NVLAP TESTING
NVLAP LAB CODE 600341-0

BACL Bay Area Compliance Labs Corp.

TEST REPORT

Applicant:	**Quanzhou Chierda Electronic Telecom Co., Ltd.**
Address:	**No.8,Zi'an Road,Jiangnan High-tech Industrial Zone Licheng District, Quanzhou Fujian, China**
Product Name:	**TWO WAY RADIO**
FCC ID:	**OA8-XA30**
Standard(s):	**47 CFR Part 95 Subpart E ANSI C63.26-2015 ANSI/TIA 603-E-2016**
Report Number:	**2402X45544E-RF-00A**
Report Date:	**2025/3/25**

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

Reviewed By: **Pedro Yun**	**Approved By:** **Gavin Xu**
Title: Project Engineer	Title: RF Supervisor

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2402X45544E-RF-00A	Original Report	2025/3/25

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	TWO WAY RADIO
EUT Model:	XA30
Multiple Models:	TC318, TC378, RT86A
Modulation Mode:	FM
Channel Spacing:	12.5kHz/25kHz
Maximum Output Power:	462 MHz Main Channels: 36.38dBm(Conducted) 462 MHz interstitial channels: 36.37 dBm(ERP) 467 MHz Main Channels: 36.38dBm(Conducted) 467 MHz interstitial channels: 26.81 dBm(ERP)
Rated Input Voltage:	DC 7.4V from battery
Serial Number:	2RKO-7
EUT Received Date:	2024/9/11
EUT Received Status:	Good
Note: The Multiple models are electrically identical with the test model, only the model name is difference. Please refer to the declaration letter for more detail, which was provided by manufacturer.	

1.2 Accessory Information:

Accessory Description	Manufacturer	Model
/	/	/

1.3 Antenna Information Detail▲:

Antenna Manufacturer	Antenna Connector	Antenna Type	input impedance (Ohm)	Antenna Gain /Frequency Range
Quanzhou Zhongming communication equipment Co., LTD	SMA	Helical	50	2.15dBi(0dBd) 400-480MHz

Note: The product has a detachable antenna.

1.4 Equipment Modifications

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

2. SUMMARY OF TEST RESULTS

Standard/Rule(s)	Description of Test	Results
§2.1055(d), §95.1765	GMRS Frequency Accuracy	Compliant
§95.1787(a)(4)	Antenna Requirement	Not Applicable
§2.1046, §95.1767	RF Output Power	Compliant
§95.1771	GMRS Emission Types	Compliant
§2.1049, §95.1773	GMRS Authorized Bandwidth	Compliant
§95.1779	Emission Mask	Compliant
§2.1047, §95.1775	GMRS Modulation Requirements	Compliant
§2.1051,§95.1779	GMRS Unwanted Emissions Limits- Spurious Emissions At Antenna Terminals	Compliant
§2.1053, §95.1779	GMRS Unwanted Emissions Limits- Radiated Spurious Emissions	Compliant

Not Applicable: The product has not digital data transmissions function.

3. DESCRIPTION OF TEST CONFIGURATION

3.1 Operation Frequency Detail:

Channel Type	Channel Number	Frequency (MHz)	Channel Type	Channel Number	Frequency (MHz)
462 MHz Main Channels	1	462.5500	467 MHz Main Channels	1	467.5500
	2	462.5750		2	467.5750
	3	462.6000		3	467.6000
	4	**462.6250**		4	**467.6250**
	5	462.6500		5	467.6500
	6	462.6750		6	467.6750
	7	462.7000		7	467.7000
	8	462.7250		8	467.7250
462 MHz interstitial channels	1	462.5625	467 MHz interstitial channels	1	467.5625
	2	462.5875		2	467.5875
	3	462.6125		3	467.6125
	4	**462.6375**		4	**467.6375**
	5	462.6625		5	467.6625
	6	462.6875		6	4672.6875
	7	462.7125		7	467.7125
Per C63.26-2015, section 5.1, the above frequencies in bold were performed the test.					

3.2 EUT Operation Condition:

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

3.3 EUT Exercise Software

No software was used during test.

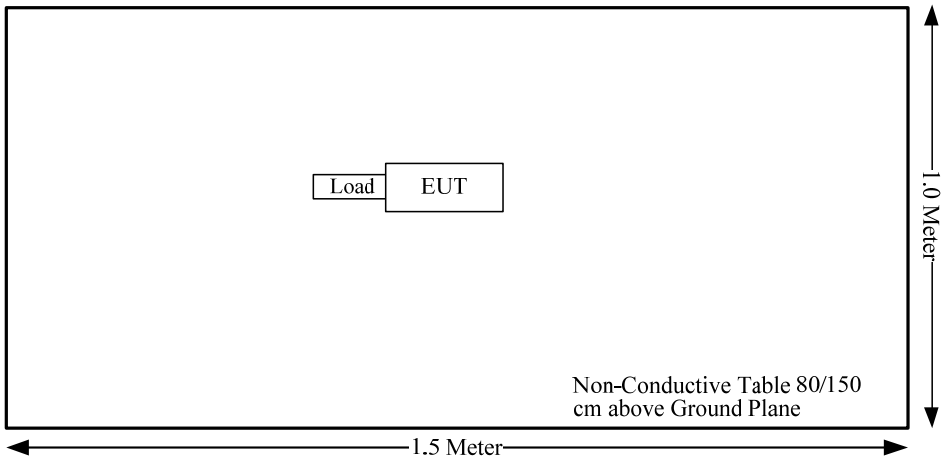
3.4 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Fenfei	Terminal	N-J-10W	S1

3.5 Support Cable List and Details

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

3.6 Block Diagram of Test Setup



3.7 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.

3.8 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 %
RF output power, conducted	±0.61dB
Unwanted Emissions, radiated	±3.62 dB
Unwanted Emissions, conducted	±2.47 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
RF Frequency	$\pm 0.082 \times 10^{6}$
Audio Frequency	3.98%
Modulation Limiting	1.11%

4. TEST RESULTS

4.1 GMRS Frequency Accuracy

4.1.1 Applicable Standard

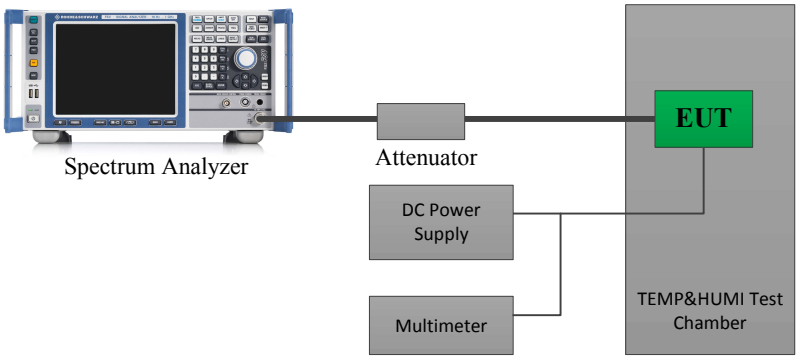
FCC §95.1765

Each GMRS transmitter type must be designed to comply with the frequency accuracy requirements in this section under normal operating conditions. Operators of GMRS stations must also ensure compliance with these requirements.

(a) The carrier frequency of each GMRS transmitter transmitting an emission with an occupied bandwidth greater than 12.5 kHz must remain within 5 parts-per-million (ppm) of the channel center frequencies listed in §95.1763 under normal operating conditions.

(b) The carrier frequency of each GMRS transmitter transmitting an emission with an occupied bandwidth of 12.5 kHz or less must remain within 2.5 ppm of the channel center frequencies listed in §95.1763 under normal operating conditions.

4.1.2 EUT Setup Block Diagram



4.1.3 Test Procedure

C63.26-2015, Clause 5.6

Frequency stability is a measure of the frequency drift due to temperature and supply voltage variations, with reference to the frequency measured at +20 °C and rated supply voltage. The operating carrier frequency shall be set up in accordance with the manufacturer's published operation and instruction manual prior to the commencement of these tests. No adjustment of any frequency determining circuit element shall be made subsequent to this initial set-up. Frequency stability is tested:

a) At 10 °C intervals of temperatures between −30 °C and +50 °C at the manufacturer's rated supply voltage, and

b) At +20 °C temperature and ±15% supply voltage variations. If a product is specified to operate over a range of input voltage then the −15% variation is applied to the lowermost voltage and the +15% is applied to the uppermost voltage. During the test all necessary settings, adjustments and control of the EUT have to be performed without disturbing the test environment, i.e., without opening the environmental chamber. The frequency stabilities can be maintained to a lesser temperature range provided that the transmitter is automatically inhibited from operating outside the lesser temperature range. For handheld equipment that is only capable of operating from internal batteries and the supply voltage cannot be varied, the frequency stability tests shall be performed at the nominal battery voltage and the battery end point voltage specified by the manufacturer. An external supply voltage can be used and set at the internal battery nominal voltage, and again at the battery operating end point voltage which shall be specified by the equipment manufacturer.

If an unmodulated carrier is not available, the mean frequency of a modulated carrier can be obtained by using a frequency counter with gating time set to an appropriately large multiple of bit periods (gating time depending on the required accuracy). Full details on the choice of values shall be included in the test report.

4.1.4 Test Result

Serial Number:	2RKO-7	Test Date:	2025/1/23
Test Site:	RF	Test Mode:	Transmitting
Tester:	Stu Song	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	22.7	Relative Humidity: (%)	63	ATM Pressure: (kPa)	101.1

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200160/026	2024/9/5	2025/9/4
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-03	2024/8/23	2025/8/22
Huaxiang	Coaxial Attenuator	DTS250-30	11022109	2024/6/7	2025/6/6
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30173	2024/9/6	2025/9/5
All-sun	Multimeter	EM305A	8348897	2024/8/16	2025/8/15
TDK-Lambda	DC Power Supply	Z+60-14	F-08-EM038-1	N/A	N/A

** 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:

Note: Test was performed with unmodulation mode, high power level for the channels with high and low power level.

Test Frequency (MHz)	Temperature (℃)	Voltage (V_{dc})	Measured Frequency (MHz)	Frequency Error (ppm)	limit (ppm)
462.625	-30	7.4	462.6249658	-0.07	+/-2.5
	-20	7.4	462.6249401	-0.13	+/-2.5
	-10	7.4	462.6249145	-0.18	+/-2.5
	0	7.4	462.6248906	-0.24	+/-2.5
	10	7.4	462.6248652	-0.29	+/-2.5
	20	7.4	462.6248397	-0.35	+/-2.5
	30	7.4	462.6248149	-0.40	+/-2.5
	40	7.4	462.6247894	-0.46	+/-2.5
	50	7.4	462.6247640	-0.51	+/-2.5
	20	6.3	462.6248873	-0.24	+/-2.5
	20	8.4	462.6247916	-0.45	+/-2.5

Test Frequency (MHz)	Temperature (℃)	Voltage (V_{dc})	Measured Frequency (MHz)	Frequency Error (ppm)	limit (ppm)
462.6375	-30	7.4	462.6374671	-0.07	+/-2.5
	-20	7.4	462.6374412	-0.13	+/-2.5
	-10	7.4	462.6374164	-0.18	+/-2.5
	0	7.4	462.6373893	-0.24	+/-2.5
	10	7.4	462.6373628	-0.30	+/-2.5
	20	7.4	462.6373397	-0.35	+/-2.5
	30	7.4	462.6373120	-0.41	+/-2.5
	40	7.4	462.6372875	-0.46	+/-2.5
	50	7.4	462.6372606	-0.52	+/-2.5
	20	6.3	462.6373834	-0.25	+/-2.5
	20	8.4	462.6372911	-0.45	+/-2.5

Test Frequency (MHz)	Temperature (℃)	Voltage (V_{dc})	Measured Frequency (MHz)	Frequency Error (ppm)	limit (ppm)
467.625	-30	7.4	467.6249681	-0.07	+/-2.5
	-20	7.4	467.6249405	-0.13	+/-2.5
	-10	7.4	467.6249144	-0.18	+/-2.5
	0	7.4	467.6248908	-0.23	+/-2.5
	10	7.4	467.6248643	-0.29	+/-2.5
	20	7.4	467.6248397	-0.34	+/-2.5
	30	7.4	467.6248132	-0.40	+/-2.5
	40	7.4	467.6247849	-0.46	+/-2.5
	50	7.4	467.6247596	-0.51	+/-2.5
	20	6.3	467.6248890	-0.24	+/-2.5
	20	8.4	467.6247903	-0.45	+/-2.5

Test Frequency (MHz)	Temperature (℃)	Voltage (V_{dc})	Measured Frequency (MHz)	Frequency Error (ppm)	limit (ppm)
467.6375	-30	7.4	467.6374442	-0.12	+/-2.5
	-20	7.4	467.6374231	-0.16	+/-2.5
	-10	7.4	467.6374015	-0.21	+/-2.5
	0	7.4	467.6373784	-0.26	+/-2.5
	10	7.4	467.6373608	-0.30	+/-2.5
	20	7.4	467.6373397	-0.34	+/-2.5
	30	7.4	467.6373183	-0.39	+/-2.5
	40	7.4	467.6372970	-0.43	+/-2.5
	50	7.4	467.6372756	-0.48	+/-2.5
	20	6.3	467.6373809	-0.25	+/-2.5
	20	8.4	467.6372997	-0.43	+/-2.5

Note: the voltage range was declared by manufacturer▲.

4.2 RF Output Power

4.2.1 Applicable Standard

FCC §95.1767

This section contains transmitting power limits for GMRS stations. The maximum transmitting power depends on which channels are being used and the type of station.

(a) 462/467 MHz main channels. The limits in this paragraph apply to stations transmitting on any of the 462 MHz main channels or any of the 467 MHz main channels. Each GMRS transmitter type must be capable of operating within the allowable power range. GMRS licensees are responsible for ensuring that their GMRS stations operate in compliance with these limits.

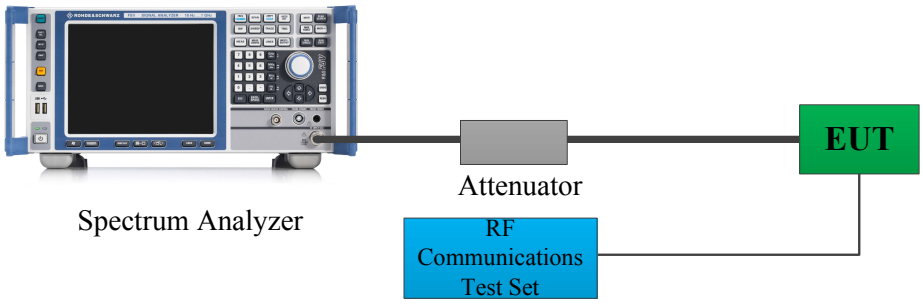
(1) The transmitter output power of mobile, repeater and base stations must not exceed 50 Watts.

(2) The transmitter output power of fixed stations must not exceed 15 Watts.

(b) 462 MHz interstitial channels. The effective radiated power (ERP) of mobile, hand-held portable and base stations transmitting on the 462 MHz interstitial channels must not exceed 5 Watts.

(c) 467 MHz interstitial channels. The effective radiated power (ERP) of hand-held portable units transmitting on the 467 MHz interstitial channels must not exceed 0.5 Watt. Each GMRS transmitter type capable of transmitting on these channels must be designed such that the ERP does not exceed 0.5 Watt.

4.2.2 EUT Setup Block Diagram



Note: The Insertion loss of the RF cable, Attenuators was offset into the Spectrum Analyzer.

4.2.3 Test Procedure

C63.26-2015, Clause 5.2.3.3

This procedure can be used to measure the peak power in either a CW-like or noise-like narrowband RF signal. The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW ≥ 3 × RBW.
a) Set the RBW ≥ OBW.
b) Set VBW ≥ 3 × RBW.
c) Set span ≥ 2 × OBW.
d) Sweep time ≥ 10 × (number of points in sweep) × (transmission symbol period).
e) Detector = peak.
f) Trace mode = max hold.
g) Allow trace to fully stabilize.
h) Use the peak marker function to determine the peak amplitude level

ERP=Conducted Output Power+ Antenna Gain(dBd)

4.2.4 Test Result

Serial Number:	2RKO-7	Test Date:	2025/1/23
Test Site:	RF	Test Mode:	Transmitting
Tester:	Stu Song	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	22.7	Relative Humidity: (%)	63	ATM Pressure: (kPa)	101.1

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200160/026	2024/9/5	2025/9/4
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-03	2024/8/23	2025/8/22
Huaxiang	Coaxial Attenuator	DTS250-30	11022109	2024/6/7	2025/6/6
HP	RF Communications Test Set	8920A	3438A05201	2024/10/17	2025/10/16

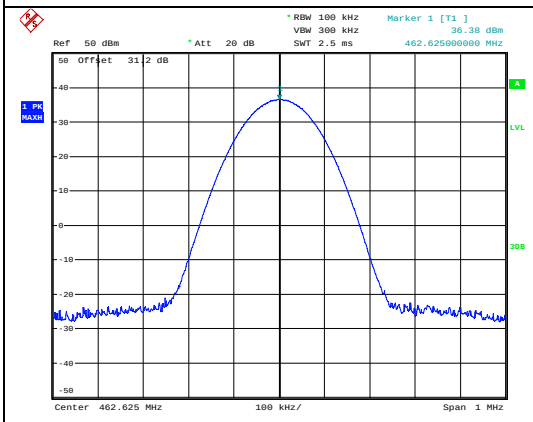
** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Test Bands	Test Frequency (MHz)	Conducted Output power (dBm)	Conducted Output Power Limit (dBm)	ERP (dBm)	ERP Limit (dBm)
462 MHz Main (12.5k High)	462.625	36.38	≤47.00	36.38	/
462 MHz Main (12.5k Low)	462.625	26.69	≤47.00	26.69	/
462 MHz Main (25k High)	462.625	36.38	≤47.00	36.38	/
462 MHz Main (25k Low)	462.625	26.69	≤47.00	26.69	/
462 MHz interstitial (12.5k High)	462.6375	36.37	/	36.37	≤37.00
462 MHz interstitial (12.5k Low)	462.6375	26.79	/	26.79	≤37.00
462 MHz interstitial (25k High)	462.6375	36.36	/	36.36	≤37.00
462 MHz interstitial (25k Low)	462.6375	26.77	/	26.77	≤37.00
467 MHz Main (12.5k High)	467.625	36.38	≤47.00	36.38	/
467 MHz Main (12.5k Low)	467.625	26.83	≤47.00	26.83	/
467 MHz Main (25k High)	467.625	36.37	≤47.00	36.37	/
467 MHz Main (25k Low)	467.625	26.81	≤47.00	26.81	/
467 MHz interstitial (12.5k Low)	467.6375	26.81	/	26.81	≤27.00
ERP=Conducted Output Power+ Antenna Gain(dBd)					

462.6250MHz

12.5kHz High Power



ProjectNo.:2402X45544E-RF Tester:Stu Song
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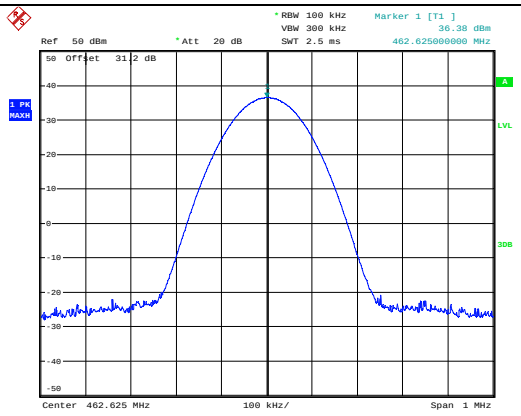
25kHz High Power



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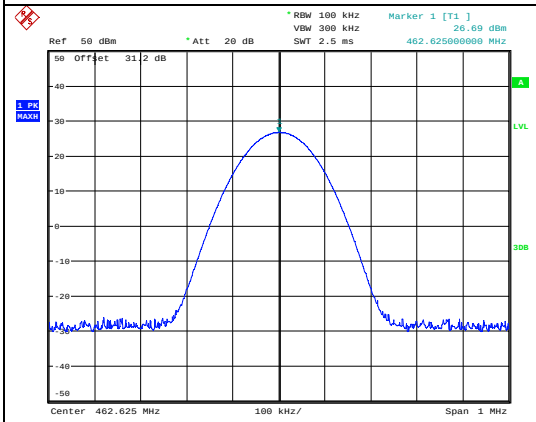
12.5kHz Low Power



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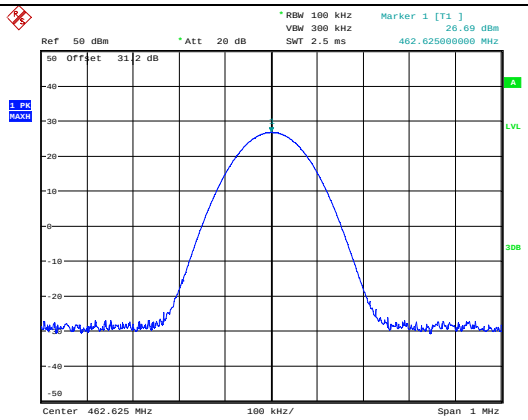
25kHz Low Power



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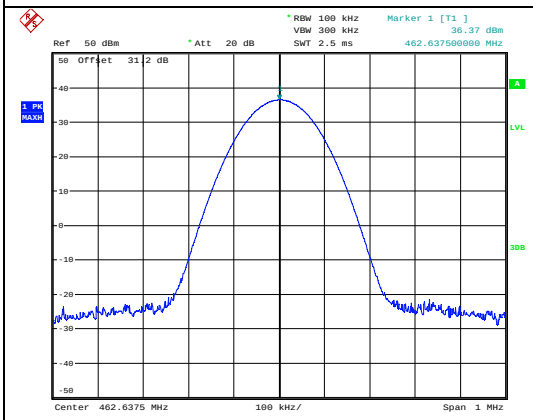
462.6375MHz

12.5kHz High Power



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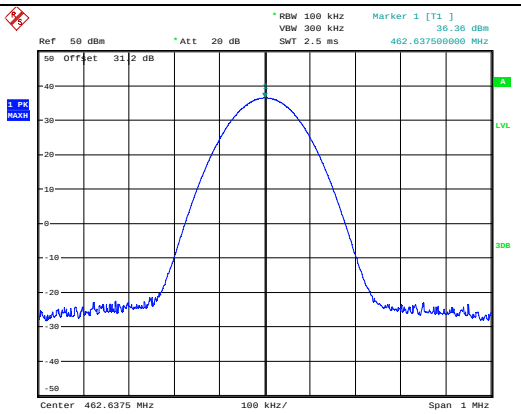
25kHz High Power



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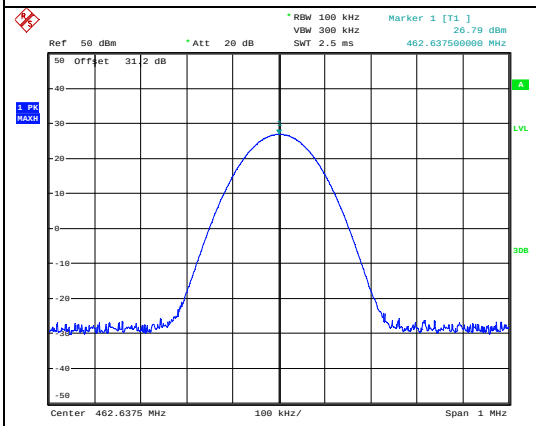
12.5kHz Low Power



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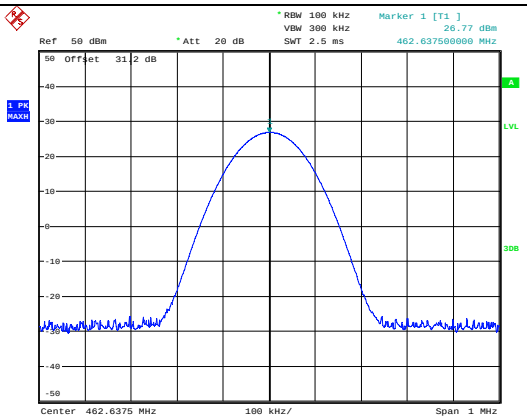
Date: 23.JAN.2025 09:21:28

25kHz Low Power



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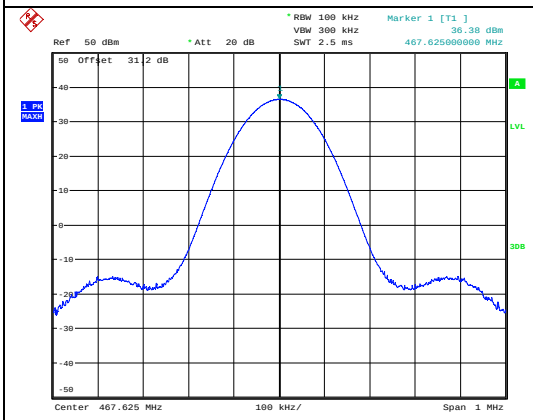
467.6250 MHz

12.5kHz High Power



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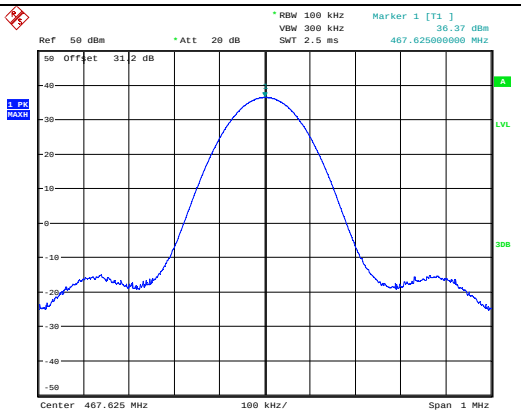
25kHz High Power



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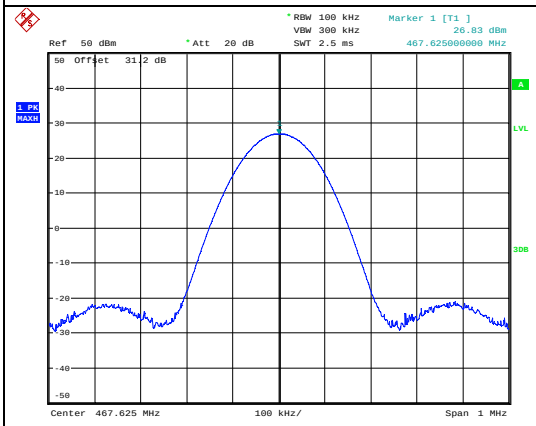
12.5kHz Low Power



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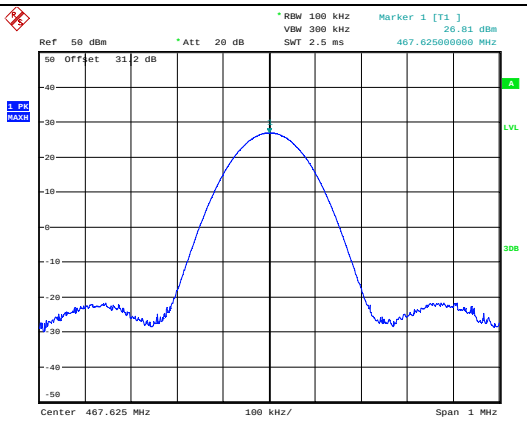
25kHz Low Power



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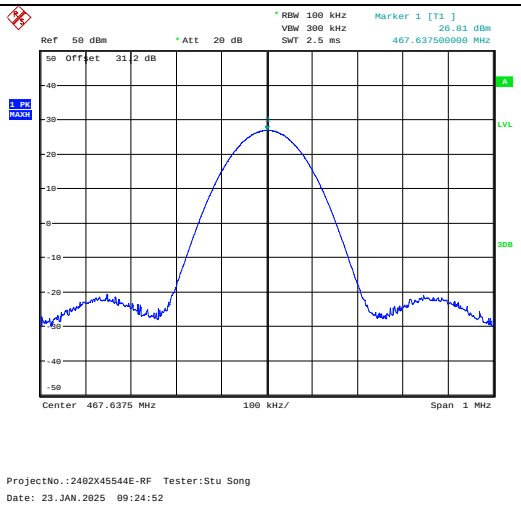
467.6375 MHz
12.5kHz Low Power


4.3 GMRS Emission Types

4.3.1 Applicable Standard

FCC §95.1771

Each GMRS transmitter type must be designed to satisfy the emission capability rules in this section. Operation of GMRS stations must also be in compliance with these rules.

(a) Each GMRS transmitter type must have the capability to transmit F3E or G3E emissions.
(b) Only emission types A1D, F1D, G1D, H1D, J1D, R1D, A3E, F3E, G3E, H3E, J3E, R3E, F2D, and G2D are authorized for use in the GMRS. Equipment for which certification is sought under this subpart may have capabilities to transmit other emission types intended for use in other services, provided that these emission types can be deactivated when the equipment is used in the GMRS.

4.3.2 Judgment

Emission type is F3E.

4.4 GMRS Authorized Bandwidth And Emission Mask

4.4.1 Applicable Standard

FCC §95.1773

Each GMRS transmitter type must be designed such that the occupied bandwidth does not exceed the authorized bandwidth for the channels used. Operation of GMRS stations must also be in compliance with these requirements.

(a) Main channels. The authorized bandwidth is 20 kHz for GMRS transmitters operating on any of the 462 MHz main channels (see §95.1763(a)) or any of the 467 MHz main channels (see §95.1763(c)).

(b) Interstitial channels. The authorized bandwidth is 20 kHz for GMRS transmitters operating on any of the 462 MHz interstitial channels (see §95.1763(b)) and is 12.5 kHz for GMRS transmitters operating on any of the 467 MHz interstitial channels (see §95.1763(d)).

(c) Digital data transmissions. Digital data transmissions are limited to the 462 MHz main channels and interstitial channels in the 462 MHz and 467 MHz bands.

FCC §95.1779

Each GMRS transmitter type must be designed to comply with the applicable unwanted emissions limits in this section.

(a) Emission masks. Emission masks applicable to transmitting equipment in the GMRS are defined by the requirements in the following table. The numbers in the attenuation requirements column refer to rule paragraph numbers under paragraph (b) of this section.

Emission types filter	Attenuation requirements
A1D, A3E, F1D, G1D, F2D, F3E, G3E with audio filter	(1), (2), (7)
A1D, A3E, F1D, G1D, F3E, G3E without audio filter	(3), (4), (7)
H1D, J1D, R1D, H3E, J3E, R2E	(5), (6), (7)

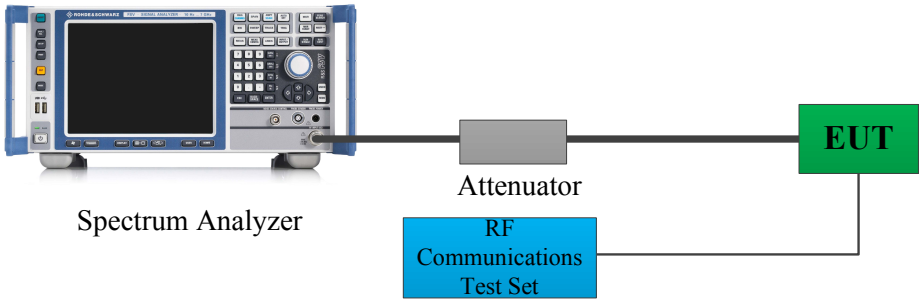
(1) Filtering noted for GMRS transmitters refers to the requirement in §95.1775(e).
(2) Unwanted emission power may be measured as either mean power or peak envelope power, provided that the transmitter output power is measured the same way.

(b) Attenuation requirements. The power of unwanted emissions must be attenuated below the transmitter output power in Watts (P) by at least:
(1) 25 dB (decibels) on any frequency removed from the center of the authorized bandwidth by more than 50% up to and including 100% of the authorized bandwidth.
(2) 35 dB on any frequency removed from the center of the authorized bandwidth by more than 100% up to and including 250% of the authorized bandwidth.
(3) 83 log (fd ÷ 5) dB on any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 5 kHz up to and including 10 kHz.
(4) 116 log (fd ÷ 6.1) dB or 50 + 10 log (P) dB, whichever is the lesser attenuation, on any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz), of more than 10 kHz up to and including 250% of the authorized bandwidth.
(5) 25 dB on any frequency removed from the center of the authorized bandwidth by more than 50% up to and including 150% of the authorized bandwidth.
(6) 35 dB on any frequency removed from the center of the authorized bandwidth by more than 150% up to and including 250% of the authorized bandwidth.
(7) 43 + 10 log (P) dB on any frequency removed from the center of the authorized bandwidth by more than 250%.

(c) Measurement bandwidths. The power of unwanted emissions in the frequency bands specified in paragraphs (b)(1) through(4) of this section is measured with a reference bandwidth of 300 Hz. The power of unwanted emissions in the frequency range specified in paragraph (b)(5) of this section is measured with a reference bandwidth of at least 30 kHz.

(d) Measurement conditions. The requirements in this section apply to each GMRS transmitter type both with and without the connection of permitted attachments, such as an external speaker, microphone, power cord and/or antenna.

4.4.2 EUT Setup Block Diagram



4.4.3 Test Procedure

C63.26-2015, Clause 5.4.4

The OBW is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.
The following procedure shall be used for measuring (99%) power bandwidth:
a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (typically a span of 1.5 × OBW is sufficient).
b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set ≥ 3 × RBW.
c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
NOTE—Step a), step b), and step c) may require iteration to adjust within the specified tolerances.
d) Set the detection mode to peak, and the trace mode to max-hold.
e) If the instrument does not have a 99% OBW function, recover the trace data points and sum directly in linear power terms. Place the recovered amplitude data points, beginning at the lowest frequency, in a running sum until 0.5% of the total is reached. Record that frequency as the lower OBW frequency. Repeat the process until 99.5% of the total is reached and record that frequency as the upper OBW frequency. The 99% power OBW can be determined by computing the difference these two frequencies.
f) The OBW shall be reported and plot(s) of the measuring instrument display shall be provided with the test report. The frequency and amplitude axis and scale shall be clearly labeled. Tabular data can be reported in addition to the plot(s).

C63.26-2015, Clause 5.7.3 Out-of-band unwanted emissions measurements

See Annex I for example emission mask plots.

4.4.4 Test Result

Serial Number:	2RKO-7	Test Date:	2025/1/23
Test Site:	RF	Test Mode:	Transmitting
Tester:	Stu Song	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	22.7	Relative Humidity: (%)	63	ATM Pressure: (kPa)	101.1

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200160/026	2024/9/5	2025/9/4
R&S	Spectrum Analyzer	FSV40	101461	2024/9/5	2025/9/4
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-03	2024/8/23	2025/8/22
Huaxiang	Coaxial Attenuator	DTS250-30	11022109	2024/6/7	2025/6/6
HP	RF Communications Test Set	8920A	3438A05201	2024/10/17	2025/10/16

** 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:

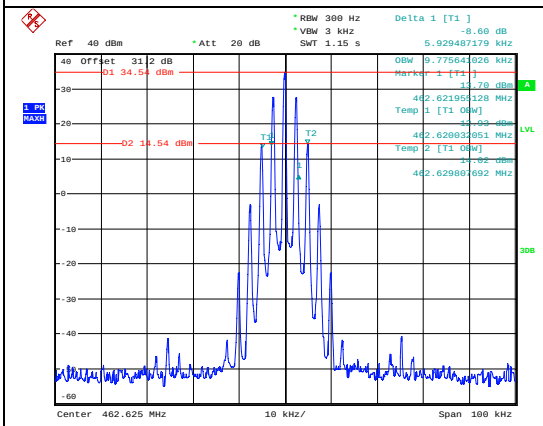
Test Bands	Test Frequency (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)
462 MHz Main (12.5k High)	462.625	9.776	≤20
462 MHz Main (12.5k Low)	462.625	9.776	≤20
462 MHz Main (25k High)	462.625	15.064	≤20
462 MHz Main (25k Low)	462.625	15.064	≤20
462 MHz interstitial (12.5k High)	462.6375	9.776	≤20
462 MHz interstitial (12.5k Low)	462.6375	9.776	≤20
462 MHz interstitial (25k High)	462.6375	15.064	≤20
462 MHz interstitial (25k Low)	462.6375	15.064	≤20
467 MHz Main (12.5k High)	467.625	9.776	≤20
467 MHz Main (12.5k Low)	467.625	9.776	≤20
467 MHz Main (25k High)	467.625	15.064	≤20
467 MHz Main (25k Low)	467.625	15.064	≤20
467 MHz interstitial (12.5k Low)	467.6375	9.776	⩽12.5

Note:
Emission bandwidth was based on calculation method instead of measurement.
Emission Designator
Per CFR 47 §2.201& §2.202, BW = 2M + 2D
For FM Mode (Channel Spacing: 25 kHz)
Emission Designator: 16K0F3E
In this case, the maximum modulating frequency is 3.0 kHz with a 5.0 kHz deviation.
BW = 2(M+D) = 2*(3.0 kHz + 5.0 kHz) = 16 kHz =16K0
F3E portion of the designator represents an FM voice transmission
Therefore, the entire designator for 25 kHz channel spacing FM mode is 16K0F3E.

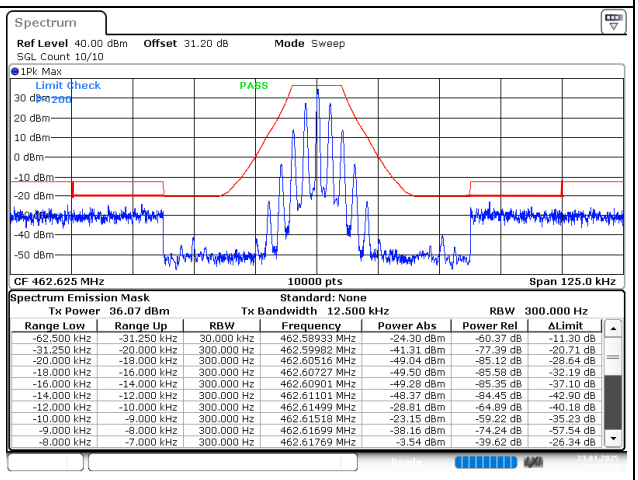
For FM Mode (Channel Spacing: 12.5 kHz)
Emission Designator 11K0F3E
In this case, the maximum modulating frequency is 3.0 kHz with a 2.5 kHz deviation.
BW = 2(M+D) = 2*(3.0 kHz + 2.5 kHz) = 11 kHz = 11K0
F3E portion of the designator represents an FM voice transmission
Therefore, the entire designator for 12.5 kHz channel spacing FM mode is 11K0F3E.

Emission Mask test was according to Attenuation requirements(3),(4),(7), low pass filter is not required.
Please refer to the below Plots.

462.6250MHz, 12.5kHz High Power



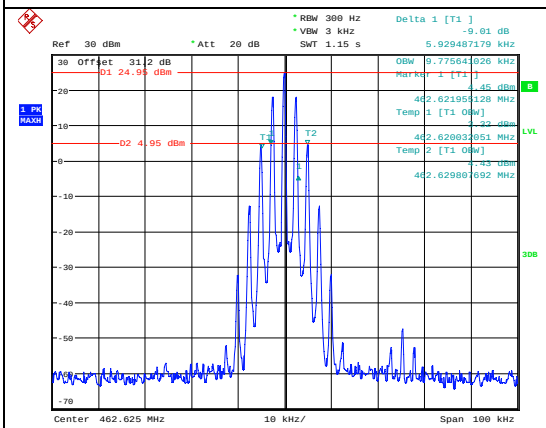
ProjectNo.:2402X45544E-RF Tester:Stu Song
Date: 23.JAN.2025 10:59:05



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-62.500 kHz	-31.250 kHz	30.000 kHz	462.58933 MHz	-24.30 dBm	-60.37 dB	-11.30 dB
-31.250 kHz	-20.000 kHz	300.000 Hz	462.59982 MHz	-41.31 dBm	-77.39 dB	-20.71 dB
-20.000 kHz	-18.000 kHz	300.000 Hz	462.60516 MHz	-49.04 dBm	-85.12 dB	-28.64 dB
-18.000 kHz	-16.000 kHz	300.000 Hz	462.60727 MHz	-49.50 dBm	-85.58 dB	-32.19 dB
-16.000 kHz	-14.000 kHz	300.000 Hz	462.60901 MHz	-49.28 dBm	-85.35 dB	-37.10 dB
-14.000 kHz	-12.000 kHz	300.000 Hz	462.61101 MHz	-48.37 dBm	-84.45 dB	-42.90 dB
-12.000 kHz	-10.000 kHz	300.000 Hz	462.61499 MHz	-28.81 dBm	-64.89 dB	-40.18 dB
-10.000 kHz	-9.000 kHz	300.000 Hz	462.61518 MHz	-23.15 dBm	-59.22 dB	-35.23 dB
-9.000 kHz	-8.000 kHz	300.000 Hz	462.61699 MHz	-38.16 dBm	-74.24 dB	-57.54 dB
-8.000 kHz	-7.000 kHz	300.000 Hz	462.61769 MHz	-3.54 dBm	-39.62 dB	-26.34 dB

ProjectNo.:2402X45544E-RF Tester:Stu Song
Date: 23.JAN.2025 14:09:18

462.6250MHz, 12.5kHz Low Power



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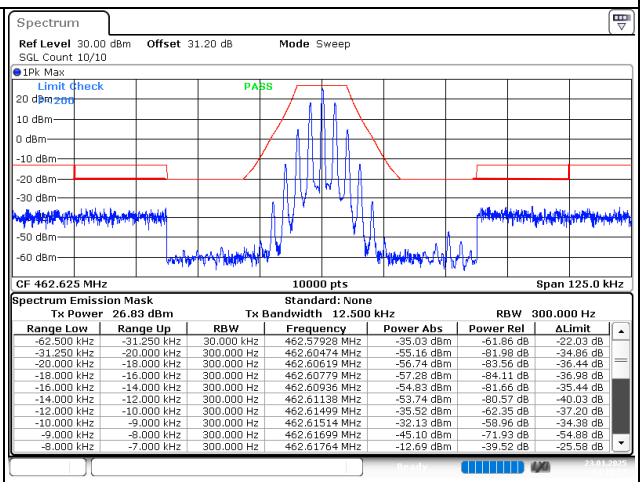
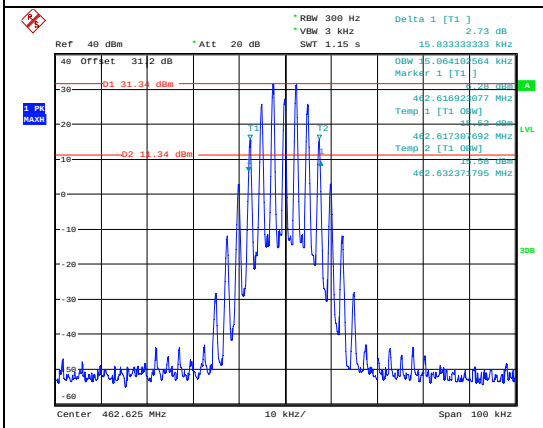


Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-62.500 kHz	-31.250 kHz	30.000 kHz	462.57928 MHz	-35.03 dBm	-61.86 dB	-22.03 dB
-31.250 kHz	-20.000 kHz	300.000 Hz	462.60474 MHz	-55.16 dBm	-81.98 dB	-34.86 dB
-20.000 kHz	-18.000 kHz	300.000 Hz	462.60619 MHz	-56.74 dBm	-83.56 dB	-36.44 dB
-18.000 kHz	-16.000 kHz	300.000 Hz	462.60779 MHz	-57.28 dBm	-84.11 dB	-36.98 dB
-16.000 kHz	-14.000 kHz	300.000 Hz	462.60936 MHz	-54.83 dBm	-81.66 dB	-35.44 dB
-14.000 kHz	-12.000 kHz	300.000 Hz	462.61138 MHz	-53.74 dBm	-80.57 dB	-40.03 dB
-12.000 kHz	-10.000 kHz	300.000 Hz	462.61499 MHz	-35.52 dBm	-62.35 dB	-37.20 dB
-10.000 kHz	-9.000 kHz	300.000 Hz	462.61514 MHz	-32.13 dBm	-58.96 dB	-34.38 dB
-9.000 kHz	-8.000 kHz	300.000 Hz	462.61699 MHz	-45.10 dBm	-71.93 dB	-54.88 dB
-8.000 kHz	-7.000 kHz	300.000 Hz	462.61764 MHz	-12.69 dBm	-39.52 dB	-25.58 dB

ProjectNo.:2402X45544E-RF Tester:Stu Song
Date: 23.JAN.2025 14:18:53

462.6250MHz, 25kHz High Power



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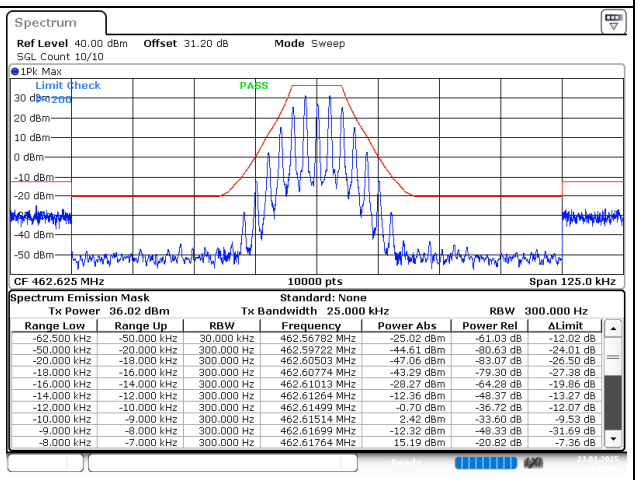

Spectrum Emission Mask Standard: None
Tx Power 36.02 dBm Tx Bandwidth 25.000 kHz RBW 300.000 Hz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-62.500 kHz	-50.000 kHz	30.000 kHz	462.56782 MHz	-25.02 dBm	-61.03 dB	-12.02 dB
-50.000 kHz	-20.000 kHz	300.000 Hz	462.59722 MHz	-44.61 dBm	-80.63 dB	-24.01 dB
-20.000 kHz	-18.000 kHz	300.000 Hz	462.60503 MHz	-47.06 dBm	-83.07 dB	-26.50 dB
-18.000 kHz	-16.000 kHz	300.000 Hz	462.60774 MHz	-43.29 dBm	-79.30 dB	-27.38 dB
-16.000 kHz	-14.000 kHz	300.000 Hz	462.61013 MHz	-28.27 dBm	-64.28 dB	-19.86 dB
-14.000 kHz	-12.000 kHz	300.000 Hz	462.61264 MHz	-12.36 dBm	-48.37 dB	-13.27 dB
-12.000 kHz	-10.000 kHz	300.000 Hz	462.61499 MHz	-0.70 dBm	-36.72 dB	-12.07 dB
-10.000 kHz	-9.000 kHz	300.000 Hz	462.61514 MHz	2.42 dBm	-33.60 dB	-9.53 dB
-9.000 kHz	-8.000 kHz	300.000 Hz	462.61699 MHz	-12.32 dBm	-48.33 dB	-31.69 dB
-8.000 kHz	-7.000 kHz	300.000 Hz	462.61764 MHz	15.19 dBm	-20.82 dB	-7.36 dB

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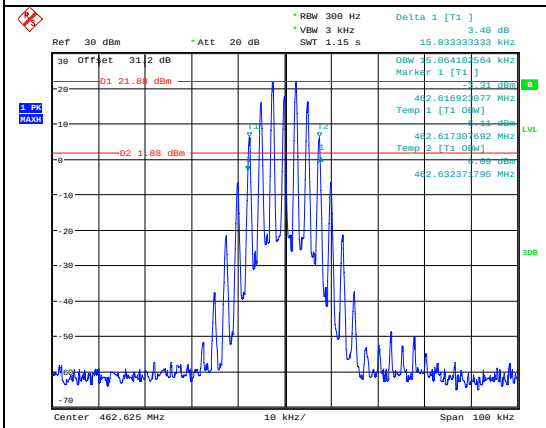
Date: 23.JAN.2025 14:29:47

462.6250MHz, 25kHz Low Power



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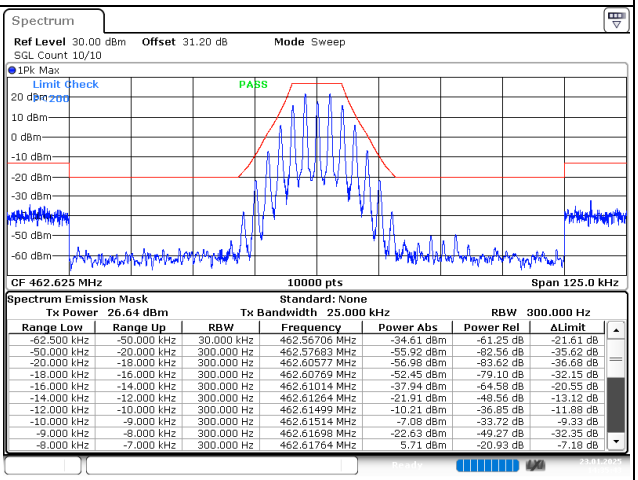

Spectrum Emission Mask Standard: None
Tx Power 26.64 dBm Tx Bandwidth 25.000 kHz RBW 300.000 Hz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-62.500 kHz	-50.000 kHz	30.000 kHz	462.56706 MHz	-34.61 dBm	-61.25 dB	-21.61 dB
-50.000 kHz	-20.000 kHz	300.000 Hz	462.57683 MHz	-55.92 dBm	-82.56 dB	-35.62 dB
-20.000 kHz	-18.000 kHz	300.000 Hz	462.60577 MHz	-56.98 dBm	-83.62 dB	-36.68 dB
-18.000 kHz	-16.000 kHz	300.000 Hz	462.60769 MHz	-52.45 dBm	-79.10 dB	-32.15 dB
-16.000 kHz	-14.000 kHz	300.000 Hz	462.61014 MHz	-37.94 dBm	-64.58 dB	-20.55 dB
-14.000 kHz	-12.000 kHz	300.000 Hz	462.61264 MHz	-21.91 dBm	-48.56 dB	-13.12 dB
-12.000 kHz	-10.000 kHz	300.000 Hz	462.61499 MHz	-10.21 dBm	-36.85 dB	-11.88 dB
-10.000 kHz	-9.000 kHz	300.000 Hz	462.61514 MHz	-7.08 dBm	-33.72 dB	-9.33 dB
-9.000 kHz	-8.000 kHz	300.000 Hz	462.61698 MHz	-22.63 dBm	-49.27 dB	-32.35 dB
-8.000 kHz	-7.000 kHz	300.000 Hz	462.61764 MHz	5.71 dBm	-20.93 dB	-7.18 dB

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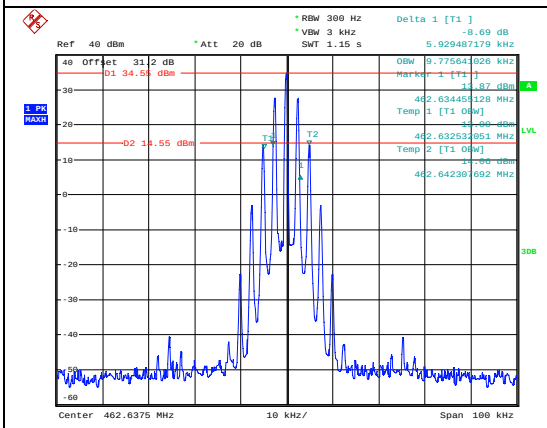
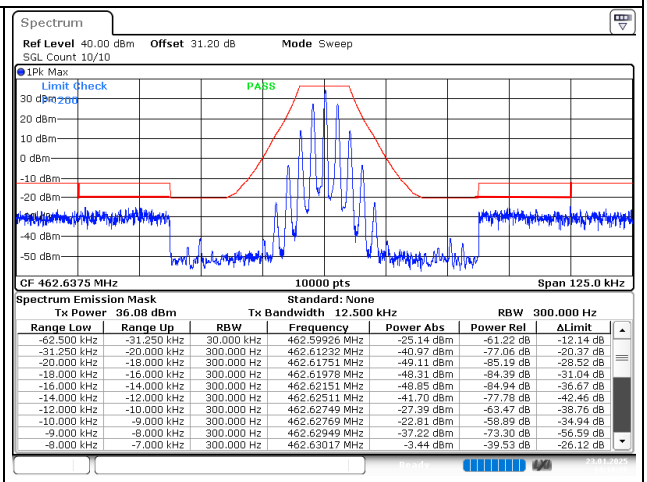
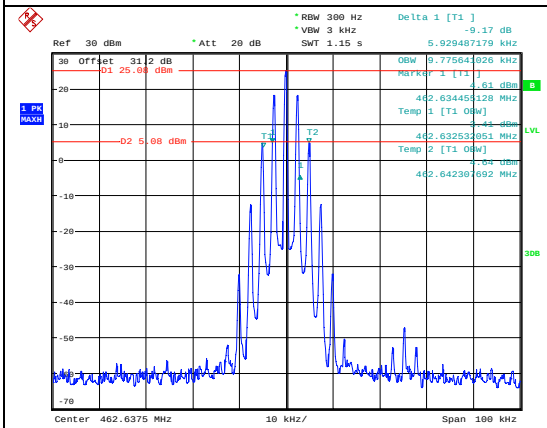
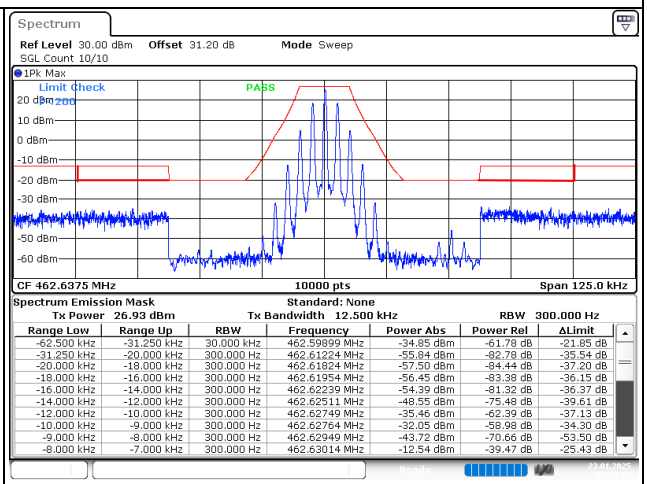
462.6375MHz, 12.5kHz High Power



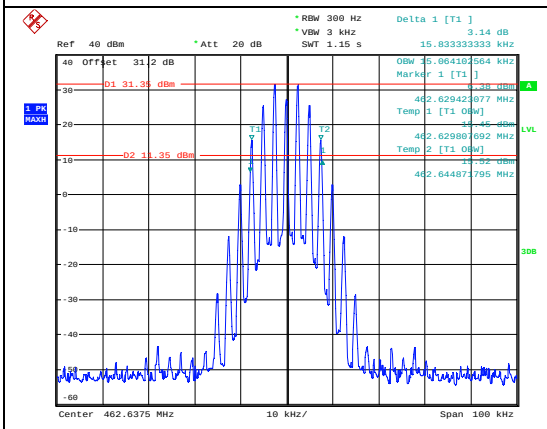


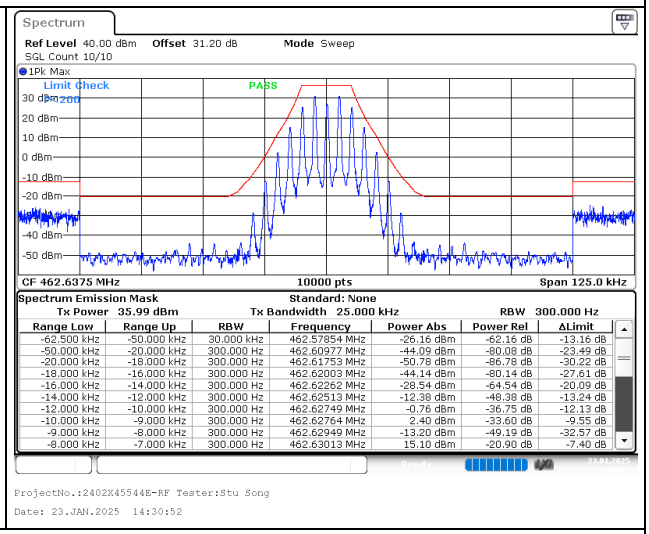
462.6375MHz, 12.5kHz Low Power



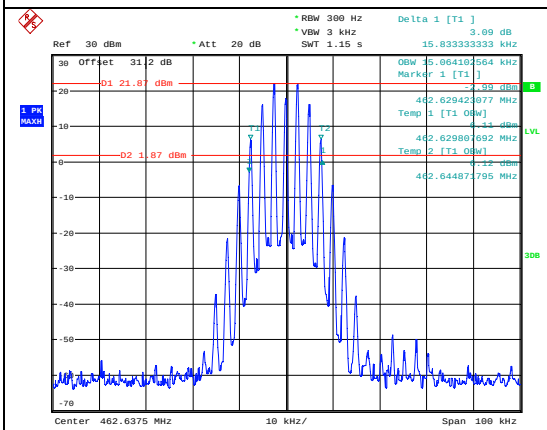


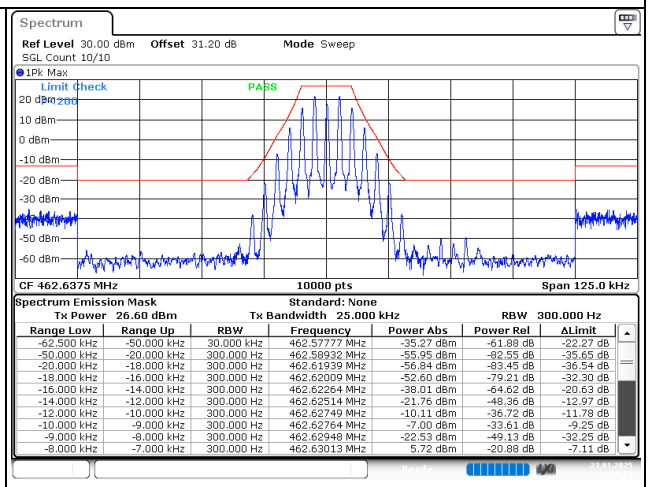
462.6375MHz, 25kHz High Power



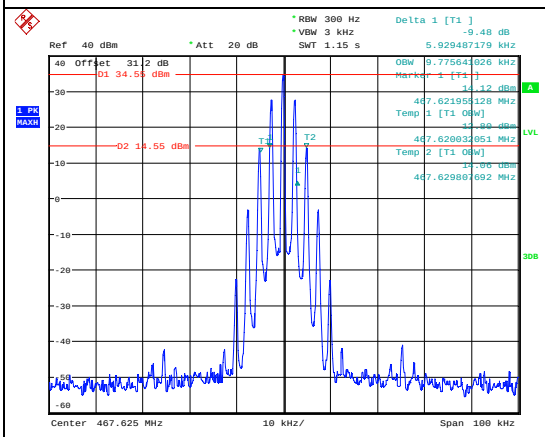


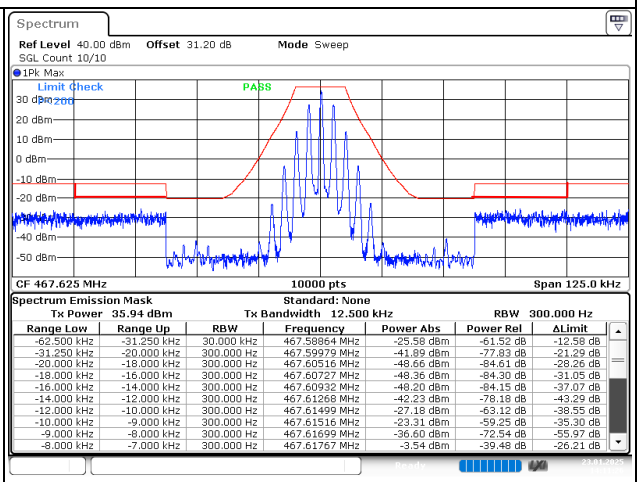
462.6375MHz, 25kHz Low Power



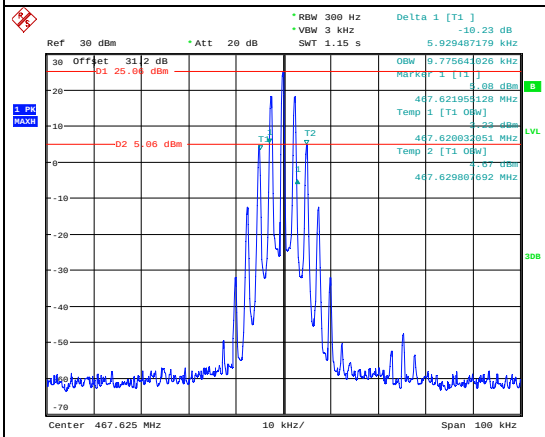


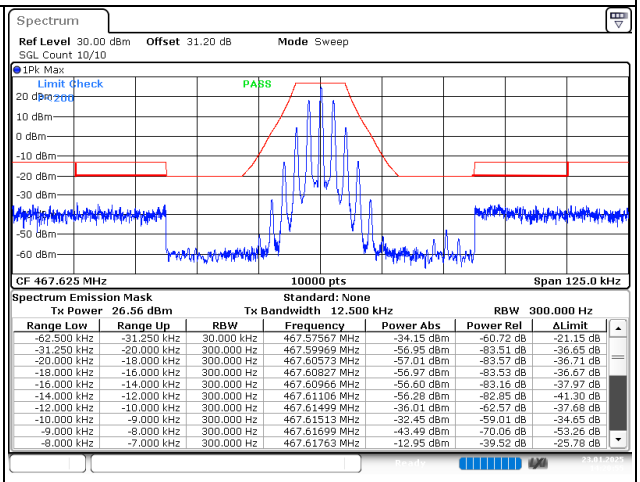
467. 6250 MHz, 12.5kHz High Power



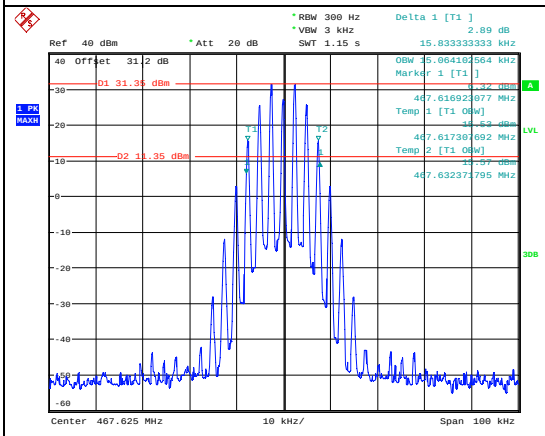


467. 6250 MHz, 12.5kHz Low Power

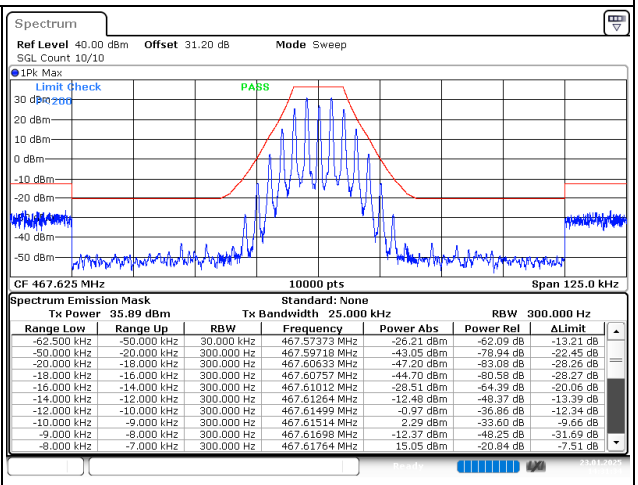




467. 6250 MHz, 25kHz High Power



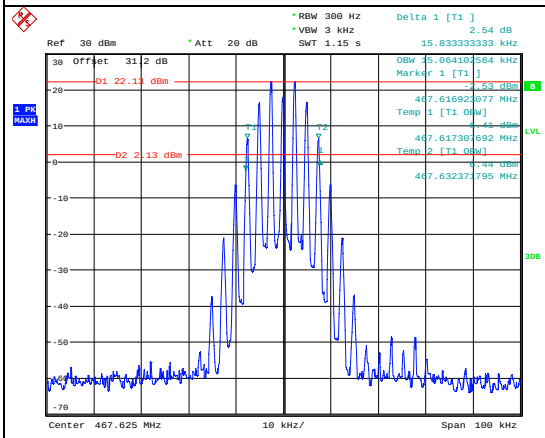
ProjectNo.:2402X45544E-RF Tester:Stu Song
Date: 23.JAN.2025 11:11:57



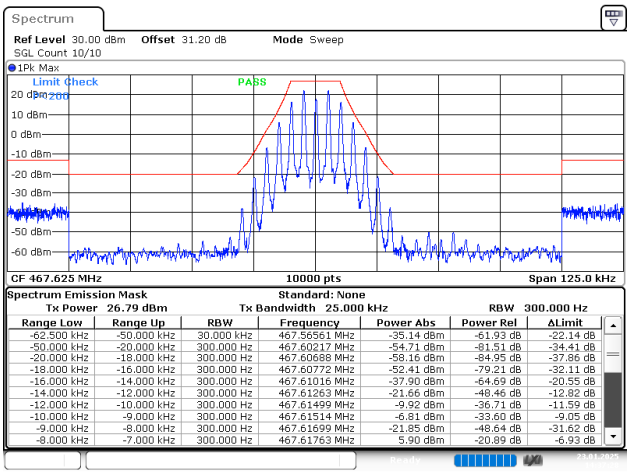
Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-62.500 kHz	-50.000 kHz	30.000 kHz	467.57373 MHz	-26.21 dBm	-62.09 dB	-13.21 dB
-50.000 kHz	-20.000 kHz	300.000 Hz	467.59718 MHz	-43.05 dBm	-78.94 dB	-22.45 dB
-20.000 kHz	-18.000 kHz	300.000 Hz	467.60633 MHz	-47.20 dBm	-83.08 dB	-28.26 dB
-18.000 kHz	-16.000 kHz	300.000 Hz	467.60757 MHz	-44.70 dBm	-80.58 dB	-28.27 dB
-16.000 kHz	-14.000 kHz	300.000 Hz	467.61012 MHz	-28.51 dBm	-64.39 dB	-20.06 dB
-14.000 kHz	-12.000 kHz	300.000 Hz	467.61264 MHz	-12.48 dBm	-48.37 dB	-13.39 dB
-12.000 kHz	-10.000 kHz	300.000 Hz	467.61499 MHz	-0.97 dBm	-36.86 dB	-12.34 dB
-10.000 kHz	-9.000 kHz	300.000 Hz	467.61514 MHz	2.29 dBm	-33.60 dB	-9.66 dB
-9.000 kHz	-8.000 kHz	300.000 Hz	467.61698 MHz	-12.37 dBm	-48.25 dB	-31.69 dB
-8.000 kHz	-7.000 kHz	300.000 Hz	467.61764 MHz	15.05 dBm	-20.84 dB	-7.51 dB

ProjectNo.:2402X45544E-RF Tester:Stu Song
Date: 23.JAN.2025 14:31:33

467. 6250 MHz, 25kHz Low Power



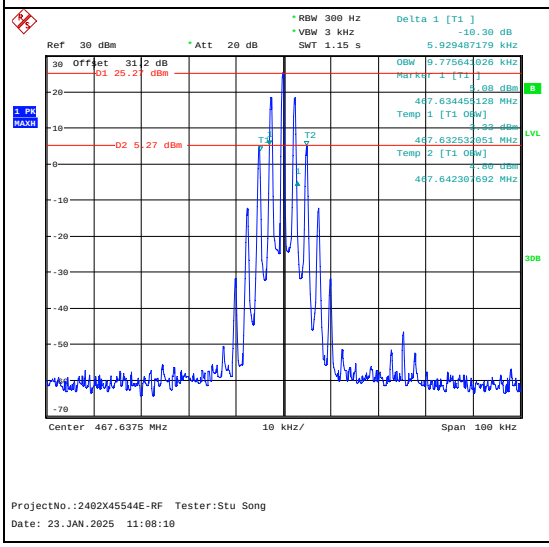
ProjectNo.:2402X45544E-RF Tester:Stu Song
Date: 23.JAN.2025 11:14:55

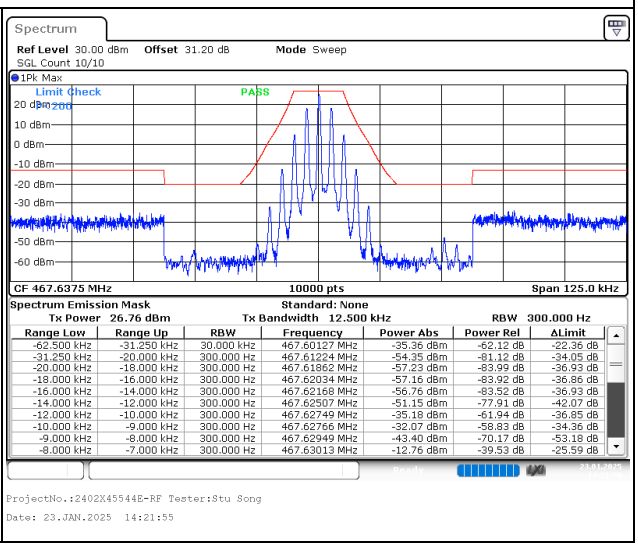


Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-62.500 kHz	-50.000 kHz	30.000 kHz	467.56561 MHz	-35.14 dBm	-61.93 dB	-22.14 dB
-50.000 kHz	-20.000 kHz	300.000 Hz	467.60217 MHz	-54.71 dBm	-81.51 dB	-34.41 dB
-20.000 kHz	-18.000 kHz	300.000 Hz	467.60688 MHz	-58.16 dBm	-84.95 dB	-37.86 dB
-18.000 kHz	-16.000 kHz	300.000 Hz	467.60772 MHz	-52.41 dBm	-79.21 dB	-32.11 dB
-16.000 kHz	-14.000 kHz	300.000 Hz	467.61016 MHz	-37.90 dBm	-64.69 dB	-20.55 dB
-14.000 kHz	-12.000 kHz	300.000 Hz	467.61263 MHz	-21.66 dBm	-48.46 dB	-12.82 dB
-12.000 kHz	-10.000 kHz	300.000 Hz	467.61499 MHz	-9.92 dBm	-36.71 dB	-11.59 dB
-10.000 kHz	-9.000 kHz	300.000 Hz	467.61514 MHz	-6.81 dBm	-33.60 dB	-9.05 dB
-9.000 kHz	-8.000 kHz	300.000 Hz	467.61699 MHz	-21.85 dBm	-48.64 dB	-31.62 dB
-8.000 kHz	-7.000 kHz	300.000 Hz	467.61763 MHz	5.90 dBm	-20.89 dB	-6.93 dB

ProjectNo.:2402X45544E-RF Tester:Stu Song
Date: 23.JAN.2025 14:37:28

467.6375 MHz, 12.5kHz Low Power





4.5 GMRS Modulation Requirements

4.5.1 Applicable Standard

FCC §95.1775

Each GMRS transmitter type must be designed to satisfy the modulation requirements in this section. Operation of GMRS stations must also be in compliance with these requirements.

(a) Main channels. The peak frequency deviation for emissions to be transmitted on the main channels must not exceed ± 5 kHz.

(b) 462 MHz interstitial channels. The peak frequency deviation for emissions to be transmitted on the 462 MHz interstitial channels must not exceed ± 5 kHz.

(c) 467 MHz interstitial channels. The peak frequency deviation for emissions to be transmitted on the 467 MHz interstitial channels must not exceed ± 2.5 kHz, and the highest audio frequency contributing substantially to modulation must not exceed 3.125 kHz.

(d) Overmodulation. Each GMRS transmitter type, except for a mobile station transmitter type with a transmitter power output of 2.5 W or less, must automatically prevent a higher than normal audio level from causing overmodulation.

(e) Audio filter. Each GMRS transmitter type must include audio frequency low pass filtering, unless it complies with the applicable paragraphs of §95.1779 (without filtering).

(1) The filter must be between the modulation limiter and the modulated stage of the transmitter.

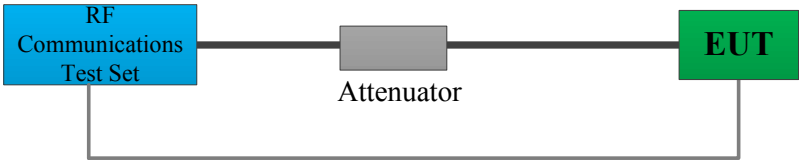
(2) At any frequency (f in kHz) between 3 and 20 kHz, the filter must have an attenuation of at least 60 log (f/3) dB more than the attenuation at 1 kHz. Above 20 kHz, it must have an attenuation of at least 50 dB more than the attenuation at 1 kHz.

4.5.2 Test Procedure

According to ANSI C63.26-2015 Section 5.3.2: Modulation limiting test methodology

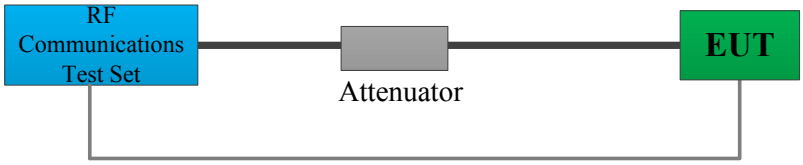
Modulation limiting is the ability of a transmitter circuit to limit the transmitter from producing deviations in excess of a rated system deviation.

a) Connect the equipment as illustrated in Figure 1.
b) Adjust the transmitter per the manufacturer's procedure for full rated system deviation.
c) Set the test receiver to measure peak positive deviation. Set the audio bandwidth for ≤0.25 Hz to ≥15000 Hz. Turn the de-emphasis function off.
d) Apply a 1000 Hz modulating signal to the transmitter from the audio frequency generator, and adjust the level to obtain 60% of full rated system deviation. This is the 0 dB reference level.
e) Increase the level from the audio generator by 20 dB in 5 dB increments recording the deviation as measured from the test receiver in each step. Verify that the audio level used to make the OBW measurement is included in the sweep.
f) Repeat for step e) at 300 Hz, 2500 Hz and 3000 Hz at a minimum using the 0 dB reference level obtained in step d).
g) Set the test receiver to measure peak negative deviation and repeat step d) through step f).
h) The values recorded in step f) and step g) are the modulation limiting.
i) Plot the data set as a percentage of deviation relative to the 0 dB reference point versus input voltage.



According to ANSI C63.26-2015 Section 5.3.3:Audio frequency response test methodology—Constant Input

a) Connect the equipment as illustrated in Figure 3.
b) Set the test receiver to measure peak positive deviation. Set the audio bandwidth for ≤50 Hz to ≥15 000 Hz. Turn the de-emphasis function off.
c) Adjust the transmitter per the manufacturer's procedure for full rated system deviation.
d) Apply a 1000 Hz tone and adjust the audio frequency generator to produce 20% of the rated system deviation.
e) Set the test receiver to measure rms deviation and record the deviation reading as DEVREF.
f) Set the audio frequency generator to the desired test frequency between 300 Hz and 3000 Hz.



4.5.3 Test Result

Serial Number:	2RKO-7	Test Date:	2025/1/23
Test Site:	RF	Test Mode:	Transmitting
Tester:	Stu Song	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	22.7	Relative Humidity: (%)	63	ATM Pressure: (kPa)	101.1

Test Equipment List and Details:

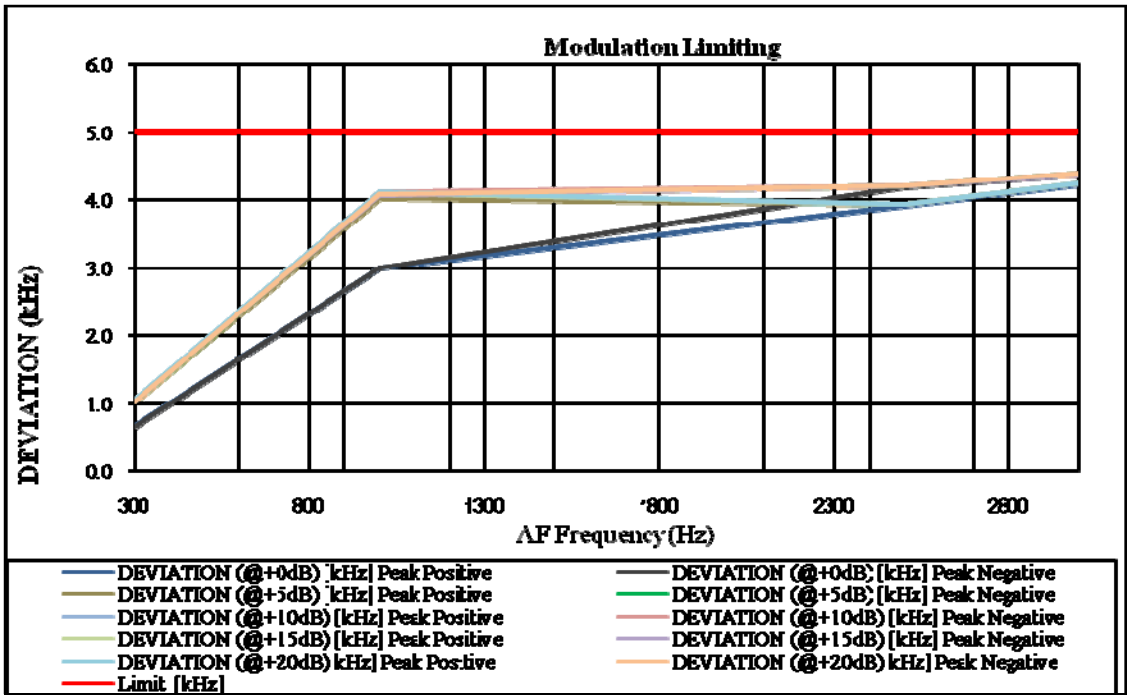
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-03	2024/8/23	2025/8/22
Huaxiang	Coaxial Attenuator	DTS250-30	11022109	2024/6/7	2025/6/6
HP	RF Communications Test Set	8920A	3438A05201	2024/10/17	2025/10/16

** 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:

MODULATION LIMITING

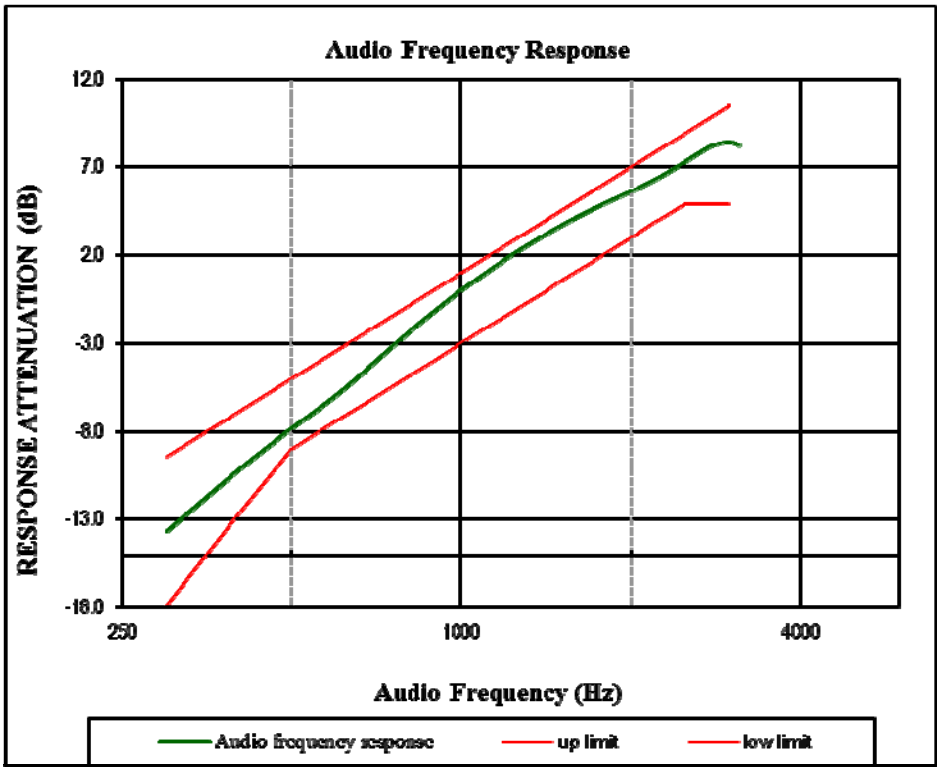
Carrier Frequency: 462.625 MHz,Channel Spacing:25kHz											
Audio Frequency(Hz)	DEVIATION (@+0dB)		DEVIATION (@+5dB)		DEVIATION (@+10dB)		DEVIATION (@+15dB)		DEVIATION (@+20dB)		Limit [kHz]
	[kHz]		[kHz]		[kHz]		[kHz]		kHz]		
	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	
300	0.655	0.637	1.011	1.019	1.024	1.002	1.031	1.022	1.039	1.008	5.000
1000	3.000	3.000	4.027	4.072	4.097	4.121	4.094	4.061	4.110	4.079	5.000
2500	3.907	4.189	3.928	4.209	3.929	4.209	3.926	4.209	3.925	4.210	5.000
3000	4.234	4.368	4.245	4.385	4.247	4.387	4.248	4.381	4.251	4.392	5.000



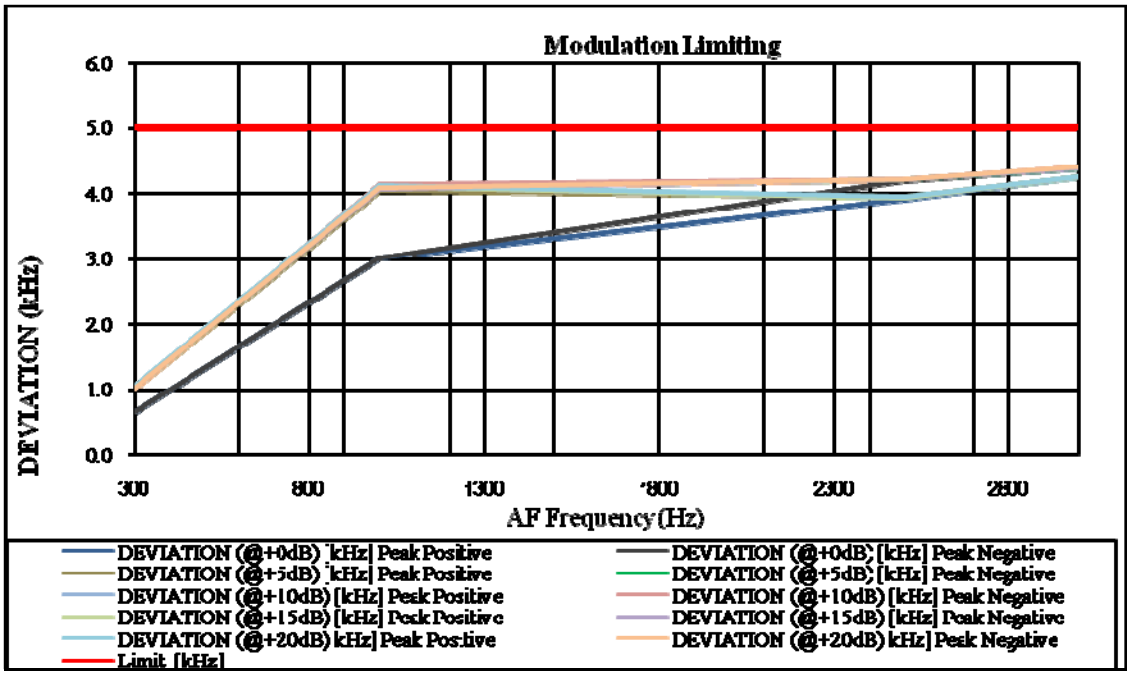
Audio Frequency Response

Carrier Frequency: 462.6250 MHz **25kHz**

Audio Frequency (Hz)	Response Attenuation (dB)
300	-13.67
400	-10.27
500	-7.83
600	-5.96
700	-4.11
800	-2.47
900	-1.13
1000	0.00
1200	1.78
1400	3.12
1600	4.14
1800	4.95
2000	5.62
2200	6.26
2400	6.96
2600	7.66
2800	8.24
3000	8.43
3125	8.24

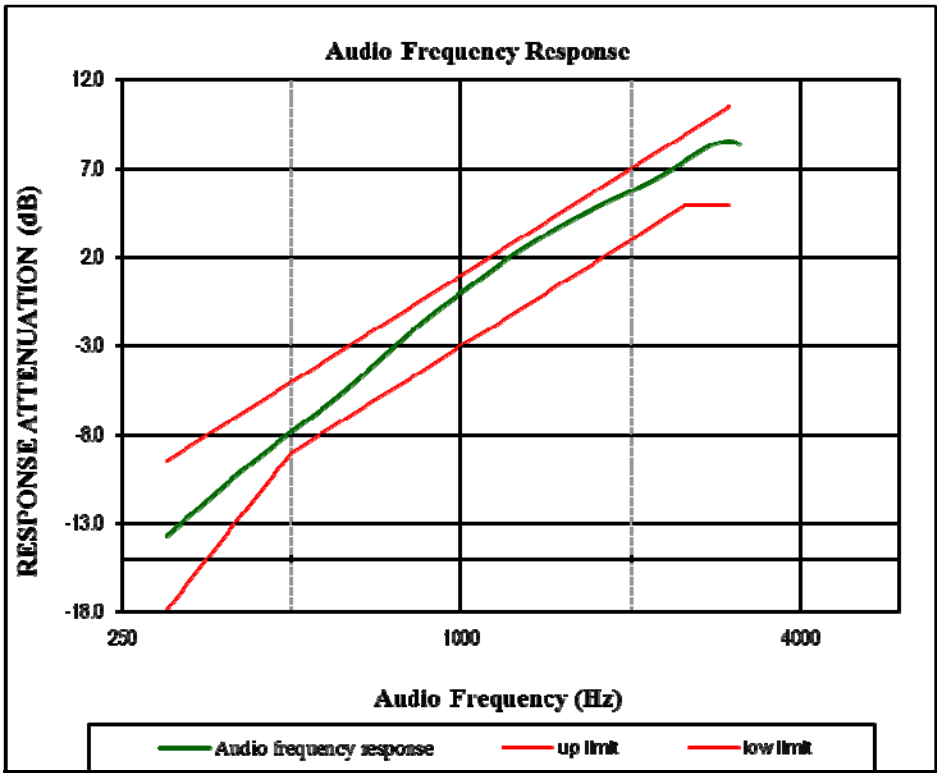


Carrier Frequency: 462.6375 MHz,Channel Spacing:25kHz											
Audio Frequency(Hz)	DEVIATION (@+0dB)		DEVIATION (@+5dB)		DEVIATION (@+10dB)		DEVIATION (@+15dB)		DEVIATION (@+20dB)		Limit [kHz]
	[kHz]		[kHz]		[kHz]		[kHz]		kHz]		
	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	
300	0.651	0.636	1.011	1.018	1.020	1.005	1.029	1.019	1.038	1.007	5.000
1000	3.000	3.000	4.041	4.074	4.100	4.121	4.098	4.060	4.111	4.079	5.000
2500	3.909	4.188	3.932	4.208	3.928	4.209	3.927	4.208	3.929	4.208	5.000
3000	4.238	4.367	4.249	4.385	4.251	4.387	4.248	4.378	4.252	4.389	5.000



Audio Frequency Response
Carrier Frequency: 462.6375MHz **_25kHz**

Audio Frequency (Hz)	Response Attenuation (dB)
300	-13.67
400	-10.23
500	-7.80
600	-5.91
700	-4.05
800	-2.40
900	-1.06
1000	0.00
1200	1.86
1400	3.21
1600	4.24
1800	5.06
2000	5.73
2200	6.38
2400	7.08
2600	7.79
2800	8.37
3000	8.56
3125	8.39



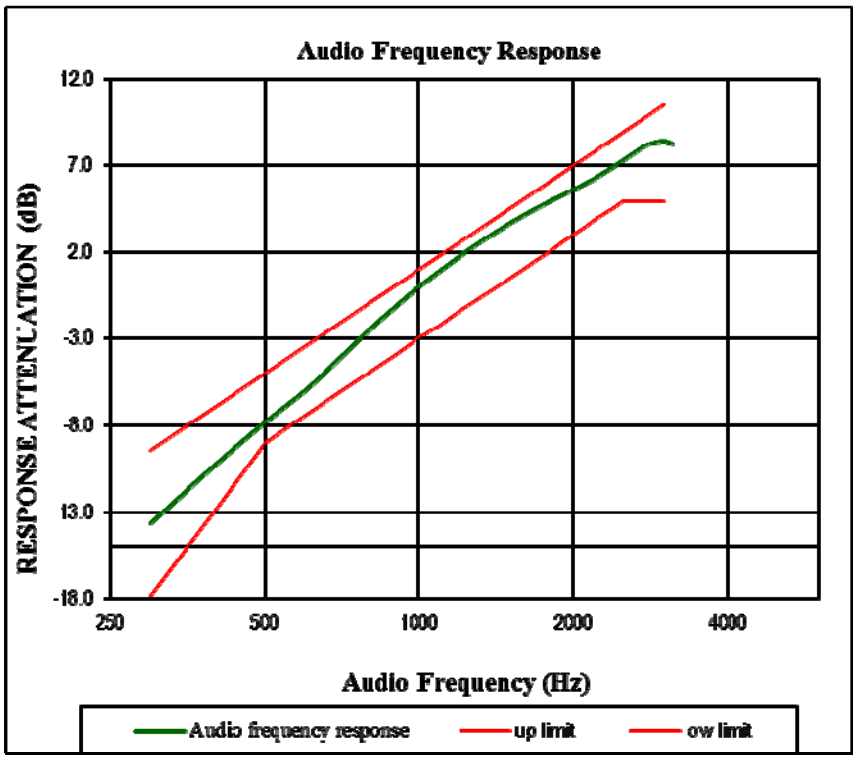
MODULATION LIMITING

Carrier Frequency: 467.625 MHz,Channel Spacing:25kHz											
Audio Frequency(Hz)	DEVIATION (@+0dB)		DEVIATION (@+5dB)		DEVIATION (@+10dB)		DEVIATION (@+15dB)		DEVIATION (@+20dB)		Limit [kHz]
	[kHz]		[kHz]		[kHz]		[kHz]		kHz]		
	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	
300	0.655	0.649	1.029	1.007	1.021	1.014	1.044	1.027	1.058	1.033	5.000
1000	3.000	3.000	4.004	4.088	4.101	4.136	4.108	4.057	4.116	4.151	5.000
2500	3.920	4.185	3.942	4.203	3.939	4.204	3.939	4.203	3.939	4.206	5.000
3000	4.245	4.363	4.249	4.387	4.258	4.385	4.261	4.373	4.265	4.392	5.000

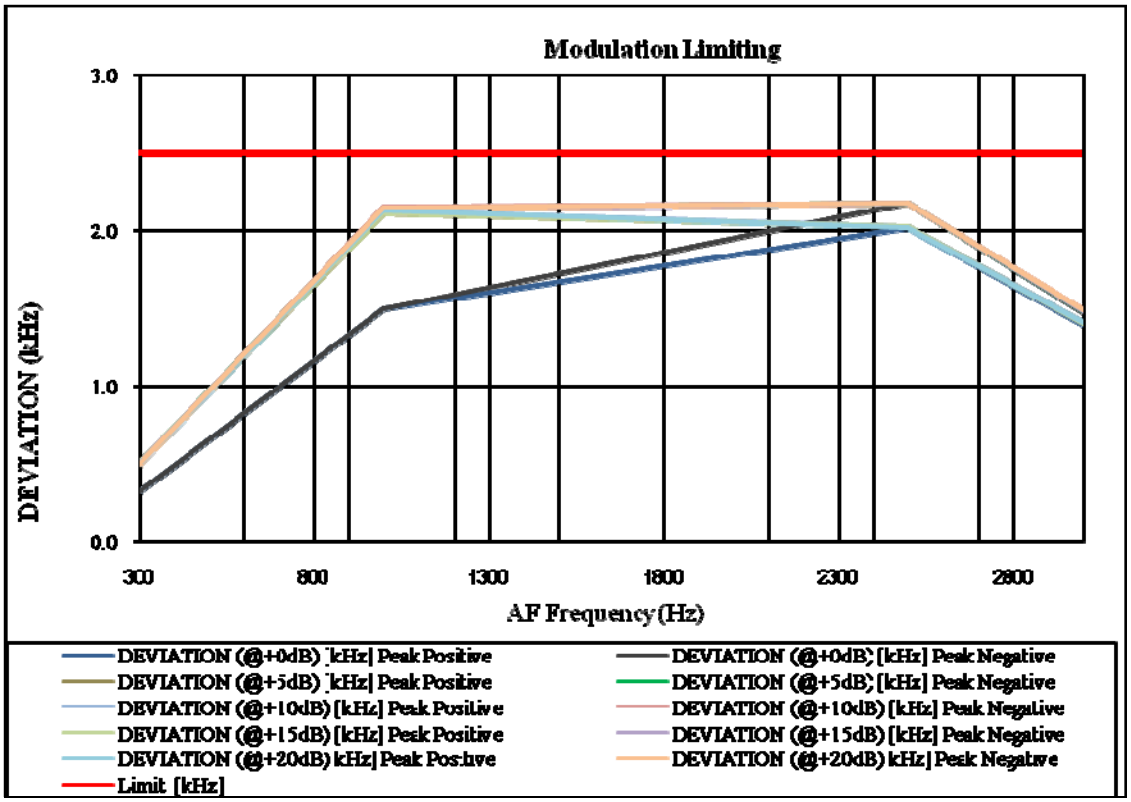
Audio Frequency Response

Carrier Frequency: 467. 6250 MHz **25kHz**

Audio Frequency (Hz)	Response Attenuation (dB)
300	-13.65
400	-10.29
500	-7.84
600	-5.98
700	-4.13
800	-2.48
900	-1.14
1000	0.00
1200	1.76
1400	3.11
1600	4.14
1800	4.94
2000	5.61
2200	6.26
2400	6.95
2600	7.65
2800	8.23
3000	8.42
3125	8.24

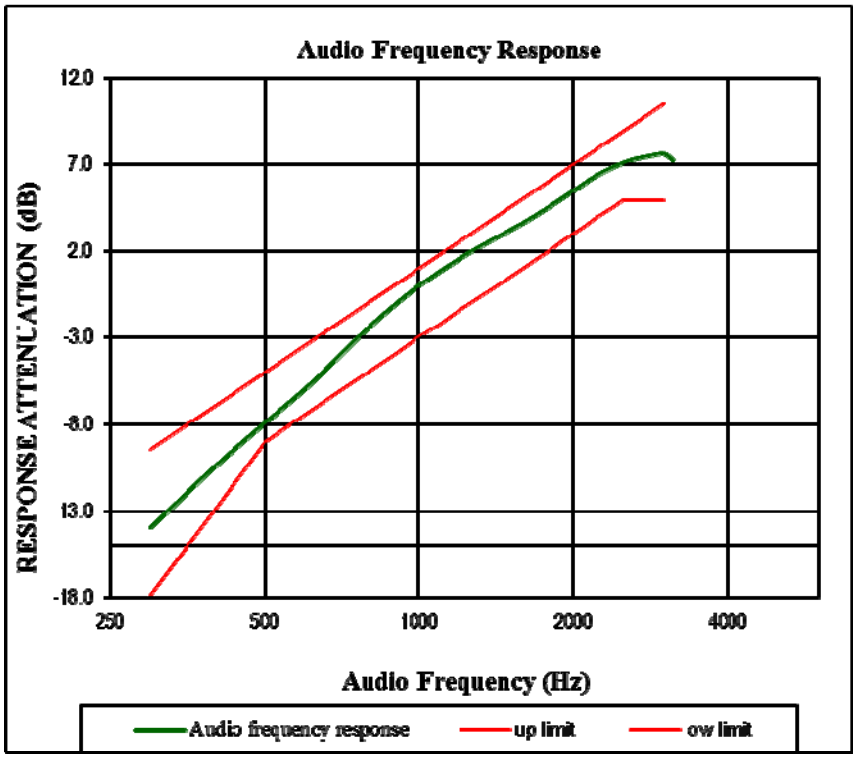


Carrier Frequency: 467.6375 MHz,Channel Spacing:12.5kHz											
Audio Frequency(Hz)	DEVIATION (@+0dB)		DEVIATION (@+5dB)		DEVIATION (@+10dB)		DEVIATION (@+15dB)		DEVIATION (@+20dB)		Limit [kHz]
	[kHz]		[kHz]		[kHz]		[kHz]		kHz]		
	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	
300	0.324	0.319	0.507	0.503	0.500	0.497	0.509	0.505	0.500	0.498	2.500
1000	1.500	1.500	2.114	2.141	2.125	2.150	2.109	2.137	2.125	2.148	2.500
2500	2.017	2.178	2.021	2.179	2.021	2.178	2.021	2.179	2.018	2.178	2.500
3000	1.393	1.469	1.405	1.483	1.409	1.490	1.404	1.482	1.410	1.488	2.500



Audio Frequency Response
Carrier Frequency: 467.6375MHz **_12.5kHz**

Audio Frequency (Hz)	Response Attenuation (dB)
300	-13.95
400	-10.43
500	-7.93
600	-5.94
700	-4.04
800	-2.37
900	-1.06
1000	0.00
1200	1.57
1400	2.71
1600	3.65
1800	4.59
2000	5.48
2200	6.31
2400	6.87
2600	7.28
2800	7.48
3000	7.62
3125	7.26



4.6 Antenna Port Unwanted Emissions

4.6.1 Applicable Standard

FCC §95.1779

Each GMRS transmitter type must be designed to comply with the applicable unwanted emissions limits in this section.

(a) Emission masks. Emission masks applicable to transmitting equipment in the GMRS are defined by the requirements in the following table. The numbers in the attenuation requirements column refer to rule paragraph numbers under paragraph (b) of this section.

Emission types filter	Attenuation requirements
A1D, A3E, F1D, G1D, F2D, F3E, G3E with audio filter	(1), (2), (7)
A1D, A3E, F1D, G1D, F3E, G3E without audio filter	(3), (4), (7)
H1D, J1D, R1D, H3E, J3E, R2E	(5), (6), (7)

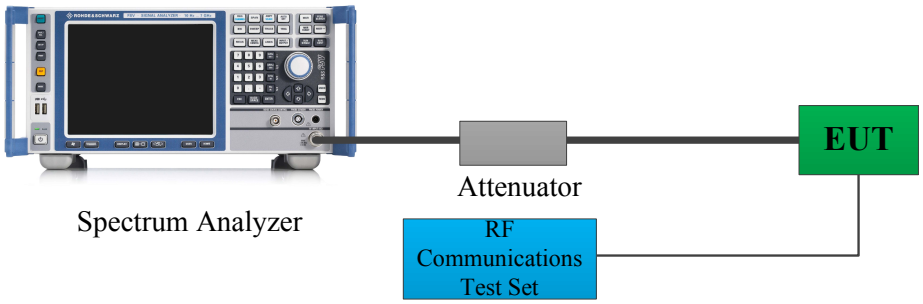
(1) Filtering noted for GMRS transmitters refers to the requirement in §95.1775(e).
(2) Unwanted emission power may be measured as either mean power or peak envelope power, provided that the transmitter output power is measured the same way.

(b) Attenuation requirements. The power of unwanted emissions must be attenuated below the transmitter output power in Watts (P) by at least:
(1) 25 dB (decibels) on any frequency removed from the center of the authorized bandwidth by more than 50% up to and including 100% of the authorized bandwidth.
(2) 35 dB on any frequency removed from the center of the authorized bandwidth by more than 100% up to and including 250% of the authorized bandwidth.
(3) 83 log (fd ÷ 5) dB on any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 5 kHz up to and including 10 kHz.
(4) 116 log (fd ÷ 6.1) dB or 50 + 10 log (P) dB, whichever is the lesser attenuation, on any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz), of more than 10 kHz up to and including 250% of the authorized bandwidth.
(5) 25 dB on any frequency removed from the center of the authorized bandwidth by more than 50% up to and including 150% of the authorized bandwidth.
(6) 35 dB on any frequency removed from the center of the authorized bandwidth by more than 150% up to and including 250% of the authorized bandwidth.
(7) 43 + 10 log (P) dB on any frequency removed from the center of the authorized bandwidth by more than 250%.

(c) Measurement bandwidths. The power of unwanted emissions in the frequency bands specified in paragraphs (b)(1) through(4) of this section is measured with a reference bandwidth of 300 Hz. The power of unwanted emissions in the frequency range specified in paragraph (b)(5) of this section is measured with a reference bandwidth of at least 30 kHz.

(d) Measurement conditions. The requirements in this section apply to each GMRS transmitter type both with and without the connection of permitted attachments, such as an external speaker, microphone, power cord and/or antenna.

4.6.2 EUT Setup Block Diagram



4.6.3 Test Procedure

C63.26-2015, Clause 5.7.4 Spurious unwanted emission measurements

a) Set the spectrum analyzer start frequency to the lowest frequency generated by the EUT, without going below 9 kHz, and the stop frequency to the lower frequency covered by the measurements previously performed in 5.7.3. As an alternative, the stop frequency can be set to the value specified in 5.1.1, depending on the EUT operating range, if the resulting plot can clearly demonstrate compliance for all frequencies not addressed by the out-of-band emissions measurements performed as per 5.7.3.

b) When using an average power (rms) detector, ensure that the number of points in the sweep ≥ 2 × (span / RBW). This may require that the measurement range defined by the start and stop frequencies be subdivided, depending on the spectrum analyzer capabilities. This requirement does not apply to peak-detected power measurements. When average power is specified by the applicable regulation, a peak-detector can be utilized for preliminary measurements to accommodate wider frequency spans. Any emissions found in the preliminary measurement to exceed the applicable limit(s) shall be further examined using a power averaging (rms) detector with the minimum number of measurement points as defined above.

c) The sweep time should be set to auto-couple for performing peak-detector measurements. For measurements that use a power averaging (rms) detector, the sweep time shall be set as described for out-of-band emissions measurements in item d) of 5.7.3.

d) Identify and measure the highest spurious emission levels in each frequency range. It is not necessary to re-measure the out-of-band emissions as a part of this test. Record the frequencies and amplitudes corresponding to the measured emissions and capture the data plots.

e) Repeat step b) through step d) for the upper spurious emission frequency range if not already captured by a wide span measurement performed as per the alternative provided in step a). The upper frequency for this measurement is defined in 5.1.1 as a function of the EUT operating range.

f) Compare the results with the corresponding limit in the applicable regulation.
g) The test report shall include the data plots of the measuring instrument display and the measured data.

4.6.4 Test Result

Serial Number:	2RKO-7	Test Date:	2025/1/23
Test Site:	RF	Test Mode:	Transmitting
Tester:	Stu Song	Test Result:	Pass

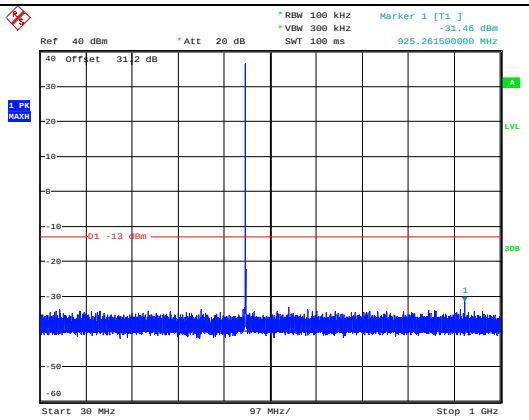
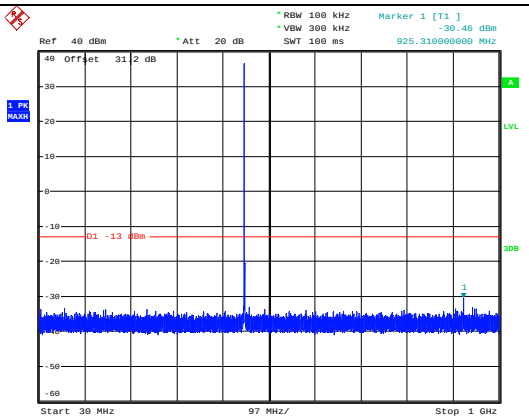
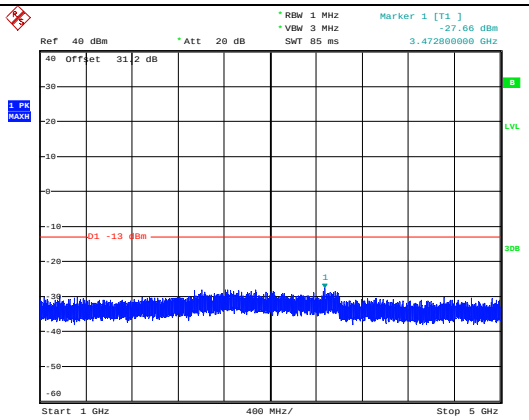
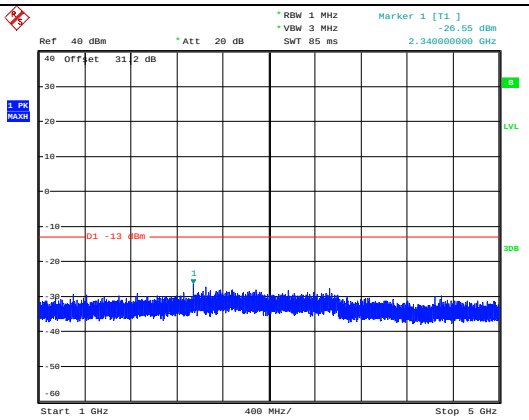
Environmental Conditions:					
Temperature: (℃)	22.7	Relative Humidity: (%)	63	ATM Pressure: (kPa)	101.1

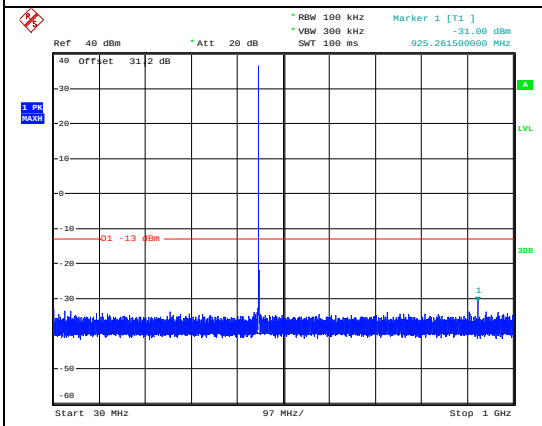
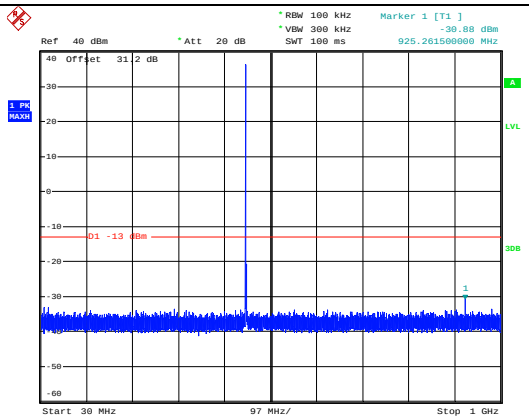
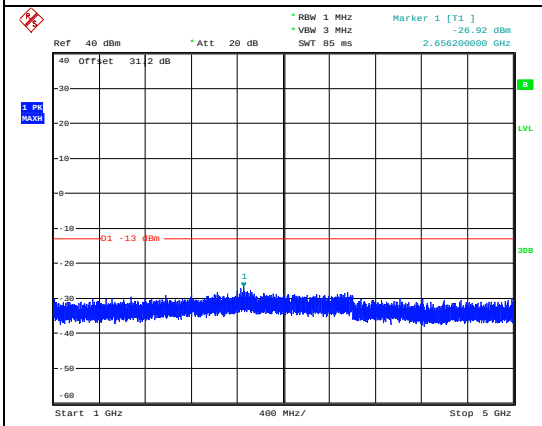
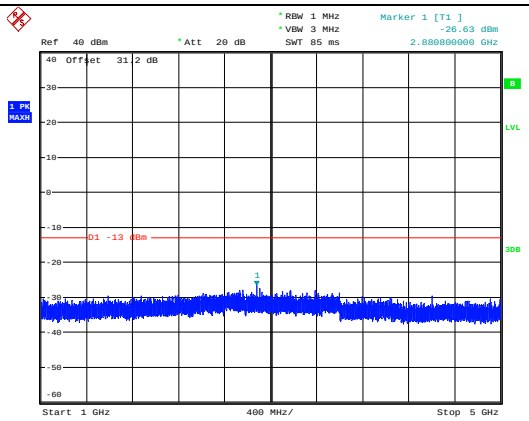
Test Equipment List and Details:

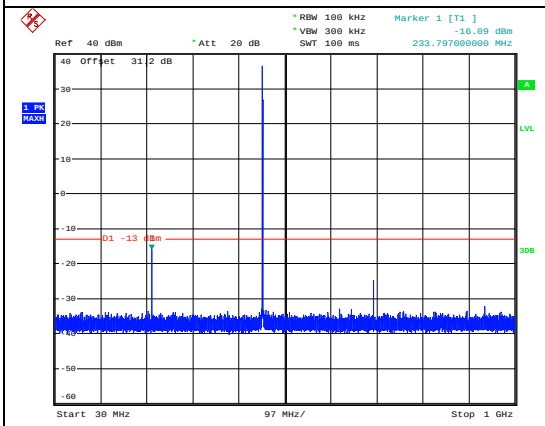
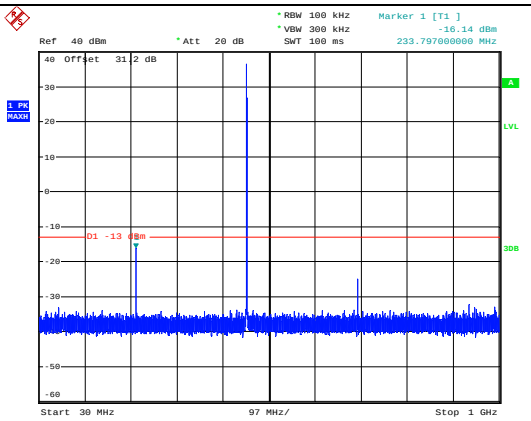
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200160/026	2024/9/5	2025/9/4
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-03	2024/8/23	2025/8/22
Huaxiang	Coaxial Attenuator	DTS250-30	11022109	2024/6/7	2025/6/6
HP	RF Communications Test Set	8920A	3438A05201	2024/10/17	2025/10/16

** 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:

12.5kHz, 462.6250MHz(high power level)	12.5kHz, 462.6375MHz(high power level)
 ProjectNo.:2402X45544E-RF Tester:Stu Song Date: 23.JAN.2025 09:44:59	 ProjectNo.:2402X45544E-RF Tester:Stu Song Date: 23.JAN.2025 09:48:13
 ProjectNo.:2402X45544E-RF Tester:Stu Song Date: 23.JAN.2025 09:45:55	 ProjectNo.:2402X45544E-RF Tester:Stu Song Date: 23.JAN.2025 09:48:56

25kHz, 462.6250MHz(high power level)	25kHz,462.6375MHz(high power level)
 ProjectNo.:2402X45544E-RF Tester:Stu Song Date: 23.JAN.2025 09:46:38	 ProjectNo.:2402X45544E-RF Tester:Stu Song Date: 23.JAN.2025 09:49:48
 ProjectNo.:2402X45544E-RF Tester:Stu Song Date: 23.JAN.2025 09:47:25	 ProjectNo.:2402X45544E-RF Tester:Stu Song Date: 23.JAN.2025 09:50:36

12.5kHz, 467.6250MHz(high power level)	25kHz, 467.6250MHz(high power level)
	
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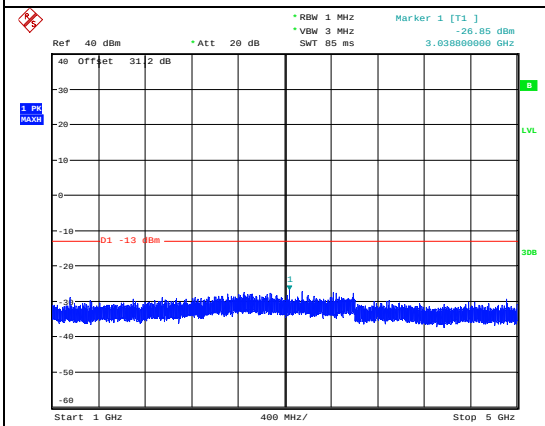
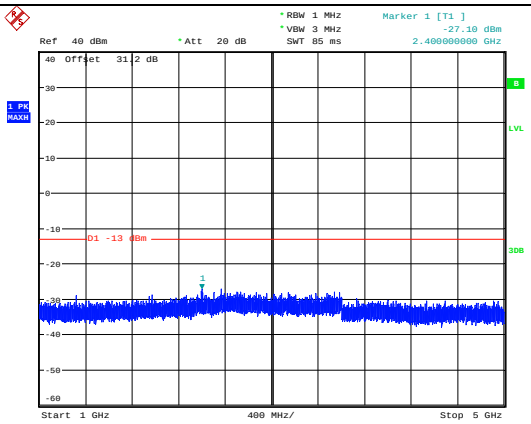
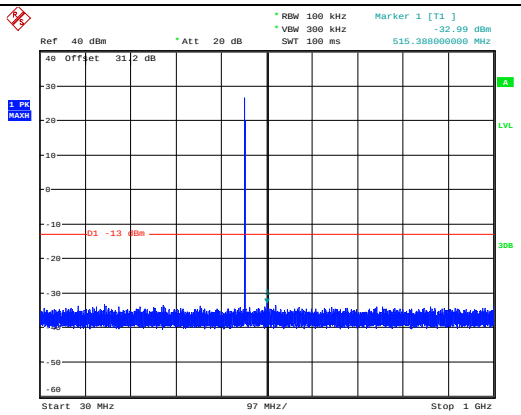
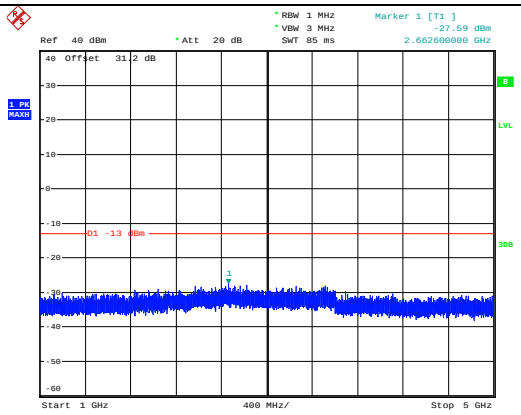
	
ProjectNo.:2402X45544E-RF Tester:Stu Song Date: 23.JAN.2025 09:57:46	ProjectNo.:2402X45544E-RF Tester:Stu Song Date: 23.JAN.2025 10:00:24

467.6375MHz, 12.5kHz(low power level)



ProjectNo.:2402X45544E-RF Tester:Stu Song
Date: 23.JAN.2025 09:42:42



ProjectNo.:2402X45544E-RF Tester:Stu Song
Date: 23.JAN.2025 09:43:40

4.7 Radiated Unwanted Emissions

4.7.1 Applicable Standard

FCC §95.1779

Each GMRS transmitter type must be designed to comply with the applicable unwanted emissions limits in this section.

(a) Emission masks. Emission masks applicable to transmitting equipment in the GMRS are defined by the requirements in the following table. The numbers in the attenuation requirements column refer to rule paragraph numbers under paragraph (b) of this section.

Emission types filter	Attenuation requirements
A1D, A3E, F1D, G1D, F2D, F3E, G3E with audio filter	(1), (2), (7)
A1D, A3E, F1D, G1D, F3E, G3E without audio filter	(3), (4), (7)
H1D, J1D, R1D, H3E, J3E, R2E	(5), (6), (7)

(1) Filtering noted for GMRS transmitters refers to the requirement in §95.1775(e).
(2) Unwanted emission power may be measured as either mean power or peak envelope power, provided that the transmitter output power is measured the same way.
(b) Attenuation requirements. The power of unwanted emissions must be attenuated below the transmitter output power in Watts (P) by at least:
(1) 25 dB (decibels) on any frequency removed from the center of the authorized bandwidth by more than 50% up to and including 100% of the authorized bandwidth.

(2) 35 dB on any frequency removed from the center of the authorized bandwidth by more than 100% up to and including 250% of the authorized bandwidth.
(3) 83 log (fd ÷ 5) dB on any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 5 kHz up to and including 10 kHz.

(4) 116 log (fd ÷ 6.1) dB or 50 + 10 log (P) dB, whichever is the lesser attenuation, on any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz), of more than 10 kHz up to and including 250% of the authorized bandwidth.
(5) 25 dB on any frequency removed from the center of the authorized bandwidth by more than 50% up to and including 150% of the authorized bandwidth.
(6) 35 dB on any frequency removed from the center of the authorized bandwidth by more than 150% up to and including 250% of the authorized bandwidth.
(7) 43 + 10 log (P) dB on any frequency removed from the center of the authorized bandwidth by more than 250%.
(c) Measurement bandwidths. The power of unwanted emissions in the frequency bands specified in paragraphs (b)(1) through(4) of this section is measured with a reference bandwidth of 300 Hz. The power of unwanted emissions in the frequency range specified in paragraph (b)(5) of this section is measured with a reference bandwidth of at least 30 kHz.
(d) Measurement conditions. The requirements in this section apply to each GMRS transmitter type both with and without the connection of permitted attachments, such as an external speaker, microphone, power cord and/or antenna.

4.7.2 EUT Setup Block Diagram

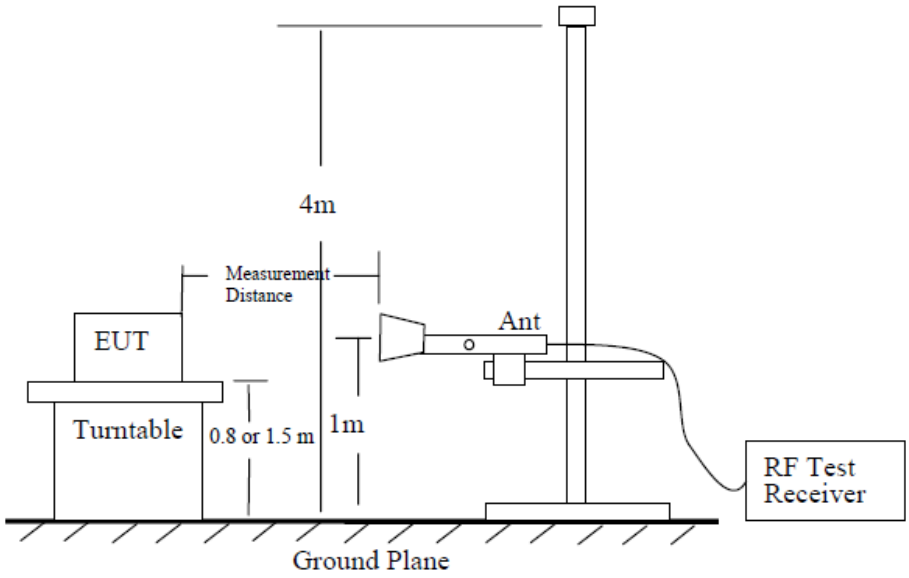


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

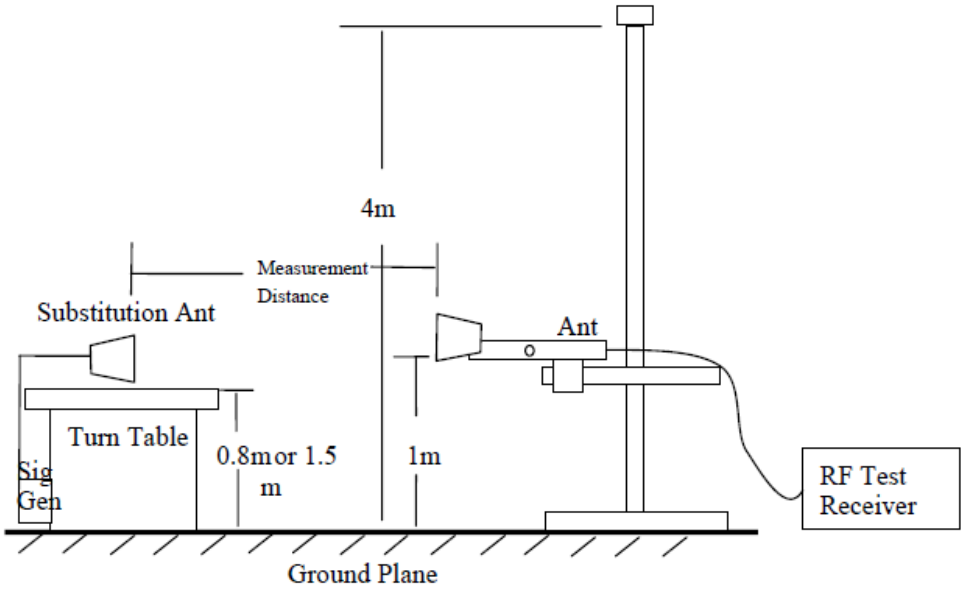


Figure 7—Substitution method set-up for radiated emission

4.7.3 Test Procedure:

ANSI C63.26-2015 Section 5.5.3

a) Place the EUT in the center of the turntable. The EUT shall be configured to transmit into the standard non-radiating load (for measuring radiated spurious emissions), connected with cables of minimal length unless specified otherwise. If the EUT uses an adjustable antenna, the antenna shall be positioned to the length that produces the worst case emission at the fundamental operating frequency.

b) Each emission under consideration shall be evaluated:

1) Raise and lower the measurement antenna in accordance 5.5.2, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.

2) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.

3) Return the turntable to the azimuth where the highest emission amplitude level was observed.

4) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.

5) Record the measured emission amplitude level and frequency using the appropriate RBW.

c) Repeat step b) for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.

d) Set-up the substitution measurement with the reference point of the substitution antenna located as near as possible to where the center of the EUT radiating element was located during the initial EUT measurement.

e) Maintain the previous measurement instrument settings and test set-up, with the exception that the EUT is removed and replaced by the substitution antenna.

f) Connect a signal generator to the substitution antenna; locate the signal generator so as to minimize any potential influences on the measurement results. Set the signal generator to the frequency where emissions are detected, and set an output power level such that the radiated signal can be detected by the measurement instrument, with sufficient dynamic range relative to the noise floor.

g) For each emission that was detected and measured in the initial test [i.e., in step b) and step c)]:

1) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude.

2) Adjust the signal generator output power level until the amplitude detected by the measurement instrument equals the amplitude level of the emission previously measured directly in step b) and step c).

3) Record the output power level of the signal generator when equivalence is achieved in step 2).

h) Repeat step e) through step g) with the measurement antenna oriented in the opposite polarization.

i) Calculate the emission power in dBm referenced to a half-wave dipole using the following equation:

$$Pe = Ps(dBm) - \text{cable loss (dB)} + \text{antenna gain (dBd)}$$

where

Pe = equivalent emission power in dBm
Ps = source (signal generator) power in dBm

NOTE—dBd refers to the measured antenna gain in decibels relative to a half-wave dipole.

j) Correct the antenna gain of the substitution antenna if necessary to reference the emission power to a half-wave dipole. When using measurement antennas with the gain specified in dBi, the equivalent dipole-referenced gain can be determined from: gain (dBd) = gain (dBi) − 2.15 dB. If necessary, the antenna gain can be calculated from calibrated antenna factor information

k) Provide the complete measurement results as a part of the test report.

4.7.4 Test Result

Serial Number:	2RKO-7	Test Date:	2024/9/13~2025/3/25
Test Site:	Chamber10m, Chamber B	Test Mode:	Transmitting
Tester:	Leesin Xiang, Leo Xiao	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	23.6~29.3	Relative Humidity: (%)	34~61	ATM Pressure: (kPa)	100.1~100.7

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
R&S	EMI Test Receiver	ESCI	100224	2024/8/26	2025/8/25
EMCO	Adjustable Dipole Antenna	3121C	9109-753	N/A	N/A
Micro-Coax	Coaxial Cable	UFA210B	99G1448	2024/9/5	2025/9/4
Agilent	Signal Generator	E8247C	MY43321350	2024/9/5	2025/9/4
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
AH	Horn Antenna	SAS-571	1177	2023/2/22	2026/2/21
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2023/11/17	2024/11/16
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2024/11/17	2025/11/16
Micro-Coax	Coaxial Cable	UFA210B	99G1448	2024/9/5	2025/9/4
R&S	Spectrum Analyzer	FSV40	101944	2024/9/6	2025/9/5
AH	Preamplifier	PAM-0118P	469	2024/4/15	2025/4/15

** 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.

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

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
high power level, 12.5kHz, frequency:462.6250**MHz**								
925.25	H	64.93	-29.78	0.00	0.51	-30.29	-13.00	17.29
925.25	V	69.04	-22.46	0.00	0.51	-22.97	-13.00	9.97
1387.88	H	93.95	-30.30	8.92	1.20	-22.58	-13.00	9.58
1387.88	V	97.69	-27.20	8.92	1.20	-19.48	-13.00	6.48
1850.50	H	78.75	-45.24	11.45	0.85	-34.64	-13.00	21.64
1850.50	V	83.03	-41.41	11.45	0.85	-30.81	-13.00	17.81
2313.13	H	86.02	-36.31	11.34	1.24	-26.21	-13.00	13.21
2313.13	V	81.74	-40.52	11.34	1.24	-30.42	-13.00	17.42
2775.75	H	90.66	-31.45	13.10	1.33	-19.68	-13.00	6.68
2775.75	V	82.61	-39.67	13.10	1.33	-27.90	-13.00	14.90
3238.38	H	83.18	-35.72	13.60	1.58	-23.70	-13.00	10.70
3238.38	V	79.35	-39.59	13.60	1.58	-27.57	-13.00	14.57
3701.00	H	84.50	-34.07	14.00	1.83	-21.90	-13.00	8.90
3701.00	V	69.75	-48.79	14.00	1.83	-36.62	-13.00	23.62
4163.63	H	70.85	-47.38	13.89	1.51	-35.00	-13.00	22.00
4163.63	V	73.64	-44.62	13.89	1.51	-32.24	-13.00	19.24
4626.25	H	80.76	-36.74	14.25	1.80	-24.29	-13.00	11.29
4626.25	V	81.25	-36.35	14.25	1.80	-23.90	-13.00	10.90
high power level, 12.5kHz, frequency: 462.6375 **MHz**								
925.28	H	65.18	-29.53	0.00	0.51	-30.04	-13.00	17.04
925.28	V	69.29	-22.20	0.00	0.51	-22.71	-13.00	9.71
1387.91	H	92.97	-31.28	8.92	1.20	-23.56	-13.00	10.56
1387.91	V	96.87	-28.02	8.92	1.20	-20.30	-13.00	7.30
1850.55	H	78.15	-45.84	11.45	0.85	-35.24	-13.00	22.24
1850.55	V	82.71	-41.73	11.45	0.85	-31.13	-13.00	18.13
2313.19	H	86.24	-36.09	11.35	1.24	-25.98	-13.00	12.98
2313.19	V	81.52	-40.74	11.35	1.24	-30.63	-13.00	17.63
2775.83	H	91.02	-31.09	13.10	1.33	-19.32	-13.00	6.32
2775.83	V	80.88	-41.40	13.10	1.33	-29.63	-13.00	16.63
3238.46	H	83.25	-35.65	13.60	1.58	-23.63	-13.00	10.63
3238.46	V	80.50	-38.44	13.60	1.58	-26.42	-13.00	13.42
3701.10	H	85.42	-33.14	14.00	1.83	-20.97	-13.00	7.97
3701.10	V	76.53	-42.01	14.00	1.83	-29.84	-13.00	16.84
4163.74	H	72.81	-45.42	13.89	1.51	-33.04	-13.00	20.04
4163.74	V	74.00	-44.26	13.89	1.51	-31.88	-13.00	18.88
4626.38	H	80.05	-37.45	14.25	1.80	-25.00	-13.00	12.00
4626.38	V	80.60	-37.00	14.25	1.80	-24.55	-13.00	11.55

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
high power level, 12.5kHz, frequency: 467.6250 **MHz**								
935.25	H	64.02	-30.33	0.00	0.51	-30.84	-13.00	17.84
935.25	V	68.64	-22.57	0.00	0.51	-23.08	-13.00	10.08
1402.88	H	82.86	-41.39	9.01	1.20	-33.58	-13.00	20.58
1402.88	V	90.63	-34.21	9.01	1.20	-26.40	-13.00	13.40
1870.50	H	71.24	-52.45	11.59	0.92	-41.78	-13.00	28.78
1870.50	V	77.91	-46.17	11.59	0.92	-35.50	-13.00	22.50
2338.13	H	83.20	-39.18	11.62	1.25	-28.81	-13.00	15.81
2338.13	V	78.69	-43.70	11.62	1.25	-33.33	-13.00	20.33
2805.75	H	78.70	-43.32	13.15	1.36	-31.53	-13.00	18.53
2805.75	V	75.15	-47.07	13.15	1.36	-35.28	-13.00	22.28
3273.38	H	75.19	-44.01	13.60	1.58	-31.99	-13.00	18.99
3273.38	V	76.51	-42.70	13.60	1.58	-30.68	-13.00	17.68
3741.00	H	75.57	-42.51	13.84	1.69	-30.36	-13.00	17.36
3741.00	V	72.59	-45.39	13.84	1.69	-33.24	-13.00	20.24
4208.63	H	68.49	-49.99	13.99	1.53	-37.53	-13.00	24.53
4208.63	V	70.66	-47.79	13.99	1.53	-35.33	-13.00	22.33
4676.25	H	70.01	-47.89	14.35	1.71	-35.25	-13.00	22.25
4676.25	V	81.03	-36.96	14.35	1.71	-24.32	-13.00	11.32
low power level, 12.5kHz, frequency: 467.6375 **MHz**								
935.28	H	64.34	-30.01	0.00	0.51	-30.52	-13.00	17.52
935.28	V	70.94	-20.27	0.00	0.51	-20.78	-13.00	7.78
1402.91	H	90.98	-33.27	9.01	1.20	-25.46	-13.00	12.46
1402.91	V	95.53	-29.31	9.01	1.20	-21.50	-13.00	8.50
1870.55	H	80.78	-42.91	11.59	0.92	-32.24	-13.00	19.24
1870.55	V	81.29	-42.79	11.59	0.92	-32.12	-13.00	19.12
2338.19	H	89.14	-33.24	11.62	1.25	-22.87	-13.00	9.87
2338.19	V	78.24	-44.15	11.62	1.25	-33.78	-13.00	20.78
2805.83	H	91.34	-30.67	13.15	1.36	-18.88	-13.00	5.88
2805.83	V	81.28	-40.94	13.15	1.36	-29.15	-13.00	16.15
3273.46	H	86.65	-32.55	13.60	1.58	-20.53	-13.00	7.53
3273.46	V	70.67	-48.54	13.60	1.58	-36.52	-13.00	23.52
3741.10	H	82.93	-35.15	13.84	1.69	-23.00	-13.00	10.00
3741.10	V	71.02	-46.96	13.84	1.69	-34.81	-13.00	21.81
4208.74	H	66.96	-51.52	13.99	1.53	-39.06	-13.00	26.06
4208.74	V	68.84	-49.61	13.99	1.53	-37.15	-13.00	24.15
4676.38	H	78.47	-39.43	14.35	1.71	-26.79	-13.00	13.79
4676.38	V	82.39	-35.60	14.35	1.71	-22.96	-13.00	9.96

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
high power level, 25kHz, frequency: 462.6250 **MHz**								
925.25	H	65.29	-29.42	0.00	0.51	-29.93	-13.00	16.93
925.25	V	68.49	-23.01	0.00	0.51	-23.52	-13.00	10.52
1387.88	H	92.65	-31.60	8.92	1.20	-23.88	-13.00	10.88
1387.88	V	96.26	-28.63	8.92	1.20	-20.91	-13.00	7.91
1850.50	H	74.62	-49.37	11.45	0.85	-38.77	-13.00	25.77
1850.50	V	82.16	-42.28	11.45	0.85	-31.68	-13.00	18.68
2313.13	H	85.16	-37.17	11.34	1.24	-27.07	-13.00	14.07
2313.13	V	80.26	-42.00	11.34	1.24	-31.90	-13.00	18.90
2775.75	H	86.62	-35.49	13.10	1.33	-23.72	-13.00	10.72
2775.75	V	81.04	-41.24	13.10	1.33	-29.47	-13.00	16.47
3238.38	H	80.65	-38.25	13.60	1.58	-26.23	-13.00	13.23
3238.38	V	76.29	-42.65	13.60	1.58	-30.63	-13.00	17.63
3701.00	H	81.32	-37.25	14.00	1.83	-25.08	-13.00	12.08
3701.00	V	65.62	-52.92	14.00	1.83	-40.75	-13.00	27.75
4163.63	H	68.41	-49.82	13.89	1.51	-37.44	-13.00	24.44
4163.63	V	72.32	-45.94	13.89	1.51	-33.56	-13.00	20.56
4626.25	H	78.49	-39.01	14.25	1.80	-26.56	-13.00	13.56
4626.25	V	79.16	-38.44	14.25	1.80	-25.99	-13.00	12.99
high power level, 25kHz, frequency: 462.6375 **MHz**								
925.28	H	66.70	-28.01	0.00	0.51	-28.52	-13.00	15.52
925.28	V	68.41	-23.08	0.00	0.51	-23.59	-13.00	10.59
1387.91	H	90.63	-33.62	8.92	1.20	-25.90	-13.00	12.90
1387.91	V	93.62	-31.27	8.92	1.20	-23.55	-13.00	10.55
1850.55	H	74.62	-49.37	11.45	0.85	-38.77	-13.00	25.77
1850.55	V	81.62	-42.82	11.45	0.85	-32.22	-13.00	19.22
2313.19	H	86.29	-36.04	11.35	1.24	-25.93	-13.00	12.93
2313.19	V	80.41	-41.85	11.35	1.24	-31.74	-13.00	18.74
2775.83	H	89.26	-32.85	13.10	1.33	-21.08	-13.00	8.08
2775.83	V	79.46	-42.82	13.10	1.33	-31.05	-13.00	18.05
3238.46	H	83.22	-35.68	13.60	1.58	-23.66	-13.00	10.66
3238.46	V	79.46	-39.48	13.60	1.58	-27.46	-13.00	14.46
3701.10	H	84.16	-34.40	14.00	1.83	-22.23	-13.00	9.23
3701.10	V	74.22	-44.32	14.00	1.83	-32.15	-13.00	19.15
4163.74	H	70.16	-48.07	13.89	1.51	-35.69	-13.00	22.69
4163.74	V	73.26	-45.00	13.89	1.51	-32.62	-13.00	19.62
4626.38	H	79.22	-38.28	14.25	1.80	-25.83	-13.00	12.83
4626.38	V	81.00	-36.60	14.25	1.80	-24.15	-13.00	11.15

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
high power level, 25kHz, frequency: 467.6250 **MHz**								
935.25	H	63.59	-30.76	0.00	0.51	-31.27	-13.00	18.27
935.25	V	68.40	-22.81	0.00	0.51	-23.32	-13.00	10.32
1402.88	H	83.56	-40.69	9.01	1.20	-32.88	-13.00	19.88
1402.88	V	89.56	-35.28	9.01	1.20	-27.47	-13.00	14.47
1870.50	H	70.65	-53.04	11.59	0.92	-42.37	-13.00	29.37
1870.50	V	78.35	-45.73	11.59	0.92	-35.06	-13.00	22.06
2338.13	H	84.26	-38.12	11.62	1.25	-27.75	-13.00	14.75
2338.13	V	79.26	-43.13	11.62	1.25	-32.76	-13.00	19.76
2805.75	H	76.59	-45.43	13.15	1.36	-33.64	-13.00	20.64
2805.75	V	74.18	-48.04	13.15	1.36	-36.25	-13.00	23.25
3273.38	H	74.62	-44.58	13.60	1.58	-32.56	-13.00	19.56
3273.38	V	75.20	-44.01	13.60	1.58	-31.99	-13.00	18.99
3741.00	H	76.29	-41.79	13.84	1.69	-29.64	-13.00	16.64
3741.00	V	71.84	-46.14	13.84	1.69	-33.99	-13.00	20.99
4208.63	H	69.62	-48.86	13.99	1.53	-36.40	-13.00	23.40
4208.63	V	71.35	-47.10	13.99	1.53	-34.64	-13.00	21.64
4676.25	H	69.50	-48.40	14.35	1.71	-35.76	-13.00	22.76
4676.25	V	80.41	-37.58	14.35	1.71	-24.94	-13.00	11.94

Note 1:The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.
Note 2:
Absolute Level = Substituted Level - Cable loss + Antenna Gain
Margin = Limit- Absolute Level

EUT PHOTOGRAPHS

Please refer to the attachment 2402X45544E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2402X45544E-RF-INP EUT INTERNAL PHOTOGRAPHS

6. TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2402X45544E-RF-00A-TSP TEST SETUP PHOTOGRAPHS.

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