TEST REPORT

Product Name:	Edge Intelligent Controller
FCC ID:	2ATM2-EIC01
Trademark:	ASAM
Model Number:	ASAM-RFUH-EIC01
Prepared For:	Xi'an Aerospace Automation Co., Ltd.
Address:	No. 8, First Electronic Road, Xi'an, Shaanxi Province, China
Manufacturer:	Xi'an Aerospace Automation Co., Ltd.
Address:	No. 8, First Electronic Road, Xi'an, Shaanxi Province, China
Prepared By:	Shenzhen CTB Testing Technology Co., Ltd.
Address:	Floor 1&2, Building A, No. 26 of Xinhe Road, Xinqiao Street, Baoan District, Shenzhen China
Sample Received Date:	Dec. 9, 2020
Sample tested Date:	Dec. 9, 2020 to Dec. 22, 2020
Issue Date:	Dec. 22, 2020
Report No.:	CTB201209015RFX
Test Standards	FCC Part15.247 ANSI C63.10:2013
Test Results	PASS
Remark:	This is RFID radio test report.

Compiled by:	Reviewed by:	Approved by:
Arron Liu	Bin Mei	Rita Xiao / Director

The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen CTB Testing Technology Co., Ltd. this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client.

TABLE OF CONTENT

(Note: N/A means not applicable)

1. VERSION

Report No.	Issue Date	Description	Approved
CTB201209015RF	Dec. 18, 2020	Original	Valid

2. TEST SUMMARY

The Product has been tested according to the following specifications:

Test Item	Test Requirement	Test method	Result
AC Power Line Conducted Emission	47 CFR Part 15 Subpart C Section 15.207	ANSI C63.10-2013	PASS
Radiated Spurious emissions	47 CFR Part 15 Subpart C Section 15.205/15.209/15.247(d)	ANSI C63.10-2013	PASS
Band edge and RF Conducted Spurious Emissions	47 CFR Part 15 Subpart C Section 15.247(d)/15.205(a)	ANSI C63.10-2013	PASS
Conducted Peak Output Power	47 CFR Part 15 Subpart C Section 15.247 (b)(2)	ANSI C63.10-2013	PASS
20dB Occupied Bandwidth	47 CFR Part 15 Subpart C Section 15.247 (a)(1)	ANSI C63.10-2013	PASS
Carrier Frequencies Separation	47 CFR Part 15 Subpart C Section 15.247 (a)(1)	ANSI C63.10-2013	PASS
Hopping Channel Number	47 CFR Part 15 Subpart C Section 15.247 (b)	ANSI C63.10-2013	PASS
Dwell Time	47 CFR Part 15 Subpart C Section 15.247 (a)(1)	ANSI C63.10-2013	PASS
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203/15.247 (c)	ANSI C63.10-2013	PASS

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

3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Item	Uncertainty
Occupancy bandwidth	U=±54.3Hz
Conducted output power Above 1G	U=±1.0dB
Conducted output power below 1G	U=±0.9dB
Power Spectral Density , Conduction	U=±1.0dB
Conduction spurious emissions	U=±2.8dB
Out of band emission	U=±54Hz
3m camber Radiated spurious emission(30MHz-1GHz)	U=±4.3dB
3m chamber Radiated spurious emission(1GHz-18GHz)	U=±4.5dB
humidity uncertainty	U=±5.3%
Temperature uncertainty	U=±0.59℃
Supply voltages	U=±3%
Time	U=±5%

4. PRODUCT INFORMATION AND TEST SETUP

4.1 Product Information

Model(s):	ASAM-RFUH-EIC01
Model Description:	N/A
Hardware Version:	V1.0
Software Version:	V1.0

Operation Frequency:	902-928MHz
Max. RF output power:	26.198dBm
Type of Modulation:	ASK
Antenna installation:	SMA connect Antenna *8
Antenna Gain:	8dBi
Ratings:	AC 120V/60Hz

4.2 Test Setup Configuration

See test photographs attached in EUT TEST SETUP PHOTOGRAPHS for the actual connections between Product and support equipment.

4.3 Support Equipment

No.	Device Type	Brand	Model	Series No.	Data Cable	Power Cord
1.	---	---	---	---	---	--

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.4 Channel List

Channel List							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	902.5	14	909.0	27	915.5	40	922.0
2	903.0	15	909.5	28	916.0	41	922.5
3	903.5	16	910.0	29	916.5	42	923.0
4	904.0	17	910.5	30	917.0	43	923.5
5	904.5	18	911.0	31	917.5	44	924.0
6	905.0	19	911.5	32	918.0	45	924.5
7	905.5	20	912.0	33	918.5	46	925.0
8	906.0	21	912.5	34	919.0	47	925.5
9	906.5	22	913.0	35	919.5	48	926.0
10	907.0	23	913.5	36	920.0	49	926.5
11	907.5	24	914.0	37	920.5	50	927.0
12	908.0	25	914.5	38	921.0	51	927.5
13	908.5	26	915.0	39	921.5		

4.5 Test Mode

All test mode(s) and condition(s) mentioned were considered and evaluated respectively by performing full tests, the worst data were recorded and reported.

Test mode	Low channel	Middle channel	High channel
Transmitting (ASK)	902.5MHz	915.0MHz	927.5MHz
Receiving (ASK)	902.5MHz	915.0MHz	927.5MHz

4.6 Test Environment

Humidity(%):	55
Atmospheric Pressure(kPa):	101.1
Normal Voltage(AC):	120
Normal Temperature(℃)	25
Low Temperature(℃)	0
High Temperature(℃)	40

5. TEST FACILITY AND TEST INSTRUMENT USED

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at Floor 1&2, Building A, No. 26 of Xinhe Road, Xinqiao Street, Baoan District, Shenzhen China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.

5.2 Test Instrument Used

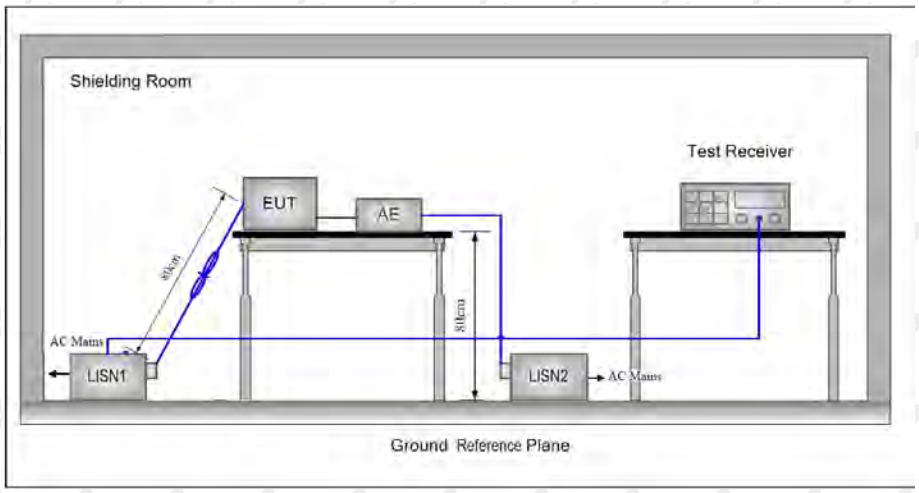
Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum Analyzer	Agilent	N9020A	MY52090073	Sep. 28, 2020	Sep. 28, 2021
2	Power Sensor	Agilent	U2021XA	MY56120032	Sep. 28, 2020	Sep. 28, 2021
3	Power Sensor	Agilent	U2021XA	MY56120034	Sep. 28, 2020	Sep. 28, 2021
4	Communication test set	R&S	CMW500	108058	Sep. 28, 2020	Sep. 28, 2021
5	Spectrum Analyzer	R&S	FSP40	100550	Sep. 28, 2020	Sep. 28, 2021
6	Signal Generator	Agilent	N5181A	MY49060920	Sep. 28, 2020	Sep. 28, 2021
7	Signal Generator	Agilent	N5182A	MY47420195	Sep. 28, 2020	Sep. 28, 2021
8	Communication test set	Agilent	E5515C	MY50102567	Oct. 10, 2020	Oct. 10, 2021
9	band rejection filter	Shenxiang	MSF2400-2483.5MS-1154	20181015001	Sep. 28, 2020	Sep. 28, 2021
10	band rejection filter	Shenxiang	MSF5150-5850MS-1155	20181015001	Sep. 28, 2020	Sep. 28, 2021
11	band rejection filter	Xingbo	XBLBQ-DZA120	190821-1-1	Sep. 28, 2020	Sep. 28, 2021
12	BT&WI-FI Automatic test software	Micowave	MTS8310	Ver. 2.0.0.0	\	\
13	Rohde & Schwarz SFU Broadcast Test System	R&S	SFU	101017	Sep. 28, 2020	Sep. 28, 2021
14	Temperature humidity chamber	Hongjing	TH-80CH	DG-15174	Sep. 28, 2020	Sep. 28, 2021
15	234G Automatic test software	Micowave	MTS8200	Ver. 2.0.0.0	\	\
16	966 chamber	C.R.T.	966 Room	966	Nov. 9, 2019	Nov. 08, 2022

17	Receiver	R&S	ESPI	100362	Sep. 28, 2020	Sep. 28, 2021
18	Amplifier	HP	8447E	2945A02747	Sep. 28, 2020	Sep. 28, 2021
19	Amplifier	Agilent	8449B	3008A01838	Sep. 28, 2020	Sep. 28, 2021
20	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	00869	Nov. 02, 2020	Nov. 01, 2021
21	Horn Antenna	Schwarzbeck	BBHA9120D	1911	Nov. 02, 2020	Nov. 01, 2021
22	Software	Fala	EZ-EMC	FA-03A2 RE	\	\
23	3-Loop Antenna	Daze	ZN30401	17014	Sep. 28, 2020	Sep. 28, 2021
24	loop antenna	ZHINAN	ZN30900A	/	Sep. 28, 2020	Sep. 28, 2021
25	Horn antenna	A/H/System	SAS-574	588	Sep. 28, 2020	Sep. 28, 2021
26	Amplifier	AEROFLEX	/	S/N/ 097	Sep. 28, 2020	Sep. 28, 2021

Conducted emissions Test					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
AMN	ROHDE&SCHWARZ	ESH3-Z5	100318	Sep. 28, 2020	Sep. 28, 2021
Pulse limiter	ROHDE&SCHWARZ	ESH3Z2	357881052	Sep. 28, 2020	Sep. 28, 2021
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESPI	100362	Sep. 28, 2020	Sep. 28, 2021
Coaxial cable	ZDECL	Z302S	18091269	Sep. 28, 2020	Sep. 28, 2021
ISN	TESEQ	NTFM8158	183	Sep. 28, 2020	Sep. 28, 2021
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100428/003	Sep. 28, 2020	Sep. 28, 2021
Software	Fala	EZ-EMC	EMC-CON 3A1.1	\	\

6. AC POWER LINE CONDUCTED EMISSION

6.1 Block Diagram Of Test Setup



6.2 Limit

Frequency (MHz)	Maximum RF Line Voltage (dBμV)			
	CLASS A		CLASS B	
	Q.P.	Ave.	Q.P.	Ave.
0.15 - 0.50	79	66	66-56*	56-46*
0.50 - 5.00	73	60	56	46
5.00 - 30.0	73	60	60	50

* Decreasing linearly with the logarithm of the frequency

6.3 Test procedure

1) The mains terminal disturbance voltage test was conducted in a shielded room.

2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

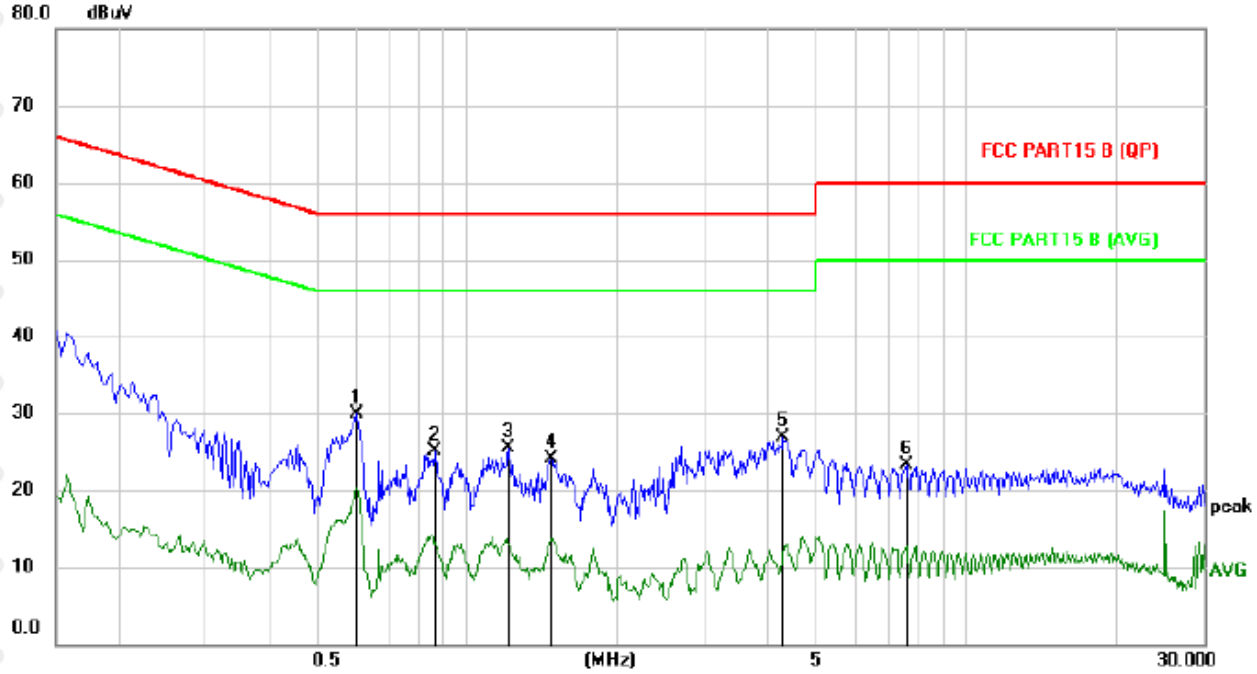
4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0,4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0,8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was

between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0,8 m from the LISN 2.

5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

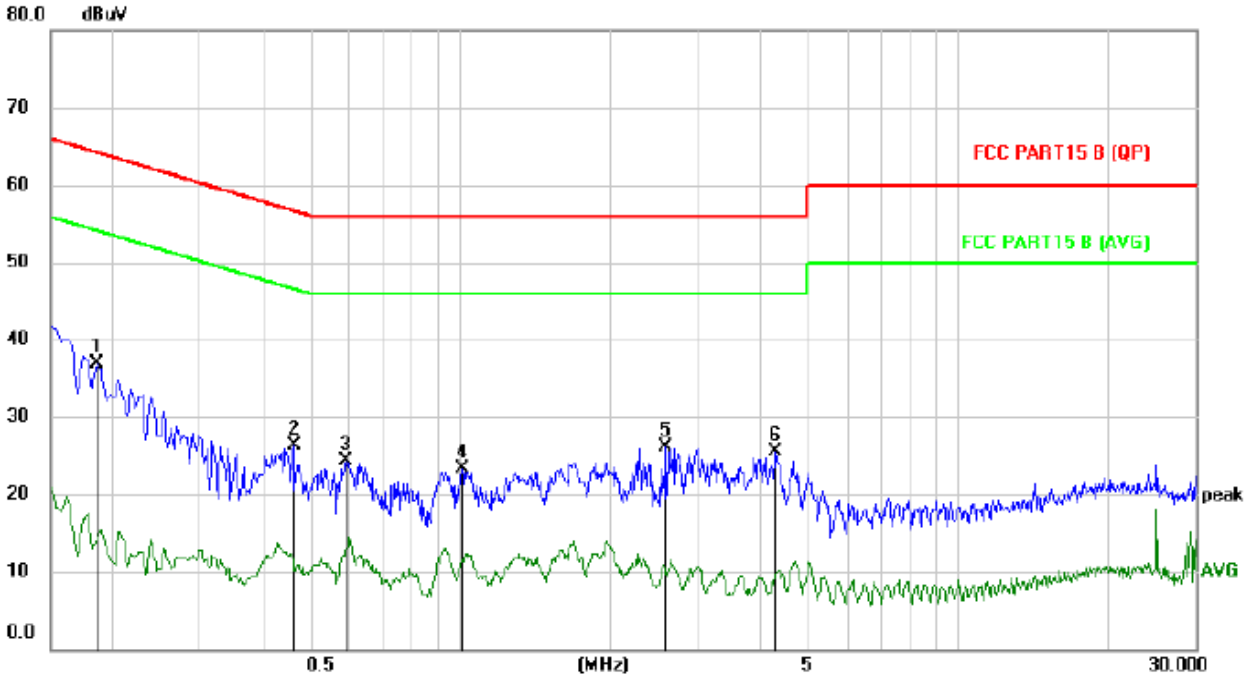
6.4 Test Result

N:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.6020	19.88	10.07	29.95	56.00	-26.05	peak
2		0.8620	14.92	10.16	25.08	56.00	-30.92	peak
3		1.2100	15.23	10.23	25.46	56.00	-30.54	peak
4		1.4780	13.81	10.23	24.04	56.00	-31.96	peak
5		4.3100	16.45	10.36	26.81	56.00	-29.19	peak
6		7.5660	12.88	10.47	23.35	60.00	-36.65	peak

L:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.1860	26.74	10.11	36.85	64.21	-27.36	peak
2		0.4620	16.01	10.22	26.23	56.66	-30.43	peak
3		0.5899	14.01	10.23	24.24	56.00	-31.76	peak
4		1.0100	13.18	10.15	23.33	56.00	-32.67	peak
5		2.5940	15.96	10.20	26.16	56.00	-29.84	peak
6		4.3100	15.08	10.43	25.51	56.00	-30.49	peak

Remark:

1. Factor = Cable loss + LISN factor, Margin = Limit – Level
2. All modes were tested at AC 120V and 240V, only the worst result of AC 120V 60Hz was reported.
3. All the test modes completed for test. Only the worst result of GFSK Low Channel was reported.

7. RADIATED SPURIOUS EMISSION

7.1 Block Diagram Of Test Setup

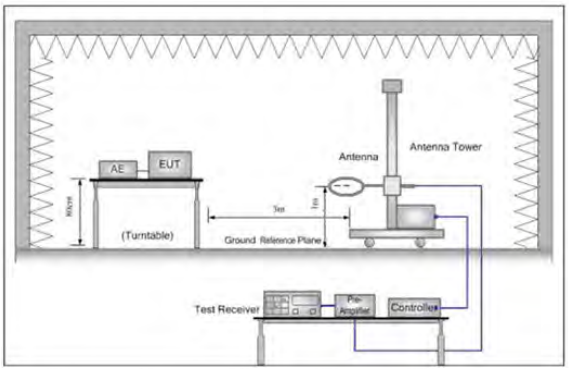


Figure 1. Below 30MHz

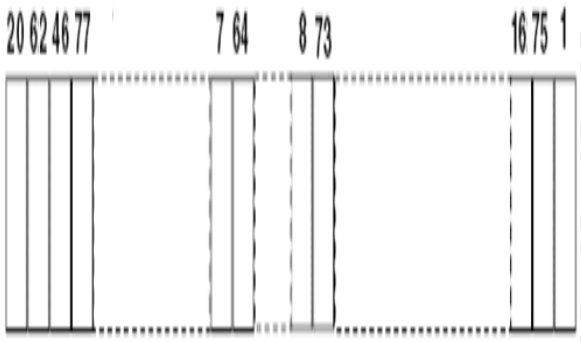


Figure 2. 30MHz to 1GHz

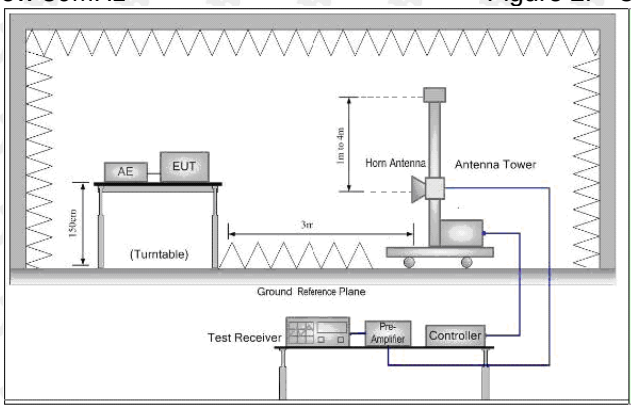


Figure 3. Above 1GHz

7.2 Limit

Spurious Emissions:

Frequency	Field strength (microvolt/meter)	Limit (dBμV/m)	Remark	Measurement distance (m)
0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
1.705MHz-30MHz	30	-	-	30
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3
Above 1GHz	500	54.0	Average	3

Note: a.15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.
b. The lower limit shall apply at the transition frequencies.
c. Emission level(dBuV/m)=20log Emission level(uV/m)

7.3 Test procedure

Below 1GHz test procedure as below:

a.The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b.The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c.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.

d.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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rota table table was turned from 0 degrees to 360 degrees to find the maximum reading.

e.The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f.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.

Above 1GHz test procedure as below:

g.Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 meter to 1.5 meter(Above 18GHz the distance is 1 meter and table is 1.5 meter).

h.Test the EUT in the lowest channel ,the middle channel ,the Highest channel

j.Repeat above procedures until all frequencies measured was complete.

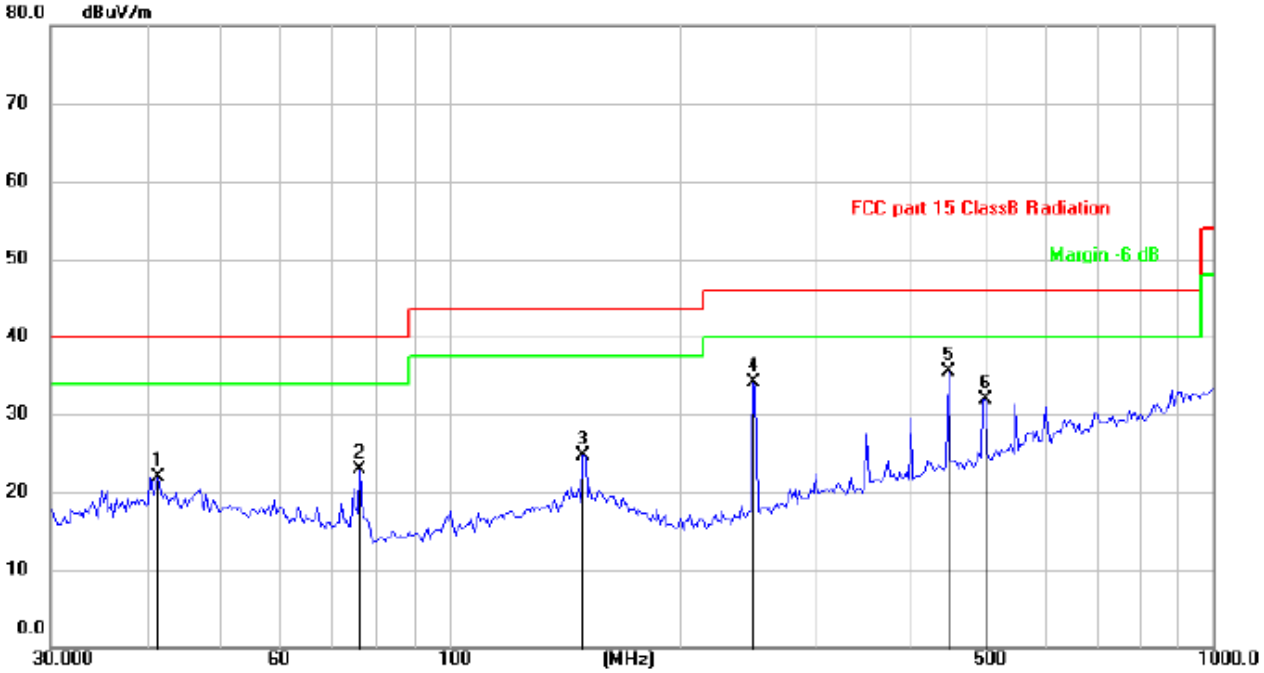
Receiver set:

Frequency	Detector	RBW	VBW	Remark
0.009MHz-0.090MHz	Peak	10kHz	30KHz	Peak
0.009MHz-0.090MHz	Average	10kHz	30KHz	Average
0.090MHz-0.110MHz	Quasi-peak	10kHz	30KHz	Quasi-peak
0.110MHz-0.490MHz	Peak	10kHz	30KHz	Peak
0.110MHz-0.490MHz	Average	10kHz	30KHz	Average
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
30MHz-1GHz	Quasi-peak	100 kHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

7.4 Test Result

Low channel below 1GHz Test Results:

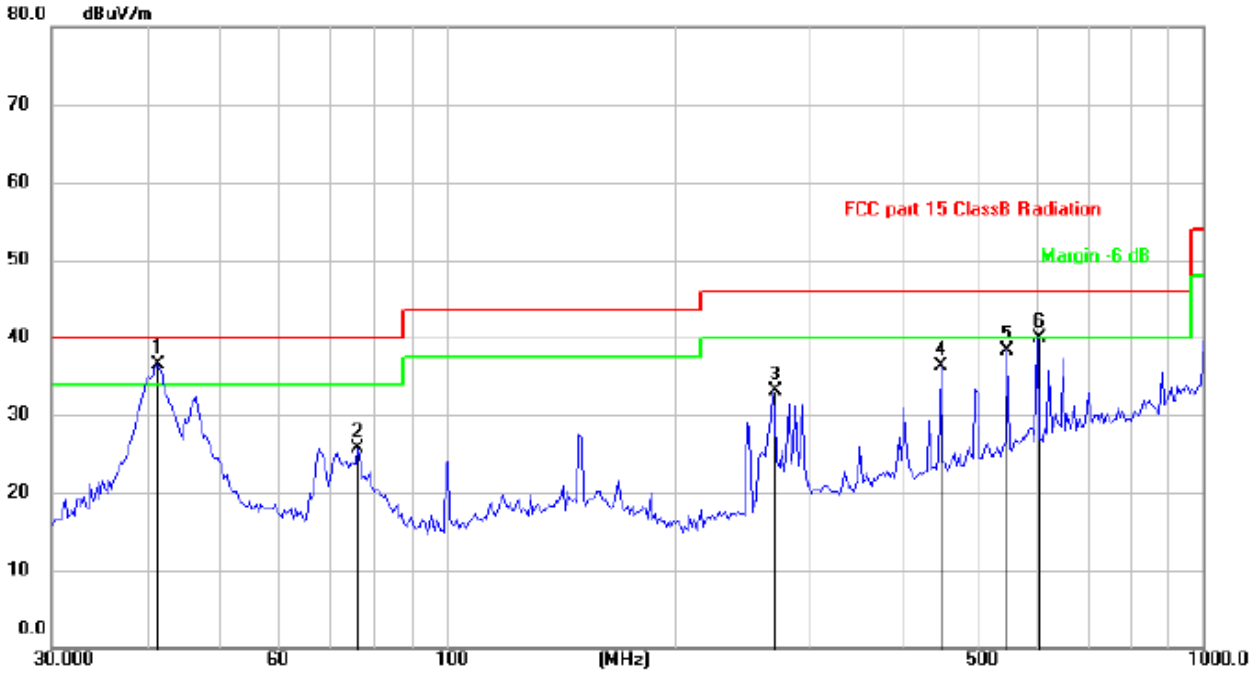
Antenna polarity: H



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		41.4215	28.35	-6.41	21.94	40.00	-18.06	QP
2		76.2442	33.33	-10.45	22.88	40.00	-17.12	QP
3		149.4857	31.08	-6.47	24.61	43.50	-18.89	QP
4		249.4250	42.02	-7.86	34.16	46.00	-11.84	QP
5	*	449.5558	37.98	-2.39	35.59	46.00	-10.41	QP
6		499.4247	33.07	-1.18	31.89	46.00	-14.11	QP

Remark: Transd = Cableloss + Antenna factor - Pre-amplifier; Margin = Limit – Level.

Antenna polarity: V



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	*	41.4215	42.95	-6.41	36.54	40.00	-3.46	QP
2		76.2442	36.24	-10.45	25.79	40.00	-14.21	QP
3		269.4284	40.17	-7.08	33.09	46.00	-12.91	QP
4		449.5558	38.67	-2.39	36.28	46.00	-9.72	QP
5		550.9480	37.81	0.41	38.22	46.00	-7.78	QP
6		603.5392	37.97	2.00	39.97	46.00	-6.03	QP

Remark: Transd = Cableloss + Antenna factor - Pre-amplifier; Margin = Limit – Level

Above 1 GHz Test Results:

ANT 1
CH Low
Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.66	-5.84	52.82	74	-21.18	peak
1805	49.75	-5.84	43.91	54	-10.09	AVG
2707.5	56.36	-3.64	52.72	74	-21.28	peak
2707.5	47.03	-3.64	43.39	54	-10.61	AVG
3610	58.24	-0.95	57.29	74	-16.71	peak
3610	48.21	-0.95	47.26	54	-6.74	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.63	-5.84	52.79	74	-21.21	peak
1805	49.81	-5.84	43.97	54	-10.03	AVG
2707.5	56.32	-3.64	52.68	74	-21.32	peak
2707.5	47.14	-3.64	43.50	54	-10.50	AVG
3610	58.26	-0.95	57.31	74	-16.69	peak
3610	48.04	-0.95	47.09	54	-6.91	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH Middle

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.98	-5.71	53.27	74	-20.73	peak
1830	48.81	-5.71	43.10	54	-10.90	AVG
2745	56.10	-3.51	52.59	74	-21.41	peak
2745	46.86	-3.51	43.35	54	-10.65	AVG
3660	58.03	-0.82	57.21	74	-16.79	peak
3660	47.89	-0.82	47.07	54	-6.93	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.94	-5.71	53.23	74	-20.77	peak
1830	48.88	-5.71	43.17	54	-10.83	AVG
2745	56.03	-3.51	52.52	74	-21.48	peak
2745	46.83	-3.51	43.32	54	-10.68	AVG
3660	57.95	-0.82	57.13	74	-16.87	peak
3660	47.96	-0.82	47.14	54	-6.86	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH High

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.30	-5.65	50.65	74	-23.35	peak
1855	47.27	-5.65	41.62	54	-12.38	AVG
2782.5	56.27	-3.43	52.84	74	-21.16	peak
2782.5	47.42	-3.43	43.99	54	-10.01	AVG
3710	57.31	-0.75	56.56	74	-17.44	peak
3710	47.54	-0.75	46.79	54	-7.21	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.31	-5.65	50.66	74	-23.34	peak
1855	47.34	-5.65	41.69	54	-12.31	AVG
2782.5	56.24	-3.43	52.81	74	-21.19	peak
2782.5	47.43	-3.43	44.00	54	-10.00	AVG
3710	57.37	-0.75	56.62	74	-17.38	peak
3710	47.69	-0.75	46.94	54	-7.06	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark:

(1) Measuring frequencies from 1 GHz to the 25 GHz。

(2). All modes of operation were investigated and the worst-case emissions are reported.

(3). Radiated emission test from 9kHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9kHz to 30MHz and not recorded in this report.

Radiated Band Edge Test:
Operation Mode: TX CH Low
Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	35.16	-3.05	32.11	46	-13.89	QP
850	/	/	/	/	/	AVG
880	34.50	-3.08	31.42	46	-14.58	QP
880	/	/	/	/	/	AVG
902	35.53	-3.12	32.41	46	-13.59	QP
902	/	/	/	/	/	AVG

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	34.84	-3.05	31.79	46	-14.21	QP
850	/	/	/	/	/	AVG
880	33.79	-3.08	30.71	46	-15.29	QP
880	/	/	/	/	/	AVG
902	37.29	-3.12	34.17	46	-11.83	QP
902	/	/	/	/	/	AVG

Operation Mode: TX CH High
Horizontal (Worst case)

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	34.62	-3.18	31.44	46	-14.56	QP
928.00	/	/	/	/	/	AVG
950.00	36.42	-3.22	33.20	46	-12.80	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	36.90	-3.18	33.72	46	-12.28	QP
928.00	/	/	/	/	/	AVG
950.00	37.63	-3.22	34.41	46	-11.59	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

ANT 2
CH Low
Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.74	-5.84	52.90	74	-21.10	peak
1805	49.67	-5.84	43.83	54	-10.17	AVG
2707.5	56.26	-3.64	52.62	74	-21.38	peak
2707.5	47.13	-3.64	43.49	54	-10.51	AVG
3610	58.21	-0.95	57.26	74	-16.74	peak
3610	48.16	-0.95	47.21	54	-6.79	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.73	-5.84	52.89	74	-21.11	peak
1805	49.67	-5.84	43.83	54	-10.17	AVG
2707.5	56.36	-3.64	52.72	74	-21.28	peak
2707.5	47.11	-3.64	43.47	54	-10.53	AVG
3610	58.26	-0.95	57.31	74	-16.69	peak
3610	48.04	-0.95	47.09	54	-6.91	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH Middle

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.89	-5.71	53.18	74	-20.82	peak
1830	48.99	-5.71	43.28	54	-10.72	AVG
2745	55.96	-3.51	52.45	74	-21.55	peak
2745	46.77	-3.51	43.26	54	-10.74	AVG
3660	58.05	-0.82	57.23	74	-16.77	peak
3660	47.94	-0.82	47.12	54	-6.88	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.95	-5.71	53.24	74	-20.76	peak
1830	48.97	-5.71	43.26	54	-10.74	AVG
2745	56.12	-3.51	52.61	74	-21.39	peak
2745	46.74	-3.51	43.23	54	-10.77	AVG
3660	58.13	-0.82	57.31	74	-16.69	peak
3660	47.88	-0.82	47.06	54	-6.94	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH High

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.35	-5.65	50.70	74	-23.30	peak
1855	47.26	-5.65	41.61	54	-12.39	AVG
2782.5	56.15	-3.43	52.72	74	-21.28	peak
2782.5	47.39	-3.43	43.96	54	-10.04	AVG
3710	57.25	-0.75	56.50	74	-17.50	peak
3710	47.65	-0.75	46.90	54	-7.10	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.39	-5.65	50.74	74	-23.26	peak
1855	47.33	-5.65	41.68	54	-12.32	AVG
2782.5	56.14	-3.43	52.71	74	-21.29	peak
2782.5	47.48	-3.43	44.05	54	-9.95	AVG
3710	57.21	-0.75	56.46	74	-17.54	peak
3710	47.73	-0.75	46.98	54	-7.02	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark:

(1) Measuring frequencies from 1 GHz to the 25 GHz。

(2). All modes of operation were investigated and the worst-case emissions are reported.

(3). Radiated emission test from 9kHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9kHz to 30MHz and not recorded in this report.

Radiated Band Edge Test:
Operation Mode: TX CH Low
Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	35.38	-3.05	32.33	46	-13.67	QP
850	/	/	/	/	/	AVG
880	34.33	-3.08	31.25	46	-14.75	QP
880	/	/	/	/	/	AVG
902	37.14	-3.12	34.02	46	-11.98	QP
902	/	/	/	/	/	AVG

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	35.62	-3.05	32.57	46	-13.43	QP
850	/	/	/	/	/	AVG
880	35.05	-3.08	31.97	46	-14.03	QP
880	/	/	/	/	/	AVG
902	36.04	-3.12	32.92	46	-13.08	QP
902	/	/	/	/	/	AVG

Operation Mode: TX CH High
Horizontal (Worst case)

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	33.54	-3.18	30.36	46	-15.64	QP
928.00	/	/	/	/	/	AVG
950.00	36.20	-3.22	32.98	46	-13.02	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	36.27	-3.18	33.09	46	-12.91	QP
928.00	/	/	/	/	/	AVG
950.00	36.32	-3.22	33.10	46	-12.90	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

ANT 3
CH Low
Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.64	-5.84	52.80	74	-21.20	peak
1805	49.69	-5.84	43.85	54	-10.15	AVG
2707.5	56.29	-3.64	52.65	74	-21.35	peak
2707.5	47.06	-3.64	43.42	54	-10.58	AVG
3610	58.21	-0.95	57.26	74	-16.74	peak
3610	48.06	-0.95	47.11	54	-6.89	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.73	-5.84	52.89	74	-21.11	peak
1805	49.67	-5.84	43.83	54	-10.17	AVG
2707.5	56.27	-3.64	52.63	74	-21.37	peak
2707.5	47.04	-3.64	43.40	54	-10.60	AVG
3610	58.12	-0.95	57.17	74	-16.83	peak
3610	48.18	-0.95	47.23	54	-6.77	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH Middle

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.95	-5.71	53.24	74	-20.76	peak
1830	48.88	-5.71	43.17	54	-10.83	AVG
2745	56.02	-3.51	52.51	74	-21.49	peak
2745	46.82	-3.51	43.31	54	-10.69	AVG
3660	58.10	-0.82	57.28	74	-16.72	peak
3660	47.96	-0.82	47.14	54	-6.86	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.99	-5.71	53.28	74	-20.72	peak
1830	49.00	-5.71	43.29	54	-10.71	AVG
2745	56.02	-3.51	52.51	74	-21.49	peak
2745	46.73	-3.51	43.22	54	-10.78	AVG
3660	58.03	-0.82	57.21	74	-16.79	peak
3660	47.91	-0.82	47.09	54	-6.91	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH High

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.43	-5.65	50.78	74	-23.22	peak
1855	47.37	-5.65	41.72	54	-12.28	AVG
2782.5	56.18	-3.43	52.75	74	-21.25	peak
2782.5	47.42	-3.43	43.99	54	-10.01	AVG
3710	57.30	-0.75	56.55	74	-17.45	peak
3710	47.73	-0.75	46.98	54	-7.02	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.31	-5.65	50.66	74	-23.34	peak
1855	47.22	-5.65	41.57	54	-12.43	AVG
2782.5	56.21	-3.43	52.78	74	-21.22	peak
2782.5	47.38	-3.43	43.95	54	-10.05	AVG
3710	57.34	-0.75	56.59	74	-17.41	peak
3710	47.71	-0.75	46.96	54	-7.04	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark:

(1) Measuring frequencies from 1 GHz to the 25 GHz。

(2). All modes of operation were investigated and the worst-case emissions are reported.

(3). Radiated emission test from 9kHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9kHz to 30MHz and not recorded in this report.

Radiated Band Edge Test:
Operation Mode: TX CH Low
Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	34.32	-3.05	31.27	46	-14.73	QP
850	/	/	/	/	/	AVG
880	35.17	-3.08	32.09	46	-13.91	QP
880	/	/	/	/	/	AVG
902	37.04	-3.12	33.92	46	-12.08	QP
902	/	/	/	/	/	AVG

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	33.26	-3.05	30.21	46	-15.79	QP
850	/	/	/	/	/	AVG
880	34.53	-3.08	31.45	46	-14.55	QP
880	/	/	/	/	/	AVG
902	35.91	-3.12	32.79	46	-13.21	QP
902	/	/	/	/	/	AVG

Operation Mode: TX CH High
Horizontal (Worst case)

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	33.22	-3.18	30.04	46	-15.96	QP
928.00	/	/	/	/	/	AVG
950.00	36.10	-3.22	32.88	46	-13.12	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	33.30	-3.18	30.12	46	-15.88	QP
928.00	/	/	/	/	/	AVG
950.00	37.50	-3.22	34.28	46	-11.72	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

ANT 4
CH Low
Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.76	-5.84	52.92	74	-21.08	peak
1805	49.66	-5.84	43.82	54	-10.18	AVG
2707.5	56.26	-3.64	52.62	74	-21.38	peak
2707.5	47.05	-3.64	43.41	54	-10.59	AVG
3610	58.26	-0.95	57.31	74	-16.69	peak
3610	48.10	-0.95	47.15	54	-6.85	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.71	-5.84	52.87	74	-21.13	peak
1805	49.81	-5.84	43.97	54	-10.03	AVG
2707.5	56.35	-3.64	52.71	74	-21.29	peak
2707.5	47.08	-3.64	43.44	54	-10.56	AVG
3610	58.26	-0.95	57.31	74	-16.69	peak
3610	48.18	-0.95	47.23	54	-6.77	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH Middle

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.95	-5.71	53.24	74	-20.76	peak
1830	48.99	-5.71	43.28	54	-10.72	AVG
2745	55.98	-3.51	52.47	74	-21.53	peak
2745	46.90	-3.51	43.39	54	-10.61	AVG
3660	57.97	-0.82	57.15	74	-16.85	peak
3660	48.02	-0.82	47.20	54	-6.80	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.98	-5.71	53.27	74	-20.73	peak
1830	48.81	-5.71	43.10	54	-10.90	AVG
2745	55.97	-3.51	52.46	74	-21.54	peak
2745	46.87	-3.51	43.36	54	-10.64	AVG
3660	58.07	-0.82	57.25	74	-16.75	peak
3660	47.84	-0.82	47.02	54	-6.98	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH High

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.43	-5.65	50.78	74	-23.22	peak
1855	47.18	-5.65	41.53	54	-12.47	AVG
2782.5	56.11	-3.43	52.68	74	-21.32	peak
2782.5	47.49	-3.43	44.06	54	-9.94	AVG
3710	57.23	-0.75	56.48	74	-17.52	peak
3710	47.73	-0.75	46.98	54	-7.02	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.38	-5.65	50.73	74	-23.27	peak
1855	47.30	-5.65	41.65	54	-12.35	AVG
2782.5	56.20	-3.43	52.77	74	-21.23	peak
2782.5	47.34	-3.43	43.91	54	-10.09	AVG
3710	57.29	-0.75	56.54	74	-17.46	peak
3710	47.59	-0.75	46.84	54	-7.16	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark:

(1) Measuring frequencies from 1 GHz to the 25 GHz。

(2). All modes of operation were investigated and the worst-case emissions are reported.

(3). Radiated emission test from 9kHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9kHz to 30MHz and not recorded in this report.

Radiated Band Edge Test:
Operation Mode: TX CH Low
Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	34.18	-3.05	31.13	46	-14.87	QP
850	/	/	/	/	/	AVG
880	34.44	-3.08	31.36	46	-14.64	QP
880	/	/	/	/	/	AVG
902	37.60	-3.12	34.48	46	-11.52	QP
902	/	/	/	/	/	AVG

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	34.29	-3.05	31.24	46	-14.76	QP
850	/	/	/	/	/	AVG
880	34.13	-3.08	31.05	46	-14.95	QP
880	/	/	/	/	/	AVG
902	35.37	-3.12	32.25	46	-13.75	QP
902	/	/	/	/	/	AVG

Operation Mode: TX CH High
Horizontal (Worst case)

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	34.84	-3.18	31.66	46	-14.34	QP
928.00	/	/	/	/	/	AVG
950.00	35.58	-3.22	32.36	46	-13.64	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	36.01	-3.18	32.83	46	-13.17	QP
928.00	/	/	/	/	/	AVG
950.00	34.83	-3.22	31.61	46	-14.39	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

ANT 5
CH Low
Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.64	-5.84	52.80	74	-21.20	peak
1805	49.63	-5.84	43.79	54	-10.21	AVG
2707.5	56.37	-3.64	52.73	74	-21.27	peak
2707.5	47.13	-3.64	43.49	54	-10.51	AVG
3610	58.28	-0.95	57.33	74	-16.67	peak
3610	48.06	-0.95	47.11	54	-6.89	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.67	-5.84	52.83	74	-21.17	peak
1805	49.80	-5.84	43.96	54	-10.04	AVG
2707.5	56.38	-3.64	52.74	74	-21.26	peak
2707.5	47.03	-3.64	43.39	54	-10.61	AVG
3610	58.14	-0.95	57.19	74	-16.81	peak
3610	48.06	-0.95	47.11	54	-6.89	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH Middle

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.81	-5.71	53.10	74	-20.90	peak
1830	48.95	-5.71	43.24	54	-10.76	AVG
2745	55.96	-3.51	52.45	74	-21.55	peak
2745	46.90	-3.51	43.39	54	-10.61	AVG
3660	58.11	-0.82	57.29	74	-16.71	peak
3660	47.96	-0.82	47.14	54	-6.86	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.98	-5.71	53.27	74	-20.73	peak
1830	48.89	-5.71	43.18	54	-10.82	AVG
2745	56.03	-3.51	52.52	74	-21.48	peak
2745	46.79	-3.51	43.28	54	-10.72	AVG
3660	58.09	-0.82	57.27	74	-16.73	peak
3660	48.01	-0.82	47.19	54	-6.81	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH High

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.40	-5.65	50.75	74	-23.25	peak
1855	47.23	-5.65	41.58	54	-12.42	AVG
2782.5	56.25	-3.43	52.82	74	-21.18	peak
2782.5	47.32	-3.43	43.89	54	-10.11	AVG
3710	57.39	-0.75	56.64	74	-17.36	peak
3710	47.68	-0.75	46.93	54	-7.07	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.44	-5.65	50.79	74	-23.21	peak
1855	47.28	-5.65	41.63	54	-12.37	AVG
2782.5	56.20	-3.43	52.77	74	-21.23	peak
2782.5	47.41	-3.43	43.98	54	-10.02	AVG
3710	57.33	-0.75	56.58	74	-17.42	peak
3710	47.62	-0.75	46.87	54	-7.13	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark:

(1) Measuring frequencies from 1 GHz to the 25 GHz。

(2). All modes of operation were investigated and the worst-case emissions are reported.

(3). Radiated emission test from 9kHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9kHz to 30MHz and not recorded in this report.

Radiated Band Edge Test:
Operation Mode: TX CH Low
Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	34.39	-3.05	31.34	46	-14.66	QP
850	/	/	/	/	/	AVG
880	36.27	-3.08	33.19	46	-12.81	QP
880	/	/	/	/	/	AVG
902	37.21	-3.12	34.09	46	-11.91	QP
902	/	/	/	/	/	AVG

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	33.64	-3.05	30.59	46	-15.41	QP
850	/	/	/	/	/	AVG
880	34.30	-3.08	31.22	46	-14.78	QP
880	/	/	/	/	/	AVG
902	35.27	-3.12	32.15	46	-13.85	QP
902	/	/	/	/	/	AVG

Operation Mode: TX CH High
Horizontal (Worst case)

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	35.24	-3.18	32.06	46	-13.94	QP
928.00	/	/	/	/	/	AVG
950.00	37.17	-3.22	33.95	46	-12.05	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	36.22	-3.18	33.04	46	-12.96	QP
928.00	/	/	/	/	/	AVG
950.00	34.44	-3.22	31.22	46	-14.78	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

ANT 6
CH Low
Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.64	-5.84	52.80	74	-21.20	peak
1805	49.66	-5.84	43.82	54	-10.18	AVG
2707.5	56.34	-3.64	52.70	74	-21.30	peak
2707.5	47.17	-3.64	43.53	54	-10.47	AVG
3610	58.16	-0.95	57.21	74	-16.79	peak
3610	48.20	-0.95	47.25	54	-6.75	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.69	-5.84	52.85	74	-21.15	peak
1805	49.81	-5.84	43.97	54	-10.03	AVG
2707.5	56.28	-3.64	52.64	74	-21.36	peak
2707.5	47.11	-3.64	43.47	54	-10.53	AVG
3610	58.29	-0.95	57.34	74	-16.66	peak
3610	48.21	-0.95	47.26	54	-6.74	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH Middle

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.97	-5.71	53.26	74	-20.74	peak
1830	48.82	-5.71	43.11	54	-10.89	AVG
2745	56.05	-3.51	52.54	74	-21.46	peak
2745	46.73	-3.51	43.22	54	-10.78	AVG
3660	58.03	-0.82	57.21	74	-16.79	peak
3660	47.90	-0.82	47.08	54	-6.92	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	59.00	-5.71	53.29	74	-20.71	peak
1830	48.89	-5.71	43.18	54	-10.82	AVG
2745	56.06	-3.51	52.55	74	-21.45	peak
2745	46.92	-3.51	43.41	54	-10.59	AVG
3660	58.09	-0.82	57.27	74	-16.73	peak
3660	47.87	-0.82	47.05	54	-6.95	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH High

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.45	-5.65	50.80	74	-23.20	peak
1855	47.21	-5.65	41.56	54	-12.44	AVG
2782.5	56.23	-3.43	52.80	74	-21.20	peak
2782.5	47.39	-3.43	43.96	54	-10.04	AVG
3710	57.25	-0.75	56.50	74	-17.50	peak
3710	47.68	-0.75	46.93	54	-7.07	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.44	-5.65	50.79	74	-23.21	peak
1855	47.34	-5.65	41.69	54	-12.31	AVG
2782.5	56.21	-3.43	52.78	74	-21.22	peak
2782.5	47.43	-3.43	44.00	54	-10.00	AVG
3710	57.28	-0.75	56.53	74	-17.47	peak
3710	47.58	-0.75	46.83	54	-7.17	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark:

(1) Measuring frequencies from 1 GHz to the 25 GHz。

(2). All modes of operation were investigated and the worst-case emissions are reported.

(3). Radiated emission test from 9kHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9kHz to 30MHz and not recorded in this report.

Radiated Band Edge Test:
Operation Mode: TX CH Low
Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	33.73	-3.05	30.68	46	-15.32	QP
850	/	/	/	/	/	AVG
880	33.99	-3.08	30.91	46	-15.09	QP
880	/	/	/	/	/	AVG
902	35.07	-3.12	31.95	46	-14.05	QP
902	/	/	/	/	/	AVG

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	34.50	-3.05	31.45	46	-14.55	QP
850	/	/	/	/	/	AVG
880	33.37	-3.08	30.29	46	-15.71	QP
880	/	/	/	/	/	AVG
902	35.53	-3.12	32.41	46	-13.59	QP
902	/	/	/	/	/	AVG

Operation Mode: TX CH High
Horizontal (Worst case)

Frequency (MHz)	Reading Result (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
928.00	33.96	-3.18	30.78	46	-15.22	QP
928.00	/	/	/	/	/	AVG
950.00	36.44	-3.22	33.22	46	-12.78	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

Vertical:

Frequency (MHz)	Reading Result (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
928.00	34.17	-3.18	30.99	46	-15.01	QP
928.00	/	/	/	/	/	AVG
950.00	34.99	-3.22	31.77	46	-14.23	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

ANT 7
CH Low
Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.76	-5.84	52.92	74	-21.08	peak
1805	49.72	-5.84	43.88	54	-10.12	AVG
2707.5	56.27	-3.64	52.63	74	-21.37	peak
2707.5	47.03	-3.64	43.39	54	-10.61	AVG
3610	58.18	-0.95	57.23	74	-16.77	peak
3610	48.07	-0.95	47.12	54	-6.88	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.81	-5.84	52.97	74	-21.03	peak
1805	49.66	-5.84	43.82	54	-10.18	AVG
2707.5	56.40	-3.64	52.76	74	-21.24	peak
2707.5	47.21	-3.64	43.57	54	-10.43	AVG
3610	58.19	-0.95	57.24	74	-16.76	peak
3610	48.17	-0.95	47.22	54	-6.78	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH Middle

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.99	-5.71	53.28	74	-20.72	peak
1830	48.95	-5.71	43.24	54	-10.76	AVG
2745	56.04	-3.51	52.53	74	-21.47	peak
2745	46.84	-3.51	43.33	54	-10.67	AVG
3660	58.06	-0.82	57.24	74	-16.76	peak
3660	47.85	-0.82	47.03	54	-6.97	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.92	-5.71	53.21	74	-20.79	peak
1830	48.97	-5.71	43.26	54	-10.74	AVG
2745	56.06	-3.51	52.55	74	-21.45	peak
2745	46.91	-3.51	43.40	54	-10.60	AVG
3660	58.02	-0.82	57.20	74	-16.80	peak
3660	47.89	-0.82	47.07	54	-6.93	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH High

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.44	-5.65	50.79	74	-23.21	peak
1855	47.19	-5.65	41.54	54	-12.46	AVG
2782.5	56.22	-3.43	52.79	74	-21.21	peak
2782.5	47.47	-3.43	44.04	54	-9.96	AVG
3710	57.32	-0.75	56.57	74	-17.43	peak
3710	47.57	-0.75	46.82	54	-7.18	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.44	-5.65	50.79	74	-23.21	peak
1855	47.29	-5.65	41.64	54	-12.36	AVG
2782.5	56.25	-3.43	52.82	74	-21.18	peak
2782.5	47.45	-3.43	44.02	54	-9.98	AVG
3710	57.39	-0.75	56.64	74	-17.36	peak
3710	47.54	-0.75	46.79	54	-7.21	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark:

(1) Measuring frequencies from 1 GHz to the 25 GHz。

(2). All modes of operation were investigated and the worst-case emissions are reported.

(3). Radiated emission test from 9kHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9kHz to 30MHz and not recorded in this report.

Radiated Band Edge Test:
Operation Mode: TX CH Low
Horizontal (Worst case)

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
850	34.22	-3.05	31.17	46	-14.83	QP
850	/	/	/	/	/	AVG
880	35.11	-3.08	32.03	46	-13.97	QP
880	/	/	/	/	/	AVG
902	37.00	-3.12	33.88	46	-12.12	QP
902	/	/	/	/	/	AVG

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
850	35.56	-3.05	32.51	46	-13.49	QP
850	/	/	/	/	/	AVG
880	34.34	-3.08	31.26	46	-14.74	QP
880	/	/	/	/	/	AVG
902	35.57	-3.12	32.45	46	-13.55	QP
902	/	/	/	/	/	AVG

Operation Mode: TX CH High
Horizontal (Worst case)

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	33.29	-3.18	30.11	46	-15.89	QP
928.00	/	/	/	/	/	AVG
950.00	34.97	-3.22	31.75	46	-14.25	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	36.76	-3.18	33.58	46	-12.42	QP
928.00	/	/	/	/	/	AVG
950.00	34.97	-3.22	31.75	46	-14.25	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

ANT 8
CH Low
Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.65	-5.84	52.81	74	-21.19	peak
1805	49.80	-5.84	43.96	54	-10.04	AVG
2707.5	56.37	-3.64	52.73	74	-21.27	peak
2707.5	47.20	-3.64	43.56	54	-10.44	AVG
3610	58.11	-0.95	57.16	74	-16.84	peak
3610	48.09	-0.95	47.14	54	-6.86	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1805	58.64	-5.84	52.80	74	-21.20	peak
1805	49.75	-5.84	43.91	54	-10.09	AVG
2707.5	56.30	-3.64	52.66	74	-21.34	peak
2707.5	47.14	-3.64	43.50	54	-10.50	AVG
3610	58.26	-0.95	57.31	74	-16.69	peak
3610	48.06	-0.95	47.11	54	-6.89	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH Middle

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.83	-5.71	53.12	74	-20.88	peak
1830	48.95	-5.71	43.24	54	-10.76	AVG
2745	56.03	-3.51	52.52	74	-21.48	peak
2745	46.80	-3.51	43.29	54	-10.71	AVG
3660	57.96	-0.82	57.14	74	-16.86	peak
3660	48.03	-0.82	47.21	54	-6.79	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1830	58.98	-5.71	53.27	74	-20.73	peak
1830	48.97	-5.71	43.26	54	-10.74	AVG
2745	55.94	-3.51	52.43	74	-21.57	peak
2745	46.91	-3.51	43.40	54	-10.60	AVG
3660	58.11	-0.82	57.29	74	-16.71	peak
3660	47.92	-0.82	47.10	54	-6.90	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH High

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.37	-5.65	50.72	74	-23.28	peak
1855	47.31	-5.65	41.66	54	-12.34	AVG
2782.5	56.24	-3.43	52.81	74	-21.19	peak
2782.5	47.41	-3.43	43.98	54	-10.02	AVG
3710	57.35	-0.75	56.60	74	-17.40	peak
3710	47.59	-0.75	46.84	54	-7.16	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1855	56.35	-5.65	50.70	74	-23.30	peak
1855	47.31	-5.65	41.66	54	-12.34	AVG
2782.5	56.18	-3.43	52.75	74	-21.25	peak
2782.5	47.44	-3.43	44.01	54	-9.99	AVG
3710	57.22	-0.75	56.47	74	-17.53	peak
3710	47.59	-0.75	46.84	54	-7.16	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark:

(1) Measuring frequencies from 1 GHz to the 25 GHz。

(2). All modes of operation were investigated and the worst-case emissions are reported.

(3). Radiated emission test from 9kHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9kHz to 30MHz and not recorded in this report.

Radiated Band Edge Test:
Operation Mode: TX CH Low
Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	35.44	-3.05	32.39	46	-13.61	QP
850	/	/	/	/	/	AVG
880	36.01	-3.08	32.93	46	-13.07	QP
880	/	/	/	/	/	AVG
902	37.54	-3.12	34.42	46	-11.58	QP
902	/	/	/	/	/	AVG

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
850	32.98	-3.05	29.93	46	-16.07	QP
850	/	/	/	/	/	AVG
880	34.60	-3.08	31.52	46	-14.48	QP
880	/	/	/	/	/	AVG
902	35.66	-3.12	32.54	46	-13.46	QP
902	/	/	/	/	/	AVG

Operation Mode: TX CH High
Horizontal (Worst case)

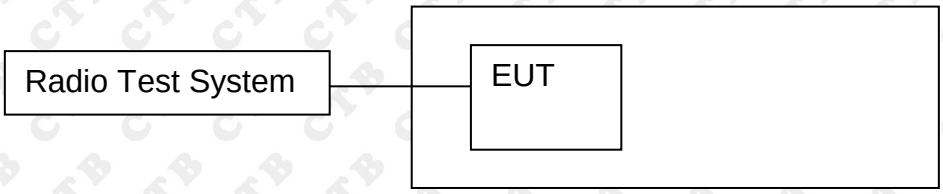
Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	34.62	-3.18	31.44	46	-14.56	QP
928.00	/	/	/	/	/	AVG
950.00	35.21	-3.22	31.99	46	-14.01	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
928.00	35.26	-3.18	32.08	46	-13.92	QP
928.00	/	/	/	/	/	AVG
950.00	36.45	-3.22	33.23	46	-12.77	QP
950.00	/	/	/	/	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

8. BAND EDGE AND RF COUNDUCTED SPURIOUS EMISSIONS

8.1 Block Diagram Of Test Setup



8.2 Limit

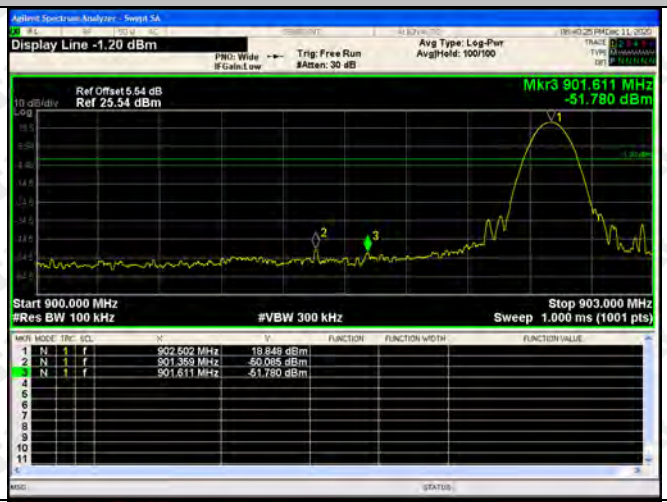
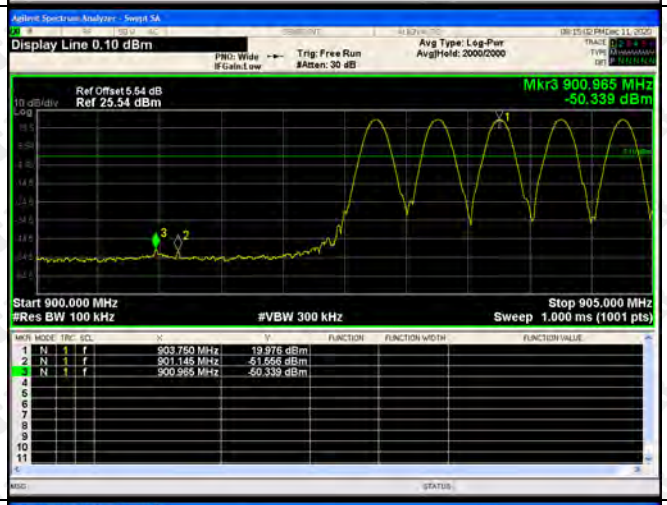
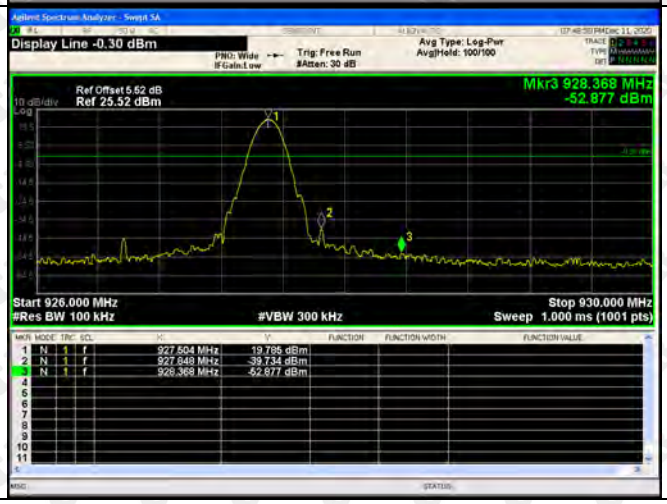
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

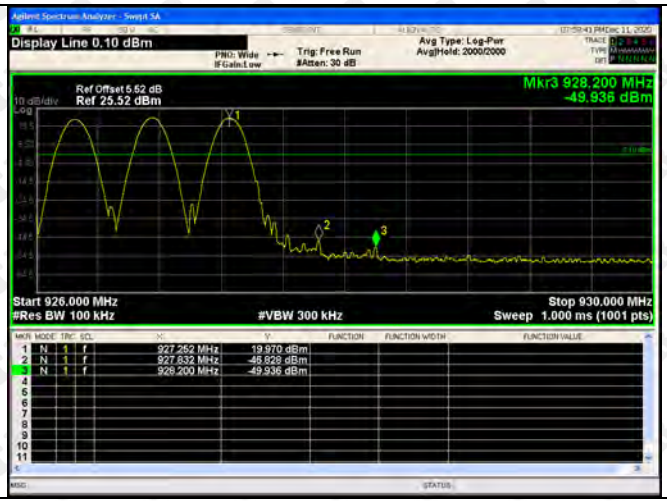
8.3 Test procedure

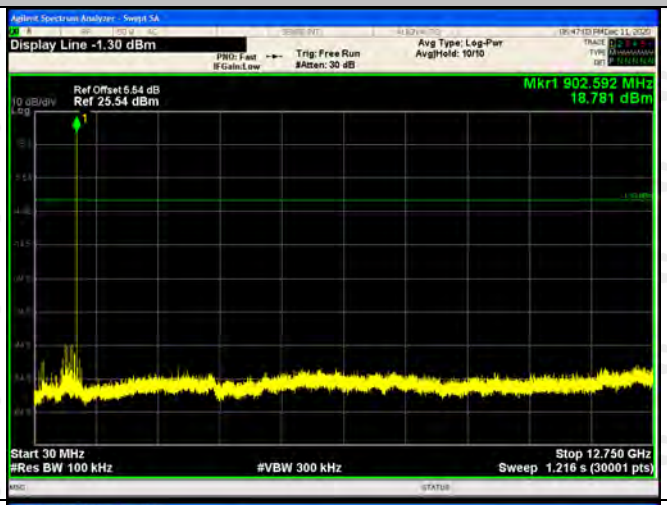
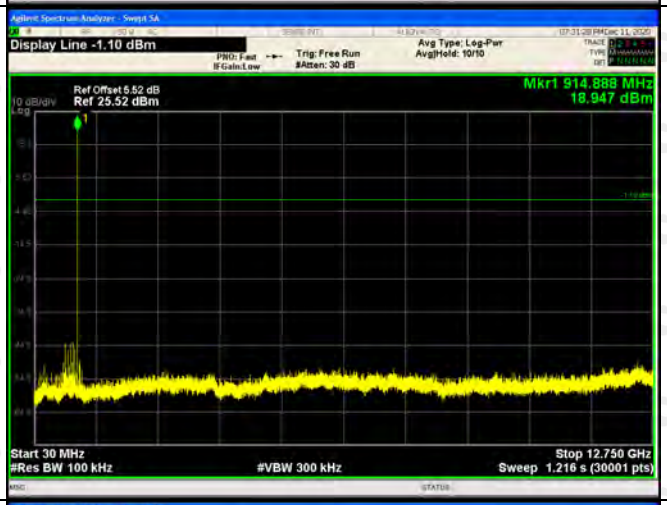
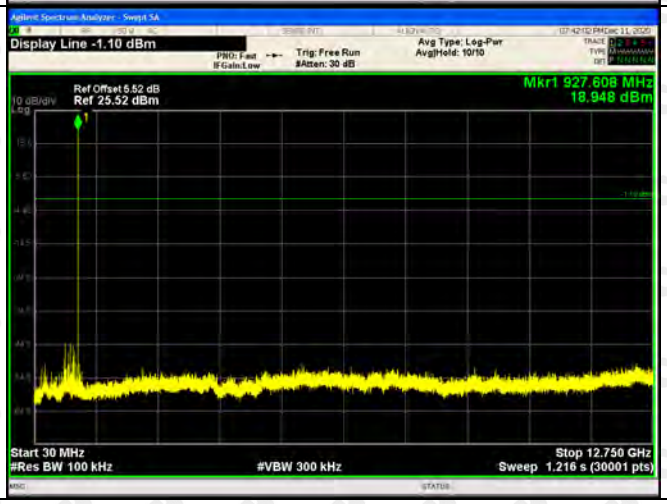
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer:
Blow 30MHz:
RBW = 100kHz, VBW = 300kHz, Sweep = auto
Detector function = peak, Trace = max hold
Above 30MHz:
RBW = 100KHz, VBW = 300KHz, Sweep = auto
Detector function = peak, Trace = max hold

8.4 Test Result

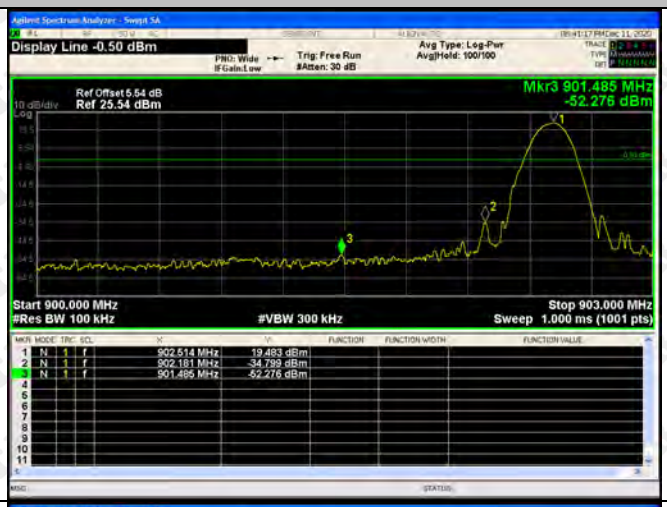
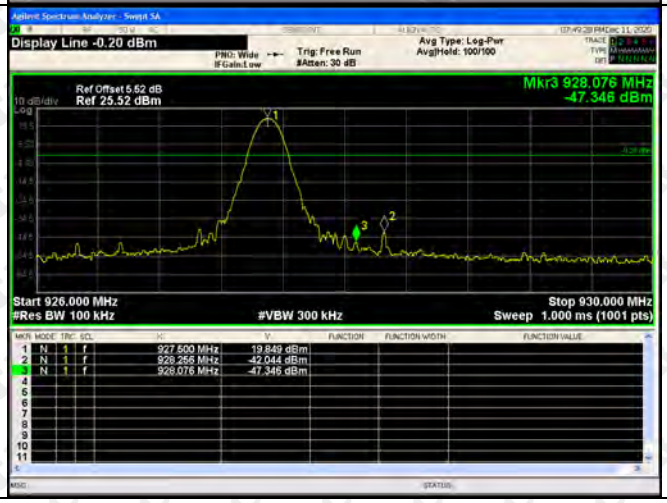
ANT 1

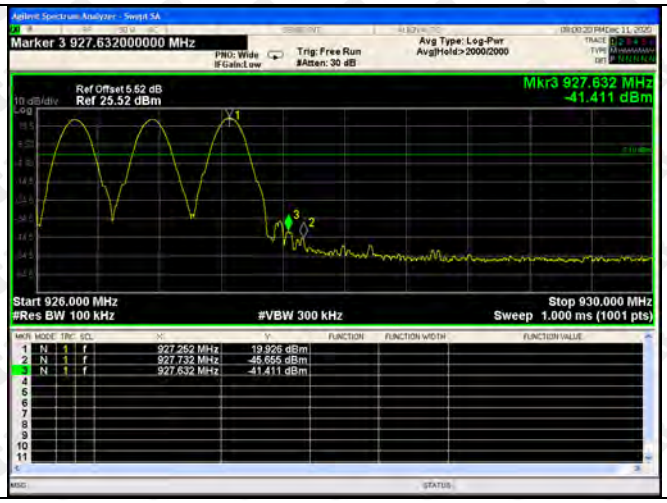
BAND EDGE Graphs			
LCH/ No Hop			
LCH/ Hop			
HCH/ No Hop			

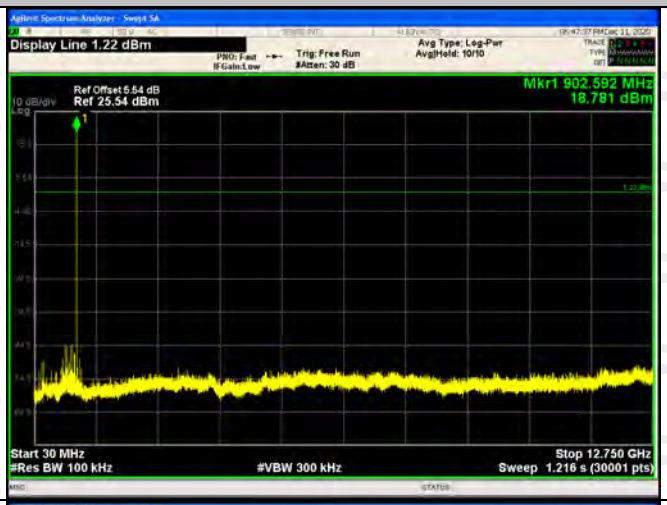
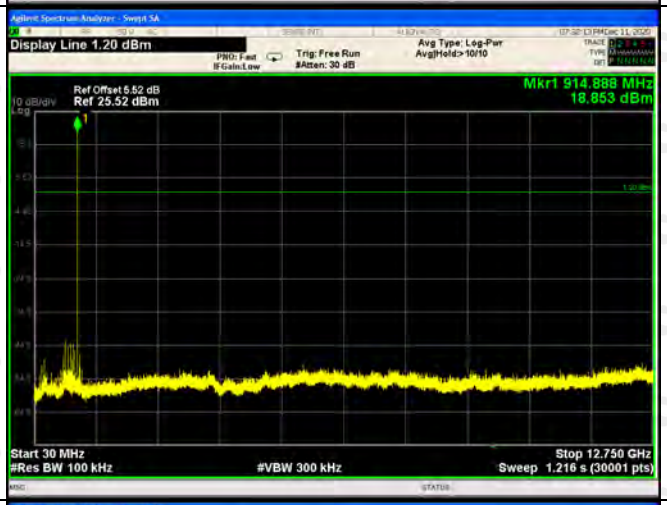
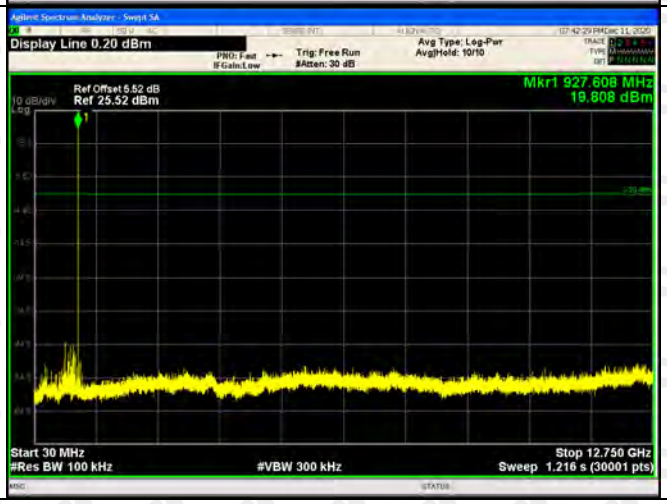
HCH/ Hop		 Display Line 0.10 dBm Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg|Hold: 2000/2000 Ref Offset 5.62 dB 10 dB/div Ref 25.52 dBm Mkr3 928.200 MHz -49.936 dBm Start 926.000 MHz #Res BW 100 kHz #VBW 300 kHz Stop 930.000 MHz Sweep 1.000 ms (1001 pts) 1 N 1 f 927.252 MHz 19.970 dBm 2 N 1 f 927.832 MHz -46.828 dBm 3 N 1 f 928.200 MHz -49.936 dBm	

RF Conducted Spurious Emissions Graphs			
LCH			
MCH			
HCH			

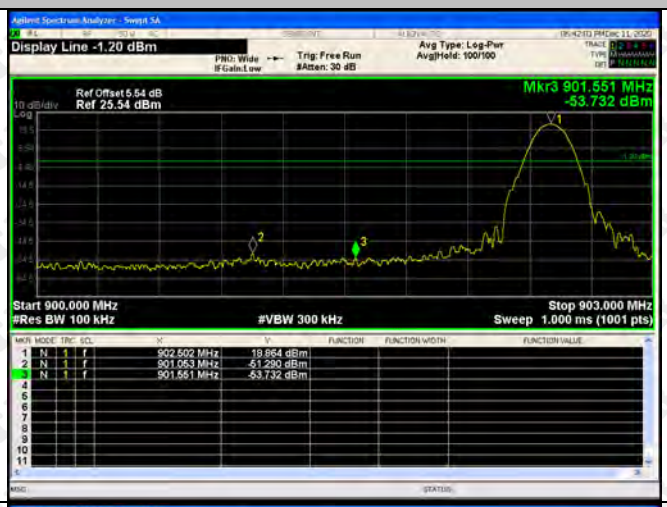
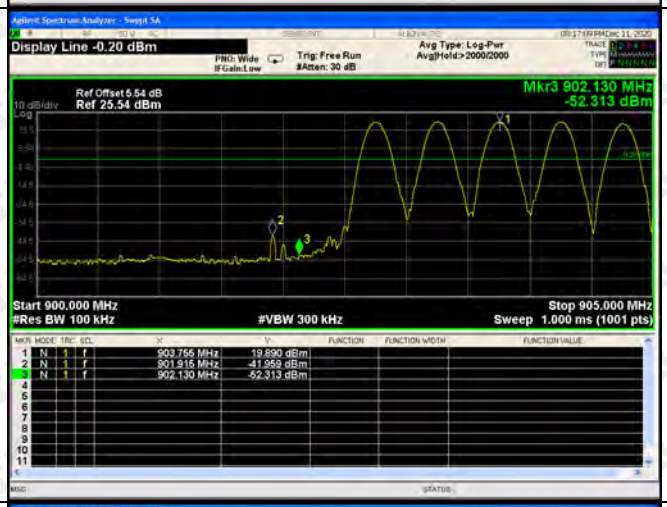
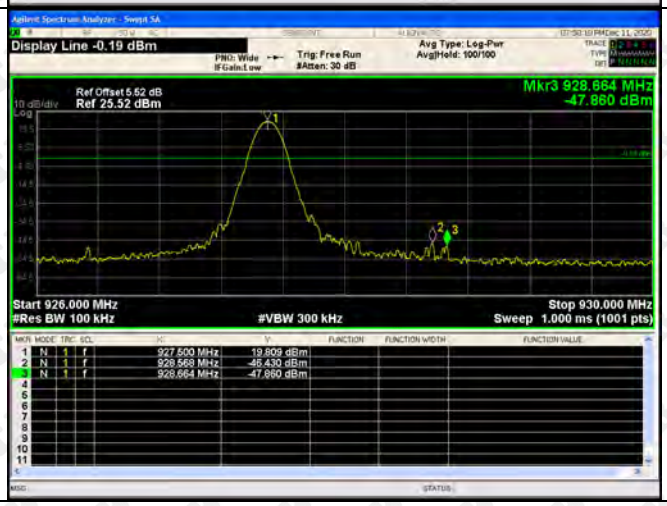
ANT 2

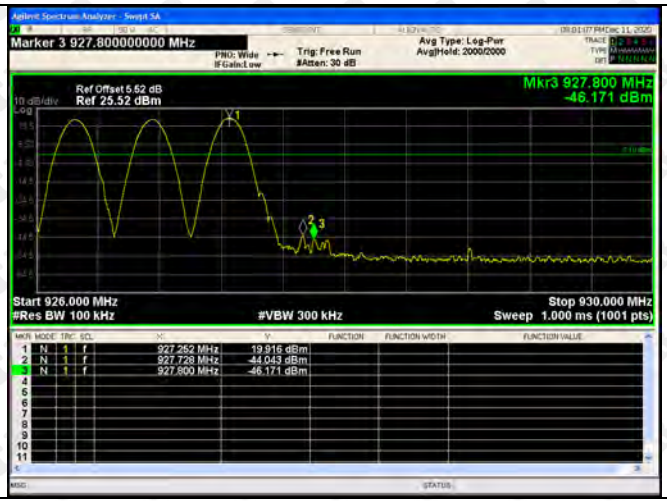
BAND EDGE Graphs			
LCH/ No Hop			
LCH/ Hop			
HCH/ No Hop			

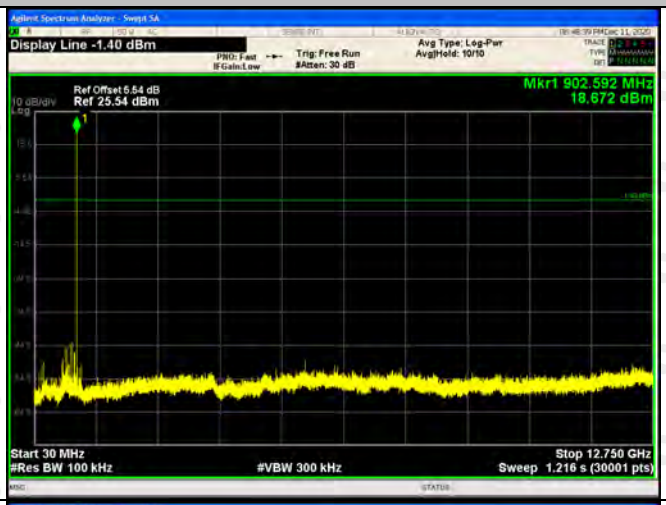
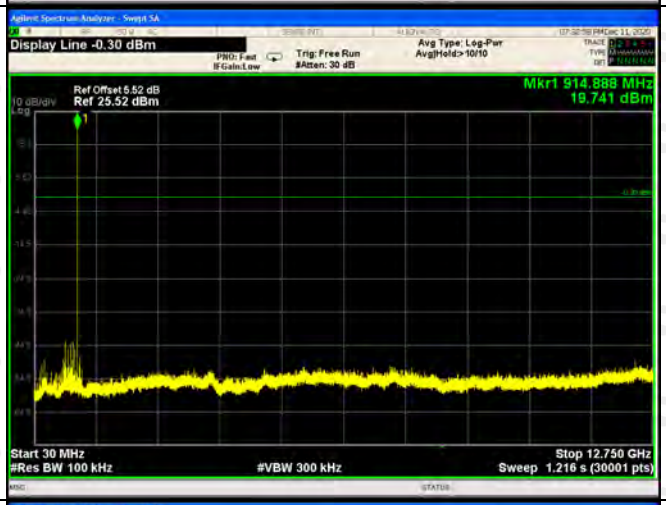
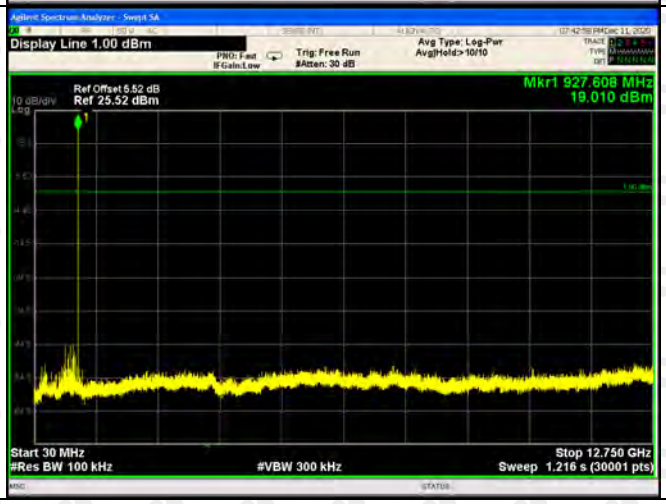
HCH/ Hop		 Marker 3 927.632000000 MHz PNO: Wide IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg|Hold:>2000/2000 Ref Offset 5.62 dB 10 dB/div Ref 25.52 dBm Mkr3 927.632 MHz -41.411 dBm Start 926.000 MHz #Res BW 100 kHz #VBW 300 kHz Stop 930.000 MHz Sweep 1.000 ms (1001 pts) 1 N 1 f 927.252 MHz 19.926 dBm 2 N 1 f 927.732 MHz -45.655 dBm 3 N 1 f 927.632 MHz -41.411 dBm	

RF Conducted Spurious Emissions Graphs			
LCH			
MCH			
HCH			

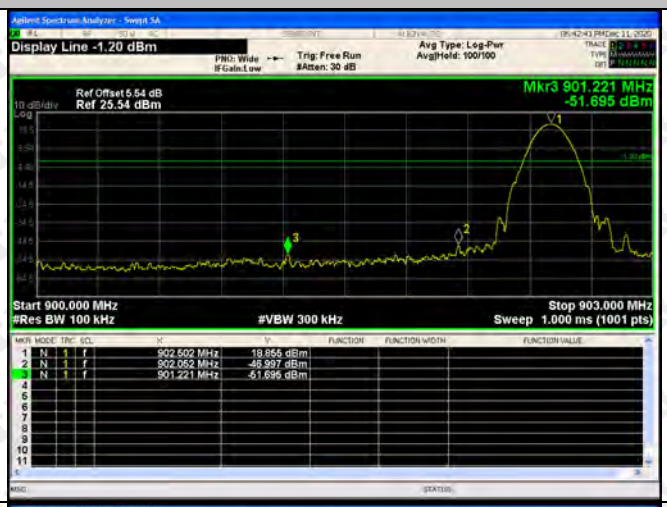
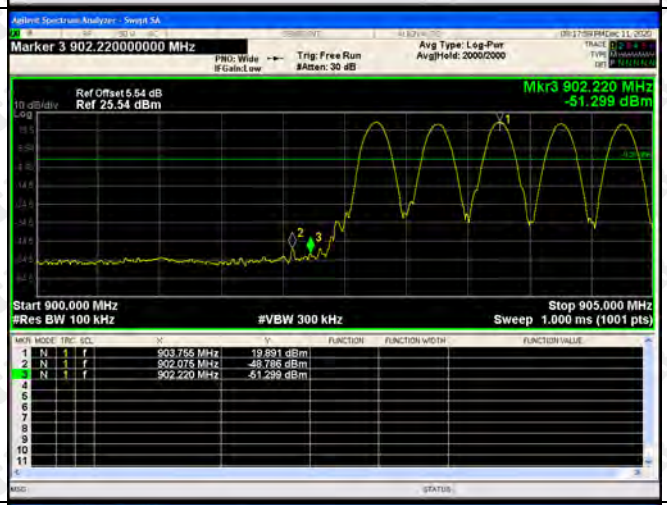
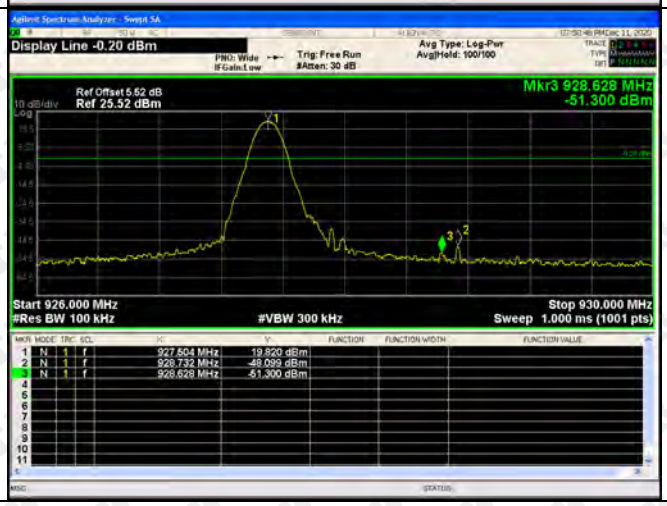
ANT 3

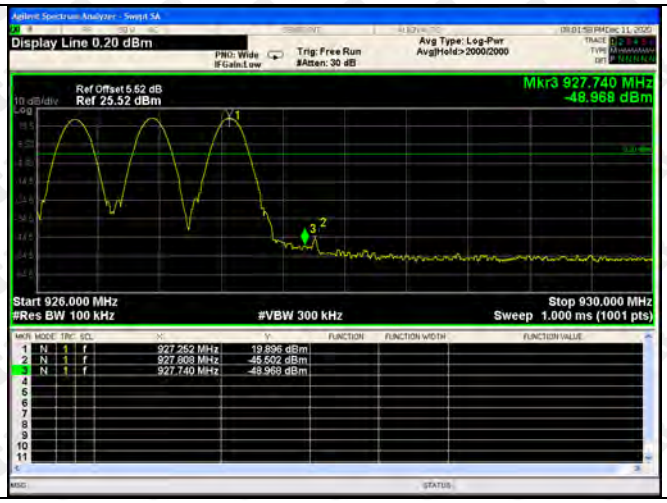
BAND EDGE Graphs			
LCH/ No Hop			
LCH/ Hop			
HCH/ No Hop			

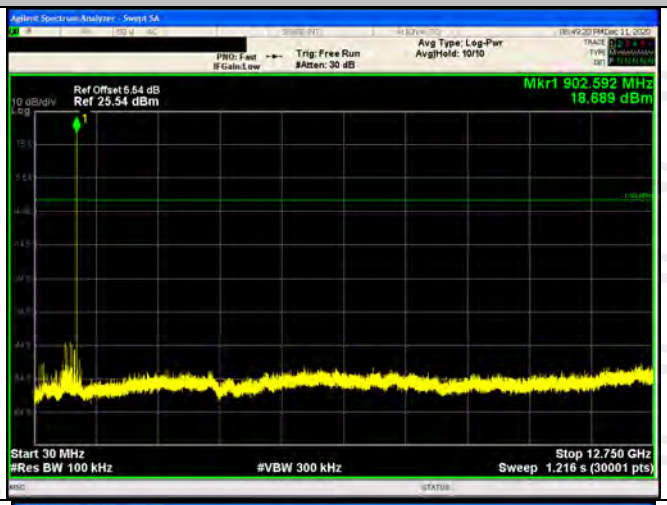
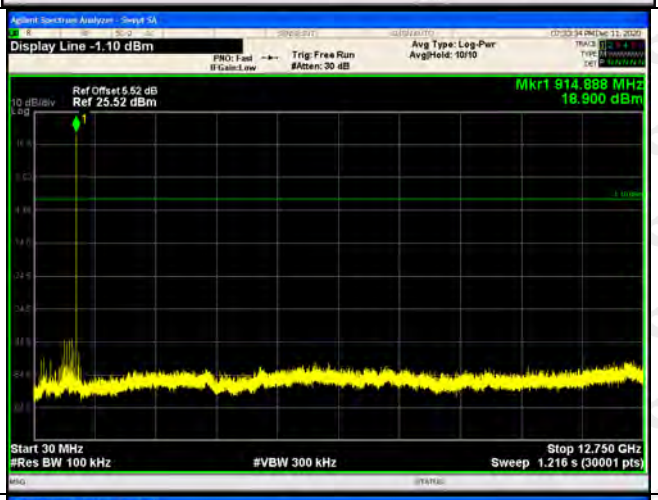
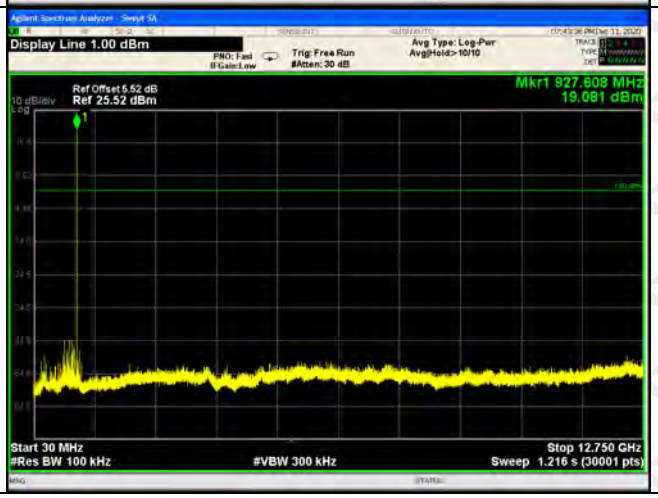
HCH/ Hop		 Marker 3 927.800000000 MHz PNO: Wide IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg|Hold: 2000/2000 Ref Offset 5.62 dB 10 dB/div Ref 25.52 dBm Mkr3 927.800 MHz -46.171 dBm Start 926.000 MHz #Res BW 100 kHz #VBW 300 kHz Stop 930.000 MHz Sweep 1.000 ms (1001 pts) 1 N 1 f 927.252 MHz 19.916 dBm 2 N 1 f 927.728 MHz -44.043 dBm 3 N 1 f 927.800 MHz -46.171 dBm	

RF Conducted Spurious Emissions Graphs			
LCH			
MCH			
HCH			

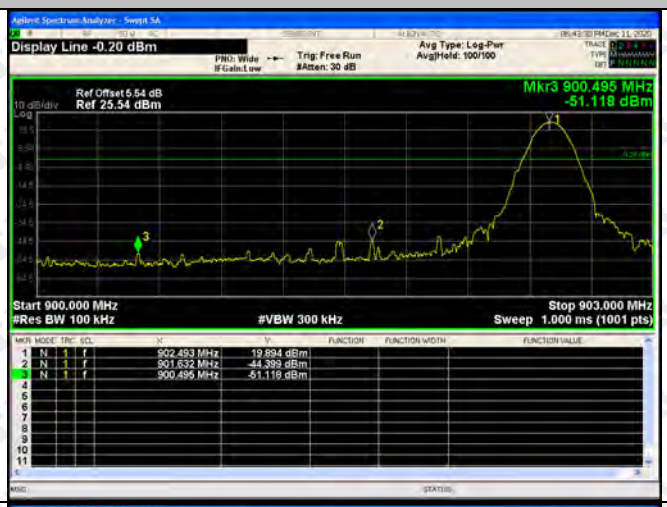
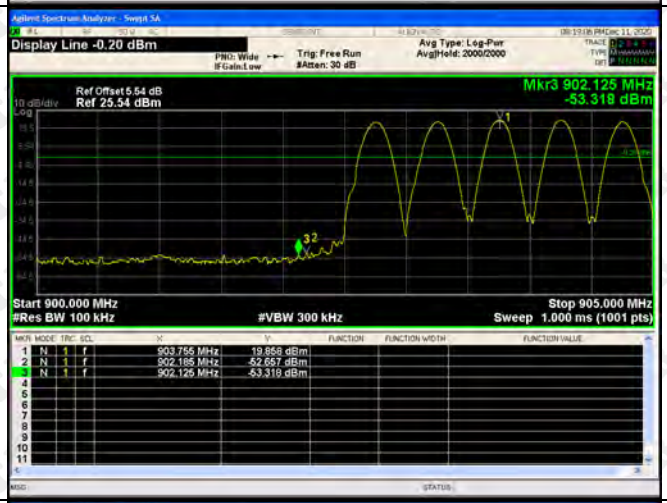
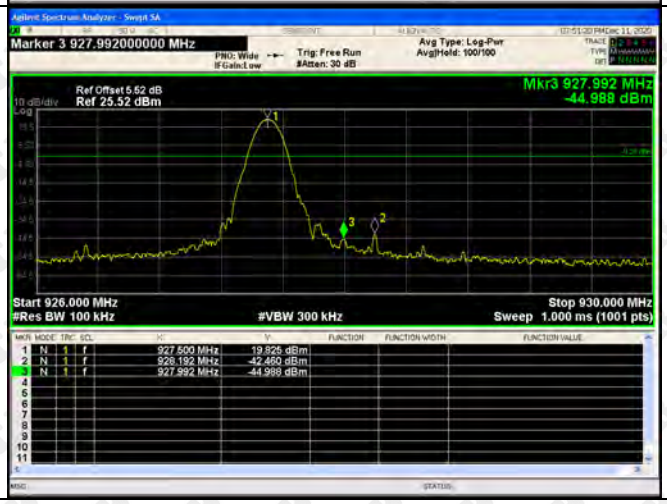
ANT 4

BAND EDGE Graphs			
LCH/ No Hop			
LCH/ Hop			
HCH/ No Hop			

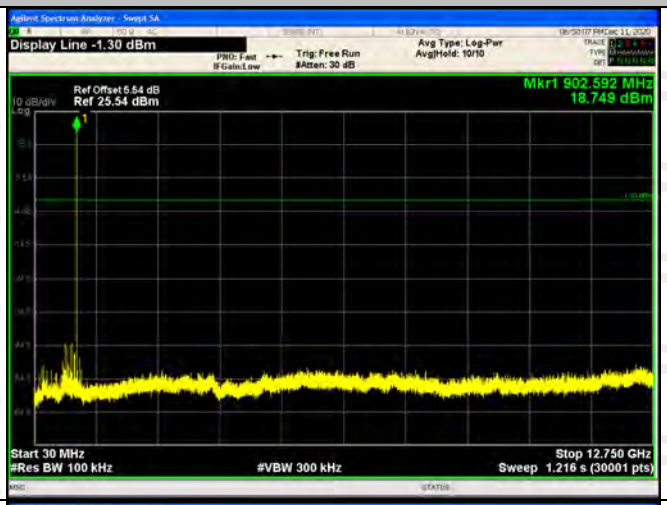
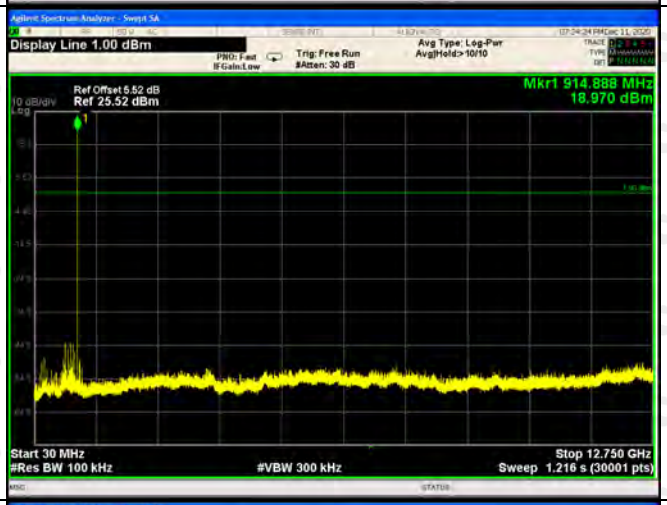
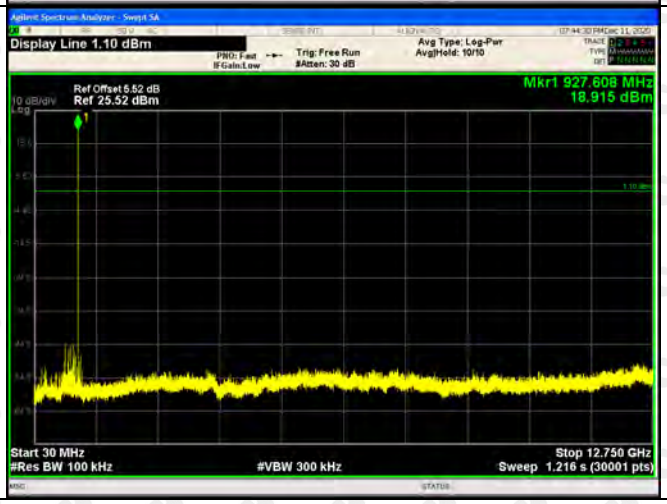
HCH/ Hop		 Display Line 0.20 dBm Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg|Hold:>2000/2000 Ref Offset 5.62 dB 10 dB/div Ref 25.52 dBm Mkr3 927.740 MHz -48.968 dBm Start 926.000 MHz #Res BW 100 kHz #VBW 300 kHz Stop 930.000 MHz Sweep 1.000 ms (1001 pts) 1 N 1 f 927.252 MHz 19.896 dBm 2 N 1 f 927.808 MHz -45.502 dBm 3 N 1 f 927.740 MHz -48.968 dBm	

RF Conducted Spurious Emissions Graphs			
LCH			
MCH			
HCH			

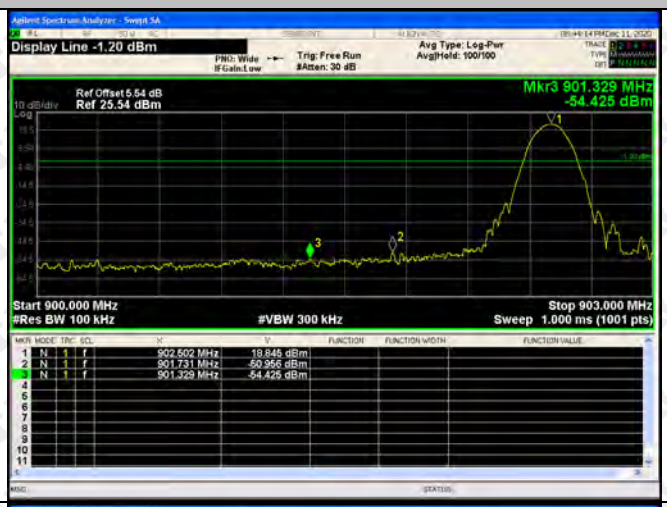
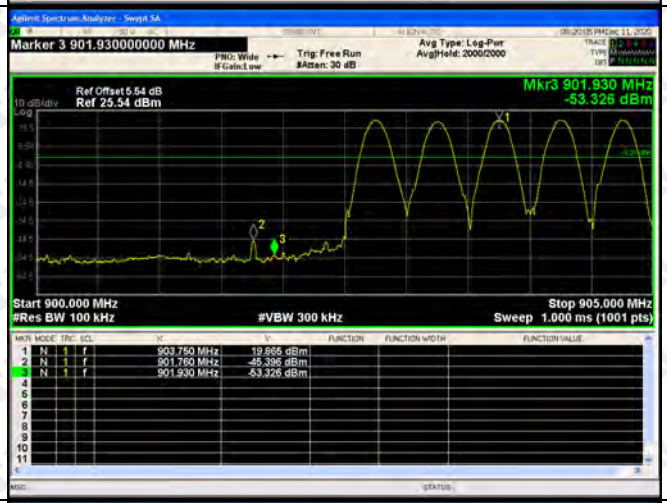
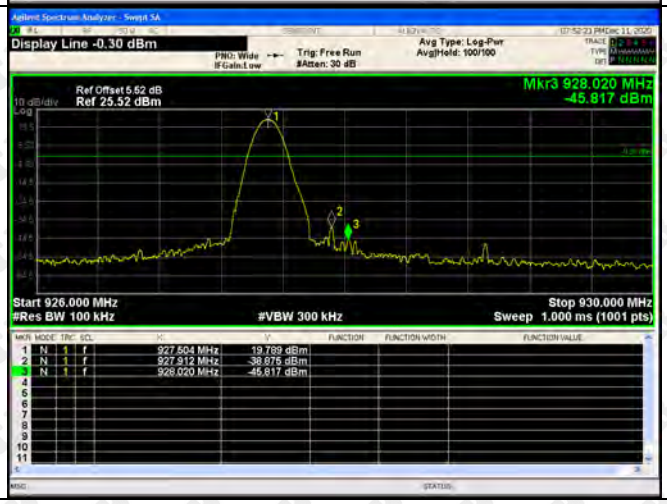
ANT 5

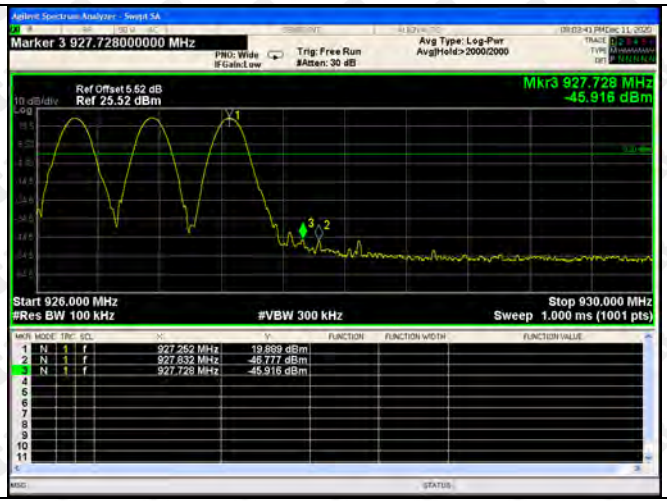
BAND EDGE Graphs			
LCH/ No Hop			
LCH/ Hop			
HCH/ No Hop			

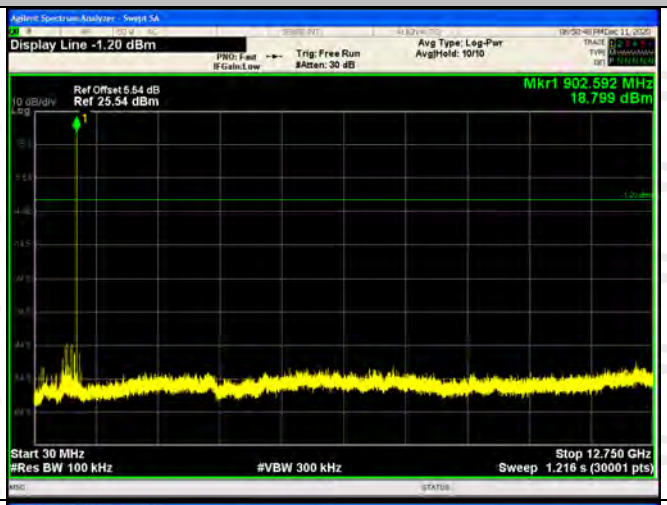
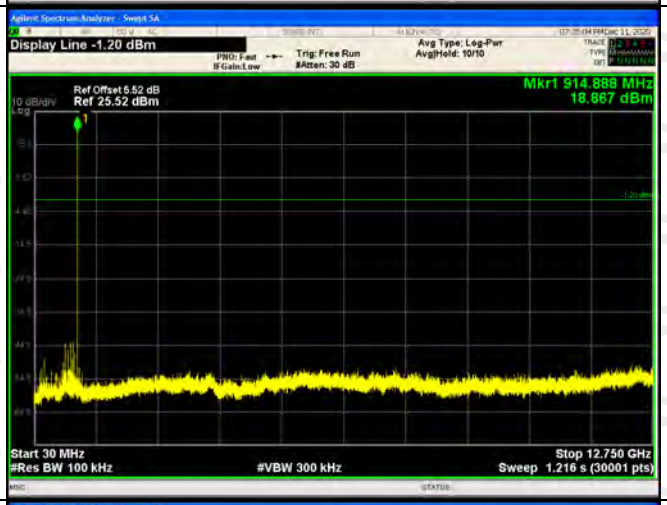
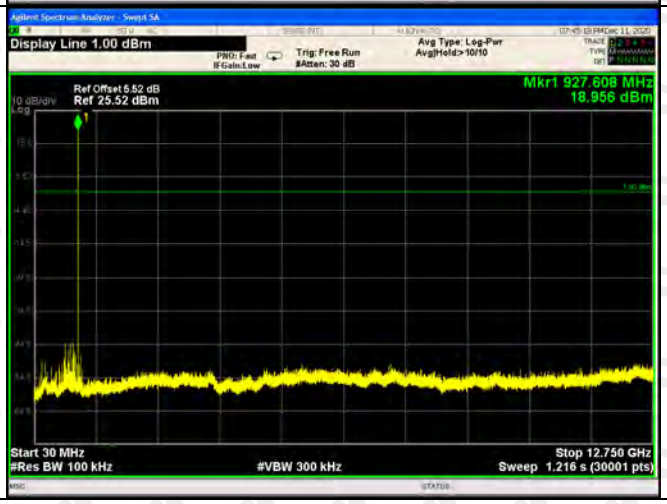
HCH/ Hop		 Marker 3 928.028000000 MHz PNO: Wide IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg|Hold:>2000/2000 Ref Offset 5.62 dB 10 dB/div Ref 25.52 dBm Mkr3 928.028 MHz -50.871 dBm Start 926.000 MHz #Res BW 100 kHz #VBW 300 kHz Stop 930.000 MHz Sweep 1.000 ms (1001 pts) 1 N 1 f 927.248 MHz 19.872 dBm 2 N 1 f 928.156 MHz -51.284 dBm 3 N 1 f 928.028 MHz -50.871 dBm	

RF Conducted Spurious Emissions Graphs			
LCH			
MCH			
HCH			

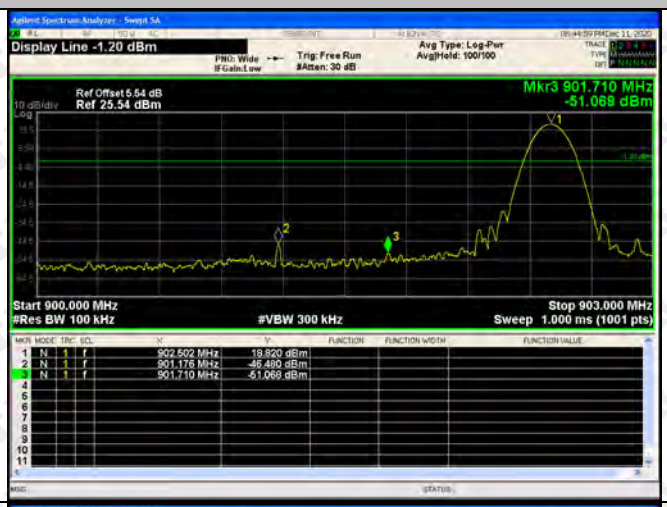
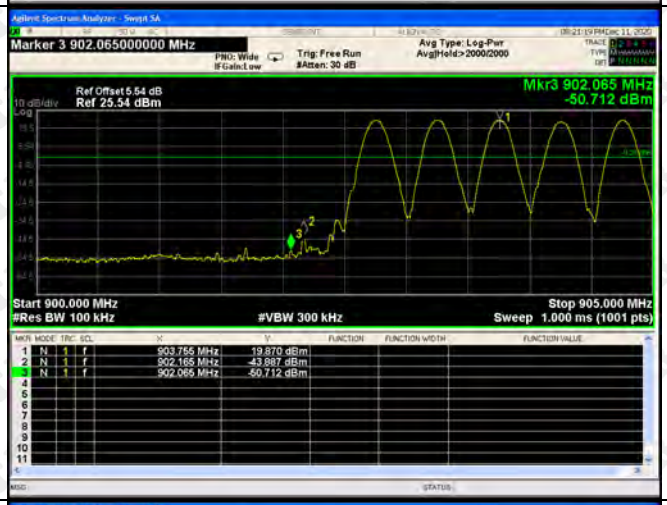
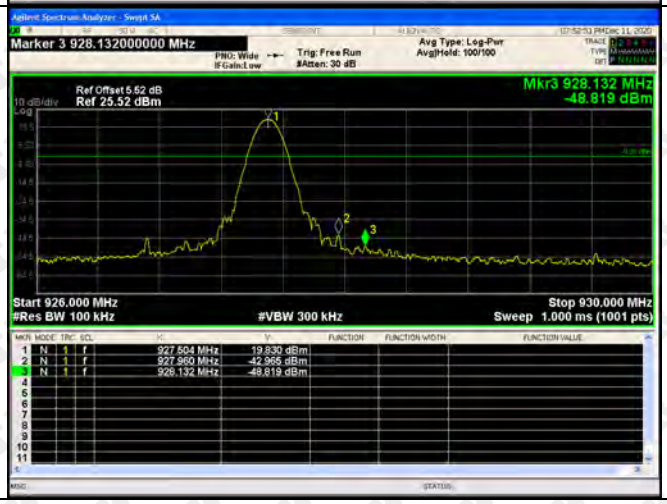
ANT 6

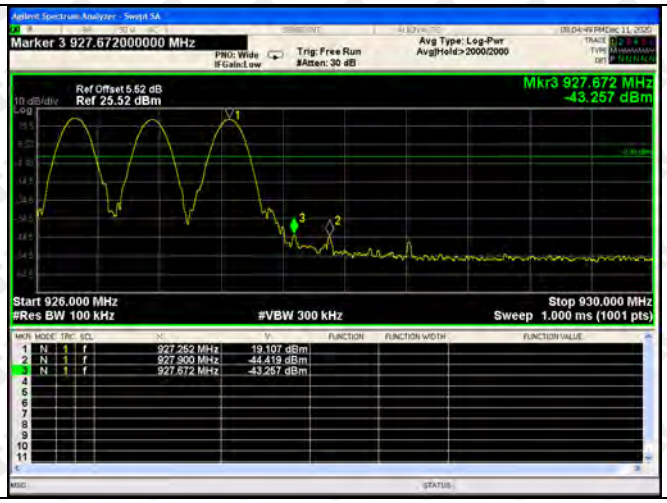
BAND EDGE Graphs			
LCH/ No Hop			
LCH/ Hop			
HCH/ No Hop			

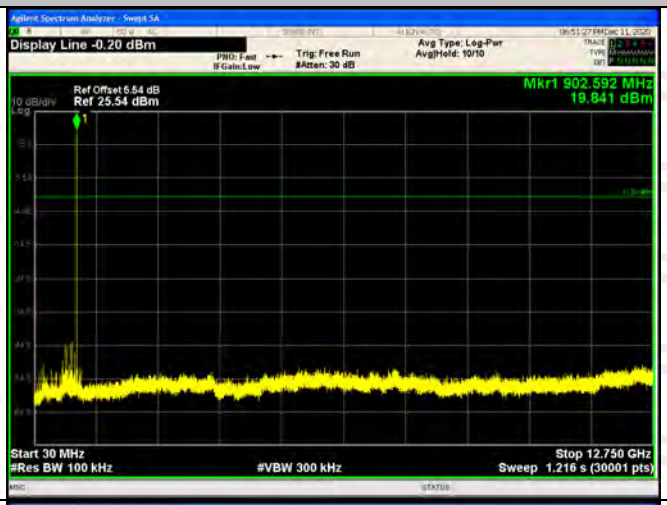
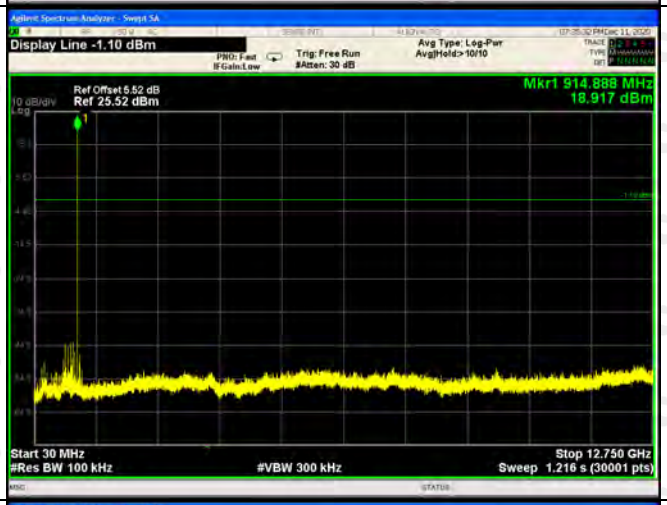
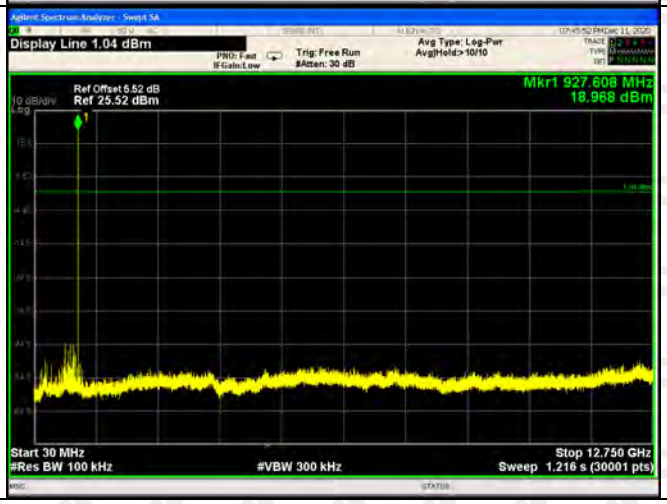
HCH/ Hop		 Marker 3 927.728000000 MHz PNO: Wide IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg|Hold:>2000/2000 Ref Offset 5.62 dB 10 dB/div Ref 25.52 dBm Mkr3 927.728 MHz -45.916 dBm Start 926.000 MHz #Res BW 100 kHz #VBW 300 kHz Stop 930.000 MHz Sweep 1.000 ms (1001 pts) 1 N 1 f 927.252 MHz 19.889 dBm 2 N 1 f 927.832 MHz -46.777 dBm 3 N 1 f 927.728 MHz -45.916 dBm	

RF Conducted Spurious Emissions Graphs			
LCH			
MCH			
HCH			

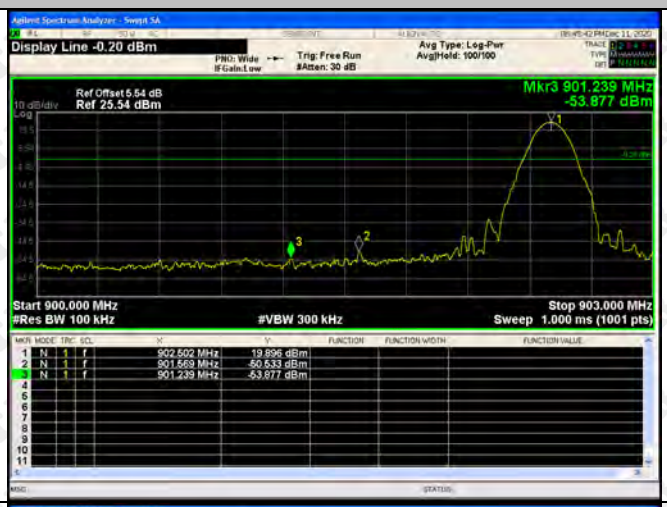
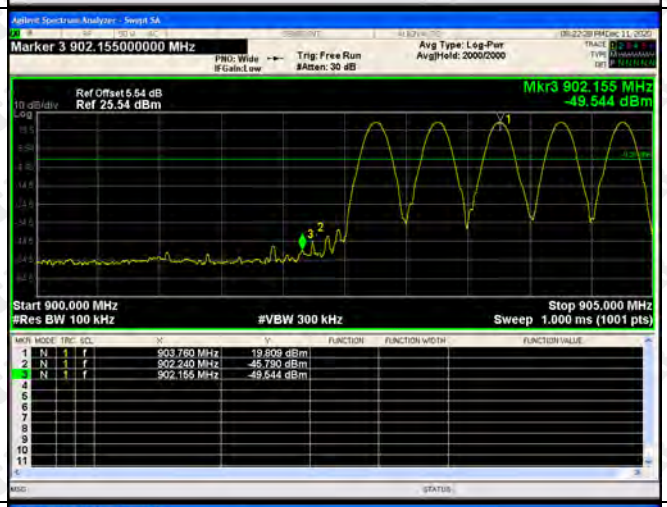
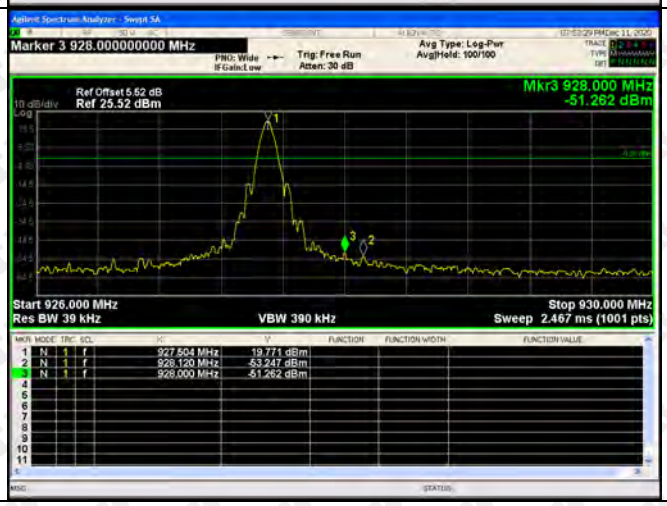
ANT 7

BAND EDGE Graphs			
LCH/ No Hop			
LCH/ Hop			
HCH/ No Hop			

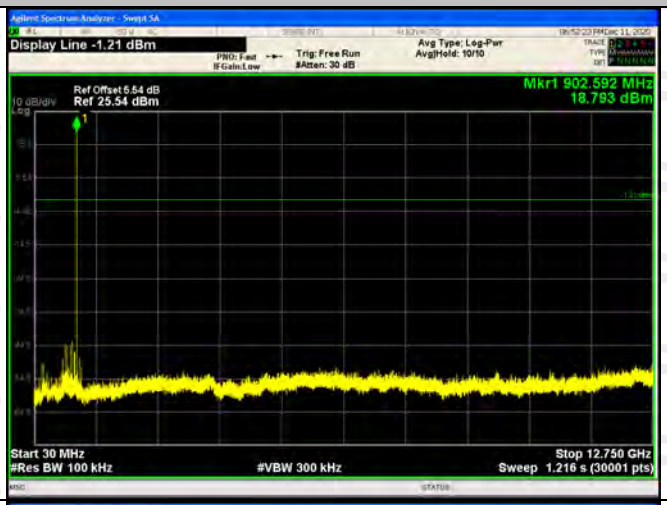
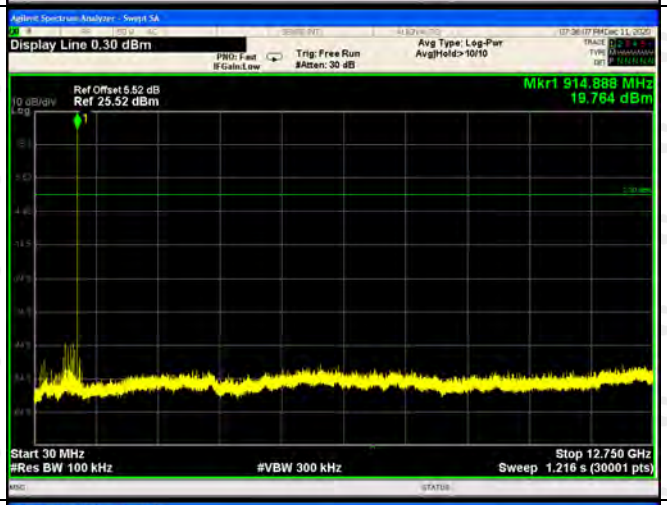
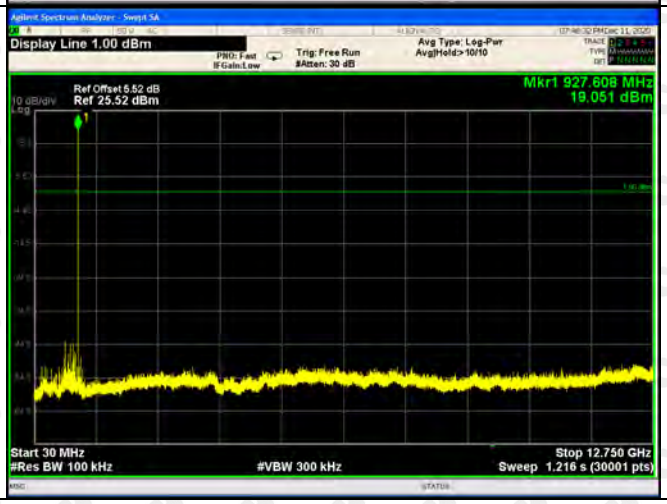
HCH/ Hop		 Marker 3 927.672000000 MHz PNO: Wide IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg|Hold:>2000/2000 Ref Offset 5.62 dB 10 dB/div Ref 25.52 dBm Mkr3 927.672 MHz -43.257 dBm Start 926.000 MHz #Res BW 100 kHz #VBW 300 kHz Stop 930.000 MHz Sweep 1.000 ms (1001 pts) 1 N 1 f 927.252 MHz 19.107 dBm 2 N 1 f 927.900 MHz -44.419 dBm 3 N 1 f 927.672 MHz -43.257 dBm	

RF Conducted Spurious Emissions Graphs			
LCH			
MCH			
HCH			

ANT 8

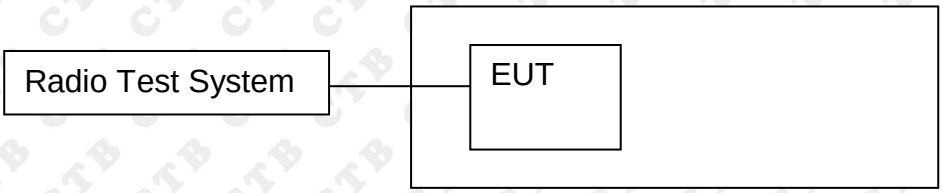
BAND EDGE Graphs			
LCH/ No Hop			
LCH/ Hop			
HCH/ No Hop			

HCH/ Hop		 Display Line -0.20 dBm Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg|Hold:>2000/2000 Ref Offset 5.62 dB 10 dB/div Ref 25.52 dBm Mkr3 927.880 MHz -47.601 dBm Start 926.000 MHz #Res BW 100 kHz #VBW 300 kHz Stop 930.000 MHz Sweep 1.000 ms (1001 pts) 1 N 1 f 927.252 MHz 19.879 dBm 2 N 1 f 927.824 MHz -45.473 dBm 3 N 1 f 927.880 MHz -47.601 dBm	

RF Conducted Spurious Emissions Graphs			
LCH			
MCH			
HCH			

9. COUDUCTED PEAK OUTPUT POWER

9.1 Block Diagram Of Test Setup



9.2 Limit

The maximum peak conducted output power of the intentional radiator shall not exceed the following:
(1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.
(2) For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels, as permitted under paragraph (a)(1)(i) of this section.
(3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the *maximum conducted output power* is the highest total transmit power occurring in any mode.
(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Peak output Power: <1W=30dBm

9.3 Test procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 3MHz. VBW = 3MHz. Sweep = auto; Detector Function = Peak.
3. Keep the EUT in transmitting at lowest, middle and highest channel individually. Record the max value.

9.4 Test Result

Ant 1

Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
LCH	26.139	28	PASS
MCH	26.145	28	PASS
HCH	26.115	28	PASS

Ant 2

Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
LCH	26.139	28	PASS
MCH	26.106	28	PASS
HCH	26.191	28	PASS

Ant 3

Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
LCH	26.131	28	PASS
MCH	26.187	28	PASS
HCH	26.128	28	PASS

Ant 4

Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
LCH	26.181	28	PASS
MCH	26.198	28	PASS
HCH	26.123	28	PASS

Ant 5

Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
LCH	26.172	28	PASS
MCH	26.165	28	PASS
HCH	26.167	28	PASS

Ant 6

Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
LCH	26.132	28	PASS
MCH	26.133	28	PASS
HCH	26.146	28	PASS

Ant 7

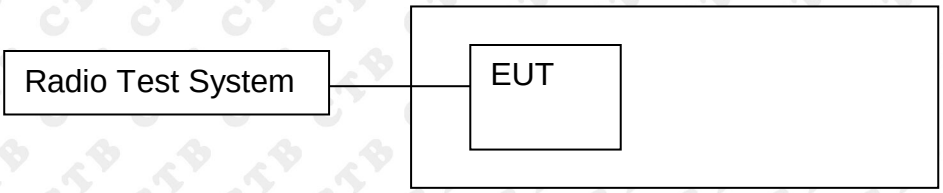
Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
LCH	26.172	28	PASS
MCH	26.192	28	PASS
HCH	26.188	28	PASS

Ant 8

Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
LCH	26.148	28	PASS
MCH	26.177	28	PASS
HCH	26.102	28	PASS

10. 20DB OCCUPIED BANDWIDTH

10.1 Block Diagram Of Test Setup



10.2 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

10.3 Test procedure

1. Rem1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

10.4 Test Result

ANT 1

Frequency	20dB Bandwidth (kHz)	Result
Low channel	70.56	**PASS**
Mid channel	72.66	**PASS**
High channel	70.48	**PASS**

Note: All modes of operation were Pre-scan and the worst-case emissions are reported.

ANT 2

Frequency	20dB Bandwidth (kHz)	Result
Low channel	68.48	**PASS**
Mid channel	69.43	**PASS**
High channel	70.84	**PASS**

Note: All modes of operation were Pre-scan and the worst-case emissions are reported.

ANT 3

Frequency	20dB Bandwidth (kHz)	Result
Low channel	73.77	**PASS**
Mid channel	69.10	**PASS**
High channel	69.71	**PASS**

Note: All modes of operation were Pre-scan and the worst-case emissions are reported.

ANT 4

Frequency	20dB Bandwidth (kHz)	Result
Low channel	68.79	**PASS**
Mid channel	72.79	**PASS**
High channel	69.98	**PASS**

Note: All modes of operation were Pre-scan and the worst-case emissions are reported.

ANT 5

Frequency	20dB Bandwidth (kHz)	Result
Low channel	73.53	**PASS**
Mid channel	71.93	**PASS**
High channel	74.33	**PASS**

Note: All modes of operation were Pre-scan and the worst-case emissions are reported.

ANT 6

Frequency	20dB Bandwidth (kHz)	Result
Low channel	72.12	**PASS**
Mid channel	73.22	**PASS**
High channel	69.68	**PASS**

Note: All modes of operation were Pre-scan and the worst-case emissions are reported.

ANT 7

Frequency	20dB Bandwidth (kHz)	Result
Low channel	69.29	**PASS**
Mid channel	73.53	**PASS**
High channel	70.29	**PASS**

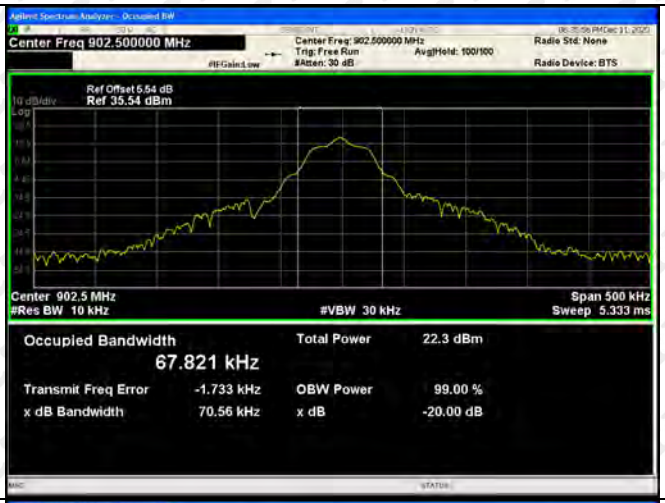
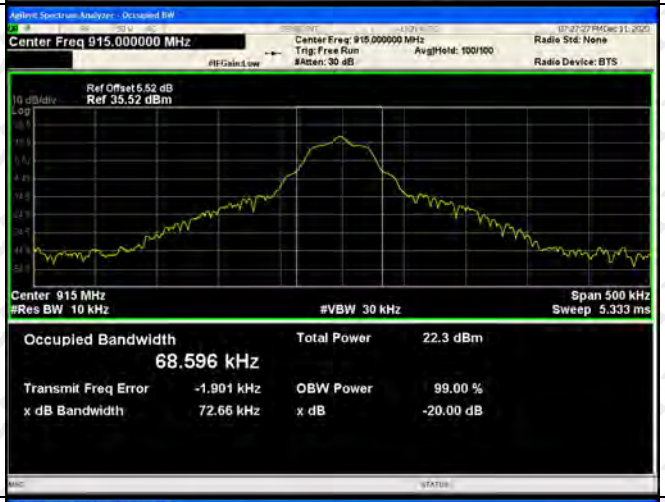
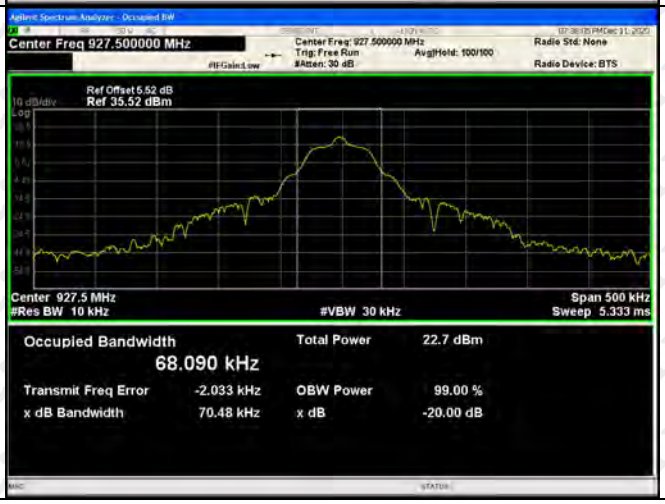
Note: All modes of operation were Pre-scan and the worst-case emissions are reported.

ANT 8

Frequency	20dB Bandwidth (kHz)	Result
Low channel	72.76	**PASS**
Mid channel	69.31	**PASS**
High channel	70.35	**PASS**

Note: All modes of operation were Pre-scan and the worst-case emissions are reported.

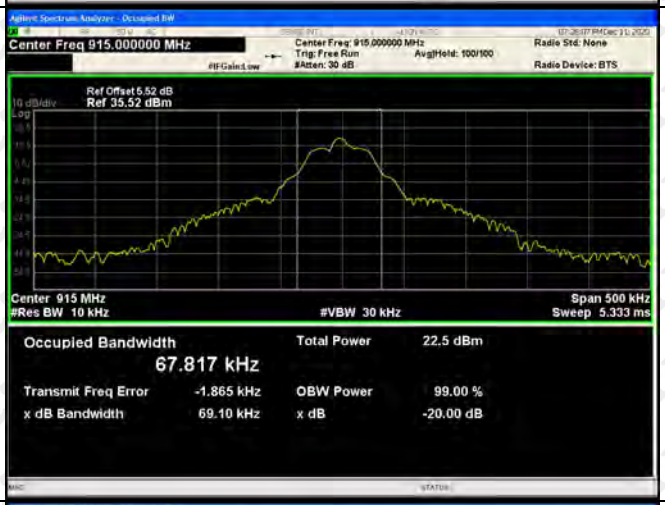
Test Graph:
ANT 1

Low channel			
Mid channel			
High channel			

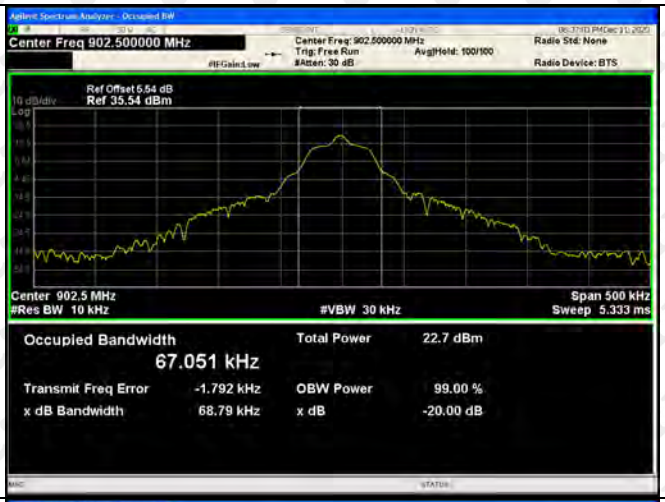
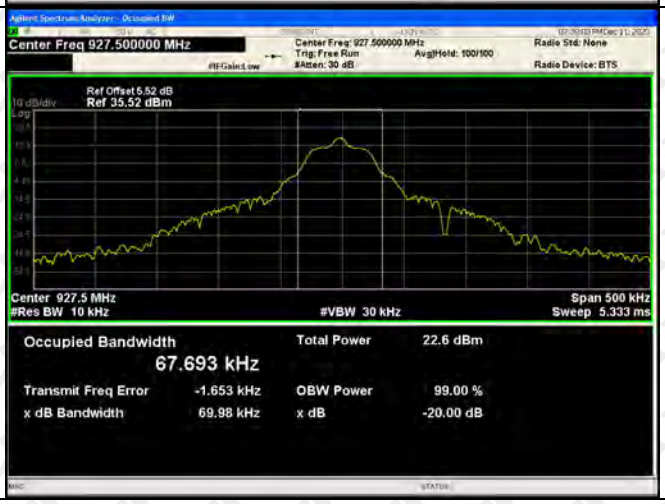
ANT 2

Low channel		
Mid channel		
High channel		

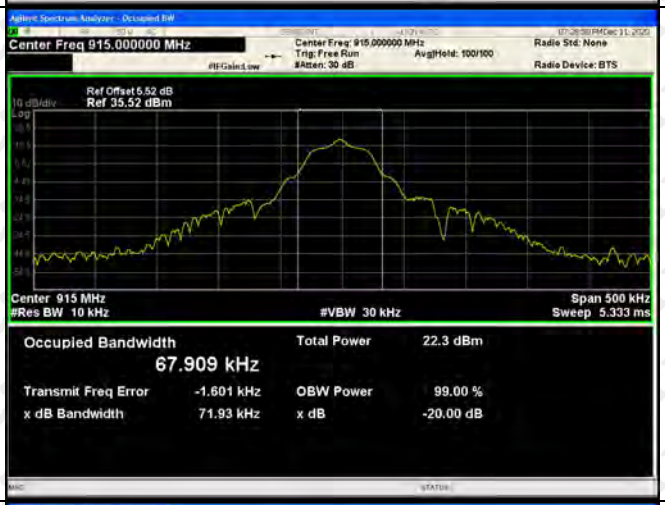
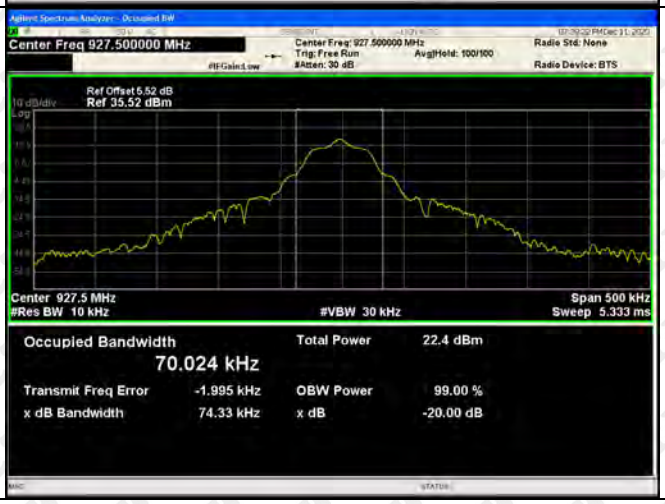
ANT 3

Low channel		
Mid channel		
High channel		

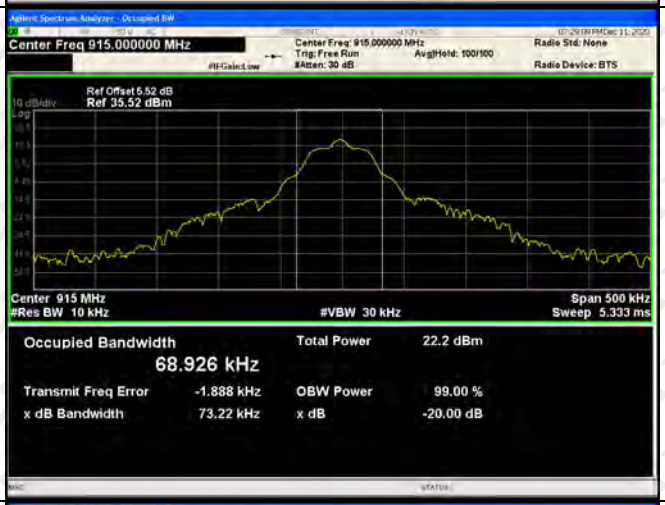
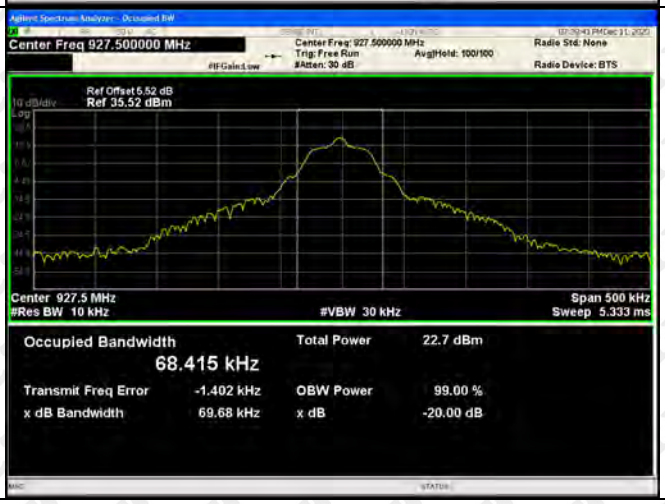
ANT 4

Low channel			
Mid channel			
High channel			

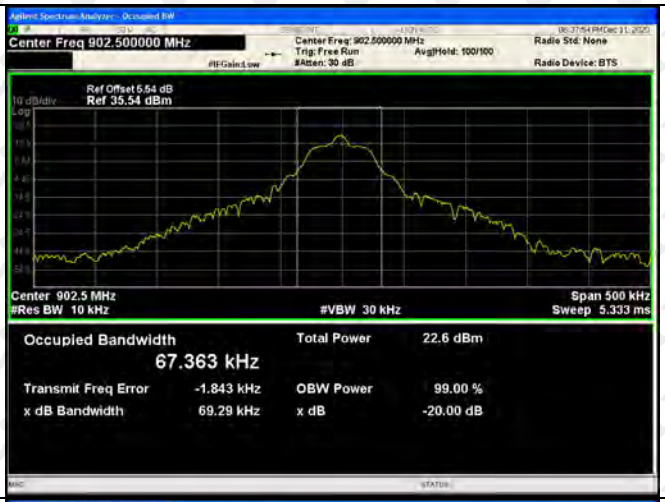
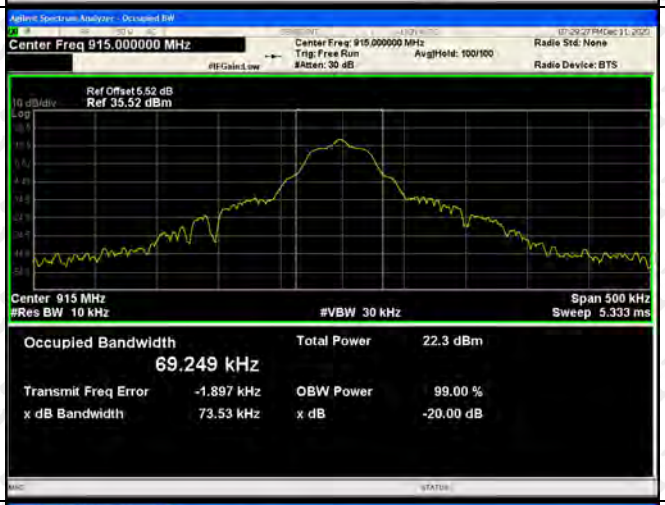
ANT 5

Low channel			
Mid channel			
High channel			

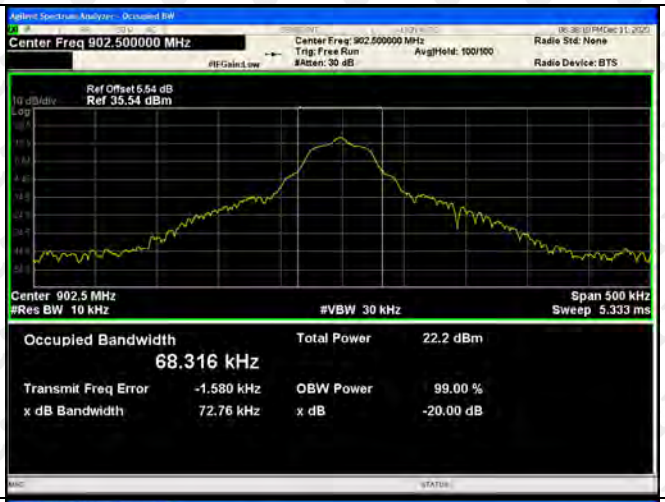
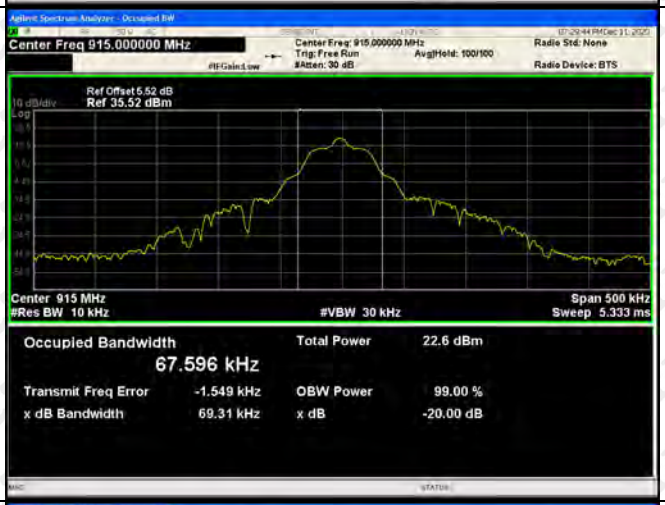
ANT 6

Low channel			
Mid channel			
High channel			

ANT 7

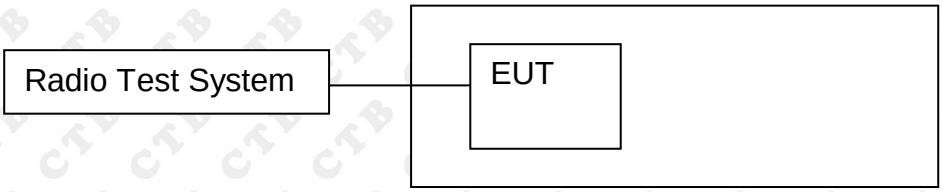
Low channel		
Mid channel		
High channel		

ANT 8

Low channel			
Mid channel			
High channel			

11. CARRIERFREQUENCIES SEPARATION

11.1 Block Diagram Of Test Setup



11.2 Limit

At least 25kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

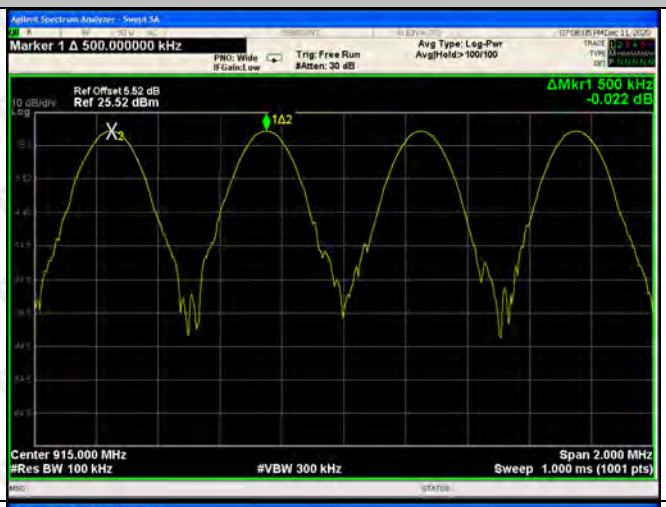
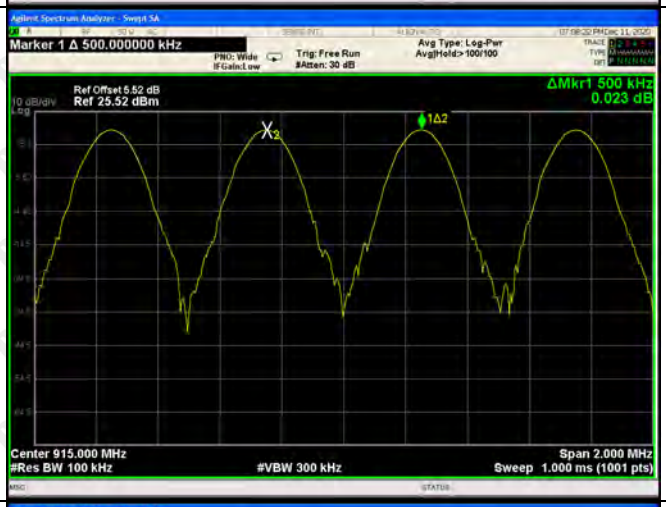
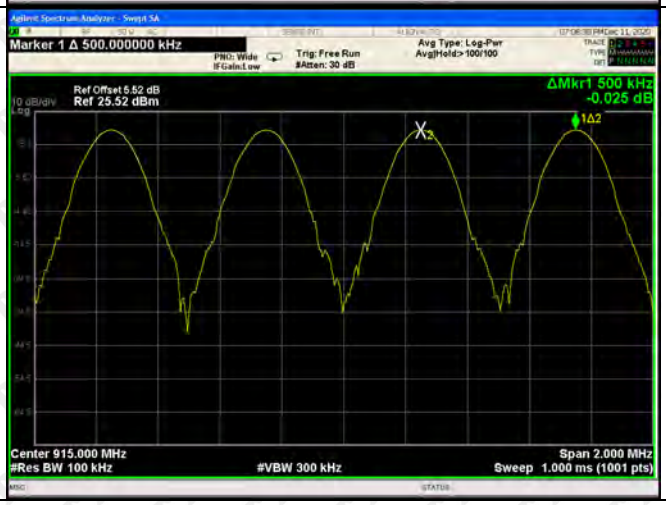
11.3 Test procedure

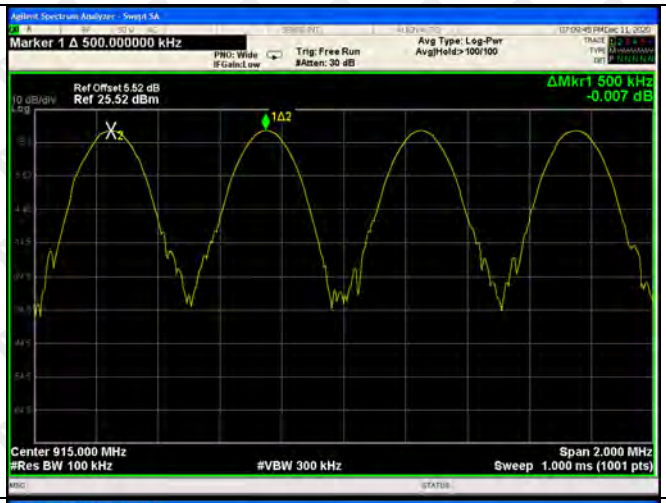
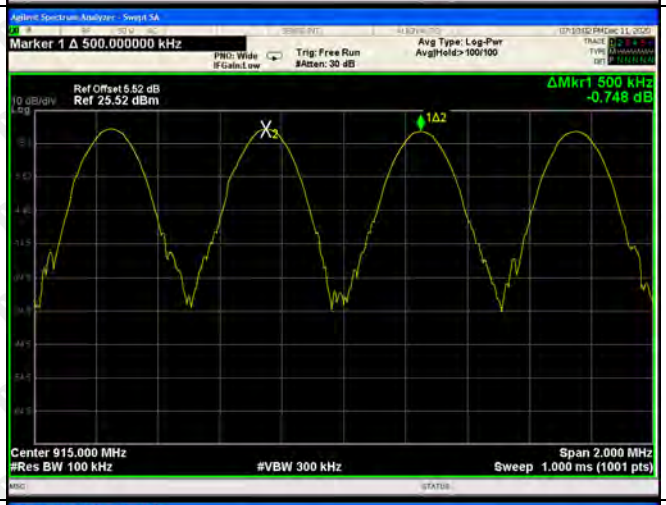
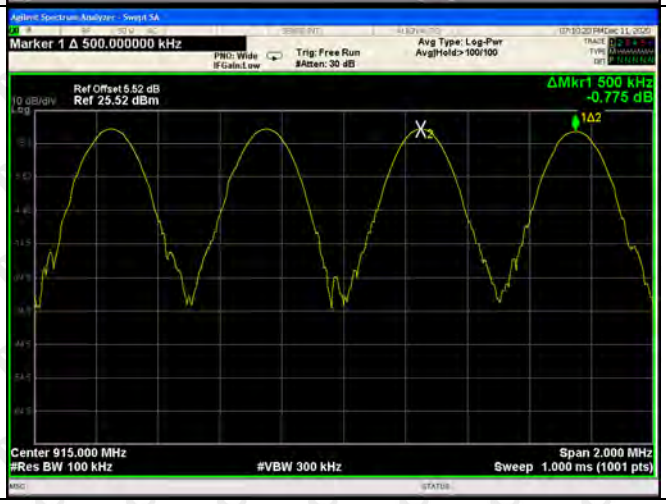
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 10kHz. VBW = 30kHz , Span = 3.0MHz. Sweep = auto; Detector Function = Peak. Trace = Max hold.
3. Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. The limit is specified in one of the subparagraphs of this Section Submit this plot.

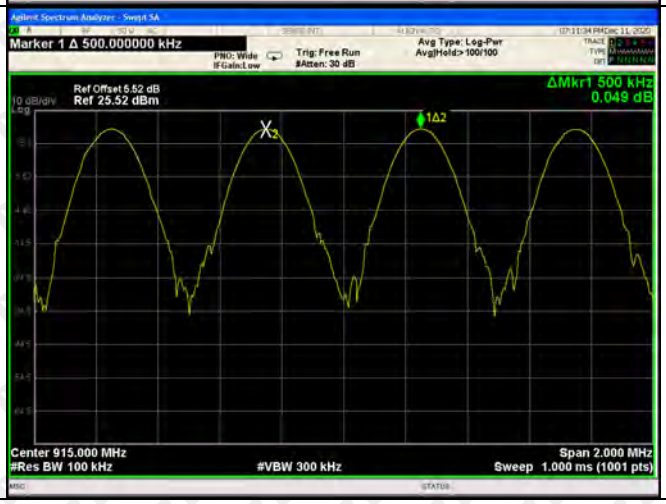
11.4 Test Result

	Test Mode	Ch. Separation (MHz)	Limit (MHz)	Result
ANT 1	TX	0.500	0.094	Complies
ANT 2	TX	0.500	0.094	Complies
ANT 3	TX	0.500	0.094	Complies
ANT 4	TX	0.500	0.094	Complies
ANT 5	TX	0.500	0.094	Complies
ANT 6	TX	0.500	0.094	Complies
ANT 7	TX	0.496	0.094	Complies
ANT 8	TX	0.500	0.094	Complies

Test Graph

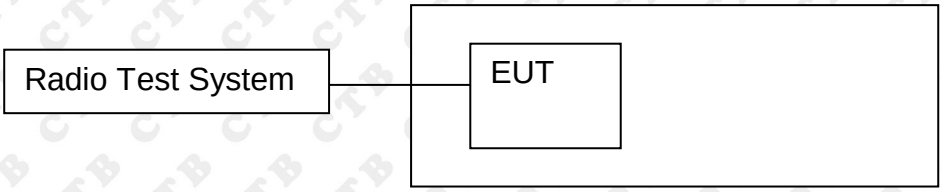
Graphs			
ANT 1			
ANT 2			
ANT 3			

ANT 4			
ANT 5			
ANT 6			

ANT 7		 Agilent Spectrum Analyzer - Swept SA Marker 1 Δ 496.000000 kHz PNO: Wide IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg|Hold:>100/100 Ref Offset 5.52 dB 10 dB/div Ref 25.52 dBm ΔMkr1 496 kHz -0.809 dB 1Δ2 Center 915.000 MHz #Res BW 100 kHz #VBW 300 kHz Span 2.000 MHz Sweep 1.000 ms (1001 pts)	
ANT 8		 Agilent Spectrum Analyzer - Swept SA Marker 1 Δ 500.000000 kHz PNO: Wide IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg|Hold:>100/100 Ref Offset 5.52 dB 10 dB/div Ref 25.52 dBm ΔMkr1 500 kHz 0.049 dB 1Δ2 Center 915.000 MHz #Res BW 100 kHz #VBW 300 kHz Span 2.000 MHz Sweep 1.000 ms (1001 pts)	

12. HOPPING CHANNEL NUMBER

12.1 Block Diagram Of Test Setup



12.2 Limit

Frequency hopping systems in the 920-928 MHz band shall use at least 50 channels.

12.3 Test procedure

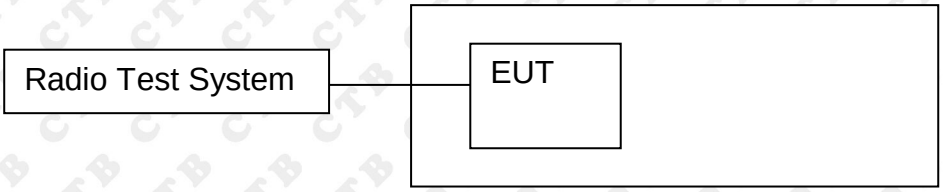
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 100kHz. VBW = 300kHz. Sweep = auto; Detector Function = Peak. Trace = Max hold.
3. Allow the trace to stabilize. It may prove necessary to break the span up to sections. in order to clearly show all of the hopping frequencies. The limit is specified in one of the subparagraphs of this Section.
4. Set the spectrum analyzer: Start Frequency = 2.4GHz, Stop Frequency = 2.4835GHz. Sweep=auto;

12.4 Test Result

Mode	Channel.	Number of Hopping Channel	Verdict
ASK	Hop	51	PASS

13. DWELL TIME

13.1 Block Diagram Of Test Setup



13.2 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. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

13.3 Test procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set spectrum analyzer span = 0. Centred on a hopping channel;
3. Set RBW = 1MHz and VBW = 3MHz.Sweep = as necessary to capture the entire dwell time per hopping channel. Set the EUT for DH5, DH3 and DH1 packet transmitting.
4. Use the marker-delta function to determine the dwell time. If this value varies with different modes of operation (e.g.. data rate. modulation format. etc.). repeat this test for each variation. The limit is specified in one of the subparagraphs of this Section. Submit this plot(s).

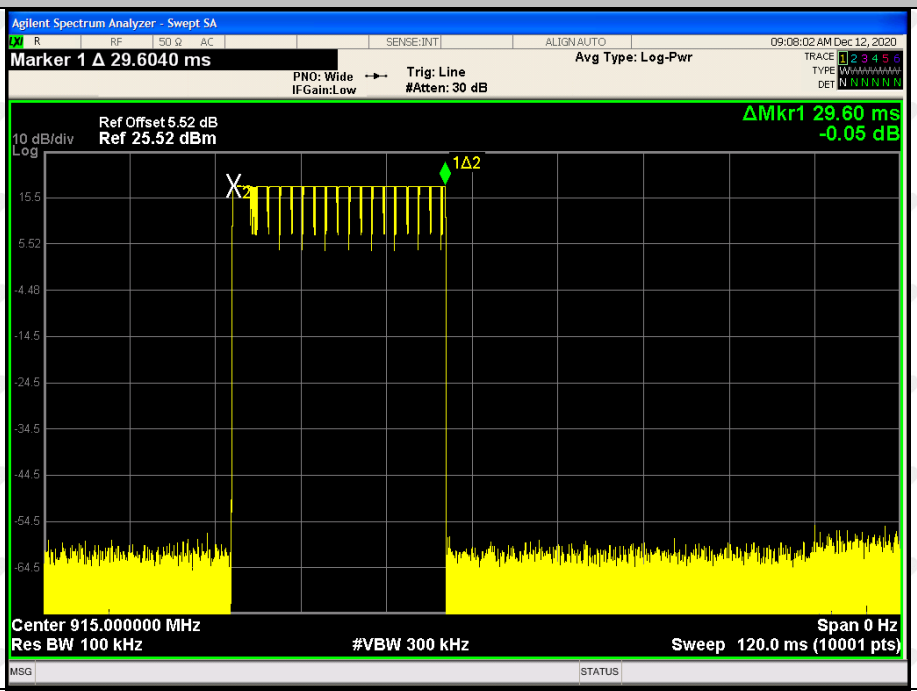
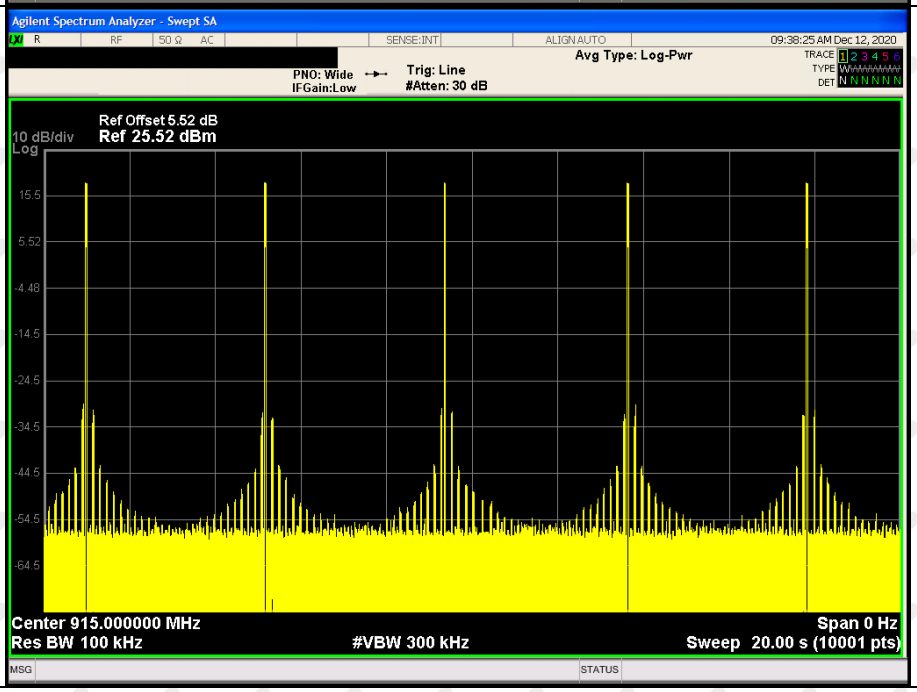
13.4 Test Result

	No. of transmission in20s(a)	Pulse Time (ms)(b)	Total Dwell Time in 20s (ms) (c)	Limit (ms)	Verdict
ANT1	5	29.60	148	400	PASS
ANT2	5	29.58	147.9	400	PASS
ANT3	5	31.62	158.1	400	PASS
ANT4	5	29.60	148	400	PASS
ANT5	5	29.66	148.3	400	PASS
ANT6	5	29.68	148.4	400	PASS
ANT7	5	29.64	148.2	400	PASS
ANT8	5	29.68	148.4	400	PASS

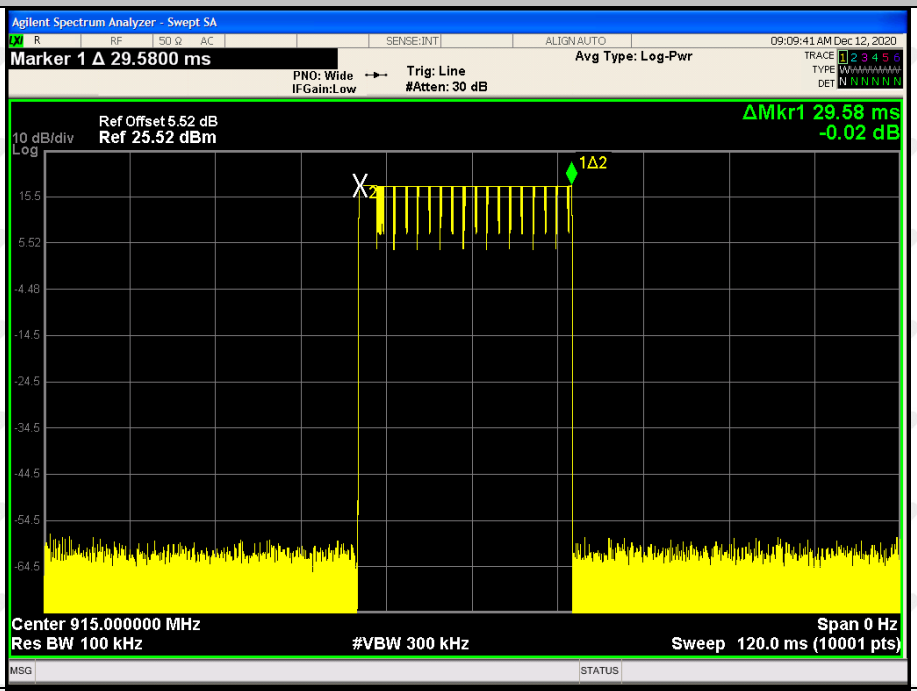
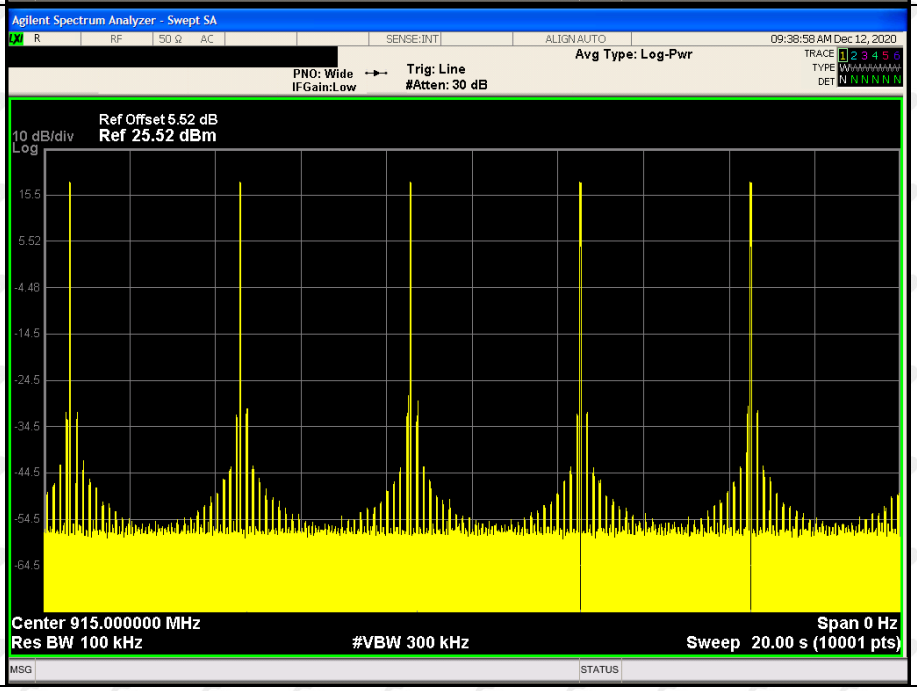
Remark: Total dwell time in 20s, c=(a)*(b)

Test Graph

ANT 1

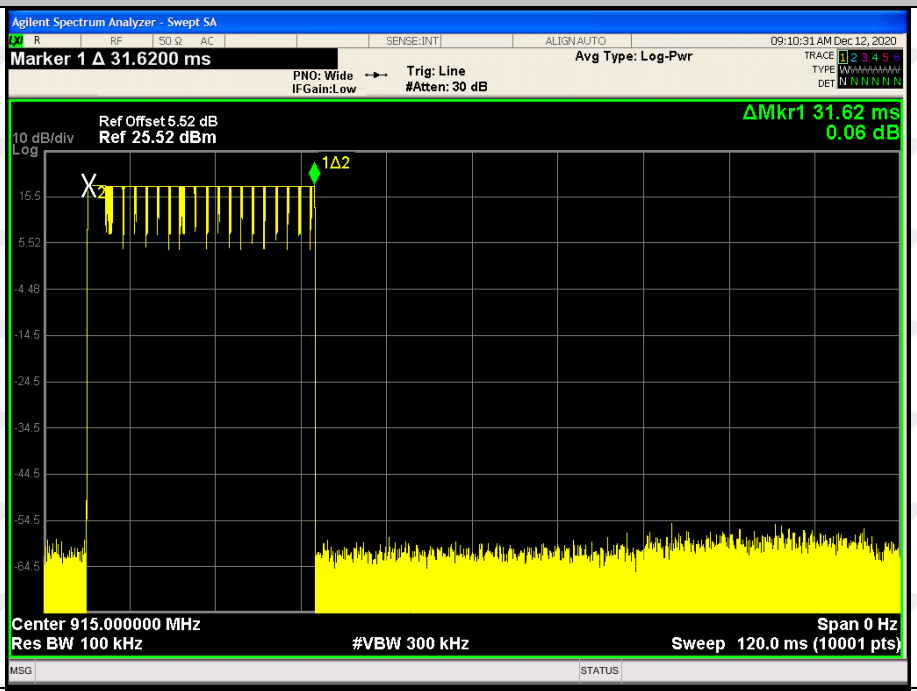
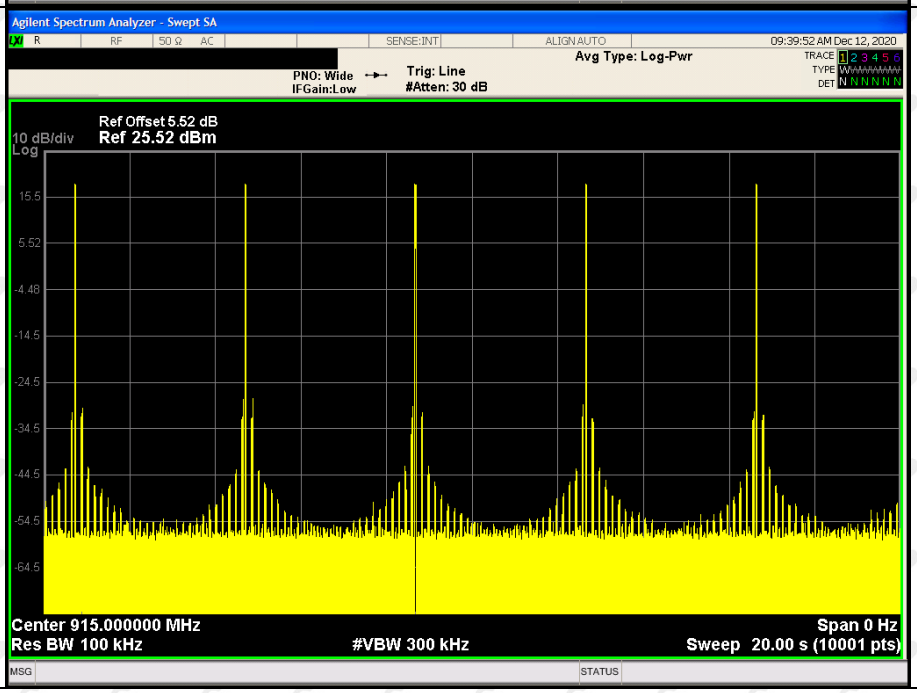
Graphs



ANT 2

Graphs



Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ 29.5800 ms
Avg Type: Log-Pwr
09:09:41 AM Dec 12, 2020
PNO: Wide
IFGain:Low
Trig: Line
#Atten: 30 dB
Ref Offset 5.52 dB
10 dB/div
Log
Ref 25.52 dBm
ΔMkr1 29.58 ms
-0.02 dB
1Δ2
Center 915.000000 MHz
Res BW 100 kHz
#VBW 300 kHz
Span 0 Hz
Sweep 120.0 ms (10001 pts)
Agilent Spectrum Analyzer - Swept SA
09:38:58 AM Dec 12, 2020
Sweep 20.00 s (10001 pts)

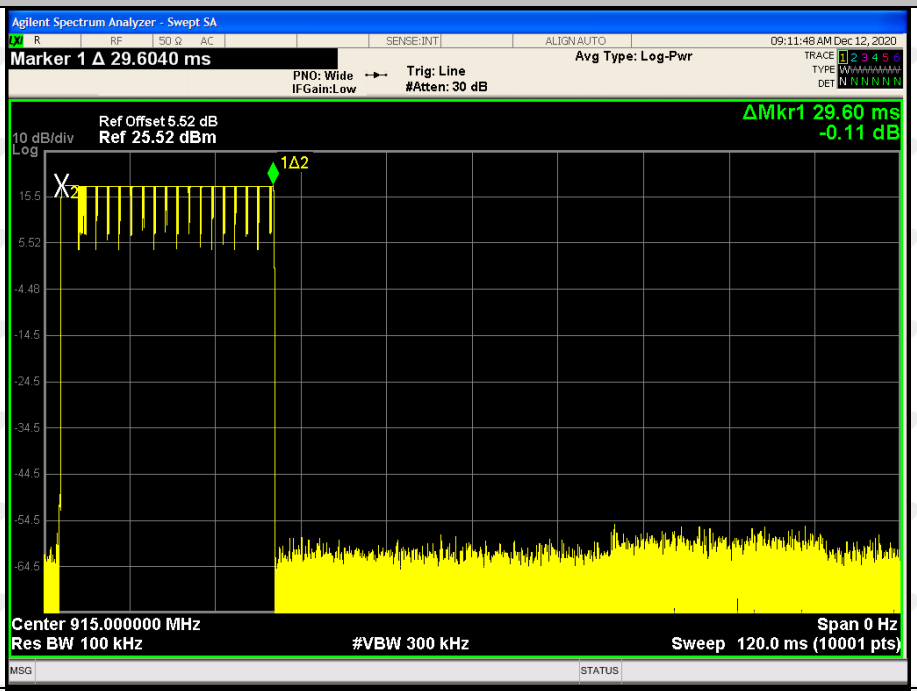
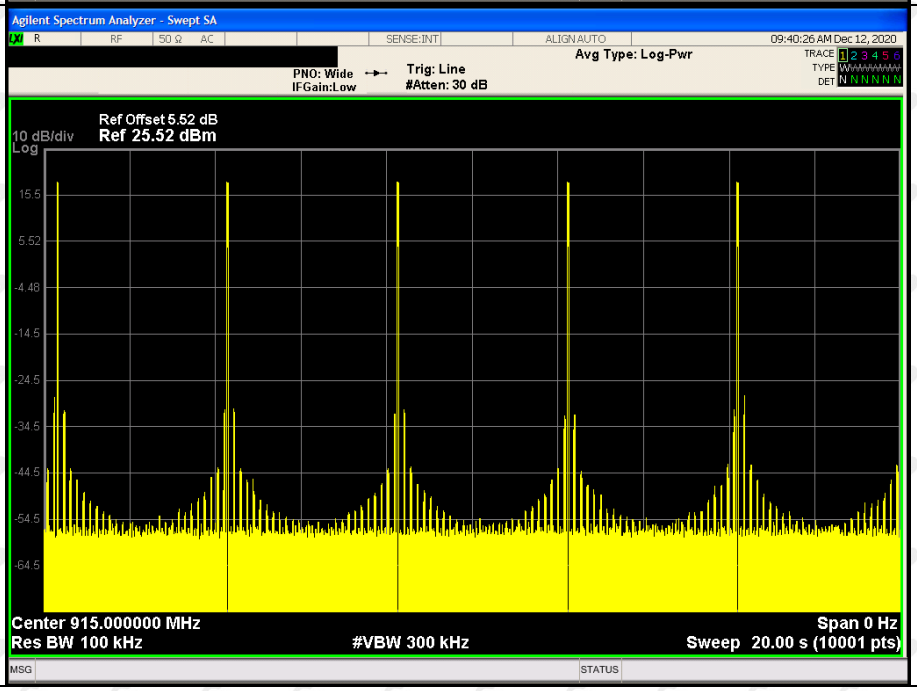
ANT 3

Graphs



Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ 31.6200 ms
Avg Type: Log-Pwr
09:10:31 AM Dec 12, 2020
PNO: Wide
IFGain:Low
Trig: Line
#Atten: 30 dB
Ref Offset 5.52 dB
10 dB/div
Log
Ref 25.52 dBm
ΔMkr1 31.62 ms
0.06 dB
1Δ2
Center 915.000000 MHz
Res BW 100 kHz
#VBW 300 kHz
Span 0 Hz
Sweep 120.0 ms (10001 pts)
MSG
STATUS

Agilent Spectrum Analyzer - Swept SA
09:39:52 AM Dec 12, 2020
Avg Type: Log-Pwr
PNO: Wide
IFGain:Low
Trig: Line
#Atten: 30 dB
Ref Offset 5.52 dB
10 dB/div
Log
Ref 25.52 dBm
Center 915.000000 MHz
Res BW 100 kHz
#VBW 300 kHz
Span 0 Hz
Sweep 20.00 s (10001 pts)
MSG
STATUS

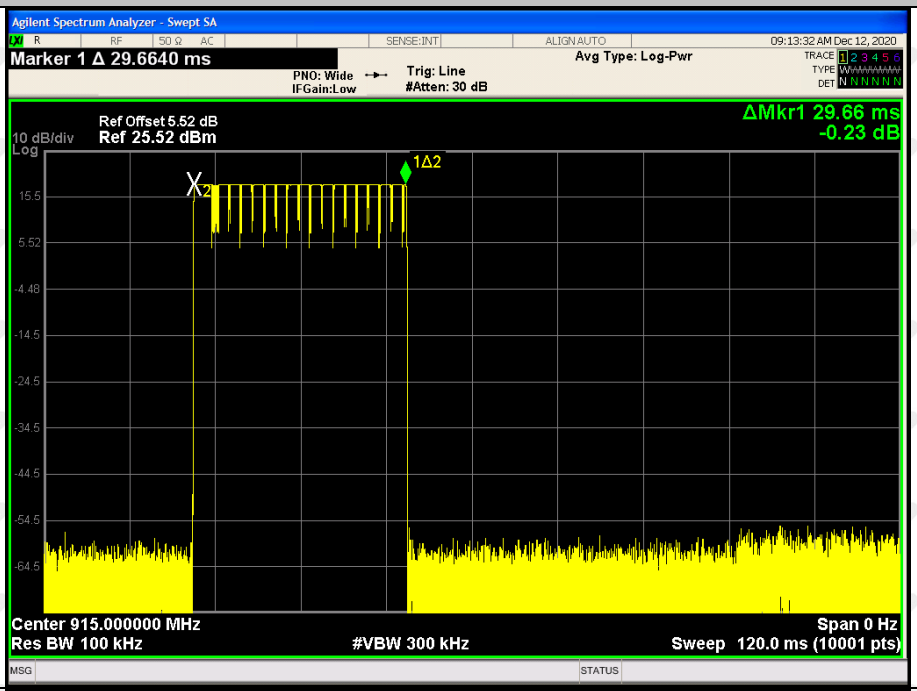
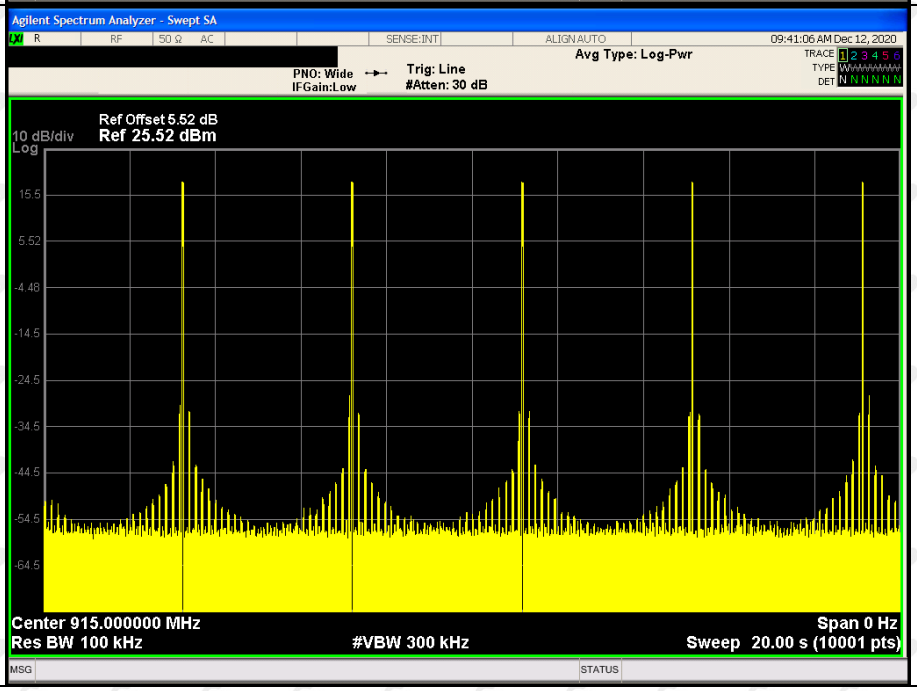
ANT 4

Graphs



Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ 29.6040 ms
PNO: Wide
IFGain:Low
Trig: Line
#Atten: 30 dB
Avg Type: Log-Pwr
09:11:48 AM Dec 12, 2020
Ref Offset 5.52 dB
10 dB/div
Log
Ref 25.52 dBm
ΔMkr1 29.60 ms
-0.11 dB
1Δ2
Center 915.000000 MHz
Res BW 100 kHz
#VBW 300 kHz
Span 0 Hz
Sweep 120.0 ms (10001 pts)
MSG
STATUS

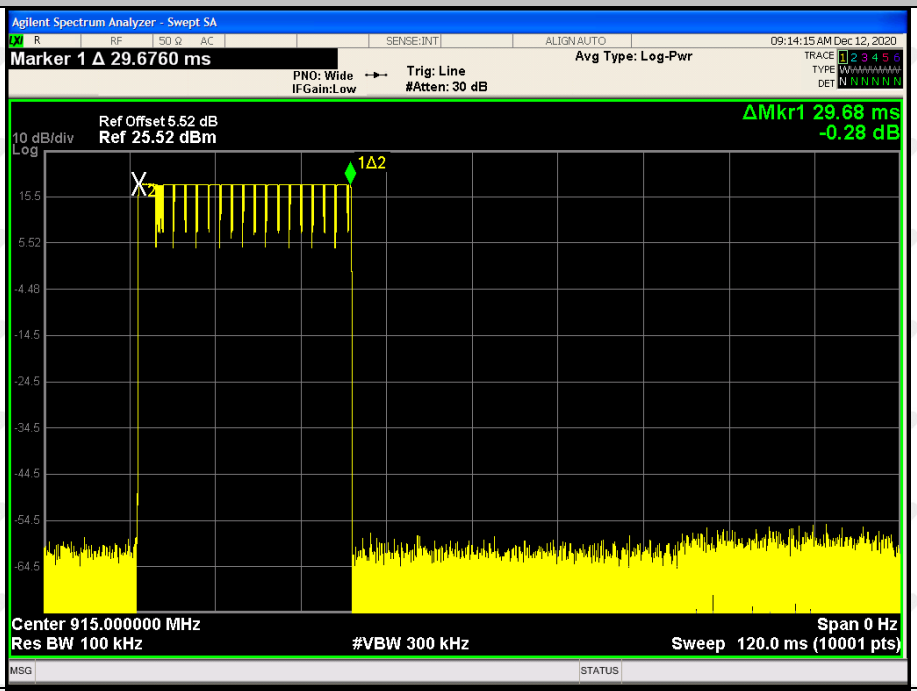
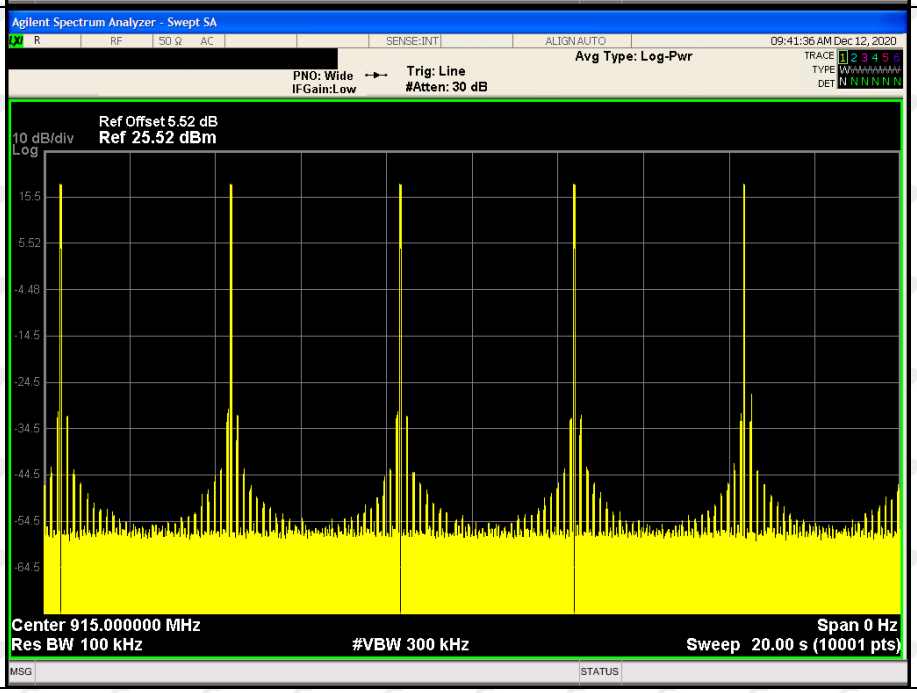
Agilent Spectrum Analyzer - Swept SA
PNO: Wide
IFGain:Low
Trig: Line
#Atten: 30 dB
Avg Type: Log-Pwr
09:40:26 AM Dec 12, 2020
Ref Offset 5.52 dB
10 dB/div
Log
Ref 25.52 dBm
Center 915.000000 MHz
Res BW 100 kHz
#VBW 300 kHz
Span 0 Hz
Sweep 20.00 s (10001 pts)
MSG
STATUS

ANT 5

Graphs



Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ 29.6640 ms
Avg Type: Log-Pwr
09:13:32 AM Dec 12, 2020
PNO: Wide
IFGain:Low
Trig: Line
#Atten: 30 dB
Ref Offset 5.52 dB
10 dB/div
Log
Ref 25.52 dBm
ΔMkr1 29.66 ms
-0.23 dB
Center 915.000000 MHz
Res BW 100 kHz
#VBW 300 kHz
Span 0 Hz
Sweep 120.0 ms (10001 pts)
Agilent Spectrum Analyzer - Swept SA
09:41:06 AM Dec 12, 2020
Sweep 20.00 s (10001 pts)

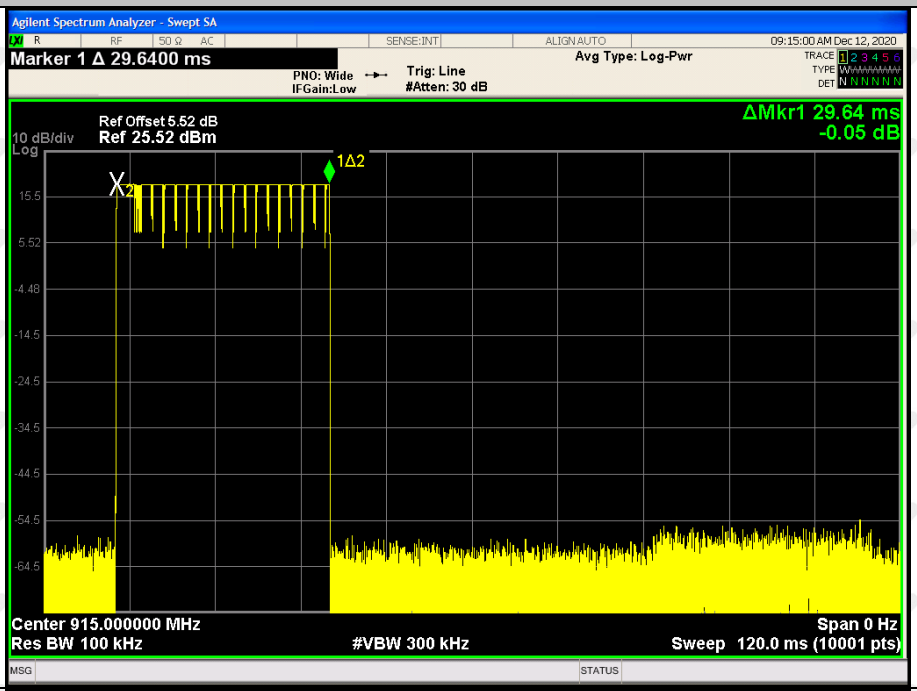
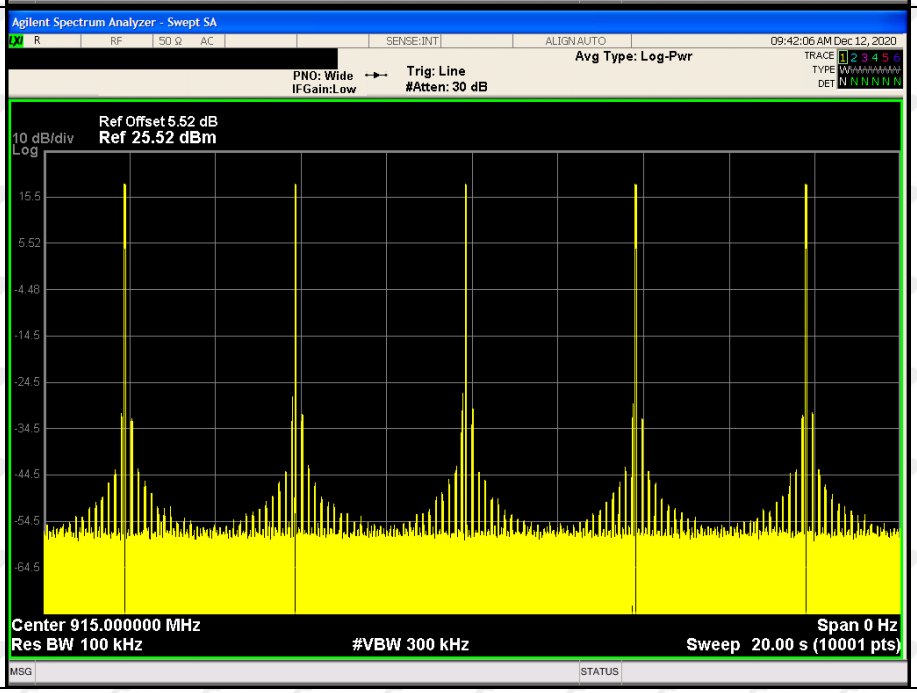
ANT 6

Graphs



Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ 29.6760 ms
Avg Type: Log-Pwr
09:14:15 AM Dec 12, 2020
PNO: Wide
IFGain:Low
Trig: Line
#Atten: 30 dB
Ref Offset 5.52 dB
10 dB/div
Log
Ref 25.52 dBm
ΔMkr1 29.68 ms
-0.28 dB
1Δ2
15.5
5.52
-4.48
-14.5
-24.5
-34.5
-44.5
-54.5
-64.5
Center 915.000000 MHz
Res BW 100 kHz
#VBW 300 kHz
Span 0 Hz
Sweep 120.0 ms (10001 pts)
MSG
STATUS

Agilent Spectrum Analyzer - Swept SA
Avg Type: Log-Pwr
09:41:36 AM Dec 12, 2020
PNO: Wide
IFGain:Low
Trig: Line
#Atten: 30 dB
Ref Offset 5.52 dB
10 dB/div
Log
Ref 25.52 dBm
15.5
5.52
-4.48
-14.5
-24.5
-34.5
-44.5
-54.5
-64.5
Center 915.000000 MHz
Res BW 100 kHz
#VBW 300 kHz
Span 0 Hz
Sweep 20.00 s (10001 pts)
MSG
STATUS

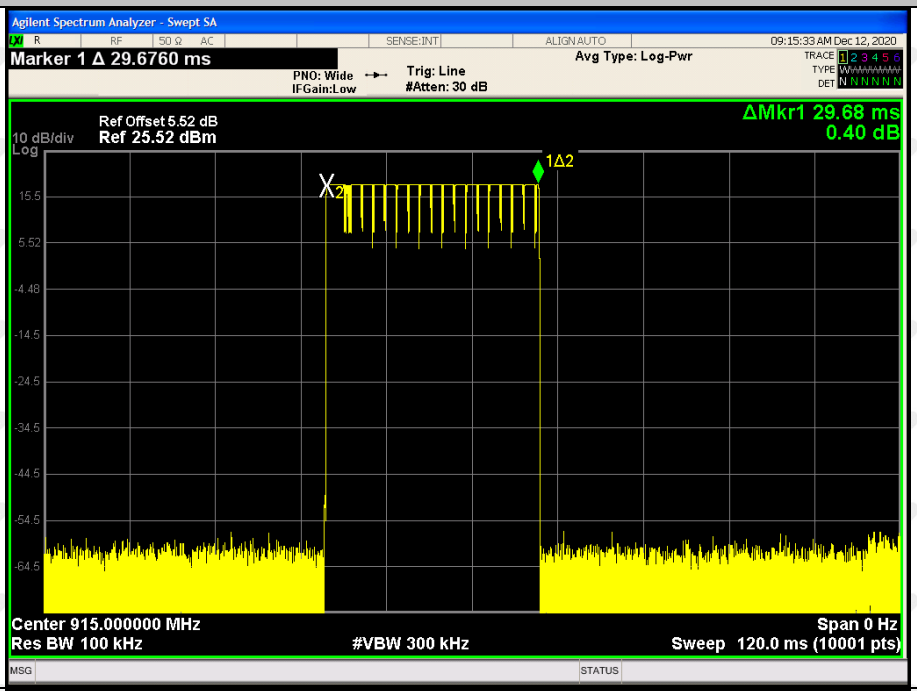
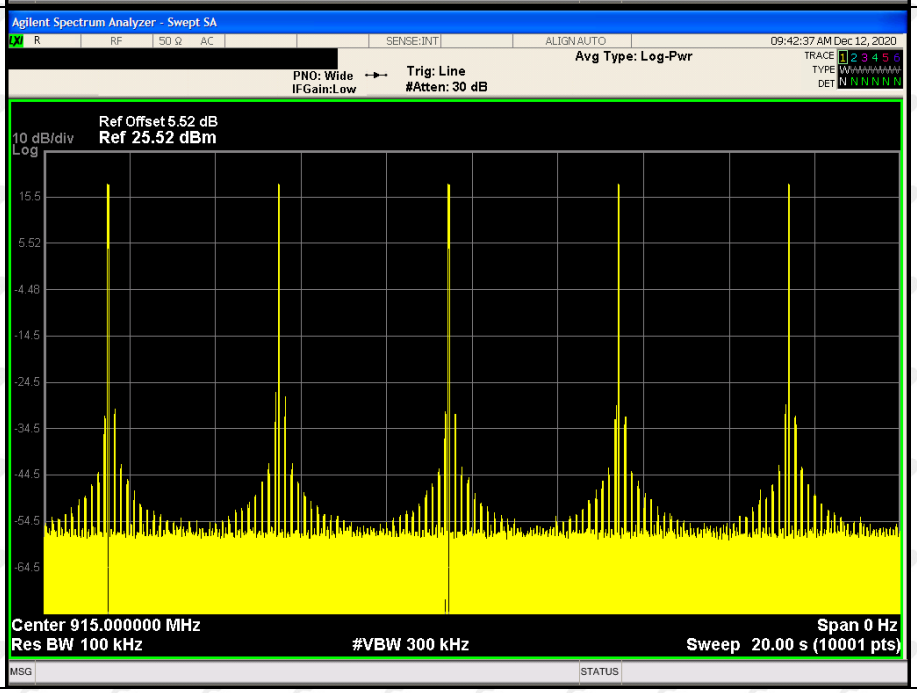
ANT 7

Graphs



Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ 29.6400 ms
Avg Type: Log-Pwr
09:15:00 AM Dec 12, 2020
PNO: Wide
IFGain:Low
Trig: Line
#Atten: 30 dB
Ref Offset 5.52 dB
10 dB/div
Log
Ref 25.52 dBm
ΔMkr1 29.64 ms
-0.05 dB
1Δ2
Center 915.000000 MHz
Res BW 100 kHz
#VBW 300 kHz
Span 0 Hz
Sweep 120.0 ms (10001 pts)
MSG
STATUS

Agilent Spectrum Analyzer - Swept SA
Avg Type: Log-Pwr
09:42:06 AM Dec 12, 2020
PNO: Wide
IFGain:Low
Trig: Line
#Atten: 30 dB
Ref Offset 5.52 dB
10 dB/div
Log
Ref 25.52 dBm
Center 915.000000 MHz
Res BW 100 kHz
#VBW 300 kHz
Span 0 Hz
Sweep 20.00 s (10001 pts)
MSG
STATUS

ANT 8

Graphs



Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ 29.6760 ms
Avg Type: Log-Pwr
09:15:33 AM Dec 12, 2020
PNO: Wide
IFGain:Low
Trig: Line
#Atten: 30 dB
Ref Offset 5.52 dB
10 dB/div
Log
Ref 25.52 dBm
ΔMkr1 29.68 ms
0.40 dB
1Δ2
Center 915.000000 MHz
Res BW 100 kHz
#VBW 300 kHz
Span 0 Hz
Sweep 120.0 ms (10001 pts)
Agilent Spectrum Analyzer - Swept SA
09:42:37 AM Dec 12, 2020
Center 915.000000 MHz
Res BW 100 kHz
#VBW 300 kHz
Span 0 Hz
Sweep 20.00 s (10001 pts)

14. ANTENNA REQUIREMENT

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.
15.247(b) (4) requirement:
The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is SMA connect Antenna and no consideration of replacement. The best case gain of the antenna is 8dBi.

15. EUT PHOTOGRAPHS

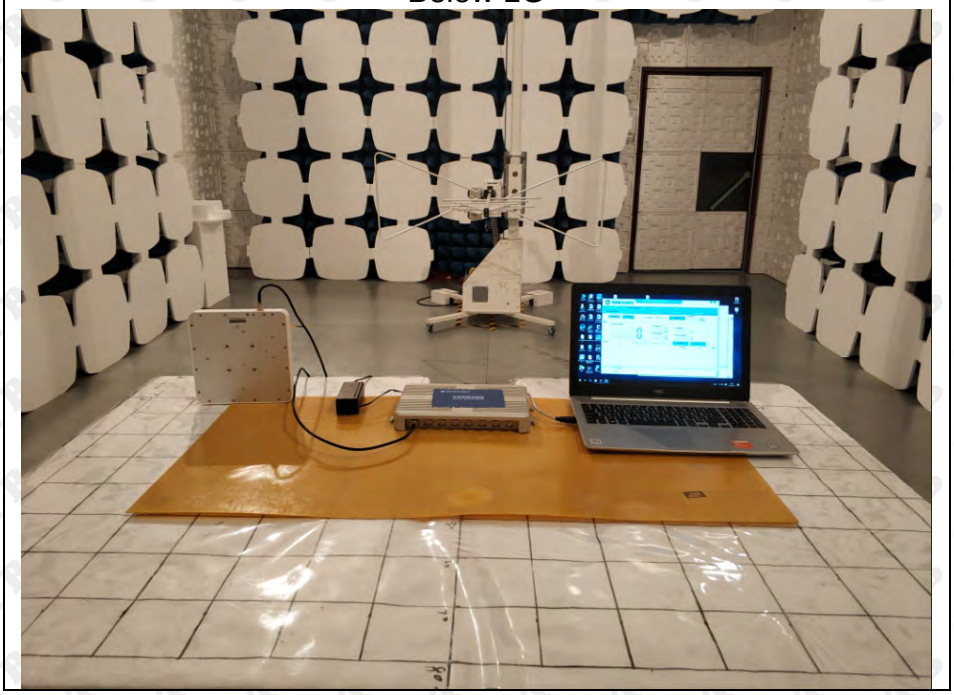
EUT Photo 1

EUT Photo 2

16. EUT TEST SETUP PHOTOGRAPHS

Radiated Emission

Below 1G



Above 1G

Conducted Emission

※※※※※ END OF REPORT ※※※※※