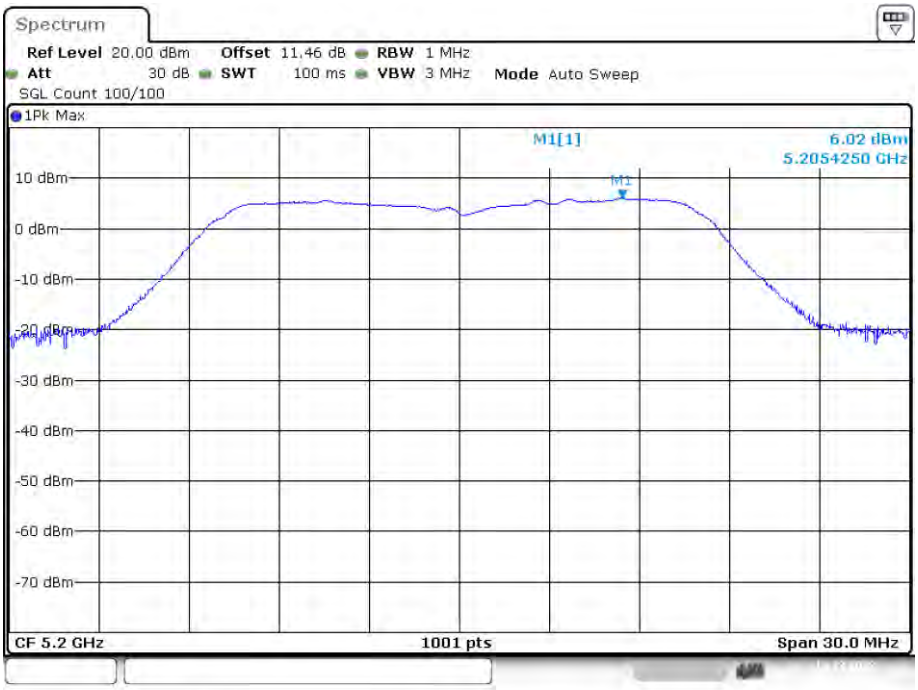
Measurement Data

Band 1 (5150 - 5250 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	5.112	11	Pass
NVNT	a	5200	Ant1	6.021	11	Pass
NVNT	a	5240	Ant1	5.153	11	Pass
NVNT	ac20	5180	Ant1	5.074	11	Pass
NVNT	ac20	5200	Ant1	4.905	11	Pass
NVNT	ac20	5240	Ant1	6.314	11	Pass
NVNT	ac40	5190	Ant1	2.545	11	Pass
NVNT	ac40	5230	Ant1	2.653	11	Pass
NVNT	ac80	5210	Ant1	1.419	11	Pass
NVNT	n20	5180	Ant1	5.011	11	Pass
NVNT	n20	5200	Ant1	5.175	11	Pass
NVNT	n20	5240	Ant1	5.444	11	Pass
NVNT	n40	5190	Ant1	2.238	11	Pass
NVNT	n40	5230	Ant1	2.243	11	Pass

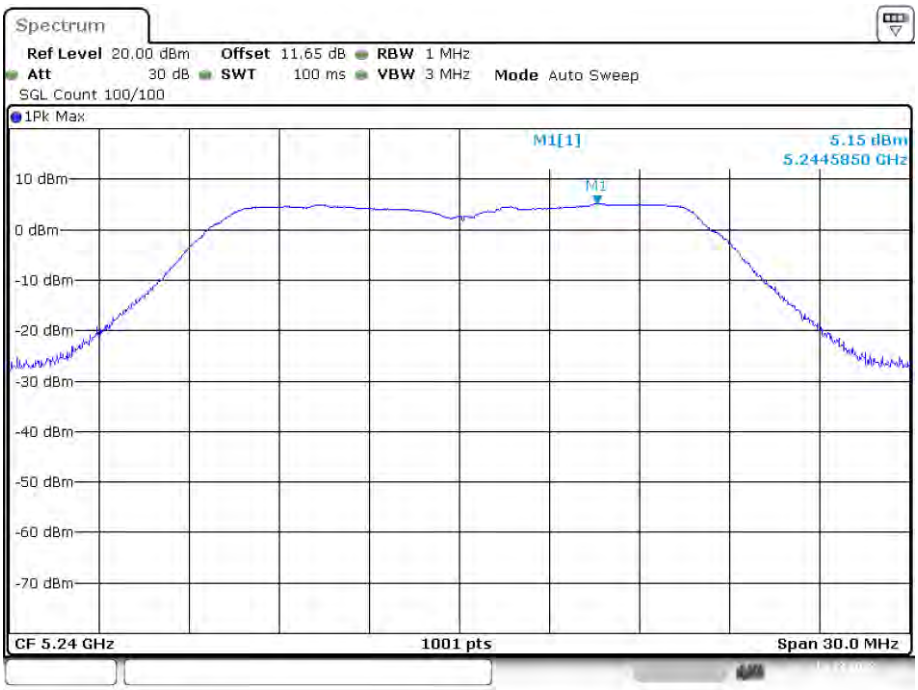
PSD NVNT a 5180MHz Ant1

PSD NVNT a 5200MHz Ant1



Date: 13.DEC.2022 08:38:43

PSD NVNT a 5240MHz Ant1



Date: 13.DEC.2022 08:46:35

PSD NVNT ac20 5180MHz Ant1

Date: 13.DEC.2022 09:24:39

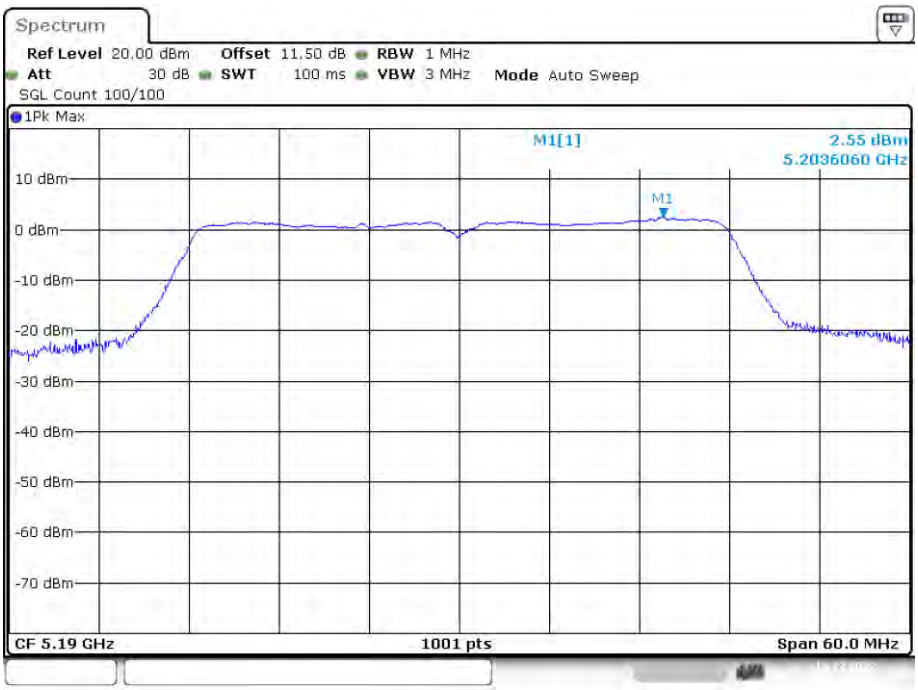
PSD NVNT ac20 5200MHz Ant1

Date: 13.DEC.2022 09:28:55

PSD NVNT ac20 5240MHz Ant1

Date: 13.DEC.2022 09:40:35

PSD NVNT ac40 5190MHz Ant1



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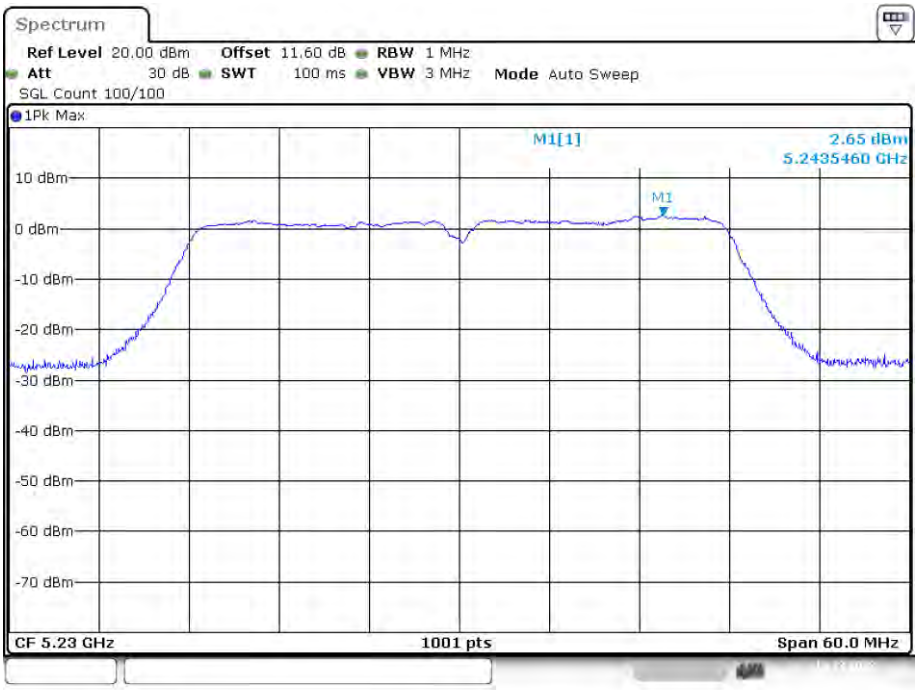
PSD NVNT ac40 5230MHz Ant1



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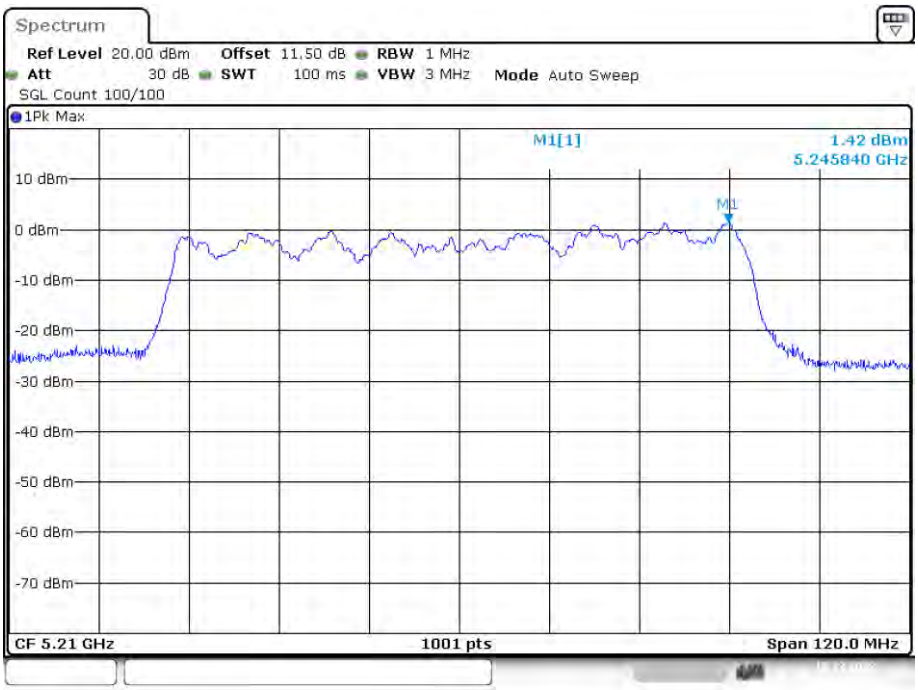
PSD NVNT ac80 5210MHz Ant1



Date: 15.DEC.2022 05:28:38

PSD NVNT n20 5180MHz Ant1

Date: 13.DEC.2022 08:58:10

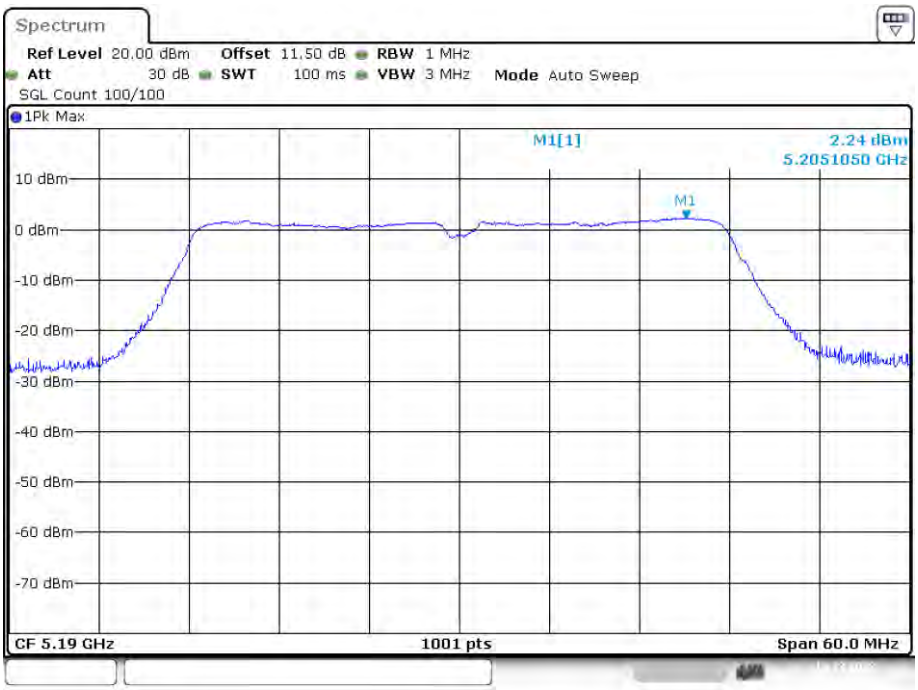
PSD NVNT n20 5200MHz Ant1

Date: 13.DEC.2022 09:05:17

PSD NVNT n20 5240MHz Ant1

Date: 13.DEC.2022 09:16:17

PSD NVNT n40 5190MHz Ant1



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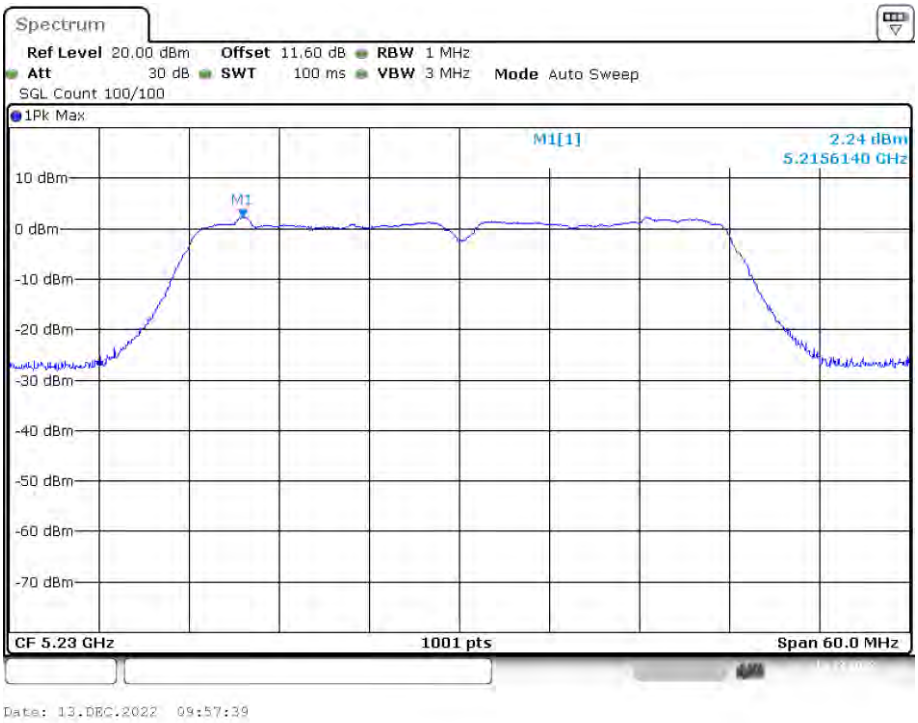
PSD NVNT n40 5230MHz Ant1



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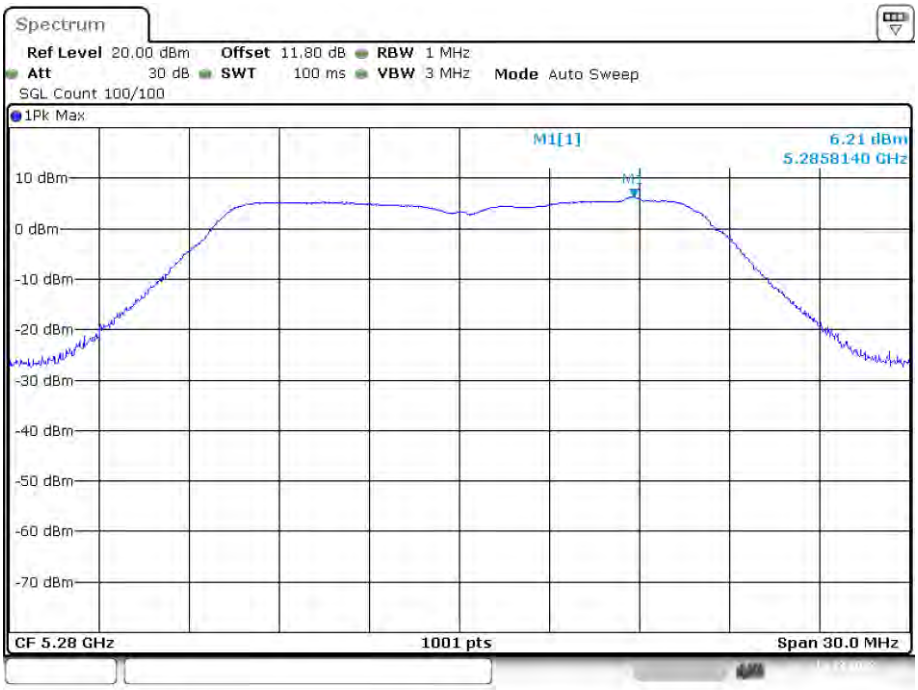
Band 2 (5250 -5350 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5260	Ant1	4.794	11	Pass
NVNT	a	5280	Ant1	6.211	11	Pass
NVNT	a	5320	Ant1	5.743	11	Pass
NVNT	ac20	5260	Ant1	5.516	11	Pass
NVNT	ac20	5280	Ant1	5.817	11	Pass
NVNT	ac20	5320	Ant1	5.261	11	Pass
NVNT	ac40	5270	Ant1	2.377	11	Pass
NVNT	ac40	5310	Ant1	2.176	11	Pass
NVNT	ac80	5290	Ant1	1.061	11	Pass
NVNT	n20	5260	Ant1	5.283	11	Pass
NVNT	n20	5280	Ant1	6.419	11	Pass
NVNT	n20	5320	Ant1	5.422	11	Pass
NVNT	n40	5270	Ant1	2.311	11	Pass
NVNT	n40	5310	Ant1	2.382	11	Pass

PSD NVNT a 5260MHz Ant1

PSD NVNT a 5280MHz Ant1



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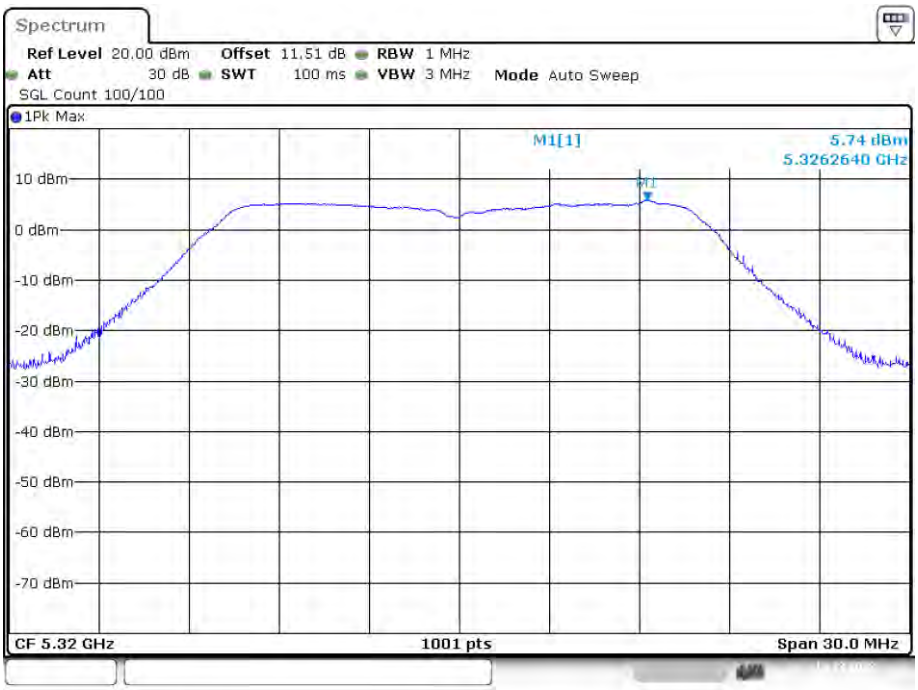
PSD NVNT a 5320MHz Ant1

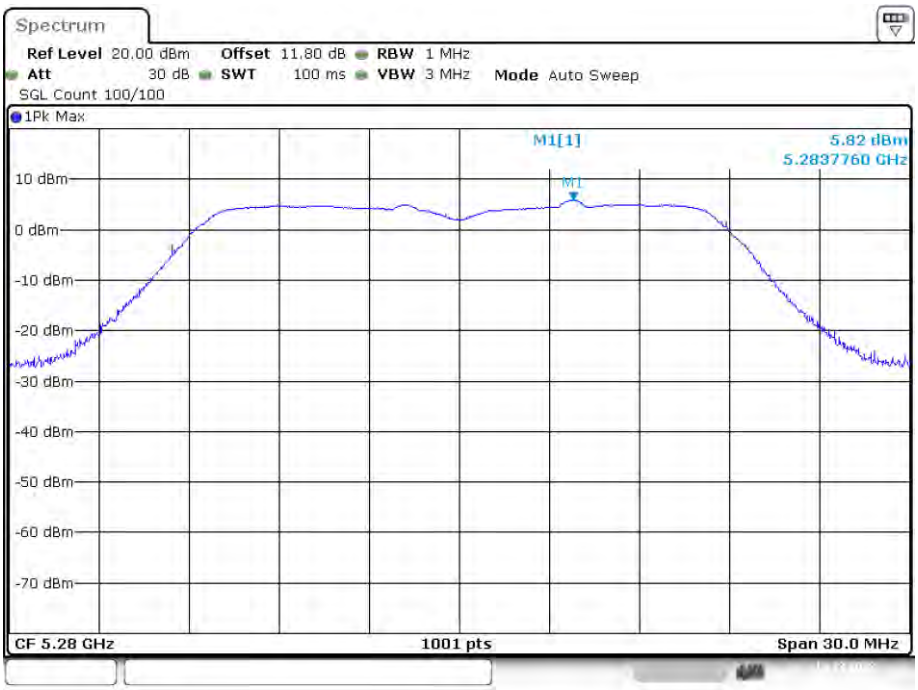


Date: 13.DEC.2022 11:06:48

PSD NVNT ac20 5260MHz Ant1

Date: 13.DEC.2022 11:47:36

PSD NVNT ac20 5280MHz Ant1

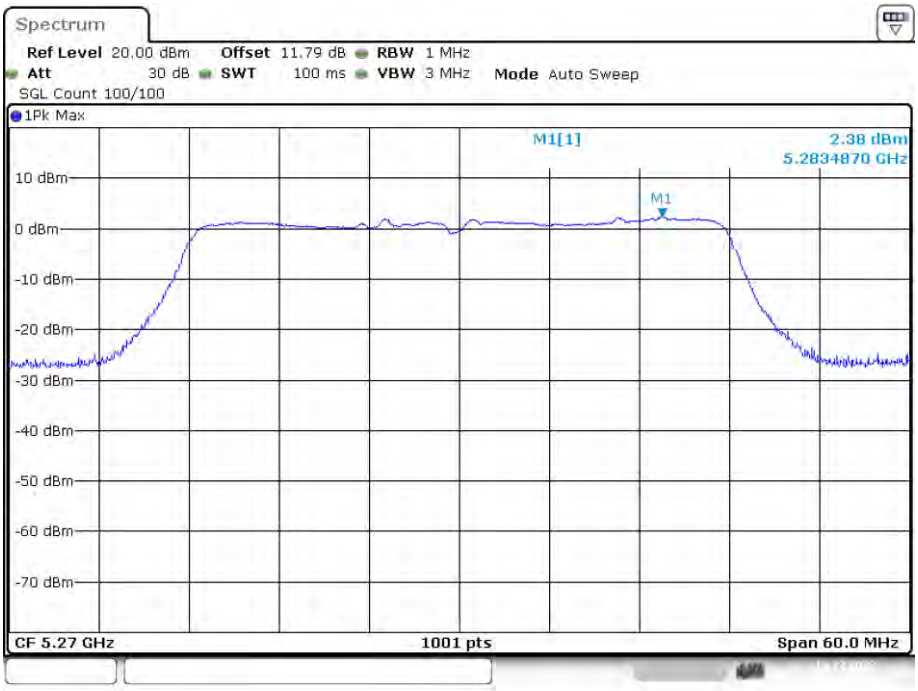


Date: 13.DEC.2022 12:03:41

PSD NVNT ac20 5320MHz Ant1

Date: 13.DEC.2022 12:13:27

PSD NVNT ac40 5270MHz Ant1



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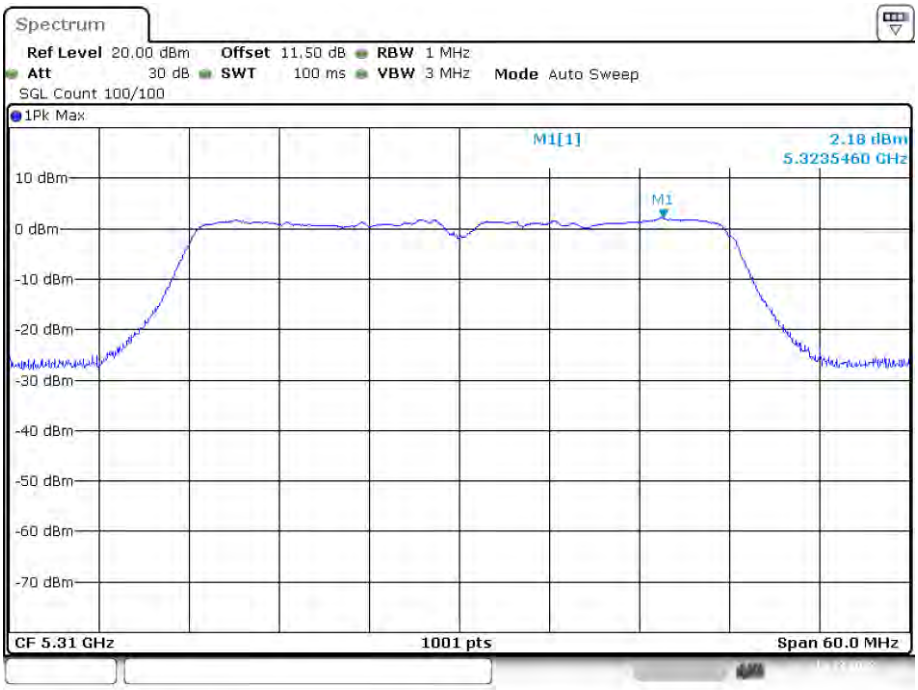
PSD NVNT ac40 5310MHz Ant1



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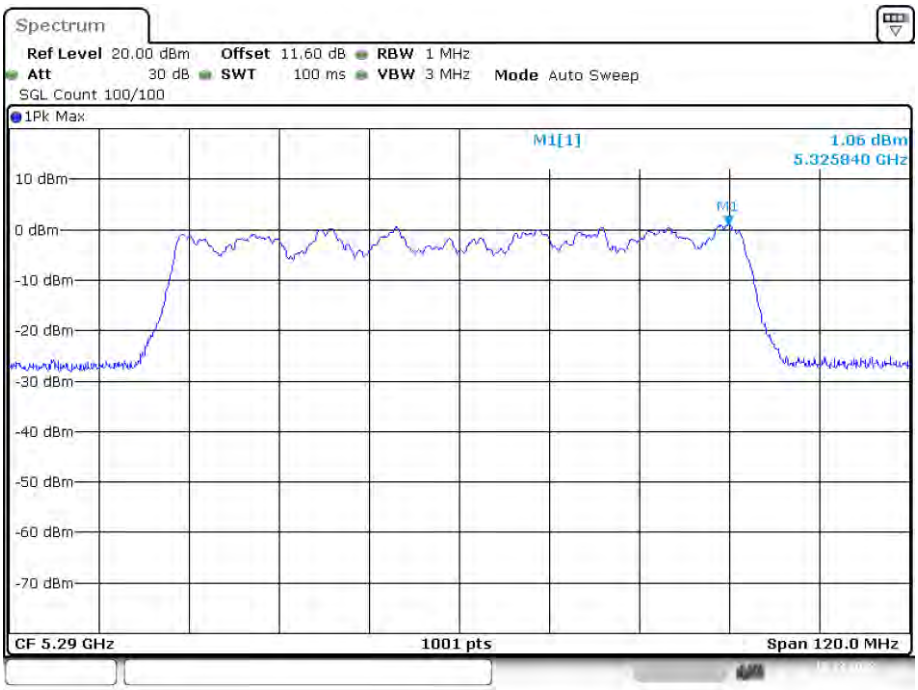
PSD NVNT ac80 5290MHz Ant1



Date: 15.DEC.2022 04:23:38

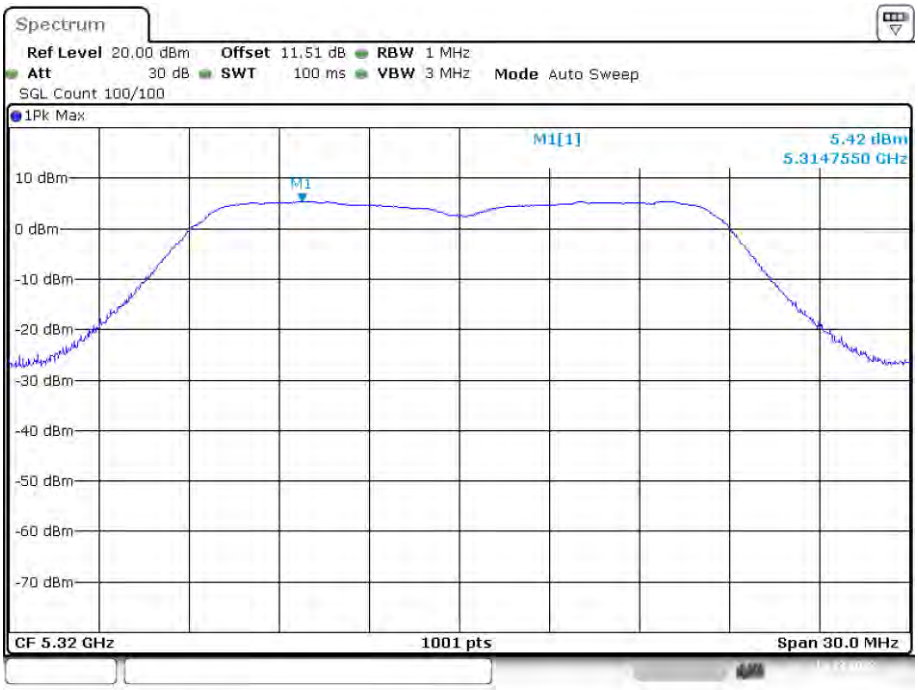
PSD NVNT n20 5260MHz Ant1

Date: 13.DEC.2022 11:16:46

PSD NVNT n20 5280MHz Ant1

Date: 13.DEC.2022 11:30:08

PSD NVNT n20 5320MHz Ant1



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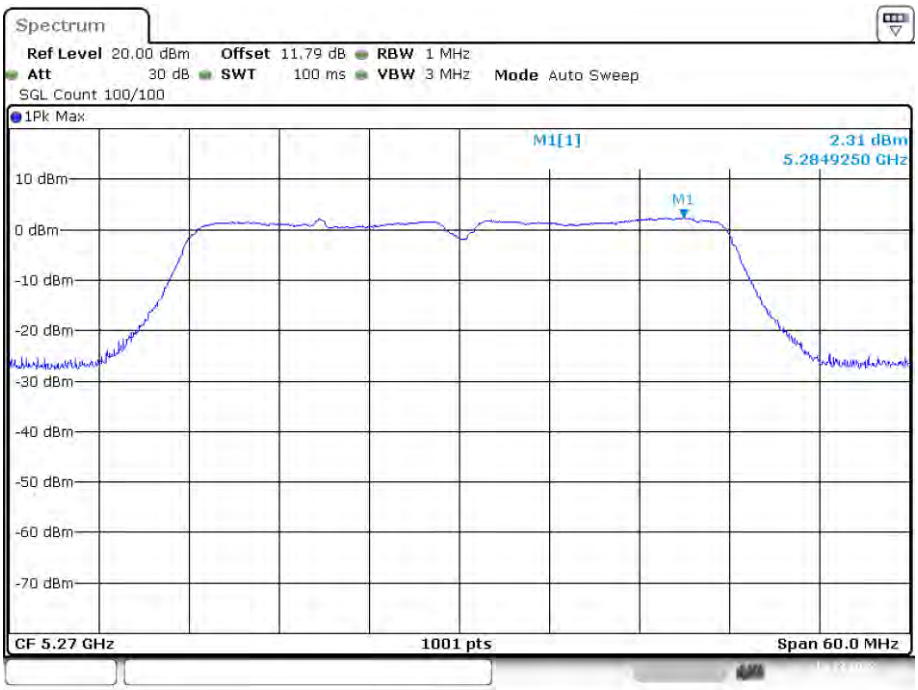
PSD NVNT n40 5270MHz Ant1



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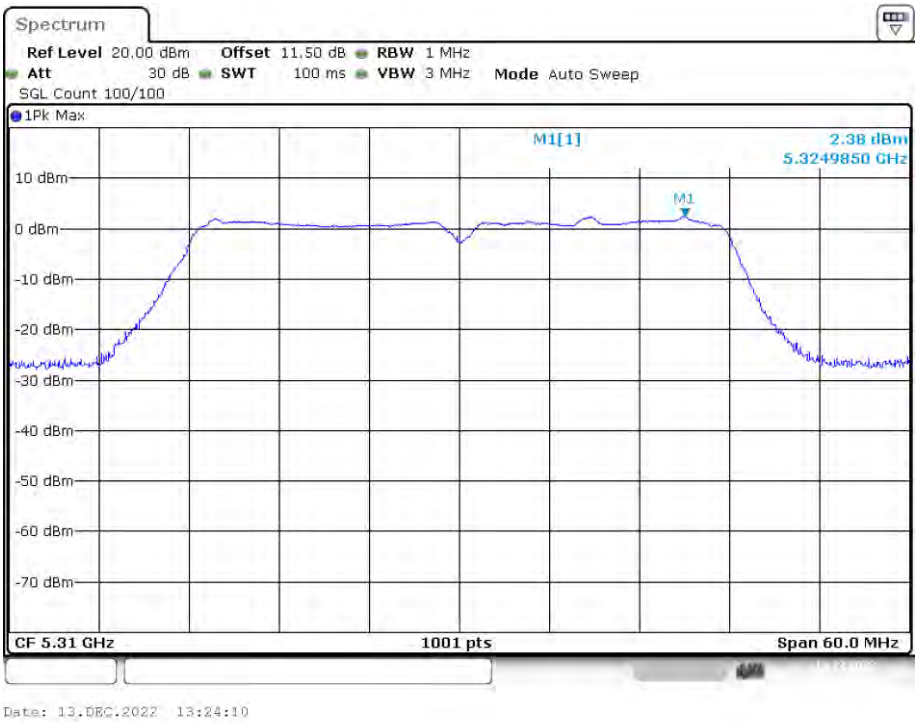
PSD NVNT n40 5310MHz Ant1



Band 3 (5740 -5725 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	Ant1	5.096	11	Pass
NVNT	a	5580	Ant1	5.705	11	Pass
NVNT	a	5700	Ant1	5.075	11	Pass
NVNT	ac20	5500	Ant1	5.533	11	Pass
NVNT	ac20	5580	Ant1	5.489	11	Pass
NVNT	ac20	5700	Ant1	5.397	11	Pass
NVNT	ac40	5510	Ant1	2.576	11	Pass
NVNT	ac40	5670	Ant1	2.38	11	Pass
NVNT	ac80	5530	Ant1	1.893	11	Pass
NVNT	n20	5500	Ant1	5.094	11	Pass
NVNT	n20	5580	Ant1	4.754	11	Pass
NVNT	n20	5700	Ant1	5.55	11	Pass
NVNT	n40	5510	Ant1	2.097	11	Pass
NVNT	n40	5670	Ant1	2.404	11	Pass

PSD NVNT a 5500MHz Ant1

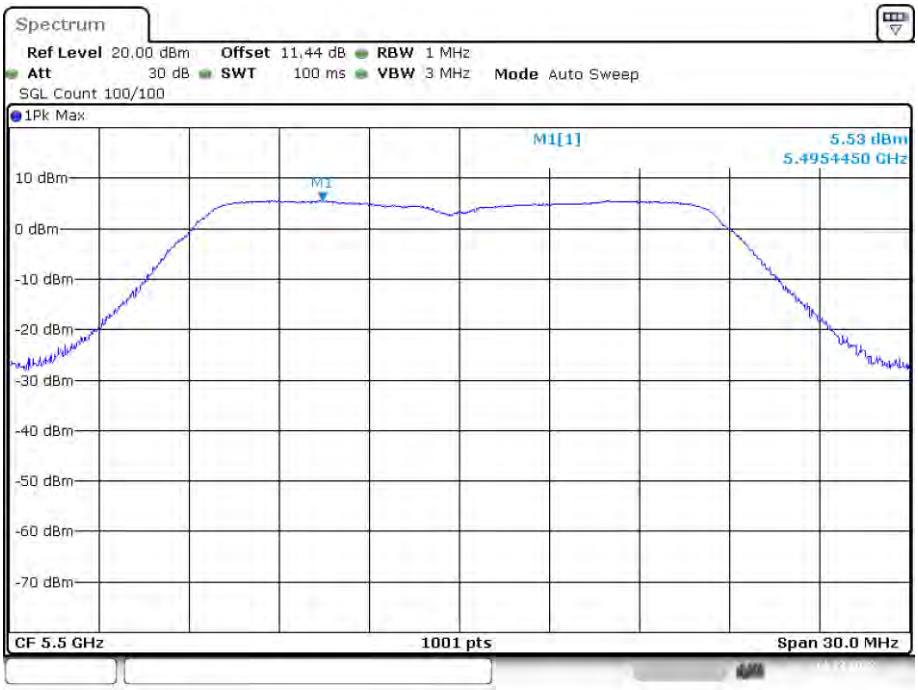
PSD NVNT a 5580MHz Ant1

Date: 14.DEC.2022 03:22:33

PSD NVNT a 5700MHz Ant1

Date: 14.DEC.2022 03:35:15

PSD NVNT ac20 5500MHz Ant1



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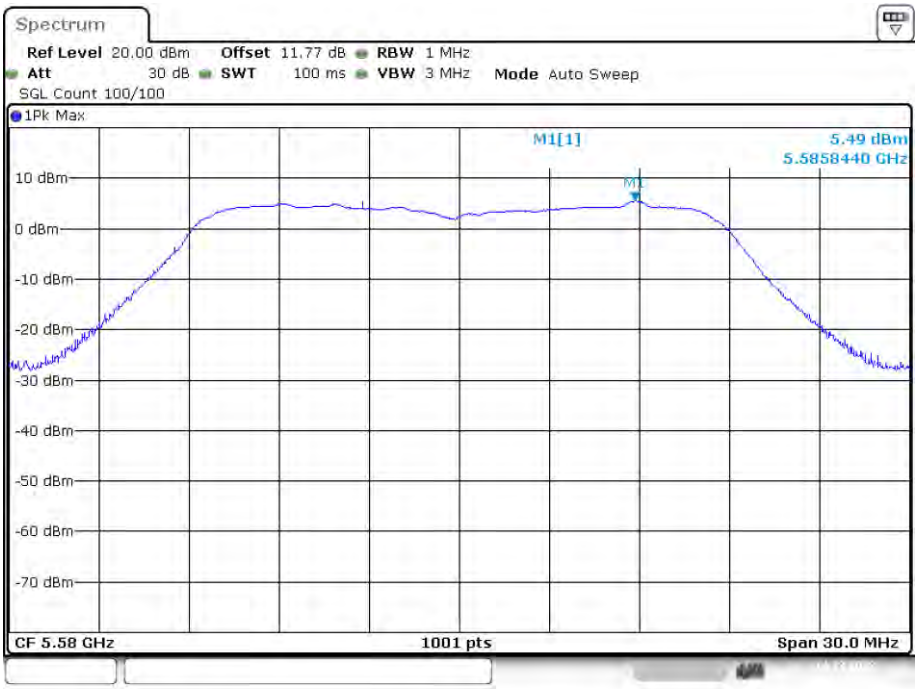
PSD NVNT ac20 5580MHz Ant1

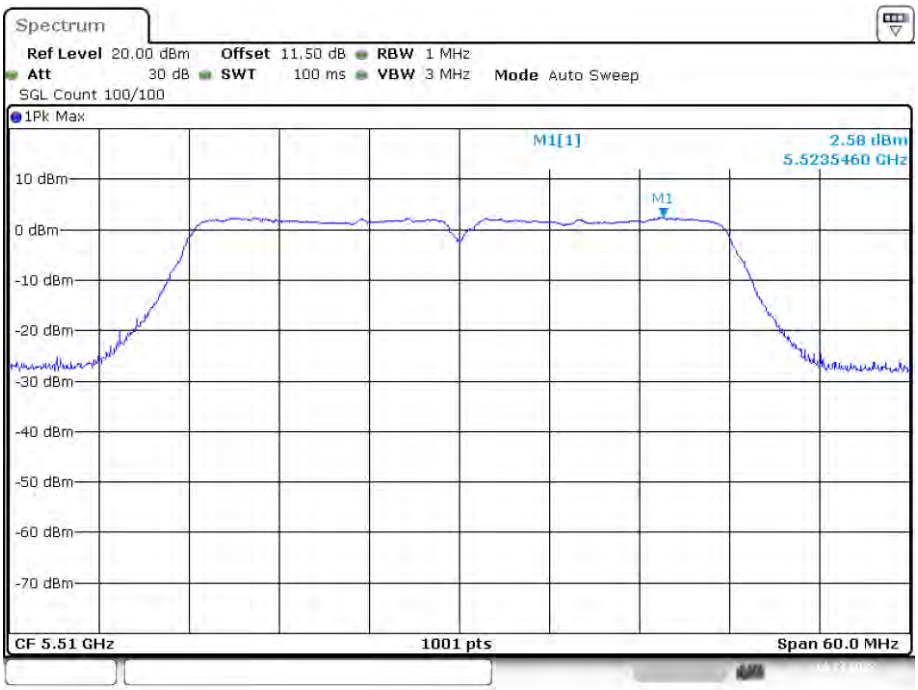


Date: 14.DEC.2022 09:24:11

PSD NVNT ac20 5700MHz Ant1

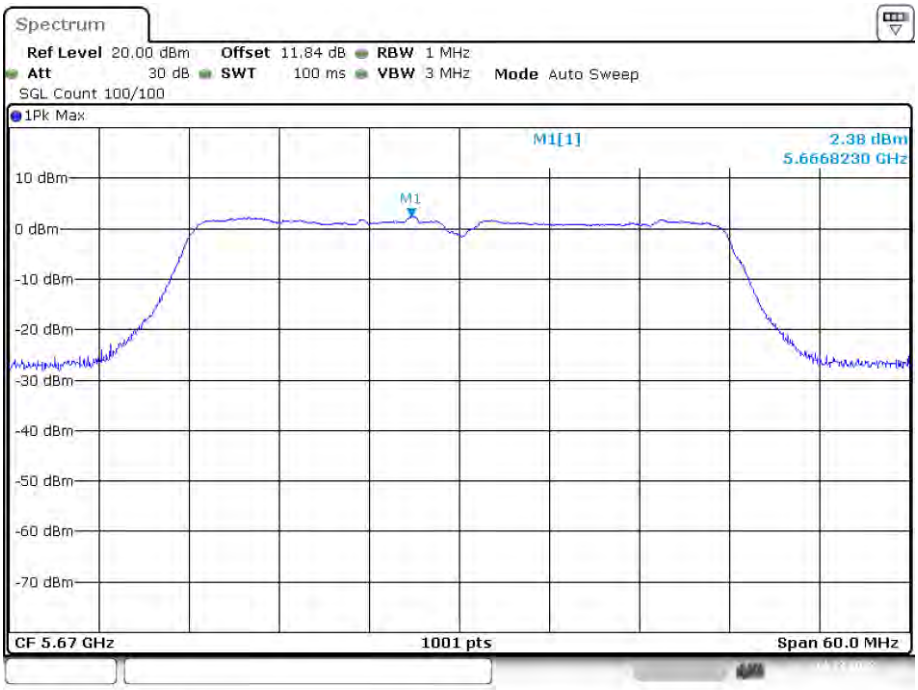
Date: 14.DEC.2022 12:15:41

PSD NVNT ac40 5510MHz Ant1



Date: 14.DEC.2022 13:40:12

PSD NVNT ac40 5670MHz Ant1



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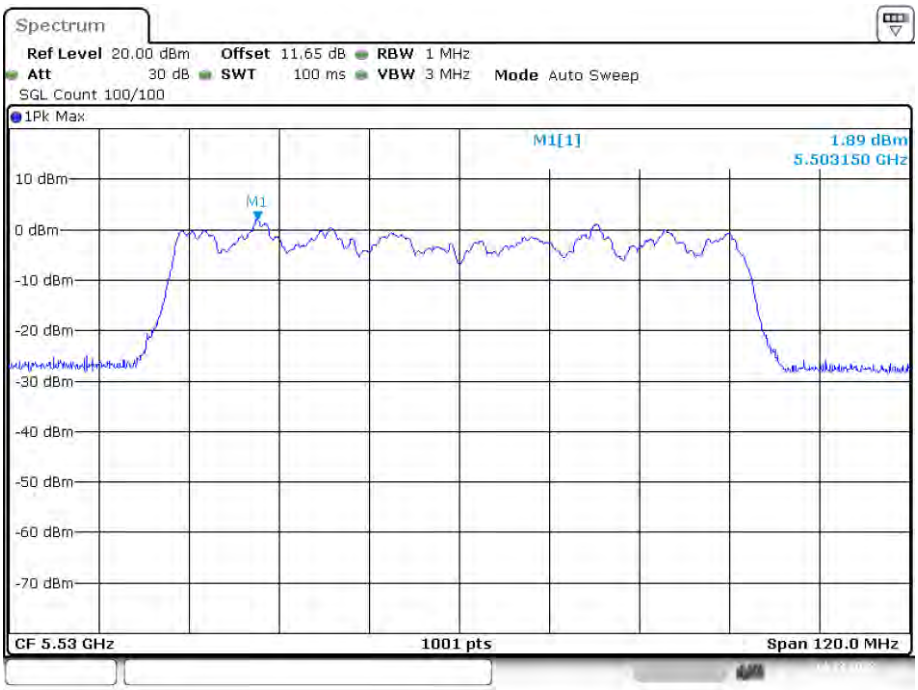
PSD NVNT ac80 5530MHz Ant1

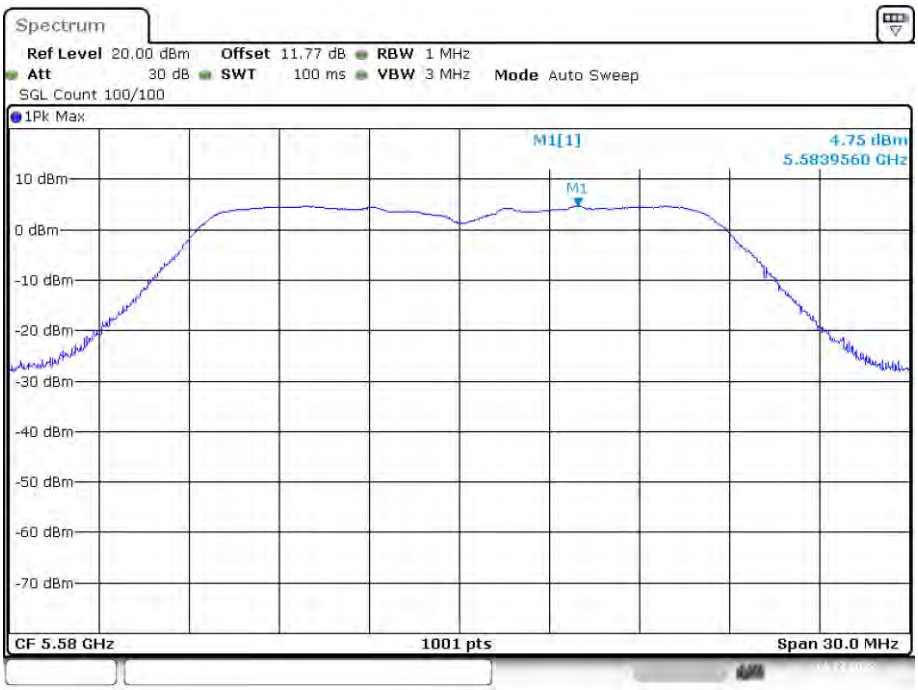


Date: 14.DEC.2022 14:02:19

PSD NVNT n20 5500MHz Ant1

Date: 14.DEC.2022 03:51:06

PSD NVNT n20 5580MHz Ant1

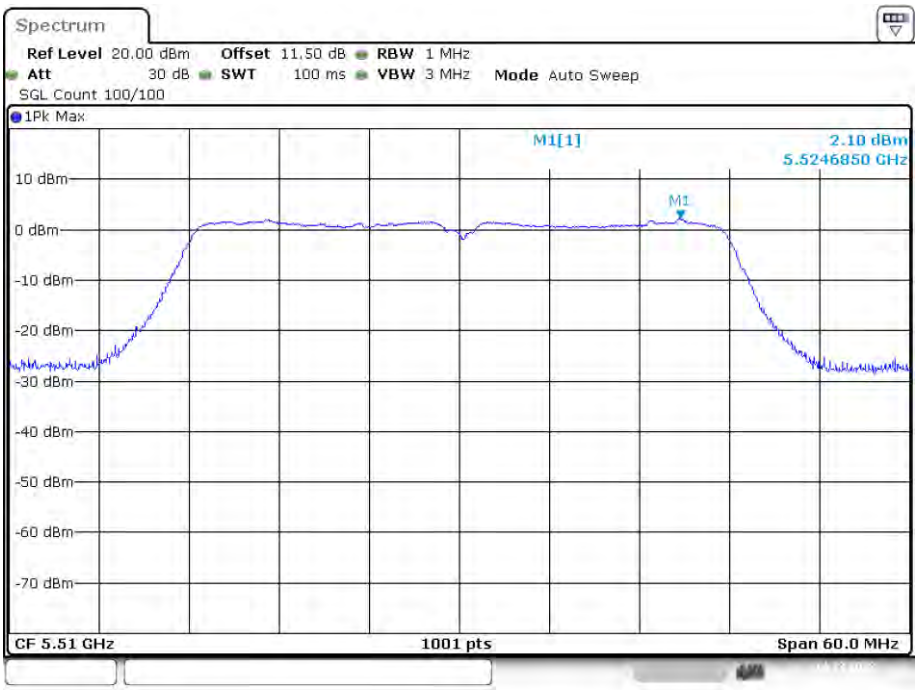


Date: 14.DEC.2022 03:59:56

PSD NVNT n20 5700MHz Ant1

Date: 14.DEC.2022 04:40:01

PSD NVNT n40 5510MHz Ant1



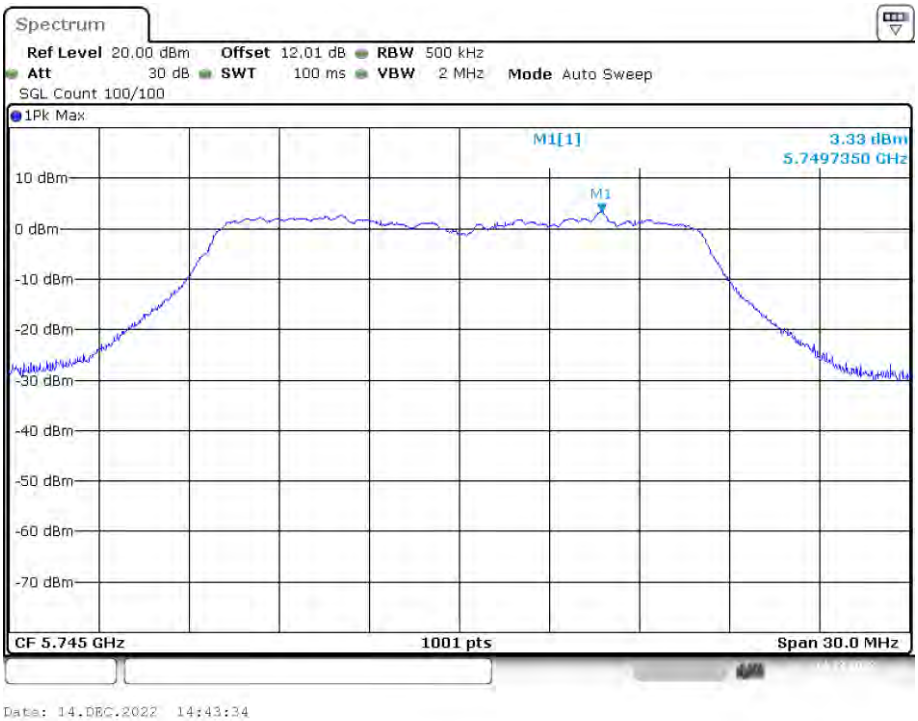
Date: 14.DEC.2022 12:26:19

PSD NVNT n40 5670MHz Ant1

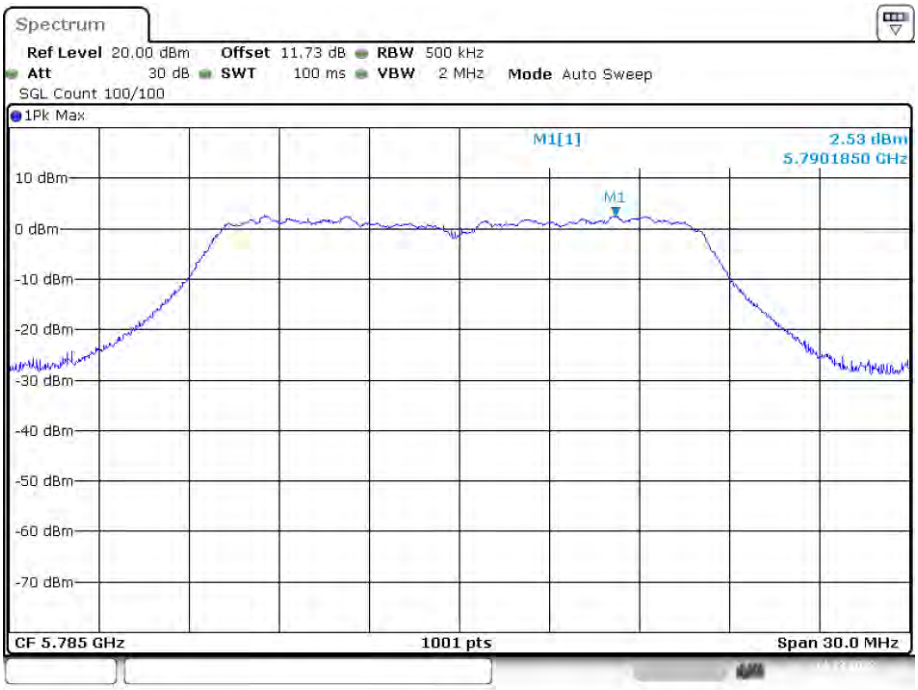
Band 4 (5725 - 5850 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	3.332	30	Pass
NVNT	a	5785	Ant1	2.527	30	Pass
NVNT	a	5825	Ant1	3.055	30	Pass
NVNT	ac20	5745	Ant1	2.25	30	Pass
NVNT	ac20	5785	Ant1	1.943	30	Pass
NVNT	ac20	5825	Ant1	2.023	30	Pass
NVNT	ac40	5755	Ant1	-0.633	30	Pass
NVNT	ac40	5795	Ant1	-1.123	30	Pass
NVNT	ac80	5775	Ant1	-0.061	30	Pass
NVNT	n20	5745	Ant1	1.709	30	Pass
NVNT	n20	5785	Ant1	2.945	30	Pass
NVNT	n20	5825	Ant1	2.553	30	Pass
NVNT	n40	5755	Ant1	-1.291	30	Pass
NVNT	n40	5795	Ant1	-1.365	30	Pass

PSD NVNT a 5745MHz Ant1



PSD NVNT a 5785MHz Ant1



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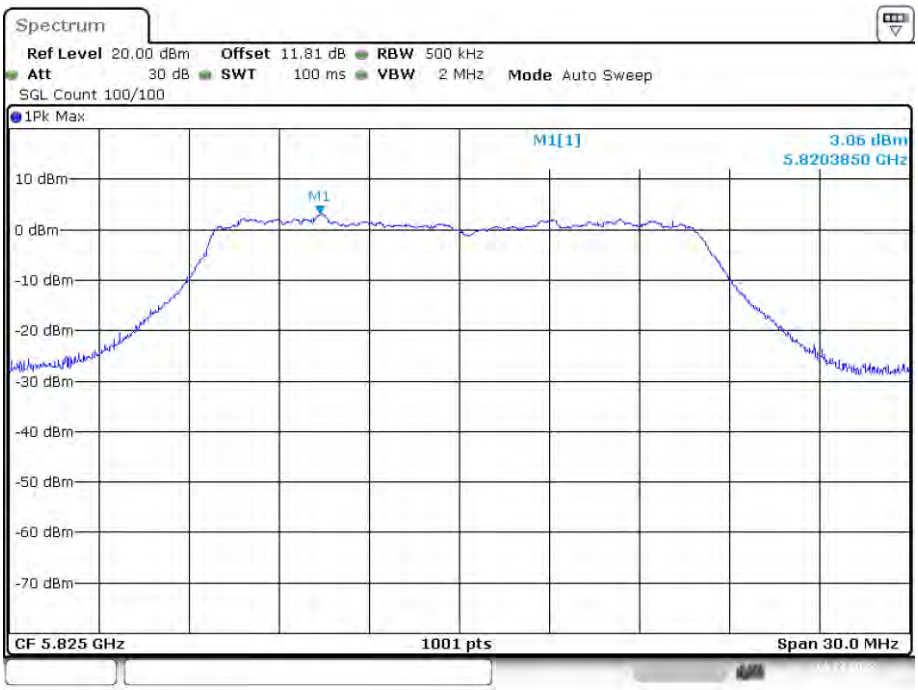
PSD NVNT a 5825MHz Ant1



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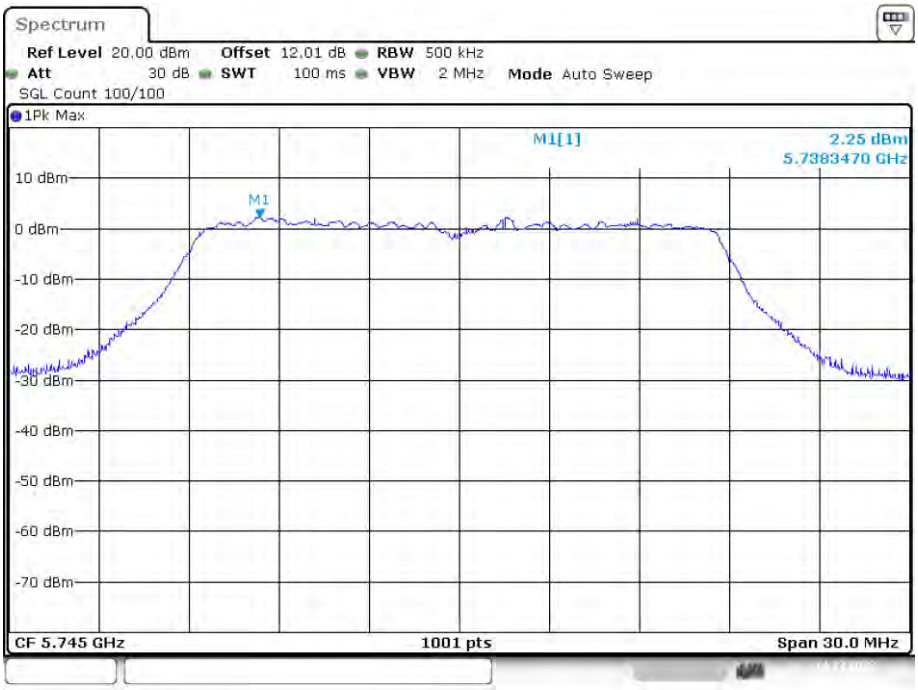
PSD NVNT ac20 5745MHz Ant1



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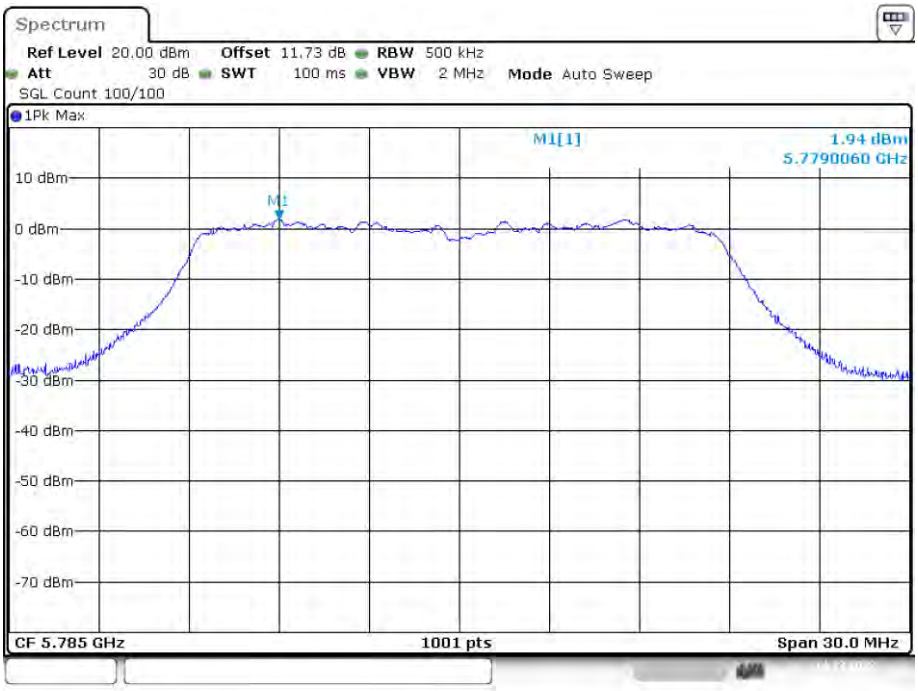
PSD NVNT ac20 5785MHz Ant1



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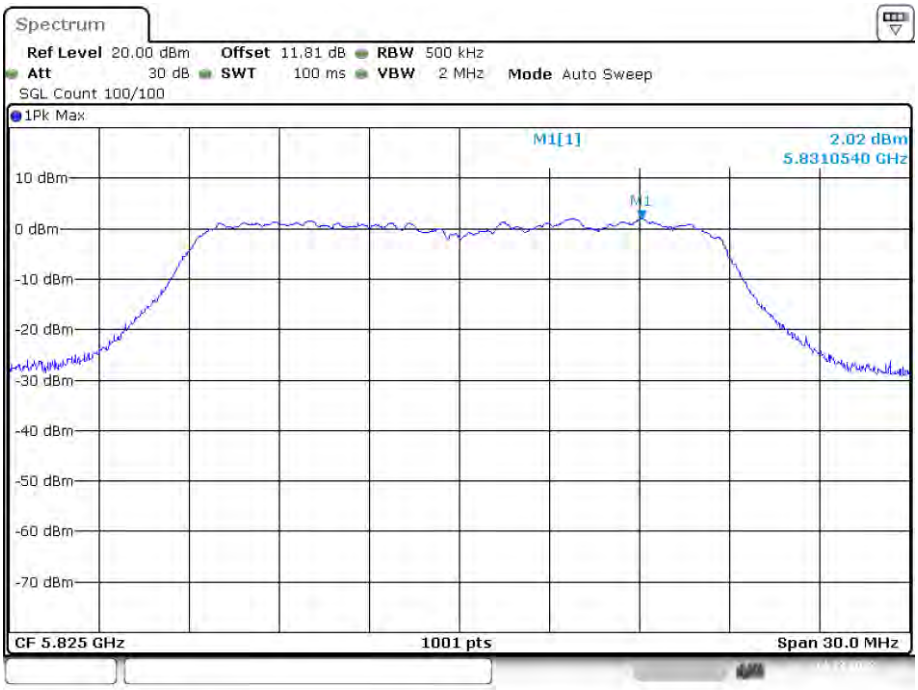
PSD NVNT ac20 5825MHz Ant1



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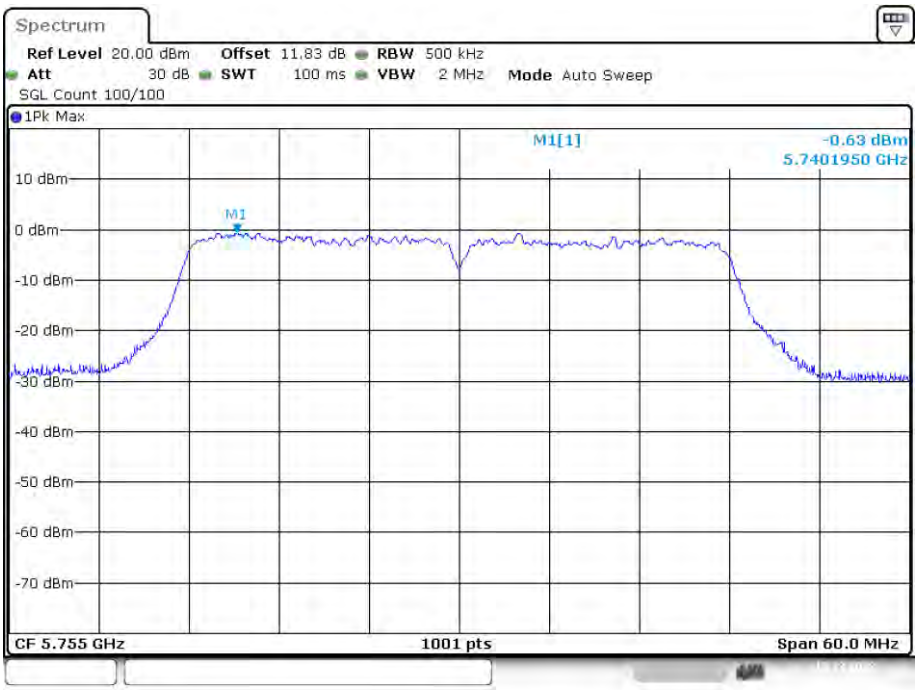
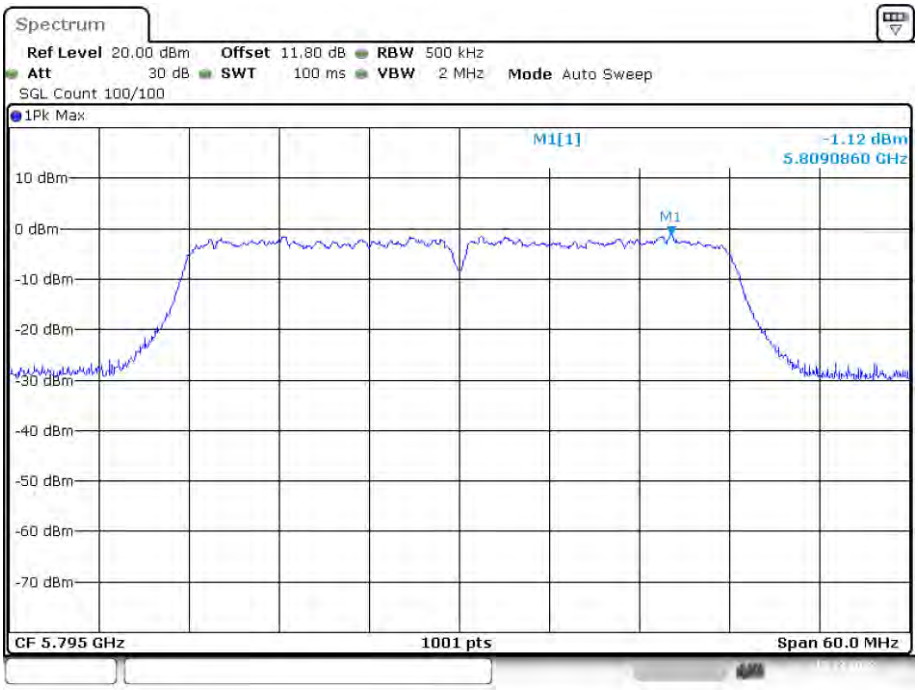
PSD NVNT ac40 5755MHz Ant1



Date: 15.DEC.2022 04:07:32

PSD NVNT ac40 5795MHz Ant1



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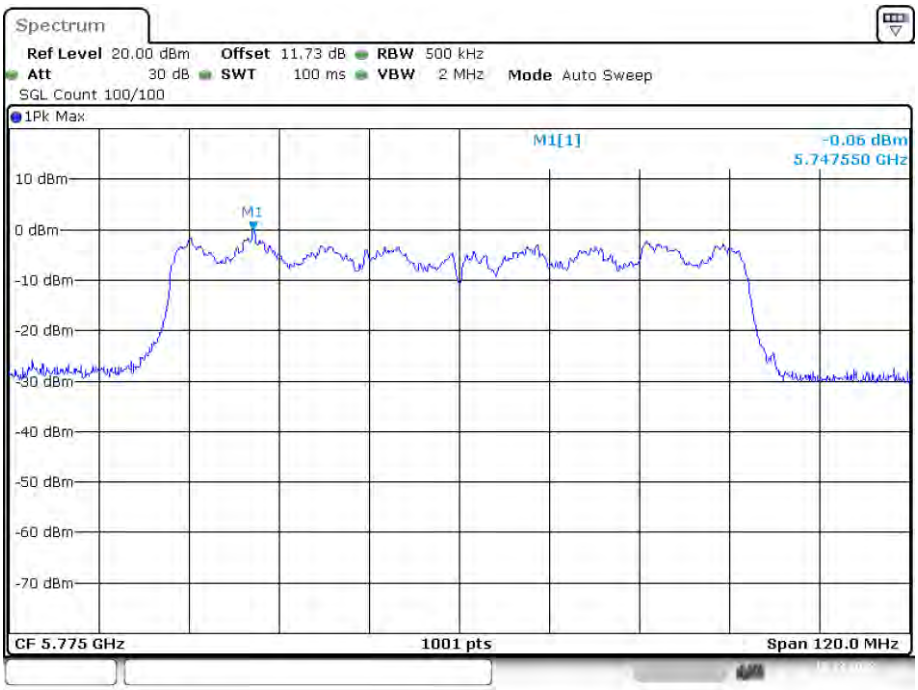
PSD NVNT ac80 5775MHz Ant1



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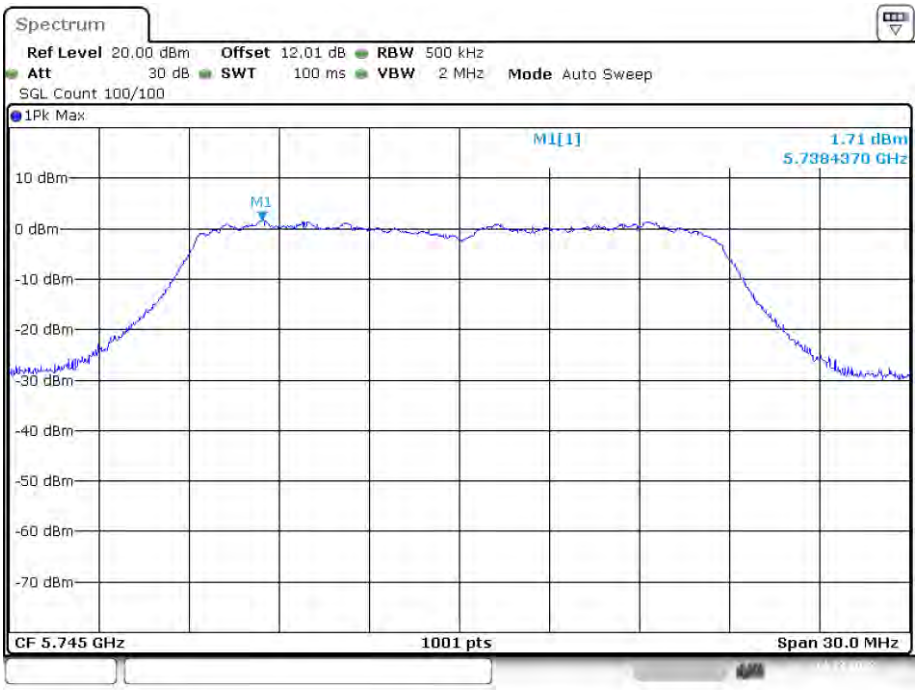
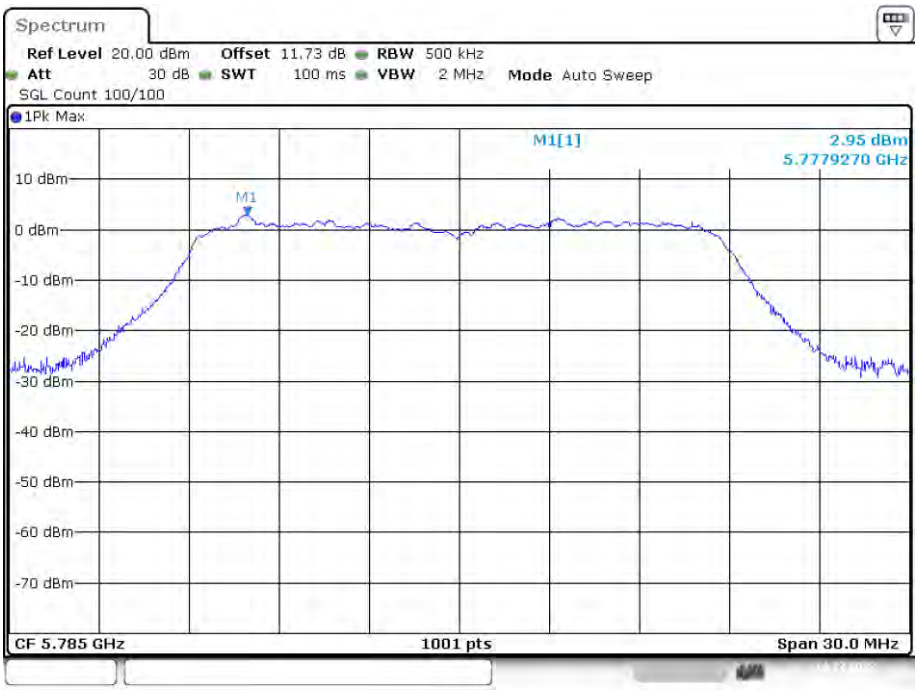
PSD NVNT n20 5745MHz Ant1



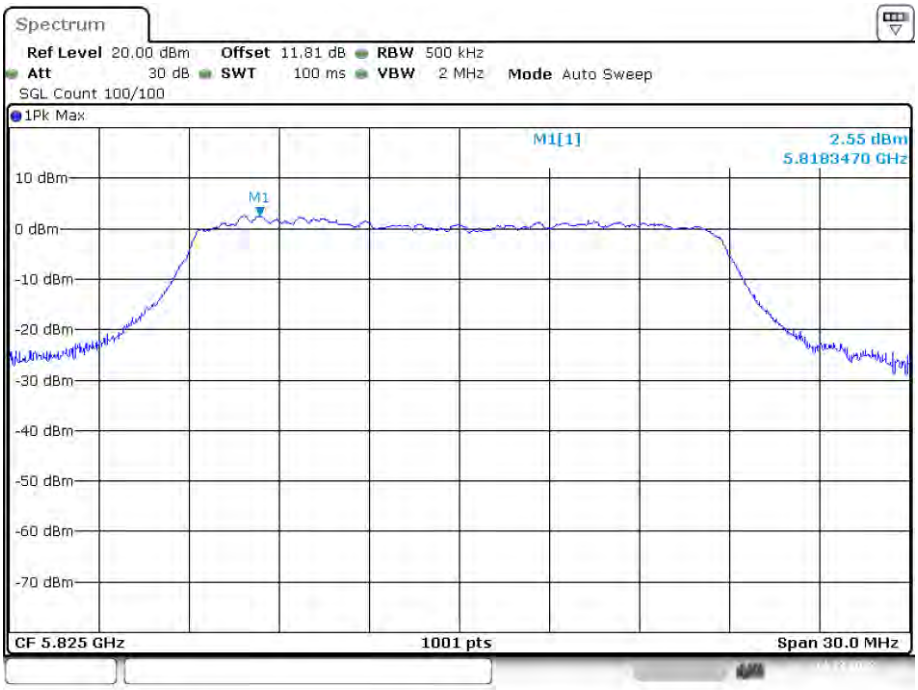
Date: 14.DEC.2022 15:07:14

PSD NVNT n20 5785MHz Ant1



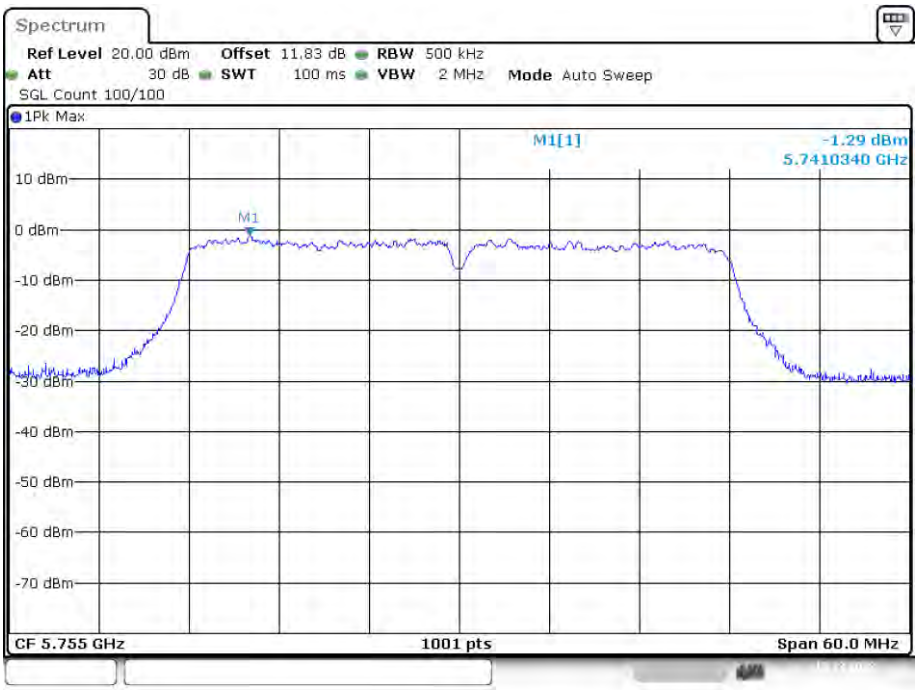
Date: 14.DEC.2022 15:22:36

PSD NVNT n20 5825MHz Ant1



Date: 14.DEC.2022 15:29:59

PSD NVNT n40 5755MHz Ant1



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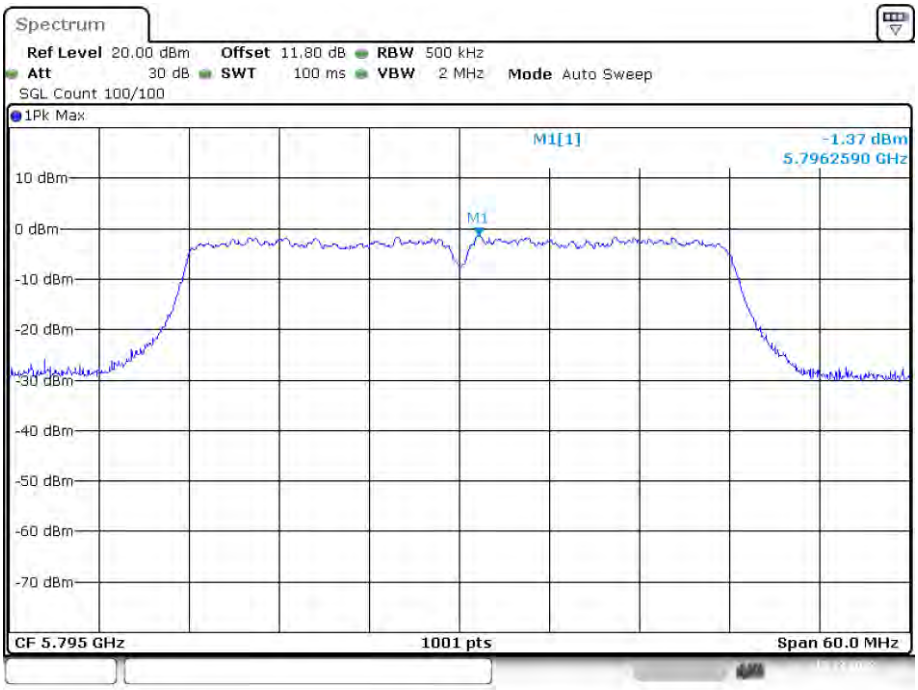
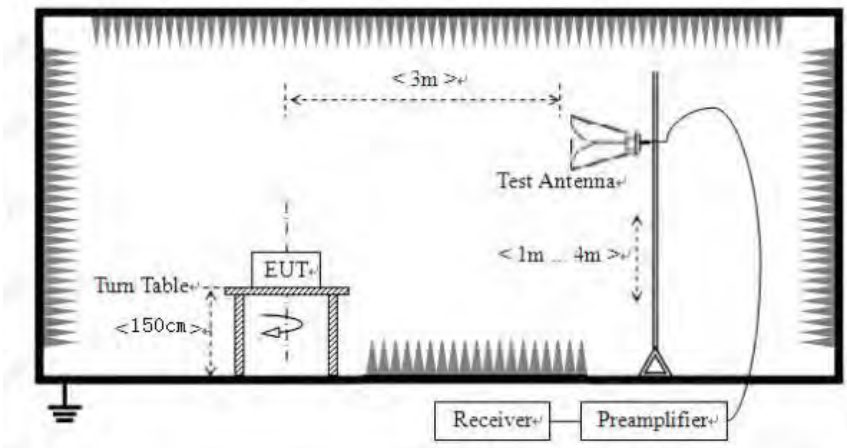
PSD NVNT n40 5795MHz Ant1



Date: 15.DEC.2022 03:58:54

4.6 Band Edge

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 E Section 15.407 and 15.205</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><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></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><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></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 5.10 for details
Test mode:	Refer to section 5.3 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	36.56	17.20	53.76	68.20	-14.44	PK
V	5150.00	36.59	17.20	53.79	68.20	-14.41	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	24.58	17.20	41.78	54.00	-12.22	AV
V	5150.00	25.04	17.20	42.24	54.00	-11.76	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	36.72	17.20	53.92	68.20	-14.28	PK
V	5350.00	36.75	17.20	53.95	68.20	-14.25	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	27.14	17.20	44.34	54.00	-9.66	AV
V	5350.00	26.77	17.20	43.97	54.00	-10.03	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	34.94	17.20	52.14	68.20	-16.06	PK
V	5150.00	34.35	17.20	51.55	68.20	-16.65	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	28.02	17.20	45.22	54.00	-8.78	AV
V	5150.00	23.60	17.20	40.80	54.00	-13.20	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	34.71	17.20	51.91	68.20	-16.29	PK
V	5350.00	33.62	17.20	50.82	68.20	-17.38	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	25.85	17.20	43.05	54.00	-10.95	AV
V	5350.00	26.90	17.20	44.10	54.00	-9.90	AV

Mode:		802.11ac(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	34.12	17.20	51.32	68.20	-16.88	PK
V	5150.00	35.01	17.20	52.21	68.20	-15.99	PK
Mode:		802.11ac(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	26.52	17.20	43.72	54.00	-10.28	AV
V	5150.00	27.31	17.20	44.51	54.00	-9.49	AV
Mode:		802.11ac(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	37.58	17.20	54.78	68.20	-13.42	PK
V	5350.00	36.27	17.20	53.47	68.20	-14.73	PK
Mode:		802.11ac(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	28.26	17.20	45.46	54.00	-8.54	AV
V	5350.00	25.01	17.20	42.21	54.00	-11.79	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	37.27	17.20	54.47	68.20	-13.73	PK
V	5150.00	33.14	17.20	50.34	68.20	-17.86	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	26.10	17.20	43.30	54.00	-10.70	AV
V	5150.00	23.78	17.20	40.98	54.00	-13.02	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	35.54	17.20	52.74	68.20	-15.46	PK
V	5350.00	33.92	17.20	51.12	68.20	-17.08	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	24.48	17.20	41.68	54.00	-12.32	AV
V	5350.00	26.46	17.20	43.66	54.00	-10.34	AV

Mode:		802.11ac(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	36.33	17.20	53.53	68.20	-14.67	PK
V	5150.00	35.67	17.20	52.87	68.20	-15.33	PK
Mode:		802.11ac(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	26.09	17.20	43.29	54.00	-10.71	AV
V	5150.00	24.16	17.20	41.36	54.00	-12.64	AV
Mode:		802.11ac(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	35.21	17.20	52.41	68.20	-15.79	PK
V	5350.00	34.84	17.20	52.04	68.20	-16.16	PK
Mode:		802.11ac(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	27.96	17.20	45.16	54.00	-8.84	AV
V	5350.00	23.86	17.20	41.06	54.00	-12.94	AV

Mode:		802.11ac(HT80)		Frequency:		5210MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	34.35	17.20	51.55	68.20	-16.65	PK
V	5150.00	33.62	17.20	50.82	68.20	-17.38	PK
Mode:		802.11ac(HT80)		Frequency:		5210MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	24.62	17.20	41.82	54.00	-12.18	AV
V	5150.00	27.17	17.20	44.37	54.00	-9.63	AV
Mode:		802.11ac(HT80)		Frequency:		5210MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	35.56	17.20	52.76	68.20	-15.44	PK
V	5350.00	36.85	17.20	54.05	68.20	-14.15	PK
Mode:		802.11ac(HT80)		Frequency:		5210MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	26.19	17.20	43.39	54.00	-10.61	AV
V	5350.00	26.29	17.20	43.49	54.00	-10.51	AV

Band2

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	35.69	17.21	52.90	68.20	-15.30	PK
V	5150.00	34.78	17.21	51.99	68.20	-16.21	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	24.81	17.21	42.02	54.00	-11.98	AV
V	5150.00	24.78	17.21	41.99	54.00	-12.01	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	37.97	17.21	55.18	68.20	-13.02	PK
V	5350.00	38.93	17.21	56.14	68.20	-12.06	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	26.69	17.21	43.90	54.00	-10.10	AV
V	5350.00	26.64	17.21	43.85	54.00	-10.15	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	37.44	17.20	54.64	68.20	-13.56	PK
V	5150.00	33.50	17.20	50.70	68.20	-17.50	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	26.75	17.20	43.95	54.00	-10.05	AV
V	5150.00	26.90	17.20	44.10	54.00	-9.90	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	35.89	17.20	53.09	68.20	-15.11	PK
V	5350.00	33.87	17.20	51.07	68.20	-17.13	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	27.10	17.20	44.30	54.00	-9.70	AV
V	5350.00	24.52	17.20	41.72	54.00	-12.28	AV

Mode:		802.11ac(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	38.49	17.21	55.70	68.20	-12.50	PK
V	5150.00	38.44	17.21	55.65	68.20	-12.55	PK
Mode:		802.11ac(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	27.06	17.21	44.27	54.00	-9.73	AV
V	5150.00	25.76	17.21	42.97	54.00	-11.03	AV
Mode:		802.11ac(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	36.60	17.21	53.81	68.20	-14.39	PK
V	5350.00	35.26	17.21	52.47	68.20	-15.73	PK
Mode:		802.11ac(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	28.72	17.21	45.93	54.00	-8.07	AV
V	5350.00	28.32	17.21	45.53	54.00	-8.47	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	39.19	17.21	56.40	68.20	-11.80	PK
V	5150.00	36.16	17.21	53.37	68.20	-14.83	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	26.73	17.21	43.94	54.00	-10.06	AV
V	5150.00	25.16	17.21	42.37	54.00	-11.63	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	38.13	17.21	55.34	68.20	-12.86	PK
V	5350.00	36.44	17.21	53.65	68.20	-14.55	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	24.63	17.21	41.84	54.00	-12.16	AV
V	5350.00	25.12	17.21	42.33	54.00	-11.67	AV

Mode:		802.11ac(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	39.25	17.21	56.46	68.20	-11.74	PK
V	5150.00	37.40	17.21	54.61	68.20	-13.59	PK
Mode:		802.11ac(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	28.39	17.21	45.60	54.00	-8.40	AV
V	5150.00	25.03	17.21	42.24	54.00	-11.76	AV
Mode:		802.11ac(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	38.32	17.21	55.53	68.20	-12.67	PK
V	5350.00	36.47	17.21	53.68	68.20	-14.52	PK
Mode:		802.11ac(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	25.02	17.21	42.23	54.00	-11.77	AV
V	5350.00	25.90	17.21	43.11	54.00	-10.89	AV

Mode:		802.11ac(HT80)		Frequency:		5290MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	36.65	17.21	53.86	68.20	-14.34	PK
V	5150.00	35.42	17.21	52.63	68.20	-15.57	PK
Mode:		802.11ac(HT80)		Frequency:		5290MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	28.73	17.21	45.94	54.00	-8.06	AV
V	5150.00	26.29	17.21	43.50	54.00	-10.50	AV
Mode:		802.11ac(HT80)		Frequency:		5290MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	39.39	17.21	56.60	68.20	-11.60	PK
V	5350.00	37.46	17.21	54.67	68.20	-13.53	PK
Mode:		802.11ac(HT80)		Frequency:		5290MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	24.51	17.21	41.72	54.00	-12.28	AV
V	5350.00	28.63	17.21	45.84	54.00	-8.16	AV

Band3

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	39.21	17.21	56.42	68.20	-11.78	PK
V	5470.00	37.72	17.21	54.93	68.20	-13.27	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	26.62	17.21	43.83	54.00	-10.17	AV
V	5470.00	27.20	17.21	44.41	54.00	-9.59	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	37.23	17.21	54.44	68.20	-13.76	PK
V	5725.00	38.96	17.21	56.17	68.20	-12.03	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	24.77	17.21	41.98	54.00	-12.02	AV
V	5725.00	27.28	17.21	44.49	54.00	-9.51	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	35.94	17.21	53.15	68.20	-15.05	PK
V	5470.00	35.88	17.21	53.09	68.20	-15.11	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	25.92	17.21	43.13	54.00	-10.87	AV
V	5470.00	25.78	17.21	42.99	54.00	-11.01	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	35.99	17.21	53.20	68.20	-15.00	PK
V	5725.00	37.19	17.21	54.40	68.20	-13.80	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	25.52	17.21	42.73	54.00	-11.27	AV
V	5725.00	25.58	17.21	42.79	54.00	-11.21	AV

Mode:		802.11ac(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	36.71	17.21	53.92	68.20	-14.28	PK
V	5470.00	34.34	17.21	51.55	68.20	-16.65	PK
Mode:		802.11ac(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	26.70	17.21	43.91	54.00	-10.09	AV
V	5470.00	27.17	17.21	44.38	54.00	-9.62	AV
Mode:		802.11ac(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	37.95	17.21	55.16	68.20	-13.04	PK
V	5725.00	38.06	17.21	55.27	68.20	-12.93	PK
Mode:		802.11ac(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	27.90	17.21	45.11	54.00	-8.89	AV
V	5725.00	26.45	17.21	43.66	54.00	-10.34	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	38.43	17.21	55.64	68.20	-12.56	PK
V	5470.00	35.45	17.21	52.66	68.20	-15.54	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	26.73	17.21	43.94	54.00	-10.06	AV
V	5470.00	26.48	17.21	43.69	54.00	-10.31	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	39.27	17.21	56.48	68.20	-11.72	PK
V	5725.00	35.78	17.21	52.99	68.20	-15.21	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	24.34	17.21	41.55	54.00	-12.45	AV
V	5725.00	28.36	17.21	45.57	54.00	-8.43	AV

Mode:		802.11ac(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	39.08	17.21	56.29	68.20	-11.91	PK
V	5470.00	35.81	17.21	53.02	68.20	-15.18	PK

Mode:		802.11ac(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	27.68	17.21	44.89	54.00	-9.11	AV
V	5470.00	27.29	17.21	44.50	54.00	-9.50	AV

Mode:		802.11ac(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	38.26	17.21	55.47	68.20	-12.73	PK
V	5725.00	36.33	17.21	53.54	68.20	-14.66	PK

Mode:		802.11ac(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	27.78	17.21	44.99	54.00	-9.01	AV
V	5725.00	28.44	17.21	45.65	54.00	-8.35	AV

Mode:		802.11ac(HT80)		Frequency:		5530MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	36.41	17.21	53.62	68.20	-14.58	PK
V	5470.00	36.06	17.21	53.27	68.20	-14.93	PK

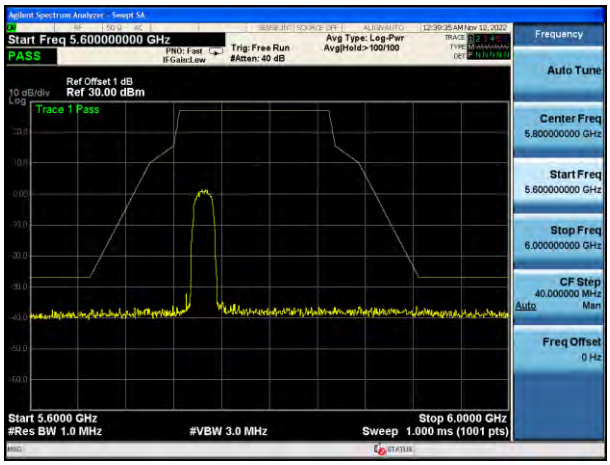
Mode:		802.11ac(HT80)		Frequency:		5530MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	25.29	17.21	42.50	54.00	-11.50	AV
V	5470.00	27.93	17.21	45.14	54.00	-8.86	AV

Mode:		802.11ac(HT80)		Frequency:		5530MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5725.00	36.70	17.21	53.91	68.20	-14.29	PK
V	5725.00	35.65	17.21	52.86	68.20	-15.34	PK

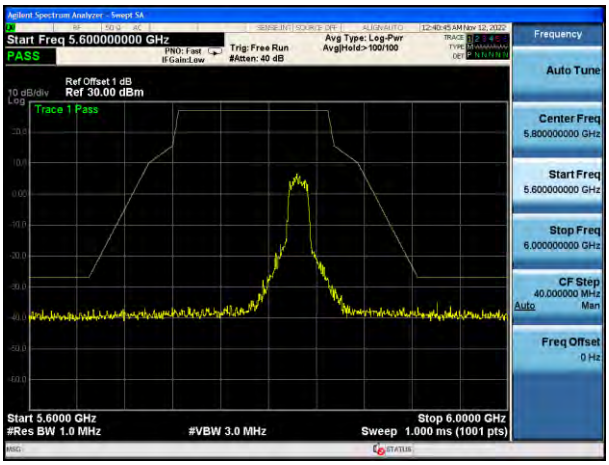
Mode:		802.11ac(HT80)		Frequency:		5530MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5725.00	25.70	17.21	42.91	54.00	-11.09	AV
V	5725.00	26.80	17.21	44.01	54.00	-9.99	AV

Band4

802.11a

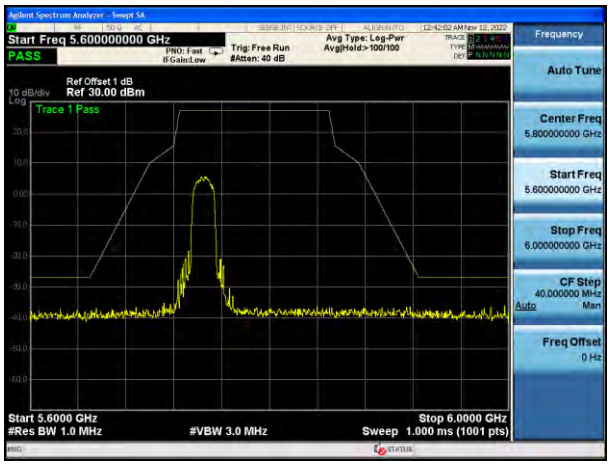


Low: 5745MHz

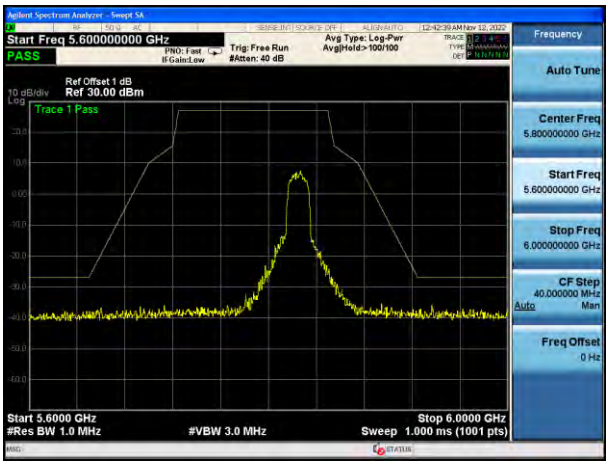


High: 5825MHz

802.11n(HT20)

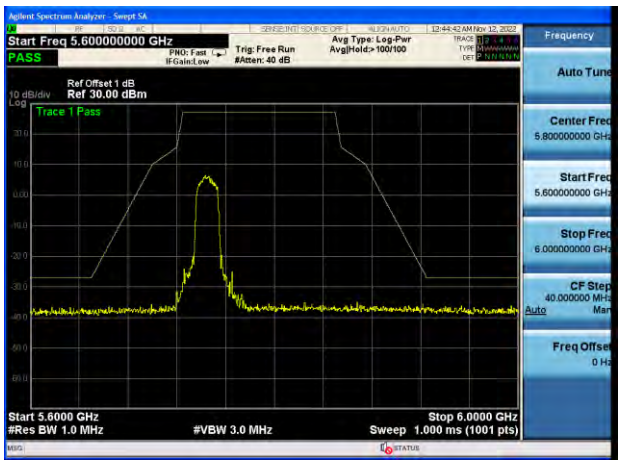


Low: 5745MHz

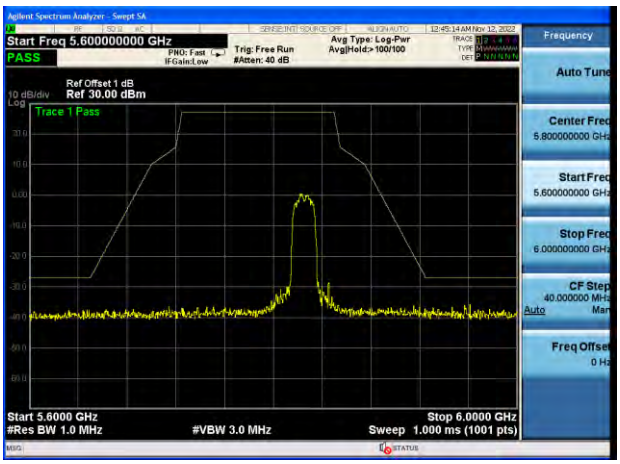


High: 5825MHz

802.11ac(HT20)



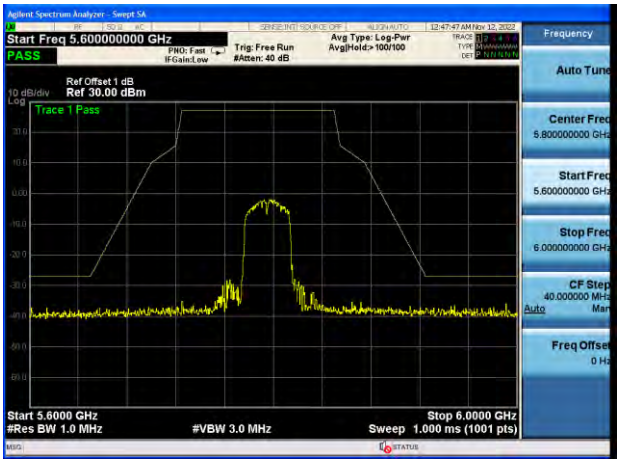
Low: 5745MHz



High: 5825MHz

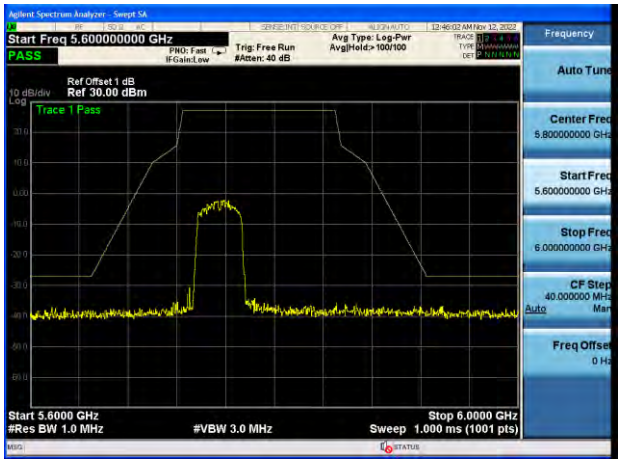
802.11n(HT40)

Low: 5755MHz

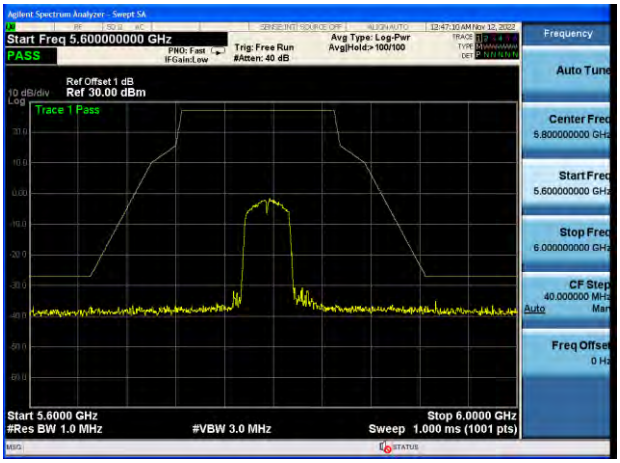


High: 5795MHz

802.11ac(HT40)



Low: 5755MHz



High: 5795MHz

802.11ac(HT80)

5775MHz

4.7 Radiated Emission

Test Requirement:	FCC Part15 C Section 15.209 and 15.205
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:

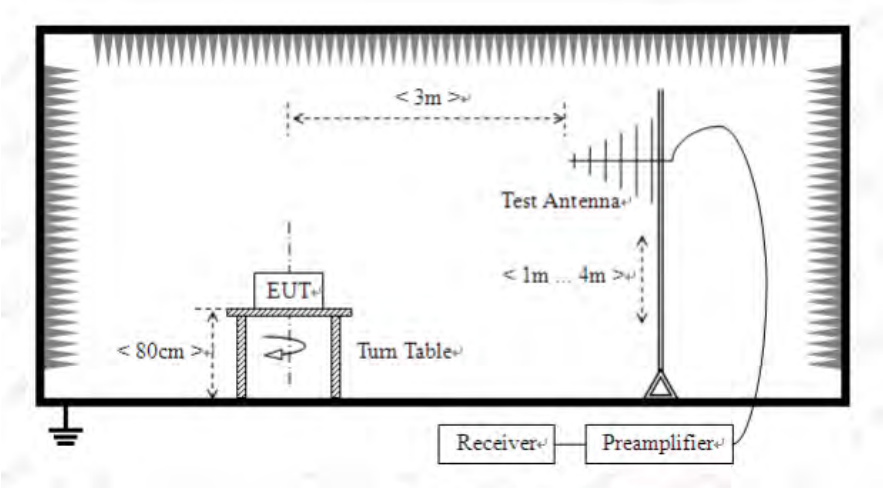
Substitution method was performed to determine the actual ERP emission levels of the EUT.
The following test procedure as below:

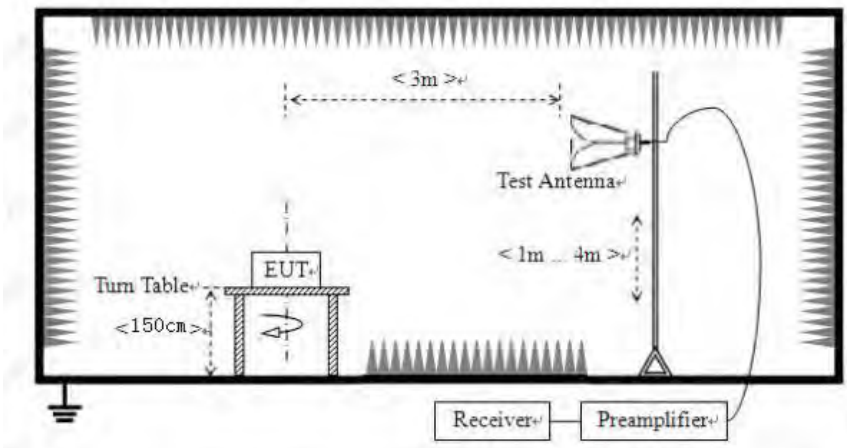
1>.Below 1GHz test procedure:

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 5.10 for details
Test mode:	Refer to section 5.3 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
33.99	47.66	11.25	0.59	30.08	29.42	40	-10.58	Vertical
55.40	41.36	11.93	0.81	29.96	24.14	40	-15.86	Vertical
120.40	46.37	9.4	1.36	29.57	27.56	43.5	-15.94	Vertical
172.11	42.78	8.5	1.7	29.31	23.67	43.5	-19.83	Vertical
440.69	37.58	16.29	3.05	29.41	27.51	46	-18.49	Vertical
860.75	33.05	21.83	4.69	29.14	30.43	46	-15.57	Vertical
65.02	35.82	8.73	0.9	29.89	15.56	40	-24.44	Horizontal
100.15	34.36	11.73	1.19	29.7	17.58	43.5	-25.92	Horizontal
269.73	45.21	12.53	2.22	29.79	30.17	46	-15.83	Horizontal
351.27	36.36	14.5	2.62	29.73	23.75	46	-22.25	Horizontal
627.87	36.06	19.43	3.83	29.27	30.05	46	-15.95	Horizontal
956.12	40.71	22.54	5.06	29.1	39.21	46	-6.79	Horizontal

Above 1GHz:

802.11a(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
10360.17	29.12	11.25	14.62	32.65	22.34	74	-51.66	Vertical
15540.63	30.70	11.93	17.66	34.46	25.83	74	-48.17	Vertical
10360.85	33.01	9.4	14.62	32.65	24.38	74	-49.62	Horizontal
15540.16	31.57	8.5	17.66	34.46	23.27	74	-50.73	Horizontal

802.11a(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
10360.48	28.34	16.29	14.62	32.65	26.60	74	-47.40	Vertical
15540.18	30.92	21.83	17.66	34.46	35.95	74	-38.05	Vertical
10360.19	32.50	8.73	14.62	32.65	23.20	74	-50.80	Horizontal
15540.14	32.36	11.73	17.66	34.46	27.29	74	-46.71	Horizontal

802.11a(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
10360.03	28.17	11.25	14.62	32.65	21.39	74	-52.61	Vertical
15540.27	30.70	11.93	17.66	34.46	25.83	74	-48.17	Vertical
10360.82	32.87	9.4	14.62	32.65	24.24	74	-49.76	Horizontal
15540.41	31.62	8.5	17.66	34.46	23.32	74	-50.68	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
10360.34	28.74	16.29	14.62	32.65	27.00	74	-47.00	Vertical
15540.30	30.50	21.83	17.66	34.46	35.53	74	-38.47	Vertical
10360.56	32.92	8.73	14.62	32.65	23.62	74	-50.38	Horizontal
15540.15	31.57	11.73	17.66	34.46	26.50	74	-47.50	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
10360.62	28.24	11.25	14.62	32.65	21.46	74	-52.54	Vertical
15540.00	30.60	11.93	17.66	34.46	25.73	74	-48.27	Vertical
10360.49	32.51	9.4	14.62	32.65	23.88	74	-50.12	Horizontal
15540.24	31.74	8.5	17.66	34.46	23.44	74	-50.56	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
10360.42	28.78	16.29	14.62	32.65	27.04	74	-46.96	Vertical
15540.18	30.44	21.83	17.66	34.46	35.47	74	-38.53	Vertical
10360.02	32.68	8.73	14.62	32.65	23.38	74	-50.62	Horizontal
15540.99	31.56	11.73	17.66	34.46	26.49	74	-47.51	Horizontal

802.11ac(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
10360.15	28.84	11.25	14.62	32.65	22.06	74	-51.94	Vertical
15540.02	30.91	11.93	17.66	34.46	26.04	74	-47.96	Vertical
10360.77	32.29	9.4	14.62	32.65	23.66	74	-50.34	Horizontal
15540.93	31.70	8.5	17.66	34.46	23.40	74	-50.60	Horizontal

802.11ac(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
10360.30	28.65	16.29	14.62	32.65	26.91	74	-47.09	Vertical
15540.06	30.37	21.83	17.66	34.46	35.40	74	-38.60	Vertical
10360.03	32.91	8.73	14.62	32.65	23.61	74	-50.39	Horizontal
15540.57	32.44	11.73	17.66	34.46	27.37	74	-46.63	Horizontal

802.11ac(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
10360.62	29.11	11.25	14.62	32.65	22.33	74	-51.67	Vertical
15540.47	30.32	11.93	17.66	34.46	25.45	74	-48.55	Vertical
10360.91	32.89	9.4	14.62	32.65	24.26	74	-49.74	Horizontal
15540.18	32.27	8.5	17.66	34.46	23.97	74	-50.03	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
10360.40	28.61	16.29	14.62	32.65	26.87	74	-47.13	Vertical
15540.66	31.14	21.83	17.66	34.46	36.17	74	-37.83	Vertical
10360.54	32.63	8.73	14.62	32.65	23.33	74	-50.67	Horizontal
15540.98	32.11	11.73	17.66	34.46	27.04	74	-46.96	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
10360.24	28.82	11.25	14.62	32.65	22.04	74	-51.96	Vertical
15540.33	30.39	11.93	17.66	34.46	25.52	74	-48.48	Vertical
10360.61	32.18	9.4	14.62	32.65	23.55	74	-50.45	Horizontal
15540.68	32.34	8.5	17.66	34.46	24.04	74	-49.96	Horizontal

802.11ac(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
10360.70	28.55	16.29	14.62	32.65	26.81	74	-47.19	Vertical
15540.81	30.37	21.83	17.66	34.46	35.40	74	-38.60	Vertical
10360.69	32.79	8.73	14.62	32.65	23.49	74	-50.51	Horizontal
15540.82	31.56	11.73	17.66	34.46	26.49	74	-47.51	Horizontal

802.11ac(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
10360.09	28.91	11.25	14.62	32.65	22.13	74	-51.87	Vertical
15540.15	30.22	11.93	17.66	34.46	25.35	74	-48.65	Vertical
10360.62	32.20	9.4	14.62	32.65	23.57	74	-50.43	Horizontal
15540.18	31.83	8.5	17.66	34.46	23.53	74	-50.47	Horizontal

802.11ac(HT80) 5210MHz

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
10360.07	28.21	16.29	14.62	32.65	26.47	74	-47.53	Vertical
15540.48	31.12	21.83	17.66	34.46	36.15	74	-37.85	Vertical
10360.97	32.10	8.73	14.62	32.65	22.80	74	-51.20	Horizontal
15540.55	31.57	11.73	17.66	34.46	26.50	74	-47.50	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 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 5.0V	5179.992	8	5239.991	9
	DC 5.4V	5179.991	9	5239.988	12
	DC 6.0V	5179.986	14	5239.987	13
Mode	Voltage (V)	FHL (5260MHz)	Deviation (KHz)	FHH (5320MHz)	Deviation (KHz)
Band 2 (5250-5350 MHz)	DC 5.0V	5259.988	12	5319.987	13
	DC 5.4V	5259.988	12	5319.989	11
	DC 6.0V	5259.984	16	5319.985	15
Mode	Voltage (V)	FHL (5500MHz)	Deviation (KHz)	FHH (5700MHz)	Deviation (KHz)
Band 3 (5470-5725 MHz)	DC 5.0V	5499.987	13	5699.987	13
	DC 5.4V	5499.989	11	5699.986	14
	DC 6.0V	5499.987	13	5699.986	14
Mode	Voltage (V)	FHL (5745MHz)	Deviation (KHz)	FHH (5825MHz)	Deviation (KHz)
Band 4 (5725-5850 MHz)	DC 5.0V	5744.989	11	5824.990	10
	DC 5.4V	5744.987	13	5824.985	15
	DC 6.0V	5744.987	13	5824.986	14

Mode	Temperature (℃)	FHL (5180MHz)	Deviation (KHz)	FHH (5240MHz)	Deviation (KHz)
Band 1 (5150-5250 MHz)	-20℃	5179.991	9	5239.987	13
	-10℃	5179.990	10	5239.990	10
	-5℃	5179.985	15	5239.986	14
	0℃	5179.986	14	5239.990	10
	+10℃	5179.985	15	5239.985	15
	+20℃	5179.991	9	5239.989	11
	+30℃	5179.987	13	5239.989	11
	+40℃	5179.986	14	5239.990	10
	+50℃	5179.989	11	5239.992	8
Mode	Temperature (℃)	FHL (5260MHz)	Deviation (KHz)	FHH (5320MHz)	Deviation (KHz)
Band 2 (5250-5350 MHz)	-20℃	5259.992	8	5319.989	11
	-10℃	5259.987	13	5319.985	15
	-5℃	5259.984	16	5319.987	13
	0℃	5259.991	9	5319.990	10
	+10℃	5259.985	15	5319.985	15
	+20℃	5259.986	14	5319.989	11
	+30℃	5259.989	11	5319.989	11
	+40℃	5259.985	15	5319.987	13
	+50℃	5259.990	10	5319.988	12
Mode	Temperature (℃)	FHL (5500MHz)	Deviation (KHz)	FHH (5700MHz)	Deviation (KHz)
Band 3 (5470-5725 MHz)	-20℃	5499.987	13	5699.989	11
	-10℃	5499.990	10	5699.987	13
	-5℃	5499.987	13	5699.987	13
	0℃	5499.986	14	5699.986	14
	+10℃	5499.986	14	5699.986	14
	+20℃	5499.987	13	5699.986	14
	+30℃	5499.989	11	5699.988	12
	+40℃	5499.985	15	5699.985	15
	+50℃	5499.987	13	5699.991	9
Mode	Temperature (℃)	FHL (5745MHz)	Deviation (KHz)	FHH (5825MHz)	Deviation (KHz)
Band 4 (5725-5850 MHz)	-20℃	5744.991	9	5824.991	9
	-10℃	5744.987	13	5824.988	12
	-5℃	5744.987	13	5824.984	16
	0℃	5744.988	12	5824.985	15
	+10℃	5744.989	11	5824.989	11
	+20℃	5744.990	10	5824.990	10
	+30℃	5744.991	9	5824.988	12
	+40℃	5744.990	10	5824.989	11
	+50℃	5744.989	11	5824.990	10

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