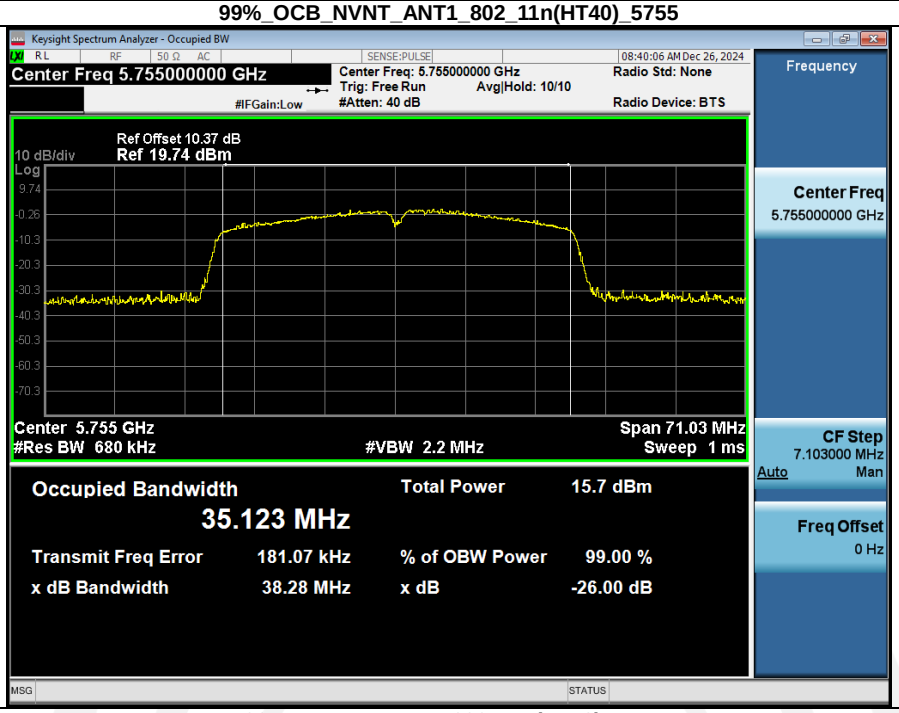
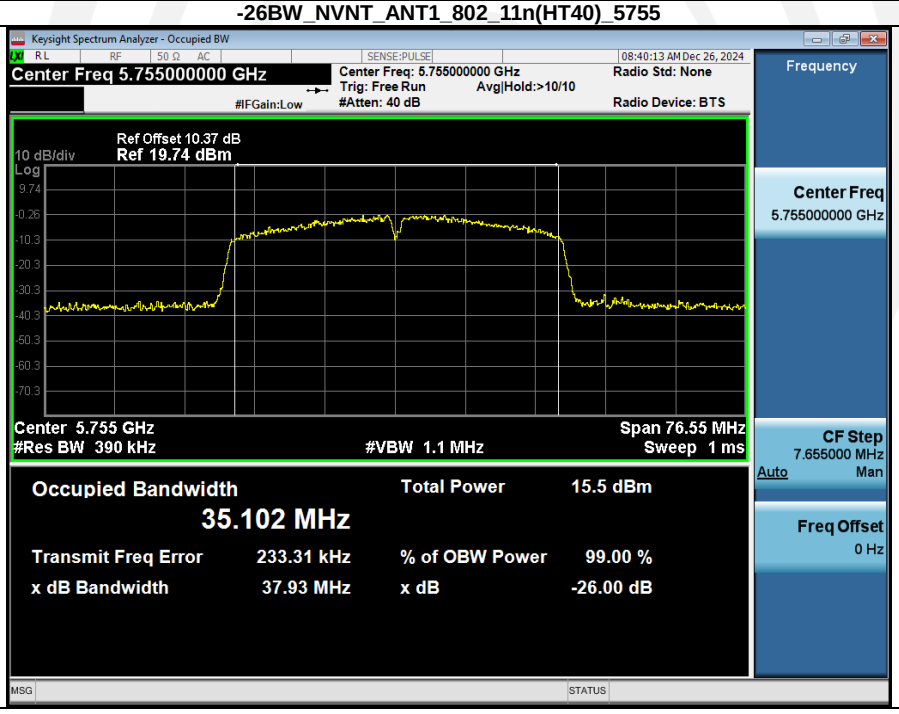
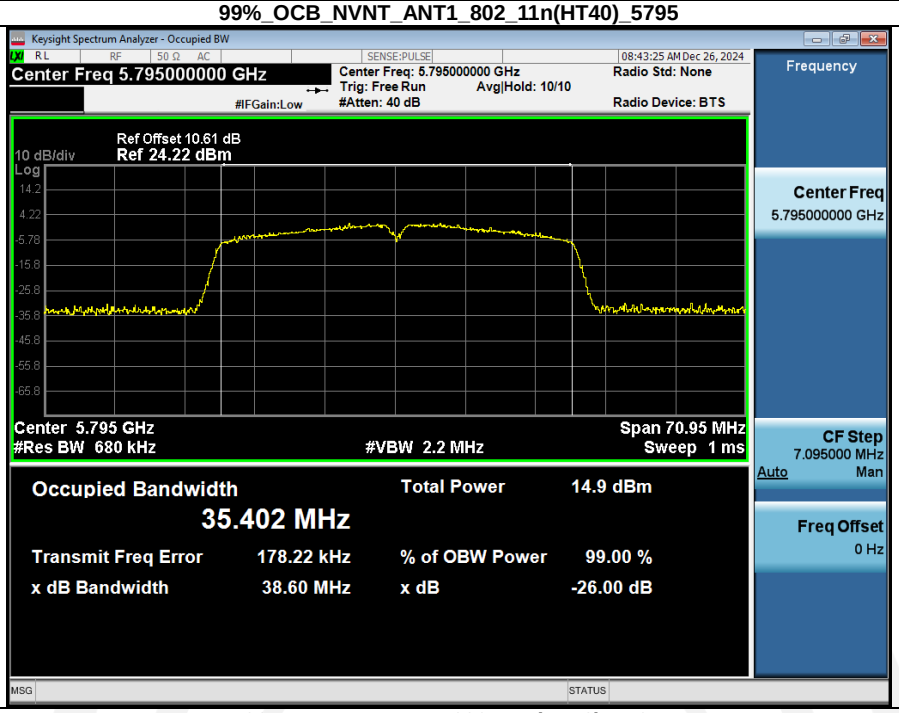
99%_OCB_NVNT_ANT1_802_11n(HT40)_5755



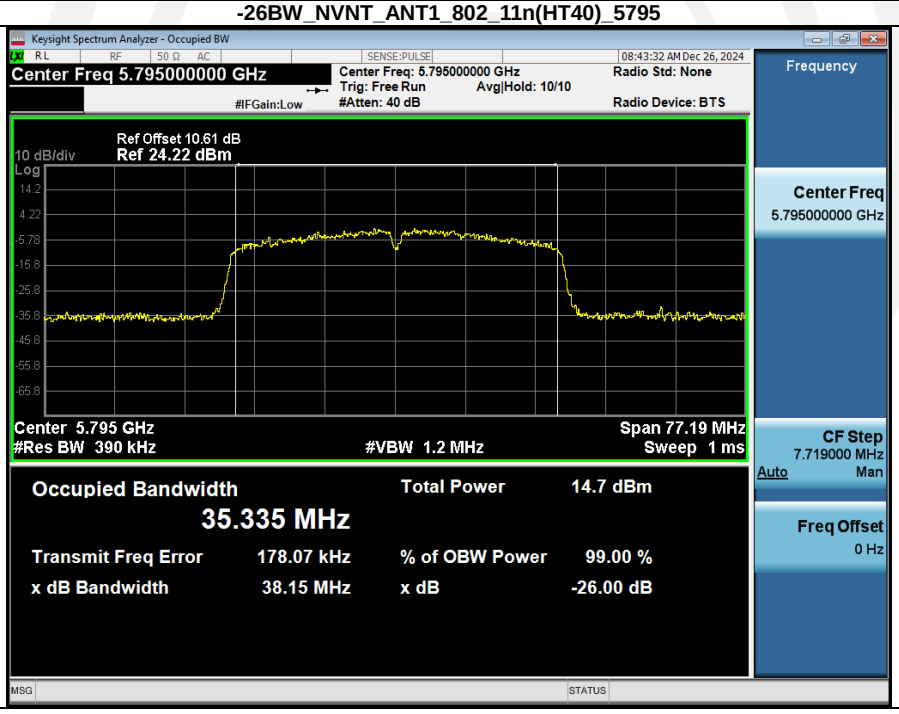
-26BW_NVNT_ANT1_802_11n(HT40)_5755



99%_OCB_NVNT_ANT1_802_11n(HT40)_5795



-26BW_NVNT_ANT1_802_11n(HT40)_5795

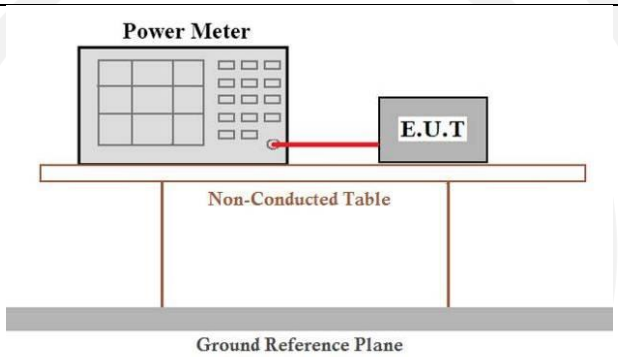


4.4 Peak Transmit Power

Test Requirement:	FCC Part15 E Section 15.407, RSS-247 §6.2
Test Method:	KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Limit:	For the band 5.15-5.25GHz, 5.25-5.35GHz, 5.47-5.725GHz, the maximum conducted output power over the frequency bands of operation shall not exceed 250mW. For the band 5.725-5.85GHz, the maximum conducted output power over the frequency bands of operation shall not exceed 1W. IC:

Section	Test Item	Limit	Frequency Range (MHz)	Result
6.2.1.1	Peak Output Power	200 mW or 10 + 10 $\log_{10}$B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz	5150-5250	PASS
6.2.2.1 6.2.3.1		The lesser of 250 mW or 11 dBm + 10 log (26 dB emission bandwidth)	5250-5350 5470-5725	
6.2.4.1		1 watt	5725-5825	

Test setup:



Test procedure:

Measurement using an RF average power meter

(i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied

a) The EUT is configured to transmit continuously or to transmit with a constant duty cycle.

b) At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.

c) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

(ii) If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in section B).

(iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

(iv) Adjust the measurement in dBm by adding 10 log(1/x) where x is the duty cycle (e.g., 10log(1/0.25) if the duty cycle is 25 percent).

Test Instruments:	Refer to section 3.0 for details
Test mode:	Refer to section 2.2 for details
Test results:	Pass

Measurement Data:

Band 1 (5150-5250 MHz)

Condition	Antenna	Modulation	Frequency (MHz)	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	11.61	0.95	**12.56**	24	Pass
NVNT	ANT1	802.11a	5200.00	11.59	0.95	12.54	24	Pass
NVNT	ANT1	802.11a	5240.00	10.58	0.96	11.54	24	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	10.25	1.01	11.26	24	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	9.99	1.02	11.01	24	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	9.23	1.01	10.24	24	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	8.98	1.89	10.87	24	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	8.93	1.85	10.78	24	Pass

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty_factor
NVNT	ANT1	802.11a	5180.00	80.31	0.95
NVNT	ANT1	802.11a	5200.00	80.31	0.95
NVNT	ANT1	802.11a	5240.00	80.16	0.96
NVNT	ANT1	802.11n(HT20)	5180.00	79.17	1.01
NVNT	ANT1	802.11n(HT20)	5200.00	78.99	1.02
NVNT	ANT1	802.11n(HT20)	5240.00	79.17	1.01
NVNT	ANT1	802.11n(HT40)	5190.00	64.79	1.89
NVNT	ANT1	802.11n(HT40)	5230.00	65.28	1.85

Band 2 (5260-5320 MHz):

Condition	Antenna	Modulation	Frequency (MHz)	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5260.00	10.48	0.96	**11.44**	24	Pass
NVNT	ANT1	802.11a	5300.00	10.05	0.95	11.00	24	Pass
NVNT	ANT1	802.11a	5320.00	9.12	0.99	10.11	24	Pass
NVNT	ANT1	802.11n(HT20)	5260.00	9.18	1.02	10.20	24	Pass
NVNT	ANT1	802.11n(HT20)	5300.00	8.69	1.01	9.70	24	Pass
NVNT	ANT1	802.11n(HT20)	5320.00	8.25	1.01	9.26	24	Pass
NVNT	ANT1	802.11n(HT40)	5270.00	8.62	1.89	10.51	24	Pass
NVNT	ANT1	802.11n(HT40)	5310.00	7.44	1.89	9.33	24	Pass

Condition	Antenna	Modulation	Frequency(MHz)	Duty cycle(%)	Duty_factor
NVNT	ANT1	802.11a	5260.00	80.16	0.96
NVNT	ANT1	802.11a	5300.00	80.31	0.95
NVNT	ANT1	802.11a	5320.00	79.53	0.99
NVNT	ANT1	802.11n(HT20)	5260.00	78.99	1.02
NVNT	ANT1	802.11n(HT20)	5300.00	79.17	1.01
NVNT	ANT1	802.11n(HT20)	5320.00	79.17	1.01
NVNT	ANT1	802.11n(HT40)	5270.00	64.79	1.89
NVNT	ANT1	802.11n(HT40)	5310.00	64.79	1.89

Band 3 (5500-5700 MHz):

Condition	Antenna	Modulation	Frequency(MHz)	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5500	5.49	0.96	6.45	24	Pass
NVNT	ANT1	802.11a	5600	4.62	0.96	5.58	24	Pass
NVNT	ANT1	802.11a	5700.00	9.53	0.96	**10.49**	24	Pass
NVNT	ANT1	802.11n(HT20)	5500	4.07	1.01	5.08	24	Pass
NVNT	ANT1	802.11n(HT20)	5600	3.16	1.02	4.18	24	Pass
NVNT	ANT1	802.11n(HT20)	5700.00	8.45	1.02	9.47	24	Pass
NVNT	ANT1	802.11n(HT40)	5510	3.11	1.85	4.96	24	Pass
NVNT	ANT1	802.11n(HT40)	5590	1.69	1.85	3.54	24	Pass
NVNT	ANT1	802.11n(HT40)	5670	6.40	1.89	8.29	24	Pass

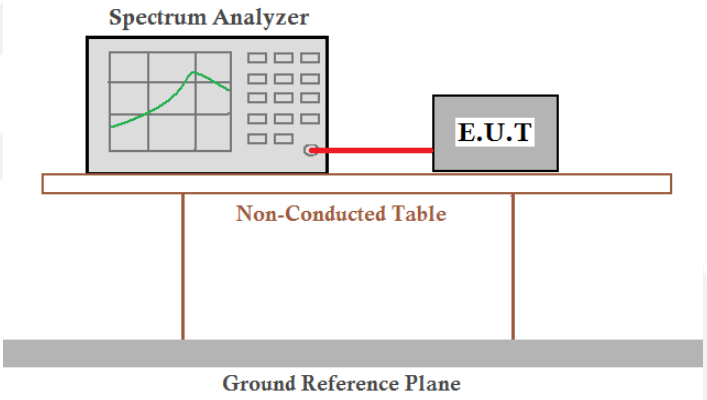
Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty_factor
NVNT	ANT1	802.11a	5500	80.16	0.96
NVNT	ANT1	802.11a	5600	80.16	0.96
NVNT	ANT1	802.11a	5700.00	80.16	0.96
NVNT	ANT1	802.11n(HT20)	5500	79.17	1.01
NVNT	ANT1	802.11n(HT20)	5600	78.99	1.02
NVNT	ANT1	802.11n(HT20)	5700.00	78.99	1.02
NVNT	ANT1	802.11n(HT40)	5510	65.28	1.85
NVNT	ANT1	802.11n(HT40)	5590	65.28	1.85
NVNT	ANT1	802.11n(HT40)	5670	64.79	1.89

Band 4 (5725 – 5850 MHz)

Condition	Antenna	Modulation	Frequency (MHz)	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5745.00	8.96	0.95	9.91	30	Pass
NVNT	ANT1	802.11a	5785.00	7.66	0.96	8.62	30	Pass
NVNT	ANT1	802.11a	5825.00	9.19	0.96	**10.15**	30	Pass
NVNT	ANT1	802.11n(HT20)	5745.00	7.78	1.02	8.80	30	Pass
NVNT	ANT1	802.11n(HT20)	5785.00	7.19	1.01	8.20	30	Pass
NVNT	ANT1	802.11n(HT20)	5825.00	7.56	1.01	8.57	30	Pass
NVNT	ANT1	802.11n(HT40)	5755.00	7.21	1.89	9.10	30	Pass
NVNT	ANT1	802.11n(HT40)	5795.00	6.83	1.89	8.72	30	Pass

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty_factor
NVNT	ANT1	802.11a	5745.00	80.31	0.95
NVNT	ANT1	802.11a	5785.00	80.16	0.96
NVNT	ANT1	802.11a	5825.00	80.16	0.96
NVNT	ANT1	802.11n(HT20)	5745.00	78.99	1.02
NVNT	ANT1	802.11n(HT20)	5785.00	79.17	1.01
NVNT	ANT1	802.11n(HT20)	5825.00	79.17	1.01
NVNT	ANT1	802.11n(HT40)	5755.00	64.79	1.89
NVNT	ANT1	802.11n(HT40)	5795.00	64.79	1.89

4.5 Power Spectral Density

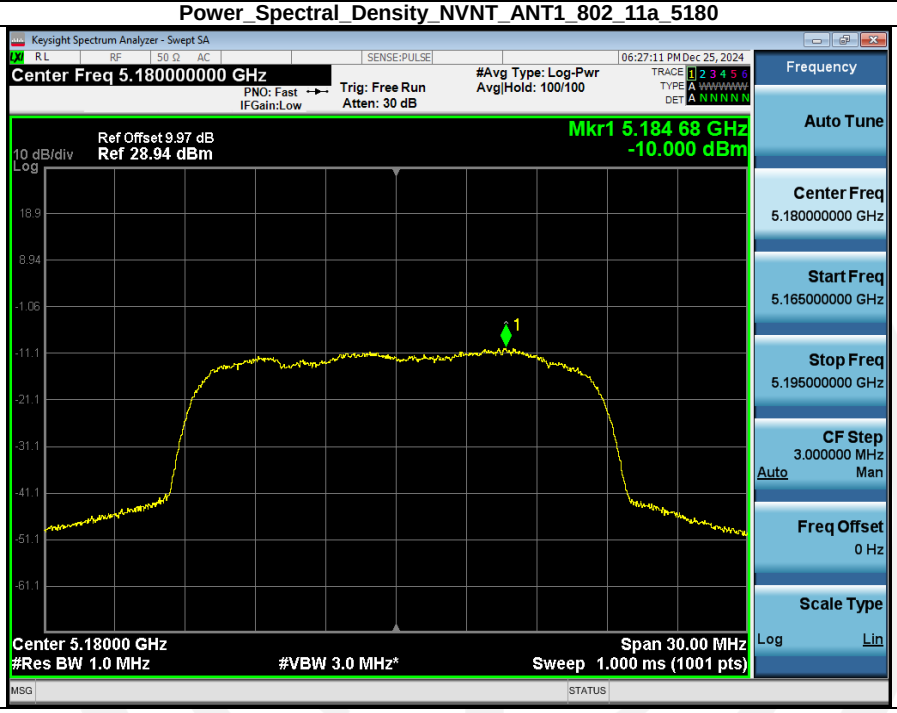
Test Requirement:	FCC Part15 E Section 15.407, RSS-247 §6.2
Test Method:	KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Limit:	FCC: 1.≤11.00dBm/MHz for 5150MHz-5250MHz, 5250-5350MHz and 5470-5725 MHz 2.≤30.00dBm/500KHz for 5725MHz-5850MHz IC: 1.For the 5.15-5.25 GHz, The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. 2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.
Test setup:	
Test procedure:	1) Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, “Compute power…”. 2) Use the peak search function on the instrument to find the peak of the spectrum. 3) Make the following adjustments to the peak value of the spectrum, if applicable: a) If Method SA-2 or SA-2 Alternative was used, add 10 log(1/x), where x is the duty cycle, to the peak of the spectrum. b) If Method SA-3 Alternative was used and the linear mode was used in step E)2)g)(viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging. 4) The result is the PSD.
Test Instruments:	Refer to section 3.0 for details
Test mode:	Refer to section 2.2 for details
Test results:	Pass

Measurement Data

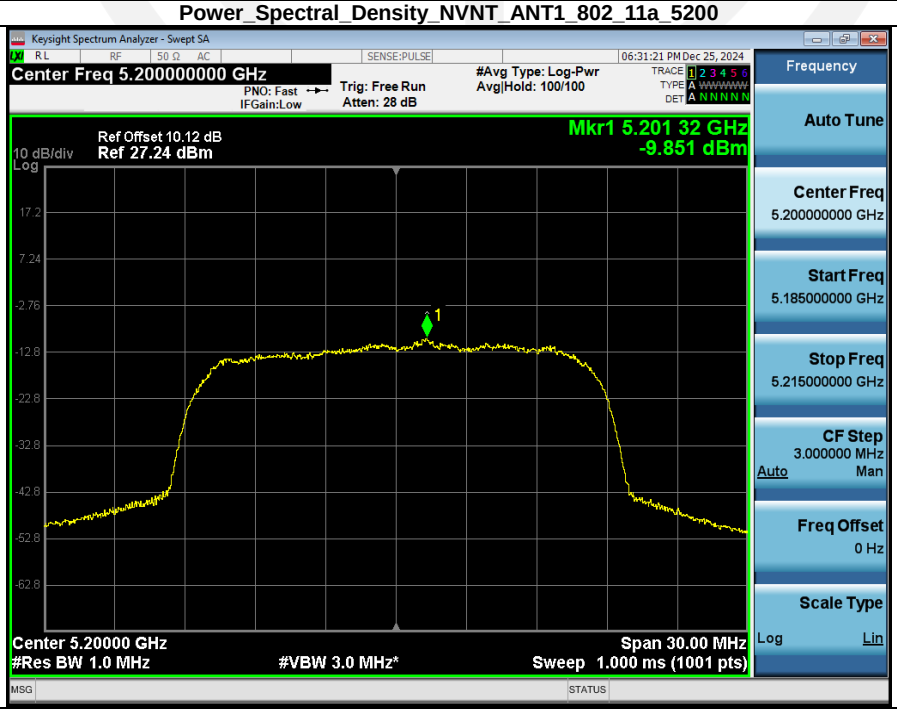
Band 1 (5150-5250 MHz)

Condition	Antenna	Modulation	Frequency (MHz)	PSD(dBm/MHz)	Duty factor(dB)	Total PSD(dBm/MHz)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	-10.00	0.95	-9.05	11	Pass
NVNT	ANT1	802.11a	5200.00	-9.85	0.95	-8.90	11	Pass
NVNT	ANT1	802.11a	5240.00	-10.59	0.96	-9.63	11	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	-10.67	1.01	-9.66	11	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	-11.38	1.02	-10.36	11	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	-11.67	1.01	-10.66	11	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	-21.46	1.89	-19.57	11	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	-22.29	1.85	-20.44	11	Pass

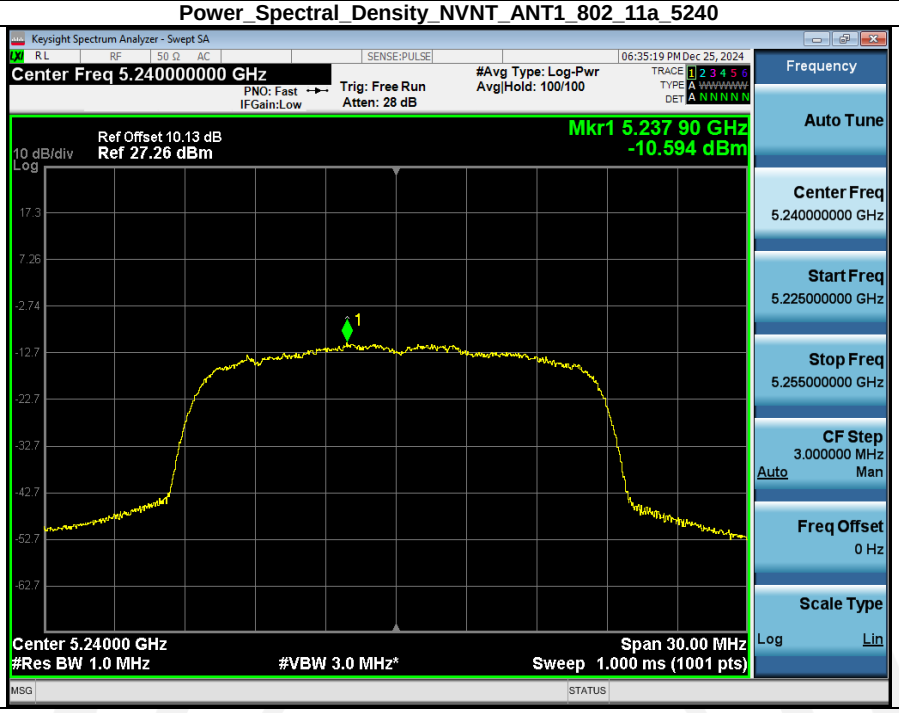
Power_Spectral_Density_NVNT_ANT1_802_11a_5180



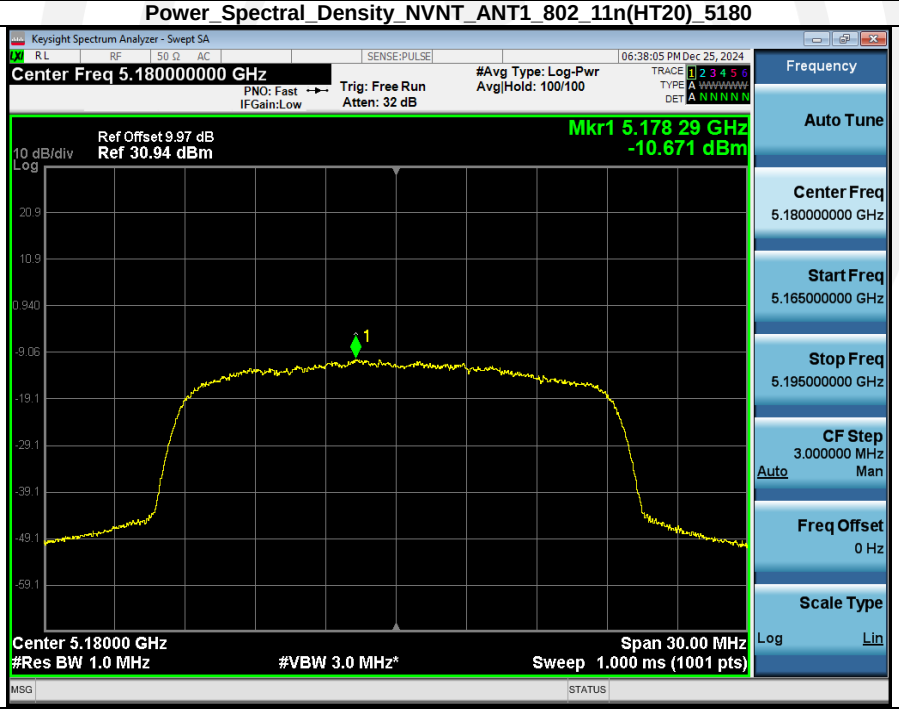
Power_Spectral_Density_NVNT_ANT1_802_11a_5200



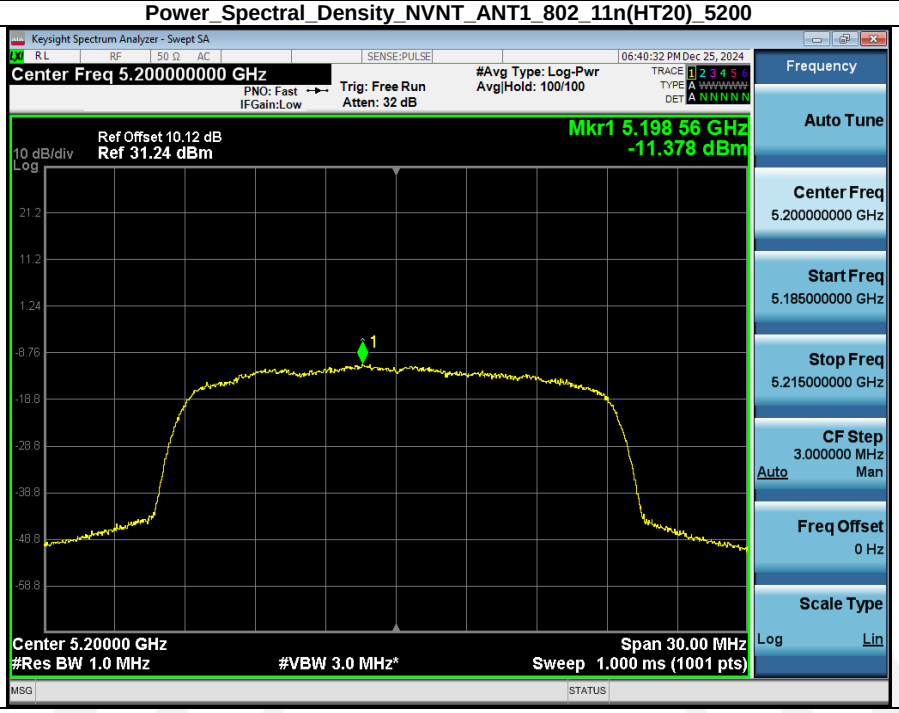
Power_Spectral_Density_NVNT_ANT1_802_11a_5240



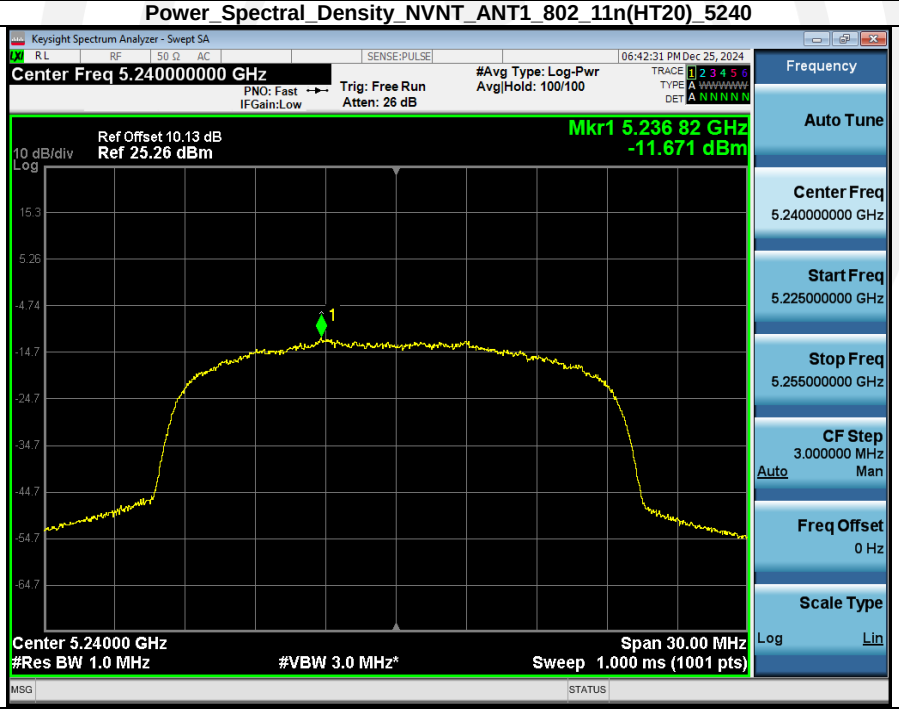
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5180



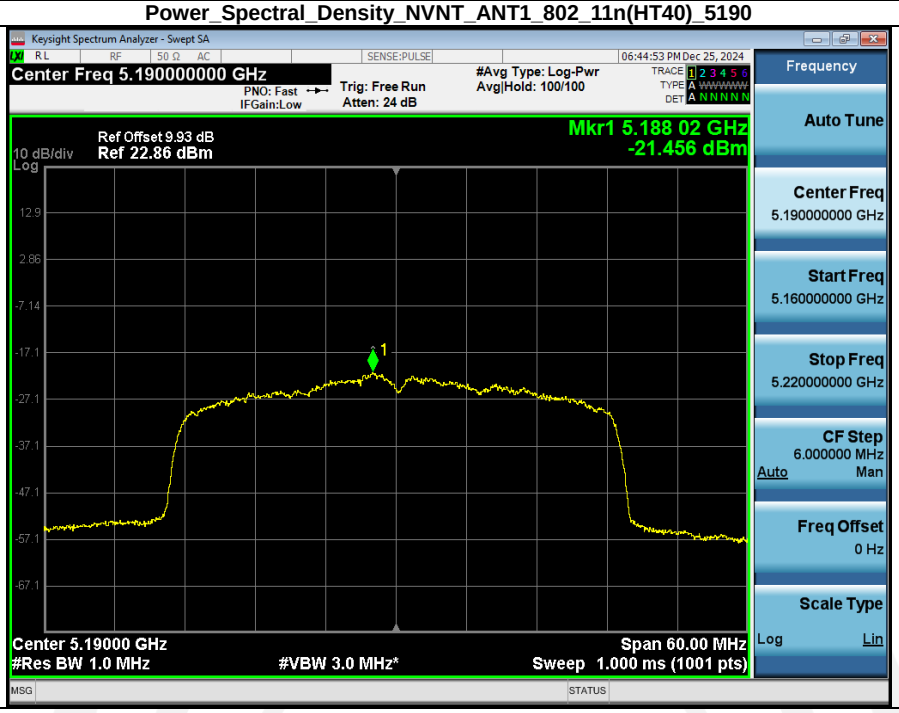
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5200



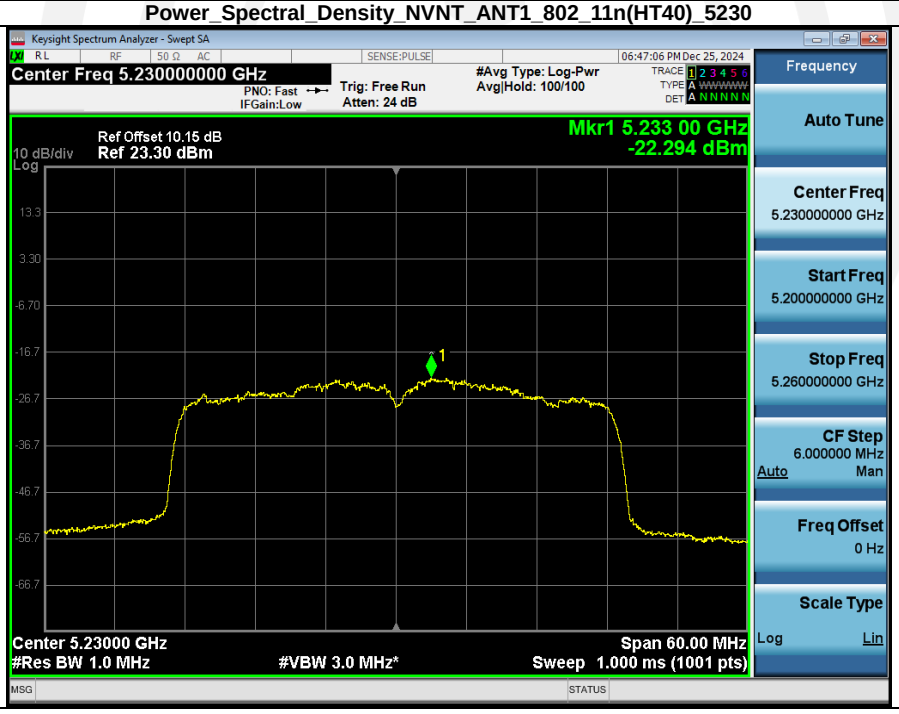
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5240



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5190



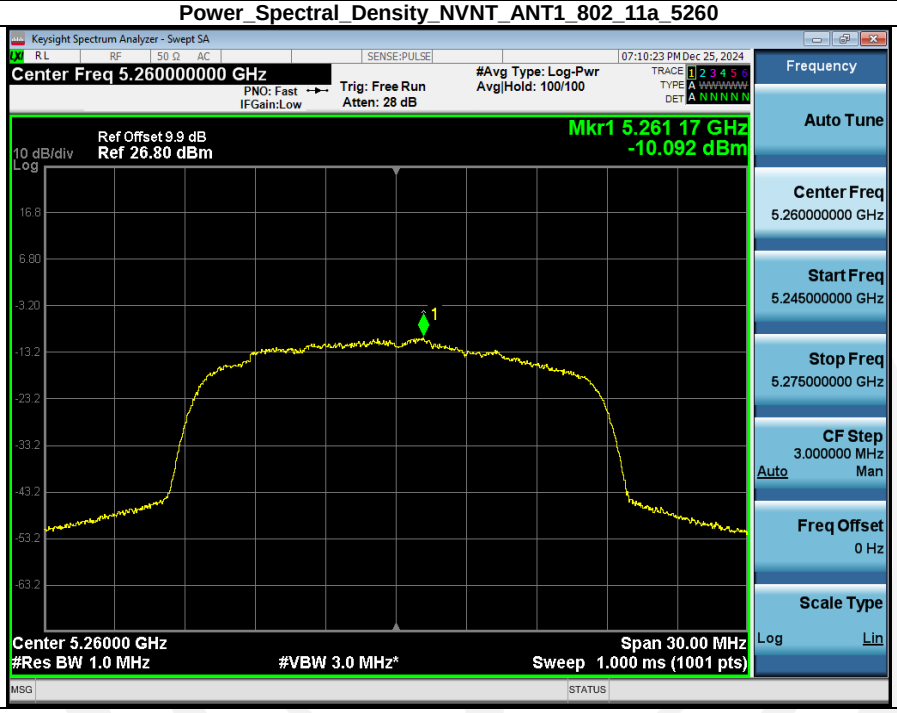
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5230



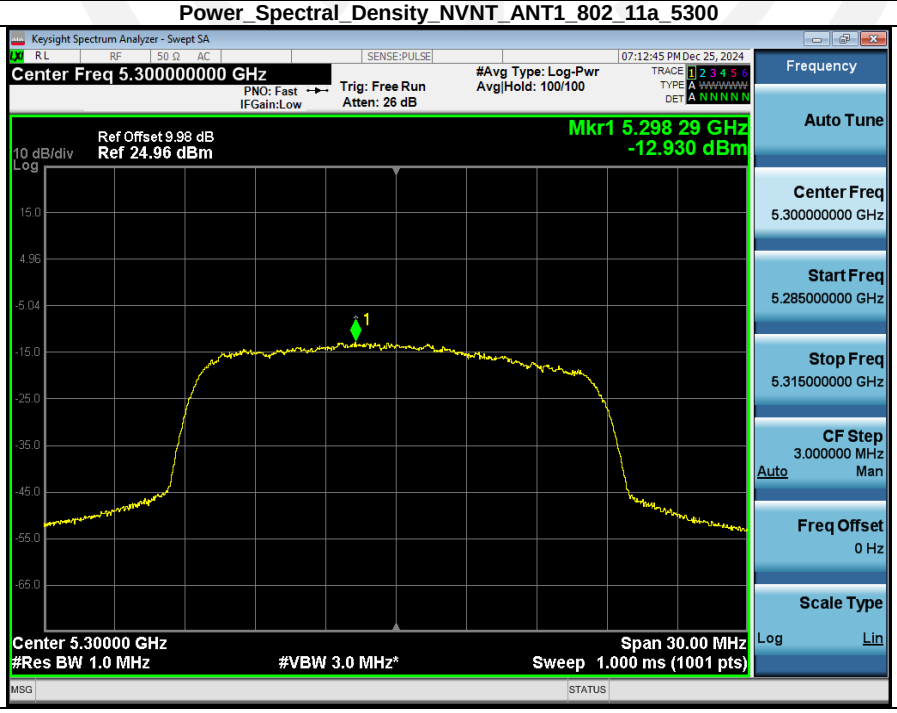
Band 2 (5260-5320 MHz)

Condition	Antenna	Modulation	Frequency (MHz)	PSD(dBm/MHz)	Duty factor(dB)	Total PSD(dBm/MHz)	limit(dBm)	Result
NVNT	ANT1	802.11a	5260.00	-10.09	0.96	-9.13	11	Pass
NVNT	ANT1	802.11a	5300.00	-12.93	0.95	-11.98	11	Pass
NVNT	ANT1	802.11a	5320.00	-9.07	0.99	-8.08	11	Pass
NVNT	ANT1	802.11n(HT20)	5260.00	-11.28	1.02	-10.26	11	Pass
NVNT	ANT1	802.11n(HT20)	5300.00	-10.34	1.01	-9.33	11	Pass
NVNT	ANT1	802.11n(HT20)	5320.00	-13.05	1.01	-12.04	11	Pass
NVNT	ANT1	802.11n(HT40)	5270.00	-24.05	1.89	-22.16	11	Pass
NVNT	ANT1	802.11n(HT40)	5310.00	-23.92	1.89	-22.03	11	Pass

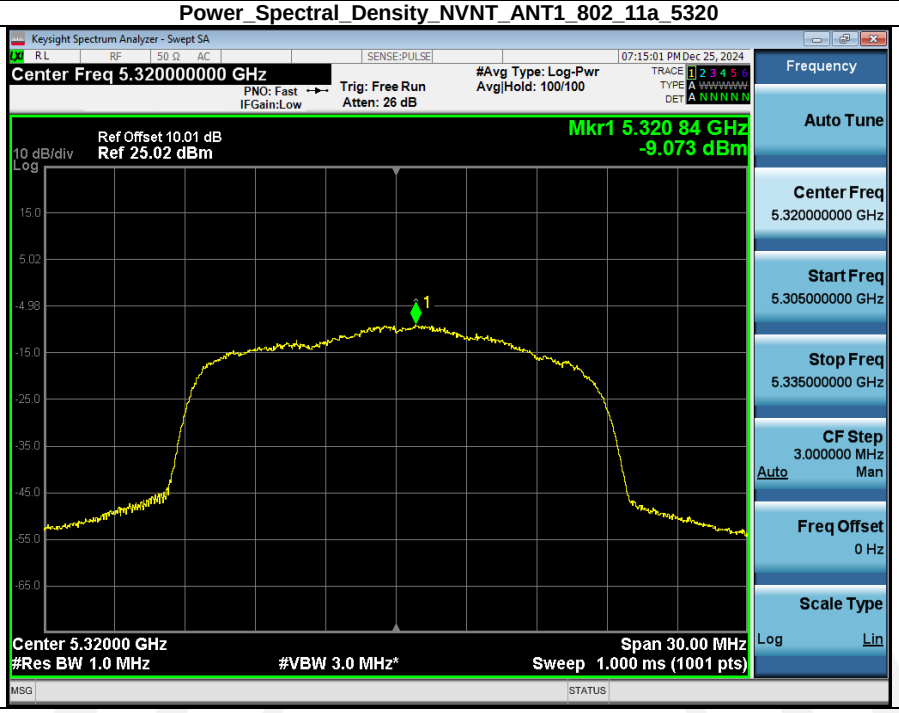
Power_Spectral_Density_NVNT_ANT1_802_11a_5260



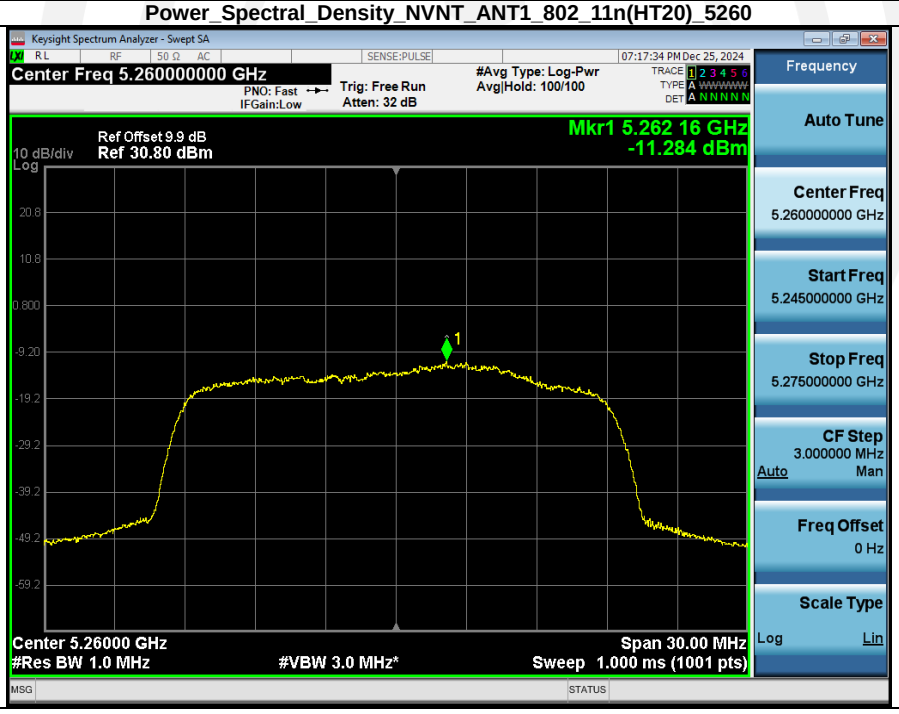
Power_Spectral_Density_NVNT_ANT1_802_11a_5300



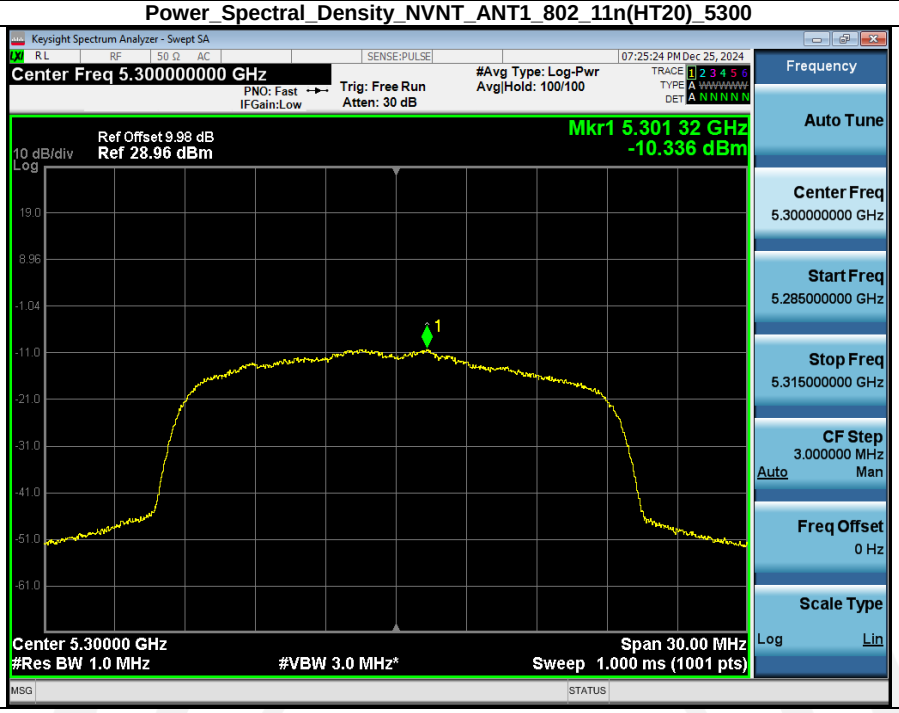
Power_Spectral_Density_NVNT_ANT1_802_11a_5320



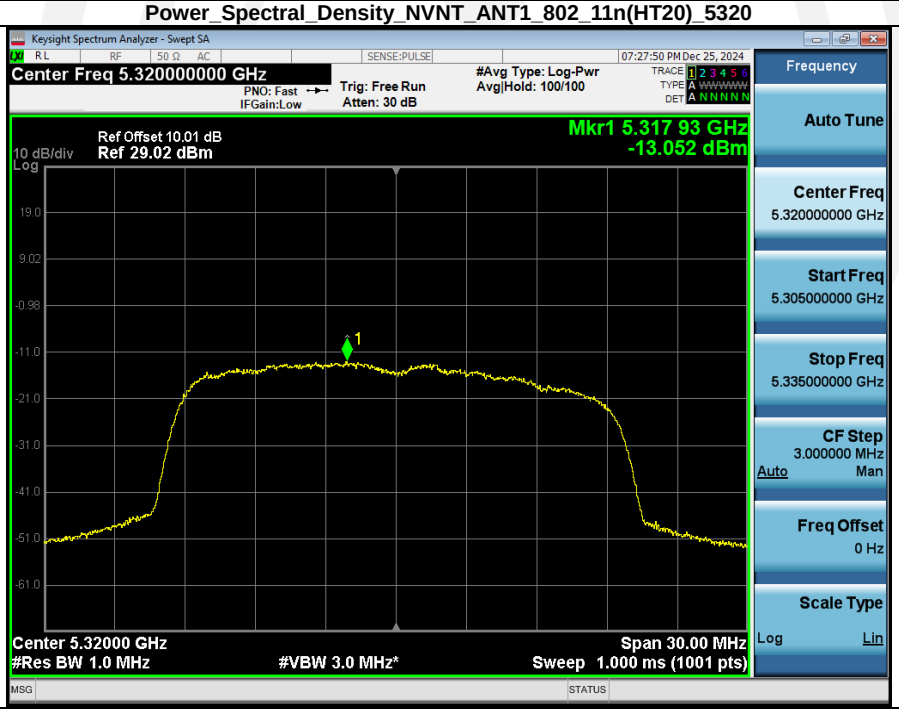
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5260



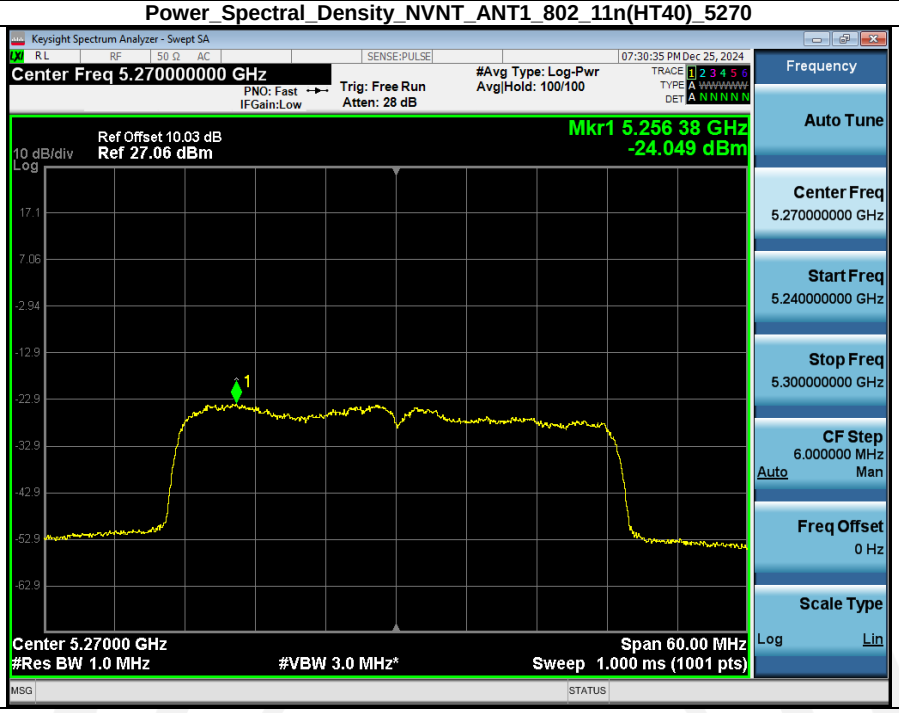
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5300



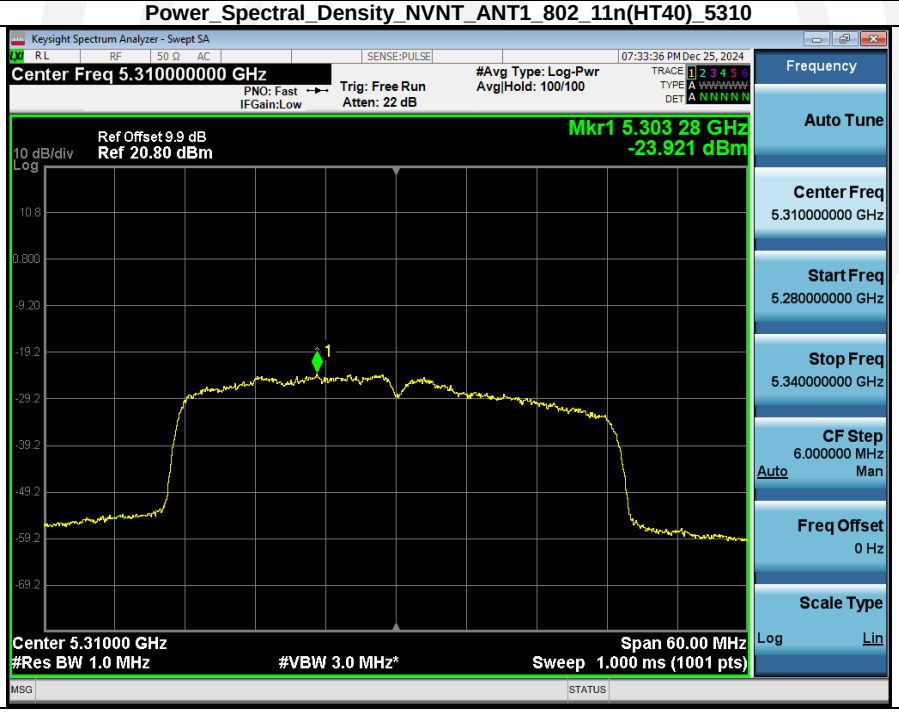
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5320



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5270



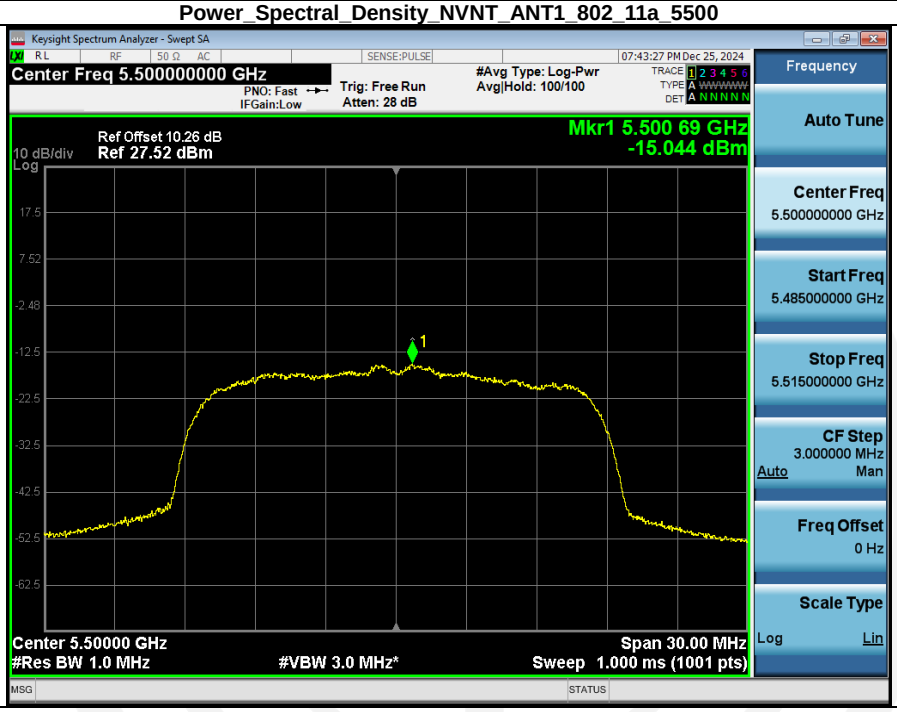
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5310



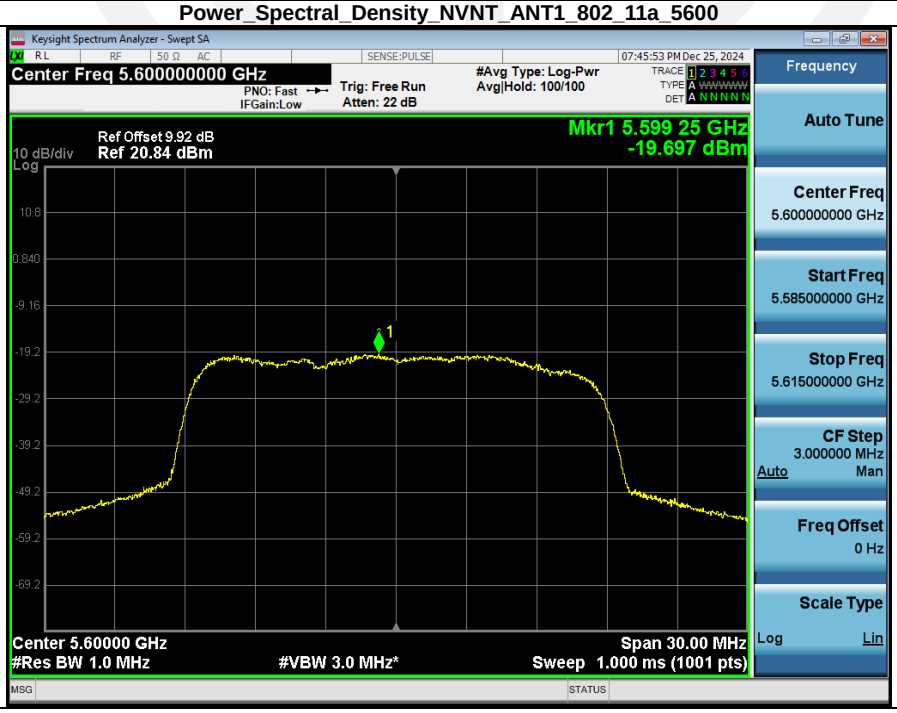
Band 3 (5500-5700 MHz)

Condition	Antenna	Modulation	Frequency (MHz)	PSD(dBm/MHz)	Duty factor(dB)	Total PSD(dBm/MHz)	limit(dBm)	Result
NVNT	ANT1	802.11a	5500	-15.04	0.96	-14.08	11	Pass
NVNT	ANT1	802.11a	5600	-19.70	0.96	-18.74	11	Pass
NVNT	ANT1	802.11a	5700.00	-11.09	0.96	-10.13	11	Pass
NVNT	ANT1	802.11n(HT20)	5500	-17.25	1.01	-16.24	11	Pass
NVNT	ANT1	802.11n(HT20)	5600	-18.86	1.02	-17.84	11	Pass
NVNT	ANT1	802.11n(HT20)	5700.00	-12.75	1.02	-11.73	11	Pass
NVNT	ANT1	802.11n(HT40)	5510	-28.71	1.85	-26.86	11	Pass
NVNT	ANT1	802.11n(HT40)	5590	-24.28	1.85	-22.43	11	Pass
NVNT	ANT1	802.11n(HT40)	5670	-21.41	1.89	-19.52	11	Pass

Power_Spectral_Density_NVNT_ANT1_802_11a_5500

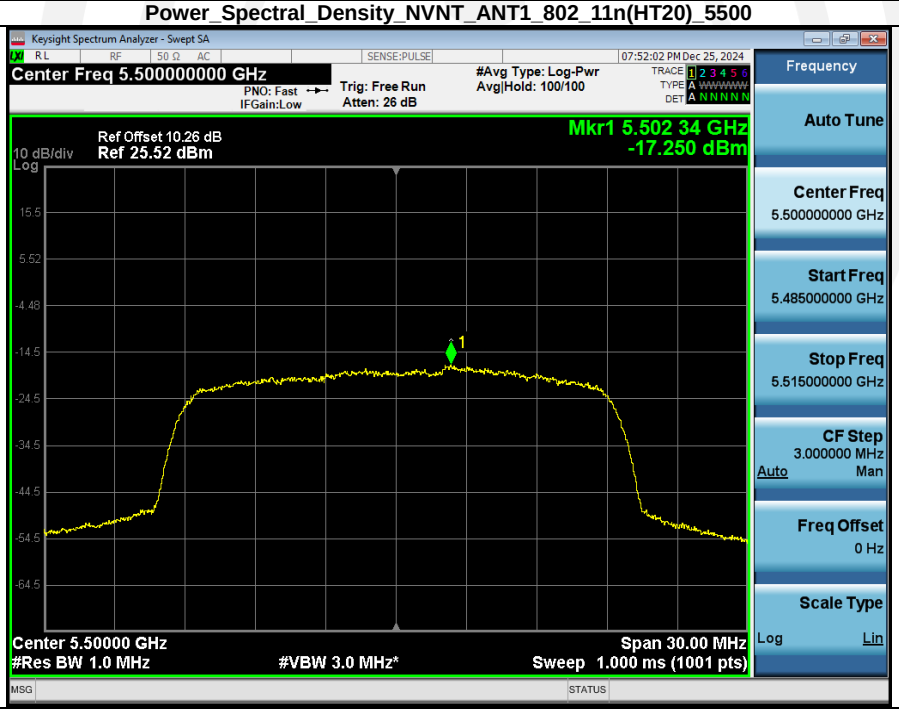


Power_Spectral_Density_NVNT_ANT1_802_11a_5600

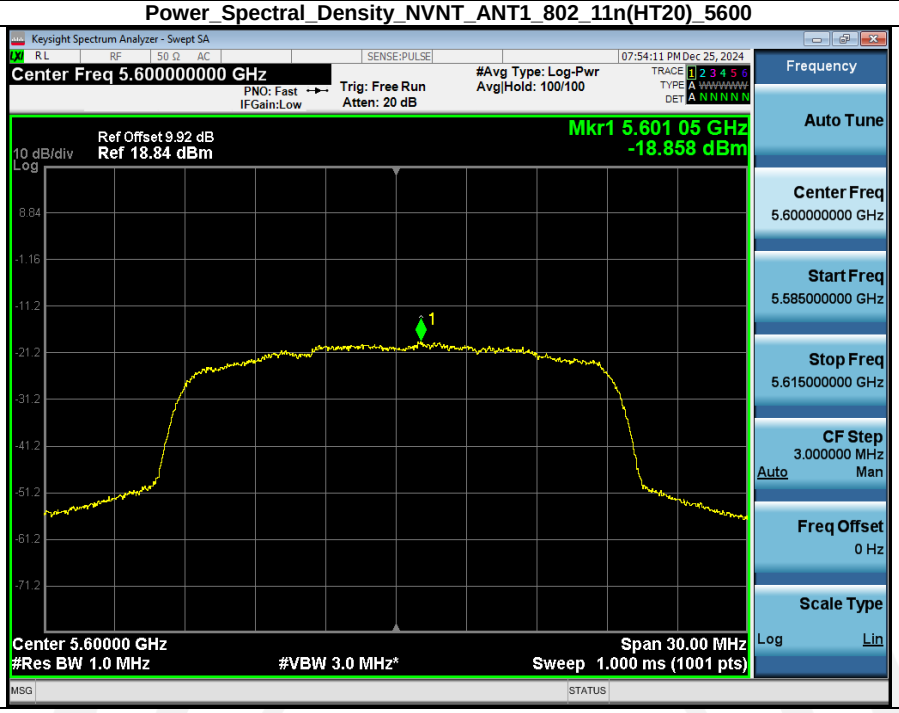


Power_Spectral_Density_NVNT_ANT1_802_11a_5700

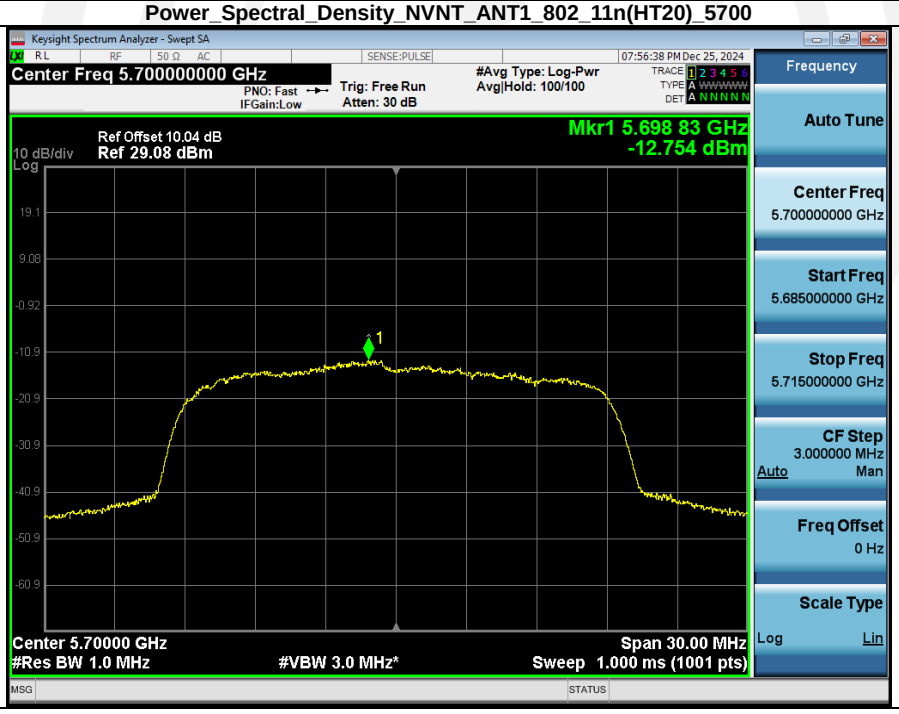
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5500



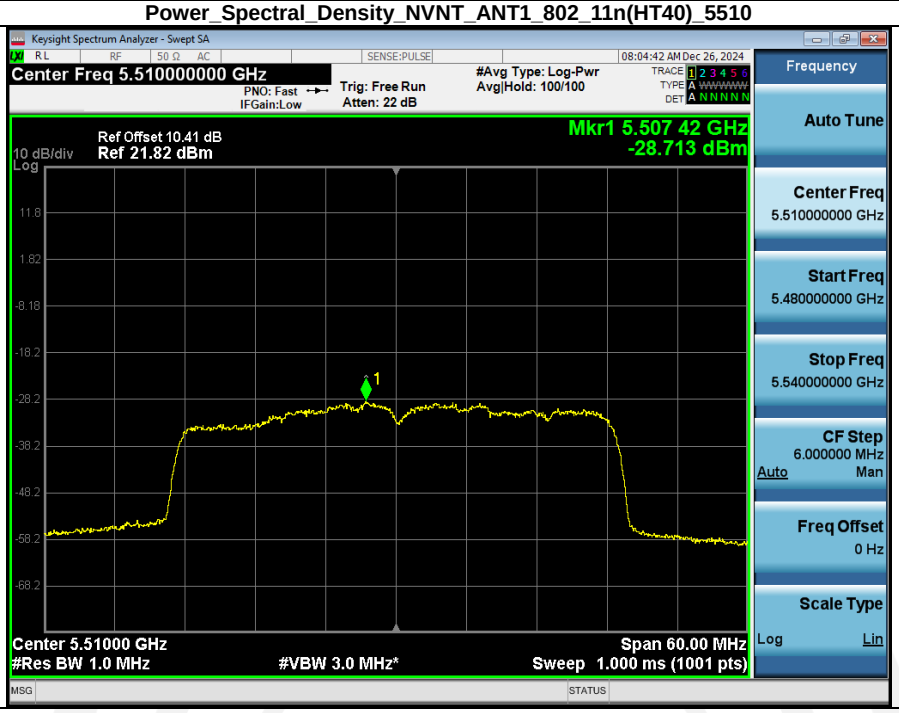
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5600



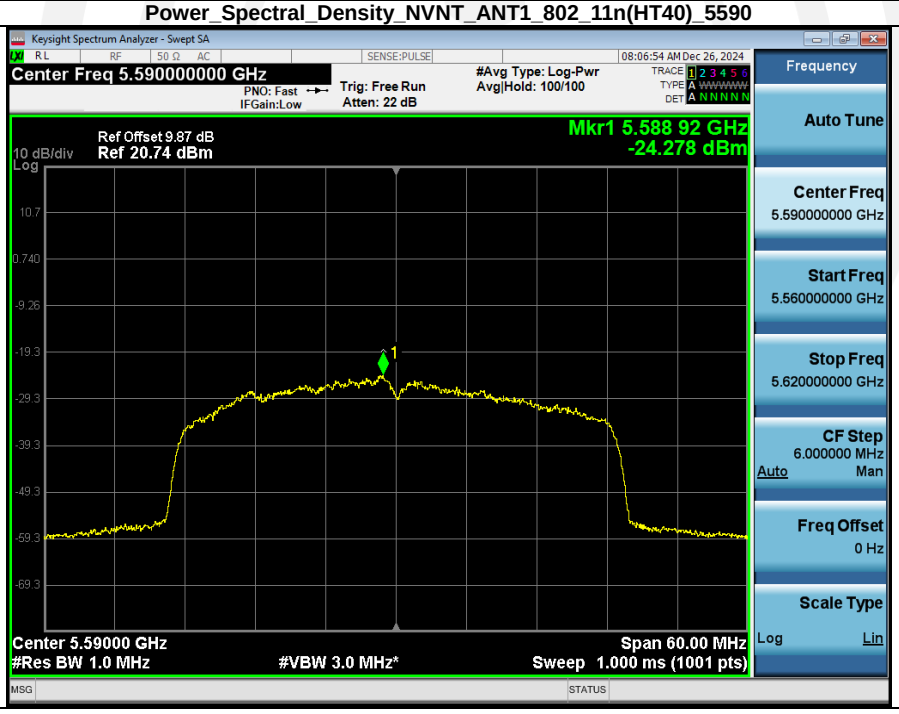
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5700



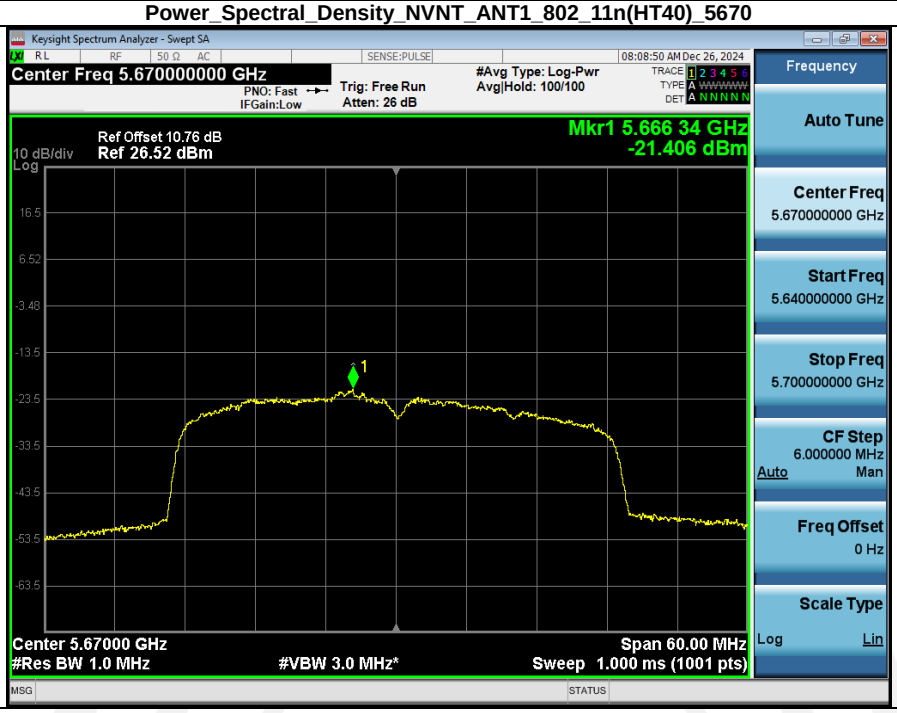
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5510



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5590



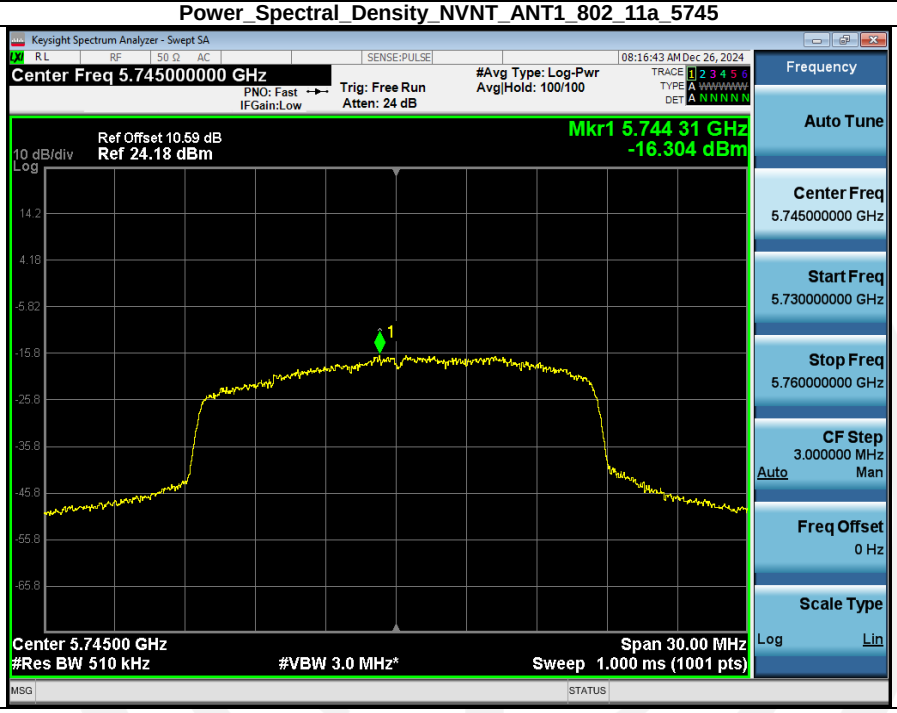
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5670



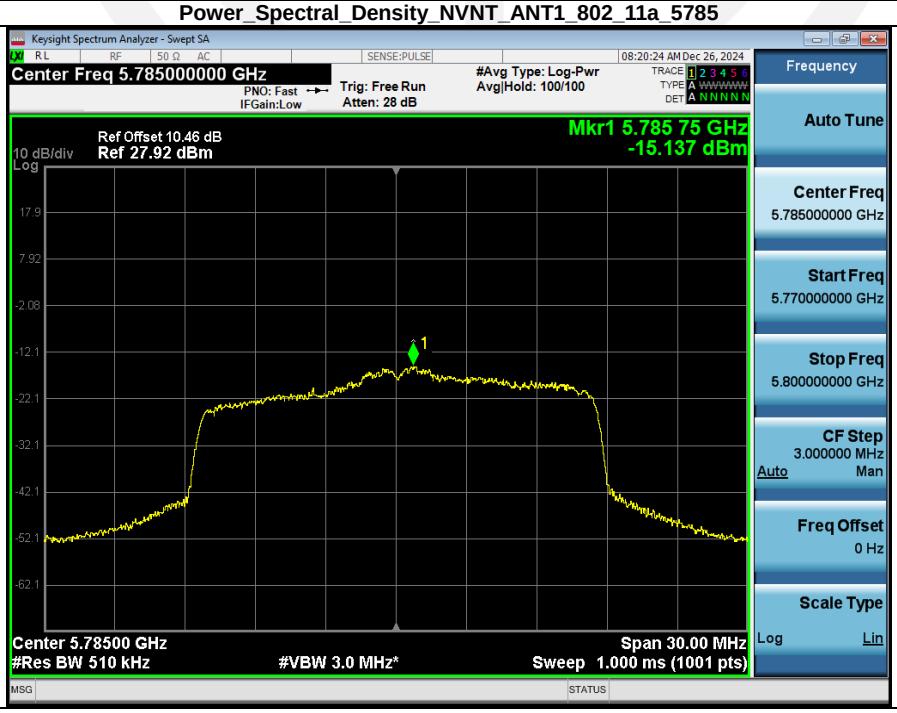
Band 4 (5725 – 5850 MHz)

Condition	Antenna	Modulation	Frequency (MHz)	PSD_SA(dBm/RBW)	Duty factor(dB)	RB factor(dB)	PSD(dBm/ 500kHz)	limit(dBm/ 500kHz)	Result
NVNT	ANT1	802.11a	5745.00	-16.30	0.95	-0	-15.44	30	Pass
NVNT	ANT1	802.11a	5785.00	-15.14	0.96	-0	-14.26	30	Pass
NVNT	ANT1	802.11a	5825.00	-13.51	0.96	-0	-12.64	30	Pass
NVNT	ANT1	802.11n(HT20)	5745.00	-17.33	1.02	-0	-16.40	30	Pass
NVNT	ANT1	802.11n(HT20)	5785.00	-19.11	1.01	-0	-18.19	30	Pass
NVNT	ANT1	802.11n(HT20)	5825.00	-16.42	1.01	-0	-15.50	30	Pass
NVNT	ANT1	802.11n(HT40)	5755.00	-27.54	1.89	-0	-25.73	30	Pass
NVNT	ANT1	802.11n(HT40)	5795.00	-28.14	1.89	-0	-26.33	30	Pass

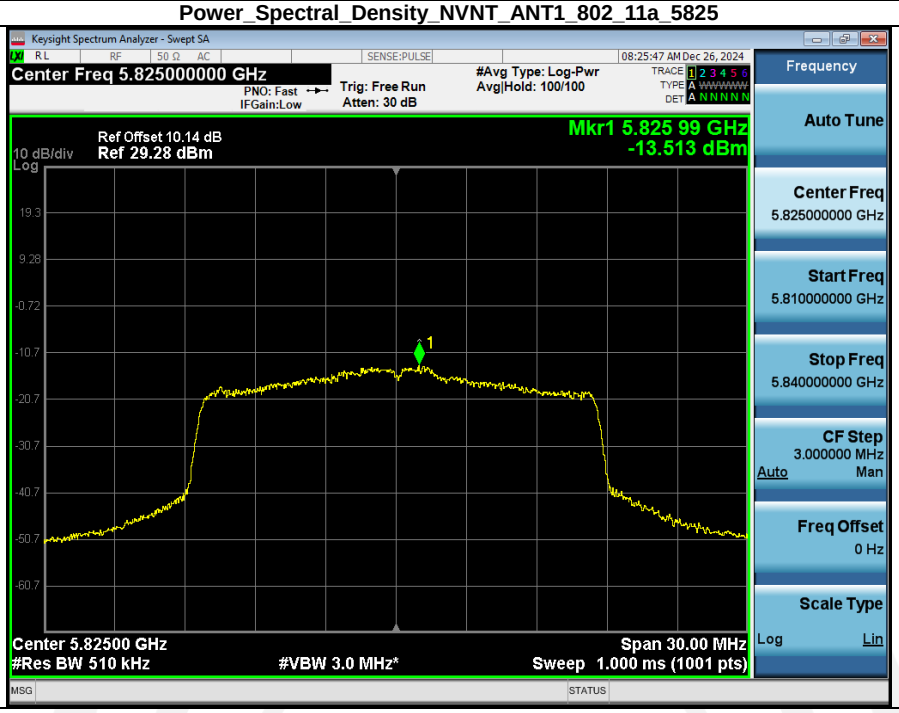
Power_Spectral_Density_NVNT_ANT1_802_11a_5745



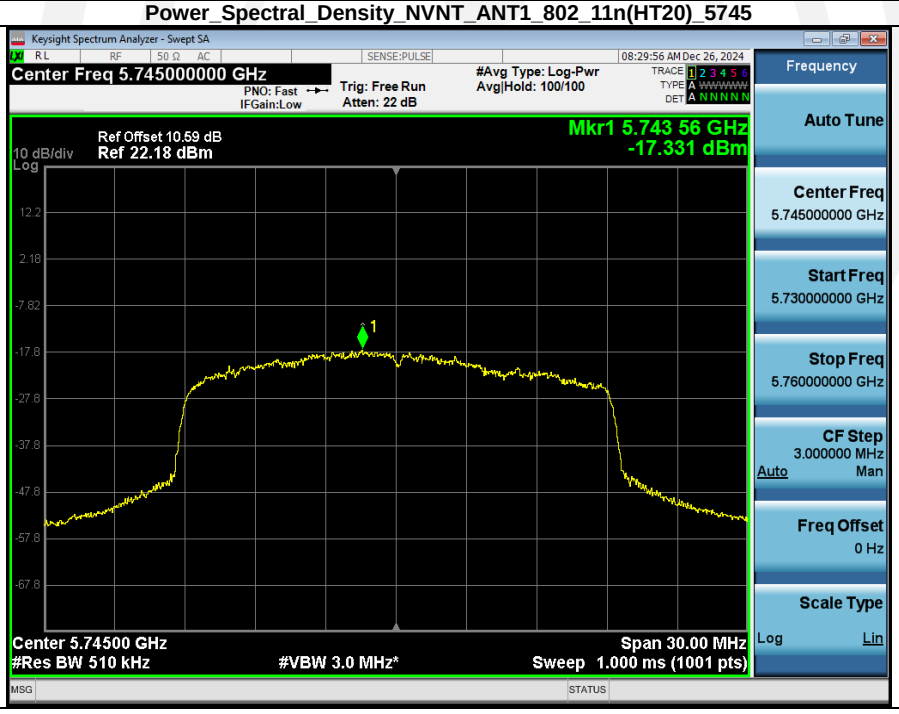
Power_Spectral_Density_NVNT_ANT1_802_11a_5785



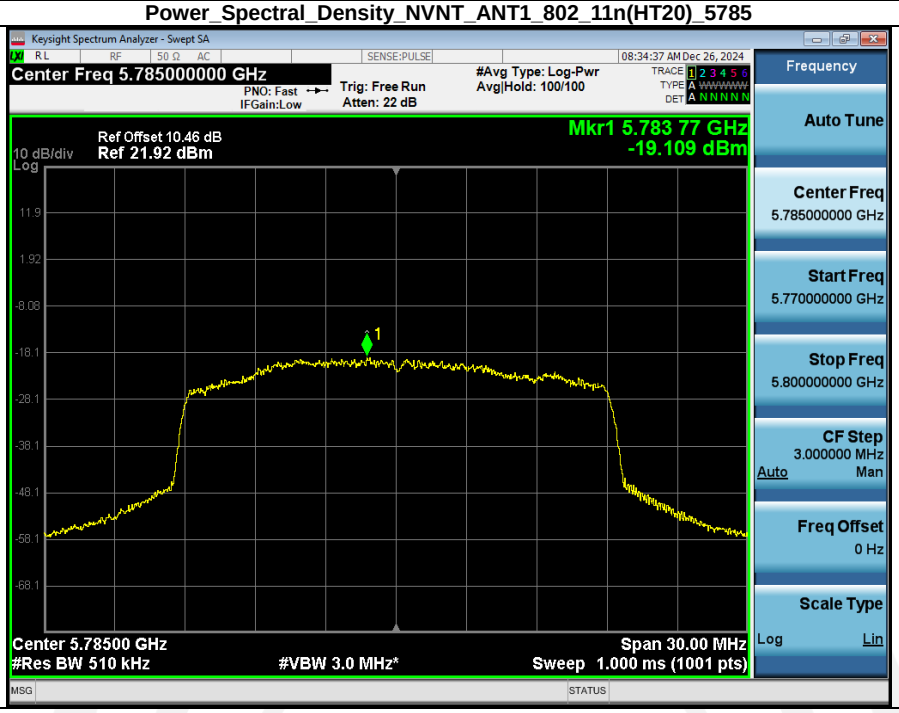
Power_Spectral_Density_NVNT_ANT1_802_11a_5825



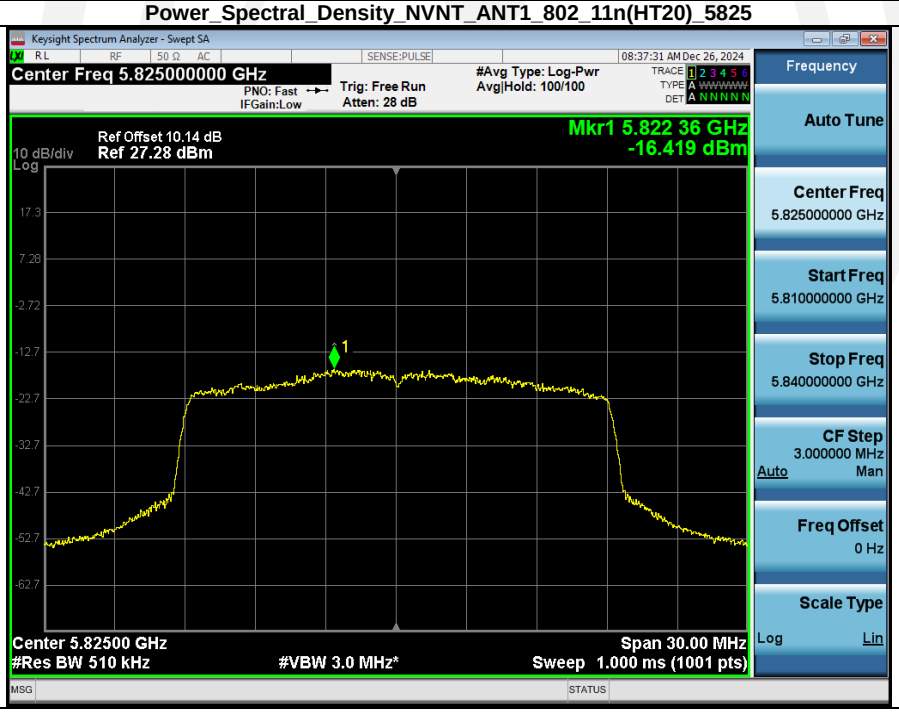
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5745



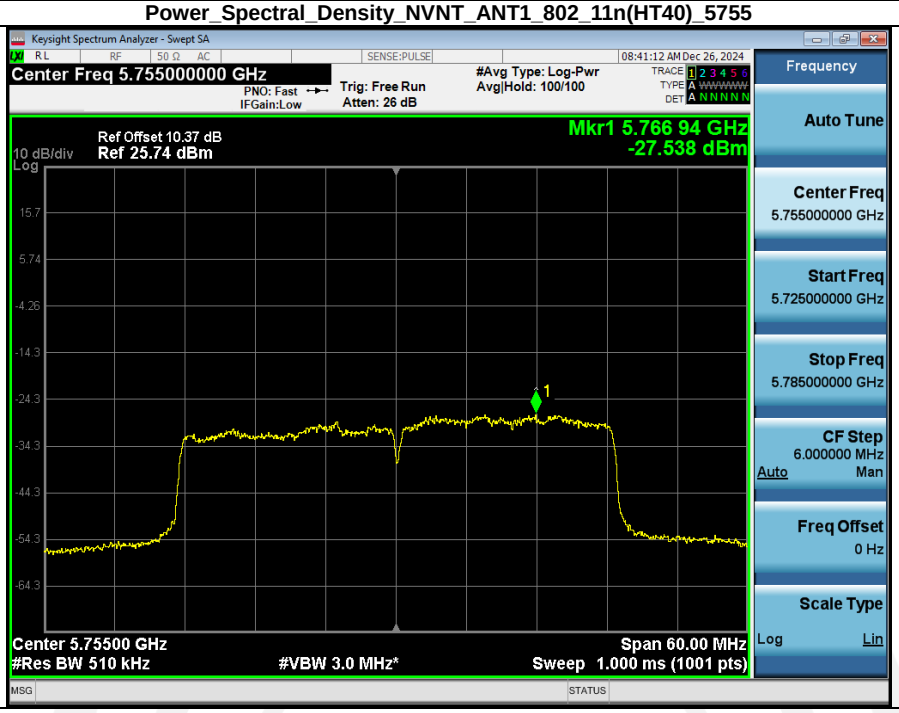
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5785



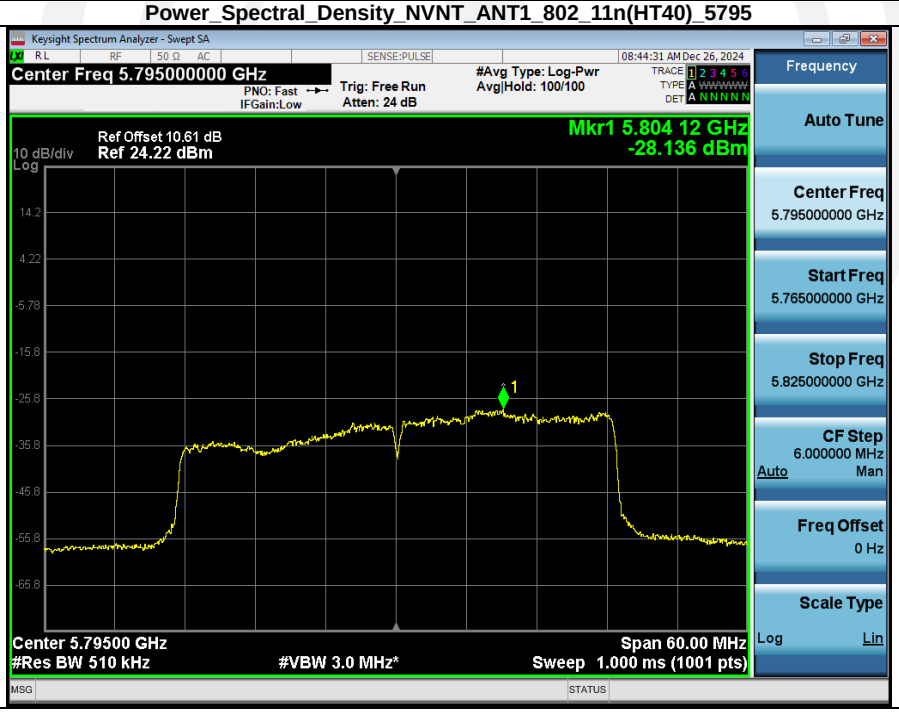
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5825



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5755

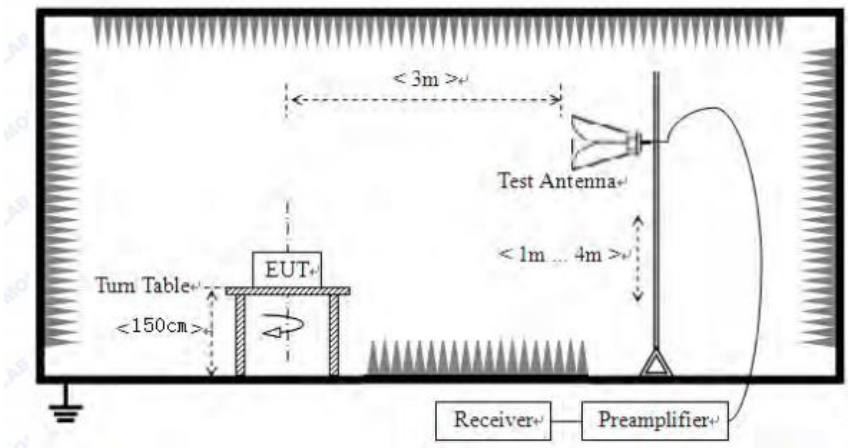


Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5795



4.6 Band Edge

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 E Section 15.407 and 15.205, RSS-Gen §8.9</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10:2013</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m (Semi-Anechoic Chamber)</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>100KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
<tr><td>AV</td><td>1MHz</td><td>3MHz</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><th>Frequency</th><th>Limit (dBuV/m @3m)</th><th>Remark</th></tr>
<tr><td>30MHz-88MHz</td><td>40.0</td><td>Quasi-peak Value</td></tr>
<tr><td>88MHz-216MHz</td><td>43.5</td><td>Quasi-peak Value</td></tr>
<tr><td>216MHz-960MHz</td><td>46.0</td><td>Quasi-peak Value</td></tr>
<tr><td>960MHz-1GHz</td><td>54.0</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>54.0</td><td>Average Value</td></tr>
<tr><td>68.2</td><td>Peak Value</td></tr>
</table>
Undesirable emission 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 EIRP 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 EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.
(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 EIRP of −27 dBm/MHz.
</td></tr>
<tr><td>Test Procedure:</td><td>
a. The EUT was placed on the top of a rotating table 1.5 m above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
</td></tr>
<tr><td>Test setup:</td><td>Above 1GHz</td></tr>
</table>

	
Test Instruments:	Refer to section 3.0 for details
Test mode:	Refer to section 2.2 for details
Test results:	Pass

Remark:

According to KDB 789033 D02 v02r01 section G) 1) (d), for For measurements above 1000 MHz @ 3m distance, the limit of field strength is computed as follows:

E[dBuV/m] = EIRP[dBm] + 95.2,

For example, if EIRP = -27dBm

E[dBuV/m] = -27 + 95.2 = 68.2dBuV/m.

Measurement Data:

Band1

Mode:		802.11a		Frequency:		5180MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	55.07	-13.16	41.91	68.20	-26.29	PK
V	5150.00	55.86	-13.16	42.70	68.20	-25.50	PK
Mode:		802.11a		Frequency:		5180MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	46.64	-13.16	33.48	54.00	-20.52	AV
V	5150.00	46.42	-13.16	33.26	54.00	-20.74	AV
Mode:		802.11a		Frequency:		5240MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	57.05	-12.62	44.43	68.20	-23.77	PK
V	5350.00	58.30	-12.62	45.68	68.20	-22.52	PK
Mode:		802.11a		Frequency:		5240MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	45.12	-12.62	32.50	54.00	-21.50	AV
V	5350.00	47.17	-12.62	34.55	54.00	-19.45	AV

Mode:		802.11n(HT20)		Frequency:		5180MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	54.41	-13.16	41.25	68.20	-26.95	PK
V	5150.00	57.51	-13.16	44.35	68.20	-23.85	PK
Mode:		802.11n(HT20)		Frequency:		5180MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	45.70	-13.16	32.54	54.00	-21.46	AV
V	5150.00	48.95	-13.16	35.79	54.00	-18.21	AV
Mode:		802.11n(HT20)		Frequency:		5240MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	57.40	-12.62	44.78	68.20	-23.42	PK
V	5350.00	57.98	-12.62	45.36	68.20	-22.84	PK
Mode:		802.11n(HT20)		Frequency:		5240MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	46.70	-12.62	34.08	54.00	-19.92	AV
V	5350.00	46.18	-12.62	33.56	54.00	-20.44	AV

Mode:		802.11n(HT40)		Frequency:		5190MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	54.03	-13.16	40.87	68.20	-27.33	PK
V	5150.00	56.03	-13.16	42.87	68.20	-25.33	PK
Mode:		802.11n(HT40)		Frequency:		5190MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	47.47	-13.16	34.31	54.00	-19.69	AV
V	5150.00	48.73	-13.16	35.57	54.00	-18.43	AV
Mode:		802.11n(HT40)		Frequency:		5230MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	55.60	-12.62	42.98	68.20	-25.22	PK
V	5350.00	58.17	-12.62	45.55	68.20	-22.65	PK
Mode:		802.11n(HT40)		Frequency:		5230MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	46.29	-12.62	33.67	54.00	-20.33	AV
V	5350.00	49.29	-12.62	36.67	54.00	-17.33	AV

Note:

1. Measure Level = Read Level + Antenna Factor+ Cable loss- Preamp Factor.

Band 2

Mode:		802.11a		Frequency:		5260MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	56.88	-13.16	43.72	68.20	-24.48	PK
V	5150.00	56.41	-13.16	43.25	68.20	-24.95	PK

Mode:		802.11a		Frequency:		5260MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	45.26	-13.16	32.10	54.00	-21.90	AV
V	5150.00	49.14	-13.16	35.98	54.00	-18.02	AV

Mode:		802.11a		Frequency:		5320MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	53.76	-12.62	41.14	68.20	-27.06	PK
V	5350.00	58.70	-12.62	46.08	68.20	-22.12	PK

Mode:		802.11a		Frequency:		5320MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	47.62	-12.62	35.00	54.00	-19.00	AV
V	5350.00	49.27	-12.62	36.65	54.00	-17.35	AV

Mode:		802.11n(HT20)		Frequency:		5260MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	56.95	-13.16	43.79	68.20	-24.41	PK
V	5150.00	58.62	-13.16	45.46	68.20	-22.74	PK
Mode:		802.11n(HT20)		Frequency:		5260MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	47.33	-13.16	34.17	54.00	-19.83	AV
V	5150.00	46.34	-13.16	33.18	54.00	-20.82	AV
Mode:		802.11n(HT20)		Frequency:		5320MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	56.03	-12.62	43.41	68.20	-24.79	PK
V	5350.00	58.36	-12.62	45.74	68.20	-22.46	PK
Mode:		802.11n(HT20)		Frequency:		5320MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	45.50	-12.62	32.88	54.00	-21.12	AV
V	5350.00	48.41	-12.62	35.79	54.00	-18.21	AV

Mode:		802.11n(HT40)		Frequency:		5270MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	55.44	-13.16	42.28	68.20	-25.92	PK
V	5150.00	56.21	-13.16	43.05	68.20	-25.15	PK
Mode:		802.11n(HT40)		Frequency:		5270MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	44.76	-13.16	31.60	54.00	-22.40	AV
V	5150.00	46.55	-13.16	33.39	54.00	-20.61	AV
Mode:		802.11n(HT40)		Frequency:		5310MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	54.15	-12.62	41.53	68.20	-26.67	PK
V	5350.00	55.80	-12.62	43.18	68.20	-25.02	PK
Mode:		802.11n(HT40)		Frequency:		5310MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	46.36	-12.62	33.74	54.00	-20.26	AV
V	5350.00	47.52	-12.62	34.90	54.00	-19.10	AV

Note:

1. Measure Level = Read Level + Antenna Factor+ Cable loss- Preamp Factor.

Band 3

Mode:		802.11a		Frequency:		5500MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	56.99	-12.29	44.70	68.20	-23.50	PK
V	5470.00	54.77	-12.29	42.48	68.20	-25.72	PK

Mode:		802.11a		Frequency:		5500MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	47.36	-12.29	35.07	54.00	-18.93	AV
V	5470.00	45.73	-12.29	33.44	54.00	-20.56	AV

Mode:		802.11a		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5725.00	57.25	-11.60	45.65	68.20	-22.55	PK
V	5725.00	56.72	-11.60	45.12	68.20	-23.08	PK

Mode:		802.11a		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5725.00	47.38	-11.60	35.78	54.00	-18.22	AV
V	5725.00	46.96	-11.60	35.36	54.00	-18.64	AV

Mode:		802.11n(HT20)		Frequency:		5500MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	57.40	-12.29	45.11	68.20	-23.09	PK
V	5470.00	58.64	-12.29	46.35	68.20	-21.85	PK
Mode:		802.11n(HT20)		Frequency:		5500MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	45.62	-12.29	33.33	54.00	-20.67	AV
V	5470.00	47.19	-12.29	34.90	54.00	-19.10	AV
Mode:		802.11n(HT20)		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5725.00	55.96	-11.60	44.36	68.20	-23.84	PK
V	5725.00	54.85	-11.60	43.25	68.20	-24.95	PK
Mode:		802.11n(HT20)		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5725.00	46.16	-11.60	34.56	54.00	-19.44	AV
V	5725.00	46.75	-11.60	35.15	54.00	-18.85	AV

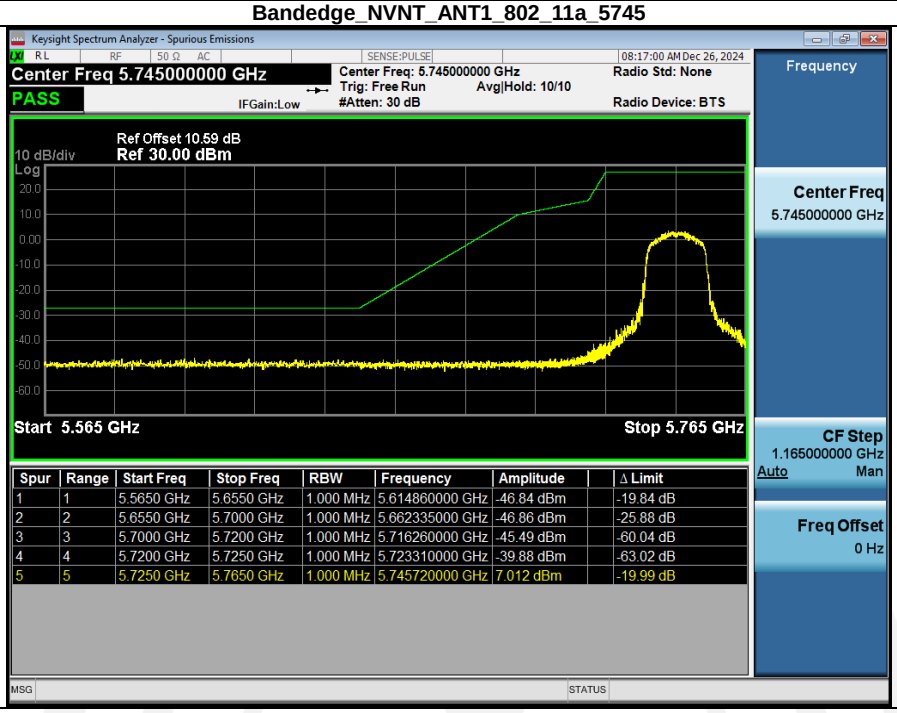
Mode:		802.11n(HT40)		Frequency:		5510MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	55.76	-12.29	43.47	68.20	-24.73	PK
V	5470.00	56.06	-12.29	43.77	68.20	-24.43	PK
Mode:		802.11n(HT40)		Frequency:		5510MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	46.68	-12.29	34.39	54.00	-19.61	AV
V	5470.00	48.55	-12.29	36.26	54.00	-17.74	AV
Mode:		802.11n(HT40)		Frequency:		5670MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5725.00	57.13	-11.60	45.53	68.20	-22.67	PK
V	5725.00	57.60	-11.60	46.00	68.20	-22.20	PK
Mode:		802.11n(HT40)		Frequency:		5670MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5725.00	47.72	-11.60	36.12	54.00	-17.88	AV
V	5725.00	45.71	-11.60	34.11	54.00	-19.89	AV

Note:

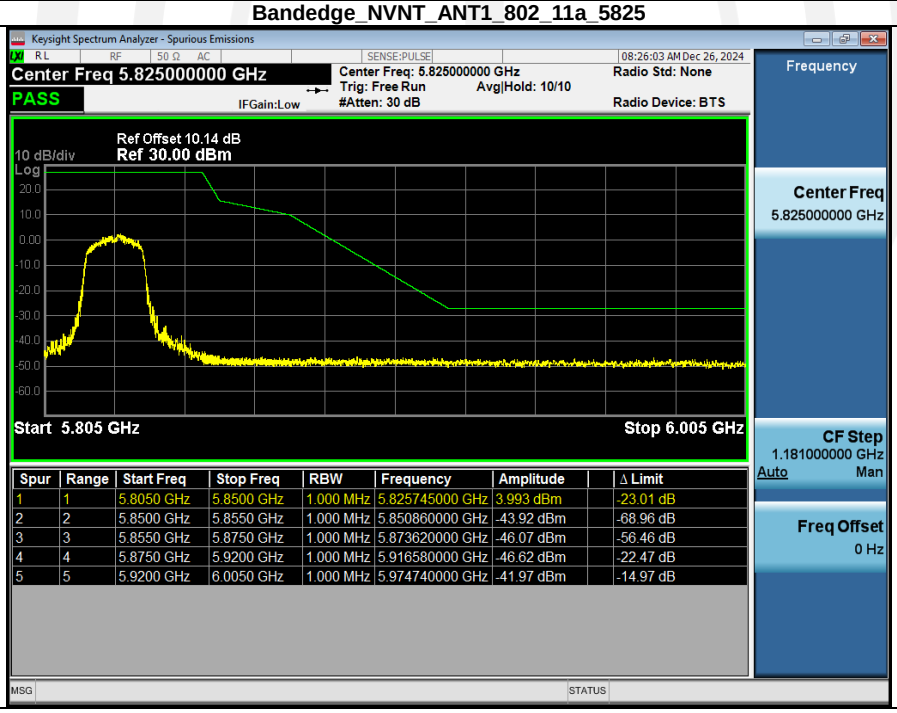
1. Measure Level = Read Level + Antenna Factor+ Cable loss- Preamp Factor.

Band4

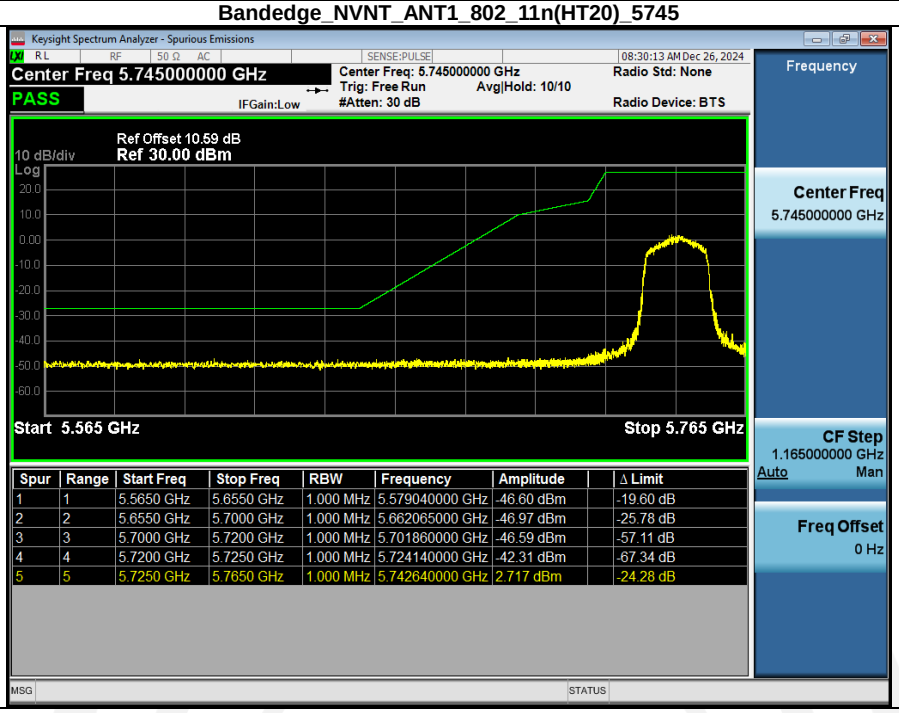
Bandedge_NVNT_ANT1_802_11a_5745



Bandedge_NVNT_ANT1_802_11a_5825

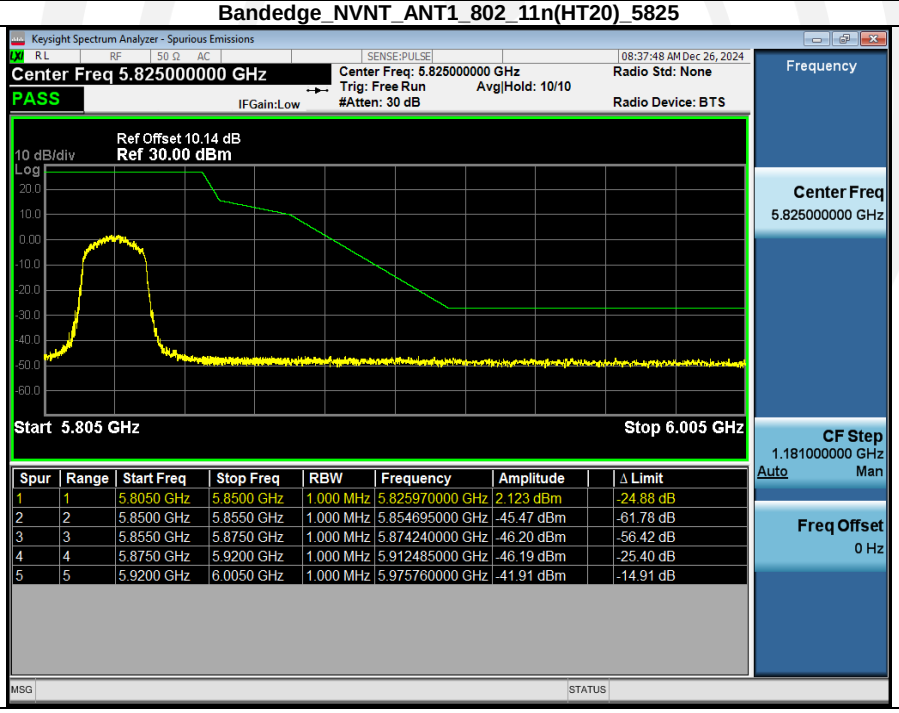


Bandedge_NVNT_ANT1_802_11n(HT20)_5745



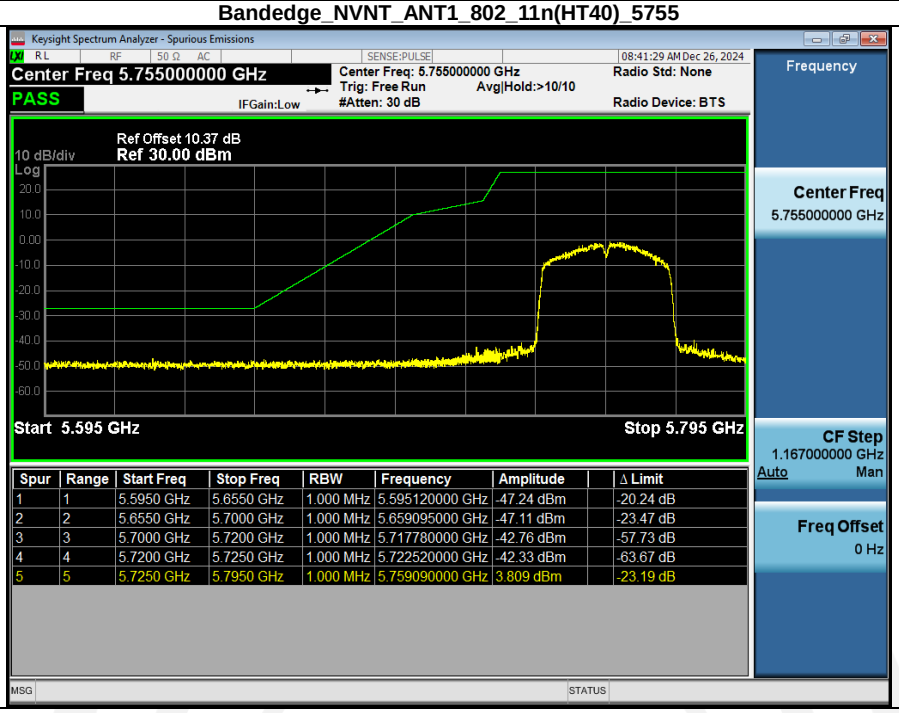
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	5.5650 GHz	5.6550 GHz	1.000 MHz	5.579040000 GHz	-46.60 dBm	-19.60 dB
2	2	5.6550 GHz	5.7000 GHz	1.000 MHz	5.662065000 GHz	-46.97 dBm	-25.78 dB
3	3	5.7000 GHz	5.7200 GHz	1.000 MHz	5.701860000 GHz	-46.59 dBm	-57.11 dB
4	4	5.7200 GHz	5.7250 GHz	1.000 MHz	5.724140000 GHz	-42.31 dBm	-67.34 dB
5	5	5.7250 GHz	5.7650 GHz	1.000 MHz	5.742640000 GHz	2.717 dBm	-24.28 dB

Bandedge_NVNT_ANT1_802_11n(HT20)_5825



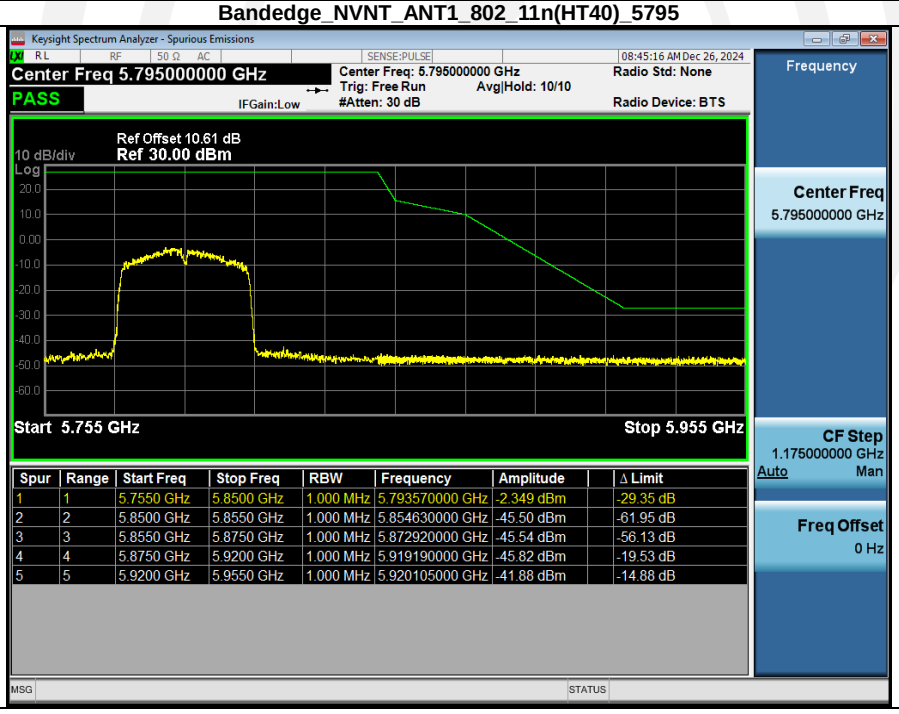
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	5.8050 GHz	5.8500 GHz	1.000 MHz	5.825970000 GHz	2.123 dBm	-24.88 dB
2	2	5.8500 GHz	5.8550 GHz	1.000 MHz	5.854695000 GHz	-45.47 dBm	-61.78 dB
3	3	5.8550 GHz	5.8750 GHz	1.000 MHz	5.874240000 GHz	-46.20 dBm	-56.42 dB
4	4	5.8750 GHz	5.9200 GHz	1.000 MHz	5.912485000 GHz	-46.19 dBm	-25.40 dB
5	5	5.9200 GHz	6.0050 GHz	1.000 MHz	5.975760000 GHz	-41.91 dBm	-14.91 dB

Bandedge_NVNT_ANT1_802_11n(HT40)_5755



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	5.5950 GHz	5.6550 GHz	1.000 MHz	5.595120000 GHz	-47.24 dBm	-20.24 dB
2	2	5.6550 GHz	5.7000 GHz	1.000 MHz	5.659095000 GHz	-47.11 dBm	-23.47 dB
3	3	5.7000 GHz	5.7200 GHz	1.000 MHz	5.717780000 GHz	-42.76 dBm	-57.73 dB
4	4	5.7200 GHz	5.7250 GHz	1.000 MHz	5.722520000 GHz	-42.33 dBm	-63.67 dB
5	5	5.7250 GHz	5.7950 GHz	1.000 MHz	5.759090000 GHz	3.809 dBm	-23.19 dB

Bandedge_NVNT_ANT1_802_11n(HT40)_5795



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	5.7550 GHz	5.8500 GHz	1.000 MHz	5.793570000 GHz	-2.349 dBm	-29.35 dB
2	2	5.8500 GHz	5.8550 GHz	1.000 MHz	5.854630000 GHz	-45.50 dBm	-61.95 dB
3	3	5.8550 GHz	5.8750 GHz	1.000 MHz	5.872920000 GHz	-45.54 dBm	-56.13 dB
4	4	5.8750 GHz	5.9200 GHz	1.000 MHz	5.919190000 GHz	-45.82 dBm	-19.53 dB
5	5	5.9200 GHz	5.9550 GHz	1.000 MHz	5.920105000 GHz	-41.88 dBm	-14.88 dB

4.7 Radiated Emission

Test Requirement:	FCC Part15 C Section 15.209 and 15.205, RSS-Gen §8.9
Test Method:	ANSI C63.10:2013
Test Frequency Range:	30MHz to 40GHz
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)

Receiver setup:

Frequency	Detector	RBW	VBW	Value
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value
Above 1GHz	Peak	1MHz	3MHz	Peak Value
	AV	1MHz	3MHz	Average Value

Limit:

Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	74.0	Peak Value
	54.0	Average Value

Test Procedure:

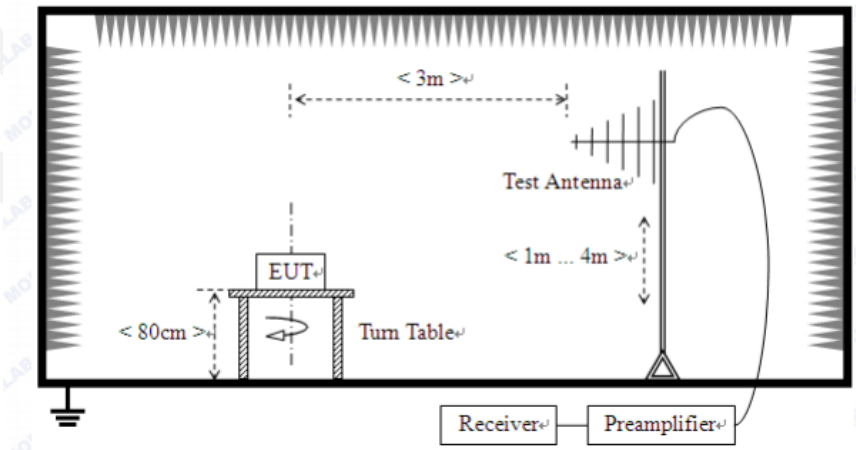
Substitution method was performed to determine the actual ERP emission levels of the EUT.
The following test procedure as below:

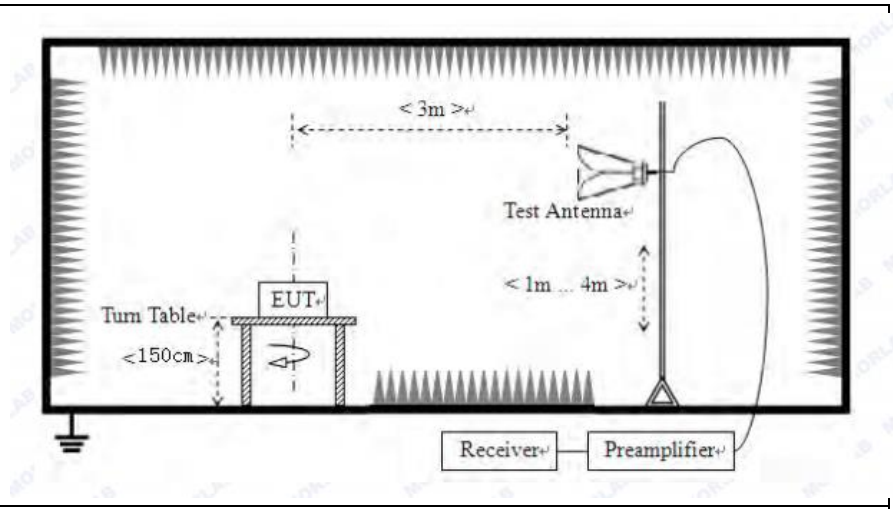
1>.Below 1GHz test procedure:

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

2>.Above 1GHz test procedure:

1. On the test site as test setup graph above,the EUT shall be placed at the 1.5m support on the turntable and in the position closest to normal use as declared by the provider.
2. The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter.The output of the test antenna shall be connected to the measuring receiver.
3. The transmitter shall be switched on, if possible, without modulation and the measuring receiver shall be tuned to the frequency of the

	transmitter under test. 4. The test antenna shall be raised and lowered from 1m to 4m until a maximum signal level is detected by the measuring receiver. Then the turntable should be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver. 5. Repeat step 4 for test frequency with the test antenna polarized horizontally. 6. Remove the transmitter and replace it with a substitution antenna 7. Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a nonradiating cable. With the antennas at both ends vertically polarized, and with the signal generator tuned to a particular test frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output. 8. Repeat step 7 with both antennas horizontally polarized for each test frequency. 9. Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps 7 and 8 by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula: EIRP(dBm) = Pg(dBm) – cable loss (dB) + antenna gain (dBi) where: Pg is the generator output power into the substitution antenna.
Test setup:	Below 1GHz  Above 1GHz



Test Instruments:	Refer to section 3.0 for details
Test mode:	Refer to section 2.2 for details
Test results:	Pass

Measurement Data:

Below 1GHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
33.95	47.78	11.40	0.74	30.23	29.68	40	-10.32	Vertical
54.99	41.22	12.38	1.26	30.41	24.45	40	-15.55	Vertical
121.02	46.37	9.65	1.61	29.82	27.82	43.5	-15.68	Vertical
172.40	43.24	8.93	2.13	29.74	24.56	43.5	-18.94	Vertical
440.81	37.35	16.51	3.27	29.63	27.50	46	-18.50	Vertical
860.76	33.04	21.92	4.78	29.23	30.52	46	-15.48	Vertical
65.11	36.40	9.13	1.30	30.29	16.54	40	-23.46	Horizontal
100.12	33.47	11.81	1.27	29.78	16.77	43.5	-26.73	Horizontal
269.58	45.37	12.71	2.40	29.97	30.51	46	-15.49	Horizontal
350.71	36.71	14.98	3.10	30.21	24.58	46	-21.42	Horizontal
627.67	35.67	19.67	4.07	29.51	29.90	46	-16.10	Horizontal
956.26	41.27	22.92	5.44	29.48	40.15	46	-5.85	Horizontal

Above 1GHz:

802.11a 5180MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.26	50.90	11.34	15.06	32.93	44.37	74	-29.63	Vertical
15540.65	51.39	12.07	17.77	34.61	46.62	74	-27.38	Vertical
10360.31	52.35	9.59	14.73	33.07	43.60	74	-30.40	Horizontal
15540.35	53.90	8.56	17.91	34.93	45.45	74	-28.55	Horizontal

802.11a 5200MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.80	50.91	11.49	14.81	33.08	44.13	74	-29.87	Vertical
15540.98	51.69	12.38	18.03	34.70	47.40	74	-26.60	Vertical
10360.53	52.53	9.62	15.05	33.13	44.08	74	-29.92	Horizontal
15540.74	53.77	8.59	17.87	34.65	45.58	74	-28.42	Horizontal

802.11a 5240MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.68	50.95	11.59	14.63	32.77	44.41	74	-29.59	Vertical
15540.54	51.42	12.29	17.70	34.87	46.54	74	-27.46	Vertical
10360.87	52.29	9.76	14.75	32.99	43.81	74	-30.19	Horizontal
15540.70	53.36	8.70	18.01	34.85	45.23	74	-28.77	Horizontal

802.11n(HT20) 5180MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.99	50.69	11.41	14.80	32.85	44.05	74	-29.95	Vertical
15540.52	51.80	12.39	17.95	34.87	47.27	74	-26.73	Vertical
10360.19	52.25	9.71	14.81	33.04	43.74	74	-30.26	Horizontal
15540.58	53.89	8.55	18.06	34.93	45.57	74	-28.43	Horizontal

802.11n(HT20) 5200MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.77	50.37	11.46	14.82	33.13	43.52	74	-30.48	Vertical
15540.41	51.46	12.16	17.78	34.88	46.53	74	-27.47	Vertical
10360.95	52.72	9.42	14.69	32.67	44.16	74	-29.84	Horizontal
15540.46	53.59	8.73	17.87	34.52	45.67	74	-28.33	Horizontal

802.11n(HT20) 5240MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.79	50.61	11.45	14.72	33.15	43.63	74	-30.37	Vertical
15540.46	51.45	12.26	18.03	34.61	47.13	74	-26.87	Vertical
10360.65	52.83	9.68	14.90	32.99	44.42	74	-29.58	Horizontal
15540.55	53.10	8.67	17.68	34.61	44.84	74	-29.16	Horizontal

802.11n(HT40) 5190MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.42	50.66	11.60	14.88	33.09	44.05	74	-29.95	Vertical
15540.03	51.99	12.22	17.90	34.65	47.46	74	-26.54	Vertical
10360.83	52.79	9.50	14.66	33.10	43.85	74	-30.15	Horizontal
15540.42	53.62	8.77	17.91	34.52	45.79	74	-28.21	Horizontal

802.11n(HT40) 5230MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.96	50.97	11.75	15.11	33.12	44.70	74	-29.30	Vertical
15540.91	51.19	12.18	17.98	34.73	46.63	74	-27.37	Vertical
10360.17	52.61	9.41	14.72	32.88	43.86	74	-30.14	Horizontal
15540.44	53.07	8.67	17.88	34.57	45.05	74	-28.95	Horizontal

Note:

1. Level = Read Level + Antenna Factor+ Cable loss- Preamp Factor.
2. The test trace is same as the ambient noise (the test frequency range: 18GHz~40GHz), therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.
4. This Report only show the test plots of the worst case (U-NII-1).

4.8 Frequency stability

Test Standard	15.407(f), RSS-Gen §6.11
Test limit	Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
Test results:	Pass

Measurement Data:

Mode	Voltage (V)	FHL (5180MHz)	Deviation (KHz)	FHH (5240MHz)	Deviation (KHz)
Band 1 (5150-5250 MHz)	DC 4.5V	5179.995	5	5239.995	5
	DC 5.0V	5179.994	6	5239.996	4
	DC 5.5V	5179.997	3	5239.992	8
Mode	Voltage (V)	FHL (5260MHz)	Deviation (KHz)	FHH (5320MHz)	Deviation (KHz)
Band 2 (5250-5350 MHz)	DC 4.5V	5259.995	5	5319.996	4
	DC 5.0V	5259.997	3	5319.993	7
	DC 5.5V	5259.997	3	5319.992	8
Mode	Voltage (V)	FHL (5500MHz)	Deviation (KHz)	FHH (5700MHz)	Deviation (KHz)
Band 3 (5470-5725 MHz)	DC 4.5V	5499.995	5	5699.995	5
	DC 5.0V	5499.994	6	5699.996	4
	DC 5.5V	5499.992	8	5699.997	3
Mode	Voltage (V)	FHL (5745MHz)	Deviation (KHz)	FHH (5825MHz)	Deviation (KHz)
Band 4 (5725-5850 MHz)	DC 4.5V	5744.993	7	5824.994	6
	DC 5.0V	5744.996	4	5824.993	7
	DC 5.5V	5744.994	6	5824.993	7

Mode	Temperature (℃)	FHL (5180MHz)	Deviation (KHz)	FHH (5240MHz)	Deviation (KHz)
Band 1 (5150-5250 MHz)	-10℃	5179.994	6	5239.991	9
	0℃	5179.998	2	5239.997	3
	+10℃	5179.993	7	5239.991	9
	+20℃	5179.993	7	5239.996	4
	+30℃	5179.994	6	5239.997	3
	+40℃	5179.994	6	5239.995	5
	+50℃	5179.997	3	5239.994	6
Mode	Temperature (℃)	FHL (5260MHz)	Deviation (KHz)	FHH (5320MHz)	Deviation (KHz)
Band 2 (5250-5350 MHz)	-10℃	5259.995	5	5319.992	8
	0℃	5259.996	4	5319.996	4
	+10℃	5259.995	5	5319.996	4
	+20℃	5259.993	7	5319.995	5
	+30℃	5259.998	2	5319.992	8
	+40℃	5259.992	8	5319.996	4
	+50℃	5259.994	6	5319.992	8
	-10℃	5259.995	5	5319.992	8
Mode	Temperature (℃)	FHL (5500MHz)	Deviation (KHz)	FHH (5700MHz)	Deviation (KHz)
Band 3 (5470-5725 MHz)	-10℃	5499.997	3	5699.994	6
	0℃	5499.993	7	5699.995	5
	+10℃	5499.995	5	5699.995	5
	+20℃	5499.996	4	5699.996	4
	+30℃	5499.996	4	5699.993	7
	+40℃	5499.992	8	5699.995	5
	+50℃	5499.995	5	5699.995	5
	-10℃	5499.997	3	5699.992	8
Mode	Temperature (℃)	FHL (5745MHz)	Deviation (KHz)	FHH (5825MHz)	Deviation (KHz)
Band 4 (5725-5850 MHz)	-10℃	5744.995	5	5824.992	8
	0℃	5744.996	4	5824.993	7
	+10℃	5744.992	8	5824.996	4
	+20℃	5744.997	3	5824.991	9
	+30℃	5744.996	4	5824.992	8
	+40℃	5744.998	2	5824.997	3
	+50℃	5744.994	6	5824.996	4

--------END OF REPORT-------