TEST REPORT

Applicant Name:	Meizhou Guo Wei Electronics Co., Ltd.
Address:	AD1 Section, The Economic Development Area, Meizhou, Guangdong 514000 China
Report Number:	2601P43204E-RFCA4
FCC ID:	2ARRB-PIP1510CBU
IC:	20353-PIP1510CBU

Test Standard (s)

FCC PART 15.247; RSS-GEN ISSUE 5, FEBRUARY 2021 AMENDMENT 2;
RSS-247, ISSUE 4, JULY 2025

Sample Description

Product Type:	Video baby monitor
Model No.:	PIP1515 CONNECT BU
Multiple Model(s) No.:	N/A
Trade Mark:	Motorola
Date Received:	2026/01/23
Issue Date:	2026/04/22

Test Result:	Pass▲

▲ In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Wills Yu
RF Engineer

Approved By:

Jimmy Xiao
EMC Manager

Note: The information marked# is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

This report may contain data that are not covered by the NVLAP accreditation and are marked with an asterisk "▼".

TABLE OF CONTENTS

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2601P43204E-RFCA4	Original Report	2026/04/22

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

HVIN	PIP1515 CONNECT BU
FVIN	N/A
Product	Video baby monitor
Tested Model	PIP1515 CONNECT BU
Multiple Model(s)	N/A
Frequency Range	2402-2477MHz
Maximum conducted Peak output power#	14.33dBm
Modulation Technique	GFSK
Antenna Specification#	0dBi (provided by the applicant)
Voltage Range	DC 5V from adapter
Sample number	3GLI-1 for AC Line Conducted Emissions and Radiated Emissions Test 3GLI-2 for RF Conducted Test (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	Model: S012-1B050150VU Input: AC 100-240V~50/60Hz, 0.3A Output: DC 5.0V, 1.5A

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commissions rules and RSS-247 ISSUE 4, July 2025, RSS-GEN Issue 5, Feb. 2021 Amendment 2 of the Innovation, Science and Economic Development Canada rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 ▼, RSS-Gen and RSS-247.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		52.29kHz(k=1.96, 95% level of confidence)
RF Frequency		81.235Hz(k=1.96, 95% level of confidence)
RF output power, conducted		1.57dB(k=1.96, 95% level of confidence)
Conducted Spurious Emission		2.48dB(k=1.96, 95% level of confidence)
AC Power Lines Conducted Emissions	9kHz~150 kHz	3.46dB(k=2, 95% level of confidence)
	150 kHz ~30MHz	3.72dB(k=2, 95% level of confidence)
Radiated Emissions	0.009MHz~30MHz	3.66dB(k=2, 95% level of confidence)
	30MHz~1000MHz (Horizontal)	5.10dB(k=2, 95% level of confidence)
	30MHz~1000MHz (Vertical)	6.28dB(k=2, 95% level of confidence)
	1GHz - 6GHz	6.18dB(k=2, 95% level of confidence)
	6GHz - 18GHz	6.62dB(k=2, 95% level of confidence)
	18GHz - 40GHz	6.66dB(k=2, 95% level of confidence)
Temperature		±0.4℃
Humidity		±2%
Supply voltages		DC±0.4%;AC±1%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, test firm registration No.: 715558, the FCC Designation No. : CN5045.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0023.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in an engineering mode.

Channel list

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2402	12	2445
2	2404	13	2450
3	2406	14	2455
4	2408	15	2460
5	2410	16	2465
6	2415	17	2467
7	2420	18	2469
8	2425	19	2471
9	2430	20	2473
10	2435	21	2475
11	2440	22	2477

Channel 1, 11, 22 was tested

EUT Exercise Software

"Teraterm#" exercise software was used and the power level is Default#. The software and power level were provided by the manufacturer.

Special Accessories

No special accessory.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

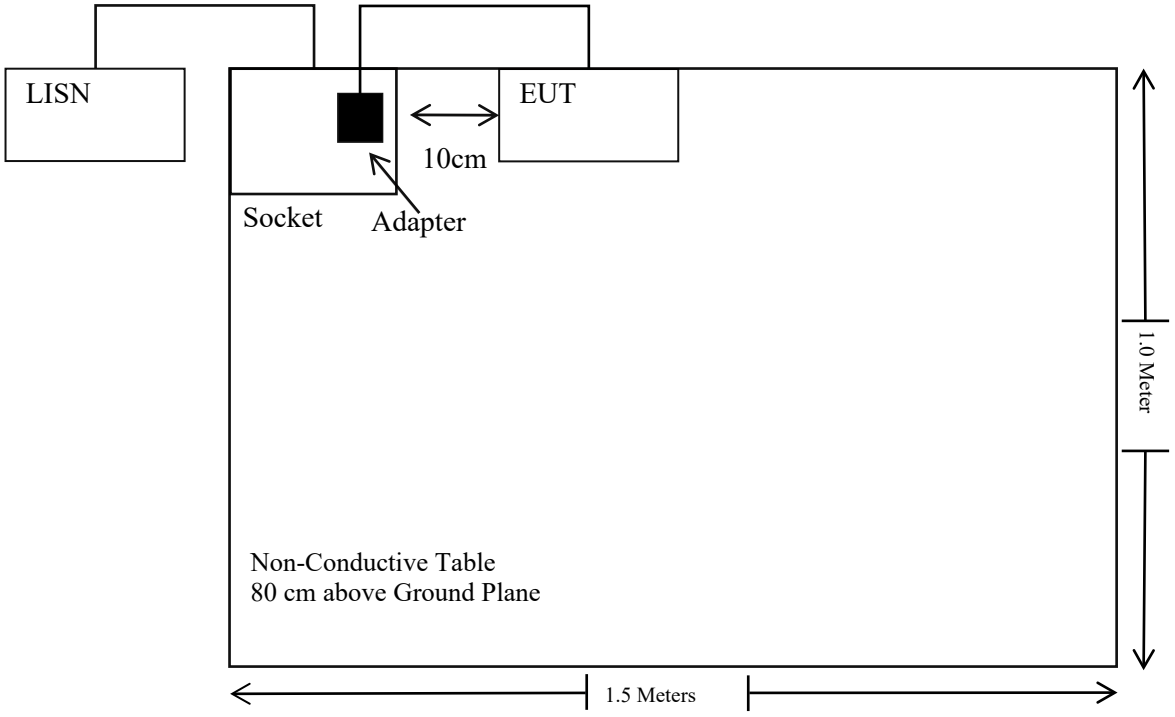
Manufacturer	Description	Model	Serial Number
DELL	PC	Vostro 3690	E569659A9981
Lenovo	LED display	L2364A	U310FZR9
Unknown	Serial Boad	Unknown	Unknown

External I/O Cable

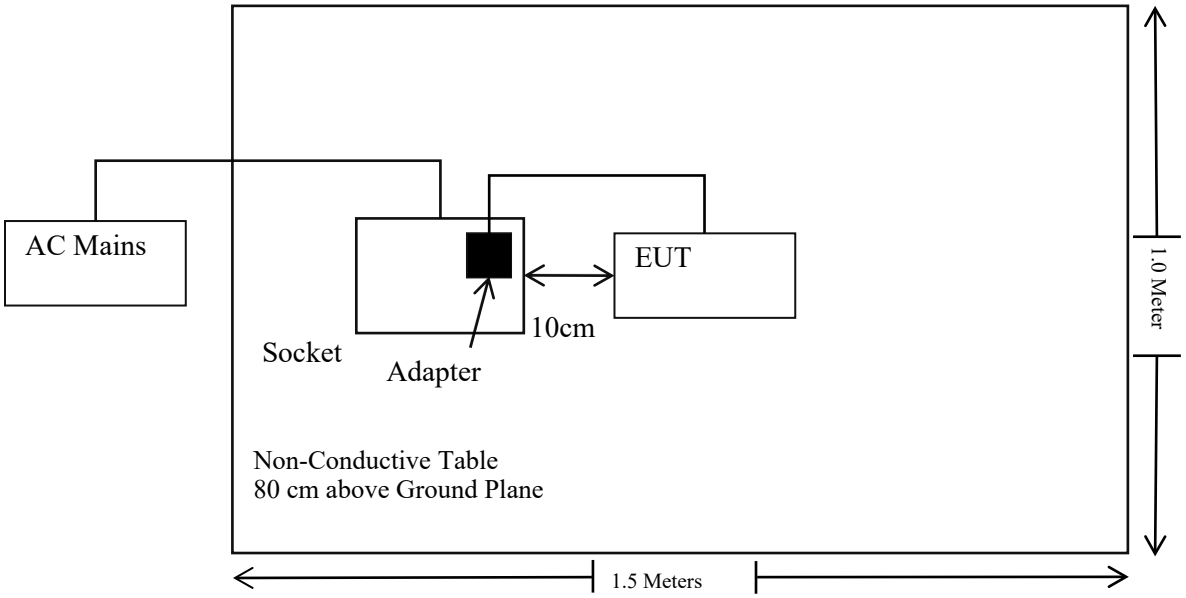
Cable Description	Length (m)	From Port	To
Unshielded Un-detachable AC Cable	1.2	Socket	LISN/AC Mains
Unshielded Un-detachable DC Cable	3.0	Adapter	EUT
Unshielded Un-detachable DC Cable	0.1	Serial Board	EUT

Block Diagram of Test Setup

For AC Line Conducted Emissions



For Radiated Emissions below 1GHz:



SUMMARY OF TEST RESULTS

Test Rules	Test Rules	Description of Test	Result	Remark
§15.247 (i), §2.1091	/	MPE-Based Exemption	Compliant	-
/	RSS-102 § 6.6	Field reference level exposure exemption limits	Compliant	-
FCC §15.203	RSS-Gen §6.8	Antenna Requirement	Compliant	-
§15.207(a)	RSS-Gen §8.8	AC Line Conducted Emissions	Compliant	-
§15.205, §15.209 & §15.247(d)	RSS-247 §6.6, RSS-GEN §8.10	Radiated Emissions Below 1GHz	Compliant	-
§15.205, §15.209 & §15.247(d)	RSS-247 §6.6, RSS-GEN §8.10	Radiated Emissions Above 1GHz	-	See Note
§15.247(a)(1)	RSS-247 §6.2.1(a), RSS-GEN §6.7	99% Occupied Bandwidth & 20 dB Emission Bandwidth	-	See Note
§15.247(a)(1)	RSS-247 §6.2.1(b), §6.2.3.1(a)	Channel Separation Test	-	See Note
§15.247(a)(1)(iii)	RSS-247 §6.2.3.1(b)	Time of Occupancy (Dwell Time)	-	See Note
§15.247(a)(1)(iii)	RSS-247 §6.2.3.1(b)	Quantity of hopping channel Test	-	See Note
§15.247(b)(1)	RSS-247 §6.2.3.2	Peak Output Power Measurement	-	Report Only
§15.247(d)	RSS-247 §6.6	Band edges	-	See Note

Note:

1. This is a CIIPC application for FCC ID: 2ARRB-PIP1510CBU granted on 12/15/2021, IC: 20353-PIP1510CBU granted on 12/21/2021, the below changes were provided by the applicant:

(1) Add the model number, HVIN, PMN “PIP1515 CONNECT BU”, add the APP “Motorola Bebé”.

(2) Upgrade the standard version to “RSS-247, ISSUE 4, JULY 2025; RSS-102 Issue 6, December 15, 2023”.

(3) Change the silk screen on the memory chip, but the parameters remain the same.

(4) Add external temperature stalk.

(5) Delete the adapter (Model: BQ12G-0501500-U).

(6) Change the partial non-RF circuits, please refer to the Permissive Change Declaration Letter for more details.

Based on the above difference, it will impact test data “AC Line Conducted Emissions and Spurious Emissions for below 1GHz” and the “Maximum Conducted Output Power” was tested for the spot check. We also updated related photos in the report.

2. The other test data and photos please refer to the report: SZ1210926-54083E-RF-00B#.

3. The BACL (SZ) is responsible for all the information provided in this report, except when information is provided by the customer as identified in this report.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
AC Line Conducted Emissions Test					
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2025/09/01	2026/08/31
Rohde & Schwarz	LISN	ENV216	101613	2025/09/18	2026/09/17
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2025/09/18	2026/09/17
Unknown	CE Cable	Unknown	UF A210B-1-0720-504504	2025/09/18	2026/09/17
Audix	EMI Test software	E3	191218 V9(c)	NCR	NCR
Radiated Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2025/09/01	2026/08/31
Sonoma instrument	Pre-amplifier	310 N	186238	2025/09/08	2026/09/07
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Chamber A Cable	Cable A1	Cable A1	2025/09/08	2026/09/07
Unknown	Chamber A Cable	Cable A2	Cable A2	2025/09/08	2026/09/07
BACL	Active Loop Antenna	1313-1A	4031911	2024/05/14	2027/05/13
Unknown	Chamber A Cable	Cable A3	Cable A3	2025/09/08	2026/09/07
Unknown	Chamber A Cable	Cable A4	Cable A4	2025/09/08	2026/09/07
Audix	EMI Test software	E3	19821b(V9)	NCR	NCR
TDK	Chamber	Chamber A	2#	2023/07/12	2026/07/11
RF Conducted Test					
ANRITSU	Microwave peak power sensor	MA24418A	12622	2025/09/01	2026/08/31
Unknown	10dB Attenuator	Unknown	F-03-EM190	2025/06/26	2026/06/25
Unknown	RF Cable	Cable RF11	Cable RF11	2025/06/26	2026/06/25

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC 1.1307 (B) & §2.1091- MPE-BASED EXEMPTION

Applicable Standard

According to subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

According to KDB 447498 D04 v01 Interim General RF Exposure Guidance

MPE-Based Exemption:

General frequency and separation-distance dependent MPE-based effective radiated power (ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(1)(i)(C)] to support an exemption from further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1,920 R^2.
1.34-30	3,450 R^2/f^2.
30-300	3.83 R^2.
300-1,500	0.0128 R^2f.
1,500-100,000	19.2R^2.

Ris the minimum separation distance in meters
f = frequency in MHz

For multiple RF sources: Multiple RF sources are exempt if:

in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation:

$$\sum_{i=1}^{a} \frac{P_i}{P_{th,i}} + \sum_{j=1}^{b} \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^{c} \frac{Evaluated_k}{Exposure\ Limit_k} \leq 1$$

Result

Mode	Frequency (MHz)	Tune up conducted power#(dBm)	Antenna Gain#		ERP		Evaluation Distance (m)	ERP Limit (W)
			(dBi)	(dBd)	(dBm)	(W)		
FHSS	2402-2477	15	0	-2.15	12.85	0.019	0.2	0.768
Wi-Fi	2412-2462	26	0	-2.15	23.85	0.243	0.2	0.768

Note 1: The tune up conducted power and antenna gain was declared by the applicant.
Note 2: The FHSS and Wi-Fi can transmit at same time.

Simultaneous transmitting consideration (worst case):

The ratio=ERP_{FHSS}/limit+ ERP_{Wi-Fi}/limit = 0.019/0.768+0.243/0.768 =0.34<1.0

So simultaneous exposure is compliant.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliant

RSS-102 § 6.6 - FIELD REFERENCE LEVEL EXPOSURE EXEMPTION LIMITS

Applicable Standard

According to RSS-102 Issue 6§6.6:

Field reference level (FRL) exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm (i.e. mobile devices), except when the device operates as follows:

• below 20 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 1 W (adjusted for tune-up tolerance)

• at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than $4.49/f^{0.5}$ W (adjusted for tune-up tolerance), where f is in MHz

• at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance)

• at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz

• at or above 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 5 W (adjusted for tune-up tolerance) In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the EIRP was derived.

Test Result:

For worst case:

Mode	Frequency (MHz)	Maximum tune-up conducted power# (dBm)	Antenna Gain#	Maximum tune-up EIRP		Evaluation Distance (m)	Limit (mW)
			(dBi)	(dBm)	(mW)		
FHSS	2402-2477	15	0	15	31.62	0.2	2676
Wi-Fi	2412-2462	26	0	26	398.11	0.2	2684

Note: 1. The tune up conducted power# and antenna gain# was declared by the applicant.
2: The FHSS and Wi-Fi can transmit at same time.

Simultaneous transmitting consideration (worst case):

The ratio= $EIRP_{FHSS}$/limit + $EIRP_{Wi-Fi}$/limit = 31.62/2676+ 398.11/2684=0.16<1.0

So simultaneous exposure is compliant.

Result: Compliant

Note: To maintain compliance with the RF exposure guidelines, place the equipment at least 20cm from nearby persons.

FCC §15.203 & RSS-GEN §6.8 - ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, 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 shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine Compliant with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

a. Antenna must be permanently attached to the unit.
b. Antenna must use a unique type of connector to attach to the EUT.
c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to RSS-Gen §6.8,

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the Compliant of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device’s antenna shall be stated, based on a measurement or on data from the antenna’s manufacturer.

The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested.

For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter [enter the device’s ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

Antenna Connector Construction

The EUT has one internal antenna arrangements which were permanently attached for FHSS and the gain is 0dBi, fulfill the requirement of this section. Please refer to the EUT photos.

Type	Antenna Gain#	Impedance
Monopole	0dBi	50Ω

Result: Compliant

FCC §15.207 (a) & RSS-GEN §8.8 - AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a) & RSS-Gen §8.8

Unless stated otherwise in the applicable RSS, for radio apparatus that are designed to be connected to the public utility AC power network, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the range 150 kHz to 30 MHz shall not exceed the limits in table 4, as measured using a 50 μH / 50 Ω line impedance stabilization network. This requirement applies for the radio frequency voltage measured between each power line and the ground terminal of each AC power-line mains cable of the EUT.

For an EUT that connects to the AC power lines indirectly, through another device, the requirement for compliance with the limits in table 4 shall apply at the terminals of the AC power-line mains cable of a representative support device, while it provides power to the EUT. The lower limit applies at the boundary between the frequency ranges. The device used to power the EUT shall be representative of typical applications.

Table 4 - AC Power Lines Conducted Emission Limits		
Frequency range (MHz)	**Conducted limit (dBμV)**	
	Quasi-Peak	**Average**
0.15 – 0.5	66 to 56[1]	56 to 46[1]
0.5 – 5	56	46
5 – 30	60	50

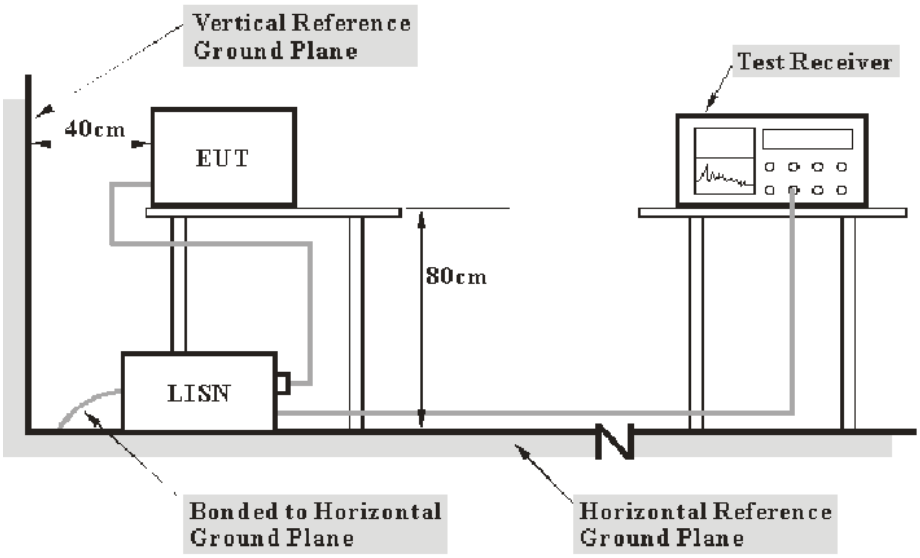
Note 1: The level decreases linearly with the logarithm of the frequency.

For an EUT with a permanent or detachable antenna operating between 150 kHz and 30 MHz, the AC power-line conducted emissions must be measured using the following configurations:

(a) Perform the AC power-line conducted emissions test with the antenna connected to determine compliance with the limits of table 4 outside the transmitter's fundamental emission band.

(b) Retest with a dummy load instead of the antenna to determine compliance with the limits of table 4 within the transmitter's fundamental emission band. For a detachable antenna, remove the antenna and connect a suitable dummy load to the antenna connector. For a permanent antenna, remove the antenna and terminate the RF output with a dummy load or network that simulates the antenna in the fundamental frequency band.

EUT Setup



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

The measurement procedure of EUT setup is according with ANSI C63.10-2020. The related limit was specified in FCC Part 15.207 and RSS-Gen limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All final data was recorded in the Quasi-peak and average detection mode.

Factor & Over Limit Calculation

The factor is calculated by adding LISN VDF (Voltage Division Factor) and Cable Loss. The basic equation is as follows:

Factor = LISN VDF + Cable Loss

The "**Over limit**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over limit of -7 dB means the emission is 7 dB below the limit. The equation for calculation is as follows:

Over Limit = Level – Limit
Level = Read Level + Factor

Note: The term "cable loss" refers to the combination of a cable and a 10dB transient limiter (attenuator).

Test Data

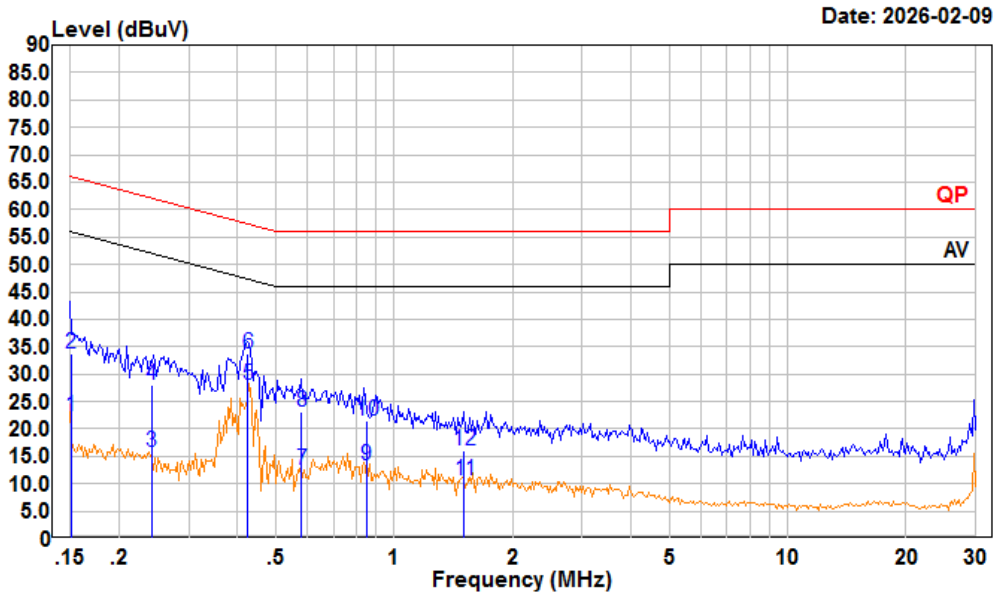
Environmental Conditions

Temperature:	25.1 ℃
Relative Humidity:	50 %
ATM Pressure:	101.2 kPa

The testing was performed by Macy Shi on 2026-02-09.

EUT operation mode: Transmitting (Worst case is low channel)

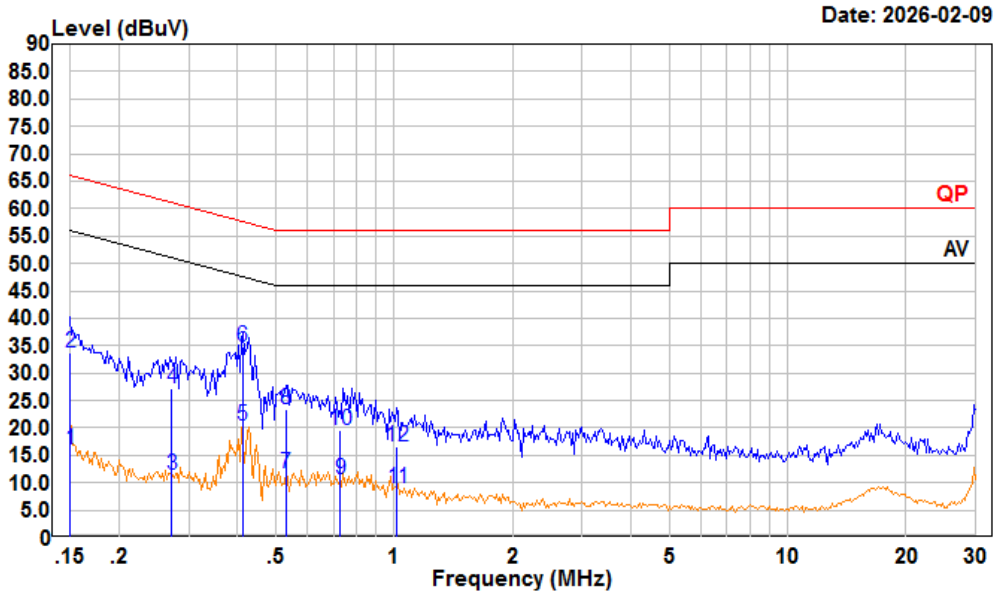
AC 120V/60 Hz, Line



Condition: Line
Project : 2601P43204E-RFA4
tester : Macy.shi Note:Transmitting
Setting : RBW:9kHz

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.151	2.64	22.36	9.70	10.02	55.97	-33.61	Average
2	0.151	13.94	33.66	9.70	10.02	65.97	-32.31	QP
3	0.242	-3.88	15.87	9.72	10.03	52.04	-36.17	Average
4	0.242	8.23	27.98	9.72	10.03	62.04	-34.06	QP
5	0.423	8.23	28.04	9.78	10.03	47.38	-19.34	Average
6	0.423	14.04	33.85	9.78	10.03	57.38	-23.53	QP
7	0.580	-7.37	12.47	9.80	10.04	46.00	-33.53	Average
8	0.580	3.31	23.15	9.80	10.04	56.00	-32.85	QP
9	0.848	-6.52	13.38	9.85	10.05	46.00	-32.62	Average
10	0.848	1.67	21.57	9.85	10.05	56.00	-34.43	QP
11	1.503	-9.38	10.73	9.90	10.21	46.00	-35.27	Average
12	1.503	-4.12	15.99	9.90	10.21	56.00	-40.01	QP

AC 120V/60 Hz, Neutral



Condition: neutral
Project : 2601P43204E-RFA4
test Mode: Macy.shi Note:Transmitting
tester : RBW:9kHz

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.150	-3.51	16.11	9.60	10.02	56.00	-39.89	Average
2	0.150	14.02	33.64	9.60	10.02	66.00	-32.36	QP
3	0.271	-8.06	11.57	9.60	10.03	51.07	-39.50	Average
4	0.271	7.46	27.09	9.60	10.03	61.07	-33.98	QP
5	0.412	0.71	20.34	9.60	10.03	47.62	-27.28	Average
6	0.412	15.20	34.83	9.60	10.03	57.62	-22.79	QP
7	0.530	-7.89	11.75	9.60	10.04	46.00	-34.25	Average
8	0.530	3.88	23.52	9.60	10.04	56.00	-32.48	QP
9	0.730	-9.07	10.57	9.60	10.04	46.00	-35.43	Average
10	0.730	-0.16	19.48	9.60	10.04	56.00	-36.52	QP
11	1.015	-10.84	8.98	9.60	10.22	46.00	-37.02	Average
12	1.015	-3.23	16.59	9.60	10.22	56.00	-39.41	QP

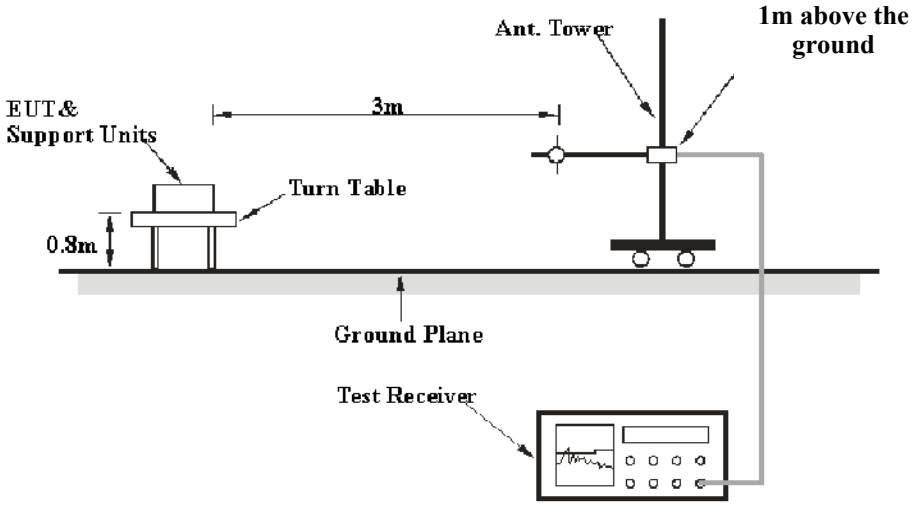
FCC §15.205, §15.209 & §15.247(d) & RSS-247§ 6.6 - RADIATED EMISSIONS

Applicable Standard

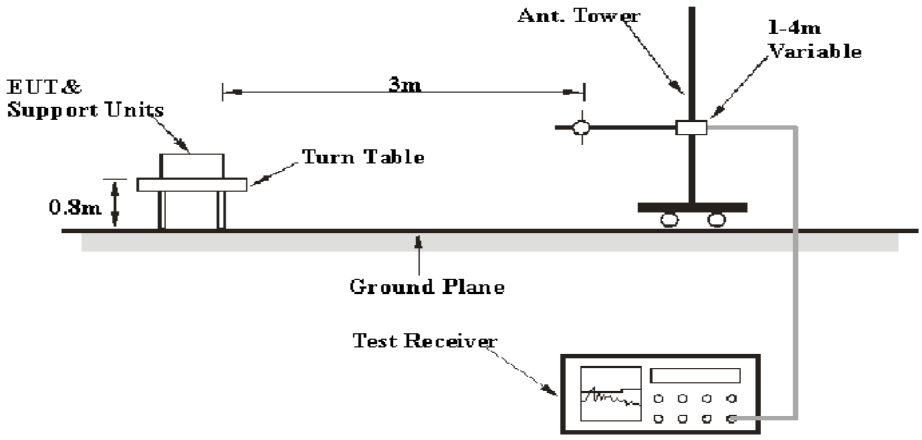
FCC §15.205; §15.209; §15.247(d); RSS-247§ 6.6; RSS-GEN § 8.10

EUT Setup

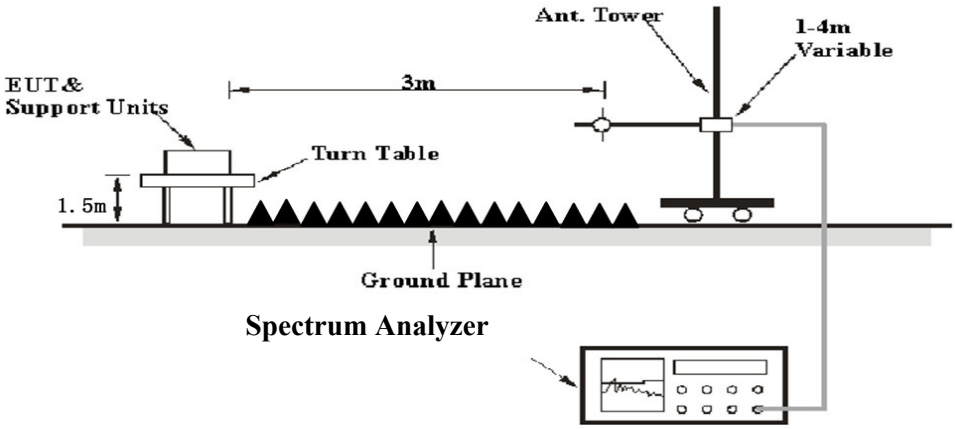
9 kHz-30MHz:



30MHz-1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters, using the setup accordance with the ANSI C63.10-2020. The specification used was the FCC 15.209, FCC 15.247 limits and RSS-247/RSS-Gen limits.

EMI Test Receiver & Spectrum Analyzer Setup

The EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement	Detector
9 kHz – 150 kHz	/	/	200 Hz	QP	QP
	300 Hz	1 kHz	/	PK	Peak
150 kHz – 30 MHz	/	/	9 kHz	QP	QP
	10 kHz	30 kHz	/	PK	Peak
30 MHz – 1000 MHz	/	/	120 kHz	QP	QP
	120 kHz	500 kHz	/	PK	Peak
Above 1 GHz	Harmonics				
	1MHz	3 MHz	/	PK	Peak
	Average Emission Level=Peak Emission Level+20*log(Duty cycle)				
	Band Edge & Other Emissions				
	1MHz	3 MHz	/	PK	Peak
	1MHz	≥10 Hz	/	Average	Peak

For Duty cycle measurement:

Use the duty cycle factor correction factor method per 15.35(c).
Duty cycle=On time/100milliseconds, On time=N1*L1+N2*L2+…Nn-1*Ln-1+Nn*Ln,
Where N1 is number of type 1 pulses, L1 is length of type 1 pulse, etc.

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All final data was recorded in Quasi-peak detection mode except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz, average detection modes for frequency bands 9–90 kHz and 110–490 kHz, peak and average detection modes for frequencies above 1 GHz.

For 9 kHz-30MHz, the report shall list the six emissions with the smallest margin relative to the limit, for each of the three antenna orientations (parallel, perpendicular, and ground-parallel) unless the margin is greater than 20 dB.

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

All emissions under the average limit and under the noise floor have not recorded in the report.

Factor & Over Limit/Margin Calculation

The Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain. The basic equation is as follows:

Factor = Antenna Factor + Cable Loss - Amplifier Gain

The "**Over Limit/Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit/margin of -7dB means the emission is 7dB below the limit. The equation for calculation is as follows:

Over Limit/Margin = Level/Corrected Amplitude – Limit
Level / Corrected Amplitude = Read Level + Factor

Test Data

Environmental Conditions

Temperature:	23.2 ℃
Relative Humidity:	45 %
ATM Pressure:	100.8 kPa

The testing was performed by Anson Su and Nico Wu from 2026-02-07 to 2026-04-22 for below 1GHz.

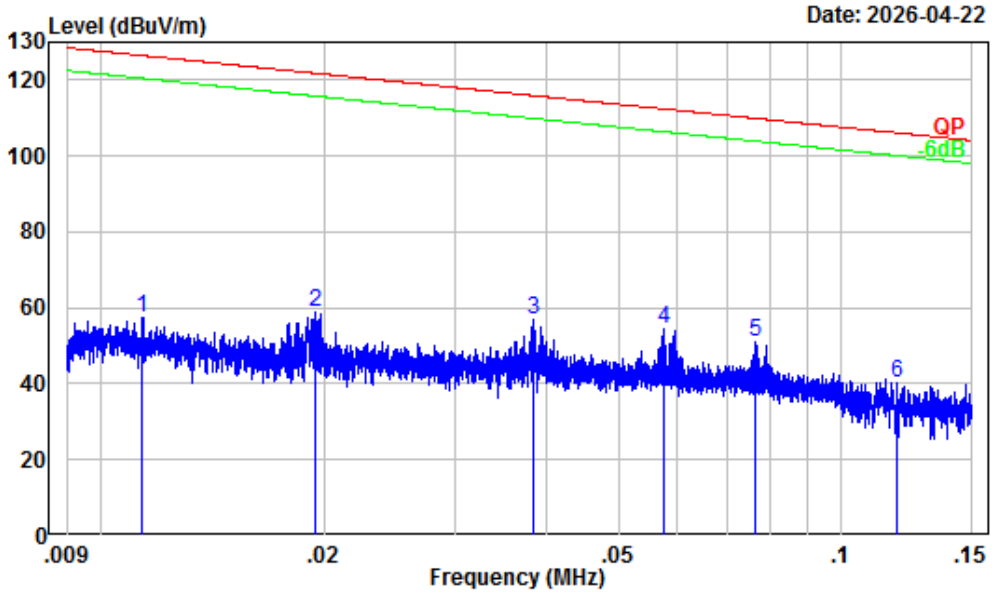
EUT operation mode: Transmitting

9 kHz-30MHz:

Note 1: When the test result of peak was less than the limit of QP/Average more than 6dB, just peak value were recorded.

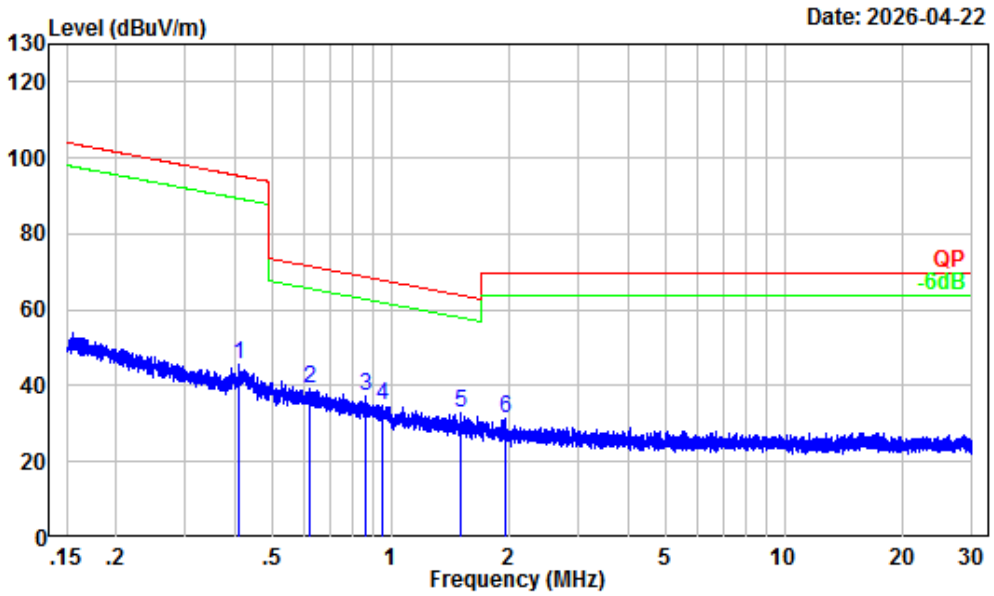
Note 2. The spurious emission from 9 kHz-30MHz of IC RSS-GEN standard, the unit of final result on the test plots are dBµV/m, so the limit should be added by 51,5 dB from dBµA/m to dBµV/m.

Note 3. For the radiated spurious emission below 30MHz, only the worst case (Parallel) was recorded.



Site : Chamber A
Condition : 3m
Project Number : 2601P43204E-RFA4
Test Mode : SRD Transmitting
Detector: Peak RBW/VBW: 0.3/1kHz
Tester : Nico Wu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.011	32.04	25.57	57.61	126.48	-68.87	Peak
2	0.019	30.50	28.26	58.76	121.81	-63.05	Peak
3	0.038	27.63	29.12	56.75	115.94	-59.19	Peak
4	0.058	25.64	28.99	54.63	112.40	-57.77	Peak
5	0.077	23.75	27.37	51.12	109.93	-58.81	Peak
6	0.119	20.90	19.50	40.40	106.12	-65.72	Peak

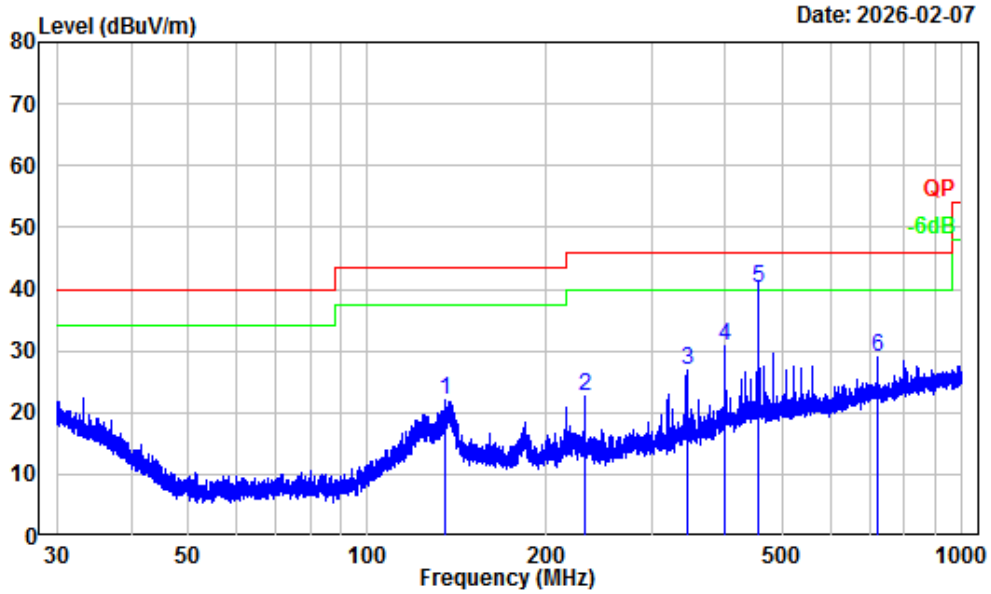


Site : Chamber A
Condition : 3m
Project Number : 2601P43204E-RFA4
Test Mode : SRD Transmitting
Detector: Peak RBW/VBW: 10/30kHz
Tester : Nico Wu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.411	8.09	37.55	45.64	95.33	-49.69	Peak
2	0.620	4.92	34.41	39.33	71.71	-32.38	Peak
3	0.858	2.26	34.99	37.25	68.83	-31.58	Peak
4	0.954	1.55	33.36	34.91	67.89	-32.98	Peak
5	1.501	-0.20	33.10	32.90	63.87	-30.97	Peak
6	1.945	-1.45	32.77	31.32	69.54	-38.22	Peak

30MHz-1GHz: (*Maximum output power mode, low channel)*

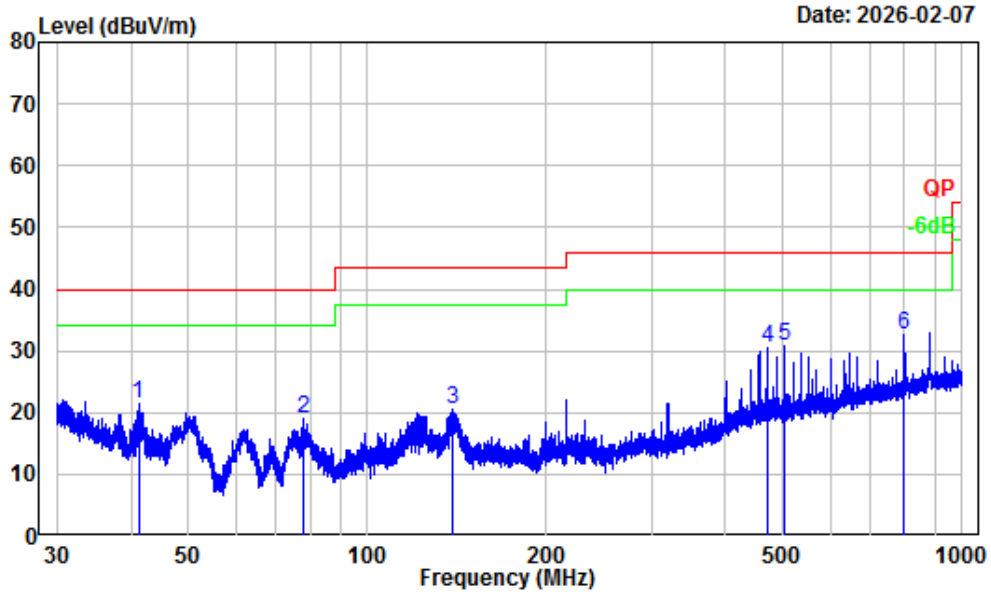
Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number : 2601P43204E-RFA4
Test Mode : Transmission
Detector: Peak RBW/VBW: 120/500kHz
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	135.09	-11.51	33.50	21.99	43.50	-21.51	Peak
2	232.02	-13.74	36.28	22.54	46.00	-23.46	Peak
3	344.08	-10.31	37.28	26.97	46.00	-19.03	Peak
4	400.08	-8.41	39.15	30.74	46.00	-15.26	Peak
5	453.51	-7.35	47.61	40.26	46.00	-5.74	QP
6	720.15	-3.20	32.17	28.97	46.00	-17.03	Peak

Vertical



Site : Chamber A
Condition : 3m Vertical
Project Number : 2601P43204E-RFA4
Test Mode : Transmission
Detector: Peak RBW/VBW: 120/500kHz
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	41.17	-13.20	34.56	21.36	40.00	-18.64	Peak
2	77.90	-17.82	36.73	18.91	40.00	-21.09	Peak
3	138.63	-11.75	32.37	20.62	43.50	-22.88	Peak
4	472.18	-6.65	37.01	30.36	46.00	-15.64	Peak
5	504.04	-5.77	36.68	30.91	46.00	-15.09	Peak
6	800.03	-2.14	34.87	32.73	46.00	-13.27	Peak

FCC §15.247(b) (1) & RSS-247§ 5.1(b) &§ 5.4(b) - PEAK OUTPUT POWER MEASUREMENT

Applicable Standard

According to §15.247(b) (1), for frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. And for all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts.

According to § RSS-247§ 5.4(b), For frequency hopping systems (FHSs) operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1.0 W if the hopset uses 75 or more hopping channels; the maximum peak conducted output power shall not exceed 0.125 W if the hopset uses less than 75 hopping channels. The e.i.r.p. shall not exceed 4 W (see Section 5.4(e) for exceptions).

According to § RSS-247§ 5.1(b), Frequency hopping systems (FHSs) shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, FHSs operating in the band 2400-2483.5 MHz may have hopping channel carrier frequencies that are separated by 25 kHz or two thirds of the -20 dB bandwidth of the hopping channel, whichever is greater, provided that the systems operate with an output power no greater than 0.125 W.

Test Procedure

Test Method: ANSI C63.10-2020 Clause 7.8.5

This is an RF-conducted test to evaluate maximum peak output power. Use a direct connection between the antenna port of the unlicensed wireless device and the spectrum analyzer, through suitable attenuation. The hopping shall be disabled for this test:

a) Use the following spectrum analyzer settings:

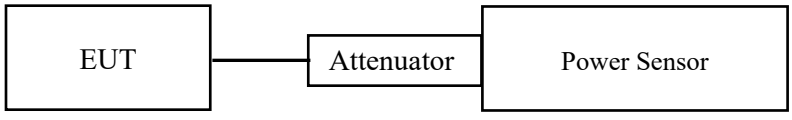
1) Span: Approximately five times the 20 dB bandwidth, centered on a hopping channel.
2) RBW > 20 dB bandwidth of the emission being measured.
3) VBW ≥ RBW.
4) Sweep: Auto.
5) Detector function: Peak.
6) Trace: Max hold.

b) Allow trace to stabilize.

c) Use the marker-to-peak function to set the marker to the peak of the emission.

d) The indicated level is the peak output power, after any corrections for external attenuators and cables.

NOTE—A peak responding power meter may be used, where the power meter and sensor system video bandwidth is greater than the occupied bandwidth of the unlicensed wireless device, rather than a spectrum analyzer.



Note: A short RF cable with low cable loss connected to the EUT antenna port, which was provided by client or lab, the cable loss was add with offset into test equipment, the total offset consists of attenuator and/or RF cable loss

Test Data

Environmental Conditions

Temperature:	24.8 ℃
Relative Humidity:	49 %
ATM Pressure:	101.3 kPa

The testing was performed by Ethan Bu on 2026-02-05.

EUT operation mode: Transmitting

Test Result: Compliant

Mode	Channel	Frequency (MHz)	Peak Output Power (dBm)	Limit (dBm)
GFSK	Low	2402	14.27	21
	Middle	2440	13.66	21
	High	2477	13.19	21

Note: the test data of the spot check is consistent with the original report.

EUT PHOTOGRAPHS

Please refer to the attachment 2601P43204E-RFA4-EXP External photo and 2601P43204E-RFA4-INP Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2601P43204E-RFCA4-TSP Test Setup photo.

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