

FCC TEST REPORT

FCC ID: 2BCQA-G65

Product	:	Phone
Model Name	:	G65
Brand	:	N/A
Report No.	:	NCT24002161E-FC04
Prepared for		
Clover Industrial Co.,Ltd		
Building 4, Hengchangrong High-tech Industrial Park, Shangnan East Road, Hongtian,		
Huangpu Community, Xinqiao Street, Baoan District, Shenzhen		
Prepared by		
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1 TEST RESULT CERTIFICATION

Applicant's name : Clover Industrial Co.,Ltd

Address : Building 4, Hengchangrong High-tech Industrial Park, Shangnan East Road, Hongtian, Huangpu Community, Xinqiao Street, Baoan District, Shenzhen

Manufacture's name : Clover Industrial Co.,Ltd

Address : Building 4, Hengchangrong High-tech Industrial Park, Shangnan East Road, Hongtian, Huangpu Community, Xinqiao Street, Baoan District, shenzhen

Product name : Phone

Model name : G65

Standards : FCC CFR47 Part 15 Section 15.407

Test procedure : ANSI C63.10:2013

Test Date : Nov. 23, 2023 to Dec. 30, 2023

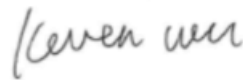
Date of Issue : Dec. 30, 2023

Test Result : Pass

This device described above has been tested by NCT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:



Keven Wu / Engineer

Technical Manager:



Henry Wang / Manager

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2 Test Summary

Test Items	Test Requirement	Result
Conduct Emission	15.207	PASS
Radiated Spurious Emissions	15.205(a) 15.209 15.407(b)	PASS
Emission and Occupied Bandwidth	15.407(a)(e)	PASS
Maximum conducted output power	15.407(a)	PASS
Power Spectral Density	15.407(a)	PASS
Frequency stability	15.407 (g)	PASS
Antenna Requirement	15.203	PASS

3 General Information

3.1 General Description of E.U.T.

Product Name	:	Phone
Model Name	:	G65
Additional model	:	N/A
Specification	:	802.11a/n HT20/HT40/ac20/ac40/ac80
Operation Frequency	:	5G Wifi:5150-5250 MHz 5.8G Wifi:5725MHz~5850MHz
Number of Channel	:	4 channels for 802.11a/n20/ac20 5150-5250 MHz 5 channels for 802.11a/n20/ac20 5725MHz~5850MHz 2 channels for 802.11n40/ac40 5150-5250 MHz 2 channels for 802.11n40/ac40 5725MHz~5850MHz 1 channels for 802.11 ac80
Type of Modulation	:	DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n/a/ac
Antenna installation	:	FPC Antenna
Antenna Gain	:	5.2GWi-Fi:-0.63 dBi 5.8GWi-Fi:-3 dBi
Power supply	:	Battery Model: 456797 3.8V by Rechargeable Li-ion Battery, 4000mAh
Hardware Version	:	K20-V2.0k
Software Version	:	N/A

3.2 Channel List

The EUT has been tested under its typical operating condition.

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Those data rates (802.11a: 6 Mbps; 802.11n (HT20): MCS0; 802.11ac: MCS0) were used for all test.

Pre-defined engineering program for regulatory testing used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

Frequency and Channel list for 802.11 a/N20/N40/AC20/AC40

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	46	5230	153	5765
38	5190	48	5240	157	5785
40	5200	149	5745	159	5795
44	5220	151	5755	161	5805
				165	5825

Frequency and Channel list for 802.11 ac80:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	155	5775	/	/

The maximum duty cycle as following table:

Test Mode	Duty Cycle(%)
802.11a	100%
802.11n/ac20	100%
802.11n/ac40	100%
802.11ac80	100%

3.3 Test Site

Site Description

EMC Lab.

Accredited by CNAS, 2022-09-27

The certificate is valid until 2028.01.07

The Laboratory has been assessed and proved to be in compliance
with CNAS-CL01:2006 (identical to ISO/IEC 17025:2017)

The Certificate Registration Number is L8251

Designation Number: CN1347

Test Firm Registration Number: 894804

Accredited by A2LA, June 14, 2023

The Certificate Registration Number is 6837.01

Accredited by Industry Canada, November 09, 2018

The Conformity Assessment Body Identifier is CN0150

Company Number: 30806

Name of Firm

Shenzhen NCT Testing Technology Co., Ltd.

Site Location

A101&2F B2, Fuqiao 6th Area, Xintian Community, Fuhai Street, Baoan
District, Shenzhen, People's Republic of China

4 Equipment During Test

4.1 Equipments List

RF Conducted Test

Name of Equipment	Manufacturer	Model	Serial No.	Characteristics	Calibration Due	Calibration period
MXG Signal Analyzer	Agilent	N9020A	SER MY5111038	10Hz-30GHz	Aug. 21, 2023	1 year
Coaxial Cable	CDS	79254	46107086	10Hz-30GHz	Aug. 21, 2023	1 year
Power Meter	Anritsu	ML2495A	0949003	300MHz-40GHz	Aug. 21, 2023	1 year
Power Sensor	Anritsu	MA2411B	0917017	300MHz-40GHz	Aug. 21, 2023	1 year
Signal Analyzer 40GHz	Rohde&Schwarz	FSV40	101456	10Hz-40GHz	Aug. 21, 2023	1 year

Remark: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.

Name of Equipment	Manufacturer	Model	Serial No.	Characteristics	Calibration Due	Calibration period
EMI Test Receiver	Rohde&Schwarz	ESCI	101417	9KHz-3GHz	Aug. 21, 2023	1 year
Loop Antenna	Schwarzbeck	FMZB 1519	012	9 KHz -30MHz	Aug. 21, 2023	1 year
Bilog Antenna	SCHWARZBECK	VULB9160	9160-3355	25MHz-2GHz	Aug. 21, 2023	1 year
Preamplifier (low frequency)	SCHWARZBECK	BBV 9475	9745-0013	1MHz-1GHz	Aug. 21, 2023	1 year
Cable	Schwarzbeck	PLF-100	549489	9KHz-3GHz	Aug. 21, 2023	1 year
Spectrum Analyzer	Agilent	E4407B	MY45109572	9KHz-40GHz	Aug. 21, 2023	1 year
Horn Antenna	SCHWARZBECK	9120D	9120D-1246	1GHz-18GHz	Aug. 21, 2023	1 year
Power Amplifier	LUNAR EM	LNA1G18-40	J10100000081	1GHz-26.5GHz	Aug. 21, 2023	1 year

Horn Antenna	SCHWARZBEC K	BBHA 9170	9170-181	14GHz- 40GHz	Aug. 21, 2023	1 year
Amplifier	SCHWARZBEC K	BBV 9721	9721-205	18GHz- 40GHz	Aug. 21, 2023	1 year
Cable	H+S	CBL-26	N/A	1GHz- 26.5GHz	Aug. 21, 2023	1 year
RF Cable	R&S	R204	R21X	1GHz-40GHz	Aug. 21, 2023	1 year

Conducted Emissions

Name of Equipment	Manufacturer	Model	Serial No.	Characteristics	Calibration Due	Calibration period
EMI Test Receiver	Rohde&Schwarz	ESCI	101417	9KHz-3GHz	Aug. 21, 2023	1 year
Artificial Mains Network	Rohde&Schwarz	ENV216	102453	9KHz-300MHz	Aug. 21, 2023	1 year
Artificial Mains Network	Rohde&Schwarz	ENV216	101342	9KHz-300MHz	Aug. 21, 2023	1 year

4.2 Measurement Uncertainty

Parameter	Uncertainty
RF output power, conducted	±1.0dB
Power Spectral Density, conducted	±2.2dB
Radio Frequency	± 1 x 10 ⁻⁶
Bandwidth	± 1.5 x 10 ⁻⁶
Time	±2%
Duty Cycle	±2%
Temperature	±1°C
Humidity	±5%
DC and low frequency voltages	±3%
Conducted Emissions (150kHz~30MHz)	±3.64dB
Radiated Emission(9kHz~30MHz)	±3.15dB
Radiated Emission(30MHz~1GHz)	±5.03dB
Radiated Emission(1GHz~18GHz)	±4.74dB
Radiated Emission(18GHz~40GHz)	±3.20dB

4.3 Description of Support Units

Equipment	Model No.	Series No.
N/A	N/A	N/A

5 Conducted Emission

Test Requirement:	:	FCC CFR 47 Part 15 Section 15.207
Test Method	:	ANSI C63.10: 2013
Test Result	:	PASS
Frequency Range	:	150kHz to 30MHz
Class/Severity	:	Class B

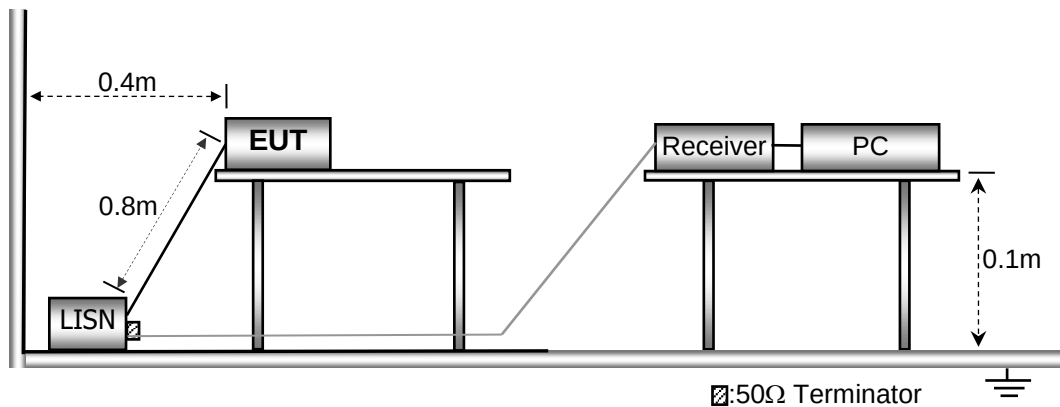
5.1 E.U.T. Operation

Operating Environment :

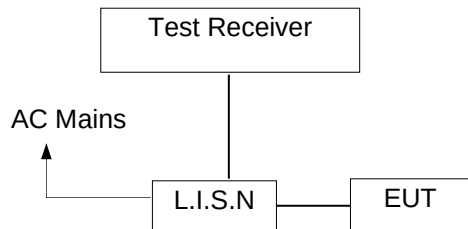
Temperature	:	23.9 °C
Humidity	:	51.4 % RH
Atmospheric Pressure	:	101.21kPa

5.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.10:2013.



5.3 Test SET-UP (Block Diagram of Configuration)



5.4 Measurement Procedure

1. The EUT was placed on a table, which is 0.1m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured was complete.

5.5 Conducted Emission Limit

Conducted Emission

Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note:

1. The lower limit shall apply at the transition frequencies
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

5.6 Measurement Description

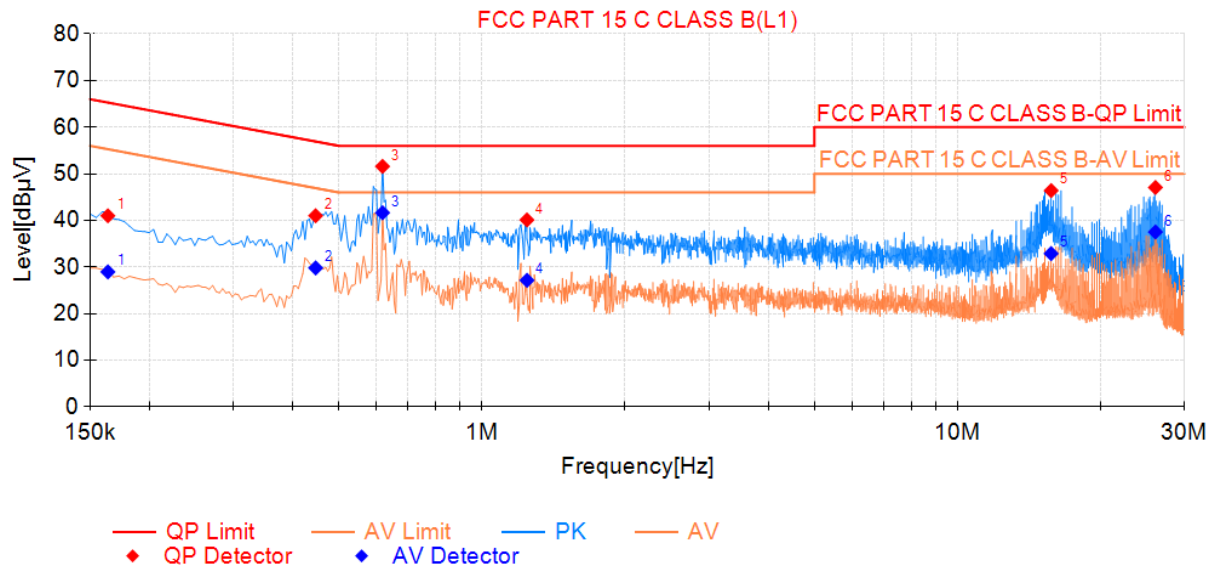
The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

5.7 Conducted Emission Test Result

Pass.

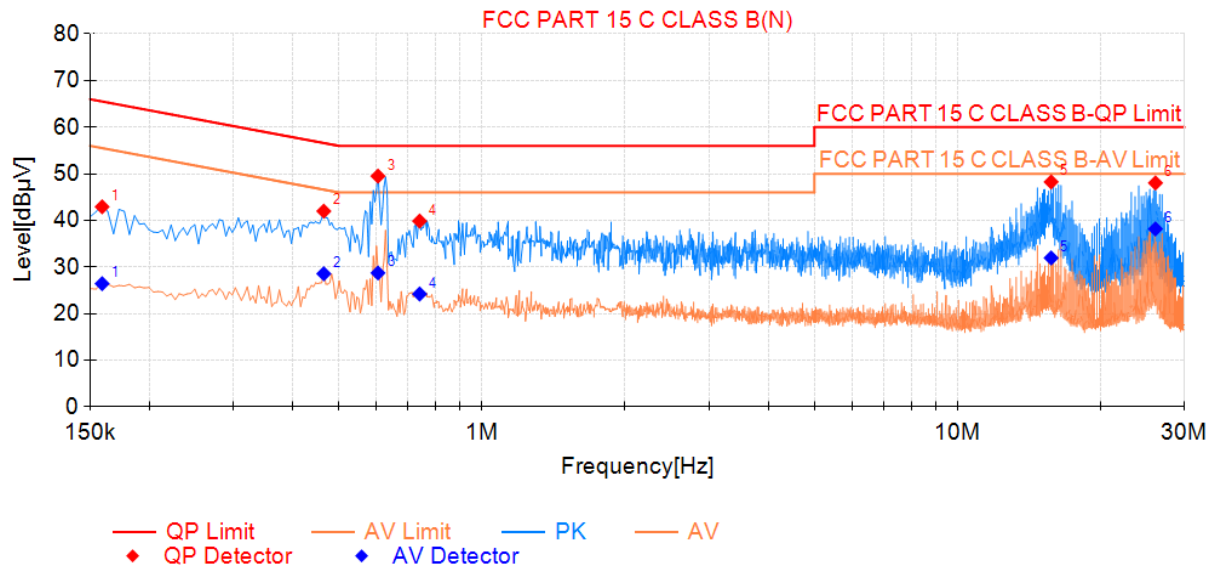
All the modulation modes were tested the data of the worst mode (AC 120V/60Hz, TX 5180MHz) are recorded in the following pages and the others modulation methods do not exceed the limits.

Line-AC 120V/60Hz



Final Data List								
NO.	Freq. [MHz]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.164	41.01	65.28	24.27	28.96	55.28	26.32	PASS
2	0.447	41.01	56.93	15.92	29.81	46.93	17.12	PASS
3	0.618	51.59	56.00	4.41	41.65	46.00	4.35	PASS
4	1.244	40.11	56.00	15.89	27.15	46.00	18.85	PASS
5	15.734	46.40	60.00	13.60	32.89	50.00	17.11	PASS
6	26.066	47.07	60.00	12.93	37.52	50.00	12.48	PASS

Neutral-AC 120V/60Hz



Final Data List								
NO.	Freq. [MHz]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.159	42.93	65.52	22.59	26.44	55.52	29.08	PASS
2	0.465	41.99	56.60	14.61	28.56	46.60	18.04	PASS
3	0.605	49.51	56.00	6.49	28.73	46.00	17.27	PASS
4	0.740	39.86	56.00	16.14	24.22	46.00	21.78	PASS
5	15.734	48.26	60.00	11.74	31.95	50.00	18.05	PASS
6	26.066	48.04	60.00	11.96	38.18	50.00	11.82	PASS

6 Radiated Spurious Emissions

Test Requirement	:	FCC CFR47 Part 15 Section 15.209 & 15.407(b)
Test Method	:	ANSI C63.10:2013
Test Result	:	PASS
Measurement Distance	:	3m

Limit

(1) 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.

(2) For transmitters operating in the 5.25-5.35 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.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) 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.

(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

Further.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits. As per FCC §15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1MHz

As per FCC §15.209(a): 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		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	$2400/F(\text{kHz})$	300	$10000 * 2400/F(\text{kHz})$	$20\log^{(2400/F(\text{kHz}))} + 80$
0.490 ~ 1.705	$24000/F(\text{kHz})$	30	$100 * 24000/F(\text{kHz})$	$20\log^{(24000/F(\text{kHz}))} + 40$
1.705 ~ 30	30	30	$100 * 30$	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

6.1 EUT Operation

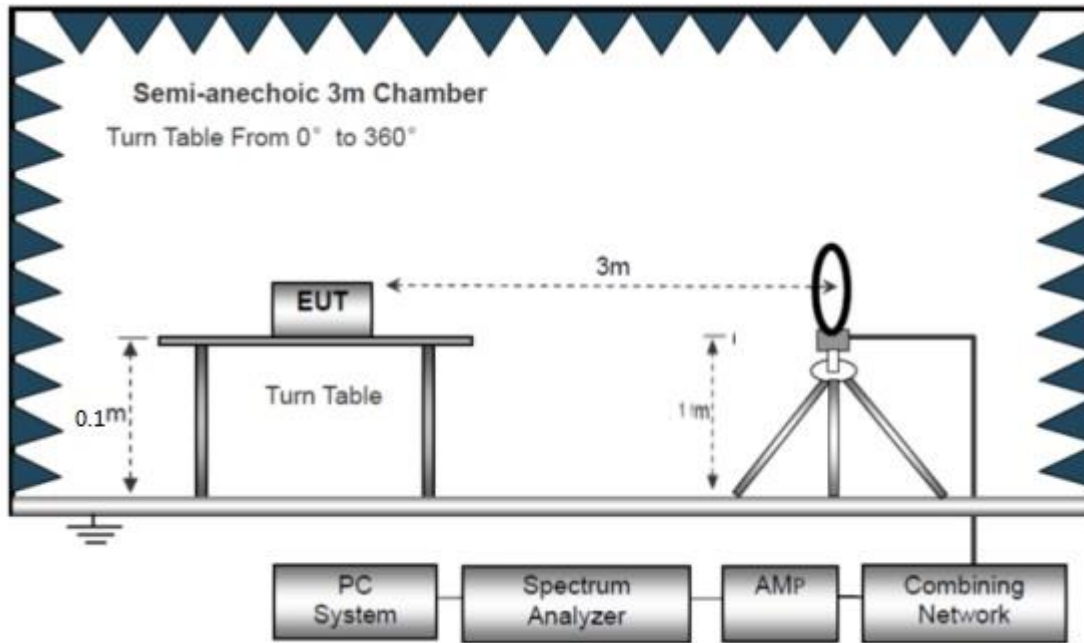
Operating Environment :

Temperature: : 24.5 °C
 Humidity: : 52 % RH
 Atmospheric Pressure: : 101.3kPa
 Test Voltage : AC 120V 60Hz

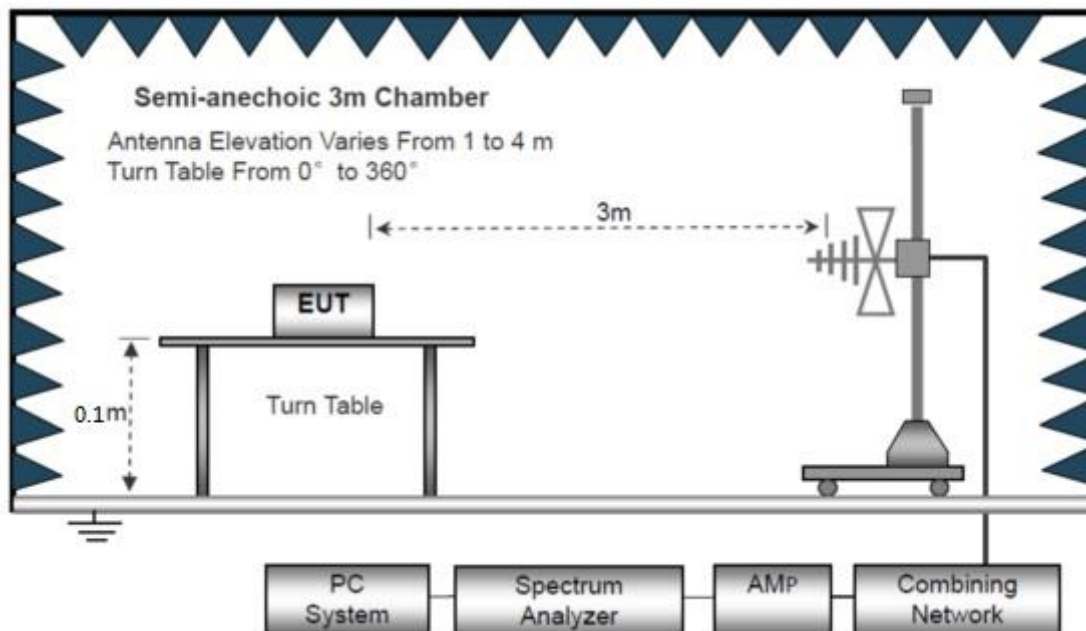
6.2 Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site

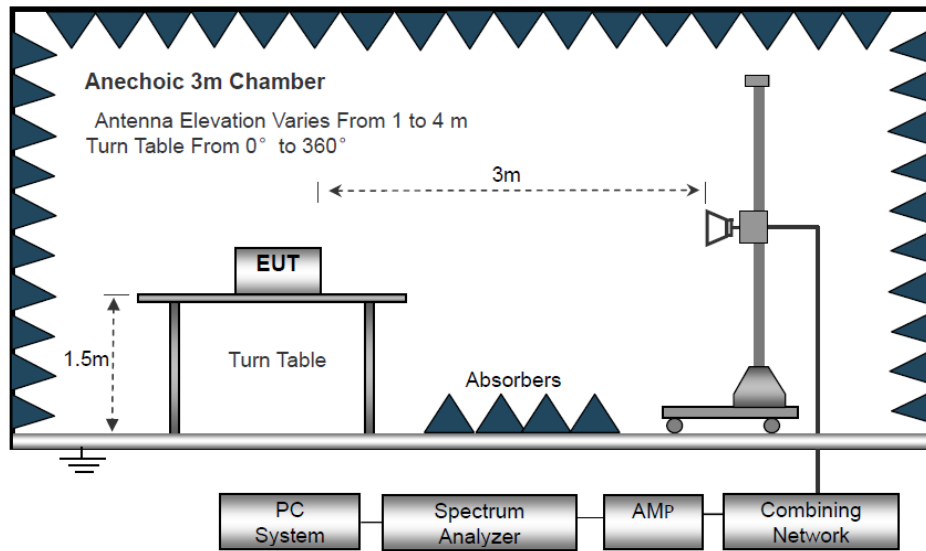
The test setup for emission measurement below 30MHz



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz



6.3 Spectrum Analyzer Setup

Receiver Setup	Frequency	Detector	RBW	VBW	Remark
	Below 30MHz	--	10kHz	10kHz	--
	30MHz ~ 1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		RMS	1MHz	3MHz	Average Value

6.4 Test Procedure

1. Below 1000MHz, The EUT was placed on a turn table which is 0.8m above ground plane, And above 1000MHz, The EUT was placed on a styrofoam table which is 1.5m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions. The spectrum was investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The radiation measurements are tested under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.
8. The test above 1GHz must be use the fully anechoic room, and the test below 1GHz use the half anechoic room

6.5 Summary of Test Results

Test Frequency: 9KHz-30MHz

Freq. (MHz)	Ant.Pol. H/V	Emission Level (dBuV/m)	Limit 3m (dBuV/m)	Over (dB)
--	--	--	--	>20

Note:

The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

Distance extrapolation factor = $40\log(\text{Specific distance} / \text{test distance})$ (dB);

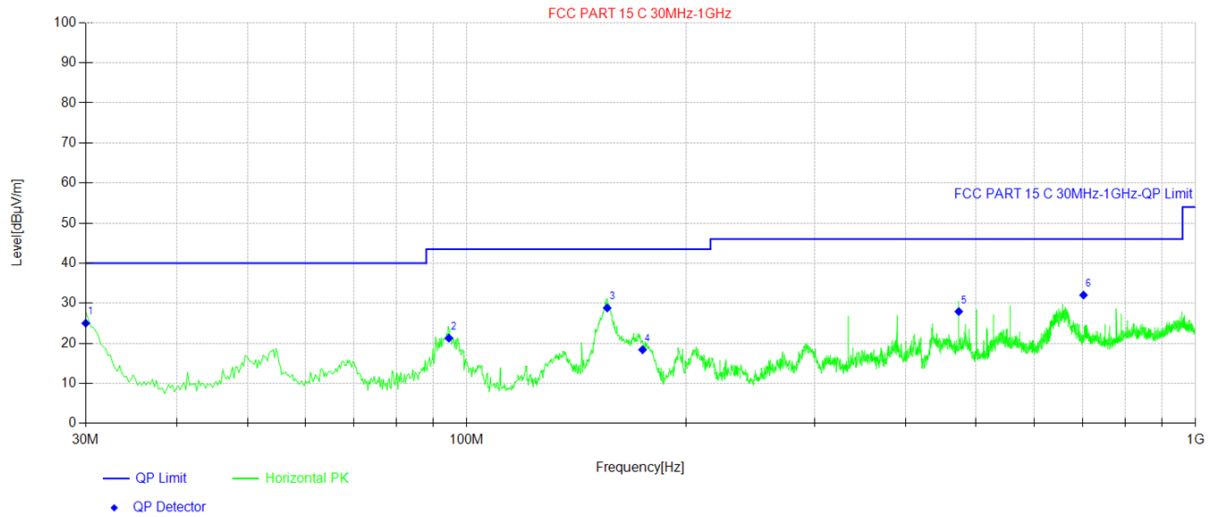
Limit line = Specific limits (dBuV) + distance extrapolation factor.

Test Frequency: 30MHz ~ 1GHz

All the modulation modes were tested the data of the worst mode (TX 802.11a Channel 36, CH149) are recorded in the following pages and the others modulation methods do not exceed the limits.

Please refer to the following test plots:

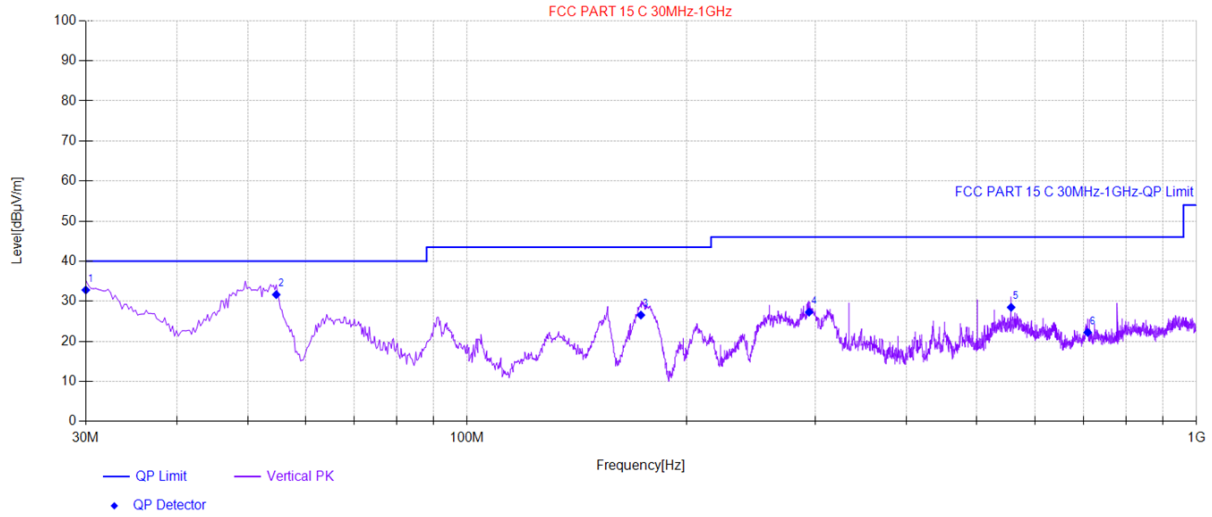
Antenna Polarization: Horizontal(CH36)



Final Data List[QP]							
NO.	Freq. [MHz]	QP Reading [dBμV/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity
1	30.00	43.36	-18.35	25.01	40.00	14.99	Horizontal
2	94.51	41.64	-20.34	21.30	43.50	22.20	Horizontal
3	155.86	44.87	-16.04	28.83	43.50	14.67	Horizontal
4	174.29	35.02	-16.62	18.40	43.50	25.10	Horizontal
5	473.29	39.46	-11.52	27.94	46.00	18.06	Horizontal
6	701.97	38.59	-6.55	32.04	46.00	13.96	Horizontal

Remark: Emission Level = Reading + Cable Loss + ANT Factor - AMP Factor

Antenna Polarization: Vertical (CH36)



Final Data List[QP]							
NO.	Freq. [MHz]	QP Reading [dBμV/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity
1	30.00	51.16	-18.35	32.81	40.00	7.19	Vertical
2	54.74	49.54	-17.88	31.66	40.00	8.34	Vertical
3	173.08	43.09	-16.53	26.56	43.50	16.94	Vertical
4	294.33	42.98	-15.69	27.29	46.00	18.71	Vertical
5	556.95	37.77	-9.29	28.48	46.00	17.52	Vertical
6	709.24	28.61	-6.38	22.23	46.00	23.77	Vertical

Remark: Emission Level = Reading + Cable Loss + ANT Factor - AMP Factor
 Note: only the worst case recorded in the report.

Test Frequency: From 1GHz to 40GHz

Pre-scan all test modes

Only the worst case Main test data.

802.11a

Test Mode: 5180					Test channel: Lowest			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10360	47.28	35.22	5.36	31.25	56.61	68.2	-11.59	V
15540	42.06	35.96	7.85	30.63	55.24	68.2	-12.96	V
20720	43.09	39.12	8.56	34.95	55.82	68.2	-12.38	V
10360	48.56	34.12	5.36	31.25	56.79	68.2	-11.41	H
15540	42.45	36.52	7.85	30.63	56.19	68.2	-12.01	H
20720	42.61	40.01	8.56	34.95	56.23	68.2	-11.97	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10360	33.26	35.22	5.36	31.25	42.59	54	-11.41	V
15540	30.11	35.96	7.85	30.63	43.29	54	-10.71	V
20720	28.08	39.12	8.56	34.95	40.81	54	-13.19	V
10360	32.33	34.12	5.36	31.25	40.56	54	-13.44	H
15540	24.74	36.52	7.85	30.63	38.48	54	-15.52	H
20720	27.14	40.01	8.56	34.95	40.76	54	-13.24	H

802.11a

Test Mode:5200					Test channel: Middle			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10400	47.92	35.63	5.36	31.25	57.66	68.2	-10.54	V
15600	43.56	35.91	7.85	30.63	56.69	68.2	-11.51	V
20800	44.13	39.67	8.56	34.95	57.41	68.2	-10.79	V
10400	46.66	34.25	5.36	31.25	55.02	68.2	-13.18	H
15600	41.96	37.02	7.85	30.63	56.20	68.2	-12.00	H
20800	43.25	38.88	8.56	34.95	55.74	68.2	-12.46	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10400	33.48	35.63	5.36	31.25	43.22	54	-10.78	V
15600	28.66	35.91	7.85	30.63	41.79	54	-12.21	V
20800	29.59	39.67	8.56	34.95	42.87	54	-11.13	V
10400	33.23	34.25	5.36	31.25	41.59	54	-12.41	H
15600	28.81	37.02	7.85	30.63	43.05	54	-10.95	H
20800	29.89	38.88	8.56	34.95	42.38	54	-11.62	H

802.11a

Test Mode:5240					Test channel: High			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10480	45.56	34.68	5.36	31.25	54.35	68.2	-13.85	V
17520	43.10	36.52	7.85	30.63	56.84	68.2	-11.36	V
20960	44.07	38.77	8.56	34.95	56.45	68.2	-11.75	V
10480	47.21	33.99	5.36	31.25	55.31	68.2	-12.89	H
17520	45.47	36.84	7.85	30.63	59.53	68.2	-8.67	H
20960	46.12	39.93	8.56	34.95	59.66	68.2	-8.54	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10480	33.19	34.68	5.36	31.25	41.98	54	-12.02	V
17520	28.81	36.52	7.85	30.63	42.55	54	-11.45	V
20960	29.91	38.77	8.56	34.95	42.29	54	-11.71	V
10480	32.13	33.99	5.36	31.25	40.23	54	-13.77	H
17520	27.36	36.84	7.85	30.63	41.42	54	-12.58	H
20960	28.97	39.93	8.56	34.95	42.51	54	-11.49	H

802.11a

Test Mode: 5745					Test channel: Lowest			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11490	47.33	35.26	5.42	31.75	56.26	68.23	-11.97	V
17235	42.10	36.88	7.32	30.96	55.34	68.23	-12.89	V
22980	43.72	39.14	8.85	35.25	56.46	68.23	-11.77	V
11490	49.67	34.21	5.42	31.75	57.55	68.23	-10.68	H
17235	44.35	37.52	7.32	30.96	58.23	68.23	-10.00	H
22980	44.18	39.88	8.85	35.25	57.66	68.23	-10.57	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11490	32.22	35.26	5.42	31.75	41.15	54	-12.85	V
17235	29.72	36.88	7.32	30.96	42.96	54	-11.04	V
22980	29.45	39.14	8.85	35.25	42.19	54	-11.81	V
11490	31.80	34.21	5.42	31.75	39.68	54	-14.32	H
17235	29.09	37.52	7.32	30.96	42.97	54	-11.03	H
22980	29.34	39.88	8.85	35.25	42.82	54	-11.18	H

802.11a

Test Mode:5785					Test channel: Middle			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11570	48.52	35.26	5.42	31.75	57.45	68.23	-10.78	V
17355	44.40	36.88	7.32	30.96	57.64	68.23	-10.59	V
23140	45.45	39.14	8.85	35.25	58.19	68.23	-10.04	V
11570	48.28	34.21	5.42	31.75	56.16	68.23	-12.07	H
17355	42.43	37.52	7.32	30.96	56.31	68.23	-11.92	H
23140	43.36	39.88	8.85	35.25	56.84	68.23	-11.39	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11570	33.35	35.26	5.42	31.75	42.28	54	-11.72	V
17355	29.68	36.88	7.32	30.96	42.92	54	-11.08	V
23140	28.62	39.14	8.85	35.25	41.36	54	-12.64	V
11570	34.70	34.21	5.42	31.75	42.58	54	-11.42	H
17355	29.38	37.52	7.32	30.96	43.26	54	-10.74	H
23140	29.65	39.88	8.85	35.25	43.13	54	-10.87	H

802.11a

Test Mode:5825					Test channel: High			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11650	48.53	35.26	5.42	31.75	57.46	68.23	-10.77	V
17475	44.67	36.88	7.32	30.96	57.91	68.23	-10.32	V
23300	45.65	39.14	8.85	35.25	58.39	68.23	-9.84	V
11650	49.30	34.21	5.42	31.75	57.18	68.23	-11.05	H
17475	44.59	37.52	7.32	30.96	58.47	68.23	-9.76	H
23300	44.93	39.88	8.85	35.25	58.41	68.23	-9.82	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11650	34.69	34.96	5.42	31.75	43.32	54	-10.68	V
17475	28.79	36.74	7.32	30.96	41.89	54	-12.11	V
23300	30.08	39.14	8.85	35.25	42.82	54	-11.18	V
11650	33.42	34.02	5.42	31.75	41.11	54	-12.89	H
17475	28.75	36.57	7.32	30.96	41.68	54	-12.32	H
23300	28.80	39.88	8.85	35.25	42.28	54	-11.72	H

802.11n20

Test Mode: 5180					Test channel: Lowest			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10360	45.74	34.56	5.36	31.25	54.41	68.2	-13.79	V
15540	43.34	36.22	7.85	30.63	56.78	68.2	-11.42	V
20720	43.96	38.97	8.56	34.95	56.54	68.2	-11.66	V
10360	49.44	33.57	5.36	31.25	57.12	68.2	-11.08	H
15540	40.06	36.49	7.85	30.63	53.77	68.2	-14.43	H
20720	41.63	39.92	8.56	34.95	55.16	68.2	-13.04	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10360	32.13	34.56	5.36	31.25	40.80	54	-13.20	V
15540	29.27	36.22	7.85	30.63	42.71	54	-11.29	V
20720	28.16	38.97	8.56	34.95	40.74	54	-13.26	V
10360	31.82	33.57	5.36	31.25	39.50	54	-14.50	H
15540	27.39	36.49	7.85	30.63	41.10	54	-12.90	H
20720	28.16	39.92	8.56	34.95	41.69	54	-12.31	H

802.11n20

Test Mode:5200					Test channel: Middle			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10400	48.54	34.63	5.36	31.25	57.28	68.2	-10.92	V
15600	44.05	36.42	7.85	30.63	57.69	68.2	-10.51	V
20800	44.93	38.81	8.56	34.95	57.35	68.2	-10.85	V
10400	48.11	33.93	5.36	31.25	56.15	68.2	-12.05	H
15600	43.25	36.55	7.85	30.63	57.02	68.2	-11.18	H
20800	44.22	39.94	8.56	34.95	57.77	68.2	-10.43	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10400	32.64	34.63	5.36	31.25	41.38	54	-12.62	V
15600	28.37	36.42	7.85	30.63	42.01	54	-11.99	V
20800	29.24	38.81	8.56	34.95	41.66	54	-12.34	V
10400	33.66	33.93	5.36	31.25	41.70	54	-12.30	H
15600	28.70	36.55	7.85	30.63	42.47	54	-11.53	H
20800	29.53	39.94	8.56	34.95	43.08	54	-10.92	H

802.11n20

Test Mode:5240					Test channel: High			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10480	45.58	34.68	5.36	31.25	54.37	68.2	-13.83	V
17520	44.38	36.52	7.85	30.63	58.12	68.2	-10.08	V
20960	43.22	38.77	8.56	34.95	55.60	68.2	-12.60	V
10480	46.77	33.99	5.36	31.25	54.87	68.2	-13.33	H
17520	45.95	36.84	7.85	30.63	60.01	68.2	-8.19	H
20960	43.92	39.93	8.56	34.95	57.46	68.2	-10.74	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10480	31.78	34.68	5.36	31.25	40.57	54	-13.43	V
17520	27.66	36.52	7.85	30.63	41.40	54	-12.60	V
20960	28.18	38.77	8.56	34.95	40.56	54	-13.44	V
10480	30.44	33.99	5.36	31.25	38.54	54	-15.46	H
17520	27.70	36.84	7.85	30.63	41.76	54	-12.24	H
20960	29.67	39.93	8.56	34.95	43.21	54	-10.79	H

802.11n20

Test Mode: 5745					Test channel: Lowest			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11490	49.51	35.26	5.42	31.75	58.44	68.23	-9.79	V
17235	42.29	36.88	7.32	30.96	55.53	68.23	-12.70	V
22980	43.20	39.14	8.85	35.25	55.94	68.23	-12.29	V
11490	49.36	34.21	5.42	31.75	57.24	68.23	-10.99	H
17235	44.04	37.52	7.32	30.96	57.92	68.23	-10.31	H
22980	45.26	39.88	8.85	35.25	58.74	68.23	-9.49	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11490	33.89	35.26	5.42	31.75	42.82	54	-11.18	V
17235	29.72	36.88	7.32	30.96	42.96	54	-11.04	V
22980	29.40	39.14	8.85	35.25	42.14	54	-11.86	V
11490	33.02	34.21	5.42	31.75	40.90	54	-13.10	H
17235	28.42	37.52	7.32	30.96	42.30	54	-11.70	H
22980	29.05	39.88	8.85	35.25	42.53	54	-11.47	H

802.11n20

Test Mode:5785					Test channel: Middle			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11570	46.03	35.26	5.42	31.75	54.96	68.23	-13.27	V
17355	43.90	36.88	7.32	30.96	57.14	68.23	-11.09	V
23140	45.13	39.14	8.85	35.25	57.87	68.23	-10.36	V
11570	48.50	34.21	5.42	31.75	56.38	68.23	-11.85	H
17355	42.76	37.52	7.32	30.96	56.64	68.23	-11.59	H
23140	41.98	39.88	8.85	35.25	55.46	68.23	-12.77	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11570	33.79	35.26	5.42	31.75	42.72	54	-11.28	V
17355	29.94	36.88	7.32	30.96	43.18	54	-10.82	V
23140	29.67	39.14	8.85	35.25	42.41	54	-11.59	V
11570	33.89	34.21	5.42	31.75	41.77	54	-12.23	H
17355	30.14	37.52	7.32	30.96	44.02	54	-9.98	H
23140	29.62	39.88	8.85	35.25	43.10	54	-10.90	H

802.11n20

Test Mode:5825					Test channel: High			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11650	47.74	35.26	5.42	31.75	56.67	68.23	-11.56	V
17475	44.71	36.88	7.32	30.96	57.95	68.23	-10.28	V
23300	45.33	39.14	8.85	35.25	58.07	68.23	-10.16	V
11650	49.05	34.21	5.42	31.75	56.93	68.23	-11.30	H
17475	44.36	37.52	7.32	30.96	58.24	68.23	-9.99	H
23300	45.62	39.88	8.85	35.25	59.10	68.23	-9.13	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11650	35.55	35.26	5.42	31.75	44.48	54	-9.52	V
17475	28.77	36.88	7.32	30.96	42.01	54	-11.99	V
23300	27.60	39.14	8.85	35.25	40.34	54	-13.66	V
11650	33.17	34.21	5.42	31.75	41.05	54	-12.95	H
17475	28.60	37.52	7.32	30.96	42.48	54	-11.52	H
23300	29.26	39.88	8.85	35.25	42.74	54	-11.26	H

802.11ac20

Test Mode: 5180					Test channel: Lowest			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10360	47.35	35.22	5.36	31.25	56.68	68.2	-11.52	V
15540	42.05	35.96	7.85	30.63	55.23	68.2	-12.97	V
20720	43.52	39.12	8.56	34.95	56.25	68.2	-11.95	V
10360	48.46	34.12	5.36	31.25	56.69	68.2	-11.51	H
15540	42.76	36.52	7.85	30.63	56.50	68.2	-11.70	H
20720	42.62	40.01	8.56	34.95	56.24	68.2	-11.96	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10360	32.91	35.22	5.36	31.25	42.24	54	-11.76	V
15540	30.46	35.96	7.85	30.63	43.64	54	-10.36	V
20720	27.90	39.12	8.56	34.95	40.63	54	-13.37	V
10360	32.38	34.12	5.36	31.25	40.61	54	-13.39	H
15540	24.76	36.52	7.85	30.63	38.50	54	-15.50	H
20720	27.14	40.01	8.56	34.95	40.76	54	-13.24	H

802.11ac20

Test Mode:5200					Test channel: Middle			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10400	47.84	35.63	5.36	31.25	57.58	68.2	-10.62	V
15600	43.38	35.91	7.85	30.63	56.51	68.2	-11.69	V
20800	44.00	39.67	8.56	34.95	57.28	68.2	-10.92	V
10400	47.13	34.25	5.36	31.25	55.49	68.2	-12.71	H
15600	41.81	37.02	7.85	30.63	56.05	68.2	-12.15	H
20800	43.62	38.88	8.56	34.95	56.11	68.2	-12.09	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10400	33.80	35.63	5.36	31.25	43.54	54	-10.46	V
15600	29.01	35.91	7.85	30.63	42.14	54	-11.86	V
20800	29.74	39.67	8.56	34.95	43.02	54	-10.98	V
10400	33.22	34.25	5.36	31.25	41.58	54	-12.42	H
15600	28.98	37.02	7.85	30.63	43.22	54	-10.78	H
20800	30.12	38.88	8.56	34.95	42.61	54	-11.39	H

802.11ac20

Test Mode:5240					Test channel: High			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10480	45.53	34.68	5.36	31.25	54.32	68.2	-13.88	V
17520	43.19	36.52	7.85	30.63	56.93	68.2	-11.27	V
20960	44.12	38.77	8.56	34.95	56.50	68.2	-11.70	V
10480	47.21	33.99	5.36	31.25	55.31	68.2	-12.89	H
17520	45.31	36.84	7.85	30.63	59.37	68.2	-8.83	H
20960	46.37	39.93	8.56	34.95	59.91	68.2	-8.29	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10480	33.40	34.68	5.36	31.25	42.19	54	-11.81	V
17520	28.79	36.52	7.85	30.63	42.53	54	-11.47	V
20960	29.95	38.77	8.56	34.95	42.33	54	-11.67	V
10480	32.44	33.99	5.36	31.25	40.54	54	-13.46	H
17520	27.33	36.84	7.85	30.63	41.39	54	-12.61	H
20960	29.07	39.93	8.56	34.95	42.61	54	-11.39	H

802.11ac20

Test Mode: 5745					Test channel: Lowest			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11490	47.53	35.26	5.42	31.75	56.46	68.23	-11.77	V
17235	42.28	36.88	7.32	30.96	55.52	68.23	-12.71	V
22980	44.09	39.14	8.85	35.25	56.83	68.23	-11.40	V
11490	49.22	34.21	5.42	31.75	57.10	68.23	-11.13	H
17235	44.27	37.52	7.32	30.96	58.15	68.23	-10.08	H
22980	44.27	39.88	8.85	35.25	57.75	68.23	-10.48	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11490	32.15	35.26	5.42	31.75	41.08	54	-12.92	V
17235	29.83	36.88	7.32	30.96	43.07	54	-10.93	V
22980	29.58	39.14	8.85	35.25	42.32	54	-11.68	V
11490	31.67	34.21	5.42	31.75	39.55	54	-14.45	H
17235	28.65	37.52	7.32	30.96	42.53	54	-11.47	H
22980	29.16	39.88	8.85	35.25	42.64	54	-11.36	H

802.11ac20

Test Mode:5785					Test channel: Middle			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11570	48.37	35.26	5.42	31.75	57.30	68.23	-10.93	V
17355	44.49	36.88	7.32	30.96	57.73	68.23	-10.50	V
23140	45.52	39.14	8.85	35.25	58.26	68.23	-9.97	V
11570	48.50	34.21	5.42	31.75	56.38	68.23	-11.85	H
17355	41.99	37.52	7.32	30.96	55.87	68.23	-12.36	H
23140	43.26	39.88	8.85	35.25	56.74	68.23	-11.49	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11570	33.46	35.26	5.42	31.75	42.39	54	-11.61	V
17355	29.78	36.88	7.32	30.96	43.02	54	-10.98	V
23140	28.78	39.14	8.85	35.25	41.52	54	-12.48	V
11570	34.72	34.21	5.42	31.75	42.60	54	-11.40	H
17355	29.66	37.52	7.32	30.96	43.54	54	-10.46	H
23140	29.31	39.88	8.85	35.25	42.79	54	-11.21	H

802.11ac20

Test Mode:5825					Test channel: High			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11650	48.46	35.26	5.42	31.75	57.39	68.23	-10.84	V
17475	44.24	36.88	7.32	30.96	57.48	68.23	-10.75	V
23300	45.53	39.14	8.85	35.25	58.27	68.23	-9.96	V
11650	49.59	34.21	5.42	31.75	57.47	68.23	-10.76	H
17475	44.28	37.52	7.32	30.96	58.16	68.23	-10.07	H
23300	44.83	39.88	8.85	35.25	58.31	68.23	-9.92	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11650	34.77	35.26	5.42	31.75	43.70	54	-10.30	V
17475	28.80	36.88	7.32	30.96	42.04	54	-11.96	V
23300	30.12	39.14	8.85	35.25	42.86	54	-11.14	V
11650	33.90	34.21	5.42	31.75	41.78	54	-12.22	H
17475	28.33	37.52	7.32	30.96	42.21	54	-11.79	H
23300	28.31	39.88	8.85	35.25	41.79	54	-12.21	H

802.11n40

Test Mode:5190					Test channel: High			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10380	47.83	35.26	5.42	31.75	56.76	68.2	-11.44	V
15570	44.40	36.88	7.32	30.96	57.64	68.2	-10.56	V
20760	44.90	39.14	8.85	35.25	57.64	68.2	-10.56	V
10380	49.00	34.21	5.42	31.75	56.88	68.2	-11.32	H
15570	44.36	37.52	7.32	30.96	58.24	68.2	-9.96	H
20760	45.07	39.88	8.85	35.25	58.55	68.2	-9.65	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10380	35.64	35.26	5.42	31.75	44.57	54	-9.43	V
15570	28.74	36.88	7.32	30.96	41.98	54	-12.02	V
20760	27.63	39.14	8.85	35.25	40.37	54	-13.63	V
10380	33.07	34.21	5.42	31.75	40.95	54	-13.05	H
15570	28.65	37.52	7.32	30.96	42.53	54	-11.47	H
20760	28.99	39.88	8.85	35.25	42.47	54	-11.53	H

802.11n40

Test Mode:5230					Test channel: High			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10460	47.89	35.26	5.42	31.75	56.82	68.2	-11.38	V
15690	44.64	36.88	7.32	30.96	57.88	68.2	-10.32	V
20920	44.85	39.14	8.85	35.25	57.59	68.2	-10.61	V
10460	49.40	34.21	5.42	31.75	57.28	68.2	-10.92	H
15690	44.95	37.52	7.32	30.96	58.83	68.2	-9.37	H
20920	45.41	39.88	8.85	35.25	58.89	68.2	-9.31	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10460	35.62	35.26	5.42	31.75	44.55	54	-9.45	V
15690	28.98	36.88	7.32	30.96	42.22	54	-11.78	V
20920	27.65	39.14	8.85	35.25	40.39	54	-13.61	V
10460	33.11	34.21	5.42	31.75	40.99	54	-13.01	H
15690	28.66	37.52	7.32	30.96	42.54	54	-11.46	H
20920	28.96	39.88	8.85	35.25	42.44	54	-11.56	H

802.11ac40

Test Mode:5190					Test channel:LOW			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10380	47.63	35.26	5.42	31.75	56.56	68.2	-11.64	V
15570	44.80	36.88	7.32	30.96	58.04	68.2	-10.16	V
20760	45.21	39.14	8.85	35.25	57.95	68.2	-10.25	V
10380	49.26	34.21	5.42	31.75	57.14	68.2	-11.06	H
15570	44.52	37.52	7.32	30.96	58.40	68.2	-9.80	H
20760	45.16	39.88	8.85	35.25	58.64	68.2	-9.56	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10380	35.37	35.26	5.42	31.75	44.30	54	-9.70	V
15570	28.69	36.88	7.32	30.96	41.93	54	-12.07	V
20760	28.09	39.14	8.85	35.25	40.83	54	-13.17	V
10380	32.94	34.21	5.42	31.75	40.82	54	-13.18	H
15570	28.31	37.52	7.32	30.96	42.19	54	-11.81	H
20760	28.88	39.88	8.85	35.25	42.36	54	-11.64	H

802.11ac40

Test Mode:5230					Test channel: High			
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10460	47.62	35.26	5.42	31.75	56.55	68.2	-11.65	V
15690	44.65	36.88	7.32	30.96	57.89	68.2	-10.31	V
20920	45.27	39.14	8.85	35.25	58.01	68.2	-10.19	V
10460	48.91	34.21	5.42	31.75	56.79	68.2	-11.41	H
15690	44.87	37.52	7.32	30.96	58.75	68.2	-9.45	H
20920	45.48	39.88	8.85	35.25	58.96	68.2	-9.24	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10460	35.89	35.26	5.42	31.75	44.82	54	-9.18	V
15690	28.74	36.88	7.32	30.96	41.98	54	-12.02	V
20920	27.98	39.14	8.85	35.25	40.72	54	-13.28	V
10460	33.07	34.21	5.42	31.75	40.95	54	-13.05	H
15690	28.35	37.52	7.32	30.96	42.23	54	-11.77	H
20920	28.86	39.88	8.85	35.25	42.34	54	-11.66	H

Note:

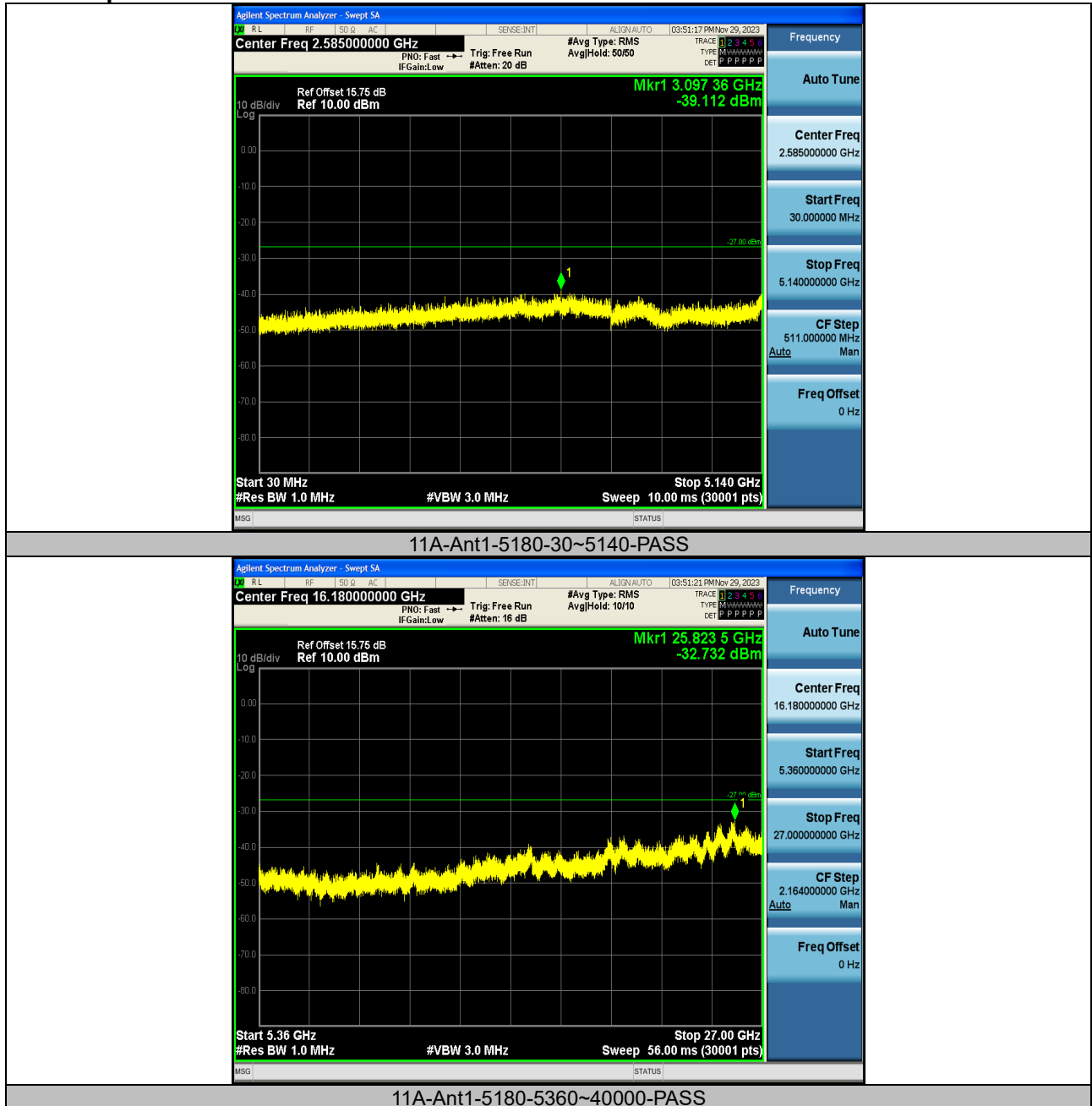
1. The testing has been conformed to 10*5825MHz=58250MHz.
2. All other emissions more than 30dB below the limit.
3. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
Emission Level = Reading + Factor
Margin=Emission Level-Limit
4. X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.

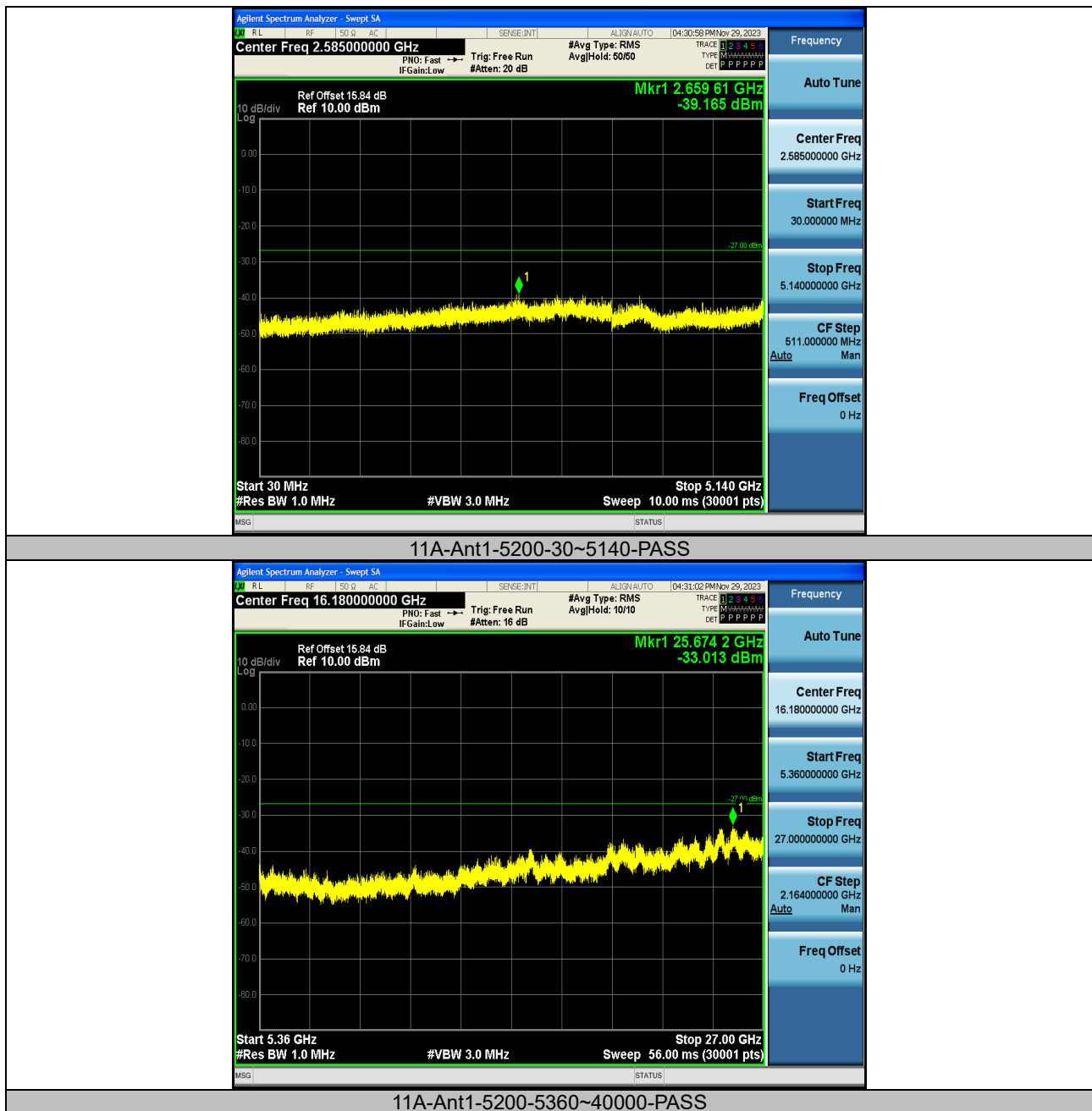
Undesirable emission

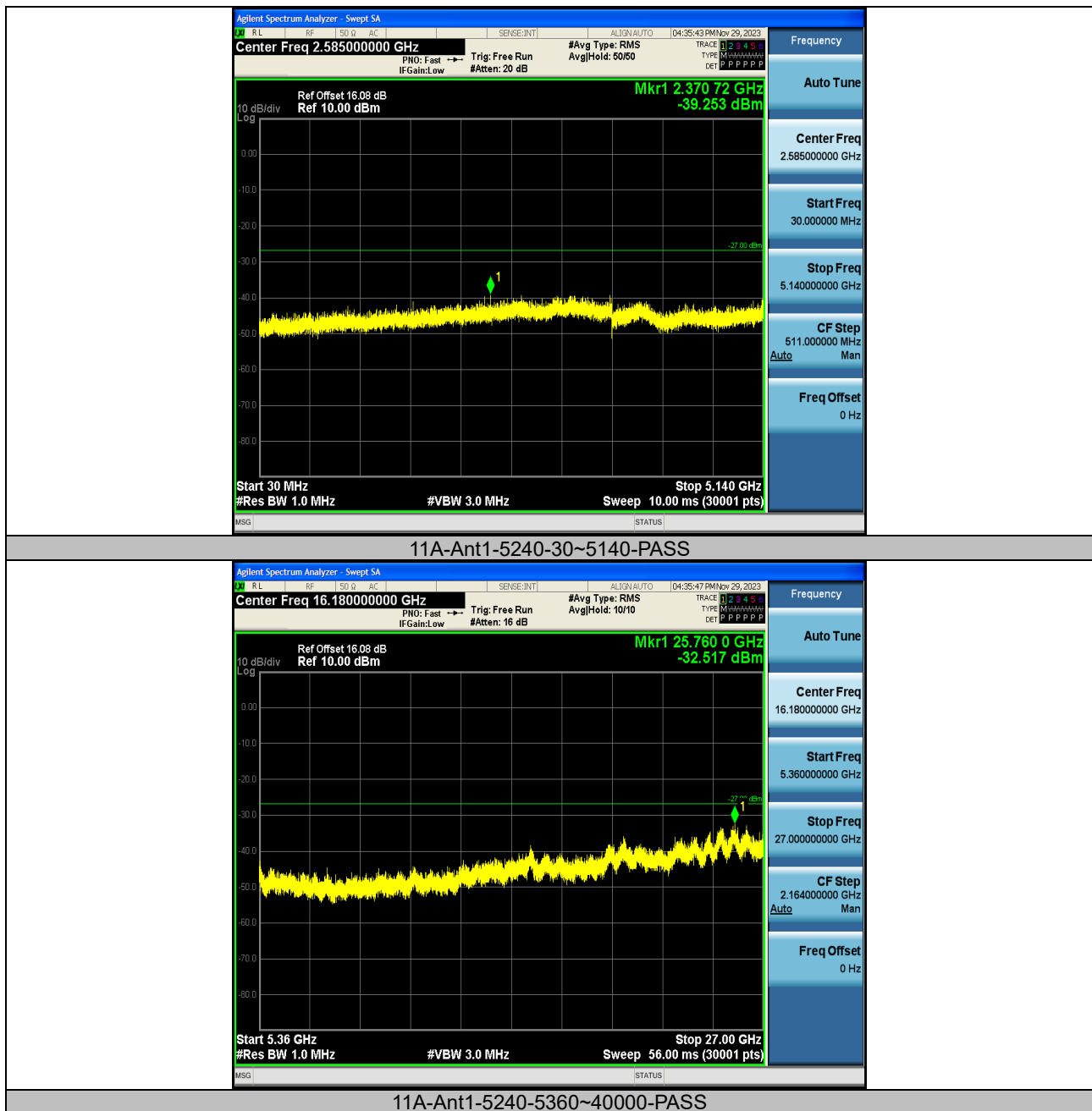
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	30~5140	3097.36	-39.11	≤-27	PASS
11A	Ant1	5180	5360~40000	25823.51	-32.73	≤-27	PASS
11A	Ant1	5200	30~5140	2659.61	-39.17	≤-27	PASS
11A	Ant1	5200	5360~40000	25674.19	-33.01	≤-27	PASS
11A	Ant1	5240	30~5140	2370.72	-39.25	≤-27	PASS
11A	Ant1	5240	5360~40000	25760.03	-32.52	≤-27	PASS
11A	Ant1	5745	30~5650	3186.19	-40.48	≤-27	PASS
11A	Ant1	5745	5925~40000	25215.65	-30.37	≤-27	PASS
11A	Ant1	5785	30~5650	3057.49	-38.35	≤-27	PASS
11A	Ant1	5785	5925~40000	25739.01	-28.5	≤-27	PASS
11A	Ant1	5825	30~5650	3040.26	-40.87	≤-27	PASS
11A	Ant1	5825	5925~40000	25729.18	-29.66	≤-27	PASS
11N20SISO	Ant1	5180	30~5140	3220.51	-38.62	≤-27	PASS
11N20SISO	Ant1	5180	5360~40000	25769.41	-32.64	≤-27	PASS
11N20SISO	Ant1	5200	30~5140	3168.73	-38.68	≤-27	PASS
11N20SISO	Ant1	5200	5360~40000	25081.97	-33	≤-27	PASS
11N20SISO	Ant1	5240	30~5140	3245.55	-38.25	≤-27	PASS
11N20SISO	Ant1	5240	5360~40000	25722.52	-32.29	≤-27	PASS
11N20SISO	Ant1	5745	30~5650	3939.83	-40.99	≤-27	PASS
11N20SISO	Ant1	5745	5925~40000	25220.57	-29.7	≤-27	PASS
11N20SISO	Ant1	5785	30~5650	3049.81	-40.15	≤-27	PASS
11N20SISO	Ant1	5785	5925~40000	26268.7	-29.47	≤-27	PASS
11N20SISO	Ant1	5825	30~5650	3051.12	-40.06	≤-27	PASS
11N20SISO	Ant1	5825	5925~40000	25761.49	-28.96	≤-27	PASS
11N40SISO	Ant1	5190	30~5140	5138.3	-39.66	≤-27	PASS
11N40SISO	Ant1	5190	5360~40000	25633.79	-32.17	≤-27	PASS
11N40SISO	Ant1	5230	30~5140	3215.57	-38.57	≤-27	PASS
11N40SISO	Ant1	5230	5360~40000	25771.57	-32.25	≤-27	PASS
11N40SISO	Ant1	5755	30~5650	3174.95	-40.34	≤-27	PASS
11N40SISO	Ant1	5755	5925~40000	25773.44	-29.37	≤-27	PASS
11N40SISO	Ant1	5795	30~5650	3049.06	-40.38	≤-27	PASS
11N40SISO	Ant1	5795	5925~40000	25736.2	-29.48	≤-27	PASS
11AC20SISO	Ant1	5180	30~5140	3287.11	-39.63	≤-27	PASS
11AC20SISO	Ant1	5180	5360~40000	25713.14	-32.42	≤-27	PASS
11AC20SISO	Ant1	5200	30~5140	3048.82	-39.12	≤-27	PASS
11AC20SISO	Ant1	5200	5360~40000	25097.12	-33.47	≤-27	PASS
11AC20SISO	Ant1	5240	30~5140	3427.81	-36.34	≤-27	PASS
11AC20SISO	Ant1	5240	5360~40000	25147.62	-32.88	≤-27	PASS
11AC20SISO	Ant1	5745	30~5650	3224.22	-40.73	≤-27	PASS
11AC20SISO	Ant1	5745	5925~40000	25687.73	-29.16	≤-27	PASS
11AC20SISO	Ant1	5785	30~5650	3883.45	-39.8	≤-27	PASS
11AC20SISO	Ant1	5785	5925~40000	25675.79	-28.88	≤-27	PASS
11AC20SISO	Ant1	5825	30~5650	3874.64	-39.7	≤-27	PASS
11AC20SISO	Ant1	5825	5925~40000	25561.28	-29.61	≤-27	PASS
11AC40SISO	Ant1	5190	30~5140	3177.59	-38.86	≤-27	PASS
11AC40SISO	Ant1	5190	5360~40000	25666.25	-32.98	≤-27	PASS
11AC40SISO	Ant1	5230	30~5140	3049.5	-38.36	≤-27	PASS
11AC40SISO	Ant1	5230	5360~40000	25599.17	-33.05	≤-27	PASS
11AC40SISO	Ant1	5755	30~5650	3194.81	-40.23	≤-27	PASS
11AC40SISO	Ant1	5755	5925~40000	25793.11	-29.06	≤-27	PASS
11AC40SISO	Ant1	5795	30~5650	3117.07	-40.83	≤-27	PASS
11AC40SISO	Ant1	5795	5925~40000	25613.27	-29.1	≤-27	PASS
11AC80SISO	Ant1	5210	30~5140	5137.62	-36.38	≤-27	PASS

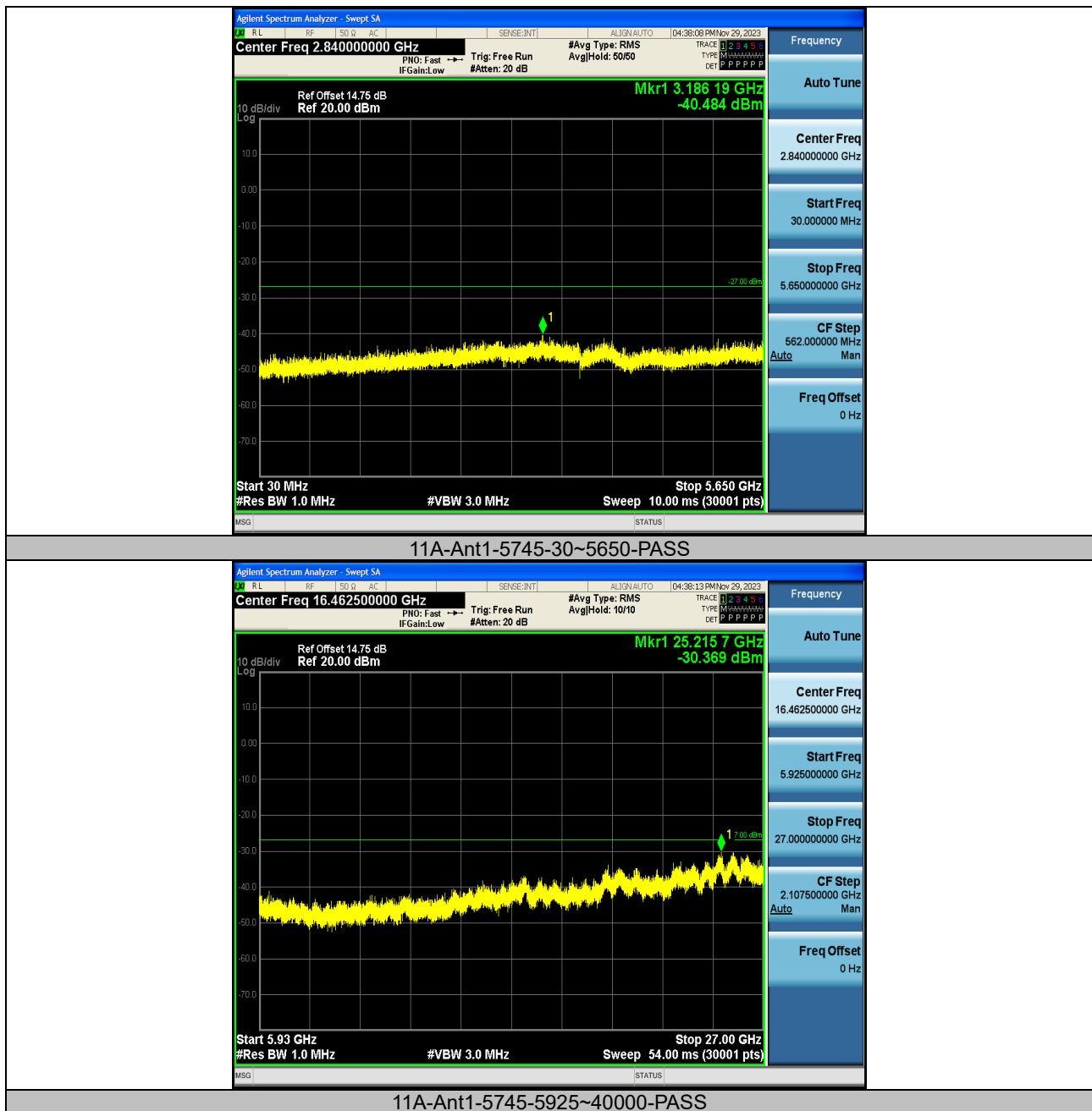
11AC80SISO	Ant1	5210	5360~40000	25743.44	-32.07	≤-27	PASS
11AC80SISO	Ant1	5775	30~5650	5648.13	-38.31	≤-27	PASS
11AC80SISO	Ant1	5775	5925~40000	25706	-29.76	≤-27	PASS

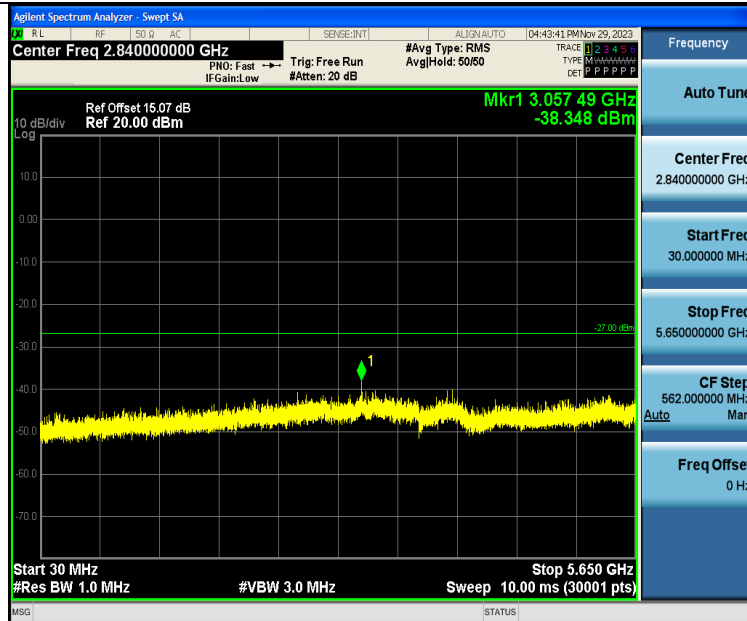
Test Graphs:



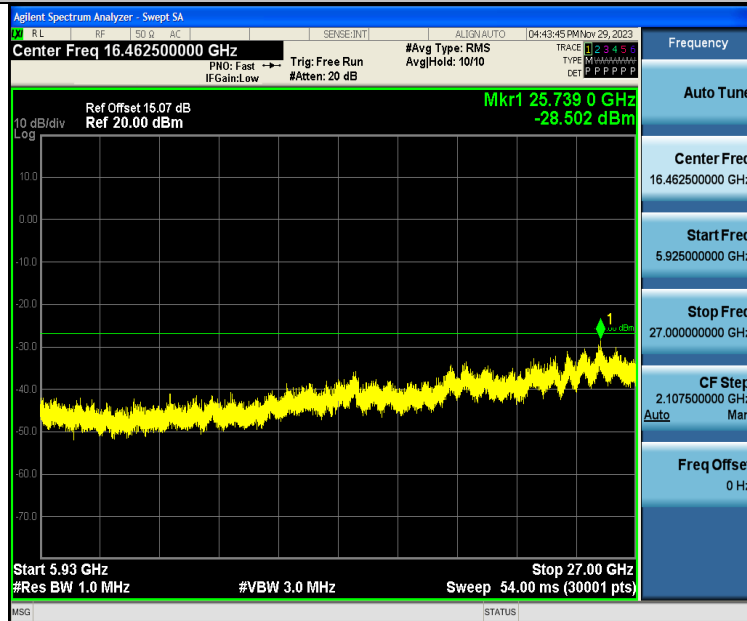




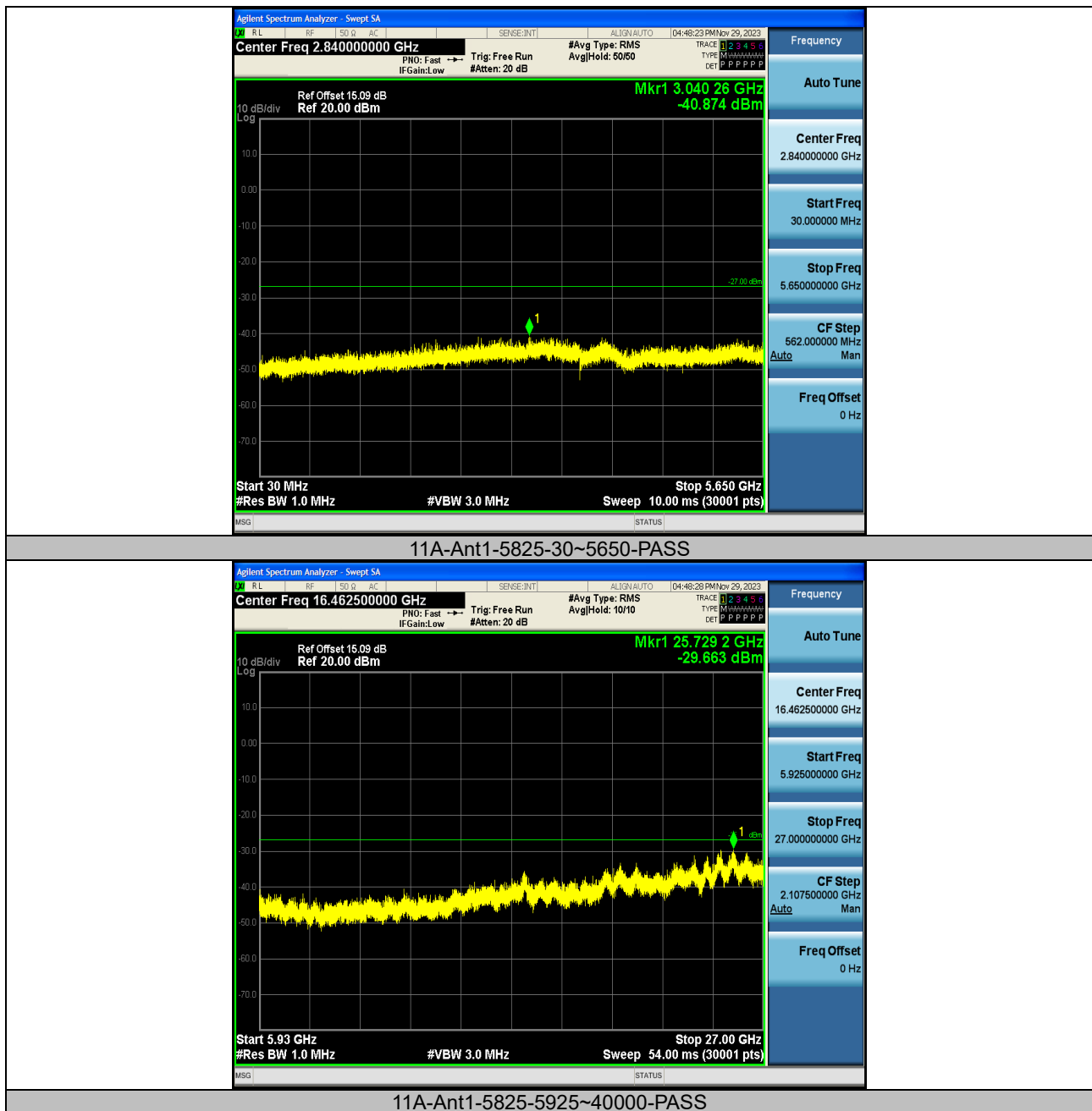


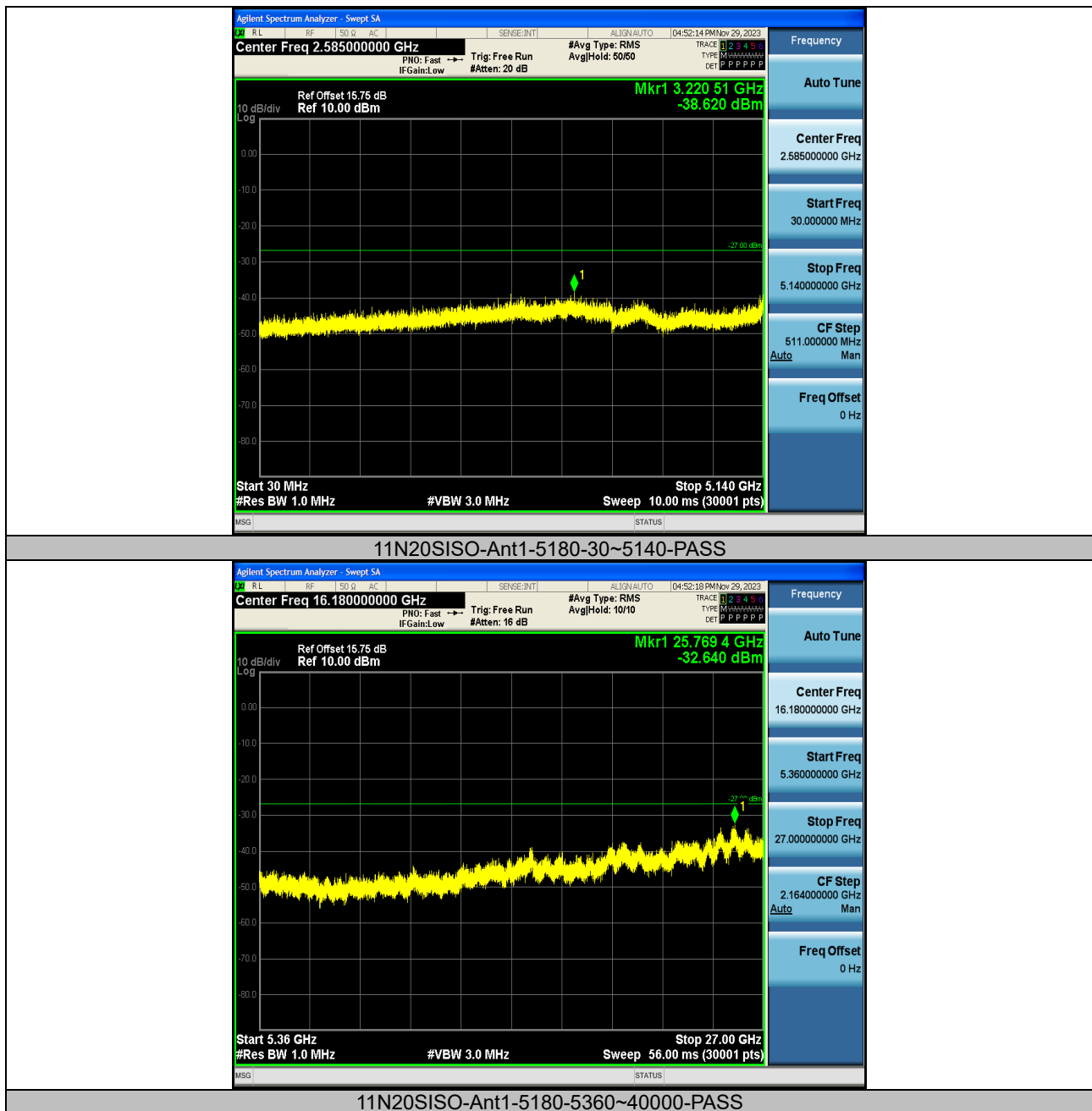


11A-Ant1-5785-30~5650-PASS



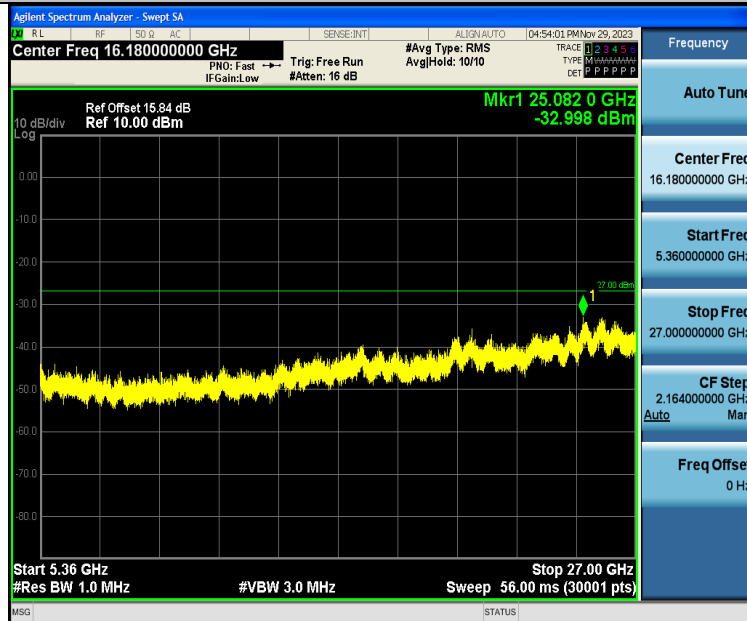
11A-Ant1-5785-5925~40000-PASS



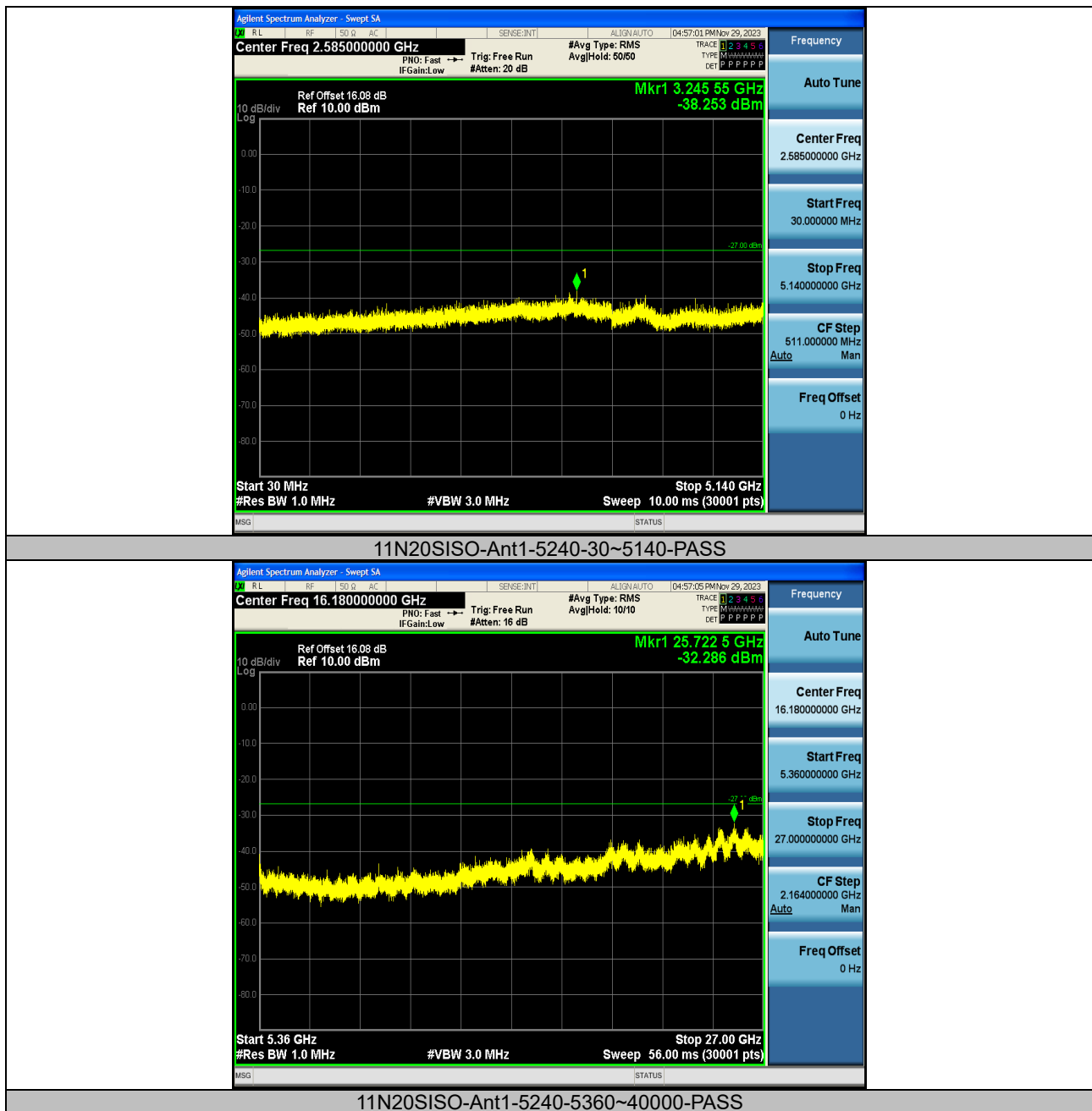


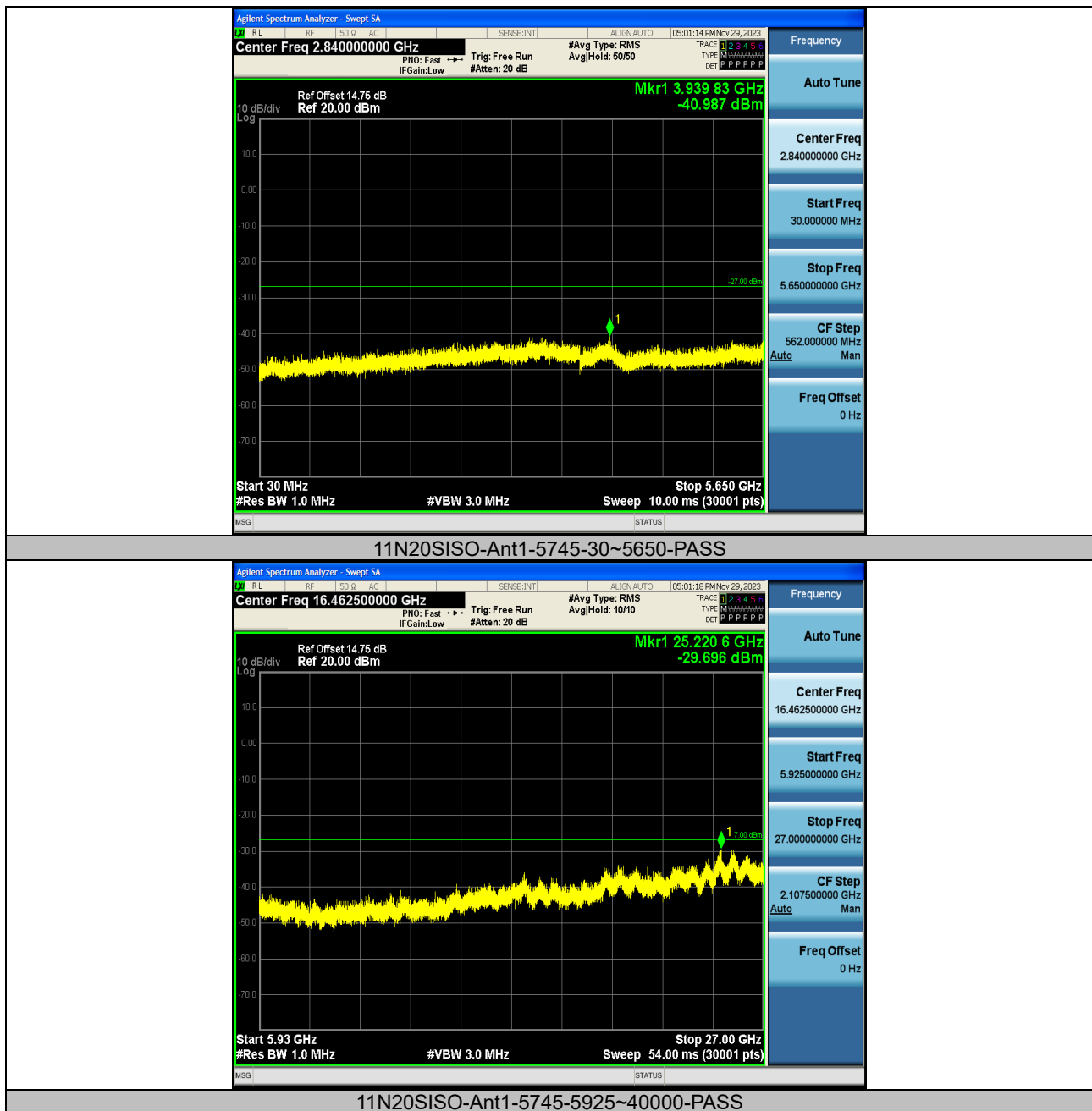


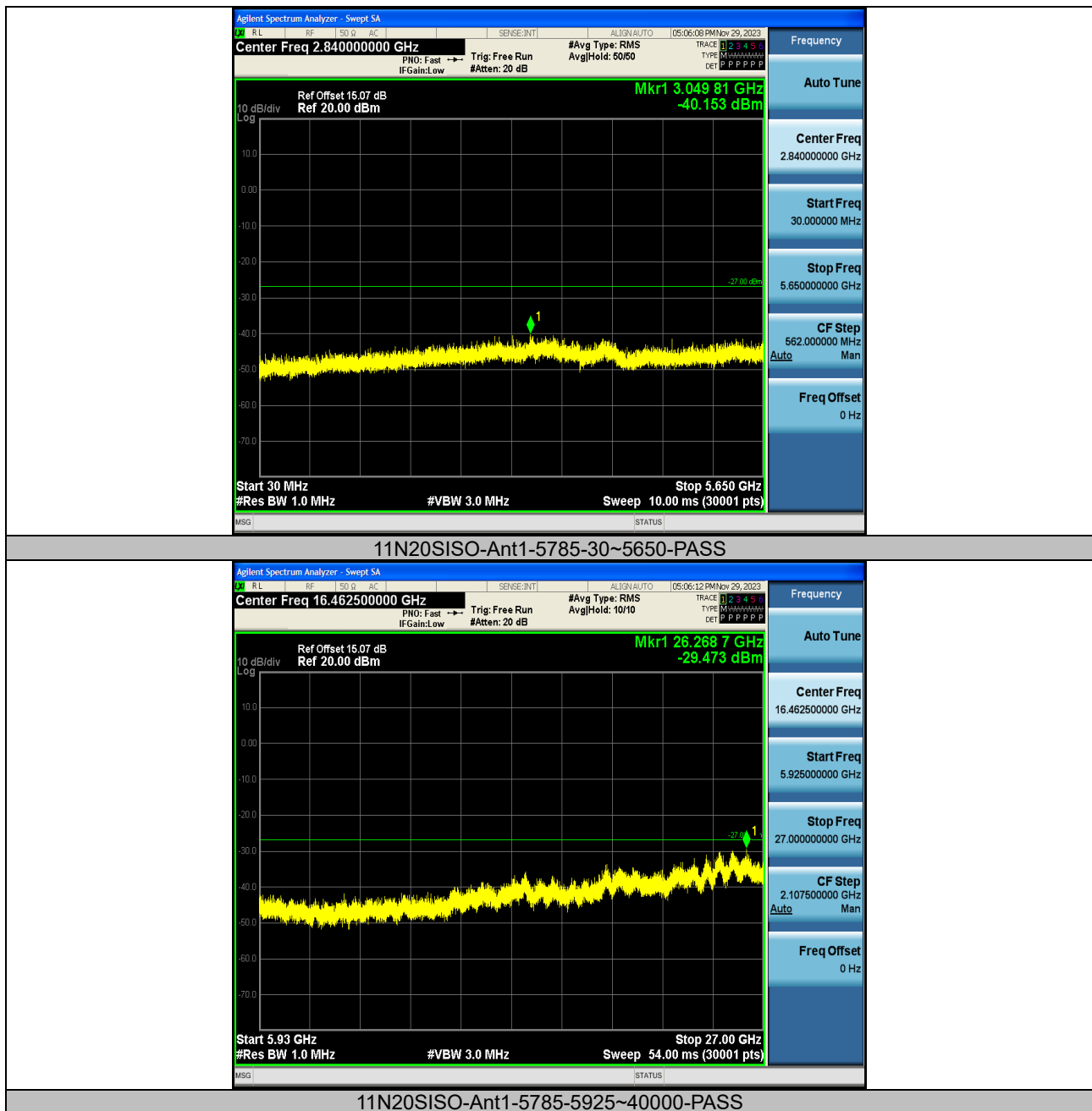
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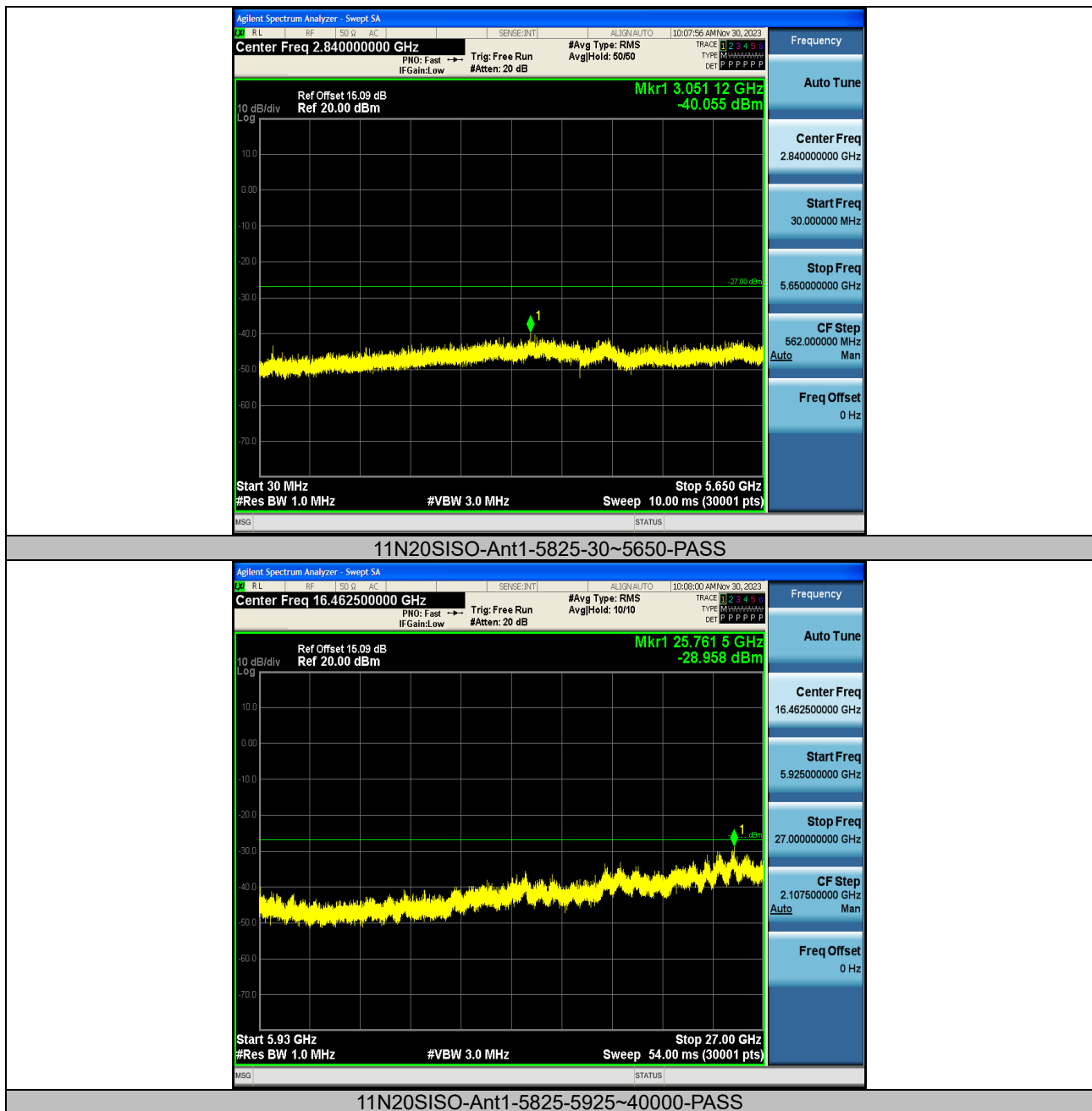


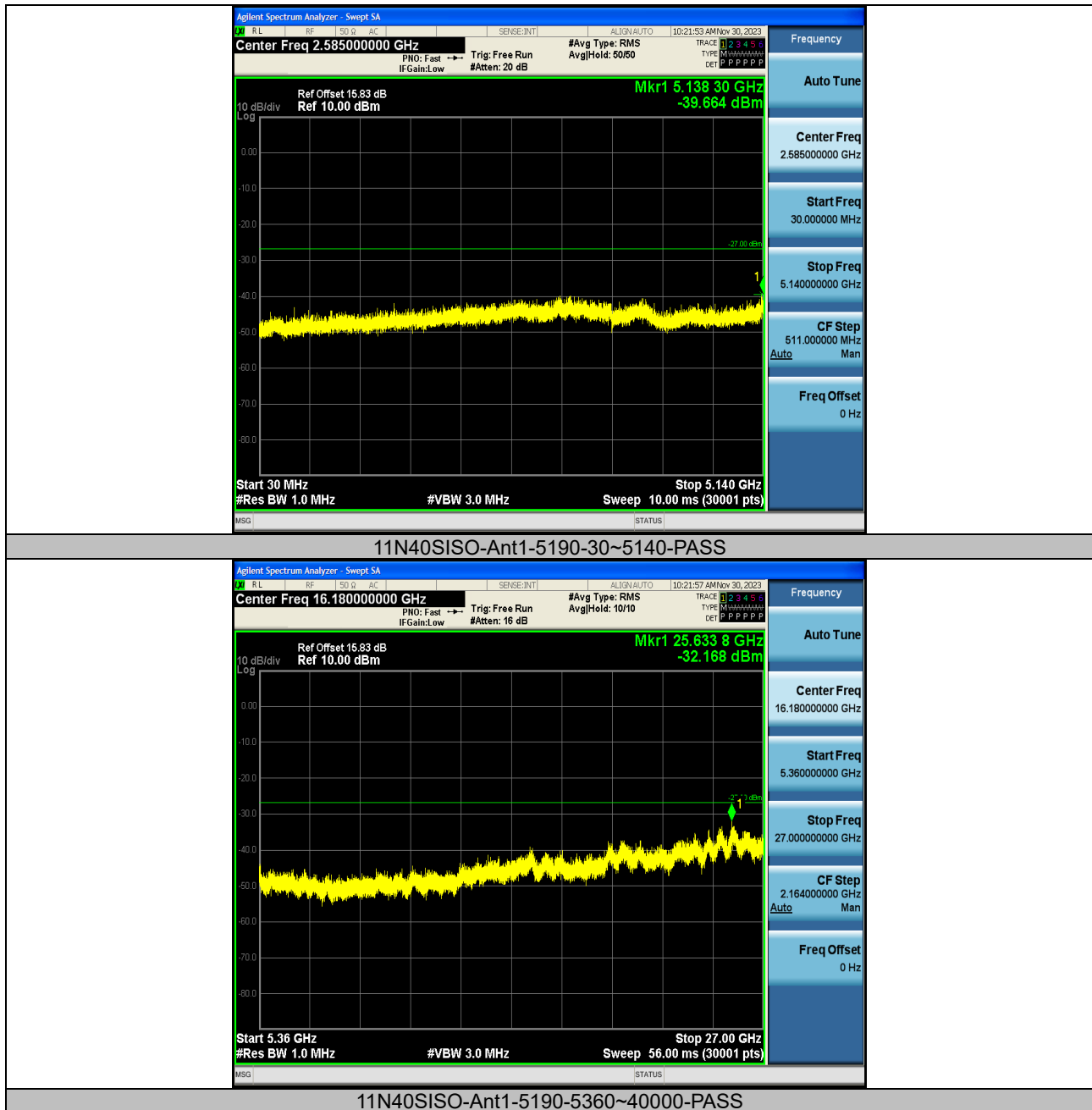
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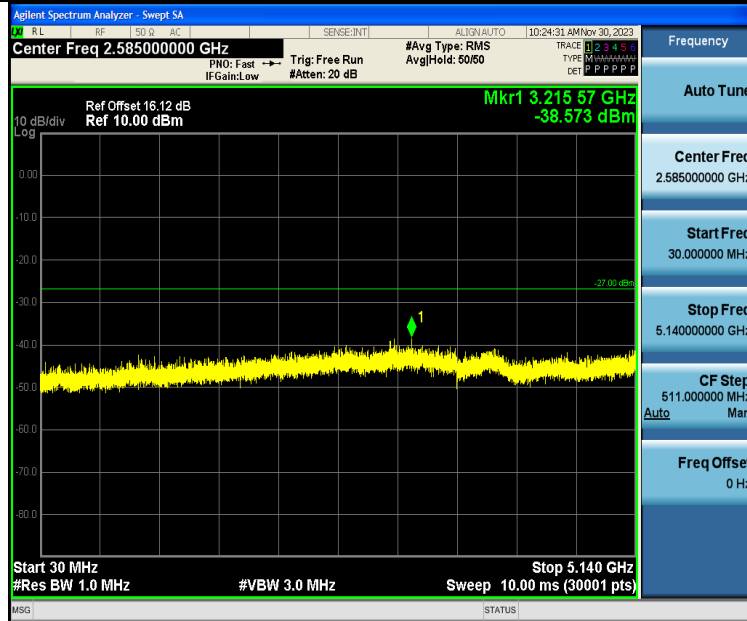








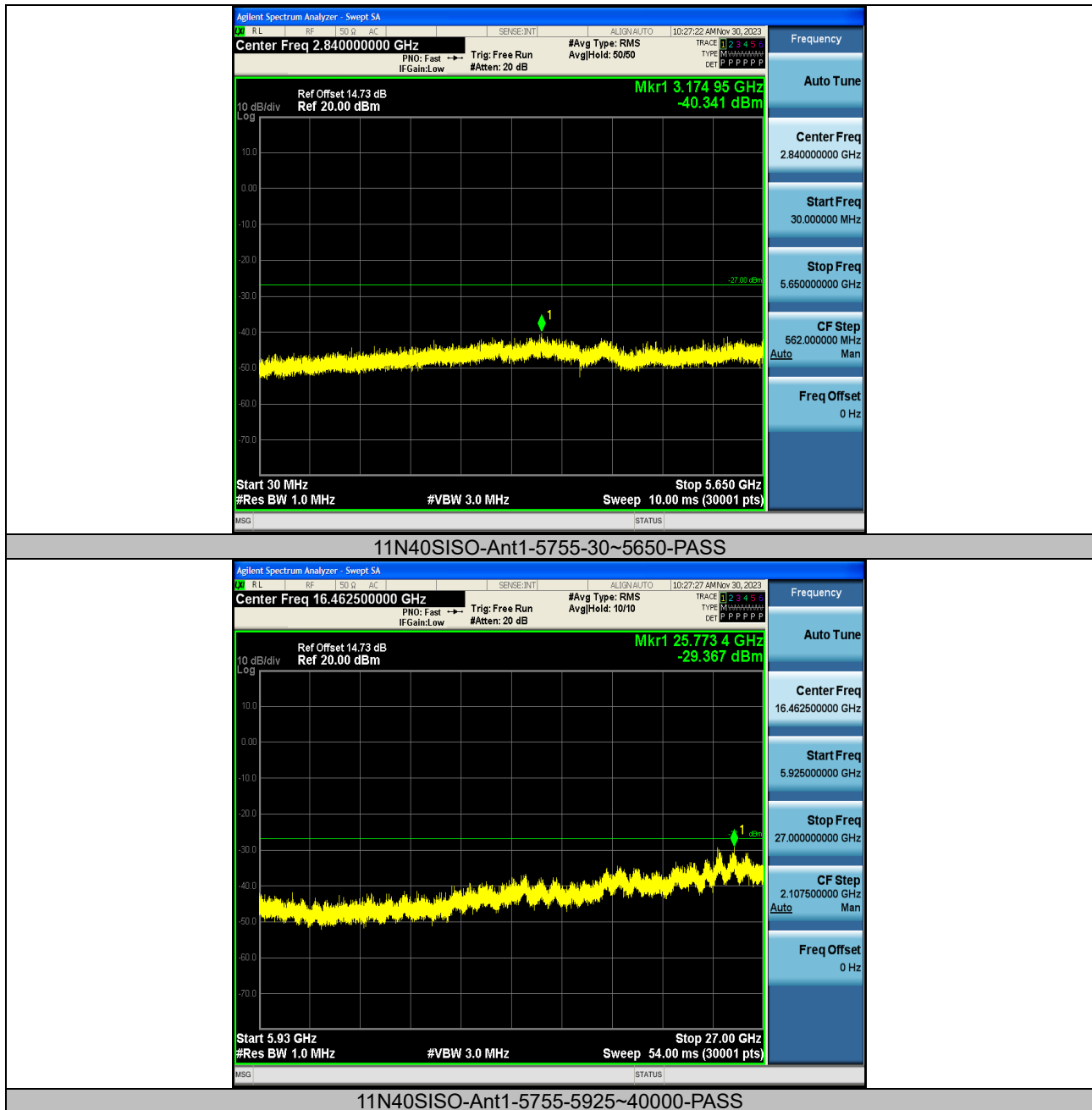


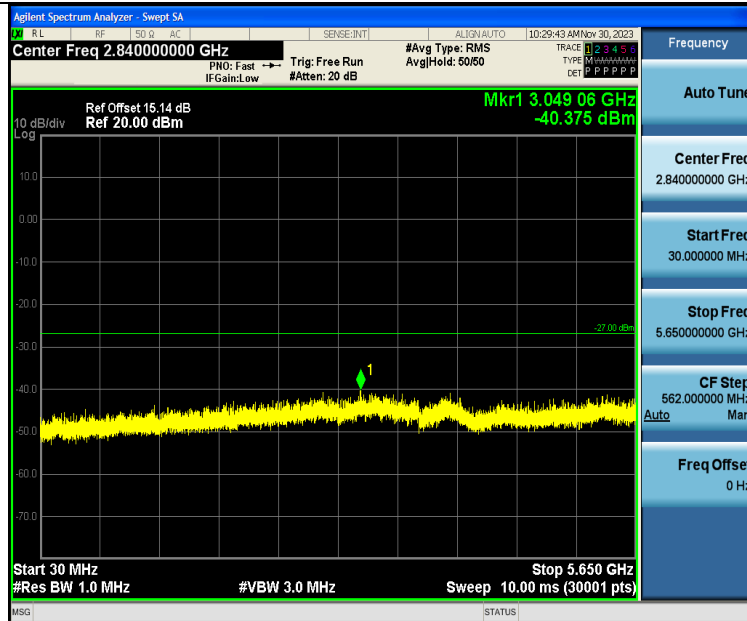


11N40SISO-Ant1-5230-30~5140-PASS

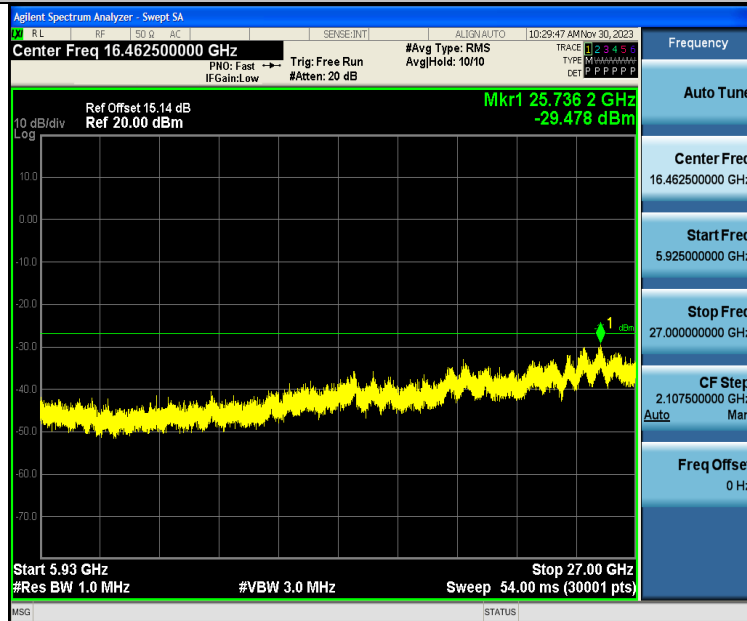


11N40SISO-Ant1-5230-5360~40000-PASS

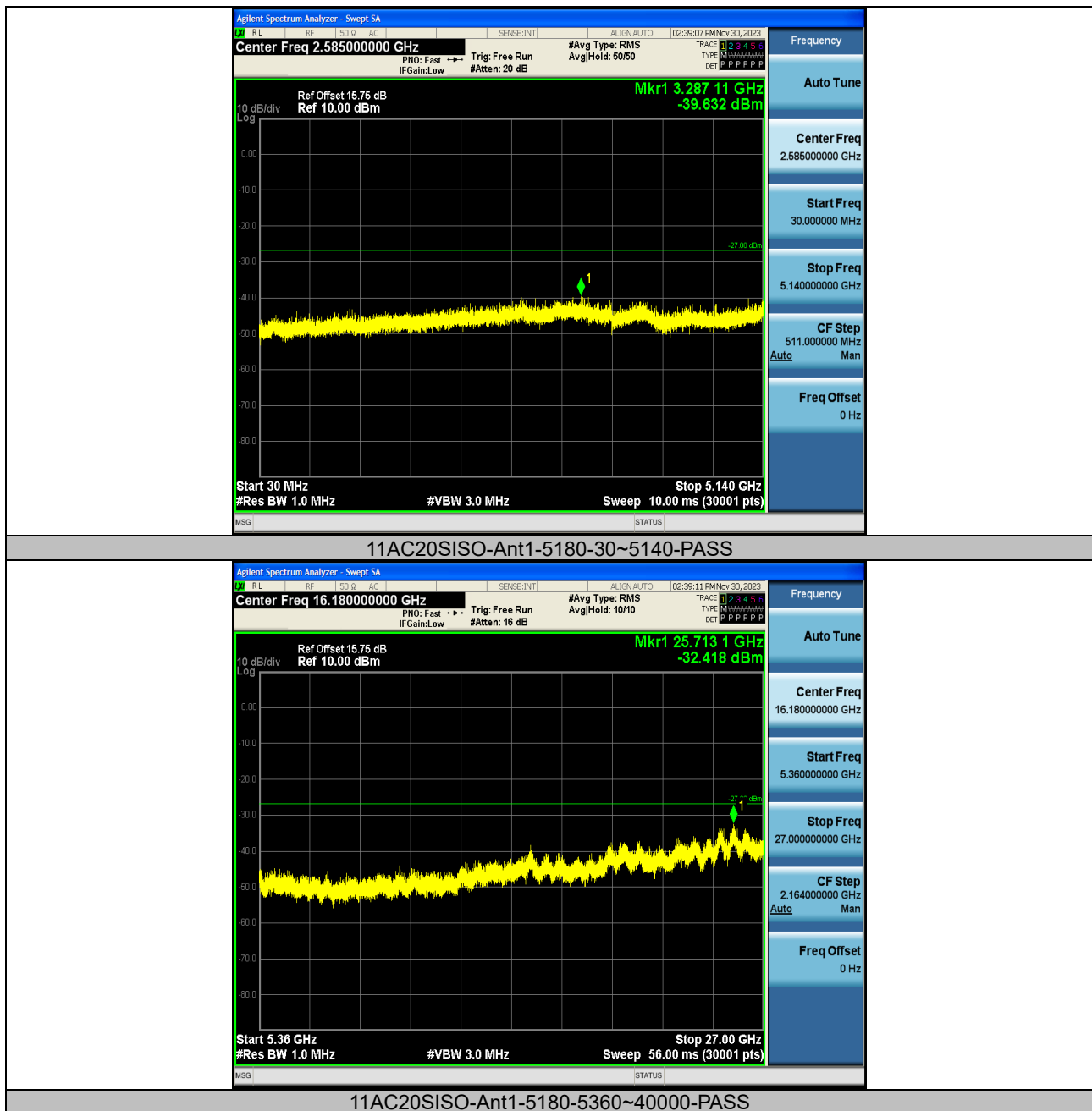


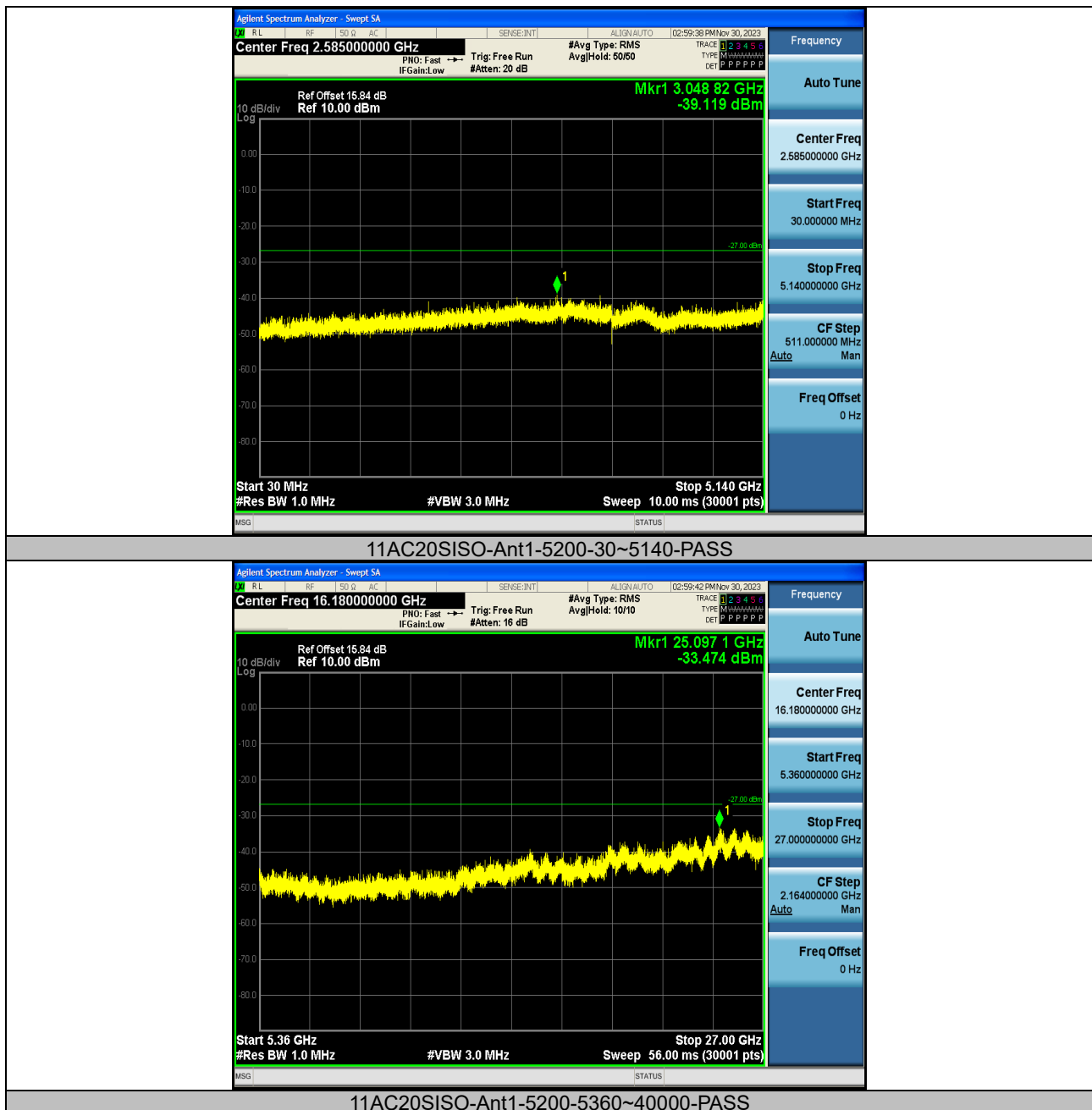


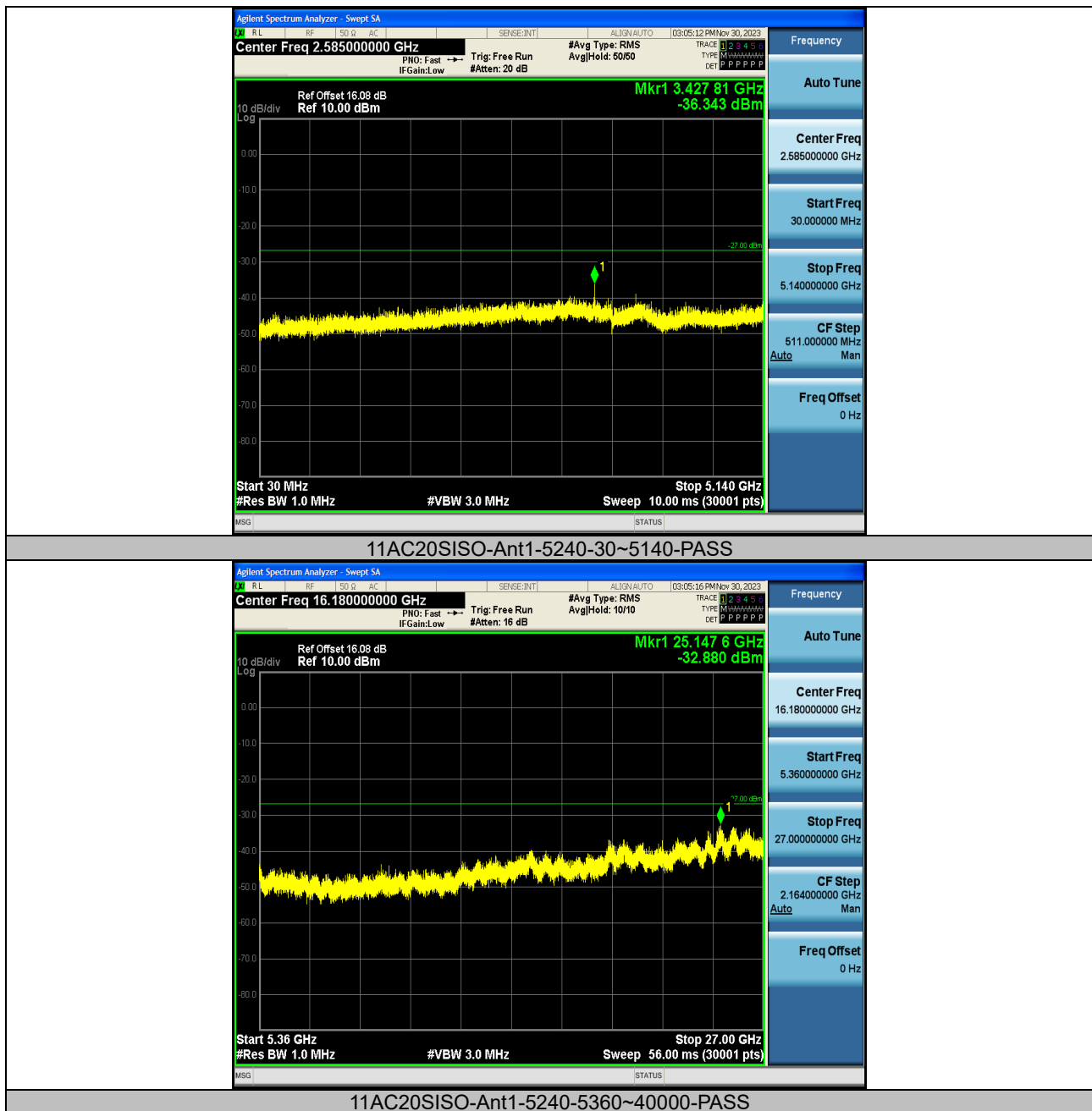
11N40SISO-Ant1-5795-30~5650-PASS

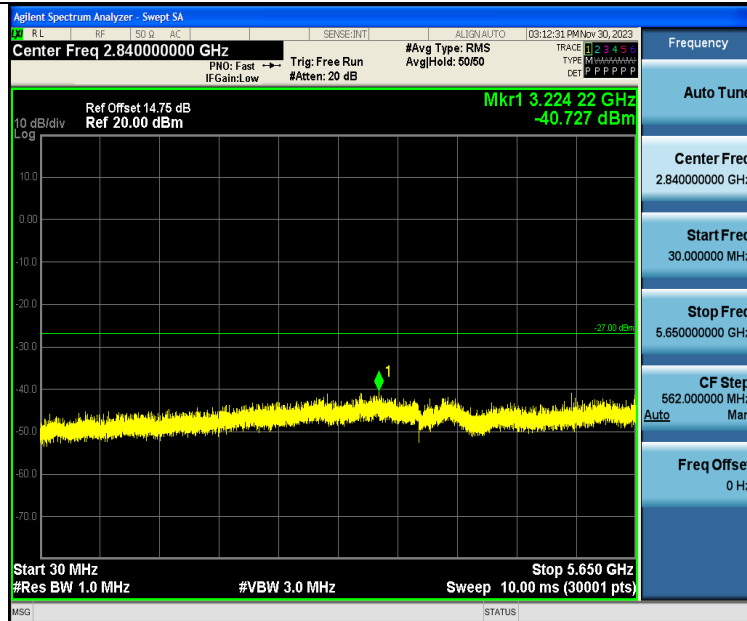


11N40SISO-Ant1-5795-5925~40000-PASS

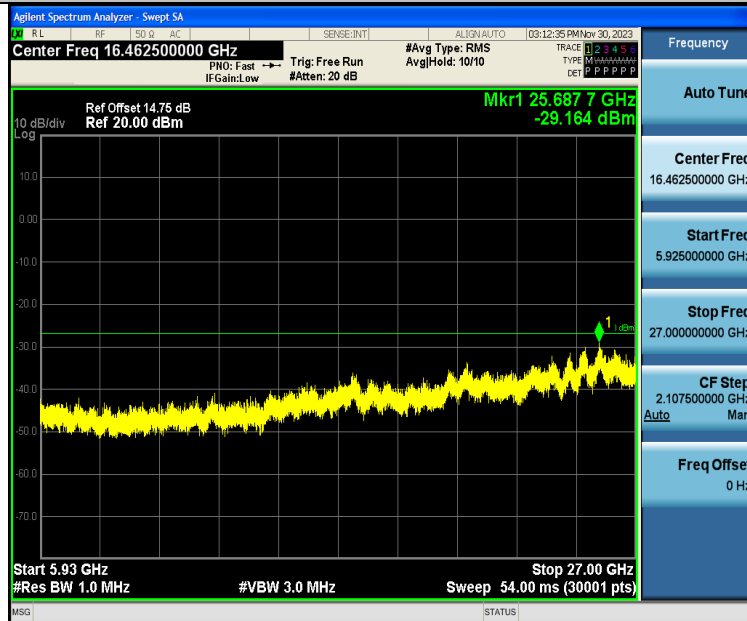




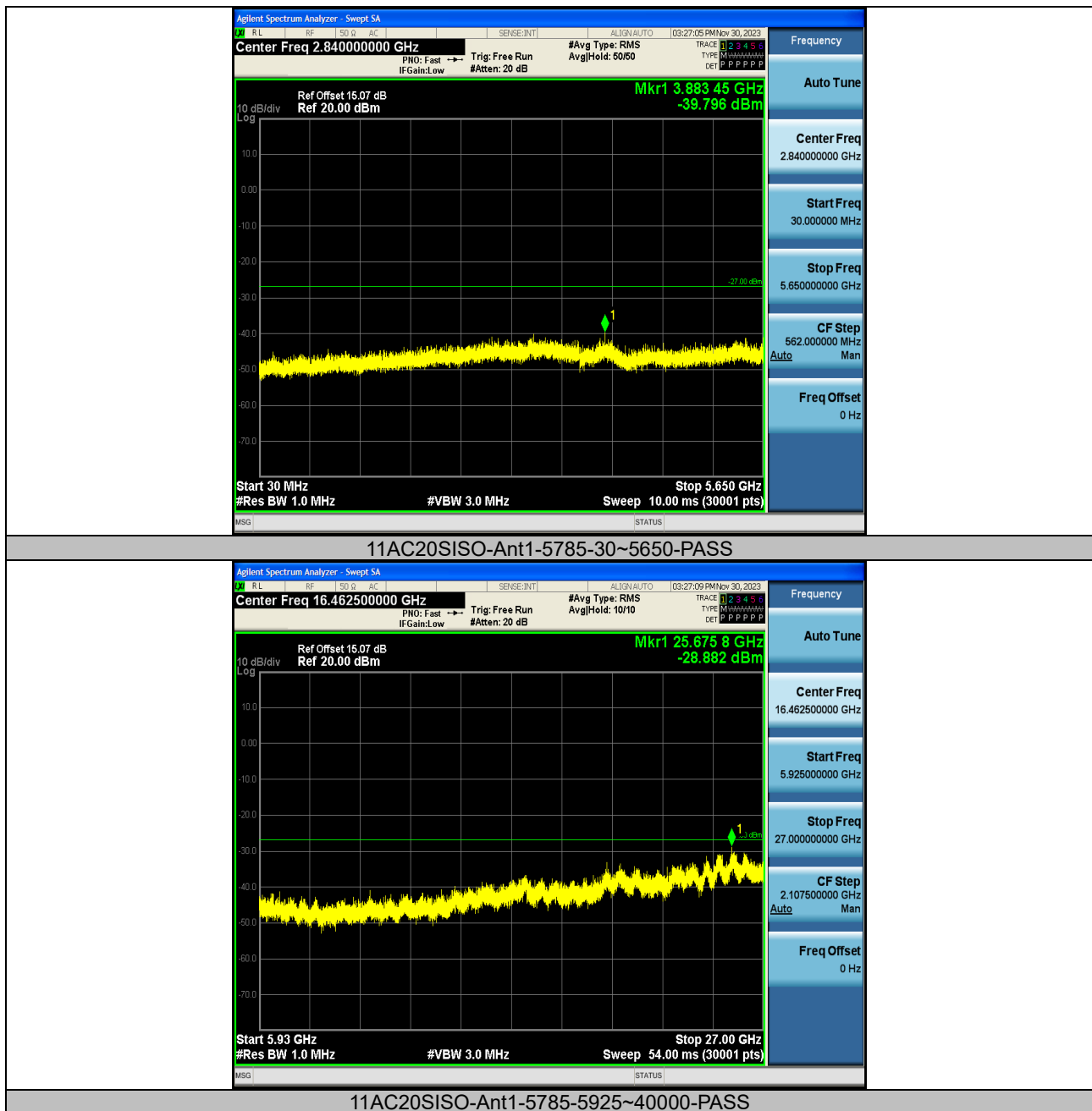


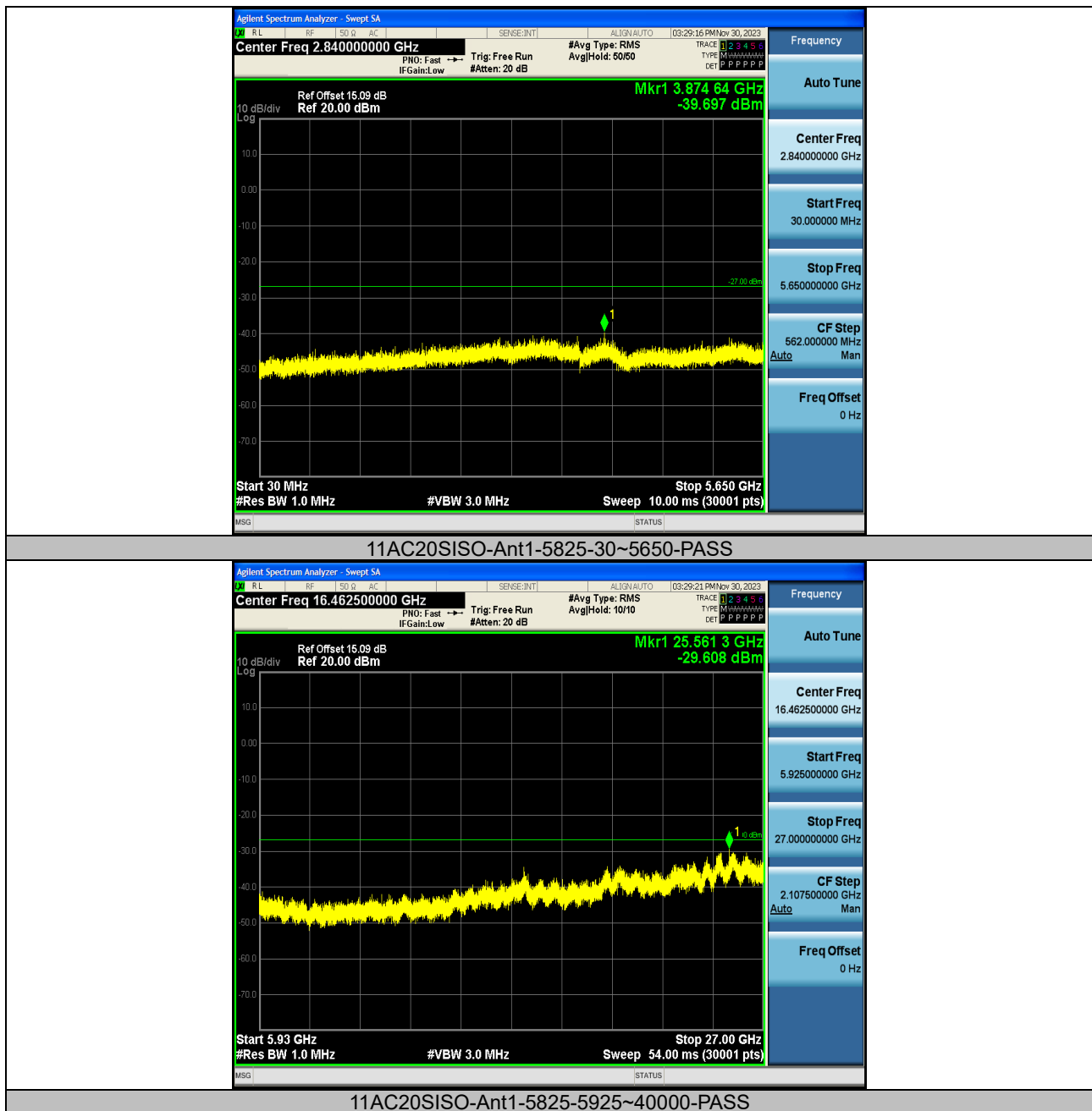


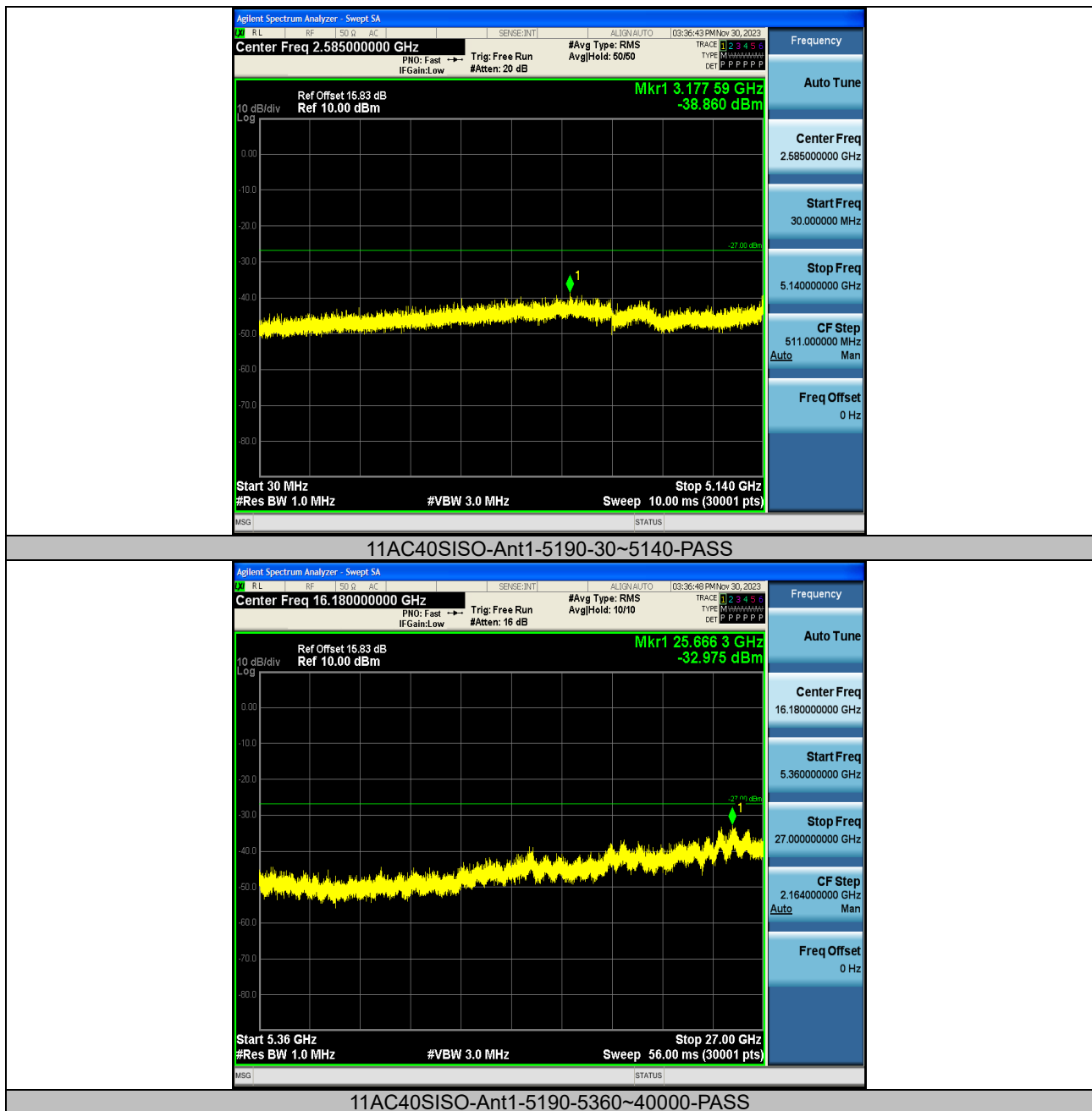
11AC20SISO-Ant1-5745-30~5650-PASS

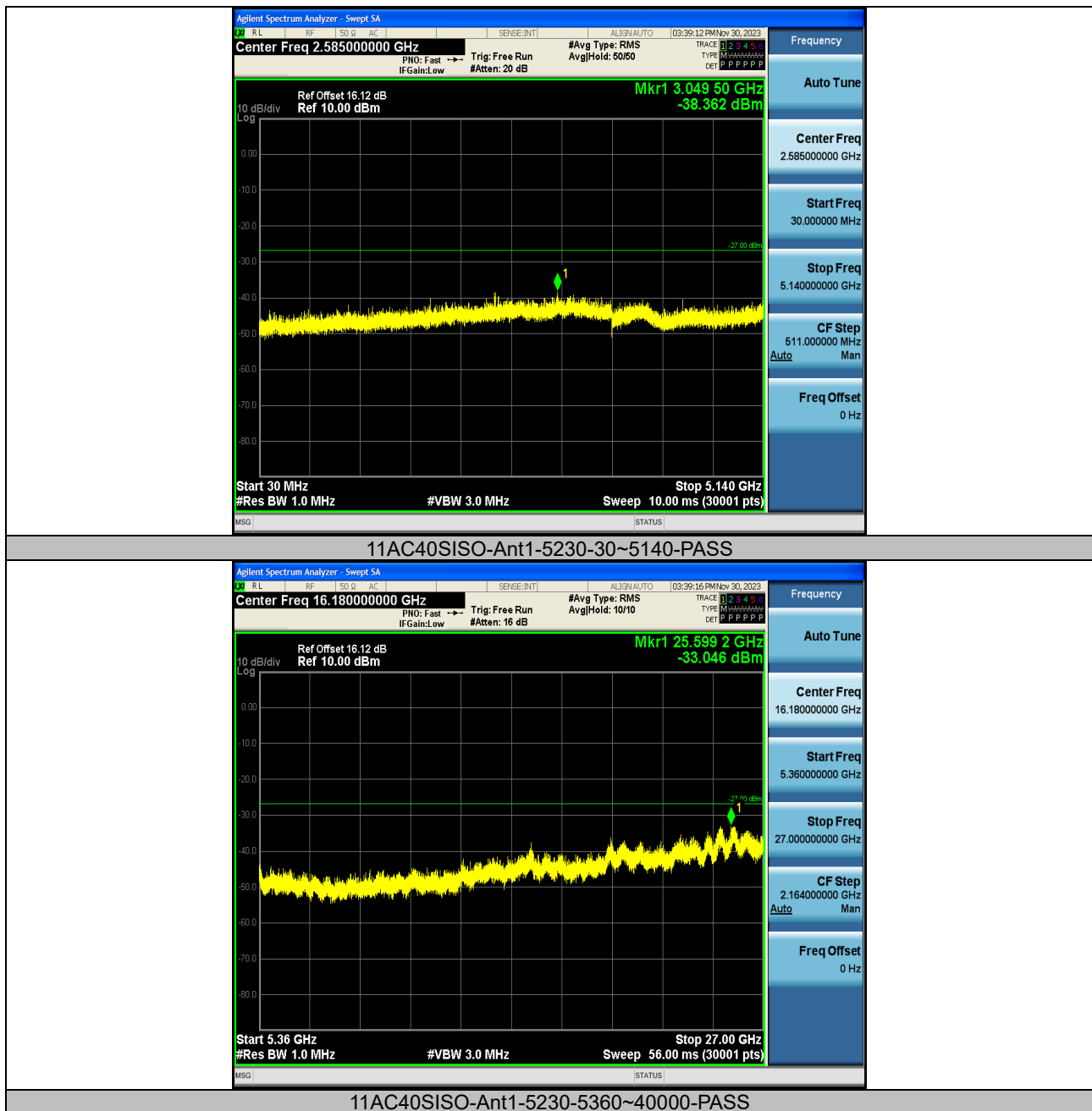


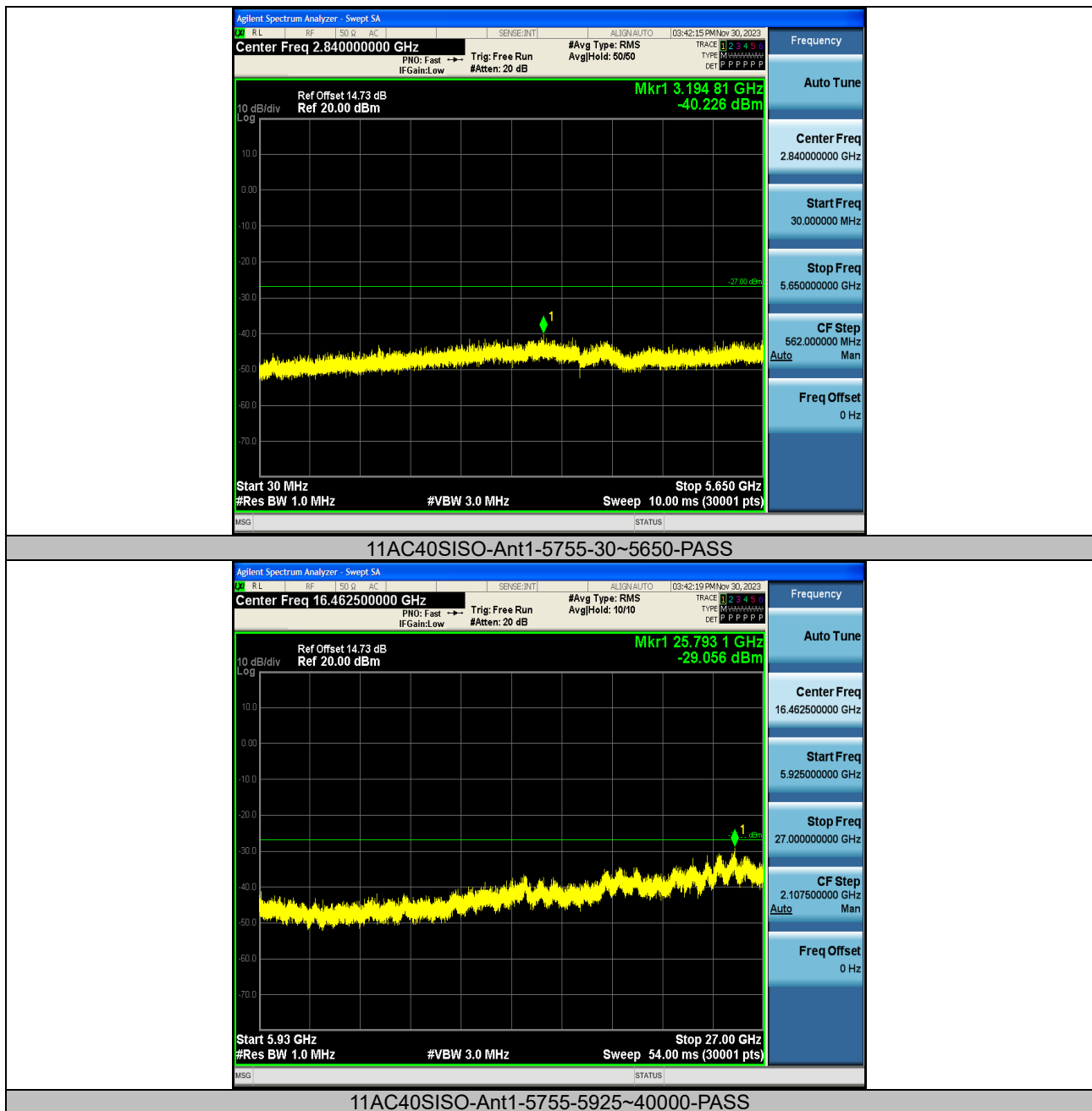
11AC20SISO-Ant1-5745-5925~40000-PASS

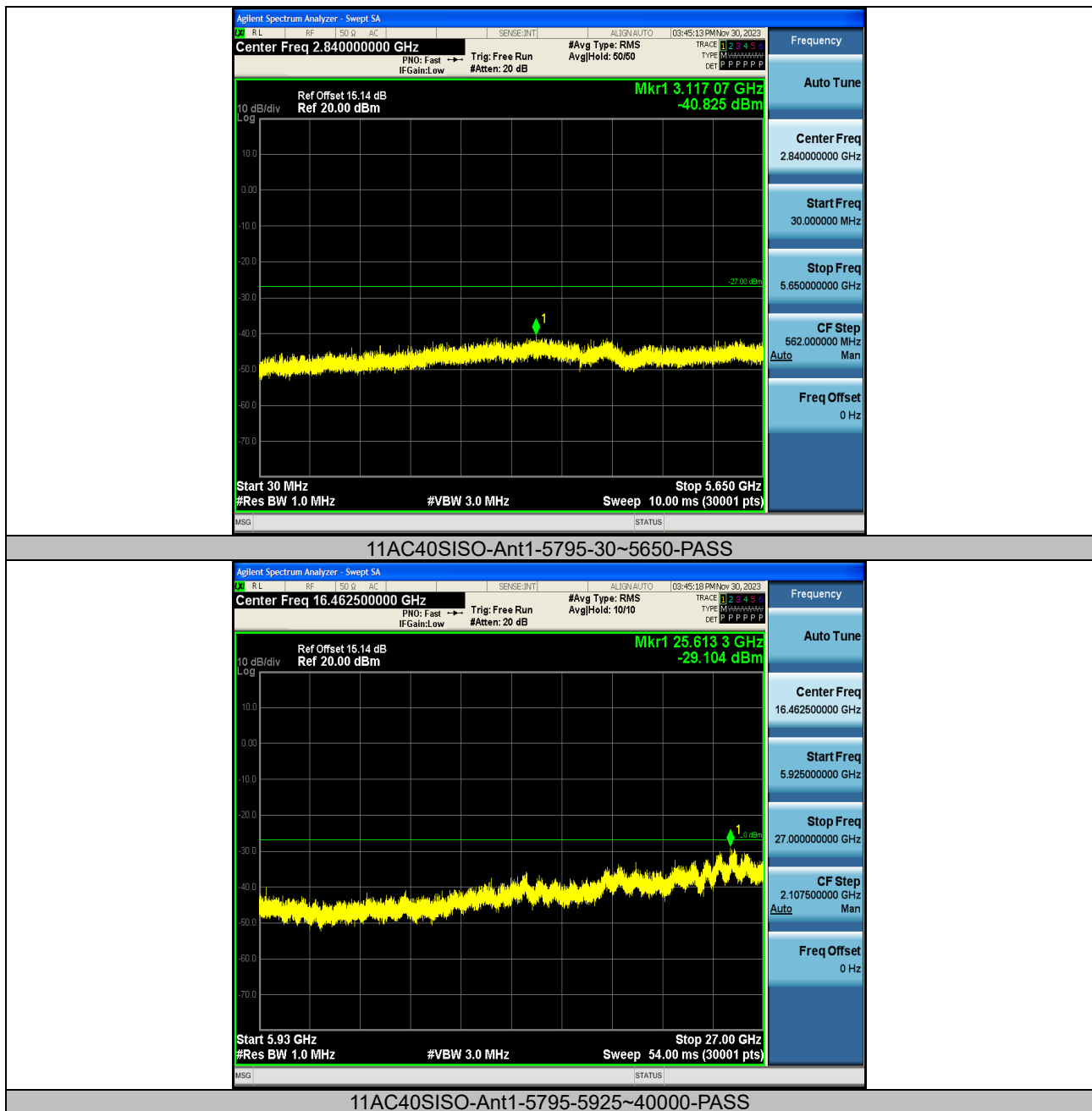


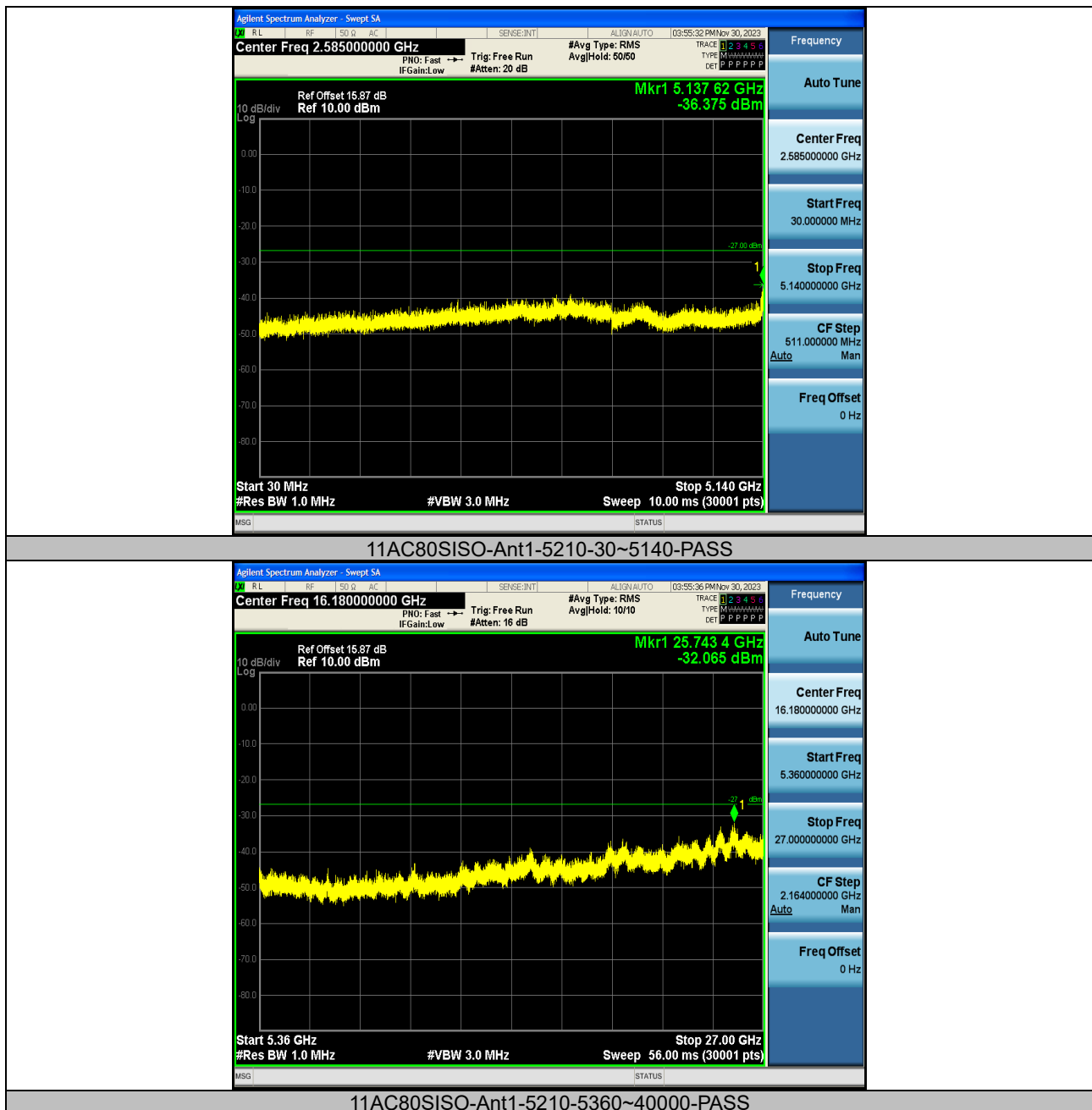


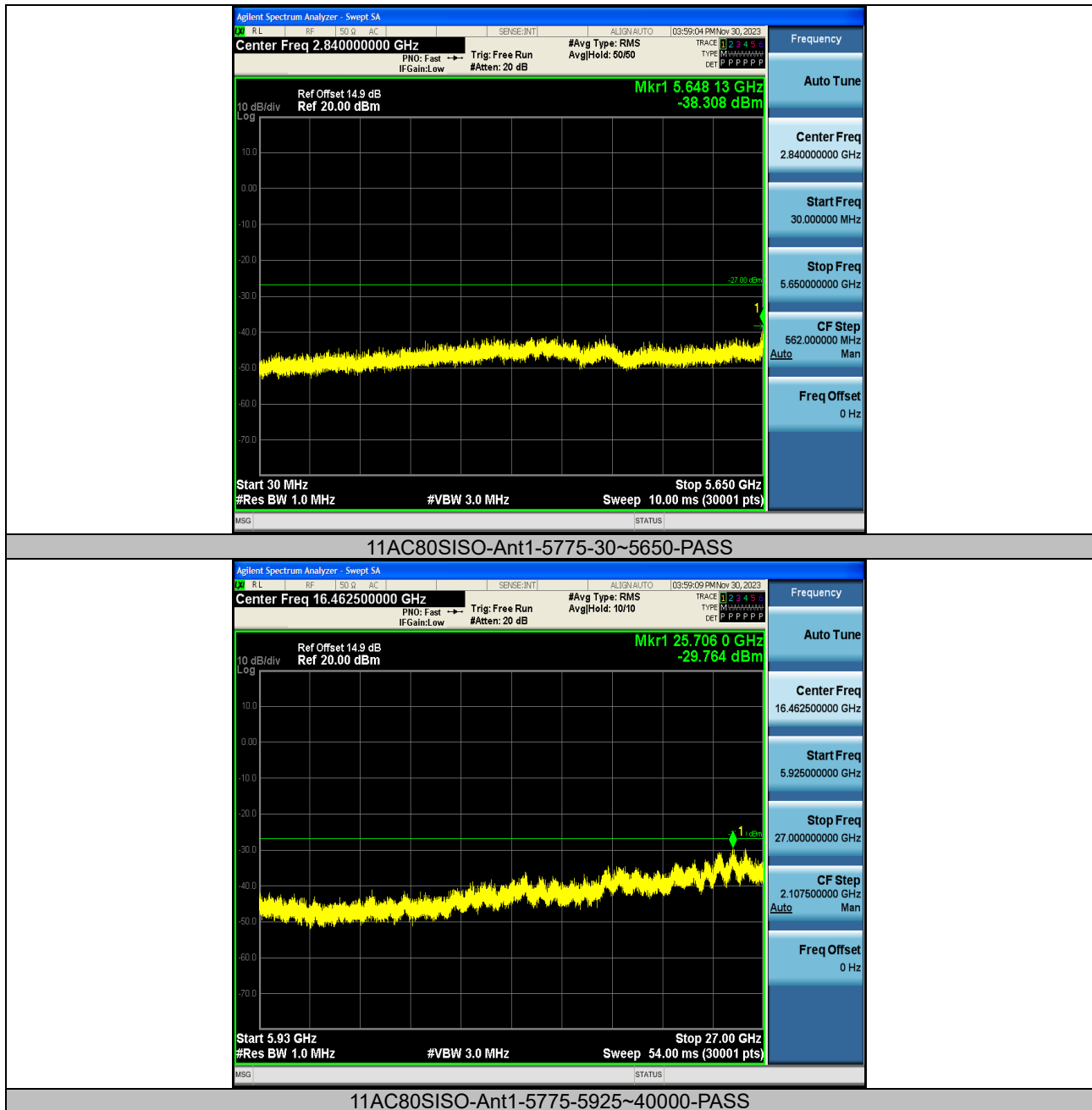












6.6 Band edge measurements

Test Result:

TestMode	Antenna	ChName	Frequency[MHz]	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-40.38	≤ -27	PASS
11A	Ant1	High	5240	-41.03	≤ -27	PASS
11N20SISO	Ant1	Low	5180	-40.83	≤ -27	PASS
11N20SISO	Ant1	High	5240	-40.41	≤ -27	PASS
11N40SISO	Ant1	Low	5190	-40.05	≤ -27	PASS
11N40SISO	Ant1	High	5230	-40.73	≤ -27	PASS
11AC20SISO	Ant1	Low	5180	-40.19	≤ -27	PASS
11AC20SISO	Ant1	High	5240	-40.29	≤ -27	PASS
11AC40SISO	Ant1	Low	5190	-40.81	≤ -27	PASS
11AC40SISO	Ant1	High	5230	-40.48	≤ -27	PASS
11AC80SISO	Ant1	Low	5210	-40.99	≤ -27	PASS
11AC80SISO	Ant1	High	5210	-40.87	≤ -27	PASS

TestMode	Antenna	ChName	Frequency[MHz]	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-41.56	≤ 24.73	PASS
11A	Ant1	Low	5745	5700~5720	-42.3	≤ 15.59	PASS
11A	Ant1	Low	5745	5650~5700	-42.06	≤ -7.64	PASS
11A	Ant1	Low	5745	5760~5650	-44.32	≤ -27	PASS
11A	Ant1	High	5825	5850~5855	-41.56	≤ 21.33	PASS
11A	Ant1	High	5825	5855~5875	-41.21	≤ 11.80	PASS
11A	Ant1	High	5825	5875~5925	-41.28	≤ -2.88	PASS
11A	Ant1	High	5825	5925~5935	-42.06	≤ -27	PASS
11N20SISO	Ant1	Low	5745	5720~5725	-40.38	≤ 25.52	PASS
11N20SISO	Ant1	Low	5745	5700~5720	-42.35	≤ 15.43	PASS
11N20SISO	Ant1	Low	5745	5650~5700	-42.54	≤ 7.68	PASS
11N20SISO	Ant1	Low	5745	5760~5650	-44.15	≤ -27	PASS
11N20SISO	Ant1	High	5825	5850~5855	-39.46	≤ 19.80	PASS
11N20SISO	Ant1	High	5825	5855~5875	-39.77	≤ 10.14	PASS
11N20SISO	Ant1	High	5825	5875~5925	-41.47	≤ -12.27	PASS
11N20SISO	Ant1	High	5825	5925~5935	-41.52	≤ -27	PASS
11N40SISO	Ant1	Low	5755	5720~5725	-34.21	≤ 22.82	PASS
11N40SISO	Ant1	Low	5755	5700~5720	-36.23	≤ 15.50	PASS
11N40SISO	Ant1	Low	5755	5650~5700	-43.04	≤ 9.76	PASS
11N40SISO	Ant1	Low	5755	5780~5650	-44.35	≤ -27	PASS
11N40SISO	Ant1	High	5795	5850~5855	-41.94	≤ 16.41	PASS

11N40SIS O	Ant1	High	5795	5855~5875	-41.28	≤15.40	PASS
11N40SIS O	Ant1	High	5795	5875~5925	-40.97	≤-4.21	PASS
11N40SIS O	Ant1	High	5795	5925~5935	-42.31	≤-27	PASS
11AC20SIS O	Ant1	Low	5745	5720~5725	-41.18	≤25.52	PASS
11AC20SIS O	Ant1	Low	5745	5700~5720	-42.92	≤13.89	PASS
11AC20SIS O	Ant1	Low	5745	5650~5700	-43.02	≤1.98	PASS
11AC20SIS O	Ant1	Low	5745	5760~5650	-43.86	≤-27	PASS
11AC20SIS O	Ant1	High	5825	5850~5855	-38.82	≤18.56	PASS
11AC20SIS O	Ant1	High	5825	5855~5875	-40.66	≤10.78	PASS
11AC20SIS O	Ant1	High	5825	5875~5925	-41.43	≤0.02	PASS
11AC20SIS O	Ant1	High	5825	5925~5935	-40.45	≤-27	PASS
11AC40SIS O	Ant1	Low	5755	5720~5725	-35.97	≤26.20	PASS
11AC40SIS O	Ant1	Low	5755	5700~5720	-39.21	≤15.24	PASS
11AC40SIS O	Ant1	Low	5755	5650~5700	-41.5	≤-16.91	PASS
11AC40SIS O	Ant1	Low	5755	5780~5650	-44.24	≤-27	PASS
11AC40SIS O	Ant1	High	5795	5850~5855	-42.08	≤23.18	PASS
11AC40SIS O	Ant1	High	5795	5855~5875	-41.2	≤11.56	PASS
11AC40SIS O	Ant1	High	5795	5875~5925	-41.14	≤-15.81	PASS
11AC40SIS O	Ant1	High	5795	5925~5935	-41.47	≤-27	PASS
11AC80SIS O	Ant1	Low	5775	5720~5725	-37.1	≤15.65	PASS
11AC80SIS O	Ant1	Low	5775	5700~5720	-35.95	≤15.26	PASS
11AC80SIS O	Ant1	Low	5775	5650~5700	-39.19	≤-4.78	PASS
11AC80SIS O	Ant1	Low	5775	5800~5650	-43.68	≤-27	PASS
11AC80SIS O	Ant1	High	5775	5850~5855	-40.88	≤22.96	PASS
11AC80SIS O	Ant1	High	5775	5855~5875	-39.47	≤11.58	PASS
11AC80SIS O	Ant1	High	5775	5875~5925	-41.61	≤-12.17	PASS
11AC80SIS O	Ant1	High	5775	5925~5935	-41.25	≤-27	PASS

Test Graphs:

TestMode	Antenna	ChName	Frequency[MHz]	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-41.56	≤24.73	PASS
11A	Ant1	Low	5745	5700~5720	-42.3	≤15.59	PASS
11A	Ant1	Low	5745	5650~5700	-42.06	≤-7.64	PASS
11A	Ant1	Low	5745	5760~5650	-44.32	≤-27	PASS
11A	Ant1	High	5825	5850~5855	-41.56	≤21.33	PASS
11A	Ant1	High	5825	5855~5875	-41.21	≤11.80	PASS
11A	Ant1	High	5825	5875~5925	-41.28	≤-2.88	PASS
11A	Ant1	High	5825	5925~5935	-42.06	≤-27	PASS
11N20SIS O	Ant1	Low	5745	5720~5725	-40.38	≤25.52	PASS
11N20SIS O	Ant1	Low	5745	5700~5720	-42.35	≤15.43	PASS
11N20SIS O	Ant1	Low	5745	5650~5700	-42.54	≤7.68	PASS
11N20SIS O	Ant1	Low	5745	5760~5650	-44.15	≤-27	PASS
11N20SIS O	Ant1	High	5825	5850~5855	-39.46	≤19.80	PASS
11N20SIS O	Ant1	High	5825	5855~5875	-39.77	≤10.14	PASS
11N20SIS O	Ant1	High	5825	5875~5925	-41.47	≤-12.27	PASS
11N20SIS O	Ant1	High	5825	5925~5935	-41.52	≤-27	PASS
11N40SIS O	Ant1	Low	5755	5720~5725	-34.21	≤22.82	PASS
11N40SIS O	Ant1	Low	5755	5700~5720	-36.23	≤15.50	PASS
11N40SIS O	Ant1	Low	5755	5650~5700	-43.04	≤9.76	PASS
11N40SIS O	Ant1	Low	5755	5780~5650	-44.35	≤-27	PASS
11N40SIS O	Ant1	High	5795	5850~5855	-41.94	≤16.41	PASS
11N40SIS O	Ant1	High	5795	5855~5875	-41.28	≤15.40	PASS
11N40SIS O	Ant1	High	5795	5875~5925	-40.97	≤-4.21	PASS
11N40SIS O	Ant1	High	5795	5925~5935	-42.31	≤-27	PASS
11AC20SIS O	Ant1	Low	5745	5720~5725	-41.18	≤25.52	PASS
11AC20SIS O	Ant1	Low	5745	5700~5720	-42.92	≤13.89	PASS
11AC20SIS O	Ant1	Low	5745	5650~5700	-43.02	≤1.98	PASS
11AC20SIS O	Ant1	Low	5745	5760~5650	-43.86	≤-27	PASS
11AC20SIS O	Ant1	High	5825	5850~5855	-38.82	≤18.56	PASS
11AC20SIS O	Ant1	High	5825	5855~5875	-40.66	≤10.78	PASS
11AC20SIS O	Ant1	High	5825	5875~5925	-41.43	≤0.02	PASS

11AC20SIS O	Ant1	High	5825	5925~5935	-40.45	≤ -27	PASS
11AC40SIS O	Ant1	Low	5755	5720~5725	-35.97	≤ 26.20	PASS
11AC40SIS O	Ant1	Low	5755	5700~5720	-39.21	≤ 15.24	PASS
11AC40SIS O	Ant1	Low	5755	5650~5700	-41.5	≤ -16.91	PASS
11AC40SIS O	Ant1	Low	5755	5780~5650	-44.24	≤ -27	PASS
11AC40SIS O	Ant1	High	5795	5850~5855	-42.08	≤ 23.18	PASS
11AC40SIS O	Ant1	High	5795	5855~5875	-41.2	≤ 11.56	PASS
11AC40SIS O	Ant1	High	5795	5875~5925	-41.14	≤ -15.81	PASS
11AC40SIS O	Ant1	High	5795	5925~5935	-41.47	≤ -27	PASS
11AC80SIS O	Ant1	Low	5775	5720~5725	-37.1	≤ 15.65	PASS
11AC80SIS O	Ant1	Low	5775	5700~5720	-35.95	≤ 15.26	PASS
11AC80SIS O	Ant1	Low	5775	5650~5700	-39.19	≤ -4.78	PASS
11AC80SIS O	Ant1	Low	5775	5800~5650	-43.68	≤ -27	PASS
11AC80SIS O	Ant1	High	5775	5850~5855	-40.88	≤ 22.96	PASS
11AC80SIS O	Ant1	High	5775	5855~5875	-39.47	≤ 11.58	PASS
11AC80SIS O	Ant1	High	5775	5875~5925	-41.61	≤ -12.17	PASS
11AC80SIS O	Ant1	High	5775	5925~5935	-41.25	≤ -27	PASS

Test plots B4:

TestMode	Antenna	ChName	Frequency[M Hz]	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-41.56	≤24.73	PASS
11A	Ant1	Low	5745	5700~5720	-42.3	≤15.59	PASS
11A	Ant1	Low	5745	5650~5700	-42.06	≤-7.64	PASS
11A	Ant1	Low	5745	5760~5650	-44.32	≤-27	PASS
11A	Ant1	High	5825	5850~5855	-41.56	≤21.33	PASS
11A	Ant1	High	5825	5855~5875	-41.21	≤11.80	PASS
11A	Ant1	High	5825	5875~5925	-41.28	≤-2.88	PASS
11A	Ant1	High	5825	5925~5935	-42.06	≤-27	PASS
11N20SIS O	Ant1	Low	5745	5720~5725	-40.38	≤25.52	PASS
11N20SIS O	Ant1	Low	5745	5700~5720	-42.35	≤15.43	PASS
11N20SIS O	Ant1	Low	5745	5650~5700	-42.54	≤7.68	PASS
11N20SIS O	Ant1	Low	5745	5760~5650	-44.15	≤-27	PASS
11N20SIS O	Ant1	High	5825	5850~5855	-39.46	≤19.80	PASS
11N20SIS O	Ant1	High	5825	5855~5875	-39.77	≤10.14	PASS
11N20SIS O	Ant1	High	5825	5875~5925	-41.47	≤-12.27	PASS
11N20SIS O	Ant1	High	5825	5925~5935	-41.52	≤-27	PASS
11N40SIS O	Ant1	Low	5755	5720~5725	-34.21	≤22.82	PASS
11N40SIS O	Ant1	Low	5755	5700~5720	-36.23	≤15.50	PASS
11N40SIS O	Ant1	Low	5755	5650~5700	-43.04	≤9.76	PASS
11N40SIS O	Ant1	Low	5755	5780~5650	-44.35	≤-27	PASS
11N40SIS O	Ant1	High	5795	5850~5855	-41.94	≤16.41	PASS
11N40SIS O	Ant1	High	5795	5855~5875	-41.28	≤15.40	PASS
11N40SIS O	Ant1	High	5795	5875~5925	-40.97	≤-4.21	PASS
11N40SIS O	Ant1	High	5795	5925~5935	-42.31	≤-27	PASS
11AC20SIS O	Ant1	Low	5745	5720~5725	-41.18	≤25.52	PASS
11AC20SIS O	Ant1	Low	5745	5700~5720	-42.92	≤13.89	PASS
11AC20SIS O	Ant1	Low	5745	5650~5700	-43.02	≤1.98	PASS
11AC20SIS O	Ant1	Low	5745	5760~5650	-43.86	≤-27	PASS
11AC20SIS O	Ant1	High	5825	5850~5855	-38.82	≤18.56	PASS
11AC20SIS O	Ant1	High	5825	5855~5875	-40.66	≤10.78	PASS
11AC20SIS O	Ant1	High	5825	5875~5925	-41.43	≤0.02	PASS

11AC20SIS O	Ant1	High	5825	5925~5935	-40.45	≤ -27	PASS
11AC40SIS O	Ant1	Low	5755	5720~5725	-35.97	≤ 26.20	PASS
11AC40SIS O	Ant1	Low	5755	5700~5720	-39.21	≤ 15.24	PASS
11AC40SIS O	Ant1	Low	5755	5650~5700	-41.5	≤ -16.91	PASS
11AC40SIS O	Ant1	Low	5755	5780~5650	-44.24	≤ -27	PASS
11AC40SIS O	Ant1	High	5795	5850~5855	-42.08	≤ 23.18	PASS
11AC40SIS O	Ant1	High	5795	5855~5875	-41.2	≤ 11.56	PASS
11AC40SIS O	Ant1	High	5795	5875~5925	-41.14	≤ -15.81	PASS
11AC40SIS O	Ant1	High	5795	5925~5935	-41.47	≤ -27	PASS
11AC80SIS O	Ant1	Low	5775	5720~5725	-37.1	≤ 15.65	PASS
11AC80SIS O	Ant1	Low	5775	5700~5720	-35.95	≤ 15.26	PASS
11AC80SIS O	Ant1	Low	5775	5650~5700	-39.19	≤ -4.78	PASS
11AC80SIS O	Ant1	Low	5775	5800~5650	-43.68	≤ -27	PASS
11AC80SIS O	Ant1	High	5775	5850~5855	-40.88	≤ 22.96	PASS
11AC80SIS O	Ant1	High	5775	5855~5875	-39.47	≤ 11.58	PASS
11AC80SIS O	Ant1	High	5775	5875~5925	-41.61	≤ -12.17	PASS
11AC80SIS O	Ant1	High	5775	5925~5935	-41.25	≤ -27	PASS

7 Emission Bandwidth and Occupied Bandwidth

Test Requirement	: FCC CFR47 Part 15 Section 15.407(a)(e)
Test Method	: ANSI C63.10:2013 According to FCC §15.407(a), The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less.
Test Limit	: Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth. As per FCC §15.407(e): for equipment operating in the band 5725 – 5850 MHz, the minimum 6 dB bandwidth of U-NII devices shall be 500 kHz.

7.1 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01,
Emission Bandwidth (EBW)

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 maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%; 99% Occupied Bandwidth
The 99% occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 % of the total mean power of the given emission. Measurement of the 99% occupied bandwidth is required only as a condition for using the optional band-edge measurement techniques described in II.G.3.d). Measurements of 99% occupied bandwidth may also optionally be used in lieu of the EBW to define the minimum frequency range over which the spectrum is integrated when measuring maximum conducted output power as described in II.E. However, the EBW must be measured to determine bandwidth dependent limits on maximum conducted output power in accordance with 15.407(a).

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set $VBW \geq 3 \cdot RBW$
5. 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.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. 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% occupied bandwidth is the difference between these two frequencies.

7.2 Test Result

PASS

Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations / data rates and antenna ports.

Following channel was selected for the final test as listed below.

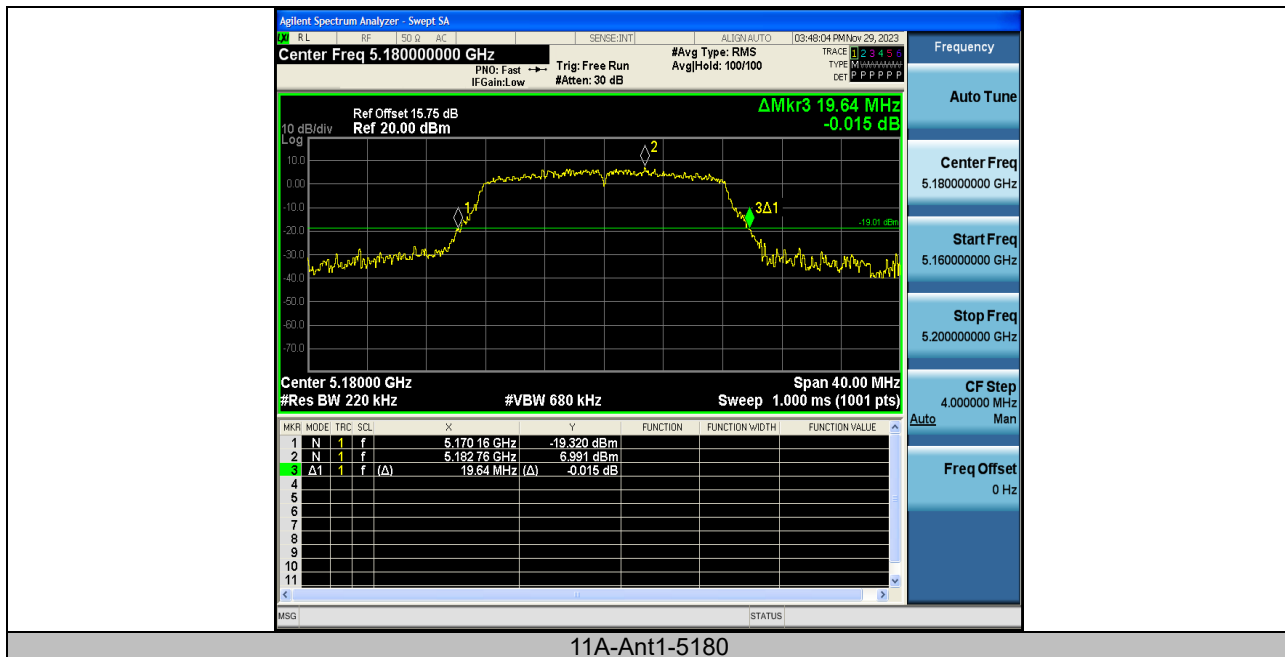
26 dB emission bandwidth:

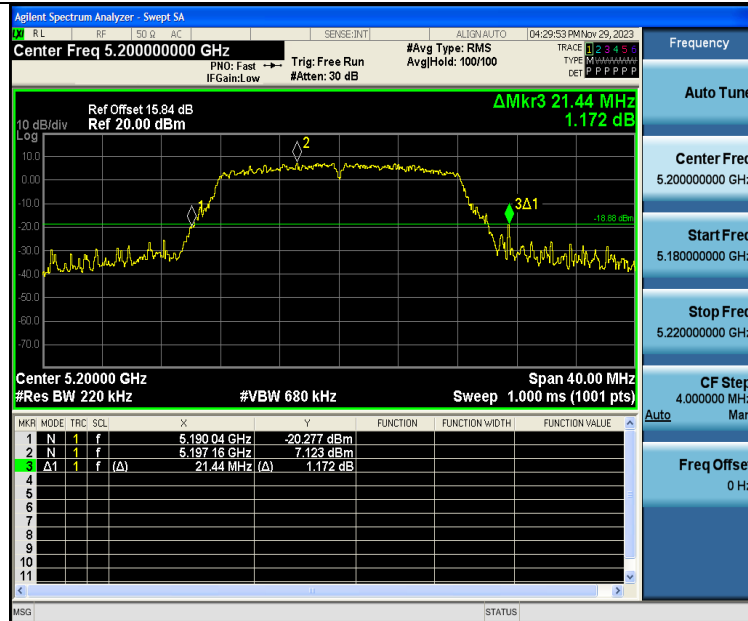
TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	19.640	5170.160	5189.800	---	---
11A	Ant1	5200	21.440	5190.040	5211.480	---	---
11A	Ant1	5240	19.880	5230.120	5250.000	---	---
11A	Ant1	5745	20.000	5735.080	5755.080	---	---
11A	Ant1	5785	19.480	5775.240	5794.720	---	---
11A	Ant1	5825	19.960	5815.120	5835.080	---	---
11N20SISO	Ant1	5180	19.960	5170.040	5190.000	---	---
11N20SISO	Ant1	5200	20.040	5190.000	5210.040	---	---
11N20SISO	Ant1	5240	20.080	5229.960	5250.040	---	---
11N20SISO	Ant1	5745	20.160	5734.920	5755.080	---	---
11N20SISO	Ant1	5785	20.200	5774.960	5795.160	---	---
11N20SISO	Ant1	5825	20.200	5815.040	5835.240	---	---
11N40SISO	Ant1	5190	40.160	5170.000	5210.160	---	---
11N40SISO	Ant1	5230	40.080	5210.160	5250.240	---	---
11N40SISO	Ant1	5755	40.560	5734.840	5775.400	---	---
11N40SISO	Ant1	5795	40.000	5775.000	5815.000	---	---
11AC20SISO	Ant1	5180	20.120	5169.920	5190.040	---	---
11AC20SISO	Ant1	5200	20.000	5190.000	5210.000	---	---
11AC20SISO	Ant1	5240	20.120	5230.000	5250.120	---	---
11AC20SISO	Ant1	5745	20.080	5734.960	5755.040	---	---
11AC20SISO	Ant1	5785	20.200	5774.880	5795.080	---	---
11AC20SISO	Ant1	5825	20.040	5815.040	5835.080	---	---
11AC40SISO	Ant1	5190	40.160	5170.160	5210.320	---	---
11AC40SISO	Ant1	5230	40.720	5209.600	5250.320	---	---
11AC40SISO	Ant1	5755	40.080	5735.000	5775.080	---	---
11AC40SISO	Ant1	5795	40.400	5775.000	5815.400	---	---
11AC80SISO	Ant1	5210	80.480	5169.840	5250.320	---	---
11AC80SISO	Ant1	5775	80.960	5734.520	5815.480	---	---

minimum 6 dB bandwidth:

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	12.560	5738.680	5751.240	0.5	PASS
11A	Ant1	5785	14.360	5777.480	5791.840	0.5	PASS
11A	Ant1	5825	14.680	5817.840	5832.520	0.5	PASS
11N20SISO	Ant1	5745	13.720	5738.760	5752.480	0.5	PASS
11N20SISO	Ant1	5785	13.880	5778.680	5792.560	0.5	PASS
11N20SISO	Ant1	5825	15.920	5816.840	5832.760	0.5	PASS
11N40SISO	Ant1	5755	33.840	5737.480	5771.320	0.5	PASS
11N40SISO	Ant1	5795	34.960	5777.480	5812.440	0.5	PASS
11AC20SISO	Ant1	5745	15.040	5737.440	5752.480	0.5	PASS
11AC20SISO	Ant1	5785	13.800	5778.680	5792.480	0.5	PASS
11AC20SISO	Ant1	5825	15.920	5816.600	5832.520	0.5	PASS
11AC40SISO	Ant1	5755	35.040	5737.480	5772.520	0.5	PASS
11AC40SISO	Ant1	5795	35.040	5777.480	5812.520	0.5	PASS
11AC80SISO	Ant1	5775	75.200	5737.400	5812.600	0.5	PASS

Test Graphs:

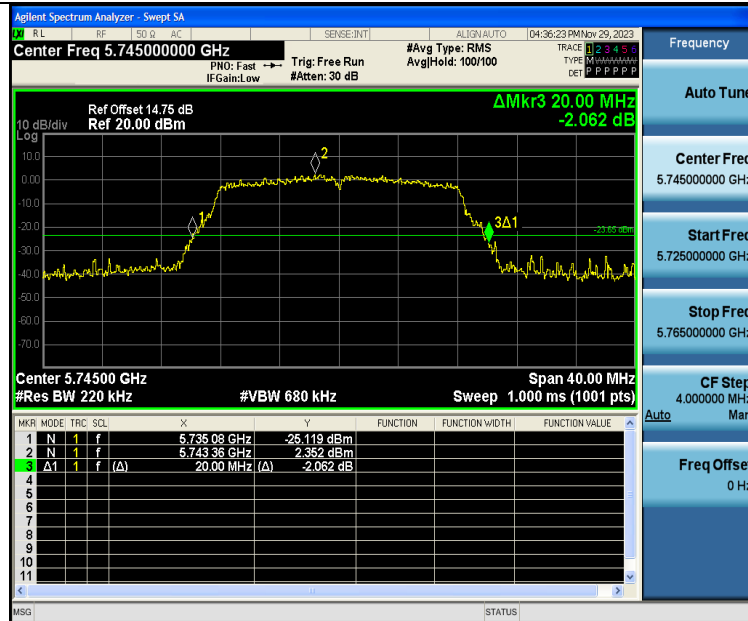




11A-Ant1-5200



11A-Ant1-5240





11A-Ant1-5825



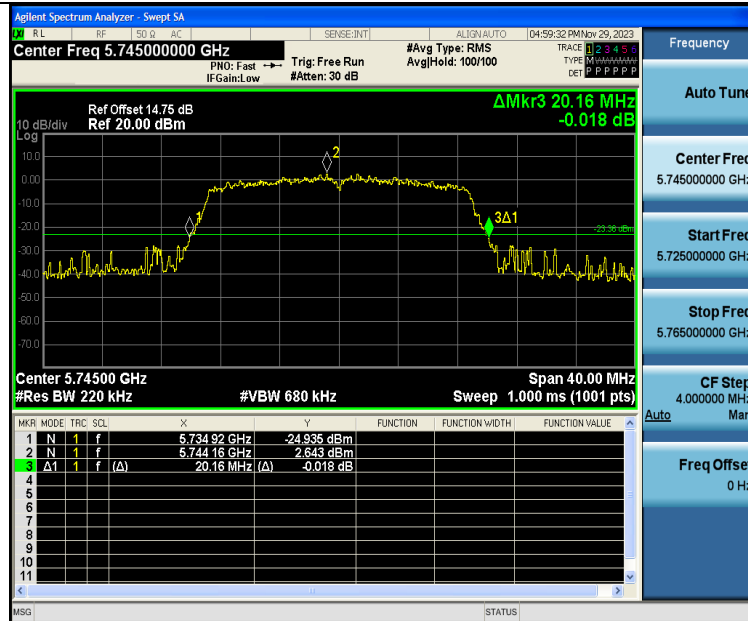
11N20SISO-Ant1-5180



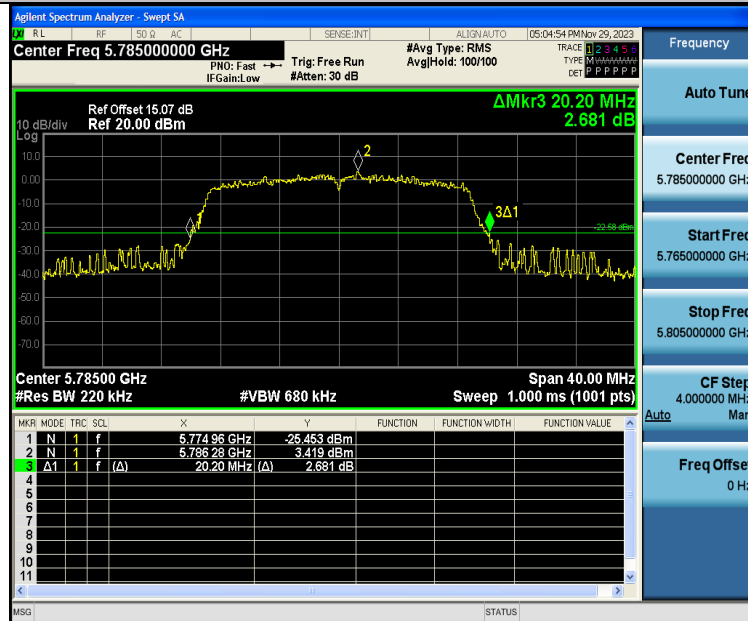
11N20SISO-Ant1-5200



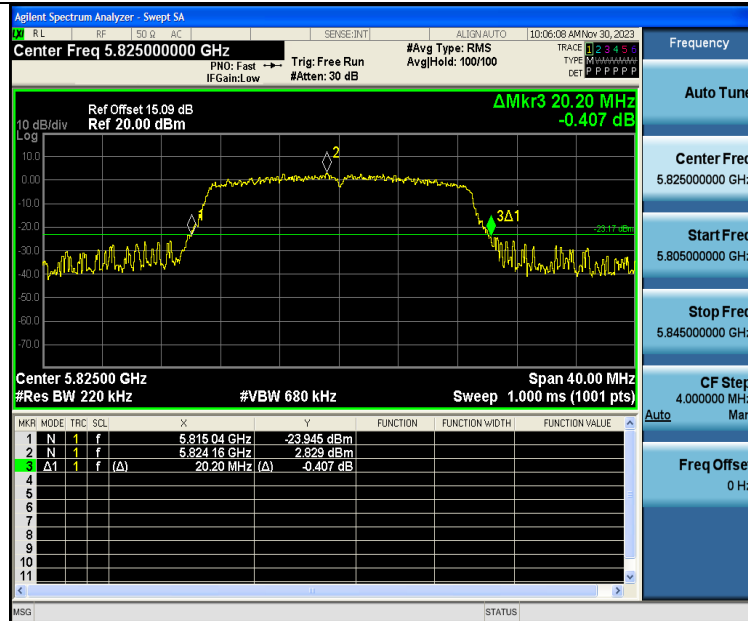
11N20SISO-Ant1-5240



11N20SISO-Ant1-5745



11N20SISO-Ant1-5785



11N20SISO-Ant1-5825



11N40SISO-Ant1-5190



11N40SISO-Ant1-5230

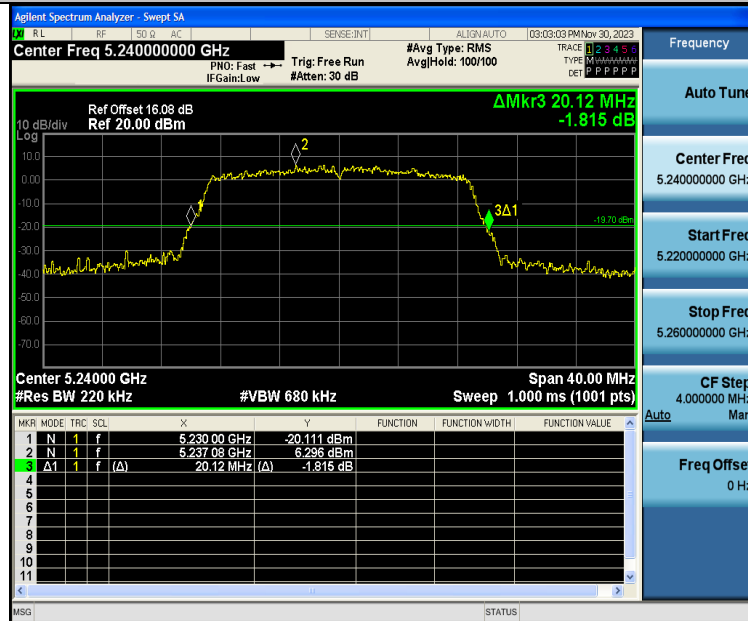


11N40SISO-Ant1-5755

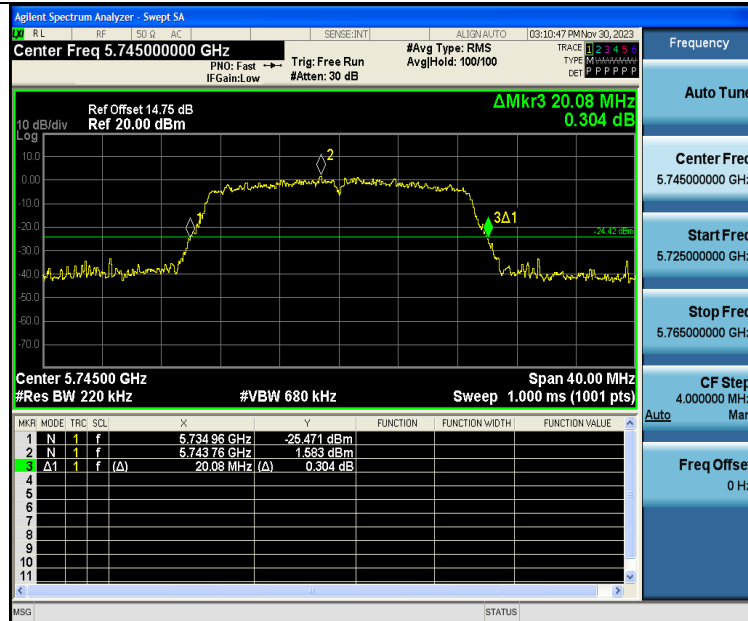




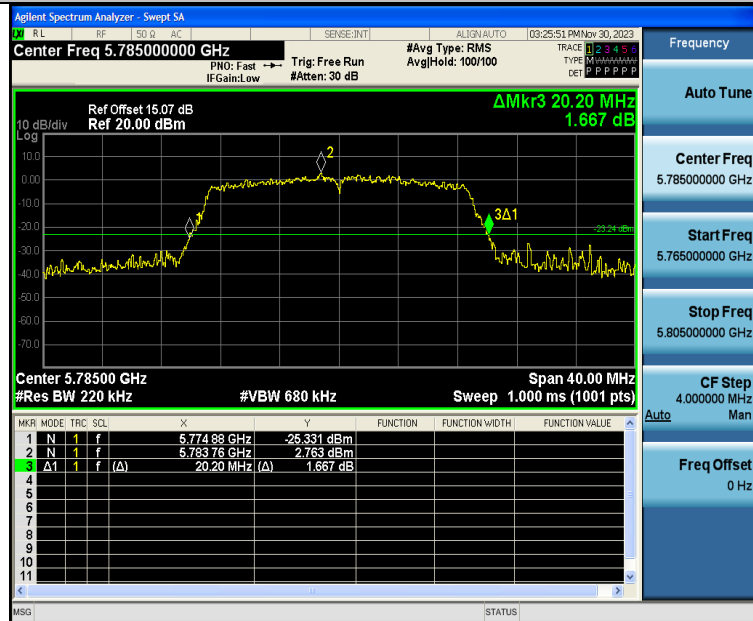
11AC20SISO-Ant1-5200



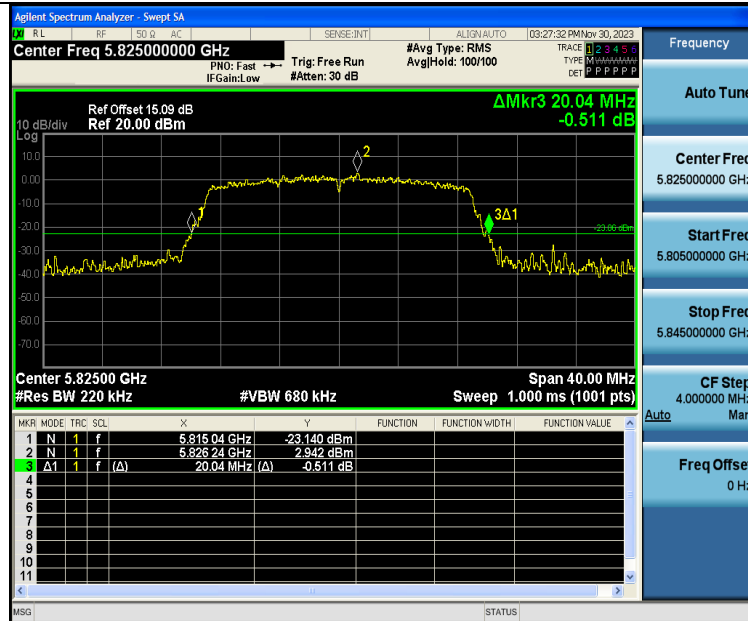
11AC20SISO-Ant1-5240



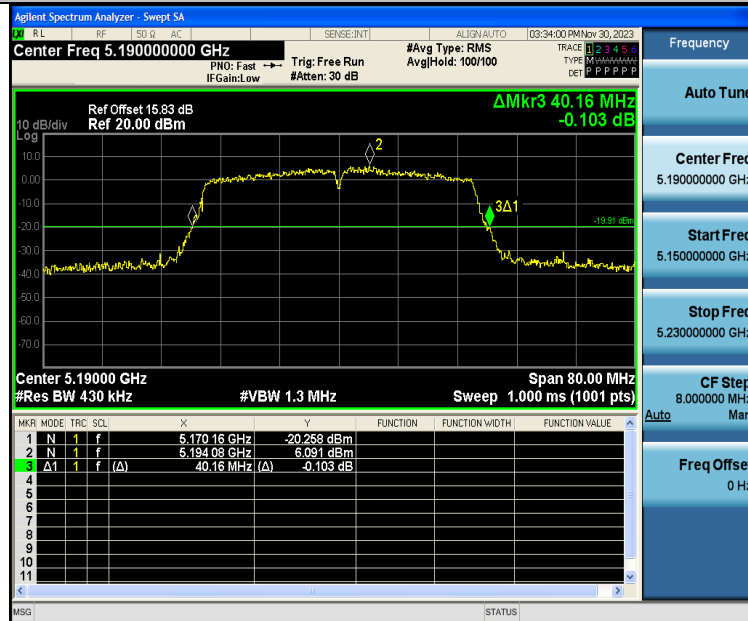
11AC20SISO-Ant1-5745



11AC20SISO-Ant1-5785



11AC20SISO-Ant1-5825



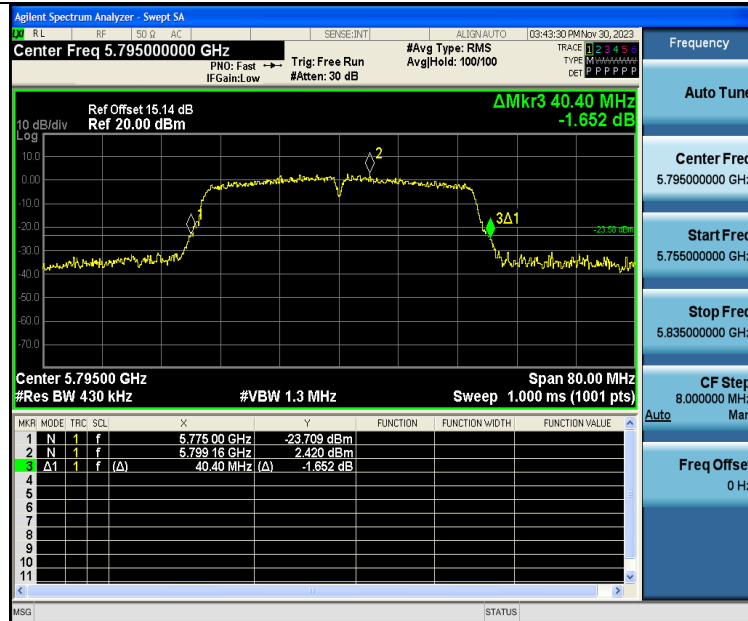
11AC40SISO-Ant1-5190



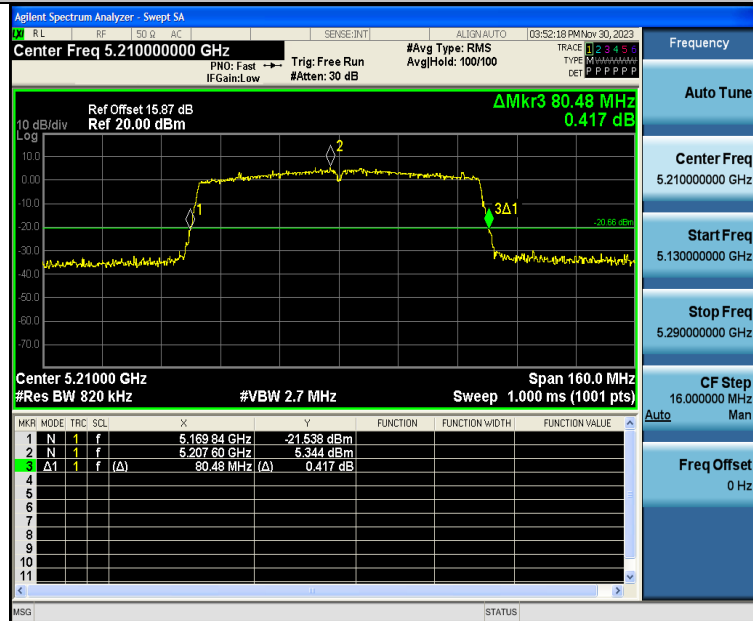
11AC40SISO-Ant1-5230



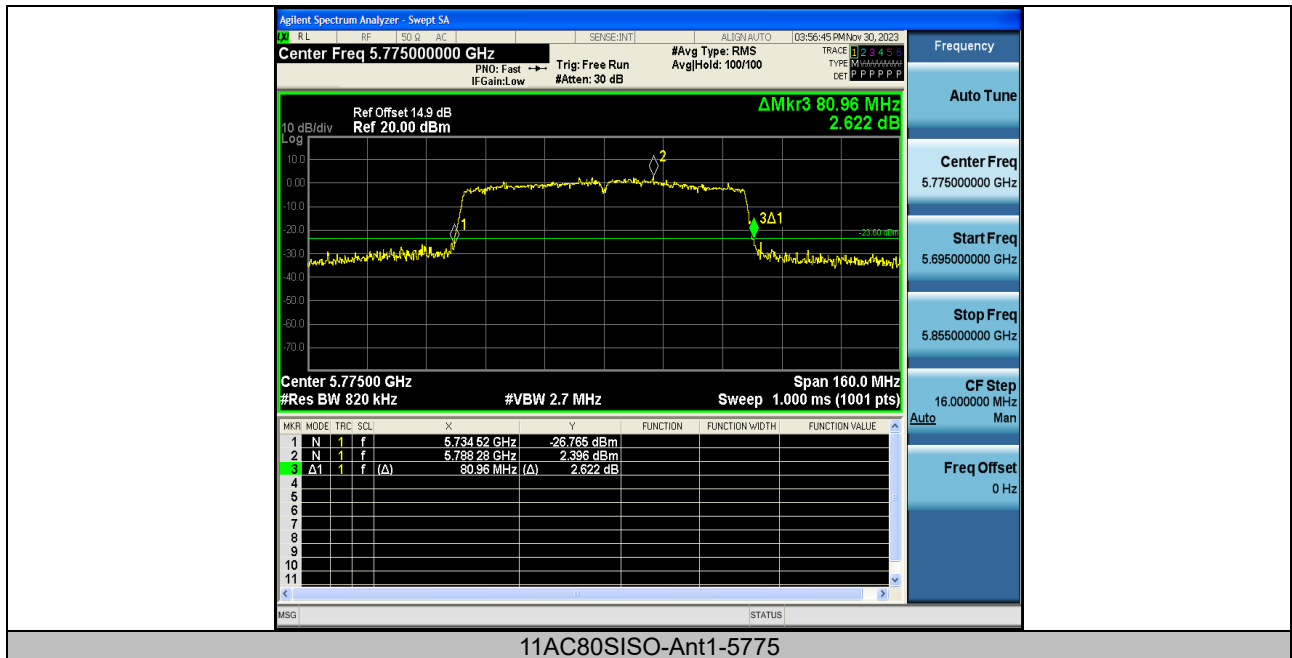
11AC40SISO-Ant1-5755



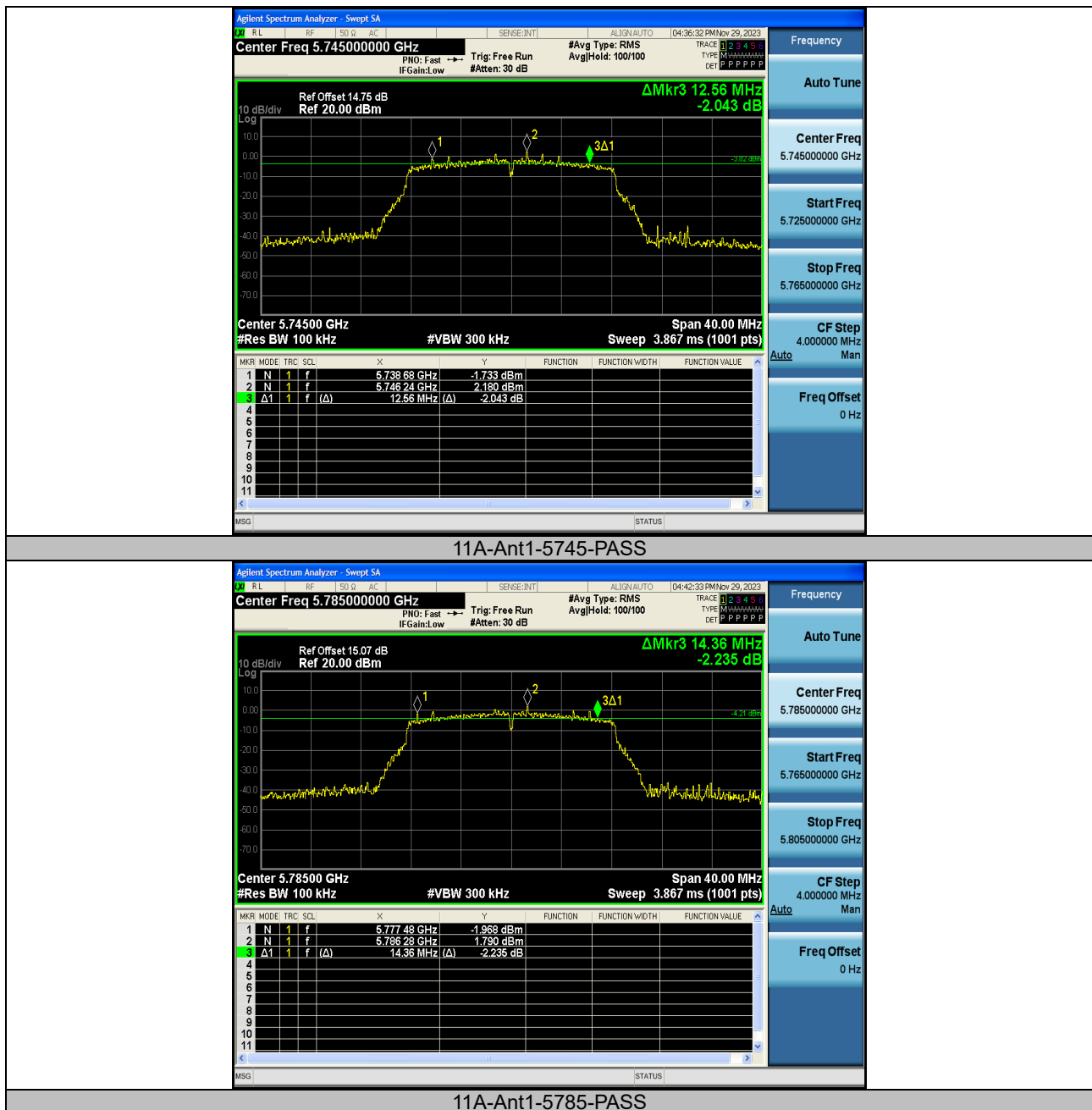
11AC40SISO-Ant1-5795

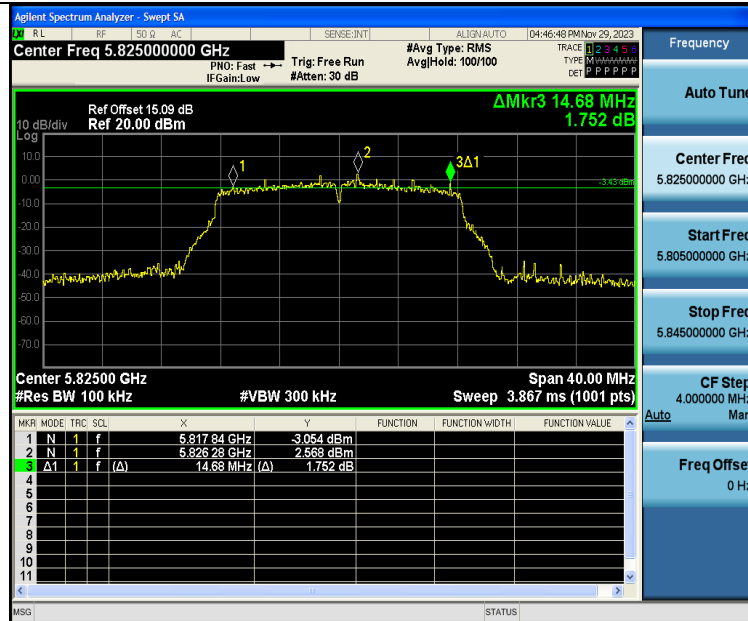


11AC80SISO-Ant1-5210

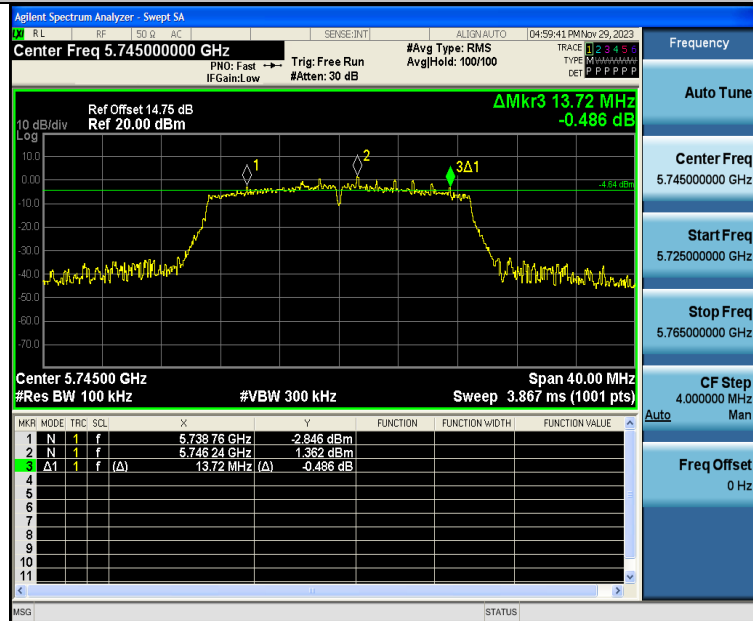


Min emission bandwidth Test Graphs:

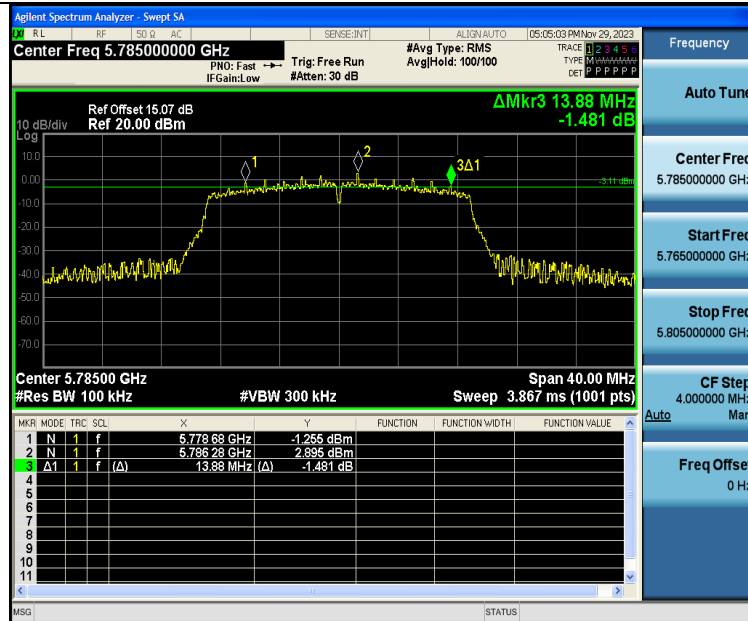




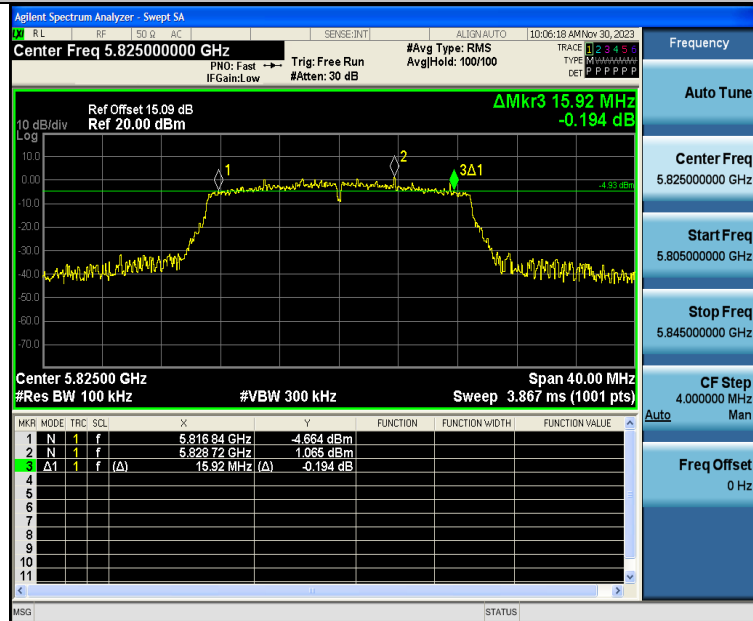
11A-Ant1-5825-PASS



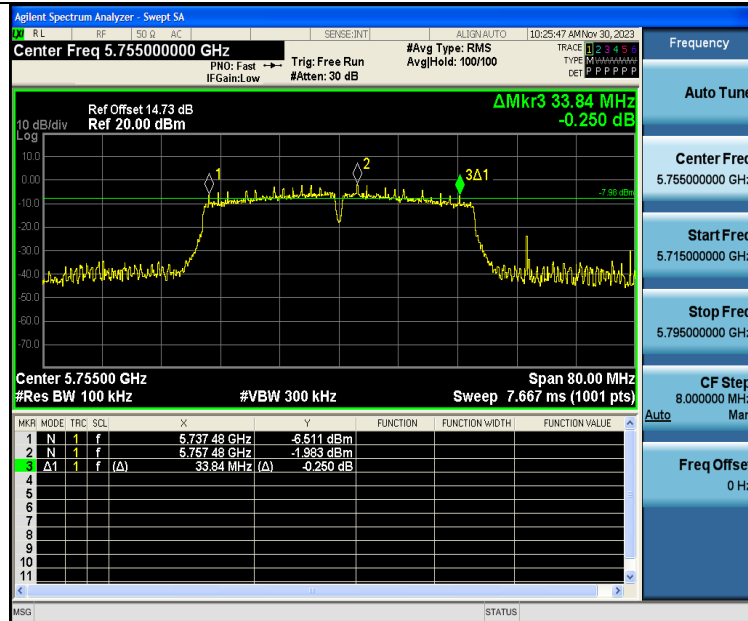
11N20SISO-Ant1-5745-PASS



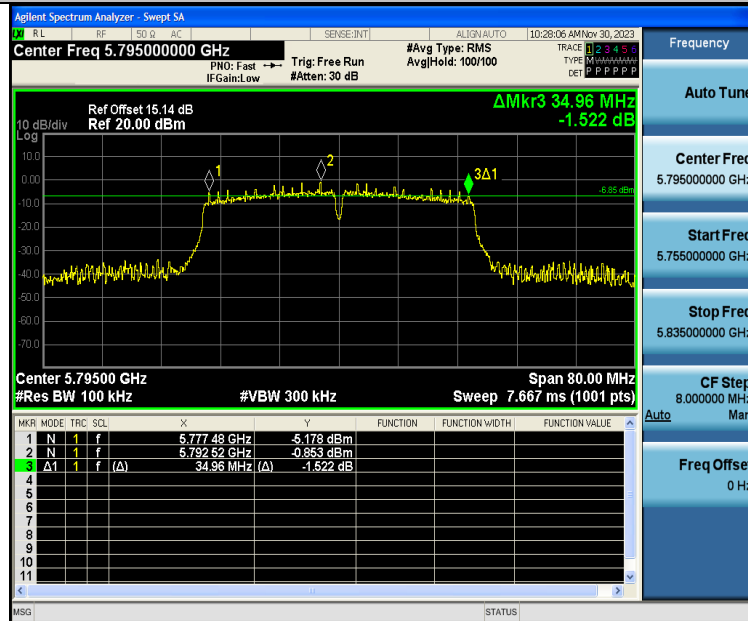
11N20SISO-Ant1-5785-PASS



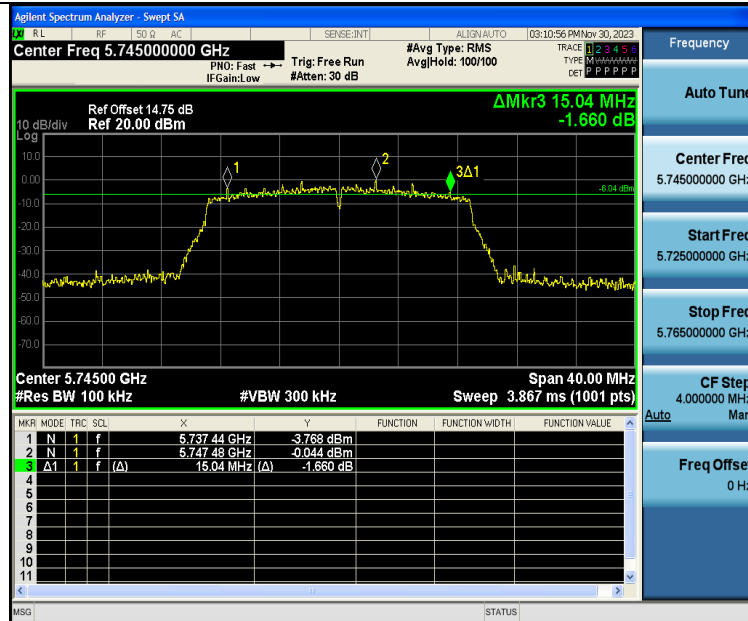
11N20SISO-Ant1-5825-PASS



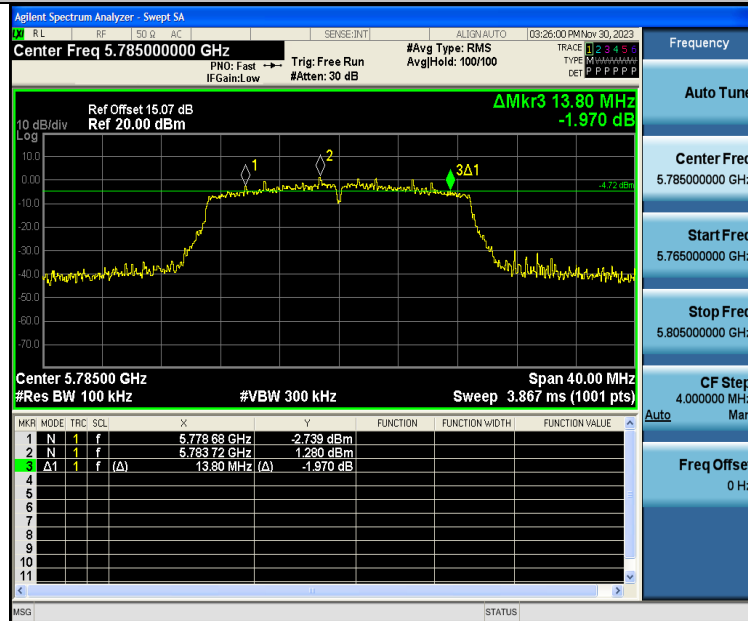
11N40SISO-Ant1-5755-PASS



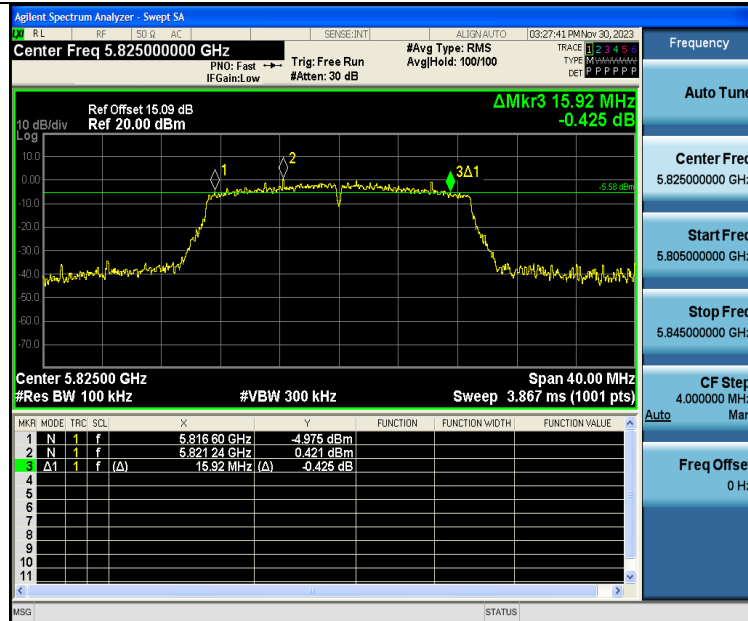
11N40SISO-Ant1-5795-PASS



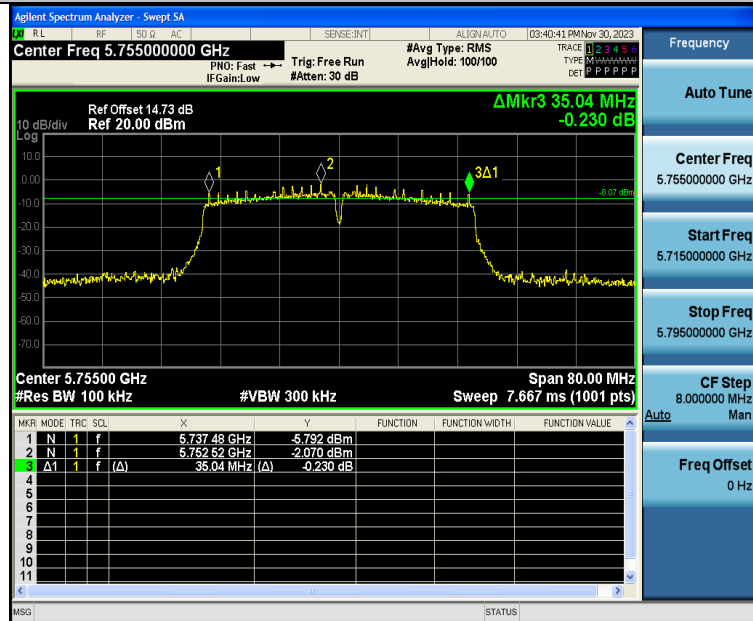
11AC20SISO-Ant1-5745-PASS



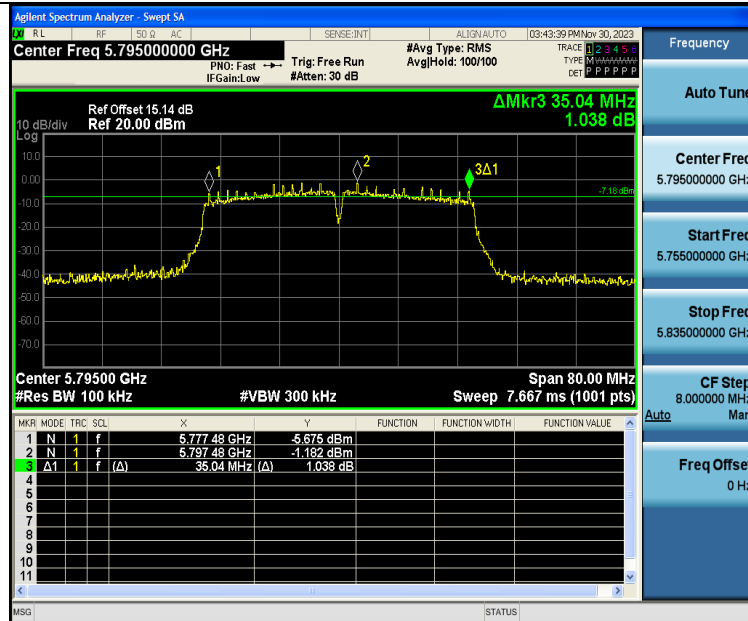
11AC20SISO-Ant1-5785-PASS



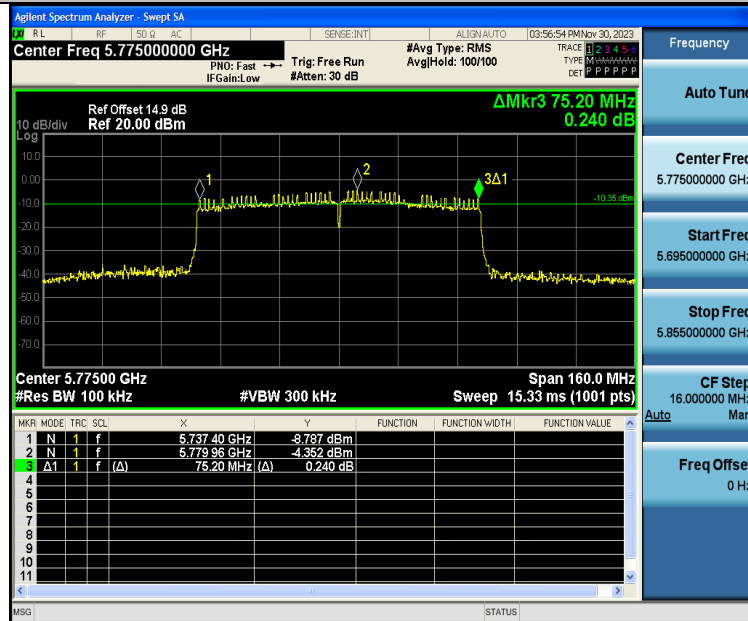
11AC20SISO-Ant1-5825-PASS



11AC40SISO-Ant1-5755-PASS



11AC40SISO-Ant1-5795-PASS



11AC80SISO-Ant1-5775-PASS

8 Maximum conducted output power

Test Requirement	: FCC CFR47 Part 15 Section 15.407(a)
Test Method	: ANSI C63.10:2013
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. In addition, 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, both the maximum conducted output power and 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 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, 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, both the maximum conducted output power and 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.

8.1 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, The use Power Meter 1. Place the EUT on a bench and set it in transmitting mode. 2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to a Power meter.

8.2 Test Result

Test Mode	Antenna	Frequency[MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	16.38	≤23.98	PASS
11A	Ant1	5200	17.37	≤23.98	PASS
11A	Ant1	5240	18.34	≤23.98	PASS
11A	Ant1	5745	11.99	≤30.00	PASS
11A	Ant1	5785	12.62	≤30.00	PASS
11A	Ant1	5825	12.54	≤30.00	PASS
11N20SISO	Ant1	5180	16.56	≤23.98	PASS
11N20SISO	Ant1	5200	17.31	≤23.98	PASS
11N20SISO	Ant1	5240	18.16	≤23.98	PASS
11N20SISO	Ant1	5745	11.72	≤30.00	PASS
11N20SISO	Ant1	5785	12.53	≤30.00	PASS
11N20SISO	Ant1	5825	12.91	≤30.00	PASS
11N40SISO	Ant1	5190	14.75	≤23.98	PASS
11N40SISO	Ant1	5230	15.85	≤23.98	PASS
11N40SISO	Ant1	5755	11.12	≤30.00	PASS
11N40SISO	Ant1	5795	12.01	≤30.00	PASS
11AC20SISO	Ant1	5180	15.76	≤23.98	PASS
11AC20SISO	Ant1	5200	15.13	≤23.98	PASS
11AC20SISO	Ant1	5240	15.92	≤23.98	PASS
11AC20SISO	Ant1	5745	10.62	≤30.00	PASS
11AC20SISO	Ant1	5785	12.03	≤30.00	PASS
11AC20SISO	Ant1	5825	12.23	≤30.00	PASS
11AC40SISO	Ant1	5190	15.30	≤23.98	PASS
11AC40SISO	Ant1	5230	16.46	≤23.98	PASS
11AC40SISO	Ant1	5755	11.13	≤30.00	PASS
11AC40SISO	Ant1	5795	11.99	≤30.00	PASS
11AC80SISO	Ant1	5210	14.74	≤23.98	PASS
11AC80SISO	Ant1	5775	11.59	≤30.00	PASS

9 Power Spectral density

Test Requirement	: FCC CFR47 Part 15 Section 15.2407(a)
Test Method	: ANSI C63.10:2013
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. In addition, 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, both the maximum conducted output power and 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 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHzband. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and 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

9.1 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 and ANSI 63.10: 2013 Sec 10.3.7. For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in Section 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:

- a) Set the RBW to 1 MHz.
- b) Set the VBW to be at least 1 MHz (a VBW of 3 MHz is desirable).
- c) Set the frequency span to examine the spectrum across a convenient frequency segment (e.g., 600 MHz).
- d) Select the power averaging (rms) detector.
- e) Set the sweep time so that there is no more than a 1 ms integration period over each measurement bin.
- f) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

9.2 Test Result

Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations / data rates and antenna ports.

Following channel was selected for the final test as listed below

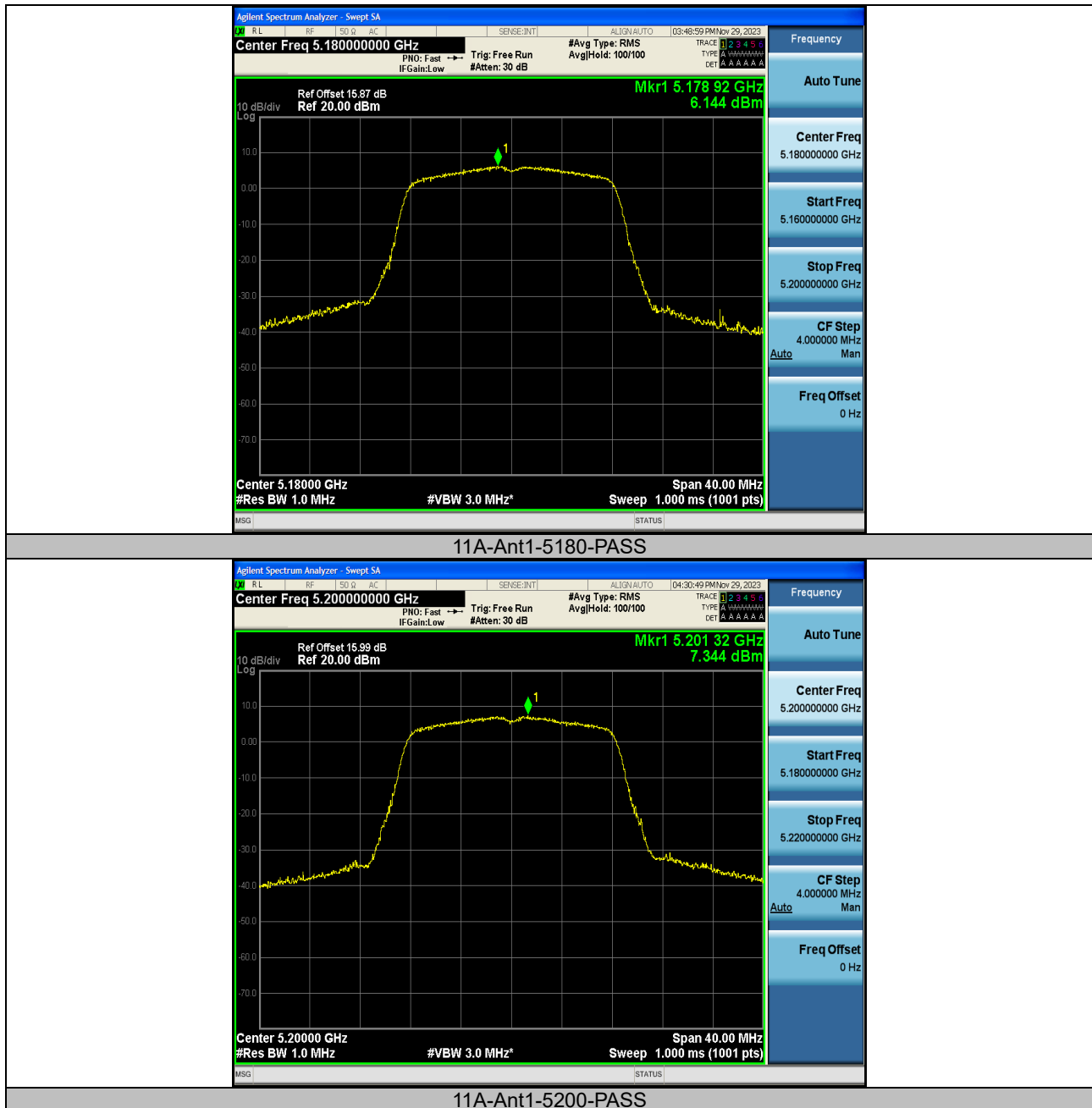
TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	6.14	≤11.00	PASS
11A	Ant1	5200	7.34	≤11.00	PASS
11A	Ant1	5240	8.16	≤11.00	PASS
11N20SISO	Ant1	5180	6.26	≤11.00	PASS
11N20SISO	Ant1	5200	6.97	≤11.00	PASS
11N20SISO	Ant1	5240	7.94	≤11.00	PASS
11N40SISO	Ant1	5190	1.58	≤11.00	PASS
11N40SISO	Ant1	5230	2.58	≤11.00	PASS
11AC20SISO	Ant1	5180	5.15	≤11.00	PASS
11AC20SISO	Ant1	5200	4.69	≤11.00	PASS
11AC20SISO	Ant1	5240	5.69	≤11.00	PASS
11AC40SISO	Ant1	5190	2.24	≤11.00	PASS
11AC40SISO	Ant1	5230	3.39	≤11.00	PASS
11AC80SISO	Ant1	5210	-1.49	≤11.00	PASS

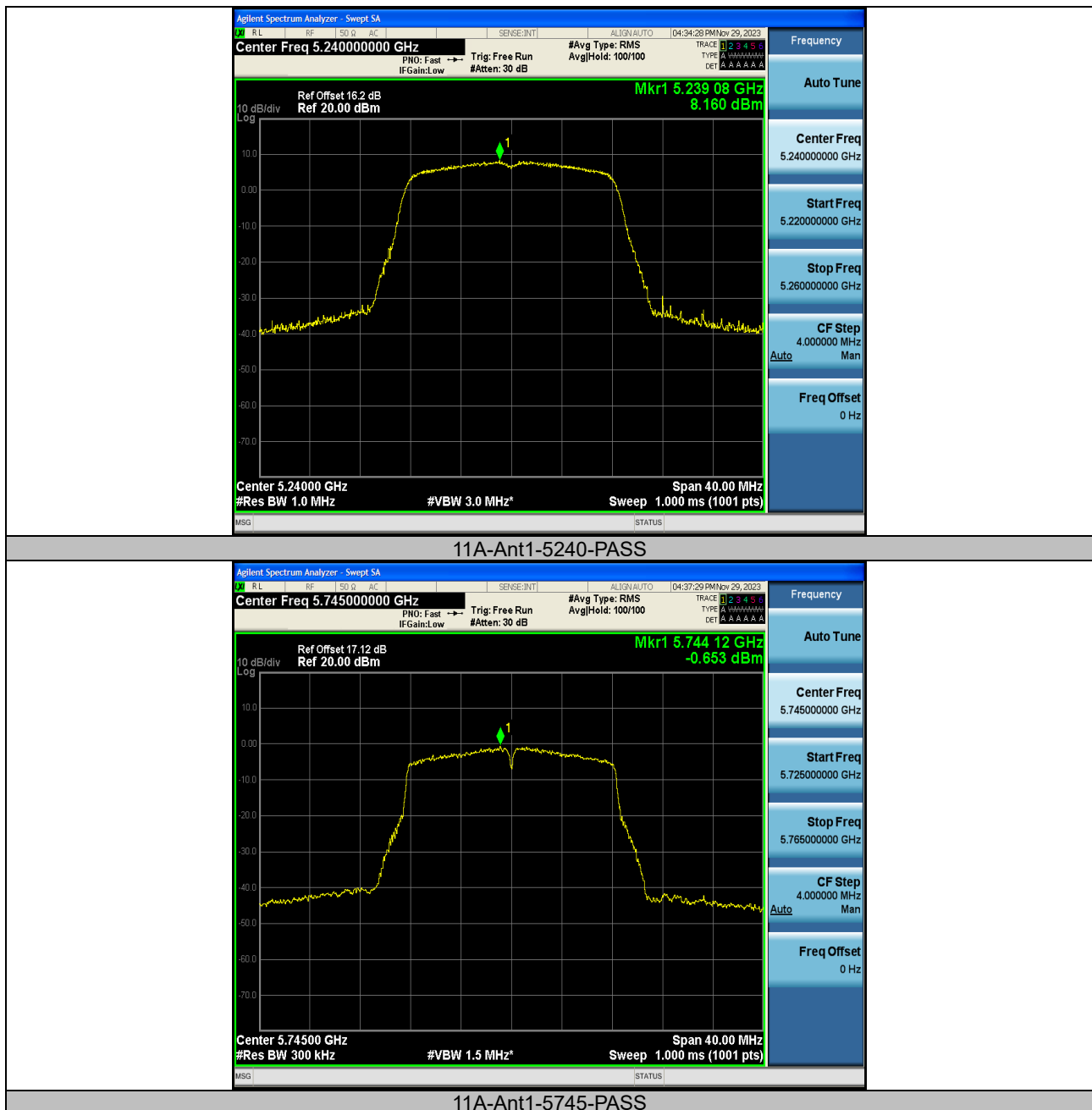
TestMode	Antenna	Frequency[MHz]	Result [dBm/500 kHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5745	1.57	≤30.00	PASS
11A	Ant1	5785	2.02	≤30.00	PASS
11A	Ant1	5825	1.95	≤30.00	PASS
11N20SISO	Ant1	5745	0.89	≤30.00	PASS
11N20SISO	Ant1	5785	1.94	≤30.00	PASS
11N20SISO	Ant1	5825	2.22	≤30.00	PASS
11N40SISO	Ant1	5755	-2.27	≤30.00	PASS
11N40SISO	Ant1	5795	-1.48	≤30.00	PASS
11AC20SISO	Ant1	5745	-0.2	≤30.00	PASS
11AC20SISO	Ant1	5785	1.2	≤30.00	PASS
11AC20SISO	Ant1	5825	1.59	≤30.00	PASS
11AC40SISO	Ant1	5755	-2.48	≤30.00	PASS
11AC40SISO	Ant1	5795	-2.08	≤30.00	PASS
11AC80SISO	Ant1	5775	-5.28	≤30.00	PASS

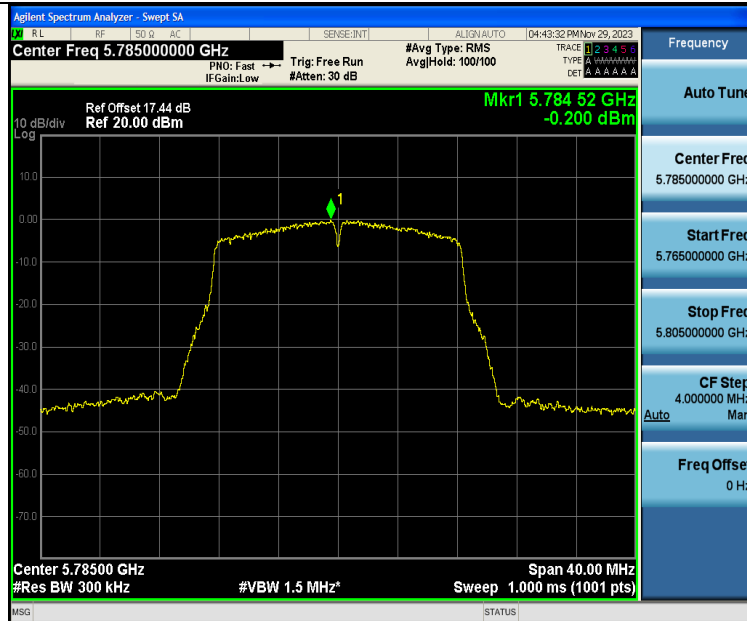
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

2. 2. in the band 5.725–5.85 GHz the test RBW select 300KHz,so the measured result corrected by Result+10 log (500 kHz/300kHz)

Test Graphs:



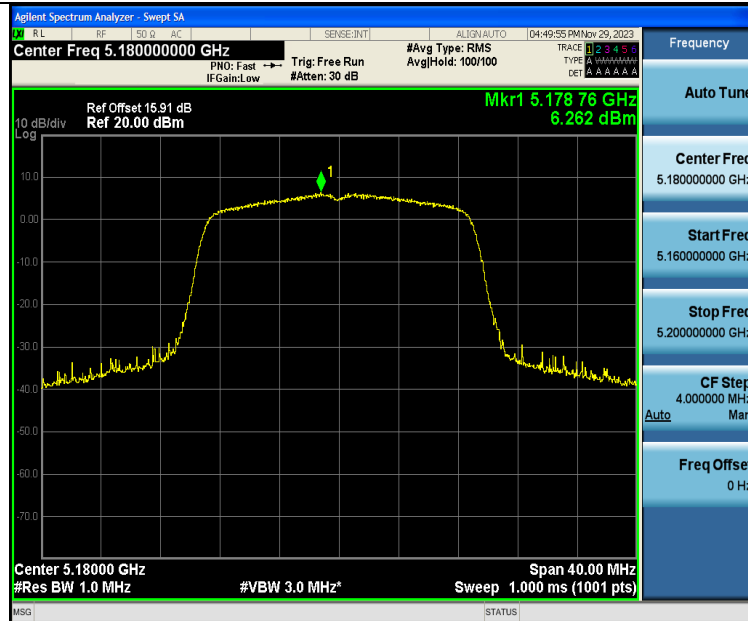




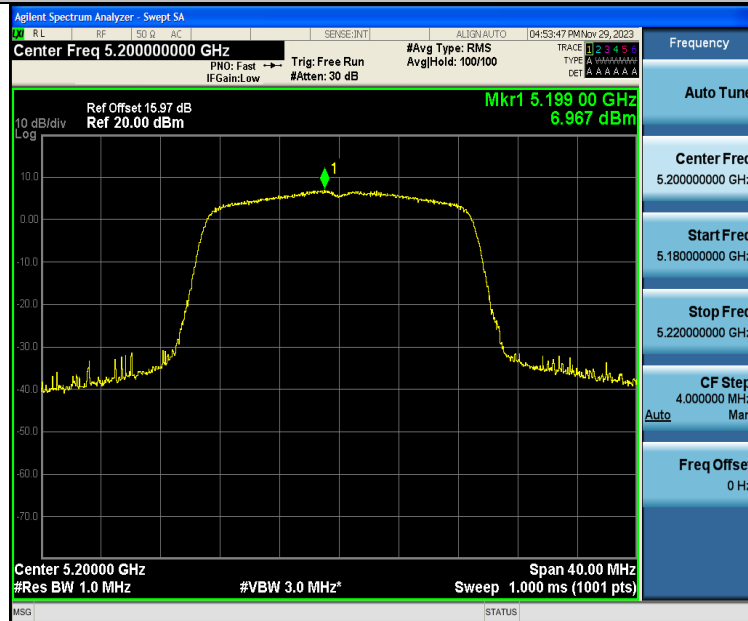
11A-Ant1-5785-PASS



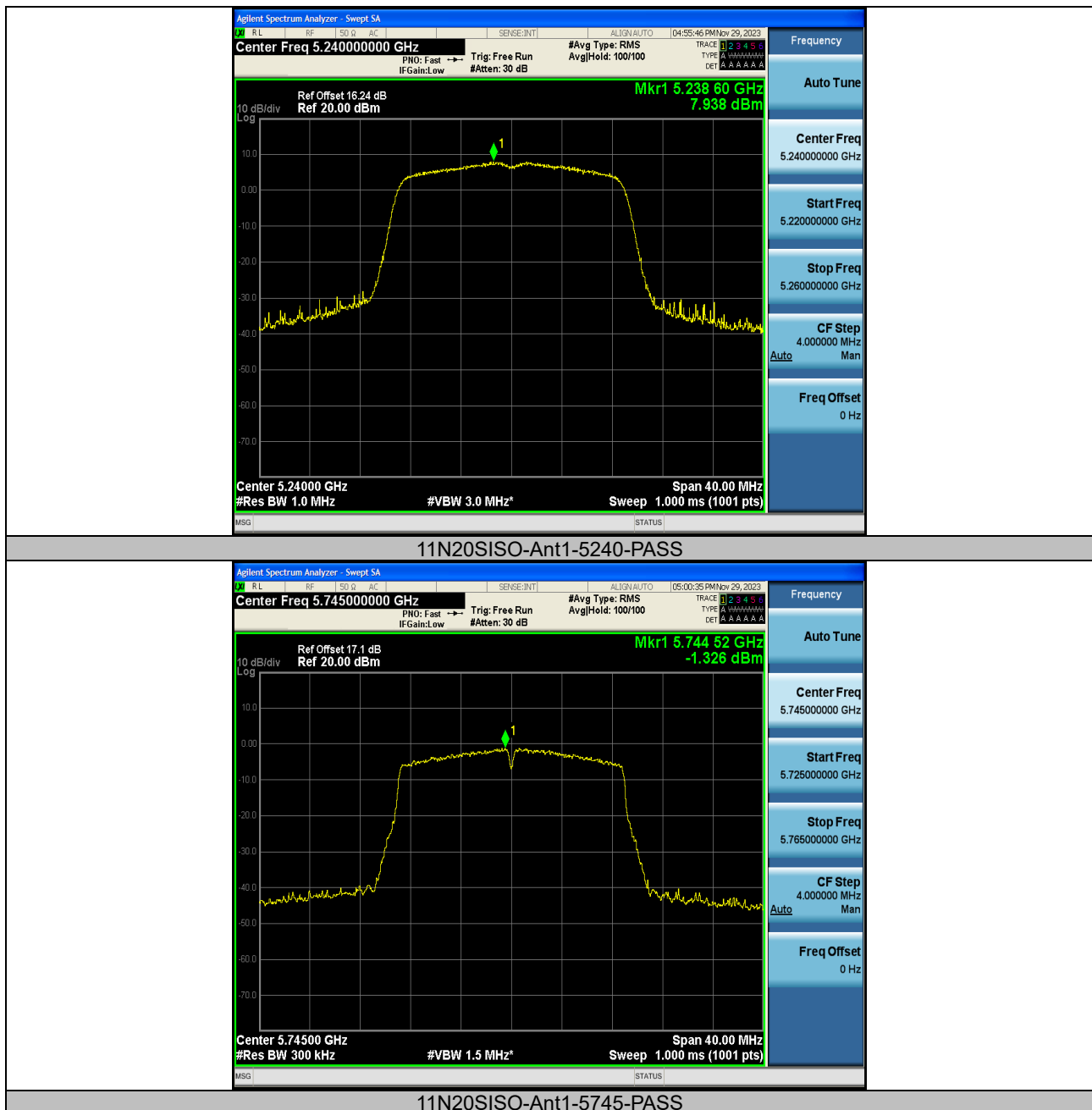
11A-Ant1-5825-PASS



11N20SISO-Ant1-5180-PASS

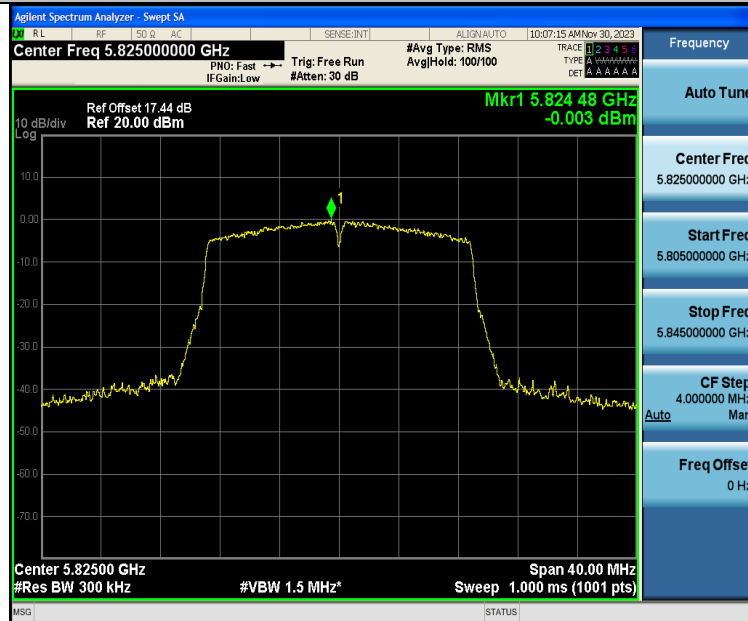


11N20SISO-Ant1-5200-PASS

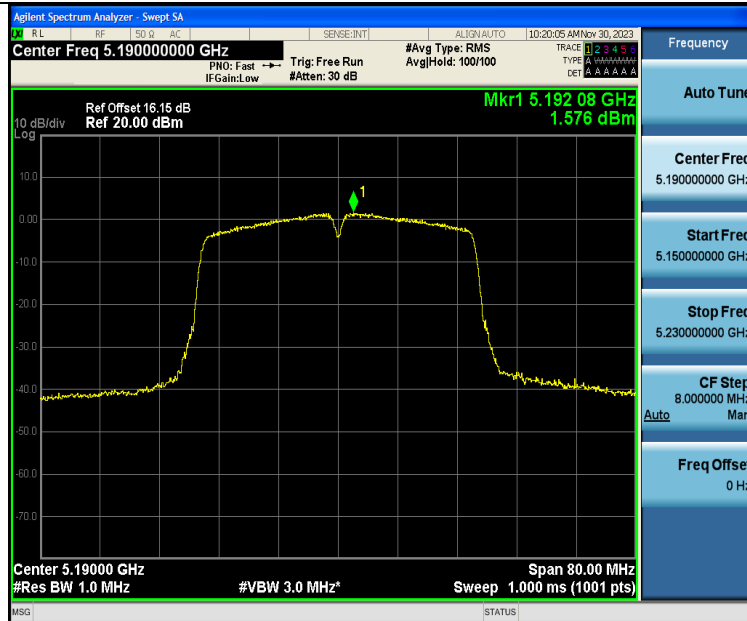




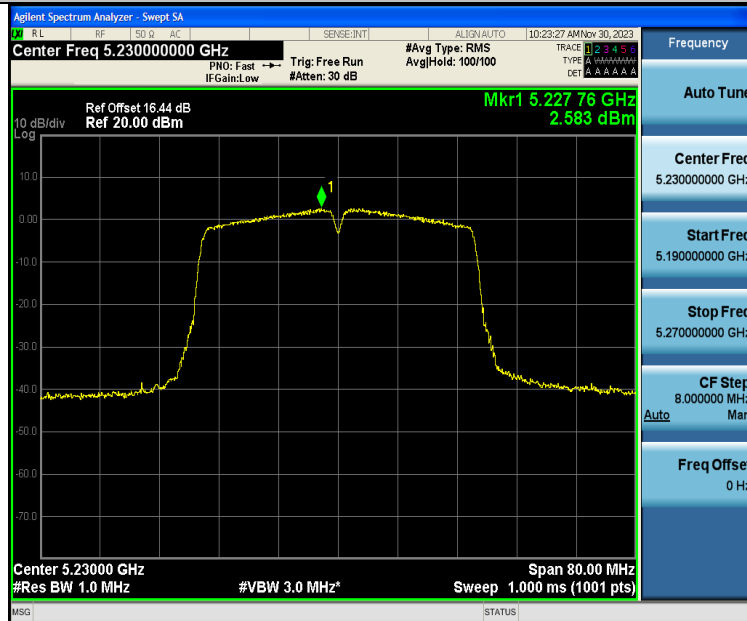
11N20SISO-Ant1-5785-PASS



11N20SISO-Ant1-5825-PASS



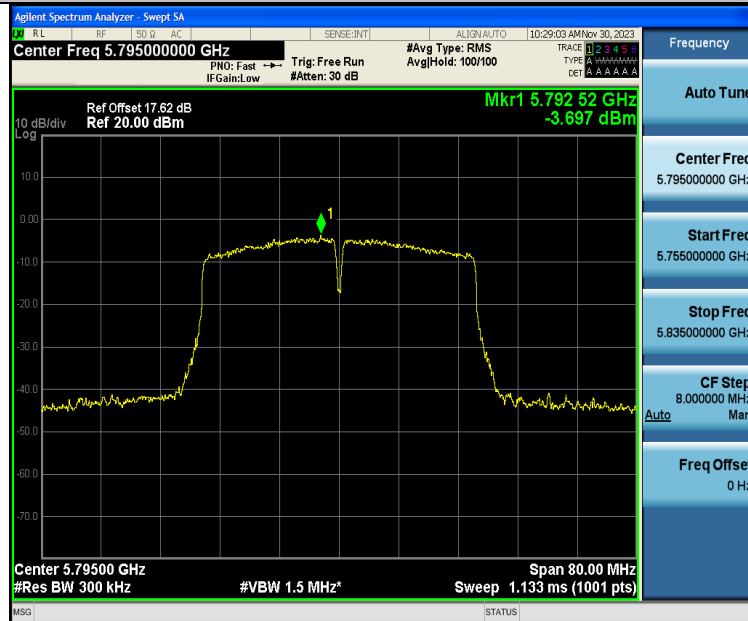
11N40SISO-Ant1-5190-PASS



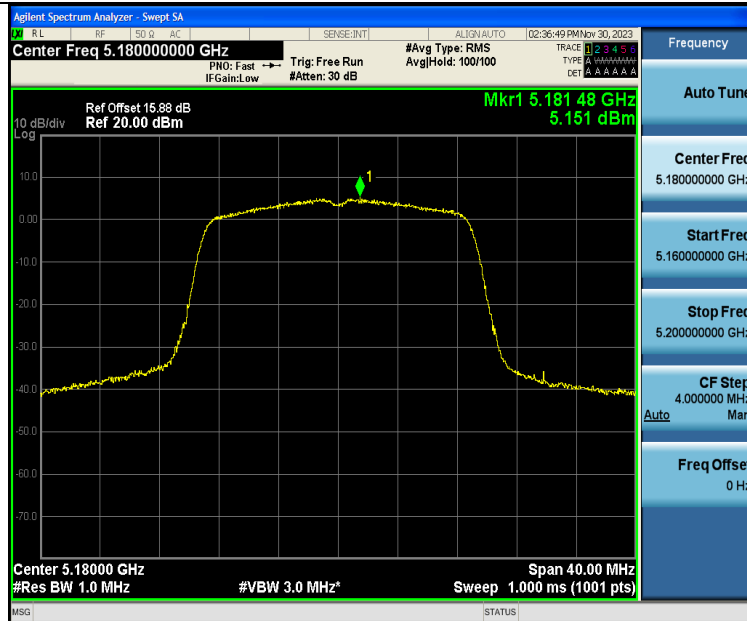
11N40SISO-Ant1-5230-PASS



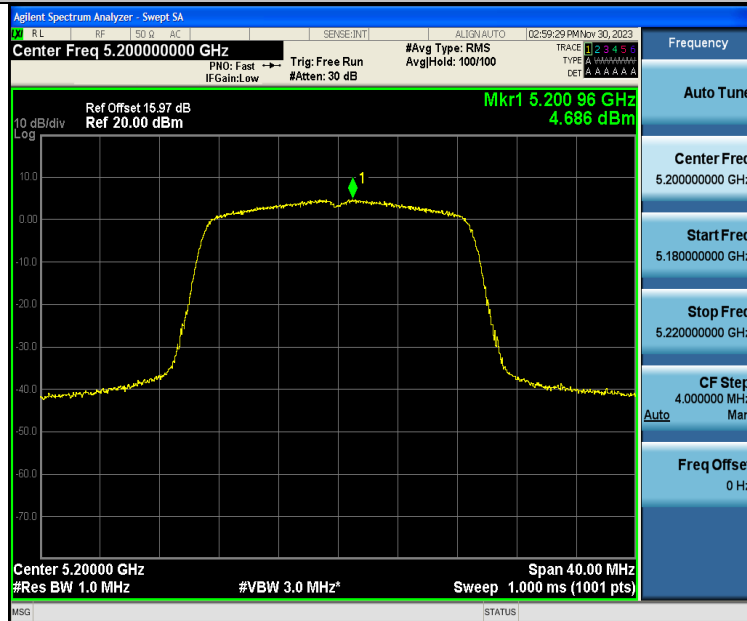
11N40SISO-Ant1-5755-PASS



11N40SISO-Ant1-5795-PASS



11AC20SISO-Ant1-5180-PASS



11AC20SISO-Ant1-5200-PASS