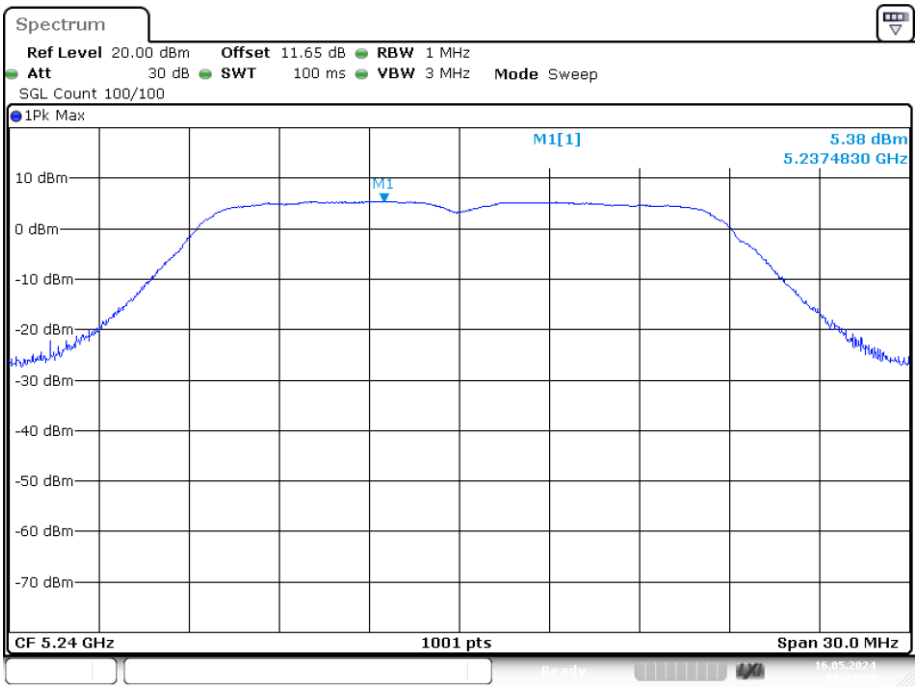
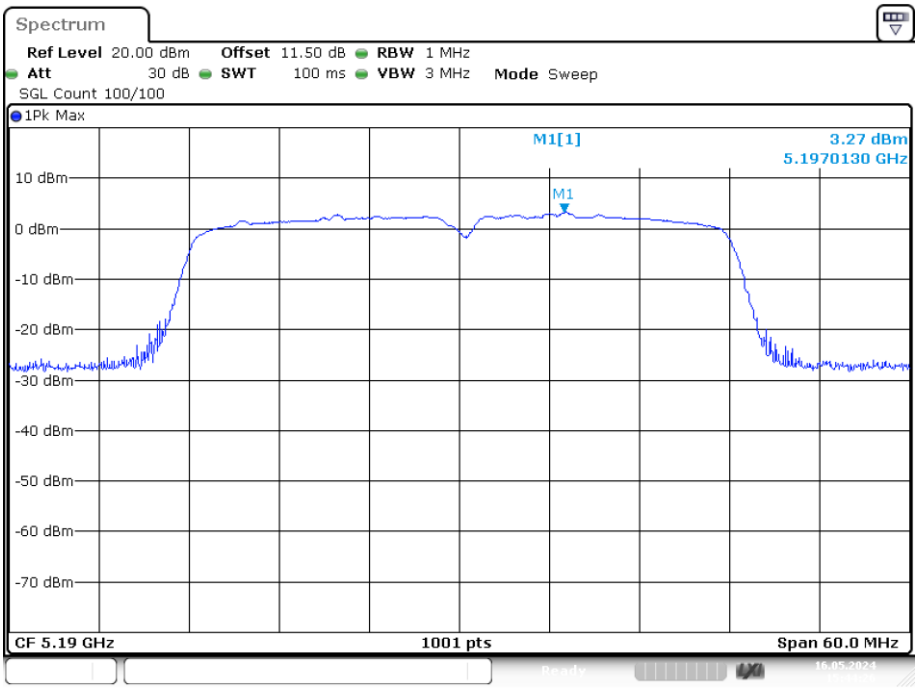
PSD NVNT n20 5240MHz Ant1



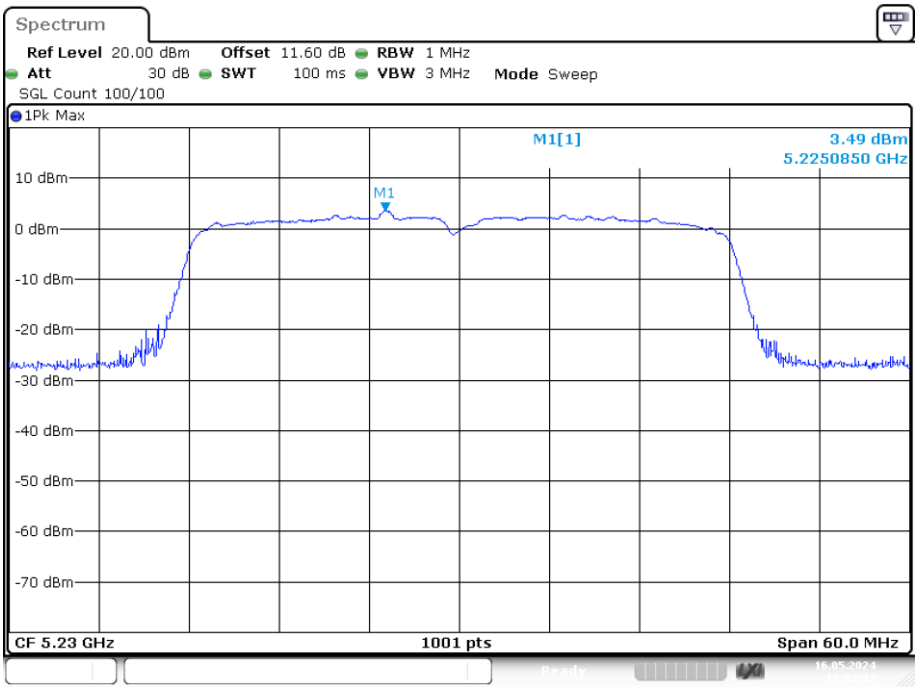
Date: 16.MAY.2024 15:42:09

PSD NVNT n40 5190MHz Ant1



Date: 16.MAY.2024 15:44:26

PSD NVNT n40 5230MHz Ant1



Date: 16.MAY.2024 15:51:12

Band 2 (5250 -5350 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	EIRP PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5260	Ant1	4.801	7.431	11	Pass
NVNT	a	5280	Ant1	5.499	8.129	11	Pass
NVNT	a	5320	Ant1	4.618	7.248	11	Pass
NVNT	n20	5260	Ant1	2.976	5.606	11	Pass
NVNT	n20	5280	Ant1	3.368	5.998	11	Pass
NVNT	n20	5320	Ant1	2.959	5.589	11	Pass
NVNT	n40	5270	Ant1	1.186	3.816	11	Pass
NVNT	n40	5310	Ant1	0.894	3.524	11	Pass

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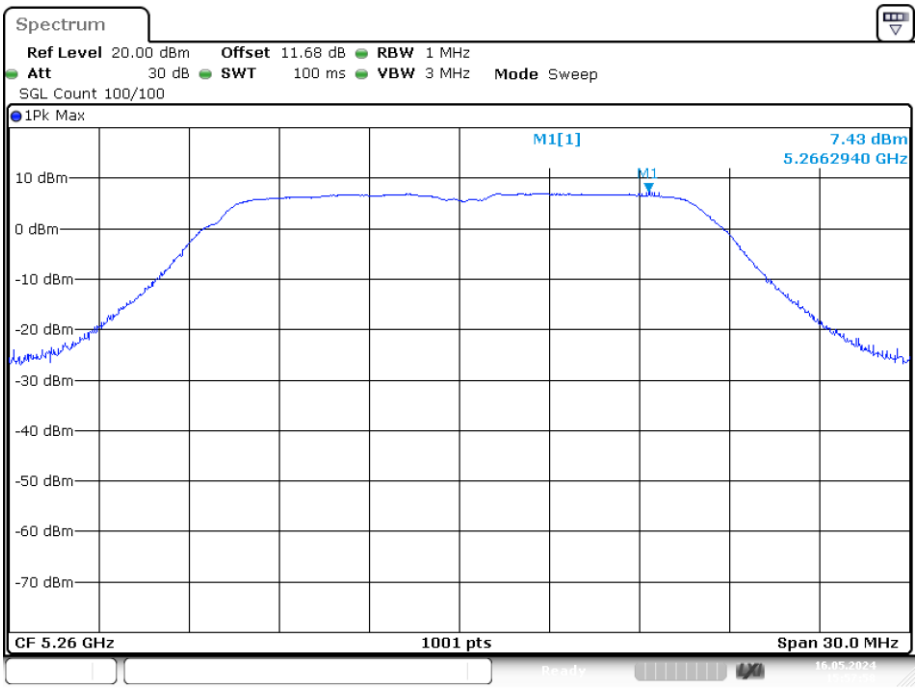
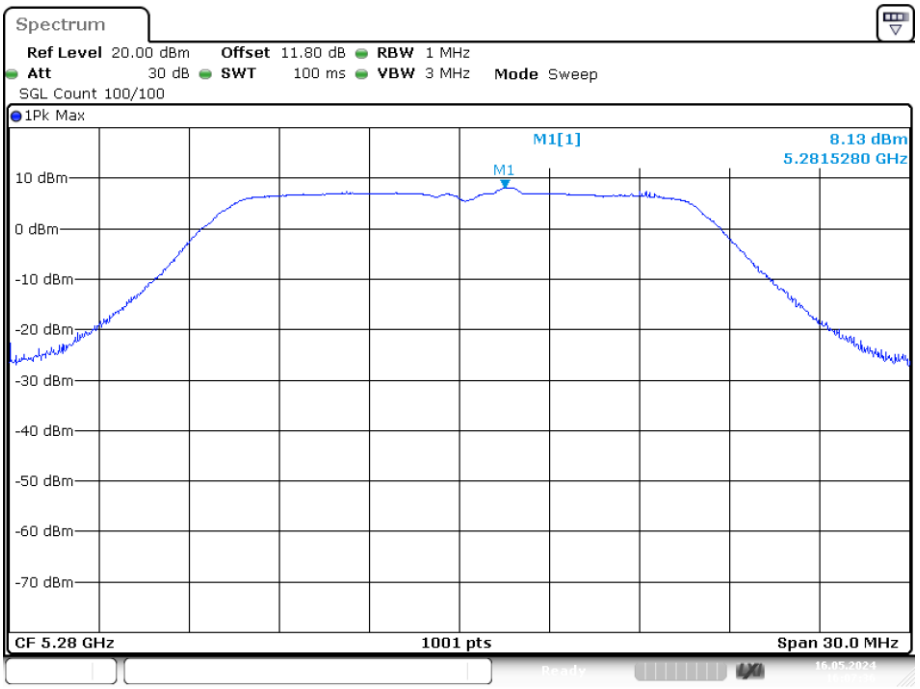
PSD NVNT a 5260MHz Ant1

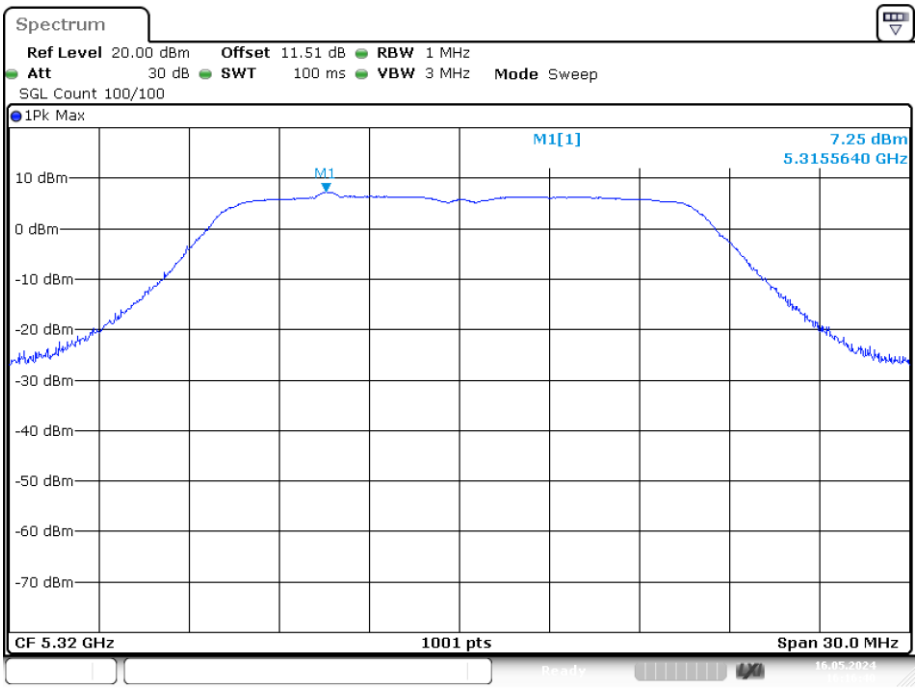


PSD NVNT a 5280MHz Ant1



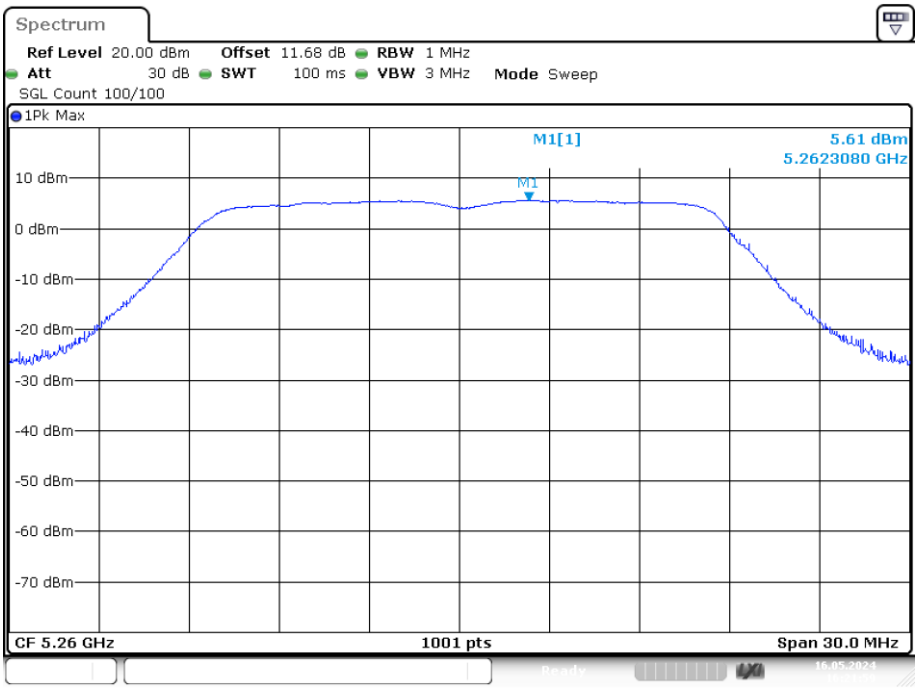
Date: 16.MAY.2024 16:07:36

PSD NVNT a 5320MHz Ant1



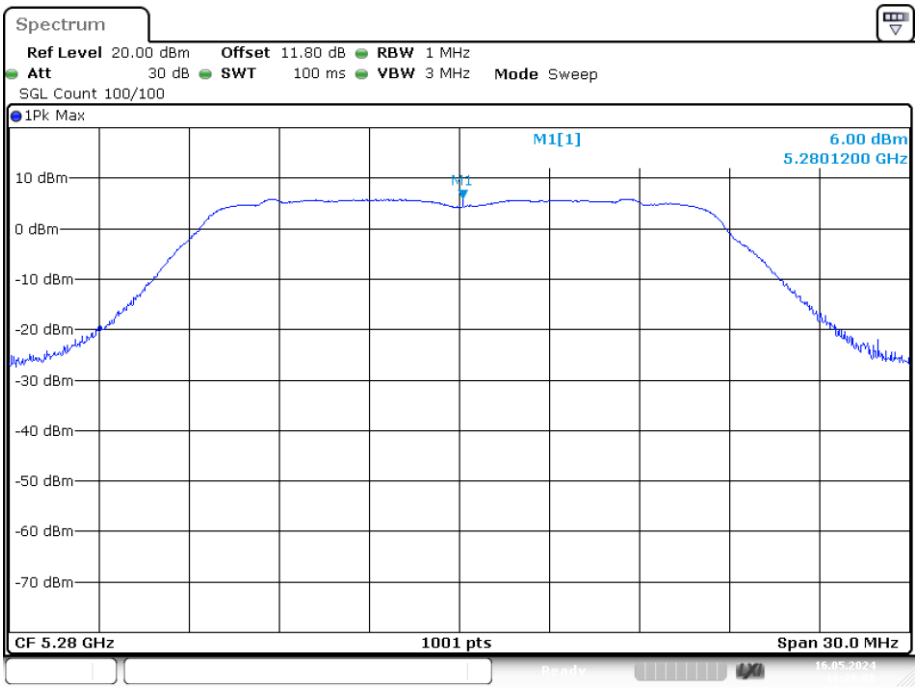
Date: 16.MAY.2024 16:16:39

PSD NVNT n20 5260MHz Ant1



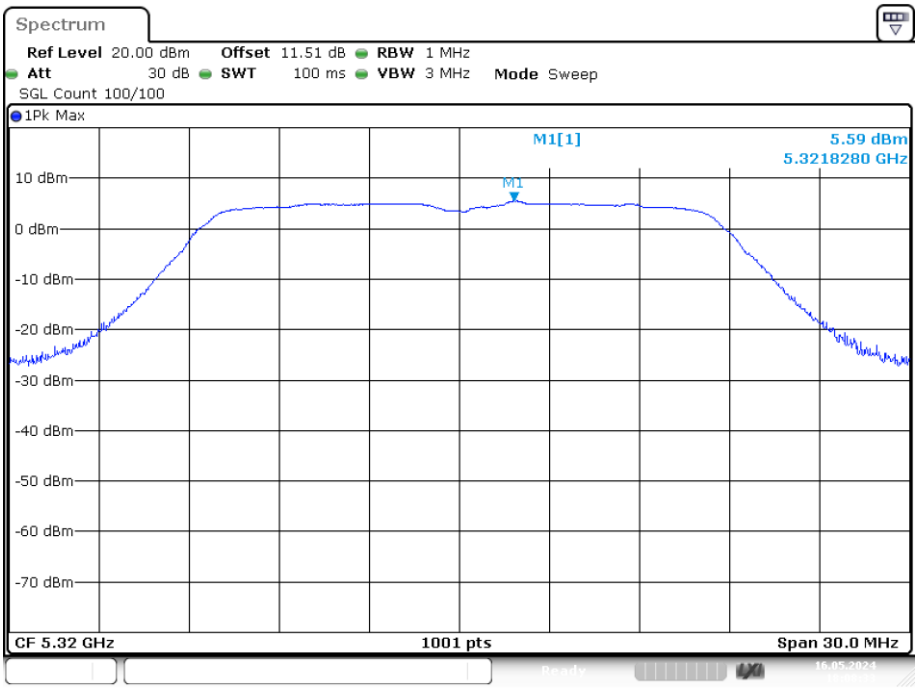
Date: 16.MAY.2024 16:21:58

PSD NVNT n20 5280MHz Ant1



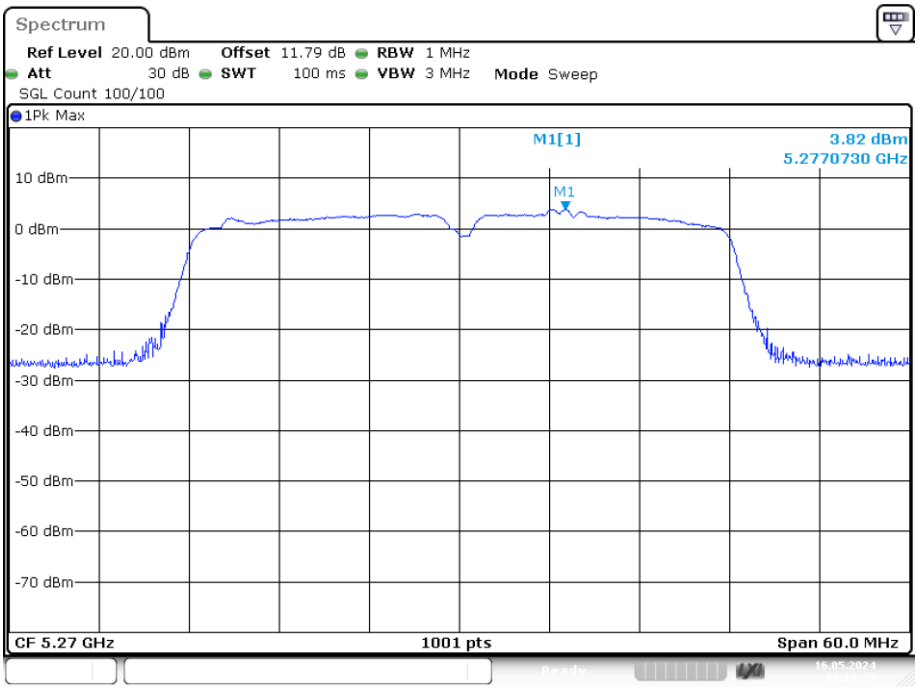
Date: 16.MAY.2024 16:26:08

PSD NVNT n20 5320MHz Ant1



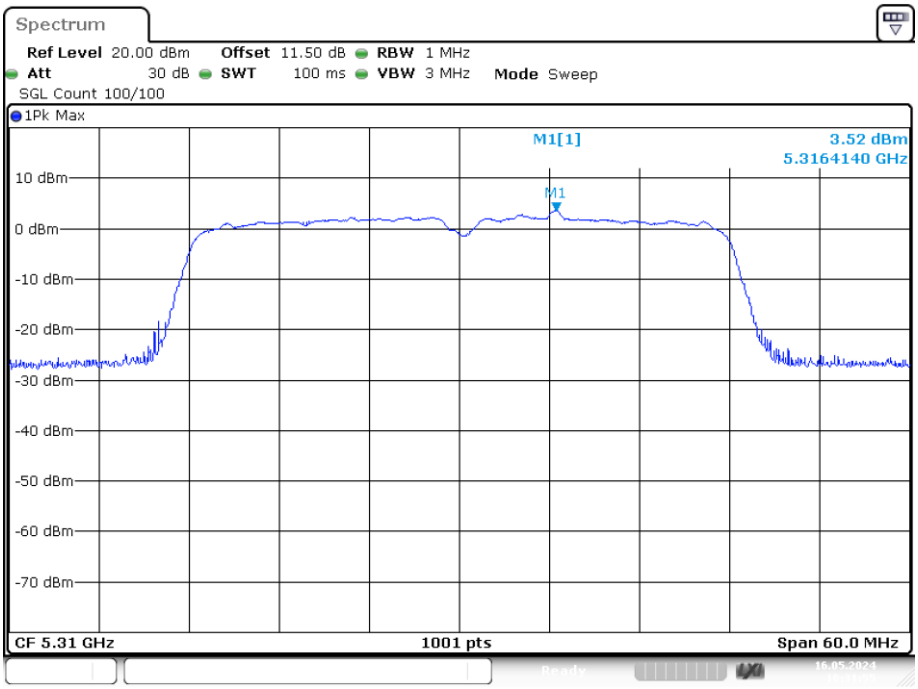
Date: 16.MAY.2024 18:08:33

PSD NVNT n40 5270MHz Ant1



Date: 16.MAY.2024 18:19:35

PSD NVNT n40 5310MHz Ant1

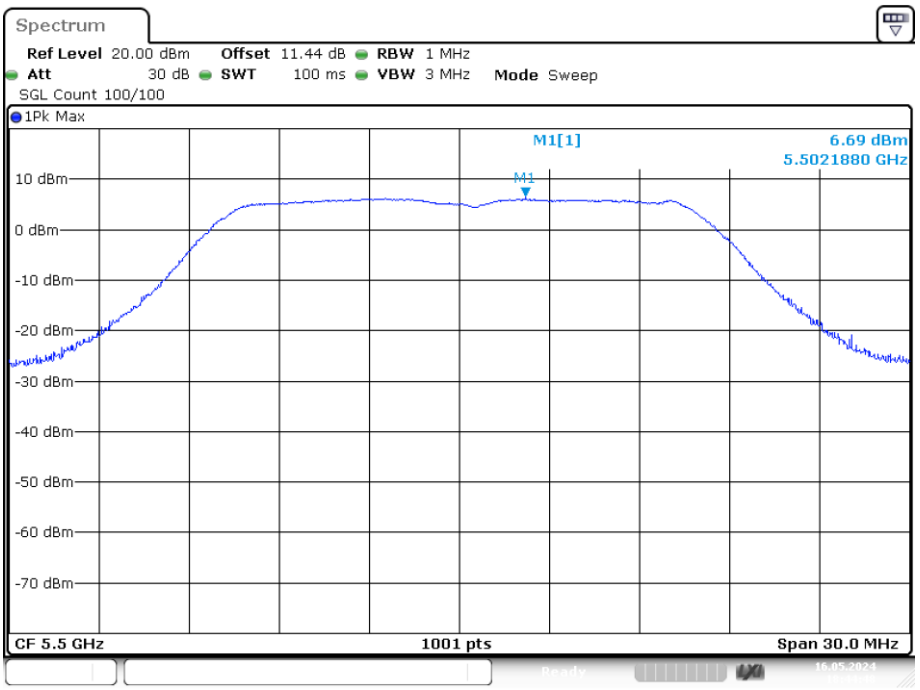


Date: 16.MAY.2024 18:31:55

Band 3 (5740 -5725 MHz)

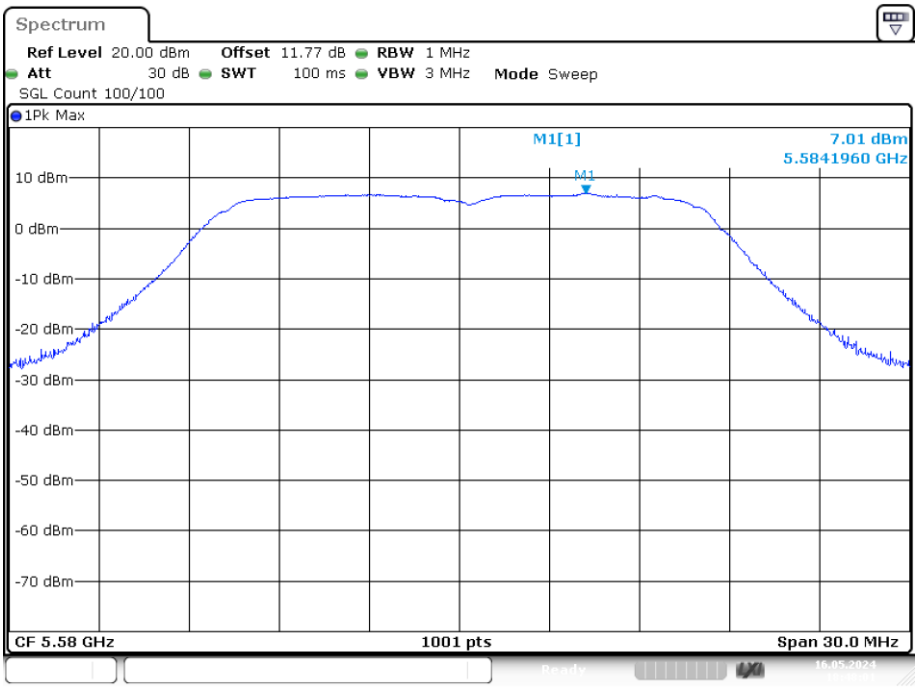
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	EIRP PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	Ant1	4.06	6.69	11	Pass
NVNT	a	5580	Ant1	4.384	7.014	11	Pass
NVNT	a	5700	Ant1	5.062	7.692	11	Pass
NVNT	n20	5500	Ant1	3.097	5.727	11	Pass
NVNT	n20	5580	Ant1	3.089	5.719	11	Pass
NVNT	n20	5700	Ant1	2.692	5.322	11	Pass
NVNT	n40	5510	Ant1	1.165	3.795	11	Pass
NVNT	n40	5670	Ant1	1.072	3.702	11	Pass

PSD NVNT a 5500MHz Ant1



Date: 16.MAY.2024 18:44:48

PSD NVNT a 5580MHz Ant1



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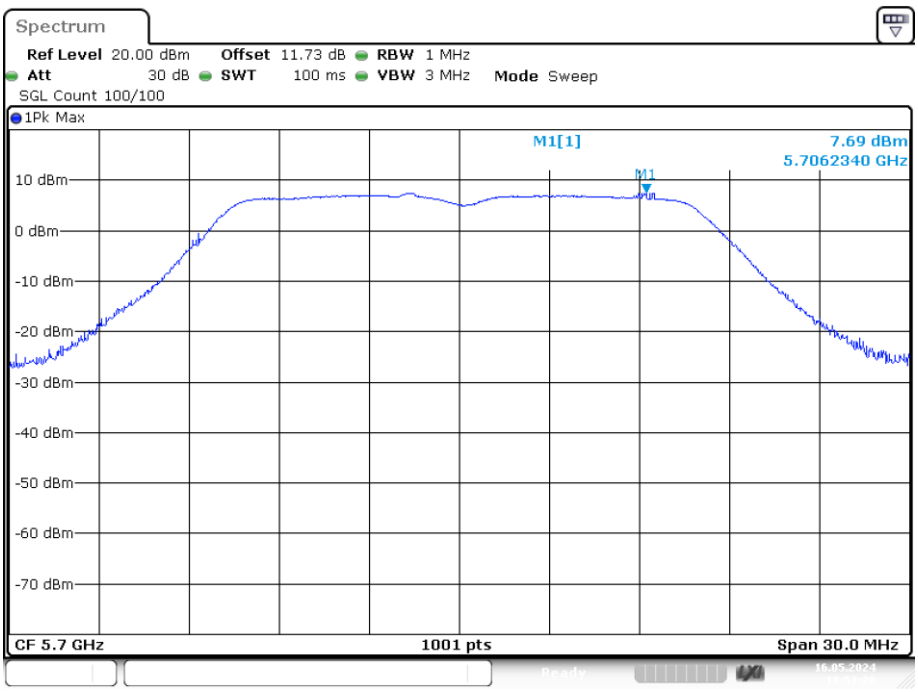
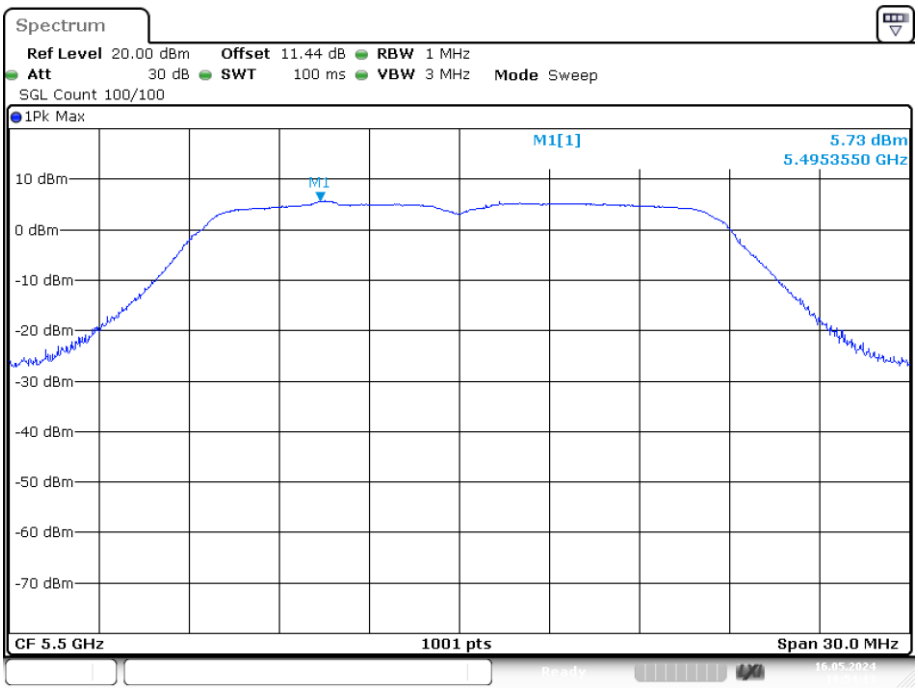
PSD NVNT a 5700MHz Ant1



Date: 16.MAY.2024 18:51:20

PSD NVNT n20 5500MHz Ant1



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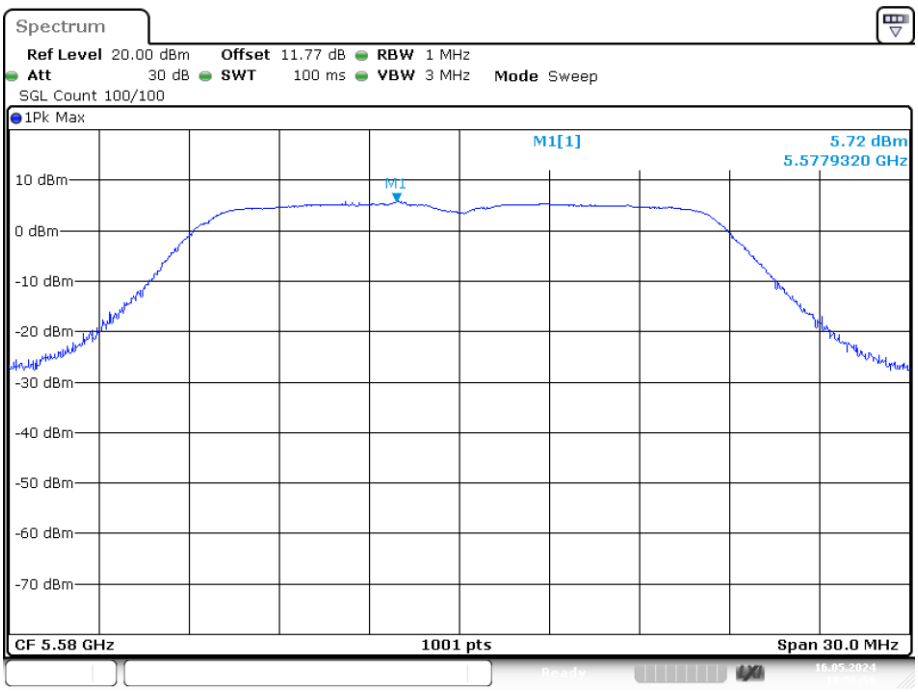
PSD NVNT n20 5580MHz Ant1



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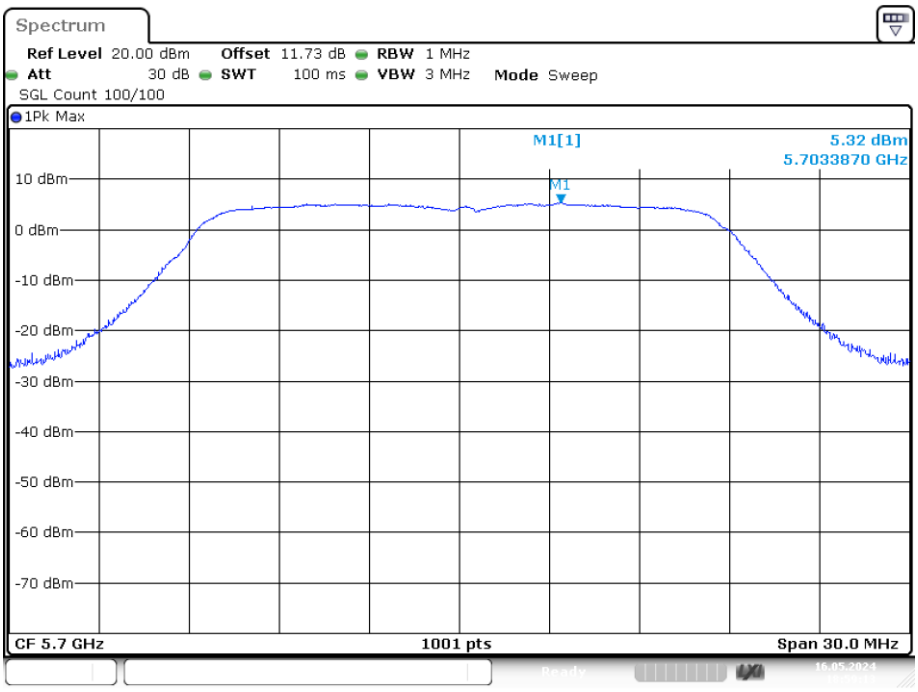
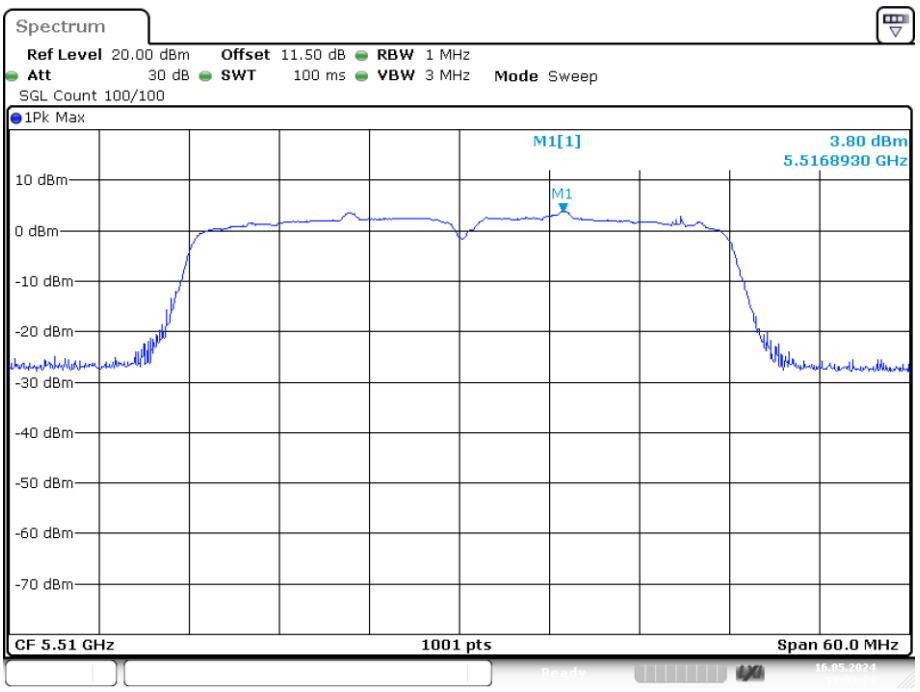
PSD NVNT n20 5700MHz Ant1



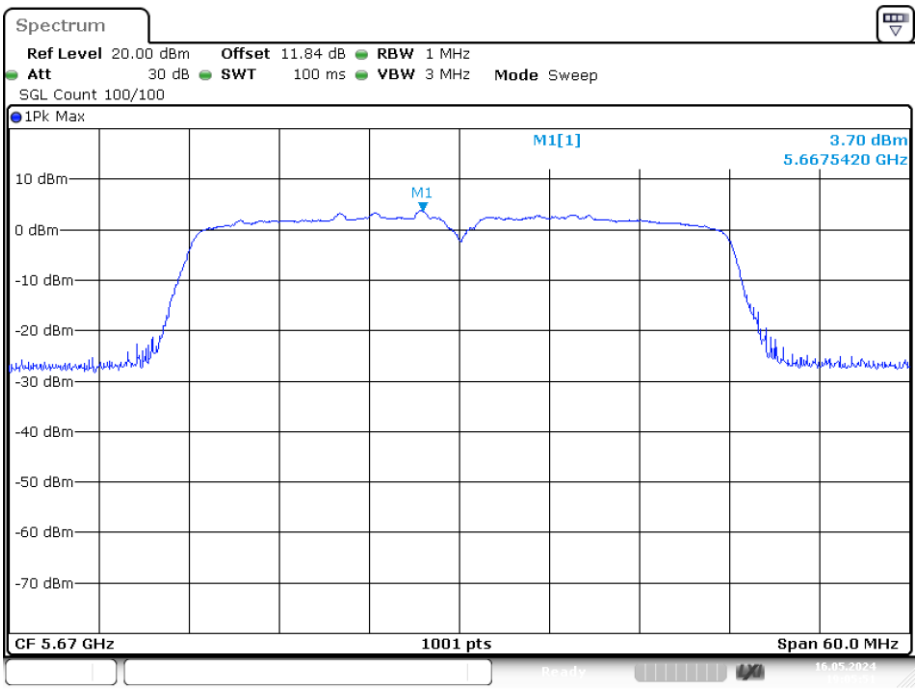
Date: 16.MAY.2024 18:59:13

PSD NVNT n40 5510MHz Ant1



Date: 16.MAY.2024 19:03:24

PSD NVNT n40 5670MHz Ant1



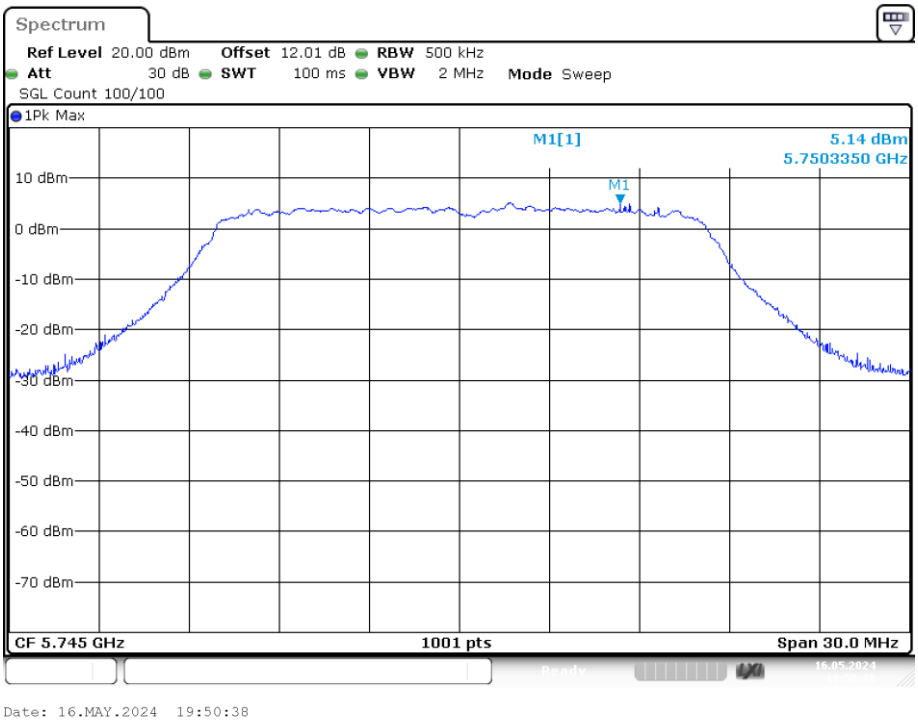
Date: 16.MAY.2024 19:05:51

Band 4 (5725 – 5850 MHz)

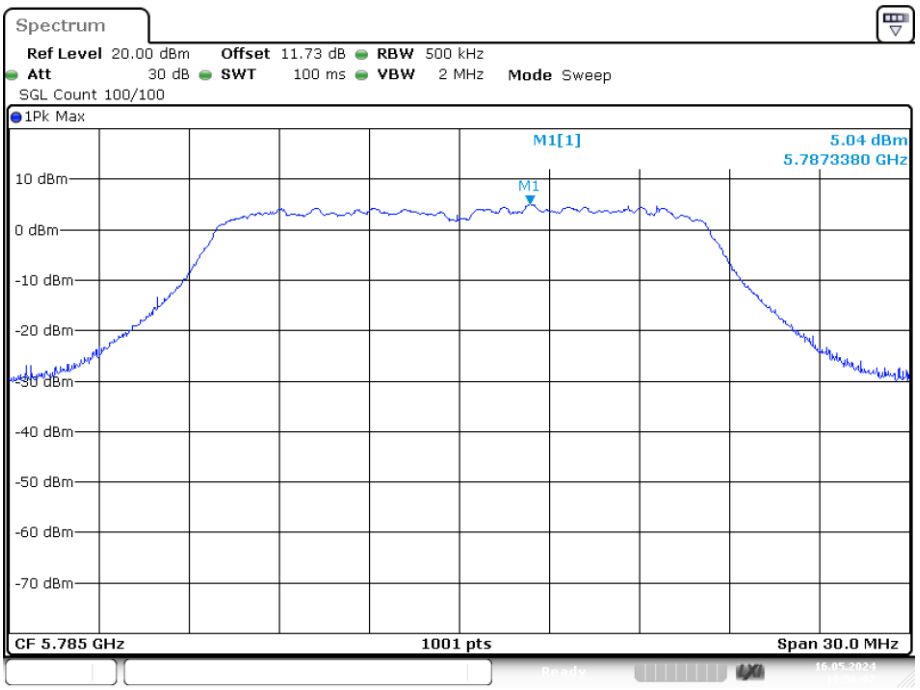
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	2.514	30	Pass
NVNT	a	5785	Ant1	2.409	30	Pass
NVNT	a	5825	Ant1	2.636	30	Pass
NVNT	n20	5745	Ant1	1.4	30	Pass
NVNT	n20	5785	Ant1	1.77	30	Pass
NVNT	n20	5825	Ant1	1.249	30	Pass
NVNT	n40	5755	Ant1	-1.684	30	Pass
NVNT	n40	5795	Ant1	-1.09	30	Pass

Note : Max PSD=EIRP PSD-G (The test value is EIRP PSD)

PSD NVNT a 5745MHz Ant1



PSD NVNT a 5785MHz Ant1



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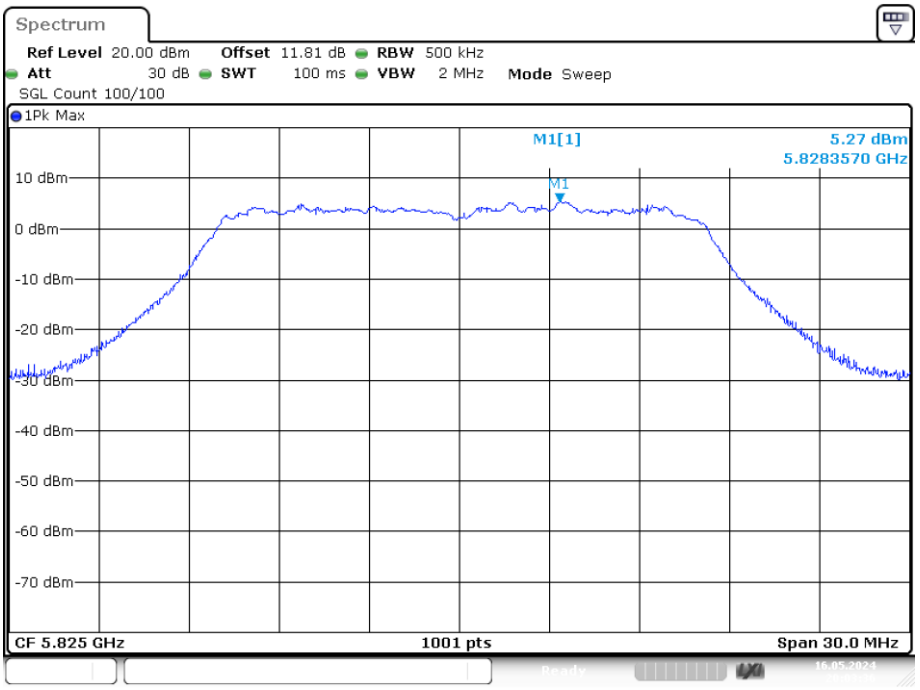
PSD NVNT a 5825MHz Ant1



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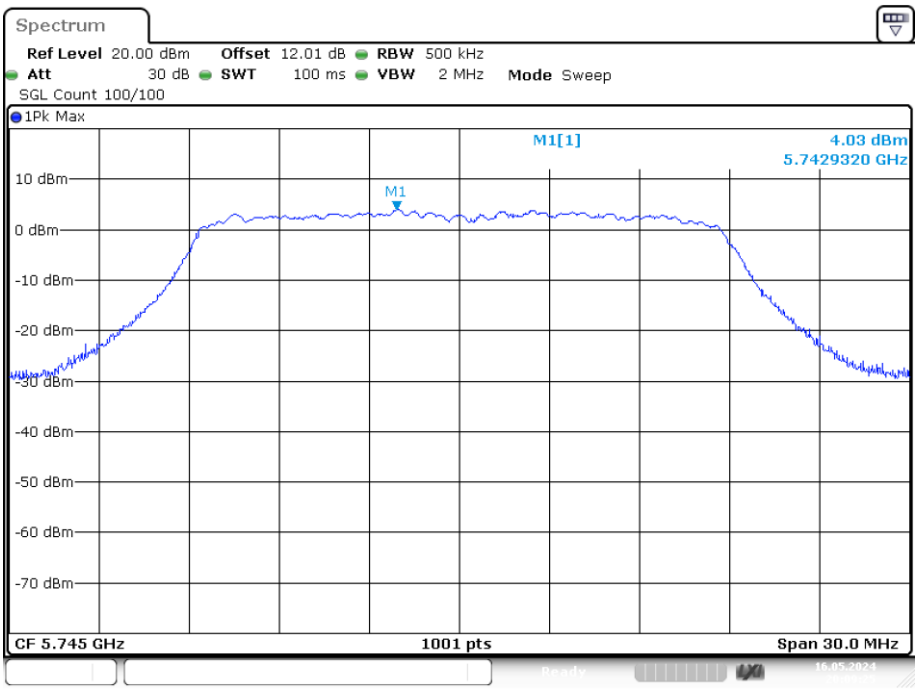
PSD NVNT n20 5745MHz Ant1



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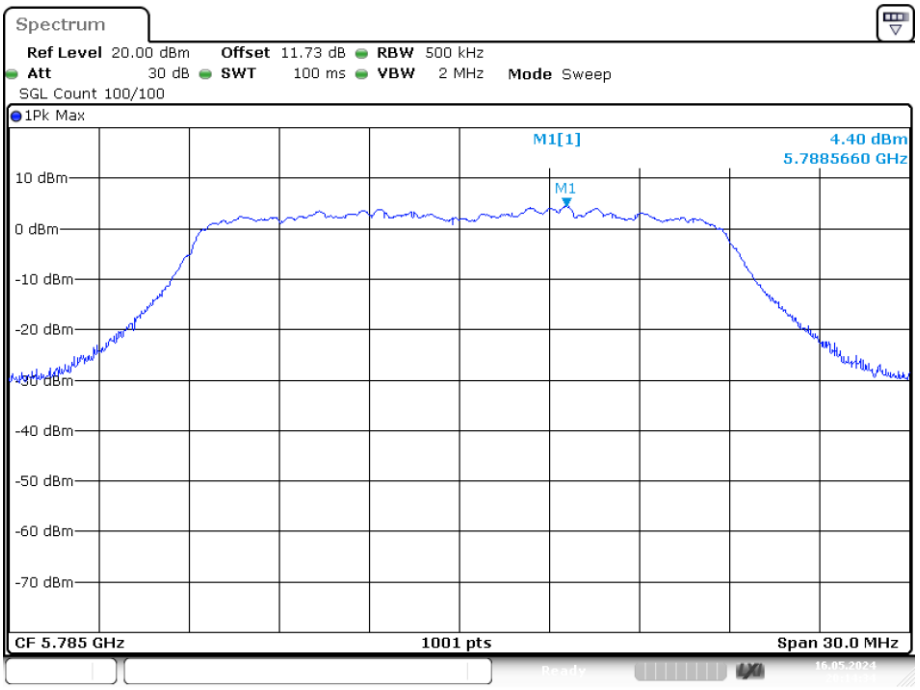
PSD NVNT n20 5785MHz Ant1



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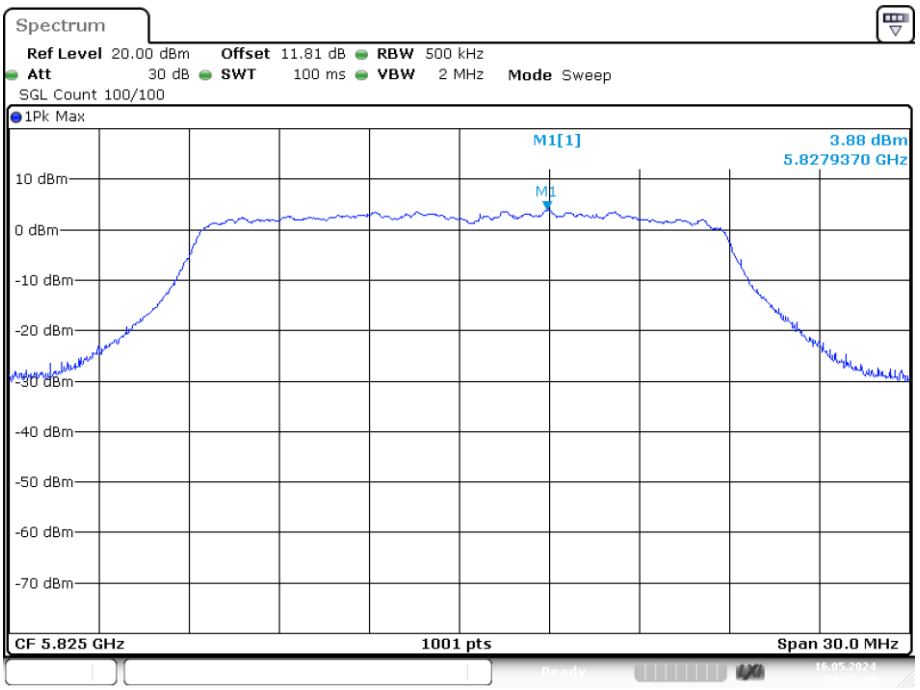
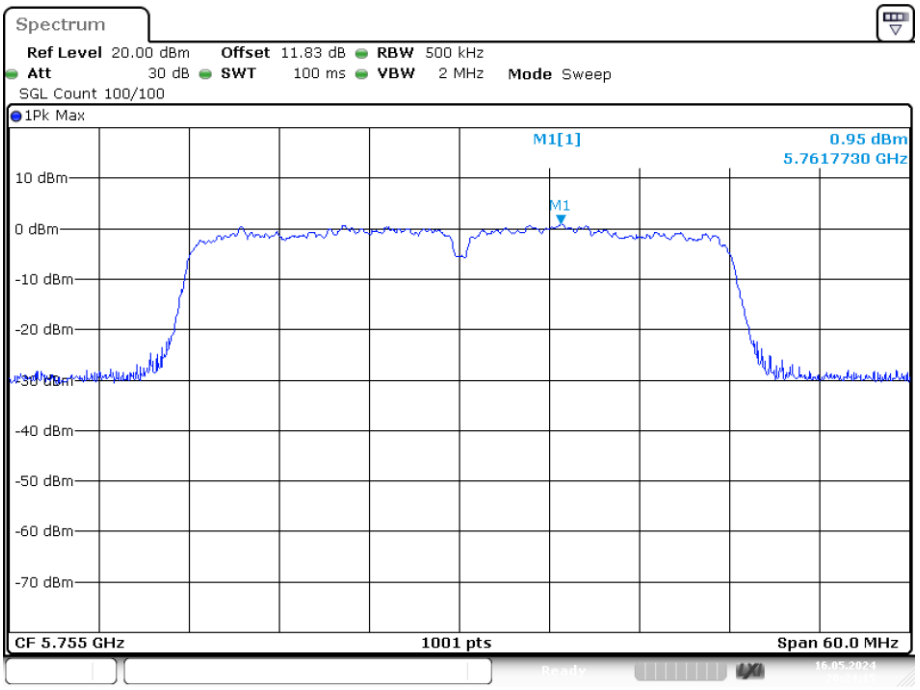
PSD NVNT n20 5825MHz Ant1



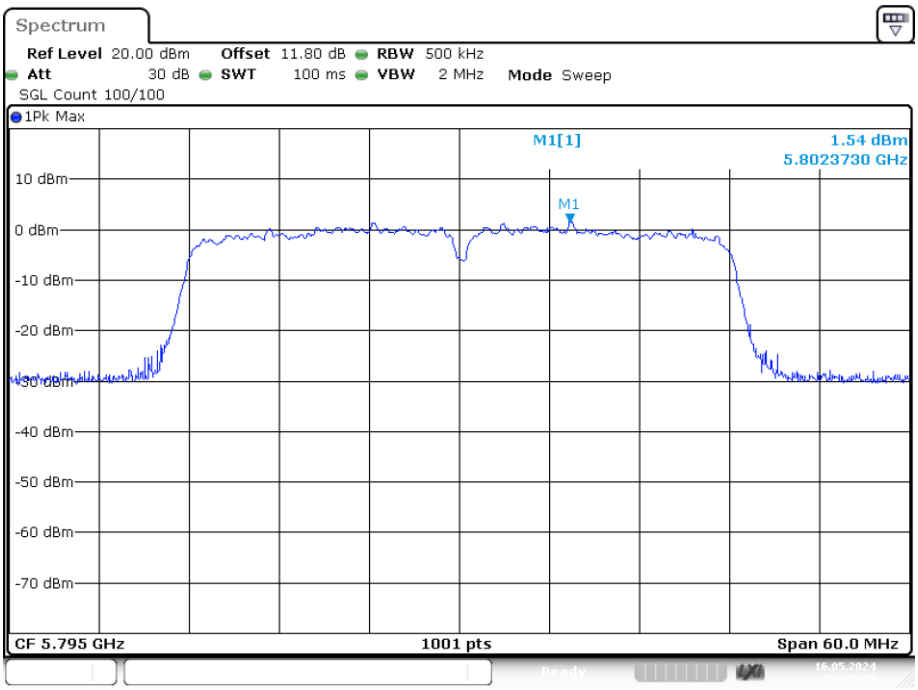
Date: 16.MAY.2024 20:18:23

PSD NVNT n40 5755MHz Ant1



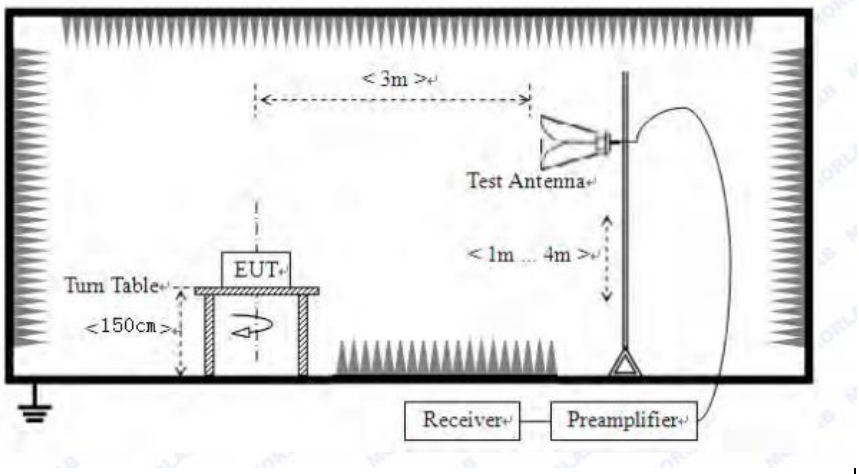
Date: 16.MAY.2024 20:24:16

PSD NVNT n40 5795MHz Ant1



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><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 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	36.64	17.18	53.82	68.20	-14.38	PK
V	5150.00	33.81	17.18	50.99	68.20	-17.21	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	24.29	17.18	41.47	54.00	-12.53	AV
V	5150.00	26.18	17.18	43.36	54.00	-10.64	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	36.37	17.18	53.56	68.20	-14.64	PK
V	5350.00	33.71	17.18	50.90	68.20	-17.30	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	25.16	17.18	42.35	54.00	-11.65	AV
V	5350.00	26.23	17.18	43.42	54.00	-10.58	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	37.23	17.18	54.44	68.20	-13.76	PK
V	5150.00	37.95	17.18	55.16	68.20	-13.04	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	25.79	17.18	43.00	54.00	-11.00	AV
V	5150.00	27.98	17.18	45.19	54.00	-8.81	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	38.93	17.18	56.14	68.20	-12.06	PK
V	5350.00	38.89	17.18	56.10	68.20	-12.10	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	27.53	17.18	44.74	54.00	-9.26	AV
V	5350.00	25.10	17.18	42.31	54.00	-11.69	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	35.68	17.18	52.86	68.20	-15.34	PK
V	5150.00	35.25	17.18	52.43	68.20	-15.77	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	26.07	17.18	43.25	54.00	-10.75	AV
V	5150.00	23.80	17.18	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	36.84	17.18	54.03	68.20	-14.17	PK
V	5350.00	37.24	17.18	54.43	68.20	-13.77	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	26.67	17.18	43.86	54.00	-10.14	AV
V	5350.00	23.84	17.18	41.03	54.00	-12.97	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	36.07	17.19	53.26	68.20	-14.94	PK
V	5150.00	34.20	17.19	51.39	68.20	-16.81	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	27.56	17.19	44.75	54.00	-9.25	AV
V	5150.00	23.71	17.19	40.90	54.00	-13.10	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	36.11	17.19	53.30	68.20	-14.90	PK
V	5350.00	34.07	17.19	51.26	68.20	-16.94	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	28.10	17.19	45.29	54.00	-8.71	AV
V	5350.00	24.58	17.19	41.77	54.00	-12.23	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	34.68	17.19	51.87	68.20	-16.33	PK
V	5150.00	35.30	17.19	52.49	68.20	-15.71	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	28.06	17.19	45.25	54.00	-8.75	AV
V	5150.00	24.50	17.19	41.69	54.00	-12.31	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	36.69	17.19	53.88	68.20	-14.32	PK
V	5350.00	34.55	17.19	51.74	68.20	-16.46	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	25.02	17.19	42.21	54.00	-11.79	AV
V	5350.00	25.54	17.19	42.73	54.00	-11.27	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	34.75	17.19	51.94	68.20	-16.26	PK
V	5150.00	34.47	17.19	51.66	68.20	-16.54	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	24.82	17.19	42.01	54.00	-11.99	AV
V	5150.00	26.64	17.19	43.83	54.00	-10.17	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	37.59	17.19	54.78	68.20	-13.42	PK
V	5350.00	35.89	17.19	53.08	68.20	-15.12	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	27.70	17.19	44.89	54.00	-9.11	AV
V	5350.00	24.06	17.19	41.25	54.00	-12.75	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	37.68	17.21	54.89	68.20	-13.31	PK
V	5470.00	35.46	17.21	52.67	68.20	-15.53	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	28.13	17.21	45.34	54.00	-8.66	AV
V	5470.00	26.83	17.21	44.04	54.00	-9.96	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	38.92	17.21	56.13	68.20	-12.07	PK
V	5725.00	37.85	17.21	55.06	68.20	-13.14	PK

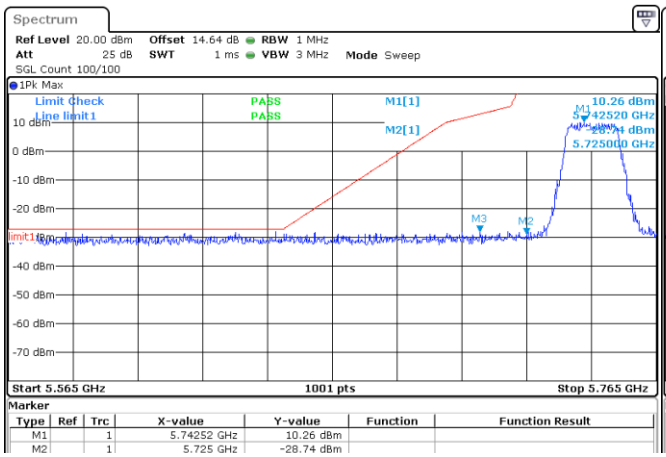
Mode:		802.11a		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5725.00	24.88	17.21	42.09	54.00	-11.91	AV
V	5725.00	27.42	17.21	44.63	54.00	-9.37	AV

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	35.71	17.21	52.92	68.20	-15.28	PK
V	5470.00	34.37	17.21	51.58	68.20	-16.62	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	25.87	17.21	43.08	54.00	-10.92	AV
V	5470.00	27.13	17.21	44.34	54.00	-9.66	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	38.78	17.21	55.99	68.20	-12.21	PK
V	5725.00	35.32	17.21	52.53	68.20	-15.67	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	27.83	17.21	45.04	54.00	-8.96	AV
V	5725.00	25.37	17.21	42.58	54.00	-11.42	AV

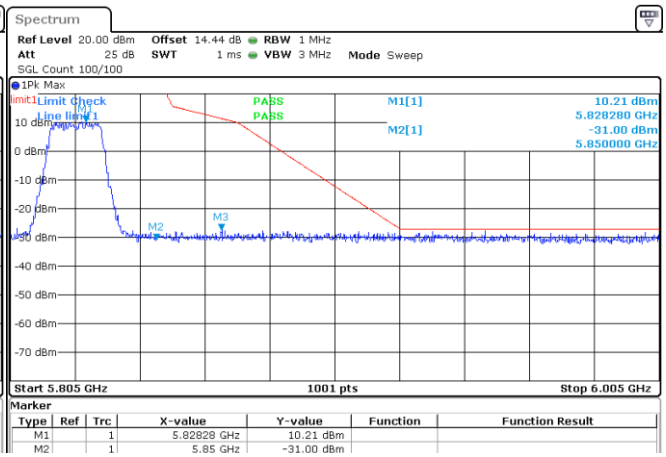
Mode:		802.11n(HT40)		Frequency:		5510MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	36.96	17.21	54.17	68.20	-14.03	PK
V	5470.00	35.76	17.21	52.97	68.20	-15.23	PK
Mode:		802.11n(HT40)		Frequency:		5510MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	28.75	17.21	45.96	54.00	-8.04	AV
V	5470.00	28.38	17.21	45.59	54.00	-8.41	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	38.44	17.21	55.65	68.20	-12.55	PK
V	5725.00	35.57	17.21	52.78	68.20	-15.42	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	27.80	17.21	45.01	54.00	-8.99	AV
V	5725.00	27.74	17.21	44.95	54.00	-9.05	AV

Band4

802.11a

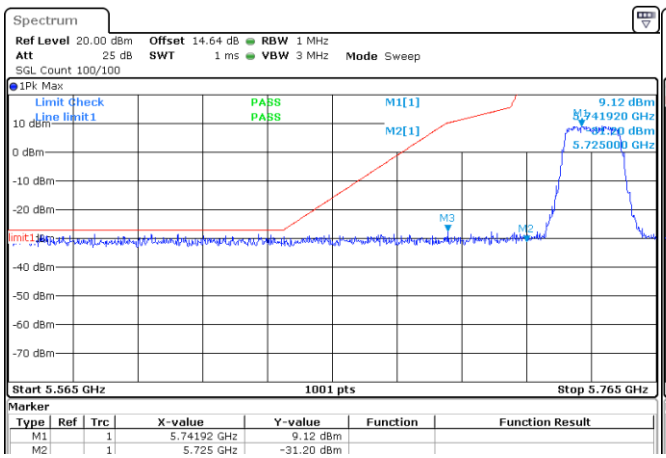


Low: 5745MHz

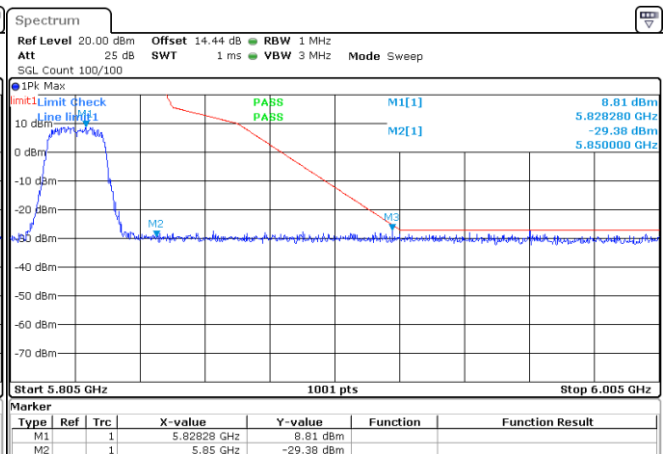


High: 5825MHz

802.11n(HT20)

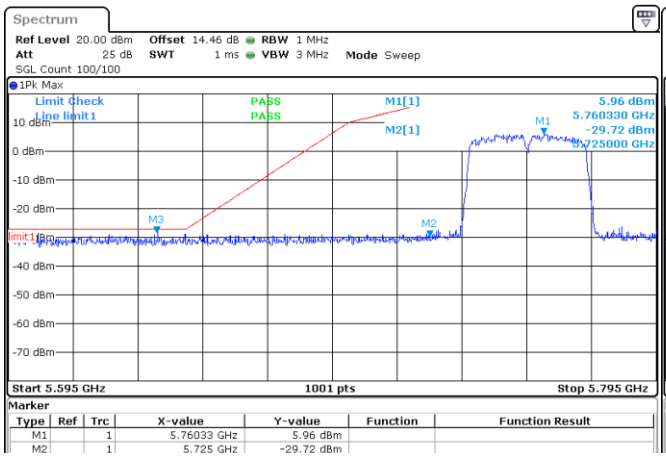


Low: 5745MHz

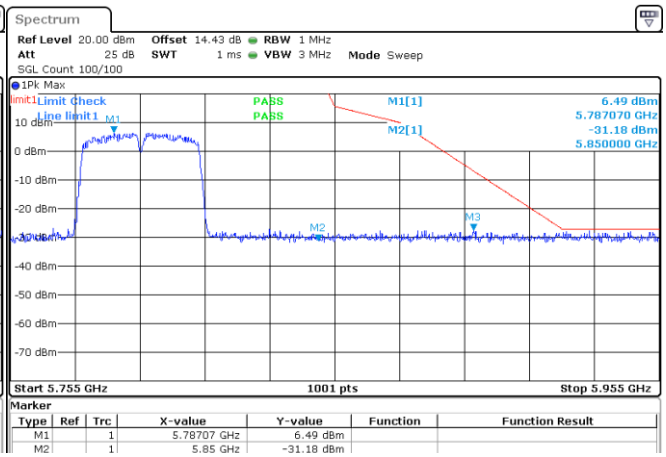


High: 5825MHz

802.11n(HT40)



Low: 5755MHz



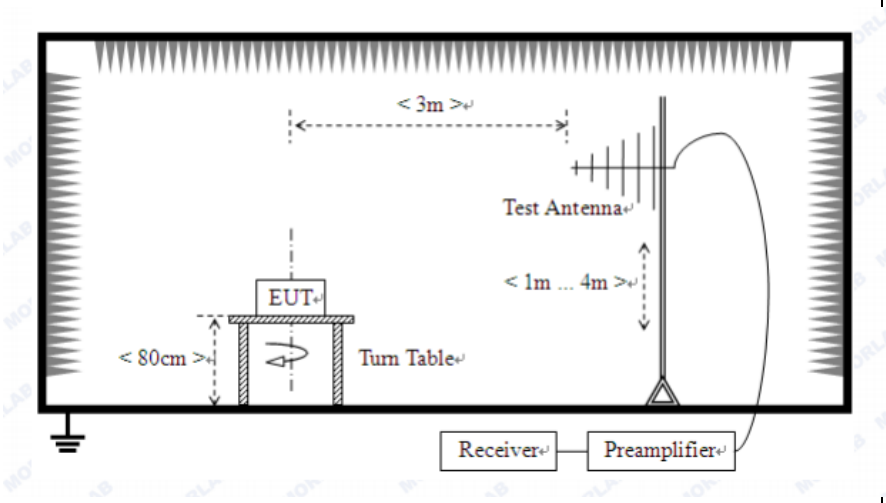
High: 5795MHz

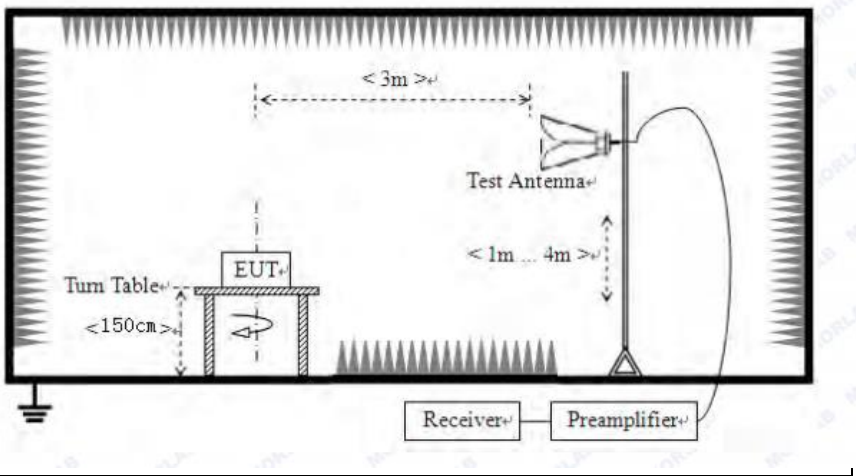
4.7 Radiated Emission

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.209 and 15.205</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10:2013</td></tr>
<tr><td>Test Frequency Range:</td><td>30MHz to 40GHz</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>Value</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>74.0</td><td>Peak Value</td></tr>
<tr><td>54.0</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Test Procedure:</td><td>
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.
</td></tr>
</table>

	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 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
33.89	47.75	11.25	0.59	30.08	29.51	40	-10.49	Vertical
54.95	40.97	11.93	0.81	29.96	23.75	40	-16.25	Vertical
121.97	46.62	9.4	1.36	29.57	27.81	43.5	-15.69	Vertical
173.67	43.38	8.5	1.7	29.31	24.27	43.5	-19.23	Vertical
441.62	37.69	16.29	3.05	29.41	27.62	46	-18.38	Vertical
858.81	33.29	21.83	4.69	29.14	30.67	46	-15.33	Vertical
63.53	35.54	8.73	0.9	29.89	15.28	40	-24.72	Horizontal
101.01	33.58	11.73	1.19	29.7	16.80	43.5	-26.70	Horizontal
270.18	45.17	12.53	2.22	29.79	30.13	46	-15.87	Horizontal
352.69	36.99	14.5	2.62	29.73	24.38	46	-21.62	Horizontal
626.91	35.71	19.43	3.83	29.27	29.70	46	-16.30	Horizontal
958.70	40.57	22.54	5.06	29.1	39.07	46	-6.93	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
10360.53	33.18	16.29	14.62	32.65	31.44	74	-42.56	Vertical
15540.81	33.56	21.83	17.66	34.46	38.59	74	-35.41	Vertical
10360.21	40.49	8.73	14.62	32.65	31.19	74	-42.81	Horizontal
15540.71	39.25	11.73	17.66	34.46	34.18	74	-39.82	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
10400.34	33.52	16.29	14.62	32.65	31.78	74	-42.22	Vertical
15600.44	34.44	21.83	17.66	34.46	39.47	74	-34.53	Vertical
10400.73	39.80	8.73	14.62	32.65	30.50	74	-43.50	Horizontal
15600.62	38.83	11.73	17.66	34.46	33.76	74	-40.24	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
10480.54	33.63	16.29	14.62	32.65	31.89	74	-42.11	Vertical
15720.60	33.76	21.83	17.66	34.46	38.79	74	-35.21	Vertical
10480.67	40.18	8.73	14.62	32.65	30.88	74	-43.12	Horizontal
15720.14	39.01	11.73	17.66	34.46	33.94	74	-40.06	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
10360.33	33.14	16.29	14.62	32.65	31.40	74	-42.60	Vertical
15540.57	34.06	21.83	17.66	34.46	39.09	74	-34.91	Vertical
10360.71	39.86	8.73	14.62	32.65	30.56	74	-43.44	Horizontal
15540.91	39.11	11.73	17.66	34.46	34.04	74	-39.96	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
10400.96	32.84	16.29	14.62	32.65	31.10	74	-42.90	Vertical
15600.81	34.17	21.83	17.66	34.46	39.20	74	-34.80	Vertical
10400.40	40.06	8.73	14.62	32.65	30.76	74	-43.24	Horizontal
15600.99	39.00	11.73	17.66	34.46	33.93	74	-40.07	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
10480.21	32.98	16.29	14.62	32.65	31.24	74	-42.76	Vertical
15720.45	33.73	21.83	17.66	34.46	38.76	74	-35.24	Vertical
10480.20	39.93	8.73	14.62	32.65	30.63	74	-43.37	Horizontal
15720.09	38.95	11.73	17.66	34.46	33.88	74	-40.12	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
10380.48	33.60	16.29	14.62	32.65	31.86	74	-42.14	Vertical
15570.32	33.56	21.83	17.66	34.46	38.59	74	-35.41	Vertical
10380.45	40.69	8.73	14.62	32.65	31.39	74	-42.61	Horizontal
15570.58	39.60	11.73	17.66	34.46	34.53	74	-39.47	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
10460.60	33.51	16.29	14.62	32.65	31.77	74	-42.23	Vertical
15690.32	34.00	21.83	17.66	34.46	39.03	74	-34.97	Vertical
10460.93	40.52	8.73	14.62	32.65	31.22	74	-42.78	Horizontal
15690.29	39.64	11.73	17.66	34.46	34.57	74	-39.43	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)
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 3.0V	5179.988	12	5240.000	10
	DC 3.3V	5179.990	10	5239.990	10
	DC 3.6V	5179.987	13	5239.991	9
Mode	Voltage (V)	FHL (5260MHz)	Deviation (KHz)	FHH (5320MHz)	Deviation (KHz)
Band 2 (5250-5350 MHz)	DC 3.0V	5260.000	13	5320.000	14
	DC 3.3V	5259.987	13	5319.985	15
	DC 3.6V	5259.991	9	5319.989	11
Mode	DC 5.0V	FHL (5500MHz)	Deviation (KHz)	FHH (5700MHz)	Deviation (KHz)
Band 3 (5470-5725 MHz)	DC 3.0V	5500.000	13	5699.989	11
	DC 3.3V	5499.985	15	5699.990	10
	DC 3.6V	5499.989	11	5699.987	13
Mode	Voltage (V)	FHL (5745MHz)	Deviation (KHz)	FHH (5825MHz)	Deviation (KHz)
Band 4 (5725-5850 MHz)	DC 3.0V	5744.988	12	5824.988	12
	DC 3.3V	5744.988	12	5824.986	14
	DC 3.6V	5744.987	13	5824.990	10

Mode	Temperature (℃)	FHL (5180MHz)	Deviation (KHz)	FHH (5240MHz)	Deviation (KHz)
Band 1 (5150-5250 MHz)	0℃	5179.991	9	5239.990	10
	+10℃	5179.989	11	5239.991	9
	+20℃	5179.990	10	5239.990	10
	+30℃	5179.994	6	5239.989	11
	+40℃	5179.989	11	5239.988	12
	+50℃	5179.995	5	5239.995	5
	+60℃	5179.986	14	5239.989	11
	+70℃	5179.986	14	5239.990	10

Mode	Temperature (℃)	FHL (5260MHz)	Deviation (KHz)	FHH (5320MHz)	Deviation (KHz)
Band 2 (5250-5350 MHz)	0℃	5259.985	15	5319.990	10
	+10℃	5259.990	10	5319.986	14
	+20℃	5259.988	12	5319.989	11
	+30℃	5259.990	10	5319.993	7
	+40℃	5259.988	12	5319.989	11
	+50℃	5259.996	4	5319.995	5
	+60℃	5259.990	10	5319.988	12
	+70℃	5259.990	10	5319.987	13
Mode	Temperature (℃)	FHL (5500MHz)	Deviation (KHz)	FHH (5700MHz)	Deviation (KHz)
Band 3 (5470-5725 MHz)	0℃	5499.986	14	5699.985	15
	+10℃	5499.986	14	5699.987	13
	+20℃	5499.988	12	5699.992	8
	+30℃	5499.989	11	5699.992	8
	+40℃	5499.989	11	5699.987	13
	+50℃	5499.994	6	5699.992	8
	+60℃	5499.987	13	5699.990	10
	+70℃	5499.986	14	5699.989	11
Mode	Temperature (℃)	FHL (5745MHz)	Deviation (KHz)	FHH (5825MHz)	Deviation (KHz)
Band 4 (5725-5850 MHz)	0℃	5744.987	13	5824.988	12
	+10℃	5744.989	11	5824.986	14
	+20℃	5744.987	13	5824.992	8
	+30℃	5744.989	11	5824.993	7
	+40℃	5744.986	14	5824.991	9
	+50℃	5744.992	8	5824.993	7
	+60℃	5744.987	13	5824.988	12
	+70℃	5744.985	15	5824.986	14

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