



FCC Part 15C Test Report

FCC ID: 2BVR7-A5RKFP04

Applicant: 1Stier International Co., Limited

Address: Rooms 1318-19, 13/F, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hong Kong

Manufacturer: 1Stier International Co., Limited

Address: Rooms 1318-19, 13/F, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hong Kong

Product Name: Multi-Modal Recognition Smart Terminal

Trade Mark: N/A

Model Number: A5RK-FP04, A5RK-FPXX (The test model A5RK-FP04 is the full-feature configuration. In the series models A5RK-FPXX. "XX" represents any digit combination from 0 to 9 and is used to different models or different exterior colors.)

Date of Receipt: Feb. 27, 2026

Test Date: Feb. 27, 2026 - Mar. 27, 2026

Date of Report: Mar. 27, 2026

Prepared By: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China

Applicable Standards: FCC PART 15 C 15.225
ANSI C63.10:2020

Test Result: Pass

Report Number: DLE-260227040R

Prepared (Test Engineer): Alisa Song

Reviewer (Supervisor): Jack Bu

Approved (Manager): Jade Yang



This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.



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1.. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.225) , Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.209,15.225 (a)-(d)	Fundamental &Radiated Spurious Emission Measurement	PASS	
15.215(c)	20dB Bandwidth&99% Bandwidth	PASS	
15.203	Antenna Requirement	PASS	
15.225(e)	Frequency Stability	PASS	

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

Test lab: Shenzhen DL Testing Technology Co., Ltd.

101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1

Address: Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China

FCC Test Firm Registration Number: 854456

Designation Number: CN1307

IC Registered No.: 27485

CAB ID.: CN0118

1.1. MEASUREMENT UNCERTAINTY

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

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 2.56\text{dB}$
2	RF power,conducted	$\pm 0.42\text{dB}$
3	Spurious emissions,conducted	$\pm 2.76\text{dB}$
4	All emissions,radiated(<1G)	$\pm 3.65\text{dB}$
5	All emissions,radiated(>1G)	$\pm 4.89\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2\%$
8	20dB Bandwidth	$\pm 0.2\text{MHz}$



2.. GENERAL INFORMATION

2.1. GENERAL DESCRIPTION OF EUT

Product Name:	Multi-Modal Recognition Smart Terminal
Trade Mark:	N/A
Model Number:	A5RK-FP04, A5RK-FPXX(The test model A5RK-FP04 is the full-feature configuration. In the series models A5RK-FPXX. "XX" represents any digit combination from 0 to 9 and is used to different models or different exterior colors.)
Test Model:	A5RK-FP04
Model Difference:	All models are same as the samples except model name and appearance color, they have the same structure and circuit.
Operation Frequency:	13.56MHz
Channel numbers:	1 Channels
Modulation technology:	FSK
Antenna Type:	Internal Antenna
Antenna gain:	0dBi
Power Supply:	DC 12V from adapter
Adapter:	MODEL:J302-1202000U INPUT:100-240V~ 50/60Hz 1.5A OUTPUT:12V---2000mA

Note:

- 1.For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- 2.The EUT's all information provided by client.

3.

Channel List	
Channel	Frequency (MHz)
00	13.56



2.2. DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description	
Mode 1	CH00	FSK

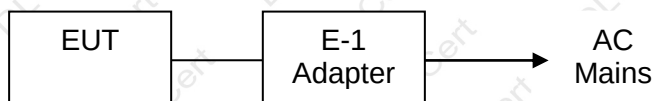
For Radiated Emission		
Final Test Mode	Description	
Mode 1	CH00	FSK

Note:

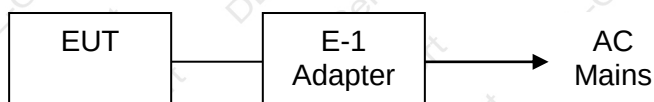
- (1) A new fully charged battery was used for testing during the test.

2.3. BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



Power Line Conducted Emission Test





2.4. DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Model/Type No.	Series No.	Note
E-1	Adapter	J302-1202000U	N/A	N/A

Item	Shielded Type	Ferrite Core	Length	Note

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

2.5. TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the end product.

Test software Version	Test program: FCC_test
Frequency	13.56MHz
Power Setting of Software	10

**2.6. EQUIPMENTS LIST FOR ALL TEST ITEMS**

Radiation test, Band-edge test and 20db bandwidth test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	Agilent	E4408B	MY50140780	Oct. 25, 2025	Oct. 24, 2026
2	Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Oct. 25, 2025	Oct. 24, 2026
3	Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Oct. 25, 2025	Oct. 24, 2026
4	Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Oct. 25, 2025	Oct. 24, 2026
5	Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	588	Oct. 25, 2025	Oct. 24, 2026
6	Amplifier (9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Oct. 25, 2025	Oct. 24, 2026
7	Amplifier (1GHz-18GHz)	EMEC	EM01G8GA	00270	Oct. 25, 2025	Oct. 24, 2026
8	Amplifier (18GHz-40GHz)	Quanjuda	DLE-161	97	Oct. 25, 2025	Oct. 24, 2026
9	Loop Antenna (9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Oct. 25, 2025	Oct. 24, 2026
10	RF cables1 (9kHz-1GHz)	ChengYu	966	004	Oct. 25, 2025	Oct. 24, 2026
11	RF cables2 (1GHz-40GHz)	ChengYu	966	003	Oct. 25, 2025	Oct. 24, 2026
12	Antenna connector	Florida RF Labs	N/A	RF 01#	Oct. 25, 2025	Oct. 24, 2026
13	Power probe	KEYSIGHT	U2021XA	MY55210018	Oct. 25, 2025	Oct. 24, 2026
14	Signal Analyzer 9kHz-26.5GHz	Agilent	N9020A	MY55370280	Oct. 25, 2025	Oct. 24, 2026
15	Test Receiver 20kHz-40GHz	R&S	ESU 40	100376	Oct. 25, 2025	Oct. 24, 2026
16	D.C. Power Supply	LongWei	PS-305D	010964729	Oct. 25, 2025	Oct. 24, 2026

Conduction Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	843 Shielded Room	YIHENG	843 Room	843	Nov. 05, 2023	Nov. 04, 2026
2	EMI Receiver	R&S	ESR	101421	Oct. 25, 2025	Oct. 24, 2026
3	LISN	R&S	ENV216	102417	Oct. 25, 2025	Oct. 24, 2026
4	843 Cable 1#	ChengYu	CE Cable	001	Oct. 25, 2025	Oct. 24, 2026

Other

Item	Name	Manufacturer	Model	Software version
1	EMC Conduction Test System	FALA	EZ_EMCC	EMC-CON 3A1.1
2	EMC radiation test system	FALA	EZ_EMCC	FA-03A2
3	RF test system	MAIWEI	MTS8310	2.0.0.0
4	RF communication test system	MAIWEI	MTS8200	2.0.0.0



3.. EMC EMISSION TEST

3.1. CONDUCTED EMISSION MEASUREMENT

3.1.1. POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Limit (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2. TEST PROCEDURE

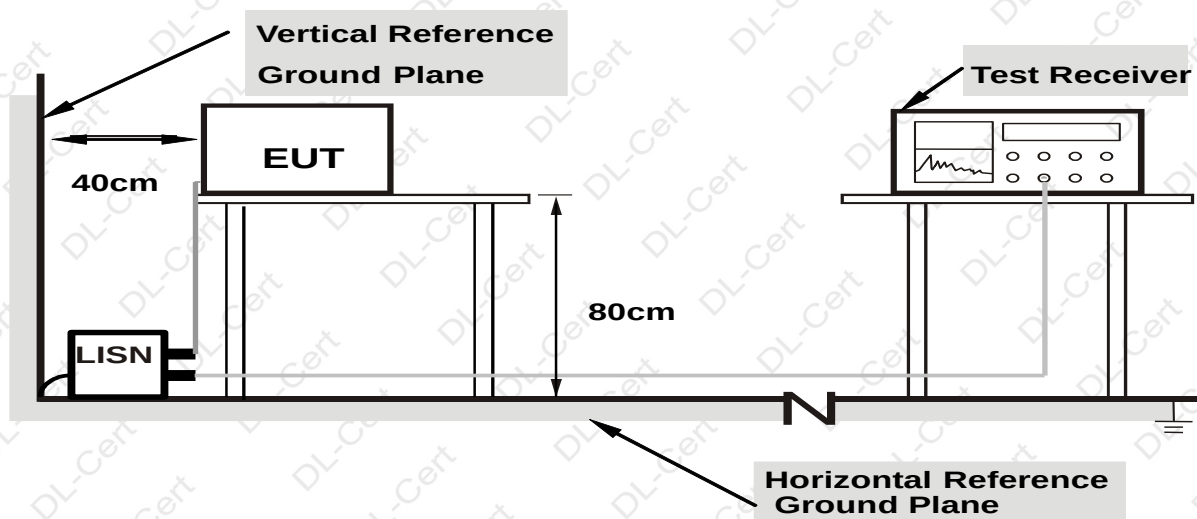
- The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3. DEVIATION FROM TEST STANDARD

No deviation



3.1.4. TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.5. EUT OPERATING CONDITIONS

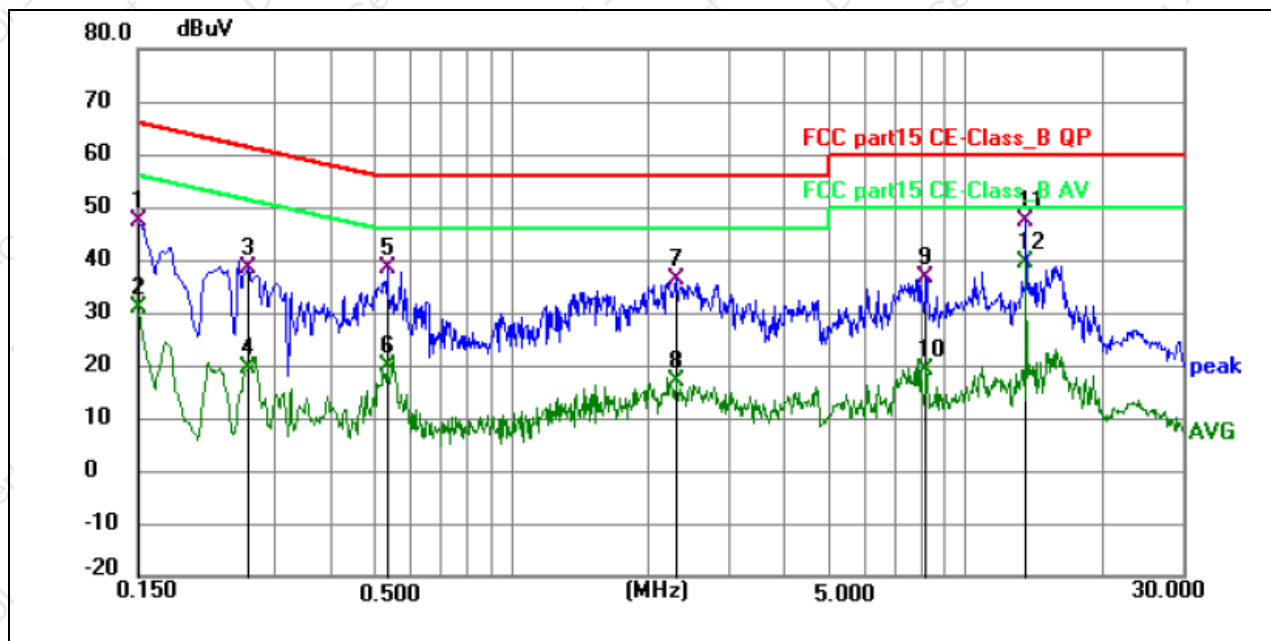
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

We pretest AC 120V and AC 230V, the worst voltage was AC 120V and the data recording in the report.



3.1.6. TEST RESULTS

Temperature:	25 °C	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 1



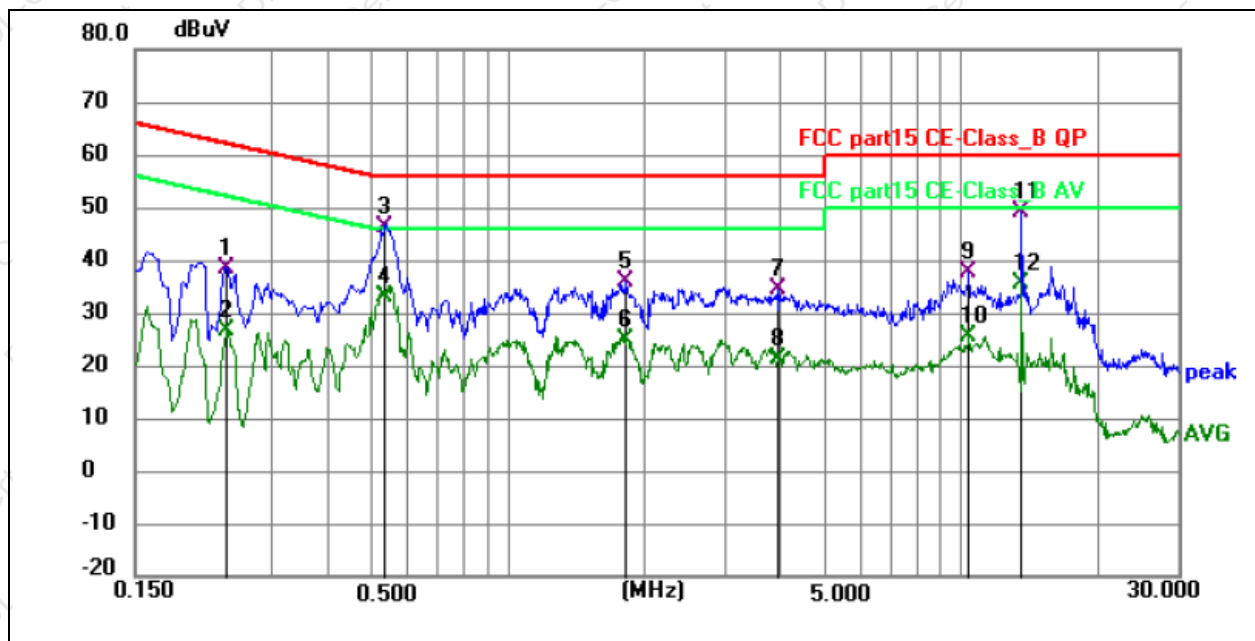
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1500	37.30	9.94	47.24	66.00	-18.76	QP	P	
2	0.1500	21.12	9.94	31.06	56.00	-24.94	AVG	P	
3	0.2625	28.39	9.98	38.37	61.35	-22.98	QP	P	
4	0.2625	9.36	9.98	19.34	51.35	-32.01	AVG	P	
5	0.5323	28.63	9.88	38.51	56.00	-17.49	QP	P	
6	0.5323	9.91	9.88	19.79	46.00	-26.21	AVG	P	
7	2.3010	26.21	9.97	36.18	56.00	-19.82	QP	P	
8	2.3010	6.85	9.97	16.82	46.00	-29.18	AVG	P	
9	8.1913	26.34	10.24	36.58	60.00	-23.42	QP	P	
10	8.1913	8.84	10.24	19.08	50.00	-30.92	AVG	P	
11	13.5600	37.13	10.26	47.39	60.00	-12.61	QP	P	
12 *	13.5600	29.23	10.26	39.49	50.00	-10.51	AVG	P	

Remark:

Margin = Limit – Level, Correct Factor = Cable lose + LISN insertion loss, Level= Reading + Correct factor



Temperature:	25 °C	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	N
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.2400	28.63	9.94	38.57	62.10	-23.53	QP	P	
2	0.2400	16.51	9.94	26.45	52.10	-25.65	AVG	P	
3 *	0.5370	36.39	9.88	46.27	56.00	-9.73	QP	P	
4	0.5370	23.21	9.88	33.09	46.00	-12.91	AVG	P	
5	1.8193	25.83	10.01	35.84	56.00	-20.16	QP	P	
6	1.8193	14.76	10.01	24.77	46.00	-21.23	AVG	P	
7	3.9390	24.43	10.09	34.52	56.00	-21.48	QP	P	
8	3.9390	11.06	10.09	21.15	46.00	-24.85	AVG	P	
9	10.3559	27.47	10.27	37.74	60.00	-22.26	QP	P	
10	10.3559	15.27	10.27	25.54	50.00	-24.46	AVG	P	
11	13.5555	38.92	10.25	49.17	60.00	-10.83	QP	P	
12	13.5555	25.46	10.25	35.71	50.00	-14.29	AVG	P	

Remark:

Margin = Limit – Level, Correct Factor = Cable lose + LISN insertion loss, Level= Reading + Correct factor



3.2. RADIATED EMISSION MEASUREMENT

3.2.1. RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

In case the emission fall within the restricted band specified on 15.225, then the 15.209(a) limit in the table below has to be followed.

Frequency (MHz)	Magnetic field strength (H-Field) ($\mu\text{A/m}$)	Measurement Distance (meters)
0.009~0.490 ¹	6.37/F(KHz)	300
0.490~1.705	63.7/F(KHz)	30
1.705~30.0	0.08	30
Frequency (MHz)	Field Strength (microrvolts/meter)	Measurement Distance (meters)
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Frequency of Emission (MHz)	Field Strength ($\mu\text{V/m}$) at 30m	Field Strength (dB $\mu\text{V/m}$) at 30m
1.705~13.110	30	29.5
13.110~13.410	106	40.5
13.410~13.553	334	50.5
13.553~13.567	15848	84
13.567~13.710	334	50.5
13.710~14.010	106	40.5
14.010~30.00	30	29.5

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Limit (dB $\mu\text{V/m}$) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dB $\mu\text{V/m}$) = 20log Emission level ($\mu\text{V/m}$).



Receiver setup:

Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

3.2.2. TEST PROCEDURE

Below 1GHz test procedure as below:

- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- 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 rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 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.

Above 1GHz test procedure as below:

- The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic chamber.

Note:

The horizontal and vertical polarities of the antenna were tested, and a pre-test was conducted on the EUT placement as three orthogonal axes X,Y,Z. The worst display of the test results was the Y-axis. The worst case emissions were reported.

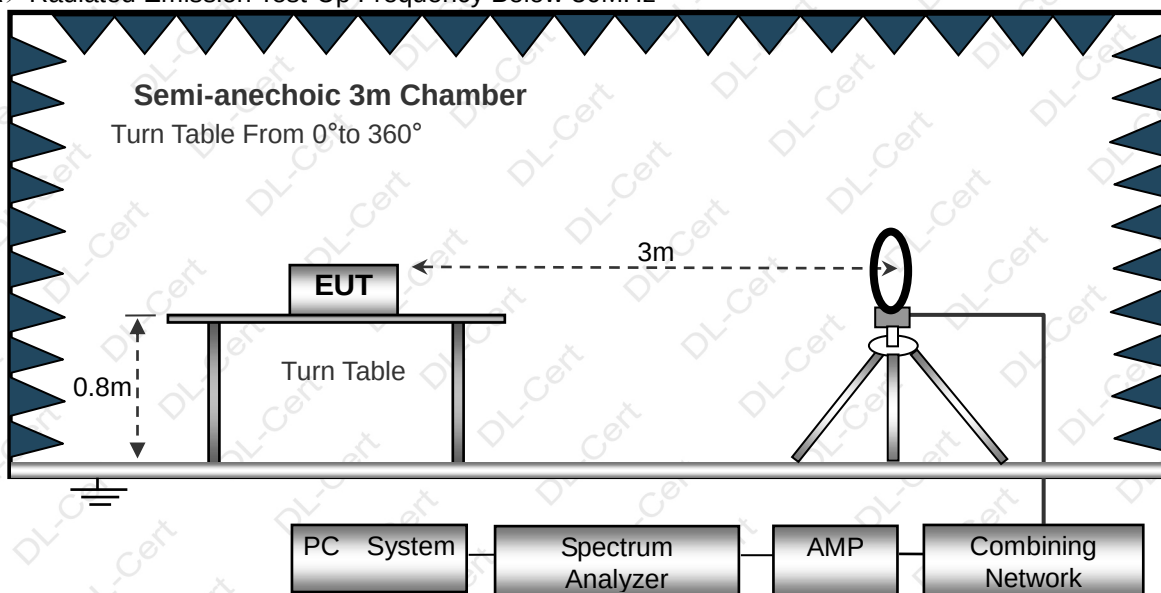
3.2.3. DEVIATION FROM TEST STANDARD

No deviation

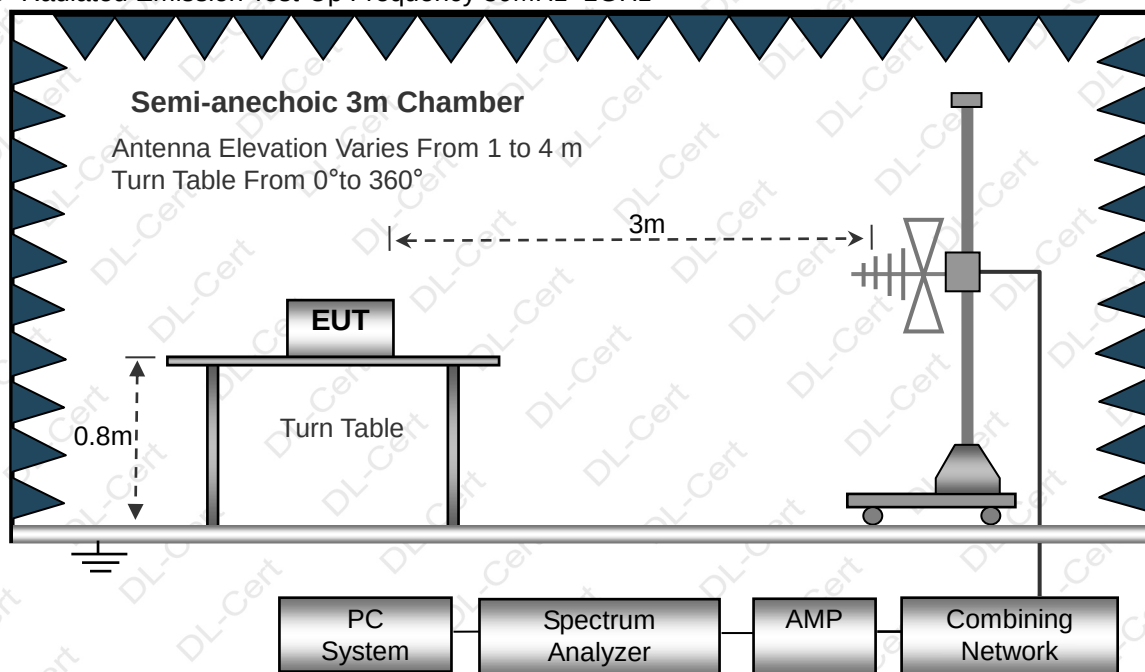


3.2.4. TEST SETUP

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

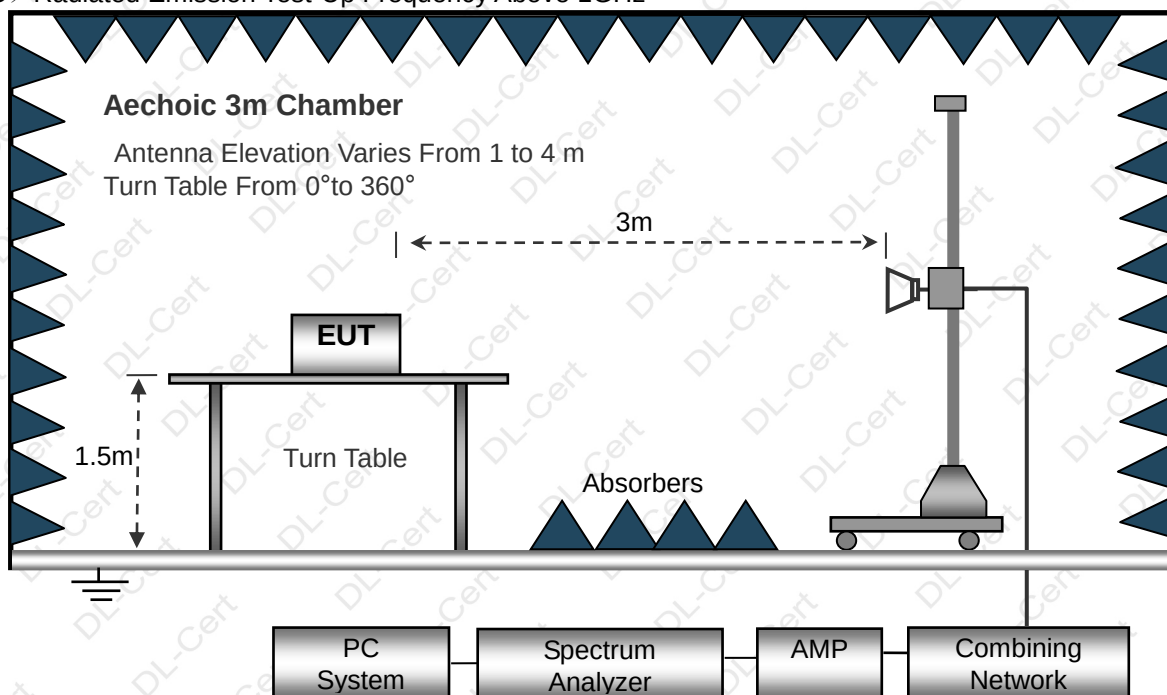


(B) Radiated Emission Test-Up Frequency 30MHz~1GHz





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

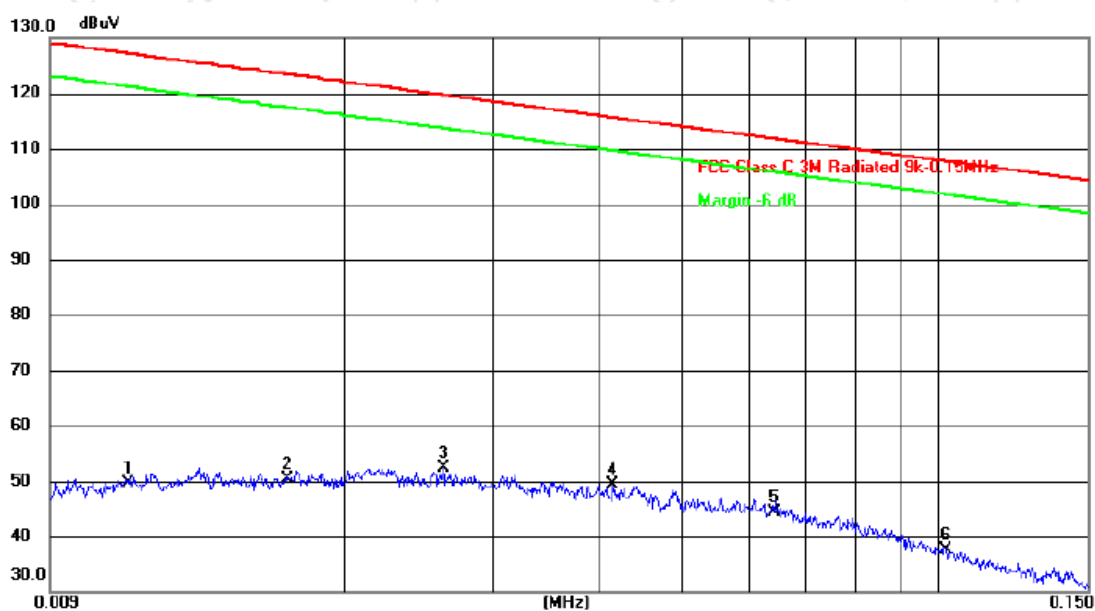
**3.2.5. EUT OPERATING CONDITIONS**

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

**3.2.6. TEST RESULTS (BETWEEN 9KHZ – 30 MHZ)**

The loop antenna setting with three orthogonal axis (parallel, perpendicular, ground) has been tested, and the report only shows the worst test results (perpendicular)

Radiation Emission Test Data 9 kHz~0.15MHz			
Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	perpendicular
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 1



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.0111	49.56	0.04	49.60	127.16	-77.56	AVG	
2	0.0171	50.26	0.04	50.30	123.38	-73.08	AVG	
3	0.0261	52.28	0.05	52.33	119.67	-67.34	AVG	
4 *	0.0413	49.23	0.06	49.29	115.65	-66.36	AVG	
5	0.0641	44.13	0.19	44.32	111.80	-67.48	AVG	
6	0.1019	37.43	0.29	37.72	107.74	-70.02	AVG	

Note:

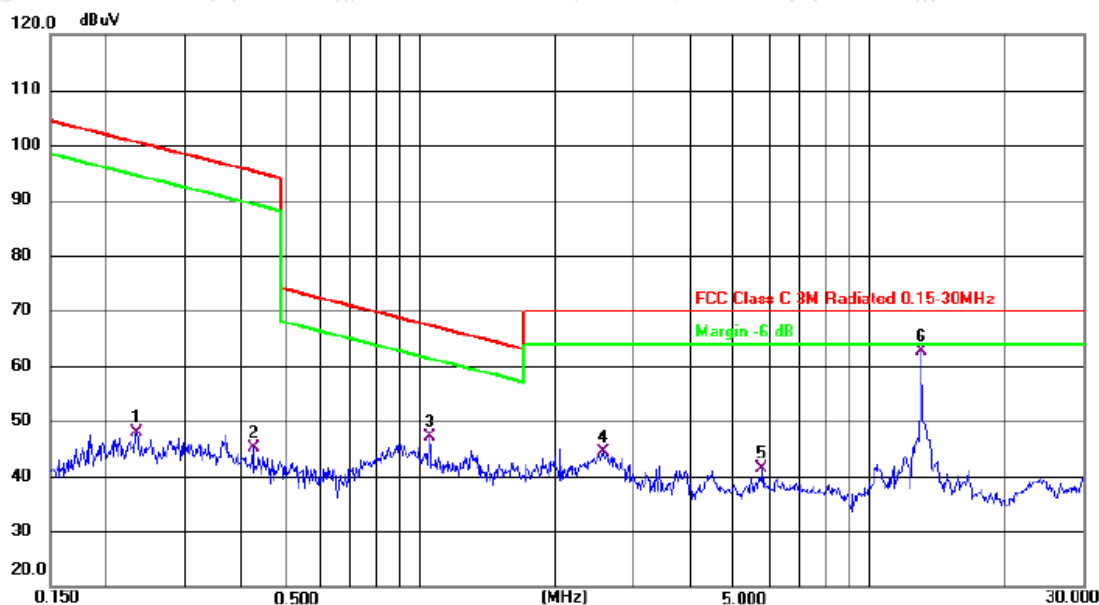
Factor = antenna factor + cable loss – pre-amplifier.

Margin = Emission Level(Meter Reading+ Factor) - Limit.

Limit(dBuA/m) = Limit(dBuV/m)-51.5(dB); Result(dBuA/m) = Result(dBuV/m)-51.5(dB)

**Radiation Emission Test Data 0.15MHz~30 MHz**

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	perpendicular
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 1



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.2328	47.17	0.61	47.78	100.51	-52.73	QP	
2	0.4237	44.13	1.07	45.20	95.27	-50.07	QP	
3	1.0483	44.44	2.63	47.07	67.29	-20.22	QP	
4	2.5535	38.71	5.72	44.43	69.5	-25.07	QP	
5	5.7743	29.02	12.24	41.26	69.5	-28.24	QP	
6 *	13.0571	62.42	0.30	62.72	69.5	-6.78	QP	

Note:

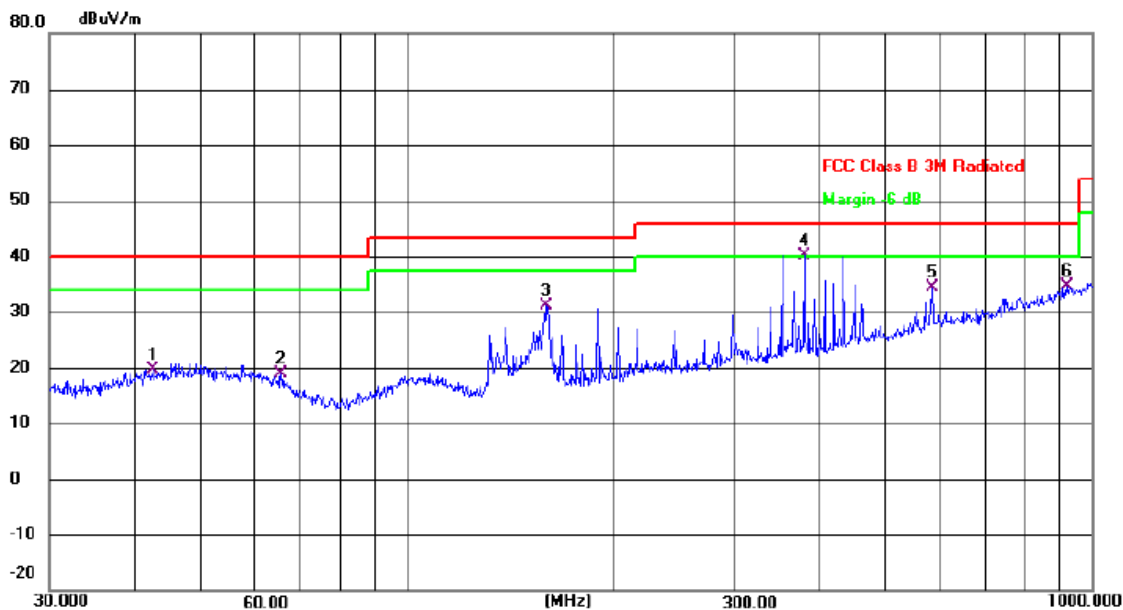
Factor = antenna factor + cable loss – pre-amplifier.

Margin = Emission Level(Meter Reading+ Factor) - Limit.

Limit(dBuA/m) = Limit(dBuV/m)-51.5(dB); Result(dBuA/m) = Result(dBuV/m)-51.5(dB)

**3.2.7. TEST RESULTS (BETWEEN 30MHZ – 1GHZ)**

Temperature:	26℃	Relative Humidity:	54%
Pressure:	1010 hPa	Polarization :	Horizontal
Test Voltage :	AC 120V/60Hz		
Test Mode :	Mode 1		



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	42.4508	27.31	-7.56	19.75	40.00	-20.25	QP	
2	65.3432	27.93	-9.10	18.83	40.00	-21.17	QP	
3	159.7844	42.67	-11.63	31.04	43.50	-12.46	QP	
4 *	379.9141	44.23	-4.04	40.19	46.00	-5.81	QP	
5	584.7895	34.28	0.22	34.50	46.00	-11.50	QP	
6	919.2866	28.78	5.95	34.73	46.00	-11.27	QP	

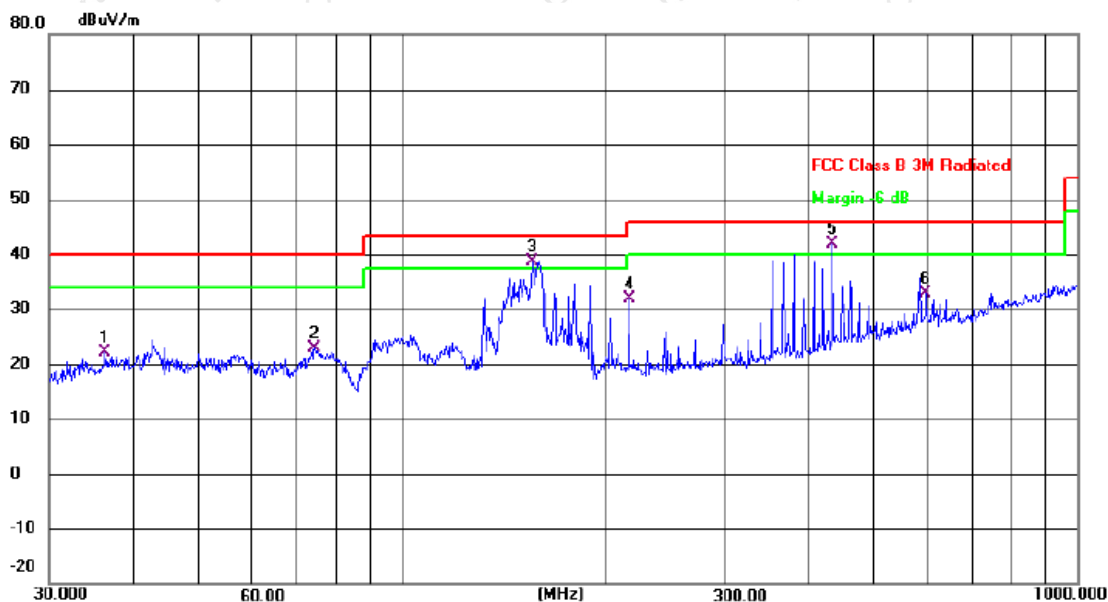
Remark:

Correct Factor = Cable loss + Antenna factor – Preamplifier;

Level = Reading Level + Correct Factor; Margin = Level - Limit;



Temperature:	26°C	Relative Humidity:	54%
Pressure:	1010 hPa	Polarization :	Vertical
Test Voltage :	AC 120V/60Hz		
Test Mode :	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		36.2541	31.33	-9.28	22.05	40.00	-17.95	QP	
2		74.1351	34.99	-12.10	22.89	40.00	-17.11	QP	
3	!	155.9101	51.08	-12.41	38.67	43.50	-4.83	QP	
4		216.7828	40.02	-8.23	31.79	46.00	-14.21	QP	
5	*	434.0651	44.99	-3.00	41.99	46.00	-4.01	QP	
6		597.2234	32.45	0.38	32.83	46.00	-13.17	QP	

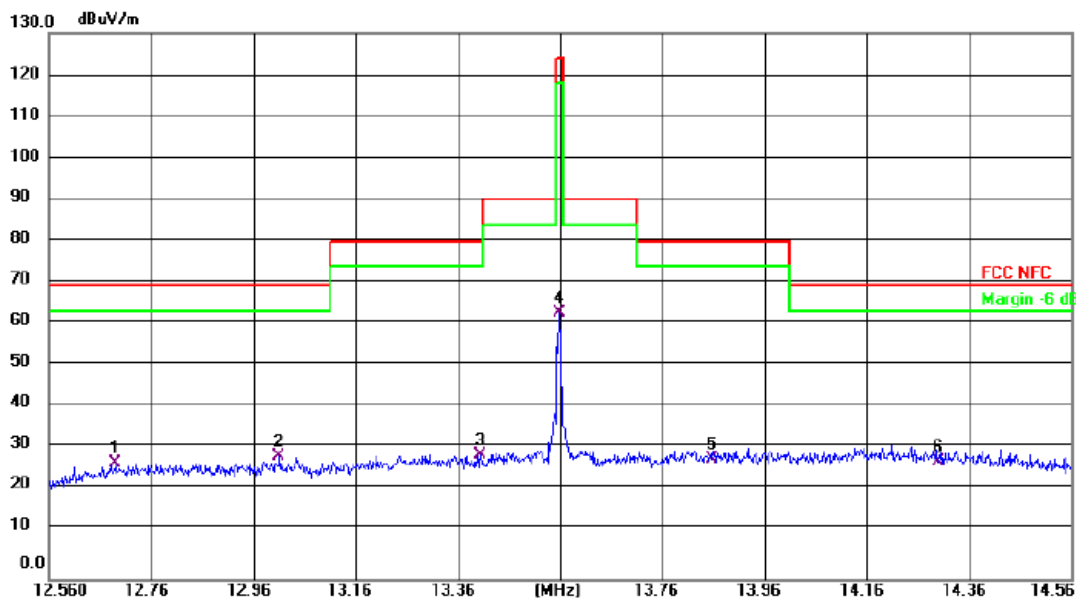
Remark:

Correct Factor = Cable loss + Antenna factor – Preamplifier;

Level = Reading Level + Correct Factor; Margin = Level - Limit;

**3.2.8 FIELD STRENGTH OF FUNDAMENTAL**

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	perpendicular
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 1



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		12.6899	37.06	-9.43	27.63	69.5	-41.87	QP	
2	*	13.0100	38.37	-8.85	29.52	69.5	-39.98	QP	
3		13.4039	37.97	-8.15	29.82	80.51	-50.69	QP	
4		13.5579	71.46	-7.86	63.60	124.00	-60.40	QP	
5		13.8559	36.11	-7.32	28.79	80.51	-51.72	QP	
6		14.3000	34.71	-6.53	28.18	69.5	-41.32	QP	



3.3 FREQUENCY STABILITY

3.3.1 Applicable Standard

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. For battery operated equipment, the equipment tests shall be performed using a new battery.

Carrier frequency stability shall be maintained to $\pm 0.01\%$ (± 100 ppm).

For licence-exempt radio apparatus, the frequency stability shall be measured at temperatures of -20°C (-4°F), $+20^{\circ}\text{C}$ ($+68^{\circ}\text{F}$) and $+50^{\circ}\text{C}$ ($+122^{\circ}\text{F}$).

3.3.2 Measurement Procedure

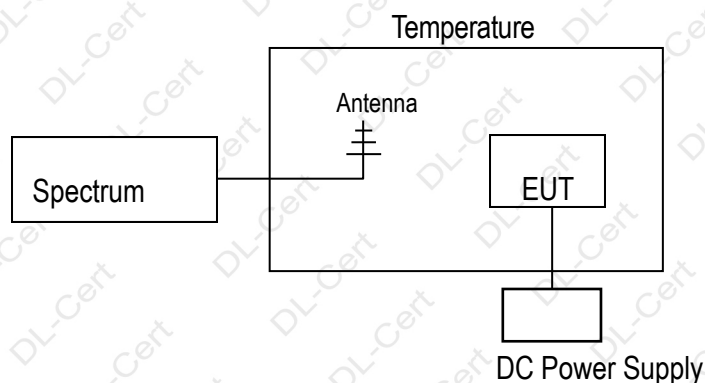
The EUT was placed on a turn table which is 0.8m above ground plane.

Set EUT as normal operation

Set SPA Center Frequency = fundamental frequency, RBW, VBW= 10kHz, Span=100kHz.

Set SPA Max hold. Mark peak.

3.3.3 Test SET-UP (Block Diagram of Configuration)





3.3.4 Measurement Results

Temperature Variation

Power Supply	Environment	Frequency	Delta (kHz)	Limit (kHz)
Vac	Temperature (°C)	(MHz)		
120	-20	13.5599236	-0.0764	+/- 1.356
120	-10	13.5599142	-0.0858	+/- 1.356
120	0	13.5599558	-0.0442	+/- 1.356
120	10	13.5599423	-0.0577	+/- 1.356
120	20	13.5599547	-0.0453	+/- 1.356
120	30	13.5599362	-0.0638	+/- 1.356
120	40	13.5599441	-0.0559	+/- 1.356
120	50	13.5599237	-0.0763	+/- 1.356

Supply Voltage Variation

Power Supply	Environment	Frequency	Delta (kHz)	Limit (kHz)
Vac	Temperature (°C)	(MHz)		
132	20	13.5599328	-0.0672	+/- 1.356
120	20	13.5599142	-0.0858	+/- 1.356
108	20	13.5599466	-0.0534	+/- 1.356



4.. BANDWIDTH TEST

4.1. APPLIED PROCEDURES / LIMIT

FCC Part15 (15.215) , Subpart C	
Section	Test Item
15.215	Bandwidth

4.1.1. TEST PROCEDURE

1. Set RBW = 1 kHz.
2. Set the video bandwidth (VBW) $\geq$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
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.

4.1.2. DEVIATION FROM STANDARD

No deviation.

4.1.3. TEST SETUP



4.1.4. EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

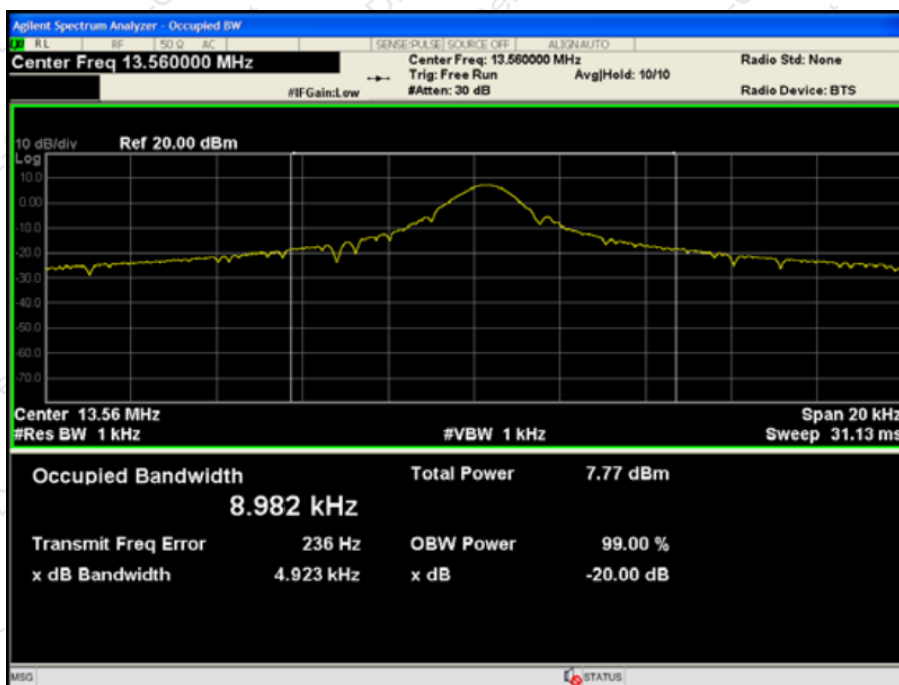


4.1.5. TEST RESULTS

Temperature:	25°C	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX Mode /CH00		

	Frequency (MHz)	20dB Bandwidth (MHz)	99% Bandwidth (MHz)	Result
FSK	13.56	0.004923	0.008982	Pass

FSK



13.56MHz



5.. ANTENNA REQUIREMENT

5.1. STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: 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.

5.2. EUT ANTENNA

The EUT antenna is Internal Antenna, It comply with the standard requirement.

6.. TEST SEUUP PHOTO

Reference to the appendix I for details.

7.. EUT PHOTO

Reference to the appendix II for details.

***** END OF REPORT *****