



Report No.: TW2307190-01E

Applicant: Autel Robotics Co., Ltd.

Address: 601, 701, 801, 901, Block B1, Nanshan iPark, No. 1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong, 518055, China

Product: DG-L35T

Model No.: L35T

Trademark: Autel Robotics

Test Standards: FCC Part 15.247

Test result: It is herewith confirmed and found to comply with the requirements set up by ANSI C63.10, FCC Part 15.247 for the evaluation of electromagnetic compatibility

Approved By

A handwritten signature in black ink that reads 'Terry Tang'.

Terry Tang

Manager

Dated: July 12, 2023

**Results appearing herein relate only to the sample tested**

**The technical reports is issued errors and omissions exempt and is subject to withdrawal at**

### **SHENZHEN TIMEWAY TESTING LABORATORIES**

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com

TEST REPORT



### **Special Statement:**

The testing quality ability of our laboratory meet with “Quality Law of People’s Republic of China” Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAL. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

#### **CNAL-LAB Code: L2292**

The EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

#### **FCC-Registration No.: 744189**

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

#### **Industry Canada (IC) —Registration No.:5205A**

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A.

#### **A2LA (Certification Number:5013.01)**

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

#### **CAB identifier: CN0033**

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## 1.0 General Details

### 1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.  
Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China  
Telephone: (755) 83448688  
Fax: (755) 83442996  
Site Listed with Federal Communications commission (FCC)  
Registration Number: 744189  
For 3m Anechoic Chamber  
Site Listed with Industry Canada of Ottawa, Canada  
Registration Number: IC: 5205A  
For 3m Anechoic Chamber

### 1.2 Applicant Details

Applicant: Autel Robotics Co., Ltd.  
Address: 601, 701, 801, 901, Block B1, Nanshan iPark, No. 1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong, 518055, China  
Telephone: --  
Fax: --

### 1.3 Description of EUT

Product: DG-L35T  
Manufacturer: Autel Robotics Co., Ltd.  
Address: 601, 701, 801, 901, Block B1, Nanshan iPark, No. 1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong, 518055, China  
Trademark: Autel Robotics  
Model Number: L35T  
Additional Model Number: N/A  
Hardware Version: MDH\_5CAM-MAIN\_V1  
Software Version: 101.10.361.29  
Serial No.: DG-L35T202308000001  
Rating: DC12V, 0.8A  
Type of Modulation: DSSS, OFDM, OFDMA  
Frequency range: IEEE 802.11b/g/n (HT20)/ax (HEW20): 2412-2462MHz  
Channel Spacing: 5MHz  
Air Data Rate: IEEE 802.11b: 11, 5.5, 2, 1 Mbps  
IEEE 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps

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Frequency Selection: IEEE 802.11n20: mcs0-mcs15  
Channel Number: IEEE 802.11ax20: mcs0-mcs11  
Antenna: By software  
IEEE 802.11b/g/n (HT20)/ax (HEW20): 11 Channels;  
Two Chip antennas used. The gain of the antennas is 6.1dBi for each one (Get from the antenna specification)

**1.4 Submitted Sample: 2 Samples**

**1.5 Test Duration**

2023-06-30 to 2023-07-12

**1.6 Channel List**

11 channels are provided for 802.11b, 802.11g, 802.11n20, 802.11ax20

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
2400MHz ~ 2483.5MHz	01	2412MHz	08	2447MHz
	02	2417MHz	09	2452MHz
	03	2422MHz	10	2457MHz
	04	2427MHz	11	2462MHz
	05	2432MHz	/	/
	06	2437MHz	/	/
	07	2442MHz	/	/

**1.7 Test Uncertainty**

Conducted Emissions Uncertainty =3.6dB  
Radiated Emissions below 1GHz Uncertainty =4.7dB  
Radiated Emissions above 1GHz Uncertainty =6.0dB  
Conducted Power Uncertainty =6.0dB  
Occupied Channel Bandwidth Uncertainty =5%  
Note: The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

**1.8 Test Engineer**

The sample tested by           Andy Xing            
Print Name: Andy Xing

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2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2022-07-15	2023-07-14
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2022-07-18	2023-07-17
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17
Spectrum	R&S	FSIQ26	100292	2022-07-15	2023-07-14
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2022-07-18	2025-07-17
Horn Antenna	R&S	BBHA 9120D	9120D-631	2022-07-18	2024-07-17
Power meter	Anritsu	ML2487A	6K00003613	2022-07-18	2023-07-17
Power sensor	Anritsu	MA2491A	32263	2022-07-18	2023-07-17
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2022-07-18	2025-07-17
9*6*6 Anechoic	--	--	N/A	2022-07-26	2025-07-25
EMI Test Receiver	RS	ESVB	826156/011	2022-07-15	2023-07-14
EMI Test Receiver	RS	ESCS 30	834115/006	2022-07-15	2023-07-14
Spectrum	HP/Agilent	E4407B	MY50441392	2022-07-15	2023-07-14
Spectrum	RS	FSP	1164.4391.38	2022-07-15	2023-07-14
RF Cable	Zhengdi	ZT26-NJ-NJ-8 M/FA	--	2022-07-15	2023-07-14
RF Cable	Zhengdi	7m	--	2022-07-15	2023-07-14
Pre-Amplifier	Schwarebeck	BBV9743	#218	2022-07-15	2023-07-14
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2022-07-15	2023-07-14
LISN	SCHAFFNER	NNB42	00012	2022-08-18	2023-07-17
ESPI Test Receiver	R&S	ESPI 3	100379	2022-07-15	2023-07-14
LISN	R&S	EZH3-Z5	100294	2022-07-18	2023-07-17
LISN	R&S	EZH3-Z5	100253	2022-07-18	2023-07-17
2.4G band-pass filter	Micro-Tronics	BRM50701	SN-041	2022-07-18	2023-07-17

## 2.2 Automation Test Software

### For Conducted Emission Test

Name	Version
EZ-EMC	Ver.EMC-CON 3A1.1

### For Radiated Emissions

Name	Version
EZ-EMC	Ver.EMC-CON 3A1.1

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### 3. DESCRIPTION OF TEST MODES

#### **IEEE 802.11b, 802.11g, 802.11n20, 802.11ax20 mode**

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2412
Middle	2437
High	2462

IEEE 802.11b mode: 1Mbps data rate (worst case) was chosen for full testing. IEEE 802.11g mode: 6Mbps data rate (worst case) was chosen for full testing. IEEE 802.11n20/ax20 mode: mcs0 (worst case) were chosen for full testing;

Note: For 802.11ax mode only support full RU mode.

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### 3.0 Technical Details

#### 3.1 Summary of test results

The EUT has been tested according to the following specifications:			
Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.203	Antenna Requirement	Pass	Complies
FCC Part 15, Paragraph 15.207	Conducted Emission Test	N/A	N/A
FCC Part 15 Subpart C Paragraph 15.247(a)(2) Limit	Spectrum bandwidth of a Orthogonal Frequency Division Multiplex System Limit: 6dB bandwidth > 500kHz	Pass	Complies
FCC Part 15, Paragraph 15.247(b)	Maximum peak output power Limit: max. 30dBm	Pass	Complies
FCC Part 15, Paragraph 15.109, 15.205 & 15.209	Transmitter Radiated Emission Limit: Table 15.209	Pass	Complies
FCC Part 15, Paragraph 15.247(e)	Power Spectral Density Limit: max. 8dBm/3kHz	Pass	Complies
FCC Part 15, Paragraph 15.247(d)	Out of Band Emission and Restricted Band Radiation Limit: 20dB less than peak value of fundamental frequency Restricted band limit: Table 15.209	Pass	Complies

#### 3.2 Test Standards

FCC Part 15 Subpart & Subpart C, Paragraph 15.247

#### 4.0 EUT Modification

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES.

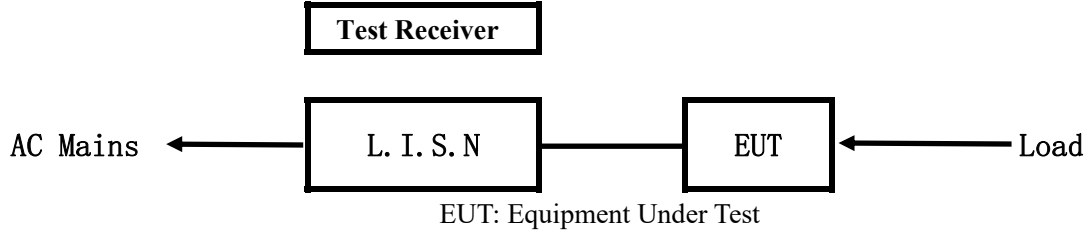
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**5.0 Power Line Conducted Emission Test**

**5.1 Schematics of the test**

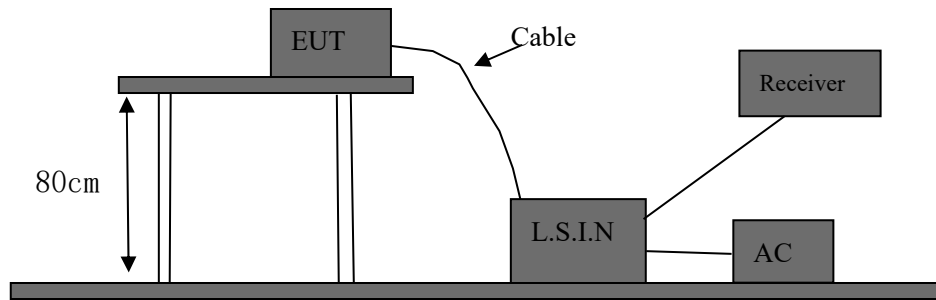


**5.2 Test Method and test Procedure**

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum from 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.10 –2013.

Test Voltage: N/A

Block diagram of Test setup



**5.3 Configuration of the EUT**

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A. EUT

Device	Manufacturer	Model	FCC ID
DG-L35T	Autel Robotics Co., Ltd.	L35T	2AGNTL35T

B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

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C. Peripherals

Device	Manufacturer	Model	Rating
N/A			

**5.4 EUT Operating Condition**

Operating condition is according to ANSI C63.10-2013.

- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition

**5.5 Power line conducted Emission Limit according to Paragraph 15.207**

Frequency (MHz)	Limits (dB $\mu$ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0~56.0*	56.0~46.0*
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0

- Notes:
- 1. \*Decreasing linearly with logarithm of frequency.
  - 2. The tighter limit shall apply at the transition frequencies

**5.6 Test Results**

N/A

**Note: EUT not directly or in-directly connected to AC power source, this test item not applicable.**

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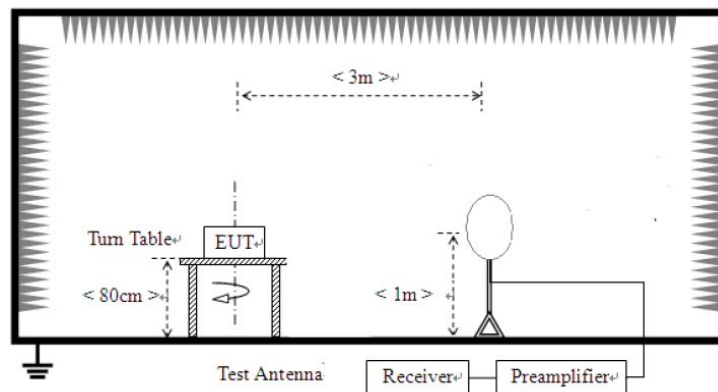
## 6.0 Radiated Emission Test

### 6.1 Test Method and test Procedure:

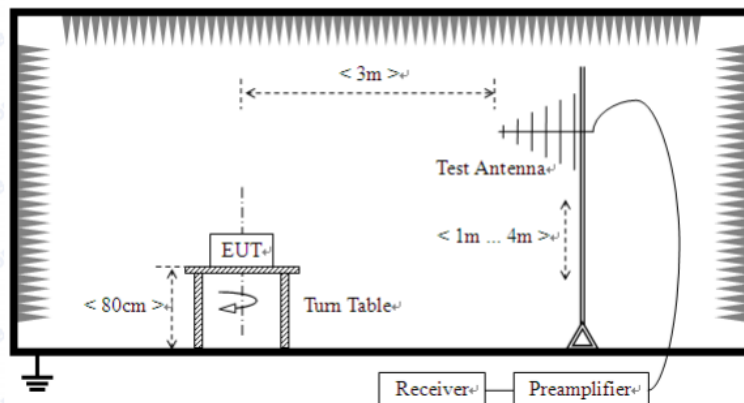
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 9kHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are Quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=1MHz VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a “QP” in the data table.

#### Block diagram of Test setup

For radiated emissions from 9kHz to 30MHz



For radiated emissions from 30MHz to 1GHz



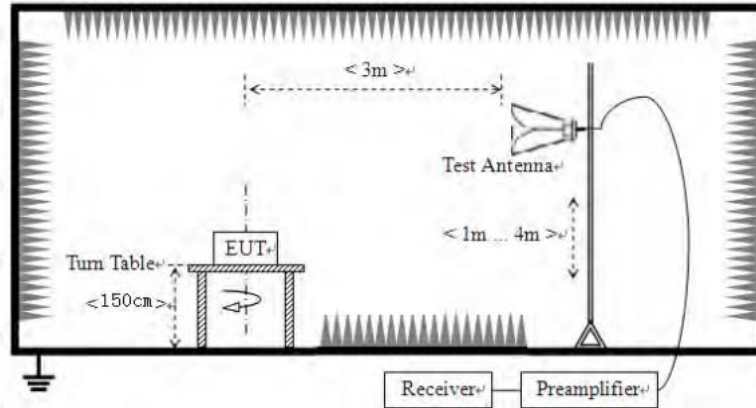
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For radiated emissions above 1GHz



## 6.2 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

### Frequencies in restricted band are complied to limit on Paragraph 15.209

Frequency Range (MHz)	Distance (m)	Field strength (dB $\mu$ V/m)
0.009-0.049	3	$20\log(2400/F(\text{kHz})) + 40\log(300/3)$
0.490-1.705	3	$20\log(24000/F(\text{kHz})) + 40\log(30/3)$
1.705-30	3	69.5
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note:

1. RF Voltage (dBuV) =  $20 \log$  RF Voltage ( $\mu$ V)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
4. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.
5. For radiated emissions from 9kHz to 30MHz, the emission level is much less than the limit for more than 20dB. No necessary to take down the record.
6. For radiated emissions from 30MHz to 1000MHz, Worse case were recorded in the test report. 802.11b was the worst case.
7. For radiated emissions from 1GHz to 18GHz, Worse case were recorded in the test report. 802.11b ant2 and 802.11g/n/ax MIMO mode were the worst case.

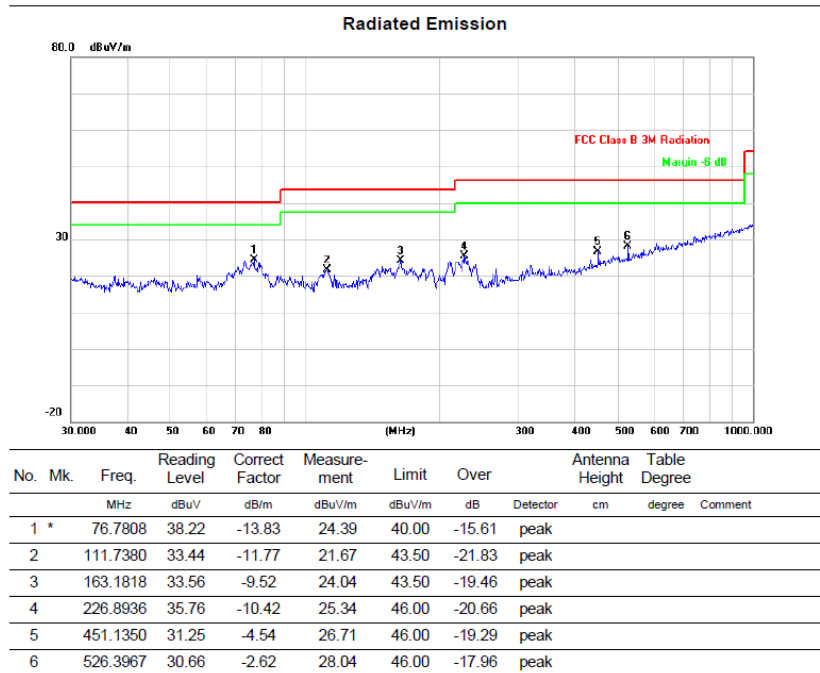
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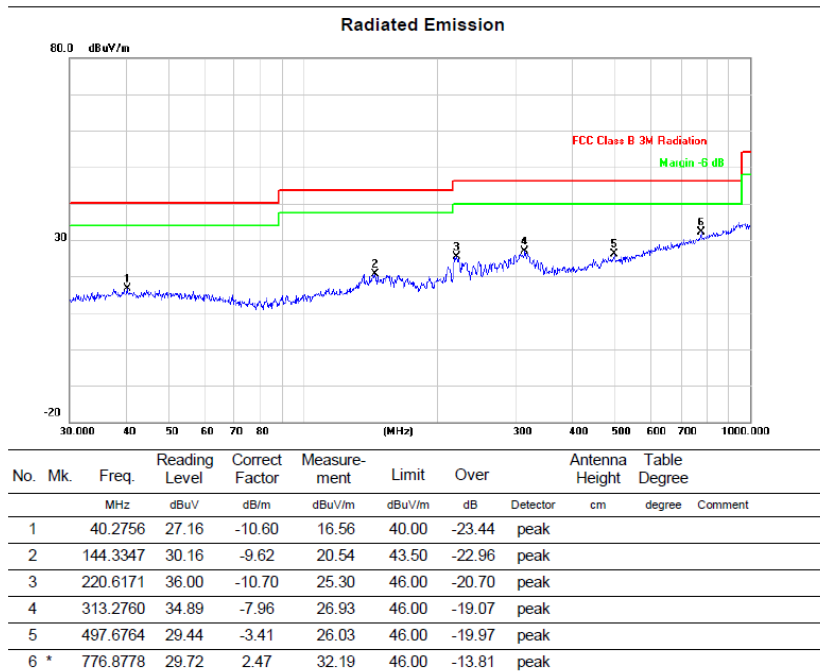


**Test result**  
**30MHz-1000MHz**

**Horizontal**



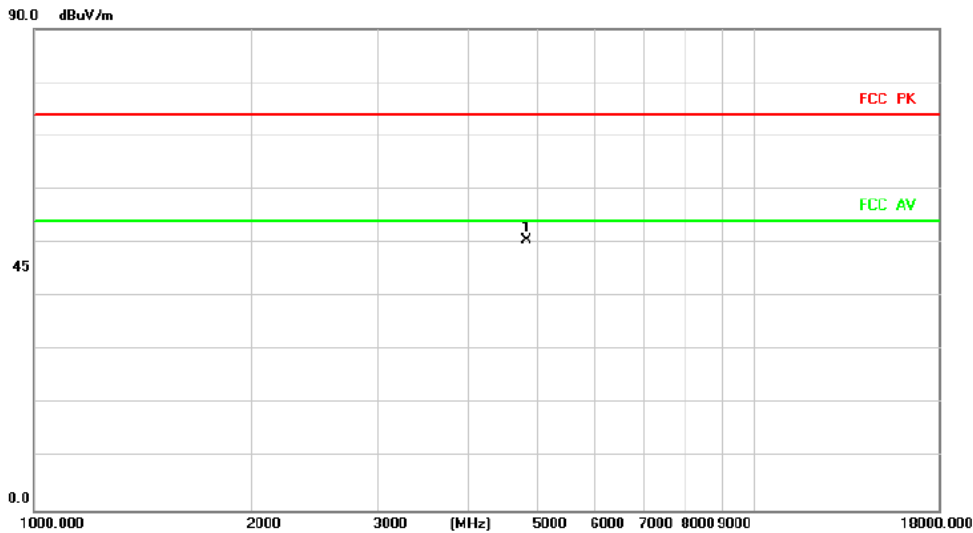
**Vertical**



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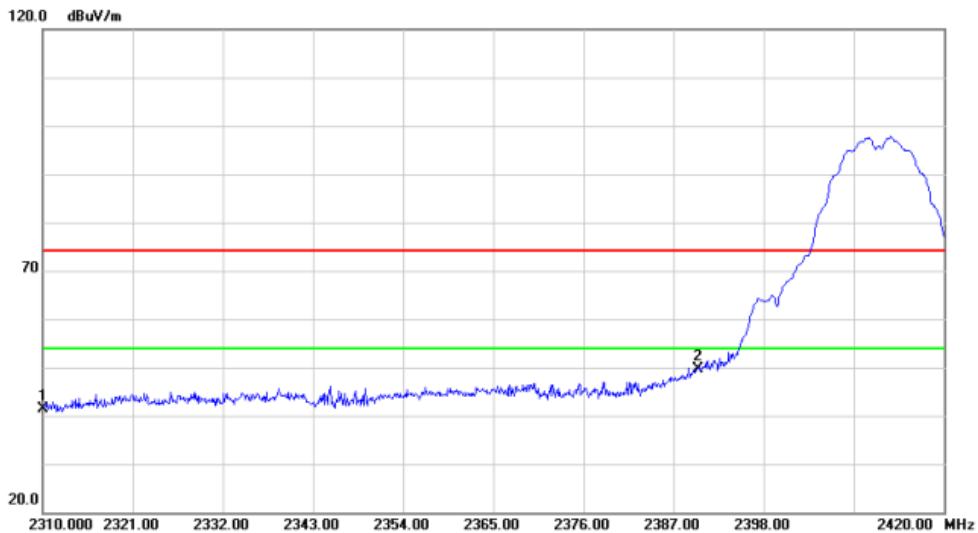


**Above 1 GHz**  
**11b channel 1: Horizontal**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	4824.000	52.49	-1.88	50.61	74.00	-23.39			peak

**Radiated Emission**

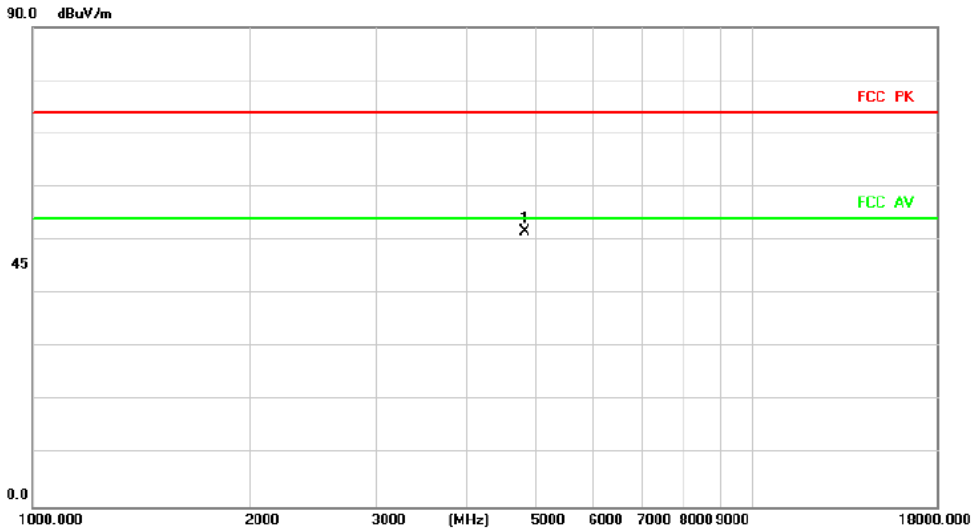


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		2310.000	53.39	-11.92	41.47	74.00	-32.53			peak
2	*	2390.000	61.29	-11.67	49.62	74.00	-24.38			peak

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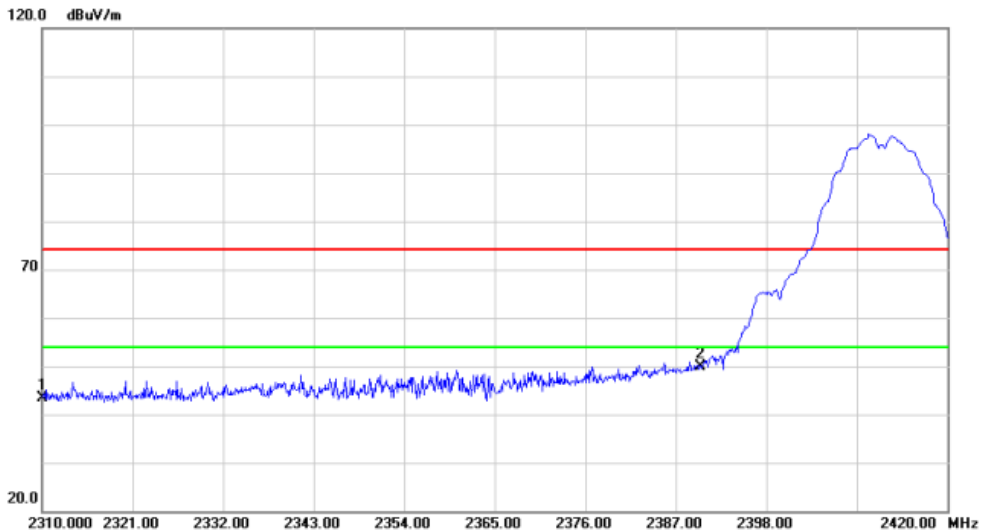


**11b channel 1: Vertical**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1	*	4824.000	53.42	-1.88	51.54	74.00	-22.46	peak	

**Radiated Emission**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1		2310.000	55.24	-11.92	43.32	74.00	-30.68	peak	
2	*	2390.000	61.51	-11.67	49.84	74.00	-24.16	peak	

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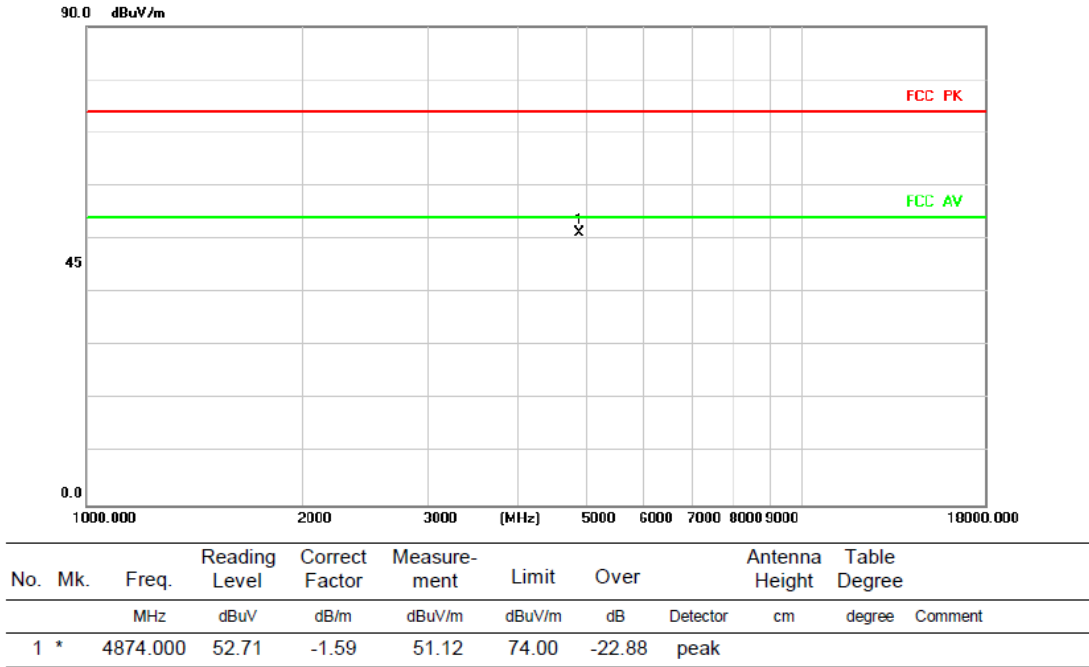
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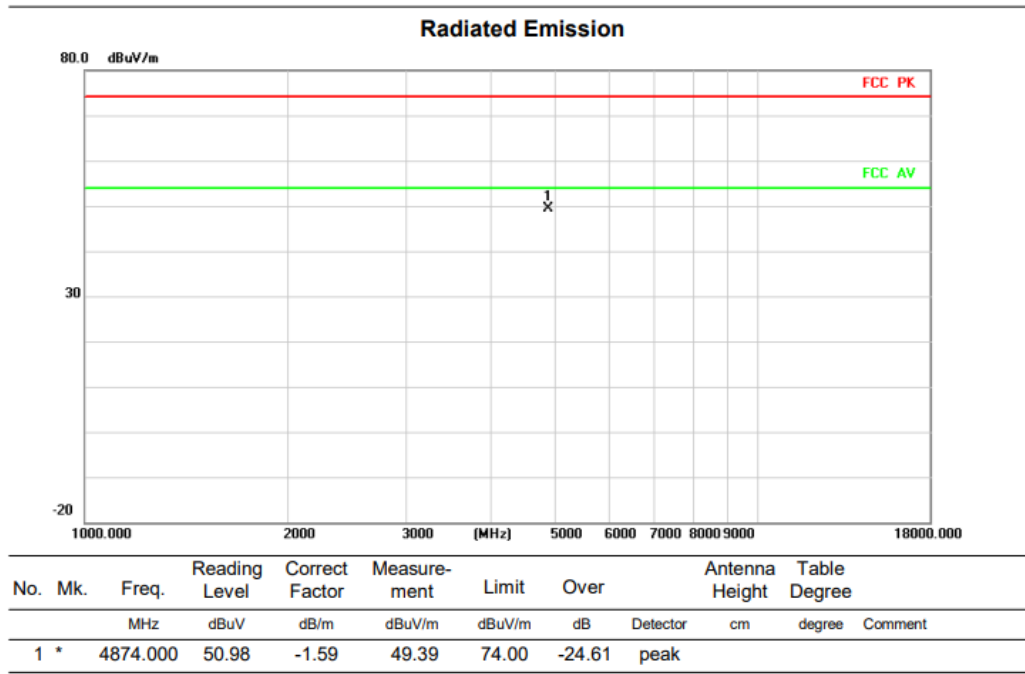




**11b channel 6: Horizontal**



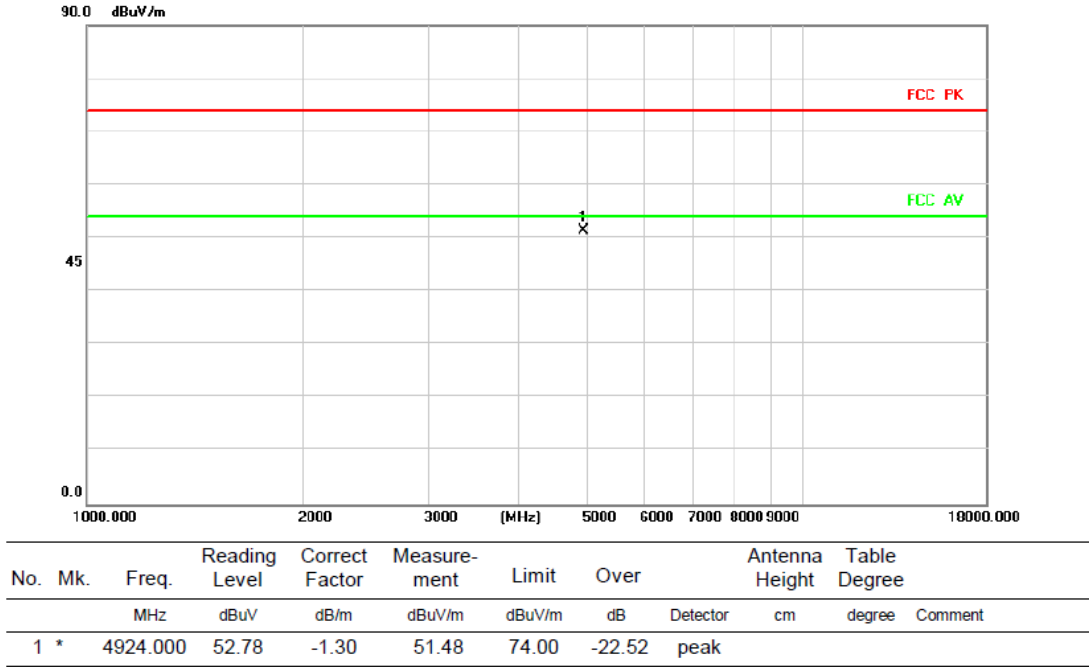
**11B channel 6: Vertical**



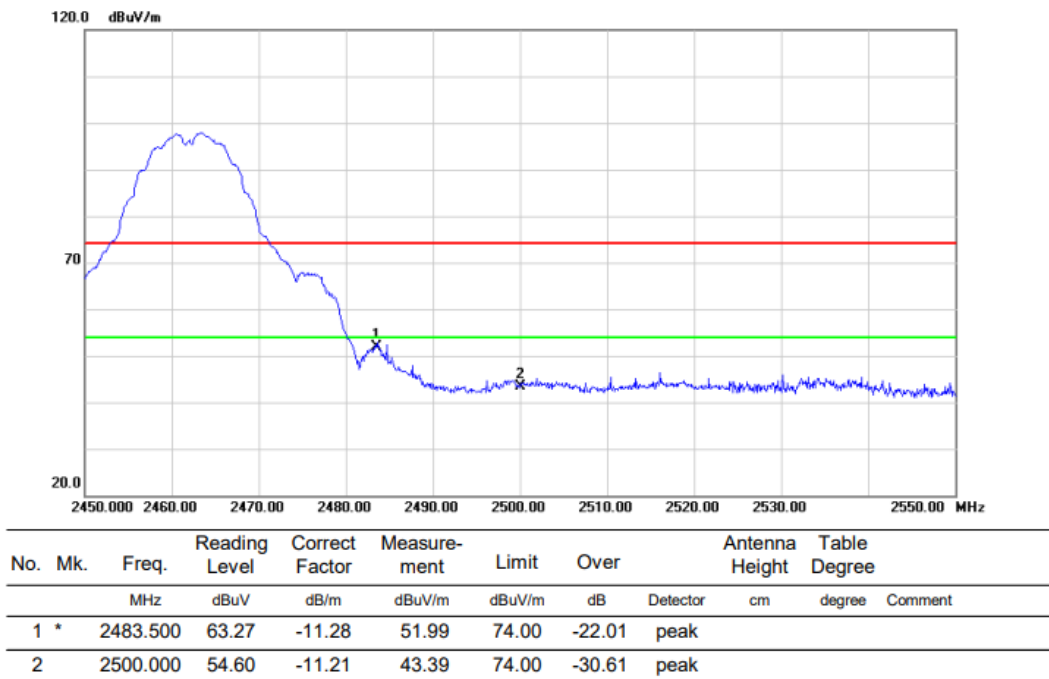
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**11b channel 11: Horizontal**



**Radiated Emission**

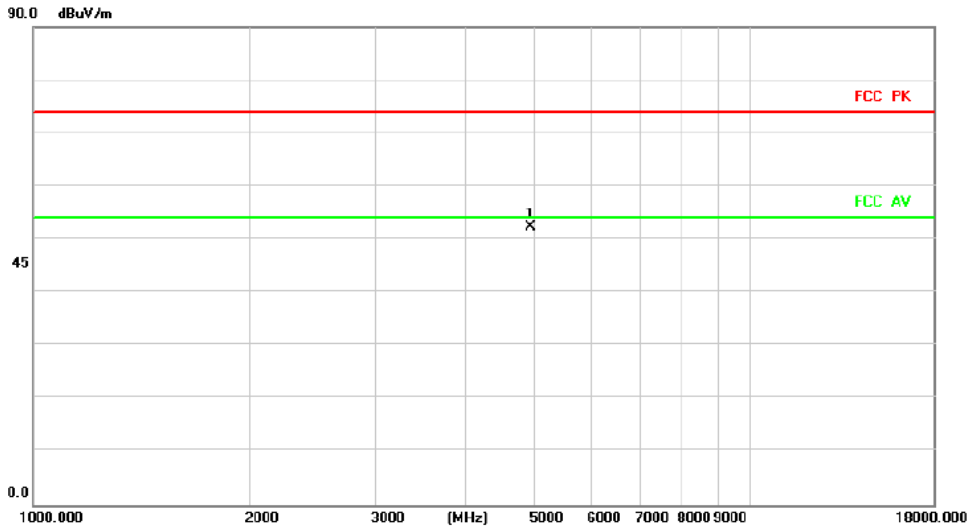


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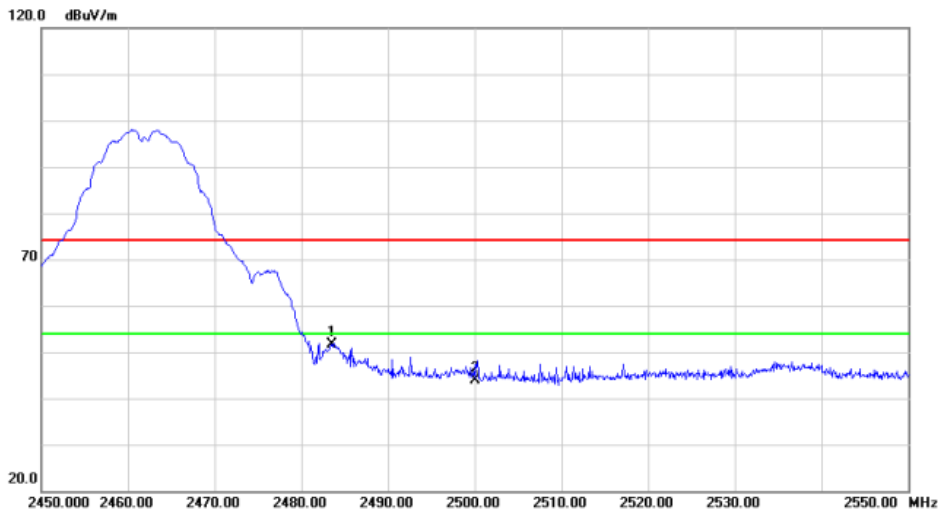


**11b channel 11: Vertical**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1	*	4924.000	53.72	-1.30	52.42	74.00	-21.58	peak	

**Radiated Emission**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1	*	2483.500	62.90	-11.28	51.62	74.00	-22.38	peak	
2		2500.000	55.04	-11.21	43.83	74.00	-30.17	peak	

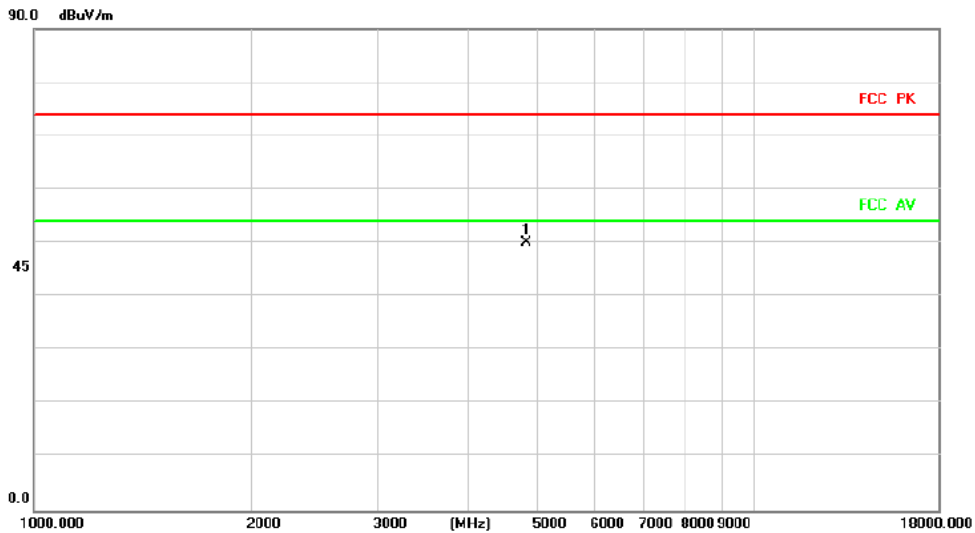
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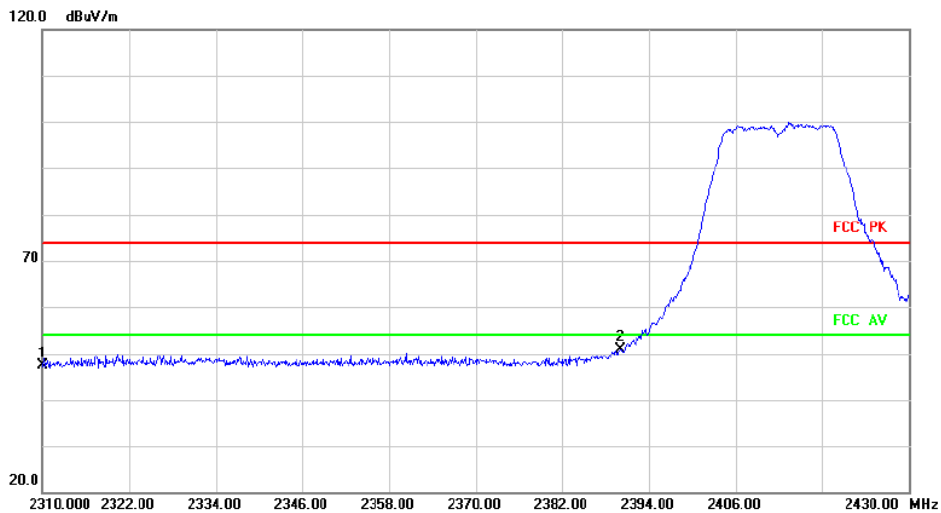


**11g channel 1: Horizontal**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	4824.000	51.94	-1.88	50.06	74.00	-23.94			peak

**Radiated Emission**



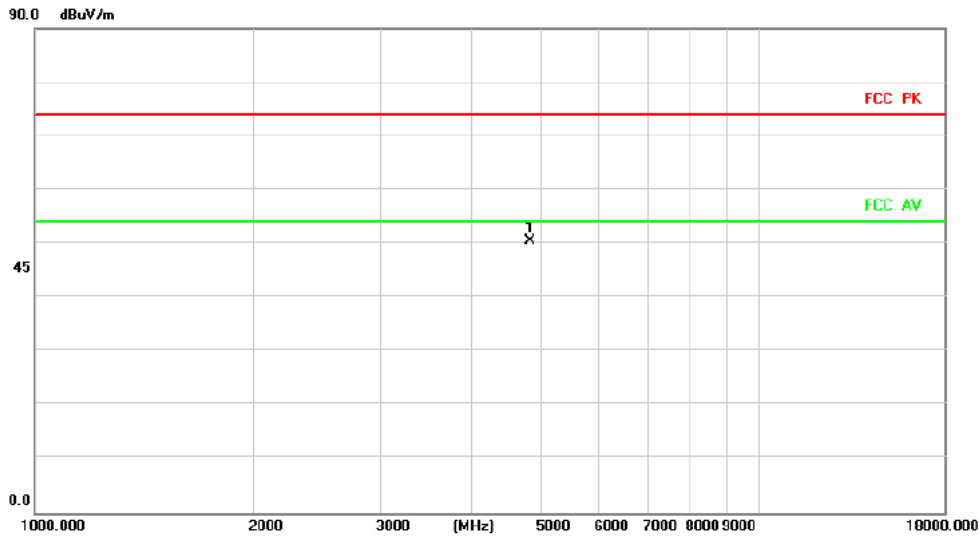
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		2310.000	43.28	4.08	47.36	74.00	-26.64			peak
2	*	2390.000	46.46	4.33	50.79	74.00	-23.21			peak

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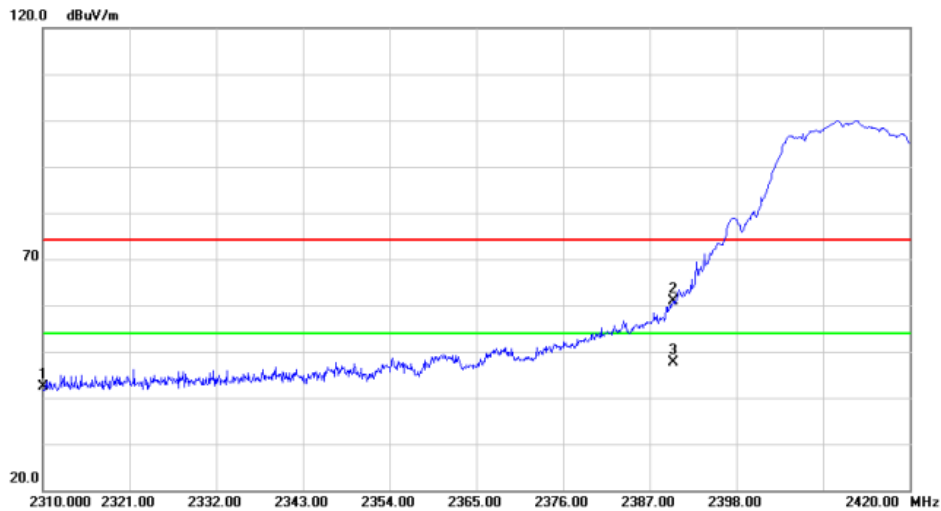


**11g channel 1: Vertical**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1	*	4824.000	52.33	-1.88	50.45	74.00	-23.55	peak	

**Radiated Emission**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1		2310.000	54.33	-11.92	42.41	74.00	-31.59	peak	
2		2390.000	72.48	-11.67	60.81	74.00	-13.19	peak	
3	*	2390.000	59.21	-11.67	47.54	54.00	-6.46	AVG	

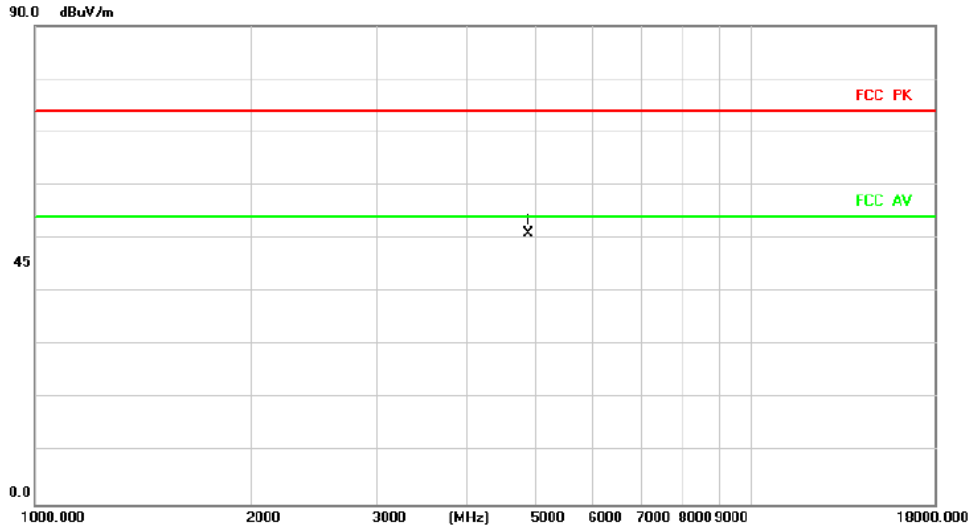
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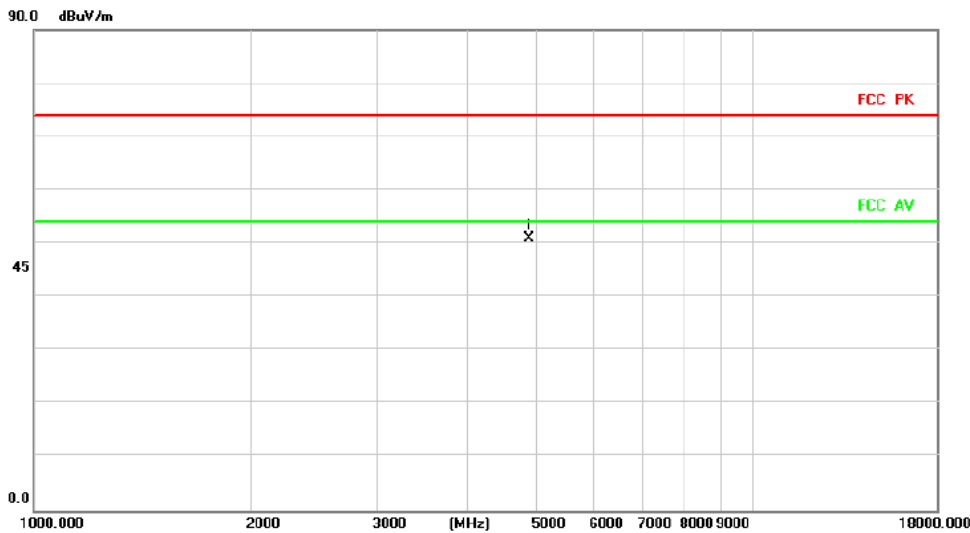


**11g channel 6: Horizontal**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1	*	4874.000	52.62	-1.59	51.03	74.00	-22.97	peak	

**11G channel 6: Vertical**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1	*	4874.000	52.57	-1.59	50.98	74.00	-23.02	peak	

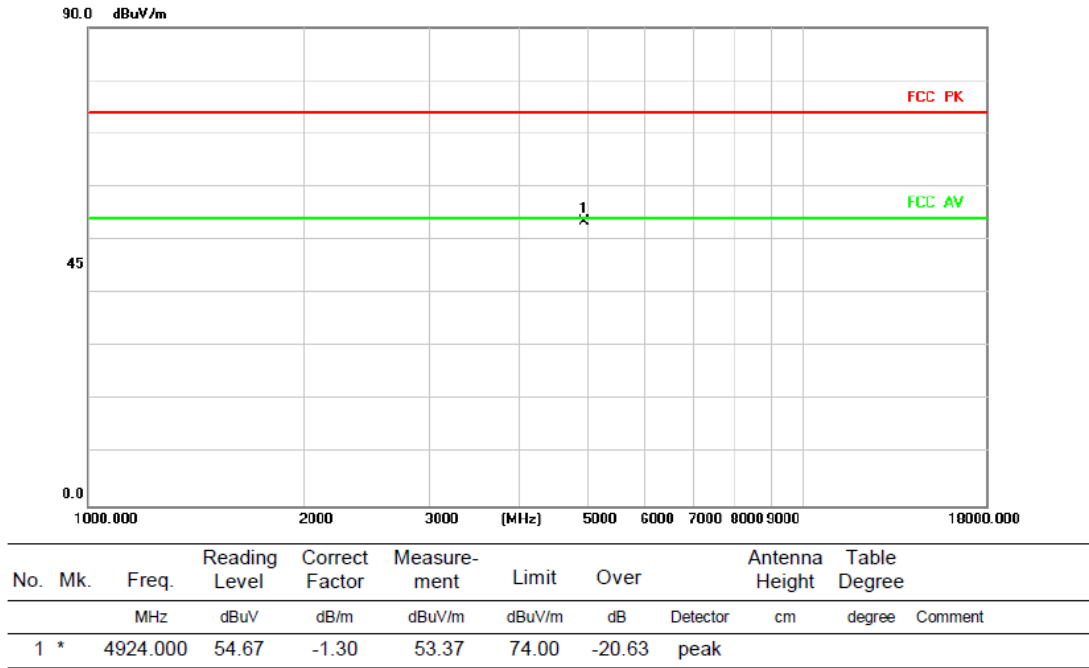
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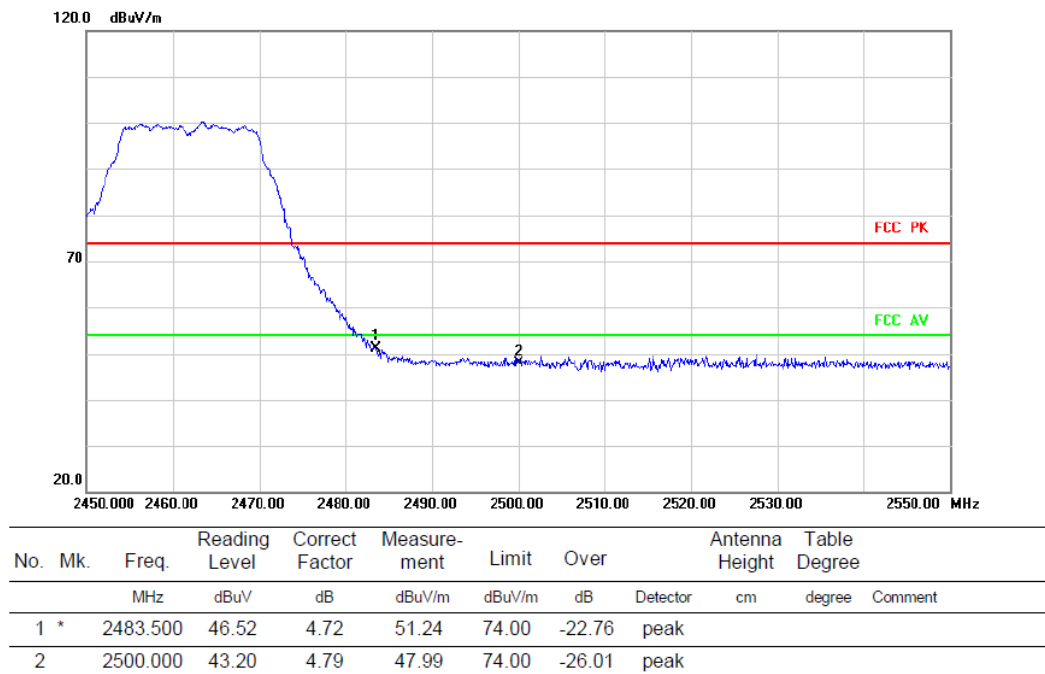
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**11g channel 11: Horizontal**



**Radiated Emission**



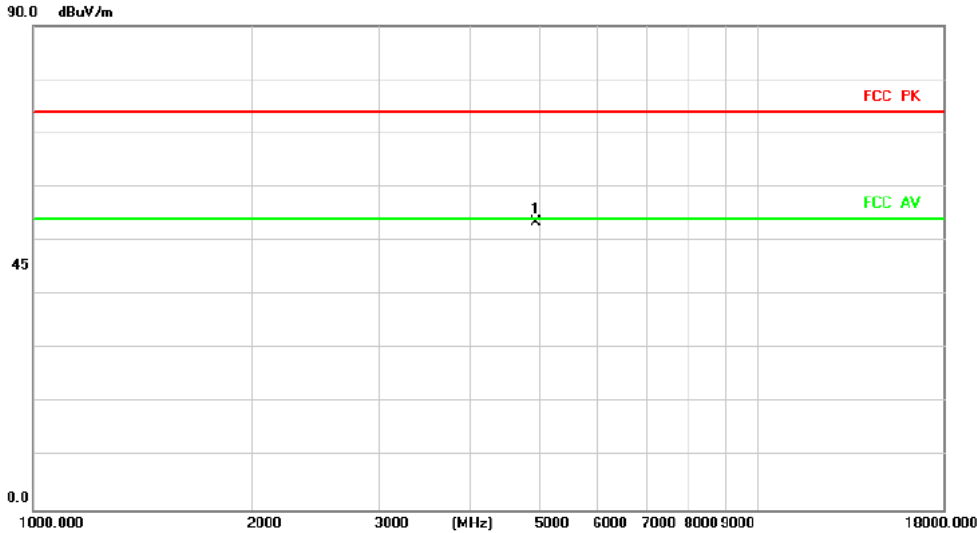
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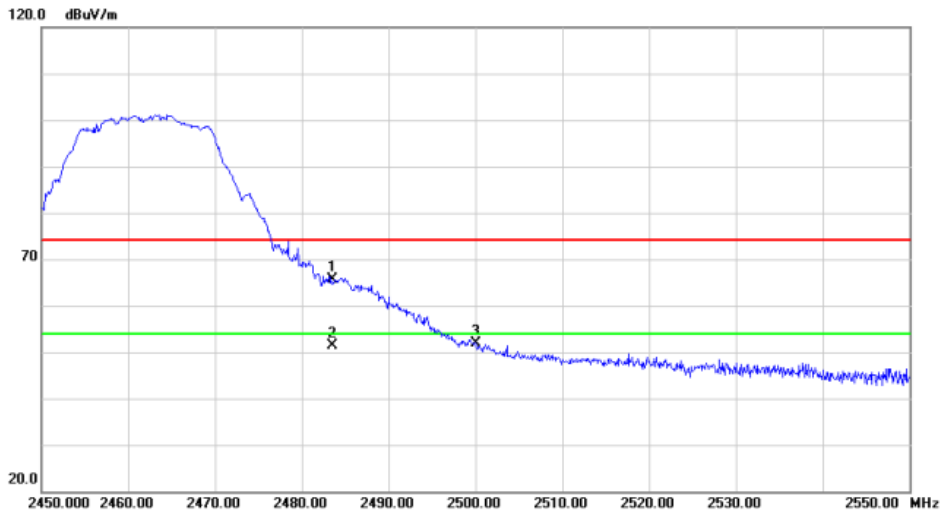


**11g channel 11: Vertical**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	4924.000	54.82	-1.30	53.52	74.00	-20.48	peak		

**Radiated Emission**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		2483.500	76.84	-11.28	65.56	74.00	-8.44	peak		
2	*	2483.500	62.74	-11.28	51.46	54.00	-2.54	AVG		
3		2500.000	63.20	-11.21	51.99	74.00	-22.01	peak		

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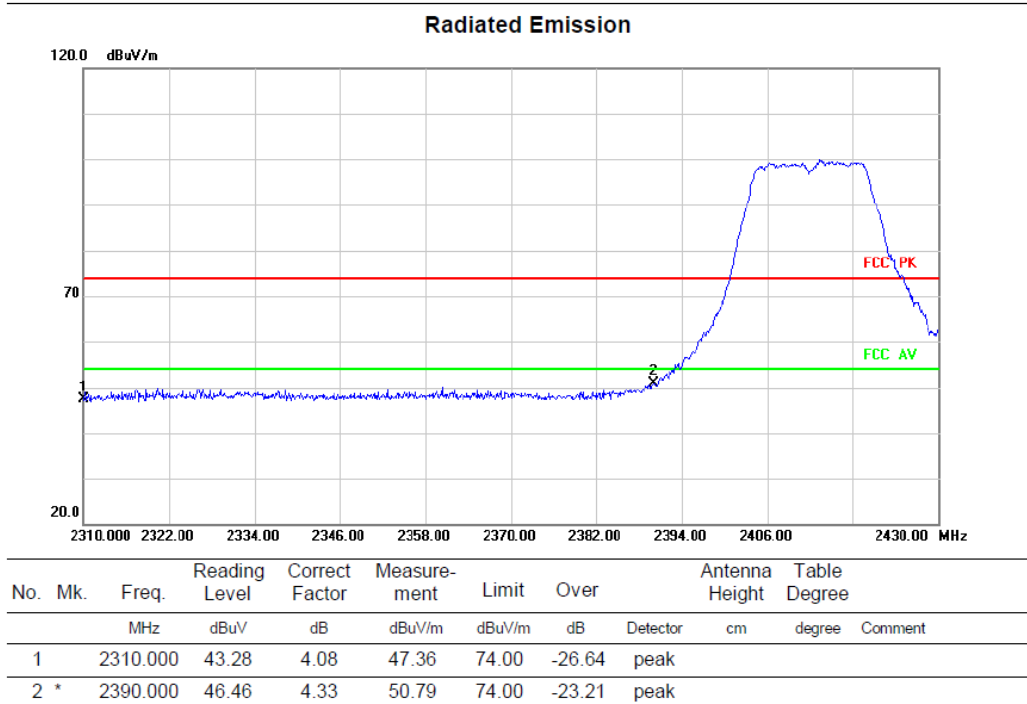
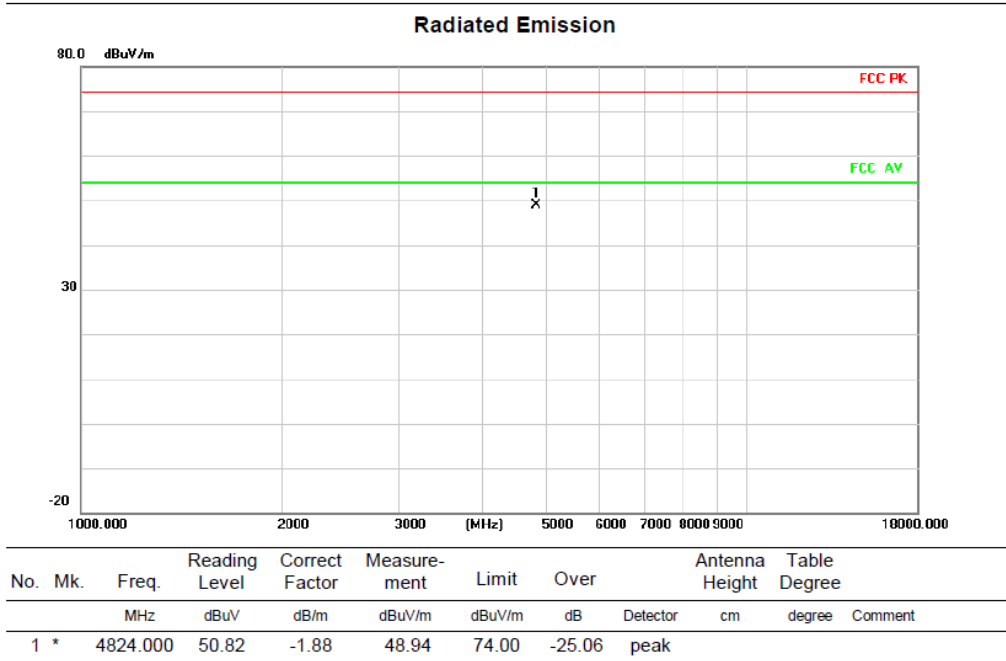
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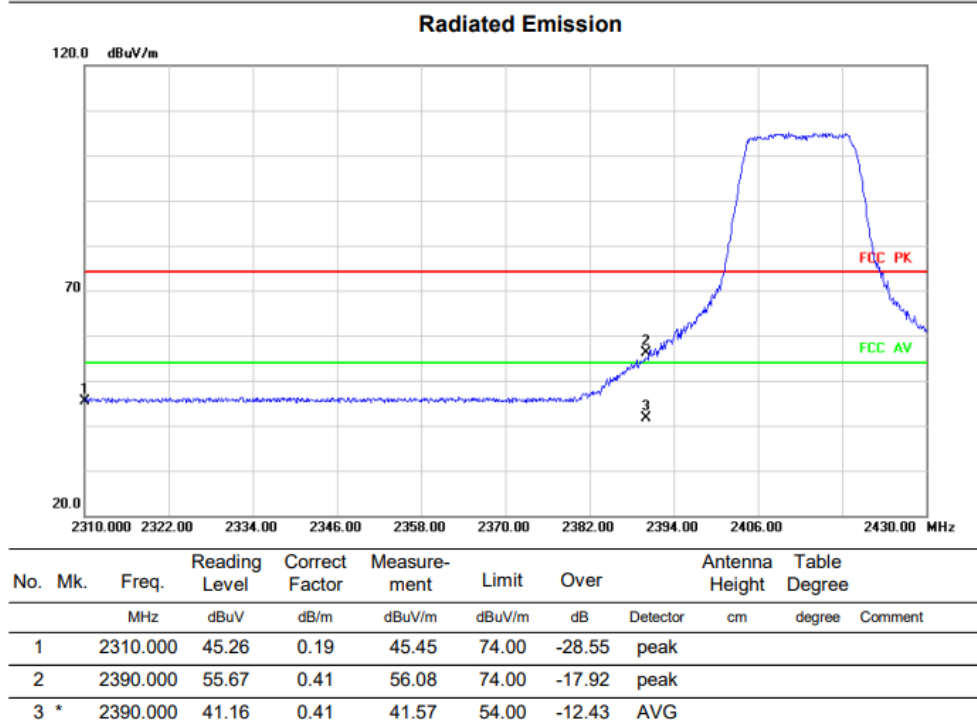
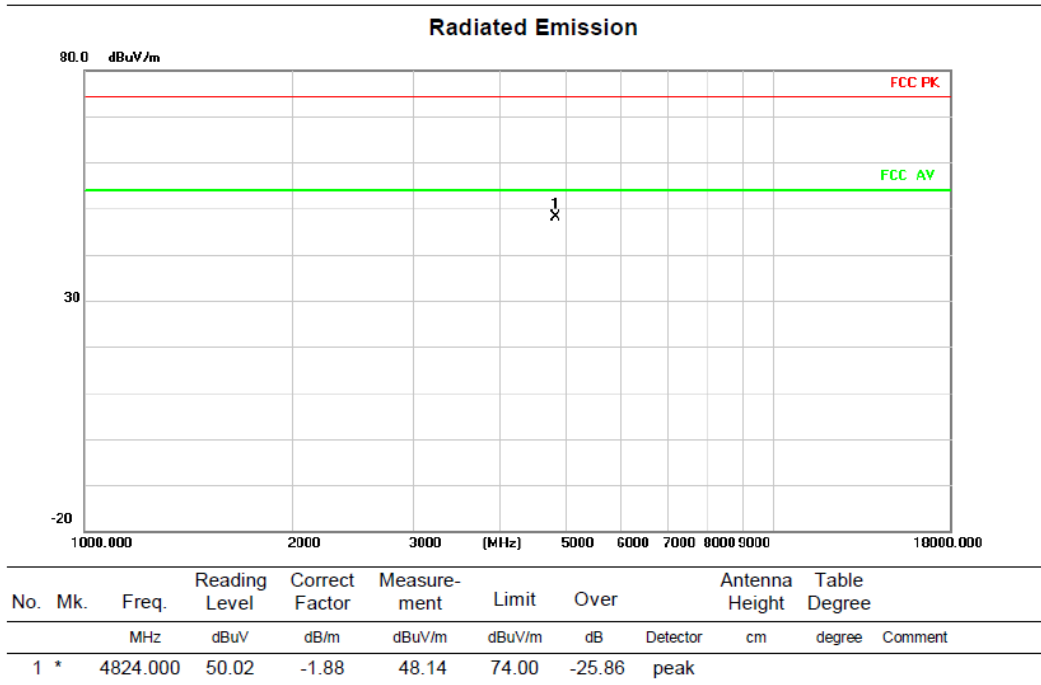
**11n20 channel 1: Horizontal**



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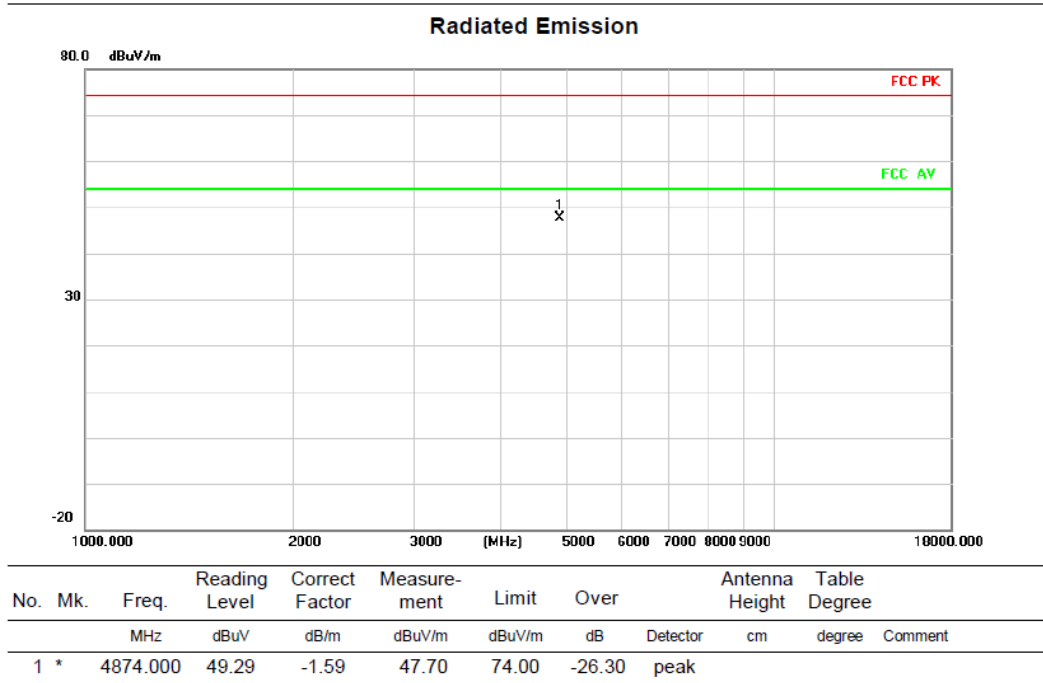
**11n20 channel 1: Vertical**



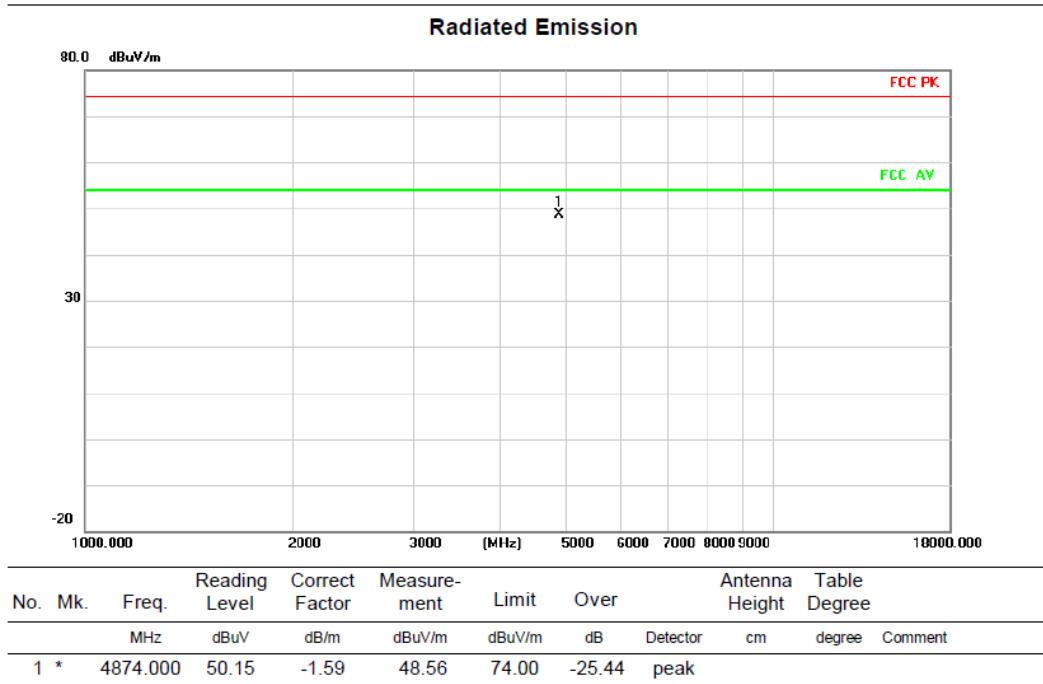
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**11n20 channel 6: Horizontal**



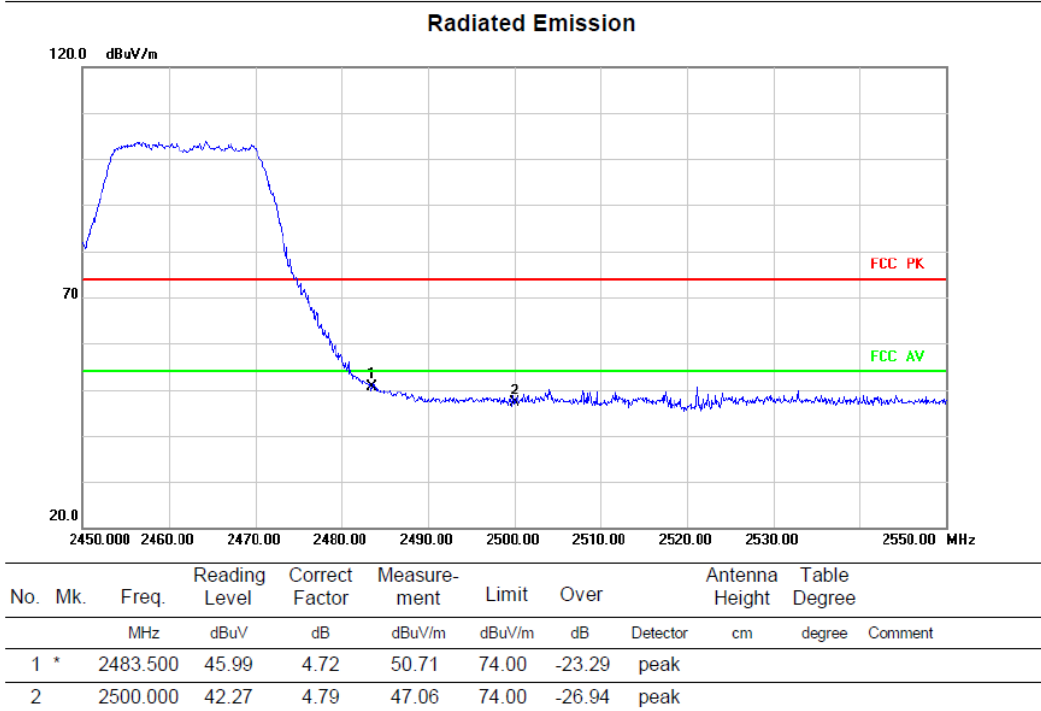
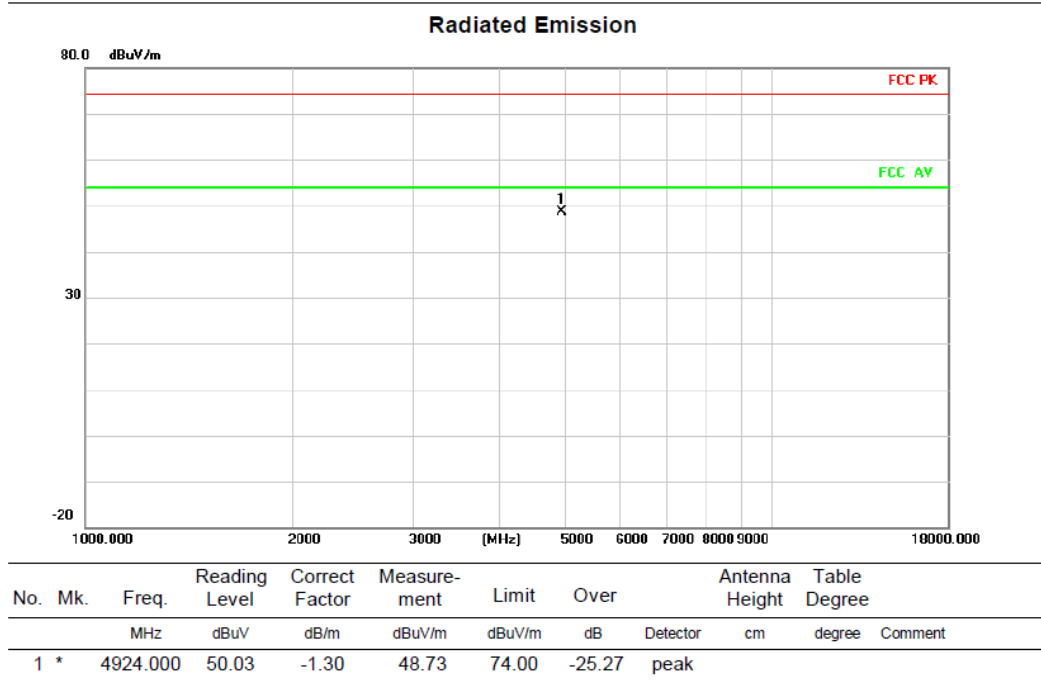
**11n20 channel 6: Vertical**



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**11n20 channel 11: Horizontal**

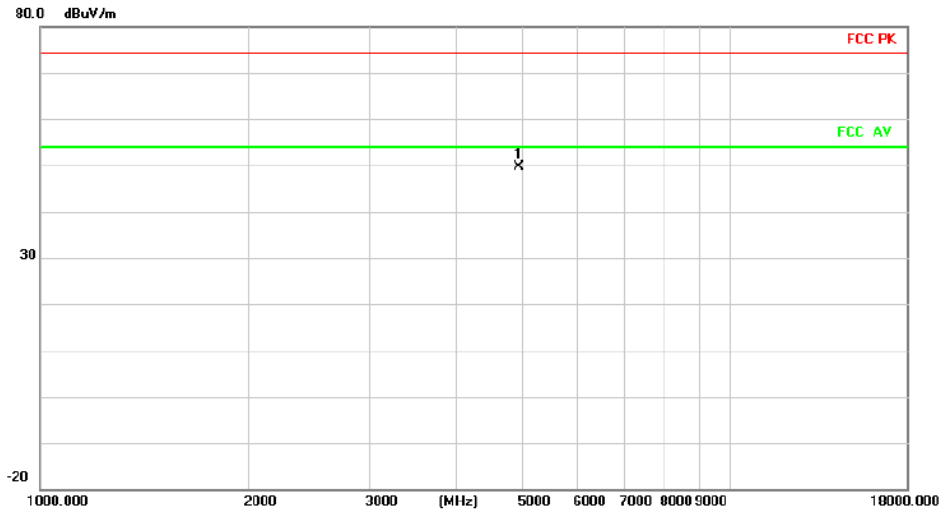


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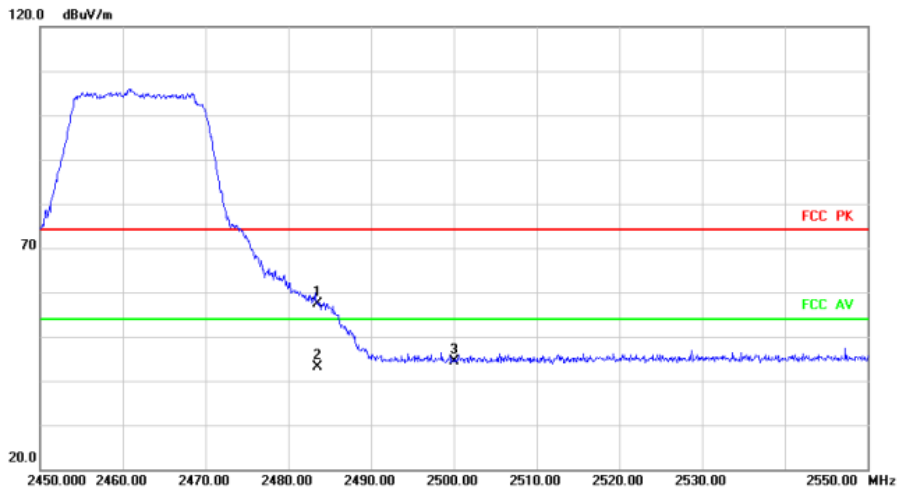
11n20 channel 11: Vertical

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	
1	*	4924.000	50.84	-1.30	49.54	74.00	-24.46			peak

Radiated Emission

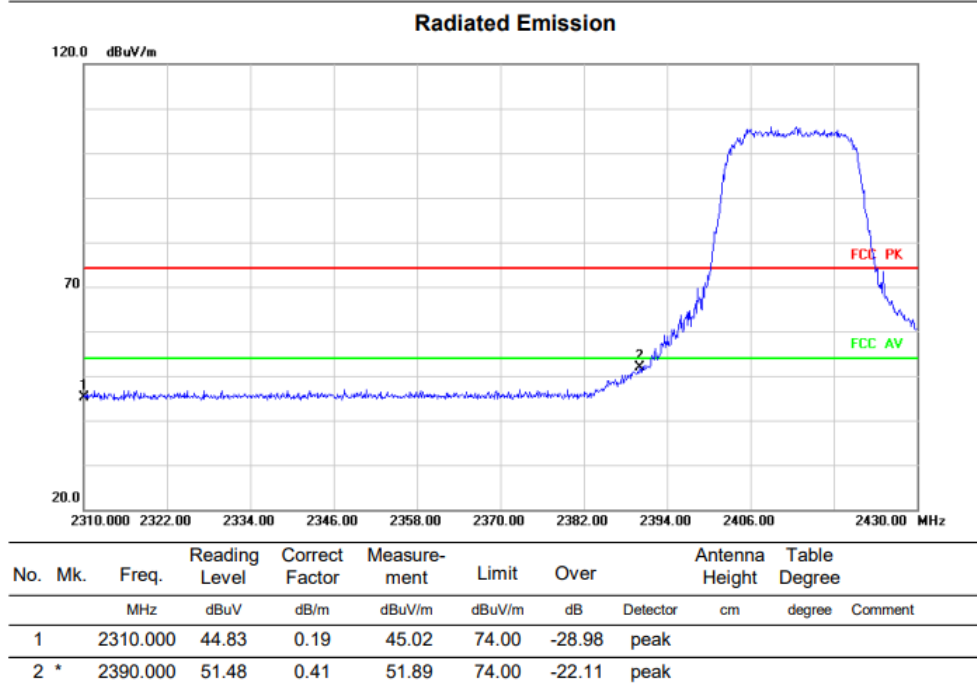
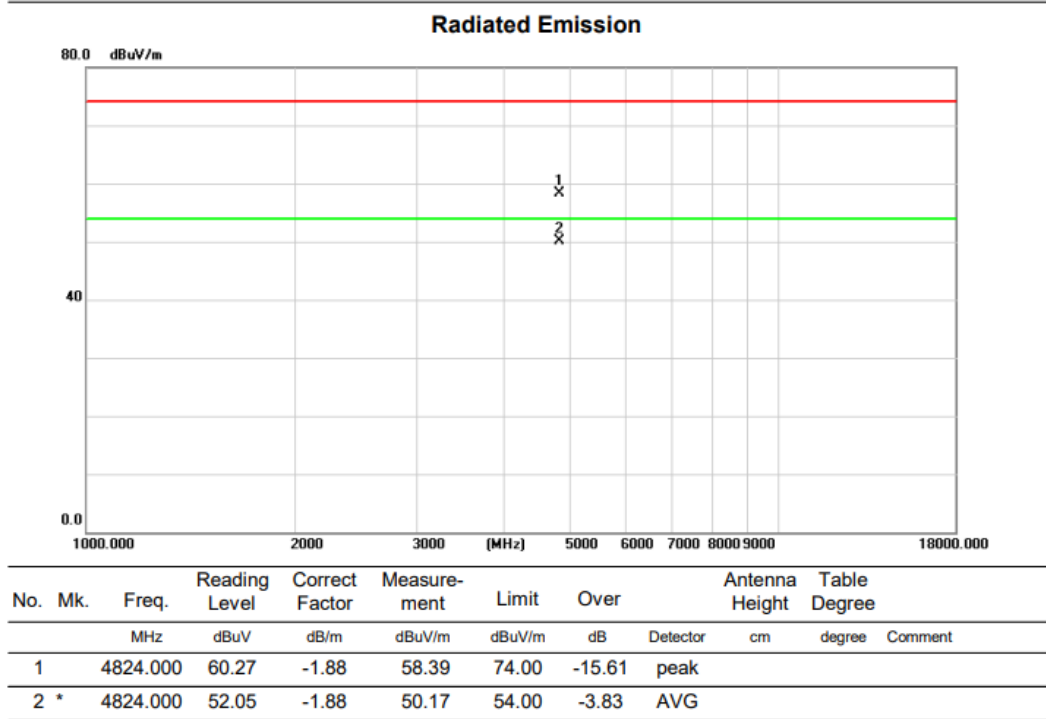


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	
1		2483.500	56.30	1.09	57.39	74.00	-16.61			peak
2	*	2483.500	42.15	1.09	43.24	54.00	-10.76			AVG
3		2500.000	43.05	1.22	44.27	74.00	-29.73			peak

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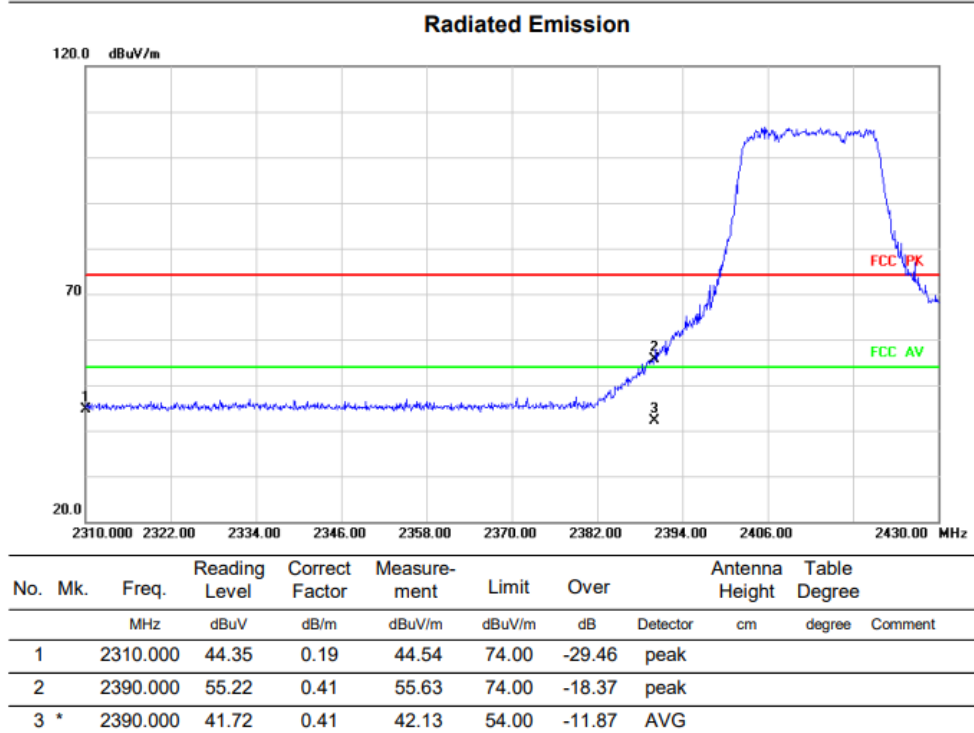
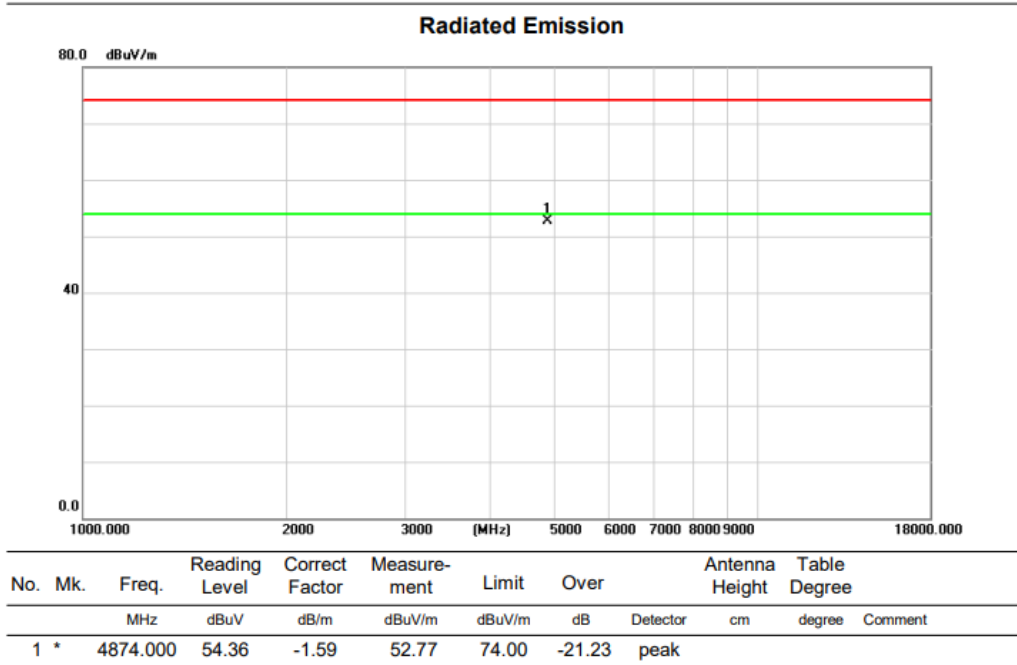
**11ax20 channel 1: Horizontal**



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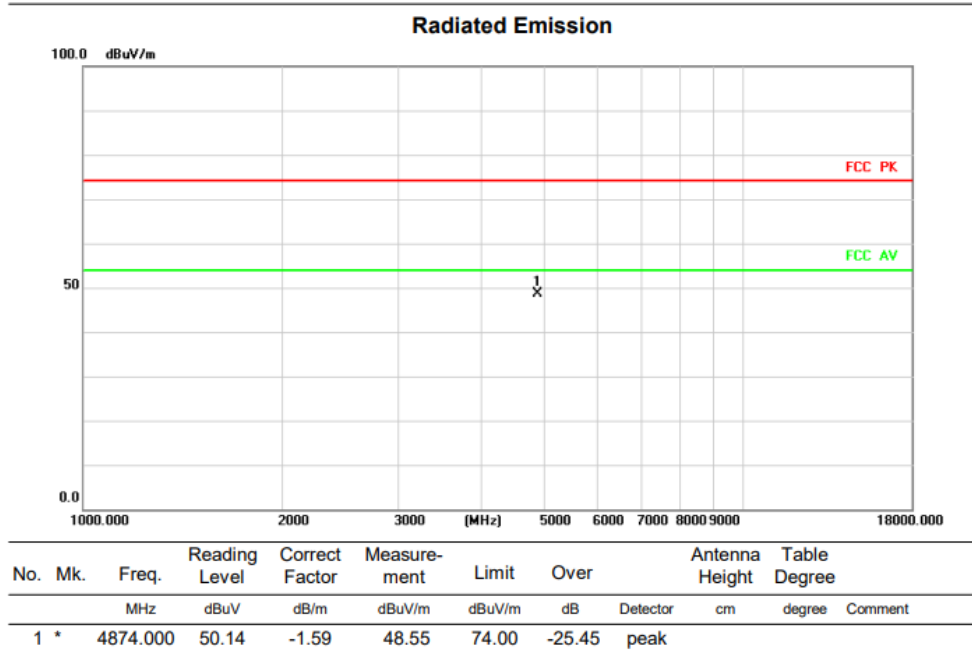
**11ax20 channel 1: Vertical**



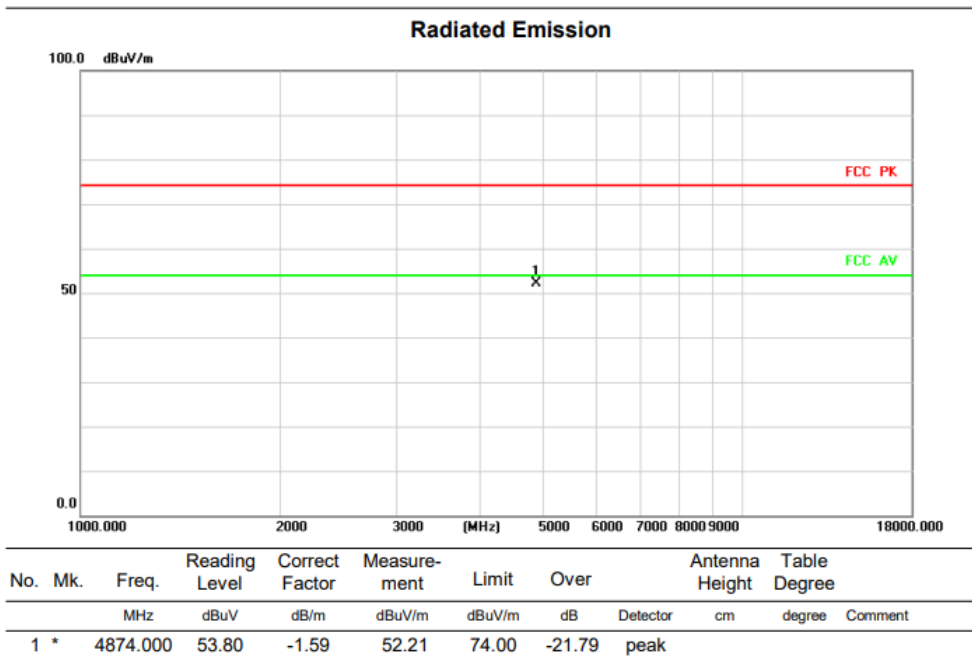
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**11ax20 channel 6: Horizontal**



**11AX20channel 6: Vertical**

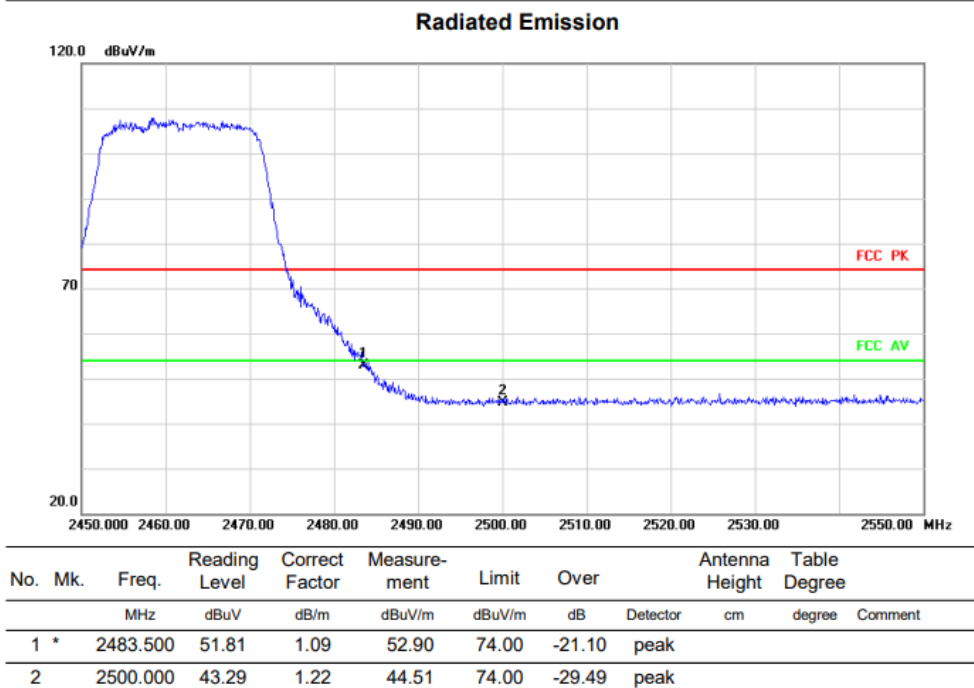
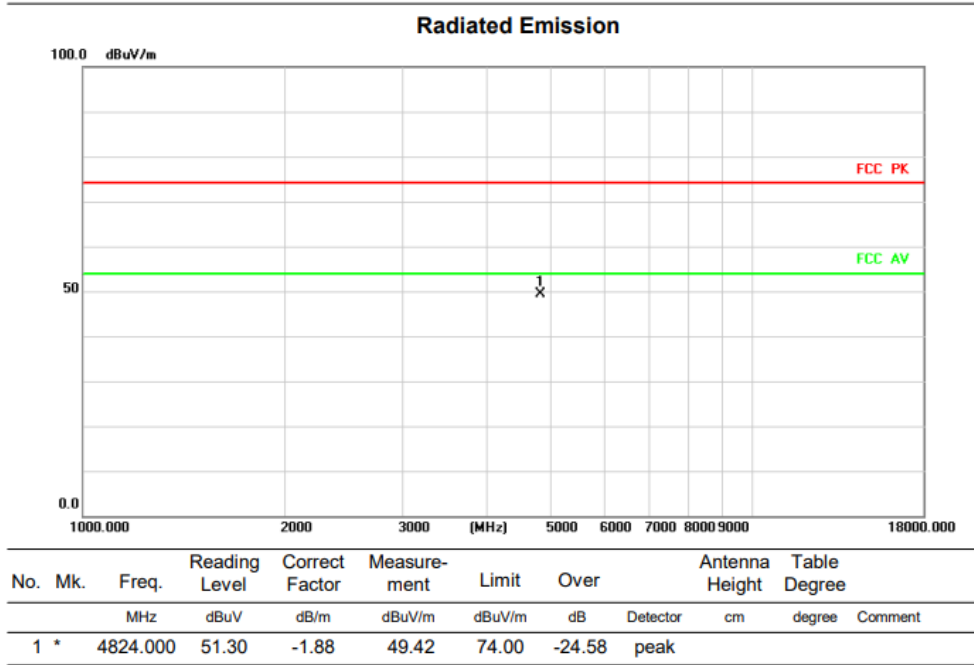


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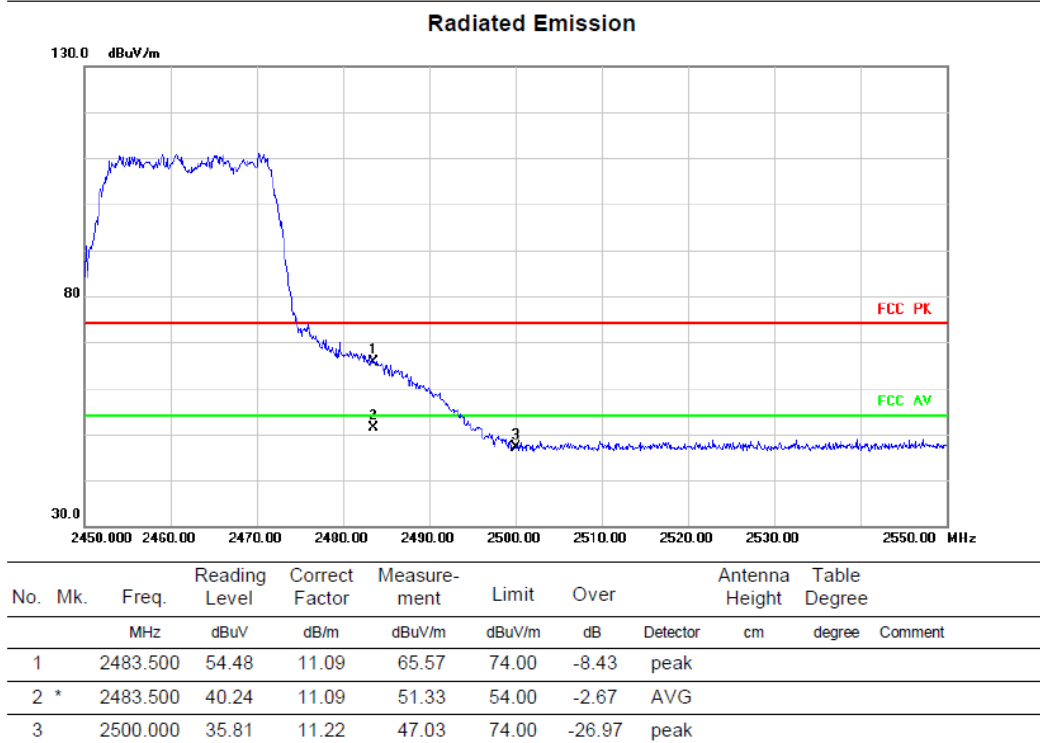
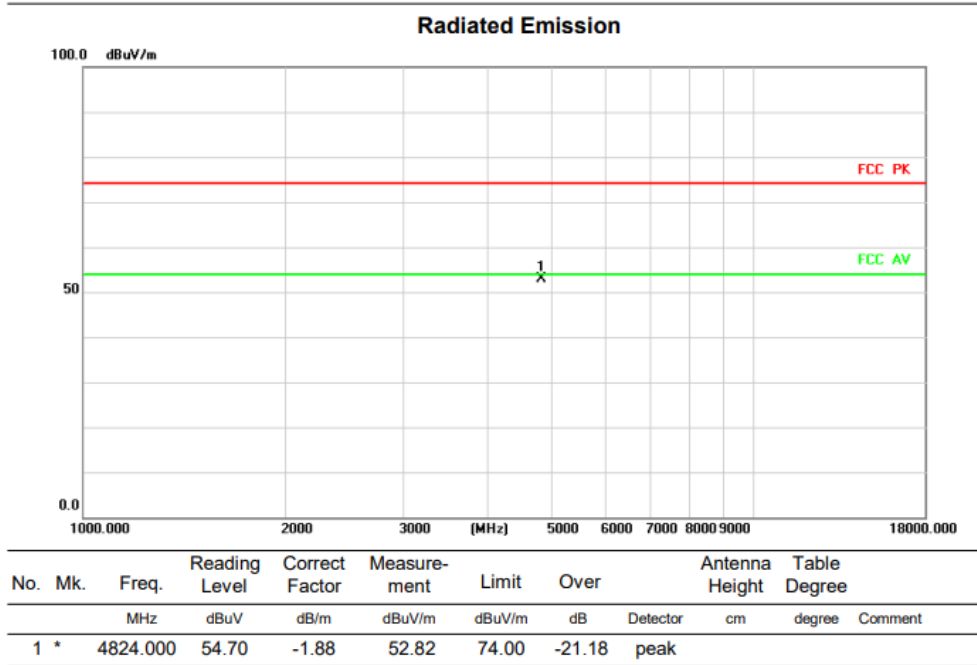
**11ax20 channel 11: Horizontal**



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**11ax20 channel 11: Vertical**



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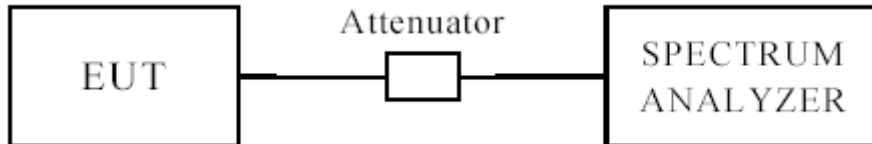
- Note:
1. Result Level = Reading + Factor
  2. Factor= AF + Cable Loss- Preamp
  3. Margin = Result- Limit
  4. For radiated Emissions from 18-25GHz and below 30MHz, it is only the floor noise and less than the limit for more than 20dB. No necessary to take down.
  5. the final peak measurement results less than the AV limit. No necessary to take down the final AV measurement result
  6. A 2.4G band-pass filter was used the radiated emissions test.

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## 7.0 6dB Bandwidth Measurement

### 7.1 Test Setup



### 7.2 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is >500 kHz

### 7.3 Test Procedure

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

### 7.4 Test Result

Please refer to appendix A

The report refers only to the sample tested and does not apply to the bulk.

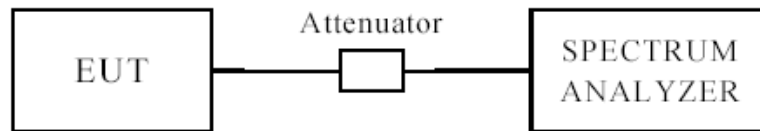
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## 8.0 Maximum Output Power

### 8.1 Test Setup



### 8.2 Limits of Maximum Output Power

The Maximum Output Power Measurement is 30dBm.

### 8.3 Test Procedure

The RF power output was measured with a Spectrum connected to the RF Antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate centre frequency.

### 8.4 Test Results

Please refer to appendix A

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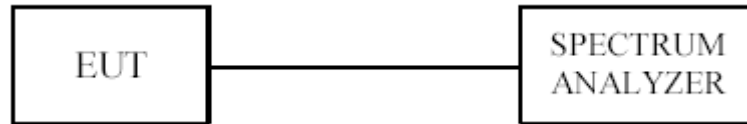
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## 9.0 Power Spectral Density Measurement

### 9.1 Test Setup



### 9.2 Limits of Power Spectral Density Measurement

The Maximum Power Spectral Density Measurement is 8dBm/3kHz.

### 9.3 Test Procedure

1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
2. Set the RBW = 3 kHz.
3. Set the VBW  $\geq$  10 kHz.
4. Set the span to 1.5 times the DTS channel bandwidth.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.
11. The resulting peak PSD level must be  $\leq$  8 dBm/3kHz.

### 9.4 Test Result

Please refer to appendix A

The report refers only to the sample tested and does not apply to the bulk.

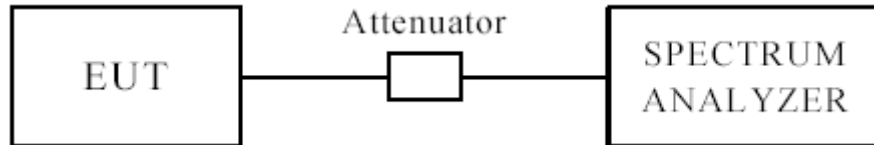
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## 10 Out of Band Measurement

### 10.1 Test Setup for band edge



The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup

### 10.2 Limits of Out of Band Emissions Measurement

1. Below  $-20\text{dB}$  of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

### 10.3 Test Procedure

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of radiated emission test. (Peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK detector)

For bandage test, the spectrum set as follows: RBW=100, VBW=300 kHz. A conducted measurement used

### 10.4 Test Result

For band-edge measurement result, please refer to appendix A

For restricted band measurement result, please refer to Clause 6 of this test report

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## **11.0 Antenna Requirement**

### **11.1 Standard Applicable**

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### **11.2 Antenna Connected construction**

Two Chip antenna used. The gain of the antennas is 6.1dBi for each (Get from the antenna specification)

**-End of the report-**

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