348	200	Peak
9975.00	36.44	14.61	51.05	74.00	-22.95	297	200	Peak
2012.00	47.37	1.81	49.18	74.00	-24.82	356	200	Peak
2136.00	48.05	2.11	50.16	74.00	-23.84	74	200	Peak
2510.00	47.79	3.03	50.82	74.00	-23.18	164	100	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
4110.00	39.88	6.36	46.24	74.00	-27.76	340	200	Peak
7170.00	37.32	11.92	49.24	74.00	-24.76	157	100	Peak
9600.00	37.00	14.08	51.08	74.00	-22.92	125	200	Peak
1992.00	49.77	1.71	51.48	74.00	-22.52	141	200	Peak
2360.00	47.31	2.67	49.98	74.00	-24.02	112	100	Peak
2504.00	49.12	3.02	52.14	74.00	-21.86	48	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/18
Test mode	Bluetooth 4.0 / TX mode / CH Low	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1368.00	49.47	-3.00	46.47	74.00	-27.53	345	200	Peak
1650.00	48.02	-1.47	46.55	74.00	-27.45	201	100	Peak
2608.00	47.44	3.23	50.67	74.00	-23.33	197	200	Peak
4800.00	40.42	7.98	48.40	74.00	-25.60	133	100	Peak
7200.00	35.81	11.85	47.66	74.00	-26.34	279	100	Peak
7965.00	36.56	12.35	48.91	74.00	-25.09	39	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1774.00	48.23	-0.32	47.91	74.00	-26.09	102	200	Peak
1988.00	47.60	1.67	49.27	74.00	-24.73	137	100	Peak
2544.00	47.61	3.10	50.71	74.00	-23.29	100	200	Peak
4800.00	42.07	7.98	50.05	74.00	-23.95	124	200	Peak
7200.00	37.00	11.85	48.85	74.00	-25.15	2	100	Peak
12015.00	31.43	19.99	51.42	54.00	-2.58	15	100	Average
12015.00	38.42	19.99	58.41	74.00	-15.59	15	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/18
Test mode	Bluetooth 4.0 / TX mode / CH Middle	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2038.00	47.53	1.87	49.40	74.00	-24.60	59	100	Peak
2368.00	46.97	2.69	49.66	74.00	-24.34	229	100	Peak
2624.00	47.23	3.26	50.49	74.00	-23.51	166	100	Peak
4875.00	40.17	8.04	48.21	74.00	-25.79	134	100	Peak
7320.00	35.72	11.57	47.29	74.00	-26.71	236	200	Peak
9765.00	34.93	14.31	49.24	74.00	-24.76	103	100	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1650.00	48.68	-1.47	47.21	74.00	-26.79	237	200	Peak
2388.00	35.03	2.73	37.76	54.00	-16.24	335	100	Average
2388.00	52.23	2.73	54.96	74.00	-19.04	335	100	Peak
2496.00	47.38	3.00	50.38	74.00	-23.62	73	200	Peak
4875.00	41.44	8.04	49.48	74.00	-24.52	42	100	Peak
7320.00	38.03	11.57	49.60	74.00	-24.40	36	100	Peak
12195.00	30.12	20.12	50.24	54.00	-3.76	0	100	Average
12195.00	37.85	20.12	57.97	74.00	-16.03	0	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/18
Test mode	Bluetooth 4.0 / TX mode / CH High	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1534.00	48.35	-2.54	45.81	74.00	-28.19	13	200	Peak
1798.00	47.76	-0.09	47.67	74.00	-26.33	177	100	Peak
2320.00	47.73	2.57	50.30	74.00	-23.70	47	200	Peak
4965.00	40.65	8.11	48.76	74.00	-25.24	238	100	Peak
7440.00	36.36	11.30	47.66	74.00	-26.34	176	100	Peak
9915.00	36.03	14.52	50.55	74.00	-23.45	117	100	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1466.00	48.58	-2.90	45.68	74.00	-28.32	322	200	Peak
1700.00	47.81	-1.00	46.81	74.00	-27.19	262	200	Peak
2358.00	47.47	2.66	50.13	74.00	-23.87	237	200	Peak
4965.00	44.38	8.11	52.49	74.00	-21.51	158	100	Peak
7440.00	37.47	11.30	48.77	74.00	-25.23	324	100	Peak
9915.00	34.81	14.52	49.33	74.00	-24.67	136	200	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/18
Test mode	Zigbee / TX / CH Low	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1842.00	60.02	47.20	0.31	60.34	47.51	74.00	54.00	-6.49	AVG
2190.00	59.54	46.91	2.25	61.79	49.16	74.00	54.00	-4.84	AVG
2510.00	58.75	46.73	3.03	61.78	49.76	74.00	54.00	-4.24	AVG
3210.00	42.47	---	4.45	46.92	---	74.00	54.00	-7.08	Peak
4815.00	41.70	---	7.99	49.69	---	74.00	54.00	-4.31	Peak
6975.00	39.84	---	12.28	52.12	---	74.00	54.00	-1.88	Peak

966Chamber_B at 3Meter / Vertical									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1518.00	59.85	47.85	-2.69	57.16	45.16	74.00	54.00	-8.85	AVG
2252.00	59.31	46.85	2.40	61.71	49.25	74.00	54.00	-4.75	AVG
2492.00	58.96	46.89	2.99	61.95	49.88	74.00	54.00	-4.12	AVG
3270.00	42.71	---	4.57	47.28	---	74.00	54.00	-6.72	Peak
4815.00	46.82	38.31	7.99	54.81	46.30	74.00	54.00	-7.70	AVG
7215.00	40.44	---	11.82	52.25	---	74.00	54.00	-1.75	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/18
Test mode	Zigbee / TX / CH Middle	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1938.00	60.49	47.21	1.20	61.69	48.41	74.00	54.00	-5.58	AVG
2380.00	60.31	47.02	2.71	63.02	49.73	74.00	54.00	-4.26	AVG
2522.00	59.05	46.58	3.05	62.10	49.63	74.00	54.00	-4.36	AVG
3240.00	43.24	---	4.51	47.75	---	74.00	54.00	-6.25	Peak
4785.00	40.49	---	7.97	48.45	---	74.00	54.00	-5.55	Peak
7320.00	40.07	---	11.57	51.65	---	74.00	54.00	-2.35	Peak

966Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
2028.00	59.64	46.95	1.85	61.49	48.80	74.00	54.00	-5.20	AVG
2344.00	58.96	46.77	2.63	61.59	49.40	74.00	54.00	-4.60	AVG
2496.00	59.67	46.78	3.00	62.67	49.78	74.00	54.00	-4.22	AVG
3345.00	41.96	---	4.72	46.68	---	74.00	54.00	-7.32	Peak
4875.00	48.51	40.16	8.04	56.55	48.20	74.00	54.00	-5.80	AVG
7320.00	42.35	33.19	11.57	53.93	44.76	74.00	54.00	-9.24	AVG

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/18
Test mode	Zigbee / TX / CH High	Temp. & Humidity	25°C, 50%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1974.00	60.14	47.09	1.54	61.68	48.63	74.00	54.00	-5.37	AVG
2360.00	58.94	46.78	2.67	61.60	49.45	74.00	54.00	-4.55	AVG
2520.00	58.91	46.79	3.05	61.97	49.84	74.00	54.00	-4.16	AVG
3285.00	41.43	---	4.60	46.03	---	74.00	54.00	-7.97	Peak
4875.00	39.77	---	8.04	47.81	---	74.00	54.00	-6.19	Peak
7125.00	39.02	---	12.02	51.04	---	74.00	54.00	-2.96	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
2040.00	59.66	47.00	1.88	61.54	48.88	74.00	54.00	-5.12	AVG
2272.00	59.57	46.90	2.45	62.02	49.35	74.00	54.00	-4.65	AVG
2556.00	59.27	46.56	3.12	62.39	49.68	74.00	54.00	-4.32	AVG
3210.00	41.70	---	4.45	46.15	---	74.00	54.00	-7.85	Peak
4950.00	44.37	---	8.10	52.47	---	74.00	54.00	-1.53	Peak
7155.00	38.89	---	11.95	50.84	---	74.00	54.00	-3.16	Peak

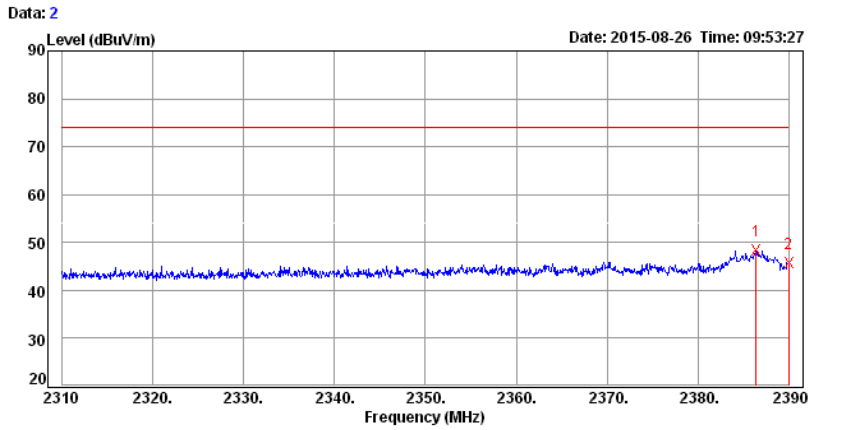
Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Restricted Band Edges

Detector mode: Peak **Polarity: Horizontal**

CH Low (IEEE 802.11b mode)

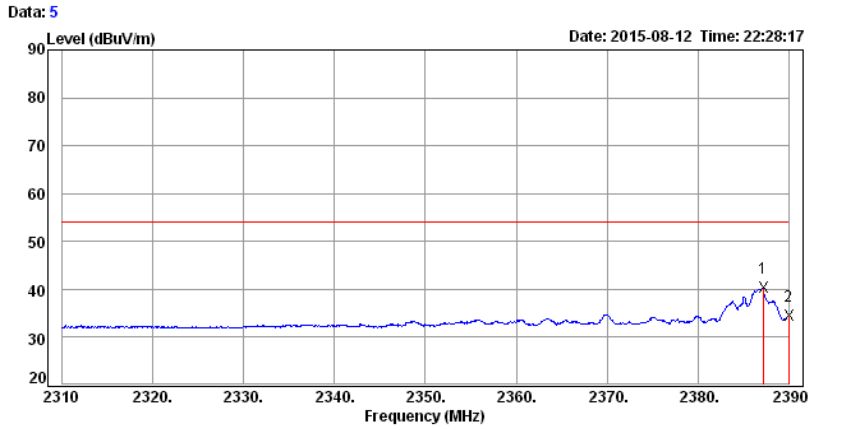


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2386.40	45.53	2.73	48.26	74.00	-25.74	201	100	Peak
2390.00	42.86	2.74	45.60	74.00	-28.40	201	100	Peak

Detector mode: Average **Polarity: Horizontal**

CH Low (IEEE 802.11b mode)

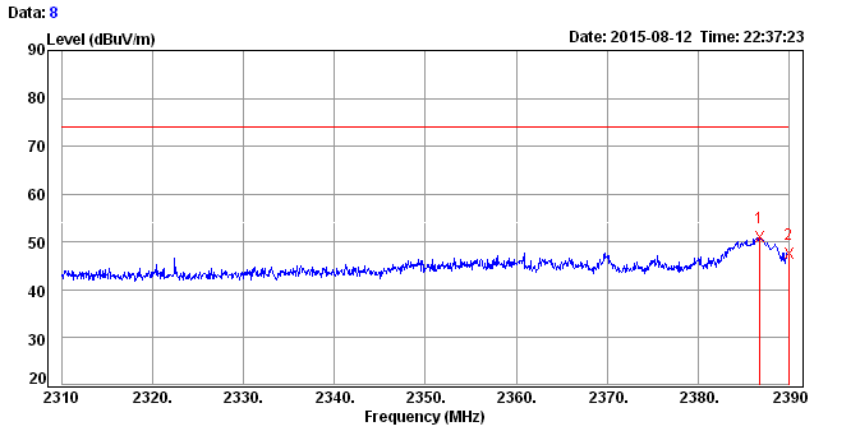


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2387.20	37.55	2.73	40.28	54.00	-13.72	201	100	Average
2390.00	31.75	2.74	34.49	54.00	-19.51	201	100	Average

Detector mode: Peak **Polarity: Vertical**

CH Low (IEEE 802.11b mode)

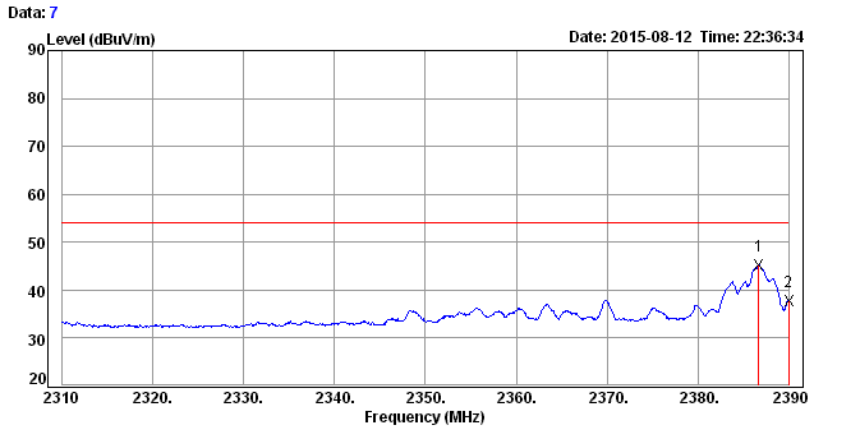


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2386.80	48.36	2.73	51.09	74.00	-22.91	350	100	Peak
2390.00	44.71	2.74	47.45	74.00	-26.55	350	100	Peak

Detector mode: Average **Polarity: Vertical**

CH Low (IEEE 802.11b mode)

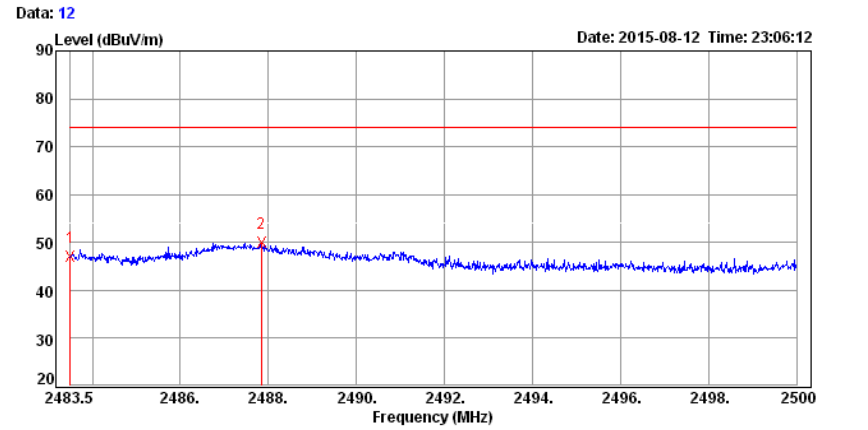


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2386.72	42.50	2.73	45.23	54.00	-8.77	350	100	Average
2390.00	35.04	2.74	37.78	54.00	-16.22	350	100	Average

Detector mode: Peak **Polarity: Horizontal**

CH High (IEEE 802.11b mode)

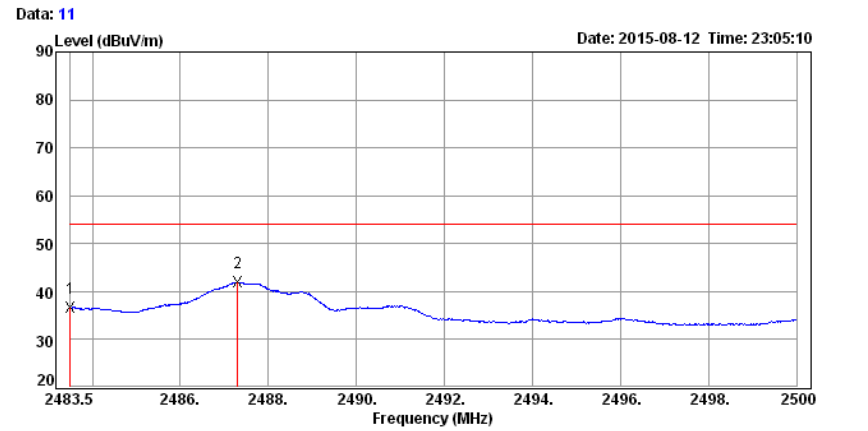


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	43.94	2.97	46.91	74.00	-27.09	200	220	Peak
2487.84	46.97	2.98	49.95	74.00	-24.05	200	220	Peak

Detector mode: Average **Polarity: Horizontal**

CH High (IEEE 802.11b mode)

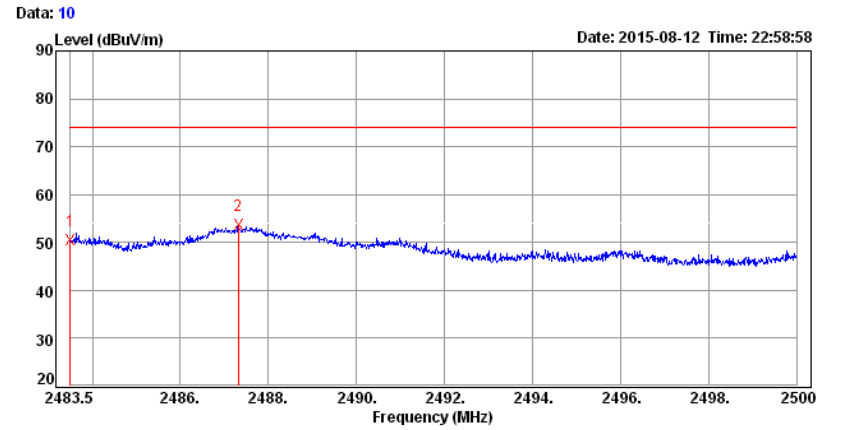


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	33.67	2.97	36.64	54.00	-17.36	200	220	Average
2487.30	39.00	2.98	41.98	54.00	-12.02	200	220	Average

Detector mode: Peak **Polarity: Vertical**

CH High (IEEE 802.11b mode)

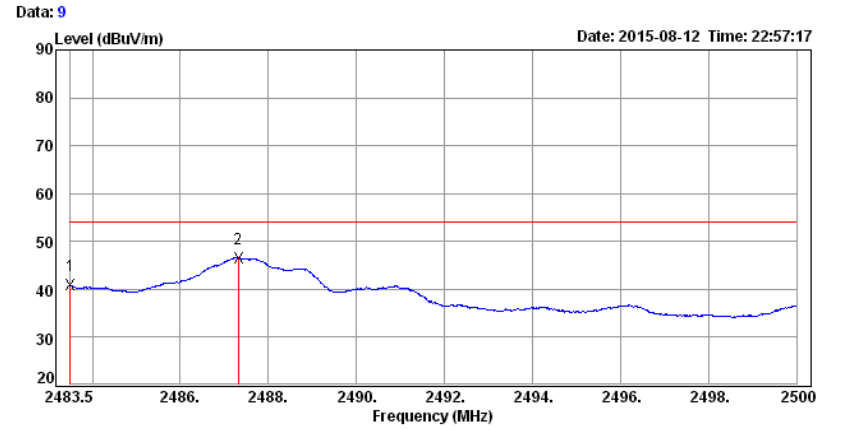


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	47.49	2.97	50.46	74.00	-23.54	326	100	Peak
2487.31	50.77	2.98	53.75	74.00	-20.25	326	100	Peak

Detector mode: Average **Polarity: Vertical**

CH High (IEEE 802.11b mode)

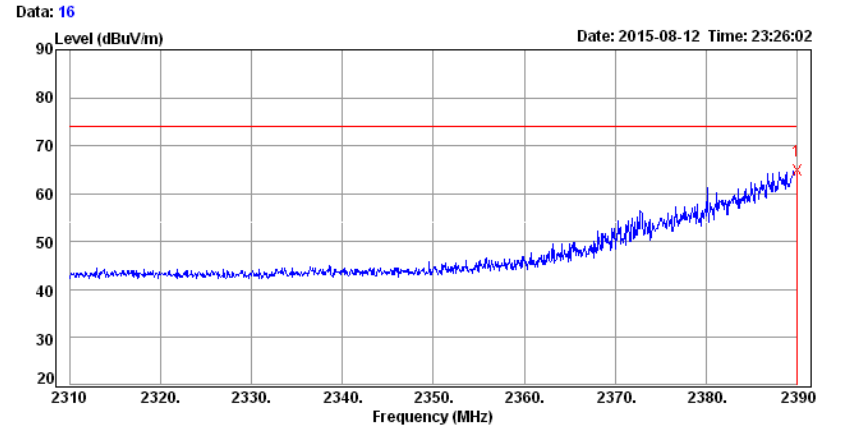


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	37.81	2.97	40.78	54.00	-13.22	326	100	Average
2487.31	43.59	2.98	46.57	54.00	-7.43	326	100	Average

Detector mode: Peak **Polarity: Horizontal**

CH Low (IEEE 802.11g mode)

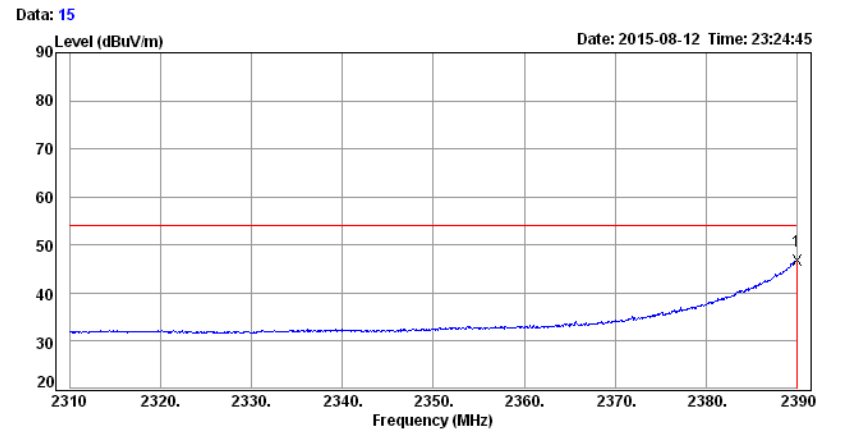


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2390.00	62.05	2.74	64.79	74.00	-9.21	155	100	Peak

Detector mode: Average **Polarity: Horizontal**

CH Low (IEEE 802.11g mode)

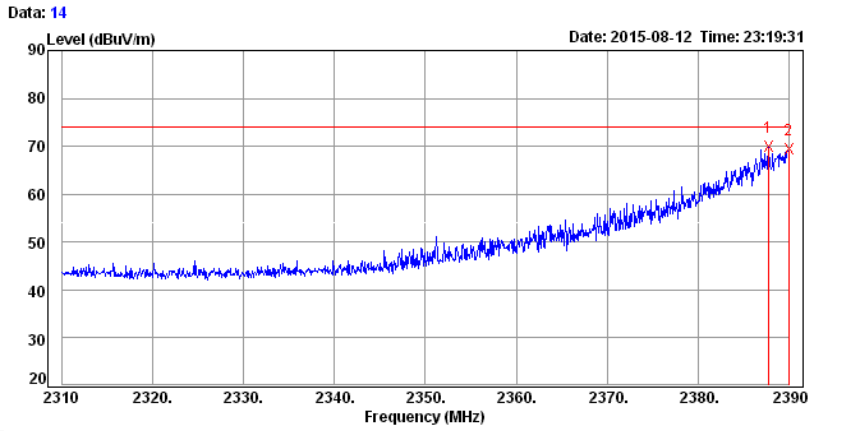


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2390.00	44.00	2.74	46.74	54.00	-7.26	155	100	Average

Detector mode: Peak **Polarity: Vertical**

CH Low (IEEE 802.11g mode)

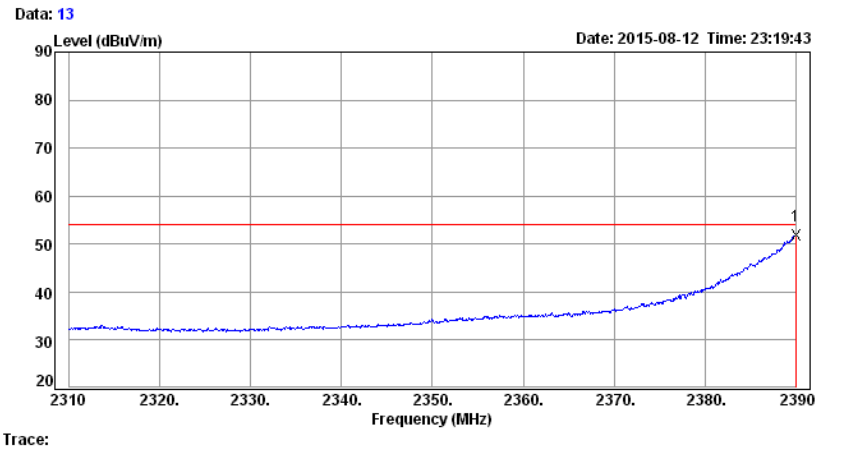


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2387.76	67.17	2.73	69.90	74.00	-4.10	346	137	Peak
2390.00	66.52	2.74	69.26	74.00	-4.74	346	137	Peak

Detector mode: Average **Polarity: Vertical**

CH Low (IEEE 802.11g mode)

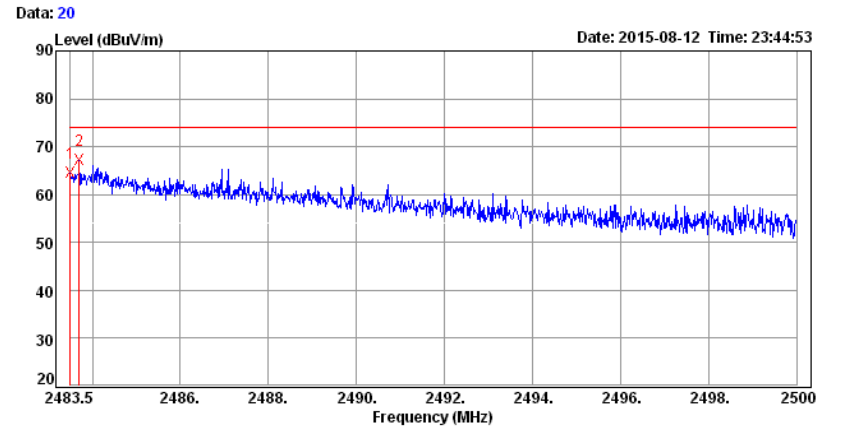


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2390.00	48.99	2.74	51.73	54.00	-2.27	346	137	Average

Detector mode: Peak **Polarity: Horizontal**

CH High (IEEE 802.11g mode)

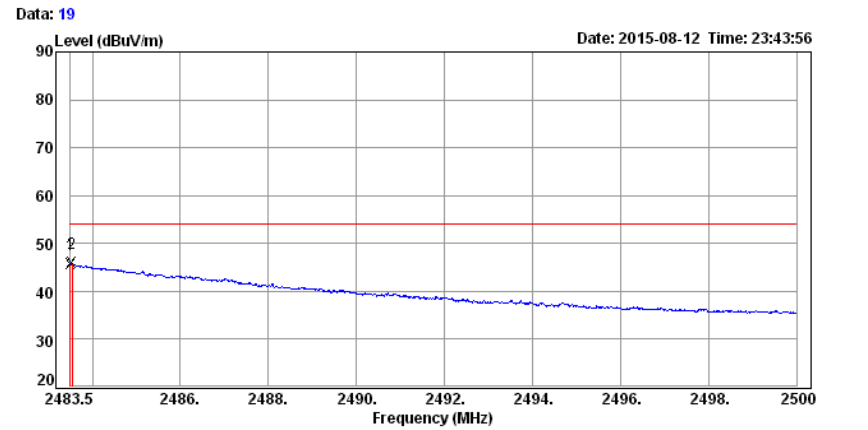


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	61.52	2.97	64.49	74.00	-9.51	196	131	Peak
2483.70	64.16	2.97	67.13	74.00	-6.87	196	131	Peak

Detector mode: Average **Polarity: Horizontal**

CH High (IEEE 802.11g mode)

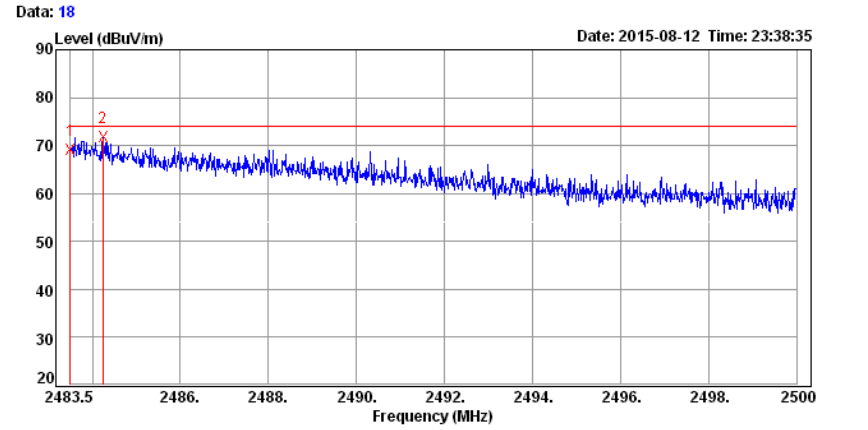


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	42.71	2.97	45.68	54.00	-8.32	196	131	Average
2483.53	42.97	2.97	45.94	54.00	-8.06	196	131	Average

Detector mode: Peak **Polarity: Vertical**

CH High (IEEE 802.11g mode)

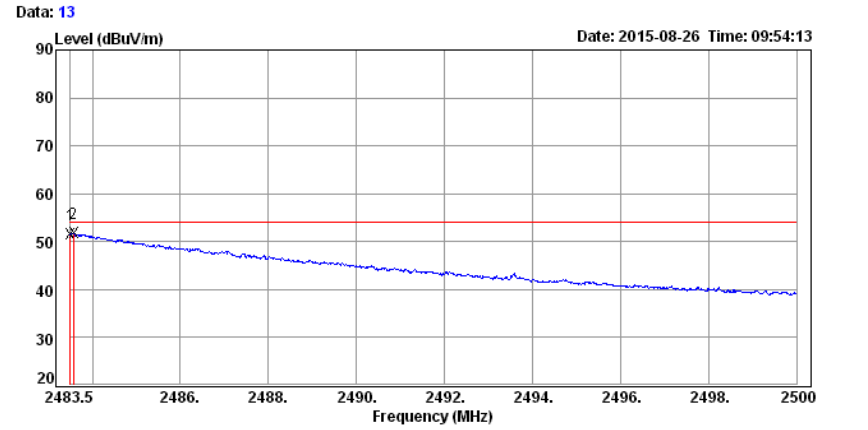


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	66.14	2.97	69.11	74.00	-4.89	356	100	Peak
2484.24	68.77	2.97	71.74	74.00	-2.26	356	100	Peak

Detector mode: Average **Polarity: Vertical**

CH High (IEEE 802.11g mode)

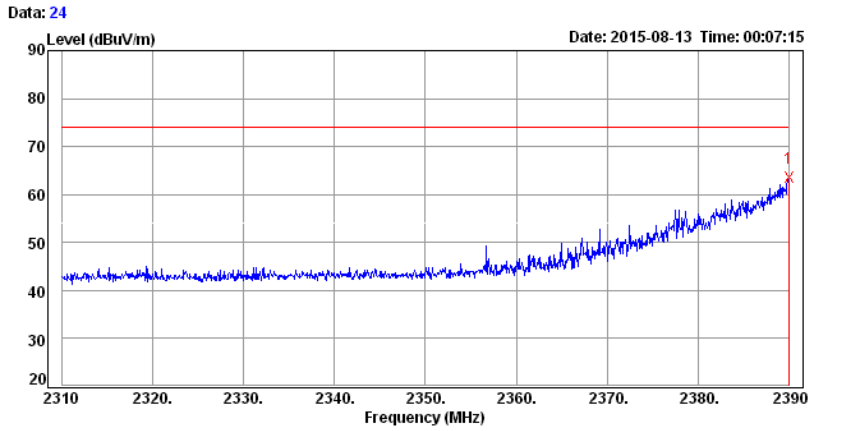


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	48.54	2.97	51.51	54.00	-2.49	356	100	Average
2483.57	48.74	2.97	51.71	54.00	-2.29	356	100	Average

Detector mode: Peak **Polarity: Horizontal**

CH Low (IEEE 802.11gn HT20 mode)

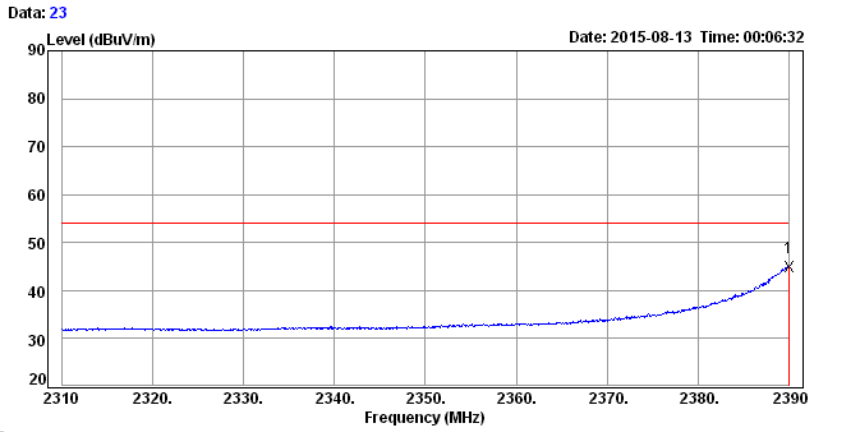


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2390.00	60.66	2.74	63.40	74.00	-10.60	202	100	Peak

Detector mode: Average **Polarity: Horizontal**

CH Low (IEEE 802.11gn HT20 mode)

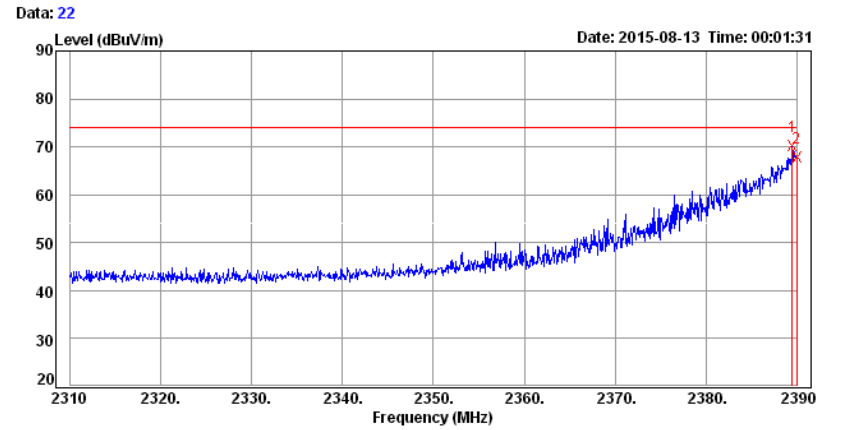


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2390.00	42.26	2.74	45.00	54.00	-9.00	202	100	Average

Detector mode: Peak **Polarity: Vertical**

CH Low (IEEE 802.11gn HT20 mode)

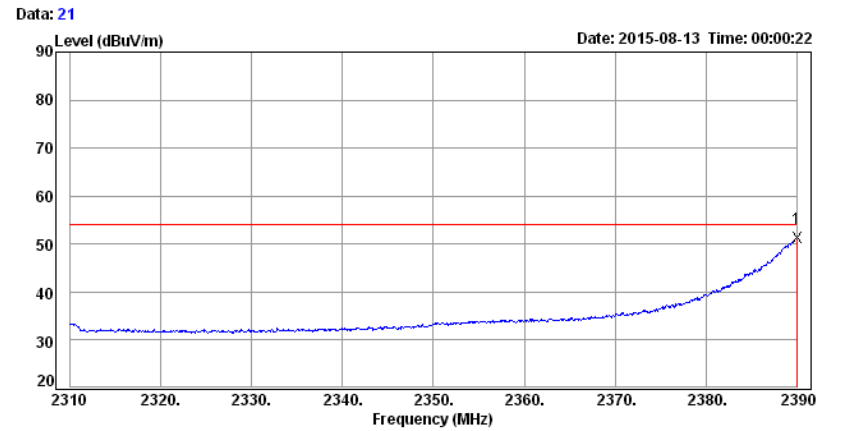


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2389.52	67.37	2.74	70.11	74.00	-3.89	336	137	Peak
2390.00	65.15	2.74	67.89	74.00	-6.11	336	137	Peak

Detector mode: Average **Polarity: Vertical**

CH Low (IEEE 802.11gn HT20 mode)

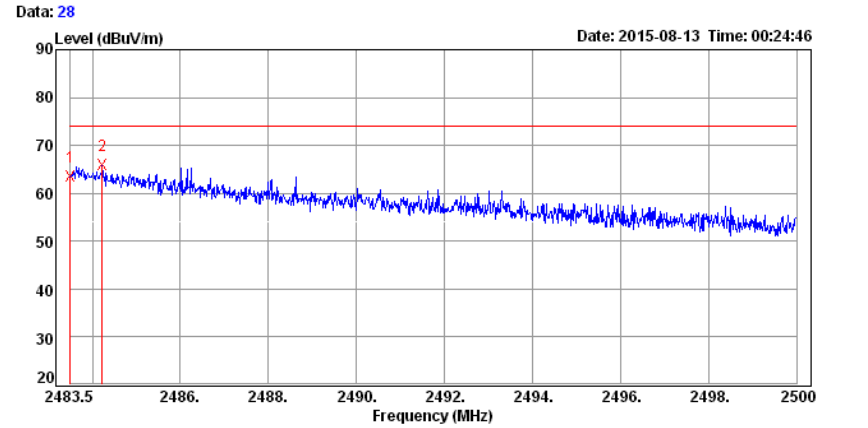


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2390.00	48.52	2.74	51.26	54.00	-2.74	336	137	Average

Detector mode: Peak **Polarity: Horizontal**

CH High (IEEE 802.11gn HT20 mode)

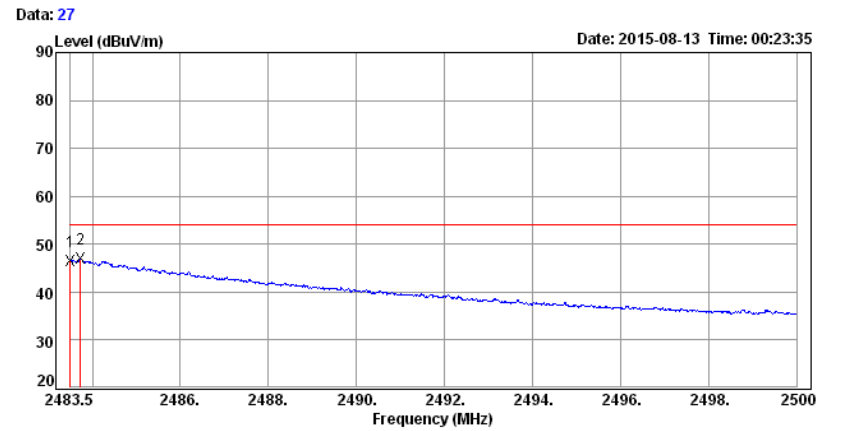


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	60.51	2.97	63.48	74.00	-10.52	196	128	Peak
2484.23	62.86	2.97	65.83	74.00	-8.17	196	128	Peak

Detector mode: Average **Polarity: Horizontal**

CH High (IEEE 802.11gn HT20 mode)

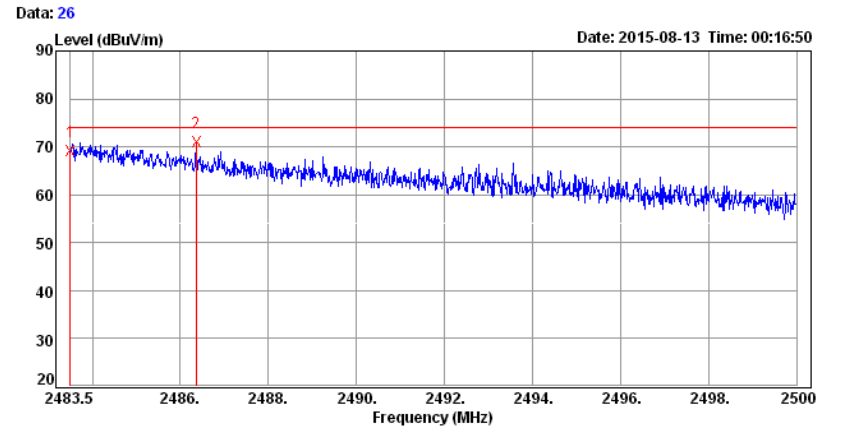


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	43.64	2.97	46.61	54.00	-7.39	196	128	Average
2483.73	43.98	2.97	46.95	54.00	-7.05	196	128	Average

Detector mode: Peak **Polarity: Vertical**

CH High (IEEE 802.11gn HT20 mode)

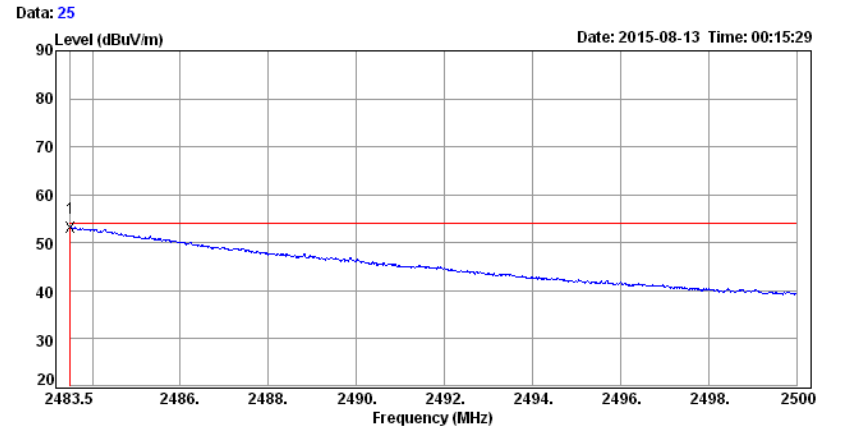


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	66.03	2.97	69.00	74.00	-5.00	336	100	Peak
2486.35	68.11	2.98	71.09	74.00	-2.91	336	100	Peak

Detector mode: Average **Polarity: Vertical**

CH High (IEEE 802.11gn HT20 mode)

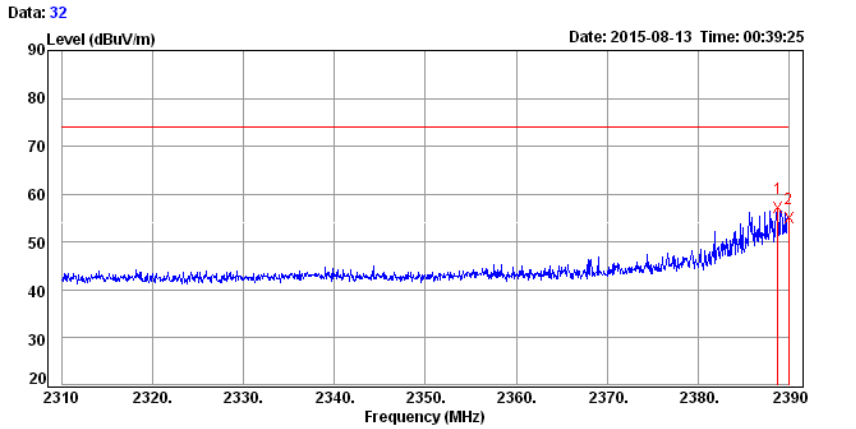


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	50.24	2.97	53.21	54.00	-0.79	336	100	Average

Detector mode: Peak **Polarity: Horizontal**

CH Low (IEEE 802.11gn HT40 mode)

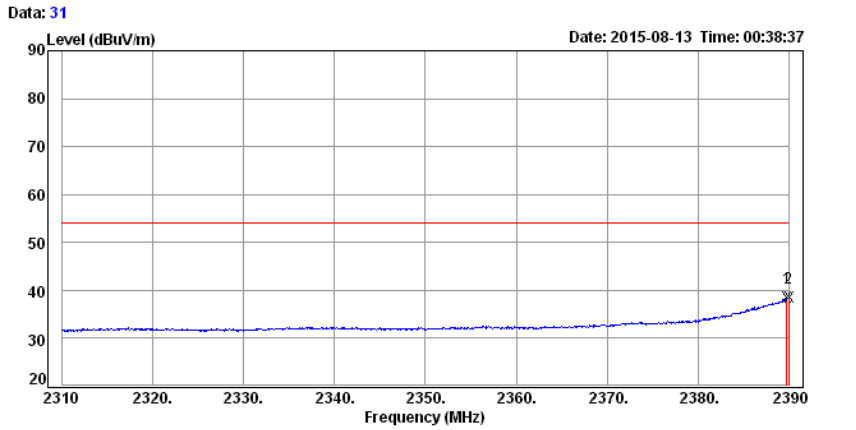


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2388.80	54.52	2.74	57.26	74.00	-16.74	202	100	Peak
2390.00	52.31	2.74	55.05	74.00	-18.95	202	100	Peak

Detector mode: Average **Polarity: Horizontal**

CH Low (IEEE 802.11gn HT40 mode)

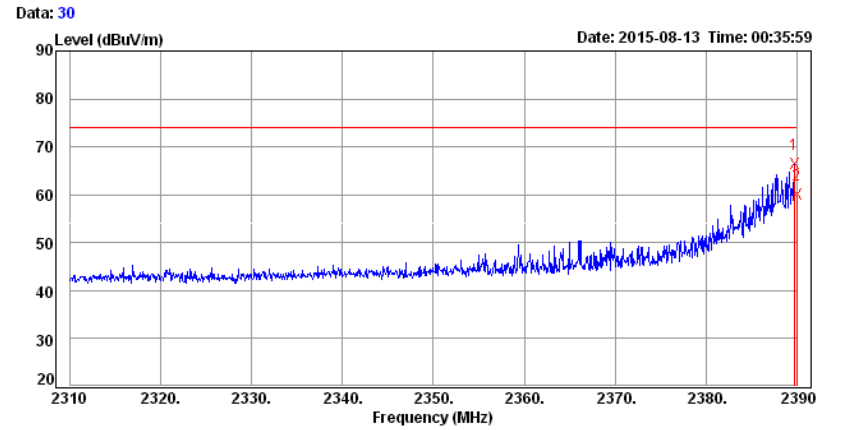


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2389.84	35.68	2.74	38.42	54.00	-15.58	202	100	Average
2390.00	35.67	2.74	38.41	54.00	-15.59	202	100	Average

Detector mode: Peak **Polarity: Vertical**

CH Low (IEEE 802.11gn HT40 mode)

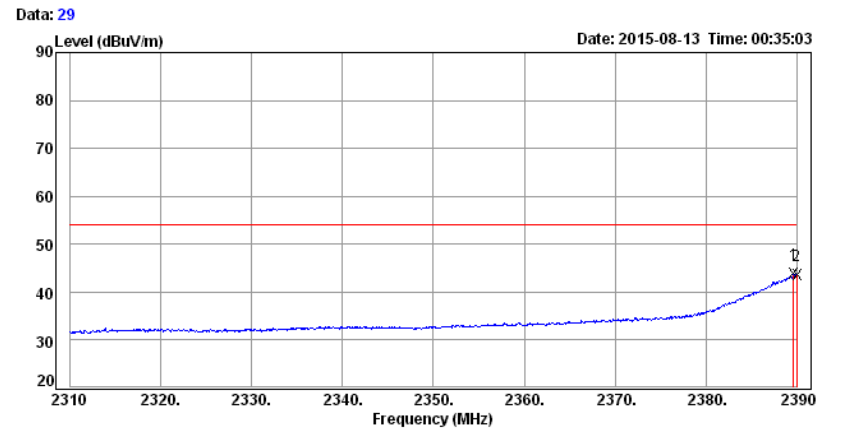


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2389.76	63.68	2.74	66.42	74.00	-7.58	344	135	Peak
2390.00	57.30	2.74	60.04	74.00	-13.96	344	135	Peak

Detector mode: Average **Polarity: Vertical**

CH Low (IEEE 802.11gn HT40 mode)

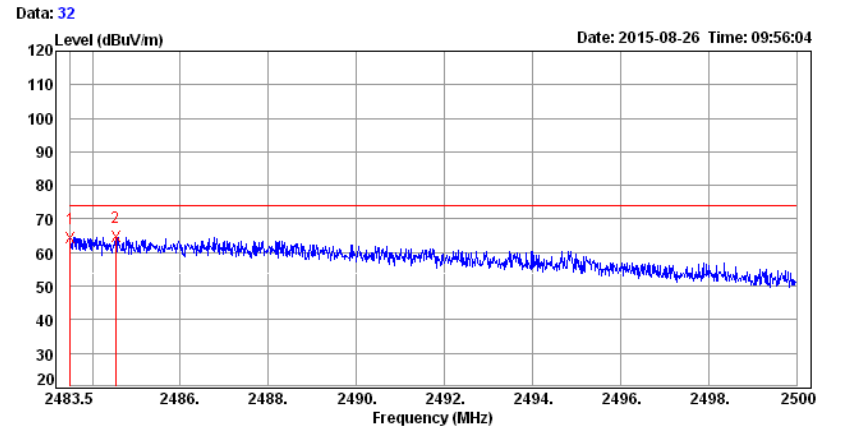


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2389.68	40.99	2.74	43.73	54.00	-10.27	344	135	Average
2390.00	40.82	2.74	43.56	54.00	-10.44	344	135	Average

Detector mode: Peak **Polarity: Horizontal**

CH High (IEEE 802.11gn HT40 mode)

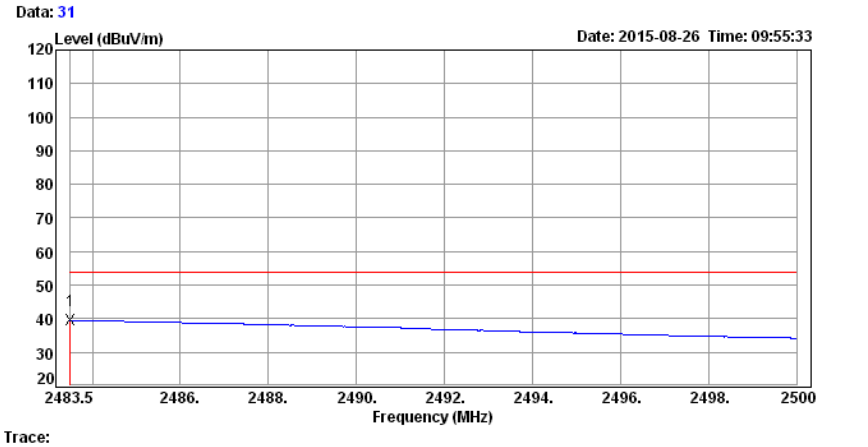


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	61.18	2.97	64.15	74.00	-9.85	176	100	Peak
2484.52	61.71	2.97	64.68	74.00	-9.32	176	100	Peak

Detector mode: Average **Polarity: Horizontal**

CH High (IEEE 802.11gn HT40 mode)

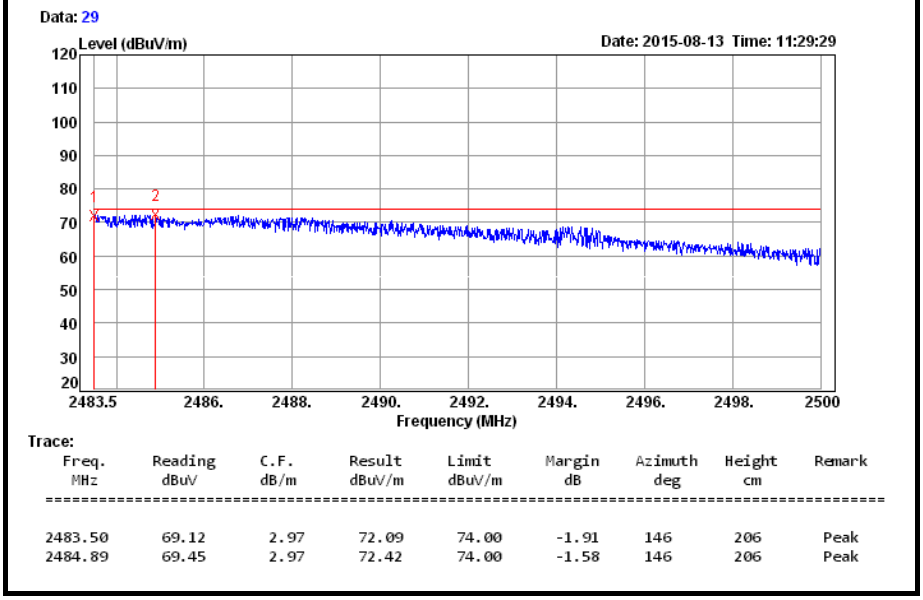


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	36.60	2.97	39.57	54.00	-14.43	176	100	Average

Detector mode: Peak **Polarity: Vertical**

CH High (IEEE 802.11gn HT40 mode)

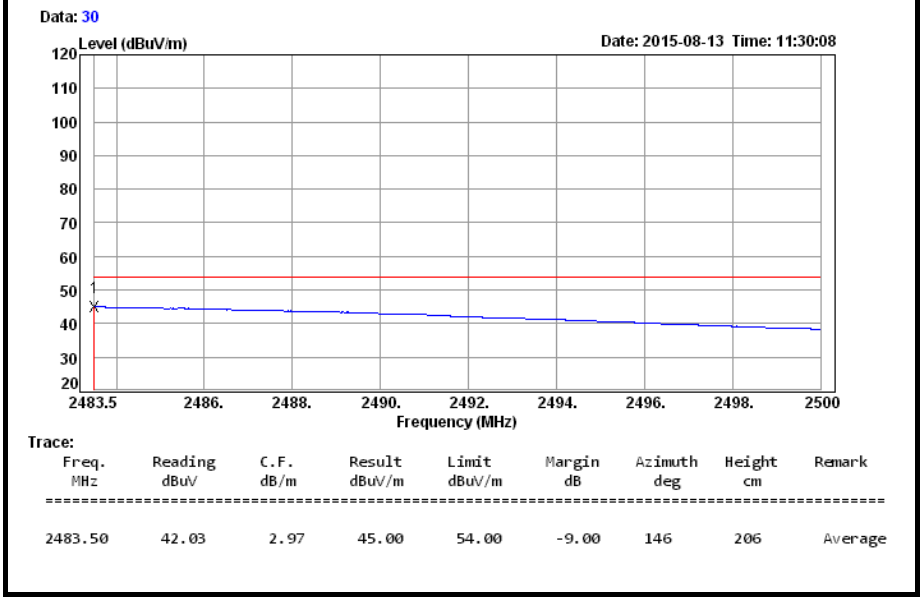


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	69.12	2.97	72.09	74.00	-1.91	146	206	Peak
2484.89	69.45	2.97	72.42	74.00	-1.58	146	206	Peak

Detector mode: Average **Polarity: Vertical**

CH High (IEEE 802.11gn HT40 mode)

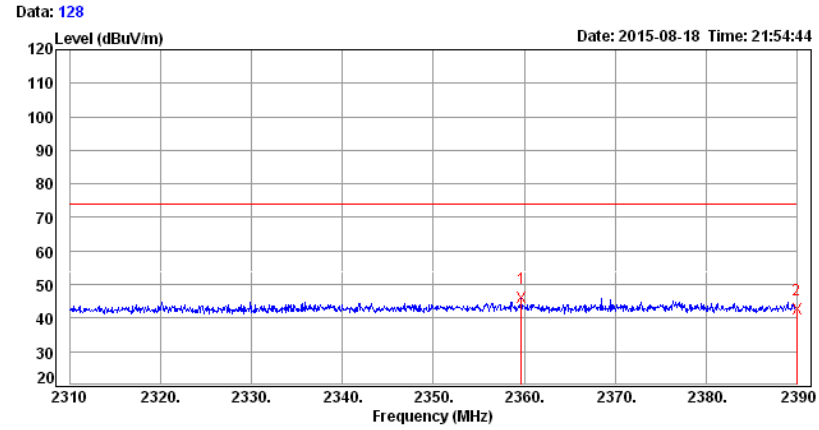


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	42.03	2.97	45.00	54.00	-9.00	146	206	Average

Detector mode: Peak **Polarity: Horizontal**

CH Low (Bluetooth 4.0)

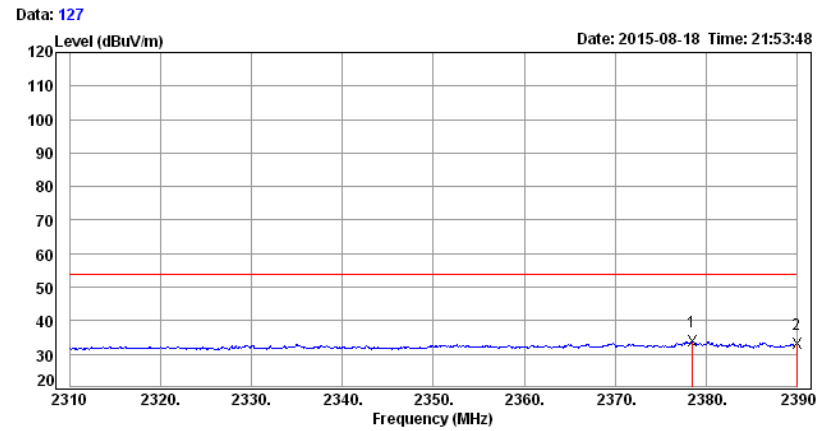


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2359.68	43.24	2.66	45.90	74.00	-28.10	125	100	Peak
2390.00	39.73	2.74	42.47	74.00	-31.53	125	100	Peak

Detector mode: Average **Polarity: Horizontal**

CH Low (Bluetooth 4.0)

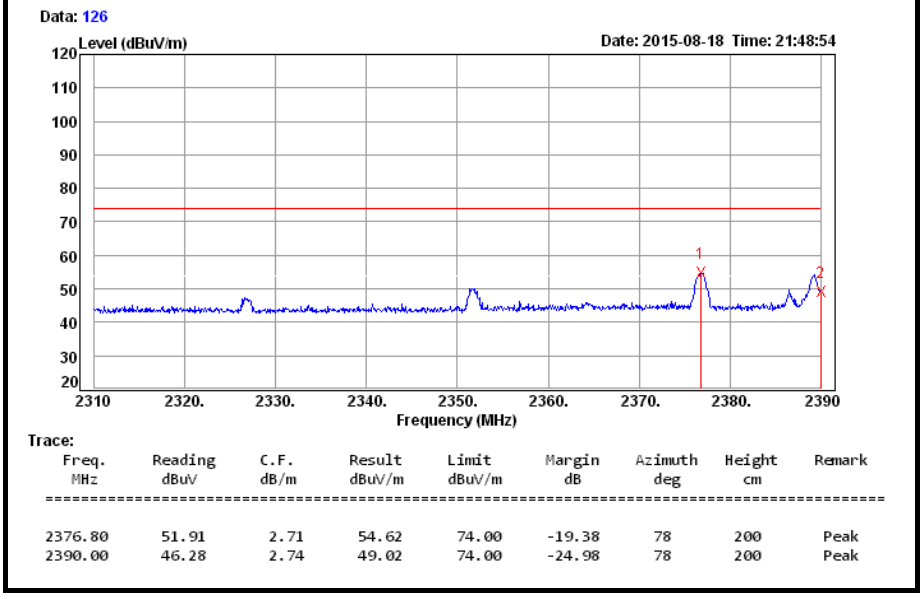


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2378.48	31.11	2.71	33.82	54.00	-20.18	125	100	Average
2390.00	30.27	2.74	33.01	54.00	-20.99	125	100	Average

Detector mode: Peak **Polarity: Vertical**

CH Low (Bluetooth 4.0)

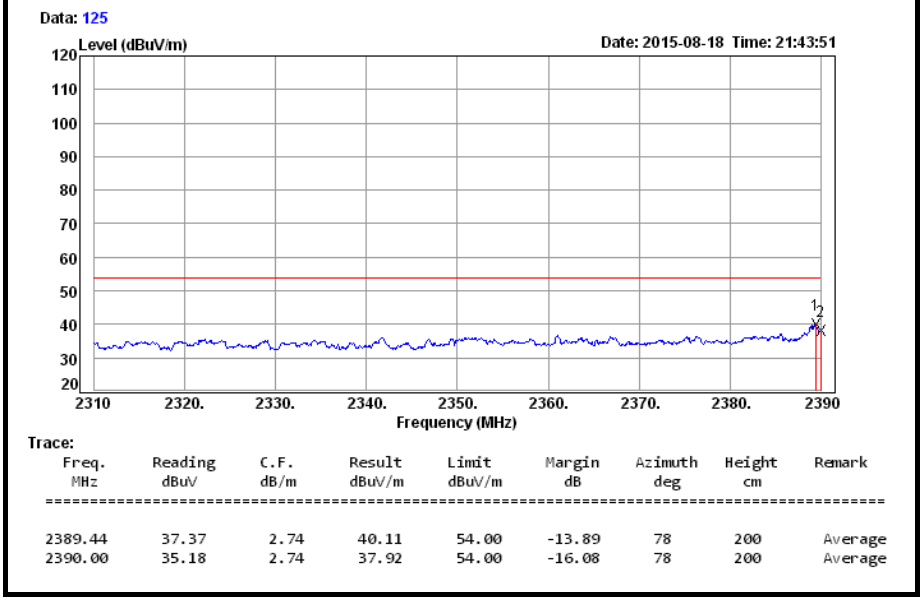


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2376.80	51.91	2.71	54.62	74.00	-19.38	78	200	Peak
2390.00	46.28	2.74	49.02	74.00	-24.98	78	200	Peak

Detector mode: Average **Polarity: Vertical**

CH Low (Bluetooth 4.0)

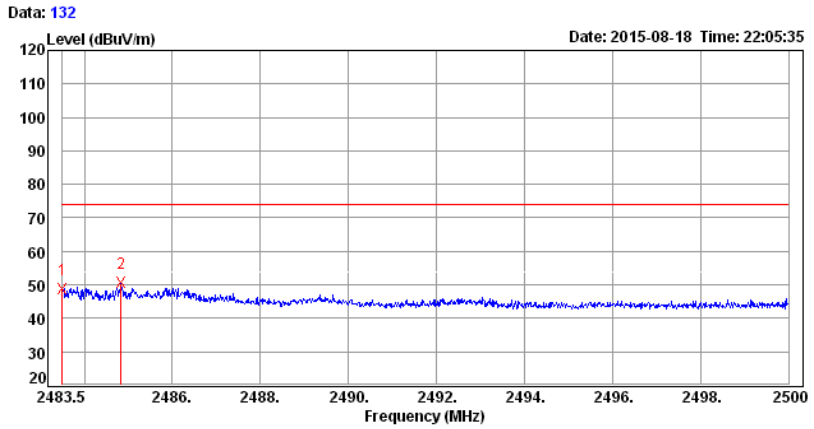


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2389.44	37.37	2.74	40.11	54.00	-13.89	78	200	Average
2390.00	35.18	2.74	37.92	54.00	-16.08	78	200	Average

Detector mode: Peak **Polarity: Horizontal**

CH High (Bluetooth 4.0)

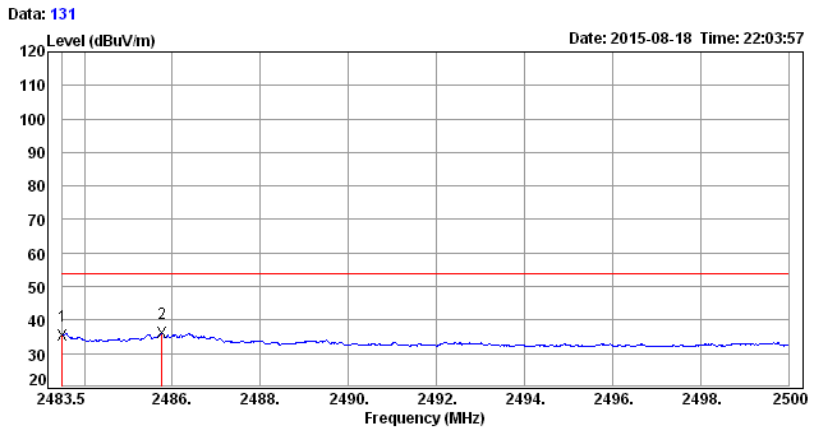


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	45.74	2.97	48.71	74.00	-25.29	192	100	Peak
2484.84	47.51	2.97	50.48	74.00	-23.52	192	100	Peak

Detector mode: Average **Polarity: Horizontal**

CH High (Bluetooth 4.0)

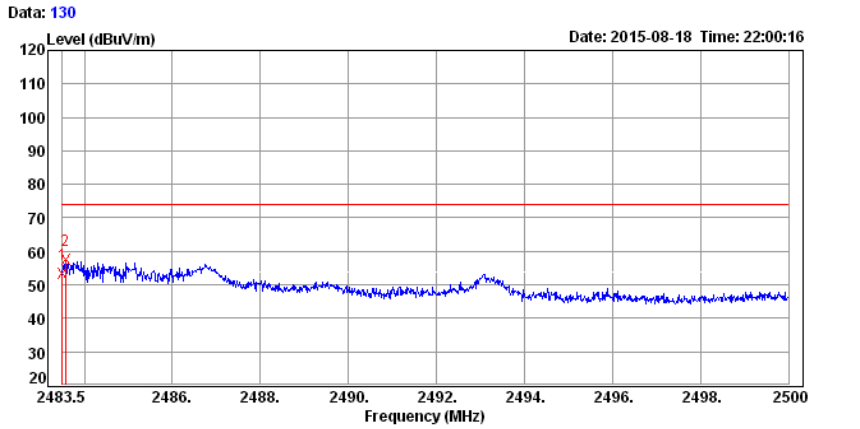


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	32.48	2.97	35.45	54.00	-18.55	192	100	Average
2485.76	33.02	2.97	35.99	54.00	-18.01	192	100	Average

Detector mode: Peak **Polarity: Vertical**

CH High (Bluetooth 4.0)

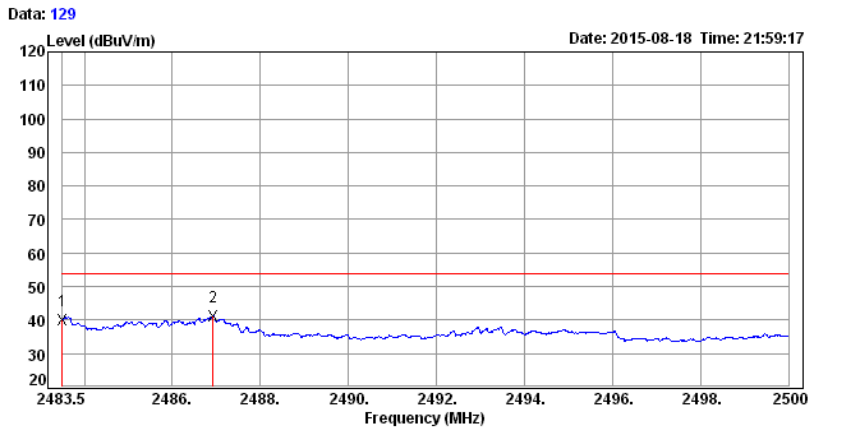


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	50.16	2.97	53.13	74.00	-20.87	124	200	Peak
2483.57	54.53	2.97	57.50	74.00	-16.50	124	200	Peak

Detector mode: Average **Polarity: Vertical**

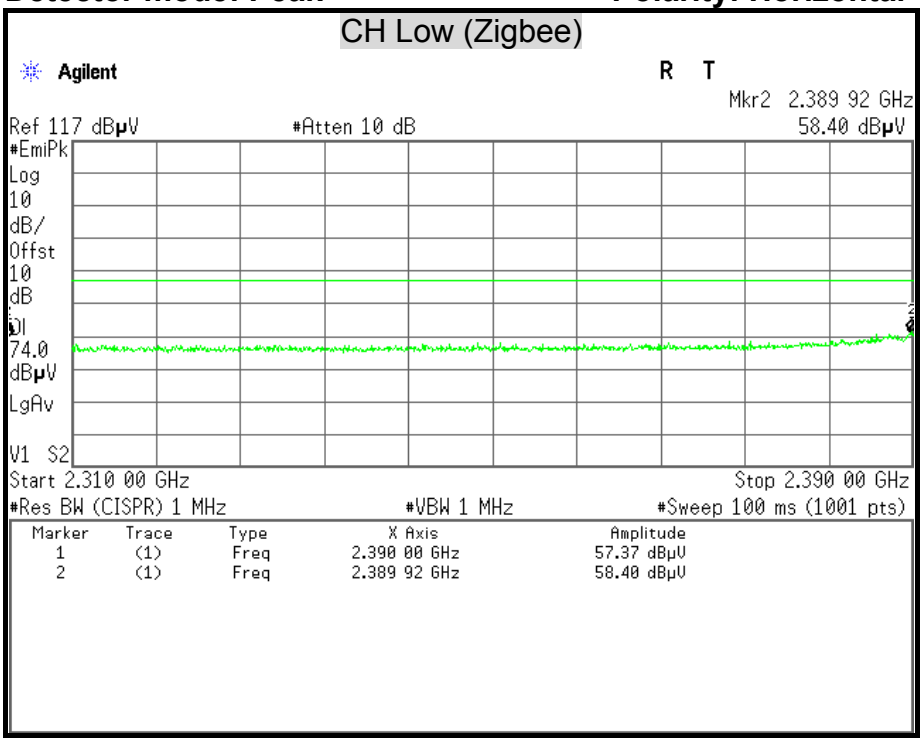
CH High (Bluetooth 4.0)



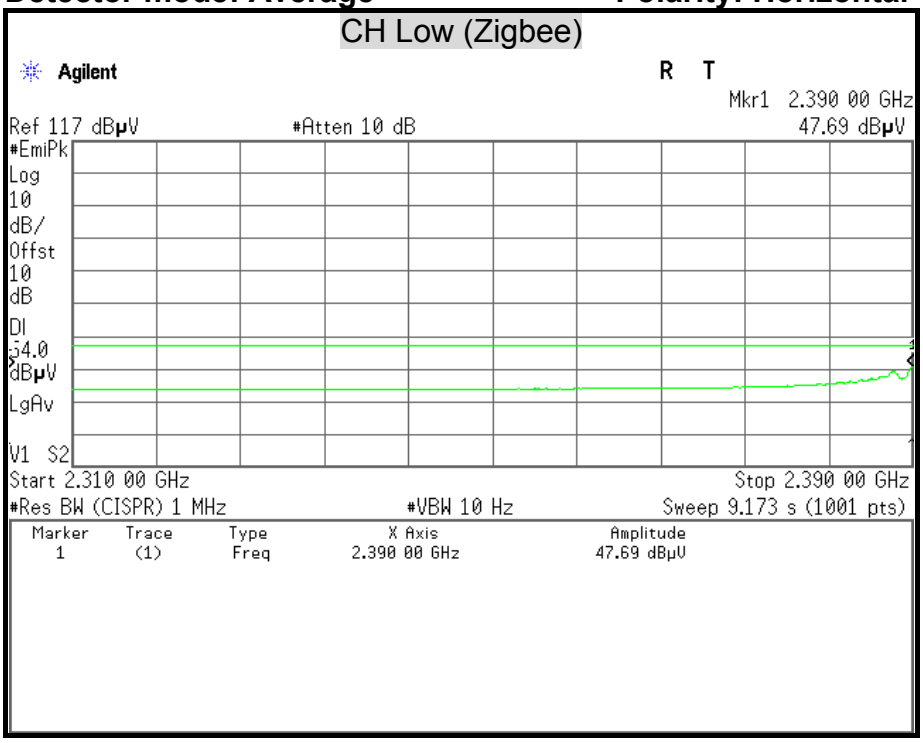
Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	37.08	2.97	40.05	54.00	-13.95	124	200	Average
2486.92	38.30	2.98	41.28	54.00	-12.72	124	200	Average

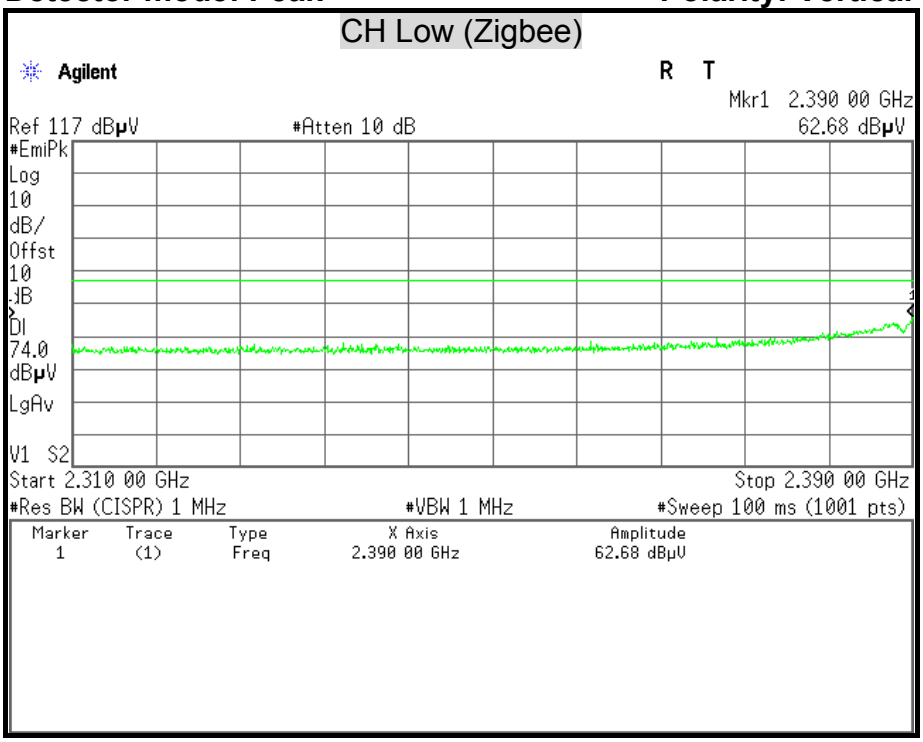
Detector mode: Peak **Polarity: Horizontal**



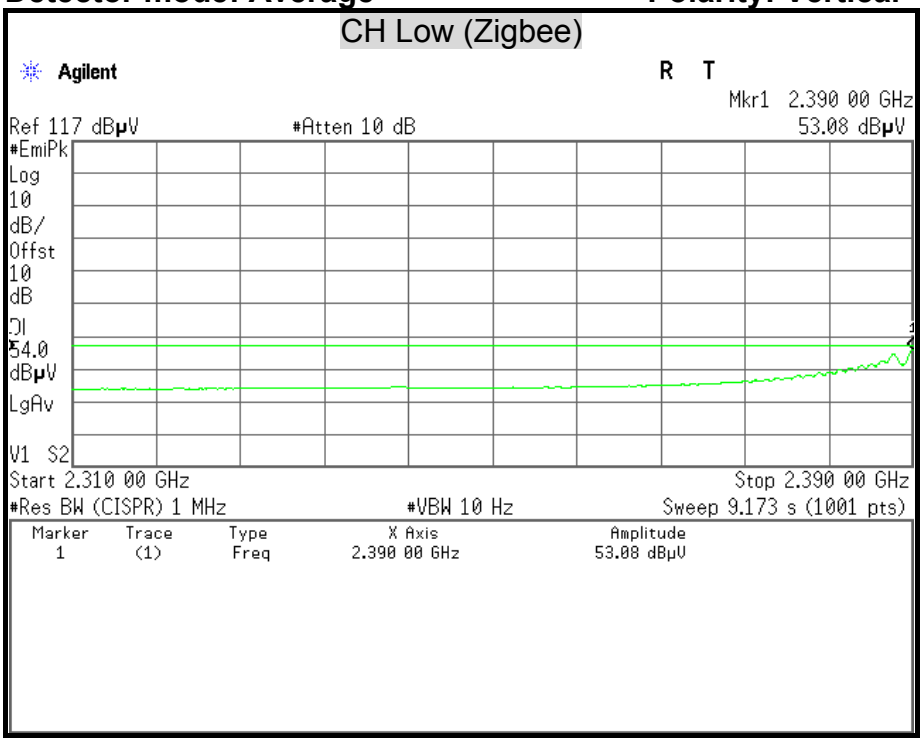
Detector mode: Average **Polarity: Horizontal**



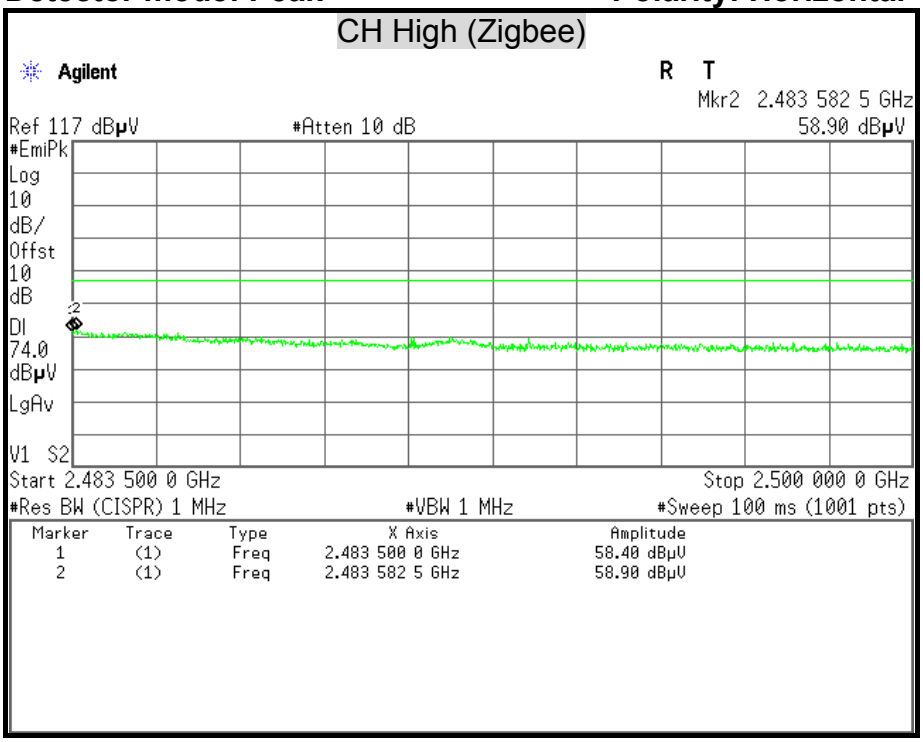
Detector mode: Peak **Polarity: Vertical**



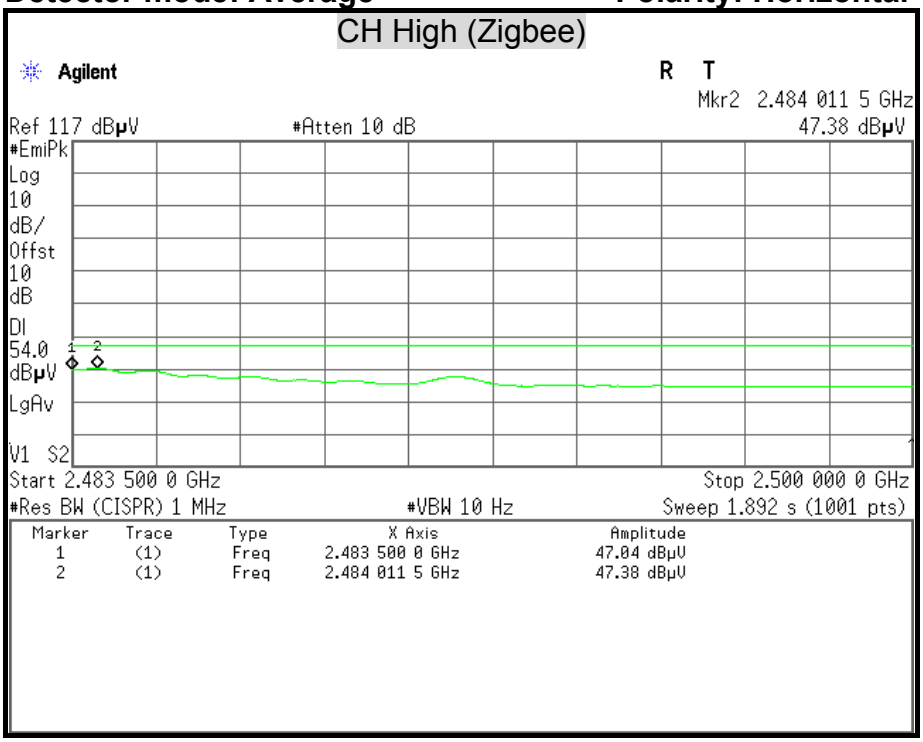
Detector mode: Average **Polarity: Vertical**



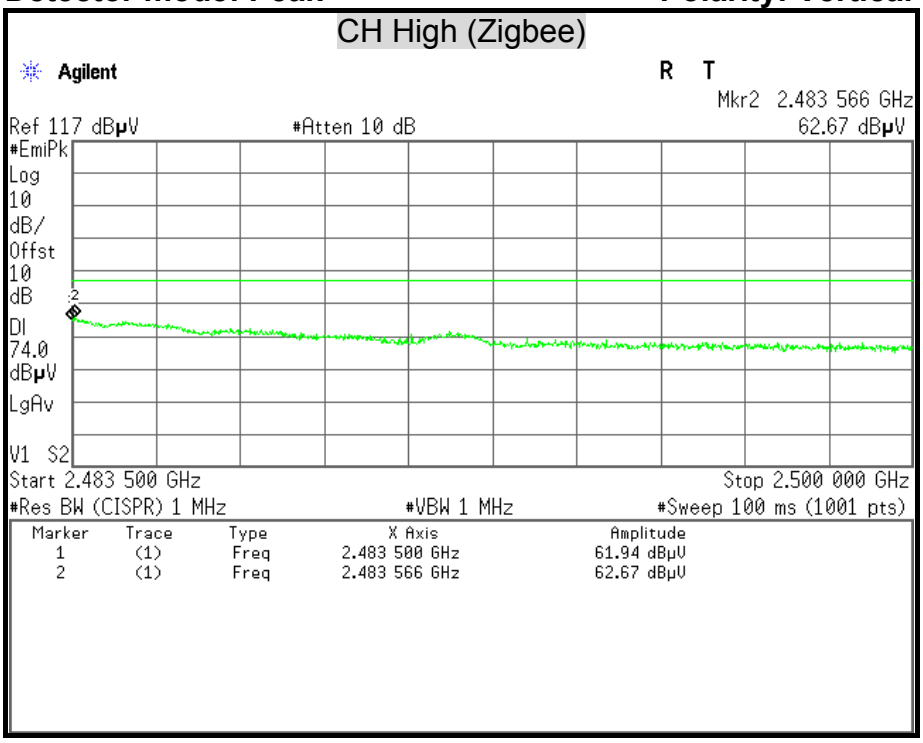
Detector mode: Peak **Polarity: Horizontal**



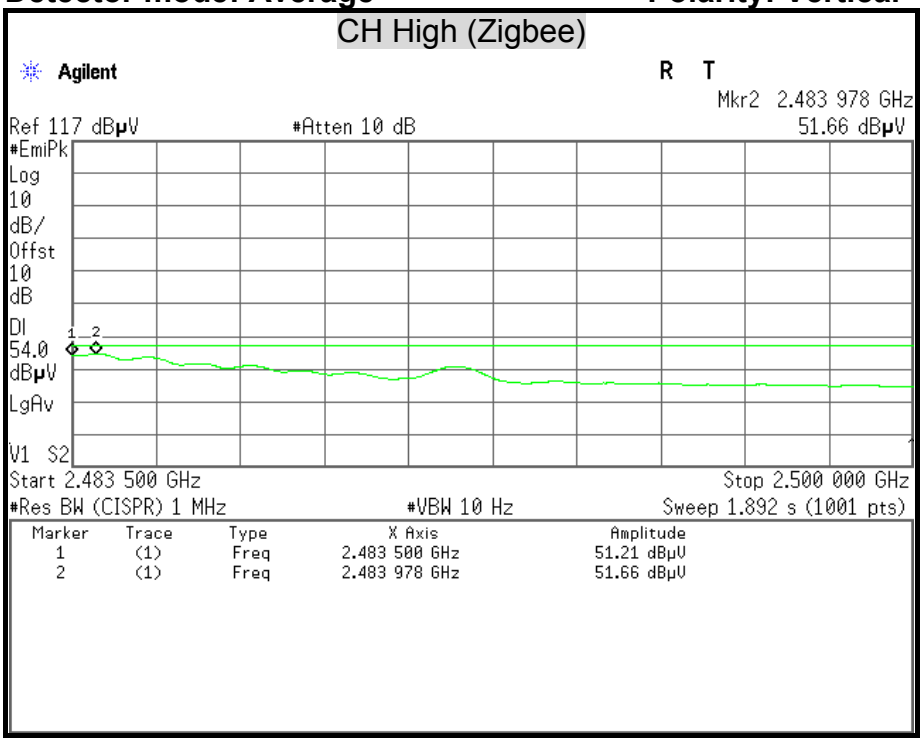
Detector mode: Average **Polarity: Horizontal**



Detector mode: Peak **Polarity: Vertical**



Detector mode: Average **Polarity: Vertical**



7.6 CONDUCTED EMISSION

LIMITS

§ 15.207 (a) Except as shown in paragraph (b) and (c) this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal.

The lower limit applies at the boundary between the frequency ranges.

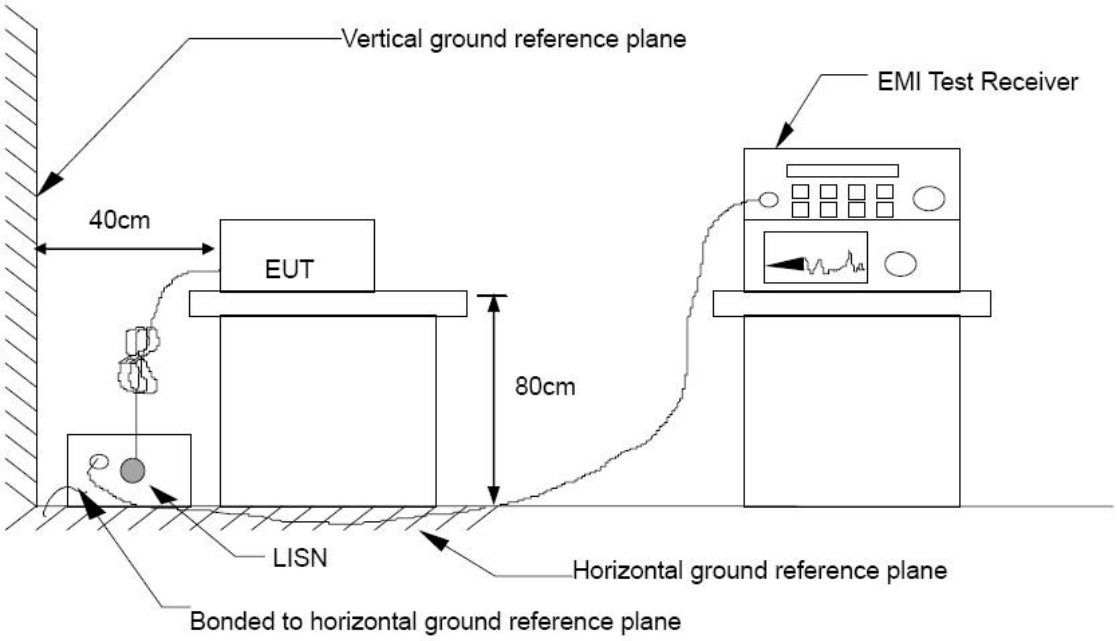
Frequency Range (MHz)	Conducted Limit (dBμv)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5.00	56	46
5.00 - 30.0	60	50

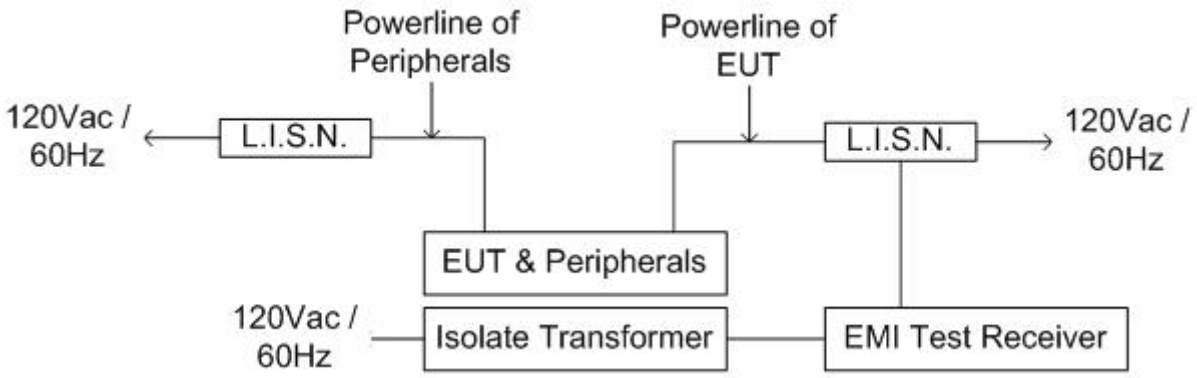
TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
L.I.S.N	SCHWARZBECK	NSLK 8127	8127465	08/05/2016
L.I.S.N	SCHWARZBECK	NSLK 8127	8127473	03/09/2016
EMI Test Receiver	ROHDE & SCHWARZ	ESHS 30	838550/003	11/02/2015
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	100111	06/28/2016

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP





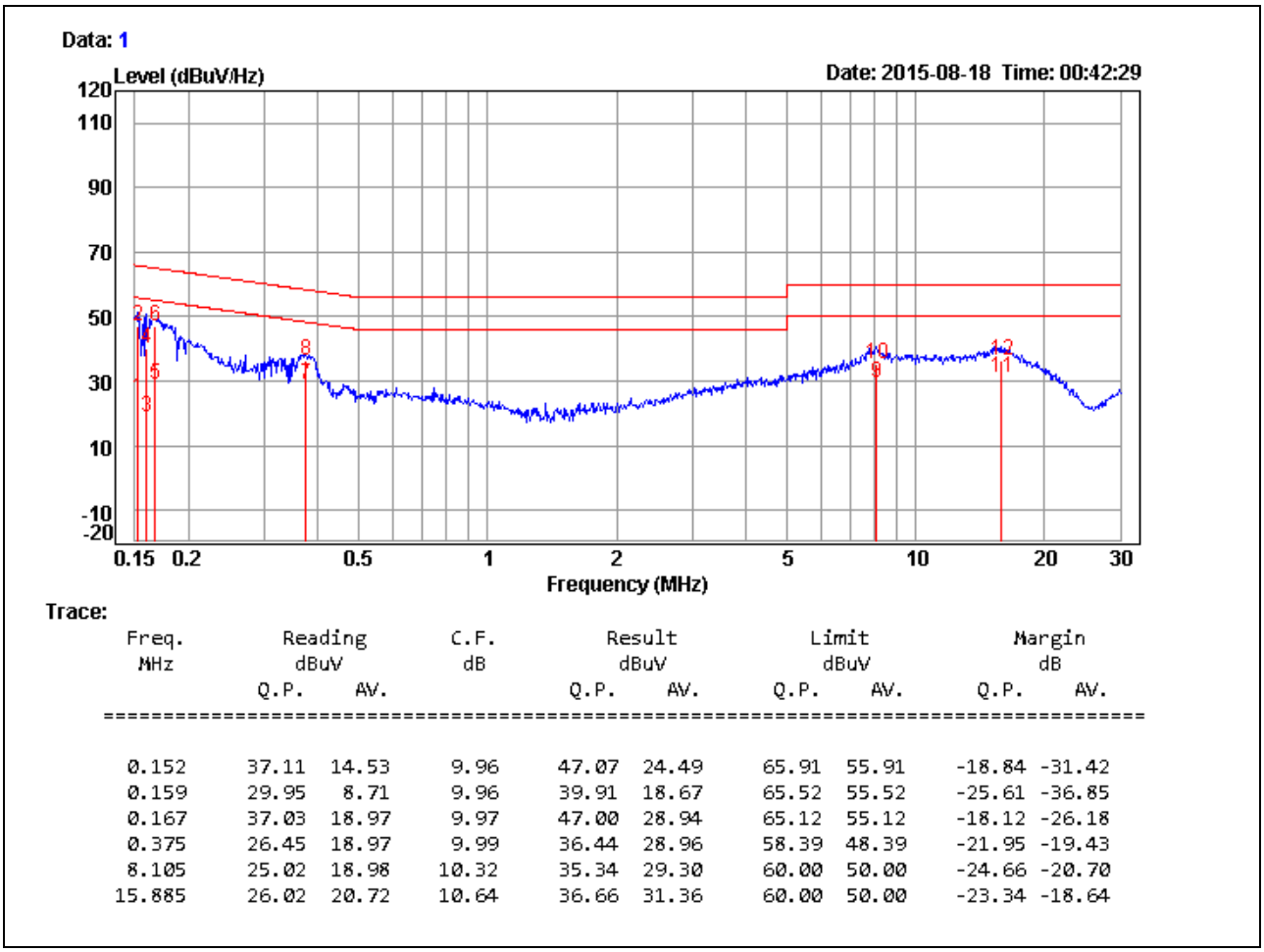
TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.10:2013.
The test procedure is performed in a 4m × 3m × 2.4m (L×W×H) shielded room.
The EUT along with its peripherals were placed on a 1.0m (W) × 1.5m (L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.
The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room. All peripherals were connected to the second LISN and the chassis ground also bounded to the horizontal ground plane of shielded room.
The EUT was located so that the distance between the boundary of the EUT and the closest surface of the LISN is 0.8 m. Where a mains flexible cord was provided by the manufacturer shall be 1 m long, or if in excess of 1 m, the excess cable was folded back and forth as far as possible so as to form a bundle not exceeding 0.4 m in length.

TEST RESULTS

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/18
Test mode	Mode 1	Temp. & Humidity	23.6°C, 53%

LINE



Trace:

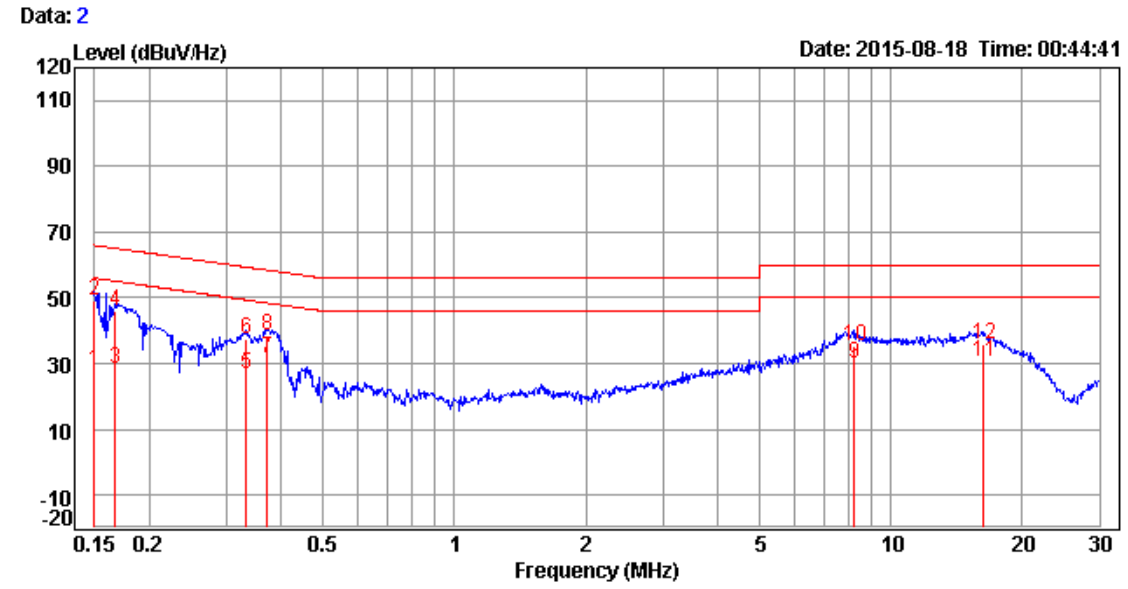
Freq. MHz	Reading dBuV Q.P.	Reading dBuV AV.	C.F. dB	Result dBuV Q.P.	Result dBuV AV.	Limit dBuV Q.P.	Limit dBuV AV.	Margin dB Q.P.	Margin dB AV.
0.152	37.11	14.53	9.96	47.07	24.49	65.91	55.91	-18.84	-31.42
0.159	29.95	8.71	9.96	39.91	18.67	65.52	55.52	-25.61	-36.85
0.167	37.03	18.97	9.97	47.00	28.94	65.12	55.12	-18.12	-26.18
0.375	26.45	18.97	9.99	36.44	28.96	58.39	48.39	-21.95	-19.43
8.105	25.02	18.98	10.32	35.34	29.30	60.00	50.00	-24.66	-20.70
15.885	26.02	20.72	10.64	36.66	31.36	60.00	50.00	-23.34	-18.64

Remark:

1. *Correction Factor = Insertion loss + Cable loss*
2. *Result level = Reading Value + Correction factor*
3. *Margin value = Result level – Limit value*

Product Name	ICG	Test By	Jey Li
Test Model	ICG-100-NA-R	Test Date	2015/08/18
Test Mode	Mode 1	Temp. & Humidity	23.6°C, 53%

NEUTRAL



Trace:

Freq. MHz	Reading dBuV Q.P.	Reading dBuV AV.	C.F. dB	Result dBuV Q.P.	Result dBuV AV.	Limit dBuV Q.P.	Limit dBuV AV.	Margin dB Q.P.	Margin dB AV.
0.150	39.03	18.01	9.98	49.01	27.99	66.00	56.00	-16.99	-28.01
0.167	36.11	18.49	9.99	46.10	28.48	65.12	55.12	-19.02	-26.64
0.334	27.60	17.05	10.01	37.61	27.06	59.35	49.35	-21.74	-22.29
0.373	28.62	21.84	10.01	38.63	31.85	58.43	48.43	-19.80	-16.58
8.192	25.07	19.81	10.28	35.35	30.09	60.00	50.00	-24.65	-19.91
16.312	25.45	20.04	10.49	35.94	30.53	60.00	50.00	-24.06	-19.47

Remark:

1. *Correction Factor = Insertion loss + Cable loss*
2. *Result level = Reading Value + Correction factor*
3. *Margin value = Result level – Limit value*