Shenzhen Global Test Service Co.,Ltd.
No.7-101 and 8A-104, Building 7 and 8, DCC Cultural and Creative Garden, No.98, Pingxin North Road,
Shangmugu Community, Pinghu Street, Longgang District, Shenzhen, Guangdong

FCC PART 15 SUBPART C TEST REPORT

FCC PART 15 C(15.249)

Report Reference No.....:	**GTS20210716009-1-9**
FCC ID..... :	**2AG7C-BELL15T**
Compiled by (position+printed name+signature) .:	File administrators Peter Xiao
Supervised by (position+printed name+signature) .:	Test Engineer Oliver Ou
Approved by (position+printed name+signature) .:	Manager Simon Hu
Date of issue .....:	Jul.21, 2021
Representative Laboratory Name.:	**Shenzhen Global Test Service Co.,Ltd**
Address .....:	No.7-101 and 8A-104, Building 7 and 8, DCC Cultural and Creative Garden, No.98, Pingxin North Road, Shangmugu Community, Pinghu Street, Longgang District, Shenzhen, Guangdong,China
Applicant's name.....:	**Hangzhou Meari Technology Co., Ltd.**
Address .....:	Room 604-605, Building 1, No.768 Jianghong Road, Changhe street, Binjiang District, Hangzhou, zhejiang, China
Test specification.....**:**	
Standard.....:	**FCC CFR 47 PART 15 C(15.249)** **ANSI C63.10-2013**
TRF Originator.....:	Shenzhen Global Test Service Co.,Ltd.
Master TRF .....:	Dated 2014-12

Test item description .....:	**Wireless DoorBell**
Trade Mark .....:	N/A
Manufacturer .....:	Hangzhou Meari Technology Co., Ltd.
Model/Type reference .....:	Bell 15S
Listed Models .....:	Bell 15T, Bell 17S, Bell 17T, CMACC-DRBL-HWBAT-WH, VD1001C
Modulation Type.....:	OOK
Operation Frequency.....:	From 915MHz
Hardware Version .....:	PCB-BELL15S-T1MB_GC1 REV1_1
Software Version.....:	N/A
Rating .....:	DC 3.6V by battery Recharged by DC 5.0V/1.0A or AC/DC 12V-24V
Result .....:	**PASS**

TEST REPORT

Test Report No. :	**GTS20210716009-1-9**	Jul.21, 2021 Date of issue

Equipment under Test	:	Wireless DoorBell
Model /Type	:	Bell 15S
Listed model	:	Bell 15T, Bell 17S, Bell 17T, CMACC-DRBL-HWBAT-WH, VD1001C
Applicant	:	**Hangzhou Meari Technology Co., Ltd.**
Address	:	Room 604-605, Building 1, No.768 Jianghong Road, Changhe street, Binjiang District, Hangzhou, zhejiang, China
Manufacturer	:	**Hangzhou Meari Technology Co., Ltd.**
Address	:	No. 91 Chutian Road, Xixing Street, Binjiang District, Hangzhou, Zhejiang, 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.

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1. TEST 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
KDB558074 D01 DTS Meas Guidance v05r02: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247.

2. SUMMARY

2.1. General Remarks

Date of receipt of test sample	:	Jul.14, 2021
Testing commenced on	:	Jul.14, 2021
Testing concluded on	:	Jul.21, 2021

2.2. Product Description

Product Name	Wireless DoorBell
Trade Mark	N/A
Model/Type reference	Bell 15S
List Models	Bell 15T, Bell 17S, Bell 17T, CMACC-DRBL-HWBAT-WH, VD1001C
Model Declaration	PCB board, structure and internal of these model(s) are the same, Only the model name different , So no additional models were tested.
Power supply:	DC 3.6V by battery Recharged by DC 5.0V/1.0A or AC/DC 12V-24V
Sample ID	GTS20210716009-1-1# & GTS20210716009-1-2#& GTS20210716009-1-3#
WIFI(2.4G Band)	
Frequency Range	2412MHz ~ 2462MHz
Channel Spacing	5MHz
Channel Number	11 Channel for 20MHz bandwidth(2412~2462MHz)
Modulation Type	802.11b: DSSS; 802.11g/n: OFDM
Antenna Description	FPC Antenna, 3.00dBi(Max.)
SRD	
Frequency Range	915MHz
Channel Number	1Channel
Modulation Type	OOK
Antenna Description	FPC Antenna, 1.00dBi(Max.)

2.3. 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 5.0V

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

This is a Wireless DoorBell .
For more details, refer to the user's manual of the EUT.

2.5. EUT operation mode

Mode of Operations	Frequency Range (MHz)	Data Rate (Mbps)
SRD	915	1
For Conducted Emission		
Test Mode	TX Mode	
For Radiated Emission		
Test Mode	TX Mode	

Channel	Frequency(MHz)
1	**915**

The EUT has been tested under operating condition.

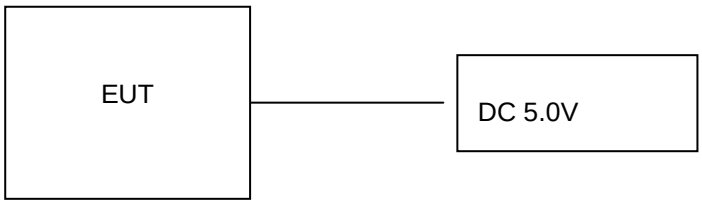
This test was performed with EUT in X, Y, Z position and the worst case was found when EUT in X position.

AC conducted emission pre-test at both at AC 120V/60Hz and AC 240V/60Hz modes, recorded worst case.

Worst-case mode and channel used for 150 KHz-30 MHz power line conducted emissions was the mode and channel with the highest output power, which was determined to be SRD mode.

Worst-case mode and channel used for 9 KHz-1000 MHz radiated emissions was the mode and channel with the highest output power, that was determined to be SRD mode.

2.6. Block Diagram of Test Setup



2.7. EUT Exercise Software

The product continues to transmit signals after power on.

2.8. Special Accessories

Manufacturer	Description	Model	Serial Number	Certificate
SHENZHEN TIANYIN ELECTRONICS CO.,LTD.	Adapter	TPA-46B050100UU	--	SDOC
SHENZHEN GREENPOWERONE CO., LTD.	Adapter	GTA92-0501000US	--	SDOC

2.9. External I/O Cable

I/O Port Description	Quantity	Cable
USB Port	1	2.0M, Unscreened Cable

2.10. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for **FCC ID: 2AG7C-BELL15T** filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

2.11. Modifications

No modifications were implemented to meet testing criteria.

3. TEST ENVIRONMENT

3.1. Address of the test laboratory

Shenzhen Global Test Service Co.,Ltd.
No.7-101 and 8A-104, Building 7 and 8, DCC Cultural and Creative Garden, No.98, Pingxin North Road, Shangmugu Community, Pinghu Street, Longgang District, Shenzhen, Guangdong,China.

3.2. Test Facility

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

CNAS (No. CNAS L8169)
Shenzhen Global Test Service Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2019 General Requirements) for the Competence of Testing and Calibration Laboratories.
A2LA (Certificate No. 4758.01)
Shenzhen Global Test Service Co., Ltd. has been assessed by the American Association for Laboratory Accreditation (A2LA). Certificate No. 4758.01.
Industry Canada Registration Number. is 24189.
FCC Designation Number is CN1234.
FCC Registered Test Site Number is165725.

3.3. Environmental conditions

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

Temperature:	15-35 ° C
Humidity:	30-60 %
Atmospheric pressure:	950-1050mbar

3.4. 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 Global Test 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 GTS laboratory 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)

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

3.5. Test Description

Applied Standard: FCC Part 15 Subpart C				
FCC Rules	Description of Test	Test Sample	Result	Remark
§15.207(a)	Conduction Emissions	GTS20210716009-1-3#	Compliant	Note 1
§15.205(a) §15.209(a) §15.249(a) §15.249(c)	Radiated Emissions Measurement	GTS20210716009-1-3#	Compliant	Note 1
§15.249	Band Edges Measurement	GTS20210716009-1-3#	Compliant	Note 1
§15.249, §15.215	20 dB Bandwidth	GTS20210716009-1-3#	Compliant	Note 1
§15.203	Antenna Requirements	/	Compliant	Note 1

Remark:
1. The measurement uncertainty is not included in the test result.
2. NA = Not Applicable; NP = Not Performed
3. Note 1 – Test results inside test report;
4. Note 2 – Test results in other test report (SAR Report).
5. We tested all test mode and recorded worst case in report

3.6. Equipments Used during the Test

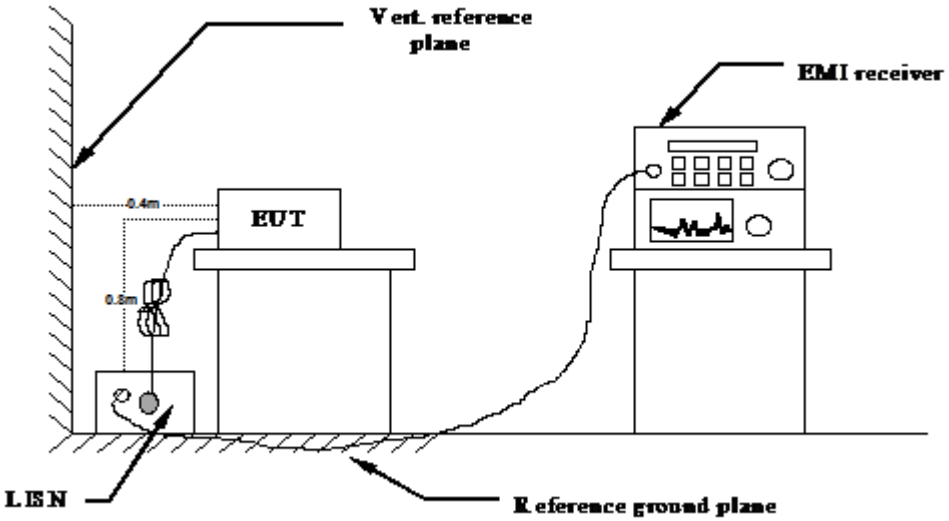
Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
LISN	CYBERTEK	EM5040A	E1850400105	2020/07/24	2021/07/23
LISN	R&S	ESH2-Z5	893606/008	2020/07/24	2021/07/23
EMI Test Receiver	R&S	ESPI3	101841-cd	2020/07/24	2021/07/23
EMI Test Receiver	R&S	ESCI7	101102	2020/09/20	2021/09/19
Spectrum Analyzer	Agilent	N9020A	MY48010425	2020/09/20	2021/09/19
Spectrum Analyzer	R&S	FSV40	100019	2020/07/24	2021/07/23
Vector Signal generator	Agilent	N5181A	MY49060502	2021/07/13	2022/07/12
Signal generator	Agilent	N5182A	3610AO1069	2020/09/20	2021/09/19
Climate Chamber	ESPEC	EL-10KA	A20120523	2020/09/20	2021/09/19
Controller	EM Electronics	Controller EM 1000	N/A	N/A	N/A
Horn Antenna	Schwarzbeck	BBHA 9120D	01622	2020/11/08	2021/11/07
Active Loop Antenna	Beijing Da Ze Technology Co.,Ltd.	ZN30900C	15006	2020/10/11	2021/10/10
Bilog Antenna	Schwarzbeck	VULB9163	000976	2020/07/26	2021/07/25
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	791	2020/11/08	2021/11/07
Amplifier	Schwarzbeck	BBV 9743	#202	2020/07/24	2021/07/23
Amplifier	Schwarzbeck	BBV9179	9719-025	2020/07/24	2021/07/23
Amplifier	EMCI	EMC051845B	980355	2020/07/24	2021/07/23
Temperature/Humidity Meter	Gangxing	CTH-608	02	2020/07/24	2021/07/23
High-Pass Filter	K&L	9SH10-2700/X12750-O/O	KL142031	2020/07/24	2021/07/23
High-Pass Filter	K&L	41H10-1375/U12750-O/O	KL142032	2020/07/24	2021/07/23
RF Cable(below 1GHz)	HUBER+SUHNER	RG214	RE01	2020/07/24	2021/07/23
RF Cable(above 1GHz)	HUBER+SUHNER	RG214	RE02	2020/07/24	2021/07/23
Data acquisition card	Agilent	U2531A	TW53323507	2020/07/24	2021/07/23
Power Sensor	Agilent	U2021XA	MY5365004	2020/07/24	2021/07/23
Test Control Unit	Tonscend	JS0806-1	178060067	2020/07/22	2021/07/21
Automated filter bank	Tonscend	JS0806-F	19F8060177	2020/07/24	2021/07/23
EMI Test Software	Tonscend	JS1120-1	Ver 2.6.8.0518	/	/
EMI Test Software	Tonscend	JS1120-3	Ver 2.5.77.0418	/	/
EMI Test Software	Tonscend	JS32-CE	Ver 2.5	/	/
EMI Test Software	Tonscend	JS32-RE	Ver 2.5.1.8	/	/

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

4. TEST CONDITIONS AND RESULTS

4.1. 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 DC 5V power, the adapter received AC120V/60Hz or AC 240V/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 intentional device, according to § 15.207(a) AC Power 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

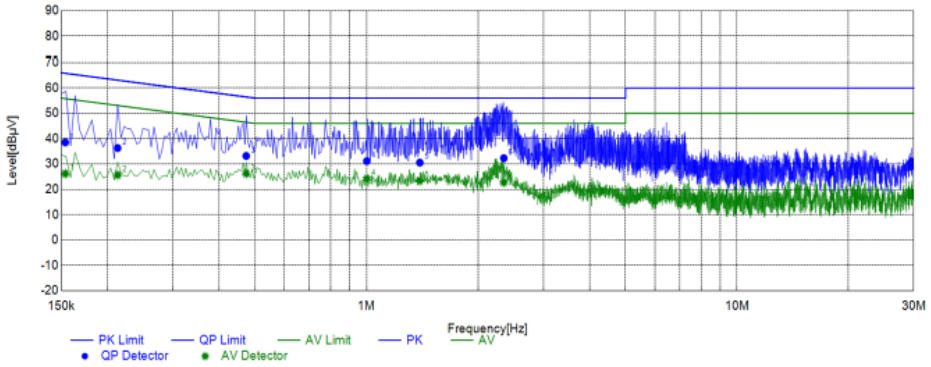
Remark: We measured Conducted Emission at SRD mode from 150 KHz to 30MHz in AC120V and the worst case was recorded.

Temperature	24.2℃	Humidity	54.2%
Test Engineer	Oliver Ou	Configurations	SRD

Adapter: TPA-46B050100UU

Power supply:	AC 120V/60Hz	Polarization	L

Test Graph



Final Data List

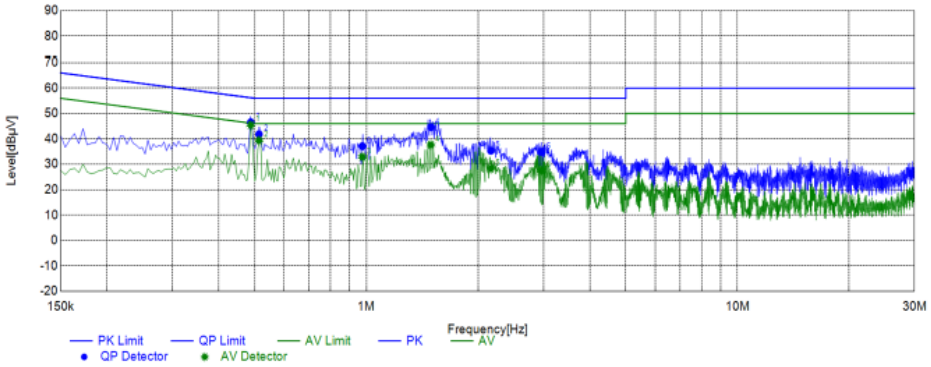
NO.	Frequency [MHz]	QP Reading [dBµV]	AVG. Reading [dBµV]	Factor [dB]	QP Result [dBµV]	AVG. Result [dBµV]	QP Limit [dBµV]	AVG. Limit [dBµV]	QP Margin [dB]	AVG. Margin [dB]	Line	Remark
1	0.1538	28.47	16.11	10.05	38.52	26.16	65.79	55.79	27.27	29.63	L1	PASS
2	0.2130	26.26	15.62	10.04	36.30	25.66	63.09	53.09	26.79	27.43	L1	PASS
3	0.4735	23.12	16.19	10.05	33.17	26.24	56.45	46.45	23.28	20.21	L1	PASS
4	1.0021	21.07	14.10	10.07	31.14	24.17	56.00	46.00	24.86	21.83	L1	PASS
5	1.3929	20.45	13.29	10.10	30.55	23.39	56.00	46.00	25.45	22.61	L1	PASS
6	2.3476	22.09	12.53	10.20	32.29	22.73	56.00	46.00	23.71	23.27	L1	PASS

Note: 1. Result (dBµV) = Reading (dBµV) + Factor (dB).

2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Power supply:	AC 120V/60Hz	Polarization	N

Test Graph



Final Data List

NO.	Frequency [MHz]	QP Reading [dBµV]	AVG. Reading [dBµV]	Factor [dB]	QP Result [dBµV]	AVG. Result [dBµV]	QP Limit [dBµV]	AVG. Limit [dBµV]	QP Margin [dB]	AVG. Margin [dB]	Line	Remark
1	0.4883	36.48	35.42	10.06	46.54	45.48	56.20	46.20	9.66	0.72	N	PASS
2	0.5139	31.77	29.33	10.06	41.83	39.39	56.00	46.00	14.17	6.61	N	PASS
3	0.9758	27.05	22.84	10.07	37.12	32.91	56.00	46.00	18.88	13.09	N	PASS
4	1.4933	34.47	27.53	10.11	44.58	37.64	56.00	46.00	11.42	8.36	N	PASS
5	2.1654	25.18	18.07	10.17	35.35	28.24	56.00	46.00	20.65	17.76	N	PASS
6	2.9643	24.58	17.21	10.29	34.87	27.50	56.00	46.00	21.13	18.50	N	PASS

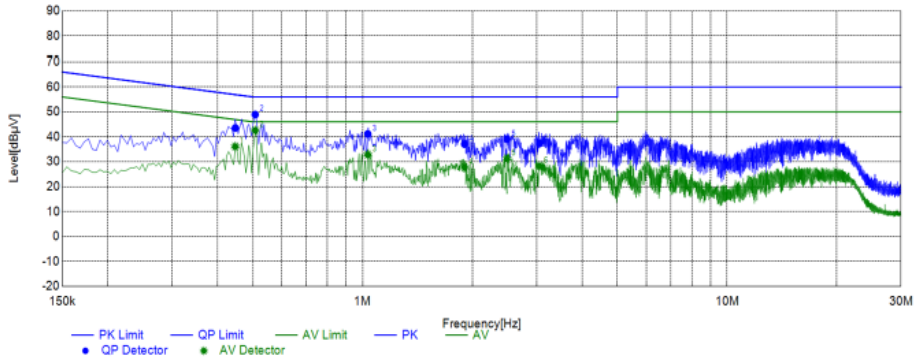
Note: 1. Result (dBµV) = Reading (dBµV) + Factor (dB).

2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Adapter: GTA92-0501000US

Power supply:	AC 120V/60Hz	Polarization	L

Test Graph



Final Data List

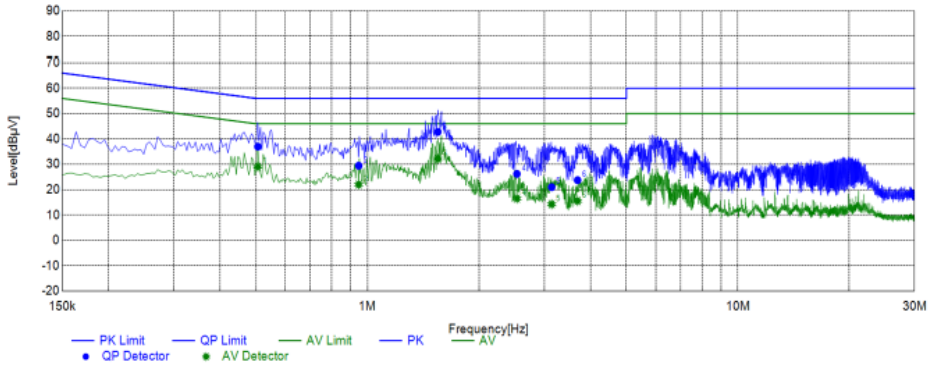
NO.	Frequency [MHz]	QP Reading [dBµV]	AVG. Reading [dBµV]	Factor [dB]	QP Result [dBµV]	AVG. Result [dBµV]	QP Limit [dBµV]	AVG. Limit [dBµV]	QP Margin [dB]	AVG. Margin [dB]	Line	Remark
1	0.4476	33.49	26.03	10.04	43.53	36.07	56.92	46.92	13.39	10.85	L1	PASS
2	0.5075	38.87	32.52	10.06	48.93	42.58	56.00	46.00	7.07	3.42	L1	PASS
3	1.0335	31.07	22.74	10.07	41.14	32.81	56.00	46.00	14.86	13.19	L1	PASS
4	1.9041	26.94	17.60	10.14	37.08	27.74	56.00	46.00	18.92	18.26	L1	PASS
5	2.4912	28.82	20.98	10.22	39.04	31.20	56.00	46.00	16.96	14.80	L1	PASS
6	3.0569	27.01	17.98	10.29	37.30	28.27	56.00	46.00	18.70	17.73	L1	PASS

Note: 1. Result (dBµV) = Reading (dBµV) + Factor (dB).

2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Power supply:	AC 120V/60Hz	Polarization	N

Test Graph



Final Data List

NO.	Frequency [MHz]	QP Reading [dBµV]	AVG. Reading [dBµV]	Factor [dB]	QP Result [dBµV]	AVG. Result [dBµV]	QP Limit [dBµV]	AVG. Limit [dBµV]	QP Margin [dB]	AVG. Margin [dB]	Line	Remark
1	0.5061	26.93	18.95	10.06	36.99	29.01	56.00	46.00	19.01	16.99	N	PASS
2	0.9472	19.39	11.95	10.06	29.45	22.01	56.00	46.00	26.55	23.99	N	PASS
3	1.5488	32.66	22.05	10.11	42.77	32.16	56.00	46.00	13.23	13.84	N	PASS
4	2.5335	15.99	6.28	10.23	26.22	16.51	56.00	46.00	29.78	29.49	N	PASS
5	3.1434	10.67	3.94	10.30	20.97	14.24	56.00	46.00	35.03	31.76	N	PASS
6	3.6930	13.37	5.17	10.36	23.73	15.53	56.00	46.00	32.27	30.47	N	PASS

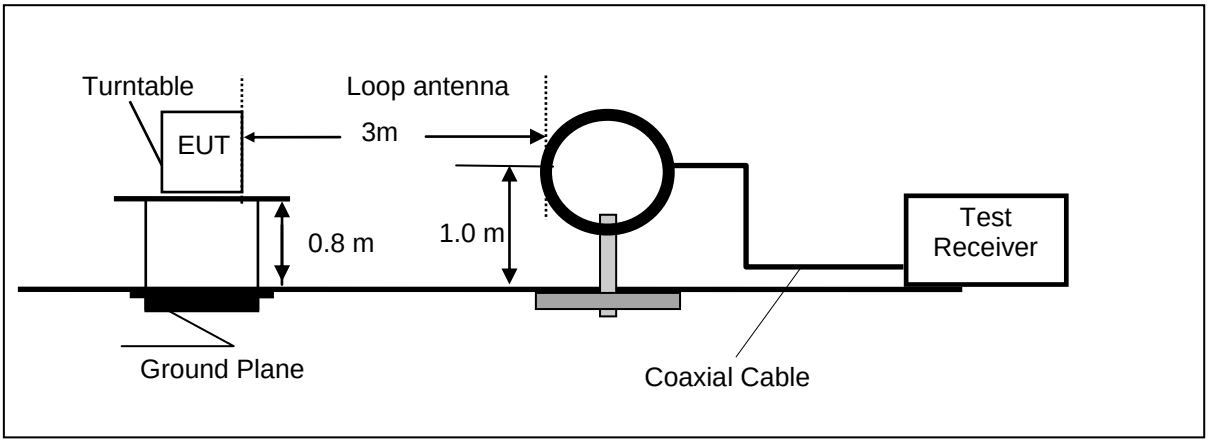
Note: 1. Result (dBµV) = Reading (dBµV) + Factor (dB).

2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

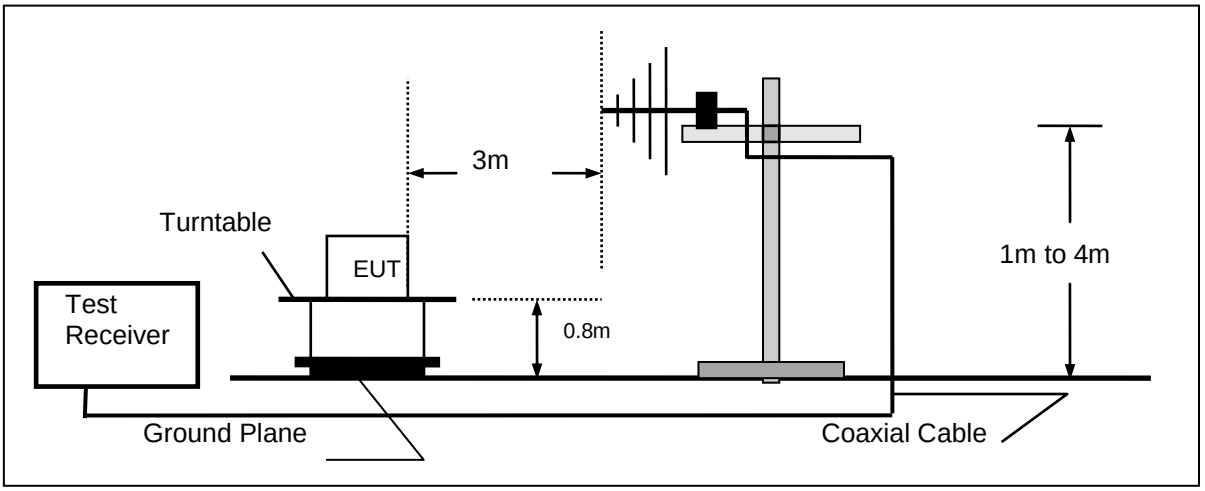
4.2. Radiated Emission

TEST CONFIGURATION

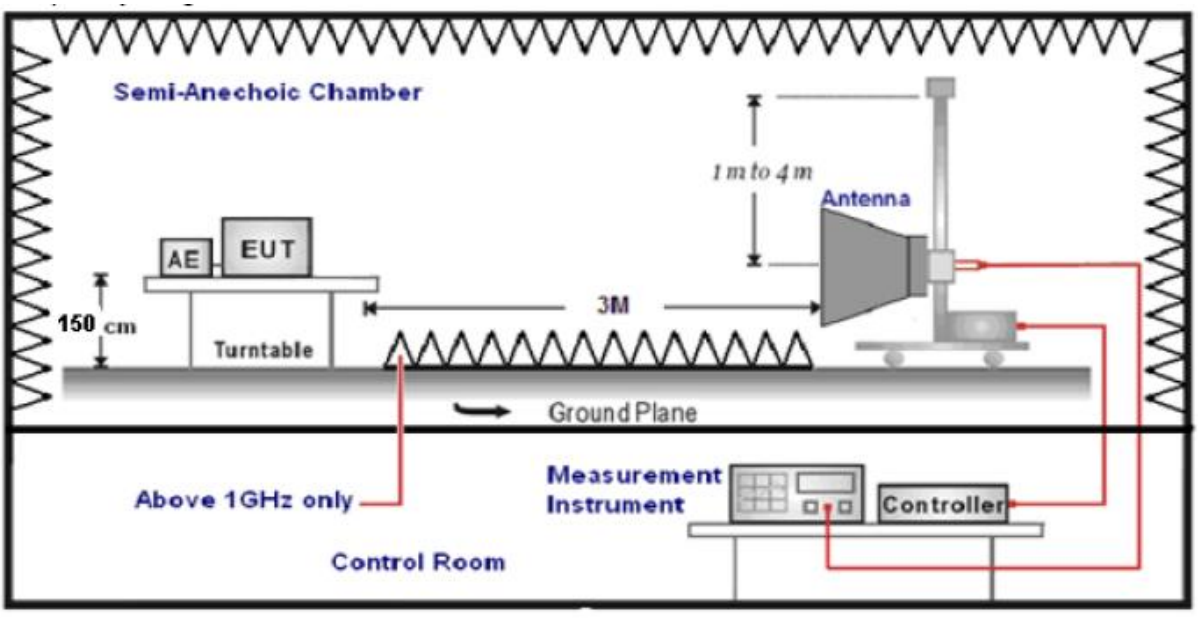
Frequency range 9 KHz – 30MHz



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. Radiated emission test frequency band from 30MHz 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 from intentional radiators at a distance of 3 meters shall not exceed the following table. According to § 15.247(d), in any 100kHz bandwidth outside the frequency band in which the EUT is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the100kHz bandwidth within the band that contains the highest level of desired power.

The pre-test have done for the EUT in three axes and found the worst emission at position shown in test setup photos.

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

TEST RESULTS

Remark: We measured Radiated Emission at SRD mode from 30 MHz to 10GHz in AC120V and the worst case was recorded.

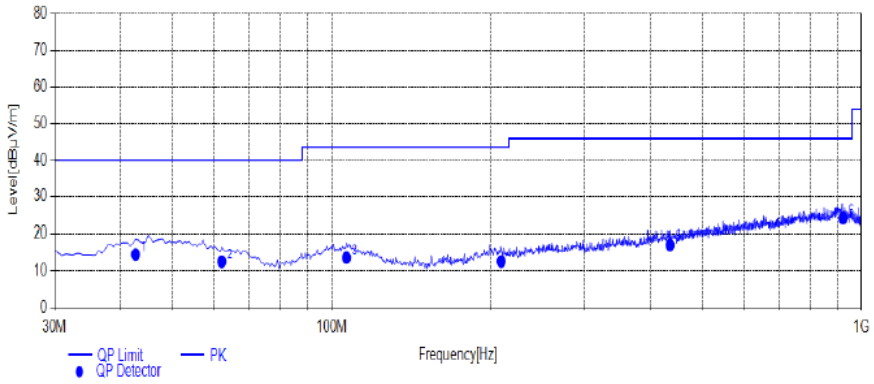
Temperature	24.1℃	Humidity	53.8%
Test Engineer	Oliver Ou	Configurations	SRD

Adapter: TPA-46B050100UU

For 30MHz-1GHz

Horizontal

Test Graph



Quasi-peak Final Data List

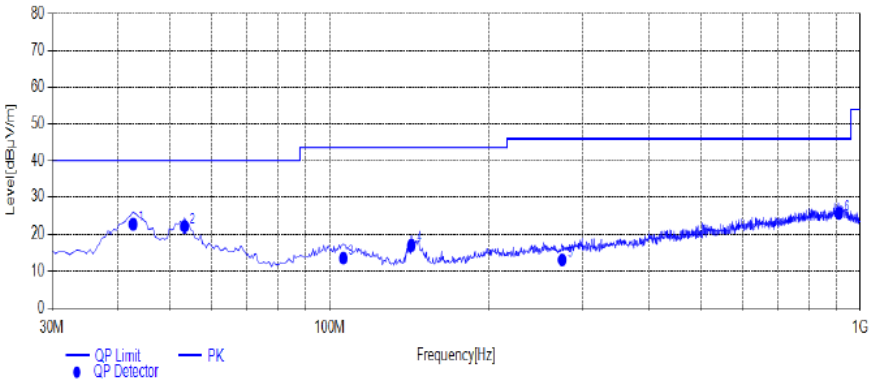
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Remark
1	42.6100	21.52	-6.99	14.53	40.00	25.47	100	326	Horizontal	PASS
2	62.0100	21.32	-8.75	12.57	40.00	27.43	100	190	Horizontal	PASS
3	106.6300	21.45	-7.79	13.66	43.50	29.84	100	135	Horizontal	PASS
4	208.9650	21.78	-9.15	12.63	43.50	30.87	100	153	Horizontal	PASS
5	435.4600	21.44	-4.29	17.15	46.00	28.85	100	276	Horizontal	PASS
6	923.3700	21.21	2.94	24.15	46.00	21.85	100	103	Horizontal	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Vertical

Test Graph



Quasi-peak Final Data List

NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Remark
1	42.6100	29.56	-6.99	22.57	40.00	17.43	100	97	Vertical	PASS
2	53.2800	28.75	-6.77	21.98	40.00	18.02	100	150	Vertical	PASS
3	106.1450	21.53	-7.93	13.60	43.50	29.90	100	97	Vertical	PASS
4	142.5200	29.41	-12.33	17.08	43.50	26.42	100	44	Vertical	PASS
5	274.4400	21.32	-8.18	13.14	46.00	32.86	100	214	Vertical	PASS
6	912.2150	22.01	3.47	25.48	46.00	20.52	100	355	Vertical	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

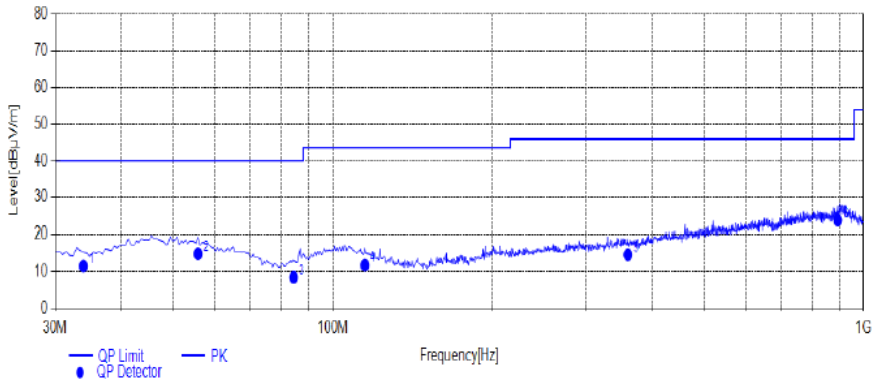
2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Adapter: GTA92-0501000US

For 30MHz-1GHz

Horizontal

Test Graph



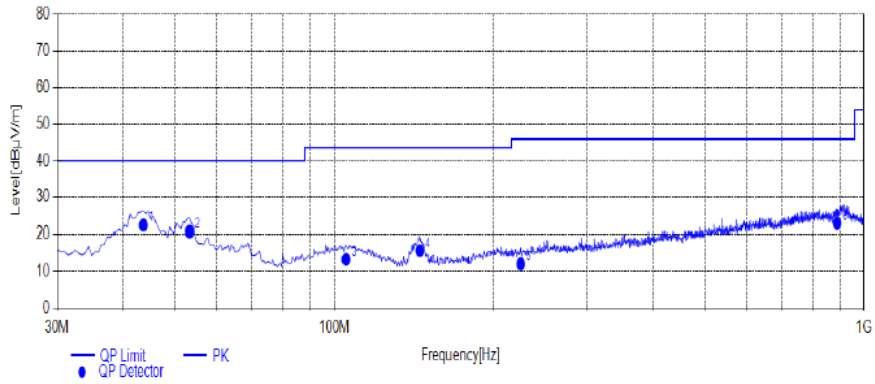
Quasi-peak Final Data List										
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Remark
1	33.8800	21.23	-9.70	11.53	40.00	28.47	100	188	Horizontal	PASS
2	55.7050	22.32	-7.41	14.91	40.00	25.09	100	195	Horizontal	PASS
3	84.3200	20.11	-11.66	8.45	40.00	31.55	100	323	Horizontal	PASS
4	114.8750	21.32	-9.55	11.77	43.50	31.73	100	358	Horizontal	PASS
5	359.8000	20.55	-5.89	14.66	46.00	31.34	100	320	Horizontal	PASS
6	894.7550	21.39	2.40	23.79	46.00	22.21	100	242	Horizontal	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Vertical

Test Graph



Quasi-peak Final Data List										
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Remark
1	43.5800	29.15	-6.73	22.42	40.00	17.58	100	266	Vertical	PASS
2	53.2800	27.56	-6.77	20.79	40.00	19.21	100	127	Vertical	PASS
3	105.1750	21.45	-8.12	13.33	43.50	30.17	100	218	Vertical	PASS
4	144.9450	27.89	-12.15	15.74	43.50	27.76	100	2	Vertical	PASS
5	224.9700	21.45	-9.36	12.09	46.00	33.91	100	233	Vertical	PASS
6	889.4200	20.56	2.37	22.93	46.00	23.07	100	224	Vertical	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

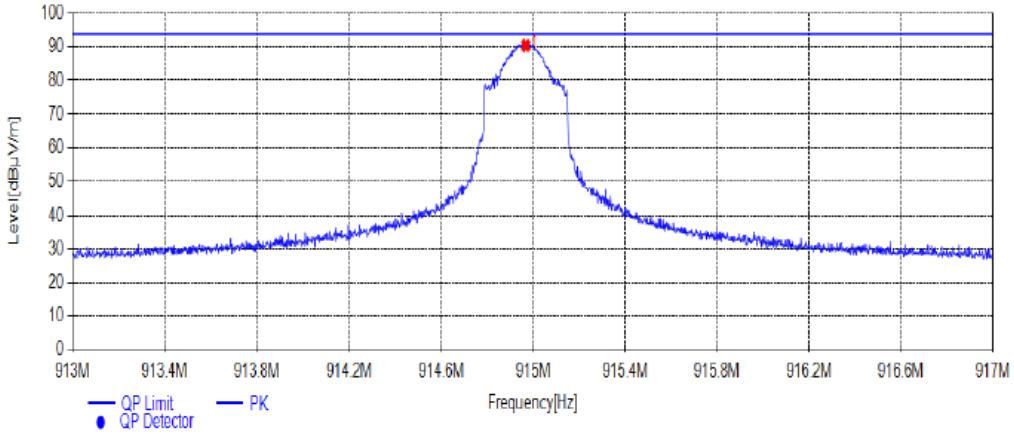
2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Field strength of fundamental:

Frequency (MHz)	Pol.	Measure Result(QP, dBuV/m)	EIRP(dBm)	Limit (dBuV/m)	Result
915	H	90.54	-4.62	94	Pass
915	V	85.43	-9.73	94	Pass

Horizontal

Test Graph



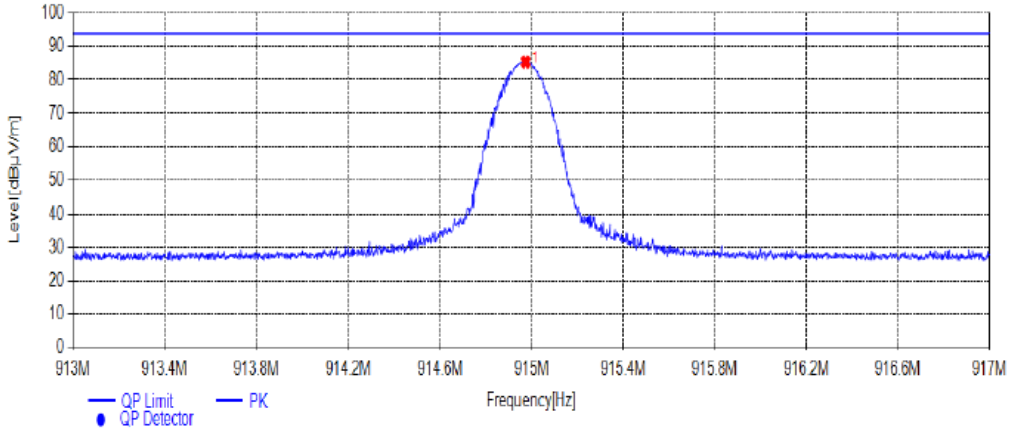
Suspected List											
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	914.9680	87.01	3.53	90.54	94.00	3.46	100	203	QP	Horizonta	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Vertical

Test Graph



Suspected List											
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	914.9740	81.90	3.53	85.43	94.00	8.57	100	112	QP	Vertical	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Notes:

EIRP = EMeas + 20log (dMeas) −104.7

EIRP: is the equivalent isotropically radiated power, in dBm

EMeas: is the field strength of the emission at the measurement distance, in dBuV/m

dMeas: is the measurement distance, in m

Above 1G（The worst test result for Tx）:

Freq. MHz	Reading dBuv	Ant. Fac dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuv/m	Limit dBuv/m	Margin dB	Remark	Pol.
1830.0	49.73	33.01	35	3.86	51.60	74.00	-22.40	Peak	Horizontal
1830.0	35.06	33.01	35	3.86	36.93	54.00	-17.07	Average	Horizontal
2745.0	54.58	33.03	35.02	3.91	56.50	74.00	-17.50	Peak	Horizontal
2745.0	36.08	33.03	35.02	3.91	38.00	54.00	-16.00	Average	Horizontal
1830.0	49.68	33.01	35	3.86	51.55	74.00	-22.45	Peak	Vertical
1830.0	35.65	33.01	35	3.86	37.52	54.00	-16.48	Average	Vertical
2745.0	54.73	33.03	35.02	3.91	56.65	74.00	-17.35	Peak	Vertical
2745.0	35.02	33.03	35.02	3.91	36.94	54.00	-17.06	Average	Vertical

Notes:

1. Measuring frequencies from 9k~10th harmonic (ex. 10GHz), No emission found between lowest internal used/generated frequency to 30 MHz.

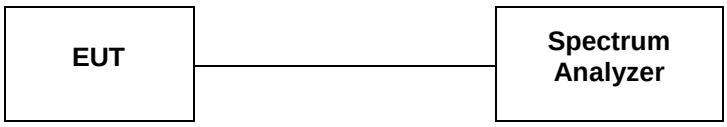
2. Radiated emissions measured in frequency range from 9k~10th harmonic (ex. 10GHz) were made with an instrument using Peak detector mode.

3. Distance extrapolation factor = 40 log (specific distance / test distance) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

4.3. 20dB Bandwidth

TEST CONFIGURATION



TEST PROCEDURE

Use the following spectrum analyzer settings:
Span = approximately 2 to 5 times the 20 dB bandwidth, centered on a hopping channel
RBW = 1% to 5% of the 20 dB bandwidth
VBW =3 RBW
Sweep = auto
Detector function = peak
Trace = max hold
The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 20 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth of the emission. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation. The limit is specified in one of the subparagraphs of this Section. Submit this plot(s).

LIMIT

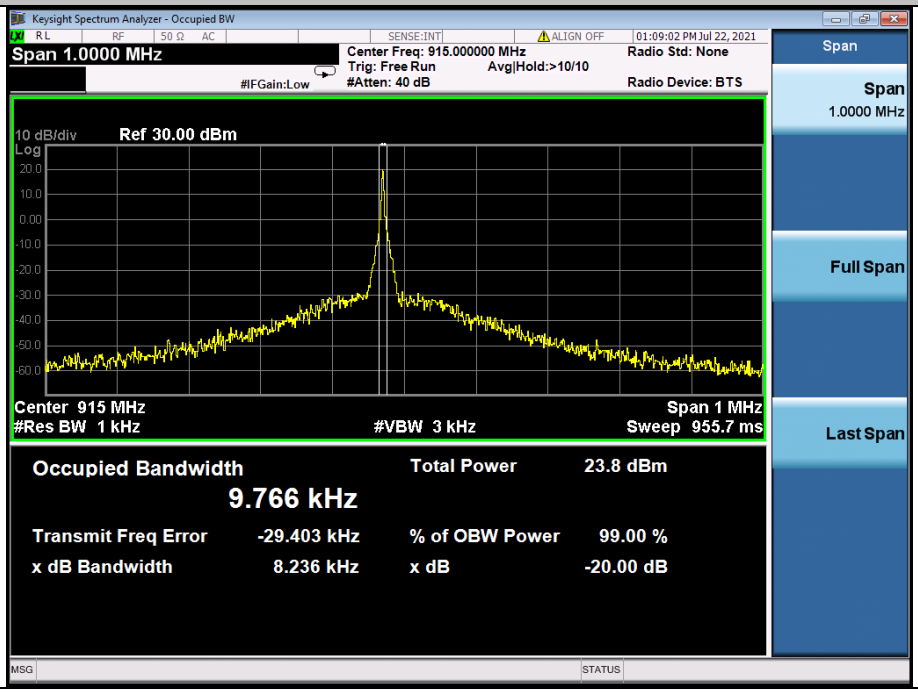
Non-Specified

TEST RESULTS

Temperature	24.2℃	Humidity	54.9%
Test Engineer	Oliver Ou	Configurations	BT

Modulation	Channel	20dB Bandwidth (MHz)	Limit (KHz)	Result
OOK	1	0.010	Non-Specified	Pass

CH1

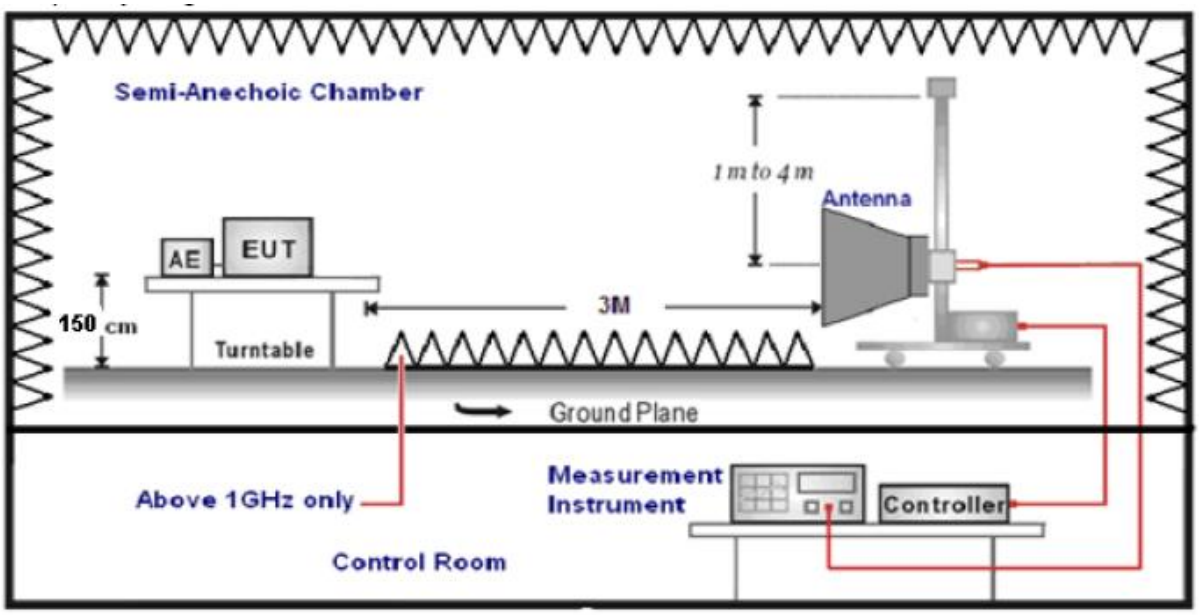


4.4. Band Edge Compliance of RF Emission

TEST REQUIREMENT

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

TEST CONFIGURATION



TEST PROCEDURE

The EUT is placed on a turntable, which is 0.8m above the ground plane. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
Peak: RBW=120MHz, RBW=300MHz / Sweep=AUTO
Repeat the procedures until the peak versus polarization are measured.

LIMIT

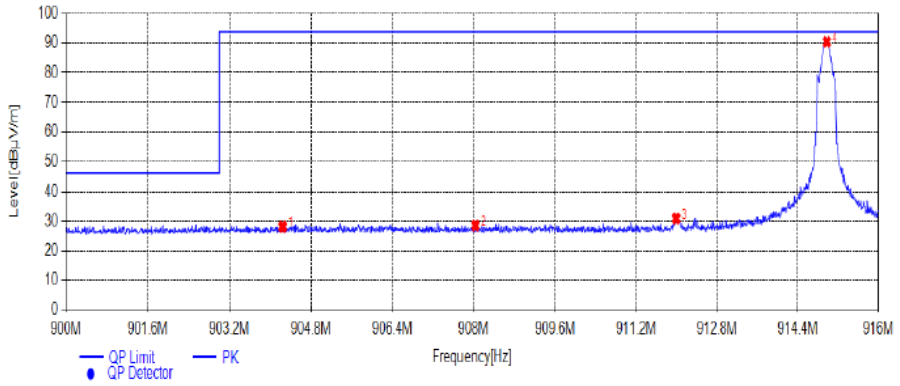
Below -20dB of the highest emission level in operating band.
Radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)

TEST RESULTS

Test Mode	Frequency	Limit	Result
	MHz	dBuV/dBc	
Lowest	902.0	<46dBuV	Pass
Highest	928.0	<46dBuV	Pass

Lowest:
Horizontal:

Test Graph

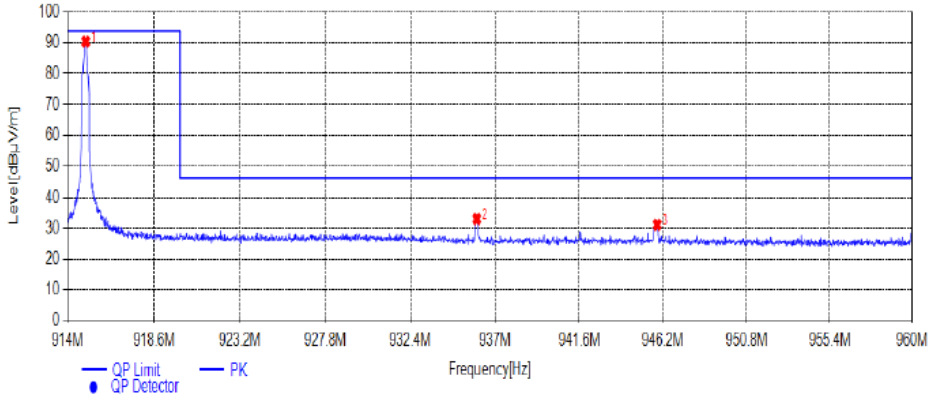


Suspected List											
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	904.2400	24.95	3.15	28.10	94.00	65.90	100	229	QP	Horizonta	PASS
2	908.0320	25.20	3.34	28.54	94.00	65.46	100	103	QP	Horizonta	PASS
3	911.9920	27.47	3.46	30.93	94.00	63.07	100	163	QP	Horizonta	PASS
4	914.9760	87.01	3.53	90.54	94.00	3.46	100	326	QP	Horizonta	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .
2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Vertical:

Test Graph

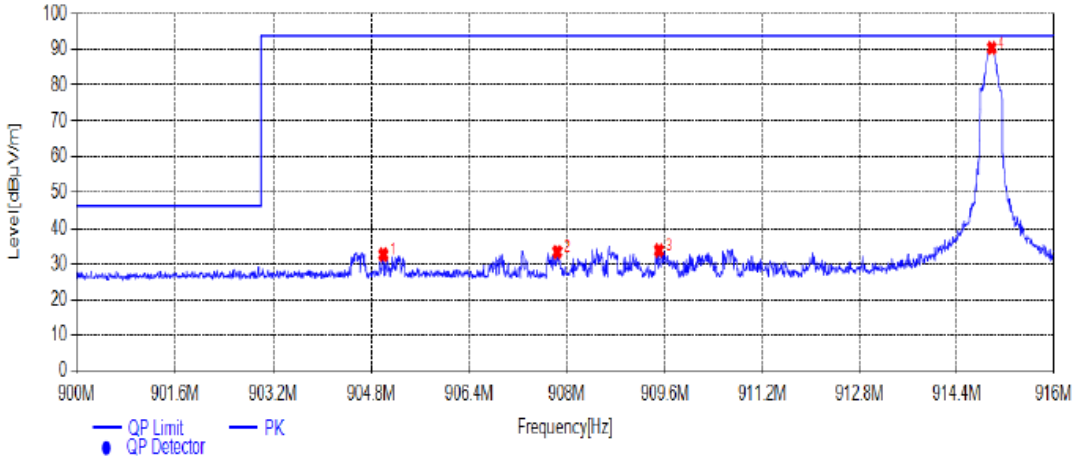


Suspected List											
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	914.9660	87.01	3.53	90.54	94.00	3.46	100	205	QP	Horizonta	PASS
2	936.0110	30.69	2.31	33.00	46.00	13.00	100	268	QP	Horizonta	PASS
3	945.8780	29.04	2.09	31.13	46.00	14.87	100	306	QP	Horizonta	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .
2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Highest:
Horizontal:

Test Graph



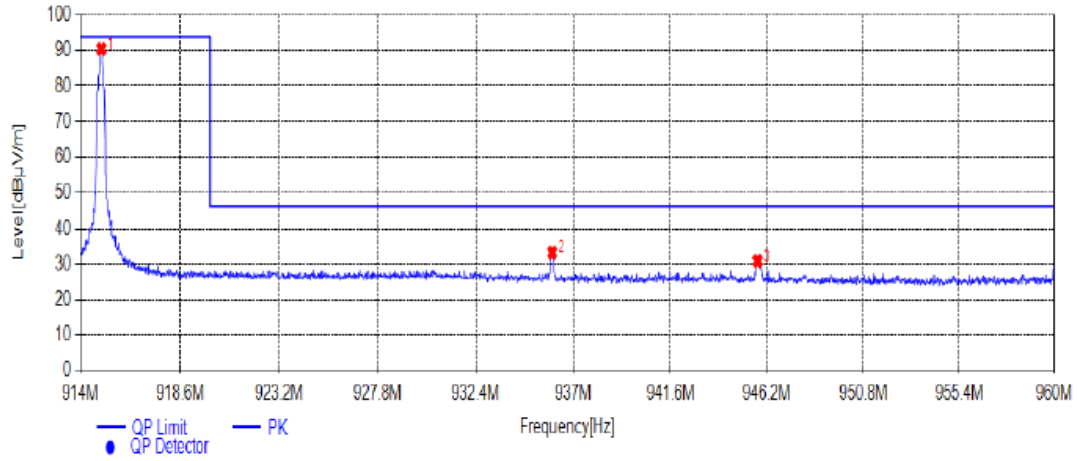
Suspected List											
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	904.9920	29.39	3.22	32.61	94.00	61.39	100	160	QP	Horizonta	PASS
2	907.8400	30.06	3.33	33.39	94.00	60.61	100	164	QP	Horizonta	PASS
3	909.5040	30.40	3.40	33.80	94.00	60.20	100	160	QP	Horizonta	PASS
4	914.9760	87.01	3.53	90.54	94.00	3.46	100	208	QP	Horizonta	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Vertical:

Test Graph



Suspected List											
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	914.9660	87.01	3.53	90.54	94.00	3.46	100	37	QP	Horizonta	PASS
2	936.0110	30.97	2.31	33.28	46.00	12.72	100	269	QP	Horizonta	PASS
3	945.7400	28.77	2.11	30.88	46.00	15.12	100	178	QP	Horizonta	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

4.5. 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.

Test Result

The antenna used for this product is FPC Antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 1.0dBi.

Reference to the Test Report: **GTS20210716009-1-8.**

5. TEST SETUP PHOTOS OF THE EUT

Reference to the test report No. **GTS20210716009-1-8.**

6. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

Reference to the test report No. **GTS20210716009-1-8.**

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