TEST REPORT

Test item description:	Document Reader (Passport Reader, Credential Reader, Card Reader)
FCC ID:	2BVL6-H8000M
Trademark(s):	HKD
Model/Type reference:	H8000-M, H8000-B, H8000-S, H8000-M B, H8000-B B, H8000-S B, H8000-M BASE, H8000-B BASE, H8000-S BASE, H8000-M BASE B, H8000-B BASE B, H8000-S BASE B, H8000-M CORE, H8000-B CORE, H8000-S CORE, H8000-M CORE B, H8000-B CORE B, H8000-S CORE B, H8000-M Pro, H8000-B Pro, H8000-S Pro, H8000-M Pro B, H8000-B Pro B, H8000-S Pro B
Applicant's name:	Wuxi Huake Heding Information Technology Co., Ltd.
Address:	3rd & 4th Floors, Building 35, Tian'an Smart City, No. 228 Linghu Avenue, Xin'an Subdistrict, Xinwu District, Wuxi City, Jiangsu Province, P.R.China
Manufacturer:	Wuxi Huake Heding Information Technology Co., Ltd.
Address:	3rd & 4th Floors, Building 35, Tian'an Smart City, No. 228 Linghu Avenue, Xin'an Subdistrict, Xinwu District, Wuxi City, Jiangsu Province, P.R.China
Prepared By:	Shenzhen CTB Testing Technology Co., Ltd.
Address:	1&2/F., Building A, No.26, Xinhe Road, Xinqiao, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China
Sample Received Date:	Mar. 23, 2026
Sample tested Date:	Mar. 23, 2026 to Apr. 03, 2026
Issue Date:	Apr. 03, 2026
Report No.:	CTB26032301003RF01
Test Standards	FCC CFR Title 47 Part 15 Subpart C Section 15.225 ANSI C63.10:2020
Test Results	PASS
Remark:	This is 13.56MHz radio test report.

Compiled by:	Reviewed by:	Approved by:
Kai Chen	Martin Feng	
Kai Chen	Martin Feng	Bin Mei / Director

Note: If there is any objection to the inspection results in this report, please submit a written report to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. The tested sample(s) and the sample information are provided by the applicant. The authenticity, accuracy, and completeness of the provided information are the sole responsibility of the applicant. Without written approval of Shenzhen CTB Testing Technology Co., Ltd. this report can't be reproduced except in full. The result decision rules of our laboratory are based solely on the direct comparison between the actual measured values of test results and the standard limits, without considering the measurement uncertainty."★" indicates the testing items were fulfilled by subcontracted lab. "※" indicates the items are not in CNAS accreditation scope.

TABLE OF CONTENT

(Note: N/A means not applicable)

1. VERSION

Report No.	Issue Date	Description	Approved
CTB26032301003RF01	Apr. 03, 2026	Original	Valid

2. TEST SUMMARY

The Product has been tested according to the following specifications:

Test Item	Test Requirement	Test method	Result
AC Power Line Conducted Emission	47 CFR Part 15 Subpart C Section 15.207	ANSI C63.10-2020	PASS
Radiated Emission	47 CFR Part 15 Subpart C Section 15.209; 15.225(a)(b)(c)(d)	ANSI C63.10-2020	PASS
Frequency Tolerance	47 CFR Part 15 Subpart C Section 15.225(e)	ANSI C63.10-2020	PASS
Occupied Bandwidth	47 CFR Part 15 Subpart C Section 15.215	ANSI C63.10-2020	PASS
Antenna requirement	47 CFR Part 15 Subpart C Section 15.203	ANSI C63.10-2020	PASS

3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Item	Uncertainty
Occupancy bandwidth	U=±54.3Hz
Conducted output power above 1G	U=±1.0dB
Conducted output power below 1G	U=±0.9dB
Power Spectral Density, Conduction	U=±1.0dB
Conduction spurious emissions	U=±2.8dB
Out of band emission	U=±54Hz
3m camber Radiated spurious emission(30MHz-1GHz)	U=±4.3dB
3m chamber Radiated spurious emission(1GHz-18GHz)	U=±4.5dB
Humidity uncertainty	U=±5.3%
Temperature uncertainty	U=±0.59℃
Supply voltages	U=±3%
Time	U=±5%

4. PRODUCT INFORMATION AND TEST SETUP

4.1 ProductIn formation

Model/Type reference:	H8000-M, H8000-B, H8000-S, H8000-M B, H8000-B B, H8000-S B, H8000-M BASE, H8000-B BASE, H8000-S BASE, H8000-M BASE B, H8000-B BASE B, H8000-S BASE B, H8000-M CORE, H8000-B CORE, H8000-S CORE, H8000-M CORE B, H8000-B CORE B, H8000-S CORE B, H8000-M Pro, H8000-B Pro, H8000-S Pro, H8000-M Pro B, H8000-B Pro B, H8000-S Pro B
Model Description:	All the model are the same circuit and RF module, only the model names are different. Test sample model: H8000-M
Hardware Version:	NJPR99 ID Reader V1.0.45.03
Software Version:	V1.0.0.1
Operation Frequency:	13.56MHz
Type of Modulation:	ASK
Antenna installation:	PCB antenna
Antenna Gain:	1.0dBi
Ratings:	INPUT: 110-240V 50/60Hz OUTPUT: 12V⎓2A

4.2 Test Setup Configuration

See test photographs attached in EUT TEST SETUP PHOTOGRAPHS for the actual connections between Product and support equipment.

4.3 Support Equipment

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
1	Laptop	DELL	Vostro 5490	N/A	AE

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.4 Test Mode

All test mode(s) and condition(s) mentioned were considered and evaluated respectively by performing full tests, the worst data were recorded and reported.

Test mode
Keep the EUT in transmitting mode (NFC mode) with modulation.
The sample was placed (0.8m below 1GHz, 1.5m above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

4.5 Test Environment

Humidity(%):	54
Atmospheric Pressure(kPa):	101
Normal Voltage(AC):	120V
Normal Temperature(℃)	23

5. TEST FACILITY AND TEST INSTRUMENTUSED

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at 1&2F., Building A, No. 26, Xinhe Road, Xinqiao, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.

5.2 Test Instrument Used

	Equipment	Manufacturer	Type No.	Serial No.	Firmware Version	Calibrated Date	Calibrated until
1	Spectrum Analyzer	Agilent	N9020A	MY52090073	A.14.16	2025/5/23	2026/5/22
2	Power Sensor	Agilent	U2021XA	MY56120032	/	2025/5/23	2026/5/22
3	Power Sensor	Agilent	U2021XA	MY56120034	/	2025/5/23	2026/5/22
4	Communication test set	R&S	CMW500	108058	V3.5.80	2025/5/23	2026/5/22
5	Spectrum Analyzer	KEYSIGHT	N9020A	MY51289897	A.14.16	2025/5/23	2026/5/22
6	Signal Generator	Agilent	N5181A	MY50140365	A.01.60	2025/5/22	2026/5/21
7	Vector signal generator	Agilent	N5182A	MY47420195	A.01.87	2025/5/22	2026/5/21
8	Communication test set	Agilent	E5515C	MY50102567	B.19.07 （E1962B ）	2025/5/22	2026/5/21
9	2.4 GHz Filter	Shenxiang	MSF2400-2483.5MS-1154	20181015001	/	2025/6/18	2026/6/17
10	5 GHz Filter	Shenxiang	MSF5150-5850MS-1155	20181015001	/	2025/6/18	2026/6/17
11	Filter	Xingbo	XBLBQ-DZA120	190821-1-1	/	2025/5/24	2026/5/23
12	BT&WI-FI Automatic test software	Micowave	MTS8310	Ver. 2.0.0.0	/	/	/
13	Rohde & Schwarz SFU Broadcast Test System	R&S	SFU	101017	/	2025/10/20	2026/10/19
14	Temperature humidity chamber	Hongjing	TH-80CH	DG-15174	/	2025/5/22	2026/5/21
15	234G Automatic test software	Micowave	MTS8200	Ver. 2.0.0.0	/	/	/
16	966 chamber	C.R.T.	966	/	/	2024/6/23	2027/6/22
17	Receiver	R&S	ESPI	100362	RF_ATTEN_7 （104489/003 ）	2025/5/23	2026/5/22
18	Amplifier	HP	8447E	2945A02747	/	2025/5/23	2026/5/22
19	Amplifier	Agilent	8449B	3008A01838	/	2025/6/2	2026/6/1

20	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	00869	/	2025/6/29	2026/6/28
21	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA9120D	01911	/	2025/6/1	2026/5/31
22	EMI test software	Fala	EZ-EMC	FA-03A2 RE	/	/	/
23	Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-224	/	2025/6/2	2026/6/1
24	loop antenna	ZHINAN	ZN30900A	GTS534	/	/	/
25	40G Horn antenna	A/H/System	SAS-574	588	/	2025/6/2	2026/6/1
26	Amplifier	AEROFLEX	Aeroflex	097	/	2025/6/2	2026/6/1
27	Power Meter	KEYSIGHT	N1912AP	N/A	A.05.00	2025/6/2	2026/6/1

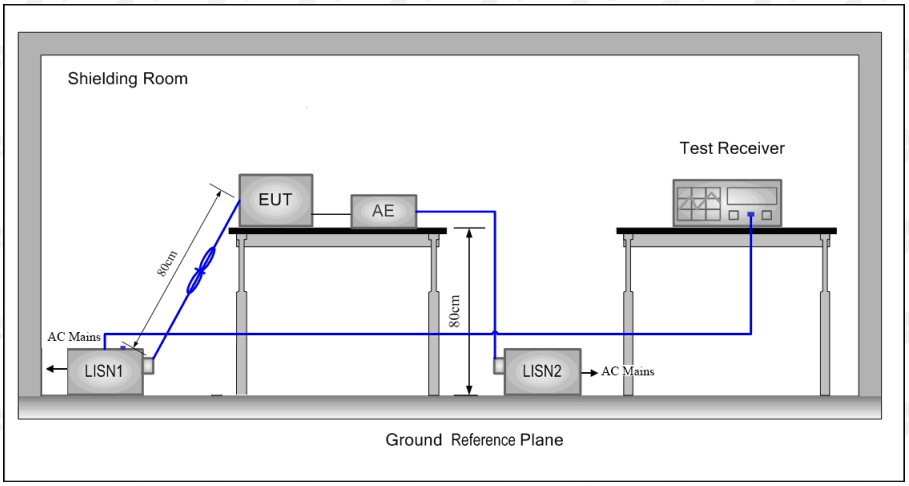
Continuous disturbance							
No.	Equipment	Manufacturer	Model No.	Serial No.	Firmware version	Calibrated Date	Calibrated until
1	843 Shield Room	C/ R/ T	843	/	/	2024/6/22	2027/6/21
2	LISN	ROHDE&SCHWARZ	ESH3-Z5	831551852	/	2025/5/22	2026/5/21
3	EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100428	V4.42.SP3	2025/5/22	2026/5/21
4	Coaxial cable	ZDECL	Z302S	18091904	/	2025/5/22	2026/5/21
5	ISN	Schwarzbeck	NTFM8158	183	/	2025/6/18	2026/6/17
6	Voltage sensor	Schwarzbeck	TK 9420	01189	/	2025/9/19	2026/9/18
7	EZ-EMC	Frad	EMC-con3A1.1	/	/	/	/
8	Current Probe	FCC	F-52B	199453	/	2025/5/24	2026/5/23
9	Communication test set	R&S	CMW500	108058	B.19.07 （E1962B ）	2025/5/23	2026/5/22
10	Communication test set	Agilent	E5515C	MY50102567	V3.5.80	2025/5/23	2026/5/22

Radiated emission(No.2 Chamber)							
No.	Equipment	Manufacturer	Model No.	Serial No.	Firmware version	Calibrated Date	Calibrated until
1	966 Chamber	C/ R/ T	966	/	/	2024/6/8	2027/6/7
2	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA 9120 D	01911	/	2025/6/1	2026/5/31
3	Broadband Antenna	Schwarzbeck	VULB 9168	1471	/	2025/9/19	2026/9/18
4	Amplifier	Agilent	8449B	3008A01838	/	2025/6/3	2026/6/2
5	Preamplifier	Schwarzbeck	BBV 9743 B	00500	/	2025/5/30	2026/5/29
6	EMI TEST RECEIVER	R&S	ESCI7	100861	/	2025/9/19	2026/9/18
7	Spectrum Analyzer	KEYSIGHT	N9020A	MY51289897	A.14.16	2025/5/23	2026/5/22

8	EMI test software	Farad	EZ-EMC	/	Ver. FARAD-3A1+	/	/
9	Coaxial cable	Rosenberg	8m	/	/	2025/9/19	2026/9/18
10	Coaxial cable	Times	2m	/	/	2025/9/19	2026/9/18
11	Coaxial cable	Times	2m	/	/	2025/9/19	2026/9/18
12	Coaxial cable	Times	1m	/	/	2025/9/19	2026/9/18
13	loop antenna	Schwarzbeck	FMZB 1519B	1519B-224	/	2025/6/2	2026/6/1
14	Communication test set	R&S	CMW500	108058	B.19.07 (E1962B)	2025/5/23	2026/5/22
15	Communication test set	Agilent	E5515C	MY50102567	V3.5.80	2025/5/23	2026/5/22

6 C POWER LINE CONDUCTED EMISSION

6.1 Block Diagram Of Test Setup



6.2 Limit

* Decreasing linearly with the logarithm of the frequency

Frequency (MHz)	Maximum RF Line Voltage (dBμV)			
	CLASS A		CLASS B	
	Q.P.	Ave.	Q.P.	Ave.
0.15 - 0.50	79	66	66-56*	56-46*
0.50 - 5.00	73	60	56	46
5.00 - 30.0	73	60	60	50

6.3 Test procedure

6.3.1 The mains terminal disturbance voltage test was conducted in a shielded room.

6.3.2 The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference planein the same way as the LISN1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was note xceeded.

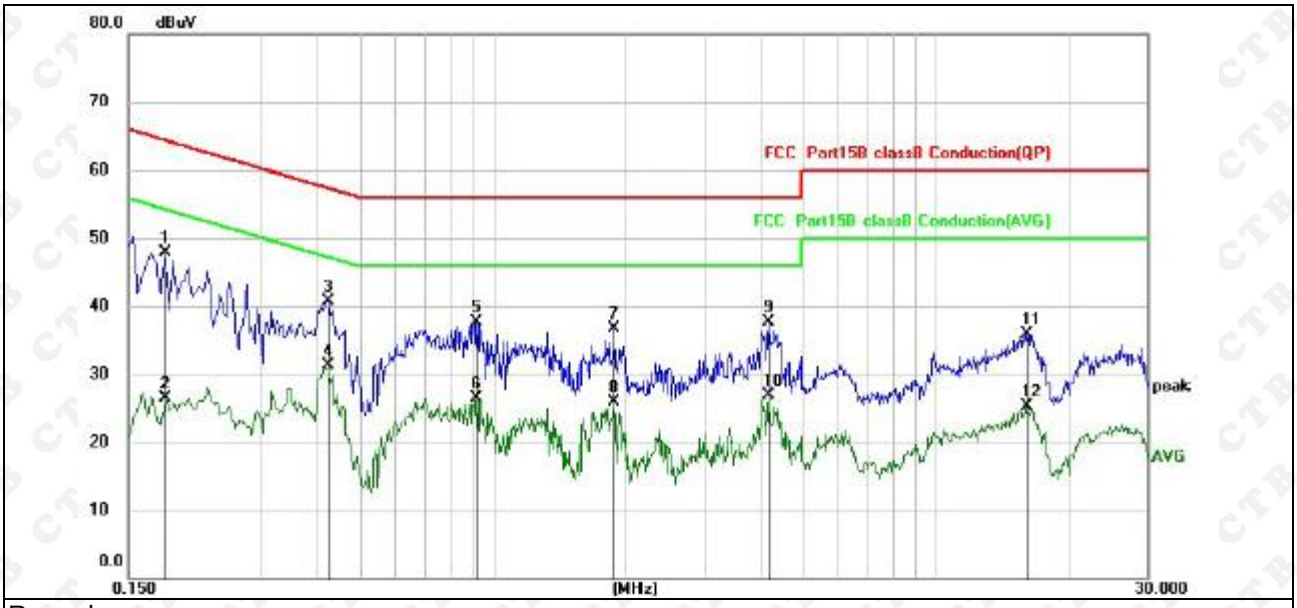
6.3.3 The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

6.3.4 The test was performed with avertical ground reference plane. The rear of the EUT shall be 0,4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0,8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN1 and the EUT. All other units of the EUT and associated equipment was at least 0,8 m from the LISN2.

6.3.5 In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement**.**

6.4 Test Result

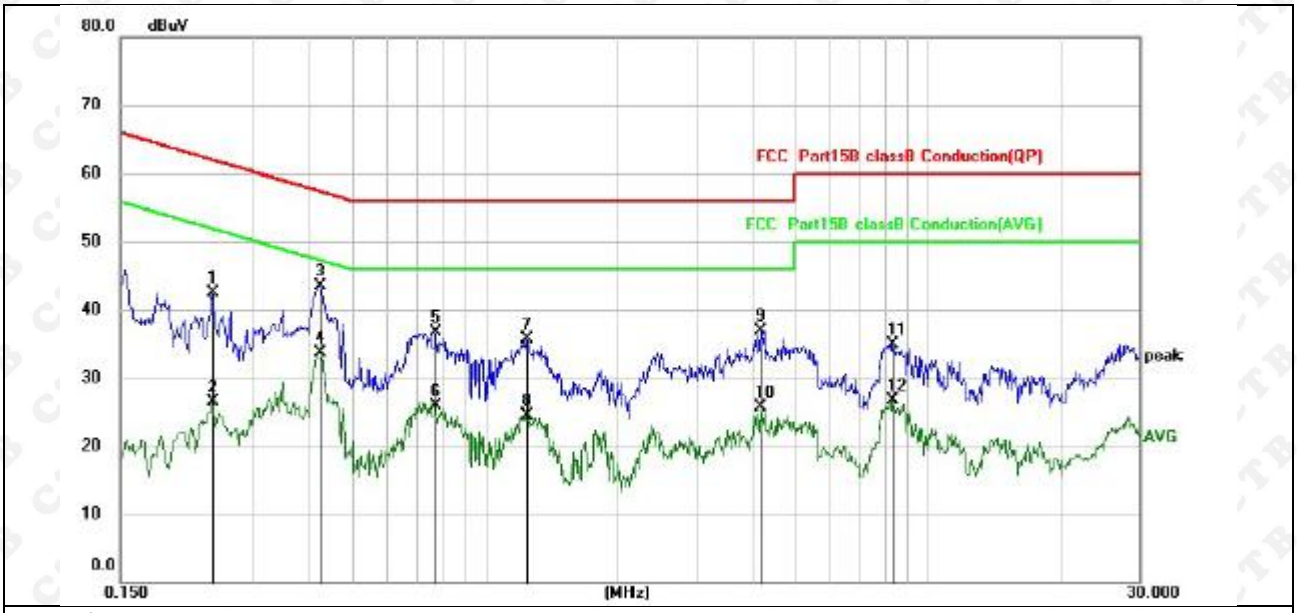
Temperature：	23 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase :	L
Test Voltage：	AC 120V/60Hz	Test Mode：	Normal Link



Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1819	37.90	10.08	47.98	64.40	-16.42	QP
2		0.1819	16.37	10.08	26.45	54.40	-27.95	AVG
3		0.4218	30.69	10.09	40.78	57.41	-16.63	QP
4	*	0.4218	21.21	10.09	31.30	47.41	-16.11	AVG
5		0.9180	27.56	10.12	37.68	56.00	-18.32	QP
6		0.9180	16.33	10.12	26.45	46.00	-19.55	AVG
7		1.8778	26.46	10.17	36.63	56.00	-19.37	QP
8		1.8778	15.72	10.17	25.89	46.00	-20.11	AVG
9		4.1859	27.46	10.25	37.71	56.00	-18.29	QP
10		4.1859	16.64	10.25	26.89	46.00	-19.11	AVG
11		16.0300	25.15	10.78	35.93	60.00	-24.07	QP
12		16.0300	14.44	10.78	25.22	50.00	-24.78	AVG

Temperature：	23℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase :	N
Test Voltage：	AC 120V/60Hz	Test Mode：	Normal Link



Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.2419	32.44	10.08	42.52	62.03	-19.51	QP
2		0.2419	16.44	10.08	26.52	52.03	-25.51	AVG
3		0.4218	33.39	10.09	43.48	57.41	-13.93	QP
4	*	0.4218	23.53	10.09	33.62	47.41	-13.79	AVG
5		0.7740	26.66	10.11	36.77	56.00	-19.23	QP
6		0.7740	15.82	10.11	25.93	46.00	-20.07	AVG
7		1.2419	25.47	10.14	35.61	56.00	-20.39	QP
8		1.2419	14.42	10.14	24.56	46.00	-21.44	AVG
9		4.1859	26.61	10.25	36.86	56.00	-19.14	QP
10		4.1859	15.36	10.25	25.61	46.00	-20.39	AVG
11		8.2858	24.49	10.41	34.90	60.00	-25.10	QP
12		8.2858	16.32	10.41	26.73	50.00	-23.27	AVG

7 RADIATED EMISSION

7.1 Block Diagram Of Test Setup

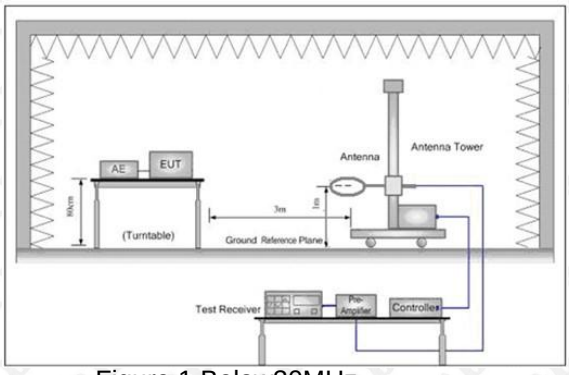


Figure 1.Below30MHz

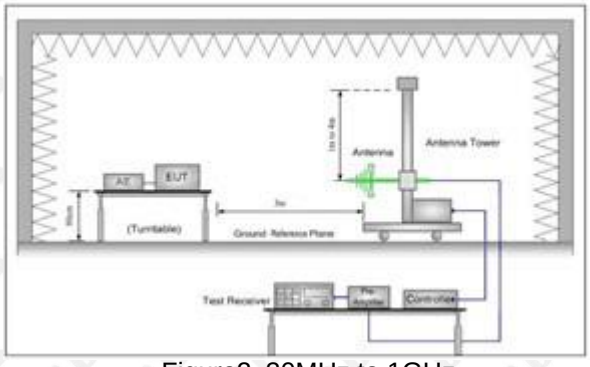


Figure2. 30MHz to 1GHz

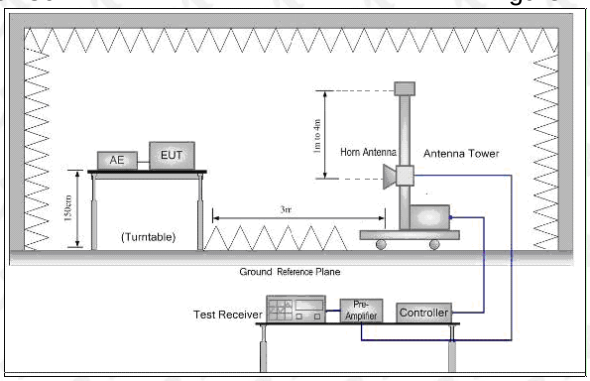


Figure 3. Above 1GHz

7.2 Limit

Spurious Emissions:

Frequency	Field strength (dBμV/m)	Remark	Measurement distance (m)
0.009MHz-0.490MHz	20log 2400/F (kHz) + 80	Quasi-peak	3
0.490MHz-1.705MHz	20log 24000/F (kHz) + 40	Quasi-peak	3
1.705MHz-30MHz	20log 30 + 40	Quasi-peak	3
30MHz-88MHz	40.0	Quasi-peak	3
88MHz-216MHz	43.5	Quasi-peak	3
216MHz-960MHz	46.0	Quasi-peak	3
960MHz-1GHz	54.0	Quasi-peak	3
Above 1GHz	54.0	Average	3

Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximumpermittedaverageemissionlimitapplicabletotheequipmentundertest.Thispeaklimitappliestothe total peak emission level radiated by the device.

Field Strength of Fundamental Limit:

a. The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters. 15,848 microvolts/meter at 3 meters=124dBuV/m.

b. Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters. 334 microvolts/meter at 3 meters=94.47dBuV/m.

c. Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not

exceed 334 microvolts/meter at 30 meters.

7.3 Test procedure

Below 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highes tradiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. 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.

d. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rota table table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. 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 datasheet.

Above 1GHz test procedure as below:

g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 meter to 1.5 meter(Above 18GHz the distance is 1 meter and table is 1.5 meter).

h. Test the EUT in the lowest channel ,the middle channel ,the Highest channel

j. Repeat above procedures until all frequencies measured was complete.

Receiver set:

Frequency	Detector	RBW	VBW	Remark
0.009MHz-0.090MHz	Peak	10kHz	30KHz	Peak
0.009MHz-0.090MHz	Average	10kHz	30KHz	Average
0.090MHz-0.110MHz	Quasi-peak	10kHz	30KHz	Quasi-peak
0.110MHz-0.490MHz	Peak	10kHz	30KHz	Peak
0.110MHz-0.490MHz	Average	10kHz	30KHz	Average
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120 kHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

7.4 Test Result

9kHz-30MHz Test Results:

Azimuth: 0 deg

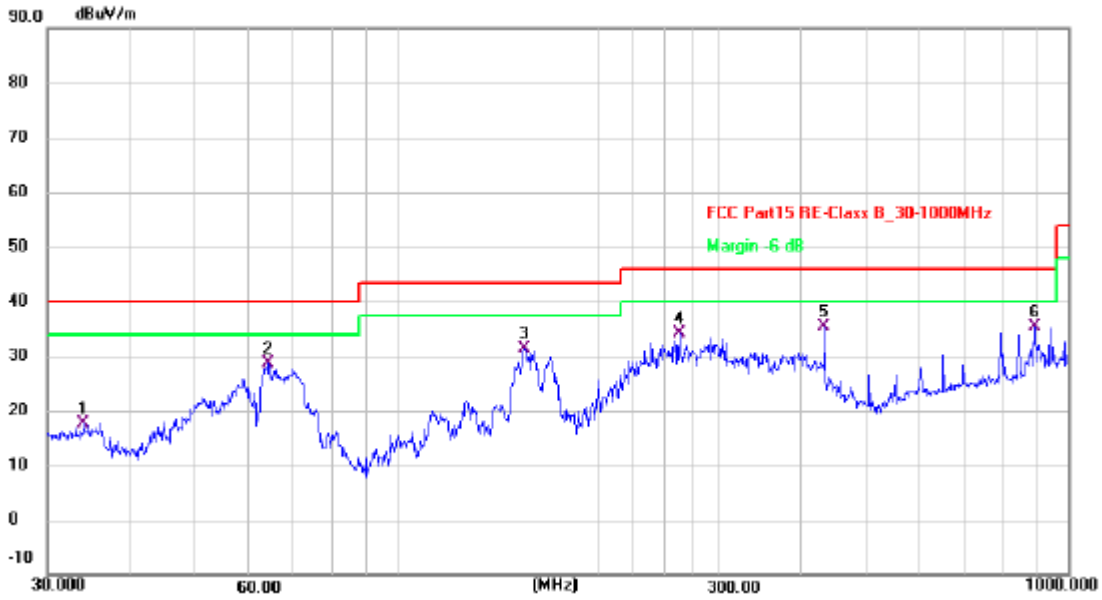
Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
0.35	61.57	14.21	75.78	88.92	-13.14	QP
13.56	90.54	12.33	102.87	124	-21.13	peak
13.56	88.27	12.3	100.57	124	-23.43	AVG
27.12	57.41	12.41	69.82	79.03	-9.21	peak
27.12	56.27	12.41	68.68	79.03	-10.35	AVG
28.88	49.15	12.41	61.56	79.03	-17.47	QP
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Azimuth: 90 deg

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
0.35	60.75	14.21	74.96	88.92	-13.96	QP
13.56	90.21	12.33	102.54	124	-21.46	peak
13.56	87.08	12.3	99.38	124	-24.62	AVG
27.12	55.90	12.41	68.31	79.03	-10.72	peak
27.12	56.86	12.41	69.27	79.03	-9.76	AVG
28.88	48.49	12.41	60.90	79.03	-18.13	QP
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

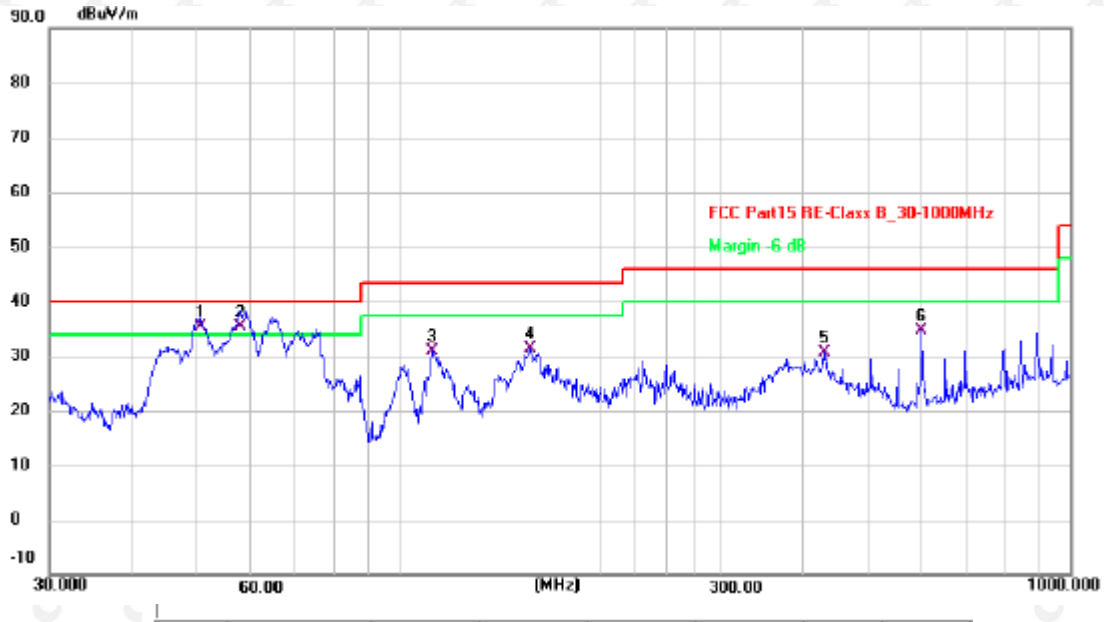
About 30MHz-1GHz Test Results:

Antenna polarity: H



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	34.0363	31.10	-13.47	17.63	40.00	-22.37	QP
2	63.9827	42.92	-14.34	28.58	40.00	-11.42	QP
3	154.2785	43.52	-12.22	31.30	43.50	-12.20	QP
4	262.8955	47.53	-13.52	34.01	46.00	-11.99	QP
5	432.5455	44.88	-9.55	35.33	46.00	-10.67	QP
6 *	890.7277	36.38	-0.91	35.47	46.00	-10.53	QP

Antenna polarity: V

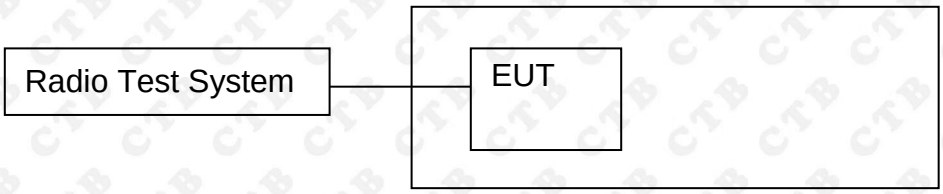


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 !	50.4090	48.53	-13.19	35.34	40.00	-4.66	QP
2 *	57.7961	48.97	-13.60	35.37	40.00	-4.63	QP
3	111.7380	47.93	-16.98	30.95	43.50	-12.55	QP
4	156.4576	43.49	-12.22	31.27	43.50	-12.23	QP
5	429.5228	40.27	-9.62	30.65	46.00	-15.35	QP
6	599.3211	40.17	-5.51	34.66	46.00	-11.34	QP

Remark: 1. Factor = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level
2. This EUT was tested in 3 axis and the worst case position data was reported.

8 FREQUENCY TOLERANCE

8.1 Block Diagram Of Test Setup



8.2 Limit

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of −20 degrees to + 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

Limit: ±0.01% of 13.56MHz=±1356Hz

8.3 Test procedure

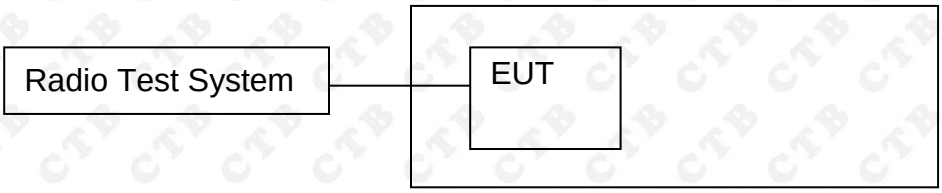
1. Set RBW = 10kHz.
2. Set the video bandwidth (VBW)≥RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace tostabilize.
7. The transmitter output (antenna port) was connected to the spectrum analyzer.

8.4 Test Result

Test Conditions			Frequency Deviation		Limit
Frequency (MHz)	Power (V dc)	Temperature (℃)	Measured Freq. (MHz)	Deviation (%)	
13.56	Normal	-20	13.5603	0.0020	±0.01%
	Normal	-10	13.5604	0.0026	
	Normal	0	13.5602	0.0018	
	Normal	10	13.5606	0.0043	
	Normal	20	13.5602	0.0017	
	Normal	30	13.5604	0.0030	
	Normal	40	13.5603	0.0021	
	Normal	50	13.5604	0.0030	
	Normal*85%	20	13.5603	0.0020	
	Normal *115%	20	13.5604	0.0028	

9 OCCUPIED BANDWIDTH

9.1 Block Diagram Of Test Setup



9.2 Limit

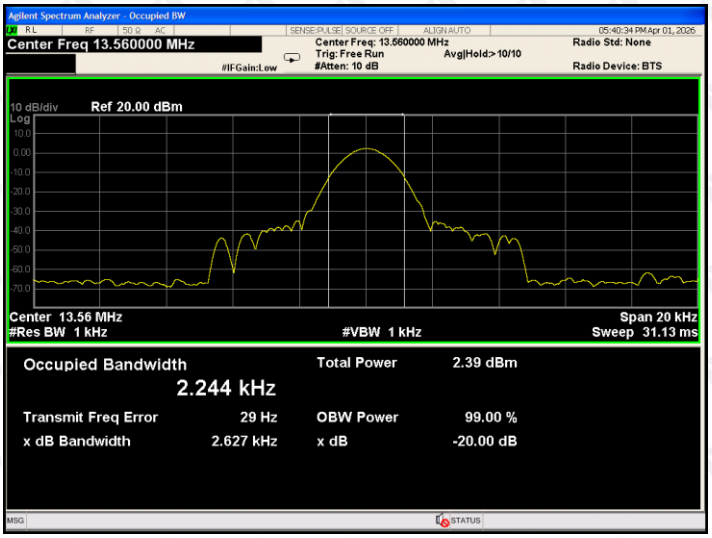
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in subpart E of this part, must be designed to ensure that 20dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equip compliance with the 20dB attenuation specification may base on measurement at the intentional radiator's antenna output terminal unless the intentional radiator uses a permanently attached antenna, in which case compliance shall be. deomonstrated by measuring the radiated emissions.

9.3 Test procedure

1. Set RBW = 1kHz.
2. Set the video bandwidth (VBW)≥RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace tostabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 20 dB relative to the maximum level measured in the fundamental emission.

9.4 Test Result

Test Channel (MHz)	20dB Occupy Bandwidth (kHz)	Limit (kHz)	Conclusion
13.56	2.627	N/A	PASS



10 ANTENNA REQUIREMENT

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.

EUT Antenna:

The antenna is PCB antenna and no consideration of replacement. The best case gain of the antenna is 1.0dBi.

11 EUT TEST SETUP PHOTOGRAPHS

Radiated Emission

30M-1GHz

9kHz-30MHz

Conducted emission

※※※※※ END OF REPORT ※※※※※