

Test Report

Product: Wireless carplay adapter

Trade Mark: N/A

Model Number: KY-4101

FCC ID: 2BHX8-KY-4101

Prepared for

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Guangdong Province

Prepared by

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TEST RESULT CERTIFICATION

Applicant's Name..... : JinKaiyue (Dongguan) Technology Co., Ltd
Address : Room 602, Building 4, No.9 Yuhu Road, Fenggang Town,
Dongguan City, Guangdong Province
Manufacturer's Name : JinKaiyue (Dongguan) Technology Co., Ltd
Address : Room 602, Building 4, No.9 Yuhu Road, Fenggang Town,
Dongguan City, Guangdong Province

Product description

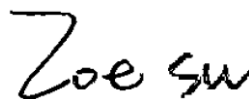
Product name : Wireless carplay adapter
Model Number : KY-4101
Standards : FCC Part 15.407
Test procedure..... : IEEE/ANSI C63.10-2020
KDB 789033 D02 v02r01

This device described above has been tested by Shenzhen HongBiao Certification& Testing Co., Ltd and the test results show that the equipment under test (EUT) is in compliance with the EMC requirements. And it is applicable only to the tested sample identified in the report.

Date of Test

Date (s) of performance of tests..... : Jul. 22, 2024~ Aug. 12, 2024
Test Result..... : **Pass**

Testing Engineer :



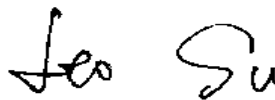
(Z o e S u)

Technical Manager :



(Mark Chen)

Authorized Signatory :



(L e o S u)

[illegible]

1 General Description

1.1 Description of EUT

Product name:	Wireless carplay adapter
Model name:	KY-4101
Series Model:	KY-4103, KY-4105, KY-4107, KY-4109, KY-4111, KY-4113, KY-4115, KY-4117, KY-4119, KY-4121, KY-4123, KY-4125, KY-4127, KY-4129, KY-4131, KY-347, KY-348, KY-643
Different of series model:	Except for the model, appearance color, appearance shape, appearance materials, electronic accessories, all models have the same circuits and modules.
Frequency range:	U-NII-1: 5180 MHz to 5240 MHz, U-NII-2A: 5260 MHz to 5320 MHz, U-NII-2C: 5500 MHz to 5700 MHz, U-NII-3: 5745 MHz to 5825 MHz
Modulation type:	IEEE 802.11a/n: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM(256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax: OFDM(1024QAM, 256QAM, 64QAM, 16QAM QPSK, BPSK)
Channel Spacing:	IEEE 802.11a/n-HT20/ac-VHT20/ax-HE20: 20 MHz IEEE 802.11n-HT40/ac-VHT40/ax-HE40: 40 MHz
Bit Rate of transmitter:	IEEE 802.11a: Up to 54 Mbps IEEE 802.11n-HT20/40: Up to MCS7 IEEE 802.11ac-VHT20/40: Up to MCS9 IEEE 802.11ax-HE20/HE40: Up to MCS11
Channel bandwidth:	IEEE 802.11a/n-HT20/ac-VHT20/ax-HE20: 20 MHz IEEE 802.11n-HT40/ac-VHT40/ax-HE40: 40 MHz
Antenna type:	PCB antenna
Antenna gain:	U-NII-1: -3.98dBi U-NII-2A: -3.13dBi U-NII-2C: -0.25dBi U-NII-3: -1.51dBi
Max. output power:	13.36dBm
Hardware version:	V0.3
Software version:	202407041001C
Battery:	N/A
Power supply:	DC 5V from adapter AC 120V/60Hz

Adapter information:	N/A
----------------------	-----

1.2 Operation Channel List

For U-NII-1:

20 MHz		40 MHz		80 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
36	5180	38	5190	--	--
40	5200	46	5230	--	--
44	5220	--	--	--	--
48	5240	--	--	--	--

For U-NII-2A:

20 MHz		40 MHz		80 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
52	5260	54	5270	--	--
56	5280	62	5310	--	--
60	5300	--	--	--	--
64	5320	--	--	--	--
--	--	--	--	--	--

For U-NII-2C:

20 MHz		40 MHz		80 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
100	5500	102	5510	--	--
104	5520	110	5550	--	--
108	5540	118	5590	--	--
112	5560	126	5630	--	--
116	5580	134	5670	--	--
120	5600	--	--	--	--
124	5620	--	--	--	--
128	5640	--	--	--	--
132	5660	--	--	--	--
136	5680	--	--	--	--
140	5700	--	--	--	--
--	--	--	--	--	--

For U-NII-3:

20 MHz		40 MHz		80 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
149	5745	151	5755	--	--
153	5765	159	5795	--	--
157	5785	--	--	--	--

161	5805	--	--	--	--
165	5825	--	--	--	--

1.3 Test Mode

For 802.11a/n (HT20)/ac (VHT20)/ax (HE20)

U-NII-1 (5150 - 5250 MHz)			U-NII-2A(5250 - 5350 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
36	Low	5180	52	Low	5260
40	Mid	5200	56	Mid	5280
48	High	5240	64	High	5320

For 802.11n (HT40)/ac (VHT40)/ax (HE40)

U-NII-1 (5150 - 5250 MHz)			U-NII-2A(5250 - 5350 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
38	Low	5190	54	Low	5270
46	High	5230	62	High	5310

For 802.11a/n (HT20)/ac (VHT20)/ax (HE20)

U-NII-2C (5470 - 5725 MHz)			U-NII-3(5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
100	Low	5500	149	Low	5745
120	Mid	5600	157	Mid	5785
140	High	5700	165	High	5825

For 802.11n (HT40)/ac (VHT40)/ax (HE40)

U-NII-2C (5470 - 5725 MHz)			U-NII-3(5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
102	Low	5510	151	Low	5755
110	Mid	5550	159	High	5795
134	High	5670	--	--	--

Note: 802. 11ax mode only support full resource unit size.

During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product. Transmitting duty cycle is no less 98%.

The software is PUSH and CMD tool Use together.

Test Items	Mode	Data Rate	TX/RX
Radiated Emissions	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40)	MCS0	TX
	802.11ax(HE20/40)	MCS0	TX
Duty Cycle	802.11a(HT20)	6 Mbps	TX
	802.11n/ac(HT20/40)	MCS0	TX
	802.11ax(HE20/40)	MCS0	TX
Band Edge	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40)	MCS0	TX
	802.11ax(HE20/40)	MCS0	TX
6dB Bandwidth	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40)	MCS0	TX
	802.11ax(HE20/40)	MCS0	TX
26dB Bandwidth and 99% Occupied Bandwidth	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40)	MCS0	TX
	802.11ax(HE20/40)	MCS0	TX
Conducted Output Power	802.11a(HT20)	6 Mbps	TX
	802.11n/ac(HT20/40)	MCS0	TX
	802.11ax(HE20/40)	MCS0	TX
Power Spectral Density	802.11a(HT20)	6 Mbps	TX
	802.11n/ac(HT20/40)	MCS0	TX
	802.11ax(HE20/40)	MCS0	TX
Frequency Stability	Un-modulation	/	TX

1.4 Test Setup

See photographs of the test setup in the report for the actual setup and connections between EUT and support equipment.

1.5 Ancillary Equipment

Equipment	Model	S/N	Manufacturer
Notebook	NbDE-WFH9	XYKPM22A1 3001799	Huawei Terminal Co., Ltd
Adapter	GST40A12	EN94C51258	SuZhou MEAN WELL Technology Co., Ltd.

2 Summary of Test Result

No.	Standard Section	Test Item	Result	Remark
1	15.203/15.407	Antenna Requirement	Pass	
2	15.207	Power Line Conducted Emission	Pass	
3	15.407(b) 15.209	Radiation Spurious Emission	Pass	
4	15.407(a)	RF Output Power	Pass	
5	15.407(a)	Power Spectral Density	Pass	
6	15.407(a)	26dB Emission Bandwidth and Occupied bandwidth	Pass	
7	15.407(e)	6 dB bandwidth	Pass	
8	15.407(b)	Out Of Band Emission	Pass	
9	15.407(b)	Spurious RF Conducted Emissions	Pass	

3 Test Facilities and Accreditations

3.1 Test Laboratory

Test Site	Shenzhen HongBiao Certification& Testing Co., Ltd
Test Site Location	Room 102, 201, Building 2, Yuanwanggu RFID Industrial Park, Tongguan Road, Tianliao Community, Yutang Street, Guangming District, Shenzhen, China
Telephone:	(86-755) 2998 9321
Fax:	(86-755) 2998 5110
FCC Registration No.:	CN1341
A2LA Certificate No.:	6765.01

3.2 Environmental Conditions

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

Temperature:	15°C~35°C
Relative Humidity:	20%~75%
Air Pressure:	98kPa~101kPa

3.3 Measurement Uncertainty

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

Measurement Frequency Range	U, (dB)	Note
RF frequency	2×10^{-5}	
RF power, conducted	± 0.57 dB	
Conducted emission(150kHz~30MHz)	± 2.5 dB	
Radiated emission(9kHz-30MHz)	± 2.5 dB	
Radiated emission(30MHz~1GHz)	± 4.2 dB	
Radiated emission (above 1GHz)	± 4.7 dB	
Occupied Bandwidth	$\pm 3\%$	
Temperature	± 1 degree	
Humidity	$\pm 5 \%$	

3.4 Test Software

Software name	Manufacturer	Model	Version
Conducted Emission test Software	Farad	EZ-EMC	EMC-CON 3A1.1+
Radiated Emission test Software	Farad	EZ-EMC	FA-03A2
RF Test System	MWRF	MTS 8310	2.0.0.0

4 List of Test Equipment

Radiation emission							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	HB-E001	Horn Antenna	Schwarzbeck	BBHA 9120D	02592	2024-05-18	2026-05-17
2	HB-E002	Biconical log-periodic composite antenna	Schwarzbeck	VULB 9168	01340	2024-05-18	2026-05-17
3	HB-E003	SHF-EHF Horn	Schwarzbeck	BBHA 91270	01193	2024-05-18	2026-05-17
4	HB-E005	Preamplifier	Noyetec	LAN-01 18	NYCM1420 102	2024-05-17	2025-05-16
5	HB-E006	Preamplifier	Noyetec	LAN-18 40	NYCM1420 103	2024-05-17	2025-05-16
6	HB-E007	EMI TEST RECEIVER	R&S	ESR7	102520	2024-05-17	2025-05-16
7	HB-E009	POSITINAL COTROLLE R	Noyetec	N/A	N/A	/	/
8	HB-E013	RF switch	Noyetec	NY-RF4	NY0CM142 0204	/	/
9	HB-E066	Illuminance Tester	TASI	TA8121	N/A	2024-05-21	2025-05-20
10	HB-E075	Active loop antenna	Schwarzbeck	FMZB 1519B	1519B-245	2024-05-18	2026-05-17
11	HB-E076	Preamplifier	Hewlett Packard	8447D	1937A0227 8	2024-05-17	2025-05-16
Conduction emission							
Item	Equipment No.	Equipment name	Manufactu rer	Model	Serial No.	Calibration date	Due date
1	HB-E014	4 Path V-LISN	Schwarzbeck	NNLK 8121	00770	2024-05-17	2025-05-16
2	HB-E015	Pulse Limiter	Schwarzbeck	VTSD 9561-F	00949	2024-05-17	2025-05-16
3	HB-E016	ZN23201	Noyetec	ZN23201	N/A	2024-05-21	2025-05-20
4	HB-E059	Attenuator	Xianghua	TS2-6-1	220215166	2024-05-17	2025-05-16
5	HB-E069	EMI TEST RECEIVER	R&S	ESCI	N/A	2024-05-17	2025-05-16

RF							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	HB-E041	MXG Anaio Signal Generator	Agilent	N5181A	MY47070421	2024-05-17	2025-05-16
2	HB-E042	WIDEBAND RADIO COMMUNICA TION TESTER	R&S	CMW500	132108	2024-05-17	2025-05-16
3	HB-E043	MXG Anaio Signal Generator	Agilent	N5182A	US46240335	2024-05-17	2025-05-16
4	HB-E044	Signal& spectrum Analyzer	R&S	FSV3044	101264	2024-05-17	2025-05-16
5	HB-E045	RF Control Box	Noyetec	NY100-R FCB	N/A	/	/
6	HB-E058	Thermometer Clock Humidity Monitor	N/A	HTC-1	N/A	/	/

Note: the calibration interval of the above test instruments is 12&24 months and the calibrations are traceable to international system unit (SI).

5 Test Item And Results

5.1 Antenna Requirement

5.1.1 Standard Requirement

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device

5.1.2 Test Result

The EUT antenna is PCB antenna. It comply with the standard requirement. In case of replacement of broken antenna the same antenna type must be used.

5.2 Power Line Conducted Emission

5.2.1 Limits

Limits – Class B		
Frequency (MHz)	Limit (dBμV)	
	Quasi-Peak	Average
0.15 to 0.5	66 to 56*	56 to 46*
0.5 to 5	56	46
5 to 30	60	50
Note: 1. the tighter limit applies at the band edges. 2. the limit of "*" marked band means the limitation decreases linearly with the logarithm of the frequency in the range.		

5.2.2 Test Procedures

a) EUT Operating Conditions

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

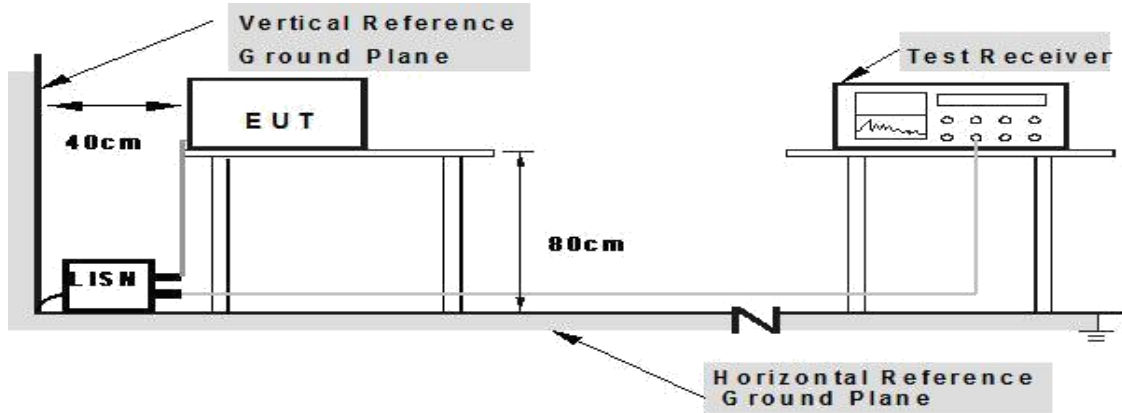
b) The following table is the setting of the receiver

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

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

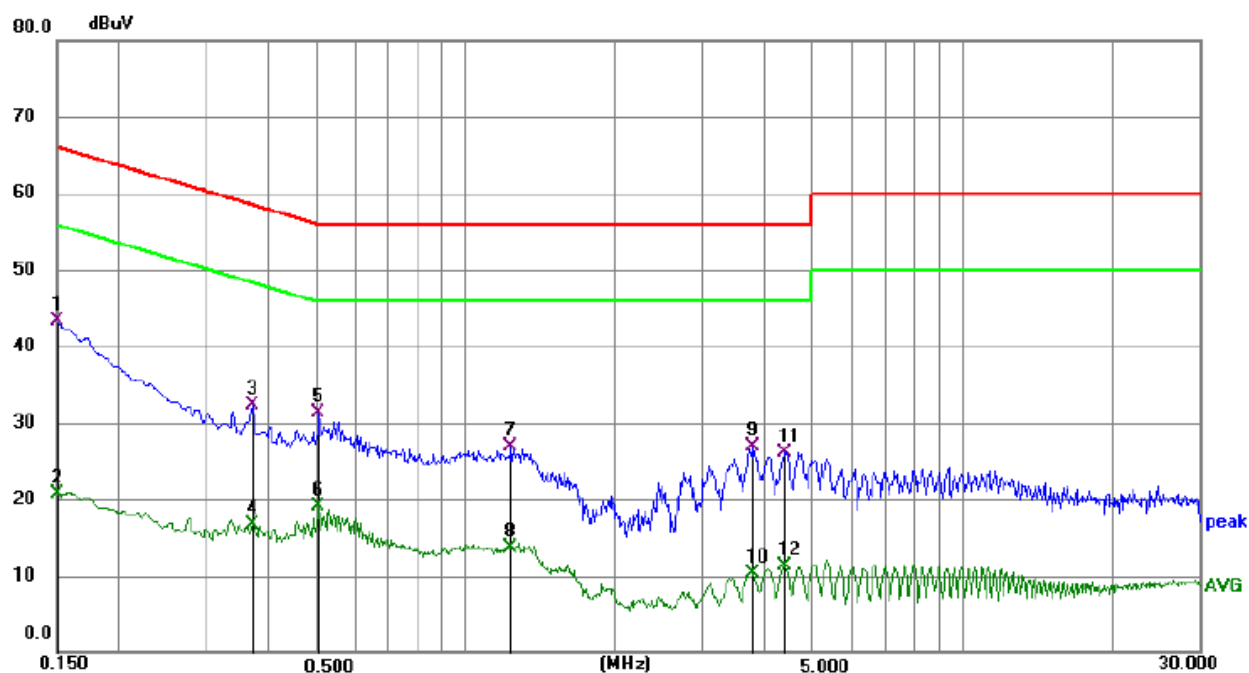
setup.

5.2.3 Test Setup



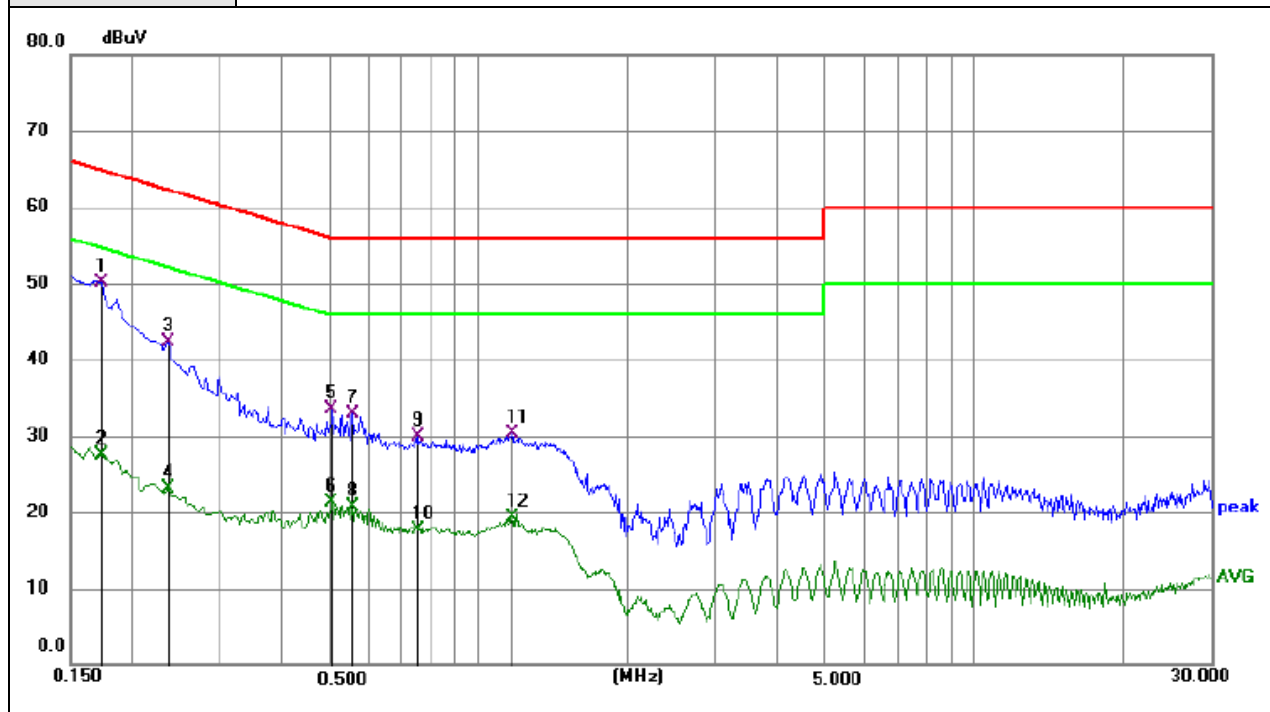
5.2.4 Test Result

EUT:	Wireless carplay adapter	Model Name:	KY-4101
Test Mode:	TX	Phase:	L
Test Voltage:	DC 5V from adapter AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1 *	0.150000	32.73	10.49	43.22	66.00	-22.78	QP
2	0.150000	10.19	10.49	20.68	56.00	-35.32	AVG
3	0.370400	21.77	10.48	32.25	58.49	-26.24	QP
4	0.370400	6.29	10.48	16.77	48.49	-31.72	AVG
5	0.505400	20.79	10.51	31.30	56.00	-24.70	QP
6	0.505400	8.69	10.51	19.20	46.00	-26.80	AVG
7	1.234400	16.44	10.43	26.87	56.00	-29.13	QP
8	1.234400	3.27	10.43	13.70	46.00	-32.30	AVG
9	3.794900	16.41	10.45	26.86	56.00	-29.14	QP
10	3.794900	-0.22	10.45	10.23	46.00	-35.77	AVG
11	4.384500	15.69	10.38	26.07	56.00	-29.93	QP
12	4.384500	0.86	10.38	11.24	46.00	-34.76	AVG

EUT:	Wireless carplay adapter	Model Name:	KY-4101
Test Mode:	TX	Phase:	N
Test Voltage:	DC 5V from adapter AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1 *	0.172400	39.61	10.50	50.11	64.84	-14.73	QP
2	0.172400	16.91	10.50	27.41	54.84	-27.43	AVG
3	0.235400	31.86	10.52	42.38	62.26	-19.88	QP
4	0.235400	12.52	10.52	23.04	52.26	-29.22	AVG
5	0.505400	23.18	10.40	33.58	56.00	-22.42	QP
6	0.505400	10.98	10.40	21.38	46.00	-24.62	AVG
7	0.555000	22.49	10.39	32.88	56.00	-23.12	QP
8	0.555000	10.29	10.39	20.68	46.00	-25.32	AVG
9	0.757400	19.48	10.37	29.85	56.00	-26.15	QP
10	0.757400	7.41	10.37	17.78	46.00	-28.22	AVG
11	1.167000	19.94	10.35	30.29	56.00	-25.71	QP
12	1.167000	9.03	10.35	19.38	46.00	-26.62	AVG

5.3 Radiated Emission

5.3.1 Limits

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.

Frequencies (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

Frequency Range	RBW	VBW	Measurement
30MHz-1GHz	1MHz	3MHz	Peak
Above 1GHz	1MHz	10Hz ^{Note1}	Average
	1MHz	>1/T ^{Note2}	Average
Note1	When duty cycle is no less than 98%		

Note2	When duty cycle is less than 98%
-------	----------------------------------

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

5.3.2 Test Procedures

The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.

The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

For emission measurements above 1 GHz, the EUT shall be placed at a height of 1.5 m above the floor on a support that is RF transparent for the frequencies of interest. Final measurements for the EUT require a measurement antenna height scan of 1 m to 4 m.

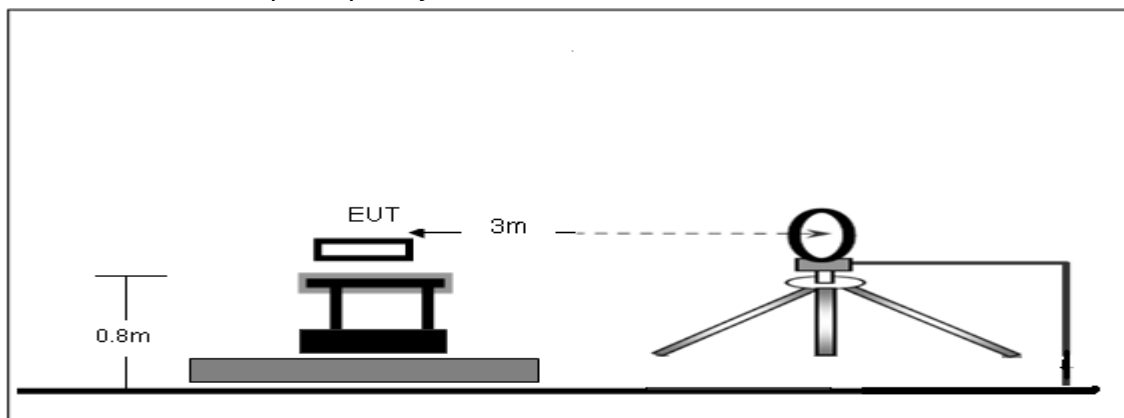
The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. For the actual test configuration, please refer to the related Item –EUT Test Photos.

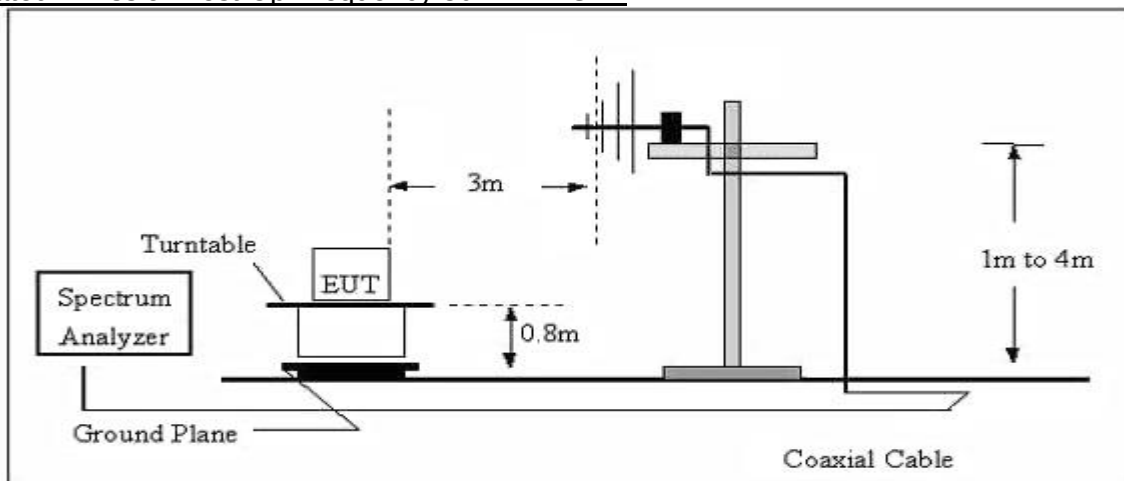
Note: Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

5.3.3 Test Setup

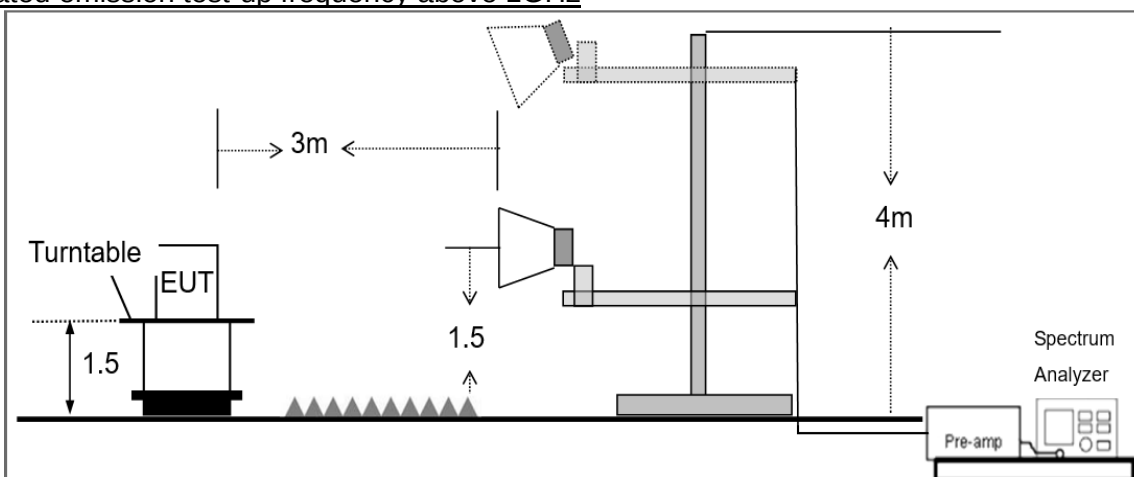
Radiated Emission Test-Up Frequency Below 30MHz



Radiated Emission Test-Up Frequency 30MHz~1GHz



Radiated emission test-up frequency above 1GHz



5.3.4 Test Result

Below 30MHz

EUT:	Wireless carplay adapter	Model Name:	KY-4101
Pressure:	1010 hPa	Test Voltage:	DC 5V from adapter AC 120V/60Hz
Test Mode:	TX	Polarization:	--

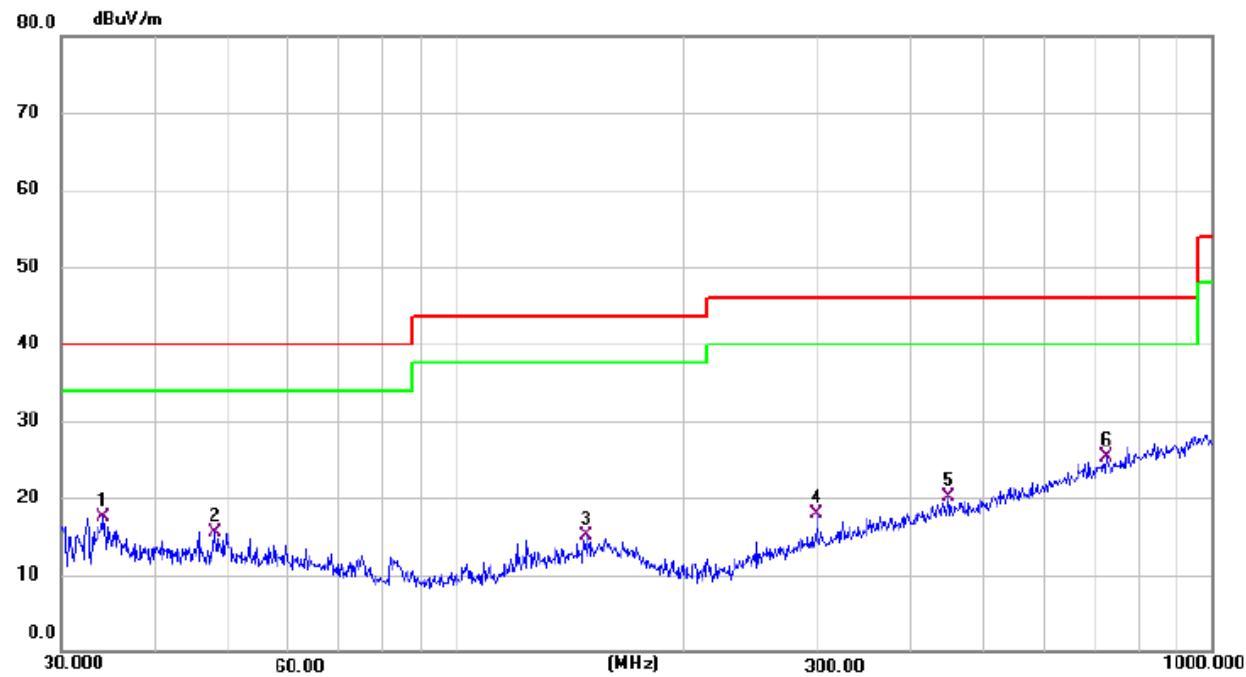
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	Pass
--	--	--	--	Pass

Note:

1. For 9kHz-30MHz, the amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Distance extrapolation factor = $40 \log (\text{specific distance}/\text{test distance})$ (dB);
3. Limit line = specific limits (dBuV) + distance extrapolation factor.

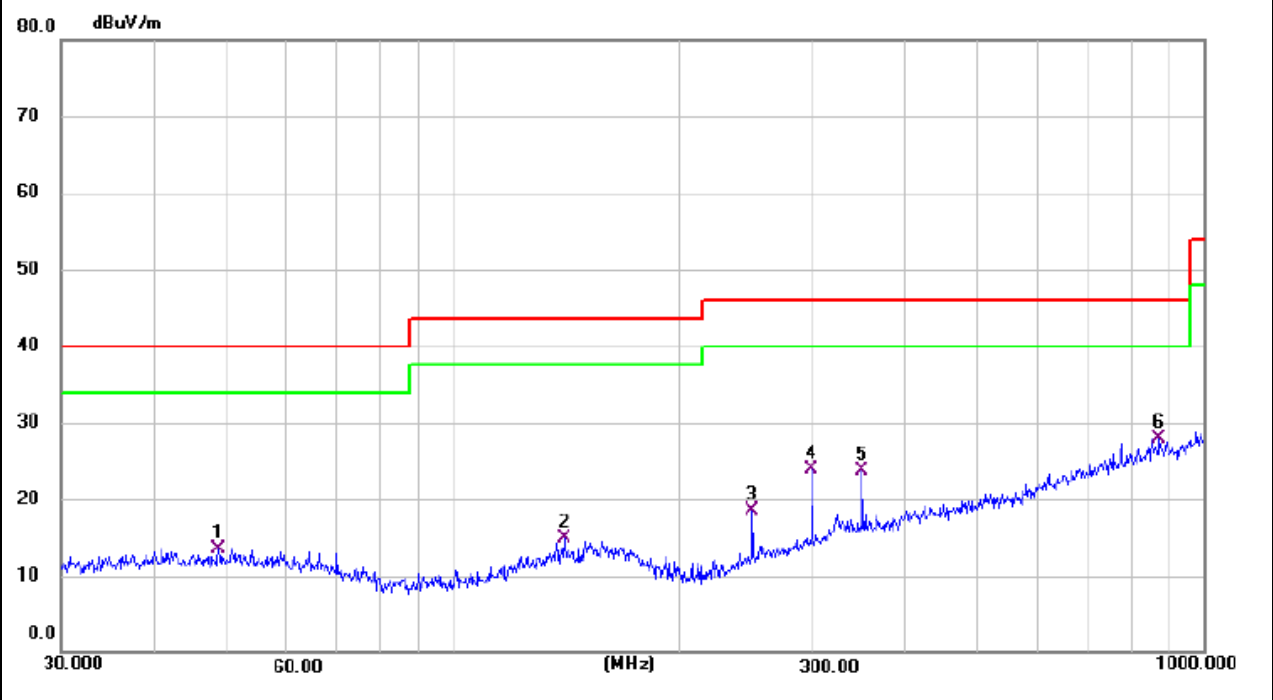
Frequency range (30MHz – 1GHz)

EUT:	Wireless carplay adapter	Model Name:	KY-4101
Test Mode:	a20 5180MHz(Worst)	Phase:	Vertical
Test Voltage:	DC 5V from adapter AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	34.0365	32.35	-14.85	17.50	40.00	-22.50	QP
2	47.9940	29.81	-14.31	15.50	40.00	-24.50	QP
3	148.4410	28.74	-13.61	15.13	43.50	-28.37	QP
4	300.3672	30.41	-12.56	17.85	46.00	-28.15	QP
5	447.9822	28.47	-8.40	20.07	46.00	-25.93	QP
6 *	724.2611	27.15	-1.78	25.37	46.00	-20.63	QP

EUT:	Wireless carplay adapter	Model Name:	KY-4101
Test Mode:	a20 5180MHz(Worst)	Phase:	Horizontal
Test Voltage:	DC 5V from adapter AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	48.6719	27.85	-14.29	13.56	40.00	-26.44	QP
2	140.3421	29.13	-14.20	14.93	43.50	-28.57	QP
3	250.3012	33.40	-14.90	18.50	46.00	-27.50	QP
4	300.3672	36.40	-12.56	23.84	46.00	-22.16	QP
5	350.4768	34.83	-11.08	23.75	46.00	-22.25	QP
6 *	872.1832	27.46	0.48	27.94	46.00	-18.06	QP

Frequency range (1GHz-40GHz)
For U-NII-1

Polar	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamplifier Factor	Emission Level	Limits	Margin	Detector Type
(H/V)	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G									
Vertical	4435.014	56.05	5.94	35.40	44.00	53.39	68.20	-14.81	Pk
Vertical	4436.346	43.71	5.94	35.40	44.00	41.05	54.00	-12.95	AV
Vertical	10371.499	59.62	8.46	39.75	44.50	63.33	68.20	-4.87	Pk
Vertical	10371.322	44.06	8.46	39.75	44.50	47.77	54.00	-6.23	AV
Horizontal	4434.939	58.11	5.94	35.18	44.00	55.23	68.20	-12.97	Pk
Horizontal	4434.445	42.81	5.94	35.18	44.00	39.93	54.00	-14.07	AV
Horizontal	10371.923	62.13	8.46	38.71	44.50	64.80	68.20	-3.40	Pk
Horizontal	10731.373	44.68	8.46	38.71	44.50	47.35	54.00	-6.65	AV
middle Channel (5200 MHz)-Above 1G									
Vertical	4593.470	56.42	6.48	36.35	44.05	55.20	68.20	-13.00	Pk
Vertical	4592.247	43.49	6.48	36.35	44.05	42.27	54.00	-11.73	AV
Vertical	10401.276	60.96	8.47	37.88	44.51	62.80	68.20	-5.40	Pk
Vertical	10401.222	46.54	8.47	37.88	44.51	48.38	54.00	-5.62	AV
Horizontal	4592.497	59.10	6.48	36.37	44.05	57.90	68.20	-10.30	Pk
Horizontal	4592.426	41.57	6.48	36.37	44.05	40.37	54.00	-13.63	AV
Horizontal	10400.697	60.57	8.47	38.64	44.50	63.18	68.20	-5.02	Pk
Horizontal	10401.831	46.54	8.47	38.64	44.50	49.15	54.00	-4.85	AV
High Channel (5240 MHz)-Above 1G									
Vertical	4741.018	59.90	7.10	37.24	43.50	60.74	68.20	-7.46	Pk
Vertical	4739.387	46.96	7.10	37.24	43.50	47.80	54.00	-6.20	AV
Vertical	10482.353	61.09	8.46	37.68	44.50	62.73	68.20	-5.47	Pk
Vertical	10481.662	46.43	8.46	37.68	44.50	48.07	54.00	-5.93	AV
Horizontal	4739.958	58.95	7.10	37.24	43.50	59.79	68.20	-8.41	Pk
Horizontal	4740.628	44.84	7.10	37.24	43.50	45.68	54.00	-8.32	AV
Horizontal	10483.422	59.46	8.46	38.57	44.50	61.99	68.20	-6.21	Pk
Horizontal	10482.803	42.52	8.46	38.57	44.50	45.05	54.00	-8.95	AV

Note:

All modes have been tested, and only the worst mode 802.11a mode is mentioned in the report.

Frequency range (1GHz-40GHz)

U-NII-2A

Polar	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
(H/V)	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5260 MHz)-Above 1G									
Vertical	4434.524	56.52	5.94	35.40	44.00	53.86	68.20	-14.34	Pk
Vertical	4436.145	44.43	5.94	35.40	44.00	41.77	54.00	-12.23	AV
Vertical	10521.354	59.45	8.46	39.75	44.50	63.16	68.20	-5.04	Pk
Vertical	10520.016	43.27	8.46	39.75	44.50	46.98	54.00	-7.02	AV
Horizontal	4435.227	58.55	5.94	35.18	44.00	55.67	68.20	-12.53	Pk
Horizontal	4436.083	43.12	5.94	35.18	44.00	40.24	54.00	-13.76	AV
Horizontal	10521.728	61.73	8.46	38.71	44.50	64.40	68.20	-3.80	Pk
Horizontal	10521.934	45.88	8.46	38.71	44.50	48.55	54.00	-5.45	AV
middle Channel (5280 MHz)-Above 1G									
Vertical	4592.828	57.55	6.48	36.35	44.05	56.33	68.20	-11.87	Pk
Vertical	4593.823	43.54	6.48	36.35	44.05	42.32	54.00	-11.68	AV
Vertical	10561.433	62.08	8.47	37.88	44.51	63.92	68.20	-4.28	Pk
Vertical	10561.099	46.83	8.47	37.88	44.51	48.67	54.00	-5.33	AV
Horizontal	4594.008	60.31	6.48	36.37	44.05	59.11	68.20	-9.09	Pk
Horizontal	4592.434	41.28	6.48	36.37	44.05	40.08	54.00	-13.92	AV
Horizontal	10561.925	60.79	8.47	38.64	44.50	63.40	68.20	-4.80	Pk
Horizontal	10561.522	47.07	8.47	38.64	44.50	49.68	54.00	-4.32	AV
High Channel (5320 MHz)-Above 1G									
Vertical	4740.303	59.05	7.10	37.24	43.50	59.89	68.20	-8.31	Pk
Vertical	4741.012	45.94	7.10	37.24	43.50	46.78	54.00	-7.22	AV
Vertical	10640.932	61.61	8.46	37.68	44.50	63.25	68.20	-4.95	Pk
Vertical	10642.406	46.88	8.46	37.68	44.50	48.52	54.00	-5.48	AV
Horizontal	4740.988	60.65	7.10	37.24	43.50	61.49	68.20	-6.71	Pk
Horizontal	4739.278	45.14	7.10	37.24	43.50	45.98	54.00	-8.02	AV
Horizontal	10642.238	59.47	8.46	38.57	44.50	62.00	68.20	-6.20	Pk
Horizontal	10642.790	42.22	8.46	38.57	44.50	44.75	54.00	-9.25	AV

Note:

All modes have been tested, and only the worst mode 802.11a mode is mentioned in the report.

Frequency range (1GHz-40GHz)

U-NII-2C

Polar	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
(H/V)	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5500 MHz)-Above 1G									
Vertical	4434.734	54.80	5.94	35.40	44.00	52.14	68.20	-16.06	Pk
Vertical	4435.567	43.44	5.94	35.40	44.00	40.78	54.00	-13.22	AV
Vertical	11000.221	57.69	8.46	39.75	44.50	61.40	68.20	-6.80	Pk
Vertical	11002.269	44.06	8.46	39.75	44.50	47.77	54.00	-6.23	AV
Horizontal	4435.900	57.95	5.94	35.18	44.00	55.07	68.20	-13.13	Pk
Horizontal	4434.408	42.28	5.94	35.18	44.00	39.40	54.00	-14.60	AV
Horizontal	11001.387	59.29	8.46	38.71	44.50	61.96	68.20	-6.24	Pk
Horizontal	11001.119	44.81	8.46	38.71	44.50	47.48	54.00	-6.52	AV
middle Channel (5600 MHz)-Above 1G									
Vertical	4593.439	56.50	6.48	36.35	44.05	55.28	68.20	-12.92	Pk
Vertical	4592.728	43.25	6.48	36.35	44.05	42.03	54.00	-11.97	AV
Vertical	11200.721	60.30	8.47	37.88	44.51	62.14	68.20	-6.06	Pk
Vertical	11200.020	46.34	8.47	37.88	44.51	48.18	54.00	-5.82	AV
Horizontal	4593.742	59.77	6.48	36.37	44.05	58.57	68.20	-9.63	Pk
Horizontal	4594.244	42.30	6.48	36.37	44.05	41.10	54.00	-12.90	AV
Horizontal	11201.814	60.06	8.47	38.64	44.50	62.67	68.20	-5.53	Pk
Horizontal	11201.971	45.53	8.47	38.64	44.50	48.14	54.00	-5.86	AV
High Channel (5700 MHz)-Above 1G									
Vertical	4741.303	59.80	7.10	37.24	43.50	60.64	68.20	-7.56	Pk
Vertical	4739.303	46.71	7.10	37.24	43.50	47.55	54.00	-6.45	AV
Vertical	11400.244	60.79	8.46	37.68	44.50	62.43	68.20	-5.77	Pk
Vertical	11401.447	46.88	8.46	37.68	44.50	48.52	54.00	-5.48	AV
Horizontal	4741.066	59.40	7.10	37.24	43.50	60.24	68.20	-7.96	Pk
Horizontal	4740.971	44.56	7.10	37.24	43.50	45.40	54.00	-8.60	AV
Horizontal	11401.846	58.28	8.46	38.57	44.50	60.81	68.20	-7.39	Pk
Horizontal	11401.494	43.52	8.46	38.57	44.50	46.05	54.00	-7.95	AV

Note:

All modes have been tested, and only the worst mode 802.11a mode is mentioned in the report.

Frequency range (1GHz-40GHz)

U-NII-3

Polar	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
(H/V)	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G									
Vertical	4680.571	57.95	5.94	35.40	44.00	55.29	68.20	-12.91	Pk
Vertical	4680.990	46.38	5.94	35.40	44.00	43.72	54.00	-10.28	AV
Vertical	11491.632	58.94	8.46	39.75	44.50	62.65	68.20	-5.55	Pk
Vertical	11491.568	43.40	8.46	39.75	44.50	47.11	54.00	-6.89	AV
Horizontal	4681.216	58.35	5.94	35.18	44.00	55.47	68.20	-12.73	Pk
Horizontal	4680.808	45.17	5.94	35.18	44.00	42.29	54.00	-11.71	AV
Horizontal	11491.532	60.42	8.46	38.71	44.50	63.09	68.20	-5.11	Pk
Horizontal	11490.413	45.58	8.46	38.71	44.50	48.25	54.00	-5.75	AV
middle Channel (5785 MHz)-Above 1G									
Vertical	4592.589	60.20	6.48	36.35	44.05	58.98	68.20	-9.22	Pk
Vertical	4593.956	44.36	6.48	36.35	44.05	43.14	54.00	-10.86	AV
Vertical	11570.545	60.98	8.47	37.88	44.51	62.82	68.20	-5.38	Pk
Vertical	11571.990	44.79	8.47	37.88	44.51	46.63	54.00	-7.37	AV
Horizontal	4592.641	60.14	6.48	36.37	44.05	58.94	68.20	-9.26	Pk
Horizontal	4592.743	45.35	6.48	36.37	44.05	44.15	54.00	-9.85	AV
Horizontal	11571.601	60.23	8.47	38.64	44.50	62.84	68.20	-5.36	Pk
Horizontal	11571.723	46.72	8.47	38.64	44.50	49.33	54.00	-4.67	AV
High Channel (5825 MHz)-Above 1G									
Vertical	5039.489	61.63	7.10	37.24	43.50	62.47	68.20	-5.73	Pk
Vertical	5040.123	48.07	7.10	37.24	43.50	48.91	54.00	-5.09	AV
Vertical	11651.423	56.04	8.46	37.68	44.50	57.68	68.20	-10.52	Pk
Vertical	11652.114	43.17	8.46	37.68	44.50	44.81	54.00	-9.19	AV
Horizontal	5040.980	54.74	7.10	37.24	43.50	55.58	68.20	-12.62	Pk
Horizontal	5039.583	43.56	7.10	37.24	43.50	44.40	54.00	-9.60	AV
Horizontal	11652.143	56.49	8.46	38.57	44.50	59.02	68.20	-9.18	Pk
Horizontal	11650.319	45.04	8.46	38.57	44.50	47.57	54.00	-6.43	AV

Note:

All modes have been tested, and only the worst mode 802.11a mode is mentioned in the report.

5.3.5 Radiated Band Edge

For U-NII-1&U-NII-2A

For 802.11a mode: (CH36 5180MHz&CH64 5320MHz)

Polarization	Frequency	Read Level	Cable loss	Antenna Factor	Preamplifier Factor	Emission Level	Limits	Over Limit	Detector Type
/	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Horizontal	5150	60.08	8.69	29.4	42.59	55.58	68.2	-12.62	Pk
Horizontal	5350	62.09	9.37	30.41	43.25	58.62	68.2	-9.58	Pk
Vertical	5150	60.10	9.21	29.4	42.59	56.12	68.2	-12.08	Pk
Vertical	5350	59.96	9.12	30.41	43.25	56.24	68.2	-11.96	Pk

Polarization	Frequency	Read Level	Cable loss	Antenna Factor	Preamplifier Factor	Emission Level	Limits	Over Limit	Detector Type
/	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Horizontal	5150	46.66	8.69	29.4	42.59	42.16	54	-11.84	AV
Horizontal	5350	50.38	8.46	30.41	43.25	46.00	54	-8.00	AV
Vertical	5150	49.24	9.21	29.4	42.59	45.26	54	-8.74	AV
Vertical	5350	51.14	9.12	30.41	43.25	47.42	54	-6.58	AV

Note:

All modes have been tested, and only the worst mode 802.11a mode is mentioned in the report.

For U-NII-2C

For 802.11a mode: (CH100 5500MHz&CH140 5700MHz)

Polarization	Frequency	Read Level	Cable loss	Antenna Factor	Preamplifier Factor	Emission Level	Limits	Over Limit	Detector Type
/	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Horizontal	5460	65.11	8.69	29.4	42.59	60.61	68.20	-7.59	Pk
Horizontal	5725	65.23	9.37	30.41	43.25	61.76	68.20	-6.44	Pk
Vertical	5460	59.68	9.21	29.4	42.59	55.70	68.20	-12.50	Pk
Vertical	5725	60.06	9.12	30.41	43.25	56.34	68.20	-11.86	Pk
Horizontal	5460	45.19	8.69	29.4	42.59	40.69	54	-13.31	AV
Horizontal	5725	46.83	8.46	30.41	43.25	42.45	54	-11.55	AV
Vertical	5460	44.92	9.21	29.4	42.59	40.94	54	-13.06	AV
Vertical	5725	48.96	9.12	30.41	43.25	45.24	54	-8.76	AV

Note:

All modes have been tested, and only the worst mode 802.11a mode is mentioned in the report.

For U-NII-3

For 802.11a mode: (CH149 5745MHz&CH165 5825MHz)

Polarization	Frequency	Read Level	Cable loss	Antenna Factor	Preamplifier Factor	Emission Level	Limits	Over Limit	Detector Type
/	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Horizontal	5650	65.63	8.69	29.4	42.59	61.13	68.2	-7.07	Pk
Horizontal	5700	62.71	9.37	30.41	43.25	59.24	105.2	-45.96	Pk
Horizontal	5720	47.02	8.69	29.4	42.59	42.52	110.8	-68.28	Pk
Horizontal	5725	77.56	8.46	30.41	43.25	73.18	122.2	-49.02	Pk
Vertical	5650	63.67	9.21	29.4	42.59	59.69	68.2	-8.51	Pk
Vertical	5700	59.87	9.12	30.41	43.25	56.15	105.2	-49.05	Pk
Vertical	5720	51.00	9.21	29.4	42.59	47.02	110.8	-63.78	Pk
Vertical	5725	78.75	9.12	30.41	43.25	75.03	122.2	-47.17	Pk

Note:

All modes have been tested, and only the worst mode 802.11a mode is mentioned in the report.

5.4 Peak Output Power

5.4.1 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 5.25-5.35 GHz and 5.47-5.725 GHz band

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. 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.

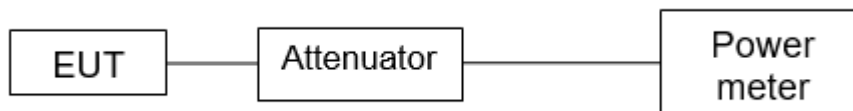
For the band 5.725-5.85 GHz

The maximum conducted output power over the frequency band of operation shall not exceed 1 W. 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.

5.4.2 Test Procedure

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

5.4.3 Test Setup



5.4.4 Test Results

EUT:	Wireless carplay adapter	Model Name:	KY-4101
Test Mode:	TX	Test Voltage:	DC 5V from adapter AC 120V/60Hz

For U-NII-1

Modulation mode	Test Channel	Frequency(MHz)	Conducted Power (dBm)	Limit(dBm)
11a	CH36	5180	11.5	24
11a	CH40	5200	11.73	24
11a	CH48	5240	10.6	24
11n (HT20)	CH36	5180	8.47	24
11n (HT20)	CH40	5200	8.3	24
11n (HT20)	CH48	5240	6.45	24
11n (HT40)	CH38	5190	9.92	24
11n (HT40)	CH46	5230	9.75	24
11ac (HT20)	CH36	5180	8.24	24
11ac (HT20)	CH40	5200	8.34	24
11ac (HT20)	CH48	5240	6.53	24
11ac (HT40)	CH38	5190	10.06	24
11ac (HT40)	CH46	5230	9.54	24
11ax (HE20)	CH36	5180	8.38	24
11ax (HE20)	CH40	5200	8.56	24
11ax (HE20)	CH48	5240	9.62	24
11ax (HE40)	CH38	5190	10.15	24
11ax (HE40)	CH46	5230	10	24

U-NII-2A

Modulation mode	Test Channel	Frequency(MHz)	Conducted Power (dBm)	Limit(dBm)
11a	CH52	5260	10	24
11a	CH56	5280	8.92	24
11a	CH64	5320	8.38	24
11n (HT20)	CH52	5260	9.96	24
11n (HT20)	CH56	5280	8.95	24
11n (HT20)	CH64	5320	8.43	24
11n (HT40)	CH54	5270	9.44	24
11n (HT40)	CH62	5310	8.47	24
11ac (HT20)	CH52	5260	10.08	24
11ac (HT20)	CH56	5280	8.93	24
11ac (HT20)	CH64	5320	8.55	24
11ac (HT40)	CH54	5270	9.25	24
11ac (HT40)	CH62	5310	8.47	24

11ax (HE20)	CH52	5260	10.07	24
11ax (HE20)	CH56	5280	9.28	24
11ax (HE20)	CH64	5320	8.67	24
11ax (HE40)	CH54	5270	9.51	24
11ax (HE40)	CH62	5310	8.44	24

U-NII-2C

Modulation mode	Test Channel	Frequency(MHz)	Conducted Power	Limit(dBm)
			(dBm)	
11a	CH100	5500	10.1	24
11a	CH120	5600	8.52	24
11a	CH140	5700	7.95	24
11n (HT20)	CH100	5500	10.1	24
11n (HT20)	CH120	5600	8.38	24
11n (HT20)	CH140	5700	7.49	24
11n (HT40)	CH102	5510	9.54	24
11n (HT40)	CH110	5550	9.96	24
11n (HT40)	CH134	5670	7.95	24
11ac (HT20)	CH100	5500	9.81	24
11ac (HT20)	CH120	5600	8.28	24
11ac (HT20)	CH140	5700	7.56	24
11ac (HT40)	CH102	5510	9.82	24
11ac (HT40)	CH110	5550	10.04	24
11ac (HT40)	CH134	5670	8.16	24
11ax (HE20)	CH100	5500	9.78	24
11ax (HE20)	CH120	5600	8.41	24
11ax (HE20)	CH140	5700	7.58	24
11ax (HE40)	CH102	5510	9.78	24
11ax (HE40)	CH110	5550	10.14	24
11ax (HE40)	CH134	5670	7.89	24

For U-NII-3

Modulation mode	Test Channel	Frequency(MHz)	Conducted Power	Limit(dBm)
			(dBm)	
11a	CH149	5745	10.93	30
11a	CH157	5785	12.34	30
11a	CH165	5825	13.36	30
11n (HT20)	CH149	5745	10.81	30
11n (HT20)	CH157	5785	12.19	30
11n (HT20)	CH165	5825	13.2	30
11n (HT40)	CH151	5755	11.35	30
11n (HT40)	CH159	5795	12.25	30

11ac (HT20)	CH149	5745	10.81	30
11ac (HT20)	CH157	5785	12.1	30
11ac (HT20)	CH165	5825	13.04	30
11ac (HT40)	CH151	5755	11.11	30
11ac (HT40)	CH159	5795	12.03	30
11ax (HE20)	CH149	5745	10.81	30
11ax (HE20)	CH157	5785	12.16	30
11ax (HE20)	CH165	5825	13.11	30
11ax (HE40)	CH151	5755	11.45	30
11ax (HE40)	CH159	5795	12.4	30

5.5 Power Spectral Density

5.5.1 Limit

For the band 5.15-5.25 GHz

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 5.25-5.35 GHz and 5.47-5.725 GHz

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 5.725-5.85 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.

5.5.2 Test Procedure

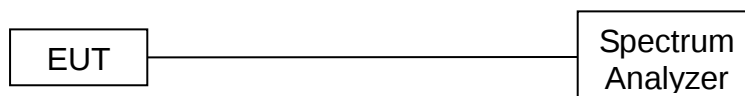
For U-NII-1

1. Set analyzer center frequency to NII channel center frequency.
2. Set the RBW $\geq$ 1MHz.
3. Set the VBW $\geq$ 3 x RBW.
4. Detector = peak.
5. Sweep time = auto couple.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the maximum amplitude level.

For U-NII-3

1. Set analyzer center frequency to NII channel center frequency.
2. Set the RBW $\geq$ 510kHz.
3. Set the VBW $\geq$ 3 x RBW.
4. Detector = peak.
5. Sweep time = auto couple.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the maximum amplitude level.

5.5.3 Test Setup



5.5.4 Test Results

For U-NII-1

Mode	Channel	Frequency(MHz)	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm/MHz)	Result
11a	CH36	5180	0.86	0	0.86	11	Pass
11a	CH40	5200	0.72	0	0.72	11	Pass
11a	CH48	5240	-0.7	0.13	-0.57	11	Pass
11n(HT20)	CH36	5180	-2.68	0.11	-2.57	11	Pass
11n(HT20)	CH40	5200	-2.47	0	-2.47	11	Pass
11n(HT20)	CH48	5240	-4.45	0	-4.45	11	Pass
11n(HT40)	CH38	5190	-4.37	0.23	-4.14	11	Pass
11n(HT40)	CH46	5230	-4.37	0.38	-3.99	11	Pass
11ac(HT20)	CH36	5180	-2.72	0	-2.72	11	Pass
11ac(HT20)	CH40	5200	-2.54	0	-2.54	11	Pass
11ac(HT20)	CH48	5240	-4.21	0	-4.21	11	Pass
11ac(HT40)	CH38	5190	-4.18	0.3	-3.88	11	Pass
11ac(HT40)	CH46	5230	-4.56	0.2	-4.36	11	Pass
11ax(HE20)	CH36	5180	-2.64	0.1	-2.54	11	Pass
11ax(HE20)	CH40	5200	-1.51	0	-1.51	11	Pass
11ax(HE20)	CH48	5240	-1.55	0.17	-1.38	11	Pass
11ax(HE40)	CH38	5190	-4.29	0.29	-4	11	Pass
11ax(HE40)	CH46	5230	-4.79	0.4	-4.39	11	Pass

U-NII-2A

Mode	Channel	Frequency(MHz)	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm/MHz)	Result
11a	CH52	5260	-0.74	0.15	-0.59	11	Pass
11a	CH56	5280	-1.97	0.13	-1.84	11	Pass
11a	CH64	5320	-2.56	0	-2.56	11	Pass
11n(HT20)	CH52	5260	-0.53	0.11	-0.42	11	Pass
11n(HT20)	CH56	5280	-1.98	0	-1.98	11	Pass
11n(HT20)	CH64	5320	-2.53	0	-2.53	11	Pass
11n(HT40)	CH54	5270	-4.48	0.32	-4.16	11	Pass
11n(HT40)	CH62	5310	-6.05	0.19	-5.86	11	Pass
11ac(HT20)	CH52	5260	-0.7	0.11	-0.59	11	Pass
11ac(HT20)	CH56	5280	-1.96	0	-1.96	11	Pass
11ac(HT20)	CH64	5320	-2.56	0.15	-2.41	11	Pass
11ac(HT40)	CH54	5270	-4.44	0.16	-4.28	11	Pass
11ac(HT40)	CH62	5310	-6.03	0.19	-5.84	11	Pass
11ax(HE20)	CH52	5260	-0.77	0.13	-0.64	11	Pass

11ax(HE20)	CH56	5280	-2.05	0.24	-1.81	11	Pass
11ax(HE20)	CH64	5320	-2.67	0.12	-2.55	11	Pass
11ax(HE40)	CH54	5270	-4.7	0.36	-4.34	11	Pass
11ax(HE40)	CH62	5310	-6.05	0.17	-5.88	11	Pass

U-NII-2C

Mode	Channel	Frequency(M Hz)	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm/MHz)	Result
11a	CH100	5500	-0.85	0	-0.85	11	Pass
11a	CH120	5600	-2.4	0.1	-2.3	11	Pass
11a	CH140	5700	-3.1	0.09	-3.01	11	Pass
11n(HT20)	CH100	5500	-0.73	0.09	-0.64	11	Pass
11n(HT20)	CH120	5600	-2.47	0.1	-2.37	11	Pass
11n(HT20)	CH140	5700	-3.53	0	-3.53	11	Pass
11n(HT40)	CH102	5510	-4.64	0	-4.64	11	Pass
11n(HT40)	CH110	5550	-4.29	0.19	-4.1	11	Pass
11n(HT40)	CH134	5670	-6.37	0.12	-6.25	11	Pass
11ac(HT20)	CH100	5500	-1.23	0.1	-1.13	11	Pass
11ac (HT20)	CH120	5600	-2.55	0	-2.55	11	Pass
11ac (HT20)	CH140	5700	-3.32	0.1	-3.22	11	Pass
11ac (HT40)	CH102	5510	-4.62	0	-4.62	11	Pass
11ac (HT40)	CH110	5550	-4.28	0.24	-4.04	11	Pass
11ac (HT40)	CH134	5670	-6.23	0.35	-5.88	11	Pass
11ax(HE20)	CH100	5500	-1.31	0.12	-1.19	11	Pass
11ax(HE20)	CH120	5600	-2.7	0.17	-2.53	11	Pass
11ax(HE20)	CH140	5700	-3.68	0.13	-3.55	11	Pass
11ax(HE40)	CH102	5510	-4.66	0.26	-4.4	11	Pass
11ax(HE40)	CH110	5550	-4.38	0.3	-4.08	11	Pass
11ax(HE40)	CH134	5670	-6.49	0.17	-6.32	11	Pass

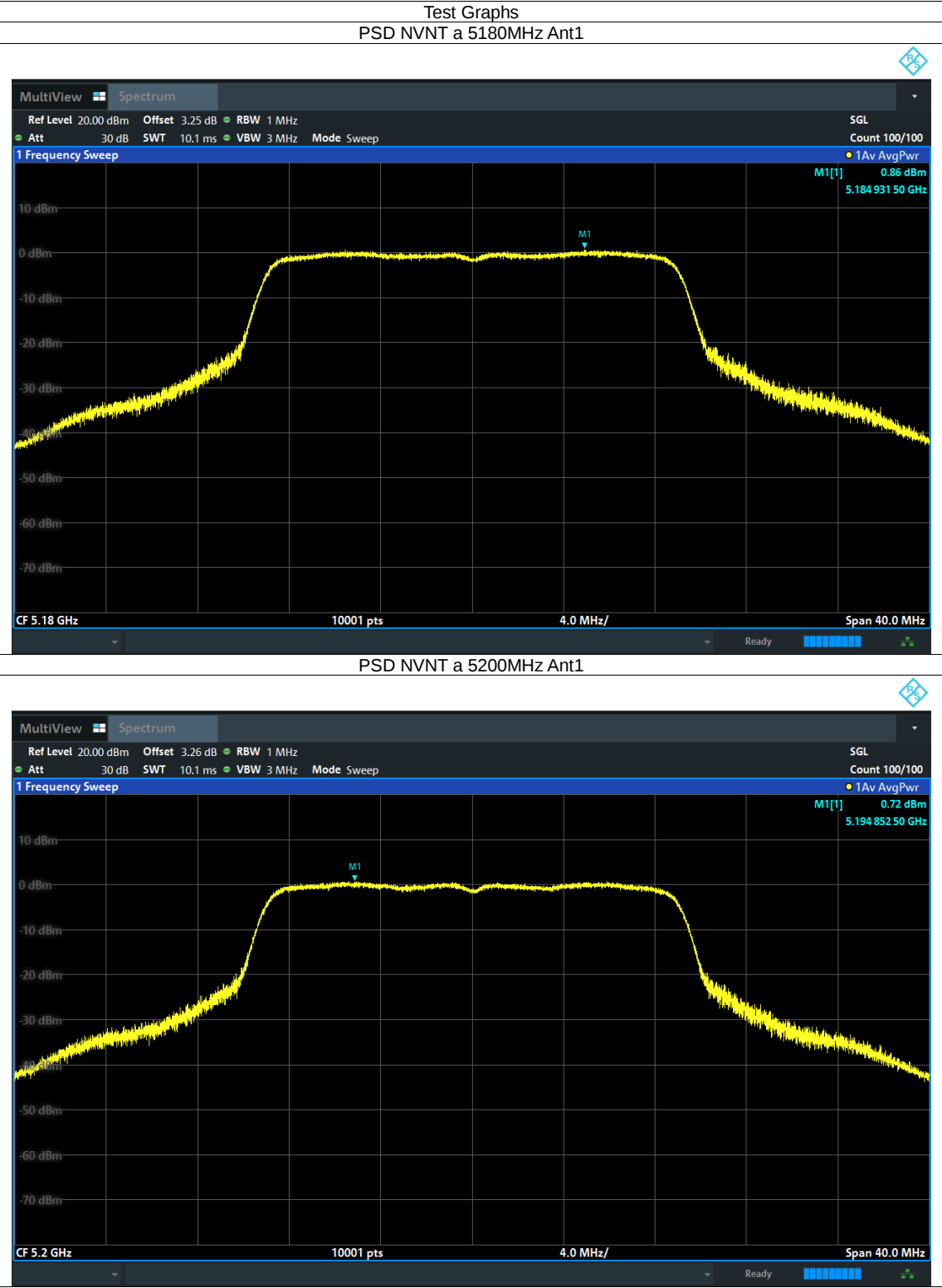
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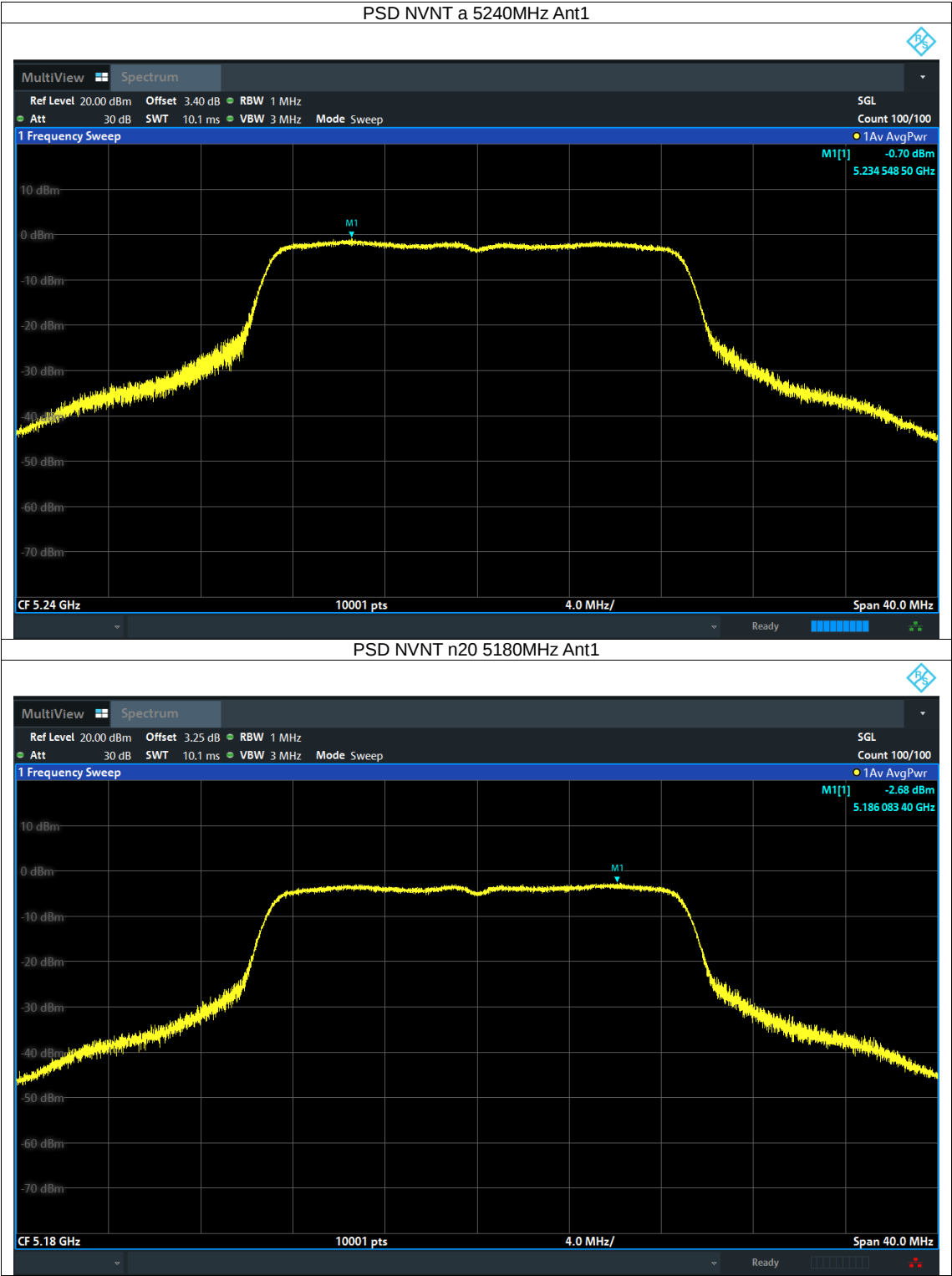
Mode	Channel	Frequency (MHz)	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm/500k Hz)	Result
11a	CH149	5745	-4.73	0	-4.73	30	Pass
11a	CH157	5785	-3.34	0.1	-3.24	30	Pass
11a	CH165	5825	-1.33	0.11	-1.22	30	Pass
11n(HT20)	CH149	5745	-2.48	0	-2.48	30	Pass
11n(HT20)	CH157	5785	-1.36	0.15	-1.21	30	Pass
11n(HT20)	CH165	5825	-0.39	0.09	-0.3	30	Pass
11n(HT40)	CH151	5755	-5.37	0.3	-5.07	30	Pass

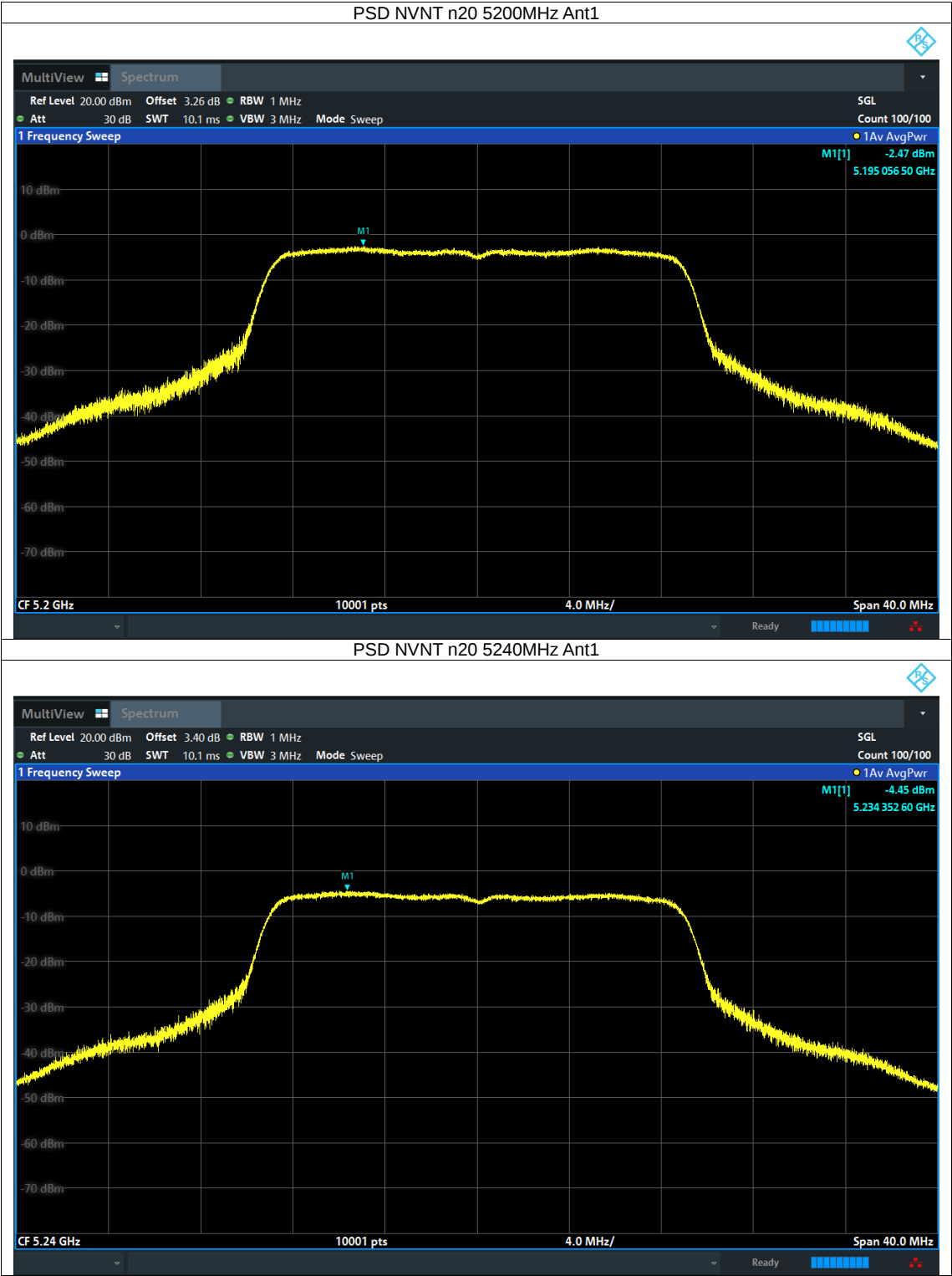
11n(HT40)	CH159	5795	-4.61	0.23	-4.38	30	Pass
11ac(HT20)	CH149	5745	-2.82	0.12	-2.7	30	Pass
11ac(HT20)	CH157	5785	-1.5	0	-1.5	30	Pass
11ac(HT20)	CH165	5825	-0.43	0	-0.43	30	Pass
11ac(HT40)	CH151	5755	-5.34	0.1	-5.24	30	Pass
11ac(HT40)	CH159	5795	-4.73	0	-4.73	30	Pass
11ax(HE20)	CH149	5745	-2.79	0.13	-2.66	30	Pass
11ax(HE20)	CH157	5785	-1.59	0.14	-1.45	30	Pass
11ax(HE20)	CH165	5825	-0.41	0.1	-0.31	30	Pass
11ax(HE40)	CH151	5755	-5.37	0.31	-5.06	30	Pass
11ax(HE40)	CH159	5795	-4.56	0.22	-4.34	30	Pass

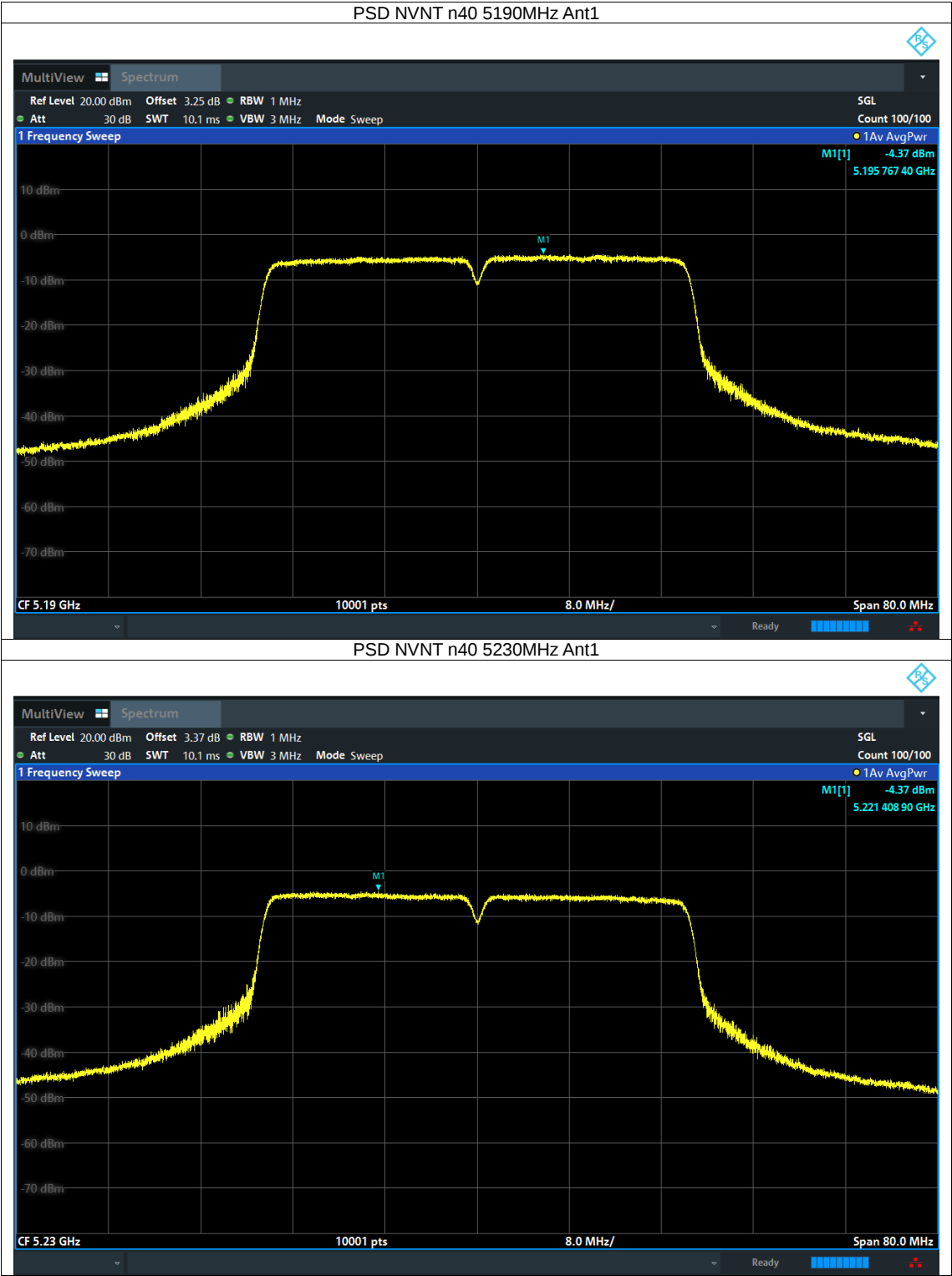
Test plots

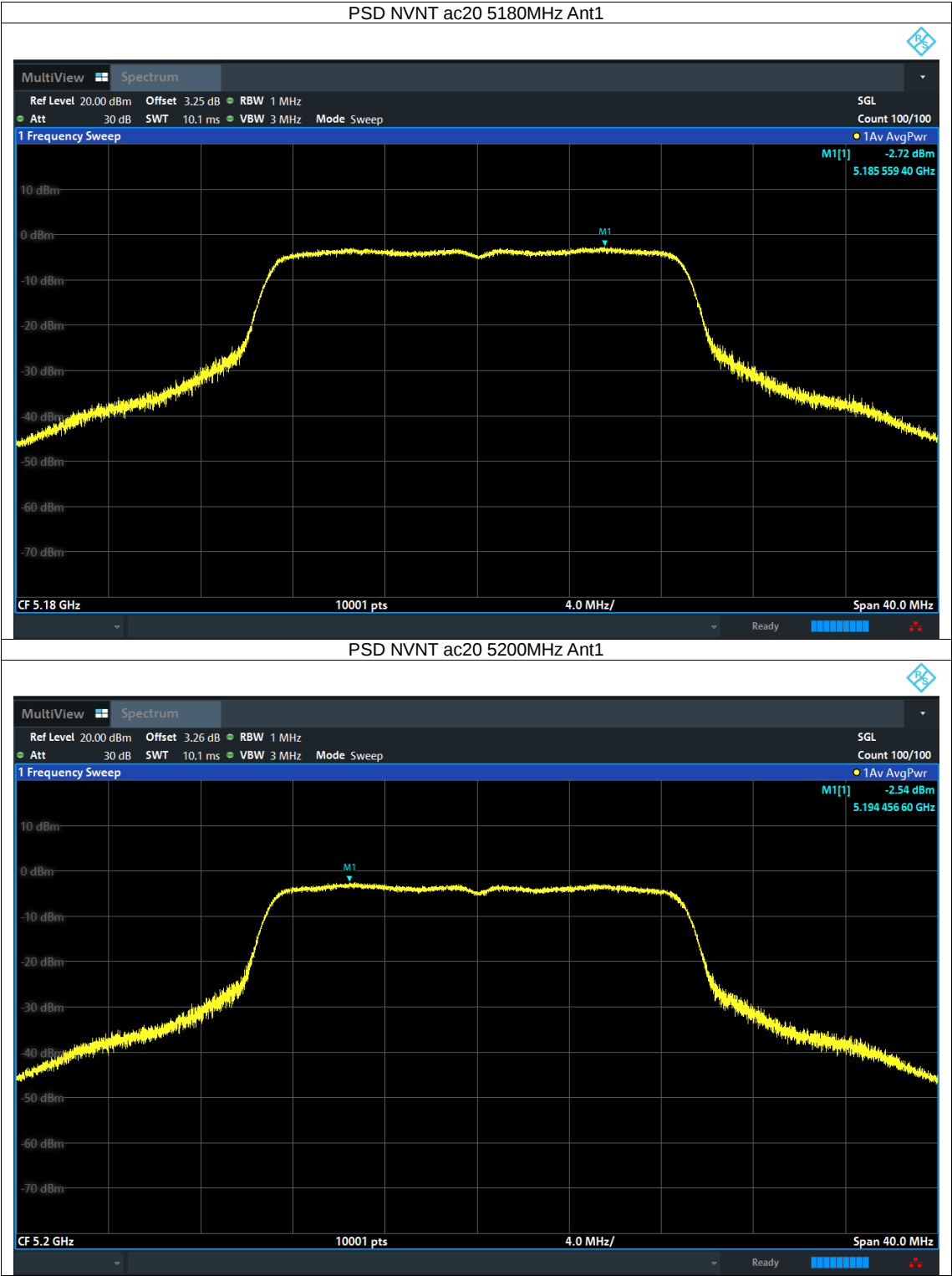
For U-NII-1

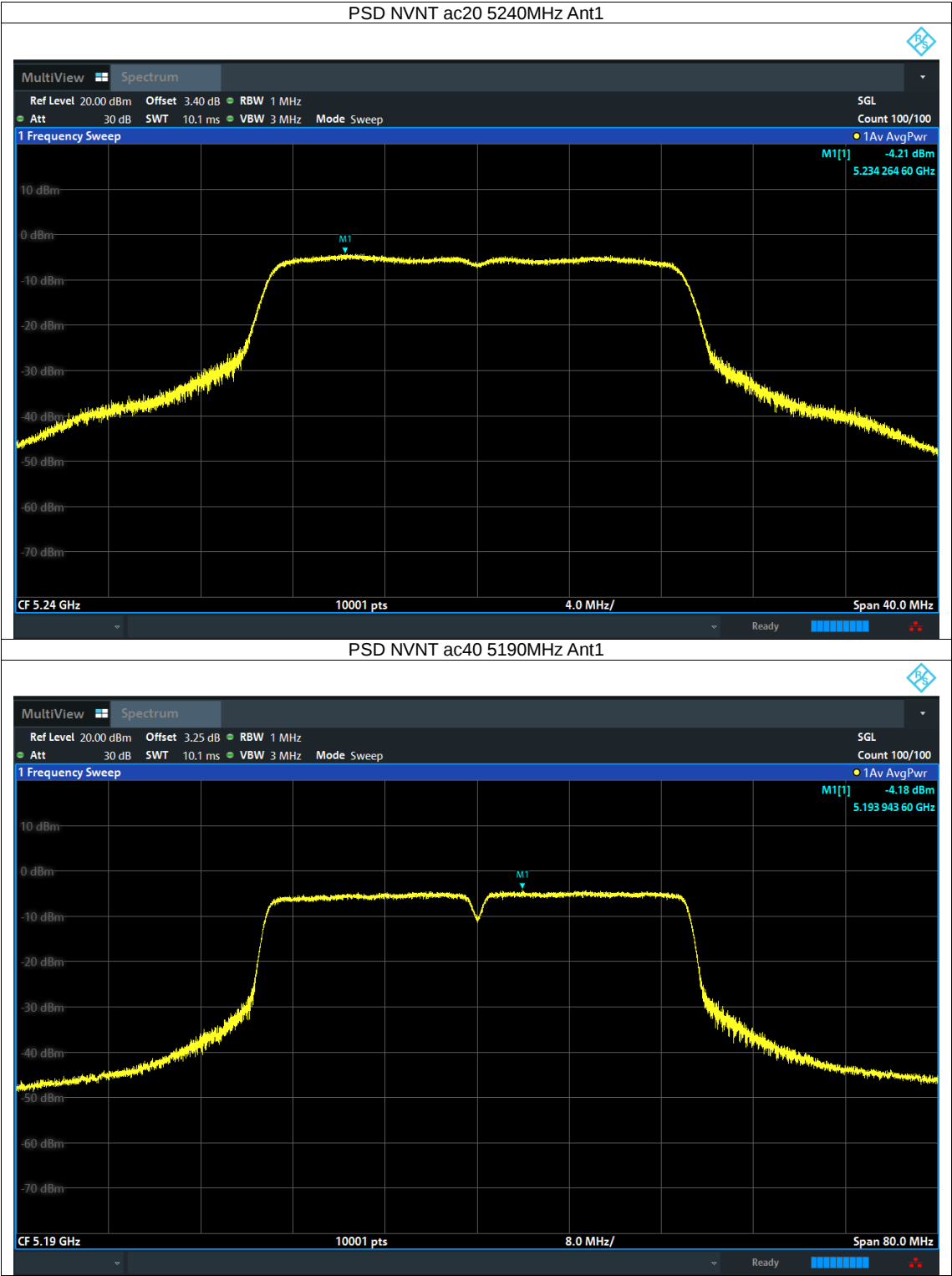


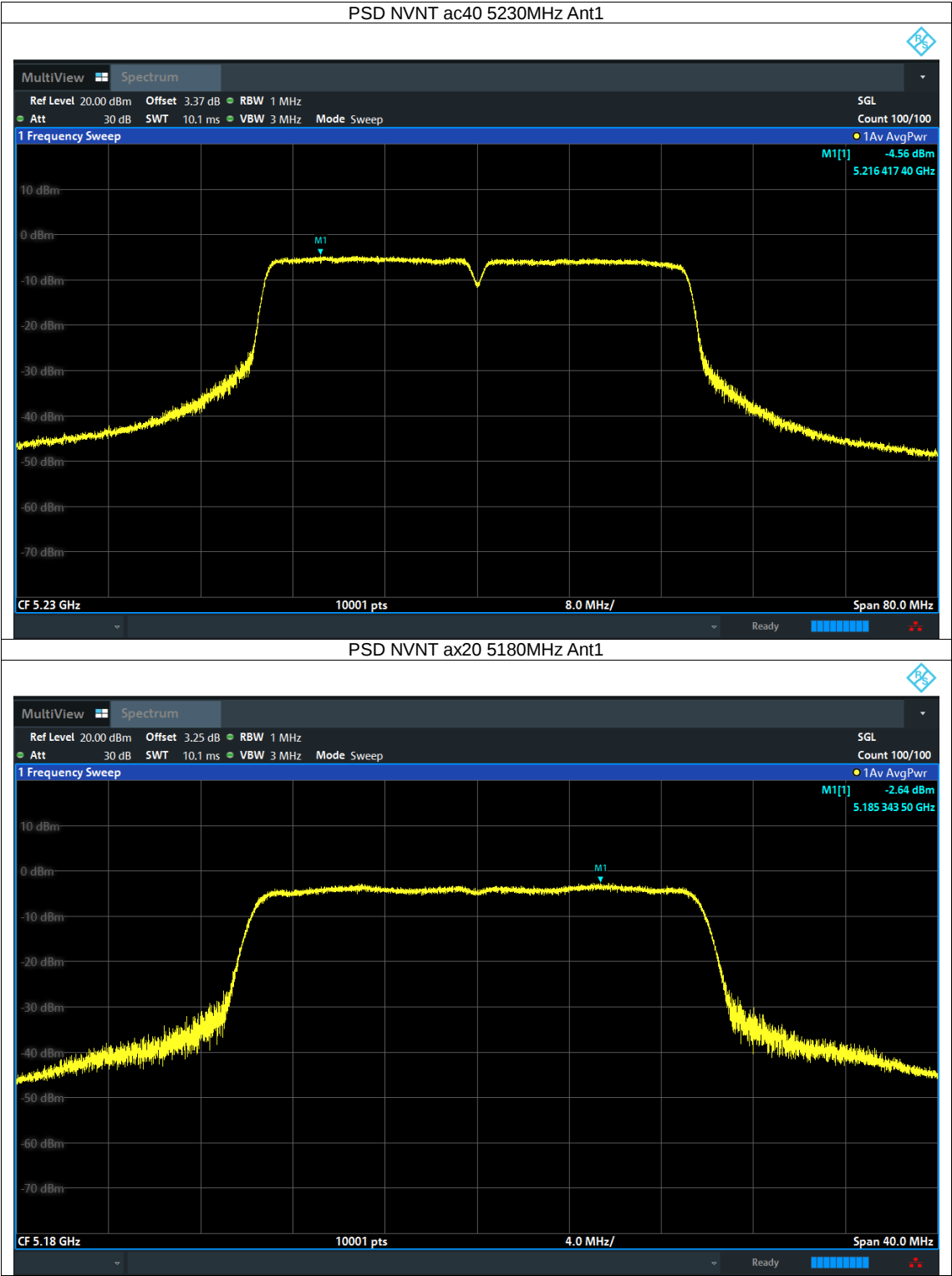


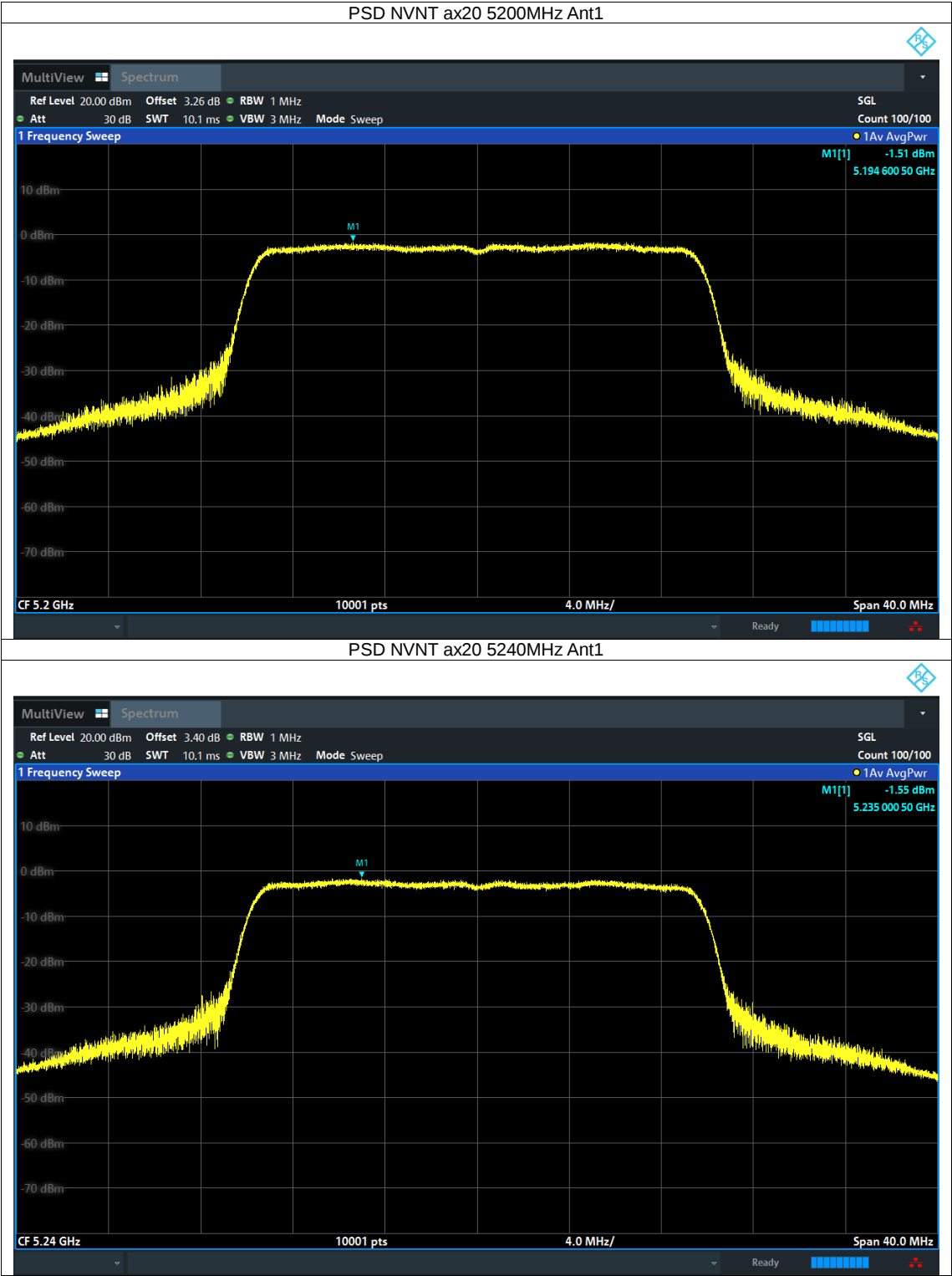


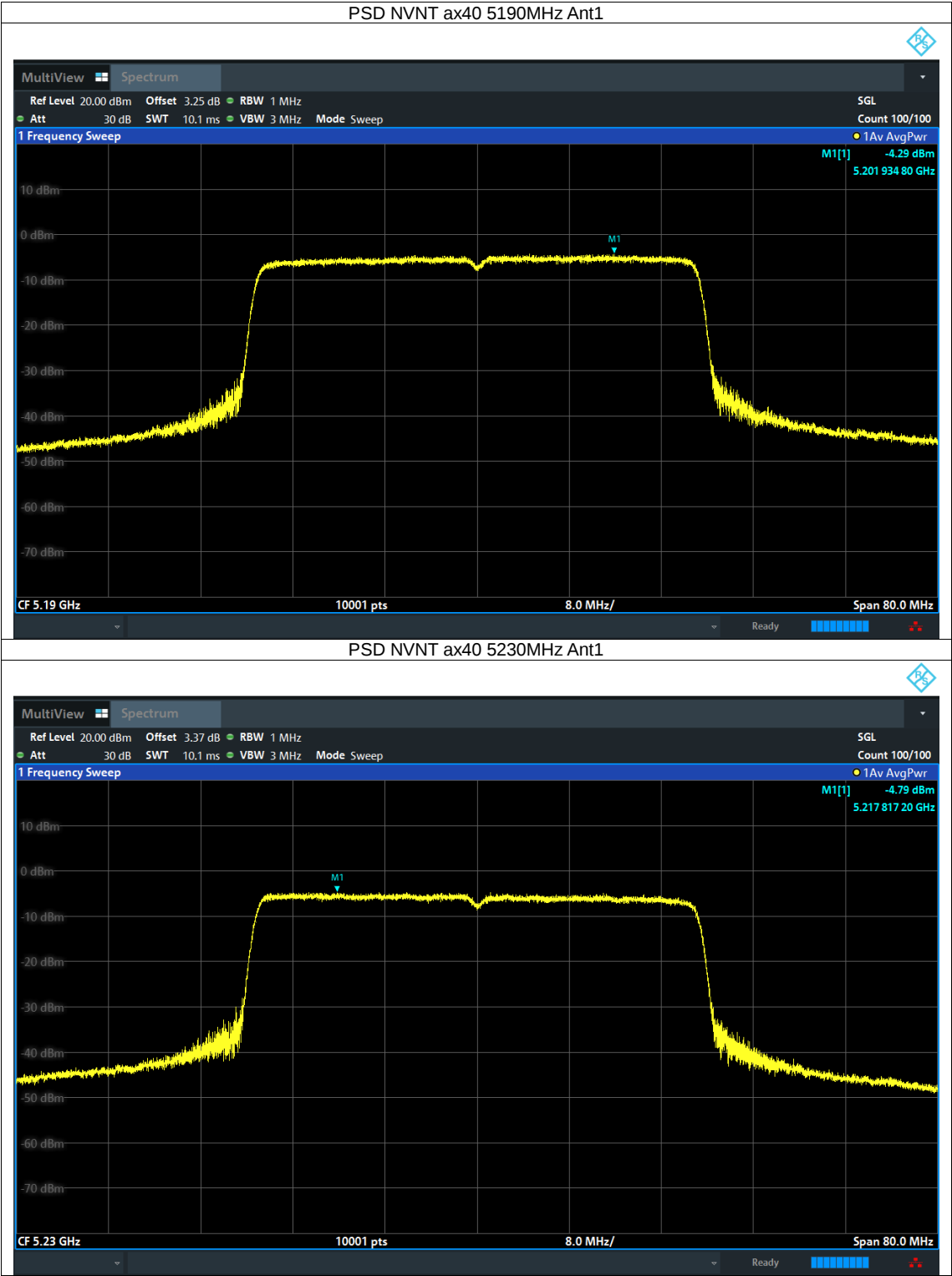






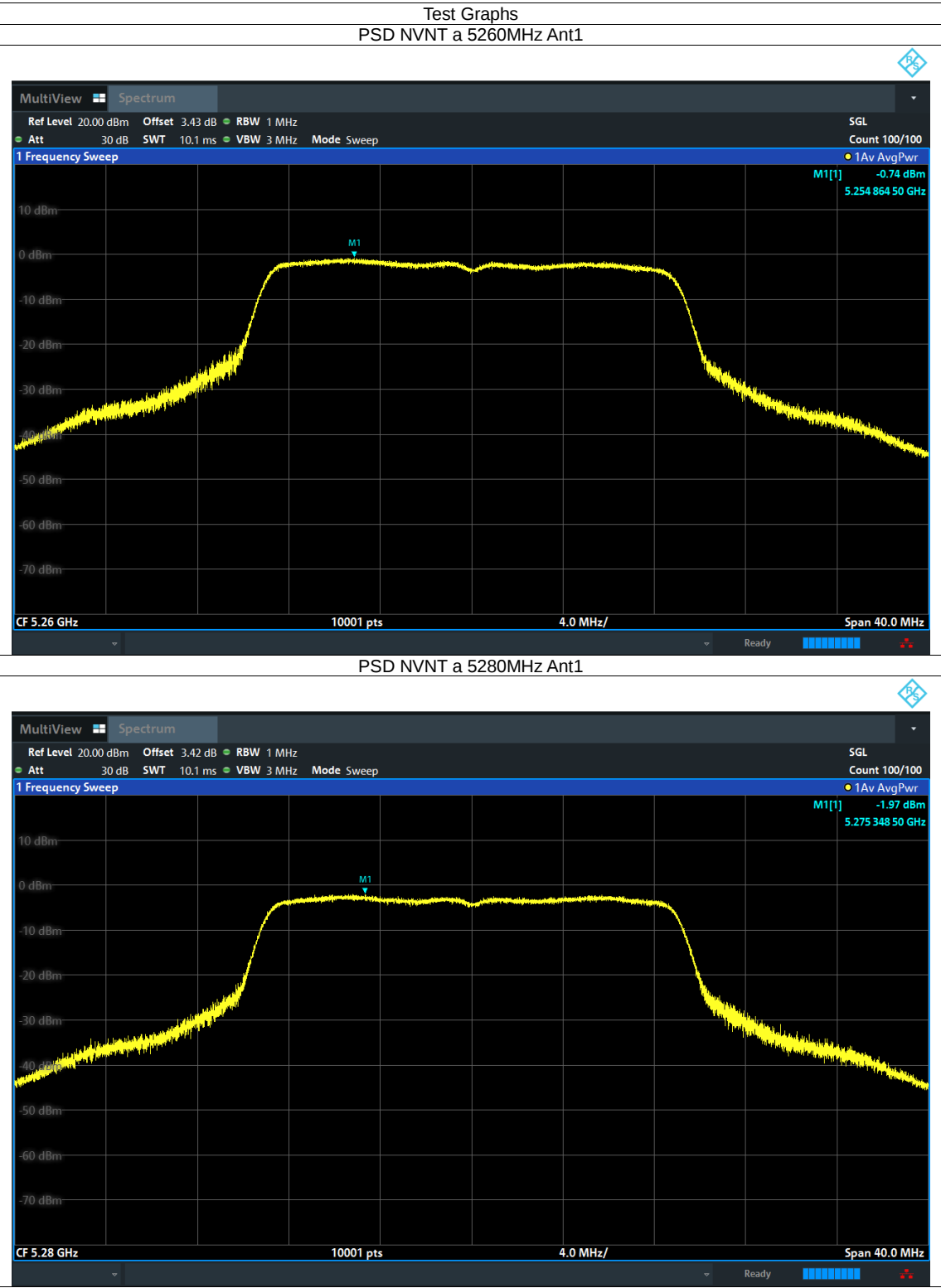


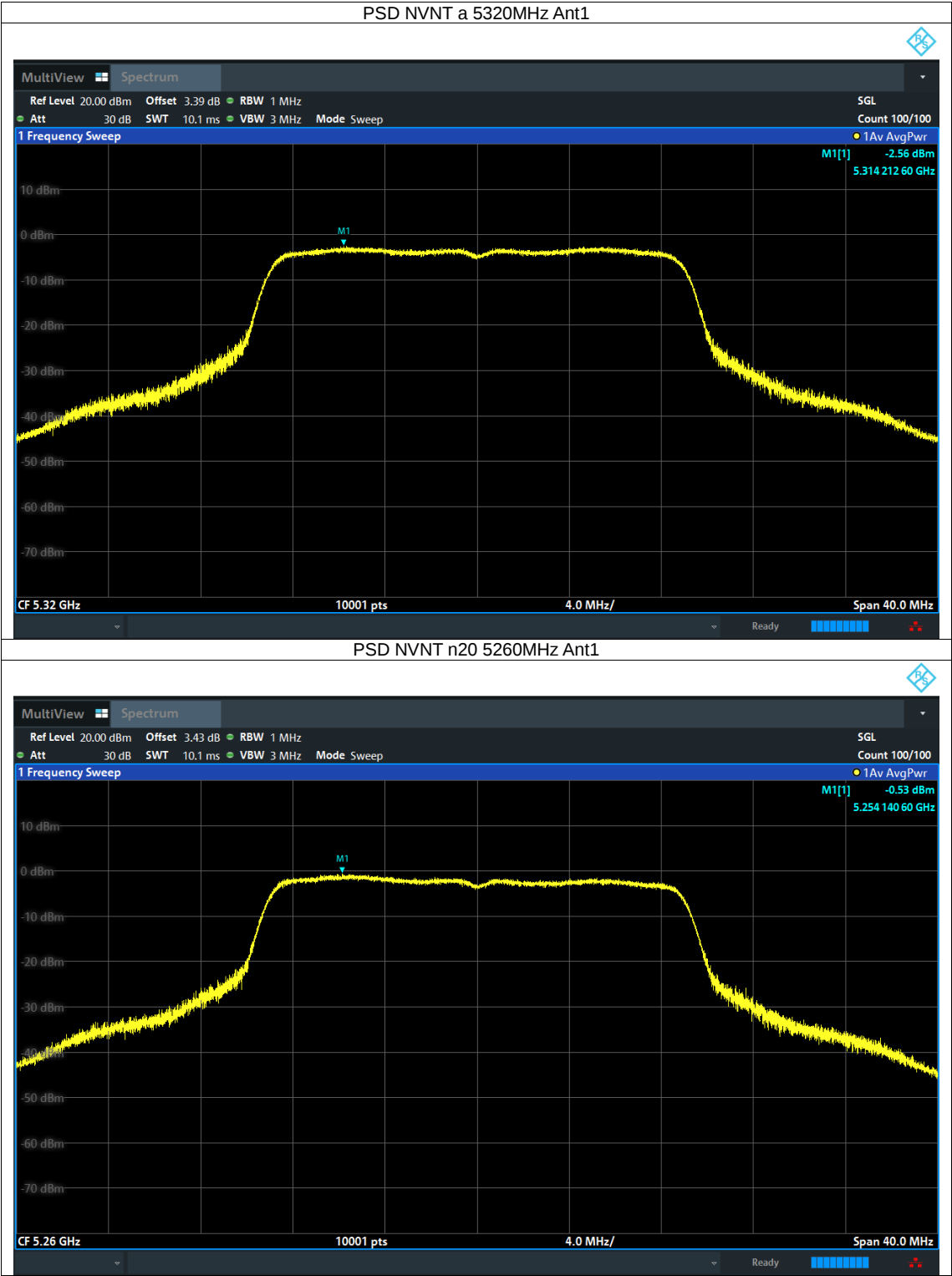


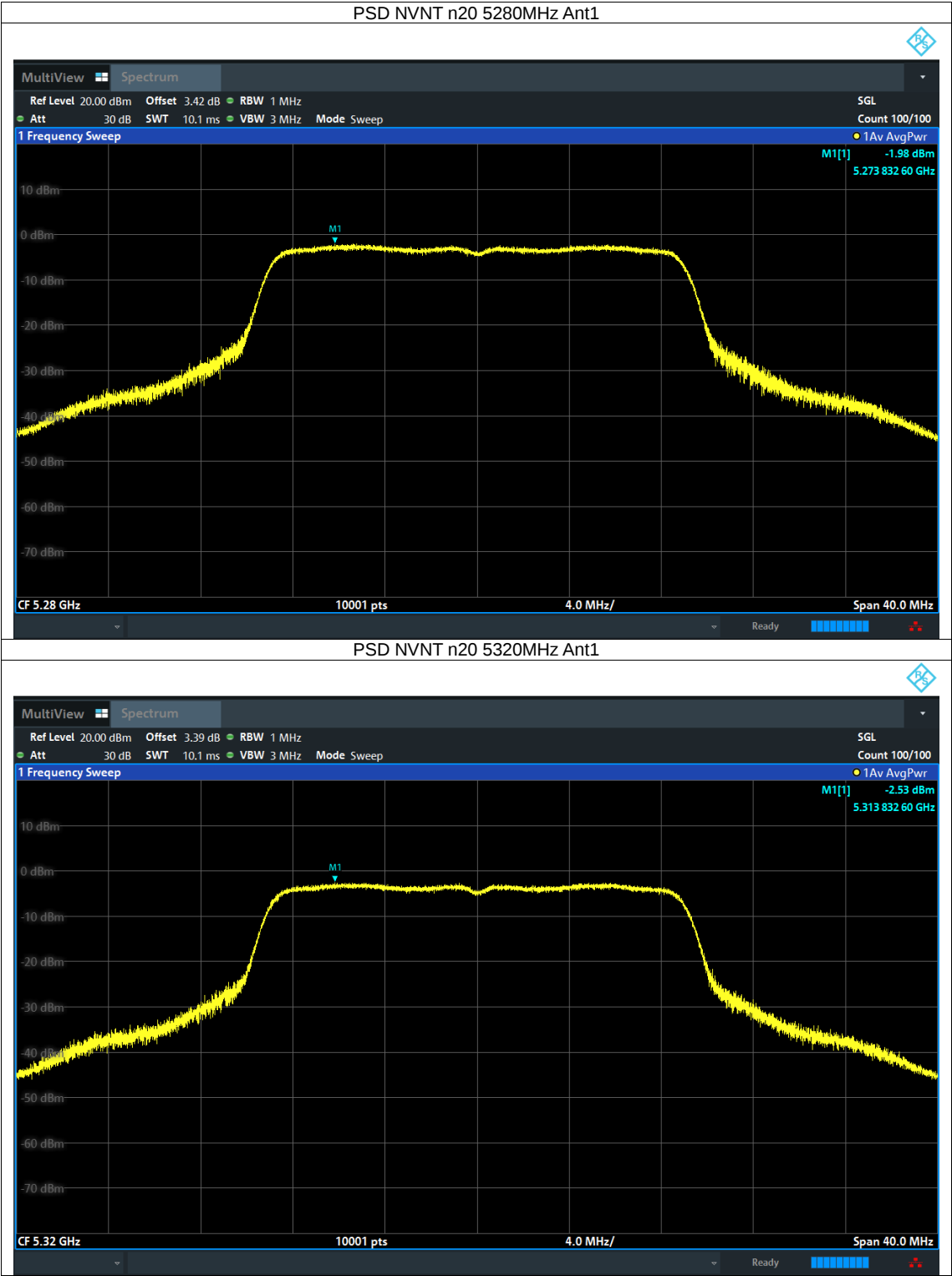


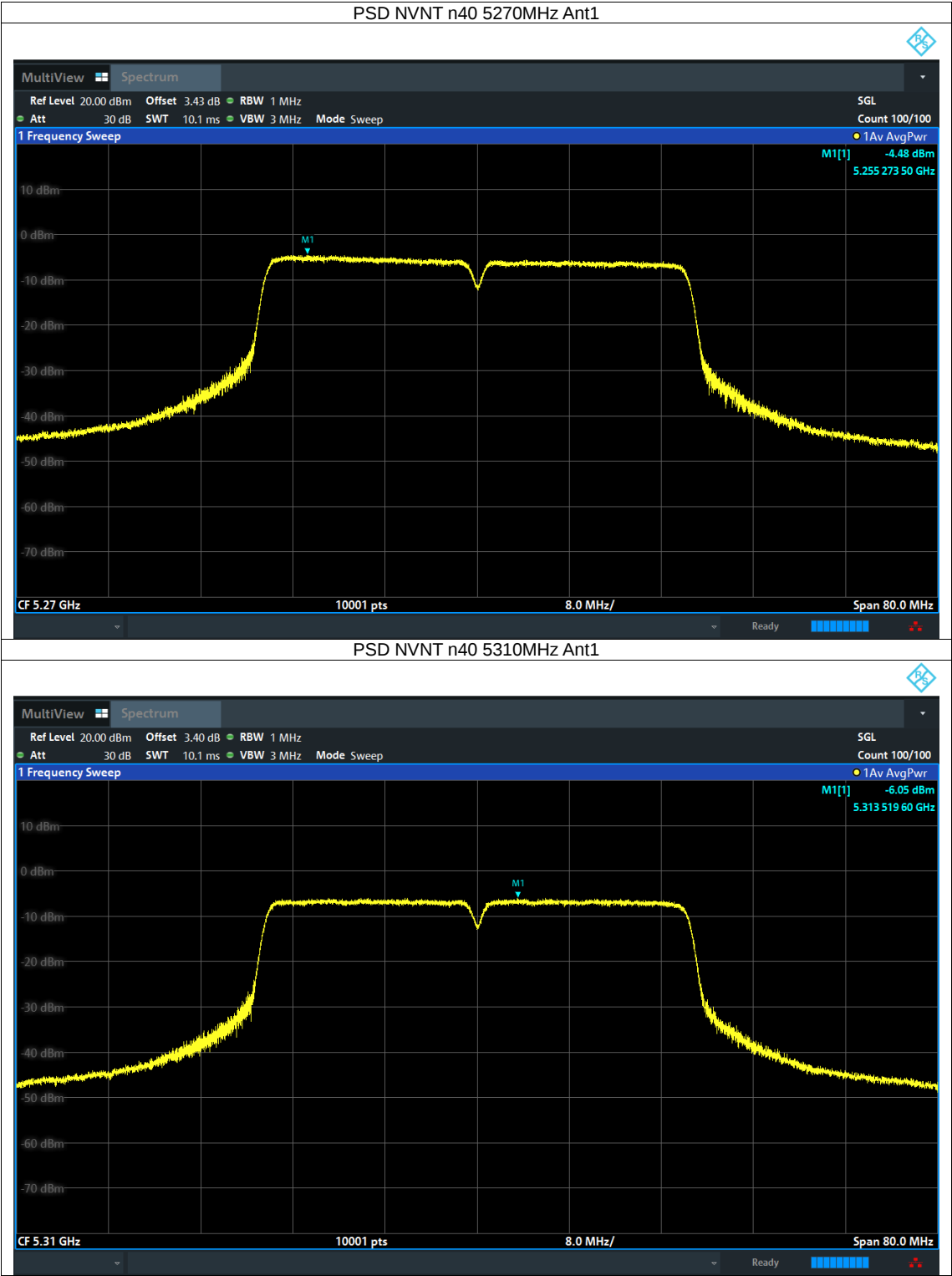
Test plots

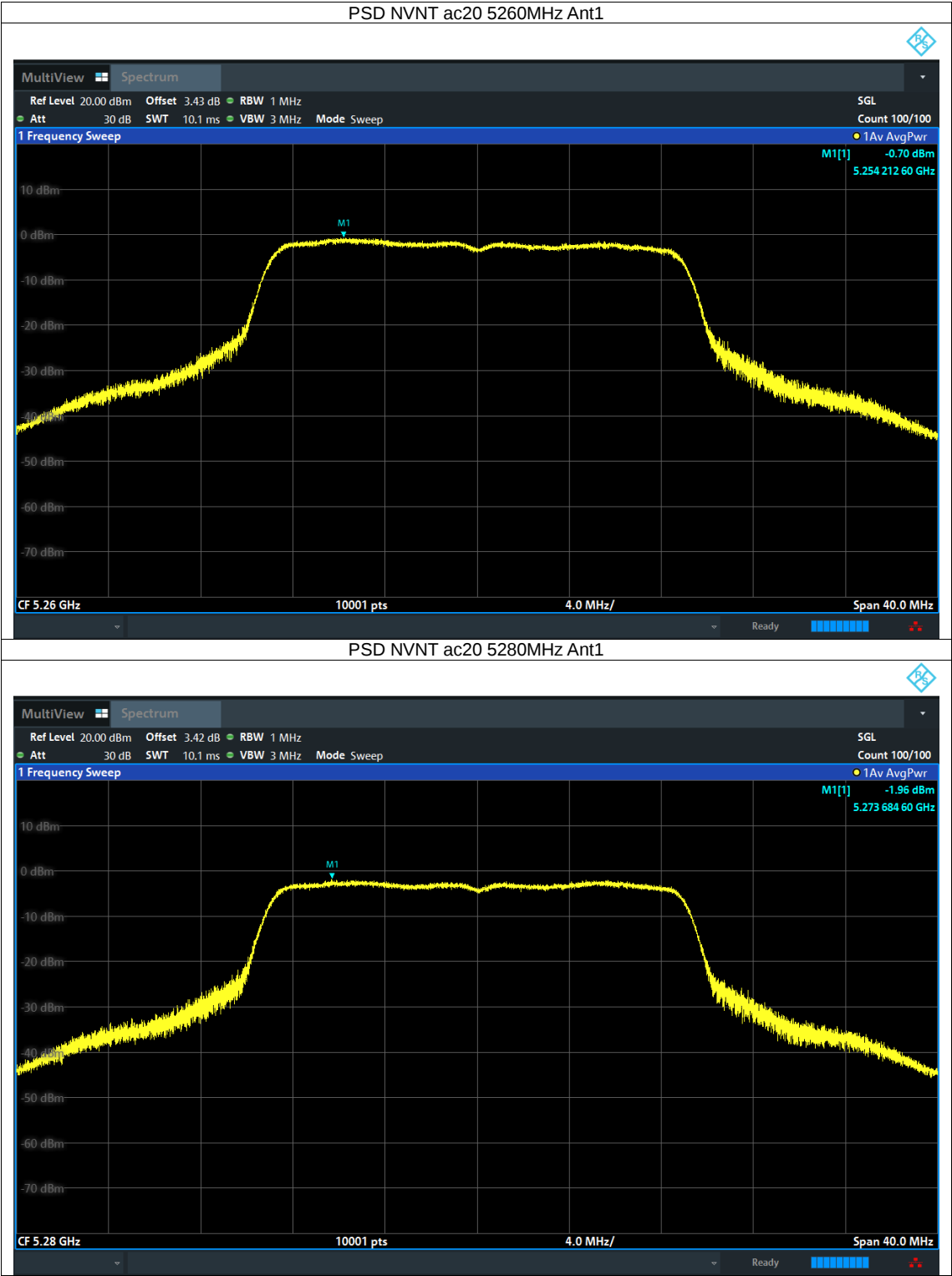
U-NII-2A

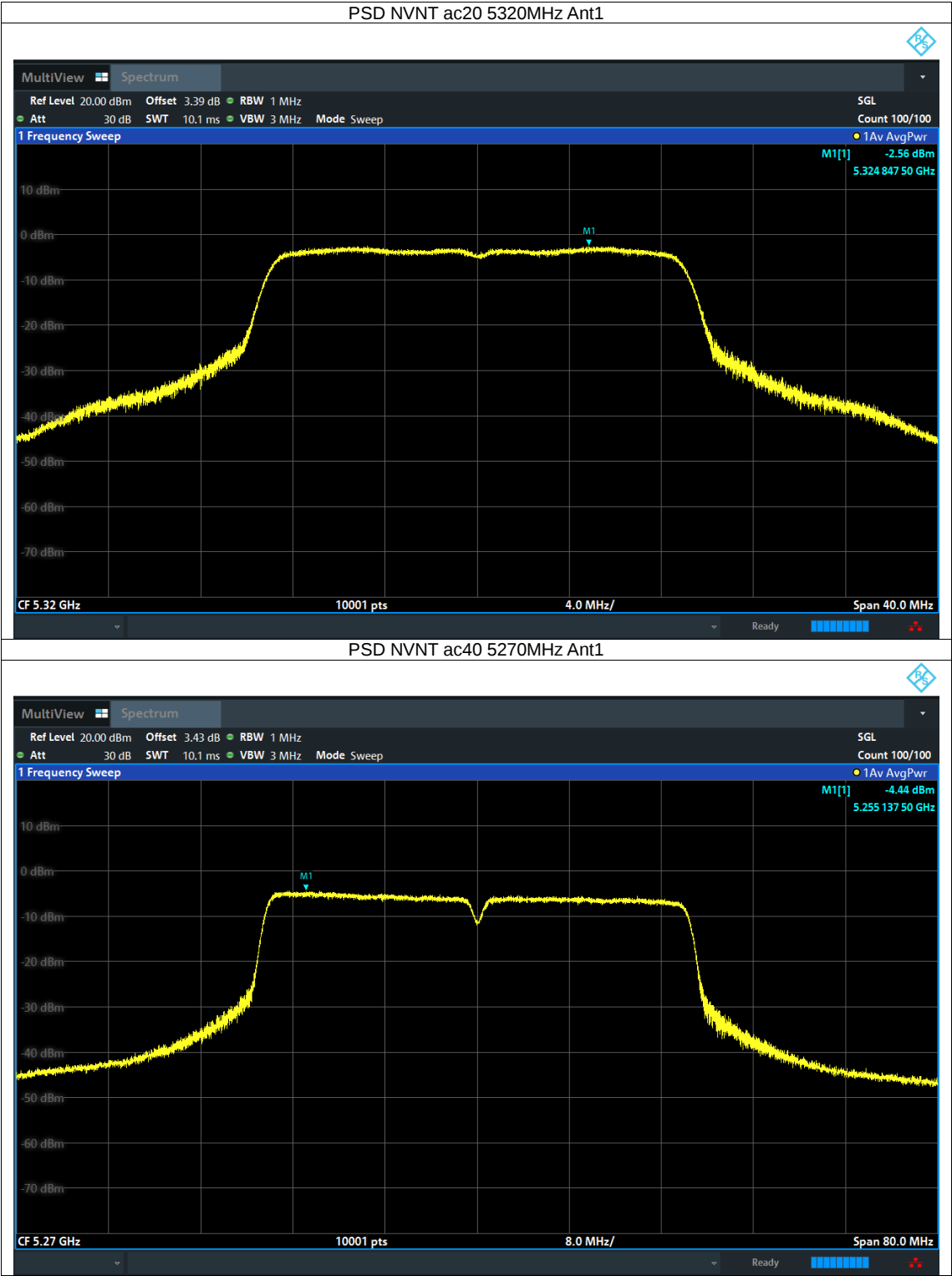


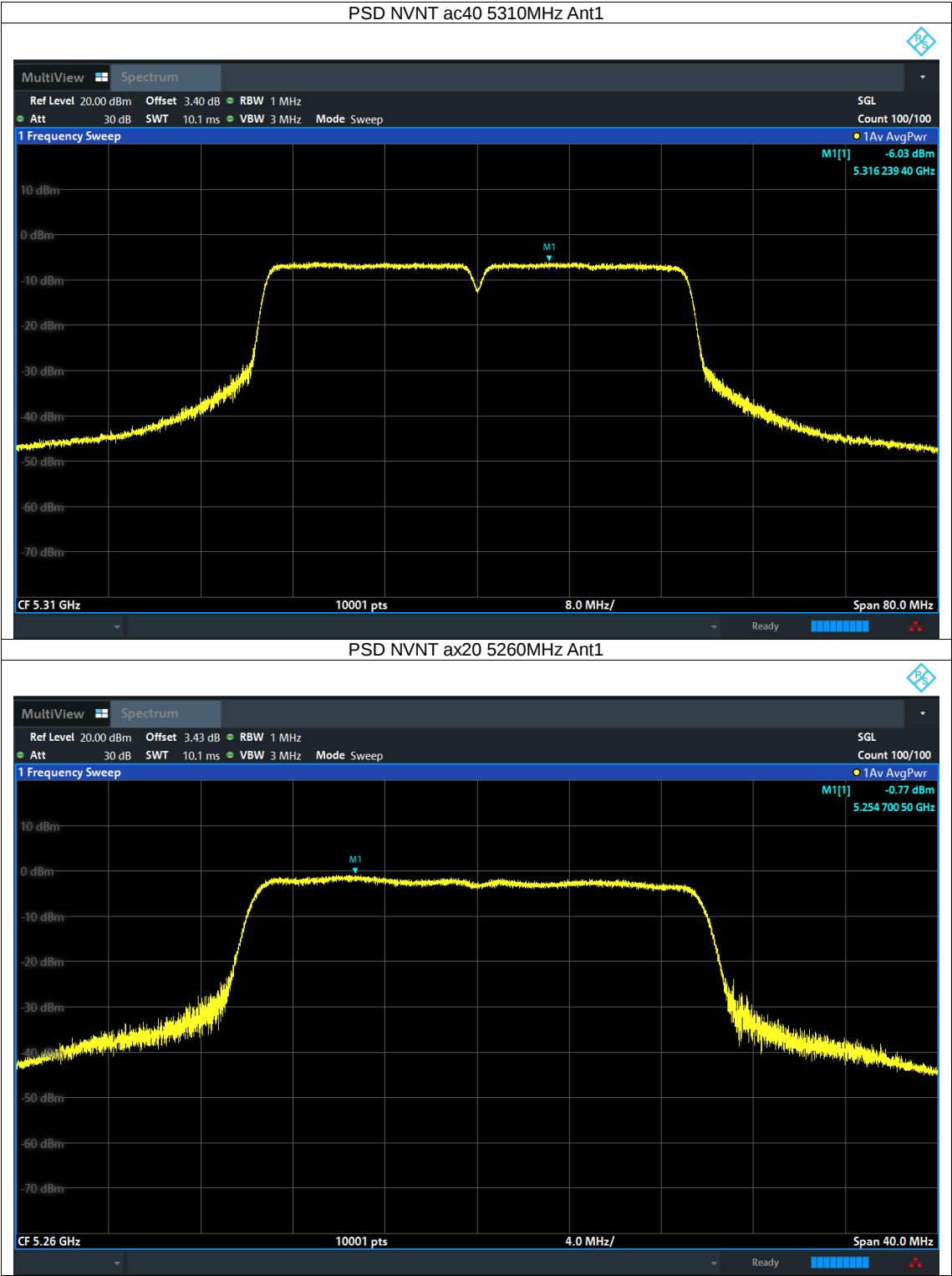


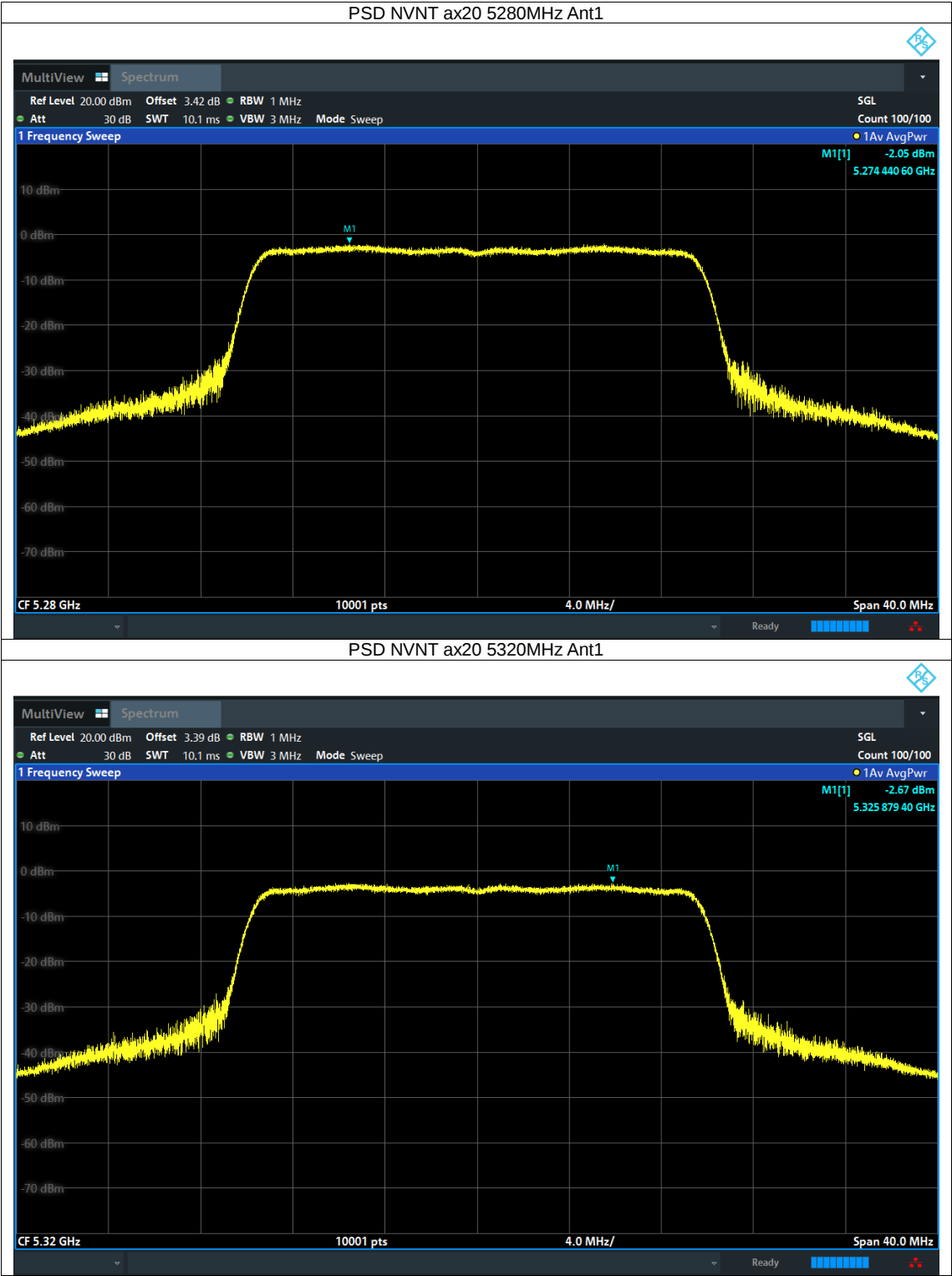


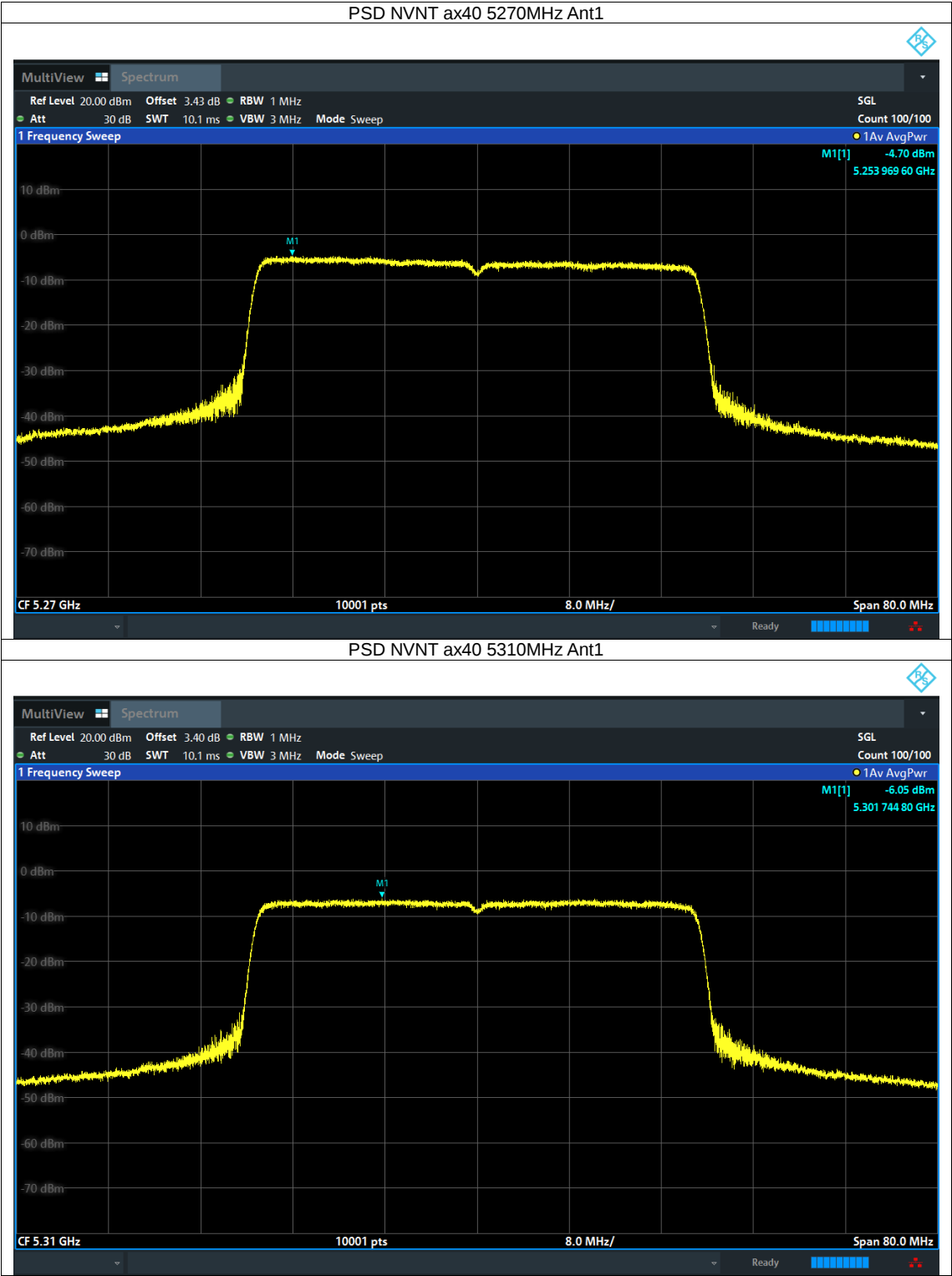












Test plots
U-NII-2C

