

TEST REPORT

Applicant: Norav Medical

Address of Applicant: 601 N. Congress Ave. Unit 105, Delray Beach, Florida 33445, United States

Manufacturer/Factory: Norav Medical

Address of Manufacturer/Factory: 601 N. Congress Ave. Unit 105, Delray Beach, Florida 33445, United States

Equipment Under Test (EUT)

Product Name: NR Recorder

Model No.: NR-1207-3

Trade Mark: NR Recorder

FCC ID: 2BHLM-NR12073WK

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.249

Date of sample receipt: July 29, 2024

Date of Test: July 30, 2024-September 20, 2024

Date of report issued: September 20, 2024

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Robinson Luo

Laboratory Manager

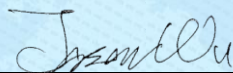
This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.



2 Version

Version No.	Date	Description
00	September 20, 2024	Original

Prepared By:

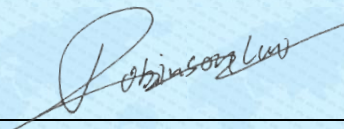


Date:

September 20, 2024

Project Engineer

Check By:



Date:

September 20, 2024

Reviewer

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4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	N/A
Field strength of the fundamental signal	15.249 (a)	Pass
Spurious emissions	15.249 (a) (d)/15.209	Pass
Band edge	15.249 (d)/15.205	Pass
20dB Occupied Bandwidth	15.215 (c)	Pass

Remarks:

1. Test according to ANSI C63.10:2013.
2. Pass: The EUT complies with the essential requirements in the standard.

4.1 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 7.25 \times 10^{-8}$
2	Duty cycle	$\pm 0.37\%$
3	Occupied Bandwidth	$\pm 3\%$
4	RF conducted power	$\pm 0.75\text{dB}$
5	RF power density	$\pm 3\text{dB}$
6	Conducted Spurious emissions	$\pm 2.58\text{dB}$
7	AC Power Line Conducted Emission	$\pm 3.44\text{dB}$ (0.15MHz ~ 30MHz)
8	Radiated Spurious emission test	$\pm 3.1\text{dB}$ (9kHz-30MHz)
		$\pm 3.8039\text{dB}$ (30MHz-200MHz)
		$\pm 3.9679\text{dB}$ (200MHz-1GHz)
		$\pm 4.29\text{dB}$ (1GHz-18GHz)
		$\pm 3.30\text{dB}$ (18GHz-40GHz)
9	Temperature test	$\pm 1^\circ\text{C}$
10	Humidity test	$\pm 3\%$
11	Time	$\pm 3\%$

5 General Information

5.1 General Description of EUT

Product Name:	NR Recorder
Model No.:	NR-1207-3
Serial No.:	Di30639
Test sample(s) ID:	GTS2024070434-1
Sample(s) Status	Engineered sample
Operation Frequency:	2401MHz~2481MHz
Channel Numbers:	41
Modulation Type:	GFSK
Antenna Type:	Internal Antenna
Antenna gain:	-1.88dBi(declare by applicant)
Power supply:	DC 1.5V(2*1.5V Size“AA” Battery)

Remark:

1. Antenna gain information provided by the customer
2. The relevant information of the sample is provided by the entrusting company, and the laboratory is not responsible for its authenticity.

Operation Frequency each of channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2401	12	2423	23	2445	34	2467
2	2403	13	2425	24	2447	35	2469
3	2405	14	2427	25	2449	36	2471
4	2407	15	2429	26	2451	37	2473
5	2409	16	2431	27	2453	38	2475
6	2411	17	2433	28	2455	39	2477
7	2413	18	2435	29	2457	40	2479
8	2415	19	2437	30	2459	41	2481
9	2417	20	2439	31	2461		
10	2419	21	2441	32	2463		
11	2421	22	2443	33	2465		

The test frequencies are below:

Channel	Frequency
The lowest channel	2401MHz
The middle channel	2441MHz
The Highest channel	2481MHz

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode.
Remark: New battery is used during all test.	

Per-test mode.

We have verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report (Only show the worst case:Y axis) and defined as follows:

Axis	X	Y	Z
Field Strength(dBuV/m)	86.34	87.50	87.01

5.3 Description of Support Units

None.

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations: ● FCC—Registration No.: 381383 Designation Number: CN5029 Global United Technology Services Co., Ltd., Shenzhen 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 files. ● ISED—Registration No.: 9079A CAB identifier: CN0091 The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of ISED for radio equipment testing ● NVLAP (LAB CODE:600179-0) Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).
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5.7 Test Location

All tests were performed at:
Global United Technology Services Co., Ltd. Address: No. 123- 128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Tel: 0755-27798480 Fax: 0755-27798960

5.8 Additional Instructions

Test Software	Special test command provided by manufacturer
Power level setup	Default

6 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	June 22, 2024	June 21, 2027
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	April 11, 2024	April 10, 2025
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	March 19, 2023	March 18, 2025
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	April 17, 2023	April 16, 2025
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	April 11, 2024	April 10, 2025
8	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov. 13, 2023	Nov.12, 2024
9	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	April 11, 2024	April 10, 2025
10	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	April 11, 2024	April 10, 2025
11	Horn Antenna (18-26.5GHz)	/	UG-598A/U	GTS664	Oct. 29, 2023	Oct. 28, 2024
12	Horn Antenna (26.5-40GHz)	A.H Systems	SAS-573	GTS665	Oct. 29, 2023	Oct. 28, 2024
13	FSV·Signal Analyzer (10Hz-40GHz)	Keysight	FSV-40-N	GTS666	March 12, 2024	March 11, 2025
14	Amplifier	/	LNA-1000-30S	GTS650	April 11, 2024	April 10, 2025
15	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS692	Nov. 08, 2023	Nov.07, 2024
16	Wideband Amplifier	/	WDA-01004000-15P35	GTS602	April 11, 2024	April 10, 2025
17	Thermo meter	JINCHUANG	GSP-8A	GTS643	April 18, 2024	April 17, 2025
18	RE cable 1	GTS	N/A	GTS675	July 02. 2024	July 01. 2025
19	RE cable 2	GTS	N/A	GTS676	July 02. 2024	July 01. 2025
20	RE cable 3	GTS	N/A	GTS677	July 02. 2024	July 01. 2025
21	RE cable 4	GTS	N/A	GTS678	July 02. 2024	July 01. 2025
22	RE cable 5	GTS	N/A	GTS679	July 02. 2024	July 01. 2025
23	RE cable 6	GTS	N/A	GTS680	July 02. 2024	July 01. 2025
24	RE cable 7	GTS	N/A	GTS681	July 05. 2024	July 04. 2025
25	RE cable 8	GTS	N/A	GTS682	July 05. 2024	July 04. 2025

RF Conducted Test:						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	April 11, 2024	April 10, 2025
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 11, 2024	April 10, 2025
3	PSA Series Spectrum Analyzer	Agilent	E4440A	GTS536	April 11, 2024	April 10, 2025
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	April 11, 2024	April 10, 2025
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	April 11, 2024	April 10, 2025
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	April 11, 2024	April 10, 2025
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	April 11, 2024	April 10, 2025
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	April 11, 2024	April 10, 2025
9	Thermo meter	JINCHUANG	GSP-8A	GTS641	April 18, 2024	April 17, 2025

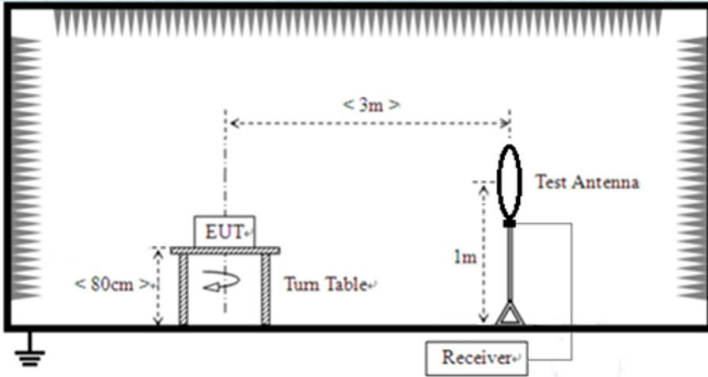
General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Barometer	KUMAO	SF132	GTS647	April 18, 2024	April 17, 2025

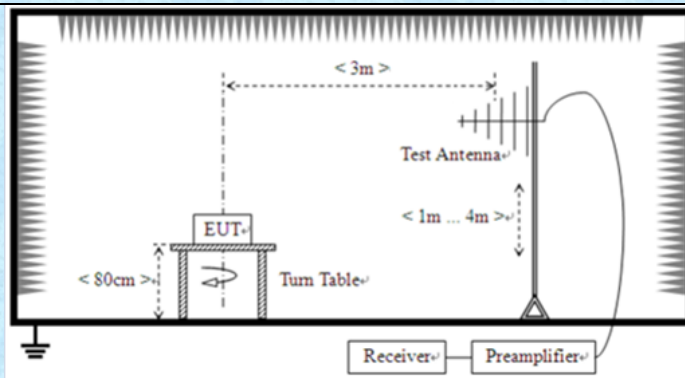
7 Test results and Measurement Data

7.1 Antenna requirement

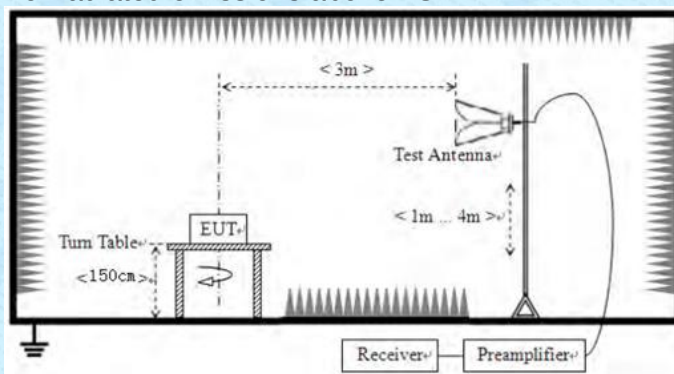
Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.	
EUT Antenna:	
The antenna is Internal Antenna, reference to the appendix II for details.	

7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209																																
Test Method:	ANSI C63.10:2013																																
Test Frequency Range:	9kHz to 25GHz																																
Test site:	Measurement Distance: 3m																																
Receiver setup:	<table><tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr><tr><td>9kHz-150kHz</td><td>Quasi-peak</td><td>200Hz</td><td>300Hz</td><td>Quasi-peak Value</td></tr><tr><td>150kHz-30MHz</td><td>Quasi-peak</td><td>9kHz</td><td>10kHz</td><td>Quasi-peak Value</td></tr><tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr><tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr><tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average Value</td></tr></table> Note: For Duty cycle $\geq 98\%$, average detector set as above, For Duty cycle $< 98\%$, average detector set as below: $VBW \geq 1 / T$				Frequency	Detector	RBW	VBW	Remark	9kHz-150kHz	Quasi-peak	200Hz	300Hz	Quasi-peak Value	150kHz-30MHz	Quasi-peak	9kHz	10kHz	Quasi-peak Value	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value	Above 1GHz	Peak	1MHz	3MHz	Peak Value	Peak	1MHz	10Hz	Average Value
Frequency	Detector	RBW	VBW	Remark																													
9kHz-150kHz	Quasi-peak	200Hz	300Hz	Quasi-peak Value																													
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30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value																													
Above 1GHz	Peak	1MHz	3MHz	Peak Value																													
	Peak	1MHz	10Hz	Average Value																													
Limit: (Field strength of the fundamental signal)	<table><tr><th>Frequency</th><th>Limit (dBuV/m @3m)</th><th>Remark</th></tr><tr><td rowspan="2">2400MHz-2483.5MHz</td><td>94.00</td><td>Average Value</td></tr><tr><td>114.00</td><td>Peak Value</td></tr></table>	Frequency	Limit (dBuV/m @3m)	Remark	2400MHz-2483.5MHz	94.00	Average Value	114.00	Peak Value																								
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2400MHz-2483.5MHz	94.00	Average Value																															
	114.00	Peak Value																															
Limit: (Spurious Emissions)	<table><tr><th>Frequency</th><th>Limit (uV/m)</th><th>Remark</th></tr><tr><td>0.009MHz-0.490MHz</td><td>2400/F(kHz) @300m</td><td>Quasi-peak Value</td></tr><tr><td>0.490MHz-1.705MHz</td><td>24000/F(kHz) @30m</td><td>Quasi-peak Value</td></tr><tr><td>1.705MHz-30.0MHz</td><td>30 @30m</td><td>Quasi-peak Value</td></tr><tr><td>30MHz-88MHz</td><td>100 @3m</td><td>Quasi-peak Value</td></tr><tr><td>88MHz-216MHz</td><td>150 @3m</td><td>Quasi-peak Value</td></tr><tr><td>216MHz-960MHz</td><td>200 @3m</td><td>Quasi-peak Value</td></tr><tr><td>960MHz-1GHz</td><td>500 @3m</td><td>Quasi-peak Value</td></tr><tr><td rowspan="2">Above 1GHz</td><td>500 @3m</td><td>Average Value</td></tr><tr><td>5000 @3m</td><td>Peak Value</td></tr></table>	Frequency	Limit (uV/m)	Remark	0.009MHz-0.490MHz	2400/F(kHz) @300m	Quasi-peak Value	0.490MHz-1.705MHz	24000/F(kHz) @30m	Quasi-peak Value	1.705MHz-30.0MHz	30 @30m	Quasi-peak Value	30MHz-88MHz	100 @3m	Quasi-peak Value	88MHz-216MHz	150 @3m	Quasi-peak Value	216MHz-960MHz	200 @3m	Quasi-peak Value	960MHz-1GHz	500 @3m	Quasi-peak Value	Above 1GHz	500 @3m	Average Value	5000 @3m	Peak Value			
Frequency	Limit (uV/m)	Remark																															
0.009MHz-0.490MHz	2400/F(kHz) @300m	Quasi-peak Value																															
0.490MHz-1.705MHz	24000/F(kHz) @30m	Quasi-peak Value																															
1.705MHz-30.0MHz	30 @30m	Quasi-peak Value																															
30MHz-88MHz	100 @3m	Quasi-peak Value																															
88MHz-216MHz	150 @3m	Quasi-peak Value																															
216MHz-960MHz	200 @3m	Quasi-peak Value																															
960MHz-1GHz	500 @3m	Quasi-peak Value																															
Above 1GHz	500 @3m	Average Value																															
	5000 @3m	Peak Value																															
Limit: (band edge)	Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.																																
Test setup:	For radiated emissions from 9kHz to 30MHz  For radiated emissions from 30MHz to 1GHz																																



For radiated emissions above 1GHz



Test Procedure:

1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Test Instruments: Refer to section 6.0 for details

Test mode: Refer to section 5.2 for details

Test environment: Temp.: 25 °C Humid.: 52% Press.: 1012mbar

Test voltage: DC 1.5V

Test results: Pass

Measurement data:
7.2.1 Field Strength of The Fundamental Signal
Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2401.00	91.89	27.10	4.18	39.36	83.81	114.00	-30.19	Vertical
2401.00	95.58	27.10	4.18	39.36	87.50	114.00	-26.50	Horizontal
2441.00	90.61	27.18	4.13	39.46	82.46	114.00	-31.54	Vertical
2441.00	93.20	27.18	4.13	39.46	85.05	114.00	-28.95	Horizontal
2481.00	89.63	27.26	4.08	39.55	81.42	114.00	-32.58	Vertical
2481.00	92.52	27.26	4.08	39.55	84.31	114.00	-29.69	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2401.00	83.68	27.10	4.18	39.36	75.60	94.00	-18.40	Vertical
2401.00	85.98	27.10	4.18	39.36	77.90	94.00	-16.10	Horizontal
2441.00	81.94	27.18	4.13	39.46	73.79	94.00	-20.21	Vertical
2441.00	83.24	27.18	4.13	39.46	75.09	94.00	-18.91	Horizontal
2481.00	83.71	27.26	4.08	39.55	75.50	94.00	-18.50	Vertical
2481.00	84.33	27.26	4.08	39.55	76.12	94.00	-17.88	Horizontal

Note: For fundamental frequency , RBW>20dB BW, VBW>=RBW, PK detector for PK value, RMS detector for AV value

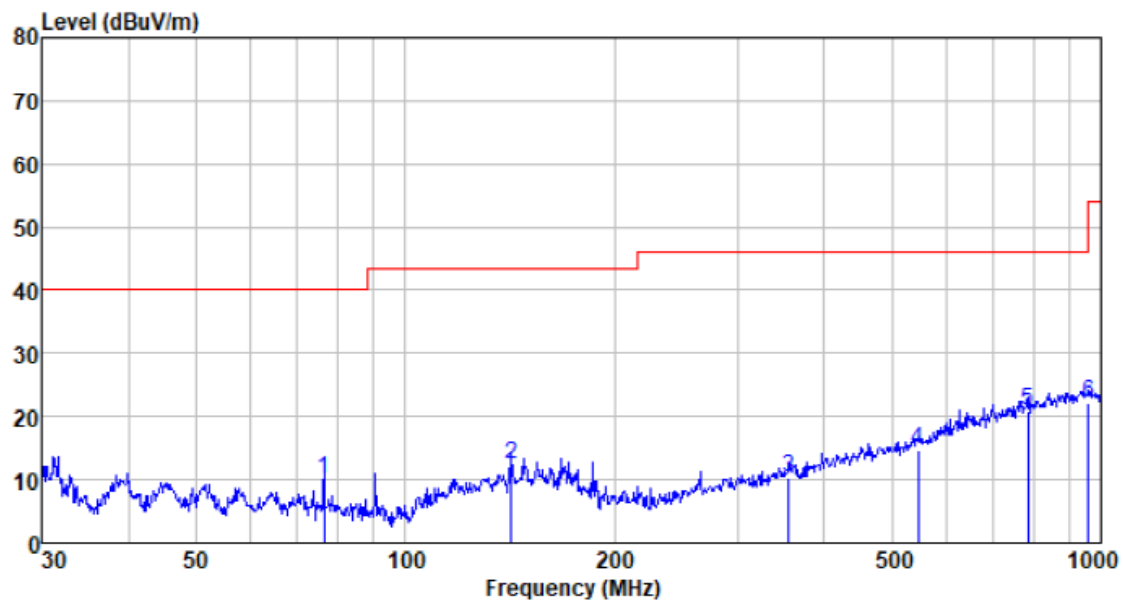
7.2.2 Spurious emissions

■ Below 30MHz

The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o), the test result no need to reported.

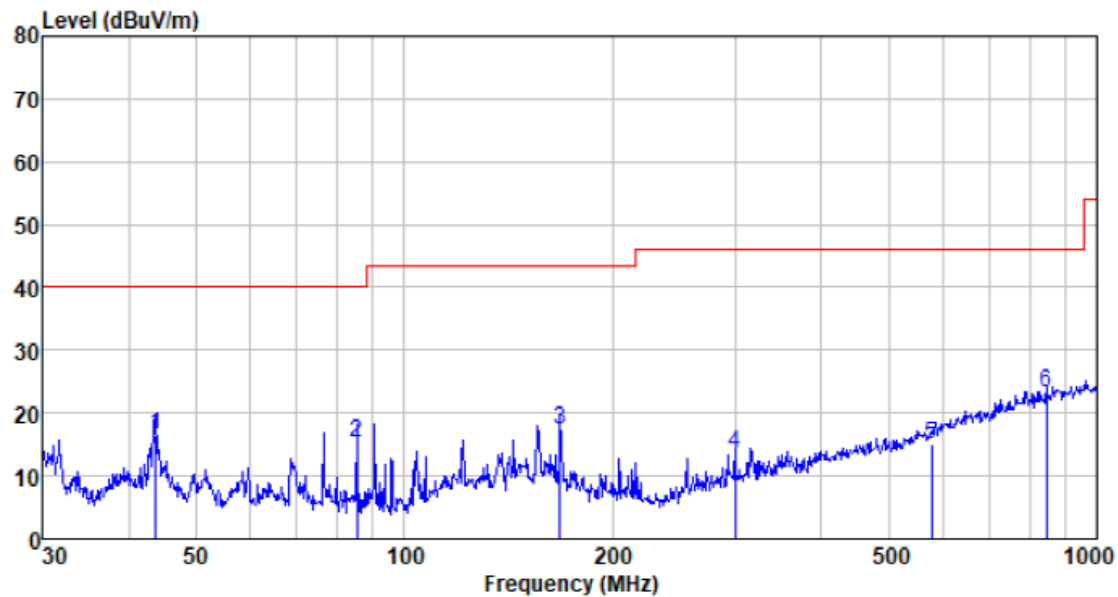
■ Below 1GHz

Pre-scan all test modes, found worst case at 2401MHz, and so only show the test result of it
Horizontal



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
76.512	30.62	10.15	1.65	32.41	10.01	40.00	-29.99	QP
141.826	28.59	13.88	2.39	32.46	12.40	43.50	-31.10	QP
355.427	25.31	13.71	3.69	32.27	10.44	46.00	-35.56	QP
545.183	24.76	17.60	4.40	32.03	14.73	46.00	-31.27	QP
785.093	24.83	21.80	5.42	31.15	20.90	46.00	-25.10	QP
958.794	23.64	23.68	5.90	31.10	22.12	46.00	-23.88	QP

Vertical



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
43.812	34.38	13.22	1.31	32.30	16.61	40.00	-23.39	QP
85.298	36.91	9.17	1.72	32.44	15.36	40.00	-24.64	QP
167.824	33.71	13.62	2.62	32.43	17.52	43.50	-25.98	QP
300.367	30.05	12.41	3.42	32.30	13.58	46.00	-32.42	QP
576.644	24.13	18.33	4.53	31.92	15.07	46.00	-30.93	QP
845.088	26.27	22.50	5.59	31.10	23.26	46.00	-22.74	QP

■ Above 1GHz

Test channel:	Lowest channel
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Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4802.00	37.34	31.22	4.63	37.68	35.51	74.00	-38.49	Vertical
7203.00	31.86	36.25	6.52	37.81	36.82	74.00	-37.18	Vertical
9604.00	31.49	37.97	7.98	37.93	39.51	74.00	-34.49	Vertical
4802.00	41.64	31.22	4.63	37.68	39.81	74.00	-34.19	Horizontal
7203.00	33.61	36.25	6.52	37.81	38.57	74.00	-35.43	Horizontal
9604.00	30.92	37.97	7.98	37.93	38.94	74.00	-35.06	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4802.00	26.15	31.22	4.63	37.68	24.32	54.00	-29.68	Vertical
7203.00	20.54	36.25	6.52	37.81	25.50	54.00	-28.50	Vertical
9604.00	19.61	37.97	7.98	37.93	27.63	54.00	-26.37	Vertical
4802.00	30.38	31.22	4.63	37.68	28.55	54.00	-25.45	Horizontal
7203.00	22.71	36.25	6.52	37.81	27.67	54.00	-26.33	Horizontal
9604.00	19.35	37.97	7.98	37.93	27.37	54.00	-26.63	Horizontal

Test channel:	Middle channel
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Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4882.00	36.15	31.33	4.69	37.62	34.55	74.00	-39.45	Vertical
7323.00	31.07	36.43	6.63	37.77	36.36	74.00	-37.64	Vertical
9764.00	30.79	38.10	8.03	37.95	38.97	74.00	-35.03	Vertical
4882.00	40.21	31.33	4.69	37.62	38.61	74.00	-35.39	Horizontal
7323.00	32.72	36.43	6.63	37.77	38.01	74.00	-35.99	Horizontal
9764.00	30.10	38.10	8.03	37.95	38.28	74.00	-35.72	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4882.00	25.19	31.33	4.69	37.62	23.59	54.00	-30.41	Vertical
7323.00	19.89	36.43	6.63	37.77	25.18	54.00	-28.82	Vertical
9764.00	19.04	38.10	8.03	37.95	27.22	54.00	-26.78	Vertical
4882.00	29.30	31.33	4.69	37.62	27.70	54.00	-26.30	Horizontal
7323.00	21.99	36.43	6.63	37.77	27.28	54.00	-26.72	Horizontal
9764.00	18.67	38.10	8.03	37.95	26.85	54.00	-27.15	Horizontal

Test channel:	Highest channel
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Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4962.00	36.41	31.41	4.77	37.56	35.03	74.00	-38.97	Vertical
7443.00	31.24	36.62	6.73	37.73	36.86	74.00	-37.14	Vertical
9924.00	30.94	38.27	8.08	37.98	39.31	74.00	-34.69	Vertical
4962.00	40.51	31.41	4.77	37.56	39.13	74.00	-34.87	Horizontal
7443.00	32.91	36.62	6.73	37.73	38.53	74.00	-35.47	Horizontal
9924.00	30.28	38.27	8.08	37.98	38.65	74.00	-35.35	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4962.00	25.45	31.41	4.77	37.56	24.07	54.00	-29.93	Vertical
7443.00	20.06	36.62	6.73	37.73	25.68	54.00	-28.32	Vertical
9924.00	19.19	38.27	8.08	37.98	27.56	54.00	-26.44	Vertical
4962.00	29.59	31.41	4.77	37.56	28.21	54.00	-25.79	Horizontal
7443.00	22.18	36.62	6.73	37.73	27.80	54.00	-26.20	Horizontal
9924.00	18.85	38.27	8.08	37.98	27.22	54.00	-26.78	Horizontal

Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. For above 18GHz, no emission found.
4. If the average limit is met when using a Peak detector, the EUT shall be deemed to meet both peak and average limits. And measurement with the average detector is unnecessary.

7.2.3 Bandedge emissions

All of the restriction bands were tested, and only the data of worst case was exhibited.

Test channel:	Lowest	Polarization:	Horizontal
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Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	46.43	27.00	4.13	39.14	38.42	74.00	-35.58	Horizontal
2390.00	50.72	27.08	4.17	39.34	42.63	74.00	-31.37	Horizontal
2400.00	52.47	27.10	4.18	39.36	44.39	74.00	-29.61	Horizontal
2310.00	47.31	27.00	4.13	39.14	39.30	74.00	-34.70	Vertical
2390.00	52.14	27.08	4.17	39.34	44.05	74.00	-29.95	Vertical
2400.00	53.77	27.10	4.18	39.36	45.69	74.00	-28.31	Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	36.17	27.00	4.13	39.14	28.16	54.00	-25.84	Horizontal
2390.00	37.62	27.08	4.17	39.34	29.53	54.00	-24.47	Horizontal
2400.00	39.11	27.10	4.18	39.36	31.03	54.00	-22.97	Horizontal
2310.00	36.37	27.00	4.13	39.14	28.36	54.00	-25.64	Vertical
2390.00	38.61	27.08	4.17	39.34	30.52	54.00	-23.48	Vertical
2400.00	39.60	27.10	4.18	39.36	31.52	54.00	-22.48	Vertical

Test channel:	Highest channel
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Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	48.95	27.27	4.08	39.56	40.74	74.00	-33.26	Horizontal
2500.00	47.45	27.30	4.06	39.60	39.21	74.00	-34.79	Horizontal
2483.50	50.39	27.27	4.08	39.56	42.18	74.00	-31.82	Vertical
2500.00	48.79	27.30	4.06	39.60	40.55	74.00	-33.45	Vertical

Average value:

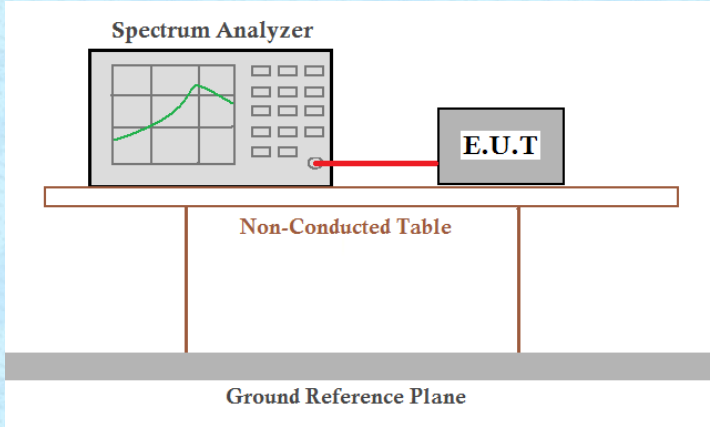
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	37.04	27.27	4.08	39.56	28.83	54.00	-25.17	Horizontal
2500.00	36.54	27.30	4.06	39.60	28.30	54.00	-25.70	Horizontal
2483.50	36.76	27.27	4.08	39.56	28.55	54.00	-25.45	Vertical
2500.00	36.76	27.30	4.06	39.60	28.52	54.00	-25.48	Vertical

Remark:

Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor

For above 18GHz, no emission found

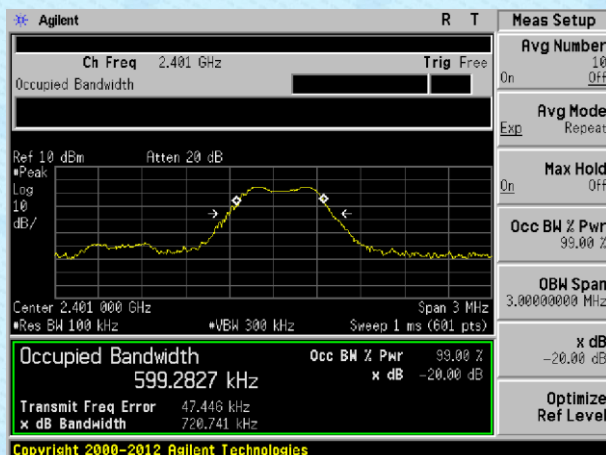
7.3 20dB Occupy Bandwidth

Test Requirement:	FCC Part15 C Section 15.249/15.215
Test Method:	ANSI C63.10:2013
Limit:	Operation Frequency range 2400MHz~2483.5MHz
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

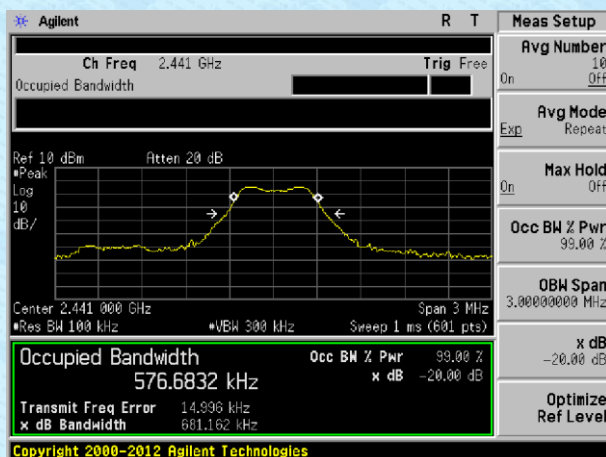
Measurement Data

Test channel	20dB bandwidth(MHz)	Result
Lowest	0.721	Pass
Middle	0.681	Pass
Highest	0.667	Pass

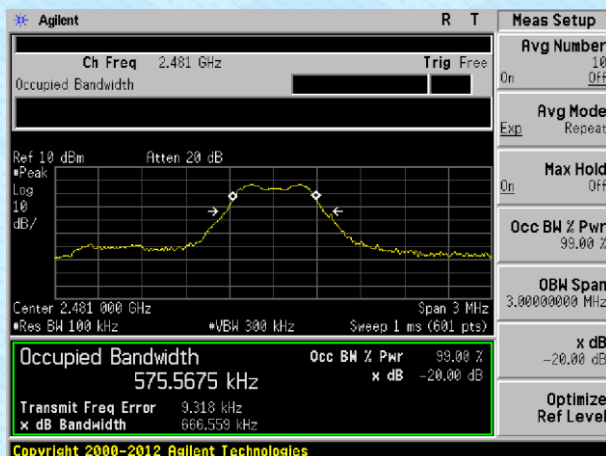
Test plot as follows:



Lowest channel



Middle channel



Highest channel

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details.

-----End-----