

TEST REPORT

Applicant Name: GLOBAL MEI CHUANG CO., LIMITED
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Report Number: SZ5240125-05966E-RF-00
FCC ID: 2AMEA-T68981

Test Standard (s)

FCC PART 95

Sample Description

Product Type: Walkie Talkie
Model No.: T68
Multiple Model(s) No.: N/A
Trade Mark: N/A
Date Received: 2024/01/25
Issue Date: 2024/03/19

Test Result:	Pass [▲]
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▲ In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Black Chen

Black Chen
RF Engineer

Approved By:

Nancy Wang

Nancy Wang
RF Supervisor

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

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	SZ5240125-05966E-RF-00	Original Report	2024/03/19

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Walkie Talkie
Tested Model	T68
Multiple Model(s)	N/A
Frequency Range	462.5500~462.7250MHz 467.5625~467.7125MHz
Transmit Power (ERP)	462.5500~462.7250MHz: 23.32dBm 467.5625~467.7125MHz: 21.22dBm
Channel Spacing	12.5kHz
Modulation Technique	FM
Antenna Specification [#]	-5.09dBi (It is provided by the applicant)
Voltage Range	DC 3*1.5V AAA batteries or DC 5V from USB-C Port
Sample serial number	2H60-1 Radiated Emissions Test 2H60-2 for RF Conducted Test (Assigned by BAACL, Shenzhen)
Sample/EUT Status	Good condition
Normal/Extreme Condition [#]	L.V.: Low Voltage 3.3V _{DC} N.V.: Normal Voltage 4.5V _{DC} H.V.: High Voltage 4.5V _{DC} (provided by the applicant)
Adapter Information	N/A

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, 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.

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

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		±5%
RF Frequency		213.55 Hz(k=2, 95% level of confidence)
Audio Frequency Response		0.1dB(k=2, 95% level of confidence)
Low Pass Filter Response		1.2dB(k=2, 95% level of confidence)
Modulation Limiting		1%(k=2, 95% level of confidence)
Radiated Emissions	30MHz~200MHz (Horizontal)	4.48dB(k=2, 95% level of confidence)
	30MHz~200MHz (Vertical)	4.55dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Horizontal)	4.85dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Vertical)	5.05dB(k=2, 95% level of confidence)
	1GHz - 6GHz	5.35dB(k=2, 95% level of confidence)
	6GHz - 18GHz	5.44dB(k=2, 95% level of confidence)
Temperature		±1°C
Humidity		±1%
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.

Test Facility

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

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

SYSTEM TEST CONFIGURATION

Description of Test Configuration

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

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

Equipment Modifications

No modification was made to the EUT tested.

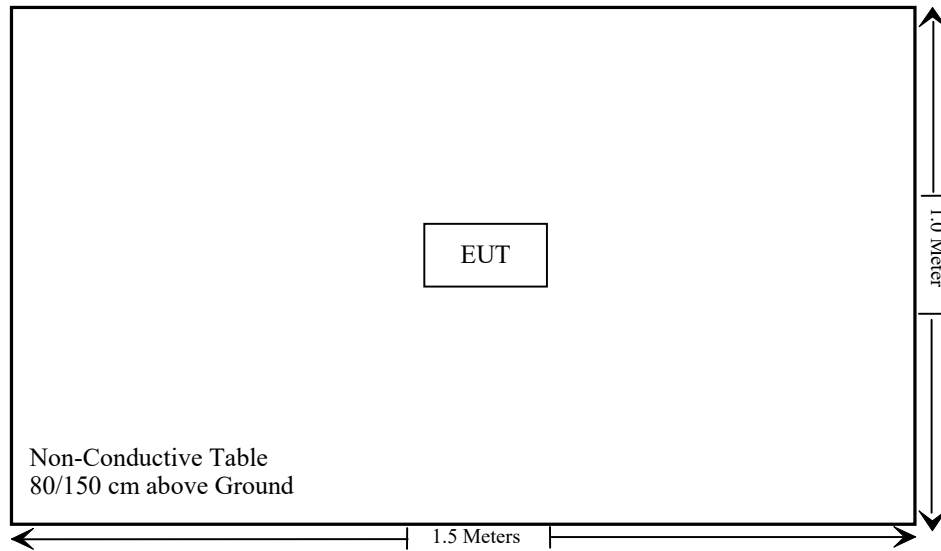
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
/	/	/	/

External I/O Cable

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

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

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

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
R&S	EMI Test Receiver	ESR3	102455	2024/01/16	2025/01/15
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2024/07/19
COM-POWER	Dipole Antenna	AD-100	721027	NCR	NCR
Unknown	Cable	Chamber Cable 1	F-03-EM236	2023/08/03	2024/08/02
Unknown	Cable	Chamber Cable 4	EC-007	2023/08/03	2024/08/02
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2023/04/18	2024/04/17
COM-POWER	Pre-amplifier	PA-122	181919	2023/06/29	2024/06/28
Schwarzbeck	Horn Antenna	BBHA9120D(1201)	1143	2023/07/26	2024/07/25
A.H.System	Horn Antenna	SAS-200/571	135	2021/07/14	2024/07/13
Unknown	RF Cable	KMSE	0735	2023/10/08	2024/10/07
Unknown	RF Cable	UFA147	219661	2023/10/08	2024/10/07
Unknown	RF Cable	XH750A-N	J-10M	2023/10/08	2024/10/07
Agilent	Signal Generator	N5183A	MY50140588	2023/12/18	2024/12/17
RF Conducted Test					
R&S	SPECTRUM ANALYZER	FSU26	200120	2024/01/08	2025/01/07
HP	RF Communication test set	8920B	US36141849	2024/01/16	2025/01/15
MARCONI	10dB Attenuator	6534/3	2942	2023/07/04	2024/07/03
Unknown	RF Cable	65475	01670515	2023/07/04	2024/07/03
instek	DC Power Supply	GPS-3030DD	EM832096	NCR	NCR
Fluke	Digital Multimeter	287	19000011	2023/06/08	2024/06/07
BACL	Temperature & Humidity Chamber	BTH-150-40	30145	2024/01/16	2025/01/15

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

§2.1093 - RF EXPOSURE INFORMATION

Applicable Standard

§2.1093

Test Result

Compliant, please refer to the SAR report: SZ5240125-05966E-20.

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

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.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	50 %
ATM Pressure:	101 kPa

The testing was performed by Warren Huang on 2024-02-18.

Test Mode: Transmitting

Test Result: Compliant.

Frequency (MHz)	Receiver Reading (dBµV)	Turn-Table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Part 95	
			Height (m)	Polar (H / V)	Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd)		Limit (dBm)	Margin (dB)
Channel 4, 462.6375MHz										
462.6375	81.48	167	1.7	H	7.7	1.08	0.0	6.62	33	26.38
462.6375	93.45	357	2.0	V	24.4	1.08	0.0	23.32	33	9.68
Channel 11, 467.6375MHz										
467.6375	81.95	153	2.4	H	7.8	1.08	0.0	6.72	27	20.28
467.6375	92.13	202	1.2	V	22.3	1.08	0.0	21.22	27	5.78

Note:

Absolute Level = Substituted Level - Cable loss+ Antenna Gain

Margin = Limit -Absolute Level

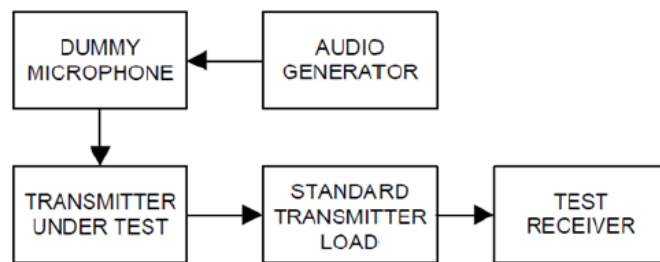
FCC §2.1047 & §95.575 - MODULATION CHARACTERISTIC

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

Test Method: TIA/EIA-603-E/ANSI C63.26-2015



Test Data

Environmental Conditions

Temperature:	26.1°C
Relative Humidity:	52 %
ATM Pressure:	101 kPa

The testing was performed by Hanic Pan on 2024-02-26.

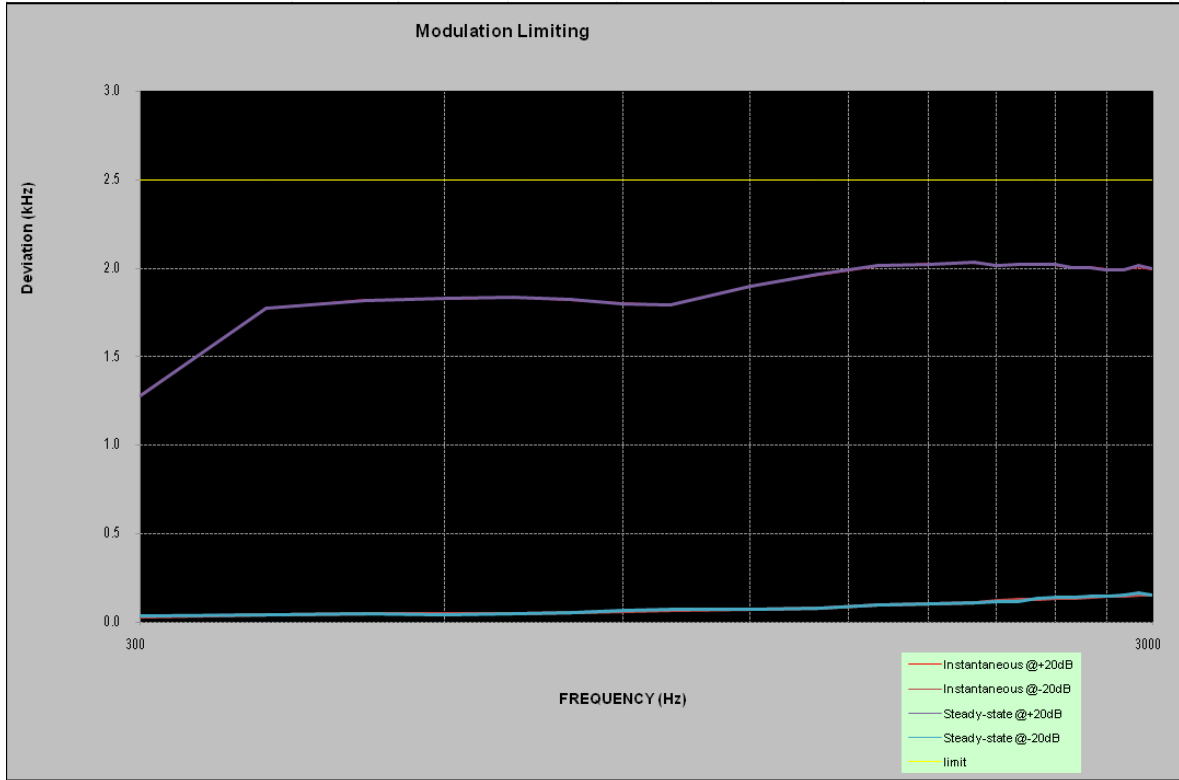
Test Mode: Transmitting

Please refer to the following tables and plots.

MODULATION LIMITING

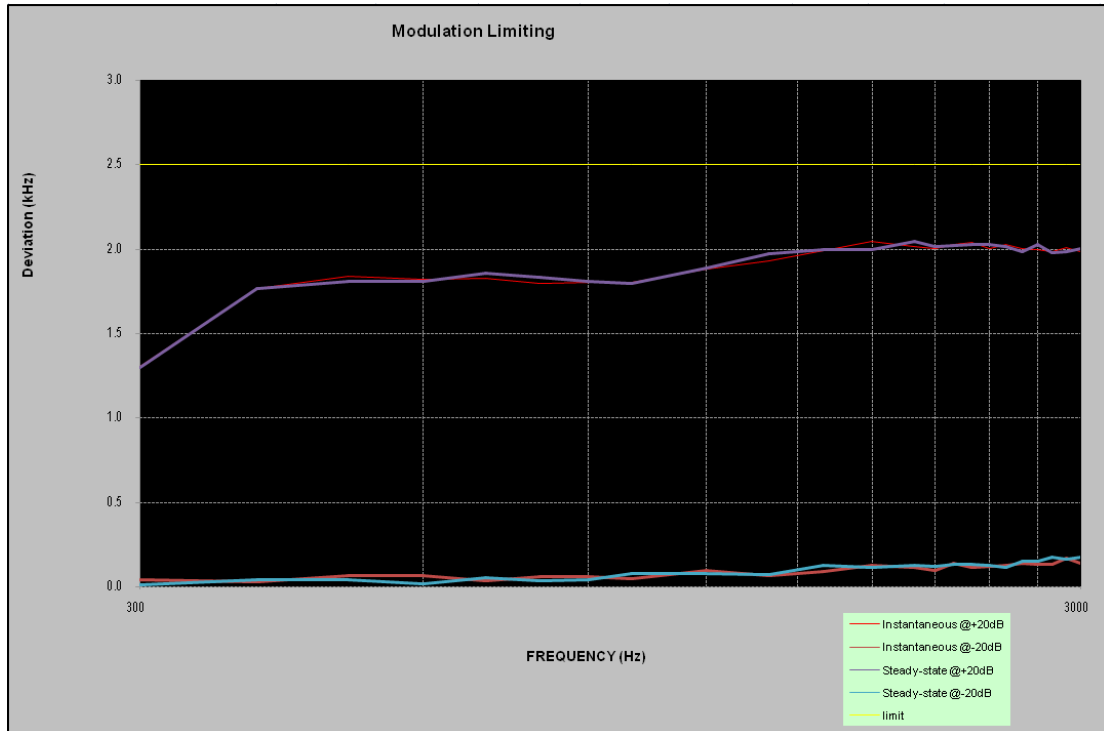
Carrier Frequency: 462.6375MHz

Audio Frequency (Hz)	Instantaneous		Steady-state		Limit [kHz]
	DEVIATION (@+20dB) [kHz]	DEVIATION (@-20dB) [kHz]	DEVIATION (@+20dB) [kHz]	DEVIATION (@-20dB) [kHz]	
300	1.288	0.036	1.282	0.038	2.500
400	1.776	0.044	1.777	0.047	2.500
500	1.824	0.050	1.818	0.052	2.500
600	1.826	0.051	1.830	0.048	2.500
700	1.835	0.053	1.838	0.050	2.500
800	1.818	0.056	1.822	0.057	2.500
900	1.804	0.062	1.801	0.069	2.500
1000	1.792	0.067	1.795	0.075	2.500
1200	1.899	0.078	1.897	0.077	2.500
1400	1.963	0.085	1.969	0.083	2.500
1600	2.012	0.103	2.018	0.100	2.500
1800	2.028	0.108	2.024	0.105	2.500
2000	2.030	0.116	2.033	0.113	2.500
2100	2.022	0.126	2.015	0.122	2.500
2200	2.016	0.130	2.019	0.120	2.500
2300	2.025	0.133	2.021	0.135	2.500
2400	2.016	0.139	2.023	0.145	2.500
2500	2.003	0.140	2.005	0.143	2.500
2600	2.008	0.143	2.001	0.148	2.500
2700	1.996	0.151	1.993	0.152	2.500
2800	1.992	0.153	1.992	0.159	2.500
2900	2.005	0.156	2.014	0.166	2.500
3000	1.991	0.155	1.999	0.159	2.500



Carrier Frequency: 467.6375MHz

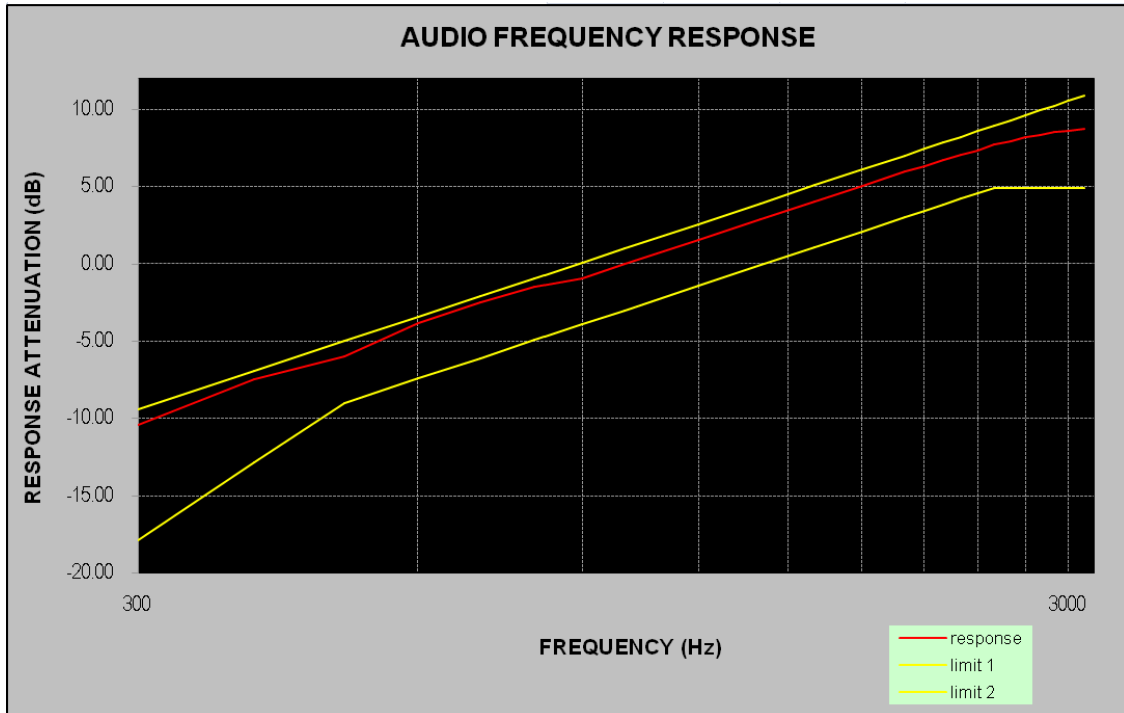
Audio Frequency (Hz)	Instantaneous		Steady-state		Limit [kHz]
	DEVIATION (@+20dB) [kHz]	DEVIATION (@-20dB) [kHz]	DEVIATION (@+20dB) [kHz]	DEVIATION (@-20dB) [kHz]	
300	1.307	0.045	1.297	0.016	2.500
400	1.766	0.033	1.770	0.042	2.500
500	1.839	0.065	1.807	0.044	2.500
600	1.820	0.065	1.808	0.022	2.500
700	1.829	0.039	1.857	0.054	2.500
800	1.795	0.063	1.831	0.037	2.500
900	1.806	0.061	1.807	0.044	2.500
1000	1.801	0.049	1.800	0.080	2.500
1200	1.881	0.095	1.891	0.078	2.500
1400	1.932	0.070	1.976	0.071	2.500
1600	1.991	0.089	1.999	0.130	2.500
1800	2.045	0.131	1.999	0.117	2.500
2000	2.015	0.119	2.045	0.126	2.500
2100	2.003	0.101	2.018	0.120	2.500
2200	2.026	0.139	2.019	0.134	2.500
2300	2.038	0.114	2.027	0.137	2.500
2400	2.004	0.125	2.028	0.128	2.500
2500	2.029	0.128	2.014	0.118	2.500
2600	2.006	0.138	1.988	0.155	2.500
2700	2.001	0.134	2.027	0.154	2.500
2800	1.985	0.134	1.982	0.178	2.500
2900	2.011	0.171	1.988	0.166	2.500
3000	1.987	0.139	2.002	0.175	2.500



Audio Frequency Response

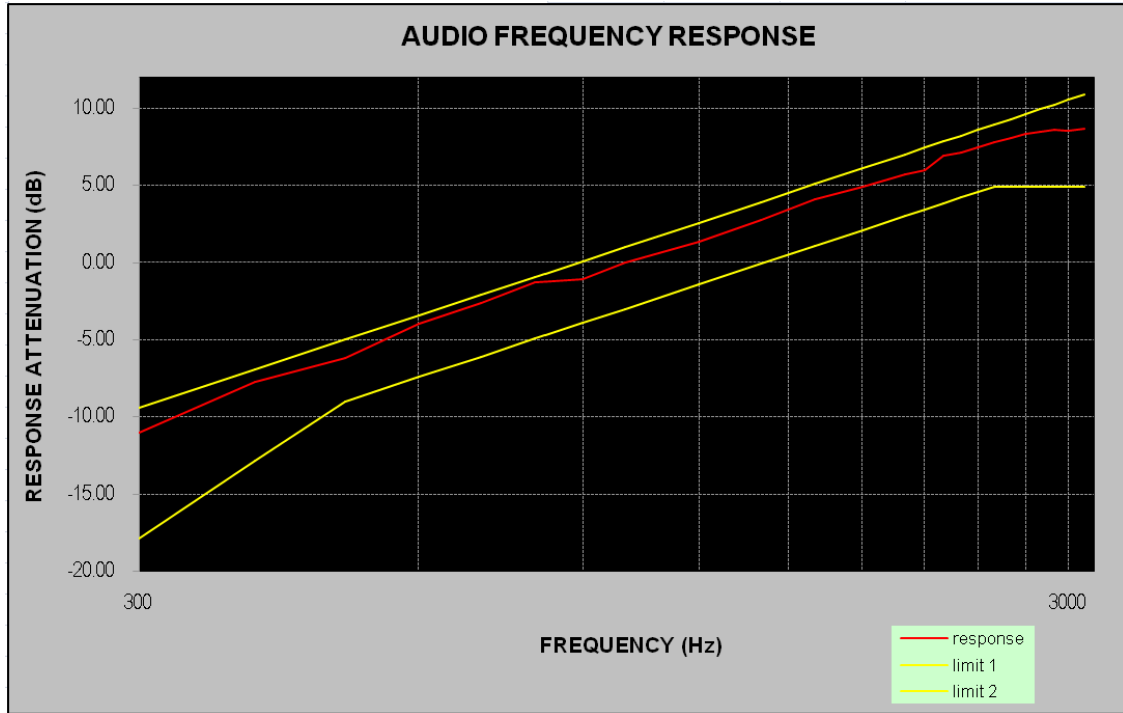
Carrier Frequency: 462.6375MHz

Audio Frequency (Hz)	Response Attenuation (dB)
300	-10.40
400	-7.45
500	-5.99
600	-3.85
700	-2.50
800	-1.49
900	-0.97
1000	0.00
1200	1.54
1400	2.87
1600	4.00
1800	5.07
2000	5.94
2100	6.30
2200	6.75
2300	7.04
2400	7.33
2500	7.70
2600	7.92
2700	8.18
2800	8.33
2900	8.51
3000	8.56
3125	8.72



Carrier Frequency: 467.6375MHz

Audio Frequency (Hz)	Response Attenuation (dB)
300	-11.00
400	-7.74
500	-6.20
600	-3.99
700	-2.64
800	-1.31
900	-1.05
1000	0.00
1200	1.35
1400	2.76
1600	4.07
1800	4.92
2000	5.68
2100	6.00
2200	6.93
2300	7.13
2400	7.44
2500	7.78
2600	8.09
2700	8.33
2800	8.45
2900	8.62
3000	8.54
3125	8.67



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.

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.

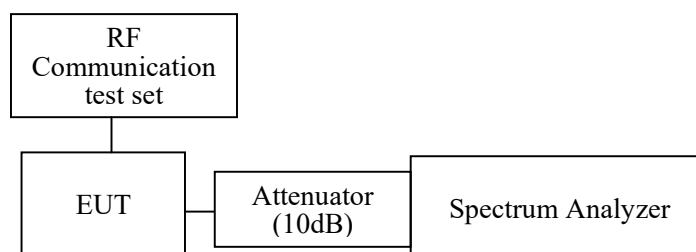
(2) 35 dB in the frequency band 12.5 kHz to 31.25 kHz removed from the channel center frequency.

(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.

Test Procedure

TIA-603-E, section 2.2.11



Test Data

Environmental Conditions

Temperature:	26.1~58 °C
Relative Humidity:	52~49 %
ATM Pressure:	101 kPa

The testing was performed by Hanic Pan from 2024-02-26 to 2024-03-18.

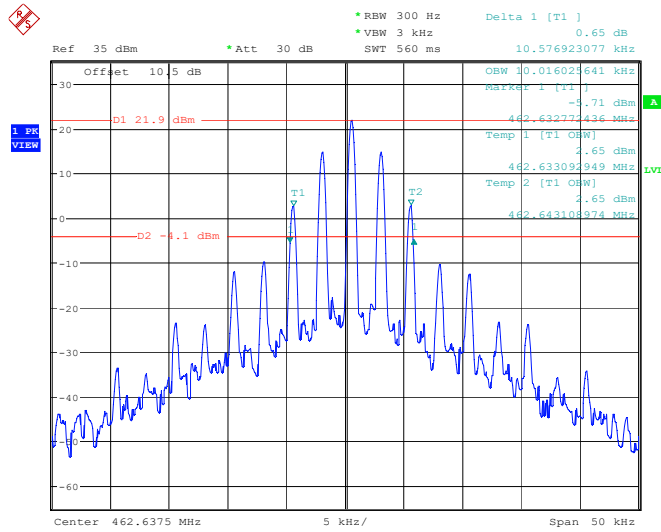
Test Mode: Transmitting

Mode	Channel Separation (kHz)	Frequency (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)
Analog	12.5	462.6375	10.016	12.5
		467.6375	10.016	12.5

Emission Designator Per CFR 47 §2.201& §2.202&, $B_n = 2M + 2D$:

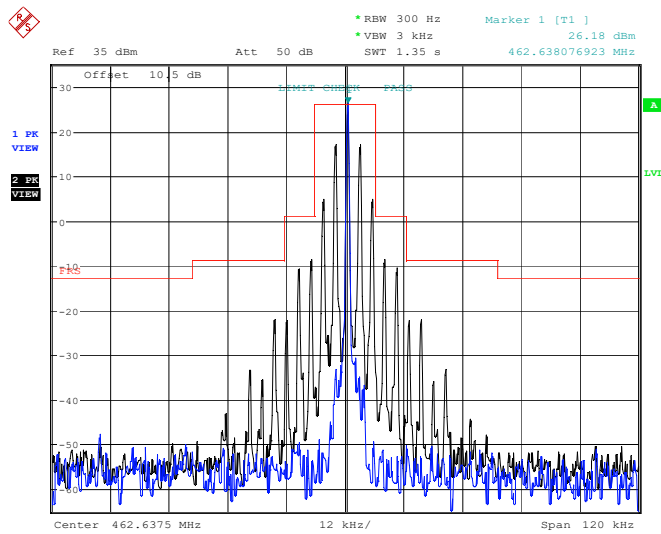
Emission Designator 11K0F3E In this case, the maximum modulating frequency is 3.0 kHz with a 2.5 kHz deviation. $BW = 2(M+D) = 2*(3.0 \text{ kHz} + 2.5 \text{ kHz}) = 11 \text{ kHz} \rightarrow 11K0$
 F3E portion of the designator represents an FM voice transmission Therefore, the entire designator for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

OBW, 462.6375 MHz



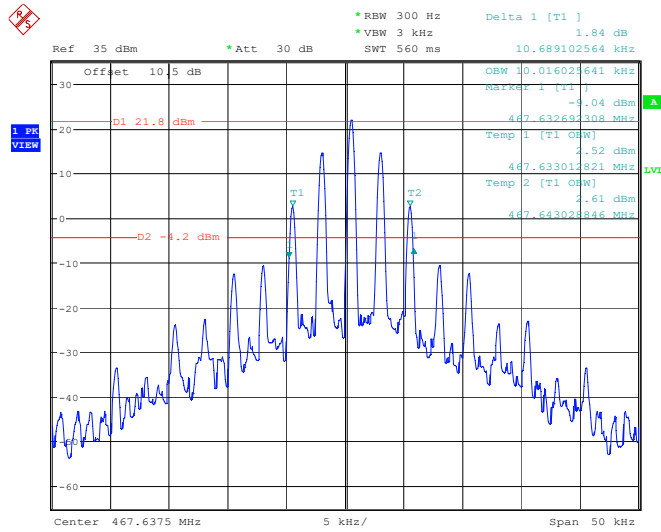
ProjectNo.:SZ5240125-05966E-RF Tester:Hanic Pan
 Date: 18.MAR.2024 11:34:30

Emission Mask, 462.6375 MHz



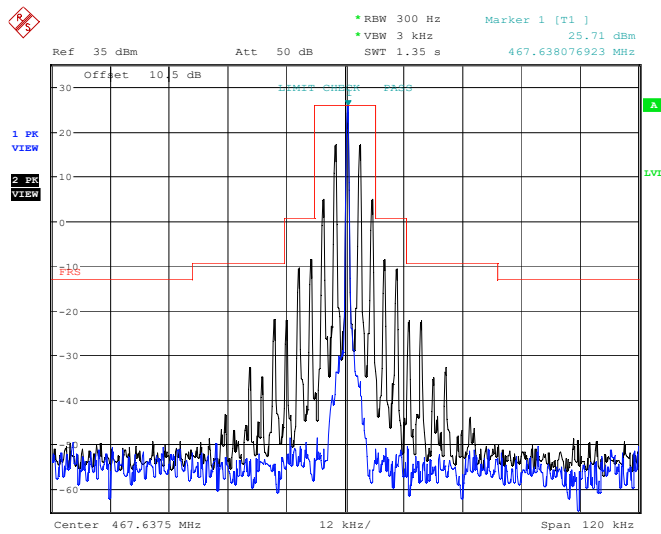
ProjectNo.:SZ5240125-05966E-RF Tester:Hanic Pan
 Date: 26.FEB.2024 10:17:56

OBW, 467.6375 MHz



ProjectNo.:SZ5240125-05966E-RF Tester:Hanic Pan
 Date: 18.MAR.2024 11:32:51

Emission Mask, 467.6375 MHz



ProjectNo.:SZ5240125-05966E-RF Tester:Hanic Pan
 Date: 26.FEB.2024 10:13:33

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

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 = $43 + 10 \text{Log}_{10} (\text{power out in Watts})$

Test Data

Environmental Conditions

Temperature:	24.7~25 °C
Relative Humidity:	50~54 %
ATM Pressure:	101 kPa

The testing was performed by Warren Huang on 2024-02-18 and Dylan Yang on 2024-02-25.

Test Mode: Transmitting

Frequency (MHz)	Receiver Reading (dBµV)	Turn-Table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Part 95	
			Height (m)	Polar (H / V)	Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)		Limit (dBm)	Margin (dB)
462.6375MHz										
925.2	33.06	276	1.8	H	-32.3	1.33	0.0	-33.63	-13	20.63
925.2	31.48	93	1.9	V	-33.6	1.33	0.0	-34.93	-13	21.93
1387.91	69.98	27	1.8	H	-37.7	0.80	7.90	-30.60	-13	17.60
1387.91	77.53	135	2.5	V	-30.9	0.80	7.90	-23.80	-13	10.80
1850.55	62.09	14	1.3	H	-45.4	0.90	8.40	-37.90	-13	24.90
1850.55	71.70	257	2.2	V	-36.4	0.90	8.40	-28.90	-13	15.90
2313.19	73.51	206	2.5	H	-33.8	1.10	9.40	-25.50	-13	12.50
2313.19	81.95	283	2.5	V	-25.5	1.10	9.40	-17.20	-13	4.20
2775.83	60.04	1	1.7	H	-46.5	1.20	9.20	-38.50	-13	25.50
2775.83	65.48	143	1.4	V	-40.8	1.20	9.20	-32.80	-13	19.80
3238.46	53.94	149	1.4	H	-52.1	1.20	7.60	-45.70	-13	32.70
3238.46	55.69	63	1.5	V	-50.0	1.20	7.60	-43.60	-13	30.60
3701.10	60.52	308	1.2	H	-44.9	1.30	11.00	-35.20	-13	22.20
3701.10	60.34	72	2.3	V	-44.9	1.30	11.00	-35.20	-13	22.20
4163.74	50.33	145	1.9	H	-54.1	1.40	10.80	-44.70	-13	31.70
4163.74	53.99	274	2.2	V	-50.4	1.40	10.80	-41.00	-13	28.00

Frequency (MHz)	Receiver Reading (dBµV)	Turn-Table	Rx Antenna		Substituted			Absolute Level (dBm)	Part 95	
		Angle Degree	Height (m)	Polar (H / V)	Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)		Limit (dBm)	Margin (dB)
467.6375MHz										
935.2	34.16	200	1.6	H	-31.2	1.33	0.0	-32.53	-13	19.53
935.2	30.28	138	1.5	V	-34.8	1.33	0.0	-36.13	-13	23.13
1402.91	70.17	18	1.8	H	-37.5	0.80	7.90	-30.40	-13	17.40
1402.91	78.16	189	2	V	-30.2	0.80	7.90	-23.10	-13	10.10
1870.55	62.56	305	1.5	H	-44.8	1.00	8.00	-37.80	-13	24.80
1870.55	72.16	210	1.9	V	-35.9	1.00	8.00	-28.90	-13	15.90
2338.19	73.65	133	1.7	H	-33.7	1.10	9.40	-25.40	-13	12.40
2338.19	82.06	278	1.8	V	-25.4	1.10	9.40	-17.10	-13	4.10
2805.83	60.63	207	2.2	H	-45.9	1.20	9.20	-37.90	-13	24.90
2805.83	66.07	97	2.2	V	-40.2	1.20	9.20	-32.20	-13	19.20
3273.46	54.12	220	1.8	H	-51.9	1.30	8.80	-44.40	-13	31.40
3273.46	55.97	101	1.2	V	-49.7	1.30	8.80	-42.20	-13	29.20
3741.10	60.52	195	1.7	H	-44.9	1.30	11.00	-35.20	-13	22.20
3741.10	60.64	227	2.4	V	-44.6	1.30	11.00	-34.90	-13	21.90
4208.74	50.78	140	1.1	H	-53.6	1.40	10.80	-44.20	-13	31.20
4208.74	54.66	324	1.9	V	-49.7	1.40	10.80	-40.30	-13	27.30

Note:

The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.

Absolute Level = Substituted Level - Cable loss+ Antenna Gain

Margin = Limit -Absolute Level

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

Applicable Standard

According to FCC §2.1055(a) (2), the frequency stability shall be measured with variation of ambient temperature from -20°C to $+50^{\circ}\text{C}$, 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

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.

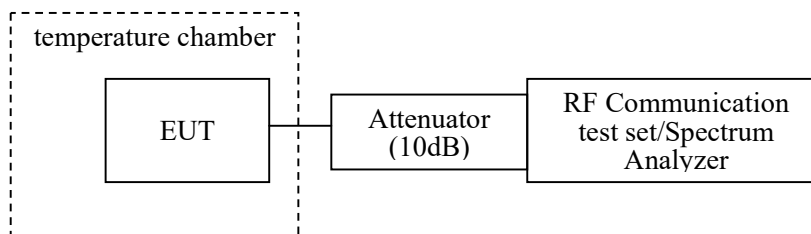
After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the Frequency Counter.

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.



Test Data

Environmental Conditions

Temperature:	26.1°C
Relative Humidity:	52 %
ATM Pressure:	101 kPa

The testing was performed by Hanic Pan on 2024-02-26.

Test Mode: Transmitting

Test Frequency (MHz)	Temperature (°C)	Voltage (V)	Measured Frequency (MHz)	Frequency Error (ppm)	Limit (ppm)
462.6375	-20	4.5	462.6374480	-0.1124	±2.5
	-10	4.5	462.6374620	-0.0821	±2.5
	0	4.5	462.6374510	-0.1059	±2.5
	10	4.5	462.6374560	-0.0951	±2.5
	20	4.5	462.6374620	-0.0821	±2.5
	30	4.5	462.6374610	-0.0843	±2.5
	40	4.5	462.6374570	-0.0929	±2.5
	50	4.5	462.6374700	-0.0648	±2.5
	20	3.3	462.6374660	-0.0735	±2.5
	20	4.5	462.6374620	-0.0821	±2.5

Test Frequency (MHz)	Temperature (°C)	Voltage (V)	Measured Frequency (MHz)	Frequency Error (ppm)	Limit (ppm)
467.6375	-20	4.5	467.6374350	-0.1390	±2.5
	-10	4.5	467.6374320	-0.1454	±2.5
	0	4.5	467.6374370	-0.1347	±2.5
	10	4.5	467.6374420	-0.1240	±2.5
	20	4.5	467.6374370	-0.1347	±2.5
	30	4.5	467.6374410	-0.1262	±2.5
	40	4.5	467.6374290	-0.1518	±2.5
	50	4.5	467.6374510	-0.1048	±2.5
	20	3.3	467.6374520	-0.1026	±2.5
	20	4.5	467.6374370	-0.1347	±2.5

§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, EUT has an non-removable integral vertically polarized antenna arrangement and the antenna gain[#] is -5.09dBi(-7.24dBd), fulfill the requirement of this section. Please refer to the EUT photos.
- (c) Not Applicant, EUT not support this function, please refer to user manual.
- (d) Not Applicant, EUT not support this function, please refer to user manual.
- (e) Compliant, EUT only with FRS function operating under FCC part 95B, not support other function, please refer to user manual.

EUT PHOTOGRAPHS

Please refer to the attachment SZ5240125-05966E-RF External photo and SZ5240125-05966E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment SZ5240125-05966E-RF Test Setup photo.

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