



FCC RADIO TEST REPORT

Applicant : Guangzhou Shirui Electronics Co.,Ltd.

Address : No.192, KeZhu Road, Science Park, Economic
-Technological Development Area,
Guangzhou,Guangdong,China

Equipment : WIFI and Bluetooth module

Model No. : WIFI-2-R821USA1A

Trade Name : N/A

FCC ID. : 2AFG6-R821USA1A

I HEREBY CERTIFY THAT :

The sample was received on Jul. 17, 2017 and the testing was carried out on Aug. 13, 2017 at Cerpass Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of Cerpass Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Mark Liao

Assistant Manager

Laboratory Accreditation:



Cerpass Technology Corporation Test Laboratory

TAF LAB Code:

1439



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History of this test report

Report No.	Issue Date	Description
DEFE1707055	Aug. 14, 2017	Original



1. Summary of Test Procedure and Test Results

1.1. Applicable Standards

ANSI C63.4:2014

ANSI C63.10:2013

FCC Rules and Regulations Part 15 Subpart E §15.407

First R&O 14-30

KDB662911

KDB789033

KDB644545

FCC Rule	Description of Test	Result
15.203	Antenna Requirement	Pass
15.207(a)	AC Power Line Conducted Emission	Pass
15.407(b) 15.209	Radiated Spurious Emission	Pass
15.407(a)	26 dB Occupied Bandwidth	Pass
15.407	6 dB Bandwidth	Pass
15.407 (a) & (a)(3)	Average Power	Pass
15.407(a)	Output and PPSD	Pass
15.407(g)	Frequency Stability	Pass
15.319(f)	Automatically Discontinue Transmission	Pass
15.407	Dynamic Frequency Selection	Pass



2. Test Configuration of Equipment under Test

2.1. Feature of Equipment under Test

Product	WIFI and Bluetooth module
Test Model	WIFI-2-R821USA1A
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	DC 3.3V from host equipment
Frequency Range	2.4 GHz ISM radio band / 5 GHz Unlicensed National Information Infrastructure (U-NII) band
Number of Channels	2.4G: 802.11b, 802.11g, 802.11n(HT20):11 802.11n(HT40):7 Bluetooth:78 Bluetooth Low Energy:39 5G: 802.11a, 802.11n(HT20), 802.11ac(VHT20):19 802.11n(HT40), 802.11ac(VHT40):9 802.11ac (VHT80):4
Modulation	DSSS, OFDM, DBPSK, DQPSK, CCK, 16-QAM, 64-QAM and 256-QAM for WLAN GFSK (1Mbps), $\pi/4$ DQPSK (2Mbps) and 8DPSK (3Mbps) for Bluetooth GFSK (Bluetooth low energy)
Data Rates	802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11Mbps 802.11n: MCS0~MCS7 802.11ac: MCS0NSS1~MCS8NSS1 Bluetooth: 1, 2, 3Mbps Bluetooth Low Energy: 1Mbps

Note: for more details, please refer to the User's manual of the EUT.

Antenna List

Antenna	Manufacturer	Peak Gain
FPCB Antenna	South Star	Chain 1: 3.21dBi for 2400~2500MHz band, 3.41dBi for 5150~5850MHz band. Chain 2: 2.52dBi for 2400~2500MHz band, 3.28dBi for 5150~5850MHz band.

Note: Bluetooth is only applicable to Chain 1

**2.2. The EUT does not support a MIMO function.**

2.4GHz Band			
MODULATION MODE	DATE RATE(MCS)	TX&RX CONFIGURATION	
802.11b	1~11Mbps	1TX	1RX
802.11g	6~54Mbps	1TX	1RX
802.11n (HT20)	MCS 0~7	1TX	1RX
802.11n (HT40)	MCS 0~7	1TX	1RX
5GHz Band			
MODULATION MODE	DATE RATE(MCS)	TX&RX CONFIGURATION	
802.11a	6~54Mbps	1TX	1RX
802.11n (HT20)	MCS 0~7	1TX	1RX
802.11n (HT40)	MCS 0~7	1TX	1RX
802.11ac (VHT20)	MCS0NSS1~ MCS8NSS1	1TX	1RX
802.11ac (VHT40)	MCS0NSS1~ MCS8NSS1	1TX	1RX
802.11ac (VHT80)	MCS0NSS1~ MCS8NSS1	1TX	1RX

Note: 1.The modulation and bandwidth are similar for 80211n mode for 20MHz(40MHz) and 802.11ac mode for 20MHz(40MHz),therefore investigated worse case to representative mode in test report.(Final test mode refer section 2.4)

2.The EUT contains two antennas,but it only supports the SISO function.



2.3. Carrier Frequency of Channels

Band: 5150MHz-5250MHz

802.11a, 802.11an HT 20, 802.11ac VHT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*36	5180	*44	5220
40	5200	*48	5240

802.11an HT 40, 802.11ac VHT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*38	5190	*46	5230

802.11ac VHT80

Channel	Frequency(MHz)
*42	5210

Band: 5250MHz -5350MHz

802.11a, 802.11an HT 20, 802.11ac VHT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*52	5260	*60	5300
56	5280	*64	5320

802.11an HT 40, 802.11ac VHT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*54	5270	*62	5310

802.11ac VHT80

Channel	Frequency(MHz)
*58	5290

Band: 5470MHz -5725MHz

802.11a, 802.11an HT20, 802.11ac VHT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*100	5500	124	5620
104	5520	128	5640
108	5540	132	5660
112	5560	136	5680
*116	5580	*140	5700
120	5600		

802.11an HT 40, 802.11ac VHT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*102	5510	126	5630
*110	5550	*134	5670
118	5590		

802.11ac VHT80

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*106	5530	*122	5610

Note: Channels remarked * are selected to perform test.



2.4. Test Mode and Test Software

- a. During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
 - b. The complete test system included EUT for RF test.
 - c. An executive program, "REALTEK 11ac 8821AU USB WLAN NIC Massproduction Kit" under Chrome was executed to transmit and receive data via WLAN.
 - d. The following test modes were performed for the test:
 - Test Mode 1: 802.11a (6Mbps)
 - Test Mode 2: 802.11an HT20 (6.5Mbps)
 - Test Mode 3: 802.11an HT40 (13.5Mbps)
 - Test Mode 4: 802.11ac VHT20 (6.5Mbps)
 - Test Mode 5: 802.11ac VHT40 (13.5Mbps)
 - Test Mode 6: 802.11ac VHT80 (29.3Mbps)
- For conduction test, caused "Test Mode 1" generated the worst case, it was reported as the final data.
- For radiated test (below 1GHz), caused "Test Mode 1" generated the worst case, it was reported as the final data.
- For radiated test (above 1GHz), caused "Test Mode 1,4,5,6" generated the worst case, they were reported as the final data.

2.5. Description of Test System

No	Device	Manufacturer	Model No.	Description
1	Notebook	SONY	PCG-71811P	R33021
2	USB Mouse	DELL	OXN967	R41108

Cable:

No.	Cable	Quantity	Description
A	USB Cable	1	0.8m Shielding
B	USB Mouse Cable	1	1.8m Non Shielding
C	DC Cable	1	1.7m Non Shielding



2.6. General Information of Test

Test Site	Cerpass Technology Corporation Test Laboratory Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City 33848, Taiwan (R.O.C.) Tel: +886-3-3226-888 Fax: +886-3-3226-881 Address: No.68-1, Shihbachongsi, Shihding Township, New Taipei City 223, Taiwan, R.O.C. Tel: +886-2-2663-8582	
	FCC	TW1079, TW1061, 390316, 228391, 641184
	IC	4934E-1, 4934E-2
	VCCI	T-2205 for Telecommunication Test C-4663 for Conducted emission test R-4218, R-4399 for Radiated emission test G-812, G-813 for radiated disturbance above 1GHz
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 40,000MHz	
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.	

2.7. Measurement Uncertainty

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30 MHz	Line / Neutral	±2.9076 dB
Radiated Emission	9 kHz ~ 25,000 MHz	Vertical / Horizontal	±0.948 dB
Spurious Emission (Conducted)	-	-	±4.011 dB
Maximum Peak and Average Output Power	-	-	±0.322 dB
Power Spectral Density	-	-	±0.322 dB
Bandwidth	-	-	74.224Hz



3. Test Equipment and Ancillaries Used for Tests

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI	100564	2017.02.14	2018.02.13
LISN	SCHWARZBECK	NSLK 8127	8127748	2017.02.14	2018.02.13
LISN	SCHWARZBECK	NSLK 8127	8127749	2017.02.14	2018.02.13
Pulse Limiter with 10dB Attenuation	SCHWARZBECK	VTSD 9561-F	9561-F106	2017.02.14	2018.02.13
BILOG Antenna	SCHAFFNER	CBL6112D	22241	2017.02.14	2018.02.13
Loop Antenna	R&S	HFH2-Z2	100150	2016.10.24	2017.10.23
Horn Antenna	EMCO	3115	31601	2017.02.18	2018.02.17
Horn Antenna	EMCO	3116	31970	2016.09.01	2017.08.31
EXA Signal Analyzer	Agilent	N9020A	US46220290	2017.05.26	2018.05.25
Preamplifier	EM	EM330	660	2017.03.13	2018.03.12
Preamplifier	EMC INSTRUMENTS	EMC051845SE	980333	2016.09.13	2017.09.12
Preamplifier	Agilent	8449B	3008A01954	2017.02.09	2018.02.08
Preamplifier	EMC INSTRUMENTS	EMC184045	980065	2016.11.04	2017.11.03
MXG VECTOR SIGNAL GENERATOR	Agilent	N5182B	MY53050127	2017.05.26	2018.05.25
Spectrum Analyzer	R&S	FSP40	100219	2017.02.13	2018.02.12
Bluetooth Tester	R&S	CBT	101133	2017.03.10	2018.03.09
Attenuator	KEYSIGHT	8491B	MY39250703	2017.03.07	2018.03.06
Rotary Attenuator	Agilent	8495B	MY42146680	2017.03.13	2018.03.12
Temp&Humidity&b arometer	mingle	ETH529	N/A	2017.02.14	2018.02.13
Series Power Meter	Anritsu	ML2495A	1224005	2017.03.01	2018.02.28
Power Sensor	Anritsu	MA2411B	1207295	2017.03.01	2018.02.28
Software	Farad	Ez-EMC	ver.ct3a1	N/A	N/A
Software	AUDIX	E3	V8.2014-8-6	N/A	N/A
Software	Keysight	N7607B Signal Studio	v2.0.0.1	N/A	N/A
Software	Keysight	Inservice MonitorUtility	N/A	N/A	N/A



4. Antenna Requirements

4.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 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.

And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.2. Antenna Construction and Directional Gain

Antenna	Manufacturer	Peak Gain
FPCB Antenna	South Star	Chain 1: 3.21dBi for 2400~2500MHz band, 3.41dBi for 5150~5850MHz band. Chain 2: 2.52dBi for 2400~2500MHz band, 3.28dBi for 5150~5850MHz band.

The EUT only supports the SISO function, so the directional gain are as follows:

For Power directional gain= G_{ant} = 3.41 dBi

For PSD directional gain = $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / NANT]$
= 3.41 (dBi)



5. Test of AC Power Line Conducted Emission

5.1. Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz, according to the methods defined in ANSI C63.4-2014. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

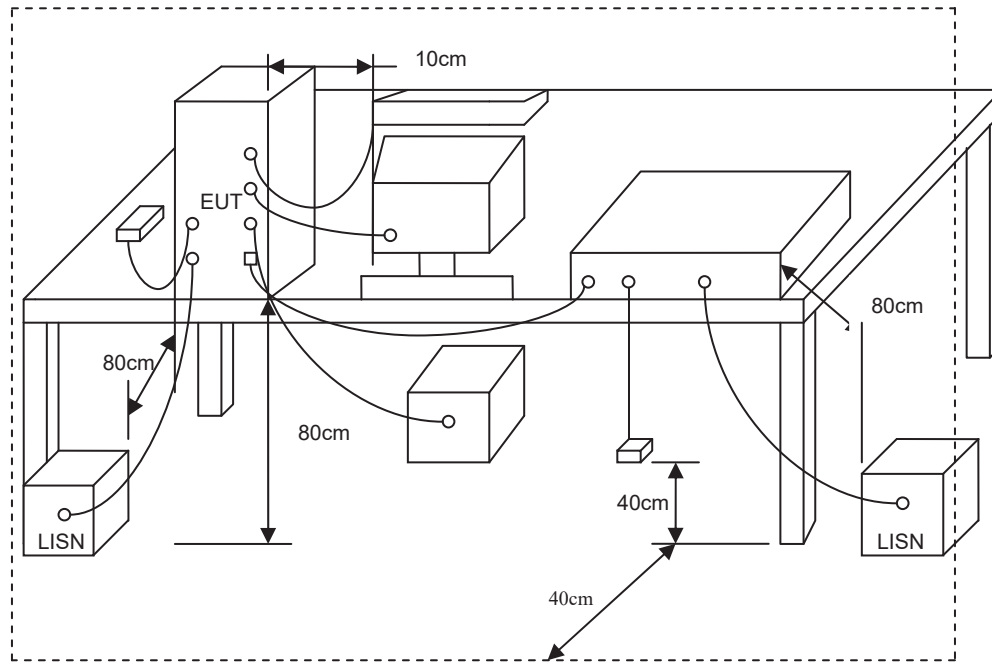
*Decreases with the logarithm of the frequency.

5.2. Test Procedures

- The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- Connect EUT to the power mains through a line impedance stabilization network (LISN).
- All the support units are connecting to the other LISN.
- The LISN provides 50 ohm coupling impedance for the measuring instrument.
- The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- Both sides of AC line were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched.
- Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



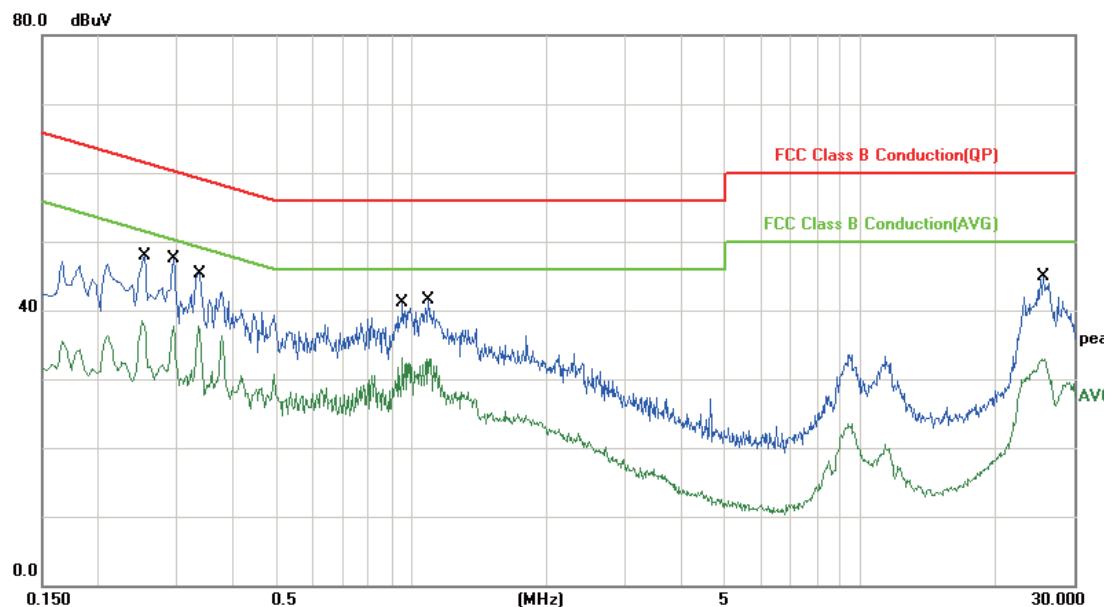
5.3. Typical Test Setup





5.4. Test Result and Data

Power	: AC 120V	Pol/Phase	: LINE
Test Mode	: Mode 1, CH36	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2540	10.03	33.13	43.16	61.62	-18.46	QP
2	0.2540	10.03	27.34	37.37	51.62	-14.25	AVG
3	0.2940	10.01	32.92	42.93	60.41	-17.48	QP
4	0.2940	10.01	27.35	37.36	50.41	-13.05	AVG
5	0.3379	9.98	31.25	41.23	59.25	-18.02	QP
6	0.3379	9.98	25.80	35.78	49.25	-13.47	AVG
7	0.9540	10.12	26.45	36.57	56.00	-19.43	QP
8	0.9540	10.12	21.87	31.99	46.00	-14.01	AVG
9	1.0900	10.21	27.71	37.92	56.00	-18.08	QP
10	1.0900	10.21	23.11	33.32	46.00	-12.68	AVG
11	25.6660	10.61	27.18	37.79	60.00	-22.21	QP
12	25.6660	10.61	20.57	31.18	50.00	-18.82	AVG

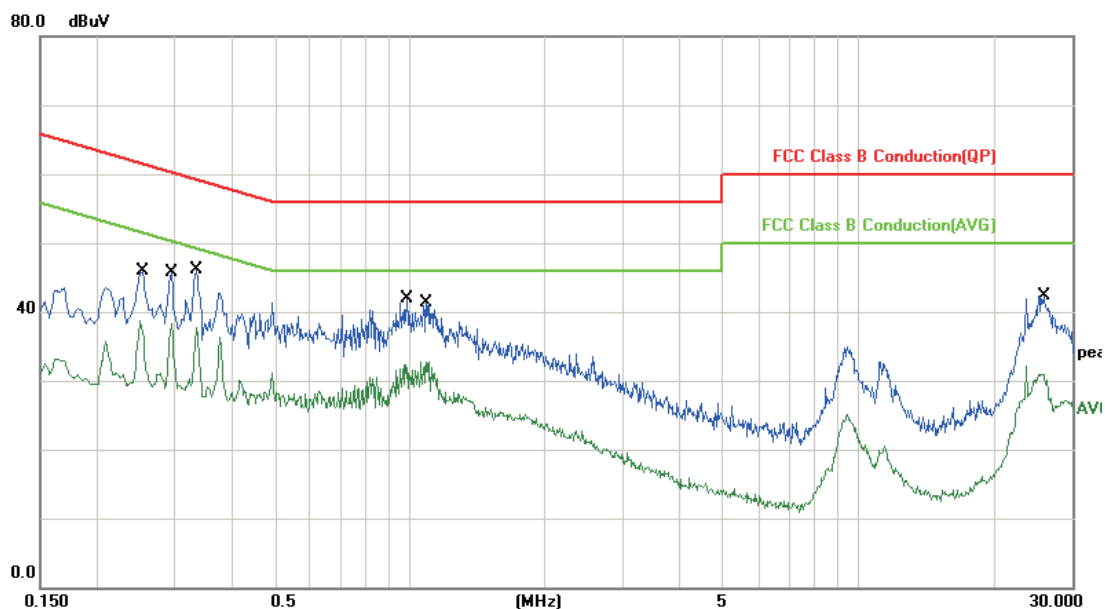
Note: Level = Reading + Factor

Margin = Level – Limit

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode	: Mode 1, CH36	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2540	10.03	32.12	42.15	61.62	-19.47	QP
2	0.2540	10.03	26.68	36.71	51.62	-14.91	AVG
3	0.2940	10.01	32.66	42.67	60.41	-17.74	QP
4	0.2940	10.01	26.95	36.96	50.41	-13.45	AVG
5	0.3339	9.98	32.33	42.31	59.35	-17.04	QP
6	0.3339	9.98	27.02	37.00	49.35	-12.35	AVG
7	0.9860	10.13	26.50	36.63	56.00	-19.37	QP
8	0.9860	10.13	21.67	31.80	46.00	-14.20	AVG
9	1.0900	10.13	27.44	37.57	56.00	-18.43	QP
10	1.0900	10.13	22.79	32.92	46.00	-13.08	AVG
11	25.9220	10.61	25.35	35.96	60.00	-24.04	QP
12	25.9220	10.61	18.18	28.79	50.00	-21.21	AVG

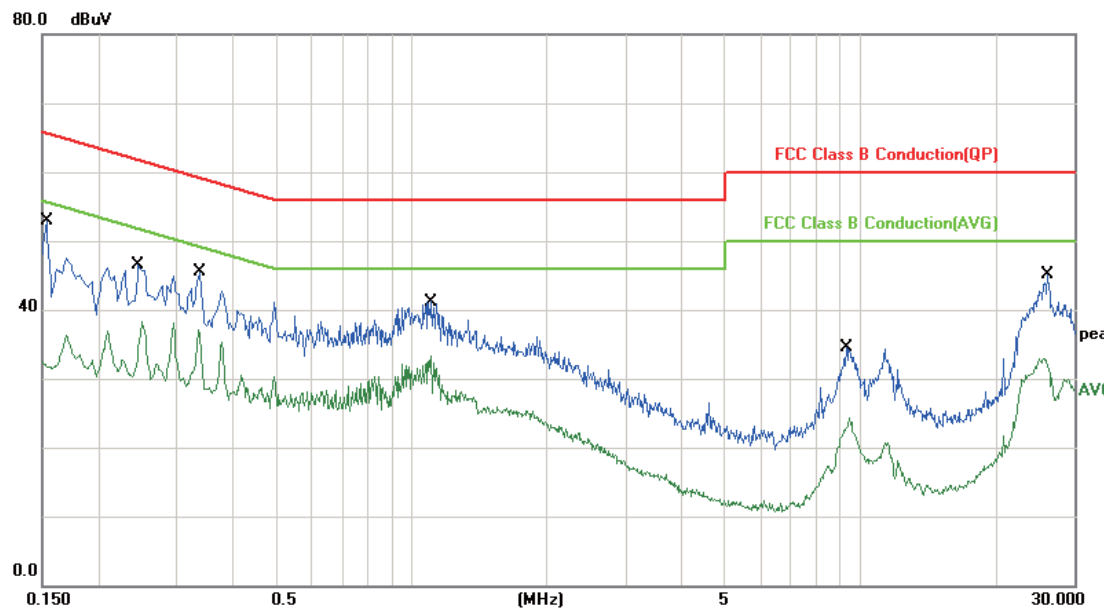
Note: Level = Reading + Factor

Margin = Level - Limit

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



Power	: AC 120V	Pol/Phase	: LINE
Test Mode	: Mode 1, CH100	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1539	10.06	39.03	49.09	65.78	-16.69	QP
2	0.1539	10.06	22.61	32.67	55.78	-23.11	AVG
3	0.2460	10.03	29.72	39.75	61.89	-22.14	QP
4	0.2460	10.03	23.43	33.46	51.89	-18.43	AVG
5	0.3379	9.98	27.66	37.64	59.25	-21.61	QP
6	0.3379	9.98	20.37	30.35	49.25	-18.90	AVG
7	1.1060	10.23	27.03	37.26	56.00	-18.74	QP
8	1.1060	10.23	22.22	32.45	46.00	-13.55	AVG
9	9.3500	10.26	17.43	27.69	60.00	-32.31	QP
10	9.3500	10.26	10.31	20.57	50.00	-29.43	AVG
11	26.2180	10.61	26.24	36.85	60.00	-23.15	QP
12	26.2180	10.61	19.11	29.72	50.00	-20.28	AVG

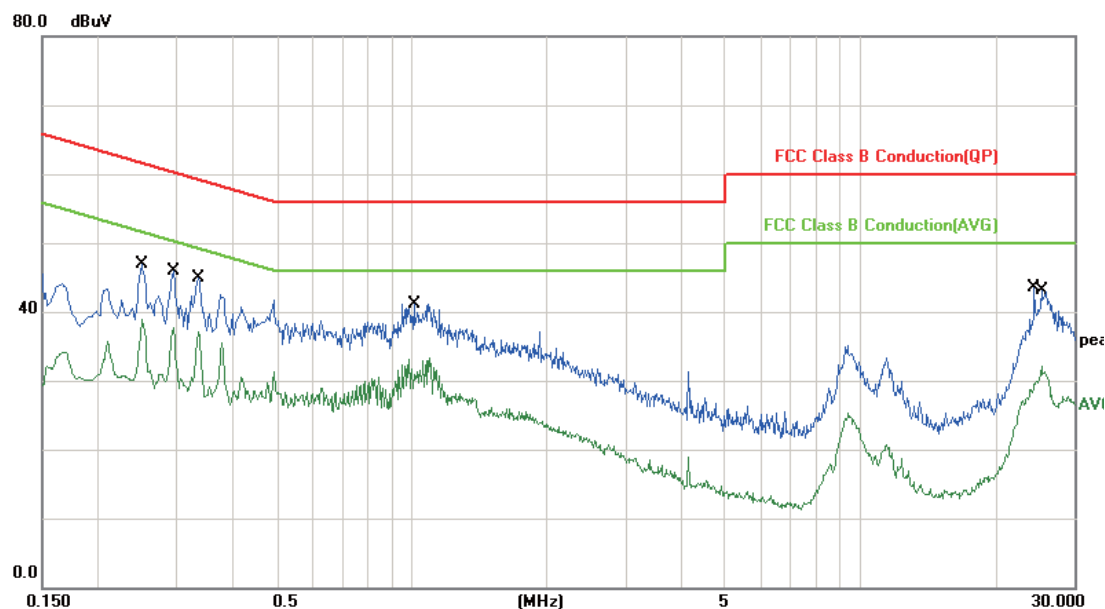
Note: Level = Reading + Factor

Margin = Level – Limit

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode	: Mode 1, CH100	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2500	10.03	34.00	44.03	61.75	-17.72	QP
2	0.2500	10.03	28.57	38.60	51.75	-13.15	AVG
3	0.2940	10.01	32.86	42.87	60.41	-17.54	QP
4	0.2940	10.01	27.09	37.10	50.41	-13.31	AVG
5	0.3339	9.98	32.66	42.64	59.35	-16.71	QP
6	0.3339	9.98	27.37	37.35	49.35	-12.00	AVG
7	1.0140	10.13	25.56	35.69	56.00	-20.31	QP
8	1.0140	10.13	20.76	30.89	46.00	-15.11	AVG
9	24.4820	10.59	22.51	33.10	60.00	-26.90	QP
10	24.4820	10.59	16.79	27.38	50.00	-22.62	AVG
11	25.4020	10.61	24.46	35.07	60.00	-24.93	QP
12	25.4020	10.61	18.27	28.88	50.00	-21.12	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator

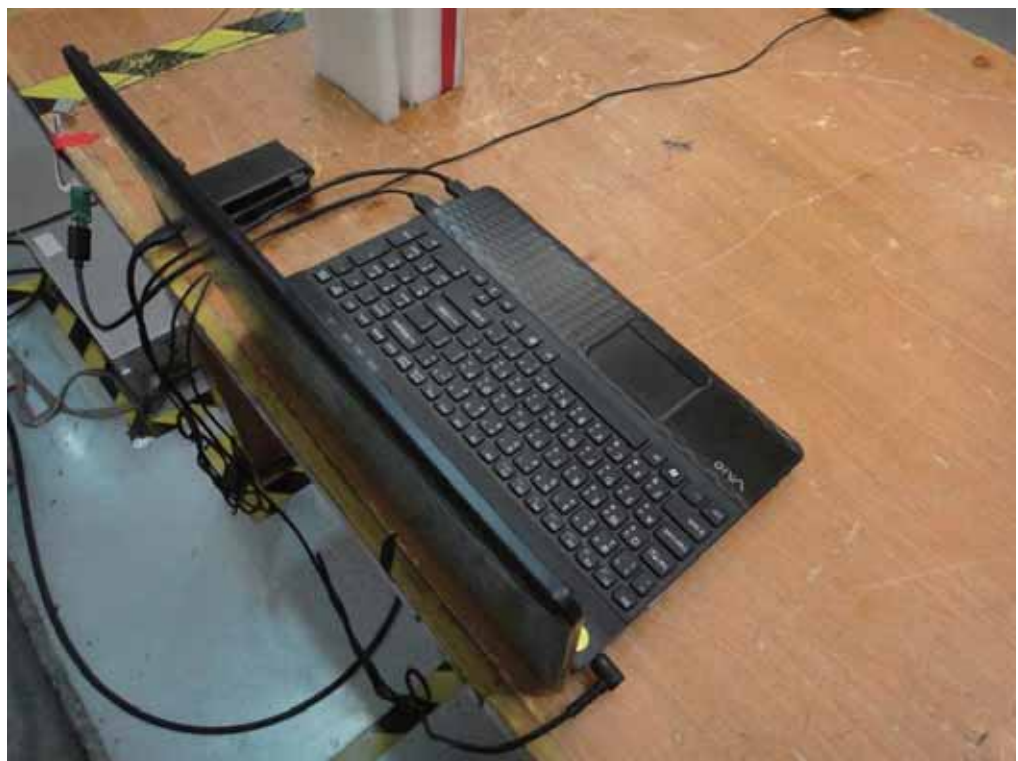


5.5. Test Photographs

Front View



Rear View





6. Test of Spurious Emission (Radiated)

6.1. Test Limit

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27dBm/MHz at the band edge.
- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.
- (8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

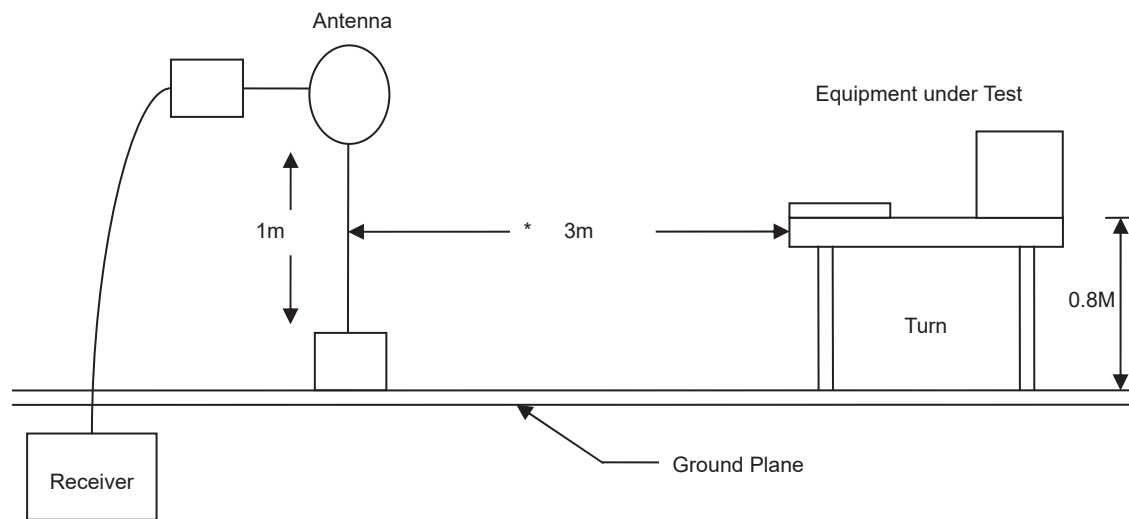
6.2. Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- i. "Cone of radiation" has been considered to be 3dB bandwidth of the measurement antenna.

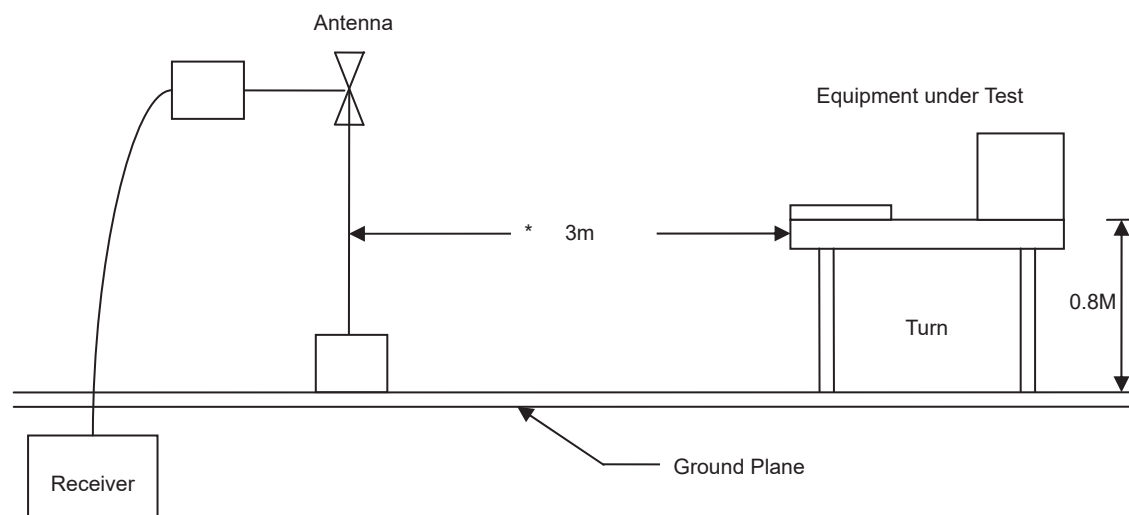


6.3. Typical Test Setup

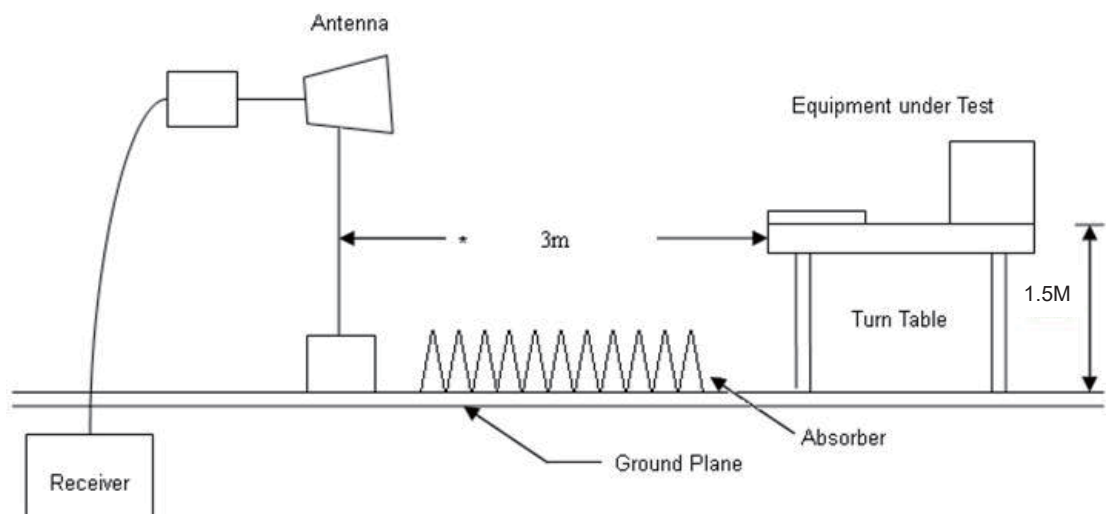
Below 30MHz test setup



30MHz- 1GHz Test Setup



Above 1GHz Test Setup



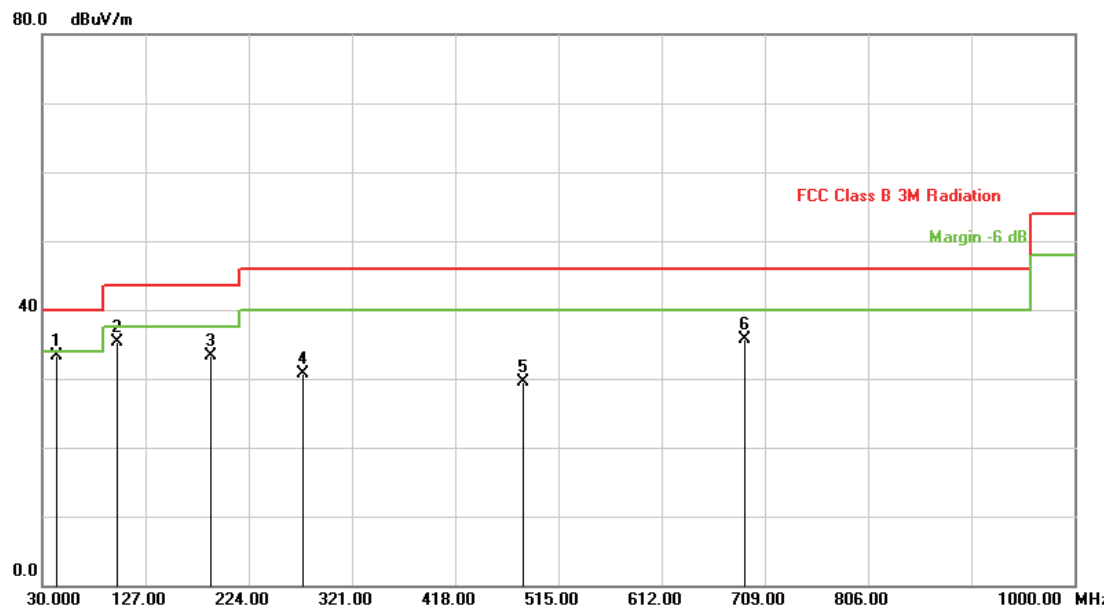


6.4. Test Result and Data (9kHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

6.5. Test Result and Data (30MHz ~ 1GHz)

Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH36	Temperature	: 24 °C
Test Date	: Aug. 29, 2017	Humidity	: 63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	43.5800	-11.77	45.00	33.23	40.00	-6.77	peak
2	100.8100	-9.54	44.90	35.36	43.50	-8.14	peak
3	188.1100	-10.49	43.72	33.23	43.50	-10.27	peak
4	275.4100	-8.94	39.61	30.67	46.00	-15.33	peak
5	482.0200	-1.22	30.73	29.51	46.00	-16.49	peak
6	689.6000	-1.23	36.88	35.65	46.00	-10.35	peak

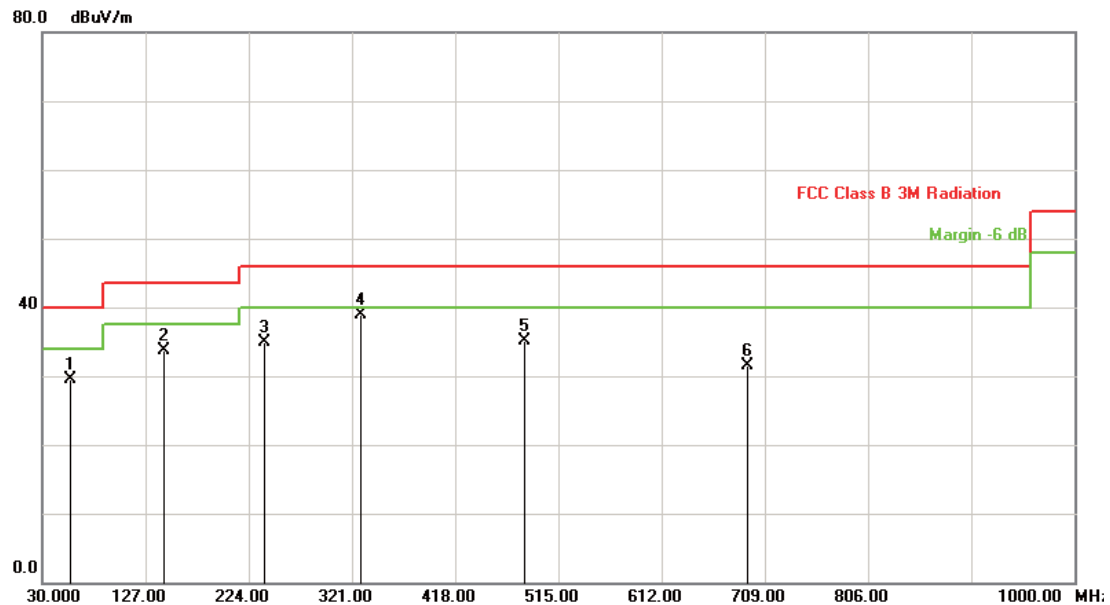
Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH36	Temperature	: 24 °C
Test Date	: Aug. 29, 2017	Humidity	: 63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	57.1599	-15.53	44.99	29.46	40.00	-10.54	peak
2	144.4600	-10.87	44.64	33.77	43.50	-9.73	peak
3	238.5500	-9.12	43.94	34.82	46.00	-11.18	peak
4	329.7300	-4.13	43.06	38.93	46.00	-7.07	peak
5	482.9900	-1.28	36.43	35.15	46.00	-10.85	peak
6	692.5099	-1.21	32.62	31.41	46.00	-14.59	peak

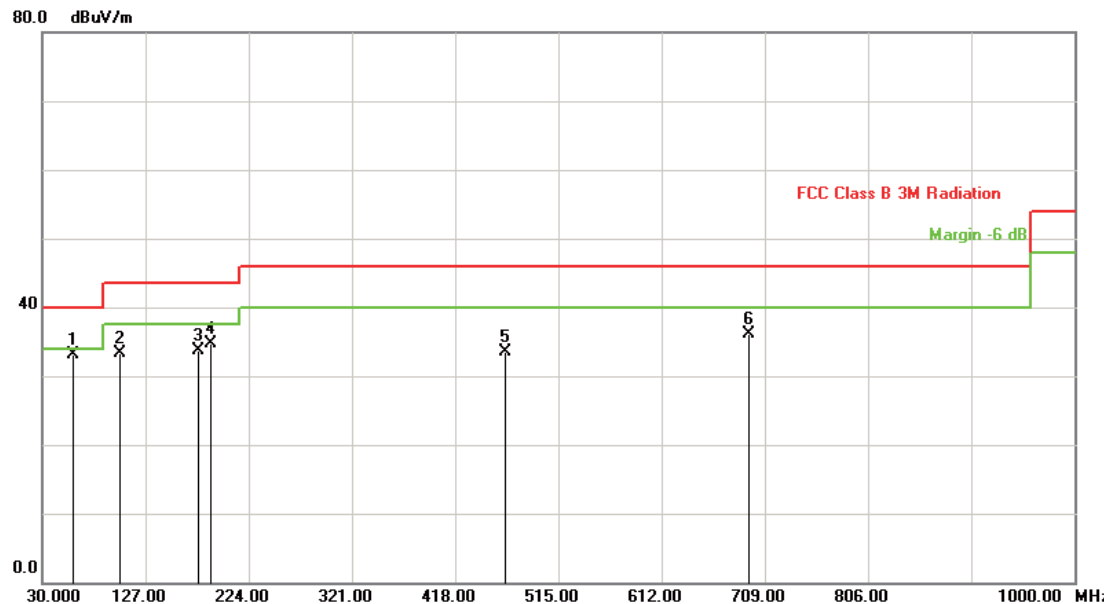
Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH149	Temperature	: 24 °C
Test Date	: Aug. 29, 2017	Humidity	: 53 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	59.1000	-15.54	48.62	33.08	40.00	-6.92	peak
2	103.7199	-9.29	42.64	33.35	43.50	-10.15	peak
3	177.4398	-11.80	45.48	33.68	43.50	-9.82	peak
4	188.1100	-10.49	45.22	34.73	43.50	-8.77	peak
5	465.5298	-2.10	35.53	33.43	46.00	-12.57	peak
6	693.4800	-1.20	37.40	36.20	46.00	-9.80	peak

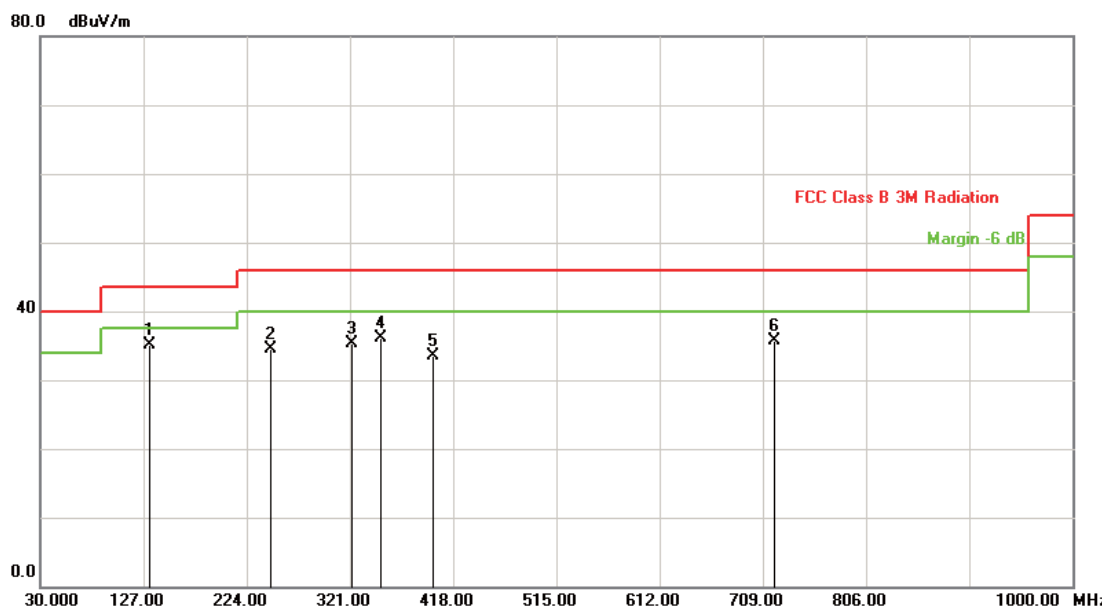
Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH149	Temperature	: 24 °C
Test Date	: Aug. 29, 2017	Humidity	: 53 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	132.8199	-9.28	44.41	35.13	43.50	-8.37	peak
2	246.3100	-8.70	43.29	34.59	46.00	-11.41	peak
3	322.9399	-5.98	41.21	35.23	46.00	-10.77	peak
4	350.1000	-4.22	40.32	36.10	46.00	-9.90	peak
5	399.5699	-5.16	38.61	33.45	46.00	-12.55	peak
6	720.6399	0.24	35.42	35.66	46.00	-10.34	peak

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor

**6.6. Test Result and Data (1GHz ~ 40GHz)**

Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH36 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10360.000	19.85	35.38	55.23	74.00	-18.77	peak
2	10360.000	19.85	24.31	44.16	54.00	-9.84	AVG
3	15540.000	32.25	24.22	56.47	74.00	-17.53	peak
4	15540.000	32.25	13.21	45.46	54.00	-8.54	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10360.000	19.85	35.39	55.24	74.00	-18.76	peak
2	10360.000	19.85	23.21	43.06	54.00	-10.94	AVG
3	15540.000	32.25	24.37	56.62	74.00	-17.38	peak
4	15540.000	32.25	12.57	44.82	54.00	-9.18	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH44 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10440.000	20.03	35.94	55.97	74.00	-18.03	peak
2	10440.000	20.03	24.31	44.34	54.00	-9.66	AVG
3	15660.000	32.30	24.22	56.52	74.00	-17.48	peak
4	15660.000	32.30	12.37	44.67	54.00	-9.33	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10440.000	20.03	35.82	55.85	74.00	-18.15	peak
2	10440.000	20.03	24.61	44.64	54.00	-9.36	AVG
3	15660.000	32.30	24.05	56.35	74.00	-17.65	peak
4	15660.000	32.30	12.74	45.04	54.00	-8.96	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH48 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10480.000	20.12	35.55	55.67	74.00	-18.33	peak
2	10480.000	20.12	24.61	44.73	54.00	-9.27	AVG
3	15720.000	32.33	23.82	56.15	74.00	-17.85	peak
4	15720.000	32.33	12.69	45.02	54.00	-8.98	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10480.000	20.12	35.15	55.27	74.00	-18.73	peak
2	10480.000	20.12	25.13	45.25	54.00	-8.75	AVG
3	15720.000	32.33	24.30	56.63	74.00	-17.37	peak
4	15720.000	32.33	13.67	46.00	54.00	-8.00	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH52 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10520.000	20.22	35.45	55.67	74.00	-18.33	peak
2	10520.000	20.22	25.29	45.51	54.00	-8.49	AVG
3	15780.000	32.36	23.49	55.85	74.00	-18.15	peak
4	15780.000	32.36	13.36	45.72	54.00	-8.28	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10520.000	20.22	35.05	55.27	74.00	-18.73	peak
2	10520.000	20.22	26.18	46.40	54.00	-7.60	AVG
3	15780.000	32.36	24.68	57.04	74.00	-16.96	peak
4	15780.000	32.36	14.55	46.91	54.00	-7.09	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH60 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10600.000	20.46	34.84	55.30	74.00	-18.70	peak
2	10600.000	20.46	24.13	44.59	54.00	-9.41	AVG
3	15900.000	32.41	24.20	56.61	74.00	-17.39	peak
4	15900.000	32.41	12.68	45.09	54.00	-8.91	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10600.000	20.46	35.08	55.54	74.00	-18.46	peak
2	10600.000	20.46	24.31	44.77	54.00	-9.23	AVG
3	15900.000	32.41	24.52	56.93	74.00	-17.07	peak
4	15900.000	32.41	13.95	46.36	54.00	-7.64	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH64 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10640.000	20.58	34.78	55.36	74.00	-18.64	peak
2	10640.000	20.58	23.67	44.25	54.00	-9.75	AVG
3	15960.000	32.44	23.68	56.12	74.00	-17.88	peak
4	15960.000	32.44	13.31	45.75	54.00	-8.25	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10640.000	20.58	35.03	55.61	74.00	-18.39	peak
2	10640.000	20.58	24.51	45.09	54.00	-8.91	AVG
3	15960.000	32.44	23.72	56.16	74.00	-17.84	peak
4	15960.000	32.44	13.16	45.60	54.00	-8.40	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH100 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11000.000	21.67	34.07	55.74	74.00	-18.26	peak
2	11000.000	21.67	23.22	44.89	54.00	-9.11	AVG
3	16500.000	36.95	18.95	55.90	74.00	-18.10	peak
4	16500.000	36.95	9.21	46.16	54.00	-7.84	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11000.000	21.67	33.48	55.15	74.00	-18.85	peak
2	11000.000	21.67	22.61	44.28	54.00	-9.72	AVG
3	16500.000	36.95	20.76	57.71	74.00	-16.29	peak
4	16500.000	36.95	11.24	48.19	54.00	-5.81	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH116 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11160.000	22.05	34.05	56.10	74.00	-17.90	peak
2	11160.000	22.05	23.14	45.19	54.00	-8.81	AVG
3	16740.000	36.65	19.37	56.02	74.00	-17.98	peak
4	16740.000	36.65	10.09	46.74	54.00	-7.26	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11160.000	22.05	33.61	55.66	74.00	-18.34	peak
2	11160.000	22.05	23.52	45.57	54.00	-8.43	AVG
3	16740.000	36.65	19.81	56.46	74.00	-17.54	peak
4	16740.000	36.65	10.42	47.07	54.00	-6.93	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH140 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11400.000	22.62	33.26	55.88	74.00	-18.12	peak
2	11400.000	22.62	23.51	46.13	54.00	-7.87	AVG
3	17100.000	36.73	19.72	56.45	74.00	-17.55	peak
4	17100.000	36.73	9.78	46.51	54.00	-7.49	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11400.000	22.62	33.24	55.86	74.00	-18.14	peak
2	11400.000	22.62	21.35	43.97	54.00	-10.03	AVG
3	17100.000	36.73	19.64	56.37	74.00	-17.63	peak
4	17100.000	36.73	10.44	47.17	54.00	-6.83	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH36 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10360.000	19.85	35.24	55.09	74.00	-18.91	peak
2	10360.000	19.85	24.23	44.08	54.00	-9.92	AVG
3	15540.000	32.25	24.12	56.37	74.00	-17.63	peak
4	15540.000	32.25	13.16	45.41	54.00	-8.59	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10360.000	19.85	34.68	54.53	74.00	-19.47	peak
2	10360.000	19.85	22.96	42.81	54.00	-11.19	AVG
3	15540.000	32.25	24.16	56.41	74.00	-17.59	peak
4	15540.000	32.25	12.34	44.59	54.00	-9.41	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH44 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10440.000	20.03	35.68	55.71	74.00	-18.29	peak
2	10440.000	20.03	24.16	44.19	54.00	-9.81	AVG
3	15660.000	32.30	24.13	56.43	74.00	-17.57	peak
4	15660.000	32.30	12.42	44.72	54.00	-9.28	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10440.000	20.03	35.61	55.64	74.00	-18.36	peak
2	10440.000	20.03	24.52	44.55	54.00	-9.45	AVG
3	15660.000	32.30	24.13	56.43	74.00	-17.57	peak
4	15660.000	32.30	12.75	45.05	54.00	-8.95	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH48 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10480.000	20.12	35.42	55.54	74.00	-18.46	peak
2	10480.000	20.12	25.13	45.25	54.00	-8.75	AVG
3	15720.000	32.33	24.21	56.54	74.00	-17.46	peak
4	15720.000	32.33	12.71	45.04	54.00	-8.96	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10480.000	20.12	35.21	55.33	74.00	-18.67	peak
2	10480.000	20.12	24.13	44.25	54.00	-9.75	AVG
3	15720.000	32.33	24.42	56.75	74.00	-17.25	peak
4	15720.000	32.33	13.78	46.11	54.00	-7.89	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH52 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10520.000	20.22	35.46	55.68	74.00	-18.32	peak
2	10520.000	20.22	25.31	45.53	54.00	-8.47	AVG
3	15780.000	32.36	24.22	56.58	74.00	-17.42	peak
4	15780.000	32.36	13.43	45.79	54.00	-8.21	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10520.000	20.22	35.12	55.34	74.00	-18.66	peak
2	10520.000	20.22	26.22	46.44	54.00	-7.56	AVG
3	15780.000	32.36	24.53	56.89	74.00	-17.11	peak
4	15780.000	32.36	15.21	47.57	54.00	-6.43	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH60 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10600.000	20.46	35.21	55.67	74.00	-18.33	peak
2	10600.000	20.46	24.36	44.82	54.00	-9.18	AVG
3	15900.000	32.41	24.35	56.76	74.00	-17.24	peak
4	15900.000	32.41	12.71	45.12	54.00	-8.88	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10600.000	20.46	35.42	55.88	74.00	-18.12	peak
2	10600.000	20.46	24.63	45.09	54.00	-8.91	AVG
3	15900.000	32.41	24.56	56.97	74.00	-17.03	peak
4	15900.000	32.41	13.21	45.62	54.00	-8.38	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH64 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10640.000	20.58	34.51	55.09	74.00	-18.91	peak
2	10640.000	20.58	23.26	43.84	54.00	-10.16	AVG
3	15960.000	32.44	24.31	56.75	74.00	-17.25	peak
4	15960.000	32.44	13.52	45.96	54.00	-8.04	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10640.000	20.58	35.21	55.79	74.00	-18.21	peak
2	10640.000	20.58	23.64	44.22	54.00	-9.78	AVG
3	15960.000	32.44	23.26	55.70	74.00	-18.30	peak
4	15960.000	32.44	12.57	45.01	54.00	-8.99	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH100 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11000.000	21.67	34.23	55.90	74.00	-18.10	peak
2	11000.000	21.67	23.51	45.18	54.00	-8.82	AVG
3	16500.000	36.95	19.13	56.08	74.00	-17.92	peak
4	16500.000	36.95	10.03	46.98	54.00	-7.02	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11000.000	21.67	33.56	55.23	74.00	-18.77	peak
2	11000.000	21.67	22.71	44.38	54.00	-9.62	AVG
3	16500.000	36.95	21.35	58.30	74.00	-15.70	peak
4	16500.000	36.95	11.34	48.29	54.00	-5.71	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH116 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11160.000	22.05	34.21	56.26	74.00	-17.74	peak
2	11160.000	22.05	24.62	46.67	54.00	-7.33	AVG
3	16740.000	36.65	20.31	56.96	74.00	-17.04	peak
4	16740.000	36.65	10.24	46.89	54.00	-7.11	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11160.000	22.05	33.57	55.62	74.00	-18.38	peak
2	11160.000	22.05	23.16	45.21	54.00	-8.79	AVG
3	16740.000	36.65	19.27	55.92	74.00	-18.08	peak
4	16740.000	36.65	9.68	46.33	54.00	-7.67	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 1, CH140 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11400.000	22.62	33.24	55.86	74.00	-18.14	peak
2	11400.000	22.62	24.16	46.78	54.00	-7.22	AVG
3	17100.000	36.73	19.35	56.08	74.00	-17.92	peak
4	17100.000	36.73	9.32	46.05	54.00	-7.95	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11400.000	22.62	33.67	56.29	74.00	-17.71	peak
2	11400.000	22.62	22.13	44.75	54.00	-9.25	AVG
3	17100.000	36.73	19.24	55.97	74.00	-18.03	peak
4	17100.000	36.73	10.21	46.94	54.00	-7.06	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH36 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10360.000	19.85	34.89	54.74	74.00	-19.26	peak
2	10360.000	19.85	23.51	43.36	54.00	-10.64	AVG
3	15540.000	32.25	24.13	56.38	74.00	-17.62	peak
4	15540.000	32.25	14.67	46.92	54.00	-7.08	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10360.000	19.85	35.12	54.97	74.00	-19.03	peak
2	10360.000	19.85	24.61	44.46	54.00	-9.54	AVG
3	15540.000	32.25	24.16	56.41	74.00	-17.59	peak
4	15540.000	32.25	14.33	46.58	54.00	-7.42	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH44 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10440.000	20.03	35.22	55.25	74.00	-18.75	peak
2	10440.000	20.03	26.31	46.34	54.00	-7.66	AVG
3	15660.000	32.30	23.89	56.19	74.00	-17.81	peak
4	15660.000	32.30	14.15	46.45	54.00	-7.55	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10440.000	20.03	34.12	54.15	74.00	-19.85	peak
2	10440.000	20.03	24.63	44.66	54.00	-9.34	AVG
3	15660.000	32.30	23.54	55.84	74.00	-18.16	peak
4	15660.000	32.30	13.79	46.09	54.00	-7.91	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH48 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10480.000	20.12	34.79	54.91	74.00	-19.09	peak
2	10480.000	20.12	23.14	43.26	54.00	-10.74	AVG
3	15720.000	32.33	22.16	54.49	74.00	-19.51	peak
4	15720.000	32.33	12.84	45.17	54.00	-8.83	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10480.000	20.12	34.19	54.31	74.00	-19.69	peak
2	10480.000	20.12	24.67	44.79	54.00	-9.21	AVG
3	15720.000	32.33	23.48	55.81	74.00	-18.19	peak
4	15720.000	32.33	14.22	46.55	54.00	-7.45	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH52 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10520.000	20.22	34.66	54.88	74.00	-19.12	peak
2	10520.000	20.22	24.13	44.35	54.00	-9.65	AVG
3	15780.000	32.36	22.91	55.27	74.00	-18.73	peak
4	15780.000	32.36	12.23	44.59	54.00	-9.41	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10520.000	20.22	34.19	54.41	74.00	-19.59	peak
2	10520.000	20.22	24.31	44.53	54.00	-9.47	AVG
3	15780.000	32.36	24.22	56.58	74.00	-17.42	peak
4	15780.000	32.36	13.69	46.05	54.00	-7.95	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH60 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10600.000	20.46	34.21	54.67	74.00	-19.33	peak
2	10600.000	20.46	24.33	44.79	54.00	-9.21	AVG
3	15900.000	32.41	24.10	56.51	74.00	-17.49	peak
4	15900.000	32.41	14.24	46.65	54.00	-7.35	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10600.000	20.46	34.52	54.98	74.00	-19.02	peak
2	10600.000	20.46	23.67	44.13	54.00	-9.87	AVG
3	15900.000	32.41	24.35	56.76	74.00	-17.24	peak
4	15900.000	32.41	13.69	46.10	54.00	-7.90	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH64 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10640.000	20.58	32.16	52.74	74.00	-21.26	peak
2	10640.000	20.58	24.35	44.93	54.00	-9.07	AVG
3	15960.000	32.44	24.31	56.75	74.00	-17.25	peak
4	15960.000	32.44	12.51	44.95	54.00	-9.05	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10640.000	20.58	34.28	54.86	74.00	-19.14	peak
2	10640.000	20.58	24.13	44.71	54.00	-9.29	AVG
3	15960.000	32.44	22.61	55.05	74.00	-18.95	peak
4	15960.000	32.44	11.53	43.97	54.00	-10.03	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH100 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11000.000	21.67	33.87	55.54	74.00	-18.46	peak
2	11000.000	21.67	24.11	45.78	54.00	-8.22	AVG
3	16500.000	36.95	18.23	55.18	74.00	-18.82	peak
4	16500.000	36.95	10.32	47.27	54.00	-6.73	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11000.000	21.67	32.69	54.36	74.00	-19.64	peak
2	11000.000	21.67	13.52	35.19	54.00	-18.81	AVG
3	16500.000	36.95	20.16	57.11	74.00	-16.89	peak
4	16500.000	36.95	10.67	47.62	54.00	-6.38	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH116 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11160.000	22.05	33.18	55.23	74.00	-18.77	peak
2	11160.000	22.05	25.03	47.08	54.00	-6.92	AVG
3	16740.000	36.65	18.92	55.57	74.00	-18.43	peak
4	16740.000	36.65	10.28	46.93	54.00	-7.07	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11160.000	22.05	32.69	54.74	74.00	-19.26	peak
2	11160.000	22.05	23.68	45.73	54.00	-8.27	AVG
3	16740.000	36.65	20.02	56.67	74.00	-17.33	peak
4	16740.000	36.65	10.65	47.30	54.00	-6.70	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH140 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11400.000	22.62	33.16	55.78	74.00	-18.22	peak
2	11400.000	22.62	24.25	46.87	54.00	-7.13	AVG
3	17100.000	36.73	19.33	56.06	74.00	-17.94	peak
4	17100.000	36.73	11.03	47.76	54.00	-6.24	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11400.000	22.62	32.79	55.41	74.00	-18.59	peak
2	11400.000	22.62	22.12	44.74	54.00	-9.26	AVG
3	17100.000	36.73	19.58	56.31	74.00	-17.69	peak
4	17100.000	36.73	10.34	47.07	54.00	-6.93	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH36 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10360.000	19.85	35.21	55.06	74.00	-18.94	peak
2	10360.000	19.85	23.56	43.41	54.00	-10.59	AVG
3	15540.000	32.25	24.52	56.77	74.00	-17.23	peak
4	15540.000	32.25	15.31	47.56	54.00	-6.44	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10360.000	19.85	34.62	54.47	74.00	-19.53	peak
2	10360.000	19.85	24.35	44.20	54.00	-9.80	AVG
3	15540.000	32.25	25.13	57.38	74.00	-16.62	peak
4	15540.000	32.25	14.29	46.54	54.00	-7.46	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH44 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10440.000	20.03	35.61	55.64	74.00	-18.36	peak
2	10440.000	20.03	27.31	47.34	54.00	-6.66	AVG
3	15660.000	32.30	24.23	56.53	74.00	-17.47	peak
4	15660.000	32.30	14.16	46.46	54.00	-7.54	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10440.000	20.03	34.26	54.29	74.00	-19.71	peak
2	10440.000	20.03	25.31	45.34	54.00	-8.66	AVG
3	15660.000	32.30	23.52	55.82	74.00	-18.18	peak
4	15660.000	32.30	12.67	44.97	54.00	-9.03	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH48 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10480.000	20.12	35.21	55.33	74.00	-18.67	peak
2	10480.000	20.12	24.26	44.38	54.00	-9.62	AVG
3	15720.000	32.33	23.15	55.48	74.00	-18.52	peak
4	15720.000	32.33	12.94	45.27	54.00	-8.73	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10480.000	20.12	34.52	54.64	74.00	-19.36	peak
2	10480.000	20.12	25.31	45.43	54.00	-8.57	AVG
3	15720.000	32.33	24.16	56.49	74.00	-17.51	peak
4	15720.000	32.33	15.32	47.65	54.00	-6.35	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH52 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10520.000	20.22	34.59	54.81	74.00	-19.19	peak
2	10520.000	20.22	24.21	44.43	54.00	-9.57	AVG
3	15780.000	32.36	23.15	55.51	74.00	-18.49	peak
4	15780.000	32.36	12.12	44.48	54.00	-9.52	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10520.000	20.22	34.67	54.89	74.00	-19.11	peak
2	10520.000	20.22	24.63	44.85	54.00	-9.15	AVG
3	15780.000	32.36	24.35	56.71	74.00	-17.29	peak
4	15780.000	32.36	14.21	46.57	54.00	-7.43	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH60 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10600.000	20.46	34.53	54.99	74.00	-19.01	peak
2	10600.000	20.46	25.32	45.78	54.00	-8.22	AVG
3	15900.000	32.41	24.16	56.57	74.00	-17.43	peak
4	15900.000	32.41	14.27	46.68	54.00	-7.32	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10600.000	20.46	34.15	54.61	74.00	-19.39	peak
2	10600.000	20.46	24.31	44.77	54.00	-9.23	AVG
3	15900.000	32.41	23.51	55.92	74.00	-18.08	peak
4	15900.000	32.41	12.98	45.39	54.00	-8.61	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH64 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10640.000	20.58	32.56	53.14	74.00	-20.86	peak
2	10640.000	20.58	25.31	45.89	54.00	-8.11	AVG
3	15960.000	32.44	24.62	57.06	74.00	-16.94	peak
4	15960.000	32.44	12.57	45.01	54.00	-8.99	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10640.000	20.58	34.56	55.14	74.00	-18.86	peak
2	10640.000	20.58	24.61	45.19	54.00	-8.81	AVG
3	15960.000	32.44	22.67	55.11	74.00	-18.89	peak
4	15960.000	32.44	12.02	44.46	54.00	-9.54	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH100 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11000.000	21.67	34.51	56.18	74.00	-17.82	peak
2	11000.000	21.67	24.35	46.02	54.00	-7.98	AVG
3	16500.000	36.95	17.95	54.90	74.00	-19.10	peak
4	16500.000	36.95	8.32	45.27	54.00	-8.73	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11000.000	21.67	33.21	54.88	74.00	-19.12	peak
2	11000.000	21.67	13.46	35.13	54.00	-18.87	AVG
3	16500.000	36.95	21.35	58.30	74.00	-15.70	peak
4	16500.000	36.95	10.53	47.48	54.00	-6.52	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH116 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11160.000	22.05	33.41	55.46	74.00	-18.54	peak
2	11160.000	22.05	22.16	44.21	54.00	-9.79	AVG
3	16740.000	36.65	18.94	55.59	74.00	-18.41	peak
4	16740.000	36.65	9.31	45.96	54.00	-8.04	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11160.000	22.05	31.64	53.69	74.00	-20.31	peak
2	11160.000	22.05	23.57	45.62	54.00	-8.38	AVG
3	16740.000	36.65	20.51	57.16	74.00	-16.84	peak
4	16740.000	36.65	10.23	46.88	54.00	-7.12	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 4, CH140 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11400.000	22.62	33.42	56.04	74.00	-17.96	peak
2	11400.000	22.62	24.53	47.15	54.00	-6.85	AVG
3	17100.000	36.73	20.31	57.04	74.00	-16.96	peak
4	17100.000	36.73	9.73	46.46	54.00	-7.54	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11400.000	22.62	33.21	55.83	74.00	-18.17	peak
2	11400.000	22.62	22.56	45.18	54.00	-8.82	AVG
3	17100.000	36.73	19.84	56.57	74.00	-17.43	peak
4	17100.000	36.73	9.62	46.35	54.00	-7.65	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH38 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10380.000	19.89	35.34	55.23	74.00	-18.77	peak
2	10380.000	19.89	24.13	44.02	54.00	-9.98	AVG
3	15570.000	32.26	24.21	56.47	74.00	-17.53	peak
4	15570.000	32.26	12.59	44.85	54.00	-9.15	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10380.000	19.89	35.35	55.24	74.00	-18.76	peak
2	10380.000	19.89	22.19	42.08	54.00	-11.92	AVG
3	15570.000	32.26	24.36	56.62	74.00	-17.38	peak
4	15570.000	32.26	10.45	42.71	54.00	-11.29	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH46 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10460.000	20.07	35.90	55.97	74.00	-18.03	peak
2	10460.000	20.07	23.15	43.22	54.00	-10.78	AVG
3	15690.000	32.32	23.97	56.29	74.00	-17.71	peak
4	15690.000	32.32	13.54	45.86	54.00	-8.14	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10460.000	20.07	35.78	55.85	74.00	-18.15	peak
2	10460.000	20.07	22.51	42.58	54.00	-11.42	AVG
3	15690.000	32.32	23.85	56.17	74.00	-17.83	peak
4	15690.000	32.32	13.26	45.58	54.00	-8.42	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH54 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10540.000	20.28	34.93	55.21	74.00	-18.79	peak
2	10540.000	20.28	22.61	42.89	54.00	-11.11	AVG
3	15810.000	32.37	23.43	55.80	74.00	-18.20	peak
4	15810.000	32.37	12.54	44.91	54.00	-9.09	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10540.000	20.28	35.36	55.64	74.00	-18.36	peak
2	10540.000	20.28	24.35	44.63	54.00	-9.37	AVG
3	15810.000	32.37	24.36	56.73	74.00	-17.27	peak
4	15810.000	32.37	13.47	45.84	54.00	-8.16	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH62 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10620.000	20.52	34.84	55.36	74.00	-18.64	peak
2	10620.000	20.52	25.31	45.83	54.00	-8.17	AVG
3	15930.000	32.43	23.69	56.12	74.00	-17.88	peak
4	15930.000	32.43	10.67	43.10	54.00	-10.90	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10620.000	20.52	35.09	55.61	74.00	-18.39	peak
2	10620.000	20.52	24.16	44.68	54.00	-9.32	AVG
3	15930.000	32.43	23.73	56.16	74.00	-17.84	peak
4	15930.000	32.43	12.34	44.77	54.00	-9.23	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH102 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11020.000	21.72	34.02	55.74	74.00	-18.26	peak
2	11020.000	21.72	25.61	47.33	54.00	-6.67	AVG
3	16530.000	36.91	19.12	56.03	74.00	-17.97	peak
4	16530.000	36.91	11.21	48.12	54.00	-5.88	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11020.000	21.72	33.43	55.15	74.00	-18.85	peak
2	11020.000	21.72	22.51	44.23	54.00	-9.77	AVG
3	16530.000	36.91	21.09	58.00	74.00	-16.00	peak
4	16530.000	36.91	10.65	47.56	54.00	-6.44	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH110 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11100.000	21.91	33.65	55.56	74.00	-18.44	peak
2	11100.000	21.91	24.33	46.24	54.00	-7.76	AVG
3	16650.000	36.76	19.90	56.66	74.00	-17.34	peak
4	16650.000	36.76	9.86	46.62	54.00	-7.38	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11100.000	21.91	34.29	56.20	74.00	-17.80	peak
2	11100.000	21.91	23.62	45.53	54.00	-8.47	AVG
3	16650.000	36.76	19.78	56.54	74.00	-17.46	peak
4	16650.000	36.76	10.58	47.34	54.00	-6.66	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH134 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11340.000	22.48	32.91	55.39	74.00	-18.61	peak
2	11340.000	22.48	21.63	44.11	54.00	-9.89	AVG
3	17010.000	36.37	19.53	55.90	74.00	-18.10	peak
4	17010.000	36.37	11.28	47.65	54.00	-6.35	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11340.000	22.48	33.03	55.51	74.00	-18.49	peak
2	11340.000	22.48	23.12	45.60	54.00	-8.40	AVG
3	17010.000	36.37	19.62	55.99	74.00	-18.01	peak
4	17010.000	36.37	10.78	47.15	54.00	-6.85	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH38 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10380.000	19.89	35.42	55.31	74.00	-18.69	peak
2	10380.000	19.89	24.61	44.50	54.00	-9.50	AVG
3	15570.000	32.26	24.53	56.79	74.00	-17.21	peak
4	15570.000	32.26	13.22	45.48	54.00	-8.52	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10380.000	19.89	35.64	55.53	74.00	-18.47	peak
2	10380.000	19.89	22.53	42.42	54.00	-11.58	AVG
3	15570.000	32.26	24.56	56.82	74.00	-17.18	peak
4	15570.000	32.26	12.31	44.57	54.00	-9.43	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH46 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10460.000	20.07	35.61	55.68	74.00	-18.32	peak
2	10460.000	20.07	24.13	44.20	54.00	-9.80	AVG
3	15690.000	32.32	24.31	56.63	74.00	-17.37	peak
4	15690.000	32.32	12.68	45.00	54.00	-9.00	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10460.000	20.07	35.71	55.78	74.00	-18.22	peak
2	10460.000	20.07	22.56	42.63	54.00	-11.37	AVG
3	15690.000	32.32	24.35	56.67	74.00	-17.33	peak
4	15690.000	32.32	13.42	45.74	54.00	-8.26	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH54 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10540.000	20.28	34.56	54.84	74.00	-19.16	peak
2	10540.000	20.28	23.12	43.40	54.00	-10.60	AVG
3	15810.000	32.37	23.46	55.83	74.00	-18.17	peak
4	15810.000	32.37	12.31	44.68	54.00	-9.32	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10540.000	20.28	35.42	55.70	74.00	-18.30	peak
2	10540.000	20.28	25.31	45.59	54.00	-8.41	AVG
3	15810.000	32.37	24.35	56.72	74.00	-17.28	peak
4	15810.000	32.37	13.24	45.61	54.00	-8.39	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH62 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10620.000	20.52	34.68	55.20	74.00	-18.80	peak
2	10620.000	20.52	25.16	45.68	54.00	-8.32	AVG
3	15930.000	32.43	24.31	56.74	74.00	-17.26	peak
4	15930.000	32.43	11.34	43.77	54.00	-10.23	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10620.000	20.52	35.12	55.64	74.00	-18.36	peak
2	10620.000	20.52	24.53	45.05	54.00	-8.95	AVG
3	15930.000	32.43	24.16	56.59	74.00	-17.41	peak
4	15930.000	32.43	12.34	44.77	54.00	-9.23	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH102 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11020.000	21.72	34.12	55.84	74.00	-18.16	peak
2	11020.000	21.72	25.37	47.09	54.00	-6.91	AVG
3	16530.000	36.91	19.21	56.12	74.00	-17.88	peak
4	16530.000	36.91	10.22	47.13	54.00	-6.87	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11020.000	21.72	34.12	55.84	74.00	-18.16	peak
2	11020.000	21.72	22.57	44.29	54.00	-9.71	AVG
3	16530.000	36.91	21.36	58.27	74.00	-15.73	peak
4	16530.000	36.91	10.25	47.16	54.00	-6.84	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH110 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11100.000	21.91	33.65	55.56	74.00	-18.44	peak
2	11100.000	21.91	23.51	45.42	54.00	-8.58	AVG
3	16650.000	36.76	19.90	56.66	74.00	-17.34	peak
4	16650.000	36.76	10.12	46.88	54.00	-7.12	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11100.000	21.91	34.26	56.17	74.00	-17.83	peak
2	11100.000	21.91	23.56	45.47	54.00	-8.53	AVG
3	16650.000	36.76	19.88	56.64	74.00	-17.36	peak
4	16650.000	36.76	9.34	46.10	54.00	-7.90	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 5, CH134 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11340.000	22.48	32.68	55.16	74.00	-18.84	peak
2	11340.000	22.48	21.03	43.51	54.00	-10.49	AVG
3	17010.000	36.37	20.12	56.49	74.00	-17.51	peak
4	17010.000	36.37	10.34	46.71	54.00	-7.29	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11340.000	22.48	33.52	56.00	74.00	-18.00	peak
2	11340.000	22.48	22.15	44.63	54.00	-9.37	AVG
3	17010.000	36.37	19.32	55.69	74.00	-18.31	peak
4	17010.000	36.37	9.51	45.88	54.00	-8.12	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 6, CH42 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10420.000	19.98	35.72	55.70	74.00	-18.30	peak
2	10420.000	19.98	24.36	44.34	54.00	-9.66	AVG
3	15630.000	32.29	24.23	56.52	74.00	-17.48	peak
4	15630.000	32.29	13.48	45.77	54.00	-8.23	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10420.000	19.98	35.38	55.36	74.00	-18.64	peak
2	10420.000	19.98	22.91	42.89	54.00	-11.11	AVG
3	15630.000	32.29	24.06	56.35	74.00	-17.65	peak
4	15630.000	32.29	15.67	47.96	54.00	-6.04	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 6, CH58 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10580.000	20.40	34.90	55.30	74.00	-18.70	peak
2	10580.000	20.40	22.95	43.35	54.00	-10.65	AVG
3	15870.000	32.40	24.04	56.44	74.00	-17.56	peak
4	15870.000	32.40	14.32	46.72	54.00	-7.28	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10580.000	20.40	35.14	55.54	74.00	-18.46	peak
2	10580.000	20.40	24.13	44.53	54.00	-9.47	AVG
3	15870.000	32.40	23.77	56.17	74.00	-17.83	peak
4	15870.000	32.40	10.35	42.75	54.00	-11.25	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 6, CH106 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11060.000	21.81	34.14	55.95	74.00	-18.05	peak
2	11060.000	21.81	24.15	45.96	54.00	-8.04	AVG
3	16590.000	36.84	19.73	56.57	74.00	-17.43	peak
4	16590.000	36.84	10.35	47.19	54.00	-6.81	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11060.000	21.81	33.68	55.49	74.00	-18.51	peak
2	11060.000	21.81	21.51	43.32	54.00	-10.68	AVG
3	16590.000	36.84	19.90	56.74	74.00	-17.26	peak
4	16590.000	36.84	11.34	48.18	54.00	-5.82	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 6, CH122 (for Ant A)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11220.000	22.19	33.16	55.35	74.00	-18.65	peak
2	11220.000	22.19	22.48	44.67	54.00	-9.33	AVG
3	16830.000	36.54	19.66	56.20	74.00	-17.80	peak
4	16830.000	36.54	11.25	47.79	54.00	-6.21	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11220.000	22.19	33.37	55.56	74.00	-18.44	peak
2	11220.000	22.19	21.69	43.88	54.00	-10.12	AVG
3	16830.000	36.54	19.82	56.36	74.00	-17.64	peak
4	16830.000	36.54	11.38	47.92	54.00	-6.08	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 6, CH42 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10420.000	19.98	35.74	55.72	74.00	-18.28	peak
2	10420.000	19.98	24.36	44.34	54.00	-9.66	AVG
3	15630.000	32.29	24.51	56.80	74.00	-17.20	peak
4	15630.000	32.29	13.27	45.56	54.00	-8.44	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10420.000	19.98	35.61	55.59	74.00	-18.41	peak
2	10420.000	19.98	23.16	43.14	54.00	-10.86	AVG
3	15630.000	32.29	25.31	57.60	74.00	-16.40	peak
4	15630.000	32.29	14.97	47.26	54.00	-6.74	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 6, CH58 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10580.000	20.40	35.78	56.18	74.00	-17.82	peak
2	10580.000	20.40	22.98	43.38	54.00	-10.62	AVG
3	15870.000	32.40	24.15	56.55	74.00	-17.45	peak
4	15870.000	32.40	13.72	46.12	54.00	-7.88	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10580.000	20.40	35.17	55.57	74.00	-18.43	peak
2	10580.000	20.40	23.56	43.96	54.00	-10.04	AVG
3	15870.000	32.40	24.32	56.72	74.00	-17.28	peak
4	15870.000	32.40	10.11	42.51	54.00	-11.49	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 6, CH106 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11060.000	21.81	34.26	56.07	74.00	-17.93	peak
2	11060.000	21.81	24.03	45.84	54.00	-8.16	AVG
3	16590.000	36.84	19.67	56.51	74.00	-17.49	peak
4	16590.000	36.84	9.27	46.11	54.00	-7.89	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11060.000	21.81	34.21	56.02	74.00	-17.98	peak
2	11060.000	21.81	22.15	43.96	54.00	-10.04	AVG
3	16590.000	36.84	19.68	56.52	74.00	-17.48	peak
4	16590.000	36.84	10.37	47.21	54.00	-6.79	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



Power	:	DC 3.3V	Temperature	:	24°C
Test Mode	:	Mode 6, CH122 (for Ant B)	Humidity	:	63%
Test Date	:	Aug. 29, 2017			

Pol/Phase: VERTICAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11220.000	22.19	33.51	55.70	74.00	-18.30	peak
2	11220.000	22.19	22.52	44.71	54.00	-9.29	AVG
3	16830.000	36.54	20.32	56.86	74.00	-17.14	peak
4	16830.000	36.54	10.29	46.83	54.00	-7.17	AVG

Pol/Phase: HORIZONTAL

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11220.000	22.19	33.51	55.70	74.00	-18.30	peak
2	11220.000	22.19	22.13	44.32	54.00	-9.68	AVG
3	16830.000	36.54	19.87	56.41	74.00	-17.59	peak
4	16830.000	36.54	10.24	46.78	54.00	-7.22	AVG

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor



6.7. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

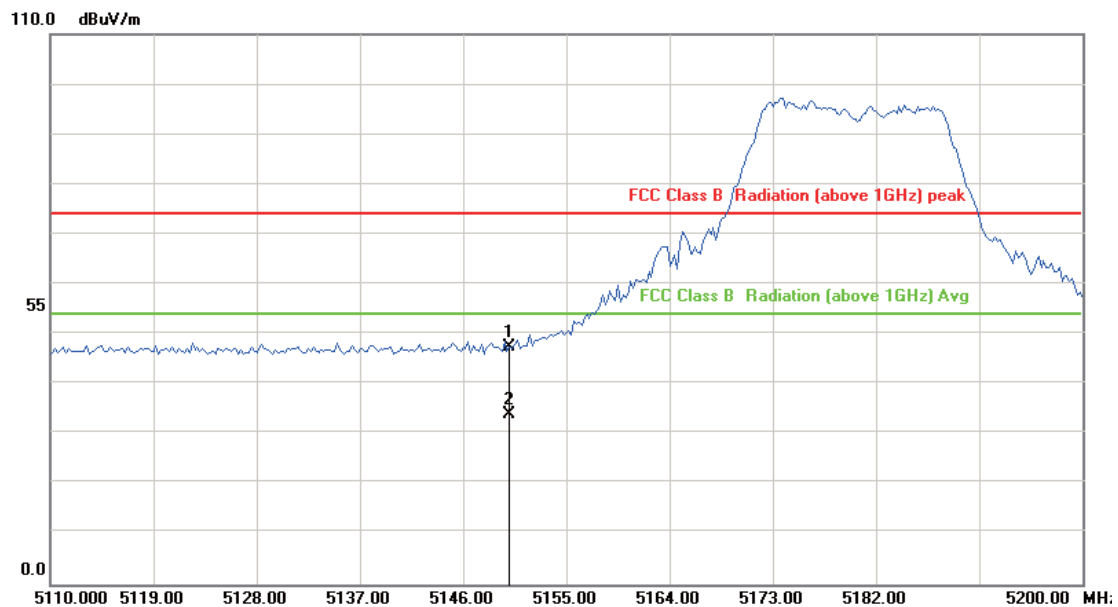
MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.150
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

** : Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz



6.8. Restrict Band Emission Measurement Data

Power	:	DC 3.3V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 1, CH36 (for Ant A)	Temperature	:	22 °C
Test date	:	Aug. 29, 2017	Humidity	:	56 %



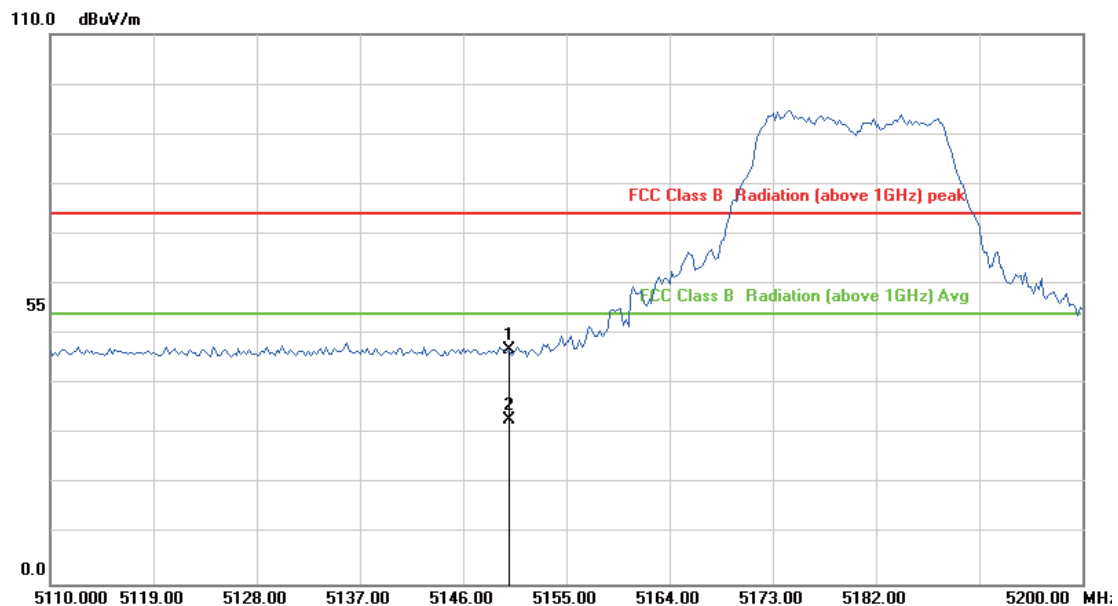
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	38.60	47.33	74.00	-26.67	peak
2	5150.000	8.73	25.14	33.87	54.00	-20.13	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH36 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



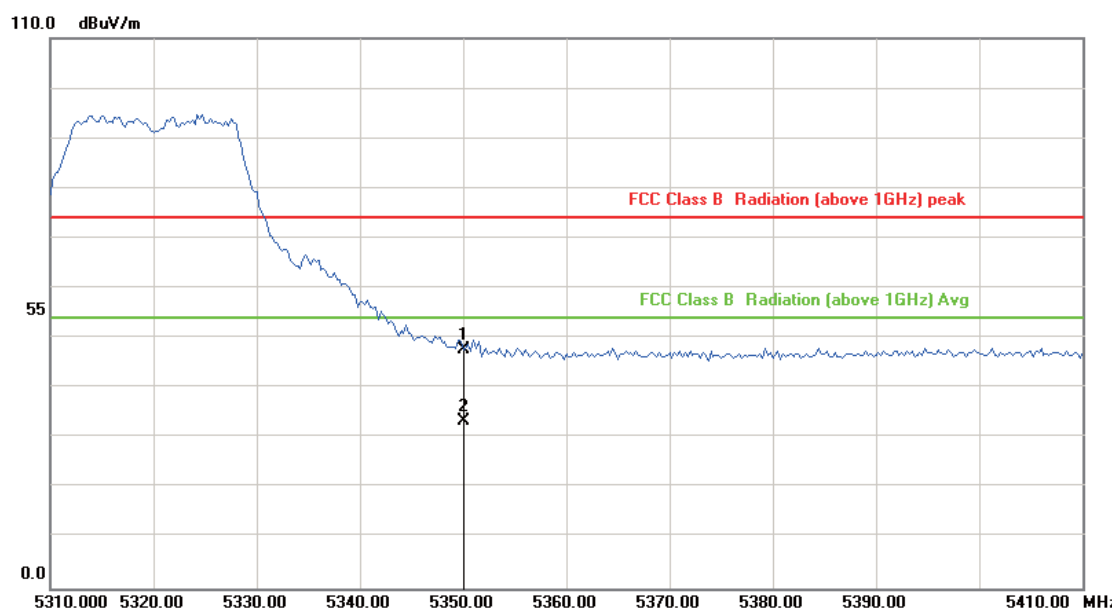
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	38.11	46.84	74.00	-27.16	peak
2	5150.000	8.73	24.15	32.88	54.00	-21.12	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH64 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



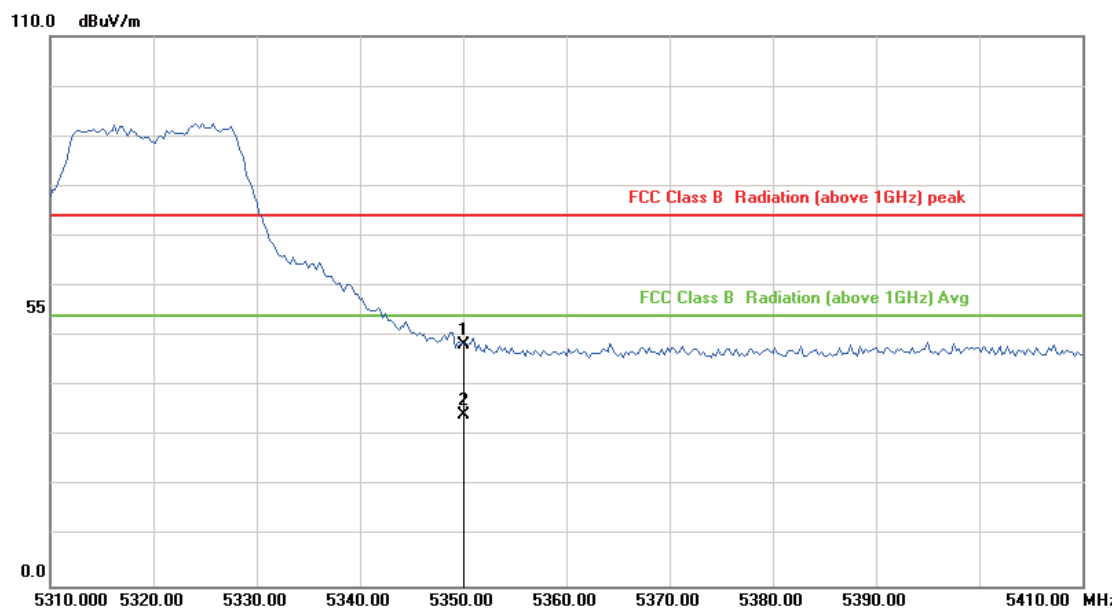
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	38.96	47.85	74.00	-26.15	peak
2	5350.000	8.89	24.51	33.40	54.00	-20.60	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH64 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



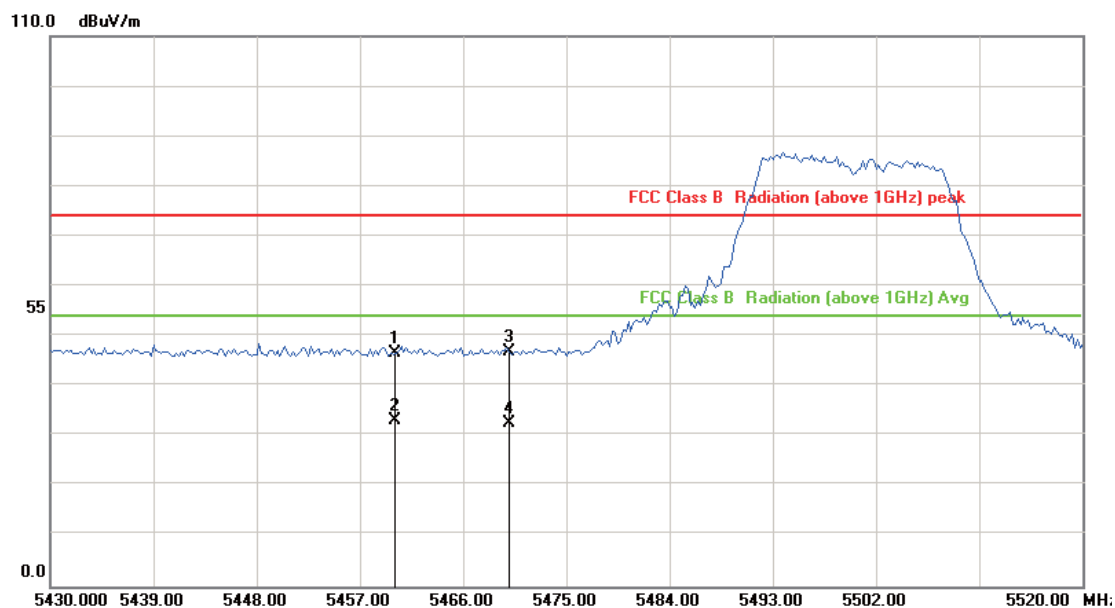
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	39.39	48.28	74.00	-25.72	peak
2	5350.000	8.89	25.37	34.26	54.00	-19.74	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH100 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



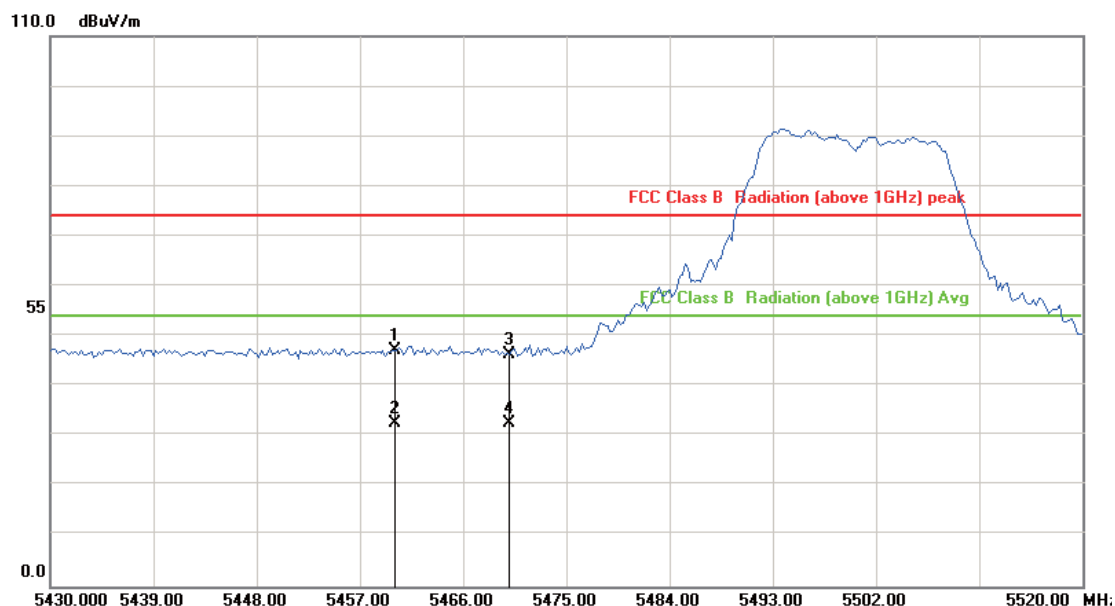
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	37.59	46.58	74.00	-27.42	peak
2	5460.000	8.99	24.15	33.14	54.00	-20.86	AVG
3	5470.000	8.99	38.00	46.99	74.00	-27.01	peak
4	5470.000	8.99	23.67	32.66	54.00	-21.34	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH100 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



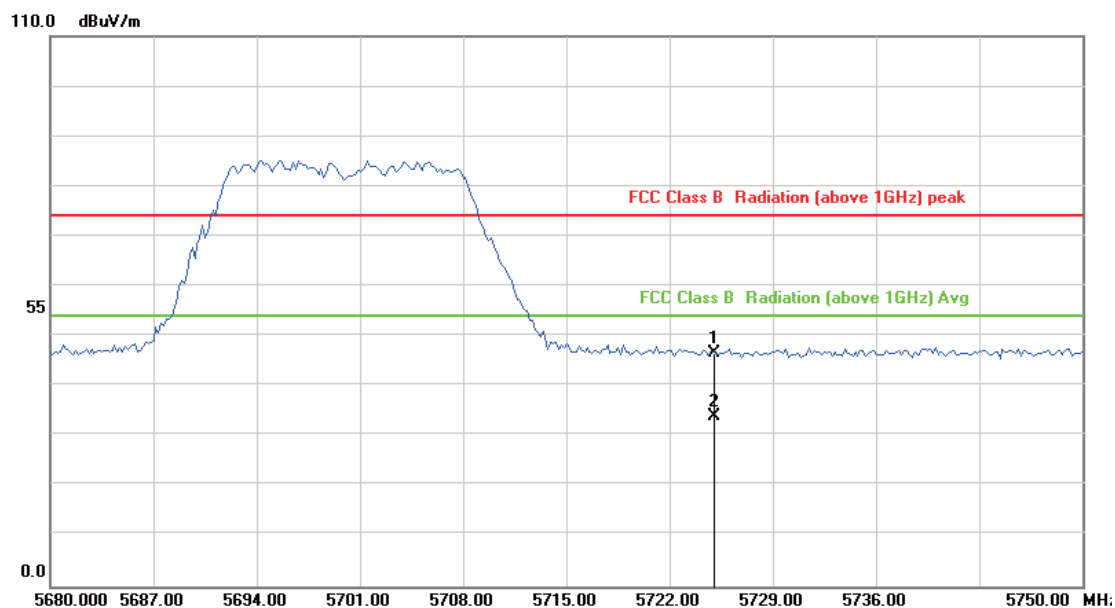
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	38.21	47.20	74.00	-26.80	peak
2	5460.000	8.99	23.67	32.66	54.00	-21.34	AVG
3	5470.000	8.99	37.43	46.42	74.00	-27.58	peak
4	5470.000	8.99	23.52	32.51	54.00	-21.49	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH140 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



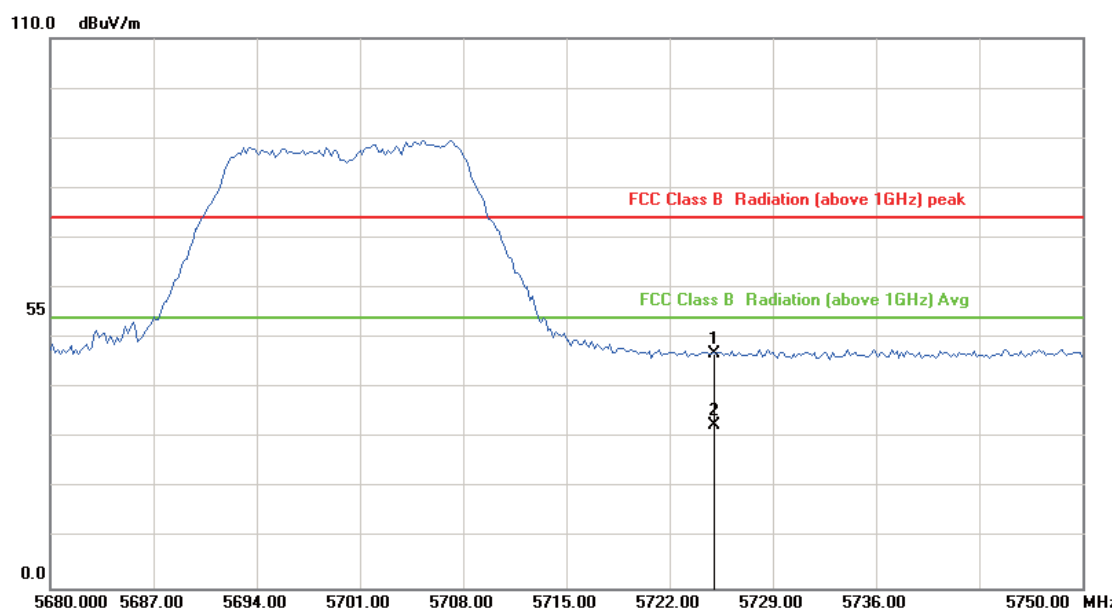
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.11	46.69	74.00	-27.31	peak
2	5725.000	9.58	24.26	33.84	54.00	-20.16	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH140 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



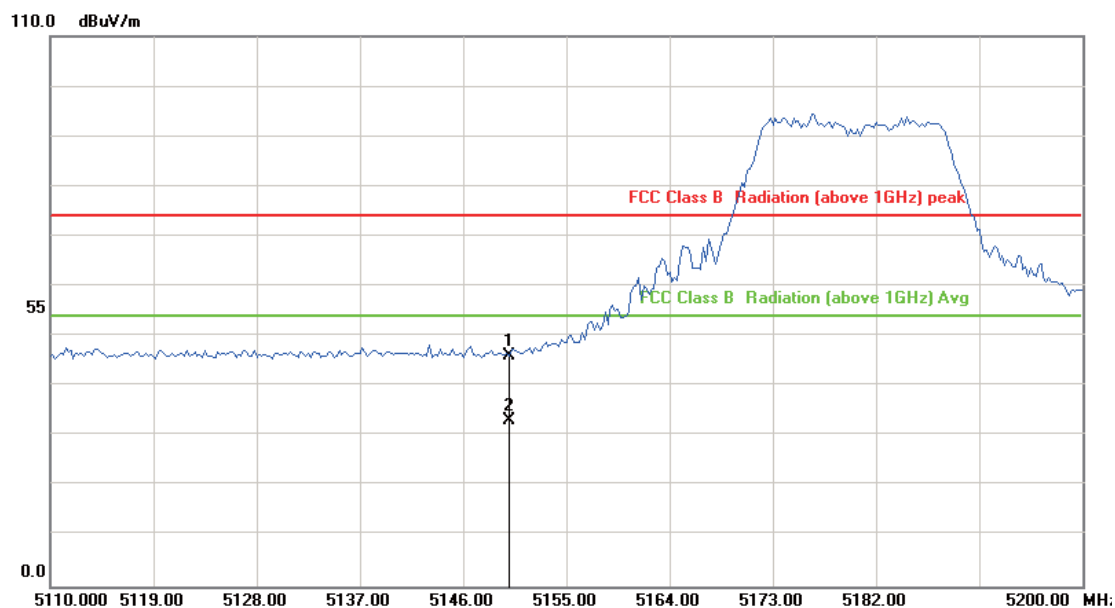
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.43	47.01	74.00	-26.99	peak
2	5725.000	9.58	23.14	32.72	54.00	-21.28	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH36 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



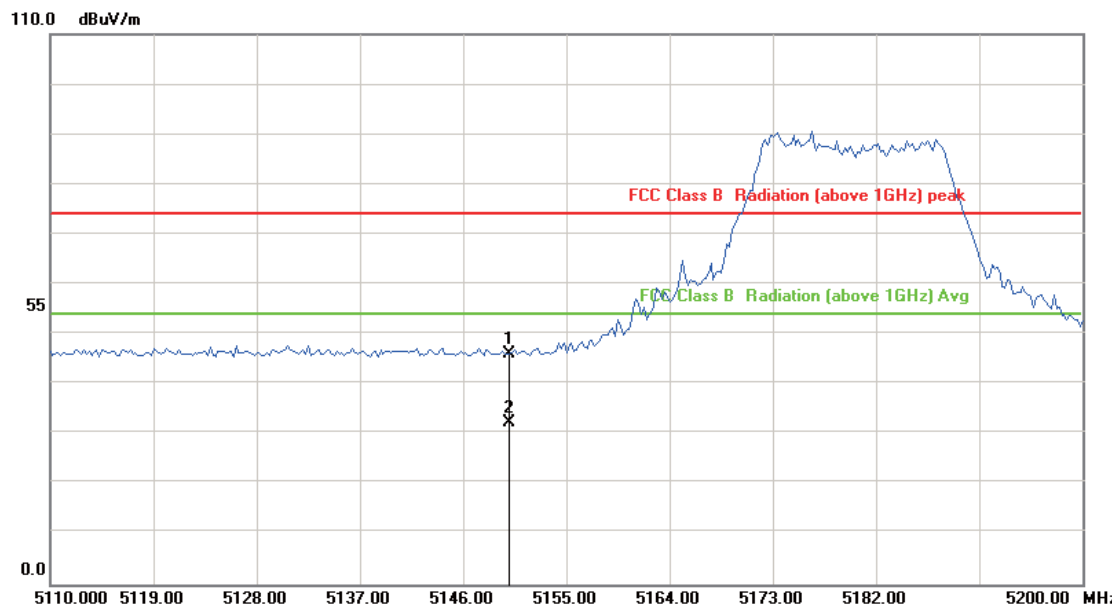
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	37.28	46.01	74.00	-27.99	peak
2	5150.000	8.73	24.51	33.24	54.00	-20.76	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH36 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



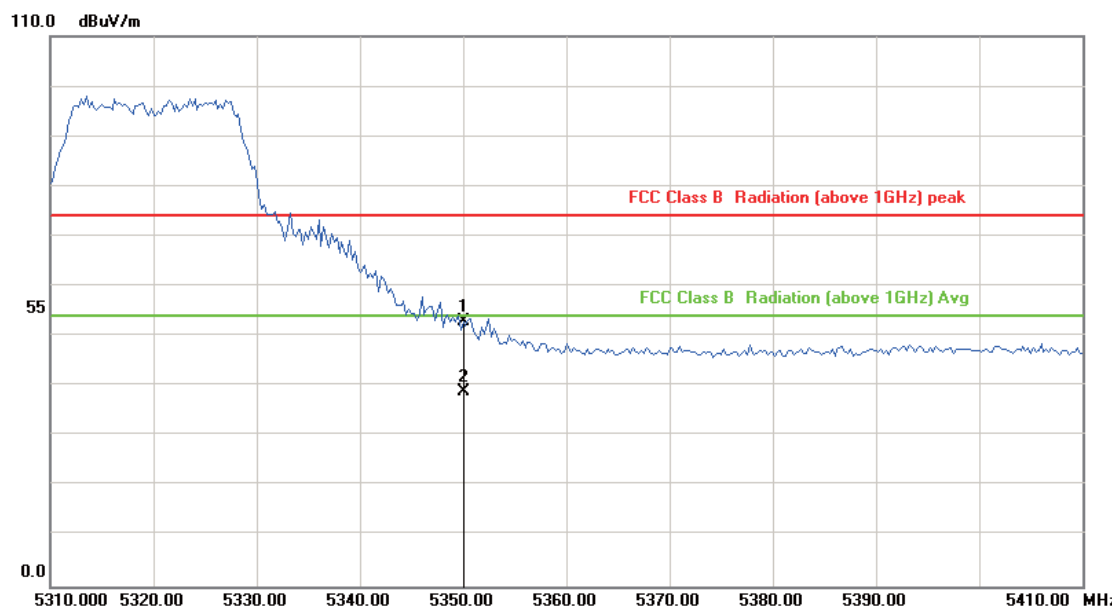
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	37.38	46.11	74.00	-27.89	peak
2	5150.000	8.73	23.51	32.24	54.00	-21.76	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH64 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



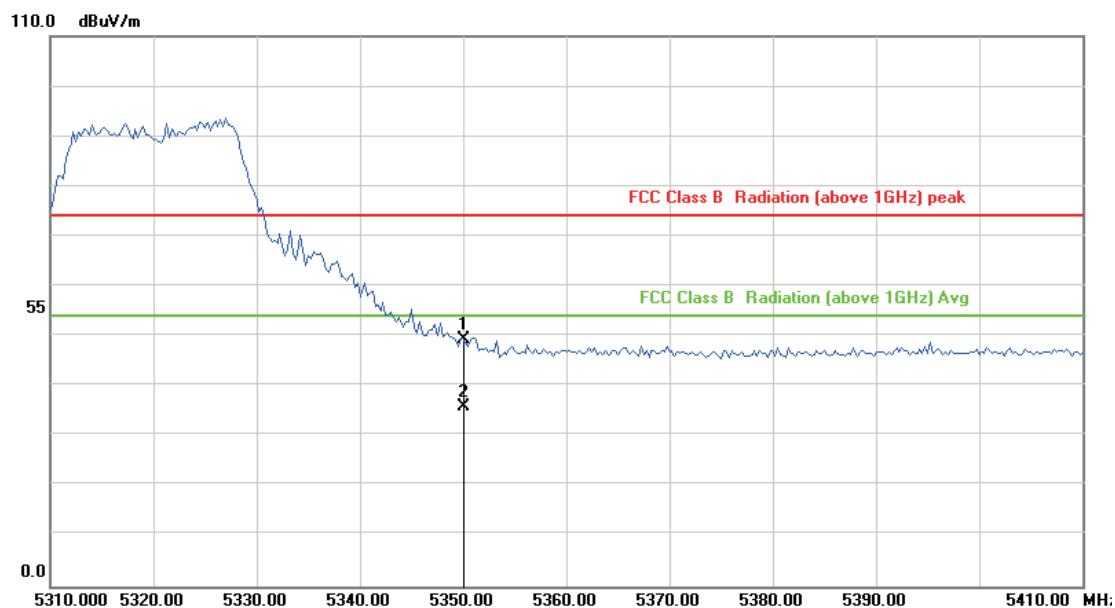
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	43.98	52.87	74.00	-21.13	peak
2	5350.000	8.89	30.12	39.01	54.00	-14.99	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH64 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



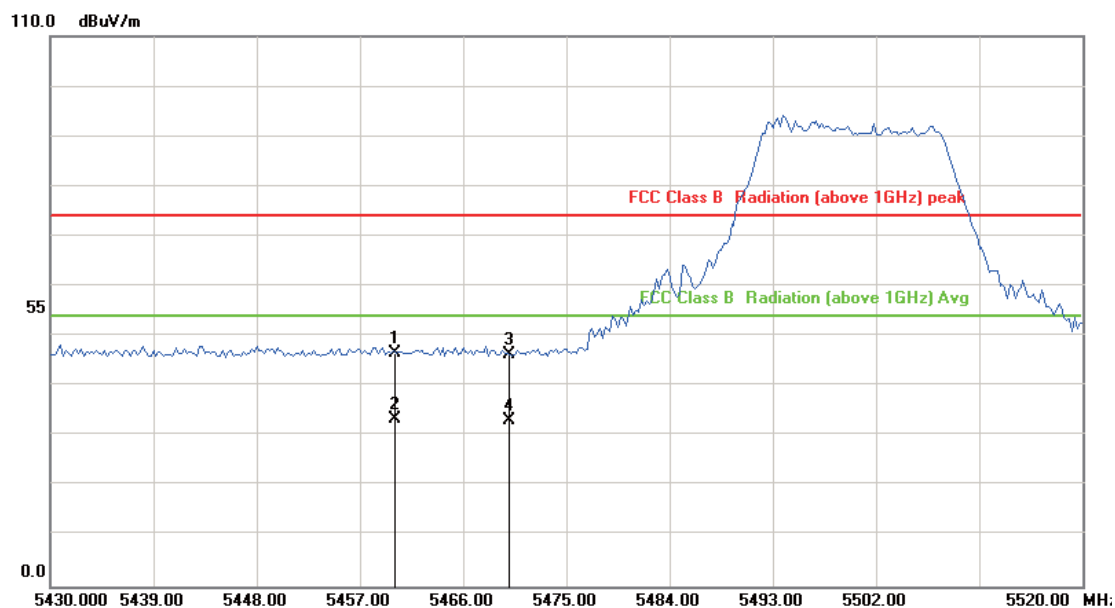
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	40.47	49.36	74.00	-24.64	peak
2	5350.000	8.89	26.88	35.77	54.00	-18.23	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH100 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



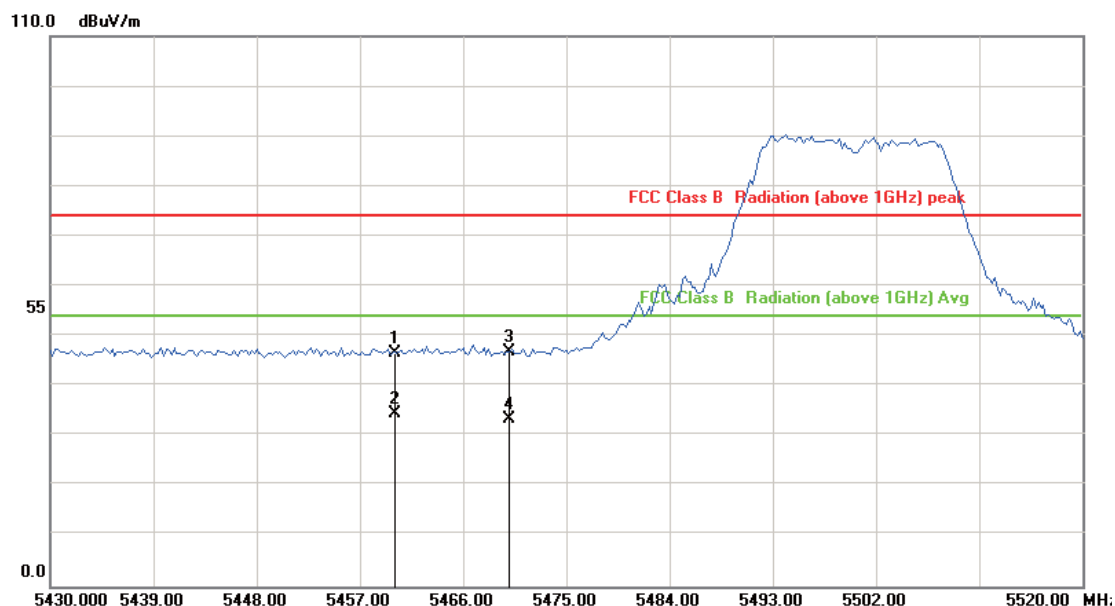
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	37.59	46.58	74.00	-27.42	peak
2	5460.000	8.99	24.51	33.50	54.00	-20.50	AVG
3	5470.000	8.99	37.35	46.34	74.00	-27.66	peak
4	5470.000	8.99	24.19	33.18	54.00	-20.82	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH100 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



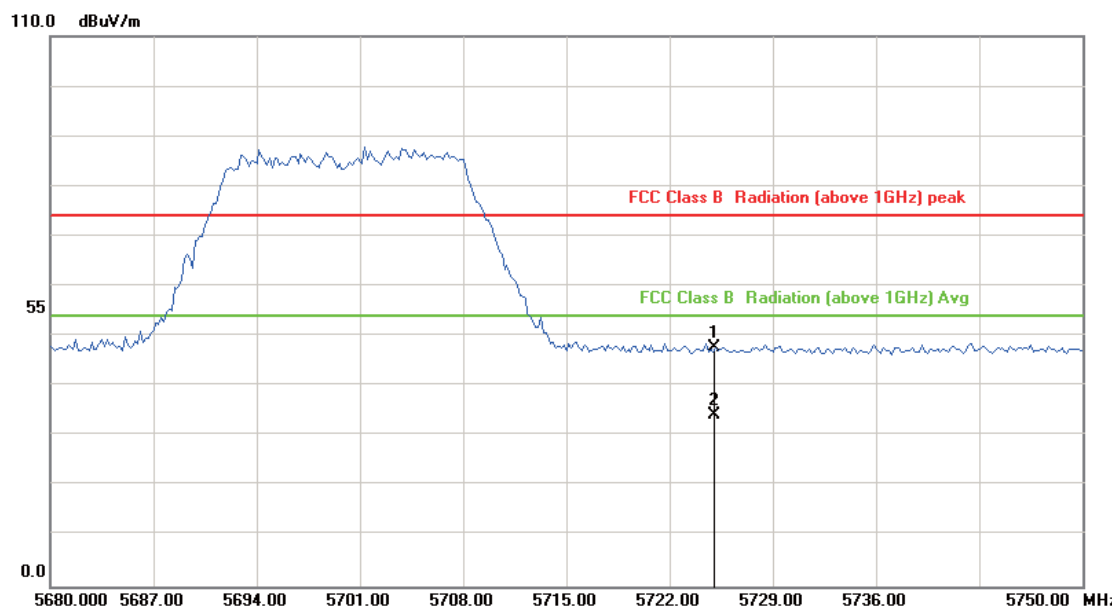
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	37.67	46.66	74.00	-27.34	peak
2	5460.000	8.99	25.59	34.58	54.00	-19.42	AVG
3	5470.000	8.99	37.96	46.95	74.00	-27.05	peak
4	5470.000	8.99	24.42	33.41	54.00	-20.59	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH140 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



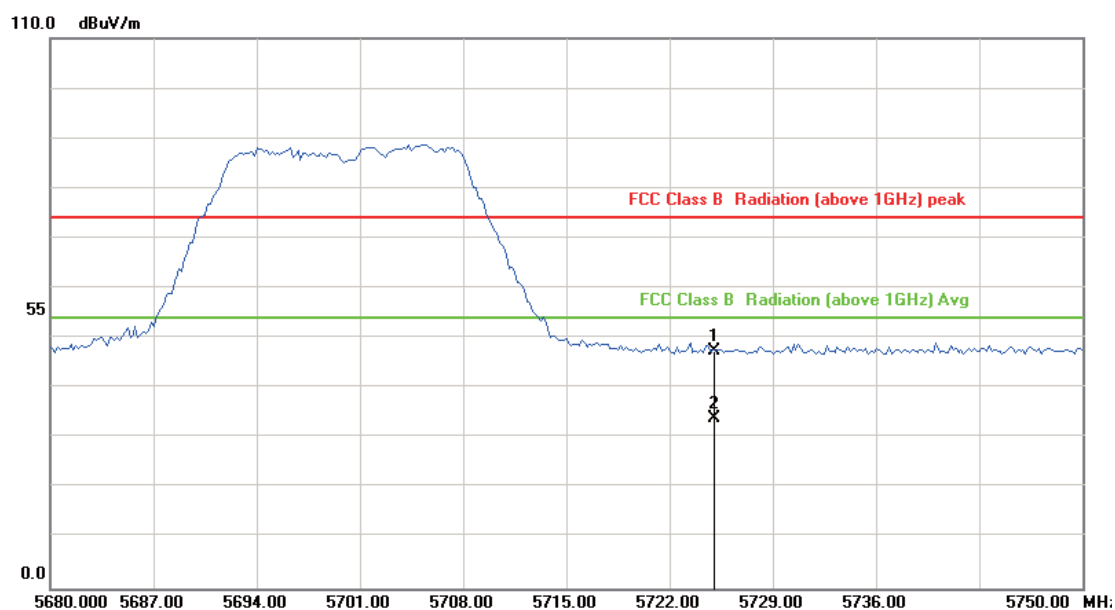
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	38.14	47.72	74.00	-26.28	peak
2	5725.000	9.58	24.63	34.21	54.00	-19.79	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH140 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



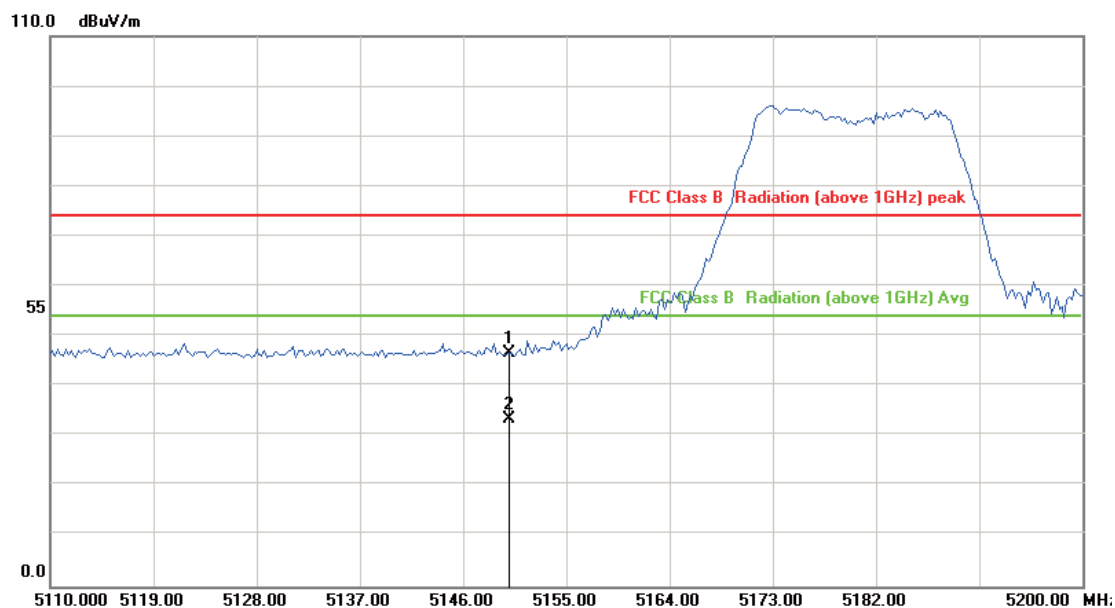
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.78	47.36	74.00	-26.64	peak
2	5725.000	9.58	24.31	33.89	54.00	-20.11	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH36 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



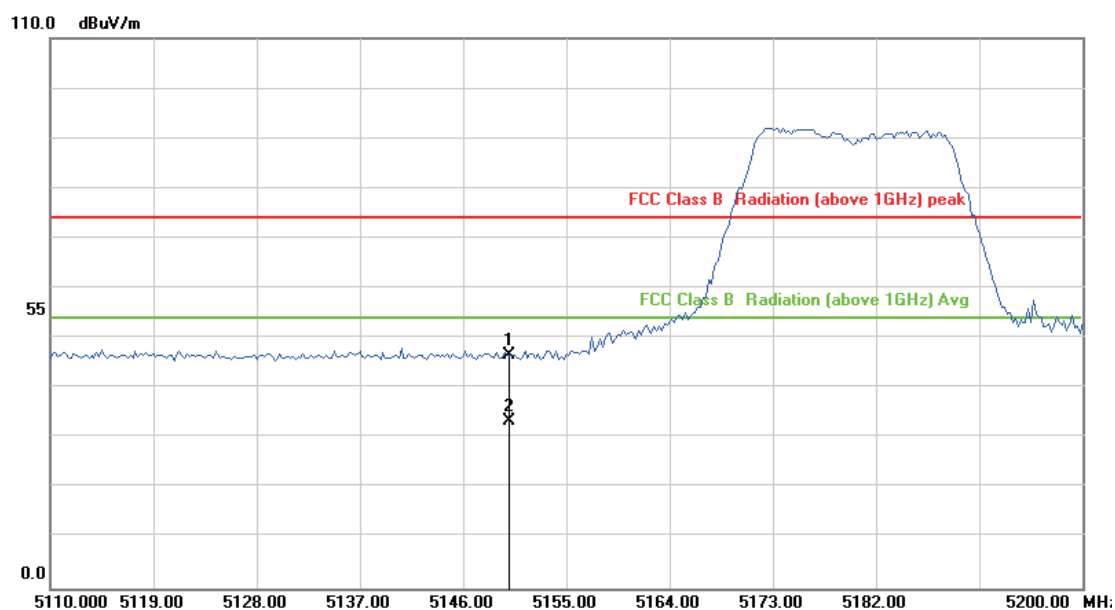
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	37.83	46.56	74.00	-27.44	peak
2	5150.000	8.73	24.67	33.40	54.00	-20.60	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH36 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



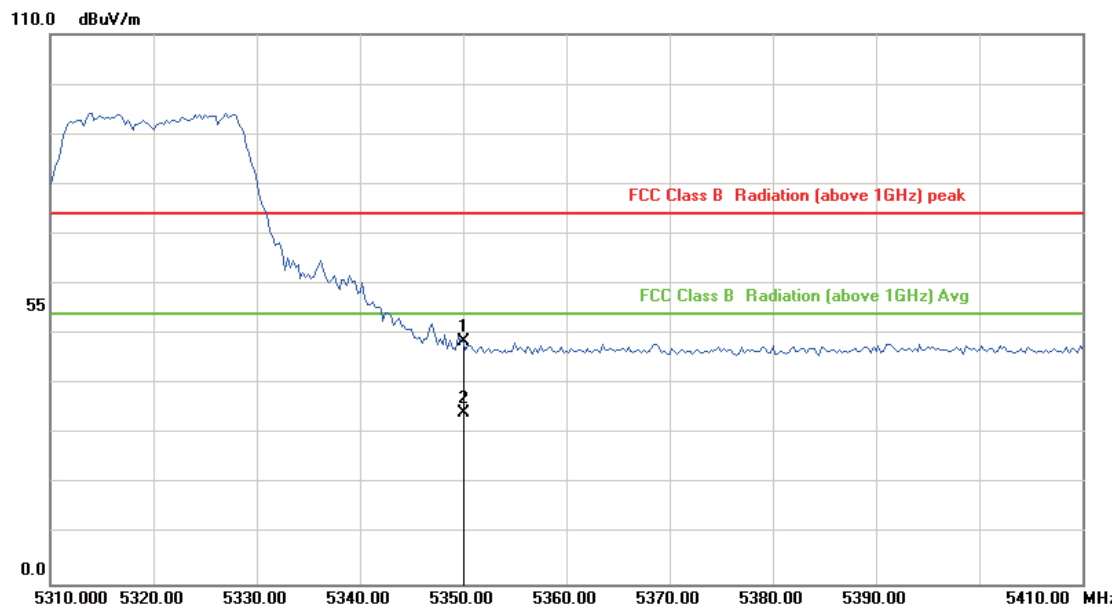
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	37.78	46.51	74.00	-27.49	peak
2	5150.000	8.73	24.59	33.32	54.00	-20.68	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH64 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



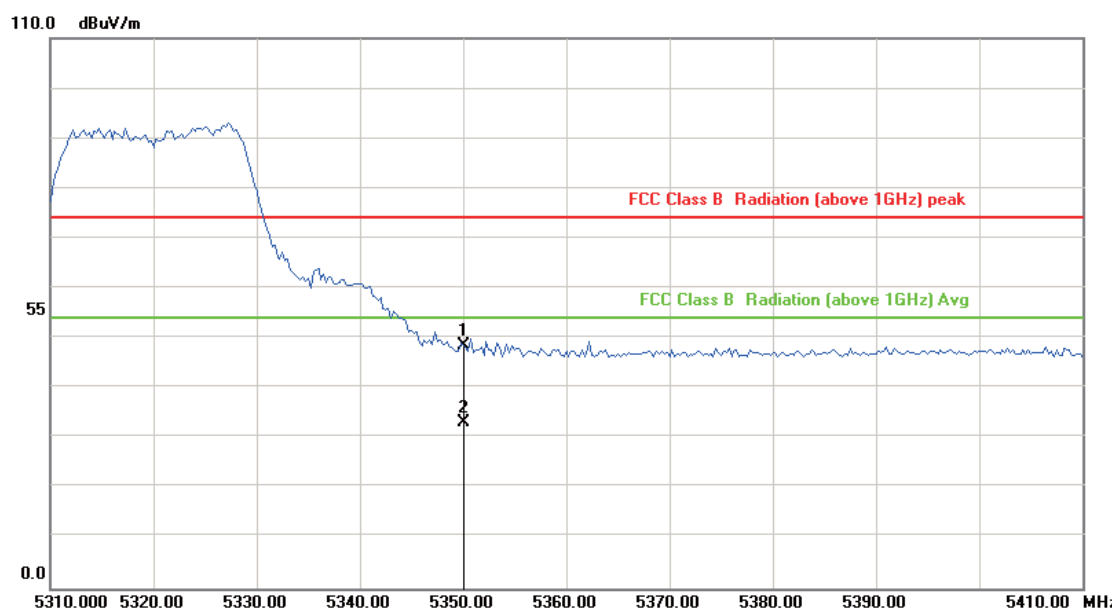
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	39.64	48.53	74.00	-25.47	peak
2	5350.000	8.89	25.31	34.20	54.00	-19.80	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH64 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



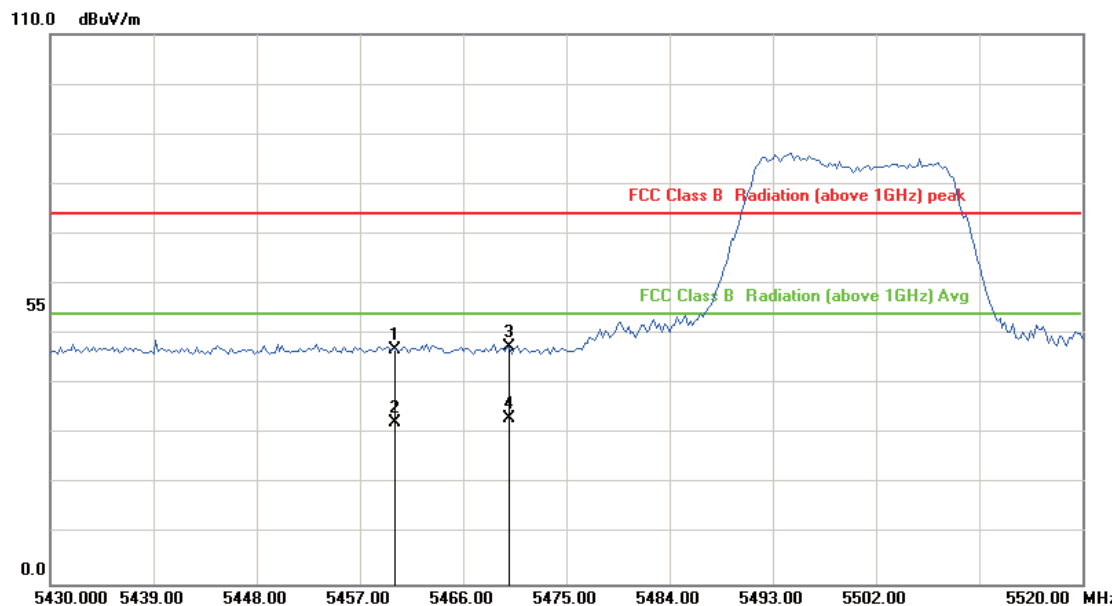
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	39.71	48.60	74.00	-25.40	peak
2	5350.000	8.89	24.36	33.25	54.00	-20.75	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH100 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



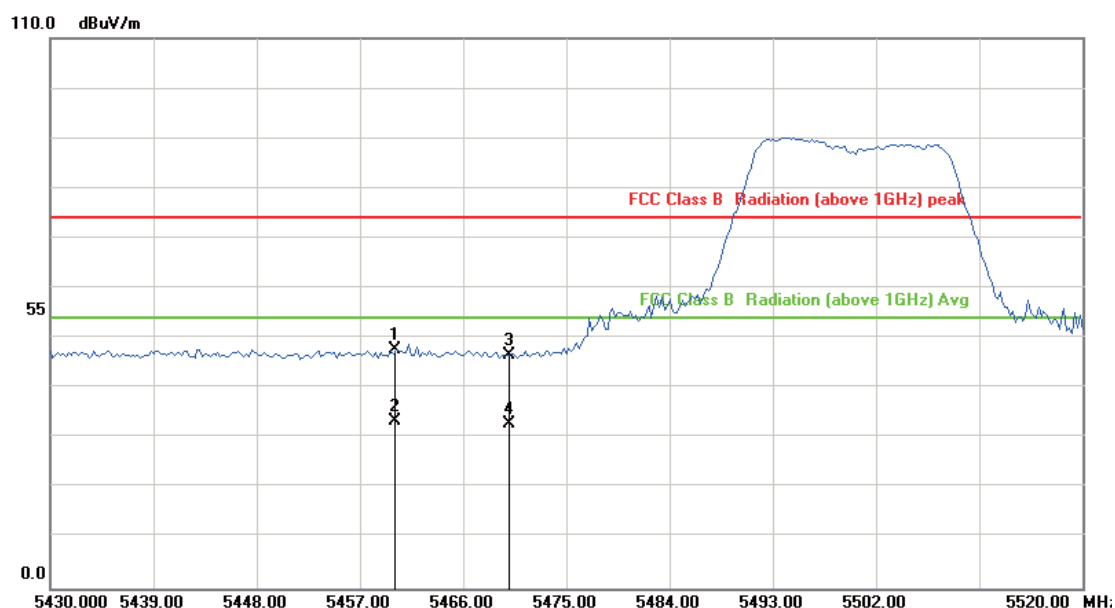
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	38.02	47.01	74.00	-26.99	peak
2	5460.000	8.99	23.29	32.28	54.00	-21.72	AVG
3	5470.000	8.99	38.37	47.36	74.00	-26.64	peak
4	5470.000	8.99	24.18	33.17	54.00	-20.83	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH100 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



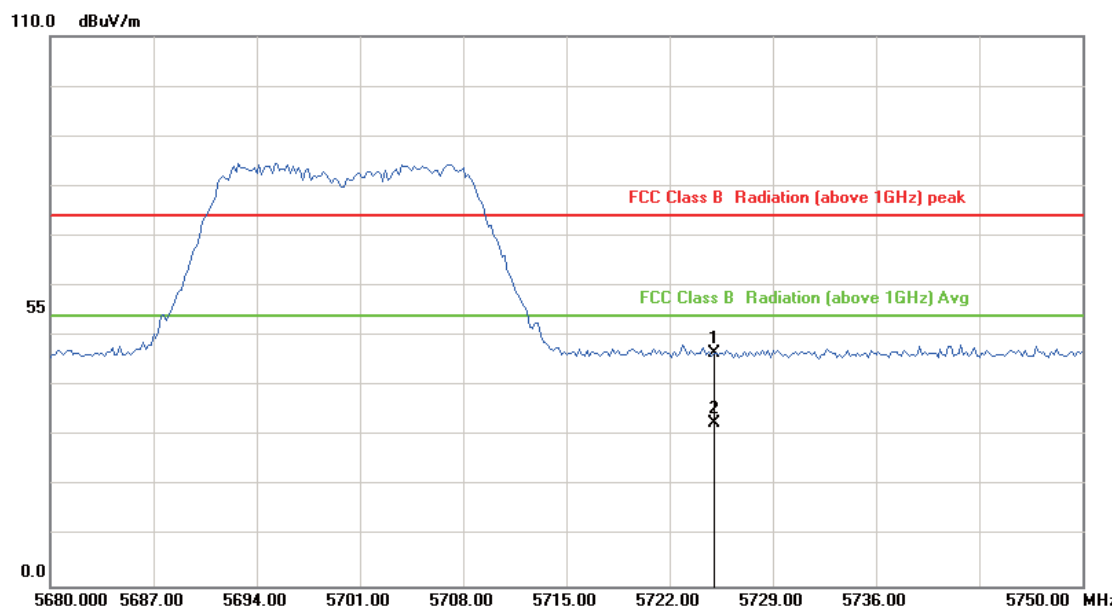
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	38.70	47.69	74.00	-26.31	peak
2	5460.000	8.99	24.47	33.46	54.00	-20.54	AVG
3	5470.000	8.99	37.72	46.71	74.00	-27.29	peak
4	5470.000	8.99	23.85	32.84	54.00	-21.16	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH140 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



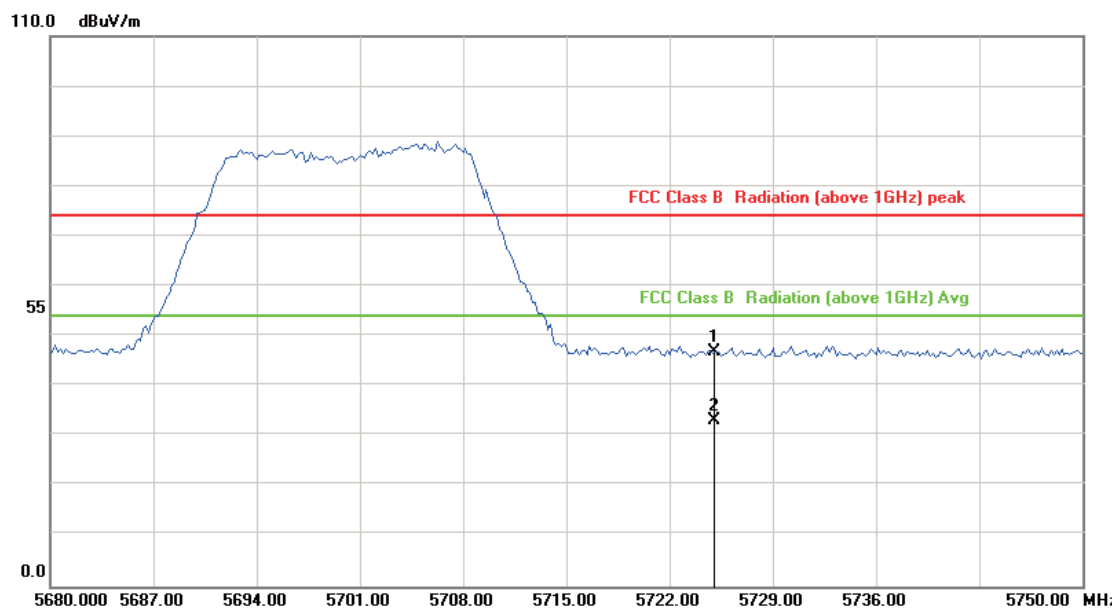
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	36.91	46.49	74.00	-27.51	peak
2	5725.000	9.58	23.14	32.72	54.00	-21.28	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH140 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



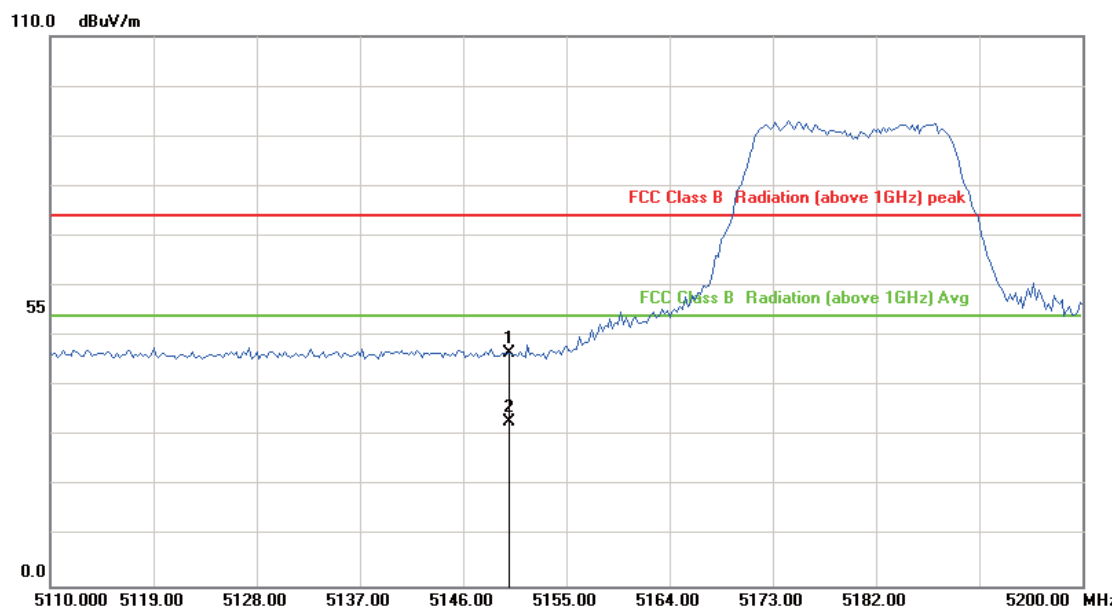
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.18	46.76	74.00	-27.24	peak
2	5725.000	9.58	23.64	33.22	54.00	-20.78	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH36 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



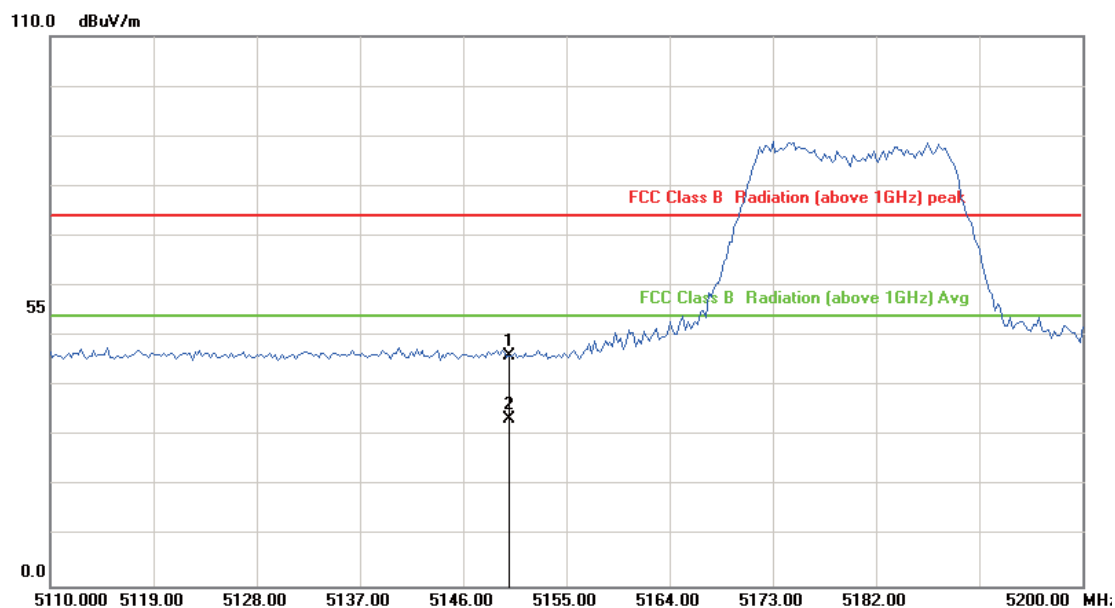
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	37.85	46.58	74.00	-27.42	peak
2	5150.000	8.73	24.16	32.89	54.00	-21.11	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH36 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



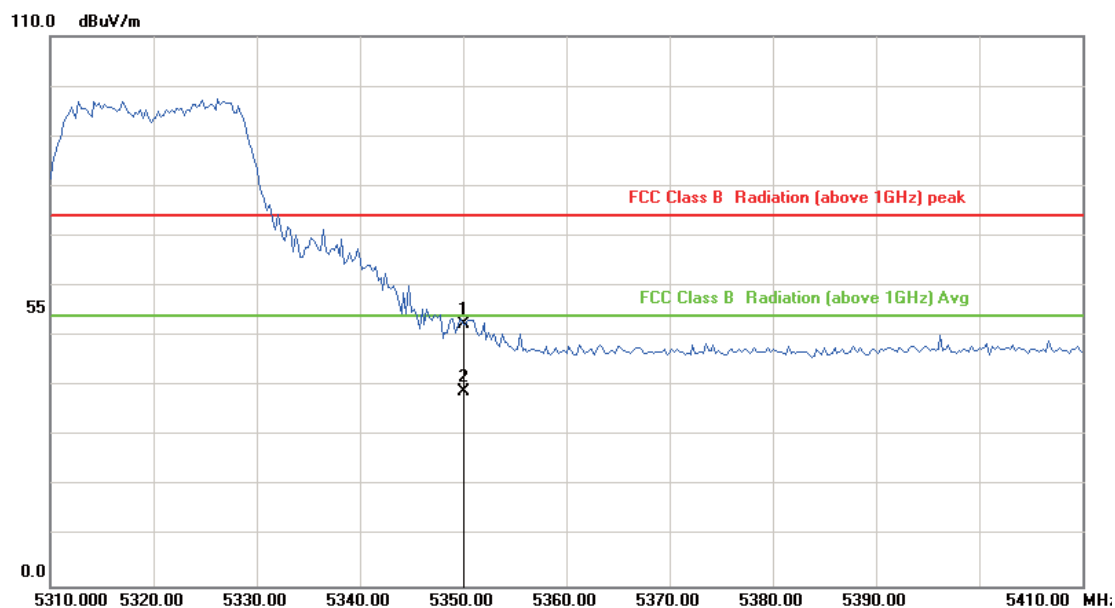
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	37.25	45.98	74.00	-28.02	peak
2	5150.000	8.73	24.61	33.34	54.00	-20.66	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH64 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



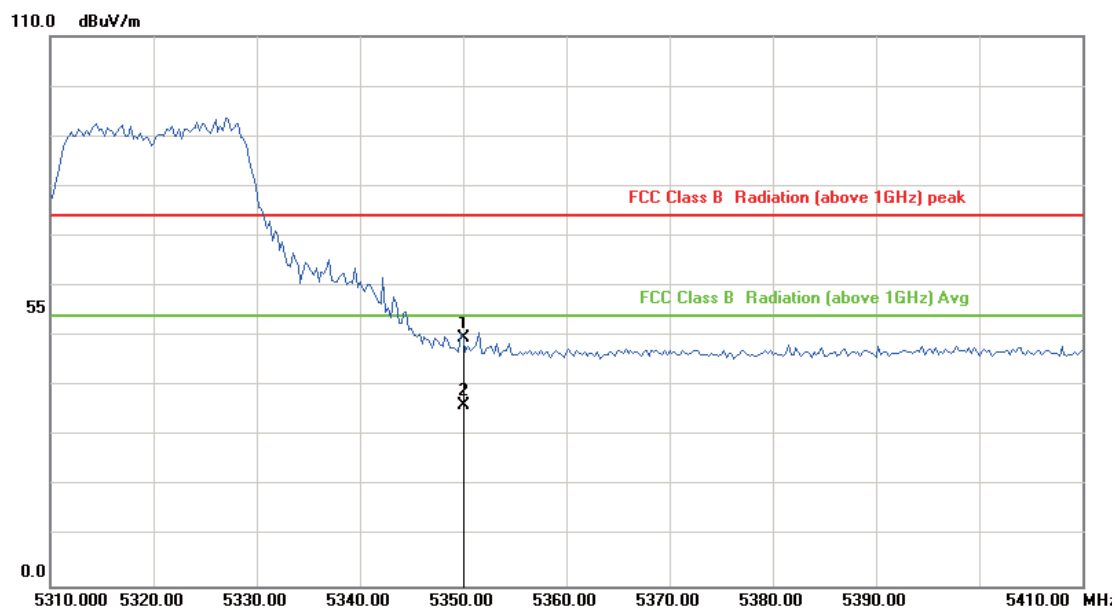
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	43.44	52.33	74.00	-21.67	peak
2	5350.000	8.89	30.02	38.91	54.00	-15.09	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH64 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



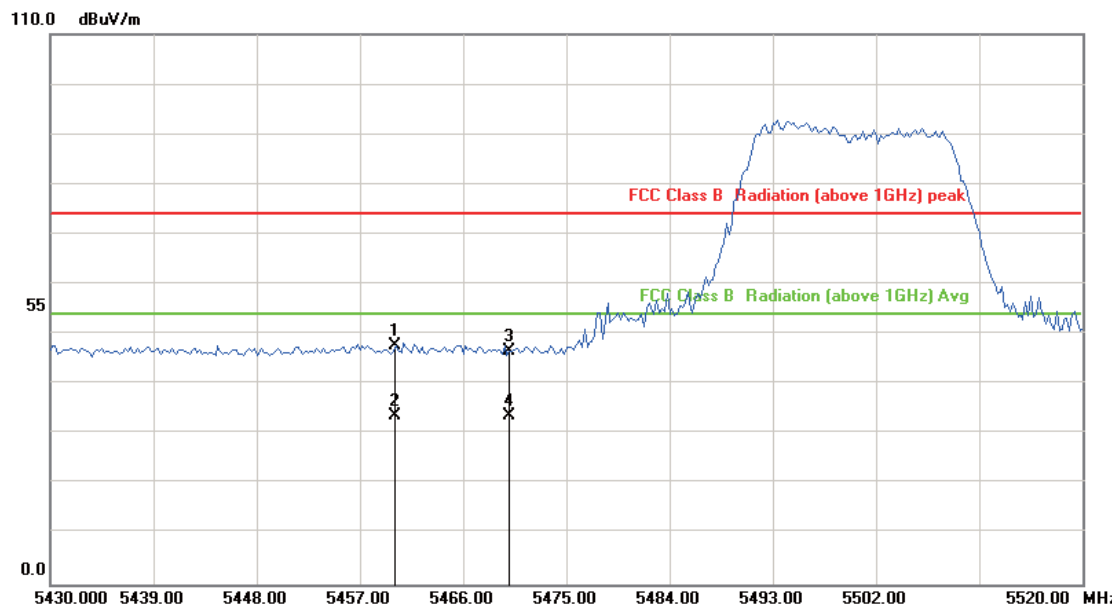
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	40.88	49.77	74.00	-24.23	peak
2	5350.000	8.89	27.31	36.20	54.00	-17.80	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH100 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



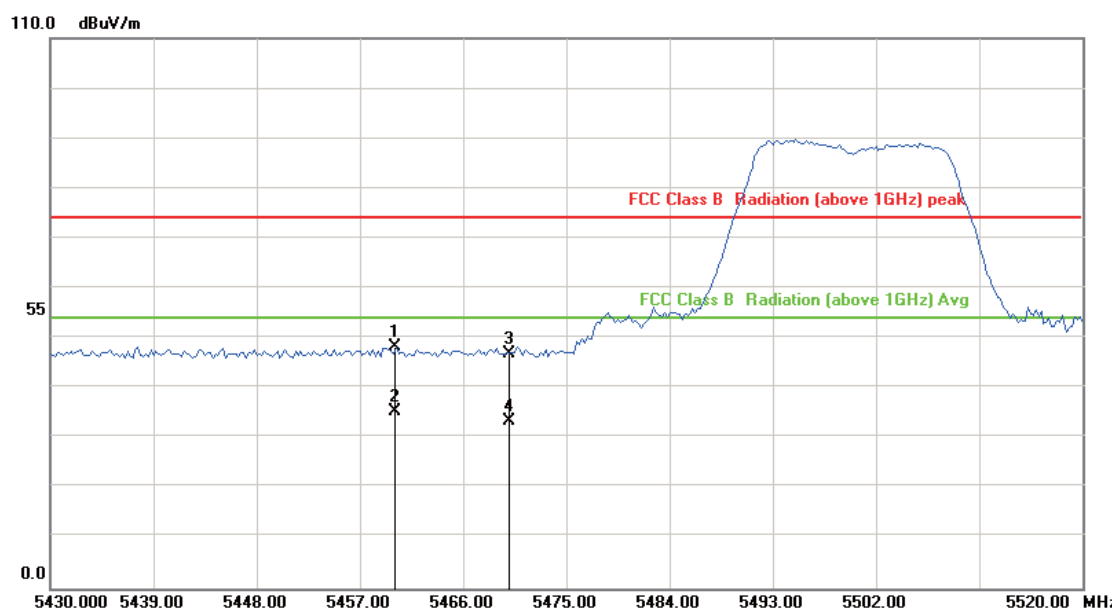
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	38.76	47.75	74.00	-26.25	peak
2	5460.000	8.99	24.68	33.67	54.00	-20.33	AVG
3	5470.000	8.99	37.76	46.75	74.00	-27.25	peak
4	5470.000	8.99	24.61	33.60	54.00	-20.40	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH100 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



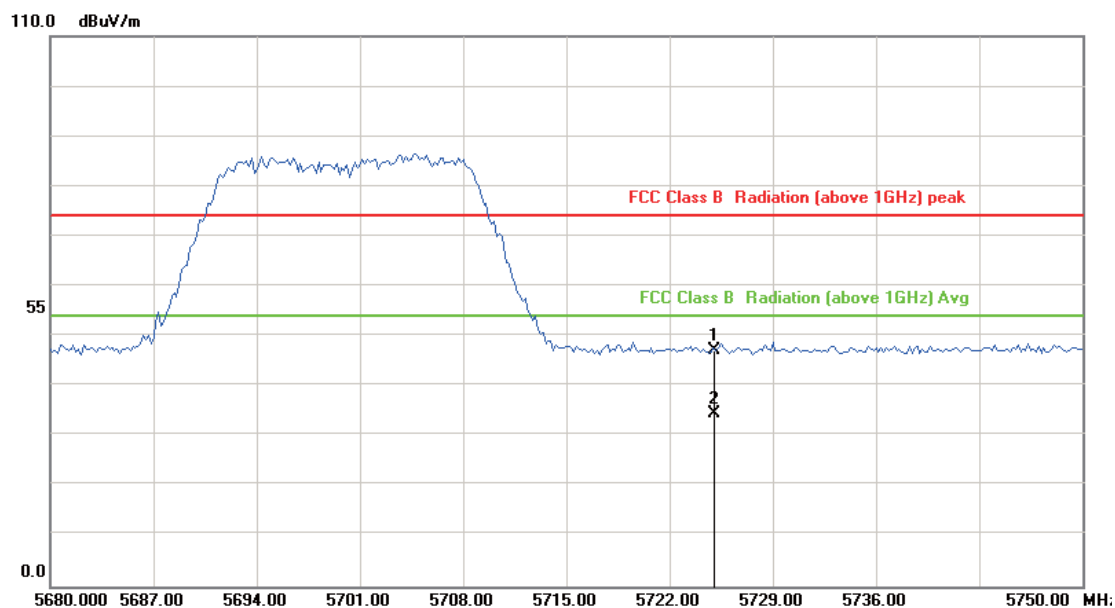
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	39.40	48.39	74.00	-25.61	peak
2	5460.000	8.99	26.33	35.32	54.00	-18.68	AVG
3	5470.000	8.99	37.91	46.90	74.00	-27.10	peak
4	5470.000	8.99	24.56	33.55	54.00	-20.45	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH140 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



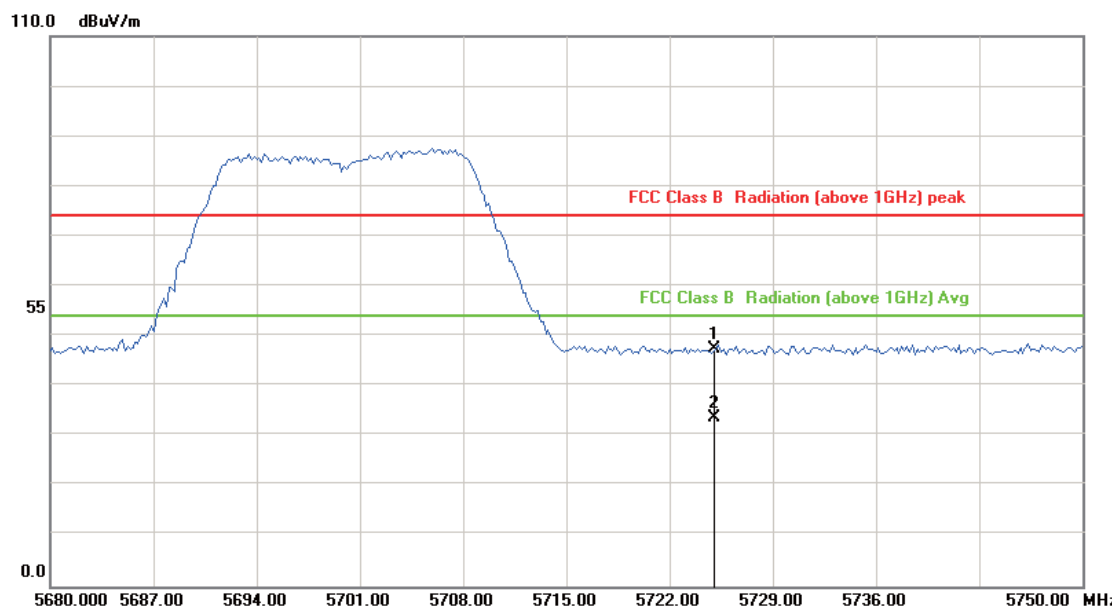
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.56	47.14	74.00	-26.86	peak
2	5725.000	9.58	24.89	34.47	54.00	-19.53	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH140 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



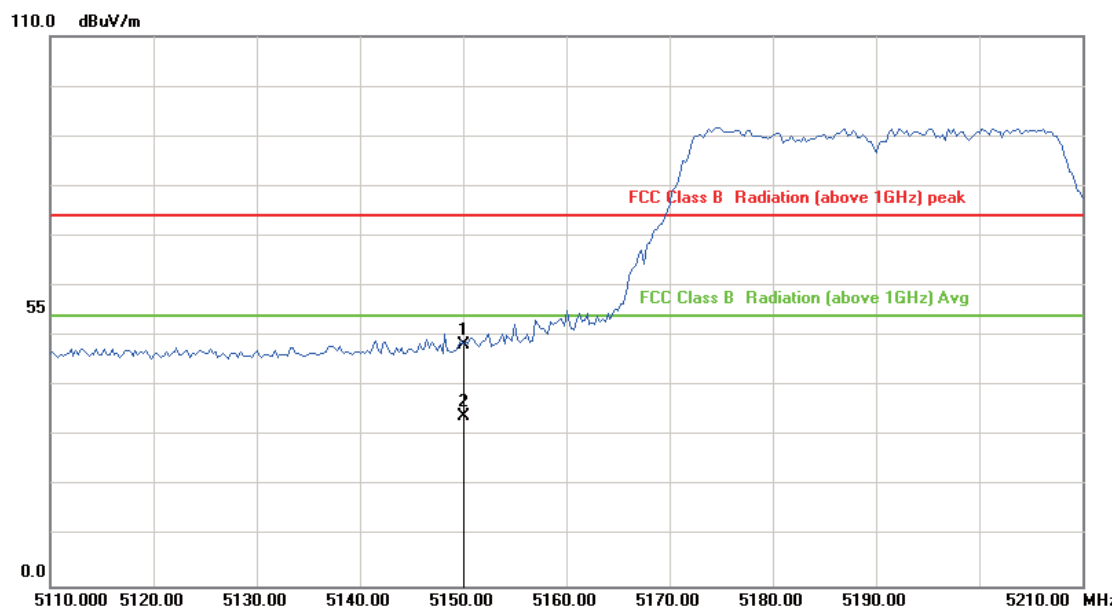
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.80	47.38	74.00	-26.62	peak
2	5725.000	9.58	24.16	33.74	54.00	-20.26	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, CH38 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



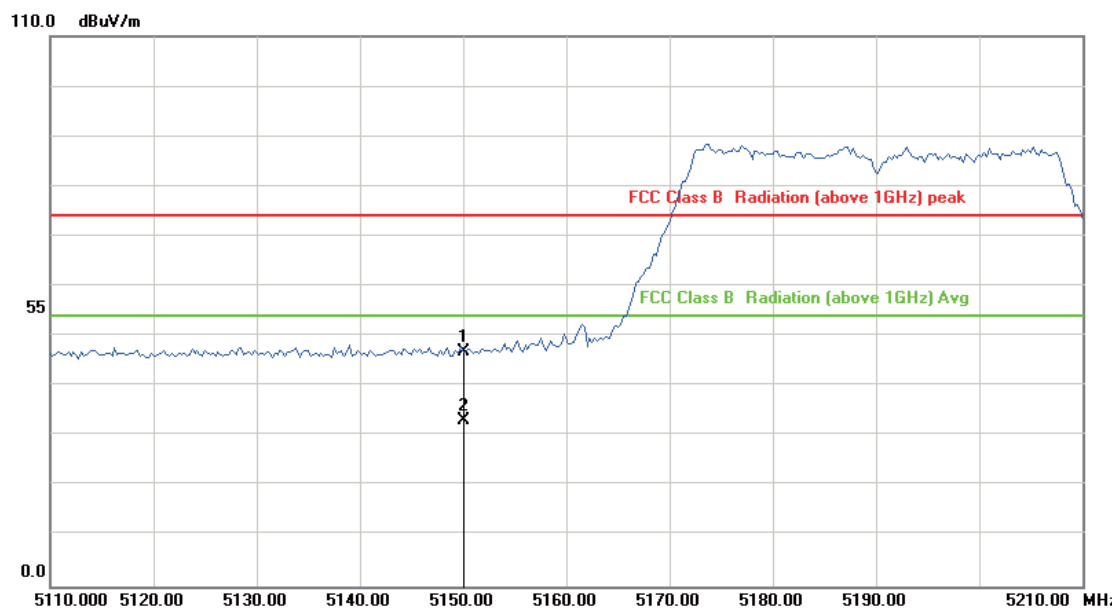
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	39.43	48.16	74.00	-25.84	peak
2	5150.000	8.73	25.31	34.04	54.00	-19.96	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 5, CH38 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



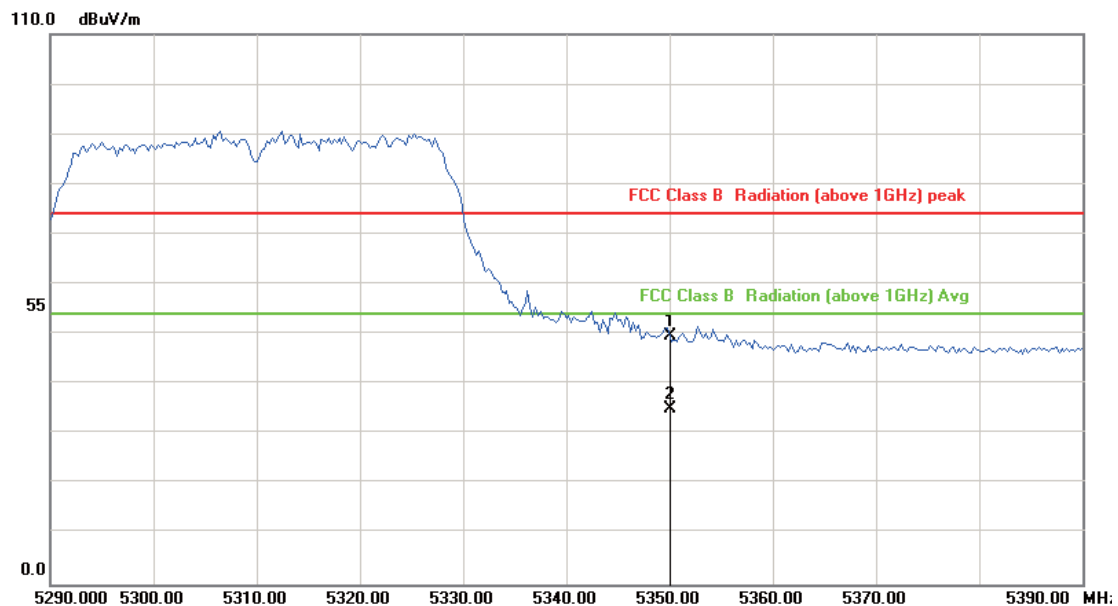
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	38.13	46.86	74.00	-27.14	peak
2	5150.000	8.73	24.39	33.12	54.00	-20.88	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, CH62 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



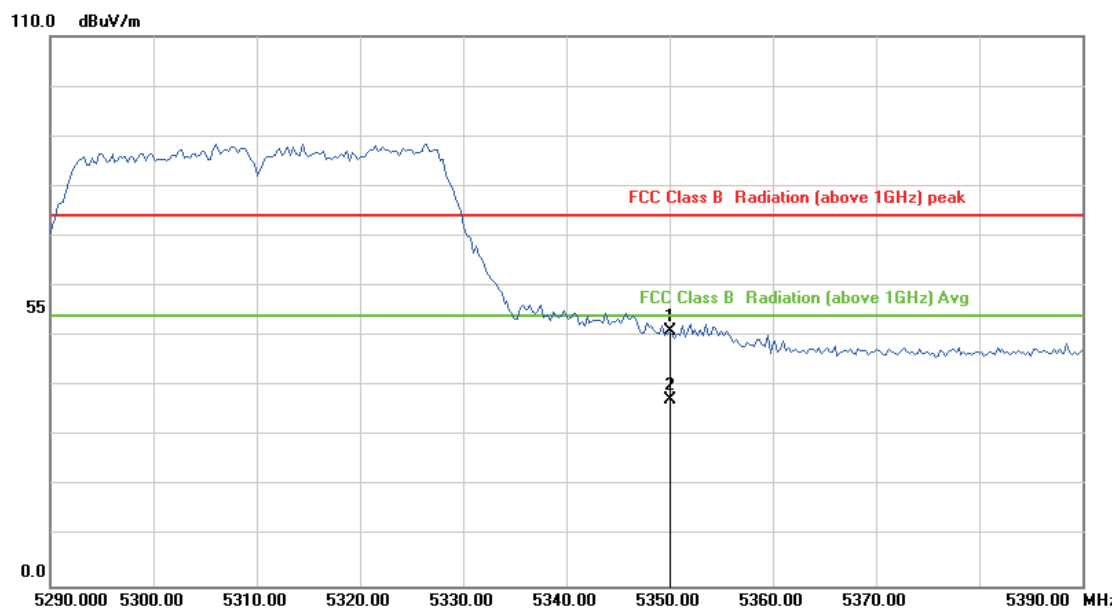
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	40.77	49.66	74.00	-24.34	peak
2	5350.000	8.89	26.14	35.03	54.00	-18.97	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 5, CH62 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



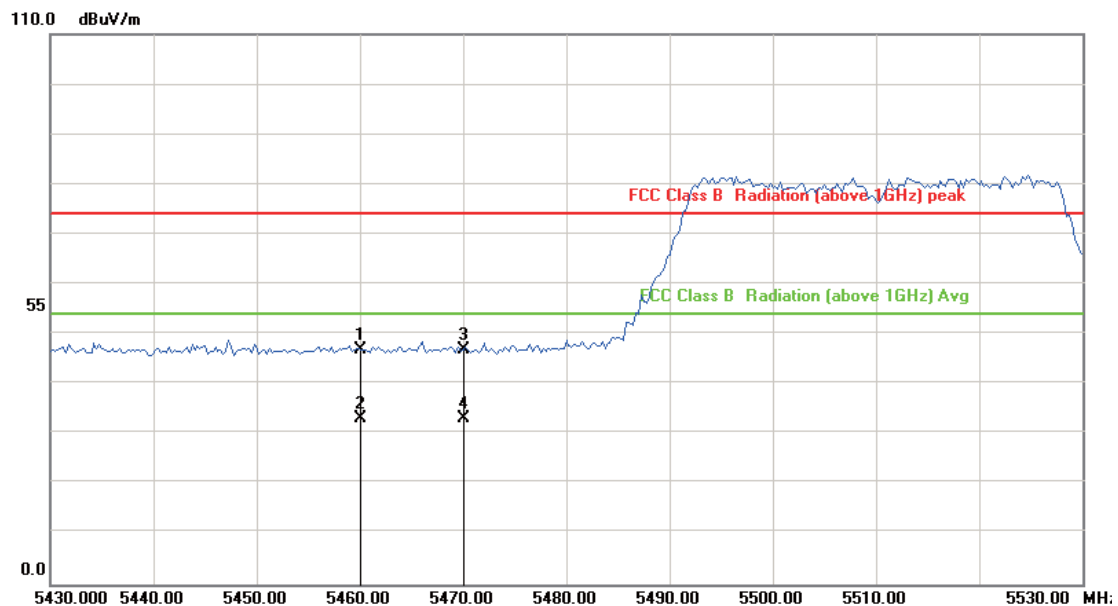
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	42.13	51.02	74.00	-22.98	peak
2	5350.000	8.89	28.37	37.26	54.00	-16.74	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, CH102 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



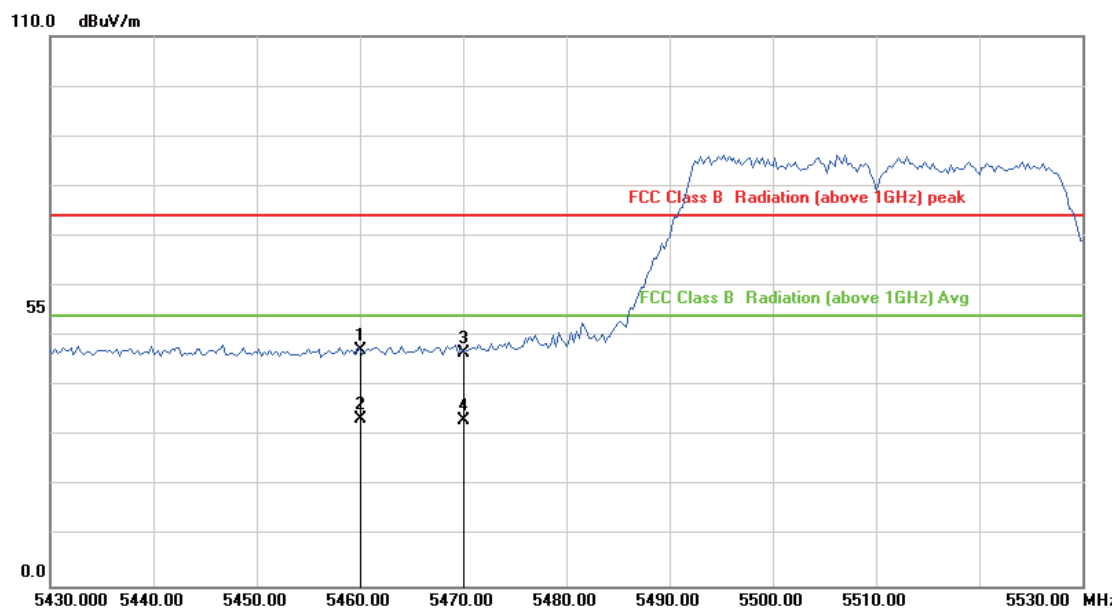
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	37.97	46.96	74.00	-27.04	peak
2	5460.000	8.99	24.05	33.04	54.00	-20.96	AVG
3	5470.000	8.99	37.94	46.93	74.00	-27.07	peak
4	5470.000	8.99	24.11	33.10	54.00	-20.90	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 5, CH102 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



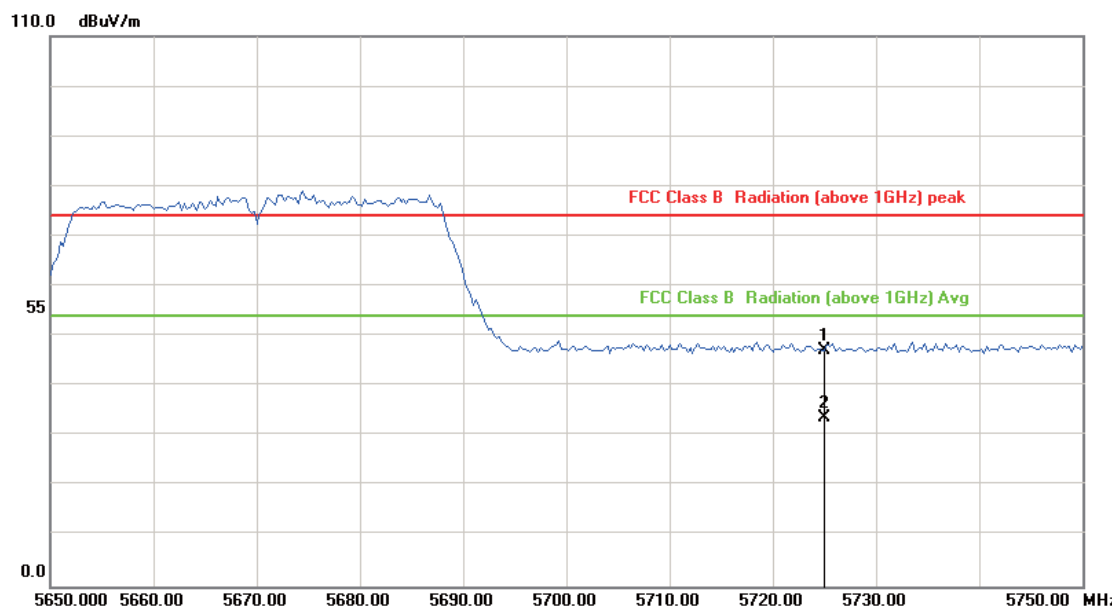
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	38.18	47.17	74.00	-26.83	peak
2	5460.000	8.99	24.53	33.52	54.00	-20.48	AVG
3	5470.000	8.99	37.56	46.55	74.00	-27.45	peak
4	5470.000	8.99	24.14	33.13	54.00	-20.87	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, CH134 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



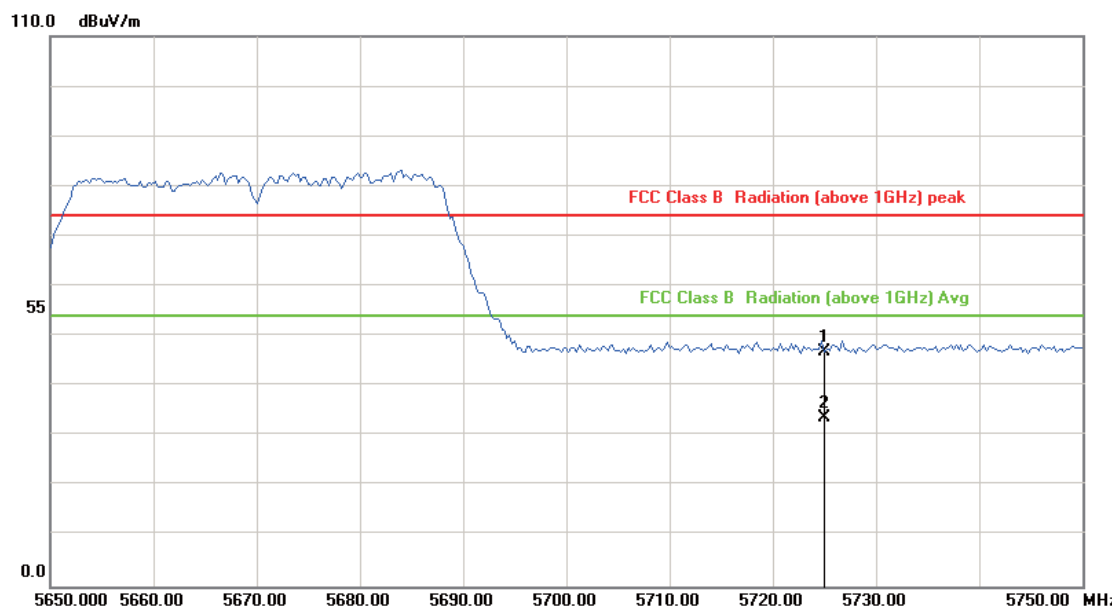
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.52	47.10	74.00	-26.90	peak
2	5725.000	9.58	24.13	33.71	54.00	-20.29	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 5, CH134 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



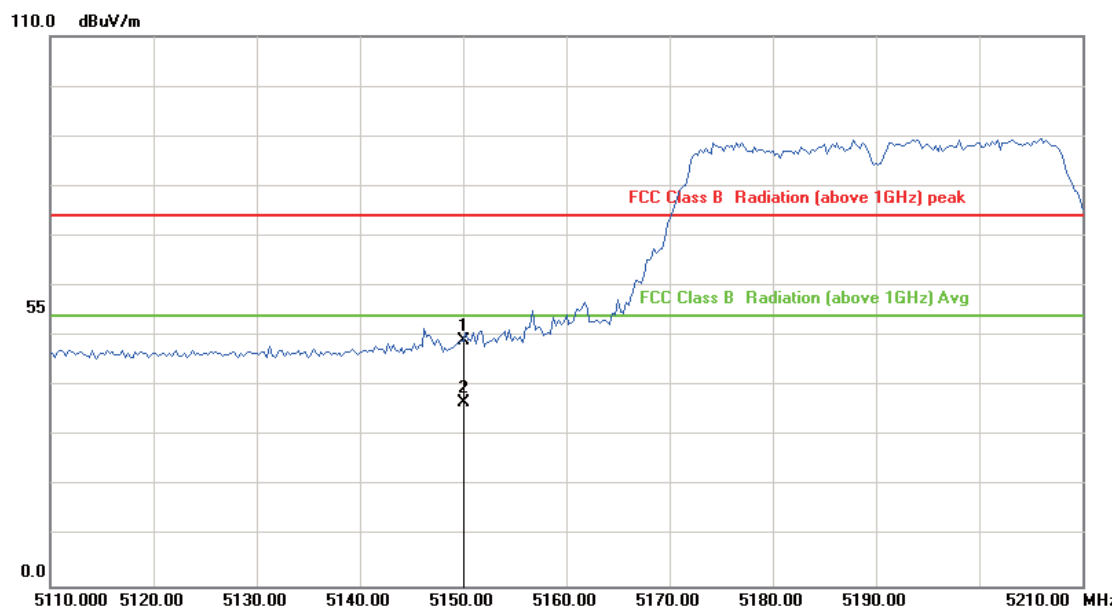
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.36	46.94	74.00	-27.06	peak
2	5725.000	9.58	24.17	33.75	54.00	-20.25	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, CH38 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



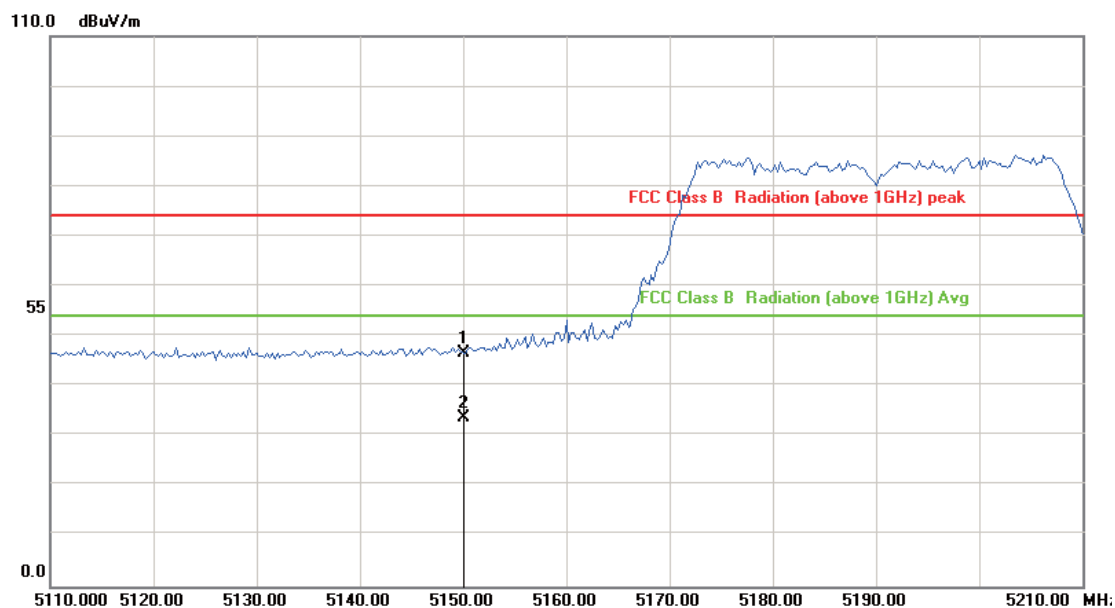
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	40.30	49.03	74.00	-24.97	peak
2	5150.000	8.73	28.12	36.85	54.00	-17.15	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 5, CH38 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



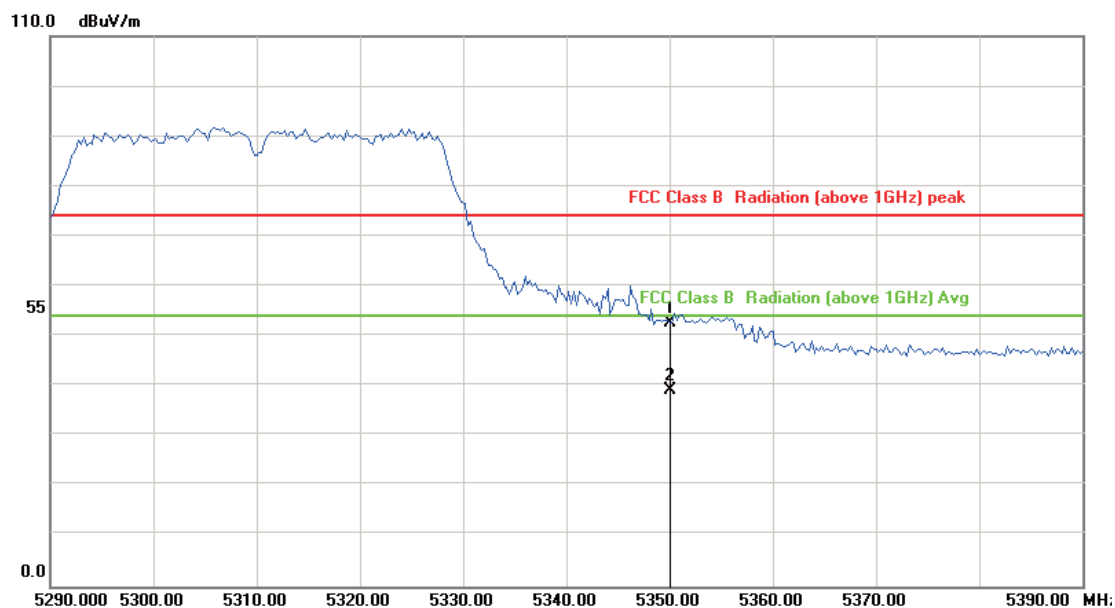
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	37.96	46.69	74.00	-27.31	peak
2	5150.000	8.73	24.84	33.57	54.00	-20.43	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, CH62 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



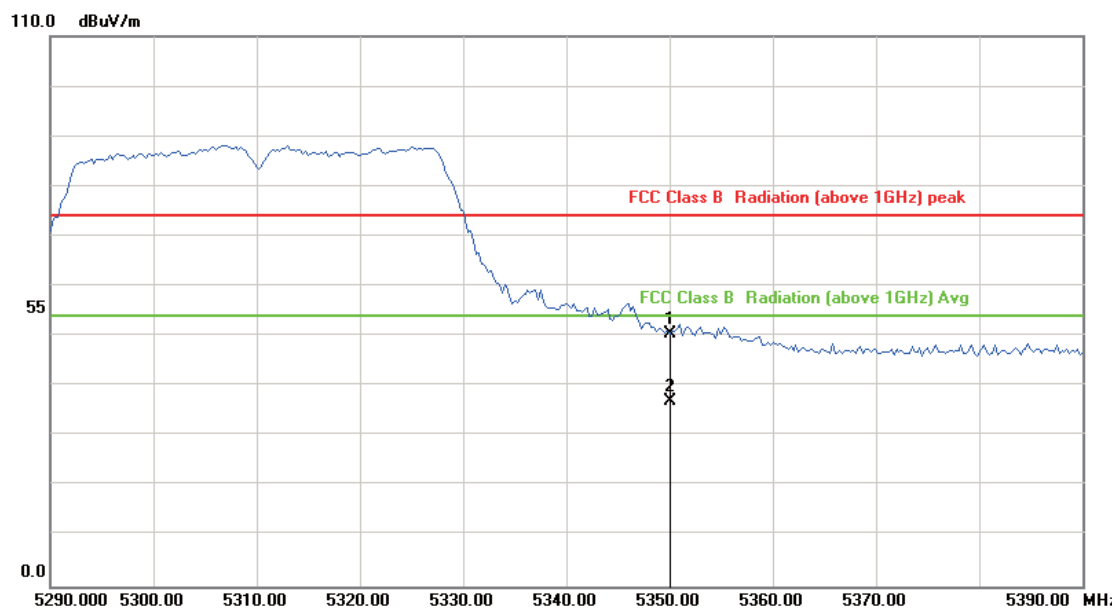
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	43.65	52.54	74.00	-21.46	peak
2	5350.000	8.89	30.18	39.07	54.00	-14.93	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 5, CH62 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



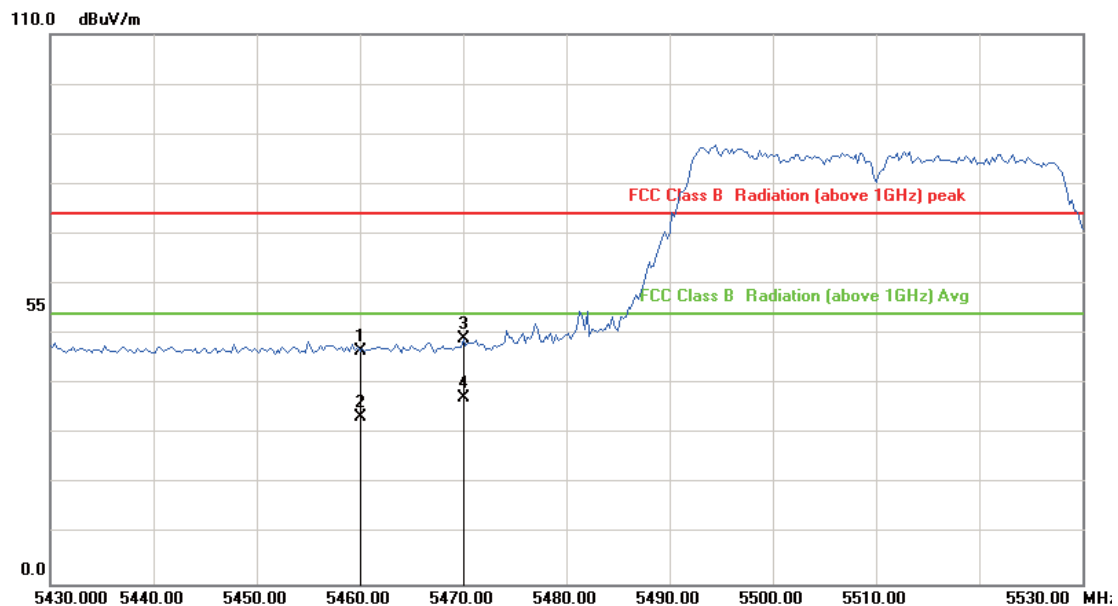
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	41.69	50.58	74.00	-23.42	peak
2	5350.000	8.89	28.12	37.01	54.00	-16.99	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, CH102 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



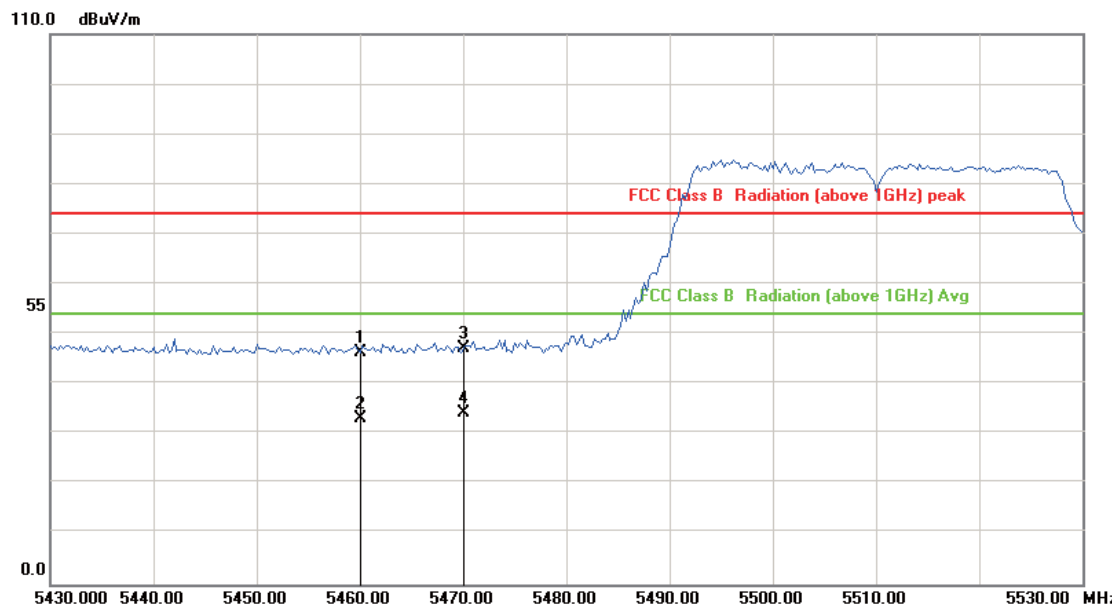
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	37.63	46.62	74.00	-27.38	peak
2	5460.000	8.99	24.51	33.50	54.00	-20.50	AVG
3	5470.000	8.99	40.16	49.15	74.00	-24.85	peak
4	5470.000	8.99	28.14	37.13	54.00	-16.87	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 5, CH102 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



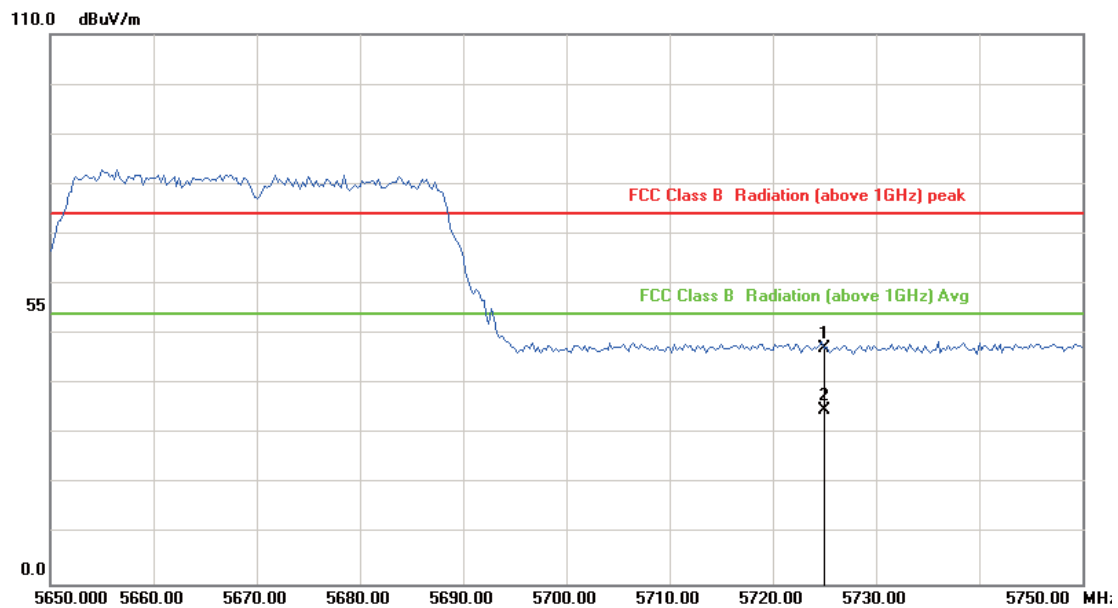
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	37.22	46.21	74.00	-27.79	peak
2	5460.000	8.99	24.13	33.12	54.00	-20.88	AVG
3	5470.000	8.99	38.20	47.19	74.00	-26.81	peak
4	5470.000	8.99	25.31	34.30	54.00	-19.70	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, CH134 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



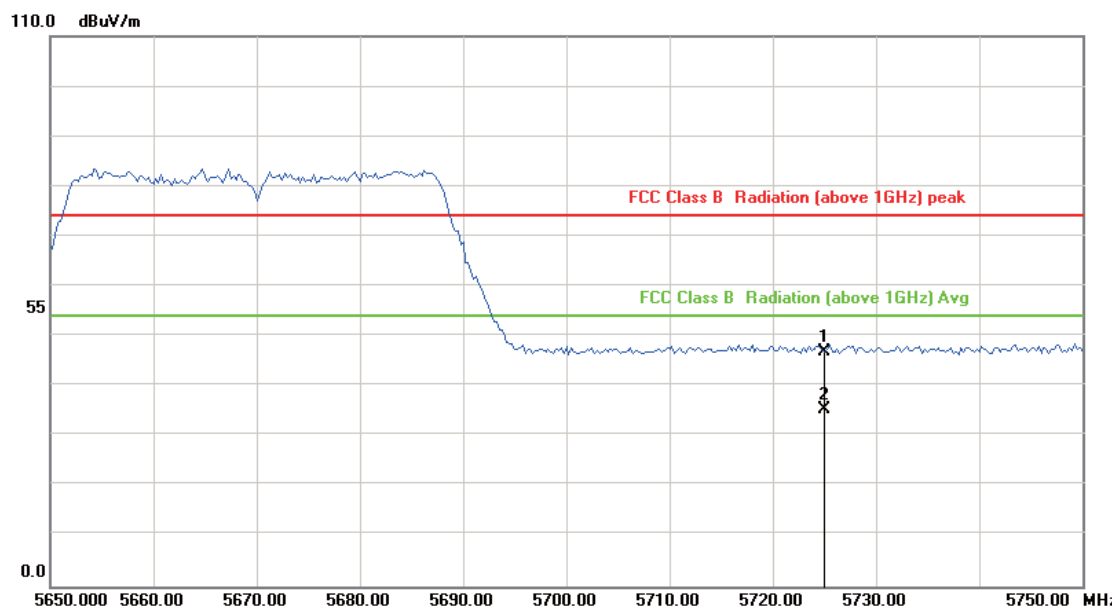
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.62	47.20	74.00	-26.80	peak
2	5725.000	9.58	25.28	34.86	54.00	-19.14	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 5, CH134 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



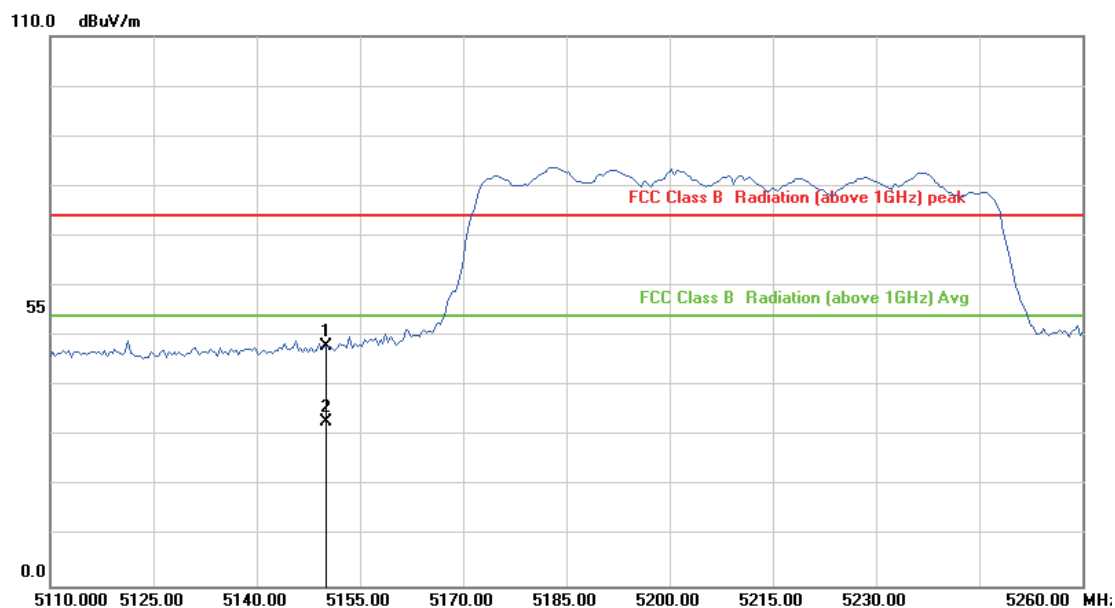
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.33	46.91	74.00	-27.09	peak
2	5725.000	9.58	25.68	35.26	54.00	-18.74	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 6, CH42 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



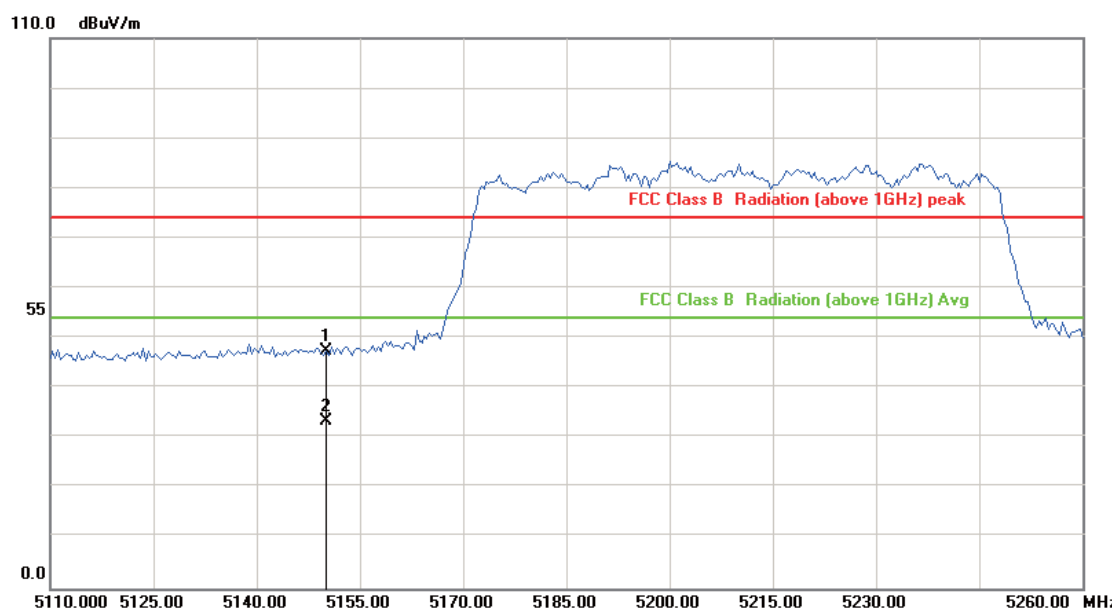
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	39.30	48.03	74.00	-25.97	peak
2	5150.000	8.73	24.13	32.86	54.00	-21.14	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 6, CH42 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



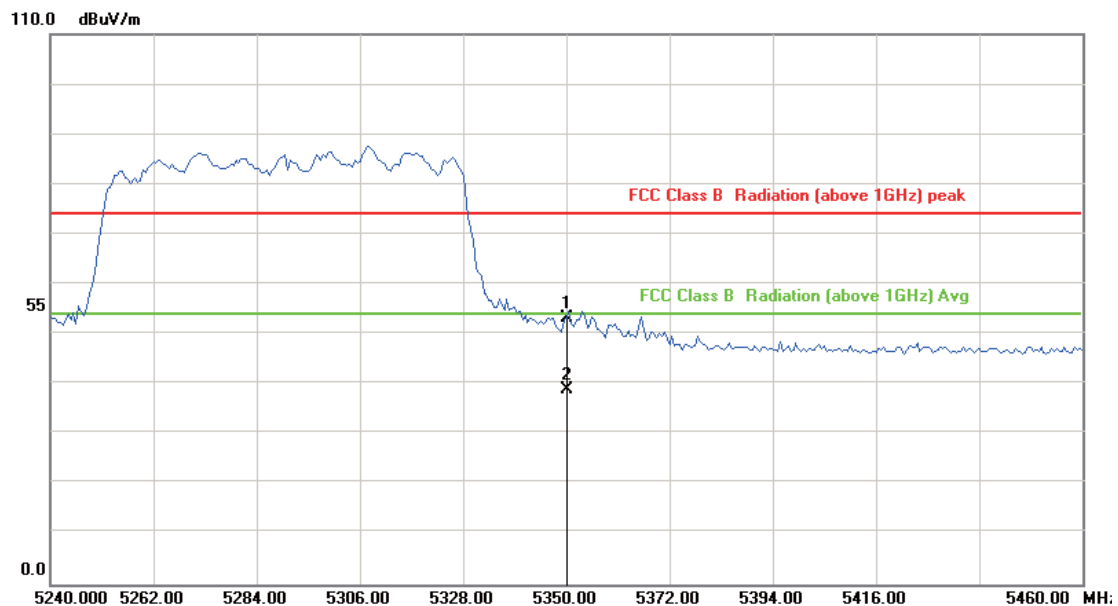
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	38.71	47.44	74.00	-26.56	peak
2	5150.000	8.73	24.65	33.38	54.00	-20.62	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 6, CH58 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



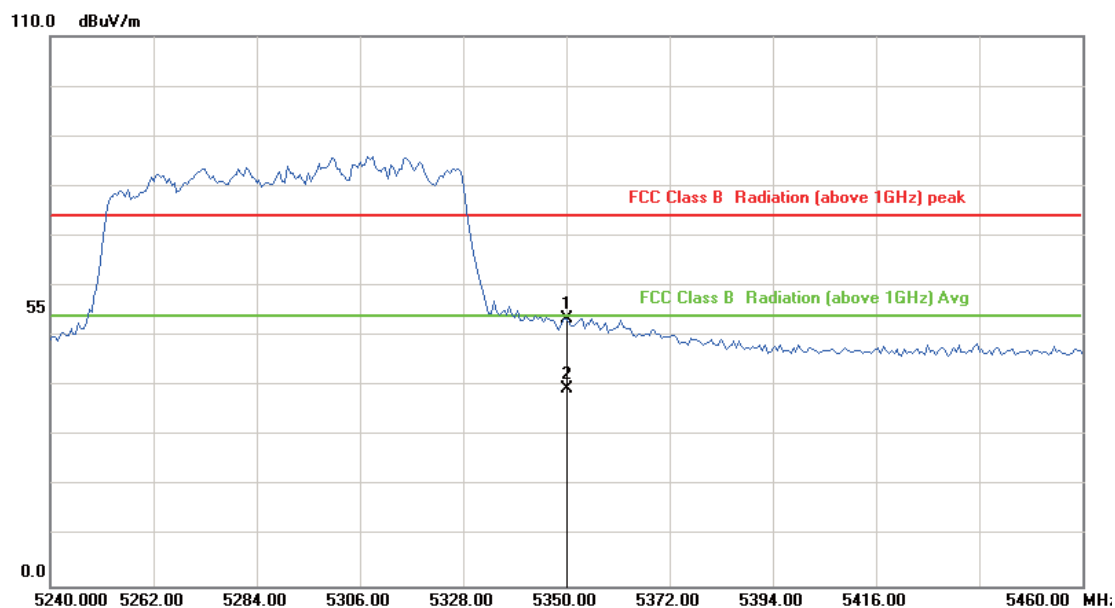
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	44.35	53.24	74.00	-20.76	peak
2	5350.000	8.89	30.12	39.01	54.00	-14.99	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 6, CH58 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



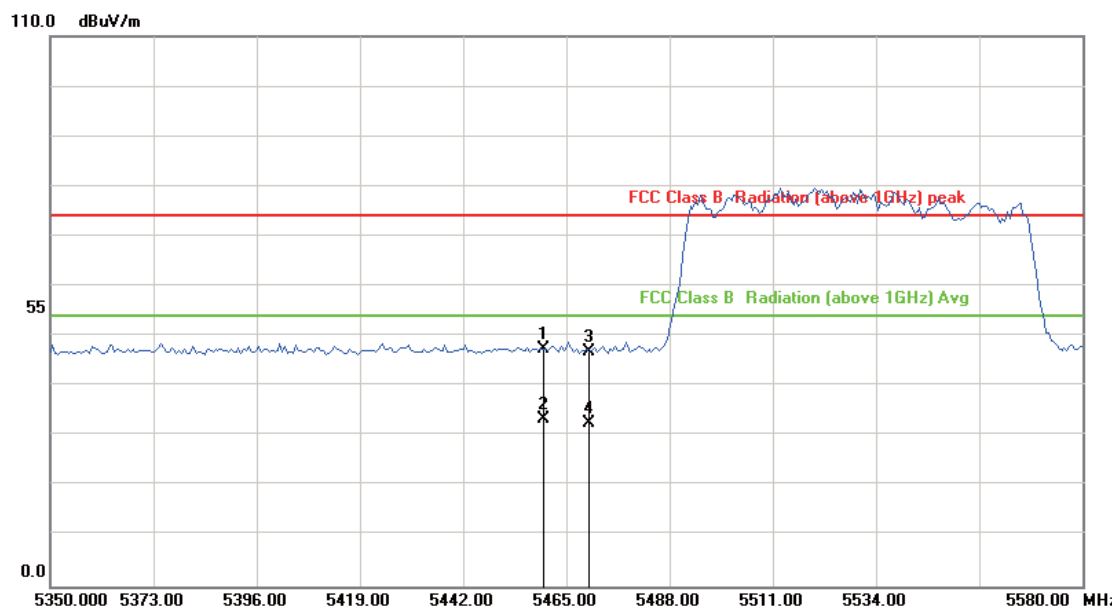
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	44.64	53.53	74.00	-20.47	peak
2	5350.000	8.89	30.57	39.46	54.00	-14.54	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 6, CH106 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



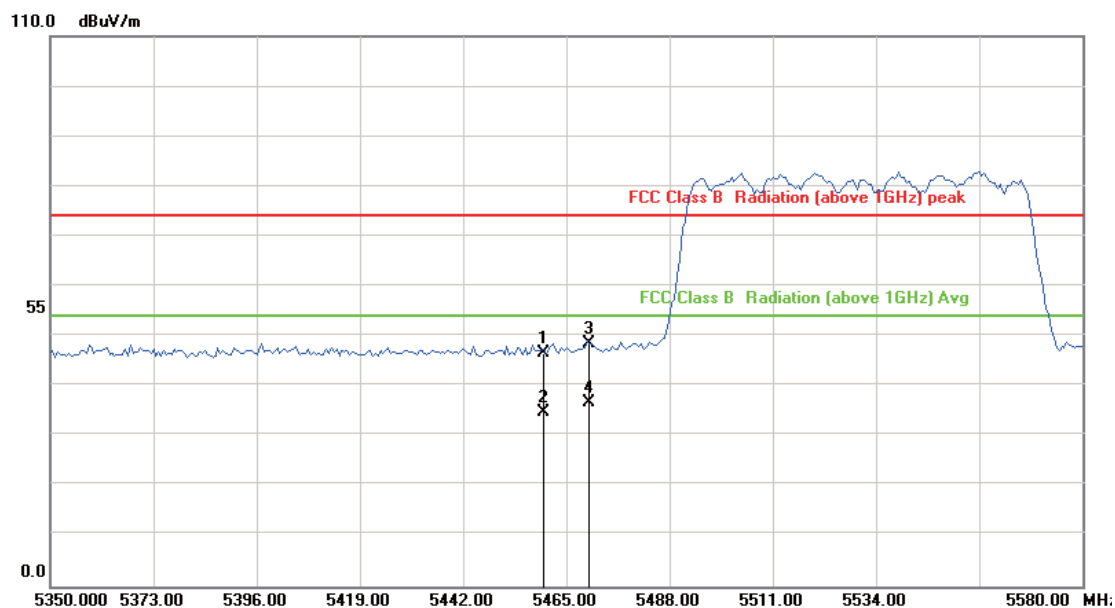
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	38.51	47.50	74.00	-26.50	peak
2	5460.000	8.99	24.39	33.38	54.00	-20.62	AVG
3	5470.000	8.99	37.95	46.94	74.00	-27.06	peak
4	5470.000	8.99	23.57	32.56	54.00	-21.44	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 6, CH106 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



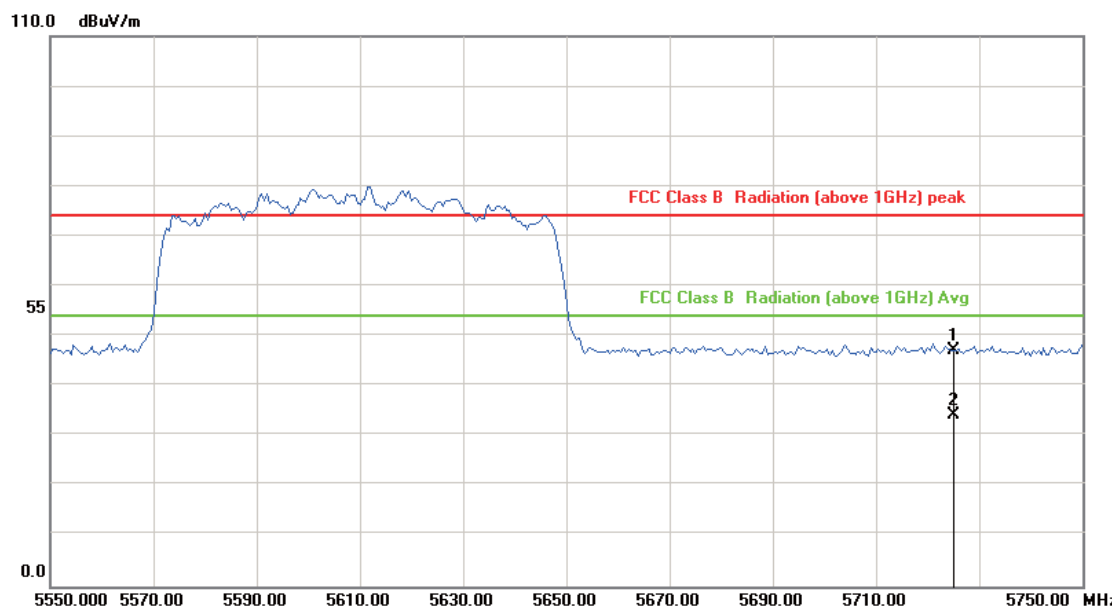
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	37.74	46.73	74.00	-27.27	peak
2	5460.000	8.99	25.68	34.67	54.00	-19.33	AVG
3	5470.000	8.99	39.43	48.42	74.00	-25.58	peak
4	5470.000	8.99	27.61	36.60	54.00	-17.40	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 6, CH122 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



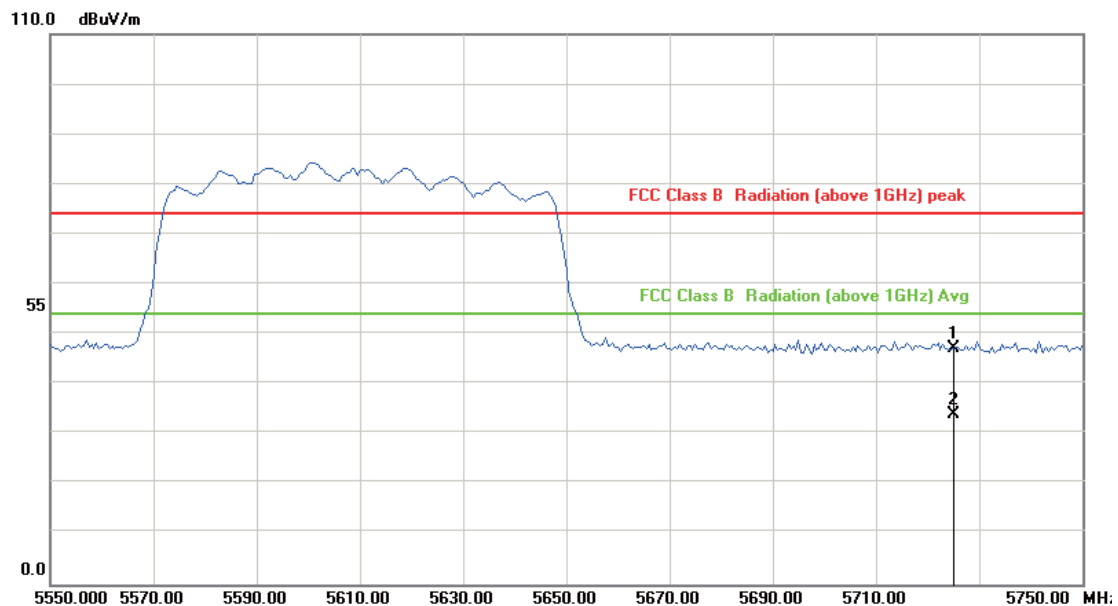
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.67	47.25	74.00	-26.75	peak
2	5725.000	9.58	24.69	34.27	54.00	-19.73	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 6, CH122 (for Ant A)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



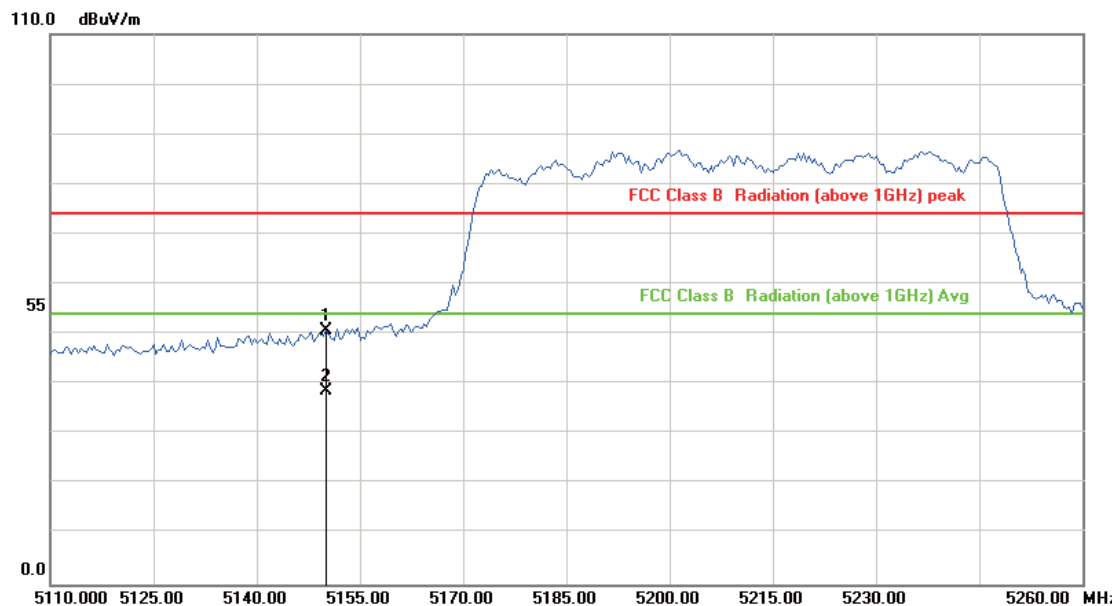
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.62	47.20	74.00	-26.80	peak
2	5725.000	9.58	24.51	34.09	54.00	-19.91	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 6, CH42 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



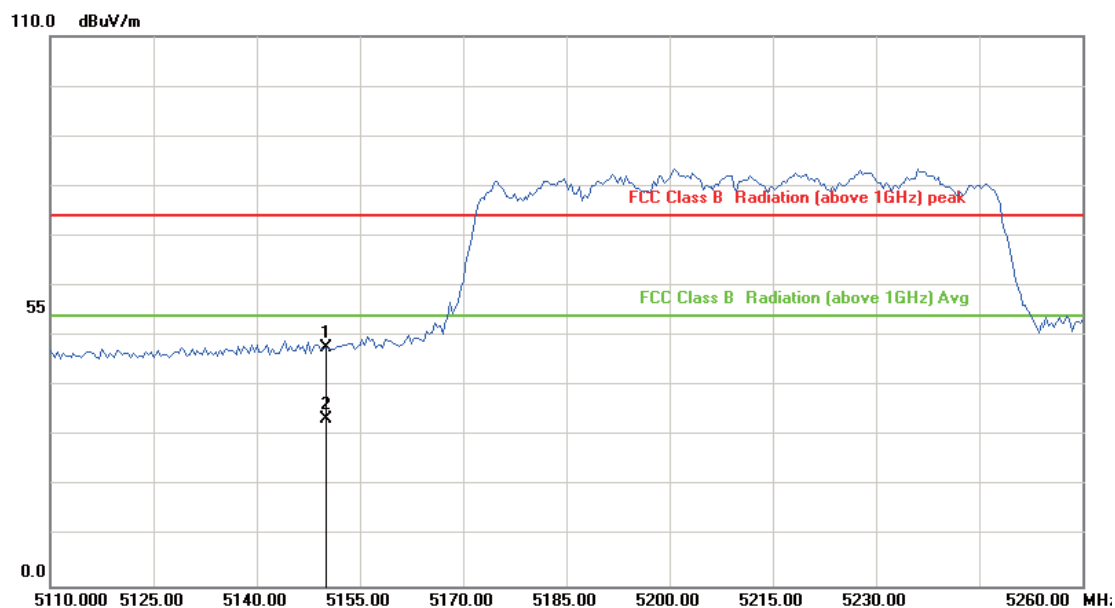
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	42.12	50.85	74.00	-23.15	peak
2	5150.000	8.73	29.87	38.60	54.00	-15.40	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 6, CH42 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



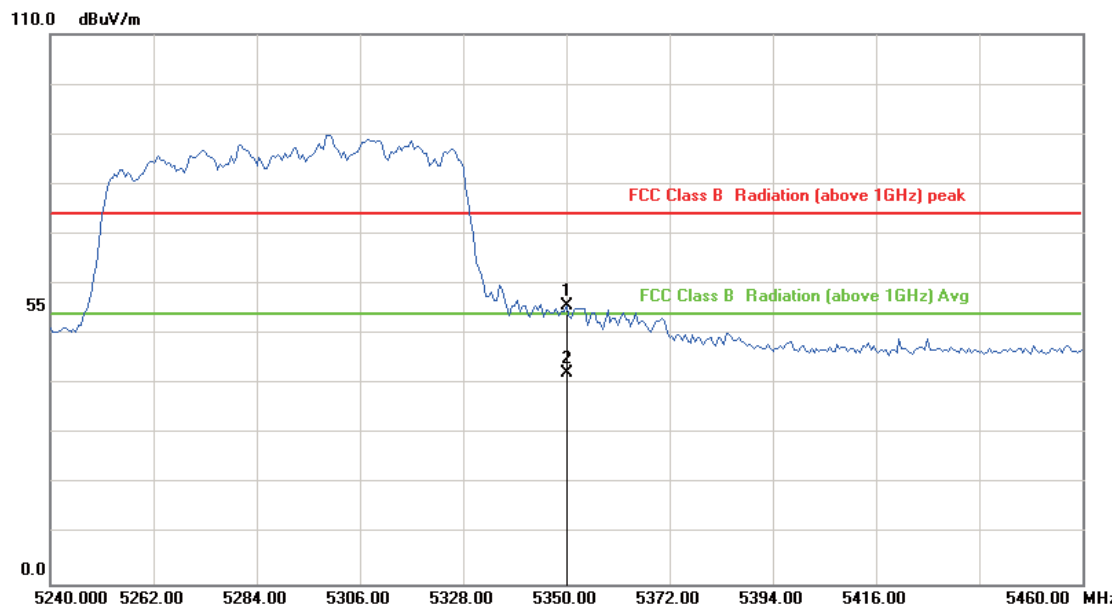
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5150.000	8.73	39.06	47.79	74.00	-26.21	peak
2	5150.000	8.73	24.62	33.35	54.00	-20.65	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 6, CH58 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



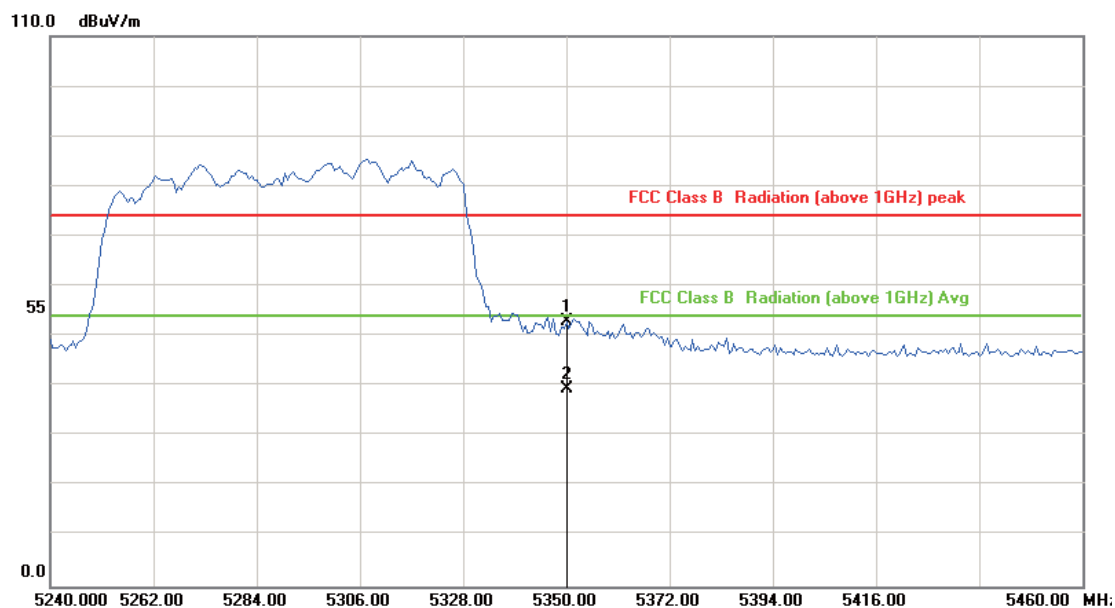
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	46.74	55.63	74.00	-18.37	peak
2	5350.000	8.89	33.21	42.10	54.00	-11.90	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 6, CH58 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



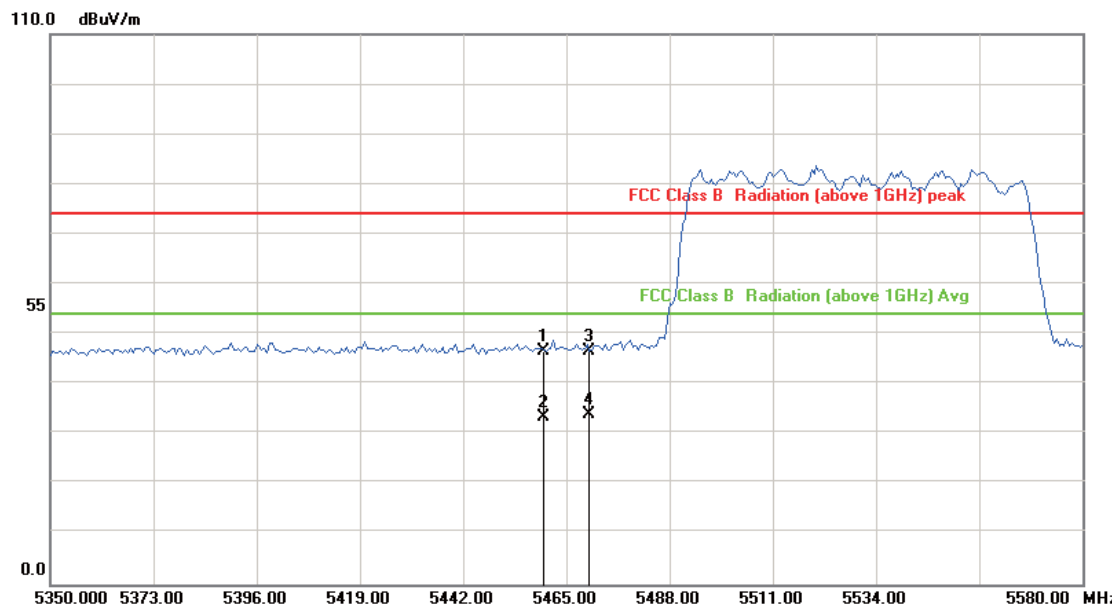
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5350.000	8.89	43.96	52.85	74.00	-21.15	peak
2	5350.000	8.89	30.61	39.50	54.00	-14.50	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 6, CH106 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



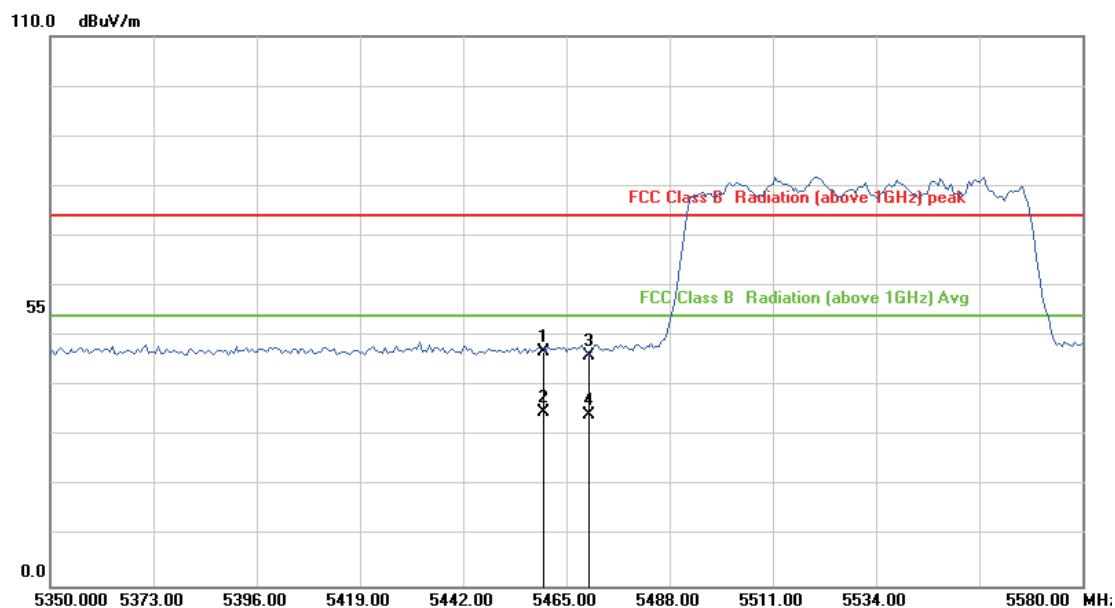
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	37.63	46.62	74.00	-27.38	peak
2	5460.000	8.99	24.36	33.35	54.00	-20.65	AVG
3	5470.000	8.99	37.72	46.71	74.00	-27.29	peak
4	5470.000	8.99	24.89	33.88	54.00	-20.12	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 6, CH106 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



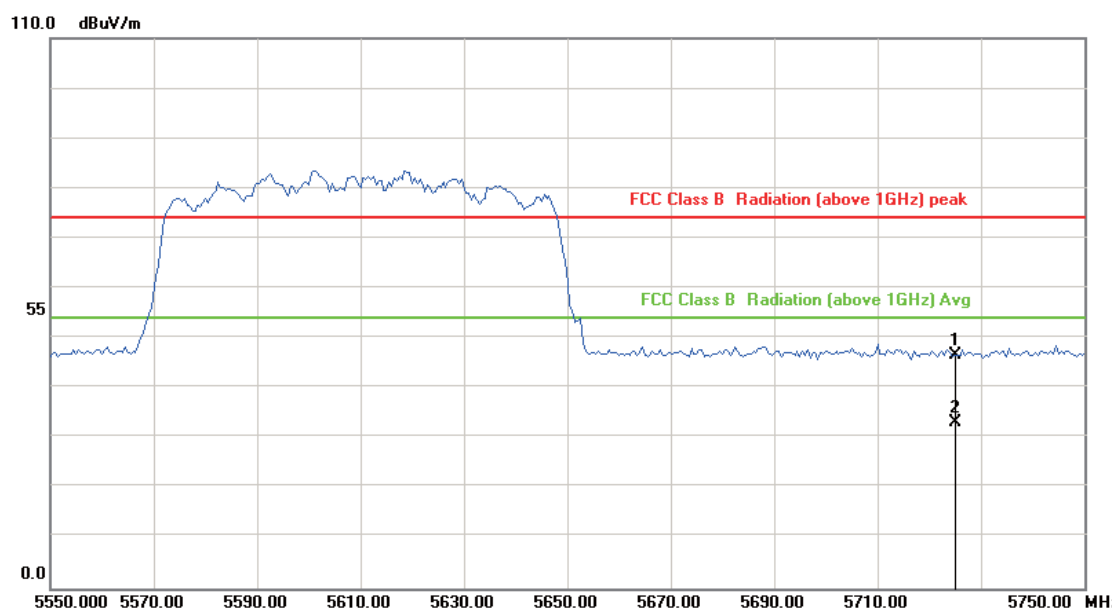
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5460.000	8.99	38.00	46.99	74.00	-27.01	peak
2	5460.000	8.99	25.69	34.68	54.00	-19.32	AVG
3	5470.000	8.99	37.18	46.17	74.00	-27.83	peak
4	5470.000	8.99	25.13	34.12	54.00	-19.88	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: VERTICAL
Test Mode	: Mode 6, CH122 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



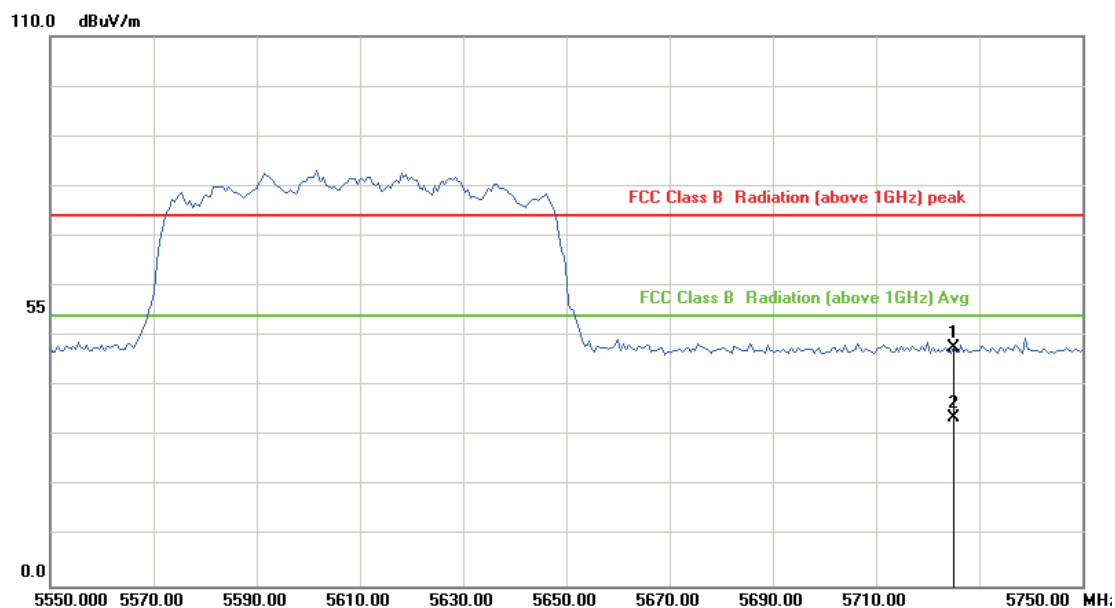
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	37.02	46.60	74.00	-27.40	peak
2	5725.000	9.58	23.68	33.26	54.00	-20.74	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.



Power	: DC 3.3V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 6, CH122 (for Ant B)	Temperature	: 22 °C
Test date	: Aug. 29, 2017	Humidity	: 56 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	5725.000	9.58	38.04	47.62	74.00	-26.38	peak
2	5725.000	9.58	24.19	33.77	54.00	-20.23	AVG

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz (detector sample mode) for Average detection at frequency above 1GHz.

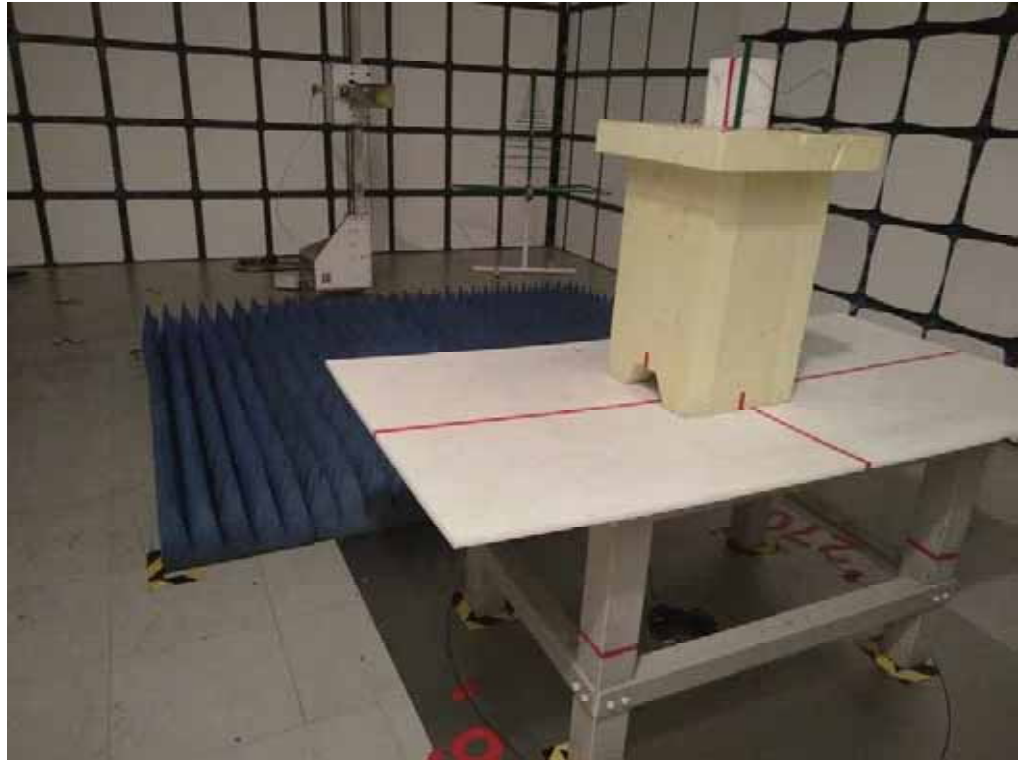


6.9. Test Photographs (30MHz ~ 1GHz)





6.10. Test Photographs (1GHz ~ 40GHz)





7. On Time, Duty Cycle and Measurement methods

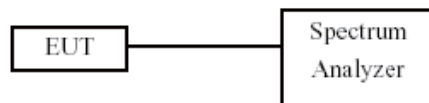
7.1. Test Limit

None; for reporting purposes only.

7.2. Test Procedure

KDB 789033 Zero-Span Spectrum Analyzer Method.

7.3. Test Setup Layout



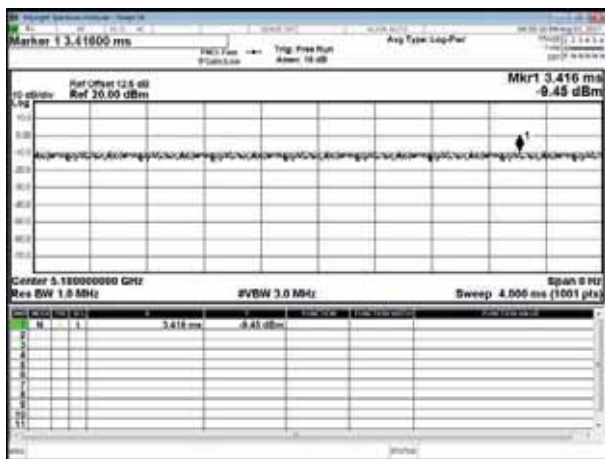
7.4. Test Result and Data

Temperature: 21°C

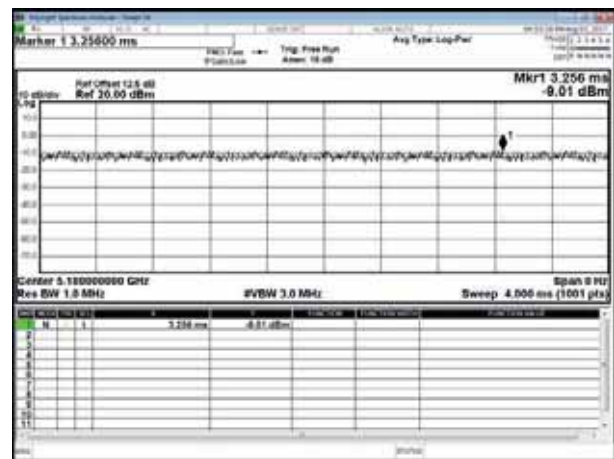
Humidity: 58%

Test Date: Aug. 03, 2017

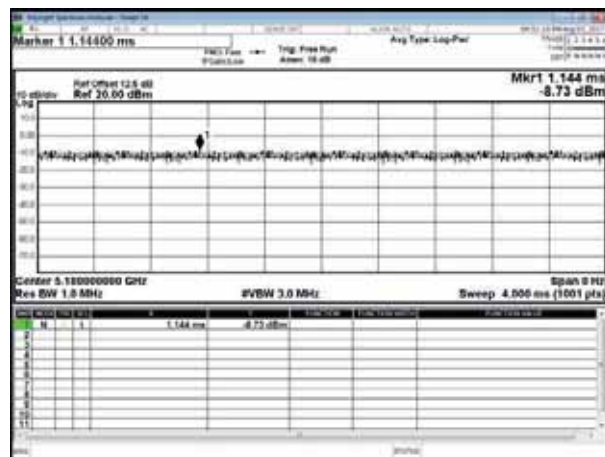
Modulation Type	On Time (msec)	Period Time (msec)	Duty Cycle (%)	1/T Minimum VBW(Hz)	Duty Cycle correction Factor (dB)
802.11a	100.00	100.00	100.00%	10.00	0.00
802.11n HT20	100.00	100.00	100.00%	10.00	0.00
802.11n HT40	100.00	100.00	100.00%	10.00	0.00
802.11ac VHT20	100.00	100.00	100.00%	10.00	0.00
802.11ac VHT40	100.00	100.00	100.00%	10.00	0.00
802.11ac VHT80	100.00	100.00	100.00%	10.00	0.00



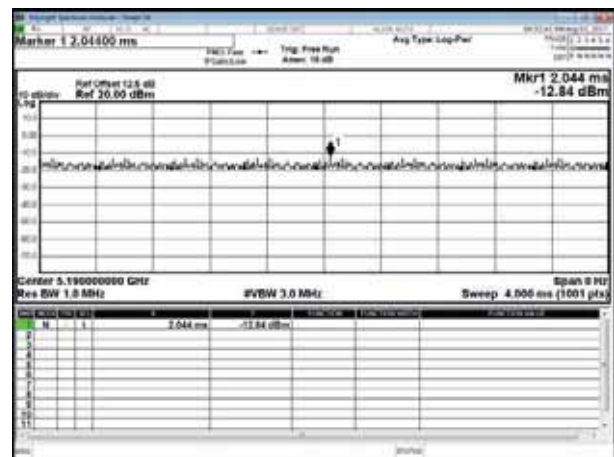
Modulation Standard: 802.11n, HT20



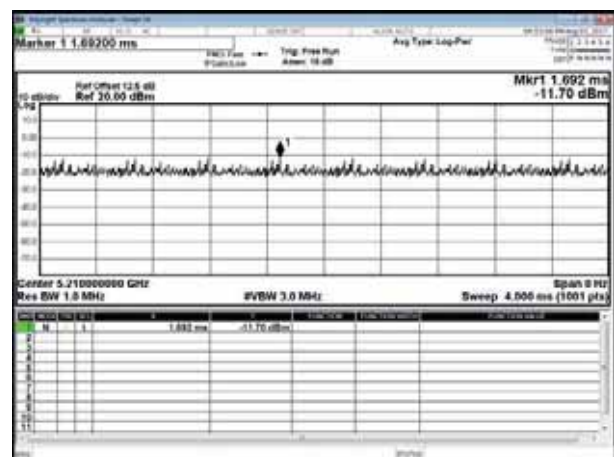
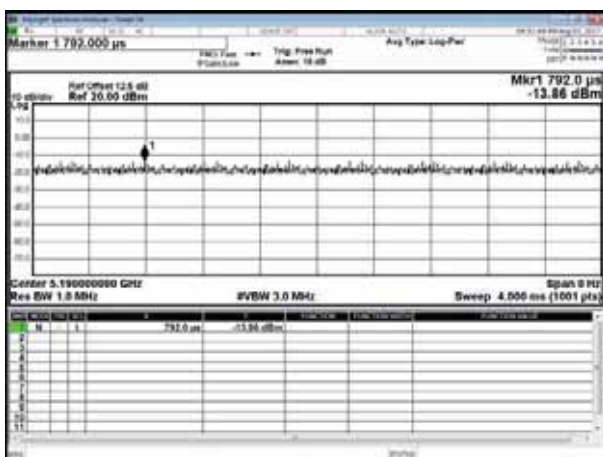
Modulation Standard: 802.11ac, VHT40



Modulation Standard: 802.11n, HT40



Modulation Standard: 802.11ac, VHT80



7.5. Measurement Methods



26 dB and 6dB Emission BW	KDB 789033 D02 v01, Section C
99% Occupied BW	KDB 789033 D02 v01, Section D
Conducted Output Power	KDB 789033 D02 v01, Section E.2.d and E.3.b (Method PM-G)
Power Spectral Density	KDB 789033 D02 v01, Section F
Unwanted emissions in restricted bands	KDB 789033 D02 v01, Sections G and H
Unwanted emissions in non-restricted bands	KDB 789033 D02 v01, Sections G and H



8. 6dB Bandwidth

8.1. Test Limit

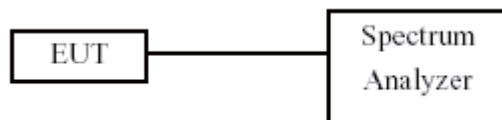
FCC §15.407

The minimum 6 dB bandwidth shall be at least 500 kHz.

8.2. Test Procedure

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to 100KHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

8.3. Test Setup Layout



8.4. Test Result and Data

This item is not applicable, since the device of frequency range is 5150MHz-5725MHz.



9. 26dB Bandwidth

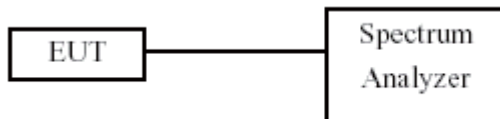
9.1. Test Limit

None; for reporting purposes only.

9.2. Test Procedure

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW = approximately 1% of the emission bandwidth, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

9.3. Test Setup Layout





9.4. Test Result and Data

Temperature: 21°C

Humidity: 58%

Test Date: Aug. 08, 2017

In the 5.2G Band

Modulation Type	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
			ANT A	ANT B
802.11a	36	5180	21.33	23.34
	44	5220	20.99	21.00
	48	5240	20.84	21.06
802.11ac VHT20	36	5180	21.64	21.87
	44	5220	21.64	21.64
	48	5240	21.58	21.63
802.11ac VHT40	38	5190	43.71	43.62
	46	5230	43.56	43.98
802.11ac VHT80	42	5210	82.01	82.60

In the 5.3G Band

Modulation Type	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
			ANT A	ANT B
802.11a	52	5260	20.83	20.78
	60	5300	20.85	20.84
	64	5320	20.73	20.79
802.11ac VHT20	52	5260	21.59	21.59
	60	5300	21.61	21.59
	64	5320	21.52	21.61
802.11ac VHT40	54	5270	43.72	43.82
	62	5310	43.27	43.54
802.11ac VHT80	58	5290	82.58	82.60

In the 5.5G Band

Modulation Type	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
			ANT A	ANT B
802.11a	100	5500	20.79	20.72
	116	5580	20.64	20.72
	140	5700	20.70	20.81
802.11ac VHT20	100	5500	21.63	21.64
	116	5580	21.65	21.68
	140	5700	21.70	21.72
802.11ac VHT40	102	5510	43.51	43.63
	110	5550	43.61	43.60
	134	5670	43.65	43.52
802.11ac VHT80	106	5530	82.43	82.56
802.11ac VHT80	122	5610	82.48	81.84



Antenna A

Modulation Standard: 802.11a (6Mbps)

CH36



CH52



CH44



CH60



CH48



CH64





Antenna A

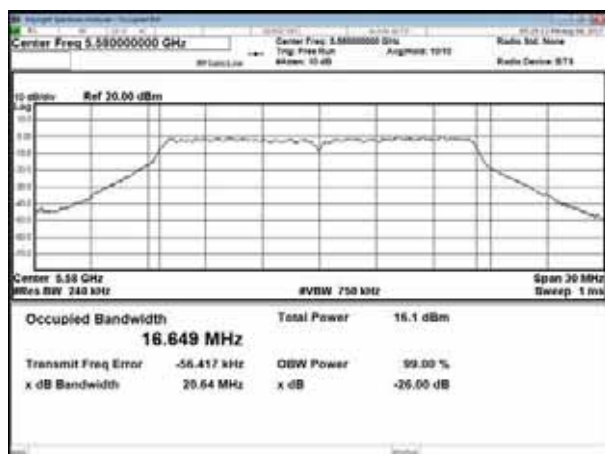
Modulation Standard: 802.11a (6Mbps)
CH100



Modulation Standard: 802.11ac VHT20 (6.5Mbps)
CH36



CH116



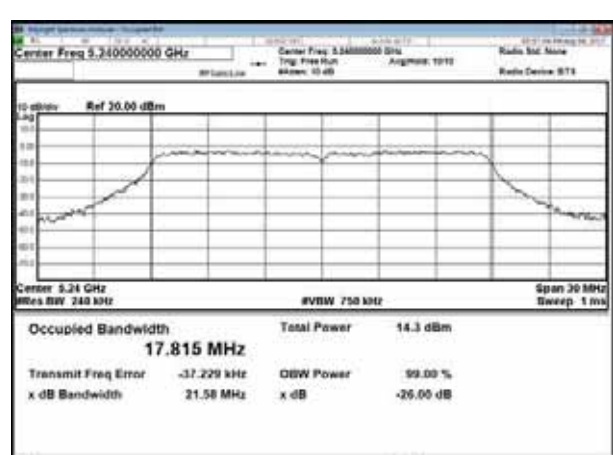
CH44



CH140



CH48





Antenna A
Modulation Standard: 802.11ac VHT20 (6.5Mbps)
CH52



CH100



CH60



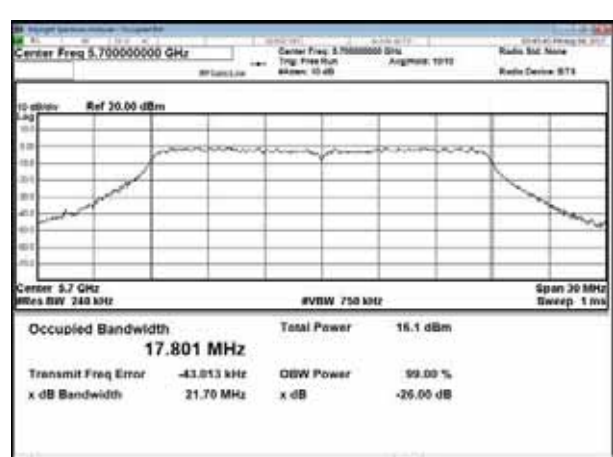
CH116



CH64



CH140





Antenna A

Modulation Standard: 802.11ac VHT40 (13.5Mbps)
CH38



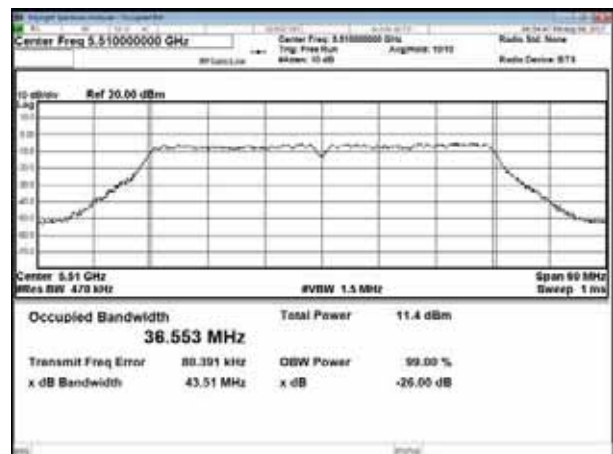
CH62



CH46



CH102



CH54

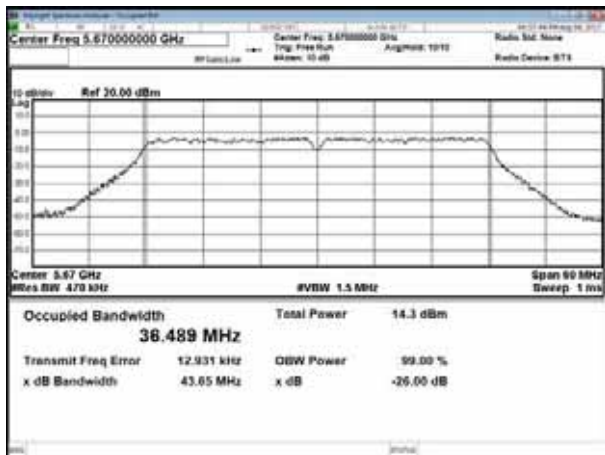


CH110





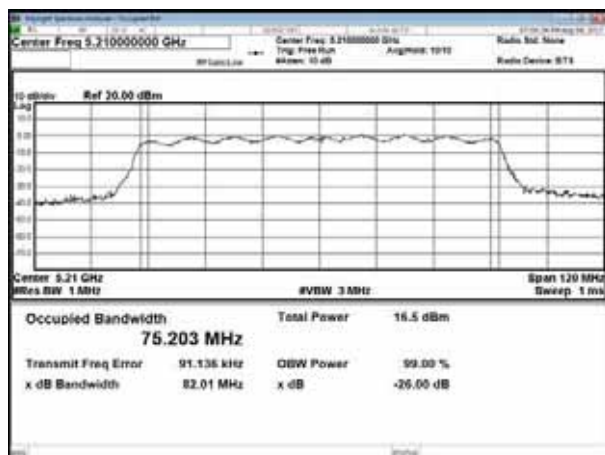
Antenna A
Modulation Standard: 802.11ac VHT40 (13.5Mbps)
CH134



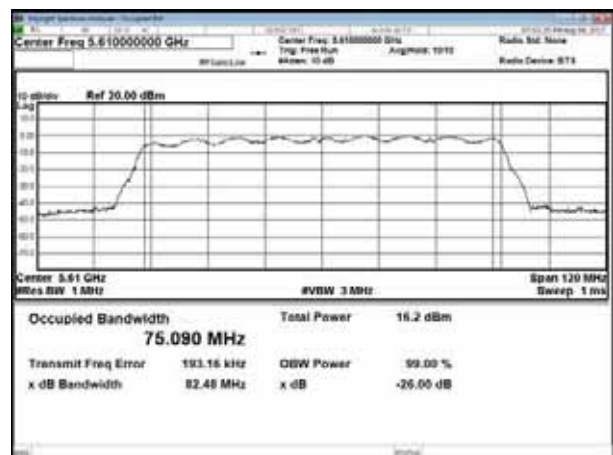
CH106



Modulation Standard: 802.11ac VHT80 (29.3Mbps)
CH42



CH122



CH58





Antenna B

Modulation Standard: 802.11a (6Mbps)

CH36

CH52



CH44

CH60



CH48

CH64





Antenna B

Modulation Standard: 802.11a (6Mbps)
CH100



Modulation Standard: 802.11ac VHT20 (6.5Mbps)
CH36



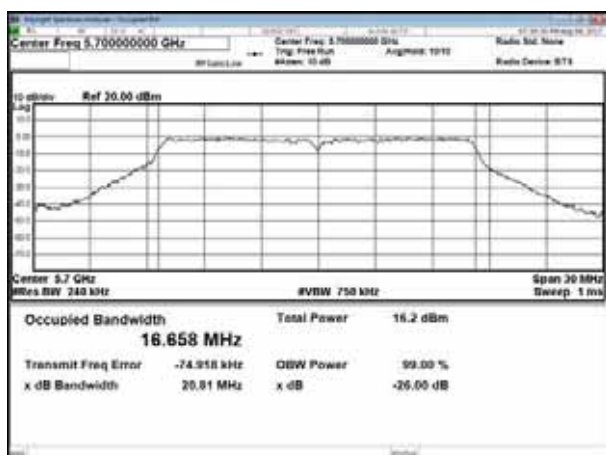
CH116



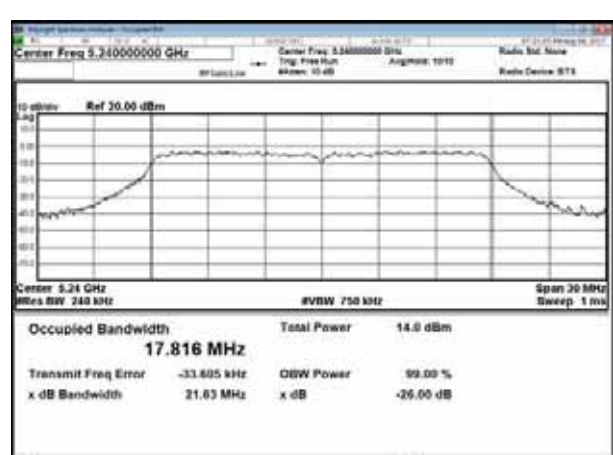
CH44



CH140



CH48





Antenna B
Modulation Standard: 802.11ac VHT20 (6.5Mbps)
CH52



CH100



CH60



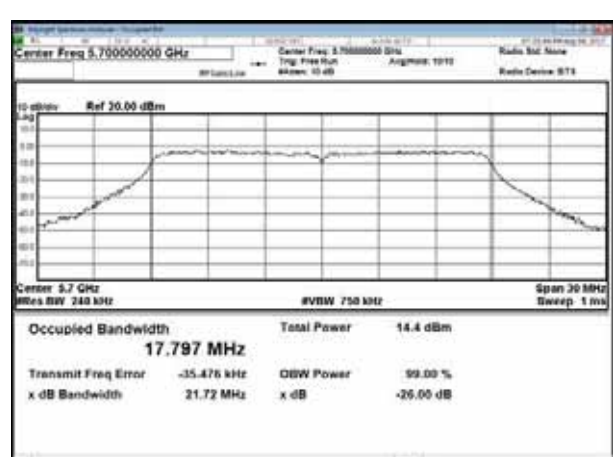
CH116



CH64



CH140





Antenna B

Modulation Standard: 802.11ac VHT40 (13.5Mbps)
CH38

CH62



CH46



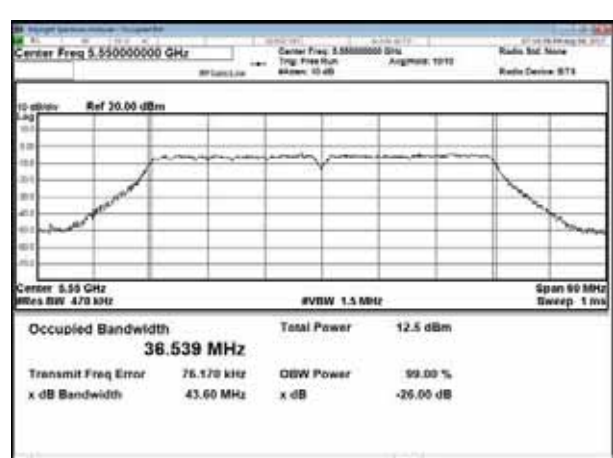
CH102



CH54



CH110





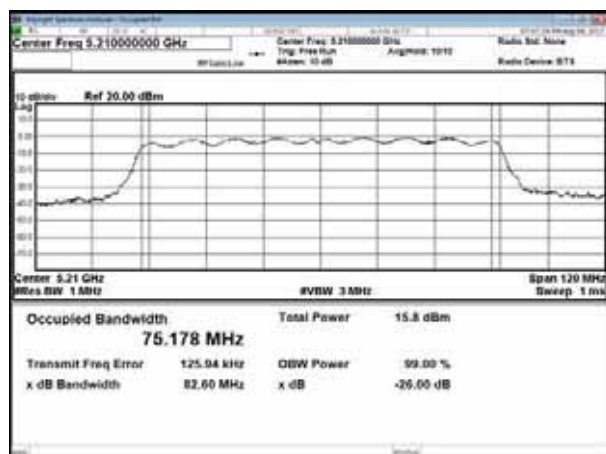
Antenna B
Modulation Standard: 802.11ac VHT40 (13.5Mbps)
CH134



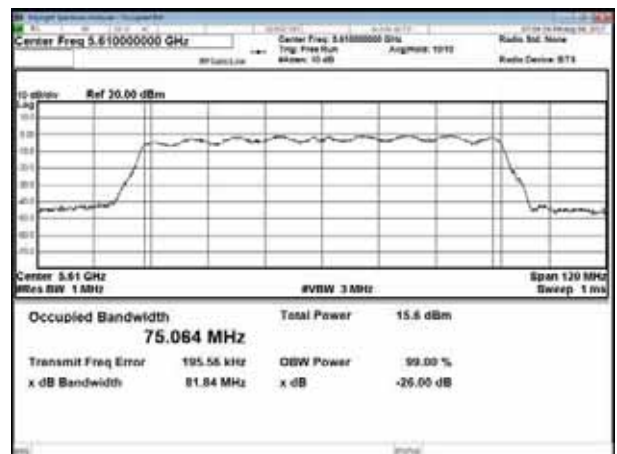
CH106



Modulation Standard: 802.11ac VHT80 (29.3Mbps)
CH42



CH122



CH58





10. Average Power

10.1. Test Limit

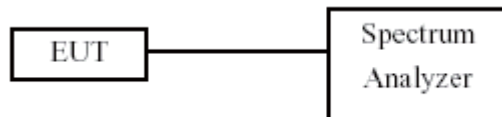
None; for reporting purposes only.

10.2. Test Procedure

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

10.3. Test Setup Layout





10.4. Test Result and Data

Temperature: 21°C

Humidity: 58%

Test Date: Jul. 28, 2017

In the 5.2G Band

Modulation Type	Channel	Frequency (MHz)	Avg Power Output (dBm)		Avg Power Output (mW)		Power Limit (dBm)
			ANT A	ANT B	ANT A	ANT B	
802.11a	36	5180	12.87	12.65	19.36	18.41	24.00
	44	5220	11.47	12.05	14.03	16.03	24.00
	48	5240	12.29	11.91	16.94	15.52	24.00
802.11an HT20	36	5180	12.72	12.62	18.71	18.28	24.00
	44	5220	11.43	11.38	13.90	13.74	24.00
	48	5240	11.36	11.42	13.68	13.87	24.00
802.11an HT40	38	5190	12.42	12.35	17.46	17.18	24.00
	46	5230	11.32	11.18	13.55	13.12	24.00
802.11ac VHT20	36	5180	12.77	12.66	18.92	18.45	24.00
	44	5220	11.50	11.45	14.16	13.96	24.00
	48	5240	11.46	11.52	14.00	14.19	24.00
802.11ac VHT40	38	5190	12.45	12.13	17.58	16.33	24.00
	46	5230	11.34	11.31	13.61	13.52	24.00
802.11ac VHT80	42	5210	11.99	11.84	15.81	15.28	24.00

In the 5.3G Band

Modulation Type	Channel	Frequency (MHz)	Avg Power Output (dBm)		Avg Power Output (mW)		Power Limit (dBm)
			ANT A	ANT B	ANT A	ANT B	
802.11a	52	5260	11.76	11.10	15.00	12.88	24.00
	60	5300	11.88	11.37	15.42	13.71	24.00
	64	5320	11.90	12.36	15.49	17.22	24.00
802.11an HT20	52	5260	11.34	11.33	13.61	13.58	24.00
	60	5300	11.46	11.38	14.00	13.74	24.00
	64	5320	11.56	11.48	14.32	14.06	24.00
802.11an HT40	54	5270	11.49	11.36	14.09	13.68	24.00
	62	5310	11.55	11.38	14.29	13.74	24.00
802.11ac VHT20	52	5260	11.39	11.18	13.77	13.12	24.00
	60	5300	11.50	11.47	14.13	14.03	24.00
	64	5320	11.63	11.51	14.55	14.16	24.00
802.11ac VHT40	54	5270	11.36	11.27	13.68	13.40	24.00
	62	5310	11.53	11.42	14.22	13.87	24.00
802.11ac VHT80	58	5290	11.59	11.54	14.42	14.26	24.00



Temperature: 21°C

Humidity: 58%

Test Date: Jul. 28, 2017

In the 5.5G Band

Modulation Type	Channel	Frequency (MHz)	Avg Power Output (dBm)		Avg Power Output (mW)		Power Limit (dBm)
			ANT A	ANT B	ANT A	ANT B	
802.11a	100	5500	8.40	8.49	6.92	7.06	24.00
	116	5580	11.80	11.69	15.14	14.76	24.00
	140	5700	12.60	12.73	18.20	18.75	24.00
802.11an HT20	100	5500	8.62	8.73	7.28	7.46	24.00
	116	5580	12.48	12.06	17.70	16.07	24.00
	140	5700	12.45	12.37	17.58	17.26	24.00
802.11an HT40	102	5510	8.38	8.35	6.89	6.84	24.00
	110	5550	10.62	10.58	11.53	11.43	24.00
	134	5670	11.44	11.37	13.93	13.71	24.00
802.11ac VHT20	100	5500	8.68	8.65	7.38	7.33	24.00
	116	5580	12.55	12.40	17.99	17.38	24.00
	140	5700	12.43	12.45	17.50	17.58	24.00
802.11ac VHT40	102	5510	8.34	8.28	6.82	6.73	24.00
	110	5550	10.48	10.79	11.17	11.99	24.00
	134	5670	11.67	11.72	14.69	14.86	24.00
802.11ac VHT80	106	5530	8.87	8.66	7.71	7.35	24.00
	122	5610	11.69	11.91	14.76	15.52	24.00



11. Output Power and PPSD

11.1. Test Limit

Output Power:

Frequency Band		Limit
<input checked="" type="checkbox"/>	5.15~5.25GHz	
	Operating Mode	
	<input type="checkbox"/> Outdoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30degrees as measured from the horizon must not exceed 125 mW (21 dBm).
	<input type="checkbox"/> Indoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
	<input type="checkbox"/> Fixed point-to-point access points	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.
	<input checked="" type="checkbox"/> Client devices	The maximum conducted output power over the frequency band of operation shall not exceed 250 mW (24dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.



Frequency Band		Limit
<input checked="" type="checkbox"/>	5.25-5.35 GHz	The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
<input checked="" type="checkbox"/>	5.470-5.725 GHz	
<input type="checkbox"/>	5.725~5.85 GHz	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power.

PSD:

Frequency Band		Limit
<input checked="" type="checkbox"/>	5.15~5.25GHz	
	Operating Mode	
<input type="checkbox"/>	Outdoor access point	17 dBm/MHz
<input type="checkbox"/>	Indoor access point	17 dBm/MHz
<input type="checkbox"/>	Fixed point-to-point access points	17 dBm/MHz
<input checked="" type="checkbox"/>	Client devices	11 dBm/MHz
<input checked="" type="checkbox"/>	5.25~5.35 GHz	11 dBm/MHz
<input checked="" type="checkbox"/>	5.470-5.725 GHz	11 dBm/MHz
<input type="checkbox"/>	5.725~5.85 GHz	30 dBm/500kHz



11.2. Test Procedure

As an alternative to FCC KDB-789033, the EUT maximum conducted output power was Measured with an average power meter employing a video bandwidth greater than 6dB BW of the emission under test. Maximum conducted output power was read directly from the meter across all data rates, and across three channels within each sub-band. Special care was used to make sure that the EUT was transmitting in continuous mode. This method exceeds the limitations of FCC KDB-789033, and provides more accurate measurements.

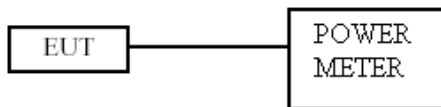
802.11an (BW \leq 40MHz) Maximum conducted output power using KDB 789033 section E)3)b) Method PM-G (Measurement using a gated RF average power meter)

Note: the power meter have a video bandwidth that is greater than or equal to the measurement bandwidth, (Anritsu/ MA2411B video bandwidth: 65MHz)

802.11ac (BW=80MHz) Maximum conducted output power using KDB 789033 section E)2)b) Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep).

When transmitted signals consist of two or more non-contiguous spectrum segments (e.g., 80+80 MHz mode) or when a single spectrum segment of a transmission crosses the boundary between two adjacent U-NII bands, KDB 644545 D01 section F) procedure is used for measurements.

11.3. Test Setup Layout





11.4. Test Result and Data

Temperature: 21°C

Humidity: 58%

Test Date: Aug. 10, 2017

In the 5.2G Band

Modulation Type	CH	Freq. (MHz)	Meas PPSD (dBm/MHz)		Duty Cycle CF(dB)	Total Corr'd PPSS(dBm/MHz)		PPSD Limit (dBm/MHz)
			ANT A	ANT B		ANT A	ANT B	
802.11a	36	5180	-0.487	-1.470	0.00	-0.487	-1.470	11.00
	44	5220	-2.151	-2.700	0.00	-2.151	-2.700	11.00
	48	5240	-1.523	-2.047	0.00	-1.523	-2.047	11.00
802.11ac VHT20	36	5180	-1.935	-2.342	0.00	-1.935	-2.342	11.00
	44	5220	-2.609	-3.703	0.00	-2.609	-3.703	11.00
	48	5240	-3.664	-3.713	0.00	-3.664	-3.713	11.00
802.11ac VHT40	38	5190	-5.523	-6.338	0.00	-5.523	-6.338	11.00
	46	5230	-6.900	-7.515	0.00	-6.900	-7.515	11.00
802.11ac VHT80	42	5210	-7.782	-8.391	0.00	-7.782	-8.391	11.00

In the 5.3G Band

Modulation Type	CH	Freq. (MHz)	Meas PPSS (dBm/MHz)		Duty Cycle CF(dB)	Total Corr'd PPSS(dBm/MHz)		PPSS Limit (dBm/MHz)
			ANT A	ANT B		ANT A	ANT B	
802.11a	52	5260	-3.225	-3.594	0.00	-3.225	-3.594	11.00
	60	5300	-2.662	-2.589	0.00	-2.662	-2.589	11.00
	64	5320	-2.354	-2.052	0.00	-2.354	-2.052	11.00
802.11ac VHT20	52	5260	-4.117	-3.960	0.00	-4.117	-3.960	11.00
	60	5300	-3.722	-3.299	0.00	-3.722	-3.299	11.00
	64	5320	-3.135	-3.232	0.00	-3.135	-3.232	11.00
802.11ac VHT40	54	5270	-7.677	-7.763	0.00	-7.677	-7.763	11.00
	62	5310	-7.115	-7.248	0.00	-7.115	-7.248	11.00
802.11ac VHT80	58	5290	-8.946	-8.967	0.00	-8.946	-8.967	11.00



Temperature: 21°C

Humidity: 58%

Test Date: Aug. 10, 2017

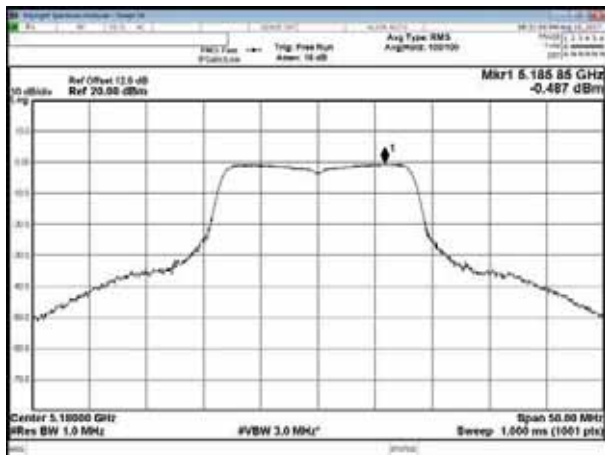
In the 5.5G Band

Modulation Type	CH	Freq. (MHz)	Meas PPSD (dBm/MHz)		Duty Cycle CF(dB)	Total Corr'd PPSD(dBm/MHz)		PPSD Limit (dBm/MHz)
			ANT A	ANT B		ANT A	ANT B	
802.11a	100	5500	-4.845	-5.397	0.00	-4.845	-5.397	11.00
	116	5580	-1.469	-1.894	0.00	-1.469	-1.894	11.00
	140	5700	0.753	-0.590	0.00	0.753	-0.590	11.00
802.11ac VHT20	100	5500	-6.028	-6.689	0.00	-6.028	-6.689	11.00
	116	5580	-2.217	-3.401	0.00	-2.217	-3.401	11.00
	140	5700	-2.175	-2.771	0.00	-2.175	-2.771	11.00
802.11ac VHT40	102	5510	-9.377	-10.019	0.00	-9.377	-10.019	11.00
	118	5550	-7.216	-7.967	0.00	-7.216	-7.967	11.00
	134	5670	-5.957	-6.982	0.00	-5.957	-6.982	11.00
802.11ac VHT80	106	5530	-10.483	-11.521	0.00	-10.483	-11.521	11.00
	122	5610	-7.150	-8.894	0.00	-7.150	-8.894	11.00

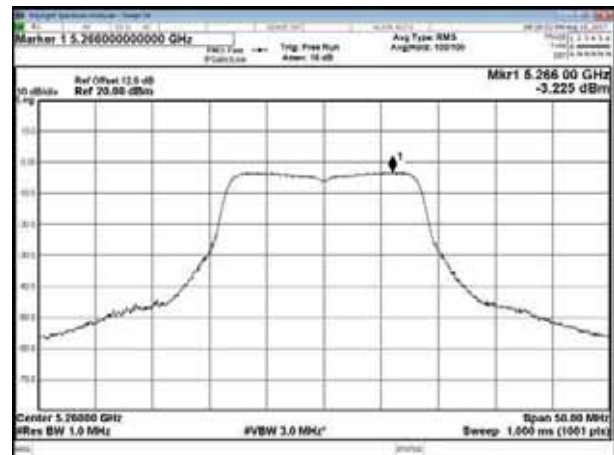


5.2G Band, 5.3G Band, 5.5G Band
Antenna A
Modulation Standard: 802.11a (6Mbps)

CH36



CH52



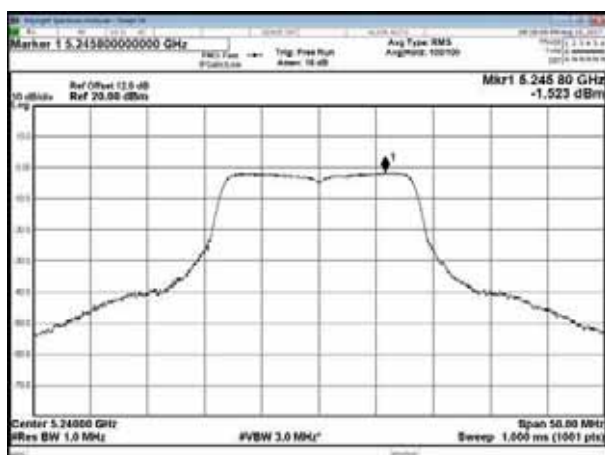
CH44



CH60



CH48



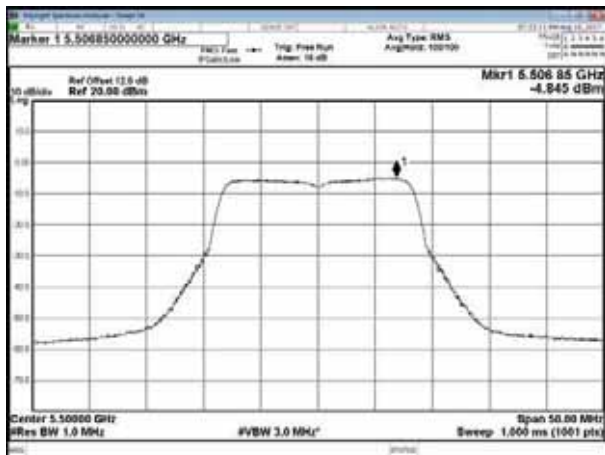
CH64





Antenna A

Modulation Standard: 802.11a (6Mbps)
CH100



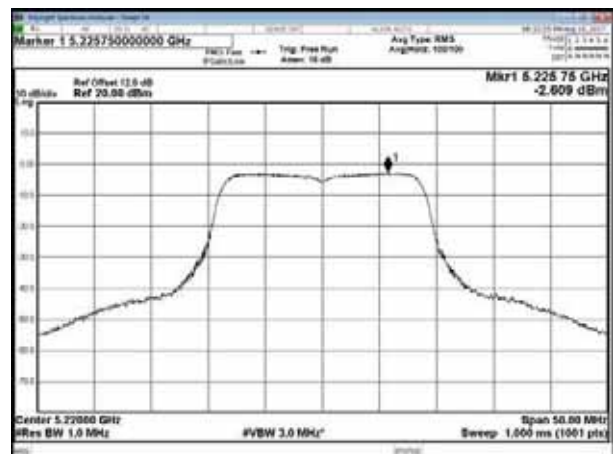
Modulation Standard: 802.11ac VHT20 (6.5Mbps)
CH36



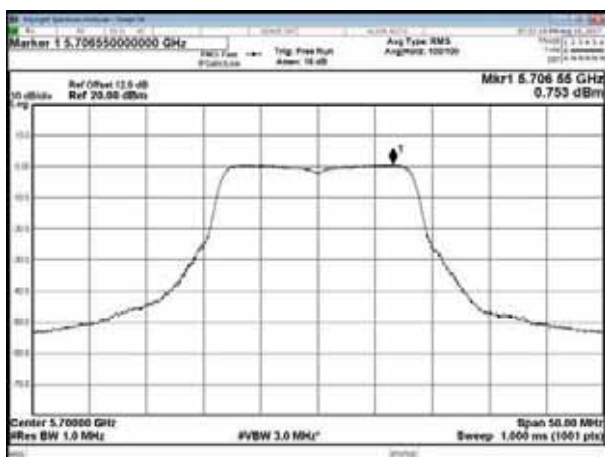
CH116



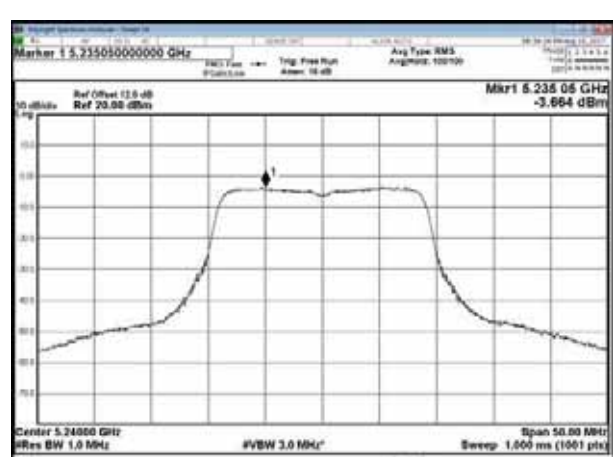
CH44



CH140

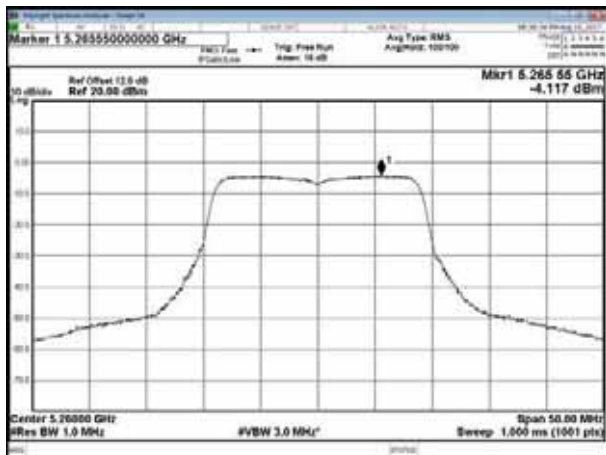


CH48

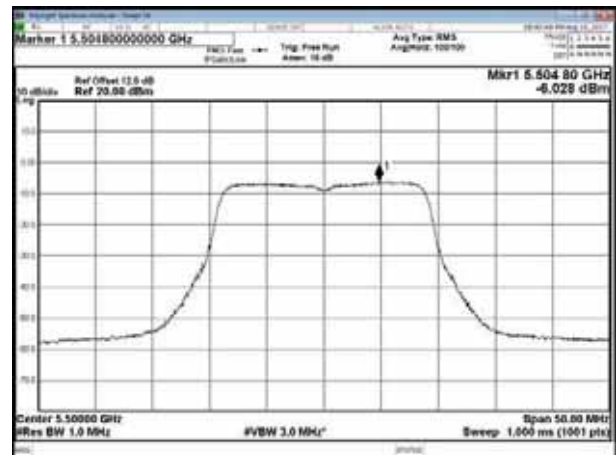




Antenna A
Modulation Standard: 802.11ac VHT20 (6.5Mbps)
CH52



CH100



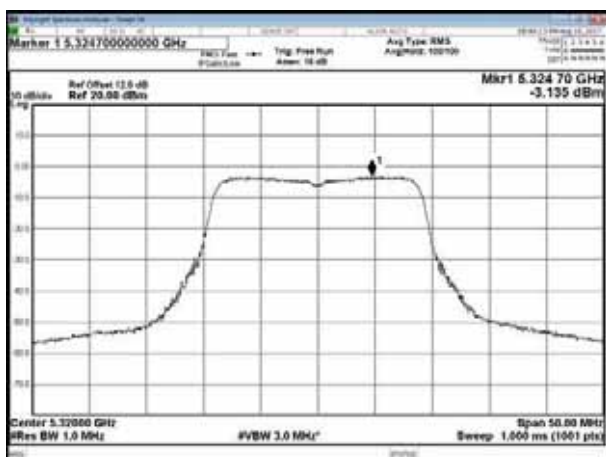
CH60



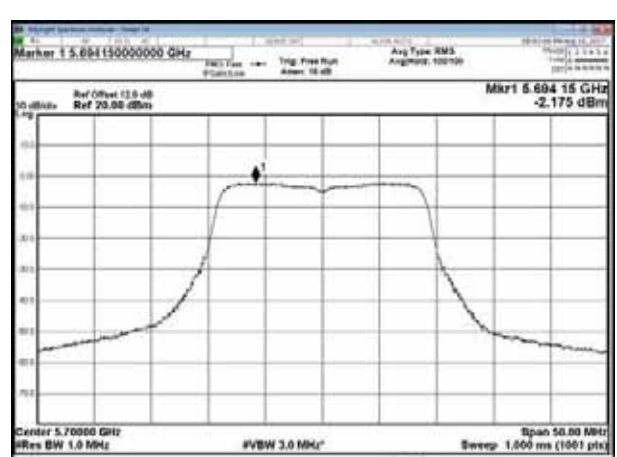
CH116



CH64



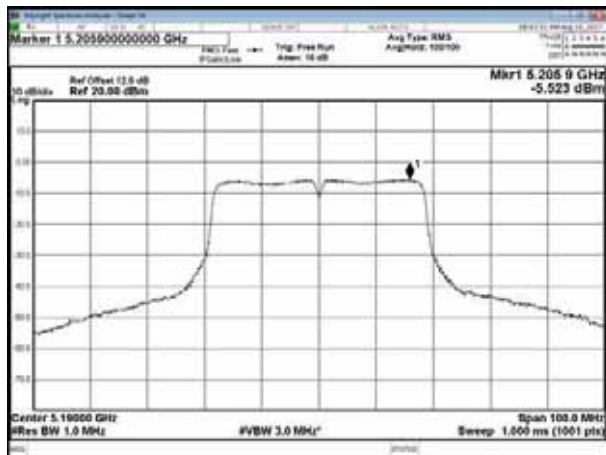
CH140



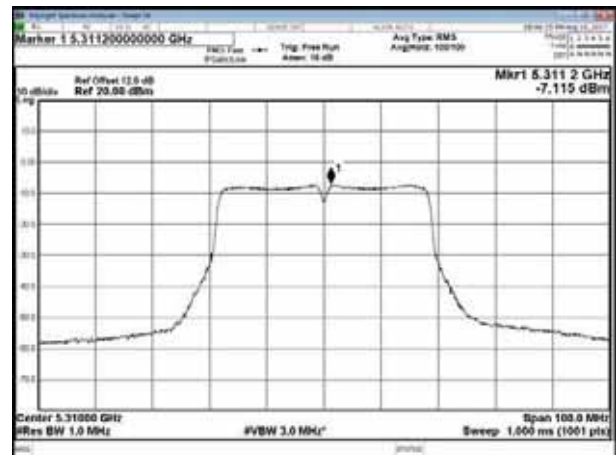


Antenna A

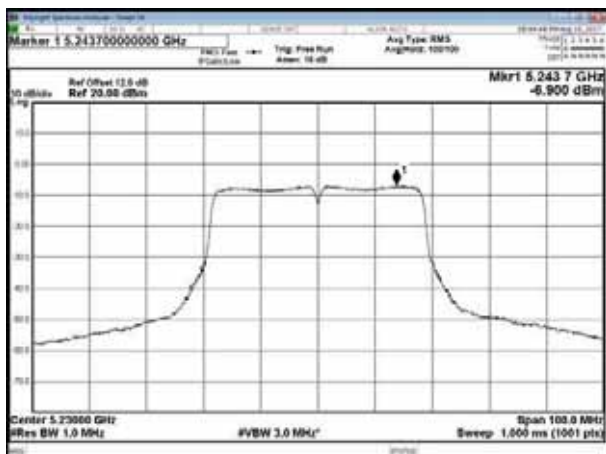
Modulation Standard: 802.11ac VHT40 (13.5Mbps)
CH38



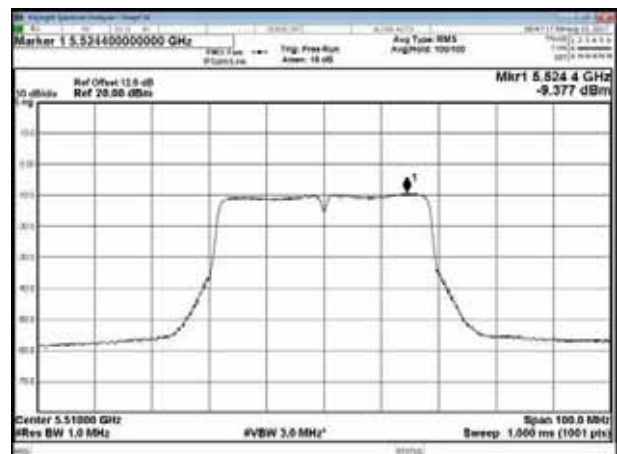
CH62



CH46



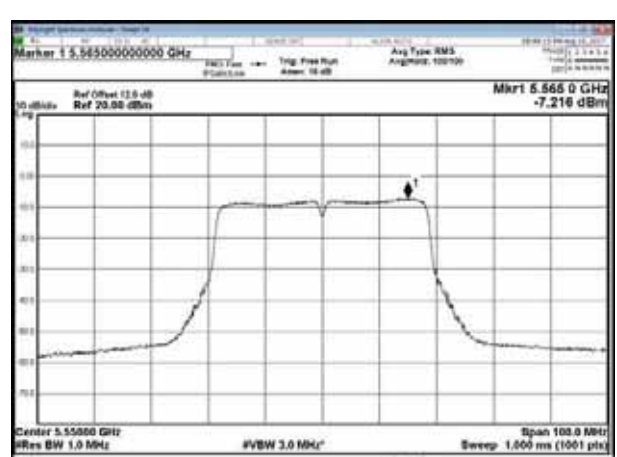
CH102



CH54



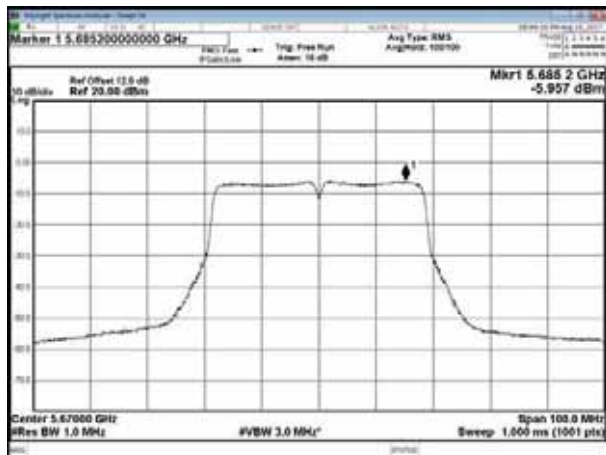
CH110



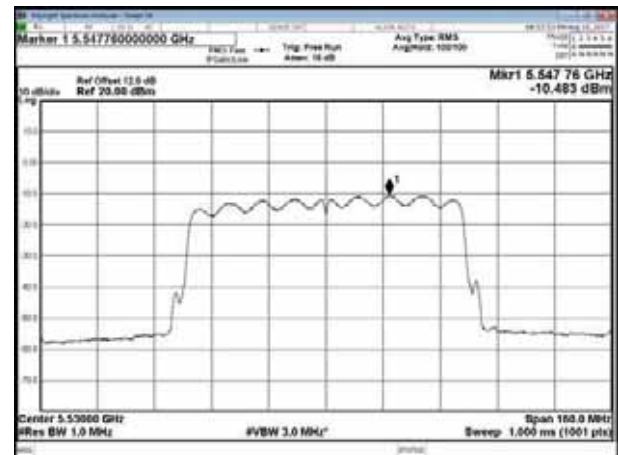


Antenna A

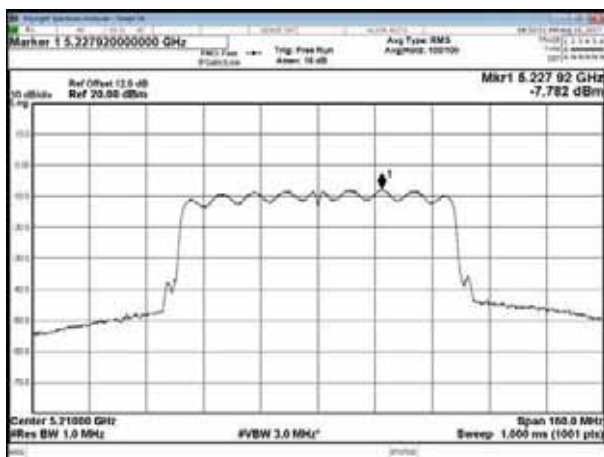
Modulation Standard: 802.11ac VHT40 (13.5Mbps)
CH134



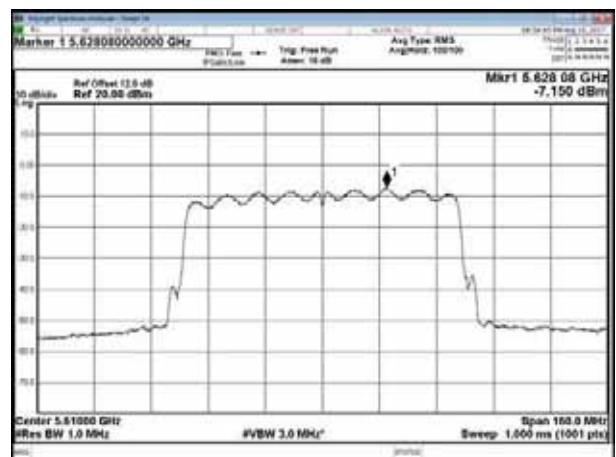
CH106



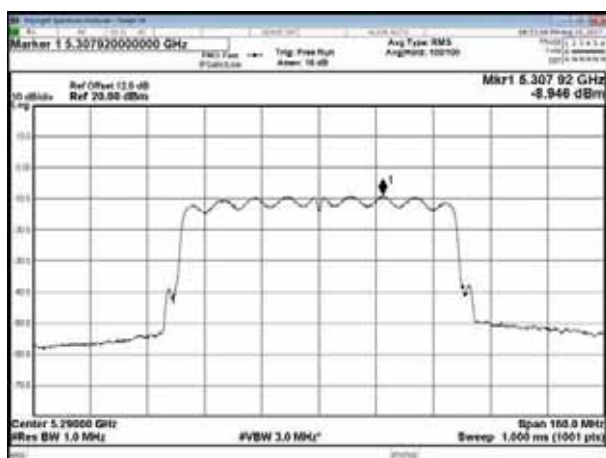
Modulation Standard: 802.11ac VHT80 (29.3Mbps)
CH42



CH122



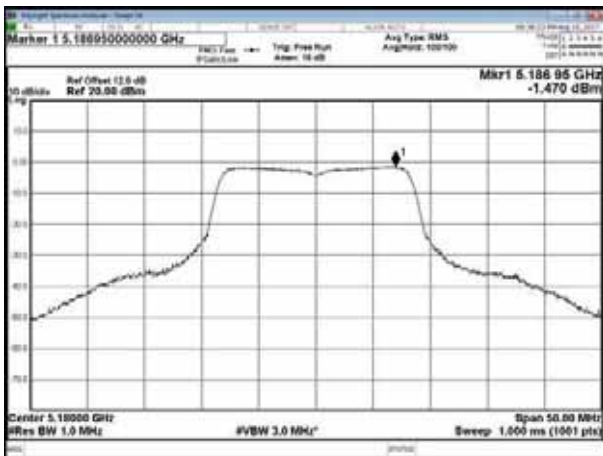
CH58



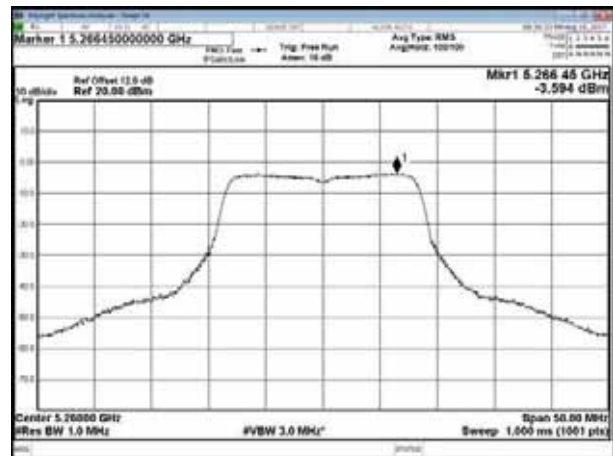


Antenna B
Modulation Standard: 802.11a (6Mbps)

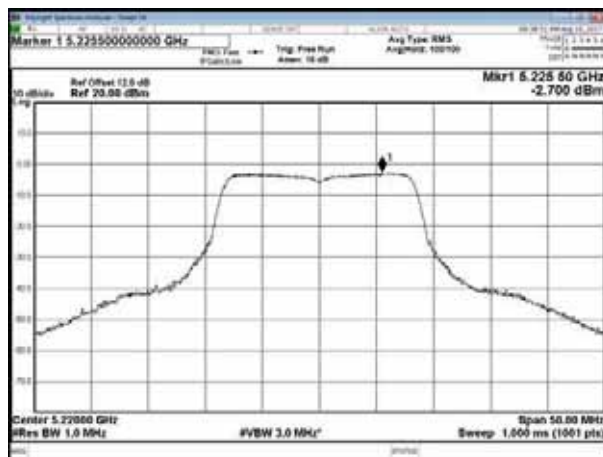
CH36



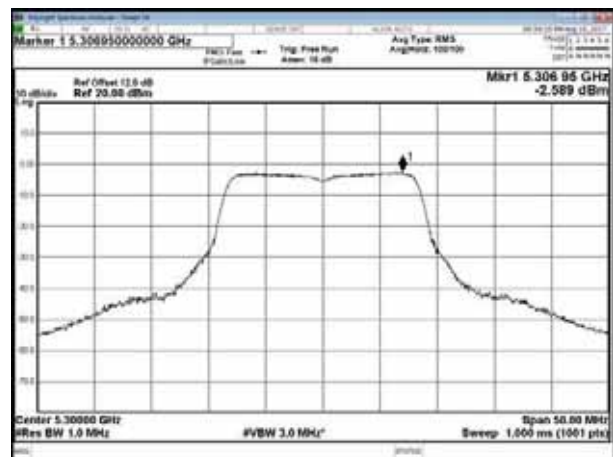
CH52



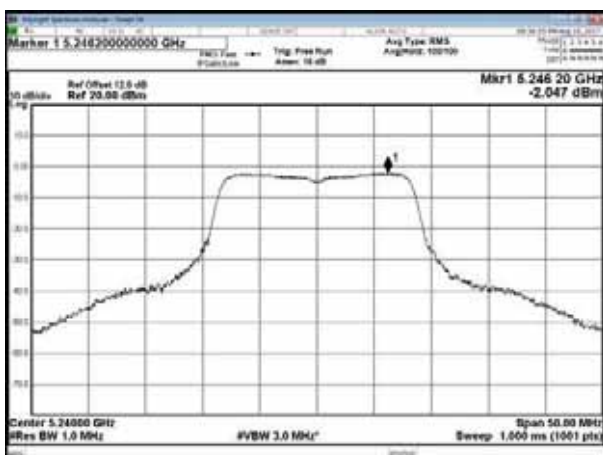
CH44



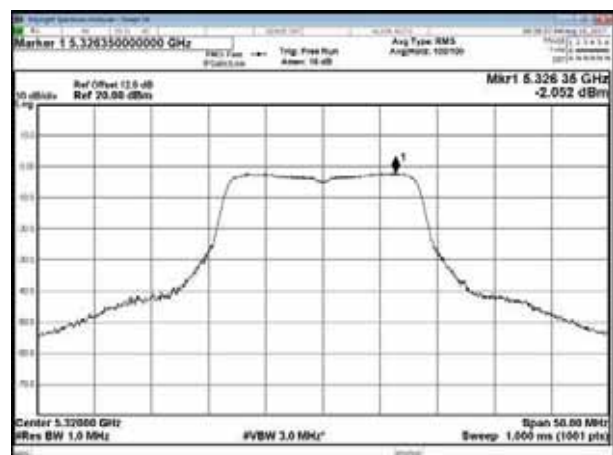
CH60



CH48



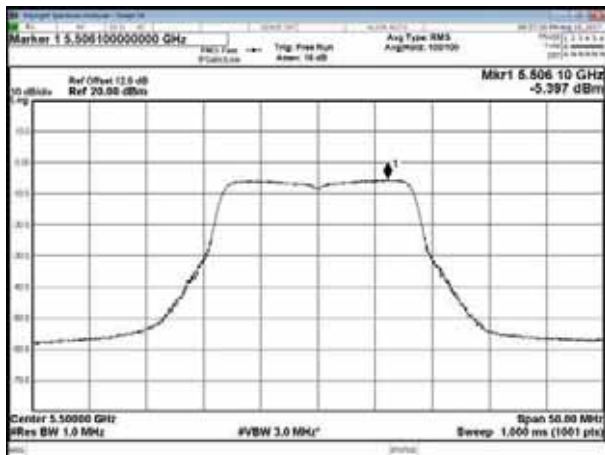
CH64



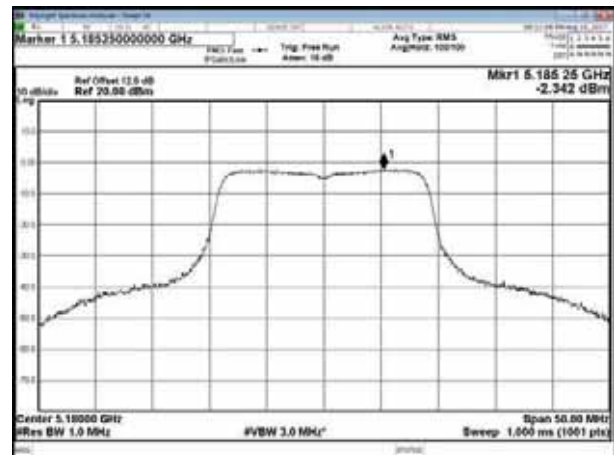


Antenna B

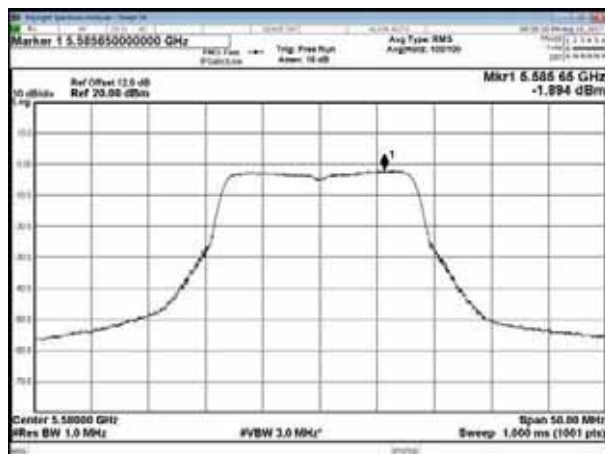
Modulation Standard: 802.11a (6Mbps)
CH100



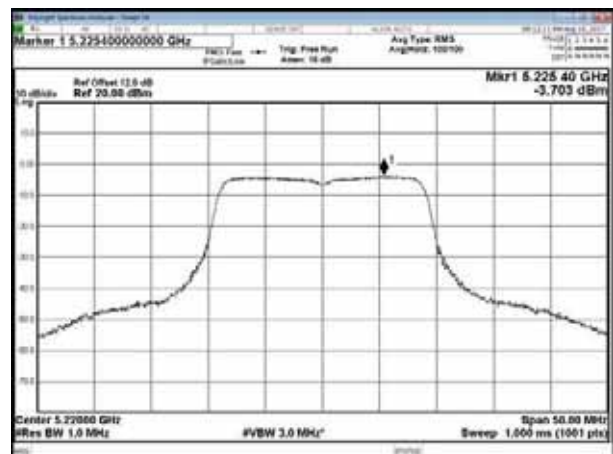
Modulation Standard: 802.11ac VHT20 (6.5Mbps)
CH36



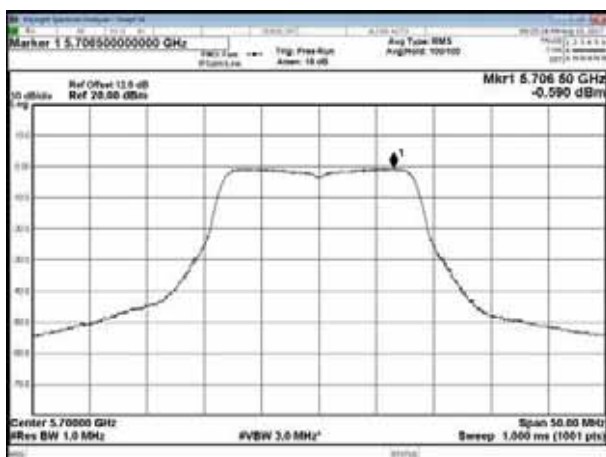
CH116



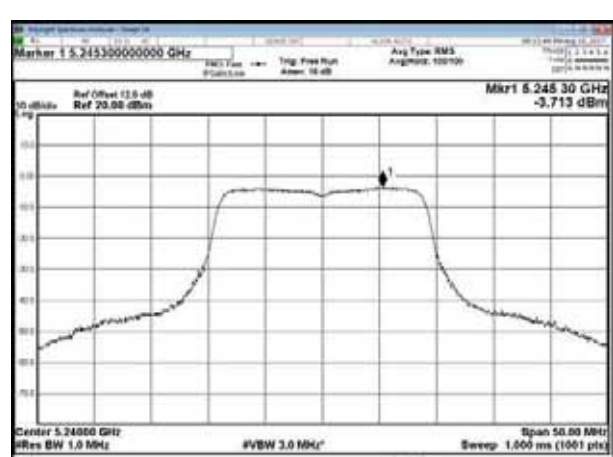
CH44



CH140

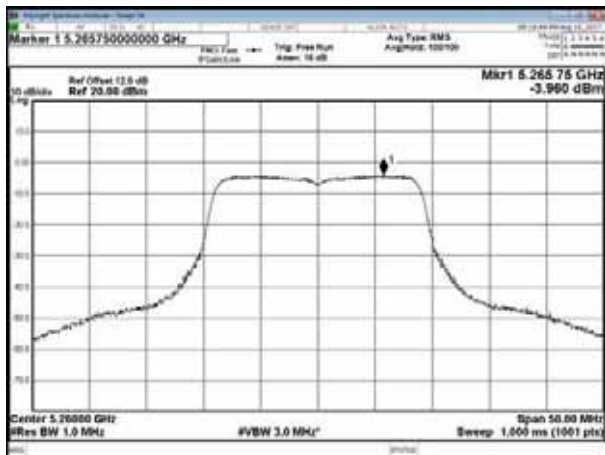


CH48

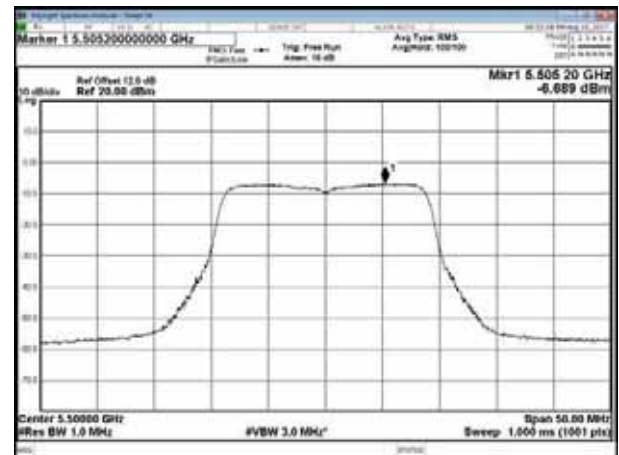




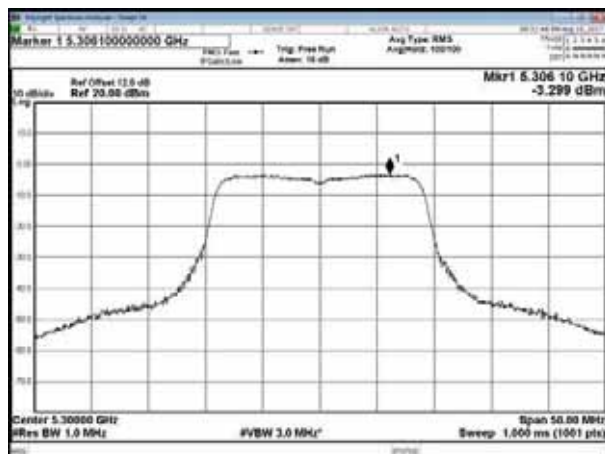
Antenna B
Modulation Standard: 802.11ac VHT20 (6.5Mbps)
CH52



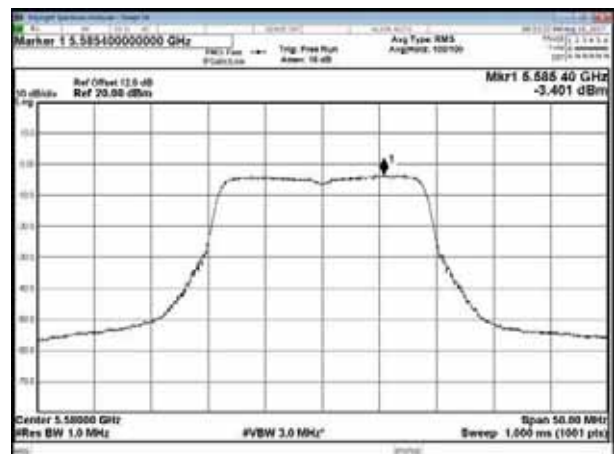
CH100



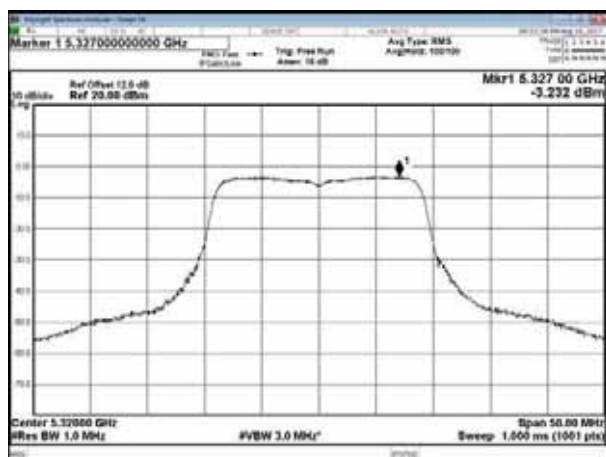
CH60



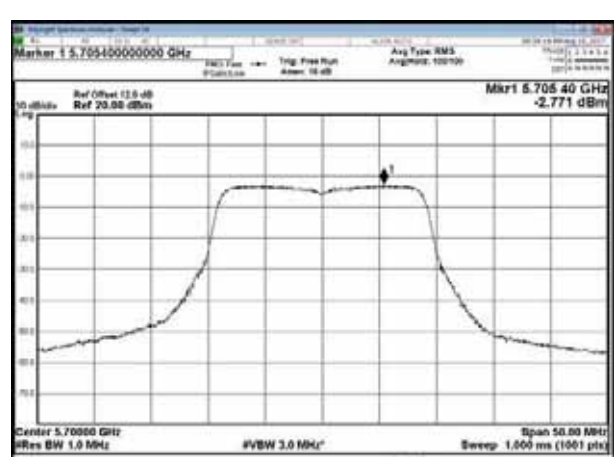
CH116



CH64

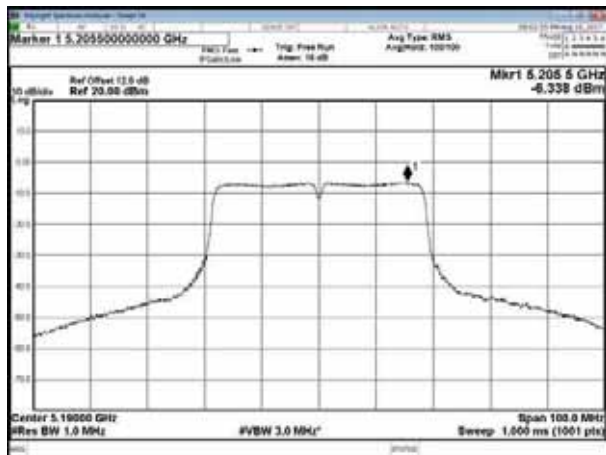


CH140





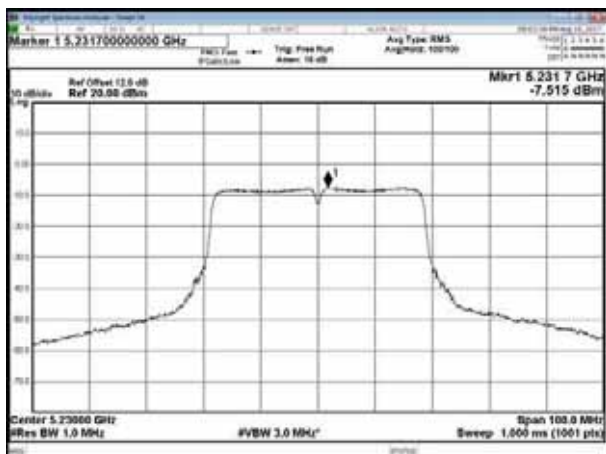
Antenna B
Modulation Standard: 802.11ac VHT40 (13.5Mbps)
CH38



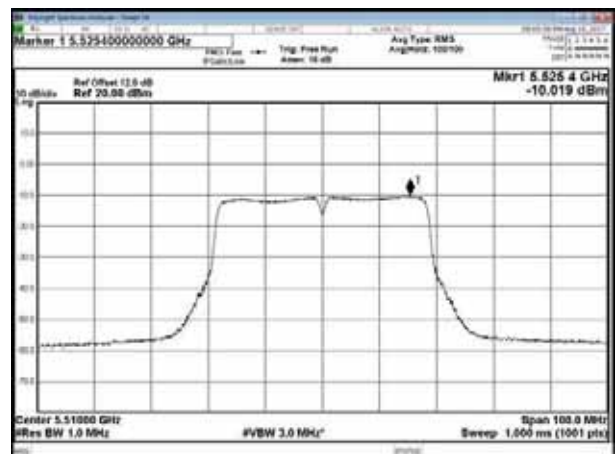
CH62



CH46



CH102



CH54



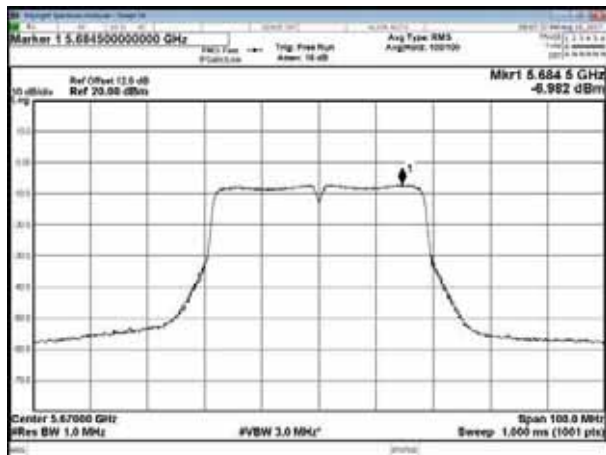
CH110



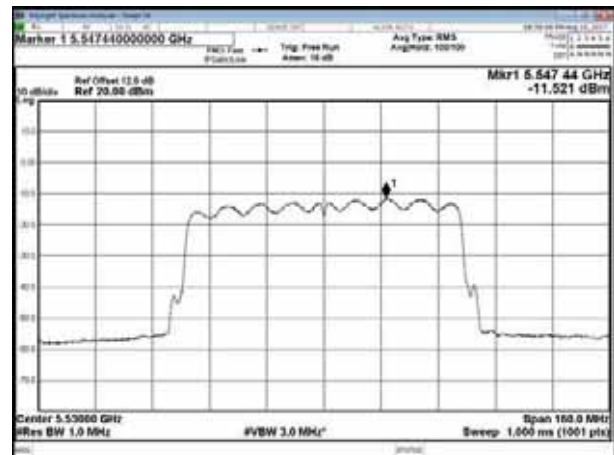


Antenna B

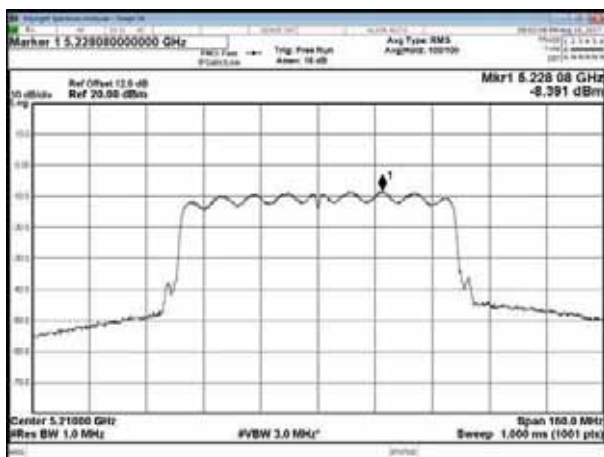
Modulation Standard: 802.11ac VHT40 (13.5Mbps)
CH134



CH106



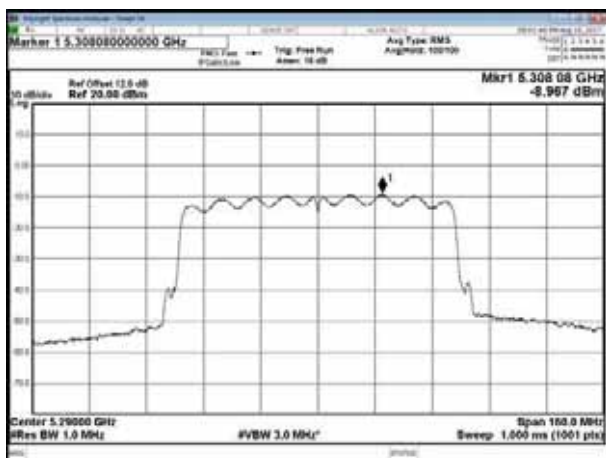
Modulation Standard: 802.11ac VHT80 (29.3Mbps)
CH42



CH122



CH58



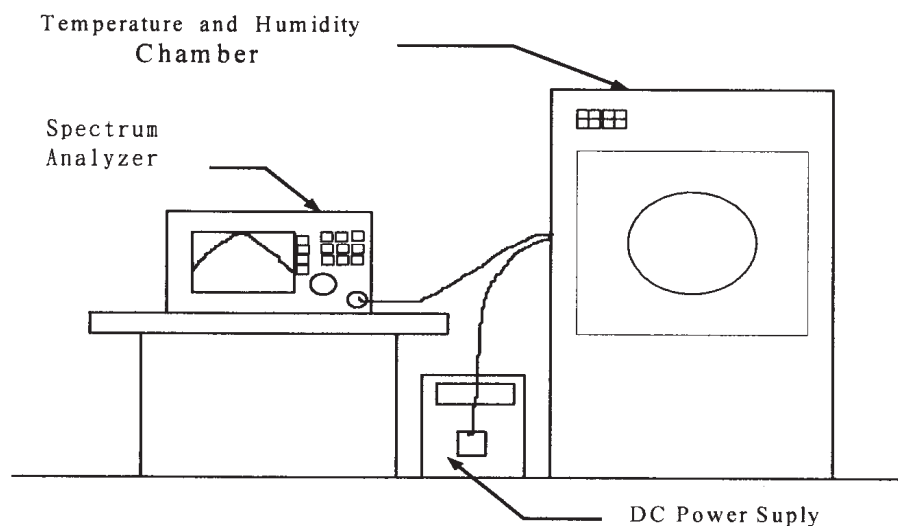


12. Frequency Stability

12.1. Test Procedure

1. The EUT was placed inside the Temperature and Humidity chamber.
2. The transmitter output was connected to spectrum analyzer.
3. Turn the EUT on and couple its output to a spectrum analyzer.
4. Turn the EUT off and set the chamber to the highest temperature specified.
5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
6. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
7. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

12.2. Test Setup Layout





12.3. Test Result and Data

Temperature: 21°C

Humidity: 58%

Test Date: Aug. 08, 2017

Operating frequency: 5240 MHz							
Temp	Power supply	2 minute		5 minute		10 minute	
(°C)	(V)	(MHz)	Pass/Fail	(MHz)	Pass/Fail	(MHz)	Pass/Fail
40	102	5239.9627	Pass	5239.9679	Pass	5239.9726	Pass
	120	5239.9730	Pass	5239.9730	Pass	5239.9732	Pass
	138	5239.9724	Pass	5239.9726	Pass	5239.9713	Pass
30	102	5239.9579	Pass	5239.9532	Pass	5239.9621	Pass
	120	5239.9730	Pass	5239.9730	Pass	5239.9700	Pass
	138	5239.9713	Pass	5239.9754	Pass	5239.9743	Pass
20	102	5239.9700	Pass	5239.9731	Pass	5239.9724	Pass
	120	5239.9722	Pass	5239.9726	Pass	5239.9731	Pass
	138	5239.9781	Pass	5239.9716	Pass	5239.9710	Pass
10	102	5239.9789	Pass	5239.9812	Pass	5239.9841	Pass
	120	5239.9631	Pass	5239.9834	Pass	5239.9850	Pass
	138	5239.9757	Pass	5239.9826	Pass	5239.9832	Pass
0	102	5239.9812	Pass	5239.9820	Pass	5239.9822	Pass
	120	5239.9824	Pass	5239.9813	Pass	5239.9842	Pass
	138	5239.9815	Pass	5239.9810	Pass	5239.9816	Pass

Limit:

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.



13. Automatically Discontinue Transmission

13.1.Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

13.2.Test Result of Automatically Discontinue Transmission

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.



14. Dynamic Frequency Selection

14.1. List of Measurement and Examinations

EUT Applicability of DFS requirements and Frequency Range

Operation Mode		Operating Frequency Range	
		5250-5350MHz	5470-5725MHz (5600MHz-5650MHz will be disable)
Master	--	--	--
Client without radar detection	√	√	√
Client with radar detection	--	--	--

DEVICES WITH RADAR DETECTION

MAXIMUM TRANSMIT POWER	VALUE (SEE Note 1 and 2)
≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911	

Table1: Applicability of DFS requirements prior to use of a channel

REQUIREMENT RADAR	OPERATIONAL MODE		
	MASTER	CLIENT WITHOUT RADAR DETECTION	CLIENT WITH RADAR DETECTION
Non-Occupancy Period	V	V _{Note}	V
DFS Detection Threshold	V	Not required	V
Channel Availability Check Time	V	Not required	Not required
U-NII Detection Bandwidth	V	Not required	V
Note: Regarding KDB 905462 D03 Client Without DFS New Rules section (b)(5/6), If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear. An analyzer plot that contains a single 30-minute sweep on the original channel.			

**Table2: Applicability of DFS requirements during normal operation**

REQUIREMENT RADAR	OPERATIONAL MODE		
	MASTER	CLIENT WITHOUT RADAR DETECTION	CLIENT WITH RADAR DETECTION
DFS Detection Threshold	V	Not required	V
Channel Closing Transmission Time	V	V	V
Channel Move Time	V	V	V
U-NII Detection Bandwidth	V	Not required	V

Additional requirements for devices with multiple bandwidth modes	Master or Client with radar detection	Client without radar detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other	Any single BW mode	Not required

Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.



14.2. Test Setup

Setup for Master with injection at the Master

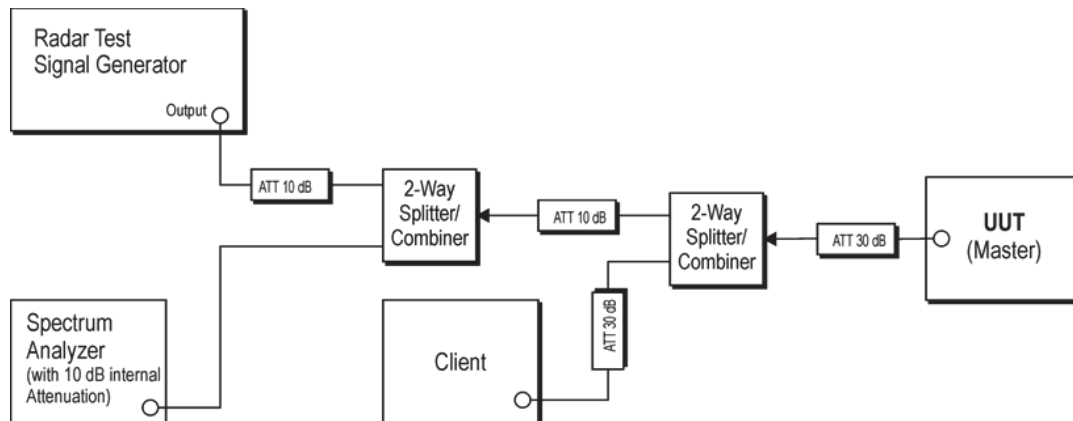


Figure 1: Example Conducted Setup where UUT is a Master and Radar Test Waveforms are injected into the Master

Setup for Client with injection at the Master

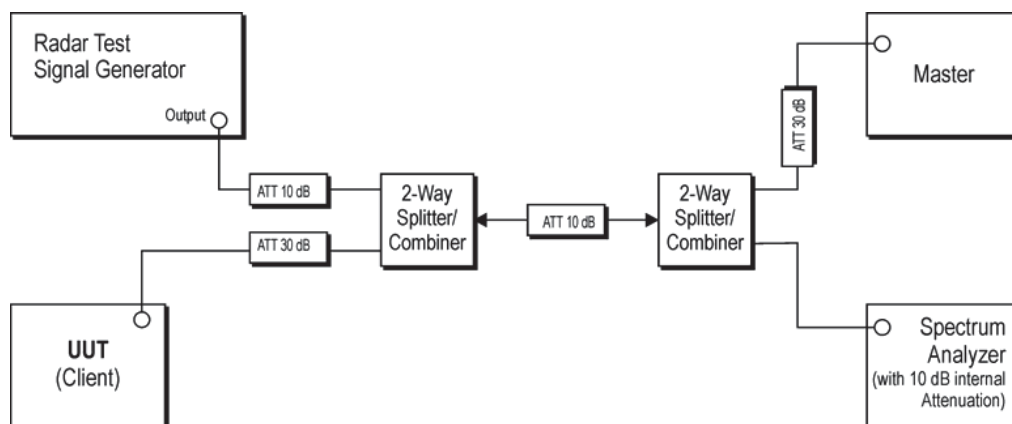


Figure 2: Example Conducted Setup where UUT is a Client and Radar Test Waveforms are injected into the Master



Setup for Client with injection at the Client

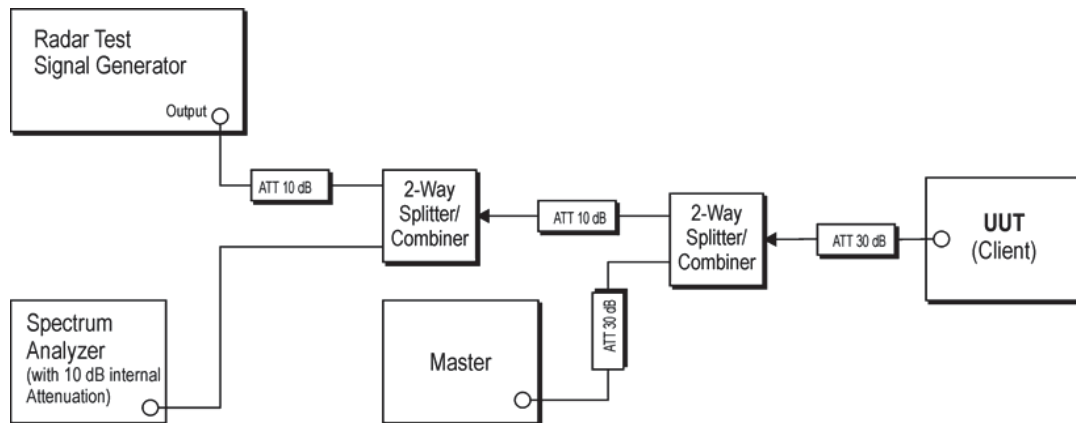


Figure 3: Example Conducted Setup where UUT is a Client and Radar Test Waveforms are injected into the Client



14.3. Non-Occupancy Period

The Channel Shutdown is defined as the process initiated by the RLAN device immediately after a radar signal has been detected on an Operating Channel.

The master device shall instruct all associated slave devices to stop transmitting on this channel, which they shall do within the Channel Move Time.

Slave devices with a Radar Interference Detection function, shall stop their own transmissions within the Channel Move Time.

The aggregate duration of all transmissions of the RLAN device on this channel during the Channel Move Time shall be limited to the Channel Closing Transmission Time. The aggregate duration of all transmissions shall not include quiet periods in between transmissions.

14.3.1. Test Limit

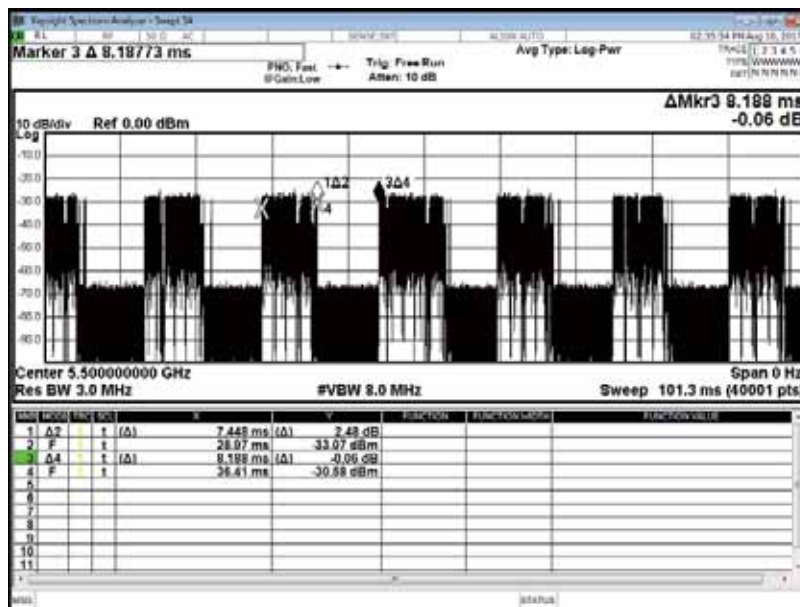
Radar Test Signal	Master (min)	Client (min)
0	> 30	> 30

14.3.2. Channel Loading

Timing plots are required with calculations demonstrating a minimum channel loading of approximately 17% or greater. For example, channel loading can be estimated by setting the spectrum analyzer for zero span and approximate the Time On/ (Time On + Off Time). This can be done with any appropriate channel BW and modulation type

Modulation Standard: 802.11ac VHT20

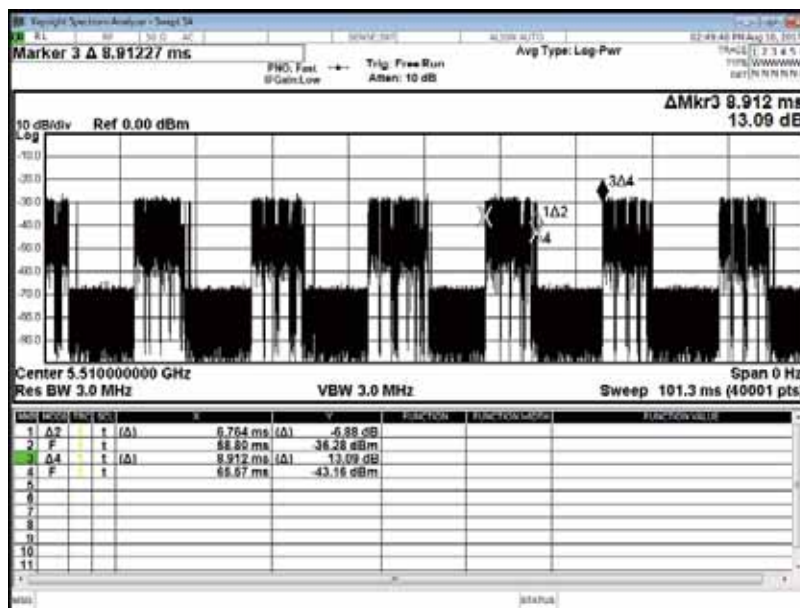
Time On/ (Time On + Off Time) = 7.448ms/15.636ms=47.63%





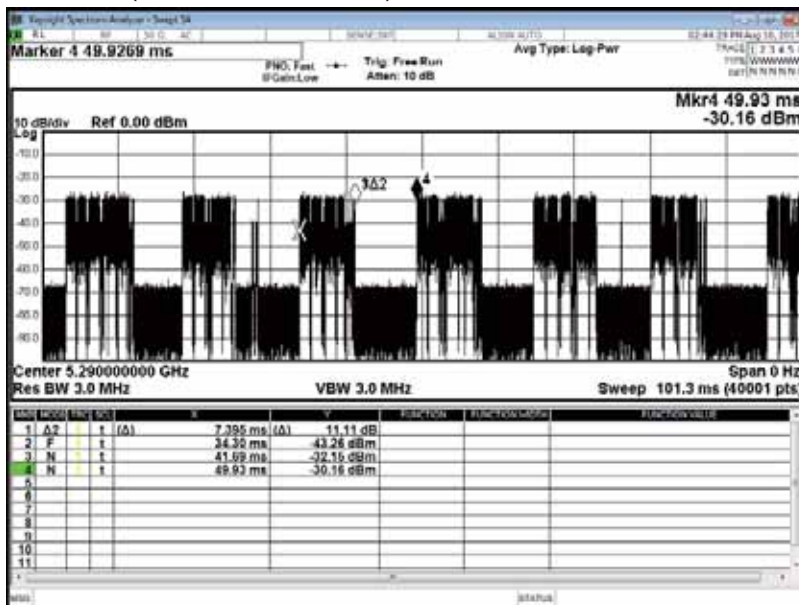
Modulation Standard: 802.11ac VHT40

Time On/ (Time On + Off Time) = 6.764ms/15.676ms=43.15%



Modulation Standard: 802.11ac VHT80

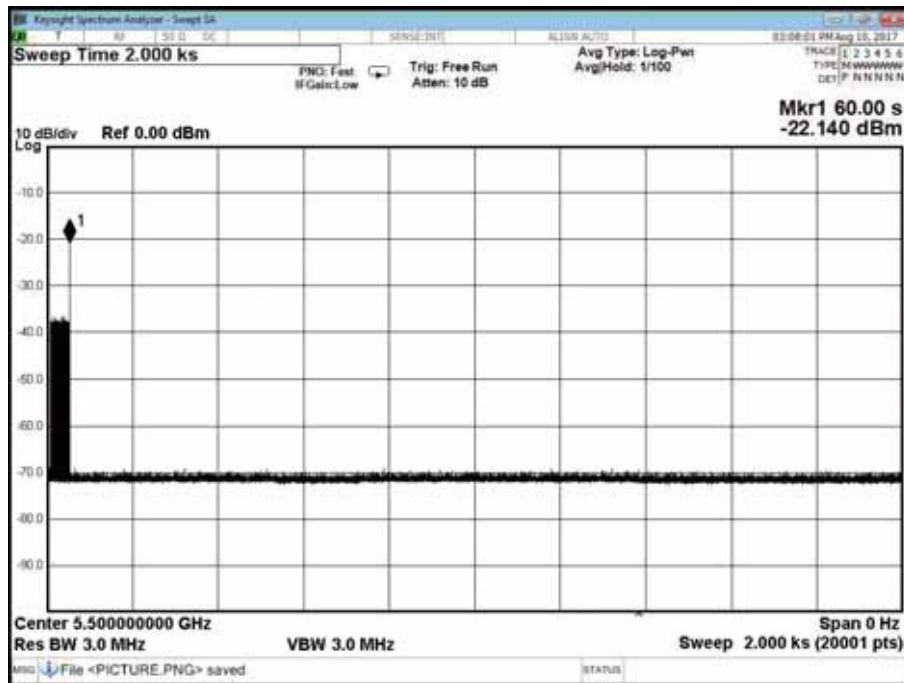
Time On/ (Time On + Off Time) = 7.395ms/15.635ms=47.29%



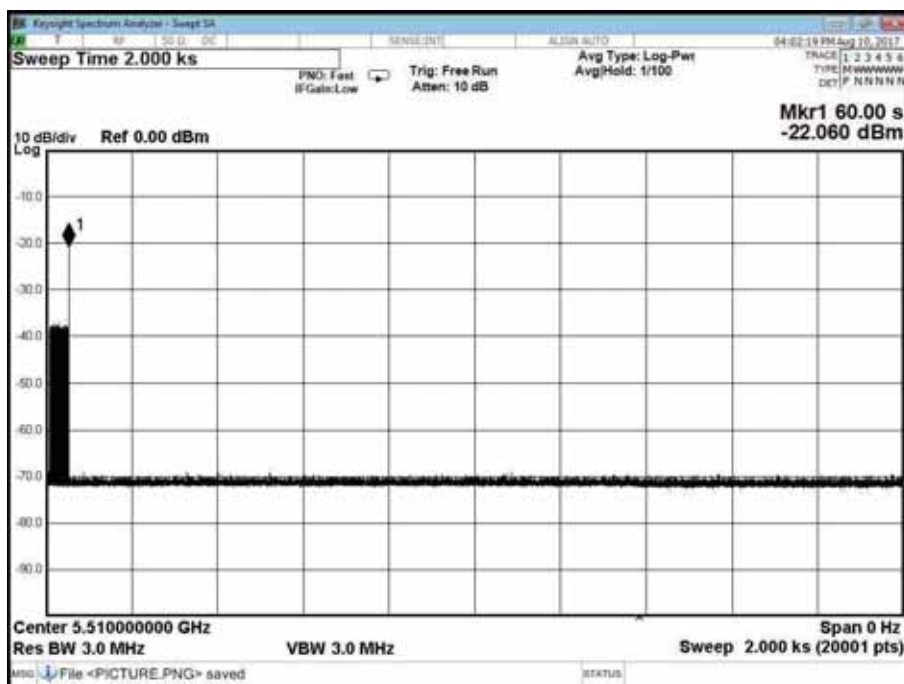


14.3.3. Test Result of Non-Occupancy Period

Modulation Standard: 802.11ac VHT20

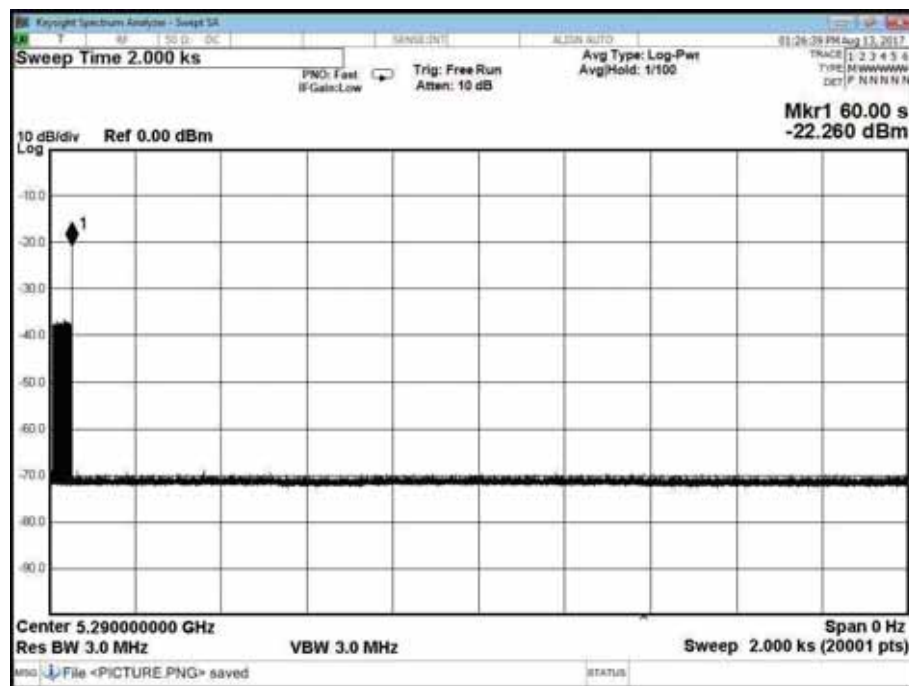


Modulation Standard: 802.11ac VHT40





Modulation Standard: 802.11ac VHT80





14.4. DFS Detection Threshold

DFS Detection Threshold is the level used by the DFS mechanism to detect radar interference.

14.4.1. Test Limit

Limits Clause 4.7.2.1.2

DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

MAXIMUM TRANSMIT POWER	VALUE (SEE Note 1 and 2)
≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

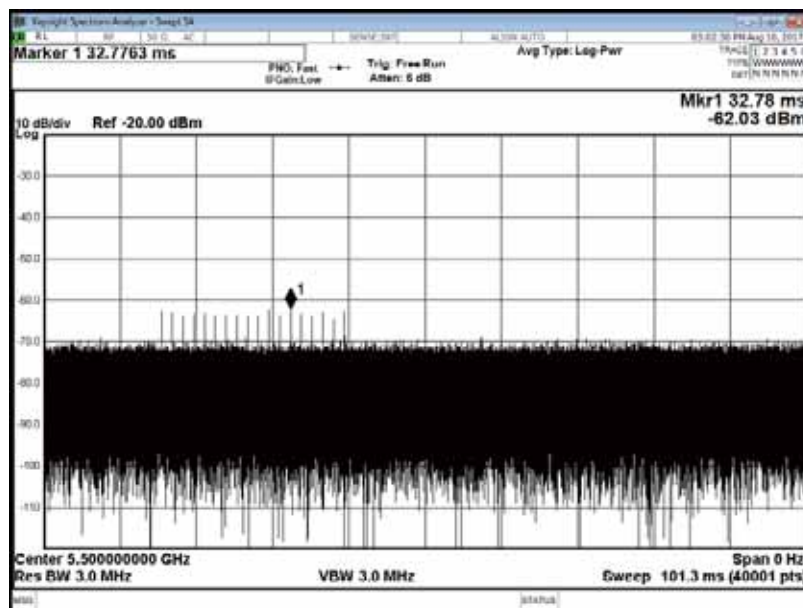
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.

Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911

14.4.2. Test Result of DFS Detection Threshold

EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz, Radar 0 VALUE -62dBm





14.5.Channel Availability Check

The Channel Availability Check is defined as the mechanism by which an RLAN device checks a channel for the presence of radar signals.

There shall be no transmissions by the device within the channel being checked during this process.

If no radars have been detected, the channel becomes an Available Channel valid for a period of time.

The RLAN shall only start transmissions on Available Channels.

At power-up, the RLAN is assumed to have no Available Channels.

14.5.1. Test Limit

Limits Clause 4.7.2.1.2

Table D.2: DFS requirement values

Parameter	Value
Channel Availability Check	> 60s

14.5.2. Test Result of Channel Availability Check

Not required



14.6.U-NII Detection Bandwidth

14.6.1. Test Limit

Limits Clause 4.7.2.1.2 Table D.2: DFS requirement values

Parameter	Value
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission
Note : During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

14.6.2. Test Result of U-NII Detection Bandwidth

Not required



14.7.Uniform Spreading

The UUT will select channel by random mode and remember this channel when detect radar signal, so that will select unused channel by random mode.

14.7.1. Test Result of Uniform Spreading

Not required



14.8. In-Service Monitoring

The In-Service Monitoring is defined as the process by which an RLAN monitors the Operating Channel for the presence of radar signals.

14.8.1. Test Limit

Parameter	Value
Channel Move Time	< 10 s (See Note 1)
Channel Closing Transmission Time	< 200 ms+ an aggregate of 60 milliseconds over remaining 10 second period. (See Notes 1 and Notes 2.)
Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.	

Limits Clause 4.7.2.2.2

The In-Service Monitoring shall be used to continuously monitor an Operating Channel.

The In-Service-Monitoring shall start immediately after the RLAN has started transmissions on an Operating Channel.

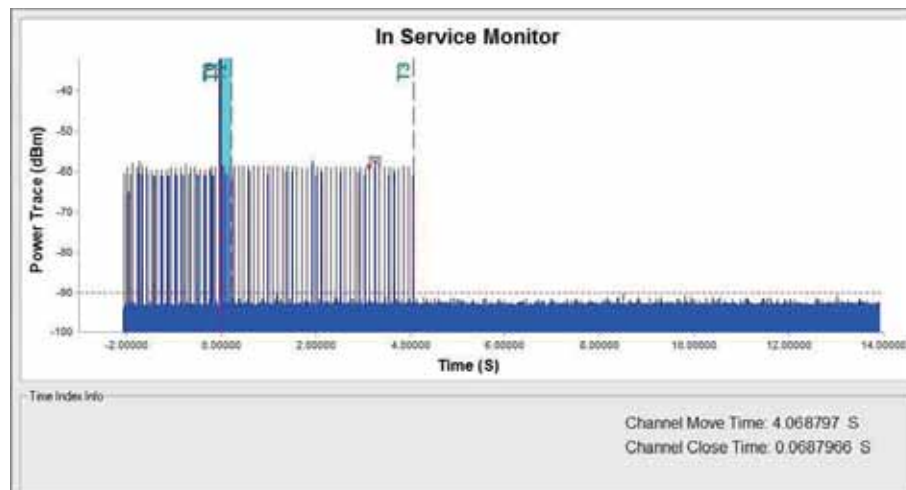


14.8.2. Test Result of In-Service Monitoring

Bandwidth 80MHz

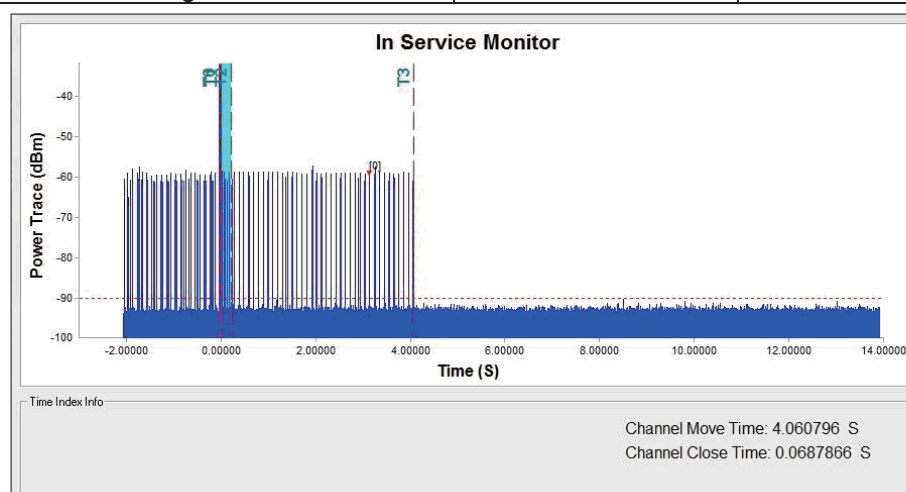
Channel 58

	Value	Limit
Channel Move Time	4.0688s	<10 s
Channel Closing Transmission Time	68.7966ms	< 200 ms



Channel 106

	Value	Limit
Channel Move Time	4.0608	<10 s
Channel Closing Transmission Time	68.7866ms	< 200 ms



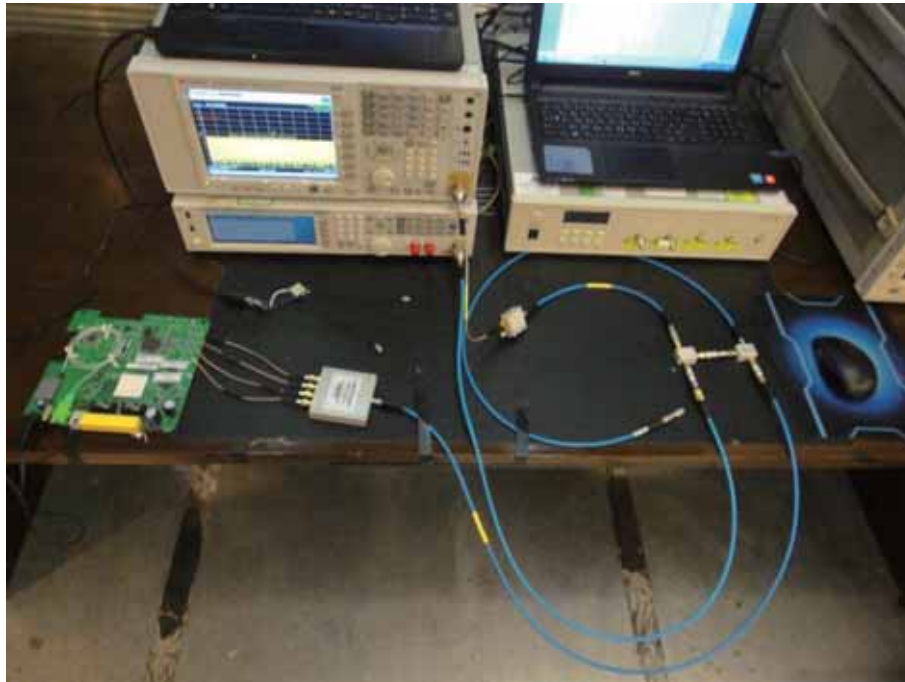


14.9. Statistical Performance Check

Not required

14.10. EUT Setup Photos

Radar Calibration Setup Photo



Test Setup Photo

