Test Report

Report No.: MTi230606005-02E2

Date of issue: 2023-09-26

Applicant: Ten-Tronics Co., Ltd.

Product: 150M HDMI Wireless Extender

Model(s): A-1488

FCC ID: 2ACIA-TTBT016

Shenzhen Microtest Co., Ltd.

http://www.mtitest.com

Address: 101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Tel: (86-755)88850135 Fax: (86-755) 88850136 Web: www.mtitest.com E-mail: mti@51mti.com

Instructions

1. This test report shall not be partially reproduced without the written consent of the laboratory.

2. The test results in this test report are only responsible for the samples submitted

3. This test report is invalid without the seal and signature of the laboratory.

4. This test report is invalid if transferred, altered, or tampered with in any form without authorization.

5. Any objection to this test report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

Table of contents

Test Result Certification	
Applicant:	Ten-Tronics Co., Ltd.
Address:	No. 33, Lane 347, Chung-San S. Road, Young-Kang City, Tainan, Taiwan
Manufacturer:	Ten-Tronics Co., Ltd.
Address:	No. 33, Lane 347, Chung-San S. Road, Young-Kang City, Tainan, Taiwan
Product description	
Product name:	150M HDMI Wireless Extender
Trade mark:	N/A
Model name:	A-1488
Series Model:	N/A
Standards:	FCC 47 CFR Part 15.407
Test method:	ANSI C63.10-2013 KDB 789033 D02 v02r01 KDB 662911 D01 Multiple Transmitter Output v02r01
Date of Test	
Date of test:	2023-08-09 to 2023-09-26
Test result:	Pass

Test Engineer	:	Maleah Deng
		(Maleah Deng)
Reviewed By	:	Leon Chen
		(Leon Chen)
Approved By	:	Tom Xue
		(Tom Xue)

1 General Description

1.1 Description of the EUT

Product name:	150M HDMI Wireless Extender
Model name:	A-1488
Series Model:	N/A
Model difference:	N/A
Electrical rating:	Input: DC 5V 1A
Accessories:	N/A
Hardware version:	V1.0
Software version:	V1.0
Test sample(s) number:	MTi230606005-02S1001
RF specification	
Operating frequency range:	U-NII-1: 5150 MHz to 5250 MHz U-NII-3: 5725 MHz to 5850 MHz
Modulation type:	802.11a: OFDM(BPSK, QPSK, 16QAM, 64QAM); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM);
Date Rate:	802.11a: 6,9,12,18,24,36,48,54Mbps; 802.11n(HT20/HT40): MCS0-MCS15; 802.11ac(VHT20): NSS1, MCS0-MCS8 802.11ac(VHT40): NSS1, MCS0-MCS9 802.11ac(VHT80) :NSS1,MCS0-MCS9
Antenna(s) type:	FPC Antenna
Antenna(s) gain:	ANT1: 2.43dBi; ANT2: 2.43dBi; ANT1 and ANT2 are correlated antennas and Directive Antenna gain: 5.44dBi

1.2 Description of test modes

No.	Emission test modes
Mode1	802.11a mode(SISO)
Mode2	802.11n(HT 20) mode(SISO)
Mode3	802.11n(HT 40) mode(SISO)
Mode4	802.11ac(VHT 20) mode(SISO)
Mode5	802.11ac(VHT 40) mode(SISO)
Mode6	802.11ac(VHT 80) mode(SISO)
Mode7	802.11n(HT 20) mode(MIMO)
Mode8	802.11n(HT 40) mode(MIMO)
Mode9	802.11ac(VHT 20) mode(MIMO)
Mode10	802.11ac(VHT 40) mode(MIMO)
Mode11	802.11ac(VHT 80) mode(MIMO)

1.2.1 Operation channel list

U-NII Band 1

Bandwidth:	20MHz	Bandwidth:	40MHz	Bandwidth:	80MHz
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230	/	/
44	5220	/	/	/	/
48	5240	/	/	/	/

U-NII Band 3

Bandwidth:	20MHz	Bandwidth:	40MHz	Bandwidth:	80MHz
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795	/	/
157	5785	/	/	/	/
161	5805	/	/	/	/
165	5825	/	/	/	/

Note: The test software provided by manufacturer is used to control EUT for working in engineering mode, that enables selectable channel, and capable of continuous transmitting mode.

Test Software:

For power setting, refer to below table.

Test Software:	Realtek

For U-NII-1 band(ANT 1):			
802.11a		**802.11n20**	
Channel	Power setting	Channel	Power setting
36	50	36	50
40	50	40	50
48	50	48	50
802.11n40		**802.11ac20**	
Channel	Power setting	Channel	Power setting
38	50	36	50
46	50	40	50
--	--	48	50
802.11ac40		**802.11ac80**	
38	50	42	50
46	50	--	--
--	--	--	--

For U-NII-1 band(ANT 2):			
802.11a		**802.11n20**	
Channel	Power setting	Channel	Power setting
36	45	36	45
40	45	40	45
48	45	48	45
802.11n40		**802.11ac20**	
Channel	Power setting	Channel	Power setting
38	45	36	45
46	45	40	45
--	--	48	45
802.11ac40		**802.11ac80**	
38	45	42	45
46	45	--	--
--	--	--	--

For U-NII-3 band(ANT 1):			
802.11a		**802.11n20**	
Channel	Power setting	Channel	Power setting
149	60	149	60
157	60	157	60
165	60	165	60
802.11n40		**802.11ac20**	
Channel	Power setting	Channel	Power setting
151	60	149	60
159	60	157	60
--	--	165	60
802.11ac40		**802.11ac80**	
151	60	155	60
159	60	--	--
--	--	--	--

For U-NII-3 band(ANT 2):			
802.11a		**802.11n20**	
Channel	Power setting	Channel	Power setting
149	50	149	50
157	50	157	50
165	50	165	50
802.11n40		**802.11ac20**	
Channel	Power setting	Channel	Power setting
151	50	149	50
159	50	157	50

--	--	165	50
802.11ac40		**802.11ac80**	
151	50	155	50
159	50	--	--
--	--	--	--

1.3 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15°C ~ 35°C
Humidity:	20% RH ~ 75% RH
Atmospheric pressure:	98 kPa ~ 101 kPa

ENV	Temperature (°C)	Voltage (V)
LTLV	-10	4.5
NTNV	25	5
HTHV	45	5.5

1.4 Description of support units

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

Support equipment list			
Description	Model	Serial No.	Manufacturer
HUAWEI CHARGE（10W)	HW-050200C02	K95212KA103561	HUAWEI
Support cable list			
Description	Length (m)	From	To
/	/	/	/

1.5 Measurement uncertainty

Measurement	Uncertainty
Conducted emissions (AMN 150kHz~30MHz)	±3.1dB
Time	±1 %
RF output power, conducted	±1 dB
Power Spectral Density, conducted	±1 dB
Occupied channel bandwidth	±3 %
Radiated spurious emissions (above 1GHz)	±5.3dB
Radiated spurious emissions (9kHz~30MHz)	±4.3dB
Radiated spurious emissions (30MHz~1GHz)	±4.7dB
Temperature	±1 °C
Humidity	± 5 %

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

2 Summary of Test Result

No.	Item	Standard	Requirement	Result
1	Antenna requirement	FCC 47 CFR Part 15.407	Part 15.203	Pass
2	Conducted Emission at AC power line	FCC 47 CFR Part 15.407	47 CFR Part 15.207(a)	Pass
3	Duty Cycle	FCC 47 CFR Part 15.407		Pass
4	Maximum conducted output power	FCC 47 CFR Part 15.407	47 CFR Part 47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(3)(i)	Pass
5	Power spectral density	FCC 47 CFR Part 15.407	47 CFR Part 47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(3)(i)	Pass
6	Emission bandwidth and occupied bandwidth and 6dB bandwidth	FCC 47 CFR Part 15.407	U-NII 1No limits, only for report use. 47 CFR Part 15.407(e)	Pass
7	Band edge emissions (Radiated)	FCC 47 CFR Part 15.407	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)	Pass
8	Undesirable emission limits (below 1GHz)	FCC 47 CFR Part 15.407	47 CFR Part 15.407(b)(9)	Pass
9	Undesirable emission limits (above 1GHz)	FCC 47 CFR Part 15.407	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)	Pass

3 Test Facilities and accreditations

3.1 Test laboratory

Test laboratory:	Shenzhen Microtest Co., Ltd.
Test site location:	101, No.7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	(86-755)88850135
Fax:	(86-755)88850136
CNAS Registration No.:	CNAS L5868
FCC Registration No.:	448573
IC Registration No.:	21760
CABID:	CN0093

4 List of test equipment

No.	Equipment	Manufacturer	Model	Serial No.	Cal. date	Cal. Due
Conducted Emission at AC power line						
1	EMI Test Receiver	Rohde&schwarz	ESCI3	101368	2023-04-26	2024-04-25
2	Artificial mains network	Schwarzbeck	NSLK 8127	183	2023-05-05	2024-05-04
3	Artificial Mains Network	Rohde & Schwarz	ESH2-Z5	100263	2023-06-03	2024-06-02
Duty Cycle Maximum conducted output power Power spectral density Emission bandwidth and occupied bandwidth						
1	Wideband Radio Communication Tester	Rohde&schwarz	CMW500	149155	2023-04-26	2024-04-25
2	ESG Series Analog Ssignal Generator	Agilent	E4421B	GB40051240	2023-04-25	2024-04-24
3	PXA Signal Analyzer	Agilent	N9030A	MY51350296	2023-04-25	2024-04-24
4	Synthesized Sweeper	Agilent	83752A	3610A01957	2023-04-25	2024-04-24
5	MXA Signal Analyzer	Agilent	N9020A	MY50143483	2023-04-26	2024-04-25
6	RF Control Unit	Tonscend	JS0806-1	19D8060152	2023-04-26	2024-04-25
7	Band Reject Filter Group	Tonscend	JS0806-F	19D8060160	2023-05-05	2024-05-04
8	ESG Vector Signal Generator	Agilent	N5182A	MY50143762	2023-04-25	2024-04-24
9	DC Power Supply	Agilent	E3632A	MY40027695	2023-05-05	2024-05-04
Band edge emissions (Radiated) Undesirable emission limits (above 1GHz)						
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2023-04-26	2024-04-25
2	Double Ridged Broadband Horn Antenna	schwarabeck	BBHA 9120 D	2278	2023-05-26	2024-05-25
3	Amplifier	Agilent	8449B	3008A01120	2023-06-26	2024-06-25
4	Multi-device Controller	TuoPu	TPMDC	/	2023-05-04	2024-05-03
5	MXA signal analyzer	Agilent	N9020A	MY54440859	2023-05-05	2024-05-04
Undesirable emission limits (below 1GHz)						
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2023-04-26	2024-04-25
2	TRILOG Broadband Antenna	schwarabeck	VULB 9163	9163-1338	2023-06-11	2025-06-10
3	Amplifier	Hewlett-Packard	8447F	3113A06184	2023-06-26	2024-06-25
4	Multi-device Controller	TuoPu	TPMDC	/	2023-05-04	2024-05-03
5	Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00066	2023-06-11	2025-06-10

5 Evaluation Results (Evaluation)

5.1 Antenna requirement

Test Requirement:	Refer to 47 CFR Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.
Description of the antenna of EUT	The antenna of the EUT is permanently attached. There are no provisions for connection to an external antenna.
Conclusion:	The EUT complies with the requirement of § 15.203.

6 Radio Spectrum Matter Test Results (RF)

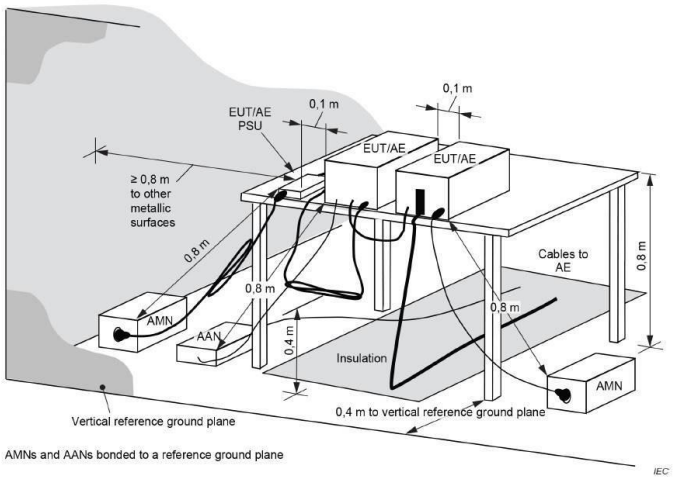
6.1 Conducted Emission at AC power line

Test Requirement:	47 CFR Part 15.207(a)
Test Limit:	Frequency of emission (MHz) / Conducted limit (dBμV): Quasi-peak / Average 0.15-0.5: 66 to 56* / 56 to 46* 0.5-5: 56 / 46 5-30: 60 / 50 *Decreases with the logarithm of the frequency.
Test Method:	Refer to ANSI C63.10-2013 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices

6.1.1 E.U.T. Operation:

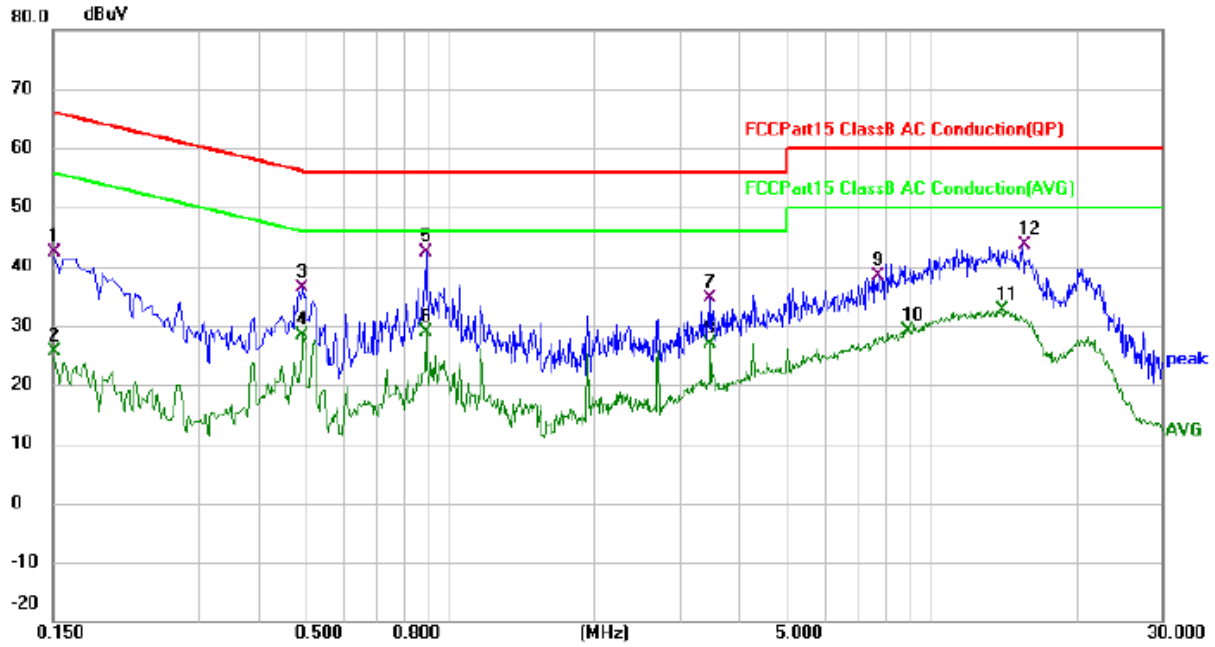
Operating Environment:					
Temperature:	25.4 °C	Humidity:	55.5 %	Atmospheric Pressure:	98 kPa
Test mode:	Mode1-11				

6.1.2 Test Setup Diagram:



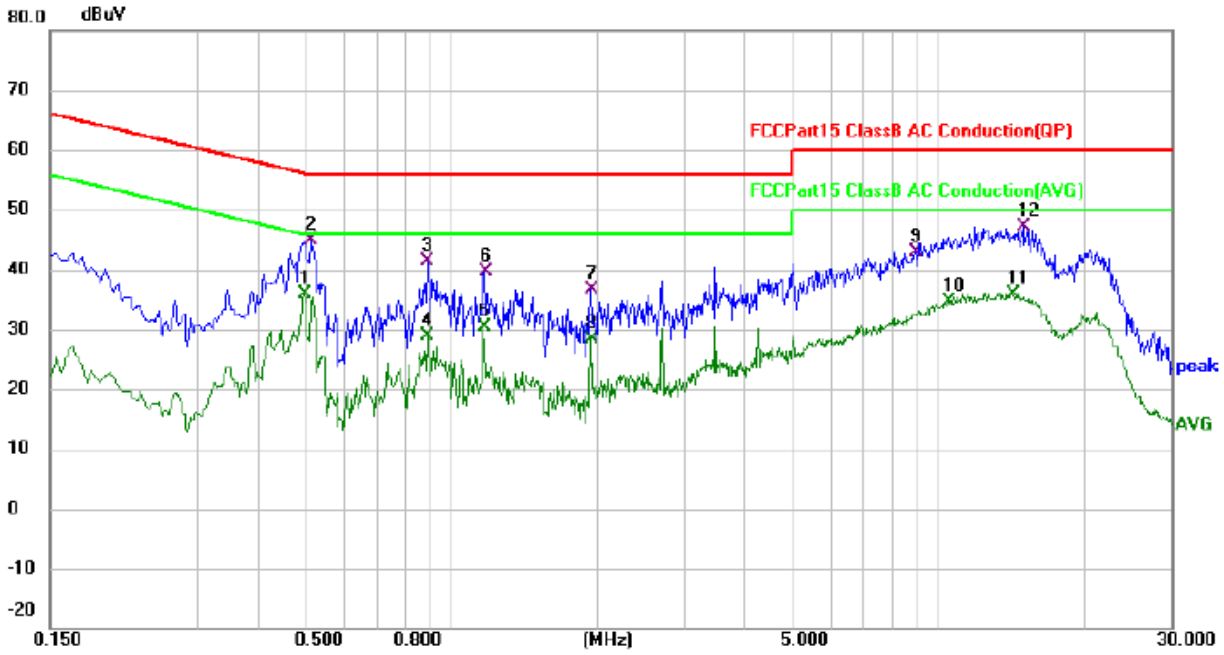
6.1.3 Test Data:

Mode1 / Line: Line / Band: 5150-5250 MHz / BW: 20 / CH: 48(ANT 1)



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	32.05	10.28	42.33	66.00	-23.67	QP	
2		0.1500	15.36	10.28	25.64	56.00	-30.36	AVG	
3		0.4940	25.04	11.30	36.34	56.10	-19.76	QP	
4		0.4940	17.10	11.30	28.40	46.10	-17.70	AVG	
5	*	0.8940	30.10	12.17	42.27	56.00	-13.73	QP	
6		0.8940	16.64	12.17	28.81	46.00	-17.19	AVG	
7		3.4820	24.47	10.27	34.74	56.00	-21.26	QP	
8		3.4820	16.71	10.27	26.98	46.00	-19.02	AVG	
9		7.7460	27.95	10.32	38.27	60.00	-21.73	QP	
10		8.9060	18.86	10.37	29.23	50.00	-20.77	AVG	
11		14.1300	22.23	10.49	32.72	50.00	-17.28	AVG	
12		15.4980	33.20	10.52	43.72	60.00	-16.28	QP	

Mode1 / Line: Neutral / Band: 5150-5250 MHz / BW: 20 / CH: 48(ANT 1)



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.4980	24.46	11.32	35.78	46.03	-10.25	AVG	
2		0.5140	33.45	11.34	44.79	56.00	-11.21	QP	
3		0.8940	29.26	12.13	41.39	56.00	-14.61	QP	
4		0.8940	16.81	12.13	28.94	46.00	-17.06	AVG	
5		1.1620	17.74	12.67	30.41	46.00	-15.59	AVG	
6		1.1660	26.86	12.69	39.55	56.00	-16.45	QP	
7		1.9340	26.27	10.46	36.73	56.00	-19.27	QP	
8		1.9340	17.83	10.46	28.29	46.00	-17.71	AVG	
9		9.0419	32.58	10.30	42.88	60.00	-17.12	QP	
10		10.5300	24.42	10.33	34.75	50.00	-15.25	AVG	
11		14.1939	25.47	10.46	35.93	50.00	-14.07	AVG	
12		14.9300	36.65	10.49	47.14	60.00	-12.86	QP	

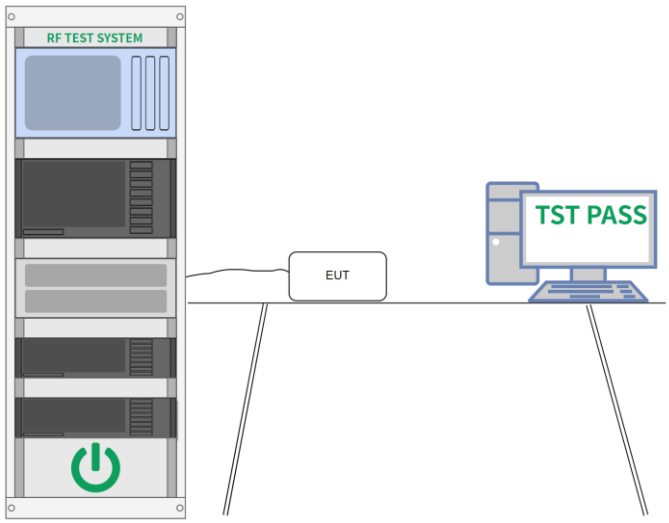
6.2 Duty Cycle

Test Requirement:	All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x, and maximum-power transmission duration, T, are required for each tested mode of operation.
Test Limit:	No limits, only for report use.
Test Method:	ANSI C63.10-2013 section 12.2 (b)
Procedure:	i) Set the center frequency of the instrument to the center frequency of the transmission. ii) Set RBW >= EBW if possible; otherwise, set RBW to the largest available value. iii) Set VBW >= RBW. iv) Set detector = peak. v) The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T, where T is defined in item a1) of 12.2, and the number of sweep points across duration T exceeds 100.

6.2.1 E.U.T. Operation:

Operating Environment:					
Temperature:	24 °C	Humidity:	54.9 %	Atmospheric Pressure:	98 kPa
Test mode:	Mode1-11				

6.2.2 Test Setup Diagram:



6.2.3 Test Data:

Please Refer to Appendix for Details.

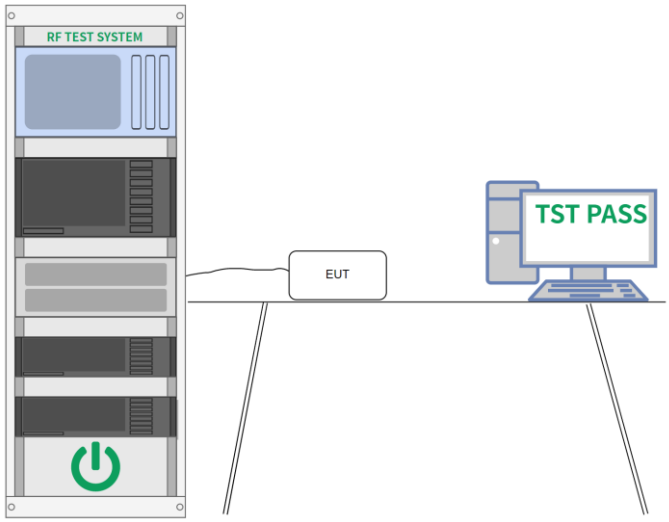
6.3 Maximum conducted output power

Test Requirement:	47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(3)(i)
Test Limit:	For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.
Test Method:	ANSI C63.10-2013, section 12.3
Procedure:	Method SA-1 a) Set span to encompass the entire 26 dB EBW or 99% OBW of the signal. b) Set RBW = 1 MHz. c) Set VBW >= 3 MHz. d) Number of points in sweep >= [2 × span / RBW]. (This gives bin-to-bin spacing <= RBW / 2, so that narrowband signals are not lost between frequency bins.) e) Sweep time = auto. f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode. g) If transmit duty cycle < 98%, use a video trigger with the trigger level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFF intervals) or at duty cycle >= 98%, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run.” h) Trace average at least 100 traces in power averaging (rms) mode. i) Compute power by integrating the spectrum across the 26 dB EBW or 99% OBW of the signal using the instrument’s band power measurement function, with band limits set equal to the EBW or OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB EBW or 99% OBW of the spectrum.

6.3.1 E.U.T. Operation:

Operating Environment:					
Temperature:	24 °C	Humidity:	54.9 %	Atmospheric Pressure:	98 kPa
Test mode:	Mode1-11				

6.3.2 Test Setup Diagram:



6.3.3 Test Data:

Please Refer to Appendix for Details.

6.4 Power spectral density

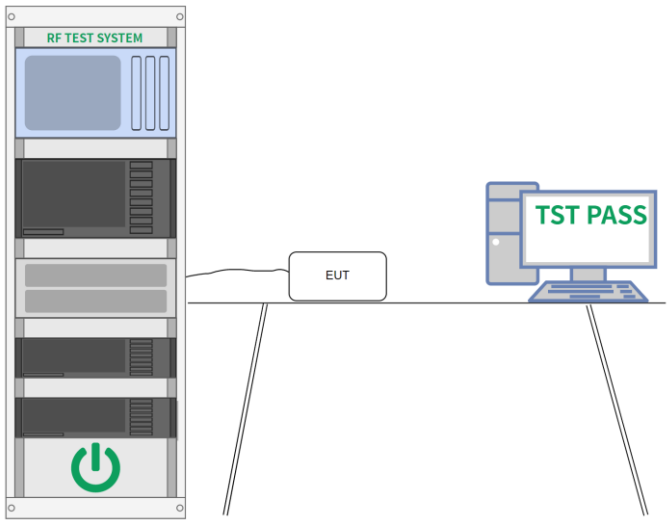
Test Requirement:	47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(3)(i)
Test Limit:	For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. For the band 5.725-5.850 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.
Test Method:	ANSI C63.10-2013, section 12.5
Procedure:	a) Create an average power spectrum for the EUT operating mode being tested by following the instructions in 12.3.2 for measuring maximum conducted output power using a spectrum analyzer or EMI receiver; that is, select the appropriate test method (SA-1, SA-2, SA-3, or their respective alternatives) and apply it up to, but not including, the step labeled, “Compute power….” (This procedure is required even if the maximum conducted output power measurement was performed using the power meter method PM.) b) Use the peak search function on the instrument to find the peak of the spectrum. c) Make the following adjustments to the peak value of the spectrum, if applicable: 1) If method SA-2 or SA-2A was used, then add [10 log (1 / D)], where D is the duty cycle, to the peak of the spectrum. 2) If method SA-3A was used and the linear mode was used in step h) of 12.3.2.7, add 1 dB to the final result to compensate for the difference between linear averaging and power averaging. d) The result is the PPSD. e) The procedure in item a) through item c) requires the use of 1 MHz resolution bandwidth to satisfy the 1 MHz measurement bandwidth specified by some regulatory authorities.This requirement also permits use of resolution bandwidths less than 1 MHz “provided that the measured power is integrated to show the total power over the measurement bandwidth” (i.e.,

	1 MHz). If measurements are performed using a reduced resolution bandwidth and integrated over 1 MHz bandwidth, the following adjustments to the procedures apply: 1) Set RBW >= 1 / T, where T is defined in 12.2 a). 2) Set VBW >= [3 × RBW]. 3) Care shall be taken such that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

6.4.1 E.U.T. Operation:

Operating Environment:					
Temperature:	24 °C	Humidity:	54.9 %	Atmospheric Pressure:	98 kPa
Test mode:	Mode1-11				

6.4.2 Test Setup Diagram:



6.4.3 Test Data:

Please Refer to Appendix for Details.

6.5 Emission bandwidth and occupied bandwidth and 6dB bandwidth

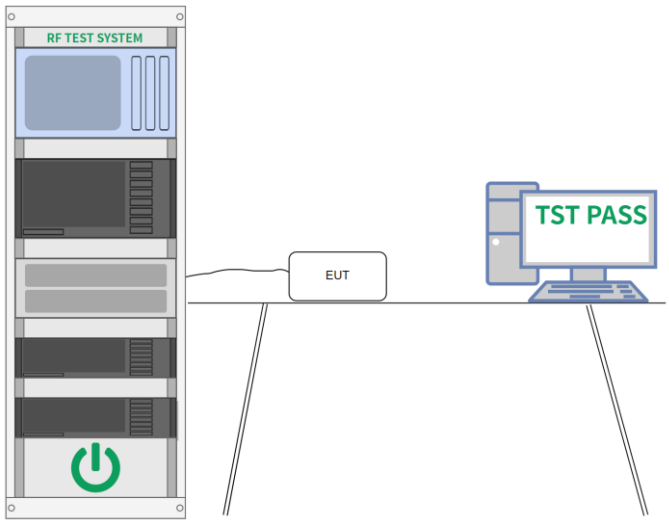
Test Requirement:	U-NII 1: No limits, only for report use. U-NII 3: 47 CFR Part 15.407(e)
Test Limit:	U-NII 1: No limits, only for report use. U-NII 3: Within the 5.725-5.850 GHz and 5.850-5.895 GHz bands, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.
Test Method:	ANSI C63.10-2013, section 6.9.3 & 12.4 KDB 789033 D02, Clause C.2
Procedure:	Emission bandwidth: a) Set RBW = approximately 1% of the emission bandwidth. b) Set the VBW > RBW. c) Detector = peak. d) Trace mode = max hold. e) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the instrument. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%. Occupied bandwidth: a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW. b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement. c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2. d) Step a) through step c) might require iteration to adjust within the specified range. e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used. f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth. g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the

	total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies. h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s). 6 dB emission bandwidth: a) Set RBW = 100 kHz. b) Set the video bandwidth (VBW) ≥ 3 >= RBW. c) Detector = Peak. d) Trace mode = max hold. e) Sweep = auto couple. f) Allow the trace to stabilize. g) 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.

6.5.1 E.U.T. Operation:

Operating Environment:					
Temperature:	24 °C	Humidity:	54.9 %	Atmospheric Pressure:	98 kPa
Test mode:	Mode1-11				

6.5.2 Test Setup Diagram:



6.5.3 Test Data:

Please Refer to Appendix for Details.

6.6 Band edge emissions (Radiated)

Test Requirement:	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)
Test Limit:	For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz. For transmitters operating solely in the 5.725-5.850 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

[1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2]Above 38.6

The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35apply to these measurements.

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

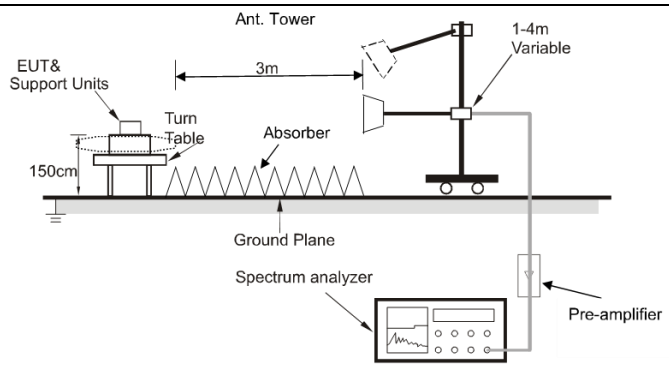
	<table><tr><th>Frequency (MHz)</th><th>Field strength (microvolts/meter)</th><th>Measurement distance (meters)</th></tr><tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr><tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr><tr><td>1.705-30.0</td><td>30</td><td>30</td></tr><tr><td>30-88</td><td>100 **</td><td>3</td></tr><tr><td>88-216</td><td>150 **</td><td>3</td></tr><tr><td>216-960</td><td>200 **</td><td>3</td></tr><tr><td>Above 960</td><td>500</td><td>3</td></tr></table>
Test Method:	ANSI C63.10-2013, section 12.7.4, 12.7.5, 12.7.6
Procedure:	Above 1GHz: a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. 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 rotatable 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 or average method as specified and then reported in a data sheet. g. Test the EUT in the lowest channel, the middle channel, the Highest channel. h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case. i. Repeat above procedures until all frequencies measured was complete. Remark: 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report. 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

6.6.1 E.U.T. Operation:

Operating Environment:

Temperature:	25.1 °C	Humidity:	31.2 %	Atmospheric Pressure:	100 kPa
Test mode:	Mode1-11				
Note: The amplitude of spurious emissions which are attenuated more than 20 dB below the limits are not reported. All modes of operation of the EUT were investigated, and only the worst-case results are reported.					

6.6.2 Test Setup Diagram:



Note: The antenna gain and cable loss is compensated in the test plot.

6.6.3 Test Data:

Mode6 / Polarization: Horizontal / Band: 5150-5250 MHz / BW: 80 / CH: 42(ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4500.000	46.06	1.99	48.05	74.00	-25.95	peak
2		4500.000	36.07	1.99	38.06	54.00	-15.94	AVG
3		5150.000	52.73	5.36	58.09	74.00	-15.91	peak
4	*	5150.000	41.70	5.36	47.06	54.00	-6.94	AVG

Mode6 / Polarization: Vertical / Band: 5150-5250 MHz / BW: 80 / CH: 42(ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4500.000	45.78	1.99	47.77	74.00	-26.23	peak
2		4500.000	35.99	1.99	37.98	54.00	-16.02	AVG
3		5150.000	48.72	5.36	54.08	74.00	-19.92	peak
4	*	5150.000	39.77	5.36	45.13	54.00	-8.87	AVG

Mode6 / Polarization: Horizontal / Band: 5150-5250 MHz / BW: 80 / CH: 42(ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		5350.000	46.26	6.35	52.61	74.00	-21.39	peak
2		5350.000	36.39	6.35	42.74	54.00	-11.26	AVG
3		5460.000	46.67	6.24	52.91	74.00	-21.09	peak
4	*	5460.000	36.99	6.24	43.23	54.00	-10.77	AVG

Mode6 / Polarization: Vertical / Band: 5150-5250 MHz / BW: 80 / CH: 42(ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		5350.000	46.47	6.35	52.82	74.00	-21.18	peak
2		5350.000	36.48	6.35	42.83	54.00	-11.17	AVG
3		5460.000	45.85	6.24	52.09	74.00	-21.91	peak
4	*	5460.000	36.61	6.24	42.85	54.00	-11.15	AVG

Mode11 / Polarization: Horizontal / Band: 5150-5250 MHz / BW: 80 / CH: 42(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4500.000	45.61	1.99	47.60	74.00	-26.40	peak
2		4500.000	36.13	1.99	38.12	54.00	-15.88	AVG
3		5150.000	55.92	5.36	61.28	74.00	-12.72	peak
4	*	5150.000	43.13	5.36	48.49	54.00	-5.51	AVG

Mode11 / Polarization: Vertical / Band: 5150-5250 MHz / BW: 80 / CH: 42(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4500.000	45.25	1.99	47.24	74.00	-26.76	peak
2		4500.000	36.15	1.99	38.14	54.00	-15.86	AVG
3		5150.000	48.49	5.36	53.85	74.00	-20.15	peak
4	*	5150.000	39.26	5.36	44.62	54.00	-9.38	AVG

Mode11 / Polarization: Horizontal / Band: 5150-5250 MHz / BW: 80 / CH: 42(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		5350.000	45.81	6.35	52.16	74.00	-21.84	peak
2		5350.000	36.78	6.35	43.13	54.00	-10.87	AVG
3		5460.000	46.24	6.24	52.48	74.00	-21.52	peak
4	*	5460.000	37.07	6.24	43.31	54.00	-10.69	AVG

Mode11 / Polarization: Vertical / Band: 5150-5250 MHz / BW: 80 / CH: 42(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		5350.000	45.92	6.35	52.27	74.00	-21.73	peak
2		5350.000	36.58	6.35	42.93	54.00	-11.07	AVG
3		5460.000	45.84	6.24	52.08	74.00	-21.92	peak
4	*	5460.000	37.19	6.24	43.43	54.00	-10.57	AVG

Mode6 / Polarization: Horizontal / Band: 5725-5850 MHz / BW: 80 / CH: 155(ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	5650.000	47.73	6.59	54.32	68.20	-13.88	peak
2		5700.000	56.56	6.68	63.24	105.20	-41.96	peak
3		5720.000	57.55	6.45	64.00	110.80	-46.80	peak
4		5725.000	58.42	6.40	64.82	122.20	-57.38	peak

Mode6 / Polarization: Vertical / Band: 5725-5850 MHz / BW: 80 / CH: 155(ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	5650.000	47.10	6.59	53.69	68.20	-14.51	peak
2		5700.000	48.78	6.68	55.46	105.20	-49.74	peak
3		5720.000	52.16	6.45	58.61	110.80	-52.19	peak
4		5725.000	52.40	6.40	58.80	122.20	-63.40	peak

Mode6 / Polarization: Horizontal / Band: 5725-5850 MHz / BW: 80 / CH: 155(ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		5850.000	55.30	5.69	60.99	122.20	-61.21	peak
2		5855.000	53.89	5.72	59.61	110.80	-51.19	peak
3		5875.000	50.19	5.86	56.05	105.20	-49.15	peak
4	*	5925.000	47.98	5.99	53.97	68.20	-14.23	peak

Mode6 / Polarization: Vertical / Band: 5725-5850 MHz / BW: 80 / CH: 155(ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		5850.000	50.40	5.69	56.09	122.20	-66.11	peak
2		5855.000	48.95	5.72	54.67	110.80	-56.13	peak
3		5875.000	48.05	5.86	53.91	105.20	-51.29	peak
4	*	5925.000	47.76	5.99	53.75	68.20	-14.45	peak

Mode11 / Polarization: Horizontal / Band: 5725-5850 MHz / BW: 80 / CH: 155(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	C
1	*	5650.000	47.25	6.59	53.84	68.20	-14.36	peak	
2		5700.000	54.78	6.68	61.46	105.20	-43.74	peak	
3		5720.000	72.61	6.45	79.06	110.80	-31.74	peak	
4		5725.000	73.38	6.40	79.78	122.20	-42.42	peak	

Mode11 / Polarization: Vertical / Band: 5725-5850 MHz / BW: 80 / CH: 155(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	5650.000	47.59	6.59	54.18	68.20	-14.02	peak
2		5700.000	49.63	6.68	56.31	105.20	-48.89	peak
3		5720.000	67.27	6.45	73.72	110.80	-37.08	peak
4		5725.000	67.83	6.40	74.23	122.20	-47.97	peak

Mode11 / Polarization: Horizontal / Band: 5725-5850 MHz / BW: 80 / CH: 155(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		5850.000	53.36	5.69	59.05	122.20	-63.15	peak
2		5855.000	50.75	5.72	56.47	110.80	-54.33	peak
3		5875.000	47.61	5.86	53.47	105.20	-51.73	peak
4	*	5925.000	47.71	5.99	53.70	68.20	-14.50	peak

Mode11 / Polarization: Vertical / Band: 5725-5850 MHz / BW: 80 / CH: 155(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		5850.000	51.89	5.69	57.58	122.20	-64.62	peak
2		5855.000	51.69	5.72	57.41	110.80	-53.39	peak
3		5875.000	47.22	5.86	53.08	105.20	-52.12	peak
4	*	5925.000	47.60	5.99	53.59	68.20	-14.61	peak

6.7 Undesirable emission limits (below 1GHz)

<table>
<tr><td>Test Requirement:</td><td>47 CFR Part 15.407(b)(9)</td></tr>
<tr><td>Test Limit:</td><td>Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209.

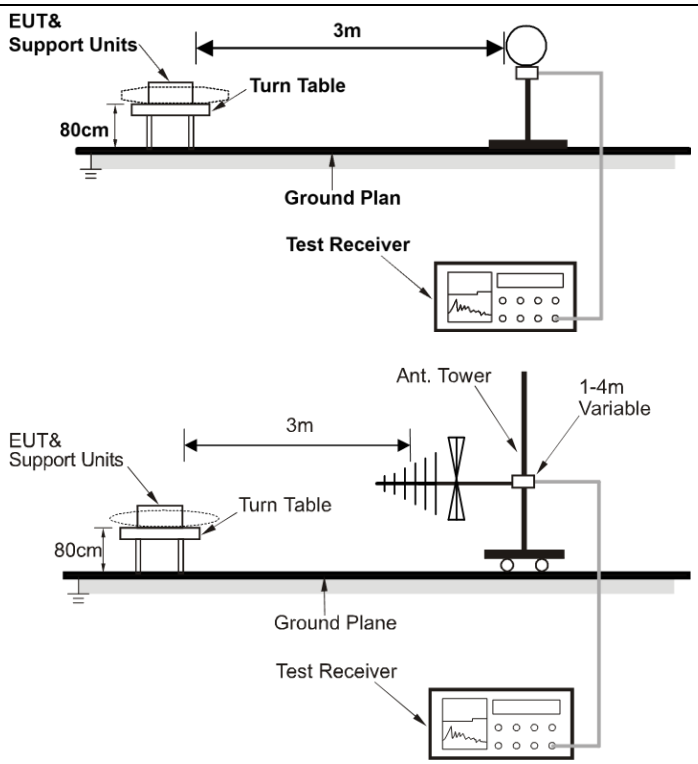
Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:
<table>
<tr><th>Frequency (MHz)</th><th>Field strength (microvolts/meter)</th><th>Measurement distance (meters)</th></tr>
<tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr>
<tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr>
<tr><td>1.705-30.0</td><td>30</td><td>30</td></tr>
<tr><td>30-88</td><td>100 **</td><td>3</td></tr>
<tr><td>88-216</td><td>150 **</td><td>3</td></tr>
<tr><td>216-960</td><td>200 **</td><td>3</td></tr>
<tr><td>Above 960</td><td>500</td><td>3</td></tr>
</table></td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10-2013, section 12.7.4, 12.7.5, 12.7.6</td></tr>
<tr><td>Procedure:</td><td>Below 1GHz:
a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 or 10 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 rotatable 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 quasi-peak method as specified and then reported in a data sheet.
g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
i. Repeat above procedures until all frequencies measured was complete.
Remark:
1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
3. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.</td></tr>
</table>

	Above 1GHz: a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. 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 rotatable 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 or average method as specified and then reported in a data sheet. g. Test the EUT in the lowest channel, the middle channel, the Highest channel. h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case. i. Repeat above procedures until all frequencies measured was complete. Remark: 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report. 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

6.7.1 E.U.T. Operation:

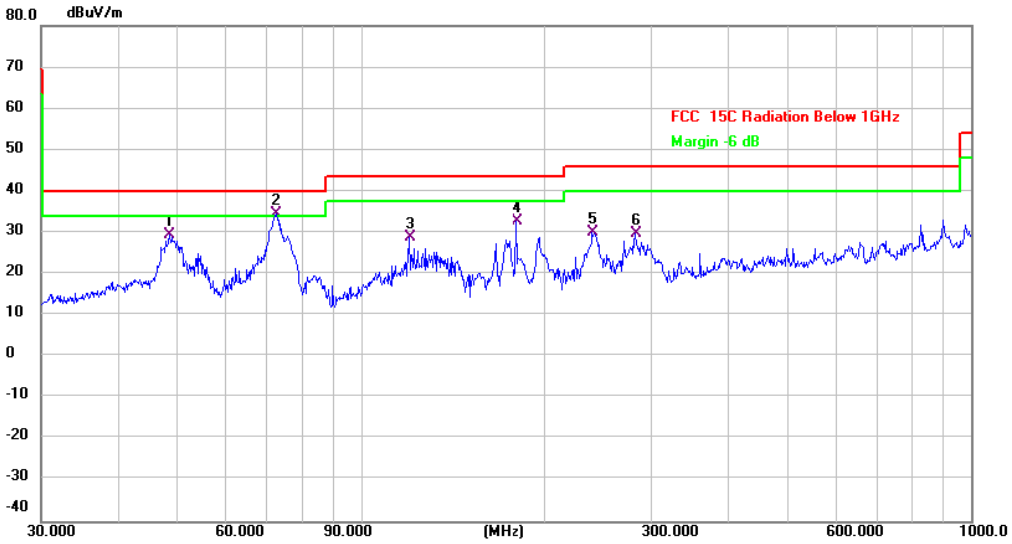
Operating Environment:					
Temperature:	31.3 °C	Humidity:	71.8 %	Atmospheric Pressure:	100 kPa
Test mode:	Mode1-11				
Note: The amplitude of spurious emissions which are attenuated more than 20 dB below the limits are not reported. All modes of operation of the EUT were investigated, and only the worst-case results are reported. There were no emissions found below 30MHz within 20dB of the limit.					

6.7.2 Test Setup Diagram:



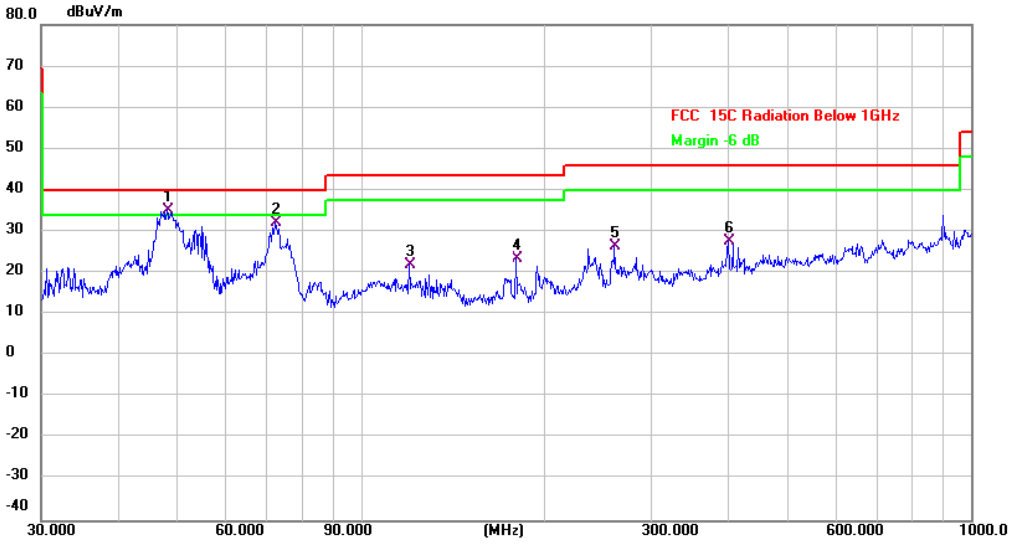
6.7.3 Test Data:

Mode1 / Polarization: Horizontal / Band: 5150-5250 MHz / BW: 20 / CH: 48(ANT 1)



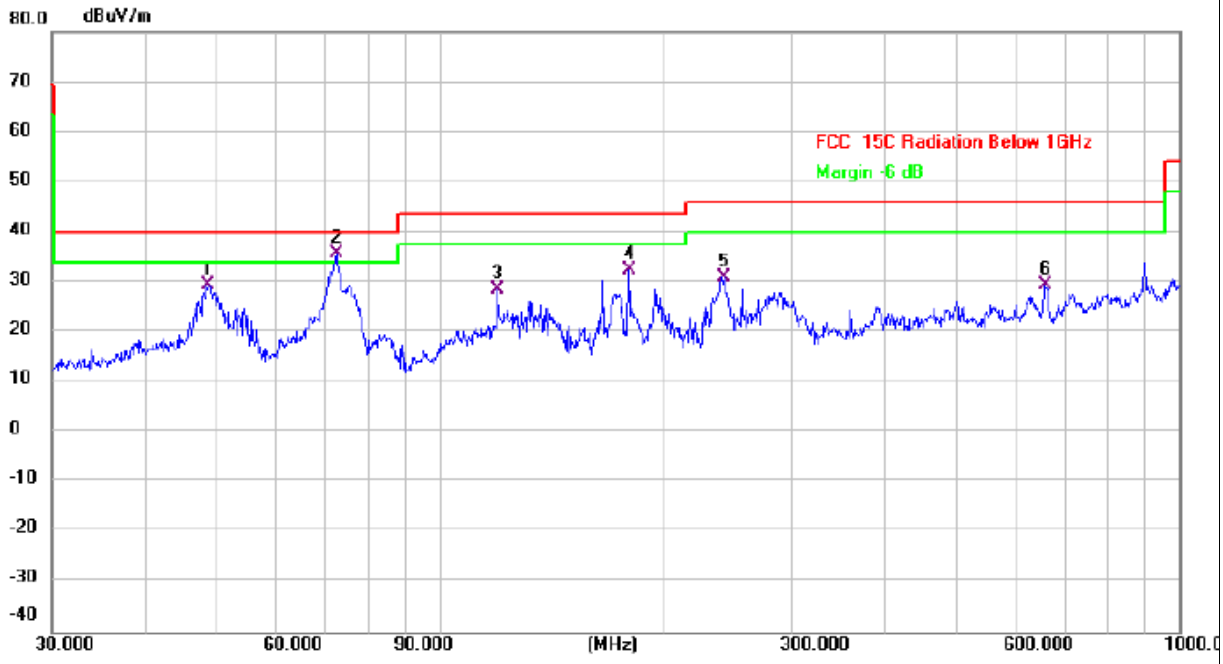
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		48.6719	36.67	-7.32	29.35	40.00	-10.65	QP	
2	*	72.5916	46.02	-11.42	34.60	40.00	-5.40	QP	
3		119.8556	37.95	-9.22	28.73	43.50	-14.77	QP	
4		180.0165	42.60	-9.96	32.64	43.50	-10.86	QP	
5		239.9874	36.96	-6.89	30.07	46.00	-15.93	QP	
6		281.9946	36.31	-6.59	29.72	46.00	-16.28	QP	

Mode1 / Polarization: Vertical / Band: 5150-5250 MHz / BW: 20 / CH: 48(ANT 1)



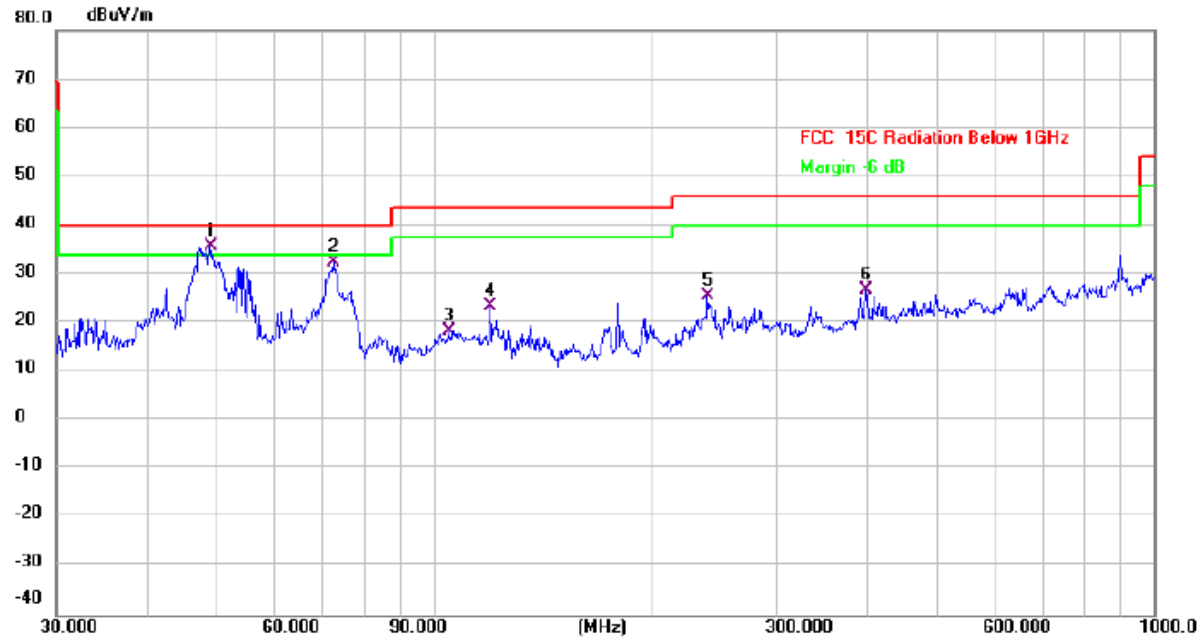
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	48.1626	42.62	-7.46	35.16	40.00	-4.84	QP	
2		72.3376	43.54	-11.34	32.20	40.00	-7.80	QP	
3		119.8556	31.23	-9.22	22.01	43.50	-21.49	QP	
4		180.0165	33.43	-9.96	23.47	43.50	-20.03	QP	
5		261.0583	33.79	-7.40	26.39	46.00	-19.61	QP	
6		400.4319	32.82	-5.14	27.68	46.00	-18.32	QP	

Mode7 / Polarization: Horizontal / Band: 5150-5250 MHz / BW: 20 / CH: 48(ANT 1+ANT 2)



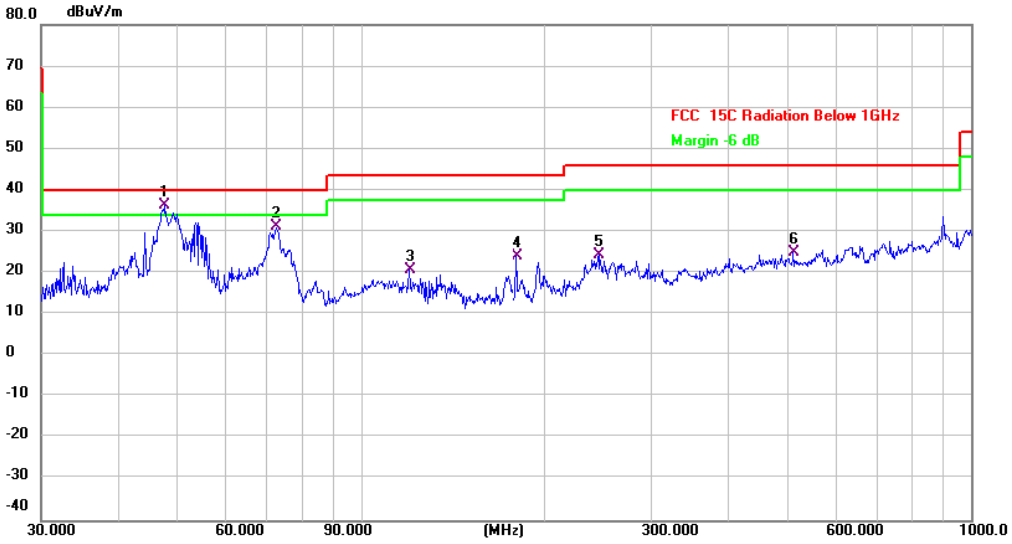
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		48.5016	36.94	-7.37	29.57	40.00	-10.43	QP	
2	*	72.5916	47.05	-11.42	35.63	40.00	-4.37	QP	
3		119.8556	37.68	-9.22	28.46	43.50	-15.04	QP	
4		180.0165	42.27	-9.96	32.31	43.50	-11.19	QP	
5		242.5253	38.36	-7.32	31.04	46.00	-14.96	QP	
6		658.8362	32.19	-2.70	29.49	46.00	-16.51	QP	

Mode7 / Polarization: Vertical / Band: 5150-5250 MHz / BW: 20 / CH: 48(ANT 1+ANT 2)



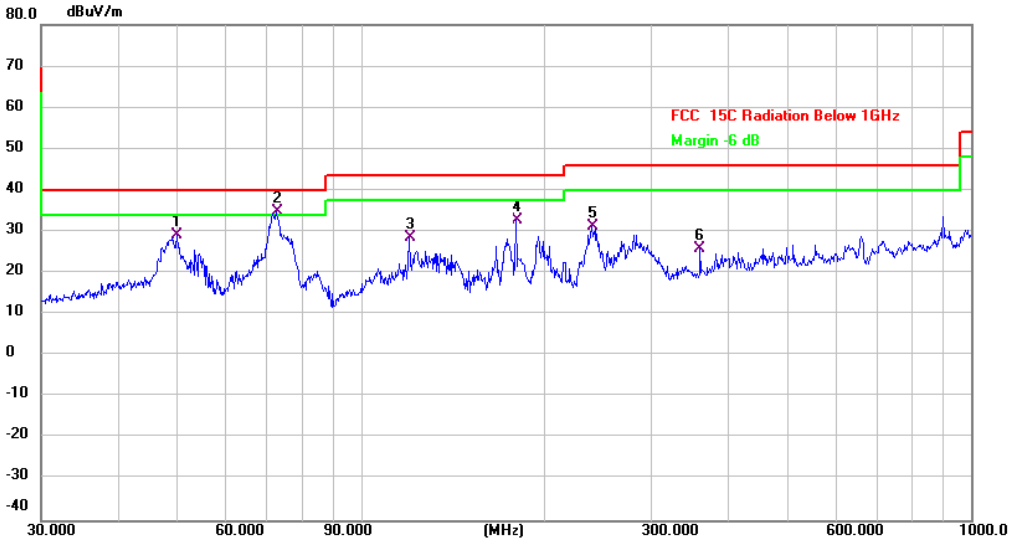
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	48.8429	43.02	-7.27	35.75	40.00	-4.25	QP	
2		72.5916	43.93	-11.42	32.51	40.00	-7.49	QP	
3		104.9033	25.85	-7.35	18.50	43.50	-25.00	QP	
4		119.8556	32.55	-9.22	23.33	43.50	-20.17	QP	
5		239.9874	32.42	-6.89	25.53	46.00	-20.47	QP	
6		399.0302	31.97	-5.09	26.88	46.00	-19.12	QP	

Mode1 / Polarization: Horizontal / Band: 5725-5850 MHz / BW: 20 / CH: 165 (ANT 1)



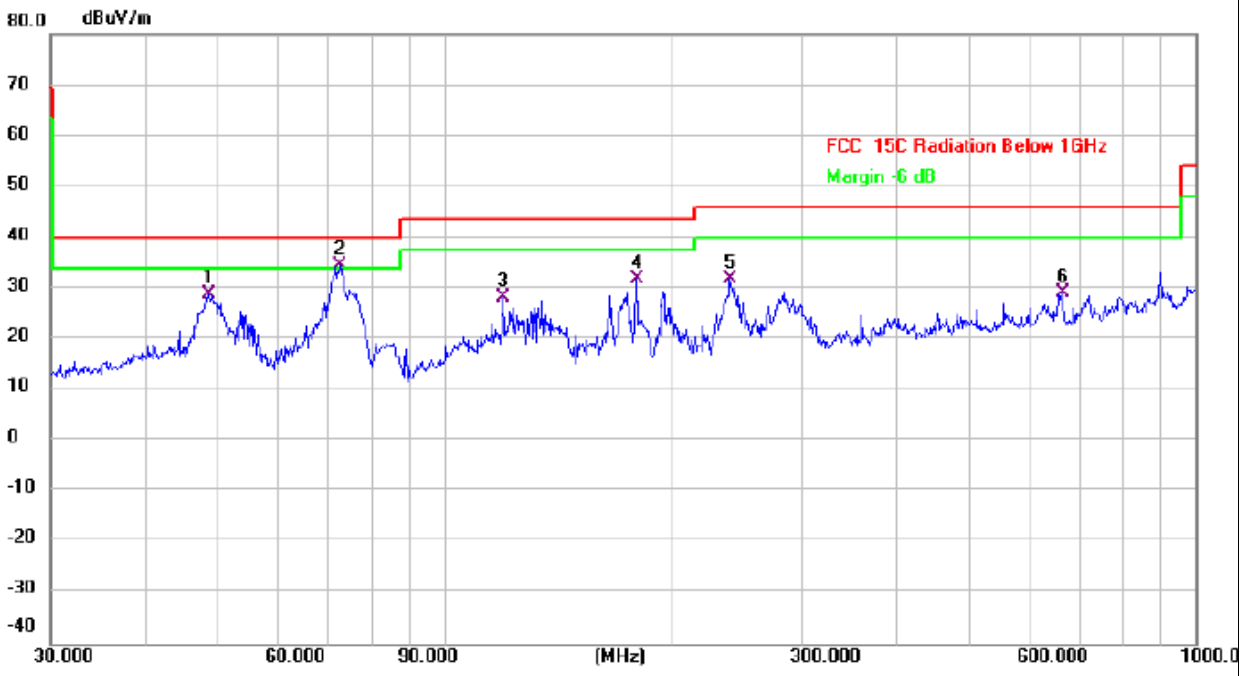
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	47.8260	43.74	-7.50	36.24	40.00	-3.76	QP	
2		72.5916	42.52	-11.42	31.10	40.00	-8.90	QP	
3		119.8556	29.94	-9.22	20.72	43.50	-22.78	QP	
4		180.0165	34.03	-9.96	24.07	43.50	-19.43	QP	
5		245.9509	32.11	-7.76	24.35	46.00	-21.65	QP	
6		511.8352	28.43	-3.53	24.90	46.00	-21.10	QP	

Mode1 / Polarization: Vertical / Band: 5725-5850 MHz / BW: 20 / CH: 165(ANT 1)



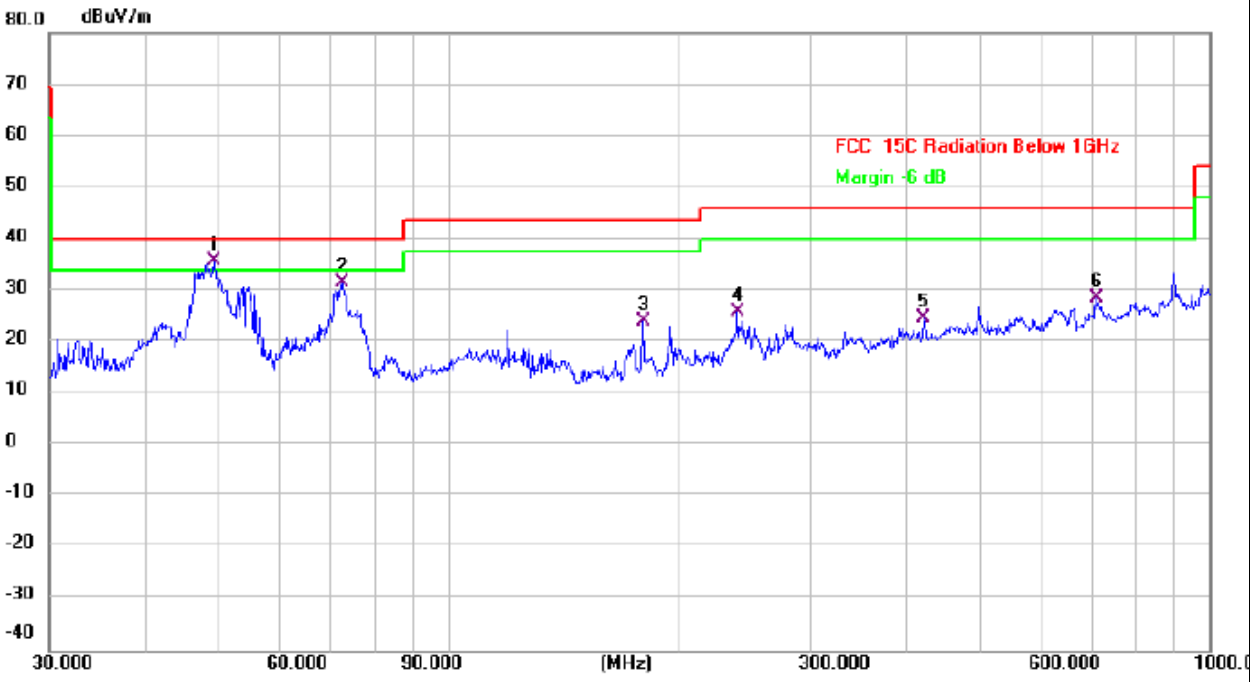
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		50.0566	36.41	-7.30	29.11	40.00	-10.89	QP	
2	*	72.8466	46.48	-11.49	34.99	40.00	-5.01	QP	
3		119.8556	37.75	-9.22	28.53	43.50	-14.97	QP	
4		180.0165	42.59	-9.96	32.63	43.50	-10.87	QP	
5		239.9874	38.17	-6.89	31.28	46.00	-14.72	QP	
6		360.4476	31.55	-5.61	25.94	46.00	-20.06	QP	

Mode7 / Polarization: Horizontal / Band: 5725-5850 MHz / BW: 20 / CH: 165(ANT 1+ANT 2)



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		48.6719	36.08	-7.32	28.76	40.00	-11.24	QP	
2	*	72.8466	46.00	-11.49	34.51	40.00	-5.49	QP	
3		119.8556	37.47	-9.22	28.25	43.50	-15.25	QP	
4		180.0165	41.94	-9.96	31.98	43.50	-11.52	QP	
5		239.9874	38.78	-6.89	31.89	46.00	-14.11	QP	
6		663.4729	32.18	-3.13	29.05	46.00	-16.95	QP	

Mode7 / Polarization: Vertical / Band: 5725-5850 MHz / BW: 20 / CH: 165(ANT 1+ANT 2)



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	49.3594	42.89	-7.25	35.64	40.00	-4.36	QP	
2		72.8466	43.08	-11.49	31.59	40.00	-8.41	QP	
3		180.0165	34.02	-9.96	24.06	43.50	-19.44	QP	
4		239.9874	32.87	-6.89	25.98	46.00	-20.02	QP	
5		422.0577	29.64	-5.03	24.61	46.00	-21.39	QP	
6		709.1823	28.18	0.32	28.50	46.00	-17.50	QP	

6.8 Undesirable emission limits (above 1GHz)

Test Requirement:	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)
Test Limit:	For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz. For transmitters operating solely in the 5.725-5.850 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

[1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2]Above 38.6

The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35apply to these measurements.

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

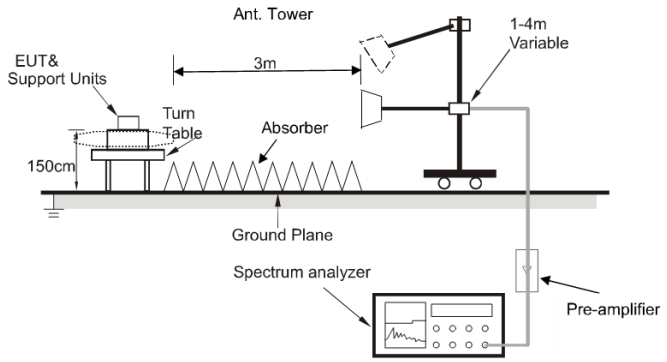
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100 **	3
88-216	150 **	3
216-960	200 **	3
Above 960	500	3

Test Method:	ANSI C63.10-2013, section 12.7.4, 12.7.5, 12.7.6
Procedure:	Above 1GHz: a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. 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 rotatable 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 or average method as specified and then reported in a data sheet. g. Test the EUT in the lowest channel, the middle channel, the Highest channel. h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case. i. Repeat above procedures until all frequencies measured was complete. Remark: 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report. 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. 5. Note: The antenna gain and cable loss is compensated in the test plot.

6.8.1 E.U.T. Operation:

Operating Environment:					
Temperature:	31.3 °C	Humidity:	71.8 %	Atmospheric Pressure:	100 kPa
Test mode:	Mode1-11				
Note: Test frequency are from 1GHz to 40GHz, the amplitude of spurious emissions which are attenuated more than 20 dB below the limits are not reported. All modes of operation of the EUT were investigated, and only the worst-case results are reported.					

6.8.2 Test Setup Diagram:



6.8.3 Test Data:

Mode1 / Polarization: Horizontal / Band: 5150-5250 MHz / BW: 20 / CH: 36(ANT 1)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10360.000	46.55	13.10	59.65	74.00	-14.35	peak	
2	*	10360.000	37.59	13.10	50.69	54.00	-3.31	AVG	
3		15540.000	11.43	47.56	58.99	74.00	-15.01	peak	
4		15540.000	3.00	47.56	50.56	54.00	-3.44	AVG	

Mode1 / Polarization: Vertical / Band: 5150-5250 MHz / BW: 20 / CH: 36(ANT 1)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10360.000	46.56	13.10	59.66	74.00	-14.34	peak	
2	*	10360.000	37.51	13.10	50.61	54.00	-3.39	AVG	
3		15540.000	11.51	47.56	59.07	74.00	-14.93	peak	
4		15540.000	2.76	47.56	50.32	54.00	-3.68	AVG	

Mode1 / Polarization: Horizontal / Band: 5150-5250 MHz / BW: 20 / CH: 40(ANT 1)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		10400.000	43.78	13.04	56.82	74.00	-17.18	peak
2		10400.000	35.48	13.04	48.52	54.00	-5.48	AVG
3		15600.000	11.40	46.87	58.27	74.00	-15.73	peak
4	*	15600.000	3.77	46.87	50.64	54.00	-3.36	AVG

Mode1 / Polarization: Vertical / Band: 5150-5250 MHz / BW: 20 / CH: 40(ANT 1)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		10400.000	43.84	13.04	56.88	74.00	-17.12	peak
2		10400.000	35.48	13.04	48.52	54.00	-5.48	AVG
3		15600.000	11.29	46.87	58.16	74.00	-15.84	peak
4	*	15600.000	3.22	46.87	50.09	54.00	-3.91	AVG

Mode1 / Polarization: Horizontal / Band: 5150-5250 MHz / BW: 20 / CH: 48(ANT 1)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10480.000	46.67	12.94	59.61	74.00	-14.39	peak	
2	*	10480.000	37.73	12.94	50.67	54.00	-3.33	AVG	
3		15720.000	11.58	46.86	58.44	74.00	-15.56	peak	
4		15720.000	0.66	46.86	47.52	54.00	-6.48	AVG	

Mode1 / Polarization: Vertical / Band: 5150-5250 MHz / BW: 20 / CH: 48(ANT 1)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10480.000	45.42	12.94	58.36	74.00	-15.64	peak	
2		10480.000	36.74	12.94	49.68	54.00	-4.32	AVG	
3		15720.000	12.25	46.86	59.11	74.00	-14.89	peak	
4	*	15720.000	3.16	46.86	50.02	54.00	-3.98	AVG	

Mode7 / Polarization: Horizontal / Band: 5150-5250 MHz / BW: 20 / CH: 36(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		10360.000	42.45	13.10	55.55	74.00	-18.45	peak
2		10360.000	33.26	13.10	46.36	54.00	-7.64	AVG
3		15540.000	11.85	47.56	59.41	74.00	-14.59	peak
4	*	15540.000	2.75	47.56	50.31	54.00	-3.69	AVG

Mode7 / Polarization: Vertical / Band: 5150-5250 MHz / BW: 20 / CH: 36(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		10360.000	42.59	13.10	55.69	74.00	-18.31	peak
2		10360.000	35.85	13.10	48.95	54.00	-5.05	AVG
3		15540.000	11.31	47.56	58.87	74.00	-15.13	peak
4	*	15540.000	2.83	47.56	50.39	54.00	-3.61	AVG

Mode7 / Polarization: Horizontal / Band: 5150-5250 MHz / BW: 20 / CH: 40(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		10400.000	42.46	13.04	55.50	74.00	-18.50	peak
2		10400.000	34.78	13.04	47.82	54.00	-6.18	AVG
3		15600.000	11.23	46.87	58.10	74.00	-15.90	peak
4	*	15600.000	3.19	46.87	50.06	54.00	-3.94	AVG

Mode7 / Polarization: Vertical / Band: 5150-5250 MHz / BW: 20 / CH: 40(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		10400.000	42.64	13.04	55.68	74.00	-18.32	peak
2		10400.000	35.18	13.04	48.22	54.00	-5.78	AVG
3		15600.000	11.69	46.87	58.56	74.00	-15.44	peak
4	*	15600.000	3.42	46.87	50.29	54.00	-3.71	AVG

Mode7 / Polarization: Horizontal / Band: 5150-5250 MHz / BW: 20 / CH: 48(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		10480.000	43.53	12.94	56.47	74.00	-17.53	peak
2		10480.000	34.75	12.94	47.69	54.00	-6.31	AVG
3		15720.000	11.76	46.86	58.62	74.00	-15.38	peak
4	*	15720.000	3.47	46.86	50.33	54.00	-3.67	AVG

Mode7 / Polarization: Vertical / Band: 5150-5250 MHz / BW: 20 / CH: 48(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		10480.000	43.20	12.94	56.14	74.00	-17.86	peak
2		10480.000	35.31	12.94	48.25	54.00	-5.75	AVG
3		15720.000	11.70	46.86	58.56	74.00	-15.44	peak
4	*	15720.000	3.88	46.86	50.74	54.00	-3.26	AVG

Mode1 / Polarization: Horizontal / Band: 5725-5850 MHz / BW: 20 / CH: 149(ANT 1)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11490.000	10.47	48.62	59.09	74.00	-14.91	peak	
2		11490.000	1.48	48.62	50.10	54.00	-3.90	AVG	
3		17235.000	14.19	48.39	62.58	74.00	-11.42	peak	
4	*	17235.000	2.03	48.39	50.42	54.00	-3.58	AVG	

Mode1 / Polarization: Vertical / Band: 5725-5850 MHz / BW: 20 / CH: 149(ANT 1)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11490.000	10.10	48.62	58.72	74.00	-15.28	peak	
2		11490.000	-0.37	48.62	48.25	54.00	-5.75	AVG	
3		17235.000	12.18	48.39	60.57	74.00	-13.43	peak	
4	*	17235.000	1.72	48.39	50.11	54.00	-3.89	AVG	

Mode1 / Polarization: Horizontal / Band: 5725-5850 MHz / BW: 20 / CH: 157(ANT 1)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11568.000	12.02	48.34	60.36	74.00	-13.64	peak	
2		11568.000	1.42	48.34	49.76	54.00	-4.24	AVG	
3		17355.000	13.75	48.58	62.33	74.00	-11.67	peak	
4	*	17355.000	1.61	48.58	50.19	54.00	-3.81	AVG	

Mode1 / Polarization: Vertical / Band: 5725-5850 MHz / BW: 20 / CH: 157(ANT 1)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11568.000	10.77	48.34	59.11	74.00	-14.89	peak	
2		11568.000	0.42	48.34	48.76	54.00	-5.24	AVG	
3		17355.000	12.56	48.58	61.14	74.00	-12.86	peak	
4	*	17355.000	2.06	48.58	50.64	54.00	-3.36	AVG	

Mode1 / Polarization: Horizontal / Band: 5725-5850 MHz / BW: 20 / CH: 165(ANT 1)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11650.000	11.29	47.96	59.25	74.00	-14.75	peak	
2		11650.000	0.06	47.96	48.02	54.00	-5.98	AVG	
3		17475.000	12.57	48.95	61.52	74.00	-12.48	peak	
4	*	17475.000	1.49	48.95	50.44	54.00	-3.56	AVG	

Mode1 / Polarization: Vertical / Band: 5725-5850 MHz / BW: 20 / CH: 165(ANT 1)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11650.000	10.26	47.96	58.22	74.00	-15.78	peak	
2		11650.000	-0.11	47.96	47.85	54.00	-6.15	AVG	
3		17475.000	12.31	48.95	61.26	74.00	-12.74	peak	
4	*	17475.000	1.97	48.95	50.92	54.00	-3.08	AVG	

Mode7 / Polarization: Horizontal / Band: 5725-5850 MHz / BW: 20 / CH: 149(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Cc
1		11490.000	9.91	48.62	58.53	74.00	-15.47	peak	
2		11490.000	-1.37	48.62	47.25	54.00	-6.75	AVG	
3		17235.000	12.50	48.39	60.89	74.00	-13.11	peak	
4	*	17235.000	1.94	48.39	50.33	54.00	-3.67	AVG	

Mode7 / Polarization: Vertical / Band: 5725-5850 MHz / BW: 20 / CH: 149(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		11490.000	9.94	48.62	58.56	74.00	-15.44	peak
2		11490.000	-1.26	48.62	47.36	54.00	-6.64	AVG
3		17235.000	12.69	48.39	61.08	74.00	-12.92	peak
4	*	17235.000	2.32	48.39	50.71	54.00	-3.29	AVG

Mode7 / Polarization: Horizontal / Band: 5725-5850 MHz / BW: 20 / CH: 157(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		11568.000	10.14	48.34	58.48	74.00	-15.52	peak
2		11568.000	-0.42	48.34	47.92	54.00	-6.08	AVG
3		17355.000	12.19	48.58	60.77	74.00	-13.23	peak
4	*	17355.000	2.04	48.58	50.62	54.00	-3.38	AVG

Mode7 / Polarization: Vertical / Band: 5725-5850 MHz / BW: 20 / CH: 157(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		11490.000	10.57	48.62	59.19	74.00	-14.81	peak
2		11490.000	0.63	48.62	49.25	54.00	-4.75	AVG
3		17235.000	12.66	48.39	61.05	74.00	-12.95	peak
4	*	17235.000	1.71	48.39	50.10	54.00	-3.90	AVG

Mode1 / Polarization: Horizontal / Band: 5725-5850 MHz / BW: 20 / CH: 165(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		11650.000	10.03	47.96	57.99	74.00	-16.01	peak
2		11650.000	-1.11	47.96	46.85	54.00	-7.15	AVG
3		17475.000	11.97	48.95	60.92	74.00	-13.08	peak
4	*	17475.000	1.33	48.95	50.28	54.00	-3.72	AVG

Mode7 / Polarization: Vertical / Band: 5725-5850 MHz / BW: 20 / CH: 165(ANT 1+ANT 2)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		11650.000	9.88	47.96	57.84	74.00	-16.16	peak
2		11650.000	-1.27	47.96	46.69	54.00	-7.31	AVG
3		17475.000	12.05	48.95	61.00	74.00	-13.00	peak
4	*	17475.000	1.53	48.95	50.48	54.00	-3.52	AVG

Photographs of the test setup

Refer to Appendix - Test Setup Photos

Photographs of the EUT

Refer to Appendix - EUT Photos

Appendix

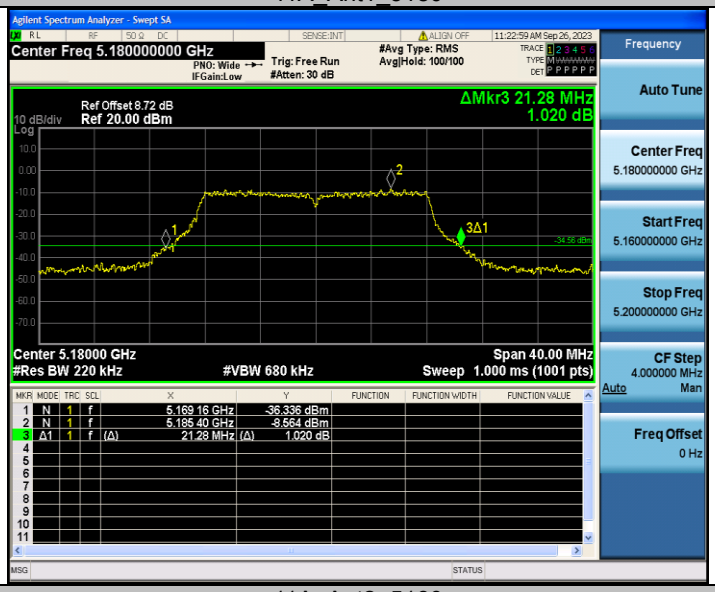
Appendix A: Emission Bandwidth

Test Result

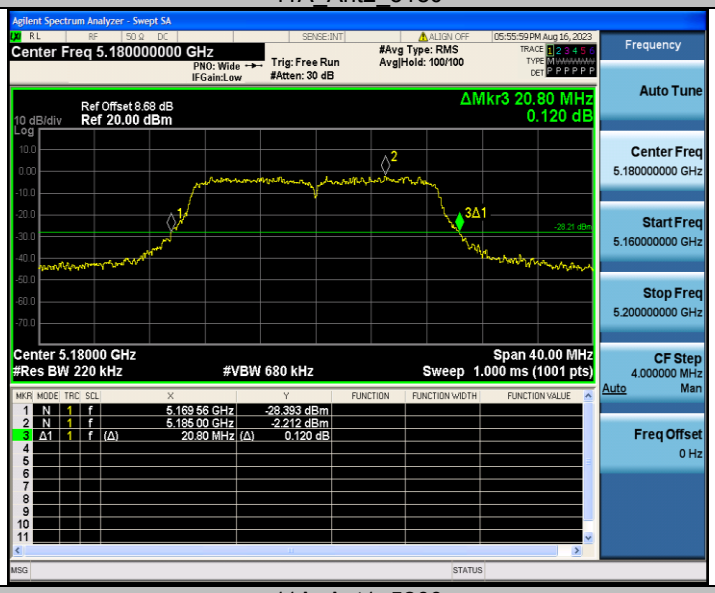
TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]
11A	Ant1	5180	21.280	5169.160	5190.440
	Ant2	5180	20.800	5169.560	5190.360
	Ant1	5200	20.560	5190.000	5210.560
	Ant2	5200	20.800	5189.520	5210.320
	Ant1	5240	20.200	5229.880	5250.080
	Ant2	5240	20.640	5229.480	5250.120
	Ant1	5745	20.400	5734.920	5755.320
	Ant2	5745	20.960	5734.560	5755.520
	Ant1	5785	20.200	5775.000	5795.200
	Ant2	5785	20.480	5774.920	5795.400
	Ant1	5825	20.760	5814.440	5835.200
	Ant2	5825	20.080	5815.000	5835.080
11N20SISO	Ant1	5180	21.000	5169.600	5190.600
	Ant2	5180	20.800	5169.600	5190.400
	Ant1	5200	21.760	5188.800	5210.560
	Ant2	5200	20.840	5189.560	5210.400
	Ant1	5240	21.080	5229.560	5250.640
	Ant2	5240	20.680	5229.560	5250.240
	Ant1	5745	21.880	5734.320	5756.200
	Ant2	5745	20.720	5734.680	5755.400
	Ant1	5785	23.760	5772.800	5796.560
	Ant2	5785	20.640	5774.600	5795.240
	Ant1	5825	23.160	5813.720	5836.880
	Ant2	5825	20.560	5814.600	5835.160
11N40SISO	Ant1	5190	42.480	5168.880	5211.360
	Ant2	5190	42.720	5168.800	5211.520
	Ant1	5230	42.000	5208.720	5250.720
	Ant2	5230	42.400	5208.480	5250.880
	Ant1	5755	41.680	5734.200	5775.880
	Ant2	5755	41.680	5734.040	5775.720
	Ant1	5795	42.480	5773.480	5815.960
	Ant2	5795	42.400	5773.560	5815.960
11AC20SISO	Ant1	5180	20.960	5169.360	5190.320
	Ant2	5180	20.880	5169.520	5190.400
	Ant1	5200	21.400	5188.760	5210.160
	Ant2	5200	20.960	5189.440	5210.400
	Ant1	5240	20.560	5229.640	5250.200
	Ant2	5240	21.080	5229.320	5250.400
	Ant1	5745	21.720	5733.960	5755.680
	Ant2	5745	21.000	5734.440	5755.440
	Ant1	5785	21.600	5773.880	5795.480
	Ant2	5785	20.880	5774.400	5795.280
	Ant1	5825	21.640	5813.920	5835.560
	Ant2	5825	20.680	5814.520	5835.200
11AC40SISO	Ant1	5190	41.840	5169.040	5210.880
	Ant2	5190	41.920	5169.280	5211.200
	Ant1	5230	41.760	5208.800	5250.560
	Ant2	5230	41.840	5208.880	5250.720
	Ant1	5755	42.480	5733.880	5776.360
	Ant2	5755	42.480	5733.720	5776.200
	Ant1	5795	42.640	5773.800	5816.440
	Ant2	5795	42.640	5773.320	5815.960
11AC80SISO	Ant1	5210	81.68	5169.200	5250.160
	Ant2	5210	80.160	5170.000	5250.160
	Ant1	5775	80.48	5735.320	5815.800
	Ant2	5775	80.960	5735.320	5816.280

Test Graphs

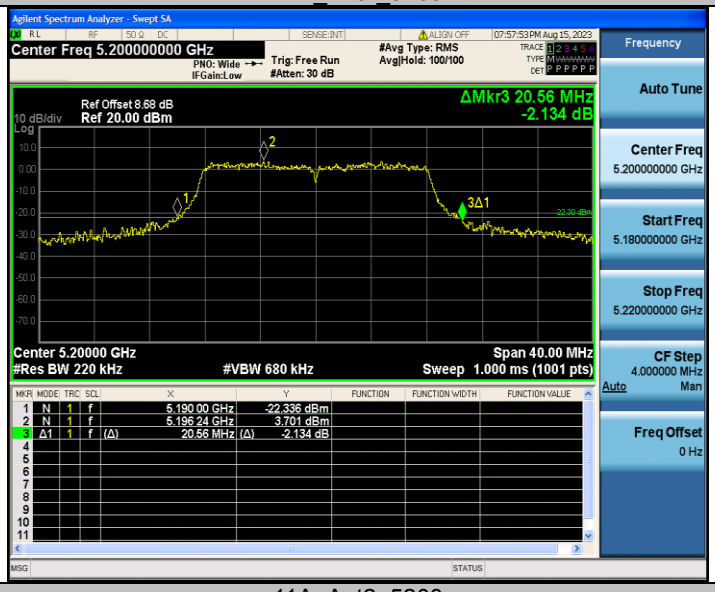
11A_Ant1_5180



11A_Ant2_5180

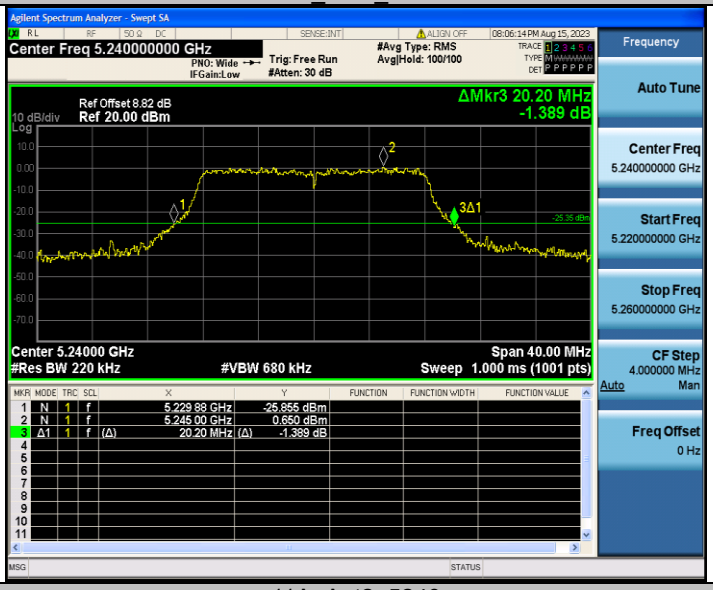


11A_Ant1_5200



11A_Ant2_5200

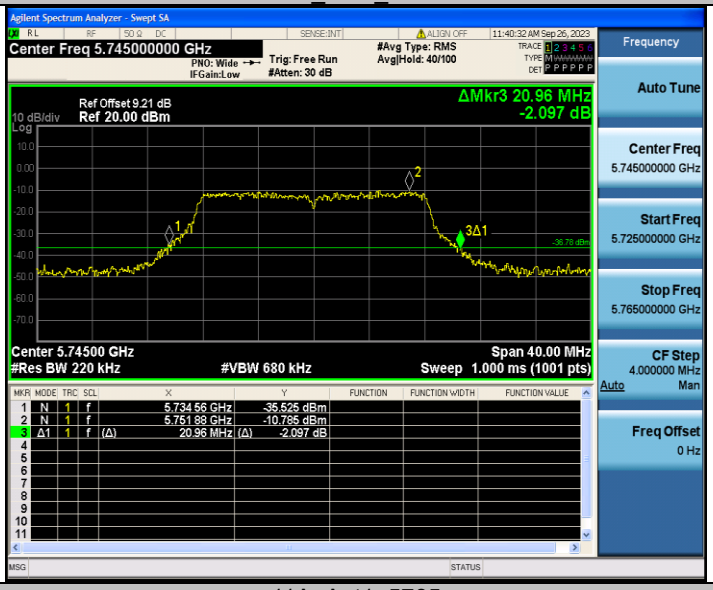
11A_Ant1_5240



11A_Ant2_5240

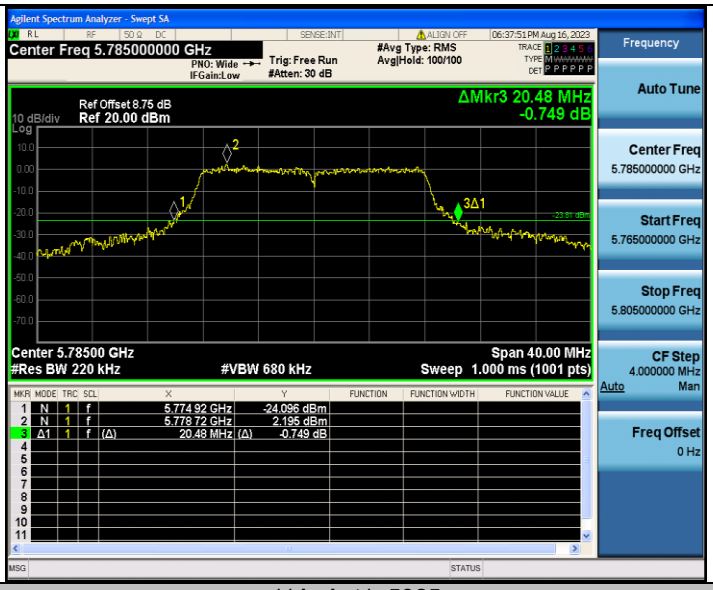
11A_Ant1_5745

11A_Ant2_5745

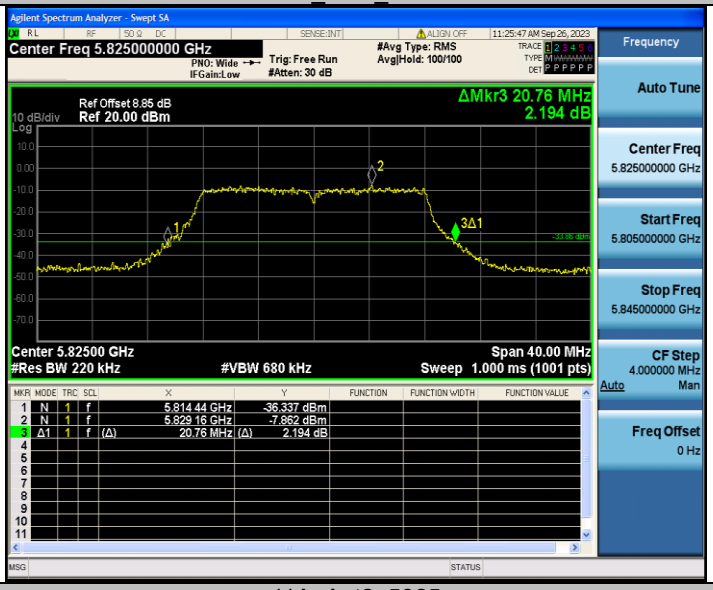


11A_Ant1_5785

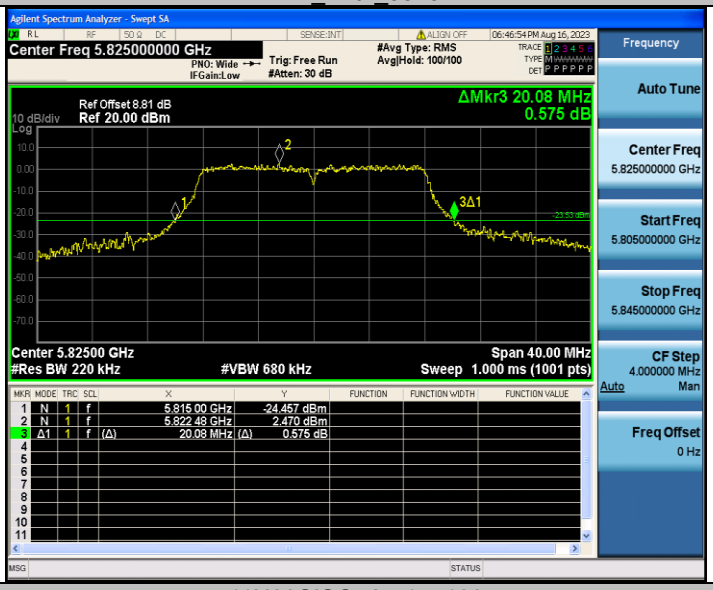
11A_Ant2_5785



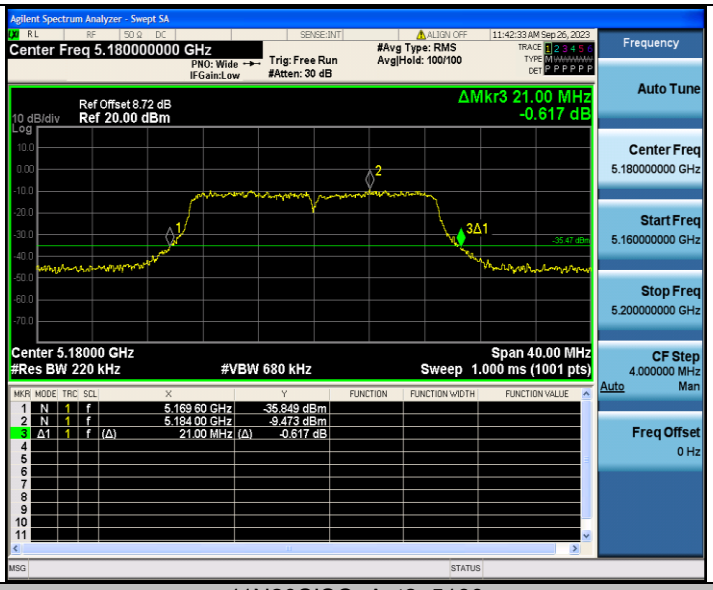
11A_Ant1_5825



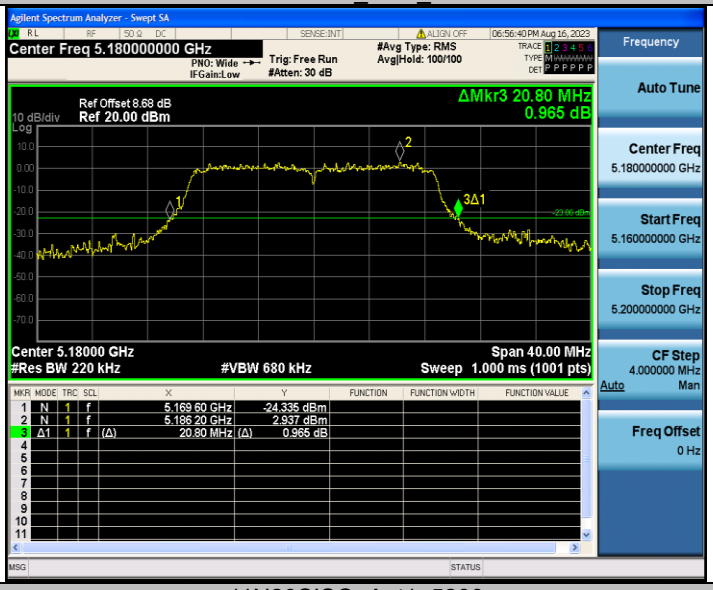
11A_Ant2_5825



11N20SISO_Ant1_5180

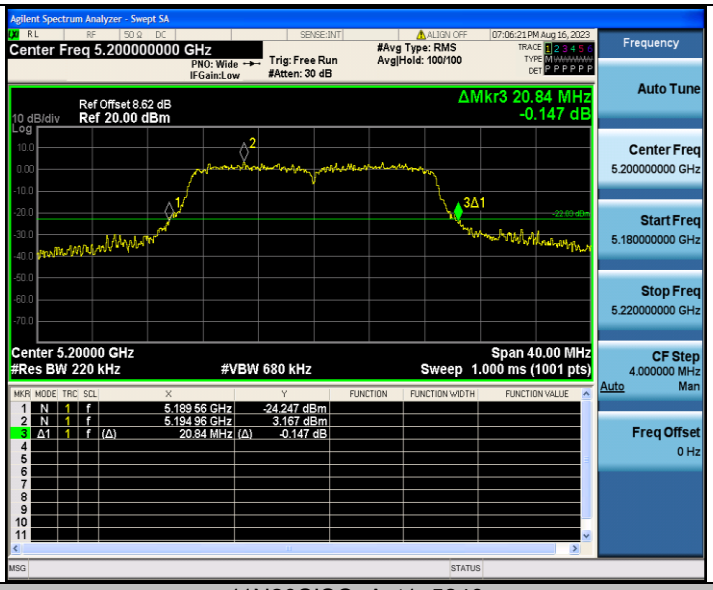


11N20SISO_Ant2_5180

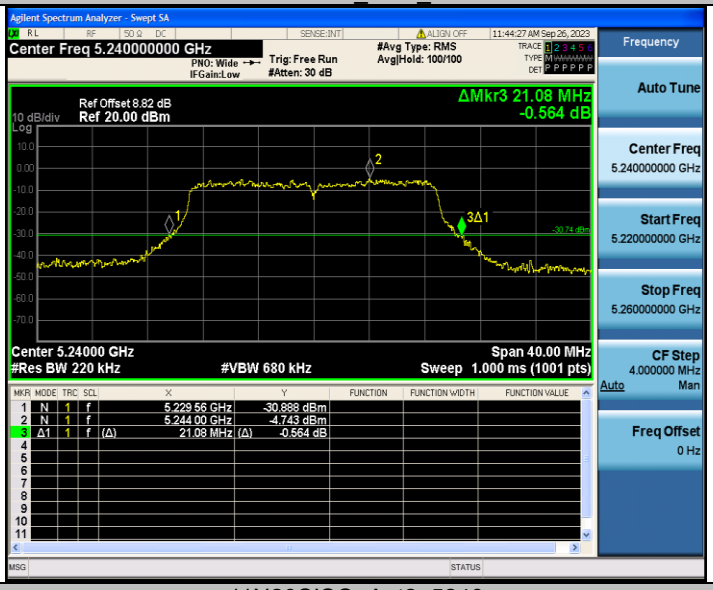


11N20SISO_Ant1_5200

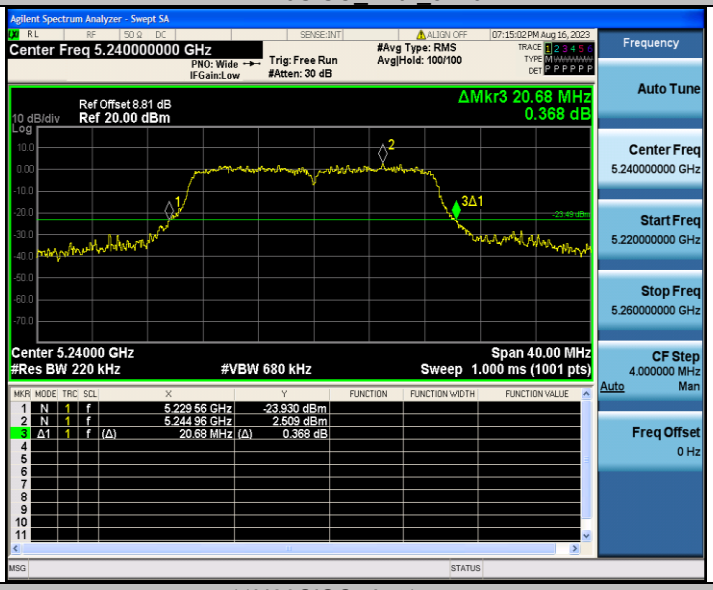
11N20SISO_Ant2_5200



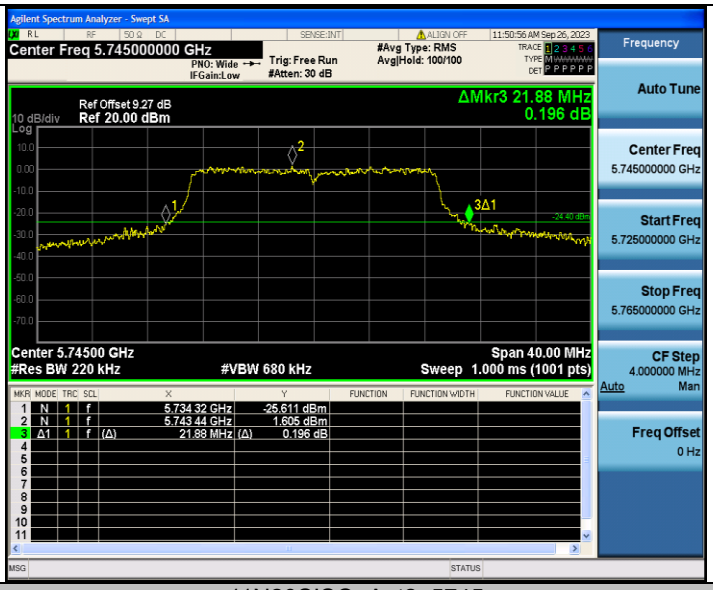
11N20SISO_Ant1_5240



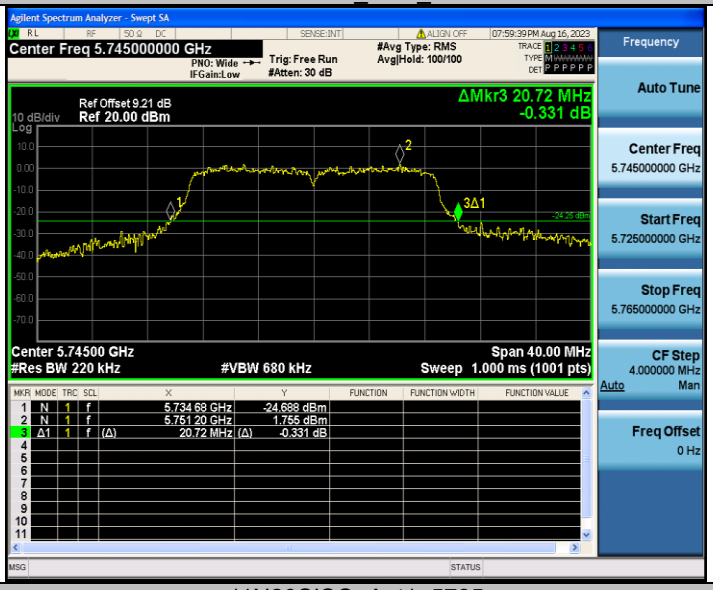
11N20SISO_Ant2_5240



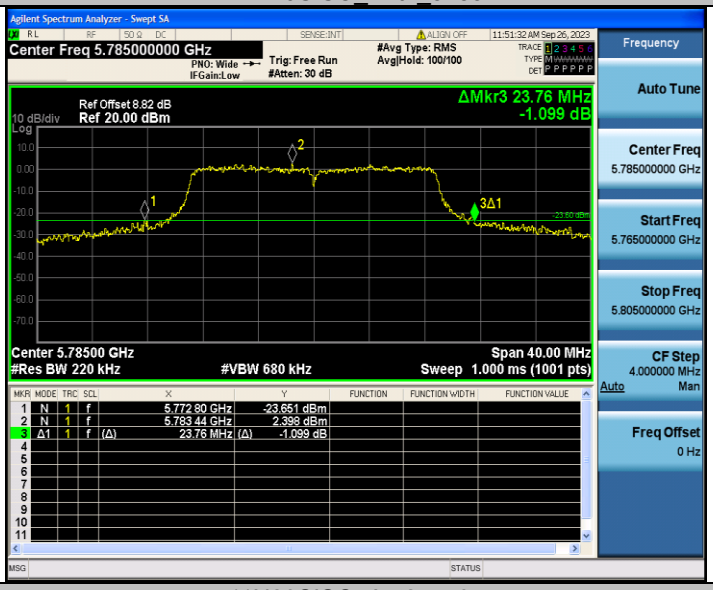
11N20SISO_Ant1_5745



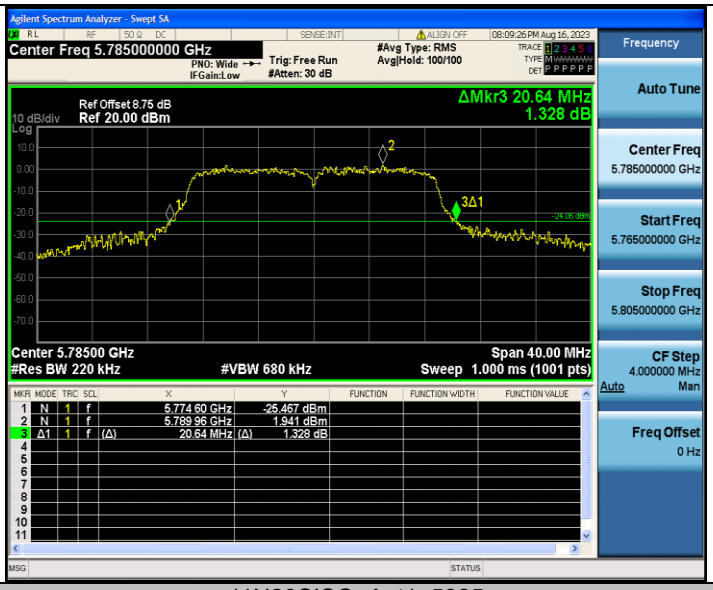
11N20SISO_Ant2_5745



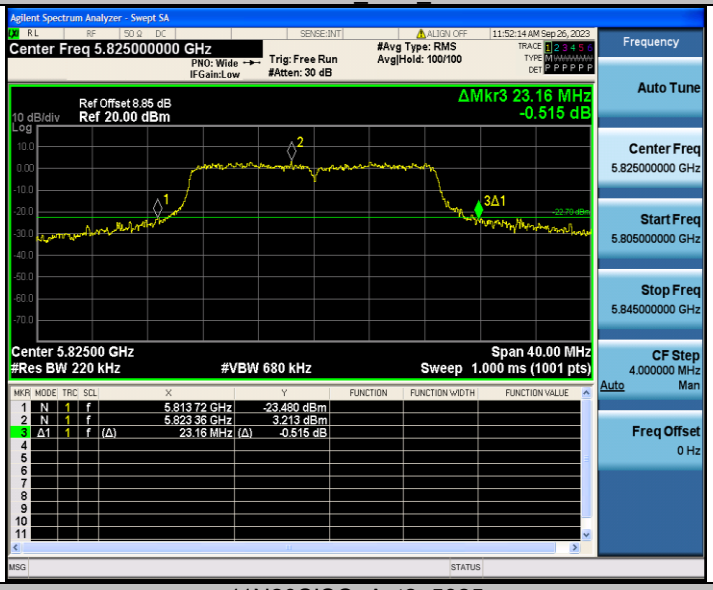
11N20SISO_Ant1_5785



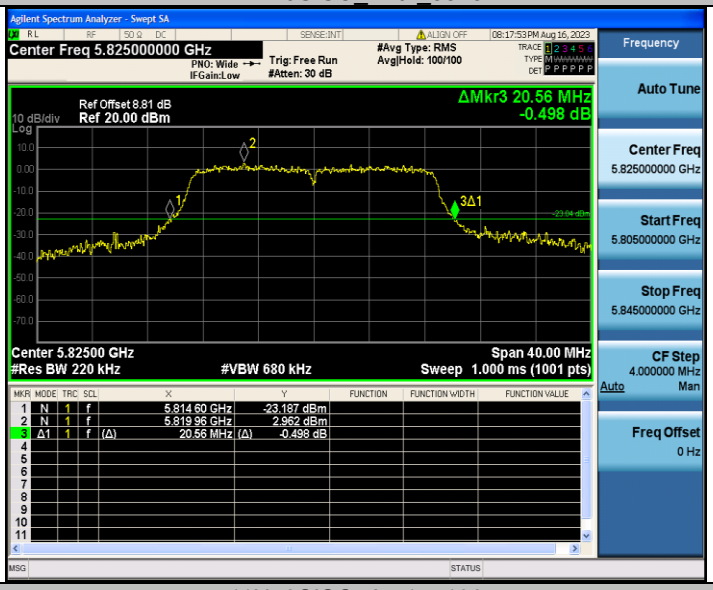
11N20SISO_Ant2_5785



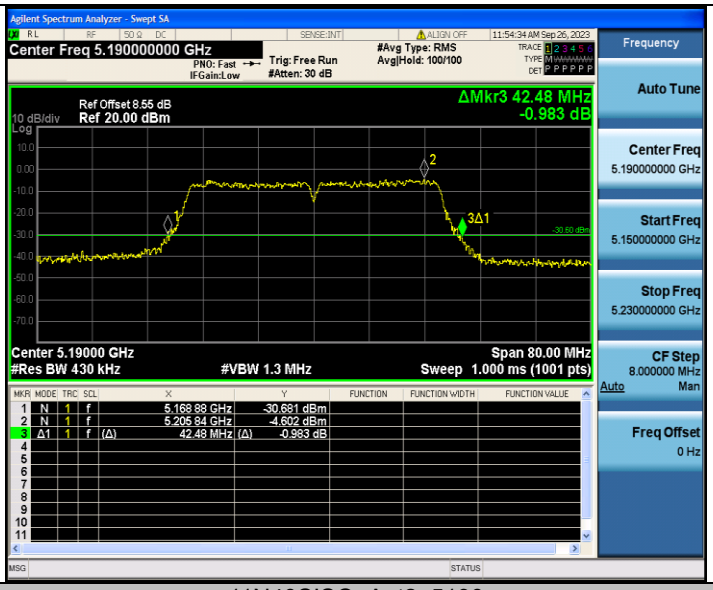
11N20SISO_Ant1_5825



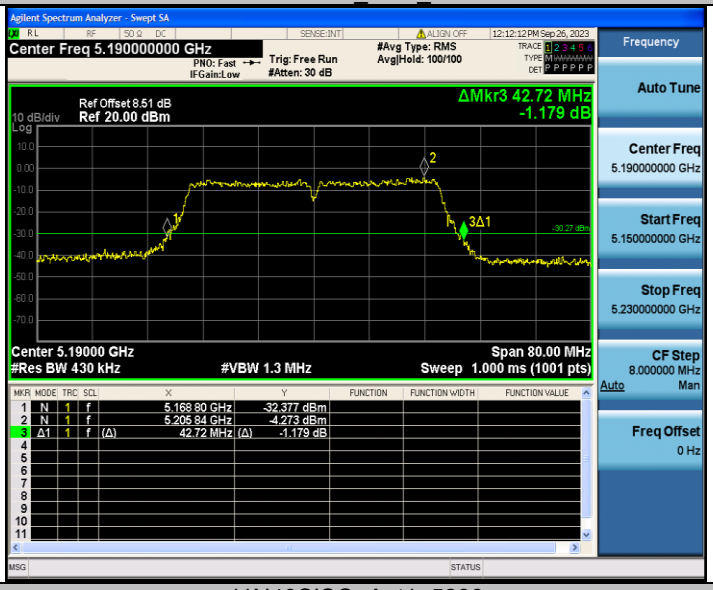
11N20SISO_Ant2_5825



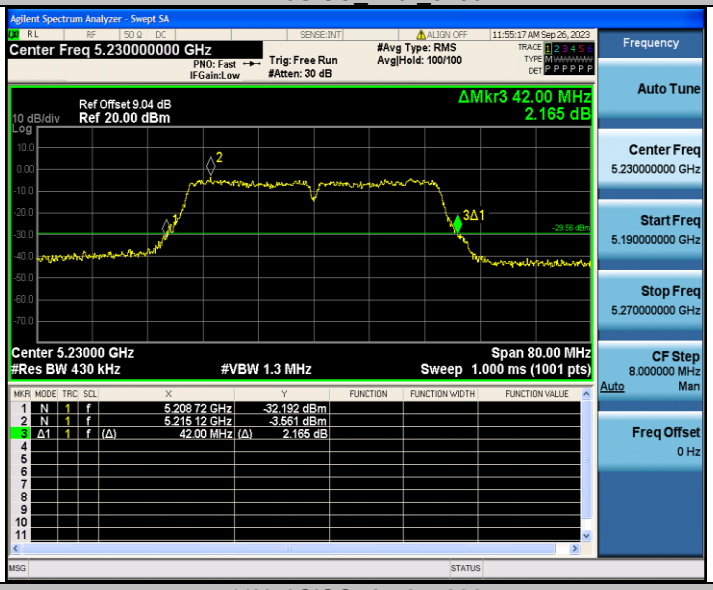
11N40SISO_Ant1_5190



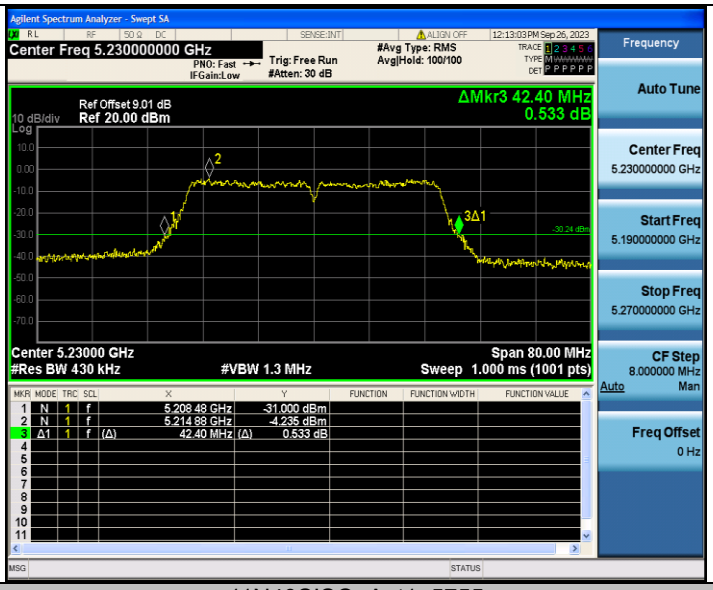
11N40SISO_Ant2_5190



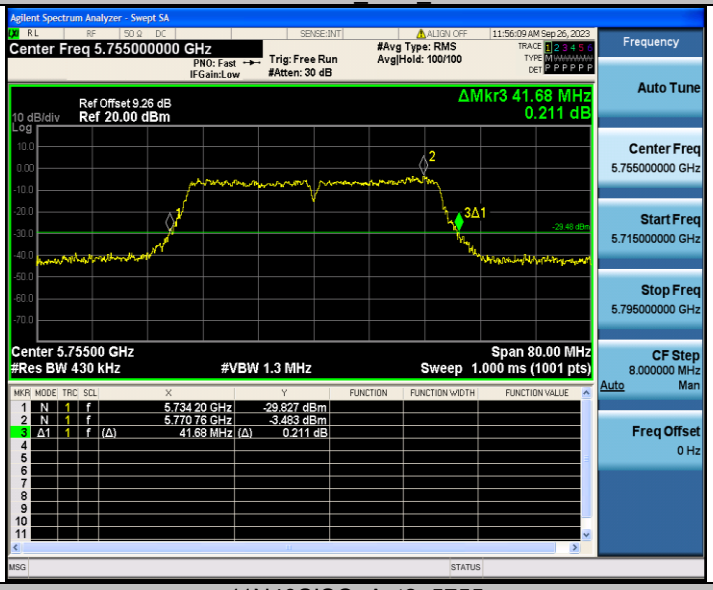
11N40SISO_Ant1_5230



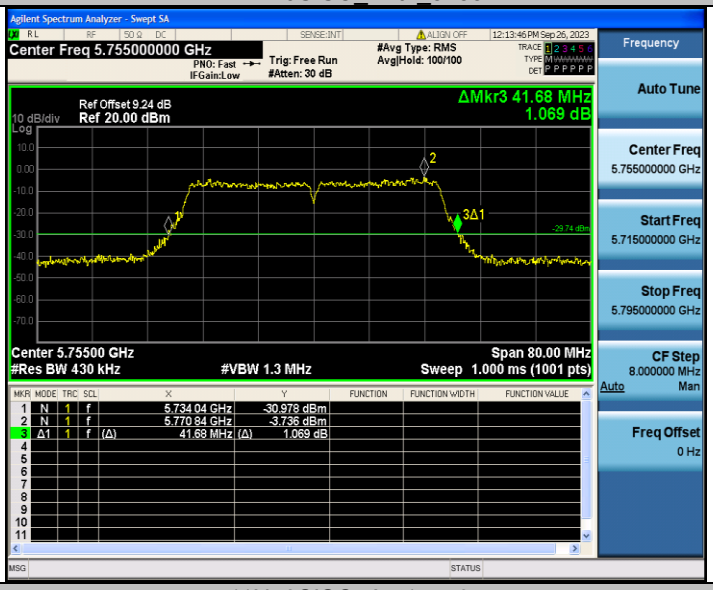
11N40SISO_Ant2_5230



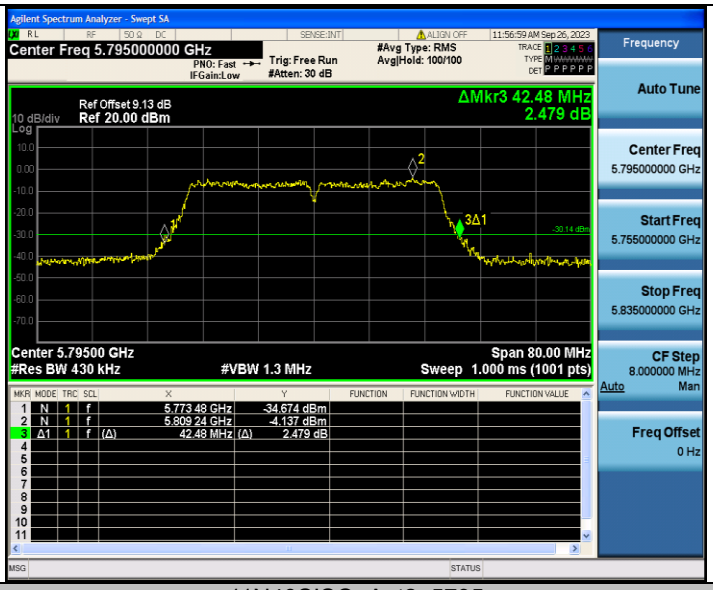
11N40SISO_Ant1_5755



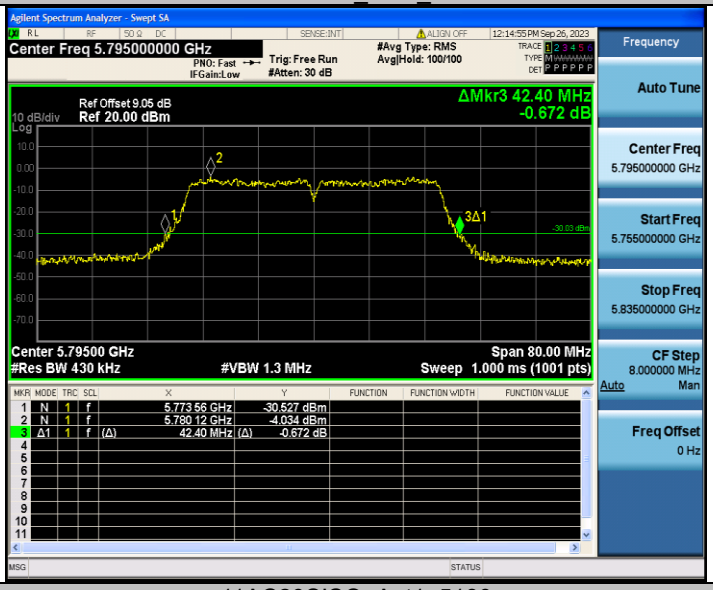
11N40SISO_Ant2_5755



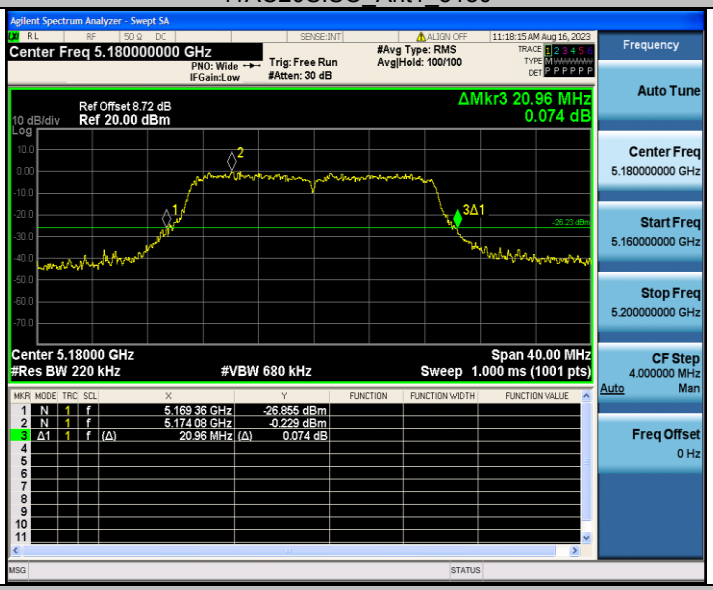
11N40SISO_Ant1_5795



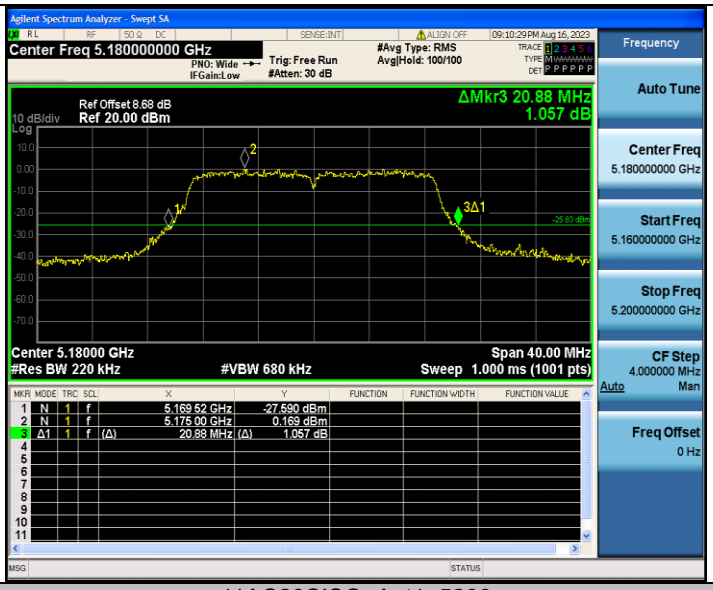
11N40SISO_Ant2_5795



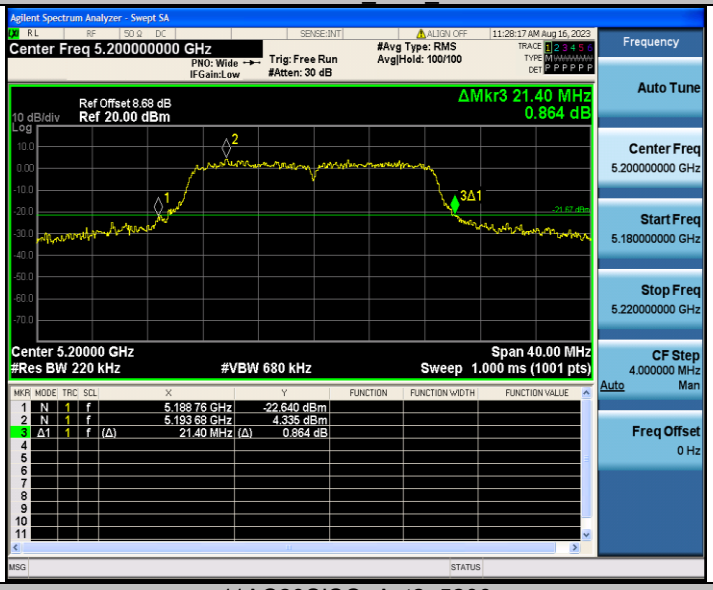
11AC20SISO_Ant1_5180



11AC20SISO_Ant2_5180



11AC20SISO_Ant1_5200



11AC20SISO_Ant2_5200

11AC20SISO_Ant1_5240