

TEST REPORT

Applicant: QUANZHOU DAYTECH ELECTRONICS CO., LTD.

Address: Hengdali Business Center, North Quanan Road, Jinjiang
City, Quanzhou, Fujian, China

Product Name: Call Button

FCC ID: 2AWYQ-E-02N

Standard(s): 47 CFR Part 15, Subpart C(15.231)
ANSI C63.10-2013

Report Number: 2402Y50872E-RF-00

Report Date: 2025/2/20

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).

Pedro Yun

Reviewed By: Pedro Yun
Title: Project Engineer

Gavin Xu

Approved By: Gavin Xu
Title: RF Supervisor

Bay Area Compliance Laboratories Corp. (Dongguan)
No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China

Tel: +86-769-86858888

Fax: +86-769-86858891

www.baclcorp.com.cn

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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This report cannot be reproduced except in full, without prior written approval of the Company. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0. This report may contain data that are not covered by the accreditation scope and shall be marked with ★. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government. Each test item follows the test standard(s) without deviation.

CONTENTS

DOCUMENT REVISION HISTORY	4
1. GENERAL INFORMATION	5
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	5
1.2 ACCESSORY INFORMATION.....	5
1.3 ANTENNA INFORMATION DETAIL▲.....	5
1.4 EQUIPMENT MODIFICATIONS	5
2. SUMMARY OF TEST RESULTS	6
3. DESCRIPTION OF TEST CONFIGURATION	7
3.1 EUT OPERATION CONDITION.....	7
3.2 EUT EXERCISE SOFTWARE.....	7
3.3 SUPPORT EQUIPMENT LIST AND DETAILS	7
3.4 SUPPORT CABLE LIST AND DETAILS	7
3.5 BLOCK DIAGRAM OF TEST SETUP	7
3.6 TEST FACILITY.....	8
3.7 MEASUREMENT UNCERTAINTY	8
4. REQUIREMENTS AND TEST RESULT.....	9
4.1 AC LINE CONDUCTED EMISSIONS.....	9
4.2 RADIATION EMISSIONS.....	10
4.2.1 Applicable Standard.....	10
4.2.2 EUT Setup.....	11
4.2.3 EMI Test Receiver & Spectrum Analyzer Setup	12
4.2.4 Test Procedure	13
4.2.5 Corrected Amplitude & Margin Calculation.....	13
4.2.6 Test Result	14
4.3 20 dB EMISSION BANDWIDTH:.....	24
4.3.1 Applicable Standard.....	24
4.3.2 EUT Setup.....	24
4.3.3 Test Procedure	24
4.3.4 Test Result	25
4.4 DEACTIVATION TESTING.....	27
4.4.1 Applicable Standard.....	27
4.4.2 EUT Setup.....	27
4.4.3 Test Procedure	28
4.4.4 Test Result	29
4.5 ANTENNA REQUIREMENT.....	31
4.5.1 Applicable Standard.....	31
4.5.2 Judgment.....	31
EXHIBIT A - EUT PHOTOGRAPHS.....	32
EXHIBIT B - TEST SETUP PHOTOGRAPHS	33

EXHIBIT C - RF EXPOSURE EVALUATION 34

APPLICABLE STANDARD.....34

MEASUREMENT RESULT34

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2402Y50872E-RF-00	Original Report	2025/2/20

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	Call Button
EUT Model:	E-02N
Multiple Model:	E-02N-3, E-02N-2
Operation Frequency:	433.77 MHz
Modulation Type:	ASK
Rated Input Voltage:	DC 12V from Battery
Serial Number:	2SQ9-4
EUT Received Date:	2024/10/12
EUT Received Status:	Good
Note: The multiple models are electrically identical with the test model. Please refer to the declaration letter for more detail, which was provided by manufacturer.	

1.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
/	/	/	/

1.3 Antenna Information Detail ▲

Antenna Manufacturer	Antenna Type	Antenna Connector	Frequency Range	Antenna Gain
QUANZHOU DAYTECH ELECTRONICS CO., LTD.	PCB	Integrated	433.77 MHz	1dBi
The design of compliance with §15.203:				
☒ Unit uses a permanently attached antenna.				
☐ Unit uses a unique coupling to the intentional radiator.				
☐ Unit was professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.				

1.4 Equipment Modifications

No modifications are made to the EUT during all test items.

2. SUMMARY OF TEST RESULTS

Standard(s) Section	Test Items	Result
§15.207 (a)	Conducted Emissions	Not Applicable
§15.205, §15.209, §15.231 (b)	Radiated Emissions	Compliant
§15.231 (c)	20dB Bandwidth	Compliant
§15.231 (a)	Deactivation Testing	Compliant
§15.203	Antenna Requirement	Compliant
§1.1307	RF EXPOSURE EVALUATION	Compliant
Not Applicable: the device was powered by battery.		

3. DESCRIPTION OF TEST CONFIGURATION

3.1 EUT Operation Condition

The system was configured for testing in Engineering Mode, which was provided by the manufacturer.

3.2 EUT Exercise Software

No EUT software is used for testing.

3.3 Support Equipment List and Details

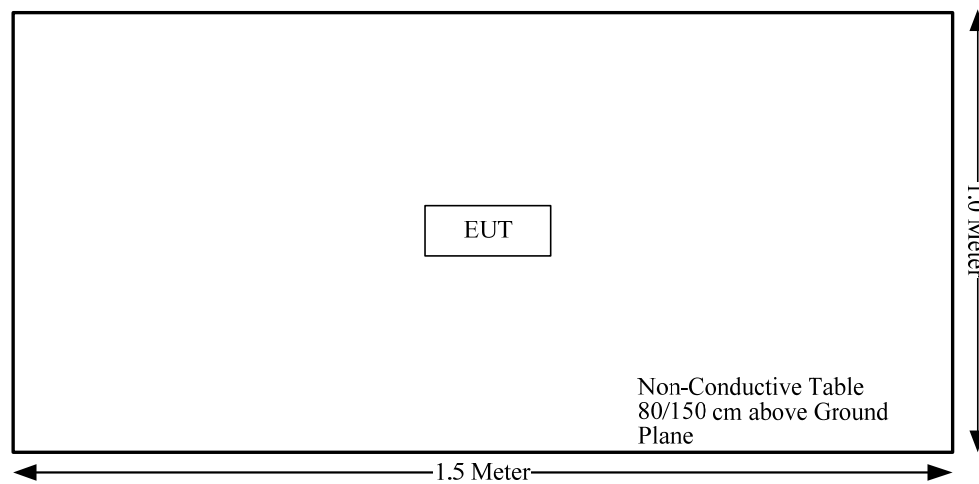
Manufacturer	Description	Model	Serial Number
/	/	/	/

3.4 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
/	/	/	/	/	/

3.5 Block Diagram of Test Setup

Radiated Emissions:



3.6 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, 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, FCC Registration No. : 829273, the FCC Designation No. : CN5044.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

3.7 Measurement Uncertainty

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

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
Unwanted Emissions, radiated	9kHz~30MHz: 3.3dB, 30MHz~200MHz: 4.55 dB, 200MHz~1GHz: 5.92 dB, 1GHz~6GHz: 4.98 dB, 6GHz~18GHz: 5.89 dB, 18GHz~26.5GHz:5.47 dB, 26.5GHz~40GHz:5.63 dB
Unwanted Emissions, conducted	±2.47 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	3.11 dB (150 kHz to 30 MHz)

4. REQUIREMENTS AND TEST RESULT

4.1 AC Line Conducted Emissions

Not Applicable, the device was powered by battery only.

4.2 Radiation Emissions

4.2.1 Applicable Standard

FCC §15.231 (b);

In addition to the provisions of § 15.205, the field strength of emissions from intentional radiators operated under this section shall not exceed the following:

Fundamental frequency (MHz)	Field strength of fundamental (microvolts/meter)	Field strength of spurious emissions (microvolts/meter)
40.66–40.70	2,250	225
70–130	1,250	125
130–174	¹ 1,250 to 3,750	¹ 125 to 375
174–260	3,750	375
260–470	¹ 3,750 to 12,500	¹ 375 to 1,250
Above 470	12,500	1,250

¹ Linear interpolations.

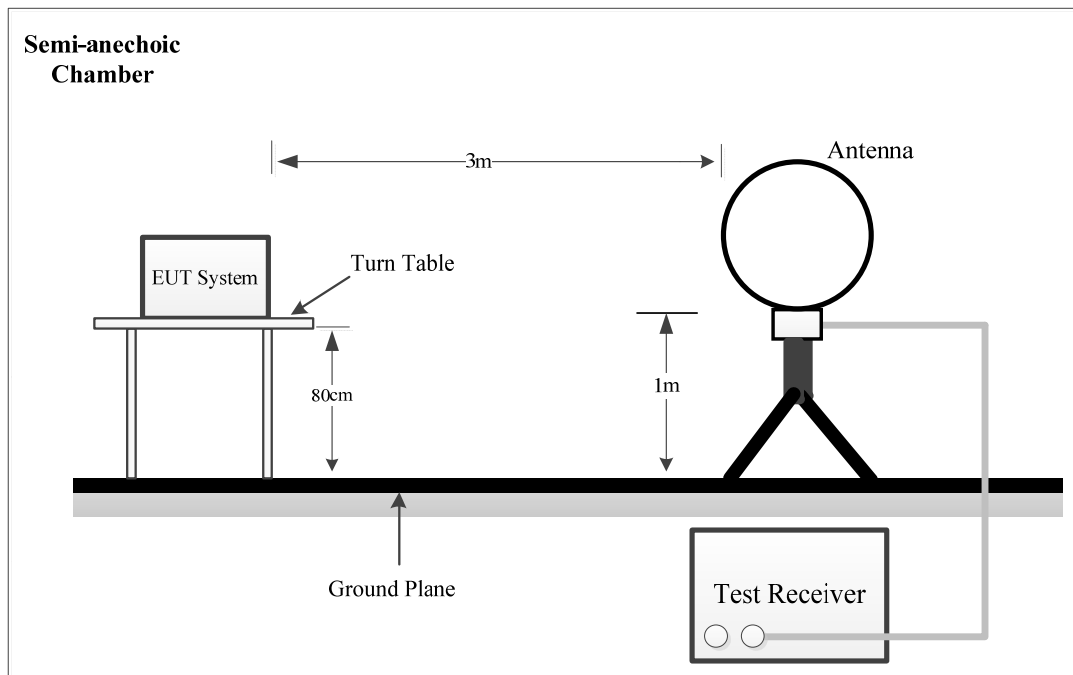
(1) The above field strength limits are specified at a distance of 3 meters. The tighter limits apply at the band edges.

(2) Intentional radiators operating under the provisions of this section shall demonstrate compliance with the limits on the field strength of emissions, as shown in the above table, based on the average value of the measured emissions. As an alternative, compliance with the limits in the above table may be based on the use of measurement instrumentation with a CISPR quasi-peak detector. The specific method of measurement employed shall be specified in the application for equipment authorization. If average emission measurements are employed, the provisions in § 15.35 for averaging pulsed emissions and for limiting peak emissions apply. Further, compliance with the provisions of § 15.205 shall be demonstrated using the measurement instrumentation specified in that section.

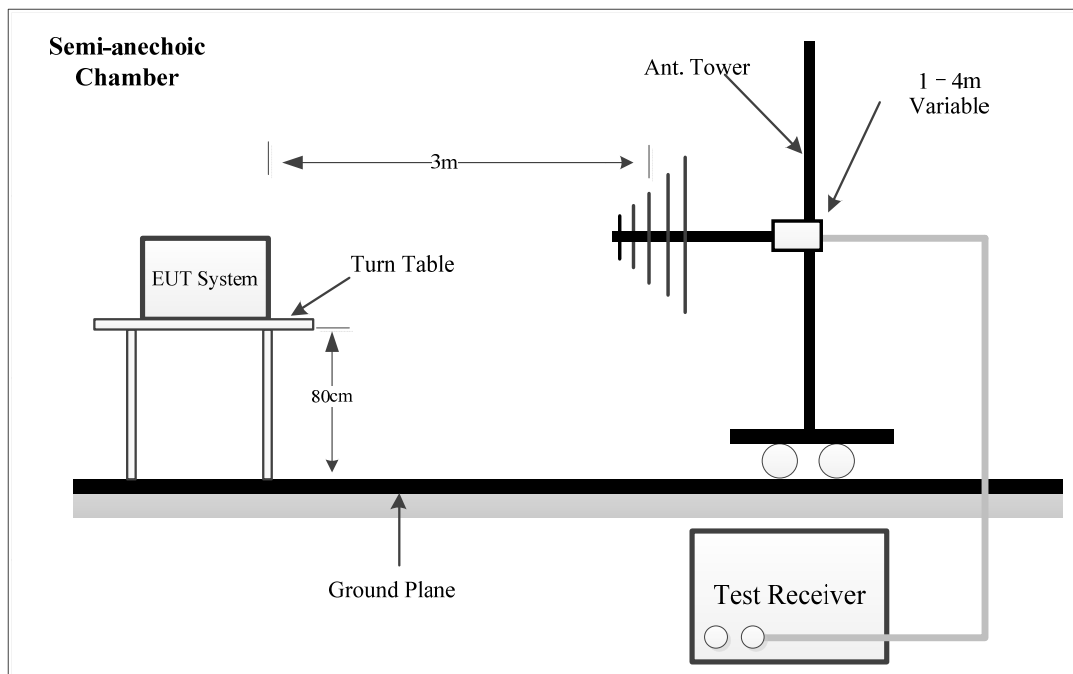
(3) The limits on the field strength of the spurious emissions in the above table are based on the fundamental frequency of the intentional radiator. Spurious emissions shall be attenuated to the average (or, alternatively, CISPR quasi-peak) limits shown in this table or to the general limits shown in § 15.209, whichever limit permits a higher field strength.

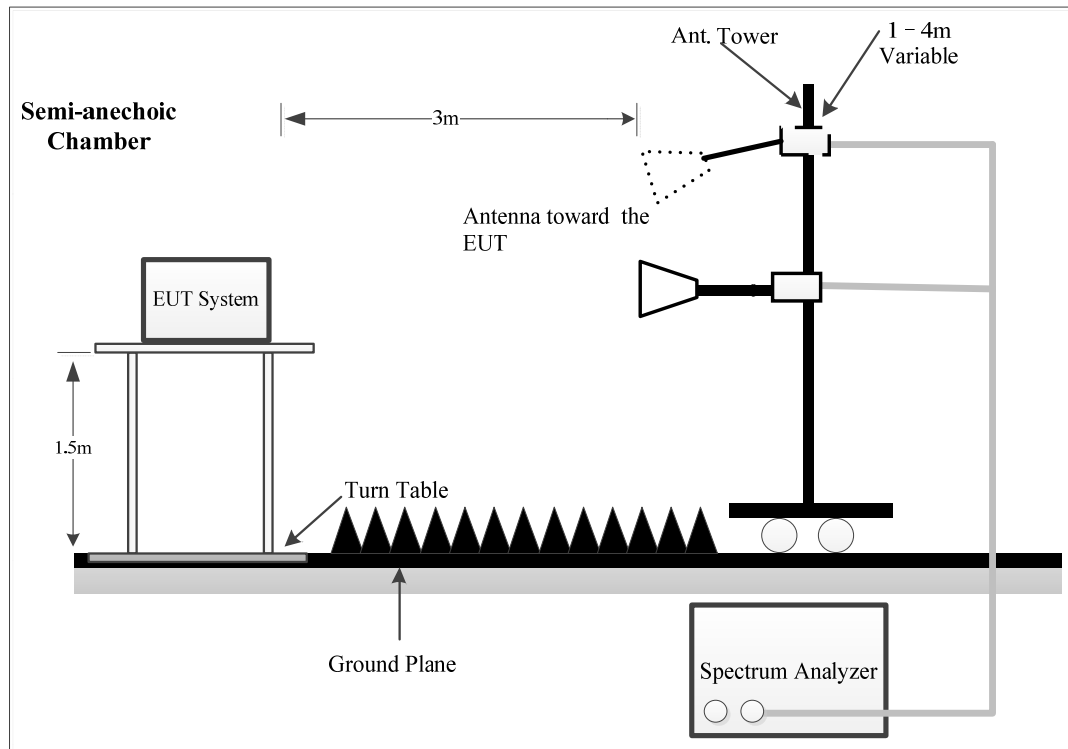
4.2.2 EUT Setup

9kHz - 30MHz:



30MHz - 1GHz:



Above 1GHz:

The radiated emissions were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.205, 15.209, and FCC 15.231 limits.

For 9kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

4.2.3 EMI Test Receiver & Spectrum Analyzer Setup

During the radiated emission test, the test receiver was set with the following configurations other than pulsed emissions for average test:

9kHz-1000MHz:

Frequency Range	Measurement	RBW	Video B/W	IF B/W
9 kHz – 150 kHz	QP/AV	300 Hz	1 kHz	200 Hz
150 kHz – 30 MHz	QP/AV	10 kHz	30 kHz	9 kHz
30 MHz – 1000 MHz	PK	100 kHz	300 kHz	/
	QP	/	/	120 kHz

Above 1GHz:

Measurement	RBW	Video B/W
PK	1MHz	3 MHz

4.2.4 Test Procedure

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

According to §15.231, Intentional radiators operating under the provisions of this Section shall demonstrate compliance with the limits on the field strength of emissions, based on the average value of the measured emissions. As an alternative, compliance with the limits in the above table may be based on the use of measurement instrumentation with a CISPR quasi-peak detector

For pulsed emissions, according to C63.10 clause 7.5, Procedure for determining the average value of pulsed emissions

Unless otherwise specified, when the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 s (100 ms). In cases where the pulse train exceeds 0.1 s, the measured field strength shall be determined during a 0.1 s interval.⁶⁴ The following procedure is an example of how the average value may be determined. The average field strength may be found by measuring the peak pulse amplitude (in log equivalent units) and determining the duty cycle correction factor (in dB) associated with the pulse modulation as shown in Equation

$$\delta(\text{dB}) = 20 \log(\Delta)$$

where

δ is the duty cycle correction factor (dB)

Δ is the duty cycle (dimensionless)

4.2.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = Antenna Factor + Cable Loss- Amplifier Gain

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

4.2.6 Test Result

Serial Number:	2SQ9-4	Test Date:	2025/1/18~2025/2/10
Test Site:	Chamber10m, Chamber B	Test Mode:	Transmitting
Tester:	Zoo Zou, Bill Yang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	18.8~20.1	Relative Humidity: (%)	31~37	ATM Pressure: (kPa)	101.5~101.7
----------------------	-----------	---------------------------	-------	---------------------------	-------------

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
EMCO	Passive Loop Antenna	6512	9706-1206	2023/10/25	2026/10/24
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2023/9/6	2026/9/5
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	185914	2024/8/26	2025/8/25
R&S	EMI Test Receiver	ESCI	100224	2024/8/26	2025/8/25
Audix	Test Software	E3	191218 V9	N/A	N/A
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2024/11/17	2025/11/16
AH	Preamplifier	PAM-0118P	469	2024/4/15	2025/4/14
R&S	Spectrum Analyzer	FSV40	101944	2024/9/6	2025/9/5
Decentest	Multiplex Switch Test Control Set & Filter Switch Unit	DT7220SCU & DT7220FCU	DC79902 & DC79905	2024/8/27	2025/8/26

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

Test Data:

Please refer to the below table and plots.

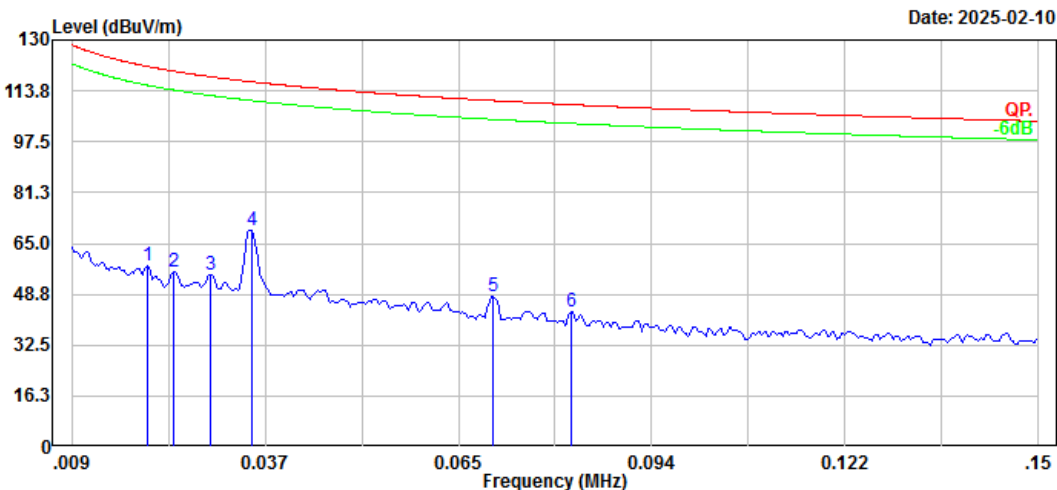
After pre-scan in the X, Y and Z axes of orientation, the worst case is refer to table and plots.

1) 9kHz~30MHz

Three antenna orientations (parallel, perpendicular, and ground-parallel) was measured, the worst orientations was below:

Project No.: 2402Y50872E-RF
Polarization: Parallel
Test Mode: Transmitting
Note:
RBW:300Hz VBW:1kHz

Serial No.: 25Q9-4
Tester: Zoo Zou

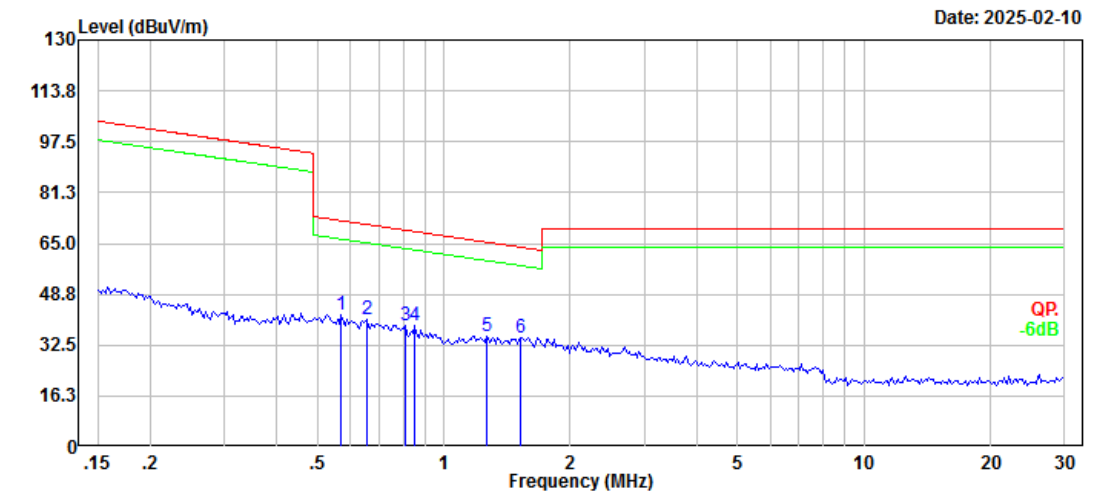


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.020	7.78	50.04	57.82	121.58	63.76	Peak
2	0.024	6.81	49.05	55.86	120.02	64.16	Peak
3	0.029	7.19	47.72	54.91	118.27	63.36	Peak
4	0.035	22.61	46.62	69.23	116.67	47.44	Peak
5	0.070	7.78	40.51	48.29	110.64	62.35	Peak
6	0.082	4.79	38.61	43.40	109.35	65.95	Peak

Project No.: 2402Y50872E-RF
 Polarization: Parallel
 Test Mode: Transmitting
 Note:

Serial No.: 2SQ9-4
 Tester: Zoo Zou

RBW:10kHz VBW:30kHz



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.570	19.37	22.78	42.15	72.46	30.31	Peak
2	0.654	18.60	21.92	40.52	71.24	30.72	Peak
3	0.809	18.60	20.38	38.98	69.36	30.38	Peak
4	0.853	19.34	19.50	38.84	68.89	30.05	Peak
5	1.262	20.05	15.40	35.45	65.41	29.96	Peak
6	1.527	20.82	14.22	35.04	63.72	28.68	Peak

2) 30MHz-1GHz

Project No.: 2402Y50872E-RF

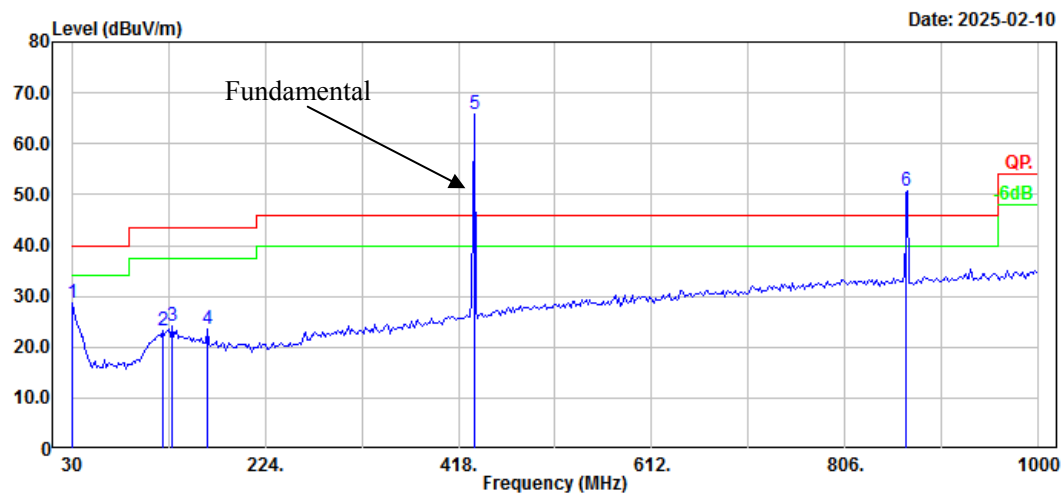
Polarization: Horizontal

Test Mode: Transmitting

Note:
RBW:100kHz VBW:300kHz

Serial No.: 25Q9-4

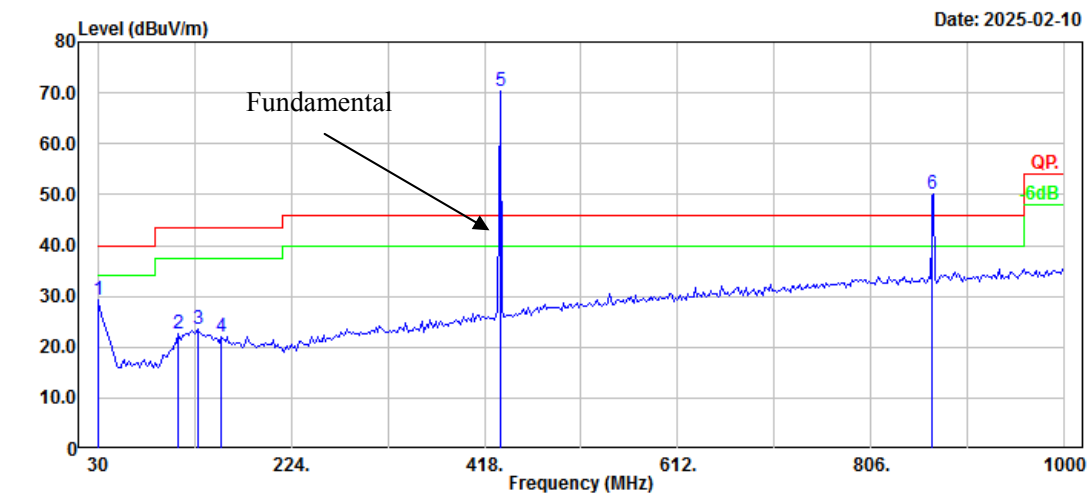
Tester: Zoo Zou



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.00	32.56	-3.80	28.76	40.00	11.24	Peak
2	121.18	33.14	-9.94	23.20	43.50	20.30	Peak
3	130.88	34.01	-9.91	24.10	43.50	19.40	Peak
4	165.80	35.00	-11.51	23.49	43.50	20.01	Peak
5	433.77	71.71	-6.04	65.67	100.82	35.15	Peak
6	867.54	49.61	1.07	50.68	80.82	30.14	Peak

Project No.: 2402Y50872E-RF
Polarization: Vertical
Test Mode: Transmitting
Note:
RBW:100kHz VBW:300kHz

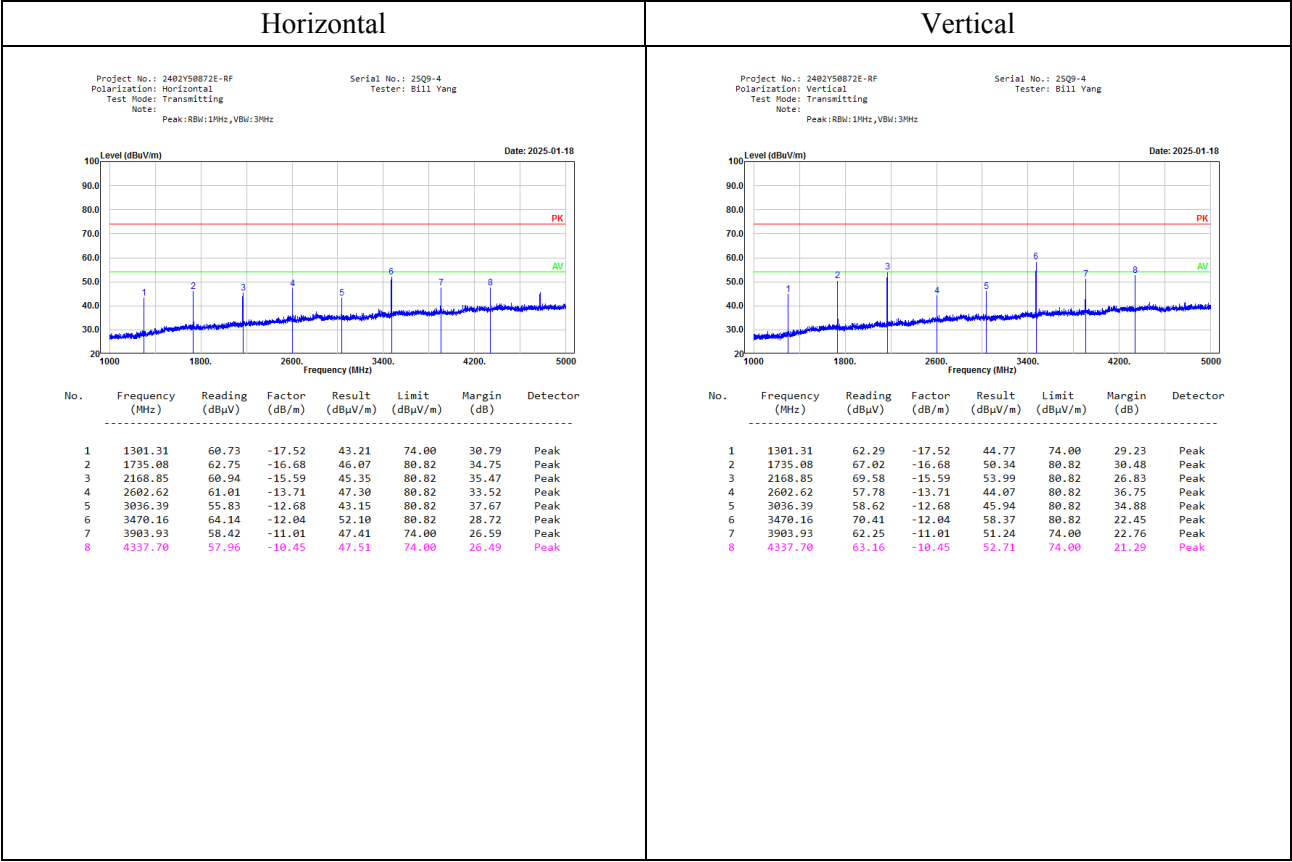
Serial No.: 2SQ9-4
Tester: Zoo Zou



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.00	32.94	-3.80	29.14	40.00	10.86	Peak
2	111.48	33.80	-11.15	22.65	43.50	20.85	Peak
3	130.88	33.33	-9.91	23.42	43.50	20.08	Peak
4	154.16	33.05	-11.09	21.96	43.50	21.54	Peak
5	433.77	76.25	-6.04	70.21	100.82	30.61	Peak
6	867.54	48.94	1.07	50.01	80.82	30.81	Peak

Note: The peak value is under limit more than 20dB, therefore, the average detector is not necessary.

3) 1GHz-5GHz

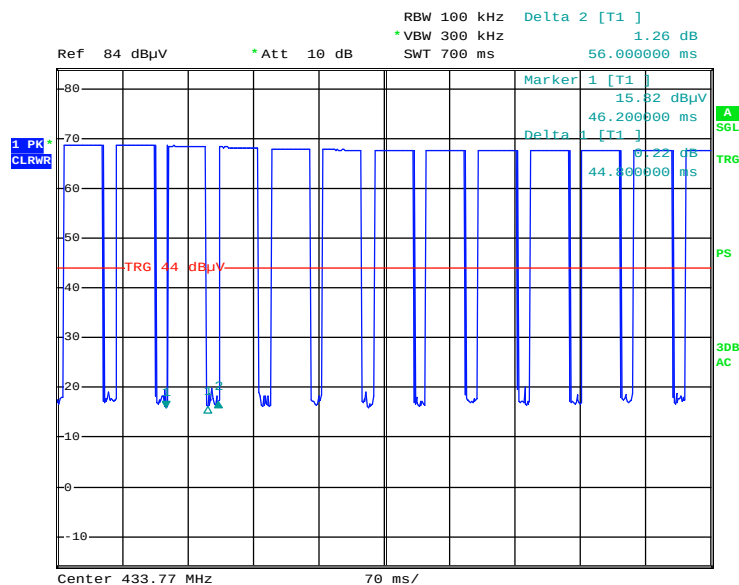


Transmitting mode_peak**Frequency****433.77****MHz**

Frequency	Reading	Polar	Factor	Corrected Amplitude	FCC 15.231	
					Limit	Margin
MHz	dBμV	H/V	dB/m	dBμV/m	dBμV/m	dB
1301.31	60.73	H	-17.52	43.21	74.00	30.79
1301.31	62.29	V	-17.52	44.77	74.00	29.23
1735.08	62.75	H	-16.68	46.07	80.82	34.75
1735.08	67.02	V	-16.68	50.34	80.82	30.48
2168.85	60.94	H	-15.59	45.35	80.82	35.47
2168.85	69.58	V	-15.59	53.99	80.82	26.83
2602.62	61.01	H	-13.71	47.30	80.82	33.52
2602.62	57.78	V	-13.71	44.07	80.82	36.75
3036.39	55.83	H	-12.68	43.15	80.82	37.67
3036.39	58.62	V	-12.68	45.94	80.82	34.88
3470.16	64.14	H	-12.04	52.10	80.82	28.72
3470.16	70.41	V	-12.04	58.37	80.82	22.45
3903.93	58.42	H	-11.01	47.41	74.00	26.59
3903.93	62.25	V	-11.01	51.24	74.00	22.76
4337.70	57.96	H	-10.45	47.51	74.00	26.49
4337.70	63.16	V	-10.45	52.71	74.00	21.29

Transmitting mode_Average

Frequency (MHz)	Peak Measurement@3m (dBμV/m)	Polar (H/V)	Duty Cycle Correction Factor(dB)	Average Amp. (dBμV/m)	FCC 15.231	
					Limit (dBμV/m)	Margin (dB)
1301.31	43.21	H	-5.22	37.99	54.00	16.01
1301.31	44.77	V	-5.22	39.55	54.00	14.45
1735.08	46.07	H	-5.22	40.85	60.82	19.97
1735.08	50.34	V	-5.22	45.12	60.82	15.70
2168.85	45.35	H	-5.22	40.13	60.82	20.69
2168.85	53.99	V	-5.22	48.77	60.82	12.05
2602.62	47.30	H	-5.22	42.08	60.82	18.74
2602.62	44.07	V	-5.22	38.85	60.82	21.97
3036.39	43.15	H	-5.22	37.93	60.82	22.89
3036.39	45.94	V	-5.22	40.72	60.82	20.10
3470.16	52.10	H	-5.22	46.88	60.82	13.94
3470.16	58.37	V	-5.22	53.15	60.82	7.67
3903.93	47.41	H	-5.22	42.19	54.00	11.81
3903.93	51.24	V	-5.22	46.02	54.00	7.98
4337.70	47.51	H	-5.22	42.29	54.00	11.71
4337.70	52.71	V	-5.22	47.49	54.00	6.51

Note:**For PK:****Corrected Amplitude = Reading + Factor****Factor = Cable loss + Antenna Factor – Amplifier Gain****Margin = Limit- Corrected. Amplitude****For AV:****Average Amp. = Peak Measurement@3m + Duty Cycle Correction Factor****Margin = Limit- Average Amp.****Duty Cycle Correction Factor****=20*log(Ton/(Ton+Toff))****=20*log((1.72*10+0.88*15)/55.44)****=20*log(0.5483)=-5.22**

ProjectNo.:2402Y50872E-RF Tester:Zoo Zou

Date: 10.FEB.2025 14:39:57

RBW 100 kHz Delta 2 [T1] 0.53 dB
 VBW 300 kHz
 Att 10 dB SWT 70 ms 55.440000 ms

Ref 84 dBμV

Marker 1 [T1]
 15.75 dBμV
 -280.000000 μs
 Delta 1 [T1]
 -0.40 dB
 42.420000 ms

1 PK CLWR

TRG A SGL TRG PS AC

Center 433.77 MHz 7 ms/

Date: 10.FEB.2025 14:43:05

RBW 100 kHz Delta 1 [T1] -2.65 dB
 VBW 300 kHz 1.720000 ms
 SWT 70 ms

Ref 84 dBμV Att 10 dB

Marker 1 [T1] 17.84 dBμV
 -280.000000 μs

1 PK
 CLRWR

TRG

PS

30dB
 AC

Center 433.77 MHz 7 ms/

Date: 10.FEB.2025 14:44:34

RBW 100 kHz Delta 1 [T1]
 -2.35 dB
 VBW 300 kHz
 Att 10 dB
 SWT 70 ms 880.000000 μs

Ref 84 dBμV

Marker 1 [T1]
 16.22 dBμV
 6.580900 ms

1 PK CLRWR

TRG 44 dBμV

Center 433.77 MHz 7 ms/

Date: 10.FEB.2025 14:45:29

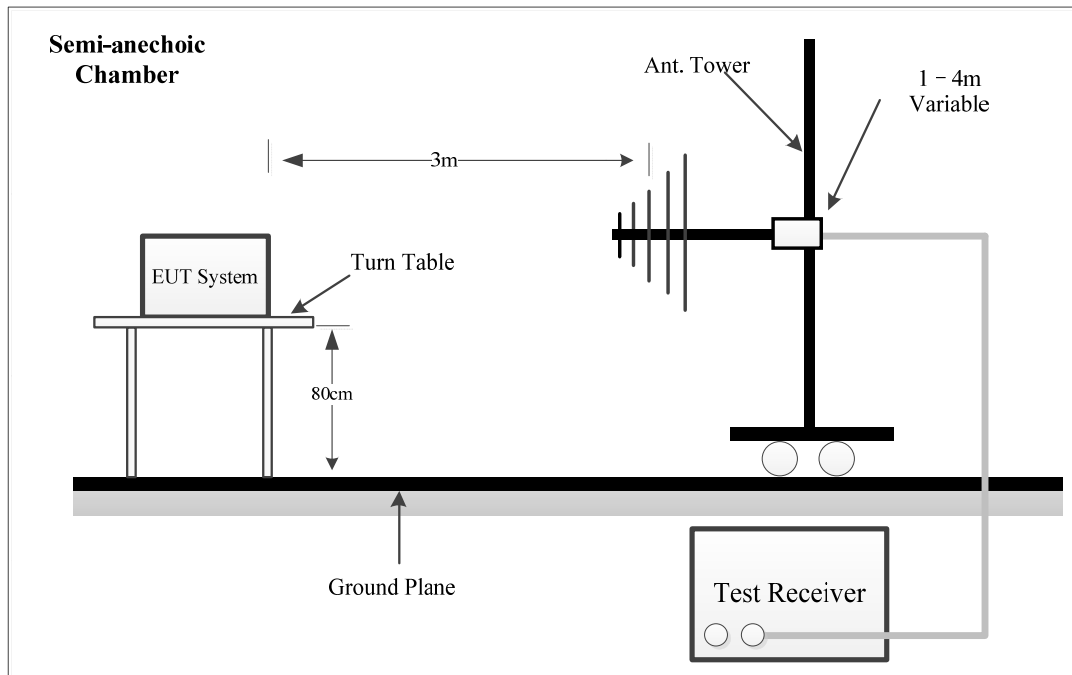
4.3 20 dB Emission Bandwidth:

4.3.1 Applicable Standard

FCC §15.231(c)

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. Bandwidth is determined at the points 20 dB down from the modulated carrier.

4.3.2 EUT Setup



4.3.3 Test Procedure

According to ANSI C63.10-2013 Section 6.9.2

- The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, unless otherwise specified by the applicable requirement.
- Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$.
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Allow the trace to stabilize.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 20 dB relative to the maximum level measured in the fundamental emission.

4.3.4 Test Result

Serial Number:	2SQ9-4	Test Date:	2025/2/10
Test Site:	Chamber10m	Test Mode:	Transmitting
Tester:	Zoo Zou	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	18.8	Relative Humidity: (%)	37	ATM Pressure: (kPa)	101.7
----------------------	------	------------------------------	----	------------------------	-------

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2023/9/6	2026/9/5
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	185914	2024/8/26	2025/8/25
R&S	EMI Test Receiver	ESCI	100224	2024/8/26	2025/8/25

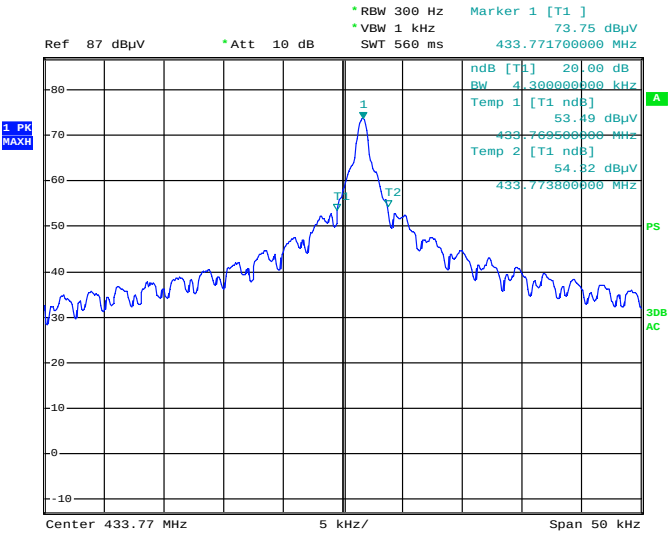
*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

Test Frequency (MHz)	20dB Bandwidth (kHz)	Limit (kHz)
433.77	4.3	1084.43

Note: Limit = 0.25% * Channel Frequency

20dB Emission Bandwidth



ProjectNo.:2402Y50872E-RF Tester:Zoo Zou
Date: 10.FEB.2025 14:08:01

4.4 DEACTIVATION TESTING

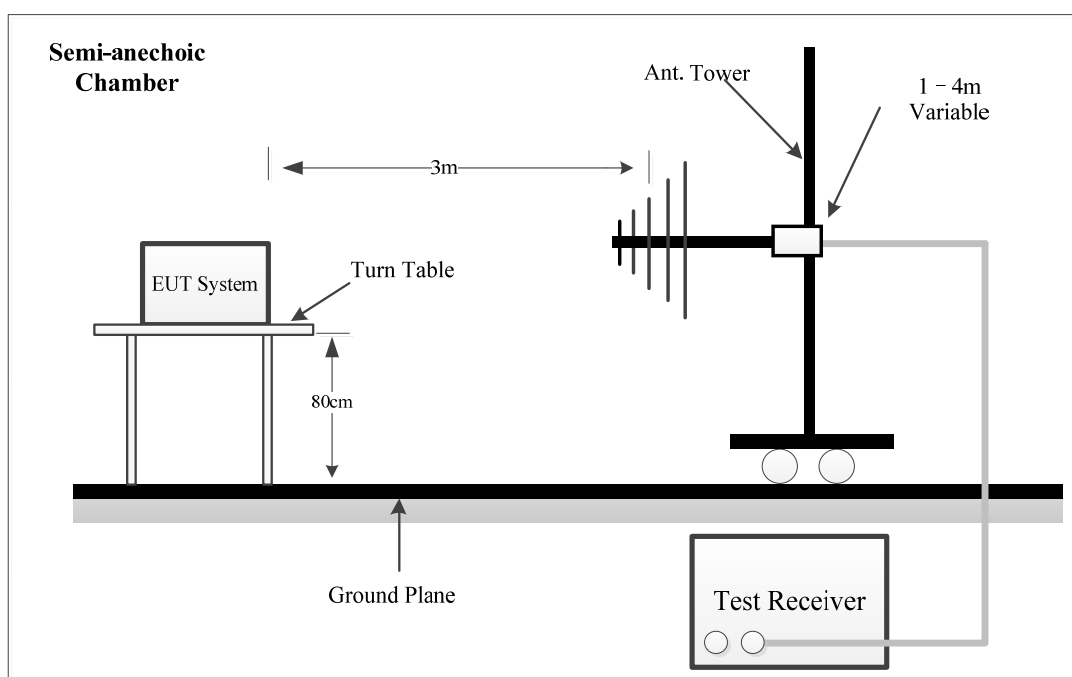
4.4.1 Applicable Standard

FCC §15.231 (a)

The provisions of this section are restricted to periodic operation within the band 40.66–40.70 MHz and above 70 MHz. Except as shown in paragraph (e) of this section, the intentional radiator is restricted to the transmission of a control signal such as those used with alarm systems, door openers, remote switches, etc. Continuous transmissions, voice, video and the radio control of toys are not permitted. Data is permitted to be sent with a control signal. The following conditions shall be met to comply with the provisions for this periodic operation:

- (1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.
- (2) A transmitter activated automatically shall cease transmission within 5 seconds after activation.
- (3) Periodic transmissions at regular predetermined intervals are not permitted. However, polling or supervision transmissions, including data, to determine system integrity of transmitters used in security or safety applications are allowed if the total duration of transmissions does not exceed more than two seconds per hour for each transmitter. There is no limit on the number of individual transmissions, provided the total transmission time does not exceed two seconds per hour.
- (4) Intentional radiators which are employed for radio control purposes during emergencies involving fire, security, and safety of life, when activated to signal an alarm, may operate during the pendency of the alarm condition
- (5) Transmission of set-up information for security systems may exceed the transmission duration limits in paragraphs (a)(1) and (a)(2) of this section, provided such transmissions are under the control of a professional installer and do not exceed ten seconds after a manually operated switch is released or a transmitter is activated automatically. Such set-up information may include data.

4.4.2 EUT Setup



4.4.3 Test Procedure

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the ON and OFF times of the transmitted signal:

- 1) Set the center frequency of the instrument to the center frequency of the transmission.
- 2) Set $RBW \geq OBW$ if possible; otherwise, set RBW to the largest available value.
- 3) Set $VBW \geq RBW$. Set detector = peak or average.

4.4.4 Test Result

Serial Number:	2SQ9-4	Test Date:	2025/2/10
Test Site:	Chamber10m	Test Mode:	Transmitting
Tester:	Zoo Zou	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	18.8	Relative Humidity: (%)	37	ATM Pressure: (kPa)	101.7
----------------------	------	------------------------------	----	------------------------	-------

Test Equipment List and Details:

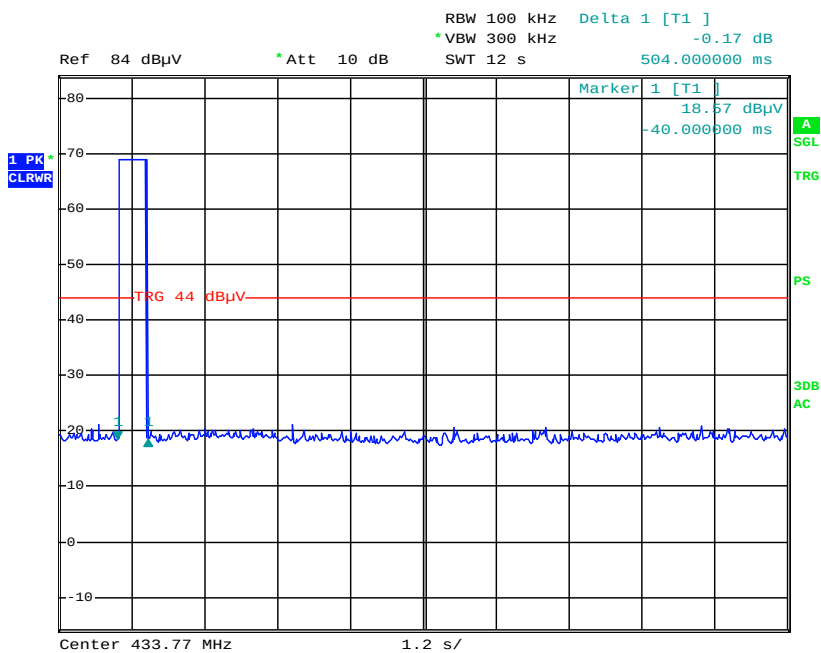
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2023/9/6	2026/9/5
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	185914	2024/8/26	2025/8/25
R&S	EMI Test Receiver	ESCI	100224	2024/8/26	2025/8/25

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

Test Data:

Test Frequency (MHz)	Transmission duration Time (s)	Transmission duration Time Limit (s)
433.77	0.504	<5

Transmission duration Time



ProjectNo.:2402Y50872E-RF Tester:Zoo Zou
Date: 10.FEB.2025 14:36:49

4.5 Antenna Requirement

4.5.1 Applicable Standard

FCC §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 use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

4.5.2 Judgment

Compliant. Please refer to the Antenna Information detail in Section 1.3.

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2402Y50872E-RF-00-EXP EUT external photographs and 2402Y50872E-RF-00-INP EUT internal photographs.

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2402Y50872E-RF-00-TSP test setup photographs.

EXHIBIT C - RF EXPOSURE EVALUATION

Applicable Standard

§1.1307(b)(3)(i) For single RF sources (*i.e.*, any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);

Measurement Result

Frequency (MHz)	Maximum EIRP		1-mW Test Exemption
	dBm	mW	
433.77	-24.99	0.003	Compliant

Note:

1. This device maximum E-Field level is 70.21 dB μ V/m at 3m, so the EIRP power is -24.99 dBm.
2. Pout EIRP(dBm)=Field Strength of Fundamental(dBuV/m)-95.2

Result: Compliant. RF Exposure is exemption.

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