Shenzhen Huatongwei International Inspection Co., Ltd.
1/F,Bldg 3,Hongfa Hi-tech Industrial Park,Genyu Road,Tianliao,Gongming,Shenzhen,China
Phone:86-755-26748019 Fax:86-755-26748089 http://www.szhtw.com.cn

TEST REPORT

Report No. ..... :	**CHTEW20030007** Report Verification:
Project No.....:	**SHT2001042501EW**
FCC ID..... :	**2AJEM-HY806**
Applicant's name..... :	**Shenzhen Macross Industrial Co., Ltd.**
Address.....:	3rd floor,#5 Building,Jianghao Technology Park #430 Jihua Rd.Bantian St.Longgang District Shenzhen, Guangdong,China
Manufacturer.....:	Shenzhen Macross Industrial Co., Ltd.
Address.....:	3rd floor,#5 Building,Jianghao Technology Park #430 Jihua Rd.Bantian St.Longgang District Shenzhen, Guangdong,China
Test item description ..... :	**6-CHANNEL WIRELESS INTERCOM**
Trade Mark .....:	HOSMART/eMACROS
Model/Type reference.....:	HY-806
Listed Model(s) .....:	-
Standard ..... :	**FCC CFR Title 47 Part 95 Subpart B**
Date of receipt of test sample.....:	Jan.16, 2020
Date of testing.....:	Jan.16, 2020- Mar.03, 2020
Date of issue.....:	Mar.04, 2020
Result..... .....:	**PASS**

Compiled by (Position+Printed name+Signature):	File administrator Echo Wei	Echo Wei
Supervised by (Position+Printed name+Signature):	Project Engineer Gaosheng Pan	Gaosheng. Pan
Approved by (Position+Printed name+Signature):	RF Manager Hans Hu	Hans HU

Testing Laboratory Name ..... :	**Shenzhen Huatongwei International Inspection Co., Ltd.**
Address.....:	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China

Contents

1. TEST STANDARDS AND REPORT VERSION

1.1. Test Standards

The tests were performed according to following standards:

– FCC Rules Part 95: PERSONAL RADIO SERVICES

– FCC Rules Part 2: Frequency allocations and radio treaty matters; General rules and regulations

– ANSI C63.26-2013: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

– ANSI C63.4-2014: American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

1.2. Report version

Revision No.	Date of issue	Description
N/A	2020-03-04	Original

2. TEST DESCRIPTION

Report clause	Test Items	Standard Requirement	Result
5.1	Carrier Output Power(ERP)	Part 95.567 Part 2.1046(a)	PASS
5.2	99% Occupied Bandwidth & 26dB bandwidth	Part 95.573 Part 2.1049	PASS
5.3	Emission Mask	Part 95.579(a)(1)(2)(3) Part 2.1049	PASS
5.4	Modulation Limit	Part 95.575 Part 2.1047(b)	PASS
5.5	Audio Frequency Response	Part 95.575 Part 2.1047(a)	PASS
5.6	Frequency Stability V.S. Temperature	Part 95.565 Part 2.1055	PASS
5.7	Frequency Stability V.S. Voltage	Part 95.565 Part 2.1055	PASS
5.8	Transmit Radiated Spurious Emission	Part 95.579(a)(3) Part 2.1053	PASS

Note:

– The measurement uncertainty is not included in the test result.

3. SUMMARY

3.1. Client Information

Applicant:	Shenzhen Macross Industrial Co., Ltd.
Address:	3rd floor,#5 Building,Jianghao Technology Park #430 Jihua Rd.Bantian St.Longgang District Shenzhen, Guangdong,China
Manufacturer:	Shenzhen Macross Industrial Co., Ltd.
Address:	3rd floor,#5 Building,Jianghao Technology Park #430 Jihua Rd.Bantian St.Longgang District Shenzhen, Guangdong,China

3.2. Product Description

Name of EUT:	6-CHANNEL WIRELESS INTERCOM
Trade Mark:	HOSMART/eMACROS
Model No.:	HY-806
Listed Model(s):	-
Power supply:	DC 5V
Adapter information:	Model: JHD-AP006U-050100BB-2 Input: 100-240Va.c.,50/60Hz 0.2A Output:5Vd.c.,1000mA
Hardware version:	Rev.D
Software version:	V201

3.3. Radio Specification Description

Support Frequency Range:	CH02~CH05:	462.5875MHz~ 462.6625MHz
	CH11:	467.6375MHz
Modulation Type:	FM	
Emission Designator: *[1]	11K0F3E	
Antenna Type:	Integral	
Antenna Gain:	2dBi	

Note:

(1) *1 According to FCC Part 2.202 requirements, the Necessary Bandwidth is calculated as follows:

- For FM Voice Modulation

  Channel Spacing = 12.5 KHz, D = 2.5 KHz max, K = 1, M = 3 KHz

  Bn = 2M + 2DK = 2*3 + 2*2.5*1 = **11 KHz**

  Emission designation: 11K0F3E

(2) The device only supports voice communication.

3.4. Testing Laboratory Information

Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd.	
Laboratory Location	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China	
Qualifications	Type	Accreditation Number
	CNAS	L1225
	A2LA	3902.01
	FCC	762235
	Canada	5377A

4. TEST CONFIGURATION

4.1. Test frequency list

According to ANSI C63.26 section 5.1.2.1:

Measurements of transmitters shall be performed and, if required, reported for each frequency band in which the EUT can be operated with the device transmitting at the number of frequencies in each band specified in Table 2.

Frequency range over which EUT operates	Number of frequencies	Location in frequency range of operation
1 MHz or less	1	Middle
1 MHz to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

Test Channel	Channel No.	Frequency (MHz)
CH_{M1}	CH11	467.6375
CH_{M2}	CH4	462.6375

The Product channel frequency table:

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
2	462.5875	**11**	**467.6375**
3	462.6125		
4	**462.6375**		
5	462.6625		

4.2. Test mode

Test mode	Transmitting
TX-FRS	√

Note:

√: is operation mode.

Modulation Type	Description
UM	Un-modulation
AM2	Apply a 1000 Hz tone and adjust the audio frequency generator to produce 20% of the rated system deviation.
AM6	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, then increase the level from the audio generator by 20 dB
AM5	Modulate the transmitter with a 2500 Hz sine wave at an input level 16 dB greater than that necessary to produce 50% of rated system deviation.

Test item	Modulation Type	Test mode
Output Power(ERP)	UM	TX-FRS
99% Occupied Bandwidth & 26dB bandwidth	AM6	TX-FRS
Emission Mask	AM5	TX-FRS
Modulation Limit	AM6	TX-FRS
Audio Frequency Response	AM2	TX-FRS
Frequency Stability VS Temperature	UM	TX-FRS
Frequency Stability VS Voltage	UM	TX-FRS
Transmit Radiated Spurious Emission	AM5	TX-FRS

4.3. Support unit used in test configuration and system

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The following peripheral devices and interface cables were connected during the measurement:

Whether support unit is used?					
✓ No					
Item	Equipement	Trade Name	Model No.	FCC ID	Power cord
1					
2					

4.4. Testing environmental condition

Type	Requirement	Actual
Temperature:	15~35°C	25°C
Relative Humidity:	25~75%	50%
Air Pressure:	860~1060mbar	1000mbar
Test voltage:	Normal voltage:	V_N: AC 110V / 60Hz
	Extreme lower voltage:	V_L: AC 99V / 60Hz
	Extreme upper voltage:	V_H: AC 121V / 60Hz

4.5. Measurement uncertainty

Test Item	Measurement Uncertainty
Frequency stability	25 Hz
Carrier output power (ERP)	2.20 dB
Occupied Bandwidth	35 Hz
Modulation Limiting	0.42 %
FM deviation	25 Hz
Audio level	0.62 dB
Radiated Spurious Emission 30~1000MHz	4.65 dB
Radiated Spurious Emission 1~18GHz	5.16 dB
AC power line Conducted Emission 9KHz-30MHz	3.39 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

4.6. Equipment Used during the Test

Radiated test method

● Radiated emission-6th test site							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Semi-Anechoic Chamber	Albatross projects	HTWE0127	SAC-3m-02	C11121	2018/09/30	2021/09/29
●	EMI Test Receiver	R&S	HTWE0099	ESCI	100900	2019/10/26	2020/10/25
●	Loop Antenna	R&S	HTWE0170	HFH2-Z2	100020	2018/04/02	2021/04/01
●	Ultra-Broadband Antenna	SCHWARZBECK	HTWE0119	VULB9163	546	2017/04/05	2020/04/04
●	Pre-Amplifer	SCHWARZBECK	HTWE0295	BBV 9742	N/A	2019/11/14	2020/11/13
●	RF Connection Cable	HUBER+SUHNER	HTWE0062-01	N/A	N/A	2019/08/21	2020/08/20
●	RF Connection Cable	HUBER+SUHNER	HTWE0062-02	SUCOFLEX104	501184/4	2019/05/27	2020/05/26
●	Test Software	R&S	N/A	ES-K1	N/A	N/A	N/A

● Radiated emission-7th test site							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Semi-Anechoic Chamber	Albatross projects	HTWE0122	SAC-3m-01	N/A	2018/09/27	2021/09/26
●	Spectrum Analyzer	R&S	HTWE0098	FSP40	100597	2019/10/26	2020/10/25
●	Horn Antenna	SCHWARZBECK	HTWE0126	9120D	1011	2017/04/01	2020/03/31
●	Horn Antenna	SCHWARZBECK	HTWE0103	BBHA9170	25841	2017/03/27	2020/03/26
●	Broadband Horn Antenna	SCHWARZBECK	HTWE0103	BBHA9170	BBHA9170472	2018/10/11	2021/10/11
●	Pre-amplifier	CD	HTWE0071	PAP-0102	12004	2019/11/14	2020/11/13
●	Broadband Pre-amplifier	SCHWARZBECK	HTWE0201	BBV 9718	9718-248	2019/05/23	2020/05/22
●	RF Connection Cable	HUBER+SUHNER	HTWE0120-01	6m 18GHz S Serisa	N/A	2019/05/10	2020/05/09
●	RF Connection Cable	HUBER+SUHNER	HTWE0120-02	6m 3GHz RG Serisa	N/A	2019/05/10	2020/05/09
●	RF Connection Cable	HUBER+SUHNER	HTWE0120-03	6m 3GHz RG Serisa	N/A	2019/05/10	2020/05/09
●	RF Connection Cable	HUBER+SUHNER	HTWE0120-04	6m 3GHz RG Serisa	N/A	2019/05/10	2020/05/09
●	RF Connection Cable	HUBER+SUHNER	HTWE0121-01	6m 18GHz S Serisa	N/A	2019/05/10	2020/05/09
●	Test Software	Audix	N/A	E3	N/A	N/A	N/A

Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Signal and spectrum Analyzer	R&S	HTWE0242	FSV40	100048	2019/10/26	2020/10/25
●	Spectrum Analyzer	Agilent	HTWE0286	N9020A	MY50510187	2019/10/26	2020/10/25
●	Test software	Tonscend	N/A	JS1120	N/A	N/A	N/A

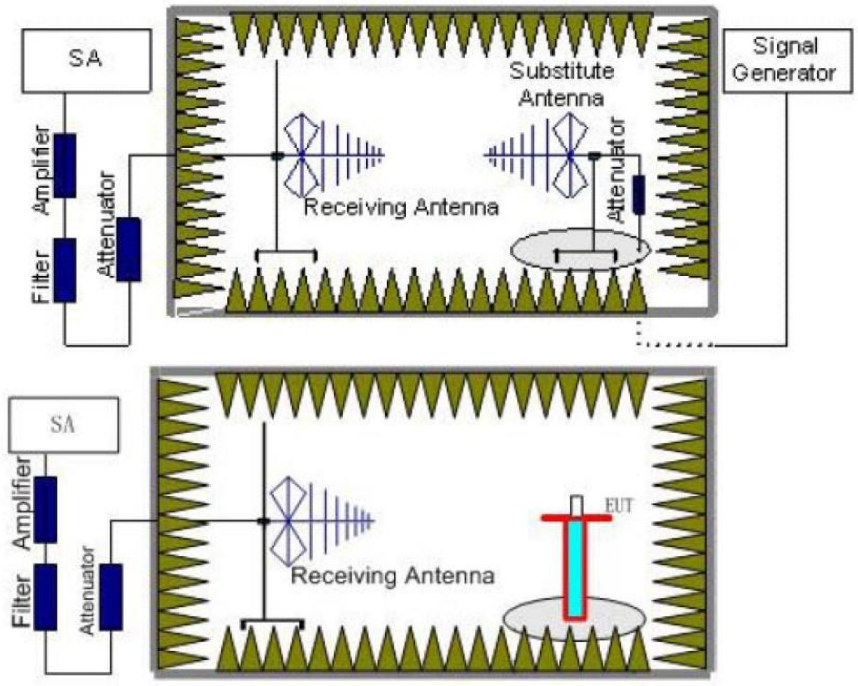
5. TEST CONDITIONS AND RESULTS

5.1. Carrier Output Power (ERP)

LIMIT

FCC Part FCC Part 95.567, FCC Part 2.1046
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 CONFIGURATION



TEST PROCEDURE

1) The measuring distance of at 3m shall be used for measurements
2) The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation
3) The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4) The spectrum setting for Equivalent Isotropically Radiated Power (EIRP) is RBW = 100kHz, VBW = 300kHz. Detector Mode is Positive Peak
5) Record the field strength level of the EUT from the spectrum
6) The substitution antenna is substituted for EUT at the same position and signals generator (S.G) export the CW signal to the substitution antenna via a TX cable. The receiver antenna shall be moved height from 1m to 4m to find the highest radiation. Adjust the S.G. output level and repeat this step to get the same field strength level as the EUT
7) The EIRP level = S.G. output level(dBm)- TX cable(dB) + Substituted Antenna Gain(dBi)
8) The ERP level = EIRP-2.15

TEST MODE

Please reference to the section 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST Data

Please refer to appendix A on the appendix report

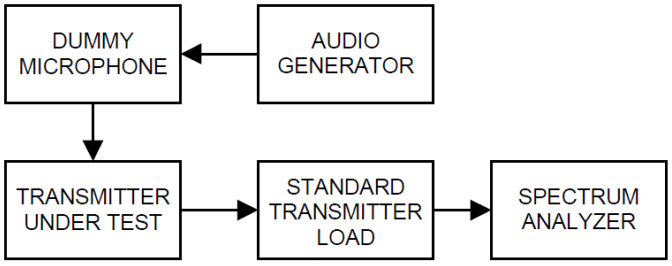
5.2. 99% Occupied Bandwidth & 26dB Bandwidth

LIMIT

FCC Part 95.573, FCC Part 2.1049

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

TEST CONFIGURATION



TEST PROCEDURE

1) Connect the equipment as illustrated
2) Spectrum set as follow:
   Centre frequency = 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)
   RBW = 1% to 5% of the anticipated OBW, VBW ≥ 3 × RBW, Sweep = auto,
   Detector function = peak, Trace = max hold
3) Set 99% Occupied Bandwidth and 26dB Bandwidth
4) Measure and record the results in the test report.

TEST MODE

Please reference to the section 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST Data

Please refer to appendix B on the appendix report

5.3. Emission Mask

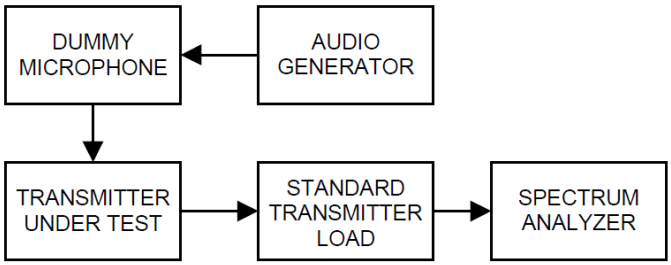
LIMIT

FCC Part 95.579(a)(1)(2)(3), FCC Part 2.1049

Each FRS transmitter type must be designed to satisfy the applicable unwanted emissions limits

a) Attenuation requirements. The power of unwanted emissions must be attenuated below the carrier power output in Watts (P) by at least:
   (1) 25dB 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.

TEST CONFIGURATION



TEST PROCEDURE

1) Connect the equipment as illustrated.
2) Spectrum set as follow:
   Centre frequency = fundamental frequency, RBW=300Hz, VBW=1000Hz, Sweep = auto,
   Detector function = peak, Trace = max hold
3) Key the transmitter, and set the level of the unmodulated carrier to a full scale reference line.
   This is the 0dB reference for the measurement.
4) Apply Input Modulation Signal to EUT according to Section 4.2
5) Measure and record the results in the test report.

TEST MODE

Please reference to the section 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST Data

Please refer to appendix C on the appendix report

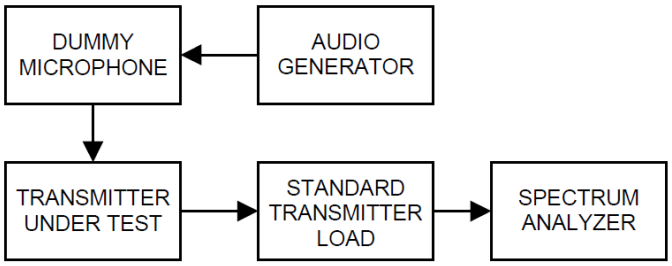
5.4. Modulation Limit

LIMIT

FCC Part 95.575, FCC Part 2.1047(b)

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

TEST CONFIGURATION



TEST PROCEDURE

1) Connect the equipment as illustrated.
2) Adjust the transmitter per the manufacturer's procedure for full rated system deviation.
3) Set the test receiver to measure peak positive deviation. Set the audio bandwidth for ≤0.25Hz to ≥15,000Hz. Turn the de-emphasis function off.
4) Apply Input Modulation Signal to EUT according to Section 4.2 and vary the input level from –20 to +20dB.
5) Measure both the instantaneous and steady-state deviation at and after the time of increasing the audio input level
6) Repeat step 4-5 with input frequency changing to 300Hz, 1004Hz, 1500Hz and 2500Hz in sequence.

TEST MODE

Please reference to the section 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST Data

Please refer to appendix D on the appendix report

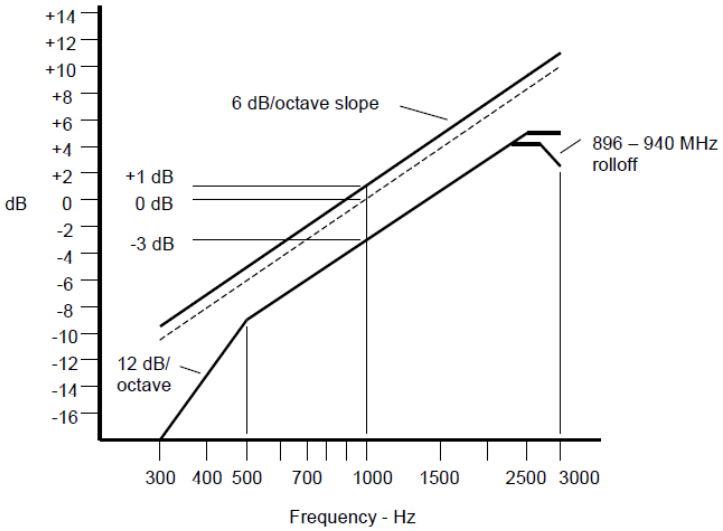
5.5. Audio Frequency Response

LIMIT

FCC Part 95.575, FCC Part 2.1047(a):

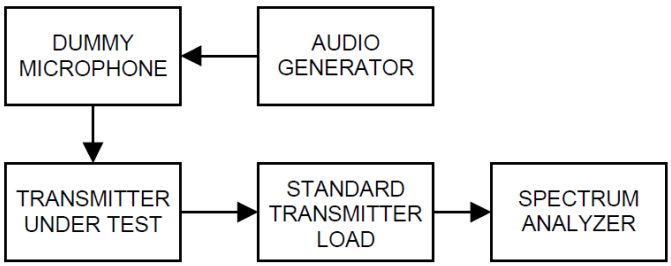
Each FRS transmitter type must be designed such that the peak frequency deviation does **not exceed 2.5kHz**, and the highest audio frequency contributing substantially to modulation must **not exceed 3.125kHz**.

Voice modulated communication equipment. A curve or equivalent data showing the frequency response of the audio modulating circuit over a range of 100 to 5000 Hz shall be submitted.



An additional 6 dB per octave attenuation is allowed from 2500 Hz to 3000 Hz in equipment operating in the 25 MHz to 869 MHz range.

TEST CONFIGURATION



TEST PROCEDURE

1) Connect the equipment as illustrated.
2) 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.
3) Set the DMM to measure rms voltage.
4) Adjust the transmitter per the manufacturer's procedure for full rated system deviation.
5) Apply Input Modulation Signal to EUT according to Section 4.2
6) Set the test receiver to measure rms deviation and record the deviation reading.
7) Record the DMM reading as V_{REF} .
8) Set the audio frequency generator to the desired test frequency between 300 Hz and 3000 Hz.
9) Vary the audio frequency generator output level until the deviation reading that was recorded in step 6) is obtained.
10) Record the DMM reading as V_{FREQ}
11) Calculate the audio frequency response at the present frequency as:
audio frequency response=$20\log_{10}$ (V_{FREQ}/V_{REF}).
12) Repeat steps 8) through 11) for all the desired test frequencies

TEST MODE

Please reference to the section 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST Data

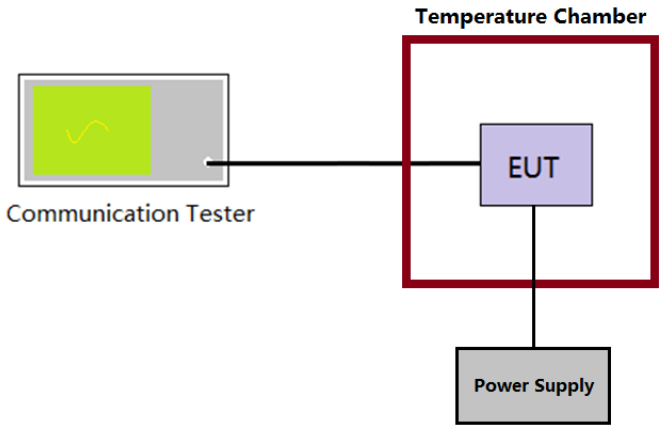
Please refer to appendix E on the appendix report

5.6. Frequency stability VS Temperature

LIMIT

FCC Part 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 CONFIGURATION



TEST PROCEDURE

1) The EUT output port was connected to communication tester.
2) The EUT was placed inside the temperature chamber.
3) Turn EUT off and set the chamber temperature to –30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency as MCF_{MHz}.
4) Calculate the ppm frequency error by the following:
   ppm error=$(MCF_{MHZ}/ACF_{MHZ}-1)*10^6$
   where
   MCF_{MHz} *is the Measured Carrier Frequency in MHz*
   ACF_{MHz} *is the Assigned Carrier Frequency in MHz*
5) Repeat step 3 measure with 10°C increased per stage until the highest temperature of +50°C reached.

TEST MODE

Please reference to the section 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST Data

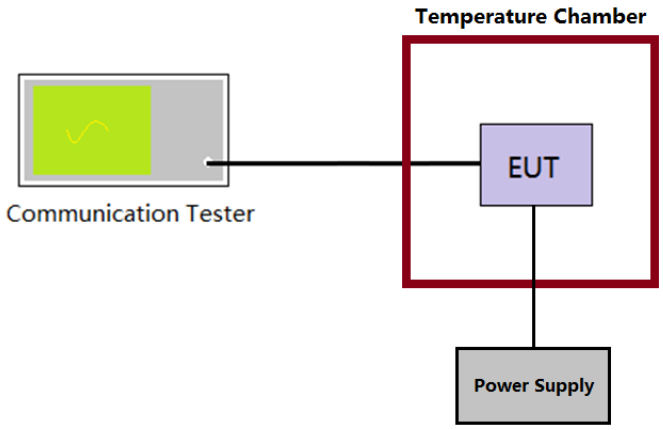
Please refer to appendix F on the appendix report

5.7. Frequency stability VS Voltage

LIMIT

FCC Part 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 CONFIGURATION



TEST PROCEDURE

1) The EUT output port was connected to communication tester.
2) The EUT was placed inside the temperature chamber at 25°C
3) Record the carrier frequency of the transmitter as MCF_{MHZ}
4) Calculate the ppm frequency error by the following:
   $ppm\ error=(MCF_{MHZ}/ACF_{MHZ}-1)*10^6$
   where
   MCF_{MHz} *is the Measured Carrier Frequency in MHz*
   ACF_{MHz} *is the Assigned Carrier Frequency in MHz*
5) Repeat step 3 measure with varied ±15% of the nominal value measured at the input to the EUT

TEST MODE

Please reference to the section 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST Data

Please refer to appendix G on the appendix report

5.8. Transmit Radiated Spurious Emission

LIMIT

FCC Part 95.579(a)(3):

Each FRS transmitter type must be designed to satisfy the applicable unwanted emissions limits

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

1) 25dB 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.

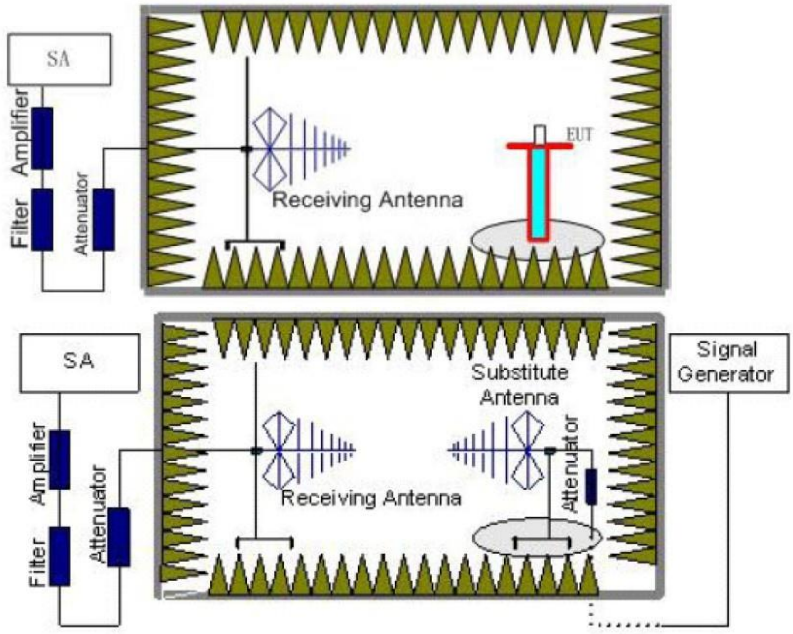
Note:

Limit (dBm)=EL-[43+10log(P)] =10log(P*1000)-[43+10log(P)] = 10log(P)+30-43-10log(P)**=-13dBm**

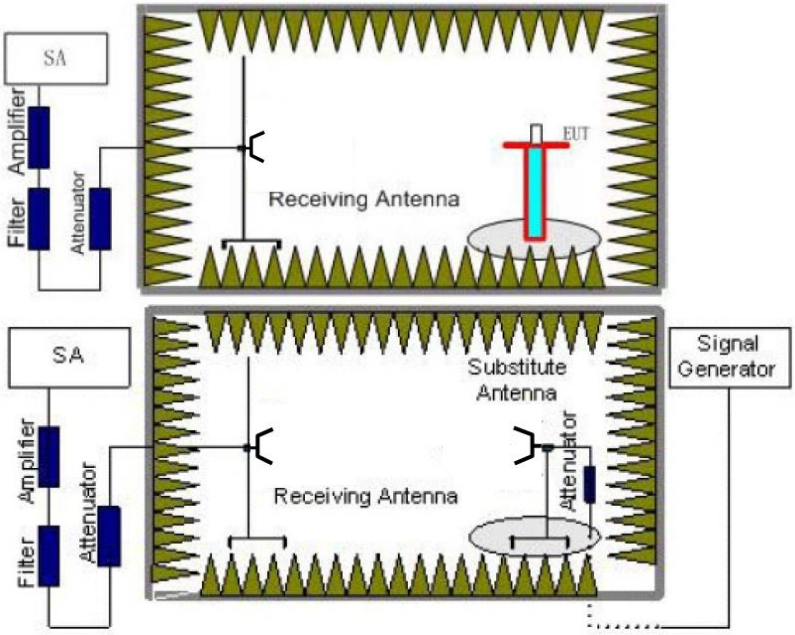
EL is the emission level of the Output Power expressed in dBm,

TEST CONFIGURATION

Below 1GHz:



Above 1GHz:



TEST PROCEDURE

1) The measuring distance of at 3m shall be used for measurements
2) The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The table was rotated 360 degrees to determine the position of the highest radiation
3) The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4) The spectrum setting as follow

   Below 1 GHz: RBW=120kHz, VBW=300kHz, Sweep time=auto, Detector =peak, Trace=max hold;

   Above 1GHz: RBW=1MHz, VBW=3MHz Sweep time=auto, Detector=peak, Trace=max hold
5) Record the field strength level of the EUT from the spectrum
6) The substitution antenna is substituted for EUT at the same position and signals generator (S.G) export the CW signal to the substitution antenna via a TX cable. The receiver antenna shall be moved height from 1m to 4m to find the highest radiation. Adjust the S.G. output level and repeat this step to get the same field strength level as the EUT
7) The EIRP level = S.G. output level(dBm)- TX cable(dB) + Substituted Antenna Gain(dBi)
8) Record the ERP value for below 1GHz, ERP value = EIRP-2.15; Record the EIRP for above 1GHz.

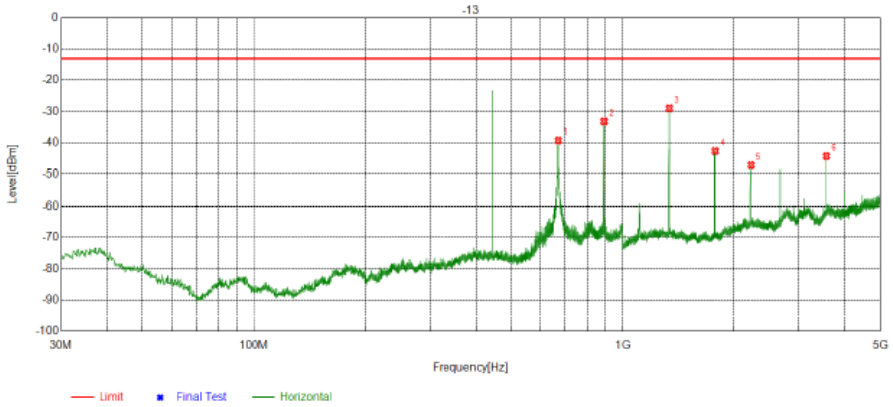
TEST MODE

Please reference to the section 4.2

TEST RESULTS

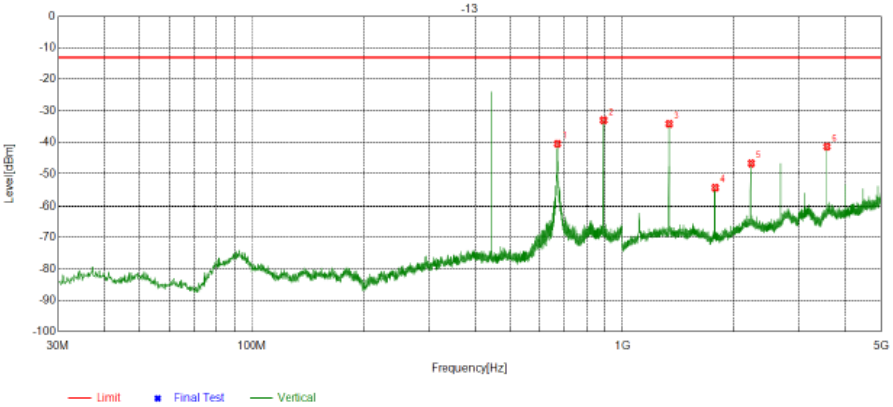
☒ **Passed** ☐ **Not Applicable**

Test Channel:	CH_{M1}	Polarity:	Horizontal



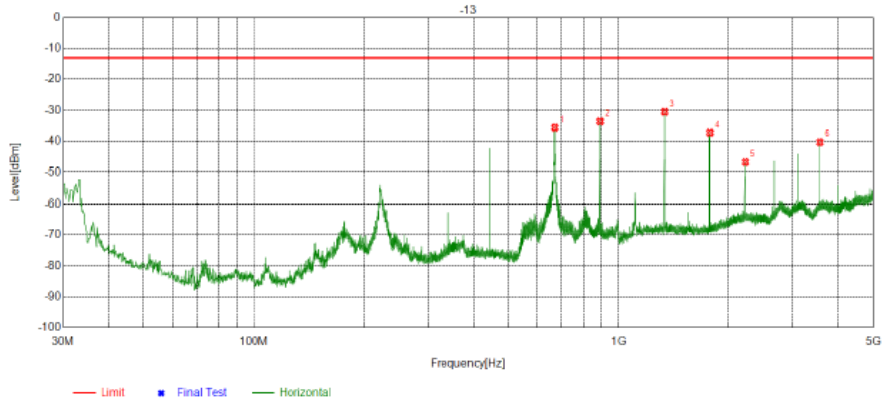
NO.	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity	Detector
1	669.3099	-44.92	5.67	-39.25	-13.00	26.25	Horizontal	PK
2	892.0740	-43.12	9.91	-33.21	-13.00	20.21	Horizontal	PK
3	1338.000	-34.32	5.37	-28.95	-13.00	15.95	Horizontal	PK
4	1784.000	-48.10	5.44	-42.66	-13.00	29.66	Horizontal	PK
5	2230.000	-57.54	10.34	-47.20	-13.00	34.20	Horizontal	PK
6	3568.500	-58.38	14.07	-44.31	-13.00	31.31	Horizontal	PK

Test Channel:	CH_{M1}	Polarity:	Vertical



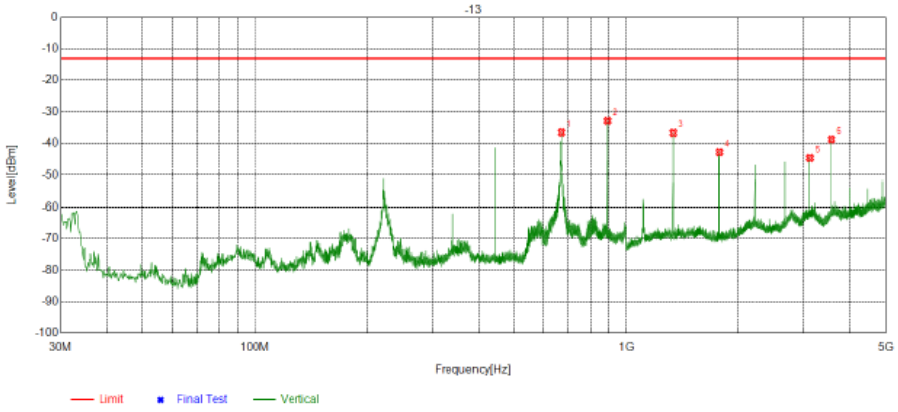
NO.	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity	Detector
1	668.8249	-46.55	6.06	-40.49	-13.00	27.49	Vertical	PK
2	892.0740	-43.31	10.24	-33.07	-13.00	20.07	Vertical	PK
3	1338.000	-40.07	5.83	-34.24	-13.00	21.24	Vertical	PK
4	1784.000	-59.28	5.22	-54.06	-13.00	41.06	Vertical	PK
5	2230.000	-57.71	10.90	-46.81	-13.00	33.81	Vertical	PK
6	3568.500	-55.69	14.27	-41.42	-13.00	28.42	Vertical	PK

Test Channel:	CH_{M2}	Polarity:	Horizontal



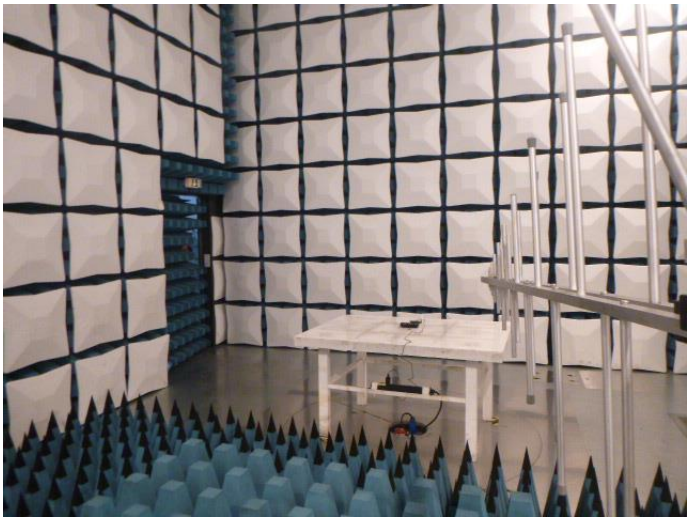
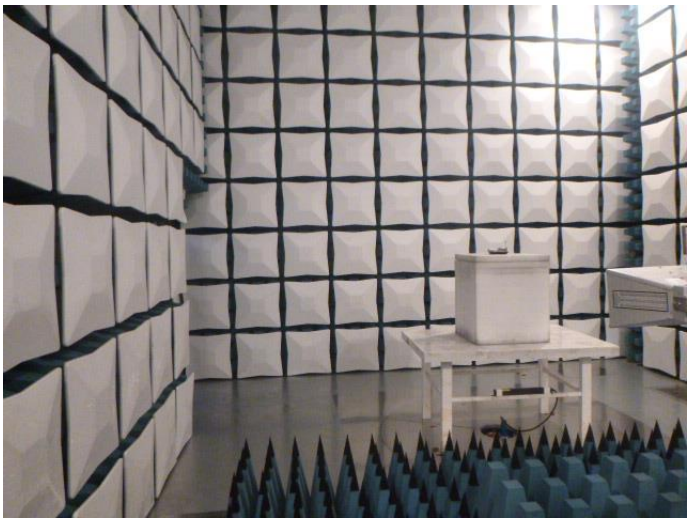
NO.	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity	Detector
1	669.4312	-41.27	5.66	-35.61	-13.00	22.61	Horizontal	PK
2	892.0740	-43.51	9.91	-33.60	-13.00	20.60	Horizontal	PK
3	1338.000	-35.83	5.37	-30.46	-13.00	17.46	Horizontal	PK
4	1784.000	-42.69	5.44	-37.25	-13.00	24.25	Horizontal	PK
5	2230.000	-57.16	10.34	-46.82	-13.00	33.82	Horizontal	PK
6	3568.500	-54.38	14.07	-40.31	-13.00	27.31	Horizontal	PK

Test Channel:	CH_{M2}	Polarity:	Vertical



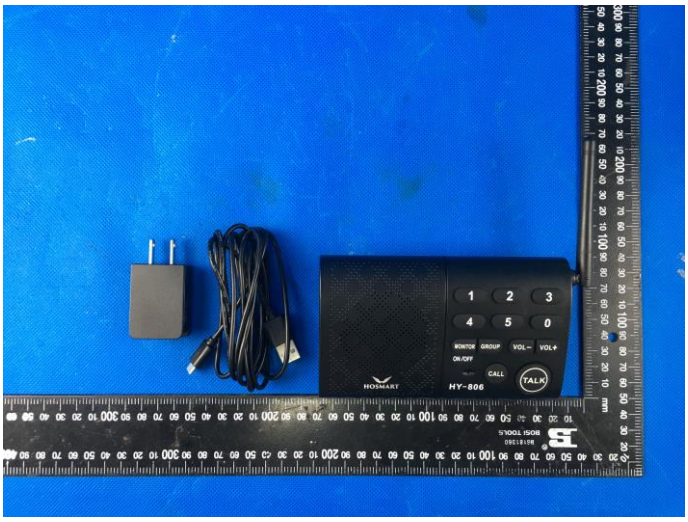
NO.	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity	Detector
1	669.4312	-42.62	6.06	-36.56	-13.00	23.56	Vertical	PK
2	892.0740	-43.16	10.24	-32.92	-13.00	19.92	Vertical	PK
3	1338.000	-42.54	5.83	-36.71	-13.00	23.71	Vertical	PK
4	1784.000	-48.08	5.22	-42.86	-13.00	29.86	Vertical	PK
5	3122.500	-57.67	12.94	-44.73	-13.00	31.73	Vertical	PK
6	3568.500	-53.03	14.27	-38.76	-13.00	25.76	Vertical	PK

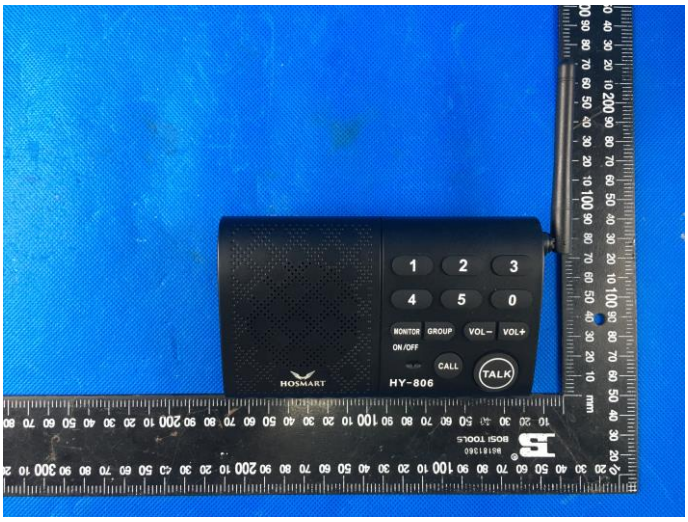
6. TEST SETUP PHOTOS

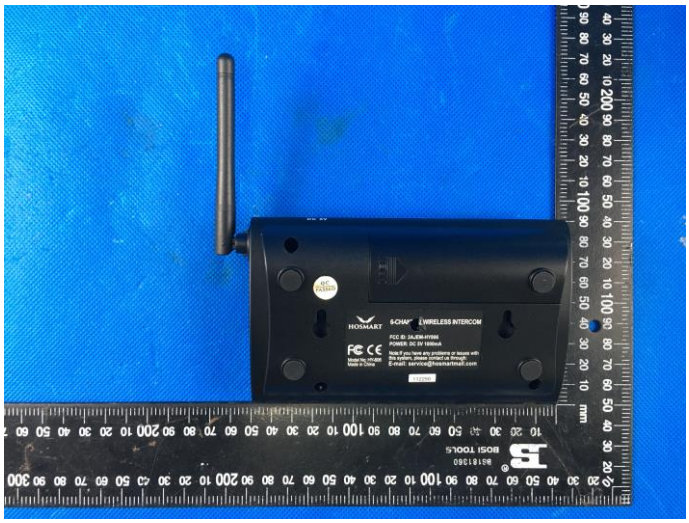
Carrier output power / transmit radiated spurious emission



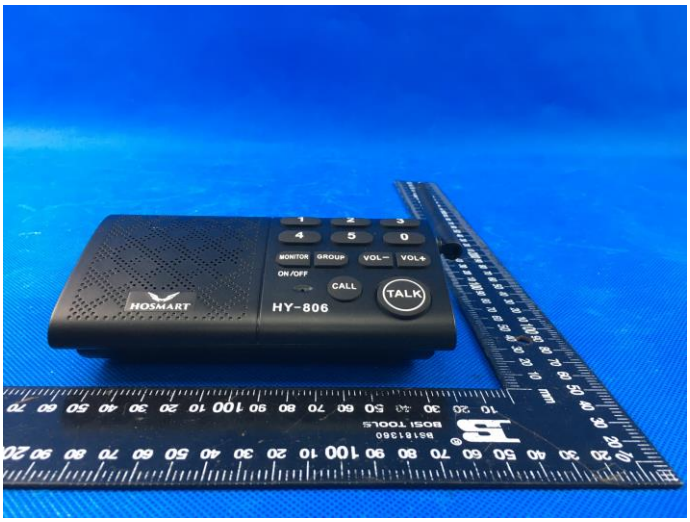
7. EXTERANAL AND INTERNAL PHOTOS

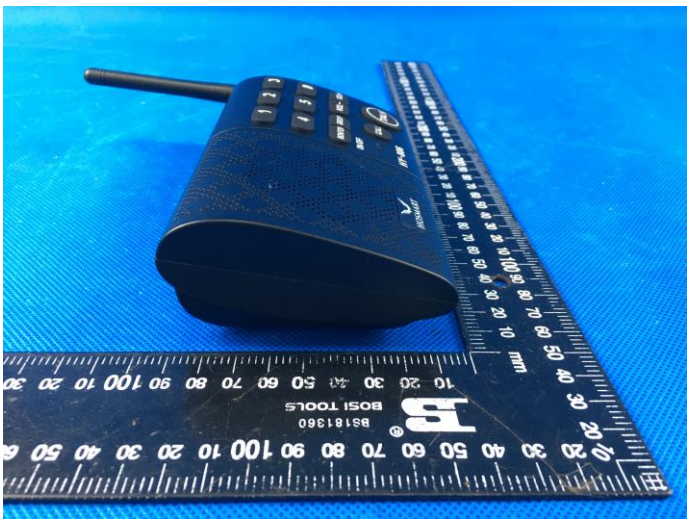
External Photos

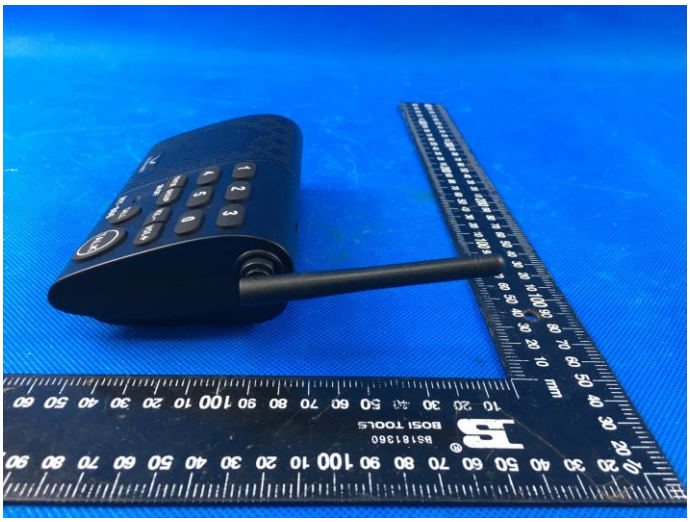






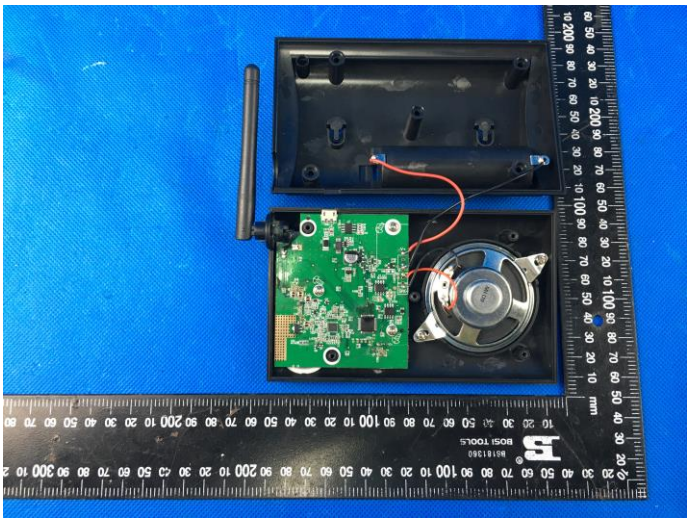

HOSMART
HY-806
TALK
CALL

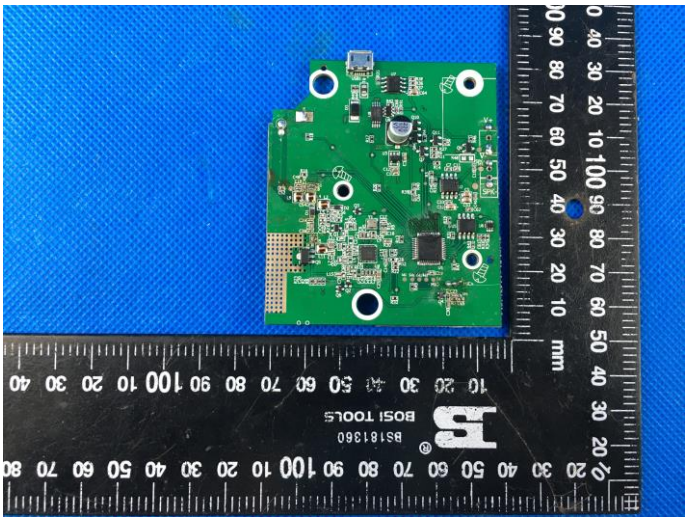


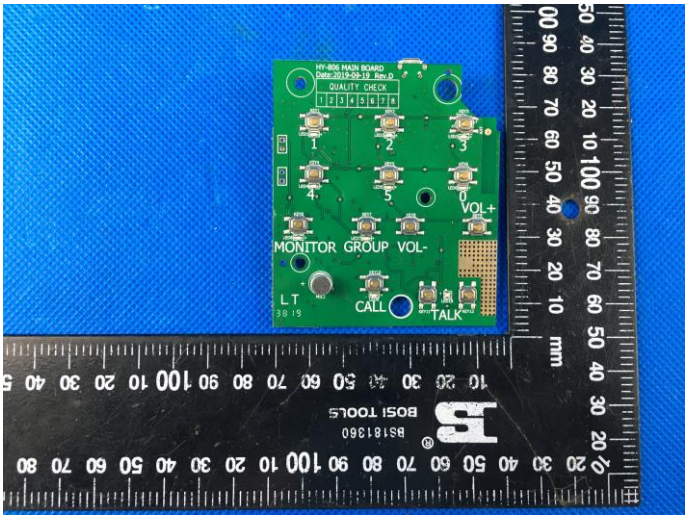



AC/DC ADAPTER
Shenzhen Jihongda
Power Co.,Ltd.
LISTED

Internal Photos







8. APPENDIX

Project No.	SHT2001042501EW		
Test sample No.	YPHT20010425008	Model No.	HY-806
Start test date	2020/2/24	Finish date	2020/2/26
Temperature	22.8℃	Humidity	62%
Test Engineer	Ximing Huang	Auditor	William.wang

Appendix clause	Test Item	Test date （M/D)	Test Result (PASS/FAIL)
A	Carrier output power (ERP)	2020/2/25	PASS
B	Occupied Bandwidth	2020/2/25	PASS
C	Emission Mask	2020/2/25	PASS
D	Modulation Limit	2020/2/25	PASS
E	Aduio Frequency Response	2020/2/25	PASS
F	Frequency Stability Test & Temperature	2020/2/25	PASS
G	Frequency Stability Test & Voltage	2020/2/25	PASS

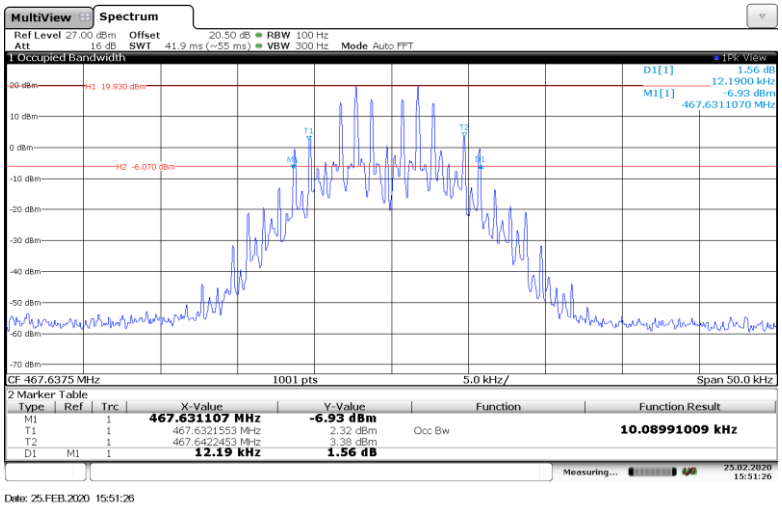
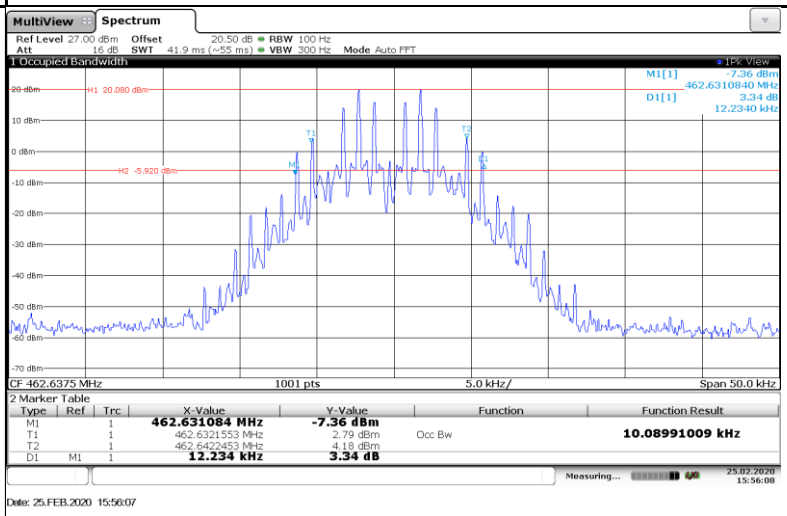
Appendix A: Carrier Output Power(ERP)

Test Mode	Modulation Type	Test Channel	Measured power (dBm)	Measured power (W)	Limit(W)	Result
TX-FRS	FM	CH_{M1}	24.98	0.31	≤2	PASS
TX-FRS	FM	CH_{M2}	25.12	0.33	≤0.5	PASS

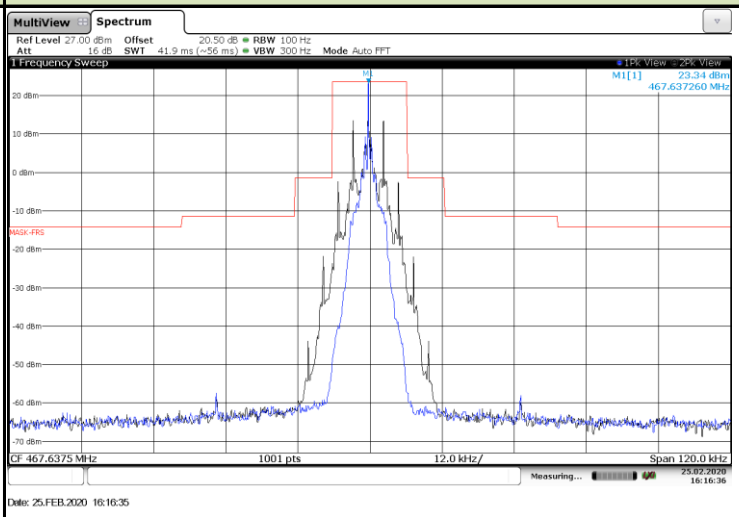
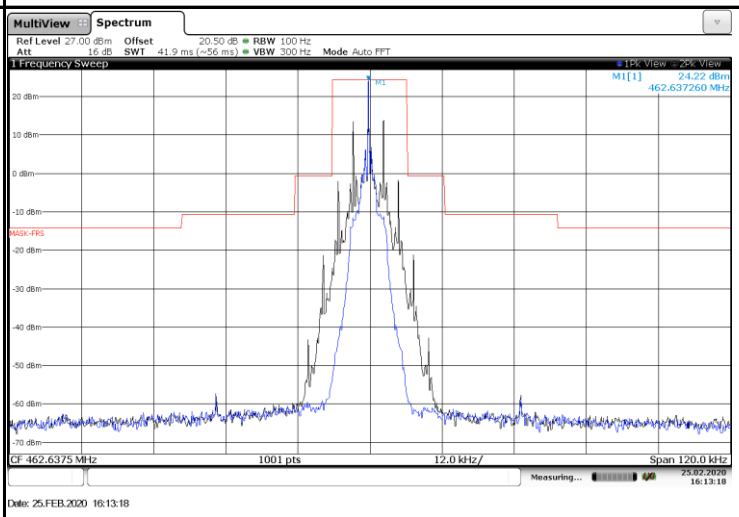
Appendix B: 99% Occupied Bandwidth & 26dB Bandwidth

Test Mode	Modulation Type	Test Channel	Occupied Bandwidth		99% Limit(kHz)	Result
			99%(kHz)	26dB(kHz)		
TX-FRS	FM	CH_{M1}	10.09	12.19	≤12.5	PASS
TX-FRS	FM	CH_{M2}	10.09	12.23	≤12.5	PASS

Appendix B: 99% Occupied Bandwidth & 26dB Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH_{M1}	
TX-FRS	FM	CH_{M2}	

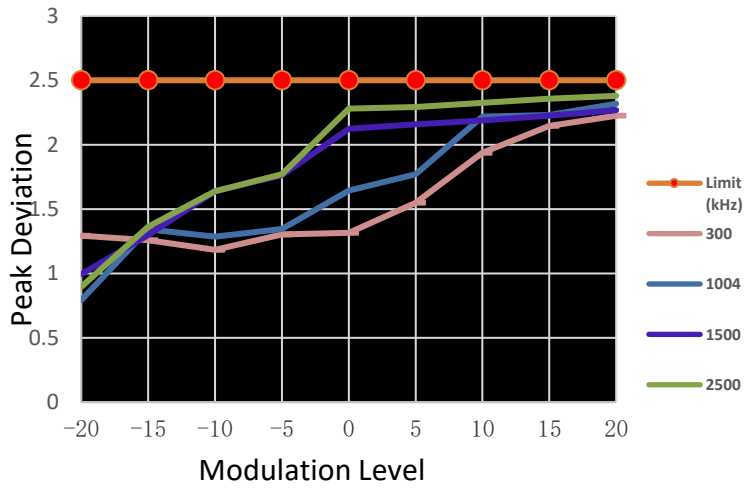
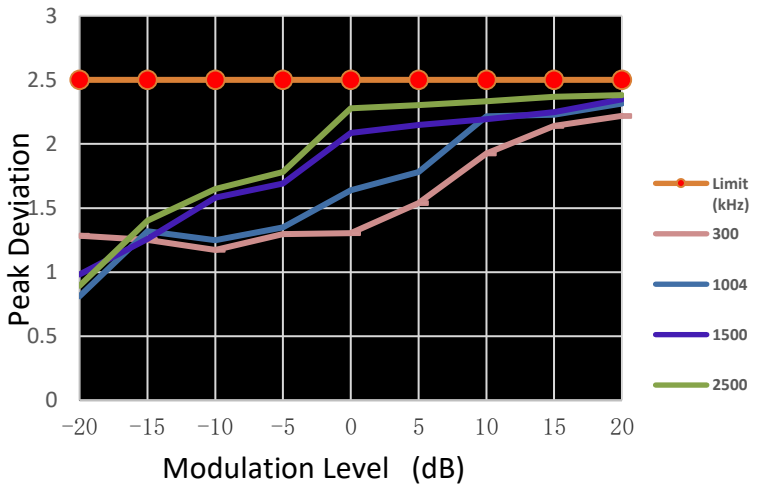
Appendix C:Emission Mask

Test Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH_{M1}	
TX-FRS	FM	CH_{M2}	

Appendix D:Modulation Limit

Test Mode	Modulation Type	Test Channel	Modulation Level (dB)	Peak Frequency Deviation (Hz)				Limit (kHz)	Result
				300	1004	1500	2500		
TX-FRS	FM	CH_{M1}	-20	1.294	0.793	0.994	0.896	2.5	PASS
TX-FRS	FM	CH_{M1}	-15	1.258	1.343	1.297	1.363	2.5	PASS
TX-FRS	FM	CH_{M1}	-10	1.183	1.285	1.639	1.639	2.5	PASS
TX-FRS	FM	CH_{M1}	-5	1.303	1.345	1.763	1.771	2.5	PASS
TX-FRS	FM	CH_{M1}	0	1.316	1.644	2.122	2.281	2.5	PASS
TX-FRS	FM	CH_{M1}	5	1.548	1.771	2.158	2.293	2.5	PASS
TX-FRS	FM	CH_{M1}	10	1.936	2.217	2.189	2.324	2.5	PASS
TX-FRS	FM	CH_{M1}	15	2.145	2.231	2.225	2.358	2.5	PASS
TX-FRS	FM	CH_{M1}	20	2.224	2.318	2.268	2.379	2.5	PASS
TX-FRS	FM	CH_{M2}	-20	1.284	0.812	0.982	0.894	2.5	PASS
TX-FRS	FM	CH_{M2}	-15	1.251	1.318	1.258	1.402	2.5	PASS
TX-FRS	FM	CH_{M2}	-10	1.173	1.248	1.581	1.648	2.5	PASS
TX-FRS	FM	CH_{M2}	-5	1.297	1.349	1.691	1.781	2.5	PASS
TX-FRS	FM	CH_{M2}	0	1.305	1.638	2.085	2.279	2.5	PASS
TX-FRS	FM	CH_{M2}	5	1.539	1.781	2.149	2.304	2.5	PASS
TX-FRS	FM	CH_{M2}	10	1.927	2.215	2.193	2.334	2.5	PASS
TX-FRS	FM	CH_{M2}	15	2.141	2.227	2.248	2.367	2.5	PASS
TX-FRS	FM	CH_{M2}	20	2.219	2.315	2.348	2.381	2.5	PASS

Appendix D:Modulation Limit

Test Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH_{M1}	
TX-FRS	FM	CH_{M2}	

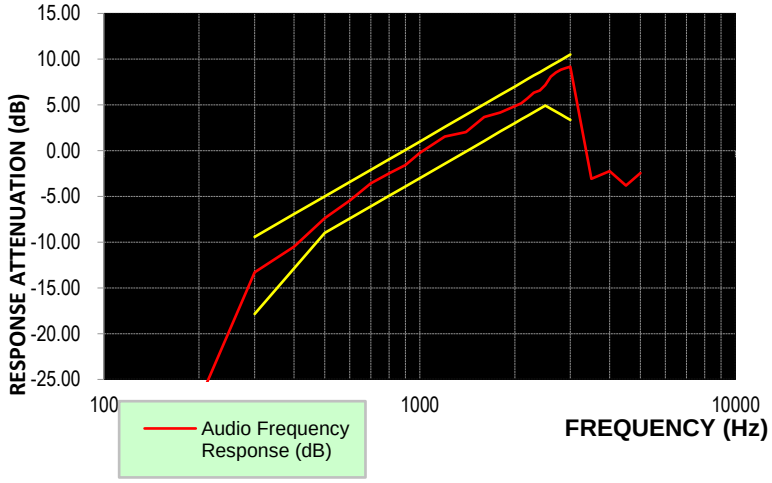
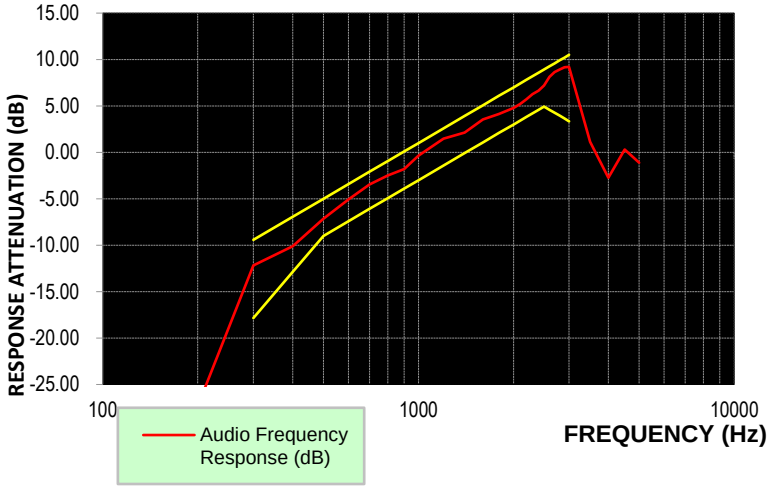
Appendix E:Aduio Frequency Response

Test Mode	Modulation Type	Test Channel	Frequency (Hz)	Audio Frequency Response (dB)	Lower Limit	Upper Limit	Result
TX-FRS	FM	CH_{M1}	100	-26.48			PASS
TX-FRS	FM	CH_{M1}	200	-27.37			PASS
TX-FRS	FM	CH_{M1}	300	-13.28	-17.84	-9.42	PASS
TX-FRS	FM	CH_{M1}	400	-10.48	-12.86	-6.93	PASS
TX-FRS	FM	CH_{M1}	500	-7.38	-9.00	-5.00	PASS
TX-FRS	FM	CH_{M1}	600	-5.46	-7.42	-3.42	PASS
TX-FRS	FM	CH_{M1}	700	-3.58	-6.09	-2.09	PASS
TX-FRS	FM	CH_{M1}	800	-2.48	-4.93	-0.93	PASS
TX-FRS	FM	CH_{M1}	900	-1.55	-3.91	0.09	PASS
TX-FRS	FM	CH_{M1}	1000	-0.23	-3.00	1.00	PASS
TX-FRS	FM	CH_{M1}	1200	1.56	-1.42	2.58	PASS
TX-FRS	FM	CH_{M1}	1400	2.04	-0.09	3.91	PASS
TX-FRS	FM	CH_{M1}	1600	3.69	1.07	5.07	PASS
TX-FRS	FM	CH_{M1}	1800	4.18	2.09	6.09	PASS
TX-FRS	FM	CH_{M1}	2000	4.87	3.00	7.00	PASS
TX-FRS	FM	CH_{M1}	2100	5.19	3.42	7.42	PASS
TX-FRS	FM	CH_{M1}	2200	5.73	3.83	7.83	PASS
TX-FRS	FM	CH_{M1}	2300	6.34	4.21	8.21	PASS
TX-FRS	FM	CH_{M1}	2400	6.57	4.58	8.58	PASS
TX-FRS	FM	CH_{M1}	2500	7.18	4.93	8.93	PASS
TX-FRS	FM	CH_{M1}	2600	8.07	4.59	9.27	PASS
TX-FRS	FM	CH_{M1}	2700	8.53	4.27	9.60	PASS
TX-FRS	FM	CH_{M1}	2800	8.87	3.95	9.91	PASS
TX-FRS	FM	CH_{M1}	2900	9.04	3.65	10.22	PASS
TX-FRS	FM	CH_{M1}	3000	9.18	3.35	10.51	PASS
TX-FRS	FM	CH_{M1}	3500	-3.08			PASS
TX-FRS	FM	CH_{M1}	4000	-2.22			PASS
TX-FRS	FM	CH_{M1}	4500	-3.81			PASS
TX-FRS	FM	CH_{M1}	5000	-2.44			PASS
TX-FRS	FM	CH_{M2}	100	-26.18			PASS
TX-FRS	FM	CH_{M2}	200	-27.34			PASS
TX-FRS	FM	CH_{M2}	300	-12.18	-17.84	-9.42	PASS
TX-FRS	FM	CH_{M2}	400	-10.12	-12.86	-6.93	PASS
TX-FRS	FM	CH_{M2}	500	-7.14	-9.00	-5.00	PASS
TX-FRS	FM	CH_{M2}	600	-5.06	-7.42	-3.42	PASS
TX-FRS	FM	CH_{M2}	700	-3.47	-6.09	-2.09	PASS
TX-FRS	FM	CH_{M2}	800	-2.48	-4.93	-0.93	PASS
TX-FRS	FM	CH_{M2}	900	-1.79	-3.91	0.09	PASS
TX-FRS	FM	CH_{M2}	1000	-0.34	-3.00	1.00	PASS
TX-FRS	FM	CH_{M2}	1200	1.47	-1.42	2.58	PASS
TX-FRS	FM	CH_{M2}	1400	2.12	-0.09	3.91	PASS
TX-FRS	FM	CH_{M2}	1600	3.54	1.07	5.07	PASS
TX-FRS	FM	CH_{M2}	1800	4.12	2.09	6.09	PASS
TX-FRS	FM	CH_{M2}	2000	4.79	3.00	7.00	PASS

Appendix E:Aduio Frequency Response

Test Mode	Modulation Type	Test Channel	Frequency (Hz)	Audio Frequency Response (dB)	Lower Limit	Upper Limit	Result
TX-FRS	FM	CH_{M2}	2100	5.21	3.42	7.42	PASS
TX-FRS	FM	CH_{M2}	2200	5.73	3.83	7.83	PASS
TX-FRS	FM	CH_{M2}	2300	6.28	4.21	8.21	PASS
TX-FRS	FM	CH_{M2}	2400	6.64	4.58	8.58	PASS
TX-FRS	FM	CH_{M2}	2500	7.21	4.93	8.93	PASS
TX-FRS	FM	CH_{M2}	2600	8.12	4.59	9.27	PASS
TX-FRS	FM	CH_{M2}	2700	8.64	4.27	9.60	PASS
TX-FRS	FM	CH_{M2}	2800	8.91	3.95	9.91	PASS
TX-FRS	FM	CH_{M2}	2900	9.18	3.65	10.22	PASS
TX-FRS	FM	CH_{M2}	3000	9.21	3.35	10.51	PASS
TX-FRS	FM	CH_{M2}	3500	1.13			PASS
TX-FRS	FM	CH_{M2}	4000	-2.72			PASS
TX-FRS	FM	CH_{M2}	4500	0.30			PASS
TX-FRS	FM	CH_{M2}	5000	-1.10			PASS

Appendix E:Aduio Frequency Response

Test Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH_{M1}	
TX-FRS	FM	CH_{M2}	

Note: The highest audio frequency response at 3kHz<3.125kHz, so meet the requirement.

Appendix F:Frequency Stability Test & Temperature

Test Mode	Modulation Type	Test Conditions		Frequency error (ppm)		Limit (ppm)	Result
		Voltage	Temperature	CH_{M1}	CH_{M2}		
TX-FRS	FM	V_N	-30	-0.603	-0.596	±2.5	PASS
TX-FRS	FM	V_N	-20	-0.579	-0.568	±2.5	PASS
TX-FRS	FM	V_N	-10	-0.558	-0.547	±2.5	PASS
TX-FRS	FM	V_N	0	-0.502	-0.497	±2.5	PASS
TX-FRS	FM	V_N	10	-0.491	-0.478	±2.5	PASS
TX-FRS	FM	V_N	20	-0.477	-0.456	±2.5	PASS
TX-FRS	FM	V_N	30	-0.489	-0.476	±2.5	PASS
TX-FRS	FM	V_N	40	-0.496	-0.492	±2.5	PASS
TX-FRS	FM	V_N	55	-0.525	-0.518	±2.5	PASS

Appendix G:Frequency Stability Test & Voltage

Test Mode	Modulation Type	Test Conditions		Frequency error (ppm)		Limit (ppm)	Result
		Voltage	Temperature	CH_{M1}	CH_{M2}		
TX-GMRS	FM	V_N	T_N	-0.469	-0.448	±2.5	PASS
TX-GMRS	FM	V_L	T_N	-0.502	-0.515	±2.5	PASS
TX-GMRS	FM	V_H	T_N	-0.483	-0.467	±2.5	PASS

------End of report------