
FCC Test Report

Report No.: AGC00749250901FR02

FCC ID : 2A9G2-X10

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION : Mesh Groups Intercom System

BRAND NAME : EJEAS

MODEL NAME : X10, X10 Plus, X10 PlusS, X10 Pro

APPLICANT : Shenzhen EJEAS Intelligent Technology Co., Ltd.

DATE OF ISSUE : Sep. 29, 2025

STANDARD(S) : FCC Part 15 Subpart C §15.236

REPORT VERSION : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd



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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Sep. 29, 2025	Valid	Initial Release

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1. General Information

Applicant	Shenzhen EJEAS Intelligent Technology Co., Ltd.
Address	Room 3A, B 1, Zhonxin road 9, Taoyuan Community, Dalang street, Longhua district, Shenzhen city, Guangdong province, China
Manufacturer	Shenzhen EJEAS Intelligent Technology Co., Ltd.
Address	Room 3A, B 1, Zhonxin road 9, Taoyuan Community, Dalang street, Longhua district, Shenzhen city, Guangdong province, China
Factory	Shenzhen EJEAS Intelligent Technology Co., Ltd.
Address	Room 3A, B 1, Zhonxin road 9, Taoyuan Community, Dalang street, Longhua district, Shenzhen city, Guangdong province, China
Product Designation	Mesh Groups Intercom System
Brand Name	EJEAS
Test Model	X10
Series Model(s)	X10 Plus, X10 PlusS, X10 Pro
Difference Description	All the series models are the same as the test model except for the model names.
Date of receipt of test item	Sep. 05, 2025
Date of Test	Sep. 05, 2025 to Sep. 29, 2025
Deviation from Standard	No any deviation from the test method
Condition of Test Sample	Normal
Test Result	Pass
Test Report Form No	AGCER-FCC-DWM/D-V1

Note: The test results of this report relate only to the tested sample identified in this report.

Prepared By

Thea Huang

Thea Huang
(Project Engineer)

Sep. 29, 2025

Reviewed By

Bibo Zhang

Bibo Zhang
(Reviewer)

Sep. 29, 2025

Approved By

Angela Li

Angela Li
(Authorized Officer)

Sep. 29, 2025

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2. Product Information

2.1 Product Technical Description

Operation Frequency Range	471.0MHz-486.8MHz
Modulation Type	GFSK
Channel Separation	200kHz
Number of channels	80 of channels
Maximum Transmitter Power	-8.44dBm (Max E.I.R.P)
Hardware Version	X10-V1.2
Software Version	V1.12.0
Antenna Designation	Monopole Antenna
Antenna Gain	1.0dBi
Power Supply	DC 3.8V by battery or DC 5V by adapter

2.2 Test Frequency List

Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
01	471.0 MHz	41	479.0 MHz
02	471.2 MHz	42	479.2 MHz
03	471.4 MHz	43	479.4 MHz
04	471.6 MHz	44	479.6 MHz
05	471.8 MHz	45	479.8 MHz
06	472.0 MHz	46	480.0 MHz
07	472.2 MHz	47	480.2 MHz
08	472.4 MHz	48	480.4 MHz
09	472.6 MHz	49	480.6 MHz
10	472.8 MHz	50	480.8 MHz
11	473.0 MHz	51	481.0 MHz
12	473.2 MHz	52	481.2 MHz
13	473.4 MHz	53	481.4 MHz
14	473.6 MHz	54	481.6 MHz
15	473.8 MHz	55	481.8 MHz
16	474.0 MHz	56	482.0 MHz
17	474.2 MHz	57	482.2 MHz
18	474.4 MHz	58	482.4 MHz
19	474.6 MHz	59	482.6 MHz
20	474.8 MHz	60	482.8 MHz
21	475.0 MHz	61	483.0 MHz
22	475.2 MHz	62	483.2 MHz
23	475.4 MHz	63	483.4 MHz
24	475.6 MHz	64	483.6 MHz
25	475.8 MHz	65	483.8 MHz
26	476.0 MHz	66	484.0 MHz
27	476.2 MHz	67	484.2 MHz

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28	476.4 MHz	68	484.4 MHz
29	476.6 MHz	69	484.6 MHz
30	476.8 MHz	70	484.8 MHz
31	477.0 MHz	71	485.0 MHz
32	477.2 MHz	72	485.2 MHz
33	477.4 MHz	73	485.4 MHz
34	477.6 MHz	74	485.6 MHz
35	477.8 MHz	75	485.8 MHz
36	478.0 MHz	76	486.0 MHz
37	478.2 MHz	77	486.2 MHz
38	478.4 MHz	78	486.4 MHz
39	478.6 MHz	79	486.6 MHz
40	478.8 MHz	80	486.8 MHz

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2.3 Related Submittal(S) / Grant (S)

This submittal(s) (test report) is intended for FCC ID: 2A9G2-X10, filing to comply with Part 2, Part 15 of the Federal Communication Commission rules.

2.4 Test Methodology

The tests were performed according to following standards:

No.	Identity	Document Title
1	FCC 47 CFR Part 2	Frequency allocations and radio treaty matters; general rules and regulations
2	FCC 47 CFR Part 15	Radio Frequency Devices
3	ANSI C63.10-2020	American National Standard for Testing Unlicensed Wireless Devices
4	KDB 206256	D01 Wireless Microphone Certification v03r01
5	ETSI EN 300 422-1 V2.2.1 (2021-11)	Wireless Microphones; Audio PMSE up to 3 GHz; Part 1: Audio PMSE Equipment up to 3 GHz; Harmonised Standard for access to radio spectrum

2.5 Special Accessories

Not available for this EUT intended for grant.

2.6 Equipment Modifications

Not available for this EUT intended for grant.

2.7 Antenna Requirement

Standard Requirement
EUT Antenna:
The non-detachable antenna inside the device cannot be replaced by the user at will. The gain of the antenna is 1.0dBi.

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3. Test Environment

3.1 Address of The Test Laboratory

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd.

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

3.2 Test Facility

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

CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to follow CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories.)

A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to follow ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

IC-Registration No.: 24842(CAB identifier: CN0063)

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.

3.3 Environmental Conditions

	Normal Conditions	Extreme Conditions
Temperature range (°C)	15 - 35	-20 - 50
Relative humidity range	20 % - 75 %	20 % - 75 %
Pressure range (kPa)	86 - 106	86 - 106
Power supply	DC 3.8V	LV: DC 3.42V/HV:DC 4.18V
Note: The Extreme Temperature and Extreme Voltages declared by the manufacturer.		

3.4 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

Test Items	Measurement Uncertainty
Frequency stability	$\pm 0.5\%$
Transmitter power conducted	$\pm 0.8\text{dB}$
Transmitter power Radiated	$\pm 1.3\text{dB}$
Conducted spurious emission 9kHz-40 GHz	$\pm 2.7\text{dB}$
Conducted Emission	$\pm 3.2\text{ dB}$
Radiated Emission below 1GHz	$\pm 3.9\text{ dB}$
Radiated Emission above 1GHz	$\pm 4.8\text{ dB}$
Occupied Channel Bandwidth	$\pm 2\%$

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3.5 List of Equipment Used

● RF Conducted Test System							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
☒	AGC-ER-E036	Spectrum Analyzer	Agilent	N9020A	MY49100060	2025-05-08	2026-05-07
☒	AGC-ER-E062	Power Sensor	Agilent	U2021XA	MY54110007	2025-05-08	2026-05-07
☒	AGC-ER-E063	Power Sensor	Agilent	U2021XA	MY54110009	2025-05-08	2026-05-07
☒	AGC-ER-A007	6dB Fixed Attenuator	Mini circuits	BW-S6-2W263A+	N/A	2025-01-30	2026-01-29
☒	N/A	RF Connection Cable	N/A	1#	N/A	Each time	N/A
☒	N/A	RF Connection Cable	N/A	2#	N/A	Each time	N/A

● Radiated Spurious Emission							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
☒	AGC-EM-E116	EMI Test Receiver	R&S	ESCI	100034	2025-05-08	2026-05-07
☒	AGC-EM-E061	Spectrum Analyzer	Agilent	N9010A	MY53470504	2025-05-08	2026-05-07
☒	AGC-EM-E086	Loop Antenna	ZHINAN	ZN30900C	18051	2024-03-05	2026-03-04
☒	AGC-ER-E005	Wideband Antenna	SCHWARZBECK	VULB9168	VULB9168-494	2025-01-15	2027-01-14
☒	AGC-EM-E029	Broadband Ridged Horn Antenna	ETS	3117	00034609	2025-03-27	2026-03-26
☒	AGC-EM-E082	Horn Antenna	SCHWARZBECK	BBHA 9170	#768	2023-09-24	2025-09-23
☒	AGC-EM-E082	Horn Antenna	SCHWARZBECK	BBHA 9170	#768	2025-09-10	2027-09-09
☒	AGC-EM-E146	Pre-amplifier	ETS	3117-PA	00246148	2024-07-24	2026-07-23
☒	AGC-EM-A088	UHF Filter	Microwave	N25155M2	498705	2025-05-21	2026-05-20
☒	AGC-EM-A139	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2025-05-16	2027-05-15

● AC Power Line Conducted Emission							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
☒	AGC-EM-A171	Attenuator	Mini-Circuits	UNAT-10A+	N/A	2024-02-01	2026-01-31
☒	AGC-EM-E023	Artificial Mains Network	R&S	ESH2-Z5	100086	2025-05-08	2026-05-07
☒	AGC-EM-E116	Test Receiver	R&S	ESCI	100034	2025-05-08	2026-05-07

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● Test Software					
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Version Information
☒	AGC-EM-S001	CE Test System	R&S	ES-K1	V1.71
☒	AGC-EM-S004	RE Test System	Tonscend	TS+Ver2.1(JS32-RE)	4.0.0.0
☒	AGC-EM-S011	RSE Test System	Tonscend	TS+-Ver2.1(JS36-RSE)	4.0.0.0

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4. System Test Configuration

4.1 EUT Configuration

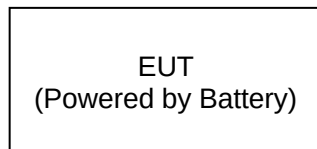
The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

4.2 EUT Exercise

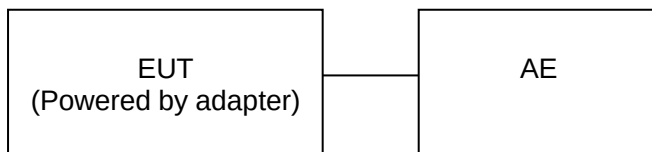
The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

4.3 Configuration of Tested System

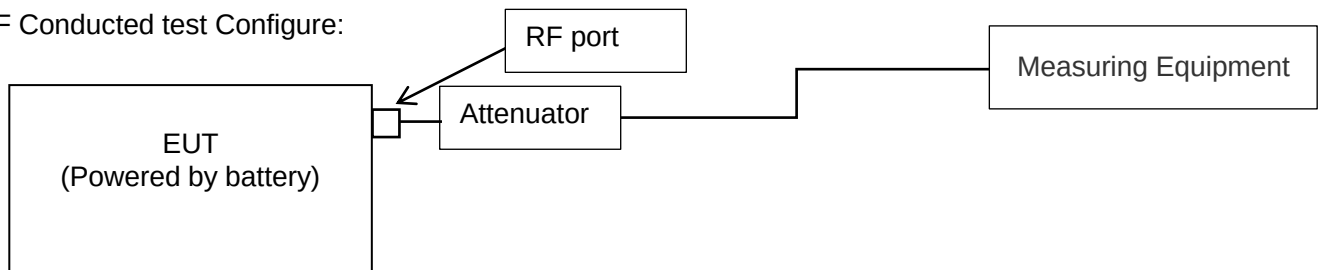
Radiated Emission Configure:



Conducted Emission Configure:



RF Conducted test Configure:



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4.4 Equipment Used In Tested System

The following peripheral devices and interface cables were connected during the measurement:

☒ Test Accessories Come From The Laboratory

No.	Equipment	Manufacturer	Model No.	Specification Information	Cable
1	Adapter	Apple	A2452	--	--

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4.5 Summary of Test Results

Item	FCC Rules	Description of Test	Result
1	§15.236(d)(1)(2)	Equivalent Isotropic Radiated Power (E.I.R.P.)	Pass
2	§15.236(f)(2)	99% Occupied Bandwidth	Pass
3	§15.236(g)	Emissions Within the Band	Pass
4	§15.236(g) (3)	Emissions Out Side in This Band	Pass
5	§15.236(f)(3)	Frequency stability	Pass
6	§15.207	AC Power-Line Conducted Emission	Pass

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5. Description of Test Modes

Summary table of Test Cases	
Test Item	Equipment Type / Modulation
	Wireless Microphones – GFSK
Radiated & Conducted Test Cases	Mode 1: DWM GFSK TX_CH01_471.0 MHz Mode 2: DWM GFSK TX_CH40_478.8 MHz Mode 3: DWM GFSK TX_CH80_486.8 MHz
AC Conducted Emission	Mode 1: Normal Transmitting (Connect adapter)

Note:

1. Only the result of the worst case was recorded in the report, if no other cases.
2. The battery is full-charged during the test.
3. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
4. For Conducted Test method, a temporary antenna connector is provided by the manufacture.
5. The EUT adjusts the frequency through the button.

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6. RF Conducted Power and Equivalent Isotropic Radiated Power (E.I.R.P.) Measurement

6.1 Provisions Applicable

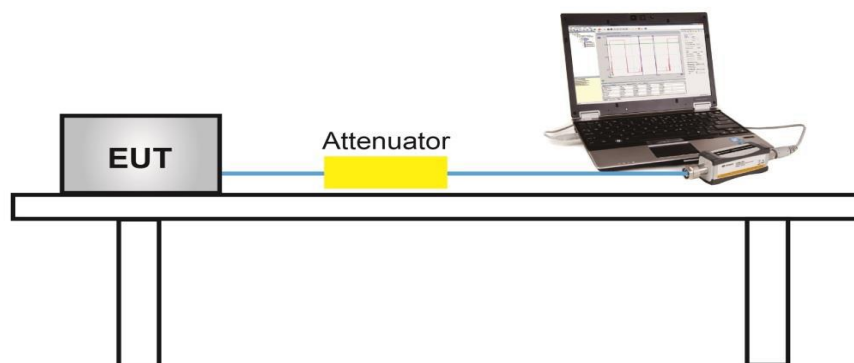
According to FCC Part 15.236(d)(1)(2) description below:

Frequency bands	Transmit E.I.R.P. (mW)
Wireless microphones	50
Wireless multichannel audio systems with a bandwidth up to 1 MHz	
Wireless multichannel audio systems with a bandwidth greater than 1 MHz	100
In the 600 MHz guard band and the 600 MHz duplex gap	20

6.2 Measurement Procedure

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since this measurement is made only during the ON time of the transmitter, no duty cycle correction is required

6.3 Measurement Setup (Block Diagram of Configuration)



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6.4 Measurement Result

Test Data of Conducted Output Power and E.I.R.P.					
Test Mode	Test Frequency (MHz)	Peak Power (dBm)	EIRP (dBm)	Limits (dBm)	Pass or Fail
DWM_TX (GFSK)	471.000	-9.32	-8.44	≤16.99	Pass
	478.800	-9.44	-8.56	≤16.99	Pass
	486.800	-9.40	-8.52	≤16.99	Pass

Note: E.I.R.P.=RF Conducted Power (Peak Power) + Ant Gain

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Attestation of Global Compliance(Shenzhen)Co., Ltd
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7. 99% Occupied Bandwidth Measurement

7.1 Provisions Applicable

According to FCC Part 15.236(b)(1)(2) description below:

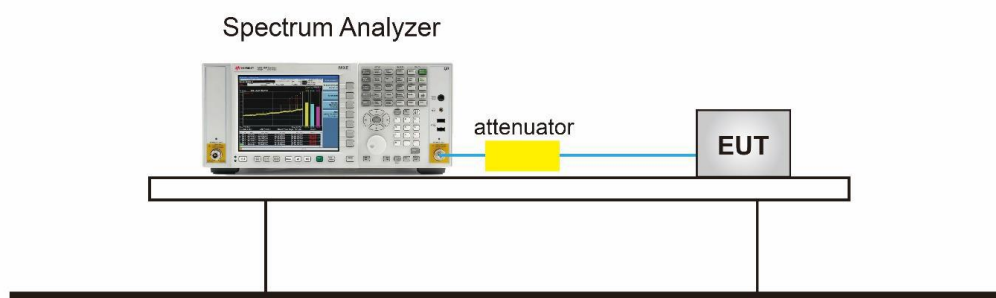
Frequency bands	Maximum Bandwidth
54-72 MHz (VHF) (TV Band Ch 2-4)	not exceed 200 kHz
76-88 MHz (VHF) (TV Band Ch 5-6)	
174-216 MHz (VHF) (TV Band Ch 7-13)	
470-608 MHz (UHF) (TV Band Ch 14-36)	
614-616 MHz (guard band)	
657-663 MHz (duplex gap)	

7.2 Measurement Procedure

For occupied bandwidth measurements, the input digital signal should be set to the manufacturer's maximum rated input and modulation requirements for the modulator.

- The 99% bandwidth spectrum analyzer setting reference is as follows:
 1. Span = 1.5 times to 5 times the OBW
 2. Set RBW = 1% to 5% the OBW
 3. VBW $\geq 3 \times$ RBW
 4. Detector = Peak
 5. Trace mode = Max hold
 6. Sweep = Auto couple
 7. Allow the trace was allowed to stabilize

7.3 Measurement Setup (Block Diagram of Configuration)

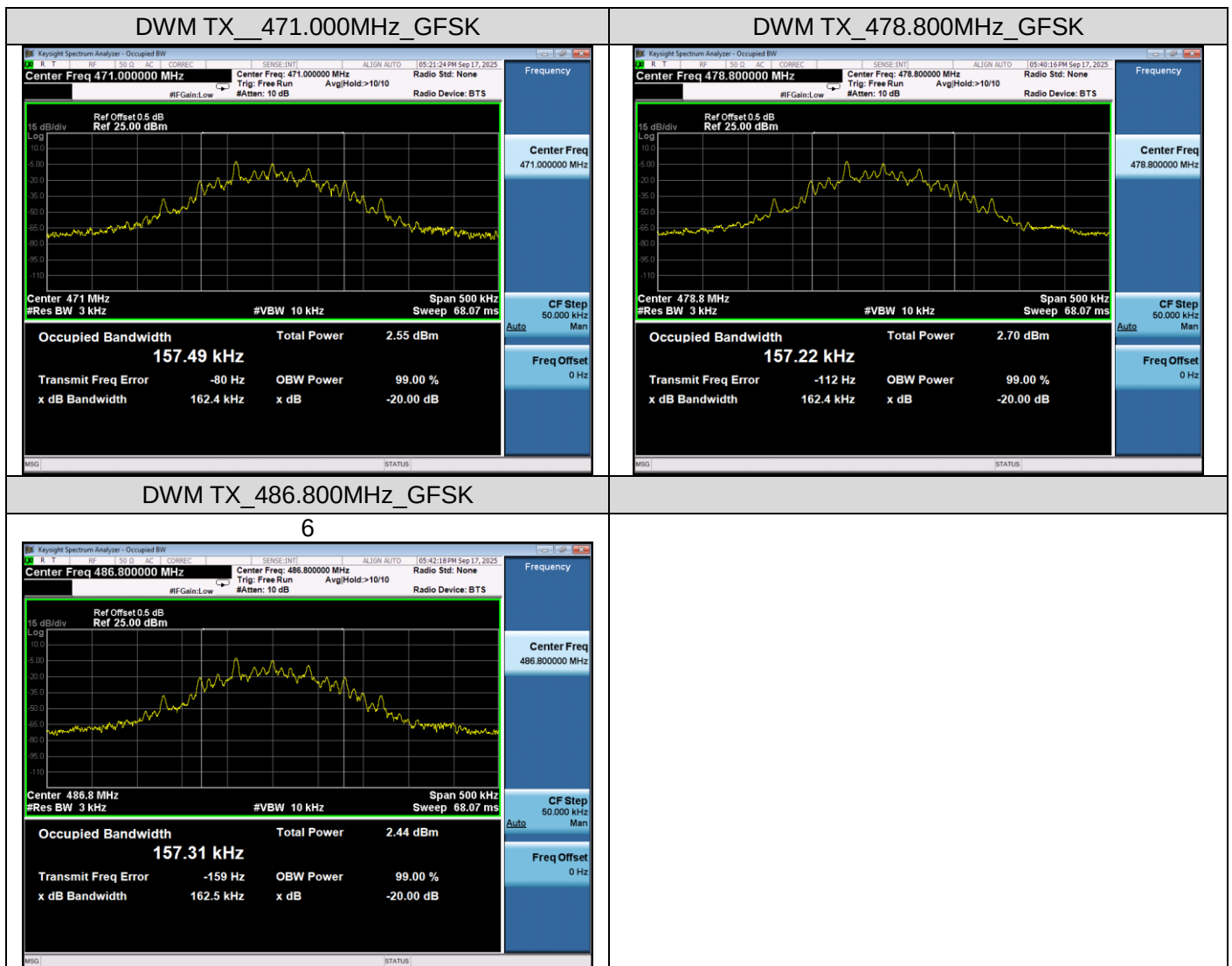


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7.4 Measurement Result

Test Data of Occupied Bandwidth					
Test Mode	Test Frequency (MHz)	99% Occupied Bandwidth (kHz)	-20dB Bandwidth (kHz)	Limits (kHz)	Pass or Fail
DWM_TX (GFSK)	471.000	157.49	162.4	<200	Pass
	478.800	157.22	162.4	<200	Pass
	486.800	157.31	162.5	<200	Pass

Test plot as follows:



Note:

1. The carrier power is the ref level, and the factor had been edited in the "Input Correction" of the Spectrum Analyzer.

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8. Emissions Within the Band and Emissions Outside the Band

8.1 Provisions Applicable

Emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in section 4.2.4.2.2 of ETSI EN 300 422-1 V2.2.1 (2021-11)

Emissions outside of this band shall comply with the limits specified in section 4.2.4.1.2 of ETSI EN 300 422-1 V2.2.1 (2021-11).

8.2 Measurement Procedure

Emission outside the band:

1. On a test site, the EUT shall be placed on a turntable, and in the position closest to the normal use as declared by the user.
2. The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
3. The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
4. The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
5. The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
6. The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
7. The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
8. The maximum signal level detected by the measuring receiver shall be noted.
9. The measurement shall be repeated with the test antenna set to horizontal polarization.
10. Replace the antenna with a proper Antenna (substitution antenna).
11. The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
12. The substitution antenna shall be connected to a calibrated signal generator.
13. If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
14. The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
15. The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
16. The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
17. The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.

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The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Start ~Stop Frequency	9kHz~150kHz/RB 200Hz for QP
Start ~Stop Frequency	150kHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120kHz for QP
Start ~Stop Frequency	1000MHz~6000MHz/RB 1MHz for QP

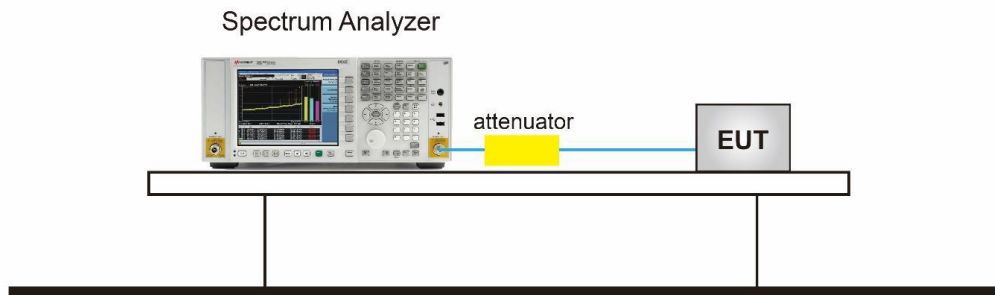
Receiver Parameter	Setting
Start ~Stop Frequency	9kHz~150kHz/RB 200Hz for QP
Start ~Stop Frequency	150kHz~30MHz/RB 9kHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120kHz for QP
Start ~Stop Frequency	1000MHz~6000MHz/RB 1MHz for QP

Emission outside the band:

- ☐ Method of Measurement for Analogue Systems in ETSI EN 300 422-1 Subclass 4.2.4.2.2
☒ Method of Measurement for Digital Systems in ETSI EN 300 422-1 Subclass 4.2.4.2.2

8.3 Measurement Setup (Block Diagram of Configuration)

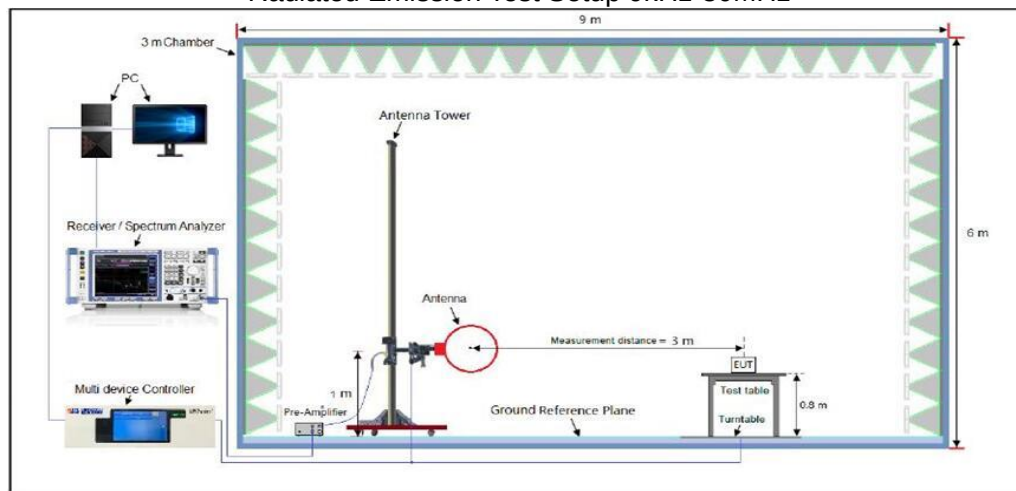
☒ Emission within the band:



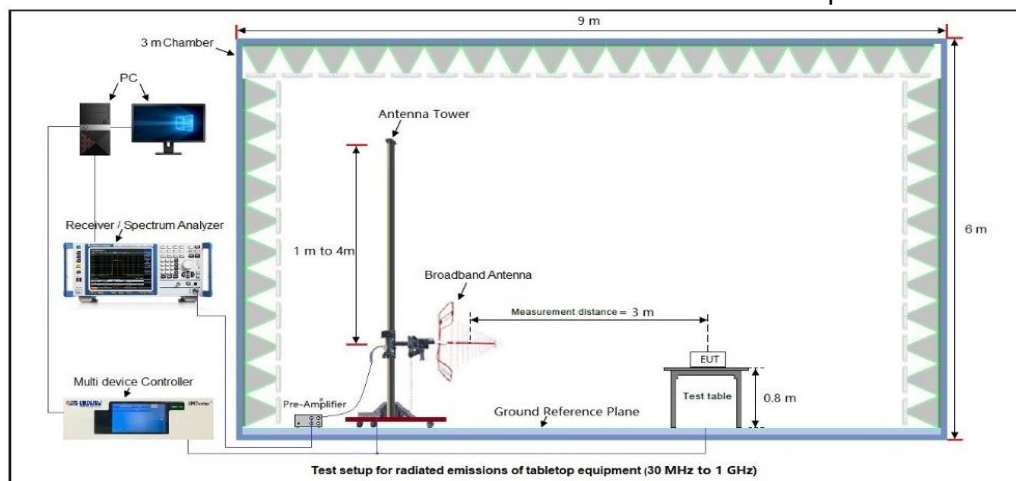
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☒ Emission outside the band:

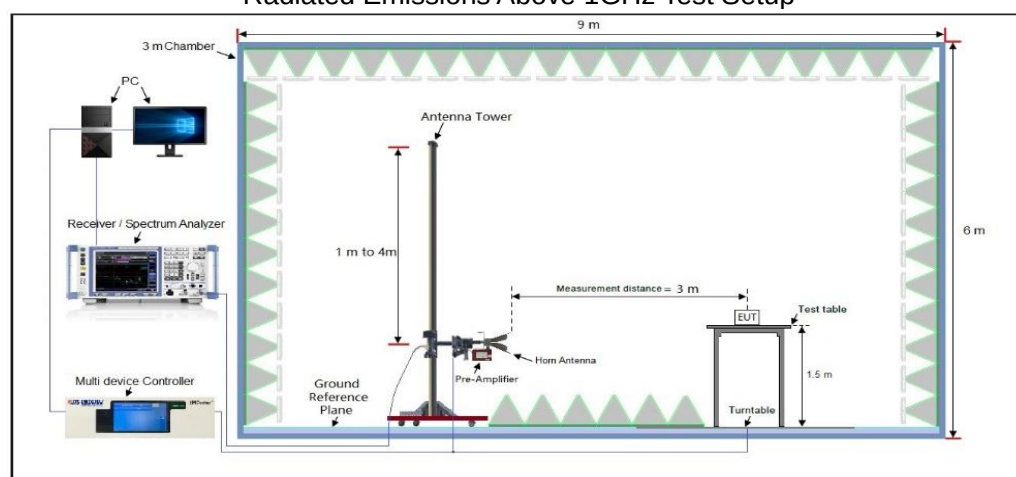
Radiated Emission Test Setup 9kHz-30MHz



Radiated Emissions Below 30MHz-1GHz Test Setup



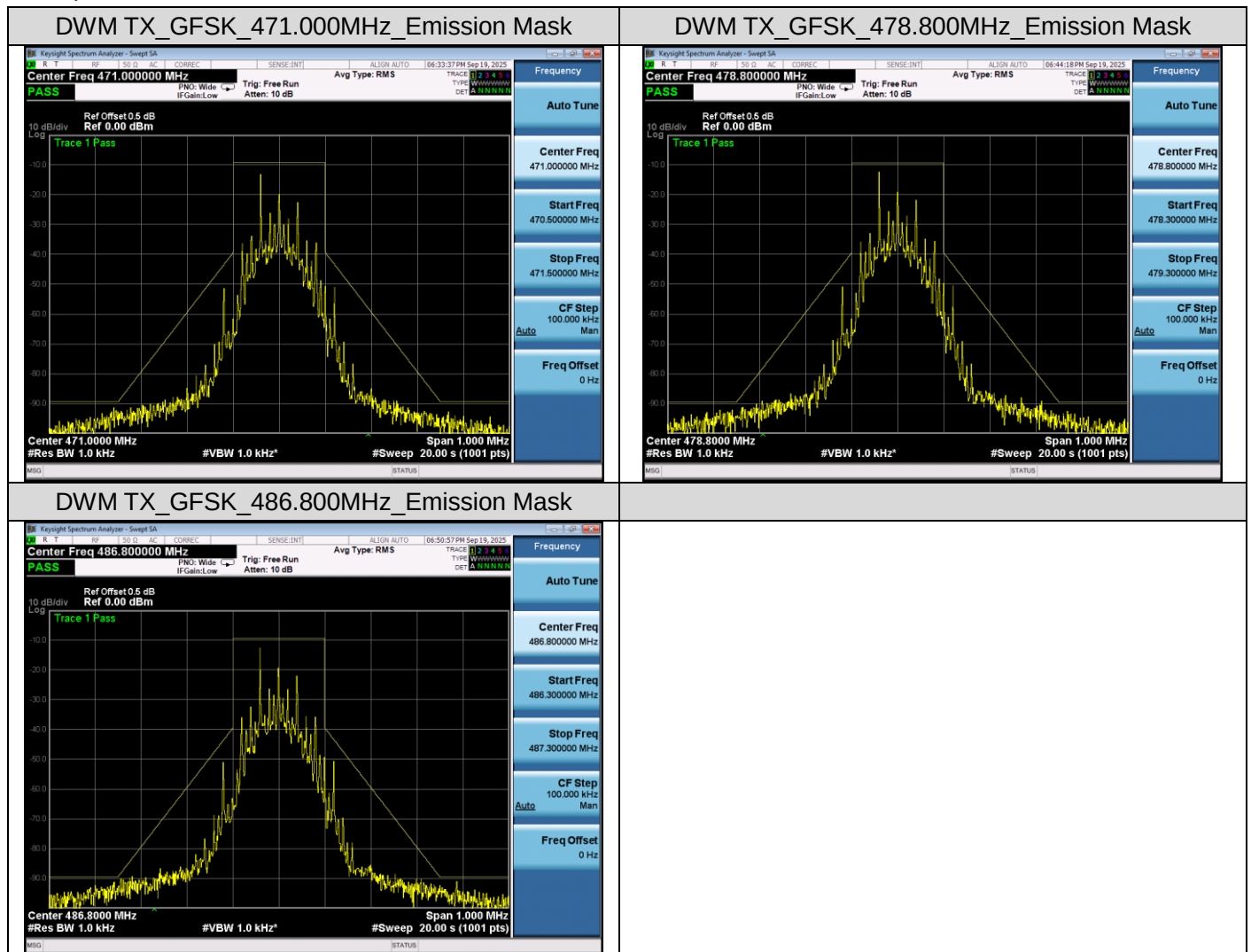
Radiated Emissions Above 1GHz Test Setup



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8.4 Measurement Result

Test plot as follows:

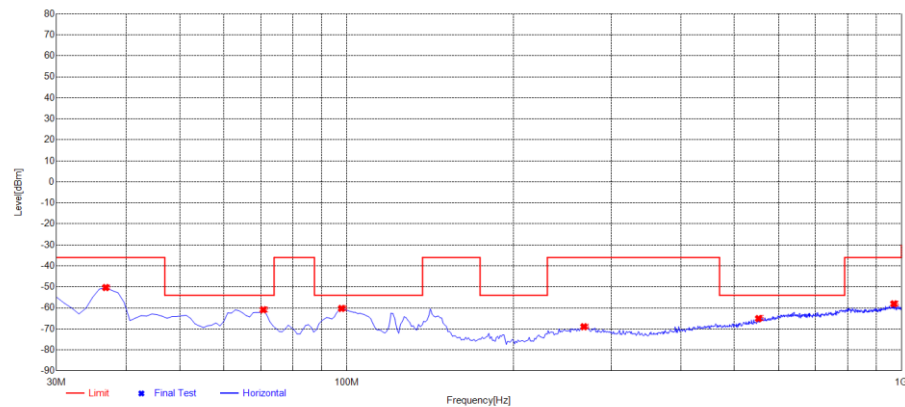


Note:

- 1.The manufacturer declared that the channel bandwidth is 200kHz.
- 2.The carrier power is the ref level, and the factor had been edited in the “Input Correction” of the Spectrum Analyzer.

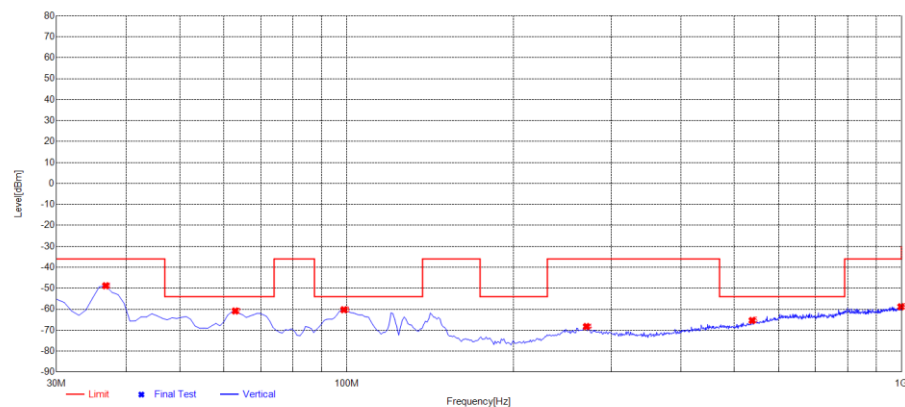
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Test Mode:	TX: 471.000MHz	Polarity:	Horizontal
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NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	47.46	-88.05	-59.83	-54.00	5.83	28.22	343	Horizontal
2	58.13	-92.55	-66.17	-54.00	12.17	26.38	195	Horizontal
3	111.48	-89.76	-69.43	-54.00	15.43	20.33	98	Horizontal
4	123.12	-90.84	-67.70	-54.00	13.70	23.14	10	Horizontal
5	677.96	-99.33	-65.19	-54.00	11.19	34.14	309	Horizontal
6	812.79	-100.72	-63.70	-54.00	9.70	37.02	71	Horizontal

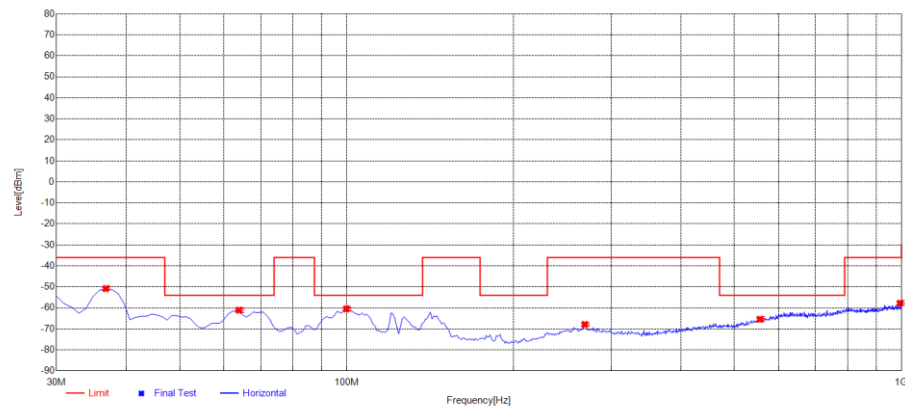
Test Mode:	TX: 471.000MHz	Polarity:	Vertical
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NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	36.79	-78.42	-48.80	-36.00	12.80	29.62	30	Vertical
2	62.98	-86.28	-60.83	-54.00	6.83	25.45	260	Vertical
3	98.87	-80.28	-60.24	-54.00	6.24	20.04	130	Vertical
4	270.56	-95.63	-68.24	-36.00	32.24	27.39	10	Vertical
5	538.28	-97.17	-65.36	-54.00	11.36	31.81	270	Vertical
6	998.06	-96.64	-58.80	-36.00	22.80	37.84	110	Vertical

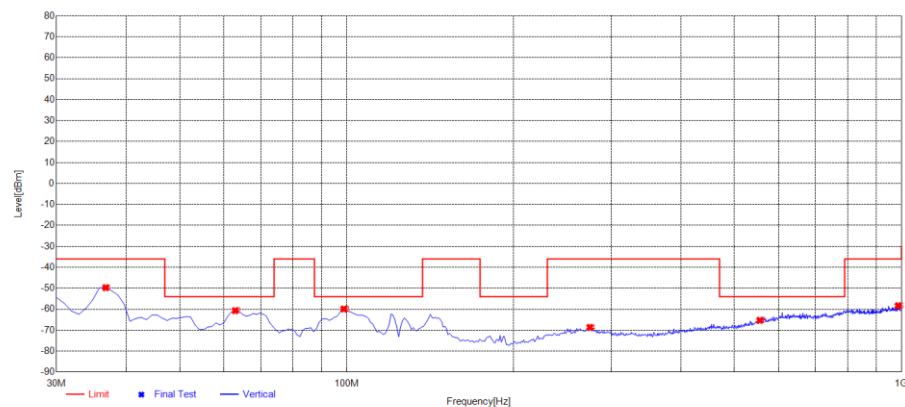
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Test Mode:	TX: 478.800MHz	Polarity:	Horizontal
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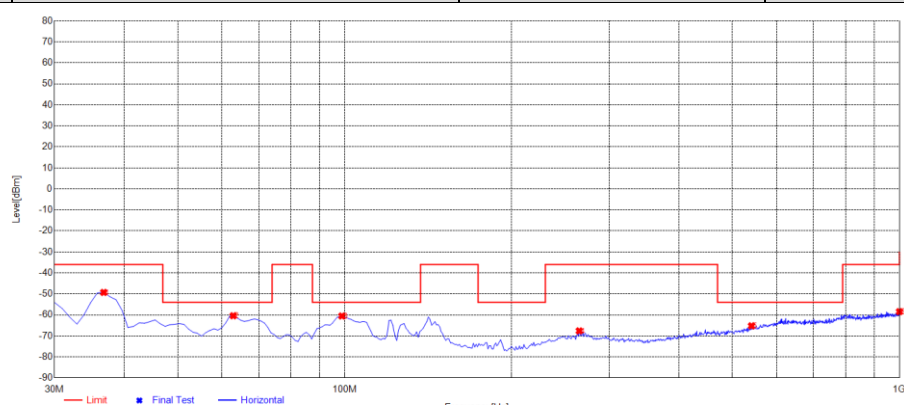
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	36.79	-80.43	-50.81	-36.00	14.81	29.62	60	Horizontal
2	63.95	-86.47	-61.08	-54.00	7.08	25.39	170	Horizontal
3	99.84	-80.30	-60.44	-54.00	6.44	19.86	140	Horizontal
4	268.62	-95.28	-67.87	-36.00	31.87	27.41	320	Horizontal
5	555.74	-97.87	-65.39	-54.00	11.39	32.48	230	Horizontal
6	994.18	-95.55	-57.70	-36.00	21.70	37.85	290	Horizontal

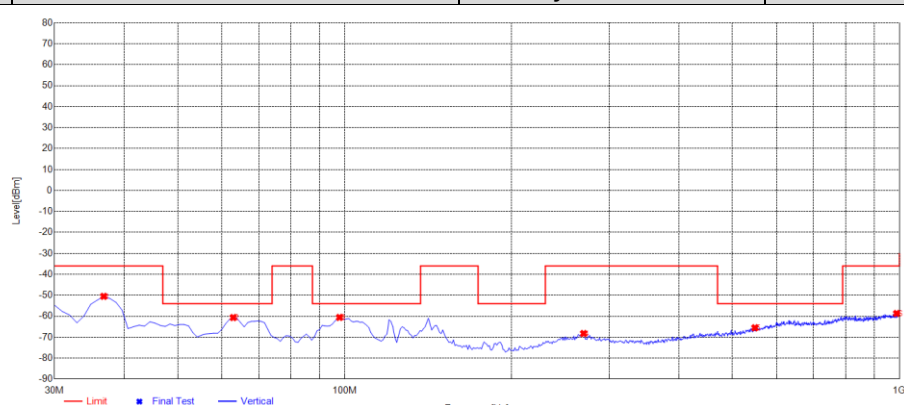
Test Mode:	TX: 478.800MHz	Polarity:	Vertical
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NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	36.79	-79.34	-49.72	-36.00	13.72	29.62	60	Vertical
2	62.98	-86.13	-60.68	-54.00	6.68	25.45	160	Vertical
3	98.87	-79.94	-59.90	-54.00	5.90	20.04	0	Vertical
4	274.44	-95.94	-68.64	-36.00	32.64	27.30	240	Vertical
5	555.74	-97.77	-65.29	-54.00	11.29	32.48	260	Vertical
6	986.42	-96.26	-58.33	-36.00	22.33	37.93	30	Vertical

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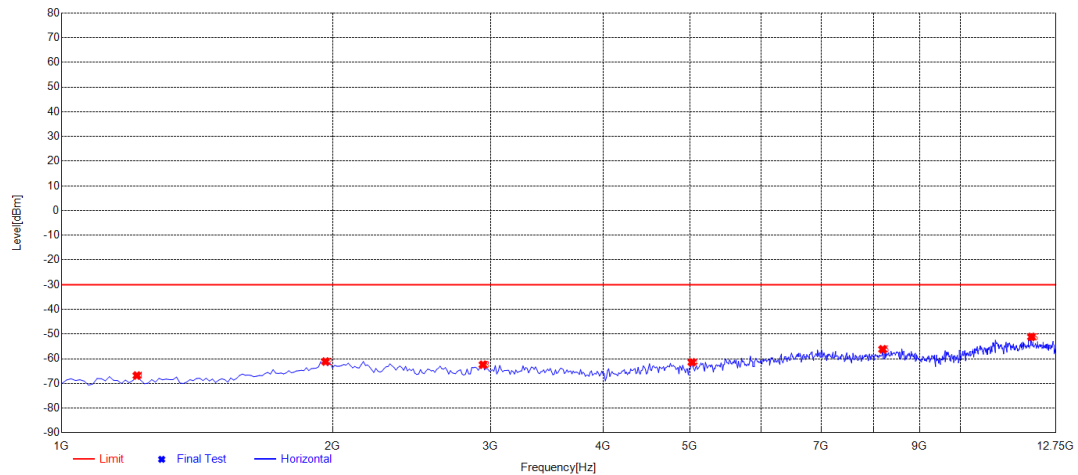
Test Mode:	TX: 486.800MHz			Polarity:			Horizontal	
								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	36.79	-78.90	-49.28	-36.00	13.28	29.62	80	Horizontal
2	62.98	-85.85	-60.40	-54.00	6.40	25.45	310	Horizontal
3	98.87	-80.54	-60.50	-54.00	6.50	20.04	20	Horizontal
4	264.74	-95.02	-67.59	-36.00	31.59	27.43	250	Horizontal
5	541.19	-97.11	-65.20	-54.00	11.20	31.91	20	Horizontal
6	1000	-96.28	-58.44	-36.00	22.44	37.84	330	Horizontal

Test Mode:	TX: 486.800MHz			Polarity:			Vertical	
								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	36.79	-80.13	-50.51	-36.00	14.51	29.62	10	Vertical
2	62.98	-86.08	-60.63	-54.00	6.63	25.45	250	Vertical
3	97.9	-80.78	-60.55	-54.00	6.55	20.23	230	Vertical
4	269.59	-95.63	-68.23	-36.00	32.23	27.40	100	Vertical
5	548.95	-97.69	-65.51	-54.00	11.51	32.18	40	Vertical
6	988.36	-96.56	-58.67	-36.00	22.67	37.89	180	Vertical

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Radiated Emissions Test Results Above 1GHz

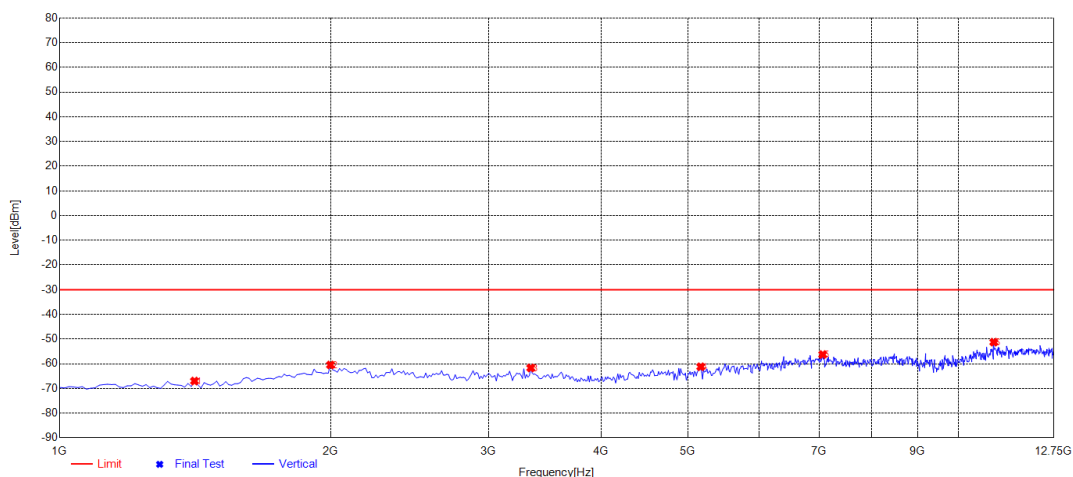
EUT	Mesh Groups Intercom System	Model Name	X10
Temperature	22.6° C	Relative Humidity	52.1%
Pressure	960hPa	Test Voltage	DC 3.8V by battery
Test Mode	Transmitting at 471.0MHz	Polarization	Horizontal



NO	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	1211.7117	-62.71	-66.79	-30.00	36.79	-4.08	160	Horizonta
2	1964.4645	-62.71	-61.12	-30.00	31.12	1.59	210	Horizonta
3	2940.6907	-64.05	-62.41	-30.00	32.41	1.64	350	Horizonta
4	5022.5225	-66.42	-61.41	-30.00	31.41	5.01	170	Horizonta
5	8186.4364	-64.02	-56.16	-30.00	26.16	7.86	300	Horizonta
6	11985.4855	-64.28	-51.13	-30.00	21.13	13.15	150	Horizonta

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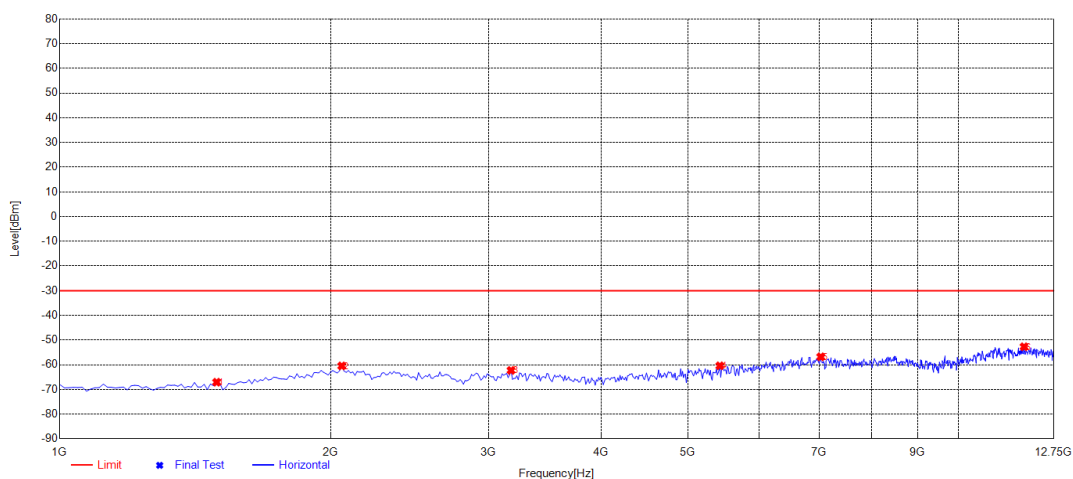
EUT	Mesh Groups Intercom System	Model Name	X10
Temperature	22.6°C	Relative Humidity	52.1%
Pressure	960hPa	Test Voltage	DC 3.8V by battery
Test Mode	Transmitting at 471.0MHz	Polarization	Vertical



NO	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	1411.6617	-62.86	-66.98	-30.00	36.98	-4.12	100	Vertical
2	1999.7498	-62.50	-60.48	-30.00	30.48	2.02	330	Vertical
3	3340.5906	-63.73	-61.68	-30.00	31.68	2.05	210	Vertical
4	5163.6637	-66.45	-61.20	-30.00	31.20	5.25	30	Vertical
5	7057.3073	-64.47	-56.26	-30.00	26.26	8.21	340	Vertical
6	10938.6887	-64.87	-51.25	-30.00	21.25	13.62	130	Vertical

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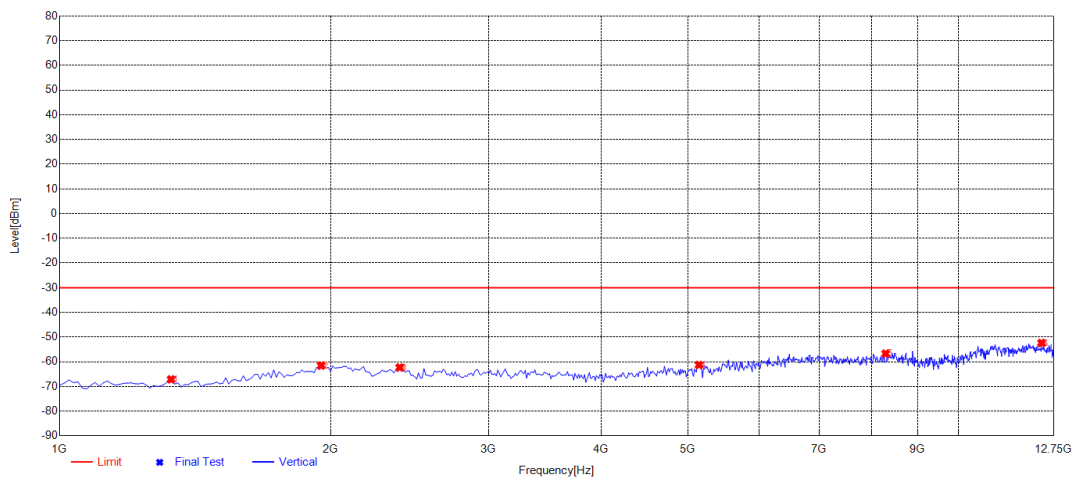
EUT	Mesh Groups Intercom System	Model Name	X10
Temperature	22.6°C	Relative Humidity	52.1%
Pressure	960hPa	Test Voltage	DC 3.8V by battery
Test Mode	Transmitting at 478.8MHz	Polarization	Horizontal



NO	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	1493.994	-62.92	-67.05	-30.00	37.05	-4.13	340	Horizontal
2	2058.5586	-62.54	-60.46	-30.00	30.46	2.08	340	Horizontal
3	3175.9259	-64.07	-62.27	-30.00	32.27	1.80	260	Horizontal
4	5422.4224	-66.07	-60.41	-30.00	30.41	5.66	240	Horizontal
5	7022.022	-65.04	-56.78	-30.00	26.78	8.26	320	Horizontal
6	11820.8208	-65.94	-52.70	-30.00	22.70	13.24	340	Horizontal

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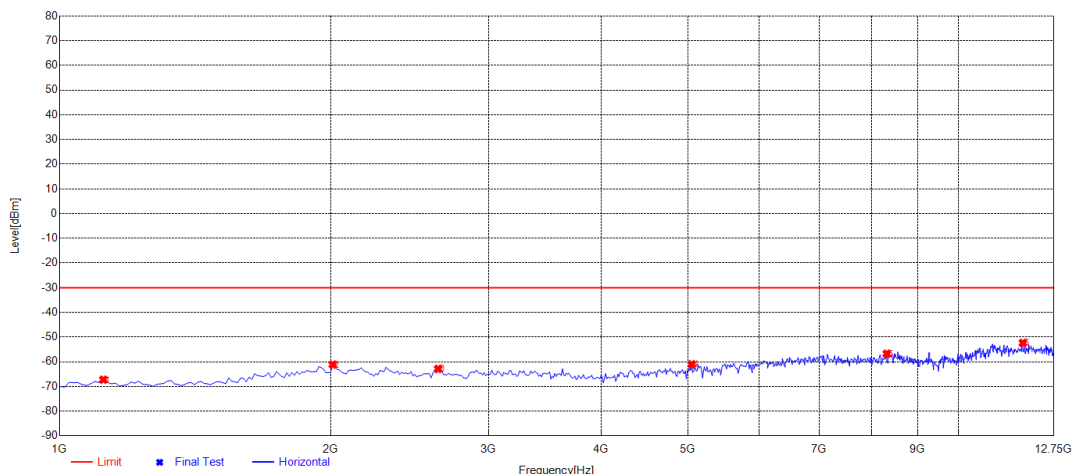
EUT	Mesh Groups Intercom System	Model Name	X10
Temperature	22.6°C	Relative Humidity	52.1%
Pressure	960hPa	Test Voltage	DC 3.8V by battery
Test Mode	Transmitting at 478.8MHz	Polarization	Vertical



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	1329.3293	-63.03	-67.13	-30.00	37.13	-4.10	80	Vertical
2	1952.7027	-62.97	-61.54	-30.00	31.54	1.43	330	Vertical
3	2387.8879	-64.72	-62.31	-30.00	32.31	2.41	110	Vertical
4	5140.1401	-66.48	-61.28	-30.00	31.28	5.20	90	Vertical
5	8292.2923	-64.71	-56.69	-30.00	26.69	8.02	40	Vertical
6	12361.8619	-65.63	-52.38	-30.00	22.38	13.25	310	Vertical

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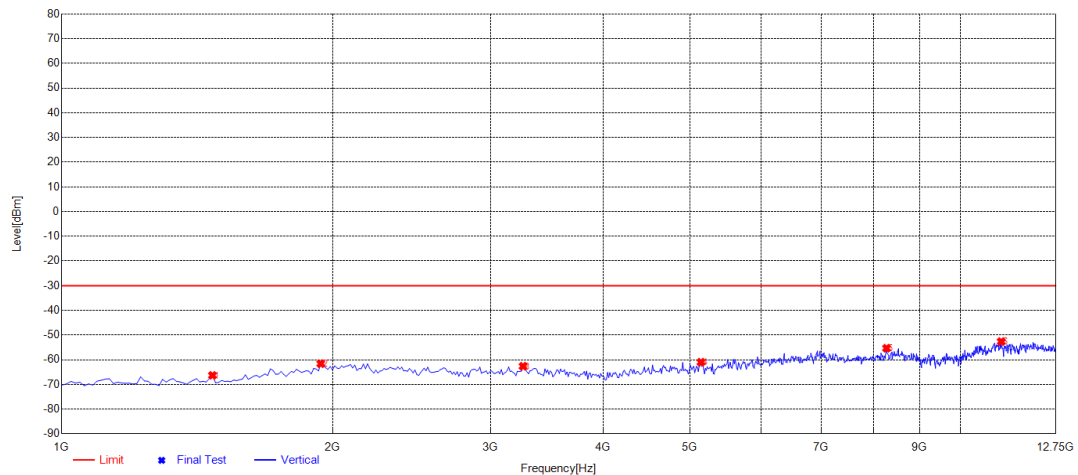
EUT	Mesh Groups Intercom System	Model Name	X10
Temperature	22.6°C	Relative Humidity	52.1%
Pressure	960hPa	Test Voltage	DC 3.8V by battery
Test Mode	Transmitting at 486.8MHz	Polarization	Horizontal



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	1117.6176	-63.17	-67.24	-30.00	37.24	-4.07	280	Horizontal
2	2011.5115	-63.18	-61.14	-30.00	31.14	2.04	110	Horizontal
3	2634.8849	-65.14	-62.88	-30.00	32.88	2.26	80	Horizontal
4	5046.046	-66.07	-61.02	-30.00	31.02	5.05	120	Horizontal
5	8315.8158	-64.79	-56.73	-30.00	26.73	8.06	190	Horizontal
6	11785.5355	-65.62	-52.35	-30.00	22.35	13.27	360	Horizontal

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EUT	Mesh Groups Intercom System	Model Name	X10
Temperature	22.6°C	Relative Humidity	52.1%
Pressure	960hPa	Test Voltage	DC 3.8V by battery
Test Mode	Transmitting at 486.8MHz	Polarization	Vertical



NO	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	1470.4705	-62.18	-66.31	-30.00	36.31	-4.13	160	Vertical
2	1940.9409	-62.88	-61.59	-30.00	31.59	1.29	290	Vertical
3	3258.2583	-64.53	-62.61	-30.00	32.61	1.92	240	Vertical
4	5140.1401	-66.18	-60.98	-30.00	30.98	5.20	250	Vertical
5	8268.7688	-63.31	-55.31	-30.00	25.31	8.00	80	Vertical
6	11091.5916	-66.36	-52.61	-30.00	22.61	13.75	90	Vertical

RESULT: PASS

Note:

1. The amplitude of other spurious emissions from 1G to 6 GHz which are attenuated more than 20 dB below the permissible value need not be reported.
2. Factor = Antenna Factor + Cable loss – Pre-amplifier gain, Margin =Emission Level-Limit.
3. The “Factor” value can be calculated automatically by software of measurement system.

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9. Frequency Stability Measurement

9.1 Provisions Applicable

According to FCC Part 15.236(f)(3) description below:

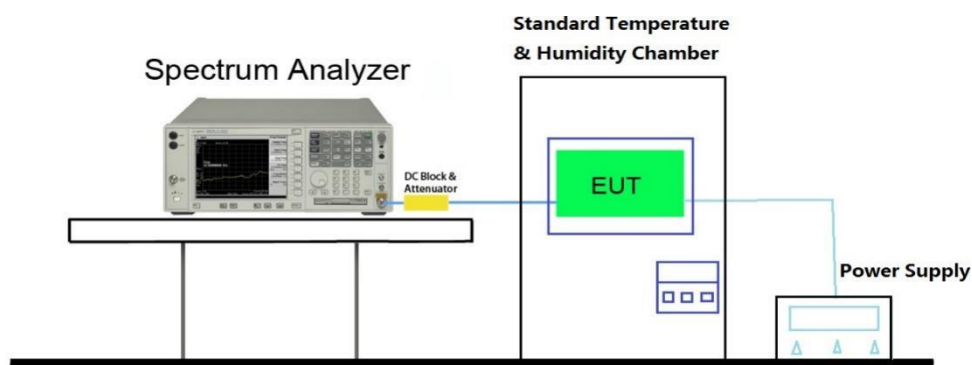
The frequency tolerance of the carrier signal shall be maintained within $\pm 0.005\%$ of the operating frequency over a temperature variation of -20 degrees to $+50$ degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. Battery operated equipment shall be tested using a new battery.

9.2 Measurement Procedure

The EUT was connected to a frequency counter or spectrum analyzer through the antenna output of each transmitter. The EUT was then placed in a temperature chamber.

1. The nominal frequency of the transmitter was measured and recorded.
2. The temperature chamber was then set to -30°C .
3. Once the temperature had reached -30°C the EUT was allowed to soak for 30 minutes.
4. After soaking at -30°C for thirty minutes the EUT was turned on and the transmit frequency was measured and recorded.
5. Steps (b) through (d) were repeated for each temperature in 10°C steps from -20°C to $+50^{\circ}\text{C}$.
6. The EUT was then removed from the temperature chamber and allowed to adjust to nominal room temperature (20°C).
7. The input voltage was checked and adjusted to the nominal level. The frequency was measured and recorded.
8. The input voltage was then varied to 85% of its nominal level. The frequency was measured and recorded.
9. The input voltage was then varied to 115% of its nominal level. The frequency was measured and recorded.
10. The fc is declaring of channel frequency. Then the frequency error formula is $(f_c - f)/f_c \times 10^6$ ppm and the limit is less than ± 50 ppm.

9.3 Measurement Setup (Block Diagram of Configuration)



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9.4 Measurement Result

Test conditions		Frequency error (ppm)			Limit (ppm)	Result
Voltage (V)	Temperature (°C)	Test Frequency (MHz)				
		471.000	478.800	486.800		
3.80	-30	0	0	-1.0	± 50	Pass
	-20	-1.86	-1.78	-2.45		
	-10	-1.02	-1.12	-1.55		
	0	-4.21	-4.36	-4.91		
	10	-6.64	-6.96	-7.25		
	20	-1.29	-1.42	-1.68		
	30	-5.14	-5.44	-5.77		
	40	-0.85	-0.92	-1.36		
	50	-0.98	-1.19	-1.27		
4.18	20	-4.41	-4.75	-5.26		
3.42	20	-6.35	-6.58	-7.11		

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10. AC Power Line Conducted Emission Test

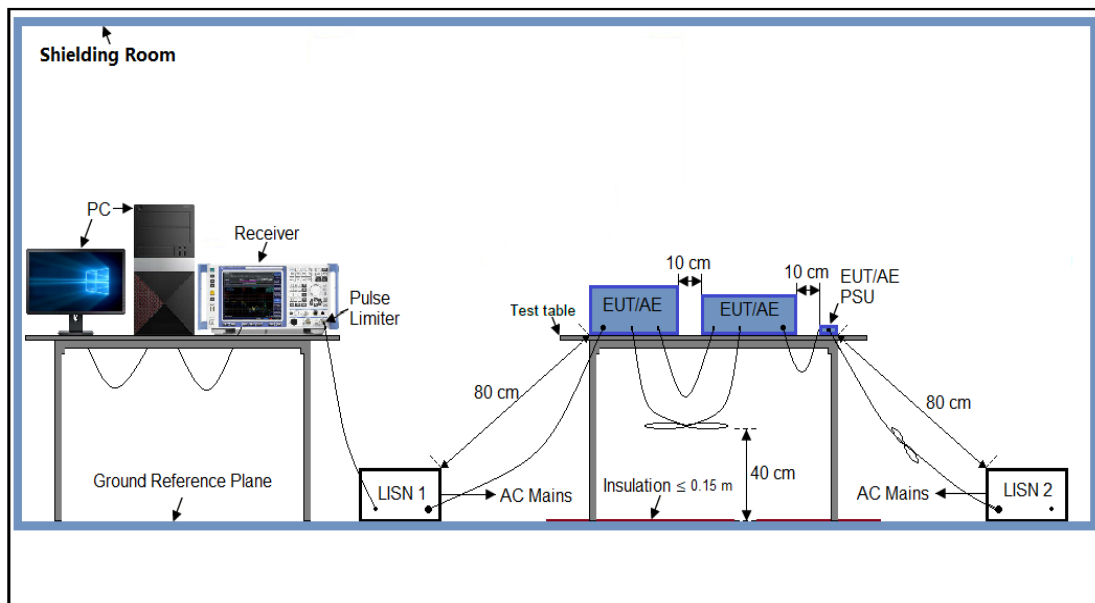
10.1 Measurement Limits

Frequency Range	Maximum RF Line Voltage	
	Q.P. (dBμV)	Average (dBμV)
150kHz~500kHz	66-56	56-46
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Note:

1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

10.2 Measurement Setup (Block Diagram of Configuration)



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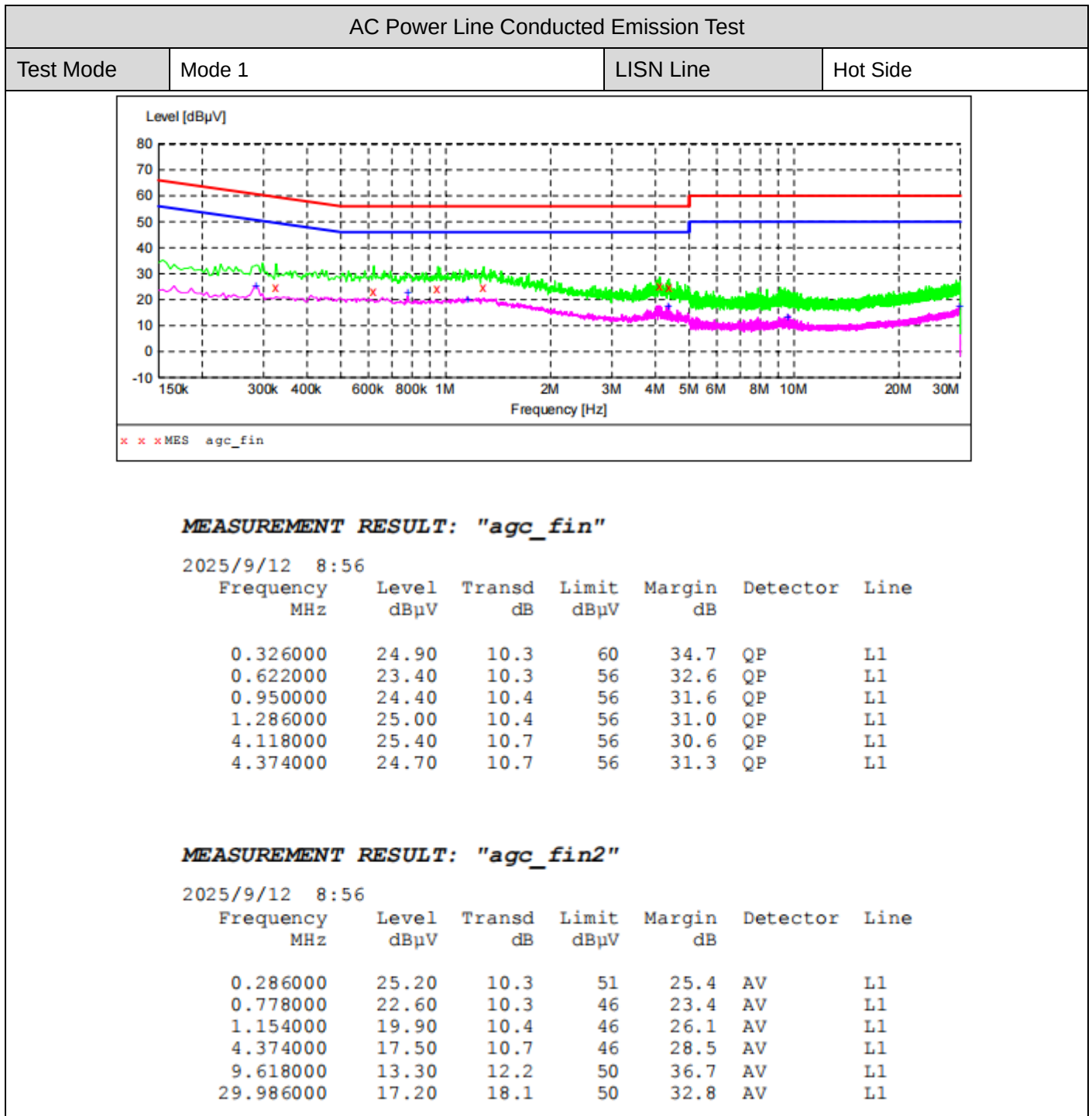
10.3 Preliminary Procedure of Line Conducted Emission Test

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
2. Support equipment, if needed, was placed as per ANSI C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. All support equipment received AC120V/60Hz power from a LISN, if any.
5. The EUT received DC 5V power from adapter which received AC120V/60Hz power from a LISN.
6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.
9. The test mode(s) were scanned during the preliminary test.
10. Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

10.4 Final Procedure of Line Conducted Emission Test

1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less – 2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
3. The test data of the worst case condition(s) was reported on the Summary Data page.
4. A conducted emission is calculated by the following equation:
 - a) Measurement Level (dBμV) = Receiver reading (dBμV) + Transd (dB)
 - b) Transd (dB)= AMN Factor(dB)+Cable Loss(dB)+Attenuation(dB)
 - c) Margin= Limit-Level

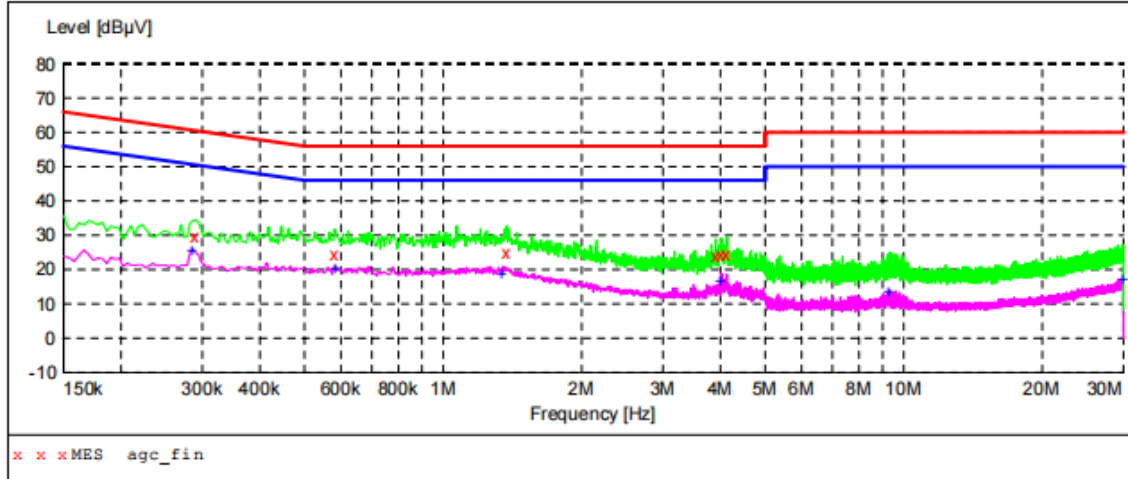
10.5 Measurement Result



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AC Power Line Conducted Emission Test

Test Mode	Mode 1	LISN Line	Neutral Side
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MEASUREMENT RESULT: "agc_fin"

2025/9/12 8:59

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line
0.290000	29.50	10.3	61	31.0	QP	N
0.582000	24.30	10.3	56	31.7	QP	N
1.374000	24.70	10.4	56	31.3	QP	N
3.906000	24.00	10.7	56	32.0	QP	N
4.022000	24.40	10.7	56	31.6	QP	N
4.126000	24.20	10.7	56	31.8	QP	N

MEASUREMENT RESULT: "agc_fin2"

2025/9/12 8:59

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line
0.286000	25.20	10.3	51	25.4	AV	N
0.582000	20.30	10.3	46	25.7	AV	N
1.350000	18.80	10.4	46	27.2	AV	N
4.022000	16.50	10.7	46	29.5	AV	N
9.326000	13.20	12.1	50	36.8	AV	N
29.990000	17.20	18.1	50	32.8	AV	N

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Appendix I: Photographs of Test Setup

Refer to the Report No.: AGC00749250901AP02

Appendix II: Photographs of Test EUT

Refer to the Report No.: AGC00749250901AP03

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3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
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7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

-----End of Report-----

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