



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

For

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Nanshan, Shenzhen, Guangdong, China

**FCC ID: SS3-WM331S1801**  
**IC: 11805A-WM331S1801**

<b>Report Type:</b> Original Report	<b>Product Name:</b> Phantom 4 Pro V2.0
<b>Report Number:</b>	<u>RDG180105004-00A</u>
<b>Report Date:</b>	<u>2018-01-30</u>
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**Note:** This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Dongguan).

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## GENERAL INFORMATION

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### Product Description for Equipment under Test (EUT)

<b>EUT Name:</b>	Phantom 4 Pro V2.0
<b>EUT Model:</b>	WM331S
<b>FCC ID:</b>	SS3-WM331S1801
<b>IC:</b>	11805A-WM331S1801
<b>Rated Input Voltage:</b>	DC 15.2V from battery
<b>External Dimension:</b>	Length (285.49mm)*Width (285.49mm)*High (180.16mm)
<b>Serial Number:</b>	180105004
<b>EUT Received Date:</b>	2018.01.05

### 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 15B JBP and Part 15E NII, FCC ID: SS3-WM331S1801.

ISED submissions with LE-LAN, IC: 11805A-WM331S1801.

Part of system submissions with FCC ID: SS3-GL300L1801, IC: 11805A-GL300L1801.

### 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 °C
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.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 897218, the FCC Designation No. : CN1220.

The test site has been 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.

The device employs 1.4MHz, 10MHz and 20MHz modes, and the EUT has 2 antennas, the system configure 1T1R depending on better performance by the system automatically recognizes.

For 1.4MHz modes, 38 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2403.5	20	2441.5
2	2405.5	...	...
...	...	...	...
...	...	...	...
...	...	37	2475.5
19	2439.5	38	2477.5

For 10MHz modes, the device employs 73 channels as below:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2405.5	38	2442.5
2	2406.5	...	...
...	...	...	...
...	...	...	...
...	...	73	2477.5
37	2441.5	/	/

For 20MHz modes, the device employs 63 channels as below:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2410.5	33	2442.5
2	2411.5	...	...
...	...	...	...
...	...	...	...
...	...	63	2472.5
32	2441.5	/	/

### Equipment Modifications

No modification was made to the EUT tested.

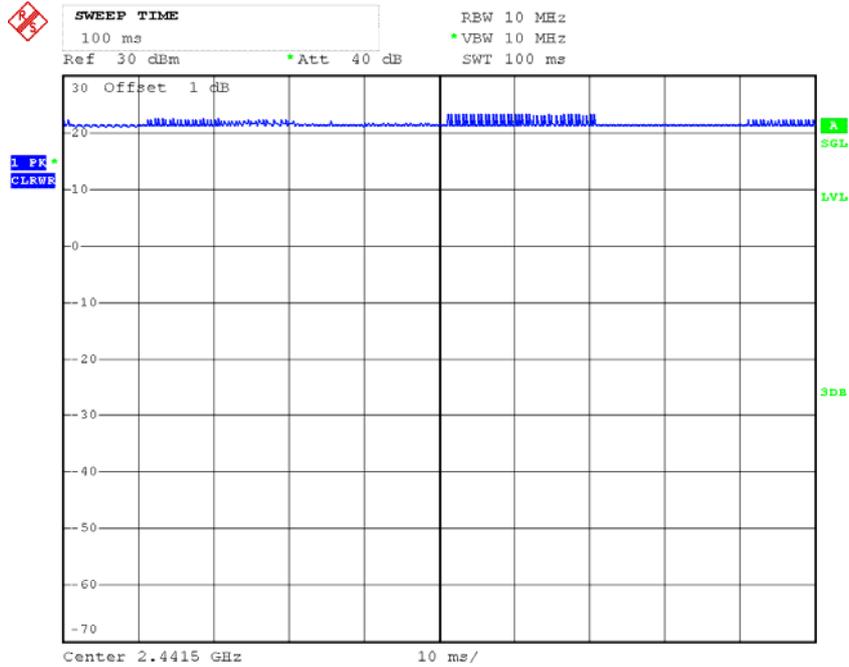
### EUT Exercise Software

The software “DjiRfCertConsole\_V1.3.0.51” was used for testing, which was provided by manufacturer. The maximum power with maximum duty cycle was configured as default setting, Per pretest the conducted output power, 10MHz, 20MHz mode’s power in difference power level, all test items performed at Low, Middle and High Channel, radiation bandedge test and output power were tested with additional channels according to the pretest output power test results.

The duty cycle as below:

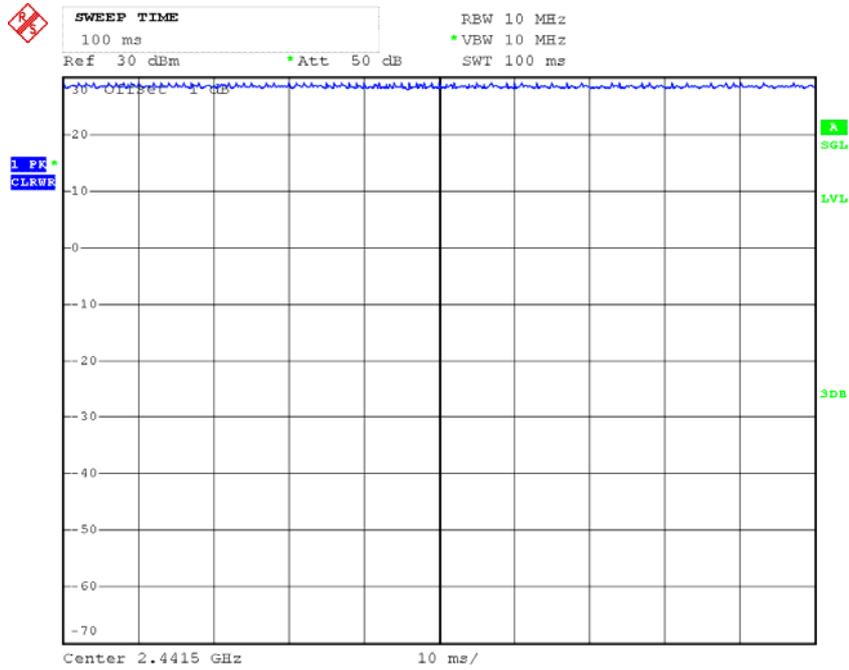
Mode	T <sub>on</sub> (ms)	T <sub>on+off</sub> (ms)	Duty Cycle (%)
1.4MHz	100	100	100
10MHz	100	100	100
20MHz	100	100	100

1.4MHz



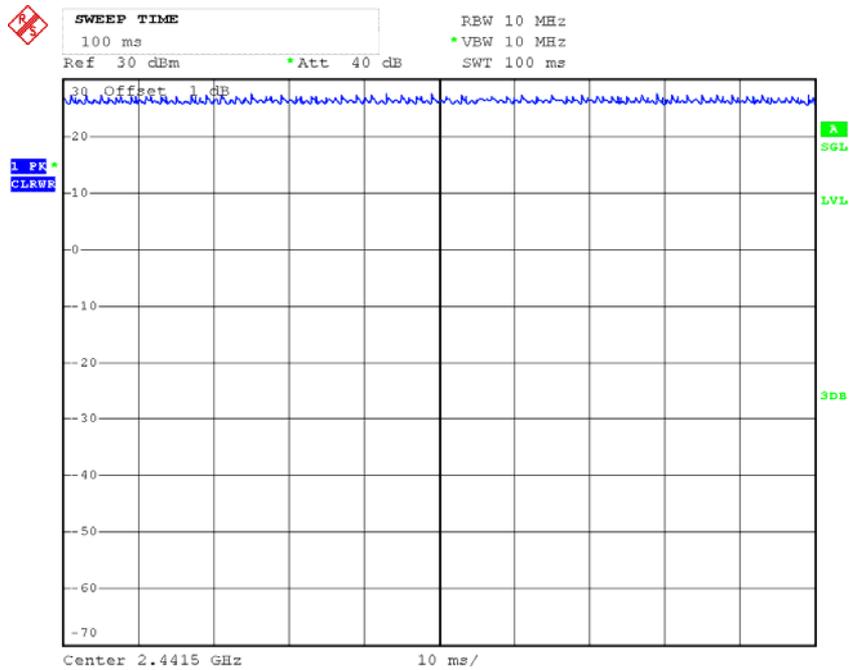
Date: 10.JAN.2018 20:40:29

### 10MHz



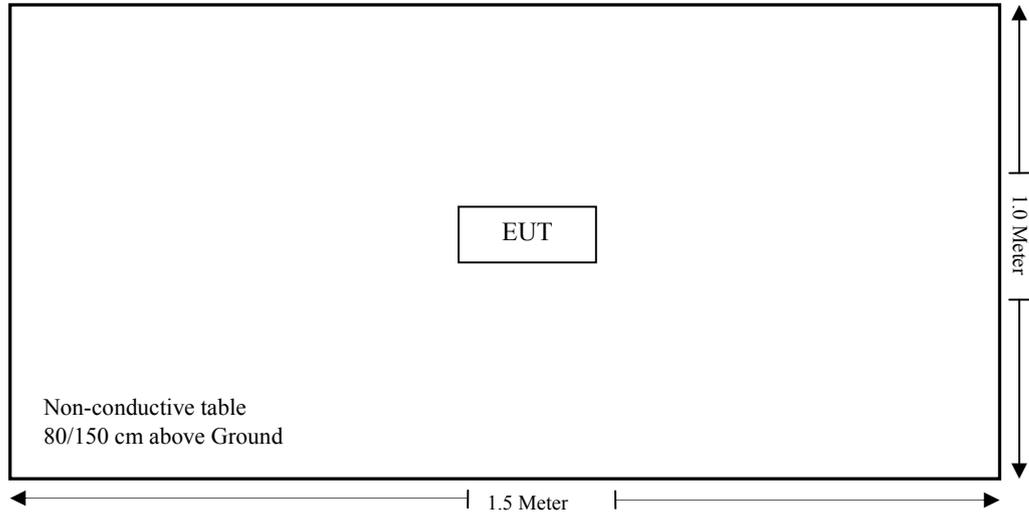
Date: 10.JAN.2018 15:52:00

### 20MHz



Date: 10.JAN.2018 11:24:23

### 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)	Compliance
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

Note:

Not Applicable: the device powered by battery.

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

**Applicable Standard**

According to §15.247(i) and §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>(B) Limits for General Population/Uncontrolled Exposure</b>				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f <sup>2</sup> )	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.

**Calculated Formulary:**

Predication of MPE limit at a given distance

$S = PG/4\pi R^2$  = power density (in appropriate units, e.g. mW/cm<sup>2</sup>);

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 Band	Antenna Gain		Max. Target Power including Tolerance		Evaluation Distance (cm)	Power Density (W/m <sup>2</sup> )	MPE Limit (W/m <sup>2</sup> )
	(dBi)	(numeric)	(dBm)	(mW)			
2.4GHz Band	3	2.00	22	158.49	20.00	0.06	1.0
5.8GHz Band	3	2.00	23	199.53	20.00	0.08	1.0

Note: the Max. Target Power including Tolerance was declared by manufacturer.  
The 2.4GHz band and 5.8GHz band 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**

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### 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 22dBm@ 2.4GHz band, the maximum antenna gain is 3.0dBi, so the maximum e.i.r.p. is 25dBm (0.316W)

Exemption from Routine Evaluation Limit is:

$$1.31 \times 10^{-2} f^{0.6834} = 1.31 \times 10^{-2} \times 2403.5^{0.6834} = 2.68 > 0.316\text{W}$$

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.<sup>9</sup> 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 antennas permanently attached to the unit, and the antennas gain is 3.0 dBi, fulfill the requirement of the item. Please refer to the internal photos.

**Result:** Compliance.

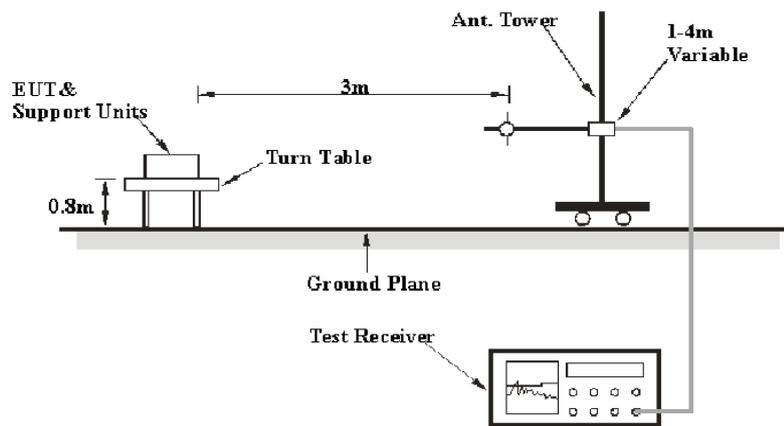
## FCC §15.209, §15.205 , §15.247(d) & RSS-247 §5.5&RSS-GEN§8.10-SPURIOUS EMISSIONS

### Applicable Standard

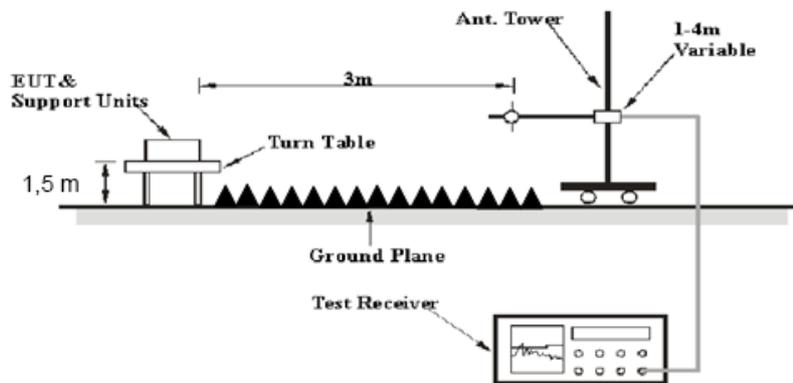
FCC §15.247 (d); §15.209; §15.205; and RSS-247 §5.5, RSS-GEN §8.10

### 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:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

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:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

**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	A060611-1	2017-11-10	2020-11-10
HP	Amplifier	8447D	2727A05902	2017-09-05	2018-09-05
N/A	Coaxial Cable	C-NJNJ-50	C-0400-01	2017-09-05	2018-09-05
N/A	Coaxial Cable	C-NJNJ-50	C-0075-01	2017-09-05	2018-09-05
N/A	Coaxial Cable	C-NJNJ-50	C-1000-01	2017-09-05	2018-09-05
Agilent	Spectrum Analyzer	E4440A	SG43360054	2017-12-08	2018-12-08
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 Technologies	Horn Antenna	ARH-4223-02	1007726-02 1304	2017-06-16	2020-06-15
N/A	Coaxial Cable	C-SJSJ-50	C-0800-01	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**

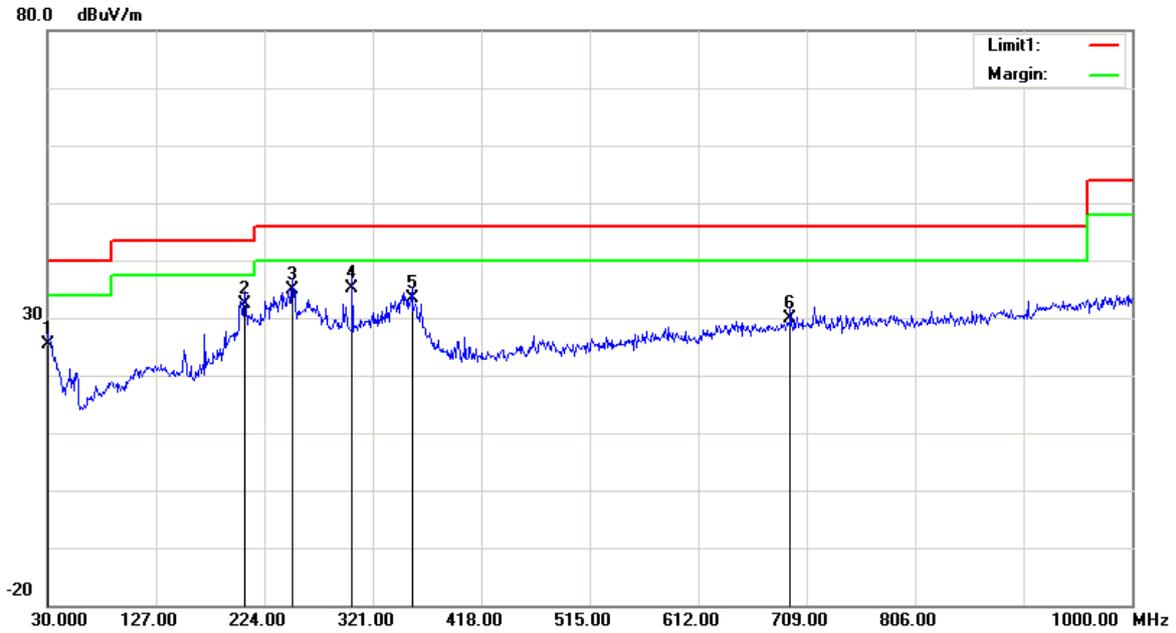
<b>Temperature:</b>	18.4 ~ 19.5°C
<b>Relative Humidity:</b>	28 ~ 38 %
<b>ATM Pressure:</b>	101.6 ~ 102.1 kPa

*The testing was performed by Blake Yang on 2018-01-11 and 2018-01-16.*

*Test Mode: Transmitting*

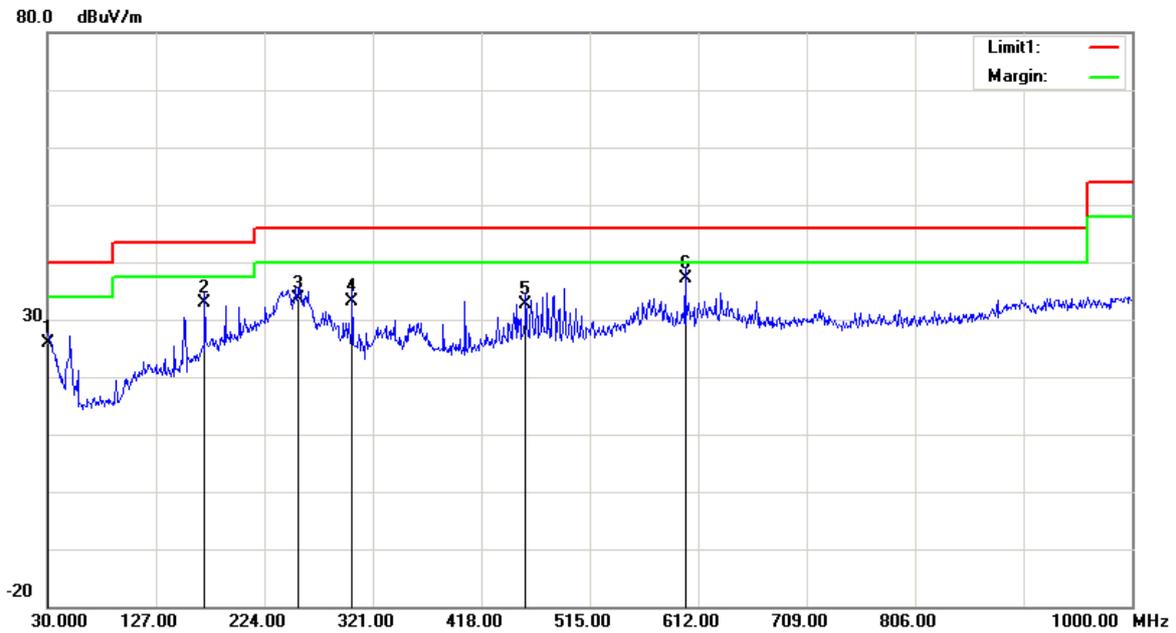
1) 30MHz-1GHz(1.4MHz mode chain 0 high channel was the worst):

Horizontal:



Frequency (MHz)	Receiver Reading (dBμV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
30.0000	24.22	QP	1.08	25.30	40.00	14.70
206.5400	39.76	QP	-7.26	32.50	43.50	11.00
249.2200	41.19	QP	-6.39	34.80	46.00	11.20
302.5700	39.61	QP	-4.41	35.20	46.00	10.80
355.9200	36.45	QP	-3.05	33.40	46.00	12.60
694.4500	27.55	QP	2.35	29.90	46.00	16.10

**Vertical:**



Frequency (MHz)	Receiver Reading (dBμV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
30.9700	25.45	QP	0.35	25.80	40.00	14.20
170.6500	40.20	QP	-7.40	32.80	43.50	10.70
254.0700	39.95	QP	-6.25	33.70	46.00	12.30
302.5700	37.61	QP	-4.41	33.20	46.00	12.80
457.7700	33.85	QP	-1.15	32.70	46.00	13.30
600.3600	37.00	QP	0.20	37.20	46.00	8.80

**2) 1-25GHz:**  
**1.4MHz mode:**  
**Chain 0:**

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
Low Channel: 2403.5 MHz									
2403.50	75.52	PK	H	24.83	5.41	0.00	105.76	N/A	N/A
2403.50	66.08	AV	H	24.83	5.41	0.00	96.32	N/A	N/A
2403.50	78.42	PK	V	24.83	5.41	0.00	108.66	N/A	N/A
2403.50	67.83	AV	V	24.83	5.41	0.00	98.07	N/A	N/A
2390.00	29.51	PK	V	24.80	5.36	0.00	59.67	74.00	14.33
2390.00	16.05	AV	V	24.80	5.36	0.00	46.21	54.00	7.79
4807.00	42.83	PK	V	29.71	7.26	27.37	52.43	74.00	21.57
4807.00	31.53	AV	V	29.71	7.26	27.37	41.13	54.00	12.87
7210.50	40.28	PK	V	33.94	8.96	27.19	55.99	74.00	18.01
7210.50	30.63	AV	V	33.94	8.96	27.19	46.34	54.00	7.66
Middle Channel: 2441.5 MHz									
2441.50	75.63	PK	H	24.89	5.41	0.00	105.93	N/A	N/A
2441.50	66.17	AV	H	24.89	5.41	0.00	96.47	N/A	N/A
2441.50	78.65	PK	V	24.89	5.41	0.00	108.95	N/A	N/A
2441.50	67.99	AV	V	24.89	5.41	0.00	98.29	N/A	N/A
4883.00	43.45	PK	V	29.87	7.60	27.56	53.36	74.00	20.64
4883.00	31.52	AV	V	29.87	7.60	27.56	41.43	54.00	12.57
7324.50	40.02	PK	V	34.12	9.29	27.26	56.17	74.00	17.83
7324.50	30.42	AV	V	34.12	9.29	27.26	46.57	54.00	7.43
High Channel: 2477.5 MHz									
2477.50	75.34	PK	H	24.96	5.41	0.00	105.71	N/A	N/A
2477.50	65.37	AV	H	24.96	5.41	0.00	95.74	N/A	N/A
2477.50	78.25	PK	V	24.96	5.41	0.00	108.62	N/A	N/A
2477.50	66.41	AV	V	24.96	5.41	0.00	96.78	N/A	N/A
2483.50	32.36	PK	V	24.97	5.41	0.00	62.74	74.00	11.26
2483.50	19.13	AV	V	24.97	5.41	0.00	49.51	54.00	4.49
4955.00	47.96	PK	V	30.01	7.63	27.39	58.21	74.00	15.79
4955.00	35.34	AV	V	30.01	7.63	27.39	45.59	54.00	8.41
7432.50	40.32	PK	V	34.29	9.08	27.21	56.48	74.00	17.52
7432.50	33.45	AV	V	34.29	9.08	27.21	49.61	54.00	4.39

**Chain 1:**

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
	Reading (dB $\mu$ V)	Detector	Polar (H/V)	Factor (dB/m)					
Low Channel: 2403.5 MHz									
2403.50	77.83	PK	H	24.83	5.41	0.00	108.07	N/A	N/A
2403.50	66.12	AV	H	24.83	5.41	0.00	96.36	N/A	N/A
2403.50	81.26	PK	V	24.83	5.41	0.00	111.50	N/A	N/A
2403.50	69.83	AV	V	24.83	5.41	0.00	100.07	N/A	N/A
2390.00	29.71	PK	V	24.80	5.36	0.00	59.87	74.00	14.13
2390.00	16.03	AV	V	24.80	5.36	0.00	46.19	54.00	7.81
4807.00	41.56	PK	V	29.71	7.26	27.37	51.16	74.00	22.84
4807.00	31.48	AV	V	29.71	7.26	27.37	41.08	54.00	12.92
7210.50	40.33	PK	V	33.94	8.96	27.19	56.04	74.00	17.96
7210.50	30.06	AV	V	33.94	8.96	27.19	45.77	54.00	8.23
Middle Channel: 2441.5 MHz									
2441.50	76.58	PK	H	24.89	5.41	0.00	106.88	N/A	N/A
2441.50	64.34	AV	H	24.89	5.41	0.00	94.64	N/A	N/A
2441.50	80.46	PK	V	24.89	5.41	0.00	110.76	N/A	N/A
2441.50	68.52	AV	V	24.89	5.41	0.00	98.82	N/A	N/A
4883.00	43.05	PK	V	29.87	7.60	27.56	52.96	74.00	21.04
4883.00	33.89	AV	V	29.87	7.60	27.56	43.80	54.00	10.20
7324.50	41.64	PK	V	34.12	9.29	27.26	57.79	74.00	16.21
7324.50	32.08	AV	V	34.12	9.29	27.26	48.23	54.00	5.77
High Channel: 2477.5 MHz									
2477.50	77.13	PK	H	24.96	5.41	0.00	107.50	N/A	N/A
2477.50	65.42	AV	H	24.96	5.41	0.00	95.79	N/A	N/A
2477.50	80.82	PK	V	24.96	5.41	0.00	111.19	N/A	N/A
2477.50	68.46	AV	V	24.96	5.41	0.00	98.83	N/A	N/A
2483.50	32.16	PK	V	24.97	5.41	0.00	62.54	74.00	11.46
2483.50	17.15	AV	V	24.97	5.41	0.00	47.53	54.00	6.47
4955.00	49.40	PK	V	30.01	7.63	27.39	59.65	74.00	14.35
4955.00	40.60	AV	V	30.01	7.63	27.39	50.85	54.00	3.15
7432.50	40.73	PK	V	34.29	9.08	27.21	56.89	74.00	17.11
7432.50	31.05	AV	V	34.29	9.08	27.21	47.21	54.00	6.79

**10MHz mode, Chain 0:**

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
Low Channel: 2405.5 MHz									
2405.50	70.58	PK	H	24.83	5.41	0.00	100.82	N/A	N/A
2405.50	57.31	AV	H	24.83	5.41	0.00	87.55	N/A	N/A
2405.50	75.39	PK	V	24.83	5.41	0.00	105.63	N/A	N/A
2405.50	63.43	AV	V	24.83	5.41	0.00	93.67	N/A	N/A
2390.00	27.93	PK	V	24.80	5.36	0.00	58.09	74.00	15.91
2390.00	15.68	AV	V	24.80	5.36	0.00	45.84	54.00	8.16
4811.00	42.56	PK	V	29.72	7.28	27.38	52.18	74.00	21.82
4811.00	30.18	AV	V	29.72	7.28	27.38	39.80	54.00	14.20
7216.50	40.48	PK	V	33.95	8.99	27.20	56.22	74.00	17.78
7216.50	28.67	AV	V	33.95	8.99	27.20	44.41	54.00	9.59
2406.5 MHz									
2406.50	75.94	PK	V	24.83	5.41	0.00	106.18	N/A	N/A
2406.50	63.85	AV	V	24.83	5.41	0.00	94.09	N/A	N/A
2390.00	27.86	PK	V	24.80	5.36	0.00	58.02	74.00	15.98
2390.00	15.43	AV	V	24.80	5.36	0.00	45.59	54.00	8.41
2407.5 MHz									
2407.50	76.16	PK	V	24.83	5.41	0.00	106.40	N/A	N/A
2407.50	64.27	AV	V	24.83	5.41	0.00	94.51	N/A	N/A
2390.00	27.32	PK	V	24.80	5.36	0.00	57.48	74.00	16.52
2390.00	15.50	AV	V	24.80	5.36	0.00	45.66	54.00	8.34
2408.5 MHz									
2408.50	76.95	PK	V	24.84	5.41	0.00	107.20	N/A	N/A
2408.50	64.86	AV	V	24.84	5.41	0.00	95.11	N/A	N/A
2390.00	28.59	PK	V	24.80	5.36	0.00	58.75	74.00	15.25
2390.00	16.05	AV	V	24.80	5.36	0.00	46.21	54.00	7.79
2409.5 MHz									
2409.50	77.42	PK	V	24.84	5.41	0.00	107.67	N/A	N/A
2409.50	65.31	AV	V	24.84	5.41	0.00	95.56	N/A	N/A
2390.00	27.43	PK	V	24.80	5.36	0.00	57.59	74.00	16.41
2390.00	15.12	AV	V	24.80	5.36	0.00	45.28	54.00	8.72
2410.5 MHz									
2410.50	77.36	PK	V	24.84	5.41	0.00	107.61	N/A	N/A
2410.50	65.81	AV	V	24.84	5.41	0.00	96.06	N/A	N/A
2390.00	27.12	PK	V	24.80	5.36	0.00	57.28	74.00	16.72
2390.00	15.66	AV	V	24.80	5.36	0.00	45.82	54.00	8.18
2411.5 MHz									
2411.50	78.12	PK	V	24.84	5.41	0.00	108.37	N/A	N/A
2411.50	66.51	AV	V	24.84	5.41	0.00	96.76	N/A	N/A
2390.00	27.13	PK	V	24.80	5.36	0.00	57.29	74.00	16.71
2390.00	15.84	AV	V	24.80	5.36	0.00	46.00	54.00	8.00
2412.5 MHz									
2412.50	79.08	PK	V	24.84	5.41	0.00	109.33	N/A	N/A
2412.50	66.84	AV	V	24.84	5.41	0.00	97.09	N/A	N/A
2390.00	26.36	PK	V	24.80	5.36	0.00	56.52	74.00	17.48
2390.00	15.28	AV	V	24.80	5.36	0.00	45.44	54.00	8.56
2413.5 MHz									
2413.50	79.25	PK	V	24.84	5.41	0.00	109.50	N/A	N/A
2413.50	67.37	AV	V	24.84	5.41	0.00	97.62	N/A	N/A
2390.00	27.83	PK	V	24.80	5.36	0.00	57.99	74.00	16.01
2390.00	16.15	AV	V	24.80	5.36	0.00	46.31	54.00	7.69

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2414.5 MHz									
2414.50	79.31	PK	V	24.85	5.41	0.00	109.57	N/A	N/A
2414.50	67.25	AV	V	24.85	5.41	0.00	97.51	N/A	N/A
2390.00	27.57	PK	V	24.80	5.36	0.00	57.73	74.00	16.27
2390.00	16.03	AV	V	24.80	5.36	0.00	46.19	54.00	7.81
2415.5 MHz									
2415.50	80.43	PK	V	24.85	5.41	0.00	110.69	N/A	N/A
2415.50	68.17	AV	V	24.85	5.41	0.00	98.43	N/A	N/A
2390.00	26.15	PK	V	24.80	5.36	0.00	56.31	74.00	17.69
2390.00	14.86	AV	V	24.80	5.36	0.00	45.02	54.00	8.98
2416.5 MHz									
2416.50	80.52	PK	V	24.85	5.41	0.00	110.78	N/A	N/A
2416.50	68.68	AV	V	24.85	5.41	0.00	98.94	N/A	N/A
2390.00	26.71	PK	V	24.80	5.36	0.00	56.87	74.00	17.13
2390.00	15.02	AV	V	24.80	5.36	0.00	45.18	54.00	8.82
2417.5 MHz									
2417.50	81.16	PK	V	24.85	5.41	0.00	111.42	N/A	N/A
2417.50	69.37	AV	V	24.85	5.41	0.00	99.63	N/A	N/A
2390.00	25.43	PK	V	24.80	5.36	0.00	55.59	74.00	18.41
2390.00	14.12	AV	V	24.80	5.36	0.00	44.28	54.00	9.72
Middle Channel: 2441.5 MHz									
2441.50	77.06	PK	H	24.89	5.41	0.00	107.36	N/A	N/A
2441.50	65.58	AV	H	24.89	5.41	0.00	95.88	N/A	N/A
2441.50	82.52	PK	V	24.89	5.41	0.00	112.82	N/A	N/A
2441.50	70.18	AV	V	24.89	5.41	0.00	100.48	N/A	N/A
4883.00	42.18	PK	V	29.87	7.60	27.56	52.09	74.00	21.91
4883.00	31.43	AV	V	29.87	7.60	27.56	41.34	54.00	12.66
7324.50	40.24	PK	V	34.12	9.29	27.26	56.39	74.00	17.61
7324.50	28.41	AV	V	34.12	9.29	27.26	44.56	54.00	9.44
2455.5 MHz									
2455.50	81.24	PK	V	24.92	5.41	0.00	111.57	N/A	N/A
2455.50	69.52	AV	V	24.92	5.41	0.00	99.85	N/A	N/A
2483.50	27.46	PK	V	24.97	5.41	0.00	57.84	74.00	16.16
2483.50	16.15	AV	V	24.97	5.41	0.00	46.53	54.00	7.47
2456.5 MHz									
2456.50	80.35	PK	V	24.92	5.41	0.00	110.68	N/A	N/A
2456.50	68.48	AV	V	24.92	5.41	0.00	98.81	N/A	N/A
2483.50	29.42	PK	V	24.97	5.41	0.00	59.80	74.00	14.20
2483.50	16.81	AV	V	24.97	5.41	0.00	47.19	54.00	6.81
2457.5 MHz									
2457.50	80.21	PK	V	24.92	5.41	0.00	110.54	N/A	N/A
2457.50	68.32	AV	V	24.92	5.41	0.00	98.65	N/A	N/A
2483.50	29.16	PK	V	24.97	5.41	0.00	59.54	74.00	14.46
2483.50	16.37	AV	V	24.97	5.41	0.00	46.75	54.00	7.25
2458.5 MHz									
2458.50	79.86	PK	V	24.93	5.41	0.00	110.20	N/A	N/A
2458.50	67.47	AV	V	24.93	5.41	0.00	97.81	N/A	N/A
2483.50	32.13	PK	V	24.97	5.41	0.00	62.51	74.00	11.49
2483.50	17.68	AV	V	24.97	5.41	0.00	48.06	54.00	5.94

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2459.5 MHz									
2459.50	79.43	PK	V	24.93	5.41	0.00	109.77	N/A	N/A
2459.50	67.31	AV	V	24.93	5.41	0.00	97.65	N/A	N/A
2483.50	31.86	PK	V	24.97	5.41	0.00	62.24	74.00	11.76
2483.50	17.33	AV	V	24.97	5.41	0.00	47.71	54.00	6.29
2460.5 MHz									
2460.50	78.21	PK	V	24.93	5.41	0.00	108.55	N/A	N/A
2460.50	66.65	AV	V	24.93	5.41	0.00	96.99	N/A	N/A
2483.50	31.90	PK	V	24.97	5.41	0.00	62.28	74.00	11.72
2483.50	18.26	AV	V	24.97	5.41	0.00	48.64	54.00	5.36
2461.5 MHz									
2461.50	78.08	PK	V	24.93	5.41	0.00	108.42	N/A	N/A
2461.50	66.53	AV	V	24.93	5.41	0.00	96.87	N/A	N/A
2483.50	31.46	PK	V	24.97	5.41	0.00	61.84	74.00	12.16
2483.50	17.95	AV	V	24.97	5.41	0.00	48.33	54.00	5.67
2462.5 MHz									
2462.50	77.26	PK	V	24.93	5.41	0.00	107.60	N/A	N/A
2462.50	66.12	AV	V	24.93	5.41	0.00	96.46	N/A	N/A
2483.50	31.12	PK	V	24.97	5.41	0.00	61.50	74.00	12.50
2483.50	18.25	AV	V	24.97	5.41	0.00	48.63	54.00	5.37
2463.5 MHz									
2463.50	77.08	PK	V	24.93	5.41	0.00	107.42	N/A	N/A
2463.50	65.72	AV	V	24.93	5.41	0.00	96.06	N/A	N/A
2483.50	31.08	PK	V	24.97	5.41	0.00	61.46	74.00	12.54
2483.50	18.16	AV	V	24.97	5.41	0.00	48.54	54.00	5.46
2464.5 MHz									
2464.50	76.63	PK	V	24.94	5.41	0.00	106.98	N/A	N/A
2464.50	64.28	AV	V	24.94	5.41	0.00	94.63	N/A	N/A
2483.50	30.41	PK	V	24.97	5.41	0.00	60.79	74.00	13.21
2483.50	17.01	AV	V	24.97	5.41	0.00	47.39	54.00	6.61
2465.5 MHz									
2465.50	76.42	PK	V	24.94	5.41	0.00	106.77	N/A	N/A
2465.50	63.93	AV	V	24.94	5.41	0.00	94.28	N/A	N/A
2483.50	29.87	PK	V	24.97	5.41	0.00	60.25	74.00	13.75
2483.50	16.83	AV	V	24.97	5.41	0.00	47.21	54.00	6.79
2466.5 MHz									
2466.50	75.83	PK	V	24.94	5.41	0.00	106.18	N/A	N/A
2466.50	64.13	AV	V	24.94	5.41	0.00	94.48	N/A	N/A
2483.50	27.92	PK	V	24.97	5.41	0.00	58.30	74.00	15.70
2483.50	17.24	AV	V	24.97	5.41	0.00	47.62	54.00	6.38
2467.5 MHz									
2467.50	75.46	PK	V	24.94	5.41	0.00	105.81	N/A	N/A
2467.50	64.15	AV	V	24.94	5.41	0.00	94.50	N/A	N/A
2483.50	27.68	PK	V	24.97	5.41	0.00	58.06	74.00	15.94
2483.50	17.16	AV	V	24.97	5.41	0.00	47.54	54.00	6.46
2468.5 MHz									
2468.50	74.82	PK	V	24.94	5.41	0.00	105.17	N/A	N/A
2468.50	63.05	AV	V	24.94	5.41	0.00	93.40	N/A	N/A
2483.50	27.86	PK	V	24.97	5.41	0.00	58.24	74.00	15.76
2483.50	16.48	AV	V	24.97	5.41	0.00	46.86	54.00	7.14

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
	Reading (dB $\mu$ V)	Detector	Polar (H/V)	Factor (dB/m)					
2469.5 MHz									
2469.50	74.14	PK	V	24.95	5.41	0.00	104.50	N/A	N/A
2469.50	62.83	AV	V	24.95	5.41	0.00	93.19	N/A	N/A
2483.50	28.31	PK	V	24.97	5.41	0.00	58.69	74.00	15.31
2483.50	16.59	AV	V	24.97	5.41	0.00	46.97	54.00	7.03
2470.5 MHz									
2470.50	73.52	PK	V	24.95	5.41	0.00	103.88	N/A	N/A
2470.50	61.26	AV	V	24.95	5.41	0.00	91.62	N/A	N/A
2390.00	28.67	PK	V	24.80	5.36	0.00	58.83	74.00	15.17
2390.00	17.05	AV	V	24.80	5.36	0.00	47.21	54.00	6.79
2471.5 MHz									
2471.50	72.83	PK	V	24.95	5.41	0.00	103.19	N/A	N/A
2471.50	60.83	AV	V	24.95	5.41	0.00	91.19	N/A	N/A
2483.50	29.21	PK	V	24.97	5.41	0.00	59.59	74.00	14.41
2483.50	17.36	AV	V	24.97	5.41	0.00	47.74	54.00	6.26
2472.5 MHz									
2472.50	71.24	PK	V	24.95	5.41	0.00	101.60	N/A	N/A
2472.50	59.18	AV	V	24.95	5.41	0.00	89.54	N/A	N/A
2483.50	29.13	PK	V	24.97	5.41	0.00	59.51	74.00	14.49
2483.50	17.42	AV	V	24.97	5.41	0.00	47.80	54.00	6.20
2473.5 MHz									
2473.50	70.43	PK	V	24.95	5.41	0.00	100.79	N/A	N/A
2473.50	58.16	AV	V	24.95	5.41	0.00	88.52	N/A	N/A
2483.50	28.54	PK	V	24.97	5.41	0.00	58.92	74.00	15.08
2483.50	17.31	AV	V	24.97	5.41	0.00	47.69	54.00	6.31
2474.5 MHz									
2474.50	69.32	PK	V	24.95	5.41	0.00	99.68	N/A	N/A
2474.50	57.06	AV	V	24.95	5.41	0.00	87.42	N/A	N/A
2483.50	29.33	PK	V	24.97	5.41	0.00	59.71	74.00	14.29
2483.50	17.26	AV	V	24.97	5.41	0.00	47.64	54.00	6.36
2475.5 MHz									
2475.50	69.06	PK	V	24.96	5.41	0.00	99.43	N/A	N/A
2475.50	56.87	AV	V	24.96	5.41	0.00	87.24	N/A	N/A
2483.50	29.12	PK	V	24.97	5.41	0.00	59.50	74.00	14.50
2483.50	16.83	AV	V	24.97	5.41	0.00	47.21	54.00	6.79
2476.5 MHz									
2476.50	65.34	PK	V	24.96	5.41	0.00	95.71	N/A	N/A
2476.50	53.28	AV	V	24.96	5.41	0.00	83.65	N/A	N/A
2483.50	28.61	PK	V	24.97	5.41	0.00	58.99	74.00	15.01
2483.50	17.12	AV	V	24.97	5.41	0.00	47.50	54.00	6.50
High Channel: 2477.5 MHz									
2477.50	43.46	PK	H	24.96	5.41	0.00	73.83	N/A	N/A
2477.50	32.25	AV	H	24.96	5.41	0.00	62.62	N/A	N/A
2477.50	46.74	PK	V	24.96	5.41	0.00	77.11	N/A	N/A
2477.50	35.85	AV	V	24.96	5.41	0.00	66.22	N/A	N/A
2483.50	28.66	PK	V	24.97	5.41	0.00	59.04	74.00	14.96
2483.50	17.23	AV	V	24.97	5.41	0.00	47.61	54.00	6.39
4955.00	43.51	PK	V	30.01	7.63	27.39	53.76	74.00	20.24
4955.00	32.36	AV	V	30.01	7.63	27.39	42.61	54.00	11.39
7432.50	41.08	PK	V	34.29	9.08	27.21	57.24	74.00	16.76
7432.50	29.13	AV	V	34.29	9.08	27.21	45.29	54.00	8.71

**Chain 1:**

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
Low Channel: 2405.5 MHz									
2405.50	70.43	PK	H	24.83	5.41	0.00	100.67	N/A	N/A
2405.50	58.28	AV	H	24.83	5.41	0.00	88.52	N/A	N/A
2405.50	74.13	PK	V	24.83	5.41	0.00	104.37	N/A	N/A
2405.50	62.67	AV	V	24.83	5.41	0.00	92.91	N/A	N/A
2390.00	28.41	PK	V	24.80	5.36	0.00	58.57	74.00	15.43
2390.00	17.53	AV	V	24.80	5.36	0.00	47.69	54.00	6.31
4811.00	43.26	PK	V	29.72	7.28	27.38	52.88	74.00	21.12
4811.00	32.58	AV	V	29.72	7.28	27.38	42.20	54.00	11.80
7216.50	41.66	PK	V	33.95	8.99	27.20	57.40	74.00	16.60
7216.50	31.05	AV	V	33.95	8.99	27.20	46.79	54.00	7.21
2406.5 MHz									
2406.50	76.54	PK	V	24.83	5.41	0.00	106.78	N/A	N/A
2406.50	64.85	AV	V	24.83	5.41	0.00	95.09	N/A	N/A
2390.00	27.20	PK	V	24.80	5.36	0.00	57.36	74.00	16.64
2390.00	16.12	AV	V	24.80	5.36	0.00	46.28	54.00	7.72
2407.5 MHz									
2407.50	77.93	PK	V	24.83	5.41	0.00	108.17	N/A	N/A
2407.50	65.15	AV	V	24.83	5.41	0.00	95.39	N/A	N/A
2390.00	27.38	PK	V	24.80	5.36	0.00	57.54	74.00	16.46
2390.00	16.32	AV	V	24.80	5.36	0.00	46.48	54.00	7.52
2408.5 MHz									
2408.50	78.14	PK	V	24.84	5.41	0.00	108.39	N/A	N/A
2408.50	66.62	AV	V	24.84	5.41	0.00	96.87	N/A	N/A
2390.00	28.14	PK	V	24.80	5.36	0.00	58.30	74.00	15.70
2390.00	16.53	AV	V	24.80	5.36	0.00	46.69	54.00	7.31
2409.5 MHz									
2409.50	79.05	PK	V	24.84	5.41	0.00	109.30	N/A	N/A
2409.50	67.72	AV	V	24.84	5.41	0.00	97.97	N/A	N/A
2390.00	27.56	PK	V	24.80	5.36	0.00	57.72	74.00	16.28
2390.00	16.35	AV	V	24.80	5.36	0.00	46.51	54.00	7.49
2410.5 MHz									
2410.50	79.26	PK	V	24.84	5.41	0.00	109.51	N/A	N/A
2410.50	67.95	AV	V	24.84	5.41	0.00	98.20	N/A	N/A
2390.00	28.11	PK	V	24.80	5.36	0.00	58.27	74.00	15.73
2390.00	16.42	AV	V	24.80	5.36	0.00	46.58	54.00	7.42
2411.5 MHz									
2411.50	80.86	PK	V	24.84	5.41	0.00	111.11	N/A	N/A
2411.50	68.43	AV	V	24.84	5.41	0.00	98.68	N/A	N/A
2390.00	27.85	PK	V	24.80	5.36	0.00	58.01	74.00	15.99
2390.00	16.31	AV	V	24.80	5.36	0.00	46.47	54.00	7.53
2412.5 MHz									
2412.50	80.93	PK	V	24.84	5.41	0.00	111.18	N/A	N/A
2412.50	68.58	AV	V	24.84	5.41	0.00	98.83	N/A	N/A
2390.00	28.41	PK	V	24.80	5.36	0.00	58.57	74.00	15.43
2390.00	16.41	AV	V	24.80	5.36	0.00	46.57	54.00	7.43
2413.5 MHz									
2413.50	81.71	PK	V	24.84	5.41	0.00	111.96	N/A	N/A
2413.50	69.92	AV	V	24.84	5.41	0.00	100.17	N/A	N/A
2390.00	28.64	PK	V	24.80	5.36	0.00	58.80	74.00	15.20
2390.00	17.02	AV	V	24.80	5.36	0.00	47.18	54.00	6.82

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2414.5 MHz									
2414.50	81.86	PK	V	24.85	5.41	0.00	112.12	N/A	N/A
2414.50	69.87	AV	V	24.85	5.41	0.00	100.13	N/A	N/A
2390.00	28.71	PK	V	24.80	5.36	0.00	58.87	74.00	15.13
2390.00	17.41	AV	V	24.80	5.36	0.00	47.57	54.00	6.43
2415.5 MHz									
2415.50	82.96	PK	V	24.85	5.41	0.00	113.22	N/A	N/A
2415.50	71.02	AV	V	24.85	5.41	0.00	101.28	N/A	N/A
2390.00	27.55	PK	V	24.80	5.36	0.00	57.71	74.00	16.29
2390.00	16.32	AV	V	24.80	5.36	0.00	46.48	54.00	7.52
2416.5 MHz									
2416.50	83.53	PK	V	24.85	5.41	0.00	113.79	N/A	N/A
2416.50	71.84	AV	V	24.85	5.41	0.00	102.10	N/A	N/A
2390.00	27.46	PK	V	24.80	5.36	0.00	57.62	74.00	16.38
2390.00	16.73	AV	V	24.80	5.36	0.00	46.89	54.00	7.11
2417.5 MHz									
2417.50	84.69	PK	V	24.85	5.41	0.00	114.95	N/A	N/A
2417.50	72.79	AV	V	24.85	5.41	0.00	103.05	N/A	N/A
2390.00	28.49	PK	V	24.80	5.36	0.00	58.65	74.00	15.35
2390.00	17.53	AV	V	24.80	5.36	0.00	47.69	54.00	6.31
Middle Channel: 2441.5 MHz									
2441.50	82.12	PK	H	24.89	5.41	0.00	112.42	N/A	N/A
2441.50	69.15	AV	H	24.89	5.41	0.00	99.45	N/A	N/A
2441.50	85.79	PK	V	24.89	5.41	0.00	116.09	N/A	N/A
2441.50	73.41	AV	V	24.89	5.41	0.00	103.71	N/A	N/A
4883.00	43.18	PK	V	29.87	7.60	27.56	53.09	74.00	20.91
4883.00	32.06	AV	V	29.87	7.60	27.56	41.97	54.00	12.03
7324.50	40.87	PK	V	34.12	9.29	27.26	57.02	74.00	16.98
7324.50	30.94	AV	V	34.12	9.29	27.26	47.09	54.00	6.91
2455.5 MHz									
2455.50	84.64	PK	V	24.92	5.41	0.00	114.97	N/A	N/A
2455.50	72.35	AV	V	24.92	5.41	0.00	102.68	N/A	N/A
2483.50	29.64	PK	V	24.97	5.41	0.00	60.02	74.00	13.98
2483.50	17.32	AV	V	24.97	5.41	0.00	47.70	54.00	6.30
2456.5 MHz									
2456.50	83.26	PK	V	24.92	5.41	0.00	113.59	N/A	N/A
2456.50	71.05	AV	V	24.92	5.41	0.00	101.38	N/A	N/A
2483.50	29.36	PK	V	24.97	5.41	0.00	59.74	74.00	14.26
2483.50	17.12	AV	V	24.97	5.41	0.00	47.50	54.00	6.50
2457.5 MHz									
2457.50	83.37	PK	V	24.92	5.41	0.00	113.70	N/A	N/A
2457.50	71.18	AV	V	24.92	5.41	0.00	101.51	N/A	N/A
2483.50	29.28	PK	V	24.97	5.41	0.00	59.66	74.00	14.34
2483.50	16.82	AV	V	24.97	5.41	0.00	47.20	54.00	6.80
2458.5 MHz									
2458.50	82.45	PK	V	24.93	5.41	0.00	112.79	N/A	N/A
2458.50	69.46	AV	V	24.93	5.41	0.00	99.80	N/A	N/A
2483.50	29.14	PK	V	24.97	5.41	0.00	59.52	74.00	14.48
2483.50	16.57	AV	V	24.97	5.41	0.00	46.95	54.00	7.05

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
	Reading (dB $\mu$ V)	Detector	Polar (H/V)	Factor (dB/m)					
2459.5 MHz									
2459.50	82.36	PK	V	24.93	5.41	0.00	112.70	N/A	N/A
2459.50	69.28	AV	V	24.93	5.41	0.00	99.62	N/A	N/A
2483.50	29.42	PK	V	24.97	5.41	0.00	59.80	74.00	14.20
2483.50	17.02	AV	V	24.97	5.41	0.00	47.40	54.00	6.60
2460.5 MHz									
2460.50	81.53	PK	V	24.93	5.41	0.00	111.87	N/A	N/A
2460.50	68.84	AV	V	24.93	5.41	0.00	99.18	N/A	N/A
2483.50	32.05	PK	V	24.97	5.41	0.00	62.43	74.00	11.57
2483.50	17.34	AV	V	24.97	5.41	0.00	47.72	54.00	6.28
2461.5 MHz									
2461.50	81.40	PK	V	24.93	5.41	0.00	111.74	N/A	N/A
2461.50	68.57	AV	V	24.93	5.41	0.00	98.91	N/A	N/A
2483.50	31.84	PK	V	24.97	5.41	0.00	62.22	74.00	11.78
2483.50	17.16	AV	V	24.97	5.41	0.00	47.54	54.00	6.46
2462.5 MHz									
2462.50	80.92	PK	V	24.93	5.41	0.00	111.26	N/A	N/A
2462.50	67.88	AV	V	24.93	5.41	0.00	98.22	N/A	N/A
2483.50	30.83	PK	V	24.97	5.41	0.00	61.21	74.00	12.79
2483.50	16.35	AV	V	24.97	5.41	0.00	46.73	54.00	7.27
2463.5 MHz									
2463.50	80.42	PK	V	24.93	5.41	0.00	110.76	N/A	N/A
2463.50	67.11	AV	V	24.93	5.41	0.00	97.45	N/A	N/A
2483.50	31.12	PK	V	24.97	5.41	0.00	61.50	74.00	12.50
2483.50	17.05	AV	V	24.97	5.41	0.00	47.43	54.00	6.57
2464.5 MHz									
2464.50	79.33	PK	V	24.94	5.41	0.00	109.68	N/A	N/A
2464.50	66.86	AV	V	24.94	5.41	0.00	97.21	N/A	N/A
2483.50	32.07	PK	V	24.97	5.41	0.00	62.45	74.00	11.55
2483.50	17.35	AV	V	24.97	5.41	0.00	47.73	54.00	6.27
2465.5 MHz									
2465.50	79.52	PK	V	24.94	5.41	0.00	109.87	N/A	N/A
2465.50	66.14	AV	V	24.94	5.41	0.00	96.49	N/A	N/A
2483.50	32.15	PK	V	24.97	5.41	0.00	62.53	74.00	11.47
2483.50	17.16	AV	V	24.97	5.41	0.00	47.54	54.00	6.46
2466.5 MHz									
2466.50	78.57	PK	V	24.94	5.41	0.00	108.92	N/A	N/A
2466.50	65.82	AV	V	24.94	5.41	0.00	96.17	N/A	N/A
2483.50	29.40	PK	V	24.97	5.41	0.00	59.78	74.00	14.22
2483.50	16.35	AV	V	24.97	5.41	0.00	46.73	54.00	7.27
2467.5 MHz									
2467.50	78.16	PK	V	24.94	5.41	0.00	108.51	N/A	N/A
2467.50	65.28	AV	V	24.94	5.41	0.00	95.63	N/A	N/A
2483.50	29.34	PK	V	24.97	5.41	0.00	59.72	74.00	14.28
2483.50	16.24	AV	V	24.97	5.41	0.00	46.62	54.00	7.38
2468.5 MHz									
2468.50	77.65	PK	V	24.94	5.41	0.00	108.00	N/A	N/A
2468.50	64.43	AV	V	24.94	5.41	0.00	94.78	N/A	N/A
2483.50	29.08	PK	V	24.97	5.41	0.00	59.46	74.00	14.54
2483.50	15.80	AV	V	24.97	5.41	0.00	46.18	54.00	7.82

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2469.5 MHz									
2469.50	76.03	PK	V	24.95	5.41	0.00	106.39	N/A	N/A
2469.50	63.68	AV	V	24.95	5.41	0.00	94.04	N/A	N/A
2483.50	28.68	PK	V	24.97	5.41	0.00	59.06	74.00	14.94
2483.50	15.72	AV	V	24.97	5.41	0.00	46.10	54.00	7.90
2470.5 MHz									
2470.50	75.36	PK	V	24.95	5.41	0.00	105.72	N/A	N/A
2470.50	62.27	AV	V	24.95	5.41	0.00	92.63	N/A	N/A
2483.50	29.12	PK	V	24.97	5.41	0.00	59.50	74.00	14.50
2483.50	16.43	AV	V	24.97	5.41	0.00	46.81	54.00	7.19
2471.5 MHz									
2471.50	73.57	PK	V	24.95	5.41	0.00	103.93	N/A	N/A
2471.50	60.69	AV	V	24.95	5.41	0.00	91.05	N/A	N/A
2483.50	30.25	PK	V	24.97	5.41	0.00	60.63	74.00	13.37
2483.50	17.32	AV	V	24.97	5.41	0.00	47.70	54.00	6.30
2472.5 MHz									
2472.50	71.78	PK	V	24.95	5.41	0.00	102.14	N/A	N/A
2472.50	59.46	AV	V	24.95	5.41	0.00	89.82	N/A	N/A
2483.50	30.63	PK	V	24.97	5.41	0.00	61.01	74.00	12.99
2483.50	17.46	AV	V	24.97	5.41	0.00	47.84	54.00	6.16
2473.5 MHz									
2473.50	69.53	PK	V	24.95	5.41	0.00	99.89	N/A	N/A
2473.50	57.29	AV	V	24.95	5.41	0.00	87.65	N/A	N/A
2483.50	28.43	PK	V	24.97	5.41	0.00	58.81	74.00	15.19
2483.50	16.52	AV	V	24.97	5.41	0.00	46.90	54.00	7.10
2474.5 MHz									
2474.50	68.58	PK	V	24.95	5.41	0.00	98.94	N/A	N/A
2474.50	56.21	AV	V	24.95	5.41	0.00	86.57	N/A	N/A
2483.50	28.52	PK	V	24.97	5.41	0.00	58.90	74.00	15.10
2483.50	16.64	AV	V	24.97	5.41	0.00	47.02	54.00	6.98
2475.5 MHz									
2475.50	68.43	PK	V	24.96	5.41	0.00	98.80	N/A	N/A
2475.50	56.46	AV	V	24.96	5.41	0.00	86.83	N/A	N/A
2483.50	29.13	PK	V	24.97	5.41	0.00	59.51	74.00	14.49
2483.50	16.82	AV	V	24.97	5.41	0.00	47.20	54.00	6.80
2476.5 MHz									
2476.50	67.88	PK	V	24.96	5.41	0.00	98.25	N/A	N/A
2476.50	55.94	AV	V	24.96	5.41	0.00	86.31	N/A	N/A
2483.50	29.43	PK	V	24.97	5.41	0.00	59.81	74.00	14.19
2483.50	17.03	AV	V	24.97	5.41	0.00	47.41	54.00	6.59
High Channel: 2477.5 MHz									
2477.50	47.24	PK	H	24.96	5.41	0.00	77.61	N/A	N/A
2477.50	31.85	AV	H	24.96	5.41	0.00	62.22	N/A	N/A
2477.50	50.81	PK	V	24.96	5.41	0.00	81.18	N/A	N/A
2477.50	33.13	AV	V	24.96	5.41	0.00	63.50	N/A	N/A
2483.50	28.27	PK	V	24.97	5.41	0.00	58.65	74.00	15.35
2483.50	17.05	AV	V	24.97	5.41	0.00	47.43	54.00	6.57
4955.00	42.15	PK	V	30.01	7.63	27.39	52.40	74.00	21.60
4955.00	32.72	AV	V	30.01	7.63	27.39	42.97	54.00	11.03
7432.50	40.68	PK	V	34.29	9.08	27.21	56.84	74.00	17.16
7432.50	31.02	AV	V	34.29	9.08	27.21	47.18	54.00	6.82

**20MHz, Chain 0:**

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
	Reading (dB $\mu$ V)	Detector	Polar (H/V)	Factor (dB/m)					
Low Channel: 2410.5 MHz									
2410.50	65.42	PK	H	24.84	5.41	0.00	95.67	N/A	N/A
2410.50	52.61	AV	H	24.84	5.41	0.00	82.86	N/A	N/A
2410.50	68.73	PK	V	24.84	5.41	0.00	98.98	N/A	N/A
2410.50	55.37	AV	V	24.84	5.41	0.00	85.62	N/A	N/A
2390.00	24.35	PK	V	24.80	5.36	0.00	54.51	74.00	19.49
2390.00	12.36	AV	V	24.80	5.36	0.00	42.52	54.00	11.48
4821.00	42.38	PK	V	29.74	7.32	27.40	52.04	74.00	21.96
4821.00	32.52	AV	V	29.74	7.32	27.40	42.18	54.00	11.82
7231.50	39.46	PK	V	33.97	9.05	27.21	55.27	74.00	18.73
7231.50	29.41	AV	V	33.97	9.05	27.21	45.22	54.00	8.78
2411.5 MHz									
2411.50	70.60	PK	V	24.84	5.41	0.00	100.85	N/A	N/A
2411.50	57.28	AV	V	24.84	5.41	0.00	87.53	N/A	N/A
2390.00	27.59	PK	V	24.80	5.36	0.00	57.75	74.00	16.25
2390.00	16.54	AV	V	24.80	5.36	0.00	46.70	54.00	7.30
2412.5 MHz									
2412.50	71.12	PK	V	24.84	5.41	0.00	101.37	N/A	N/A
2412.50	58.87	AV	V	24.84	5.41	0.00	89.12	N/A	N/A
2390.00	26.18	PK	V	24.80	5.36	0.00	56.34	74.00	17.66
2390.00	14.56	AV	V	24.80	5.36	0.00	44.72	54.00	9.28
2413.5 MHz									
2413.50	72.06	PK	V	24.84	5.41	0.00	102.31	N/A	N/A
2413.50	59.48	AV	V	24.84	5.41	0.00	89.73	N/A	N/A
2390.00	26.13	PK	V	24.80	5.36	0.00	56.29	74.00	17.71
2390.00	14.43	AV	V	24.80	5.36	0.00	44.59	54.00	9.41
2414.5 MHz									
2414.50	72.18	PK	V	24.85	5.41	0.00	102.44	N/A	N/A
2414.50	59.61	AV	V	24.85	5.41	0.00	89.87	N/A	N/A
2390.00	26.46	PK	V	24.80	5.36	0.00	56.62	74.00	17.38
2390.00	14.81	AV	V	24.80	5.36	0.00	44.97	54.00	9.03
2415.5 MHz									
2415.50	73.02	PK	V	24.85	5.41	0.00	103.28	N/A	N/A
2415.50	60.22	AV	V	24.85	5.41	0.00	90.48	N/A	N/A
2390.00	25.85	PK	V	24.80	5.36	0.00	56.01	74.00	17.99
2390.00	13.42	AV	V	24.80	5.36	0.00	43.58	54.00	10.42
2416.5 MHz									
2416.50	74.31	PK	V	24.85	5.41	0.00	104.57	N/A	N/A
2416.50	61.76	AV	V	24.85	5.41	0.00	92.02	N/A	N/A
2390.00	26.03	PK	V	24.80	5.36	0.00	56.19	74.00	17.81
2390.00	14.12	AV	V	24.80	5.36	0.00	44.28	54.00	9.72
2417.5 MHz									
2417.50	75.14	PK	V	24.85	5.41	0.00	105.40	N/A	N/A
2417.50	61.28	AV	V	24.85	5.41	0.00	91.54	N/A	N/A
2390.00	27.13	PK	V	24.80	5.36	0.00	57.29	74.00	16.71
2390.00	15.56	AV	V	24.80	5.36	0.00	45.72	54.00	8.28
2418.5 MHz									
2418.50	76.31	PK	V	24.85	5.41	0.00	106.57	N/A	N/A
2418.50	62.46	AV	V	24.85	5.41	0.00	92.72	N/A	N/A
2390.00	28.46	PK	V	24.80	5.36	0.00	58.62	74.00	15.38
2390.00	16.58	AV	V	24.80	5.36	0.00	46.74	54.00	7.26

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2419.5 MHz									
2419.50	76.25	PK	V	24.86	5.41	0.00	106.52	N/A	N/A
2419.50	62.12	AV	V	24.86	5.41	0.00	92.39	N/A	N/A
2390.00	28.02	PK	V	24.80	5.36	0.00	58.18	74.00	15.82
2390.00	16.35	AV	V	24.80	5.36	0.00	46.51	54.00	7.49
2420.5 MHz									
2420.50	77.31	PK	V	24.86	5.41	0.00	107.58	N/A	N/A
2420.50	63.54	AV	V	24.86	5.41	0.00	93.81	N/A	N/A
2390.00	25.04	PK	V	24.80	5.36	0.00	55.20	74.00	18.80
2390.00	13.12	AV	V	24.80	5.36	0.00	43.28	54.00	10.72
2421.5 MHz									
2421.50	77.05	PK	V	24.86	5.41	0.00	107.32	N/A	N/A
2421.50	63.21	AV	V	24.86	5.41	0.00	93.48	N/A	N/A
2390.00	25.86	PK	V	24.80	5.36	0.00	56.02	74.00	17.98
2390.00	13.89	AV	V	24.80	5.36	0.00	44.05	54.00	9.95
2422.5 MHz									
2422.50	77.21	PK	V	24.86	5.41	0.00	107.48	N/A	N/A
2422.50	63.08	AV	V	24.86	5.41	0.00	93.35	N/A	N/A
2390.00	25.03	PK	V	24.80	5.36	0.00	55.19	74.00	18.81
2390.00	13.14	AV	V	24.80	5.36	0.00	43.30	54.00	10.70
2423.5 MHz									
2423.50	78.15	PK	V	24.86	5.41	0.00	108.42	N/A	N/A
2423.50	64.14	AV	V	24.86	5.41	0.00	94.41	N/A	N/A
2390.00	24.79	PK	V	24.80	5.36	0.00	54.95	74.00	19.05
2390.00	12.46	AV	V	24.80	5.36	0.00	42.62	54.00	11.38
2424.5 MHz									
2424.50	78.35	PK	V	24.86	5.41	0.00	108.62	N/A	N/A
2424.50	64.33	AV	V	24.86	5.41	0.00	94.60	N/A	N/A
2390.00	25.02	PK	V	24.80	5.36	0.00	55.18	74.00	18.82
2390.00	12.67	AV	V	24.80	5.36	0.00	42.83	54.00	11.17
2425.5 MHz									
2425.50	79.02	PK	V	24.87	5.41	0.00	109.30	N/A	N/A
2425.50	68.83	AV	V	24.87	5.41	0.00	99.11	N/A	N/A
2390.00	27.71	PK	V	24.80	5.36	0.00	57.87	74.00	16.13
2390.00	14.35	AV	V	24.80	5.36	0.00	44.51	54.00	9.49
2426.5 MHz									
2426.50	79.73	PK	V	24.87	5.41	0.00	110.01	N/A	N/A
2426.50	67.32	AV	V	24.87	5.41	0.00	97.60	N/A	N/A
2390.00	27.48	PK	V	24.80	5.36	0.00	57.64	74.00	16.36
2390.00	14.26	AV	V	24.80	5.36	0.00	44.42	54.00	9.58
2427.5 MHz									
2427.50	79.86	PK	V	24.87	5.41	0.00	110.14	N/A	N/A
2427.50	67.47	AV	V	24.87	5.41	0.00	97.75	N/A	N/A
2390.00	27.71	PK	V	24.80	5.36	0.00	57.87	74.00	16.13
2390.00	14.83	AV	V	24.80	5.36	0.00	44.99	54.00	9.01
2428.5 MHz									
2428.50	80.11	PK	V	24.87	5.41	0.00	110.39	N/A	N/A
2428.50	68.33	AV	V	24.87	5.41	0.00	98.61	N/A	N/A
2390.00	28.06	PK	V	24.80	5.36	0.00	58.22	74.00	15.78
2390.00	15.13	AV	V	24.80	5.36	0.00	45.29	54.00	8.71

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2429.5 MHz									
2429.50	80.85	PK	V	24.87	5.41	0.00	111.13	N/A	N/A
2429.50	67.68	AV	V	24.87	5.41	0.00	97.96	N/A	N/A
2390.00	28.13	PK	V	24.80	5.36	0.00	58.29	74.00	15.71
2390.00	15.26	AV	V	24.80	5.36	0.00	45.42	54.00	8.58
2430.5 MHz									
2430.50	81.14	PK	V	24.87	5.41	0.00	111.42	N/A	N/A
2430.50	68.52	AV	V	24.87	5.41	0.00	98.80	N/A	N/A
2390.00	28.66	PK	V	24.80	5.36	0.00	58.82	74.00	15.18
2390.00	15.36	AV	V	24.80	5.36	0.00	45.52	54.00	8.48
2431.5 MHz									
2431.50	81.71	PK	V	24.88	5.41	0.00	112.00	N/A	N/A
2431.50	69.15	AV	V	24.88	5.41	0.00	99.44	N/A	N/A
2390.00	28.74	PK	V	24.80	5.36	0.00	58.90	74.00	15.10
2390.00	15.73	AV	V	24.80	5.36	0.00	45.89	54.00	8.11
2432.5 MHz									
2432.50	82.65	PK	V	24.88	5.41	0.00	112.94	N/A	N/A
2432.50	69.16	AV	V	24.88	5.41	0.00	99.45	N/A	N/A
2390.00	27.94	PK	V	24.80	5.36	0.00	58.10	74.00	15.90
2390.00	14.83	AV	V	24.80	5.36	0.00	44.99	54.00	9.01
2433.5 MHz									
2433.50	82.73	PK	V	24.88	5.41	0.00	113.02	N/A	N/A
2433.50	69.87	AV	V	24.88	5.41	0.00	100.16	N/A	N/A
2390.00	28.13	PK	V	24.80	5.36	0.00	58.29	74.00	15.71
2390.00	15.05	AV	V	24.80	5.36	0.00	45.21	54.00	8.79
2434.5 MHz									
2434.50	83.06	PK	V	24.88	5.41	0.00	113.35	N/A	N/A
2434.50	70.14	AV	V	24.88	5.41	0.00	100.43	N/A	N/A
2390.00	27.46	PK	V	24.80	5.36	0.00	57.62	74.00	16.38
2390.00	14.38	AV	V	24.80	5.36	0.00	44.54	54.00	9.46
Middle Channel: 2441.5 MHz									
2441.50	79.93	PK	H	24.89	5.41	0.00	110.23	N/A	N/A
2441.50	67.14	AV	H	24.89	5.41	0.00	97.44	N/A	N/A
2441.50	83.87	PK	V	24.89	5.41	0.00	114.17	N/A	N/A
2441.50	71.32	AV	V	24.89	5.41	0.00	101.62	N/A	N/A
4883.00	42.56	PK	V	29.87	7.60	27.56	52.47	74.00	21.53
4883.00	31.65	AV	V	29.87	7.60	27.56	41.56	54.00	12.44
7324.50	40.82	PK	V	34.12	9.29	27.26	56.97	74.00	17.03
7324.50	30.15	AV	V	34.12	9.29	27.26	46.30	54.00	7.70
2442.5 MHz									
2442.50	81.26	PK	V	24.90	5.41	0.00	111.57	N/A	N/A
2442.50	67.55	AV	V	24.90	5.41	0.00	97.86	N/A	N/A
2483.50	27.84	PK	V	24.97	5.41	0.00	58.22	74.00	15.78
2483.50	15.19	AV	V	24.97	5.41	0.00	45.57	54.00	8.43
2443.5 MHz									
2443.50	80.86	PK	V	24.90	5.41	0.00	111.17	N/A	N/A
2443.50	66.33	AV	V	24.90	5.41	0.00	96.64	N/A	N/A
2483.50	27.65	PK	V	24.97	5.41	0.00	58.03	74.00	15.97
2483.50	15.13	AV	V	24.97	5.41	0.00	45.51	54.00	8.49

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2444.5 MHz									
2444.50	79.49	PK	V	24.90	5.41	0.00	109.80	N/A	N/A
2444.50	65.34	AV	V	24.90	5.41	0.00	95.65	N/A	N/A
2483.50	27.17	PK	V	24.97	5.41	0.00	57.55	74.00	16.45
2483.50	14.86	AV	V	24.97	5.41	0.00	45.24	54.00	8.76
2445.5 MHz									
2445.50	79.25	PK	V	24.90	5.41	0.00	109.56	N/A	N/A
2445.50	65.14	AV	V	24.90	5.41	0.00	95.45	N/A	N/A
2483.50	27.25	PK	V	24.97	5.41	0.00	57.63	74.00	16.37
2483.50	14.47	AV	V	24.97	5.41	0.00	44.85	54.00	9.15
2446.5 MHz									
2446.50	78.42	PK	V	24.90	5.41	0.00	108.73	N/A	N/A
2446.50	64.95	AV	V	24.90	5.41	0.00	95.26	N/A	N/A
2483.50	27.02	PK	V	24.97	5.41	0.00	57.40	74.00	16.60
2483.50	14.31	AV	V	24.97	5.41	0.00	44.69	54.00	9.31
2447.5 MHz									
2447.50	78.25	PK	V	24.91	5.41	0.00	108.57	N/A	N/A
2447.50	64.64	AV	V	24.91	5.41	0.00	94.96	N/A	N/A
2483.50	27.61	PK	V	24.97	5.41	0.00	57.99	74.00	16.01
2483.50	14.67	AV	V	24.97	5.41	0.00	45.05	54.00	8.95
2448.5 MHz									
2448.50	77.37	PK	V	24.91	5.41	0.00	107.69	N/A	N/A
2448.50	63.41	AV	V	24.91	5.41	0.00	93.73	N/A	N/A
2483.50	26.24	PK	V	24.97	5.41	0.00	56.62	74.00	17.38
2483.50	14.86	AV	V	24.97	5.41	0.00	45.24	54.00	8.76
2449.5 MHz									
2449.50	76.96	PK	V	24.91	5.41	0.00	107.28	N/A	N/A
2449.50	63.04	AV	V	24.91	5.41	0.00	93.36	N/A	N/A
2483.50	26.15	PK	V	24.97	5.41	0.00	56.53	74.00	17.47
2483.50	14.12	AV	V	24.97	5.41	0.00	44.50	54.00	9.50
2450.5 MHz									
2450.50	77.25	PK	V	24.91	5.41	0.00	107.57	N/A	N/A
2450.50	63.16	AV	V	24.91	5.41	0.00	93.48	N/A	N/A
2483.50	26.86	PK	V	24.97	5.41	0.00	57.24	74.00	16.76
2483.50	14.75	AV	V	24.97	5.41	0.00	45.13	54.00	8.87
2451.5 MHz									
2451.50	76.43	PK	V	24.91	5.41	0.00	106.75	N/A	N/A
2451.50	62.24	AV	V	24.91	5.41	0.00	92.56	N/A	N/A
2483.50	28.26	PK	V	24.97	5.41	0.00	58.64	74.00	15.36
2483.50	15.37	AV	V	24.97	5.41	0.00	45.75	54.00	8.25
2452.5 MHz									
2452.50	76.14	PK	V	24.91	5.41	0.00	106.46	N/A	N/A
2452.50	62.07	AV	V	24.91	5.41	0.00	92.39	N/A	N/A
2483.50	27.02	PK	V	24.97	5.41	0.00	57.40	74.00	16.60
2483.50	14.62	AV	V	24.97	5.41	0.00	45.00	54.00	9.00
2453.5 MHz									
2453.50	75.31	PK	V	24.92	5.41	0.00	105.64	N/A	N/A
2453.50	61.47	AV	V	24.92	5.41	0.00	91.80	N/A	N/A
2483.50	27.78	PK	V	24.97	5.41	0.00	58.16	74.00	15.84
2483.50	14.67	AV	V	24.97	5.41	0.00	45.05	54.00	8.95

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2454.5 MHz									
2454.50	75.02	PK	V	24.92	5.41	0.00	105.35	N/A	N/A
2454.50	61.11	AV	V	24.92	5.41	0.00	91.44	N/A	N/A
2483.50	28.13	PK	V	24.97	5.41	0.00	58.51	74.00	15.49
2483.50	15.12	AV	V	24.97	5.41	0.00	45.50	54.00	8.50
2455.5 MHz									
2455.50	75.42	PK	V	24.92	5.41	0.00	105.75	N/A	N/A
2455.50	61.63	AV	V	24.92	5.41	0.00	91.96	N/A	N/A
2483.50	28.37	PK	V	24.97	5.41	0.00	58.75	74.00	15.25
2483.50	15.86	AV	V	24.97	5.41	0.00	46.24	54.00	7.76
2456.5 MHz									
2456.50	74.59	PK	V	24.92	5.41	0.00	104.92	N/A	N/A
2456.50	60.78	AV	V	24.92	5.41	0.00	91.11	N/A	N/A
2483.50	25.67	PK	V	24.97	5.41	0.00	56.05	74.00	17.95
2483.50	13.25	AV	V	24.97	5.41	0.00	43.63	54.00	10.37
2457.5 MHz									
2457.50	73.82	PK	V	24.92	5.41	0.00	104.15	N/A	N/A
2457.50	60.31	AV	V	24.92	5.41	0.00	90.64	N/A	N/A
2390.00	27.45	PK	V	24.80	5.36	0.00	57.61	74.00	16.39
2390.00	14.86	AV	V	24.80	5.36	0.00	45.02	54.00	8.98
2458.5 MHz									
2458.50	73.64	PK	V	24.93	5.41	0.00	103.98	N/A	N/A
2458.50	60.18	AV	V	24.93	5.41	0.00	90.52	N/A	N/A
2483.50	28.37	PK	V	24.97	5.41	0.00	58.75	74.00	15.25
2483.50	15.25	AV	V	24.97	5.41	0.00	45.63	54.00	8.37
2459.5 MHz									
2459.50	72.31	PK	V	24.93	5.41	0.00	102.65	N/A	N/A
2459.50	59.81	AV	V	24.93	5.41	0.00	90.15	N/A	N/A
2483.50	27.87	PK	V	24.97	5.41	0.00	58.25	74.00	15.75
2483.50	15.46	AV	V	24.97	5.41	0.00	45.84	54.00	8.16
2460.5 MHz									
2460.50	72.11	PK	V	24.93	5.41	0.00	102.45	N/A	N/A
2460.50	59.25	AV	V	24.93	5.41	0.00	89.59	N/A	N/A
2483.50	27.64	PK	V	24.97	5.41	0.00	58.02	74.00	15.98
2483.50	15.53	AV	V	24.97	5.41	0.00	45.91	54.00	8.09
2461.5 MHz									
2461.50	71.64	PK	V	24.93	5.41	0.00	101.98	N/A	N/A
2461.50	58.43	AV	V	24.93	5.41	0.00	88.77	N/A	N/A
2483.50	27.36	PK	V	24.97	5.41	0.00	57.74	74.00	16.26
2483.50	15.42	AV	V	24.97	5.41	0.00	45.80	54.00	8.20
2462.5 MHz									
2462.50	71.26	PK	V	24.93	5.41	0.00	101.60	N/A	N/A
2462.50	58.37	AV	V	24.93	5.41	0.00	88.71	N/A	N/A
2483.50	28.60	PK	V	24.97	5.41	0.00	58.98	74.00	15.02
2483.50	16.05	AV	V	24.97	5.41	0.00	46.43	54.00	7.57
2463.5 MHz									
2463.50	71.65	PK	V	24.93	5.41	0.00	101.99	N/A	N/A
2463.50	58.06	AV	V	24.93	5.41	0.00	88.40	N/A	N/A
2483.50	27.89	PK	V	24.97	5.41	0.00	58.27	74.00	15.73
2483.50	15.37	AV	V	24.97	5.41	0.00	45.75	54.00	8.25

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2464.5 MHz									
2464.50	70.85	PK	V	24.94	5.41	0.00	101.20	N/A	N/A
2464.50	57.37	AV	V	24.94	5.41	0.00	87.72	N/A	N/A
2390.00	28.02	PK	V	24.80	5.36	0.00	58.18	74.00	15.82
2390.00	15.83	AV	V	24.80	5.36	0.00	45.99	54.00	8.01
2465.5 MHz									
2465.50	71.10	PK	V	24.94	5.41	0.00	101.45	N/A	N/A
2465.50	57.58	AV	V	24.94	5.41	0.00	87.93	N/A	N/A
2483.50	27.36	PK	V	24.97	5.41	0.00	57.74	74.00	16.26
2483.50	14.86	AV	V	24.97	5.41	0.00	45.24	54.00	8.76
2466.5 MHz									
2466.50	70.25	PK	V	24.94	5.41	0.00	100.60	N/A	N/A
2466.50	56.28	AV	V	24.94	5.41	0.00	86.63	N/A	N/A
2483.50	28.01	PK	V	24.97	5.41	0.00	58.39	74.00	15.61
2483.50	15.33	AV	V	24.97	5.41	0.00	45.71	54.00	8.29
2467.5 MHz									
2467.50	70.68	PK	V	24.94	5.41	0.00	101.03	N/A	N/A
2467.50	56.86	AV	V	24.94	5.41	0.00	87.21	N/A	N/A
2483.50	27.46	PK	V	24.97	5.41	0.00	57.84	74.00	16.16
2483.50	14.85	AV	V	24.97	5.41	0.00	45.23	54.00	8.77
2468.5 MHz									
2468.50	69.43	PK	V	24.94	5.41	0.00	99.78	N/A	N/A
2468.50	55.34	AV	V	24.94	5.41	0.00	85.69	N/A	N/A
2483.50	25.61	PK	V	24.97	5.41	0.00	55.99	74.00	18.01
2483.50	13.85	AV	V	24.97	5.41	0.00	44.23	54.00	9.77
2469.5 MHz									
2469.50	69.43	PK	V	24.95	5.41	0.00	99.79	N/A	N/A
2469.50	55.34	AV	V	24.95	5.41	0.00	85.70	N/A	N/A
2483.50	25.61	PK	V	24.97	5.41	0.00	55.99	74.00	18.01
2483.50	13.85	AV	V	24.97	5.41	0.00	44.23	54.00	9.77
2470.5 MHz									
2470.50	67.34	PK	V	24.95	5.41	0.00	97.70	N/A	N/A
2470.50	54.85	AV	V	24.95	5.41	0.00	85.21	N/A	N/A
2483.50	26.34	PK	V	24.97	5.41	0.00	56.72	74.00	17.28
2483.50	14.67	AV	V	24.97	5.41	0.00	45.05	54.00	8.95
2471.5 MHz									
2471.50	65.63	PK	V	24.95	5.41	0.00	95.99	N/A	N/A
2471.50	52.46	AV	V	24.95	5.41	0.00	82.82	N/A	N/A
2483.50	27.61	PK	V	24.97	5.41	0.00	57.99	74.00	16.01
2483.50	15.24	AV	V	24.97	5.41	0.00	45.62	54.00	8.38
High Channel: 2472.5 MHz									
2472.50	54.27	PK	H	24.95	5.41	0.00	84.63	N/A	N/A
2472.50	41.37	AV	H	24.95	5.41	0.00	71.73	N/A	N/A
2472.50	58.12	PK	V	24.95	5.41	0.00	88.48	N/A	N/A
2472.50	43.46	AV	V	24.95	5.41	0.00	73.82	N/A	N/A
2483.50	27.97	PK	V	24.97	5.41	0.00	58.35	74.00	15.65
2483.50	16.89	AV	V	24.97	5.41	0.00	47.27	54.00	6.73
4945.00	43.15	PK	V	29.99	7.64	27.42	53.36	74.00	20.64
4945.00	32.08	AV	V	29.99	7.64	27.42	42.29	54.00	11.71
7417.50	41.09	PK	V	34.27	9.06	27.19	57.23	74.00	16.77
7417.50	30.58	AV	V	34.27	9.06	27.19	46.72	54.00	7.28

**Chain 1:**

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
Low Channel: 2410.5 MHz									
2410.50	66.79	PK	H	24.84	5.41	0.00	97.04	N/A	N/A
2410.50	52.63	AV	H	24.84	5.41	0.00	82.88	N/A	N/A
2410.50	70.21	PK	V	24.84	5.41	0.00	100.46	N/A	N/A
2410.50	58.50	AV	V	24.84	5.41	0.00	88.75	N/A	N/A
2390.00	26.70	PK	V	24.80	5.36	0.00	56.86	74.00	17.14
2390.00	13.25	AV	V	24.80	5.36	0.00	43.41	54.00	10.59
4821.00	43.62	PK	V	29.74	7.32	27.40	53.28	74.00	20.72
4821.00	32.16	AV	V	29.74	7.32	27.40	41.82	54.00	12.18
7231.50	40.83	PK	V	33.97	9.05	27.21	56.64	74.00	17.36
7231.50	31.05	AV	V	33.97	9.05	27.21	46.86	54.00	7.14
2411.5 MHz									
2411.50	72.58	PK	V	24.84	5.41	0.00	102.83	N/A	N/A
2411.50	60.35	AV	V	24.84	5.41	0.00	90.60	N/A	N/A
2390.00	32.15	PK	V	24.80	5.36	0.00	62.31	74.00	11.69
2390.00	15.67	AV	V	24.80	5.36	0.00	45.83	54.00	8.17
2412.5 MHz									
2412.50	73.34	PK	V	24.84	5.41	0.00	103.59	N/A	N/A
2412.50	61.14	AV	V	24.84	5.41	0.00	91.39	N/A	N/A
2390.00	31.26	PK	V	24.80	5.36	0.00	61.42	74.00	12.58
2390.00	14.85	AV	V	24.80	5.36	0.00	45.01	54.00	8.99
2413.5 MHz									
2413.50	74.20	PK	V	24.84	5.41	0.00	104.45	N/A	N/A
2413.50	62.40	AV	V	24.84	5.41	0.00	92.65	N/A	N/A
2390.00	32.87	PK	V	24.80	5.36	0.00	63.03	74.00	10.97
2390.00	15.24	AV	V	24.80	5.36	0.00	45.40	54.00	8.60
2414.5 MHz									
2414.50	74.54	PK	V	24.85	5.41	0.00	104.80	N/A	N/A
2414.50	62.67	AV	V	24.85	5.41	0.00	92.93	N/A	N/A
2390.00	33.85	PK	V	24.80	5.36	0.00	64.01	74.00	9.99
2390.00	16.31	AV	V	24.80	5.36	0.00	46.47	54.00	7.53
2415.5 MHz									
2415.50	75.03	PK	V	24.85	5.41	0.00	105.29	N/A	N/A
2415.50	63.14	AV	V	24.85	5.41	0.00	93.40	N/A	N/A
2390.00	31.85	PK	V	24.80	5.36	0.00	62.01	74.00	11.99
2390.00	15.83	AV	V	24.80	5.36	0.00	45.99	54.00	8.01
2416.5 MHz									
2416.50	75.48	PK	V	24.85	5.41	0.00	105.74	N/A	N/A
2416.50	63.72	AV	V	24.85	5.41	0.00	93.98	N/A	N/A
2390.00	29.72	PK	V	24.80	5.36	0.00	59.88	74.00	14.12
2390.00	14.86	AV	V	24.80	5.36	0.00	45.02	54.00	8.98
2417.5 MHz									
2417.50	76.35	PK	V	24.85	5.41	0.00	106.61	N/A	N/A
2417.50	64.28	AV	V	24.85	5.41	0.00	94.54	N/A	N/A
2390.00	31.02	PK	V	24.80	5.36	0.00	61.18	74.00	12.82
2390.00	15.64	AV	V	24.80	5.36	0.00	45.80	54.00	8.20
2418.5 MHz									
2418.50	77.35	PK	V	24.85	5.41	0.00	107.61	N/A	N/A
2418.50	65.42	AV	V	24.85	5.41	0.00	95.68	N/A	N/A
2390.00	32.28	PK	V	24.80	5.36	0.00	62.44	74.00	11.56
2390.00	16.53	AV	V	24.80	5.36	0.00	46.69	54.00	7.31

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2419.5 MHz									
2419.50	77.46	PK	V	24.86	5.41	0.00	107.73	N/A	N/A
2419.50	65.81	AV	V	24.86	5.41	0.00	96.08	N/A	N/A
2390.00	31.82	PK	V	24.80	5.36	0.00	61.98	74.00	12.02
2390.00	15.76	AV	V	24.80	5.36	0.00	45.92	54.00	8.08
2420.5 MHz									
2420.50	78.61	PK	V	24.86	5.41	0.00	108.88	N/A	N/A
2420.50	66.53	AV	V	24.86	5.41	0.00	96.80	N/A	N/A
2390.00	32.83	PK	V	24.80	5.36	0.00	62.99	74.00	11.01
2390.00	16.84	AV	V	24.80	5.36	0.00	47.00	54.00	7.00
2421.5 MHz									
2421.50	78.38	PK	V	24.86	5.41	0.00	108.65	N/A	N/A
2421.50	66.45	AV	V	24.86	5.41	0.00	96.72	N/A	N/A
2390.00	33.95	PK	V	24.80	5.36	0.00	64.11	74.00	9.89
2390.00	16.57	AV	V	24.80	5.36	0.00	46.73	54.00	7.27
2422.5 MHz									
2422.50	78.54	PK	V	24.86	5.41	0.00	108.81	N/A	N/A
2422.50	66.73	AV	V	24.86	5.41	0.00	97.00	N/A	N/A
2390.00	34.58	PK	V	24.80	5.36	0.00	64.74	74.00	9.26
2390.00	17.26	AV	V	24.80	5.36	0.00	47.42	54.00	6.58
2423.5 MHz									
2423.50	79.42	PK	V	24.86	5.41	0.00	109.69	N/A	N/A
2423.50	67.46	AV	V	24.86	5.41	0.00	97.73	N/A	N/A
2390.00	33.71	PK	V	24.80	5.36	0.00	63.87	74.00	10.13
2390.00	13.64	AV	V	24.80	5.36	0.00	43.80	54.00	10.20
2424.5 MHz									
2424.50	79.55	PK	V	24.86	5.41	0.00	109.82	N/A	N/A
2424.50	67.82	AV	V	24.86	5.41	0.00	98.09	N/A	N/A
2390.00	32.64	PK	V	24.80	5.36	0.00	62.80	74.00	11.20
2390.00	16.53	AV	V	24.80	5.36	0.00	46.69	54.00	7.31
2425.5 MHz									
2425.50	80.31	PK	V	24.87	5.41	0.00	110.59	N/A	N/A
2425.50	68.47	AV	V	24.87	5.41	0.00	98.75	N/A	N/A
2390.00	33.84	PK	V	24.80	5.36	0.00	64.00	74.00	10.00
2390.00	16.53	AV	V	24.80	5.36	0.00	46.69	54.00	7.31
2426.5 MHz									
2426.50	80.08	PK	V	24.87	5.41	0.00	110.36	N/A	N/A
2426.50	68.32	AV	V	24.87	5.41	0.00	98.60	N/A	N/A
2390.00	35.16	PK	V	24.80	5.36	0.00	65.32	74.00	8.68
2390.00	15.67	AV	V	24.80	5.36	0.00	45.83	54.00	8.17
2427.5 MHz									
2427.50	80.16	PK	V	24.87	5.41	0.00	110.44	N/A	N/A
2427.50	68.74	AV	V	24.87	5.41	0.00	99.02	N/A	N/A
2390.00	36.65	PK	V	24.80	5.36	0.00	66.81	74.00	7.19
2390.00	16.12	AV	V	24.80	5.36	0.00	46.28	54.00	7.72
2428.5 MHz									
2428.50	81.46	PK	V	24.87	5.41	0.00	111.74	N/A	N/A
2428.50	69.84	AV	V	24.87	5.41	0.00	100.12	N/A	N/A
2390.00	37.27	PK	V	24.80	5.36	0.00	67.43	74.00	6.57
2390.00	18.54	AV	V	24.80	5.36	0.00	48.70	54.00	5.30

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2429.5 MHz									
2429.50	81.72	PK	V	24.87	5.41	0.00	112.00	N/A	N/A
2429.50	70.03	AV	V	24.87	5.41	0.00	100.31	N/A	N/A
2390.00	36.45	PK	V	24.80	5.36	0.00	66.61	74.00	7.39
2390.00	17.12	AV	V	24.80	5.36	0.00	47.28	54.00	6.72
2430.5 MHz									
2430.50	82.72	PK	V	24.87	5.41	0.00	113.00	N/A	N/A
2430.50	70.81	AV	V	24.87	5.41	0.00	101.09	N/A	N/A
2390.00	34.25	PK	V	24.80	5.36	0.00	64.41	74.00	9.59
2390.00	16.88	AV	V	24.80	5.36	0.00	47.04	54.00	6.96
2431.5 MHz									
2431.50	82.35	PK	V	24.88	5.41	0.00	112.64	N/A	N/A
2431.50	70.16	AV	V	24.88	5.41	0.00	100.45	N/A	N/A
2390.00	33.64	PK	V	24.80	5.36	0.00	63.80	74.00	10.20
2390.00	17.24	AV	V	24.80	5.36	0.00	47.40	54.00	6.60
2432.5 MHz									
2432.50	83.51	PK	V	24.88	5.41	0.00	113.80	N/A	N/A
2432.50	71.01	AV	V	24.88	5.41	0.00	101.30	N/A	N/A
2390.00	40.12	PK	V	24.80	5.36	0.00	70.28	74.00	3.72
2390.00	17.80	AV	V	24.80	5.36	0.00	47.96	54.00	6.04
2433.5 MHz									
2433.50	83.83	PK	V	24.88	5.41	0.00	114.12	N/A	N/A
2433.50	71.46	AV	V	24.88	5.41	0.00	101.75	N/A	N/A
2390.00	36.72	PK	V	24.80	5.36	0.00	66.88	74.00	7.12
2390.00	17.21	AV	V	24.80	5.36	0.00	47.37	54.00	6.63
2434.5 MHz									
2434.50	84.35	PK	V	24.88	5.41	0.00	114.64	N/A	N/A
2434.50	72.15	AV	V	24.88	5.41	0.00	102.44	N/A	N/A
2390.00	41.77	PK	V	24.80	5.36	0.00	71.93	74.00	2.07
2390.00	19.47	AV	V	24.80	5.36	0.00	49.63	54.00	4.37
Middle Channel: 2441.5 MHz									
2441.50	80.82	PK	H	24.89	5.41	0.00	111.12	N/A	N/A
2441.50	66.73	AV	H	24.89	5.41	0.00	97.03	N/A	N/A
2441.50	85.90	PK	V	24.89	5.41	0.00	116.20	N/A	N/A
2441.50	71.86	AV	V	24.89	5.41	0.00	102.16	N/A	N/A
4883.00	42.65	PK	V	29.87	7.60	27.56	52.56	74.00	21.44
4883.00	31.64	AV	V	29.87	7.60	27.56	41.55	54.00	12.45
7324.50	41.28	PK	V	34.12	9.29	27.26	57.43	74.00	16.57
7324.50	30.56	AV	V	34.12	9.29	27.26	46.71	54.00	7.29
2442.5 MHz									
2442.50	84.97	PK	V	24.90	5.41	0.00	115.28	N/A	N/A
2442.50	71.84	AV	V	24.90	5.41	0.00	102.15	N/A	N/A
2483.50	36.40	PK	V	24.97	5.41	0.00	66.78	74.00	7.22
2483.50	17.65	AV	V	24.97	5.41	0.00	48.03	54.00	5.97
2443.5 MHz									
2443.50	84.67	PK	V	24.90	5.41	0.00	114.98	N/A	N/A
2443.50	71.56	AV	V	24.90	5.41	0.00	101.87	N/A	N/A
2483.50	34.21	PK	V	24.97	5.41	0.00	64.59	74.00	9.41
2483.50	16.87	AV	V	24.97	5.41	0.00	47.25	54.00	6.75

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2444.5 MHz									
2444.50	83.68	PK	V	24.90	5.41	0.00	113.99	N/A	N/A
2444.50	70.84	AV	V	24.90	5.41	0.00	101.15	N/A	N/A
2483.50	33.64	PK	V	24.97	5.41	0.00	64.02	74.00	9.98
2483.50	16.52	AV	V	24.97	5.41	0.00	46.90	54.00	7.10
2445.5 MHz									
2445.50	83.78	PK	V	24.90	5.41	0.00	114.09	N/A	N/A
2445.50	70.62	AV	V	24.90	5.41	0.00	100.93	N/A	N/A
2483.50	34.61	PK	V	24.97	5.41	0.00	64.99	74.00	9.01
2483.50	16.37	AV	V	24.97	5.41	0.00	46.75	54.00	7.25
2446.5 MHz									
2446.50	82.72	PK	V	24.90	5.41	0.00	113.03	N/A	N/A
2446.50	69.35	AV	V	24.90	5.41	0.00	99.66	N/A	N/A
2483.50	31.28	PK	V	24.97	5.41	0.00	61.66	74.00	12.34
2483.50	16.53	AV	V	24.97	5.41	0.00	46.91	54.00	7.09
2447.5 MHz									
2447.50	82.34	PK	V	24.91	5.41	0.00	112.66	N/A	N/A
2447.50	69.26	AV	V	24.91	5.41	0.00	99.58	N/A	N/A
2483.50	28.33	PK	V	24.97	5.41	0.00	58.71	74.00	15.29
2483.50	16.72	AV	V	24.97	5.41	0.00	47.10	54.00	6.90
2448.5 MHz									
2448.50	81.34	PK	V	24.91	5.41	0.00	111.66	N/A	N/A
2448.50	68.02	AV	V	24.91	5.41	0.00	98.34	N/A	N/A
2483.50	26.84	PK	V	24.97	5.41	0.00	57.22	74.00	16.78
2483.50	14.73	AV	V	24.97	5.41	0.00	45.11	54.00	8.89
2449.5 MHz									
2449.50	80.73	PK	V	24.91	5.41	0.00	111.05	N/A	N/A
2449.50	66.95	AV	V	24.91	5.41	0.00	97.27	N/A	N/A
2483.50	28.14	PK	V	24.97	5.41	0.00	58.52	74.00	15.48
2483.50	14.64	AV	V	24.97	5.41	0.00	45.02	54.00	8.98
2450.5 MHz									
2450.50	80.56	PK	V	24.91	5.41	0.00	110.88	N/A	N/A
2450.50	67.85	AV	V	24.91	5.41	0.00	98.17	N/A	N/A
2483.50	31.12	PK	V	24.97	5.41	0.00	61.50	74.00	12.50
2483.50	15.86	AV	V	24.97	5.41	0.00	46.24	54.00	7.76
2451.5 MHz									
2451.50	79.81	PK	V	24.91	5.41	0.00	110.13	N/A	N/A
2451.50	66.83	AV	V	24.91	5.41	0.00	97.15	N/A	N/A
2483.50	28.46	PK	V	24.97	5.41	0.00	58.84	74.00	15.16
2483.50	15.34	AV	V	24.97	5.41	0.00	45.72	54.00	8.28
2452.5 MHz									
2452.50	79.45	PK	V	24.91	5.41	0.00	109.77	N/A	N/A
2452.50	66.34	AV	V	24.91	5.41	0.00	96.66	N/A	N/A
2483.50	26.43	PK	V	24.97	5.41	0.00	56.81	74.00	17.19
2483.50	14.53	AV	V	24.97	5.41	0.00	44.91	54.00	9.09
2453.5 MHz									
2453.50	78.82	PK	V	24.92	5.41	0.00	109.15	N/A	N/A
2453.50	65.73	AV	V	24.92	5.41	0.00	96.06	N/A	N/A
2483.50	27.71	PK	V	24.97	5.41	0.00	58.09	74.00	15.91
2483.50	15.32	AV	V	24.97	5.41	0.00	45.70	54.00	8.30

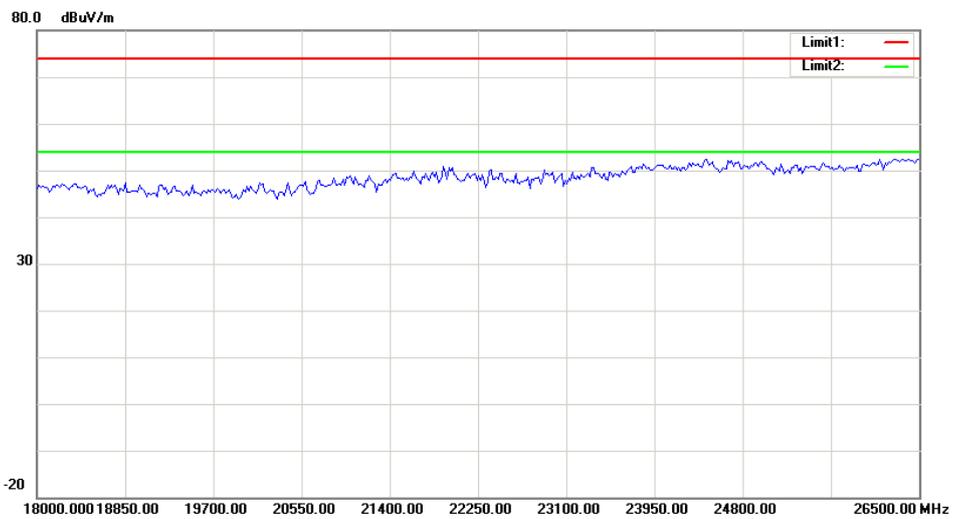
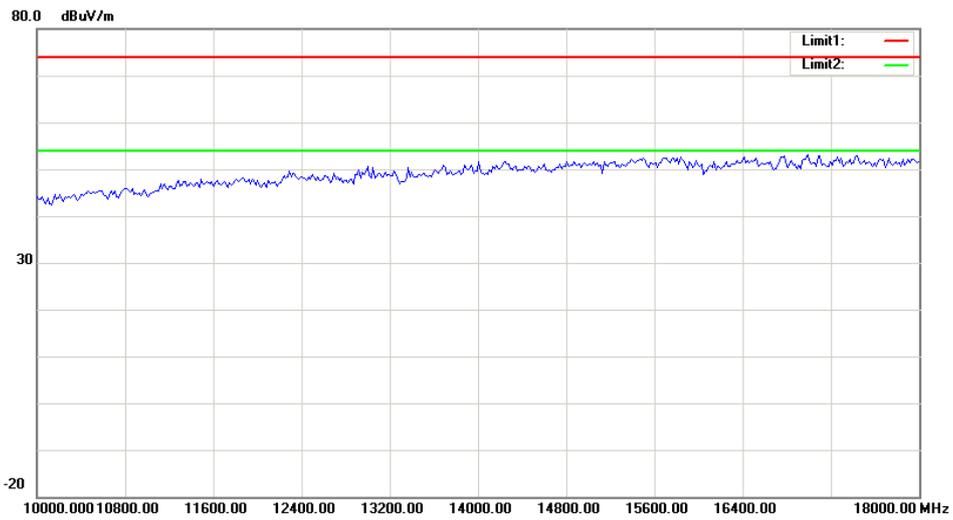
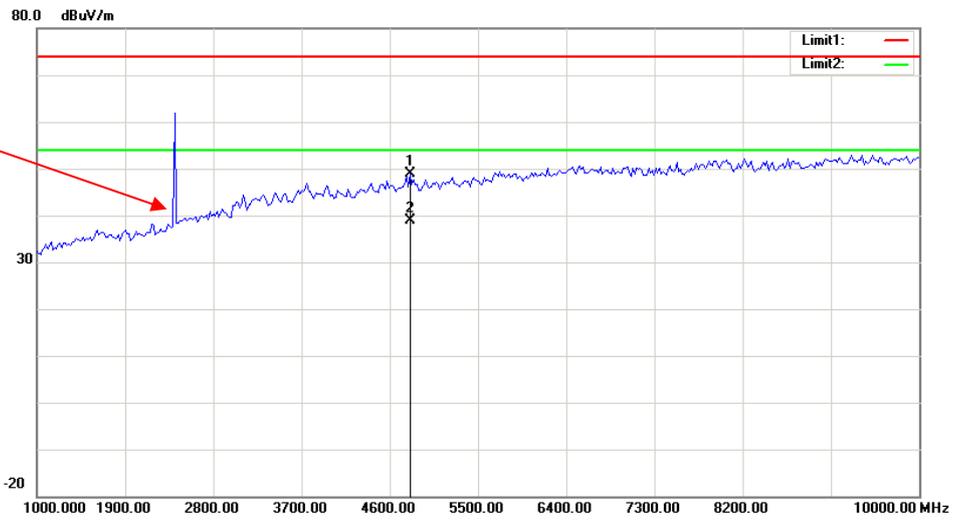
Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2454.5 MHz									
2454.50	78.63	PK	V	24.92	5.41	0.00	108.96	N/A	N/A
2454.50	65.35	AV	V	24.92	5.41	0.00	95.68	N/A	N/A
2483.50	26.67	PK	V	24.97	5.41	0.00	57.05	74.00	16.95
2483.50	14.67	AV	V	24.97	5.41	0.00	45.05	54.00	8.95
2455.5 MHz									
2455.50	78.15	PK	V	24.92	5.41	0.00	108.48	N/A	N/A
2455.50	65.07	AV	V	24.92	5.41	0.00	95.40	N/A	N/A
2483.50	27.13	PK	V	24.97	5.41	0.00	57.51	74.00	16.49
2483.50	15.32	AV	V	24.97	5.41	0.00	45.70	54.00	8.30
2456.5 MHz									
2456.50	77.82	PK	V	24.92	5.41	0.00	108.15	N/A	N/A
2456.50	64.72	AV	V	24.92	5.41	0.00	95.05	N/A	N/A
2483.50	28.12	PK	V	24.97	5.41	0.00	58.50	74.00	15.50
2483.50	14.56	AV	V	24.97	5.41	0.00	44.94	54.00	9.06
2457.5 MHz									
2457.50	77.01	PK	V	24.92	5.41	0.00	107.34	N/A	N/A
2457.50	64.12	AV	V	24.92	5.41	0.00	94.45	N/A	N/A
2390.00	27.64	PK	V	24.80	5.36	0.00	57.80	74.00	16.20
2390.00	14.38	AV	V	24.80	5.36	0.00	44.54	54.00	9.46
2458.5 MHz									
2458.50	76.85	PK	V	24.93	5.41	0.00	107.19	N/A	N/A
2458.50	63.05	AV	V	24.93	5.41	0.00	93.39	N/A	N/A
2483.50	28.31	PK	V	24.97	5.41	0.00	58.69	74.00	15.31
2483.50	15.02	AV	V	24.97	5.41	0.00	45.40	54.00	8.60
2459.5 MHz									
2459.50	76.32	PK	V	24.93	5.41	0.00	106.66	N/A	N/A
2459.50	62.91	AV	V	24.93	5.41	0.00	93.25	N/A	N/A
2483.50	26.32	PK	V	24.97	5.41	0.00	56.70	74.00	17.30
2483.50	14.52	AV	V	24.97	5.41	0.00	44.90	54.00	9.10
2460.5 MHz									
2460.50	76.89	PK	V	24.93	5.41	0.00	107.23	N/A	N/A
2460.50	62.76	AV	V	24.93	5.41	0.00	93.10	N/A	N/A
2483.50	25.30	PK	V	24.97	5.41	0.00	55.68	74.00	18.32
2483.50	14.20	AV	V	24.97	5.41	0.00	44.58	54.00	9.42
2461.5 MHz									
2461.50	75.61	PK	V	24.93	5.41	0.00	105.95	N/A	N/A
2461.50	61.86	AV	V	24.93	5.41	0.00	92.20	N/A	N/A
2483.50	25.74	PK	V	24.97	5.41	0.00	56.12	74.00	17.88
2483.50	14.32	AV	V	24.97	5.41	0.00	44.70	54.00	9.30
2462.5 MHz									
2462.50	75.05	PK	V	24.93	5.41	0.00	105.39	N/A	N/A
2462.50	61.52	AV	V	24.93	5.41	0.00	91.86	N/A	N/A
2483.50	27.13	PK	V	24.97	5.41	0.00	57.51	74.00	16.49
2483.50	15.20	AV	V	24.97	5.41	0.00	45.58	54.00	8.42
2463.5 MHz									
2463.50	74.86	PK	V	24.93	5.41	0.00	105.20	N/A	N/A
2463.50	61.15	AV	V	24.93	5.41	0.00	91.49	N/A	N/A
2483.50	26.81	PK	V	24.97	5.41	0.00	57.19	74.00	16.81
2483.50	14.28	AV	V	24.97	5.41	0.00	44.66	54.00	9.34

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)					
2464.5 MHz									
2464.50	74.15	PK	V	24.94	5.41	0.00	104.50	N/A	N/A
2464.50	60.64	AV	V	24.94	5.41	0.00	90.99	N/A	N/A
2390.00	25.64	PK	V	24.80	5.36	0.00	55.80	74.00	18.20
2390.00	14.37	AV	V	24.80	5.36	0.00	44.53	54.00	9.47
2465.5 MHz									
2465.50	73.83	PK	V	24.94	5.41	0.00	104.18	N/A	N/A
2465.50	59.64	AV	V	24.94	5.41	0.00	89.99	N/A	N/A
2483.50	25.34	PK	V	24.97	5.41	0.00	55.72	74.00	18.28
2483.50	14.86	AV	V	24.97	5.41	0.00	45.24	54.00	8.76
2466.5 MHz									
2466.50	72.41	PK	V	24.94	5.41	0.00	102.76	N/A	N/A
2466.50	59.46	AV	V	24.94	5.41	0.00	89.81	N/A	N/A
2483.50	26.34	PK	V	24.97	5.41	0.00	56.72	74.00	17.28
2483.50	15.13	AV	V	24.97	5.41	0.00	45.51	54.00	8.49
2467.5 MHz									
2467.50	71.95	PK	V	24.94	5.41	0.00	102.30	N/A	N/A
2467.50	58.86	AV	V	24.94	5.41	0.00	89.21	N/A	N/A
2483.50	27.61	PK	V	24.97	5.41	0.00	57.99	74.00	16.01
2483.50	14.62	AV	V	24.97	5.41	0.00	45.00	54.00	9.00
2468.5 MHz									
2468.50	70.34	PK	V	24.94	5.41	0.00	100.69	N/A	N/A
2468.50	56.32	AV	V	24.94	5.41	0.00	86.67	N/A	N/A
2483.50	28.14	PK	V	24.97	5.41	0.00	58.52	74.00	15.48
2483.50	14.37	AV	V	24.97	5.41	0.00	44.75	54.00	9.25
2469.5 MHz									
2469.50	68.73	PK	V	24.95	5.41	0.00	99.09	N/A	N/A
2469.50	54.28	AV	V	24.95	5.41	0.00	84.64	N/A	N/A
2483.50	27.63	PK	V	24.97	5.41	0.00	58.01	74.00	15.99
2483.50	14.37	AV	V	24.97	5.41	0.00	44.75	54.00	9.25
2470.5 MHz									
2470.50	66.84	PK	V	24.95	5.41	0.00	97.20	N/A	N/A
2470.50	52.17	AV	V	24.95	5.41	0.00	82.53	N/A	N/A
2483.50	26.58	PK	V	24.97	5.41	0.00	56.96	74.00	17.04
2483.50	14.23	AV	V	24.97	5.41	0.00	44.61	54.00	9.39
2471.5 MHz									
2471.50	64.15	PK	V	24.95	5.41	0.00	94.51	N/A	N/A
2471.50	50.37	AV	V	24.95	5.41	0.00	80.73	N/A	N/A
2483.50	27.64	PK	V	24.97	5.41	0.00	58.02	74.00	15.98
2483.50	16.73	AV	V	24.97	5.41	0.00	47.11	54.00	6.89
High Channel: 2472.5 MHz									
2472.50	55.16	PK	H	24.95	5.41	0.00	85.52	N/A	N/A
2472.50	42.81	AV	H	24.95	5.41	0.00	73.17	N/A	N/A
2472.50	60.45	PK	V	24.95	5.41	0.00	90.81	N/A	N/A
2472.50	47.35	AV	V	24.95	5.41	0.00	77.71	N/A	N/A
2483.50	28.64	PK	V	24.97	5.41	0.00	59.02	74.00	14.98
2483.50	17.26	AV	V	24.97	5.41	0.00	47.64	54.00	6.36
4945.00	42.83	PK	V	29.99	7.64	27.42	53.04	74.00	20.96
4945.00	31.62	AV	V	29.99	7.64	27.42	41.83	54.00	12.17
7417.50	40.56	PK	V	34.27	9.06	27.19	56.70	74.00	17.30
7417.50	30.17	AV	V	34.27	9.06	27.19	46.31	54.00	7.69

**Worst plots(1.4MHz mode chain 0high channel was the worst)**

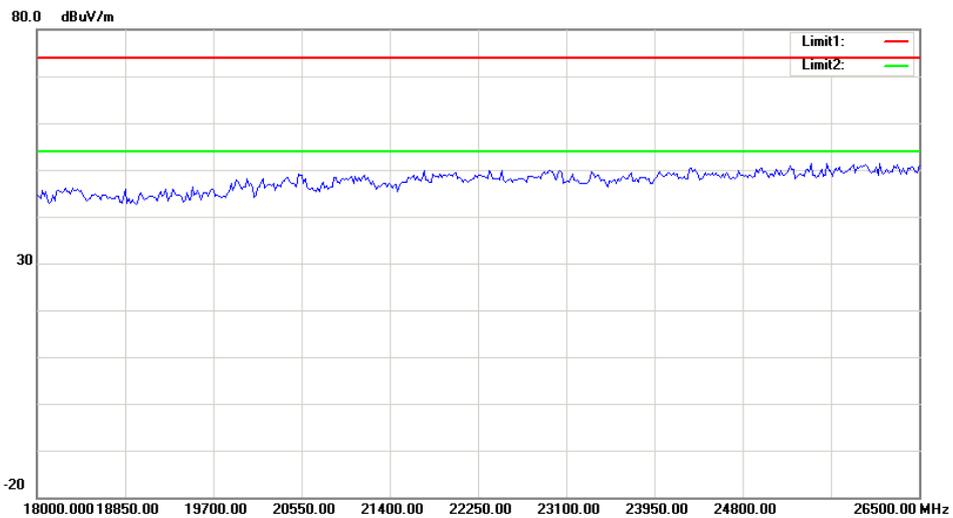
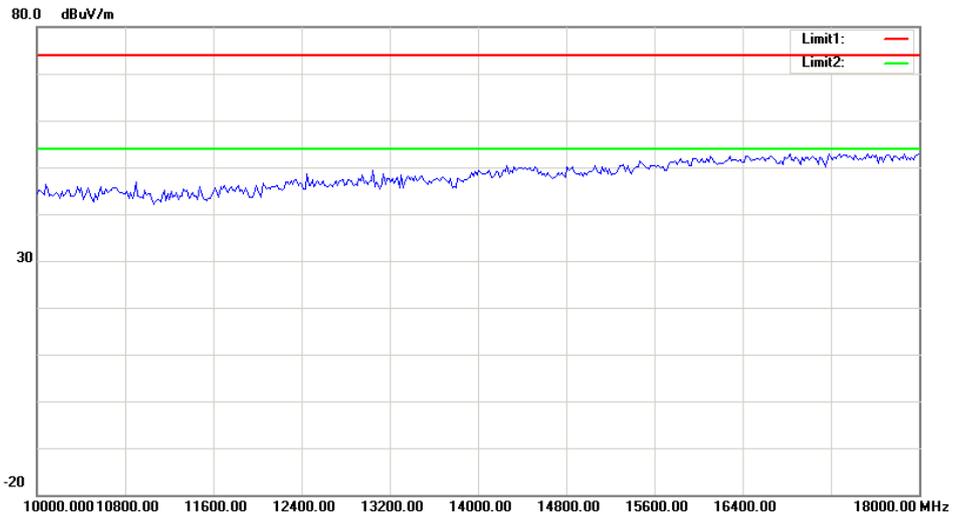
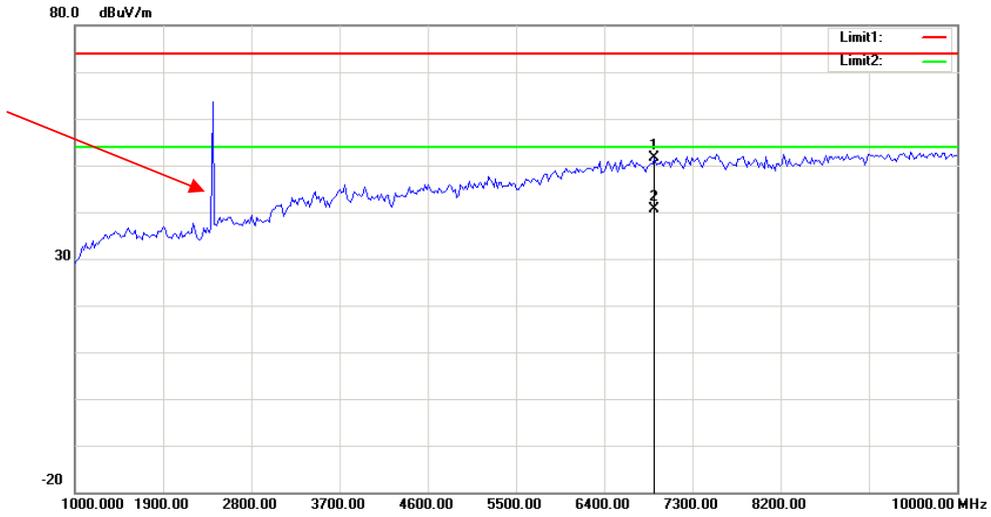
**Horizontal**

Fundamental Test with Band Rejection Filter



Vertical

Fundamental  
Test with Band  
Rejection Filter



## **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 kHz

According to RSS-247 §5.2 a)

The minimum 6 dB bandwidth shall be 500 kHz.

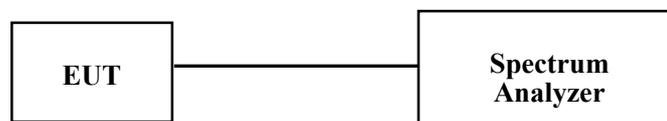
According to RSS-Gen §6.6

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)  $\geq 3 \times$  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	ESPI	100120	2017-12-11	2018-12-11
N/A	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	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**

<b>Temperature:</b>	21.4 °C
<b>Relative Humidity:</b>	35 %
<b>ATM Pressure:</b>	101.8 kPa

*The testing was performed by Andy Huang on 2018-01-10 .*

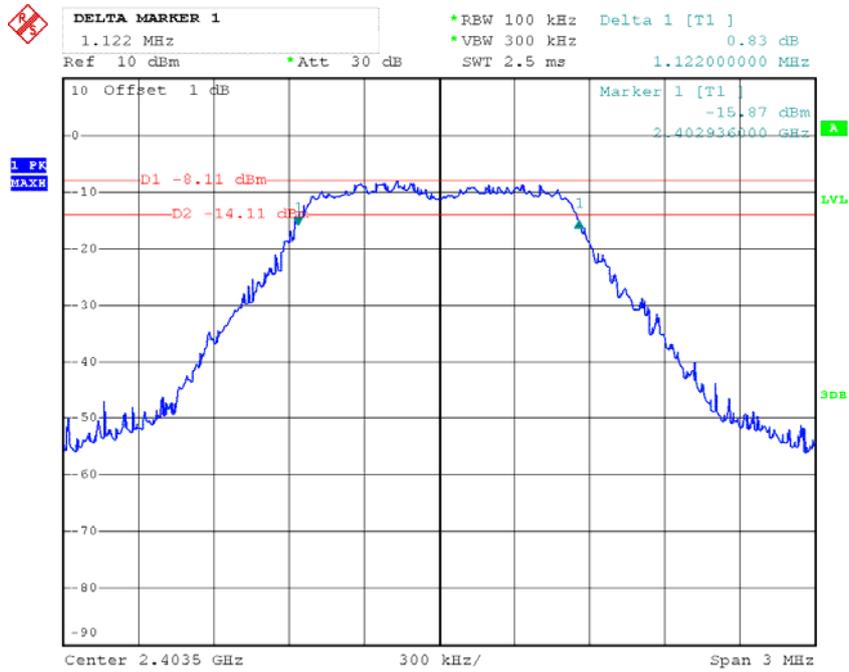
*Test Mode: Transmitting*

*Test Result: Compliant. Test only performed at chain 0, please refer to the following table and plots.*

Mode	Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	99% Occupied bandwidth (MHz)	Limit (MHz)
1.4MHz	Low	2403.5	1.122	1.146	≥0.5
	Middle	2441.5	1.128	1.146	≥0.5
	High	2477.5	1.14	1.146	≥0.5
10MHz	Low	2405.5	9.08	8.96	≥0.5
	Middle	2441.5	9.08	8.96	≥0.5
	High	2477.5	9.04	8.96	≥0.5
20MHz	Low	2410.5	18.16	17.84	≥0.5
	Middle	2441.5	18.24	18	≥0.5
	High	2472.5	18.24	17.92	≥0.5

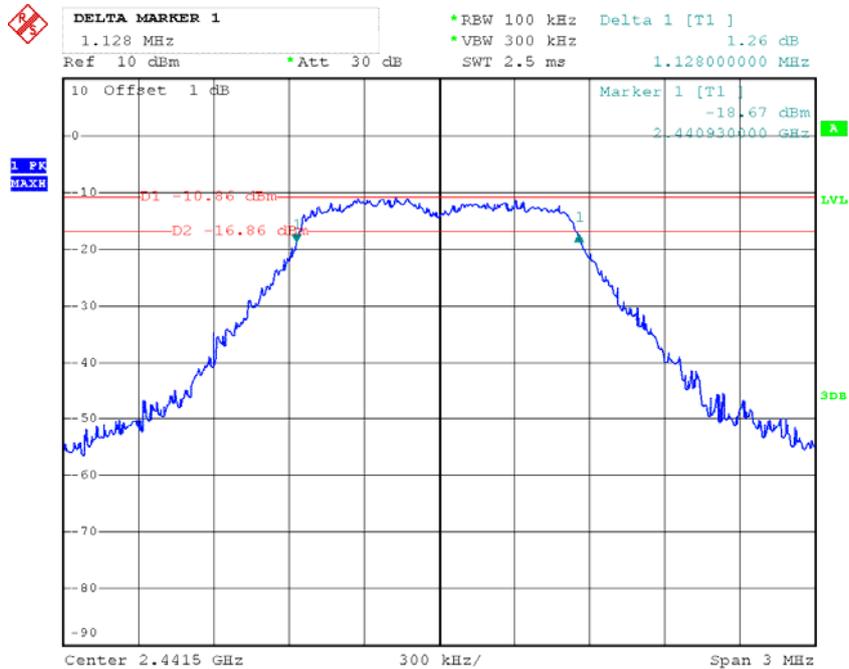
6dB Bandwidth:

1.4M Low Channel



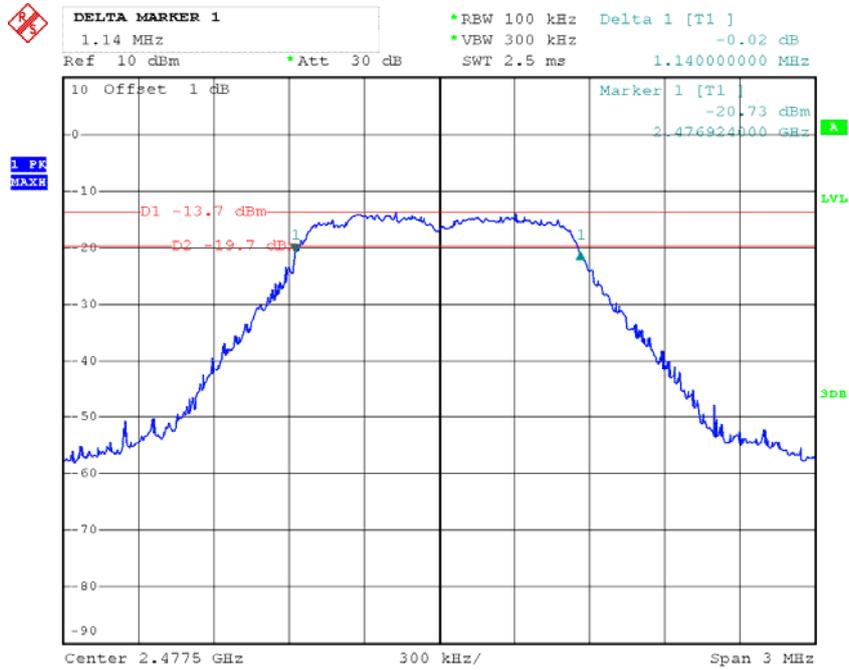
Date: 10.JAN.2018 20:46:52

1.4M Middle Channel



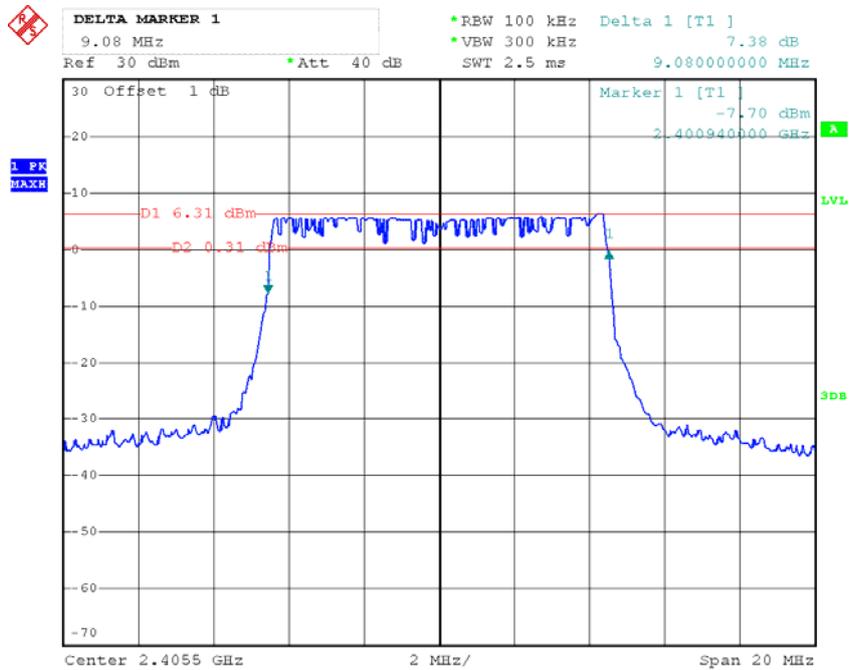
Date: 10.JAN.2018 20:48:54

### 1.4M High Channel



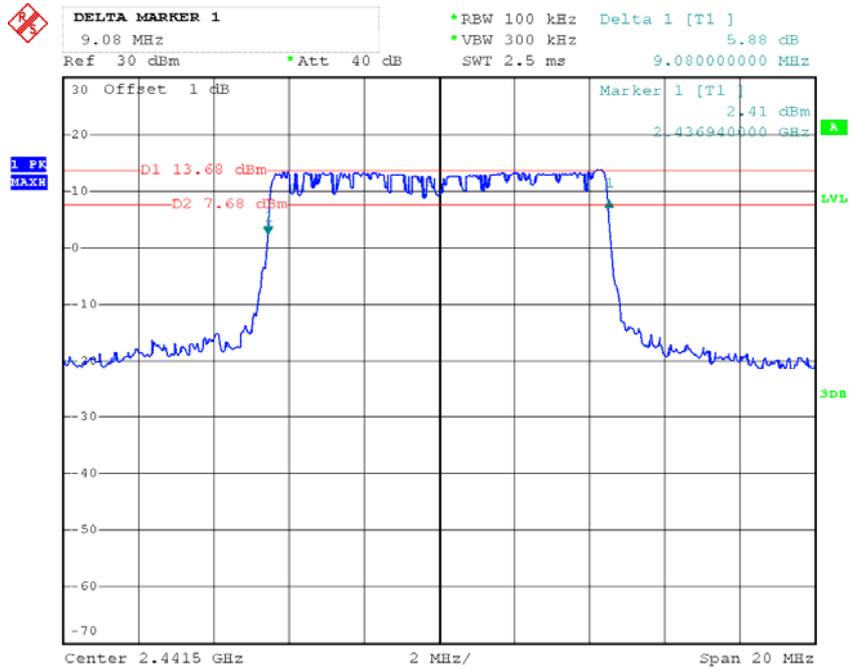
Date: 10.JAN.2018 20:50:59

### 10M Low Channel



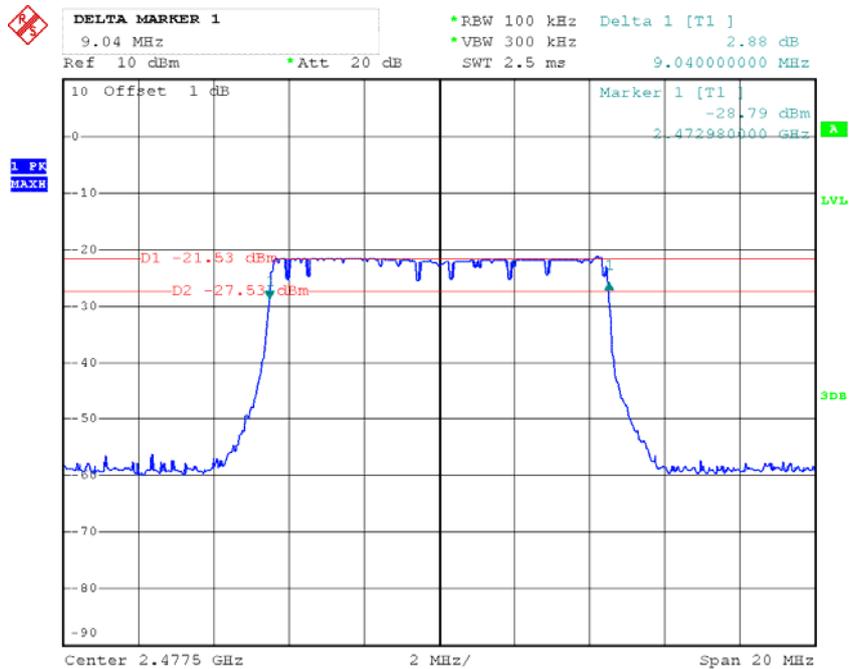
Date: 10.JAN.2018 14:41:38

### 10M Middle Channel



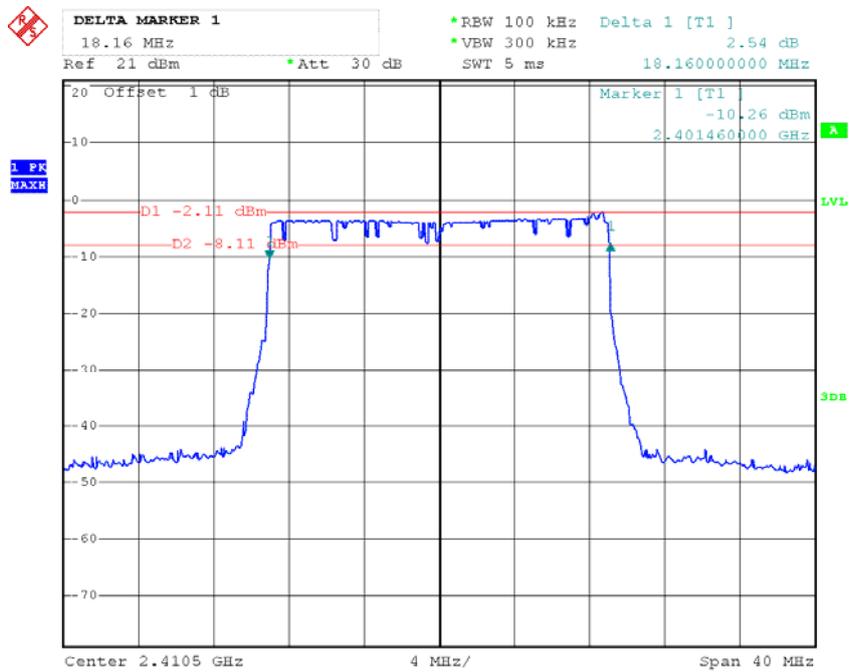
Date: 10.JAN.2018 14:39:16

### 10M High Channel



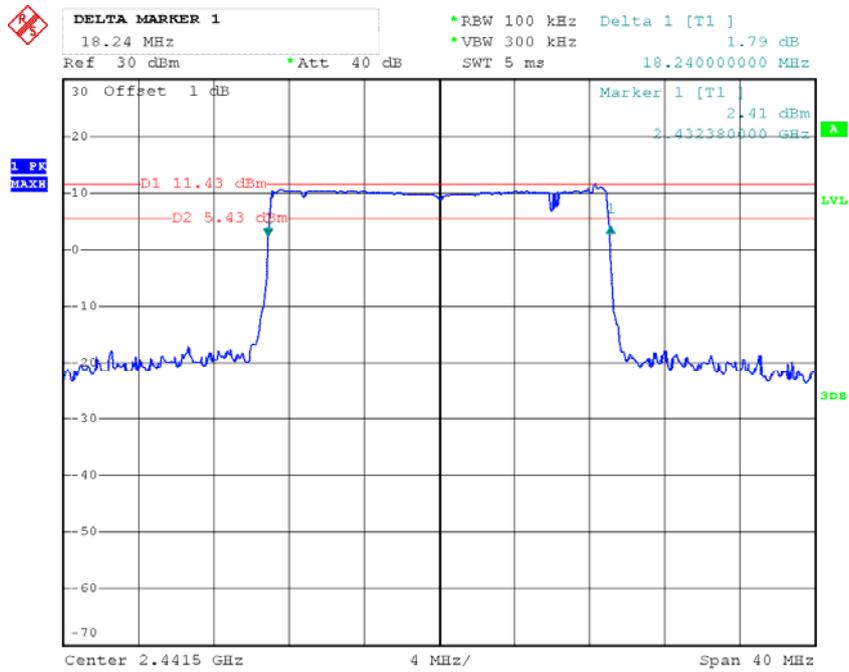
Date: 10.JAN.2018 14:36:51

### 20M Low Channel



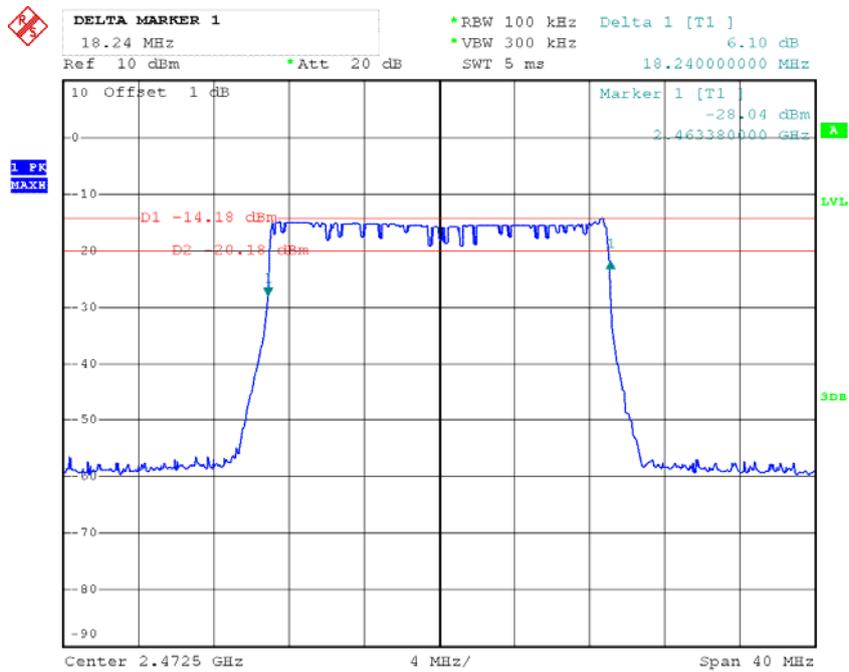
Date: 10.JAN.2018 13:36:18

### 20M Middle Channel



Date: 10.JAN.2018 13:45:39

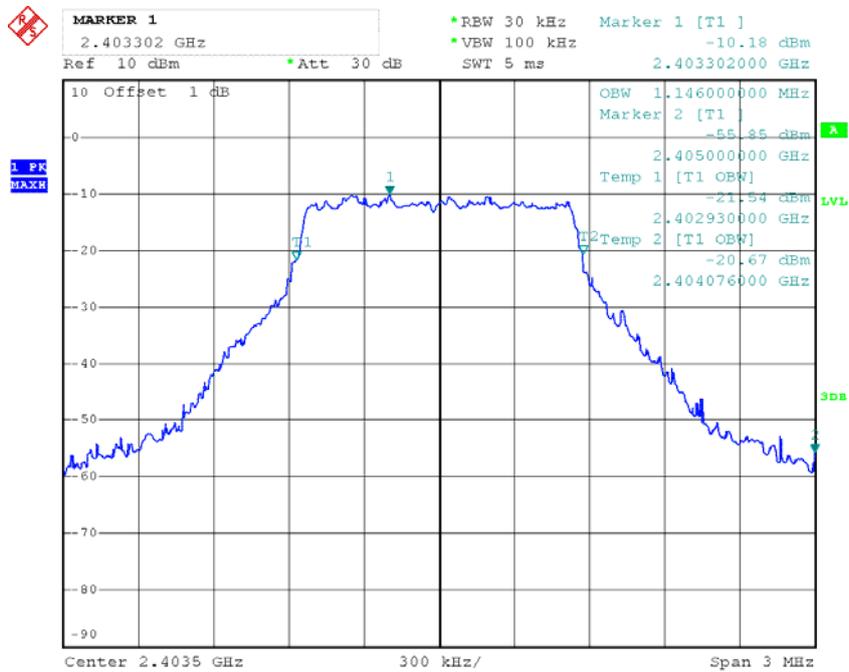
### 20M High Channel



Date: 10.JAN.2018 13:49:10

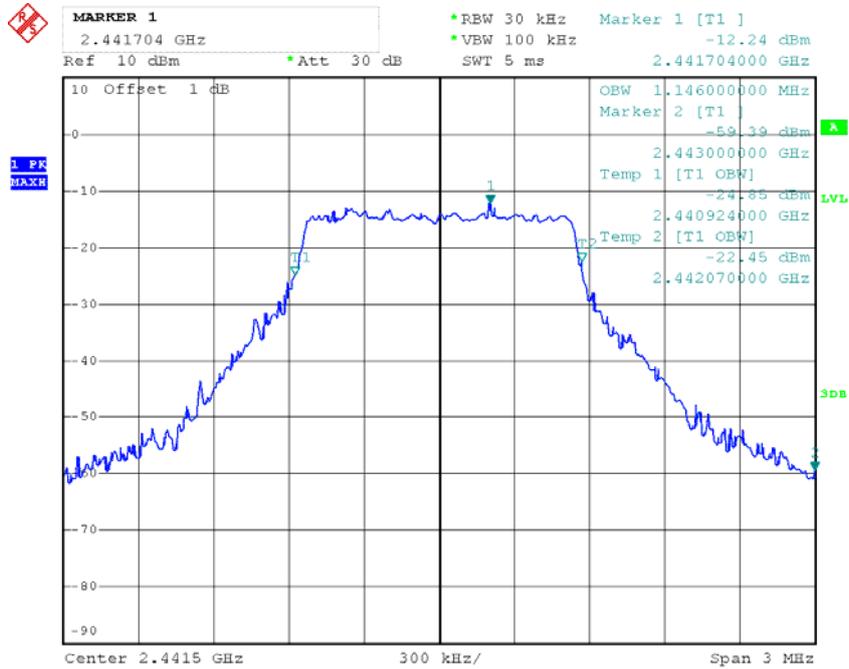
### 99% Occupied Bandwidth:

### 1.4M Low Channel



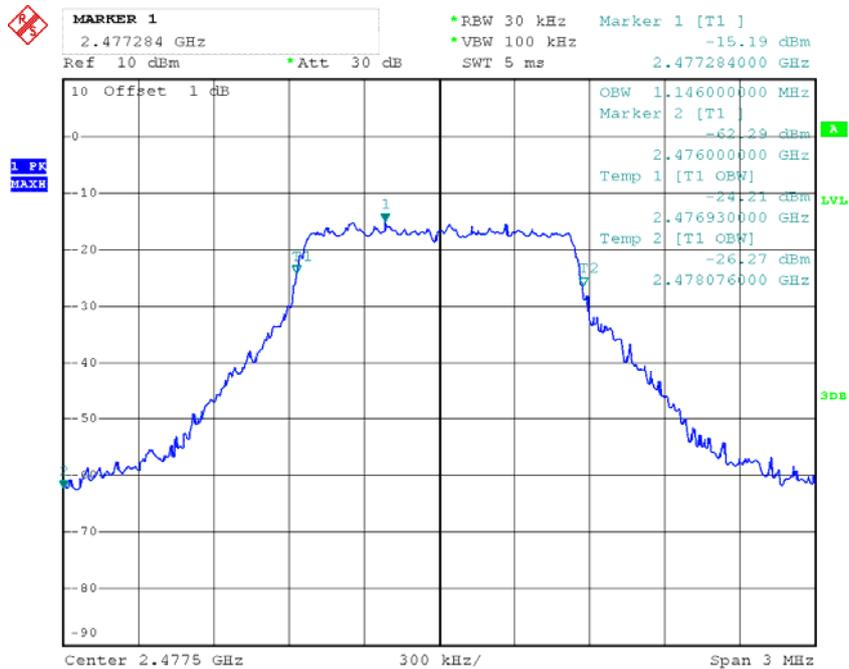
Date: 10.JAN.2018 21:19:31

### 1.4M Middle Channel



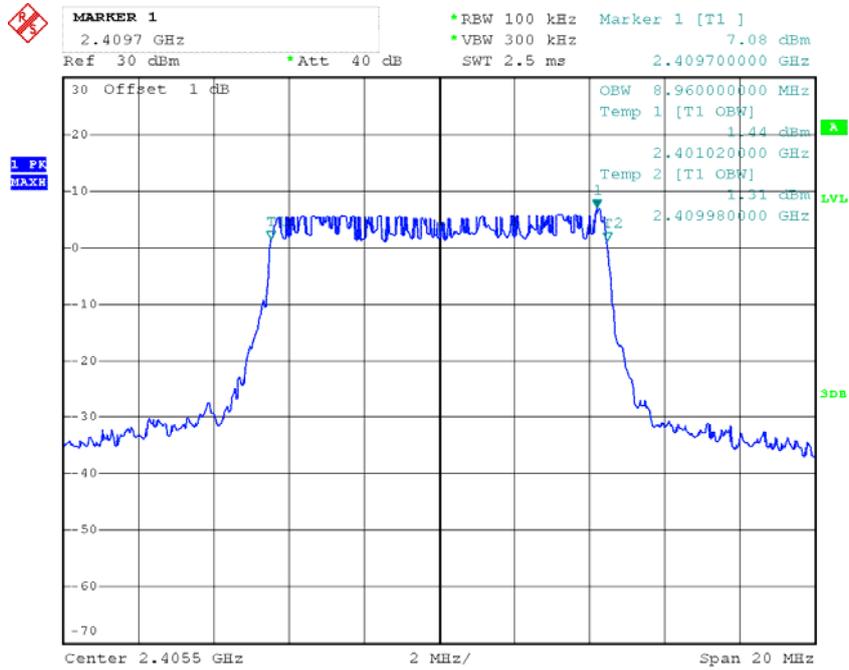
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### 1.4M High Channel



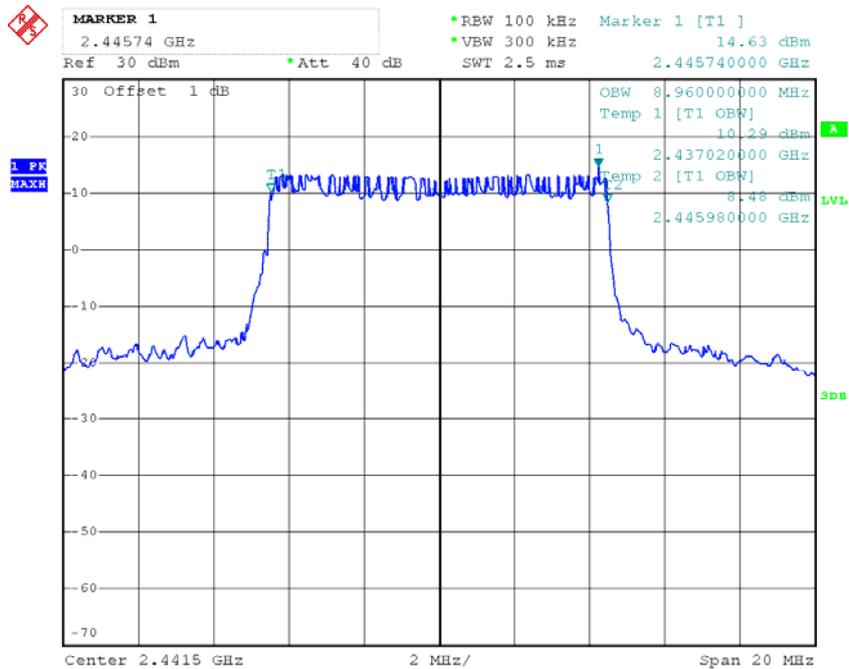
Date: 10.JAN.2018 21:17:57

### 10M Low Channel



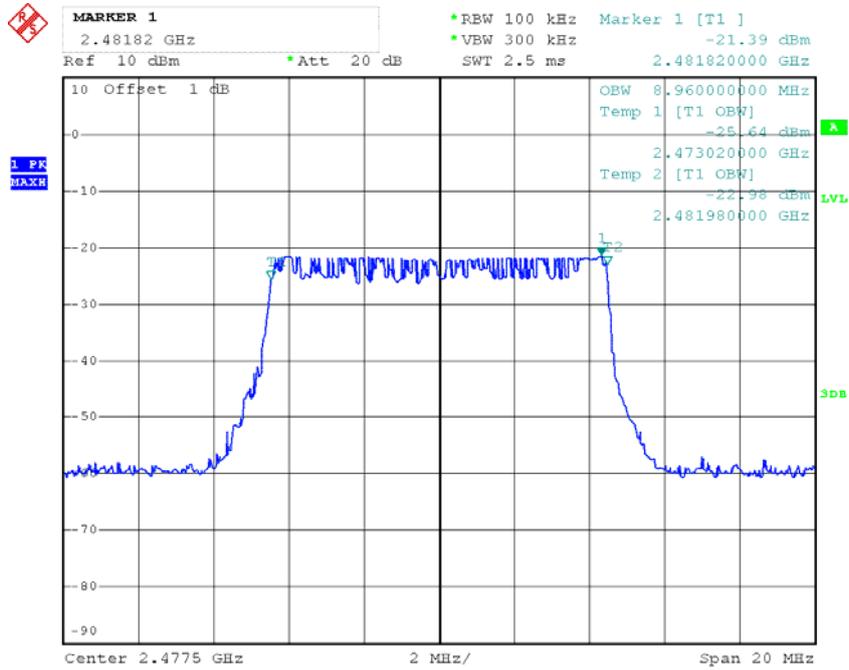
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### 10M Middle Channel



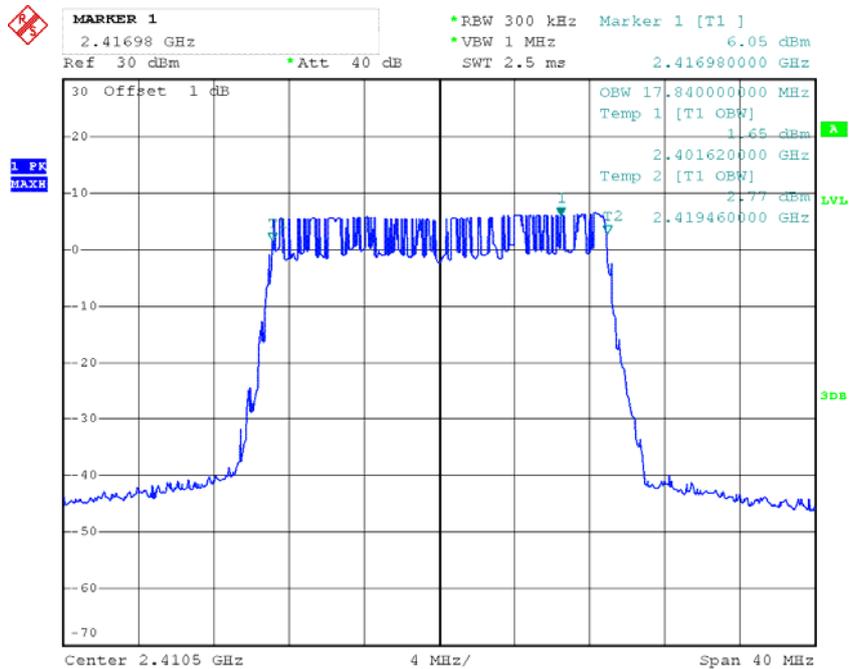
Date: 10.JAN.2018 15:14:14

### 10M High Channel



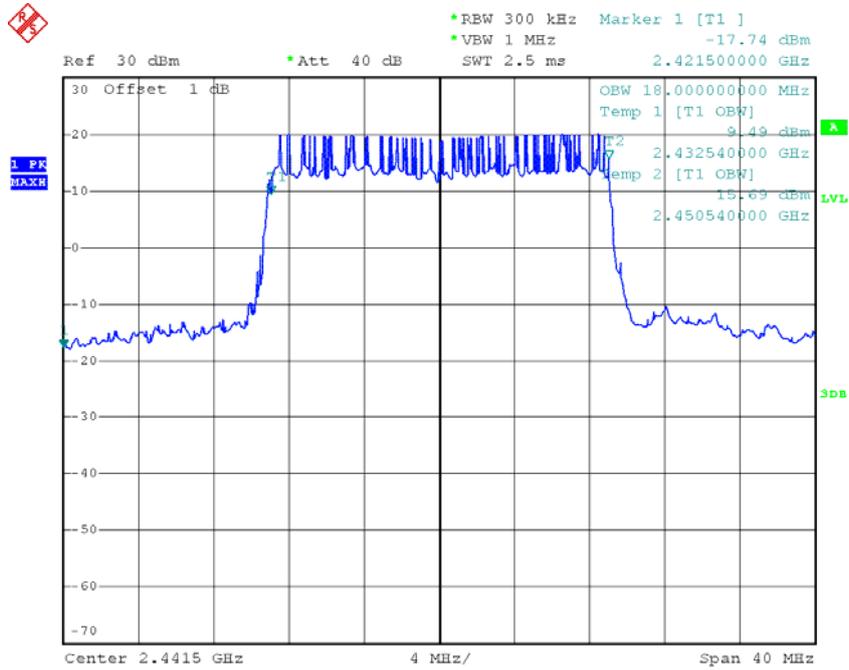
Date: 10.JAN.2018 15:12:43

### 20M Low Channel



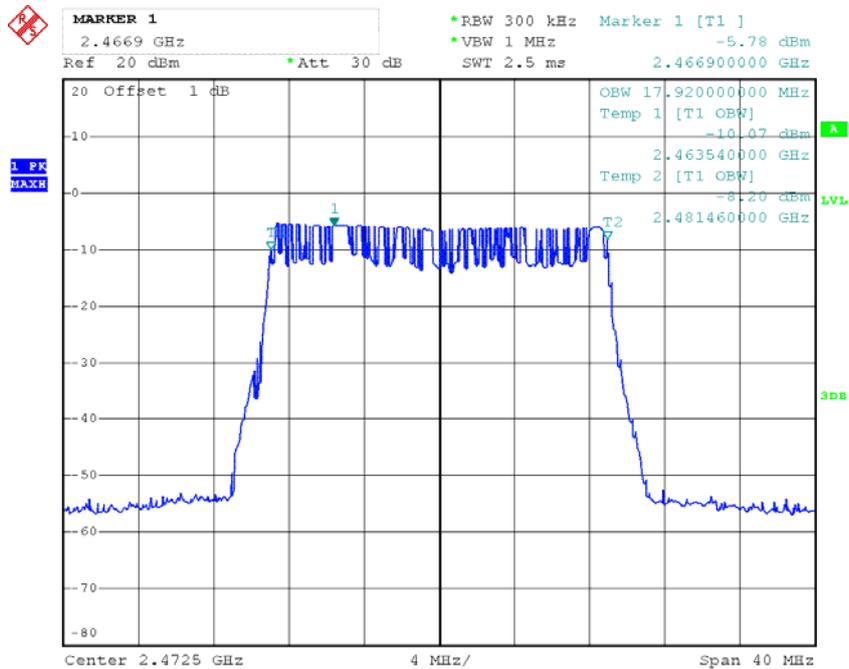
Date: 10.JAN.2018 10:54:41

### 20M Middle Channel



Date: 10.JAN.2018 10:55:42

### 20M High Channel



Date: 10.JAN.2018 10:59:49

## 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	Wideband Power Sensor	N1921A	MY54170013	2017-11-03	2018-11-03
Agilent	P-Series Power Meter	N1912A	MY5000448	2017-11-03	2018-11-03
N/A	Coaxial Cable	C-SJ00-0010	C0010/01	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**

<b>Temperature:</b>	21.4 °C
<b>Relative Humidity:</b>	35 %
<b>ATM Pressure:</b>	101.8 kPa

*The testing was performed by Andy Huang on 2018-01-10.*

*Test Mode: Transmitting*

*Test Result: Compliant. The duty cycle factor was added into the result, Please refer to the following table.*

*1.4MHz mode:*

Frequency (MHz)	Max Average Conducted Output Power (dBm)		Limit (dBm)
	Chain 0	Chain 1	
2403.5	11.2	13.47	30
2441.5	10.83	12.92	30
2477.5	7.87	10.21	30

10MHz mode:

Frequency (MHz)	Max Average Conducted Output Power (dBm)		Limit (dBm)
	Chain 0	Chain 1	
2405.5	13.58	12.89	30
2406.5	13.6	12.86	30
2407.5	14.38	13.71	30
2408.5	14.4	13.72	30
2409.5	15.39	14.73	30
2410.5	15.42	14.74	30
2411.5	15.44	14.76	30
2412.5	16.55	15.77	30
2413.5	17.29	16.81	30
2414.5	18.3	17.54	30
2415.5	19.57	18.61	30
2416.5	20.96	19.66	30
2441.5	20.72	20.16	30
2455.5	20.03	19.94	30
2456.5	20.08	18.98	30
2457.5	19.23	19.04	30
2458.5	18.17	17.91	30
2459.5	18.07	17.86	30
2460.5	17.67	16.8	30
2461.5	17.31	16.76	30
2462.5	16.57	15.72	30
2463.5	16.41	15.63	30
2464.5	15.32	14.58	30
2465.5	15.23	14.57	30
2466.5	13.16	12.61	30
2467.5	13.03	12.56	30
2468.5	12.18	11.54	30
2469.5	12.14	11.51	30
2470.5	11.23	10.75	30
2471.5	11.41	10.73	30
2472.5	9.07	8.66	30
2473.5	8.09	7.55	30
2474.5	7.14	6.47	30
2475.5	5.94	5.49	30
2476.5	3.91	3.38	30
2477.5	-14.21	-14.84	30

20MHz:

Frequency (MHz)	Max Average Conducted Output Power (dBm)		Limit (dBm)
	Chain 0	Chain 1	
2410.5	7.15	6.62	30
2411.5	9.19	8.73	30
2412.5	10.31	9.76	30
2413.5	11.35	10.87	30
2414.5	11.12	10.64	30
2415.5	11.16	10.66	30
2416.5	12.34	11.63	30
2417.5	12.28	12.71	30
2418.5	14.35	13.73	30
2419.5	14.39	13.72	30
2420.5	15.17	14.58	30
2421.5	15.23	14.6	30
2422.5	15.26	14.61	30
2423.5	16.31	15.58	30
2424.5	16.36	15.59	30
2425.5	17.37	16.61	30
2426.5	17.33	16.54	30
2427.5	17.38	16.59	30
2428.5	18.35	17.68	30
2429.5	18.34	17.7	30
2430.5	19.16	18.66	30
2431.5	19.13	18.63	30
2432.5	20.15	19.61	30
2433.5	20.12	19.59	30
2434.5	21.17	20.53	30
2441.5	20.87	20.24	30
2442.5	19.85	19.34	30
2443.5	19.83	19.32	30
2444.5	18.81	18.27	30
2445.5	18.82	18.19	30
2446.5	17.84	17.12	30
2447.5	17.79	17.09	30
2448.5	16.82	16.08	30
2449.5	16.81	16.02	30
2450.5	15.8	15	30
2451.5	15.81	14.97	30
2452.5	14.66	14	30
2453.5	14.64	13.97	30
2454.5	13.74	12.94	30
2455.5	13.71	12.91	30
2456.5	13.72	12.89	30
2457.5	12.71	11.89	30
2458.5	12.69	11.84	30

Frequency (MHz)	Max Average Conducted Output Power (dBm)		Limit (dBm)
	Chain 0	Chain 1	
2459.5	11.49	10.76	30
2460.5	11.2	10.75	30
2461.5	10.12	9.67	30
2462.5	10.18	9.66	30
2463.5	10.11	9.64	30
2464.5	10.13	9.62	30
2465.5	8.97	8.58	30
2466.5	8.92	8.56	30
2467.5	8.94	8.55	30
2468.5	7.35	6.41	30
2469.5	2.73	2.31	30
2470.5	0.85	0.5	30
2471.5	0.79	0.49	30
2472.5	-5.31	-5.45	30

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

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### **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	ESPI	100120	2017-12-11	2018-12-11
N/A	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	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**

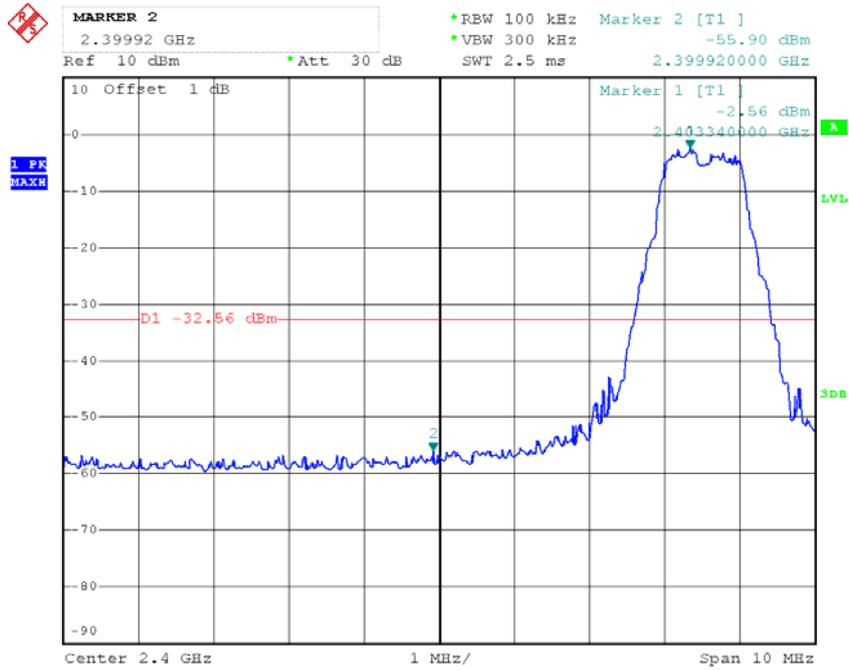
<b>Temperature:</b>	21.4 °C
<b>Relative Humidity:</b>	35 %
<b>ATM Pressure:</b>	101.8 kPa

*The testing was performed by Andy Huang on 2018-01-10.*

*Test mode: Transmitting*

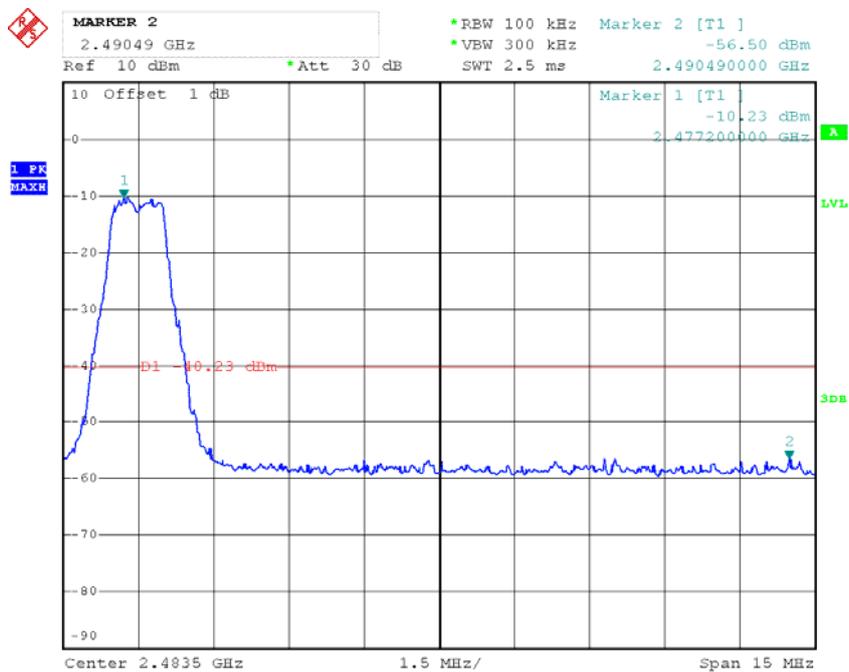
*Test Result: Compliant. All emissions out of the operation band were under fundamental more than 30dBc, please refer to following plots.*

### Chain 0, 1.4MHz: Band Edge, Left Side



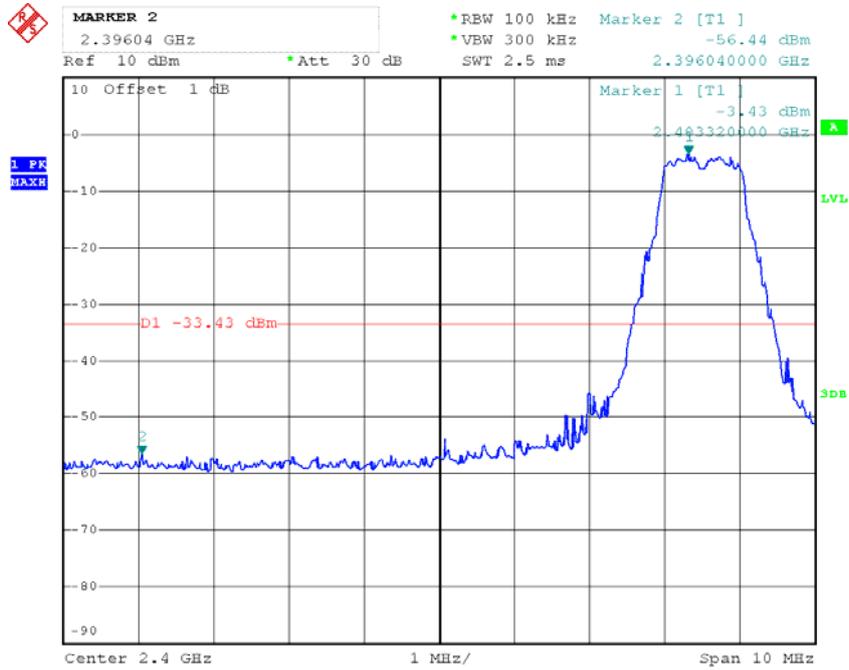
Date: 10.JAN.2018 21:10:29

### Chain 0, 1.4MHz: Band Edge, Right Side



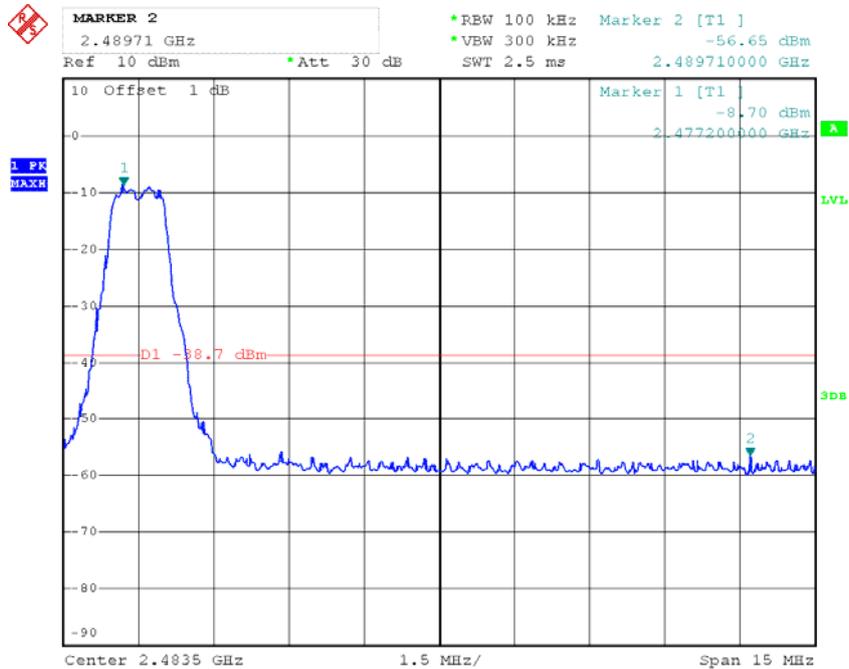
Date: 10.JAN.2018 21:08:10

### Chain 1, 1.4MHz: Band Edge, Left Side



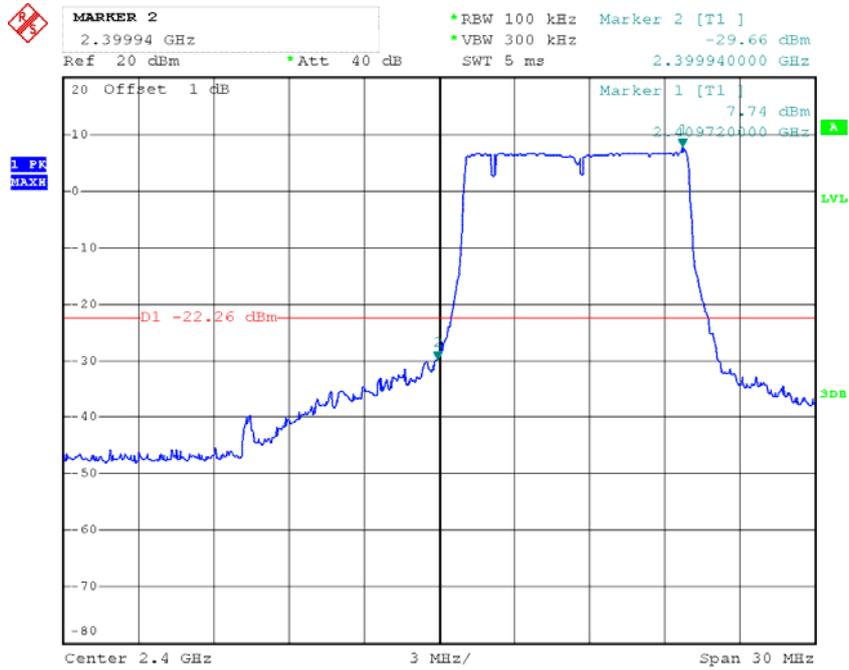
Date: 10.JAN.2018 21:12:48

### Chain 1, 1.4MHz : Band Edge, Right Side



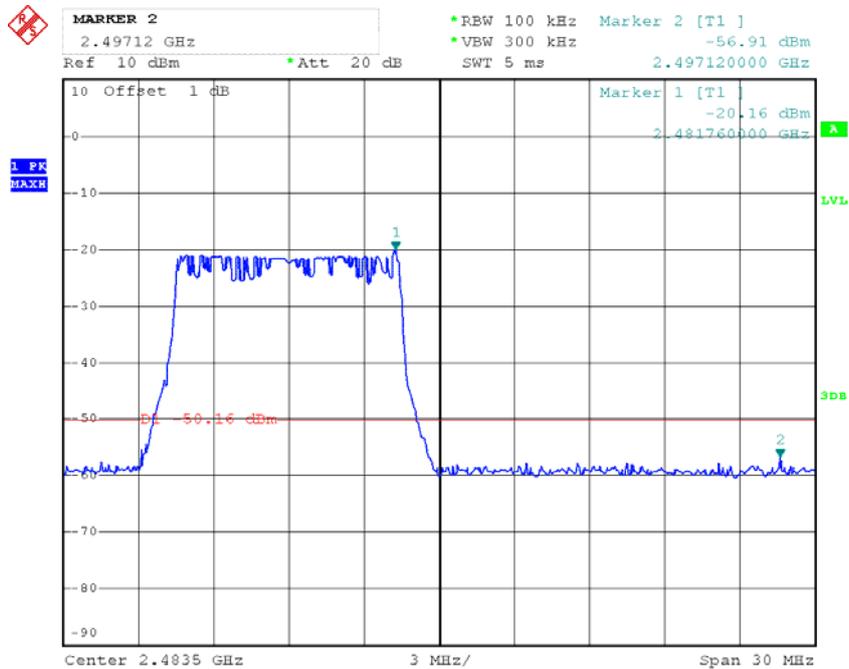
Date: 10.JAN.2018 21:14:05

### Chain 0, 10M: Band Edge, Left Side



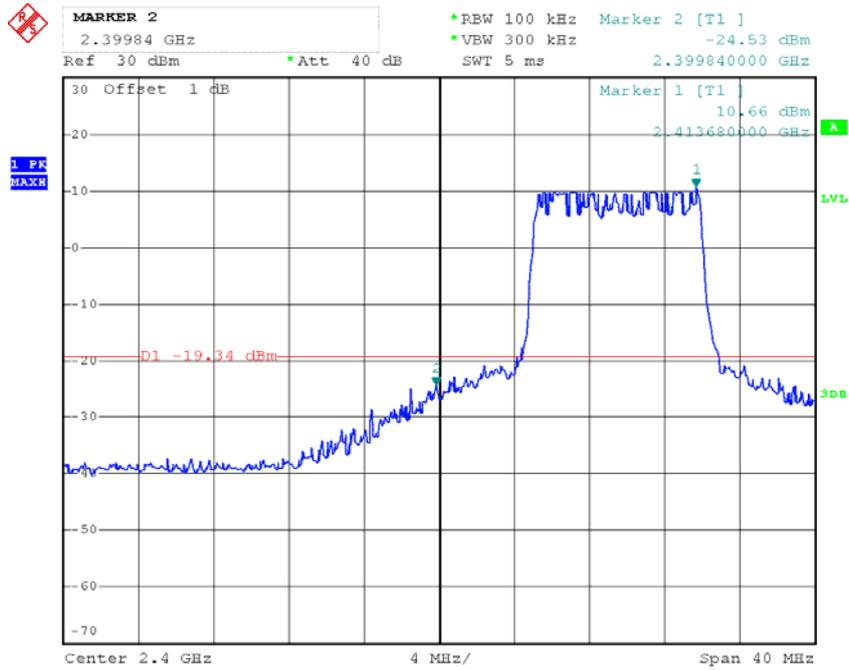
Date: 10.JAN.2018 22:17:23

### Chain 0, 10M: Band Edge, Right Side



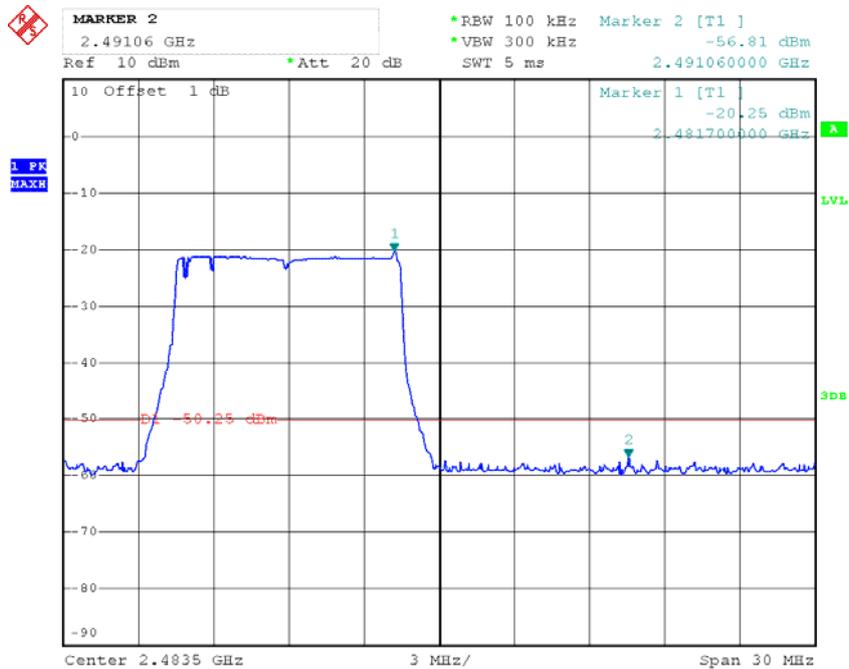
Date: 10.JAN.2018 14:55:45

### Chain 1, 10M: Band Edge, Left Side



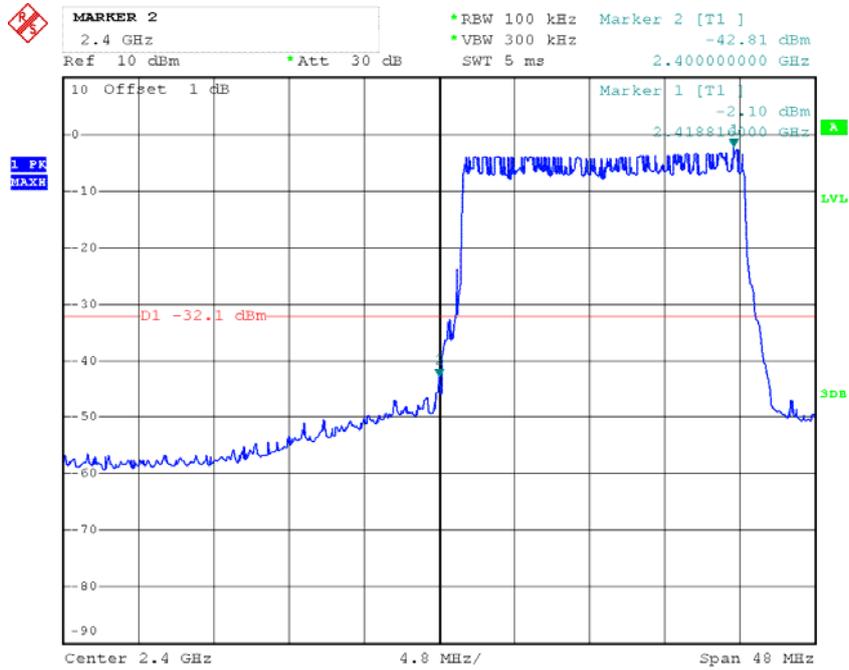
Date: 10.JAN.2018 14:47:59

### Chain 1, 10M: Band Edge, Right Side

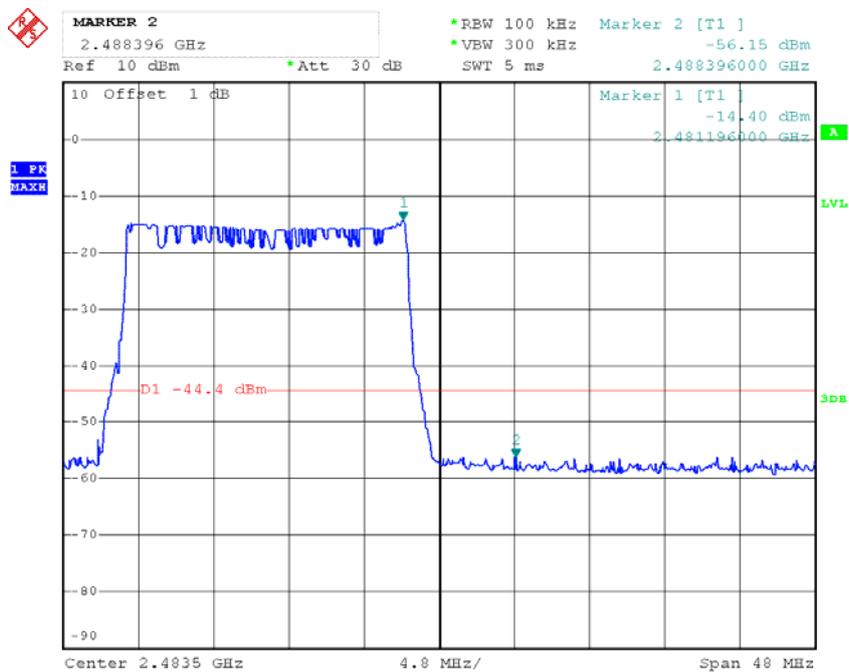


Date: 10.JAN.2018 14:52:34

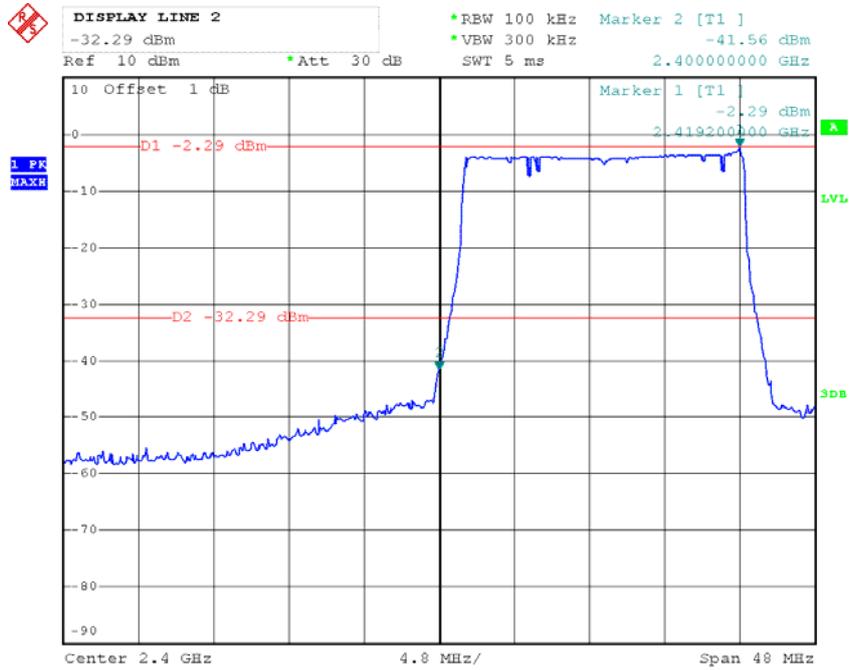
### Chain 0, 20M: Band Edge, Left Side



### Chain 0, 20M: Band Edge, Right Side

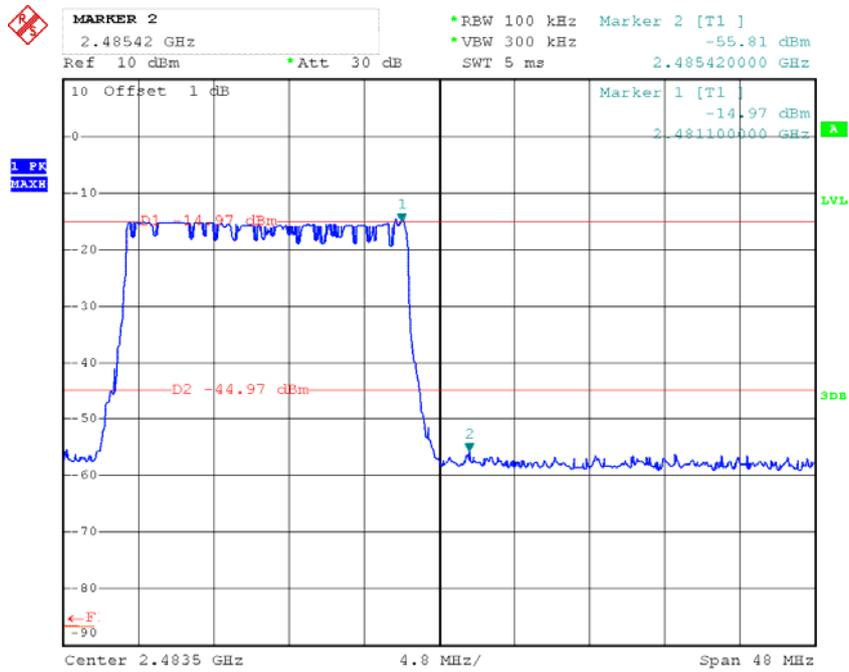


### Chain 1, 20M: Band Edge, Left Side



Date: 10.JAN.2018 13:59:29

### Chain 1, 20M: Band Edge, Right Side



Date: 10.JAN.2018 14:01:25

## **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:  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
- d) Set the VBW  $\geq 3 \times \text{RBW}$ .
- 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**

<b>Manufacturer</b>	<b>Description</b>	<b>Model</b>	<b>Serial Number</b>	<b>Calibration Date</b>	<b>Calibration Due Date</b>
R&S	EMI Test Receiver	ESPI	100120	2017-12-11	2018-12-11
N/A	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	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**

<b>Temperature:</b>	21.4~22 °C
<b>Relative Humidity:</b>	35~40 %
<b>ATM Pressure:</b>	101.8~102 kPa

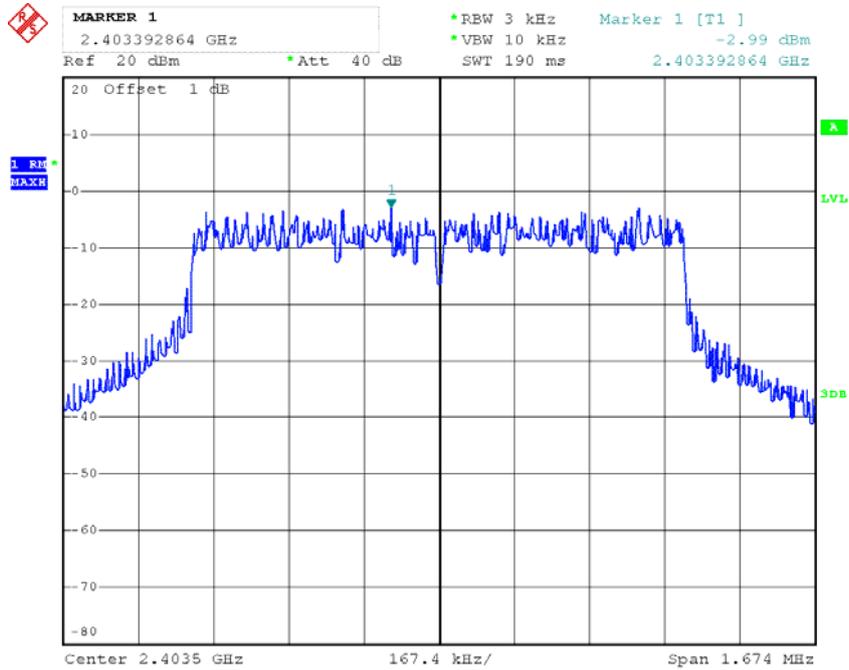
*The testing was performed by Andy Huang on 2018-01-10 and 2018-01-18.*

*Test Mode: Transmitting*

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

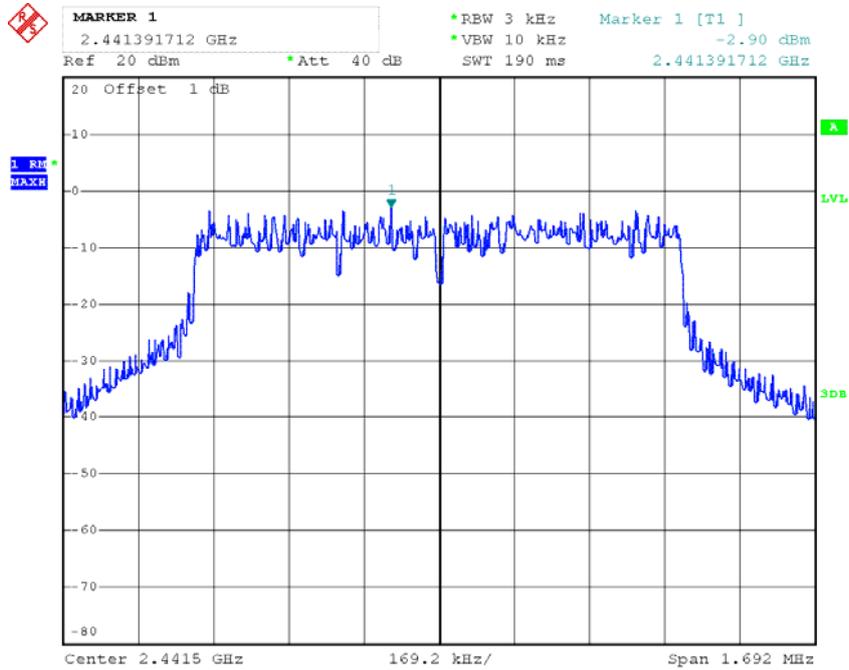
Test mode	Channel	Frequency (MHz)	Reading (dBm/3kHz)		Limit (dBm/3kHz)
			Chain 0	Chain 1	
1.4MHz	Low	2403.5	-2.99	-2.62	≤8
	Middle	2441.5	-2.9	-2.6	≤8
	High	2477.5	-5.96	-5.3	≤8
10MHz	Low	2405.5	-11.44	-12.14	≤8
	Middle	2441.5	-3.96	-4.34	≤8
	High	2477.5	-36.87	-39.59	≤8
20MHz	Low	2410.5	-28.7	-28.14	≤8
	Middle	2441.5	-13.46	-14.06	≤8
	High	2472.5	-39.37	-39.84	≤8

### Power Spectral Density, Chain 0, 1.4M Low Channel



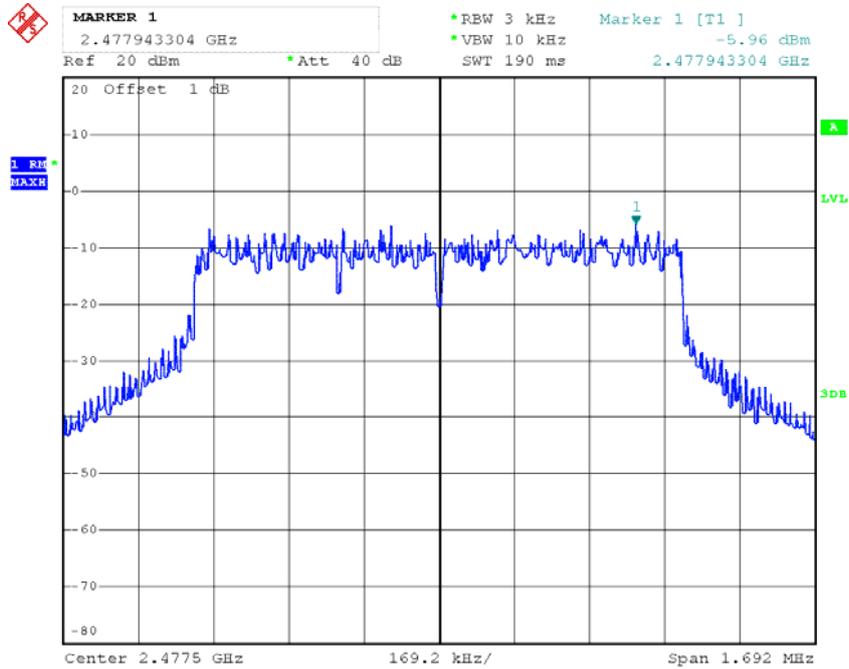
Date: 10.JAN.2018 21:32:31

### Power Spectral Density, Chain 0, 1.4M Middle Channel



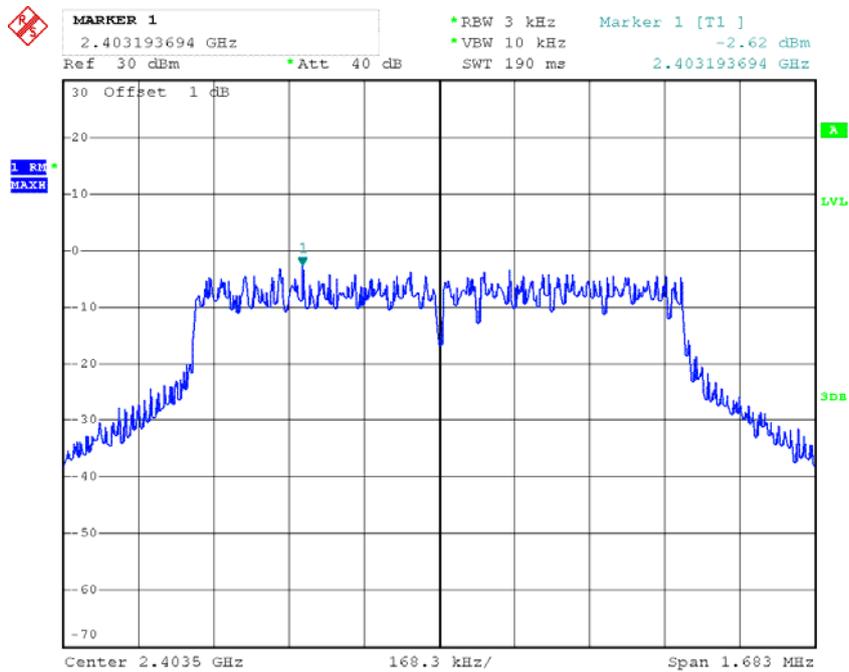
Date: 10.JAN.2018 21:33:27

### Power Spectral Density, Chain 0, 1.4M High Channel



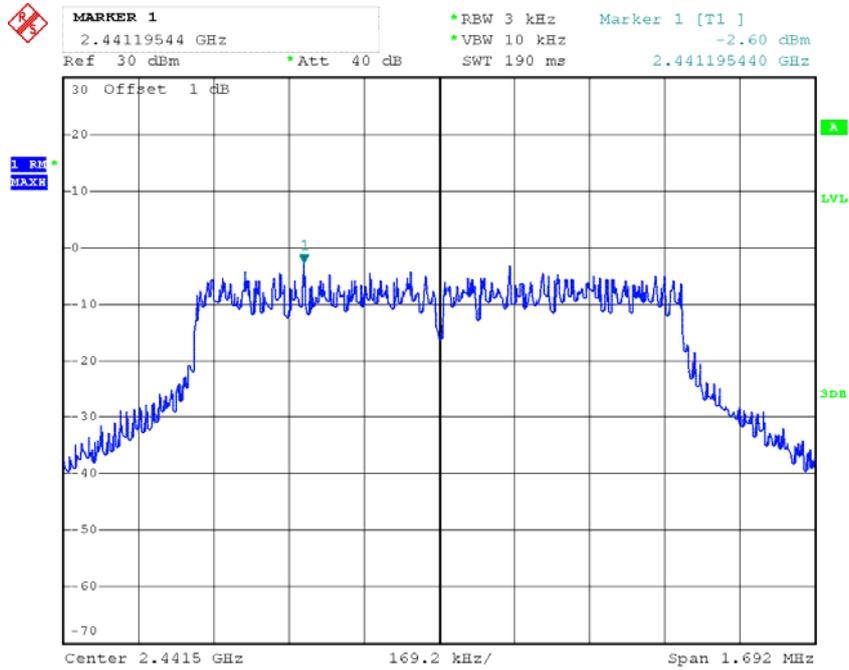
Date: 10.JAN.2018 21:34:14

### Power Spectral Density, Chain 1, 1.4M Low Channel



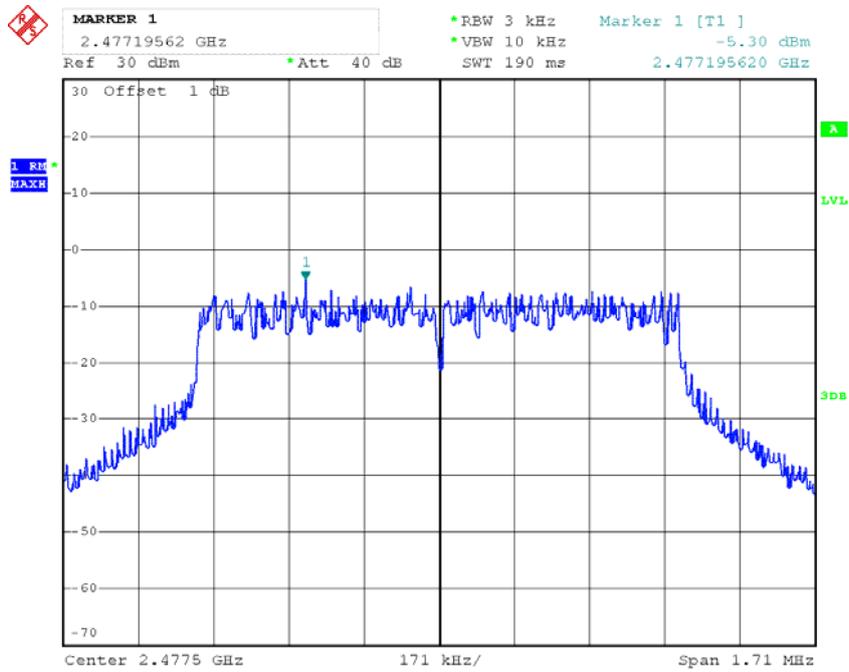
Date: 10.JAN.2018 16:37:55

### Power Spectral Density, Chain 1, 1.4M Middle Channel



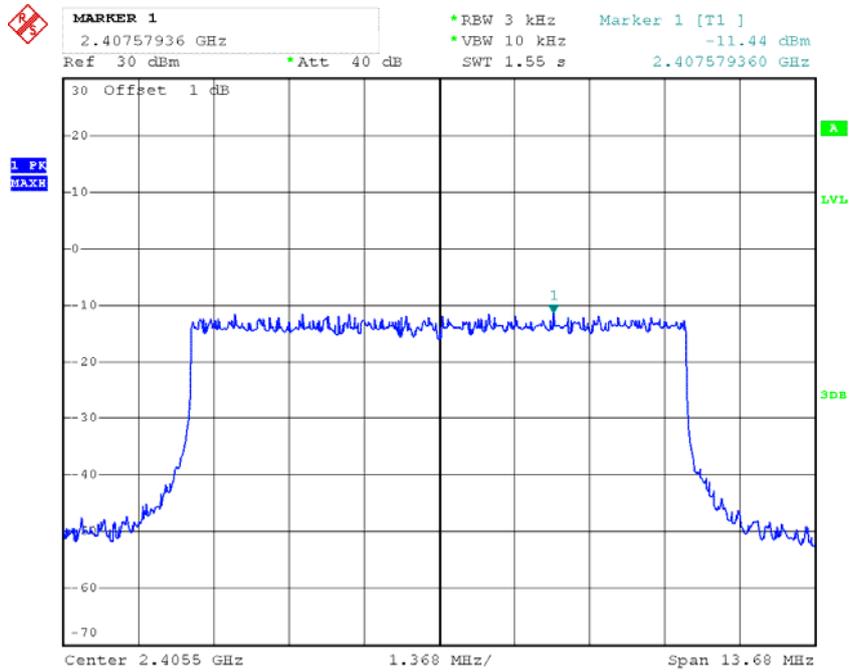
Date: 18.JAN.2018 16:38:58

### Power Spectral Density, Chain 1, 1.4M High Channel



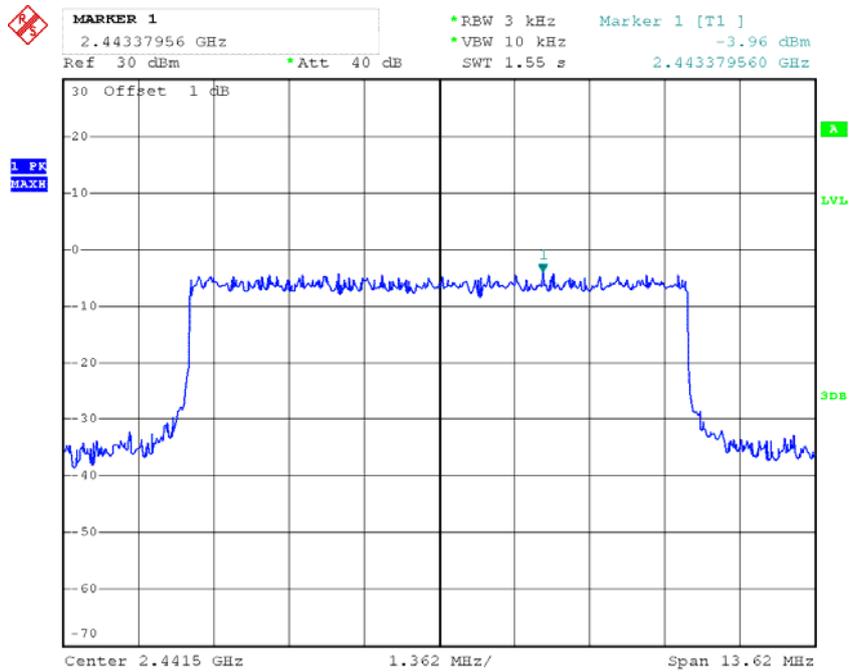
Date: 18.JAN.2018 16:39:45

### Power Spectral Density, Chain 0, 10M Low Channel



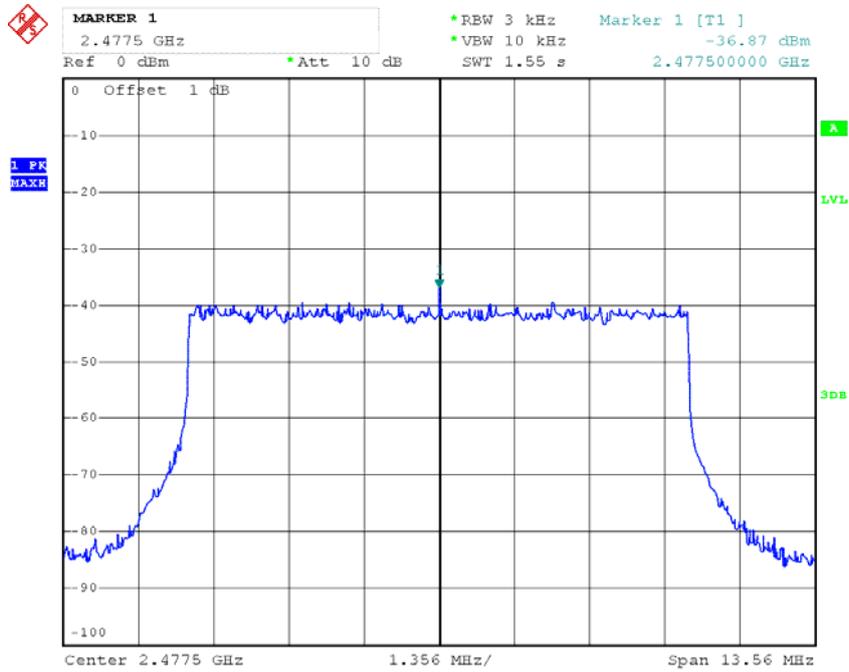
Date: 10.JAN.2018 15:28:25

### Power Spectral Density, Chain 0, 10M Middle Channel



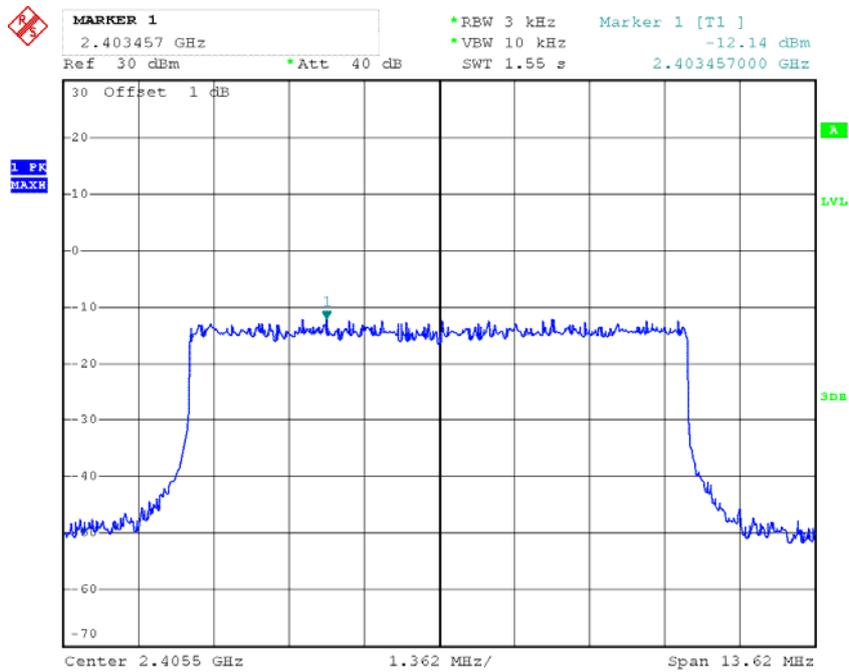
Date: 10.JAN.2018 15:27:34

**Power Spectral Density, Chain 0, 10M High Channel**



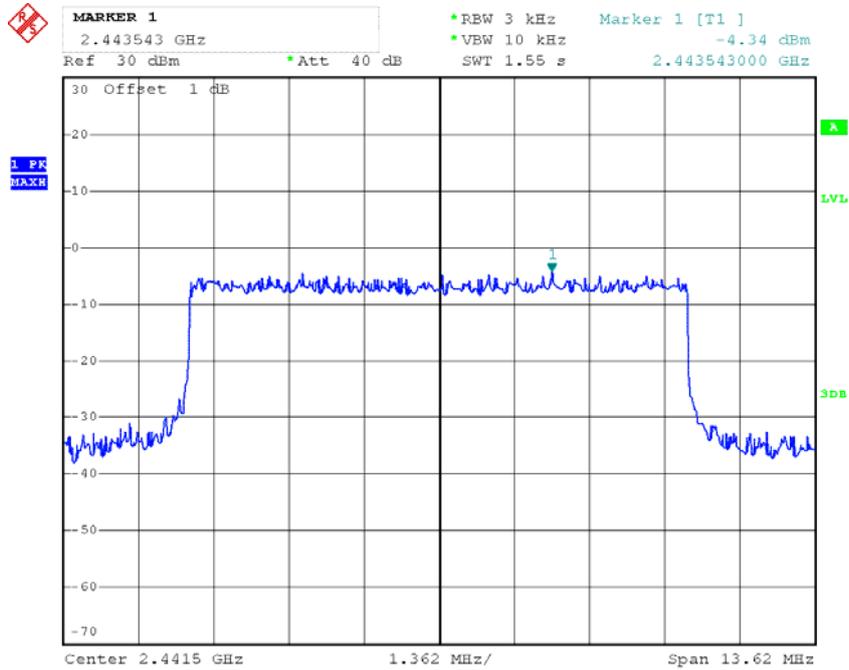
Date: 10.JAN.2018 15:25:58

**Power Spectral Density, Chain 1, 10M Low Channel**



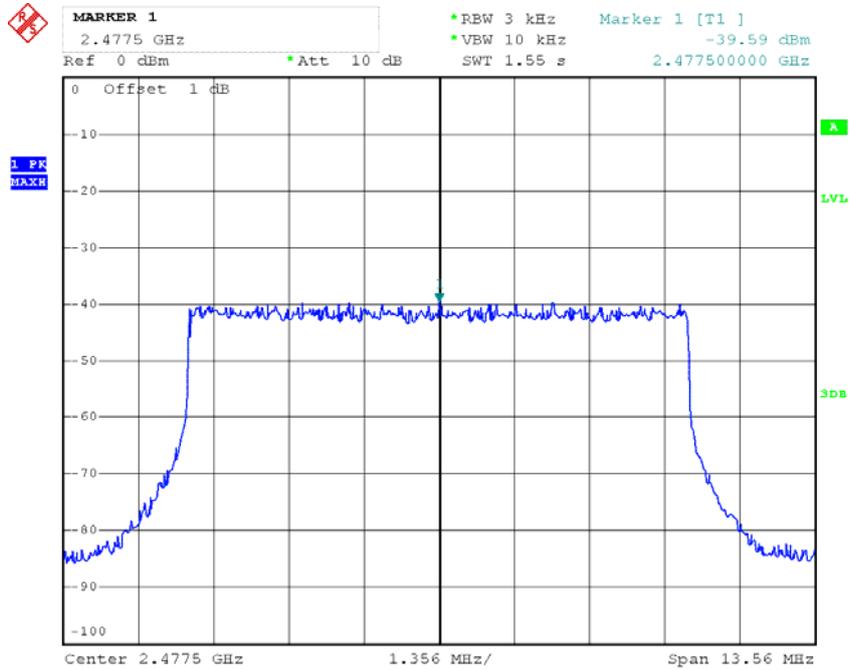
Date: 10.JAN.2018 15:22:19

**Power Spectral Density, Chain 1, 10M Middle Channel**



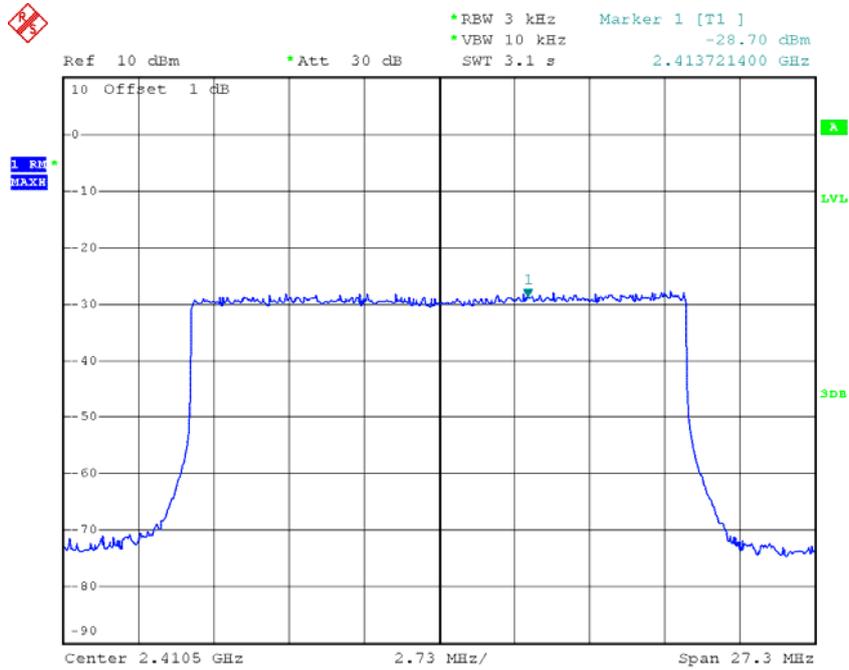
Date: 10.JAN.2018 15:22:46

**Power Spectral Density, Chain 1, 10M High Channel**



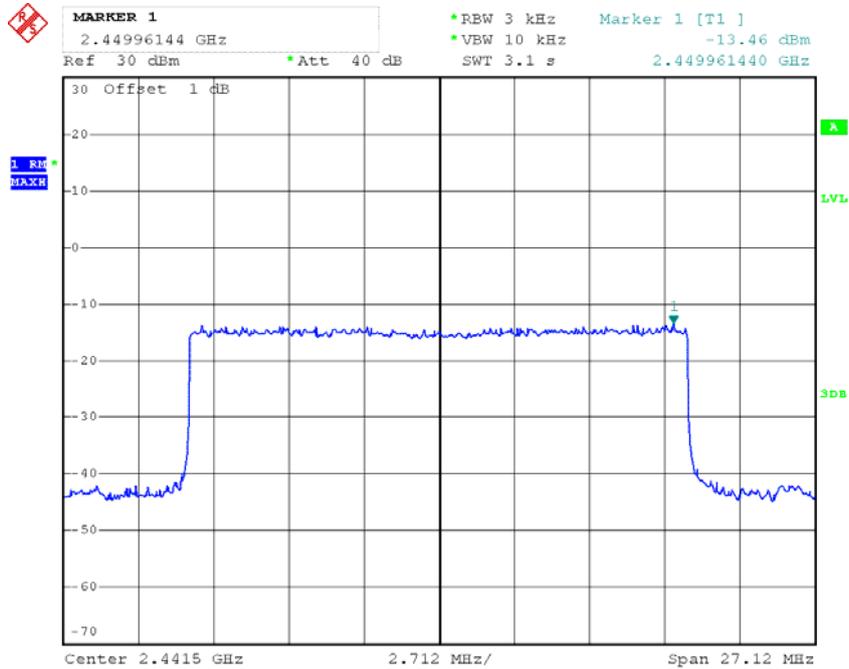
Date: 10.JAN.2018 15:24:14

### Power Spectral Density, Chain 0, 20M Low Channel



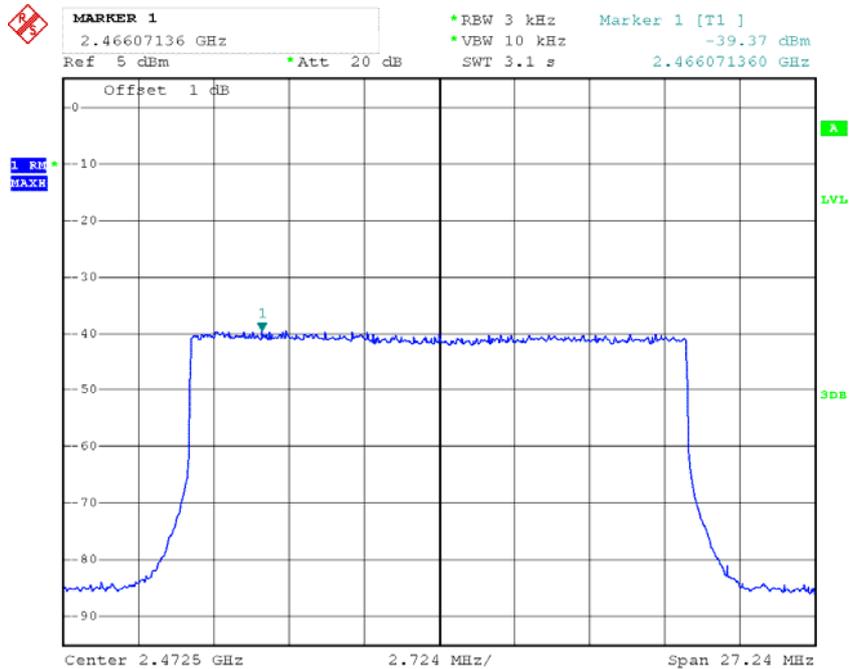
Date: 10.JAN.2018 11:50:55

### Power Spectral Density, Chain 0, 20M Middle Channel



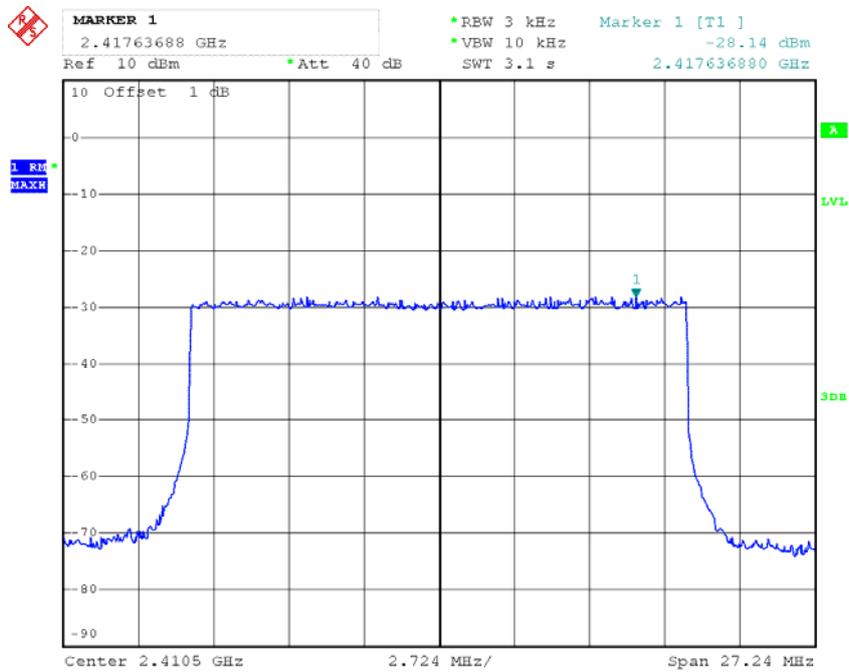
Date: 10.JAN.2018 11:52:56

### Power Spectral Density, Chain 0, 20M High Channel



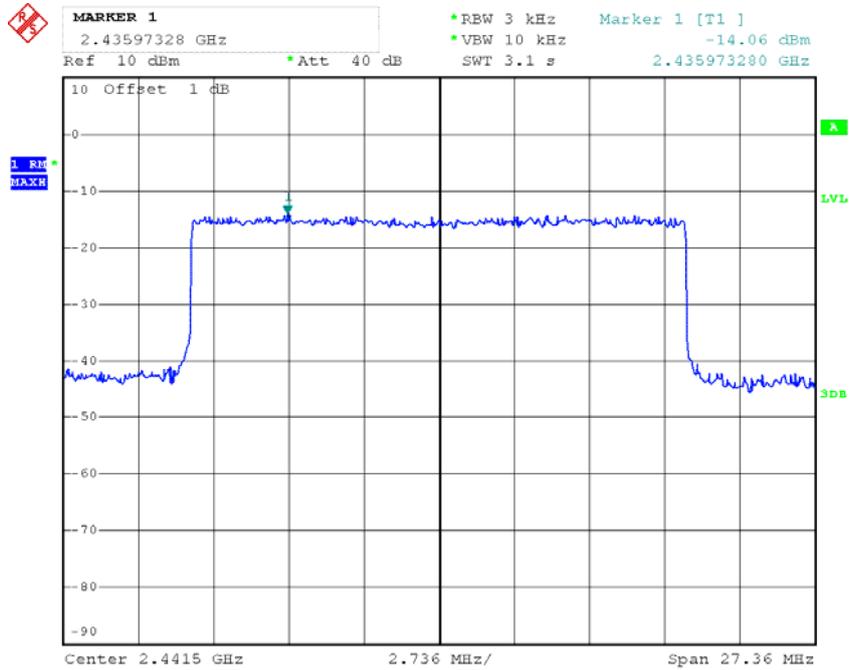
Date: 10.JAN.2018 11:54:48

### Power Spectral Density, Chain 1, 20M Low Channel



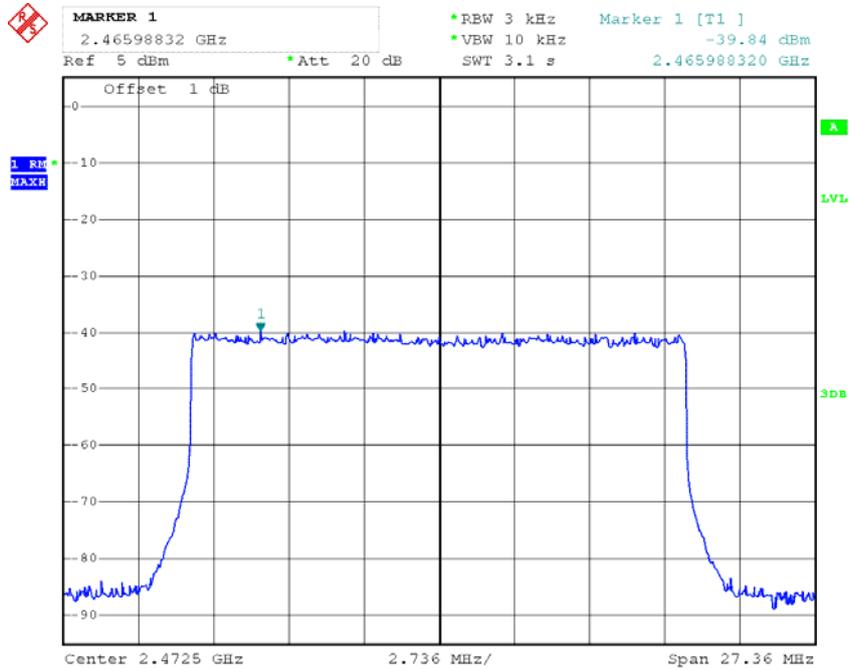
Date: 10.JAN.2018 14:10:52

### Power Spectral Density, Chain 1, 20M Middle Channel



Date: 10.JAN.2018 14:11:47

### Power Spectral Density, Chain 1, 20M High Channel



Date: 10.JAN.2018 14:12:34

\*\*\*\*\* END OF REPORT \*\*\*\*\*