Test Report

FCC Applicant:	Hearth & Home Technologies
Address:	800 W. Jefferson Street, Lake, Minnesota 55041, United States
IC Applicant:	HEARTH & HOME TECHNOLOGIES
Address:	800 W. Jefferson Street Lake City MN 55041United States Of America
Manufacturer:	Hearth & Home Technologies
Address:	800 W. Jefferson Street, Lake, Minnesota 55041, United States
Factory:	Computime Electronics (Shenzhen) CO.,LTD
Address:	Computime Technology Pk,Dan Zhu Tou Cun Buji,Longgang Region Shenzhen China

Equipment Under Test (EUT)

Product Name:	IFT-RC150 IntelliFire Touch Wireless Wall Switch
Model No.:	2564-100
Trade Mark:	Intellifire
FCC ID:	ULE2564-100
IC:	6732A-2564100
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.249 RSS-Gen Issue 5 RSS-210 Issue 10
Date of sample receipt:	June 05, 2020
Date of Test:	June 05-11, 2020
Date of report issued:	June 11, 2020
Test Result :	PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Lo
Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	*June 11, 2020*	*Original*

Prepared By:	Tiger. Chen	***Date:***	*June 11, 2020*
	Project Engineer		
Check By:	Robinson Lo	***Date:***	*June 11, 2020*
	Reviewer		

3 Contents

Page

1 COVER PAGE 1

2 VERSION 2

3 CONTENTS 3

4 TEST SUMMARY 4

4.1 MEASUREMENT UNCERTAINTY 4

5 GENERAL INFORMATION 5

5.1 GENERAL DESCRIPTION OF EUT 5
5.2 TEST MODE 6
5.3 DESCRIPTION OF SUPPORT UNITS 6
5.4 DEVIATION FROM STANDARDS 6
5.5 ABNORMALITIES FROM STANDARD CONDITIONS 6
5.6 TEST FACILITY 6
5.7 TEST LOCATION 6
5.8 ADDITIONAL INSTRUCTIONS 6

6 TEST INSTRUMENTS LIST 7

7 TEST RESULTS AND MEASUREMENT DATA 9

7.1 ANTENNA REQUIREMENT 9
7.2 RADIATED EMISSION METHOD 10
7.2.1 Field Strength of The Fundamental Signal and spurious emissions 13
7.2.2 Spurious emissions 14
7.3 20DB OCCUPY BANDWIDTH AND 99% OCCUPIED BANDWIDTH 26

8 TEST SETUP PHOTO 28

9 EUT CONSTRUCTIONAL DETAILS 28

4 Test Summary

Test Item	Section	Result
Antenna requirement	15.203 RSS-Gen Section 6.8	Pass
AC Power Line Conducted Emission	15.207 RSS-Gen Section 8.8	N/A
Field strength of the fundamental signal	15.249 (a) RSS-210 B10(a)	Pass
Spurious emissions	15.249 (a) (d)/15.209 RSS-Gen Clause 8.9&8.10	Pass
Band edge	15.249 (d)/15.205 RSS-Gen Clause 8.9&8.10	Pass
20dB Occupied Bandwidth and 99% Occupied Bandwidth	15.215 (c) RSS-Gen 6.7	Pass

Pass: The EUT complies with the essential requirements in the standard.

Remark: Test according to ANSI C63.10: 2013 and ANSI C63.4: 2014.

4.1 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	30MHz-200MHz	3.8039dB	(1)
Radiated Emission	200MHz-1GHz	3.9679dB	(1)
Radiated Emission	1GHz-18GHz	4.29dB	(1)
Radiated Emission	18GHz-40GHz	3.30dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	(1)
Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.			

5 General Information

5.1 General Description of EUT

Product Name:	IFT-RC150 IntelliFire Touch Wireless Wall Switch
Model No.:	2564-100
Serial No.:	YYWWHFMNNNN
Hardware Version:	HHTS021_Wall mount_Rev5.0
Software Version:	V1.0.9
Test sample(s) ID:	GTS202006000080-1
Sample(s) Status:	Engineer sample
Operation Frequency:	912.2MHz~918MHz
Channel numbers:	30
Channel separation:	200kHz
Modulation type:	FSK
Antenna Type:	Internal antenna
Antenna gain:	0dBi(declare by manufacturer)
Power supply:	DC 3V

Test using a new battery.

Operation Frequency each of channel					
Channel	Frequency	Channel	Frequency	Channel	Frequency
1	912.2 MHz	11	914.2 MHz	21	916.2 MHz
2	912.4 MHz	12	914.4 MHz	22	916.4 MHz
3	912.6 MHz	13	914.6 MHz	23	916.6 MHz
4	912.8 MHz	14	914.8 MHz	24	916.8 MHz
5	913.0 MHz	15	915.0 MHz	25	917.0 MHz
6	913.2 MHz	16	915.2 MHz	26	917.2 MHz
7	913.4 MHz	17	915.4 MHz	27	917.4 MHz
8	913.6 MHz	18	915.6 MHz	28	917.6 MHz
9	913.8 MHz	19	915.8 MHz	29	917.8 MHz
10	914.0 MHz	20	916.0 MHz	30	918.0 MHz

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode.

Per-test mode.

We have verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:

Axis	X	Y	Z
Field Strength(dBuV/m)	92.34	93.22	91.41

5.3 Description of Support Units

None

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC —Registration No.: 381383**

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 381383.

- **IC —Registration No.: 9079A**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A

- **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). LAB CODE:600179-0.

5.7 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.
No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102
Tel: 0755-27798480
Fax: 0755-27798960

5.8 Additional Instructions

EUT Software Settings:

Mode	Special test firmware pre built in by manufacturer

6 Test Instruments list

Radiated Emission:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July. 03 2015	July. 02 2020
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June. 26 2019	June. 25 2020
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 26 2019	June. 25 2020
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 26 2019	June. 25 2020
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 26 2019	June. 25 2020
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 26 2019	June. 25 2020
9	Coaxial Cable	GTS	N/A	GTS211	June. 26 2019	June. 25 2020
10	Coaxial cable	GTS	N/A	GTS210	June. 26 2019	June. 25 2020
11	Coaxial Cable	GTS	N/A	GTS212	June. 26 2019	June. 25 2020
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 26 2019	June. 25 2020
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 26 2019	June. 25 2020
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 26 2019	June. 25 2020
15	Band filter	Amindeon	82346	GTS219	June. 26 2019	June. 25 2020
16	Power Meter	Anritsu	ML2495A	GTS540	June. 26 2019	June. 25 2020
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 26 2019	June. 25 2020
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 26 2019	June. 25 2020
19	Splitter	Agilent	11636B	GTS237	June. 26 2019	June. 25 2020
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 26 2019	June. 25 2020
21	Breitband hornantenne	SCHWARZBECK	BBHA 9170	GTS579	Oct. 19 2019	Oct. 18 2020
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 19 2019	Oct. 18 2020
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 19 2019	Oct. 18 2020
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June. 26 2019	June. 25 2020

RF Conducted Test:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	June. 26 2019	June. 25 2020
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 26 2019	June. 25 2020
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June. 26 2019	June. 25 2020
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	June. 26 2019	June. 25 2020
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	June. 26 2019	June. 25 2020
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	June. 26 2019	June. 25 2020
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	June. 26 2019	June. 25 2020
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	June. 26 2019	June. 25 2020

General used equipment:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	June. 26 2019	June. 25 2020
2	Barometer	ChangChun	DYM3	GTS255	June. 26 2019	June. 25 2020

7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement:
FCC part 15.203 requirement: 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.
RSS-Gen 6.8: The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list. For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).
EUT Antenna:
The antenna is integral antenna, the best case gain of the antenna is 0dBi, reference to the appendix II for details

7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 RSS-210 B10(a)& RSS-210 B10(b)& RSS-Gen Clause 8.9&8.10
Test Method:	ANSI C63.10:2013 and RSS-Gen
Test Frequency Range:	9kHz to 10GHz
Test site:	Measurement Distance: 3m

Receiver setup:

Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Limit:
(Field strength of the fundamental signal)

Frequency	Limit (dBuV/m @3m)	Remark
902-928MHz	94.00	Average Value
	114.00	Peak Value

Limit:
(Spurious Emissions)

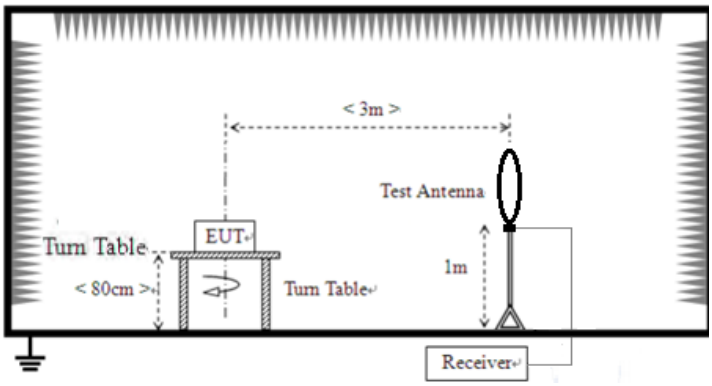
Frequency	Limit (uV/m)	Value	Measurement Distance
0.009MHz-0.490MHz	2400/F(KHz)	QP	300m
0.490MHz-1.705MHz	24000/F(KHz)	QP	30m
1.705MHz-30MHz	30	QP	30m
30MHz-88MHz	100	QP	3m
88MHz-216MHz	150	QP	
216MHz-960MHz	200	QP	
960MHz-1GHz	500	QP	
Above 1GHz	500	Average	
	5000	Peak	

Limit:
(band edge)

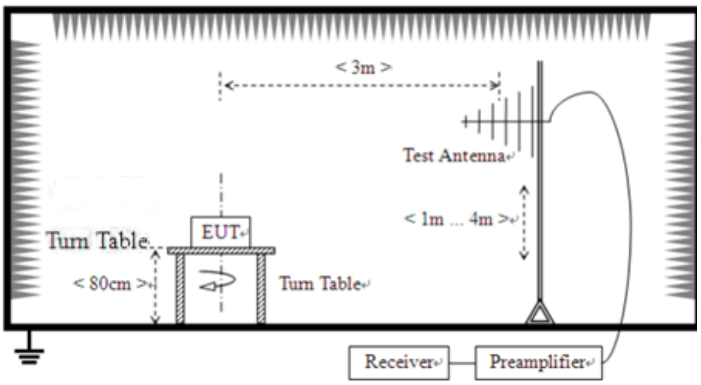
Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Test setup:

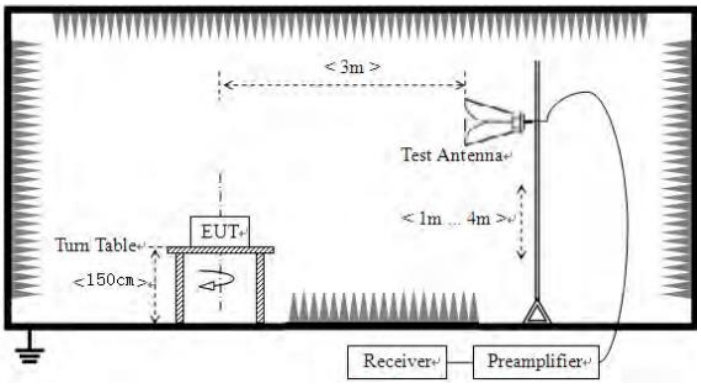
Below 30MHz



Below 1GHz



Above 1GHz



Test Procedure:

1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Test environment:	Temp.:	25 °C	Humid.:	52%	Press.:	1 012mbar
Test Instruments:	Refer to section 6.0 for details					

Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement data:

- **9 kHz ~ 30 MHz**

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

7.2.1 Field Strength of The Fundamental Signal and spurious emissions

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
912.20	91.07	22.35	4.90	37.59	80.73	114.00	-33.27	Vertical
912.20	102.56	23.35	5.90	38.59	93.22	114.00	-20.78	Horizontal
915.00	92.88	22.35	4.91	37.59	82.55	114.00	-31.45	Vertical
915.00	101.79	22.35	4.91	37.59	91.46	114.00	-22.54	Horizontal
918.00	90.26	22.37	4.91	37.58	79.96	114.00	-34.04	Vertical
918.00	102.39	22.37	4.91	37.58	92.09	114.00	-21.91	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
912.20	82.69	22.35	4.90	37.59	72.35	94.00	-21.65	Vertical
912.20	93.43	23.35	5.90	38.59	84.09	94.00	-9.91	Horizontal
915.00	82.91	22.35	4.91	37.59	72.58	94.00	-21.42	Vertical
915.00	92.65	22.35	4.91	37.59	82.32	94.00	-11.68	Horizontal
918.00	82.14	22.37	4.91	37.58	71.84	94.00	-22.16	Vertical
918.00	93.22	22.37	4.91	37.58	82.92	94.00	-11.08	Horizontal

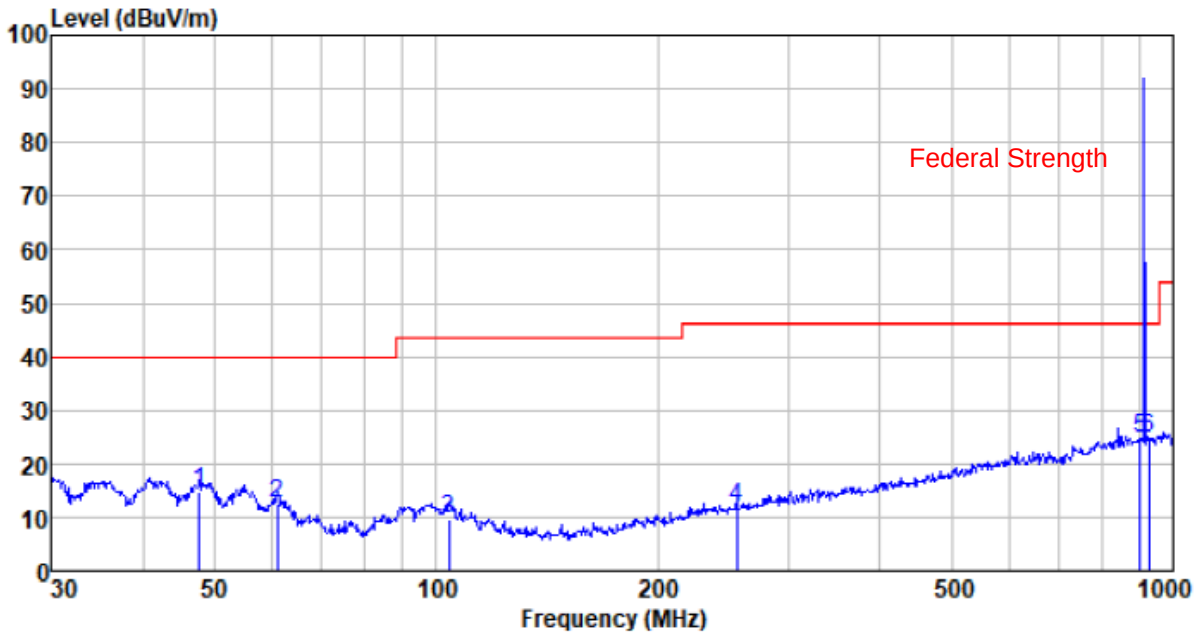
7.2.2 Spurious emissions

- Below 30MHz

  The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o), the test result no need to reported.

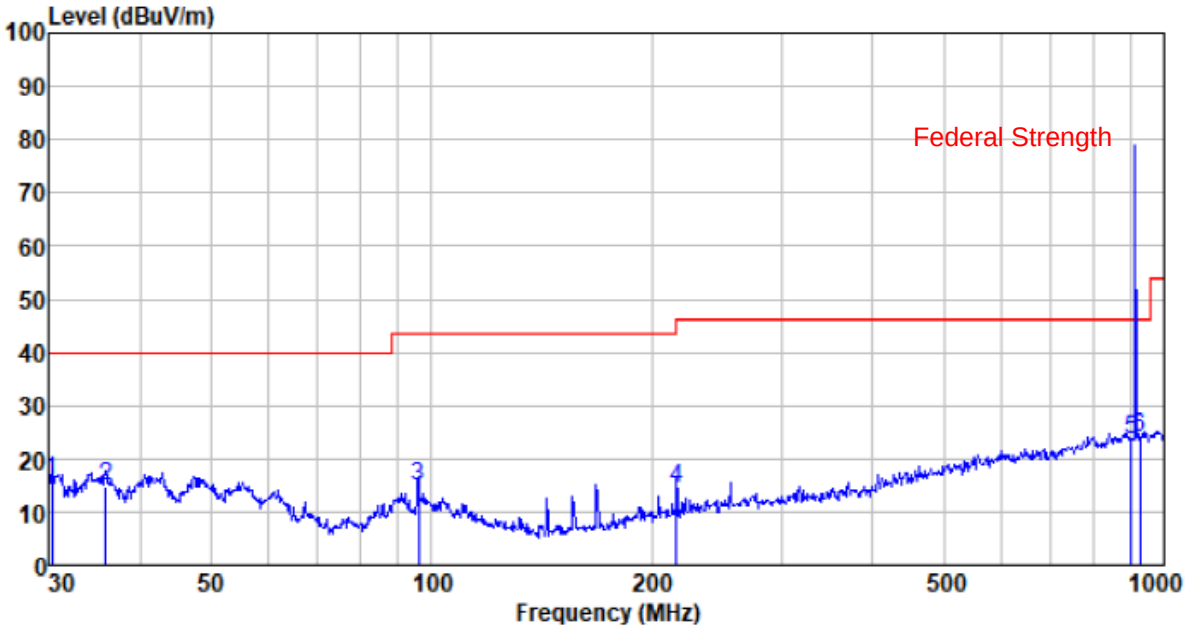
- Below 1GHz

Test mode:	transmitting mode (912.2MHz)	Antenna Polarity:	Horizontal



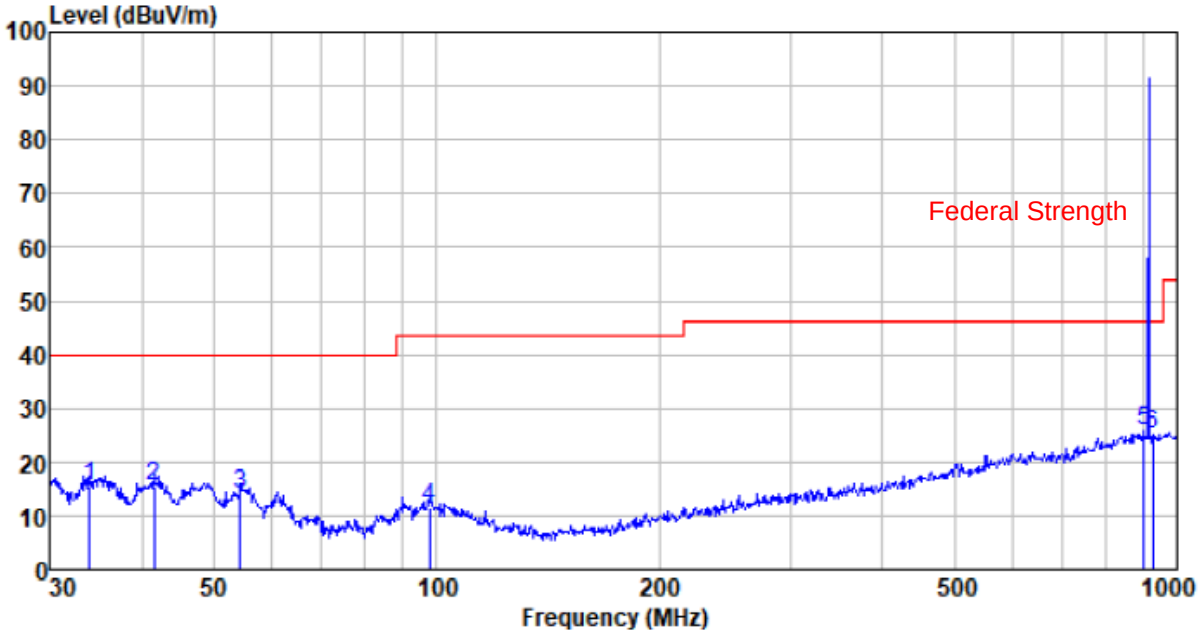
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
47.659	37.87	12.28	0.75	36.07	14.83	40.00	-25.17	QP
60.918	37.14	10.95	0.87	36.33	12.63	40.00	-27.37	QP
104.170	33.56	11.73	1.23	36.76	9.76	43.50	-33.74	QP
255.623	34.83	12.33	2.15	37.38	11.93	46.00	-34.07	QP
902.000	34.97	22.30	4.87	37.60	24.54	46.00	-21.46	QP
928.000	34.80	22.41	4.96	37.57	24.60	46.00	-21.40	QP

Test mode:	transmitting mode (912.2MHz)	Antenna Polarity:	Vertical



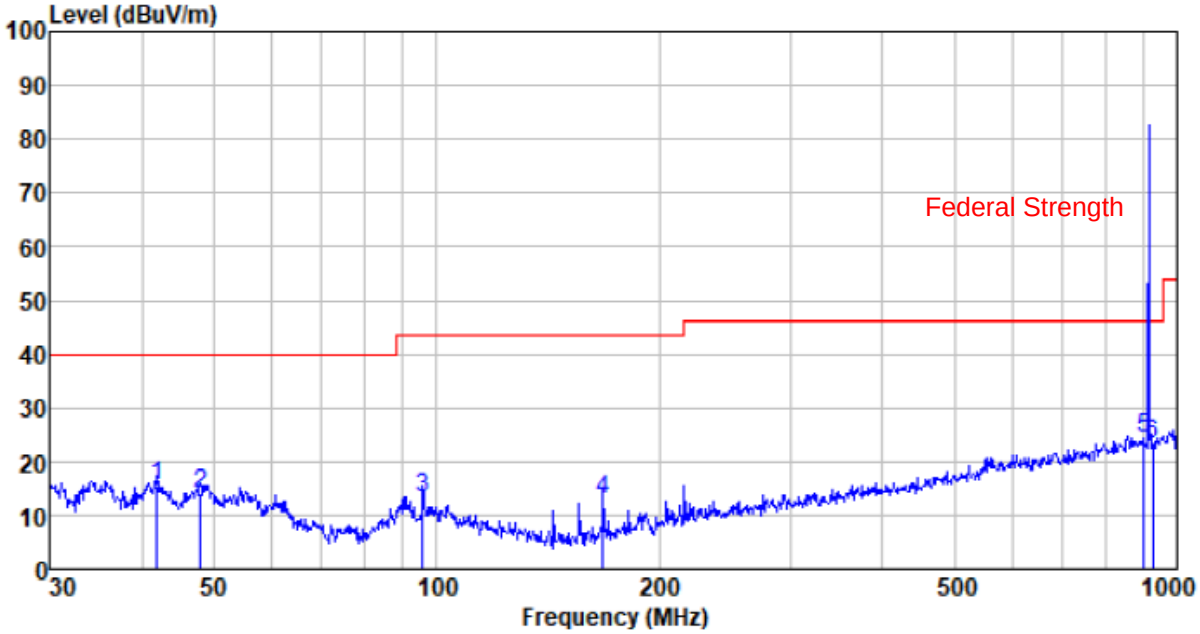
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
30.317	39.27	11.21	0.55	35.02	16.01	40.00	-23.99	QP
35.875	37.88	11.49	0.62	35.41	14.58	40.00	-25.42	QP
96.099	38.59	11.65	1.16	36.69	14.71	43.50	-28.79	QP
216.024	38.62	11.02	1.93	37.35	14.22	46.00	-31.78	QP
902.000	33.88	22.30	4.87	37.60	23.45	46.00	-22.55	QP
928.000	34.19	22.41	4.96	37.57	23.99	46.00	-22.01	QP

Test mode:	transmitting mode (915MHz)	Antenna Polarity:	Horizontal



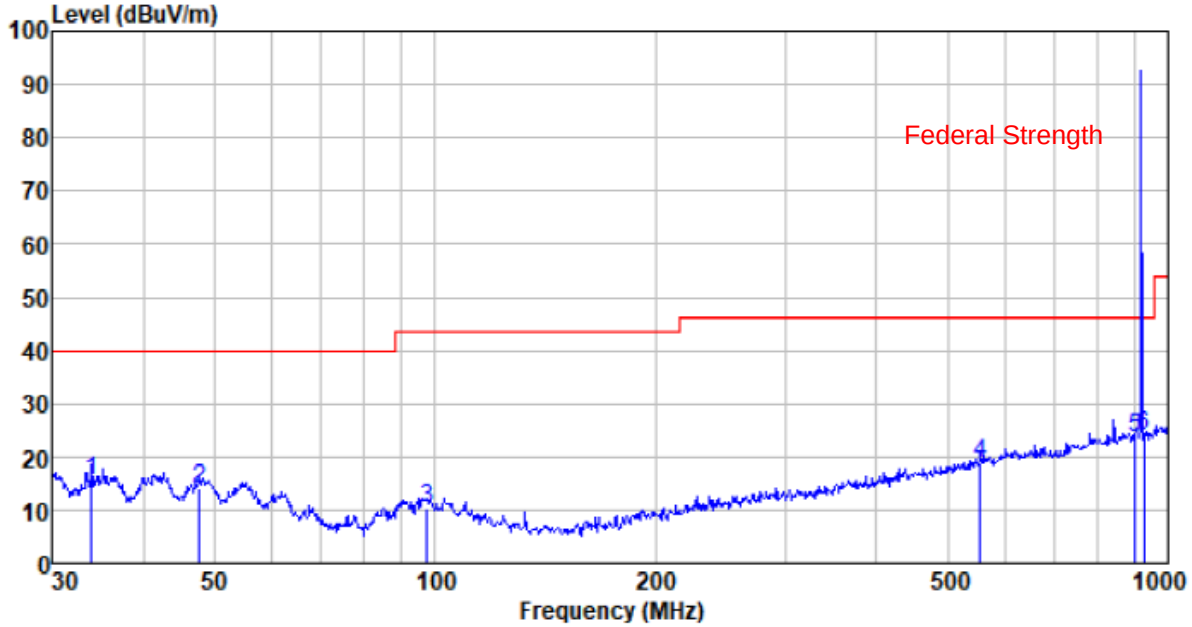
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
34.037	38.92	11.28	0.60	35.29	15.51	40.00	-24.49	QP
41.567	38.50	12.22	0.68	35.75	15.65	40.00	-24.35	QP
54.261	37.56	11.85	0.81	36.24	13.98	40.00	-26.02	QP
97.798	34.91	11.93	1.17	36.70	11.31	43.50	-32.19	QP
902.000	36.40	22.30	4.87	37.60	25.97	46.00	-20.03	QP
928.000	35.22	22.41	4.96	37.57	25.02	46.00	-20.98	QP

Test mode:	transmitting mode (915MHz)	Antenna Polarity:	Vertical



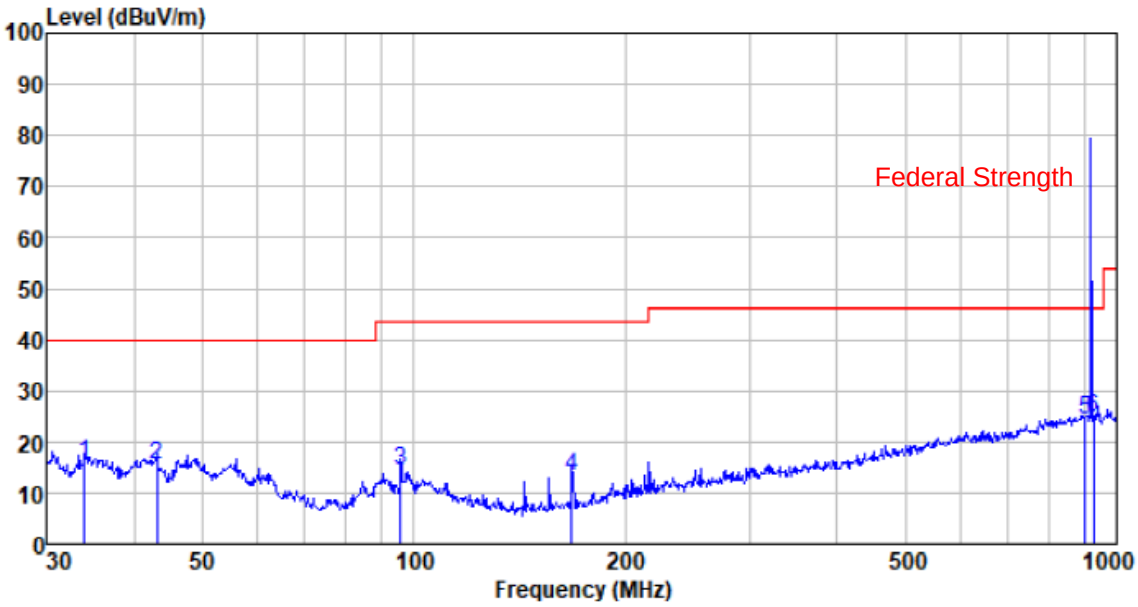
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
41.860	38.36	12.22	0.68	35.77	15.49	40.00	-24.51	QP
47.994	36.90	12.28	0.75	36.09	13.84	40.00	-26.16	QP
95.762	37.29	11.59	1.16	36.69	13.35	43.50	-30.15	QP
167.824	39.83	8.46	1.67	37.18	12.78	43.50	-30.72	QP
902.000	34.69	22.30	4.87	37.60	24.26	46.00	-21.74	QP
928.000	33.48	22.41	4.96	37.57	23.28	46.00	-22.72	QP

Test mode:	transmitting mode (918MHz)	Antenna Polarity:	Horizontal



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
34.037	38.74	11.28	0.60	35.29	15.33	40.00	-24.67	QP
47.659	37.16	12.28	0.75	36.07	14.12	40.00	-25.88	QP
97.456	33.96	11.86	1.17	36.70	10.29	43.50	-33.21	QP
554.825	34.22	18.57	3.54	37.53	18.80	46.00	-27.20	QP
902.000	34.02	22.30	4.87	37.60	23.59	46.00	-22.41	QP
928.000	34.21	22.41	4.96	37.57	24.01	46.00	-21.99	QP

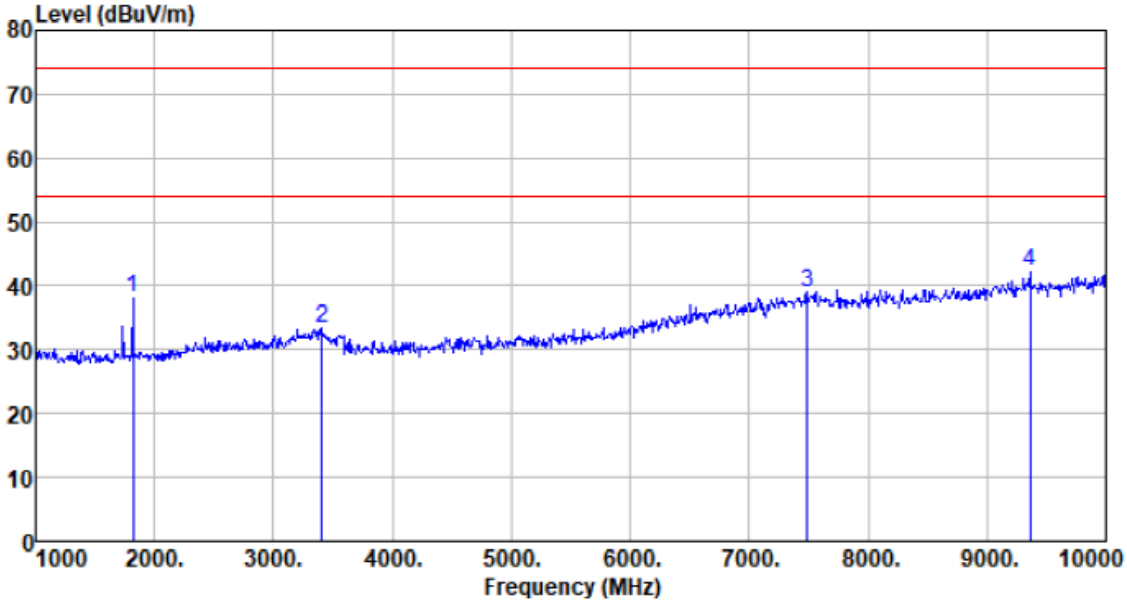
Test mode:	transmitting mode (918MHz)	Antenna Polarity:	Vertical



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
34.037	39.24	11.28	0.60	35.29	15.83	40.00	-24.17	QP
43.050	38.48	12.23	0.70	35.83	15.58	40.00	-24.42	QP
95.762	38.51	11.59	1.16	36.69	14.57	43.50	-28.93	QP
167.824	40.24	8.46	1.67	37.18	13.19	43.50	-30.31	QP
902.000	34.69	22.30	4.87	37.60	24.26	46.00	-21.74	QP
928.000	34.87	22.41	4.96	37.57	24.67	46.00	-21.33	QP

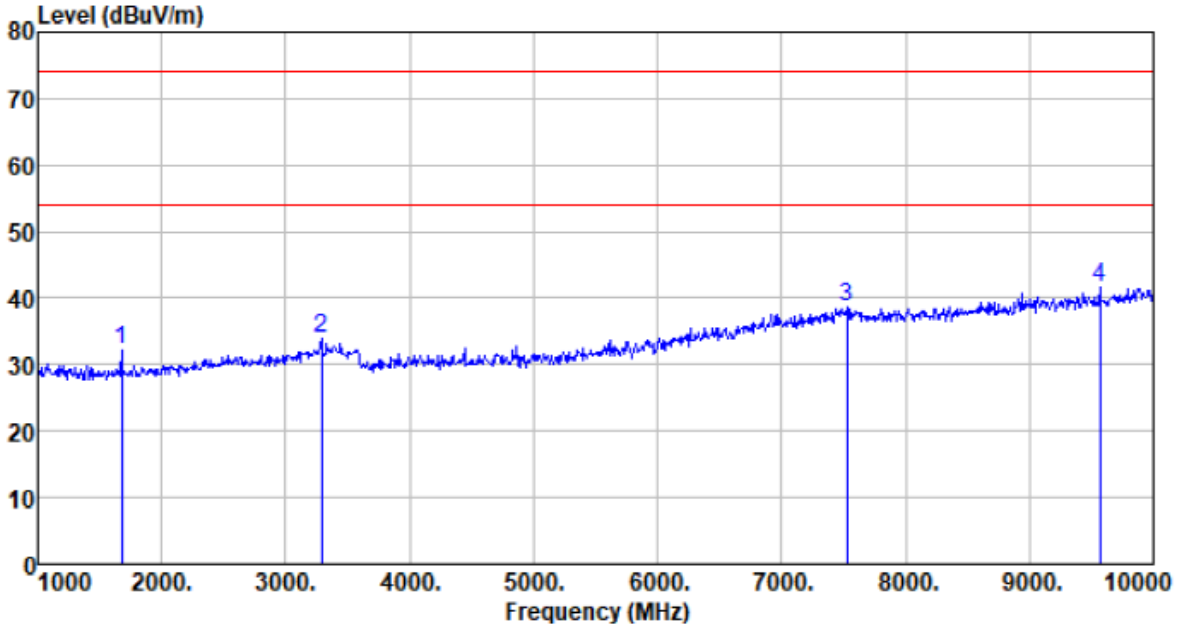
■ Above 1GHz

Test mode:	transmitting mode (912.2MHz)	Antenna Polarity:	Horizontal



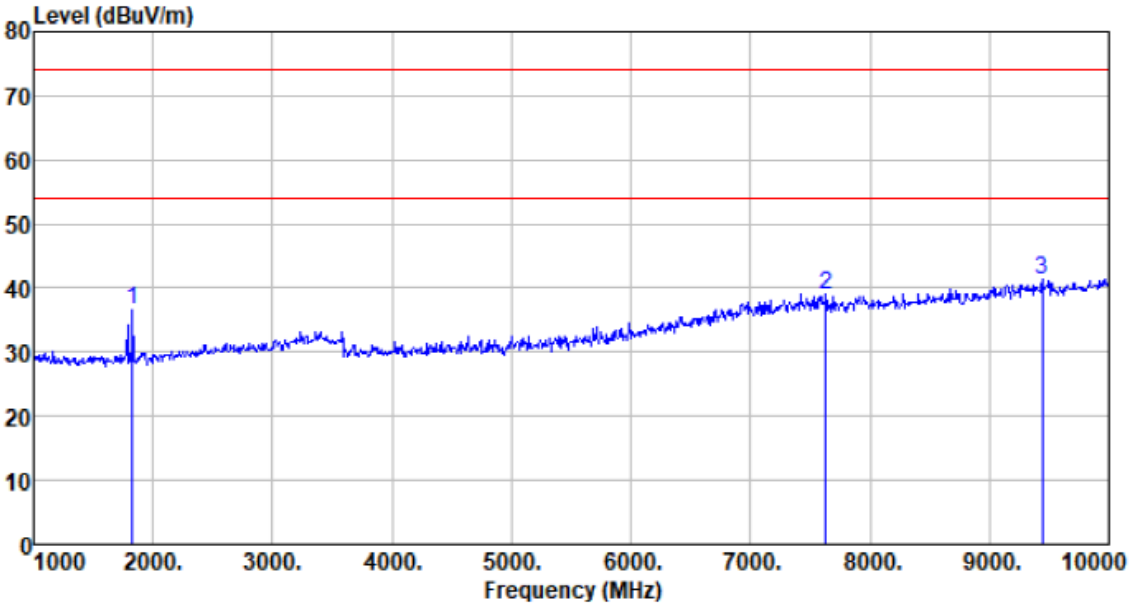
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1819.000	46.05	25.84	2.49	36.39	37.99	74.00	-36.01	Peak
3412.000	38.50	28.40	3.66	37.35	33.21	74.00	-40.79	Peak
7489.000	30.80	36.80	6.83	35.54	38.89	74.00	-35.11	Peak
9361.000	31.37	37.72	7.83	34.76	42.16	74.00	-31.84	Peak

Test mode:	transmitting mode (912.2MHz)	Antenna Polarity:	Vertical



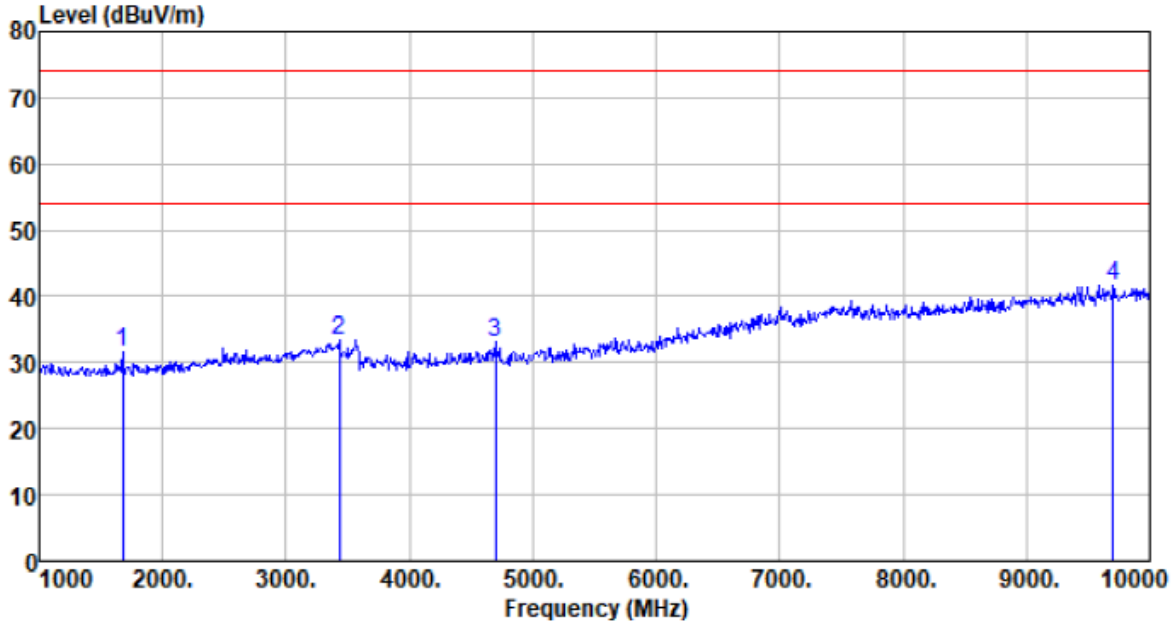
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1675.000	40.45	25.60	2.39	36.29	32.15	74.00	-41.85	Peak
3286.000	39.16	28.40	3.62	37.33	33.85	74.00	-40.15	Peak
7525.000	30.65	36.83	6.82	35.54	38.76	74.00	-35.24	Peak
9568.000	30.60	37.87	7.96	34.90	41.53	74.00	-32.47	Peak

Test mode:	transmitting mode (915MHz)	Antenna Polarity:	Horizontal



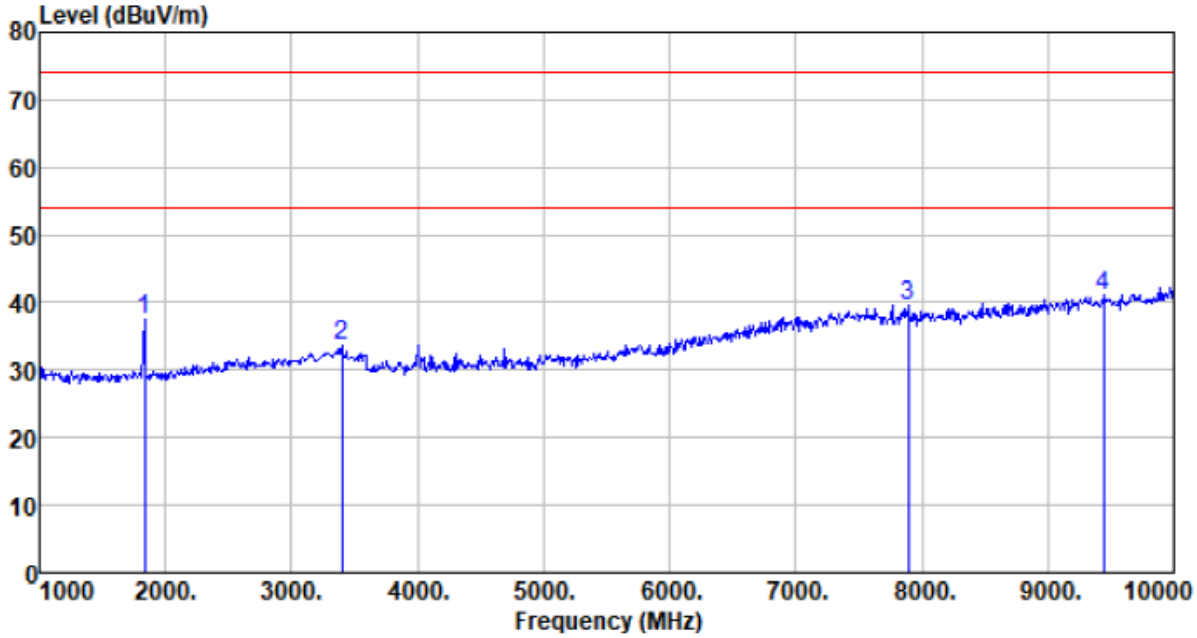
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1828.000	44.68	25.85	2.49	36.40	36.62	74.00	-37.38	Peak
7633.000	30.75	36.96	6.80	35.50	39.01	74.00	-34.99	Peak
9442.000	30.60	37.77	7.89	34.82	41.44	74.00	-32.56	Peak

Test mode:	transmitting mode (915MHz)	Antenna Polarity:	Vertical



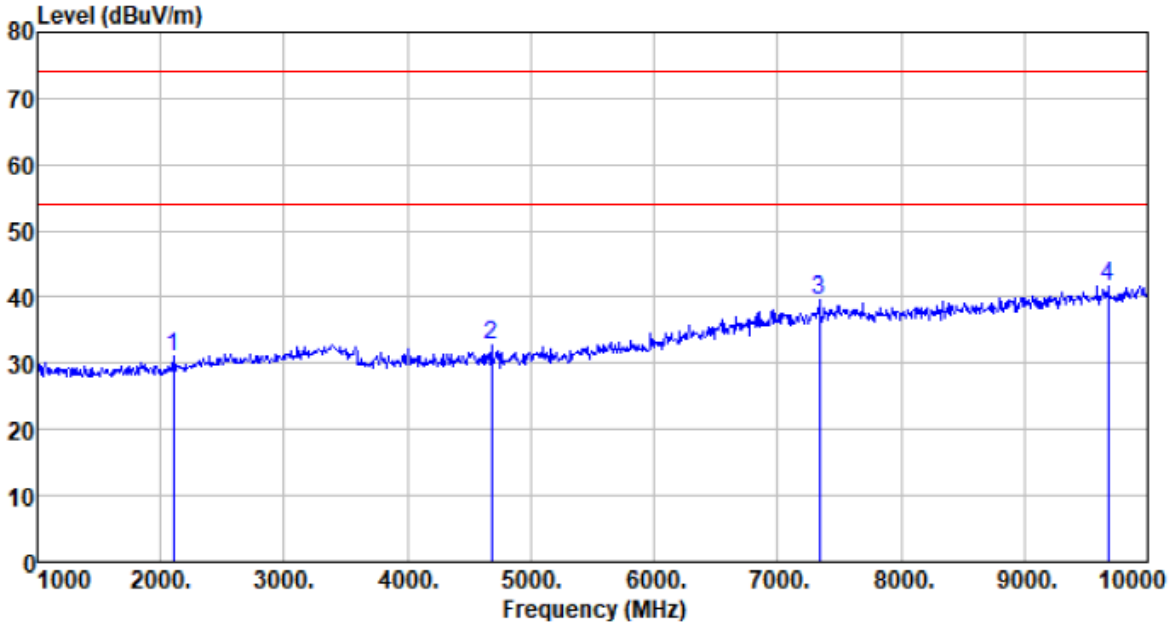
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1675.000	39.77	25.60	2.39	36.29	31.47	74.00	-42.53	Peak
3430.000	38.67	28.40	3.67	37.35	33.39	74.00	-40.61	Peak
4699.000	35.11	31.02	4.56	37.69	33.00	74.00	-41.00	Peak
9703.000	30.64	38.03	8.01	34.99	41.69	74.00	-32.31	Peak

Test mode:	transmitting mode (918MHz)	Antenna Polarity:	Horizontal



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1837.000	45.65	25.86	2.49	36.40	37.60	74.00	-36.40	Peak
3403.000	38.90	28.40	3.64	37.34	33.60	74.00	-40.40	Peak
7894.000	31.03	37.29	6.75	35.43	39.64	74.00	-34.36	Peak
9442.000	30.16	37.77	7.89	34.82	41.00	74.00	-33.00	Peak

Test mode:	transmitting mode (918MHz)	Antenna Polarity:	Vertical

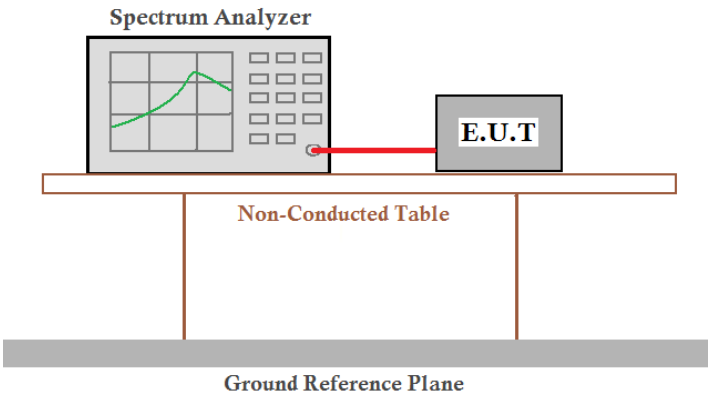


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2107.000	38.55	26.47	2.62	36.60	31.04	74.00	-42.96	Peak
4681.000	34.85	31.00	4.55	37.68	32.72	74.00	-41.28	Peak
7336.000	31.98	36.43	6.65	35.60	39.46	74.00	-34.54	Peak
9676.000	30.54	38.00	8.00	34.97	41.57	74.00	-32.43	Peak

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *"*", means this data is the too weak instrument of signal is unable to test.*

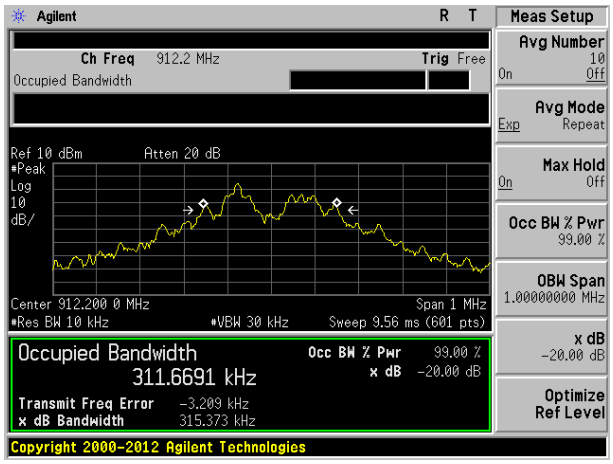
7.3 20dB Occupy Bandwidth and 99% Occupied Bandwidth

Test Requirement:	FCC Part15 C Section 15.249/15.215 RSS-Gen Section 6.7
Test Method:	ANSI C63.10:2013 and RSS-Gen
Limit:	Operation Frequency range 902MHz~928MHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

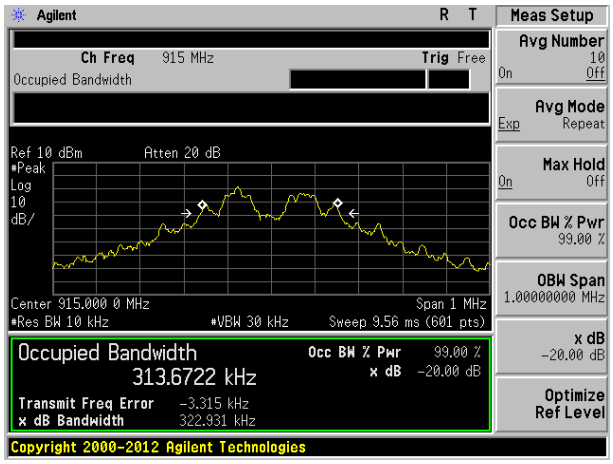
Measurement Data

Operation Frequency	20dB bandwidth(kHz)	99% Occupied bandwidth(kHz)	Result
912.2MHz	315.373	311.6691	Pass
915MHz	322.931	313.6722	
918MHz	323.895	316.4687	

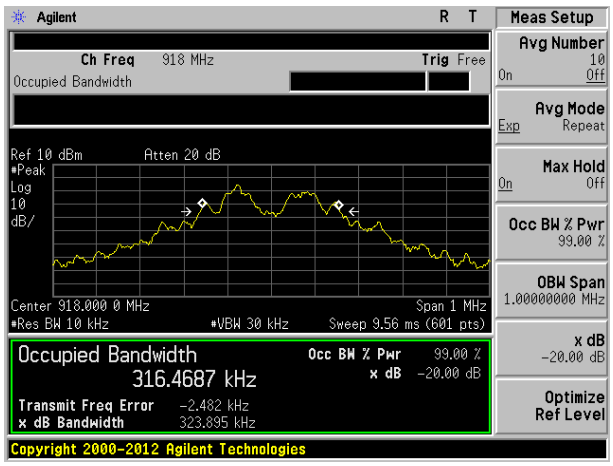
Test plot as follows:



912.2MHz



915MHz



918MHz

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details

------End------