



CFR 47 FCC PART 15 SUBPART F

TEST REPORT

For

A2B Tag

MODEL NUMBER: A2B001-V1

REPORT NUMBER: 4791182950-RF-2

ISSUE DATE: February 29, 2024

FCC ID: 2AB2Q-A2B001U

Prepared for

LEEDARSON LIGHTING CO., LTD
Xingtai Industrial Park, Economic Development Zone of Changtai County,
Zhangzhou City, Fujian.

Prepared by

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch

Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China

> Tel: +86 769 22038881 Fax: +86 769 33244054 Website: www.ul.com



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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	February 29, 2024	Initial Issue	



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N/A

(Note 2)

Pass

Summary of Test Results Clause **Test Items** Limit/Requirement Results CFR 47 FCC §15.209 CFR 47 FCC §15.521(c) Radiated Spurious 1 Pass **Emission** CFR 47 FCC §15.521(h) CFR 47 FCC §15.519(c) Radiated Spurious 2 CFR 47 FCC §15.519(d) Pass Emission in GPS Band Peak Emissions within a CFR 47 FCC §15.519(e) 3 Pass 50MHz Bandwidth CFR 47 FCC §15.521(g) CFR 47 FCC §15.503(a) **UWB** Bandwidth CFR 47 FCC §15.521(e) 4 Pass CFR 47 FCC §15.519(b) 5 **Cessation Time** CFR 47 FCC §15.519(a)(1) Pass

CFR 47 FCC §15.207

CFR 47 FCC §15.203

CFR 47 FCC §15.519(a)(2)

Note:

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- 1. N/A: In this whole report not applicable.
- 2. The EUT is power by battery and can't be charged.

Conducted Emission Test

for AC Power Port

Antenna Requirement

- 1. This test report is only published to and used by the applicant, and it is not for evidence purpose in China.
- 2. The measurement result for the sample received is <Pass> according to <CFR 47 FCC PART 15 SUBPART F > when <Simple Acceptance> decision rule is applied.



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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: LEEDARSON LIGHTING CO., LTD

Address: Xingtai Industrial Park, Economic Development Zone of Changtai

County, Zhangzhou City, Fujian.

Manufacturer Information

Company Name: LEEDARSON LIGHTING CO., LTD

Address: Xingtai Industrial Park, Economic Development Zone of Changtai

County, Zhangzhou City, Fujian.

EUT Information

Operations Manager

EUT Name: A2B Tag
Model: A2B001-V1
Brand: Amazon

Sample Received Date: January 9, 2024

Sample Status: Normal Sample ID: 6814117

Date of Tested: January 11, 2024 to February 29, 2024

APPLICABLE STANDARDS		
STANDARD TEST RESULTS		
CFR 47 FCC PART 15 SUBPART F	PASS	

Prepared By:	Checked By:
Danny Grang	kebo. zhanz
Denny Huang	Kebo Zhang
Senior Project Engineer	Senior Project Engineer
Approved By:	
Stephenono	
Stephen Guo	



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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 414788 D01 Radiated Test Site v01r01, FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

	A2LA (Contificato No.: 4402.04)
	A2LA (Certificate No.: 4102.01)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	has been assessed and proved to be in compliance with A2LA.
	FCC (FCC Designation No.: CN1187)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	Has been recognized to perform compliance testing on equipment subject
	to the Commission's Declaration of Conformity (DoC) and Certification rules
	ISED (Company No.: 21320)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
Accreditation	has been registered and fully described in a report filed with ISED.
Certificate	
	The Company Number is 21320 and the test lab Conformity Assessment
	Body Identifier (CABID) is CN0046.
	VCCI (Registration No.: G-20192, C-20153, T-20155 and R-20202)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	has been assessed and proved to be in compliance with VCCI, the
	Membership No. is 3793.
	Facility Name:
	Chamber D, the VCCI registration No. is G-20192 and R-20202
	Shielding Room B, the VCCI registration No. is C-20153 and T-20155

Note 1:

All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China.

Note 2:

The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3:

For below 30 MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30 MHz had been correlated to measurements performed on an OFS.



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4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty	
Conduction emission	3.62 dB	
Radiated Emission (Included Fundamental Emission) (9 kHz ~ 30 MHz)	2.2 dB	
Radiated Emission (Included Fundamental Emission) (30 MHz ~ 1 GHz)	4.00 dB	
	5.78 dB (1 GHz ~ 18 GHz)	
Radiated Emission (Included Fundamental Emission) (1 GHz to 40 GHz)	5.23 dB (18 GHz ~ 26 GHz)	
	5.37 dB (26 GHz ~ 40 GHz)	
Duty Cycle	±0.028%	
Bandwidth	±0.0196%	

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



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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	A2B Tag			
Model	A2B001-V1			
Technology	Ultra-wideband			
_	Operation Frequency Range 3.1 GHz ~ 4.8 GHz			
Product Description	Operation Frequency 3.9936 GHz, 4.4928 GHz			
Boompaon	Modulation Type BPM-BPSK			
Ratings	DC 3.6 V			

5.2. **MAXIMUM POWER**

Frequency (GHz)	Number of Transmit Chains (NTX)	Channel Number	Maximum Peak EIRP With a 50MHz Bandwidth (dBm)	Maximum RMS EIRP (dBm)
3.9936	1	2[2]	-0.87	-41.93
4.4928	1	3[2]	-0.28	-41.51

5.3. TEST CHANNEL CONFIGURATION

Channel	Frequency (GHz)	Channel	Frequency (GHz)
2	3.9936	3	4.4928

5.4. DESCRIPTION OF AVAILABLE ANTENNAS

Ant. Frequency		Antenna Type	Antenna Gain (dBi)
1	3.9936 GHz, 4.4928 GHz	PCB Antenna	1.7

Test Mode	Transmit and Receive Mode	Description
UWB	⊠1TX	Antenna 1 can be used as transmitting antenna.

Note: The value of the antenna gain was declared by customer.



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5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N
1	/	/	/	/

I/O CABLES

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
/	/	/	/	/	/

ACCESSORY

Item	Accessory	Brand Name	Model Name	Description
/	/	/	/	/

TEST SETUP

The EUT can work in engineering mode with the inside software.

SETUP DIAGRAM FOR TESTS

EUT

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5.6. MEASURING INSTRUMENT AND SOFTWARE USED

		Radiated	d Emissions		
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Oct.12, 2023	Oct.11, 2024
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130959	Aug.02, 2021	Aug.01, 2024
Preamplifier	HP	8447D	2944A09099	Oct.12, 2023	Oct.11, 2024
EMI Measurement Receiver	R&S	ESR26	101377	Oct.12, 2023	Oct.11, 2024
Horn Antenna	TDK	HRN-0118	130940	July 20, 2021	July 19, 2024
Preamplifier	TDK	PA-02-0118	TRS-305- 00067	Oct.12, 2023	Oct.11, 2024
Horn Antenna	Schwarzbeck	BBHA9170	697	July 20, 2021	July 19, 2024
Preamplifier	TDK	PA-02-2	TRS-307- 00003	Oct.12, 2023	Oct.11, 2024
Preamplifier	TDK	PA-02-3	TRS-308- 00002	Oct.12, 2023	Oct.11, 2024
Loop antenna	Schwarzbeck	1519B	00008	Dec.14, 2021	Dec.13, 2024
Preamplifier	TDK	PA-02-001- 3000	TRS-302- 00050	Oct.12, 2023	Oct.11, 2024
Highpass Filter	Wainwright	WHKX10- 5850-6500- 1800-40SS	4	Oct.12, 2023	Oct.11, 2024
Software					
	Description		Manufacturer	Name	Version
Test Software	for Radiated E	missions	Farad	EZ-EMC	Ver. UL-3A1

	Other Instruments					
Equipment Manufacturer Model No. Serial No. Last Cal. Next Cal.						
Signal & Spectrum analyzer	R&S	FSW	1312.8000K26- 103950-sj	Oct.12, 2023	Oct.11, 2024	



6. TEST RESULTS

6.1. CESSATION TIME

LIMITS

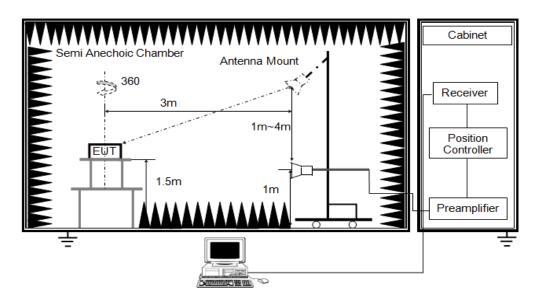
A UWB device operating under the provisions of this section shall transmit only when it is sending information to an associated receiver. The UWB intentional radiator shall cease transmission within 10 seconds unless it receives an acknowledgement from the associated receiver that its transmission is being received. An acknowledgment of reception must continue to be received by the UWB intentional radiator at least every 10 seconds or the UWB device must cease transmitting.

PROCEDURE

EUT and receiving pairing device keep UWB normal connection.

- a. Set RBW of spectrum analyzer to 1 MHz and VBW to 3 MHz.
- b. Use a video trigger with the trigger level set to enable triggering only on full pulses.
- c. Set the center frequency on any frequency would be measure and set the frequency span to zero span.
- d. Measure the maximum time duration of one single pulse.

TEST SETUP



TEST ENVIRONMENT

Temperature	22.5 °C	Relative Humidity	53 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 3.6 V

RESULTS



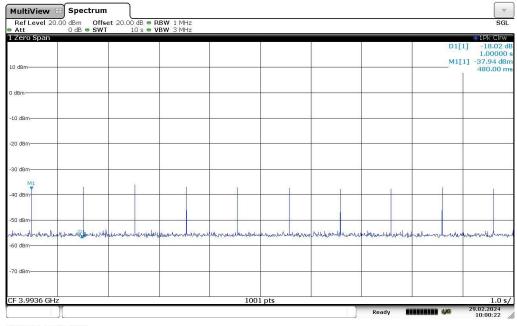
Note: The EUT has three UWB modes:

- 1. UWB off mode this is for outdoor operation or when the onsite installation does not support the UWB support. In this case the UWB is not activated and it uses only Bluetooth LE advertisement / communication.
- 2. Slow update This is used when the UWB is activated for indoor operation and the device is not moving for a certain amount of time. In this case the UWB typically sends one message per 10 seconds.
- 3. Normal update rate This is used when the UWB is activated for indoor operation and the device is moving. The movement is detected via an embedded accelerometer. In this case the UWB typically sends one message per 1 second.

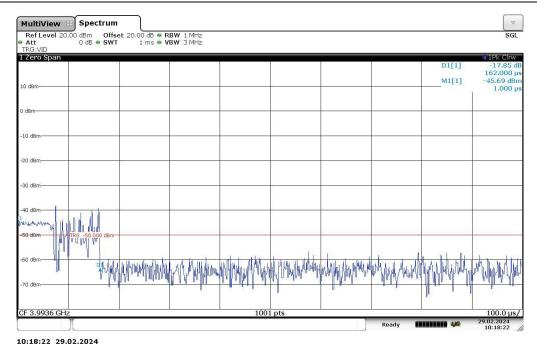
Test result for Normal update rate Mode: When the UWB is activated for indoor operation and the device is not moving for a certain amount of time.

Channel 2	3993.6 MHz	
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Mode	Transmit Time (us)	Transmission Interval (s)	Limit (s)	Result
Normal update rate	0.162	1	10.000	PASS

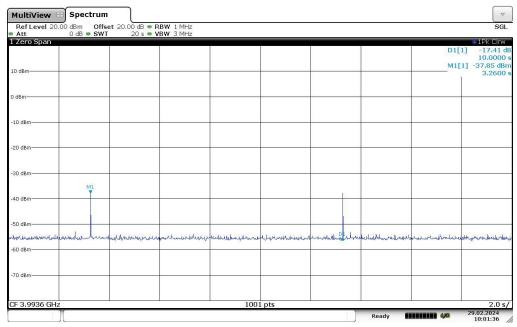




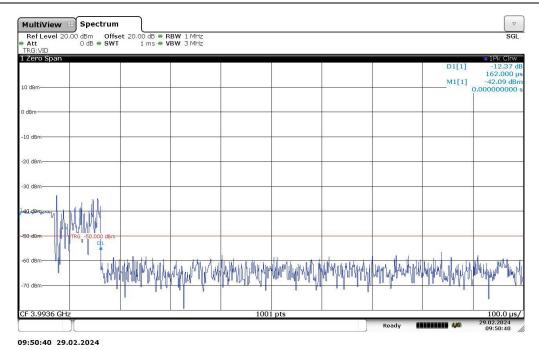


Test result for Slow update Mode: When the UWB is activated for indoor operation and the device is moving:

Mode	Transmit Time (us)	Transmission Interval (s)	Limit (s)	Result
Slow update	0.162	10	10.000	PASS







Note: All the modes and channels had been tested, but only the worst data was recorded in the report.



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6.2. -10 dB BANDWIDTH

LIMITS

CFR 47 FCC Part15 (15.519) Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	
CFR 47 FCC §15.519 (c)	-10 dB Bandwidth	The UWB bandwidth of a device operating under the provisions of this section must be contained between 3100 MHz and 10,600 MHz.	3.1-10.6 GHz.	

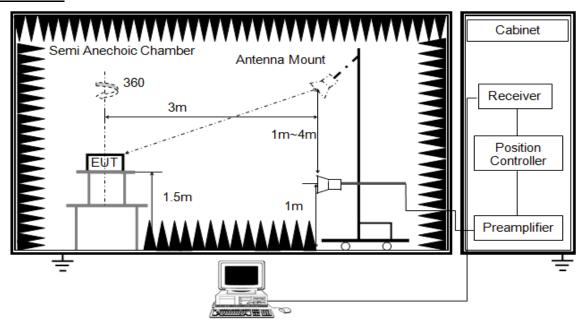
TEST PROCEDURE

The frequency at which the maximum power level is measured with the peak detector is designated fM. The peak power measurements shall be made using a spectrum analyzer or EMI receiver with a 1 MHz resolution bandwidth and a video bandwidth of 1 MHz or greater. The instrument shall be set to peak detection using the maximum-hold trace mode. The outermost 1 MHz segments above and below fM, where the peak power falls by 10 dB relative to the level at fM, are designated as fH and fL, respectively:

- a) For the lowest frequency bound fL, the emission is searched from a frequency lower than fM that has, by inspection, a peak power much lower than 10 dB less than the power at fM and increased toward fM until the peak power indicates 10 dB less than the power at fM. The frequency of that segment is recorded.
- b) This process is repeated for the highest frequency bound fH, beginning at a frequency higher than fM that has, by inspection, a peak power much lower than 10 dB below the power at fM. The frequency of that segment is recorded.
- c) The two recorded frequencies represent the highest fH and lowest fL bounds of the UWB transmission, and the -10 dB bandwidth (B 10) is defined as (fH fL). The center frequency (fc) is mathematically determined from (fH + fL) / 2.
- d) The fractional bandwidth is defined as 2(fH fL) / (fH + fL).
- e) Determine whether the -10 dB bandwidth (fH fL) is ≥ 500 MHz, or whether the fractional bandwidth 2(fH fL) / (fH + fL) is ≥ 0.2 .



TEST SETUP



TEST ENVIRONMENT

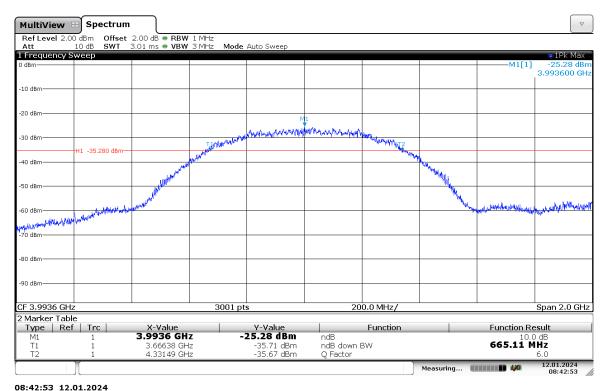
Temperature	22.5 °C	Relative Humidity	53 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 3.6 V

RESULTS

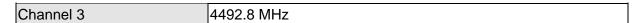
Test Channel	f _M (MHz)	f _L (MHz)	f _H (MHz)	-10 dB Bandwidth (MHz)	f _C (MHz)	Limit	Result
CH2	3993.6	3666.38	4331.49	665.11	3998.94	-10 dB Bandwidth≥500	Pass
CH3	4492.8	4203.10	4850.40	647.40	4526.75	MHz	Fd55

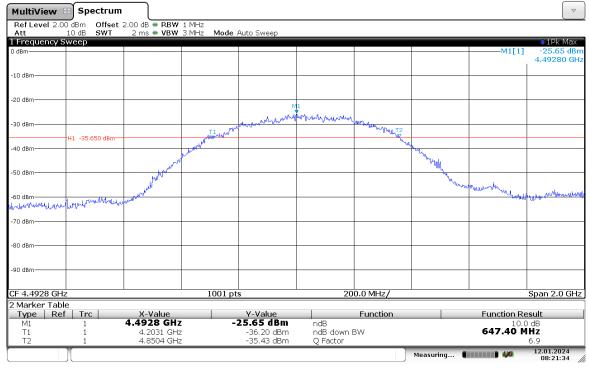


Channel 2 3993.6 MHz



00112100 1210112021





08:21:35 12.01.2024



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6.3. RADIATED SPURIOUS EMISSION

6.3.1. LIMITS AND PROCEDURE

LIMITS

CFR 47 FCC §15.209 CFR 47 FCC §15.519(c)(d)(e)

The radiated emissions at or below 960 MHz from a device operating under the provisions of this section shall not exceed the emission levels in § 15.209.

FCC Radiated emission limits above 30 MHz and below 960 MHz					
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m Quasi-Peak			
30 - 88	100	40			
88 - 216	150	43.5			
216 - 960	200	46			

FCC Radiated emission limits below 30 MHz					
Frequency (MHz) Field strength (microvolts/meter) Measurement distance (meters)					
0.009-0.490	2400/F(kHz)	300			
0.490-1.705	24000/F(kHz)	30			
1.705-30.0	30	30			



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The FCC radiated emissions above 960 MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz:

Frequency (MHz)	EIRP (dBm)	Field Strength(dBuV/m@3m)	Detector	Resolution Bandwidth
960 ~ 1610	-75.3	19.9	RMS	1 MHz
1610 ~ 1990	-63.3	31.9	RMS	1 MHz
1990 ~ 3100	-61.3	33.9	RMS	1 MHz
3100 ~ 10600	-41.3	53.9	RMS	1 MHz
Above 10600	-61.3	33.9	RMS	1 MHz

The ISED radiated emissions above 960 MHz from a device shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz.

Frequency (MHz)	EIRP (dBm)	Field Strength (dBuV/m@3m)	Detector	Resolution Bandwidth
960 ~ 1610	-75.3	19.9	RMS	1 MHz
1610 ~ 4750	-70.0	25.2	RMS	1 MHz
4750 ~ 10600	-41.3	53.9	RMS	1 MHz
Above 10600	-61.3	33.9	RMS	1 MHz

Combining the FCC and ISED radiated emissions with the worst case:

Frequency (MHz)	EIRP (dBm)	Field Strength (dBuV/m@3m)	Field Strength (dBuV/m@1m)	Detector	Resolution Bandwidth	Sweet Time	Bin Size
960 ~ 1610	-75.3	19.9	29.44	RMS	1 MHz	<1ms* number of points	<= 1MHz
1610 ~ 1990	-70.0	25.2	34.74	RMS	1 MHz	<1ms* number of points	<= 1MHz
1990 ~ 3100	-70.0	25.2	34.74	RMS	1 MHz	<1ms* number of points	<= 1MHz
3100 ~ 10600	-41.3	53.9	63.44	RMS	1 MHz	<1ms* number of points	<= 1MHz
Above 10600	-61.3	33.9	43.44	RMS	1 MHz	<1ms* number of points	<= 1MHz

Note: For frequency band 1610 ~ 3100, used the worst case limit line.



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In addition to the radiated emission limits specified in the table in paragraph (c) of this section, UWB transmitters operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of no less than 1 kHz:

Frequency (MHz)	EIRP (dBm)	Field Strength (dBuV/m@3m)	Detector	Resolution Bandwidth	Sweet Time	Bin Size
1164 ~ 1240	-85.3	9.9	RMS	1 kHz	<1ms* number of points	<= 1MHz
1559 ~ 1610	-85.3	9.9	RMS	1 kHz	<1ms* number of points	<= 1MHz

There is a limit on the peak level of the emissions contained within a 50 MHz bandwidth centered on the frequency at which the highest radiated emission occurs, fM. That limit is 0 dBm EIRP. It is acceptable to employ a different resolution bandwidth, and a correspondingly different peak emission limit, When a peak measurement is required, it is acceptable to use a resolution bandwidth other than the 50 MHz specified in this subpart. This resolution bandwidth shall not be lower than 1 MHz or greater than 50 MHz, and the measurement shall be centered on the frequency at which the highest radiated emission occurs, fM. If a resolution bandwidth other than 50 MHz is employed, the peak EIRP limit shall be 20 log (RBW/50) dBm where RBW is the resolution bandwidth in megahertz that is employed.

Frequency (MHz)	EIRP (dBm)	Field Strength (dBuV/m@3m)	Detector	Resolution Bandwidth	Sweet Time	Bin Size
3100 ~ 10600	0	95.2	Peak	50 MHz	<1ms* number of points	<= 1MHz

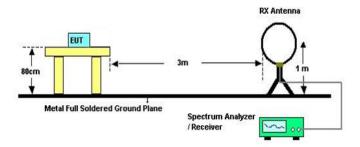
The highest frequency employed in § 15.33 to determine the frequency range over which radiated measurements are made shall be based on the center frequency, fC, unless a higher frequency is generated within the UWB device. For measuring emission levels, the spectrum shall be investigated from the lowest frequency generated in the UWB transmitter, without going below 9 kHz, up to the frequency range shown in § 15.33(a) or up to fC + 3/(pulse width in seconds), whichever is higher. There is no requirement to measure emissions beyond 40 GHz provided fC is less than 10 GHz; beyond 100 GHz if fC is at or above 10 GHz and below 30 GHz; or beyond 200 GHz if fC is at or above 30 GHz.

According to CFR 47 FCC PART 15 SUBPART F and ANSI C63.10, $E[dB\mu V/m] = EIRP[dBm] + 95.2$, for d = 3 m. dBuV/m@1m = dBuV/m@3m + 20*log(3(m)/1(m))



TEST SETUP AND PROCEDURE

Below 30 MHz



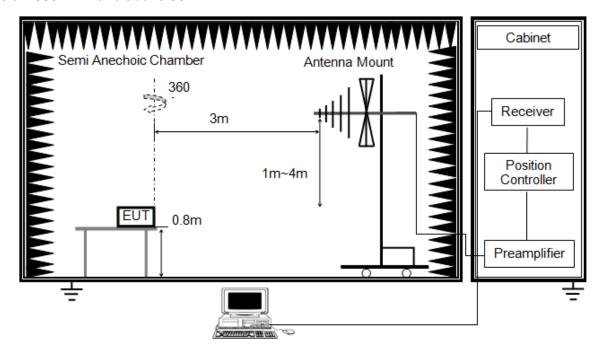
The setting of the spectrum analyzer:

RBW	200Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto
Detector	Peak/QP/Average
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013 clause 11.11 and 11.12.
- 2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 80 cm above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.
- 5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
- 6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode remeasured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.
- 7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.
- 8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω ; For example, the measurement frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to Y-51.5 = Z dBuA/m, which has the same

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Below 960 MHz and above 30 MHz



The setting of the spectrum analyzer:

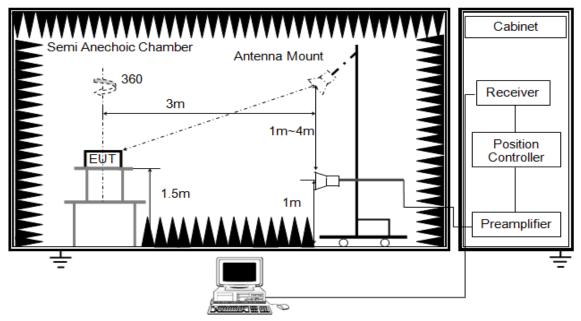
RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.5 and 10.2.
- 2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 80 cm above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.



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Above 960 MHz



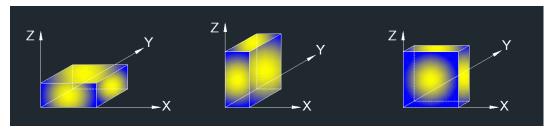
The setting of the spectrum analyzer:

RBW	50 MHz/1 MHz/1 kHz (50 MHz was used for peak measurement, 1 MHz was used for
KDVV	RMS measurement, 1 kHz was used for additional radiated emission in GPS bands)
VBW	50 MHz/3 MHz/3 kHz (50 MHz was used for peak measurement, 3 MHz was used for
VBVV	RMS measurement, 3 kHz was used for additional radiated emission in GPS bands)
Sweep	Auto
Detector	Peak/RMS
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013 clause 10.3.
- 2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 1.5 m above ground.
- 4. The EUT was set 3 meters or 1 meter from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. Radiated emission levels above 960 MHz are based on RMS average measurements over a 1 MHz or 1 kHz resolution bandwidth. The RMS average measurement is based on the use of a spectrum analyzer with a resolution bandwidth of 1 MHz or 1 kHz, an RMS detector, and a 1 millisecond or less averaging time. Unless otherwise stated, if pulse gating is employed where the transmitter is quiescent for intervals that are long compared to the nominal pulse repetition interval, measurements shall be made with the pulse train gated on. Alternative measurement procedures may be considered by the Commission.
- 6. When a peak measurement is required, it is acceptable to use a resolution bandwidth other than the 50 MHz specified in this subpart. This resolution bandwidth shall not be lower than 1 MHz or greater than 50 MHz, and the measurement shall be centered on the frequency at which the highest radiated emission occurs, fM.



X axis, Y axis, Z axis positions:



Note: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

TEST ENVIRONMENT

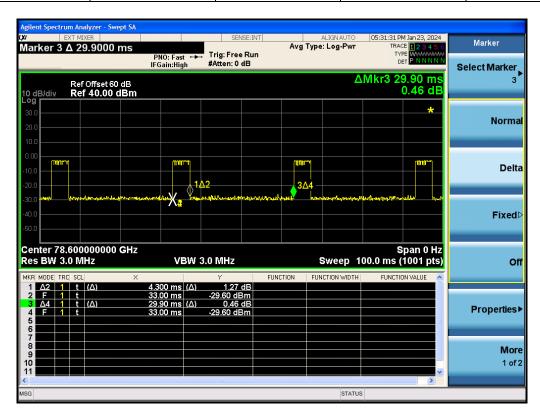
Temperature	22.5 °C	Relative Humidity	53 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 3.6 V

RESULTS



6.3.2. DUTY CYCLE FOR RADIATED SPURIOUS EMISSIONS TEST

Test Mode	On Time	Period	Duty Cycle	Duty Cycle
	(msec)	(msec)	(Linear)	(%)
UWB	4.3	29.9	0.1438	14.38



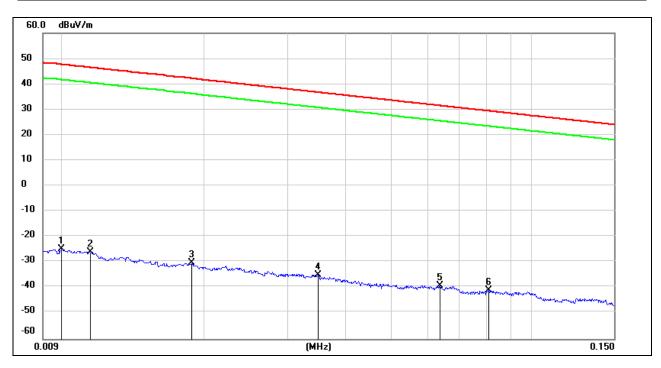
Note: An engineering sample with continue transmitting was used during radiated spurious emission test.



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6.3.3. RADIATED SPURIOUS EMISSIONS BELOW 30 MHZ AND ABOVE 9 KHZ

Frequency Range	0.009 MHz ~ 0.150 MHz	Channel	CH 3
Polarity:	Loop Antenna Face On To The EUT	Distance	3 m



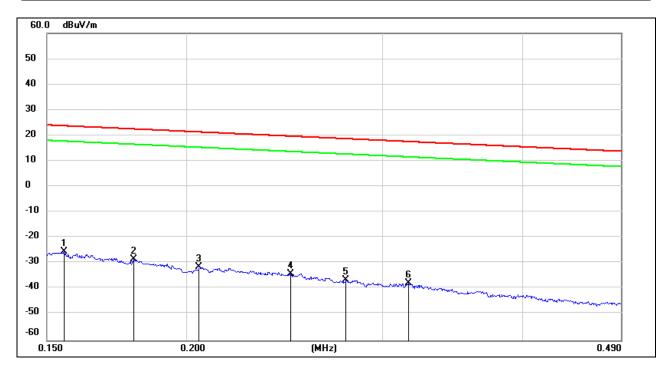
No.	Frequency	Reading	Correct	Result	Result	Limit	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuA/m)	(dBuV/m)	(dBuA/m)	(dB)	
1	0.01	76.72	-101.4	-24.68	-76.18	47.6	-3.9	-72.28	peak
2	0.0114	75.5	-101.4	-25.9	-77.40	46.46	-5.04	-72.36	peak
3	0.0188	71.14	-101.35	-30.21	-81.71	42.12	-9.38	-72.33	peak
4	0.0349	66.53	-101.41	-34.88	-86.38	36.75	-14.75	-71.63	peak
5	0.0636	62.31	-101.54	-39.23	-90.73	31.53	-19.97	-70.76	peak
6	0.0806	60.68	-101.63	-40.95	-92.45	29.47	-22.03	-70.42	peak

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. If the peak values are less than the QP limit, the QP result is deemed to comply with QP limit.
- 4. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.
- 5. All modes have been tested, but only the worst data was recorded in the report.
- 6. $dBuA/m = dBuV/m 20Log10[120\pi] = dBuV/m 51.5$



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Frequency Range	0.150 MHz ~ 0.490 MHz	Channel	CH 3
Polarity:	Loop Antenna Face On To The EUT	Distance	3 m



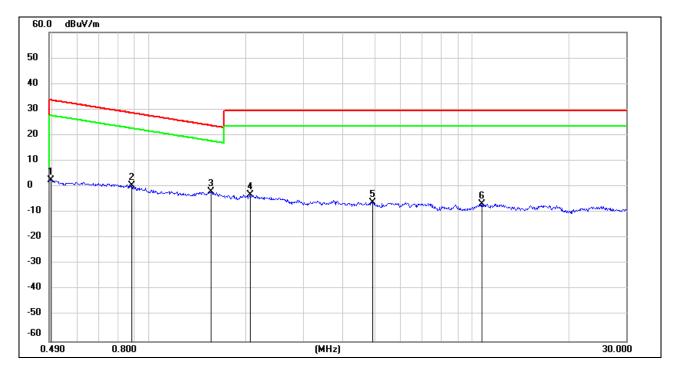
No.	Frequency	Reading	Correct	Result	Result	Limit	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuA/m)	(dBuV/m)	(dBuA/m)	(dB)	
1	0.1554	76.27	-101.65	-25.38	-76.88	23.77	-27.73	-49.15	peak
2	0.1794	73.27	-101.68	-28.41	-79.91	22.53	-28.97	-50.94	peak
3	0.2053	70.29	-101.73	-31.44	-82.94	21.35	-30.15	-52.79	peak
4	0.2482	67.85	-101.8	-33.95	-85.45	19.7	-31.8	-53.65	peak
5	0.2782	65.29	-101.83	-36.54	-88.04	18.71	-32.79	-55.25	peak
6	0.3163	64.2	-101.87	-37.67	-89.17	17.6	-33.9	-55.27	peak

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. If the peak values are less than the QP limit, the QP result is deemed to comply with QP limit.
- 4. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.
- 5. All modes have been tested, but only the worst data was recorded in the report.
- 6. $dBuA/m = dBuV/m 20Log10[120\pi] = dBuV/m 51.5$



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Frequency Range	0.490 MHz ~ 30 MHz	Channel	CH 3
Polarity:	Loop Antenna Face On To The EUT	Distance	3 m



No.	Frequency	Reading	Correct	Result	Result	Limit	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuA/m)	(dBuV/m)	(dBuA/m)	(dB)	
1	0.4959	64.6	-62.06	2.54	-48.96	33.7	-17.8	-31.16	peak
2	0.882	62.68	-62.19	0.49	-51.01	28.69	-22.81	-28.20	peak
3	1.5564	60.18	-62.02	-1.84	-53.34	23.76	-27.74	-25.60	peak
4	2.0539	58.7	-61.81	-3.11	-54.61	29.54	-21.96	-32.65	peak
5	4.9165	55.38	-61.48	-6.1	-57.60	29.54	-21.96	-35.64	peak
6	10.7299	53.98	-60.83	-6.85	-58.35	29.54	-21.96	-36.39	peak

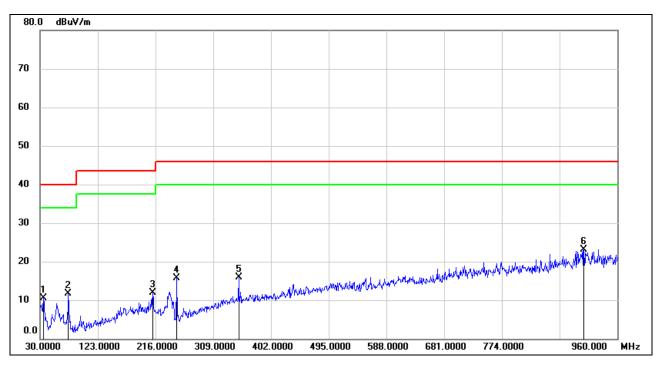
- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. If the peak values are less than the QP limit, the QP result is deemed to comply with QP limit.
- 4. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.
- 5. All modes have been tested, but only the worst data was recorded in the report.
- 6. $dBuA/m = dBuV/m 20Log10[120\pi] = dBuV/m 51.5$



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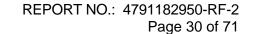
6.3.4. RADIATED SPURIOUS EMISSIONS BELOW 960 MHZ AND ABOVE 30 MHZ

Frequency Range	30 MHz ~ 960 MHz	Channel	CH 3
Polarity:	Horizontal	Distance	3 m



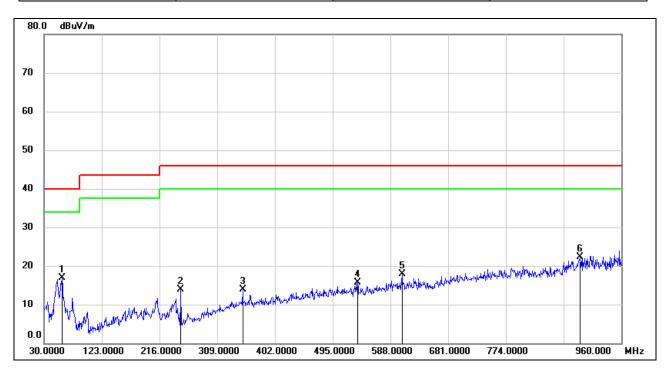
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	35.5800	29.18	-18.66	10.52	40.00	-29.48	QP
2	75.5700	32.29	-20.68	11.61	40.00	-28.39	QP
3	211.3500	28.20	-16.39	11.81	43.50	-31.69	QP
4	250.4100	34.03	-18.33	15.70	46.00	-30.30	QP
5	349.9200	28.40	-12.49	15.91	46.00	-30.09	QP
6	906.0600	27.64	-4.46	23.18	46.00	-22.82	QP

- 1. Result Level = Read Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. If the peak values are less than the QP limit, the QP result is deemed to comply with QP limit.
- 4. All modes have been tested, but only the worst data was recorded in the report.





Frequency Range	30 MHz ~ 960 MHz	Channel	CH 3
Polarity:	Vertical	Distance	3 m



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	58.8300	36.66	-19.81	16.85	40.00	-23.15	QP
2	250.4100	32.22	-18.33	13.89	46.00	-32.11	QP
3	349.9200	26.37	-12.49	13.88	46.00	-32.12	QP
4	534.9900	25.96	-10.31	15.65	46.00	-30.35	QP
5	606.6000	26.86	-8.98	17.88	46.00	-28.12	QP
6	893.9700	26.90	-4.63	22.27	46.00	-23.73	QP

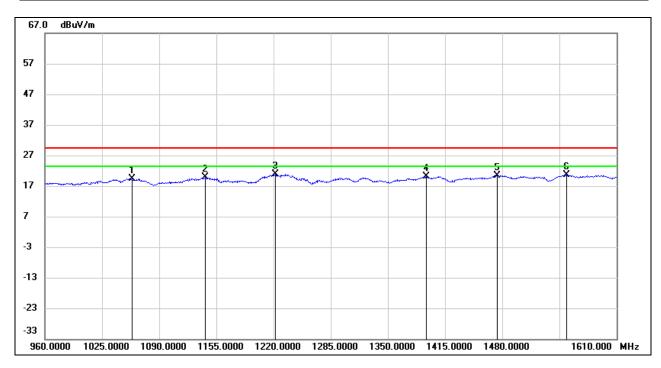
- 1. Result Level = Read Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. If the peak values are less than the QP limit, the QP result is deemed to comply with QP limit.
- 4. All modes have been tested, but only the worst data was recorded in the report.



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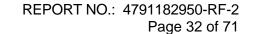
6.3.5. RADIATED SPURIOUS EMISSIONS ABOVE 960 MHZ AND BELOW 18 GHZ

Frequency Range	960 MHz ~ 1610 MHz	Channel	CH 2
Polarity:	Horizontal	Distance	1 m



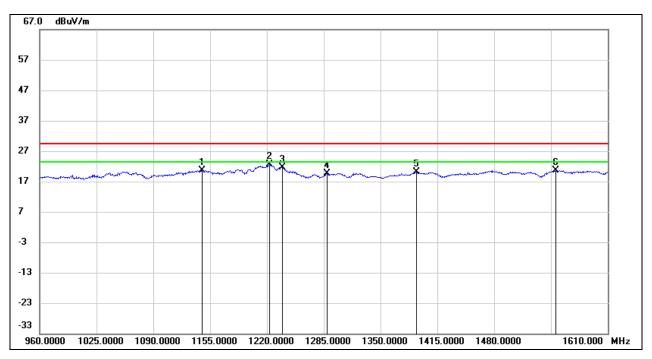
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1059.450	34.26	-14.76	19.50	29.44	-9.94	RMS
2	1142.000	34.21	-14.37	19.84	29.44	-9.60	RMS
3	1221.950	34.86	-14.00	20.86	29.44	-8.58	RMS
4	1393.550	33.21	-13.20	20.01	29.44	-9.43	RMS
5	1474.150	33.33	-12.83	20.50	29.44	-8.94	RMS
6	1552.800	33.14	-12.53	20.61	29.44	-8.83	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 2. RMS: RMS detector.
- 3. RBW: 1 MHz





Frequency Range	960 MHz ~ 1610 MHz	Channel	CH 2
Polarity:	Vertical	Distance	1 m



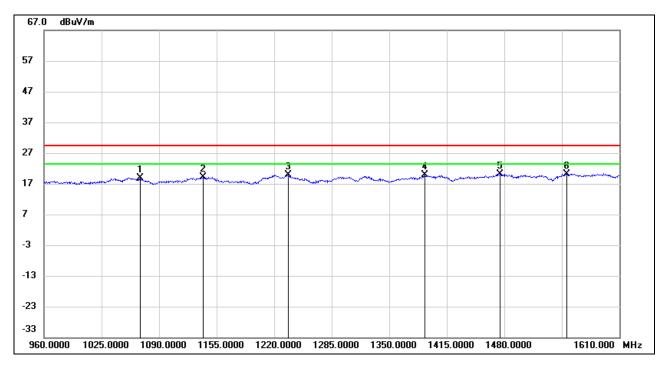
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1145.900	34.97	-14.35	20.62	29.44	-8.82	RMS
2	1223.250	36.52	-13.99	22.53	29.44	-6.91	RMS
3	1237.550	35.67	-13.93	21.74	29.44	-7.70	RMS
4	1288.900	33.44	-13.69	19.75	29.44	-9.69	RMS
5	1390.950	33.36	-13.22	20.14	29.44	-9.30	RMS
6	1550.200	33.22	-12.54	20.68	29.44	-8.76	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 2. RMS: RMS detector.
- 3. RBW: 1 MHz



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Frequency Range	960 MHz ~ 1610 MHz	Channel	CH 3
Polarity:	Horizontal	Distance	1 m



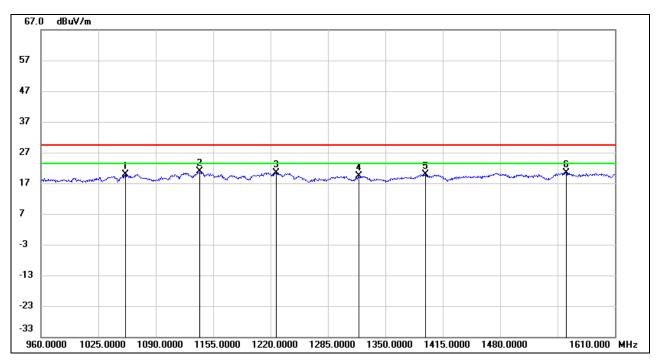
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1068.550	33.63	-14.71	18.92	29.44	-10.52	RMS
2	1140.050	33.56	-14.38	19.18	29.44	-10.26	RMS
3	1235.600	33.74	-13.94	19.80	29.44	-9.64	RMS
4	1390.300	33.00	-13.22	19.78	29.44	-9.66	RMS
5	1475.450	33.01	-12.82	20.19	29.44	-9.25	RMS
6	1550.200	32.77	-12.54	20.23	29.44	-9.21	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 2. RMS: RMS detector.
- 3. RBW: 1 MHz



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Frequency Range	960 MHz ~ 1610 MHz	Channel	CH 3
Polarity:	Vertical	Distance	1 m

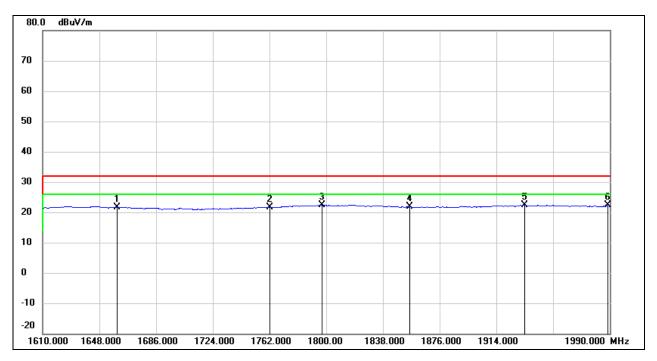


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1055.550	34.61	-14.77	19.84	29.44	-9.60	RMS
2	1140.050	35.15	-14.38	20.77	29.44	-8.67	RMS
3	1226.500	34.30	-13.98	20.32	29.44	-9.12	RMS
4	1320.100	32.80	-13.54	19.26	29.44	-10.18	RMS
5	1395.500	33.03	-13.20	19.83	29.44	-9.61	RMS
6	1554.750	33.03	-12.53	20.50	29.44	-8.94	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 2. RMS: RMS detector.
- 3. RBW: 1 MHz



Frequency Range	1610 MHz ~ 1990 MHz	Channel	CH 2
Polarity:	Horizontal	Distance	3 m

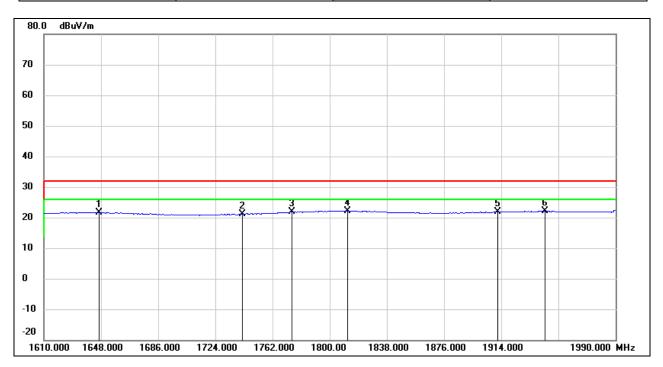


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1660.000	33.92	-12.19	21.73	31.90	-10.17	RMS
2	1762.000	33.59	-11.84	21.75	31.90	-10.15	RMS
3	1797.000	34.12	-11.73	22.39	31.90	-9.51	RMS
4	1856.000	33.38	-11.54	21.84	31.90	-10.06	RMS
5	1933.000	33.66	-11.28	22.38	31.90	-9.52	RMS
6	1989.000	33.59	-11.10	22.49	31.90	-9.41	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 2. RMS: RMS detector.
- 3. RBW: 1 MHz



Frequency Range	1610 MHz ~ 1990 MHz	Channel	CH 2
Polarity:	Vertical	Distance	3 m



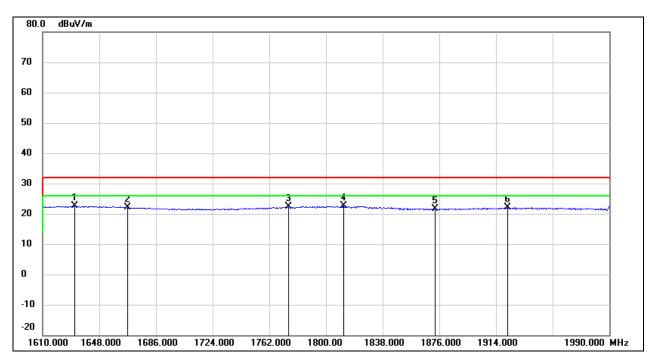
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1647.000	33.89	-12.23	21.66	31.90	-10.24	RMS
2	1742.000	33.13	-11.91	21.22	31.90	-10.68	RMS
3	1775.000	33.61	-11.80	21.81	31.90	-10.09	RMS
4	1812.000	33.89	-11.68	22.21	31.90	-9.69	RMS
5	1912.000	33.23	-11.35	21.88	31.90	-10.02	RMS
6	1943.000	33.38	-11.25	22.13	31.90	-9.77	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 2. RMS: RMS detector.
- 3. RBW: 1 MHz



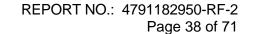
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Frequency Range	1610 MHz ~ 1990 MHz	Channel	CH 3
Polarity:	Horizontal	Distance	3 m



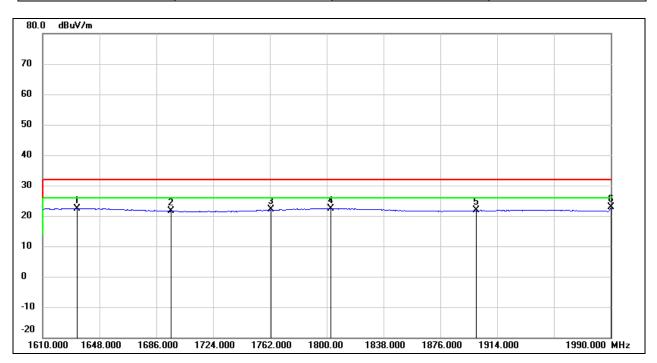
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1631.660	34.83	-12.27	22.56	31.90	-9.34	RMS
2	1667.000	34.21	-12.16	22.05	31.90	-9.85	RMS
3	1774.920	34.14	-11.80	22.34	31.90	-9.56	RMS
4	1811.780	34.20	-11.68	22.52	31.90	-9.38	RMS
5	1872.960	33.18	-11.47	21.71	31.90	-10.19	RMS
6	1921.980	33.37	-11.32	22.05	31.90	-9.85	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 2. RMS: RMS detector.
- 3. RBW: 1 MHz





Frequency Range	1610 MHz ~ 1990 MHz	Channel	CH 3
Polarity:	Vertical	Distance	3 m



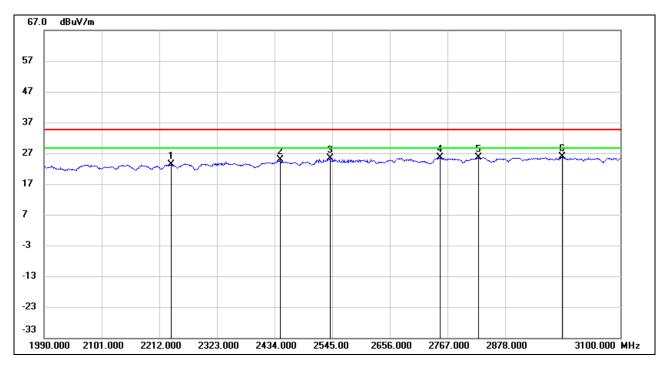
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1633.000	34.73	-12.27	22.46	31.90	-9.44	RMS
2	1696.000	33.74	-12.06	21.68	31.90	-10.22	RMS
3	1763.000	33.89	-11.84	22.05	31.90	-9.85	RMS
4	1803.000	34.15	-11.71	22.44	31.90	-9.46	RMS
5	1900.000	33.27	-11.39	21.88	31.90	-10.02	RMS
6	1990.000	33.94	-11.09	22.85	31.90	-9.05	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 2. RMS: RMS detector.
- 3. RBW: 1 MHz



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Frequency Range	1990 MHz ~ 3100 MHz	Channel	CH 2
Polarity:	Horizontal	Distance	1 m

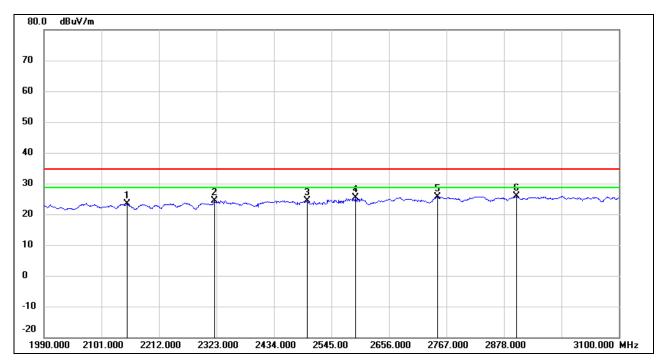


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2235.310	33.21	-9.86	23.35	34.74	-11.39	RMS
2	2445.100	33.72	-8.77	24.95	34.74	-9.79	RMS
3	2540.560	33.56	-8.29	25.27	34.74	-9.47	RMS
4	2752.570	32.87	-7.22	25.65	34.74	-9.09	RMS
5	2826.940	32.44	-6.85	25.59	34.74	-9.15	RMS
6	2987.890	31.90	-6.04	25.86	34.74	-8.88	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 2. RMS: RMS detector.
- 3. RBW: 1 MHz



Frequency Range	1990 MHz ~ 3100 MHz	Channel	CH 2
Polarity:	Vertical	Distance	1 m



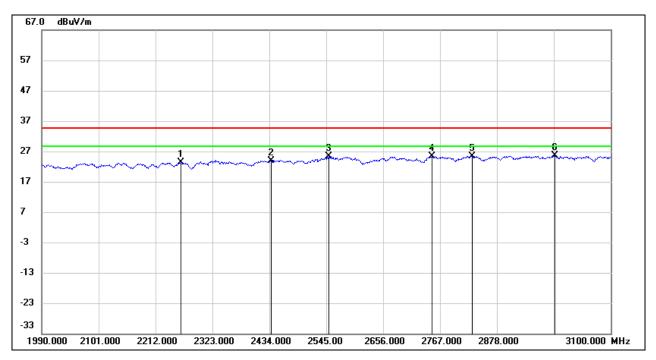
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2149.840	33.64	-10.29	23.35	34.74	-11.39	RMS
2	2319.670	33.87	-9.42	24.45	34.74	-10.29	RMS
3	2498.380	32.77	-8.49	24.28	34.74	-10.46	RMS
4	2591.620	33.53	-8.04	25.49	34.74	-9.25	RMS
5	2749.240	32.98	-7.24	25.74	34.74	-9.00	RMS
6	2902.420	32.35	-6.48	25.87	34.74	-8.87	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 2. RMS: RMS detector.
- 3. RBW: 1 MHz



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Frequency Range	1990 MHz ~ 3100 MHz	Channel	CH 3
Polarity:	Horizontal	Distance	1 m



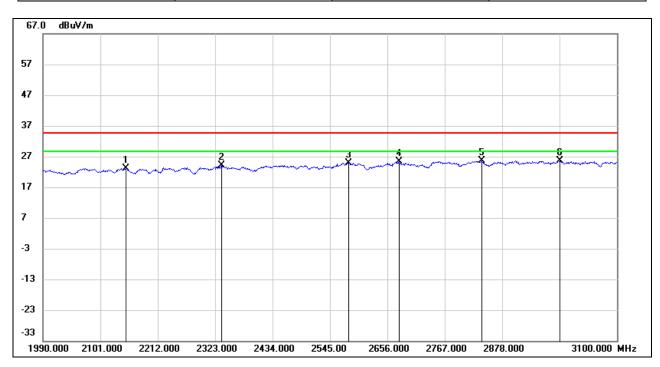
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2261.950	33.14	-9.72	23.42	34.74	-11.32	RMS
2	2437.330	32.79	-8.81	23.98	34.74	-10.76	RMS
3	2550.550	33.73	-8.23	25.50	34.74	-9.24	RMS
4	2751.460	32.61	-7.23	25.38	34.74	-9.36	RMS
5	2830.270	32.29	-6.84	25.45	34.74	-9.29	RMS
6	2991.220	31.65	-6.03	25.62	34.74	-9.12	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 2. RMS: RMS detector.
- 3. RBW: 1 MHz



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Frequency Range	1990 MHz ~ 3100 MHz	Channel	CH 3
Polarity:	Vertical	Distance	1 m



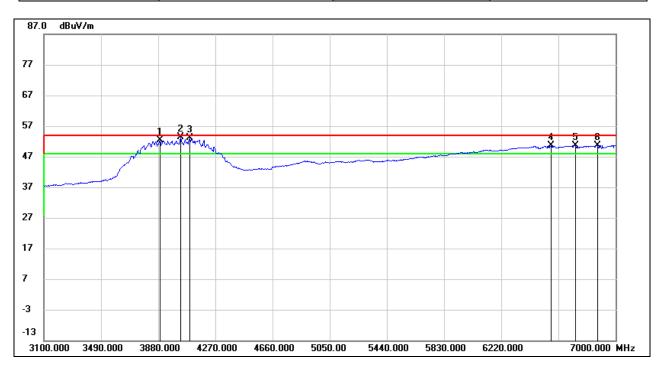
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2150.950	33.45	-10.28	23.17	34.74	-11.57	RMS
2	2335.210	33.51	-9.34	24.17	34.74	-10.57	RMS
3	2581.630	33.00	-8.07	24.93	34.74	-9.81	RMS
4	2678.200	32.87	-7.60	25.27	34.74	-9.47	RMS
5	2838.040	32.43	-6.79	25.64	34.74	-9.10	RMS
6	2990.110	31.64	-6.03	25.61	34.74	-9.13	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 2. RMS: RMS detector.
- 3. RBW: 1 MHz



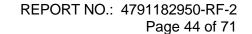
REPORT NO.: 4791182950-RF-2 Page 43 of 71

Frequency Range	3100 MHz ~ 7000 MHz	Channel	CH 2
Polarity:	Horizontal	Distance	3 m



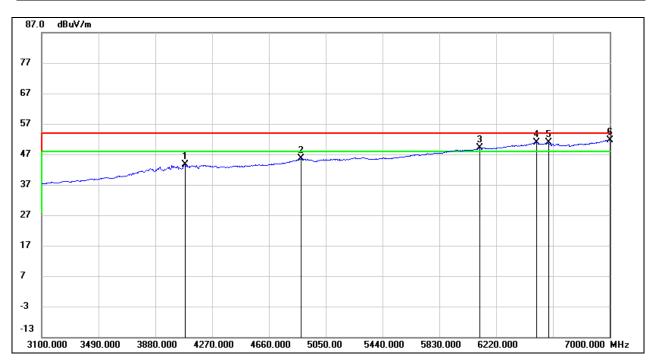
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3891.700	16.27	36.07	52.34	53.90	-1.56	RMS
2	4032.100	16.78	36.49	53.27	53.90	-0.63	RMS
3	4095.800	16.39	36.73	53.12	53.90	-0.78	RMS
4	6560.600	6.98	43.65	50.63	53.90	-3.27	RMS
5	6727.000	6.35	44.33	50.68	53.90	-3.22	RMS
6	6877.800	5.78	44.95	50.73	53.90	-3.17	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 MHz
- 5. Maximum RMS EIRP=53.27-95.2=-41.93 dBm





Frequency Range	3100 MHz ~ 7000 MHz	Channel	CH 2
Polarity:	Vertical	Distance	3 m



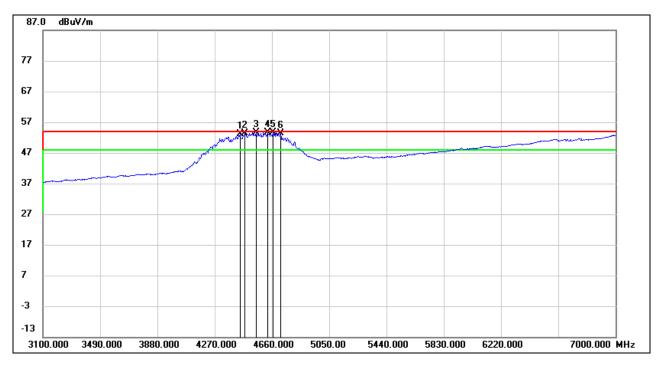
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4088.000	6.93	36.71	43.64	53.90	-10.26	RMS
2	4878.400	5.87	39.65	45.52	53.90	-8.38	RMS
3	6108.200	6.84	42.30	49.14	53.90	-4.76	RMS
4	6499.500	7.60	43.40	51.00	53.90	-2.90	RMS
5	6581.400	7.09	43.74	50.83	53.90	-3.07	RMS
6	7000.000	6.28	45.45	51.73	53.90	-2.17	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 MHz



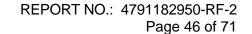
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Frequency Range	3100 MHz ~ 7000 MHz	Channel	CH 3
Polarity:	Horizontal	Distance	3 m



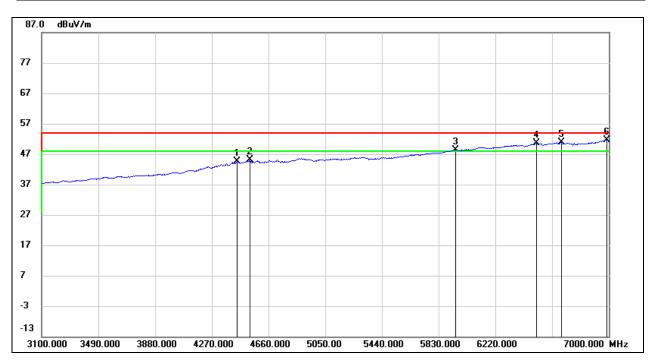
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4441.600	15.23	38.01	53.24	53.90	-0.66	RMS
2	4479.300	15.19	38.15	53.34	53.90	-0.56	RMS
3	4552.100	15.27	38.42	53.69	53.90	-0.21	RMS
4	4634.000	14.95	38.74	53.69	53.90	-0.21	RMS
5	4670.400	14.64	38.87	53.51	53.90	-0.39	RMS
6	4718.500	14.31	39.06	53.37	53.90	-0.53	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 MHz
- 5. Maximum RMS EIRP=53.69-95.2=-41.51 dBm





Frequency Range	3100 MHz ~ 7000 MHz	Channel	CH 3
Polarity:	Vertical	Distance	3 m



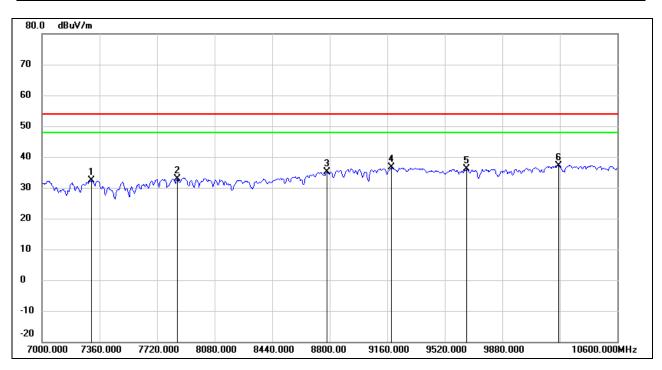
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4445.500	6.72	38.03	44.75	53.90	-9.15	RMS
2	4531.300	6.82	38.34	45.16	53.90	-8.74	RMS
3	5947.000	6.63	41.86	48.49	53.90	-5.41	RMS
4	6504.700	7.25	43.42	50.67	53.90	-3.23	RMS
5	6675.000	6.75	44.11	50.86	53.90	-3.04	RMS
6	6989.600	6.32	45.41	51.73	53.90	-2.17	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 MHz



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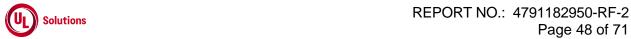
Frequency Range	7000 MHz ~ 10600 MHz	Channel	CH 2
Polarity:	Horizontal	Distance	3 m



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	7309.600	25.52	6.94	32.46	53.90	-21.44	RMS
2	7846.000	26.26	6.57	32.83	53.90	-21.07	RMS
3	8782.000	26.28	8.84	35.12	53.90	-18.78	RMS
4	9185.200	26.07	10.46	36.53	53.90	-17.37	RMS
5	9656.800	25.07	11.01	36.08	53.90	-17.82	RMS
6	10232.800	24.99	12.26	37.25	53.90	-16.65	RMS

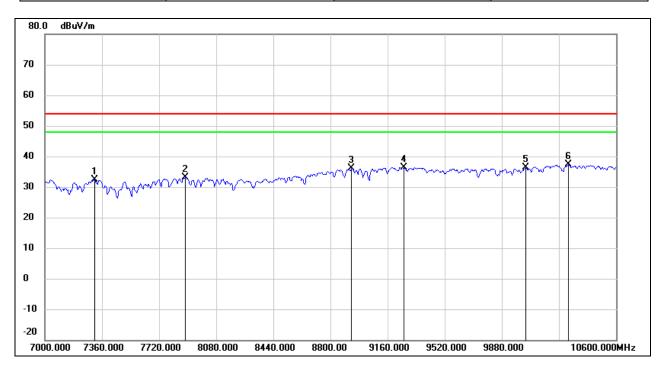
Note

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 MHz



Frequency Range	7000 MHz ~ 10600 MHz	Channel	CH 2
Polarity:	Vertical	Distance	3 m

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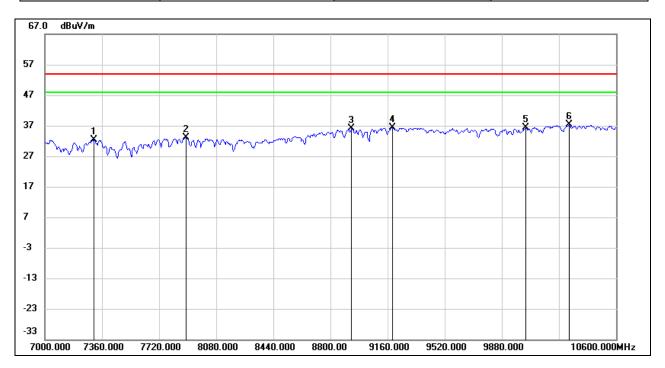
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	7313.200	25.51	6.94	32.45	53.90	-21.45	RMS
2	7885.600	26.60	6.53	33.13	53.90	-20.77	RMS
3	8933.200	26.31	9.88	36.19	53.90	-17.71	RMS
4	9264.400	25.94	10.50	36.44	53.90	-17.46	RMS
5	10031.200	24.49	11.83	36.32	53.90	-17.58	RMS
6	10297.600	24.88	12.40	37.28	53.90	-16.62	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 MHz



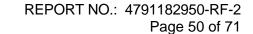
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Frequency Range	7000 MHz ~ 10600 MHz	Channel	CH 3
Polarity:	Horizontal	Distance	3 m



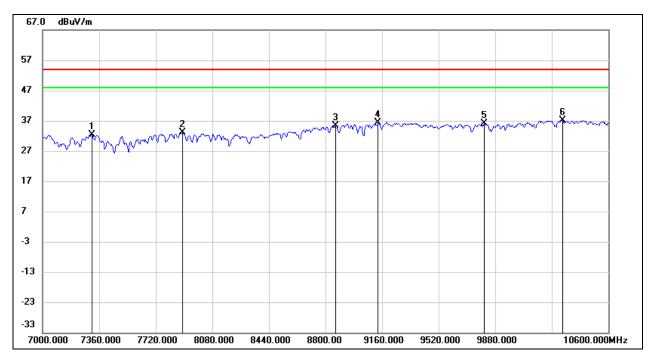
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	7310.800	25.41	6.94	32.35	53.90	-21.55	RMS
2	7889.200	26.52	6.52	33.04	53.90	-20.86	RMS
3	8935.600	26.13	9.89	36.02	53.90	-17.88	RMS
4	9188.800	25.96	10.46	36.42	53.90	-17.48	RMS
5	10031.200	24.54	11.83	36.37	53.90	-17.53	RMS
6	10307.200	24.91	12.41	37.32	53.90	-16.58	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 MHz





Frequency Range	7000 MHz ~ 10600 MHz	Channel	CH 3
Polarity:	Vertical	Distance	3 m



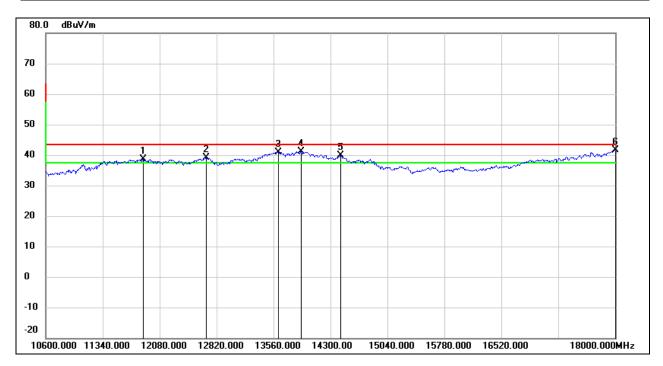
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	7313.200	25.36	6.94	32.30	53.90	-21.60	RMS
2	7889.200	26.52	6.52	33.04	53.90	-20.86	RMS
3	8866.000	25.95	9.41	35.36	53.90	-18.54	RMS
4	9136.000	25.95	10.43	36.38	53.90	-17.52	RMS
5	9810.400	24.67	11.34	36.01	53.90	-17.89	RMS
6	10308.400	24.74	12.41	37.15	53.90	-16.75	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 MHz



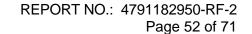
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Frequency Range	10600 MHz ~ 18000 MHz	Channel	CH 2
Polarity:	Horizontal	Distance	1 m



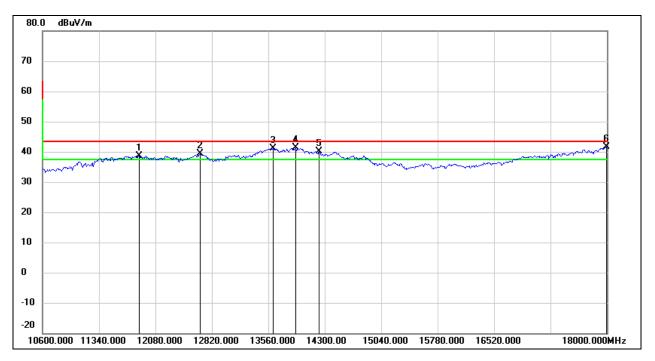
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	11865.400	21.08	17.59	38.67	43.44	-4.77	RMS
2	12686.800	21.12	18.01	39.13	43.44	-4.31	RMS
3	13619.200	19.82	21.15	40.97	43.44	-2.47	RMS
4	13915.200	19.46	21.77	41.23	43.44	-2.21	RMS
5	14433.200	19.82	20.18	40.00	43.44	-3.44	RMS
6	18000.000	15.89	25.69	41.58	43.44	-1.86	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 MHz





Frequency Range	10600 MHz ~ 18000 MHz	Channel	CH 2
Polarity:	Vertical	Distance	1 m



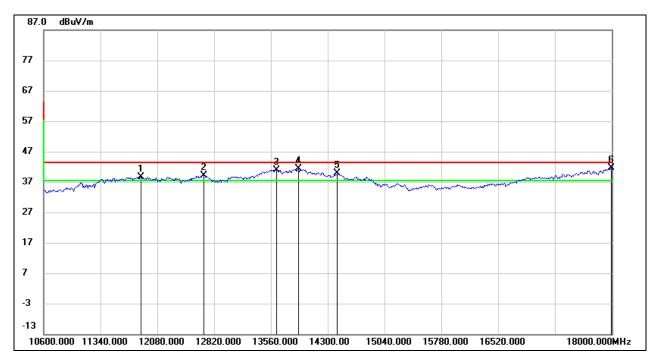
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	11865.400	21.11	17.59	38.70	43.44	-4.74	RMS
2	12664.600	21.29	17.97	39.26	43.44	-4.18	RMS
3	13626.600	19.92	21.17	41.09	43.44	-2.35	RMS
4	13915.200	19.67	21.77	41.44	43.44	-2.00	RMS
5	14226.000	19.07	21.03	40.10	43.44	-3.34	RMS
6	17992.600	15.88	25.65	41.53	43.44	-1.91	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 MHz



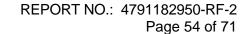
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Frequency Range	10600 MHz ~ 18000 MHz	Channel	CH 3
Polarity:	Horizontal	Distance	1 m



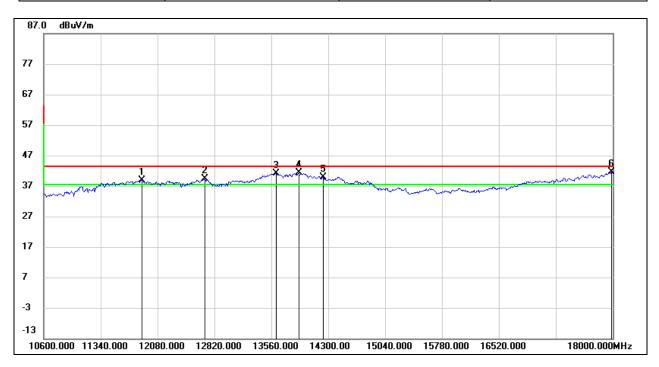
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	11870.333	21.14	17.61	38.75	43.44	-4.69	RMS
2	12689.267	21.21	18.02	39.23	43.44	-4.21	RMS
3	13634.000	19.81	21.19	41.00	43.44	-2.44	RMS
4	13920.133	19.55	21.79	41.34	43.44	-2.10	RMS
5	14428.267	19.74	20.20	39.94	43.44	-3.50	RMS
6	17995.067	15.85	25.66	41.51	43.44	-1.93	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 MHz





Frequency Range	10600 MHz ~ 18000 MHz	Channel	CH 3
Polarity:	Vertical	Distance	1 m



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	11872.800	21.19	17.61	38.80	43.44	-4.64	RMS
2	12696.667	21.39	18.04	39.43	43.44	-4.01	RMS
3	13619.200	19.92	21.15	41.07	43.44	-2.37	RMS
4	13920.133	19.52	21.79	41.31	43.44	-2.13	RMS
5	14228.467	18.94	21.02	39.96	43.44	-3.48	RMS
6	17990.133	15.94	25.63	41.57	43.44	-1.87	RMS

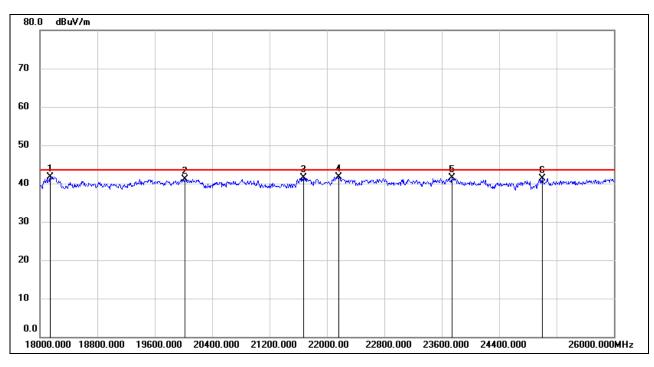
- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 MHz



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6.3.6. RADIATED SPURIOUS EMISSIONS ABOVE 18 GHZ AND BELOW 26 GHZ

Frequency Range:	18 GHz ~ 26 GHz	Channel	CH 3
Polarity:	Horizontal	Distance	1 m



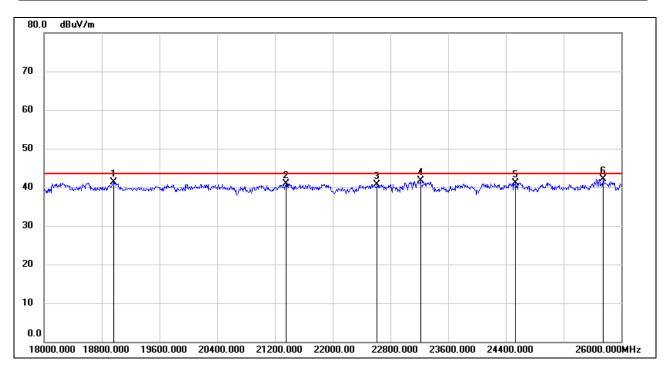
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18144.000	47.27	-5.48	41.79	43.44	-1.65	RMS
2	20016.000	46.56	-5.47	41.09	43.44	-2.35	RMS
3	21672.000	45.87	-4.44	41.43	43.44	-2.01	RMS
4	22160.000	46.08	-4.31	41.77	43.44	-1.67	RMS
5	23744.000	44.65	-3.20	41.45	43.44	-1.99	RMS
6	25000.000	43.36	-2.10	41.26	43.44	-2.18	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. All modes have been tested, but only the worst data was recorded in the report.



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Frequency Range:	18 GHz ~ 26 GHz	Channel	CH 3
Polarity:	Vertical	Distance	1 m



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18960.000	46.51	-5.25	41.26	43.44	-2.18	RMS
2	21352.000	45.67	-4.73	40.94	43.44	-2.5	RMS
3	22616.000	44.59	-3.80	40.79	43.44	-2.65	RMS
4	23216.000	45.01	-3.38	41.63	43.44	-1.81	RMS
5	24536.000	43.48	-2.31	41.17	43.44	-2.27	RMS
6	25744.000	42.80	-0.64	42.16	43.44	-1.28	RMS

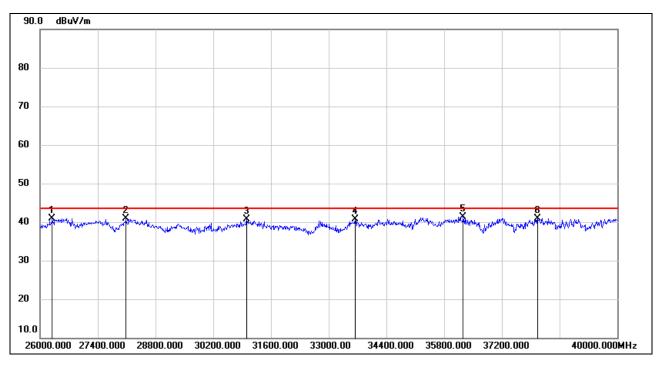
- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. All modes have been tested, but only the worst data was recorded in the report.



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6.3.7. RADIATED SPURIOUS EMISSIONS ABOVE 26 GHZ AND BELOW 40 GHZ

Frequency Range:	18 GHz ~ 40 GHz	Channel	CH 3
Polarity:	Horizontal	Distance	1 m



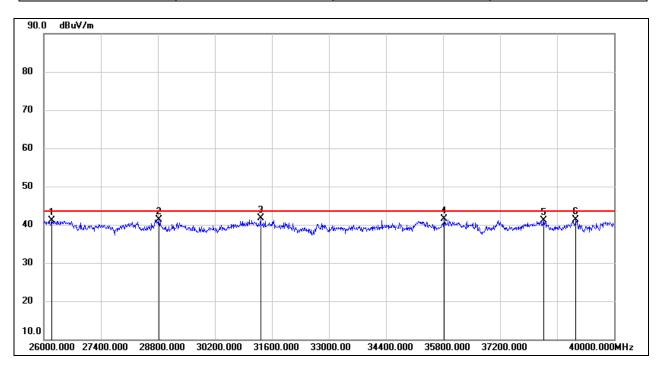
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	26294.000	46.19	-5.25	40.94	43.44	-2.5	RMS
2	28086.000	44.41	-3.49	40.92	43.44	-2.52	RMS
3	31012.000	41.33	-0.71	40.62	43.44	-2.82	RMS
4	33644.000	40.31	0.42	40.73	43.44	-2.71	RMS
5	36262.000	38.10	3.28	41.38	43.44	-2.06	RMS
6	38068.000	37.56	3.42	40.98	43.44	-2.46	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. All modes have been tested, but only the worst data was recorded in the report.



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Frequency Range:	18 GHz ~ 40 GHz	Channel	CH 3
Polarity:	Vertical	Distance	1 m



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	26196.000	46.58	-5.53	41.05	43.44	-2.39	RMS
2	28828.000	42.13	-0.79	41.34	43.44	-2.1	RMS
3	31320.000	42.61	-0.93	41.68	43.44	-1.76	RMS
4	35828.000	37.75	3.67	41.42	43.44	-2.02	RMS
5	38278.000	37.32	3.82	41.14	43.44	-2.3	RMS
6	39062.000	36.98	4.30	41.28	43.44	-2.16	RMS

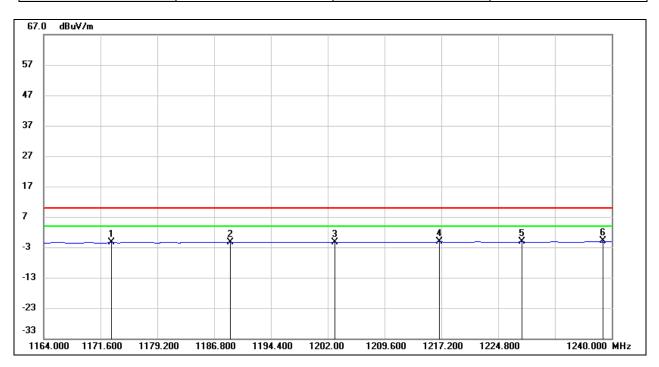
- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. All modes have been tested, but only the worst data was recorded in the report.



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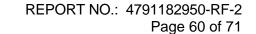
6.3.8. RADIATED SPURIOUS EMISSIONS IN GPS BAND

Frequency Range:	1164 ~ 1240 MHz	Channel	CH 2
Polarity:	Horizontal	Distance	3 m



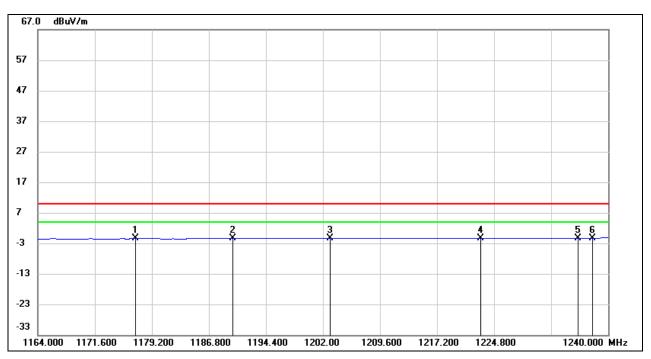
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1173.044	-28.92	27.50	-1.42	9.90	-11.32	RMS
2	1189.000	-28.96	27.58	-1.38	9.90	-11.28	RMS
3	1203.000	-29.00	27.65	-1.35	9.90	-11.25	RMS
4	1217.000	-28.90	27.72	-1.18	9.90	-11.08	RMS
5	1228.000	-28.97	27.77	-1.20	9.90	-11.10	RMS
6	1238.784	-28.58	27.82	-0.76	9.90	-10.66	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 kHz





Frequency Range:	1164 ~ 1240 MHz	Channel	CH 2
Polarity:	Vertical	Distance	3 m



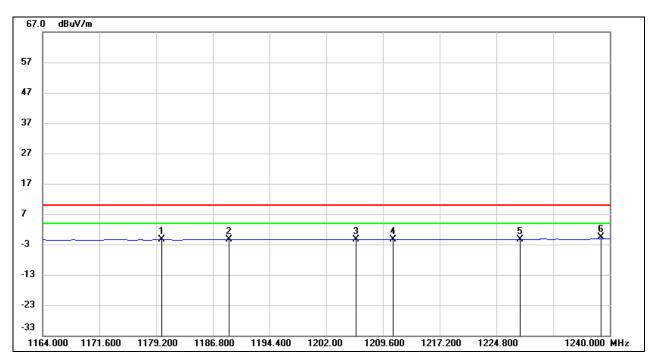
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1177.000	-28.98	27.52	-1.46	9.90	-11.36	RMS
2	1190.000	-29.00	27.59	-1.41	9.90	-11.31	RMS
3	1203.000	-28.96	27.65	-1.31	9.90	-11.21	RMS
4	1223.000	-29.01	27.75	-1.26	9.90	-11.16	RMS
5	1236.000	-29.05	27.80	-1.25	9.90	-11.15	RMS
6	1238.000	-29.07	27.82	-1.25	9.90	-11.15	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 kHz



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Frequency Range:	1164 ~ 1240 MHz	Channel	CH 3
Polarity:	Horizontal	Distance	3 m



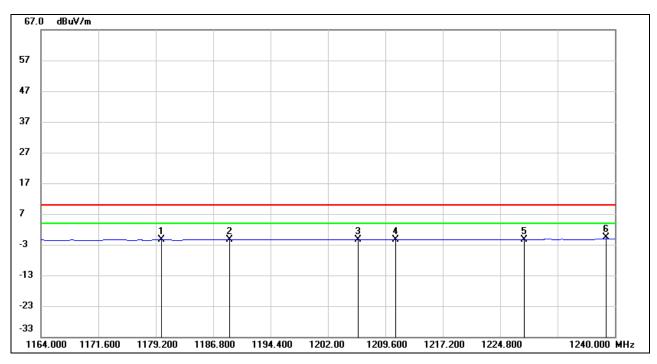
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1177.756	-29.02	27.52	-1.50	9.90	-11.40	RMS
2	1186.000	-29.02	27.56	-1.46	9.90	-11.36	RMS
3	1196.000	-29.01	27.62	-1.39	9.90	-11.29	RMS
4	1211.000	-28.95	27.69	-1.26	9.90	-11.16	RMS
5	1228.000	-29.00	27.77	-1.23	9.90	-11.13	RMS
6	1240.000	-28.09	27.83	-0.26	9.90	-10.16	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 kHz



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Frequency Range:	1164 ~ 1240 MHz	Channel	CH 3
Polarity:	Vertical	Distance	3 m



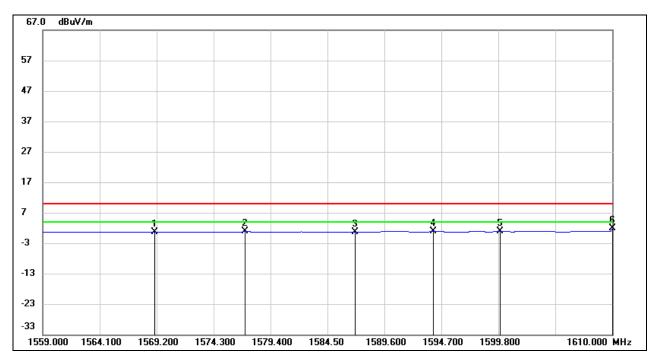
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1569.000	-28.61	29.36	0.75	9.90	-9.15	RMS
2	1577.105	-28.62	29.39	0.77	9.90	-9.13	RMS
3	1587.000	-28.68	29.42	0.74	9.90	-9.16	RMS
4	1594.000	-28.67	29.45	0.78	9.90	-9.12	RMS
5	1600.000	-28.60	29.47	0.87	9.90	-9.03	RMS
6	1610.000	-27.50	29.50	2.00	9.90	-7.90	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 kHz



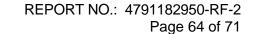
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Frequency Range:	1559 ~ 1610 MHz	Channel	CH 2
Polarity:	Horizontal	Distance	3 m



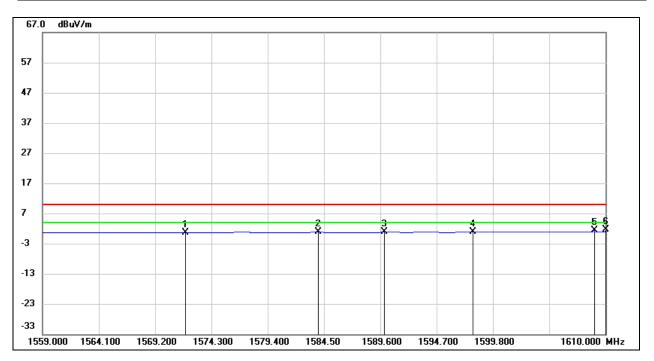
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1569.000	-28.61	29.36	0.75	9.90	-9.15	RMS
2	1577.105	-28.62	29.39	0.77	9.90	-9.13	RMS
3	1587.000	-28.68	29.42	0.74	9.90	-9.16	RMS
4	1594.000	-28.67	29.45	0.78	9.90	-9.12	RMS
5	1600.000	-28.60	29.47	0.87	9.90	-9.03	RMS
6	1610.000	-27.50	29.50	2.00	9.90	-7.90	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 kHz





Frequency Range:	1559 ~ 1610 MHz	Channel	CH 2
Polarity:	Vertical	Distance	3 m



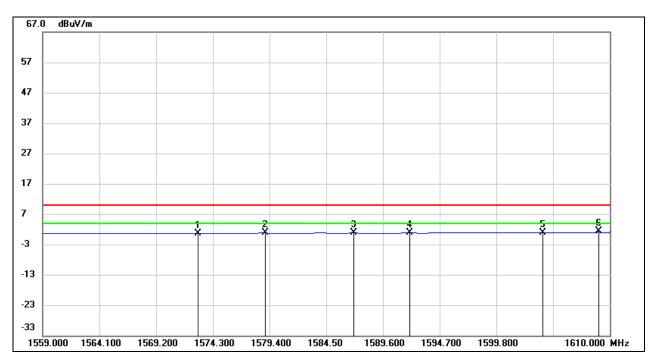
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1572.000	-28.64	29.36	0.72	9.90	-9.18	RMS
2	1584.000	-28.62	29.41	0.79	9.90	-9.11	RMS
3	1590.000	-28.64	29.44	0.80	9.90	-9.10	RMS
4	1598.000	-28.63	29.47	0.84	9.90	-9.06	RMS
5	1609.000	-28.08	29.50	1.42	9.90	-8.48	RMS
6	1610.000	-27.99	29.50	1.51	9.90	-8.39	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 kHz



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Frequency Range:	1559 ~ 1610 MHz	Channel	CH 3
Polarity:	Horizontal	Distance	3 m

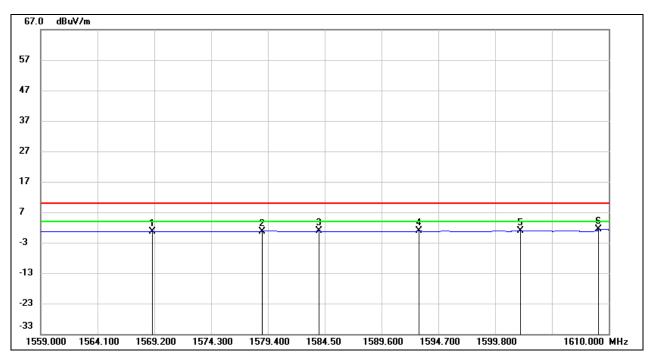


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1573.000	-28.63	29.37	0.74	9.90	-9.16	RMS
2	1579.000	-28.62	29.39	0.77	9.90	-9.13	RMS
3	1587.000	-28.64	29.42	0.78	9.90	-9.12	RMS
4	1592.000	-28.64	29.44	0.80	9.90	-9.10	RMS
5	1604.000	-28.60	29.49	0.89	9.90	-9.01	RMS
6	1609.000	-28.14	29.50	1.36	9.90	-8.54	RMS

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 kHz



Frequency Range:	1559 ~ 1610 MHz	Channel	CH 3
Polarity:	Vertical	Distance	3 m



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1569.000	-28.69	29.36	0.67	9.90	-9.23	RMS
2	1578.839	-28.65	29.39	0.74	9.90	-9.16	RMS
3	1584.000	-28.64	29.41	0.77	9.90	-9.13	RMS
4	1593.000	-28.65	29.44	0.79	9.90	-9.11	RMS
5	1602.095	-28.67	29.48	0.81	9.90	-9.09	RMS
6	1609.031	-28.00	29.50	1.50	9.90	-8.40	RMS

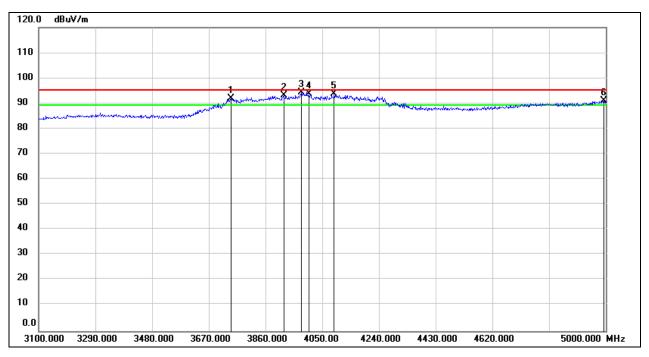
- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. RMS: RMS detector.
- 4. RBW: 1 kHz



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6.3.9. RADIATED PEAK EMISSIONS WITHIN A 50MHZ BANDWIDTH

Detector	Peak	Channel	CH 2
Polarity:	Horizontal	Distance	3 m



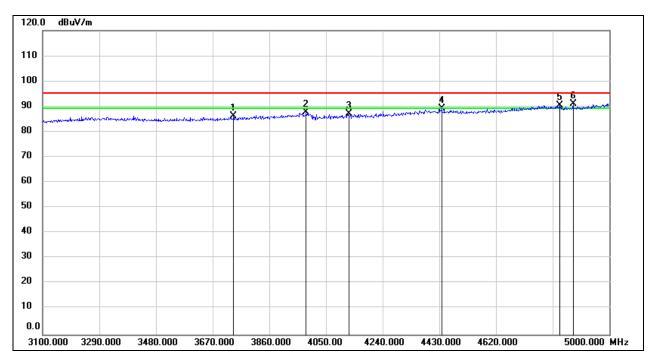
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3744.733	56.34	35.66	92.00	95.20	-3.20	peak
2	3921.433	57.15	36.15	93.30	95.20	-1.90	peak
3	3980.333	58.01	36.32	94.33	95.20	-0.87	peak
4	4004.400	57.27	36.40	93.67	95.20	-1.53	peak
5	4089.900	56.90	36.71	93.61	95.20	-1.59	peak
6	4992.400	50.85	40.08	90.93	95.20	-4.27	peak

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. Reak: Peak detector.
- 4. RBW: 50 MHz
- 5. Maximum Peak EIRP=94.33-95.2=-0.87 dBm



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Detector	Peak	Channel	CH 2
Polarity:	Vertical	Distance	3 m



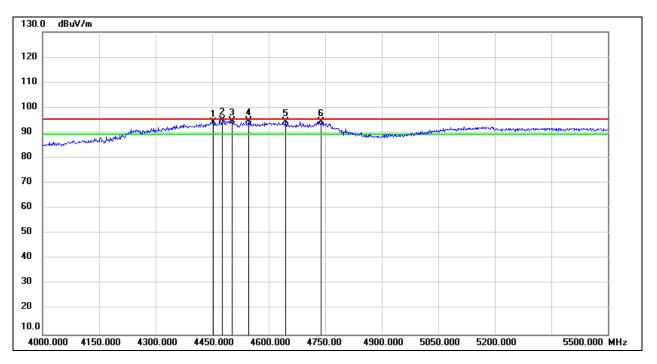
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3741.567	50.54	35.64	86.18	95.20	-9.02	peak
2	3984.133	51.55	36.34	87.89	95.20	-7.31	peak
3	4127.267	50.29	36.85	87.14	95.20	-8.06	peak
4	4438.233	51.30	38.00	89.30	95.20	-5.90	peak
5	4834.067	50.96	39.49	90.45	95.20	-4.75	peak
6	4879.667	51.26	39.66	90.92	95.20	-4.28	peak

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. Reak: Peak detector.
- 4. RBW: 50 MHz
- 5. Maximum Peak EIRP=90.92-95.2=-4.28 dBm



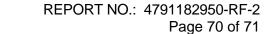
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Detector	Peak	Channel	CH 3
Polarity:	Horizontal	Distance	3 m



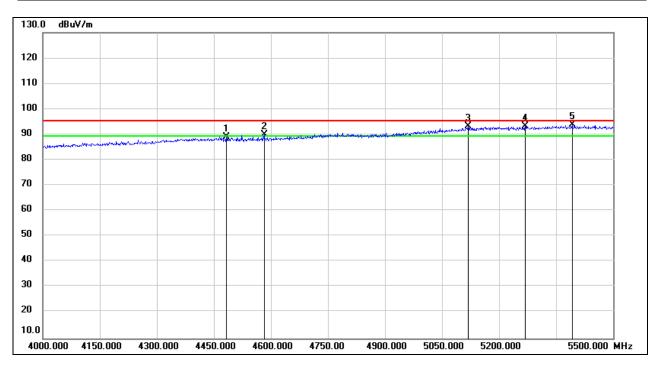
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4453.000	56.12	38.06	94.18	95.20	-1.02	peak
2	4477.000	56.78	38.14	94.92	95.20	-0.28	peak
3	4502.500	56.44	38.24	94.68	95.20	-0.52	peak
4	4547.500	56.23	38.41	94.64	95.20	-0.56	peak
5	4645.000	55.69	38.77	94.46	95.20	-0.74	peak
6	4739.500	55.43	39.14	94.57	95.20	-0.63	peak

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. Reak: Peak detector.
- 4. RBW: 50 MHz
- 5. Maximum Peak EIRP=94.92-95.2=-0.28 dBm





Detector	Peak	Channel	CH 3
Polarity:	Vertical	Distance	3 m



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4483.000	50.89	38.17	89.06	95.20	-6.14	peak
2	4582.000	51.42	38.53	89.95	95.20	-5.25	peak
3	5119.000	53.05	40.24	93.29	95.20	-1.91	peak
4	5269.000	52.87	40.41	93.28	95.20	-1.92	peak
5	5392.000	53.41	40.54	93.95	95.20	-1.25	peak

- 1. Measurement = Reading Level + Correct Factor.
- 2. Correct Factor = Cable Loss + Antenna Factor Preamplifier Gain
- 3. Reak: Peak detector.
- 4. RBW: 50 MHz
- 5. Maximum Peak EIRP=93.95-95.2=-1.25 dBm



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7. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.519(a)(2)

The use of antennas mounted on outdoor structures, e.g., antennas mounted on the outside of a building or on a telephone pole, or any fixed outdoors infrastructure is prohibited. Antennas may be mounted only on the hand held UWB device.

	END OF REPORT
Complies	
<u>RESULIS</u>	