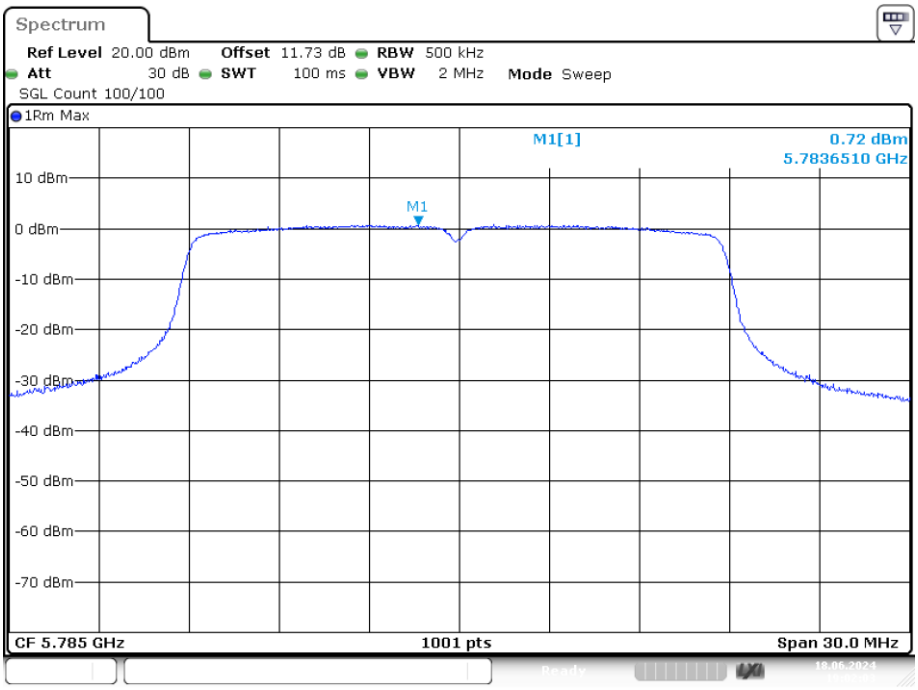
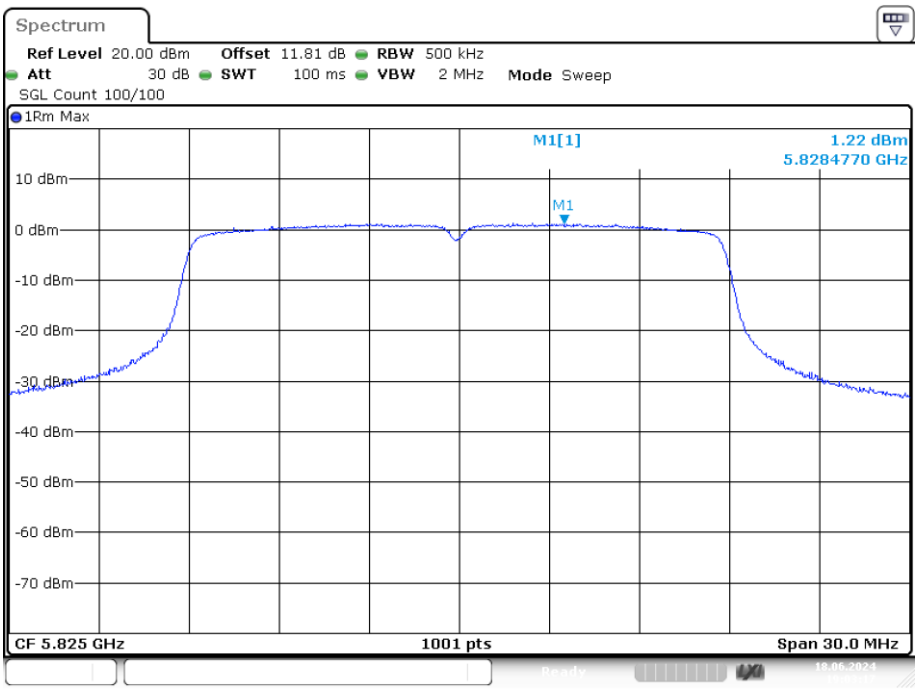
PSD NVNT ac20 5785MHz Ant2



Date: 18.JUN.2024 19:02:03

PSD NVNT ac20 5825MHz Ant2



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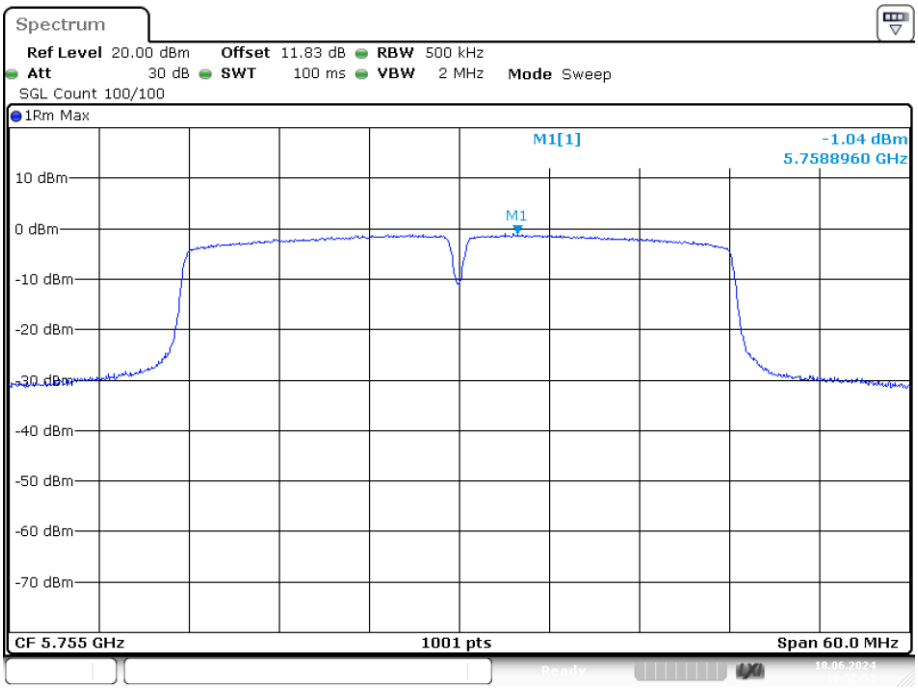
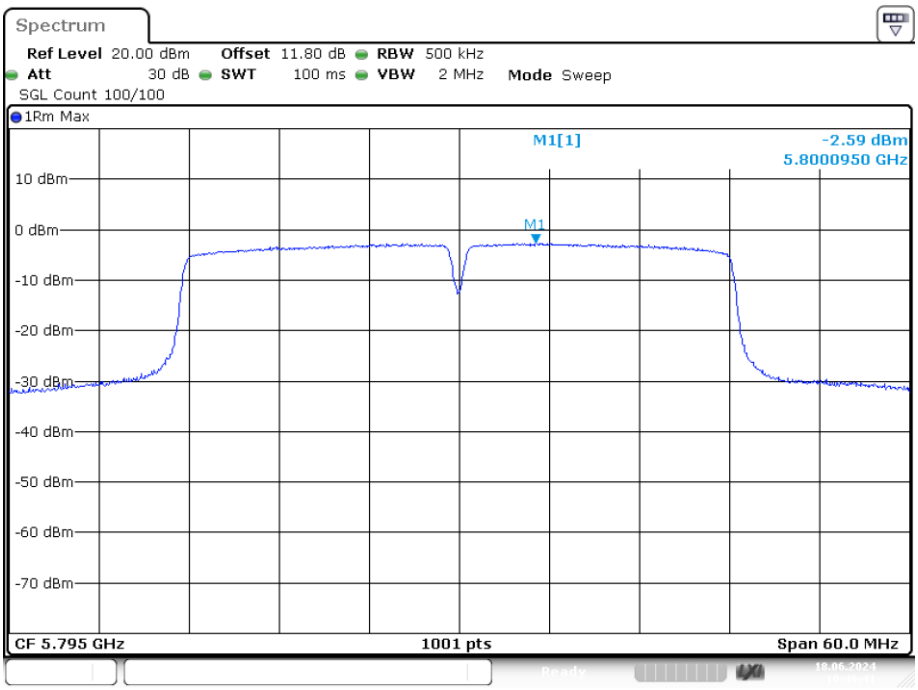
PSD NVNT ac40 5755MHz Ant2



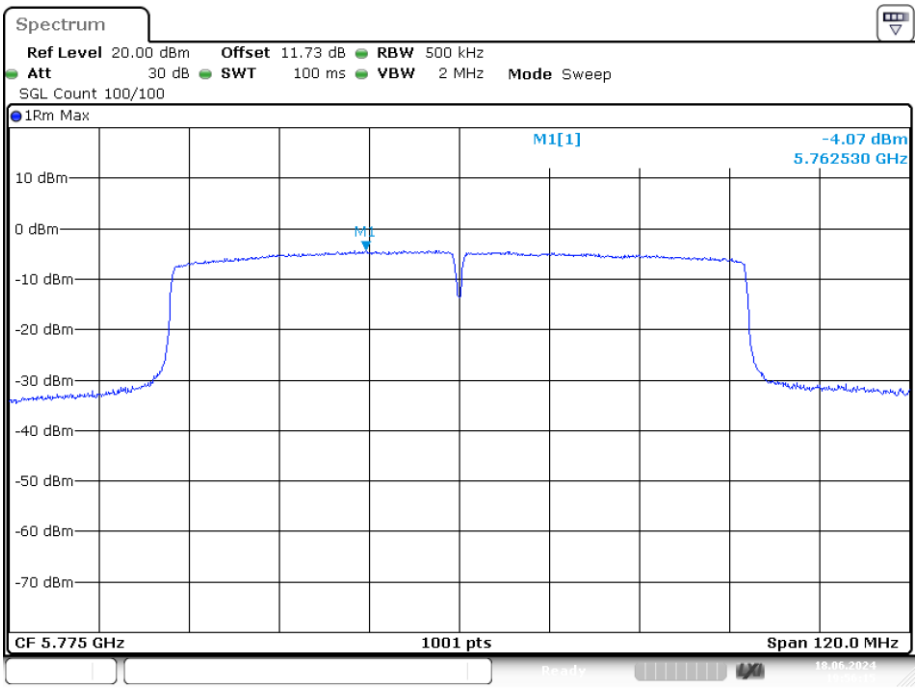
Date: 18.JUN.2024 19:52:52

PSD NVNT ac40 5795MHz Ant2



Date: 18.JUN.2024 19:49:42

PSD NVNT ac80 5775MHz Ant2



Date: 18.JUN.2024 19:56:15

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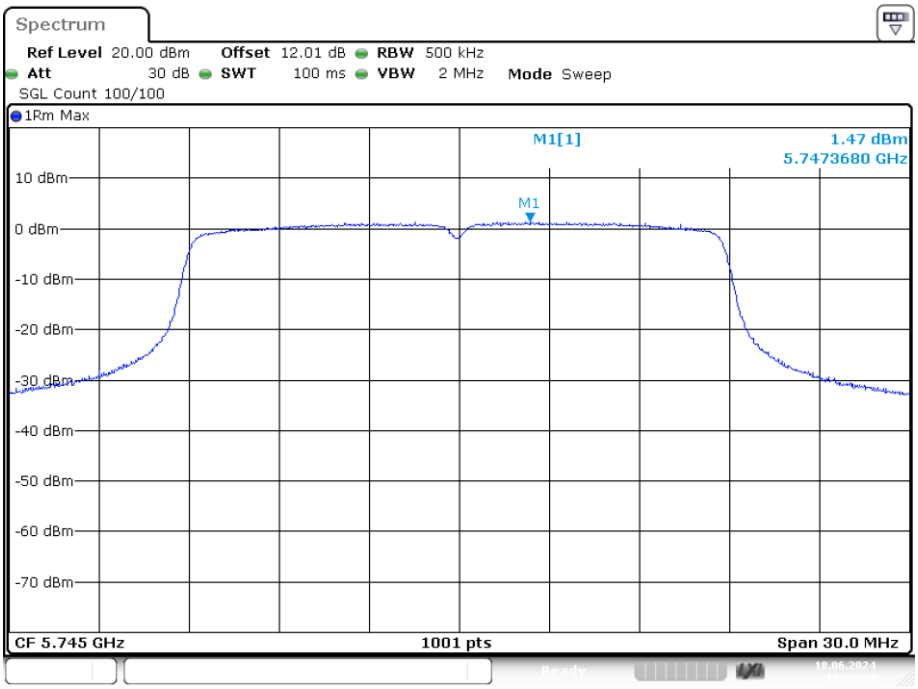

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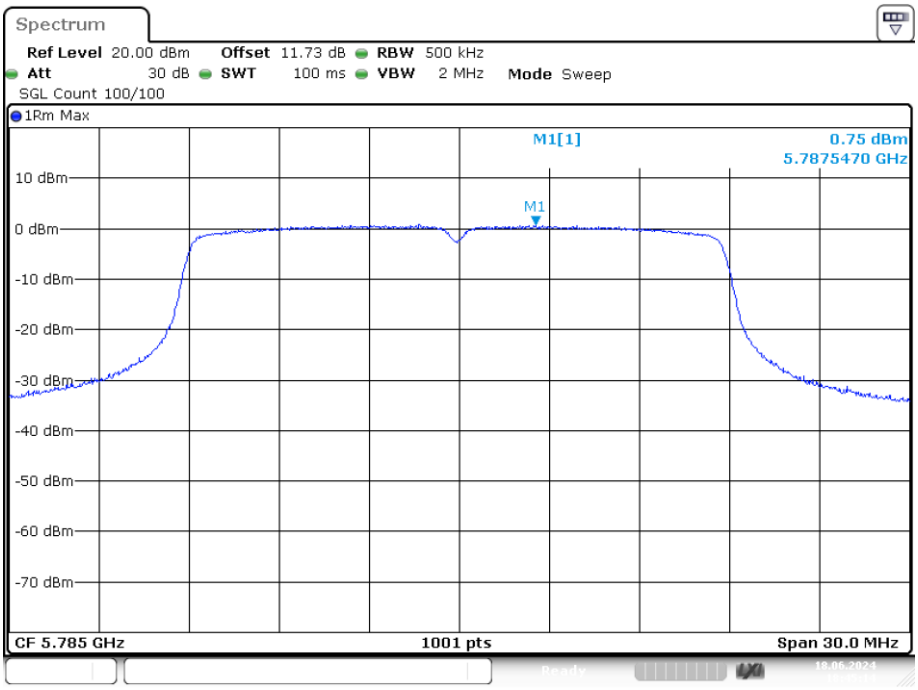

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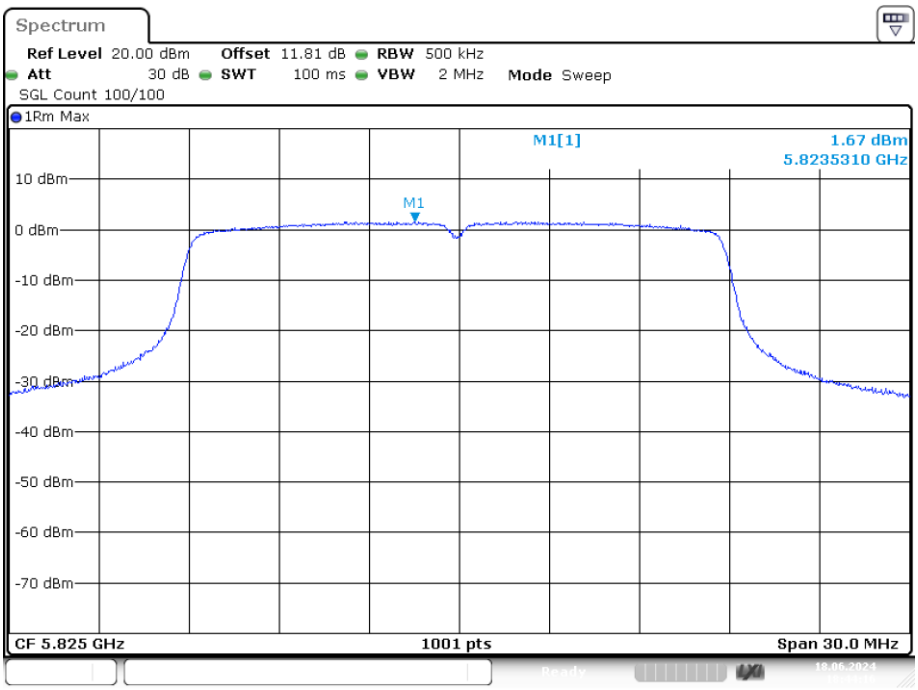

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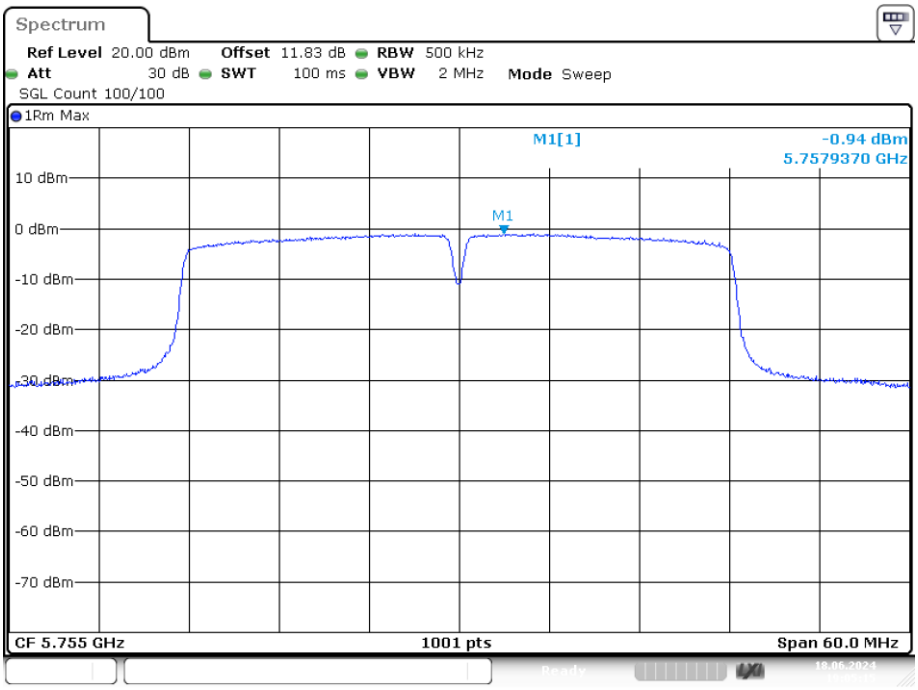
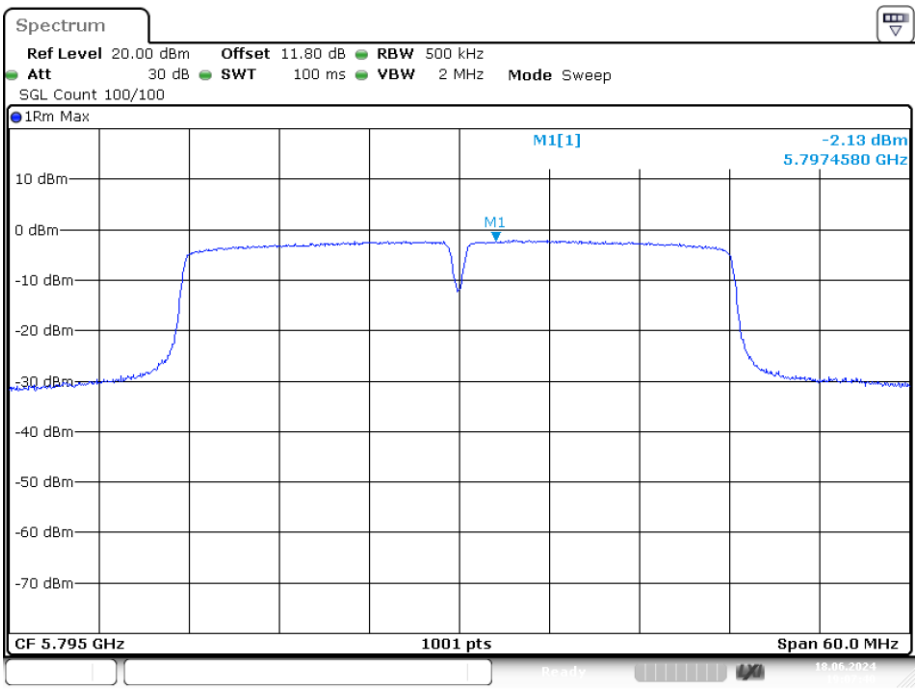


Date: 18.JUN.2024 19:05:16

PSD NVNT n40 5795MHz Ant2



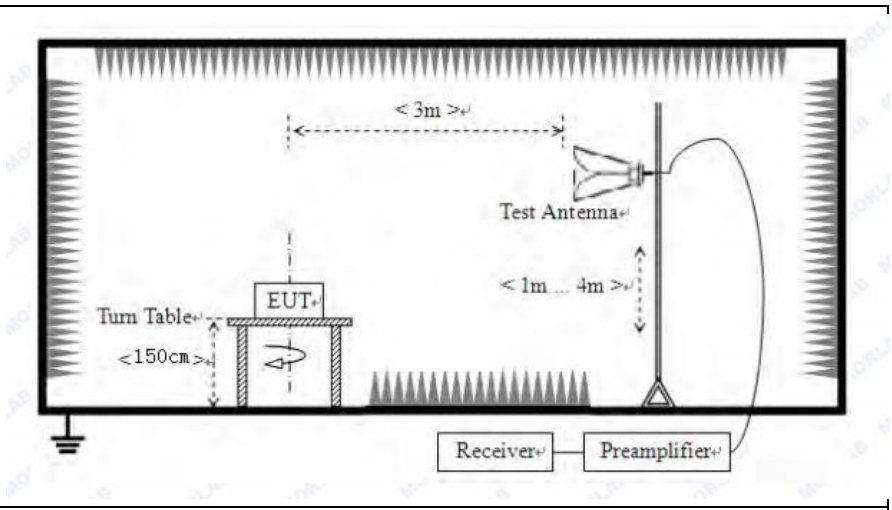
Date: 18.JUN.2024 19:07:40

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	ac20	5745	MIMO	4.445	27.16	Pass
NVNT	ac20	5785	MIMO	3.807	27.16	Pass
NVNT	ac20	5825	MIMO	4.442	27.16	Pass
NVNT	ac40	5755	MIMO	1.929	27.16	Pass
NVNT	ac40	5795	MIMO	0.786	27.16	Pass
NVNT	ac80	5775	MIMO	-1.195	27.16	Pass
NVNT	n20	5745	MIMO	4.210	27.16	Pass
NVNT	n20	5785	MIMO	3.720	27.16	Pass
NVNT	n20	5825	MIMO	4.583	27.16	Pass
NVNT	n40	5755	MIMO	2.009	27.16	Pass
NVNT	n40	5795	MIMO	1.106	27.16	Pass

Note: 1. Directional gain=8.84dBi, so the Conducted Power Limit need to reduce 2.84.

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 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	35.97	17.21	53.18	68.20	-15.02	PK
V	5150.00	36.07	17.21	53.28	68.20	-14.92	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	25.13	17.18	42.31	54.00	-11.69	AV
V	5150.00	26.80	17.18	43.98	54.00	-10.02	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	33.96	17.21	51.17	68.20	-17.03	PK
V	5350.00	33.93	17.21	51.14	68.20	-17.06	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	30.02	17.18	47.20	54.00	-6.80	AV
V	5350.00	23.68	17.18	40.86	54.00	-13.14	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	37.29	17.21	54.50	68.20	-13.70	PK
V	5150.00	35.03	17.21	52.24	68.20	-15.96	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	22.79	17.18	39.97	54.00	-14.03	AV
V	5150.00	24.54	17.18	41.72	54.00	-12.28	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	35.37	17.21	52.58	68.20	-15.62	PK
V	5350.00	35.89	17.21	53.10	68.20	-15.10	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	28.11	17.18	45.29	54.00	-8.71	AV
V	5350.00	26.22	17.18	43.40	54.00	-10.60	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	35.62	17.21	52.83	68.20	-15.37	PK
V	5150.00	35.90	17.21	53.11	68.20	-15.09	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	24.98	17.18	42.16	54.00	-11.84	AV
V	5150.00	26.43	17.18	43.61	54.00	-10.39	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	35.55	17.21	52.76	68.20	-15.44	PK
V	5350.00	34.83	17.21	52.04	68.20	-16.16	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	28.24	17.18	45.42	54.00	-8.58	AV
V	5350.00	25.29	17.18	42.47	54.00	-11.53	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	38.80	17.21	56.01	68.20	-12.19	PK
V	5150.00	35.14	17.21	52.35	68.20	-15.85	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	23.38	17.18	40.56	54.00	-13.44	AV
V	5150.00	24.81	17.18	41.99	54.00	-12.01	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	34.63	17.21	51.84	68.20	-16.36	PK
V	5350.00	33.84	17.21	51.05	68.20	-17.15	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	30.42	17.18	47.60	54.00	-6.40	AV
V	5350.00	22.91	17.18	40.09	54.00	-13.91	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	37.44	17.21	54.65	68.20	-13.55	PK
V	5150.00	36.28	17.21	53.49	68.20	-14.71	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	24.29	17.18	41.47	54.00	-12.53	AV
V	5150.00	24.60	17.18	41.78	54.00	-12.22	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	34.86	17.21	52.07	68.20	-16.13	PK
V	5350.00	33.41	17.21	50.62	68.20	-17.58	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	28.93	17.18	46.11	54.00	-7.89	AV
V	5350.00	23.76	17.18	40.94	54.00	-13.06	AV

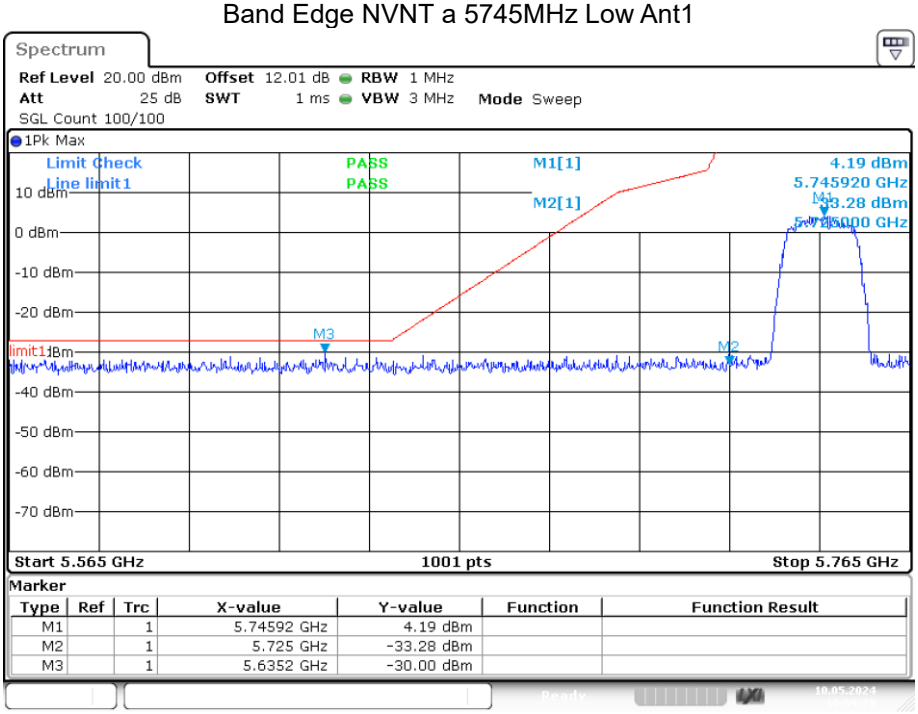
Mode:		802.11ac(HT80)		Frequency:		5210MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	38.51	17.21	55.72	68.20	-12.48	PK
V	5150.00	36.65	17.21	53.86	68.20	-14.34	PK
Mode:		802.11ac(HT80)		Frequency:		5210MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	23.48	17.18	40.66	54.00	-13.34	AV
V	5150.00	24.09	17.18	41.27	54.00	-12.73	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	37.58	17.21	54.79	68.20	-13.41	PK
V	5350.00	35.13	17.21	52.34	68.20	-15.86	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	28.59	17.18	45.77	54.00	-8.23	AV
V	5350.00	25.56	17.18	42.74	54.00	-11.26	AV

Note: 1. Except for mode a, other modes test the MIMO status.

2. All antennas have been tested, only the worst data of each pattern is reflected.（antenna 1）

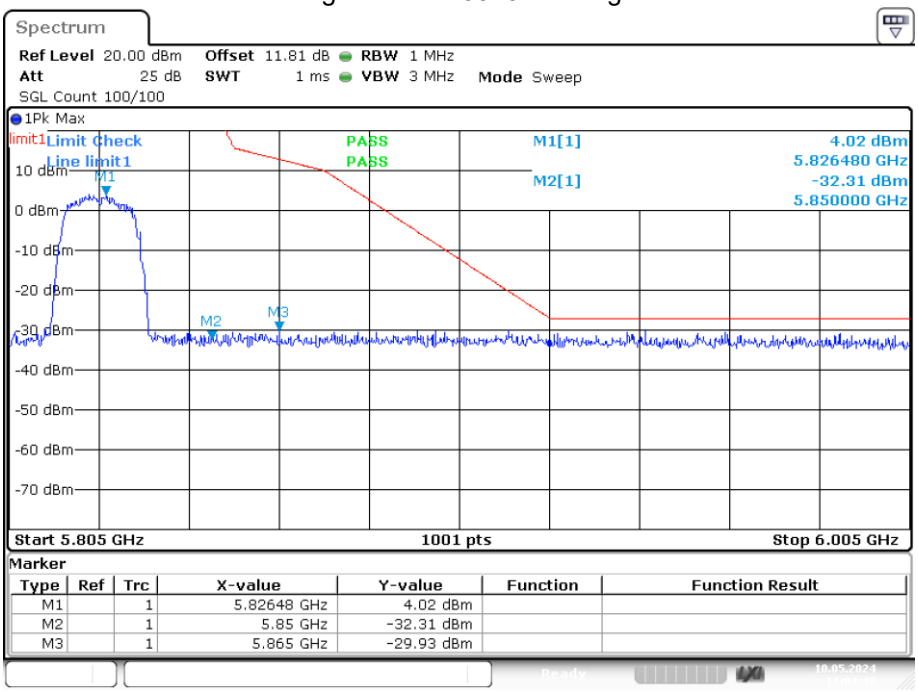
Band4

Band Edge NVNT a 5745MHz Low Ant1



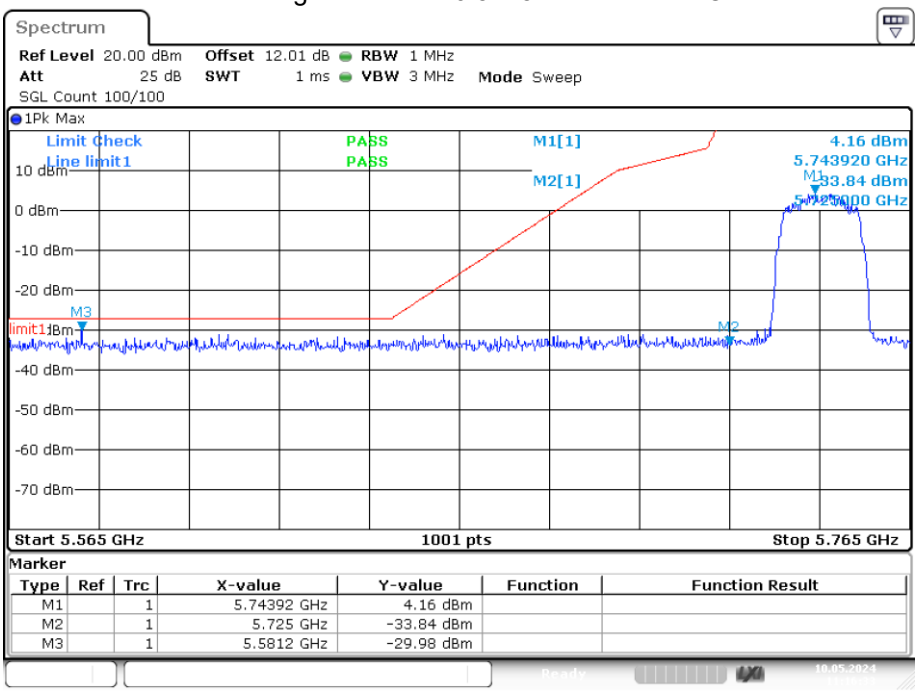
Date: 10.MAY.2024 10:59:29

Band Edge NVNT a 5825MHz High Ant1



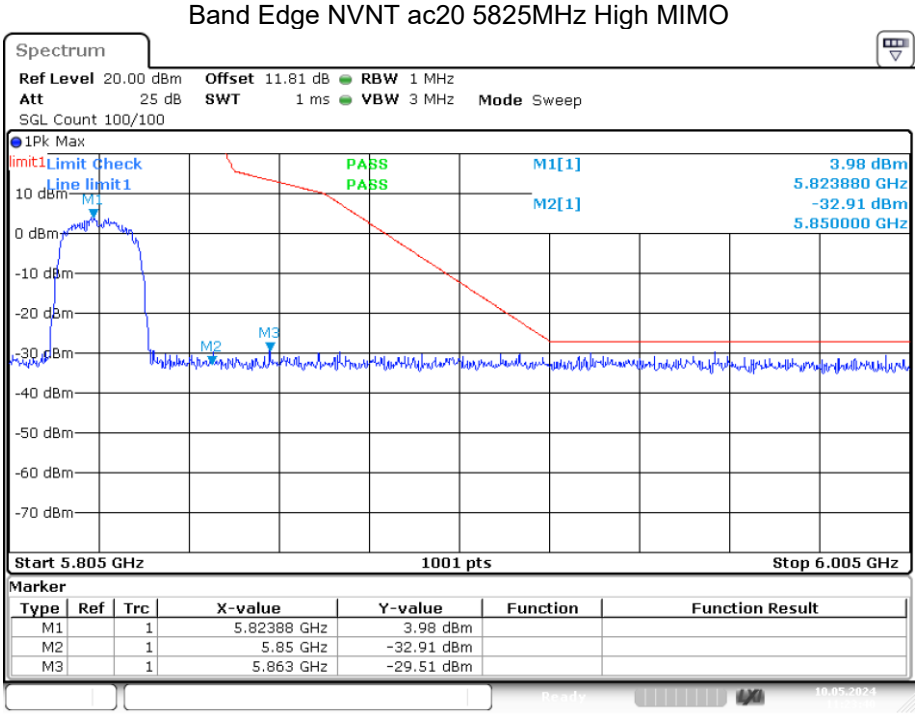
Date: 10.MAY.2024 11:04:47

Band Edge NVNT ac20 5745MHz Low MIMO



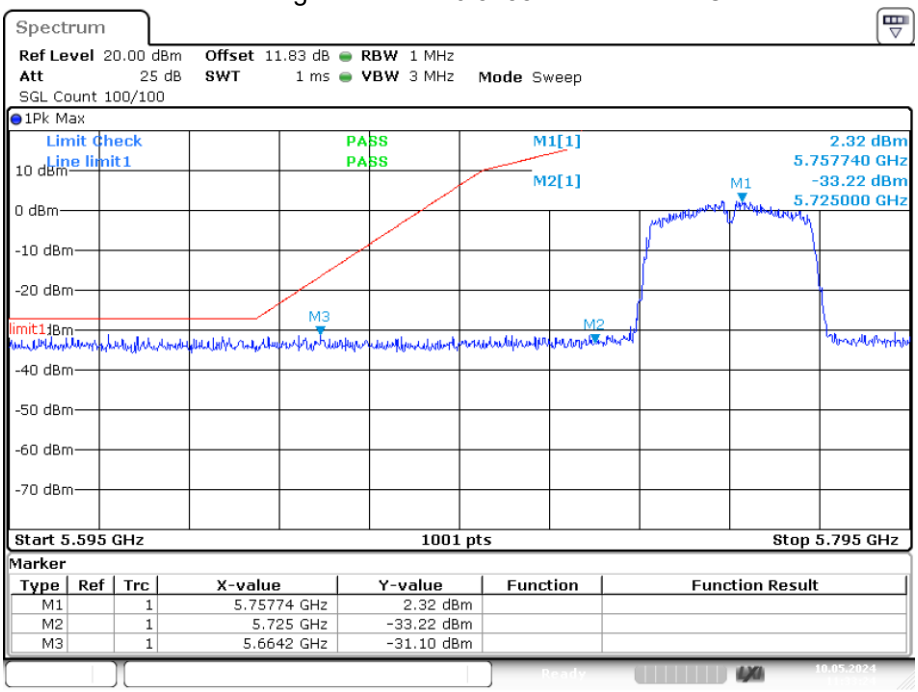
Date: 10.MAY.2024 11:16:33

Band Edge NVNT ac20 5825MHz High MIMO



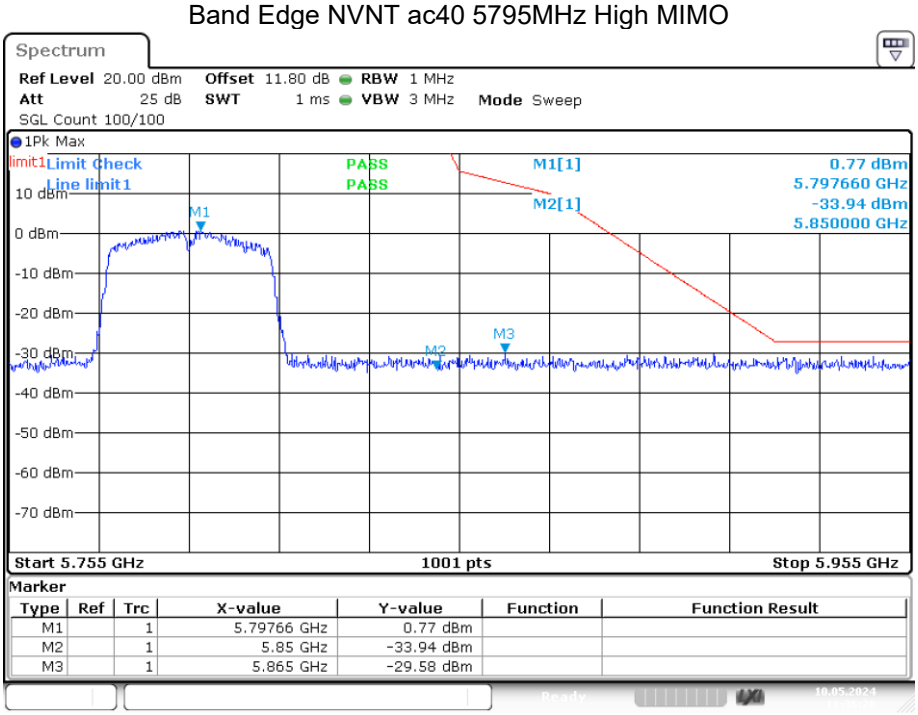
Date: 10.MAY.2024 11:23:40

Band Edge NVNT ac40 5755MHz Low MIMO



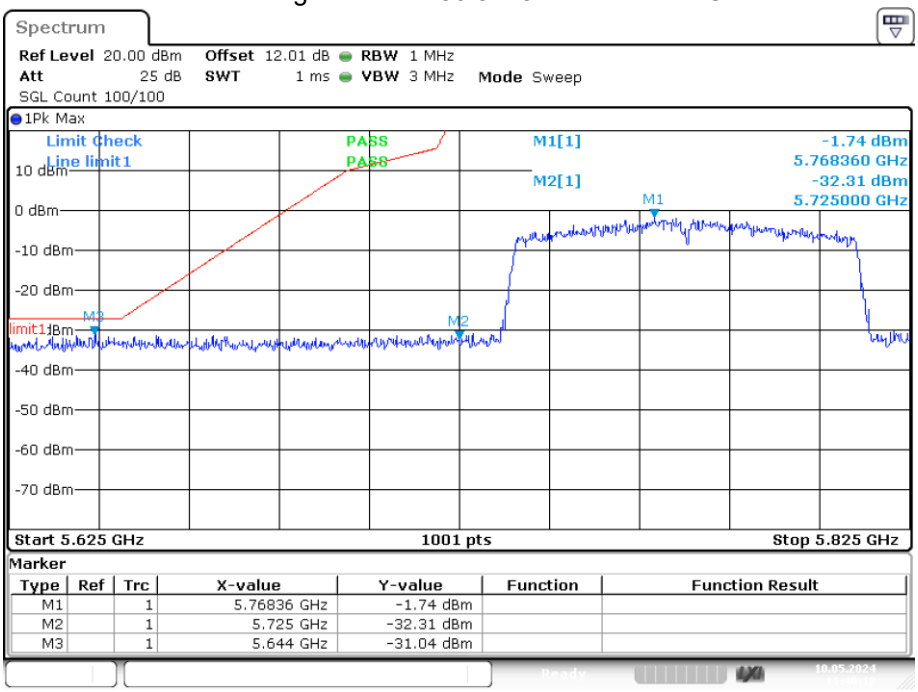
Date: 10.MAY.2024 11:33:24

Band Edge NVNT ac40 5795MHz High MIMO



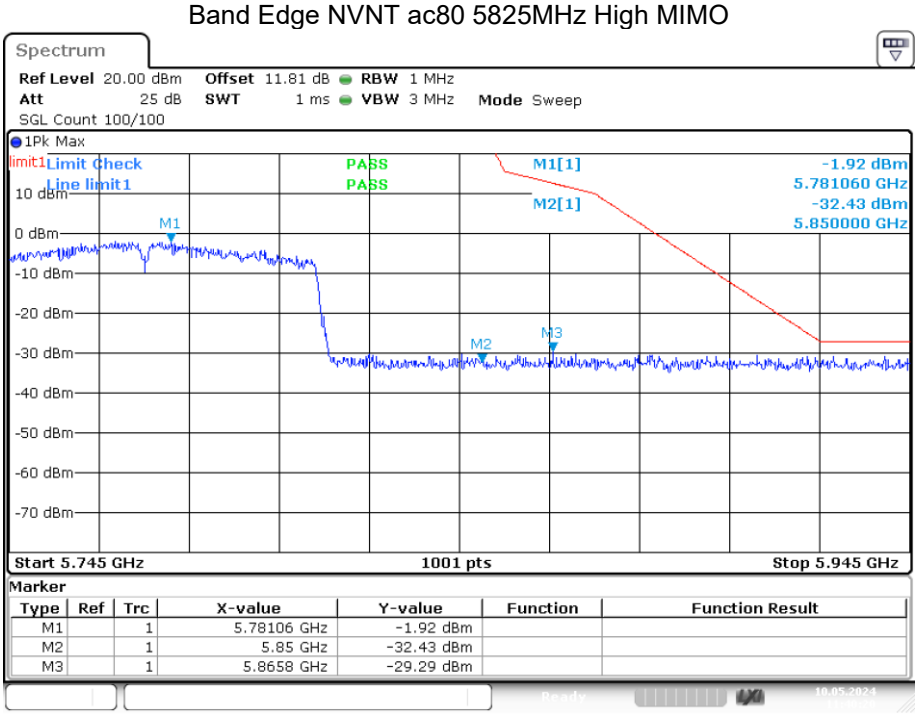
Date: 10.MAY.2024 11:36:26

Band Edge NVNT ac80 5745MHz Low MIMO



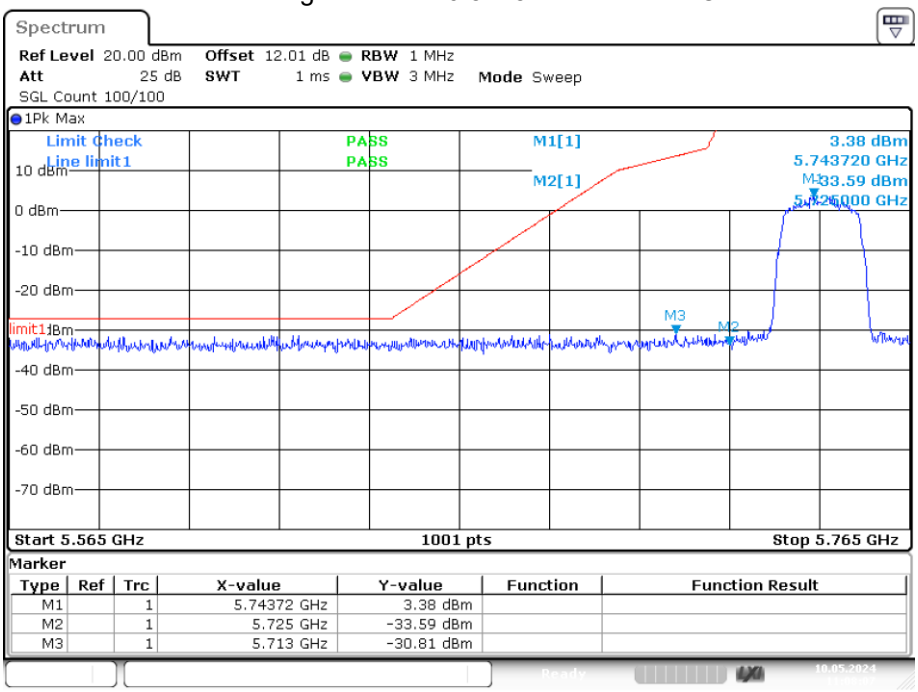
Date: 10.MAY.2024 11:40:12

Band Edge NVNT ac80 5825MHz High MIMO



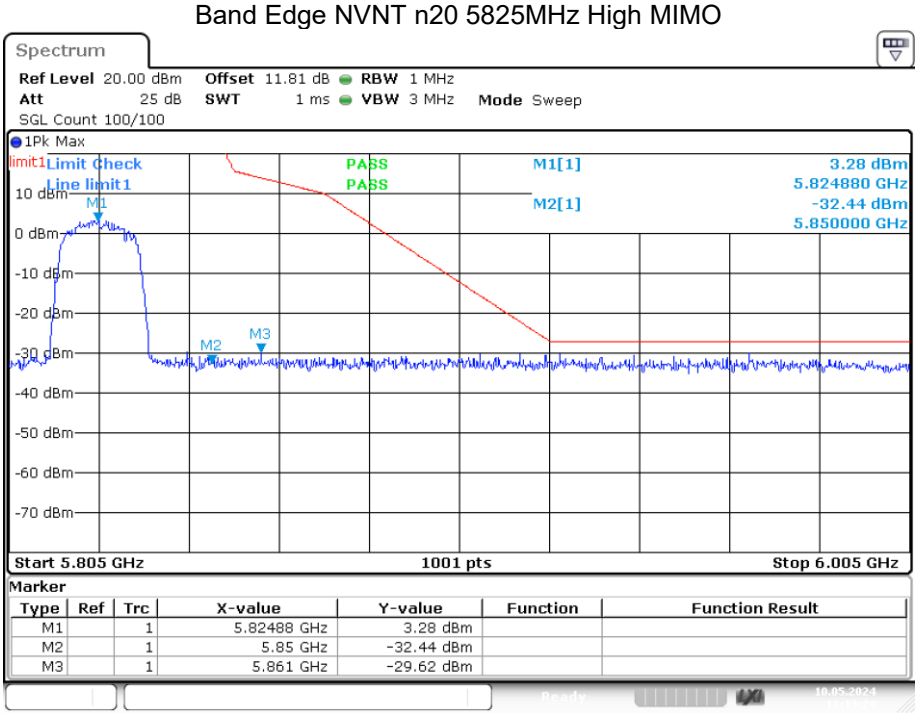
Date: 10.MAY.2024 11:40:20

Band Edge NVNT n20 5745MHz Low MIMO



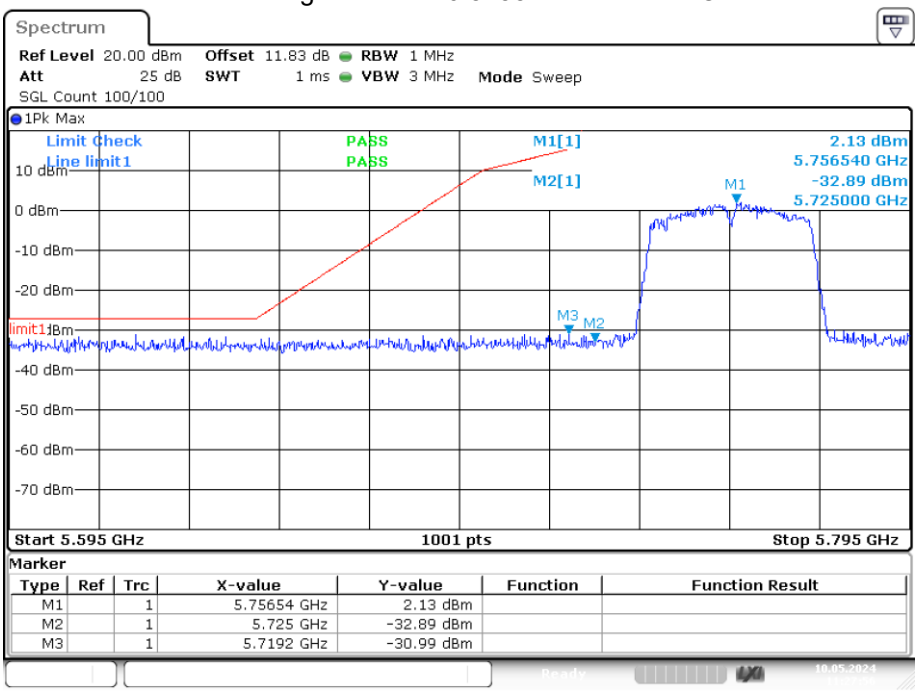
Date: 10.MAY.2024 11:08:07

Band Edge NVNT n20 5825MHz High MIMO



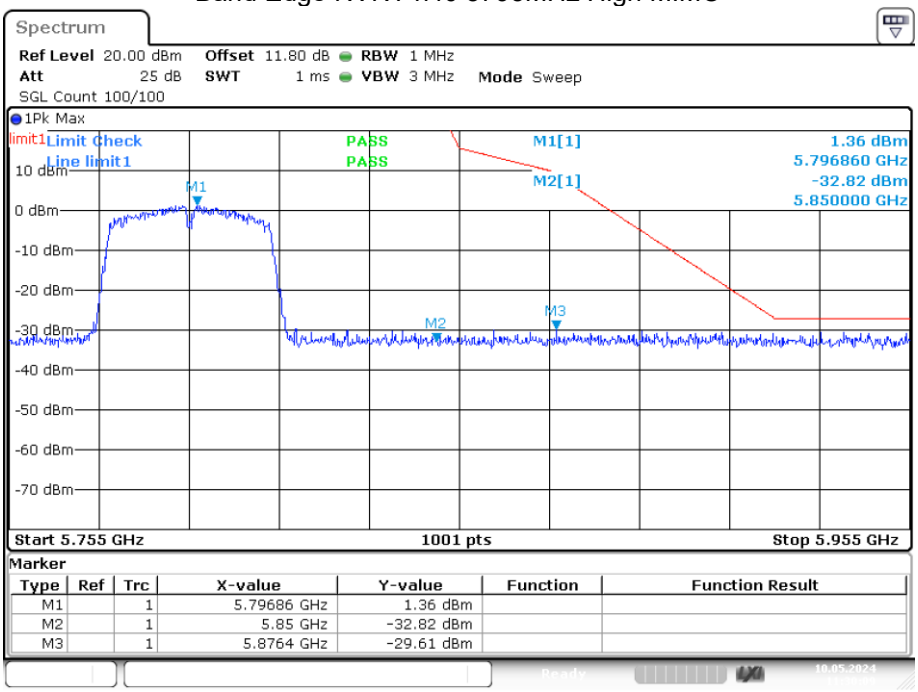
Date: 10.MAY.2024 11:13:23

Band Edge NVNT n40 5755MHz Low MIMO



Date: 10.MAY.2024 11:27:56

Band Edge NVNT n40 5795MHz High MIMO



Date: 10.MAY.2024 11:30:10

Note: 1. Except for mode a, other modes test the MIMO status.

2. All antennas have been tested, only the worst data of each pattern is reflected.（antenna 1）

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:

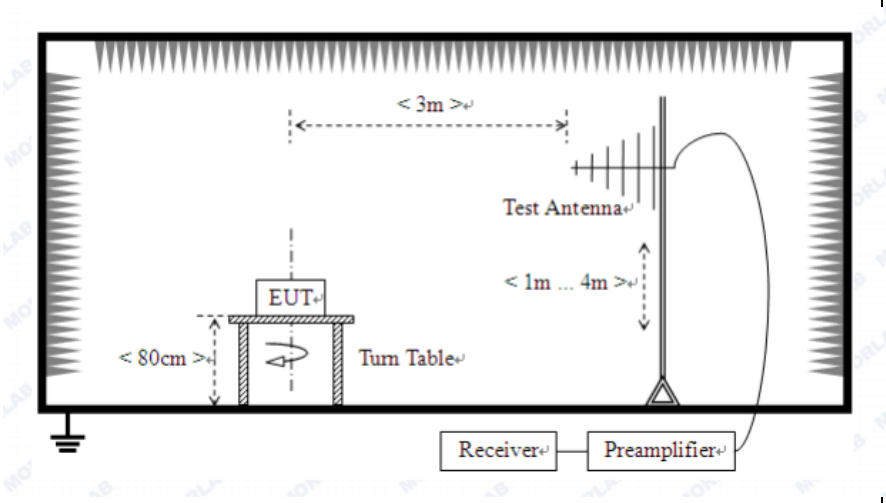
Substitution method was performed to determine the actual ERP emission levels of the EUT.
The following test procedure as below:

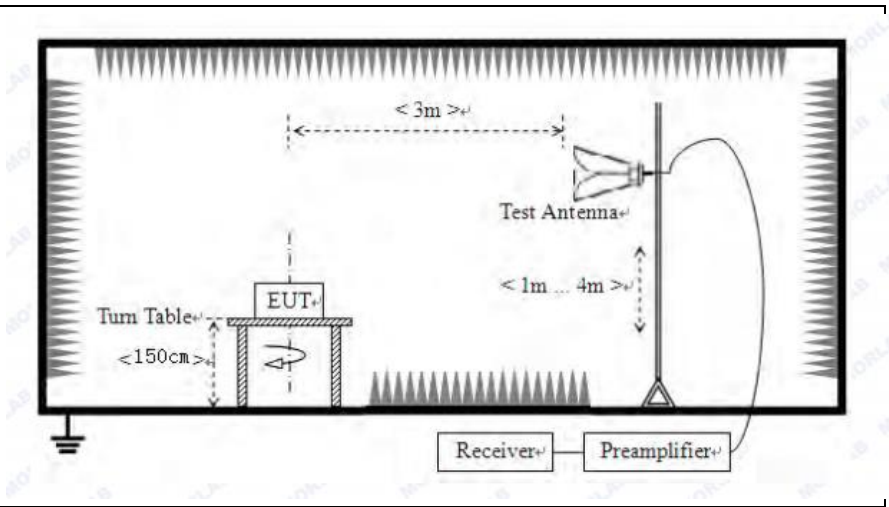
1>.Below 1GHz test procedure:

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.

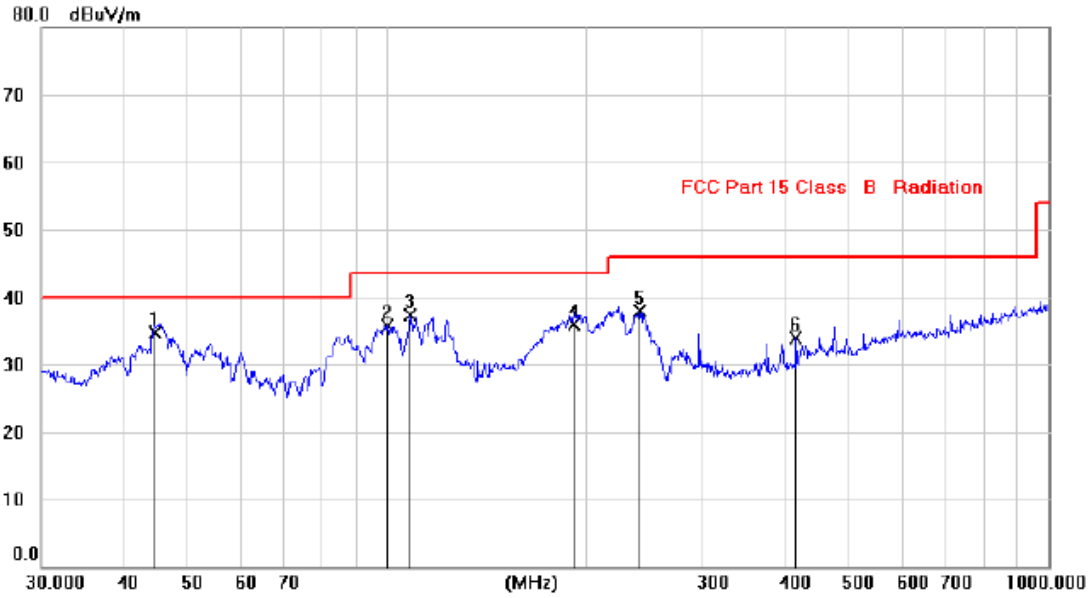
	4. The test antenna shall be raised and lowered from 1m to 4m until a maximum signal level is detected by the measuring receiver. Then the turntable should be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver. 5. Repeat step 4 for test 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 3 for details
Test mode:	Refer to section 2.2 for details
Test results:	Pass

Measurement Data:

Below 1GHz

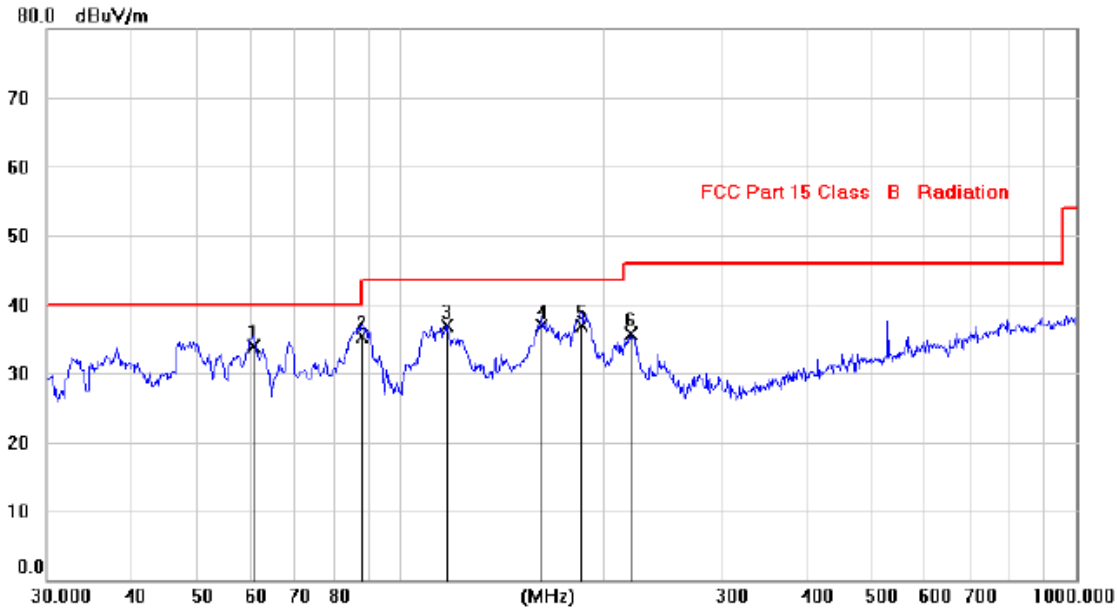
Antenna polarity: Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	44.5281	20.61	14.15	34.76	40.00	-5.24	QP			
2		99.9651	24.92	10.82	35.74	43.50	-7.76	peak			
3		108.5991	25.62	11.69	37.31	43.50	-6.19	peak			
4		192.2500	24.57	11.30	35.87	43.50	-7.63	QP			
5		241.1468	25.30	12.55	37.85	46.00	-8.15	peak			
6		415.4501	17.31	16.62	33.93	46.00	-12.07	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Antenna polarity: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		60.6510	20.84	13.00	33.84	40.00	-6.16	QP			
2	*	87.7630	25.26	10.03	35.29	40.00	-4.71	QP			
3		117.2060	24.17	12.65	36.82	43.50	-6.68	peak			
4		161.7572	22.01	14.83	36.84	43.50	-6.66	QP			
5		185.6254	25.05	11.94	36.99	43.50	-6.51	QP			
6		219.6519	24.09	11.65	35.74	46.00	-10.26	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Note: All modes of two antennas have been tested, and only shown the worst case mode in this report. (**a 5180MHz for antenna 1)**

Above 1GHz: Band 1

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
10360.28	51.76	11.25	14.62	32.65	44.98	68.20	-23.22	Vertical
15540.06	50.89	11.93	17.66	34.46	46.02	74.00	-27.98	Vertical
10360.26	51.98	9.4	14.62	32.65	43.35	68.20	-24.85	Horizontal
15540.26	51.62	8.5	17.66	34.46	43.32	74.00	-30.68	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
10400.01	46.09	16.29	17.66	34.46	45.58	68.20	-22.62	Vertical
15600.31	46.23	21.83	17.66	34.46	51.26	74.00	-22.74	Vertical
10400.18	44.83	8.73	17.66	34.46	36.76	68.20	-31.44	Horizontal
15600.24	56.77	11.73	17.66	34.46	51.70	74.00	-22.30	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
10480.25	48.99	16.29	17.66	34.46	48.48	68.20	-19.72	Vertical
15720.10	50.38	21.83	17.66	34.46	55.41	74.00	-18.59	Vertical
10480.19	49.78	8.73	17.66	34.46	41.71	68.20	-26.49	Horizontal
15720.22	50.86	11.73	17.66	34.46	45.79	74.00	-28.21	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
10360.13	52.35	11.25	14.62	32.65	45.57	68.20	-22.63	Vertical
15540.26	50.53	11.93	17.66	34.46	45.66	74.00	-28.34	Vertical
10360.15	49.95	9.4	14.62	32.65	41.32	68.20	-26.88	Horizontal
15540.18	51.73	8.5	17.66	34.46	43.43	74.00	-30.57	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
10400.14	50.31	16.29	17.66	34.46	49.80	68.20	-18.40	Vertical
15600.05	51.17	21.83	17.66	34.46	56.20	74.00	-17.80	Vertical
10400.02	51.75	8.73	17.66	34.46	43.68	68.20	-24.52	Horizontal
15600.24	49.96	11.73	17.66	34.46	44.89	74.00	-29.11	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
10480.26	49.69	16.29	17.66	34.46	49.18	68.20	-19.02	Vertical
15720.11	48.78	21.83	17.66	34.46	53.81	74.00	-20.19	Vertical
10480.08	52.23	8.73	17.66	34.46	44.16	68.20	-24.04	Horizontal
15720.21	51.50	11.73	17.66	34.46	46.43	74.00	-27.57	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
10360.22	48.77	11.25	14.62	32.65	41.99	68.20	-26.21	Vertical
15540.08	50.60	11.93	17.66	34.46	45.73	74.00	-28.27	Vertical
10360.25	50.07	9.4	14.62	32.65	41.44	68.20	-26.76	Horizontal
15540.24	50.05	8.5	17.66	34.46	41.75	74.00	-32.25	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
10400.14	52.10	16.29	17.66	34.46	51.59	68.20	-16.61	Vertical
15600.23	51.86	21.83	17.66	34.46	56.89	74.00	-17.11	Vertical
10400.05	48.68	8.73	17.66	34.46	40.61	68.20	-27.57	Horizontal
15600.27	49.28	11.73	17.66	34.46	44.21	74.00	-29.79	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
10480.03	50.67	16.29	17.66	34.46	50.16	68.20	-18.04	Vertical
15720.23	51.26	21.83	17.66	34.46	56.29	74.00	-17.71	Vertical
10480.27	48.65	8.73	17.66	34.46	40.58	68.20	-27.62	Horizontal
15720.00	49.88	11.73	17.66	34.46	44.81	74.00	-29.19	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
10380.09	52.26	11.25	14.62	32.65	45.48	68.20	-22.72	Vertical
15570.01	51.12	11.93	17.66	34.46	46.25	74.00	-27.75	Vertical
10380.15	49.48	9.4	14.62	32.65	40.85	68.20	-27.35	Horizontal
15570.12	50.19	8.5	17.66	34.46	41.89	74.00	-32.11	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
10460.27	48.80	16.29	17.66	34.46	48.29	68.20	-19.91	Vertical
15690.28	51.72	21.83	17.66	34.46	56.75	74.00	-17.25	Vertical
10460.22	50.13	8.73	17.66	34.46	42.06	68.20	-26.14	Horizontal
15690.22	50.27	11.73	17.66	34.46	45.20	74.00	-28.80	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
10380.03	48.76	11.25	14.62	32.65	41.98	68.20	-26.22	Vertical
15570.23	52.36	11.93	17.66	34.46	47.49	74.00	-26.51	Vertical
10380.28	52.70	9.4	14.62	32.65	44.07	68.20	-24.13	Horizontal
15570.26	52.52	8.5	17.66	34.46	44.22	74.00	-29.78	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
10460.26	52.36	16.29	17.66	34.46	51.85	68.20	-16.35	Vertical
15690.13	48.59	21.83	17.66	34.46	53.62	74.00	-20.38	Vertical
10460.32	52.05	8.73	17.66	34.46	43.98	68.20	-24.22	Horizontal
15690.01	50.64	11.73	17.66	34.46	45.57	74.00	-28.43	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
10420.28	52.30	16.29	17.66	34.46	51.79	68.20	-16.41	Vertical
15630.13	50.86	21.83	17.66	34.46	55.89	74.00	-18.11	Vertical
10420.13	48.89	8.73	17.66	34.46	40.82	68.20	-27.38	Horizontal
15630.14	48.90	11.73	17.66	34.46	43.83	74.00	-30.17	Horizontal

Above 1GHz: Band 4

802.11a(HT20) 5745MHz

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
11490.30	52.30	11.25	14.62	32.65	45.52	74.00	-28.48	Vertical
17235.20	51.79	11.93	17.66	34.46	46.92	68.20	-21.28	Vertical
11490.05	51.30	9.4	14.62	32.65	42.67	74.00	-31.33	Horizontal
17235.01	51.58	8.5	17.66	34.46	43.28	68.20	-24.92	Horizontal

802.11a(HT20) 5785MHz

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
11570.28	50.51	11.25	14.62	32.65	43.73	74.00	-30.27	Vertical
17355.21	49.06	11.93	17.66	34.46	44.19	68.20	-24.01	Vertical
11570.14	50.07	9.4	14.62	32.65	41.44	74.00	-32.56	Horizontal
17355.01	48.60	8.5	17.66	34.46	40.30	68.20	-27.90	Horizontal

802.11a(HT20) 5825MHz

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
11650.02	51.02	16.29	17.66	34.46	50.51	74.00	-23.49	Vertical
17475.26	50.33	21.83	17.66	34.46	55.36	68.20	-12.84	Vertical
11650.21	51.45	8.73	17.66	34.46	43.38	74.00	-30.62	Horizontal
17475.29	49.01	11.73	17.66	34.46	43.94	68.20	-24.26	Horizontal

802.11n(HT20) 5745MHz

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
11490.02	49.85	11.25	14.62	32.65	43.07	74.00	-30.93	Vertical
17235.01	51.07	11.93	17.66	34.46	46.20	68.20	-22.00	Vertical
11490.08	50.30	9.4	14.62	32.65	41.67	74.00	-32.33	Horizontal
17235.19	49.64	8.5	17.66	34.46	41.34	68.20	-26.86	Horizontal

802.11n(HT20) 5785MHz

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
11570.28	50.82	11.25	14.62	32.65	44.04	74.00	-29.96	Vertical
17355.02	51.22	11.93	17.66	34.46	46.35	68.20	-21.85	Vertical
11570.12	49.19	9.4	14.62	32.65	40.56	74.00	-33.44	Horizontal
17355.19	52.27	8.5	17.66	34.46	43.97	68.20	-24.23	Horizontal

802.11n(HT20) 5825MHz

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
11650.14	52.31	16.29	17.66	34.46	51.80	74.00	-22.20	Vertical
17475.07	51.26	21.83	17.66	34.46	56.29	68.20	-11.91	Vertical
11650.23	50.25	8.73	17.66	34.46	42.18	74.00	-31.82	Horizontal
17475.29	49.29	11.73	17.66	34.46	44.22	68.20	-23.98	Horizontal

802.11ac(HT20) 5745MHz

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
11490.11	48.87	11.25	14.62	32.65	42.09	74.00	-31.91	Vertical
17235.10	50.74	11.93	17.66	34.46	45.87	68.20	-22.33	Vertical
11490.04	49.11	9.4	14.62	32.65	40.48	74.00	-33.52	Horizontal
17235.18	52.52	8.5	17.66	34.46	44.22	68.20	-23.98	Horizontal

802.11ac(HT20) 5785MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Lev785el (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11570.29	49.82	11.25	14.62	32.65	43.04	74.00	-30.96	Vertical
17355.08	49.58	11.93	17.66	34.46	44.71	68.20	-23.49	Vertical
11570.28	51.84	9.4	14.62	32.65	43.21	74.00	-30.79	Horizontal
17355.22	48.92	8.5	17.66	34.46	40.62	68.20	-27.58	Horizontal

802.11ac(HT20) 5825MHz

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
11650.29	49.17	16.29	17.66	34.46	48.66	74.00	-25.34	Vertical
17475.16	48.96	21.83	17.66	34.46	53.99	68.20	-14.21	Vertical
11650.03	52.33	8.73	17.66	34.46	44.26	74.00	-29.74	Horizontal
17475.24	52.03	11.73	17.66	34.46	46.96	68.20	-21.24	Horizontal

802.11n(HT40) 5755MHz

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
11550.09	50.41	11.25	14.62	32.65	43.63	74.00	-30.37	Vertical
17325.17	51.42	11.93	17.66	34.46	46.55	68.20	-21.65	Vertical
11550.02	49.30	9.4	14.62	32.65	40.67	74.00	-33.33	Horizontal
17325.21	50.71	8.5	17.66	34.46	42.41	68.20	-25.79	Horizontal

802.11n(HT40) 5795MHz

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
11590.14	48.60	16.29	17.66	34.46	48.09	74.00	-25.91	Vertical
17385.09	49.39	21.83	17.66	34.46	54.42	68.20	-13.78	Vertical
11590.11	48.85	8.73	17.66	34.46	40.78	74.00	-33.22	Horizontal
17385.18	50.28	11.73	17.66	34.46	45.21	68.20	-22.99	Horizontal

802.11ac(HT40) 5755MHz

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
11550.28	50.83	11.25	14.62	32.65	44.05	74.00	-29.95	Vertical
17325.07	49.01	11.93	17.66	34.46	44.14	68.20	-24.06	Vertical
11550.30	50.07	9.4	14.62	32.65	41.44	74.00	-32.56	Horizontal
17325.31	50.54	8.5	17.66	34.46	42.24	68.20	-25.96	Horizontal

802.11ac(HT40) 5795MHz

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
11590.14	49.53	16.29	17.66	34.46	49.02	74.00	-24.98	Vertical
17385.08	51.77	21.83	17.66	34.46	56.80	68.20	-11.4	Vertical
11590.29	52.20	8.73	17.66	34.46	44.13	74.00	-29.87	Horizontal
17385.14	49.83	11.73	17.66	34.46	44.76	68.20	-23.44	Horizontal

802.11ac(HT80) 5775MHz

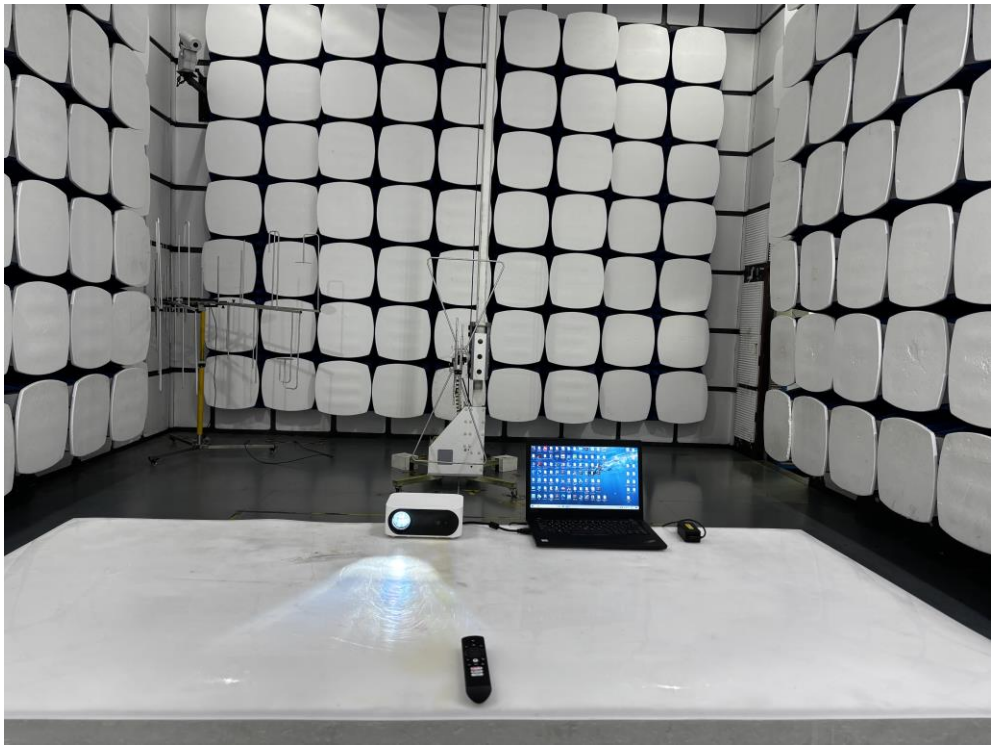
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11550.09	49.78	11.25	14.62	32.65	43.00	74.00	-31.00	Vertical
17325.08	50.36	11.93	17.66	34.46	45.49	68.20	-22.71	Vertical
11550.10	49.87	9.4	14.62	32.65	41.24	74.00	-32.76	Horizontal
17325.29	51.57	8.5	17.66	34.46	43.27	68.20	-24.93	Horizontal

Note:

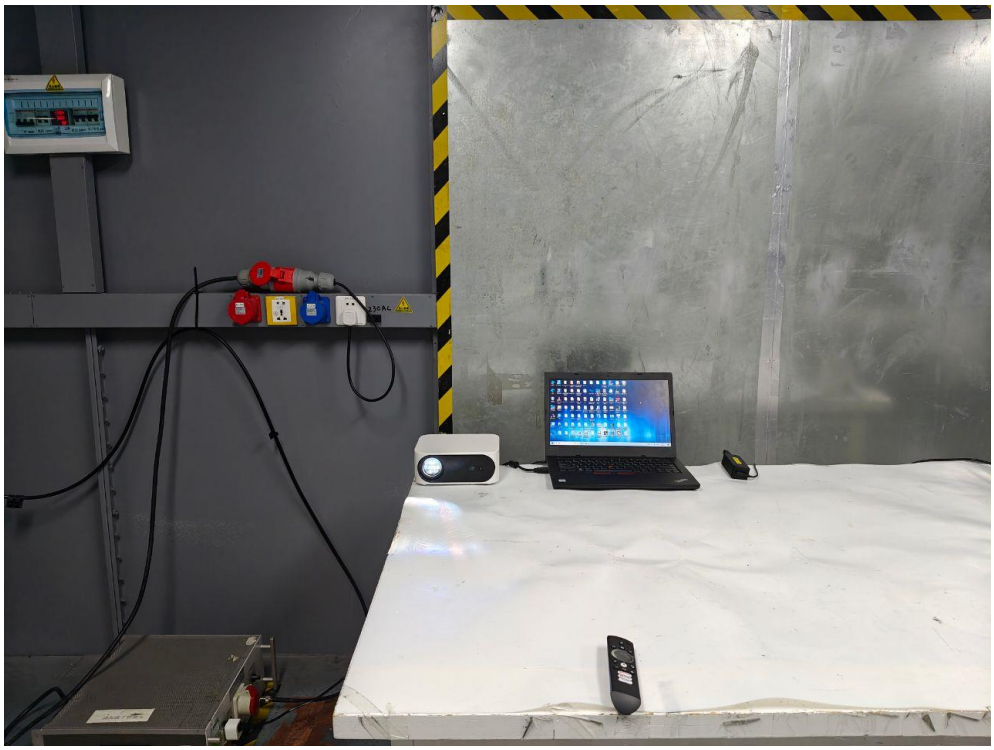
1. Level = Read Level + Antenna Factor+ Cable loss- Preamp Factor.
2. The test trace is same as the ambient noise (the test frequency range: 18GHz~40GHz), therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.
4. Except for mode a**(for antenna 1)**, other modes test the MIMO status.
5. All antennas have been tested, only the worst data of each pattern is reflected.

5 Test setup photo

5.1 Photo of Radiated Emission test



5.2 Photo of Conducted Emission test



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