



TEST REPORT

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Report Number : 2504R50247E-RF-00A-M1
FCC ID: 2A2X2-T8

Test Standard (s)

FCC PART 95

Sample Description

Product Type: Walkie talkies
Model No.: T8, T8A, T8B, T8LB, T8LB/A, T8LB/B
Trade Mark: N/A
Date Received: 2025-03-27
Date of Test: 2025-04-07 to 2025-06-11
Report Date: 2025-06-23

Test Result:	The EUT complied with the standards above.
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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
Rev.00	2504R50247E-RF-00A	Original Report	2025-06-12
Rev.01	2504R50247E-RF-00A-M1	Corrected individual word spelling errors.	2025-06-23

GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

Product Type	Walkie talkies
Tested Model	T8
Multiple Model	T8A, T8B, T8LB, T8LB/A, T8LB/B
Model Difference [#]	See note 2
Frequency Range	462.5500-462.7250MHz 467.5625-467.7125MHz
The Maximum Output Power	462.5500-462.7250MHz: 18.0dBm 467.5625-467.7125MHz: 17.85dBm
Modulation Technique	FM
Antenna Specification [#]	0.8dBi (It is provided by the manufacturer)
Voltage Range [#]	DC 3.7V from lithium battery or DC 5V from USB port
Sample Serial Number	30EA-2 (T8) (RF Radiated Test) 30EA-1 (T8) (RF Conducted Test) (Assigned by ATC, Shenzhen)
Sample/EUT Status	Good condition
Note 1: The Two-way Radio comes with an USB cable (0.8m) and an earphone cable (1.2m). Please refer to EUT Photographs for details. Note 2 [#] : Model Difference For model T8A, only color is different with model T8. For model T8B, only shell shape is different with model T8. For model T8LB&T8LB/A&T8LB/B, only mode name is different with model T8. Please refer to DOS letter for detail. The applicant provided the mode" T8" for testing.	

Objective

This test report is in accordance with Part 2 and Part 95, Subpart A & Subpart B of the Federal Communication Commissions rules.

Test Methodology

All tests and measurements indicated in this document were performed in accordance with Part 95 Subpart A, Subpart B of the Federal Communication Commissions rules with TIA-603-E 2016, Land Mobile FM or PM-Communications Equipment-Measurement and Performance Standards, and ANSI C63.26-2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services.

Unless otherwise stated there are no any additions to, deviations, or exclusions from the method.

Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the Floor 1, KuMaKe Building, Dongzhou Community, Guangming Street, Guangming District, Shenzhen, Guangdong, China.

Accredited by American Association for Laboratory Accreditation (A2LA).The Certificate Number is 4297.01.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		5%
RF Frequency		0.064×10^{-7}
RF output power, conducted		0.3 dB
Unwanted Emission, conducted		1.2 dB
Audio Frequency Response		0.1 dB
Low Pass Filter Response		1.2 dB
Modulation Limiting		1.5 %
Emissions, Radiated	30MHz - 1GHz	4.3 dB
	1GHz - 18GHz	4.9 dB
Temperature		1°C
Humidity		7%
Supply voltages		0.4%

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

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user).

Description of Channel List

Channel No.	Channel Frequency (MHz)	Channel No.	Channel Frequency (MHz)
1	462.5625	12	467.6625
2	462.5875	13	467.6875
3	462.6125	14	467.7125
4	462.6375	15	462.5500
5	462.6625	16	462.5750
6	462.6875	17	462.6000
7	462.7125	18	462.6250
8	467.5625	19	462.6500
9	467.5875	20	462.6750
10	467.6125	21	462.7000
11	467.6375	22	462.7250

Test channel list as below, EUT was tested with channel 4, and 11.

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

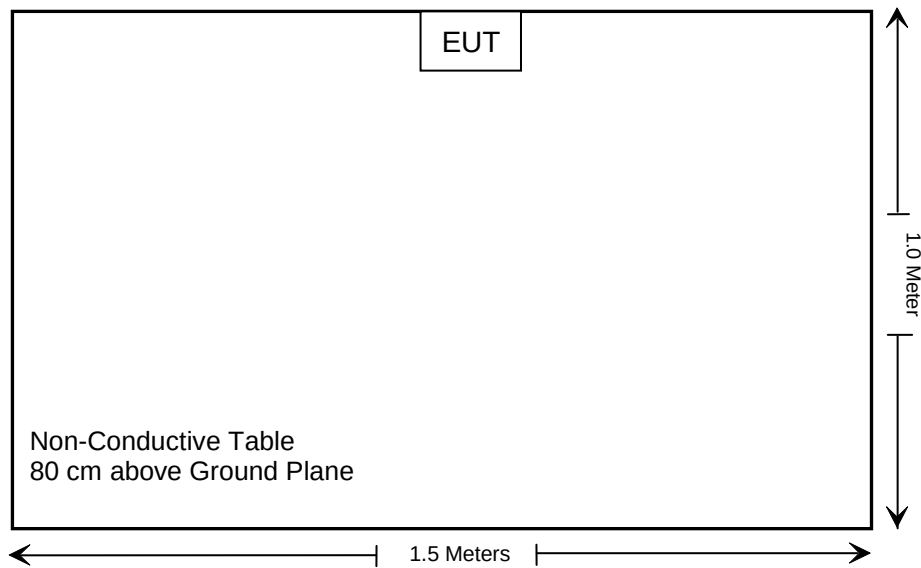
Manufacturer	Description	Model	Serial Number
/	/	/	/

External I/O Cable

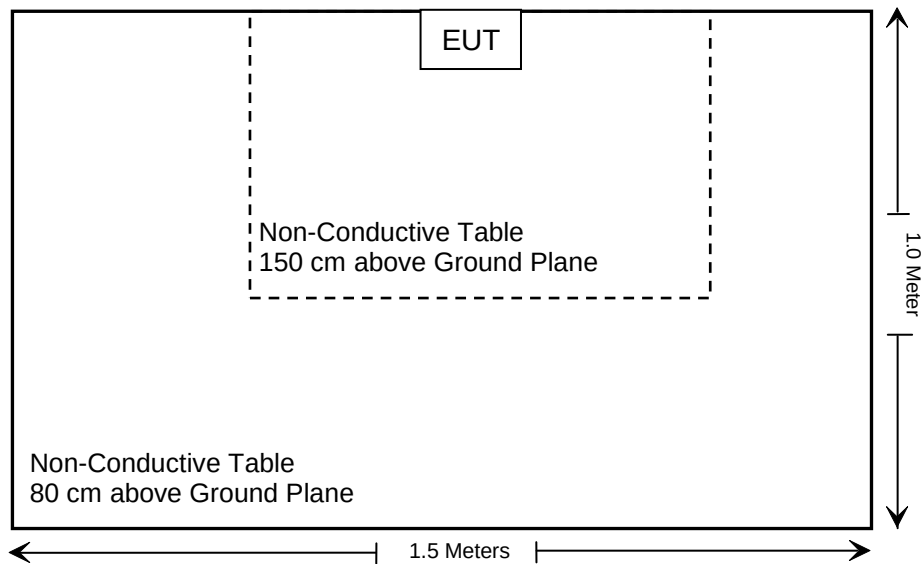
Cable Description	Length (m)	From Port	To
/	/	/	/

Block Diagram of Test Setup

Radiated emissions below 1G:



Radiated emissions above 1G:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§2.1093	RF Exposure(SAR)	Compliance
§95.587	FRS Additional Requirements	Compliance
§2.1046, §95.567	RF Output Power	Compliance
§2.1047, §95.575	Modulation Characteristic	Compliance
§2.1049, §95.573, §95.579	Authorized Bandwidth & Emission Mask	Compliance
§2.1053, §95.579	Radiated Spurious Emission	Compliance
§2.1055(d), §95.565	Frequency Stability	Compliance
§95.571	FRS Emission Types	Compliance

Note: The Radio unit must be powered off during charging, which was declared by applicant.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Spurious Emission Test (Below 1GHz)					
Rohde& Schwarz	Test Receiver	ESR	102725	2024/11/08	2025/11/07
SONOMA INSTRUMENT	Amplifier	310N	186131	2025/03/26	2026/03/25
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2024/08/08	2027/08/07
Unknown	RF Coaxial Cable	No.12	N040	2024/10/08	2025/10/07
Unknown	RF Coaxial Cable	No.13	N300	2024/10/08	2025/10/07
Unknown	RF Coaxial Cable	No.14	N800	2024/10/08	2025/10/07
Schwarzbeck	Bilog Antenna	VULB9163	9163-194	2023/02/14	2026/02/13
Agilent	Signal Generator	N5183A	MY47420360	2024/09/02	2025/09/01
Radiated Emission Test Software: e3 191218 (V9)					
Radiated Spurious Emission Test (Above 1GHz)					
Rohde&Schwarz	Spectrum Analyzer	FSV40	101949	2024/10/08	2025/10/07
A.H. Systems, inc.	Preamplifier	PAM-0118	226	2025/03/20	2026/03/19
Schwarzbeck	Horn Antenna	BBHA9120D	837	2023/02/22	2026/02/21
Unknown	RF Coaxial Cable	No.10	N050	2024/10/08	2025/10/07
Unknown	RF Coaxial Cable	No.11	N1000	2024/10/08	2025/10/07
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-655	2022/12/26	2025/12/25
Agilent	Signal Generator	N5183A	MY47420360	2024/09/02	2025/09/01
Unknown	RF Coaxial Cable	No.16	N200	2024/10/08	2025/10/07
Radiated Emission Test Software: e3 191218 (V9)					
RF Conducted test					
Unknown	RF Coaxial Cable	No.31	RF-01	2024/10/08	2025/10/07
Rohde&Schwarz	Spectrum Analyzer	FSV-40	101948	2024/10/08	2025/10/07
HP Agilent	RF Communication test set	8920A	3325U00859	2024/05/24	2025/05/23
Aeroflex/Weinschel	30dB Attenuator (Input 250W/Output 50W)	58-30-33	PS467	2025/03/26	2026/03/25
BACL	Temp. & Humid. Chamber	BTH-150-40	30192	2024/10/08	2025/10/07
UNI-T	DC Power Supply	UTP8305M	/	2025/03/26	2026/03/25

*** Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

RF EXPOSURE

Applicable Standard

According to FCC §1.1307(b) and §2.1093, portable device operates Part 95 should be subjected to routine environmental evaluation for RF exposure prior or equipment authorization or use.

Result: Compliance.

Please refer to SAR Report Number: 2502R50248E-20A.

FCC §95.587-FRS ADDITIONAL REQUIREMENTS

Applicable Standard

According to FCC §95.587

Each FRS transmitter type must be designed to meet the following additional requirements.

(a) Transmit frequency capability. FRS transmitter types must not be capable of transmitting on any frequency or channel other than those listed in § 95.563.

(b) Antenna. The antenna of each FRS transmitter type must meet the following requirements.

- (1) The antenna must be a non-removable integral part of the FRS transmitter type.
- (2) The gain of the antenna must not exceed that of a half-wave dipole antenna.
- (3) The antenna must be designed such that the electric field of the emitted waves is vertically polarized when the unit is operated in the normal orientation.

(c) Digital data transmissions. FRS transmitter types having the capability to transmit digital data must be designed to meet the following requirements.

- (1) FRS units may transmit digital data containing location information, or requesting location information from one or more other FRS or GMRS units, or containing a brief text message to another specific FRS or GMRS unit or units.
- (2) Digital data transmissions may be initiated by a manual action or command of the operator or on an automatic or periodic basis, and FRS units may be designed to automatically respond with location data upon receiving an interrogation request from another
- (3) Digital data transmissions must not exceed one second in duration.
- (4) Digital data transmissions must not be sent more frequently than one digital data transmission within a thirty-second period, except that an FRS unit may automatically respond to more than one interrogation request received within a thirty-second period.

(d) Packet mode. FRS transmitter types must not be capable of transmitting data in the store-and-forward packet operation mode.

(e) Effective September 30, 2019, no person shall manufacture or import hand-held portable radio equipment capable of operating under this subpart (FRS) and other licensed or licensed-by-rule services in this chapter (part 15 unlicensed equipment authorizations are permitted if consistent with part 15 rules).

Result

- (a) Compliant, please refer to the channel list.
- (b) Compliant, the EUT has an integral vertically polarized antenna arrangement and the antenna gain is 0.8dBi, fulfill the requirement of this section. Please refer to the EUT photos.
- (c) Not Applicable, EUT not support this function, please refer to user manual.
- (d) Not Applicable, EUT not support this function, please refer to user manual.
- (e) Compliant, EUT only support FRS function operating under FCC part 95B, and not support other function, please refer to user manual.

Result: Compliance.

FCC §2.1046 & §95.567-RF OUTPUT POWER

Applicable Standard

Per FCC §2.1046, and §95.567, Each FRS transmitter type must be designed such that the effective radiated power (ERP) on channels 8 through 14 does not exceed 0.5 Watts and the ERP on channels 1 through 7 and 15 through 22 does not exceed 2.0 Watts.

Test Procedure

According to C63.26-2015, Clause 5.2.3.3 & 5.5.3.1

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load, which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the emissions were measured by the substitution.

Setup Block Diagram

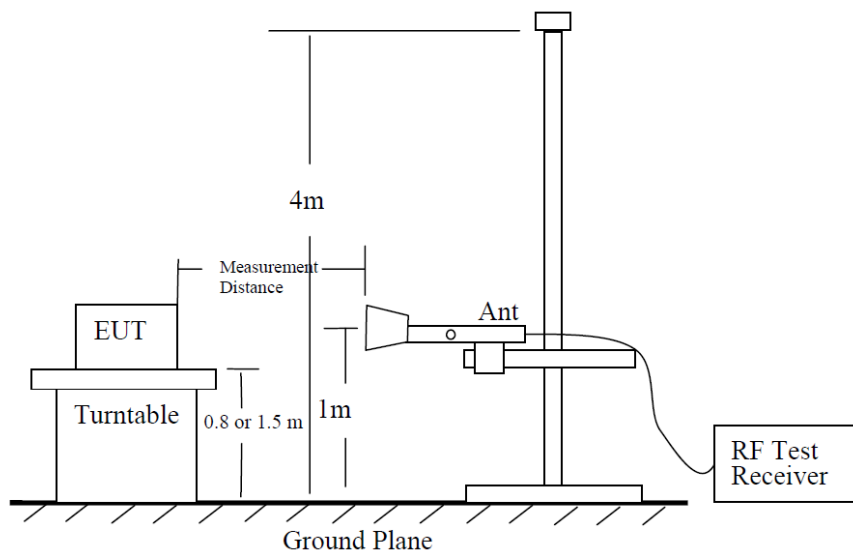


Figure 6 —Test site-up for radiated ERP and/or EIRP measurements

Test Data

Environmental Conditions

Temperature:	24 °C
Relative Humidity:	55 %
ATM Pressure:	101.3 kPa

The testing was performed by Jim Zheng on 2025-04-10.

Test Mode: Transmitting

Test Result: Compliance, please refer to the below data.

Frequency (MHz)	Receiver		Rx Antenna	Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
	Reading (dBm)	PK/Ave	Polar (H/V)				
462.6375MHz							
462.6375	-1.58	PK	H	5.5	3.92	33	-29.08
462.6375	13.73	PK	V	4.27	18	33	-15
467.6375MHz							
467.6375	-2.24	PK	H	5.05	2.81	27	-24.19
467.6375	13.3	PK	V	4.55	17.85	27	-9.15

Note 1: Absolute Level = Reading Level + Substituted Factor
Note 2: Substituted Factor = Substituted Level - Cable loss+ Antenna Gain
Note 3: Margin = Absolute Level – Limit

FCC §2.1047 & §95.575-MODULATION CHARACTERISTIC

Applicable Standard

Per FCC §2.1047 and §95.575: Each FRS transmitter type must be designed such that the peak frequency deviation does not exceed 2.5 kHz, and the highest audio frequency contributing substantially to modulation must not exceed 3.125 kHz.

Test Procedure

According to C63.26-2015, Clause 5.3.2 Modulation limiting test methodology

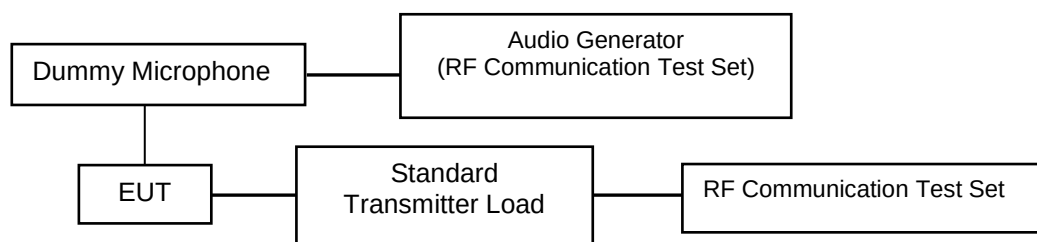
Modulation limiting is the ability of a transmitter circuit to limit the transmitter from producing deviations in excess of a rated system deviation.

- Connect the equipment as illustrated in Figure 1.
- Adjust the transmitter per the manufacturer's procedure for full rated system deviation.
- 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.
- 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.
- 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.
- Repeat for step e) at 300Hz, 2500Hz and 3000Hz at a minimum using the 0 dB reference level obtained in step d).
- Set the test receiver to measure peak negative deviation and repeat step d) through step f).
- The values recorded in step f) and step g) are the modulation limiting.
- Plot the data set as a percentage of deviation relative to the 0 dB reference point versus input voltage.

According to C63.26-2015, Clause 5.3.3.2 Audio frequency response test methodology—Constant Input

- Connect the equipment as illustrated in Figure 3.
- Set the test receiver to measure peak positive deviation. Set the audio bandwidth for ≤ 50 Hz to ≥ 15000 Hz. Turn the de-emphasis function off.
- Adjust the transmitter per the manufacturer's procedure for full rated system deviation.
- Apply a 1000Hz tone and adjust the audio frequency generator to produce 20% of the rated system deviation.
- Set the test receiver to measure rms deviation and record the deviation reading as DEVREF.
- Set the audio frequency generator to the desired test frequency between 300Hz and 3000Hz.

Setup Block Diagram



Test Data

Environmental Conditions

Temperature:	20-23 °C
Relative Humidity:	51-58 %
ATM Pressure:	99.7-101.3 kPa

The testing was performed by Benny Li on 2025-04-07 and 2025-06-11.

EUT operation mode: Transmitting

Test Result: Compliance. Please refer to the Appendix.

FCC §2.1049 & §95.573&§95.579-AUTHORIZED BANDWIDTH AND EMISSION MASK

Applicable Standard

According to §95.573

Each FRS transmitter type must be designed such that the occupied bandwidth does not exceed 12.5 kHz.

According to §95.579

Each FRS transmitter type must be designed to satisfy the applicable unwanted emissions limits in this paragraph.

(a) Attenuation requirements. The power of unwanted emissions must be attenuated below the carrier power output in Watts (P) by at least:

(1) 25 dB (decibels) in the frequency band 6.25 kHz to 12.5 kHz removed from the channel center frequency.

2) 35 dB in the frequency band 12.5 kHz to 31.25 kHz removed from the channel center frequency.

(3) $43 + 10 \log(P)$ dB in any frequency band removed from the channel center frequency by more than 31.25 kHz.

(b) Measurement bandwidths. The power of unwanted emissions in the frequency bands specified in paragraphs (a)(1) and (2) of this section is measured with a reference bandwidth of 300 Hz. The power of unwanted emissions in the frequency range specified in paragraph (a)(3) is measured with a reference bandwidth of at least 30 kHz.

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

Test Procedure

According to 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 $1.5 \times \text{OBW}$ 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 $\geq 3 \times \text{RBW}$.

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.

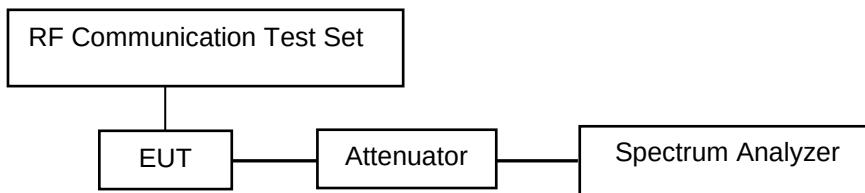
e) If the instrument does not have a 99% OBW function, recover the trace data points and sum directly in linear power terms. Place the recovered amplitude data points, beginning at the lowest frequency, in a running sum until 0.5% of the total is reached. Record that frequency as the lower OBW frequency. 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).

According to ANSI C63.26-2015 Section 5.7.3:

f) See Annex I for example emission mask plots.

Setup Block Diagram:



Test Data

Environmental Conditions

Temperature:	20-23 °C
Relative Humidity:	51-58 %
ATM Pressure:	99.7-101.3 kPa

The testing was performed by Benny Li on 2025-04-07 and 2025-06-11.

EUT operation mode: Transmitting

Test Result: Compliance. Please refer to the Appendix.

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: 12.5 kHz)

Emission Designator 11K0F3E

In this case, the maximum modulating frequency is 3.0 kHz with a 2.5 kHz deviation.

$BW = 2(M+D) = 2*(3.0 \text{ kHz} + 2.5 \text{ kHz}) = 11 \text{ kHz} = 11K0$

F3E portion of the designator represents an FM voice transmission Therefore, the entire designator for 12.5 kHz channel spacing FM mode is 11K0F3E.

FCC §2.1053 & §95.579-RADIATED SPURIOUS EMISSION

Applicable Standard

FCC §2.1053 and §95.579. Each FRS transmitter type must be designed to satisfy the applicable unwanted emissions limits in this paragraph.

(a) *Attenuation requirements.* The power of unwanted emissions must be attenuated below the carrier power output in Watts (P) by at least:

- (1) 25 dB (decibels) in the frequency band 6.25 kHz to 12.5 kHz removed from the channel center frequency.
- (2) 35 dB in the frequency band 12.5 kHz to 31.25 kHz removed from the channel center frequency.
- (3) $43 + 10 \log (P)$ dB in any frequency band removed from the channel center frequency by more than 31.25 kHz.

(b) *Measurement bandwidths.* The power of unwanted emissions in the frequency bands specified in paragraphs (a)(1) and (2) of this section is measured with a reference bandwidth of 300 Hz. The power of unwanted emissions in the frequency range specified in paragraph (a)(3) is measured with a reference bandwidth of at least 30 kHz.

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

Test Procedure

According to ANSI C63.26-2015 Section 5.5.3

The transmitter was placed on a wooden turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to tenth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in dB = $10 \lg (\text{TXpwr in Watts}/0.001)$ - the absolute level

Spurious attenuation limit in dB = $43 + 10 \log_{10} (\text{power out in Watts})$

Setup Block Diagram

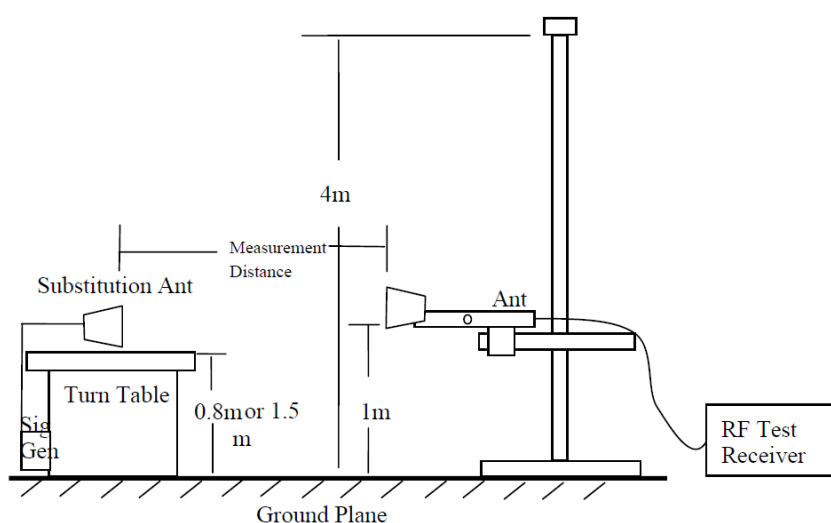


Figure 7 —Substitution method set-up for radiated emission

Test Data

Environmental Conditions

Temperature:	22.6-24 °C
Relative Humidity:	55 %
ATM Pressure:	101.3 kPa

The Below 1GHz testing was performed by Jim Zheng on 2025-04-10.
The Above 1GHz testing was performed by Jim Zheng on 2025-04-18.

EUT operation mode: Transmitting

Test Result: Compliance, please refer to the below data.

30MHz - 5GHz:

Frequency (MHz)	Receiver		Rx Antenna	Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
	Reading (dBm)	PK/Ave	Polar (H/V)				
462.6375MHz							
925.28	-47.67	PK	H	8.92	-38.75	-13	-25.75
925.28	-37.26	PK	V	10.26	-27	-13	-14
1387.91	-32.75	PK	H	-1.25	-34	-13	-21
1387.91	-36.22	PK	V	-1.61	-37.83	-13	-24.83
2313.19	-25.41	PK	H	1.66	-23.75	-13	-10.75
2313.19	-30.34	PK	V	1.66	-28.68	-13	-15.68
2775.83	-47.43	PK	H	1.51	-45.92	-13	-32.92
2775.83	-45.31	PK	V	1.91	-43.4	-13	-30.4
3238.46	-39.13	PK	H	2.3	-36.83	-13	-23.83
3238.46	-38.07	PK	V	2.44	-35.63	-13	-22.63
4163.74	-46.26	PK	H	3.93	-42.33	-13	-29.33
4163.74	-47.09	PK	V	4.06	-43.03	-13	-30.03
467.6375MHz							
935.28	-48.94	PK	H	9.29	-39.65	-13	-26.65
935.28	-39.28	PK	V	9.95	-29.33	-13	-16.33
1402.91	-32.11	PK	H	-1.33	-33.44	-13	-20.44
1402.91	-35.78	PK	V	-1.53	-37.31	-13	-24.31
2338.19	-26.69	PK	H	1.8	-24.89	-13	-11.89
2338.19	-28.48	PK	V	1.59	-26.89	-13	-13.89
2805.83	-49.67	PK	H	1.95	-47.72	-13	-34.72
2805.83	-47	PK	V	1.89	-45.11	-13	-32.11
3273.46	-38.92	PK	H	2.17	-36.75	-13	-23.75
3273.46	-39.05	PK	V	2.28	-36.77	-13	-23.77
4208.74	-47.58	PK	H	4.35	-43.23	-13	-30.23
4208.74	-47.72	PK	V	4.41	-43.31	-13	-30.31

Note 1: Absolute Level = Reading Level + Substituted Factor
Note 2: Substituted Factor = Substituted Level - Cable Loss+ Antenna Gain
Note 3: Margin = Absolute Level - Limit

FCC§2.1055 (d) & §95.565-FREQUENCY STABILITY

Applicable Standard

According to FCC §2.1055(a) (1), the frequency stability shall be measured with variation of ambient temperature from -20 °C to +50 °C, and according to FCC 2.1055(d) (2), the frequency stability shall be measured with reducing primary supply voltage to the battery operating end point which is specified by the manufacturer.

According to FCC §95.565, Each FRS transmitter type must be designed such that the carrier frequencies remain within ± 2.5 parts-per-million of the channel center frequencies specified in §95.563 during normal operating conditions.

Test Procedure

According to 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 $\pm 15\%$ 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.

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to a Frequency Counter via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the Frequency Counter.

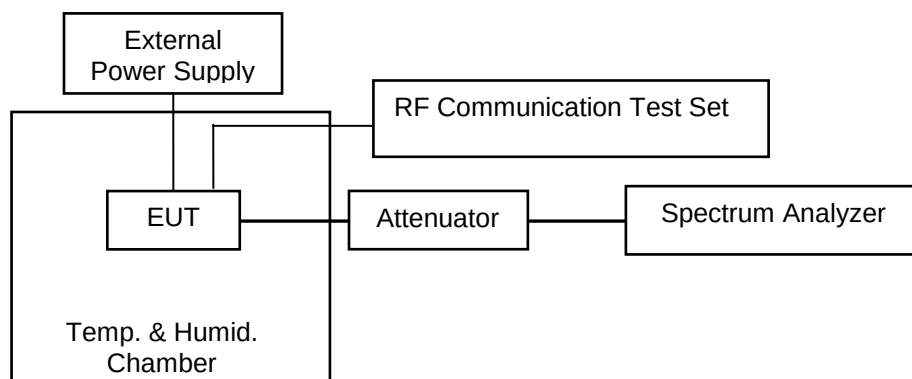
Frequency Stability vs. Voltage (item 1 or item 2 will be chosen according to different condition) :

☐1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

☒2) For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.

The output frequency was recorded for each voltage.

Setup Block Diagram:



Test Data

Environmental Conditions

Temperature:	20 °C
Relative Humidity:	58 %
ATM Pressure:	101.3 kPa

The testing was performed by Benny Li on 2025-04-07.

EUT operation mode: Transmitting

Test Result: Compliance. Please refer to the Appendix.

FCC§95.571-FRS EMISSION TYPES

Applicable Standard

FCC §95.571

Each FRS transmitter type must be designed such that it can transmit only the following emission types: F3E, G3E, F2D, and G2D.

Judgement

The emission type is F3E Only.

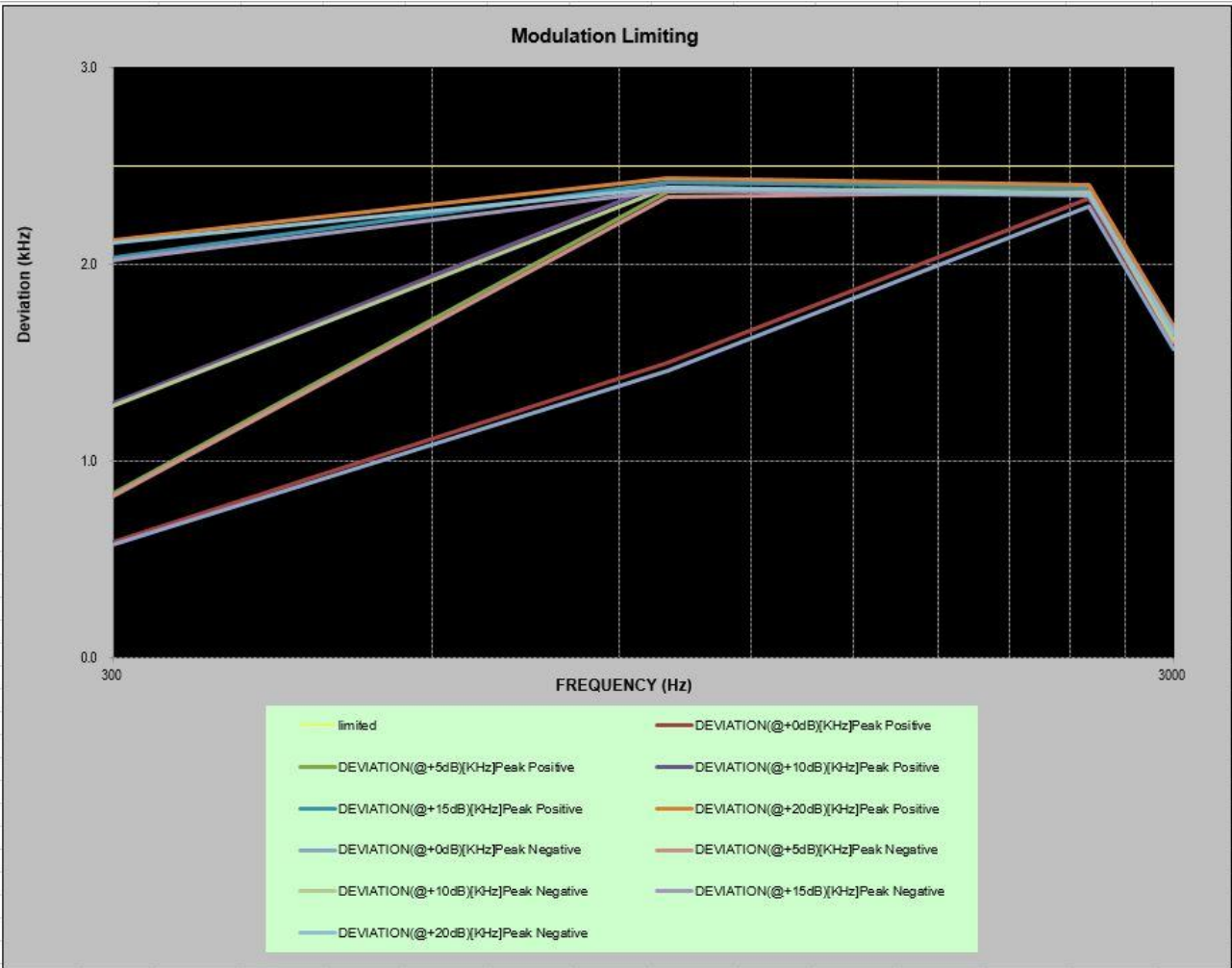
APPENDIX

Modulation Characteristic

MODULATION LIMITING

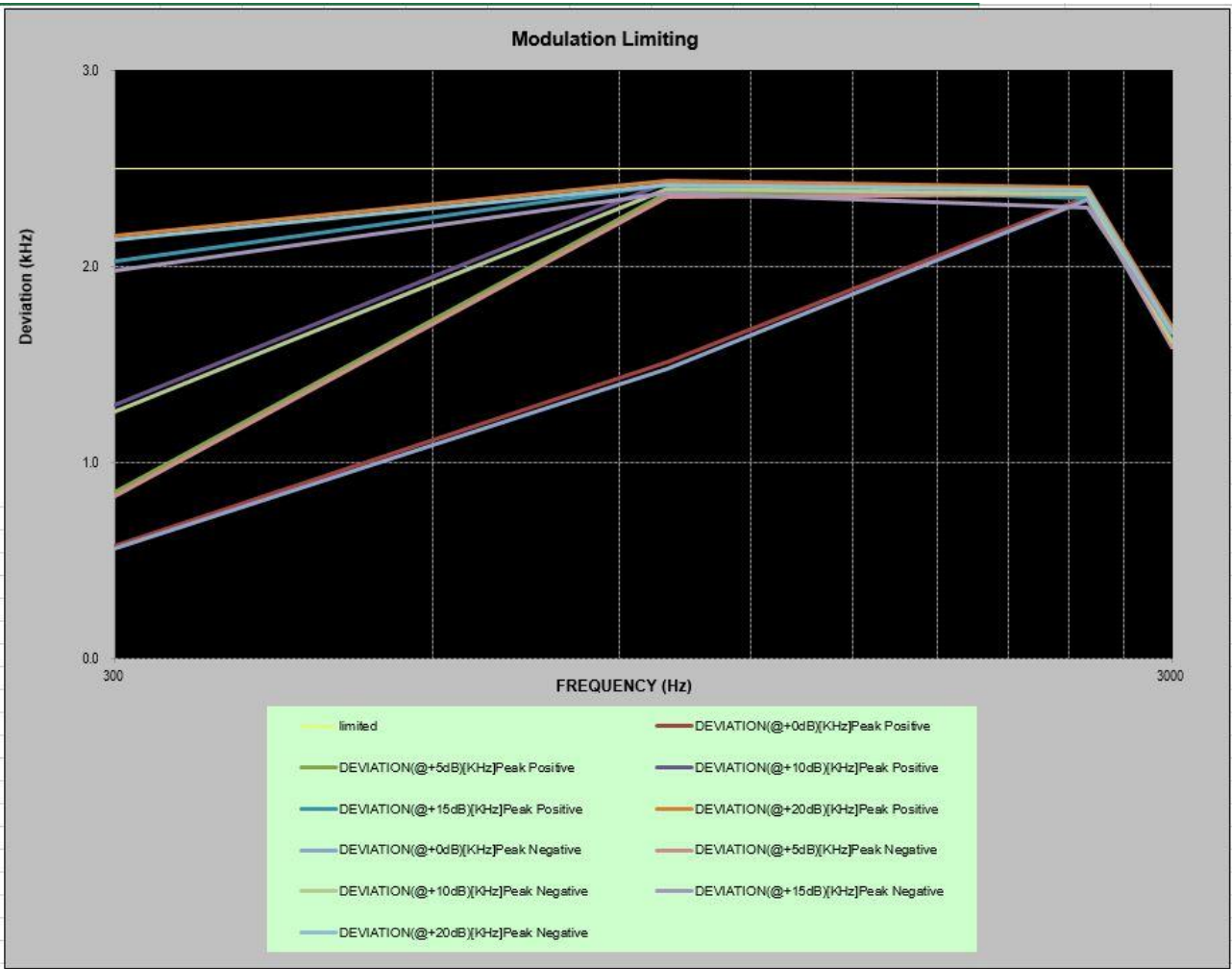
Carrier Frequency: 462.6375MHz

Audio Frequency (Hz)	DEVIATION (@+0dB) [kHz]		DEVIATION (@+5dB) [kHz]		DEVIATION (@+10dB) [kHz]		DEVIATION (@+15dB) [kHz]		DEVIATION (@+20dB) [kHz]		FCC Limit [kHz]
	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	
300	0.587	0.570	0.836	0.820	1.294	1.279	2.035	2.018	2.124	2.111	2.500
1000	1.499	1.458	2.371	2.343	2.416	2.388	2.413	2.376	2.438	2.390	2.500
2500	2.331	2.296	2.391	2.370	2.401	2.365	2.390	2.350	2.400	2.355	2.500
3000	1.610	1.565	1.611	1.601	1.645	1.615	1.677	1.663	1.684	1.649	2.500



Carrier Frequency: 467.6375MHz

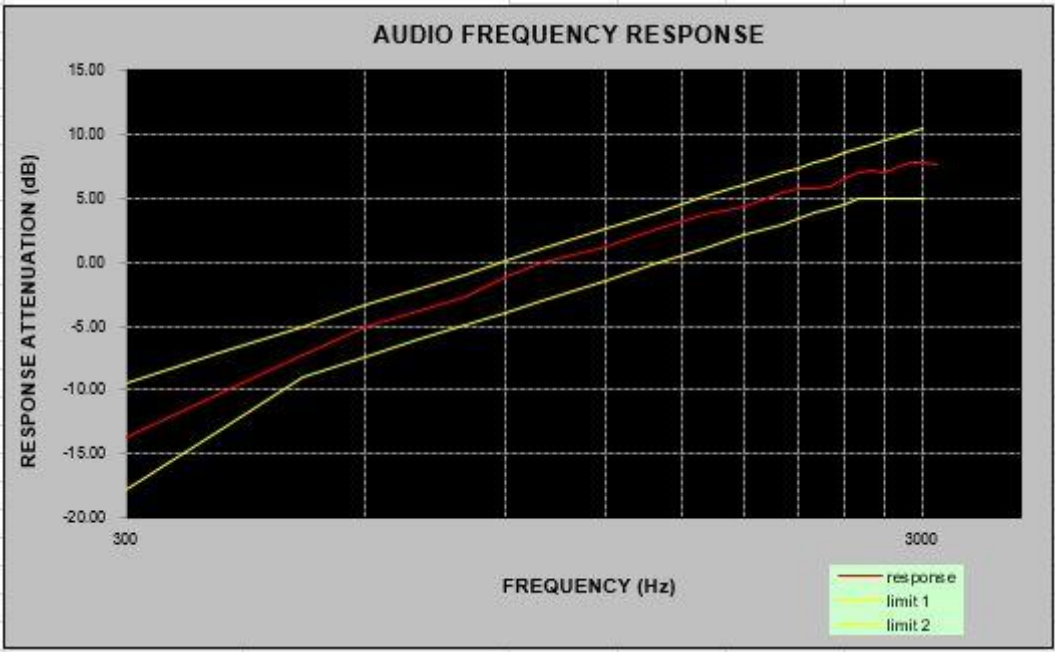
Audio Frequency (Hz)	DEVIATION (@+0dB) [kHz]		DEVIATION (@+5dB) [kHz]		DEVIATION (@+10dB) [kHz]		DEVIATION (@+15dB) [kHz]		DEVIATION (@+20dB) [kHz]		FCC Limit [kHz]
	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	Peak Positive	Peak Negative	
300	0.574	0.557	0.848	0.823	1.292	1.258	2.026	1.979	2.153	2.132	2.500
1000	1.510	1.474	2.374	2.352	2.433	2.398	2.417	2.377	2.440	2.415	2.500
2500	2.353	2.337	2.380	2.365	2.389	2.371	2.349	2.300	2.404	2.391	2.500
3000	1.606	1.585	1.622	1.590	1.657	1.612	1.681	1.660	1.688	1.661	2.500



Audio Frequency Response

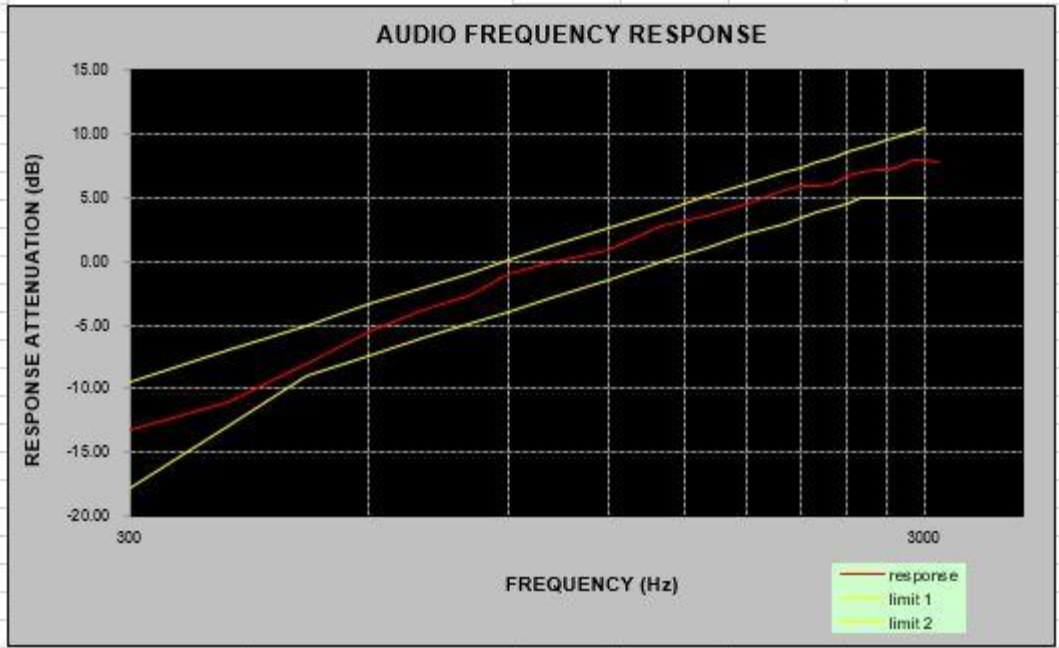
Carrier Frequency: 462.6375MHz

Audio Frequency (Hz)	Response Attenuation (dB)
300	-13.72
400	-10.12
500	-7.33
600	-5.07
700	-3.74
800	-2.64
900	-1.07
1000	0.00
1200	1.15
1400	2.59
1600	3.76
1800	4.35
2000	5.53
2100	5.71
2200	5.81
2300	5.97
2400	6.60
2500	7.03
2600	7.14
2700	7.10
2800	7.44
2900	7.88
3000	7.75
3125	7.66



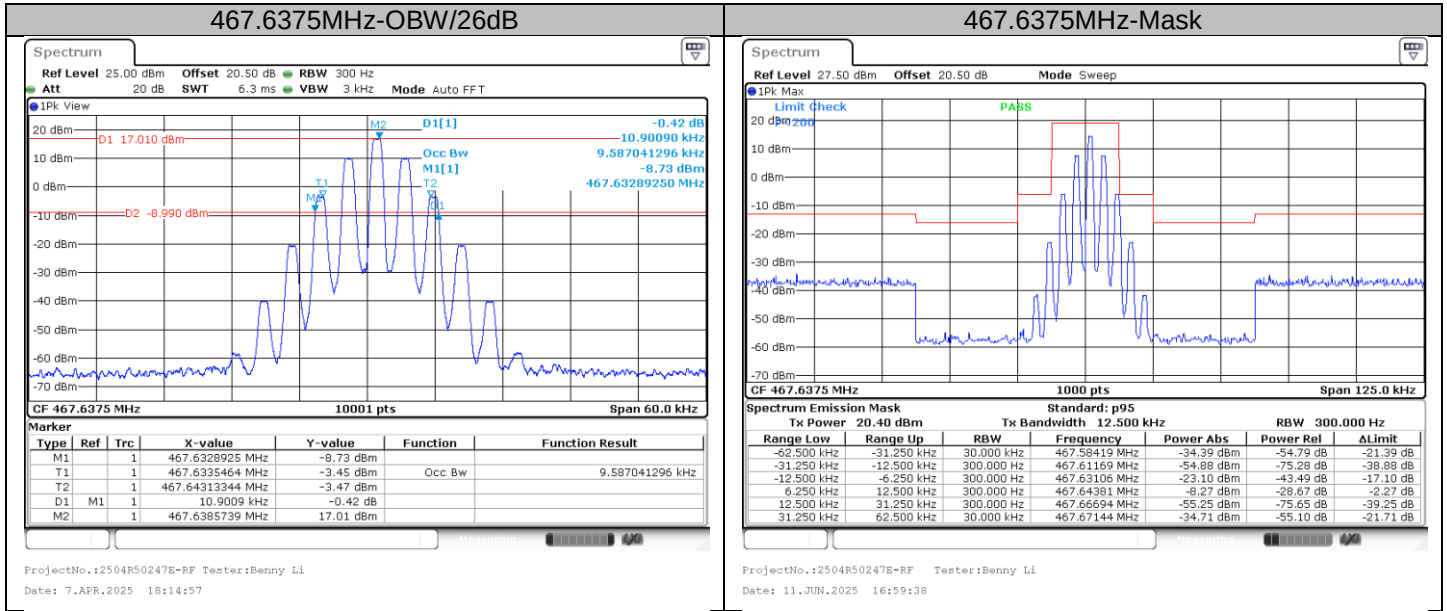
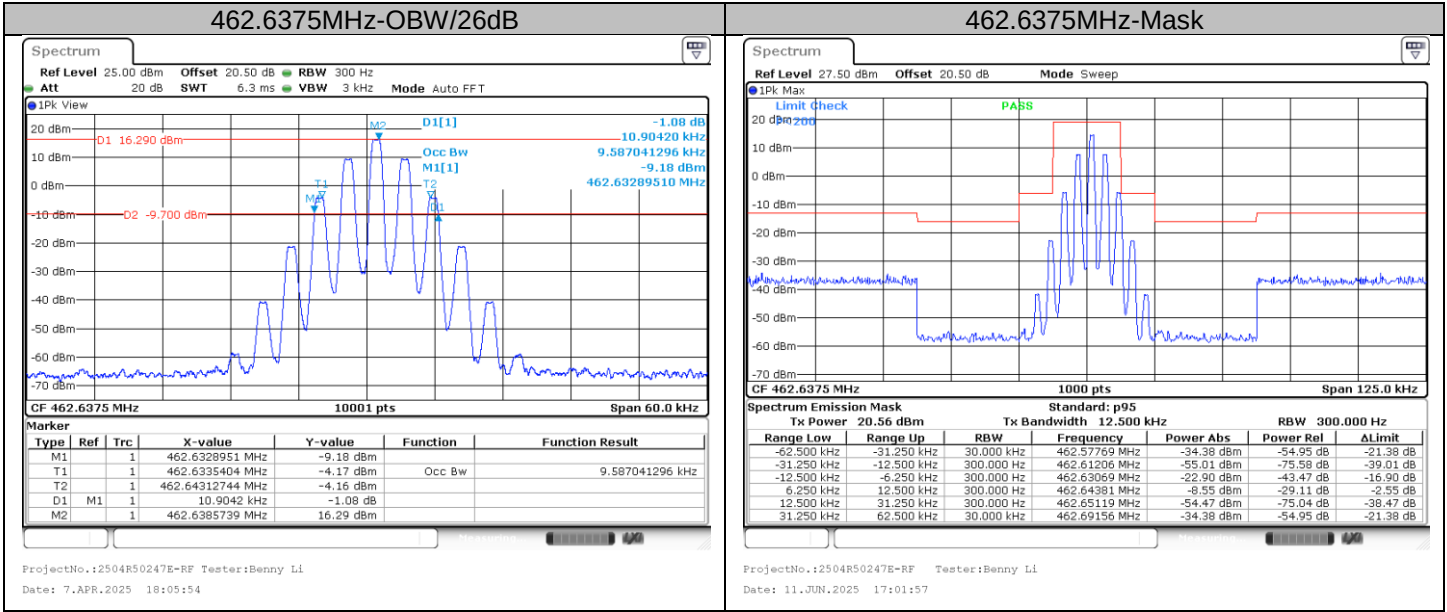
Carrier Frequency: 467.6375MHz

Audio Frequency (Hz)	Response Attenuation (dB)
300	-13.31
400	-11.00
500	-8.00
600	-5.48
700	-3.74
800	-2.78
900	-1.01
1000	0.00
1200	0.95
1400	2.81
1600	3.57
1800	4.53
2000	5.69
2100	5.88
2200	5.92
2300	6.15
2400	6.69
2500	6.97
2600	7.20
2700	7.19
2800	7.50
2900	7.99
3000	7.93
3125	7.76



Authorized Bandwidth & Emission Mask

Item	Frequency (MHz)	OBW (kHz)	Limit (kHz)	Result
FM	462.6375	9.587	12.5	Compliance
FM	467.6375	9.587	12.5	Compliance



FREQUENCY STABILITY

Analog Modulation, Reference Frequency: 462.6375MHz, Limit: ± 2.5 ppm			
Test Environment		Frequency Measure with Time Elapsed	
Temperature (°C)	Voltage Supplied (V _{DC})	Measured Frequency (MHz)	Frequency Error (ppm)
Frequency Stability versus Input Temperature			
50	3.7	462.637647	0.32
40	3.7	462.637628	0.28
30	3.7	462.637637	0.30
20	3.7	462.637644	0.31
10	3.7	462.637656	0.34
0	3.7	462.637633	0.29
-10	3.7	462.637656	0.34
-20	3.7	462.637644	0.31
-30	3.7	462.63763	0.28
Frequency Stability versus Input Voltage			
20	3.2	462.637638	0.30
20	4.3	462.637645	0.31

Analog Modulation, Reference Frequency: 467.6375MHz, Limit: ± 2.5 ppm			
Test Environment		Frequency Measure with Time Elapsed	
Temperature (°C)	Voltage Supplied (V _{DC})	Measured Frequency (MHz)	Frequency Error (ppm)
Frequency Stability versus Input Temperature			
50	3.7	467.638057	1.19
40	3.7	467.638059	1.20
30	3.7	467.638092	1.27
20	3.7	467.638072	1.22
10	3.7	467.638069	1.22
0	3.7	467.638082	1.24
-10	3.7	467.638076	1.23
-20	3.7	467.638085	1.25
-30	3.7	467.638079	1.24
Frequency Stability versus Input Voltage			
20	3.2	467.638071	1.22
20	4.3	467.638061	1.20

Note: the voltage range was declared by manufacturer.

EXHIBIT A-EUT PHOTOGRAPHS

Please refer to the Attachment No.1 2504R50247E-RF EUT External Photos and Attachment No.2 2504R50247E-RF EUT Internal Photos

EXHIBIT B-TEST SETUP PHOTOGRAPHS

Please refer to the Attachment No.3 2504R50247E-RF-00A Test Photos.

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