FCC TEST REPORT

Report No.:	AB26010245FW01
FCC ID.:	**2BUI6-VBM01R**
Applicant.:	Shenzhen Felix Technology Co.,Ltd
Address.:	Room1010, BuildingB1, ZoneB, PhaseI, BaoNeng Science Park, No. 1, GangtouCommunity, Bantian Street, Longgang
Manufacturer.:	Shenzhen Felix Technology Co.,Ltd
Address.:	Room1010, BuildingB1, ZoneB, PhaseI, BaoNeng Science Park, No. 1, GangtouCommunity, Bantian Street, Longgang
Product Name.:	Video Baby Monitor
Trade Mark.:	/
Test Model.:	VBM01
Additional Model(s).:	VBM02, VBM03
Standard.:	FCC 47 CFR Part 15 Sub part C (Part 15.249)
Date of Receipt.:	2026.01.22
Date of Test Date.:	2026.01.22-2026.02.05
Date of Issue.:	2026.02.05
Test Result.:	Pass

Compiled by: (Printed Name + Signature)	Huaijie Li	Huaijie Li
Supervised by: (Printed Name + Signature)	David Huang	David Huang
Approved by: (Printed Name + Signature)	Jay Liu	Jay Liu

Testing Laboratory Name.:	Aibo Standard Technology (Shenzhen) Co., Ltd.
Address.:	101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, China

FCC TEST REPORT

EUT.....	: Video Baby Monitor
Test Model.....	: VBM01
Applicant.....	**: Shenzhen Felix Technology Co.,Ltd**
Address.....	: Room1010, BuildingB1, ZoneB, PhaseI, BaoNeng Science Park, No. 1, GangtouCommunity, Bantian Street, Longgang
Manufacturer.....	**: Shenzhen Felix Technology Co.,Ltd**
Address.....	: Room1010, BuildingB1, ZoneB, PhaseI, BaoNeng Science Park, No. 1, GangtouCommunity, Bantian Street, Longgang

Test Result	**Positive**

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.

REPORT VERSION

Version No.	Issue Date	Description
01	2026.02.05	Initial Issue

TABLE OF CONTENTS

1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF EUT

Product Name:	Video Baby Monitor
Trade Mark:	/
Test Model:	VBM01
Additional Model(s):	VBM02, VBM03
Model Difference:	All models are the same circuit and RF module, except the model name
Hardware Version:	V01
Software Version:	/
Power Supply:	5V/1A
Battery	3.7V/3500mAh
Test Sample(s) Number:	AB26010245-01 (Engineer Sample)
Radio Specification Subject to this Report	
Frequency Range:	2410-2472MHz
Modulation Type:	GFSK
Channel Spacing:	2MHz
Channel Number(s):	32
Antenna Type:	Built-in copper tube Antenna
Antenna Gain:	2.88dBi(Max.)

NOTE:

1. The EUT was powered by the following adapter:

Adapter	
Manufacturer:	SHEN ZHEN PUSHIDA ELECTRONIC TECHNOLOGY CO.LTD
MODEL:	PSD15-5W-0501000US
INPUT:	100~240V 50/60Hz 0.15A Max
OUTPUT:	DC 5V 1000mA

1.2. DESCRIPTION OF SUPPORT EQUIPMENT

Manufacturer	Description	Model	Serial Number	Supplied by
Lenovo	Notebook	B470	WB05067151	Applicant

1.3. DESCRIPTION OF EXTERNAL I/O

I/O Port Description	Quantity	Cable
/	/	/

1.4. GENERAL DESCRIPTION OF APPLIED STANDARDS

The tests were performed according to following standards:

FCC Rules Part 15.249 - Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz and 24.0-24.25 GHz.

IEEE/ANSI/USEMCSC C63.10-2020 - American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

1.5. DESCRIPTION OF TEST FACILITY

Test Lab: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address: 101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, China

Tel.: +(86) 0755 85250797

E-mail: aibo@aibonorm.com

Website: www.Aibonorm.com

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

A2LA-Lab Certificate No.: 7514.01

Aibo Standard Technology (Shenzhen) Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the

identified field of testing.

FCC Accredited Lab.

Designation Number: CN1411

Test Firm Registration Number: 567066

ISED Wireless Device Testing Laboratories

Company Number: 33924

CAB identifier: CN0185

1.6. MEASUREMENT UNCERTAINTY

The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Items	Measurement Uncertainty
Power Line Conducted Emission (9kHz~ 150kHz)	±3.62dB
Power Line Conducted Emission (150kHz~30MHz)	±3.38dB
Radiated Emission (9kHz~30MHz)	±3.10dB
Radiated Emission (30MHz~ 1GHz)	±4.90dB
Radiated Emission (1GHz~ 18GHz)	±3.88dB
Radiated Emission (8GHz~40GHz)	±5.32dB
RF Conducted Power	±0.57dB
Conducted Spurious Emissions	±1.60dB
RF Frequency	±6.0 x 10-7
Occupied Channel Bandwidth	±28.87KHz

Note: All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95 % level of confidence.

1.7. ENVIRONMENTAL CONDITIONS

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

Normal Temperature:	+15°C ~ +35°C
Lative Humidity	20 % ~ 75 %
Air Pressure	98KPa ~ 101KPa

1.8. DESCRIPTION OF TEST MODES

The EUT was tested under the following mode.

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE<1G	RE≥1G	PLC	BW	
A	√	√	√	√	DC 3.7V from Battery or USB Port

Where **RE<1G:** Radiated Emission below 1GHz **PLC:** Power Line Conducted Emission **RE≥1G:** Radiated Emission above 1GHz **BW:** 20db bandwidth

Following channel(s) was (were) selected for the test as listed below.

TESTED CHANNEL	TESTED FREQUENCY
Low	2410 MHz
Middle	2440 MHz
High	2472 MHz

Channel List

Channel	Freq. (MHz)
1	2410
2	2412
3	2414
4	2416
5	2418
6	2420
7	2422
8	2424
9	2426
10	2428
11	2430
12	2432
13	2434
14	2436
15	2438
16	2440
17	2442
18	2444
19	2446
20	2448
21	2450
22	2452
23	2454
24	2456
25	2458
26	2460
27	2462
28	2464
29	2466
30	2468
31	2470
32	2472

Note: The more detailed channel, please refer to the product specifications

Power setting during the test:

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.

Frequency	2410MHz	2440MHz	2472MHz
RF Power Parameter(s)	Default	Default	Default

2. SUMMARY OF TEST RESULT

FCC 47 CFR Part 15 Subpart C (SECTION 15.249)&RSS-210 Test Cases			
FCC&IC Rule	**Description of Test Item(s)**	**Result**	**REMARK**
Part 15.203	Antenna Requirement	Pass	No antenna connector is used
Part 15.207(a) RSS-Gen 8.8	Conducted Emission	Pass	Compliant
Part 15.205 RSS-Gen 8.10 Table 7	Restricted Band of Operation	Pass	Compliant
Part 15.209,Part 15.249(a) RSS-210B10 (a),B10 (b)	Radiated Emission	Pass	Compliant
Part 15.215(c) RSS-Gen 6.7	20dB Bandwidth Test&Occupied Bandwidth Measurement	Pass	Compliant

3. MEASUREMENT INSTRUMENTS LIST

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
1	EMI Test Receiver	R&S	ESCI	101196	01/18/2026	01/17/2027
2	Loop Antenna	Schwarzbeck	FMZB 1519	1519-025	02/19/2025	02/18/2026
3	Power Amplifier	HZEMC	HPA-9K0133	HYPA23029	02/19/2025	02/18/2026
4	Broadband Antenna	Schwarzbeck	VULB 9168	01763	02/19/2025	02/18/2026
5	Attenuator	PRM	ATT50-6-3	ATT50-6-3	01/18/2026	01/17/2027
6	Spectrum Analyzer	R&S	FSV40-N	101365	01/18/2026	01/17/2027
7	Horn Antenna	Schwarzbeck	BBHA 9120 D	02786	02/19/2025	02/18/2026
8	Horn Antenna	Schwarzbeck	ZLB7-18-40G-777	072410839	02/19/2025	02/18/2026
9	Power Amplifier	HZEMC	PA0118-43	HYPA23030	02/19/2025	02/18/2026
10	Power Amplifier	HZEMC	PA01840-45	HYPA23031	02/19/2025	02/18/2026
11	Spectrum Analyzer	R&S	FSV40-N	101365	01/18/2026	01/17/2027
12	MXG Vector Signal Generator	Agilent	N5182A	MY47070153	01/18/2026	01/17/2027
13	MXA Signal Analyzer	Keysight	N9020A	MY52091389	01/18/2026	01/17/2027
14	RF Automatic Test System (Included Power Sensor)	MWRFtest	MW100-RFCB	MW220802AB-44	01/18/2026	01/17/2027
15	WIDEBAND RADIO COMMUNICATION TESTER	R&S	CMW500	118780	01/18/2026	01/17/2027
16	DC POWER SUPPLY	MAISHENG	MT-305DS	2021040016	02/28/2025	02/27/2026
17	Const Temp. & Humidity Chamber	GRT	GR-HWX-150L	GR25010601	01/18/2026	01/17/2027
18	EMI Test Receiver	R&S	ESCI	101196	01/18/2026	01/17/2027
19	LISN	R&S	ENV216	102374	01/18/2026	01/17/2027
20	Pulse Limiter	Schwarzbeck	ESH3-Z2	0357.8810.54	01/18/2026	01/17/2027
21	ISN CAT6	Schwarzbeck	NTFM	#246	01/18/2026	01/17/2027

Test Software		
Software name	Model	Version
Conducted Emission Measurement Software	FASLAB	V4.1
Radiated Emission Measurement Software	FASLAB	V4.1
Bluetooth and WIFI Test System	MTS 8310	V3.0.0.0

4. RADIATED EMISSIONS MEASUREMENT

4.1. LIMIT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in FCC 15.209 and IC RSS-210 as following:

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

According to § 15.249(a) and IC RSS-210, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency	Field strength of fundamental (milli-volts/meter)	Field strength of harmonics (micro-volts/meter)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

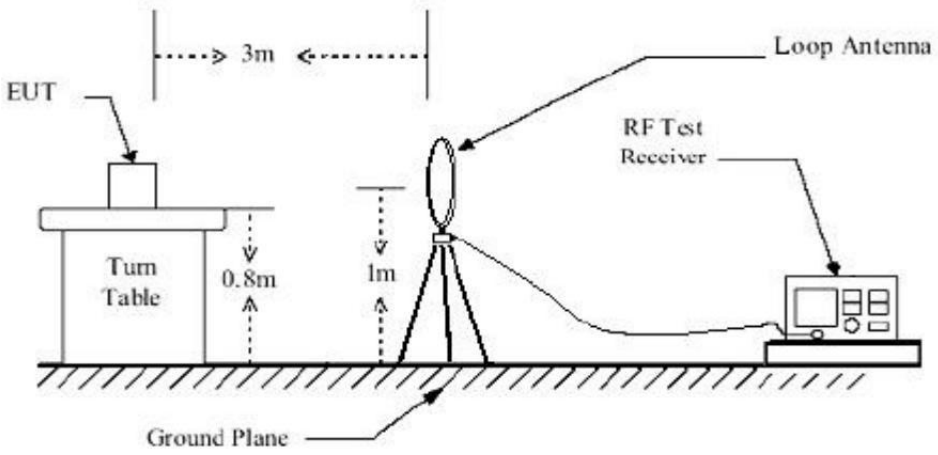
The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in § 15.35 for limiting peak emissions apply.

NOTE:

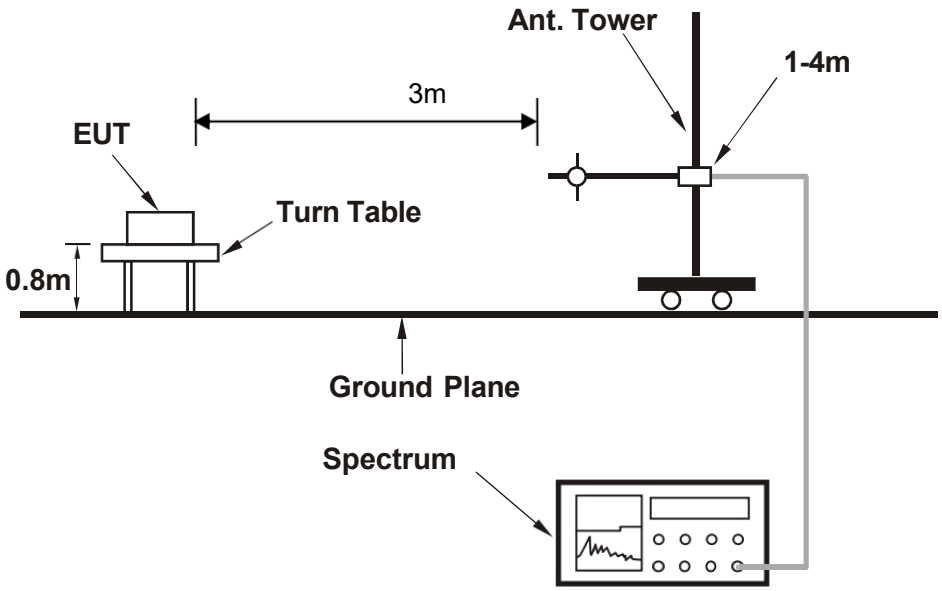
1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.2. TEST SETUP

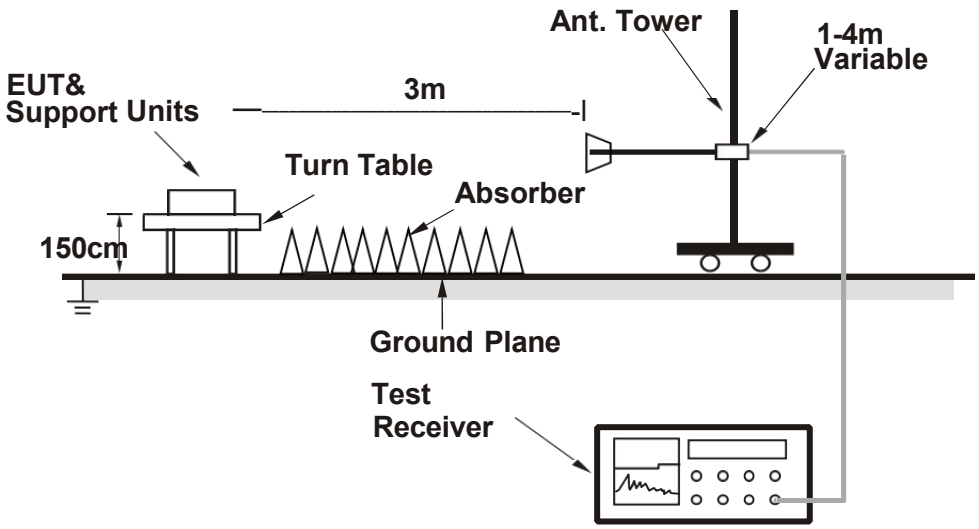
Below 30MHz test setup



Below 1GHz test setup



Above 1GHz test setup



Note: For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.3. TEST PROCEDURE

a. The EUT was placed on the top of a rotating table 1.5 meters (above 1GHz) and 0.8 meters (below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to

heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.

g. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

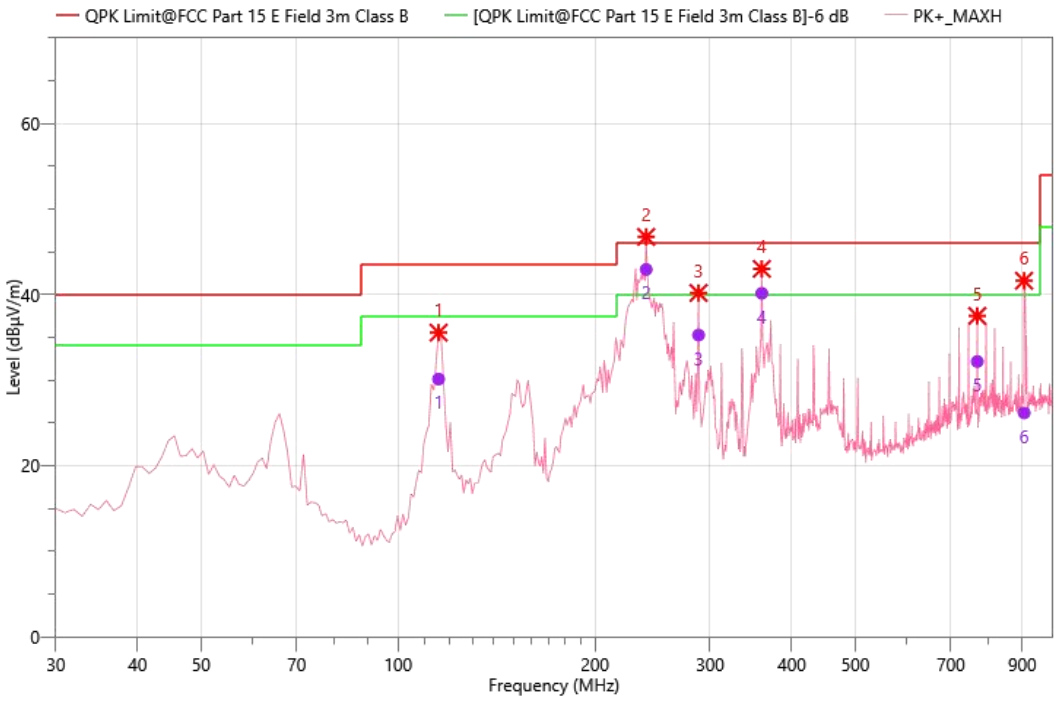
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.
5. The testing of the EUT was performed on all 3 orthogonal axes; the worst-case test configuration was reported on the file test setup photo.

4.4. TEST RESULT

BELOW 1GHz

Radiated Spurious Emissions 9kHz~1GHz, the worst case lowest channel in the Radiated Spurious Emissions above 1GHz was tested.

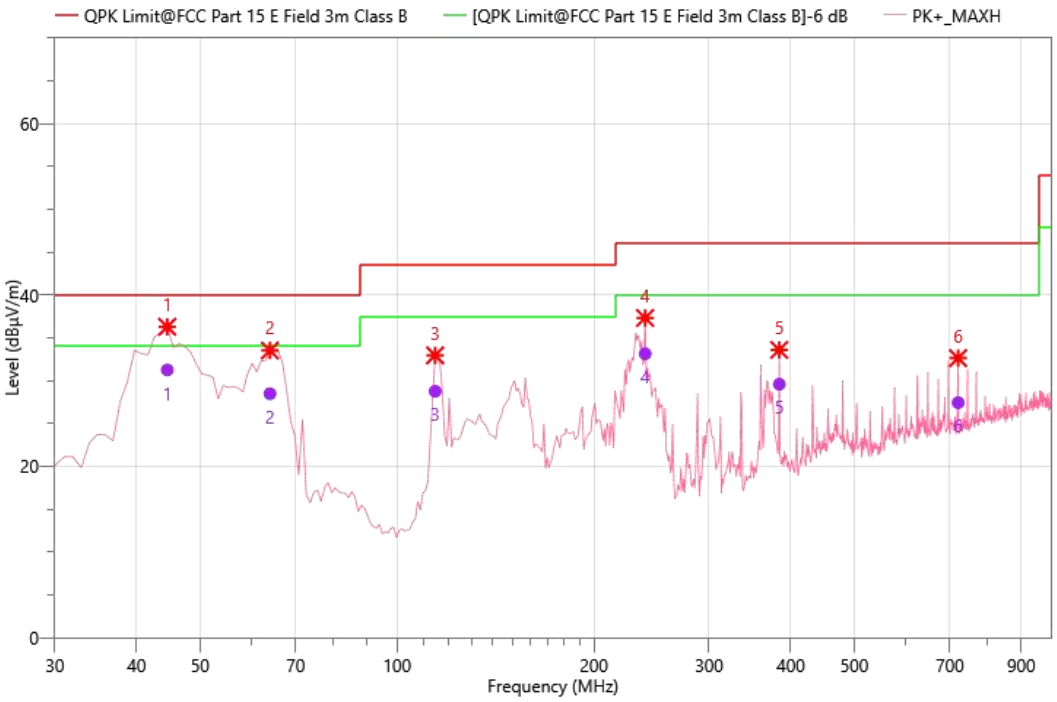
Radiated Emission Test Data (30MHz to 1GHz)			
Environmental Conditions	24.6℃ , 53.4% RH	Test Engineer	He Chen
Worst Test Mode:	TX Lowest Channel	Polarity:	Horizontal



No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	115.360	44.71	-14.58	30.13	43.50	13.37	QPK	H	PASS
2	239.520	57.11	-14.16	42.95	46.00	3.05	QPK	H	PASS
3	288.020	47.79	-12.51	35.28	46.00	10.72	QPK	H	PASS
4	359.800	50.87	-10.71	40.16	46.00	5.84	QPK	H	PASS
5	768.170	34.93	-2.74	32.19	46.00	13.81	QPK	H	PASS
6	905.910	27.19	-1.02	26.17	46.00	19.83	QPK	H	PASS

Remark:
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Limit - Emission Level
9KHz~30MHz have been test and test data more than 20dB margin.

Radiated Emission Test Data (30MHz to 1GHz)			
Environmental Conditions	24.6℃, 53.4% RH	Test Engineer	He Chen
Worst Test Mode:	TX Lowest Channel	Polarity:	Vertical



No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	44.550	44.47	-13.21	31.26	40.00	8.74	QPK	V	PASS
2	63.950	43.05	-14.56	28.49	40.00	11.51	QPK	V	PASS
3	114.390	43.50	-14.73	28.77	43.50	14.73	QPK	V	PASS
4	239.520	47.31	-14.16	33.15	46.00	12.85	QPK	V	PASS
5	384.050	39.72	-10.12	29.60	46.00	16.40	QPK	V	PASS
6	720.640	30.82	-3.38	27.44	46.00	18.56	QPK	V	PASS

Remark:
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Limit - Emission Level
9KHz~30MHz have been test and test data more than 20dB margin.

ABOVE 1GHz WORST-CASE DATA:

Field strength of fundamental&Radiated Emission Test Data (Above 1GHz)							
Environmental Conditions	24.6℃, 53.4% RH		Test Engineer	He Chen			
Lowest Channel (Worst Case: 2.4G_2407MHz)							
Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (PEAK/AVG)	Polar (H/V)
2244.000	58.00	-8.31	49.69	74.00	24.31	PK+	H
2264.000	52.21	-8.36	43.85	54.00	10.15	AVG	H
*2410.100	102.71	-3.57	99.14	114	14.86	PK+	H
*2410.100	97.23	-3.57	93.66	94	0.34	AVG	H
4350.000	66.53	-15.55	50.98	74.00	23.02	PK+	H
4350.000	50.80	-15.55	35.25	54.00	18.75	AVG	H
4815.000	68.62	-13.96	54.66	74.00	19.34	PK+	H
4815.000	53.17	-13.96	39.21	54.00	14.79	AVG	H
7230.000	54.49	-6.72	47.77	74.00	26.23	PK+	H
7230.000	42.22	-6.72	35.50	54.00	18.50	AVG	H
9645.000	48.20	-3.22	44.98	74.00	29.02	PK+	H
9645.000	34.82	-3.22	31.60	54.00	22.40	AVG	H
17970.000	41.43	11.08	52.51	74.00	21.49	PK+	H
18000.000	30.20	11.5	41.70	54.00	12.30	AVG	H
*2410.100	103.71	-3.57	100.14	114	13.86	PK+	V
*2410.100	97.04	-3.57	93.47	94	0.53	AVG	V
2494.000	55.10	-8.43	46.67	54.00	7.33	AVG	V
2648.000	59.87	-8.32	51.55	74.00	22.45	PK+	V
4305.000	62.00	-15.59	46.41	74.00	27.59	PK+	V
4305.000	46.68	-15.59	31.09	54.00	22.91	AVG	V
4815.000	72.62	-13.96	58.66	74.00	15.34	PK+	V
4815.000	54.64	-13.96	40.68	54.00	13.32	AVG	V
7230.000	56.07	-6.72	49.35	74.00	24.65	PK+	V
7230.000	42.95	-6.72	36.23	54.00	17.77	AVG	V
9645.000	49.29	-3.22	46.07	74.00	27.93	PK+	V
9645.000	38.27	-3.22	35.05	54.00	18.95	AVG	V
18000.000	41.37	11.5	52.87	74.00	21.13	PK+	V
18000.000	30.59	11.5	42.09	54.00	11.91	AVG	V

Middle Channel (Worst Case: 2.4G_2440MHz)							
Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (PEAK/AVG)	Polar (H/V)
2238.000	52.62	-8.32	44.30	54.00	9.70	AVG	H
2244.000	57.68	-8.31	49.37	74.00	24.63	PK+	H
*2439.923	104.64	-3.54	101.10	114	12.9	PK+	H
*2439.923	96.12	-3.54	92.58	94	1.42	AVG	H
4305.000	65.18	-15.59	49.59	74.00	24.41	PK+	H
4305.000	50.81	-15.59	35.22	54.00	18.78	AVG	H
4875.000	68.70	-13.48	55.22	74.00	18.78	PK+	H
4875.000	52.46	-13.48	38.98	54.00	15.02	AVG	H
6480.000	53.86	-9.08	44.78	74.00	29.22	PK+	H
6480.000	40.89	-9.08	31.81	54.00	22.19	AVG	H
7320.000	56.48	-6.42	50.06	74.00	23.94	PK+	H
7320.000	42.07	-6.42	35.65	54.00	18.35	AVG	H
14520.000	45.21	3.25	48.46	74.00	25.54	PK+	H
14550.000	32.39	3.29	35.68	54.00	18.32	AVG	H
2214.000	59.19	-8.37	50.82	74.00	23.18	PK+	V
2214.000	54.39	-8.37	46.02	54.00	7.98	AVG	V
*2439.923	102.40	-3.54	98.86	114	15.14	PK+	V
*2439.923	97.04	-3.54	93.50	94	0.5	AVG	V
4305.000	48.39	-15.59	32.80	54.00	21.20	AVG	V
4320.000	63.02	-15.57	47.45	74.00	26.55	PK+	V
4875.000	71.49	-13.48	58.01	74.00	15.99	PK+	V
4875.000	54.66	-13.48	41.18	54.00	12.82	AVG	V
7320.000	55.19	-6.42	48.77	74.00	25.23	PK+	V
7320.000	40.81	-6.42	34.39	54.00	19.61	AVG	V
9660.000	48.49	-3.17	45.32	74.00	28.68	PK+	V
9660.000	35.62	-3.17	32.45	54.00	21.55	AVG	V
18000.000	41.50	11.5	53.00	74.00	21.00	PK+	V
18000.000	30.49	11.5	41.99	54.00	12.01	AVG	V

Highest Channel (Worst Case: 2.4G_2472MHz)							
Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (PEAK/AVG)	Polar (H/V)
2128.000	49.46	-8.92	40.54	54.00	13.46	AVG	H
2164.000	58.92	-8.69	50.23	74.00	23.77	PK+	H
*2472.000	104.40	-3.52	100.88	114	13.12	PK+	H
*2472.000	96.10	-3.52	92.58	94	1.42	AVG	H
4305.000	64.14	-15.59	48.55	74.00	25.45	PK+	H
4305.000	50.34	-15.59	34.75	54.00	19.25	AVG	H
4935.000	68.02	-13.06	54.96	74.00	19.04	PK+	H
4935.000	52.06	-13.06	39.00	54.00	15.00	AVG	H
6450.000	40.58	-9.17	31.41	54.00	22.59	AVG	H
6465.000	51.42	-9.12	42.30	74.00	31.70	PK+	H
7410.000	54.97	-6.21	48.76	74.00	25.24	PK+	H
7410.000	40.93	-6.21	34.72	54.00	19.28	AVG	H
14430.000	43.35	2.95	46.30	74.00	27.70	PK+	H
14505.000	32.38	3.24	35.62	54.00	18.38	AVG	H
2248.000	58.18	-8.3	49.88	74.00	24.12	PK+	V
2248.000	52.29	-8.3	43.99	54.00	10.01	AVG	V
*2472.000	103.18	-3.52	99.66	114	14.34	PK+	V
*2472.000	96.59	-3.52	93.07	94	0.93	AVG	V
4305.000	62.79	-15.59	47.20	74.00	26.80	PK+	V
4350.000	48.13	-15.55	32.58	54.00	21.42	AVG	V
4935.000	70.36	-13.06	57.30	74.00	16.70	PK+	V
4935.000	53.43	-13.06	40.37	54.00	13.63	AVG	V
7410.000	55.13	-6.21	48.92	74.00	25.08	PK+	V
7410.000	40.65	-6.21	34.44	54.00	19.56	AVG	V
14490.000	43.95	3.19	47.14	74.00	26.86	PK+	V
14520.000	32.52	3.25	35.77	54.00	18.23	AVG	V
18000.000	41.29	11.5	52.79	74.00	21.21	PK+	V
18000.000	30.39	11.5	41.89	54.00	12.11	AVG	V

Remark:
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Limit - Emission Level.
Testing is carried out with frequency rang 9kHz to the tenth harmonics. The measurements greater than 20dB below the limit from 18GHz to 25GHz.

Radiated Band Edges Test Data							
Environmental Conditions		24.6℃, 53.4% RH		Test Engineer		He Chen	
Lowest Channel (Worst Case: 2.4G_2410MHz)							
Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (PEAK/AVG)	Polar (H/V)
2310.000	51.85	-3.34	48.51	74.00	25.49	PK+	H
2310.000	45.60	-3.34	42.26	54.00	11.74	AVG	H
2389.950	50.57	-3.55	47.02	74.00	26.98	PK+	H
2389.950	45.92	-3.55	42.37	54.00	11.63	AVG	H
2400.090	54.66	-3.58	51.08	74.00	22.92	PK+	H
2400.090	49.80	-3.58	46.22	54.00	7.78	AVG	H
2310.000	47.07	-3.34	43.73	74.00	30.27	PK+	V
2310.000	43.56	-3.34	40.22	54.00	13.78	AVG	V
2389.950	54.88	-3.55	51.33	74.00	22.67	PK+	V
2389.950	50.94	-3.55	47.39	54.00	6.61	AVG	V
2400.090	51.61	-3.58	48.03	74.00	25.97	PK+	V
2400.090	48.16	-3.58	44.58	54.00	9.42	AVG	V
Highest Channel Worst Case: 2.4G_2472MHz)							
Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (PEAK/AVG)	Polar (H/V)
2483.500	51.04	-3.51	47.53	74.00	26.47	PK+	H
2483.500	46.77	-3.51	43.26	54.00	10.74	AVG	H
2500.000	51.03	-3.5	47.53	74.00	26.47	PK+	H
2500.000	48.08	-3.5	44.58	54.00	9.42	AVG	H
2483.500	50.68	-3.51	47.17	74.00	26.83	PK+	V
2483.500	46.71	-3.51	43.20	54.00	10.80	AVG	V
2500.000	52.80	-3.5	49.30	74.00	24.70	PK+	V
2500.000	48.02	-3.5	44.52	54.00	9.48	AVG	V

Remark:
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin=Emission Level - Limit .
The emission levels of other frequencies were greater than 20dB margin.

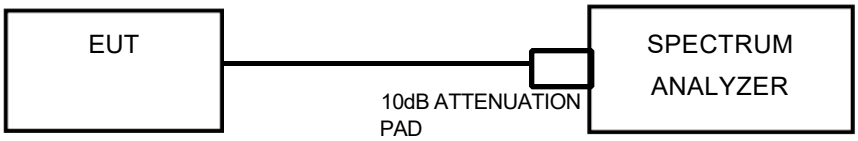
5. 20DB BANDWIDTH AND OCCUPIED BANDWIDTH

5.1. LIMIT

According to FCC 15.215(c) and RSS-Gen, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

According to RSS-Gen 6.7, The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

5.2. TEST SETUP



5.3. TEST PROCEDURE

For 20dB Bandwidth Measurement:

a. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.

b. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.

c. Measure the frequency difference of two frequencies that were attenuated 20dB from the reference level. Record the frequency difference as the emission bandwidth.

d. Repeat above procedures until all frequencies measured were complete.

e. The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30 KHz RBW and 100 KHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB. Measured the 20dB bandwidth by related function of the spectrum analyzer.

For 99% Occupied Bandwidth Measurement:

a. Span = approximately 1.5 to 5 times the OBW, centered on the test channel.

b. RBW = 1% to 5% of the OBW.

c. VBW ≥ 3 x RBW

d. Sweep = auto;

e. Detector function = peak

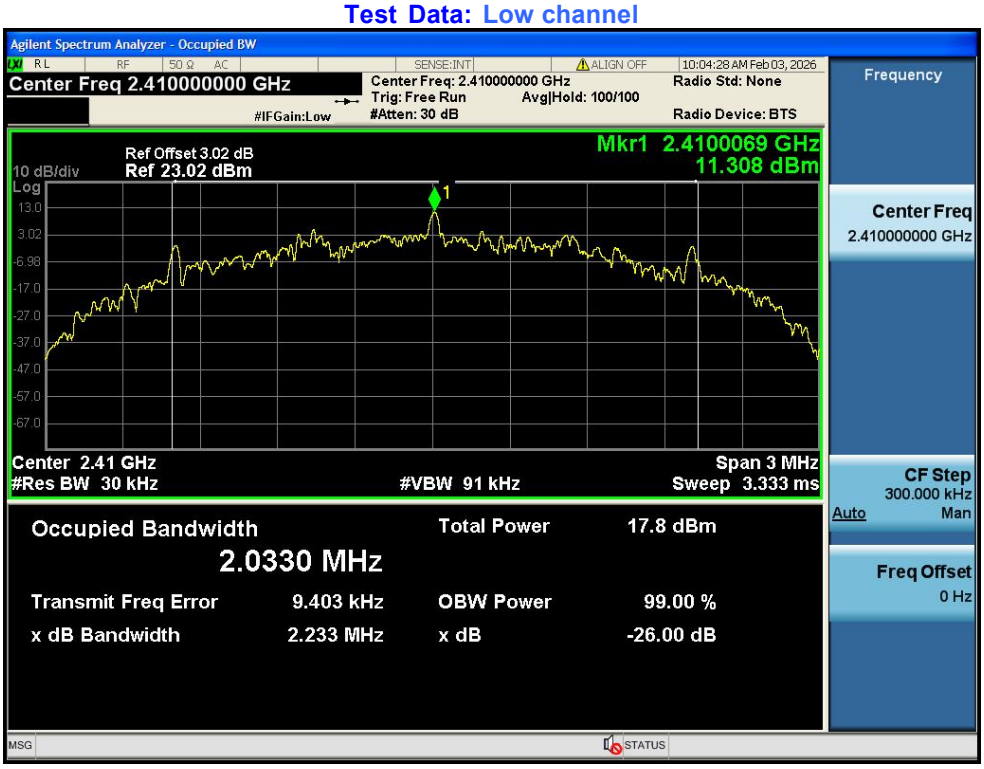
f. Trace = max hold

g. Use the 99% power bandwidth function of the instrument to measure the Occupied Bandwidth and recoded.

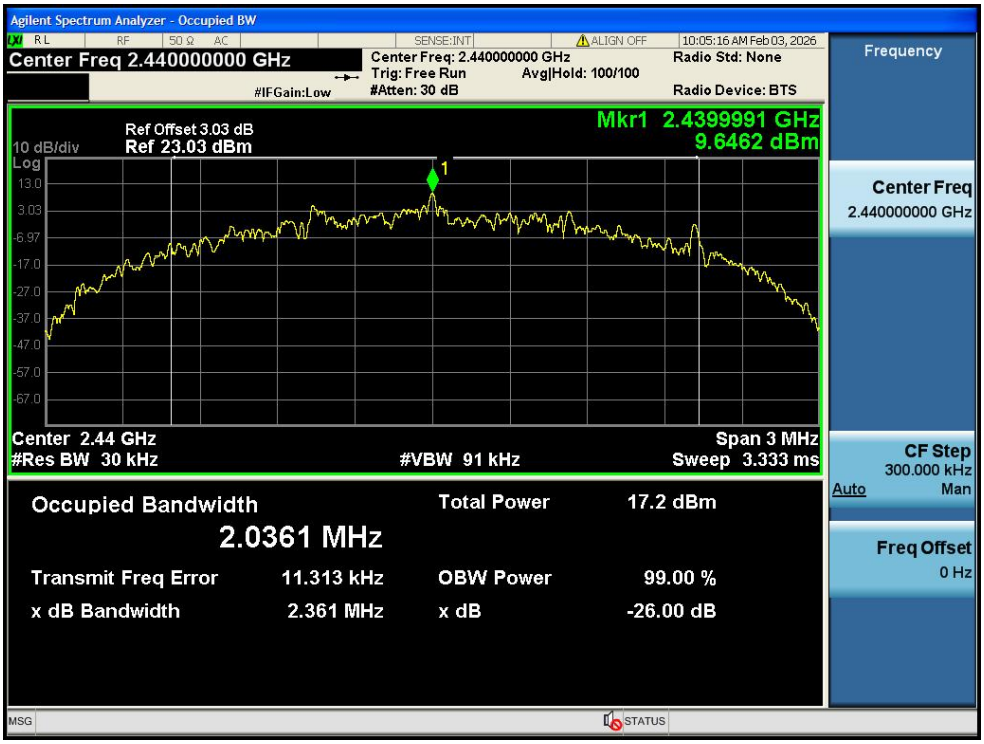
5.4. TEST RESULT

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)	20dB BANDWIDTH (MHz)
Low	2410	2.0330	2.233
Middle	2440	2.0361	2.361
High	2472	2.0211	2.370

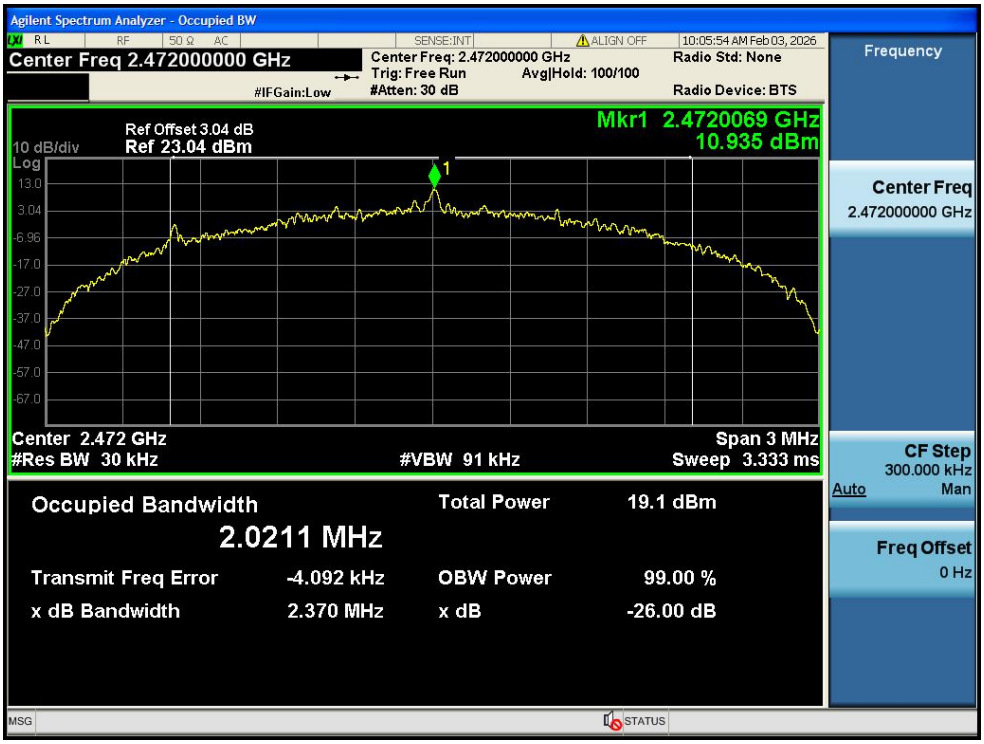
Test Data: Low channel



Test Data: Middle channel



Test Data: High channel



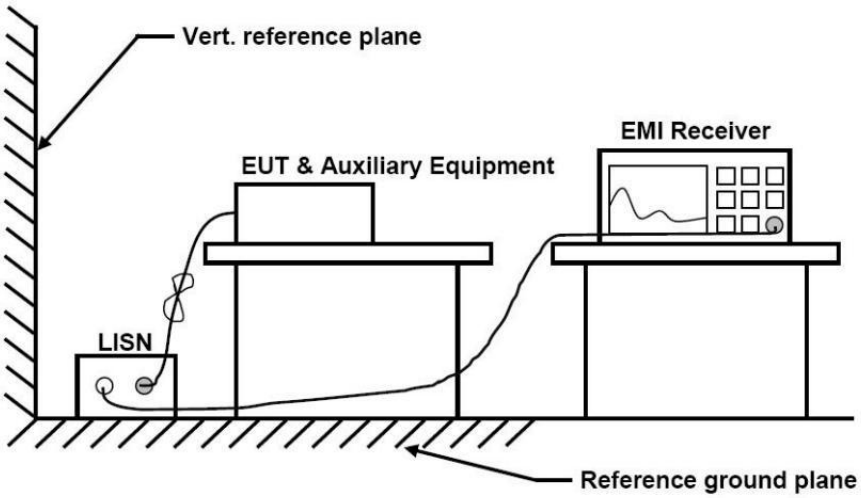
6.POWER LINE CONDUCTED EMISSION

6.1. LIMIT

According to the rule FCC Part 15.207 and IC RSS-Gen 8.8, Conducted emissions limit, the limit for a wireless device as below:

Frequency Range (MHz)	Conducted emissions (dBuV)	
	Quasi-peak	Average
0.15~0.5	66 to 56	56 to 46
0.5~5	56	46
5~30	60	50
Remark: a) The lower limit shall apply at the transition frequencies. b) The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50MHz.		

6.2. TEST SETUP



6.3. TEST PROCEDURE

Test frequency range :150KHz-30MHz

a) The mains terminal disturbance voltage test was conducted in a shielded room.

b) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power

cables to a single LISN provided the rating of the LISN was not exceeded.

c) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

d) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal

ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

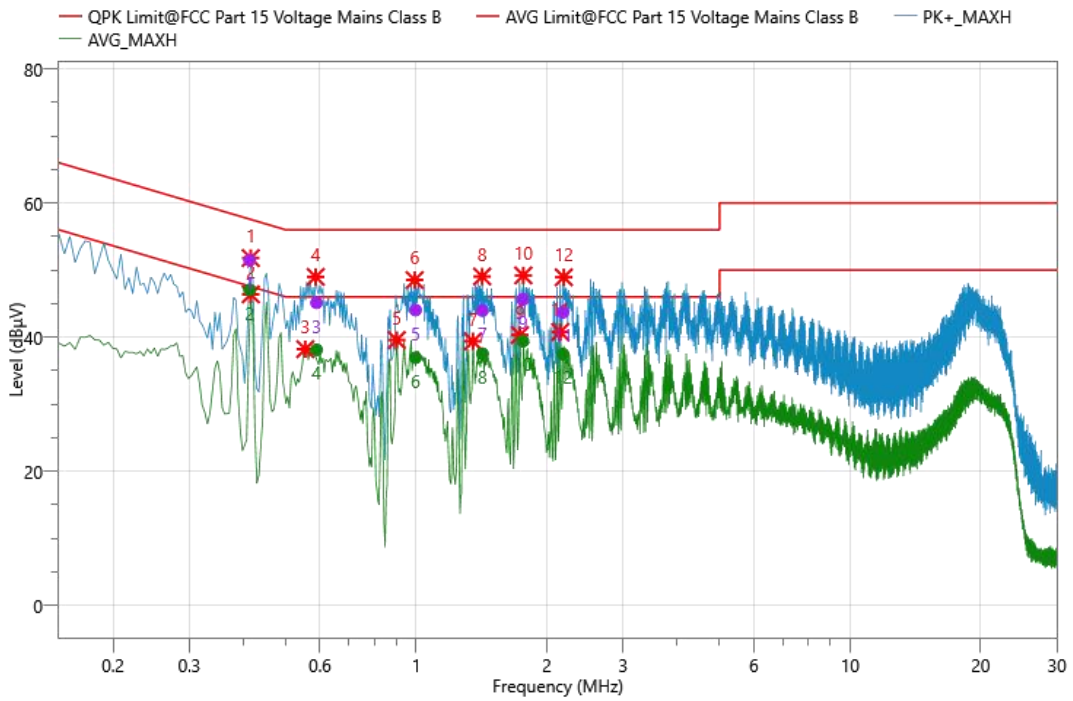
e) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

6.4. TEST RESULT

Pass.

Note 1: For AC line conducted emissions, the maximum field strength of fundamental GFSK mode and Lowest channel was tested.

Test Plots and Data of Conducted Emissions (GFSK) Lowest Channel			
Environmental Conditions	24.6℃, 53.4% RH	Test Engineer	He Chen
Test Voltage:	AC 120V/60Hz	Test Power Line:	Line



No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE
1	0.413	41.49	9.99	51.48	57.59	6.11	QPK	L1	GND
2	0.413	37.06	9.99	47.05	47.59	0.54	AVG	L1	GND
3	0.589	35.12	10	45.12	56.00	10.88	QPK	L1	GND
4	0.589	28.11	10	38.11	46.00	7.89	AVG	L1	GND
5	0.996	34.02	10.01	44.03	56.00	11.97	QPK	L1	GND
6	0.996	26.92	10.01	36.93	46.00	9.07	AVG	L1	GND
7	1.421	33.94	10.01	43.95	56.00	12.05	QPK	L1	GND
8	1.421	27.52	10.01	37.53	46.00	8.47	AVG	L1	GND
9	1.761	35.59	10.02	45.61	56.00	10.39	QPK	L1	GND
10	1.761	29.37	10.02	39.39	46.00	6.61	AVG	L1	GND
11	2.178	33.68	10.02	43.70	56.00	12.30	QPK	L1	GND
12	2.178	27.45	10.02	37.47	46.00	8.53	AVG	L1	GND

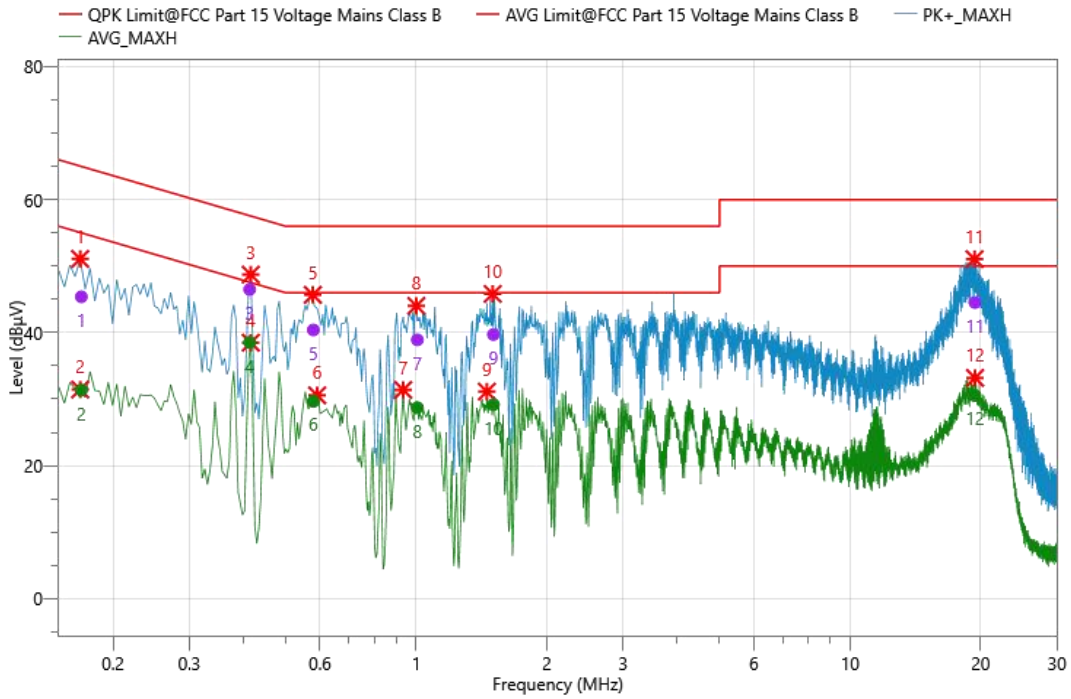
Remark:

Emission Level = Reading + Correct Factor;

Correct Factor = LISN Factor + Cable Loss + Pulse Limiter Attenuation Factor

Margin=Limit - Emission Level .

Test Plots and Data of Conducted Emissions (GFSK) Lowest Channel			
Environmental Conditions	24.6℃, 53.4% RH	Test Engineer	He Chen
Test Voltage:	AC 120V/60Hz	Test Power Line:	Neutral



No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE
1	0.169	35.40	9.99	45.39	65.01	19.62	QPK	N	GND
2	0.169	21.36	9.99	31.35	55.01	23.66	AVG	N	GND
3	0.413	36.51	9.99	46.50	57.59	11.09	QPK	N	GND
4	0.413	28.54	9.99	38.53	47.59	9.06	AVG	N	GND
5	0.579	30.40	10	40.40	56.00	15.60	QPK	N	GND
6	0.579	19.65	10	29.65	46.00	16.35	AVG	N	GND
7	1.006	28.91	10.01	38.92	56.00	17.08	QPK	N	GND
8	1.006	18.70	10.01	28.71	46.00	17.29	AVG	N	GND
9	1.506	29.69	10.02	39.71	56.00	16.29	QPK	N	GND
10	1.506	19.16	10.02	29.18	46.00	16.82	AVG	N	GND
11	19.403	30.71	13.82	44.53	60.00	15.47	QPK	N	GND
12	19.403	16.73	13.82	30.55	50.00	19.45	AVG	N	GND

Remark:
Emission Level = Reading + Correct Factor;
Correct Factor = LISN Factor + Cable Loss + Pulse Limiter Attenuation Factor
Margin=Limit - Emission Level .

7. PHOTOGRAPHS OF TEST SETUP

Please refer to Appendix A for Test Setup Photos of the EUT.

8. EXTERNAL PHOTOGRAPHS OF THE EUT

Please refer to Appendix B for External Photos of the EUT.

9. INTERNAL PHOTOGRAPHS OF THE EUT

Please refer to Appendix C for Internal Photos of the EUT.

**********THE END**********