RADIO TEST REPORT

Report No.:STS2103068W04

Issued for

Chengdu Just Do It Information and Technology Co., Ltd.

Rm 604&605, Unit 1, Building 2, No. 1, Section 1, Huafu Avenue, Huayang Street, Tianfu New District, Chengdu, China.

Product Name:	Bobcat IoT hotspot
Brand Name:	BOBCAT
Model Name:	Bobcat Miner 300
Series Model:	N/A
FCC ID:	2AZCK-MINER300
Test Standard:	FCC Part 15.247

Shenzhen STS Test Services Co., Ltd.
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TEST RESULT CERTIFICATION

Applicant's Name.....:	Chengdu Just Do It Information and Technology Co., Ltd.
Address .....:	Rm 604&605, Unit 1, Building 2, No. 1, Section 1, Huafu Avenue, Huayang Street, Tianfu New District, Chengdu, China.
Manufacturer's Name .....:	SHENZHEN EASYLINKIN TECHNOLOGY CO.,LTD
Address .....:	705, Floor 7, Zhongdian Difu Building, Zhenhua Road, Fuqiang Community, Huaqiang North Street, Futian District, Shenzhen, China.

Product Description

Product Name.....:	Bobcat IoT hotspot
Brand Name .....:	BOBCAT
Model Name .....:	Bobcat Miner 300
Series Model.....:	N/A
Test Standards.....:	FCC Part15.247
Test Procedure .....:	ANSI C63.10-2013

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
This report shall not be reproduced except in full, without the written approval of STS, this document may be altered or revised by STS, personal only, and shall be noted in the revision of the document.

Date of Test.....:	
Date of receipt of test item .....:	12 Mar. 2021
Date (s) of performance of tests .....:	12 Mar. 2021 ~ 23 Mar. 2021
Date of Issue.....:	23 Mar. 2021
Test Result.....:	**Pass**

Testing Engineer : 

(Chris Chen)

Technical Manager : 

(Sean she)

Authorized Signatory : 

(Vita Li)

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Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	23 Mar. 2021	STS2103068W04	ALL	Initial Issue

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:
KDB 558074 D01 15.247 Meas Guidance v05r02.

FCC Part 15.247,Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	--
15.247 (a)(2)	6dB Bandwidth	PASS	--
15.247 (b)(3)	Output Power	PASS	--
15.209	Radiated Spurious Emission	PASS	--
15.247 (d)	Conducted Spurious & Band Edge Emission	PASS	--
15.247 (e)	Power Spectral Density	PASS	--
15.205	Restricted bands of operation	PASS	--
Part 15.247(d)/part 15.209(a)	Band Edge Emission	PASS	--
15.203	Antenna Requirement	PASS	--

NOTE:

(1) 'N/A' denotes test is not applicable in this Test Report.

(2) All tests are according to ANSI C63.10-2013.

1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD
Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China
FCC test Firm Registration Number: 625569
IC test Firm Registration Number: 12108A
A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**, where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95** %.

No.	Item	Uncertainty
1	RF output power, conducted	±0.68dB
2	Unwanted Emissions, conducted	±2.988dB
3	All emissions, radiated 9K-30MHz	±2.84dB
4	All emissions, radiated 30M-1GHz	±4.39dB
5	All emissions, radiated 1G-6GHz	±5.10dB
6	All emissions, radiated>6G	±5.48dB
7	Conducted Emission (9KHz-150KHz)	±2.79dB
8	Conducted Emission (150KHz-30MHz)	±2.80dB

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Bobcat IoT hotspot
Trade Name	BOBCAT
Model Name	Bobcat Miner 300
Series Model	N/A
Model Difference	N/A
Product Description	The EUT is a Bobcat IoT hotspot Operation Frequency: US915:902-928MHz AS923:919-925MHz Modulation Type: GFSK Radio Technology: LongFi Number Of Channel: US915: CH 09 AS923: CH 10 Antenna Designation: Please refer to the Note 3. Antenna Gain (dBi) 4dBi
Channel List	Please refer to the Note 2.
Adapter	Input: AC100-240V, 50/60Hz 0.5A Max Output: DC 12V 1.0A 12.0W
Battery	Rated Voltage:3V Capacity: 40mAh
Hardware version number	G280-V1.1
Software version number	2019.11.06.0
Connecting I/O Port(s)	Please refer to the Note 1.

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.

2.

Channel List for US915					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	904.00	04	905.30	07	923.30
02	904.70	05	905.60	08	924.50
03	905.10	06	915.00	09	926.00

Channel List for AS923					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	919.00	05	923.40	09	924.60
02	921.80	06	923.60	10	925.00
03	922.00	07	923.80	--	--
04	923.20	08	924.00	--	--

3.

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	BOBCAT	Bobcat Miner 300	External	N/A	4dBi	LongFi ANT

Note: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.

2.2 DESCRIPTION OF THE TEST MODES

For conducted test items and radiated spurious emissions
Each of these EUT operation mode(s) or test configuration mode(s) mentioned below was evaluated respectively.

Worst Mode	Description	Operation mode
Mode 1	TX CH01(904MHz)	US915
Mode 2	TX CH06(915MHz)	US915
Mode 3	TX CH09(926MHz)	US915
Mode 4	TX CH01(919MHz)	AS923
Mode 5	TX CH03(922MHz)	AS923
Mode 6	TX CH10(925MHz)	AS923

Note:

(1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.

(2) We tested for all available U.S. voltage and frequencies (For 120V, 50/60Hz and 240V, 50/60Hz) for which the device is capable of operation, and the worst case of 120V/ 60Hz is shown in the report.

(3) The battery is fully-charged during the radiated and RF conducted test.

For AC Conducted Emission

Test Case	
AC Conducted Emission	Mode 7 : Keeping TX

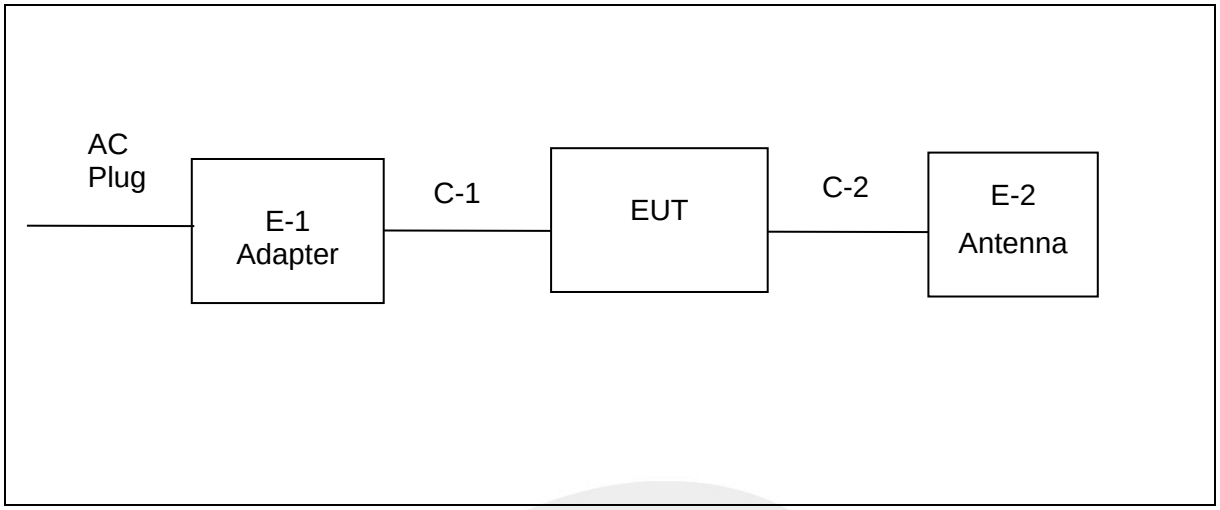
2.3 TEST SOFTWARE AND POWER LEVEL

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

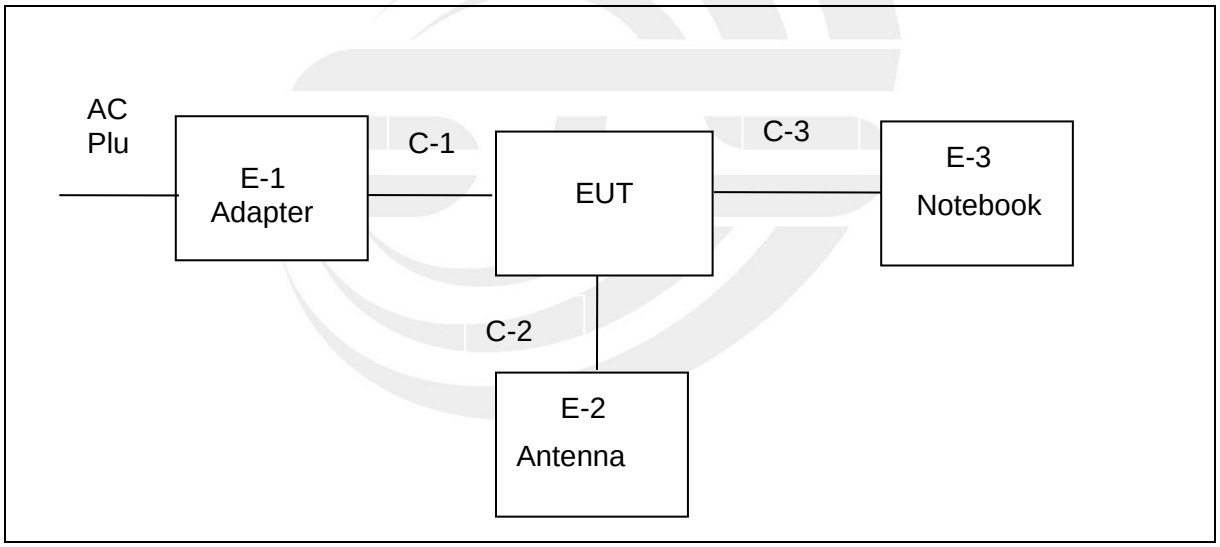
RF Function	Type	Mode Or Modulation type	Ant Gain(dBi)	Power Class	Software For Testing
LongFi	902—928MHz	LongFi	4	Default	SecureCRTPortable
	919—925MHz	LongFi	4	Default	SecureCRTPortable

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



Conducted Emission Test



2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
E-1	Adapter	N/A	PS120W1000U	N/A	N/A
E-2	Antenna	N/A	N/A	N/A	N/A
C-1	DC Cable	N/A	N/A	155cm	NO
C-2	Signal Cable	N/A	N/A	100CM	NO

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
E-3	Notebook	DELL	500-320cx	N/A	N/A
C-3	USB Cable	N/A	N/A	80cm	NO

Note:

(1) For detachable type I/O cable should be specified the length in cm in『Length』column.
(2) “YES” is means “with core”; “NO” is means “without core”.

2.6 EQUIPMENTS LIST

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2020.10.12	2021.10.11
Signal Analyzer	R&S	FSV 40-N	101823	2020.10.10	2021.10.09
Active loop Antenna	ZHINAN	ZN30900C	16035	2019.07.11	2021.07.10
Bilog Antenna	TESEQ	CBL6111D	34678	2020.10.12	2022.10.11
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2019.10.15	2021.10.14
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	J211020657	2020.10.12	2022.10.11
Pre-Amplifier (0.1M-3GHz)	EM	EM330	060665	2020.10.12	2021.10.11
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2020.10.12	2021.10.11
Pre-Amplifier (18G-40GHz)	SKET	LNPA-1840-50	SK2018101801	2020.10.10	2021.10.09
Temperature & Humidity	HH660	Mieo	N/A	2020.10.13	2021.10.12
Turn table	EM	SC100_1	60531	N/A	N/A
Antenna mast	EM	SC100	N/A	N/A	N/A
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 RE)			

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2020.10.12	2021.10.11
LISN	R&S	ENV216	101242	2020.10.12	2021.10.11
LISN	EMCO	3810/2NM	23625	2020.10.12	2021.10.11
Temperature & Humidity	HH660	Mieo	N/A	2020.10.13	2021.10.12
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 CE)			

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Power Sensor	Keysight	U2021XA	MY55520005	2020.10.10	2021.10.09
			MY55520006	2020.10.10	2021.10.09
			MY56120038	2020.10.10	2021.10.09
			MY56280002	2020.10.10	2021.10.09
Signal Analyzer	Agilent	N9020A	MY51110105	2021.03.04	2022.03.03
Temperature & Humidity	HH660	Mieo	N/A	2020.10.13	2021.10.12
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 RE)			

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

FREQUENCY (MHz)	Conducted Emission limit (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

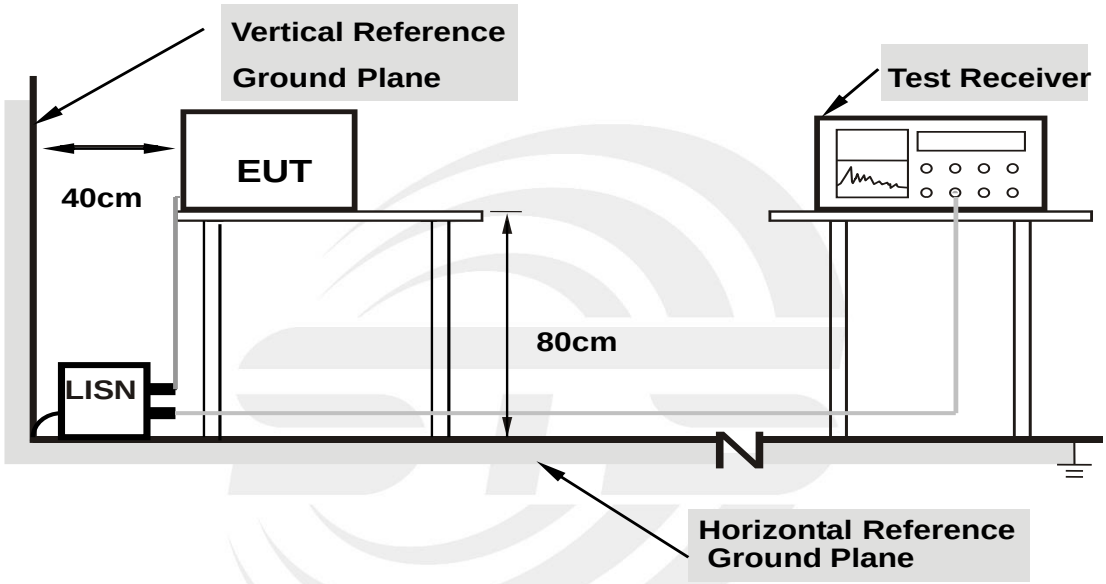
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.2 TEST PROCEDURE

a. The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN is at least 80 cm from the nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.3 TEST SETUP



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

3.4 EUT OPERATING CONDITIONS

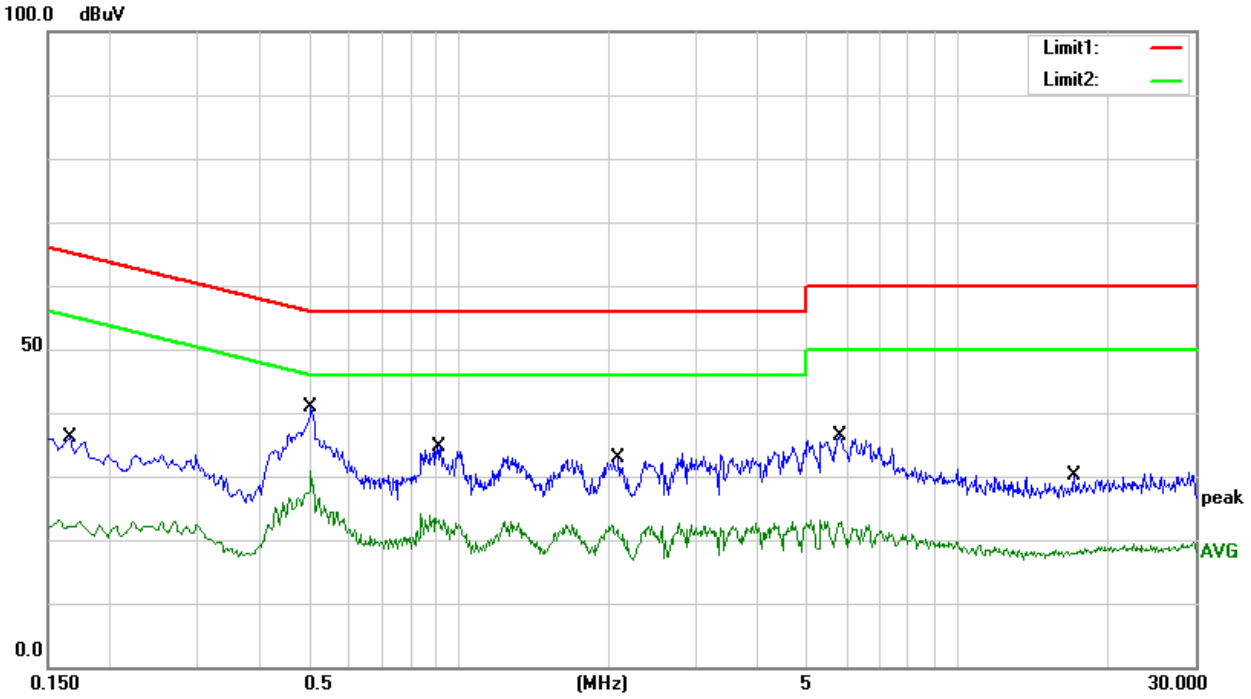
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.5 TEST RESULTS

Temperature:	26.8(C)	Relative Humidity:	66%RH
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 7		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1660	15.79	20.23	36.02	65.16	-29.14	QP
2	0.1660	2.72	20.23	22.95	55.16	-32.21	AVG
3	0.5060	20.41	20.43	40.84	56.00	-15.16	QP
4	0.5060	10.49	20.43	30.92	46.00	-15.08	AVG
5	0.9220	14.36	20.19	34.55	56.00	-21.45	QP
6	0.9220	2.99	20.19	23.18	46.00	-22.82	AVG
7	2.0940	12.85	20.14	32.99	56.00	-23.01	QP
8	2.0940	1.56	20.14	21.70	46.00	-24.30	AVG
9	5.8060	16.55	19.94	36.49	60.00	-23.51	QP
10	5.8060	2.82	19.94	22.76	50.00	-27.24	AVG
11	17.1300	9.93	20.31	30.24	60.00	-29.76	QP
12	17.1300	-2.17	20.31	18.14	50.00	-31.86	AVG

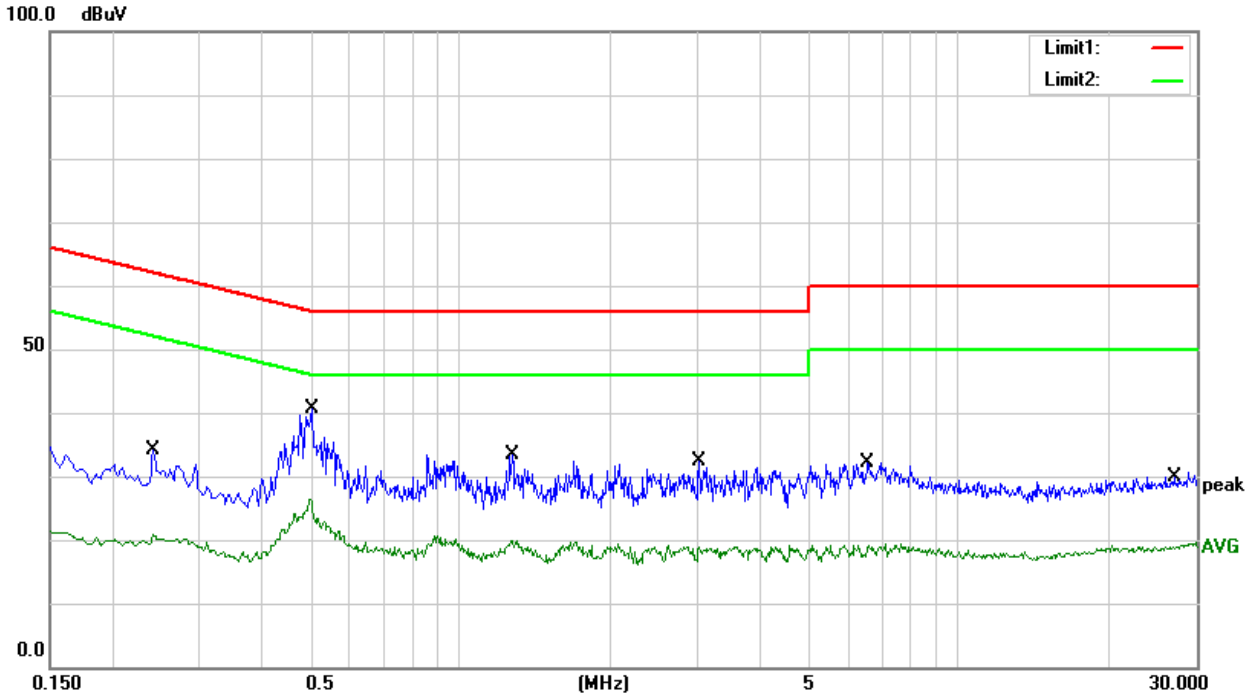
Remark:
1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result =Reading + Factor)–Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)



Temperature:	26.8(C)	Relative Humidity:	66%RH
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 7		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2420	13.62	20.51	34.13	62.03	-27.90	QP
2	0.2420	0.35	20.51	20.86	52.03	-31.17	AVG
3	0.5020	20.10	20.43	40.53	56.00	-15.47	QP
4	0.5020	5.88	20.43	26.31	46.00	-19.69	AVG
5	1.2700	13.26	20.16	33.42	56.00	-22.58	QP
6	1.2700	-0.18	20.16	19.98	46.00	-26.02	AVG
7	3.0180	12.27	20.08	32.35	56.00	-23.65	QP
8	3.0180	-1.17	20.08	18.91	46.00	-27.09	AVG
9	6.5580	12.24	19.92	32.16	60.00	-27.84	QP
10	6.5580	-0.85	19.92	19.07	50.00	-30.93	AVG
11	26.9940	9.17	20.80	29.97	60.00	-30.03	QP
12	26.9940	-1.88	20.80	18.92	50.00	-31.08	AVG

Remark:
1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result =Reading + Factor)–Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)



4. RADIATED EMISSION MEASUREMENT

4.1 RADIATED EMISSION LIMITS

In any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the Restricted band specified on Part15.205(a)&209(a) limit in the table and according to ANSI C63.10-2013 below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (Frequency Range 9kHz-1000MHz)

Frequencies (MHz)	Field Strength (micorvolts/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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	(dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RESTRICTED FREQUENCY BANDS

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (GHz)
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

For Radiated Emission

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP/AV
Start Frequency	9 KHz/150KHz(Peak/QP/AV)
Stop Frequency	150KHz/30MHz(Peak/QP/AV)
RB / VB (emission in restricted band)	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz); 200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP
Start Frequency	30 MHz(Peak/QP)
Stop Frequency	1000 MHz (Peak/QP)
RB / VB (emission in restricted band)	120 KHz / 300 KHz

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/AV
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency	10th carrier hamonic(Peak/AV)
RB / VB (emission in restricted band)	1 MHz / 3 MHz(Peak) 1 MHz/1/T MHz(AVG)

For Restricted band

Spectrum Parameter	Setting
Detector	Peak/AV
Start/Stop Frequency	Lower Band Edge: 890 to 920 MHz Upper Band Edge: 924 to 940 MHz
RB / VB	1 MHz / 3 MHz(Peak) 1 MHz/1/T MHz(AVG)

Receiver Parameter	Setting
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

4.2 TEST PROCEDURE

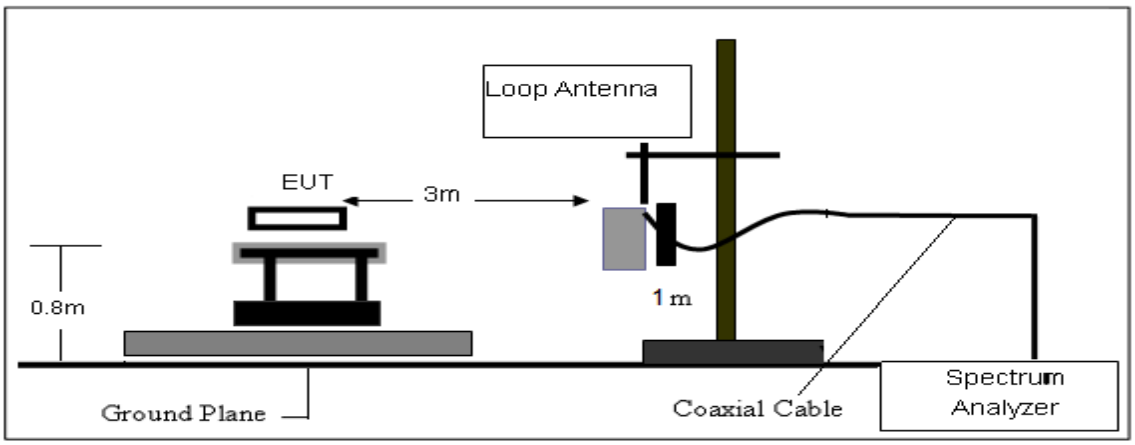
a. The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
b. The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
c. The height of the equipment shall be 0.8 m (above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and QuasiPeak detector mode will be re-measured.
e. If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

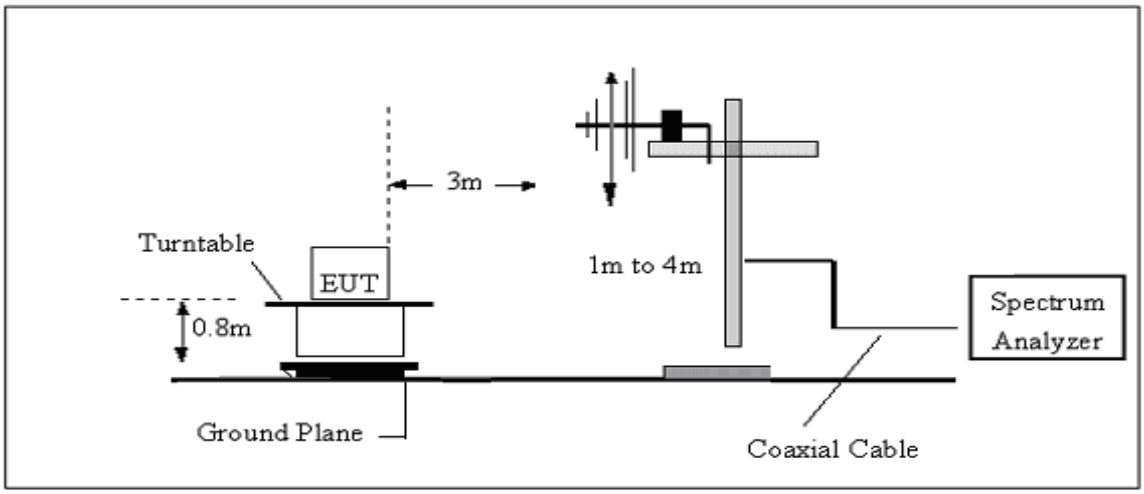
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

4.3 TEST SETUP

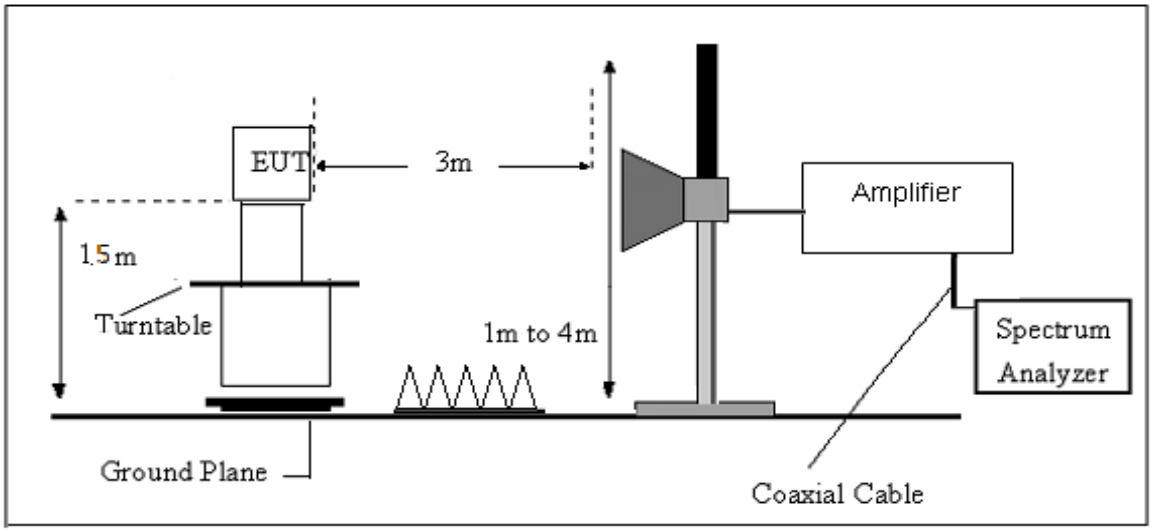
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



4.4 EUT OPERATING CONDITIONS

Please refer to section 3.4 of this report.

4.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG

Where

FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

For example

Frequency	FS	RA	AF	CL	AG	Factor
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(dB)	(dB)	(dB)
300	40	58.1	12.2	1.6	31.9	-18.1

Factor=AF+CL-AG

4.6 TEST RESULTS

(Between 9KHz – 30 MHz)

Temperature:	23.1(C)	Relative Humidtity:	60%RH
Test Voltage:	DC 12V	Polarization:	--
Test Mode:	TX Mode		

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =40 log (specific distance/test distance)(dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.

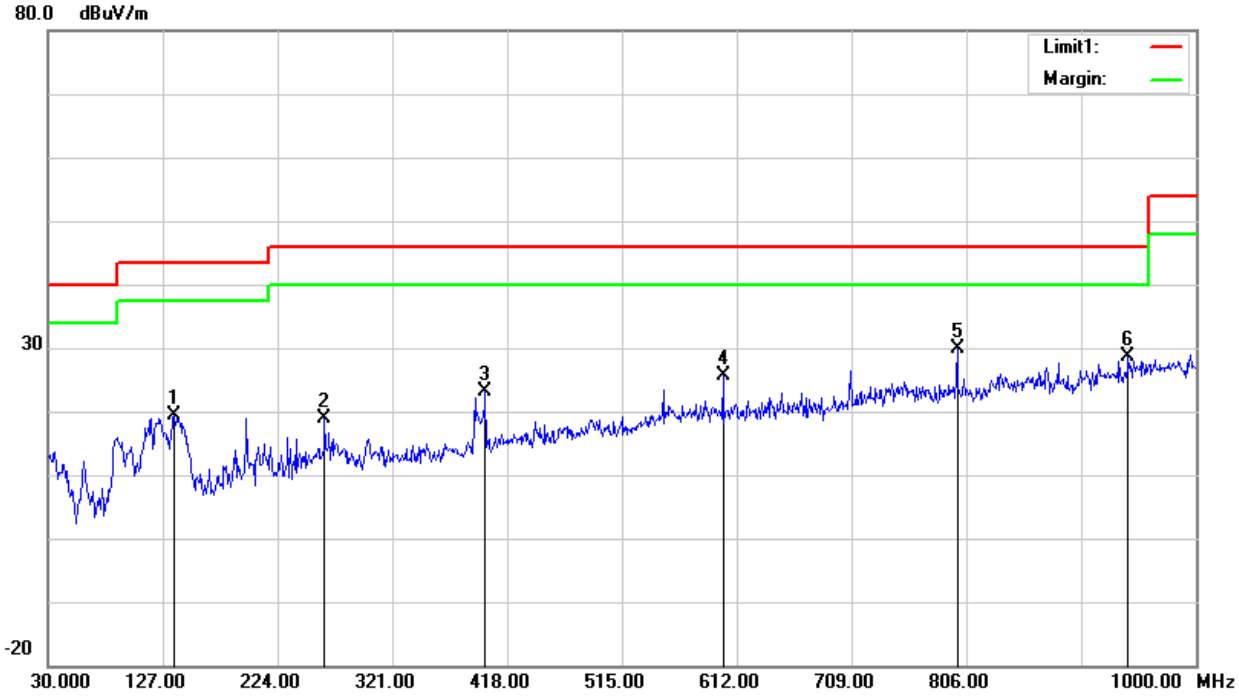
(30MHz -1000MHz)

US915

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	Mode 1/2/3 (Mode 3 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	136.7000	37.44	-18.07	19.37	43.50	-24.13	QP
2	263.7700	33.62	-14.75	18.87	46.00	-27.13	QP
3	399.5700	34.39	-11.16	23.23	46.00	-22.77	QP
4	600.3600	31.47	-5.84	25.63	46.00	-20.37	QP
5	798.2400	31.79	-2.03	29.76	46.00	-16.24	QP
6	942.7700	27.07	1.44	28.51	46.00	-17.49	QP

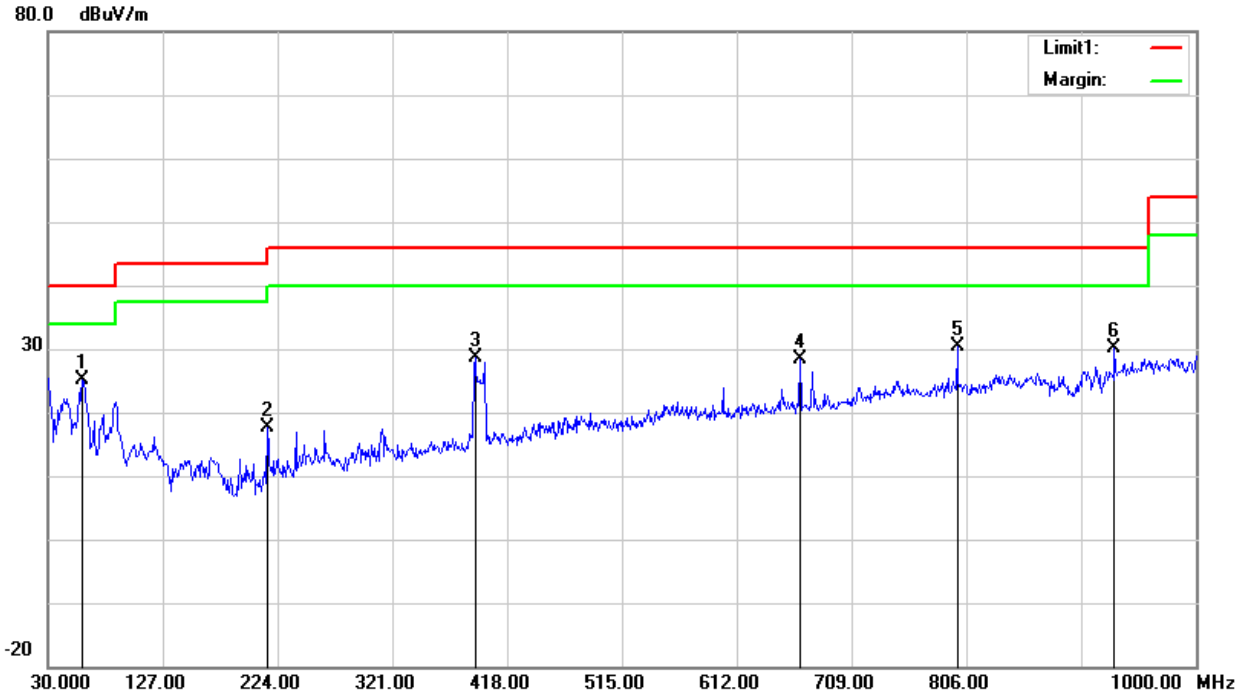
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	Mode 1/2/3 (Mode 3 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	59.1000	50.86	-25.73	25.13	40.00	-14.87	QP
2	215.2700	37.81	-20.17	17.64	43.50	-25.86	QP
3	390.8400	40.28	-11.54	28.74	46.00	-17.26	QP
4	665.3500	33.05	-4.69	28.36	46.00	-17.64	QP
5	798.2400	32.46	-2.03	30.43	46.00	-15.57	QP
6	931.1300	29.43	0.64	30.07	46.00	-15.93	QP

Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



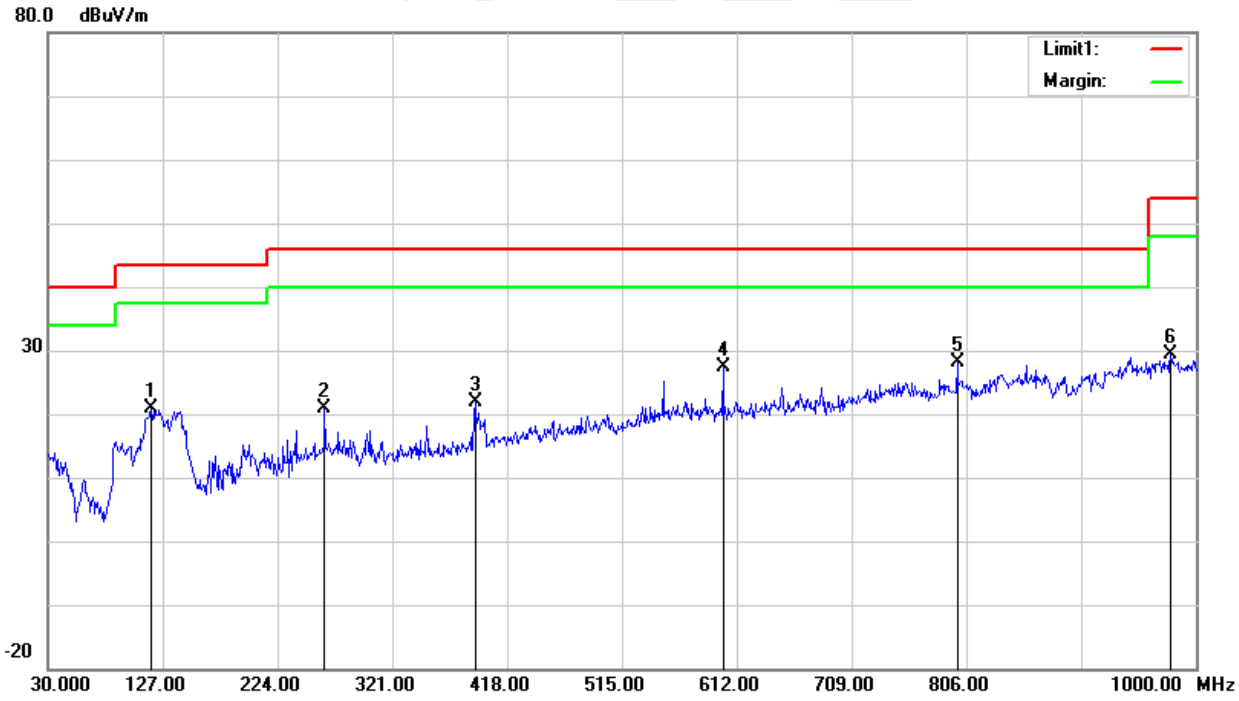
AS923

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	Mode 4/5/6 (Mode 4 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	117.3000	39.35	-18.47	20.88	43.50	-22.62	QP
2	263.7700	35.53	-14.75	20.78	46.00	-25.22	QP
3	390.8400	33.54	-11.54	22.00	46.00	-24.00	QP
4	600.3600	33.30	-5.84	27.46	46.00	-18.54	QP
5	798.2400	30.18	-2.03	28.15	46.00	-17.85	QP
6	978.6600	26.72	2.58	29.30	54.00	-24.70	QP

Remark:

3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

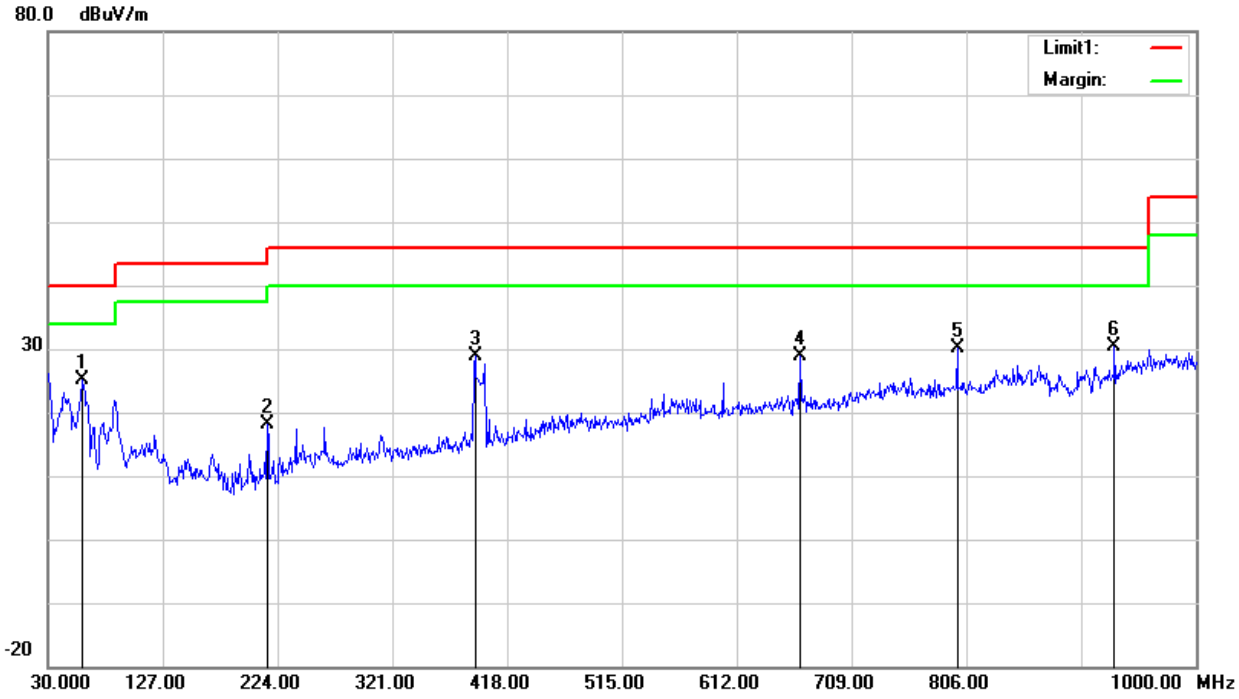


Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	Mode 4/5/6 (Mode 4 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	59.1000	50.90	-25.73	25.17	40.00	-14.83	QP
2	215.2700	38.21	-20.17	18.04	43.50	-25.46	QP
3	390.8400	40.43	-11.54	28.89	46.00	-17.11	QP
4	665.3500	33.50	-4.69	28.81	46.00	-17.19	QP
5	798.2400	32.18	-2.03	30.15	46.00	-15.85	QP
6	931.1300	29.72	0.64	30.36	46.00	-15.64	QP

Remark:

3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



(1GHz-25GHz) Spurious emission Requirements

US915
GFSK

Frequency	Meter Reading	Amplifier	Loss	Antenna Factor	Orrected Factor	Emission Level	Limits	Margin	Detector	Comment
(MHz)	(dBμV)	（dB）	（dB）	（dB/m）	（dB）	(dBμV/m)	(dBμV/m)	(dB)	Type	
Low Channel 904MHz										
1099.80	67.99	46.30	3.70	24.30	-18.30	49.69	74.00	-24.31	Pk	Vertical
1099.80	56.31	46.30	3.70	24.30	-18.30	38.01	54.00	-15.99	AV	Vertical
1100.16	67.28	46.30	3.70	24.30	-18.30	48.98	74.00	-25.02	Pk	Horizontal
1100.16	57.04	46.30	3.70	24.30	-18.30	38.74	54.00	-15.26	AV	Horizontal
1516.73	64.90	44.90	4.19	25.00	-15.71	49.19	74.00	-24.81	Pk	Vertical
1516.73	56.65	44.90	4.19	25.00	-15.71	40.94	54.00	-13.06	AV	Vertical
1517.01	65.00	44.90	4.19	25.00	-15.71	49.29	74.00	-24.71	Pk	Horizontal
1517.01	56.96	44.90	4.19	25.00	-15.71	41.25	54.00	-12.75	AV	Horizontal
1805.22	65.33	44.10	5.30	25.00	-13.80	51.53	74.00	-22.47	Pk	Vertical
1805.22	55.36	44.10	5.30	25.00	-13.80	41.56	54.00	-12.44	AV	Vertical
1804.86	65.46	44.10	5.30	25.00	-13.80	51.66	74.00	-22.34	Pk	Horizontal
1804.86	54.64	44.10	5.30	25.00	-13.80	40.84	54.00	-13.16	AV	Horizontal
2144.89	62.65	43.80	5.40	25.90	-12.50	50.15	74.00	-23.85	Pk	Vertical
2144.89	53.32	43.80	5.40	25.90	-12.50	40.82	54.00	-13.18	AV	Vertical
2144.91	63.00	43.80	5.40	25.90	-12.50	50.50	74.00	-23.50	Pk	Horizontal
2144.91	50.26	43.80	5.40	25.90	-12.50	37.76	54.00	-16.24	AV	Horizontal
2707.91	66.39	44.40	6.20	27.60	-10.60	55.79	74.00	-18.21	Pk	Vertical
2707.91	51.14	44.40	6.20	27.60	-10.60	40.54	54.00	-13.46	AV	Vertical
2708.07	65.27	44.40	6.20	27.60	-10.60	54.67	74.00	-19.33	Pk	Horizontal
2708.07	51.43	44.40	6.20	27.60	-10.60	40.83	54.00	-13.17	AV	Horizontal
3265.04	63.66	44.70	6.70	28.20	-9.80	53.86	74.00	-20.14	Pk	Vertical
3265.04	51.15	44.70	6.70	28.20	-9.80	41.35	54.00	-12.65	AV	Vertical
3264.82	63.15	44.70	6.70	28.20	-9.80	53.35	74.00	-20.65	Pk	Horizontal
3264.82	51.67	44.70	6.70	28.20	-9.80	41.87	54.00	-12.13	AV	Horizontal
3999.99	64.67	44.20	7.90	29.70	-6.60	58.07	74.00	-15.93	Pk	Vertical
3999.99	47.82	44.20	7.90	29.70	-6.60	41.22	54.00	-12.78	AV	Vertical
4000.01	68.53	44.20	7.90	29.70	-6.60	61.93	74.00	-12.07	Pk	Horizontal
4000.01	49.39	44.20	7.90	29.70	-6.60	42.79	54.00	-11.21	AV	Horizontal
7222.02	55.64	43.50	11.40	35.50	3.40	59.04	74.00	-14.96	Pk	Vertical
7222.02	38.15	43.50	11.40	35.50	3.40	41.55	54.00	-12.45	AV	Vertical
7221.97	55.50	43.50	11.40	35.50	3.40	58.90	74.00	-15.10	Pk	Horizontal
7221.97	38.01	43.50	11.40	35.50	3.40	41.41	54.00	-12.59	AV	Horizontal
8124.00	53.53	44.20	12.00	37.00	4.80	58.33	74.00	-15.67	Pk	Vertical
8124.00	38.51	44.20	12.00	37.00	4.80	43.31	54.00	-10.69	AV	Vertical
8124.15	53.35	44.20	12.00	37.00	4.80	58.15	74.00	-15.85	Pk	Horizontal
8124.15	38.57	44.20	12.00	37.00	4.80	43.37	54.00	-10.63	AV	Horizontal
9104.81	52.43	45.00	12.57	37.40	4.97	57.40	74.00	-16.60	Pk	Vertical
9104.81	40.67	45.00	12.57	37.40	4.97	45.64	54.00	-8.36	AV	Vertical
9104.75	53.16	45.00	12.57	37.40	4.97	58.13	74.00	-15.87	Pk	Horizontal
9104.75	38.28	45.00	12.57	37.40	4.97	43.25	54.00	-10.75	AV	Horizontal
9929.98	48.75	43.60	14.33	39.50	10.20	58.95	74.00	-15.05	Pk	Vertical
9929.98	33.39	43.60	14.33	39.50	10.20	43.59	54.00	-10.41	AV	Vertical
9929.94	52.45	43.60	14.33	39.50	10.20	62.65	74.00	-11.35	Pk	Horizontal
9929.94	35.54	43.60	14.33	39.50	10.20	45.74	54.00	-8.26	AV	Horizontal

Mid Channel 915MHz										
1099.84	67.36	46.30	3.70	24.30	-18.30	49.06	74.00	-24.94	Pk	Vertical
1099.84	56.41	46.30	3.70	24.30	-18.30	38.11	54.00	-15.89	AV	Vertical
1100.14	67.19	46.30	3.70	24.30	-18.30	48.89	74.00	-25.11	Pk	Horizontal
1100.14	56.22	46.30	3.70	24.30	-18.30	37.92	54.00	-16.08	AV	Horizontal
1516.87	65.08	44.90	4.19	25.00	-15.71	49.37	74.00	-24.63	Pk	Vertical
1516.87	56.88	44.90	4.19	25.00	-15.71	41.17	54.00	-12.83	AV	Vertical
1517.06	65.26	44.90	4.19	25.00	-15.71	49.55	74.00	-24.45	Pk	Horizontal
1517.06	57.65	44.90	4.19	25.00	-15.71	41.94	54.00	-12.06	AV	Horizontal
1829.27	64.42	44.10	5.30	25.00	-13.80	50.62	74.00	-23.38	Pk	Vertical
1829.27	55.24	44.10	5.30	25.00	-13.80	41.44	54.00	-12.56	AV	Vertical
1828.91	64.42	44.10	5.30	25.00	-13.80	50.62	74.00	-23.38	Pk	Horizontal
1828.91	53.53	44.10	5.30	25.00	-13.80	39.73	54.00	-14.27	AV	Horizontal
2144.90	62.77	43.80	5.40	25.90	-12.50	50.27	74.00	-23.73	Pk	Vertical
2144.90	52.90	43.80	5.40	25.90	-12.50	40.40	54.00	-13.60	AV	Vertical
2145.12	62.92	43.80	5.40	25.90	-12.50	50.42	74.00	-23.58	Pk	Horizontal
2145.12	50.05	43.80	5.40	25.90	-12.50	37.55	54.00	-16.45	AV	Horizontal
2743.77	66.82	44.40	6.20	27.60	-10.60	56.22	74.00	-17.78	Pk	Vertical
2743.77	50.96	44.40	6.20	27.60	-10.60	40.36	54.00	-13.64	AV	Vertical
2743.90	65.74	44.40	6.20	27.60	-10.60	55.14	74.00	-18.86	Pk	Horizontal
2743.90	51.01	44.40	6.20	27.60	-10.60	40.41	54.00	-13.59	AV	Horizontal
3264.84	62.32	44.70	6.70	28.20	-9.80	52.52	74.00	-21.48	Pk	Vertical
3264.84	50.28	44.70	6.70	28.20	-9.80	40.48	54.00	-13.52	AV	Vertical
3264.96	63.45	44.70	6.70	28.20	-9.80	53.65	74.00	-20.35	Pk	Horizontal
3264.96	50.23	44.70	6.70	28.20	-9.80	40.43	54.00	-13.57	AV	Horizontal
3999.85	64.51	44.20	7.90	29.70	-6.60	57.91	74.00	-16.09	Pk	Vertical
3999.85	48.24	44.20	7.90	29.70	-6.60	41.64	54.00	-12.36	AV	Vertical
4000.07	67.69	44.20	7.90	29.70	-6.60	61.09	74.00	-12.91	Pk	Horizontal
4000.07	48.54	44.20	7.90	29.70	-6.60	41.94	54.00	-12.06	AV	Horizontal
7317.98	55.23	43.50	11.40	35.50	3.40	58.63	74.00	-15.37	Pk	Vertical
7317.98	39.26	43.50	11.40	35.50	3.40	42.66	54.00	-11.34	AV	Vertical
7318.06	55.00	43.50	11.40	35.50	3.40	58.40	74.00	-15.60	Pk	Horizontal
7318.06	38.79	43.50	11.40	35.50	3.40	42.19	54.00	-11.81	AV	Horizontal
8124.10	54.78	44.20	12.00	37.00	4.80	59.58	74.00	-14.42	Pk	Vertical
8124.10	37.73	44.20	12.00	37.00	4.80	42.53	54.00	-11.47	AV	Vertical
8124.12	54.31	44.20	12.00	37.00	4.80	59.11	74.00	-14.89	Pk	Horizontal
8124.12	38.25	44.20	12.00	37.00	4.80	43.05	54.00	-10.95	AV	Horizontal
9146.98	52.52	45.00	12.57	37.40	4.97	57.49	74.00	-16.51	Pk	Vertical
9146.98	40.32	45.00	12.57	37.40	4.97	45.29	54.00	-8.71	AV	Vertical
9146.97	52.49	45.00	12.57	37.40	4.97	57.46	74.00	-16.54	Pk	Horizontal
9146.97	39.14	45.00	12.57	37.40	4.97	44.11	54.00	-9.89	AV	Horizontal
9930.02	49.61	43.60	14.33	39.50	10.20	59.81	74.00	-14.19	Pk	Vertical
9930.02	34.51	43.60	14.33	39.50	10.20	44.71	54.00	-9.29	AV	Vertical
9930.16	51.12	43.60	14.33	39.50	10.20	61.32	74.00	-12.68	Pk	Horizontal
9930.16	36.29	43.60	14.33	39.50	10.20	46.49	54.00	-7.51	AV	Horizontal

High Channel 926MHz										
1099.88	67.53	46.30	3.70	24.30	-18.30	49.23	74.00	-24.77	Pk	Vertical
1099.88	56.36	46.30	3.70	24.30	-18.30	38.06	54.00	-15.94	AV	Vertical
1100.05	68.41	46.30	3.70	24.30	-18.30	50.11	74.00	-23.89	Pk	Horizontal
1100.05	56.54	46.30	3.70	24.30	-18.30	38.24	54.00	-15.76	AV	Horizontal
1516.72	64.98	44.90	4.19	25.00	-15.71	49.27	74.00	-24.73	Pk	Vertical
1516.72	57.30	44.90	4.19	25.00	-15.71	41.59	54.00	-12.41	AV	Vertical
1517.04	65.11	44.90	4.19	25.00	-15.71	49.40	74.00	-24.60	Pk	Horizontal
1517.04	57.79	44.90	4.19	25.00	-15.71	42.08	54.00	-11.92	AV	Horizontal
1855.30	65.72	44.10	5.30	25.00	-13.80	51.92	74.00	-22.08	Pk	Vertical
1855.30	55.61	44.10	5.30	25.00	-13.80	41.81	54.00	-12.19	AV	Vertical
1855.02	64.96	44.10	5.30	25.00	-13.80	51.16	74.00	-22.84	Pk	Horizontal
1855.02	53.90	44.10	5.30	25.00	-13.80	40.10	54.00	-13.90	AV	Horizontal
2144.87	62.98	43.80	5.40	25.90	-12.50	50.48	74.00	-23.52	Pk	Vertical
2144.87	52.64	43.80	5.40	25.90	-12.50	40.14	54.00	-13.86	AV	Vertical
2144.92	62.95	43.80	5.40	25.90	-12.50	50.45	74.00	-23.55	Pk	Horizontal
2144.92	50.36	43.80	5.40	25.90	-12.50	37.86	54.00	-16.14	AV	Horizontal
2782.92	67.35	44.40	6.20	27.60	-10.60	56.75	74.00	-17.25	Pk	Vertical
2782.92	51.43	44.40	6.20	27.60	-10.60	40.83	54.00	-13.17	AV	Vertical
2782.83	65.17	44.40	6.20	27.60	-10.60	54.57	74.00	-19.43	Pk	Horizontal
2782.83	51.17	44.40	6.20	27.60	-10.60	40.57	54.00	-13.43	AV	Horizontal
3264.86	63.66	44.70	6.70	28.20	-9.80	53.86	74.00	-20.14	Pk	Vertical
3264.86	51.04	44.70	6.70	28.20	-9.80	41.24	54.00	-12.76	AV	Vertical
3264.98	62.45	44.70	6.70	28.20	-9.80	52.65	74.00	-21.35	Pk	Horizontal
3264.98	50.56	44.70	6.70	28.20	-9.80	40.76	54.00	-13.24	AV	Horizontal
3999.79	64.48	44.20	7.90	29.70	-6.60	57.88	74.00	-16.12	Pk	Vertical
3999.79	47.99	44.20	7.90	29.70	-6.60	41.39	54.00	-12.61	AV	Vertical
4000.05	67.31	44.20	7.90	29.70	-6.60	60.71	74.00	-13.29	Pk	Horizontal
4000.05	48.37	44.20	7.90	29.70	-6.60	41.77	54.00	-12.23	AV	Horizontal
7421.98	55.24	43.50	11.40	35.50	3.40	58.64	74.00	-15.36	Pk	Vertical
7421.98	38.40	43.50	11.40	35.50	3.40	41.80	54.00	-12.20	AV	Vertical
7422.18	55.63	43.50	11.40	35.50	3.40	59.03	74.00	-14.97	Pk	Horizontal
7422.18	38.14	43.50	11.40	35.50	3.40	41.54	54.00	-12.46	AV	Horizontal
8124.00	54.33	44.20	12.00	37.00	4.80	59.13	74.00	-14.87	Pk	Vertical
8124.00	37.80	44.20	12.00	37.00	4.80	42.60	54.00	-11.40	AV	Vertical
8124.03	53.94	44.20	12.00	37.00	4.80	58.74	74.00	-15.26	Pk	Horizontal
8124.03	37.72	44.20	12.00	37.00	4.80	42.52	54.00	-11.48	AV	Horizontal
9276.80	53.41	45.00	12.57	37.40	4.97	58.38	74.00	-15.62	Pk	Vertical
9276.80	40.19	45.00	12.57	37.40	4.97	45.16	54.00	-8.84	AV	Vertical
9276.92	53.45	45.00	12.57	37.40	4.97	58.42	74.00	-15.58	Pk	Horizontal
9276.92	39.37	45.00	12.57	37.40	4.97	44.34	54.00	-9.66	AV	Horizontal
9930.07	48.30	43.60	14.33	39.50	10.20	58.50	74.00	-15.50	Pk	Vertical
9930.07	33.17	43.60	14.33	39.50	10.20	43.37	54.00	-10.63	AV	Vertical
9929.95	52.40	43.60	14.33	39.50	10.20	62.60	74.00	-11.40	Pk	Horizontal
9929.95	36.51	43.60	14.33	39.50	10.20	46.71	54.00	-7.29	AV	Horizontal

Note:

1) Factor = Antenna Factor + Cable Loss – Pre-amplifier.
   Emission Level = Reading + Factor

2) The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.

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Frequency	Meter Reading	Amplifier	Loss	Antenna Factor	Orrected Factor	Emission Level	Limits	Margin	Detector	Comment
(MHz)	(dBμV)	（dB）	（dB）	（dB/m）	（dB）	(dBμV/m)	(dBμV/m)	(dB)	Type	
Low Channel 919MHz										
1099.94	68.27	46.30	3.70	24.30	-18.30	49.97	74.00	-24.03	Pk	Vertical
1099.94	57.37	46.30	3.70	24.30	-18.30	39.07	54.00	-14.93	AV	Vertical
1100.26	68.06	46.30	3.70	24.30	-18.30	49.76	74.00	-24.24	Pk	Horizontal
1100.26	57.53	46.30	3.70	24.30	-18.30	39.23	54.00	-14.77	AV	Horizontal
1516.97	66.31	44.90	4.19	25.00	-15.71	50.60	74.00	-23.40	Pk	Vertical
1516.97	57.25	44.90	4.19	25.00	-15.71	41.54	54.00	-12.46	AV	Vertical
1516.98	65.90	44.90	4.19	25.00	-15.71	50.19	74.00	-23.81	Pk	Horizontal
1516.98	58.19	44.90	4.19	25.00	-15.71	42.48	54.00	-11.52	AV	Horizontal
1805.17	65.17	44.10	5.30	25.00	-13.80	51.37	74.00	-22.63	Pk	Vertical
1805.17	55.54	44.10	5.30	25.00	-13.80	41.74	54.00	-12.26	AV	Vertical
1804.84	64.98	44.10	5.30	25.00	-13.80	51.18	74.00	-22.82	Pk	Horizontal
1804.84	54.02	44.10	5.30	25.00	-13.80	40.22	54.00	-13.78	AV	Horizontal
2144.99	63.57	43.80	5.40	25.90	-12.50	51.07	74.00	-22.93	Pk	Vertical
2144.99	53.18	43.80	5.40	25.90	-12.50	40.68	54.00	-13.32	AV	Vertical
2145.07	63.34	43.80	5.40	25.90	-12.50	50.84	74.00	-23.16	Pk	Horizontal
2145.07	49.22	43.80	5.40	25.90	-12.50	36.72	54.00	-17.28	AV	Horizontal
2707.86	66.91	44.40	6.20	27.60	-10.60	56.31	74.00	-17.69	Pk	Vertical
2707.86	50.88	44.40	6.20	27.60	-10.60	40.28	54.00	-13.72	AV	Vertical
2707.81	65.99	44.40	6.20	27.60	-10.60	55.39	74.00	-18.61	Pk	Horizontal
2707.81	51.37	44.40	6.20	27.60	-10.60	40.77	54.00	-13.23	AV	Horizontal
3264.88	62.99	44.70	6.70	28.20	-9.80	53.19	74.00	-20.81	Pk	Vertical
3264.88	50.73	44.70	6.70	28.20	-9.80	40.93	54.00	-13.07	AV	Vertical
3264.84	63.48	44.70	6.70	28.20	-9.80	53.68	74.00	-20.32	Pk	Horizontal
3264.84	51.21	44.70	6.70	28.20	-9.80	41.41	54.00	-12.59	AV	Horizontal
3999.78	65.07	44.20	7.90	29.70	-6.60	58.47	74.00	-15.53	Pk	Vertical
3999.78	47.18	44.20	7.90	29.70	-6.60	40.58	54.00	-13.42	AV	Vertical
3999.77	67.35	44.20	7.90	29.70	-6.60	60.75	74.00	-13.25	Pk	Horizontal
3999.77	49.39	44.20	7.90	29.70	-6.60	42.79	54.00	-11.21	AV	Horizontal
7221.98	55.33	43.50	11.40	35.50	3.40	58.73	74.00	-15.27	Pk	Vertical
7221.98	39.25	43.50	11.40	35.50	3.40	42.65	54.00	-11.35	AV	Vertical
7222.06	56.15	43.50	11.40	35.50	3.40	59.55	74.00	-14.45	Pk	Horizontal
7222.06	39.14	43.50	11.40	35.50	3.40	42.54	54.00	-11.46	AV	Horizontal
8124.28	53.65	44.20	12.00	37.00	4.80	58.45	74.00	-15.55	Pk	Vertical
8124.28	38.26	44.20	12.00	37.00	4.80	43.06	54.00	-10.94	AV	Vertical
8124.26	53.34	44.20	12.00	37.00	4.80	58.14	74.00	-15.86	Pk	Horizontal
8124.26	38.65	44.20	12.00	37.00	4.80	43.45	54.00	-10.55	AV	Horizontal
9104.85	52.63	45.00	12.57	37.40	4.97	57.60	74.00	-16.40	Pk	Vertical
9104.85	40.55	45.00	12.57	37.40	4.97	45.52	54.00	-8.48	AV	Vertical
9104.94	52.55	45.00	12.57	37.40	4.97	57.52	74.00	-16.48	Pk	Horizontal
9104.94	38.69	45.00	12.57	37.40	4.97	43.66	54.00	-10.34	AV	Horizontal
9930.08	48.58	43.60	14.33	39.50	10.20	58.78	74.00	-15.22	Pk	Vertical
9930.08	33.28	43.60	14.33	39.50	10.20	43.48	54.00	-10.52	AV	Vertical
9930.17	52.55	43.60	14.33	39.50	10.20	62.75	74.00	-11.25	Pk	Horizontal
9930.17	35.66	43.60	14.33	39.50	10.20	45.86	54.00	-8.14	AV	Horizontal

Mid Channel 922MHz										
1099.90	67.93	46.30	3.70	24.30	-18.30	49.63	74.00	-24.37	Pk	Vertical
1099.90	57.32	46.30	3.70	24.30	-18.30	39.02	54.00	-14.98	AV	Vertical
1100.24	67.45	46.30	3.70	24.30	-18.30	49.15	74.00	-24.85	Pk	Horizontal
1100.24	57.13	46.30	3.70	24.30	-18.30	38.83	54.00	-15.17	AV	Horizontal
1516.96	66.00	44.90	4.19	25.00	-15.71	50.29	74.00	-23.71	Pk	Vertical
1516.96	56.09	44.90	4.19	25.00	-15.71	40.38	54.00	-13.62	AV	Vertical
1516.86	65.83	44.90	4.19	25.00	-15.71	50.12	74.00	-23.88	Pk	Horizontal
1516.86	58.20	44.90	4.19	25.00	-15.71	42.49	54.00	-11.51	AV	Horizontal
1829.08	65.27	44.10	5.30	25.00	-13.80	51.47	74.00	-22.53	Pk	Vertical
1829.08	55.58	44.10	5.30	25.00	-13.80	41.78	54.00	-12.22	AV	Vertical
1828.78	65.11	44.10	5.30	25.00	-13.80	51.31	74.00	-22.69	Pk	Horizontal
1828.78	53.78	44.10	5.30	25.00	-13.80	39.98	54.00	-14.02	AV	Horizontal
2144.96	62.54	43.80	5.40	25.90	-12.50	50.04	74.00	-23.96	Pk	Vertical
2144.96	53.35	43.80	5.40	25.90	-12.50	40.85	54.00	-13.15	AV	Vertical
2145.00	63.00	43.80	5.40	25.90	-12.50	50.50	74.00	-23.50	Pk	Horizontal
2145.00	49.43	43.80	5.40	25.90	-12.50	36.93	54.00	-17.07	AV	Horizontal
2743.90	66.42	44.40	6.20	27.60	-10.60	55.82	74.00	-18.18	Pk	Vertical
2743.90	50.63	44.40	6.20	27.60	-10.60	40.03	54.00	-13.97	AV	Vertical
2744.01	64.58	44.40	6.20	27.60	-10.60	53.98	74.00	-20.02	Pk	Horizontal
2744.01	50.58	44.40	6.20	27.60	-10.60	39.98	54.00	-14.02	AV	Horizontal
3265.08	63.33	44.70	6.70	28.20	-9.80	53.53	74.00	-20.47	Pk	Vertical
3265.08	50.60	44.70	6.70	28.20	-9.80	40.80	54.00	-13.20	AV	Vertical
3264.91	63.29	44.70	6.70	28.20	-9.80	53.49	74.00	-20.51	Pk	Horizontal
3264.91	50.28	44.70	6.70	28.20	-9.80	40.48	54.00	-13.52	AV	Horizontal
3999.97	64.57	44.20	7.90	29.70	-6.60	57.97	74.00	-16.03	Pk	Vertical
3999.97	48.55	44.20	7.90	29.70	-6.60	41.95	54.00	-12.05	AV	Vertical
3999.92	67.88	44.20	7.90	29.70	-6.60	61.28	74.00	-12.72	Pk	Horizontal
3999.92	49.50	44.20	7.90	29.70	-6.60	42.90	54.00	-11.10	AV	Horizontal
7318.02	55.15	43.50	11.40	35.50	3.40	58.55	74.00	-15.45	Pk	Vertical
7318.02	39.12	43.50	11.40	35.50	3.40	42.52	54.00	-11.48	AV	Vertical
7317.91	56.34	43.50	11.40	35.50	3.40	59.74	74.00	-14.26	Pk	Horizontal
7317.91	38.96	43.50	11.40	35.50	3.40	42.36	54.00	-11.64	AV	Horizontal
8124.10	53.80	44.20	12.00	37.00	4.80	58.60	74.00	-15.40	Pk	Vertical
8124.10	37.60	44.20	12.00	37.00	4.80	42.40	54.00	-11.60	AV	Vertical
8124.24	53.47	44.20	12.00	37.00	4.80	58.27	74.00	-15.73	Pk	Horizontal
8124.24	38.13	44.20	12.00	37.00	4.80	42.93	54.00	-11.07	AV	Horizontal
9146.73	53.59	45.00	12.57	37.40	4.97	58.56	74.00	-15.44	Pk	Vertical
9146.73	40.71	45.00	12.57	37.40	4.97	45.68	54.00	-8.32	AV	Vertical
9146.73	52.53	45.00	12.57	37.40	4.97	57.50	74.00	-16.50	Pk	Horizontal
9146.73	38.34	45.00	12.57	37.40	4.97	43.31	54.00	-10.69	AV	Horizontal
9929.93	49.55	43.60	14.33	39.50	10.20	59.75	74.00	-14.25	Pk	Vertical
9929.93	34.54	43.60	14.33	39.50	10.20	44.74	54.00	-9.26	AV	Vertical
9930.00	51.75	43.60	14.33	39.50	10.20	61.95	74.00	-12.05	Pk	Horizontal
9930.00	36.15	43.60	14.33	39.50	10.20	46.35	54.00	-7.65	AV	Horizontal

High Channel 925MHz										
1099.92	67.58	46.30	3.70	24.30	-18.30	49.28	74.00	-24.72	Pk	Vertical
1099.92	56.54	46.30	3.70	24.30	-18.30	38.24	54.00	-15.76	AV	Vertical
1100.22	67.27	46.30	3.70	24.30	-18.30	48.97	74.00	-25.03	Pk	Horizontal
1100.22	57.43	46.30	3.70	24.30	-18.30	39.13	54.00	-14.87	AV	Horizontal
1516.85	65.32	44.90	4.19	25.00	-15.71	49.61	74.00	-24.39	Pk	Vertical
1516.85	56.10	44.90	4.19	25.00	-15.71	40.39	54.00	-13.61	AV	Vertical
1516.97	65.38	44.90	4.19	25.00	-15.71	49.67	74.00	-24.33	Pk	Horizontal
1516.97	57.74	44.90	4.19	25.00	-15.71	42.03	54.00	-11.97	AV	Horizontal
1855.15	64.40	44.10	5.30	25.00	-13.80	50.60	74.00	-23.40	Pk	Vertical
1855.15	55.38	44.10	5.30	25.00	-13.80	41.58	54.00	-12.42	AV	Vertical
1854.81	64.50	44.10	5.30	25.00	-13.80	50.70	74.00	-23.30	Pk	Horizontal
1854.81	54.04	44.10	5.30	25.00	-13.80	40.24	54.00	-13.76	AV	Horizontal
2144.98	62.36	43.80	5.40	25.90	-12.50	49.86	74.00	-24.14	Pk	Vertical
2144.98	52.35	43.80	5.40	25.90	-12.50	39.85	54.00	-14.15	AV	Vertical
2145.14	63.11	43.80	5.40	25.90	-12.50	50.61	74.00	-23.39	Pk	Horizontal
2145.14	49.24	43.80	5.40	25.90	-12.50	36.74	54.00	-17.26	AV	Horizontal
2782.82	66.81	44.40	6.20	27.60	-10.60	56.21	74.00	-17.79	Pk	Vertical
2782.82	51.39	44.40	6.20	27.60	-10.60	40.79	54.00	-13.21	AV	Vertical
2782.98	65.20	44.40	6.20	27.60	-10.60	54.60	74.00	-19.40	Pk	Horizontal
2782.98	51.46	44.40	6.20	27.60	-10.60	40.86	54.00	-13.14	AV	Horizontal
3265.01	62.80	44.70	6.70	28.20	-9.80	53.00	74.00	-21.00	Pk	Vertical
3265.01	50.70	44.70	6.70	28.20	-9.80	40.90	54.00	-13.10	AV	Vertical
3264.80	63.36	44.70	6.70	28.20	-9.80	53.56	74.00	-20.44	Pk	Horizontal
3264.80	50.99	44.70	6.70	28.20	-9.80	41.19	54.00	-12.81	AV	Horizontal
3999.99	64.48	44.20	7.90	29.70	-6.60	57.88	74.00	-16.12	Pk	Vertical
3999.99	47.50	44.20	7.90	29.70	-6.60	40.90	54.00	-13.10	AV	Vertical
3999.79	67.96	44.20	7.90	29.70	-6.60	61.36	74.00	-12.64	Pk	Horizontal
3999.79	49.58	44.20	7.90	29.70	-6.60	42.98	54.00	-11.02	AV	Horizontal
7421.86	55.17	43.50	11.40	35.50	3.40	58.57	74.00	-15.43	Pk	Vertical
7421.86	39.07	43.50	11.40	35.50	3.40	42.47	54.00	-11.53	AV	Vertical
7421.92	55.09	43.50	11.40	35.50	3.40	58.49	74.00	-15.51	Pk	Horizontal
7421.92	39.30	43.50	11.40	35.50	3.40	42.70	54.00	-11.30	AV	Horizontal
8124.16	54.23	44.20	12.00	37.00	4.80	59.03	74.00	-14.97	Pk	Vertical
8124.16	38.56	44.20	12.00	37.00	4.80	43.36	54.00	-10.64	AV	Vertical
8124.28	53.89	44.20	12.00	37.00	4.80	58.69	74.00	-15.31	Pk	Horizontal
8124.28	37.49	44.20	12.00	37.00	4.80	42.29	54.00	-11.71	AV	Horizontal
9276.75	52.75	45.00	12.57	37.40	4.97	57.72	74.00	-16.28	Pk	Vertical
9276.75	40.62	45.00	12.57	37.40	4.97	45.59	54.00	-8.41	AV	Vertical
9276.90	52.37	45.00	12.57	37.40	4.97	57.34	74.00	-16.66	Pk	Horizontal
9276.90	39.24	45.00	12.57	37.40	4.97	44.21	54.00	-9.79	AV	Horizontal
9929.96	49.45	43.60	14.33	39.50	10.20	59.65	74.00	-14.35	Pk	Vertical
9929.96	33.72	43.60	14.33	39.50	10.20	43.92	54.00	-10.08	AV	Vertical
9929.98	51.70	43.60	14.33	39.50	10.20	61.90	74.00	-12.10	Pk	Horizontal
9929.98	36.11	43.60	14.33	39.50	10.20	46.31	54.00	-7.69	AV	Horizontal

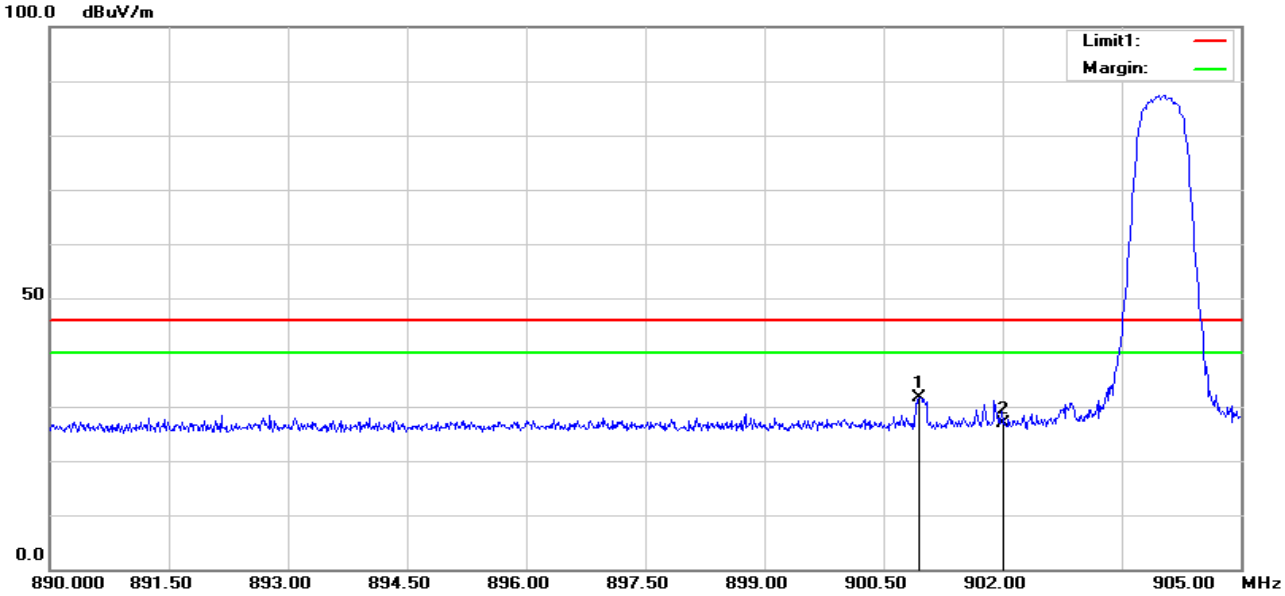
Note:

1) Factor = Antenna Factor + Cable Loss – Pre-amplifier.
   Emission Level = Reading + Factor

2) The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.

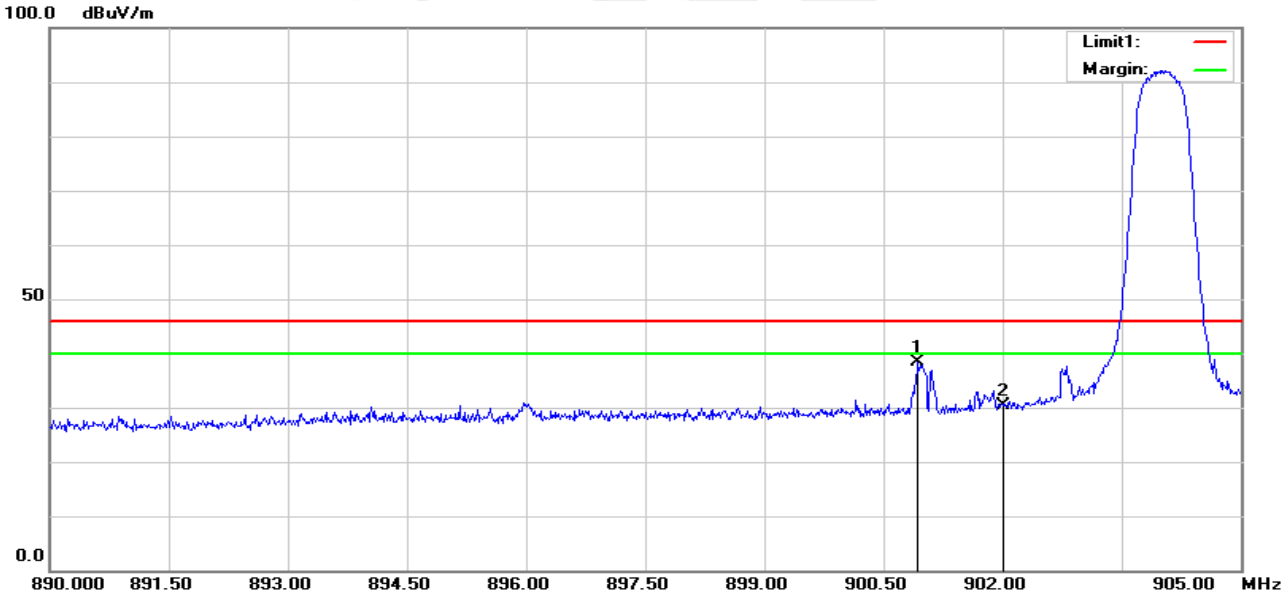
4.6 TEST RESULTS (Restricted Bands Requirements)

US915
GFSK-Low
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	900.9500	32.06	-0.43	31.63	46.00	-14.37	peak
2	902.0000	27.36	-0.40	26.96	46.00	-19.04	peak

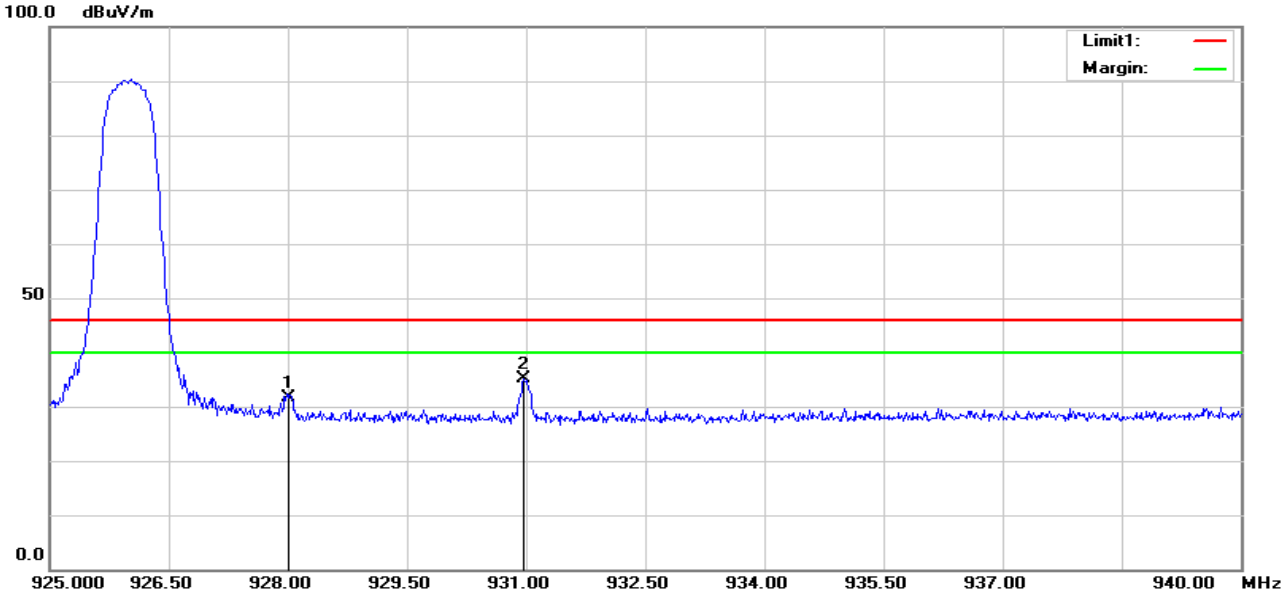
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	900.9350	38.73	-0.43	38.30	46.00	-7.70	peak
2	902.0000	30.67	-0.40	30.27	46.00	-15.73	peak

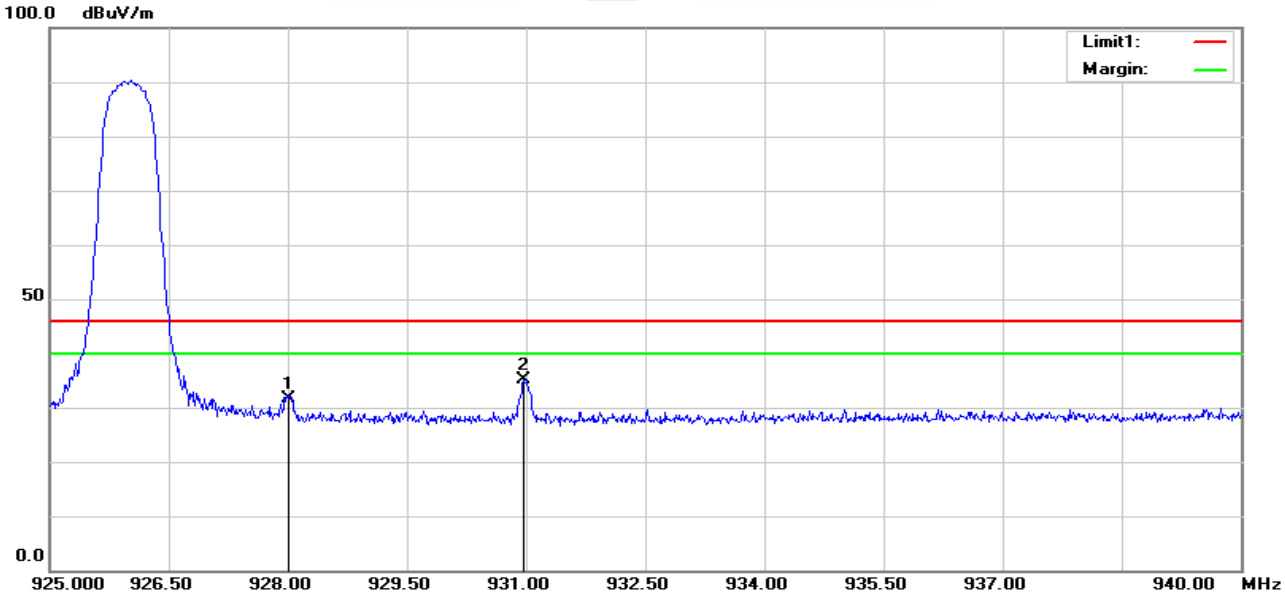
GFSK-High

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	928.0000	31.31	0.43	31.74	46.00	-14.26	peak
2	930.9700	34.47	0.62	35.09	46.00	-10.91	peak

Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	928.0000	33.33	0.43	33.76	46.00	-12.24	peak
2	930.9850	33.76	0.62	34.38	46.00	-11.62	peak

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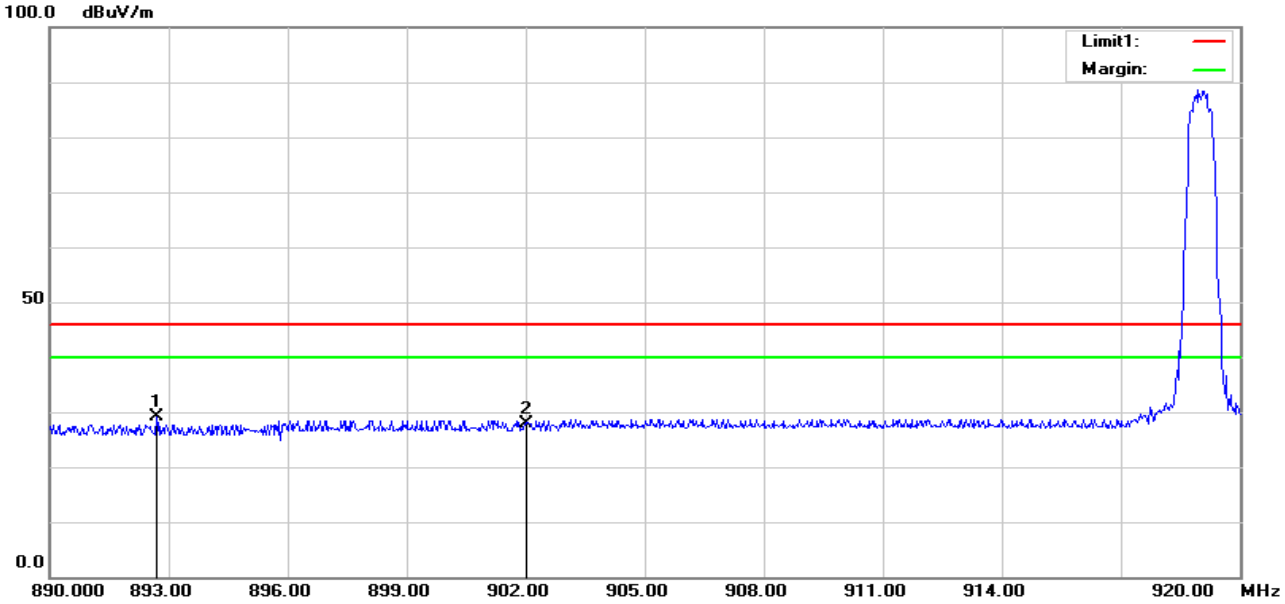
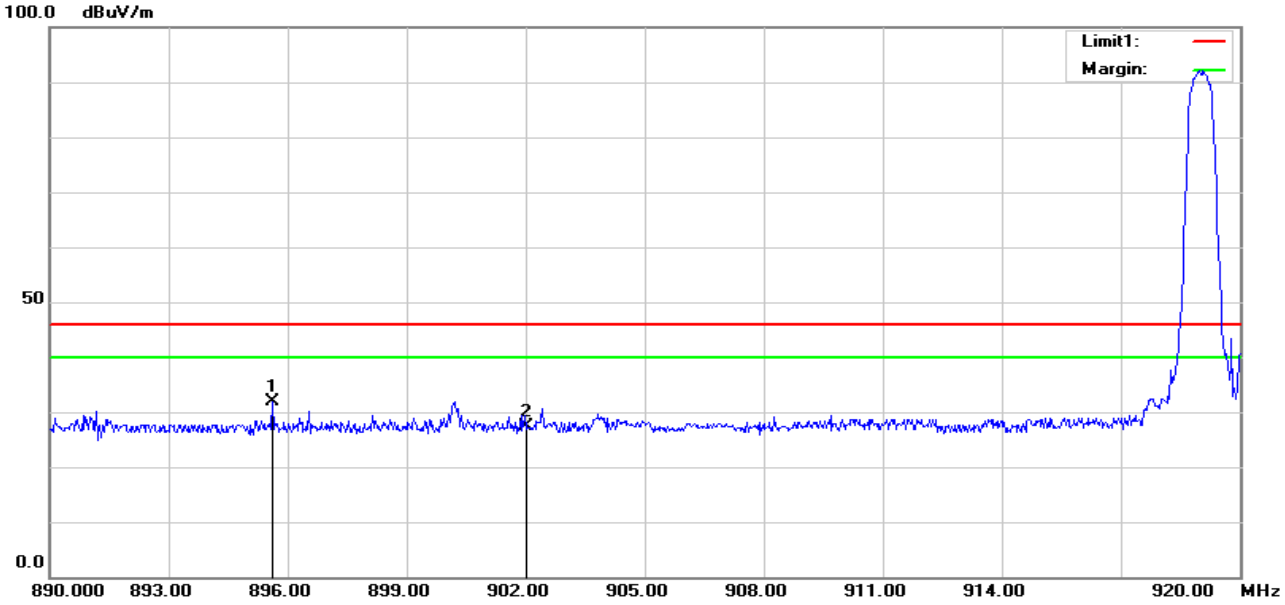
GFSK-Low
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	892.7000	29.67	-0.63	29.04	46.00	-16.96	peak
2	902.0000	28.21	-0.40	27.81	46.00	-18.19	peak

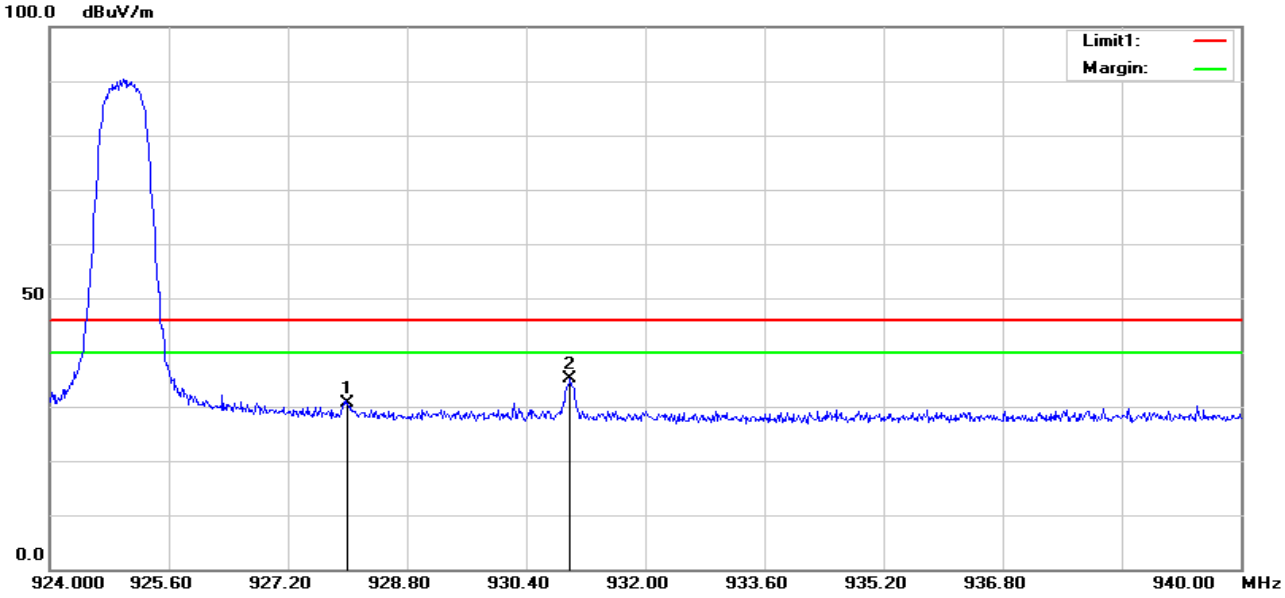
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	895.6100	32.39	-0.56	31.83	46.00	-14.17	peak
2	902.0000	27.86	-0.40	27.46	46.00	-18.54	peak

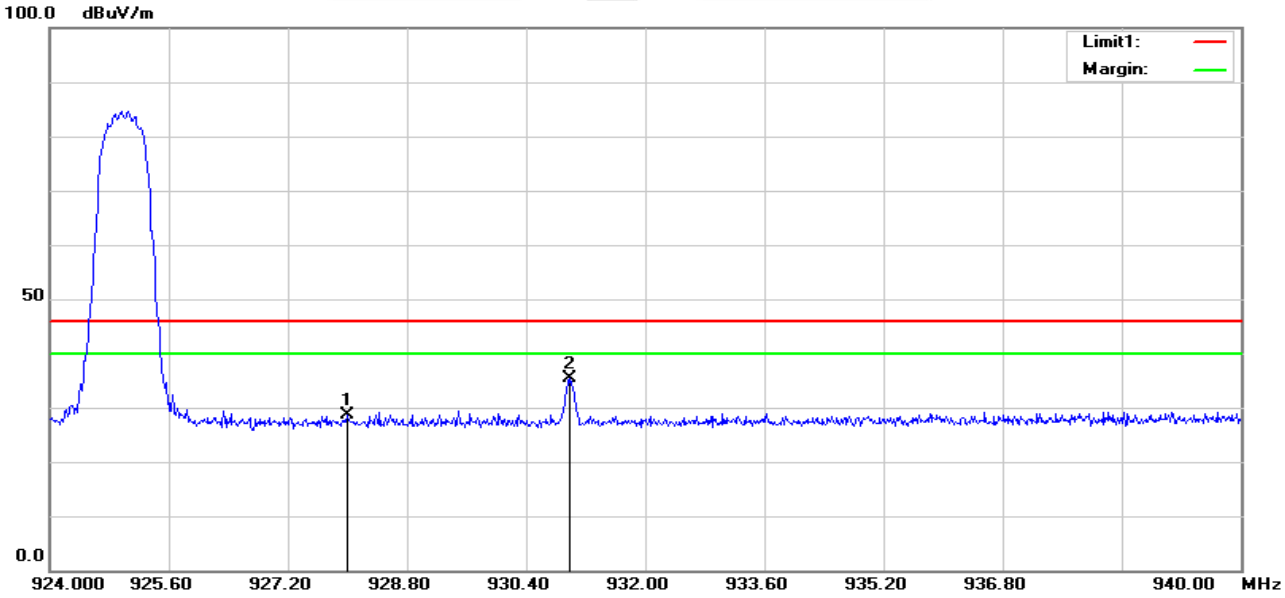
GFSK-High

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	928.0000	30.30	0.43	30.73	46.00	-15.27	peak
2	930.9920	34.59	0.63	35.22	46.00	-10.78	peak

Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	928.0000	28.16	0.43	28.59	46.00	-17.41	peak
2	930.9920	34.72	0.63	35.35	46.00	-10.65	peak

5. CONDUCTED SPURIOUS & BAND EDGE EMISSION

5.1 LIMIT

According to FCC section 15.247(d), 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.

5.2 TEST PROCEDURE

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	30 MHz to 10th carrier harmonic
RB / VB (emission in restricted band)	100 KHz/300 KHz
Trace-Mode:	Max hold

For Band edge

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	Lower Band Edge: 850-922 MHz Upper Band Edge: 924-950 MHz
RB / VB (emission in restricted band)	100 KHz/300 KHz
Trace-Mode:	Max hold

5.3 TEST SETUP

The EUT which is powered by the Battery, is connected to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading. Make the measurement with the spectrum analyzer's resolution bandwidth(RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

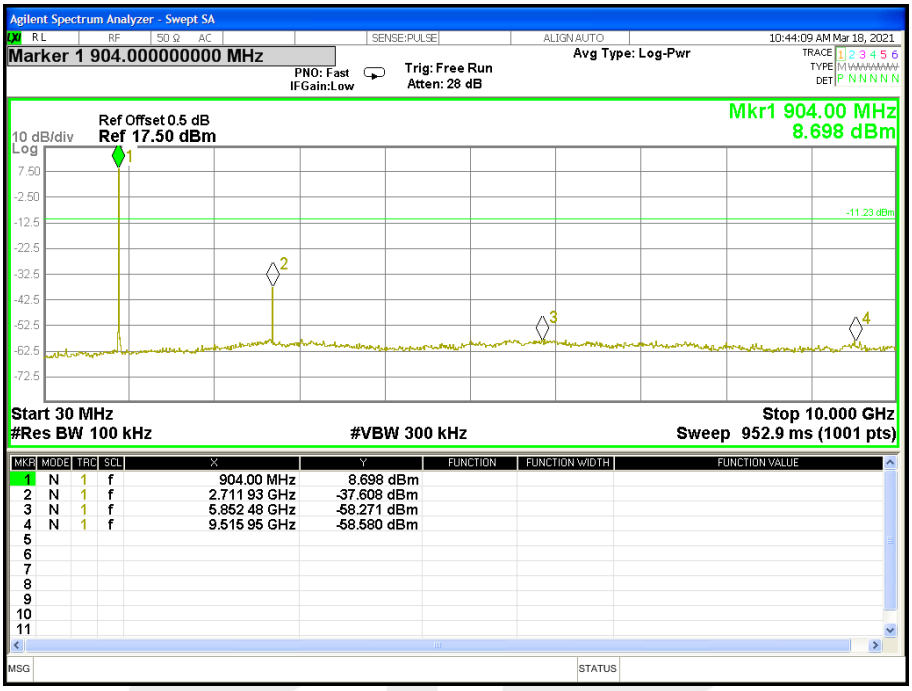
5.4 EUT OPERATION CONDITIONS

Please refer to section 3.4 of this report.

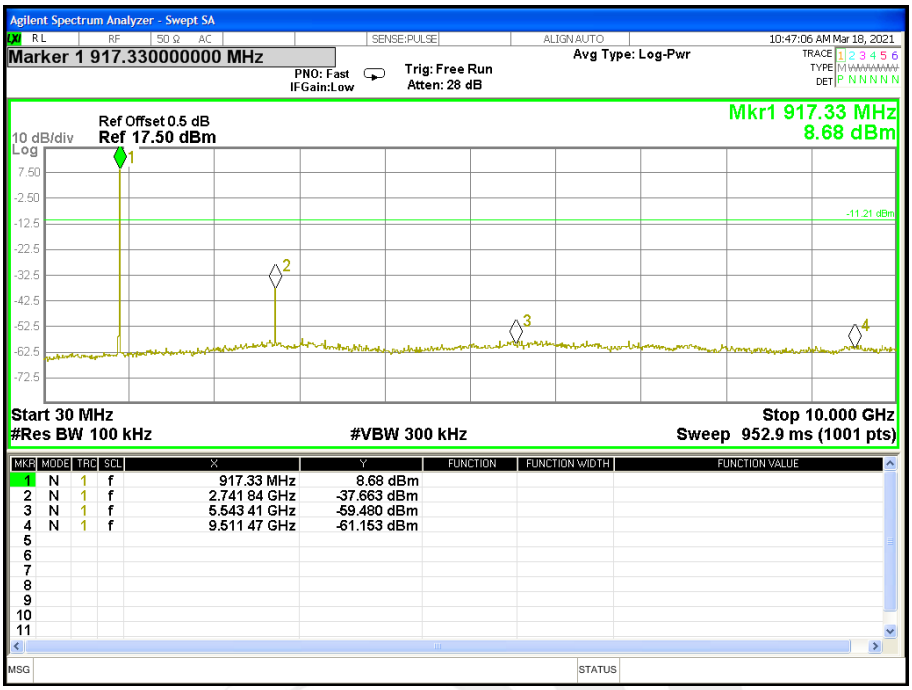
5.5 TEST RESULTS

Temperature:	25 ℃	Relative Humidity:	50%
Test Voltage:	DC 12V	Test Mode:	Mode 1/2/3 CH01, CH06, CH09

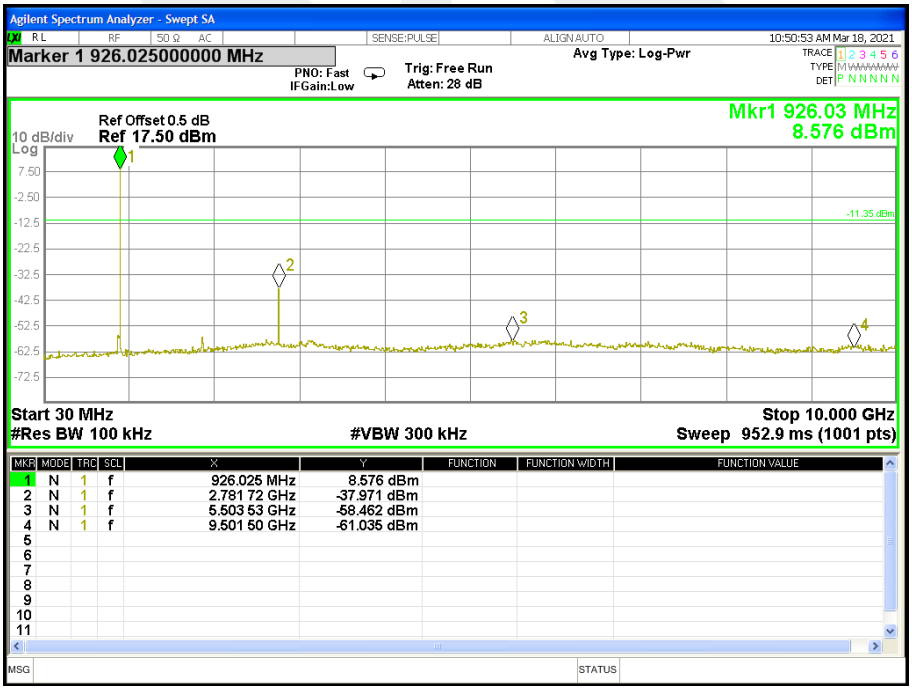
01 CH



06 CH

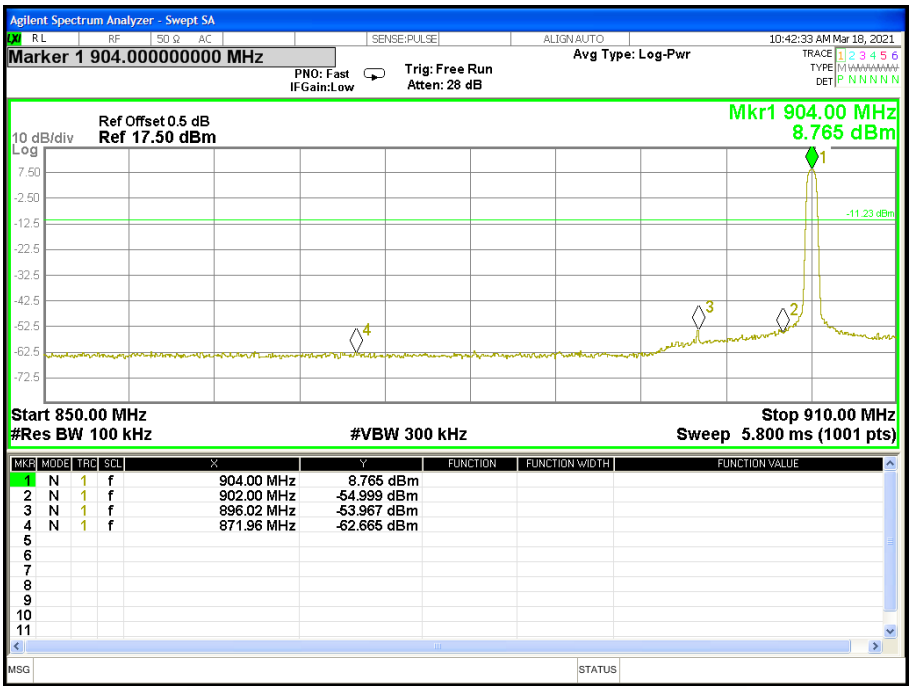

Agilent Spectrum Analyzer - Swept SA
Marker 1 917.330000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 28 dB
Avg Type: Log-Pwr
10:47:06 AM Mar 18, 2021
Ref Offset 0.5 dB
10 dB/div
Ref 17.50 dBm
Mkr1 917.33 MHz
8.68 dBm
-11.21 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 10.000 GHz
Sweep 952.9 ms (1001 pts)
1 N 1 f 917.33 MHz 8.68 dBm
2 N 1 f 2.741 84 GHz -37.663 dBm
3 N 1 f 5.543 41 GHz -59.480 dBm
4 N 1 f 9.511 47 GHz -61.153 dBm

09 CH

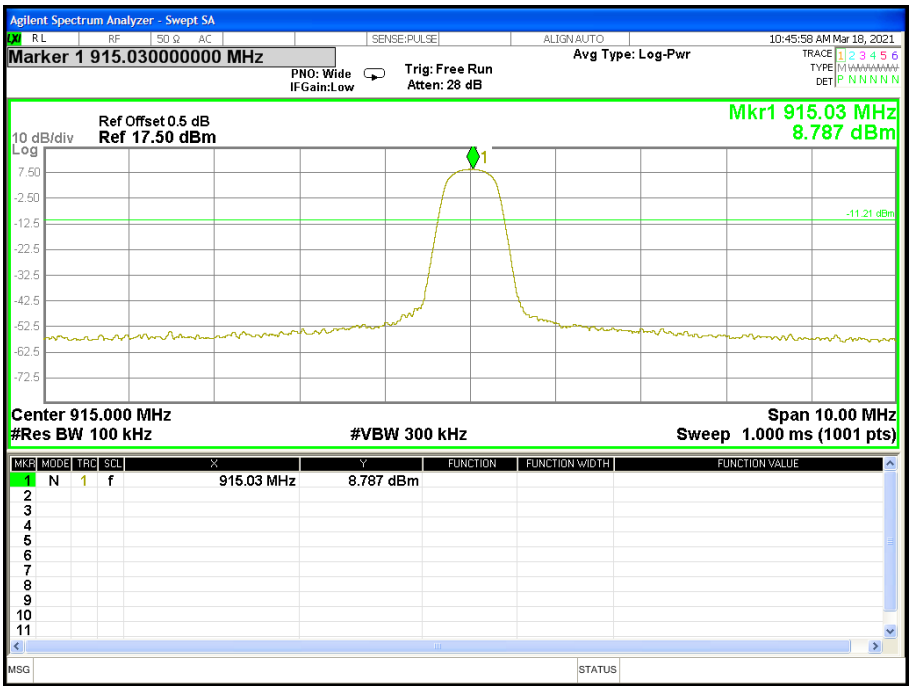

Agilent Spectrum Analyzer - Swept SA
Marker 1 926.025000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 28 dB
Avg Type: Log-Pwr
10:50:53 AM Mar 18, 2021
Ref Offset 0.5 dB
10 dB/div
Ref 17.50 dBm
Mkr1 926.03 MHz
8.576 dBm
-11.35 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 10.000 GHz
Sweep 952.9 ms (1001 pts)
1 N 1 f 926.025 MHz 8.576 dBm
2 N 1 f 2.781 72 GHz -37.971 dBm
3 N 1 f 5.503 53 GHz -58.462 dBm
4 N 1 f 9.501 50 GHz -61.035 dBm

For Band edge(it's also the reference level for conducted spurious emission)

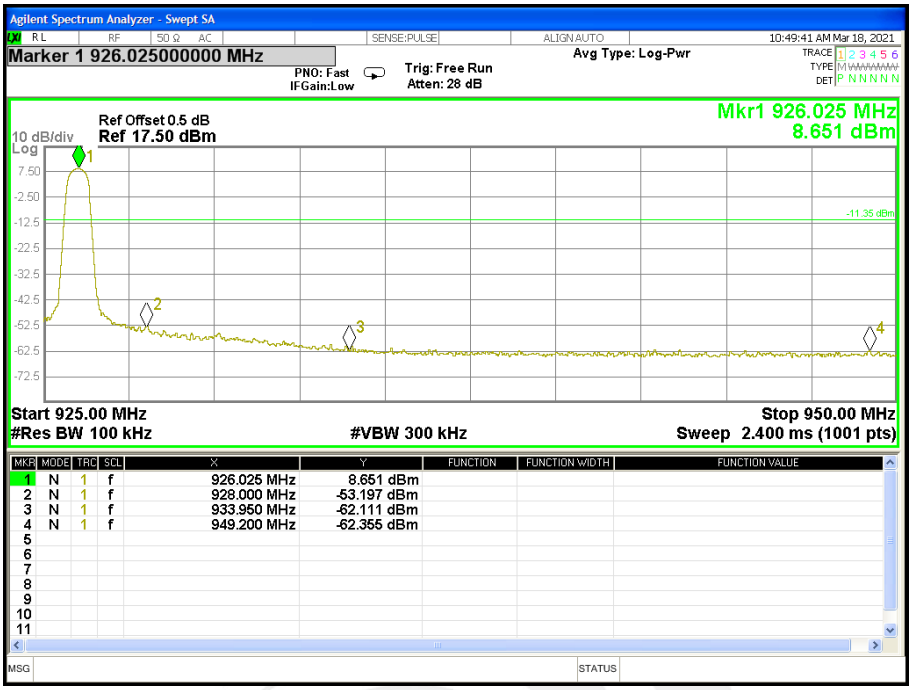
01 CH



06 CH

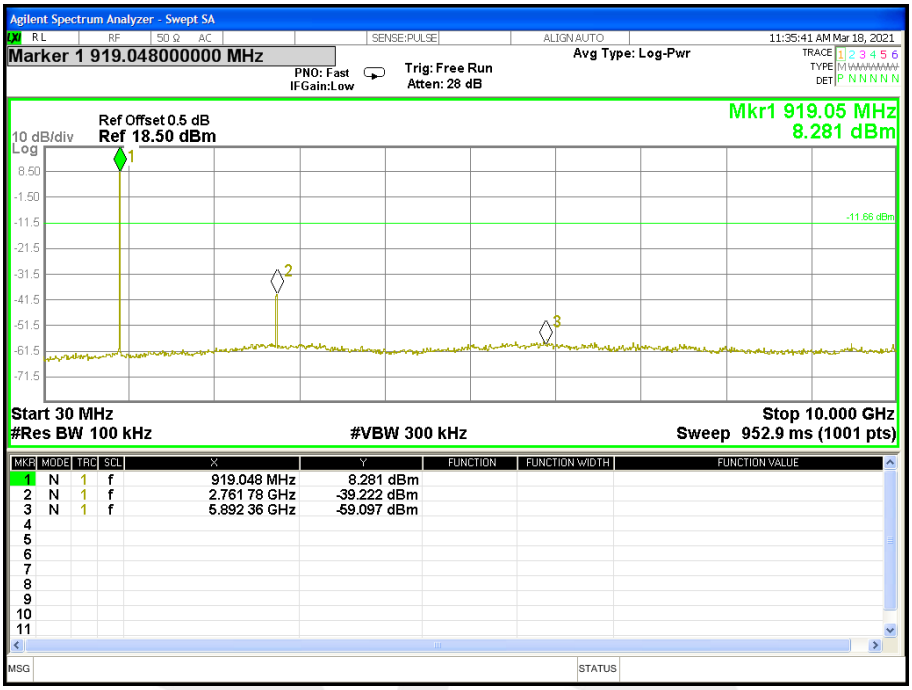


09 CH

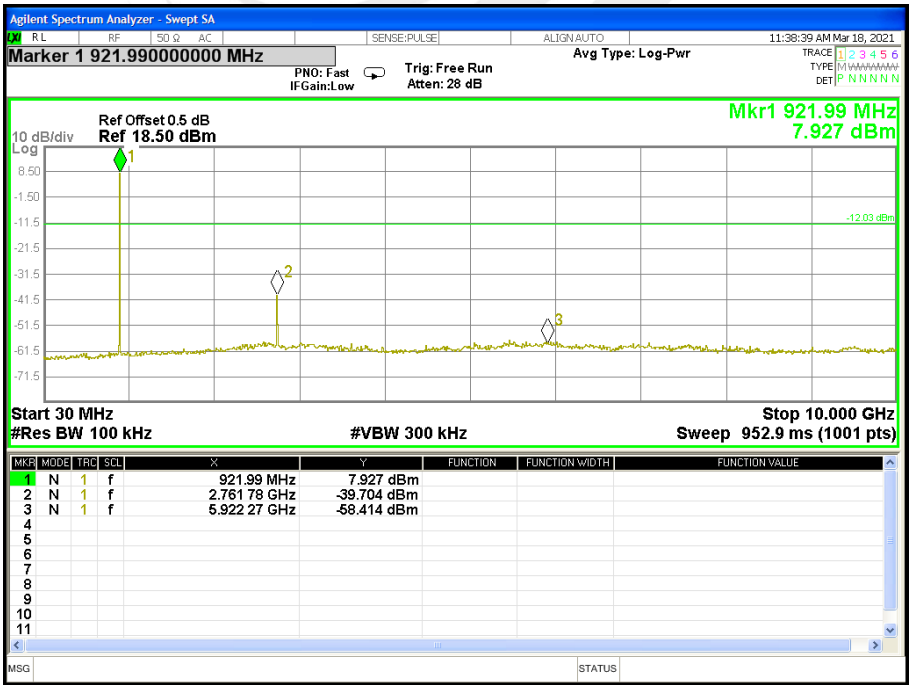

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:PULSE
ALIGN AUTO
10:49:41 AM Mar 18, 2021
Marker 1 926.025000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 28 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Ref Offset 0.5 dB
10 dB/div
Log
Ref 17.50 dBm
Mkr1 926.025 MHz
8.651 dBm
7.50
-2.50
-12.5
-22.5
-32.5
-42.5
-52.5
-62.5
-72.5
-11.35 dBm
Start 925.00 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 950.00 MHz
Sweep 2.400 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 926.025 MHz 8.651 dBm
2 N 1 f 928.000 MHz -53.197 dBm
3 N 1 f 933.950 MHz -62.111 dBm
4 N 1 f 949.200 MHz -62.355 dBm
5
6
7
8
9
10
11
MSG
STATUS

Temperature:	25 ℃	Relative Humidity:	50%
Test Voltage:	DC 12V	Test Mode:	Mode 4/5/6 CH01, CH03, CH10

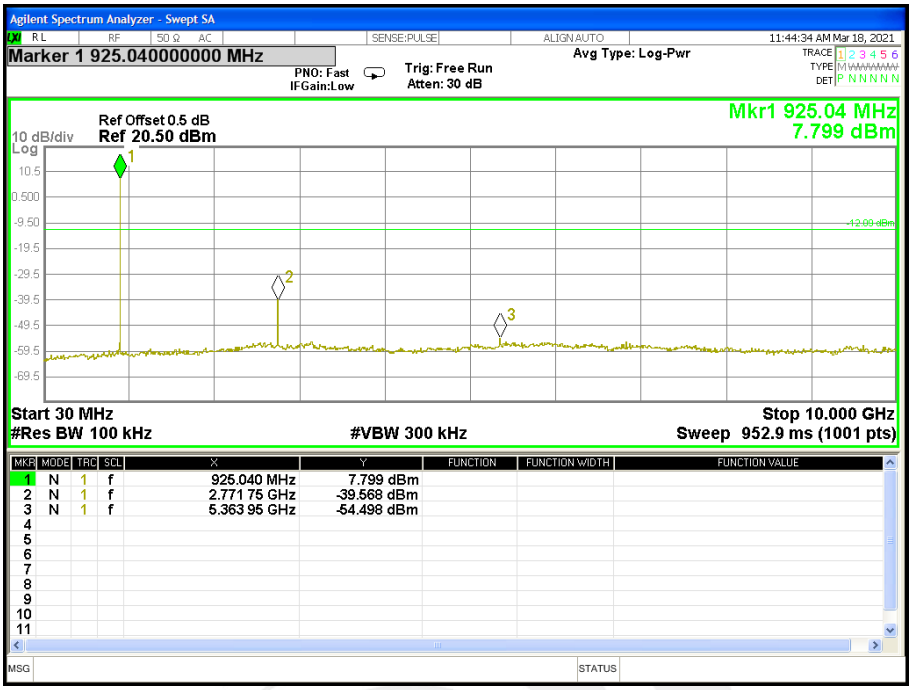
01 CH



03 CH

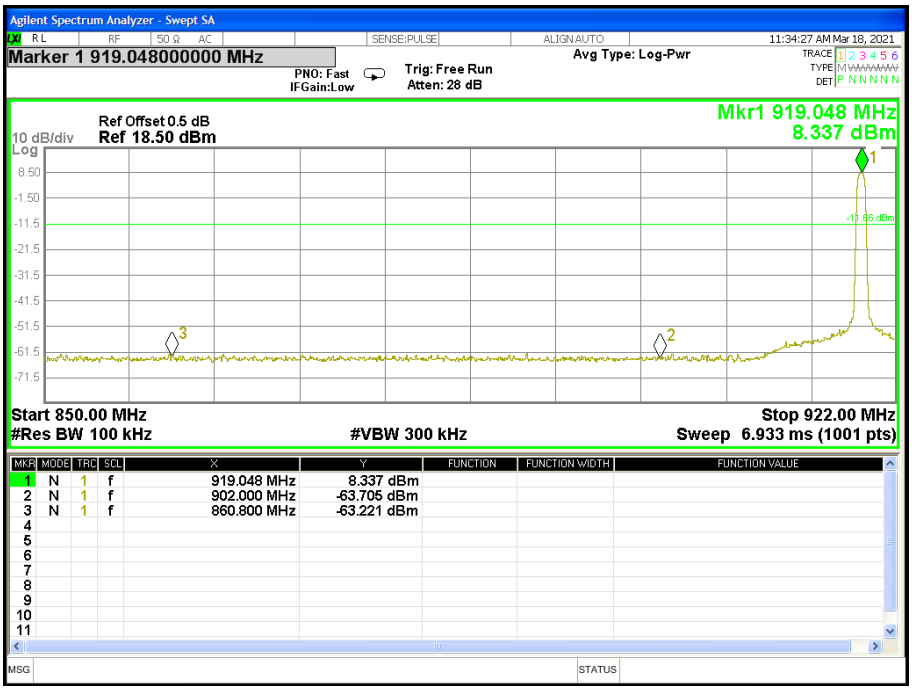


10 CH

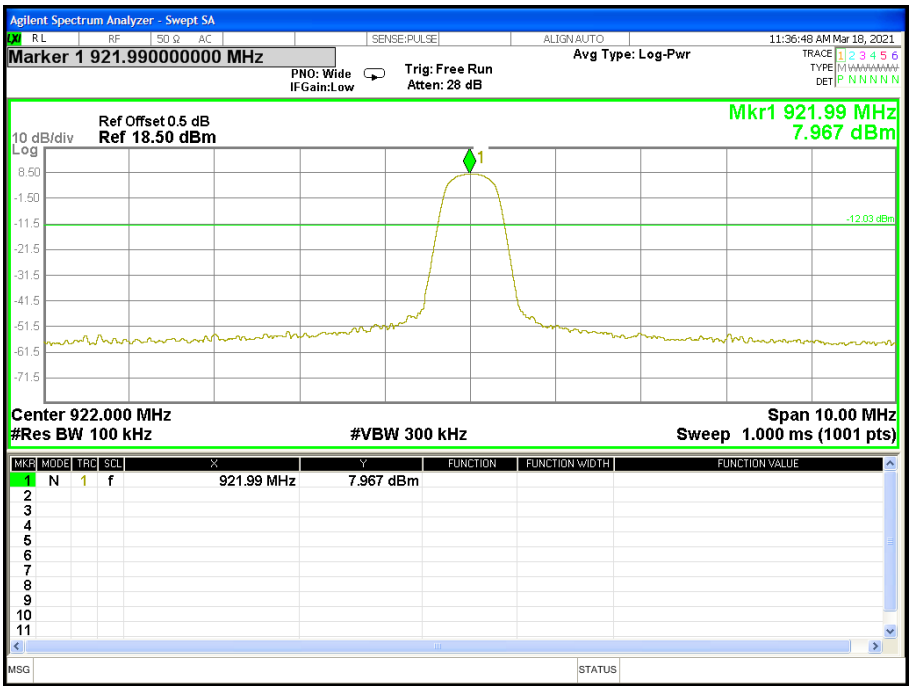

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:PULSE
ALIGN AUTO
11:44:34 AM Mar 18, 2021
Marker 1 925.040000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Ref Offset 0.5 dB
10 dB/div
Log
Ref 20.50 dBm
Mkr1 925.04 MHz
7.799 dBm
10.5
0.500
-9.50
-19.5
-29.5
-39.5
-49.5
-59.5
-69.5
-12.00 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 10.000 GHz
Sweep 952.9 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 925.040 MHz 7.799 dBm
2 N 1 f 2.771 75 GHz -39.568 dBm
3 N 1 f 5.363 95 GHz -54.498 dBm
MSG
STATUS

For Band edge(it's also the reference level for conducted spurious emission)

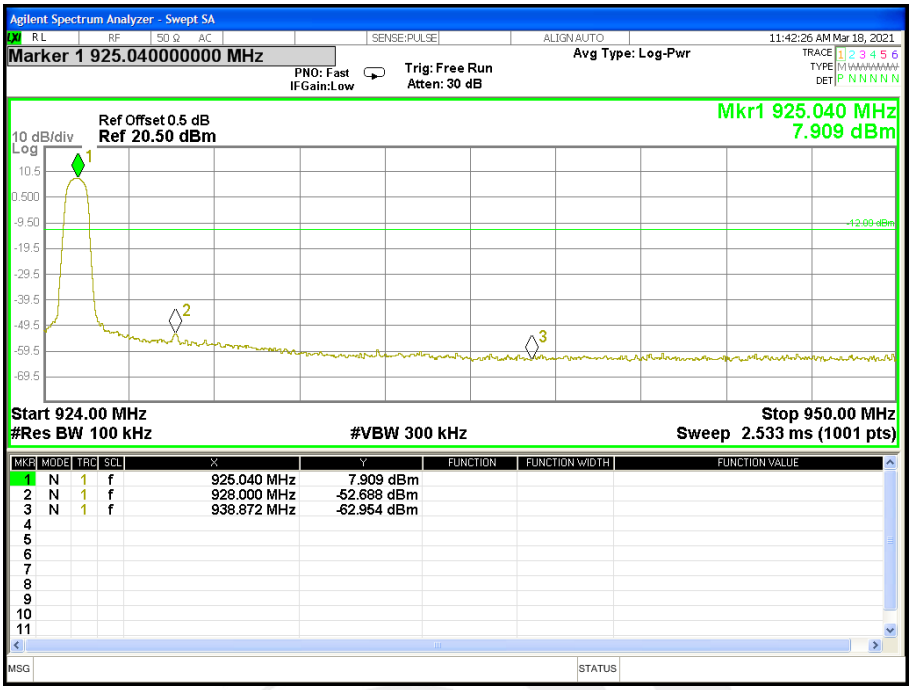
01 CH



03 CH



10 CH


Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:PULSE
ALIGN AUTO
11:42:26 AM Mar 18, 2021
Marker 1 925.040000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Ref Offset 0.5 dB
10 dB/div
Log
Ref 20.50 dBm
Mkr1 925.040 MHz
7.909 dBm
10.5
0.500
-9.50
-19.5
-29.5
-39.5
-49.5
-59.5
-69.5
-12.09 dBm
Start 924.00 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 950.00 MHz
Sweep 2.533 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 925.040 MHz 7.909 dBm
2 N 1 f 928.000 MHz -52.688 dBm
3 N 1 f 938.872 MHz -62.954 dBm
MSG
STATUS

6. POWER SPECTRAL DENSITY TEST

6.1 LIMIT

FCC Part 15.247,Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e)	Power Spectral Density	≤8 dBm (RBW≥3KHz)	902-928	PASS

6.2 TEST PROCEDURE

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the RBW to: 100 kHz ≥ RBW ≥ 3 kHz.
4. Set the VBW ≥ 3 x RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

6.3 TEST SETUP

6.4 EUT OPERATION CONDITIONS

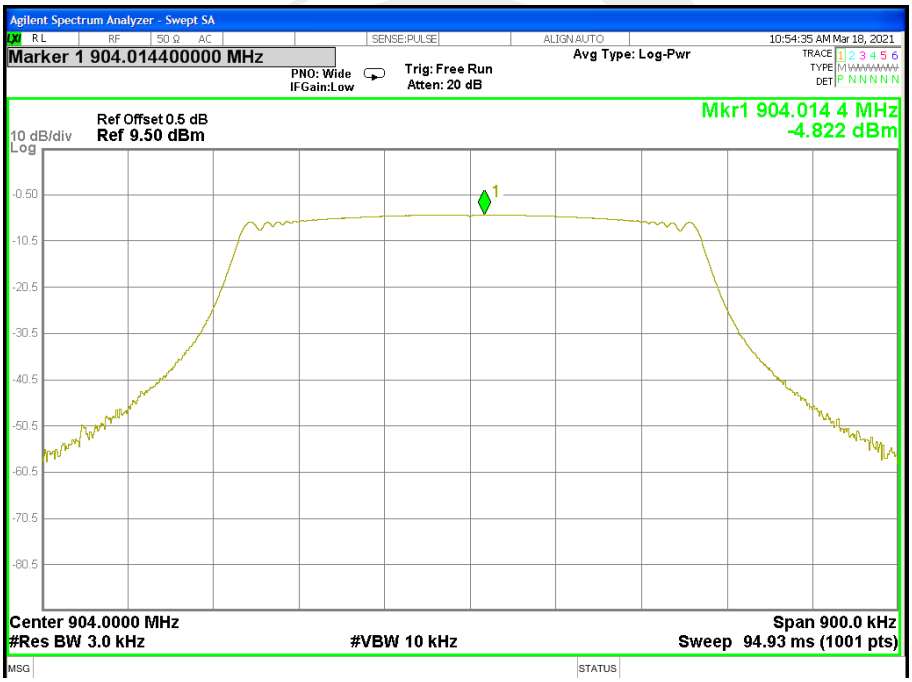
Please refer to section 3.4 of this report.

6.5 TEST RESULTS

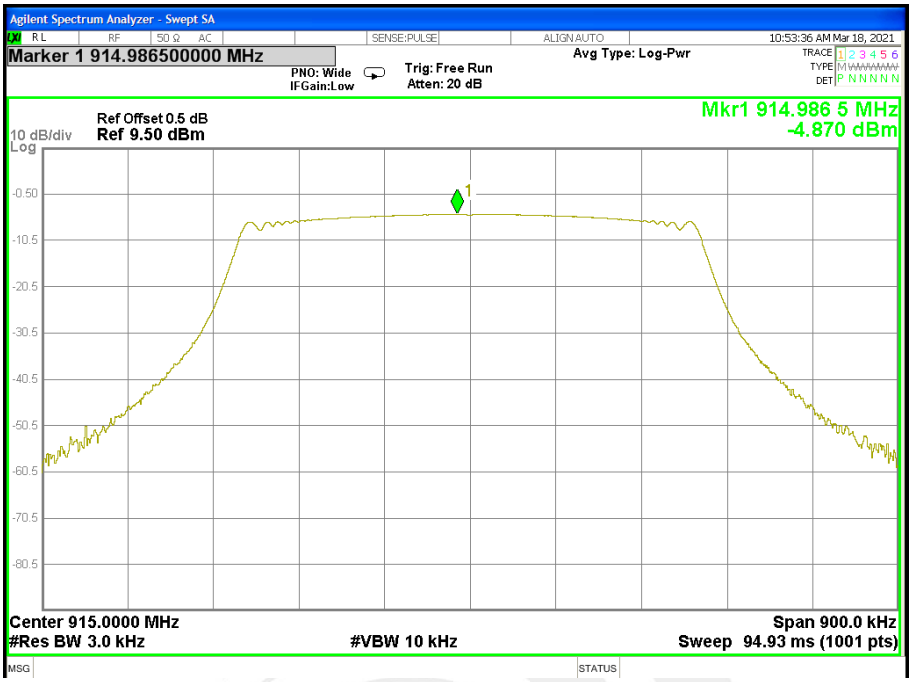
Temperature:	25 ℃	Relative Humidity:	60%
Test Voltage:	DC 12V	Test Mode:	Mode 1/2/3 CH01, CH06, CH09

Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3KHz)	Result
904	-4.822	≤8	PASS
915	-4.870	≤8	PASS
926	-5.101	≤8	PASS

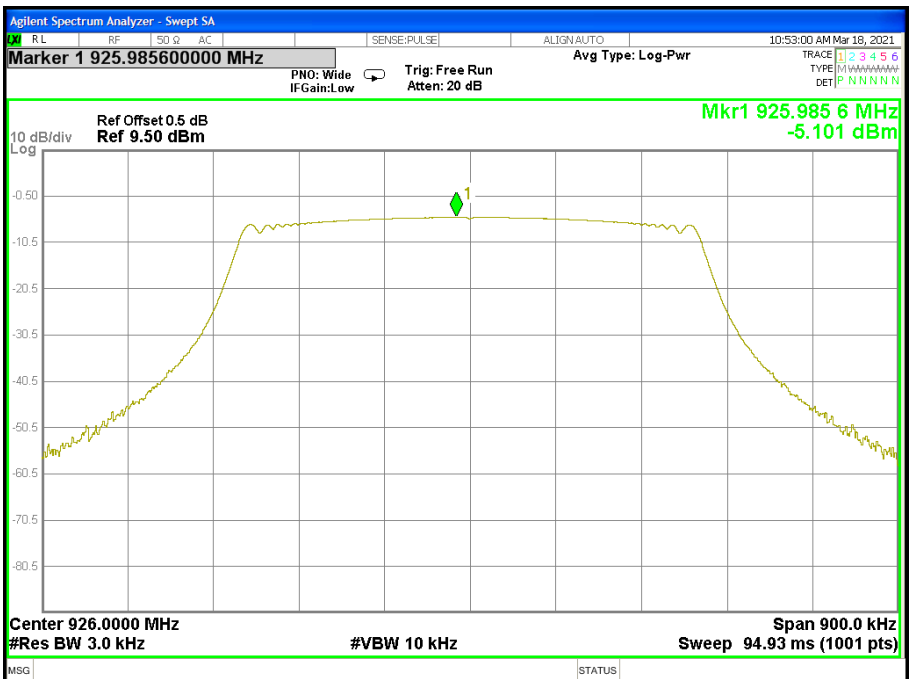
TX CH01



TX CH06



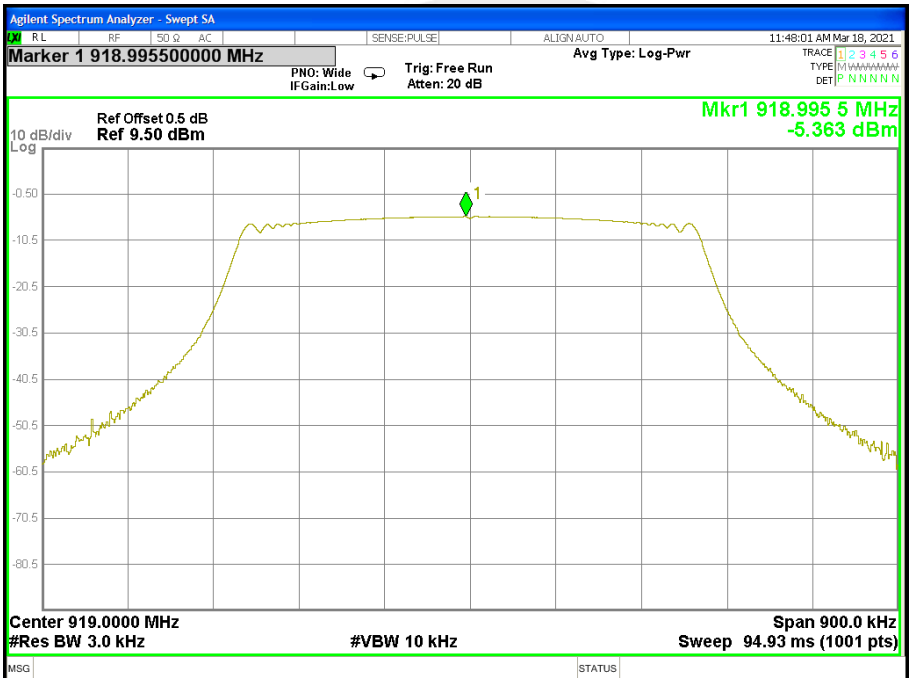
TX CH09



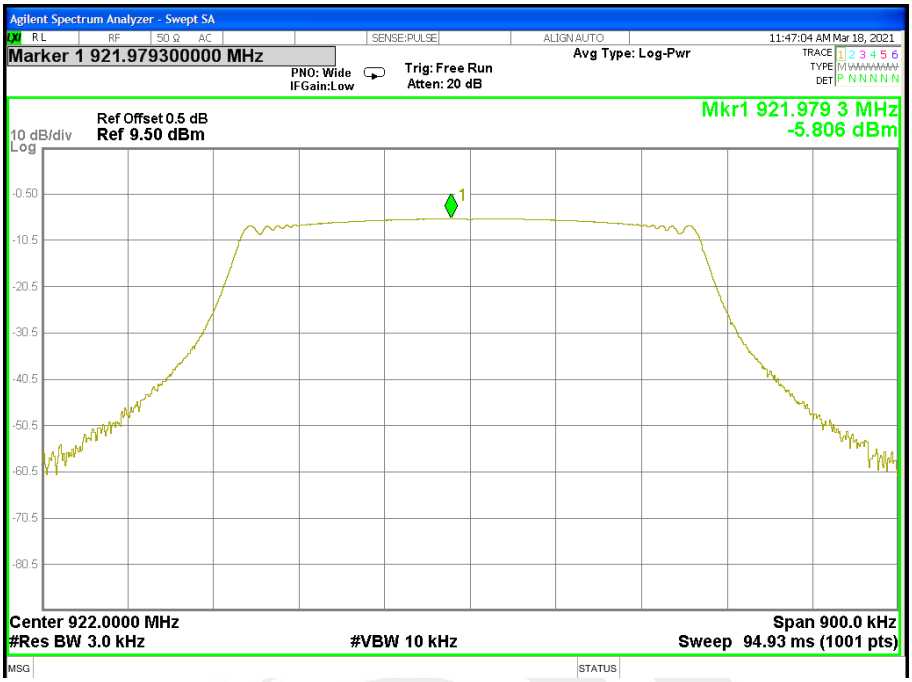
Temperature:	25 ℃	Relative Humidity:	60%
Test Voltage:	DC 12V	Test Mode:	Mode 4/5/6 CH01, CH03, CH10

Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3KHz)	Result
919	-5.363	≤8	PASS
922	-5.806	≤8	PASS
925	-5.862	≤8	PASS

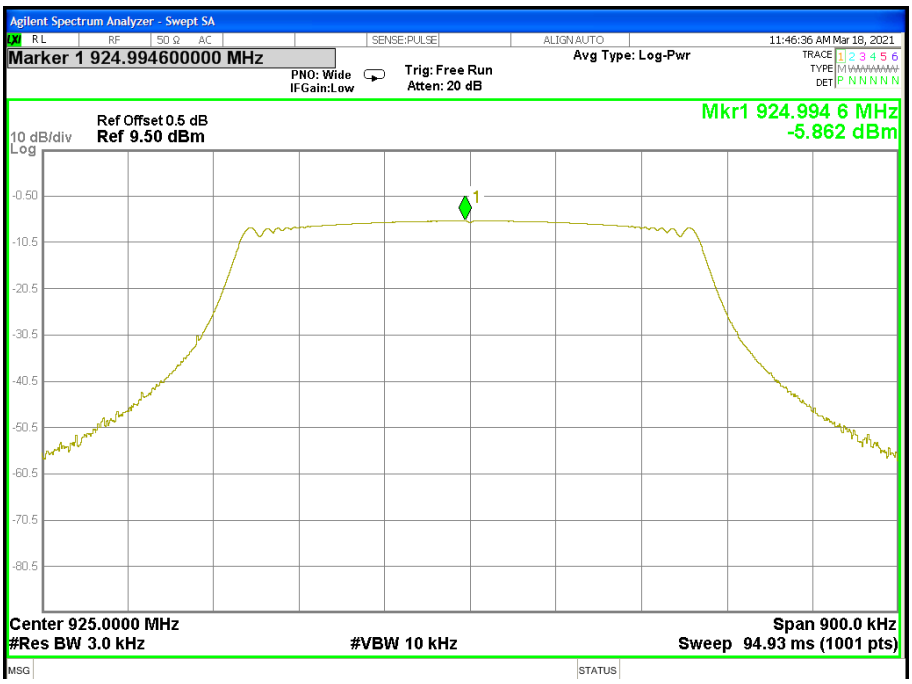
TX CH01



TX CH03



TX CH10



7. BANDWIDTH TEST

7.1 LIMIT

FCC Part 15.247,Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	>= 500KHz (6dB bandwidth)	902-928	PASS

7.2 TEST PROCEDURE

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described above (i.e., RBW = 100 kHz, VBW≥3RBW, peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be≥6 dB.

7.3 TEST SETUP

7.4 EUT OPERATION CONDITIONS

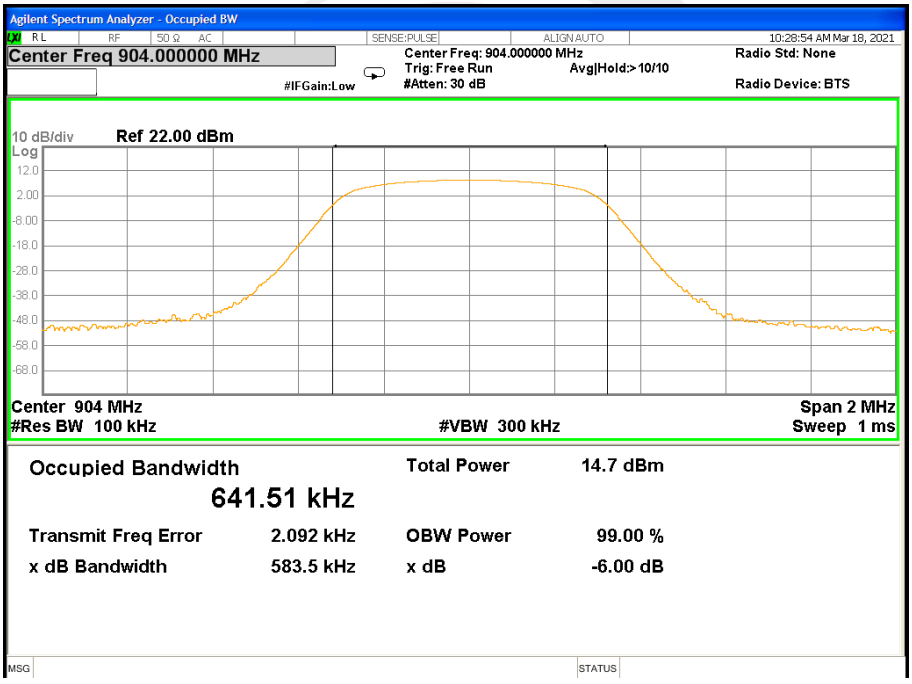
Please refer to section 3.4 of this report.

7.5 TEST RESULTS

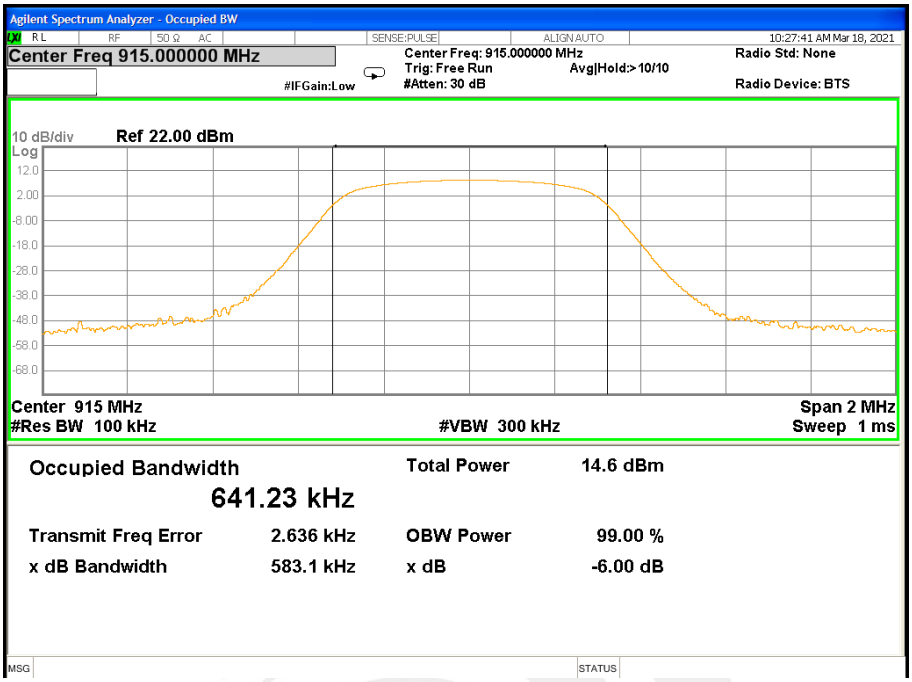
Temperature:	25 ℃	Relative Humidity:	60%
Test Voltage:	DC 12V	Test Mode:	Mode 1/2/3 CH01, CH06, CH09

Frequency (MHz)	6dB Bandwidth (KHz)	Limit (KHz)	Result
904	583.500	≥500KHz	PASS
915	583.100	≥500KHz	PASS
926	583.000	≥500KHz	PASS

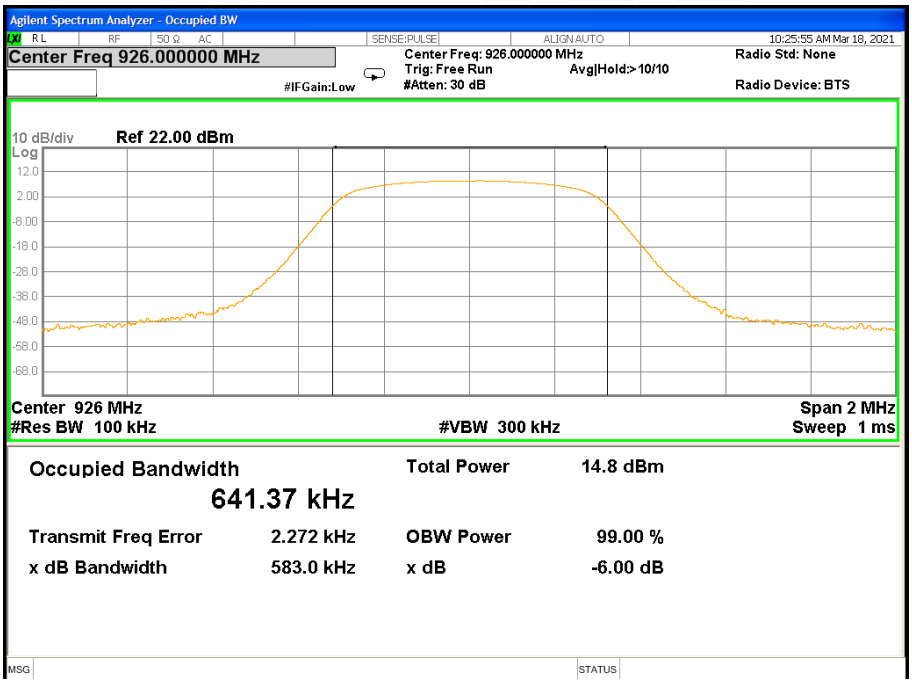
TX CH 01



TX CH 06



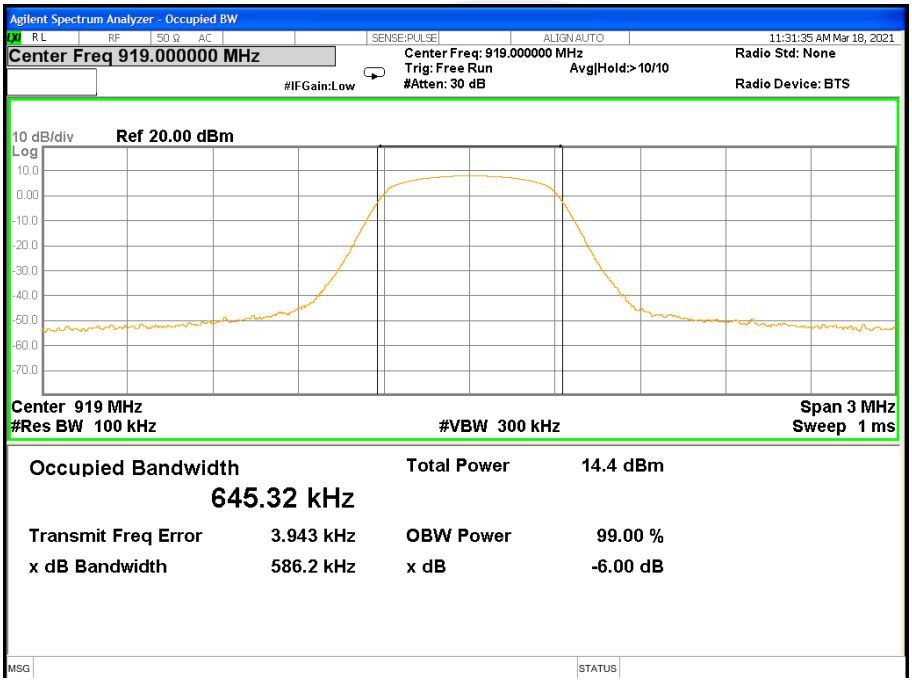
TX CH 09



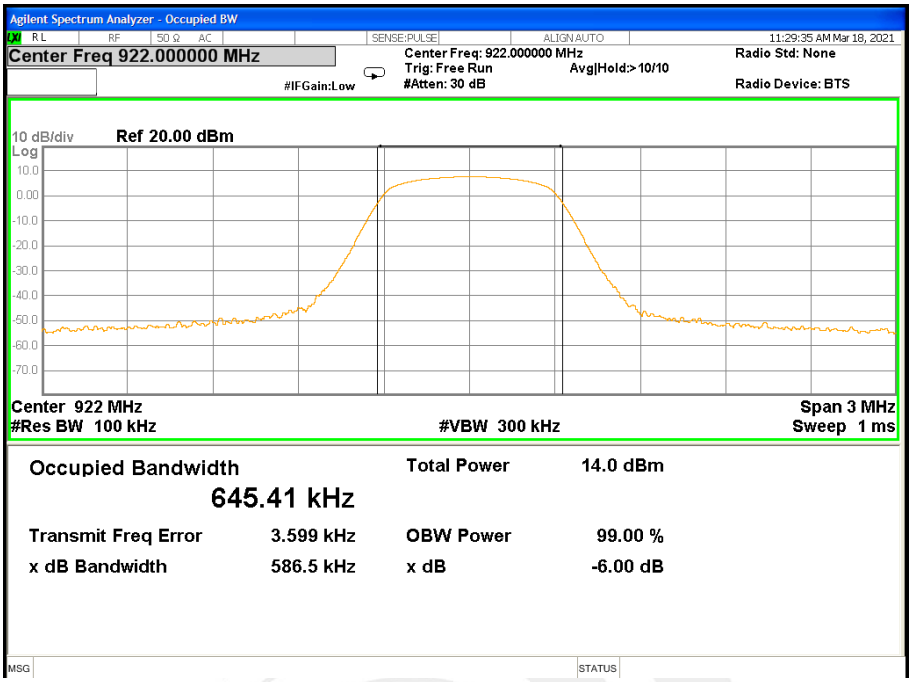
Temperature:	25 ℃	Relative Humidity:	60%
Test Voltage:	DC 12V	Test Mode:	Mode 4/5/6 CH001 CH3, CH10

Frequency (MHz)	6dB Bandwidth (KHz)	Limit (KHz)	Result
919	586.200	≥500KHz	PASS
922	586.500	≥500KHz	PASS
925	585.300	≥500KHz	PASS

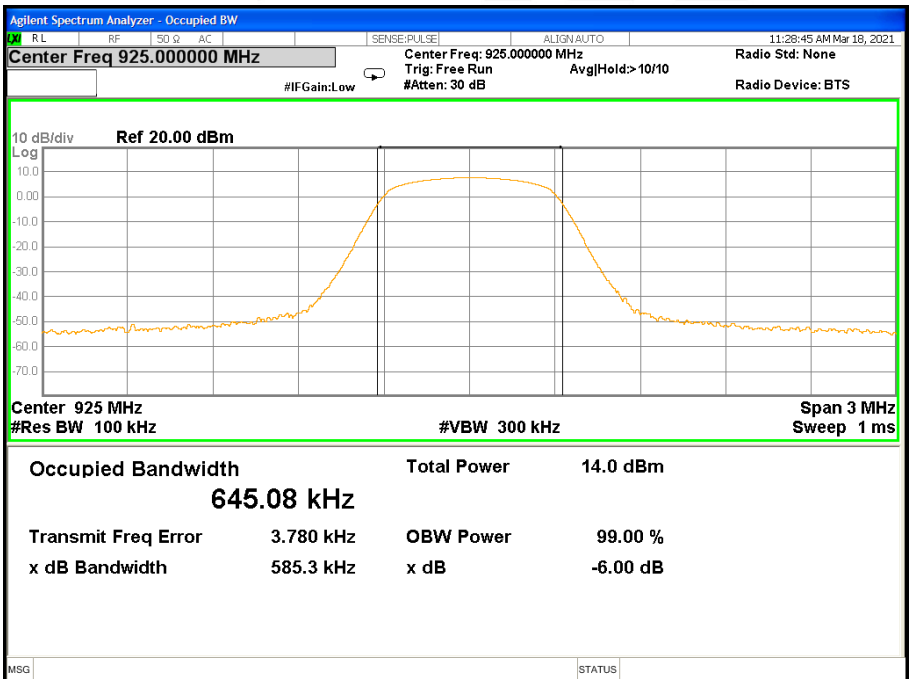
TX CH 01



TX CH 03



TX CH 10



8. PEAK OUTPUT POWER TEST

8.1 LIMIT

FCC Part 15.247,Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Output Power	1 watt or 30dBm	902-928	PASS

8.2 TEST PROCEDURE

One of the following procedures may be used to determine the maximum peak conducted output power of a DTS EUT.

RBW ≥ DTS bandwidth

The following procedure shall be used when an instrument with a resolution bandwidth that is greater than the DTS bandwidth is available to perform the measurement:

a) Set the RBW ≥ DTS bandwidth.
b) Set VBW ≥ [3 × RBW].
c) Set span ≥ [3 × RBW].
d) Sweep time = auto couple.
e) Detector = peak.
f) Trace mode = max hold.
g) Allow trace to fully stabilize.
h) Use peak marker function to determine the peak amplitude level.

Integrated band power method:

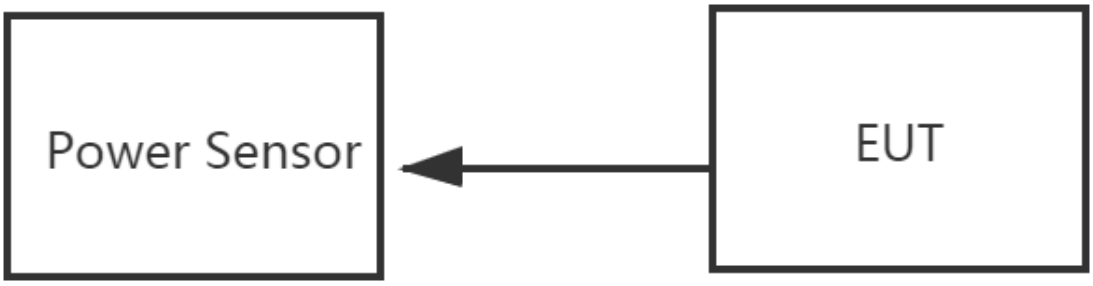
The following procedure can be used when the maximum available RBW of the instrument is less than the
DTS bandwidth:

a) Set the RBW = 1 MHz.
b) Set the VBW ≥ [3 × RBW].
c) Set the span ≥ [1.5 × DTS bandwidth].
d) Detector = peak.
e) Sweep time = auto couple.
f) Trace mode = max hold.
g) Allow trace to fully stabilize.
h) Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select the peak detector). If the instrument does not have a band power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the DTS channel bandwidth.

PKPM1 Peak power meter method:

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

8.3 TEST SETUP



8.4 EUT OPERATION CONDITIONS

Please refer to section 3.4 of this report.

8.5 TEST RESULTS

Temperature:	25 ℃	Relative Humidity:	60%
Test Voltage:	DC 12V	Test Mode:	Mode 1/2/3 CH01, CH06, CH09

Test Channe	Frequency	Peak Conducted Output Power	Average Conducted Output Power	LIMIT
	(MHz)	(dBm)	(dBm)	dBm
CH01	904	8.95	8.72	30
CH06	915	9.13	8.92	30
CH09	926	9.25	9.04	30

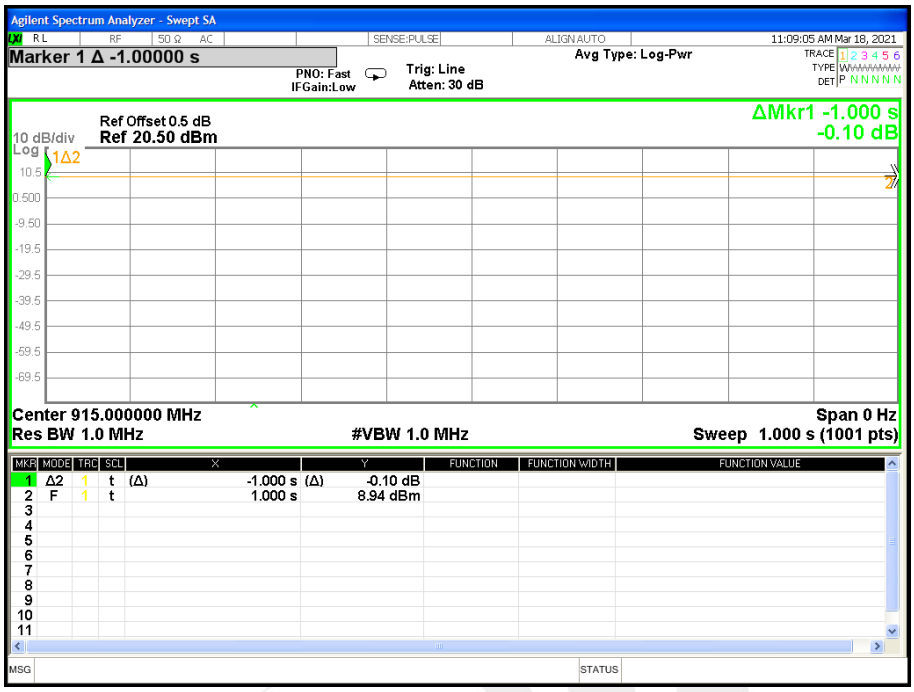
Temperature:	25 ℃	Relative Humidity:	60%
Test Voltage:	DC 12V	Test Mode:	Mode 4/5/6 CH01, CH03, CH10

Test Channe	Frequency	Peak Conducted Output Power	Average Conducted Output Power	LIMIT
	(MHz)	(dBm)	(dBm)	dBm
CH01	919	9.22	8.95	30
CH03	922	8.94	8.60	30
CH10	925	8.89	8.62	30

Note: Our power sensor test AVG power has no duty cycle display. The power sensor measures AVG power is Burst power. The software has considered the factor of the duty cycle factor, so it is unnecessary to add it again.

US915

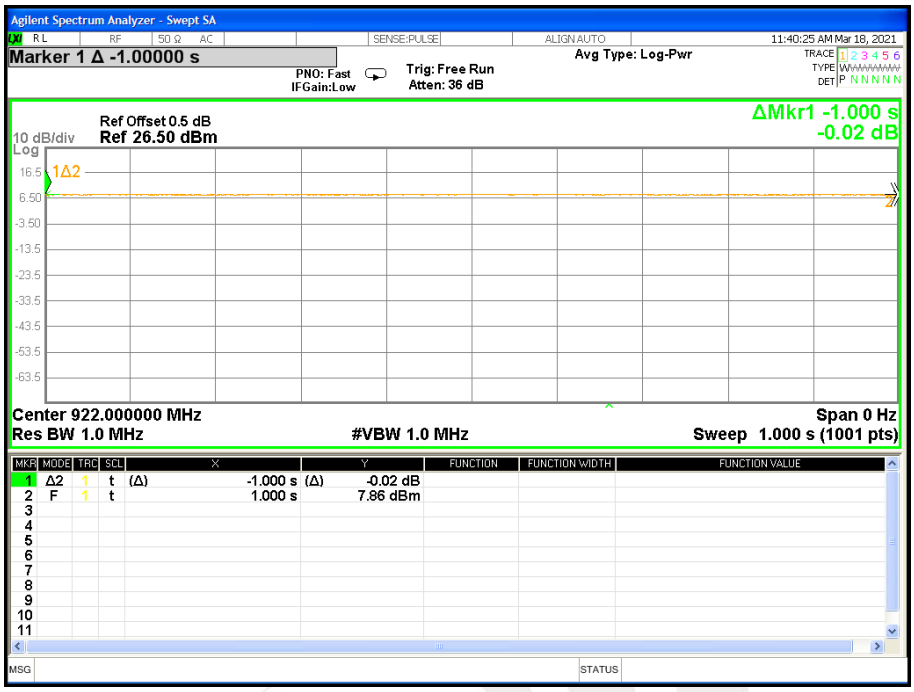
Duty cycle



Ton	Tp	Duty cycle(%)	Duty factor(dB)
100.000	100.000	100.00%	0.00

AS923

Duty cycle



Ton	Tp	Duty cycle(%)	Duty factor(dB)
100.000	100.000	100.00%	0.00

9. ANTENNA REQUIREMENT

9.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 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.

9.2 EUT ANTENNA

The EUT antenna is External Antenna. It comply with the standard requirement.

Antenna Photos

10. EUT TEST PHOTO

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

※※※※※END OF THE REPORT※※※※※