

# RF TEST REPORT


**FCC ID: 2AD6G-RPP30**

According to

**47 CFR FCC Part 15, Subpart C(Section 15.247)**

**ANSI C63.10:2013**

Product description : Mobile Label Printer  
 Model No. : RPP30, RPP20, RPP40, RPP31, RPP32, RPP30A, RBP30, RBP20, RBP40, RTP30, RTP20, RTP40, TPP30, TPP20, TPP40, TPP31, TPP32, TPP30A, TBP30, TBP20, TBP40, TTP30, TTP20, TTP40, MPP30, MPP20, MPP40, MPP31, MPP32, MPP30A, MBP30, MBP20, MBP40, MTP30, MTP20, MTP40, RPP3XY(X=0-9, Y=A-Z, blank), MPP3XY(X=0-9, Y=A-Z, blank), TPP3XY(X=0-9, Y=A-Z, blank)  
 Trade Mark : N/A  
 Product No. : POC230812001-S001  
 Applicant : Rongta Technology (Xiamen) Group Co., Ltd.  
 No.88, Tonghui South Road, Tongan, Xiamen, China.  
 Receipt date : 2023.08.12  
 Test date: 2023.08.13~2023.09.08  
 Issued Date : 2023.09.11

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## 1. General Information

### 1.1 Applicant

**Rongta Technology (Xiamen) Group Co., Ltd.**

No.88, Tonghui South Road, Tongan, Xiamen, China.

### 1.2 Manufacturer

**Rongta Technology (Xiamen) Group Co., Ltd.**

No.88, Tonghui South Road, Tongan, Xiamen, China.

### 1.3 Basic Description of Equipment Under Test

Items	Description	
Equipment Name	Mobile Label Printer	
Model No.	RPP30	
Series model	RPP20, RPP40, RPP31, RPP32, RPP30A, RBP30, RBP20, RBP40, RTP30, RTP20, RTP40, TPP30, TPP20, TPP40, TPP31, TPP32, TPP30A, TBP30, TBP20, TBP40, TTP30, TTP20, TTP40, MPP30, MPP20, MPP40, MPP31, MPP32, MPP30A, MBP30, MBP20, MBP40, MTP30, MTP20, MTP40, RPP3XY(X=0-9, Y=A-Z, blank), MPP3XY(X=0-9, Y=A-Z, blank), TPP3XY(X=0-9, Y=A-Z, blank)	
Model difference	Only the color and model name are differences	
Trade Mark	N/A	
Power Supply	DC 5V from adapter	
Adapter information	Model: ZL-010A0502000US01 Input: 100-240V~50/60Hz 0.5A Max Output: 5V2A	
Operate temperature	0°C-45°C	
EUT Stage	○ Product Unit	● Final-Sample
Operating Band and Conducted Output Power (Max power)	2400MHz ~ 2483.5MHz	●IEEE 802.11n20: 19.74dBm
Product Type	IEEE 802.11b: WLAN (SISO) IEEE 802.11g: WLAN (SISO) IEEE 802.11n: WLAN (SISO)	
Nominal Bandwidth	20MHz	
Modulation	IEEE 802.11b: DSSS (DBPSK / DQPSK / CCK) IEEE 802.11g: OFDM (BPSK / QPSK / 16QAM / 64QAM) IEEE 802.11n: OFDM (BPSK / QPSK / 16QAM / 64QAM)	
Data Rate (Mbps)	IEEE 802.11b mode: DSSS (1/2/5.5/11) IEEE 802.11g mode: OFDM (6/9/12/18/24/36/48/54) IEEE 802.11n mode: MCS0~MCS7	
Antenna gain	-0.58dBi	
Antenna type	PCB antenna	

Eleven channels are provided for 802.11b, 802.11g, 802.11n (20MHz)

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

## 1.4 Transmit Operating Mode

Transmit Operating Mode				Transmit Multiple Antennas					
<input checked="" type="radio"/>	Operating mode 1 (single antenna)			<input checked="" type="radio"/>	1TX				
<input type="radio"/>	Operating mode 2 (multiple antenna, no beam forming)			<input type="radio"/>	2TX	<input type="radio"/>	3TX	<input type="radio"/>	4TX
<input type="radio"/>	Operating mode 3 (multiple antenna, with beam forming)			<input type="radio"/>	2TX	<input type="radio"/>	3TX	<input type="radio"/>	4TX
<input checked="" type="radio"/>	802.11b	Operating mode		<input checked="" type="radio"/>	1TX	<input type="radio"/>	2TX	<input type="radio"/>	3TX
<input checked="" type="radio"/>	802.11g	Operating mode		<input checked="" type="radio"/>	1TX	<input type="radio"/>	2TX	<input type="radio"/>	3TX
<input checked="" type="radio"/>	802.11n(20MHz)	Operating mode		<input checked="" type="radio"/>	1TX	<input type="radio"/>	2TX	<input type="radio"/>	3TX

## 2. Summary of Test Results

### 2.1 Summary of Test Items

47 CFR FCC Part 15, Subpart C (Section 15.247)			
Test item	FCC Clause	Results	Remarks
AC Power Conducted Emission	15.207	Pass	Meet the requirement of the limit
Radiated Emission and Band Edge Measurement	15.205/15.209 /15.247(d)	Pass	Meet the requirement of the limit
Spurious Emission at Antenna Port	15.247(d)	Pass	Meet the requirement of the limit
6dB Bandwidth	15.247(a)(2)	Pass	Meet the requirement of the limit
Maximum Conducted Power	15.247(b)	Pass	Meet the requirement of the limit
Power Spectral Density	15.247(e)	Pass	Meet the requirement of the limit
Antenna Requirements	15.203	Compliance	Note
Note: The EUT has a PCB antenna arrangement which was permanently attached.			

### 2.2 Application of Standard

47 CFR FCC Part 15, Subpart C (Section 15.247)

KDB 558074 D01 15.247 Meas Guidance v05r02

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10:2013

## 2.3 Test Instruments

Radiated Emissions						
No.	Equipment	Manufacturer	Type No.	Serial No.	Cal. date (yyyy/mm/dd)	Cal. Due date (yyyy/mm/dd)
1	Test receiver	Rohde&Schwarz	ESU	100184	2023/5/3	2024/5/2
2	Horn Antenna	Schwarzbeck	BBHA 9120 D	9120D-127 3	2023/4/23	2024/4/22
3	Low frequency amplifier	Unknown	LNA 0920N	2014	2023/5/3	2024/5/2
4	High frequency amplifier	Schwarzbeck	BBV 9718	284	2023/5/3	2024/5/2
5	Loop Antenna	Schwarzbeck	FMZB1519 B	00029	2022/7/4	2025/7/3
6	Log periodic antenna	Schwarzbeck	VULB 9168	1151	2023/4/23	2024/4/22
7	Horn Antenna	Schwarzbeck	BBHA 9120 D	9120D-127 3	2022/5/5	2025/5/4
8	Horn Antenna	Schwarzbeck	BBHA 9170	9170#685	2022/7/4	2025/7/3
9	Temp&Humidity Recorder	Meideshi	JR900	/	2023/5/3	2024/5/2
10	RF cable(966 chamber)9kHz-1 GHz	Unknown	Unknown	Unknown	2023/5/3	2024/5/2
11	RF cable(966 chamber)1GHz-18GHz	Unknown	Unknown	Unknown	2023/5/3	2024/5/2
12	RF cable(966 chamber)18GHz-40GHz	Unknown	Unknown	Unknown	2023/5/3	2024/5/2
13	Test software	Farad Technology Co., Ltd	EZ-EMC	/	/	/
Conducted Emission						
1	Test receiver	Rohde&Schwarz	ESCI	100718	2023/5/3	2024/5/2
2	LISN	Rohde&Schwarz	ENV216	100075	2023/5/3	2024/5/2
3	Pulse limiter	Rohde&Schwarz	ESH3-Z2	102299	2023/5/3	2024/5/2
4	RF cable (9kHz-30MHz)	Unknown	Unknown	Unknown	2023/5/3	2024/5/2
5	Test software	Farad Technology Co., Ltd	EZ-EMC	/	/	/
RF Conducted Emission						
1	MXA Signal Analyzer	Keysight	N9021B	MY600801 69	2023/4/23	2024/4/22
2	RF Control Unit	dsusoft	JS0806-2	21G806044 9	2023/4/23	2024/4/22
3	power supply unit	dsusoft	JS0806-4A DC	N/A	2023/4/23	2024/4/22
4	VXG Signal Generator	Keysight	M9384B	MY612707 87	2023/4/23	2024/4/22
5	EXG Analog Signal Generator	Keysight	N5173B	MY591012 82	2023/4/23	2024/4/22
6	Test software	dsusoft	JS1120-3	/	/	/



## 2.4 Test Mode

Frequency Range : 2400~2483.5 MHz				
Test Items	Mode	Data Rate	Channel	Antenna
AC Power Conducted Emission	Simultaneous transmitting	-	-	-
Radiated Emission and Band Edge Measurement	802.11b	1Mbps	01/06/11	1
	802.11g	6Mbps	01/06/11	1
	802.11n(20MHz)	MCS0	01/06/11	1
Spurious Emission at Antenna Port	802.11b	1Mbps	01/06/11	1
	802.11g	6Mbps	01/06/11	1
	802.11n(20MHz)	MCS0	01/06/11	1
6dB Bandwidth	802.11b	1Mbps	01/06/11	1
	802.11g	6Mbps	01/06/11	1
	802.11n(20MHz)	MCS0	01/06/11	1
Maximum Conducted Power	802.11b	1Mbps	01/06/11	1
	802.11g	6Mbps	01/06/11	1
	802.11n(20MHz)	MCS0	01/06/11	1
Power Spectral Density	802.11b	1Mbps	01/06/11	1
	802.11g	6Mbps	01/06/11	1
	802.11n(20MHz)	MCS0	01/06/11	1

## 2.5 Test Condition

Applicable to	Environmental conditions	Input Power	Tested by
AC Power Conducted Emission	24.3°C, 51% RH	AC 120V/60Hz	Albert Fan
Radiated Emission and Band Edge Measurement	24.2°C, 55% RH	AC 120V/60Hz	Albert Fan
Spurious Emission at Antenna Port	24.2°C, 52% RH	DC 5V	Jason Huang
6dB Bandwidth	24.2°C, 52% RH	DC 5V	Jason Huang
Maximum Conducted Power	24.2°C, 52% RH	DC 5V	Jason Huang
Power Spectral Density	24.2°C, 52% RH	DC 5V	Jason Huang

Note: Adapter supply voltage AC 120V/60Hz.

The applicant declare the operating environment of EUT as below:

Normal conditions: 5V DC, 0~45°C

## 2.6 Duty Cycle of Test Signal

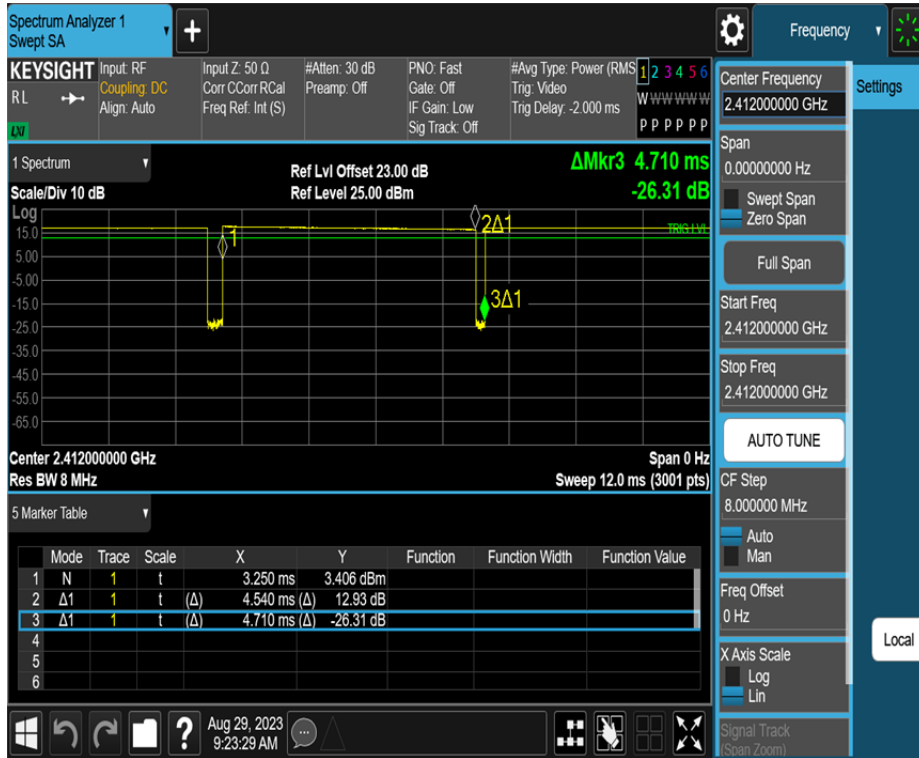
If duty cycle is  $\geq 98\%$ , duty factor is not required.

If duty cycle is  $< 98\%$ , duty factor shall be considered.

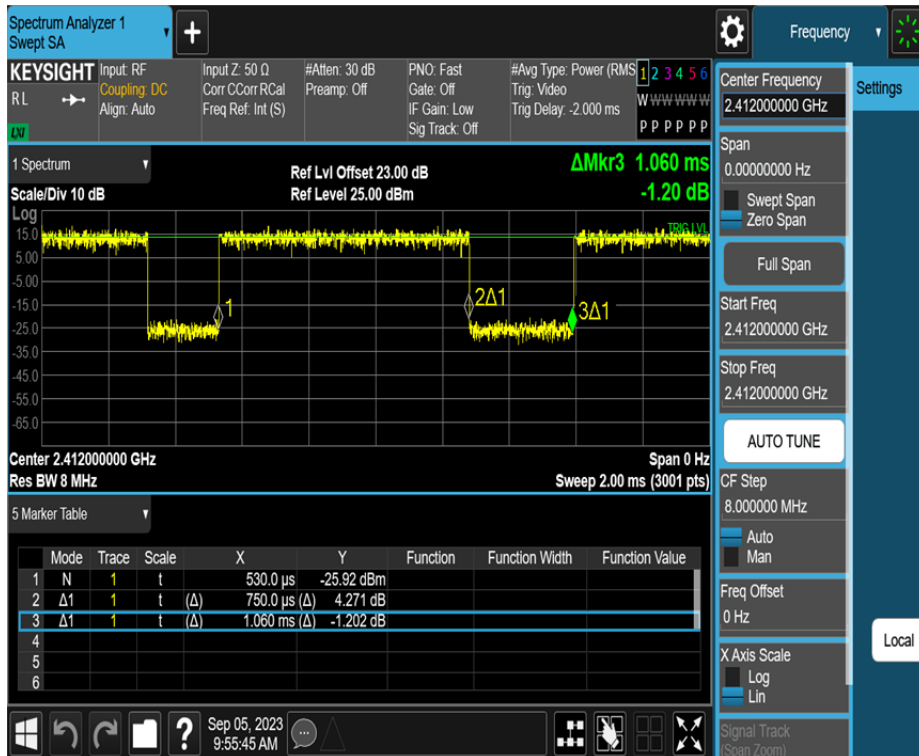
All the duty factor of other test mode have been considered.

Test Mode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	Ant1	2412	4.54	4.71	96.39
11G	Ant1	2412	0.75	1.06	70.75
11N20SISO	Ant1	2412	0.64	0.91	70.33

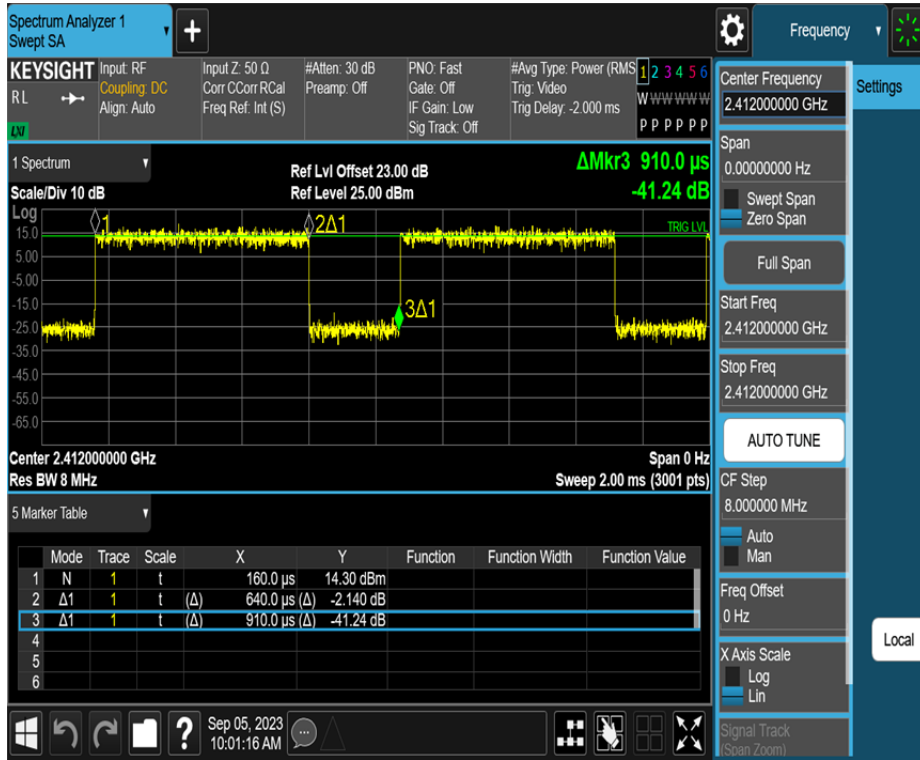
11B\_Ant1\_2412



11G\_Ant1\_2412



11N20SISO\_Ant1\_2412



## 2.7 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT.

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

Uncertainty	
Parameter	Uncertainty
Occupied Channel Bandwidth	±143.88 kHz
Power Spectral Density	±0.743dB
Conducted Spurious Emission	±1.328dB
RF power conducted	±0.384dB
Conducted emission(9kHz~30MHz) AC main	±2.72dB
Radiated emission(9kHz~30MHz)	±2.66dB
Radiated emission (30MHz~1GHz)	±4.62dB
Radiated emission (1GHz~18GHz)	±4.86dB
Radiated emission (18GHz~40GHz)	±3.80dB

## 2.8 Test Location

Company:	Shenzhen Haiyun Standard Technical CO., Ltd.
Address:	No. 110-113, 115, 116, Block B, Jinyuan Business Building, Bao'an District, Shenzhen, China
CNAS Registration Number:	CNAS L18252
CAB identifier	CN0145
A2LA Certificate Number	6823.01
Telephone:	0755-26024411

## 2.9 Description of Support Units

None

## 2.10 Deviation from Standards

None

### 3. Test Procedure And Results

#### 3.1 AC Power Line Conducted Emission

##### 3.1.1 Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB( $\mu$ V)	Average Level dB( $\mu$ V)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. \* Decreasing linearly with logarithm of frequency.

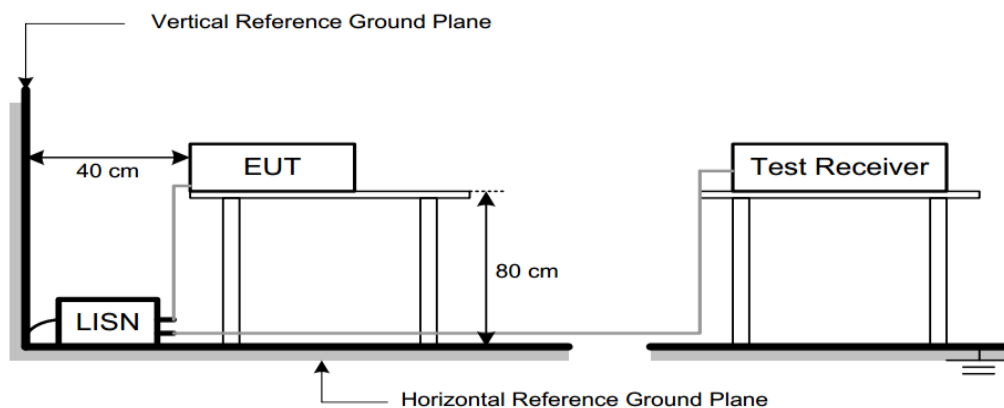
2. The lower limit shall apply at the transition frequencies.

##### 3.1.2 Test Procedure

Test Method	
<input checked="" type="radio"/> Conducted Measurement	<input type="radio"/> Radiated Measurement
Test Channels	
<input type="radio"/> Lowest, Middle and Highest Channel	<input type="radio"/> Lowest and Highest Channel
Environmental conditions	
<input checked="" type="radio"/> Normal	<input type="radio"/> Normal and Extreme
Note: ● : Test    ○ : No Test	

- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

##### 3.1.3 Test Setup



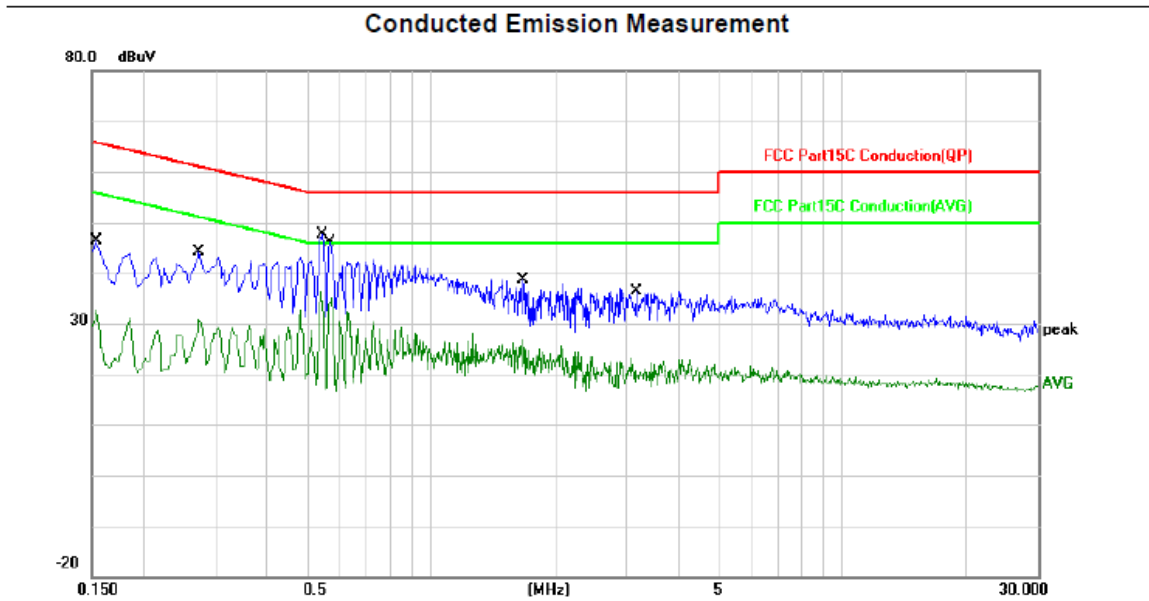
### 3.1.4 Test Result

**Note:**

1. Correct Factor = LISN Factor + Cable Loss + Pulse Limiter Factor, the value was added to Original Receiver Reading by the software automatically.
2. Measurement = Reading + Correct Factor.
3. Over = Measurement – Limit

We only recorded the data of the worst mode. Please see the following:

150kHz~30MHz	Worst Case Operating Mode: N20 Channel 11
Line	



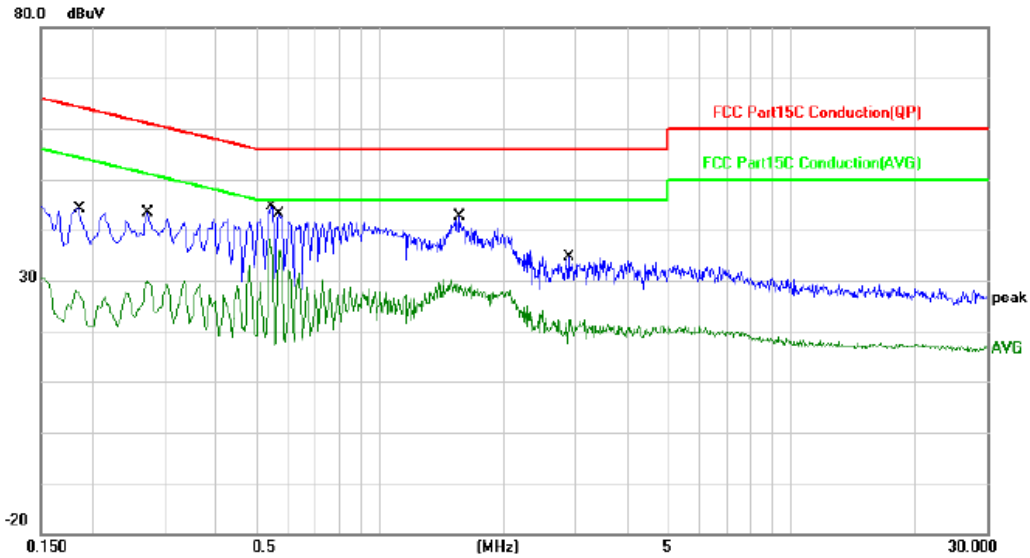
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1540	22.05	19.88	41.93	65.78	-23.85	QP	
2		0.1540	10.52	19.88	30.40	55.78	-25.38	AVG	
3		0.2740	21.95	19.88	41.83	61.00	-19.17	QP	
4		0.2740	10.06	19.88	29.94	51.00	-21.06	AVG	
5		0.5460	22.93	19.88	42.81	56.00	-13.19	QP	
6		0.5460	12.53	19.88	32.41	46.00	-13.59	AVG	
7		0.5700	24.23	19.88	44.11	56.00	-11.89	QP	
8 *		0.5700	14.46	19.88	34.34	46.00	-11.66	AVG	
9		1.6780	15.91	19.90	35.81	56.00	-20.19	QP	
10		1.6780	5.83	19.90	25.73	46.00	-20.27	AVG	
11		3.1620	9.83	19.91	29.74	56.00	-26.26	QP	
12		3.1620	-0.48	19.91	19.43	46.00	-26.57	AVG	

150kHz~30MHz

Worst Case Operating Mode: N20 Channel 11

Neutral

Conducted Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1860	21.12	19.88	41.00	64.21	-23.21	QP	
2		0.1860	8.13	19.88	28.01	54.21	-26.20	AVG	
3		0.2740	19.97	19.88	39.85	61.00	-21.15	QP	
4		0.2740	9.54	19.88	29.42	51.00	-21.58	AVG	
5		0.5460	19.96	19.88	39.84	56.00	-16.16	QP	
6	*	0.5460	17.57	19.88	37.45	46.00	-8.55	AVG	
7		0.5700	21.47	19.88	41.35	56.00	-14.65	QP	
8		0.5700	14.71	19.88	34.59	46.00	-11.41	AVG	
9		1.5540	15.38	19.90	35.28	56.00	-20.72	QP	
10		1.5540	7.62	19.90	27.52	46.00	-18.48	AVG	
11		2.8820	10.52	19.91	30.43	56.00	-25.57	QP	
12		2.8820	1.42	19.91	21.33	46.00	-24.67	AVG	



## 3.2 Radiated Emission and Band Edge

### 3.2.1 Limit

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

Frequency (MHz)	Distance Meters(m)	Field Strength Limit	
		$\mu\text{V}/\text{m}$	$\text{dB}(\mu\text{V})/\text{m}$
0.009 – 0.49	300	$2400/F(\text{kHz})$	-
0.490 – 1.705	30	$24000/F(\text{kHz})$	-
1.705 – 30	30	30	-
30~88	3	100	40.0
88~216	3	150	43.5
216~960	3	200	46.0
960~1000	3	500	54.0
Above 1000	3	74.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	

- Note: (1) Emission level  $\text{dB}\mu\text{V} = 20 \log$  Emission level  $\mu\text{V}/\text{m}$   
 (2) The smaller limit shall apply at the cross point between two frequency bands.  
 (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

### 3.2.2 Test Procedure

Test Method	
<input type="radio"/> Conducted Measurement	<input checked="" type="radio"/> Radiated Measurement
Test Channels	
<input checked="" type="radio"/> Lowest, Middle and Highest Channel	<input type="radio"/> Lowest and Highest Channel
Environmental conditions	
<input checked="" type="radio"/> Normal	<input type="radio"/> Normal and Extreme
Note: ● : Test    ○ : No Test	

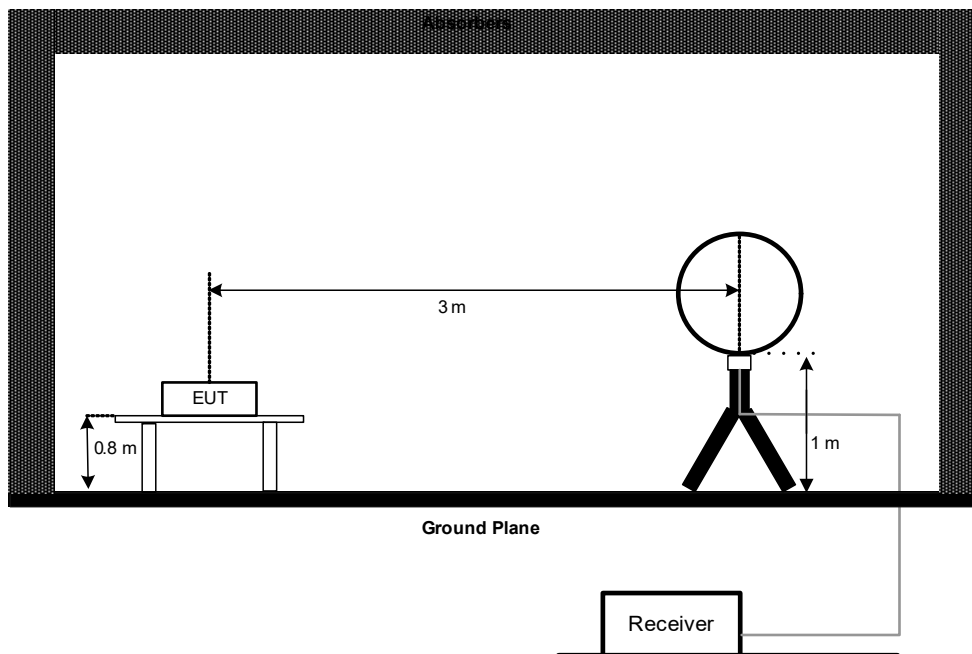
- a) The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b) The measuring distance of 3 m or 1.5m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- c) The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of

the antenna are set to make the measurement.

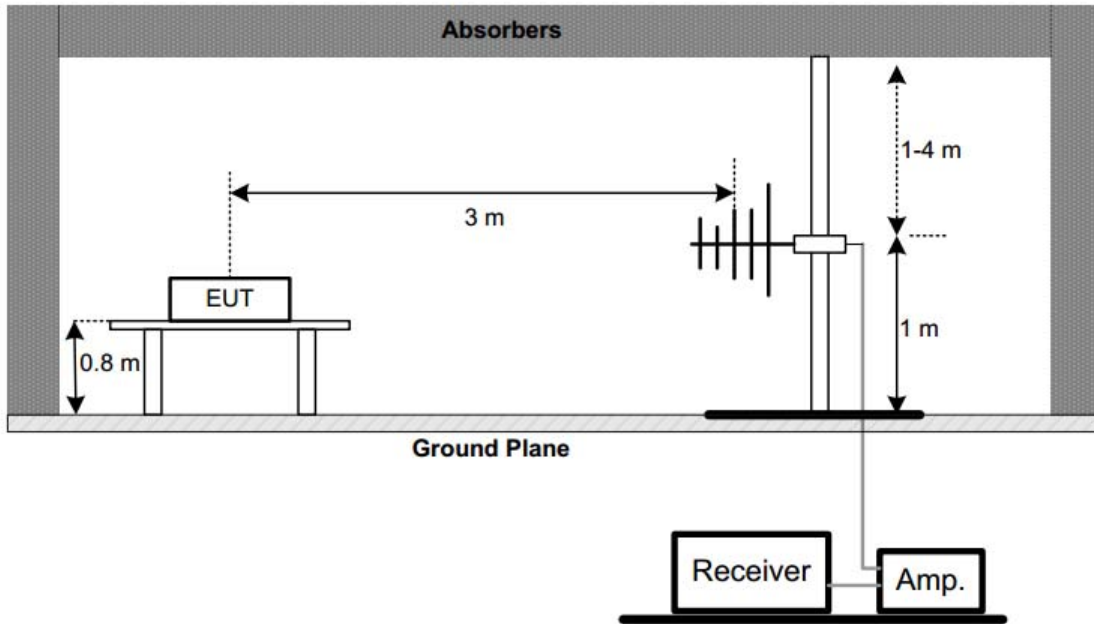
- d) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e) The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- f) The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g) All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1 GHz)
- h) All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1 GHz)
- i) For the actual test configuration, please refer to the related Item -EUT Test Photos.

### 3.2.3 Test Setup

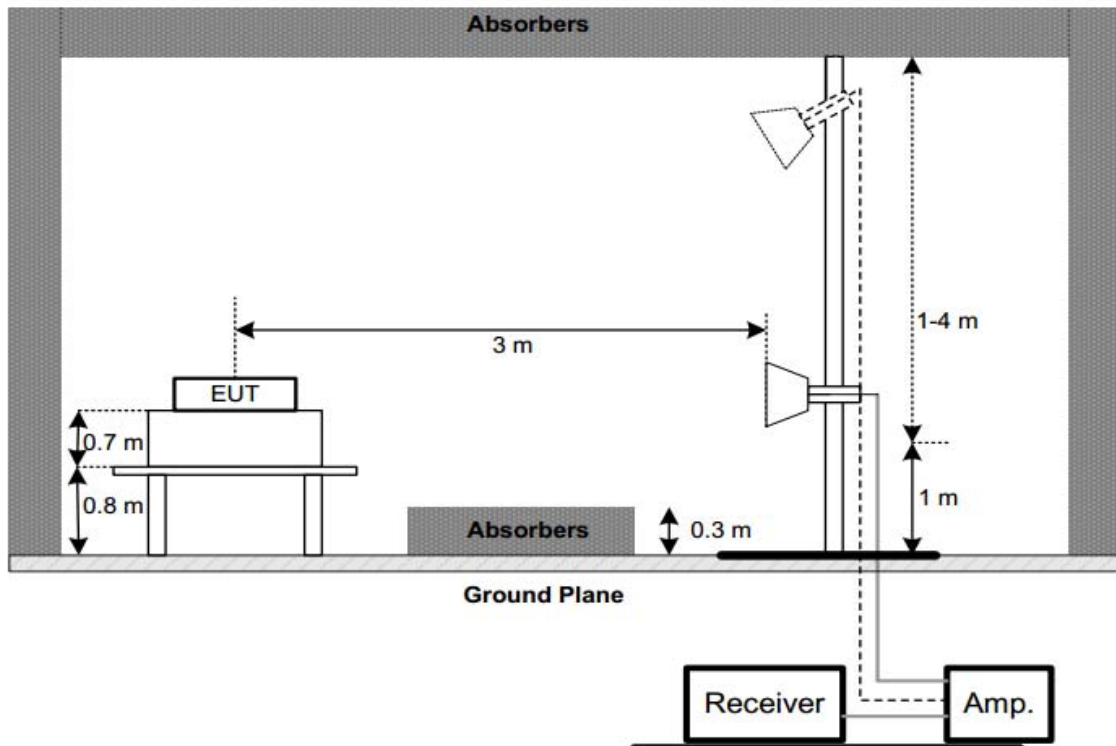
#### (A) Radiated Emission Test Set-Up Frequency Below 30 MHz



(B) Radiated Emission Test Set-Up Frequency 30 MHz-1000 MHz



(C) Radiated Emission Test Set-Up Frequency Above 1 GHz



### 3.2.4 Test Result

#### 1) Radiated emission: 9kHz-30MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not recorded in this report.

#### 2) Radiated emission: 30MHz-1G

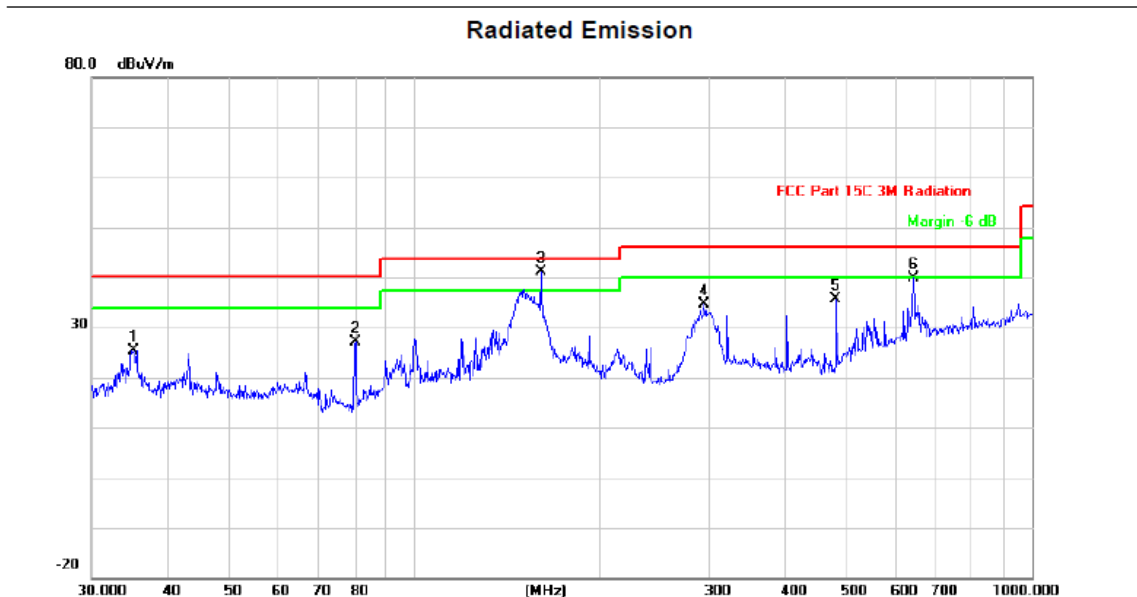
##### Note:

1. Measurement = Reading + Correct Factor.
2. Over = Measurement – Limit

We only recorded the data of the worst mode. Please see the following:

Below 1G (30MHz~1GHz)	Worst Case Operating Mode: N20 Channel 11
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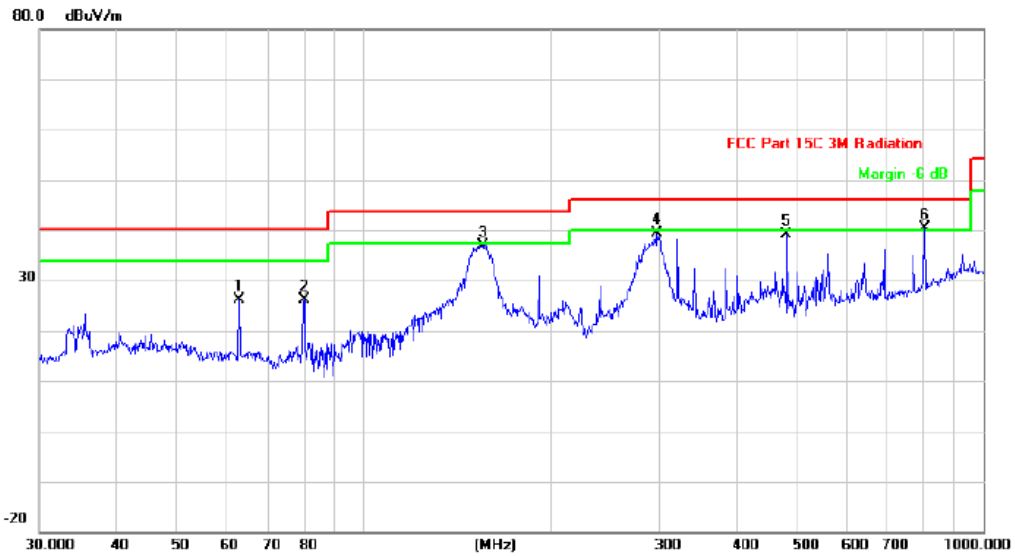
VERTICAL



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		35.0102	37.05	-11.63	25.42	40.00	-14.58			peak
2		80.1593	41.44	-14.33	27.11	40.00	-12.89			peak
3 *		160.0520	50.49	-9.27	41.22	43.50	-2.28			peak
4		294.7865	43.12	-8.37	34.75	46.00	-11.25			peak
5		481.8636	39.43	-3.89	35.54	46.00	-10.46			peak
6		642.5770	39.79	0.05	39.84	46.00	-6.16			peak

HORIZONTAL

Radiated Emission



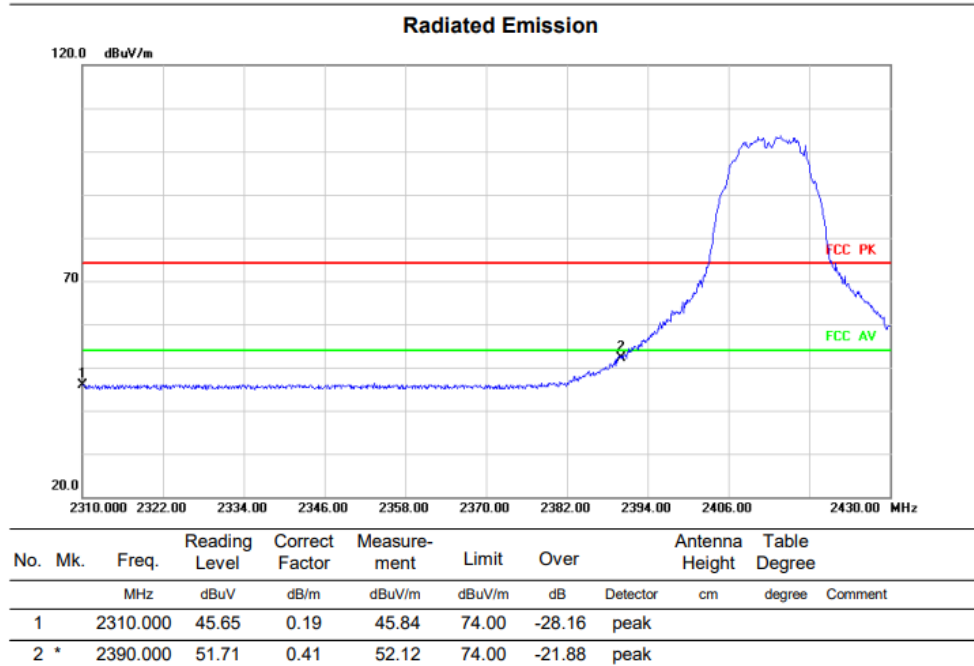
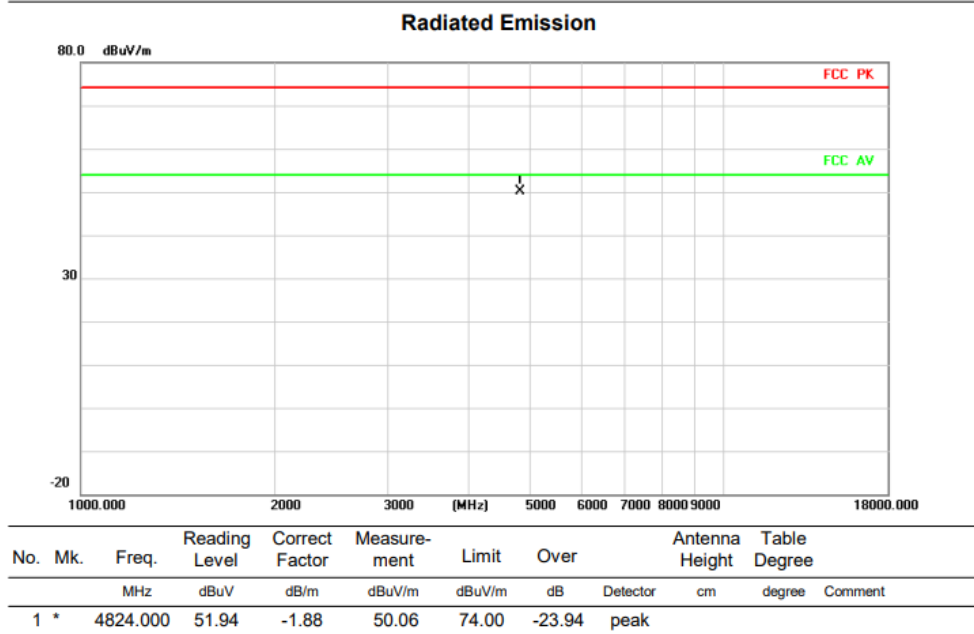
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	
1		62.9172	38.50	-12.37	26.13	40.00	-13.87	peak		
2		80.1593	40.44	-14.33	26.11	40.00	-13.89	peak		
3		156.1673	46.35	-9.36	36.99	43.50	-6.51	peak		
4		297.9071	47.59	-8.29	39.30	46.00	-6.70	peak		
5		481.8636	43.11	-3.89	39.22	46.00	-6.78	peak		
6	*	804.4275	37.51	2.99	40.50	46.00	-5.50	peak		

3) Radiated emission: Above 1G

**Note:**

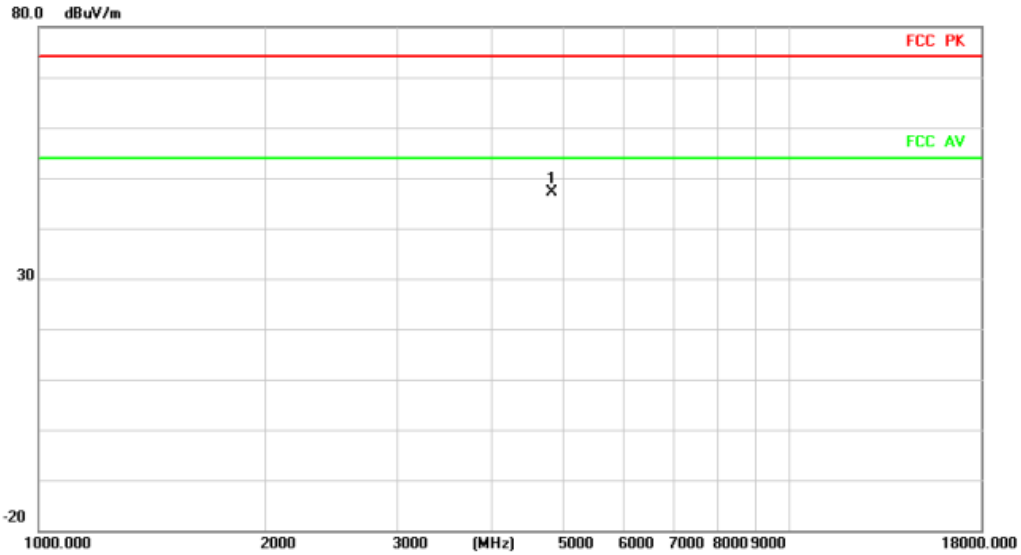
1. Measurement = Reading + Correct Factor.
2. Over = Measurement – Limit

Above 1G (1GHz~18GHz)	Test mode:11B	Test Channel:1
VERTICAL		



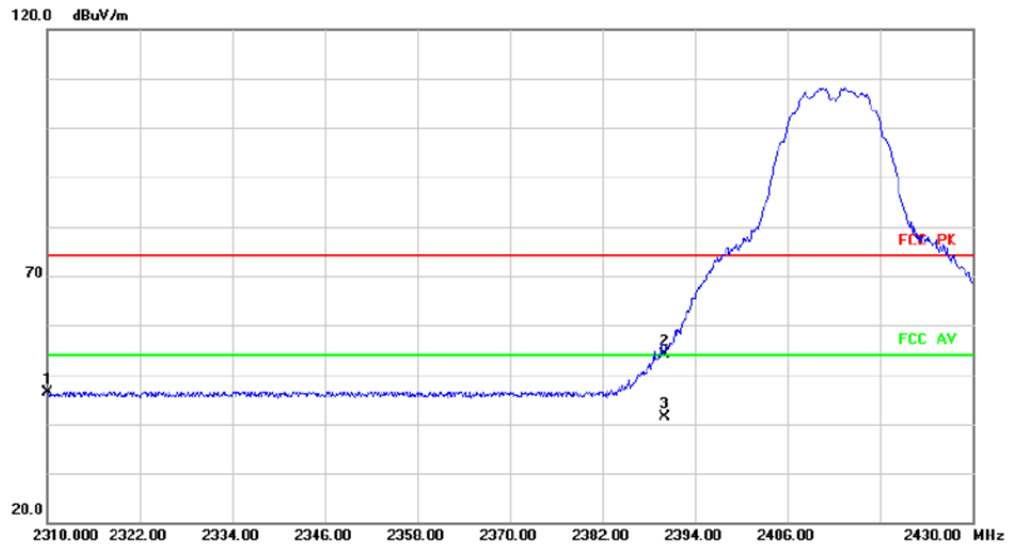
### HORIZONTAL

#### 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	*	4824.000	48.93	-1.88	47.05	74.00	-26.95	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	46.09	0.19	46.28	74.00	-27.72	peak		
2		2390.000	53.73	0.41	54.14	74.00	-19.86	peak		
3	*	2390.000	40.96	0.41	41.37	54.00	-12.63	AVG		

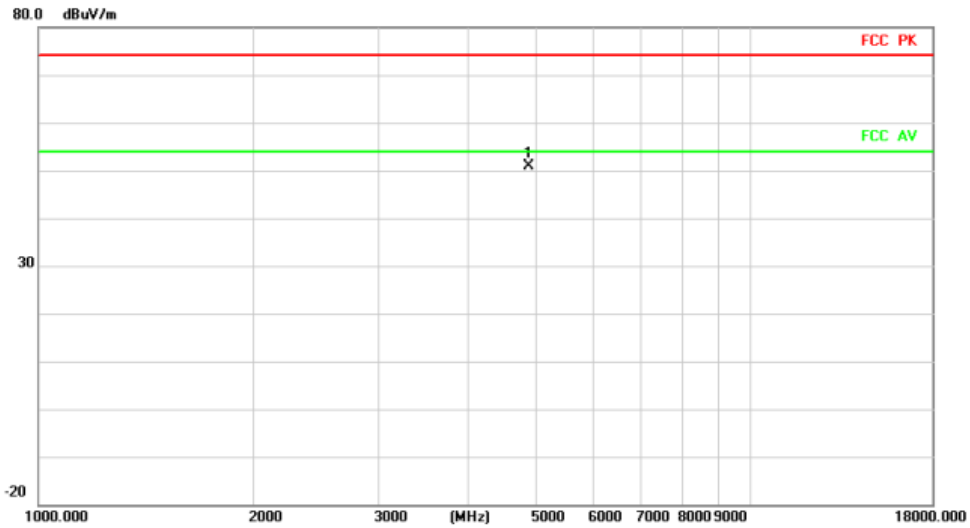
Above 1G (1GHz~18GHz)

Test mode: 11B

Test Channel: 6

VERTICAL

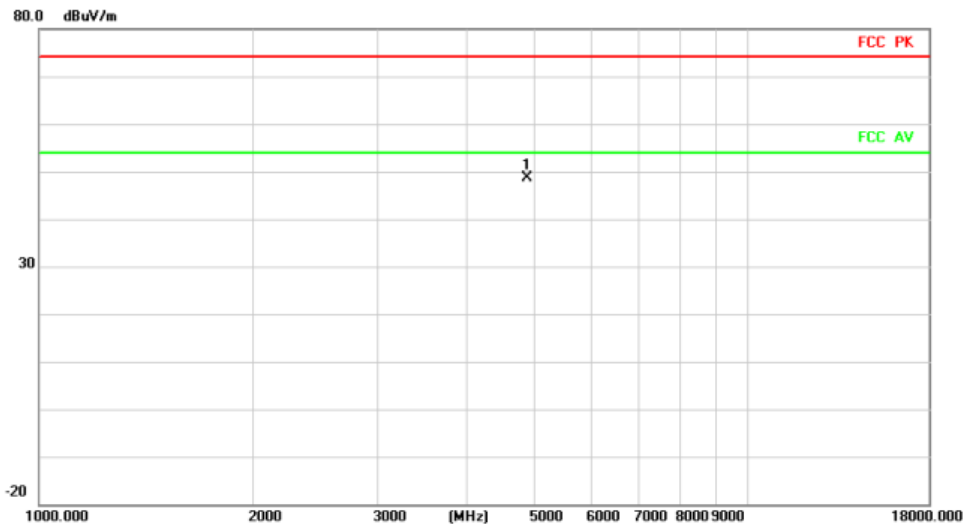
**Radiated Emission**



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	*	4874.000	52.52	-1.59	50.93	74.00	-23.07	peak	

HORIZONTAL

**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	*	4874.000	50.23	-1.59	48.64	74.00	-25.36	peak	



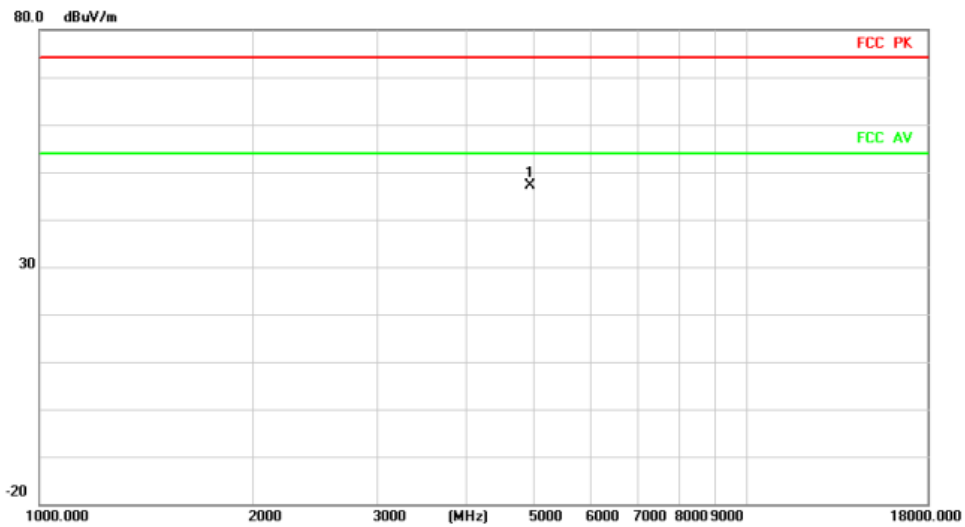
Above 1G (1GHz~18GHz)

Test mode: 11B

Test Channel:11

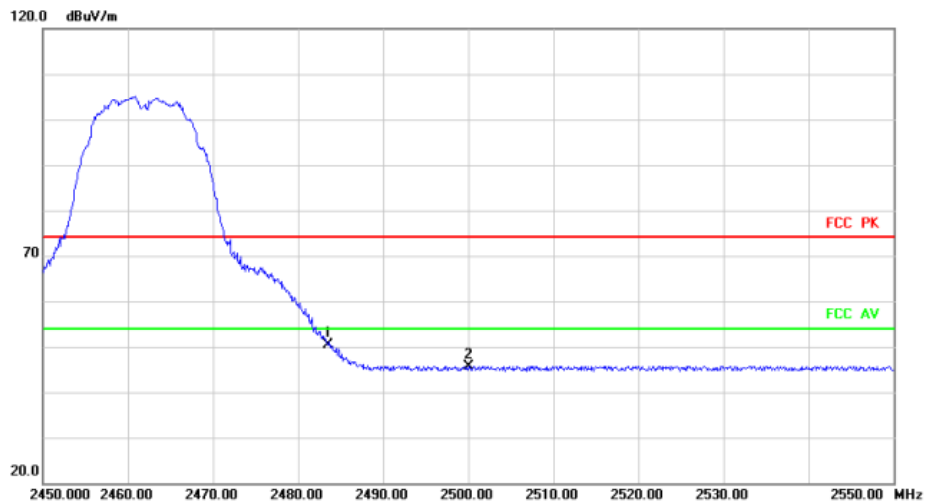
VERTICAL

**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	*	4924.000	48.44	-1.29	47.15	74.00	-26.85	peak	

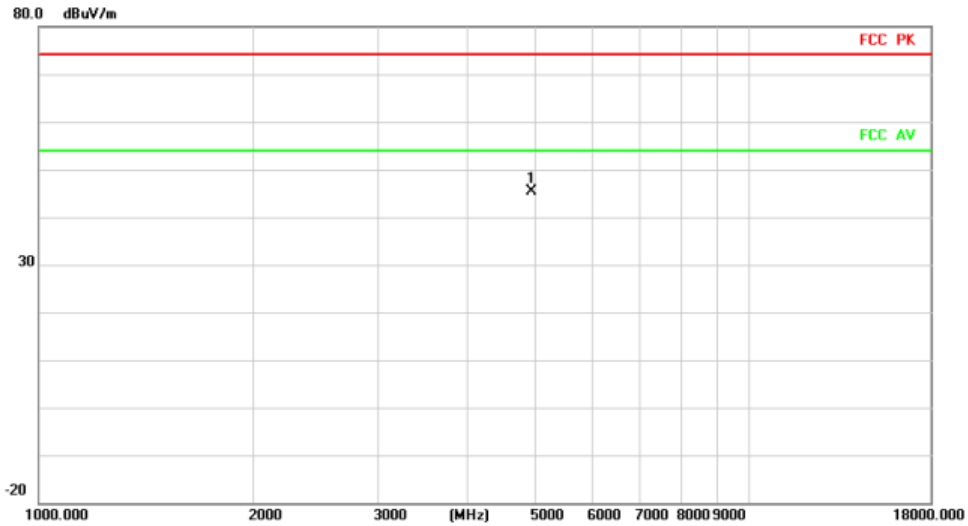
**Radiated Emission**



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	49.24	1.09	50.33	74.00	-23.67	peak	
2		2500.000	44.40	1.22	45.62	74.00	-28.38	peak	

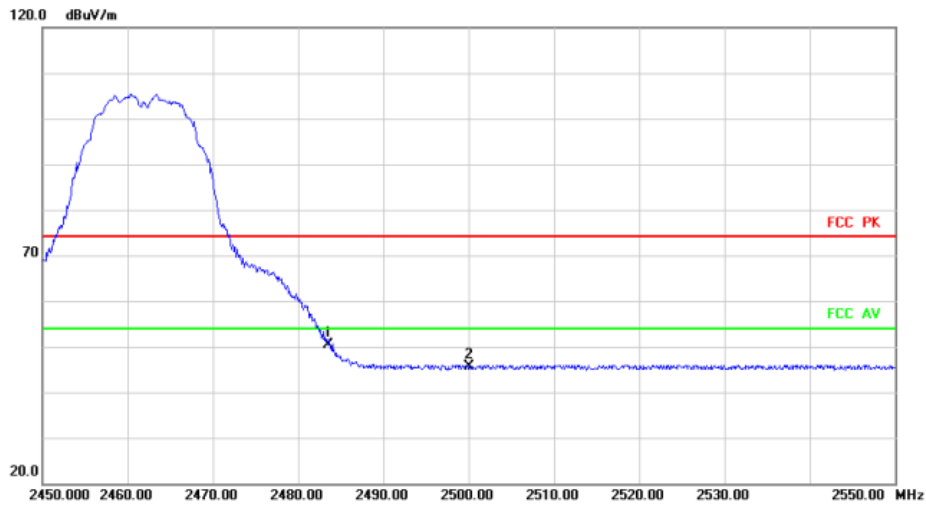
## HORIZONTALA

### 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	*	4924.000	46.56	-1.29	45.27	74.00	-28.73	peak		

### Radiated Emission

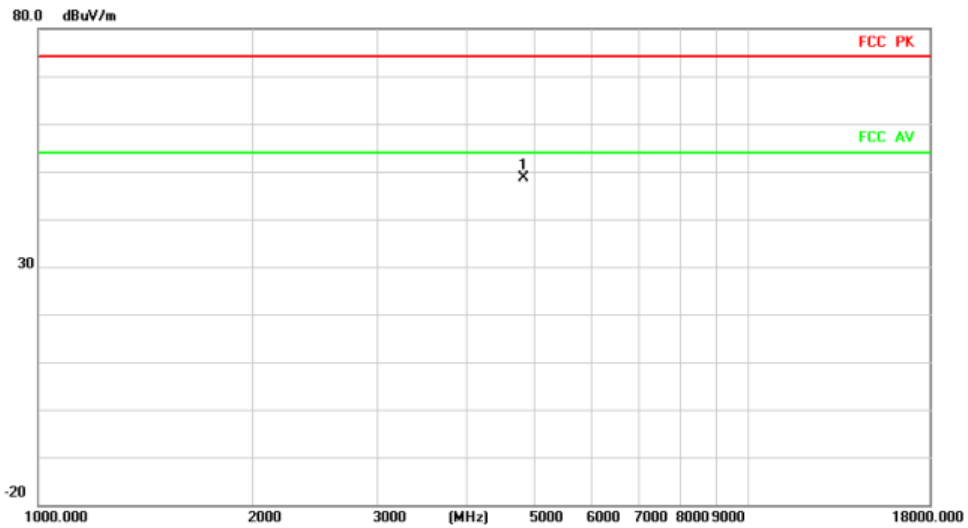


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	2483.500	49.21	1.09	50.30	74.00	-23.70	peak		
2		2500.000	44.46	1.22	45.68	74.00	-28.32	peak		

Above 1G (1GHz~18GHz)      Test mode:11G      Test Channel:1

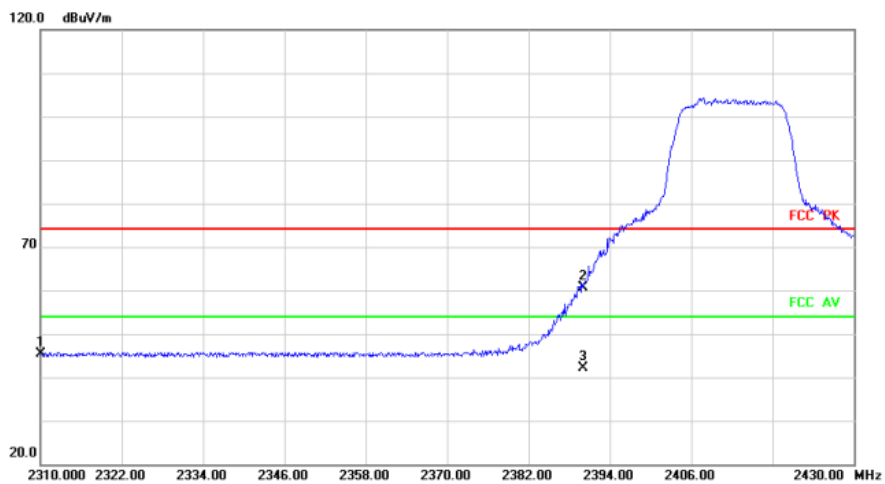
VERTICAL

**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	*	4824.000	50.50	-1.88	48.62	74.00	-25.38	peak	

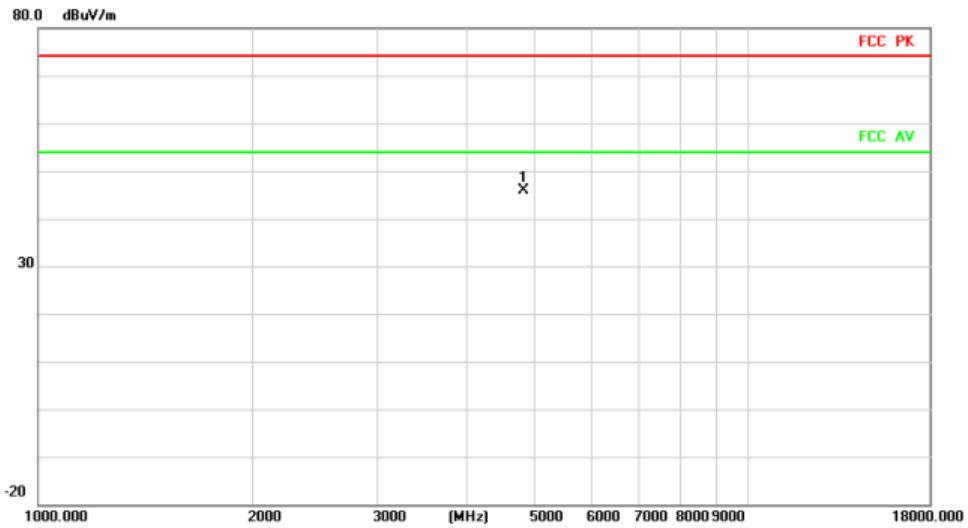
**Radiated Emission**



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	45.18	0.19	45.37	74.00	-28.63	peak	
2		2390.000	60.20	0.41	60.61	74.00	-13.39	peak	
3	*	2390.000	41.69	0.41	42.10	54.00	-11.90	AVG	

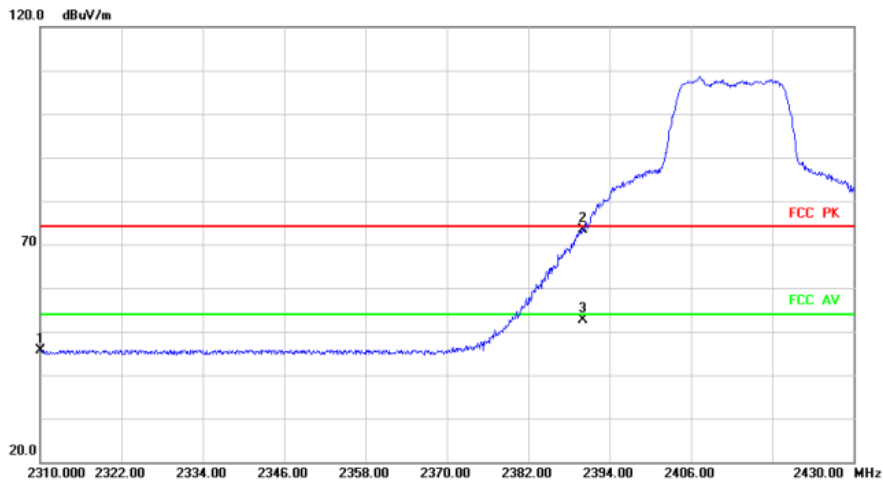
## HORIZONTAL

### 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	*	4824.000	47.86	-1.88	45.98	74.00	-28.02	peak	

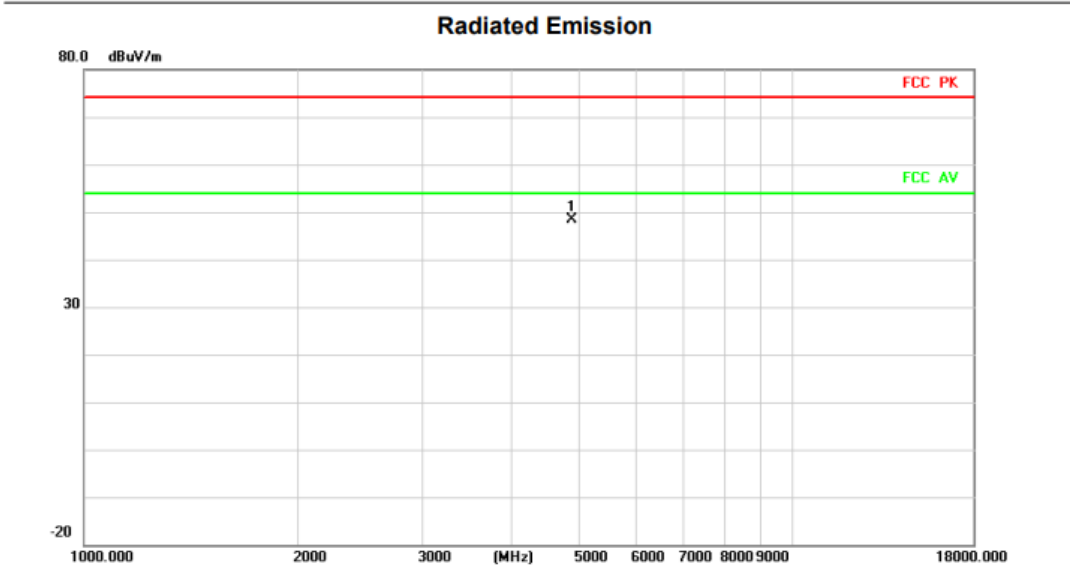
### Radiated Emission



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	45.46	0.19	45.65	74.00	-28.35	peak	
2	*	2390.000	72.86	0.41	73.27	74.00	-0.73	peak	
3		2390.000	52.16	0.41	52.57	54.00	-1.43	AVG	

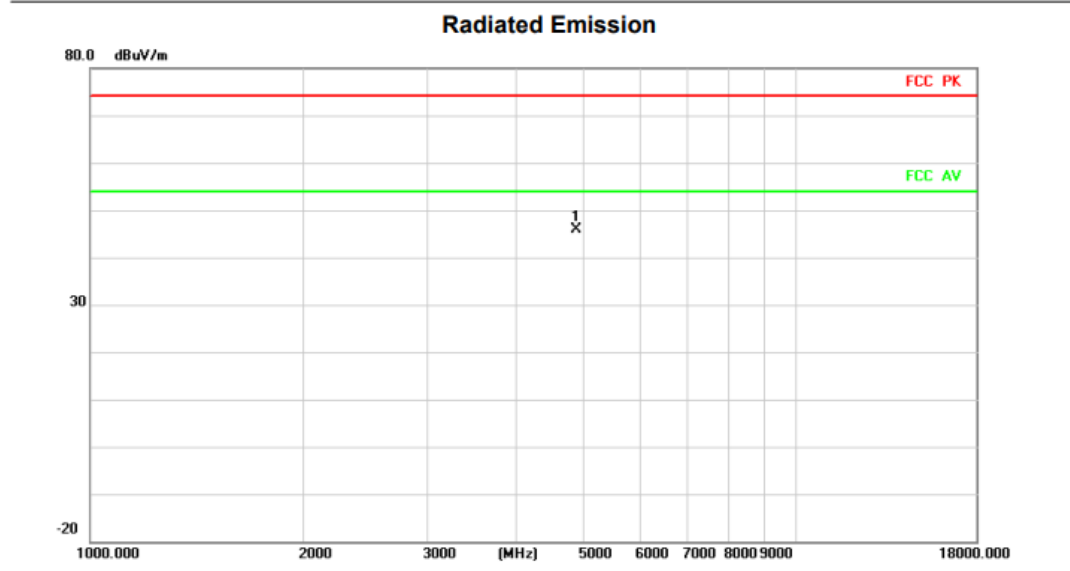
Above 1G (1GHz~18GHz)	Test mode: 11G	Test Channel: 6
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VERTICAL



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	49.87	-1.59	48.28	74.00	-25.72	peak	

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	47.48	-1.59	45.89	74.00	-28.11	peak	

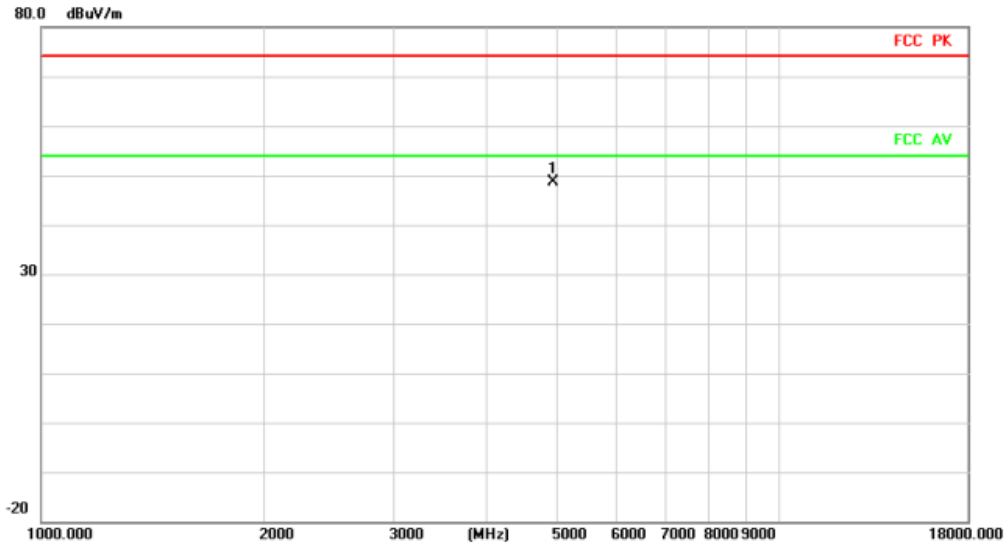
Above 1G (1GHz~18GHz)

Test mode: 11G

Test Channel:11

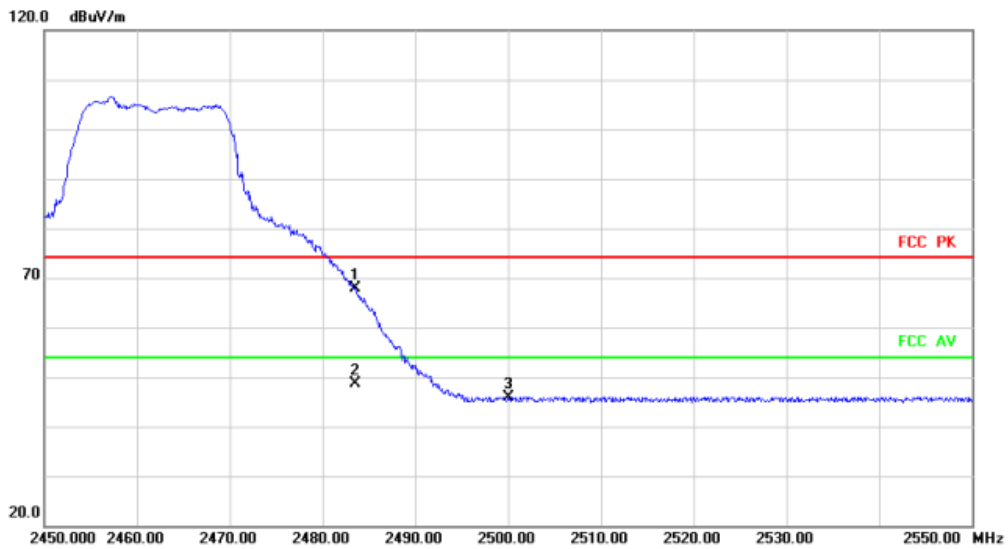
VERTICAL

**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	*	4924.000	50.01	-1.29	48.72	74.00	-25.28	peak	

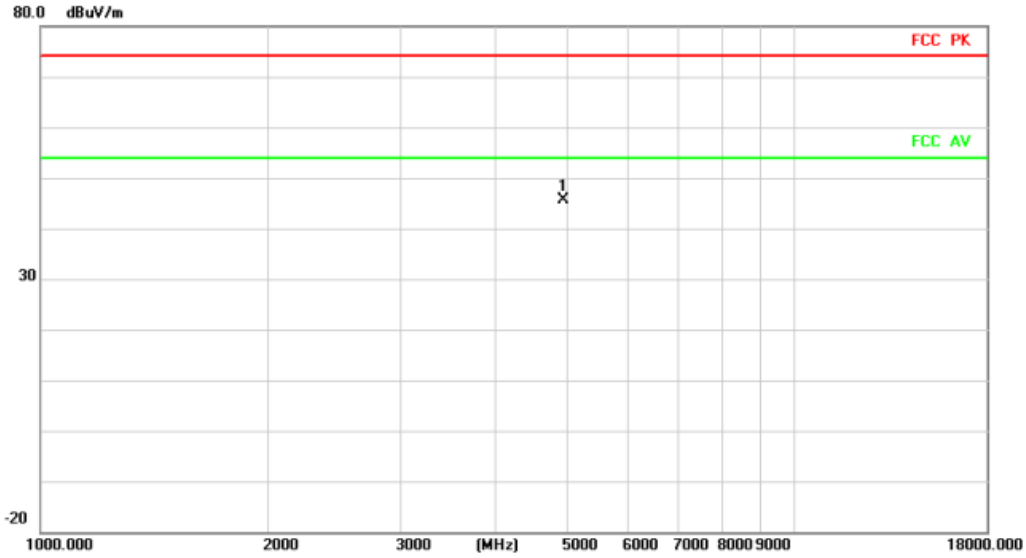
**Radiated Emission**



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	66.87	1.09	67.96	74.00	-6.04	peak	
2	*	2483.500	47.45	1.09	48.54	54.00	-5.46	AVG	
3		2500.000	44.57	1.22	45.79	74.00	-28.21	peak	

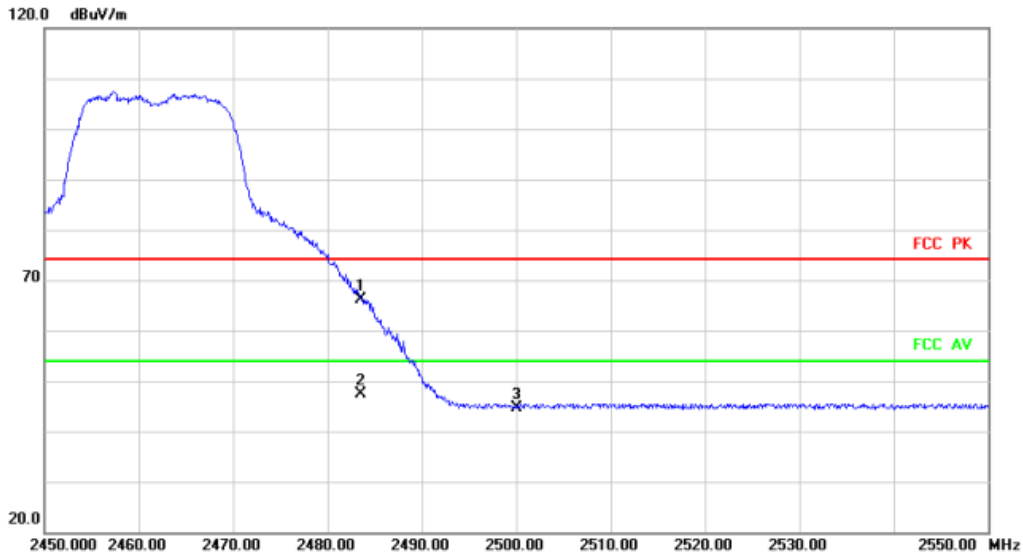
### HORIZONTAL

#### 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	*	4924.000	46.82	-1.29	45.53	74.00	-28.47	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	65.13	1.09	66.22	74.00	-7.78	peak		
2	*	2483.500	46.20	1.09	47.29	54.00	-6.71	AVG		
3		2500.000	43.49	1.22	44.71	74.00	-29.29	peak		

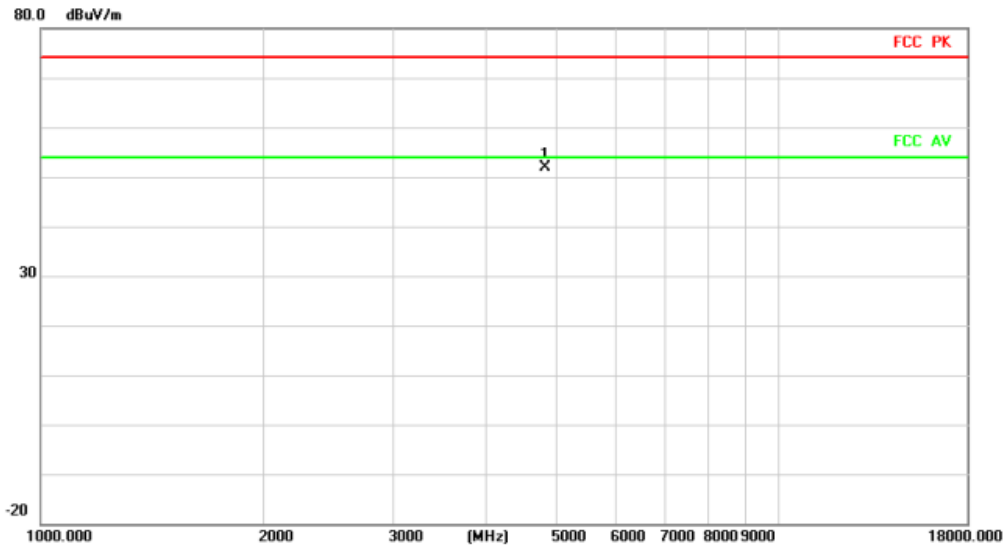
Above 1G (1GHz~18GHz)

Test mode: 11N20MIMO

Test Channel:1

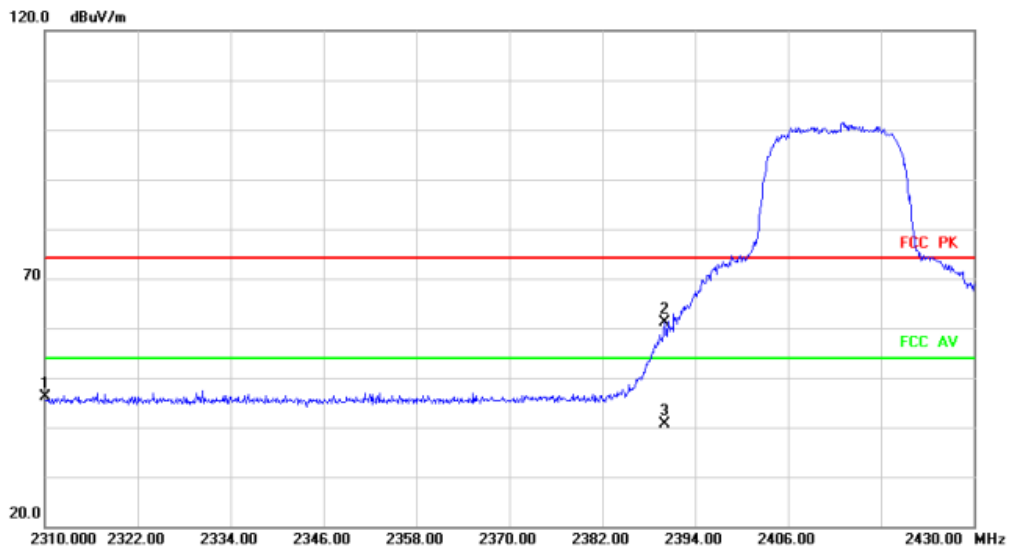
VERTICAL

**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	*	4824.000	53.84	-1.88	51.96	74.00	-22.04	peak	

**Radiated Emission**

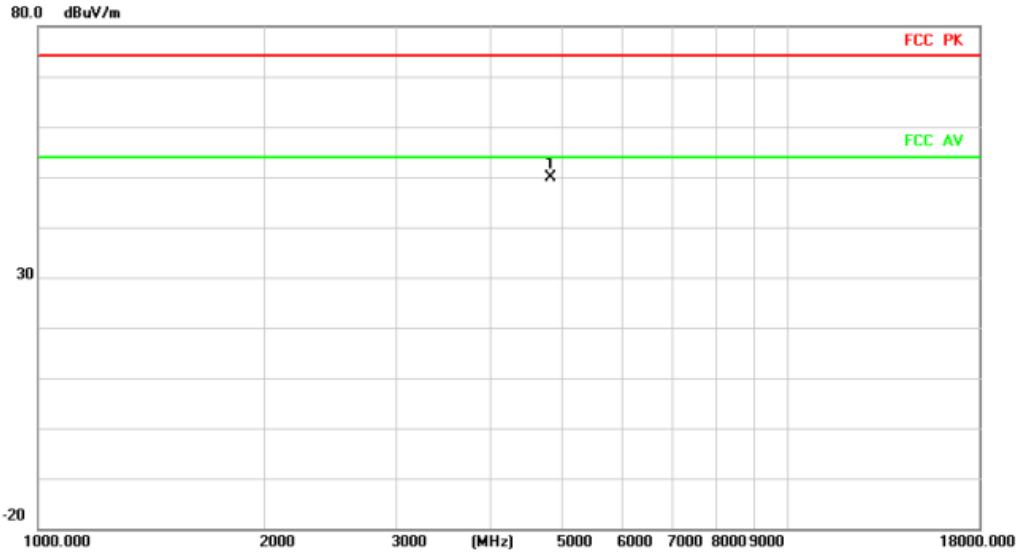


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1		2310.000	46.04	0.19	46.23	74.00	-27.77	peak	
2	*	2390.000	60.67	0.41	61.08	74.00	-12.92	peak	
3		2390.000	40.15	0.41	40.56	54.00	-13.44	AVG	



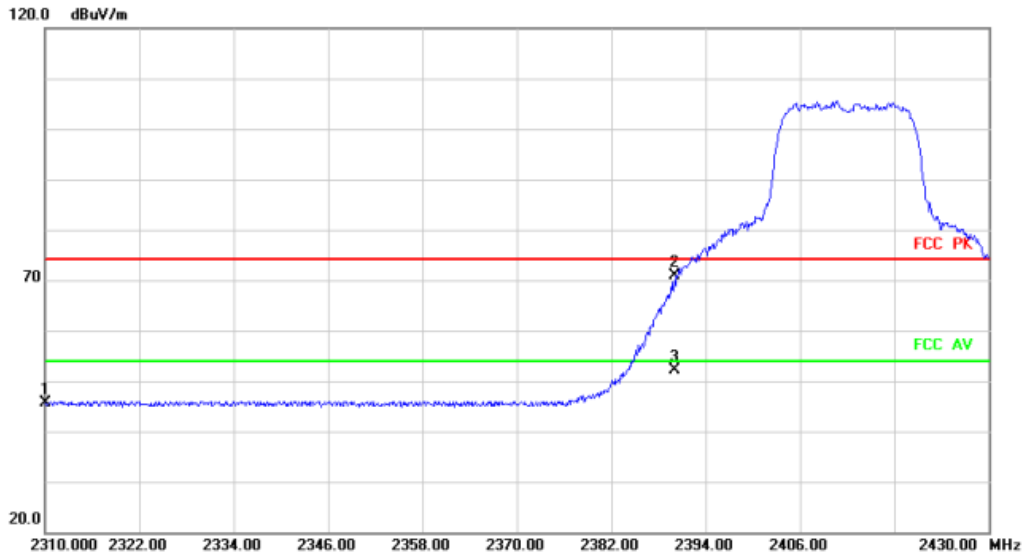
HORIZONTAL

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	*	4824.000	51.80	-1.88	49.92	74.00	-24.08	peak		

Radiated Emission



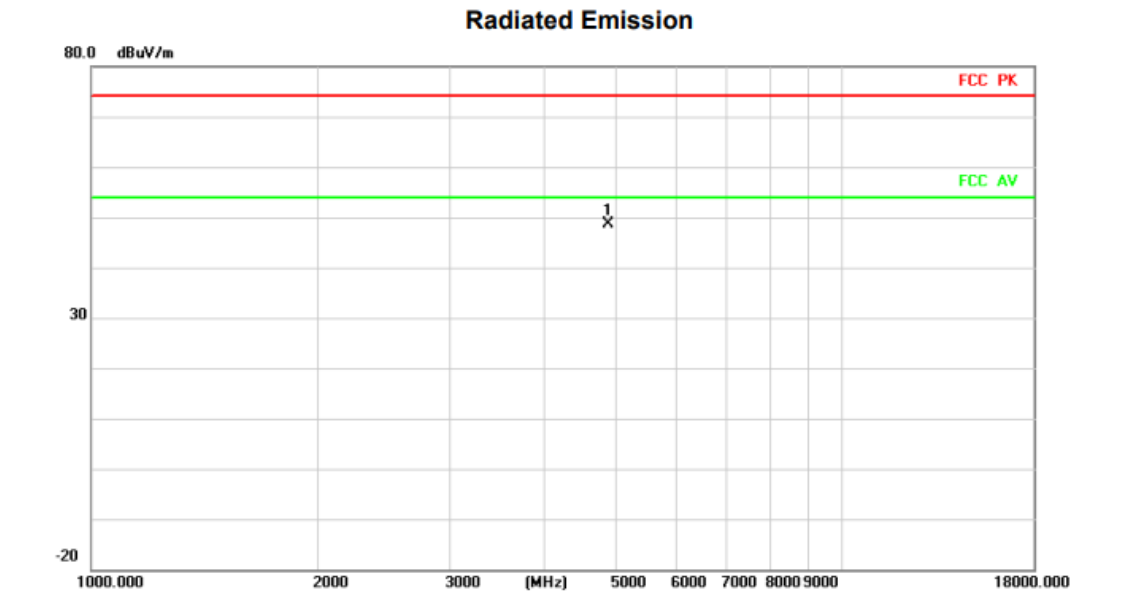
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		2310.000	45.54	0.19	45.73	74.00	-28.27	peak		
2		2390.000	70.57	0.41	70.98	74.00	-3.02	peak		
3	*	2390.000	51.72	0.41	52.13	54.00	-1.87	AVG		

Above 1G (1GHz~18GHz)

Test mode: 11N20MIMO

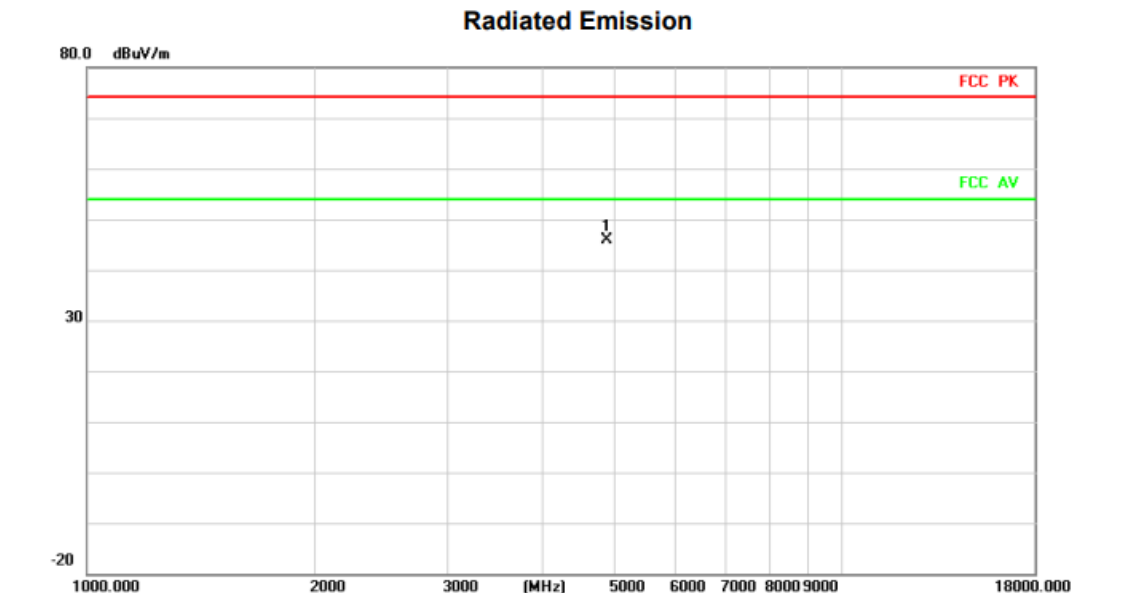
Test Channel: 6

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	50.34	-1.59	48.75	74.00	-25.25	peak	

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	47.47	-1.59	45.88	74.00	-28.12	peak	

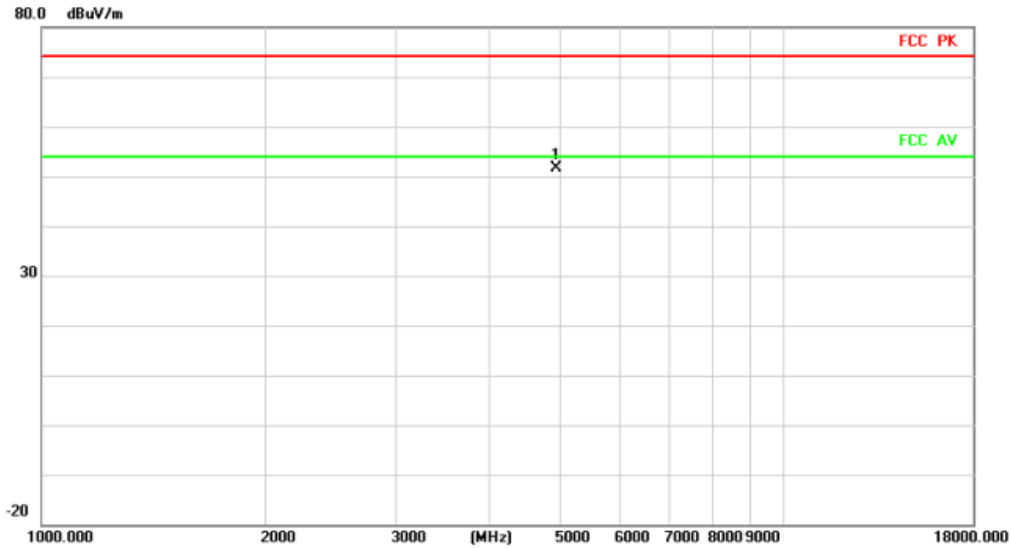
Above 1G (1GHz~18GHz)

Test mode: 11N20MIMO

Test Channel:11

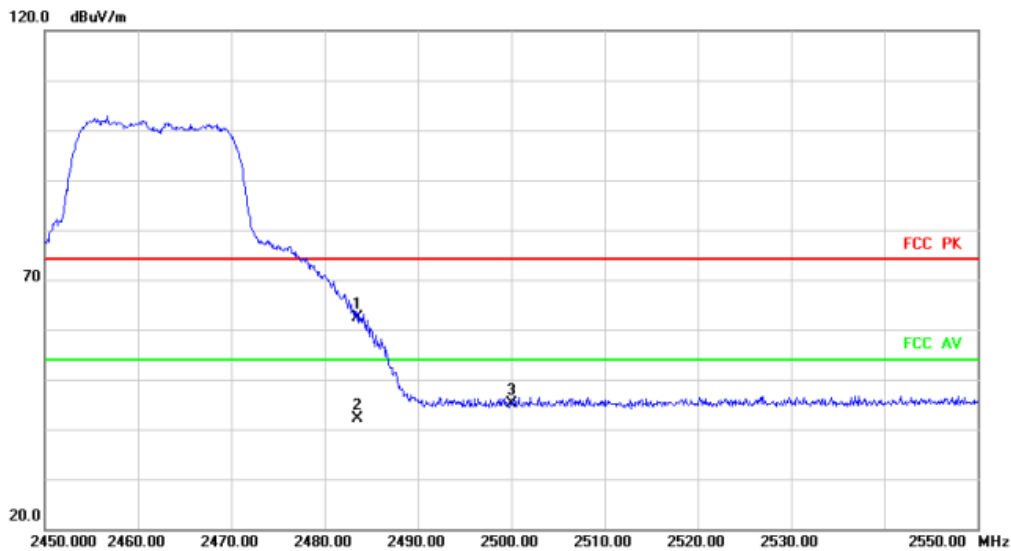
VERTICAL

**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	*	4924.000	53.02	-1.29	51.73	74.00	-22.27	peak		

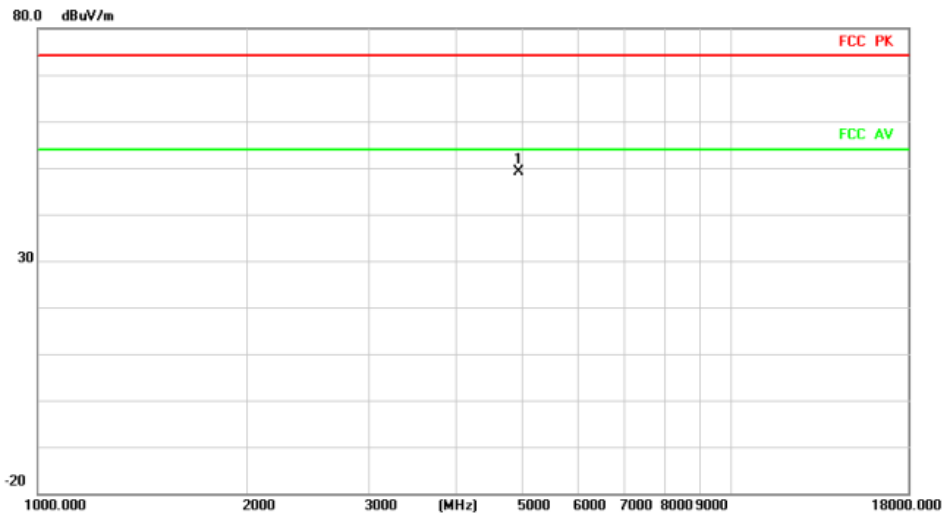
**Radiated Emission**



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	61.35	1.09	62.44	74.00	-11.56	peak		
2		2483.500	41.16	1.09	42.25	54.00	-11.75	AVG		
3		2500.000	43.83	1.22	45.05	74.00	-28.95	peak		

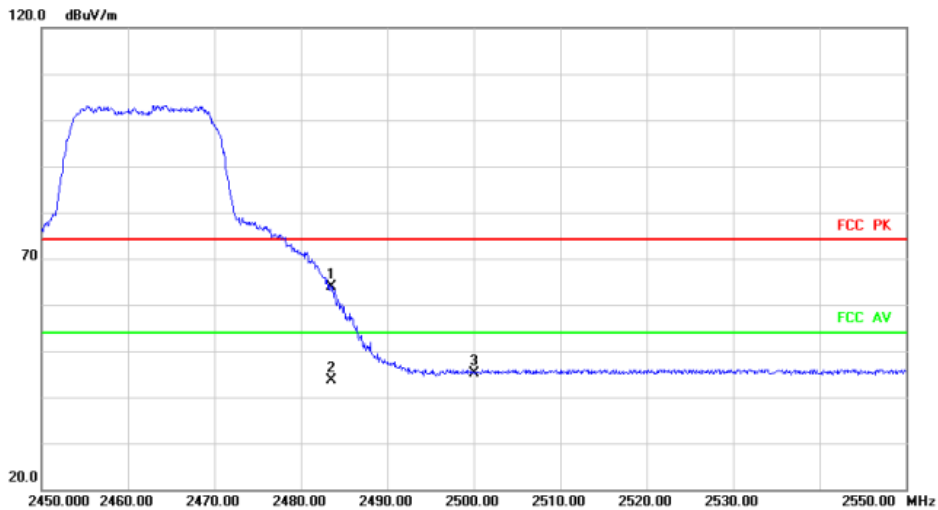
## HORIZONTAL

### 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	*	4924.000	50.48	-1.29	49.19	74.00	-24.81			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	62.84	1.09	63.93	74.00	-10.07			peak
2		2483.500	42.47	1.09	43.56	54.00	-10.44			AVG
3		2500.000	43.87	1.22	45.09	74.00	-28.91			peak

The high frequency, which started from 18GHz to 25GHz, was pre-scanned and the result which was 20dB lower than the limit line was not recorded in this report.