

TEST REPORT

Product Name : 2 Wire Video Door Phone

Brand Name : 

Model : i64-2 Wire

Series Model : i62-2 Wire

FCC ID : 2BCUQ-I642

Applicant : **Fanvil Link Technology Co.,LTD**

Address : 13th Floor, Building 2, Runzhi R&D Center, Xin'an Street, Bao'an District, Shenzhen, Guangdong, China

Manufacturer : **Fanvil Link Technology Co.,LTD**

Address : 13th Floor, Building 2, Runzhi R&D Center, Xin'an Street, Bao'an District, Shenzhen, Guangdong, China

Standard(s) : FCC CFR Title 47 Part 15 Subpart C Section 15.225

Date of Receipt : Jul. 31, 2026

Date of Test : Jul. 31, 2026~ Aug. 17, 2026

Issued Date : Aug. 17, 2026

Issued By: **Dongguan Yaxu (AiT) Technology Limited**
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Note: This device has been tested and found to comply with the standard(s) listed, this test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory. This report shall not be reproduced except in full, without the written approval of Dongguan Yaxu (AiT) Technology Limited. If there is a need to alter or revise this document, the right belongs to Dongguan Yaxu (AiT) Technology Limited, and it should give a prior written notice of the revision document. This test report must not be used by the client to claim product endorsement.

**Report Revise Record**

Report Version	Issued Date	Notes
M0	Aug. 17, 2026	Initial Release

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Guangdong Asia Hongke Test Technology Limited

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1 TEST SUMMARY

1.1 Test Standards

The tests were performed according to following standards:

[FCC Rules Part 15.225](#): Operation within the band 13.110–14.010 MHz

[ANSI C63.10: 2020](#): American National Standard for Testing Unlicensed Wireless Devices

1.2 Test Summary

FCC PART 15 .225		
FCC Part 15.207	AC Power Conducted Emission	PASS
FCC Part 2.1049	20dB Bandwidth	PASS
FCC Part 15.225(a) (b) (c)	In-band Emissions	PASS
FCC Part 15.225(d)/15.209	Out-of-band Emissions	PASS
FCC Part 15.225(e)	Frequency Stability Tolerance	PASS

1.3 Test Facility

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited

No.22, Jinqianling 3rd Street, Jitigang, Huangjiang, Dongguan, Guangdong, China

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

CNAS-Registration No: L6177

Dongguan Yaxu (AiT) technology Limited is accredited to ISO/IEC 17025:2017 general Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the competence of testing and calibration laboratories) on April 18, 2022

FCC-Registration No.: 362653 Designation Number: CN1457

Dongguan Yaxu (AiT) Technology Limited has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

IC-Registration No.: 6819A CAB identifier: CN0122

The 3m Semi-anechoic chamber of Dongguan Yaxu (AiT) Technology Limited has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 6819A

A2LA-Lab Cert. No.: 6317.01

Dongguan Yaxu (AiT) Technology Limited has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing

1.4 Measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report according to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the Dongguan Yaxu (AiT) Technology Limited's quality system according to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for laboratory is reported:

Test	Measurement Uncertainty	Notes
Power Line Conducted Emission	9KHz~30MHz ± 1.20 dB	(1)
Radiated Emission	9KHz~30MHz ± 3.10 dB	(1)
Radiated Emission	30MHz~1GHz ± 3.75 dB	(1)
Radiated Emission	1GHz~18GHz ± 3.88 dB	(1)
Radiated Emission	18GHz~40GHz ± 3.88 dB	(1)
RF power, conducted	30MHz~6GHz ± 0.16 dB	(1)
RF power density, conducted	± 0.24 dB	(1)
Spurious emissions, conducted	± 0.21 dB	(1)
Temperature	$\pm 1^{\circ}\text{C}$	(1)
Humidity	$\pm 3\%$	(1)
DC and low frequency voltages	$\pm 1.5\%$	(1)
Time	$\pm 2\%$	(1)
Duty cycle	$\pm 2\%$	(1)

The report uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty Multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

2 GENGGENERAL INFORMATION

2.1 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

2.2 General Description of EUT

Product Name:	2 Wire Video Door Phone
Model/Type reference:	i64-2 Wire
Serial Model:	i62-2 Wire
Model Difference:	All series models adopt identical RF circuits, antennas and transmit power parameters with consistent RF performance. The differences is that the i64-2 Wire is equipped with a numeric keypad and keypad sub-PCB, while i62-2 Wire has no above-mentioned components. These differences have no influence on product safety and EMC performance.
Power Ratings:	Input: 24V-48V $\overline{=}$ 12W Max
Hardware Version:	N/A
Software Version:	N/A
Sample(s) Status:	AiTDG-260801001-1
13.56MHz:	
Operation frequency:	13.56MHz
Modulation :	ASK
No. of Channel :	1
Antenna type:	FPC Antenna
Remark: The above DUT's information was declared by manufacturer. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.	

2.3 Special Accessories

Follow auxiliary equipment(s) test with EUT that provided by the manufacturer or laboratory is listed as follow:

Description	Manufacturer	Model	Serial No.	Provided by	Other
Adapter	Shrinton Electron	HT-PD27W-HD	N/A	Test Lab	Adapter

2.4 Equipment List for the Test

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	Spectrum Analyzer	R&S	FSV40	101470	2025.09.26	2026.09.25
2	EMI Measuring Receiver	R&S	ESPI	100773	2025.09.25	2026.09.24
3	Low Noise Pre Amplifier	HP	HP8447E	1937A01855	2025.09.25	2026.09.24
4	Low Noise Pre Amplifier	Tsj	MLA-0120-A02-34	2648A04738	2025.09.25	2026.09.24
5	Passive Loop	ETS	6512	00165355	2024.09.04	2026.09.03
6	TRILOG Super Broadband test Antenna	SCHWARZBECK	VULB-9160	9160-3206	2024.08.29	2026.08.28
7	Broadband Horn Antenna	SCHWARZBECK	BBHA 9120D	452	2024.08.29	2026.08.28
8	SHF-EHF Horn Antenna 15-40GHz	SCHWARZBECK	BBHA9170	BBHA9170367	2023.09.12	2026.09.11
9	EMI Test Receiver	R&S	ESCI	100124	2025.09.25	2026.09.24
10	LISN	R&S	ESH3-Z5	892785/016	2025.09.26	2026.09.25
11	LISN	KYORITSU	KNW-242	8-837-4	2025.09.26	2026.09.25
12	Pro.Temp&Humi.chamber	MENTEK	MHP-150-1C	MAA08112501	2025.09.25	2026.09.24
13	RF Automatic Test system	MW	MW100-RFCB	21033016	2025.09.26	2026.09.25
14	Signal Generator	Agilent	N5182A	MY50143009	2025.09.26	2026.09.25
15	Wideband Radio communication tester	R&S	CMW500	135866	2025.09.23	2026.09.22
16	Pulse Limiter	R&S	ESH3-Z2	03578810.54	2025.09.25	2026.09.24
17	Switch	MFJ Rhinos	MFJ-2702	CZ3457	2025.09.25	2026.09.24
18	DC power supply	ZHAOXIN	RXN-305D-2	28070002559	N/A	N/A
19	RE Software	EZ	EZ-EMC_RE	Ver.AIT-03A	N/A	N/A
20	CE Software	EZ	EZ-EMC_CE	Ver.AIT-03A	N/A	N/A
21	RF Software	MW	MTS 8310	2.0.0.0	N/A	N/A



Note: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.

3 TEST CONDITIONS AND RESULTS

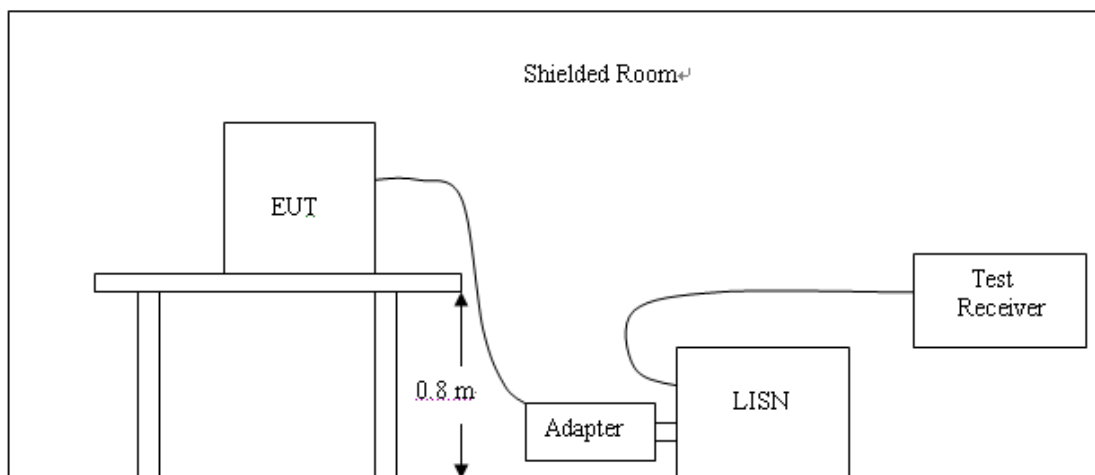
3.1 Conducted Emissions Test

LIMIT

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST CONFIGURATION

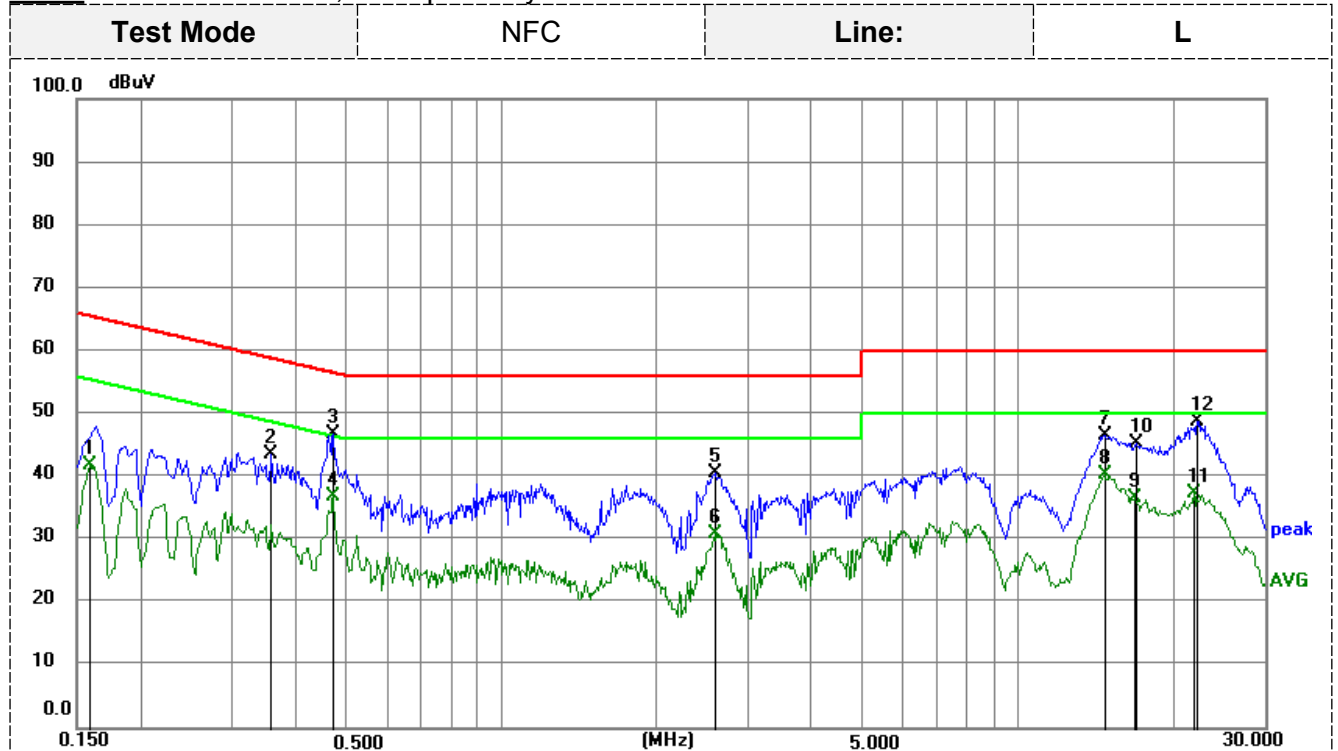


TEST PROCEDURE

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10:2020.
2. Support equipment, if needed, was placed as per ANSI C63.10:2020.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10:2020.
4. The adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5. All support equipments received AC power from a second LISN, if any.
6. The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.

TEST RESULTS

Note: Pre-test all models, the report only records the worst case

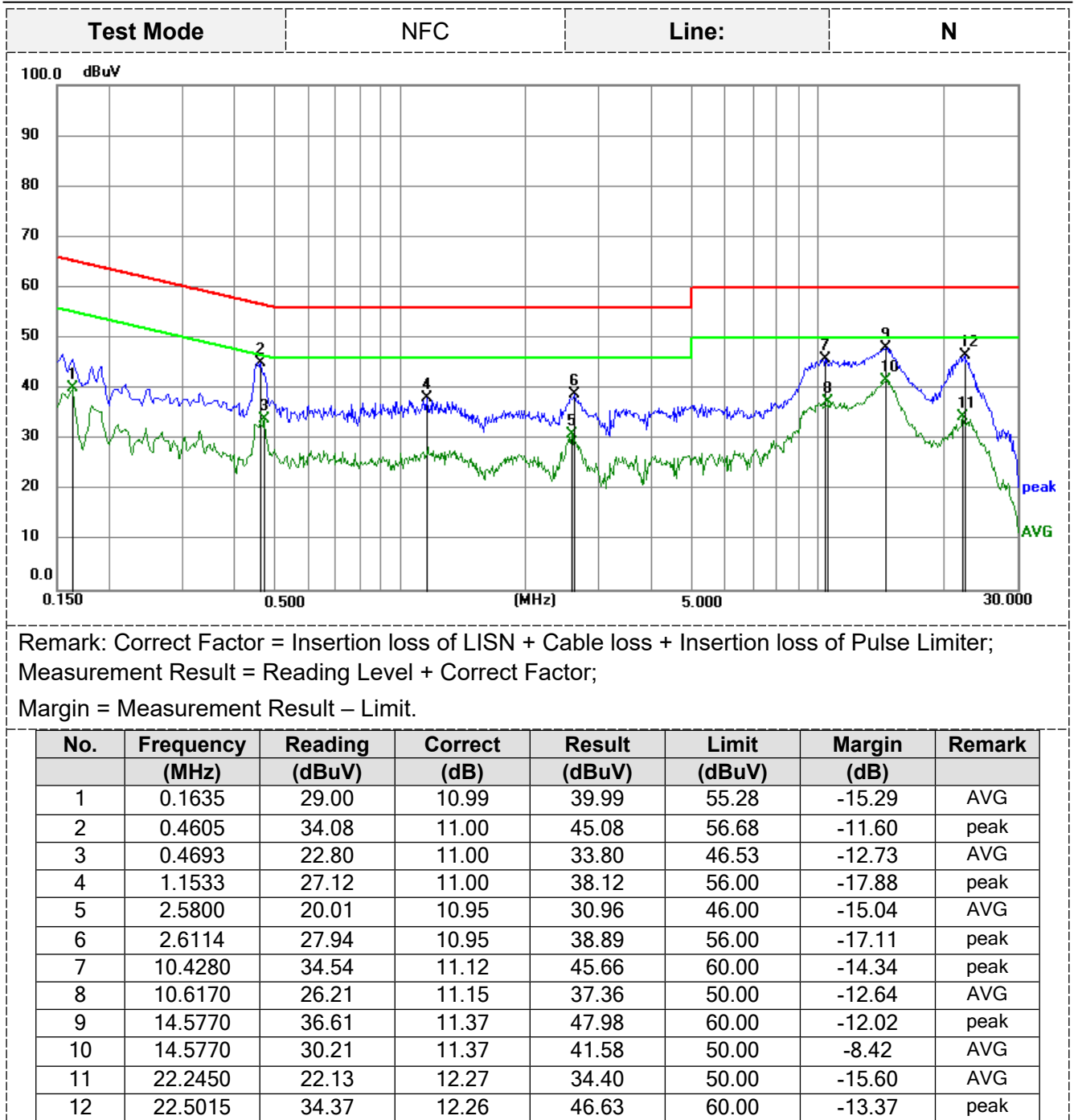


Remark: Correct Factor = Insertion loss of LISN + Cable loss + Insertion loss of Pulse Limiter;

Measurement Result = Reading Level + Correct Factor;

Margin = Measurement Result - Limit.

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1590	30.50	11.21	41.71	55.52	-13.81	AVG
2	0.3570	32.50	11.07	43.57	58.80	-15.23	peak
3	0.4693	35.81	11.06	46.87	56.53	-9.66	peak
4	0.4693	25.75	11.06	36.81	46.53	-9.72	AVG
5	2.5935	29.54	11.02	40.56	56.00	-15.44	peak
6	2.5935	19.91	11.02	30.93	46.00	-15.07	AVG
7	14.7345	35.10	11.54	46.64	60.00	-13.36	peak
8	14.7345	28.67	11.54	40.21	50.00	-9.79	AVG
9	16.8090	24.87	11.84	36.71	50.00	-13.29	AVG
10	17.0115	33.40	11.88	45.28	60.00	-14.72	peak
11	21.9073	24.90	12.36	37.26	50.00	-12.74	AVG
12	22.2943	36.33	12.36	48.69	60.00	-11.31	peak



3.2 Radiated Emissions

Limit

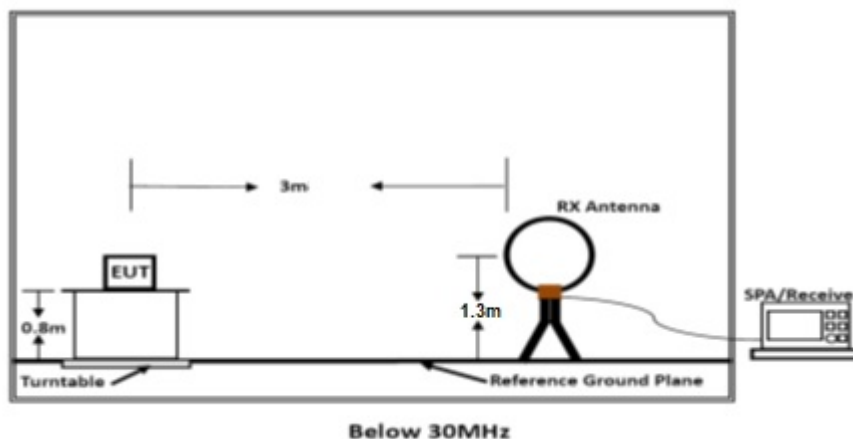
- The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/ meter at 30 meters.
- Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
- Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
- The field strength of any emissions appearing outside of the 13.110– 14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

Radiated emission limits

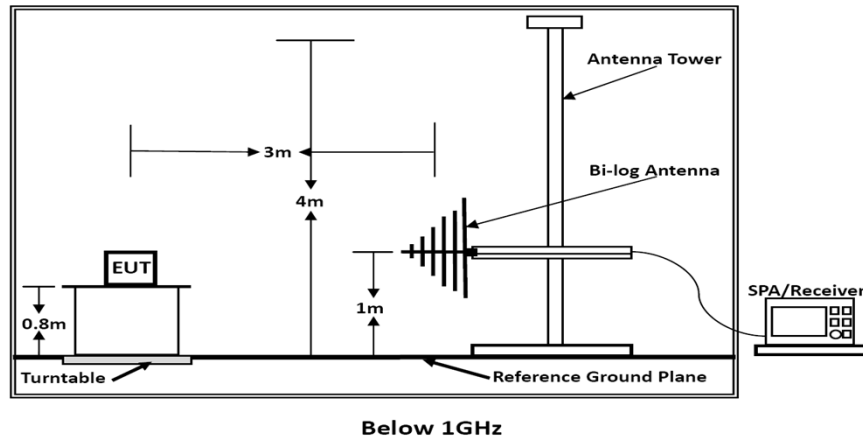
Frequency (MHz)	Distance (Meters)	Radiated (dBuV/m)	Radiated ($\mu\text{V/m}$)
0.009-0.49	3	$20\log(2400/F(\text{KHz}))+40\log(300/3)$	$2400/F(\text{KHz})$
0.49-1.705	3	$20\log(24000/F(\text{KHz}))+ 40\log(30/3)$	$24000/F(\text{KHz})$
1.705-13.110	3	69.54	30
13.110-13.410	3	80.50	106
13.410-13.553	3	90.47	334
13.553-13.567	3	124.00	15848
13.567-13.710	3	90.47	334
13.710-14.010	3	80.50	106
14.010-30.0	3	69.54	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST CONFIGURATION

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



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



Test Procedure

- Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane, and above 1GHz measurement EUT was placed on a low permittivity and low loss tangent turn table which is 1.5m above ground plane.
- Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0° to 360° to acquire the highest emissions from EUT
- And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- Repeat above procedures until all frequency measurements have been completed.
- Radiated emission test frequency band from 9KHz to 1GHz.
- The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Bilog Antenna	3

- Setting test receiver/spectrum as following table states:

Test Frequency range	Test Receiver/Spectrum Setting	Detector
9KHz-150KHz	RBW=200Hz/VBW=3KHz,Sweep time=Auto	QP
150KHz-30MHz	RBW=9KHz/VBW=100KHz,Sweep time=Auto	QP
30MHz-1GHz	RBW=120KHz/VBW=1000KHz,Sweep time=Auto	QP

TEST RESULTS

Below 30MHz

Frequency(MHz):		13.56MHz		Polarity:	Antenna Position 0 Antenna Loop parallel to measurement axis	
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	
5.581	14.64	22.44	37.08	69.54	-32.46	PEAK
13.155	20.72	22.54	43.26	80.50	-37.24	PEAK
13.517	31.72	22.61	54.33	90.47	-36.14	PEAK
13.561	39.91	22.62	62.53	124.00	-61.47	PEAK
13.587	32.27	22.62	54.89	90.47	-35.58	PEAK
13.906	21.87	22.69	44.56	80.50	-35.94	PEAK
24.512	12.76	23.07	35.83	69.54	-33.71	PEAK

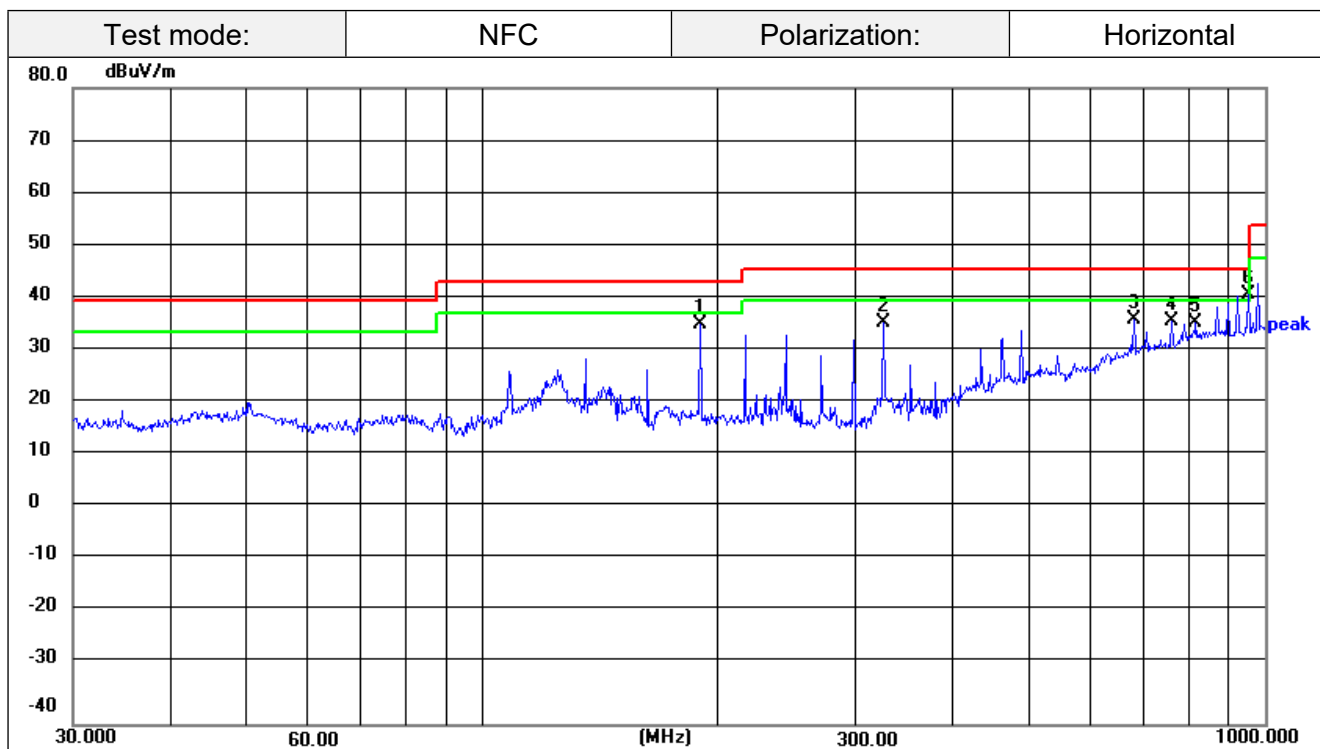
Frequency(MHz):		13.56MHz		Polarity:	Antenna Position 90 Antenna Loop perpendicular to measurement axis	
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	
10.299	13.44	21.96	35.40	69.54	-34.14	PEAK
13.347	22.37	22.57	44.94	80.50	-35.56	PEAK
13.451	32.57	22.6	55.17	90.47	-35.30	PEAK
13.561	41.14	22.62	63.76	124.00	-60.24	PEAK
13.706	33.49	22.65	56.14	90.47	-34.33	PEAK
13.84	21.11	22.67	43.78	80.50	-36.72	PEAK

REMARKS:

1. Emission level (dBuV/m) = Reading (dBuV)+ Factor (dB/m)
2. Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)
3. Margin value = Emission level- Limit value.
4. Other emission levels are attenuated 20dB below the limit and not recorded in report.

For 30MHz-1GHz

Model: i64-2 Wire



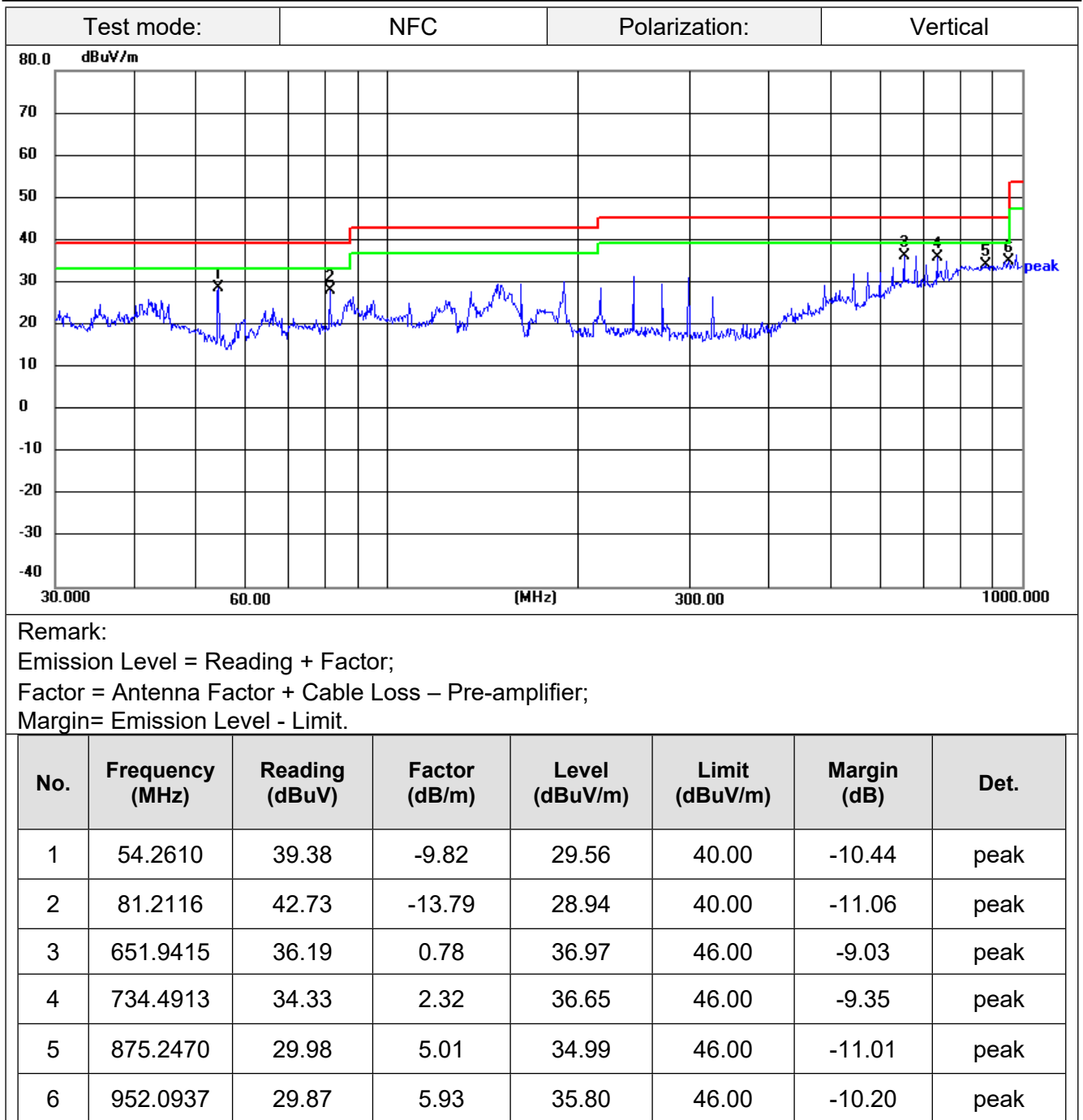
Remark:

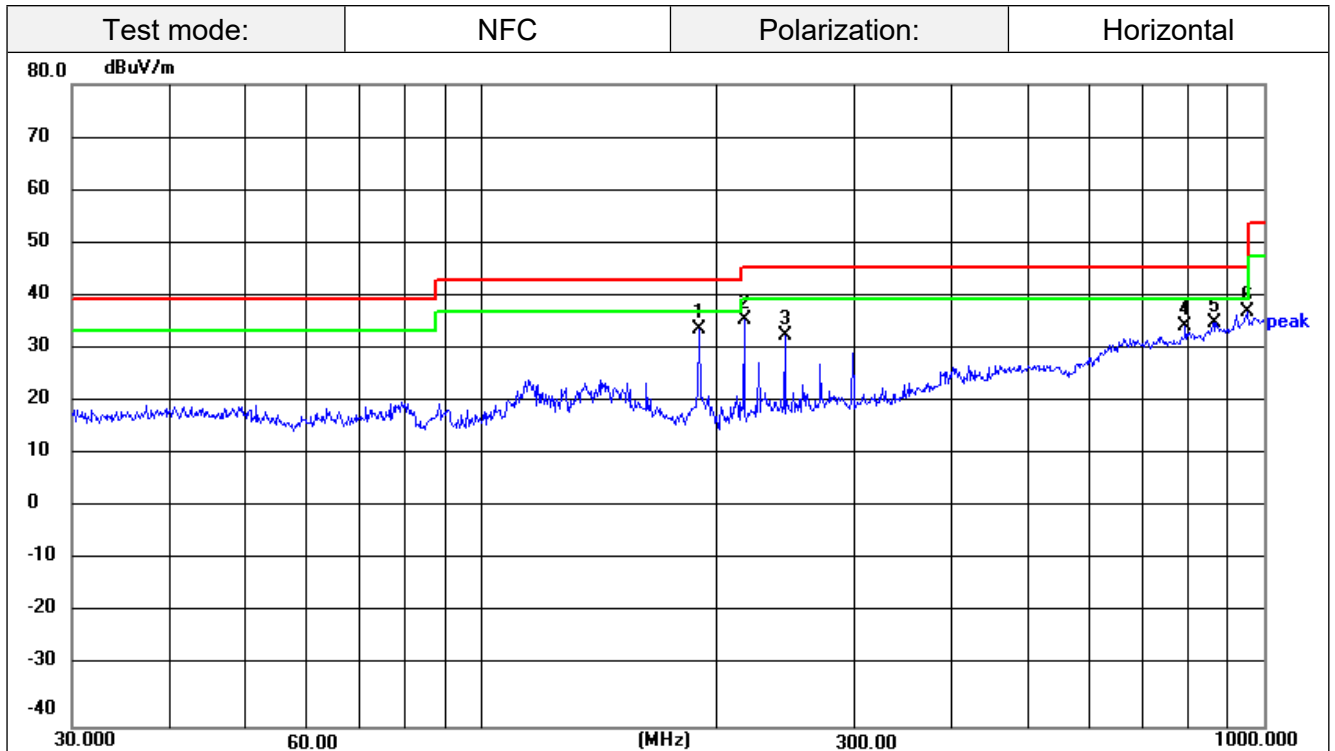
Emission Level = Reading + Factor;

Factor = Antenna Factor + Cable Loss – Pre-amplifier;

Margin= Emission Level - Limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	189.7384	47.06	-11.61	35.45	43.50	-8.05	peak
2	325.5957	42.98	-7.16	35.82	46.00	-10.18	peak
3	679.9600	35.20	1.20	36.40	46.00	-9.60	peak
4	760.7033	33.45	2.79	36.24	46.00	-9.76	peak
5	815.9678	31.93	4.03	35.96	46.00	-10.04	peak
6	952.0937	35.12	5.93	41.05	46.00	-4.95	peak



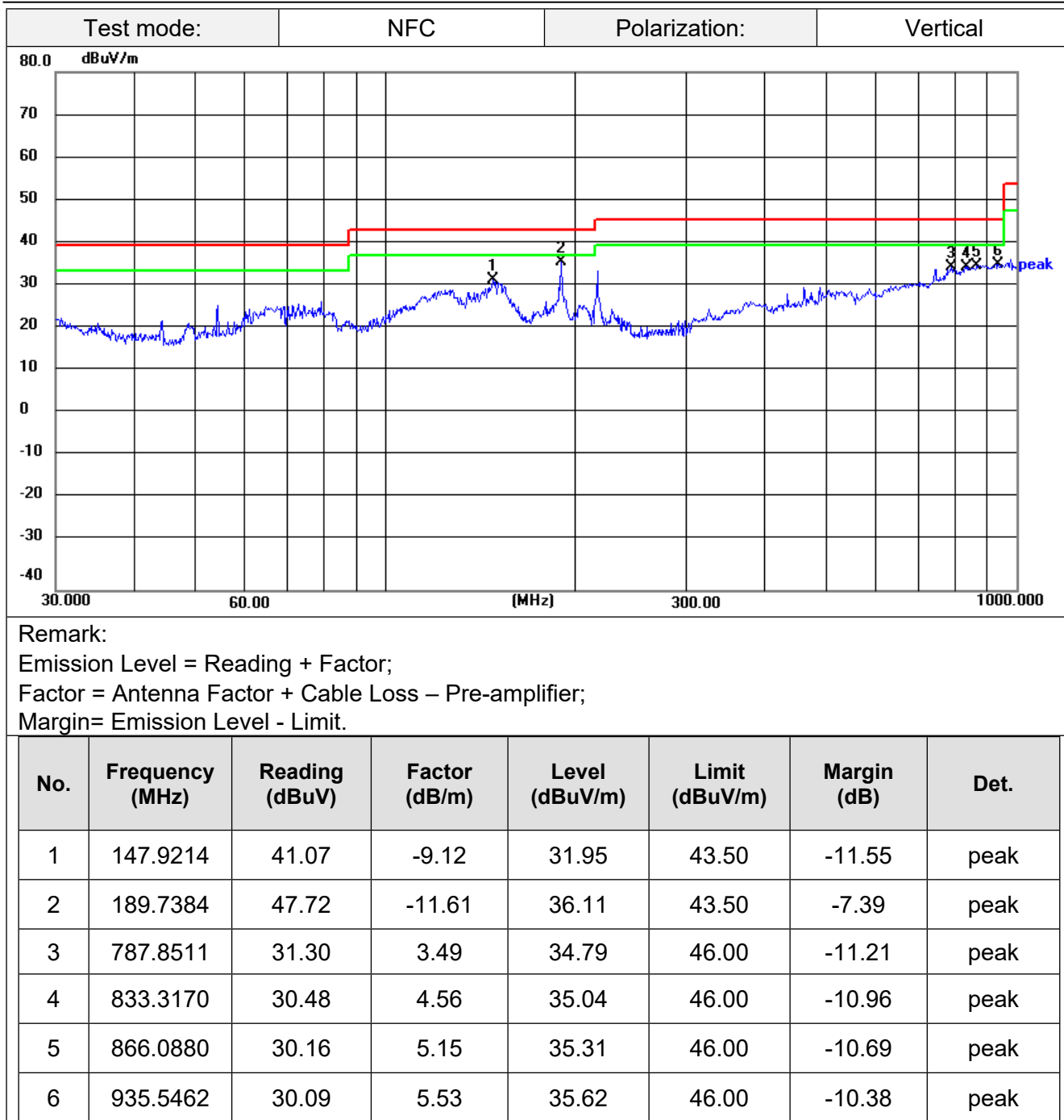
Model: i62-2 Wire

Remark:

Emission Level = Reading + Factor;

Factor = Antenna Factor + Cable Loss – Pre-amplifier;

Margin= Emission Level - Limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	189.7384	45.93	-11.61	34.32	43.50	-9.18	peak
2	216.7828	47.66	-11.42	36.24	46.00	-9.76	peak
3	244.2321	42.59	-9.57	33.02	46.00	-12.98	peak
4	793.3960	31.26	3.62	34.88	46.00	-11.12	peak
5	863.0561	30.35	5.20	35.55	46.00	-10.45	peak
6	952.0937	31.70	5.93	37.63	46.00	-8.37	peak



3.3 20dB Bandwidth

Limit

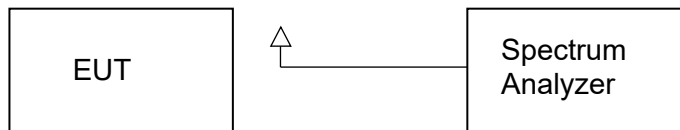
No limit for 20dB bandwidth.

Test Procedure

The 20dB bandwidth is measured with a spectrum analyzer connected via a receive antenna placed near the EUT while the EUT is operating in transmission mode.

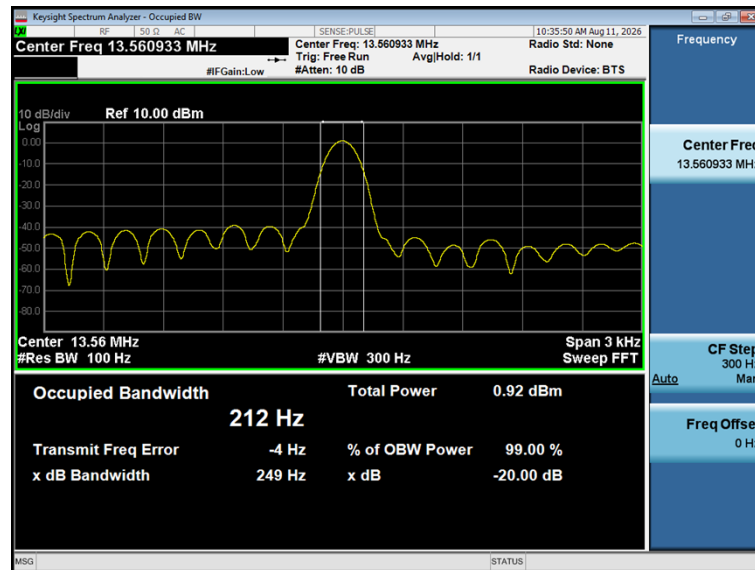
The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

Test Configuration



Test Results

Modulation	Frequency(MHz)	20dB bandwidth (KHz)	99%dB bandwidth (KHz)	Result
ASK	13.56	0.249	0.212	Pass

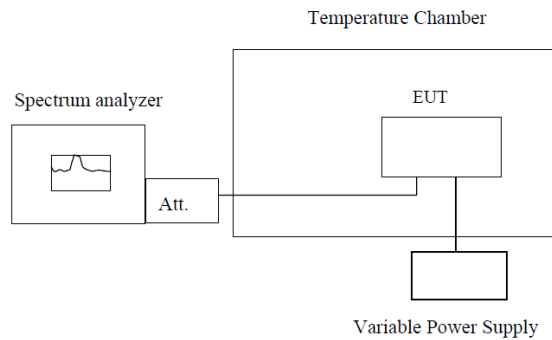


3.4 Frequency Stability

LIMIT

The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ 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.

TEST CONFIGURATION



Note : Measurement setup for testing on Antenna connector

TEST PROCEDURE

1. The equipment under test was connected to an external DC power supply and input rated voltage.
2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators.
3. The EUT was placed inside the temperature chamber.
4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency.
5. Turn EUT off and set the chamber temperature to -20°C . After the temperature stabilized for approximately 30 minutes recorded the frequency.
6. Repeat step measure with 10°C increased per stage until the highest temperature of $+50^{\circ}\text{C}$ reached.
7. Reduce the input voltage to specified extreme voltage variation ($\pm 15\%$) or endpoint, record the maximum frequency change.

TEST RESULTS

Reference Frequency: 13.56MHz				
Voltage (V)	Temperature (°C)	Frequency (MHz)	Frequency Deviation(Hz)	Deviation (%)
48.0	+20(Ref)	13.56017	170	0.00126%
	-20	13.56020	200	0.00145%
	-10	13.56008	80	0.00053%
	0	13.56014	140	0.00101%
	+10	13.56015	150	0.00117%
	+20	13.56013	130	0.00094%
	+25	13.56005	50	0.00033%
	+30	13.56014	140	0.00106%
	+40	13.56020	200	0.00148%
	+50	13.56006	60	0.00045%
52.8V	+20	13.56009	90	0.00068%
43.2V	+20	13.56006	60	0.00045%

4 Test Setup Photographs of EUT

Please refer to separated files for Test Setup Photos of the EUT.

5 External Photographs of EUT

Please refer to separated files for External Photos of the EUT.

6 Internal Photographs of EUT

Please refer to separated files for Internal Photos of the EUT.

***** **End of Report** *****