FCC TEST REPORT
FCC ID:2A5YG-Y011

Report Number:	**ZKT-24120918051E**
Date of Test:	Dec. 09, 2024 to Dec. 18, 2024
Date of issue:	Dec. 18, 2024
Total number of pages:	30
Test Result :	PASS
Testing Laboratory:	**Shenzhen ZKT Technology Co., Ltd.**
Address :	1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China
Applicant's name :	**Shenzhen Midason Technology Co.,Ltd**
Address :	Foor 2,Building A, NO.10,Alley 4, Rd., Shaxin, St. Maluan,District Pingshan, Shenzhen China
Manufacturer's name :	**Shenzhen Midason Technology Co.,Ltd**
Address :	Foor 2,Building A, NO.10,Alley 4, Rd., Shaxin, St. Maluan,District Pingshan, Shenzhen China
Test specification:	
Standard:	FCC CFR Title 47 Part 15 Subpart C
Test procedure:	/
Non-standard test method :	N/A
Test Report Form No:	TRF-EL-107_V0
Test Report Form(s) Originator:	ZKT Testing
Master TRF :	Dated: 2020-01-06

This device described above has been tested by ZKT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
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Product name:	**3 in 1 Wireless Charger**
Trademark :	N/A
Model/Type reference:	Y011
Ratings:	Input: 5V⎓3A, 9V⎓2A, 12V⎓1.5A Phone Output: 15W/10W/7.5W/5W Watch Output: 2.5W Headphone Output: 3W

Testing procedure and testing location:

Testing Laboratory.....:	**Shenzhen ZKT Technology Co., Ltd.**
Address.....:	1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China
Tested by (name + signature).....:	Jim Liu
Reviewer (name + signature).....:	Jackson Fang
Approved (name + signature).....:	Lake Xie

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1. VERSION

Report No.	Version	Description	Approved
ZKT-24120918051E	Rev.01	Initial issue of report	Dec. 18, 2024

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

2.1 TEST FACILITY

Shenzhen ZKT Technology Co., Ltd.
Add. : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

FCC Test Firm Registration Number: 692225
Designation Number: CN1299
IC Registered No.: 27033
CAB identifier: CN0110

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ± 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 camber Radiated spurious emission(9KHz-30MHz)	U=4.5dB
2	3m camber Radiated spurious emission(30MHz-1GHz)	U=4.8dB
3	3m chamber Radiated spurious emission(1GHz-6GHz)	U=4.9dB
4	3m chamber Radiated spurious emission(6GHz-40GHz)	U=5.0dB
5	Conducted disturbance	U=3.2dB
6	RF conducted Spurious Emission	U=2.2dB
7	RF Occupied Bandwidth	U=1.8MHz
8	humidity uncertainty	U=5.3%
9	Temperature uncertainty	U=0.59℃

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Product Name:	3 in 1 Wireless Charger
Model No.:	Y011
Serial No.:	N/A
Model Difference:	N/A
Hardware version:	H 1.0
Software version:	V 1.1
Operation Frequency:	ANT 1&2&3: 113kHz~205kHz ANT 4: 260kHz~330kHz
Modulation type:	ASK
Antenna Type:	ANT 1&2&3&4: Loop Coil Antenna
Antenna gain:	ANT 1&2&3&4: 0dBi
Ratings:	Input: 5V⎓3A, 9V⎓2A, 12V⎓1.5A Phone Output: 15W/10W/7.5W/5W Watch Output: 2.5W Headphone Output: 3W
Transmitting mode	Keep the EUT in continuously wireless charging mode

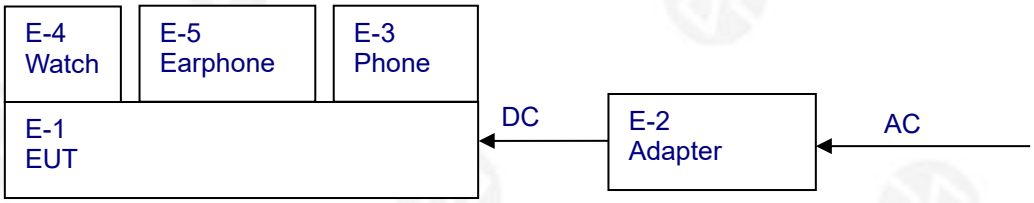
3.2 Test mode

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.

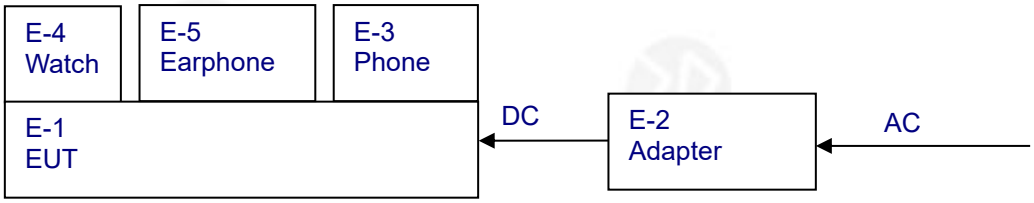
Test Modes:	Test Coil	Description:
Mode 1	ANT 1	AC/DC Adapter + EUT + Earphone (Battery Status: <1%)
Mode 2		AC/DC Adapter + EUT + Earphone (Battery Status: 50%)
Mode 3		AC/DC Adapter + EUT + Earphone (Battery Status: >98%)
Mode 4	ANT 2	AC/DC Adapter + EUT + Phone (Battery Status: <1%)
Mode 5		AC/DC Adapter + EUT + Phone (Battery Status: 50%)
Mode 6		AC/DC Adapter + EUT + Phone (Battery Status: >98%)
Mode 7	ANT 3	AC/DC Adapter + EUT + Phone (Battery Status: <1%)
Mode 8		AC/DC Adapter + EUT + Phone (Battery Status: 50%)
Mode 9		AC/DC Adapter + EUT + Phone (Battery Status: >98%)
Mode 10	ANT 4	AC/DC Adapter + EUT + Watch (Battery Status: <1%)
Mode 11		AC/DC Adapter + EUT + Watch (Battery Status: 50%)
Mode 12		AC/DC Adapter + EUT + Watch (Battery Status: >98%)
Mode 13	ANT 1 + ANT 2 + ANT 4	AC/DC Adapter + EUT + Phone + Earphone + Watch (Battery Status: <1%)
Mode 14		AC/DC Adapter + EUT + Phone + Earphone + Watch (Battery Status: 50%)
Mode 15		AC/DC Adapter + EUT + Phone + Earphone + Watch (Battery Status: >98%)
Mode 16	ANT 1 + ANT 3 + ANT 4	AC/DC Adapter + EUT + Phone + Earphone + Watch (Battery Status: <1%)
Mode 17		AC/DC Adapter + EUT + Phone + Earphone + Watch (Battery Status: 50%)
Mode 18		AC/DC Adapter + EUT + Phone + Earphone + Watch (Battery Status: >98%)

3.3 Block Diagram of EUT Configuration

Conducted Emission



Radiated Emission



3.4 Test Conditions

Temperature: 23~26℃

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	Y011	N/A	EUT
E-2	AC/DC Adapter	HUAWEI	HW-200200CP1	N/A	Auxiliary
E-3	Phone	Apple	iPhone 13	N/A	Auxiliary
E-4	Watch	Apple	iWatch S2	N/A	Auxiliary
E-5	Earphone	Apple	AirPods 2	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

Conduction Emissions Test

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Firmware Version	Last calibration	Calibrated until
1	LISN	R&S	ENV216	101471	N/A	Sep. 30, 2024	Sep. 29, 2025
2	LISN	CYBERTEK	EM5040A	E1850400149	N/A	Sep. 30, 2024	Sep. 29, 2025
3	Test Cable	N/A	C-01	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
4	EMI Test Receiver	R&S	ESCI3	101393	4.42 SP3	Sep. 29, 2024	Sep. 28, 2025
5	EMC Software	Frad	EZ-EMC	Ver.EMC-CON 3A1.1	N/A	\	\

Radiation Emissions & Radiation Spurious Emissions Test

Item	Equipment	Manufacturer	Type No.	Serial No.	Firmware Version	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	KEYSIGHT	N9020A	MY55370835	A.17.05	Sep. 29, 2024	Sep. 28, 2025
2	Spectrum Analyzer (10kHz-39.9GHz)	R&S	FSV40-N	100363	1.71 SP2	Sep. 30, 2024	Sep. 29, 2025
3	EMI Test Receiver (9kHz-7GHz)	R&S	ESCI7	100969	4.32	Sep. 29, 2024	Sep. 28, 2025
4	Bilog Antenna (30MHz-1500MHz)	Schwarzbeck	VULB9168	00877	N/A	Sep. 30, 2024	Sep. 29, 2025
5	Horn Antenna (1GHz-18GHz)	Agilent	AH-118	071145	N/A	Sep. 30, 2024	Sep. 29, 2025
6	Horn Antenna (15GHz-40GHz)	A.H.System	SAS-574	588	N/A	Sep. 30, 2024	Sep. 29, 2025
7	Loop Antenna	TESEQ	HLA6121	58357	N/A	Oct. 11, 2024	Oct. 10, 2025
8	Amplifier (30-1000MHz)	EM Electronics	EM330 Amplifier	60747	N/A	Sep. 29, 2024	Sep. 28, 2025
9	Amplifier (1GHz-26.5GHz)	HuiPu	8449B	3008A00315	N/A	Sep. 29, 2024	Sep. 28, 2025
10	Amplifier (500MHz-40GHz)	QuanJuDa	DLE-161	097	N/A	Sep. 30, 2024	Sep. 29, 2025
11	Test Cable	N/A	R-01	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
12	Test Cable	N/A	R-02	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
13	Test Cable	N/A	R-03	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
14	D.C. Power Supply	LongWei	TPR-6405D	GQ7516	N/A	Sep. 29, 2024	Sep. 28, 2025
15	EMC Software	Frad	EZ-EMC	Ver.EMC-CO N 3A1.1	N/A	\	\
16	Turntable	MF	MF-7802BS	N/A	N/A	\	\
17	Antenna tower	MF	MF-7802BS	N/A	N/A	\	\

RF Conducted Test

Item	Equipment	Manufacturer	Type No.	Serial No.	Firmware Version	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	KEYSIGHT	N9020A	MY55370835	A.17.05	Sep. 29, 2024	Sep. 28, 2025
2	Spectrum Analyzer (10kHz-39.9GHz)	R&S	FSV40-N	100363	1.71 SP2	Sep. 30, 2024	Sep. 29, 2025
3	Test Cable	N/A	RF-01	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
4	Test Cable	N/A	RF-02	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
5	Test Cable	N/A	RF-03	N/A	N/A	Sep. 30, 2024	Sep. 29, 2025
6	ESG Signal Generator	Agilent	E4421B	GB40051203	B.03.84	Sep. 29, 2024	Sep. 28, 2025
7	Signal Generator	Agilent	N5182A	MY47420215	A.01.87	Sep. 29, 2024	Sep. 28, 2025
8	Magnetic Field Probe Tester	Narda	ELT-400	0-0344	N/A	Sep. 29, 2024	Sep. 28, 2025
9	Van der Hoofden measuring head	Schwarzbeck Mess-elektronik	VDHH 9502	9502-039	N/A	Sep. 30, 2024	Sep. 29, 2025
10	Wideband Radio Communication Test	R&S	CMW500	106504	V 3.7.22	Sep. 30, 2024	Sep. 29, 2025
11	MWRF Power Meter Test system	MW	MW100-RFCB	10371	N/A	Sep. 29, 2024	Sep. 28, 2025
12	Power Meter	KEYSIGHT	N1912AP	926431	A.05.00	Sep. 29, 2024	Sep. 28, 2025
13	D.C. Power Supply	LongWei	TPR-6405D	GQ7516	N/A	Sep. 29, 2024	Sep. 28, 2025
14	RF Software	MW	MTS8310	V2.0.0.0	N/A	\	\

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.

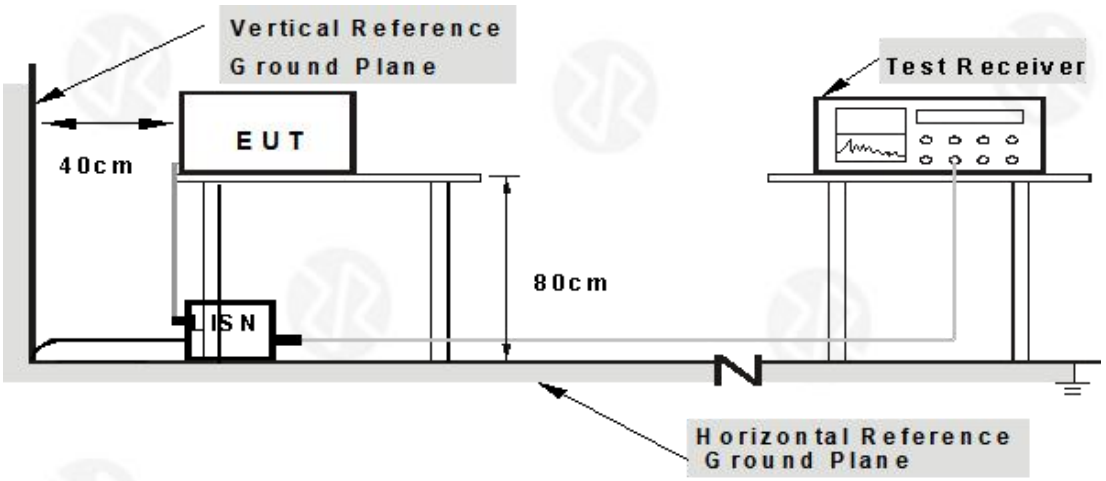
4.1.2 TEST PROCEDURE

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



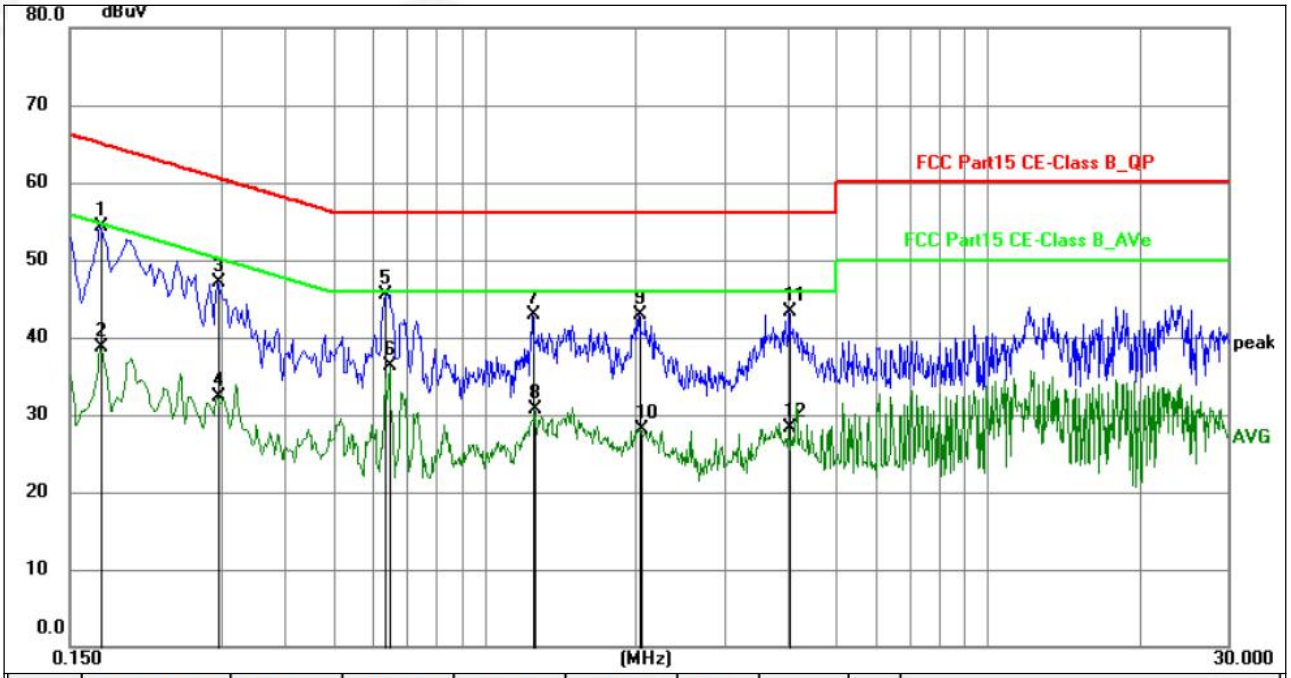
Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

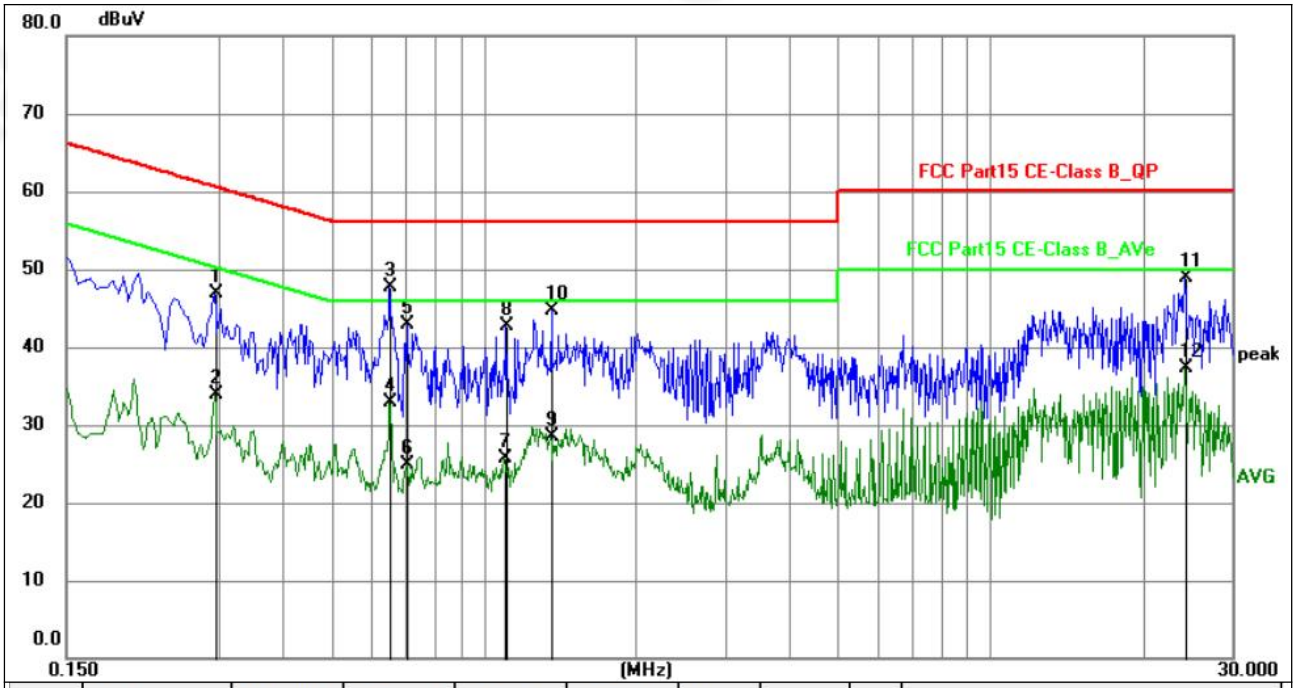
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 16



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1725	34.12	20.27	54.39	64.84	-10.45	QP	P	
2	0.1725	18.52	20.27	38.79	54.84	-16.05	AVG	P	
3	0.2940	26.72	20.35	47.07	60.41	-13.34	QP	P	
4	0.2940	12.02	20.35	32.37	50.41	-18.04	AVG	P	
5	0.6359	25.20	20.29	45.49	56.00	-10.51	QP	P	
6	0.6493	15.94	20.29	36.23	46.00	-9.77	AVG	P	
7	1.2479	22.57	20.30	42.87	56.00	-13.13	QP	P	
8	1.2569	10.40	20.31	30.71	46.00	-15.29	AVG	P	
9	2.0309	22.66	20.31	42.97	56.00	-13.03	QP	P	
10	2.0444	7.76	20.31	28.07	46.00	-17.93	AVG	P	
11	4.0290	22.92	20.34	43.26	56.00	-12.74	QP	P	
12	4.0290	7.99	20.34	28.33	46.00	-17.67	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 = Lisn factor+ Cable loss factor + limiter factor.
5. Margin = Measurement Level-Limit.
6. All test modes were tested, with only the worst Mode 10 recorded.

Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Phase :	N
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 16



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.2940	26.53	20.35	46.88	60.41	-13.53	QP	P	
2	0.2940	13.51	20.35	33.86	50.41	-16.55	AVG	P	
3	0.6539	27.43	20.29	47.72	56.00	-8.28	QP	P	
4	0.6539	12.59	20.29	32.88	46.00	-13.12	AVG	P	
5	0.7079	22.59	20.29	42.88	56.00	-13.12	QP	P	
6	0.7079	4.64	20.29	24.93	46.00	-21.07	AVG	P	
7	1.0994	5.35	20.30	25.65	46.00	-20.35	AVG	P	
8	1.1084	22.40	20.30	42.70	56.00	-13.30	QP	P	
9	1.3559	8.26	20.31	28.57	46.00	-17.43	AVG	P	
10	1.3604	24.33	20.31	44.64	56.00	-11.36	QP	P	
11	24.2340	28.35	20.64	48.99	60.00	-11.01	QP	P	
12	24.2340	16.62	20.64	37.26	50.00	-12.74	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 = Lisn factor+ Cable loss factor + limiter factor.
5. Margin = Measurement Level-Limit.
6. All test modes were tested, with only the worst Mode 10 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

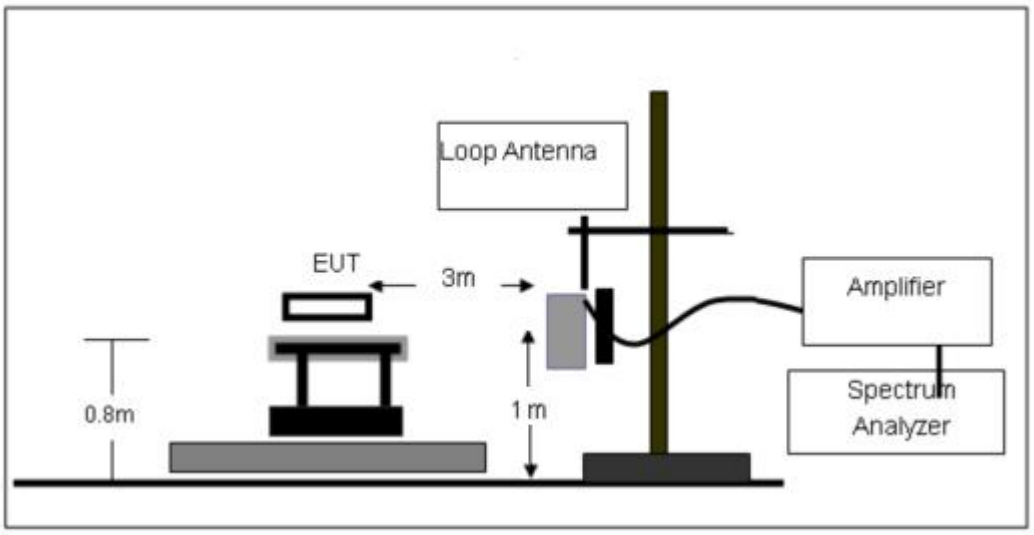
Frequency	Limit (uV/m)	Measurement Distance(m)	Remark
0.009-0.490	2400/F(kHz)	300	Quasi-peak Value
0.490-1.705	24000/F(kHz)	30	Quasi-peak Value
1.705-30	30	30	Quasi-peak Value

Limits for frequency Above 30MHz

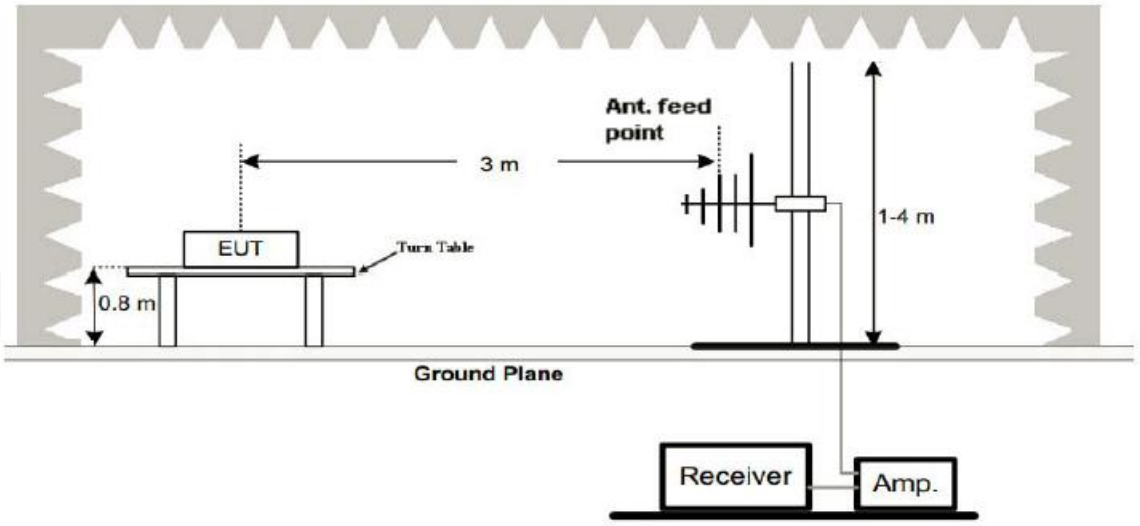
Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.00	Quasi-peak Value
88MHz-216MHz	43.50	Quasi-peak Value
216MHz-960MHz	46.00	Quasi-peak Value
960MHz-1GHz	54.00	Quasi-peak Value
Above 1GHz	54.00	Average Value
	74.00	Peak Value

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

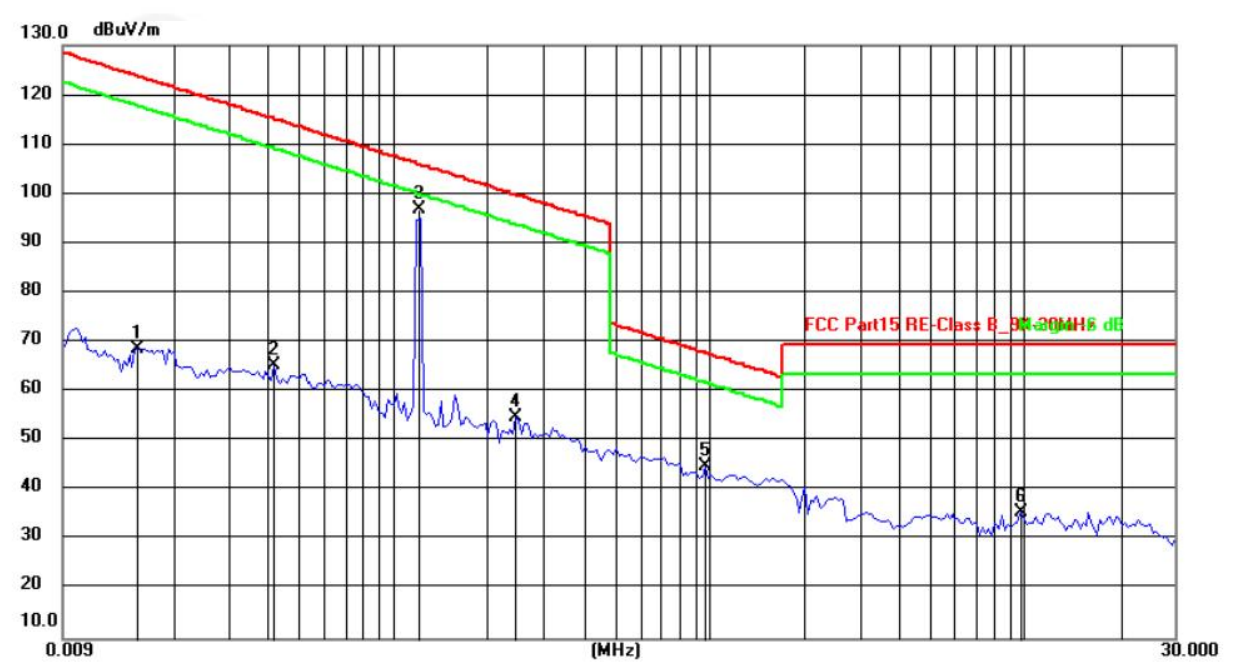
5.5 Test Result

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:

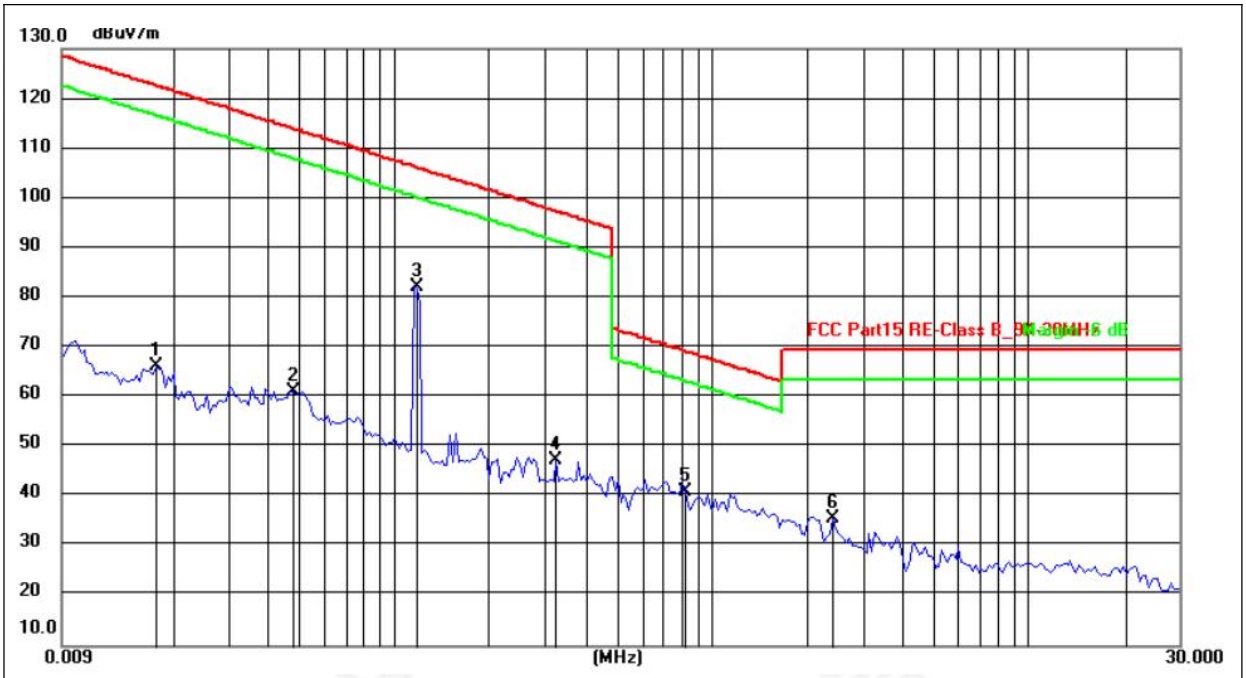
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	coaxial
Test Voltage:	DC 12V	Test Mode:	Mode 1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0154	48.07	20.50	68.57	123.85	-55.28	peak
2	0.0420	45.33	19.94	65.27	115.14	-49.87	peak
3	0.1195	76.85	19.88	96.73	106.06	-9.33	peak
4	0.2452	34.70	20.10	54.80	99.81	-45.01	peak
5	0.9743	24.88	20.00	44.88	67.83	-22.95	peak
6	9.8338	16.49	19.02	35.51	69.54	-34.03	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.

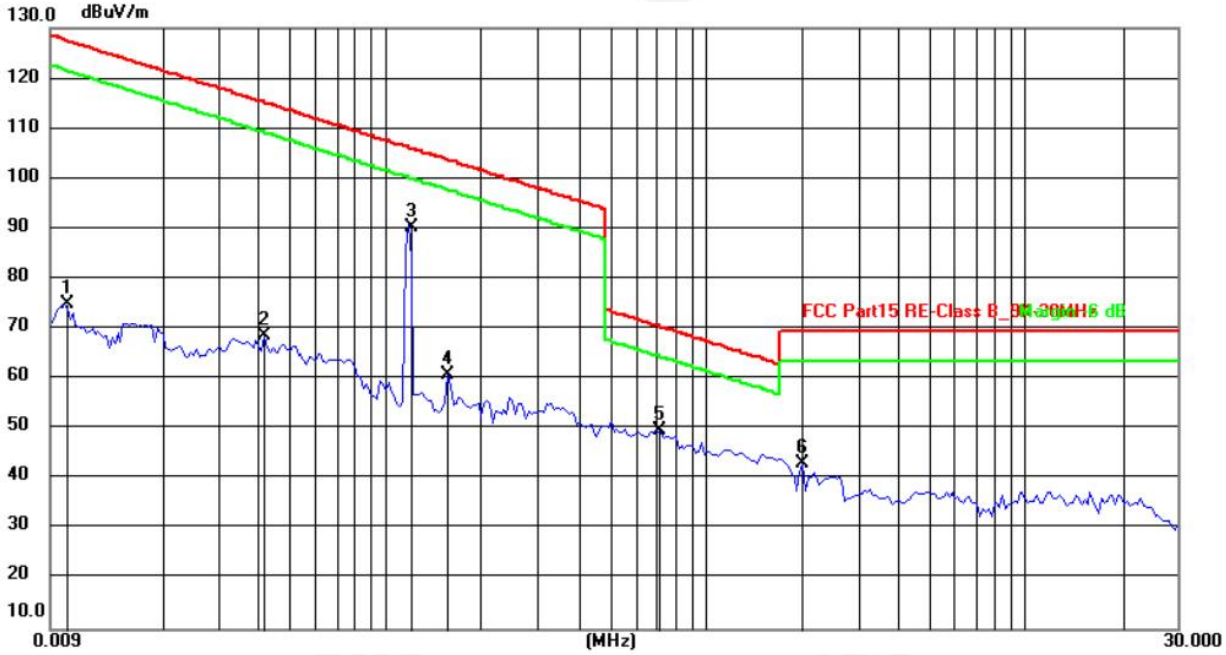
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	coaxial
Test Voltage:	DC 12V	Test Mode:	Mode 4



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0177	45.78	20.47	66.25	122.65	-56.40	peak
2	0.0483	41.43	19.79	61.22	113.93	-52.71	peak
3	0.1172	62.39	19.86	82.25	106.23	-23.98	peak
4	0.3259	27.12	20.13	47.25	97.34	-50.09	peak
5	0.8284	20.73	20.27	41.00	69.24	-28.24	peak
6	2.4266	16.02	19.73	35.75	69.54	-33.79	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.

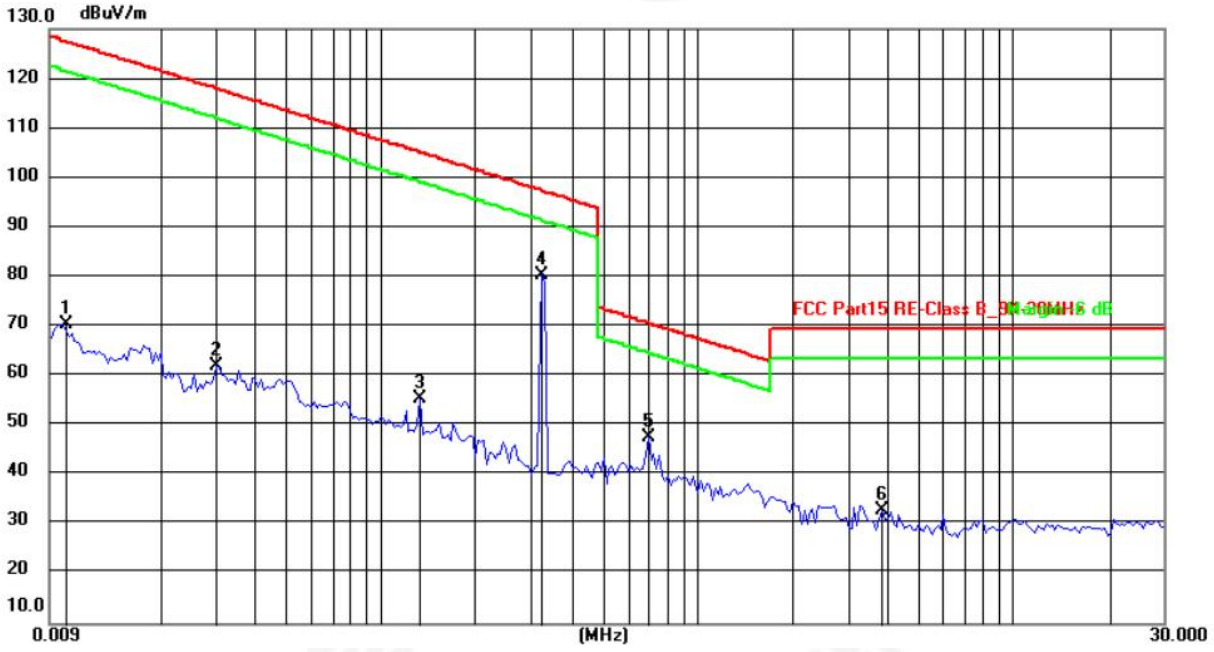
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	coaxial
Test Voltage:	DC 12V	Test Mode:	Mode 7



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0100	54.31	20.55	74.86	127.60	-52.74	peak
2	0.0420	48.83	19.94	68.77	115.14	-46.37	peak
3	0.1190	70.36	19.87	90.23	106.09	-15.86	peak
4	0.1570	40.67	20.06	60.73	103.69	-42.96	peak
5	0.7186	29.32	20.39	49.71	70.47	-20.76	peak
6	2.0219	23.48	19.80	43.28	69.54	-26.26	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.

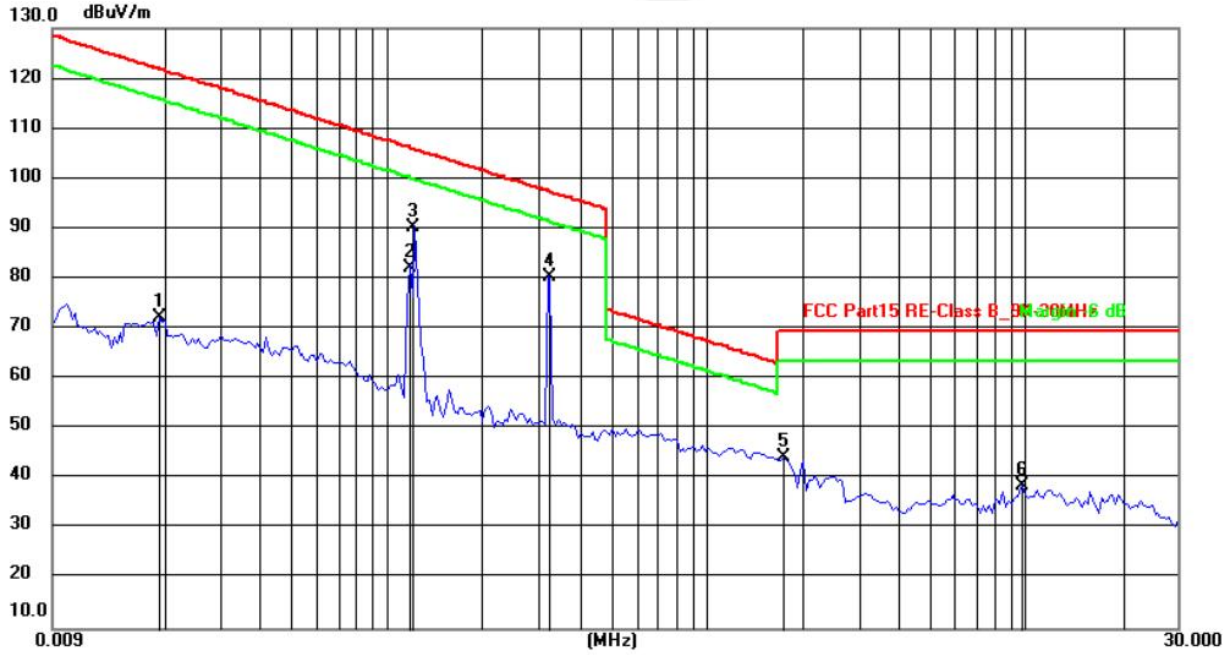
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	coaxial
Test Voltage:	DC 12V	Test Mode:	Mode 10



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0100	49.81	20.55	70.36	127.60	-57.24	peak
2	0.0303	41.81	20.21	62.02	117.98	-55.96	peak
3	0.1335	35.39	19.96	55.35	105.09	-49.74	peak
4	0.3240	60.22	20.13	80.35	97.39	-17.04	peak
5	0.7043	27.25	20.38	47.63	70.65	-23.02	peak
6	3.8689	13.33	19.58	32.91	69.54	-36.63	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.

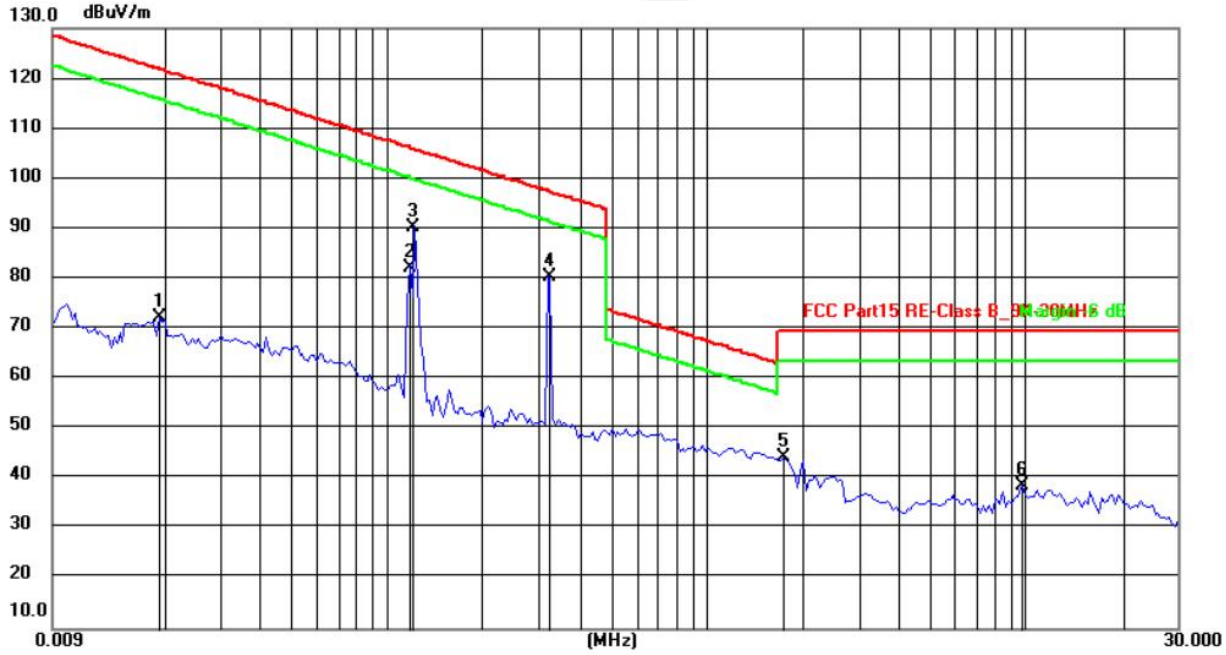
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	coaxial
Test Voltage:	DC 12V	Test Mode:	Mode 13



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0194	49.65	20.46	70.11	121.85	-51.74	peak
2	0.0524	44.85	19.76	64.61	113.22	-48.61	peak
3	0.1172	62.39	19.86	82.25	106.23	-23.98	peak
4	0.1195	76.85	19.88	96.73	106.06	-9.33	peak
5	0.3240	60.22	20.13	80.35	97.39	-17.04	peak
6	2.0219	22.98	19.80	42.78	69.54	-26.76	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℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	coaxial
Test Voltage:	DC 12V	Test Mode:	Mode 16

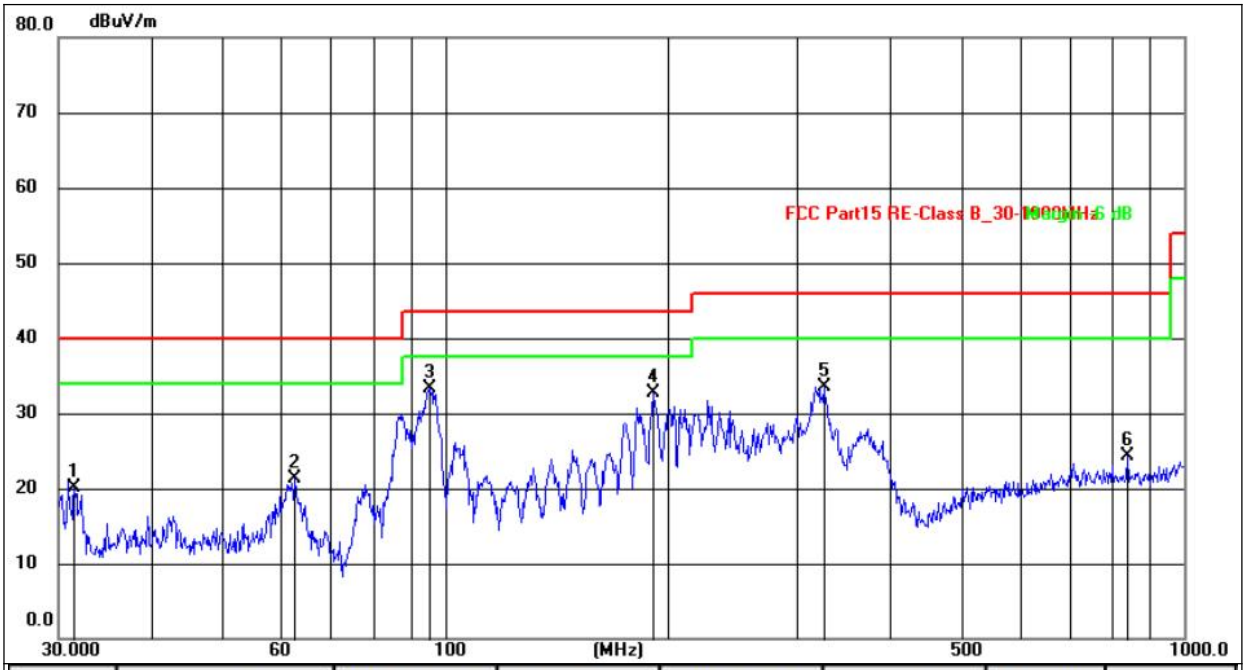


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0194	51.65	20.46	72.11	121.85	-49.74	peak
2	0.1172	62.40	19.86	82.26	106.23	-23.97	peak
3	0.1190	70.36	19.87	90.23	106.09	-15.86	peak
4	0.3240	60.24	20.13	80.37	97.39	-17.02	peak
5	1.7540	24.44	19.84	44.28	69.54	-25.26	peak
6	9.8338	19.49	19.02	38.51	69.54	-31.03	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.

30MHz-1GHz

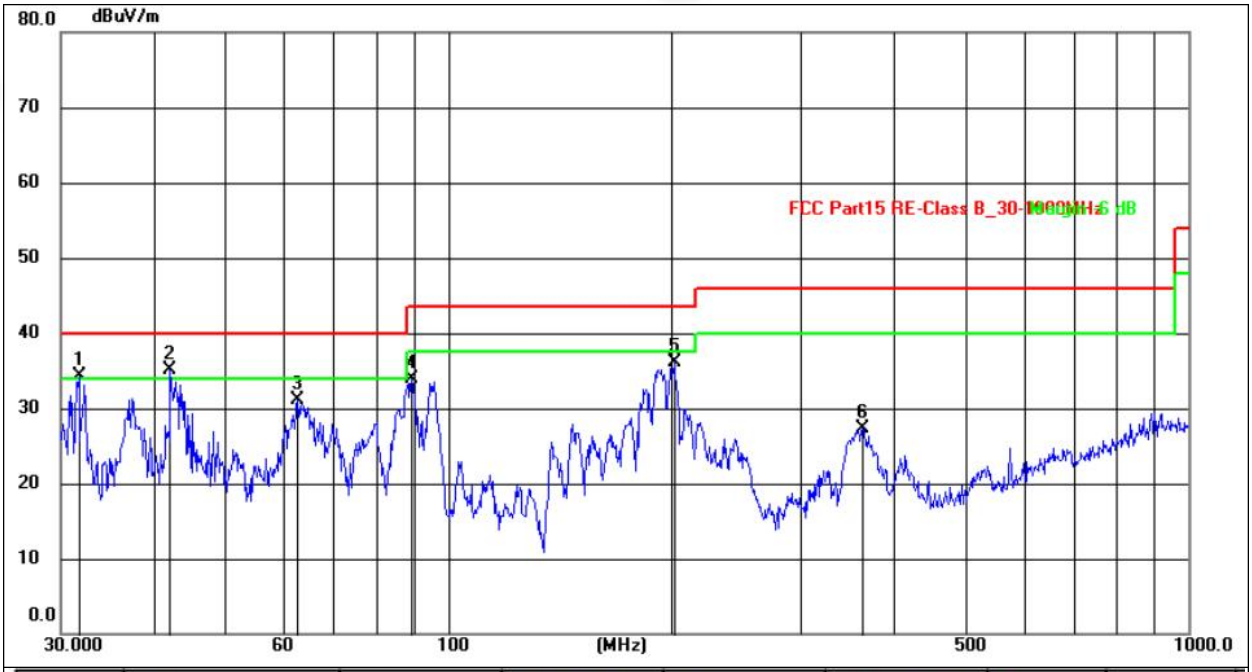
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	DC 12V	Test Mode:	Mode 16



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	31.5095	34.46	-14.35	20.11	40.00	-19.89	QP
2	62.6506	36.08	-14.83	21.25	40.00	-18.75	QP
3	95.4269	53.24	-19.87	33.37	43.50	-10.13	QP
4	191.0738	50.88	-18.09	32.79	43.50	-10.71	QP
5	325.5958	49.93	-16.42	33.51	46.00	-12.49	QP
6	839.1818	30.96	-6.67	24.29	46.00	-21.71	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 10 recorded.

Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Vertical
Test Voltage:	DC 12V	Test Mode:	Mode 16



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	31.7312	52.30	-18.04	34.26	40.00	-5.74	QP
2	42.1541	51.94	-16.85	35.09	40.00	-4.91	QP
3	62.6506	49.54	-18.48	31.06	40.00	-8.94	QP
4	89.2762	55.29	-21.40	33.89	43.50	-9.61	QP
5	202.1004	56.39	-20.37	36.02	43.50	-7.48	QP
6	362.9844	43.14	-15.77	27.37	46.00	-18.63	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 10 recorded.

6. 20DB BANDWIDTH TEST

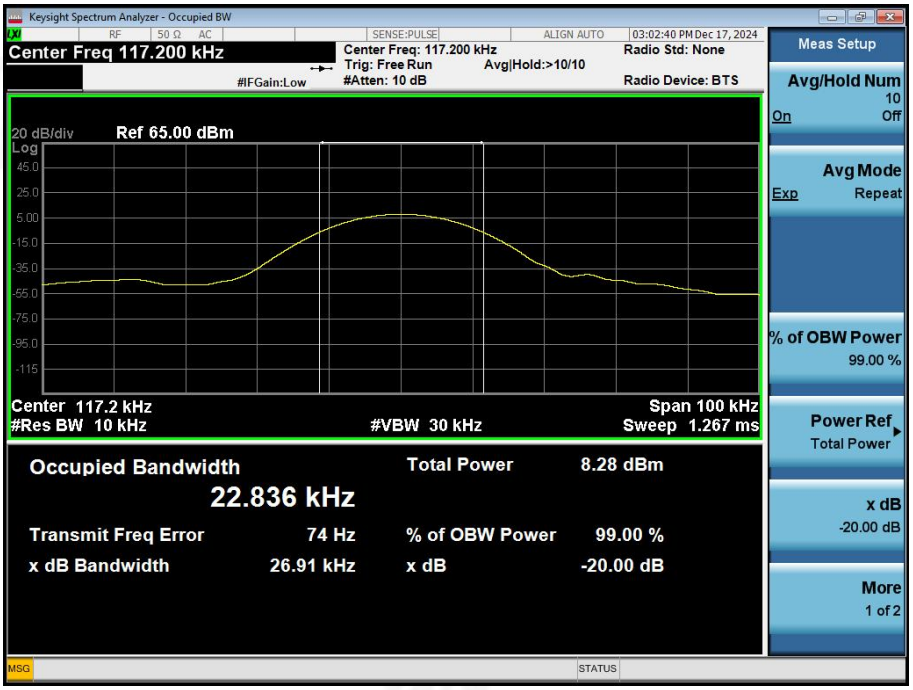
1. Se span = 1.5 ~ 5 times OBW.
2. Set RBW = 10KHz.
3. Set the video bandwidth (VBW) ≥ 3 x RBW.
4. Detector = peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the 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 ℃	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	DC 12V

Test Coil	Frequency (kHz)	20dB Bandwidth (kHz)	Result
ANT 1	117.2	26.91	Pass
ANT 2	119.5	26.92	Pass
ANT 4	119	27.43	Pass
ANT 3	324	27	Pass

ANT 1:

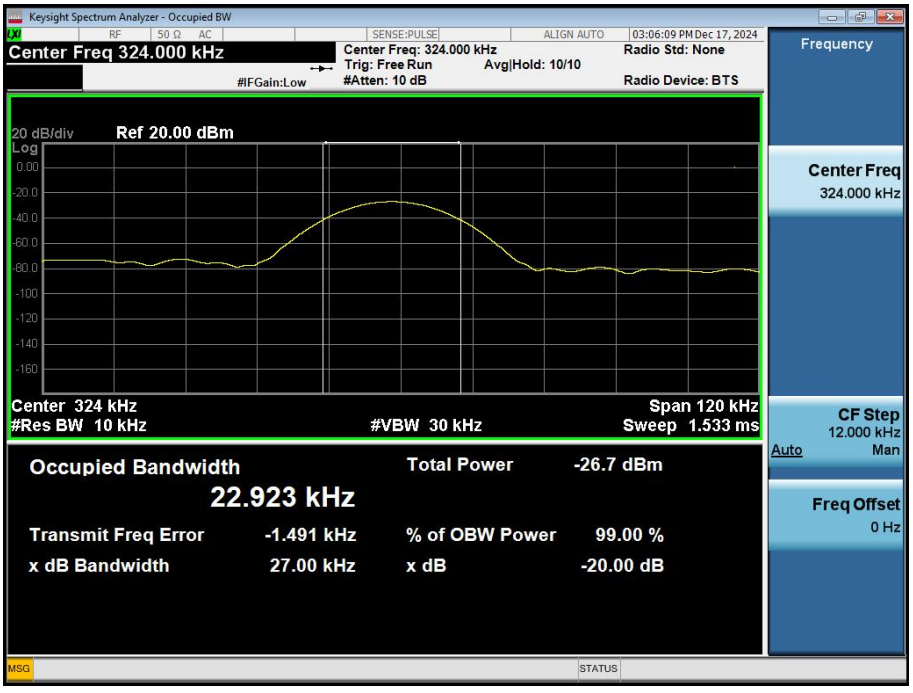


ANT 2:

ANT 3:


Keysight Spectrum Analyzer - Occupied BW
RF 50 Ω AC
SENSE:PULSE
ALIGN AUTO
02:14:38 PM Dec 17, 2024
Center Freq 119.000 kHz
Center Freq: 119.000 kHz
Trig: Free Run
Avg|Hold: 10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Ref 25.00 dBm
Log
15.0
5.00
-5.00
-15.0
-25.0
-35.0
-45.0
-55.0
-65.0
Center 119 kHz
#Res BW 10 kHz
#VBW 30 kHz
Span 100 kHz
Sweep 1.267 ms
Occupied Bandwidth
23.366 kHz
Total Power
-0.78 dBm
Transmit Freq Error
1.249 kHz
% of OBW Power
99.00 %
x dB Bandwidth
27.43 kHz
x dB
-20.00 dB
Center Freq
119.000 kHz
CF Step
10.000 kHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

ANT 4:


Keysight Spectrum Analyzer - Occupied BW
RF 50 Ω AC
SENSE:PULSE
ALIGN AUTO
03:06:09 PM Dec 17, 2024
Center Freq 324.000 kHz
Center Freq: 324.000 kHz
Trig: Free Run
Avg|Hold: 10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
Frequency
20 dB/div
Ref 20.00 dBm
Log
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
-160
Center 324 kHz
#Res BW 10 kHz
#VBW 30 kHz
Span 120 kHz
Sweep 1.533 ms
Occupied Bandwidth
22.923 kHz
Total Power
-26.7 dBm
Transmit Freq Error
-1.491 kHz
% of OBW Power
99.00 %
x dB Bandwidth
27.00 kHz
x dB
-20.00 dB
Center Freq
324.000 kHz
CF Step
12.000 kHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

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 ※※※※※