FCC PART 15.247
RSS-GEN, ISSUE 4, NOVEMBER 2014
RSS-247, ISSUE 2, FEBRUARY 2017

TEST REPORT

For

SZ DJI TECHNOLOGY CO., LTD

14th floor, West Wing, Skyworth Semiconductor Design Building NO.18 Gaoxin South 4th Ave, Nanshan, Shenzhen, Guangdong, China

FCC ID: SS3-U11X1710
IC: 11805A-U11X1710

Report Type:	**Product Name:**
Original Report	MAVIC AIR

Report Number:	RDG171013002-00B
Report Date:	2017-11-15
Reviewed By:	Jerry Zhang EMC Manager
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Dongguan) No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *SZ DJI TECHNOLOGY CO., LTD's* product, model number: *U11X**(FCC ID: SS3-U11X1710, IC: 11805A-U11X1710)*** (the "EUT") in this report was a *MAVIC AIR, which was measured approximately: 17.0 cm (L) x 9.5 cm (W) x 4.7cm (H), rated input voltage: DC 11.55V from rechargeable Li-ion Battery or DC 13.2V from adapter.*

Adapter #1 Information:Hunlkey
Model: P1C50
Input: AC 100-240V, 1.4A, 50-60Hz
Output: DC 13.2V, 3.79A(Main), DC 5.0V, 2.0A Total(USB)

Adapter #2 Information:Actel
Model: P1C50
Input: AC 100-240V, 1.4A, 50-60Hz
Output: DC 13.2V, 3.79A(Main), DC 5.0V, 2.0A Total(USB)

Adapter #3 Information:CHICONY
Model: P1C50
Input: AC 100-240V, 1.8A, 50-60Hz
Output: DC 13.2V, 3.79A(Main), DC 5.0V, 2.0A Total(USB)

All measurement and test data in this report was gathered from production sample serial number: 171013002 (Assigned by BACL, Dongguan). The EUT was received on 2017-10-13.

Objective

This report is prepared on behalf of ***SZ DJI TECHNOLOGY CO., LTD*** in accordance with Part 2, Subpart J, Part 15, Subparts A, and C of the Federal Communications Commission's rules and RSS-247, Issue 2, February 2017, RSS-Gen Issue 4, November 2014 of the Innovation, Science and Economic Development Canada.

The tests were performed in order to determine the compliance of the EUT with FCC Rules Part 15-Subpart C, section 15.203, 15.205, 15.209, 15.247 rules and RSS-247, Issue 2, February 2017, RSS-Gen Issue 4, November 2014 of the Innovation, Science and Economic Development Canada.

Related Submittal(s)/Grant(s)

FCC submissions with Part 15E NII, FCC ID: SS3-U11X1710.
FCC submissions with Part 15B JBP, FCC ID: SS3-U11X1710.
ISEDC submissions with LE-LAN, IC: 11805A-U11X1710.
Part of system submissions with FCC ID:SS3-S01A1710, IC: 11805A-S01A1710.

Test Methodology

All measurements detailed in this Test Report were performed in accordance with ANSI C63.10-2013 "American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices", RSS-247, Issue 2, February 2017, RSS-Gen Issue 4, November 2014 of the Innovation, Science and Economic Development Canada, and KDB 558074 D01 DTS Meas Guidance v04.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Dongguan).

Measurement Uncertainty

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	30M~200MHz: 4.58 dB for Horizontal, 4.59 dB for Vertical 200M~1GHz: 4.83 dB for Horizontal, 5.85 dB for Vertical 1G~6GHz: 4.45 dB, 6G~26.5GHz: 5.23 dB
Unwanted Emissions, conducted	±1.5 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	3.12 dB (150 kHz to 30 MHz)

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China

Bay Area Compliance Laboratories Corp. (Dongguan) has been accredited to ISO/IEC 17025 by CNAS(Lab code: L5662). And accredited to ISO/IEC 17025 by NVLAP(Test Laboratory Accreditation Certificate Number 500069-0), the FCC Designation No. CN5002 under the KDB 974614 D01.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 273710. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Bay Area Compliance Laboratories Corp. (Dongguan) was registered with ISED Canada under ISED Canada Registration Number 3062D.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in testing mode, which was provided by manufacturer.

For 2.4GHz band, the device employs 802.11b/g/n ht20, 5M and 10M modes. All modes support 2T2R mode.

For 802.11b, 802.11g, 802.11n ht20, 5M and 10M modes, the device employs 11 channels as below:

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

For 802.11b, 802.11g, 802.11n ht20, 5M and 10M modes were test with channel 1,6,11.

Per pre-test, the worst mode was 2T2R mode. The worst-case data rates are determined to be as follows for each mode based upon investigations by measuring the average power and PSD across all data rates bandwidths, and modulations.

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

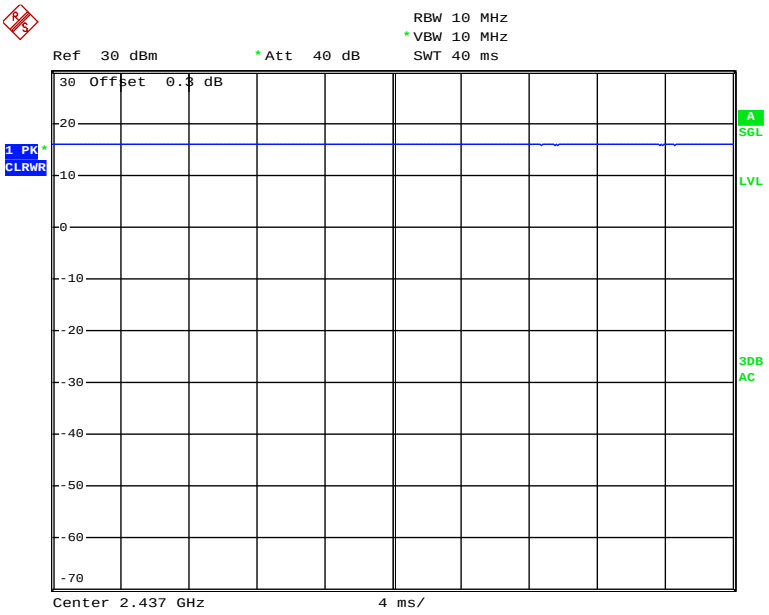
The software “Certification_WM230_UAV_RCU_20171013.exe” was used for testing, which was provided by manufacturer. The maximum power with maximum duty cycle was configured by system default setting.

Test Mode	Test Software Version	Certification_WM230_UAV_RCU_20171013.exe		
802.11b	Test Frequency	2412MHz	2437MHz	2462MHz
	Data Rate	1Mbps	1Mbps	1Mbps
	Power Level Setting Chain 0	16	16	16
	Power Level Setting Chain 1	16	16	16
802.11g	Test Frequency	2412MHz	2437MHz	2462MHz
	Data Rate	6Mbps	6Mbps	6Mbps
	Power Level Setting Chain 0	16	16	16
	Power Level Setting Chain 1	16	16	16
802.11n ht20	Test Frequency	2412MHz	2437MHz	2462MHz
	Data Rate	MCS0	MCS0	MCS0
	Power Level Setting Chain 0	16	16	16
	Power Level Setting Chain 1	16	16	16
5M	Test Frequency	2412MHz	2437MHz	2462MHz
	Power Level Setting Chain 0	23	23	23
	Power Level Setting Chain 1	23	23	23
10M	Test Frequency	2412MHz	2437MHz	2462MHz
	Power Level Setting Chain 0	23	23	23
	Power Level Setting Chain 1	23	23	23

The duty cycle as below:

Mode	T_{on} (ms)	T_{on+off} (ms)	Duty Cycle (%)	Duty Cycle Factor 10*log(1/x) (dB)
802.11b	40	40	100	0.00
802.11g	2.080	2.128	97.7	0.10
802.11n ht20	1.920	1.984	96.8	0.14
5M	7.920	8.100	97.8	0.10
10M	100	100	100	0.00

802.11b



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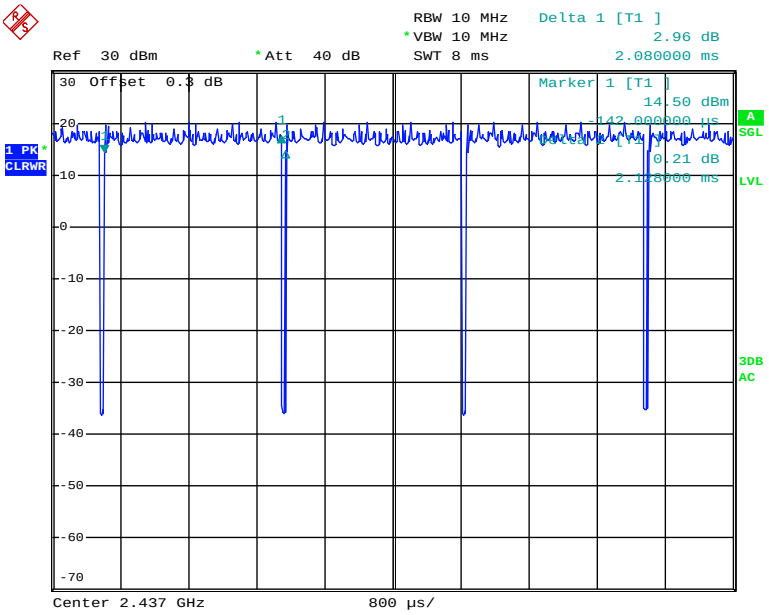
802.11g



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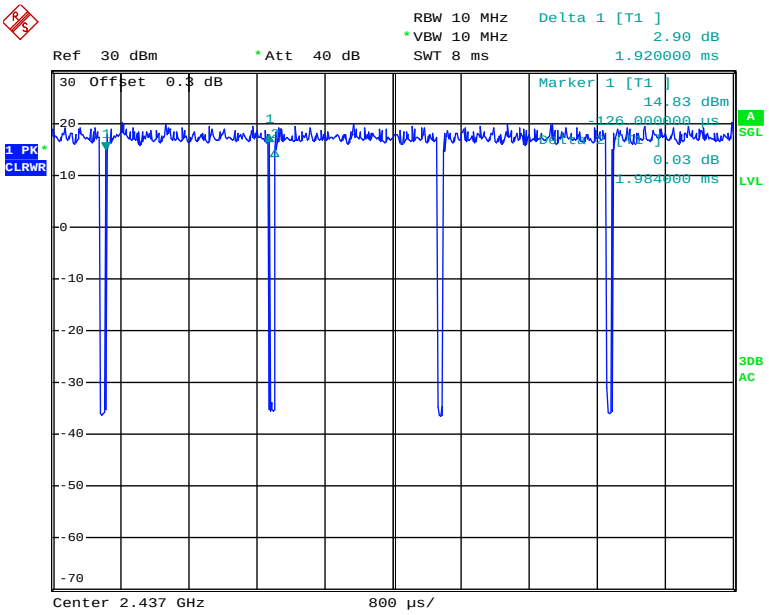
802.11n ht20



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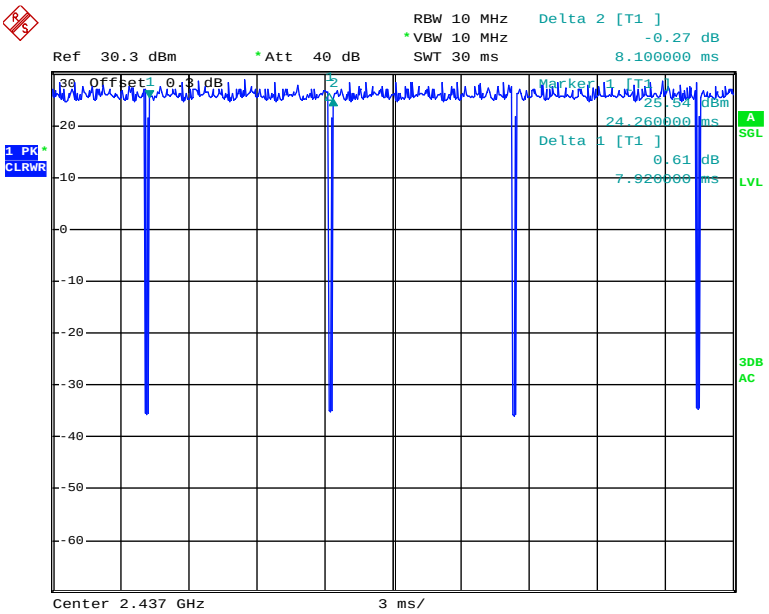
5M



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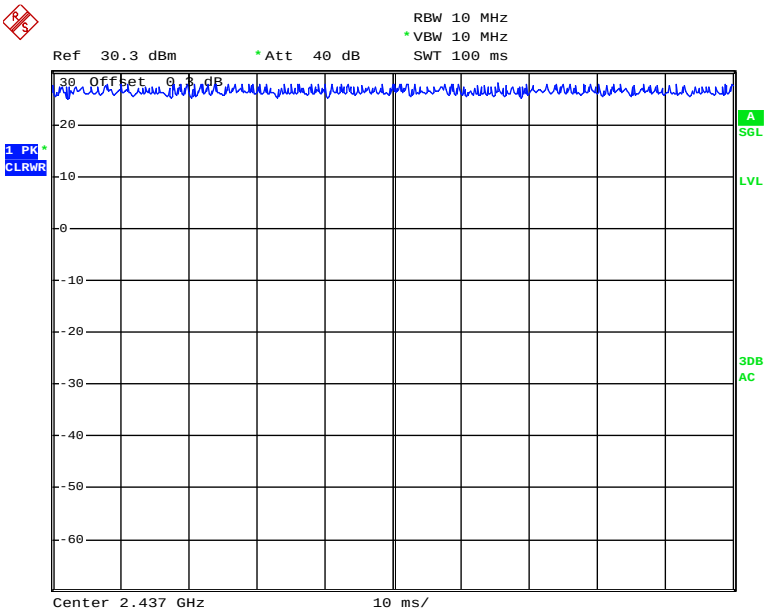
10M



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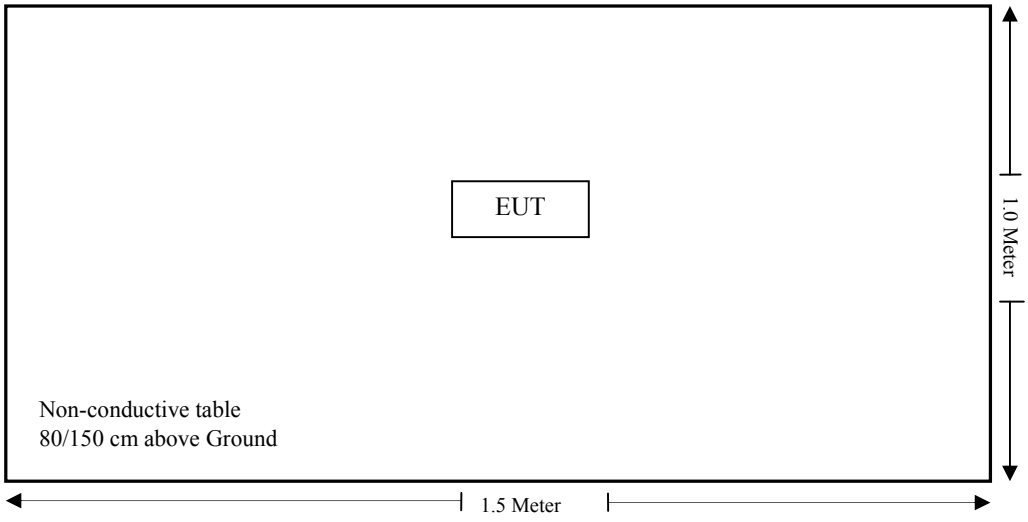
Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

Rules	Description of Test	Result
FCC §15.247 (i) & §1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	Compliant
RSS-102 § 2.5.2	Exemption Limits For Routine Evaluation-RF Exposure Evaluation	Compliance
FCC§15.203 RSS-GEN§8.3	Antenna Requirement	Compliance
§15.207 (a) RSS-Gen §8.8	AC Line Conducted Emissions	Not Applicable
§15.205, §15.209, §15.247(d) RSS-247 §5.5 RSS-Gen §8.10	Spurious Emissions	Compliance
§15.247 (a)(2) RSS-247 §5.2 a)	6 dB Emission Bandwidth And 99% Occupied Bandwidth	Compliance
§15.247(b)(3) RSS-247 §5.4 d)	Maximum conducted output power	Compliance
§15.247(d) RSS-247 §5.5	100 kHz Bandwidth of Frequency Band Edge	Compliance
§15.247 (e) RSS-247 §5.2 b)	Power Spectral Density	Compliance

Not Applicable: the device powered by battery.

FCC §15.247 (i) , §1.1310 , §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.247(i)and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (minutes)**
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f^2)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculation Formula:

Prediction of power density at the distance of the applicable MPE limit:
$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

Calculated Data:

Frequency (MHz)	**Antenna Gain**		**Tune-up Power**		**Evaluation Distance (cm)**	**Power Density (mW/cm^2)**	**MPE Limit (mW/cm^2)**
	(dBi)	**(numeric)**	**(dBm)**	**(mW)**			
2412-2462	2	1.58	24	251.19	20.00	0.0792	1.0

The 2.4GHz and 5GHz can`t transmit simultaneously

Result: Compliance, The device meets MPE requirement for Devices Used by the General Public (Uncontrolled Environment) at distance ≥20 cm.

RSS-102 § 2.5.2 - EXEMPTION LIMITS FOR ROUTINE EVALUATION – RF EXPOSURE EVALUATION

Applicable Standard

According to RSS-102 § (2.5.2):

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $4.49/f^{0.5}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the e.i.r.p. was derived.

Calculated Data:

The maximum power including tune-up tolerance is 24dBm@ 2.4GHz band, the maximum antenna gain is 2.0dBi @ 2.4GHz band, so the maximum e.r.i.p. is 26dBm (0.4W),

Exemption from Routine Evaluation Limit is:
$1.31 \times 10^{-2} f^{0.6834} = 1.31 \times 10^{-2} \times 2412^{0.6834} = 2.68 > 0.4W$

So the device is compliance exemption from Routine Evaluation Limits –RF exposure Evaluation.

Result: Compliance

FCC §15.203 ,RSS-GEN§8.3- ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

a. Antenna must be permanently attached to the unit.
b. Antenna must use a unique type of connector to attach to the EUT.
Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

According to RSS-Gen §8.3, The applicant for equipment certification, as per RSP-100, must provide a list of all antenna types that may be used with the licence-exempt transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna.
Licence-exempt transmitters that have received equipment certification may operate with different types of antennas. However, it is not permissible to exceed the maximum equivalent isotropically radiated power (e.i.r.p.) limits specified in the applicable standard (RSS) for the licence-exempt apparatus.

Testing shall be performed using the highest gain antenna of each combination of licence-exempt transmitter and antenna type, with the transmitter output power set at the maximum level.9 When a measurement at the antenna connector is used to determine RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna manufacturer.

User manuals for transmitters equipped with detachable antennas shall also contain the following notice in a conspicuous location:

This radio transmitter (identify the device by certification number or model number if Category II) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types approved for use with the transmitter, indicating the maximum permissible antenna gain (in dBi).

Antenna Information And Connector Construction

The EUT has 2 internal antennas, and the antennas gain in the below information list, fulfill the requirement of the item. Please refer to the internal photos.

Antenna Chain	Antenna Type	Antenna gain
0	PCB	2.0 dBi @ 2.4G Band 3.39 dBi @ 5.8G Band
1	PCB	2.0 dBi @ 2.4G Band 3.39 dBi @ 5.8G Band

Result: Compliance.

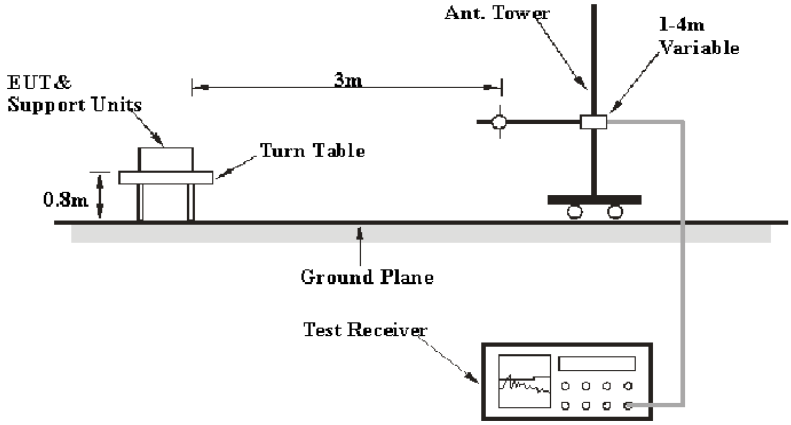
FCC §15.209, §15.205 , §15.247(d) & RSS-247 §5.5&RSS-GEN§8.10- SPURIOUS EMISSIONS

Applicable Standard

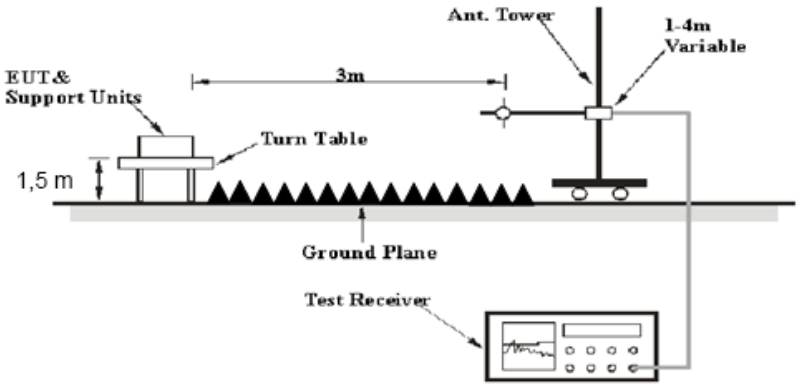
FCC §15.247 (d); §15.209; §15.205; and RSS-247 §5.5, RSS-GEN §8.10

EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 and RSS-247 §5.5, RSS-Gen §8.10 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

30-1000MHz:

Measurement	RBW	Video B/W	IF B/W
QP	120 kHz	300 kHz	120kHz

1GHz- 25GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
Ave.	>98%	1MHz	10 Hz
	<98%	1MHz	1/T

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1 GHz, peak and Average detection modes for frequencies above 1 GHz.

All emissions under the average limit and under the noise floor have not recorded in the report.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit –Corrected Amplitude

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	100224	2017-09-01	2018-09-01
Sunol Sciences	Antenna	JB3	A060611-2	2017-08-25	2020-08-25
HP	Amplifier	8447D	2727A05902	2017-09-05	2018-09-05
unknown	Coaxial Cable	4m	C0400/01	2017-09-05	2018-09-05
unknown	Coaxial Cable	0.75m	C0075/01	2017-09-05	2018-09-05
unknown	Coaxial Cable	10m	C1000/01	2017-09-05	2018-09-05
Agilent	Spectrum Analyzer	E4440A	SG43360054	2016-12-08	2017-12-08
ETS-Lindgren	Horn Antenna	3115	000 527 35	2016-01-05	2019-01-05
MITEQ	Amplifier	AFS42-00101800-25-S-42	2001271	2017-09-05	2018-09-05
Quinstar	Amplifier	QLW-18405536-JO	15964001001	2017-06-27	2018-06-27
Ducommun Technolagies	Horn Antenna	ARH-4223-02	1007726-02 1304	2017-06-16	2020-06-15
unknown	Coaxial Cable	8m	C0800/01	2017-09-05	2018-09-05
Chengdu OuLi	Bandrejector Filter	2400-2483.5	001	2017-09-05	2018-09-05
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

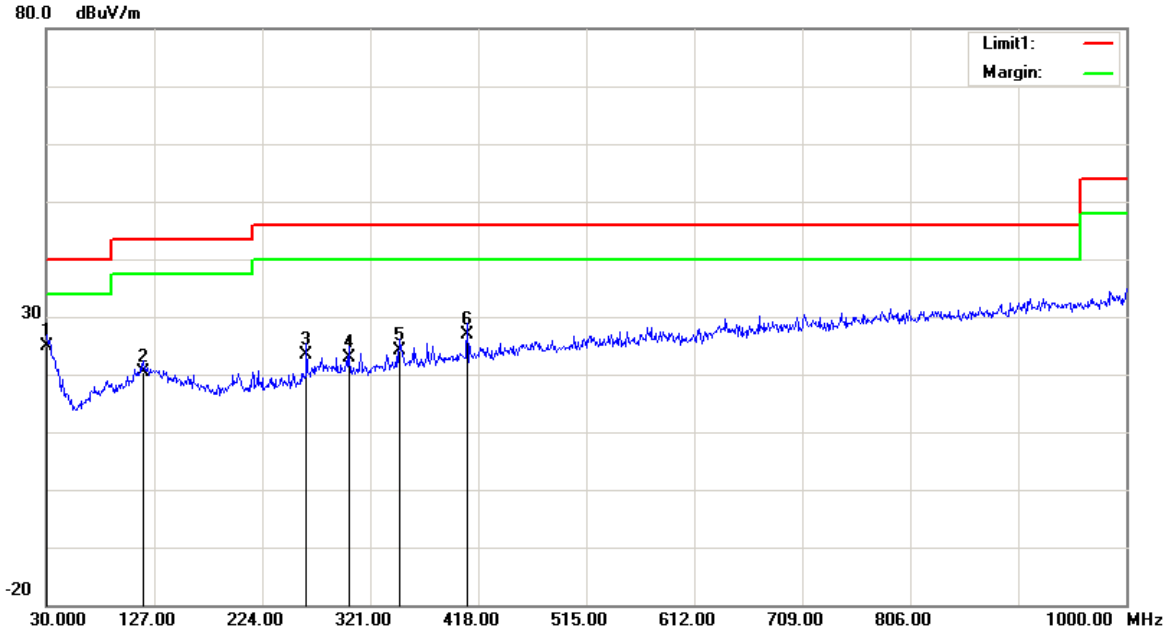
Temperature:	24.7°C
Relative Humidity:	31 %
ATM Pressure:	101.6 kPa

The testing was performed by Steven Zuo on 2017-11-07.

Test Mode: Transmitting(2TX was the worst)

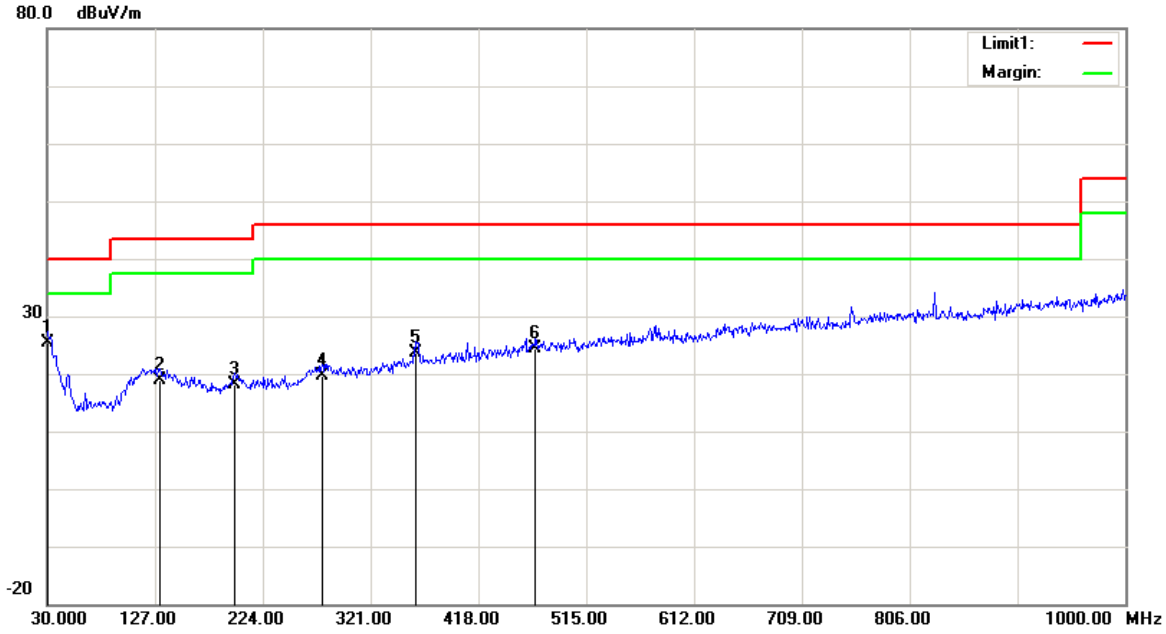
1) 30MHz-1GHz(802.11g mode middle channel was the worst):

Horizontal:



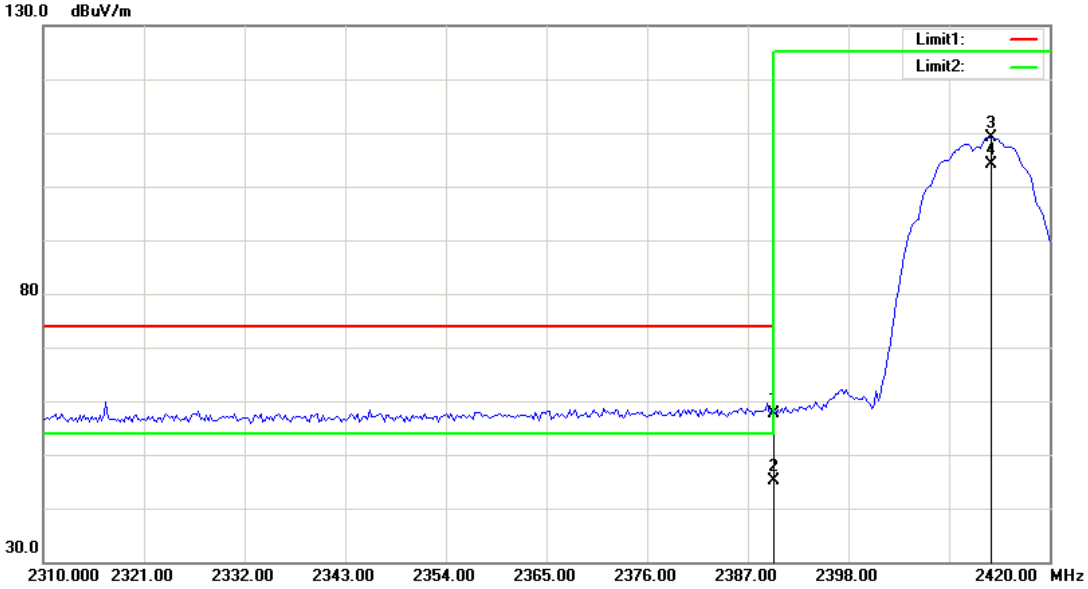
Frequency (MHz)	Receiver Reading (dBµV)	Measurement	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
30.0000	23.82	QP	1.08	24.90	40.00	15.10
117.3000	25.51	QP	-5.01	20.50	43.50	23.00
263.7700	27.90	QP	-4.50	23.40	46.00	22.60
301.6000	27.18	QP	-4.38	22.80	46.00	23.20
347.1900	27.34	QP	-3.24	24.10	46.00	21.90
408.3000	29.02	QP	-2.12	26.90	46.00	19.10

Vertical:

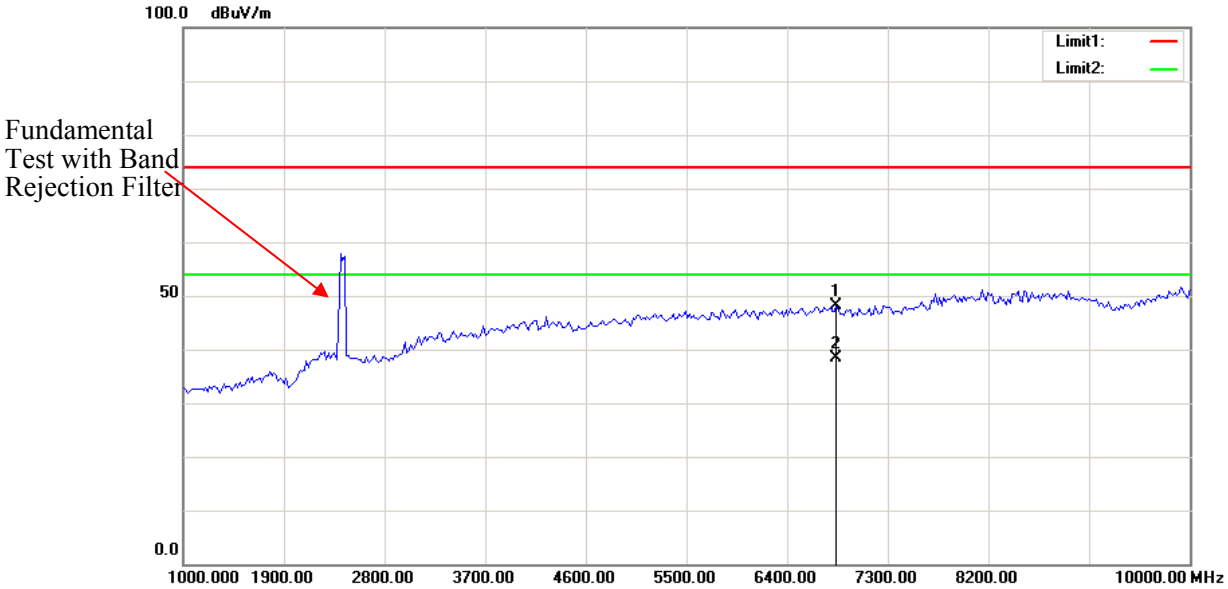


Frequency (MHz)	Receiver Reading (dBµV)	Measurement	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
30.0000	24.32	QP	1.08	25.40	40.00	14.60
131.8500	24.14	QP	-5.24	18.90	43.50	24.60
198.7800	24.65	QP	-6.45	18.20	43.50	25.30
277.3500	23.32	QP	-3.72	19.60	46.00	26.40
361.7400	26.60	QP	-2.90	23.70	46.00	22.30
469.4100	25.17	QP	-0.87	24.30	46.00	21.70

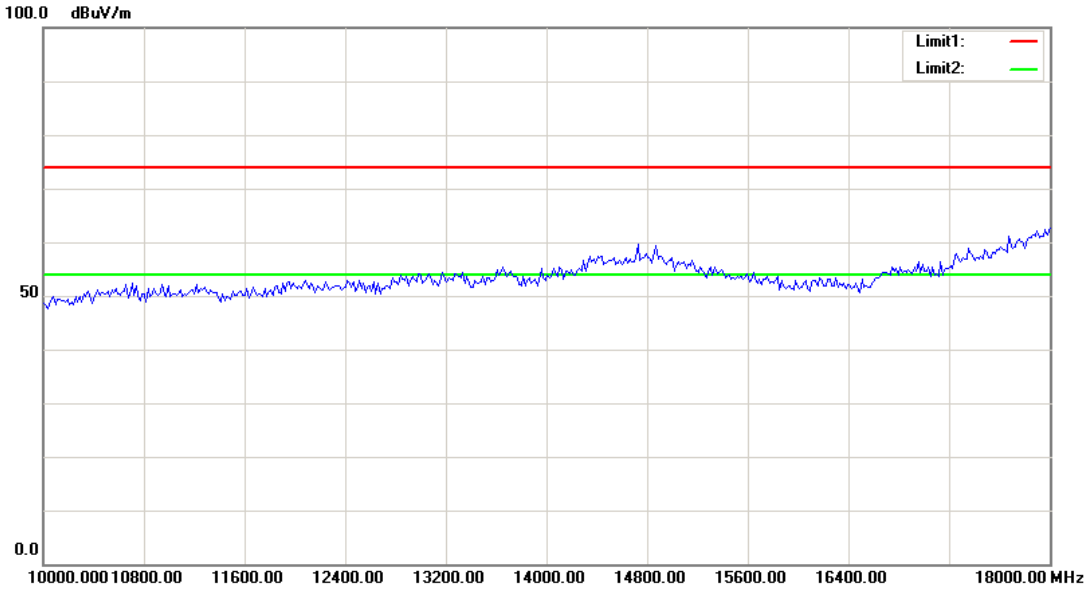
802.11b,Low Channel
Horizontal

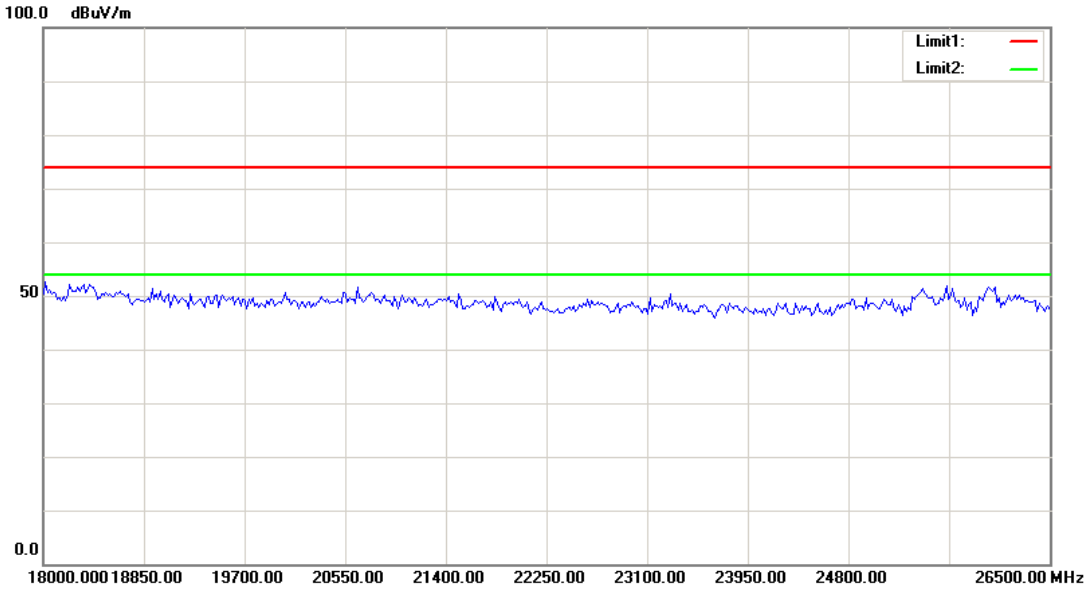


No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2390.000	27.78	peak	29.88	57.66	74.00	16.34	153	54	
2	2390.000	15.33	AVG	29.88	45.21	54.00	8.79	153	54	
3	2413.607	79.29	peak	29.94	109.23	N/A	N/A	153	54	Fundamental
4	2413.607	74.26	AVG	29.94	104.20	N/A	N/A	153	54	Fundamental

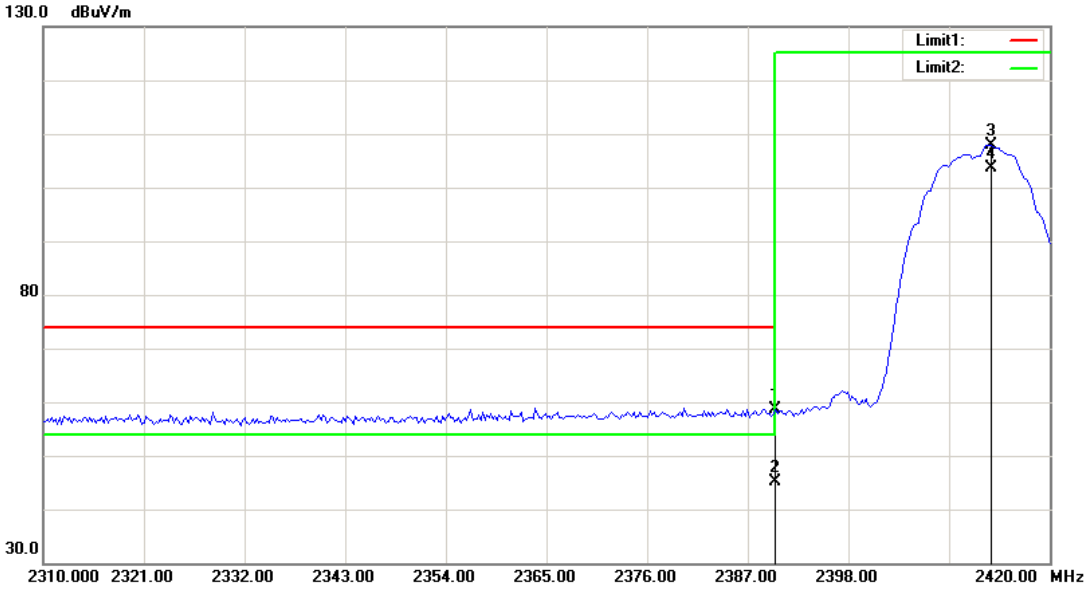


No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	6843.687	45.16	peak	2.94	48.10	74.00	25.90	148	64	
2	6843.687	35.42	AVG	2.94	38.36	54.00	15.64	148	64	


100.0 dBuV/m
Limit1:
Limit2:
50
0.0
10000.000 10800.00 11600.00 12400.00 13200.00 14000.00 14800.00 15600.00 16400.00 18000.00 MHz

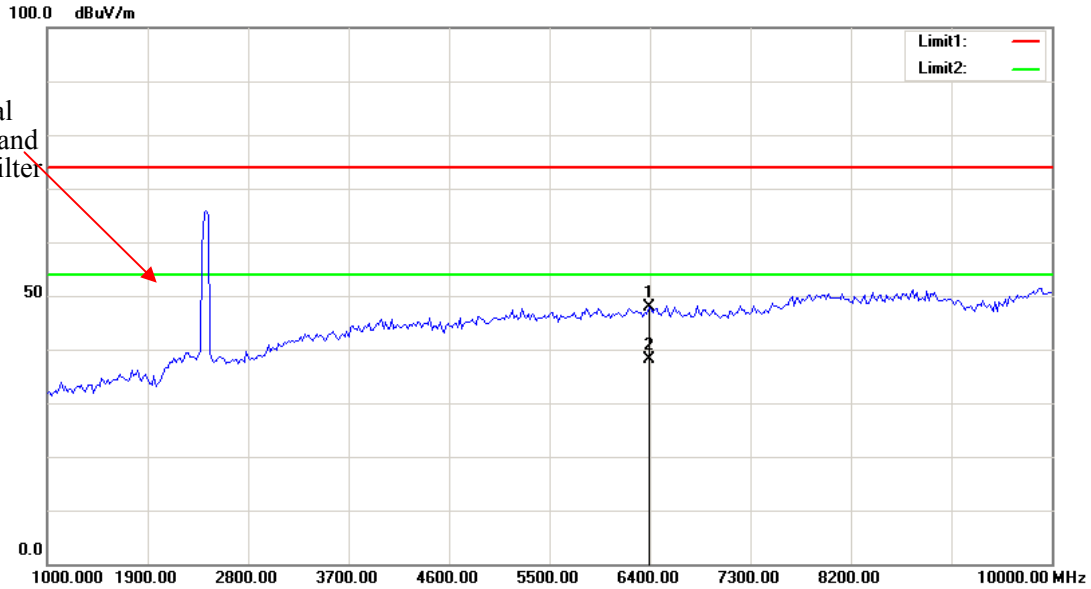

100.0 dBuV/m
Limit1:
Limit2:
50
0.0
18000.000 18850.00 19700.00 20550.00 21400.00 22250.00 23100.00 23950.00 24800.00 26500.00 MHz

Vertical

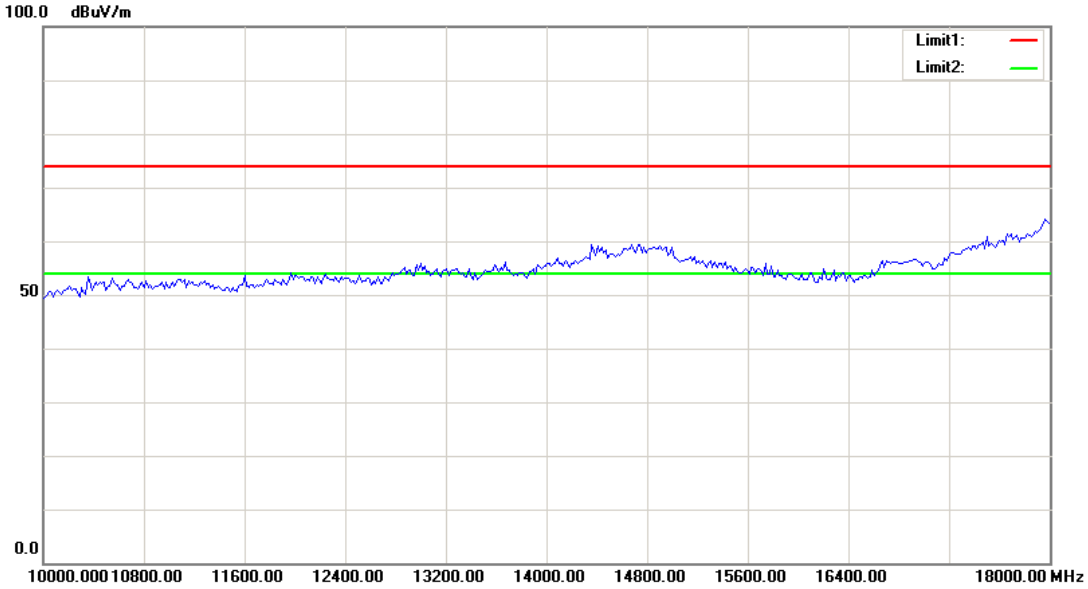


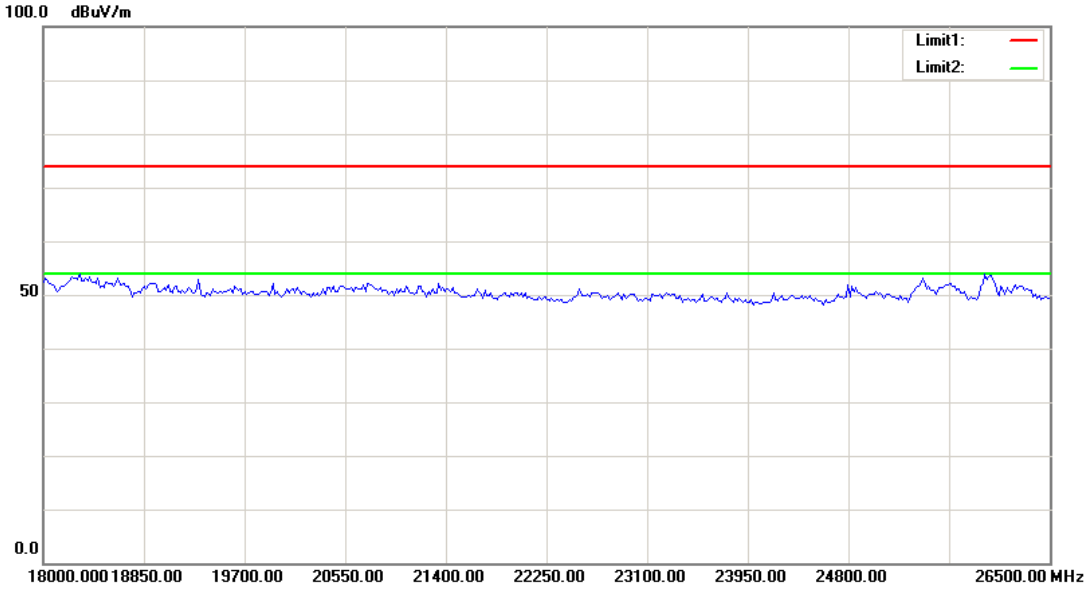
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2390.000	28.75	peak	29.88	58.63	74.00	15.37	152	336	
2	2390.000	15.31	AVG	29.88	45.19	54.00	8.81	152	336	
3	2413.607	77.95	peak	29.94	107.89	N/A	N/A	152	336	Fundamental
4	2413.607	73.68	AVG	29.94	103.62	N/A	N/A	152	336	Fundamental

Fundamental Test with Band Rejection Filter

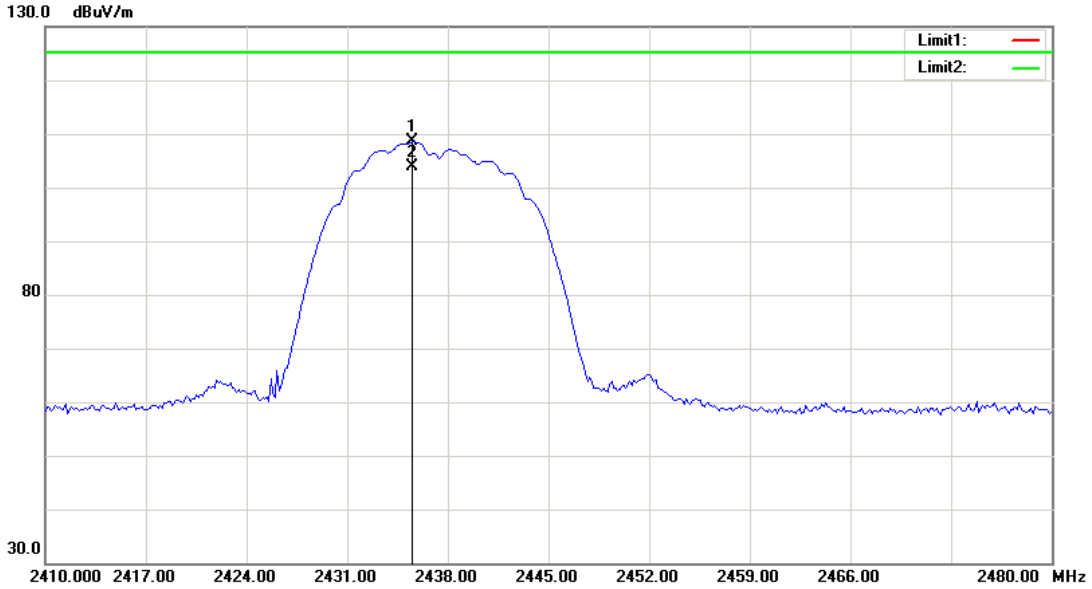


No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	6392.786	46.17	peak	1.64	47.81	74.00	26.19	145	23	
2	6392.786	36.57	AVG	1.64	38.21	54.00	15.79	145	23	


100.0 dBuV/m
Limit1:
Limit2:
50
0.0
10000.000 10800.00 11600.00 12400.00 13200.00 14000.00 14800.00 15600.00 16400.00 18000.00 MHz

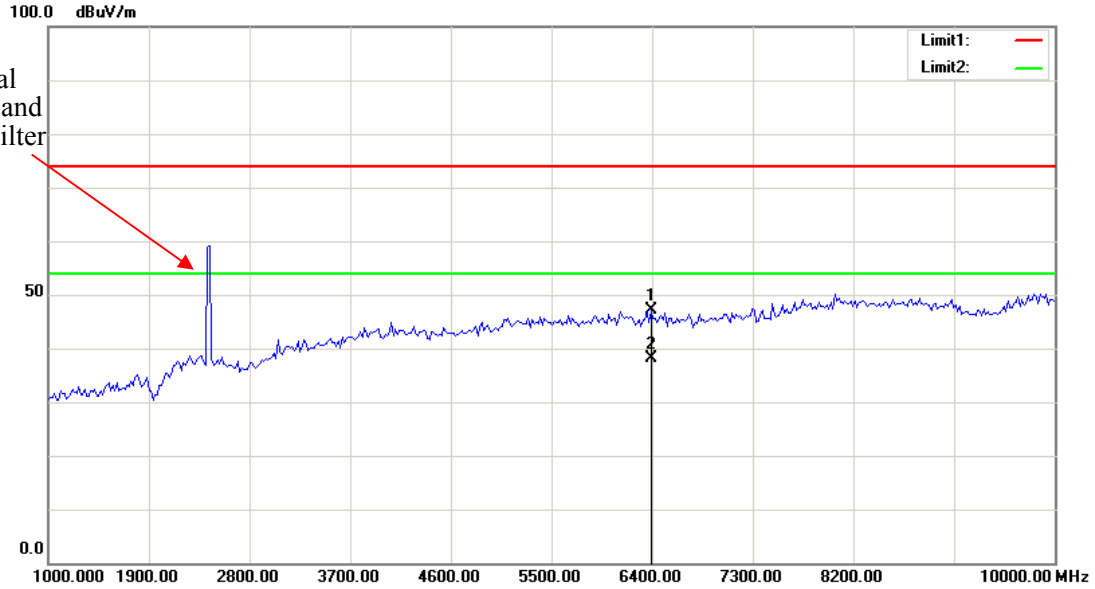

100.0 dBuV/m
Limit1:
Limit2:
50
0.0
18000.000 18850.00 19700.00 20550.00 21400.00 22250.00 23100.00 23950.00 24800.00 26500.00 MHz

Middle Channel, Horizontal



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2435.531	78.59	peak	29.99	108.58	N/A	N/A	151	166	Fundamental
2	2435.531	73.84	AVG	29.99	103.83	N/A	N/A	151	166	Fundamental

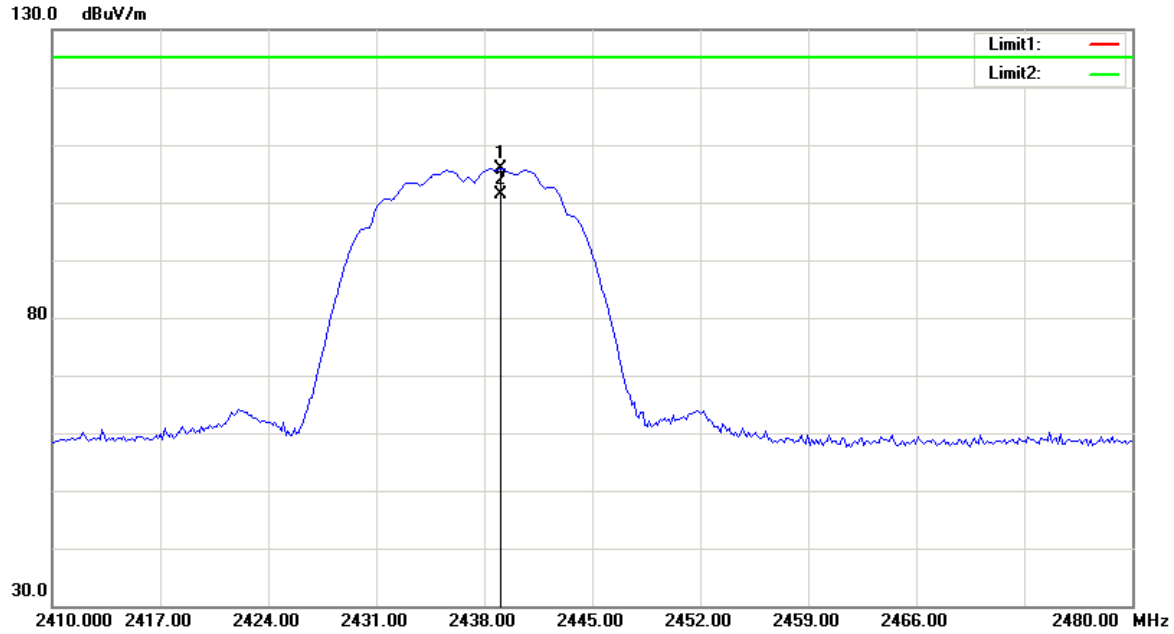
Fundamental Test with Band Rejection Filter



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	6392.786	45.43	peak	1.64	47.07	74.00	26.93	147	225	
2	6392.786	36.52	AVG	1.64	38.16	54.00	15.84	147	225	

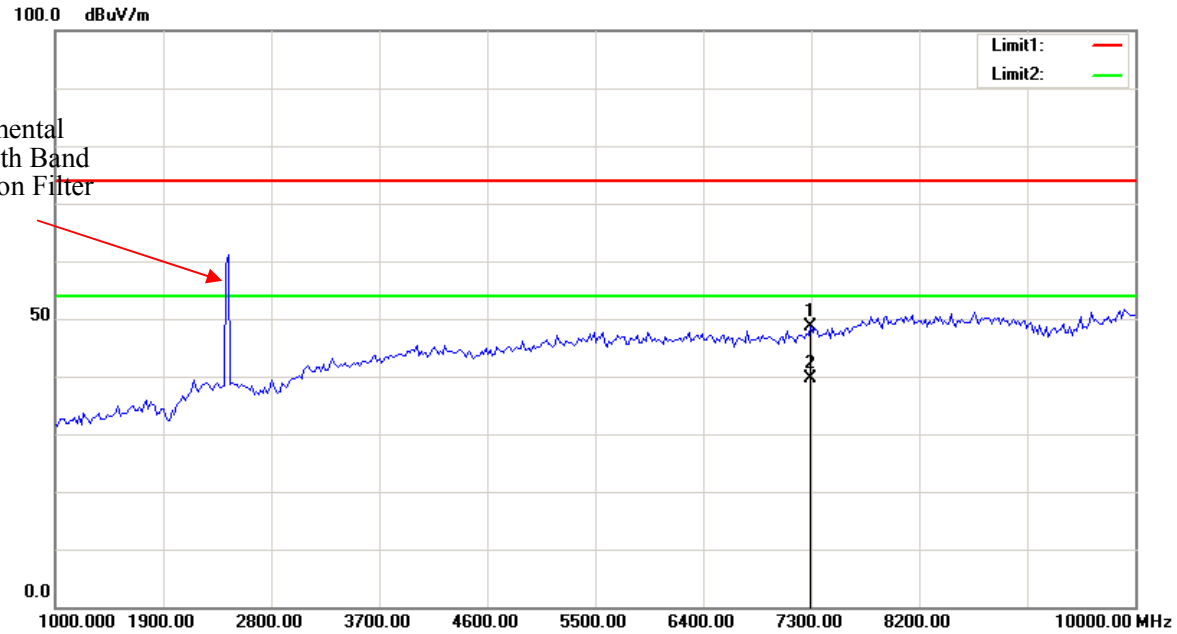
Note: No emission was detected in the range 10-25GHz.

Vertical



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	2439.038	75.86	peak	30.00	105.86	N/A	N/A	158	97	Fundamental
2	2439.038	71.38	AVG	30.00	101.38	N/A	N/A	158	97	Fundamental

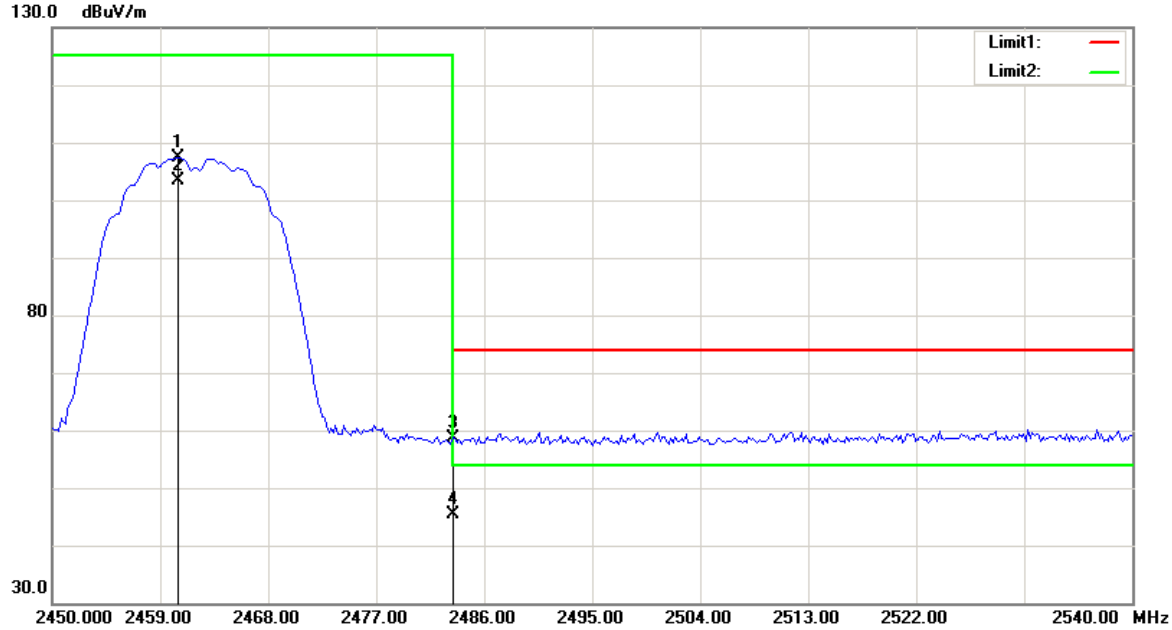
Fundamental Test with Band Rejection Filter



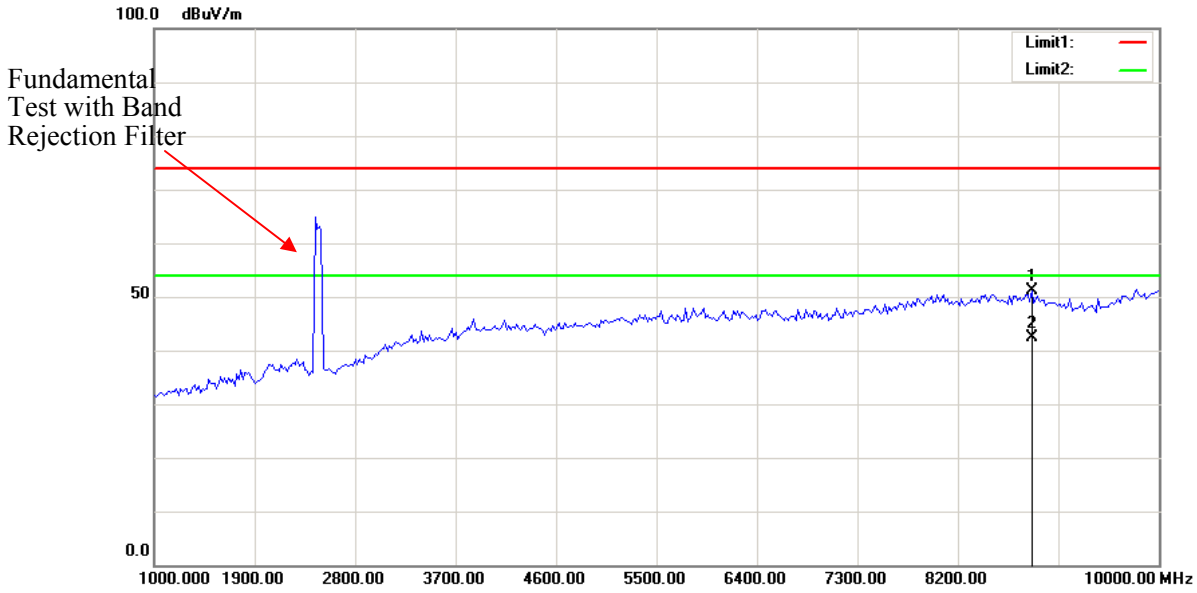
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	7294.589	45.22	peak	3.30	48.52	74.00	25.48	132	46	
2	7294.589	36.39	AVG	3.30	39.69	54.00	14.31	132	46	

Note: No emission was detected in the range 10-25GHz.

High Channel, Horizontal



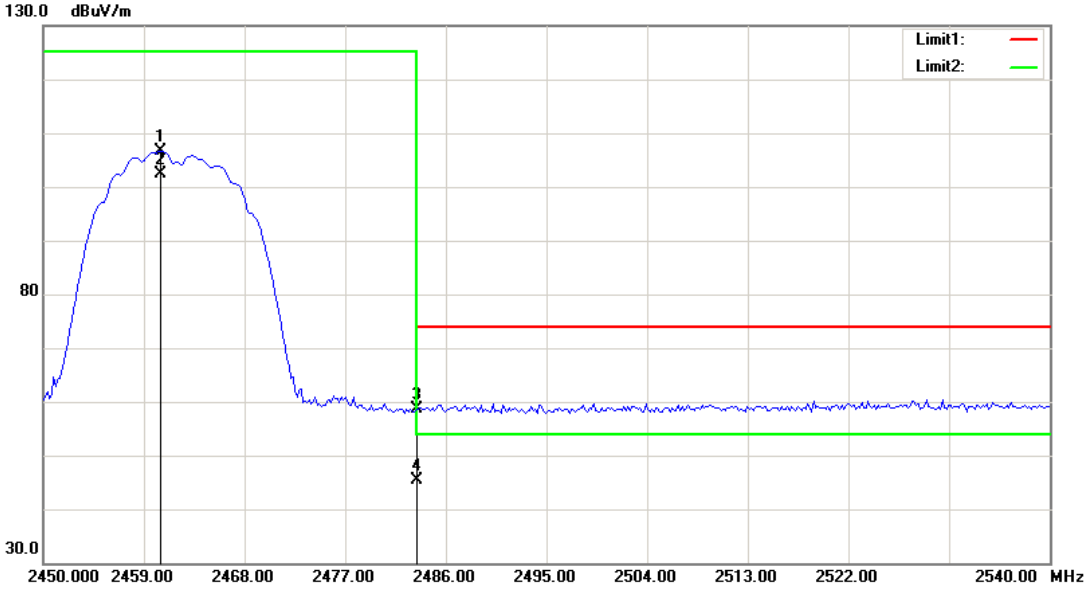
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2460.461	77.45	peak	30.05	107.50	N/A	N/A	145	87	Fundamental
2	2460.461	73.21	AVG	30.05	103.26	N/A	N/A	145	87	Fundamental
3	2483.500	28.51	peak	30.11	58.62	74.00	15.38	145	87	
4	2483.500	15.26	AVG	30.11	45.37	54.00	8.63	145	87	



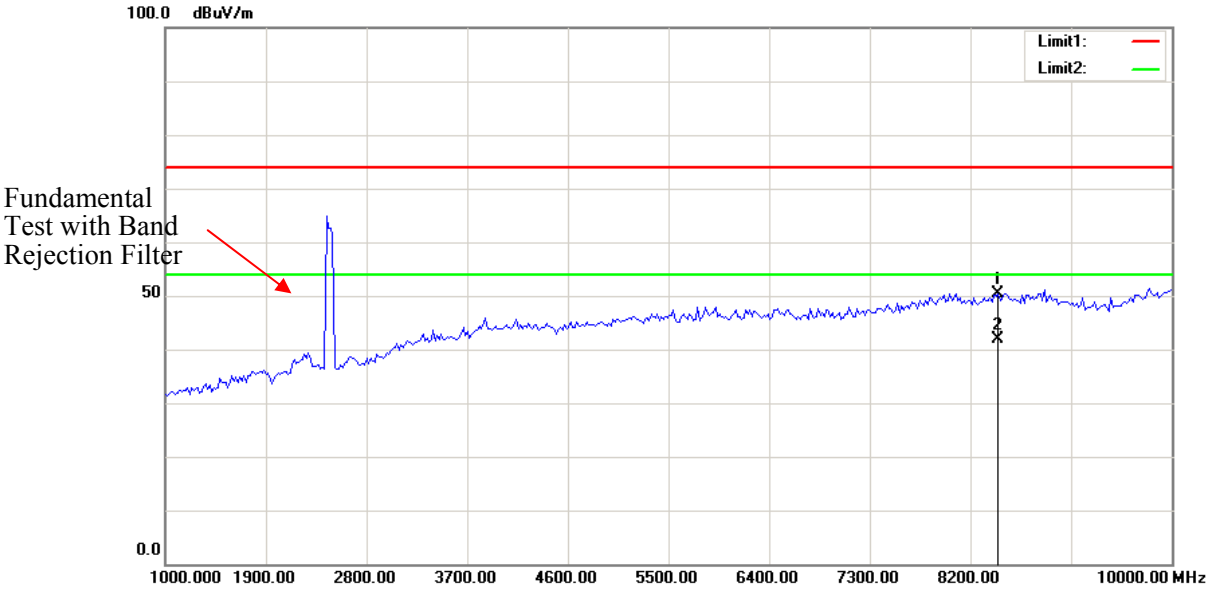
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	8863.728	45.16	peak	6.04	51.20	74.00	22.80	142	28	
2	8863.728	36.22	AVG	6.04	42.26	54.00	11.74	142	28	

Note: No emission was detected in the range 10-25GHz.

Vertical



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	2460.461	76.63	peak	30.05	106.68	N/A	N/A	139	65	Fundamental
2	2460.461	72.41	AVG	30.05	102.46	N/A	N/A	139	65	Fundamental
3	2483.500	28.44	peak	30.11	58.55	74.00	15.45	139	65	
4	2483.500	15.39	AVG	30.11	45.50	54.00	8.50	139	65	

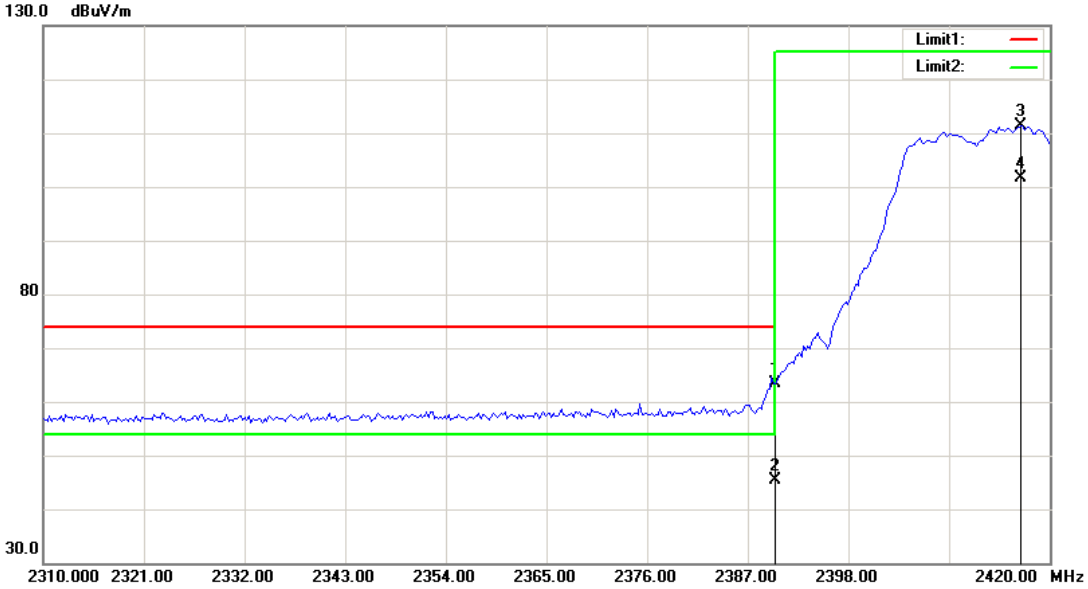


No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	8448.898	45.06	peak	5.39	50.45	74.00	23.55	158	43	
2	8448.898	36.37	AVG	5.39	41.76	54.00	12.24	158	43	

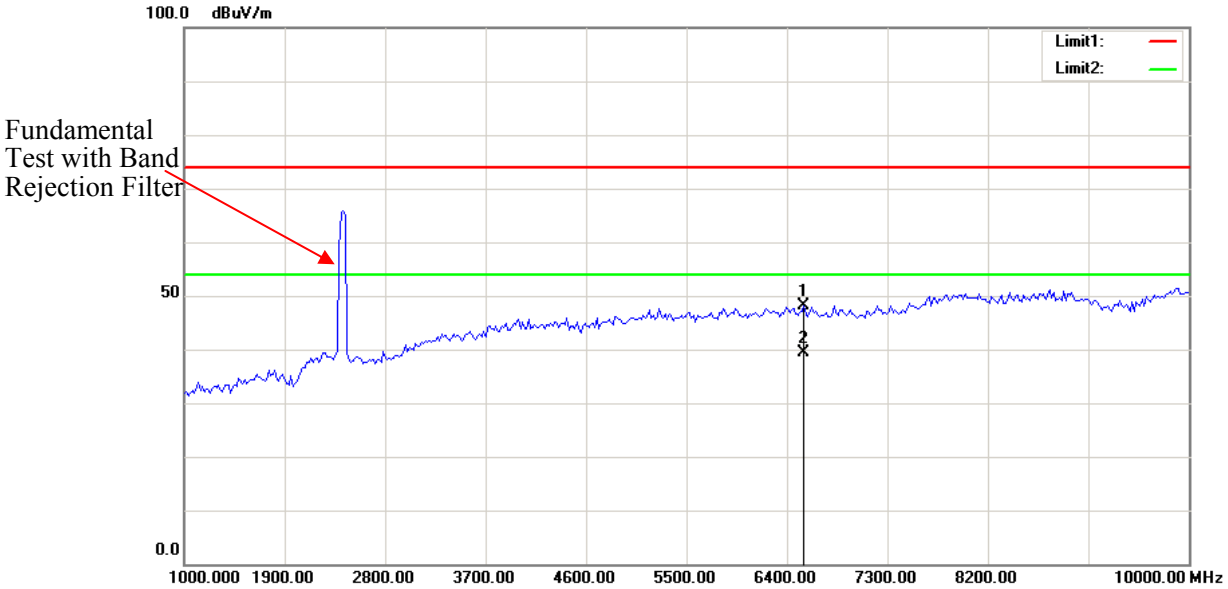
Note: No emission was detected in the range 10-25GHz.

802.11g

Low Channel, Horizontal



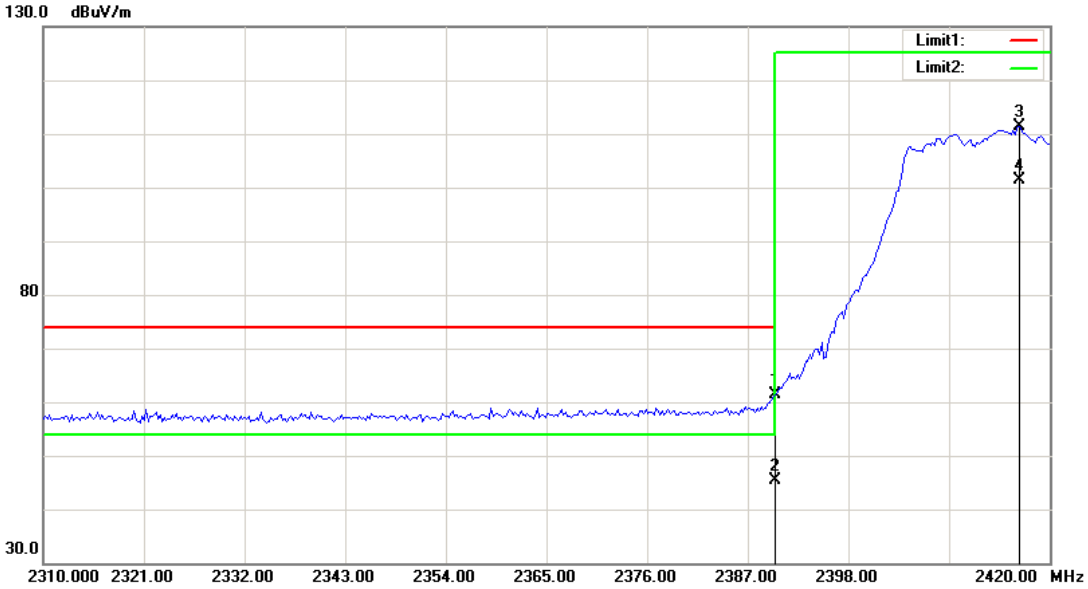
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	2390.000	33.55	peak	29.88	63.43	74.00	10.57	158	144	
2	2390.000	15.42	AVG	29.88	45.30	54.00	8.70	158	144	
3	2416.914	81.44	peak	29.94	N/A	N/A	13.82	158	144	Fundamental
4	2416.914	71.62	AVG	29.94	N/A	N/A	23.64	158	144	Fundamental



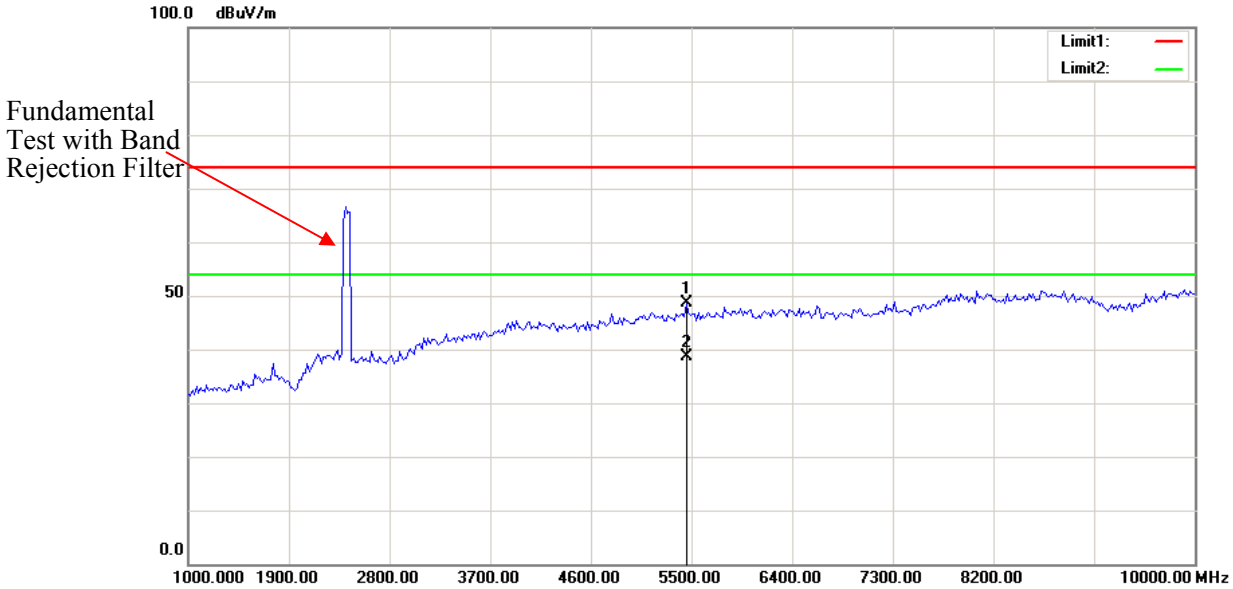
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	6555.110	46.11	peak	2.05	48.16	74.00	25.84	152	36	
2	6555.110	37.24	AVG	2.05	39.29	54.00	14.71	152	36	

Note: No emission was detected in the range 10-25GHz.

Vertical



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2390.000	31.60	peak	29.88	61.48	74.00	12.52	154	86	
2	2390.000	15.48	AVG	29.88	45.36	54.00	8.64	154	86	
3	2416.693	81.40	peak	29.94	111.34	N/A	N/A	154	86	Fundamental
4	2416.693	71.54	AVG	29.94	101.48	N/A	N/A	154	86	Fundamental

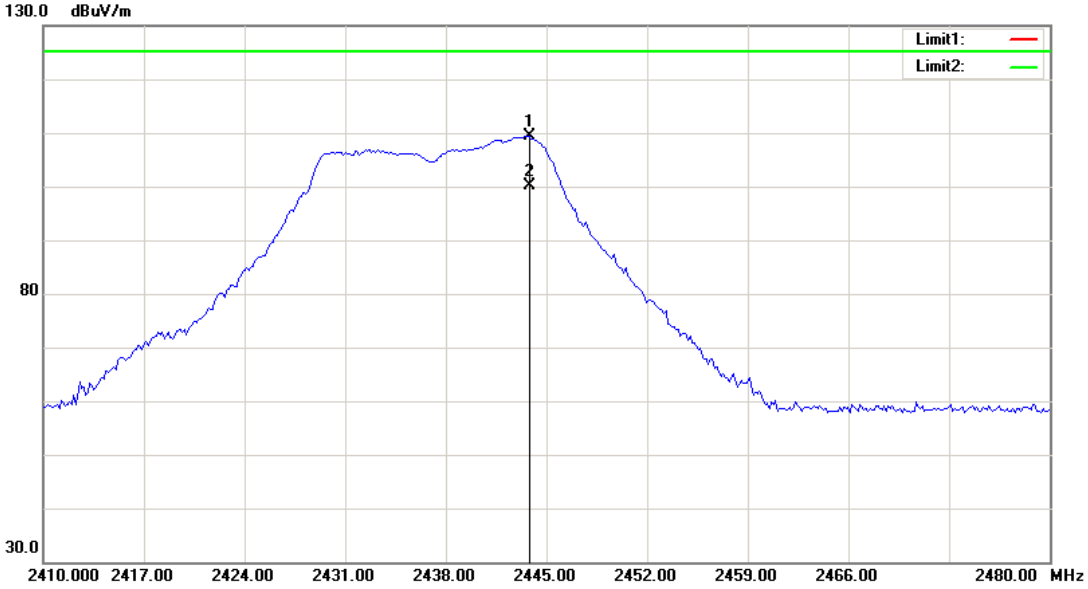


No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	5454.910	48.25	peak	0.26	48.51	74.00	25.49	158	64	
2	5454.910	38.49	AVG	0.26	38.75	54.00	15.25	158	64	

Note: No emission was detected in the range 10-25GHz.

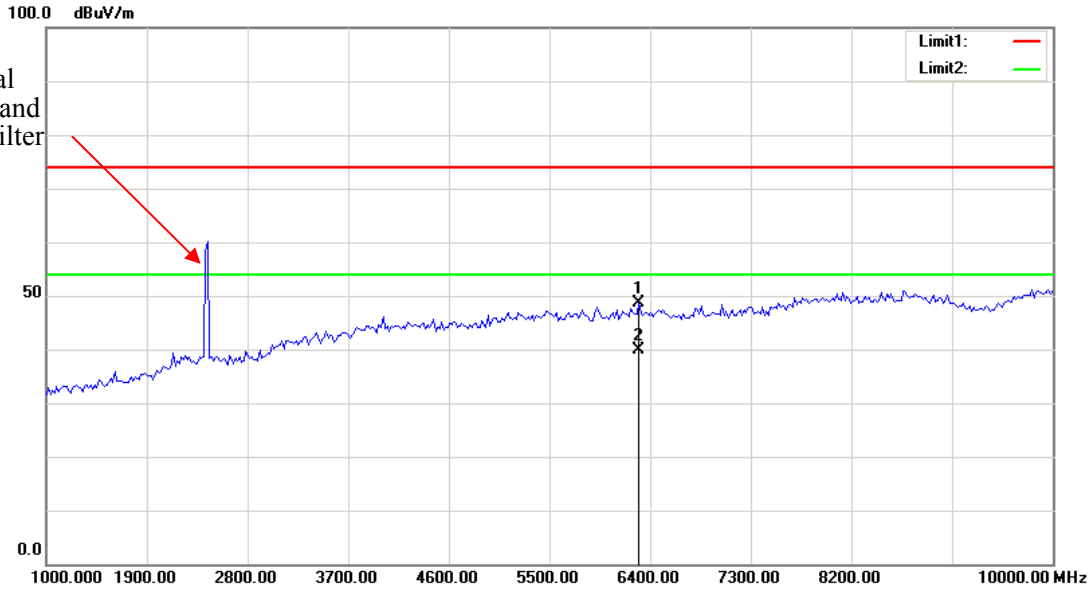
Middle Channel

Horizontal



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	2443.808	79.39	peak	30.01	109.40	N/A	N/A	154	224	Fundamental
2	2443.808	70.24	AVG	30.01	100.25	N/A	N/A	154	224	Fundamental

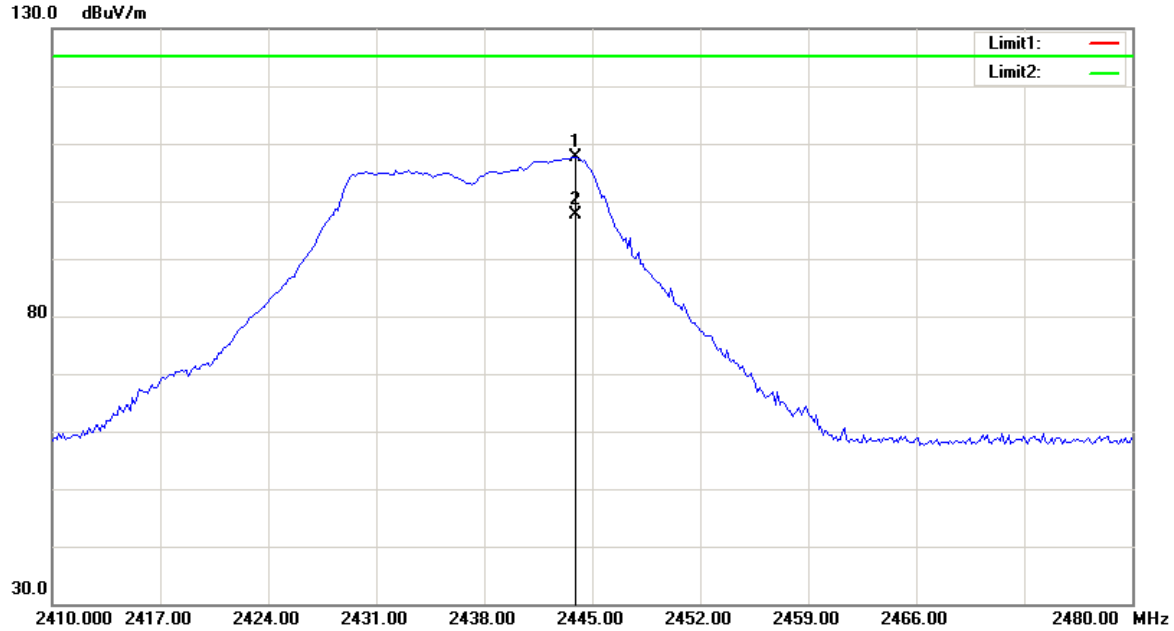
Fundamental Test with Band Rejection Filter



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	6302.605	47.21	peak	1.46	48.67	74.00	25.33	169	47	
2	6302.605	38.34	AVG	1.46	39.80	54.00	14.20	169	47	

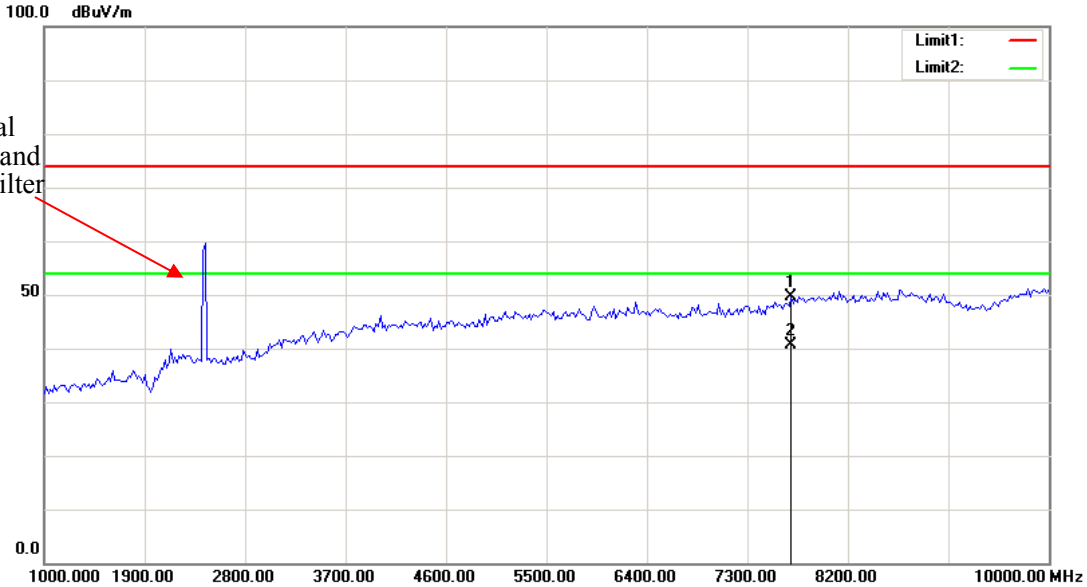
Note: No emission was detected in the range 10-25GHz.

Vertical



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2443.948	77.56	peak	30.01	107.57	N/A	N/A	148	62	Fundamental
2	2443.948	67.54	AVG	30.01	97.55	N/A	N/A	148	62	Fundamental

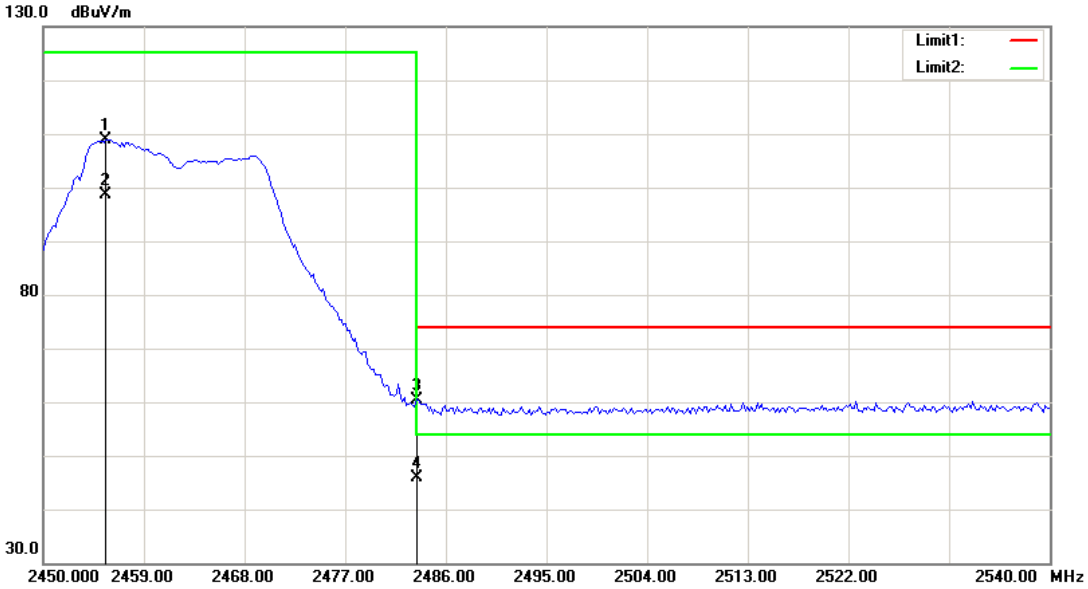
Fundamental Test with Band Rejection Filter



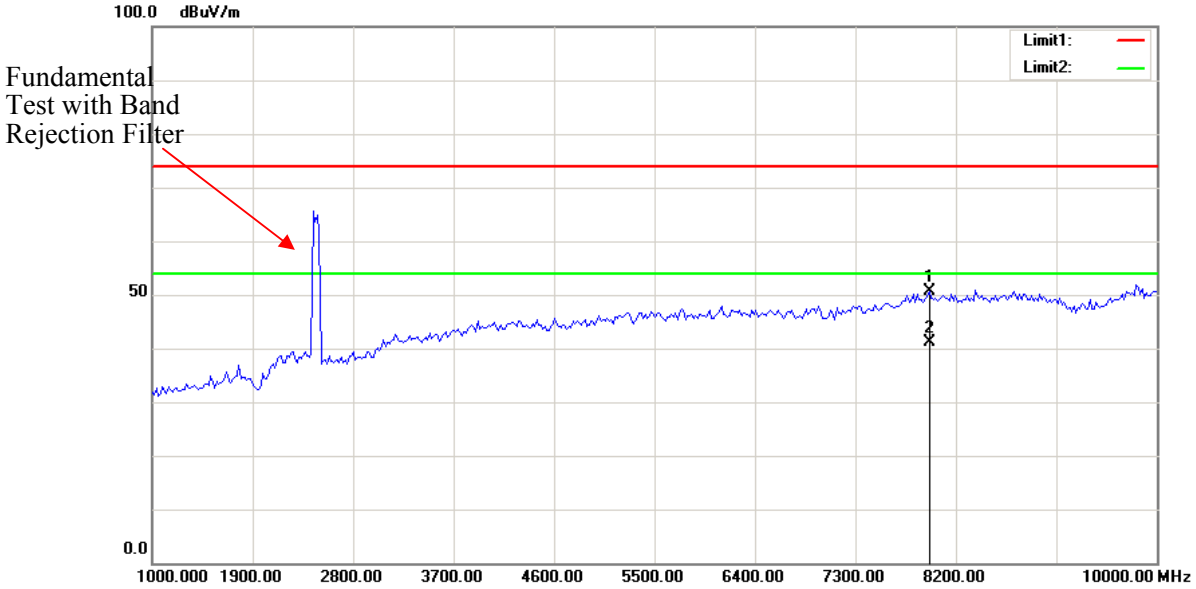
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	7691.383	45.78	peak	3.83	49.61	74.00	24.39	145	224	
2	7691.383	36.69	AVG	3.83	40.52	54.00	13.48	145	224	

Note: No emission was detected in the range 10-25GHz.

High Channel, Horizontal



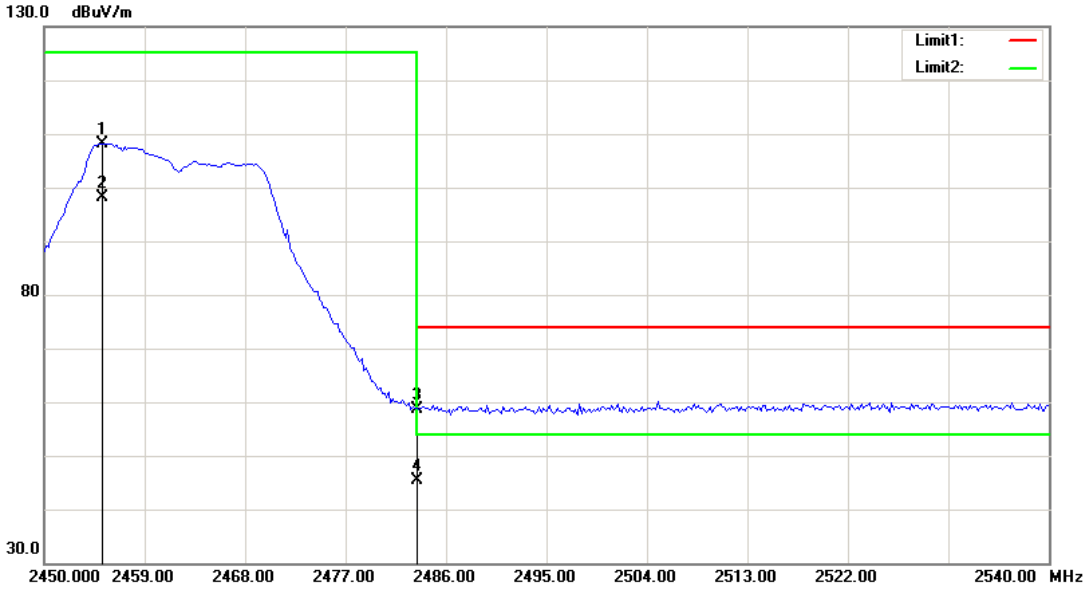
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2455.591	78.91	peak	30.04	108.95	N/A	N/A	154	22	Fundamental
2	2455.591	68.57	AVG	30.04	98.61	N/A	N/A	154	22	Fundamental
3	2483.500	30.34	peak	30.11	60.45	74.00	13.55	154	22	
4	2483.500	15.69	AVG	30.11	45.80	54.00	8.20	154	22	



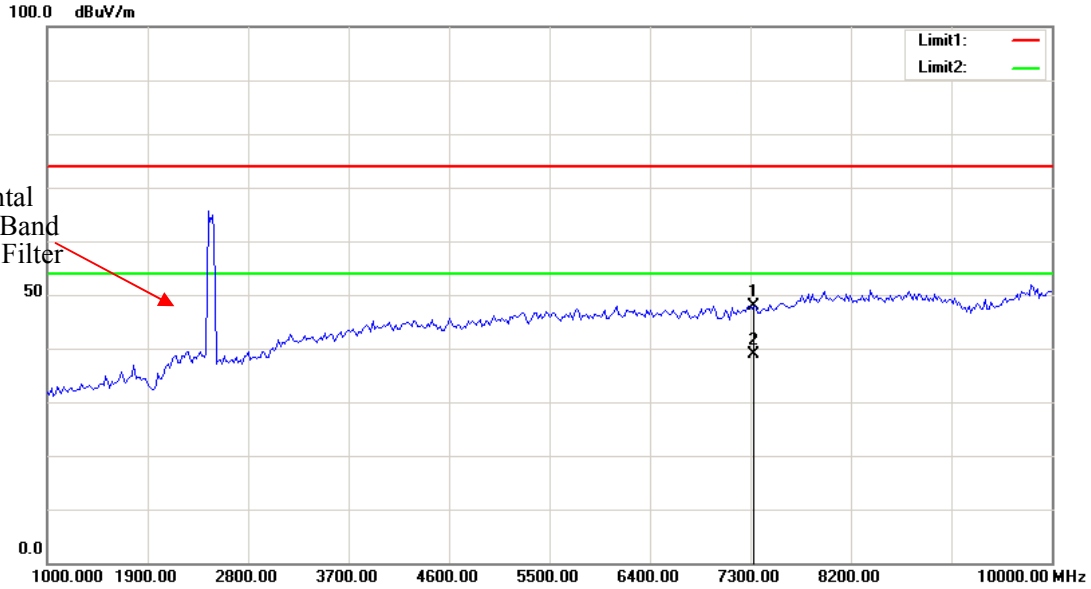
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	7961.924	45.82	peak	4.72	50.54	74.00	23.46	142	53	
2	7961.924	36.38	AVG	4.72	41.10	54.00	12.90	142	53	

Note: No emission was detected in the range 10-25GHz.

Vertical



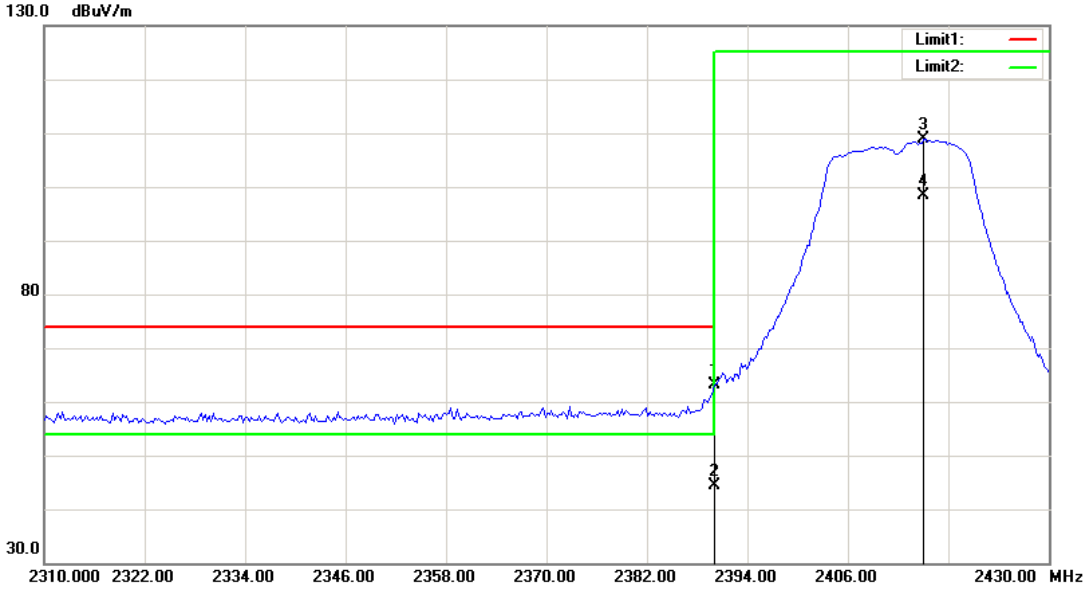
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2455.231	78.07	peak	30.04	108.11	N/A	N/A	146	228	Fundamental
2	2455.231	68.15	AVG	30.04	98.19	N/A	N/A	146	228	Fundamental
3	2483.500	28.58	peak	30.11	58.69	74.00	15.31	146	228	
4	2483.500	15.39	AVG	30.11	45.50	54.00	8.50	146	228	



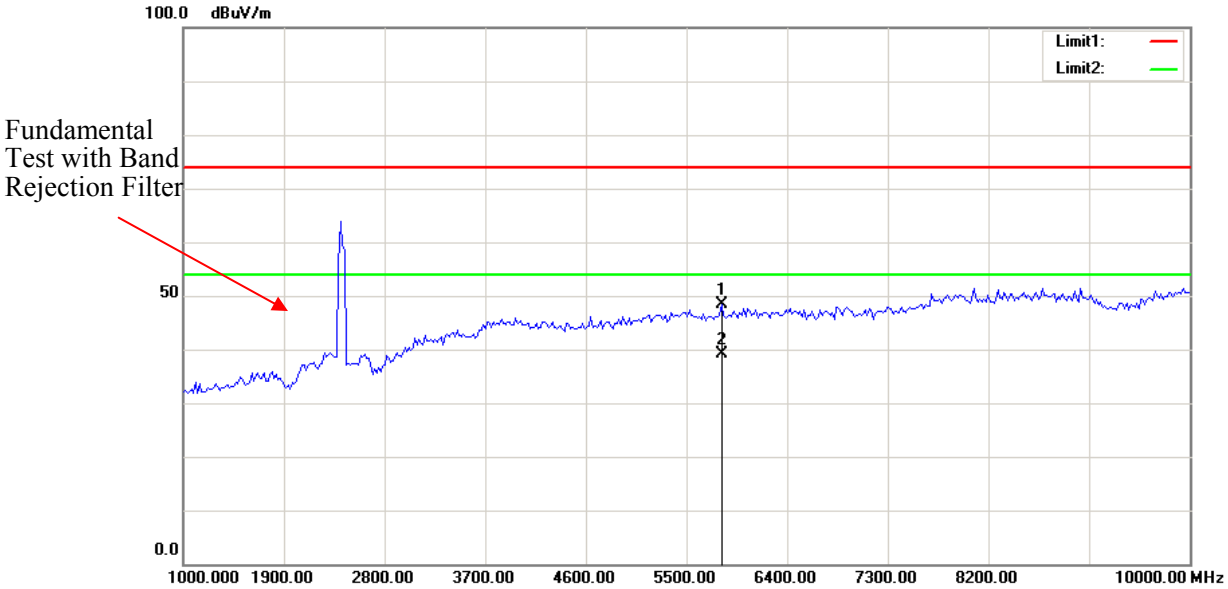
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	7330.661	44.63	peak	3.27	47.90	74.00	26.10	149	68	
2	7330.661	35.49	AVG	3.27	38.76	54.00	15.24	149	68	

Note: No emission was detected in the range 10-25GHz.

802.11n ht20
Low Channel, Horizontal



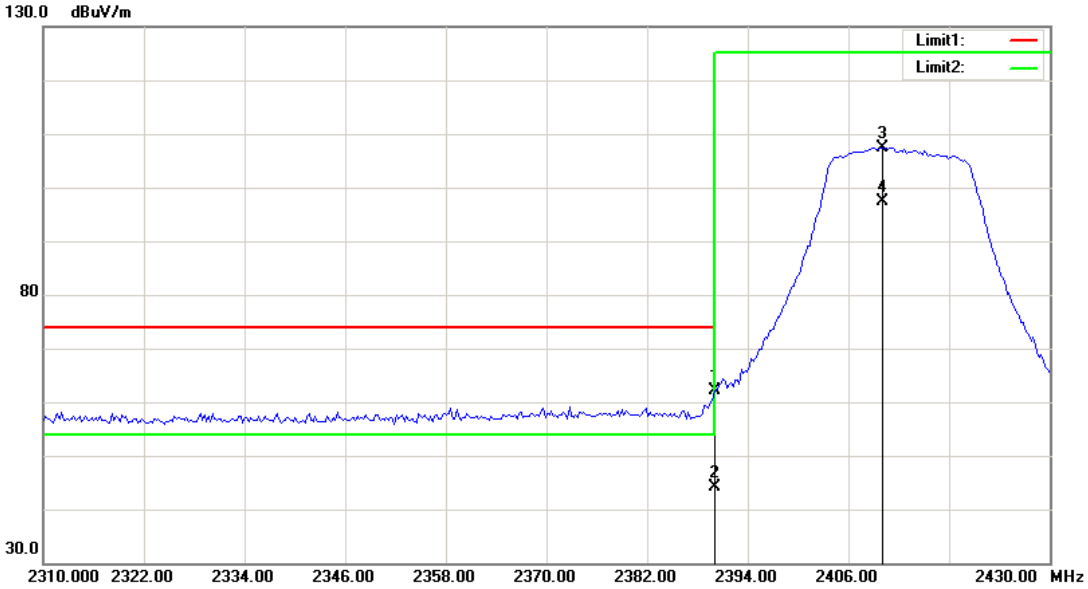
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	2390.000	33.35	peak	29.88	63.23	74.00	10.77	148	46	
2	2390.000	14.61	AVG	29.88	44.49	54.00	9.51	148	46	
3	2415.090	78.85	peak	29.94	108.79	N/A	N/A	148	46	Fundamental
4	2415.090	68.49	AVG	29.94	98.43	N/A	N/A	148	46	Fundamental



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	5815.631	47.58	peak	0.68	48.26	74.00	25.74	162	337	
2	5815.631	38.49	AVG	0.68	39.17	54.00	14.83	162	337	

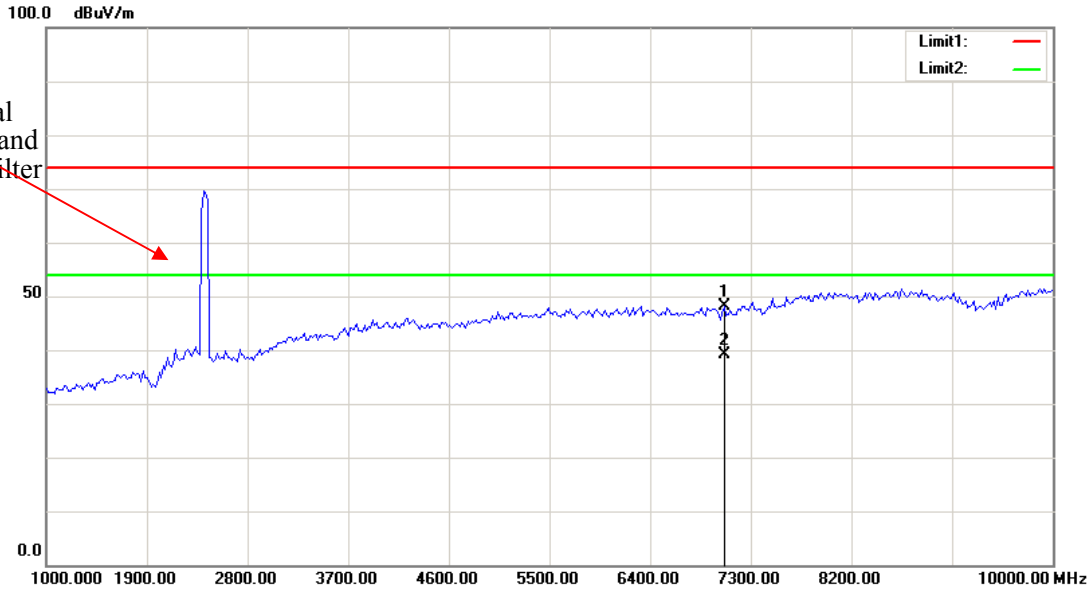
Note: No emission was detected in the range 10-25GHz.

Vertical



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	2390.000	32.35	peak	29.88	62.23	74.00	11.77	147	225	
2	2390.000	14.37	AVG	29.88	44.25	54.00	9.75	147	225	
3	2410.040	77.54	peak	29.93	107.47	N/A	N/A	147	225	Fundamental
4	2410.040	67.48	AVG	29.93	97.41	N/A	N/A	147	225	Fundamental

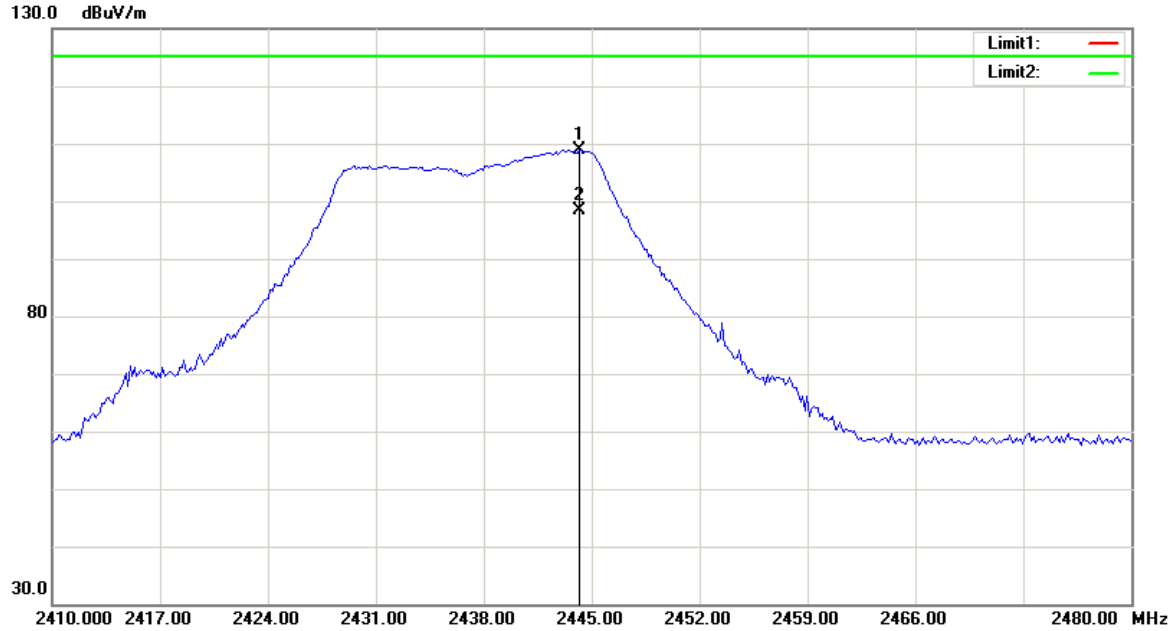
Fundamental Test with Band Rejection Filter



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	7060.120	44.81	peak	3.39	48.20	74.00	25.80	142	34	
2	7060.120	35.62	AVG	3.39	39.01	54.00	14.99	142	34	

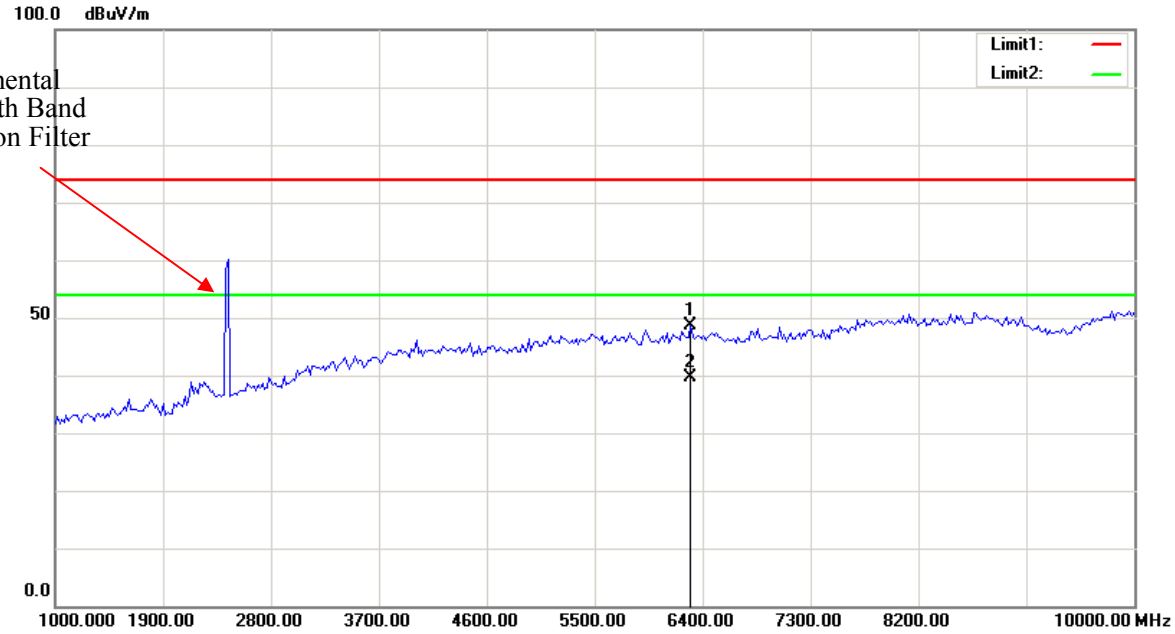
Note: No emission was detected in the range 10-25GHz.

Middle Channel, Horizontal



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	2444.229	78.82	peak	30.01	108.83	N/A	N/A	148	56	Fundamental
2	2444.229	68.43	AVG	30.01	98.44	N/A	N/A	148	56	Fundamental

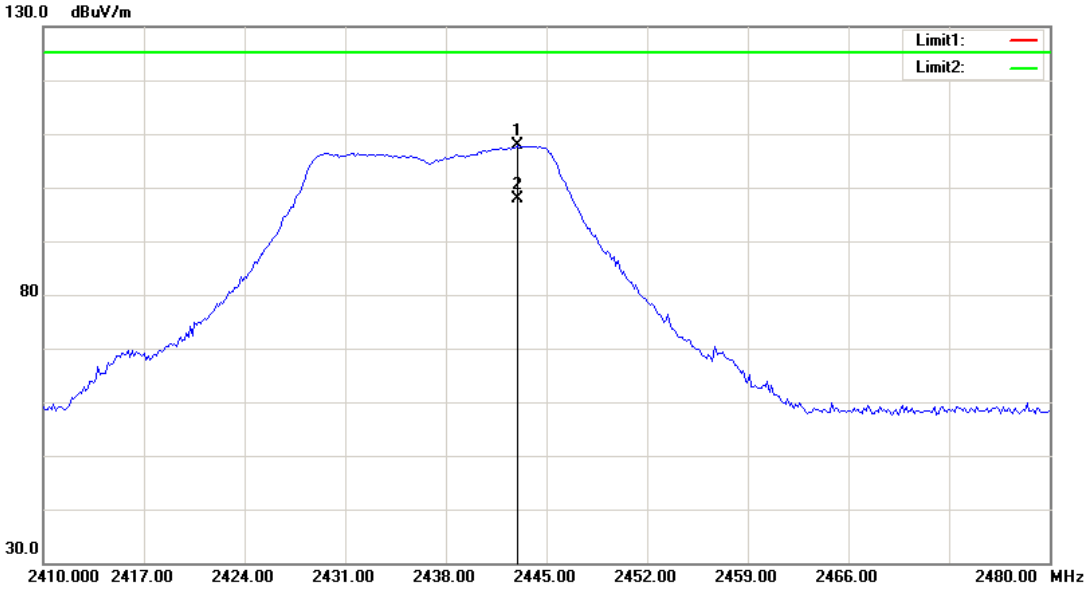
Fundamental Test with Band Rejection Filter



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	6302.605	47.21	peak	1.46	48.67	74.00	25.33	156	22	
2	6302.605	38.23	AVG	1.46	39.69	54.00	14.31	156	22	

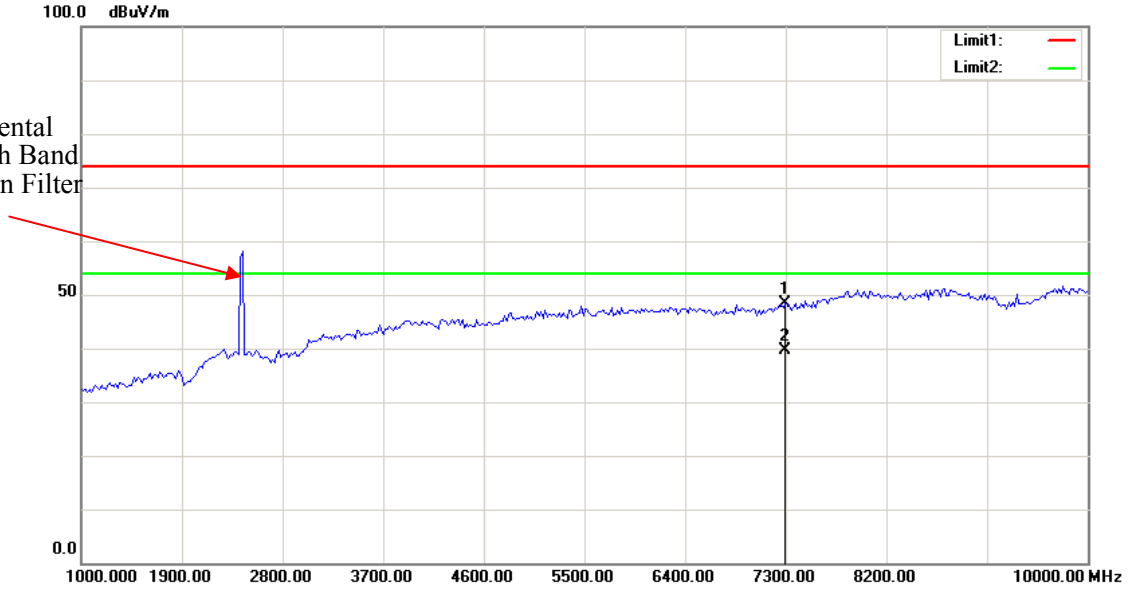
Note: No emission was detected in the range 10-25GHz.

Vertical



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2442.966	77.78	peak	30.01	107.79	N/A	N/A	152	334	Fundamental
2	2442.966	67.84	AVG	30.01	97.85	N/A	N/A	152	334	Fundamental

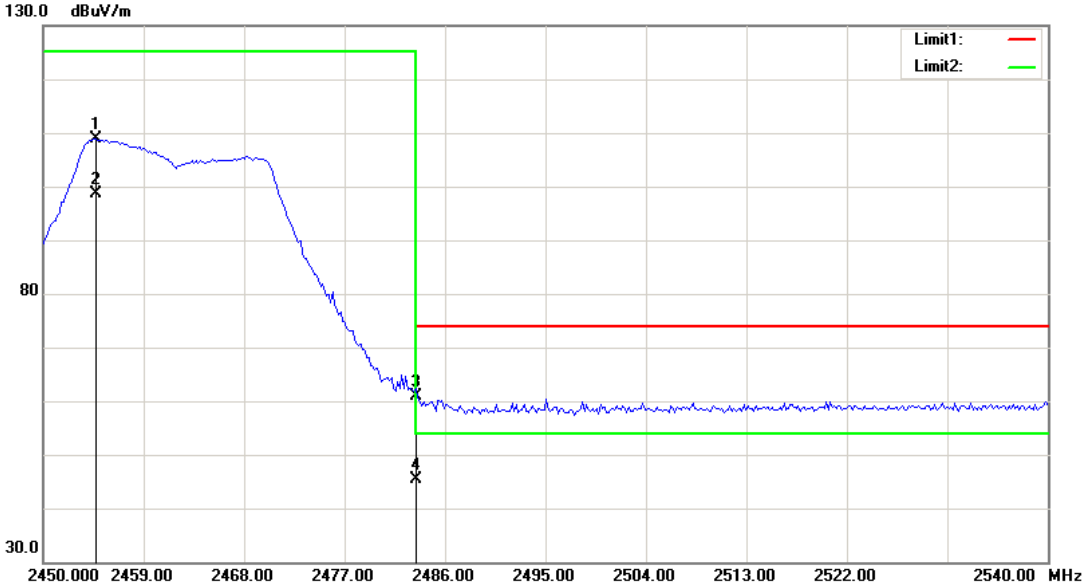
Fundamental Test with Band Rejection Filter



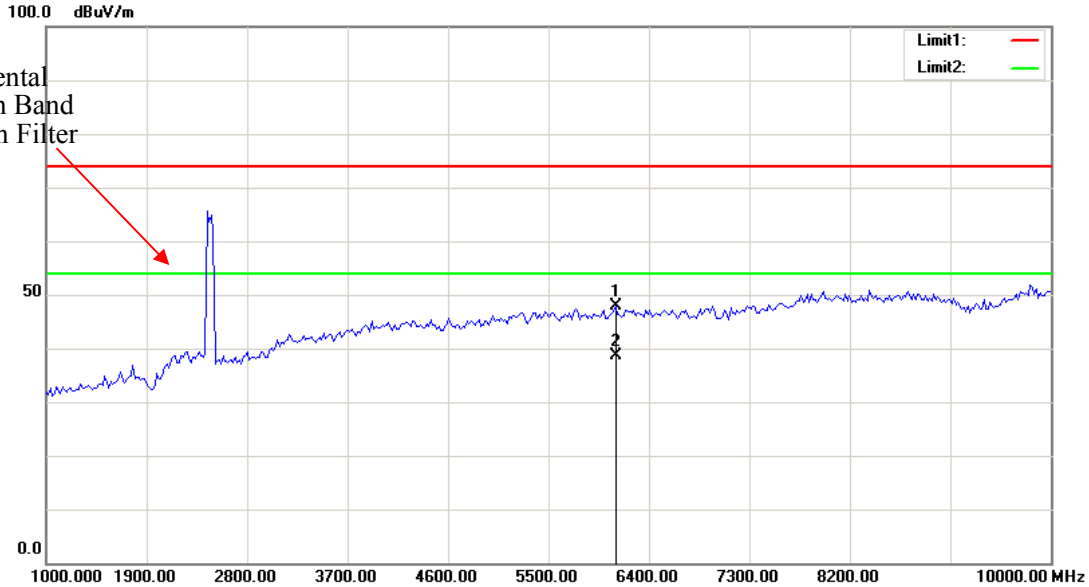
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	7294.589	45.08	peak	3.30	48.38	74.00	25.62	148	162	
2	7294.589	36.34	AVG	3.30	39.64	54.00	14.36	148	162	

Note: No emission was detected in the range 10-25GHz.

High Channel, Horizontal



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2454.689	78.80	peak	30.04	108.84	N/A	N/A	142	233	Fundamental
2	2454.689	68.65	AVG	30.04	98.69	N/A	N/A	142	233	Fundamental
3	2483.500	30.74	peak	30.11	60.85	74.00	13.15	142	233	
4	2483.500	15.24	AVG	30.11	45.35	54.00	8.65	142	233	

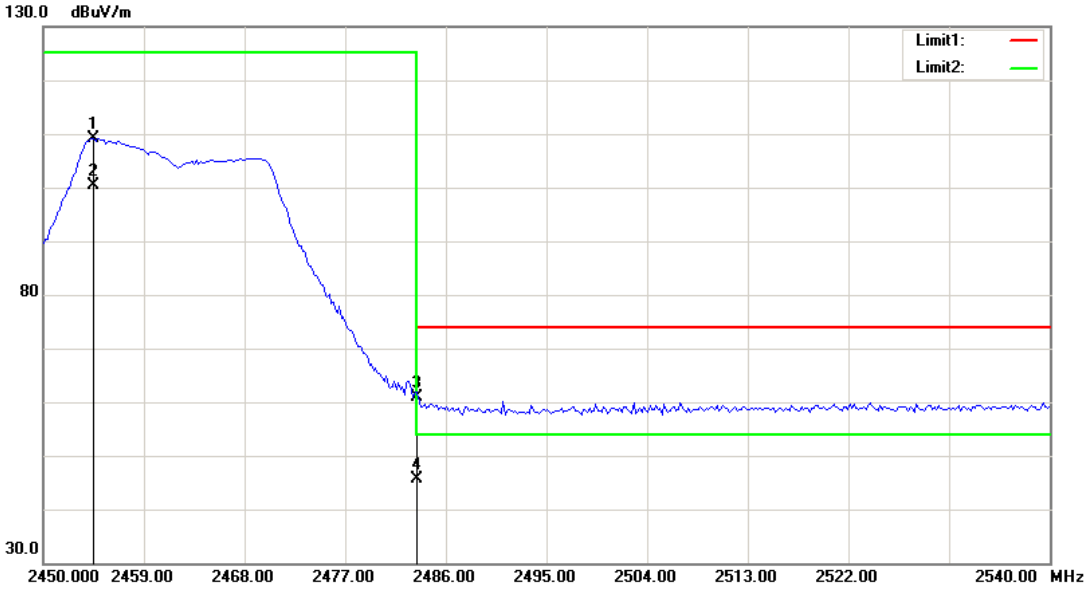


Fundamental Test with Band Rejection Filter

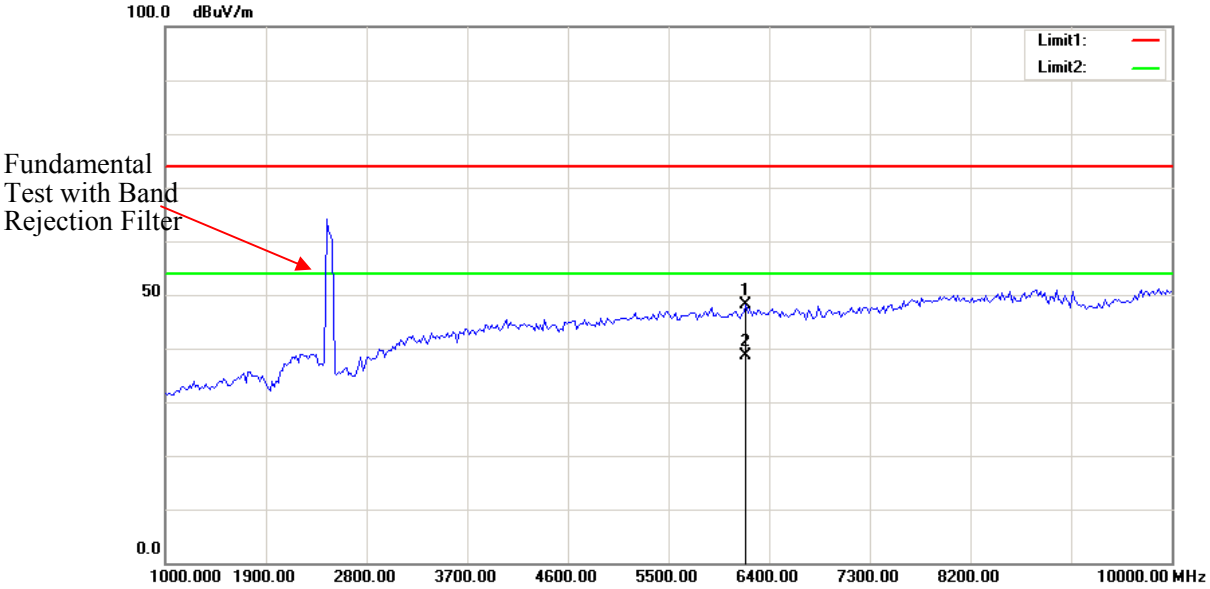
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	6104.208	46.84	peak	1.02	47.86	74.00	26.14	157	12	
2	6104.208	37.49	AVG	1.02	38.51	54.00	15.49	157	12	

Note: No emission was detected in the range 10-25GHz.

Vertical



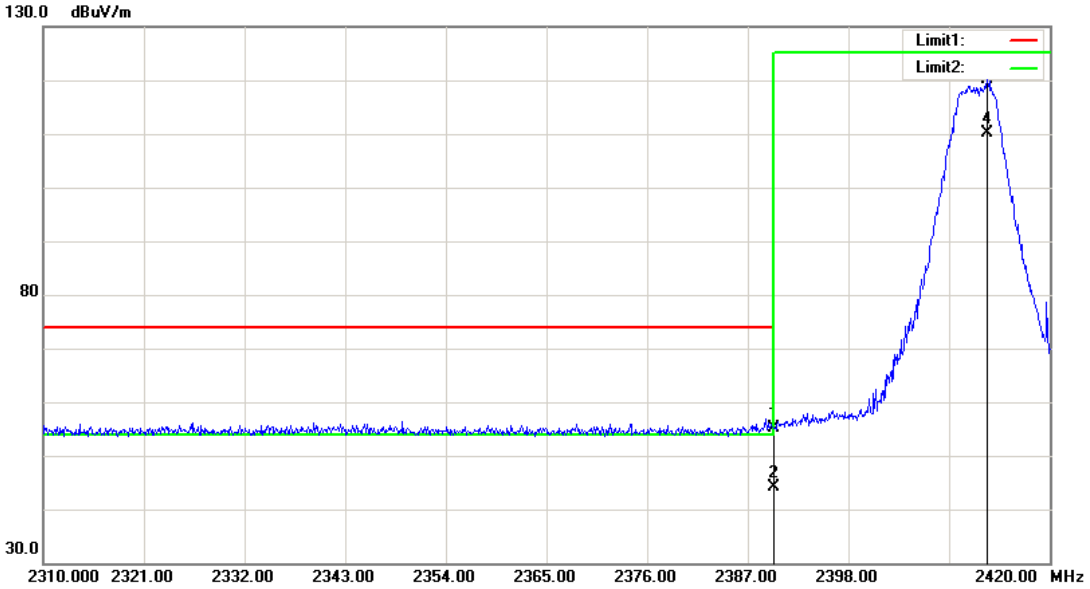
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2454.509	79.13	peak	30.04	109.17	N/A	N/A	154	228	Fundamental
2	2454.509	70.28	AVG	30.04	100.32	N/A	N/A	154	228	Fundamental
3	2483.500	30.88	peak	30.11	60.99	74.00	13.01	154	228	
4	2483.500	15.62	AVG	30.11	45.73	54.00	8.27	154	228	



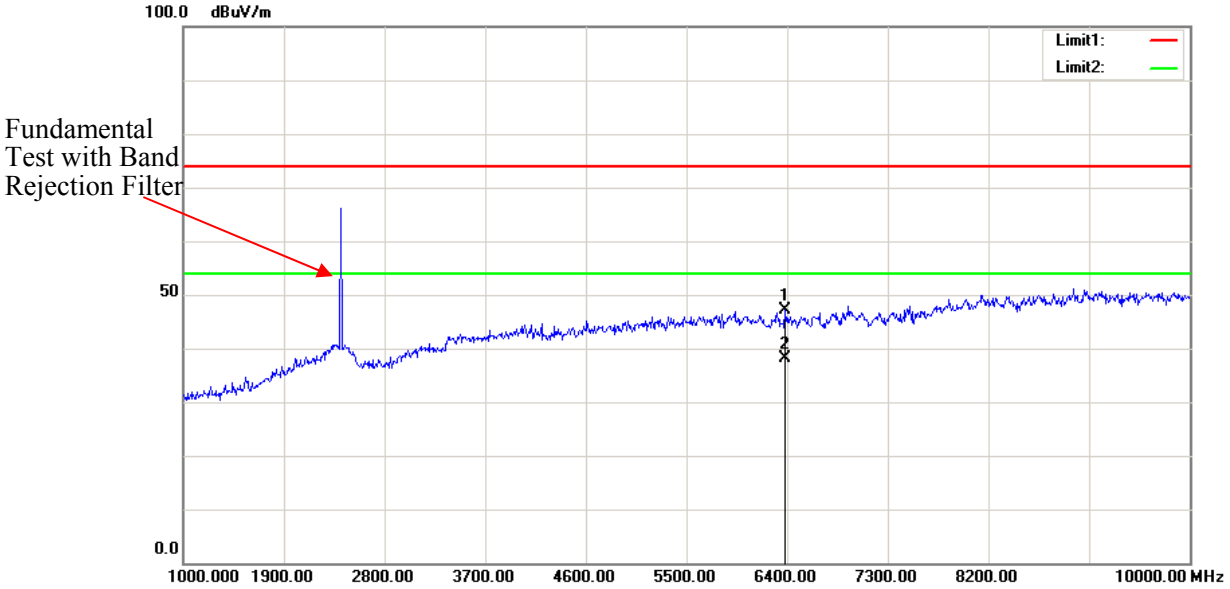
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	6194.389	46.81	peak	1.22	48.03	74.00	25.97	152	236	
2	6194.389	37.36	AVG	1.22	38.58	54.00	15.42	152	236	

Note: No emission was detected in the range 10-25GHz.

5M,Low Channel, Horizontal



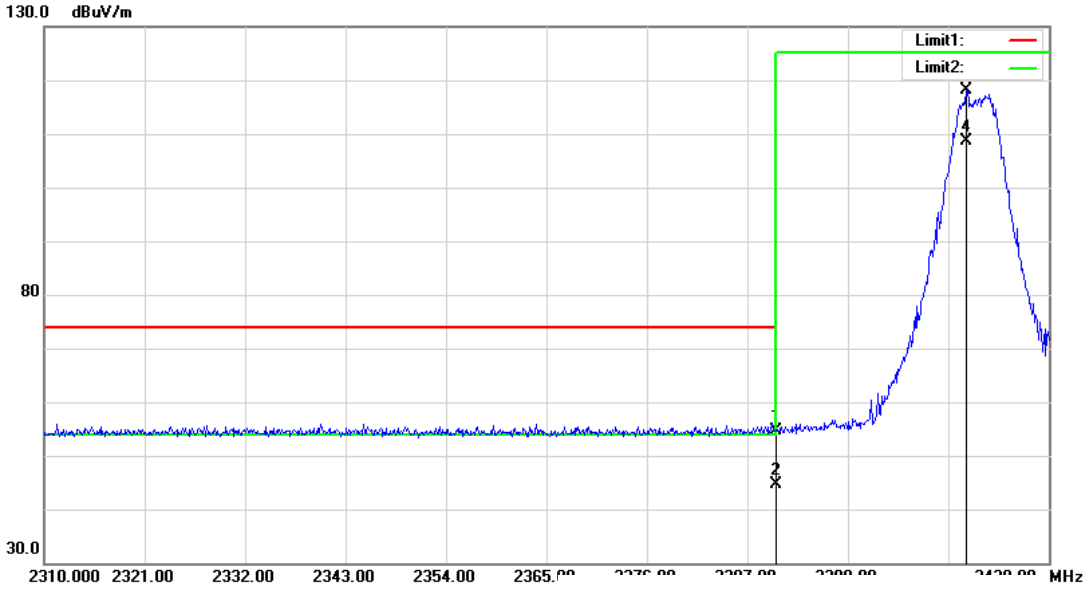
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2390.000	25.27	peak	29.87	55.14	74.00	18.86	145	67	
2	2390.000	14.25	AVG	29.87	44.12	54.00	9.88	145	67	
3	2413.180	90.24	peak	29.94	120.18	N/A	N/A	145	67	Fundamental
4	2413.180	80.13	AVG	29.94	110.07	N/A	N/A	145	67	Fundamental



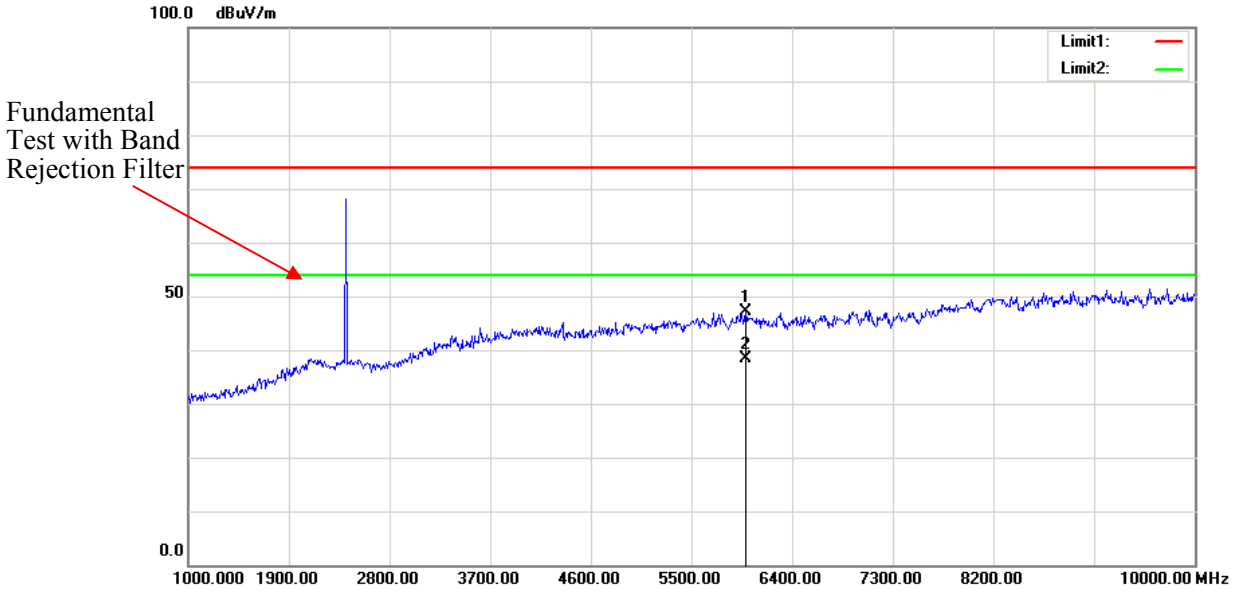
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	6382.000	45.47	peak	1.62	47.09	74.00	26.91	138	22	
2	6382.000	36.52	AVG	1.62	38.14	54.00	15.86	138	22	

Note: No emission was detected in the range 10-25GHz.

Vertical



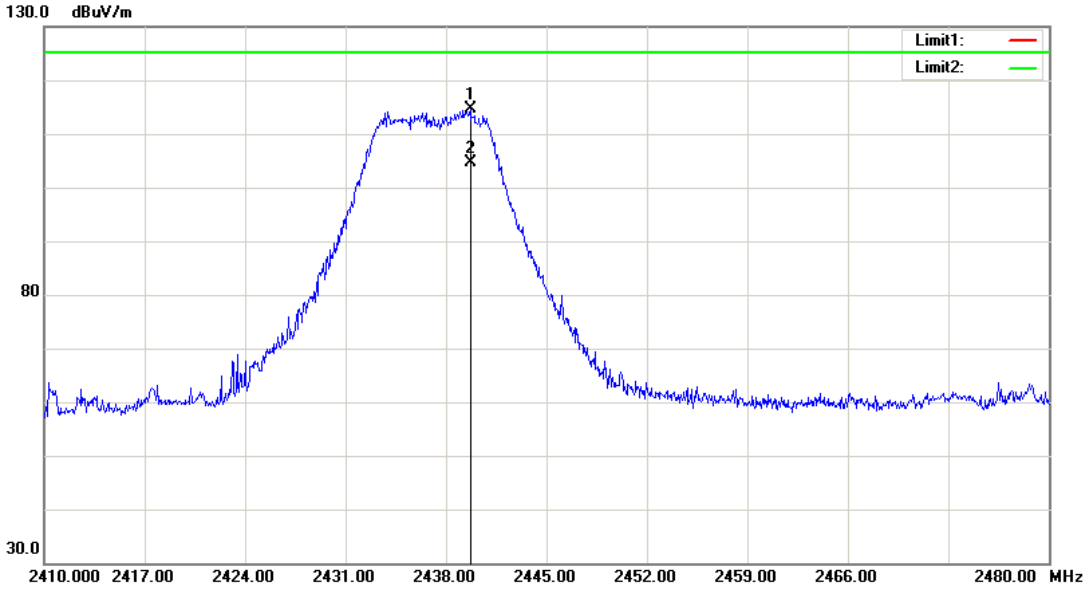
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2390.000	24.81	peak	29.87	54.68	74.00	19.32	149	66	
2	2390.000	14.73	AVG	29.87	44.60	54.00	9.40	149	66	
3	2410.980	88.30	peak	29.93	118.23	N/A	N/A	149	66	Fundamental
4	2410.980	78.64	AVG	29.93	108.57	N/A	N/A	149	66	Fundamental



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	5990.500	46.26	peak	0.81	47.07	74.00	26.93	143	225	
2	5990.500	37.53	AVG	0.81	38.34	54.00	15.66	143	225	

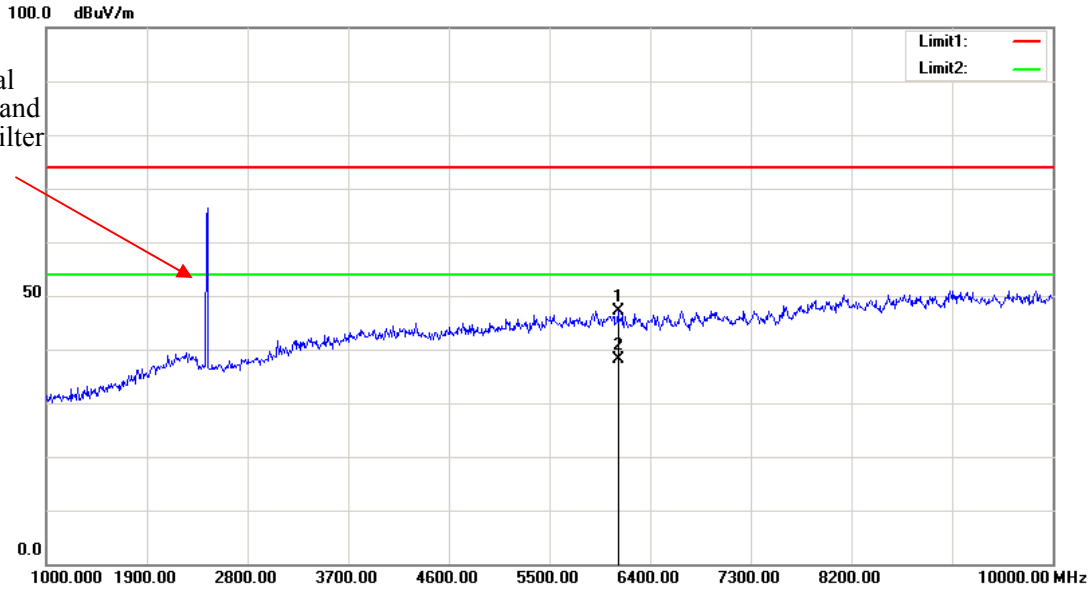
Note: No emission was detected in the range 10-25GHz.

Middle Channel, Horizontal



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2439.680	84.56	peak	30.00	114.56	N/A	N/A	144	225	Fundamental
2	2439.680	74.52	AVG	30.00	104.52	N/A	N/A	144	225	Fundamental

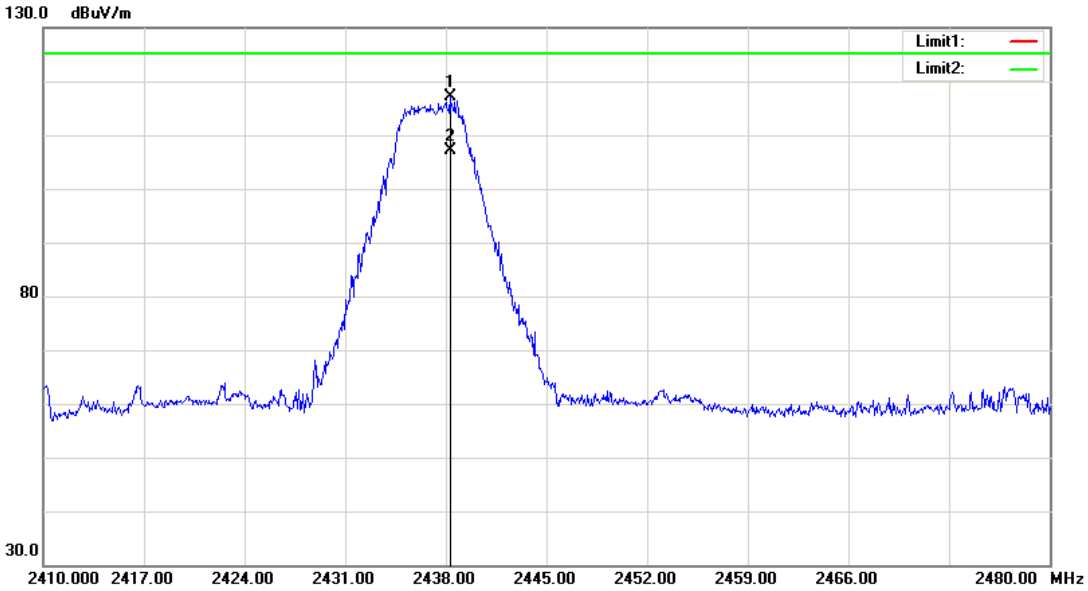
Fundamental Test with Band Rejection Filter



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV/m)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	6112.000	46.02	peak	1.05	47.07	74.00	26.93	145	228	
2	6112.000	37.13	AVG	1.05	38.18	54.00	15.82	145	228	

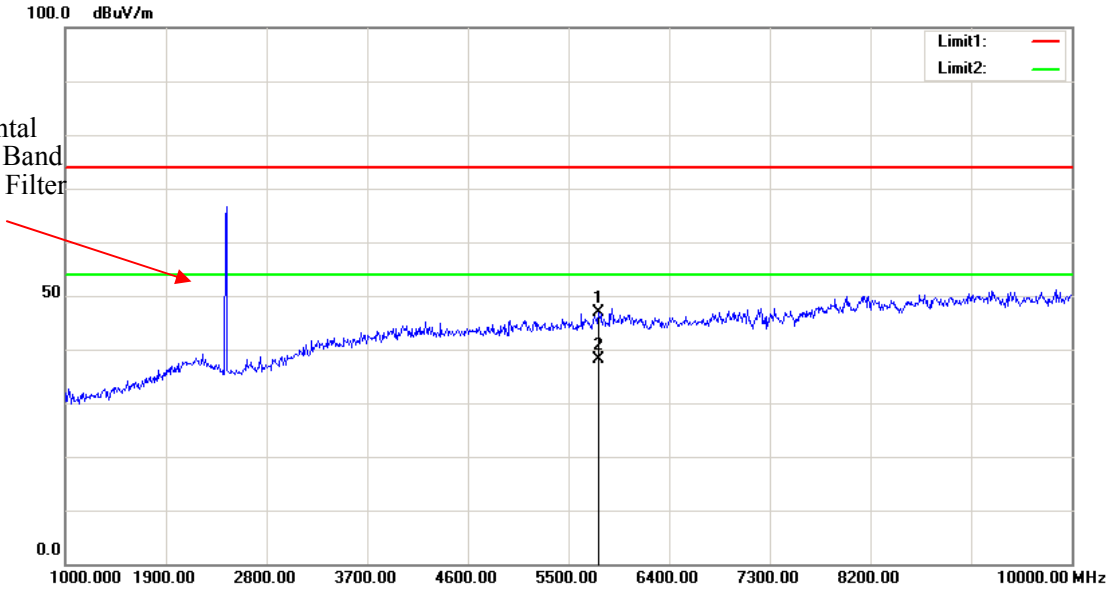
Note: No emission was detected in the range 10-25GHz.

Vertical



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	2438.315	87.14	peak	30.00	117.14	N/A	N/A	153	248	Fundamental
2	2438.315	77.06	AVG	30.00	107.06	N/A	N/A	153	248	Fundamental

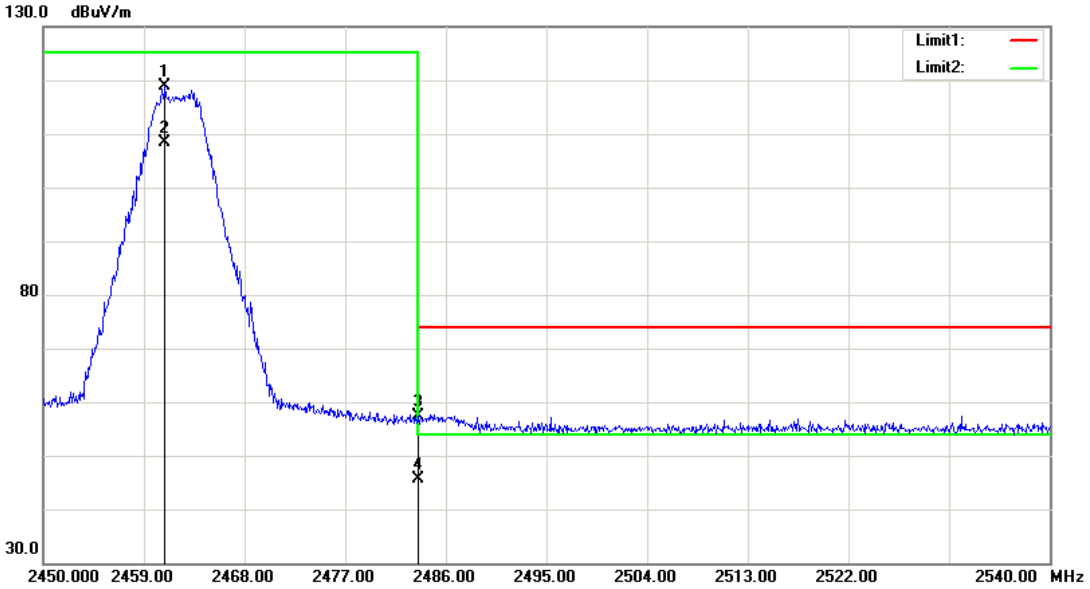
Fundamental Test with Band Rejection Filter



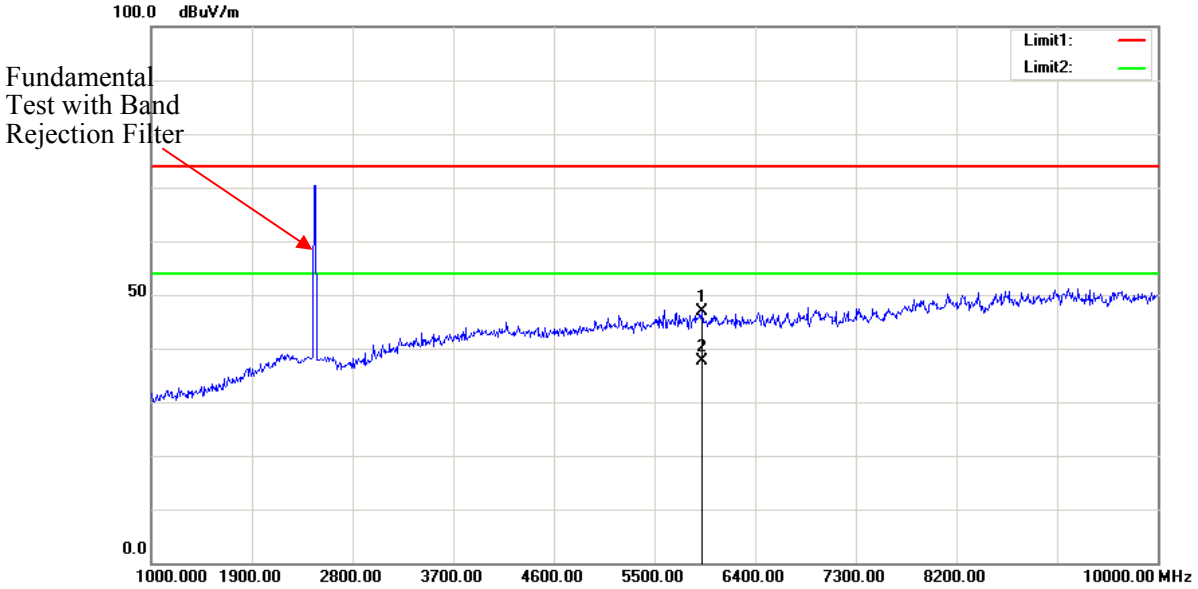
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Comment
1	5770.000	46.23	peak	0.61	46.84	74.00	27.16	155	36	
2	5770.000	37.54	AVG	0.61	38.15	54.00	15.85	155	36	

Note: No emission was detected in the range 10-25GHz.

High Channel, Horizontal



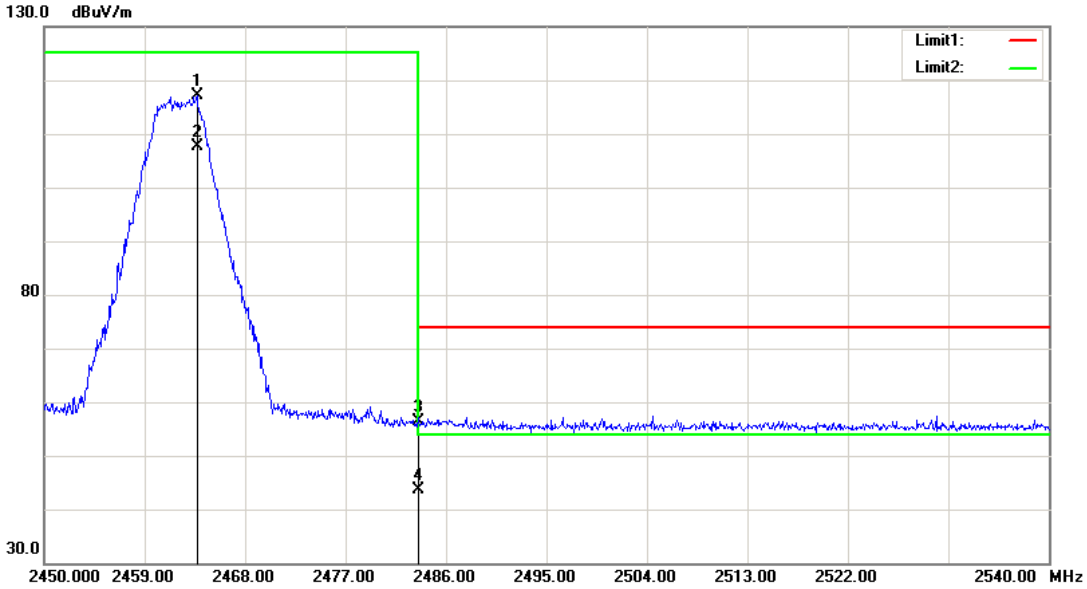
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2460.935	88.80	peak	30.05	118.85	N/A	N/A	145	112	Fundamental
2	2460.935	78.36	AVG	30.05	108.41	N/A	N/A	145	112	Fundamental
3	2483.500	27.21	peak	30.11	57.32	74.00	16.68	145	112	
4	2483.500	15.43	AVG	30.11	45.54	54.00	8.46	145	112	



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	5923.000	45.94	peak	0.82	46.76	74.00	27.24	148	227	
2	5923.000	36.85	AVG	0.82	37.67	54.00	16.33	148	227	

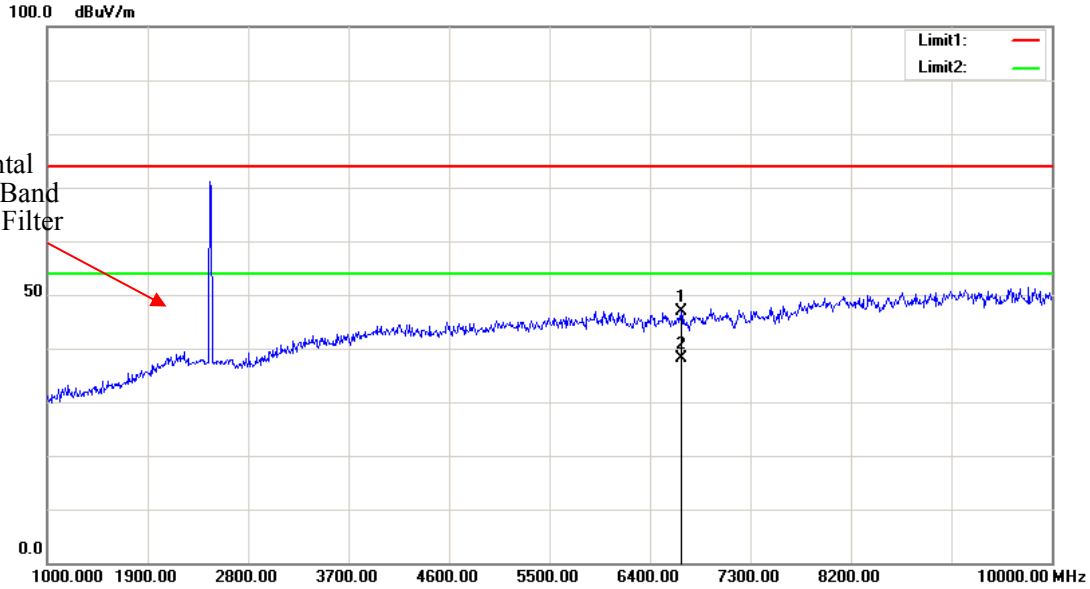
Note: No emission was detected in the range 10-25GHz.

Vertical



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2463.680	87.04	peak	30.06	117.10	N/A	N/A	149	54	Fundamental
2	2463.680	77.52	AVG	30.06	107.58	N/A	N/A	149	54	Fundamental
3	2483.500	26.24	peak	30.11	56.35	74.00	17.65	149	54	
4	2483.500	13.62	AVG	30.11	43.73	54.00	10.27	149	54	

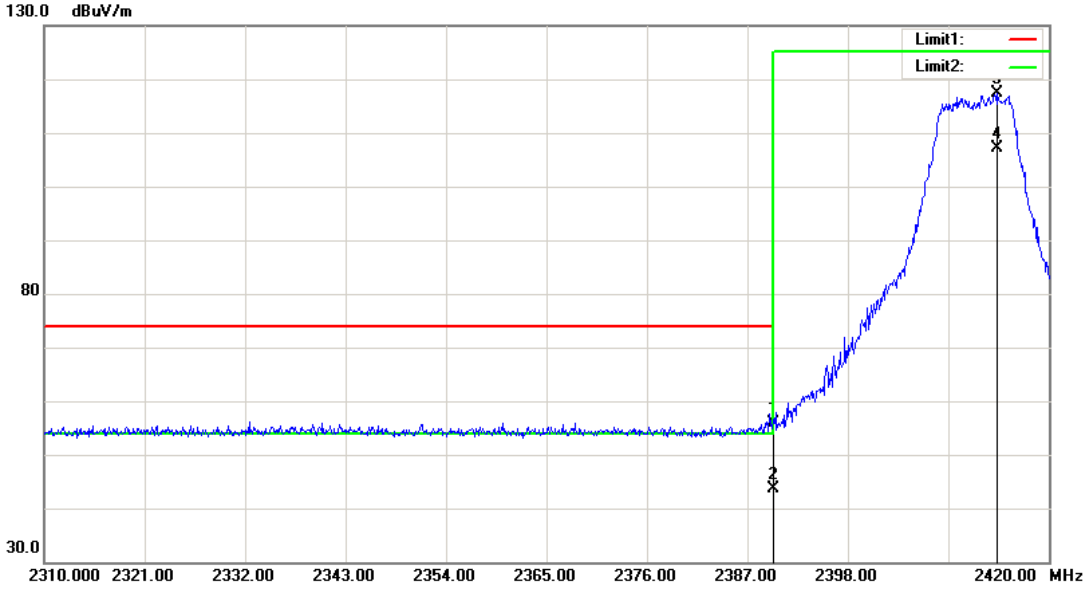
Fundamental Test with Band Rejection Filter



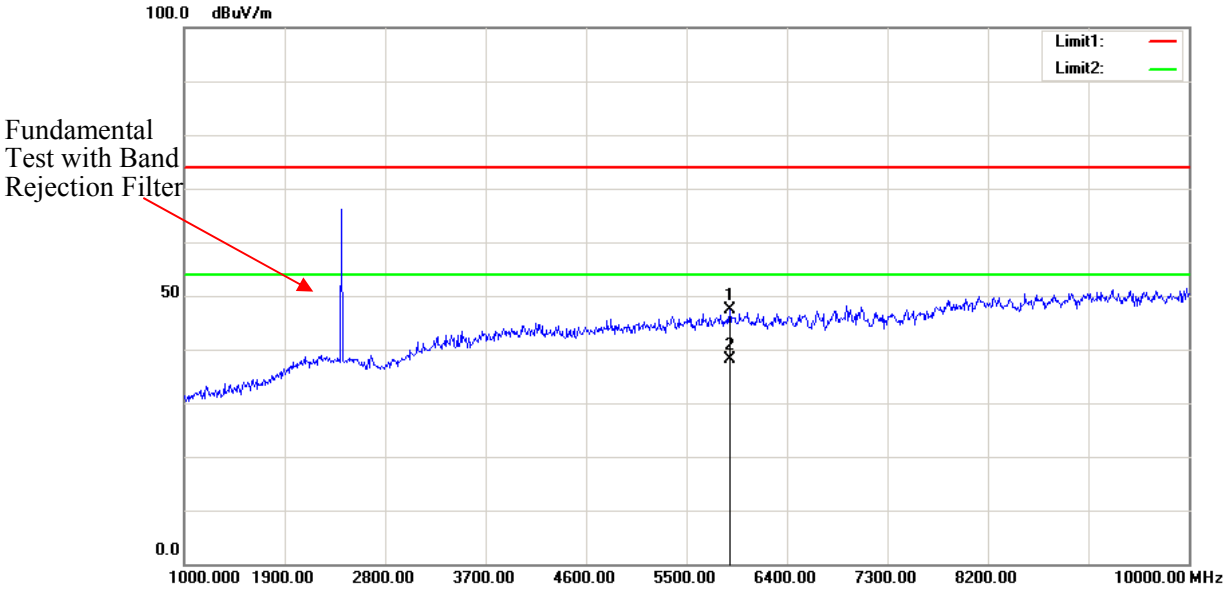
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	6683.500	44.46	peak	2.45	46.91	74.00	27.09	148	67	
2	6683.500	35.62	AVG	2.45	38.07	54.00	15.93	148	67	

Note: No emission was detected in the range 10-25GHz.

10M, Low Channel
Horizontal



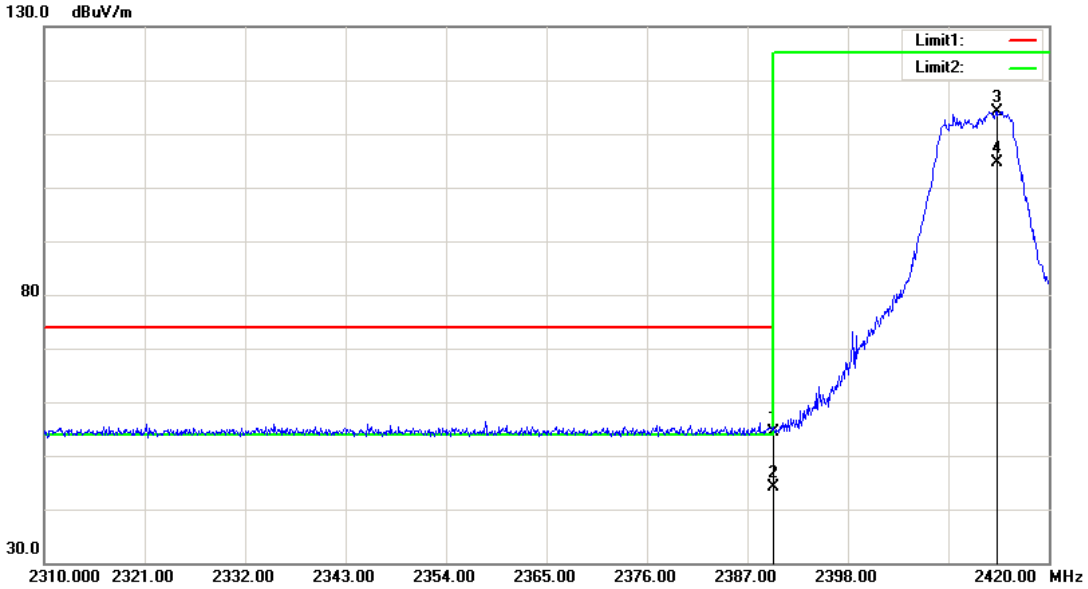
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2390.000	25.99	peak	29.87	55.86	74.00	18.14	148	65	
2	2390.000	13.64	AVG	29.87	43.51	54.00	10.49	148	65	
3	2414.445	87.43	peak	29.94	117.37	N/A	N/A	148	65	Fundamental
4	2414.445	77.15	AVG	29.94	107.09	N/A	N/A	148	65	Fundamental



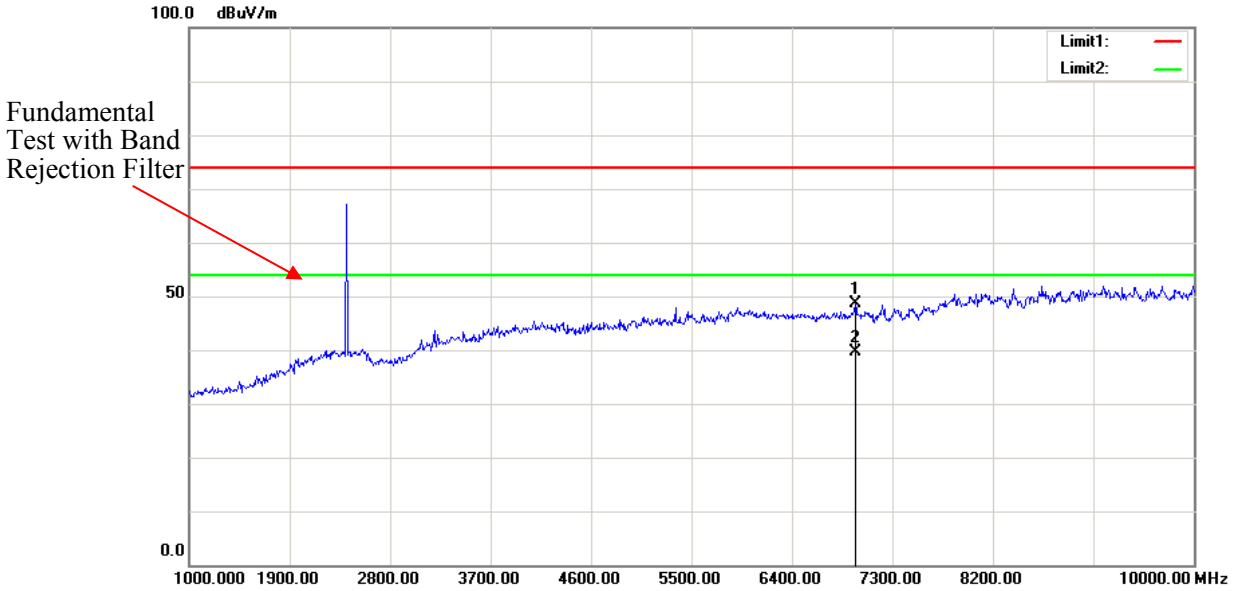
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBuV)		dB/m	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	5887.000	46.48	peak	0.80	47.28	74.00	26.72	144	57	
2	5887.000	37.39	AVG	0.80	38.19	54.00	15.81	144	57	

Note: No emission was detected in the range 10-25GHz.

Vertical



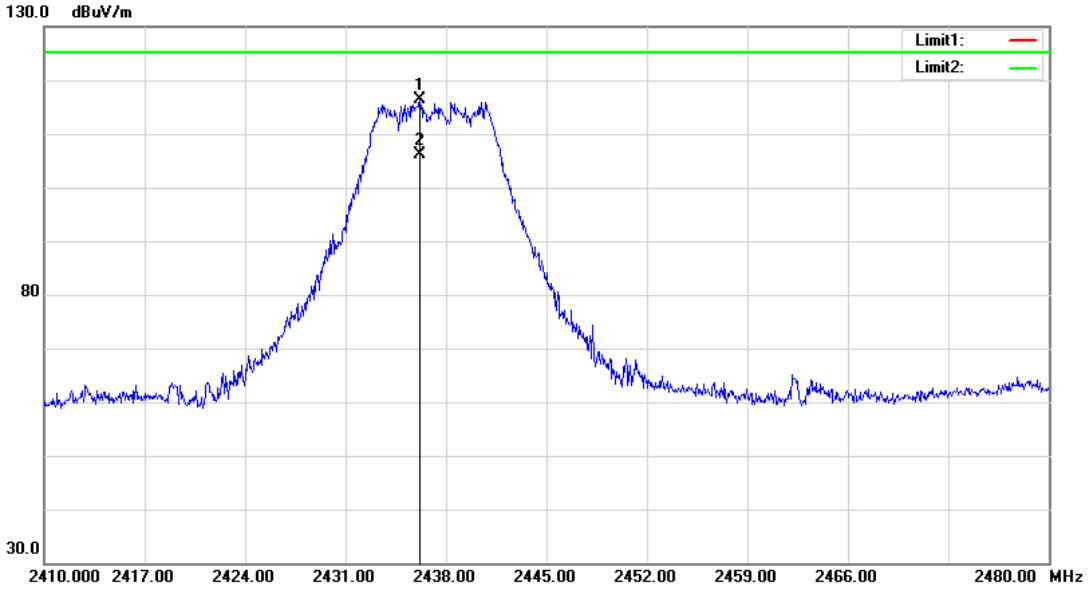
No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2390.000	24.52	peak	29.87	54.39	74.00	19.61	153	224	
2	2390.000	14.35	AVG	29.87	44.22	54.00	9.78	153	224	
3	2414.390	84.28	peak	29.94	114.22	N/A	N/A	153	224	Fundamental
4	2414.390	74.67	AVG	29.94	104.61	N/A	N/A	153	224	Fundamental



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	6967.000	45.42	peak	3.30	48.72	74.00	25.28	158	224	
2	6967.000	36.38	AVG	3.30	39.68	54.00	14.32	158	224	

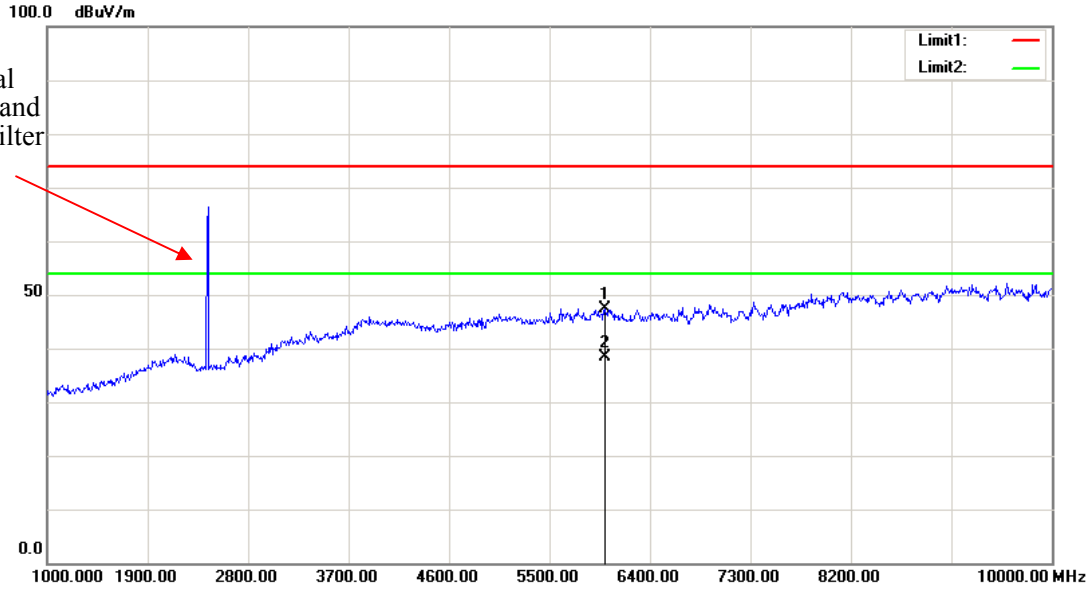
Note: No emission was detected in the range 10-25GHz.

Middle Channel, Horizontal



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2436.180	86.45	peak	29.99	116.44	N/A	N/A	138	96	Fundamental
2	2436.180	76.13	AVG	29.99	106.12	N/A	N/A	138	96	Fundamental

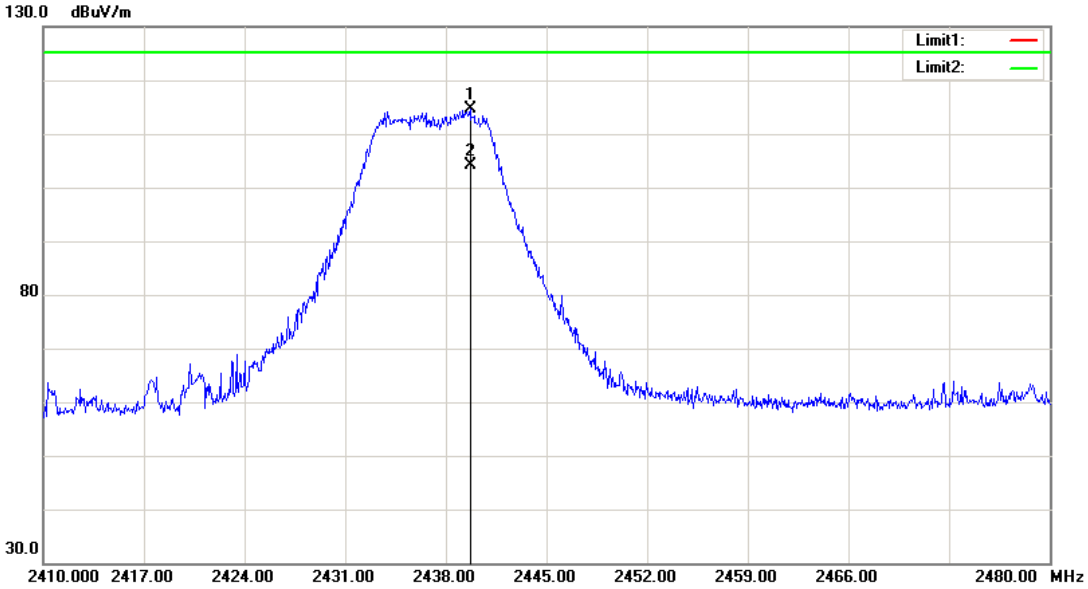
Fundamental Test with Band Rejection Filter



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV/m)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	5995.000	46.60	peak	0.81	47.41	74.00	26.59	147	55	
2	5995.000	37.59	AVG	0.81	38.40	54.00	15.60	147	55	

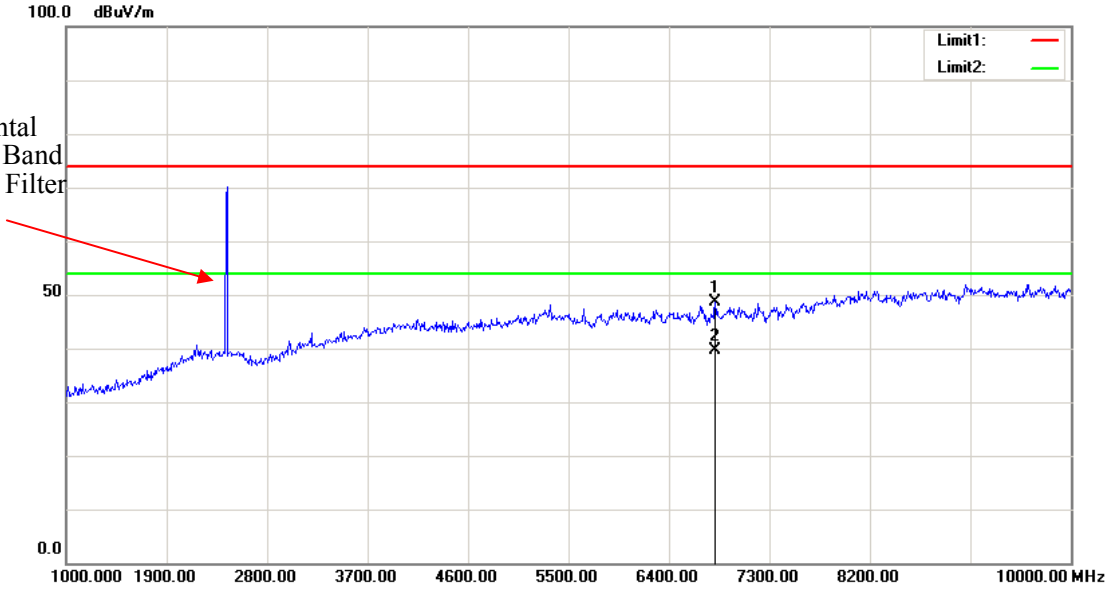
Note: No emission was detected in the range 10-25GHz.

Vertical



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2439.680	84.56	peak	30.00	114.56	N/A	N/A	153	224	Fundamental
2	2439.680	74.25	AVG	30.00	104.25	N/A	N/A	153	224	Fundamental

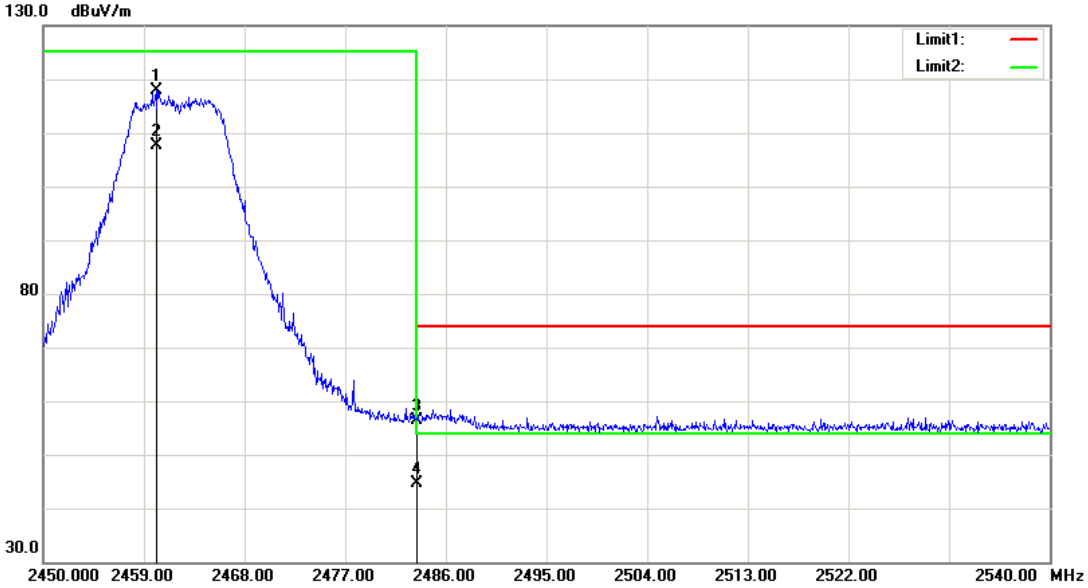
Fundamental Test with Band Rejection Filter



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	6818.500	45.85	peak	2.85	48.70	74.00	25.30	144	224	
2	6818.500	36.79	AVG	2.85	39.64	54.00	14.36	144	224	

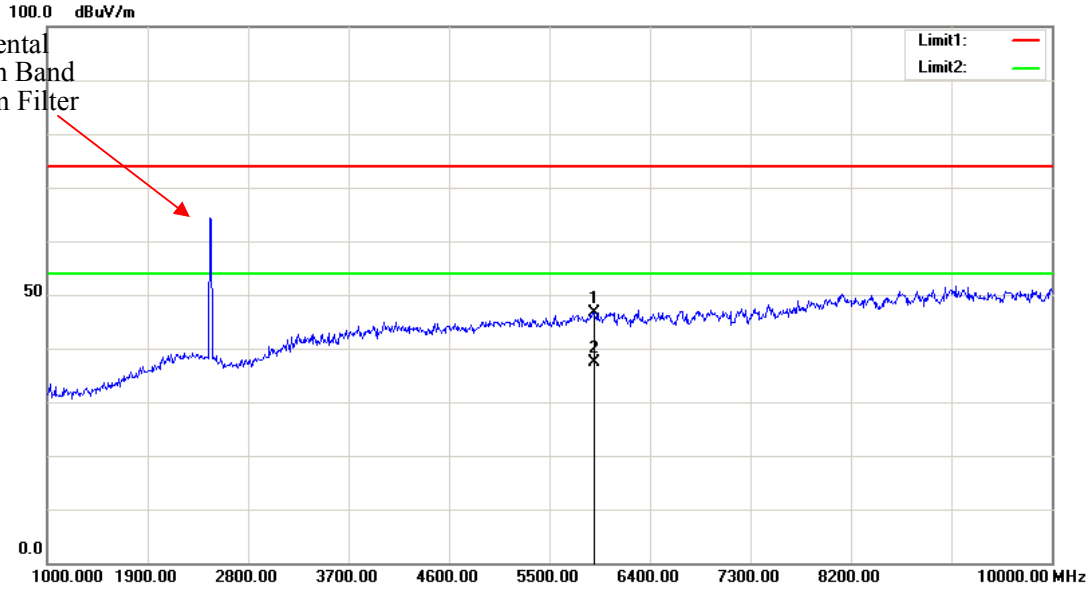
Note: No emission was detected in the range 10-25GHz.

High Channel, Horizontal



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2460.080	87.85	peak	30.05	117.90	N/A	N/A	154	68	Fundamental
2	2460.080	77.53	AVG	30.05	107.58	N/A	N/A	154	68	Fundamental
3	2483.500	26.35	peak	30.11	56.46	74.00	17.54	154	68	
4	2483.500	14.54	AVG	30.11	44.65	54.00	9.35	154	68	

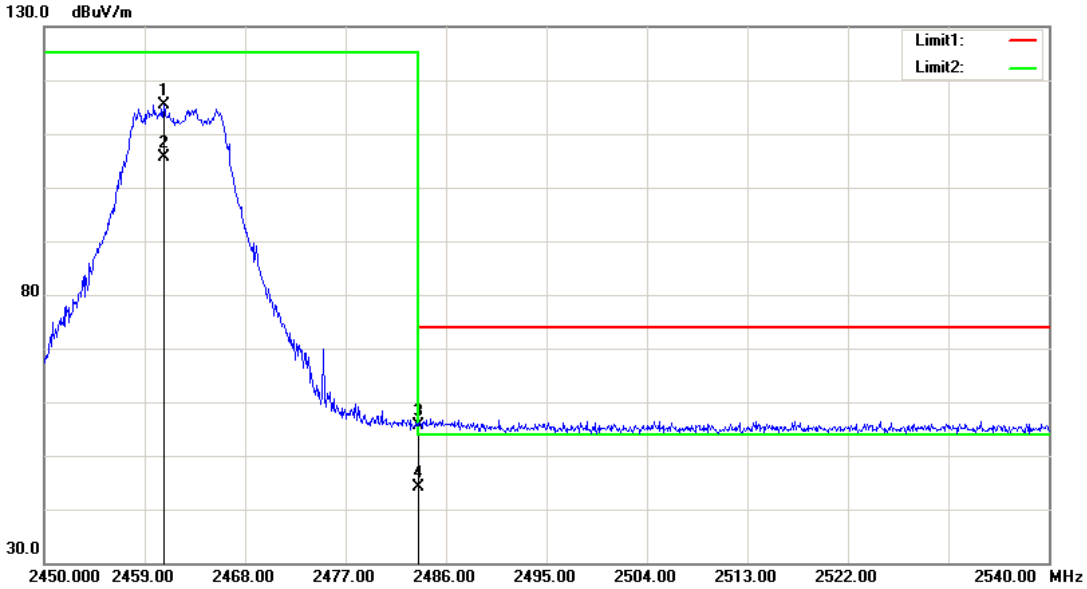
Fundamental Test with Band Rejection Filter



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	5896.000	45.90	peak	0.83	46.73	74.00	27.27	148	145	
2	5896.000	36.57	AVG	0.83	37.40	54.00	16.60	148	145	

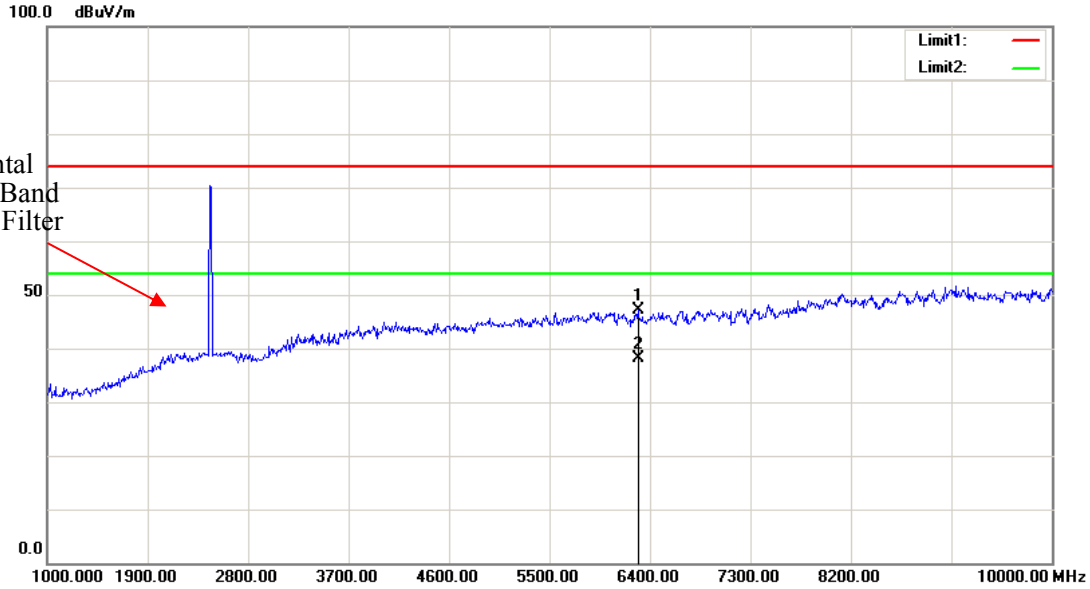
Note: No emission was detected in the range 10-25GHz.

Vertical



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	2460.710	85.41	peak	30.05	115.46	N/A	N/A	144	152	Fundamental
2	2460.710	75.54	AVG	30.05	105.59	N/A	N/A	144	152	Fundamental
3	2483.500	25.42	peak	30.11	55.53	74.00	18.47	144	152	
4	2483.500	14.11	AVG	30.11	44.22	54.00	9.78	144	152	

Fundamental Test with Band Rejection Filter



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comment
	(MHz)	(dBµV)		dB/m	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(deg.)	
1	6292.000	45.66	peak	1.43	47.09	74.00	26.91	145	25	
2	6292.000	36.72	AVG	1.43	38.15	54.00	15.85	145	25	

Note: No emission was detected in the range 10-25GHz.

FCC §15.247(a) (2)& RSS-247 §5.2 a) &RSS-247 §5.2 a) &RSS-GEN§6.6 –6 dB EMISSION BANDWIDTH AND 99% OCCUPIED BANDWIDTH

Applicable Standard

According to FCC §15.247(a) (2)

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kH

According to RSS-247 §5.2 a)

The minimum 6 dB bandwidth shall be 500 kHz.

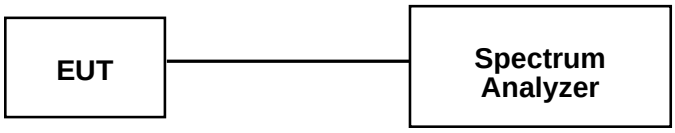
According to RSS-Gen §6.6

The emission bandwidth (x dB) is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated x dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth.

When the occupied bandwidth limit is not stated in the applicable RSS or reference measurement method, the transmitted signal bandwidth shall be reported as the 99% emission bandwidth, as calculated or measured.

Test Procedure

a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3×RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) 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.
h) Measure the 99% bandwidth use OBW test function.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	101121	2017/3/2	2018/3/2
Unknown	Coaxial Cable	0.1m	C-1	Each Time	/

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	26.7 ~ 27.8 °C
Relative Humidity:	40 ~ 51 %
ATM Pressure:	101~102.1 kPa

The testing was performed by Robin Zheng from 2017-10-27 to 2017-11-07.

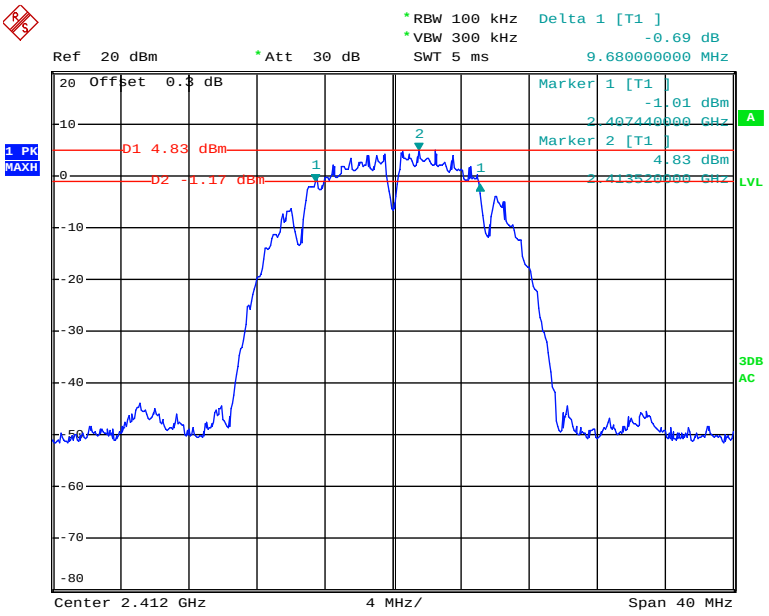
Test Mode: Transmitting (performed at chain 0)

Test Result: Compliant. Please refer to the following table and plots.

Mode	Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	99% Occupied bandwidth (MHz)	Limit (MHz)
802.11b	Low	2412	9.68	13.36	≥0.5
	Middle	2437	10.08	14	≥0.5
	High	2462	9.76	14.08	≥0.5
802.11g	Low	2412	15.84	16.72	≥0.5
	Middle	2437	16	17.28	≥0.5
	High	2462	15.92	17.52	≥0.5
802.11n ht20	Low	2412	16	17.84	≥0.5
	Middle	2437	16.88	18.48	≥0.5
	High	2462	16.48	18.4	≥0.5
5M	Low	2412	4.22	4.52	≥0.5
	Middle	2437	4.18	4.5	≥0.5
	High	2462	4.24	4.56	≥0.5
10M	Low	2412	8.28	9.16	≥0.5
	Middle	2437	8.28	9.32	≥0.5
	High	2462	8.28	9.32	≥0.5

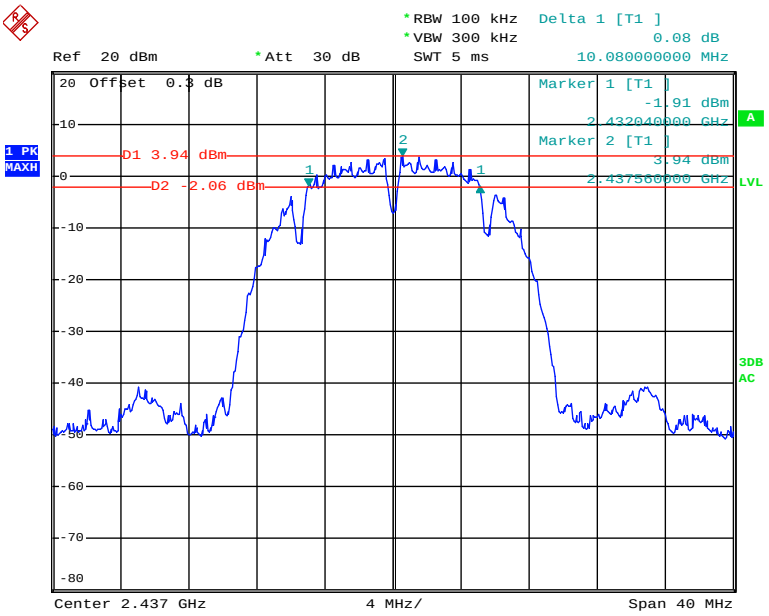
6dB Bandwidth:

802.11b Low Channel



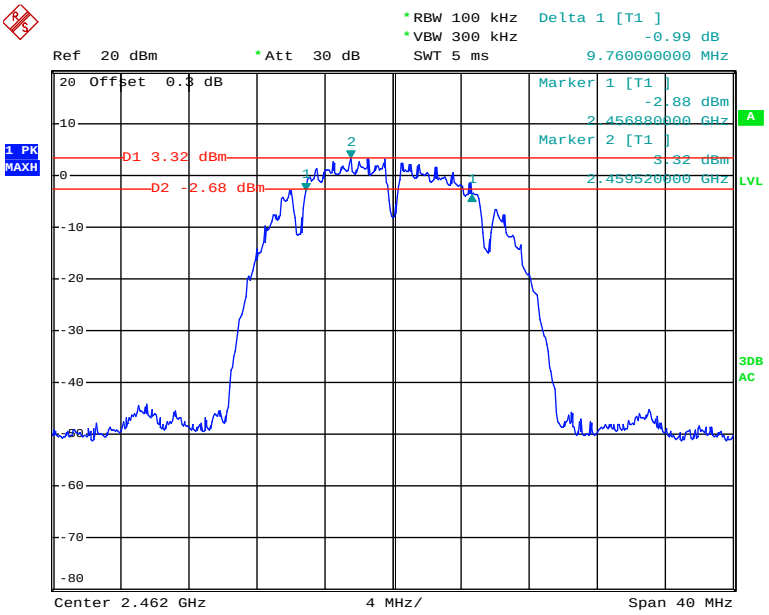
Date: 26.OCT.2017 08:56:50

802.11b Middle Channel



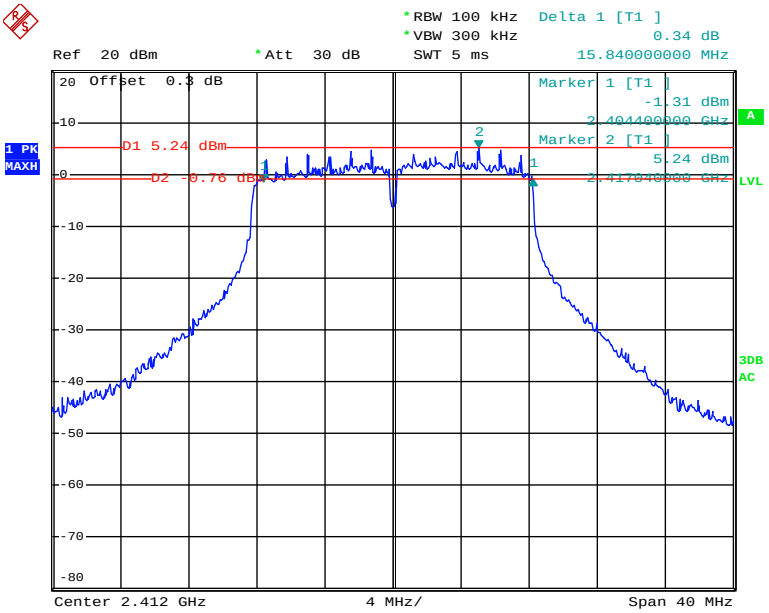
Date: 26.OCT.2017 08:58:31

802.11b High Channel



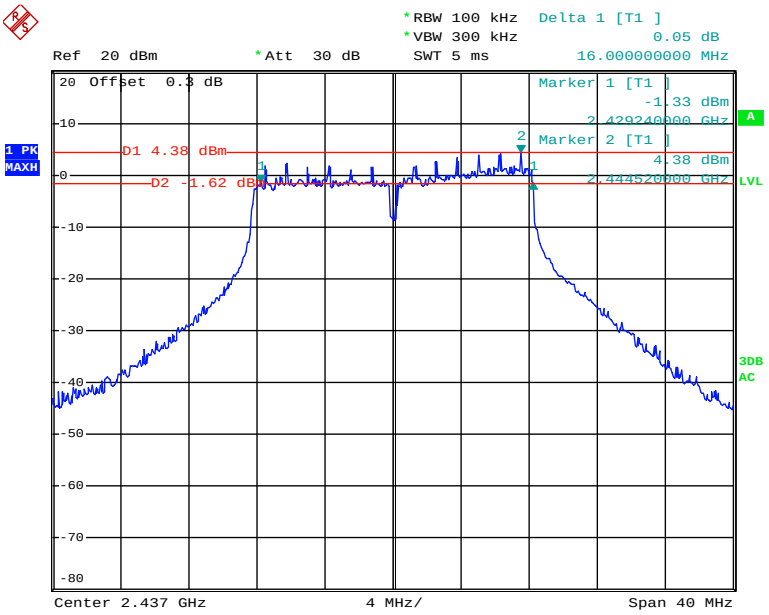
Date: 26.OCT.2017 09:51:48

802.11g Low Channel



Date: 26.OCT.2017 09:21:07

802.11g Middle Channel



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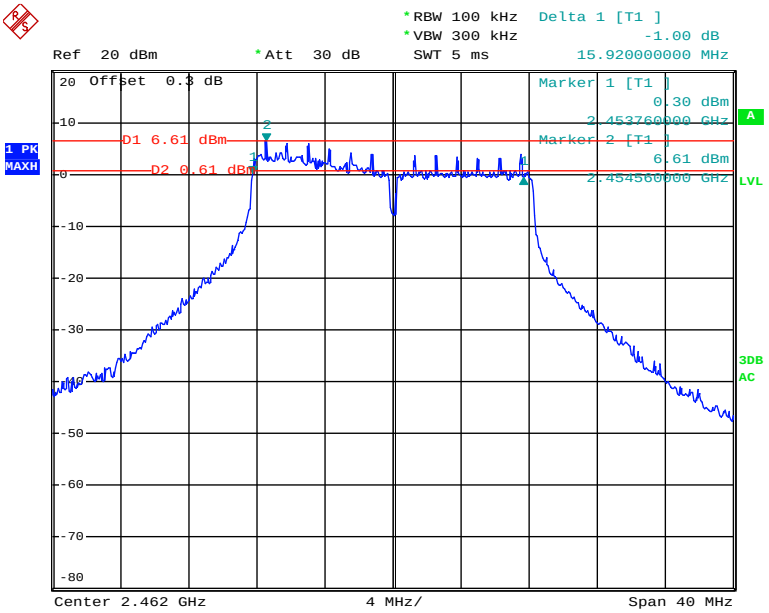
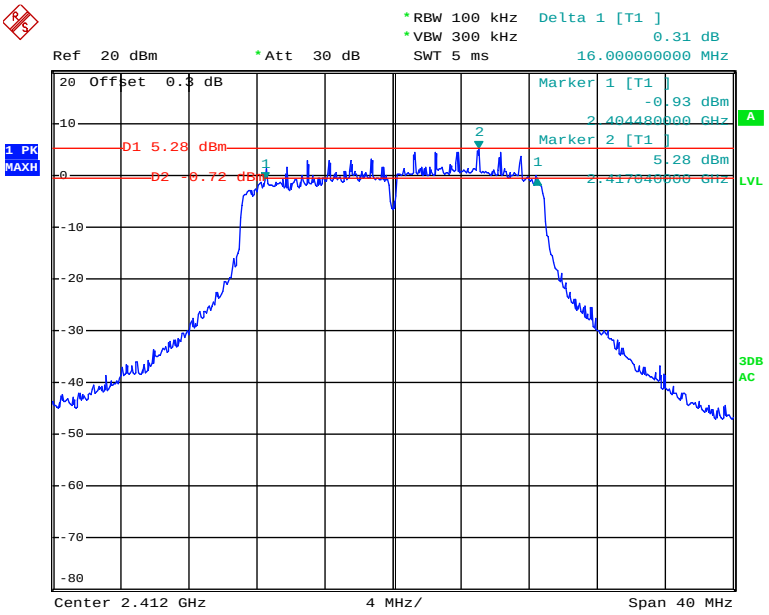
802.11g High Channel



Date: 26.OCT.2017 09:25:21

802.11n ht20 Low Channel



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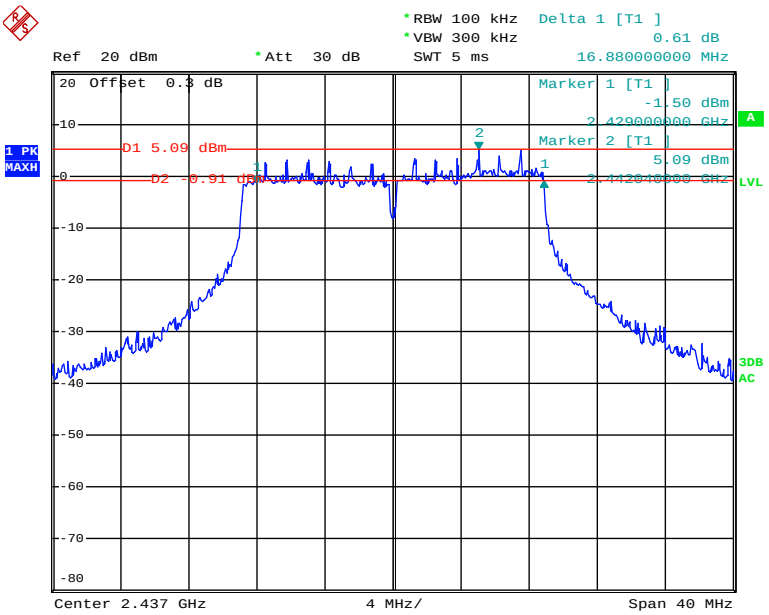
802.11n ht20 Middle Channel



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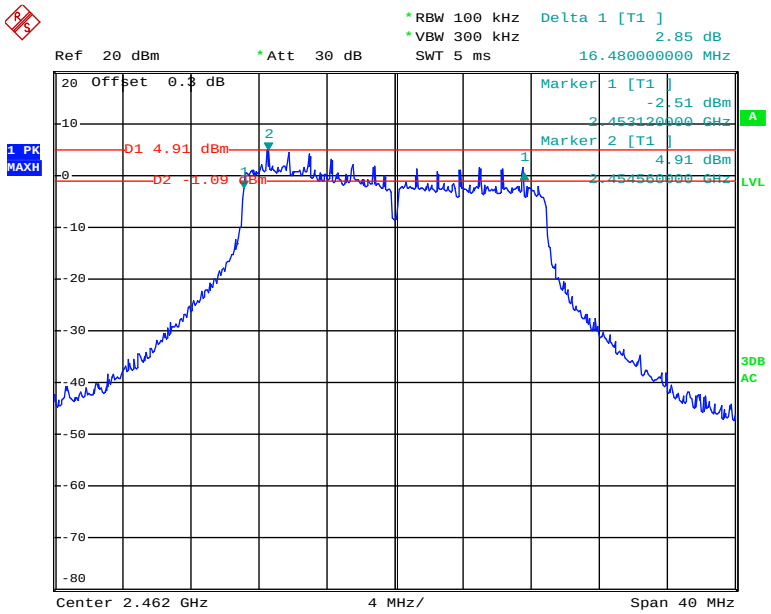
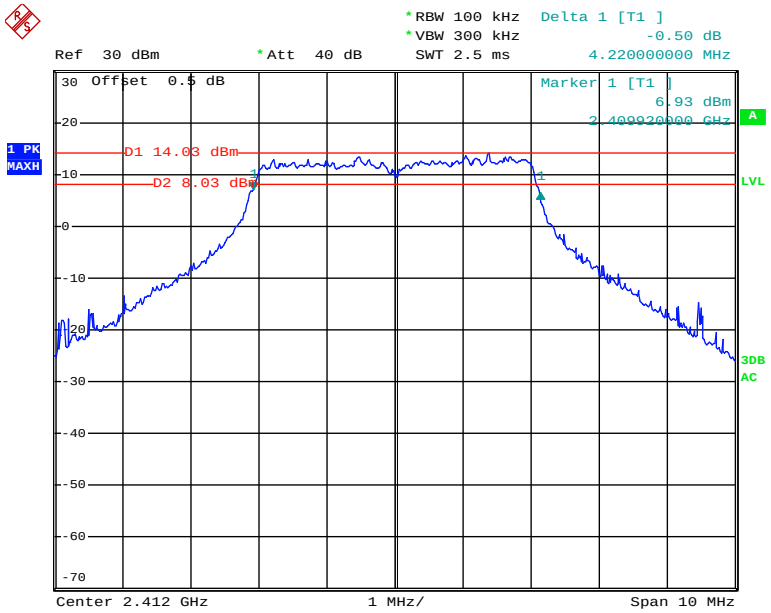
802.11n ht20 High Channel



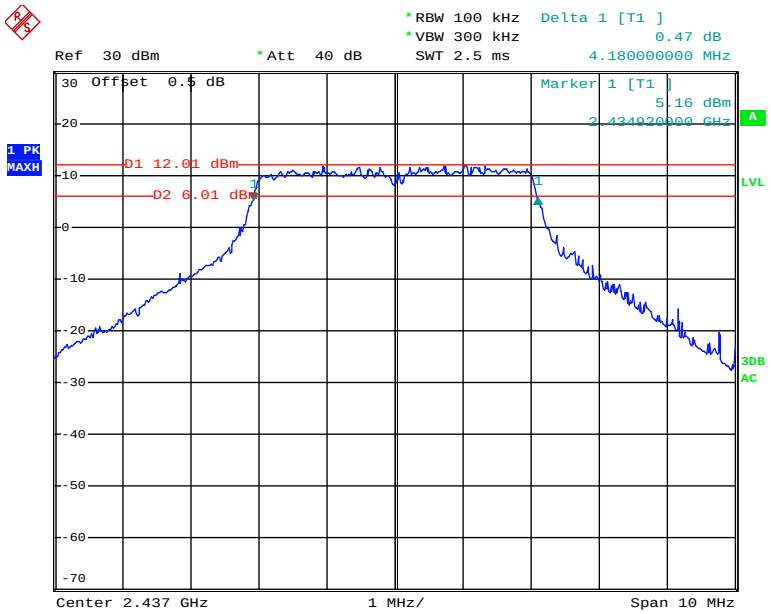
Date: 26.OCT.2017 09:45:53

5M Low Channel



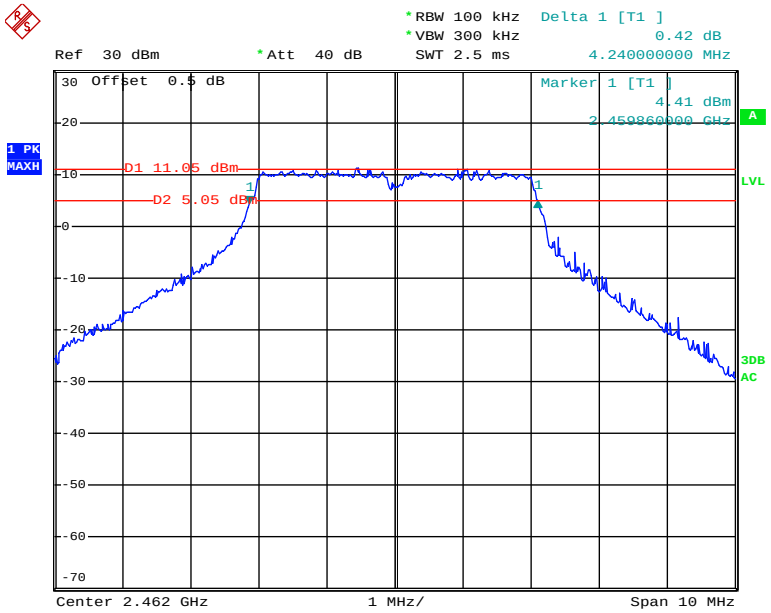
Date: 7.NOV.2017 09:02:12

5M Middle Channel



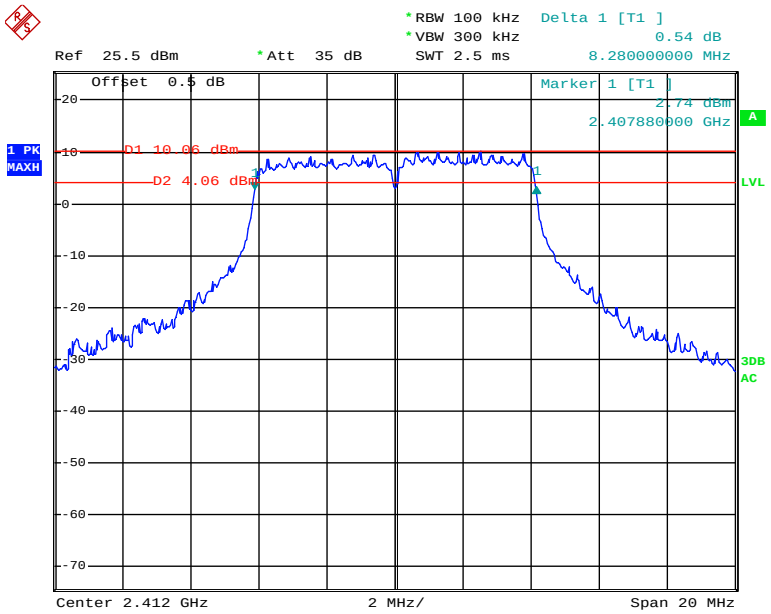
Date: 7.NOV.2017 09:04:05

5M High Channel



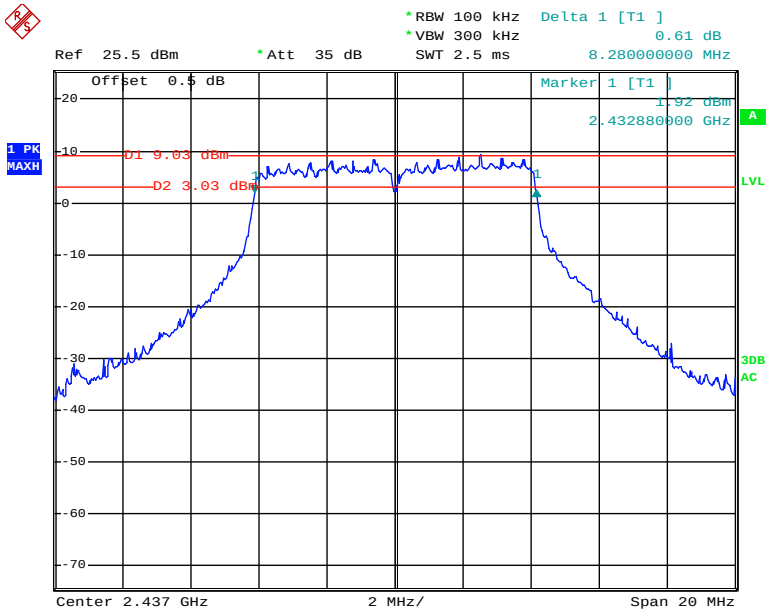
Date: 7.NOV.2017 09:05:37

10M Low Channel



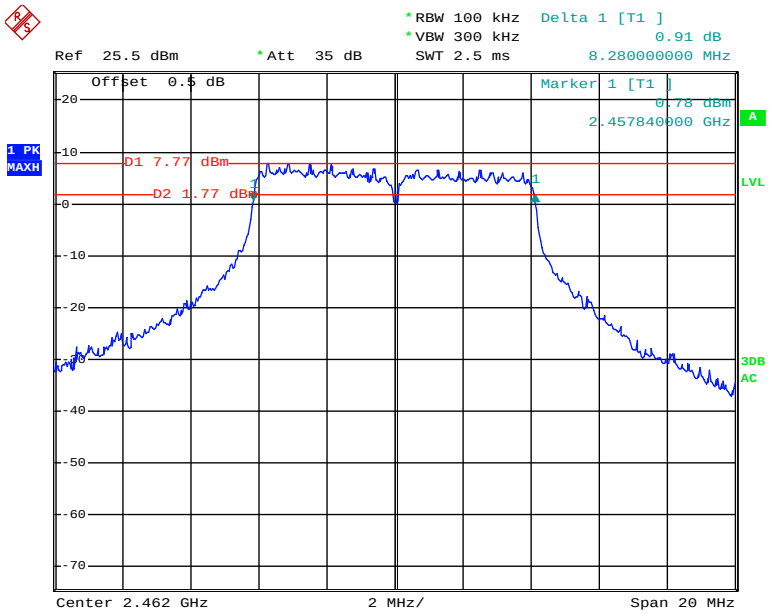
Date: 14.NOV.2017 16:16:53

10M Middle Channel



Date: 14.NOV.2017 16:15:40

10M High Channel



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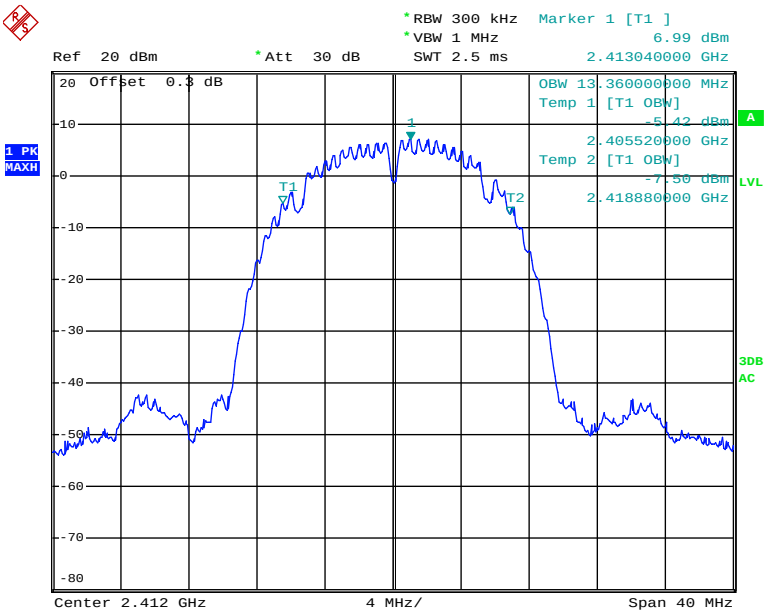
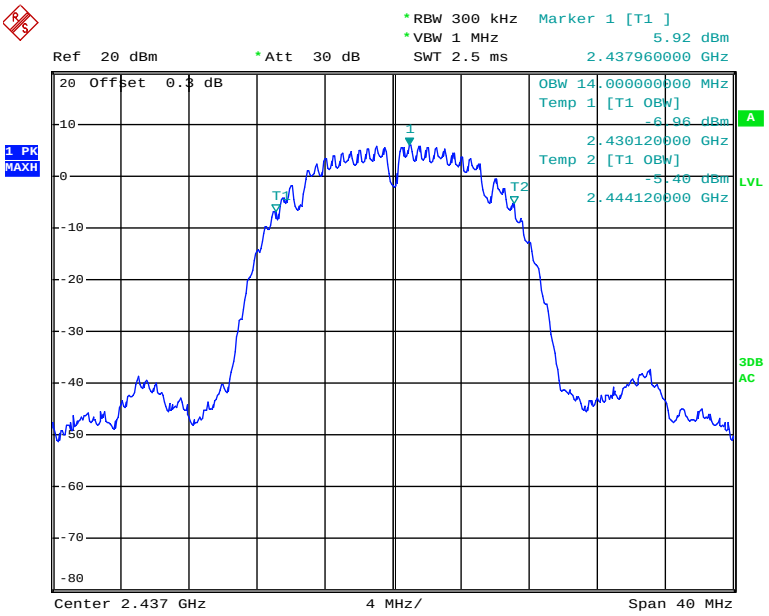
99% Occupied Bandwidth:

802.11b Low Channel



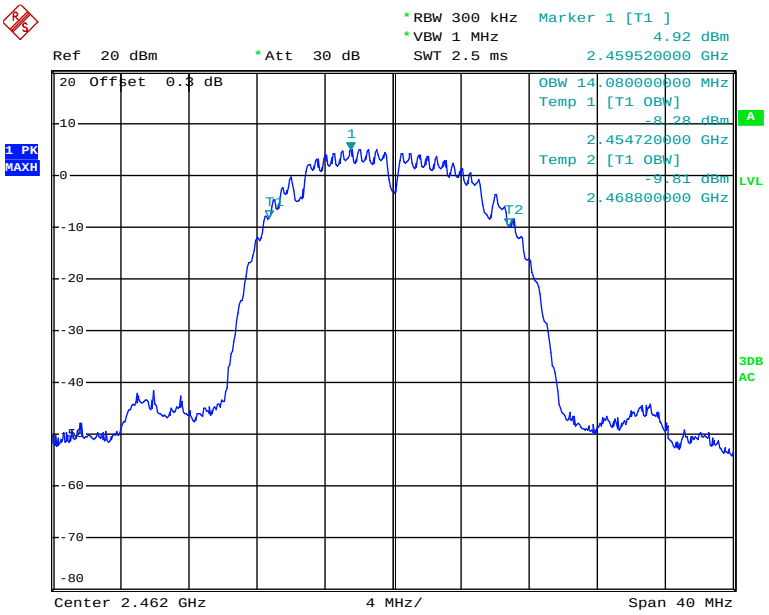
Date: 26.OCT.2017 08:57:01

802.11b Middle Channel



Date: 26.OCT.2017 08:58:41

802.11b High Channel



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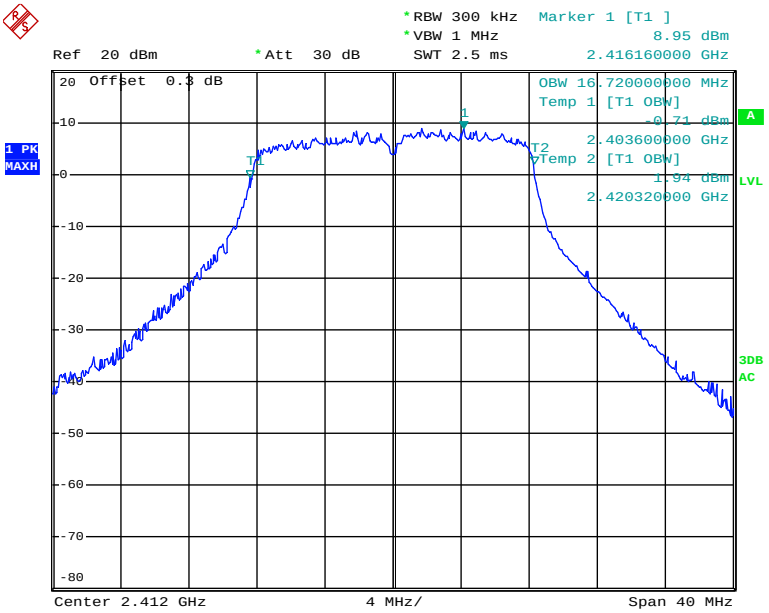
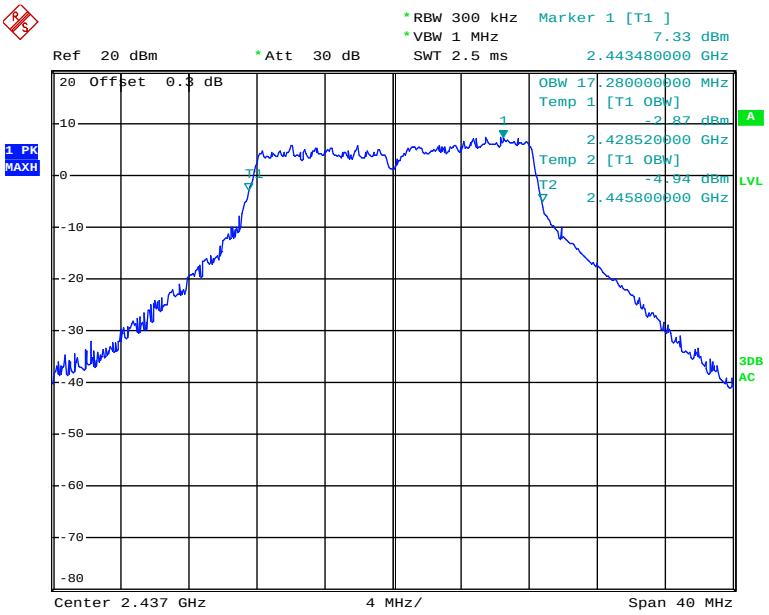
802.11g Low Channel



Date: 26.OCT.2017 09:21:18

802.11g Middle Channel



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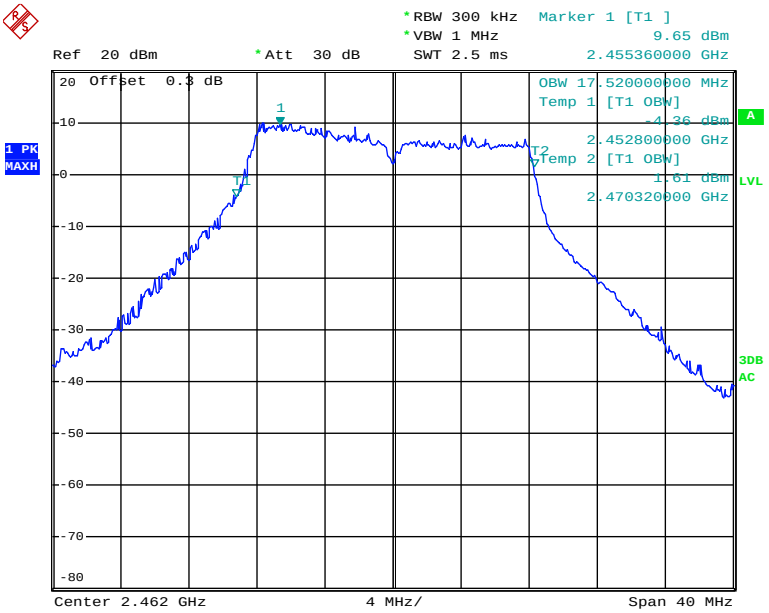
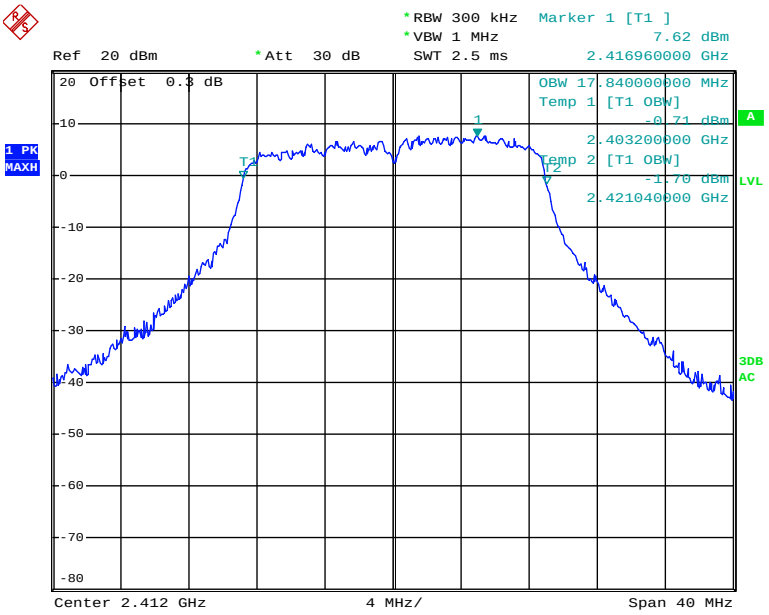
802.11g High Channel



Date: 26.OCT.2017 09:23:09

802.11n ht20 Low Channel



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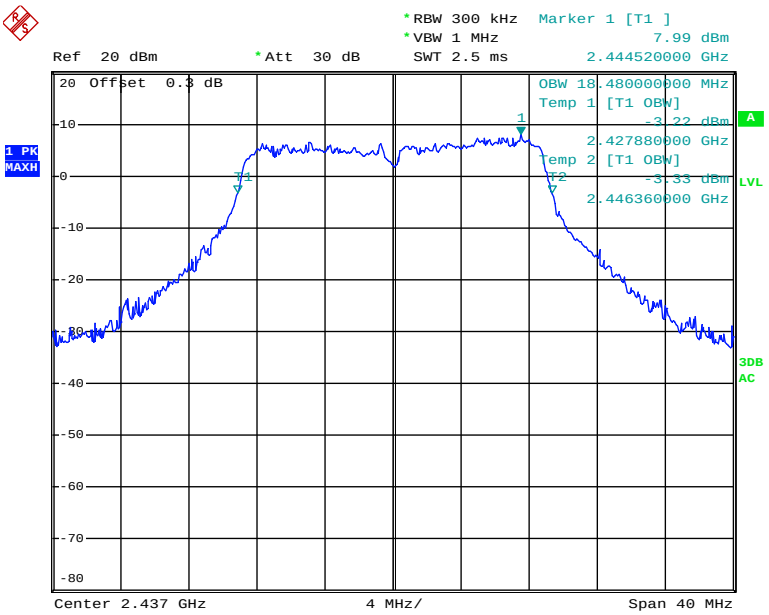
802.11n ht20 Middle Channel



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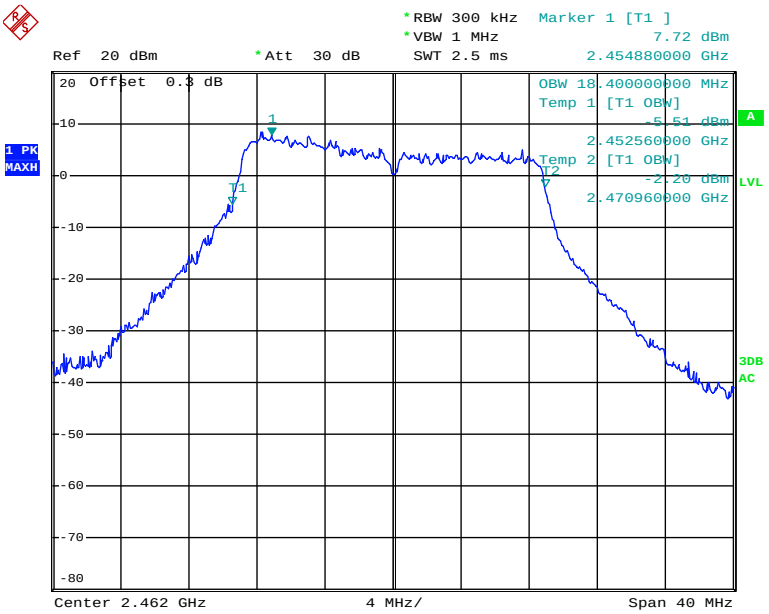
802.11n ht20 High Channel



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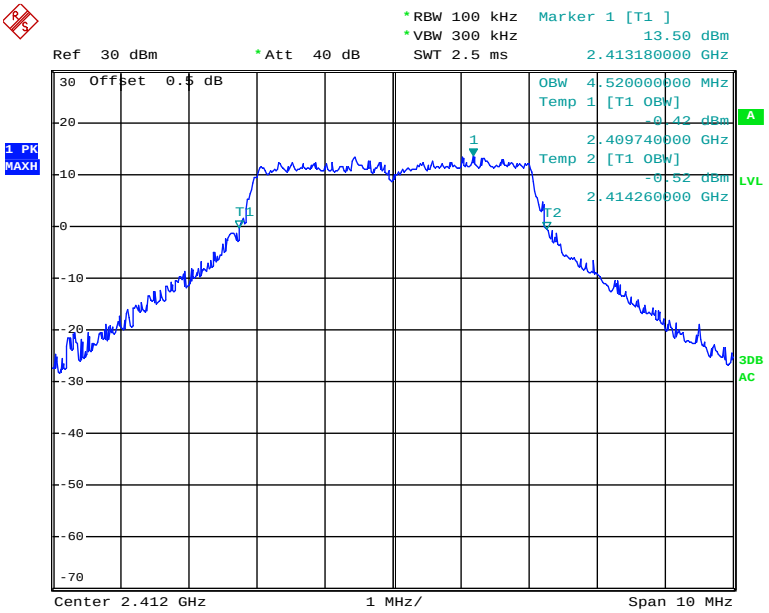
5M Low Channel



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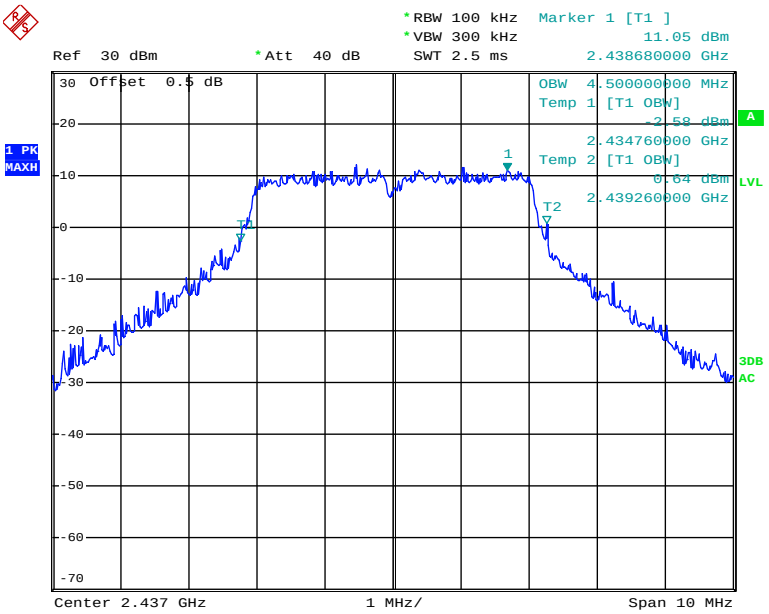
5M Middle Channel



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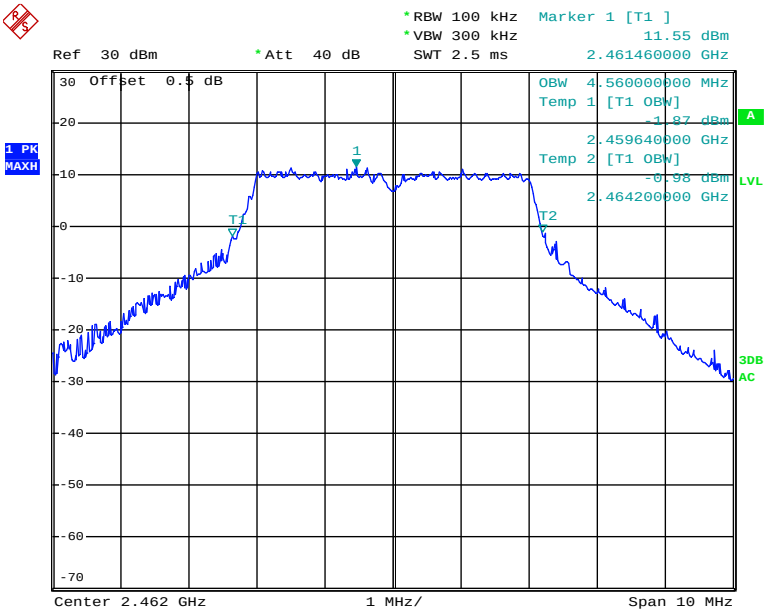
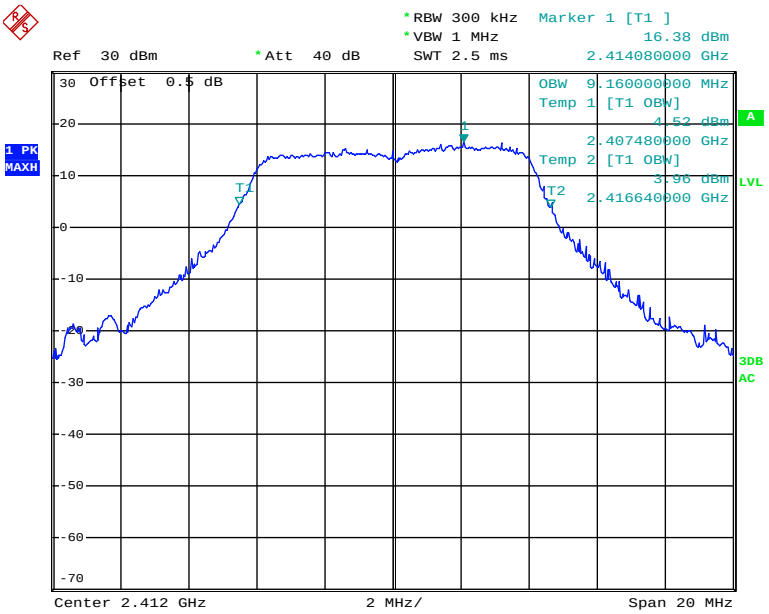
5M High Channel



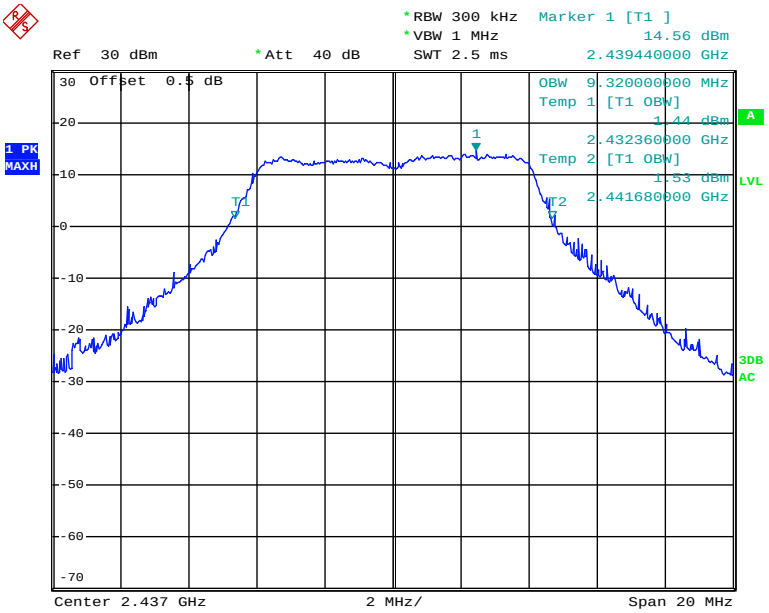
Date: 7.NOV.2017 09:41:07

10M Low Channel



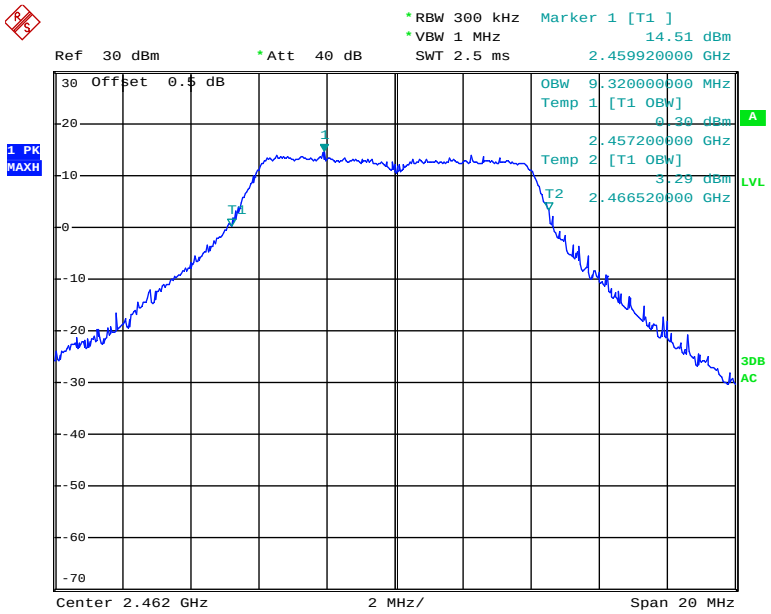
Date: 7.NOV.2017 09:33:43

10M Middle Channel



Date: 7.NOV.2017 09:34:34

10M High Channel



FCC §15.247(b) (3)&RSS-247 §5.4 d) - MAXIMUM CONDUCTED OUTPUT POWER

Applicable Standard

According to FCC §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. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

According to RSS-247§5.4 d) For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W. Except as provided in Section 5.4(e), the e.i.r.p. shall not exceed 4 W.
As an alternative to a peak power measurement, compliance can be based on a measurement of the maximum conducted output power. The maximum conducted output power is the total transmit power delivered to all antennas and antenna elements, averaged across all symbols in the signalling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or transmitting at a reduced power level. If multiple modes of operation are implemented, the maximum conducted output power is the highest total transmit power occurring in any mode.

Test Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to test equipment.
3. Add a correction factor to the display.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	Wideband Power Sensor	N1921A	MY54210016	2017-11-03	2018-11-03
Agilent	P-Series Power Meter	N1912A	MY5000448	2017-11-03	2018-11-03
Agilent	Wideband Power Sensor	N1921A	MY54170013	2017-11-03	2018-11-03
Unknown	Coaxial Cable	0.1m	C-1	Each Time	/

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	24.7 °C
Relative Humidity:	31 %
ATM Pressure:	101.6 kPa

The testing was performed by Robin Zheng on 2017-11-07.

Test Mode: Transmitting

Test Result: Compliant. Please refer to the following table.

Test mode	Channel	Frequency (MHz)	Max Average Conducted Output Power (dBm)			Limit (dBm)
			Chain 0	Chain 1	Total	
802.11b	Low	2412	15.38	15.47	18.44	30
	Middle	2437	14.32	14.52	17.43	30
	High	2462	13.44	13.67	16.57	30
802.11g	Low	2412	15.34	15.61	18.49	30
	Middle	2437	14.78	15.16	17.98	30
	High	2462	14.18	14.54	17.37	30
802.11n ht20	Low	2412	15.22	15.47	18.36	30
	Middle	2437	14.71	15.13	17.94	30
	High	2462	14.29	14.53	17.42	30
5M	Low	2412	20.23	19.75	23.01	30
	Middle	2437	19.07	18.53	21.82	30
	High	2462	18.36	18.58	21.48	30
10M	Low	2412	20.37	19.85	23.13	30
	Middle	2437	19.11	18.53	21.84	30
	High	2462	18.42	18.37	21.41	30

Note:
The duty cycle factor was added into the result.
The 2 antenna maximum atenna gains are 2.0 dBi, and employed Cyclic Delay Diversity (CDD), per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements:

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;

So:

Directional gain = GANT + Array Gain = 2.0 dBi < 6dBi

FCC§15.247(d)&RSS-247 §5.5 – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE

Applicable Standard

According to FCC§15.247(d):In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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 band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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)).

According to RSS-247 §5.5:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	101121	2017/3/2	2018/3/2
Unknown	Coaxial Cable	0.1m	C-1	Each Time	/

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	26.9~27.5 °C
Relative Humidity:	54~64 %
ATM Pressure:	100.8~101.6 kPa

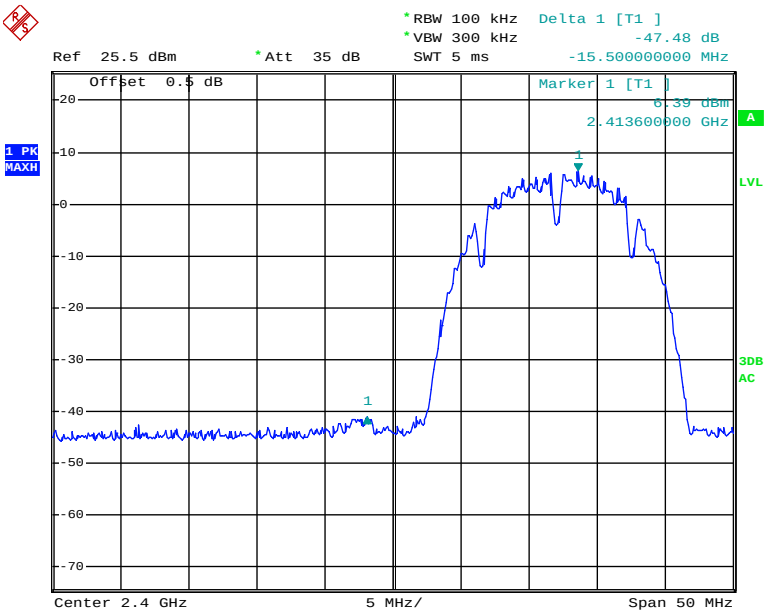
The testing was performed by Robin Zheng from 2017-11-09 to 2017-11-14.

Test mode: Transmitting

Test Result: Compliant. All emissions out of the operation band were under fundamental more than 30dBc, please refer to following plots.

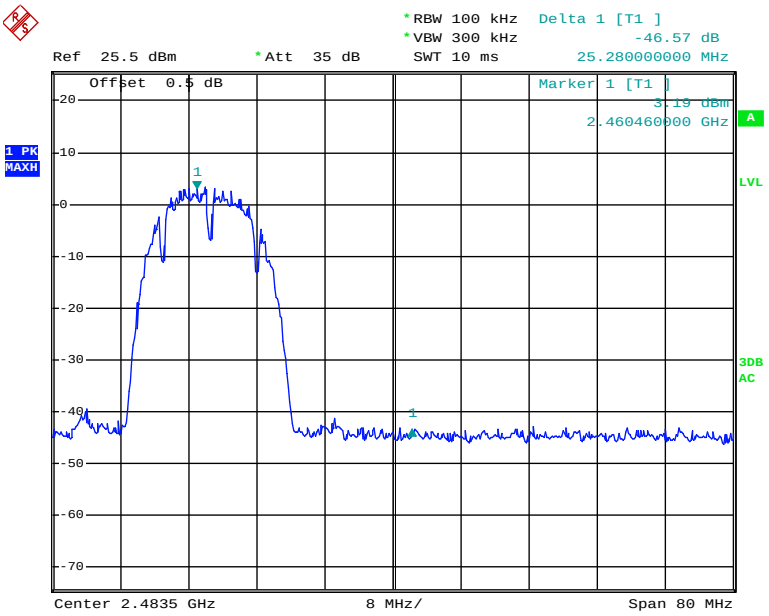
Chain 0:

802.11b: Band Edge, Left Side



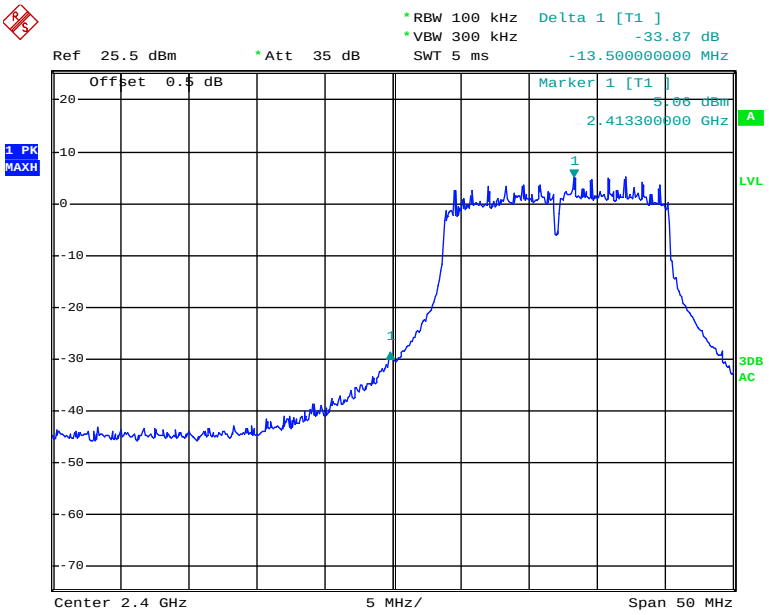
Date: 14.NOV.2017 16:18:52

802.11b: Band Edge, Right Side



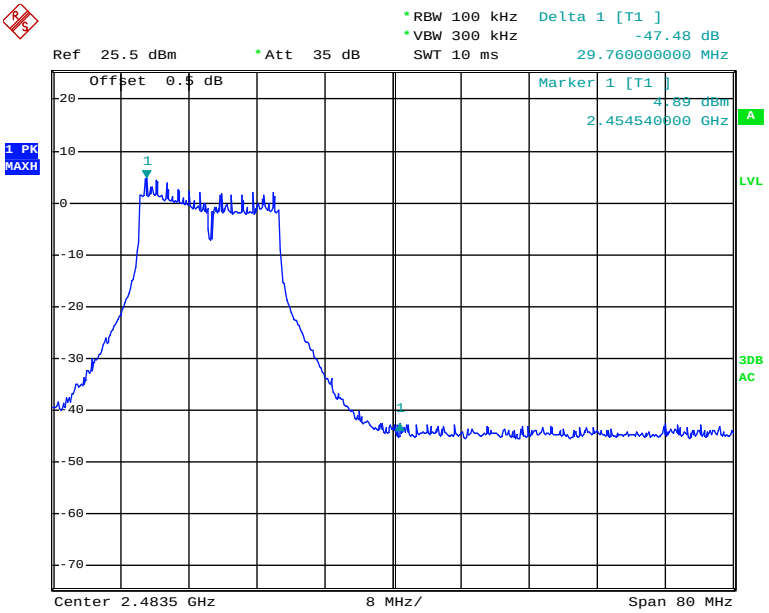
Date: 14.NOV.2017 16:23:55

802.11g: Band Edge, Left Side



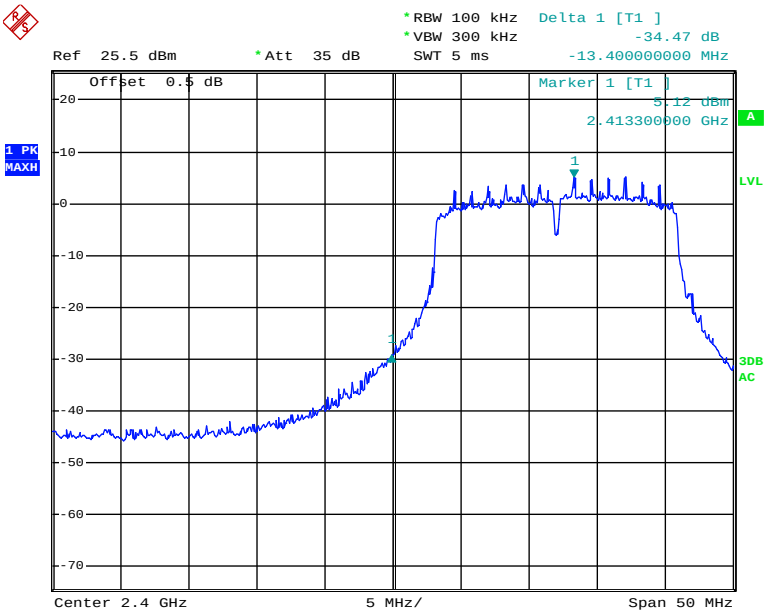
Date: 14.NOV.2017 16:20:12

802.11g: Band Edge, Right Side



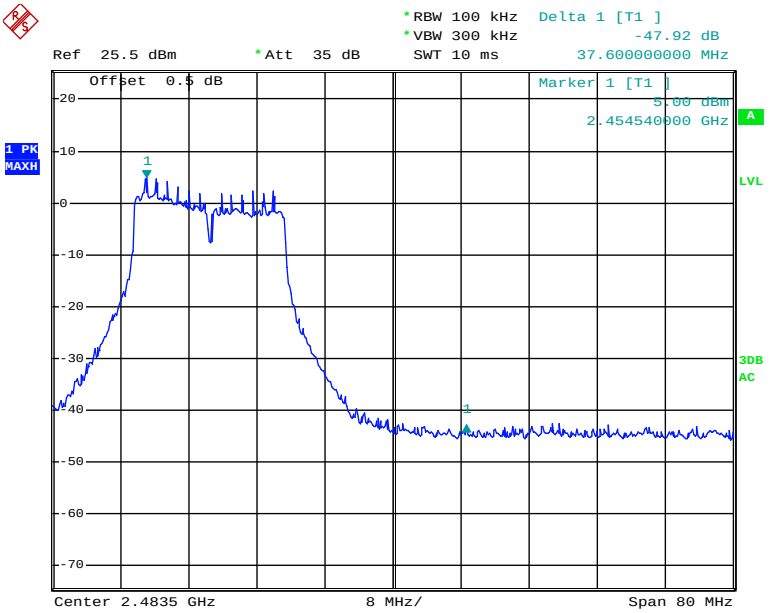
Date: 14.NOV.2017 16:23:17

802.11n ht20 Band Edge, Left Side



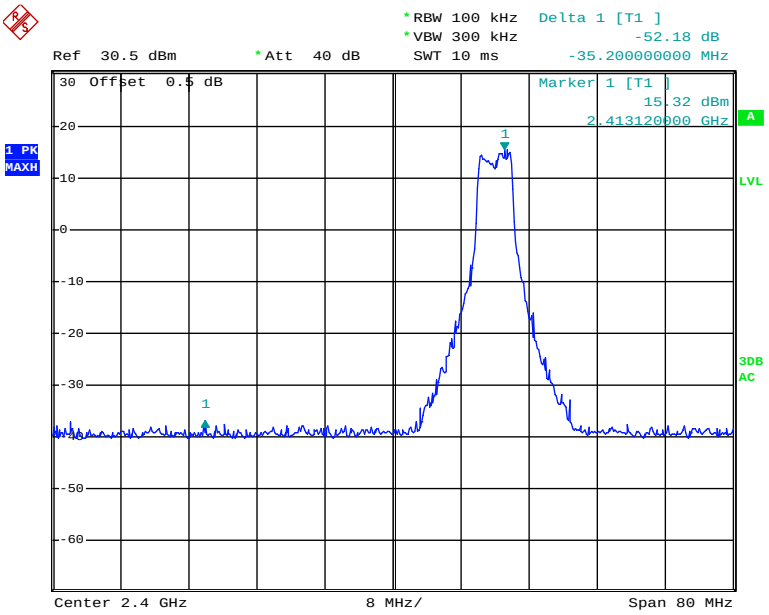
Date: 14.NOV.2017 16:21:24

802.11n ht20 Band Edge, Right Side



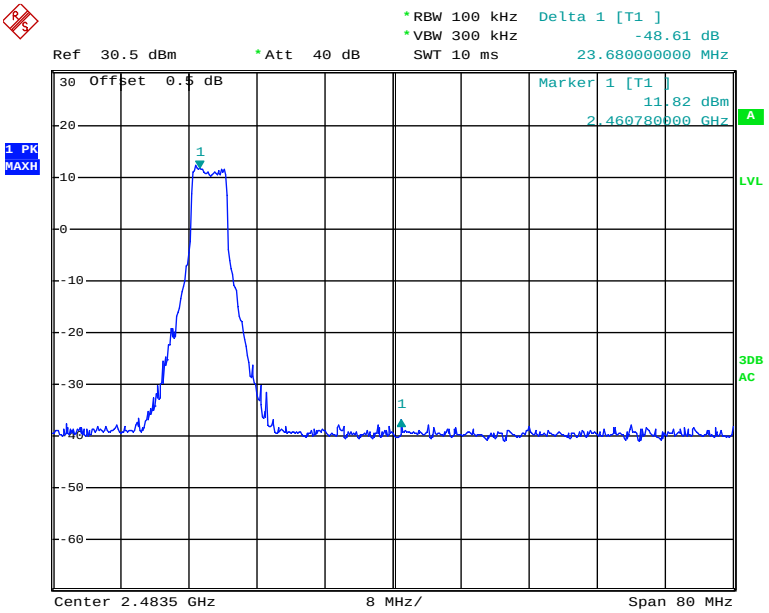
Date: 14.NOV.2017 16:22:26

5M Band Edge, Left Side



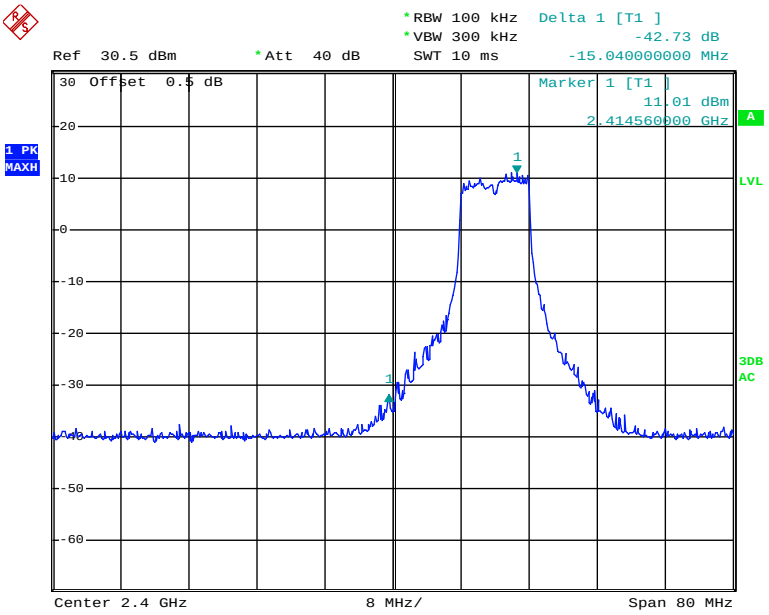
Date: 9.NOV.2017 10:04:03

5M Band Edge, Right Side



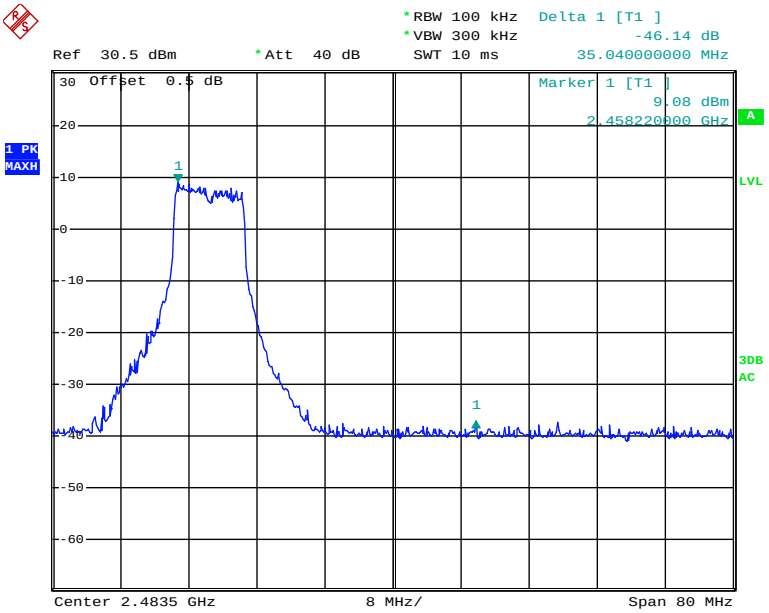
Date: 9.NOV.2017 10:07:15

10M Band Edge, Left Side



Date: 9.NOV.2017 10:09:28

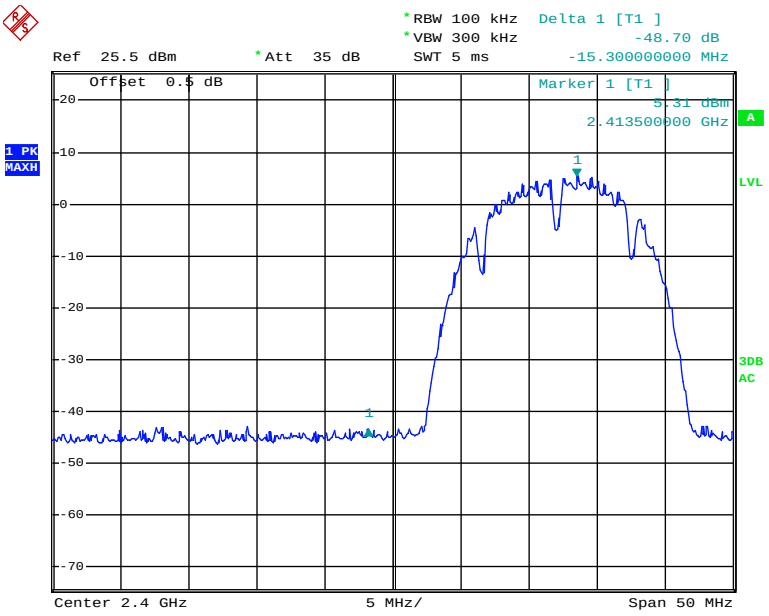
10M Band Edge, Right Side



Date: 9.NOV.2017 10:08:34

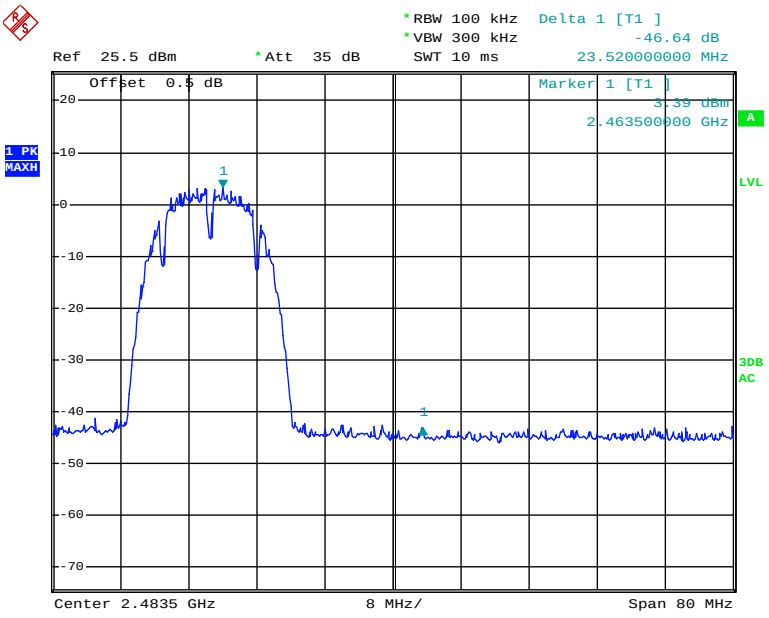
Chain 1:

802.11b: Band Edge, Left Side



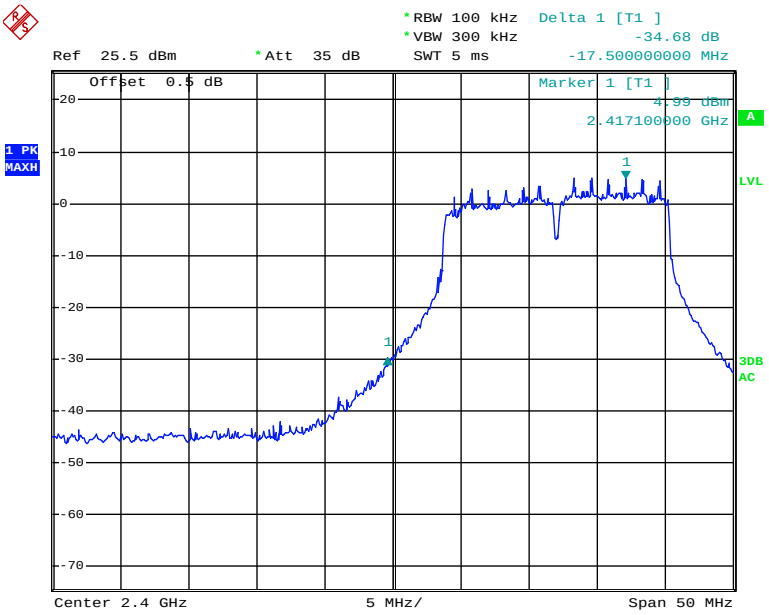
Date: 14.NOV.2017 16:28:48

802.11b: Band Edge, Right Side



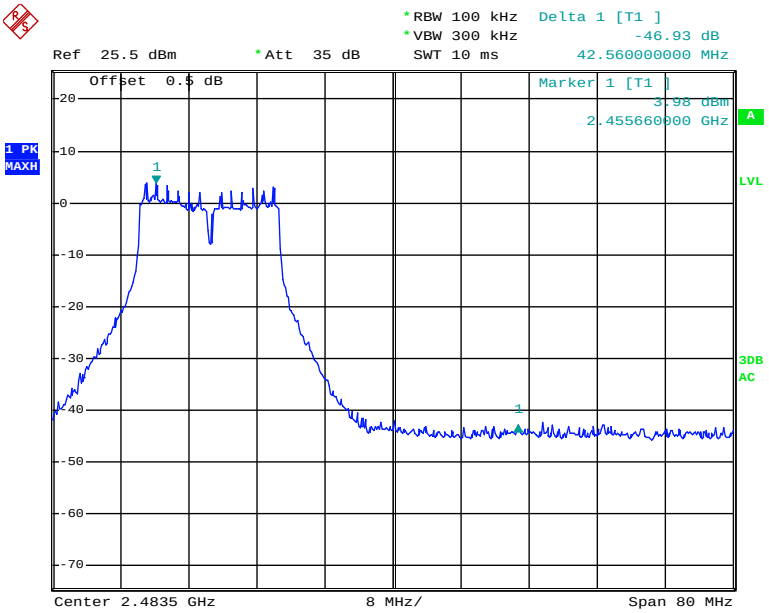
Date: 14.NOV.2017 16:24:48

802.11g: Band Edge, Left Side



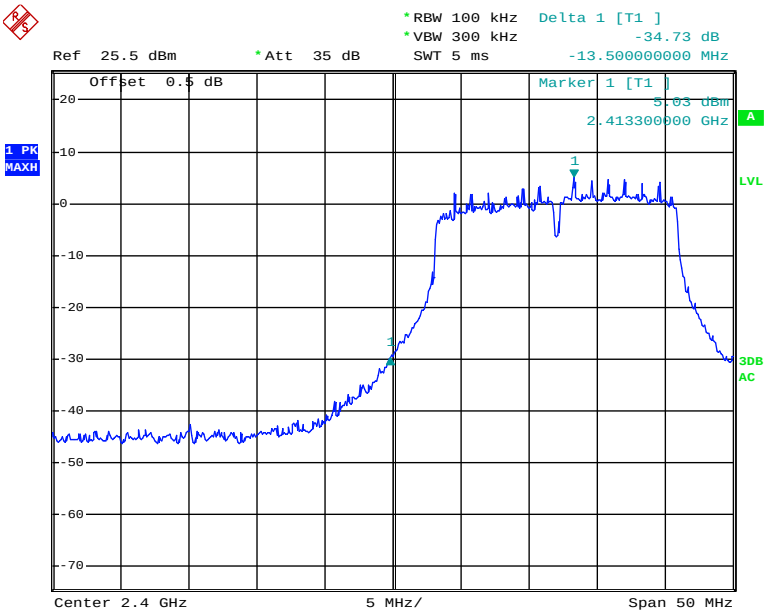
Date: 14.NOV.2017 16:28:10

802.11g: Band Edge, Right Side



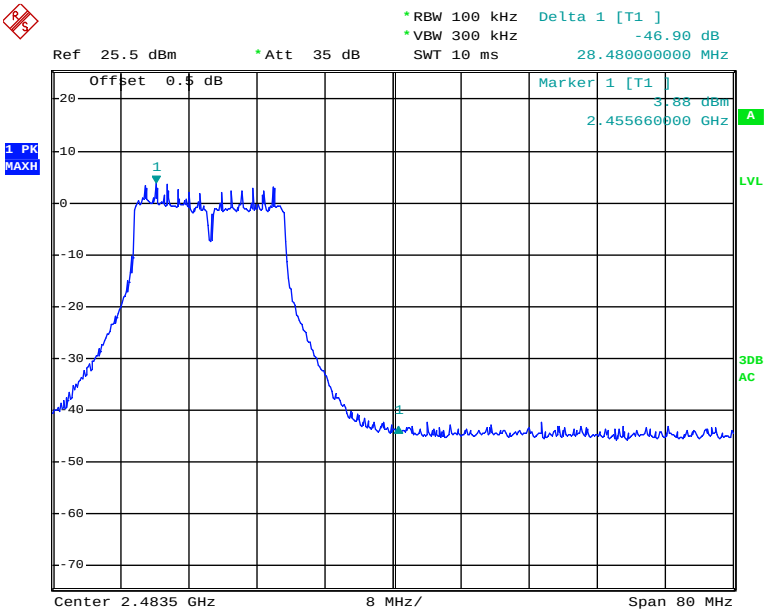
Date: 14.NOV.2017 16:25:36

802.11n ht20 Band Edge, Left Side



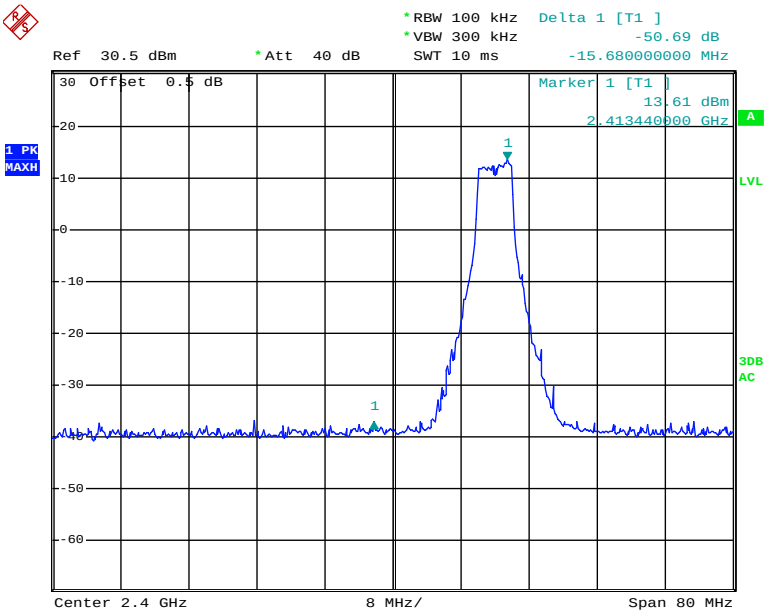
Date: 14.NOV.2017 16:27:23

802.11n ht20 Band Edge, Right Side



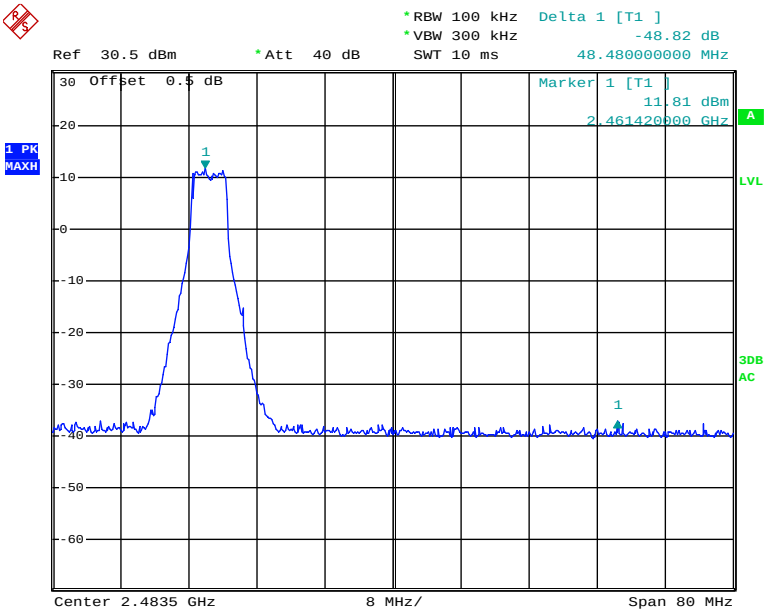
Date: 14.NOV.2017 16:26:26

5M Band Edge, Left Side



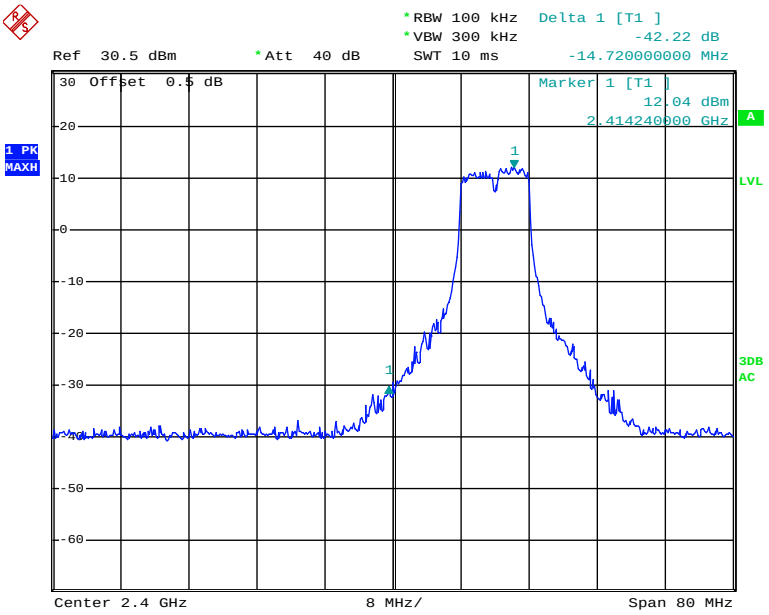
Date: 9.NOV.2017 10:11:33

5M Band Edge, Right Side



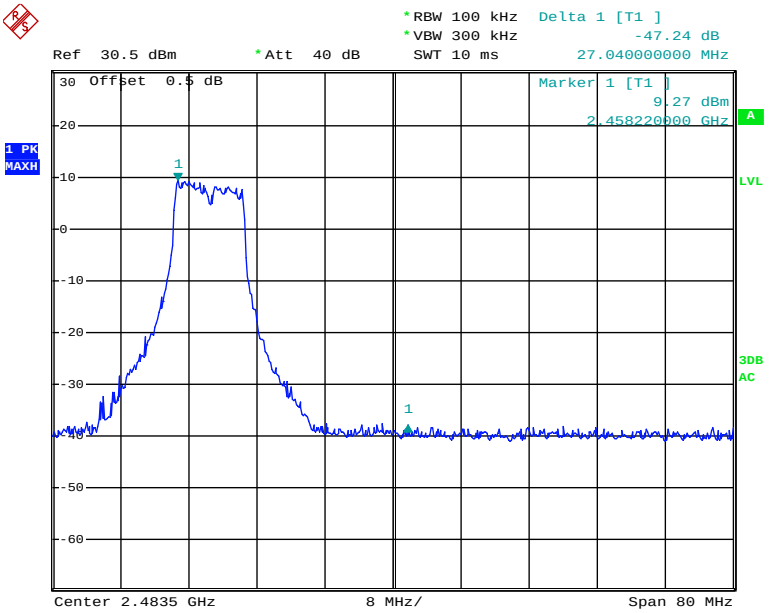
Date: 9.NOV.2017 10:12:50

10M Band Edge, Left Side



Date: 9.NOV.2017 09:24:02

10M Band Edge, Right Side



Date: 9.NOV.2017 09:26:30

FCC §15.247(e) &RSS-247 §5.2 b)- POWER SPECTRAL DENSITY

Applicable Standard

According to FCC§15.247(e):For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

According to RSS-247 §5.2 b):

b) The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of section 5.4(d), (i.e. the power spectral density shall be determined using the same method as is used to determine the conducted output power).

Test Procedure

a) Set analyzer center frequency to DTS channel center frequency.
b) Set the span to 1.5 times the DTS bandwidth.
c) Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
d) Set the VBW ≥ 3×RBW.
e) Detector = RMS.
f) Sweep time = auto couple.
g) Trace mode = max hold.
h) Allow trace to fully stabilize.
i) Use the peak marker function to determine the maximum amplitude level within the RBW.
j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	101121	2017/3/2	2018/3/2
Unknown	Coaxial Cable	0.1m	C-1	Each Time	/

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	26.9 ~ 27.5 °C
Relative Humidity:	54 ~ 64 %
ATM Pressure:	100.8 ~ 101.6 kPa

The testing was performed by Robin Zheng from 2017-11-09 to 2017-11-14.

Test Mode: Transmitting

Test Result: Compliant. Please refer to the following table and plots

Test mode	Channel	Frequency (MHz)	Reading (dBm/3kHz)		Dutycycle Factor (dB)	Total (dBm/3kHz)	Limit (dBm/3kHz)
			Chain 0	Chain 1			
802.11b	Low	2412	-15.34	-15.74	0.00	-12.33	≤8
	Middle	2437	-16.93	-17.27	0.00	-13.92	≤8
	High	2462	-18.03	-18.1	0.00	-15.02	≤8
802.11g	Low	2412	-17.28	-17.51	0.10	-14.17	≤8
	Middle	2437	-16.75	-17.76	0.10	-13.64	≤8
	High	2462	-17.84	-19.02	0.10	-14.73	≤8
802.11n ht20	Low	2412	-17.56	-17.37	0.14	-14.41	≤8
	Middle	2437	-17.1	-18	0.14	-13.95	≤8
	High	2462	-17.93	-19.42	0.14	-14.78	≤8
5M	Low	2412	-4.11	-4.46	0.10	-1.00	≤8
	Middle	2437	-5.72	-5.51	0.10	-2.61	≤8
	High	2462	-5.88	-6.23	0.10	-2.77	≤8
10M	Low	2412	-8.38	-8.13	0.00	-5.37	≤8
	Middle	2437	-9.76	-9.5	0.00	-6.75	≤8
	High	2462	-10.51	-10.16	0.00	-7.50	≤8

Note: The device employed Cyclic Delay Diversity (CDD) for MIMO transmitting, per C63.10-2013 clause 14.4.3.2.5 b, Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

For power density measurements,

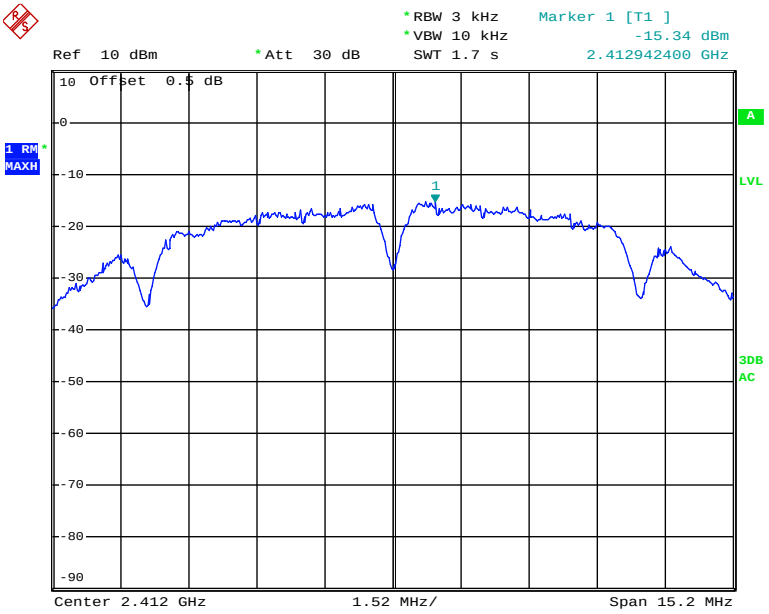
Array Gain = 10 log(NANT/NSS) dB.

So:

Directional gain = GANT + Array Gain = 2+10*log(2) =5 dBi

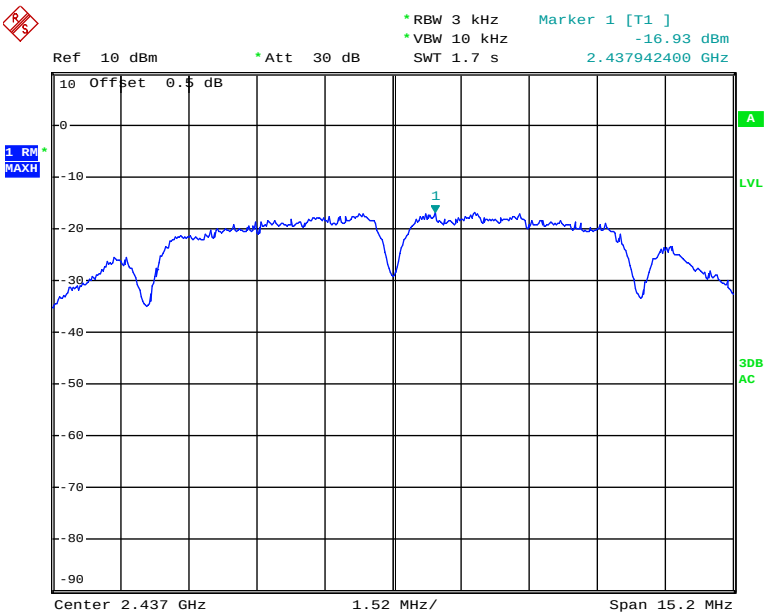
Chain 0:

Power Spectral Density, 802.11b, Low Channel



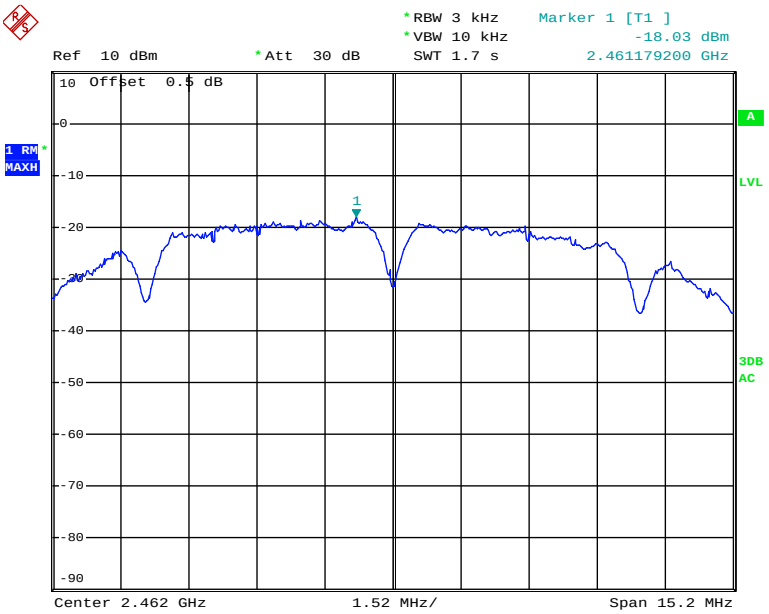
Date: 14.NOV.2017 16:50:58

Power Spectral Density, 802.11b, Middle Channel



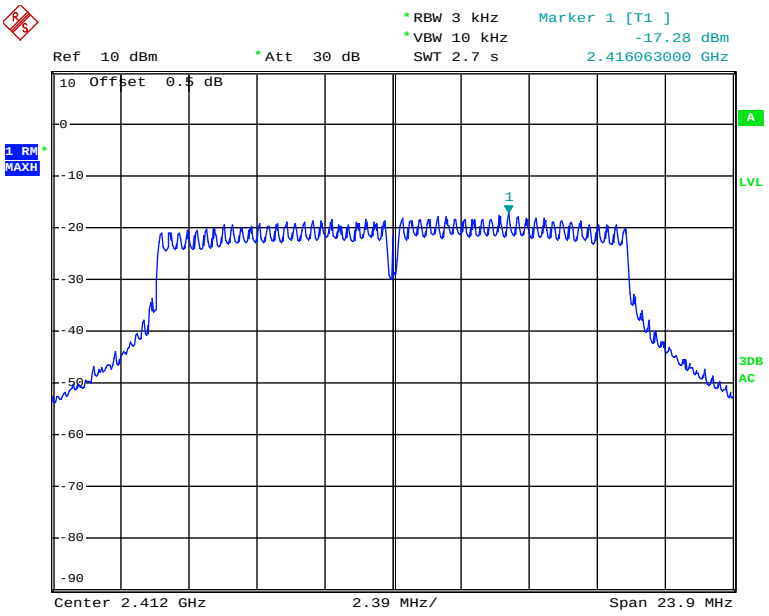
Date: 14.NOV.2017 16:51:25

Power Spectral Density, 802.11b, High Channel



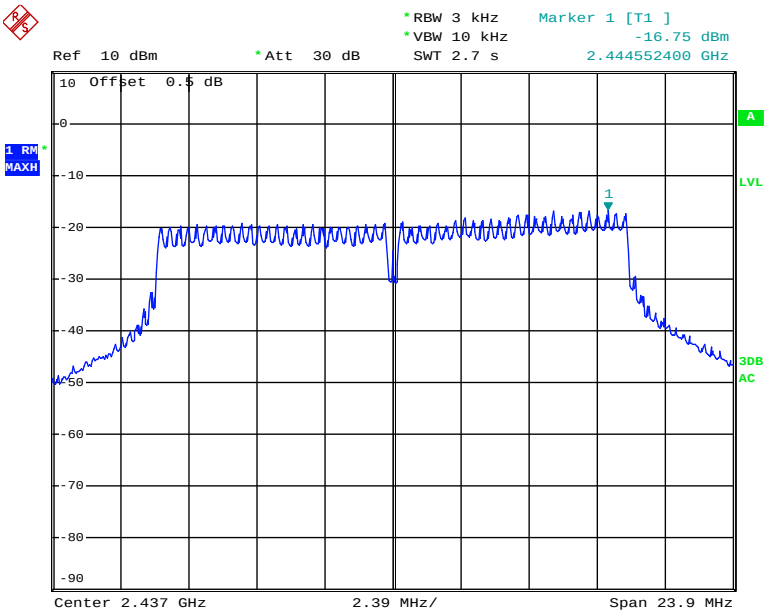
Date: 14.NOV.2017 16:52:03

Power Spectral Density, 802.11g, Low Channel



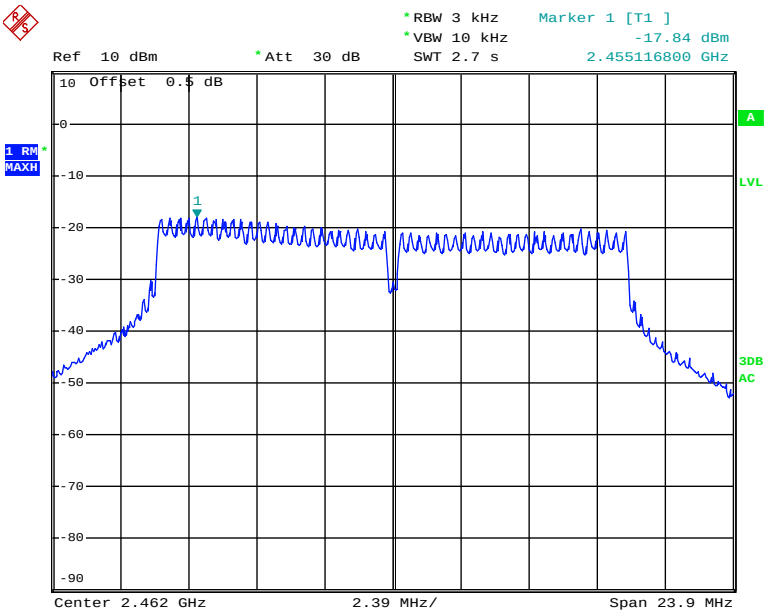
Date: 14.NOV.2017 16:50:25

Power Spectral Density, 802.11g, Middle Channel



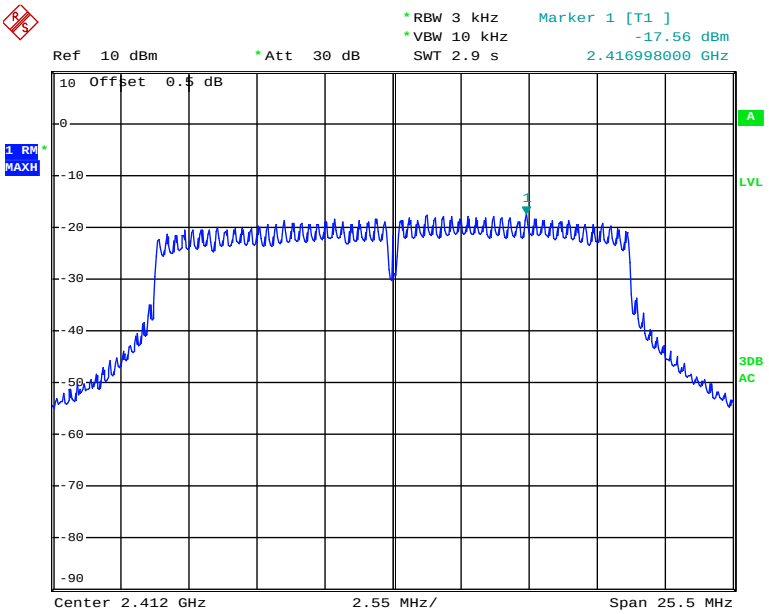
Date: 14.NOV.2017 16:49:46

Power Spectral Density, 802.11g, High Channel



Date: 14.NOV.2017 16:49:15

Power Spectral Density, 802.11n ht20, Low Channel



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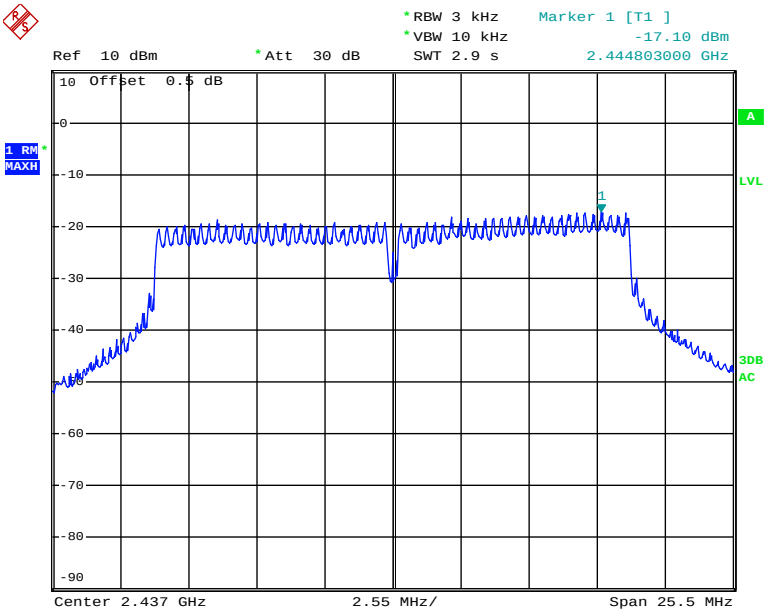
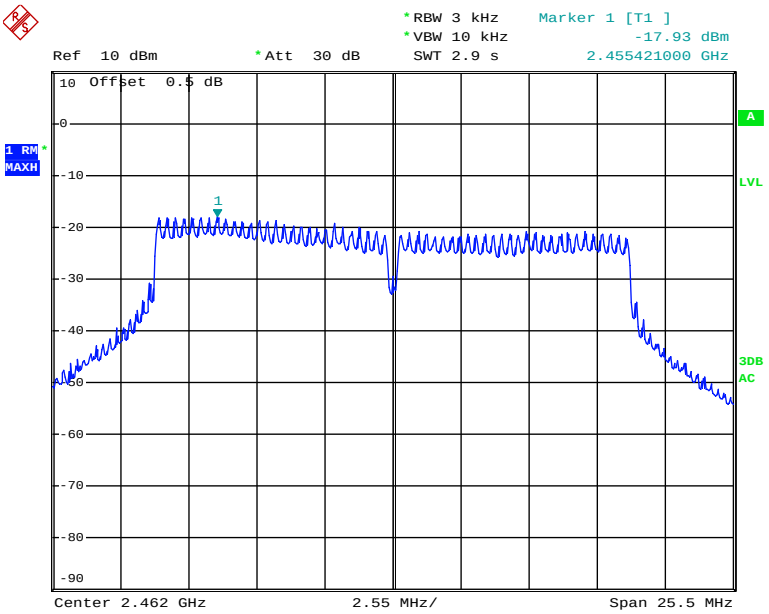
Power Spectral Density, 802.11n ht20, Middle Channel



Date: 14.NOV.2017 16:47:03

Power Spectral Density, 802.11n ht20, High Channel



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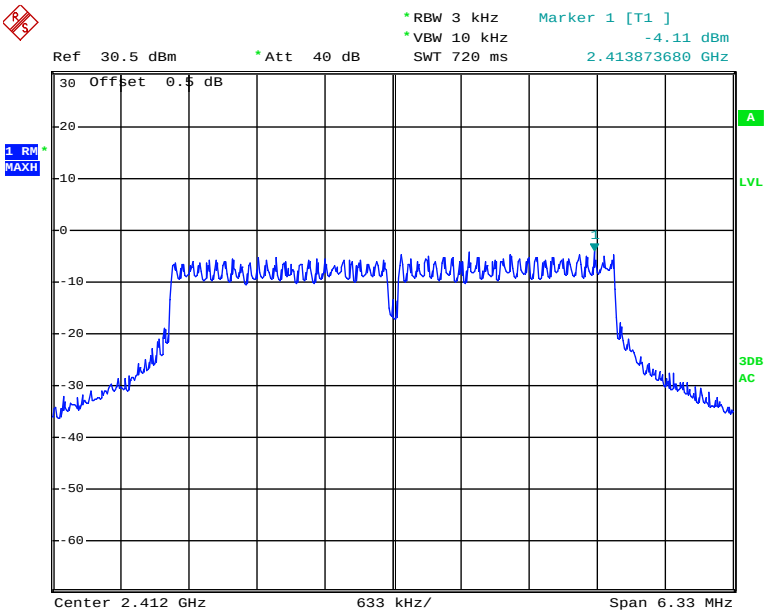
Power Spectral Density, 5M Low Channel



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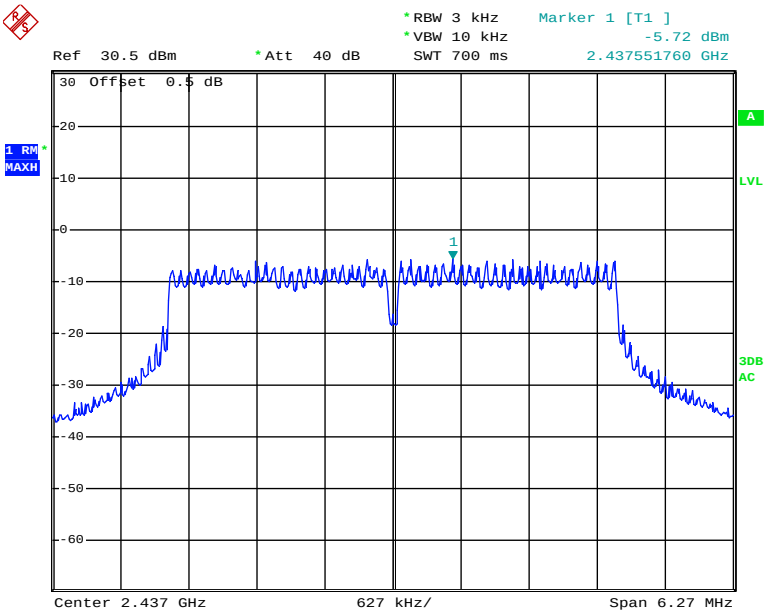
Power Spectral Density, 5M Middle Channel



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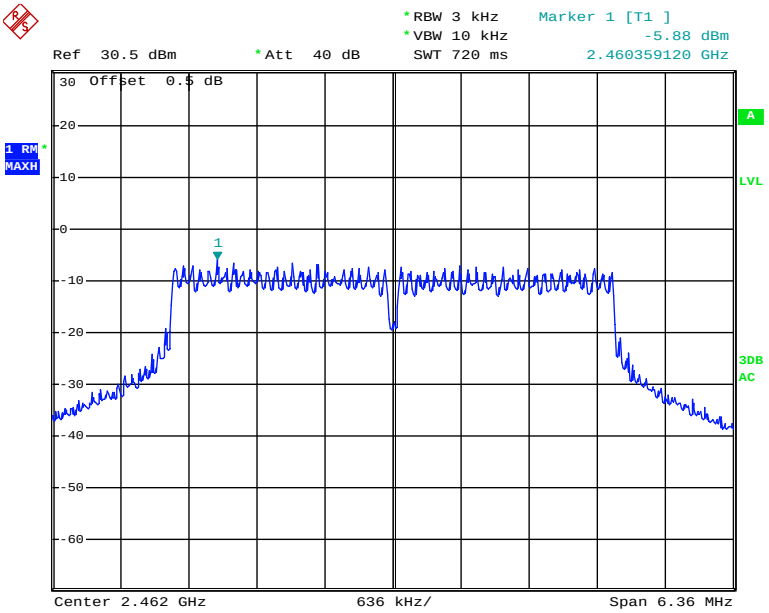
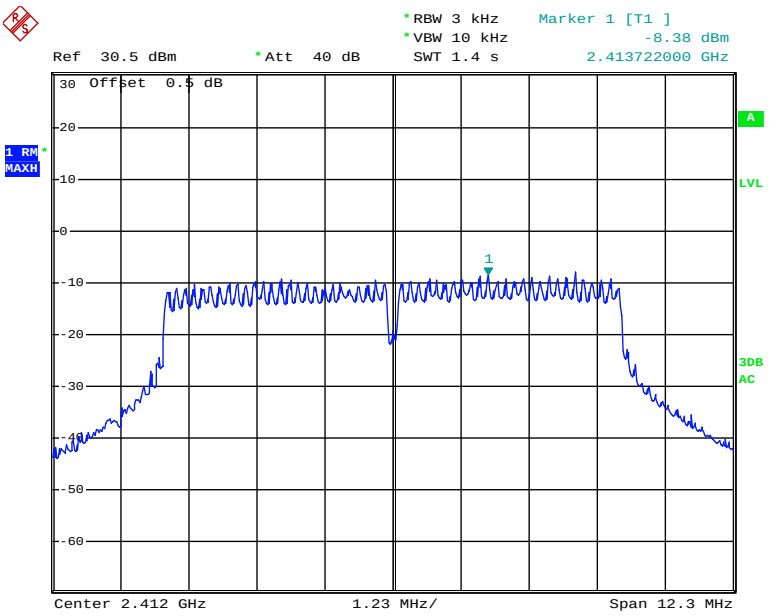
Power Spectral Density, 5M High Channel



Date: 9.NOV.2017 10:27:48

Power Spectral Density, 10M Low Channel



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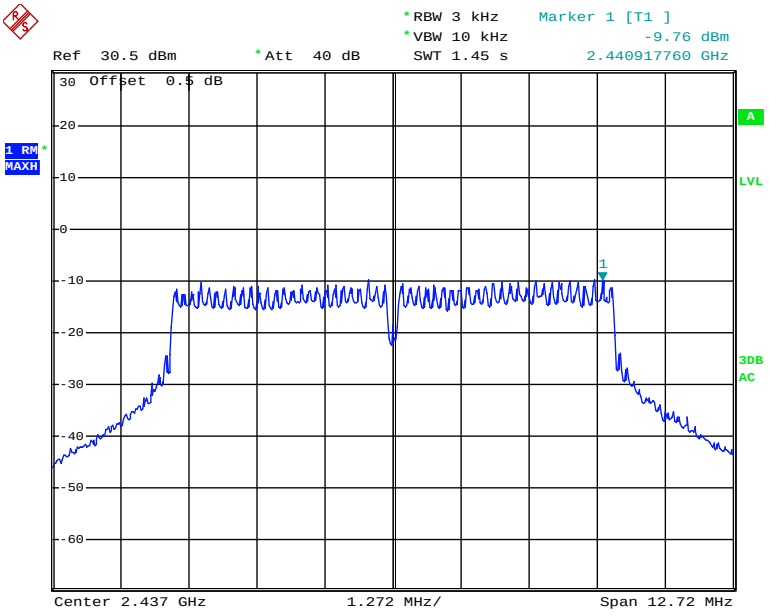
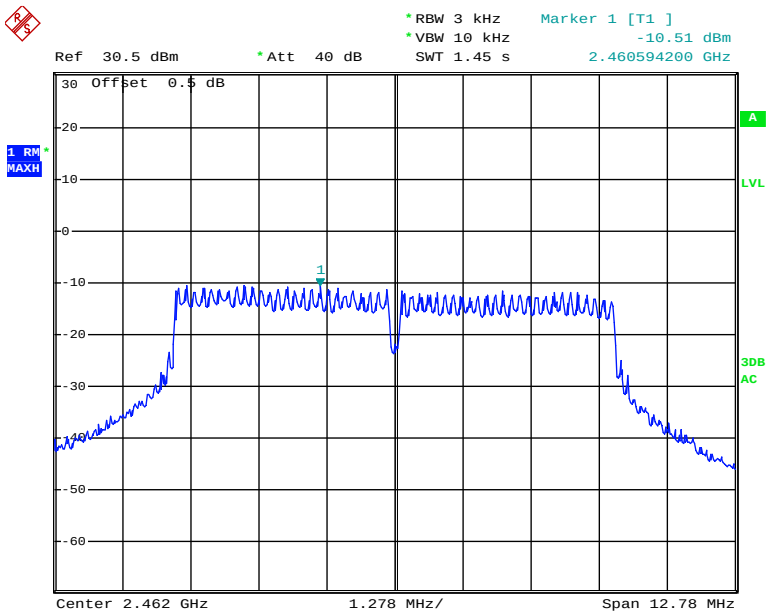
Power Spectral Density, 10M Middle Channel



Date: 9.NOV.2017 10:24:16

Power Spectral Density, 10M High Channel



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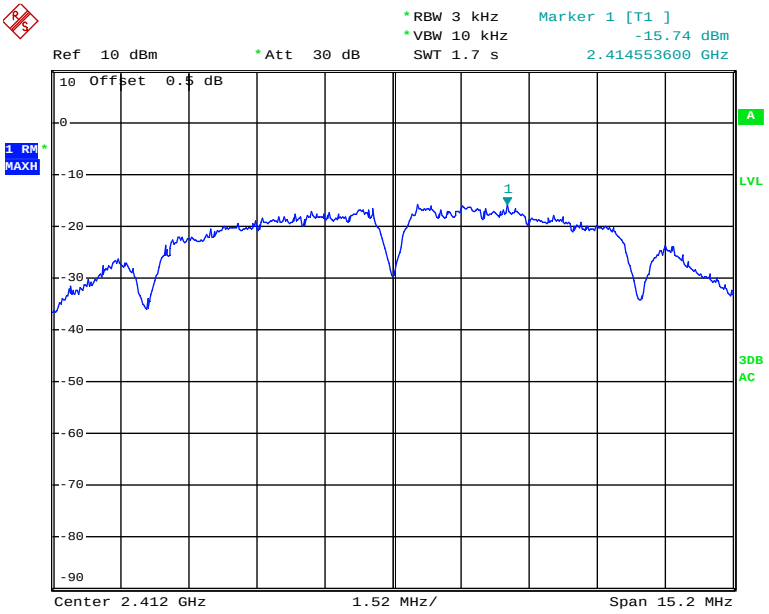
Chain 1:

Power Spectral Density, 802.11b, Low Channel



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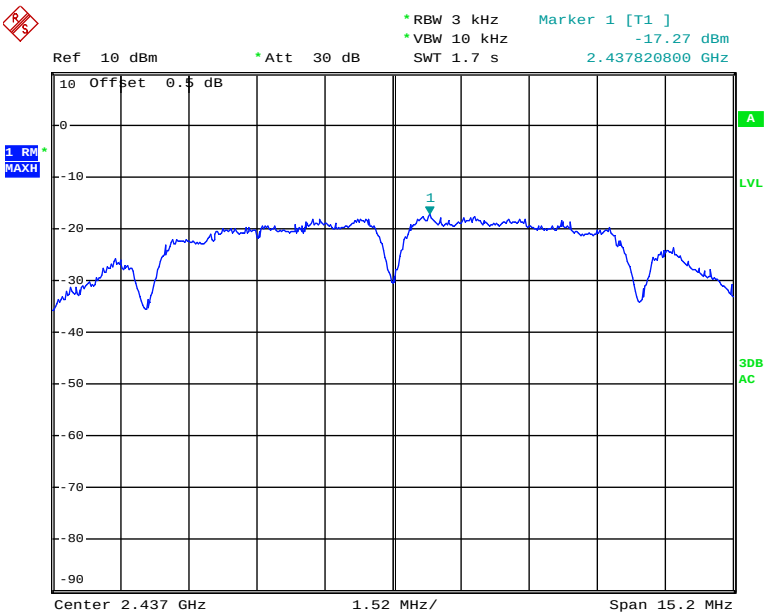
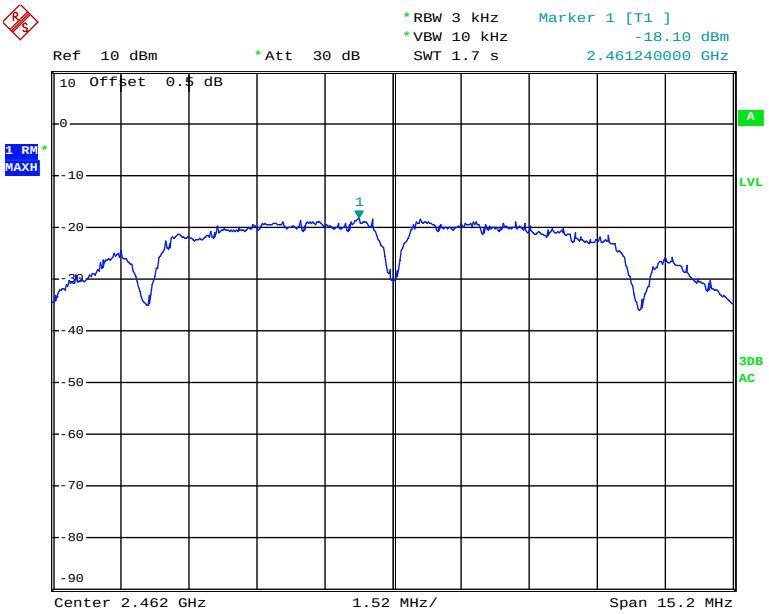
Power Spectral Density, 802.11b, Middle Channel



Date: 14.NOV.2017 16:39:00

Power Spectral Density, 802.11b, High Channel



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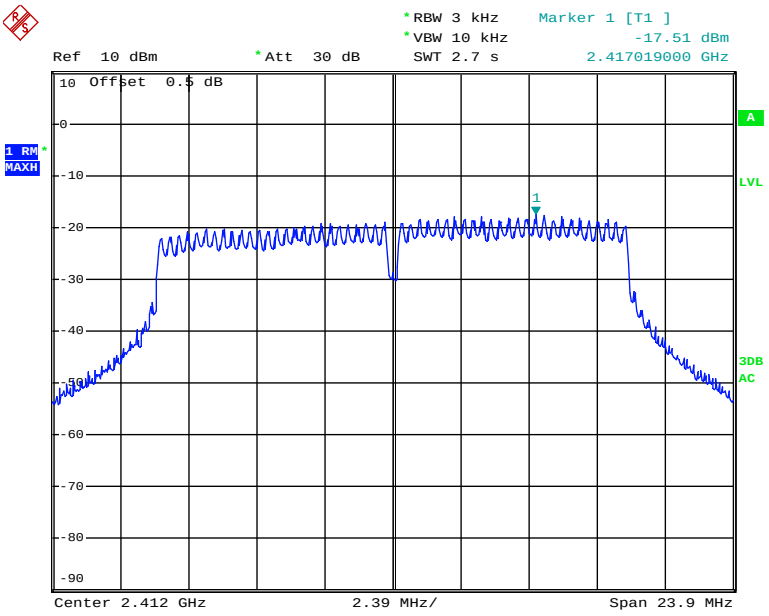
Power Spectral Density, 802.11g, Low Channel



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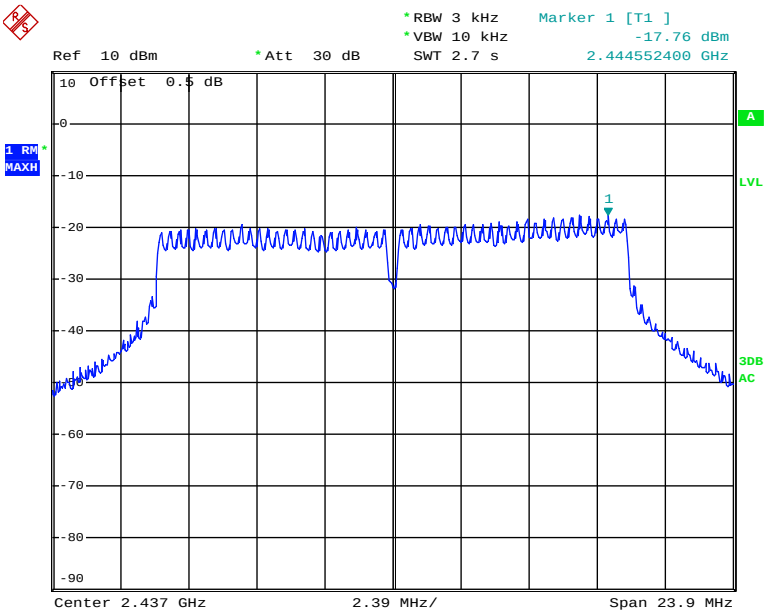
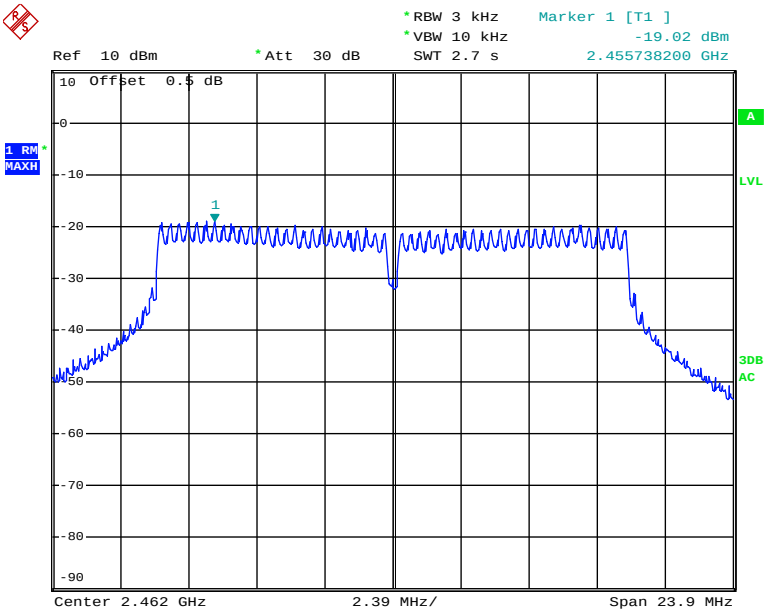
Power Spectral Density, 802.11g, Middle Channel



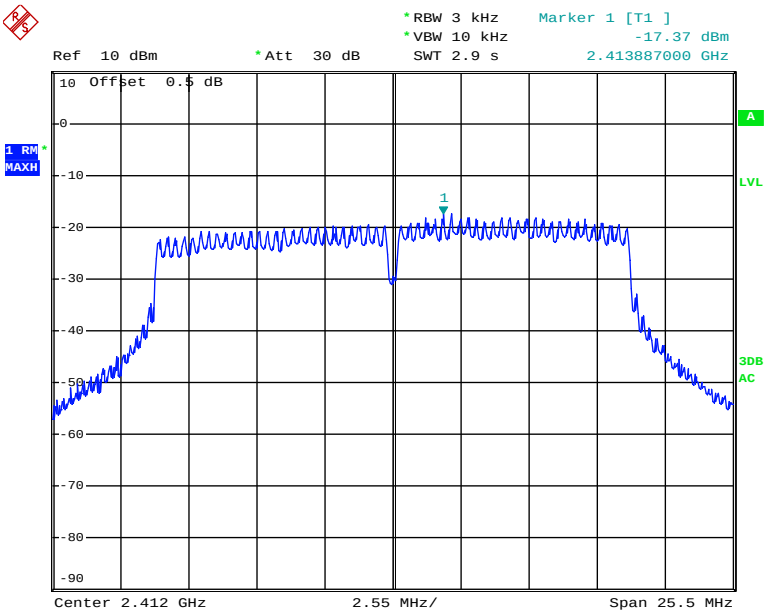
Date: 14.NOV.2017 16:41:48

Power Spectral Density, 802.11g, High Channel



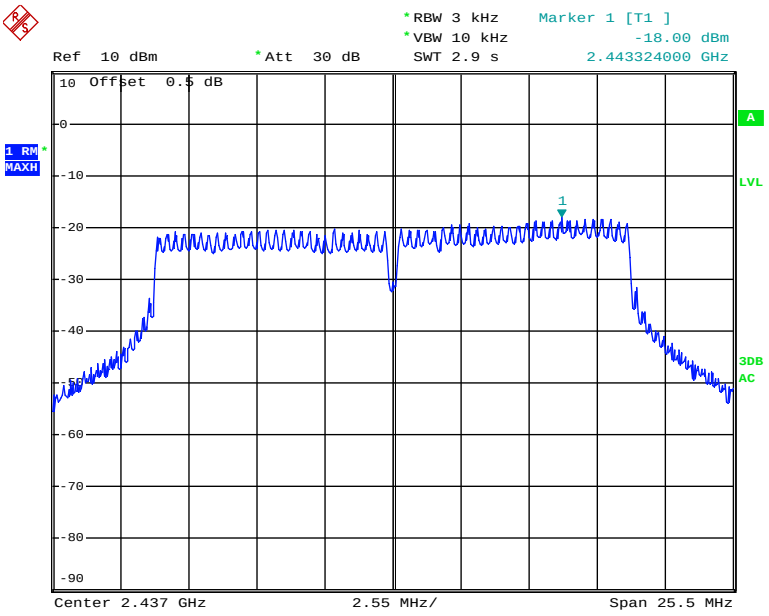
Date: 14.NOV.2017 16:41:05

Power Spectral Density, 802.11n ht20, Low Channel



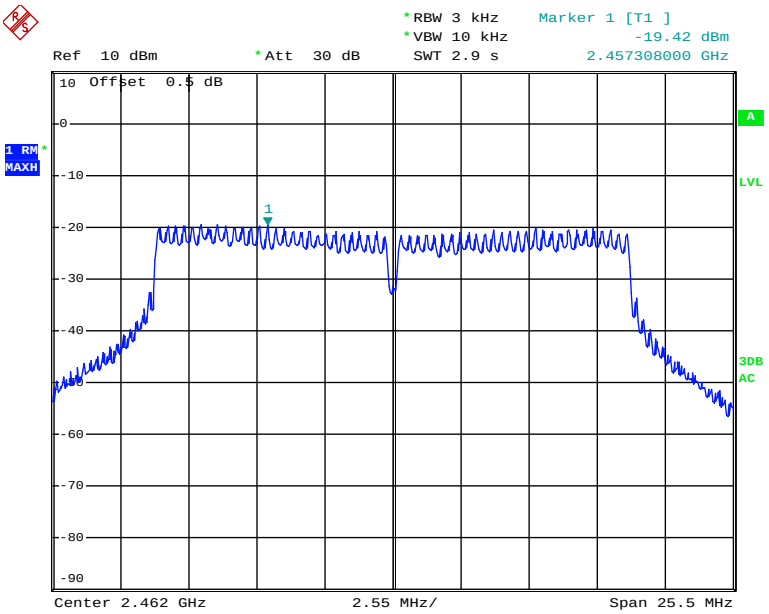
Date: 14.NOV.2017 16:53:55

Power Spectral Density, 802.11n ht20, Middle Channel



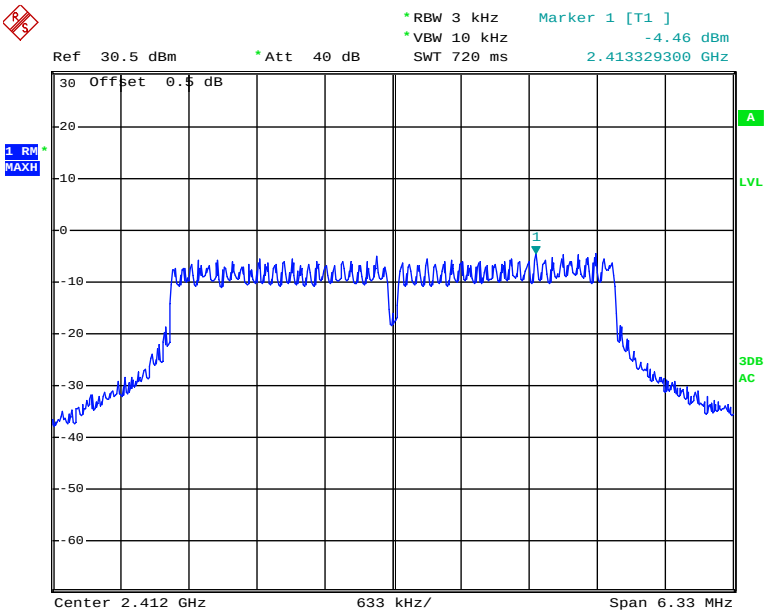
Date: 14.NOV.2017 16:53:31

Power Spectral Density, 802.11n ht20, High Channel



Date: 14.NOV.2017 16:53:03

Power Spectral Density, 5M Low Channel



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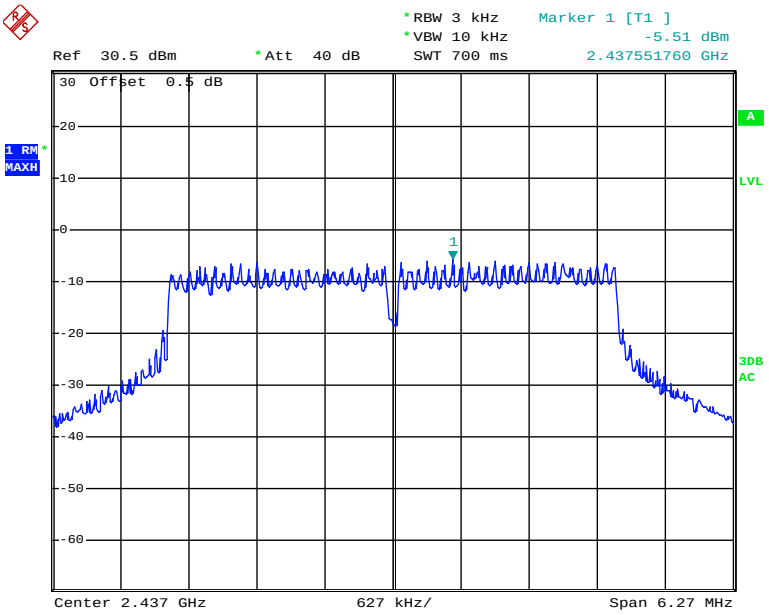
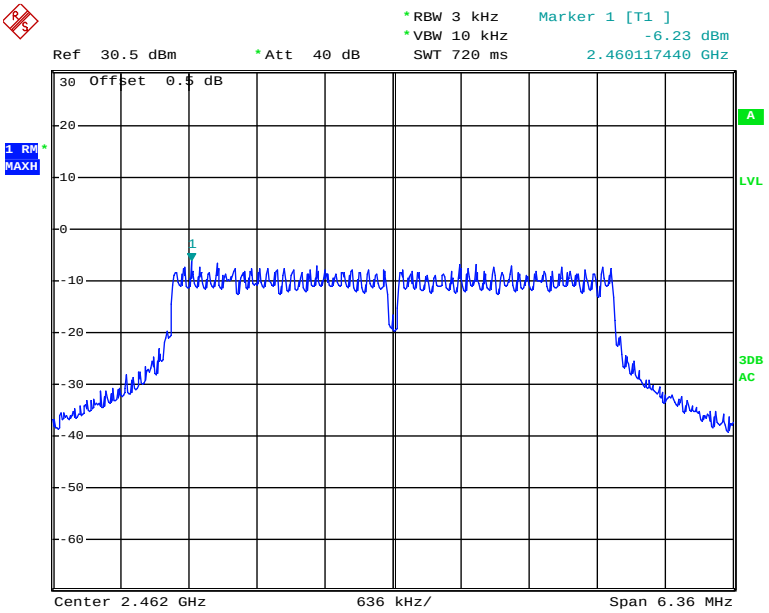
Power Spectral Density, 5M Middle Channel



Date: 9.NOV.2017 10:17:41

Power Spectral Density, 5M High Channel



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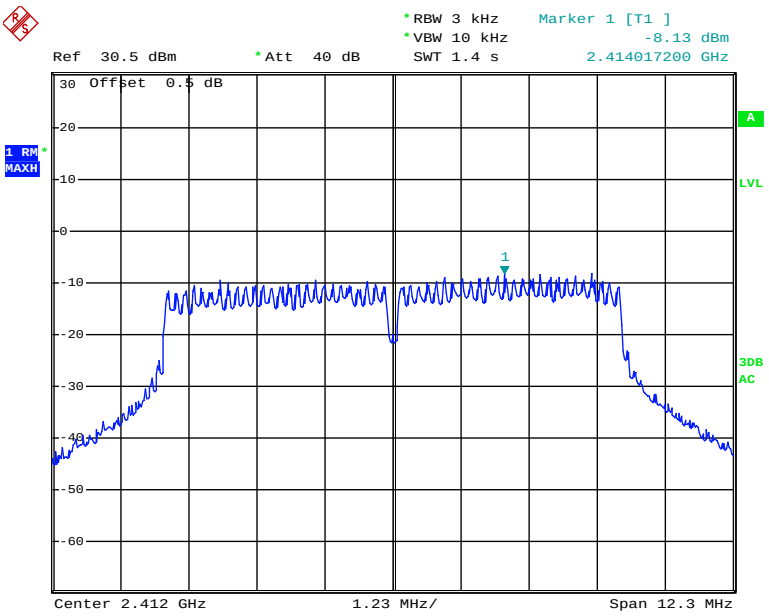
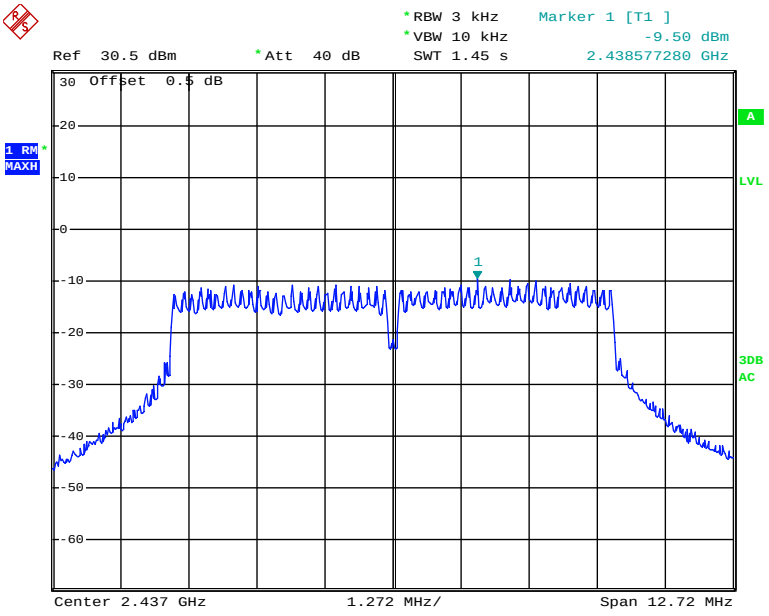
Power Spectral Density, 10M Low Channel



Date: 9.NOV.2017 10:19:48

Power Spectral Density, 10M Middle Channel



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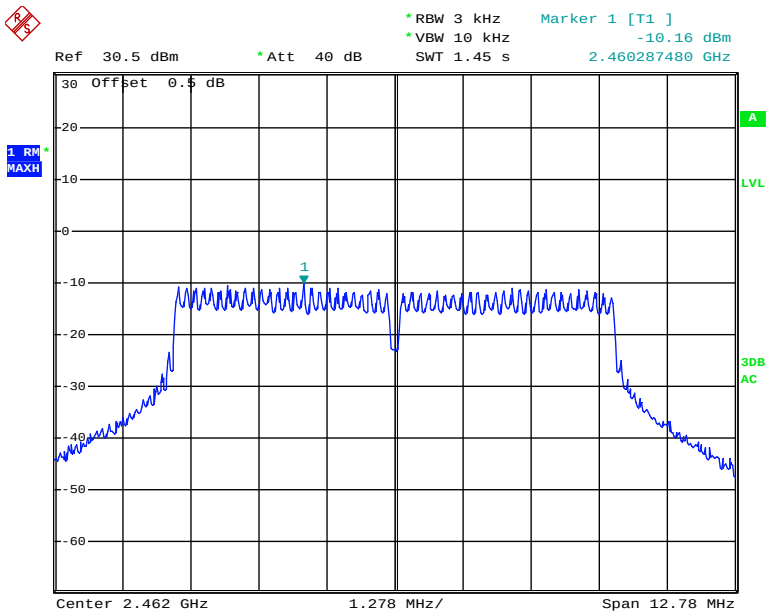
Power Spectral Density, 10M High Channel



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