Radio Test Report

Report No.: STS2503194W03

Issued for

SE Factory B.V.

De Deimten 7, 9747 AV Groningen, Netherlands

Product Name:	Wireless Dockingstation
Brand Name:	EMDR Kit
Model Name:	80047
Series Model(s):	N/A
FCC ID:	2BOUW80047
Test Standards:	FCC Part 15 Subpart C

TEST REPORT

Applicant's Name	:	SE Factory B.V.
Address	:	De Deimten 7, 9747 AV Groningen, Netherlands
Manufacturer's Name	:	SE Factory B.V.
Address	:	De Deimten 7, 9747 AV Groningen, Netherlands

Product Description

Product Name	:	Wireless Dockingstation
Brand	:	EMDR Kit
Model Number	:	80047
Series Model(s)	:	N/A
Test Standards	:	FCC Part 15 Subpart C
Test Procedure	:	ANSI C63.10-2020

This device described above has been tested by STS, 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.
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

Date of Test .....:

Date of receipt of test item	:	27 Mar. 2025
Date (s) of performance of tests	:	27 Mar. 2025 ~23 July 2025
Date of Issue	:	23 July 2025
Test Result	:	**Pass**

Testing Engineer : Aaron Bu

(Aaron Bu)

Technical Manager : Skylar Li

(Skylar Li)

Authorized Signatory : Bovey Yang

(Bovey Yang)

SHENZHEN STS TEST SERVICES CO.,LTD. TESTING APPROVAL

Table of Contents Page

Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	23 July 2025	STS2503194W03	ALL	Initial Issue

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 , Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.209(a)	Radiated emission, Spurious Emission	PASS	
2.1049	20 dB Bandwidth	PASS	

1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD
Add. : 101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China
FCC test Firm Registration Number: 625569
IC test Firm Registration Number: 12108A
A2LA Certificate No.: 4338.01

1.2 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	RF output power, conducted	±0.755dB
2	Unwanted Emissions, conducted	±2.874dB
3	All emissions, radiated 9K-30MHz	±3.80dB
4	All emissions, radiated 30M-1GHz	±4.18dB
5	All emissions, radiated 1G-6GHz	±4.90dB
6	All emissions, radiated>6G	±5.24dB
7	Conducted Emission (9KHz-150KHz)	±2.19dB
8	Conducted Emission (150KHz-30MHz)	±2.53dB
9	Occupied Channel Bandwidth	±3.5%
10	Power Spectral Density, conducted	±1.245dB
11	Duty Cycle	±3.2%

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Wireless Dockingstation
Brand	EMDR Kit
Model Number	80047
Series Model(s)	N/A
Model Difference	N/A
Channel List	Please refer to the Note 2.
Antenna Type	Please refer to the Note 3.
Equipemnt Category	Non-ISM frequency
Operating frequency	110.5kHz-205kHz
Modulation Type	ASK
Power Rating	Output: 10V, 380mA (AC)
Adapter	Input: 100-240V, 50/60Hz, 0,4A (AC) Output: 12V, 1A, 12W (DC)
Battery	N/A
Wireless charging power	7.6W
Hardware version number	V3.1.1
Software version number	V1.4.10
Connecting I/O Port(s)	Please refer to the Note 1.

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
2. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	NOTE
1	EMDR Kit	80047	Coil	N/A	Antenna

2.2 DESCRIPTION OF THE TEST MODES

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.

Pretest Mode	Description
Mode 1	Charging+TX Mode

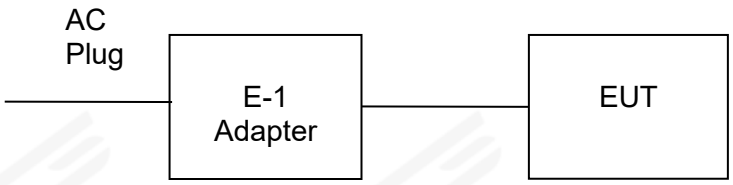
For Conducted Emission	
Final Test Mode	Description
Mode 1	Charging+TX Mode

For Radiated Emission	
Final Test Mode	Description
Mode 1	Charging+TX Mode

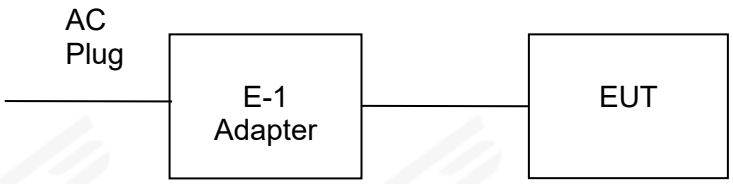
2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

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

Radiated Emission Test



Conducted EmissionTest



2.4 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

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.	Note
E-1	Adapter	EMDR Kit	MKB2-1201000HEUD	N/A

Item	Shielded Type	Ferrite Core	Length	Note
N/A	N/A	N/A	N/A	N/A

Note:

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

(2) “YES” is means “with core”; “NO” is means “without core”.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2024.09.24	2025.09.23
Signal Analyzer	R&S	FSV 40-N	101823	2024.09.23	2025.09.22
Active loop Antenna	ZHINAN	ZN30900C	16035	2025.02.25	2026.02.24
Bilog Antenna	TESEQ	CBL6111D	34678	2024.09.30	2025.09.29
Pre-Amplifier(0.1M-3GHz)	EM	EM330	060665	2025.02.22	2026.02.21
Temperature & Humidity	SW-108	SuWei	N/A	2025.02.24	2026.02.23

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2024.09.24	2025.09.23
Limtter	CYBERTEK	EM5010	N/A	2024.09.24	2025.09.23
LISN	R&S	ENV216	101242	2024.09.24	2025.09.23
LISN	EMCO	3810/2NM	23625	2024.09.24	2025.09.23
Temperature & Humidity	SW-108	SuWei	N/A	2025.02.24	2026.02.23

3. CONDUCTED EMISSION TEST RESULT (SECTION 15.207)

3.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

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

Note:

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

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

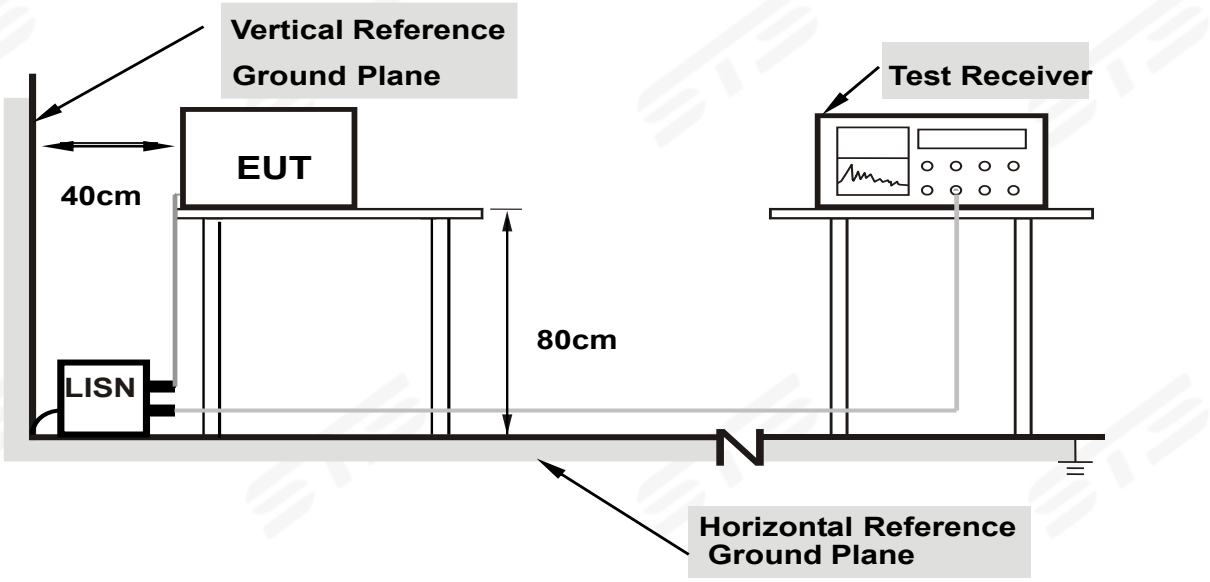
The following table is the setting of the receiver

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

3.2 TEST PROCEDURE

a. The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 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 is at least 80 cm from the nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.3 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 support units.

3.4 EUT OPERATING CONDITIONS

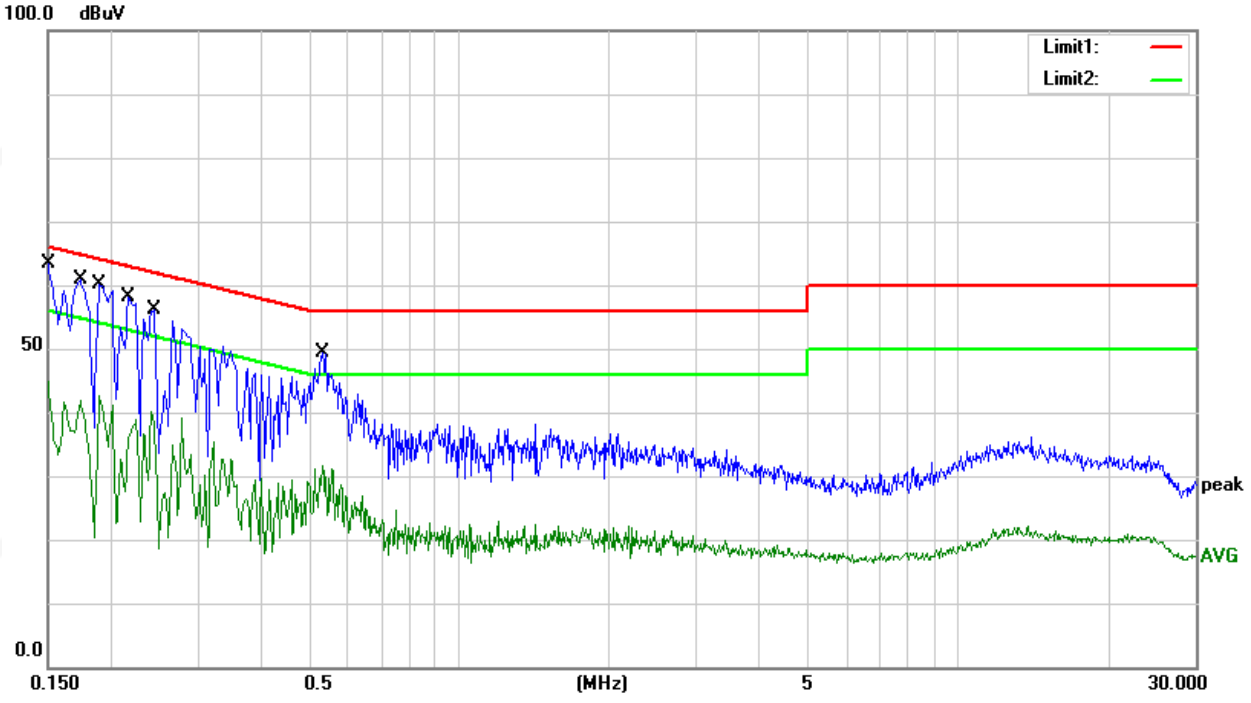
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.5 TEST RESULTS

Temperature:	25.1℃	Relative Humidity:	59%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 1		

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1500	37.72	19.78	57.50	66.00	-8.50	QP
2	0.1500	25.19	19.78	44.97	56.00	-11.03	AVG
3	0.1740	41.04	19.78	60.82	64.77	-3.95	QP
4	0.1740	22.05	19.78	41.83	54.77	-12.94	AVG
5	0.1900	40.28	19.77	60.05	64.04	-3.99	QP
6	0.1900	22.79	19.77	42.56	54.04	-11.48	AVG
7	0.2180	38.29	19.85	58.14	62.89	-4.75	QP
8	0.2180	19.04	19.85	38.89	52.89	-14.00	AVG
9	0.2460	36.20	19.98	56.18	61.89	-5.71	QP
10	0.2460	20.12	19.98	40.10	51.89	-11.79	AVG
11	0.5340	29.32	19.98	49.30	56.00	-6.70	QP
12	0.5340	11.53	19.98	31.51	46.00	-14.49	AVG

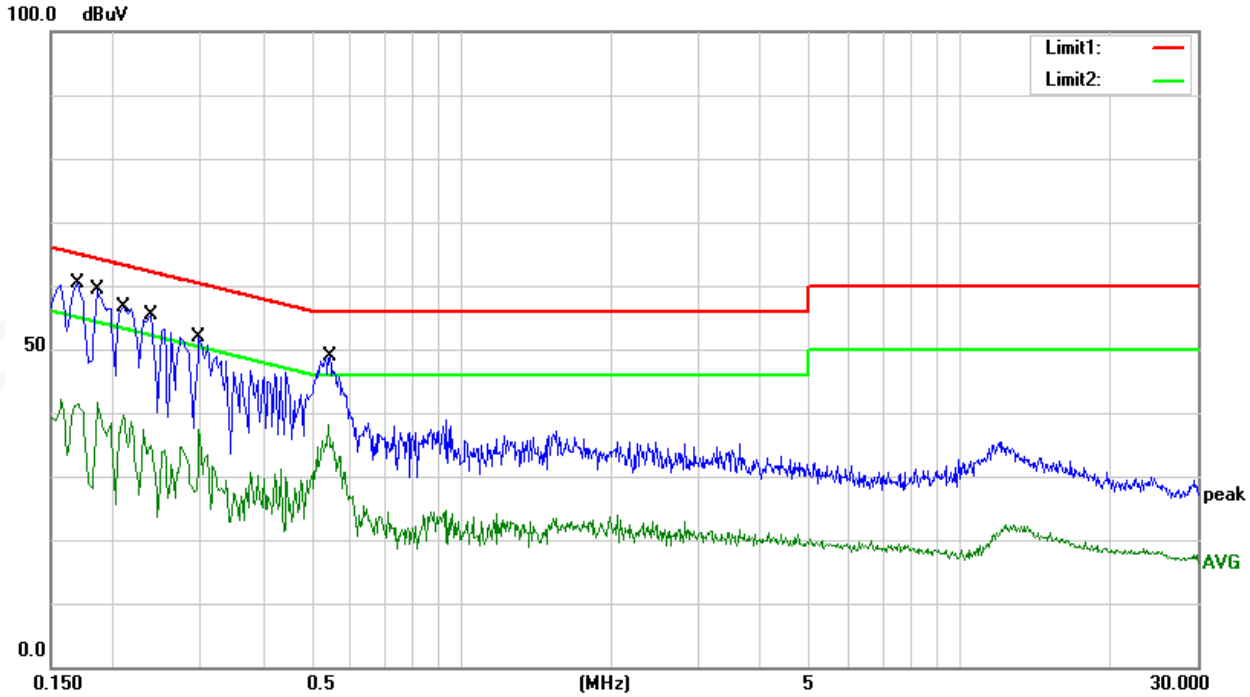
Remark:
1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result =Reading + Factor)–Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)



Temperature:	25.1℃	Relative Humidity:	59%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 1		

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1700	40.55	19.79	60.34	64.96	-4.62	QP
2	0.1700	22.22	19.79	42.01	54.96	-12.95	AVG
3	0.1860	39.54	19.83	59.37	64.21	-4.84	QP
4	0.1860	21.76	19.83	41.59	54.21	-12.62	AVG
5	0.2100	36.74	19.90	56.64	63.21	-6.57	QP
6	0.2100	19.81	19.90	39.71	53.21	-13.50	AVG
7	0.2380	35.25	20.01	55.26	62.17	-6.91	QP
8	0.2380	17.30	20.01	37.31	52.17	-14.86	AVG
9	0.2980	31.58	20.25	51.83	60.30	-8.47	QP
10	0.2980	17.18	20.25	37.43	50.30	-12.87	AVG
11	0.5460	29.00	19.93	48.93	56.00	-7.07	QP
12	0.5460	18.18	19.93	38.11	46.00	-7.89	AVG

Remark:
1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result =Reading + Factor)–Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)



4. RADIATED& FIELD EMISSION TEST RESULT (SECTIOU 15.209)

4.1 LIMIT

Frequency [MHz]	Field Strength [uV/m]	Measurement Distance [Meters]
0.009 ~ 0.490	2400/F (kHz)	300
0.490 ~ 1.705	24000/F (kHz)	30
1.705 ~ 30	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Note:

(1) The limit for radiated test was performed according to FCC PART 15C.

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

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

§ 15.209(d)The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

4.2 TEST PROCEDURE

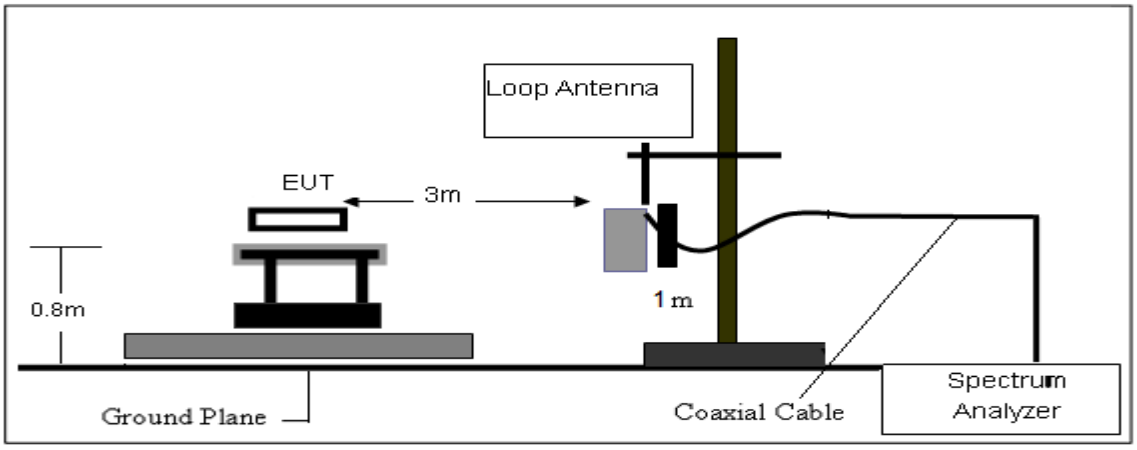
a. The measuring distance of at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz.
b. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
d. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

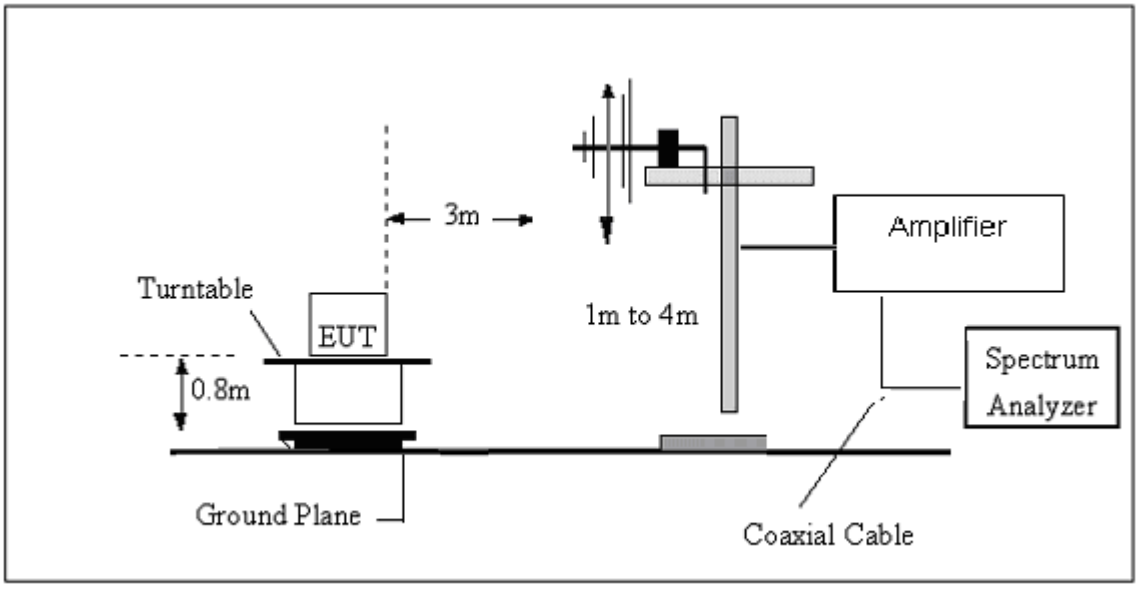
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

4.3 TEST SETUP

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



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

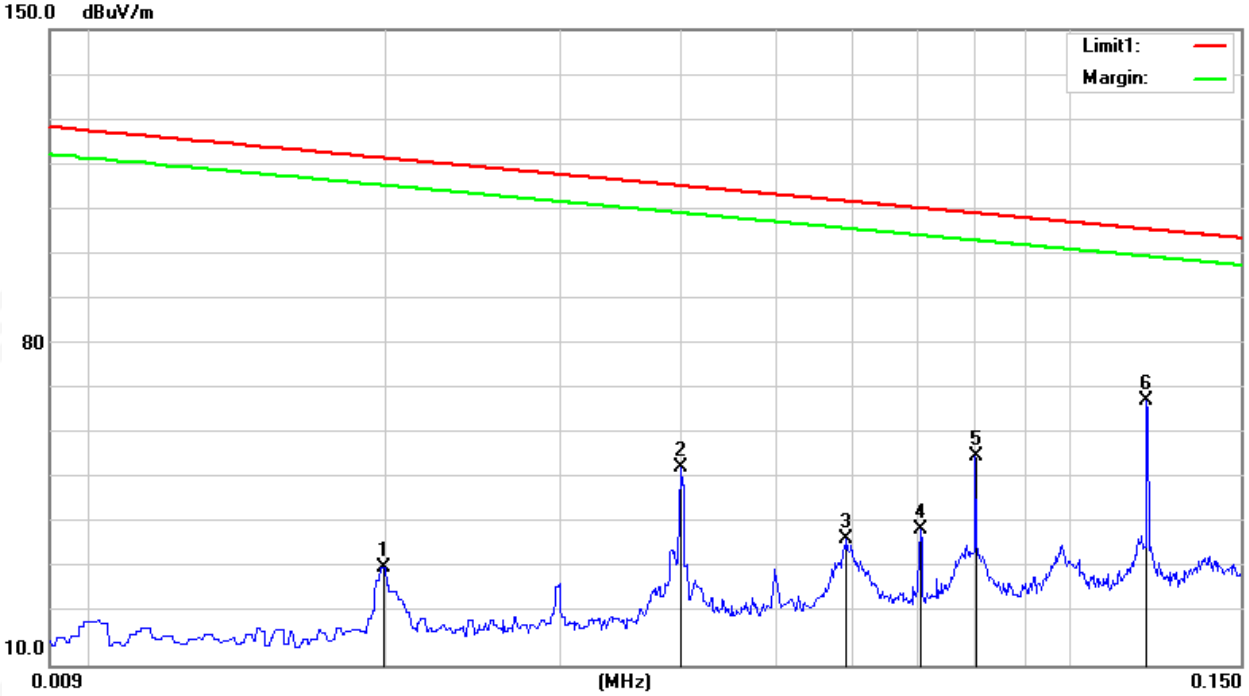


4.4 TEST RESULTS

Temperature :	23.4℃	Relative Humidity :	60%
Test Voltage :	AC 120V/60Hz	Test Mode :	TX Mode

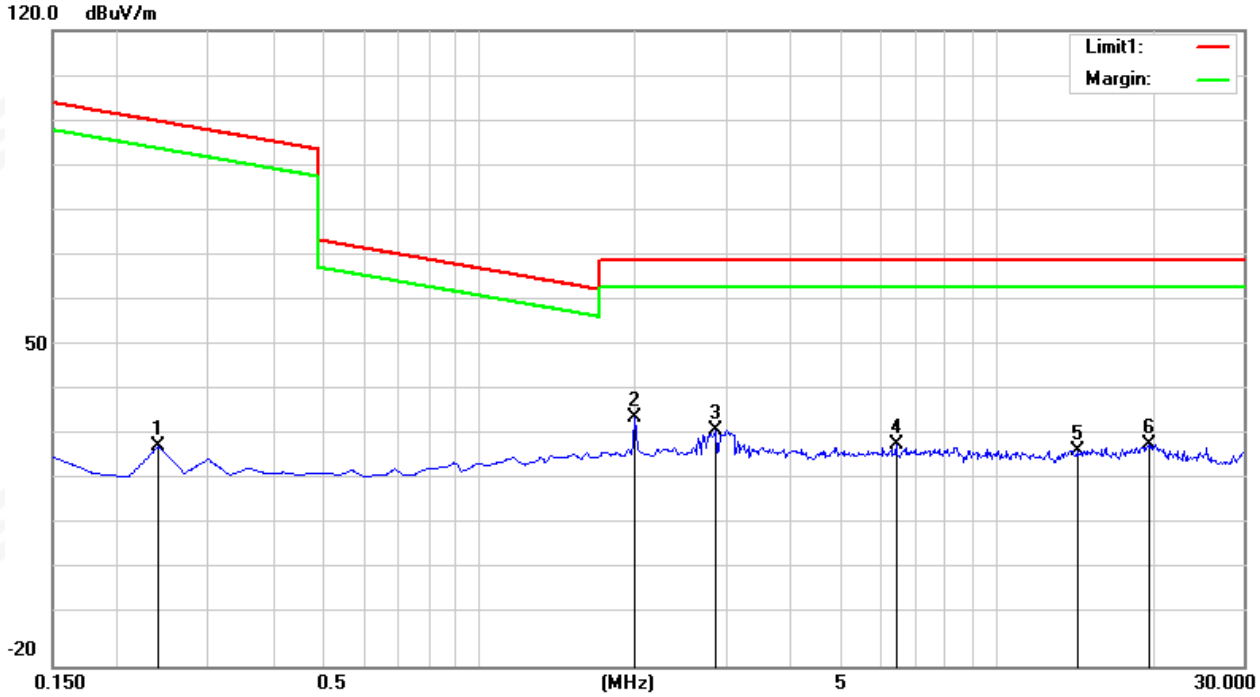
4.4.1 Spurious Radiated Emission Below 30 MHz

9KHz-150KHz



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0198	11.45	20.09	31.54	121.67	-90.13	AVG
2	0.0400	33.97	19.70	53.67	115.56	-61.89	AVG
3	0.0591	18.62	19.25	37.87	112.17	-74.30	AVG
4	0.0704	21.02	18.93	39.95	110.65	-70.70	AVG
5	0.0802	37.64	18.55	56.19	109.52	-53.33	AVG
6	0.1202	50.65	17.56	68.21	106.01	-37.80	peak

150KHz-30MHz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.2396	8.62	19.83	28.45	100.01	-71.56	AVG
2	2.0007	14.44	20.40	34.84	69.50	-34.66	QP
3	2.8664	11.99	20.14	32.13	69.50	-37.37	QP
4	6.3887	8.35	20.42	28.77	69.50	-40.73	QP
5	14.3287	6.41	21.15	27.56	69.50	-41.94	QP
6	19.7018	6.39	22.43	28.82	69.50	-40.68	QP

4.4.2 Spurious Radiated Emission below 1 GHz

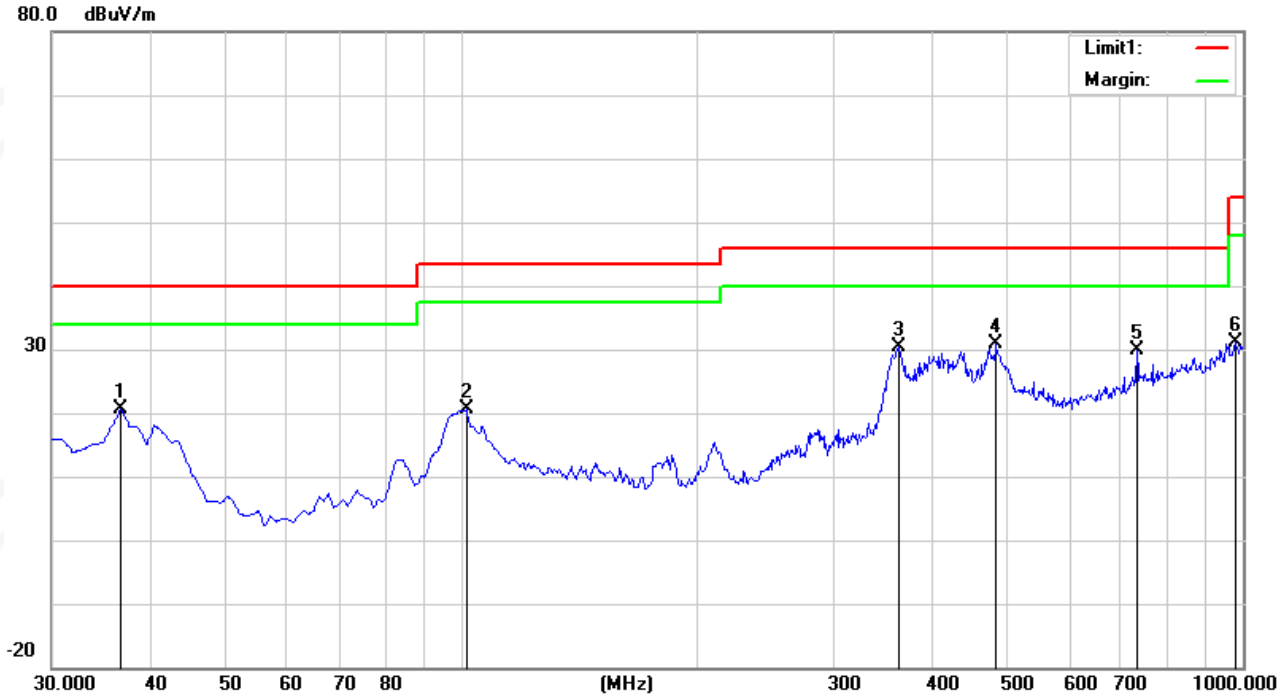
Temperature :	23.4℃	Relative Humidity :	60%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 1

The following table shows the highest levels of radiated emissions on polarizations of horizontal

Frequency	Reading	Correct	Result	Limit	Margin	Remark
(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
36.7900	37.01	-16.39	20.62	40.00	-19.38	peak
101.7800	40.59	-19.94	20.65	43.50	-22.85	peak
363.6800	43.03	-12.73	30.30	46.00	-15.70	peak
484.9300	39.42	-8.44	30.98	46.00	-15.02	peak
733.2500	32.19	-2.35	29.84	46.00	-16.16	peak
981.5700	28.60	2.57	31.17	54.00	-22.83	peak

Remark:

1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



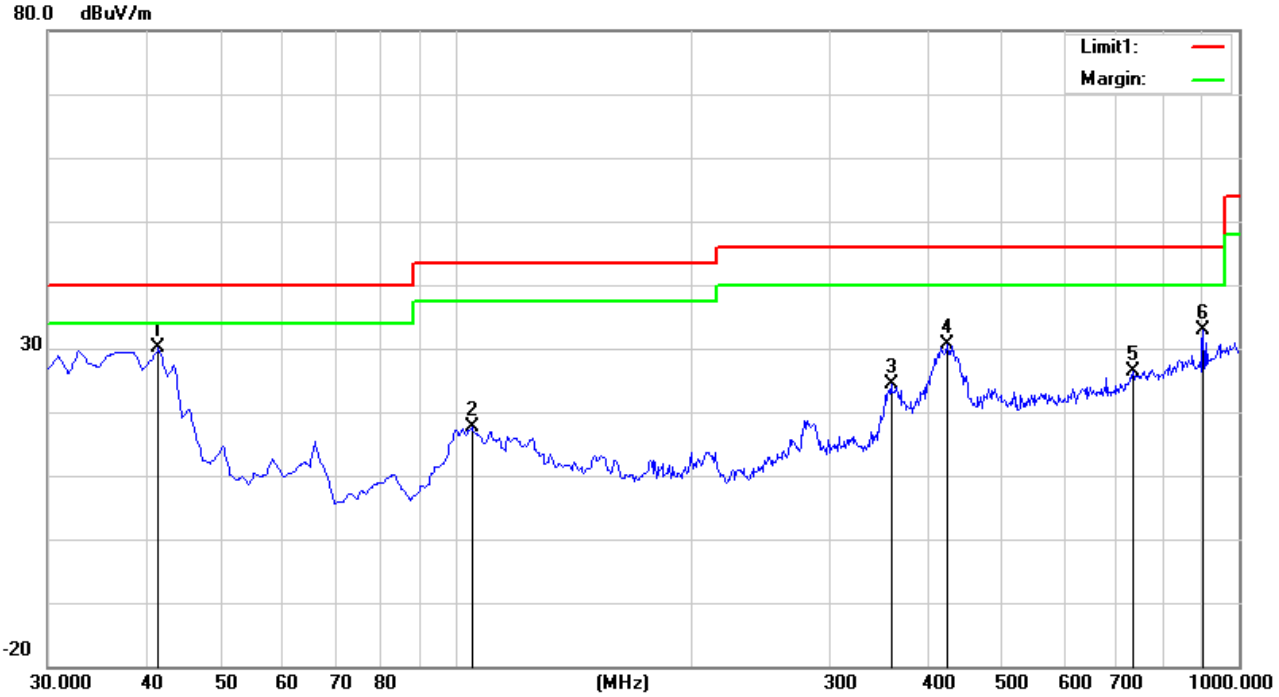
Temperature :	23.4 ℃	Relative Humidity :	60%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 1

The following table shows the highest levels of radiated emissions on polarizations of vertical

Frequency	Reading	Correct	Result	Limit	Margin	Remark
(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
41.6400	48.96	-18.93	30.03	40.00	-9.97	peak
104.6900	37.20	-19.63	17.57	43.50	-25.93	peak
359.8000	37.25	-12.87	24.38	46.00	-21.62	peak
424.7900	40.86	-10.12	30.74	46.00	-15.26	peak
733.2500	28.65	-2.35	26.30	46.00	-19.70	peak
901.0600	33.32	-0.43	32.89	46.00	-13.11	peak

Remark:

1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



5. 20 DB BANDWIDTH TEST

5.1 Limit

FCC Part 2.1049, Only applicable to report.

5.2 TEST SETUP

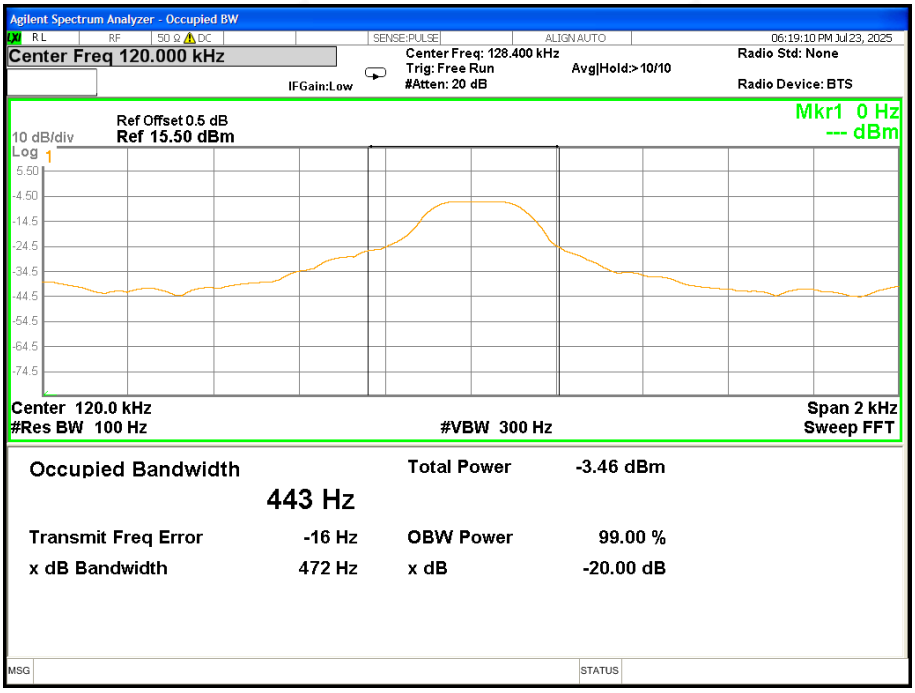
Spectrum Parameter	Setting
Span Frequency	approximately 2 to 3 times the 20 dB bandwidth
RB	greater than 1 % of the 20 dB bandwidth,
VB	equal to the RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

The test program and configuration,Refer to 4.2 and 4.3

5.3 TEST RESULTS

Operating Frequency (kHz)	20 dB Bandwhidth (Hz)
120	472

CH00



APPENDIX-PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

※※※※※END OF THE REPORT※※※※※