



**中认信通**  
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)



## TEST REPORT

**Applicant:** Flybotix SA

Address: Rue de Lausanne 64, 1020 Renens VD, Switzerland

**FCC ID:** 2BDOL-LOREINTHEAIR

**Product Name:** Drone

**Standard(s):** 47 CFR Part 15, Subpart C (15.247)

ANSI C63.10-2013

KDB 558074 D01 15.247 Meas Guidance v05r02

The above device has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

**Report Number:** CR231166154-00

**Date Of Issue:** 2023/12/19

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### **Test Facility**

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

### **Declarations**

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## DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR231166154-00	Original Report	2023/12/19

## 1. GENERAL INFORMATION

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

<b>EUT Name:</b>	Drone
<b>EUT Model:</b>	ASIO Drone
<b>Operation Frequency:</b>	for 10MHz Bandwidth mode: 2405.5-2459.5 MHz for 20MHz Bandwidth mode: 2417-2457 MHz
<b>Maximum Peak Output Power (Conducted):</b>	for 10MHz Bandwidth mode: 28.65 dBm for 20MHz Bandwidth mode: 28.56 dBm
<b>Modulation Type:</b>	QPSK
<b>Rated Input Voltage:</b>	DC 19 V from Battery
<b>Serial Number:</b>	2DFG-2 (for Radiation Spurious Emissions Test) 2DFG-3 (for RF Conducted Test)
<b>EUT Received Date:</b>	2023/11/9
<b>EUT Received Status:</b>	Good
<b>Note:</b>	Although the device is equipped with dual antennas, it only supports 1T2R in practical applications. The device will choose one of the two antennas as the transmitting antenna based on the wireless environment of the actual usage scenario.

#### Operation Frequency Detail:

##### for 10MHz Bandwidth Mode:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	<b>2405.5</b>	7	2439.5
2	2414.5	8	2444.5
3	2419.5	9	2449.5
4	2424.5	10	2454.5
5	2429.5	11	<b>2459.5</b>
6	<b>2434.5</b>	/	/
Per section 15.31(m), the below frequencies were performed the test:			
Test Channel		Frequency (MHz)	
Lowest		2405.5	
Middle		2434.5	
Highest		2459.5	

##### for 20MHz Bandwidth Mode:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	<b>2417</b>	6	<b>2441</b>
2	2422	7	2447
3	2427	8	2452
4	2432	9	<b>2457</b>
5	2437	/	/
Per section 15.31(m), the below frequencies were performed the test:			
Test Channel		Frequency (MHz)	
Lowest		2417	
Middle		2441	
Highest		2457	

**Antenna Information Detail▲:**

Antenna	Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain (dBi)
Antenna 1	PCB Antenna	50	2.4~2.5GHz	2.5
Antenna 2	PCB Antenna	50	2.4~2.5GHz	2.5

The Method of §15.203 Compliance:

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

**Accessory Information:**

Accessory Description	Manufacturer	Model	Parameters
Lithium Polymer (LiPo) Battery	/	/	<b>Nominal voltage:</b> 19V; <b>Energy:</b> 74.1 Wh; <b>Capacity:</b> 3900 mAh

## 1.2 Description of Test Configuration

### 1.2.1 EUT Operation Condition

<b>EUT Operation Mode:</b>	The system was configured for testing in Engineering Mode, which was provided by the manufacturer.		
<b>Equipment Modifications:</b>	No		
<b>EUT Exercise Software:</b>	Engineer Mode		
The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer▲:			
Test Modes	Power Level Setting		
	Lowest Channel	Middle Channel	Highest Channel
QPSK-10MHz Bandwidth Mode	default	default	default
QPSK-20MHz Bandwidth Mode	default	default	default

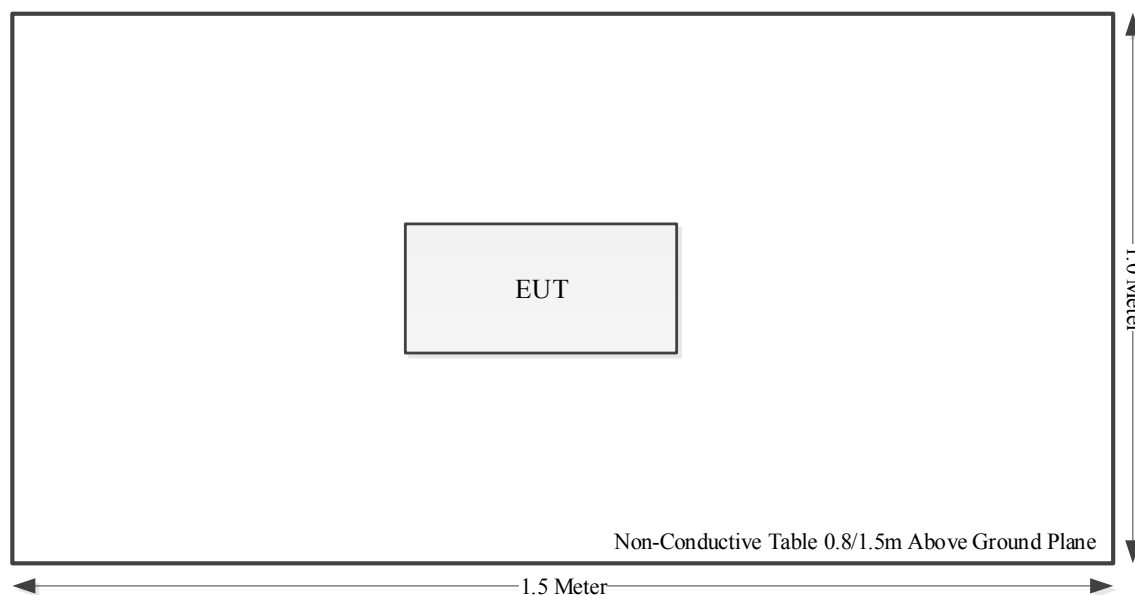
### 1.2.2 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
/	/	/	/

### 1.2.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
/	/	/	/	/	/

### 1.2.4 Block Diagram of Test Setup





### 1.3 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	9k~30MHz:4.12dB 30M~200MHz: 4.15 dB,200M~1GHz: 5.61 dB,1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB,18G~26.5G:5.47 dB,26.5G~40G:5.63 dB
Unwanted Emissions, conducted	±1.26 dB
Temperature	±1 °C
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

## 2. SUMMARY OF TEST RESULTS

Standard(s) Section	Test Items	Result
§15.207(a)	AC line conducted emissions	Not Applicable
§15.205, §15.209, §15.247(d)	Radiated Spurious Emissions	Compliant
§15.247 (a)(2)	Minimum 6 dB Bandwidth	Compliant
§15.247(b)(3)	Maximum Conducted Output Power	Compliant
§15.247(e)	Power Spectral Density	Compliant
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliant
§15.203	Antenna Requirement	Compliant
§15.247 (i) & §1.1307 & §2.1093	RF Exposure Evaluation	Compliant

**Note:**

Not Applicable: Since the device was powered by battery which operating, not applicable for this item.

### 3. REQUIREMENTS AND TEST PROCEDURES

#### 3.1 AC Line Conducted Emissions

##### 3.1.1 Applicable Standard

FCC§15.207(a).

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

Frequency of emission (MHz)	Conducted limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

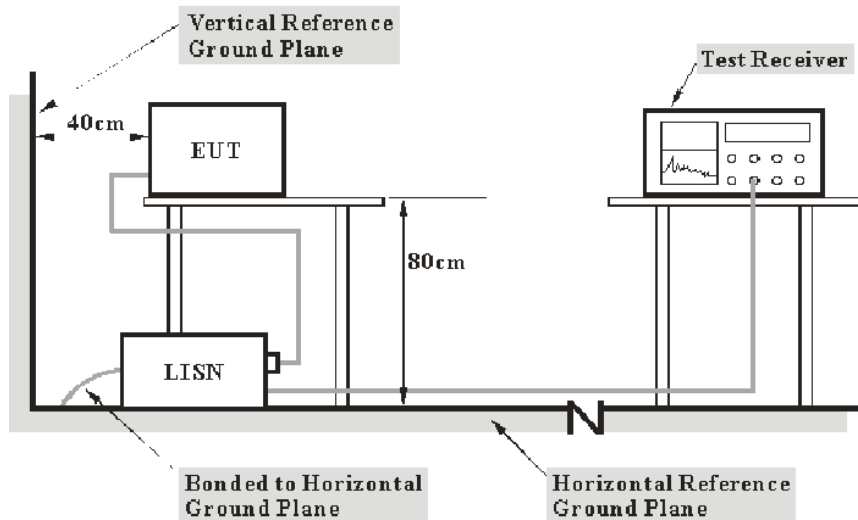
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000  $\mu$ V within the frequency band 535-1705 kHz, as measured using a 50  $\mu$ H/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

### 3.1.2 EUT Setup



- Note: 1. Support units were connected to second LISN.  
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter or EUT was connected to the main LISN with a 120 V/60 Hz AC power source.

### 3.1.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

### 3.1.4 Test Procedure

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase (“hot”) line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

### 3.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = attenuation caused by cable loss + voltage division factor of AMN

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

## 3.2 Radiation Spurious Emissions

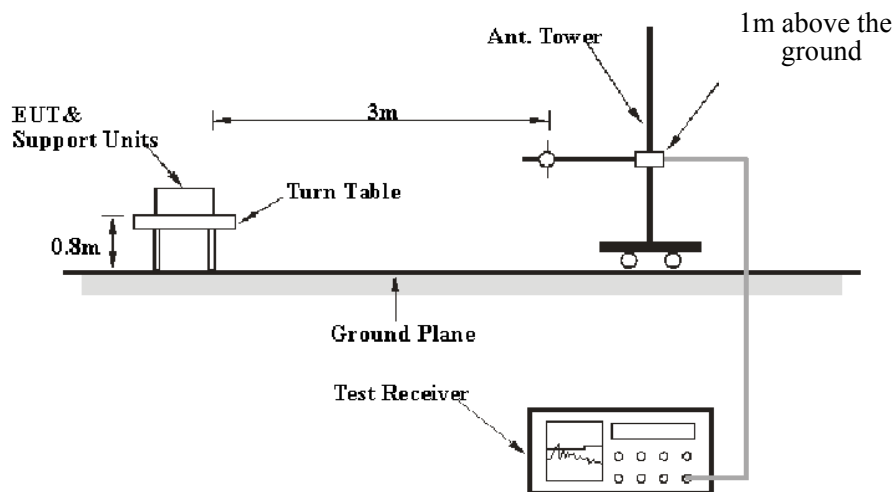
### 3.2.1 Applicable Standard

FCC §15.247 (d);

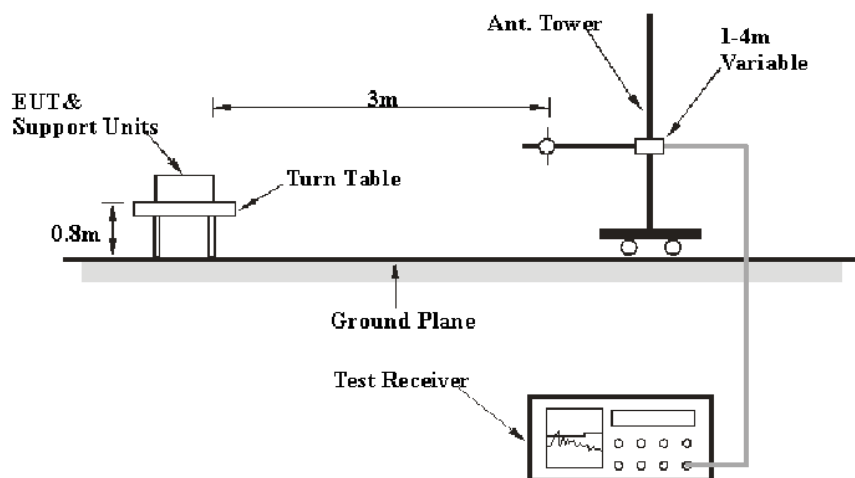
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

### 3.2.2 EUT Setup

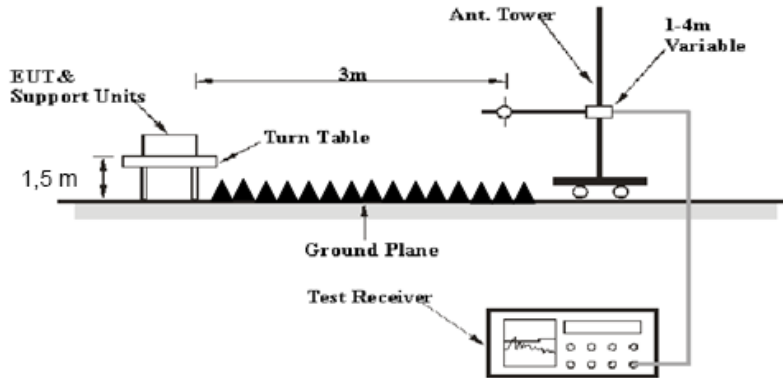
9 kHz-30MHz:



30MHz-1GHz:



**Above 1GHz:**



The radiated emissions were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

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

The spacing between the peripherals was 10 cm.

**3.2.3 EMI Test Receiver & Spectrum Analyzer Setup**

The system was investigated from 9 kHz to 25 GHz.

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

9 kHz-1000MHz:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	/	/	200 Hz	QP
	300 Hz	1 kHz	/	PK
150 kHz – 30 MHz	/	/	9 kHz	QP
	10 kHz	30 kHz	/	PK
30 MHz – 1000 MHz	/	/	120 kHz	QP
	100 kHz	300 kHz	/	PK

1GHz- 25GHz:

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

Note: T is minimum transmission duration

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

### 3.2.4 Test Procedure

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

Data was recorded in Quasi-peak detection mode for frequency range of 9 kHz-1 GHz, peak and Average detection modes for frequencies above 1 GHz.

### 3.2.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = Antenna Factor + Cable Loss- Amplifier Gain

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result



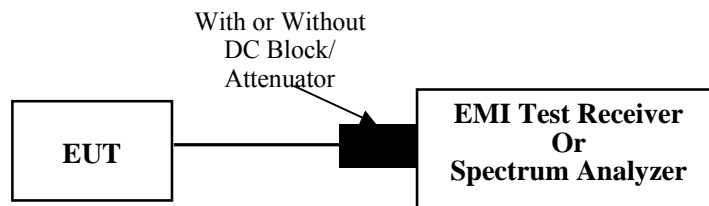
### 3.3 Minimum 6 dB Bandwidth

#### 3.3.1 Applicable Standard

FCC §15.247 (a)(2)

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

#### 3.3.2 EUT Setup



#### 3.3.3 Test Procedure

According to ANSI C63.10-2013 Section 11.8

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

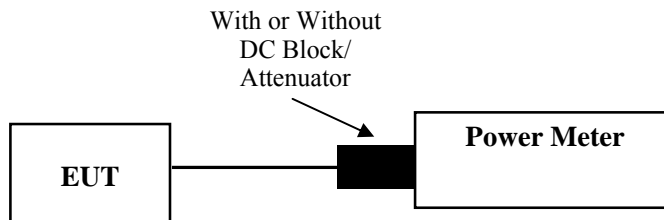
### 3.4 Maximum Conducted Output Power

#### 3.4.1 Applicable Standard

FCC §15.247 (b)(3)

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

#### 3.5.2 EUT Setup



#### 3.5.3 Test Procedure

According to ANSI C63.10-2013 Section 11.9.2.3.2

Method AVGPM-G is a measurement using a gated RF average power meter.

Alternatively, measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Because the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

According to ANSI C63.10-2013 Section 11.9.1.3

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

- a) Set the EUT in transmitting mode.
- b) Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to test equipment.
- c) Add a correction factor to the display.
- d) Set the power meter to test peak output power, record the result.

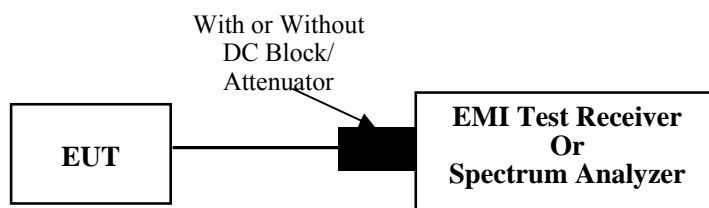
### 3.5 Maximum Power Spectral Density

#### 3.5.1 Applicable Standard

FCC §15.247 (e)

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

#### 3.5.2 EUT Setup



#### 3.5.3 Test Procedure

According to ANSI C63.10-2013 Section 11.10.2

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
- d) Set the VBW  $\geq [3 \cdot \text{RBW}]$ .
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

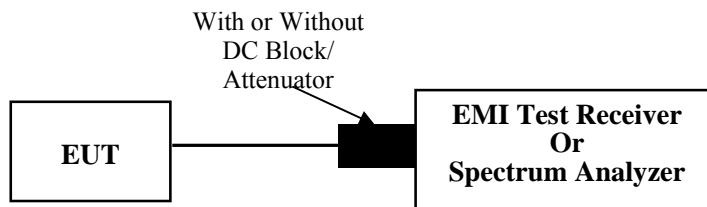
### 3.6 100 kHz Bandwidth of Frequency Band Edge

#### 3.6.1 Applicable Standard

FCC §15.247 (d);

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

#### 3.6.2 EUT Setup



#### 3.6.3 Test Procedure

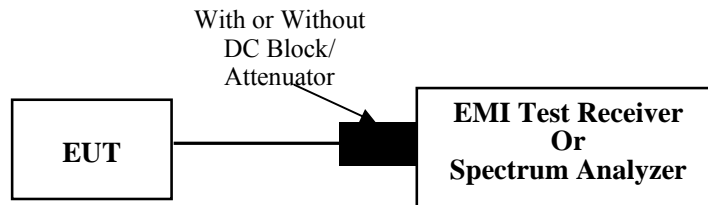
According to ANSI C63.10-2013 Section 11.11

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW  $\geq [3 \times \text{RBW}]$ .
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

### 3.7 Duty Cycle

#### 3.7.1 EUT Setup



#### 3.7.2 Test Procedure

According to ANSI C63.10-2013 Section 11.6

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the ON and OFF times of the transmitted signal:

- 1) Set the center frequency of the instrument to the center frequency of the transmission.
- 2) Set  $RBW \geq OBW$  if possible; otherwise, set RBW to the largest available value.
- 3) Set  $VBW \geq RBW$ . Set detector = peak or average.
- 4) The zero-span measurement method shall not be used unless both RBW and VBW are  $> 50/T$  and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring the duty cycle shall not be used if  $T \leq 16.7 \mu s$ .)

## **3.8 Antenna Requirement**

### **3.8.1 Applicable Standard**

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. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

### **3.8.2 Judgment**

**Compliant.** Please refer to the Antenna Information detail in Section 1.

## **4. Test DATA AND RESULTS**

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### **4.1 AC Line Conducted Emissions**

**Not Applicable**, the device was powered by battery when operating.

## 4.2 Radiation Spurious Emissions

Serial Number:	2DFG-2	Test Date:	2023/11/8~2023/11/14
Test Site:	966-1, 966-2	Test Mode:	Transmitting
Tester:	Carl Xue, Mack Huang	Test Result:	Pass

### Environmental Conditions:

Temperature: (°C)	26.2	Relative Humidity: (%)	60	ATM Pressure: (kPa)	101~101.8
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### Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
<b>Radiation Spurious Emissions Below 1GHz</b>					
Sunol Sciences	Antenna	JB6	A082520-6	2023/9/18	2026/9/17
R&S	EMI Test Receiver	ESR3	102724	2023/3/31	2024/3/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2023/7/16	2024/7/15
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2023/7/16	2024/7/15
Sonoma	Amplifier	310N	186165	2023/7/16	2024/7/15
Audix	Test Software	E3	201021 (V9)	N/A	N/A
TESEQ	HF Loop Antenna	HLA6120	33561	2021/2/3	2024/2/2
<b>Radiation Spurious Emissions Above 1GHz</b>					
AH	Double Ridge Guide Horn Antenna	SAS-571	1394	2023/2/22	2026/2/21
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200- 70U300	217423-008	2023/8/6	2024/8/5
MICRO-COAX	Coaxial Cable	UFA210A-1-2362- 300300	235780-001	2023/8/6	2024/8/5
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2023/11/8	2024/11/7
PASTERNAK	Horn Antenna	PE9852/2F-20	112002	2021/2/5	2024/2/4
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2023/9/15	2024/9/14
MICRO-COAX	Coaxial Cable	UFB142A-1-2362- 200200	235772-001	2023/8/6	2024/8/5
E-Microwave	Band Rejection Filter	2400-2483.5MHz	OE01902424	2023/8/6	2024/8/5
Mini Circuits	High Pass Filter	VHF-6010+	31119	2023/8/6	2024/8/5
Audix	Test Software	E3	201021 (V9)	N/A	N/A

\* **Statement of Traceability:** China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).



**Test Data:**

Please refer to the below table and plots.

*Note: Tests were performed on both antennas.*

**1) Radiation Spurious Emissions for 9kHz~30MHz**

The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

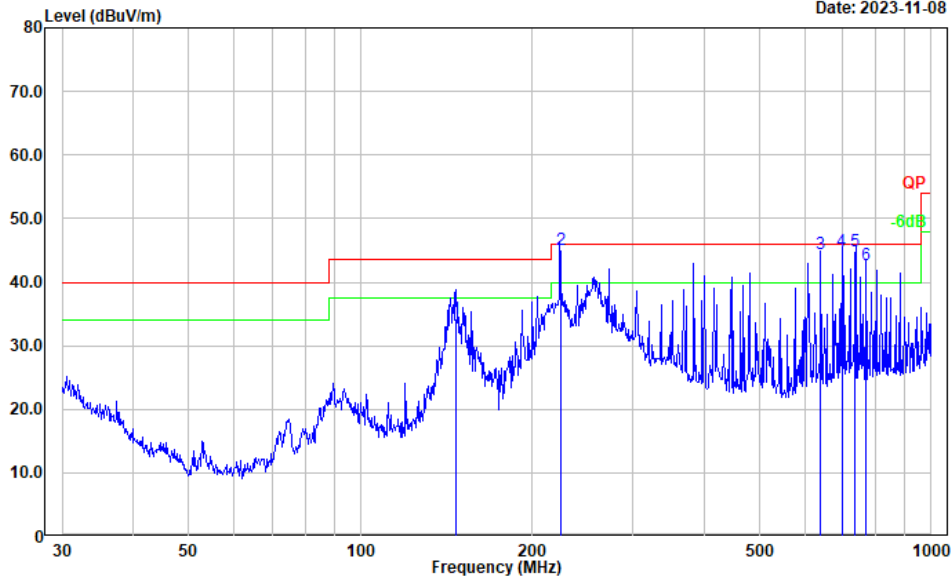
**2) Radiation Spurious Emissions for 30MHz-1GHz**

*Please refer to the below test plots.*

**Antenna 1-10MHz Bandwidth Mode – Lowest Channel- Horizontal**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

Date: 2023-11-08

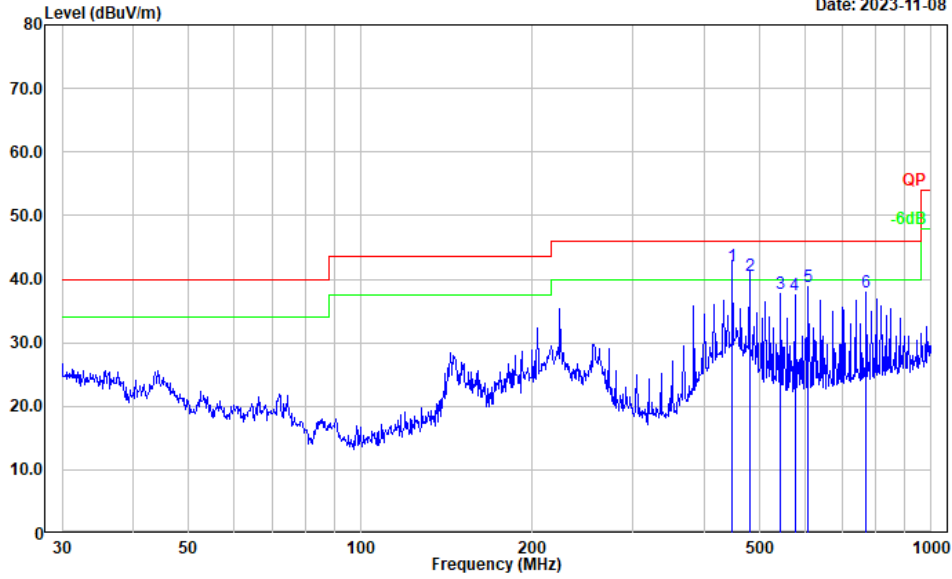


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	146.665	46.21	-11.87	34.34	43.50	9.16	QP
2	223.993	57.94	-12.90	45.04	46.00	0.96	QP
3	639.997	48.79	-4.43	44.36	46.00	1.64	QP
4	696.857	48.40	-3.57	44.83	46.00	1.17	QP
5	736.011	47.81	-3.01	44.80	46.00	1.20	QP
6	768.748	45.29	-2.67	42.62	46.00	3.38	QP

**Antenna 1-10MHz Bandwidth Mode – Lowest Channel- Vertical**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-11-08

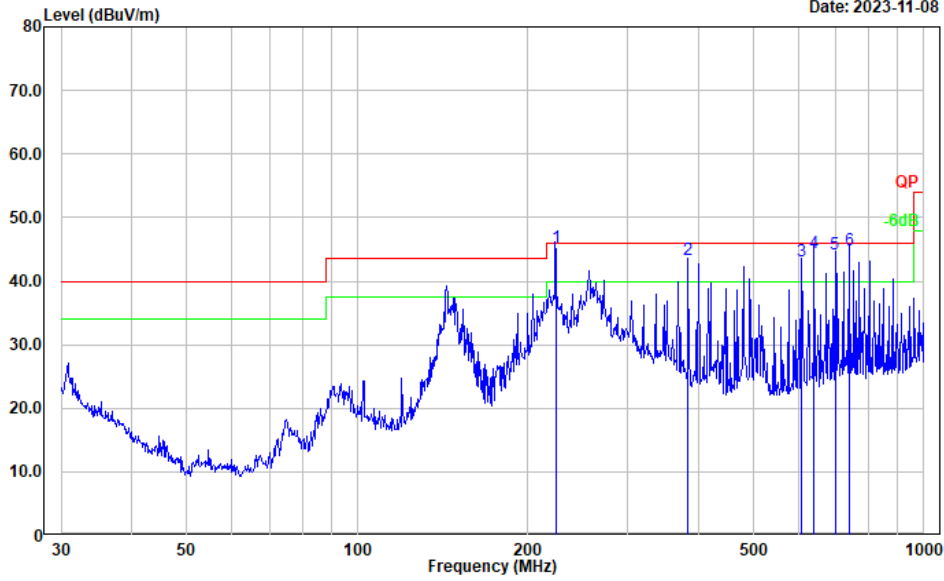


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	448.001	49.08	-7.02	42.06	46.00	3.94	QP
2	479.951	46.79	-6.24	40.55	46.00	5.45	QP
3	545.183	43.52	-5.88	37.64	46.00	8.36	Peak
4	576.644	43.19	-5.58	37.61	46.00	8.39	Peak
5	607.787	43.67	-4.83	38.84	46.00	7.16	Peak
6	768.748	40.58	-2.67	37.91	46.00	8.09	Peak

**Antenna 1-10MHz Bandwidth Mode – Middle Channel- Horizontal**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

Date: 2023-11-08

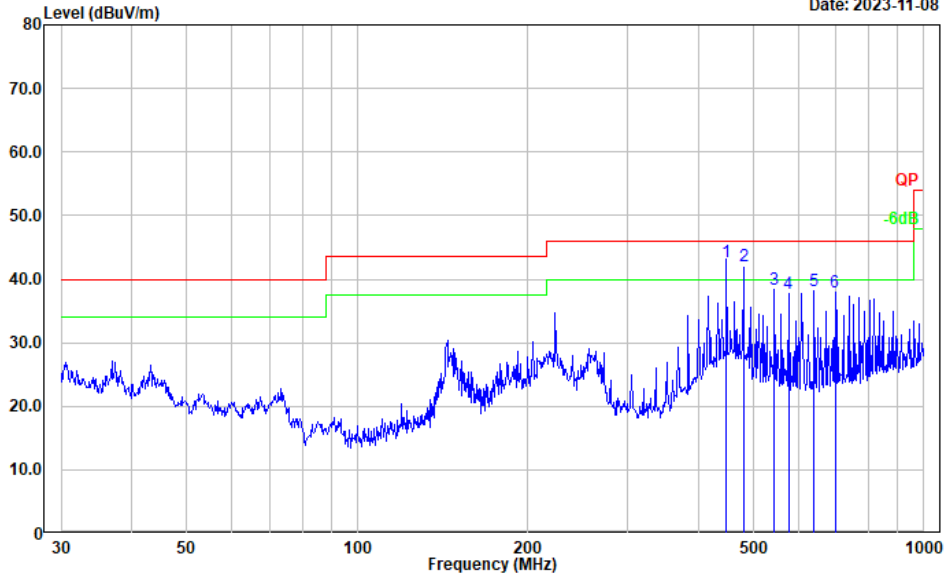


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	223.993	58.20	-12.90	45.30	46.00	0.70	QP
2	383.993	52.38	-9.03	43.35	46.00	2.65	QP
3	608.005	47.92	-4.83	43.09	46.00	2.91	QP
4	640.611	48.75	-4.41	44.34	46.00	1.66	QP
5	696.857	47.72	-3.57	44.15	46.00	1.85	QP
6	737.071	47.86	-3.01	44.85	46.00	1.15	QP

**Antenna 1-10MHz Bandwidth Mode – Middle Channel- Vertical**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-11-08

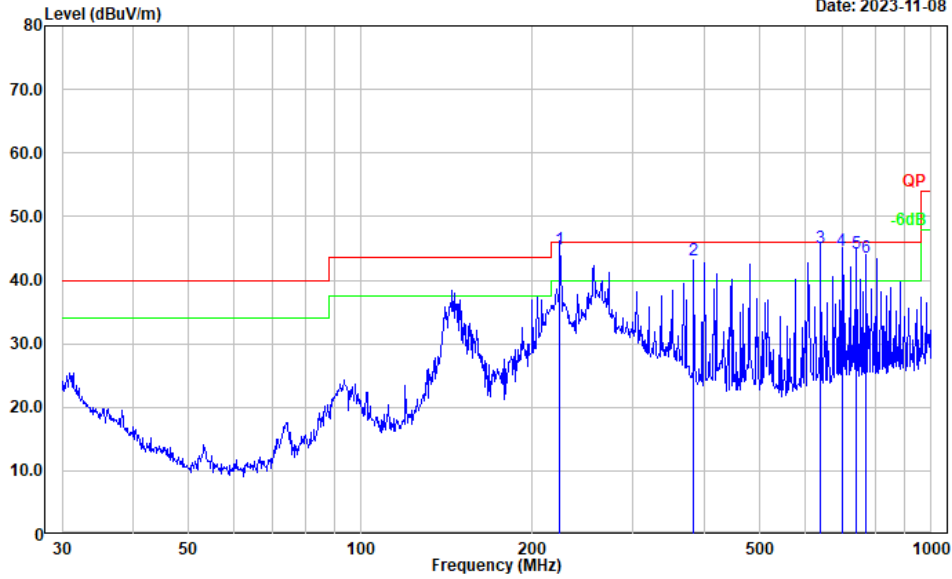


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	447.983	49.74	-7.02	42.72	46.00	3.28	QP
2	479.990	48.40	-6.24	42.16	46.00	3.84	QP
3	545.183	44.31	-5.88	38.43	46.00	7.57	Peak
4	576.644	43.40	-5.58	37.82	46.00	8.18	Peak
5	640.611	42.55	-4.41	38.14	46.00	7.86	Peak
6	696.857	41.48	-3.57	37.91	46.00	8.09	Peak

**Antenna 1-10MHz Bandwidth Mode – Highest Channel- Horizontal**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

Date: 2023-11-08

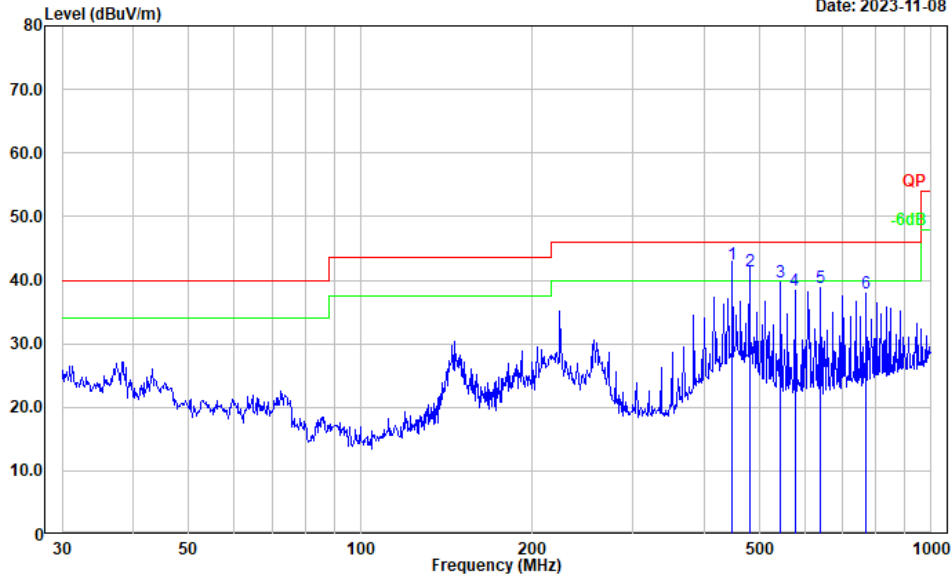


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	223.733	57.81	-12.89	44.92	46.00	1.08	QP
2	383.993	52.28	-9.03	43.25	46.00	2.75	QP
3	640.611	49.40	-4.41	44.99	46.00	1.01	QP
4	696.857	48.14	-3.57	44.57	46.00	1.43	QP
5	737.071	47.34	-3.01	44.33	46.00	1.67	QP
6	767.980	46.32	-2.69	43.63	46.00	2.37	QP

**Antenna 1-10MHz Bandwidth Mode – Highest Channel- Vertical**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-11-08

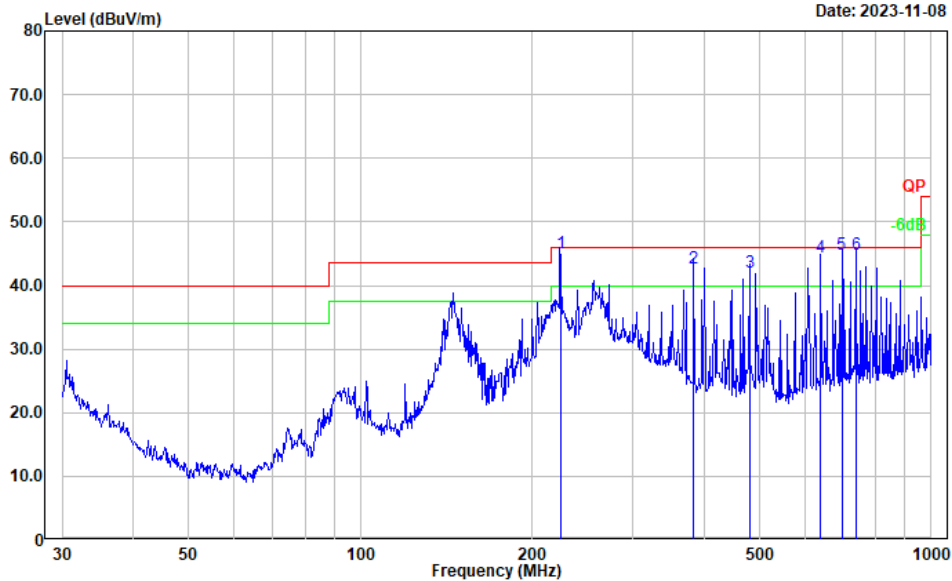


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	448.001	49.60	-7.02	42.58	46.00	3.42	QP
2	479.990	47.74	-6.24	41.50	46.00	4.50	QP
3	545.183	45.48	-5.88	39.60	46.00	6.40	Peak
4	576.644	43.96	-5.58	38.38	46.00	7.62	Peak
5	640.611	43.13	-4.41	38.72	46.00	7.28	Peak
6	768.748	40.53	-2.67	37.86	46.00	8.14	Peak

**Antenna 1-20MHz Bandwidth Mode – Lowest Channel- Horizontal**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

Date: 2023-11-08



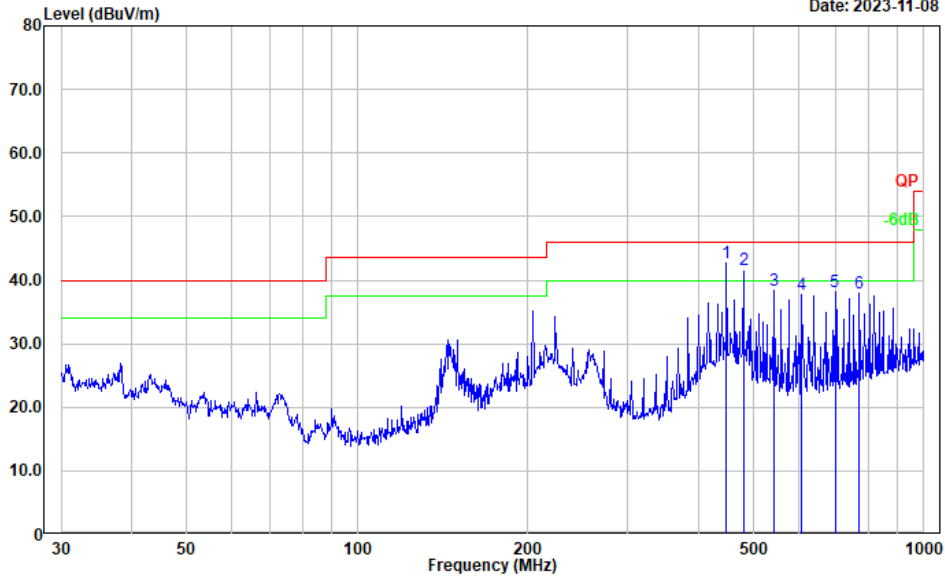
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	223.984	57.91	-12.90	45.01	46.00	0.99	QP
2	383.978	51.84	-9.03	42.81	46.00	3.19	QP
3	479.990	48.38	-6.24	42.14	46.00	3.86	QP
4	639.997	48.86	-4.43	44.43	46.00	1.57	QP
5	696.857	48.49	-3.57	44.92	46.00	1.08	QP
6	737.071	47.81	-3.01	44.80	46.00	1.20	QP



**Antenna 1-20MHz Bandwidth Mode – Lowest Channel- Vertical**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-11-08

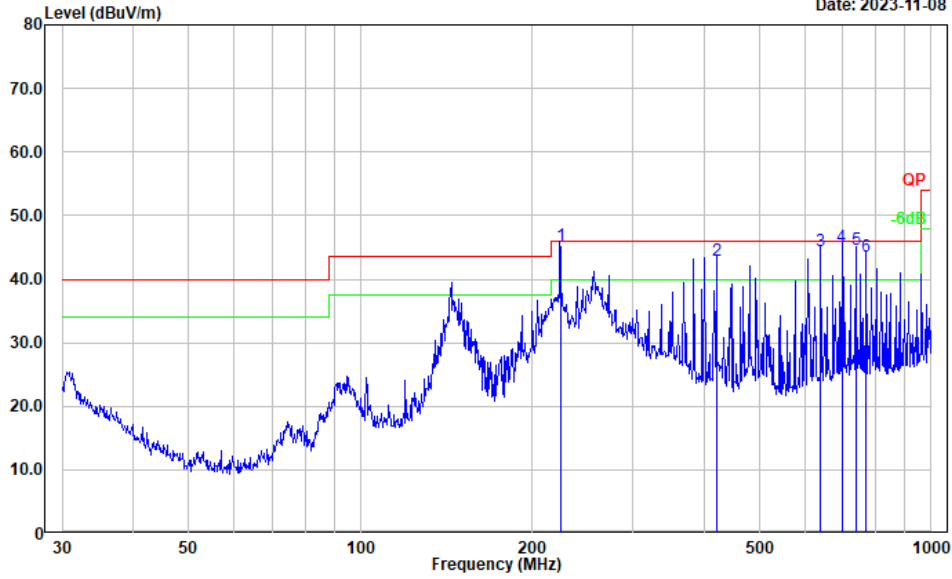


No.	Frequency (MHz)	Reading (dB $\mu$ V)	Factor (dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Detector
1	447.983	49.64	-7.02	42.62	46.00	3.38	QP
2	479.990	47.81	-6.24	41.57	46.00	4.43	QP
3	545.183	44.19	-5.88	38.31	46.00	7.69	Peak
4	607.787	42.45	-4.83	37.62	46.00	8.38	Peak
5	696.857	41.83	-3.57	38.26	46.00	7.74	Peak
6	768.748	40.60	-2.67	37.93	46.00	8.07	Peak

**Antenna 1-20MHz Bandwidth Mode – Middle Channel- Horizontal**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

Date: 2023-11-08

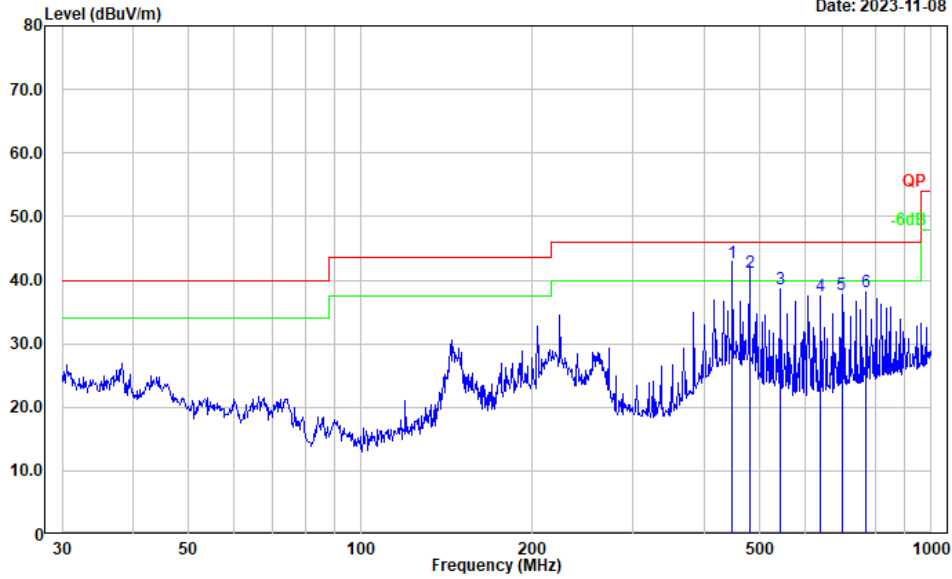


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	223.992	58.21	-12.90	45.31	46.00	0.69	QP
2	420.008	50.93	-7.92	43.01	46.00	2.99	QP
3	640.611	48.95	-4.41	44.54	46.00	1.46	QP
4	696.857	48.61	-3.57	45.04	46.00	0.96	QP
5	737.071	47.74	-3.01	44.73	46.00	1.27	QP
6	767.980	46.26	-2.69	43.57	46.00	2.43	QP

**Antenna 1-20MHz Bandwidth Mode – Middle Channel- Vertical**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-11-08

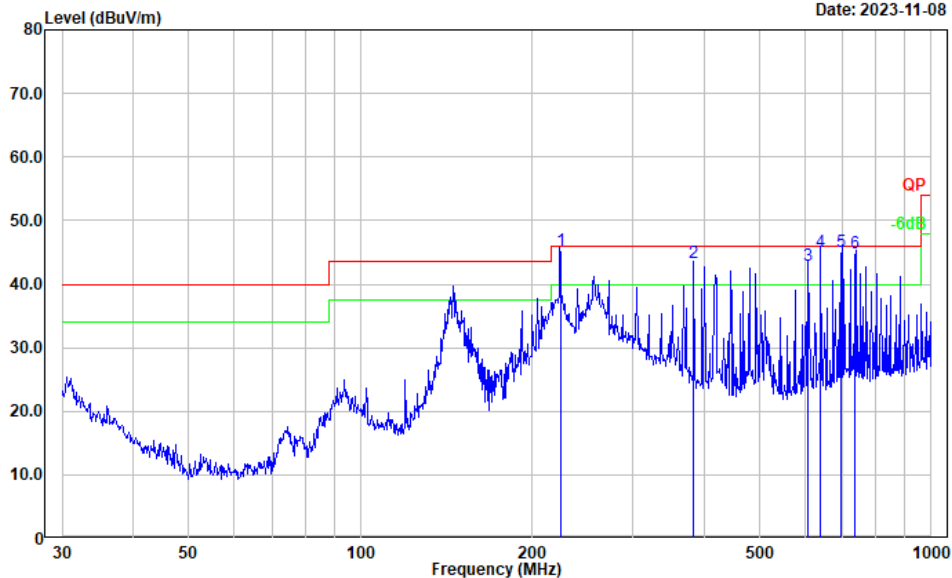


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	448.001	49.77	-7.02	42.75	46.00	3.25	QP
2	479.971	47.48	-6.24	41.24	46.00	4.76	QP
3	545.183	44.52	-5.88	38.64	46.00	7.36	Peak
4	640.611	41.99	-4.41	37.58	46.00	8.42	Peak
5	696.857	41.20	-3.57	37.63	46.00	8.37	Peak
6	768.748	40.82	-2.67	38.15	46.00	7.85	Peak

**Antenna 1-20MHz Bandwidth Mode – Highest Channel- Horizontal**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

Date: 2023-11-08

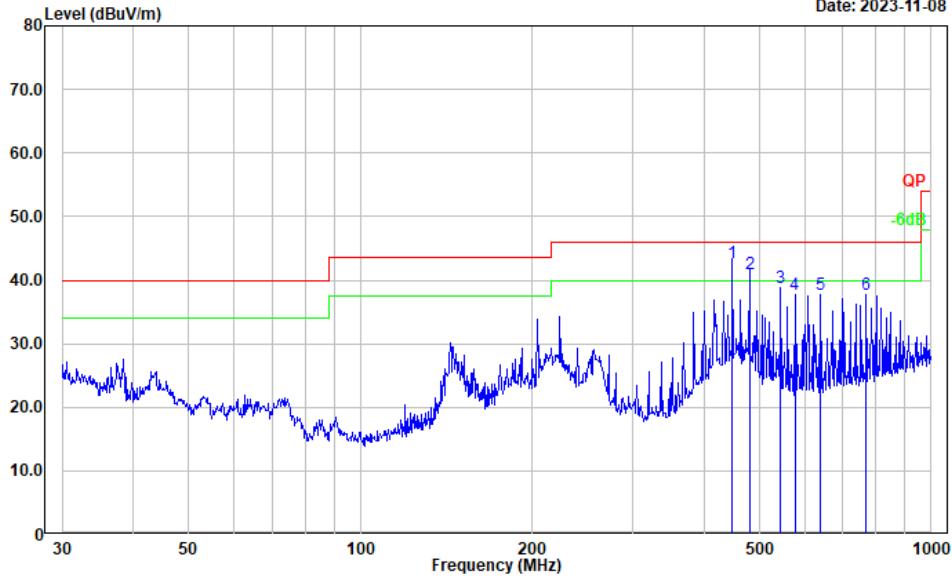


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	224.001	58.14	-12.90	45.24	46.00	0.76	QP
2	383.993	52.47	-9.03	43.44	46.00	2.56	QP
3	608.005	47.85	-4.83	43.02	46.00	2.98	QP
4	639.971	49.47	-4.43	45.04	46.00	0.96	QP
5	695.994	48.76	-3.56	45.20	46.00	0.80	QP
6	736.011	47.90	-3.01	44.89	46.00	1.11	QP

**Antenna 1-20MHz Bandwidth Mode – Highest Channel- Vertical**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-11-08

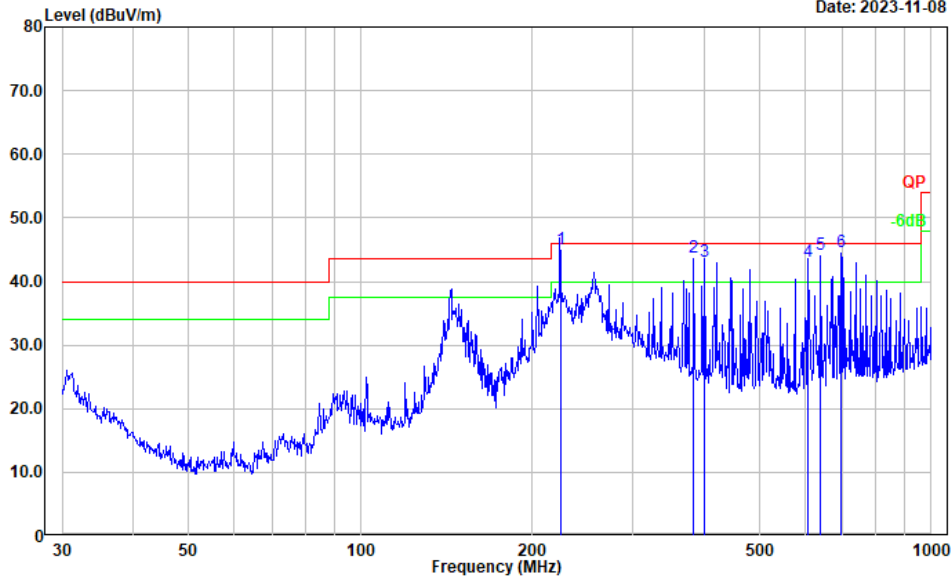


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	447.983	49.72	-7.02	42.70	46.00	3.30	QP
2	479.990	47.26	-6.24	41.02	46.00	4.98	QP
3	545.183	44.61	-5.88	38.73	46.00	7.27	Peak
4	576.644	43.40	-5.58	37.82	46.00	8.18	Peak
5	640.611	42.23	-4.41	37.82	46.00	8.18	Peak
6	768.748	40.46	-2.67	37.79	46.00	8.21	Peak

**Antenna 2-10MHz Bandwidth Mode – Lowest Channel- Horizontal**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

Date: 2023-11-08

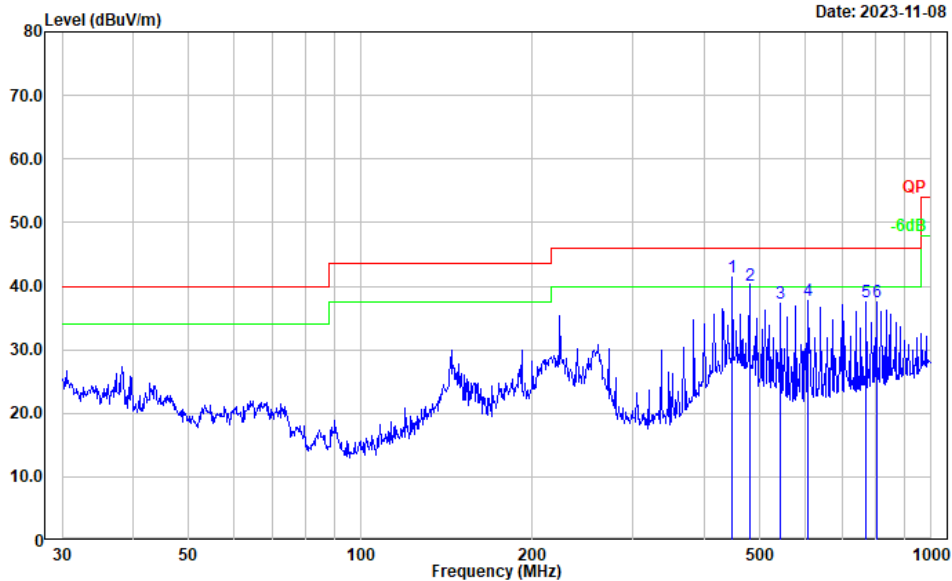


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	223.975	58.07	-12.90	45.17	46.00	0.83	QP
2	383.993	52.86	-9.03	43.83	46.00	2.17	QP
3	399.984	51.94	-8.76	43.18	46.00	2.82	QP
4	607.981	48.03	-4.83	43.20	46.00	2.80	QP
5	639.997	48.61	-4.43	44.18	46.00	1.82	QP
6	695.994	48.12	-3.56	44.56	46.00	1.44	QP

**Antenna 2-10MHz Bandwidth Mode – Lowest Channel- Vertical**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-11-08

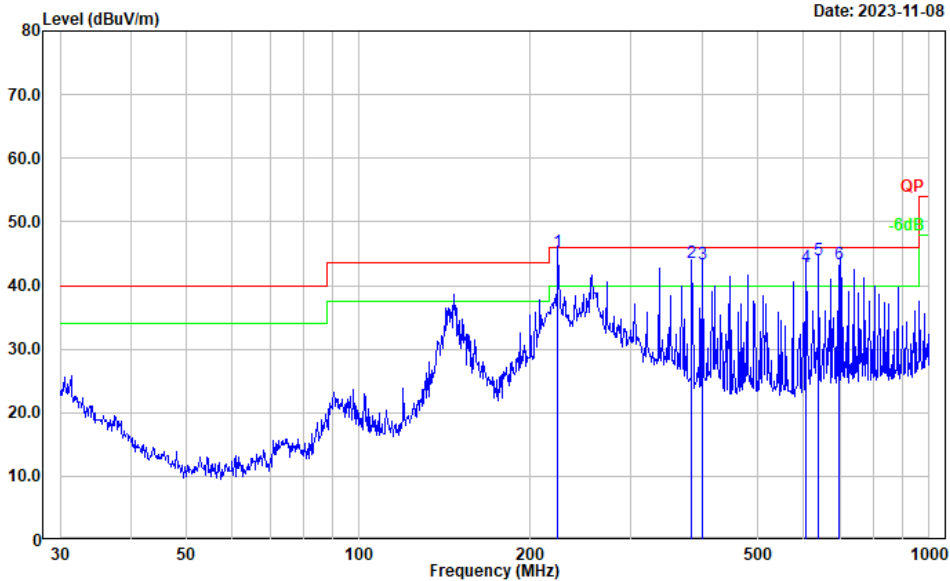


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	448.001	48.39	-7.02	41.37	46.00	4.63	QP
2	480.009	46.42	-6.24	40.18	46.00	5.82	QP
3	545.183	43.13	-5.88	37.25	46.00	8.75	Peak
4	607.787	42.66	-4.83	37.83	46.00	8.17	Peak
5	768.748	40.22	-2.67	37.55	46.00	8.45	Peak
6	801.786	39.66	-2.15	37.51	46.00	8.49	Peak

**Antenna 2-10MHz Bandwidth Mode – Middle Channel- Horizontal**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

Date: 2023-11-08



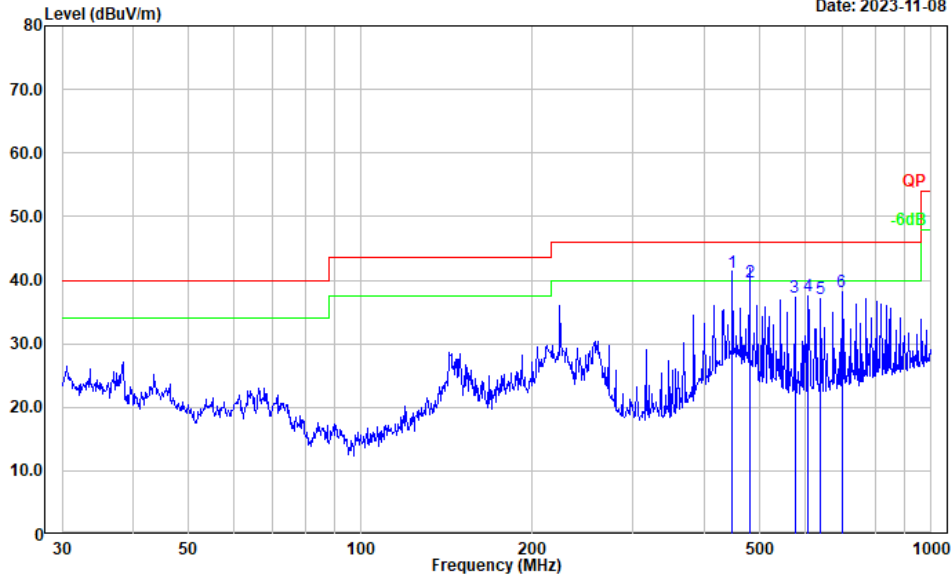
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	223.733	58.29	-12.89	45.40	46.00	0.60	QP
2	383.993	52.63	-9.03	43.60	46.00	2.40	QP
3	400.000	52.20	-8.76	43.44	46.00	2.56	QP
4	608.005	47.66	-4.83	42.83	46.00	3.17	QP
5	639.997	48.37	-4.43	43.94	46.00	2.06	QP
6	696.022	46.94	-3.56	43.38	46.00	2.62	QP



**Antenna 2-10MHz Bandwidth Mode – Middle Channel- Vertical**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-11-08

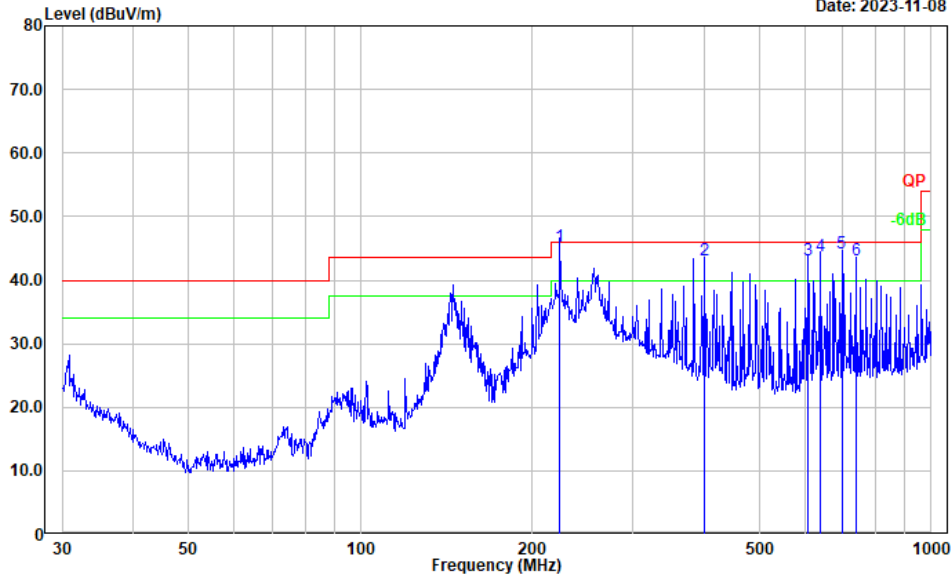


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	447.983	48.24	-7.02	41.22	46.00	4.78	QP
2	479.971	45.95	-6.24	39.71	46.00	6.29	QP
3	576.644	42.80	-5.58	37.22	46.00	8.78	Peak
4	607.787	42.29	-4.83	37.46	46.00	8.54	Peak
5	640.611	41.47	-4.41	37.06	46.00	8.94	Peak
6	696.857	41.78	-3.57	38.21	46.00	7.79	Peak

**Antenna 2-10MHz Bandwidth Mode – Highest Channel- Horizontal**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

Date: 2023-11-08

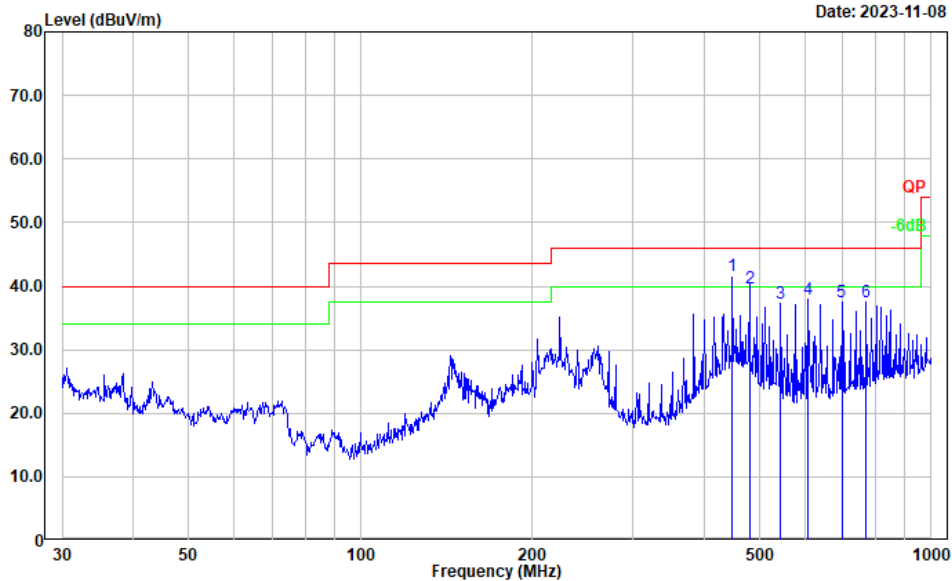


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	223.733	58.12	-12.89	45.23	46.00	0.77	QP
2	400.432	51.87	-8.74	43.13	46.00	2.87	QP
3	607.787	47.93	-4.83	43.10	46.00	2.90	QP
4	640.611	48.29	-4.41	43.88	46.00	2.12	QP
5	696.857	47.80	-3.57	44.23	46.00	1.77	QP
6	737.071	46.16	-3.01	43.15	46.00	2.85	QP

**Antenna 2-10MHz Bandwidth Mode – Highest Channel- Vertical**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-11-08

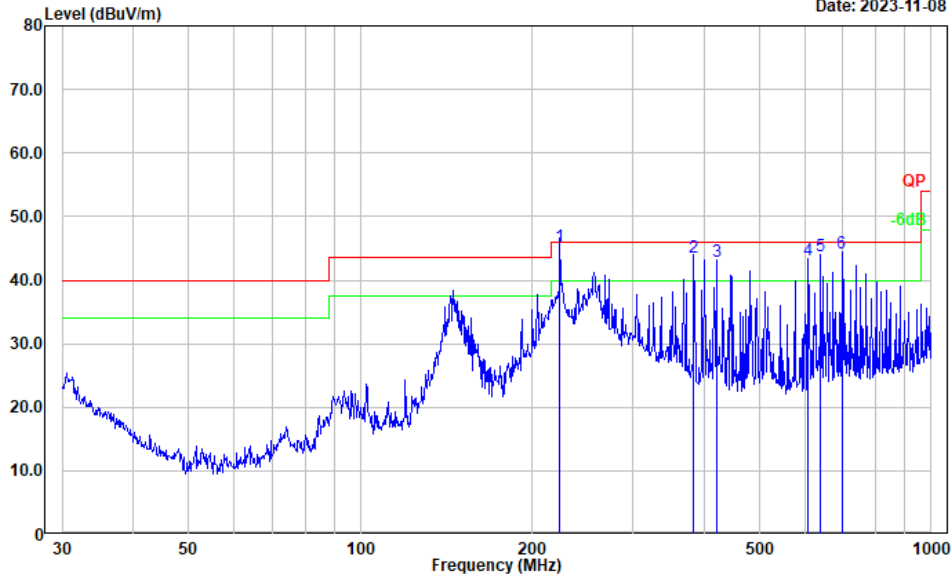


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	447.983	48.58	-7.02	41.56	46.00	4.44	QP
2	479.990	45.89	-6.24	39.65	46.00	6.35	QP
3	545.183	43.25	-5.88	37.37	46.00	8.63	Peak
4	607.787	42.75	-4.83	37.92	46.00	8.08	Peak
5	696.857	41.14	-3.57	37.57	46.00	8.43	Peak
6	768.748	40.28	-2.67	37.61	46.00	8.39	Peak

**Antenna 2-20MHz Bandwidth Mode – Lowest Channel- Horizontal**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

Date: 2023-11-08

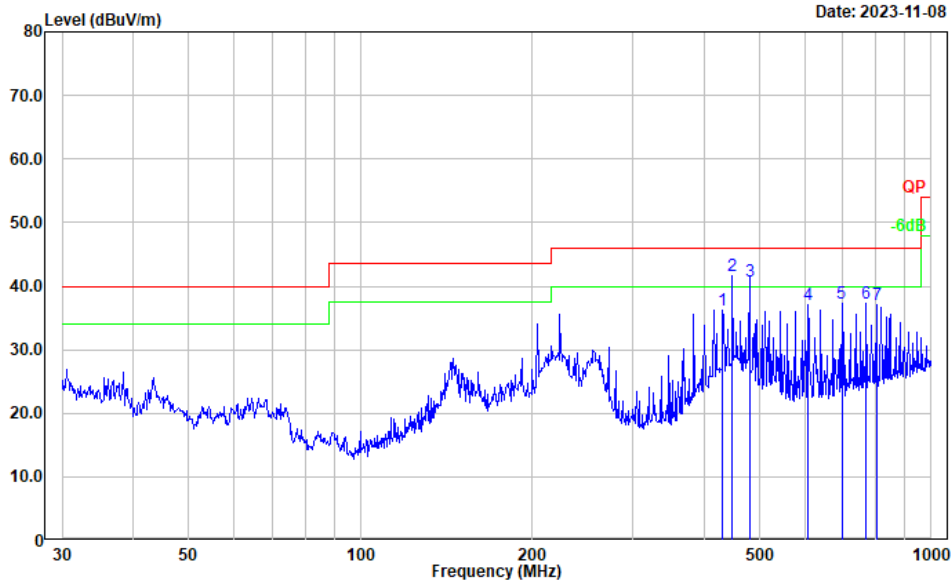


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	223.733	58.23	-12.89	45.34	46.00	0.66	QP
2	383.932	52.62	-9.03	43.59	46.00	2.41	QP
3	420.580	50.88	-7.90	42.98	46.00	3.02	QP
4	607.787	47.87	-4.83	43.04	46.00	2.96	QP
5	640.611	48.13	-4.41	43.72	46.00	2.28	QP
6	696.857	47.87	-3.57	44.30	46.00	1.70	QP

**Antenna 2-20MHz Bandwidth Mode – Lowest Channel- Vertical**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-11-08

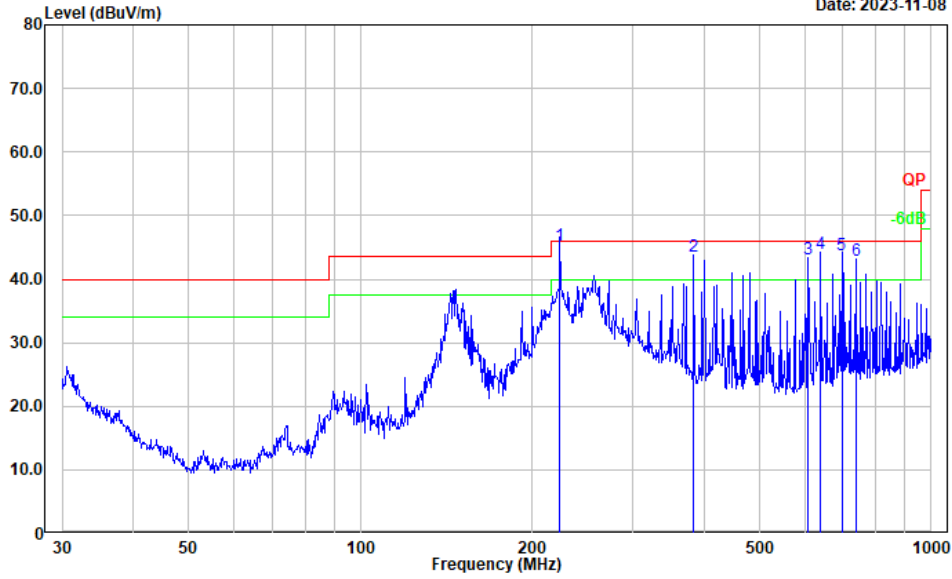


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	431.032	43.72	-7.46	36.26	46.00	9.74	Peak
2	448.001	48.63	-7.02	41.61	46.00	4.39	QP
3	479.990	46.93	-6.24	40.69	46.00	5.31	QP
4	607.787	41.88	-4.83	37.05	46.00	8.95	Peak
5	696.857	40.93	-3.57	37.36	46.00	8.64	Peak
6	768.748	40.00	-2.67	37.33	46.00	8.67	Peak
7	801.786	39.26	-2.15	37.11	46.00	8.89	Peak

**Antenna 2-20MHz Bandwidth Mode – Middle Channel- Horizontal**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

Date: 2023-11-08

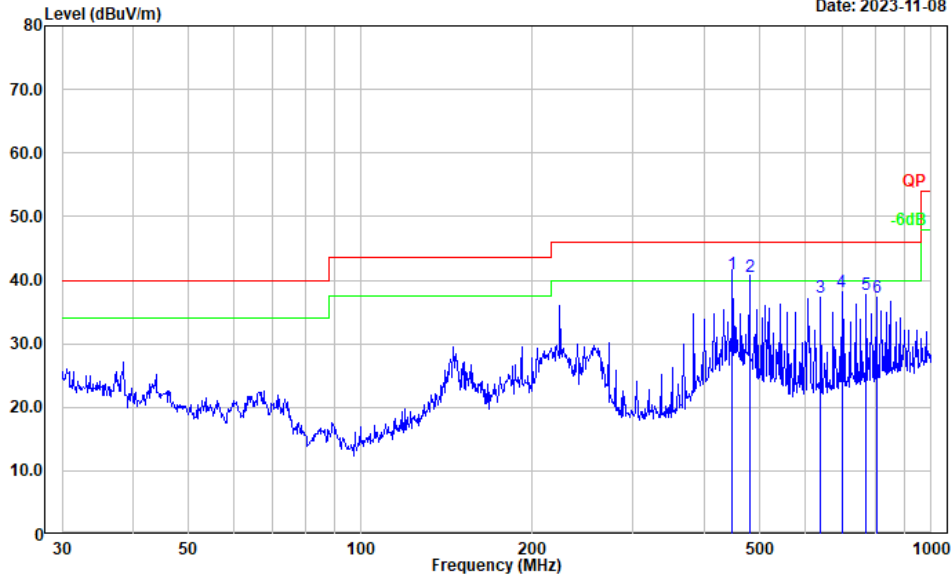


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	223.733	58.27	-12.89	45.38	46.00	0.62	QP
2	383.932	52.71	-9.03	43.68	46.00	2.32	QP
3	607.787	47.94	-4.83	43.11	46.00	2.89	QP
4	640.611	48.32	-4.41	43.91	46.00	2.09	QP
5	696.857	47.32	-3.57	43.75	46.00	2.25	QP
6	737.071	45.86	-3.01	42.85	46.00	3.15	QP

**Antenna 2-20MHz Bandwidth Mode – Middle Channel- Vertical**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-11-08

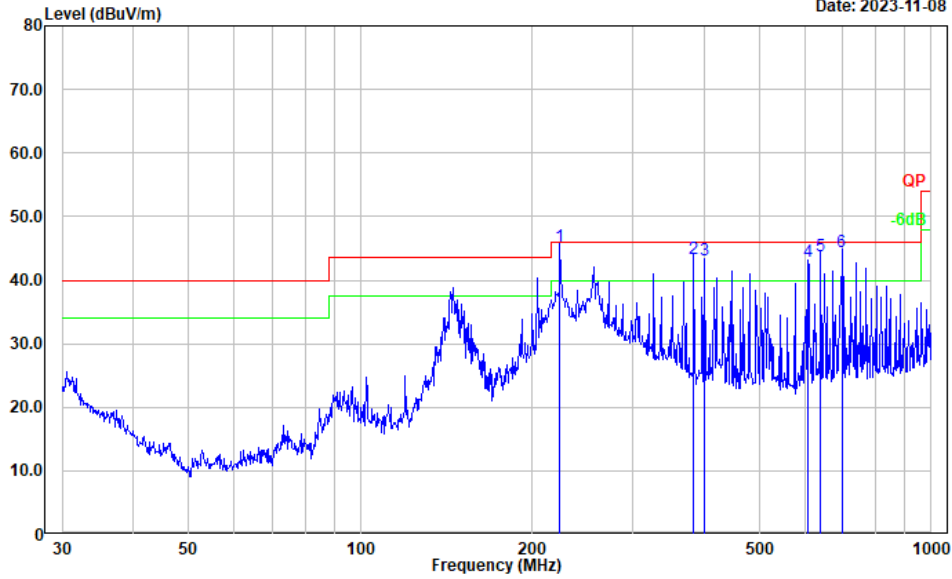


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	448.001	47.97	-7.02	40.95	46.00	5.05	QP
2	480.528	46.86	-6.25	40.61	46.00	5.39	QP
3	640.611	41.75	-4.41	37.34	46.00	8.66	Peak
4	696.857	41.65	-3.57	38.08	46.00	7.92	Peak
5	768.748	40.45	-2.67	37.78	46.00	8.22	Peak
6	801.786	39.54	-2.15	37.39	46.00	8.61	Peak

**Antenna 2-20MHz Bandwidth Mode – Highest Channel- Horizontal**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

Date: 2023-11-08



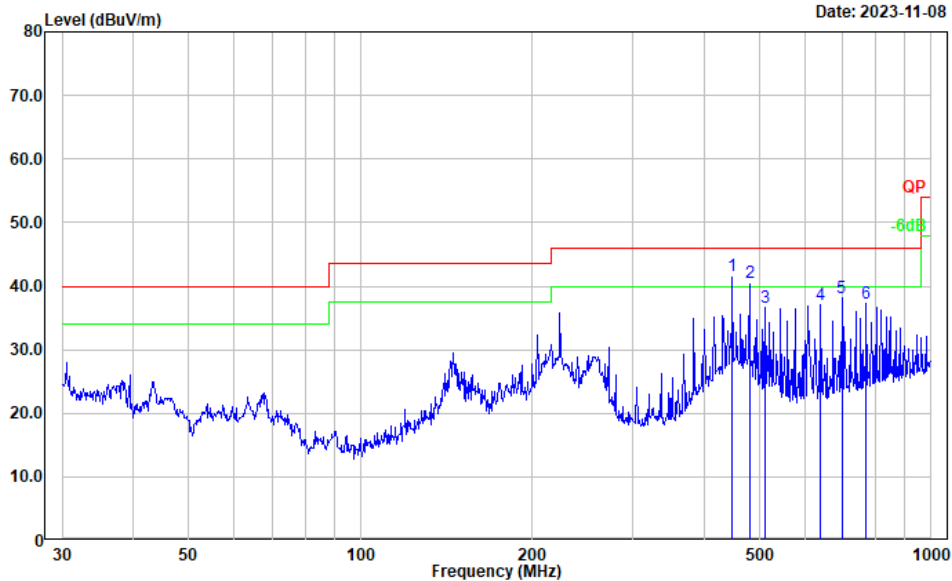
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	223.733	58.16	-12.89	45.27	46.00	0.73	QP
2	383.932	52.42	-9.03	43.39	46.00	2.61	QP
3	400.432	51.87	-8.74	43.13	46.00	2.87	QP
4	607.787	47.80	-4.83	42.97	46.00	3.03	QP
5	640.611	48.29	-4.41	43.88	46.00	2.12	QP
6	696.857	47.97	-3.57	44.40	46.00	1.60	QP



**Antenna 2-20MHz Bandwidth Mode – Highest Channel- Vertical**

Project No.: CR231166154-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-11-08



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	448.001	48.69	-7.02	41.67	46.00	4.33	QP
2	479.990	46.78	-6.24	40.54	46.00	5.46	QP
3	511.835	42.37	-5.82	36.55	46.00	9.45	Peak
4	640.611	41.46	-4.41	37.05	46.00	8.95	Peak
5	696.857	41.64	-3.57	38.07	46.00	7.93	Peak
6	768.748	39.87	-2.67	37.20	46.00	8.80	Peak

**3) 1-25GHz:****Antenna 1-10MHz Bandwidth Mode**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
	Reading (dB $\mu$ V)	Detector					
Low Channel: 2405.5 MHz							
2390.000	32.39	PK	H	31.71	64.10	74.00	9.90
2390.000	13.71	AV	H	31.71	45.42	54.00	8.58
2390.000	40.13	PK	V	31.71	71.84	74.00	2.16
2390.000	15.82	AV	V	31.71	47.53	54.00	6.47
4811.000	35.41	PK	H	11.22	46.63	74.00	27.37
4811.000	23.22	AV	H	11.22	34.44	54.00	19.56
4811.000	34.12	PK	V	11.22	45.34	74.00	28.66
4811.000	22.02	AV	V	11.22	33.24	54.00	20.76
7216.500	37.33	PK	H	15.11	52.44	74.00	21.56
7216.500	25.01	AV	H	15.11	40.12	54.00	13.88
7216.500	33.62	PK	V	15.11	48.73	74.00	25.27
7216.500	21.37	AV	V	15.11	36.48	54.00	17.52
9622.000	39.88	PK	H	19.29	59.17	74.00	14.83
9622.000	30.78	AV	H	19.29	50.07	54.00	<b>3.93</b>
9622.000	41.07	PK	V	19.29	60.36	74.00	13.64
9622.000	30.31	AV	V	19.29	49.60	54.00	4.40
Middle Channel: 2434.5 MHz							
4869.000	36.74	PK	H	11.42	48.16	74.00	25.84
4869.000	27.33	AV	H	11.42	38.75	54.00	15.25
4869.000	38.25	PK	V	11.42	49.67	74.00	24.33
4869.000	29.64	AV	V	11.42	41.06	54.00	12.94
7303.500	46.00	PK	H	15.59	61.59	74.00	12.41
7303.500	37.12	AV	H	15.59	52.71	54.00	1.29
7303.500	40.19	PK	V	15.59	55.78	74.00	18.22
7303.500	31.04	AV	V	15.59	46.63	54.00	7.37
9738.000	38.46	PK	H	19.16	57.62	74.00	16.38
9738.000	29.44	AV	H	19.16	48.60	54.00	5.40
9738.000	42.64	PK	V	19.16	61.80	74.00	12.20
9738.000	33.77	AV	V	19.16	52.93	54.00	<b>1.07</b>
High Channel: 2459.5 MHz							
2483.500	33.43	PK	H	32.19	65.62	74.00	8.38
2483.500	14.57	AV	H	32.19	46.76	54.00	7.24
2483.500	35.47	PK	V	32.19	67.66	74.00	6.34
2483.500	15.35	AV	V	32.19	47.54	54.00	6.46
4919.000	36.27	PK	H	11.65	47.92	74.00	26.08
4919.000	27.14	AV	H	11.65	38.79	54.00	15.21
4919.000	35.22	PK	V	11.65	46.87	74.00	27.13
4919.000	26.33	AV	V	11.65	37.98	54.00	16.02
7378.500	43.72	PK	H	15.61	59.33	74.00	14.67
7378.500	34.52	AV	H	15.61	50.13	54.00	3.87
7378.500	41.22	PK	V	15.61	56.83	74.00	17.17
7378.500	32.78	AV	V	15.61	48.39	54.00	5.61
9838.000	41.75	PK	H	19.26	61.01	74.00	12.99
9838.000	32.44	AV	H	19.26	51.70	54.00	<b>2.30</b>
9838.000	36.58	PK	V	19.26	55.84	74.00	18.16
9838.000	27.54	AV	V	19.26	46.80	54.00	7.20

**Antenna 1-20MHz Bandwidth Mode**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
	Reading(dB $\mu$ V)	Detector					
Low Channel: 2417 MHz							
2390.000	37.00	PK	H	31.71	68.71	74.00	5.29
2390.000	19.39	AV	H	31.71	51.10	54.00	2.90
2390.000	35.12	PK	V	31.71	66.83	74.00	7.17
2390.000	17.10	AV	V	31.71	48.81	54.00	5.19
4834.000	39.19	PK	H	11.29	50.48	74.00	23.52
4834.000	30.41	AV	H	11.29	41.70	54.00	12.30
4834.000	35.78	PK	V	11.29	47.07	74.00	26.93
4834.000	26.33	AV	V	11.29	37.62	54.00	16.38
7251.000	41.90	PK	H	15.35	57.25	74.00	16.75
7251.000	32.30	AV	H	15.35	47.65	54.00	6.35
7251.000	38.95	PK	V	15.35	54.30	74.00	19.70
7251.000	29.54	AV	V	15.35	44.89	54.00	9.11
9668.000	39.74	PK	H	19.23	58.97	74.00	15.03
9668.000	30.25	AV	H	19.23	49.48	54.00	<b>4.52</b>
9668.000	37.47	PK	V	19.23	56.70	74.00	17.30
9668.000	28.96	AV	V	19.23	48.19	54.00	5.81
Middle Channel: 2441 MHz							
4882.000	36.23	PK	H	11.48	47.71	74.00	26.29
4882.000	27.54	AV	H	11.48	39.02	54.00	14.98
4882.000	35.45	PK	V	11.48	46.93	74.00	27.07
4882.000	26.10	AV	V	11.48	37.58	54.00	16.42
7323.000	39.78	PK	H	15.57	55.35	74.00	18.65
7323.000	30.22	AV	H	15.57	45.79	54.00	8.21
7323.000	39.28	PK	V	15.57	54.85	74.00	19.15
7323.000	30.69	AV	V	15.57	46.26	54.00	7.74
9764.000	43.59	PK	H	19.15	62.74	74.00	11.26
9764.000	34.09	AV	H	19.15	53.24	54.00	<b>0.76</b>
9764.000	38.21	PK	V	19.15	57.36	74.00	16.64
9764.000	29.33	AV	V	19.15	48.48	54.00	5.52
High Channel: 2457 MHz							
2483.500	37.81	PK	H	32.19	70.00	74.00	4.00
2483.500	17.53	AV	H	32.19	49.72	54.00	4.28
2483.500	34.12	PK	V	32.19	66.31	74.00	7.69
2483.500	15.01	AV	V	32.19	47.20	54.00	6.80
4914.000	36.22	PK	H	11.62	47.84	74.00	26.16
4914.000	27.33	AV	H	11.62	38.95	54.00	15.05
4914.000	35.44	PK	V	11.62	47.06	74.00	26.94
4914.000	26.30	AV	V	11.62	37.92	54.00	16.08
7371.000	38.29	PK	H	15.60	53.89	74.00	20.11
7371.000	29.10	AV	H	15.60	44.70	54.00	9.30
7371.000	40.80	PK	V	15.60	56.40	74.00	17.60
7371.000	31.20	AV	V	15.60	46.80	54.00	7.20
9828.000	40.41	PK	H	19.22	59.63	74.00	14.37
9828.000	31.55	AV	H	19.22	50.77	54.00	<b>3.23</b>
9828.000	37.64	PK	V	19.22	56.86	74.00	17.14
9828.000	28.58	AV	V	19.22	47.80	54.00	6.20

## Antenna 2-10MHz Bandwidth Mode

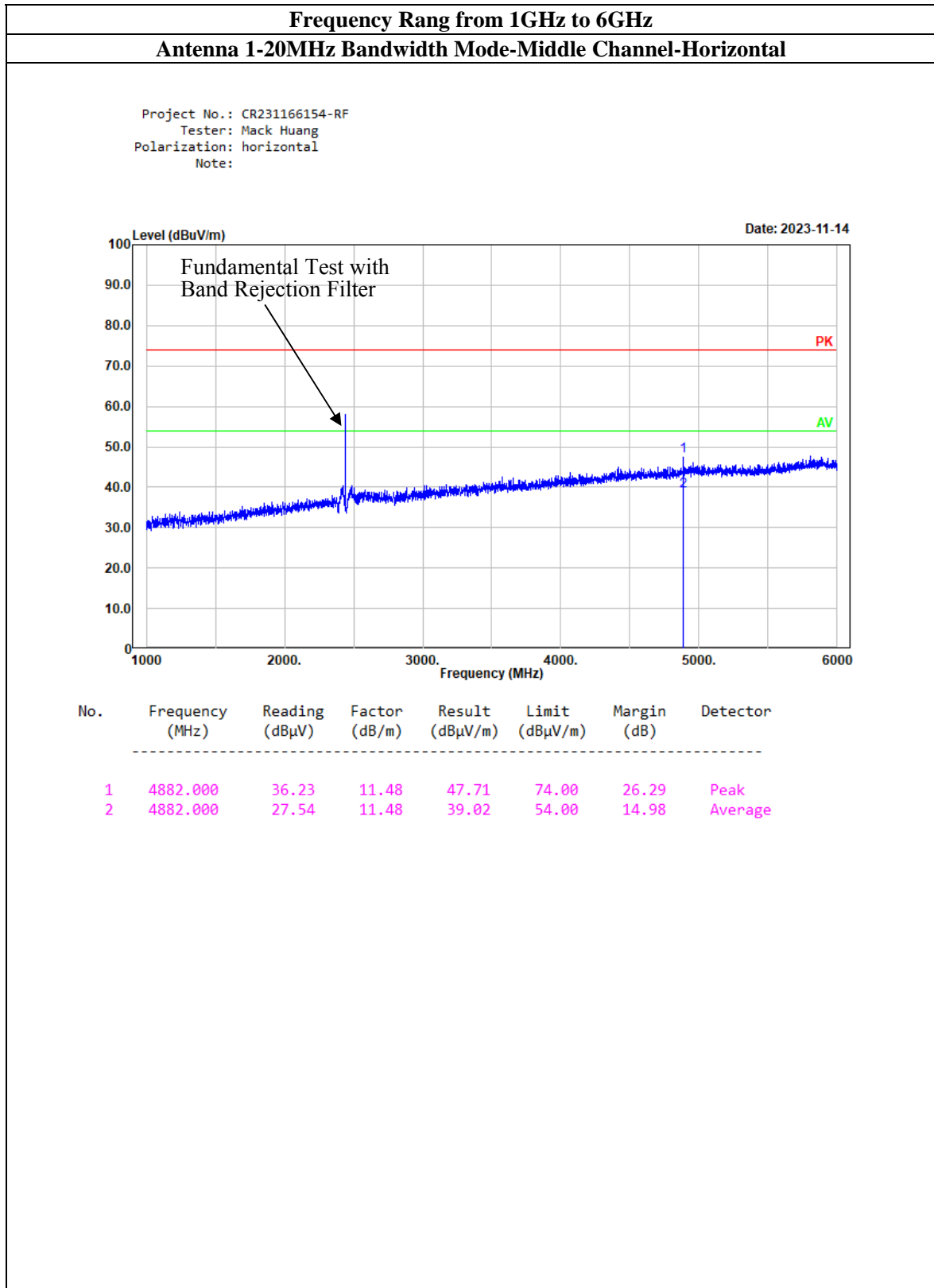
Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
	Reading(dB $\mu$ V)	Detector					
Low Channel:				2405.5	MHz		
2390.000	38.50	PK	H	31.71	70.21	74.00	3.79
2390.000	15.05	AV	H	31.71	46.76	54.00	7.24
2390.000	41.33	PK	V	31.71	73.04	74.00	0.96
2390.000	16.37	AV	V	31.71	48.08	54.00	5.92
4811.000	35.44	PK	H	11.22	46.66	74.00	27.34
4811.000	26.10	AV	H	11.22	37.32	54.00	16.68
4811.000	35.84	PK	V	11.22	47.06	74.00	26.94
4811.000	26.31	AV	V	11.22	37.53	54.00	16.47
7216.500	45.94	PK	H	15.11	61.05	74.00	12.95
7216.500	36.32	AV	H	15.11	51.43	54.00	2.57
7216.500	41.47	PK	V	15.11	56.58	74.00	17.42
7216.500	32.88	AV	V	15.11	47.99	54.00	6.01
9622.000	41.51	PK	H	19.29	60.80	74.00	13.20
9622.000	32.32	AV	H	19.29	51.61	54.00	<b>2.39</b>
9622.000	39.92	PK	V	19.29	59.21	74.00	14.79
9622.000	30.58	AV	V	19.29	49.87	54.00	4.13
Middle Channel:				2434.5	MHz		
4869.000	35.79	PK	H	11.42	47.21	74.00	26.79
4869.000	26.37	AV	H	11.42	37.79	54.00	16.21
4869.000	36.55	PK	V	11.42	47.97	74.00	26.03
4869.000	27.34	AV	V	11.42	38.76	54.00	15.24
7303.500	42.36	PK	H	15.59	57.95	74.00	16.05
7303.500	33.78	AV	H	15.59	49.37	54.00	4.63
7303.500	41.73	PK	V	15.59	57.32	74.00	16.68
7303.500	32.56	AV	V	15.59	48.15	54.00	5.85
9738.000	42.36	PK	H	19.16	61.52	74.00	12.48
9738.000	33.55	AV	H	19.16	52.71	54.00	<b>1.29</b>
9738.000	39.26	PK	V	19.16	58.42	74.00	15.58
9738.000	30.47	AV	V	19.16	49.63	54.00	4.37
High Channel:				2459.5	MHz		
2483.500	30.58	PK	H	32.19	62.77	74.00	11.23
2483.500	14.10	AV	H	32.19	46.29	54.00	7.71
2483.500	32.19	PK	V	32.19	64.38	74.00	9.62
2483.500	14.29	AV	V	32.19	46.48	54.00	7.52
4919.000	35.12	PK	H	11.65	46.77	74.00	27.23
4919.000	26.49	AV	H	11.65	38.14	54.00	15.86
4919.000	35.54	PK	V	11.65	47.19	74.00	26.81
4919.000	26.32	AV	V	11.65	37.97	54.00	16.03
7378.500	46.25	PK	H	15.61	61.86	74.00	12.14
7378.500	37.54	AV	H	15.61	53.15	54.00	<b>0.85</b>
7378.500	39.92	PK	V	15.61	55.53	74.00	18.47
7378.500	30.57	AV	V	15.61	46.18	54.00	7.82
9838.000	38.44	PK	H	19.26	57.70	74.00	16.30
9838.000	29.02	AV	H	19.26	48.28	54.00	5.72
9838.000	38.92	PK	V	19.26	58.18	74.00	15.82
9838.000	29.79	AV	V	19.26	49.05	54.00	4.95

**Antenna 2-20MHz Bandwidth Mode**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
	Reading(dB $\mu$ V)	Detector					
Low Channel: 2417 MHz							
2390.000	34.13	PK	H	31.71	65.84	74.00	8.16
2390.000	16.01	AV	H	31.71	47.72	54.00	6.28
2390.000	34.71	PK	V	31.71	66.42	74.00	7.58
2390.000	17.53	AV	V	31.71	49.24	54.00	4.76
4834.000	36.10	PK	H	11.29	47.39	74.00	26.61
4834.000	27.56	AV	H	11.29	38.85	54.00	15.15
4834.000	35.47	PK	V	11.29	46.76	74.00	27.24
4834.000	26.39	AV	V	11.29	37.68	54.00	16.32
7251.000	41.62	PK	H	15.35	56.97	74.00	17.03
7251.000	32.77	AV	H	15.35	48.12	54.00	5.88
7251.000	39.11	PK	V	15.35	54.46	74.00	19.54
7251.000	30.05	AV	V	15.35	45.40	54.00	8.60
9668.000	38.60	PK	H	19.23	57.83	74.00	16.17
9668.000	29.78	AV	H	19.23	49.01	54.00	4.99
9668.000	41.15	PK	V	19.23	60.38	74.00	13.62
9668.000	32.58	AV	V	19.23	51.81	54.00	<b>2.19</b>
Middle Channel: 2441 MHz							
4882.000	35.77	PK	H	11.48	47.25	74.00	26.75
4882.000	26.41	AV	H	11.48	37.89	54.00	16.11
4882.000	35.64	PK	V	11.48	47.12	74.00	26.88
4882.000	26.28	AV	V	11.48	37.76	54.00	16.24
7323.000	42.45	PK	H	15.57	58.02	74.00	15.98
7323.000	33.52	AV	H	15.57	49.09	54.00	4.91
7323.000	37.44	PK	V	15.57	53.01	74.00	20.99
7323.000	28.65	AV	V	15.57	44.22	54.00	9.78
9764.000	40.51	PK	H	19.15	59.66	74.00	14.34
9764.000	31.78	AV	H	19.15	50.93	54.00	<b>3.07</b>
9764.000	38.71	PK	V	19.15	57.86	74.00	16.14
9764.000	29.69	AV	V	19.15	48.84	54.00	5.16
High Channel: 2457 MHz							
2483.500	34.11	PK	H	32.19	66.30	74.00	7.70
2483.500	16.25	AV	H	32.19	48.44	54.00	5.56
2483.500	35.33	PK	V	32.19	67.52	74.00	6.48
2483.500	16.11	AV	V	32.19	48.30	54.00	5.70
4914.000	34.78	PK	H	11.62	46.40	74.00	27.60
4914.000	25.33	AV	H	11.62	36.95	54.00	17.05
4914.000	35.10	PK	V	11.62	46.72	74.00	27.28
4914.000	26.78	AV	V	11.62	38.40	54.00	15.60
7371.000	41.28	PK	H	15.60	56.88	74.00	17.12
7371.000	32.10	AV	H	15.60	47.70	54.00	6.30
7371.000	36.45	PK	V	15.60	52.05	74.00	21.95
7371.000	27.33	AV	V	15.60	42.93	54.00	11.07
9828.000	41.08	PK	H	19.22	60.30	74.00	13.70
9828.000	32.78	AV	H	19.22	52.00	54.00	2.00
9828.000	40.12	PK	V	19.22	59.34	74.00	14.66
9828.000	33.54	AV	V	19.22	52.76	54.00	<b>1.24</b>

**Listed with the Worst Harmonic Margin Test Plots:**

Note: Antenna 1-20MHz Bandwidth Mode-Middle Channel was the worst case.

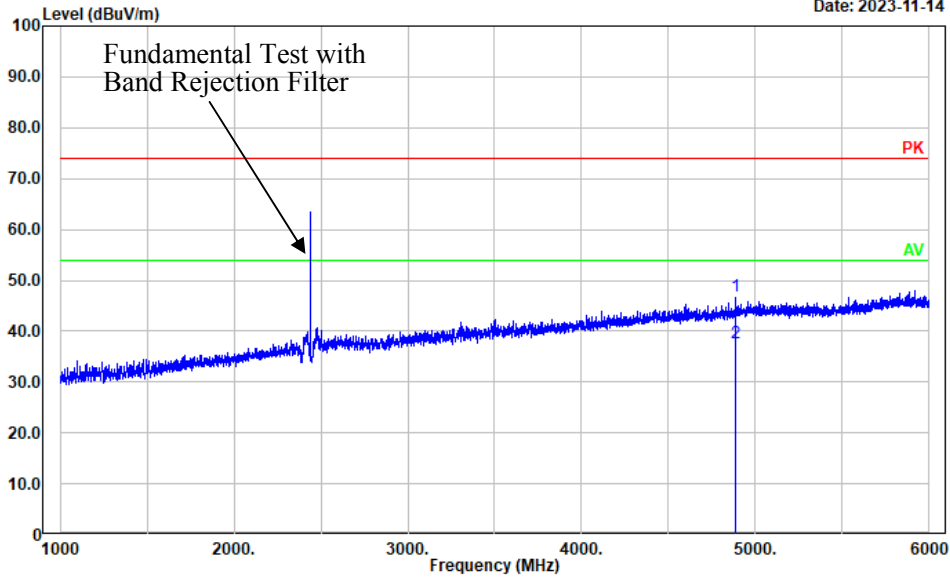


**Frequency Rang from 1GHz to 6GHz**

**Antenna 1-20MHz Bandwidth Mode-Middle Channel-Vertical**

Project No.: CR231166154-RF  
 Tester: Mack Huang  
 Polarization: vertical  
 Note:

Date: 2023-11-14



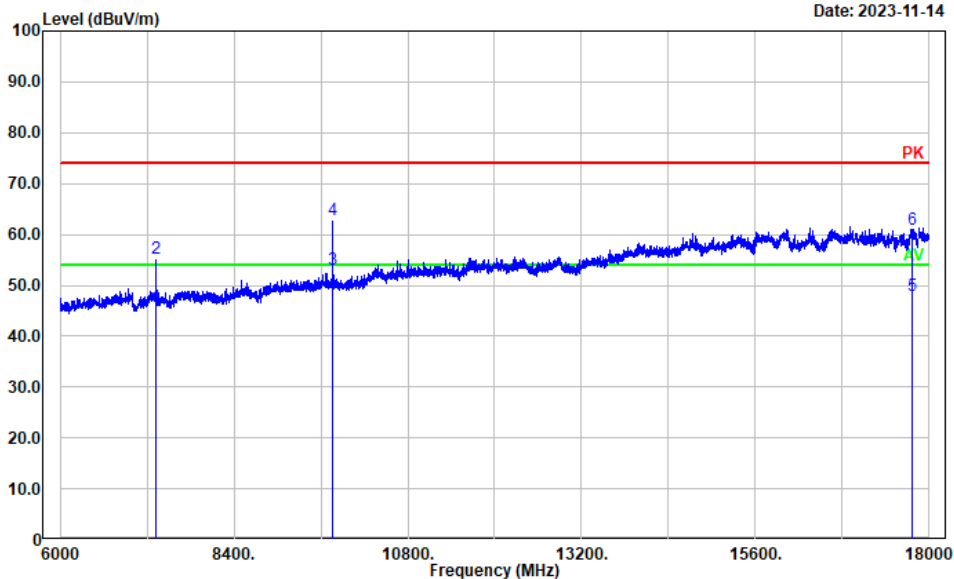
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	4882.000	35.45	11.48	46.93	74.00	27.07	Peak
2	4882.000	26.10	11.48	37.58	54.00	16.42	Average

**Frequency Rang from 6GHz to 18GHz**

**Antenna 1-20MHz Bandwidth Mode-Middle Channel-Horizontal**

Project No.: CR231166154-RF  
 Tester: Mack Huang  
 Polarization: horizontal  
 Note:

Date: 2023-11-14



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	7323.000	30.22	15.57	45.79	54.00	8.21	Average
2	7323.000	39.78	15.57	55.35	74.00	18.65	Peak
3	9764.000	34.09	19.15	53.24	54.00	0.76	Average
4	9764.000	43.59	19.15	62.74	74.00	11.26	Peak
5	17757.550	16.51	31.47	47.98	54.00	6.02	Average
6	17757.550	29.51	31.47	60.98	74.00	13.02	Peak

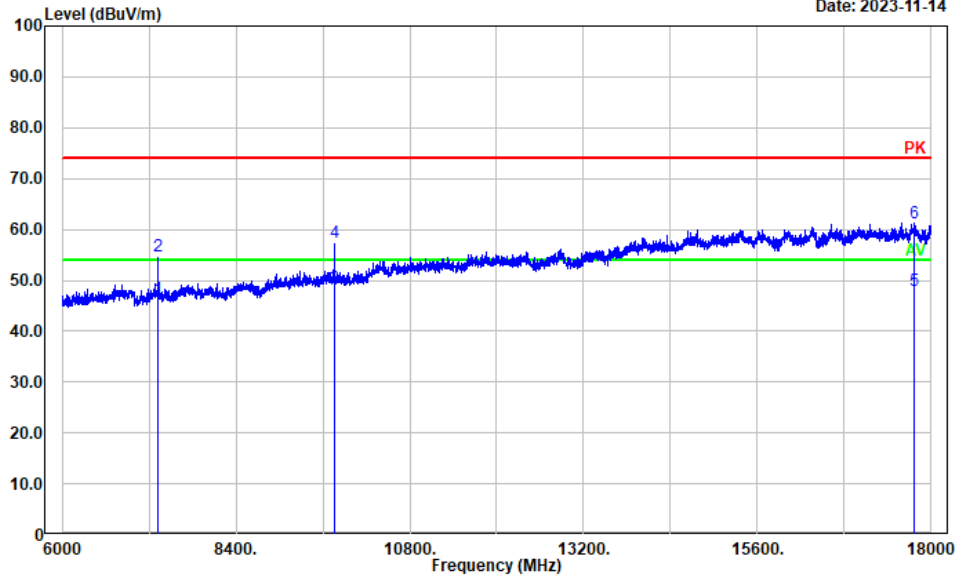


**Frequency Rang from 6GHz to 18GHz**

**Antenna 1-20MHz Bandwidth Mode-Middle Channel-Vertical**

Project No.: CR231166154-RF  
 Tester: Mack Huang  
 Polarization: vertical  
 Note:

Date: 2023-11-14



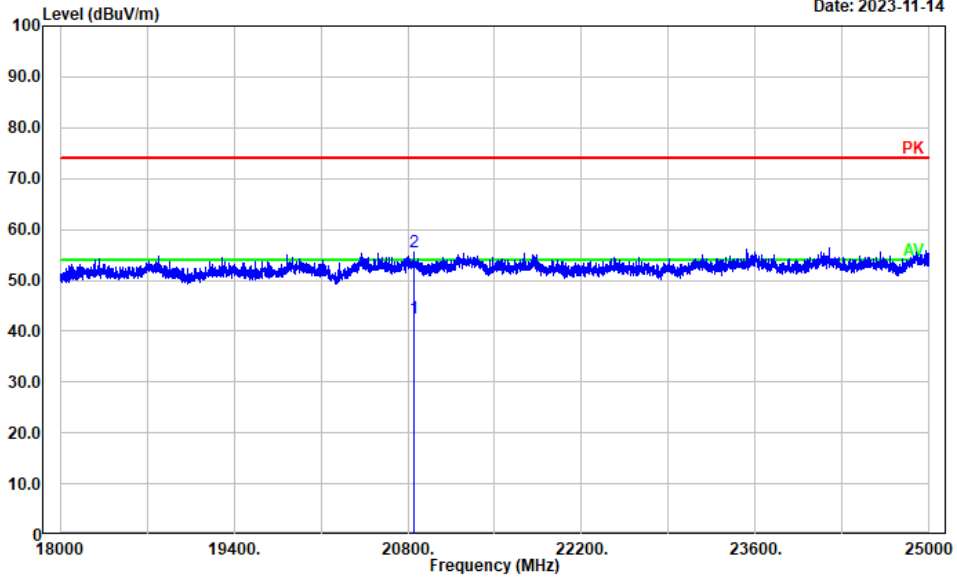
No.	Frequency (MHz)	Reading (dB $\mu$ V)	Factor (dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Detector
1	7323.000	30.69	15.57	46.26	54.00	7.74	Average
2	7323.000	39.28	15.57	54.85	74.00	19.15	Peak
3	9764.000	29.33	19.15	48.48	54.00	5.52	Average
4	9764.000	38.21	19.15	57.36	74.00	16.64	Peak
5	17764.750	16.50	31.49	47.99	54.00	6.01	Average
6	17764.750	29.71	31.49	61.20	74.00	12.80	Peak

**Frequency Rang from 18GHz to 25GHz**

**Antenna 1-20MHz Bandwidth Mode-Middle Channel-Horizontal**

Project No.: CR231166154-RF  
 Tester: Mack Huang  
 Polarization: Horizontal  
 Note:

Date: 2023-11-14



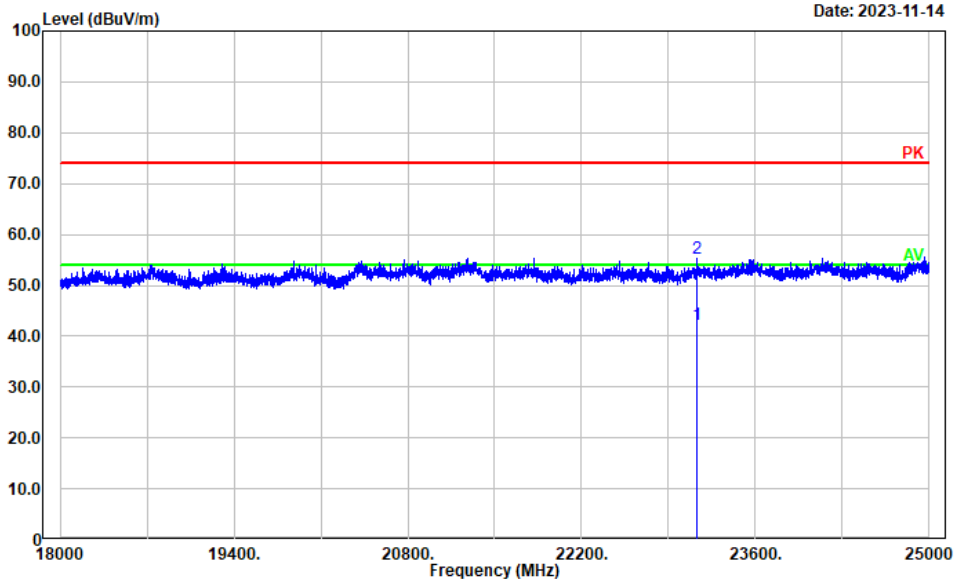
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	20850.970	38.08	4.47	42.55	54.00	11.45	Average
2	20850.970	51.08	4.47	55.55	74.00	18.45	Peak

**Frequency Rang from 18GHz to 25GHz**

**Antenna 1-20MHz Bandwidth Mode-Middle Channel-Vertical**

Project No.: CR231166154-RF  
 Tester: Mack Huang  
 Polarization: vertical  
 Note:

Date: 2023-11-14



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	23132.030	36.80	5.53	42.33	54.00	11.67	Average
2	23132.030	49.81	5.53	55.34	74.00	18.66	Peak

**4.3 6 dB Emission Bandwidth**

Serial Number:	2DFG-3	Test Date:	2023/11/14
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	24.8	Relative Humidity: (%)	51	ATM Pressure: (kPa)	101.8
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

\* **Statement of Traceability:** China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Data:**

Test Mode	Test Antenna	Test Channel	Test Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)
<b>10MHz Bandwidth Mode</b>	<b>Antenna 1</b>	Lowest	2405.5	8.16	$\geq 0.5$
		Middle	2434.5	8.74	$\geq 0.5$
		Highest	2459.5	7.94	$\geq 0.5$
	<b>Antenna 2</b>	Lowest	2405.5	3.76	$\geq 0.5$
		Middle	2434.5	7.92	$\geq 0.5$
		Highest	2459.5	6.51	$\geq 0.5$
<b>20MHz Bandwidth Mode</b>	<b>Antenna 1</b>	Lowest	2417	17.54	$\geq 0.5$
		Middle	2441	16.94	$\geq 0.5$
		Highest	2457	16.38	$\geq 0.5$
	<b>Antenna 2</b>	Lowest	2417	16.77	$\geq 0.5$
		Middle	2441	17.41	$\geq 0.5$
		Highest	2457	16.96	$\geq 0.5$

Please refer to the below test plots.

Test Plots for 10MHz Bandwidth Mode:

6dB Emission Bandwidth

	Antenna 1	Antenna 2
Lowest	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 19:04:06</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 21:23:57</p>
Middle	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 18:43:41</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 21:03:31</p>
Highest	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 18:25:30</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 20:49:58</p>

Test Plots for 20MHz Bandwidth Mode:

6dB Emission Bandwidth

	Antenna 1	Antenna 2
Lowest	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 19:15:40</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 20:35:07</p>
Middle	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 19:30:38</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 20:14:55</p>
Highest	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 19:49:07</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 20:04:59</p>

#### 4.4 Maximum Conducted Output Power

Serial Number:	2DFG-3	Test Date:	2023/11/14
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	Pass

#### Environmental Conditions:

Temperature: (°C)	24.8	Relative Humidity: (%)	51	ATM Pressure: (kPa)	101.8
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#### Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Anritsu	Power Meter	ML2495A	1106009	2023/8/4	2024/8/3
Anritsu	Pulse Power Sensor	MA2411A	10780	2023/8/4	2024/8/3

\* **Statement of Traceability:** China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

#### Test Data:

Test Mode	Test Antenna	Test Channel	Test Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)	Limit (dBm)
10MHz Bandwidth Mode	Antenna 1	Lowest	2405.5	27.49	≤30
		Middle	2434.5	28.22	≤30
		Highest	2459.5	27.44	≤30
	Antenna 2	Lowest	2405.5	27.27	≤30
		Middle	2434.5	28.65	≤30
		Highest	2459.5	27.91	≤30
20MHz Bandwidth Mode	Antenna 1	Lowest	2417	27.37	≤30
		Middle	2441	27.79	≤30
		Highest	2457	27.68	≤30
	Antenna 2	Lowest	2417	28.03	≤30
		Middle	2441	28.56	≤30
		Highest	2457	27.49	≤30

**4.5 Maximum Power Spectral Density**

Serial Number:	2DFG-3	Test Date:	2023/11/14
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	24.8	Relative Humidity: (%)	51	ATM Pressure: (kPa)	101.8
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

\* **Statement of Traceability:** China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Data:**

Test Mode	Test Antenna	Test Channel	Test Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
10MHz Bandwidth Mode	Antenna 1	Lowest	2405.5	-2.53	≤8.00
		Middle	2434.5	-0.65	≤8.00
		Highest	2459.5	-1.55	≤8.00
	Antenna 2	Lowest	2405.5	-1.36	≤8.00
		Middle	2434.5	-0.59	≤8.00
		Highest	2459.5	-0.83	≤8.00
20MHz Bandwidth Mode	Antenna 1	Lowest	2417	-3.53	≤8.00
		Middle	2441	-3.88	≤8.00
		Highest	2457	-5.03	≤8.00
	Antenna 2	Lowest	2417	-4.81	≤8.00
		Middle	2441	-3.62	≤8.00
		Highest	2457	-4.70	≤8.00



Test Plots for 10MHz Bandwidth Mode:

Maximum Power Spectral Density

	Antenna 1	Antenna 2
Lowest	<p>Ref: 35.5 dBm, Att: 30 dB, RBW: 3 kHz, VBW: 10 kHz, SWT: 2.25 s, Marker 1 [T1]: 2.405371795 GHz, -2.53 dBm</p> <p>ProjectNo.: CR231166154-RF Tester: Arthur Su Date: 14.NOV.2023 19:09:39</p>	<p>Ref: 35.5 dBm, Att: 30 dB, RBW: 3 kHz, VBW: 10 kHz, SWT: 2.25 s, Marker 1 [T1]: 2.405948718 GHz, -1.36 dBm</p> <p>ProjectNo.: CR231166154-RF Tester: Arthur Su Date: 14.NOV.2023 21:11:10</p>
Middle	<p>Ref: 35.5 dBm, Att: 30 dB, RBW: 3 kHz, VBW: 10 kHz, SWT: 2.25 s, Marker 1 [T1]: 2.434211518 GHz, -0.65 dBm</p> <p>ProjectNo.: CR231166154-RF Tester: Arthur Su Date: 14.NOV.2023 18:40:22</p>	<p>Ref: 35.5 dBm, Att: 30 dB, RBW: 3 kHz, VBW: 10 kHz, SWT: 2.25 s, Marker 1 [T1]: 2.434951282 GHz, -0.59 dBm</p> <p>ProjectNo.: CR231166154-RF Tester: Arthur Su Date: 14.NOV.2023 20:55:52</p>
Highest	<p>Ref: 35.5 dBm, Att: 30 dB, RBW: 3 kHz, VBW: 10 kHz, SWT: 2.25 s, Marker 1 [T1]: 2.459051282 GHz, -1.65 dBm</p> <p>ProjectNo.: CR231166154-RF Tester: Arthur Su Date: 14.NOV.2023 18:36:04</p>	<p>Ref: 35.5 dBm, Att: 30 dB, RBW: 3 kHz, VBW: 10 kHz, SWT: 2.25 s, Marker 1 [T1]: 2.459756410 GHz, -0.83 dBm</p> <p>ProjectNo.: CR231166154-RF Tester: Arthur Su Date: 14.NOV.2023 20:41:06</p>

Test Plots for 20MHz Bandwidth Mode:

Maximum Power Spectral Density

Test Channel	Antenna 1	Antenna 2
Lowest	<p>Ref: 35.5 dBm, *Att: 30 dB, *RBW: 3 kHz, *VBW: 10 kHz, SWT: 4.5 s, Marker 1 [T1]: 2.416743590 GHz, -3.53 dBm</p> <p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 19:23:12</p>	<p>Ref: 35.5 dBm, *Att: 30 dB, *RBW: 3 kHz, *VBW: 10 kHz, SWT: 4.5 s, Marker 1 [T1]: 2.417576923 GHz, -4.81 dBm</p> <p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 20:27:28</p>
Middle	<p>Ref: 35.5 dBm, *Att: 30 dB, *RBW: 3 kHz, *VBW: 10 kHz, SWT: 4.5 s, Marker 1 [T1]: 2.440615385 GHz, -3.88 dBm</p> <p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 19:26:06</p>	<p>Ref: 35.5 dBm, *Att: 30 dB, *RBW: 3 kHz, *VBW: 10 kHz, SWT: 4.5 s, Marker 1 [T1]: 2.440935897 GHz, -3.62 dBm</p> <p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 20:19:01</p>
Highest	<p>Ref: 35.5 dBm, *Att: 30 dB, *RBW: 3 kHz, *VBW: 10 kHz, SWT: 4.5 s, Marker 1 [T1]: 2.457256410 GHz, -3.03 dBm</p> <p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 19:54:50</p>	<p>Ref: 35.5 dBm, *Att: 30 dB, *RBW: 3 kHz, *VBW: 10 kHz, SWT: 4.5 s, Marker 1 [T1]: 2.456679487 GHz, -4.70 dBm</p> <p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 19:57:54</p>

**4.6 100 kHz Bandwidth of Frequency Band Edge**

Serial Number:	2DFG-3	Test Date:	2023/11/14
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	24.8	Relative Humidity: (%)	51	ATM Pressure: (kPa)	101.8
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

*\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

**Test Data:**

Test Plots for 10MHz Bandwidth Mode:

100 kHz Bandwidth of Frequency Band Edge

	Antenna 1	Antenna 2
<p>Lowest Band edge</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 19:07:25</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 21:20:30</p>
<p>Highest Band edge</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 18:33:46</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 20:51:50</p>

Test Plots for 20MHz Bandwidth Mode:

100 kHz Bandwidth of Frequency Band Edge

Test Channel	Antenna 1	Antenna 2
<p>Lowest Band edge</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 19:21:27</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 20:36:52</p>
<p>Highest Band edge</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 19:50:50</p>	<p>ProjectNo.:CR231166154-RF Tester:Arthur Su Date: 14.NOV.2023 20:08:47</p>

**4.7 Duty Cycle**

Serial Number:	2DFG-3	Test Date:	2023/11/14
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	pass

**Environmental Conditions:**

Temperature: (°C)	24.8	Relative Humidity: (%)	51	ATM Pressure: (kPa)	101.8
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

\* **Statement of Traceability:** China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Data:**

Test Mode	Test Frequency (MHz)	Ton (ms)	Ton+off (ms)	Duty cycle (%)	1/T (Hz)	VBW Setting (kHz)
<b>10MHz Bandwidth Mode</b>	2434.5	3.077	5.051	60.92	325	0.5
<b>20MHz Bandwidth Mode</b>	2441	3.058	4.994	61.23	327	0.5

Note: Tests were performed on Antenna 2.



## 5. RF EXPOSURE EVALUATION

### 5.1 Applicable Standard

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

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

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

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

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

#### Calculation formula:

Prediction of power density at the distance of the applicable MPE limit

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

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

### 5.2 Measurement Result

Mode	Frequency Range (MHz)	Antenna Gain		Conducted output power including Tune-up Tolerance		Evaluation Distance (cm)	Power Density (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )
		(dBi)	(numeric)	(dBm)	(mW)			
10MHz Bandwidth	2405.5-2459.5	2.5	1.778	29	794.33	20	0.281	1
20MHz Bandwidth	2417-2457	2.5	1.778	29	794.33	20	0.281	1

**Result:** The device meets FCC MPE at **20 cm** distance



## **6. EUT PHOTOGRAPHS**

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Please refer to the attachment CR231166154-EXP EUT EXTERNAL PHOTOGRAPHS and CR231166154-INP EUT INTERNAL PHOTOGRAPHS

## **7. TEST SETUP PHOTOGRAPHS**

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Please refer to the attachment CR231166154-00-TSP TEST SETUP PHOTOGRAPHS.

**===== END OF REPORT =====**