Shenzhen Most Technology Service Co., Ltd.
No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.

TEST REPORT

FCC Rules Part 15.249

Report Reference No..... :	**MTEB23080147-R**
FCC ID..... :	**2A5R5-SYL-10B**
Compiled by (position+printed name+signature).. :	File administrators Alisa Luo
Supervised by (position+printed name+signature).. :	Test Engineer Sunny Deng
Approved by (position+printed name+signature).. :	Manager Yvette Zhou
Date of issue..... :	**Aug. 10,2023**
Representative Laboratory Name. :	**Shenzhen Most Technology Service Co., Ltd.**
Address..... :	No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.
Applicant's name..... :	**DONGGUAN SIYILI INTELLIGENT TECHNOLOGY CO.,LTD**
Address..... :	Room 301, Shenghang Industrial Park, Jinlong Road, Qingxi Town, Dongguan,China
Test specification/ Standard.....**:**	**FCC Rules Part 15.249**
TRF Originator..... :	Shenzhen Most Technology Service Co., Ltd.

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Test item description.....:	Four-wheel electric skateboards
Trade Mark..... :	VEVOR® TOUGH TOOLS, HALF PRICE
Manufacturer..... :	DONGGUAN SIYILI INTELLIGENT TECHNOLOGY CO.,LTD
Model/Type reference..... :	SYL-10B
Listed Models ..... :	GTS-01, SYL-03A , SYL-03B, SYL-06
Modulation Type..... :	GFSK
Operation Frequency..... :	2402MHz ~ 2480MHz
Hardware Version.....	01-A-3.2V
Software Version.....	0x54bd42
Rating..... :	DC 3.7V (by Battery) DC 5V (by USB Port)
Result..... :	**PASS**

T E S T R E P O R T

Equipment under Test	:	Four-wheel electric skateboards
Model /Type	:	SYL-10B
Listed Models	:	GTS-01, SYL-03A, SYL-03B, SYL-06
Remark	:	Difference in Appearance and model names
Applicant	:	**DONGGUAN SIYILI INTELLIGENT TECHNOLOGY CO.,LTD**
Address	:	Room 301, Shenghang Industrial Park, Jinlong Road, Qingxi Town, Dongguan,China
Manufacturer	:	**DONGGUAN SIYILI INTELLIGENT TECHNOLOGY CO.,LTD**
Address	:	Room 301, Shenghang Industrial Park, Jinlong Road, Qingxi Town, Dongguan,China

Test Result:	**PASS**

The 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.

Contents

1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2023.08.10	Initial Issue	Alisa Luo

2. TEST STANDARDS

The tests were performed according to following standards:

The tests were performed according to following standards:
FCC Rules Part 15.249: Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHZ, and 24.0-24.25 GHz..

ANSI C63.10:2013 : American National Standard for Testing Unlicensed Wireless Devices

3. SUMMARY

3.1. General Remarks

Date of receipt of test sample	:	2023.08.04
Testing commenced on	:	2023.08.05
Testing concluded on	:	2023.08.10

3.2. Product Description

Product Name:	Four-wheel electric skateboards
Model/Type reference:	SYL-10B
Power Supply：	DC 3.7V (by Battery) DC 5V (by USB Port)
Testing sample ID：	MTYP02483
2.4G	
Modulation:	GFSK
Operation frequency:	2402MHz ~ 2480MHz
Channel number:	16
Channel separation:	1MHz
Antenna type:	PCB Antenna
Antenna gain:	-0.6dBi

3.3. Equipment Under Test

Power supply system utilised

Power supply voltage	:	○	230V / 50 Hz	○	120V / 60Hz
		○	12 V DC	○	24 V DC
		●	Other (specified in blank below)		

DC 3.7V (by Battery)
DC 5V (by USB Port)

3.4. Short description of the Equipment under Test (EUT)

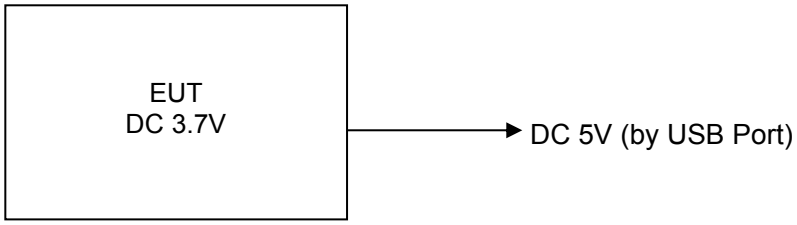
This is a Four-wheel electric skateboards For more details, refer to the user's manual of the EUT.

3.5. EUT operation mode

The Applicant provides communication tools software to control the EUT for staying in continuous transmitting (Duty Cycle more than 98%) and receiving mode for testing .There are 34 channels provided to the EUT. Channel 01/08/16 was selected to test.

Channel number	frequency	Channel number	frequency	Channel number	frequency
1	2402MHz	7	2431MHz	13	2471MHz
2	2405MHz	8	2434MHz	14	2474MHz
3	2408MHz	9	2448MHz	15	2477MHz
4	2411MHz	10	2451MHz	16	2480MHz
5	2425MHz	11	2454MHz		
6	2428MHz	12	2457MHz		

3.6. Block Diagram of Test Setup



3.7. Test Item (Equipment Under Test) Description*

Short designation	EUT Name	EUT Description	Serial number	Hardware status	Software status
EUT A	/	/	/	/	/
EUT B	/	/	/	/	/

*: declared by the applicant. According to customers information EUTs A and B are the same devices.

3.8. Auxiliary Equipment (AE) Description

AE short designation	EUT Name (if available)	EUT Description	Serial number (if available)	Software (if used)
AE 1	Adapter	UP0512	/	/
AE 2	-	/	/	/

3.9. Antenna Information*

Short designation	Antenna Name	Antenna Type	Frequency Range	Serial number	Antenna Peak Gain
Antenna 1	---	PCB Antenna	2.4 – 2.5 GHz	---	-0.6dBi
Antenna 2	/	/	/	/	/

*: declared by the applicant.

3.10. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

○ - supplied by the manufacturer

● - Supplied by the lab

●	ADAPTER	M/N:	UP0512
		Manufacturer:	Salcomp (Shenzhen) Co., Ltd.

3.11. Modifications

No modifications were implemented to meet testing criteria.

4. TEST ENVIRONMENT

4.1. Address of the test laboratory

Shenzhen Most Technology Service Co., Ltd.
No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.
The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.4:2014 and CISPR 16-1-4:2010 SVSWR requirement for radiated emission above 1GHz.

Test Facility

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

FCC-Registration No.: 0031192610

Shenzhen Most Technology Service Co., Ltd. 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 our files.

A2LA-Lab Cert. No.: 6343.01

Shenzhen Most Technology Service Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

4.2. Environmental conditions

Radiated Emission:

Temperature:	23 ° C
Humidity:	48 %
Atmospheric pressure:	950-1050mbar

Conducted testing：

Temperature:	24 ° C
Humidity:	45 %
Atmospheric pressure:	950-1050mbar

4.3. Test Description

FCC and IC Requirements		
15.203	Antenna Requirement	PASS
15.207	AC Power Conducted Emission	N/A
15.215(c)	20dB Bandwidth	PASS
15.209	Field strength of fundamental	PASS
15.205(a), 15.209(a), 15.249(a), 15.249(c)	Radiated Spurious Emissions	PASS
15.249(d)	Band Edge Spurious	PASS

Remark:
1. The measurement uncertainty is not included in the test result.
2. NA = Not Applicable; NP = Not Performed

4.4. Statement of the 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 acc. 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 Shenzhen Most Technology Service Co., Ltd. quality system acc. 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 Shenzhen Most Technology Service Co., Ltd. is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.10 dB	(1)
Radiated Emission	1~18GHz	4.32 dB	(1)
Radiated Emission	18-40GHz	5.54 dB	(1)
Conducted Disturbance	0.15~30MHz	3.12 dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4.5. Equipments Used during the Test

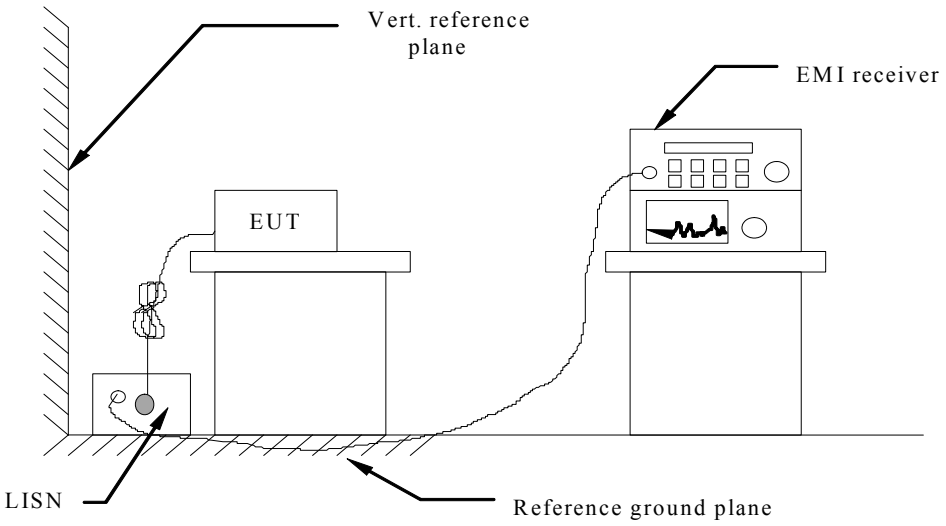
Item	Equipment	Manufacturer	Model No.	Serial No.	Firmware versions	Last Cal.
1.	L.I.S.N.	R&S	ENV216	100093	/	2023/03/17
2	Three-phase artificial power network	Schwarzback Mess	NNLK8129	8129178	/	2023/03/17
3.	Receiver	R&S	ESCI	100492	V3.0-10-2	2023/03/17
4	Receiver	R&S	ESPI	101202	V3.0-10-2	2023/03/17
5	Spectrum analyzer	Agilent	9020A	MT-E306	A14.16	2023/03/17
6	Bilong Antenna	Sunol Sciences	JB3	A121206	/	2023/03/17
7	Horn antenna	HF Antenna	HF Antenna	MT-E158	/	2023/03/17
8	Loop antenna	Beijing Daze	ZN30900B	/	/	2023/03/17
9	Horn antenna	R&S	OBH100400	26999002	/	2023/03/17
10	Wireless Communication Test Set	R&S	CMW500	/	CMW-BASE-3.7.21	2023/03/17
11	Spectrum analyzer	R&S	FSP	100019	V4.40 SP2	2023/03/17
12	High gain antenna	Schwarzbeck	LB-180400KF	MT-E389	/	2023/03/17
13	Preamplifier	Schwarzbeck	BBV 9743	MT-E390	/	2023/03/17
14	Pre-amplifier	EMCI	EMC051845SE	MT-E391	/	2023/03/17
15	Pre-amplifier	Agilent	83051A	MT-E392	/	2023/03/17
16	High pass filter unit	Tonscend	JS0806-F	MT-E393	/	2023/03/17
17	RF Cable(below1GHz)	Times	9kHz-1GHz	MT-E394	/	2023/03/17
18	RF Cable(above 1GHz)	Times	1-40G	MT-E395	/	2023/03/17
19	RF Cable (9KHz-40GHz)	Tonscend	170660	N/A	/	2023/03/17

Note: 1. The Cal.Interval was one year.

5. TEST CONDITIONS AND RESULTS

5.1. AC Power Conducted Emission

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 C63.10-2013.
2 Support equipment, if needed, was placed as per ANSI C63.10-2013
3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10-2013
4 The EUT received DC5V power, 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.

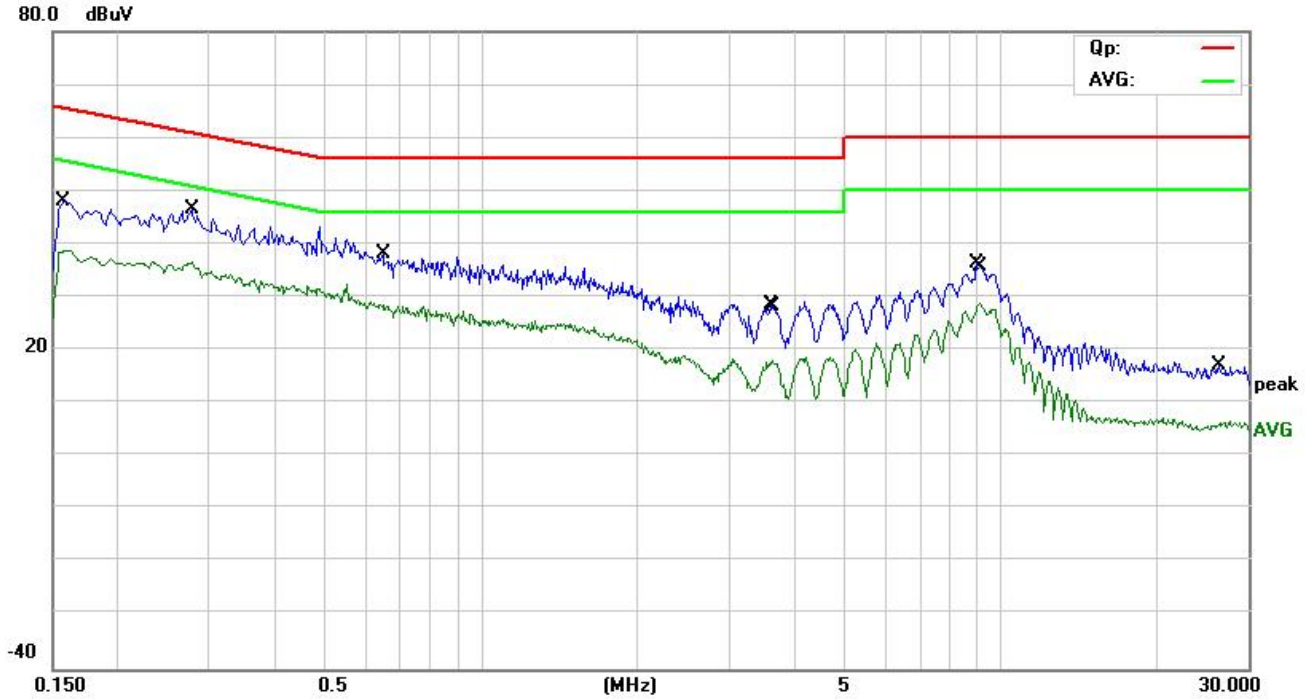
AC Power Conducted Emission Limit

For unintentional device, according to RSS Gen 8.8 and § 15.207(a) Line Conducted Emission Limits is as following:

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 RESULTS
PASS

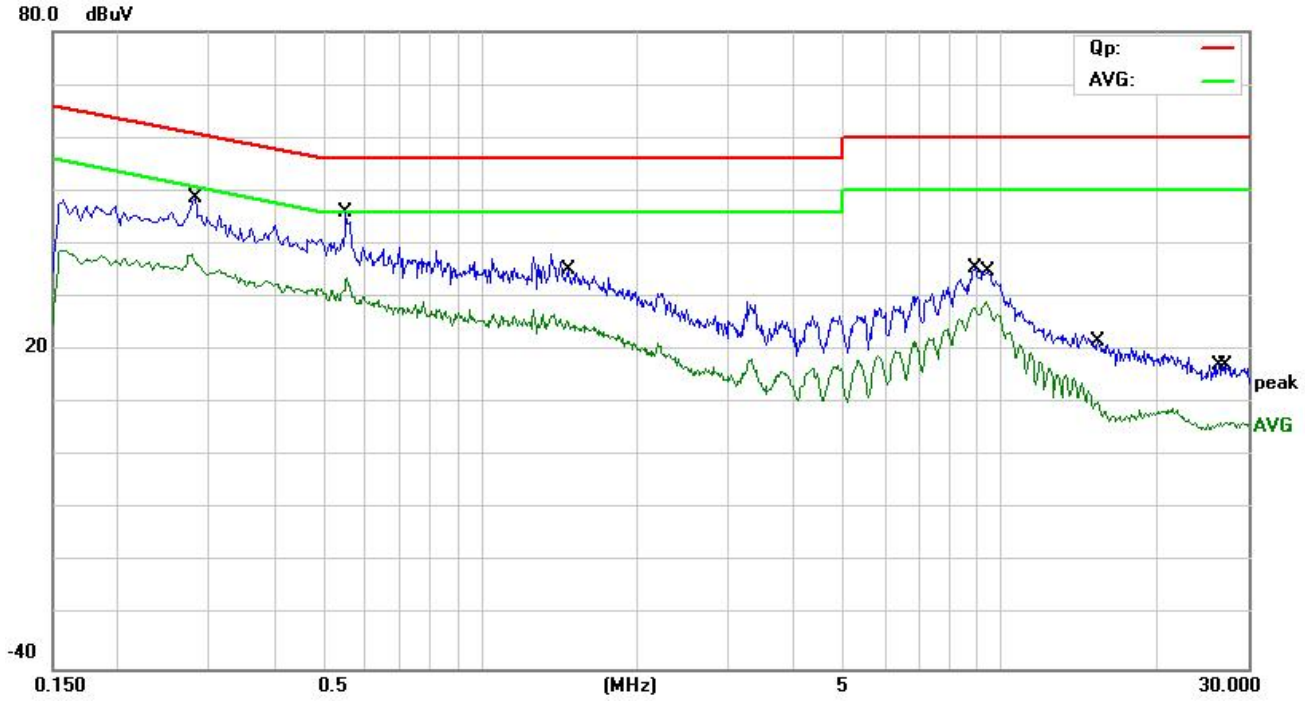
Power supply:	DC 5V (by USB Port)	Polarization	L



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1580	38.49	9.60	48.09	65.57	-17.48	QP	
2		0.1590	29.06	9.60	38.66	55.52	-16.86	AVG	
3		0.2780	36.85	9.59	46.44	60.88	-14.44	QP	
4	*	0.2780	27.08	9.59	36.67	50.88	-14.21	AVG	
5		0.6420	18.98	9.59	28.57	46.00	-17.43	AVG	
6		0.6500	28.66	9.60	38.26	56.00	-17.74	QP	
7		3.6180	19.06	9.62	28.68	56.00	-27.32	QP	
8		3.6540	8.53	9.62	18.15	46.00	-27.85	AVG	
9		8.9980	26.57	9.68	36.25	60.00	-23.75	QP	
10		9.1460	19.02	9.68	28.70	50.00	-21.30	AVG	
11		26.3420	7.27	9.76	17.03	60.00	-42.97	QP	
12		26.4540	-3.31	9.76	6.45	50.00	-43.55	AVG	

*:Maximum data x:Over limit !:over margin

Power supply:	DC 5V (by USB Port)	Polarization	N



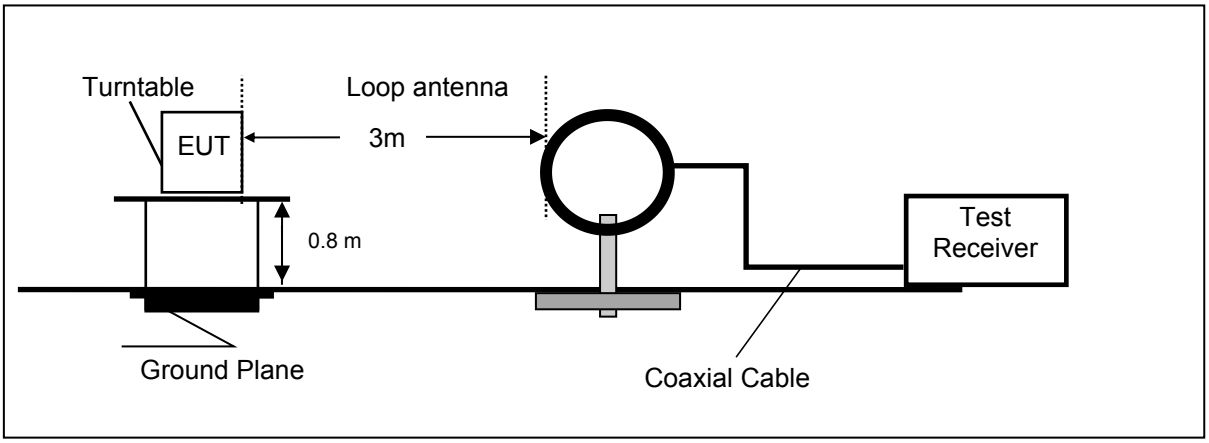
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2780	28.56	9.59	38.15	50.88	-12.73	AVG	
2		0.2820	38.91	9.59	48.50	60.76	-12.26	QP	
3	*	0.5500	36.28	9.59	45.87	56.00	-10.13	QP	
4		0.5540	24.03	9.59	33.62	46.00	-12.38	AVG	
5		1.4700	16.04	9.60	25.64	46.00	-20.36	AVG	
6		1.4740	25.68	9.60	35.28	56.00	-20.72	QP	
7		8.8660	24.76	9.67	34.43	60.00	-25.57	QP	
8		9.3700	19.53	9.68	29.21	50.00	-20.79	AVG	
9		15.4220	11.87	9.70	21.57	60.00	-38.43	QP	
10		15.4220	0.50	9.70	10.20	50.00	-39.80	AVG	
11		26.3900	7.47	9.76	17.23	60.00	-42.77	QP	
12		27.0700	-3.31	9.76	6.45	50.00	-43.55	AVG	

*:Maximum data x:Over limit !:over margin

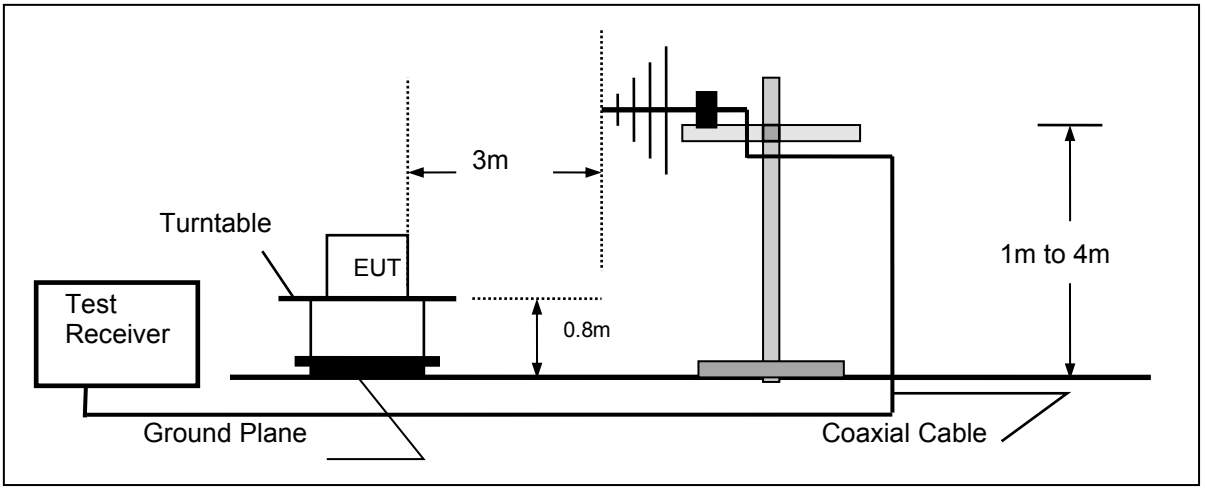
5.2. Radiated Emission

TEST CONFIGURATION

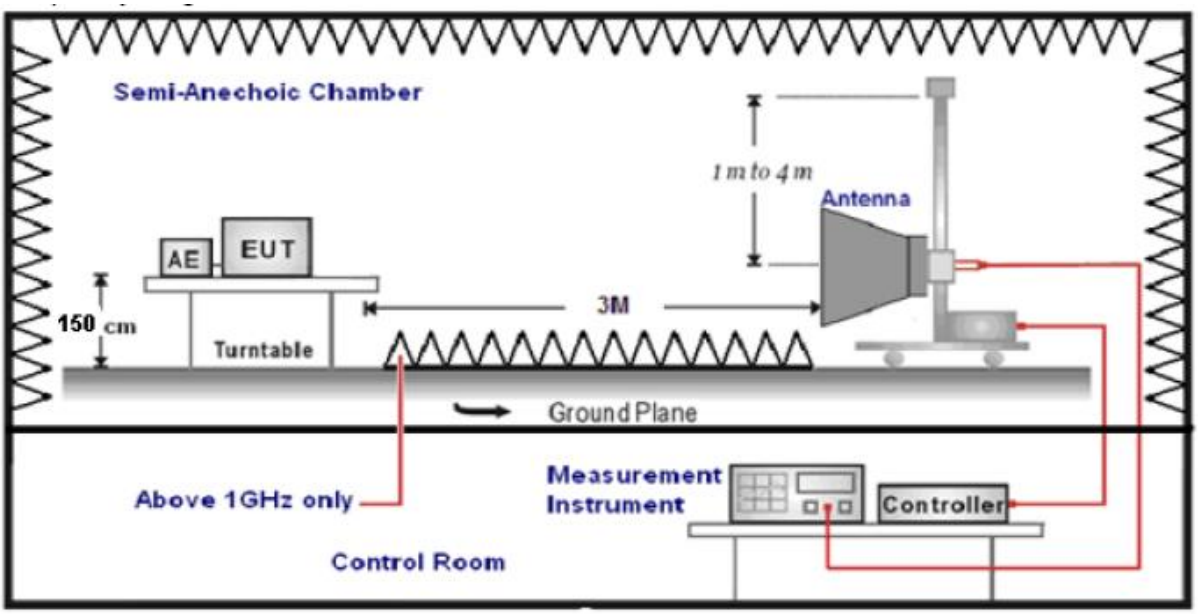
Frequency range 9 KHz – 30MHz



Frequency range 30MHz – 1000MHz



Frequency range above 1GHz-25GHz



TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane when testing frequency range 9 KHz –1GHz;the EUT was placed on a turn table which is 1.5m above ground plane when testing frequency range 1GHz – 25GHz.
2. 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.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.
5. The EUT minimum operation frequency was 32.768KHz and maximum operation frequency was 2480MHz.so radiated emission test frequency band from 9KHz to 25GHz.
6. 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	Ultra-Broadband Antenna	3
1GHz-18GHz	Double Ridged Horn Antenna	3
18GHz-25GHz	Horn Anternna	1

7. 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
1GHz-40GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

Transd=AF +CL-AG

RADIATION LIMIT

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission out of authorized band shall not exceed the following table at a 3 meters measurement distance.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Except when the requirements applicable to a given device state otherwise, emissions from licence‑exempt transmitters shall comply with the field strength limits shown in table below. Additionally, the level of any transmitter emission shall not exceed the level of the transmitter's fundamental emission

Unwanted emissions that fall into restricted bands shall comply with the limits specified in RSS-Gen; and Unwanted emissions that do not fall within the restricted frequency bands shall comply either with the limits specified in the applicable RSS or with those specified in this RSS-Gen.

Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
1.705-30	3	20log(30)+ 40log(30/3)	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

LIMITS OF RADIATED EMISSION MEASUREMENT (1GHz-25 GHz)

FREQUENCY (MHz)	(dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

LIMITS OF FIELD STRENGTH OF THE FUNDAMENTAL SIGNAL

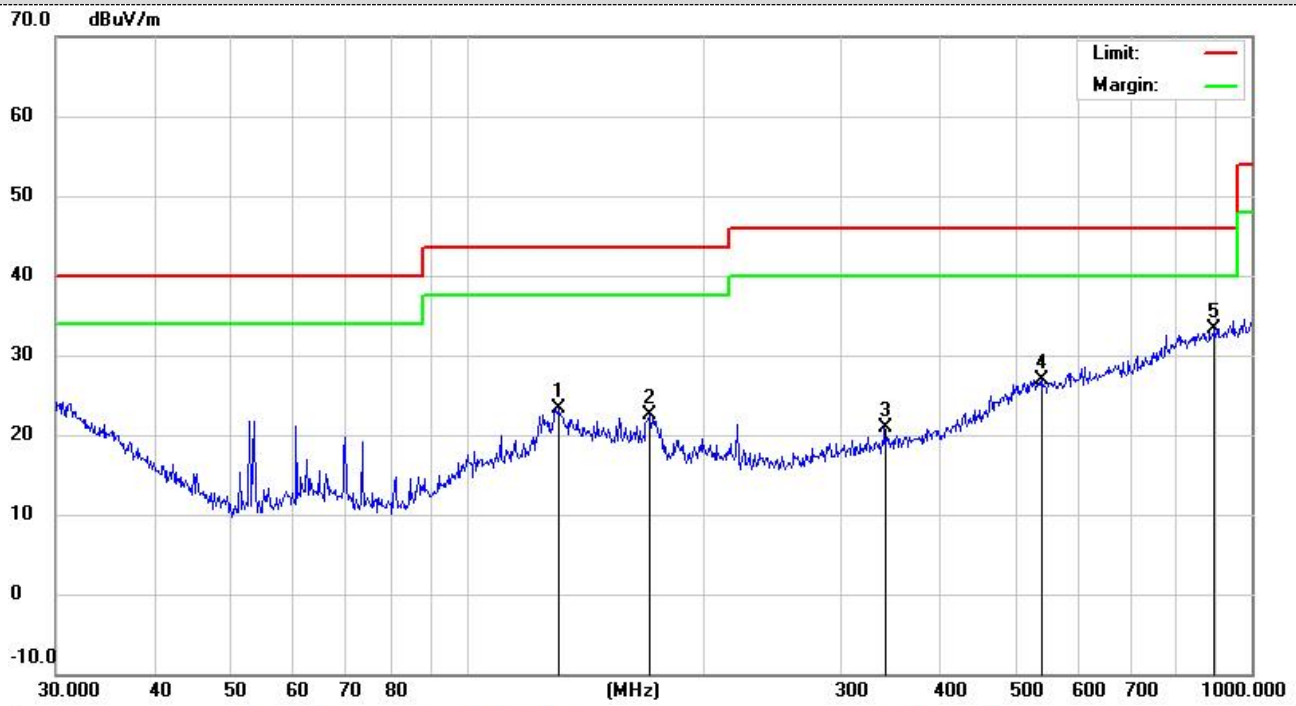
FREQUENCY (MHz)	(dBuV/m) (at 3M)	
	PEAK	AVERAGE
2400-2483.5	114	94

TEST RESULTS

Remark:
1. For below 1GHz testing recorded worst at GFSK middle channel.
2. Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9 KHz to 30MHz and not recorded in this report.

For 30MHz-1GHz

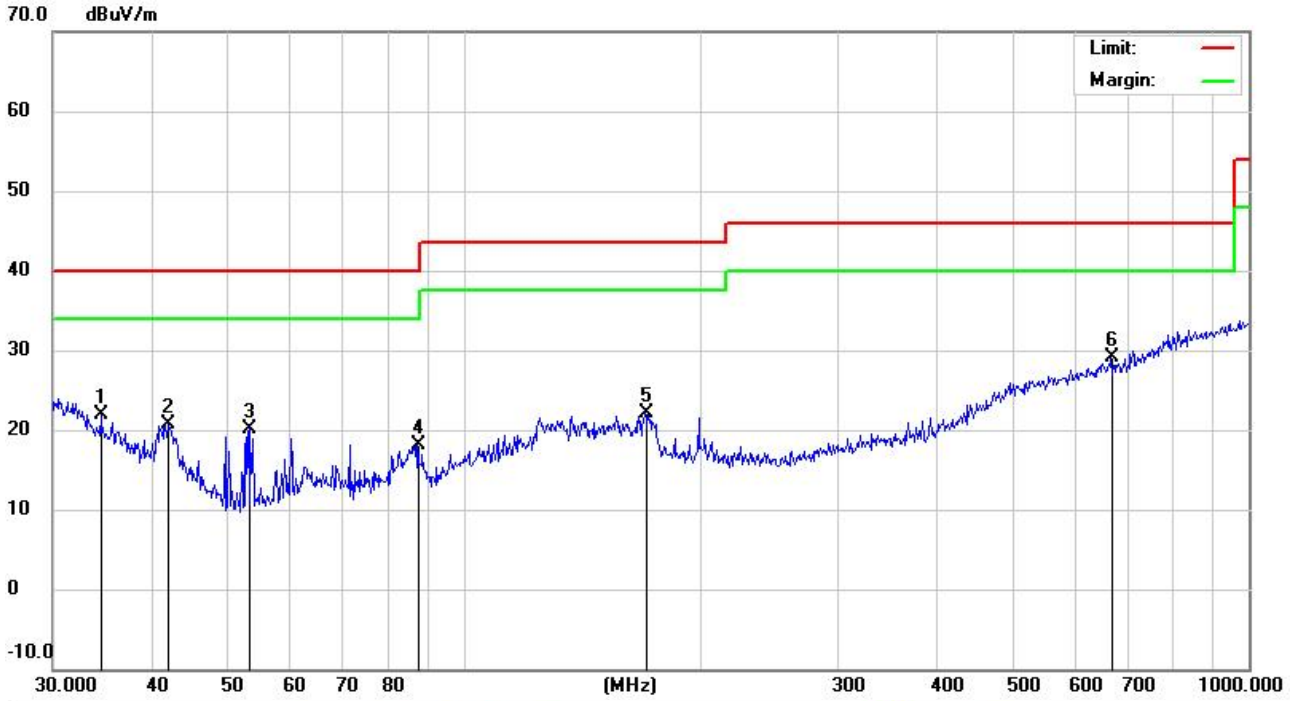
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		131.2965	7.17	16.17	23.34	43.50	-20.16	QP	200	154	
2		170.7926	5.60	16.94	22.54	43.50	-20.96	QP	200	150	
3		340.7817	4.69	16.27	20.96	46.00	-25.04	QP	200	224	
4		541.3725	3.71	23.16	26.87	46.00	-19.13	QP	200	258	
5	*	896.9965	4.40	28.97	33.37	46.00	-12.63	QP	200	142	

*:Maximum data x:Over limit !:over margin

Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		34.5173	4.17	17.83	22.00	40.00	-18.00	QP	100	254	
2		42.0066	8.21	12.48	20.69	40.00	-19.31	QP	100	155	
3		53.5052	11.74	8.28	20.02	40.00	-19.98	QP	100	223	
4		87.4177	8.19	9.95	18.14	40.00	-21.86	QP	100	118	
5		170.1948	5.21	16.96	22.17	43.50	-21.33	QP	100	214	
6	*	668.1423	4.45	24.69	29.14	46.00	-16.86	QP	100	120	

*:Maximum data x:Over limit !:over margin

For 1GHz to 25GHz

GFSK (above 1GHz)

Frequency(MHz):			2402		Polarity:		HORIZONTAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4804	55.1	PK	74	18.9	52.02	31.42	6.98	36.5	1.9
4804	46.19	AV	54	7.81	44.29	31.42	6.98	36.5	1.9
7206	53.28	PK	74	20.72	42.68	37.03	8.87	35.3	10.6
7206	41.56	AV	54	12.44	30.96	37.03	8.87	35.3	10.6

Frequency(MHz):			2402		Polarity:		VERTICAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4804	53.25	PK	74	20.75	51.35	31.42	6.98	36.5	1.9
4804	44.43	AV	54	9.57	42.53	31.42	6.98	36.5	1.9
7206	54.4	PK	74	19.6	43.8	37.03	8.87	35.3	10.6
7206	41.51	AV	54	12.49	30.91	37.03	8.87	35.3	10.6

Frequency(MHz):			2434		Polarity:		HORIZONTAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4868	49.65	PK	74	24.35	55.09	30.98	7.58	36.5	2.06
4868	45.84	AV	54	8.16	43.78	30.98	7.58	36.5	2.06
7302	55.33	PK	74	18.67	44.41	37.66	8.56	35.3	10.92
7302	43.04	AV	54	10.96	32.12	37.66	8.56	35.3	10.92

Frequency(MHz):			2434		Polarity:		VERTICAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4868	52.42	PK	74	21.58	50.36	30.98	7.58	36.5	2.06
4868	42.87	AV	54	11.13	40.81	30.98	7.58	36.5	2.06
7302	51.29	PK	74	22.71	40.37	37.66	8.56	35.3	10.92
7302	42.96	AV	54	11.04	32.04	37.66	8.56	35.3	10.92

Frequency(MHz):			2480		Polarity:		HORIZONTAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4960	58.26	PK	74	15.74	55.19	31.47	7.8	36.2	3.07
4960	47.66	AV	54	6.34	44.59	31.47	7.8	36.2	3.07
7440	53.04	PK	74	20.96	41.3	38.32	8.72	35.3	11.74
7440	42.03	AV	54	11.97	30.29	38.32	8.72	35.3	11.74

Frequency(MHz):			2480		Polarity:		VERTICAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4960	53.21	PK	74	20.79	50.14	31.47	7.8	36.2	3.07
4960	43.84	AV	54	10.16	40.77	31.47	7.8	36.2	3.07
7440	56.22	PK	74	17.78	44.48	38.32	8.72	35.3	11.74
7440	44.25	AV	54	9.75	32.51	38.32	8.72	35.3	11.74

REMARKS:

1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)- Pre-amplifier
3. Margin value = Limit value- Emission level.
4. -- Mean the PK detector measured value is below average limit.
5. The other emission levels were very low against the limit.

Fundamental Radiated Emission Data

Frequency(MHz):			2402		Polarity:		HORIZONTAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2402	82.7	PK	114	31.3	89.59	27.56	4.55	37.68	-6.89
2402	79.88	AV	94	14.12	86.77	27.56	4.55	37.68	-6.89

Frequency(MHz):			2402		Polarity:		VERTICAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2402	86.09	PK	114	27.91	92.98	27.56	4.55	37.68	-6.89
2402	75.34	AV	94	18.66	82.23	27.56	4.55	37.68	-6.89

Frequency(MHz):			2434		Polarity:		HORIZONTAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2434	87.15	PK	114	26.85	93.91	27.62	4.68	37.68	-6.76
2434	77.63	AV	94	16.37	84.39	27.62	4.68	37.68	-6.76

Frequency(MHz):			2434		Polarity:		VERTICAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2434	88.24	PK	114	25.76	95	27.62	4.68	37.68	-6.76
2434	79.88	AV	94	14.12	86.64	27.62	4.68	37.68	-6.76

Frequency(MHz):			2480		Polarity:		HORIZONTAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2480	88.36	PK	114	25.64	94.88	28.05	4.72	37.68	-6.52
2480	75.91	AV	94	18.09	82.43	28.05	4.72	37.68	-6.52

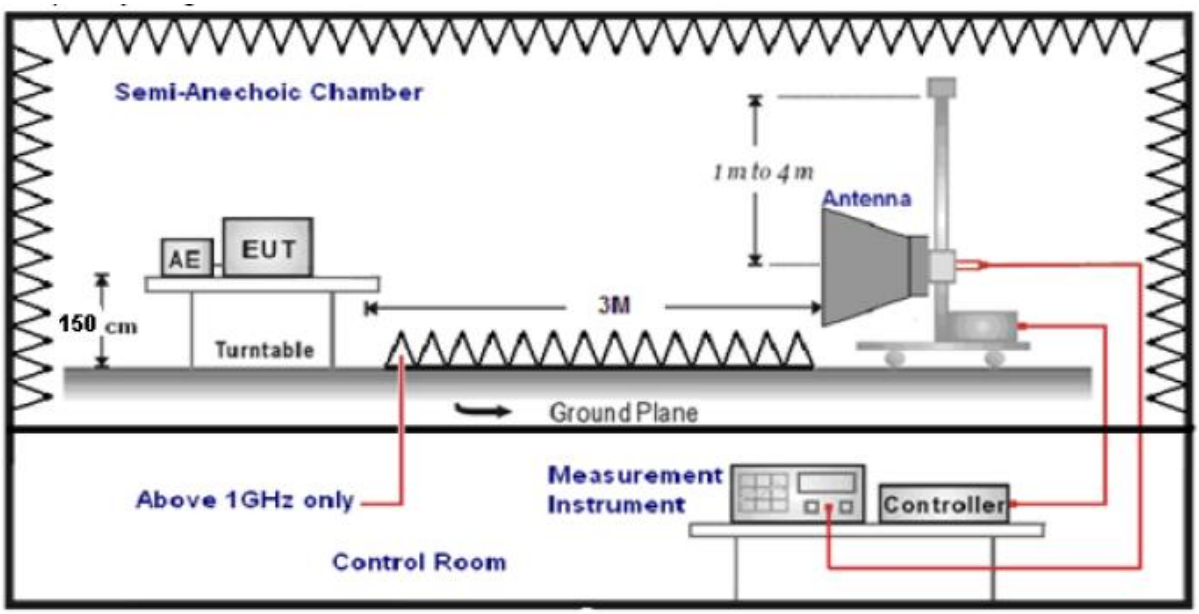
Frequency(MHz):			2480		Polarity:		VERTICAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2480	85.82	PK	114	28.18	92.34	28.05	4.72	37.68	-6.52
2480	76.83	AV	94	17.17	83.35	28.05	4.72	37.68	-6.52

5.3. Band Edge Compliance of RF Emission

TEST REQUIREMENT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was placed on a turn table which is 1.5m above ground plane.
2. 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.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed..
5. The distance between test antenna and EUT was 3 meter:
6. Setting test receiver/spectrum as following table states:

Test Frequency range	Test Receiver/Spectrum Setting	Detector
1GHz-40GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak

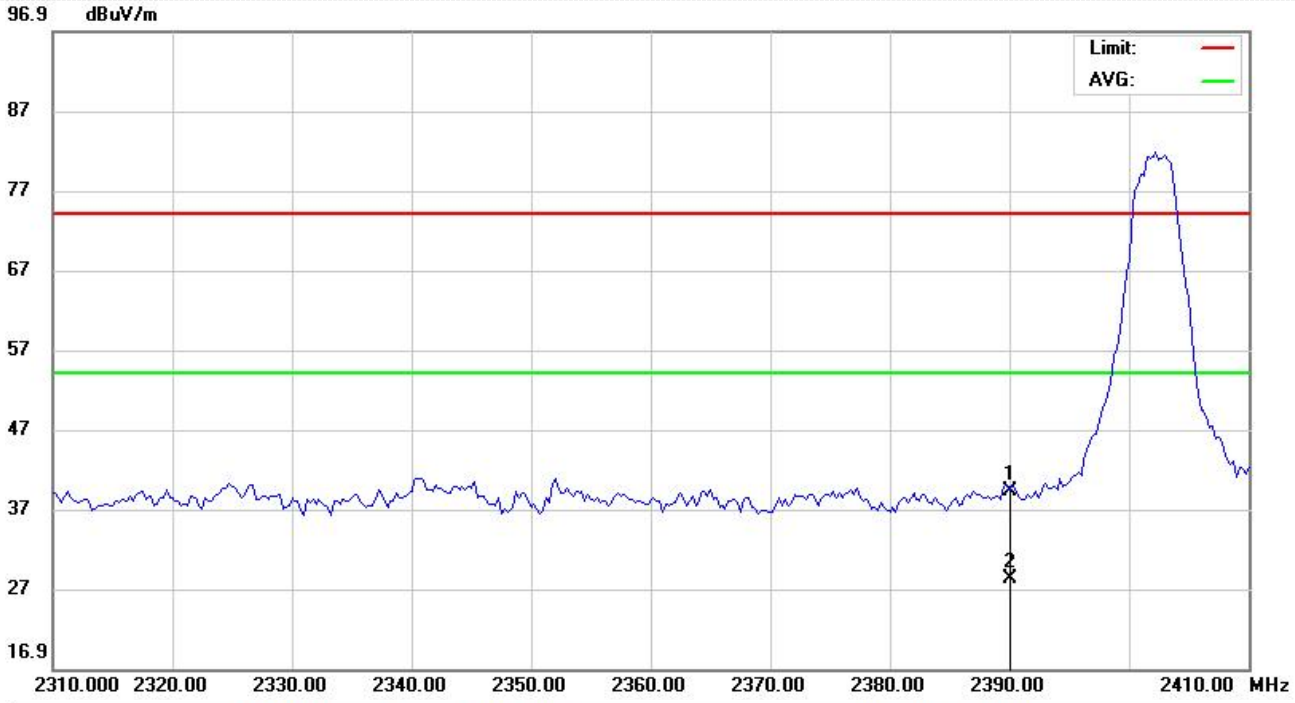
LIMIT

Below -20dB of the highest emission level in operating band.
Radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)

TEST RESULTS

Results of Band Edges Test (Radiated)

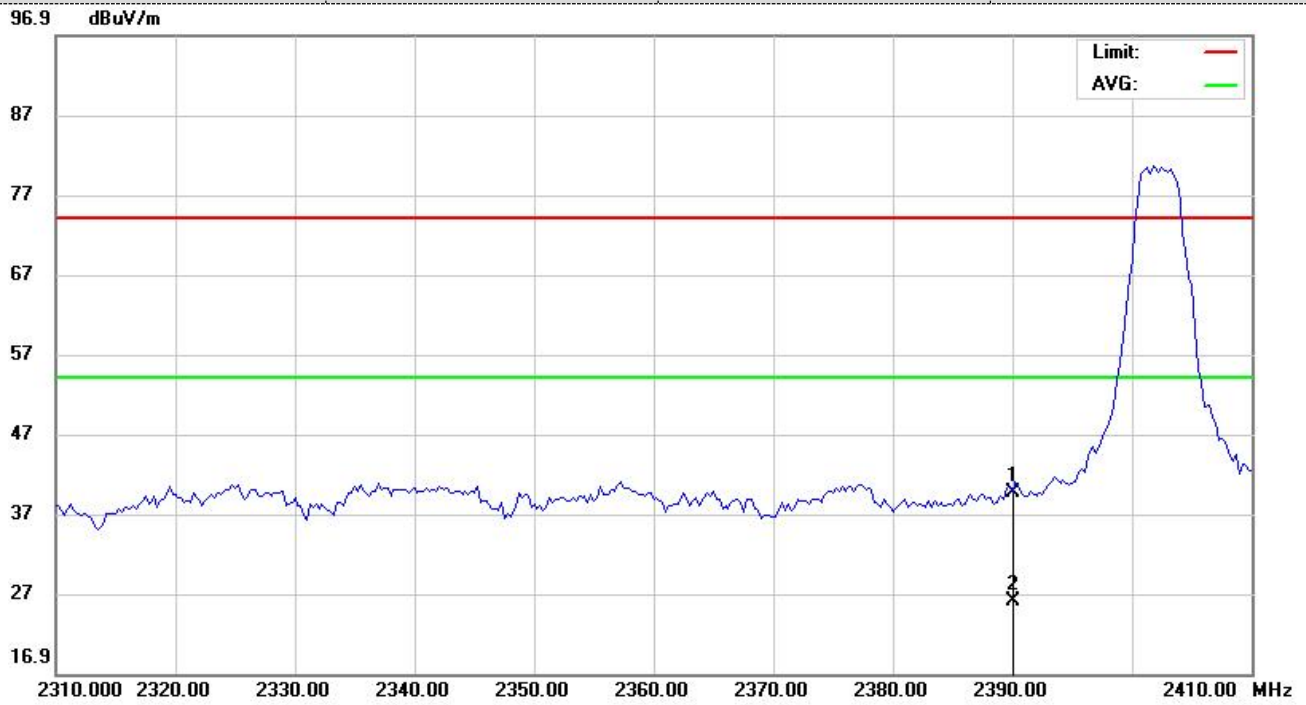
Modulation:	GFSK	Frequency (MHz)	2402
Polarization:	Horizontal		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2390.000	47.60	-8.43	39.17	74.00	-34.83	peak			
2	*	2390.000	36.59	-8.43	28.16	54.00	-25.84	AVG			

*:Maximum data x:Over limit l:over margin

Modulation:	GFSK	Frequency (MHz)	2402
Polarization:	Vertical		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2390.000	48.10	-8.43	39.67	74.00	-34.33	peak			
2	*	2390.000	34.36	-8.43	25.93	54.00	-28.07	AVG			

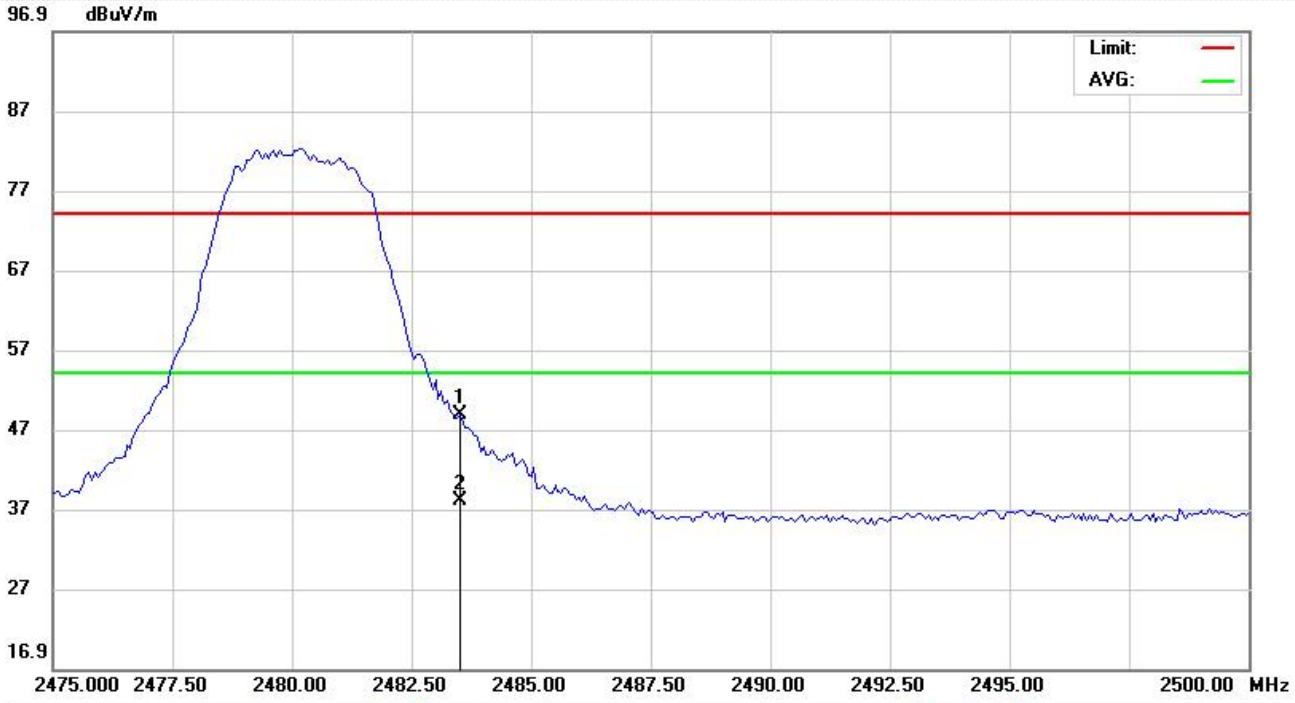
*:Maximum data x:Over limit !:over margin

Modulation:	GFSK	Frequency (MHz)	2480
Polarization:	Horizontal		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2483.500	52.88	-8.29	44.59	74.00	-29.41	peak			
2	*	2483.500	45.26	-8.29	36.97	54.00	-17.03	AVG			

*:Maximum data x:Over limit l:over margin

Modulation:	GFSK	Frequency (MHz)	2480
Polarization:	Vertical		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2483.500	57.14	-8.29	48.85	74.00	-25.15	peak			
2	*	2483.500	46.21	-8.29	37.92	54.00	-16.08	AVG			

*:Maximum data x:Over limit l:over margin

REMARKS:

1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)- Pre-amplifier
3. Margin value = Limit value- Emission level.
4. -- Mean the PK detector measured value is below average limit.

5.4. 20dB Bandwidth

Limit

For frequency hopping systems operating in the 2400MHz-2483.5MHz no limit for 20dB bandwidth.

Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30 KHz RBW and 100 KHz VBW.

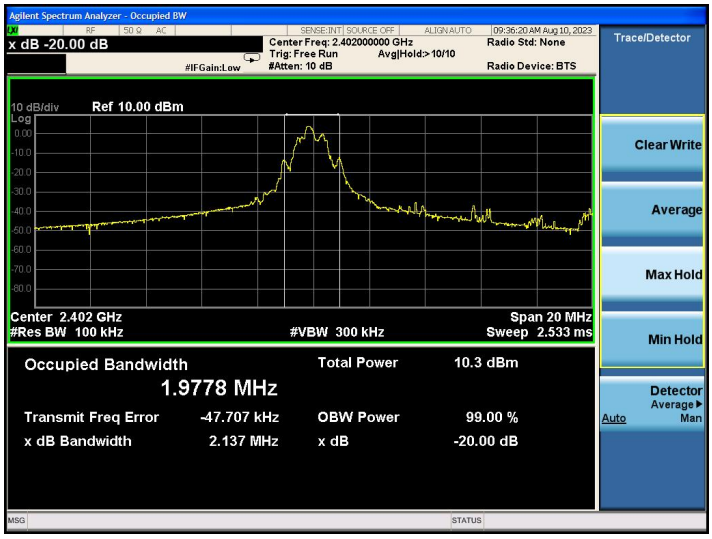
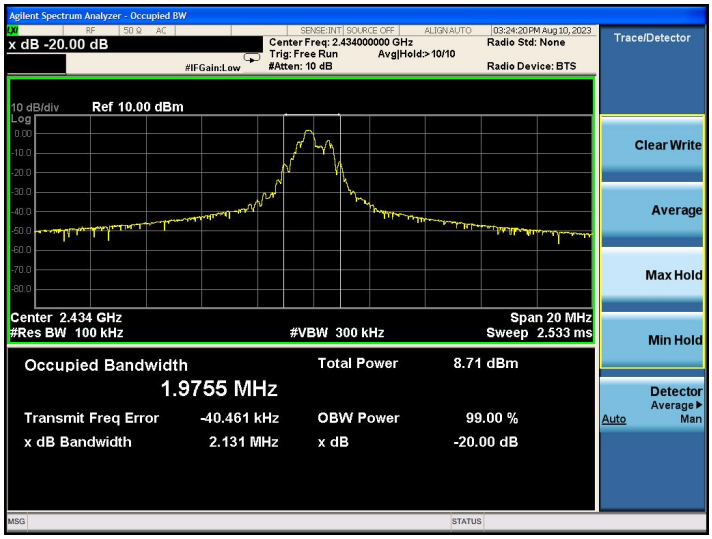
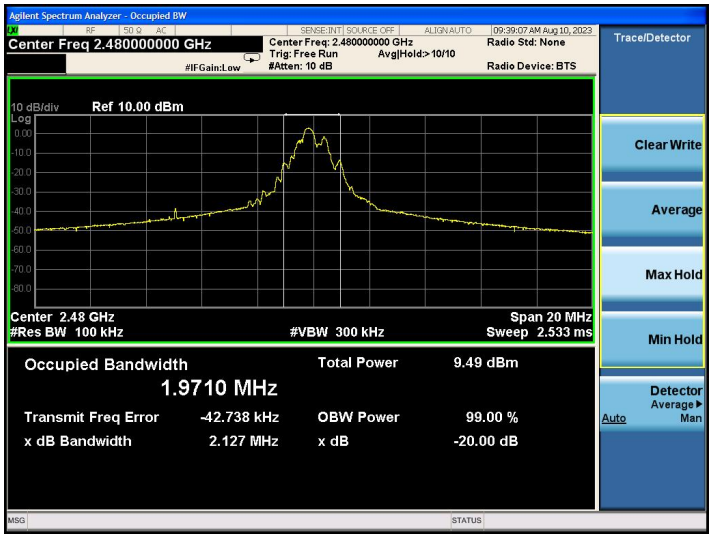
The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

Test Configuration

Test Results

Modulation	Channel	20dB bandwidth (MHz)	Result
GFSK	CH01	2.137	Pass
	CH08	2.131	
	CH16	2.127	

Test plot as follows:

GFSK

CH01

CH08

CH16

5.5. Antenna Requirement

Standard Applicable

For intentional device, according to FCC 47 CFR Section 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.

And according to FCC 47 CFR Section 15.247 (c), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Refer to statement below for compliance

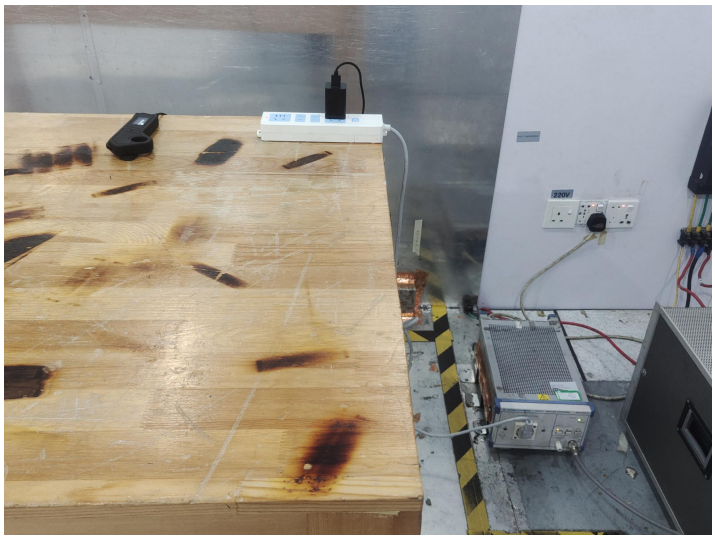
The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

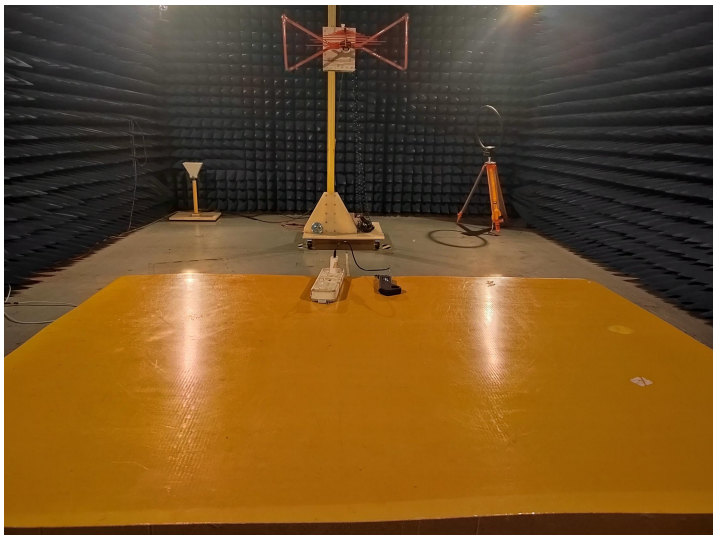
Antenna Connected Construction

The directional gains of antenna used for transmitting is -0.6dBi, and the antenna is PCB Antenna connect to PCB board and no consideration of replacement. Please see EUT photo for details.

Results: Compliance.

6. Test Setup Photos of the EUT





7. External and Internal Photos of the EUT

See related photo report.

.....End of Report.....