

RF TEST REPORT

FCC ID: 2BG8T-ICOMI-H-RBTHC

Test Report No.....: RF240524011-02-001

Product(s) Name.....: Touchscreen Computer

Model(s).....: iComi-H-RBTHC V3.5, iComi-H-RBTHC V3.5 Pro

Trade Mark.....: N/A

Applicant.....: SHANGHAI ZHIZHEN SPACEDOT INFORMATION TECHNOLOGY CO., LTD.

Address.....: Room 601-602, Building 1, No. 958 Zhenbei Road, Putuo District, Shanghai

Receipt Date.....: 2024.05.29

Test Date.....: 2024.06.01~2024.06.18

Issued Date.....: 2024.06.20

Standards.....: 47 CFR FCC Part 15, Subpart C(Section 15.247);
ANSI C63.10:2013

Testing Laboratory.....: Shenzhen Haiyun Standard Technical Co., Ltd.

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History of this test report

Original Report Issue Date: 2024.06.20

- ☒ No additional attachment
- ☐ Additional attachments were issued following record

Attachment No.	Issue Date	Description

1. General Information

1.1 Applicant

SHANGHAI ZHIZHEN SPACEDOT INFORMATION TECHNOLOGY CO., LTD.

Room 601-602, Building 1, No. 958 Zhenbei Road, Putuo District, Shanghai

1.2 Manufacturer

SHANGHAI SUGARCUBE TECHNOLOGY CO., LTD.

201-224 No.1, No.899, Dangui Road, Shanghai China

1.3 Basic Description of Equipment Under Test

Product No.	POC240524011-S001, POC240524011-S002	
Equipment Name	Touchscreen Computer	
Model Name	iComi-H-RBTHC V3.5, iComi-H-RBTHC V3.5 Pro	
Model Difference	The difference lies only in RAM capacity and HDD capacity, appearance of the different models. iComi-H-RBTHC V3.5: 2G+16G iComi-H-RBTHC V3.5 Pro: 4G+32G with camera	
Trade Mark	N/A	
Power Supply	POE 48V	
Operate temperature	0°C-45°C	
EUT Stage	○ Product Unit	● Final-Sample
Operating Band and Conducted Output Power (Max power)	2400MHz ~ 2483.5MHz	●IEEE 802.11b:13.20dBm(0.021W)
Product Type	IEEE 802.11b/g/n: WLAN (SISO)	
Nominal Bandwidth	20MHz / 40MHz	
Modulation	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM	
Data Rate (Mbps)	IEEE 802.11b mode : 1/2/5.5/11 IEEE 802.11g mode : 6/9/12/18/24/36/48/54 IEEE 11n mode : up to 150	
Antenna gain	2.67dBi	
Antenna type	FPC 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	/	/

Seven channels are provided for 802.11n (40MHz):

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
2400MHz ~ 2483.5 MHz	03	2422 MHz	07	2442MHz
	04	2427MHz	08	2447MHz
	05	2432MHz	09	2452MHz
	06	2437MHz	/	/

1.4 Transmit Operating Mode

Transmit Operating Mode					Transmit Multiple Antennas					
☒	Operating mode 1 (single antenna)				☒	1TX				
☐	Operating mode 2 (multiple antenna, no beam forming)				☐	2TX	☐	3TX	☐	4TX
☐	Operating mode 3 (multiple antenna, with beam forming)				☐	2TX	☐	3TX	☐	4TX
☒	802.11b	Operating mode	☒	1TX	☐	2TX	☐	3TX		
☒	802.11g	Operating mode	☒	1TX	☐	2TX	☐	3TX		
☒	802.11n(20MHz)	Operating mode	☒	1TX	☐	2TX	☐	3TX		
☒	802.11n(40MHz)	Operating mode	☒	1TX	☐	2TX	☐	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 one FPC 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

ANSI C63.10:2013

2.3 Test Instruments

Radiated Emissions							
No .	Equipment	Manufacturer	Type No.	Serial No.	Inventory No.	Cal. date (yyyy/mm/dd)	Cal. Due date (yyyy/mm/dd)
1	Test receiver	Rohde&Schwarz	ESU	100184	JLE011	2024/4/24	2025/4/23
2	Log periodic antenna	Schwarzbeck	VULB 9168	1151	JLE012	2024/4/20	2025/4/19
3	Low frequency amplifier	/	LNA 0920N	2014	JLE023	2024/4/24	2025/4/23
4	High frequency amplifier	Schwarzbeck	BBV 9718	284	JLE024	2024/4/24	2025/4/23
5	Horn Antenna	SCHWARZBEC K	BBHA 9120 D	9120D-1273	JLE028	2024/4/20	2025/4/19
6	Temp&Humidity Recorder	Meideshi	JR900	/	JLE021	2024/4/24	2025/4/23
7	Horn Antenna	SCHWARZBEC K	BBHA 9170	9170#685	JLE029	2023/7/16	2024/7/15
8	Loop Antenna	SCHWARZBEC K	FMZB15 19B	00029	JLE030	2023/7/16	2024/7/15
9	Broadband preamplifier	Schwarzbeck	BBV9721	9721-019	JLE025	2024/4/24	2025/4/23
10	Test software	Farad Technology Co., Ltd	EZ-EMC Ver.TW-03A2				
Conducted Emission							
1	LISN	Rohde&Schwarz	ENV216	100075	JLE002	2024/4/24	2025/4/23
2	ISN	Schwarzbeck	CATE 5 8158	#171	JLE003	2024/4/24	2025/4/23
3	Test receiver	Rohde&Schwarz	ESCI	100718	JLE010	2024/4/24	2025/4/23
4	Pulse limiter	Rohde&Schwarz	ESH3-Z2	102299	JLE047	2024/4/24	2025/4/23
5	Temp&Humidity Recorder	Meideshi	JR900	/	JLE020	2024/4/24	2025/4/23
6	Test software	Farad Technology Co., Ltd	EZ-EMC Ver.TW-03A2				
RF Conducted Emission							
1	MXA Signal Analyzer	Keysight	N9021B	MY60080 169	JLE050	2024/4/20	2025/4/19
2	RF Control Unit	dsusoft	JS0806-2	21G8060 449	JLE053	2024/4/20	2025/4/19
3	power supply unit	dsusoft	JS0806-4ADC	N/A	JLE055	2024/4/20	2025/4/19
4	VXG Signal Generator	Keysight	M9384B	MY61270 787	JLE051	2024/4/20	2025/4/19
5	EXG Analog Signal Generator	Keysight	N5173B	MY59101 282	JLE052	2024/4/20	2025/4/19
6	Wideband Radio Communication Tester	Rohde&Schwarz	CMW500	1201.000 2K50-116064-Dt	JLE054	2024/4/20	2025/4/19
7	Test software	dsusoft	JS1120-3 Ver.3.2.22.0				

2.4 Test Mode

Test Items	Mode	Data Rate	Channel
AC Power Conducted Emission	802.11b	1Mbps	11
Radiated Emission and Band Edge Measurement	802.11b	1Mbps	01/06/11
	802.11g	6Mbps	01/06/11
	802.11n20SISO	MCS0	01/06/11
	802.11N40SISO	MCS0	03/06/09
Spurious Emission at Antenna Port	802.11b	1Mbps	01/06/11
	802.11g	6Mbps	01/06/11
	802.11n20SISO	MCS0	01/06/11
	802.11N40SISO	MCS0	03/06/09
6dB Bandwidth	802.11b	1Mbps	01/06/11
	802.11g	6Mbps	01/06/11
	802.11n20SISO	MCS0	01/06/11
	802.11N40SISO	MCS0	03/06/09
Maximum Conducted Power	802.11b	1Mbps	01/06/11
	802.11g	6Mbps	01/06/11
	802.11n20SISO	MCS0	01/06/11
	802.11N40SISO	MCS0	03/06/09
Power Spectral Density	802.11b	1Mbps	01/06/11
	802.11g	6Mbps	01/06/11
	802.11n20SISO	MCS0	01/06/11
	802.11N40SISO	MCS0	03/06/09

Note: For AC Power Conducted Emission and Radiated Emission below 1GHz, only worst case was recorded.

2.5 Test Condition

Applicable to	Environmental conditions	Input Power	Tested by
AC Power Conducted Emission	24.8°C, 48% RH	AC 120V/60Hz	Freedom Zhuo
Radiated Emission and Band Edge Measurement	23.6°C, 56% RH	AC 120V/60Hz	Freedom Zhuo
Spurious Emission at Antenna Port	23.6°C, 53% RH	POE 48V	Albert Fan
6dB Bandwidth	23.6°C, 53% RH	POE 48V	Albert Fan
Maximum Conducted Power	23.6°C, 53% RH	POE 48V	Albert Fan
Power Spectral Density	23.6°C, 53% RH	POE 48V	Albert Fan

Note: POE adapter supply voltage AC 120V/60Hz.

The applicant declare the operating environment of EUT as below:

Normal conditions: 48V, 0~45°C

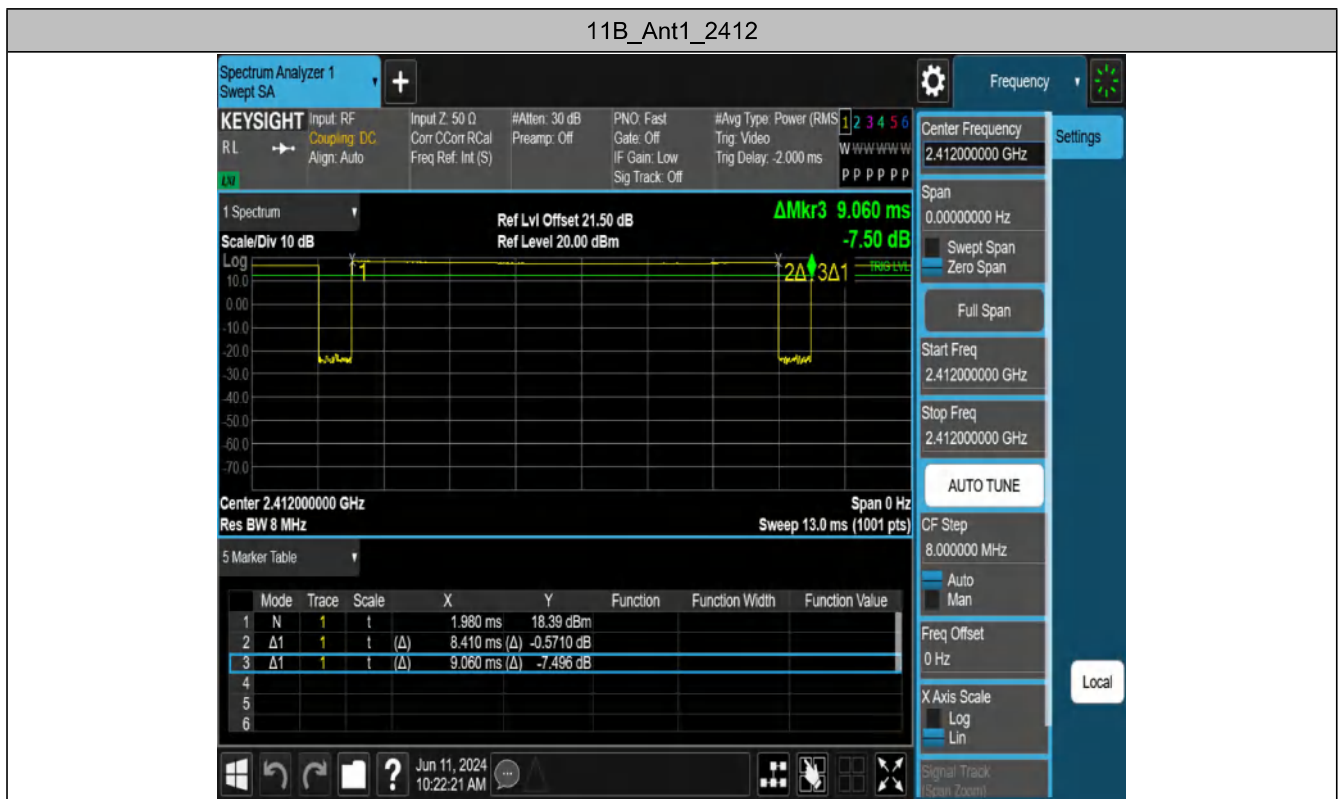
2.6 Duty Cycle of Test Signal

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

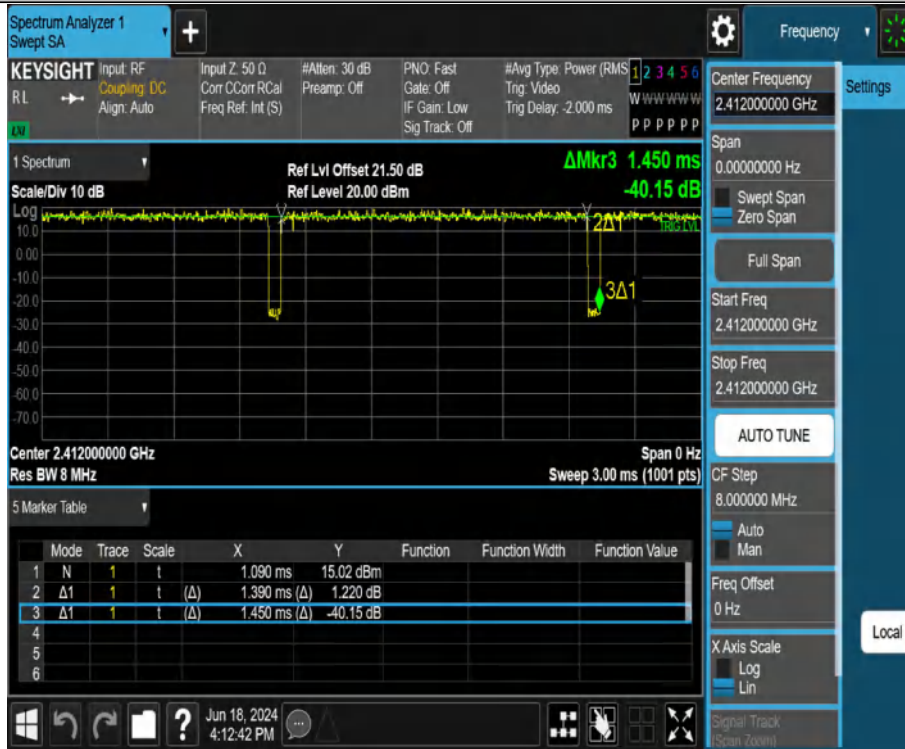
If duty cycle is $< 98\%$, duty factor shall be considered.

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

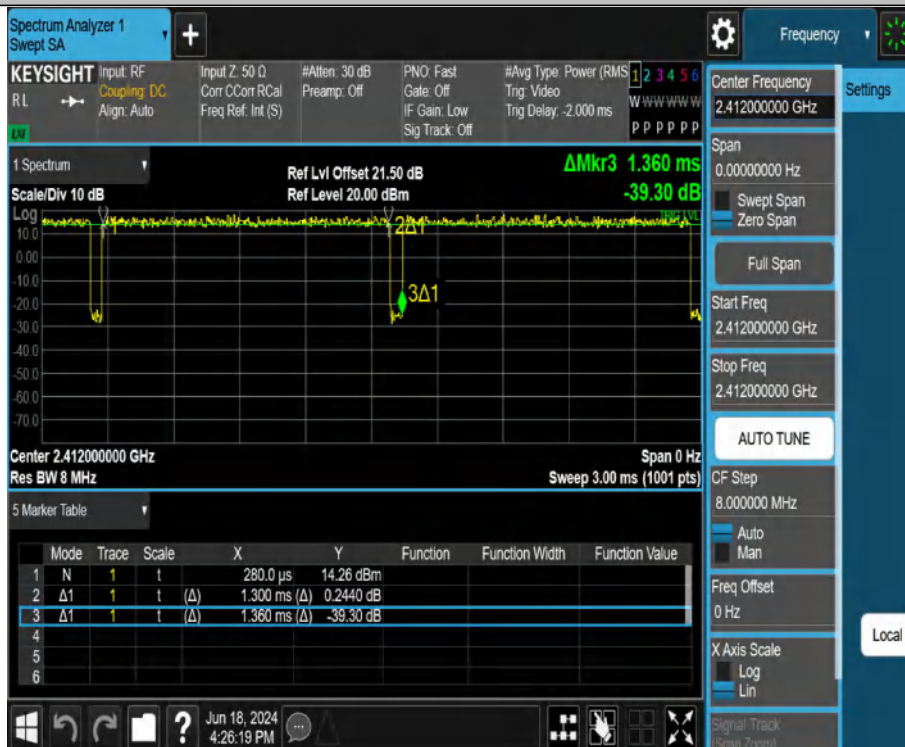
Test Mode	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	2412	8.41	9.06	92.83
11G	2412	1.39	1.45	95.86
11N20SISO	2412	1.30	1.36	95.59
11N40SISO	2412	0.65	0.70	92.86



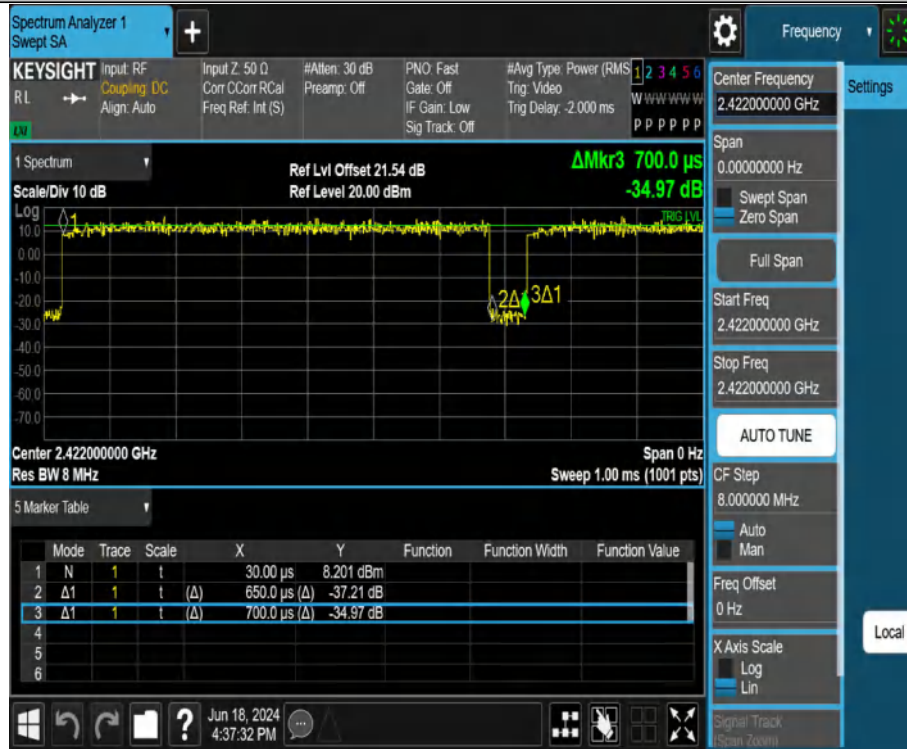
11G_Ant1_2412



11N20SISO_Ant1_2412



11N40SISO_Ant1_2422



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	$\pm 102\text{kHz}$
Power Spectral Density	$\pm 0.377\text{dB}$
Conducted Spurious Emission	$\pm 1.328\text{dB}$
RF power conducted	$\pm 0.384\text{dB}$
Conducted emission(9kHz~30MHz) AC main	$\pm 2.68\text{dB}$
Radiated emission(9kHz~30MHz)	$\pm 2.74\text{dB}$
Radiated emission (30MHz~1GHz)	$\pm 4.22\text{dB}$
Radiated emission (1GHz~18GHz)	$\pm 5.06\text{dB}$
Radiated emission (18GHz~40GHz)	$\pm 4.98\text{dB}$

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

No.	Equipment	Model	Manufacturer	Series No
1	POE	P1	SUGARCUBE	/
2	AC/DC ADAPTER	ATP-48005000	SUGARCUBE	/

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(μ V)	Average Level dB(μ V)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

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

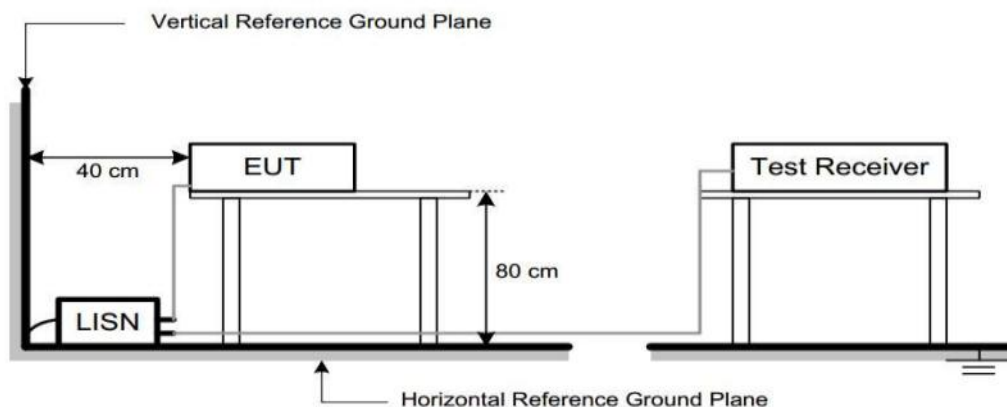
2. The lower limit shall apply at the transition frequencies.

3.1.2 Test Procedure

Test Method	
☒ Conducted Measurement	☐ Radiated Measurement
Test Channels	
☐ Lowest, Middle and Highest Channel	☐ Lowest and Highest Channel
Environmental conditions	
☒ Normal	☐ 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:

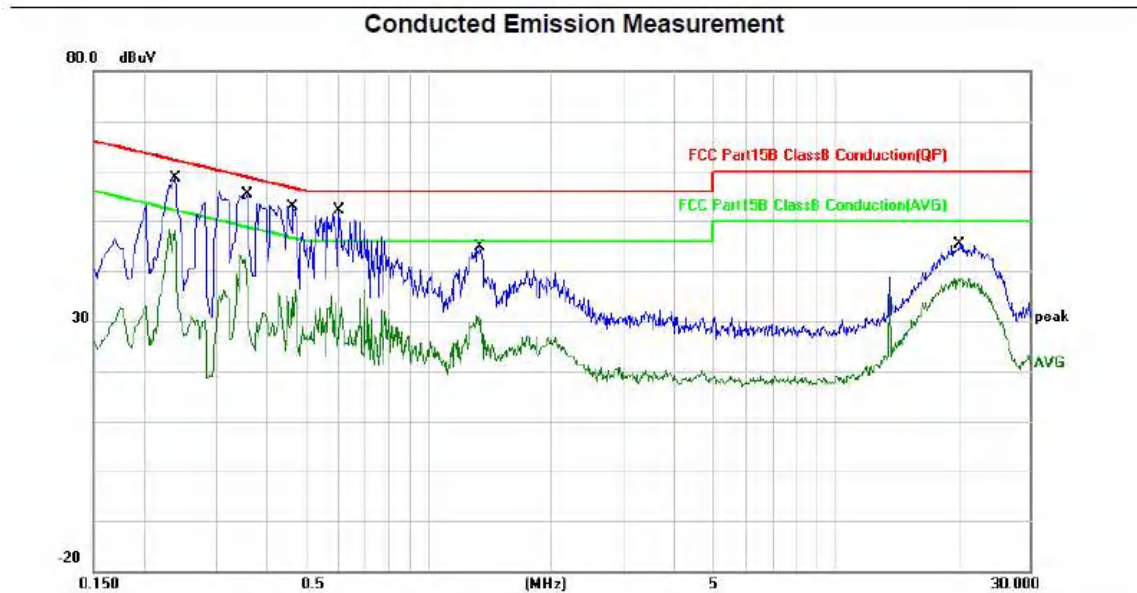
1. Correct Factor = LISN Factor + Cable Loss + Pulse Limiter Factor, the value was added to Original Receiver Reading by the software automatically.
2. Measurement = Reading + Correct Factor.
3. Over = Measurement – Limit

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

iComi-H-RBTHC V3.5

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



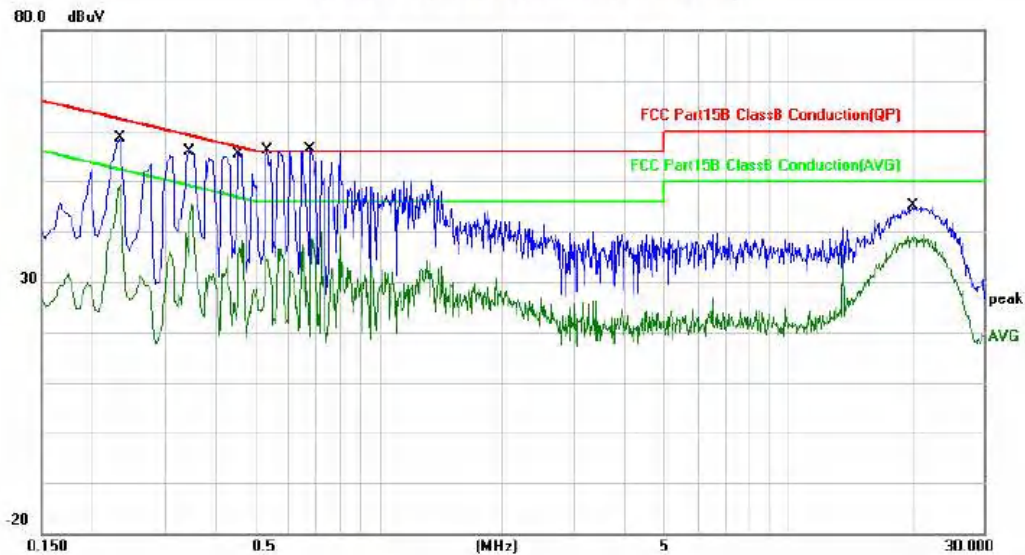
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.2380	35.07	19.99	55.06	62.17	-7.11	QP	
2	*	0.2380	27.36	19.99	47.35	52.17	-4.82	AVG	
3		0.3580	29.84	20.07	49.91	58.77	-8.86	QP	
4		0.3580	22.49	20.07	42.56	48.77	-6.21	AVG	
5		0.4660	25.75	20.22	45.97	56.58	-10.61	QP	
6		0.4660	13.90	20.22	34.12	46.58	-12.46	AVG	
7		0.6020	24.64	20.01	44.65	56.00	-11.35	QP	
8		0.6020	10.84	20.01	30.85	46.00	-15.15	AVG	
9		1.3420	19.60	20.07	39.67	56.00	-16.33	QP	
10		1.3420	10.05	20.07	30.12	46.00	-15.88	AVG	
11		20.1060	21.34	20.32	41.66	60.00	-18.34	QP	
12		20.1060	18.23	20.32	38.55	50.00	-11.45	AVG	

150kHz~30MHz

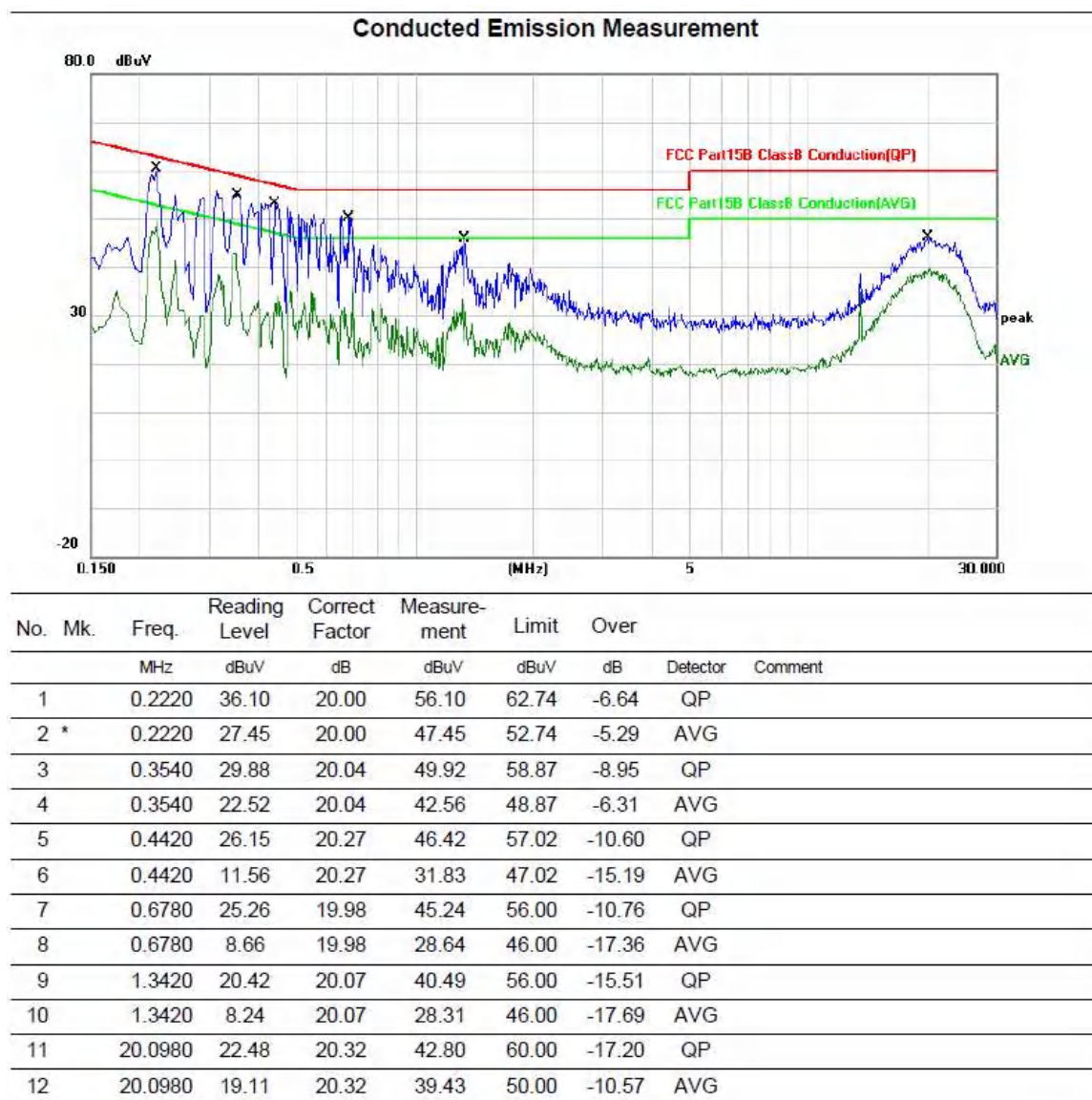
Worst Case Operating Mode: 11B Channel 11

Neutral

Conducted Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2340	35.50	20.16	55.66	62.31	-6.65	QP	
2		0.2340	28.49	20.16	48.65	52.31	-3.66	AVG	
3		0.3464	31.35	20.05	51.40	59.05	-7.65	QP	
4		0.3464	25.29	20.05	45.34	49.05	-3.71	AVG	
5		0.4540	29.42	20.09	49.51	56.80	-7.29	QP	
6		0.4540	18.45	20.09	38.54	46.80	-8.26	AVG	
7		0.5340	29.02	20.06	49.08	56.00	-6.92	QP	
8		0.5340	16.36	20.06	36.42	46.00	-9.58	AVG	
9 *		0.6820	32.44	20.12	52.56	56.00	-3.44	QP	
10		0.6820	18.63	20.12	38.75	46.00	-7.25	AVG	
11		20.1060	21.66	20.36	42.02	60.00	-17.98	QP	
12		20.1060	18.60	20.36	38.96	50.00	-11.04	AVG	

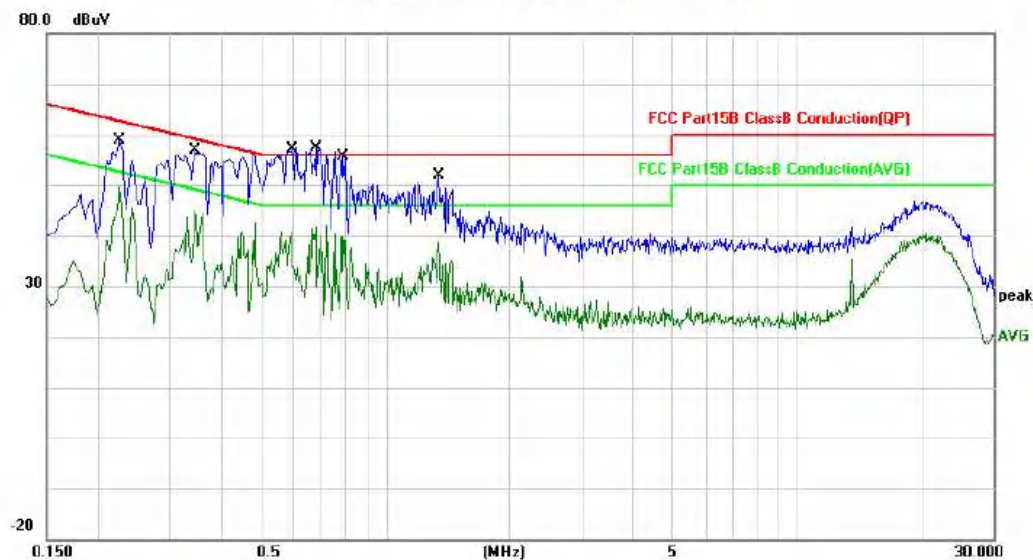


150kHz~30MHz

Worst Case Operating Mode: 11B Channel 11

Neutral

Conducted Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2268	36.99	20.20	57.19	62.57	-5.38	QP	
2		0.2268	28.00	20.20	48.20	52.57	-4.37	AVG	
3		0.3460	30.99	20.05	51.04	59.06	-8.02	QP	
4		0.3460	22.07	20.05	42.12	49.06	-6.94	AVG	
5		0.5940	30.44	20.20	50.64	56.00	-5.36	QP	
6		0.5940	19.92	20.20	40.12	46.00	-5.88	AVG	
7 *		0.6780	32.63	20.12	52.75	56.00	-3.25	QP	
8		0.6780	20.14	20.12	40.26	46.00	-5.74	AVG	
9		0.7860	28.30	20.02	48.32	56.00	-7.68	QP	
10		0.7860	19.21	20.02	39.23	46.00	-6.77	AVG	
11		1.3500	22.65	20.28	42.93	56.00	-13.07	QP	
12		1.3500	10.07	20.28	30.35	46.00	-15.65	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(kHz)	-
0.490 – 1.705	30	24000/F(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 $\text{dB}\mu\text{V} = 20 \log \text{Emission level } \mu\text{V}/\text{m}$
 (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	
☐ Conducted Measurement	☒ Radiated Measurement
Test Channels	
☒ Lowest, Middle and Highest Channel	☐ Lowest and Highest Channel
Environmental conditions	
☒ Normal	☐ Normal and Extreme
Note: ☒ : Test ☐ : No Test	

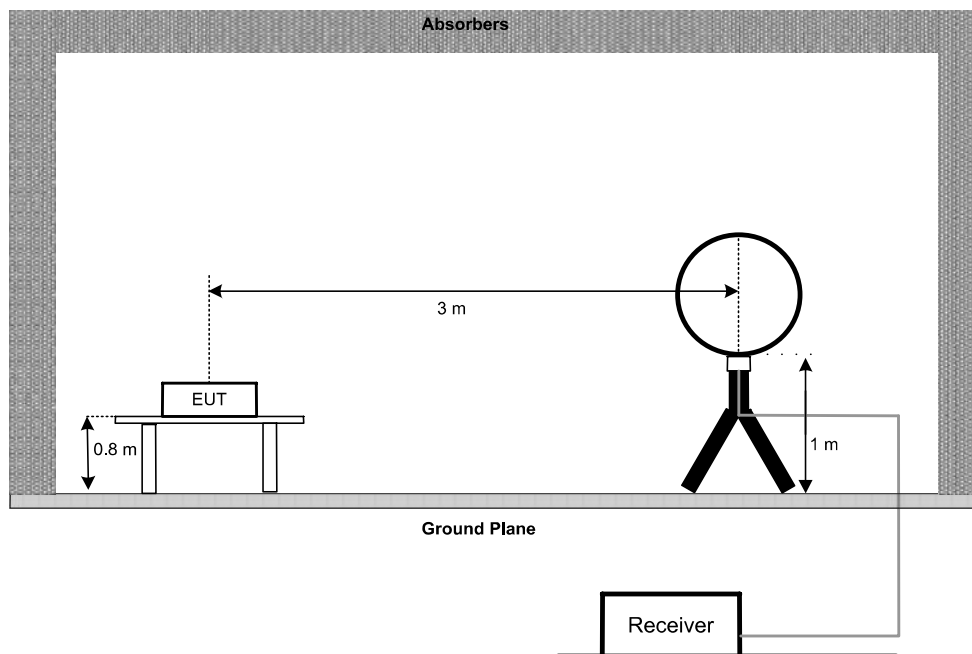
- a) The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b) The measuring distance 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.

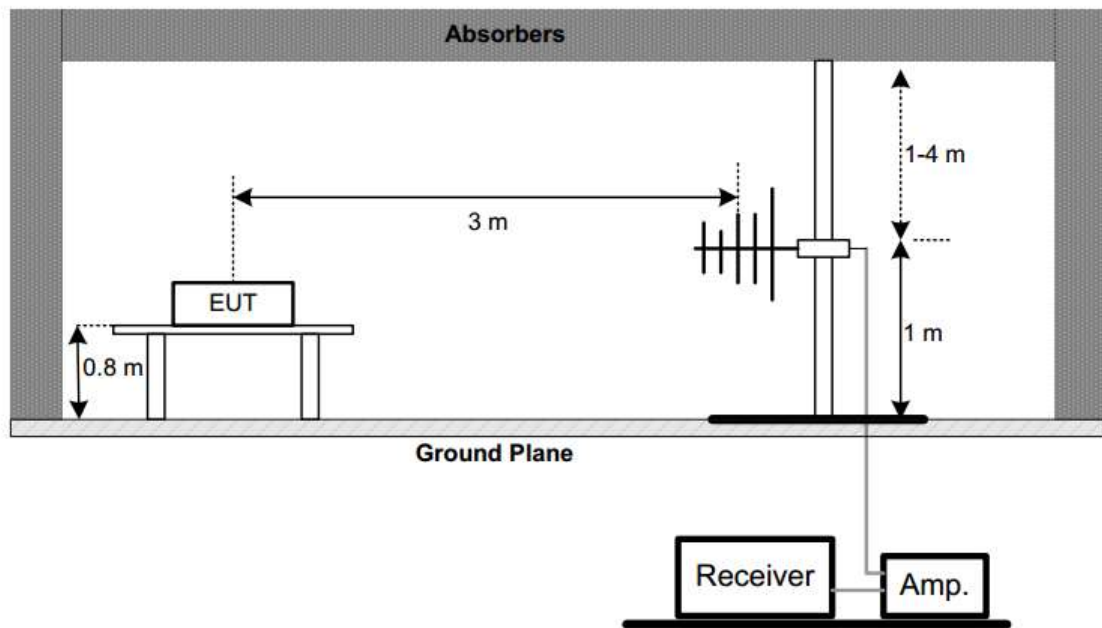
- d) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e) The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency 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

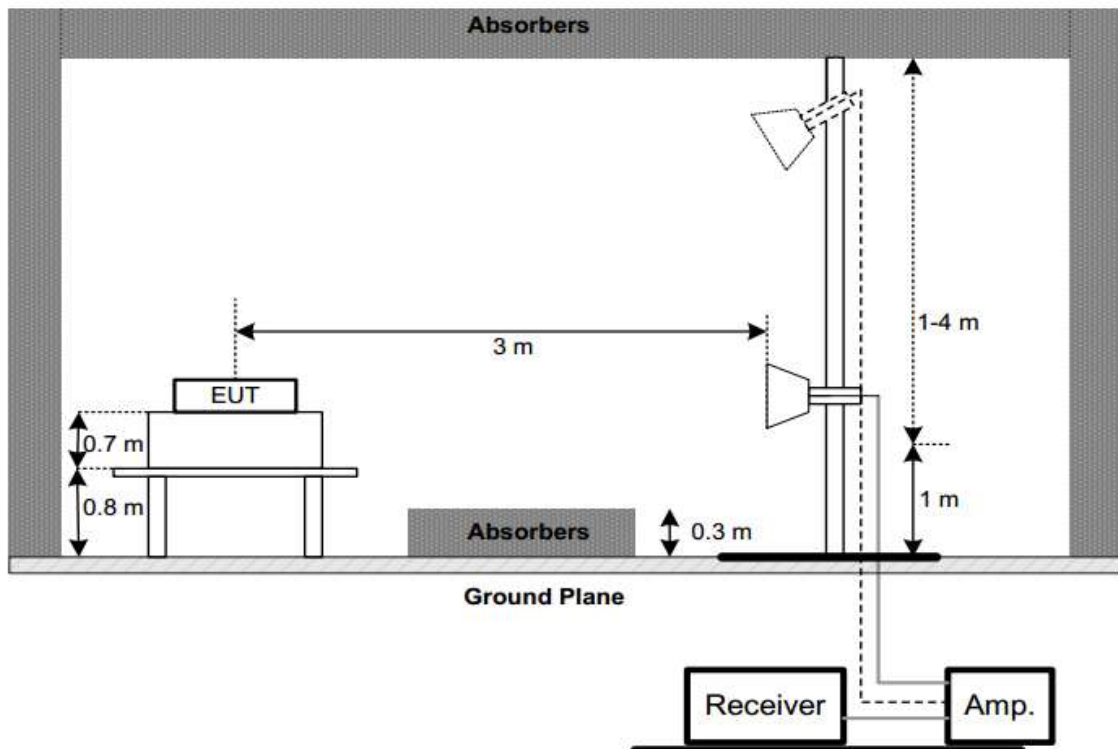
(A) Radiated Emission Test Set-Up Frequency Below 30 MHz



(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.

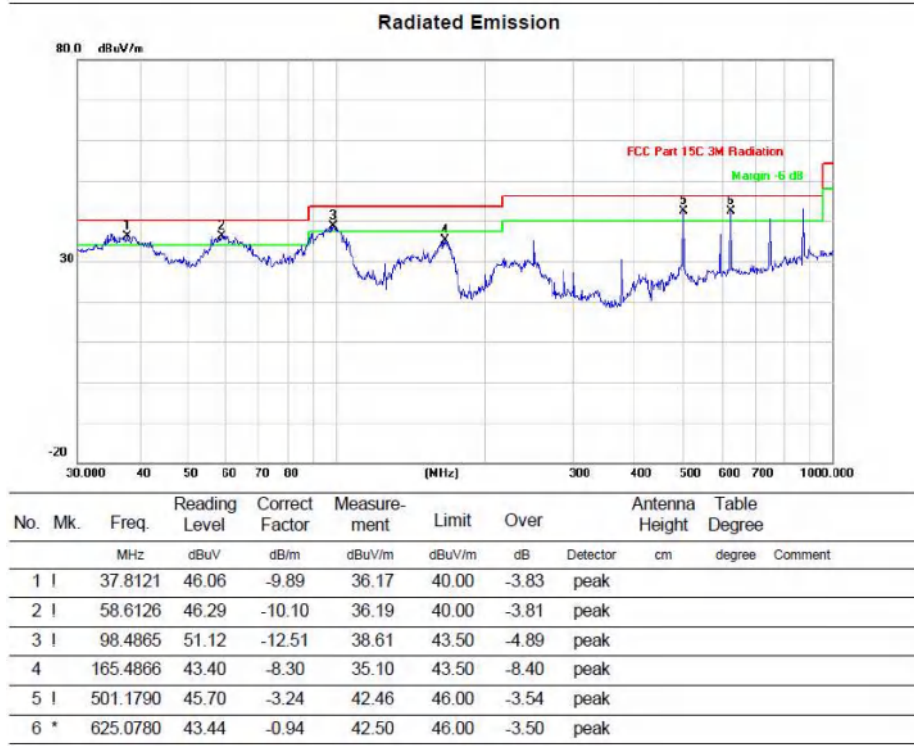
2) Radiated emission: 30MHz-1G

Note:

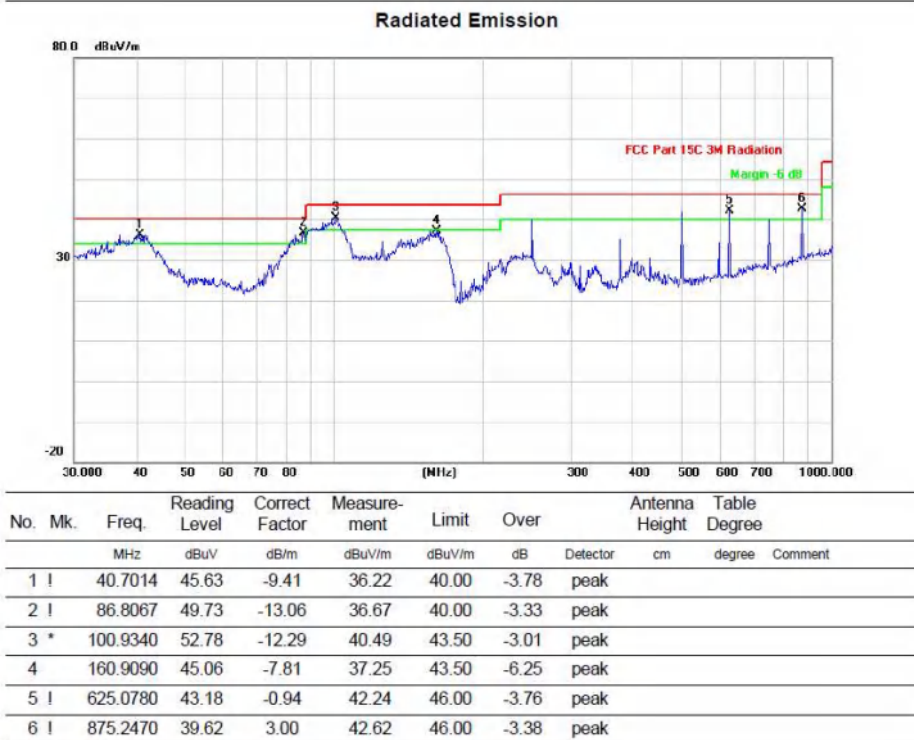
1. Measurement = Reading + Correct Factor.
2. Over = Measurement – Limit

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

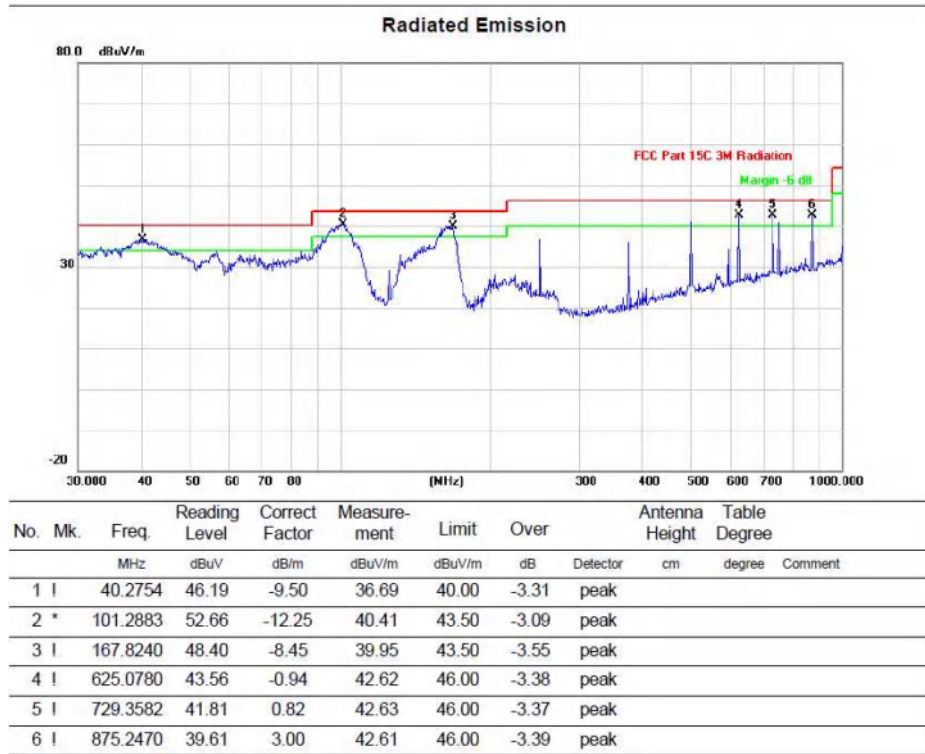
VERTICAL



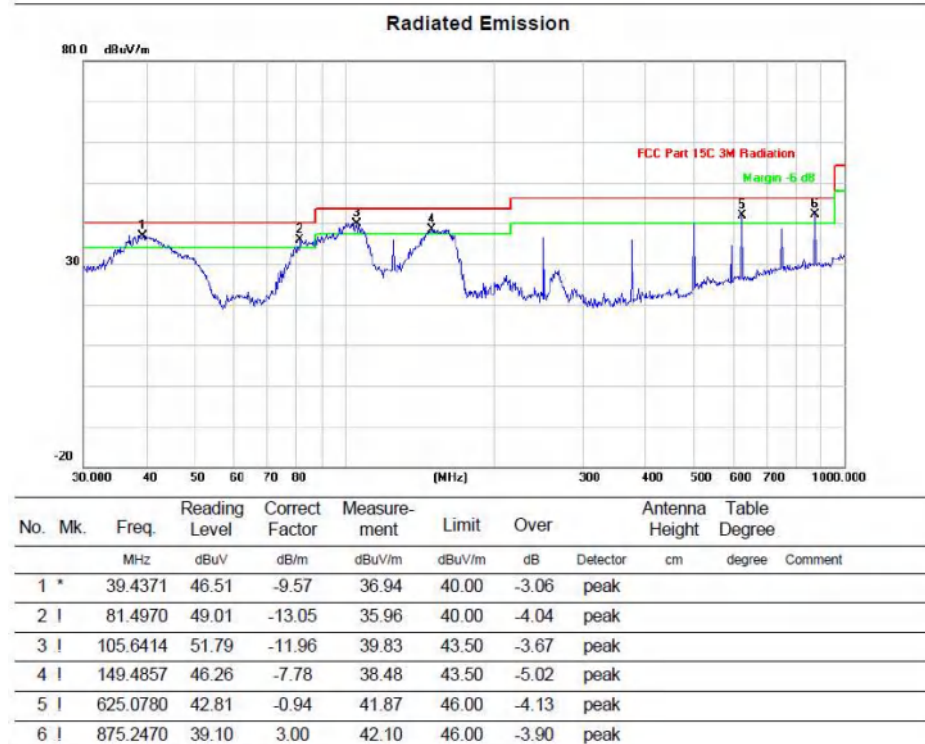
HORIZONTAL



VERTICAL



HORIZONTAL



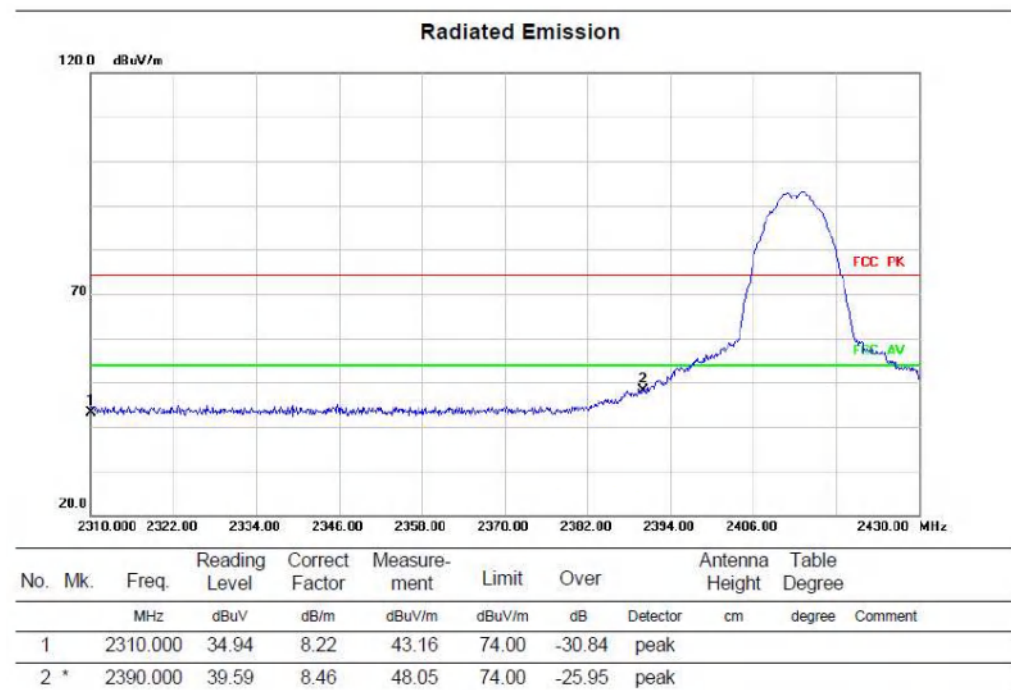
3) Radiated emission: Above 1G

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
1	*	4824.000	48.97	-4.18	44.79	74.00	-29.21	peak	

Radiated Emission



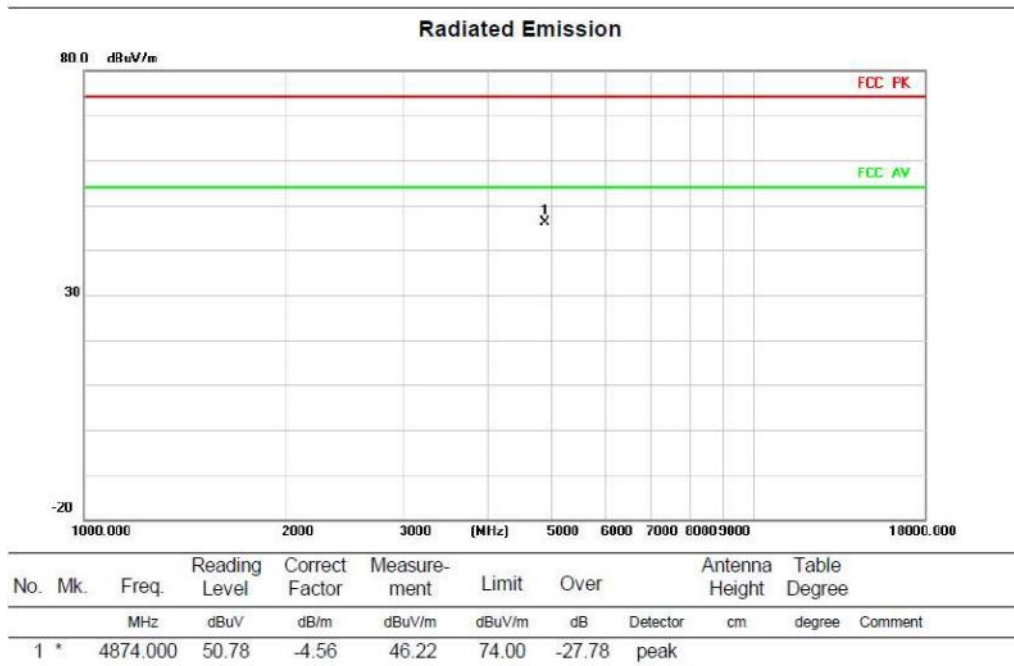
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1		2310.000	36.07	8.22	44.29	74.00	-29.71	peak	
2		2390.000	49.81	8.46	58.27	74.00	-15.73	peak	
3	*	2390.000	40.17	8.46	48.63	54.00	-5.37	AVG	

Above 1G (1GHz~18GHz)

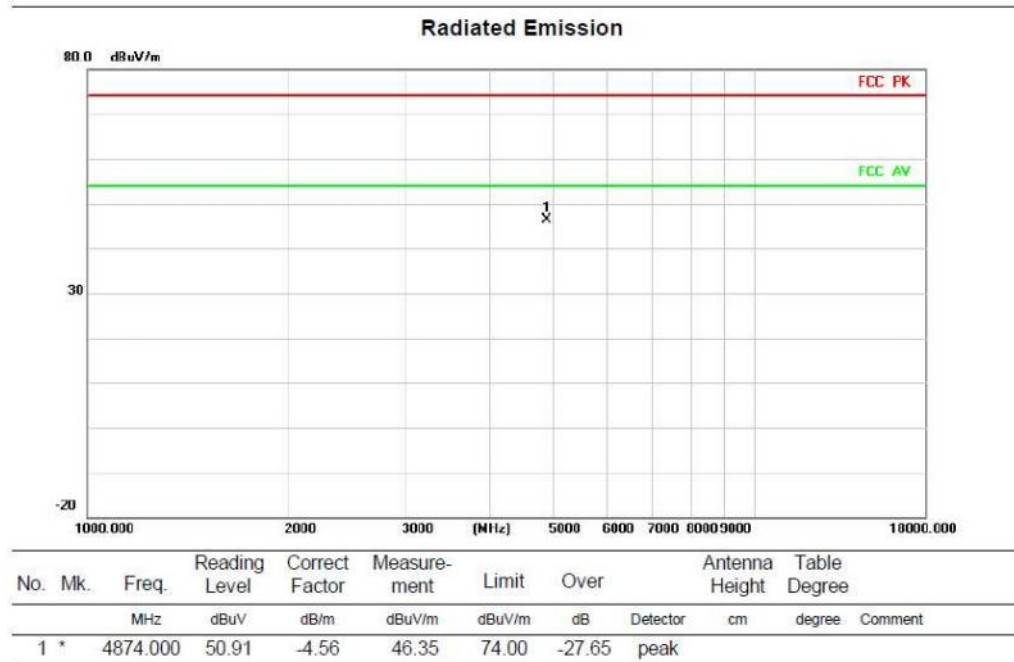
Test mode:11B

Test Channel:6

VERTICAL



HORIZONTAL



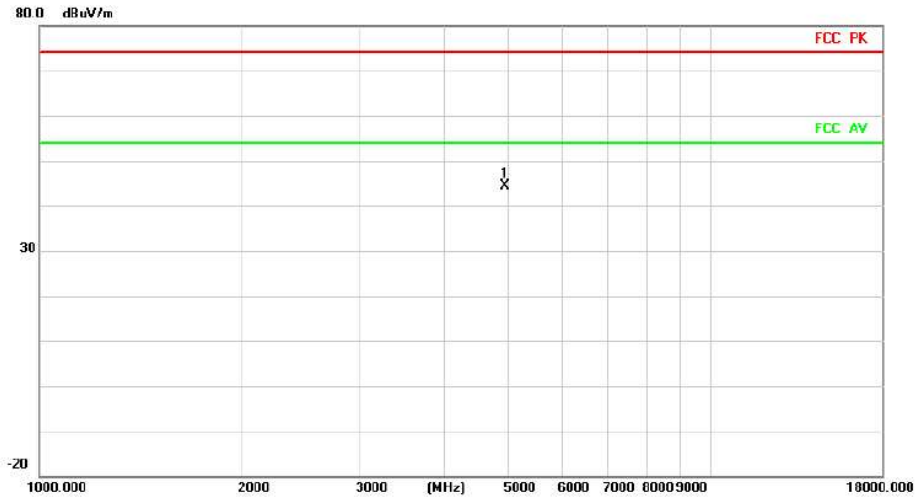
Above 1G (1GHz~18GHz)

Test mode: 11B

Test Channel:11

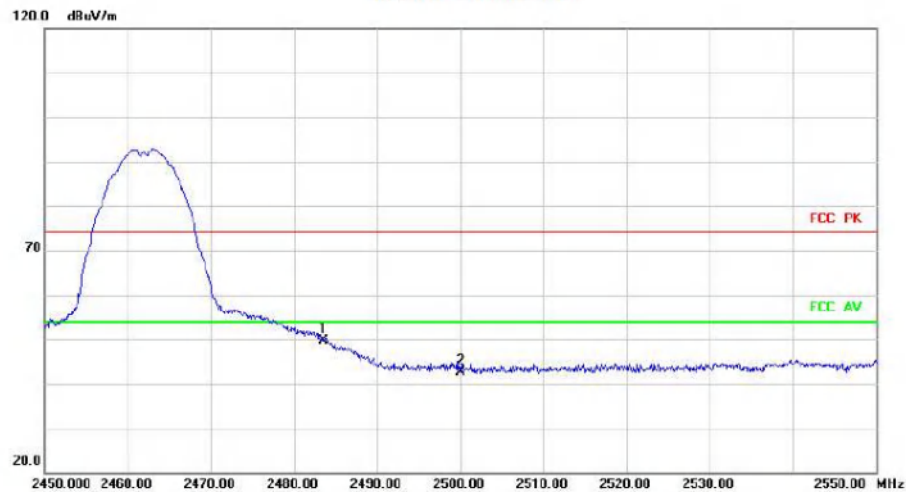
VERTICAL

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	Comment
1	*	4944.000	49.47	-5.07	44.40	74.00	-29.60			peak

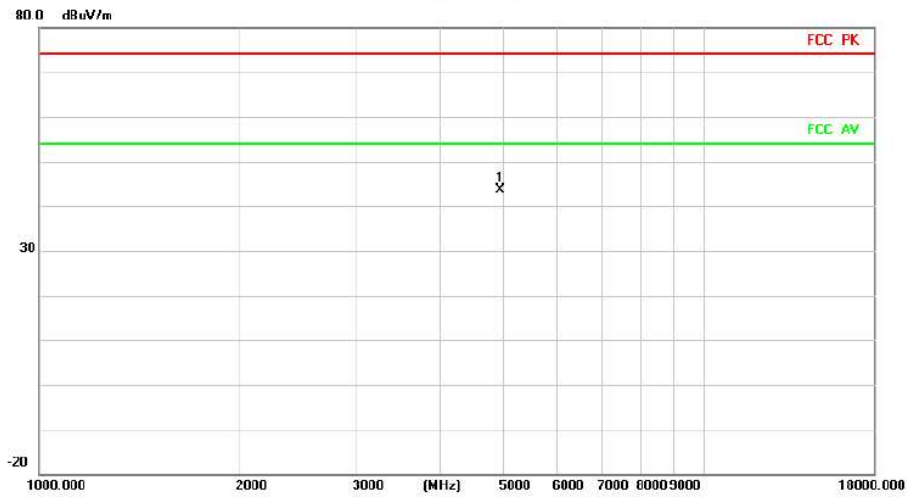
Radiated Emission



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	40.57	9.10	49.67	74.00	-24.33			peak
2		2500.000	33.48	9.26	42.74	74.00	-31.26			peak

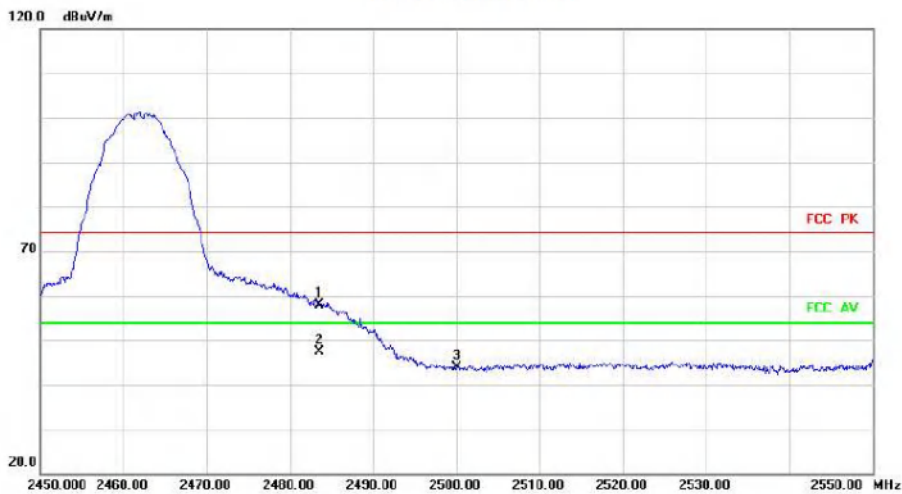
HORIZONTAL

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	*	4944.000	48.64	-5.07	43.57	74.00	-30.43	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	48.80	9.10	57.90	74.00	-16.10	peak	
2	*	2483.500	38.19	9.10	47.29	54.00	-6.71	AVG	
3		2500.000	34.56	9.26	43.82	74.00	-30.18	peak	

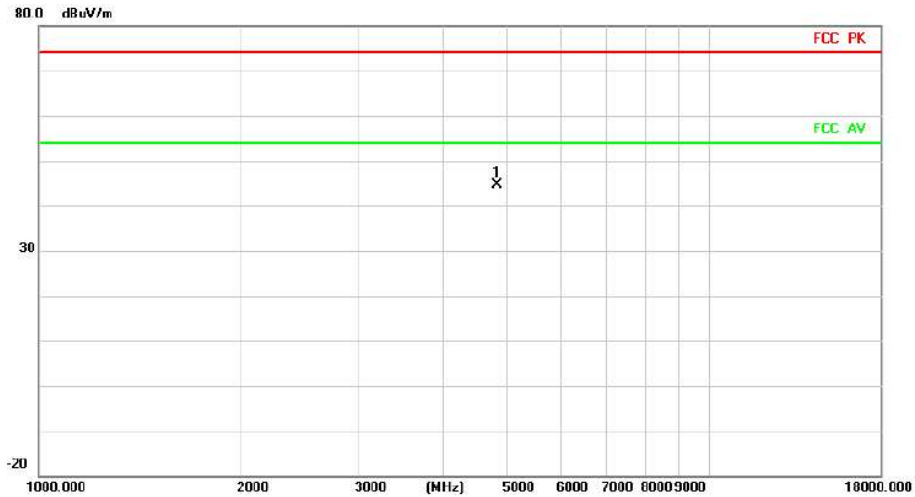
Above 1G (1GHz~18GHz)

Test mode:11G

Test Channel:1

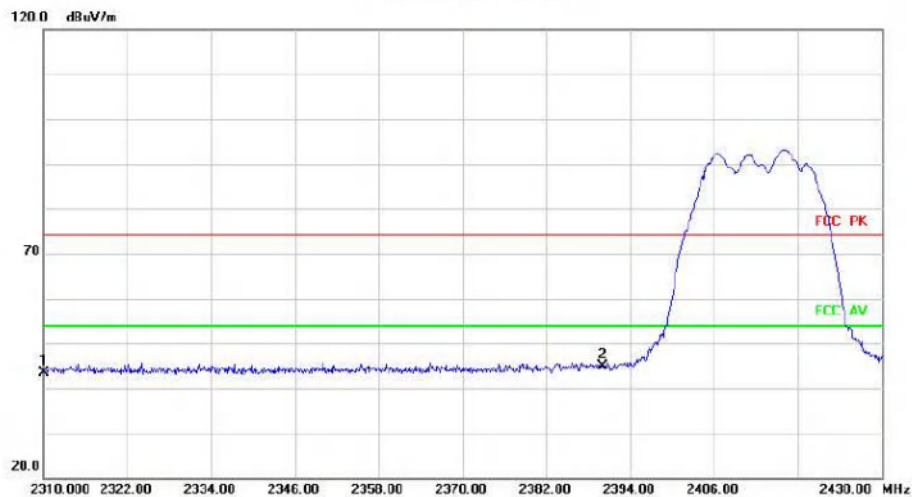
VERTICAL

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	Comment
1	*	4824.000	48.75	-4.18	44.57	74.00	-29.43	peak		

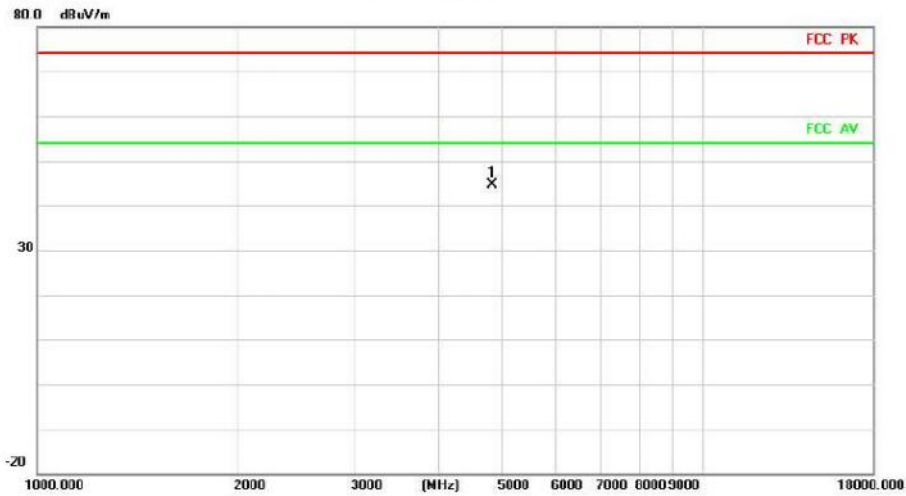
Radiated Emission



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	35.23	8.22	43.45	74.00	-30.55	peak		
2	*	2390.000	36.44	8.46	44.90	74.00	-29.10	peak		

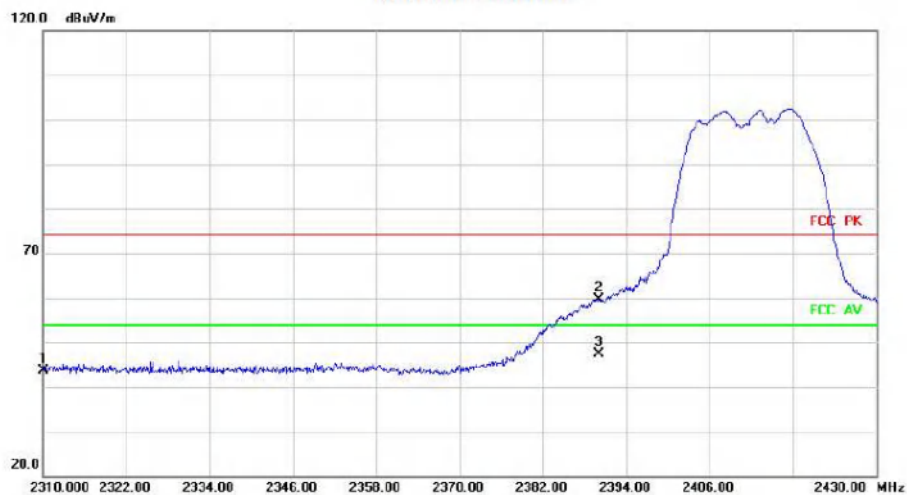
HORIZONTAL

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	*	4824.000	48.83	-4.18	44.65	74.00	-29.35	peak	

Radiated Emission



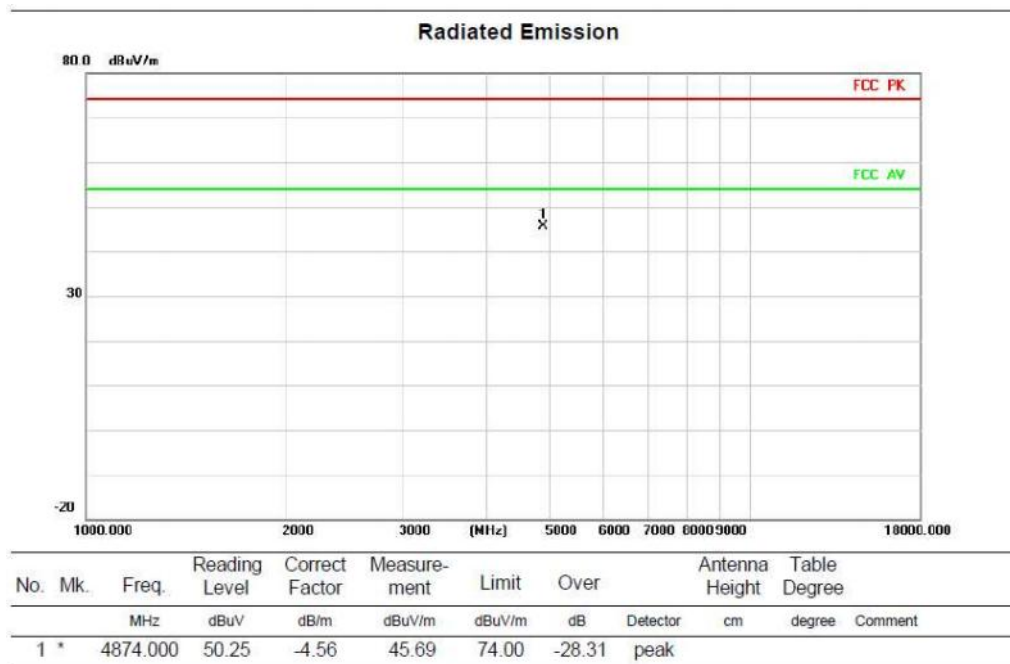
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1		2310.000	35.39	8.22	43.61	74.00	-30.39	peak	
2		2390.000	51.23	8.46	59.69	74.00	-14.31	peak	
3	*	2390.000	38.92	8.46	47.38	54.00	-6.62	AVG	

Above 1G (1GHz~18GHz)

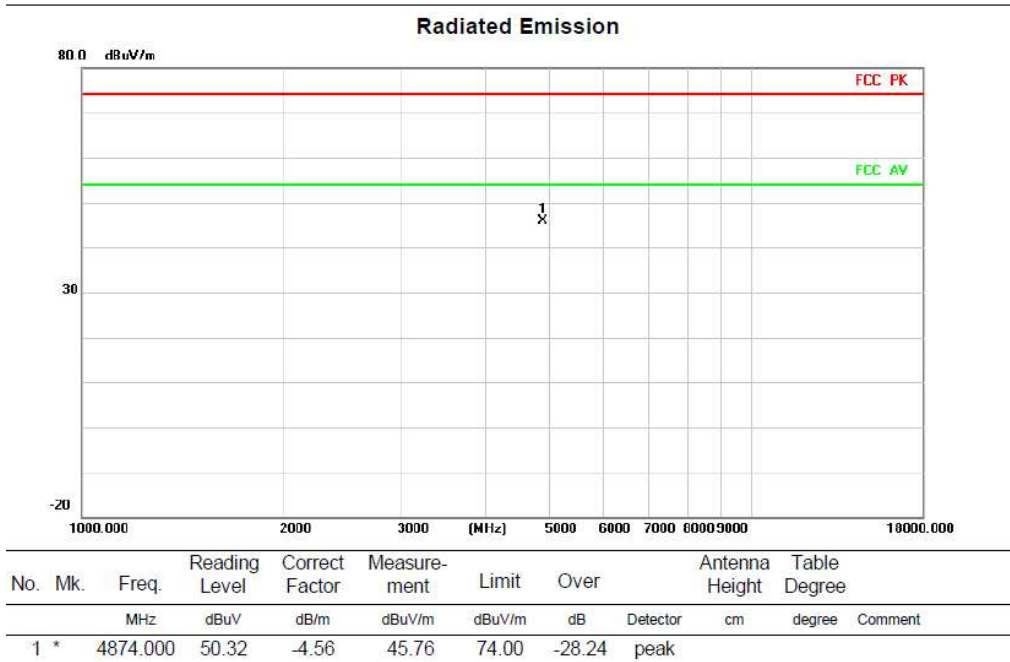
Test mode:11G

Test Channel:6

VERTICAL



HORIZONTAL



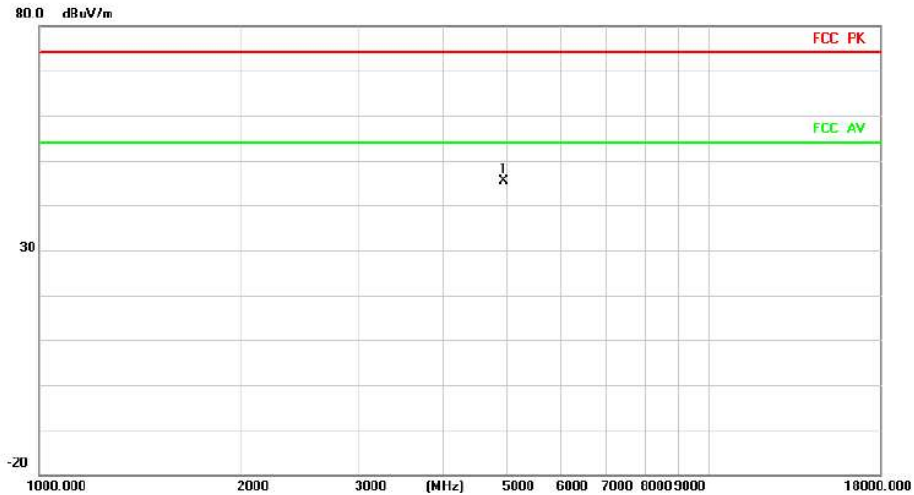
Above 1G (1GHz~18GHz)

Test mode: 11G

Test Channel:11

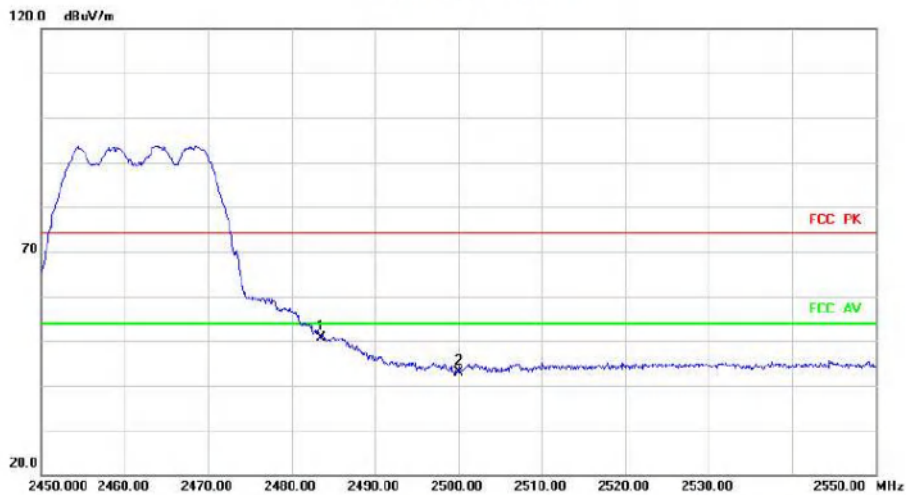
VERTICAL

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	Comment
1	*	4944.000	50.51	-5.07	45.44	74.00	-28.56	peak		

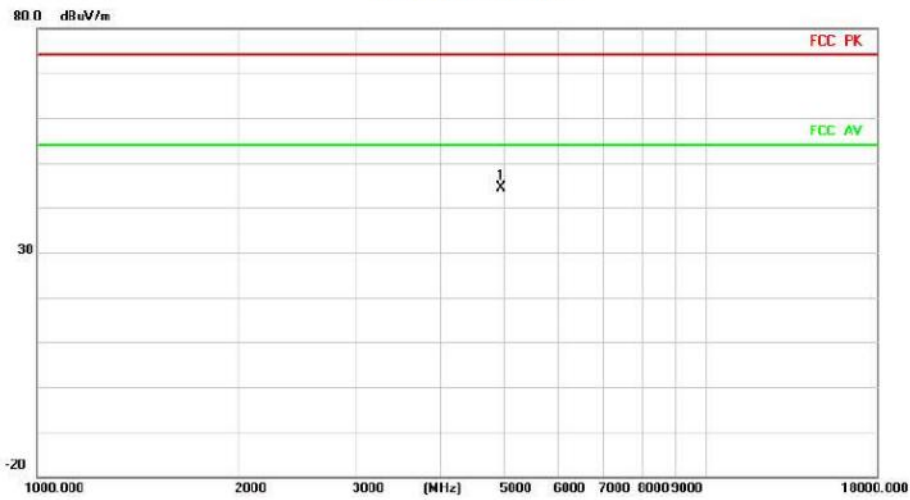
Radiated Emission



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	41.55	9.10	50.65	74.00	-23.35	peak		
2		2500.000	33.67	9.26	42.93	74.00	-31.07	peak		

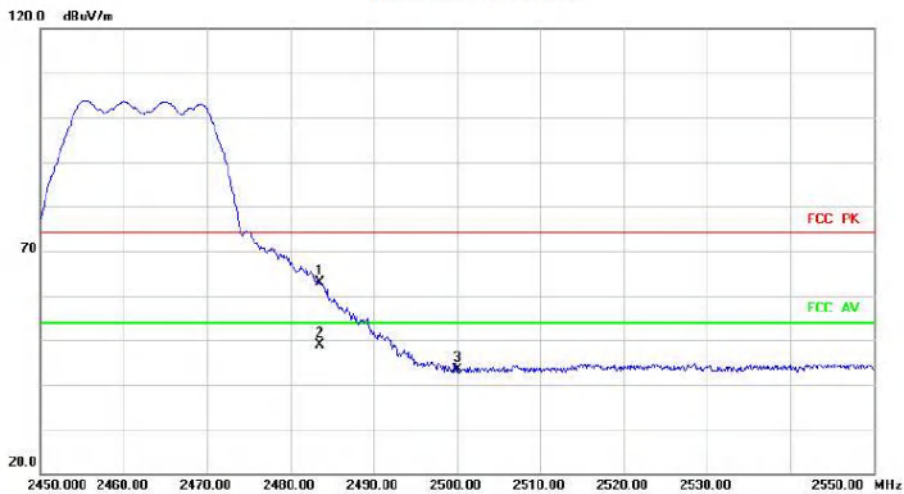
HORIZONTAL

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	Detector	cm	degree
1	*	4944.000	49.54	-5.07	44.47	74.00	-29.53	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	Detector	cm	degree
1		2483.500	53.74	9.10	62.84	74.00	-11.16	peak		
2	*	2483.500	39.66	9.10	48.76	54.00	-5.24	AVG		
3		2500.000	34.02	9.26	43.28	74.00	-30.72	peak		

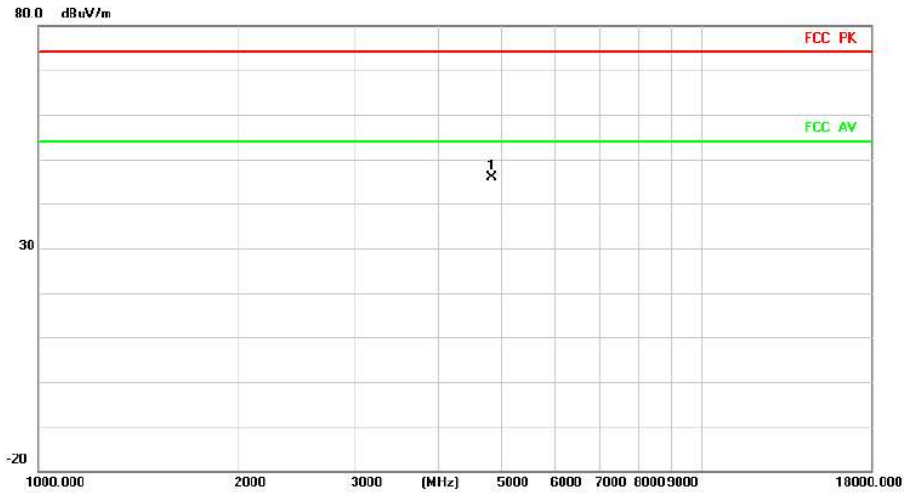
Above 1G (1GHz~18GHz)

Test mode: 11N20SISO

Test Channel:1

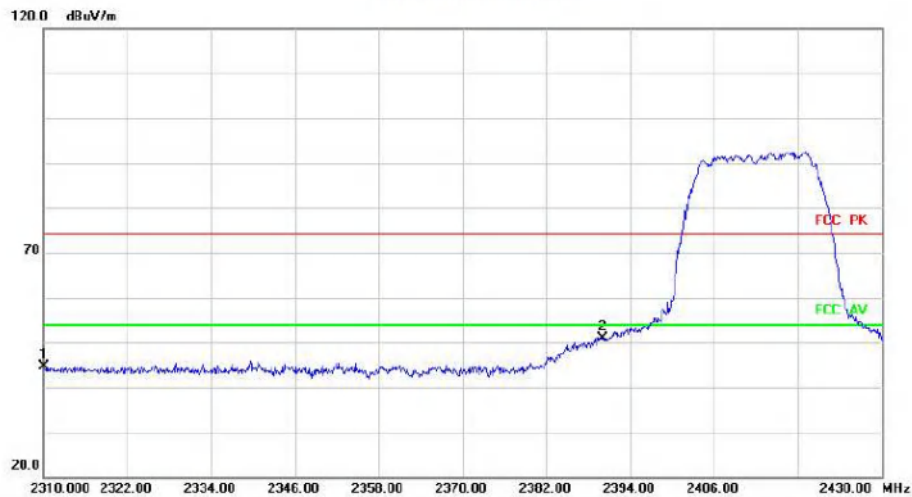
VERTICAL

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	Comment
1	*	4824.000	50.05	-4.18	45.87	74.00	-28.13	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	36.34	8.22	44.56	74.00	-29.44	peak		
2	*	2390.000	42.46	8.46	50.92	74.00	-23.08	peak		

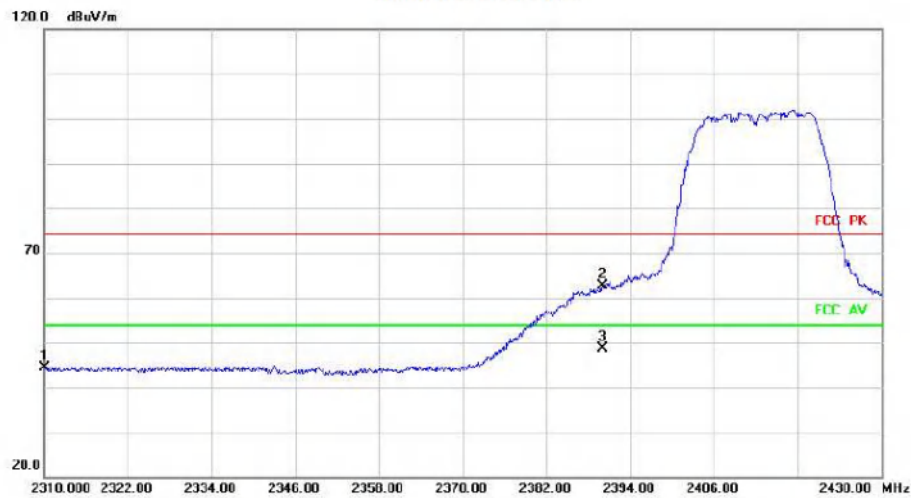
HORIZONTAL

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	*	4824.000	48.84	-4.18	44.66	74.00	-29.34	peak		

Radiated Emission



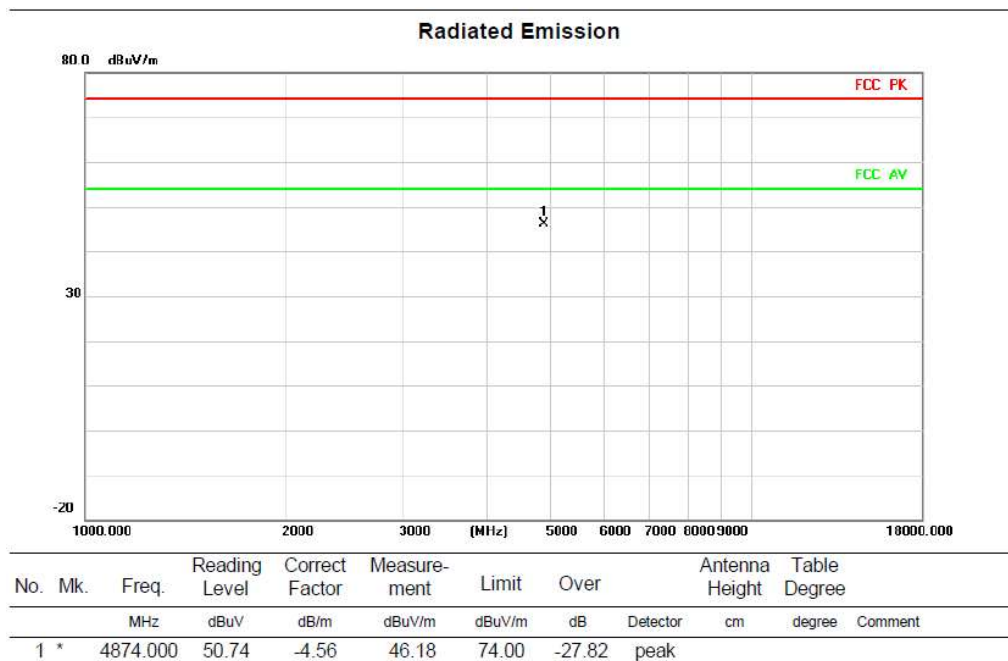
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		2310.000	36.19	8.22	44.41	74.00	-29.59	peak		
2		2390.000	54.23	8.46	62.69	74.00	-11.31	peak		
3	*	2390.000	40.13	8.46	48.59	54.00	-5.41	AVG		

Above 1G (1GHz~18GHz)

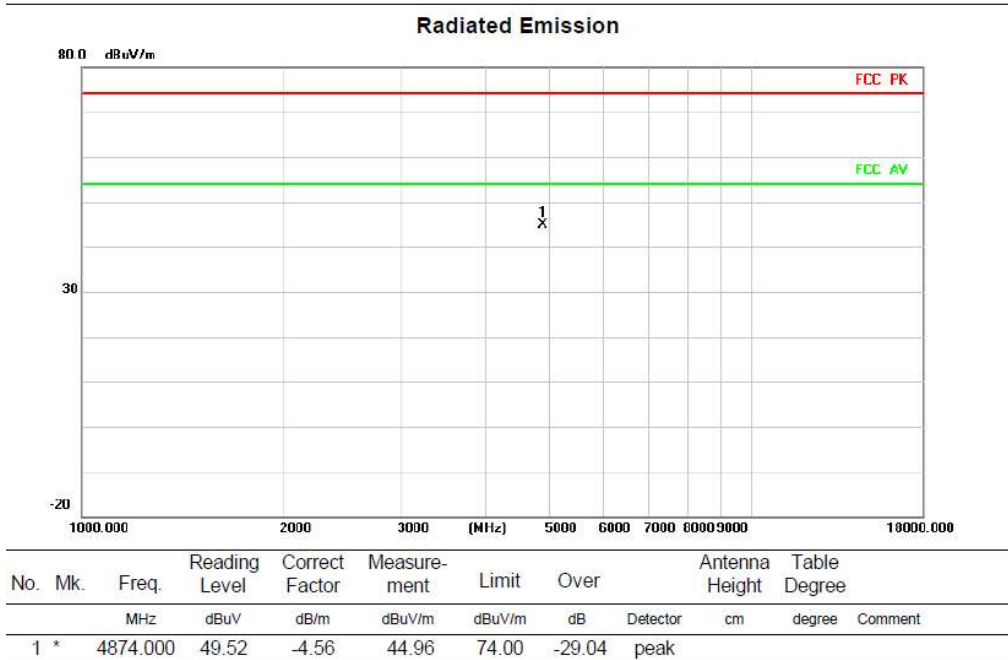
Test mode:11N20SISO

Test Channel:6

VERTICAL



HORIZONTAL



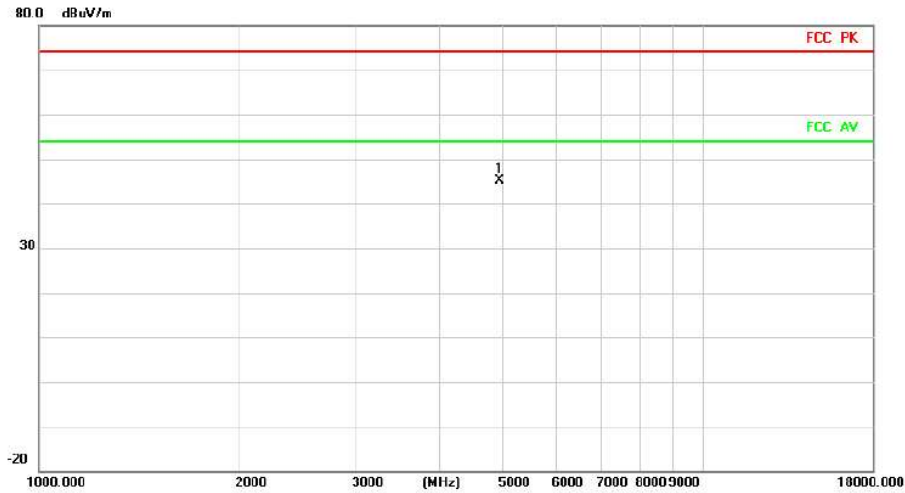
Above 1G (1GHz~18GHz)

Test mode: 11N20SISO

Test Channel:11

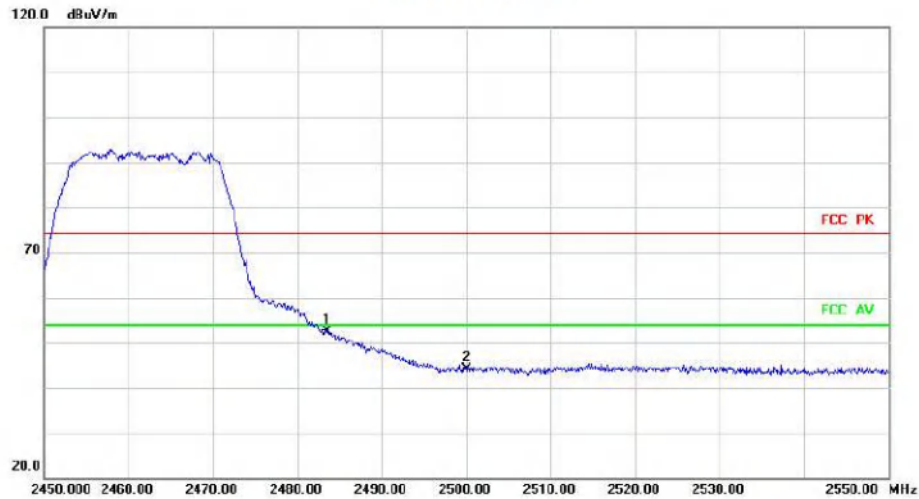
VERTICAL

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	*	4944.000	50.12	-5.07	45.05	74.00	-28.95	peak		

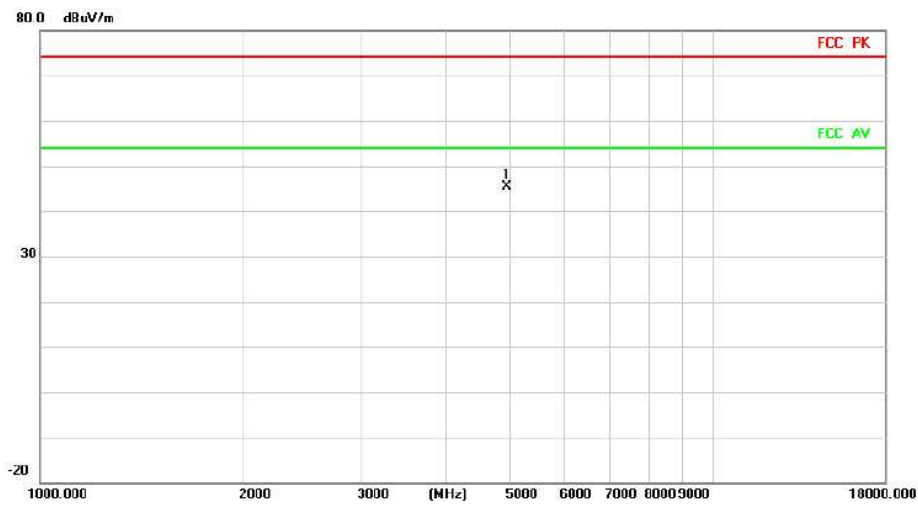
Radiated Emission



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	*	2483.500	43.34	9.10	52.44	74.00	-21.56	peak		
2		2500.000	34.81	9.26	44.07	74.00	-29.93	peak		

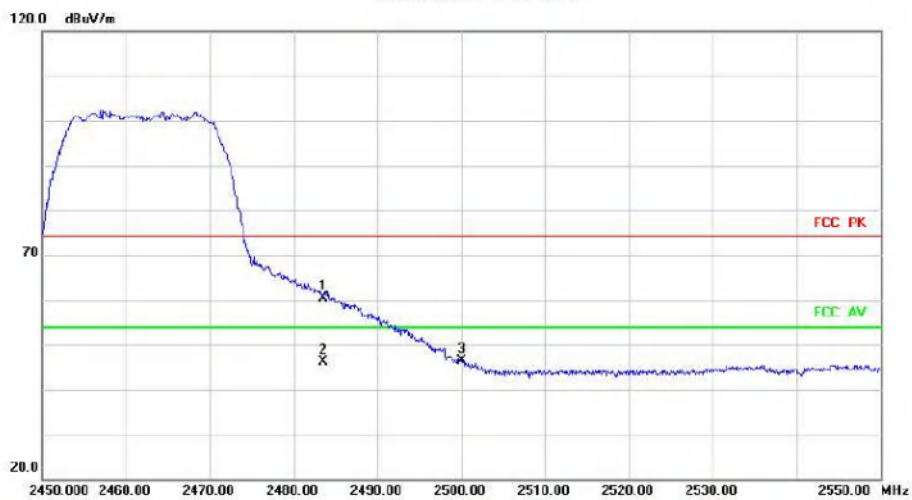
HORIZONTAL

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	*	4944.000	50.39	-5.07	45.32	74.00	-28.68	peak		

Radiated Emission



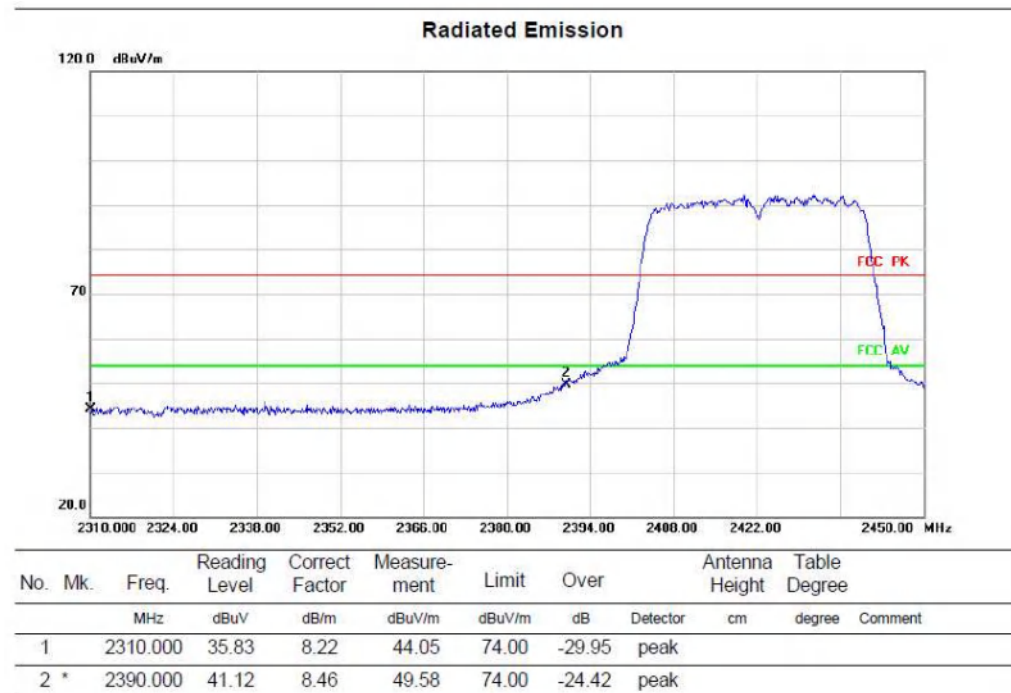
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		2483.500	51.40	9.10	60.50	74.00	-13.50	peak		
2	*	2483.500	37.05	9.10	46.15	54.00	-7.85	AVG		
3		2500.000	37.24	9.26	46.50	74.00	-27.50	peak		

Above 1G (1GHz~18GHz)

Test mode: 11N40SISO

Test Channel:3

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
1	*	4844.000	48.71	-4.38	44.33	74.00	-29.67	peak	

Radiated Emission



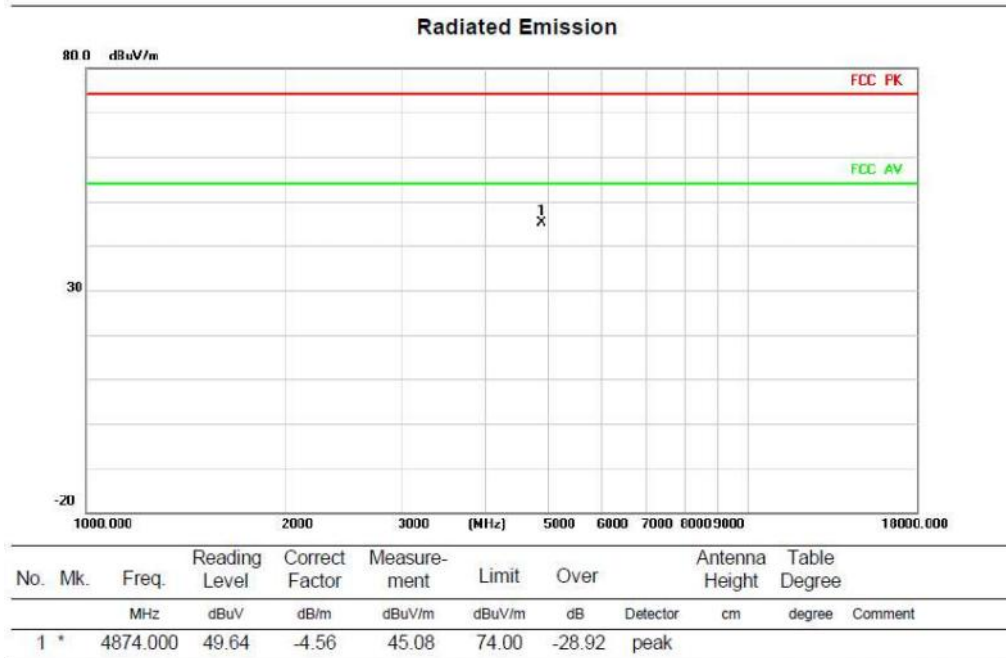
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1		2310.000	35.58	8.22	43.80	74.00	-30.20	peak	
2		2390.000	50.80	8.46	59.26	74.00	-14.74	peak	
3	*	2390.000	38.82	8.46	47.28	54.00	-6.72	AVG	

Above 1G (1GHz~18GHz)

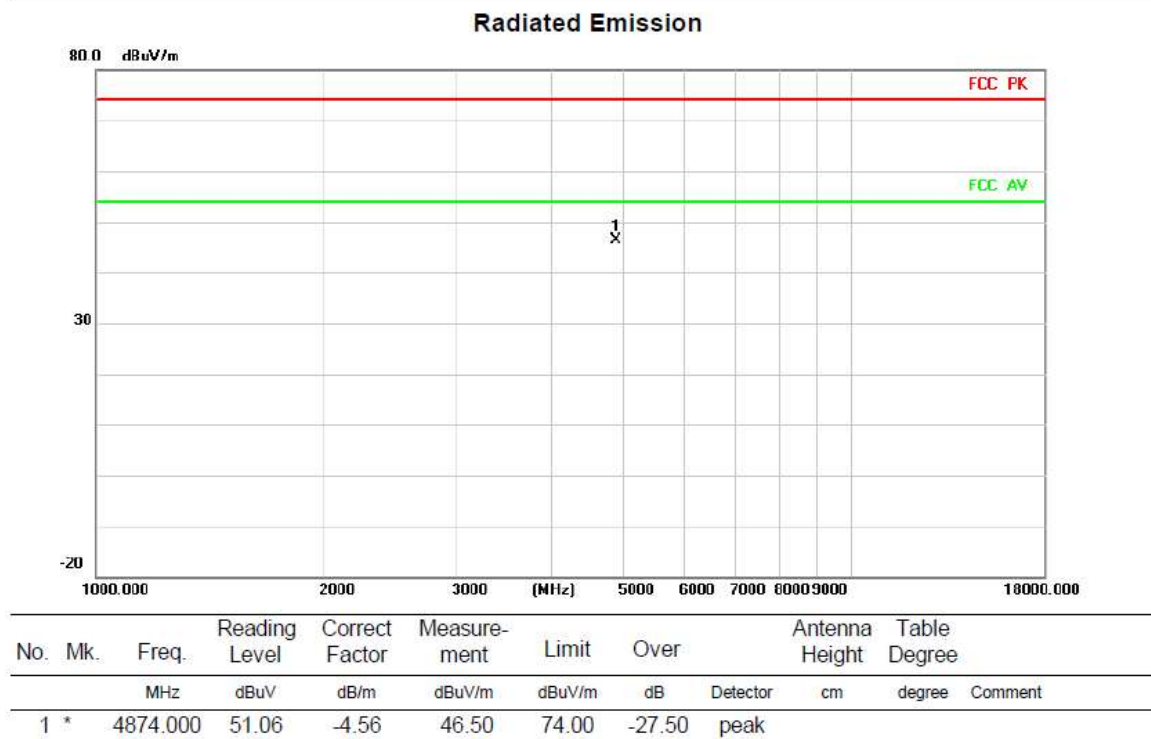
Test mode:11N40SISO

Test Channel:6

VERTICAL



HORIZONTAL



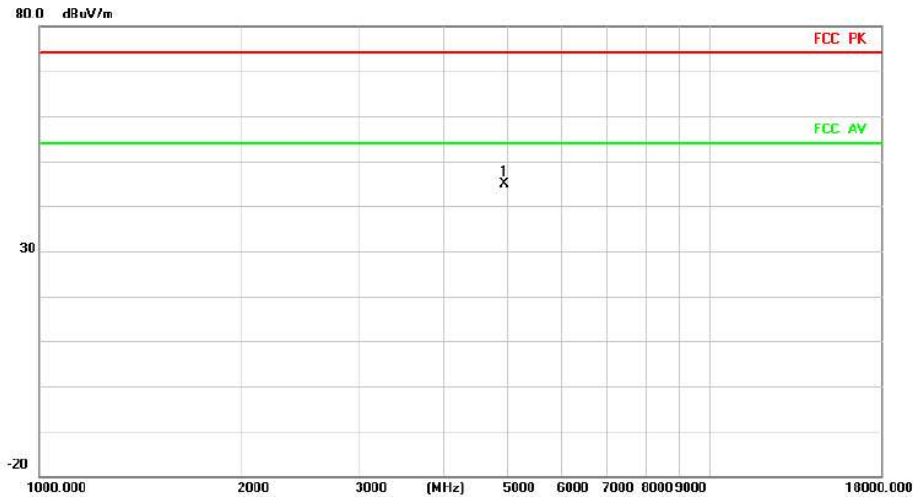
Above 1G (1GHz~18GHz)

Test mode: 11N40SISO

Test Channel:9

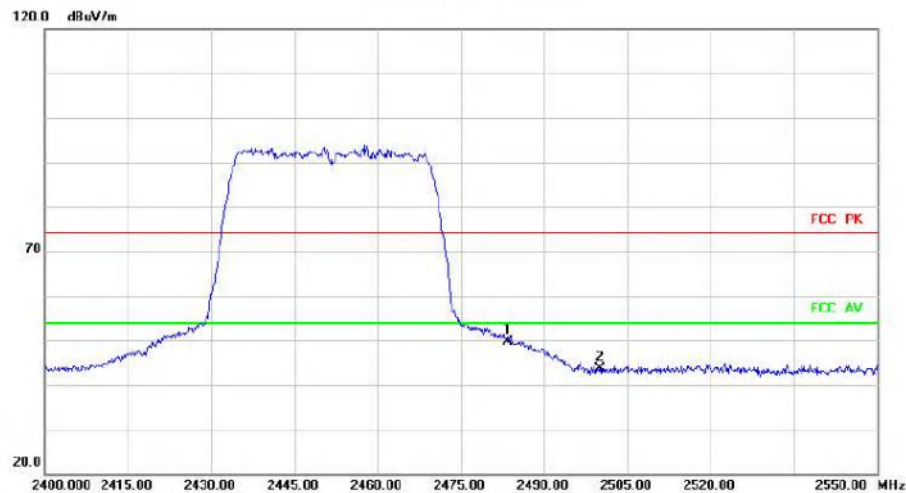
VERTICAL

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	49.77	-4.90	44.87	74.00	-29.13	peak		

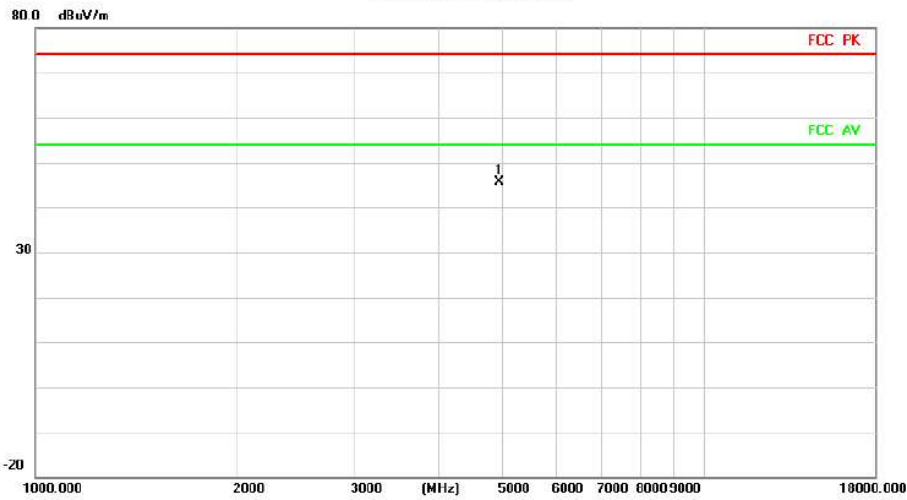
Radiated Emission



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	40.56	9.10	49.66	74.00	-24.34	peak		
2		2500.000	34.35	9.26	43.61	74.00	-30.39	peak		

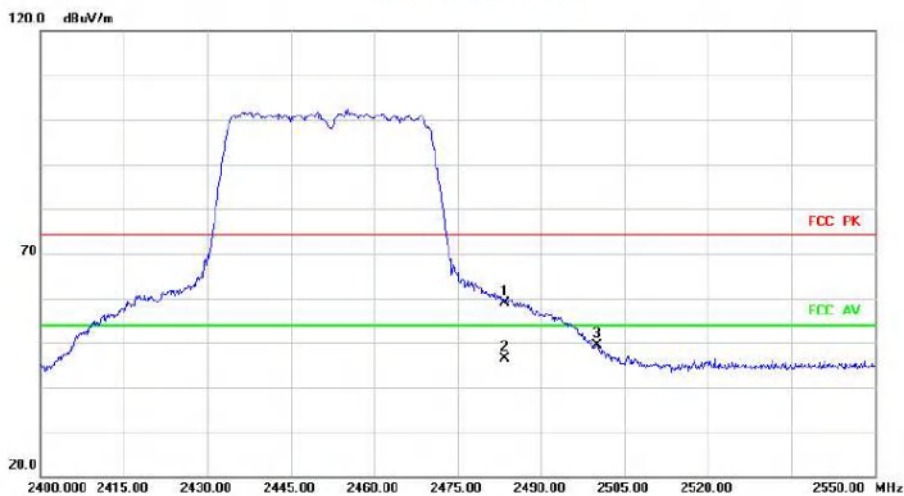
HORIZONTAL

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	Detector	cm	degree
1	*	4924.000	50.48	-4.90	45.58	74.00	-28.42	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	Detector	cm	degree
1		2483.500	49.80	9.10	58.90	74.00	-15.10	peak		
2	*	2483.500	37.25	9.10	46.35	54.00	-7.65	AVG		
3		2500.000	40.04	9.26	49.30	74.00	-24.70	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.

3.3 Spurious Emission at Antenna Port

3.3.1 Limit

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 Output Power limits. If the transmitter complies with the Output 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 Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

3.3.2 Test Procedure

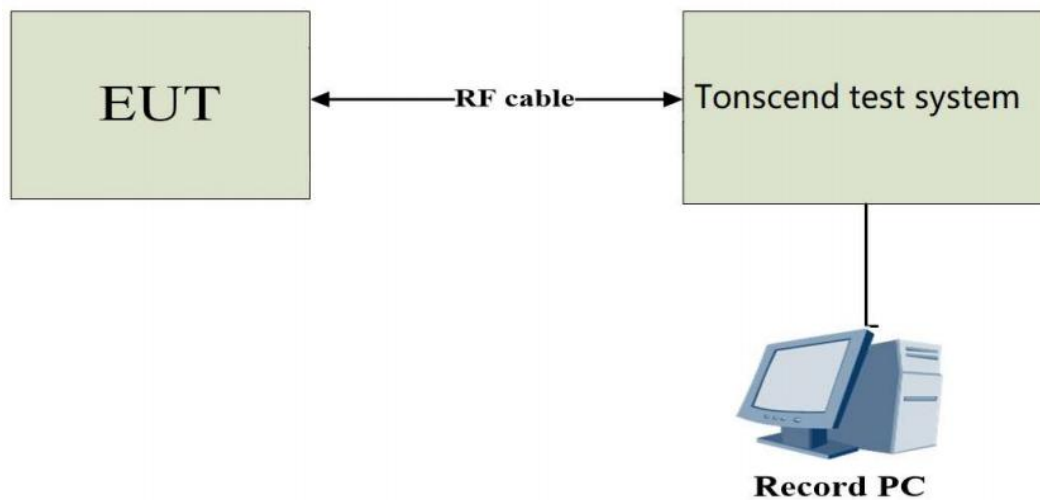
Test Method	
☒ Conducted Measurement	☐ Radiated Measurement
Test Channels	
☒ Lowest, Middle and Highest Channel	☐ Lowest and Highest Channel
Environmental conditions	
☒ Normal	☐ Normal and Extreme
Note: ☒ : Test ☐ : No Test	

a) The EUT was directly connected to the tonscond test system and antenna output port as show in the block diagram below.

b) Spectrum Setting as below:

Centre Frequency	The centre frequency of the channel under test
Spectrum Parameters	Setting
Start Frequency	30 MHz
Stop Frequency	26.5 GHz
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

3.3.3 Test Setup



3.3.4 The Result

Conducted Spurious Emission



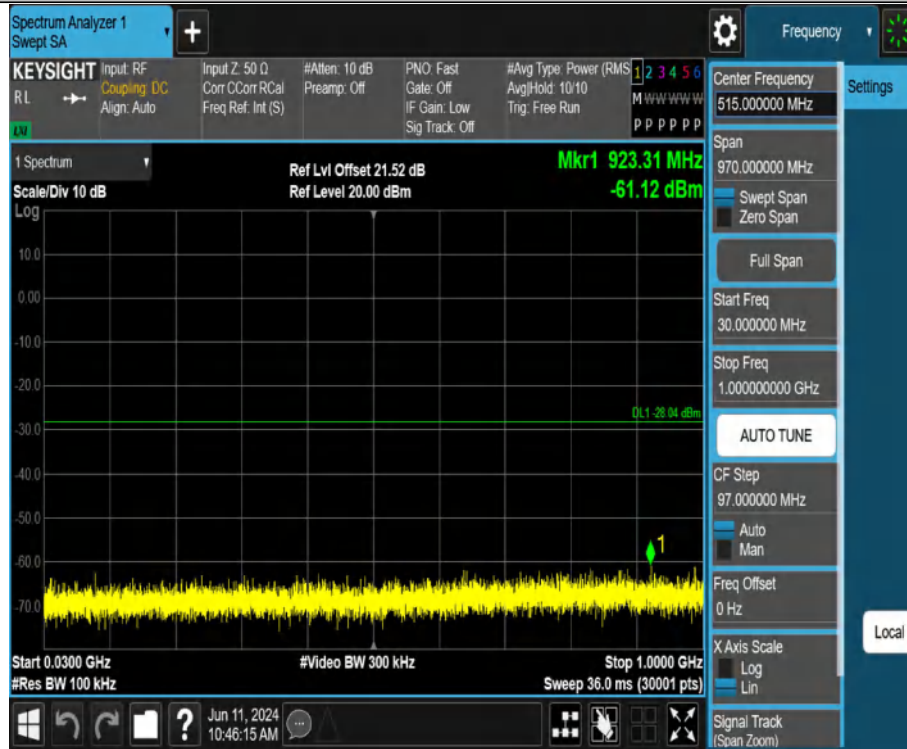
11B_Ant1_2412_1000~26500



11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



11B_Ant1_2437_1000~26500

