FCC 47 CFR PART 15 SUBPART C 15.247

TEST REPORT

FOR

Car alarm 2 way main unit

Model：AS975-2W

Issued to

Advance Security Inc.

3F, No. 48, Ta An Street, Hsi Chih Dist., New Taipei City, Taiwan, R.O.C.

Issued by

WH Technology Corp.

Xizhi Office	**7F., No.262, Sec. 3, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan, (R.O.C.)**
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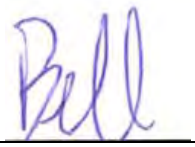
1. General Information

Applicant	:	**Advance Security Inc.**
Address	:	**3F, No. 48, Ta An Street, Hsi Chih Dist., New Taipei City, Taiwar R.O.C.**
Manufacturer	:	**Advance Security Inc.**
Address	:	**3F, No. 48, Ta An Street, Hsi Chih Dist., New Taipei City, Taiwar R.O.C.**
EUT	:	**Car alarm 2 way main unit**
Model Name	:	**AS975-2W**
Model Differences	:	**N/A**
Receipt Date	:	**Jul. 23, 2019**
Final Test Date	:	**Aug. 19, 2019**

Is here with confirmed to comply with the requirements set out in the FCC Rules and Regulations Part 15 Subpart C and the measurement procedures were according to ANSI C63.10:2013. The said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment are within the compliance requirements.

FCC part 15 subpart C

Tested By:		**Reviewed by:**	
Aug. 19, 2019		Aug. 19, 2019	
Date	Bing Zhang / Engineer	**Date**	Bell Wei / Manager
			TAF Accreditation Number: 2954

2. Report of Measurements and Examinations

2.1 List of Measurements and Examinations

FCC Rule	Description of Test	Result
15.203	. Antenna Requirement	Pass
15.207	. Conducted Emission	N/A
15.209	. Radiated Emission	Pass
15.247(a)(1)	. Channel Carrier Frequencies Separation	Pass
15.247(a)(1)	. 20dB Bandwidth Measurement	Pass
15.247(a)(1)	. Dwell Time	Pass
15.247(a)(1)	. Number of Hopping Channels	Pass
15.247(b)	. Peak Output Power Measurement Data	Pass
15.247(d)	. Band Edges Measurement Data	Pass

3. Test Configuration of Equipment under Test

3.1 Description of the tested samples

EUT Name	:	Car alarm 2 way main unit
Model Number	:	AS975-2W
FCCID	:	H5OTR76
Receipt Date	:	07/23/2019
Input Voltage	::	12Vdc
Power From	:	☑Inside ☐Outside ☐Adaptor ☐Battery ☐AC Power Source ☑DC Power Source ☐Support Unit PC or NB
Operate Frequency	:	Refer to the channel list as described below (908.3 ~ 923.783 MHz)
Modulation Technique	:	FHSS
Number of Channels	:	25
Operating Mode	:	☐ Simplex ☑ Half Duplex
Antenna Type	:	Helical Antenna
Antenna gain		3.1 dBi

3.2 Carrier Frequency of Channels

Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	908.300	14	916.040
02	908.895	15	916.635
03	909.490	16	917.233
04	910.085	17	917.825
05	910.680	18	918.422
06	911.277	19	919.612
07	911.872	20	920.805
08	912.467	21	921.400
09	913.063	22	921.995
10	913.658	23	922.590
11	914.255	24	923.188
12	914.850	25	923.783
13	915.444	---	---

3.3 Test Mode and Test Software

a. During testing, the interface cables and equipment positions were varied according to ANSI C63.10.
b. The complete test system included EUT for RF test.
c. Test Software: N/A
d. New Battery was used for all testing and the worst radiated emission case from X,Y and Y axis evaluation was selected for testing.
e. The following test modes were performed for test:
   - FHSS: CH01: 908.3MHz, CH13: 915.444MHz, CH25: 923.783MHz

3.4 TEST Methodology & General Test Procedures

All testing as described bellowed were performed in accordance with ANSI C63.10:2013 and FCC CFR 47 Part 15 Subpart C.

Conducted Emissions

The EUT is placed on a wood table, which is at 0.8 m above ground plane acceding to clause 15.207 and requirements of ANSI C63.10:2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz are using CISPR Quasi-Peak / Average detectors.

Radiated Emissions

The EUT is a placed on a turn table, which is 0.8 m above ground plane. The turntable was rotated through 360 degrees to determine the position of maximum emission level. The EUT is placed at 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

1) Putting the EUT on the platform and turning on the EUT (on/off button on the bottom of the EUT).
2) Setting test channel described as “Channel setting and operating condition”, and testing channel by channel.
3) For the maximum output power measurement, we followed the method of measurement KDB558074 D01.
4) For the spurious emission test based on ANSI C63.10:2013, at the frequency where below

1GHz used quasi-peak detector mode; where above 1GHz used the peak and average detector mode. IF the peak value may be under average limit, the average mode will not be performed.

3.5 Measurement Uncertainty

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30 MHz	LINE/NEUTRAL	3.54 dB
Peak Output Power(conducted)	/	/	1.38 dB
Radiated Emission	Below 1GHz	Horizontal	2.81 dB
		Vertical	4.01 dB
	Above 1GHz	Horizontal	4.64 dB
		Vertical	5.16 dB

3.6 Description of the Support Equipments

Setup Diagram

See test photographs attached in appendix 1 for the actual connections between EUT and support equipment.

Support Equipment

OUTSIDE SUPPORT EQUIPMENT							
No.	Equipment	Model	Serial No.	FCC ID/ BSMI ID	Trade name	Data Cable	Power Cord
1.	GS Battery	GTH60S	N/A	N/A	PRIMACY	N/A	N/A
INSIDE SUPPORT EQUIPMENT							
No.	Equipment	Model	Serial No.	FCC ID/ BSMI ID	Trade name	Data Cable	Power Cord
2.	Button	N/A	N/A	N/A	N/A	Unshielded 1.2m	N/A

Note: All the above equipment /cable were placed in worse case position to maximize emission signals during emission test

Grounding: Grounding was in accordance with the manufacturer's requirement and conditions for the intended use.

4. Test and measurement equipment

4.1 calibration

The measuring equipment utilized to perform the tests documented in the report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2 equipment

The following list contains measurement equipment used for testing. The equipment conforms to the requirement of CISPR 16-1, ANSI C63.10 and. Other required standards.

Calibration of all test and measurement, including any accessories that may effect such calibration, is checked frequently to ensure the accuracy. Adjustments are made and correction factors are applied in accordance with the instructions contained in the respective.

TABLELIST OF TEST AND MEASUREMENT EQUIPMENT

Conducted emission				
Instrument	Manufacturer	Model No.	Serial No.	Cali Due Date
EMI Test Receiver	R&S	ESHS30	838550/003	2020/08/12
Spectrum Analyzer	R&S	FSP7	830180/009	2020/08/16
Two-Line V-Network	EMCO	3810/2NM	9801-1849	2020/08/12
Test Cable	EMCI	EMCCFD300-BM-BM-3000	180618	2020/08/12
Radiated emission Below 1GHz				
Instrument	Manufacturer	Model No.	Serial No.	Cali Due Date
Bilog antenna	Chase	CBL6111A	1546	2020/07/23
LOOP Antenna	EMCO	6507	146361	2019/12/13
Pre-amplifier	Anritsu	MH648A	M15180	2020/08/12
Cable	EMCI	EMCCFD400-NM-NM-7000	180617	2020/08/12
Cable	Marvelous Microwave	260260.F141	600A	2020/08/12
Receiver	R&S	ESCI3	101131	2019/08/23
Radiated emission Above 1GHz				
Instrument	Manufacturer	Model No.	Serial No.	Cali Due Date
Horn antenna	ETC	MCTD 1209	DRH15N02009	2019/12/13
Horn antenna	com-power	AH-826	81000	2020/03/29
Horn antenna	Schwarzbeck	BBHA9170	#687	2020/06/11
Pre-amplifier	EMCI	EMC051845	980108	2019/12/06
Pre-amplifier	MITEQ	JS4-18002600-30-5A	808329	2020/08/09
Pre-amplifier	EMC INSTRUMENT	EMC264035SE	980288	2020/04/18
RF CABLE	SUCOFLEX	104PEA	27348/4PEA	2020/06/10
RF CABLE	AGILENT	EMC102-KM-KM-3000	160101	2020/08/16
RF CABLE	AGILENT	EMC102-KM-KM-600	160102	2020/08/16
Spectrum Analyzer	R&S	FSP7	830180/006	2020/04/16
Spectrum Analyzer	ADVANTEST	R3182	150900201	2020/01/17
Measurement Software	AUDIX	e3	V9.160707	N/A

***CALIBRATION INTERVAL OF INSTRUMENTS LISTED ABOVE IS ONE YEAR**

5. Antenna Requirements

5.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

5.2 Antenna Construction and Directional Gain

Antenna Type: Helical Antenna
Antenna Gain: 3.1 dBi

6. Test of Conducted Emission

6.1 Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.10-2013 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

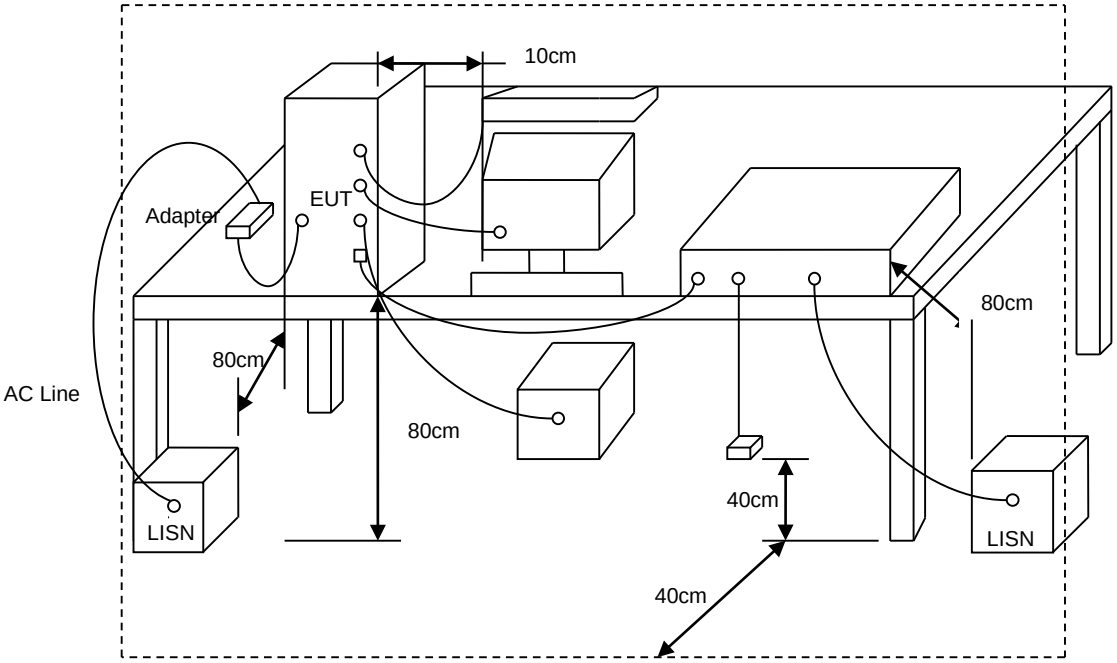
Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

*Decreases with the logarithm of the frequency.

6.2 Test Procedures

a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
c. All the support units are connecting to the other LISN.
d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
f. Both sides of AC line were checked for maximum conducted interference.
g. The frequency range from 150 kHz to 30 MHz was searched.
h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

6.3 Typical Test Setup



6.4 Test Result and Data

This test is not applicable.

7. Test of Radiated Emission

7.1 Test Limit

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. If the transmitter measurement is based on the maximum conducted output power, the attenuation required under this paragraph shall be 30dB instead of 20dB. In addition, radiated emissions which fall in section 15.205(a) the restricted bands must also comply with the radiated emission limit specified in section 15.209(a).

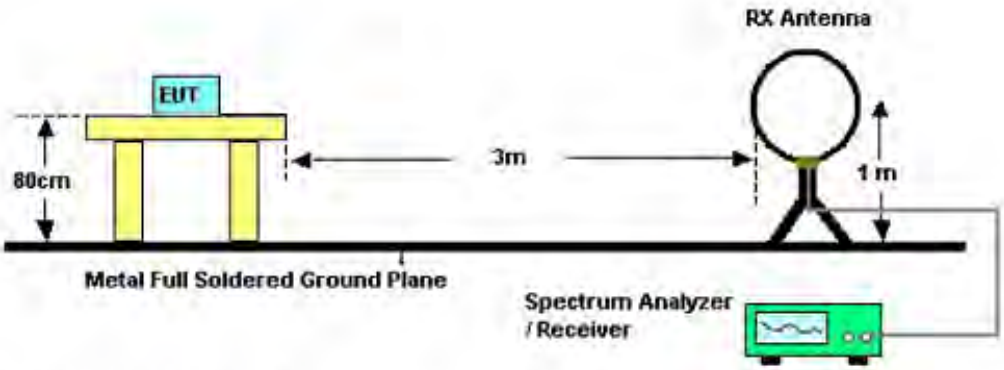
Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

7.2 Test Procedures

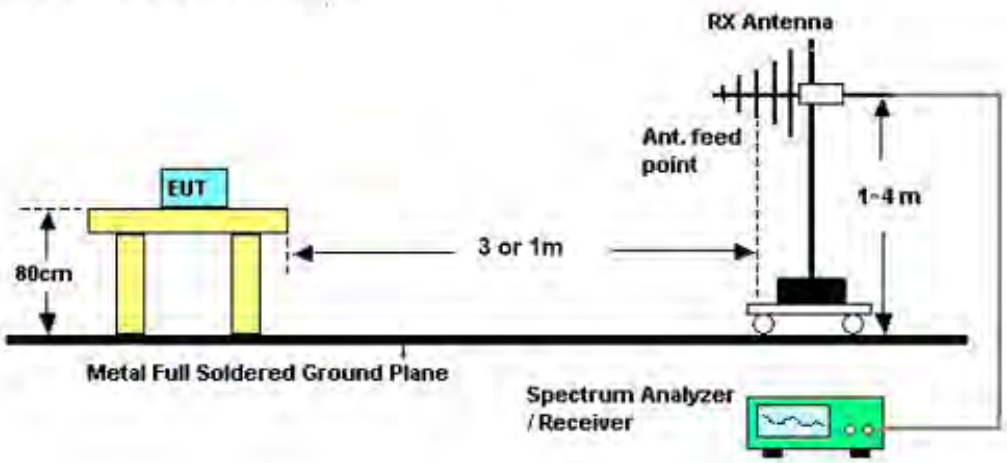
a. The EUT was placed on a rotatable table top 0.8 meter above ground.
b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
c. The table was rotated 360 degrees to determine the position of the highest radiation.
d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
i. “Cone of radiation” has been considered to be 3dB bandwidth of the measurement antenna.

7.3 Typical Test Setup

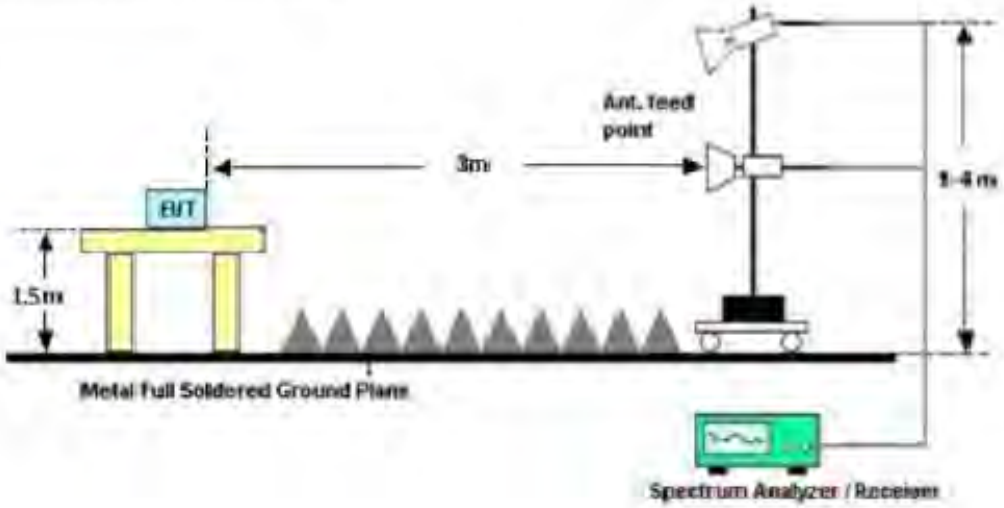
For radiated emissions below 30MHz



For radiated emissions above 30MHz



For radiated emissions above **1GHz**

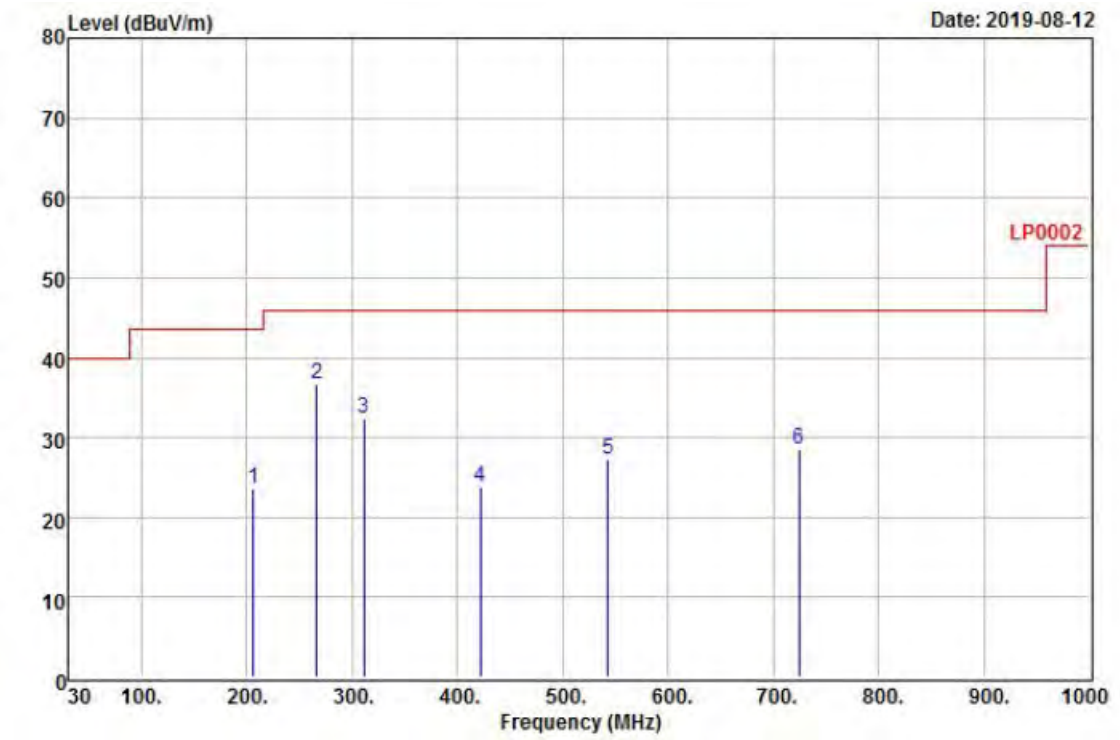


7.4 Test Result and Data (9kHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

7.5 Test Result and Data (30MHz ~ 1GHz, worst emissions found)

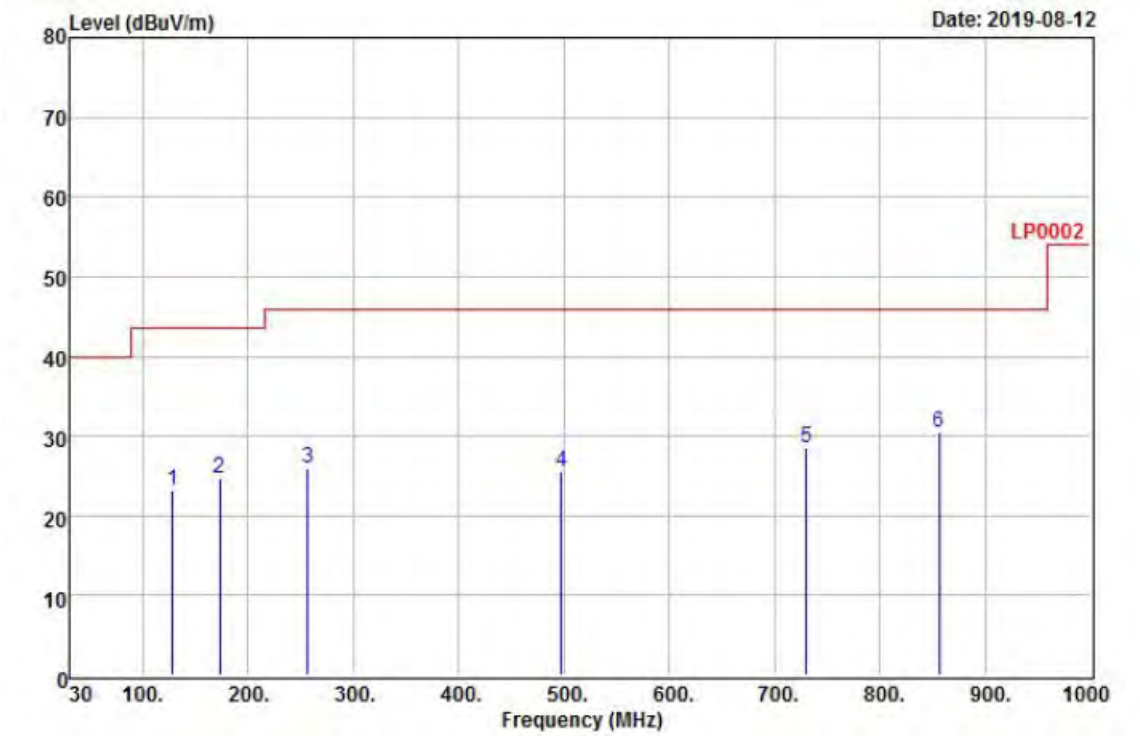
Power	:	DC 12V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	TX CH25 923.783MHZ	Temperature	:	31 ˚C
Memo	:		Humidity	:	70 %



Remarks : 1.Result=Read Value+Factor
: 2.Factor=Antenna Factor-Cable loss-
: Amplifier Factor

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	206.12	40.59	-17.05	23.54	43.50	-19.96	QP
2 @	266.78	50.25	-13.57	36.68	46.00	-9.32	QP
3	311.52	44.45	-12.15	32.30	46.00	-13.70	QP
4	421.42	33.22	-9.34	23.88	46.00	-22.12	QP
5	542.76	34.96	-7.80	27.16	46.00	-18.84	QP
6	724.86	34.03	-5.51	28.52	46.00	-17.48	QP

Power	:	DC 12V	Pol/Phase	:	VERTICAL
Test Mode 1	:	TX CH25 923.783MHZ	Temperature	:	31 ˚C
Memo	:		Humidity	:	70 %

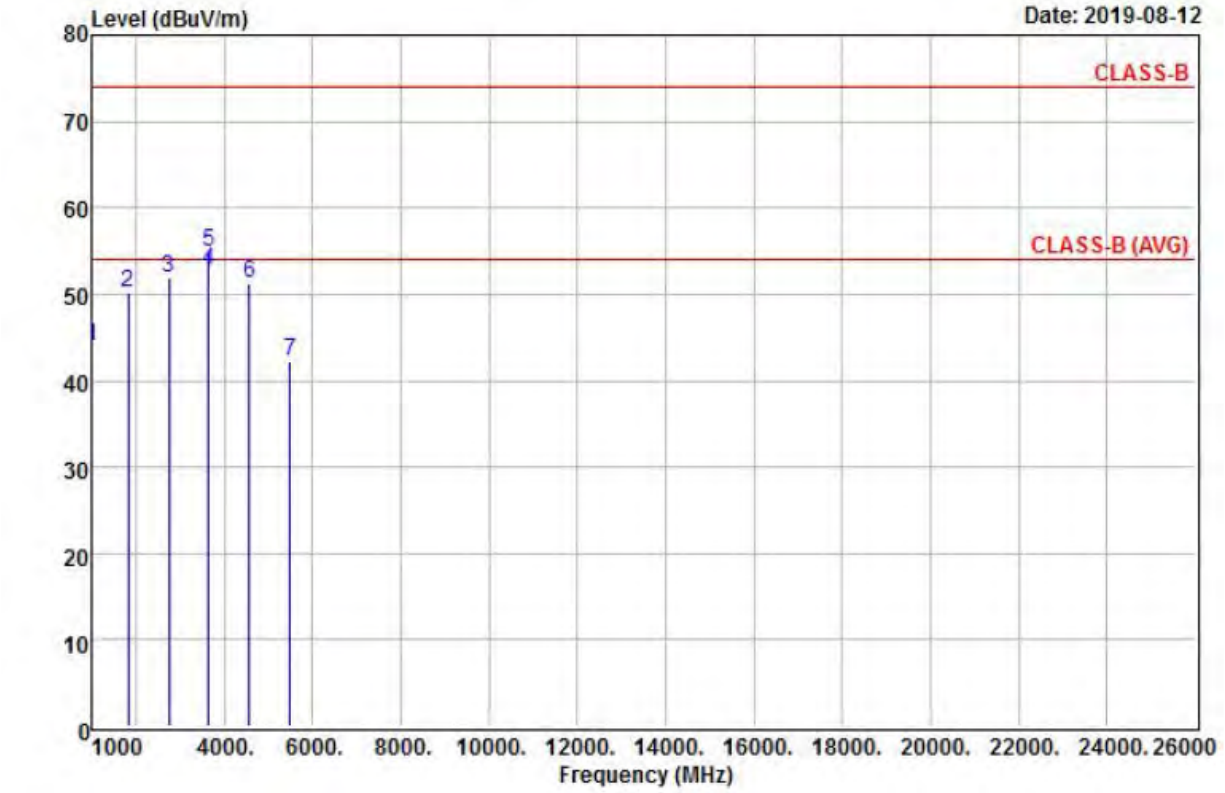


Remarks : 1.Result=Read Value+Factor
: 2.Factor=Antenna Factor-Cable loss-
: Amplifier Factor

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	127.81	37.10	-14.03	23.07	43.50	-20.43	QP
2	173.21	41.99	-17.43	24.56	43.50	-18.94	QP
3	256.64	40.00	-14.02	25.98	46.00	-20.02	QP
4	497.33	33.87	-8.31	25.56	46.00	-20.44	QP
5	730.41	33.81	-5.37	28.44	46.00	-17.56	QP
6 @	856.41	33.02	-2.58	30.44	46.00	-15.56	QP

7.6 Test Result and Data (Above 1GHz, worst emissions found)

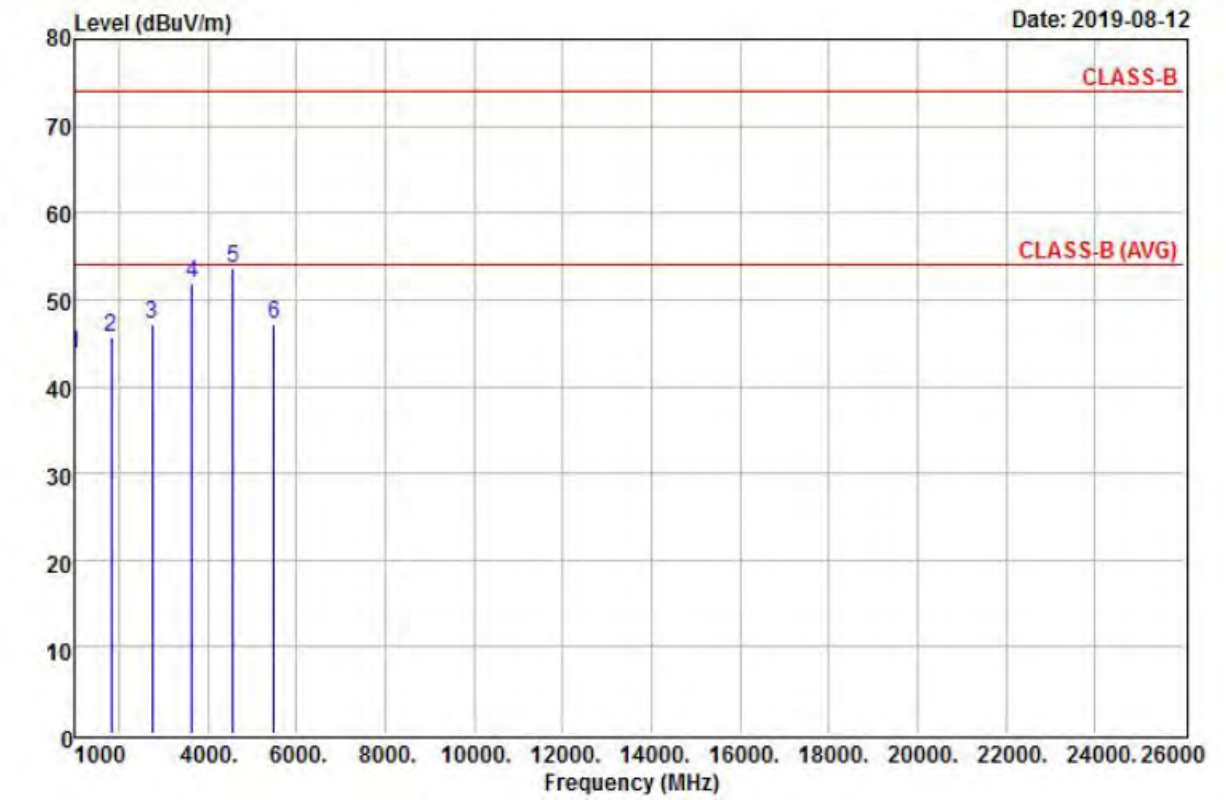
Power	:	DC 12V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	TX CH25 923.783MHZ	Temperature	:	31 ˚C
Memo	:		Humidity	:	70 %



Remarks : 1.Result=Read Value+Factor
: 2.Factor=Antenna Factor-Cable loss-
: Amplifier Factor

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	1010.00	64.12	-20.12	44.00	74.00	-30.00	Peak
2	1830.00	66.89	-16.62	50.27	74.00	-23.73	Peak
3	2750.00	63.22	-11.33	51.89	74.00	-22.11	Peak
4 @	3660.00	62.43	-9.62	52.81	54.00	-1.19	Average
5	3660.00	64.43	-9.62	54.81	74.00	-19.19	Peak
6	4580.00	57.81	-6.53	51.28	74.00	-22.72	Peak
7	5500.00	46.65	-4.34	42.31	74.00	-31.69	Peak

Power	:	DC 12V	Pol/Phase	:	VERTICAL
Test Mode 1	:	TX CH25 923.783MHZ	Temperature	:	31 ˚C
Memo	:		Humidity	:	70 %



Remarks : 1.Result=Read Value+Factor
: 2.Factor=Antenna Factor-Cable loss-
: Amplifier Factor

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	1010.00	63.84	-20.12	43.72	74.00	-30.28	Peak
2	1830.00	62.20	-16.62	45.58	74.00	-28.42	Peak
3	2750.00	58.49	-11.33	47.16	74.00	-26.84	Peak
4	3660.00	61.55	-9.62	51.93	74.00	-22.07	Peak
5 @	4580.00	60.15	-6.53	53.62	74.00	-20.38	Peak
6	5500.00	51.61	-4.34	47.27	74.00	-26.73	Peak

Note:

1. Emission level = Reading level + Correction factor
2. Correction factor : Antenna factor, Cable loss, Pre-Amp, etc.
3. Measurements above 1000 MHz, Peak detector setting:
   1 MHz RBW with 1 MHz VBW.
4. Measurements above 1000 MHz, Average detector setting:
   1 MHz RBW with 10Hz VBW.
5. Peak detector measurement data will represent the worst case results.
6. Where limits are specified for both average and peak detector functions, if the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.
7. The other emission levels were 20dB below the limit.

8. 20dB Bandwidth Measurement Data

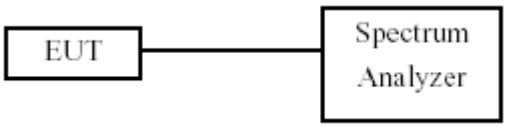
8.1 Test Limit

The minimum of 20dB Bandwidth Measurement is 0.5 MHz.

8.2 Test Procedures

a. The transmitter output was connected to the spectrum analyzer.
b. Set RBW of spectrum analyzer to 100k of the emission bandwidth and VBW ≥ 3x RBW.
c. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.
d. The 20dB Bandwidth was measured and recorded.

8.3 Test Setup Layout



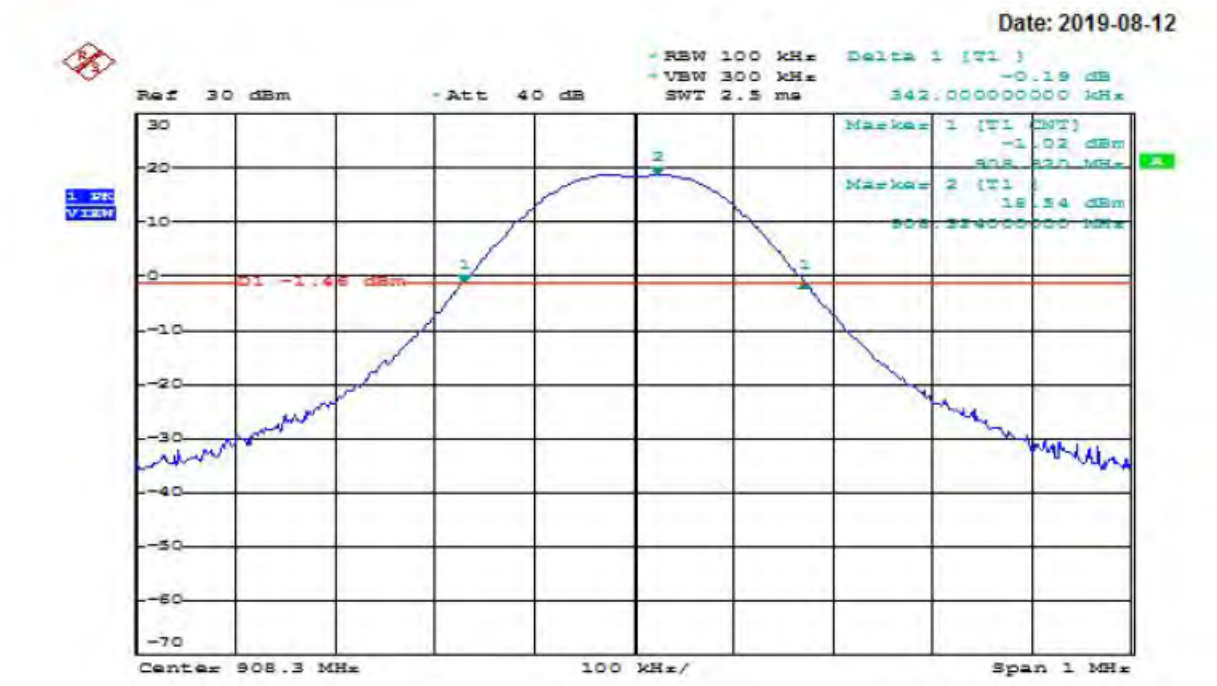
8.4 Test Result and Data

Test Date: 2019.08.12 Temperature: 23℃

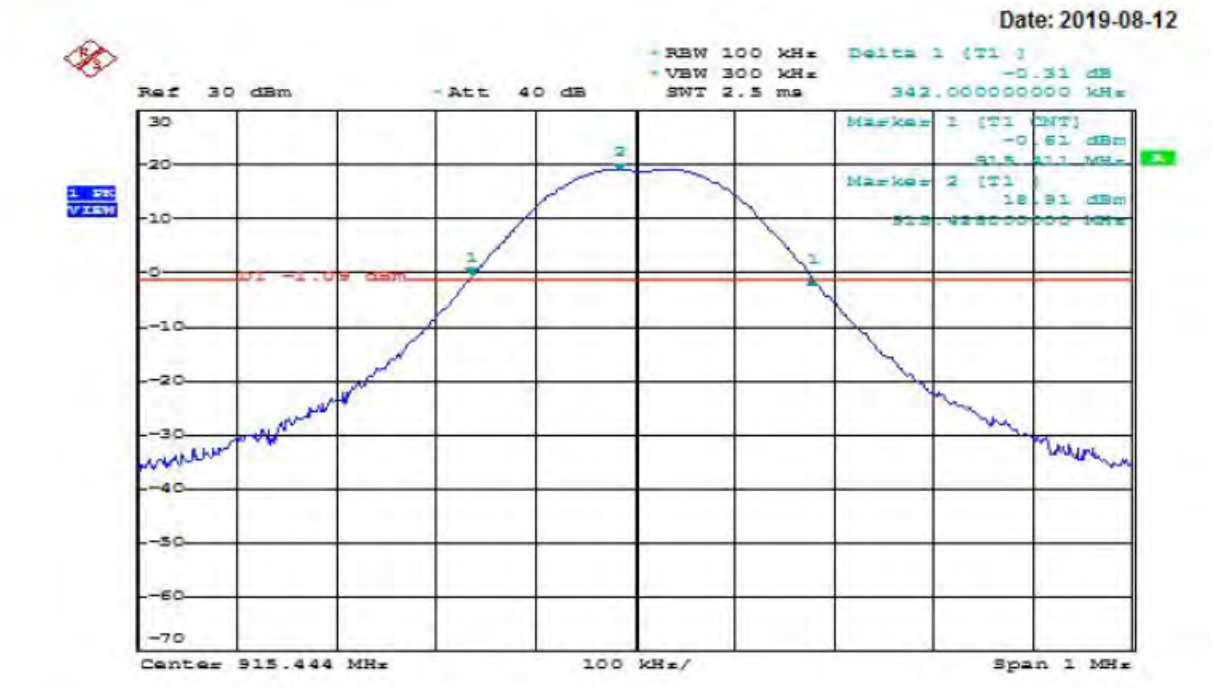
Atmospheric pressure: 1006 hPa Humidity: 51%

Modulation Standard	Channel	Frequency (MHz)	20dB Bandwidth (kHz)
FHSS	1	908.3	342
	13	915.444	342
	25	923.783	338

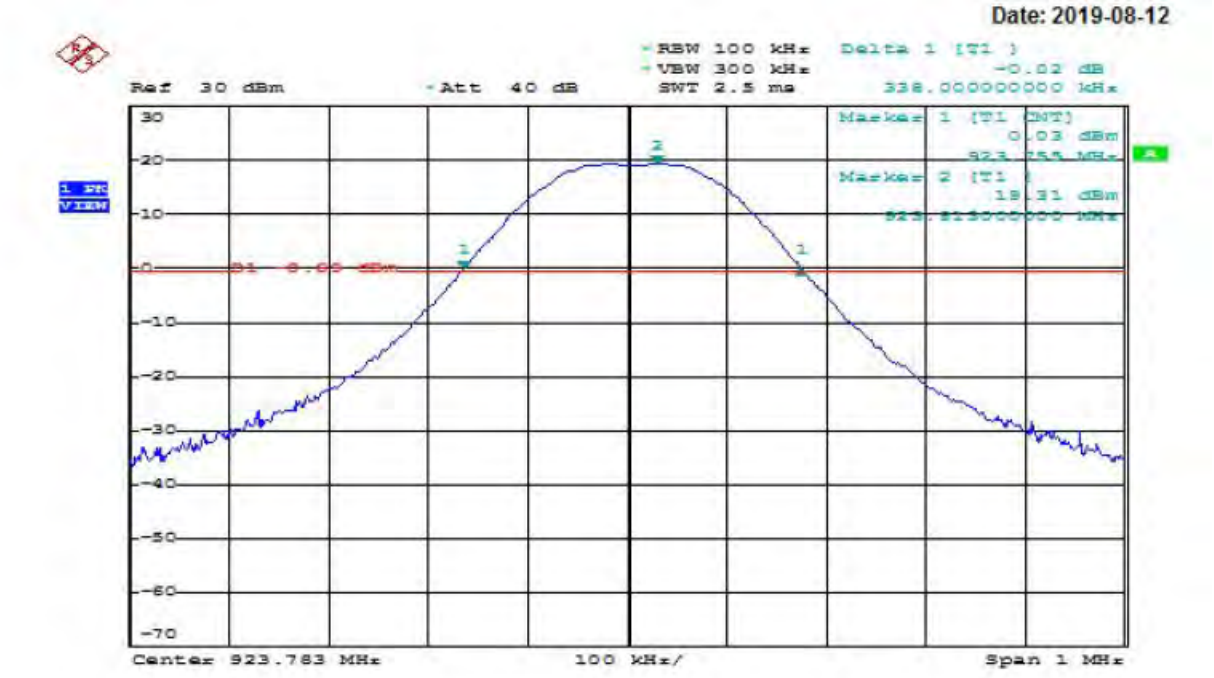
Channel: 1



Channel: 13



Channel: 25



9. Maximum Peak and Output Power

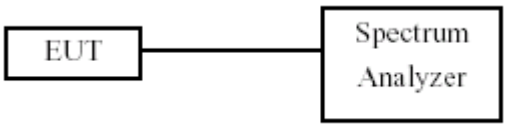
9.1 Test Limit

The Maximum Peak Output Power Measurement is 24dBm.

9.2 Test Procedures

a. Peak power is measured using the wideband power meter.
b. Power is integrated over a bandwidth greater than or equal to the 99% bandwidth.
c. The Peak Output Power was measured and recorded.

9.3 Test Setup Layout



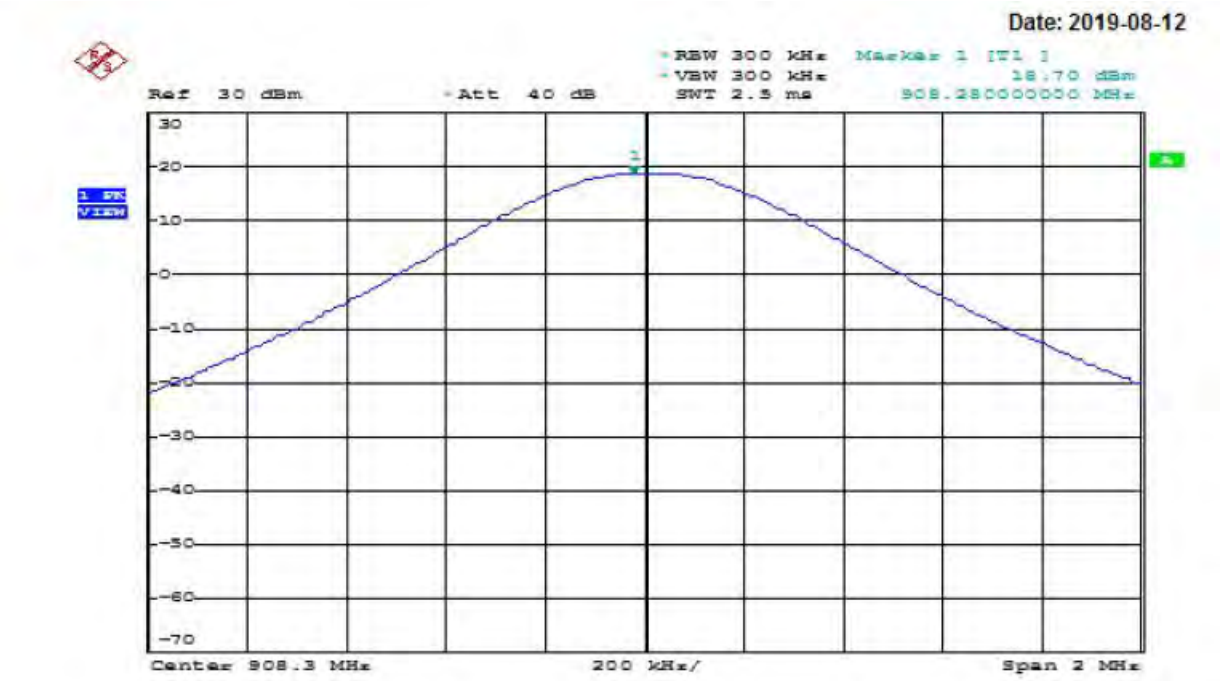
9.4 Test Result and Data

Test Date: 2019.08.12 Temperature: 23℃

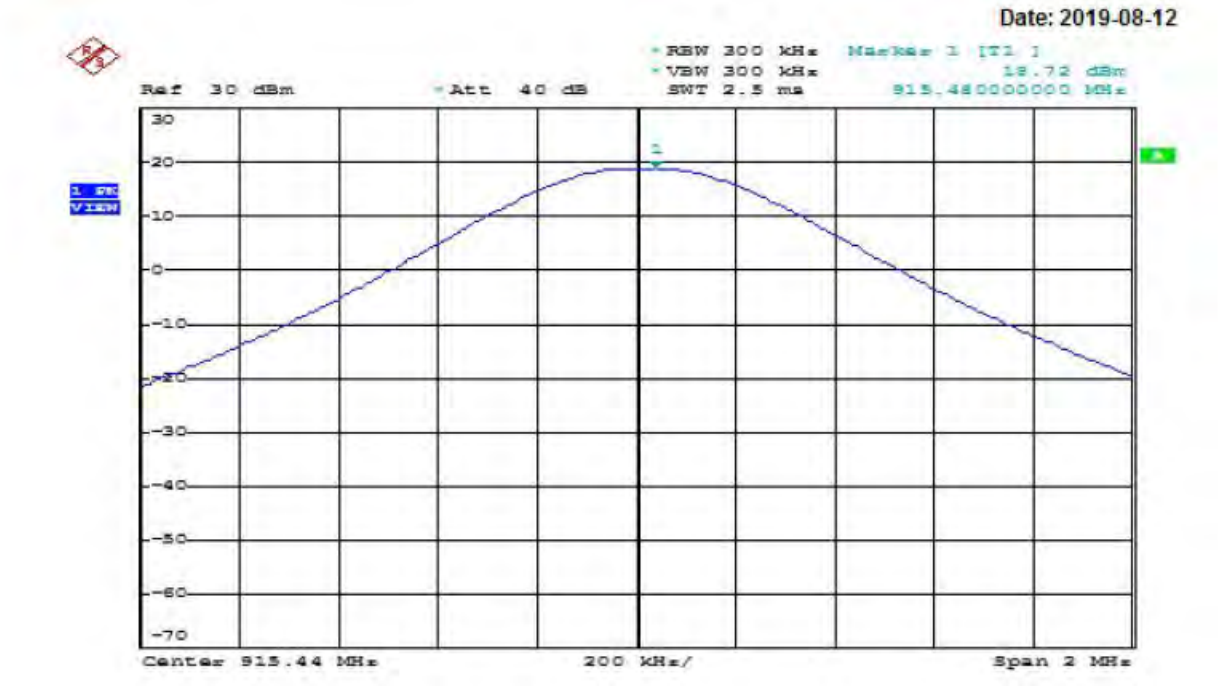
Atmospheric pressure: 1006 hPa Humidity: 51%

Modulation Standard	Channel	Frequency (MHz)	Peak Power Output (dBm)
FHSS	1	908.3	18.70
	13	915.444	18.72
	25	923.783	19.15

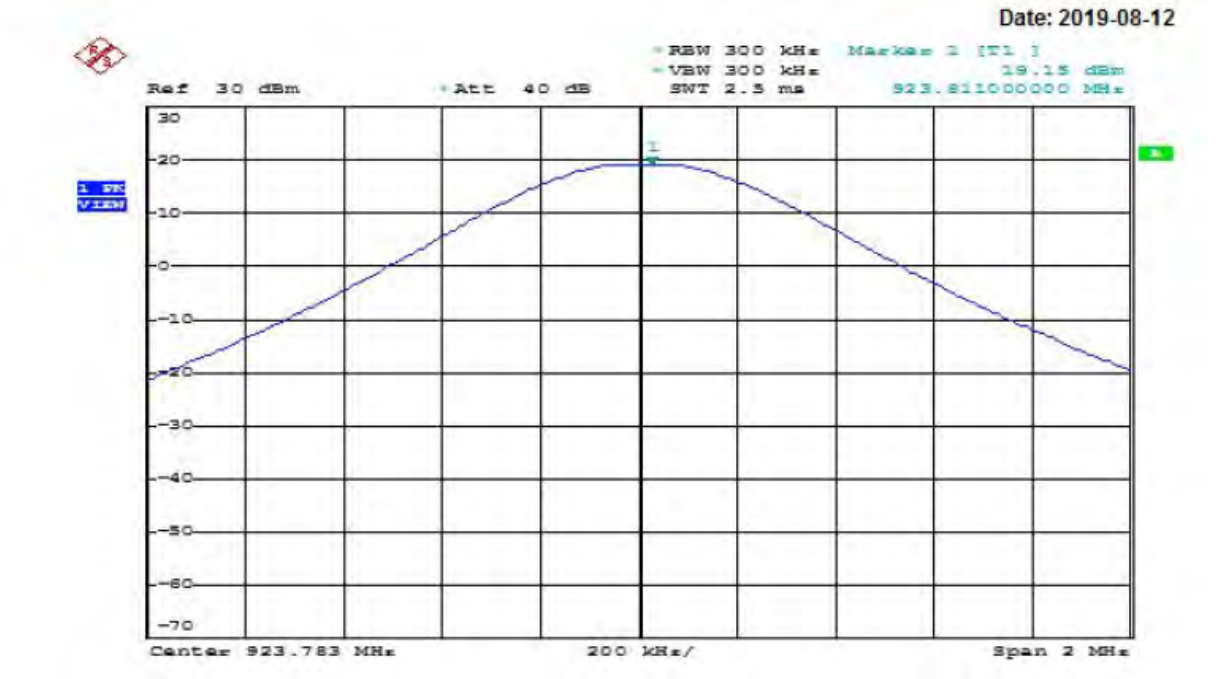
Channel: 1



Channel: 13



Channel: 25



10. Channel Carrier Frequencies Separation

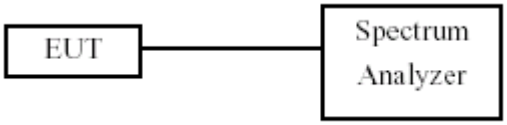
10.1 Test Limit

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

10.2 Test Procedures

a. The transmitter output was connected to the spectrum analyzer.
b. Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz.
c. By using the MaxHold function record the separation of two adjacent channels.
d. Measure the frequency difference of these two adjacent channels.

10.3 Test Setup Layout



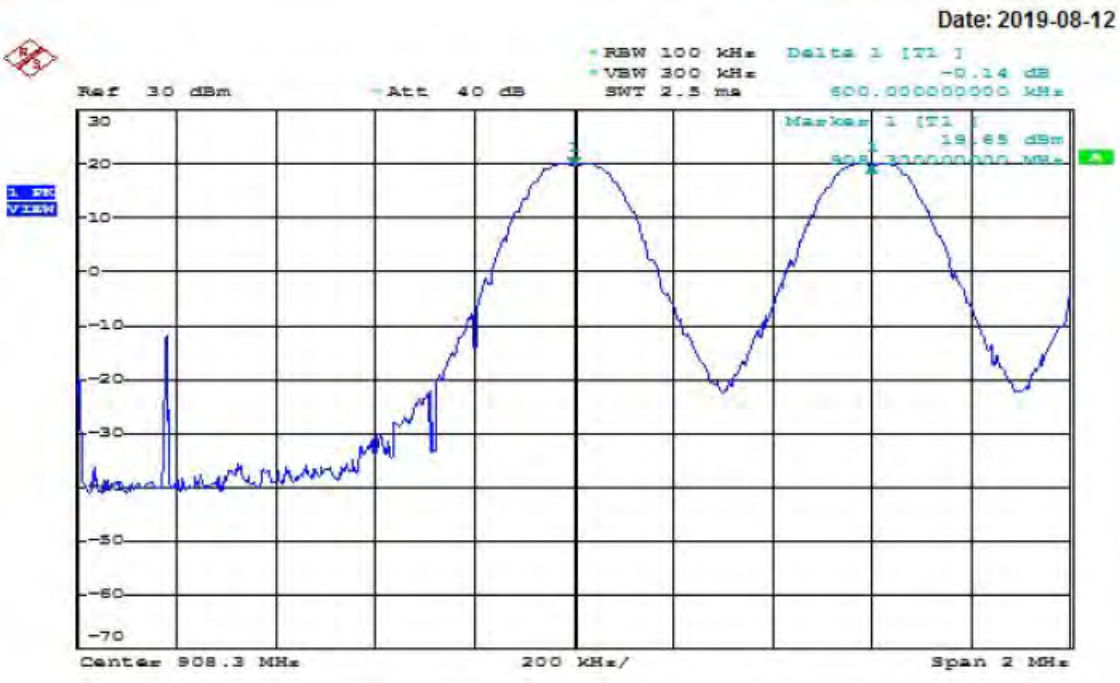
10.4 Test Result and Data

Test Date: 2019.08.12 Temperature: 23 °C

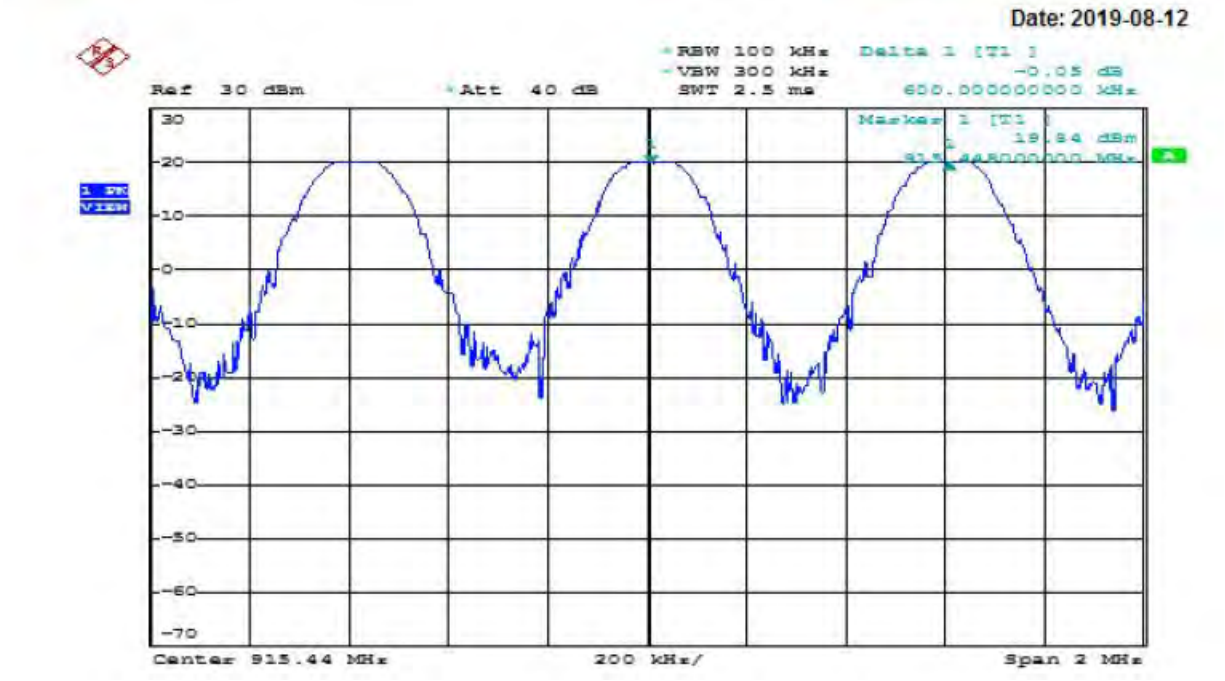
Atmospheric pressure: 1006 hPa Humidity: 51 %

Modulation Type	Channel	Frequency (MHz)	Frequency Sepration (kHz)
FHSS	1	908.3	600
	13	915.444	600
	25	923.783	600

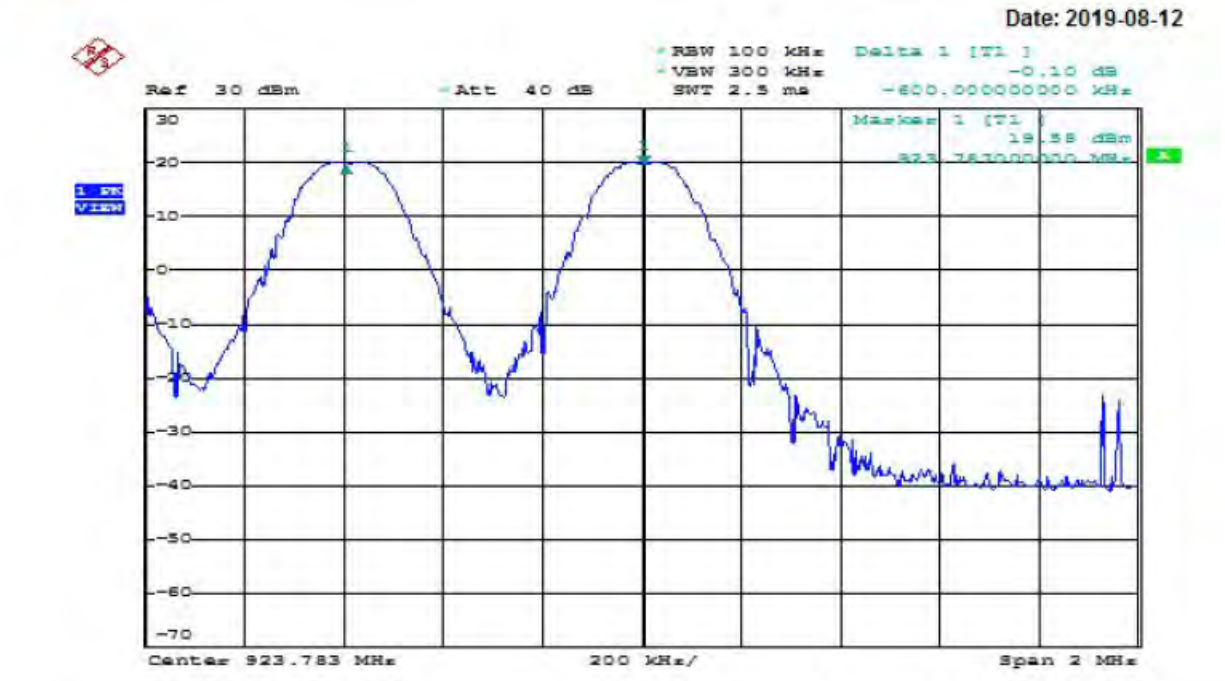
Channel: 1



Channel: 13



Channel: 25



11. Number of Hopping Channels

11.1 Test Limit

Frequency Range MHz	Limit	
	20dB Bandwidth	Number of Channels
902-928	Bandwidth < 250 kHz	≥ 50
	Bandwidth ≥ 250 kHz	≥ 25
2400-2483.5	Not defined	15
5725-5850	1 MHz	75

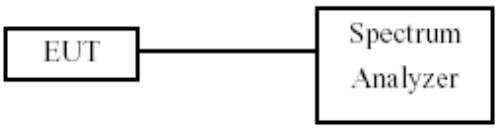
11.2 Test Procedures

a. The transmitter output was connected to the spectrum analyzer.

b. 2. Set RBW of spectrum analyzer to 300 kHz and VBW to 300 kHz.

c. 3. Set the MaxHold function, and then keep the EUT in hopping mode. Record all the signals from each channel until each one has been record.

11.3 Test Setup Layout



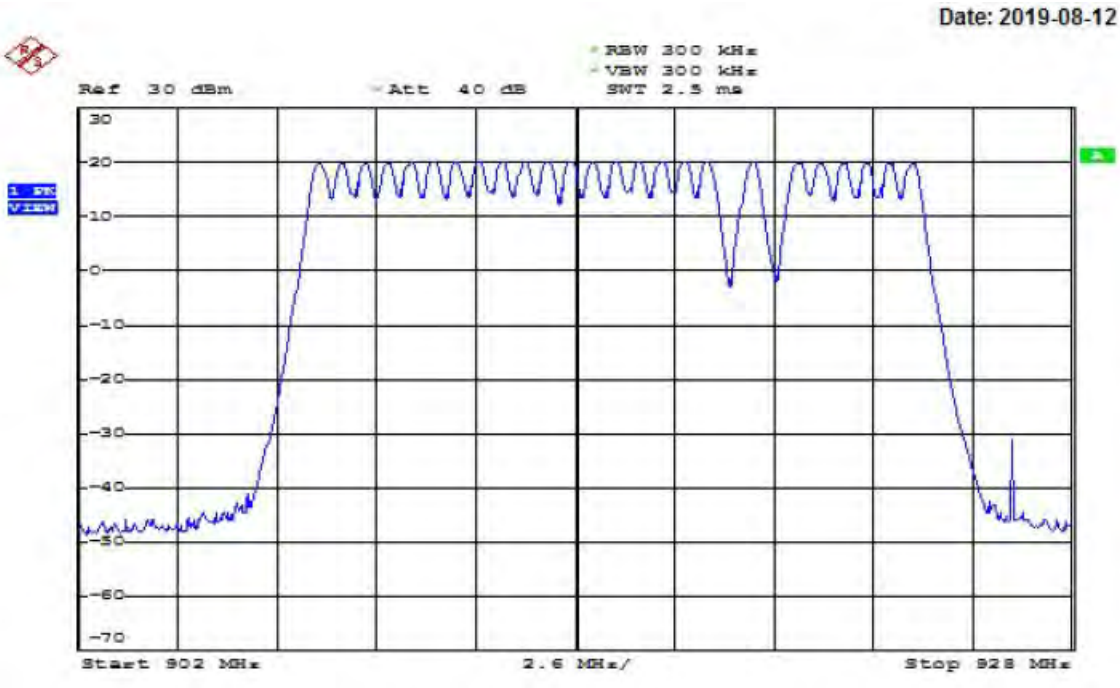
11.4 Test Result and Data

Test Date: 2019.08.12 Temperature: 23 °C

Atmospheric pressure: 1006 hPa Humidity: 51 %

Modulation Type	Hopping Channels
FHSS	25

Modulation Standard: FHSS



12. Dwell Time

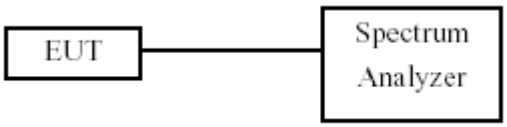
12.1 Test Limit

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period.

12.2 Test Procedures

1. The transmitter output was connected to the spectrum analyzer.
2. Adjust the center frequency to measure frequency, then set zero span mode.
2. Set RBW of spectrum analyzer to 100 kHz and VBW to 100 kHz.
4. Measure the time duration of one transmission on the measured frequency.

12.3 Test Setup Layout



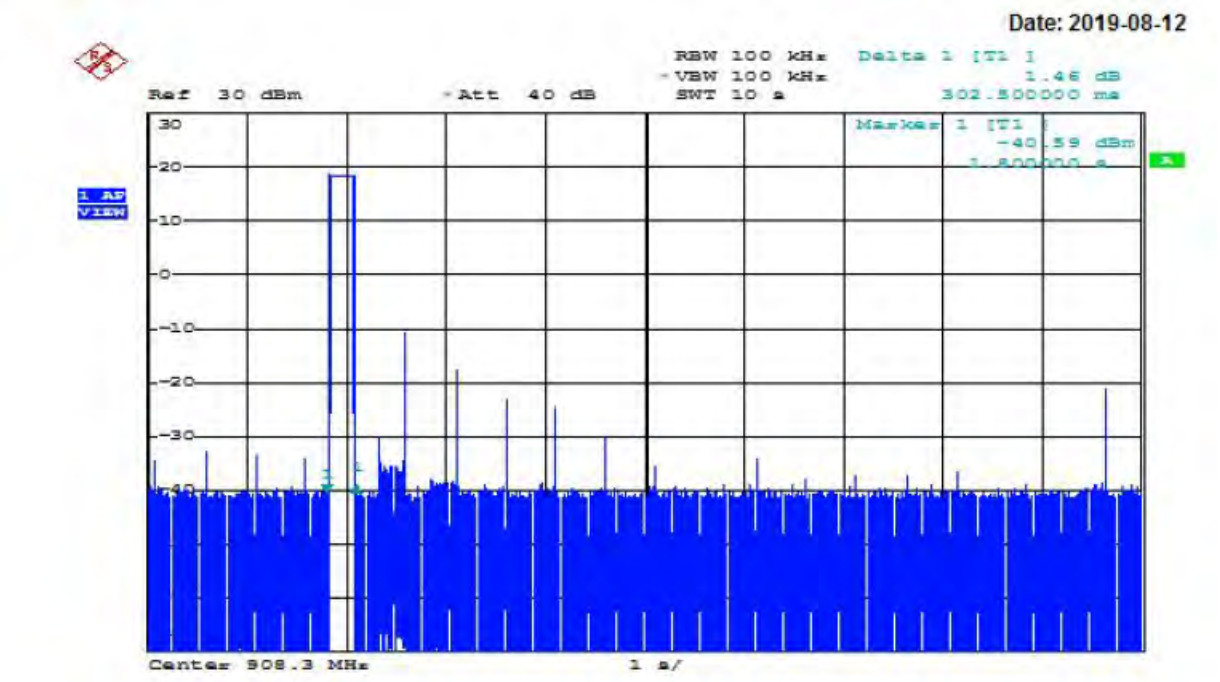
12.4 Test Result and Data

Test Date: 2019.08.12 Temperature: 23 °C

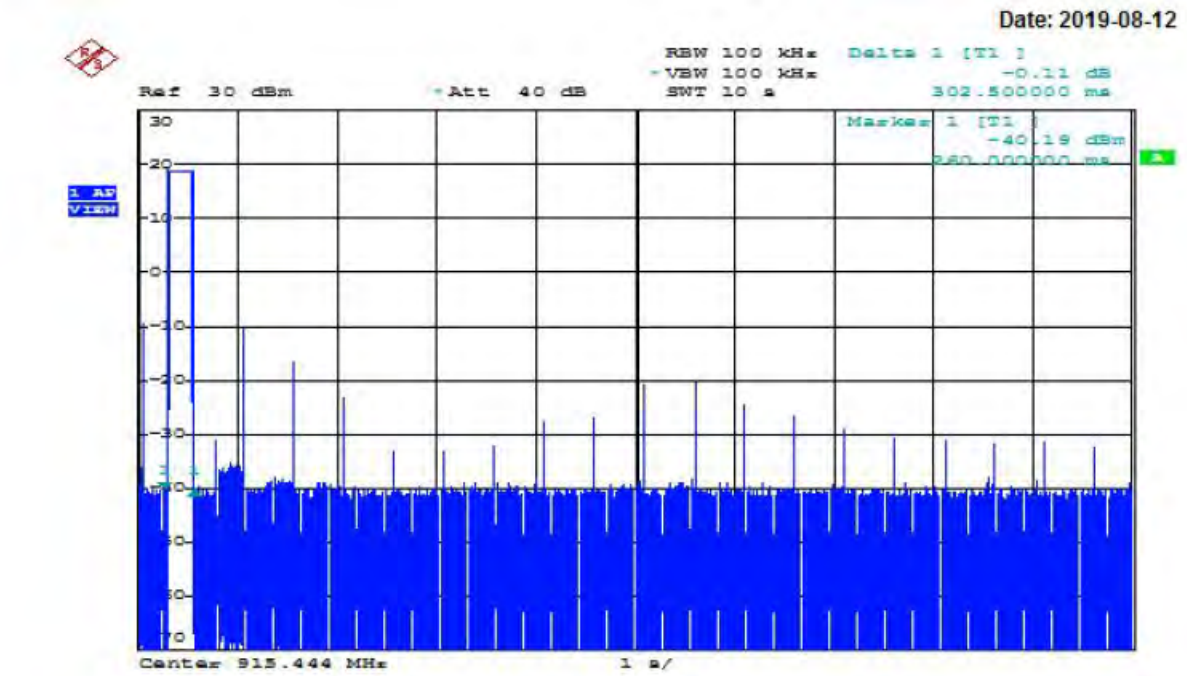
Atmospheric pressure: 1006 hPa Humidity: 51 %

Modulation Type	Channel	Frequency (MHz)	Dwell Time (ms)
FHSS	1	908.3	302.5
	13	915.444	302.5
	25	923.783	302.5

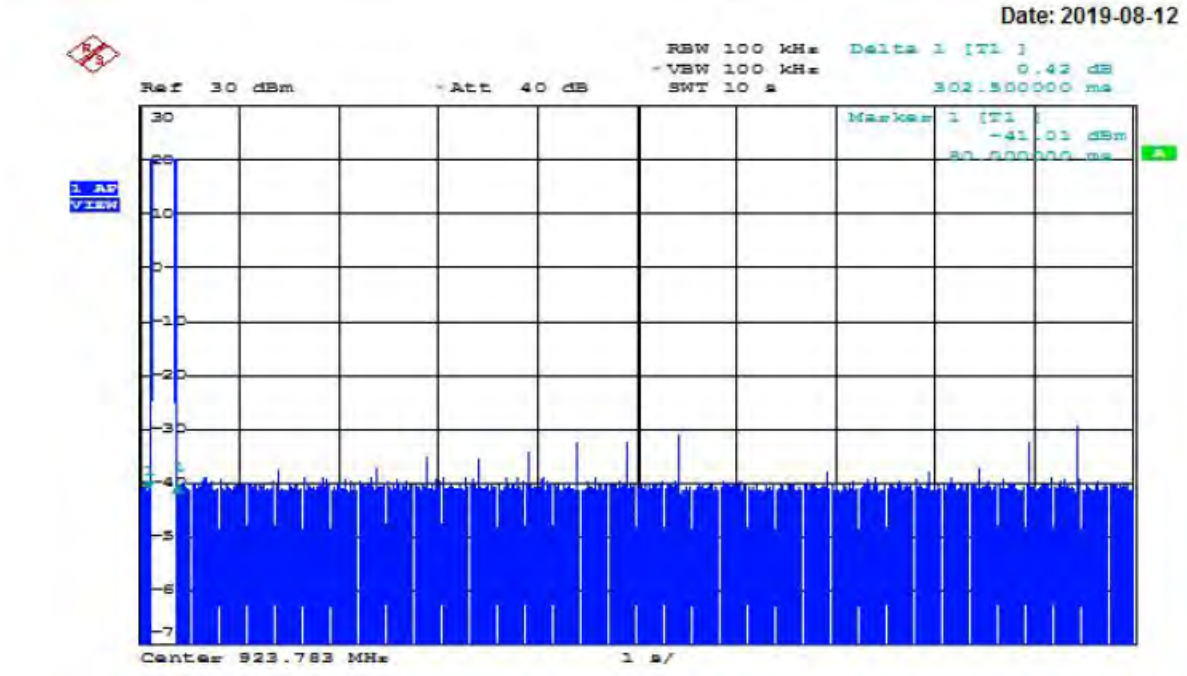
Channel: 1



Channel: 13



Channel: 25



13. Band Edges Measurement

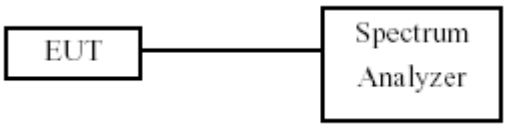
13.1 Test Limit

Below –20dB of the highest emission level of operating band (In 100 kHz Resolution Bandwidth)

13.2 Test Procedure

a. The transmitter output was connected to the spectrum analyzer via a low lose cable.
b. Set RBW of spectrum analyzer to 300 kHz and VBW of spectrum analyzer to 300 KHz with convenient frequency span including 100 kHz bandwidth from band edge.
c. Peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20dB relative to the maximum measured in-band peak PSD level.
d. The band edges was measured and recorded.

13.3 Test Setup Layout



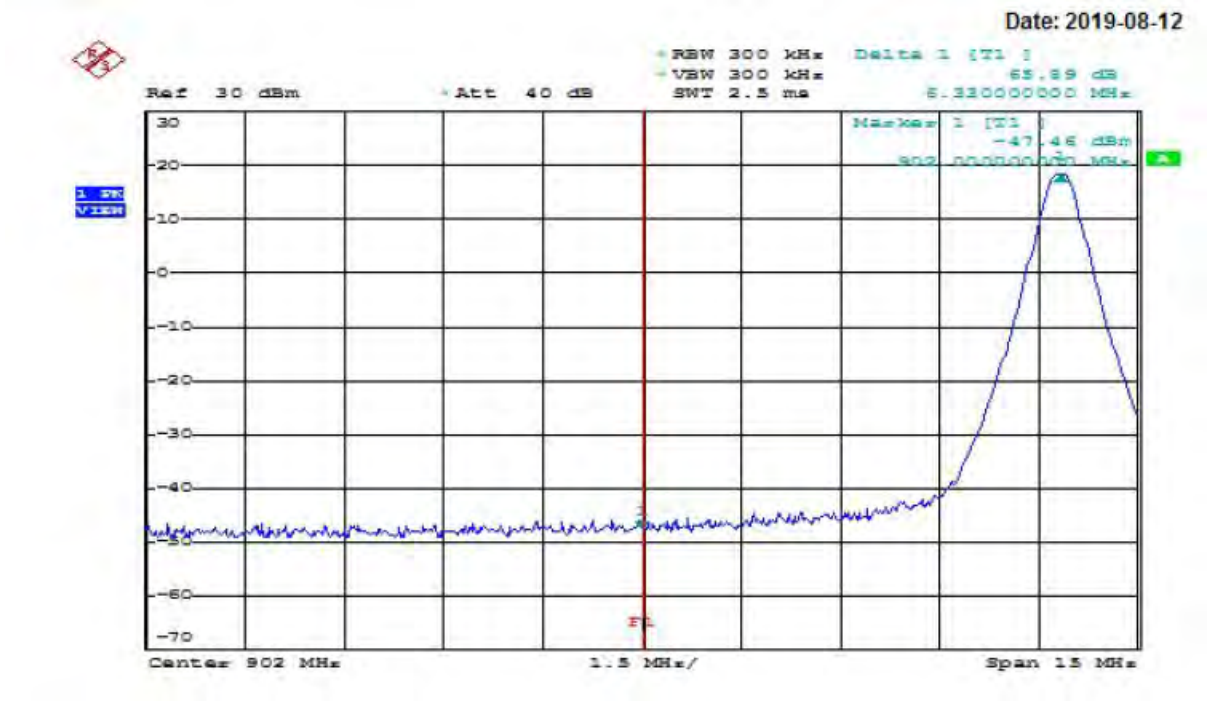
13.4 Test Result and Data

Test Date: 2019.08.12 Temperature: 23℃

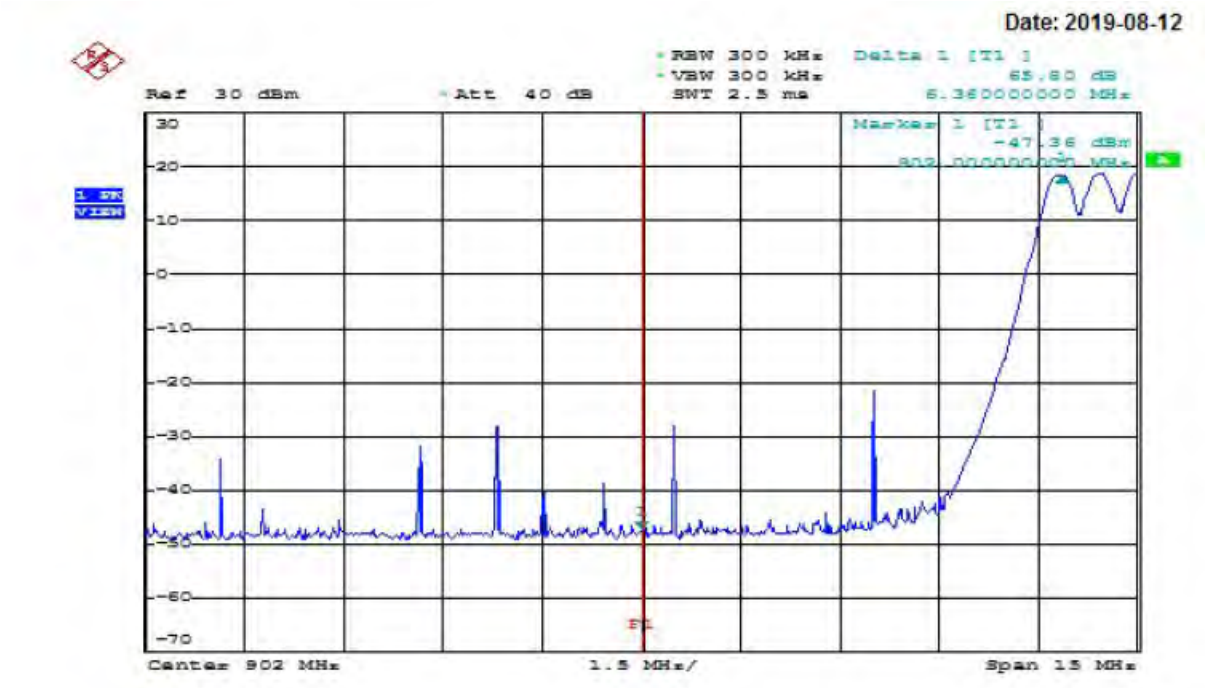
Atmospheric pressure: 1006 pha Humidity: 51%

Modulation Standard	Mode	Frequency (MHz)	maximum value (dBm)
FHSS	Ch 1	908.3	-47.46
	Hopping	908.3	-47.36
	Ch 25	923.783	-45.14
	Hopping	923.783	-47.49

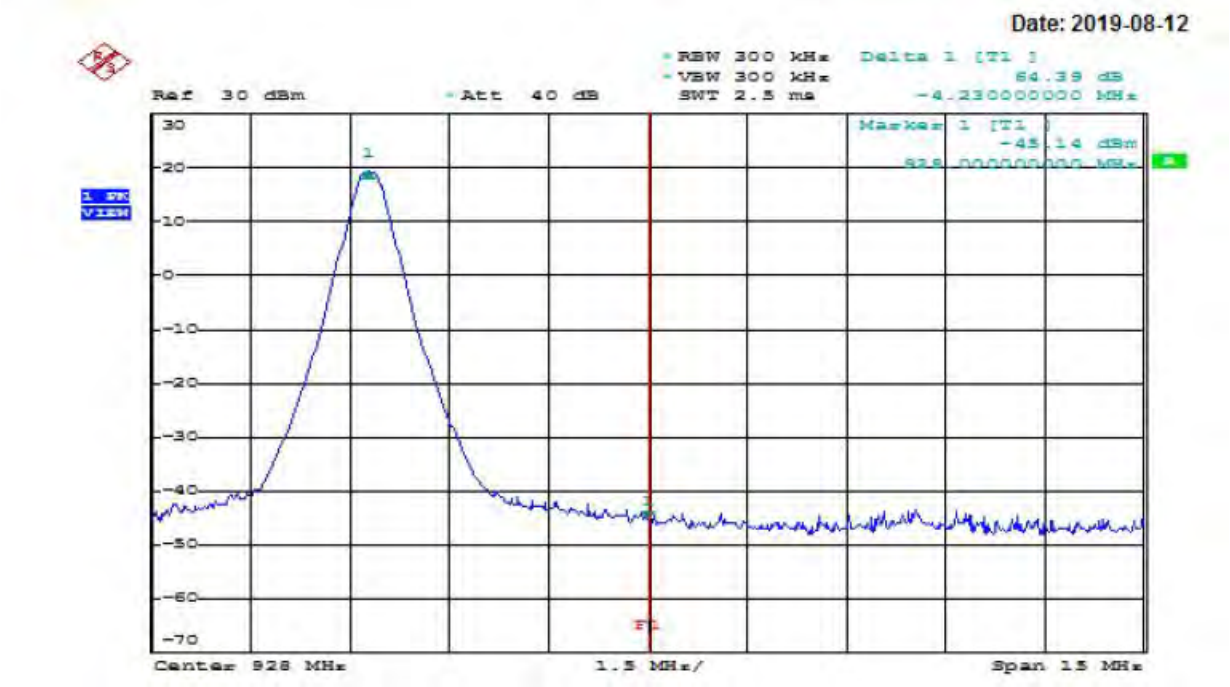
Channel: 1



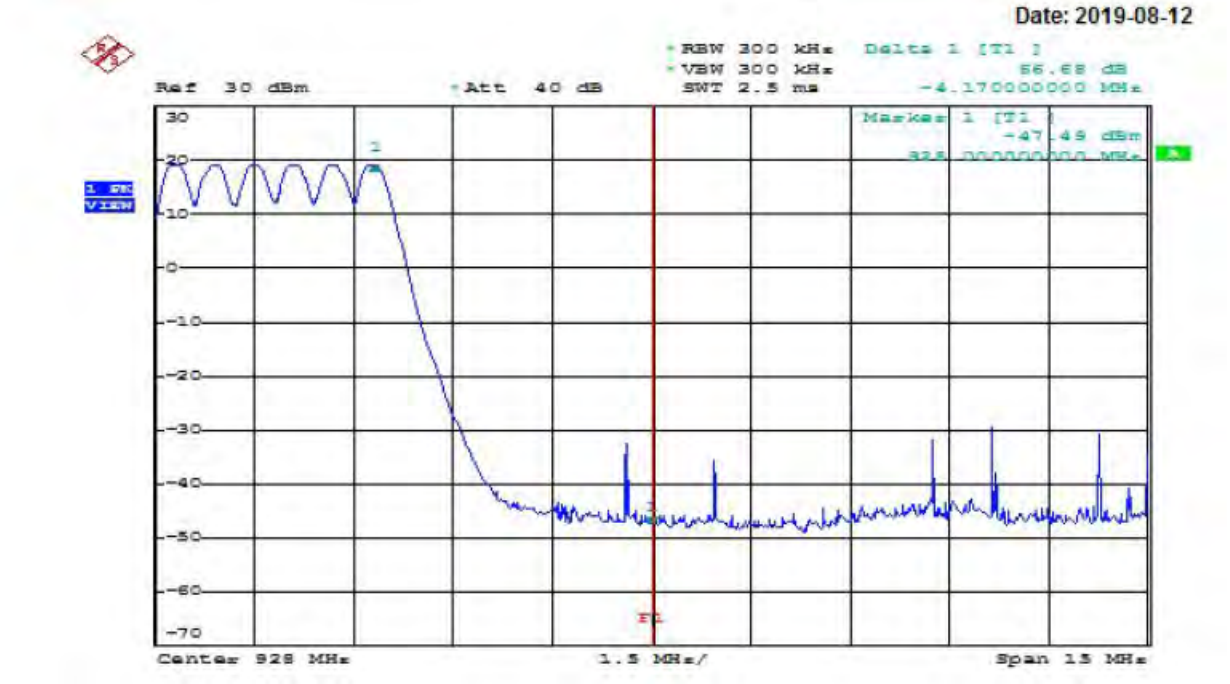
Hopping:



Channel: 25



Hopping



13.5 Restrict Band Emission Measurement Data

Power	:	DC 12V	Test Date	:	2019/08/16
Temperature	:	28 ˚C	Humidity	:	50 %

Channel 1							Fundamental Frequency: 908.3 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m) Peak	Margin (dB)
897.180	H	26.16	0.38	26.54	Peak	46	-19.46
899.120	V	25.98	0.46	26.44	Peak	46	-19.56
Channel 25							Fundamental Frequency: 923.783 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m) Peak	Margin (dB)
930.160	H	26.44	1.75	28.19	Peak	46	-17.81
932.100	V	27.20	1.81	29.01	Peak	46	-16.99

Note:

1. Emission level = Reading level + Correction factor
2. Correction factor : Antenna factor, Cable loss, Pre-Amp, etc.
3. Measurements above 1000 MHz, Peak detector setting:
   1 MHz RBW with 1 MHz VBW.
4. Measurements above 1000 MHz, Average detector setting:
   1 MHz RBW with 10Hz VBW.
5. Peak detector measurement data will represent the worst case results.
6. Where limits are specified for both average and peak detector functions, if the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.
7. The other emission levels were 20dB below the limit.

14. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.150
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.51975 – 12.52025	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
12.57675 – 12.57725			
13.36000 – 13.41000			

**: Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

14.1 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device:
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.