



FCC TEST REPORT

FCC ID:2A5UA-W29Q

Applicant: Shenzhen Autige Technology Co., Ltd

Address: 3rd Floor, Building A, Zhao Feng Industrial Zone, No. 3 Hangkong Road, Hangcheng Street, Baoan District, 518126, Shenzhen, China

Manufacturer: Shenzhen Autige Technology Co., Ltd

Address: 3rd Floor, Building A, Zhao Feng Industrial Zone, No. 3 Hangkong Road, Hangcheng Street, Baoan District, 518126, Shenzhen, China

EUT: 3 in 1 Wireless Charger

Trade Mark: N/A

Model Number: W29Q
IMBKQI2

Date of Receipt: Jun. 17, 2025

Test Date: Jun. 17, 2025 - Jun. 27, 2025

Date of Report: Jun. 27, 2025

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

Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Roa Baolong Industrial Zone, Baolong Street, Longgang Shenzhen, Guangdong, China

Applicable Standards: FCC CFR Title 47 Part 15 Subpart C

Test Result: Pass

Report Number: DLE-250708003R

Prepared (Test Engineer): Dimon Tan

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. VERSION**

Report No.	Version	Description	Approved
DLE-250708003R	Rev.01	Initial issue of report	Jun. 27, 2025



2. TEST SUMMARY

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	Pass
Spurious Emission	15.209(a)(f)	Pass
20dB Bandwidth	15.215	Pass

NOTE:

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

**TEST FACILITY**

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

Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Roa Baolong Industrial Zone, Baolong Street, Longgang Shenzhen, Guangdong, China

FCC Test Firm Registration Number: 854456

Designation Number: CN1307

IC Registered No.:CN0118

ISED Registration number: 27485

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	3m chamber Radiated spurious emission(9KHz-30MHz)	$U=4.5\text{dB}$
2	3m chamber Radiated spurious emission(30MHz-1GHz)	$U=4.8\text{dB}$
3	3m chamber Radiated spurious emission(1GHz-6GHz)	$U=4.9\text{dB}$
4	3m chamber Radiated spurious emission(6GHz-40GHz)	$U=5.0\text{dB}$
5	Conducted disturbance	$U=3.2\text{dB}$
6	RF Band Edge	$U=1.68\text{dB}$
7	RF power conducted	$U=1.86\text{dB}$
8	RF conducted Spurious Emission	$U=2.2\text{dB}$
9	RF Occupied Bandwidth	$U=1.8\text{dB}$
10	RF Power Spectral Density	$U=1.75\text{dB}$
11	humidity uncertainty	$U=5.3\%$
12	Temperature uncertainty	$U=0.59^\circ\text{C}$



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Product Name:	3 in 1 Wireless Charger
Model No.:	W29Q
Serial No.:	IMBKQI2
Model Difference:	Only the appearance color is different
Hardware version:	H 1.0
Software version:	V 1.1
Operation Frequency:	ANT 1&2: 112kHz~205kHz ANT 3: 112kHz~360kHz
Modulation type:	ASK
Antenna Type:	ANT 1&2&3: Loop Coil Antenna
Antenna gain:	ANT 1&2&3: 0dBi
Ratings:	Input: 9V/3A, 12V/3A Mobile Phone Output: 15W Max Airpods Output: 5W Max Watch Output: 2.5W
Transmitting mode	Battery $\geq 98\%$, $= 50\%$ and $\leq 1\%$ are tested, and the worst is $\leq 1\%$.



3.2 Test mode

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

Test Modes:			Description:	
Mode 1	Input:9V, 3A Phone Output:15W	AC/DC Adapter +EUT+ Phone	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	
Mode 2	Input:9V, 3A Earphone Output:5W	AC/DC Adapter +EUT+ Earphone	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	
Mode 3	Input:9V, 3A Watch Output:2.5W	AC/DC Adapter +EUT+ Watch	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	
Mode 4	Input:12V, 3A Phone Output:15W	AC/DC Adapter +EUT+ Phone	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	
Mode 5	Input:12V, 3A Earphone Output:5W	AC/DC Adapter +EUT+ Earphone	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	
Mode 6	Input:12V, 3A Watch Output:2.5W	AC/DC Adapter +EUT+ Watch	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	
Mode 7	Input:9V, 3A Phone Output:15W Earphone Output:5W	AC/DC Adapter +EUT+ Phone + Earphone	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	
Mode 8	Input:9V, 3A Phone Output:15W Watch Output:2.5W	AC/DC Adapter +EUT+ Phone + Watch	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	
Mode 9	Input:9V, 3A Earphone Output:5W Watch Output:2.5W	AC/DC Adapter +EUT+ Earphone + Watch	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	
Mode 10	Input:9V, 3A Phone Output:15W Earphone Output:5W Watch Output:2.5W	AC/DC Adapter +EUT+ Phone + Earphone + Watch	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	



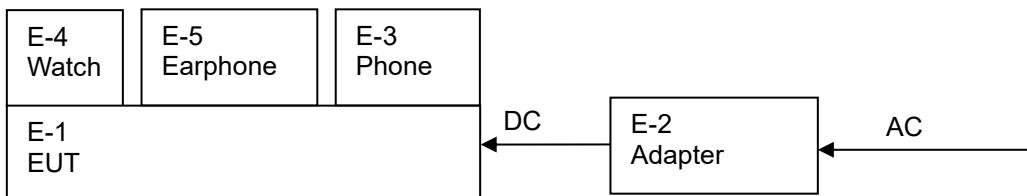
Mode 11	Input:12V, 3A Phone Output:15W Earphone Output:5W	AC/DC Adapter +EUT+ Phone + Earphone	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	
Mode 12	Input:12V, 3A Phone Output:15W Watch Output:2.5W	AC/DC Adapter +EUT+ Phone + Watch	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	
Mode 13	Input:12V, 3A Earphone Output:5W Watch Output:2.5W	AC/DC Adapter +EUT+ Earphone + Watch	Battery $\geq 98\%$	Pretest
			Battery =50%	
			Battery $\leq 1\%$	
Mode 14	Input:12V, 3A Phone Output:15W Earphone Output:5W Watch Output:2.5W	AC/DC Adapter +EUT+ Phone + Earphone + Watch	Battery $\geq 98\%$	Record
			Battery =50%	
			Battery $\leq 1\%$	

Note: All modes have been tested, and the report only reflects the worst case data.

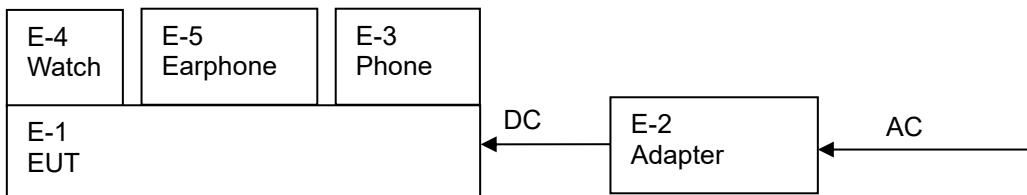


3.3 Block Diagram of EUT Configuration

Conducted Emission



Radiated Emission



3.4 Test Conditions

Temperature: 23~26°C

Relative Humidity: 54~63 %

3.5 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	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	3 in 1 Wireless Charger	N/A	W29Q	N/A	EUT
E-2	Adapter	Aohai	A895-200150C-CN1	N/A	Auxiliary
E-3	Phone	SAMSUNG	Galaxy Z Flip7 FE	N/A	Auxiliary
E-4	Watch	SAMSUNG	Galaxy Fit3	N/A	Auxiliary
E-5	Earphone	SAMSUNG	Galaxy Buds3	N/A	Auxiliary

Item	Shielded Type	Ferrite Core	Length	Note
C1	NO	NO	0.8M	DC cable unshielded

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) "YES" is means "shielded" "with core"; "NO" is means "unshielded" "without core".



3.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation test, Band-edge test and 6db bandwidth test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	Agilent	E4408B	MY50140780	Nov. 01, 2024	Oct. 31, 2025
2	Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Nov. 01, 2024	Oct. 31, 2025
3	Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Nov. 01, 2024	Oct. 31, 2025
4	Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Nov. 01, 2024	Oct. 31, 2025
5	Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	588	Nov. 01, 2024	Oct. 31, 2025
6	Amplifier (9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Nov. 01, 2024	Oct. 31, 2025
7	Amplifier (1GHz-18GHz)	EMEC	EM01G8GA	00270	Nov. 01, 2024	Oct. 31, 2025
8	Amplifier (18GHz-40GHz)	Quanjuda	DLE-161	97	Nov. 01, 2024	Oct. 31, 2025
9	Loop Antenna (9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Nov. 01, 2024	Oct. 31, 2025
10	RF cables1 (9kHz-1GHz)	ChengYu	966	004	Nov. 01, 2024	Oct. 31, 2025
11	RF cables2 (1GHz-40GHz)	ChengYu	966	003	Nov. 01, 2024	Oct. 31, 2025
12	Antenna connector	Florida RF Labs	N/A	RF 01#	Nov. 01, 2024	Oct. 31, 2025
13	Power probe	KEYSIGHT	U2021XA	MY55210018	Nov. 01, 2024	Oct. 31, 2025
14	Signal Analyzer 9kHz-26.5GHz	Agilent	N9020A	MY55370280	Nov. 01, 2024	Oct. 31, 2025
15	Test Receiver 20kHz-40GHz	R&S	ESU 40	100376	Nov. 01, 2024	Oct. 31, 2025
16	D.C. Power Supply	LongWei	PS-305D	010964729	Nov. 01, 2024	Oct. 31, 2025

Conduction Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	843 Shielded Room	ChengYu	843 Room	843	Nov. 01, 2024	Oct. 31, 2025
2	EMI Receiver	R&S	ESR	101421	Nov. 01, 2024	Oct. 31, 2025
3	LISN	R&S	ENV216	102417	Nov. 01, 2024	Oct. 31, 2025
4	843 Cable 1#	ChengYu	CE Cable	001	Nov. 01, 2024	Oct. 31, 2025

Other

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



4. CONDUCTED EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto

4.1.1 POWER LINE CONDUCTED EMISSION Limits

FREQUENCY (MHz)	Limit (dBuV)		Standard
	Quas-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) *Decreases with the logarithm of the frequency.

4.1.2 TEST PROCEDURE

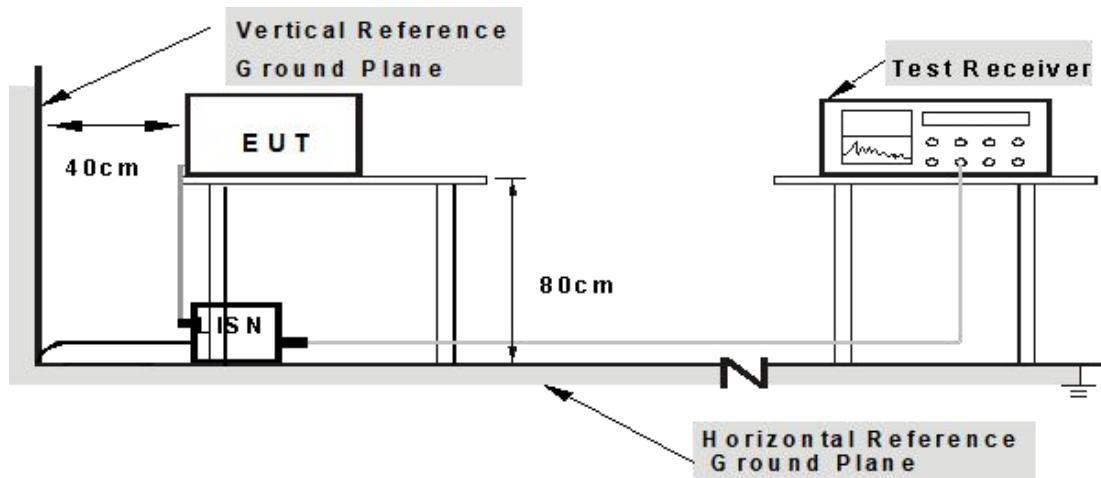
- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. 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.
- c. 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.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.3 DEVIATION FROM TEST STANDARD

No deviation



4.1.4 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 cm from other units and other metal planes

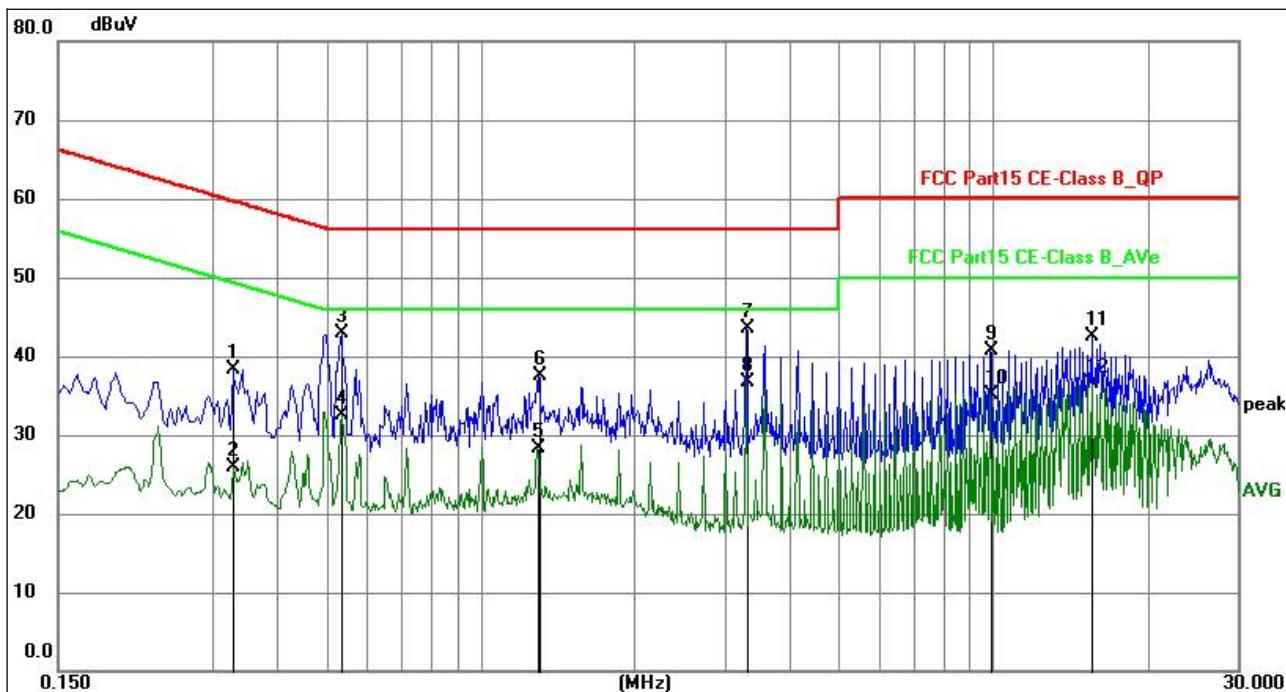
4.1.5 EUT OPERATING CONDITIONS

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.



4.1.6 Test Result

Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 14



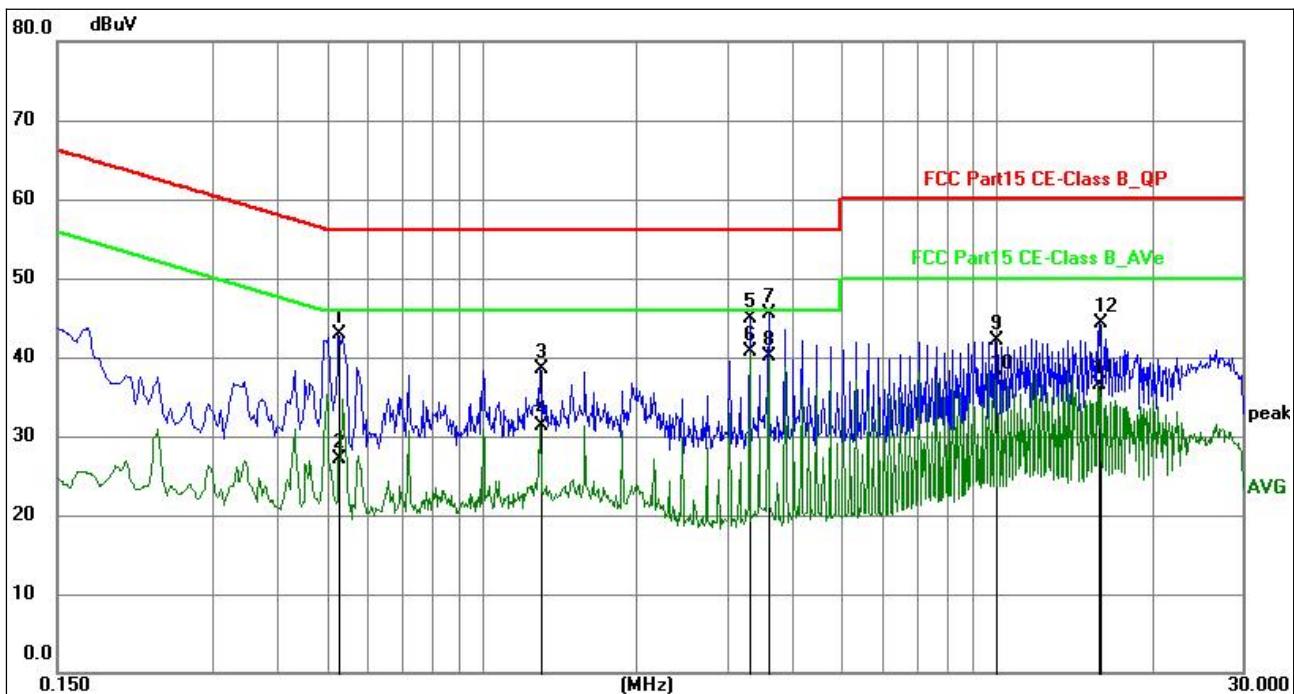
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark	...
1	0.3300	17.94	20.34	38.28	59.45	-21.17	QP	P		
2	0.3300	5.53	20.34	25.87	49.45	-23.58	AVG	P		
3	0.5369	22.59	20.30	42.89	56.00	-13.11	QP	P		
4	0.5369	12.15	20.30	32.45	46.00	-13.55	AVG	P		
5	1.2929	7.98	20.31	28.29	46.00	-17.71	AVG	P		
6	1.3018	17.18	20.31	37.49	56.00	-18.51	QP	P		
7	3.3000	23.20	20.33	43.53	56.00	-12.47	QP	P		
8	3.3000	16.30	20.33	36.63	46.00	-9.37	AVG	P		
9	9.8969	20.32	20.46	40.78	60.00	-19.22	QP	P		
10	9.8969	14.65	20.46	35.11	50.00	-14.89	AVG	P		
11	15.6345	22.00	20.49	42.49	60.00	-17.51	QP	P		
12	15.6345	16.03	20.49	36.52	50.00	-13.48	AVG	P		

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi - Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Reading level + Correct Factor.
4. Correct Factor = Lsn factor+ Cable loss factor + limiter factor.
5. Margin = Measurement Level-Limit.
6. All test modes were tested, with only the worst Mode 14 recorded.



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Phase :	N
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 14



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.5279	22.55	20.30	42.85	56.00	-13.15	QP	P	
2	0.5279	6.79	20.30	27.09	46.00	-18.91	AVG	P	
3	1.3018	18.18	20.31	38.49	56.00	-17.51	QP	P	
4	1.3018	10.90	20.31	31.21	46.00	-14.79	AVG	P	
5	3.3180	24.56	20.32	44.88	56.00	-11.12	QP	P	
6	3.3180	20.37	20.32	40.69	46.00	-5.31	AVG	P	
7	3.6060	25.20	20.33	45.53	56.00	-10.47	QP	P	
8	3.6060	19.87	20.33	40.20	46.00	-5.80	AVG	P	
9	9.9555	21.70	20.47	42.17	60.00	-17.83	QP	P	
10	9.9555	16.65	20.47	37.12	50.00	-12.88	AVG	P	
11	15.7290	16.01	20.50	36.51	50.00	-13.49	AVG	P	
12	15.8730	23.85	20.50	44.35	60.00	-15.65	QP	P	

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi - Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Reading level + Correct Factor.
4. Correct Factor = Lsfn factor+ Cable loss factor + limiter factor.
5. Margin = Measurement Level-Limit.
6. All test modes were tested, with only the worst Mode 14 recorded.



5. RADIATED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	9kHz to 1GHz				
Test site:	Measurement Distance: 3m				
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

5.1 Radiated Emission Limits

Limits for frequency below 30MHz

Frequency	Limit (uV/m)	Measurement Distance(m)	Remark
0.009-0.490	2400/F(kHz)	300	Quasi-peak Value
0.490-1.705	24000/F(kHz)	30	Quasi-peak Value
1.705-30	30	30	Quasi-peak Value

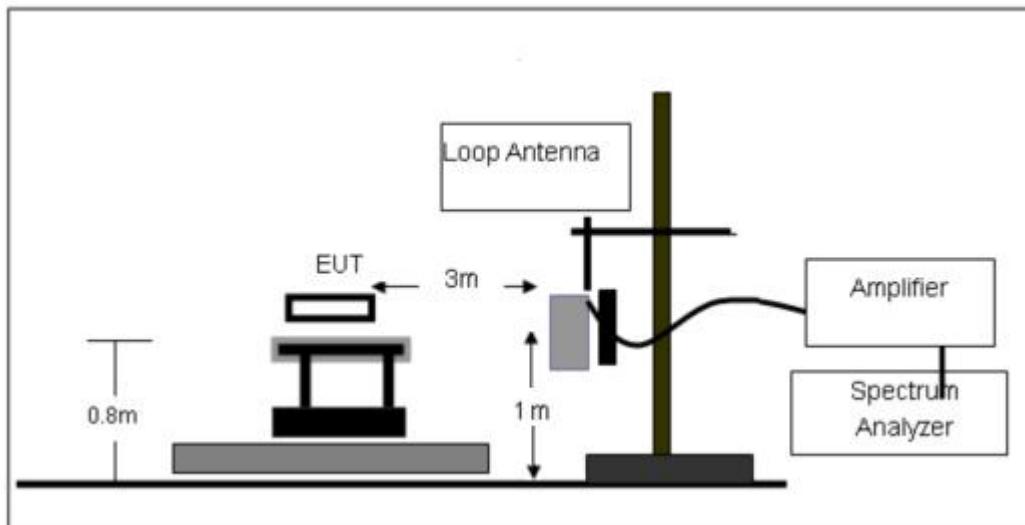
Limits for frequency Above 30MHz

Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.00	Quasi-peak Value
88MHz-216MHz	43.50	Quasi-peak Value
216MHz-960MHz	46.00	Quasi-peak Value
960MHz-1GHz	54.00	Quasi-peak Value
Above 1GHz	54.00	Average Value
	74.00	Peak Value

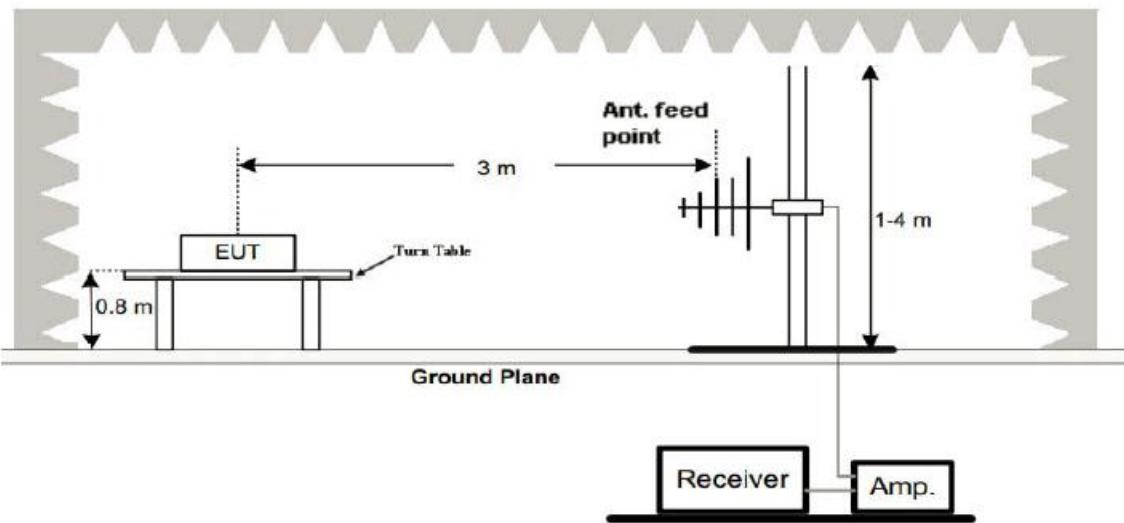


5.2 Anechoic Chamber Test Setup Diagram

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



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



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209 and FCC 15.205 limits.



5.3 Test Procedure

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna (calibrated by dipole antenna) are used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on measurement.

5.4 DEVIATION FROM TEST STANDARD

No deviation

5.5 Test Result

Measurement data:

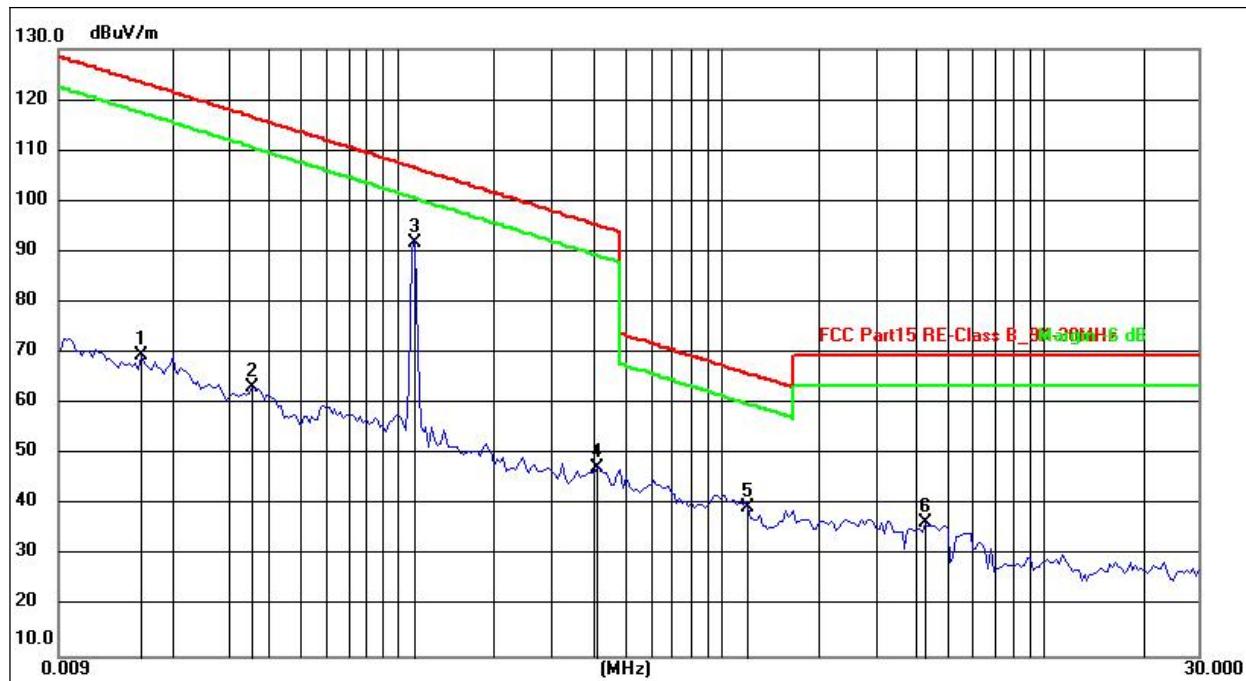
Note: Limit dBuV/m @3m = Limit dBuV/m @300m+ 80

Limit dBuV/m @3m = Limit dBuV/m @30m + 40



9 kHz~30 MHz:

Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	coaxial
Test Voltage:	DC 12V From Adapter AC 120V/60Hz	Test Mode:	Mode 4



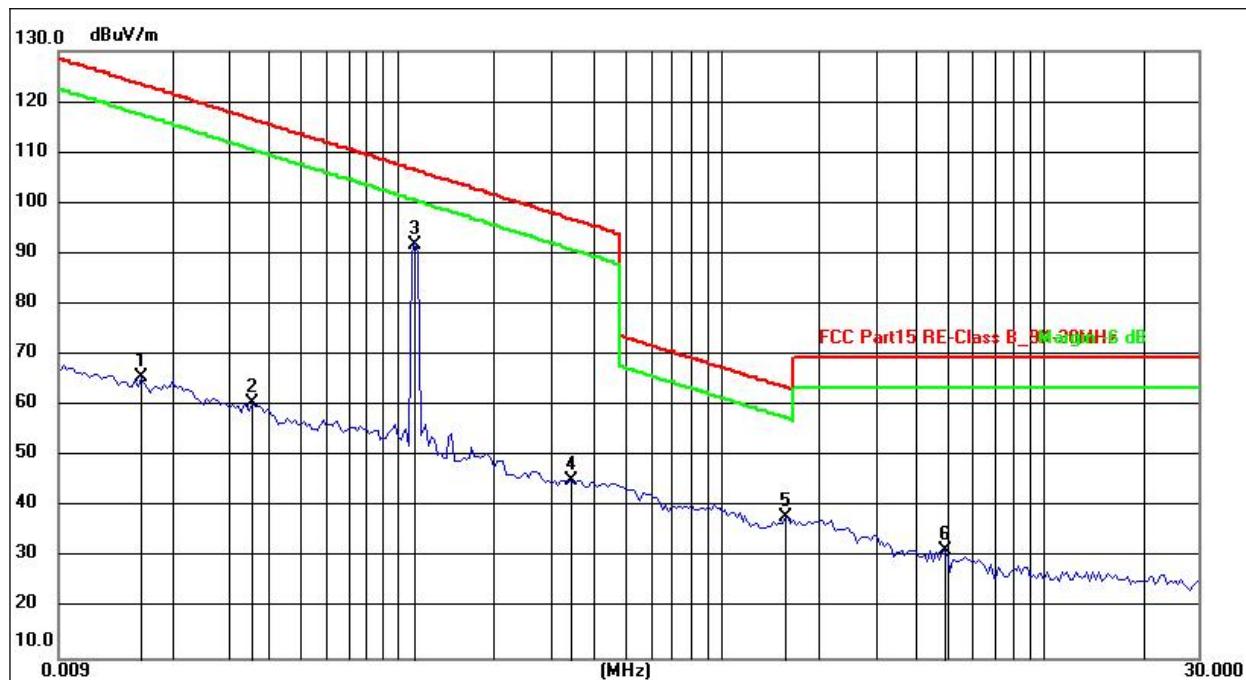
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0160	49.07	20.49	69.56	123.52	-53.96	peak
2	0.0357	43.11	20.08	63.19	116.55	-53.36	peak
3	0.1130	71.91	19.84	91.75	106.54	-14.79	peak
4	0.4157	27.33	20.17	47.50	95.23	-47.73	peak
5	1.2177	19.68	19.92	39.60	65.89	-26.29	peak
6	4.2816	16.96	19.54	36.50	69.54	-33.04	peak

Remarks:

1. An initial pre-scan was performed on the peak detector.
2. Quasi-Peak measurement were performed at the frequencies with maximized peak emission.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Final Level = Reading level + Correct Factor.
5. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
6. Margin= Measurement Level-Limit.



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Coplanar
Test Voltage:	DC 12V From Adapter AC 120V/60Hz	Test Mode:	Mode 4



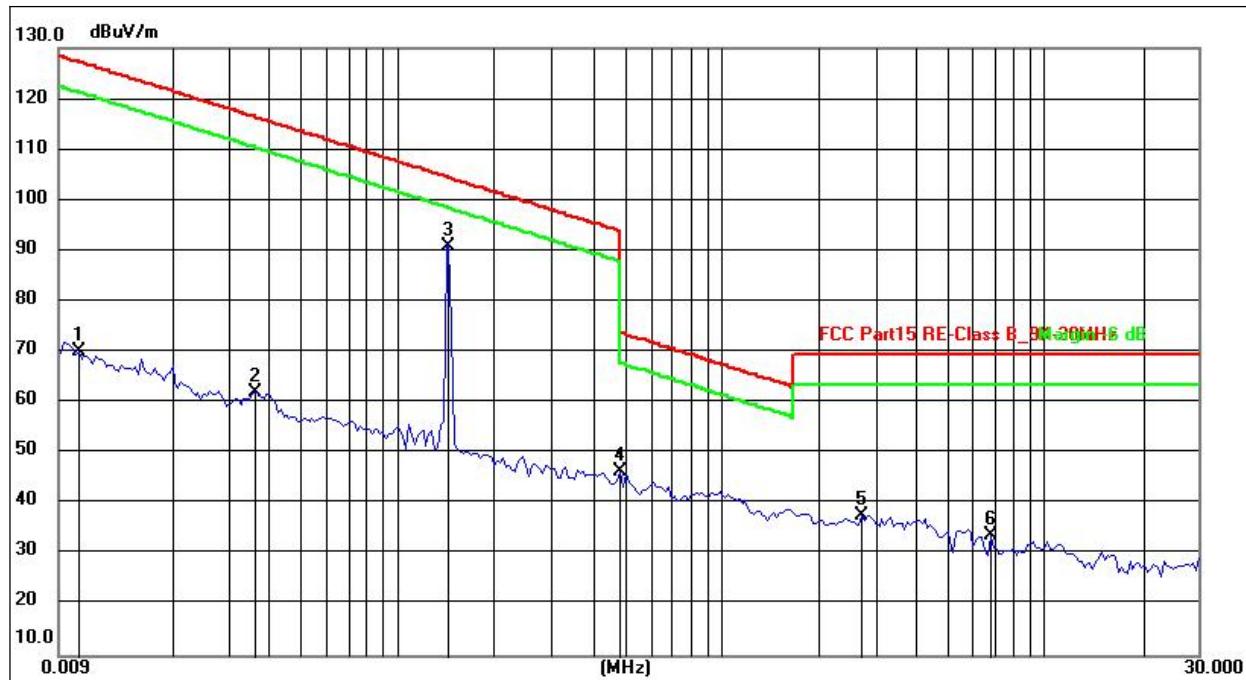
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0160	45.07	20.49	65.56	123.52	-57.96	peak
2	0.0357	40.61	20.08	60.69	116.55	-55.86	peak
3	0.1130	71.89	19.84	91.73	106.54	-14.81	peak
4	0.3462	25.20	20.14	45.34	96.82	-51.48	peak
5	1.5846	18.06	19.86	37.92	63.61	-25.69	peak
6	4.9348	12.09	19.47	31.56	69.54	-37.98	peak

Remarks:

7. An initial pre-scan was performed on the peak detector.
8. Quasi-Peak measurement were performed at the frequencies with maximized peak emission.
9. The emission levels of other frequencies are very lower than the limit and not show in test report.
10. Final Level = Reading level + Correct Factor.
11. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
12. Margin= Measurement Level-Limit.



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	coaxial
Test Voltage:	DC 12V From Adapter AC 120V/60Hz	Test Mode:	Mode 5



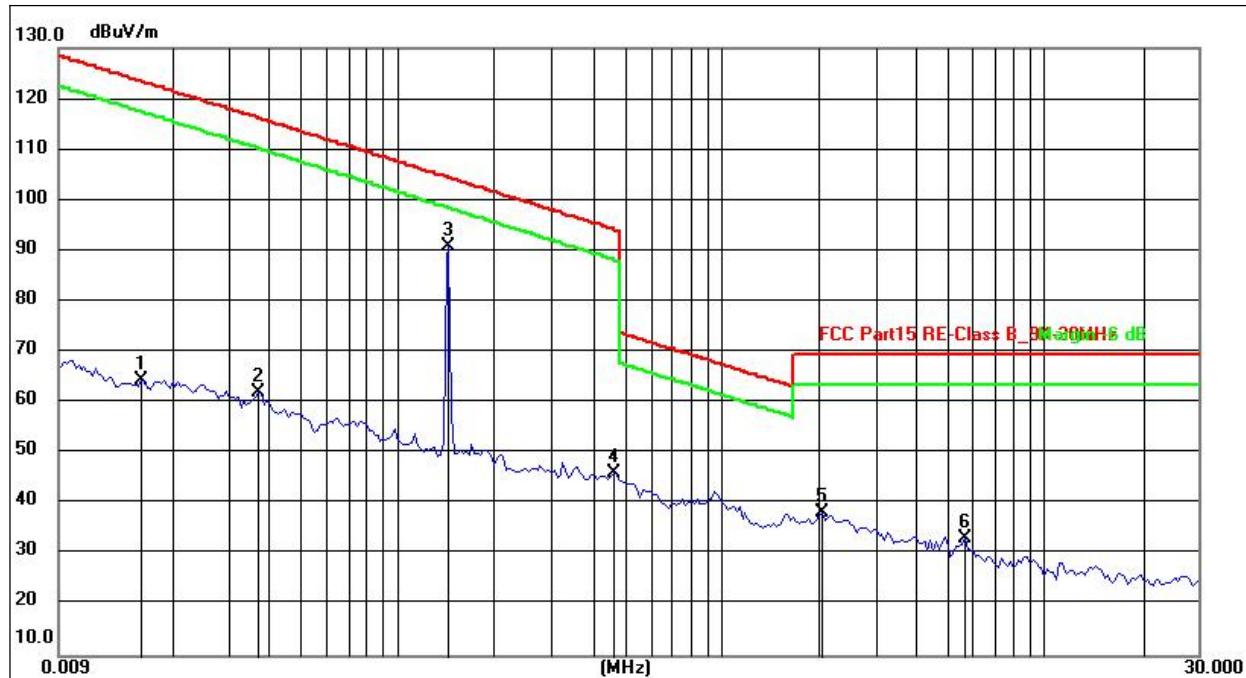
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0103	49.48	20.55	70.03	127.35	-57.32	peak
2	0.0364	42.01	20.07	62.08	116.38	-54.30	peak
3	0.1448	70.70	20.03	90.73	104.39	-13.66	peak
4	0.4889	26.35	20.20	46.55	93.82	-47.27	peak
5	2.7406	18.01	19.69	37.70	69.54	-31.84	peak
6	6.8262	14.59	19.30	33.89	69.54	-35.65	peak

Remarks:

1. An initial pre-scan was performed on the peak detector.
2. Quasi-Peak measurement were performed at the frequencies with maximized peak emission.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Final Level = Reading level + Correct Factor.
5. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
6. Margin= Measurement Level-Limit.



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Coplanar
Test Voltage:	DC 12V From Adapter AC 120V/60Hz	Test Mode:	Mode 5



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0160	44.07	20.49	64.56	123.52	-58.96	peak
2	0.0371	41.96	20.05	62.01	116.22	-54.21	peak
3	0.1448	70.76	20.03	90.79	104.39	-13.60	peak
4	0.4692	25.98	20.19	46.17	94.18	-48.01	peak
5	2.0632	18.60	19.79	38.39	69.54	-31.15	peak
6	5.6875	13.92	19.41	33.33	69.54	-36.21	peak

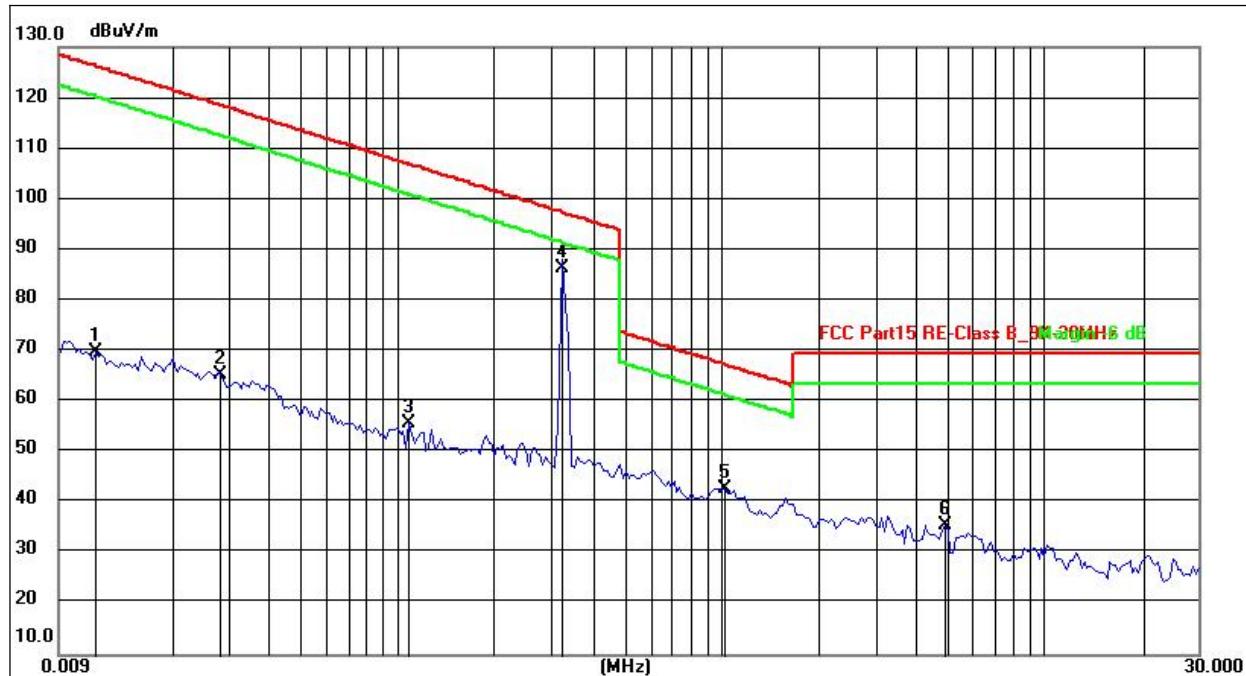
Remarks:

7. An initial pre-scan was performed on the peak detector.
8. Quasi-Peak measurement were performed at the frequencies with maximized peak emission.
9. The emission levels of other frequencies are very lower than the limit and not show in test report.
10. Final Level = Reading level + Correct Factor.
11. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.

Margin= Measurement Level-Limit.



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	coaxial
Test Voltage:	DC 12V From Adapter AC 120V/60Hz	Test Mode:	Mode 6



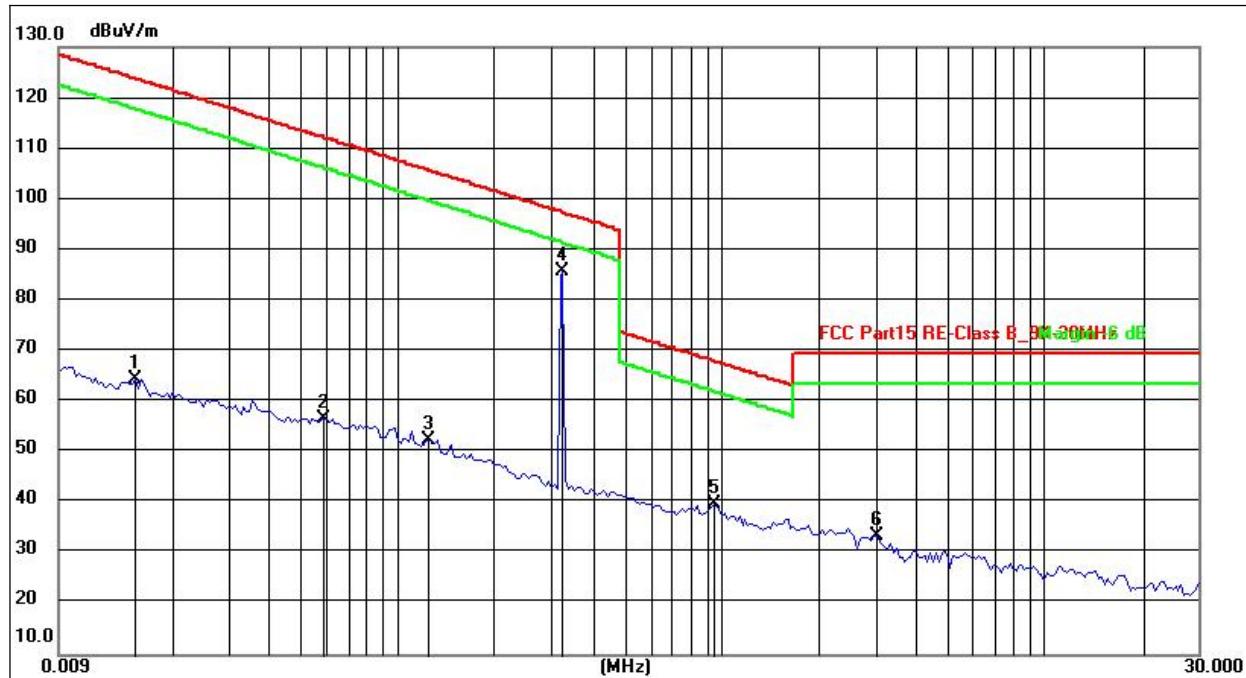
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0117	49.23	20.53	69.76	126.24	-56.48	peak
2	0.0285	45.15	20.25	65.40	118.51	-53.11	peak
3	0.1087	35.93	19.81	55.74	106.88	-51.14	peak
4	0.3240	66.18	20.13	86.31	97.39	-11.08	peak
5	1.0354	23.01	19.94	42.95	67.30	-24.35	peak
6	4.9348	16.09	19.47	35.56	69.54	-33.98	peak

Remarks:

1. An initial pre-scan was performed on the peak detector.
2. Quasi-Peak measurement were performed at the frequencies with maximized peak emission.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Final Level = Reading level + Correct Factor.
5. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
6. Margin= Measurement Level-Limit.



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Coplanar
Test Voltage:	DC 12V From Adapter AC 120V/60Hz	Test Mode:	Mode 6



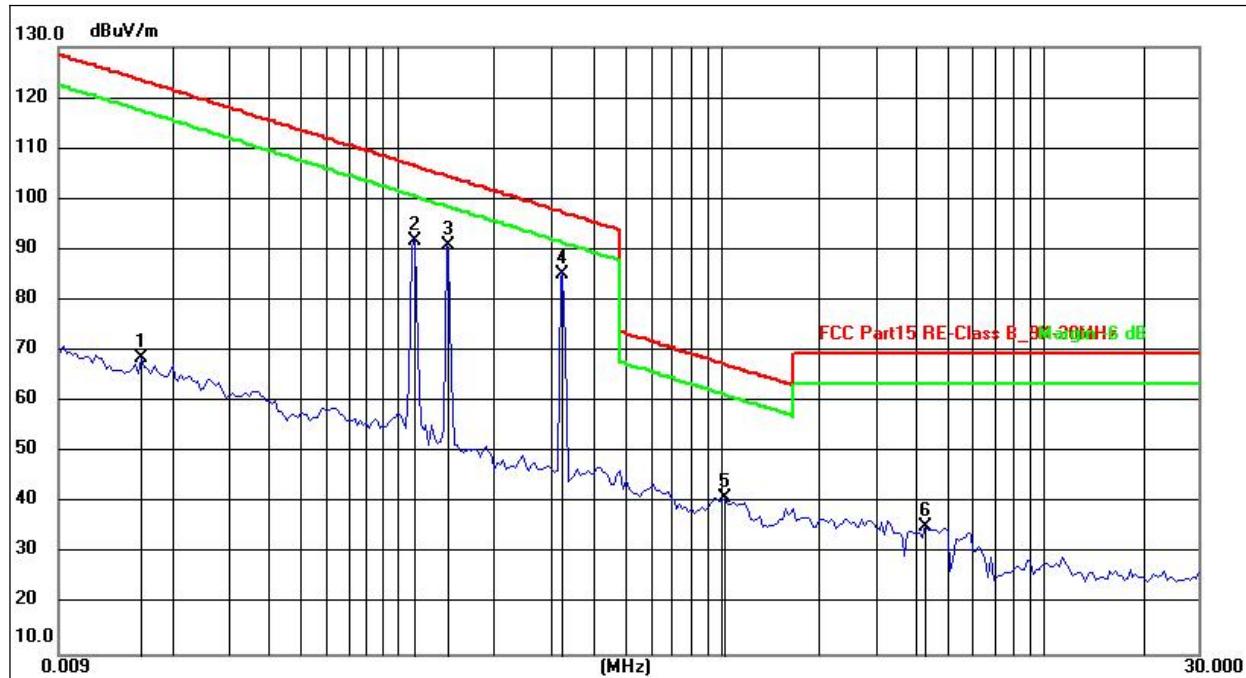
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0154	44.07	20.50	64.57	123.85	-59.28	peak
2	0.0592	36.94	19.80	56.74	112.16	-55.42	peak
3	0.1255	32.59	19.91	52.50	105.63	-53.13	peak
4	0.3240	65.60	20.13	85.73	97.39	-11.66	peak
5	0.9546	19.86	20.04	39.90	68.01	-28.11	peak
6	3.0331	13.85	19.64	33.49	69.54	-36.05	peak

Remarks:

7. An initial pre-scan was performed on the peak detector.
8. Quasi-Peak measurement were performed at the frequencies with maximized peak emission.
9. The emission levels of other frequencies are very lower than the limit and not show in test report.
10. Final Level = Reading level + Correct Factor.
11. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
- Margin= Measurement Level-Limit.



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	coaxial
Test Voltage:	DC 12V From Adapter AC 120V/60Hz	Test Mode:	Mode 14



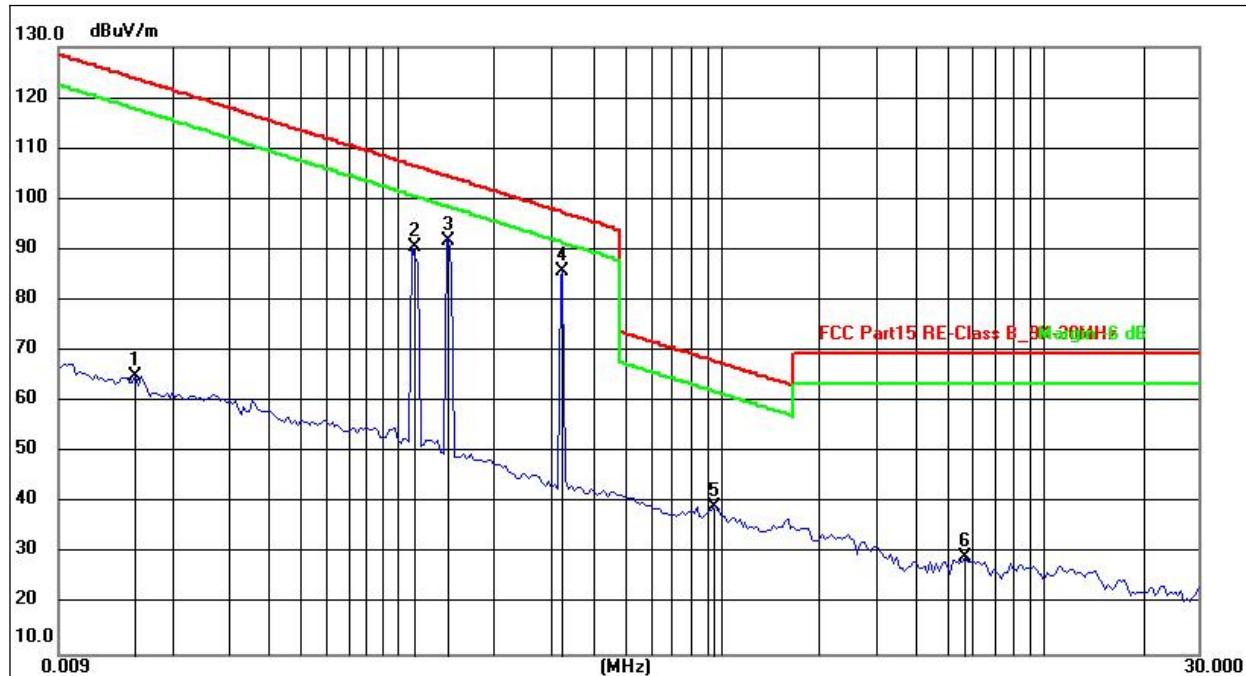
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0160	48.07	20.49	68.56	123.52	-54.96	peak
2	0.1130	71.91	19.84	91.75	106.54	-14.79	peak
3	0.1448	70.72	20.03	90.75	104.39	-13.64	peak
4	0.3240	65.08	20.13	85.21	97.39	-12.18	peak
5	1.0354	21.01	19.94	40.95	67.30	-26.35	peak
6	4.2816	15.96	19.54	35.50	69.54	-34.04	peak

Remarks:

1. An initial pre-scan was performed on the peak detector.
2. Quasi-Peak measurement were performed at the frequencies with maximized peak emission.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Final Level = Reading level + Correct Factor.
5. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
6. Margin= Measurement Level-Limit.



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Coplanar
Test Voltage:	DC 12V From Adapter AC 120V/60Hz	Test Mode:	Mode 14



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0154	44.57	20.50	65.07	123.85	-58.78	peak
2	0.1130	70.70	19.84	90.54	106.54	-16.00	peak
3	0.1448	71.80	20.03	91.83	104.39	-12.56	peak
4	0.3240	65.60	20.13	85.73	97.39	-11.66	peak
5	0.9546	19.36	20.04	39.40	68.01	-28.61	peak
6	5.6875	9.92	19.41	29.33	69.54	-40.21	peak

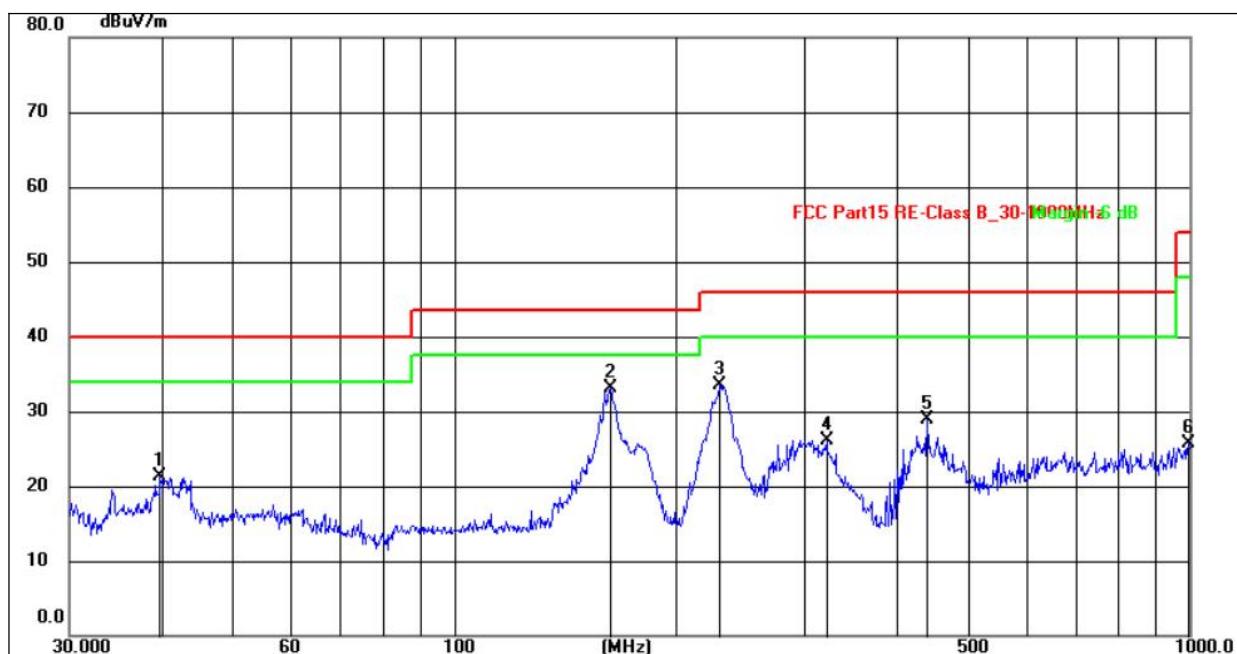
Remarks:

7. An initial pre-scan was performed on the peak detector.
8. Quasi-Peak measurement were performed at the frequencies with maximized peak emission.
9. The emission levels of other frequencies are very lower than the limit and not show in test report.
10. Final Level = Reading level + Correct Factor.
11. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
- Margin= Measurement Level-Limit.



30MHz-1GHz

Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	DC 12V From Adapter AC 120V/60Hz	Test Mode:	Mode 14



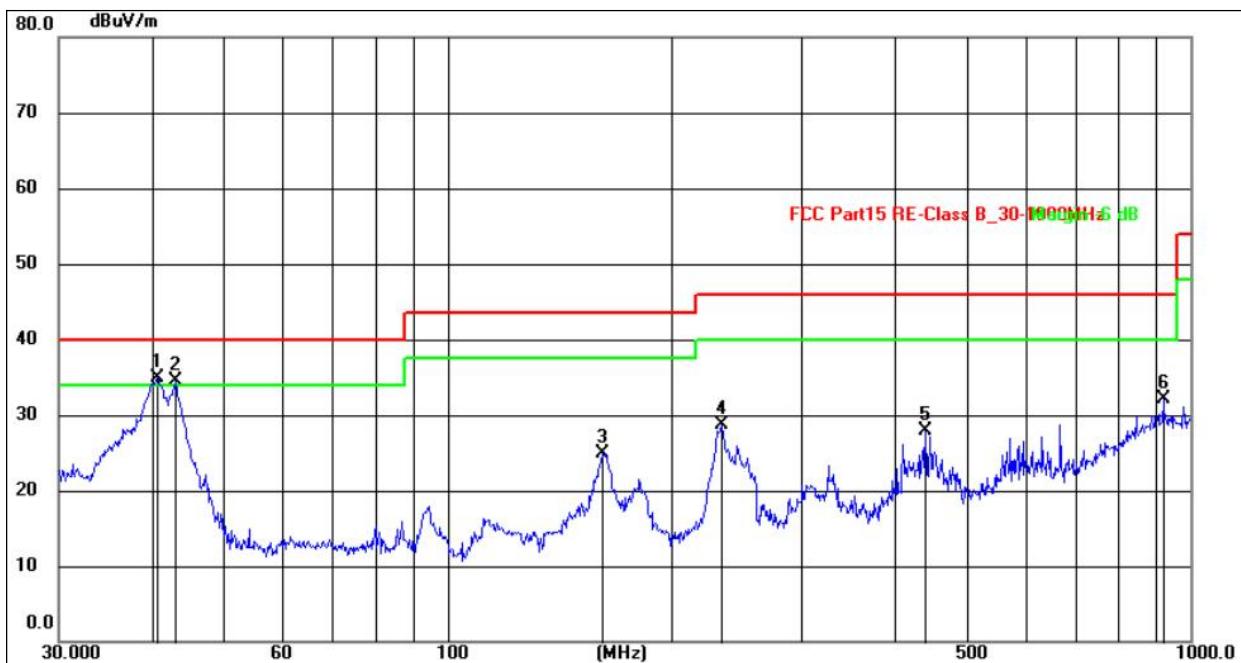
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	39.8541	35.42	-14.06	21.36	40.00	-18.64	QP
2	163.1817	49.27	-16.22	33.05	43.50	-10.45	QP
3	230.0985	50.16	-16.68	33.48	46.00	-12.52	QP
4	321.0605	42.62	-16.45	26.17	46.00	-19.83	QP
5	440.1961	42.98	-14.04	28.94	46.00	-17.06	QP
6	996.4995	30.32	-4.63	25.69	54.00	-28.31	QP

Remarks:

1. An initial pre-scan was performed on the peak detector.
2. Quasi-Peak measurement were performed at the frequencies with maximized peak emission.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Final Level = Reading level + Correct Factor.
5. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
6. Margin= Measurement Level-Limit.
7. All test modes were tested, with only the worst Mode 14 recorded.



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Vertical
Test Voltage:	DC 12V From Adapter AC 120V/60Hz	Test Mode:	Mode 14



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	40.7014	51.68	-16.80	34.88	40.00	-5.12	QP
2	43.0504	51.32	-16.89	34.43	40.00	-5.57	QP
3	162.0413	44.80	-19.92	24.88	43.50	-18.62	QP
4	234.1682	48.57	-19.96	28.61	46.00	-17.39	QP
5	440.1961	41.03	-13.10	27.93	46.00	-18.07	QP
6	919.2865	32.42	-0.33	32.09	46.00	-13.91	QP

Remarks:

1. An initial pre-scan was performed on the peak detector.
2. Quasi-Peak measurement were performed at the frequencies with maximized peak emission.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Final Level = Reading level + Correct Factor.
5. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
6. Margin= Measurement Level-Limit.
7. All test modes were tested, with only the worst Mode 14 recorded.



6. 20DB BANDWIDTH TEST

1. Set span = 2 ~ 5 times OBW.
2. Set RBW = 1%~5% OBW.
3. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
4. Detector = peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. 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.

TEST SETUP

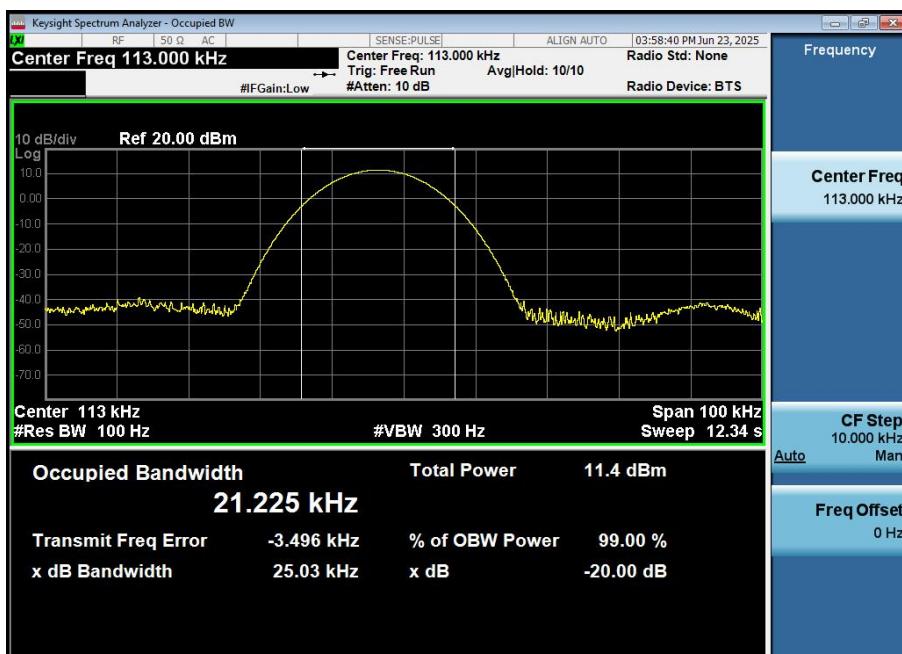




Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	DC 12V

Test Coil	Frequency (kHz)	20dB Bandwidth (kHz)	Result
ANT 1	113.000	25.03	Pass
ANT 2	144.800	25.22	Pass
ANT 3	164.250	3.082	Pass

ANT 1:



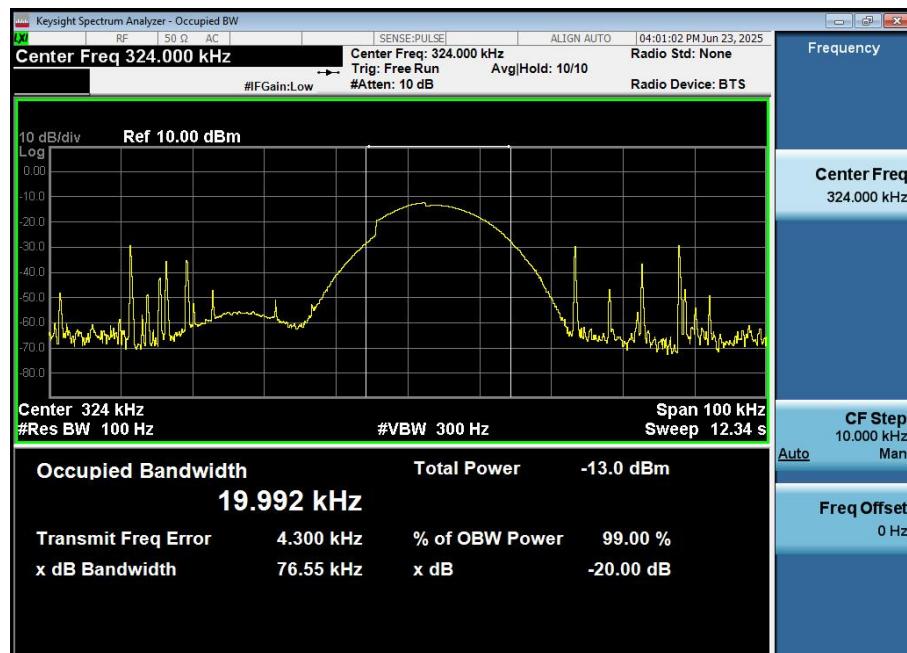
Note: The measured signal is Cw-like, adjusting the RBW per C63.10 would not be practical since measurement bandwidth will always follow the RBW. The RBW is set to 100Hz and VBW is set to 300Hz to perform the occupied bandwidth test.



ANT 2:



ANT 3:





7. ANTENNA REQUIREMENT

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
EUT Antenna:	
The antenna is Loop Coil antenna, the best case gain of the antennas is 0dBi, reference to the appendix II for details	



8. TEST SETUP PHOTO

Reference to the appendix I for details.

9. EUT CONSTRUCTIONAL DETAILS

Reference to the appendix II for details.

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