

Test Report

Verified code: 377122

Report No.: E20230328398101-10

Customer: Neusoft Group (Dalian) Co., Ltd.

Address: No.901-7 Huangpu Road, Ganjingzi District,Dalian City, Liaoning Province, China

Sample Name: MEDIA HEADUNIT

Sample Model: INM2004MD

Receive Sample Date: Apr.06,2023

Test Date: Apr.14,2023 ~ May.19,2023

Reference Document: CFR 47, FCC Part 15 Subpart E Unlicensed National Information Infrastructure Devices

Test Result: Pass

Prepared by: Huang Lifang Reviewed by: Wu Haoting Approved by: Zhao Zetian

Huang Lifang *Wu Haoting* *Zhao Zetian*

GRG METROLOGY & TEST GROUP CO., LTD

Issued Date: 2023-06-14

GRG METROLOGY & TEST GROUP CO., LTD.

Address: No.163, Pingyun Road, West of Huangpu Avenue, Guangzhou, Guangdong, China
Tel: (+86) 400-602-0999 FAX: (+86) 020-38698685 Web: <http://www.grgtest.com>



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REPORT ISSUED HISTORY

Report Version	Report No.	Description	Compile Date
1.0	E20230328398101-10	Original Issue	2023-05-28

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1. TEST RESULT SUMMARY

Standard	Item	Limit / Severity	Result
CFR 47, FCC Part 15 Subpart E (§15.407)	6dB Bandwidth & 26dB Bandwidth & 99% Occupied Bandwidth	15.407(a) 15.407(e)	PASS
	AC Power Line Conducted Emissions	15.207 15.407(b)(9)	NA ¹
	Unwanted Emissions and Band Edge	15.205 15.209 15.407(b)	PASS
	Output Power	15.407(a)	PASS
	Peak Power Spectral Density	15.407(a)	PASS
	Frequency Stability	15.407(g)	PASS
	Antenna Requirement	15.203	PASS ²

Note: 1. The EUT is powered by DC source, not applicable.

2. The EUT has two antennas. The antenna is PCB antenna. The max gain of antenna is 5.19dBi which according to 15.203 is considered sufficient to comply with the provisions of this section.

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2. GENERAL DESCRIPTION OF EUT

2.1. APPLICANT

Name: Neusoft Group (Dalian) Co., Ltd.
Address: No.901-7 Huangpu Road, Ganjingzi District,Dalian City, Liaoning Province, China

2.2. MANUFACTURER

Name: Neusoft Group (Dalian) Co., Ltd.
Address: No.901-7 Huangpu Road, Ganjingzi District,Dalian City, Liaoning Province, China

2.3. FACTORY

Name: Qingdao Daesung Electronic Co., Ltd.
Address: No. 37, Mengshahe 1 Road, Jimo Zone Qingdao, Shandong, 266200 China

2.4. BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Product Name: MEDIA HEADUNIT
Product Model: INM2004MD
Adding Model: /
FCC ID: 2AZAX-INM2004MD
Trade Name: INEOS
Power Supply: DC 13.5V,10A
Frequency Band: U-NII-1: 5180 MHz~5240 MHz
U-NII-3: 5745 MHz~5825 MHz
Modulation Type: OFDM
Antenna Specification: PCB antenna
U-NII-1:
Antenna 1with 4.26dBi gain (Max.)
Antenna 2with 5.19dBi gain (Max.)
U-NII-3:
Antenna 1with 4.96dBi gain (Max.)
Antenna 2with 4.03dBi gain (Max.)
Number Of Channel: U-NII-1:
IEEE 802.11a / n HT20 / ac VHT20: 4 Channels
IEEE 802.11n HT40 / ac VHT40: 2 Channels
IEEE 802.11ac VHT80: 1 Channel
U-NII-3:
IEEE 802.11a / n HT20 / ac VHT20: 5 Channels
IEEE 802.11n HT40 / ac VHT40: 2 Channels
IEEE 802.11ac VHT80: 1 Channel

Channels Spacing: IEEE 802.11a: 20MHz
 IEEE 802.11n HT20: 20MHz
 IEEE 802.11n HT40: 40MHz
 IEEE 802.11ac VHT20: 20MHz
 IEEE 802.11ac VHT40: 40MHz
 IEEE 802.11ac VHT80: 80MHz

Transmit Power: U-NII-1:
 5.34dBm for IEEE 802.11a
 8.41dBm for IEEE 802.11n HT20 MIMO
 8.09dBm for IEEE 802.11ac VHT20 MIMO
 9.03dBm for IEEE 802.11n HT40 MIMO
 8.91dBm for IEEE 802.11ac VHT40 MIMO
 8.80dBm for IEEE 802.11ac VHT80 MIMO
 U-NII-3:
 6.05dBm for IEEE 802.11a
 8.80dBm for IEEE 802.11n HT20 MIMO
 8.50dBm for IEEE 802.11ac VHT20 MIMO
 9.35dBm for IEEE 802.11n HT40 MIMO
 9.40dBm for IEEE 802.11ac VHT40 MIMO
 9.20dBm for IEEE 802.11ac VHT80 MIMO

Temperature Range: -40℃~+85℃

Hardware Version: EE-0000002***

Software Version: SW-0000000***

Sample submitting way: ☒ Provided by customer ☐ Sampling

Sample No: E20230328398101-0001, E20230328398101-0006

Note: 1.The EUT support hotspot,it is working at 802.11ac VHT80 5210MHz & 5775MHz.
 2.The EUT antenna gain is provided by the applicant. This report is made solely on the basis of such data and/or information. We accept no responsibility for the authenticity and completeness of the above data and information and the validity of the results and/or conclusions.

2.5. TEST OPERATION MODE

Mode No.	Description of the modes
1	5G Wi-Fi TX mode

2.6. CHANNEL LIST

Mode	Band	Channel	Frequency (MHz)	Mode	Band	Channel	Frequency (MHz)
IEEE 802.11a	U-NII-1	36	5180	IEEE 802.11n HT20	U-NII-1	36	5180
		40	5200			40	5200
		44	5220			44	5220
		48	5240			48	5240
	U-NII-3	149	5745		U-NII-3	149	5745
		153	5765			153	5765
		157	5785			157	5785
		161	5805			161	5805
		165	5825			165	5825

Mode	Band	Channel	Frequency (MHz)
IEEE 802.11ac VHT20	U-NII-1	36	5180
		40	5200
		44	5220
		48	5240
	U-NII-3	149	5745
		153	5765
		157	5785
		161	5805
		165	5825

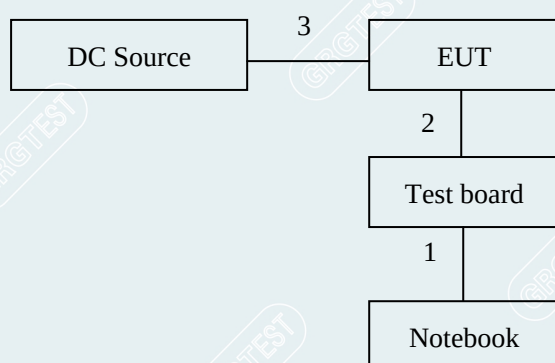
Mode	Band	Channel	Frequency (MHz)	Mode	Band	Channel	Frequency (MHz)
IEEE 802.11 n HT40	U-NII-1	38	5190	IEEE 802.11 ac VHT40	U-NII-1	38	5190
		46	5230			46	5230
	U-NII-3	151	5755		U-NII-3	151	5755
		159	5795			159	5795

Mode	Band	Channel	Frequency (MHz)
IEEE 802.11ac VHT80	U-NII-1	42	5210
	U-NII-3	155	5775

2.7. LOCAL SUPPORTIVEINSTRUMENTS

Name of Equipment	Manufacturer	Model	Serial Number	Note
Notebook	LENOVO	TianYi 310-14ISK	MP18DLC6	/
DC Source	Keysight	E36131A	/	/
Test board	/	/	/	/

No.	Cable Type	Qty.	Shielded Type	Ferrite Core(Qty.)	Length
1	VGA to USB cable	1	No	0	1.0m
2	DC cable	1	No	0	0.2m
3	DC cable	1	No	0	1.5m

2.8. CONFIGURATION OF SYSTEM UNDER TEST**Test software:**

Software version
Teraterm

Power Setting:

Mode	Frequency (MHz)	Antenna 1 Power Setting	Antenna 2 Power Setting
IEEE 802.11a	5180	10	10
	5200	10	10
	5240	10	10
	5745	10	10
	5785	10	10
	5825	10	10

Mode	Frequency (MHz)	Power Setting	Mode	Frequency (MHz)	Power Setting
IEEE 802.11n HT20 MIMO	5180	10	IEEE 802.11ac VHT20 MIMO	5180	10
	5200	10		5200	10
	5240	10		5240	10
	5745	10		5745	10
	5785	10		5785	10
	5825	10		5825	10

Mode	Frequency (MHz)	Power Setting	Mode	Frequency (MHz)	Power Setting
IEEE 802.11n HT40 MIMO	5190	10	IEEE 802.11ac VHT40 MIMO	5190	10
	5230	10		5230	10
	5755	10		5755	10
	5795	10		5795	10

Mode	Frequency (MHz)	Power Setting	Frequency (MHz)	Power Setting
IEEE 802.11ac VHT80 MIMO	5210	10	5775	10

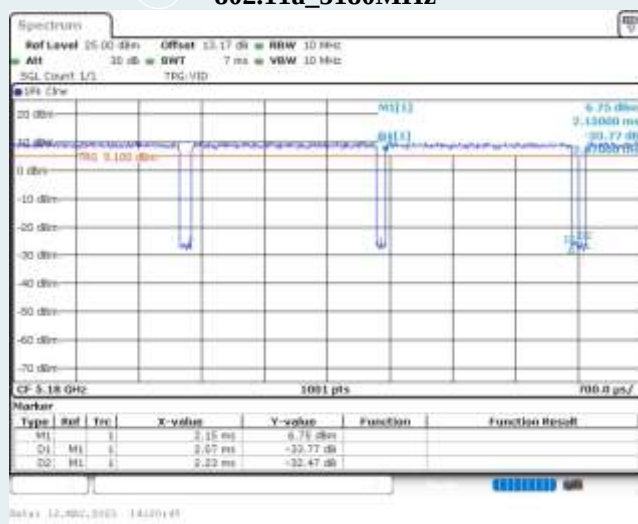
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2.9. DUTY CYCLE

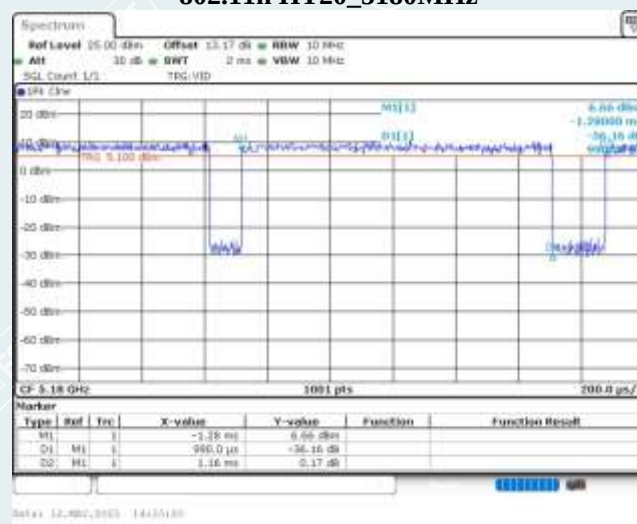
EUT Name	MEDIA HEADUNIT	Model	INM2004MD
Environmental Conditions	23.5°C/55%RH/101.0kPa	Test Voltage	DC 13.5V
Tested By	Qing Tingting	Tested Date	2023-05-12

Duty Cycle Calculation						
Mode	Frequency [MHz]	ON Time(ms)	Total Time(ms)	Duty Cycle(%)	Duty Factor (dB)	T(s)
802.11a	5180	2.07	2.23	92.83	0.32	0.00207
802.11n HT20 MIMO	5180	0.99	1.16	85.34	0.69	0.00099
802.11n HT40 MIMO	5190	0.49	0.61	80.33	0.95	0.00049
802.11ac VHT20 MIMO	5180	1.00	1.12	89.29	0.49	0.00100
802.11ac VHT40 MIMO	5190	0.50	0.67	74.63	1.27	0.00050
802.11ac VHT80 MIMO	5210	0.26	0.43	60.47	2.18	0.00026

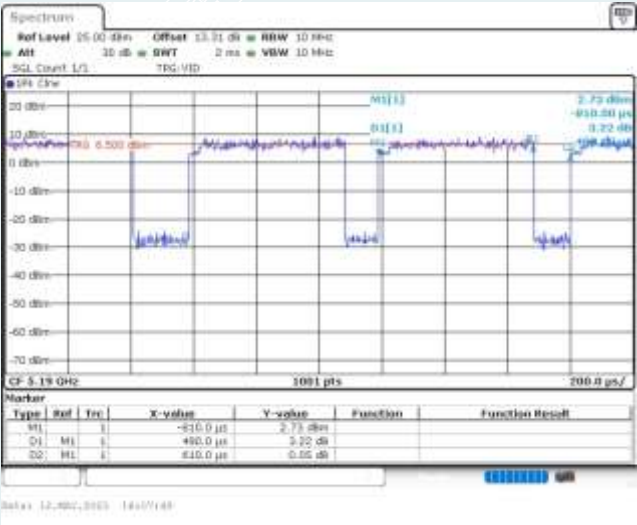
802.11a_5180MHz



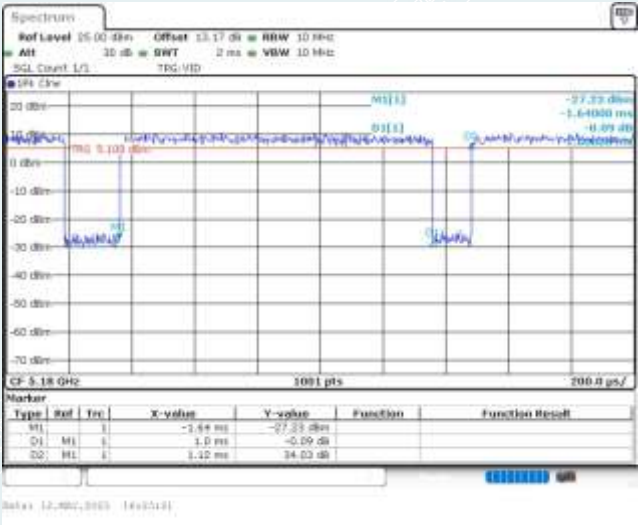
802.11n HT20_5180MHz



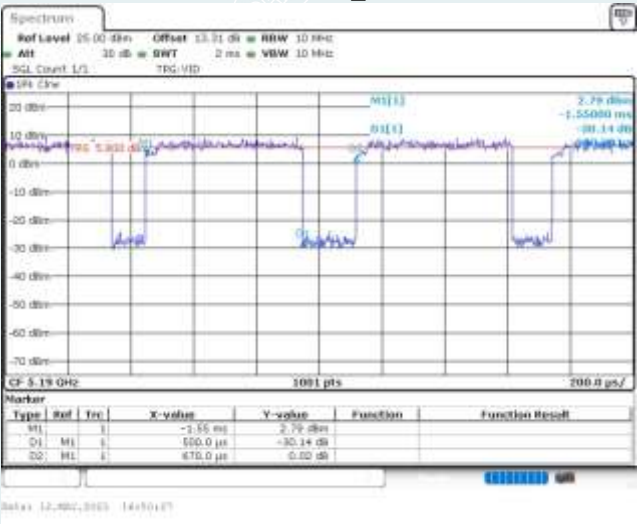
802.11n HT40_5190MHz



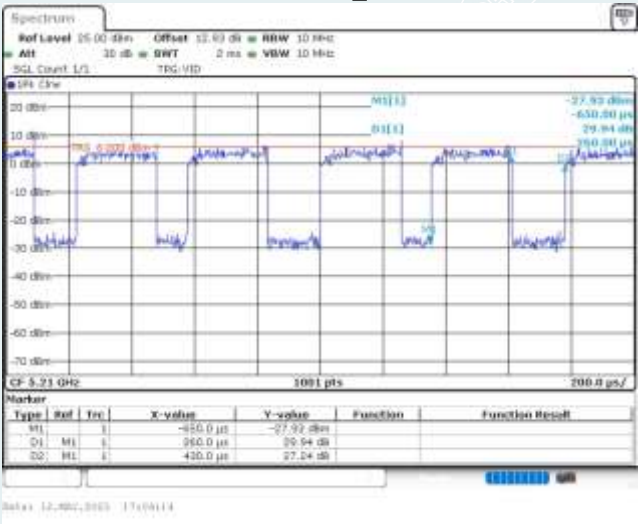
802.11ac VHT20_5180MHz



802.11ac VHT40_5190MHz



802.11ac VHT80_5210MHz



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3. LABORATORY AND ACCREDITATIONS

3.1. LABORATORY

The tests & measurements refer to this report were performed by Shenzhen EMC Laboratory of GRG METROLOGY & TEST GROUP CO., LTD.

Add : No.1301 Guanguang Road Xinlan Community, Guanlan Street, Longhua District
Shenzhen, 518110, People's Republic of China

P.C. : 518110

Tel : 0755-61180008

Fax : 0755-61180008

3.2. ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA A2LA(Certificate #2861.01)

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada ISED (Company Number: 24897, CAB identifier:CN0069)

USA FCC (Registration Number: 759402, Designation Number:CN1198)

Copies of granted accreditation certificates are available for downloading from our web site,
U<http://www.grgtest.com>

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3.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement		Frequency	Uncertainty
Radiated Emission	Horizontal	9kHz~30MHz	4.46dB
		30MHz~1000MHz	4.30dB
		1GHz~18GHz	5.60dB
		18GHz~26GHz	3.65dB
		26GHz~40GHz	4.00dB
	Vertical	9kHz~30MHz	4.46dB
		30MHz~1000MHz	4.30dB
		1GHz~18GHz	5.60dB
		18GHz~26GHz	3.65dB
		26GHz~40GHz	4.00dB

Measurement	Uncertainty
RF frequency	6.0×10^{-6}
RF power conducted	0.78 dB
Occupied channel bandwidth	0.4 dB
Unwanted emission, conducted	0.68 dB
Humidity	6 %
Temperature	2 °C

This uncertainty represents an expanded uncertainty factor of $k=2$.

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4. LIST OF USED TEST EQUIPMENT AT GRGT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Radiated Spurious Emission&Restricted bands of operation				
Loop Antenna	Schwarzbeck	FMZB 1513-60	1513-60-56	2023-08-06
Preamplifier	SHIRONG ELECTRONIC	DLNA-30M1G-G41	20200928002	2023-08-19
Bi-log Antenna	Schwarzbeck	VULB9160	VULB9160-3402	2023-10-23
Horn Antenna	Schwarzbeck	BBHA 9120D	02143	2023-10-15
Test Receiver	R&S	ESR26	101758	2023-10-27
Spectrum Analyzer	R&S	FSW43	102072	2023-09-02
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	BBHA 9170-497	2023-10-14
Amplifier	Tonscend	TAP01018048	AP20E8060075	2024-04-11
Amplifier	Tonscend	TAP184050	AP20E806071	2024-04-16
Amplifier	SHIRONG ELECTRONIC	DLNA-1G18G-G40	20200928005	2023-08-27
Test S/W	Tonscend	JS32-RE/5.0.0		
6DB Bandwidth &26DB Bandwidth& 99% Occupied bandwidth				
Spectrum Analyzer	R&S	FSV30	104381	2023-11-17
Automatic power measuring unit	TONSCEND	JS0806-2	21B8060365	2023-11-17
Output Power				
Pulse power sensor	Anristu	MA2411B	1126150	2024-02-12
Power Meter	Anristu	NL2495A	1204003	2024-02-12
Frequency Stability				
Spectrum Analyzer	R&S	FSV30	104381	2023-11-17
Automatic power measuring unit	TONSCEND	JS0806-2	21B8060365	2023-11-17
Temperature& humidity chamber	HOSON	HS01060SDF	201013401	2023-08-19
DC Source	Keysight	E36131A	MY59001139	2023-10-24

Power Spectral Density				
Spectrum Analyzer	R&S	FSV30	104381	2023-11-17
Automatic power measuring unit	TONSCEND	JS0806-2	21B8060365	2023-11-17

Note: The calibration interval of the above test instruments is 12 months.

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5. RADIATED SPURIOUS EMISSIONS

5.1 LIMITS

The maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

The unwanted emissions which fall in Restricted bands shall not exceed the field strength levels specified in the following table:

15.209 Radiated emission limits

Frequency (MHz)	Field Strength(μ V/m)	Distance(m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

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5.2 TEST PROCEDURES

- EUT was placed on a turn table, which is 0.8 meter high above ground for below 1GHz test, and which is 1.5 meter high above ground for above 1GHz test.
- EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower.
- Set the EUT transmit continuously with maximum output power.
- The turn table can rotate 360 degrees to determine the position of the maximum emission level.
- The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.
- Spectrum analyzer setting parameters please see the below table.
- Repeat above procedures until all channels were measured.
- Record the results in the test report.

For 9kHz-150kHz

Spectrum Parameters	Setting
RBW	300Hz(for Peak&AVG)/CISPR 200Hz(for QP)
VBW	300Hz(for Peak&AVG)/CISPR 200Hz(for QP)
Start frequency	9kHz
Stop frequency	150kHz
Sweep Time	Auto
Detector	PEAK/QP/AVG
Trace Mode	Max Hold

Note : For 9kHz-90kHz&110kHz-150kHz,the detector is average,other frequency is CISPR QP detector.

For 150kHz-30MHz

Spectrum Parameters	Setting
RBW	9kHz
VBW	9kHz
Start frequency	150kHz
Stop frequency	30MHz
Sweep Time	Auto
Detector	QP
Trace Mode	Max Hold

Note : For 150kHz-490kHz,the detector is average,other frequency is CISPR QP detector.

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For 30MHz-1GHz

Spectrum Parameters	Setting
RBW	120kHz
VBW	300kHz
Start frequency	30MHz
Stop frequency	1GHz
Sweep Time	Auto
Detector	QP
Trace Mode	Max Hold

For Above 1GHz

Spectrum Parameters	Setting	
RBW	1MHz	
VBW	PEAK Measurement	AVG Measurement
	3MHz	Duty cycle $\geq$ 98%, VBW=10Hz Duty cycle<98%, VBW $\geq$ 1/T Video bandwidth mode=RMS (power averaging)
Start frequency	1GHz	
Stop frequency	40GHz	
Sweep Time	Auto	
Detector	PEAK	
Trace Mode	Max Hold	

Note :

- (1) T is the on-time time of the duty cycle, when EUT transmit continuously with maximum output power, unit is seconds. reference section 2.9 for the on-time time.
- (2) Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$$E = \text{EIRP} - 20\log D + 104.8$$
 where:
 E = electric field strength in dB μ V/m,
 EIRP = equivalent isotropic radiated power in dBm
 D = specified measurement distance in meters.
 So: $E = -27 - 20\log 3 + 104.8 = 68.3$ (dB μ V/m).
- (3) The unwanted emissions which fall in Restricted bands shall not exceed the field strength, Above 18G test distance is 1m, so the Peak Limit=74+20*log(3/1)=83.54 (dB μ V/m).
 The Avg Limit=54+20*log(3/1)=63.54 (dB μ V/m).
- (4) The maximum emissions of the operation frequency bands, Above 18G test distance is 1m, so the Peak Limit=68.3+20*log(3/1)=77.84 (dB μ V/m).

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5.3 TEST SETUP

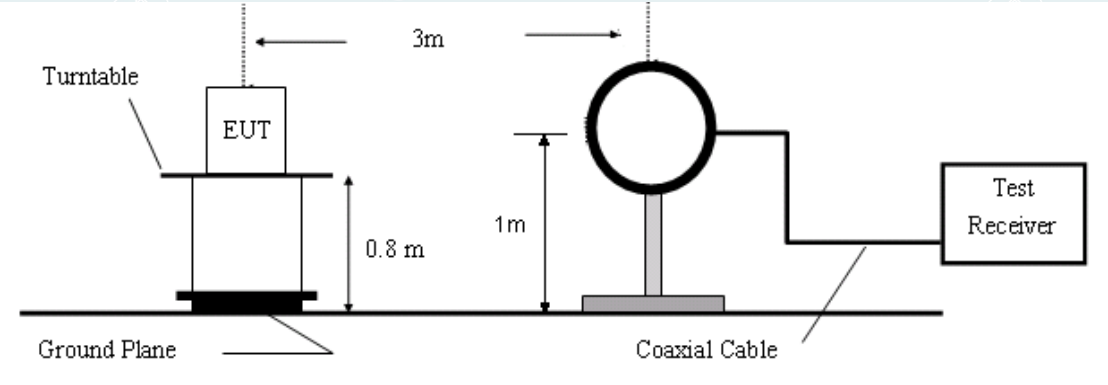


Figure 1. 9kHz to 30MHz radiated emissions test configuration

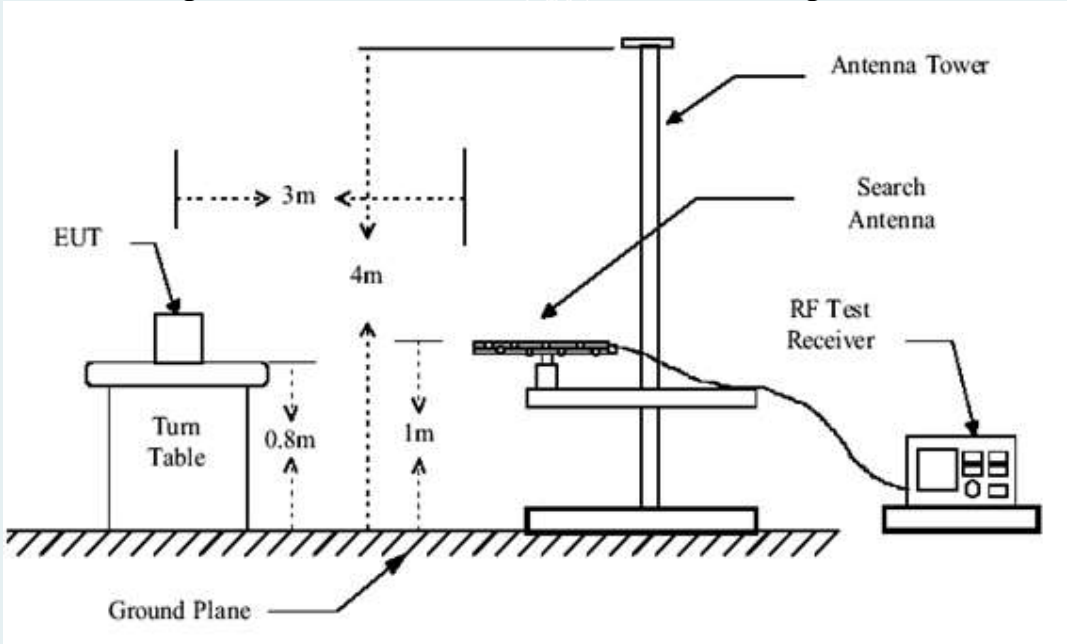


Figure 2. 30MHz to 1GHz radiated emissions test configuration

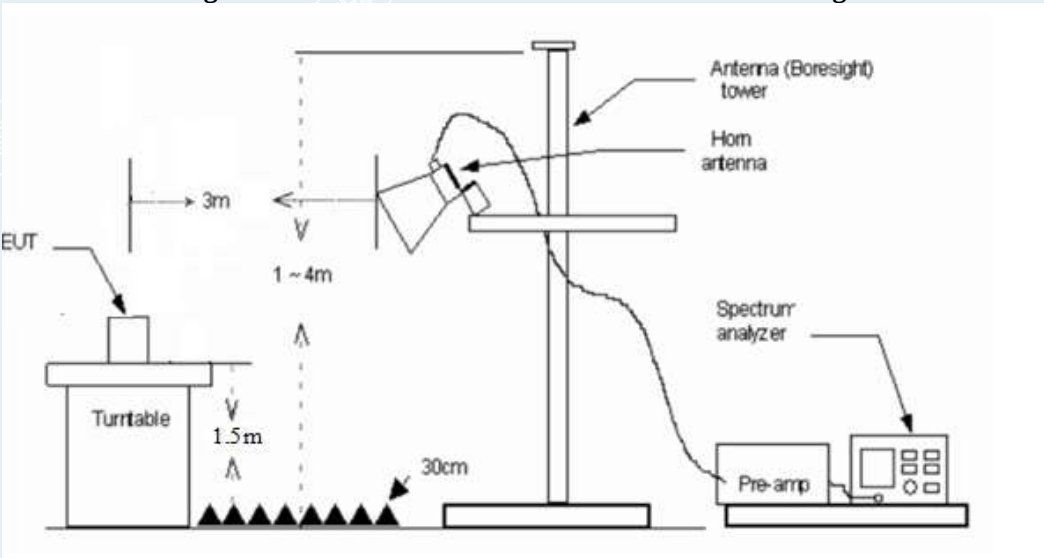


Figure 3. 1GHz-18GHz radiated emissions test configuration

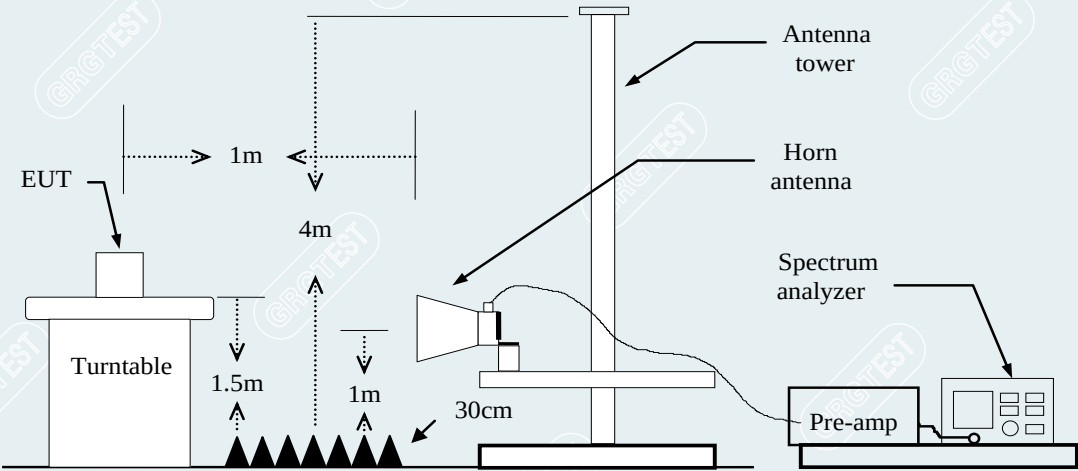


Figure 4. Above 18GHz radiated emissions test configuration

5.4 DATA SAMPLE

30MHz to 1GHz

Suspected Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity
xxxx	xxxx	66.85	31.09	-35.76	40.00	8.91	PK	200	351	Horizontal

Final Data List									
NO.	Freq. [MHz]	Factor [dB]	QP Reading [dBμV/m]	Level [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
xxxx	xxxx	-31.57	71.28	39.71	46.00	6.29	100	196	Horizontal

- Frequency (MHz) = Emission frequency in MHz
- Reading (dBuV/m) = Uncorrected Analyzer / Receiver reading
- Factor (dB) = Antenna factor + Cable loss – Amplifier gain
- Level (dBuV/m) = Reading (dBuV/m) + Factor (dB)
- Limit (dBuV/m) = Limit stated in standard
- Margin (dB) = Limit (dBuV/m) – Level (dBuV/m)
- Polarity = Antenna polarization
- Peak = Peak Reading
- QP = Quasi-peak Reading

1GHz-18GHz

No.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Remark
xxx	xxxx	78.01	55.30	-22.71	74.00	18.70	100	50	Horizontal	Peak
xxx	xxxx	66.37	43.66	-22.71	54.00	10.34	100	50	Horizontal	AVG

Above 18GHz

No.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Remark
xxx	xxxx	54.49	42.38	-12.11	83.54	41.16	100	211	Vertical	Peak
xxx	xxxx	43.99	31.88	-12.11	63.54	31.66	100	211	Vertical	AVG

Frequency (MHz)	= Emission frequency in MHz
Reading (dBuV/m)	= Uncorrected Analyzer / Receiver reading
Factor (dB)	= Antenna factor + Cable loss – Amplifier gain
Level (dBuV/m)	= Reading (dBuV/m) + Factor (dB)
Limit (dBuV/m)	= Limit stated in standard
Margin (dB)	= Limit (dBuV/m) – Level (dBuV/m)
Polarity	= Antenna polarization
Peak	= Peak Reading
AVG	= Average Reading

----- The following blanks -----

5.5 TEST RESULTS

Below 1GHz

All models were pretested and only the worst modes and channels were recorded in this report. (IEEE 802.11ac VHT40 MIMO 5795MHz)

Mode: Mode 1/ IEEE 802.11ac VHT40 MIMO

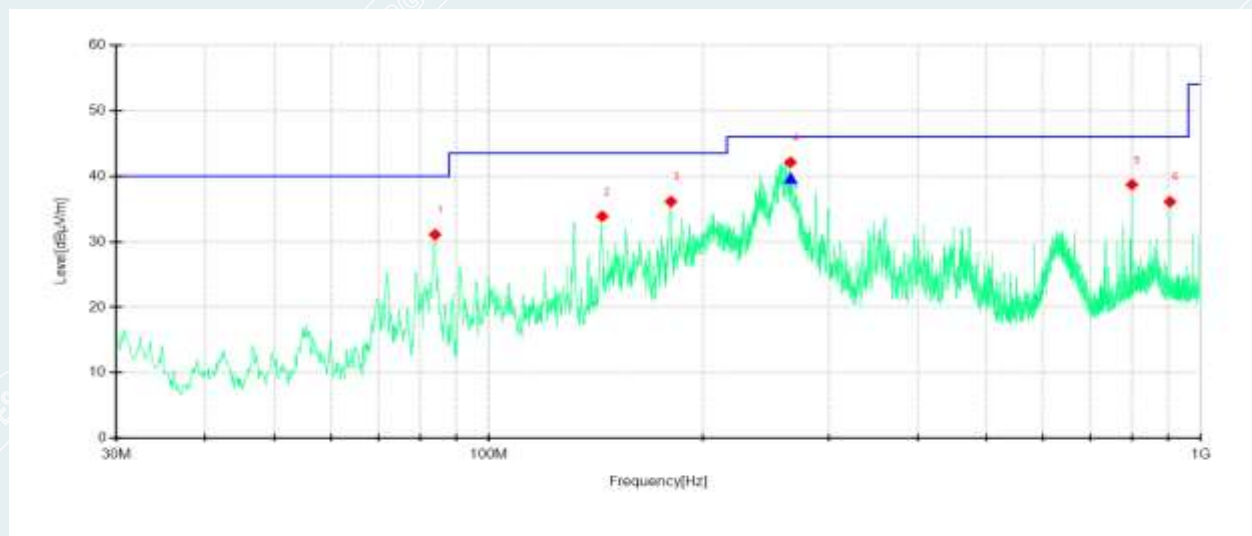
Temp. /Hum.:21.6°C/64%RH/101.0kPa

Test Engineer: Zhang Zishan

Frequency:5795MHz

Power supply: DC 13.5V

Test Date: 2023-05-19



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity
1	84.0843	66.85	31.09	-35.76	40.00	8.91	PK	200	351	Horizontal
2	144.353	64.61	33.89	-30.72	43.50	9.61	PK	200	191	Horizontal
3	180.2475	68.53	36.12	-32.41	43.50	7.38	PK	100	137	Horizontal
4	265.2544	73.69	42.12	-31.57	46.00	3.88	PK	100	207	Horizontal
5	800.0338	58.01	38.72	-19.29	46.00	7.28	PK	100	108	Horizontal
6	905.0494	54.65	36.10	-18.55	46.00	9.90	PK	100	334	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading [dBμV/m]	Level [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	265.454	-31.57	71.28	39.71	46.00	6.29	100	196	Horizontal

Mode: Mode 1/ IEEE 802.11ac VHT40 MIMO

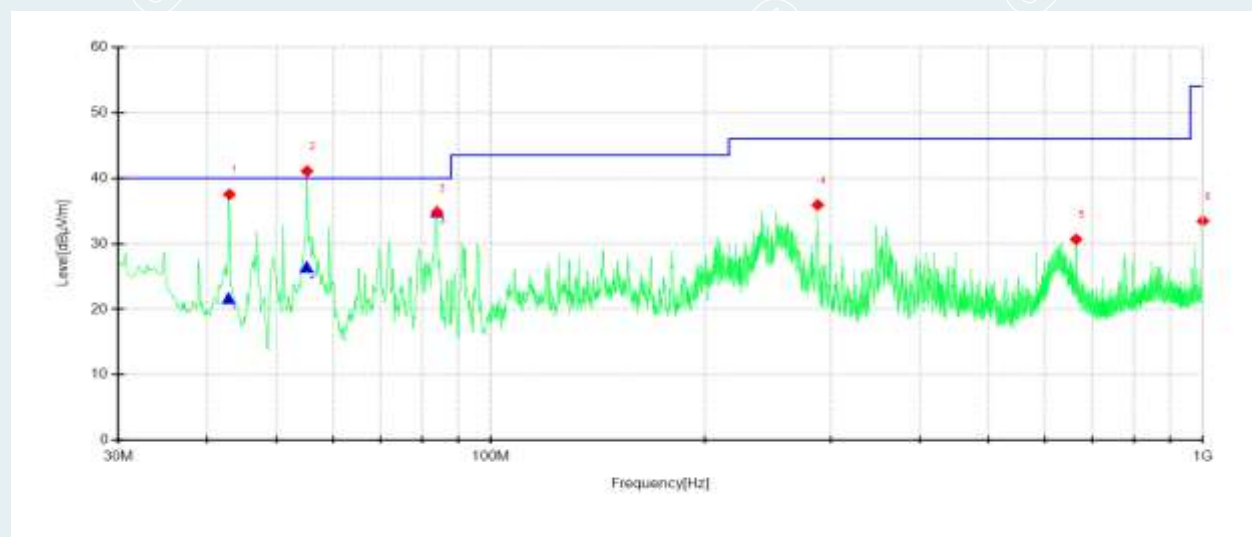
Temp. /Hum.:21.6°C/64%RH/101.0kPa

Test Engineer: Zhang Zishan

Frequency:5795MHz

Power supply: DC 13.5V

Test Date: 2023-05-19



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity
1	42.9754	68.23	37.53	-30.70	40.00	2.47	PK	200	197	Vertical
2	55.2232	72.16	41.07	-31.09	40.00	-1.07	PK	200	130	Vertical
3	84.0843	70.53	34.77	-35.76	40.00	5.23	PK	100	328	Vertical
4	287.931	66.67	35.93	-30.74	46.00	10.07	PK	100	191	Vertical
5	663.853	52.22	30.68	-21.54	46.00	15.32	PK	100	143	Vertical
6	1000	51.21	33.46	-17.75	54.00	20.54	PK	200	169	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading [dBμV/m]	Level [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	42.8436	-30.70	52.40	21.70	40.00	18.30	100	9.6	Vertical
2	55.1729	-31.09	57.54	26.45	40.00	13.55	110	23.8	Vertical
3	84.0502	-35.76	70.65	34.89	40.00	5.11	119	324.8	Vertical

Remark:

- 1 No emission found between lowest internal used/generated frequency to 30MHz.
- 2 Radiated emissions measured in frequency range from 9kHz to 1GHz were made with an instrument using Quasi-peak detector mode.
- 3 Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- 4 The IF bandwidth of Receiver between 30MHz to 1GHz was 120 kHz.

1GHz-18GHz

All models were pretested and just record the worst case of 20MHz/40MHz/80MHz bandwidth.

Mode: Mode 1/ IEEE 802.11n HT20 MIMO

Environment: 21.5°C/65%RH/101.0kPa

Test Engineer:Zhang Zishan

Frequency:5180MHz

Power supply:DC 13.5V

Test Date:2023-05-15

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1163.35	66.52	43.78	-22.74	74.00	30.22	100	303	Horizontal
2	2997.6	64.58	49.21	-15.37	68.30	19.09	200	18	Horizontal
3	6582.8	54.25	50.27	-3.98	68.30	18.03	200	158	Horizontal
4	13854.25	44.78	55.55	10.77	68.30	12.75	200	199	Horizontal
5	15046.8	45.58	56.40	10.82	68.30	11.90	200	158	Horizontal
6	15767.85	44.30	55.47	11.17	74.00	18.53	100	207	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	15767.85	11.17	30.84	42.01	54.00	11.99	100	207	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2848	64.64	48.36	-16.28	74.00	25.64	100	334	Vertical
2	5076.6	57.52	51.28	-6.24	74.00	22.72	200	28	Vertical
3	5985.75	56.04	51.72	-4.32	68.30	16.58	100	37	Vertical
4	13098.7	45.85	54.93	9.08	68.30	13.37	100	88	Vertical
5	14537.35	44.15	55.53	11.38	68.30	12.77	200	157	Vertical
6	16901.75	44.09	53.47	9.38	68.30	14.83	100	88	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2848	-16.28	53.64	37.36	54.00	16.64	100	334	Vertical
2	5076.6	-6.24	45.95	39.71	54.00	14.29	200	28	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE 802.11n HT20 MIMO

Environment: 21.5°C/65%RH/101.0kPa

Test Engineer:Zhang Zishan

Frequency:5200MHz

Power supply:DC 13.5V

Test Date:2023-05-15

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1297	68.96	46.40	-22.56	68.30	21.90	200	79	Horizontal
2	5851.55	53.59	49.96	-3.63	68.30	18.34	200	8	Horizontal
3	9301.4	50.73	53.10	2.37	74.00	20.90	100	16	Horizontal
4	13458.65	44.73	54.67	9.94	68.30	13.63	200	68	Horizontal
5	14992.75	44.12	55.49	11.37	68.30	12.81	100	36	Horizontal
6	15792	44.19	55.13	10.94	74.00	18.87	200	128	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	9302.5132	2.38	38.27	40.65	53.69	13.04	100	359	Horizontal
2	15792	10.94	31.61	42.55	54.00	11.45	200	128	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1195.25	69.98	47.25	-22.73	74.00	26.75	100	150	Vertical
2	2513.05	65.05	47.27	-17.78	68.30	21.03	200	282	Vertical
3	11399	46.41	53.54	7.13	74.00	20.46	100	340	Vertical
4	13863.45	44.89	55.73	10.84	68.30	12.57	200	16	Vertical
5	15020.35	45.54	56.79	11.25	68.30	11.51	200	168	Vertical
6	17885	45.34	55.21	9.87	74.00	18.79	200	199	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	11399	7.13	34.58	41.71	54.00	12.29	100	340	Vertical
2	17885	9.87	31.87	41.74	54.00	12.26	200	199	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE 802.11n HT20 MIMO
Environment: 21.5°C/65%RH/101.0kPa
Test Engineer:Zhang Zishan

Frequency:5240MHz
Power supply:DC 13.5V
Test Date:2023-05-15

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2660.45	61.18	43.84	-17.34	68.30	24.46	100	115	Horizontal
2	6467	53.19	50.64	-2.55	68.30	17.66	100	311	Horizontal
3	9856.85	48.79	52.50	3.71	68.30	15.80	200	324	Horizontal
4	11381.75	47.03	53.34	6.31	74.00	20.66	100	1	Horizontal
5	13465.55	45.42	55.49	10.07	68.30	12.81	200	243	Horizontal
6	15006.55	44.36	55.74	11.38	68.30	12.56	100	213	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	11381.75	6.31	35.91	42.22	54.00	11.78	100	2	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2519.65	65.37	47.60	-17.77	68.30	20.70	200	290	Vertical
2	6383.4	53.54	50.17	-3.37	68.30	18.13	100	159	Vertical
3	10533.05	47.66	53.61	5.95	68.30	14.69	100	19	Vertical
4	13832.4	45.27	56.01	10.74	68.30	12.29	100	81	Vertical
5	15057.15	45.02	56.05	11.03	68.30	12.25	100	212	Vertical
6	17889.6	44.49	54.57	10.08	74.00	19.43	100	212	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	17889.6	10.08	33.26	43.34	54.00	10.66	100	212	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE 802.11n HT20 MIMO

Environment: 21.5°C/65%RH/101.0kPa

Test Engineer:Zhang Zishan

Frequency:5745MHz

Power supply:DC 13.5V

Test Date:2023-05-15

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	5351.6	55.41	47.42	-7.99	74.00	26.58	200	259	Horizontal
2	10543.4	48.41	53.72	5.31	68.30	14.58	200	293	Horizontal
3	11386.35	47.30	53.70	6.40	74.00	20.30	200	21	Horizontal
4	13873.8	45.17	55.48	10.31	68.30	12.82	200	1	Horizontal
5	15020.35	44.42	55.61	11.19	68.30	12.69	200	223	Horizontal
6	15748.3	44.29	55.60	11.31	74.00	18.40	200	0	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	11386.35	6.40	34.17	40.57	54.00	13.43	200	21	Horizontal
2	15748.3	11.31	32.46	43.77	54.00	10.23	200	0	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3992.55	60.54	46.11	-14.43	74.00	27.89	100	128	Vertical
2	7659.2	52.85	50.60	-2.25	74.00	23.40	100	41	Vertical
3	10596.3	47.81	53.38	5.57	68.30	14.92	200	131	Vertical
4	11181.65	47.35	53.52	6.17	74.00	20.48	200	141	Vertical
5	14293.55	43.81	55.55	11.74	68.30	12.75	200	20	Vertical
6	15050.25	45.23	56.16	10.93	68.30	12.14	200	9	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	7659.2	-2.25	42.68	40.43	54.00	13.57	100	41	Vertical
2	11181.65	6.17	35.63	41.80	54.00	12.20	200	141	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE 802.11n HT20 MIMO

Environment: 21.5°C/65%RH/101.0kPa

Test Engineer:Zhang Zishan

Frequency:5785MHz

Power supply:DC 13.5V

Test Date:2023-05-15

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3856.7	59.59	44.66	-14.93	74.00	29.34	100	344	Horizontal
2	8068.6	50.74	50.01	-0.73	74.00	23.99	200	112	Horizontal
3	11831.4	47.84	54.75	6.91	74.00	19.25	100	149	Horizontal
4	13804.8	45.53	55.56	10.03	68.30	12.74	100	324	Horizontal
5	15005.4	44.59	55.98	11.39	68.30	12.32	200	315	Horizontal
6	15767.85	44.53	55.70	11.17	74.00	18.30	200	61	Horizontal

AV Final Data List

NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	8068.6	-0.73	40.38	39.65	54.00	14.35	200	112	Horizontal
2	11831.4	6.91	34.25	41.16	54.00	12.84	100	149	Horizontal
3	15767.85	11.17	31.24	42.41	54.00	11.59	200	61	Horizontal

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3856.7	66.59	51.83	-14.76	74.00	22.17	100	15	Vertical
2	5782.25	55.96	48.75	-7.21	68.30	19.55	100	34	Vertical
3	7370.55	50.94	49.58	-1.36	74.00	24.42	200	193	Vertical
4	10523.85	47.56	53.35	5.79	68.30	14.95	100	8	Vertical
5	13840.45	44.68	55.59	10.91	68.30	12.71	200	30	Vertical
6	15003.1	44.42	55.86	11.44	68.30	12.44	200	2	Vertical

AV Final Data List

NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3856.7005	-14.76	64.74	49.98	54.00	4.02	135	15.9	Vertical
2	7370.55	-1.36	42.13	40.77	54.00	13.23	200	193	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE 802.11n HT20 MIMO

Environment: 21.5°C/65%RH/101.0kPa

Test Engineer:Zhang Zishan

Frequency:5825MHz

Power supply:DC 13.5V

Test Date:2023-05-15

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2657.15	64.19	45.19	-19.00	68.30	23.11	100	345	Horizontal
2	3883.1	61.02	46.10	-14.92	74.00	27.90	200	335	Horizontal
3	5354.9	54.38	46.32	-8.06	74.00	27.68	200	42	Horizontal
4	9257.7	50.43	52.54	2.11	68.30	15.76	100	218	Horizontal
5	11846.35	47.33	54.37	7.04	74.00	19.63	100	258	Horizontal
6	15702.3	45.55	56.16	10.61	74.00	17.84	100	330	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	11846.35	7.04	35.48	42.52	54.00	11.48	100	258	Horizontal
2	15702.3	10.61	31.75	42.36	54.00	11.64	100	330	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2656.05	65.61	46.56	-19.05	68.30	21.74	100	295	Vertical
2	3883.65	69.91	55.42	-14.49	74.00	18.58	100	17	Vertical
3	5830.65	56.75	49.81	-6.94	68.30	18.49	200	1	Vertical
4	9737.25	49.02	52.81	3.79	68.30	15.49	100	99	Vertical
5	14093.45	44.87	56.41	11.54	68.30	11.89	200	26	Vertical
6	15028.4	44.58	55.74	11.16	68.30	12.56	100	149	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3883.3688	-14.49	65.58	51.09	54.00	2.91	134	19.2	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE 802.11ac VHT40 MIMO
Environment: 21.5°C/65%RH/101.0kPa
Test Engineer:Zhang Qiang

Frequency:5190MHz
Power supply:DC 13.5V
Test Date: 2023-05-17

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1301.4	70.36	47.82	-22.54	74.00	26.18	200	159	Horizontal
2	1992.2	63.56	43.68	-19.88	68.30	24.62	200	332	Horizontal
3	2662.65	60.81	43.26	-17.55	68.30	25.04	100	217	Horizontal
4	6919.75	57.58	53.03	-4.55	68.30	15.27	200	31	Horizontal
5	13850.8	45.43	53.32	7.89	68.30	14.98	100	69	Horizontal
6	16212.9	44.08	54.62	10.54	68.30	13.68	100	180	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1162.8	71.32	47.66	-23.66	74.00	26.34	200	96	Vertical
2	1663.85	70.27	47.72	-22.55	74.00	26.28	100	36	Vertical
3	2659.9	61.38	43.82	-17.56	68.30	24.48	100	166	Vertical
4	3460.15	60.64	45.74	-14.90	68.30	22.56	100	15	Vertical
5	9798.2	48.96	52.01	3.05	68.30	16.29	200	292	Vertical
6	14538.5	45.12	53.53	8.41	68.30	14.77	200	51	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE 802.11ac VHT40 MIMO
Environment: 21.5°C/65%RH/101.0kPa
Test Engineer:Zhang Qiang

Frequency:5230MHz
Power supply:DC 13.5V
Test Date: 2023-05-17

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1299.2	71.05	48.49	-22.56	68.30	19.81	200	167	Horizontal
2	1987.8	64.34	44.37	-19.97	68.30	23.93	100	349	Horizontal
3	2510.85	65.61	47.97	-17.64	68.30	20.33	100	25	Horizontal
4	6972.65	56.50	52.11	-4.39	68.30	16.19	200	41	Horizontal
5	13851.95	45.90	53.76	7.86	68.30	14.54	200	10	Horizontal
6	16210.6	44.53	55.16	10.63	68.30	13.14	100	334	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1327.8	68.43	46.21	-22.22	74.00	27.79	100	179	Vertical
2	1666.05	70.13	47.58	-22.55	74.00	26.42	100	37	Vertical
3	2661	64.81	47.24	-17.57	68.30	21.06	100	290	Vertical
4	3486.55	60.76	45.78	-14.98	68.30	22.52	100	15	Vertical
5	6972.65	55.18	50.31	-4.87	68.30	17.99	100	346	Vertical
6	14554.6	45.46	54.12	8.66	68.30	14.18	200	275	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE 802.11ac VHT40 MIMO

Environment: 21.5°C/65%RH/101.0kPa

Test Engineer:Zhang Qiang

Frequency:5755MHz

Power supply:DC 13.5V

Test Date: 2023-05-17

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1299.2	72.66	48.92	-23.74	68.30	19.38	100	78	Horizontal
2	2658.25	63.62	44.43	-19.19	68.30	23.87	100	350	Horizontal
3	3836.9	59.98	44.77	-15.21	74.00	29.23	100	16	Horizontal
4	5672.8	58.92	50.80	-8.12	68.30	17.50	200	55	Horizontal
5	9341.65	50.33	51.89	1.56	74.00	22.11	200	162	Horizontal
6	16218.65	44.25	54.53	10.28	68.30	13.77	100	344	Horizontal

AV Final Data List

NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	9341.65	1.56	39.67	41.23	53.70	12.47	200	162	Horizontal

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1331.65	67.65	44.22	-23.43	74.00	29.78	100	179	Vertical
2	2661	67.13	47.87	-19.26	68.30	20.43	100	352	Vertical
3	3836.9	67.08	51.76	-15.32	74.00	22.24	100	17	Vertical
4	5558.95	58.24	49.56	-8.68	68.30	18.74	200	15	Vertical
5	9210.55	50.75	52.56	1.81	68.30	15.74	100	295	Vertical
6	14615.55	45.45	53.47	8.02	68.30	14.83	100	180	Vertical

AV Final Data List

NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3836.8445	-15.32	63.70	48.38	54.00	5.62	100	17	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE 802.11ac VHT40 MIMO
Environment: 21.5°C/65%RH/101.0kPa
Test Engineer:Zhang Qiang

Frequency:5795MHz
Power supply:DC 13.5V
Test Date: 2023-05-17

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1299.75	73.20	49.46	-23.74	68.30	18.84	200	139	Horizontal
2	1664.4	68.13	45.11	-23.02	74.00	28.89	100	304	Horizontal
3	2514.15	64.41	45.13	-19.28	68.30	23.17	200	19	Horizontal
4	8499.85	50.84	50.77	-0.07	74.00	23.23	100	352	Horizontal
5	9871.8	48.45	51.01	2.56	68.30	17.29	200	261	Horizontal
6	15022.65	44.93	53.09	8.16	68.30	15.21	200	16	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	8499.85	-0.07	39.28	39.21	54.00	14.79	100	352	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1299.2	73.01	49.98	-23.03	68.30	18.32	100	149	Vertical
2	1664.4	69.09	45.28	-23.81	74.00	28.72	100	323	Vertical
3	3142.8	60.50	43.58	-16.92	68.30	24.72	200	305	Vertical
4	7146.3	50.69	48.73	-1.96	68.30	19.57	100	248	Vertical
5	10556.05	47.61	51.62	4.01	68.30	16.68	200	290	Vertical
6	13856.55	45.68	53.71	8.03	68.30	14.59	200	87	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE 802.11ac VHT80 MIMO
Environment: 21.5°C/65%RH/101.0kPa
Test Engineer:Zhang Qiang

Frequency:5210MHz
Power supply:DC 13.5V
Test Date: 2023-05-17

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1162.8	70.93	48.16	-22.77	74.00	25.84	200	322	Horizontal
2	1663.85	67.98	46.22	-21.76	74.00	27.78	100	320	Horizontal
3	2657.15	61.83	44.34	-17.49	68.30	23.96	100	116	Horizontal
4	6946.2	56.19	51.83	-4.36	68.30	16.47	200	1	Horizontal
5	9276.1	50.00	51.30	1.30	68.30	17.00	200	255	Horizontal
6	16448.65	44.60	54.17	9.57	68.30	14.13	200	40	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1162.8	-22.77	56.28	33.51	54.00	20.49	200	322	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1328.35	68.32	46.09	-22.23	74.00	27.91	100	16	Vertical
2	1662.75	69.32	46.78	-22.54	74.00	27.22	200	36	Vertical
3	2529.55	63.81	45.89	-17.92	68.30	22.41	100	88	Vertical
4	3473.35	59.63	44.69	-14.94	68.30	23.61	100	16	Vertical
5	8894.3	50.15	50.35	0.20	68.30	17.95	100	151	Vertical
6	14400.5	43.98	53.27	9.29	68.30	15.03	200	244	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE 802.11ac VHT80 MIMO

Environment: 21.5°C/65%RH/101.0kPa

Test Engineer:Zhang Qiang

Frequency:5775MHz

Power supply:DC 13.5V

Test Date: 2023-05-17

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1286	68.95	45.16	-23.79	68.30	23.14	200	161	Horizontal
2	1728.75	64.62	41.80	-22.82	68.30	26.50	100	233	Horizontal
3	2660.45	61.81	42.59	-19.22	68.30	25.71	100	344	Horizontal
4	5046.9	54.60	45.51	-9.09	74.00	28.49	100	344	Horizontal
5	9235.85	49.75	51.09	1.34	68.30	17.21	200	97	Horizontal
6	13163.1	45.28	52.28	7.00	68.30	16.02	200	117	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1165.55	68.66	44.01	-24.65	74.00	29.99	100	10	Vertical
2	2663.2	67.31	48.04	-19.27	68.30	20.26	100	41	Vertical
3	3850.1	68.06	52.91	-15.15	74.00	21.09	100	10	Vertical
4	10462.9	48.47	52.15	3.68	68.30	16.15	200	220	Vertical
5	14383.25	44.73	53.73	9.00	68.30	14.57	100	14	Vertical
6	17889.6	45.49	55.57	10.08	74.00	18.43	200	151	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3849.9885	-15.15	64.77	49.62	54.00	4.38	155	4.1	Vertical
2	17889.6	10.08	32.56	42.64	54.00	11.36	200	151	Vertical

----- The following blanks -----

Above 18 GHz

Pre-scan all modes and recorded the worst case results in this report (IEEE 802.11ac VHT40 MIMO)

Mode: Mode 1/ IEEE802.11ac VHT40 MIMO

Environment:21.6°C/64%RH/101.0kPa

Test Engineer: Zhang Zishan

Frequency:5190MHz

Power supply:DC 13.5V

Test Date:2023-05-18

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	20759.9	58.57	42.12	-16.45	83.54	41.42	100	282	Horizontal
2	23393.3	57.31	42.42	-14.89	83.54	41.12	100	282	Horizontal
3	28000.1	52.71	37.89	-14.82	83.54	45.65	200	48	Horizontal
4	30790.8	56.42	41.51	-14.91	83.54	42.03	100	329	Horizontal
5	33967.6	55.13	41.06	-14.07	83.54	42.48	100	346	Horizontal
6	37785.7	52.03	39.99	-12.04	83.54	43.55	100	346	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	20759.9	59.58	43.32	-16.26	83.54	40.22	100	203	Vertical
2	23393.3	59.21	44.29	-14.92	83.54	39.25	200	203	Vertical
3	24763.9	52.16	38.18	-13.98	83.54	45.36	100	78	Vertical
4	30884.3	56.56	41.49	-15.07	83.54	42.05	200	92	Vertical
5	34769.5	55.52	41.51	-14.01	83.54	42.03	100	301	Vertical
6	36990.4	52.54	40.51	-12.03	83.54	43.03	100	78	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE802.11ac VHT40 MIMO
Environment:21.6°C/64%RH/101.0kPa
Test Engineer: Zhang Zishan

Frequency:5230MHz
Power supply:DC 13.5V
Test Date:2023-05-18

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	19590.6	55.27	38.46	-16.81	83.54	45.08	100	268	Horizontal
2	20919.4	58.32	42.13	-16.19	83.54	41.41	100	248	Horizontal
3	24887.1	51.78	37.88	-13.90	83.54	45.66	100	248	Horizontal
4	31241.8	56.69	41.34	-15.35	83.54	42.20	100	330	Horizontal
5	33910.4	54.77	40.57	-14.20	83.54	42.97	100	93	Horizontal
6	37310.5	52.70	39.89	-12.81	83.54	43.65	200	297	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	19699.5	55.06	38.11	-16.95	83.54	45.43	100	156	Vertical
2	20919.4	60.85	44.66	-16.19	83.54	38.88	100	202	Vertical
3	22713.5	56.79	41.61	-15.18	83.54	41.93	200	109	Vertical
4	25544.9	53.01	38.94	-14.07	83.54	44.60	100	281	Vertical
5	30832.6	57.22	42.11	-15.11	83.54	41.43	100	156	Vertical
6	37395.2	53.07	41.02	-12.05	83.54	42.52	100	109	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE802.11ac VHT40 MIMO
Environment:21.6°C/64%RH/101.0kPa
Test Engineer: Zhang Zishan

Frequency:5755MHz
Power supply:DC 13.5V
Test Date:2023-05-18

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18458.7	57.00	39.37	-17.63	83.54	44.17	100	141	Horizontal
2	21121.8	57.77	41.82	-15.95	83.54	41.72	100	94	Horizontal
3	26750.5	52.16	39.03	-13.13	83.54	44.51	200	267	Horizontal
4	29829.4	56.43	41.47	-14.96	83.54	42.07	100	343	Horizontal
5	33867.5	55.39	41.11	-14.28	83.54	42.43	100	343	Horizontal
6	39084.8	49.97	39.61	-10.36	83.54	43.93	100	110	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	19389.3	54.78	37.61	-17.17	83.54	45.93	200	170	Vertical
2	22006.2	57.62	41.79	-15.83	83.54	41.75	100	170	Vertical
3	26572.3	52.30	38.31	-13.99	83.54	45.23	100	263	Vertical
4	31924.9	56.82	41.32	-15.50	83.54	42.22	200	233	Vertical
5	34827.8	55.03	40.99	-14.04	83.54	42.55	100	342	Vertical
6	36997	53.19	41.18	-12.01	83.54	42.36	100	185	Vertical

----- The following blanks -----

Mode: Mode 1/ IEEE802.11ac VHT40 MIMO
Environment:21.6°C/64%RH/101.0kPa
Test Engineer: Zhang Zishan

Frequency:5795MHz
Power supply:DC 13.5V
Test Date:2023-05-18

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18497.2	57.06	39.52	-17.54	83.54	44.02	100	14	Horizontal
2	21294.5	57.96	42.11	-15.85	83.54	41.43	100	251	Horizontal
3	23179.9	56.88	41.97	-14.91	83.54	41.57	200	267	Horizontal
4	30786.4	56.74	41.84	-14.90	83.54	41.70	100	139	Horizontal
5	33966.5	55.05	40.97	-14.08	83.54	42.57	100	282	Horizontal
6	37443.6	52.76	40.07	-12.69	83.54	43.47	200	234	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18919.6	55.56	38.46	-17.10	83.54	45.08	200	298	Vertical
2	22129.4	57.99	42.19	-15.80	83.54	41.35	100	157	Vertical
3	25451.4	52.05	37.98	-14.07	83.54	45.56	100	124	Vertical
4	30339.8	56.62	41.40	-15.22	83.54	42.14	100	251	Vertical
5	34613.3	54.93	40.87	-14.06	83.54	42.67	200	298	Vertical
6	36761.6	53.04	40.35	-12.69	83.54	43.19	100	267	Vertical

----- The following blanks -----

6. RESTRICTED BANDS OF OPERATION

6.1 LIMITS

Section 15.407(b)(10) The provisions of §15.205 apply to intentional radiators operating under this section.

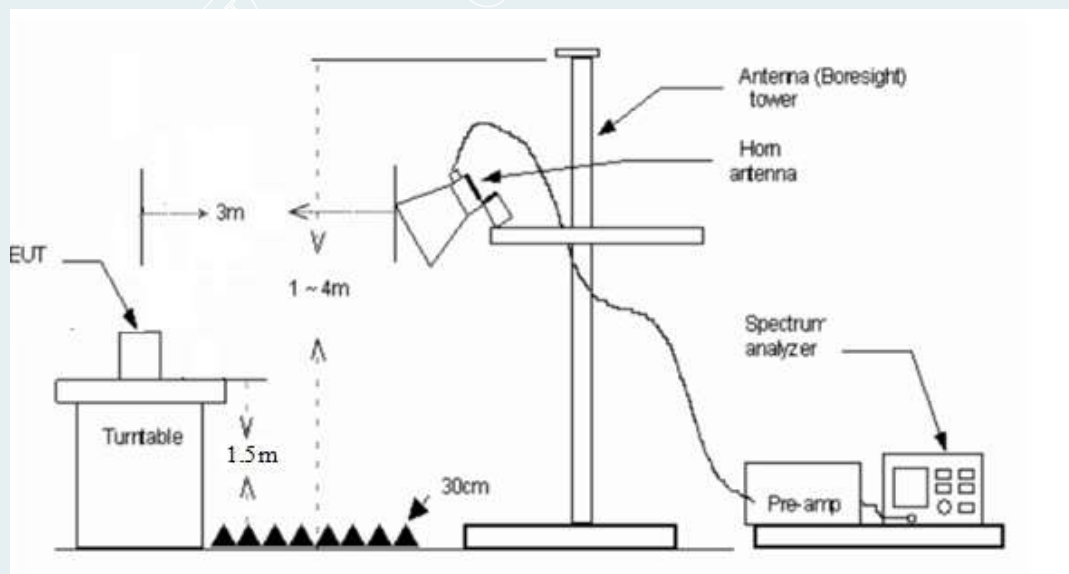
15.205(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

Frequency(MHz)	Frequency(MHz)	Frequency(MHz)	Frequency(GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

6.2 TEST PROCEDURES

- 1) The EUT is placed on a turntable, which is 1.5m above the ground plane.
- 2) The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3) EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4) Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - a) PEAK Measurement: RBW=1MHz / VBW=3MHz / Sweep=AUTO
 - b) AVERAGE Measurement: RBW=1MHz, Sweep=AUTO, There are two cases of VBW.
If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW=10Hz. If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$, Where T is defined in section 2.9.
- 5) Repeat the procedures until all the PEAK and AVERAGE versus polarization are measured.

6.3 TEST SETUP



----- The following blanks -----

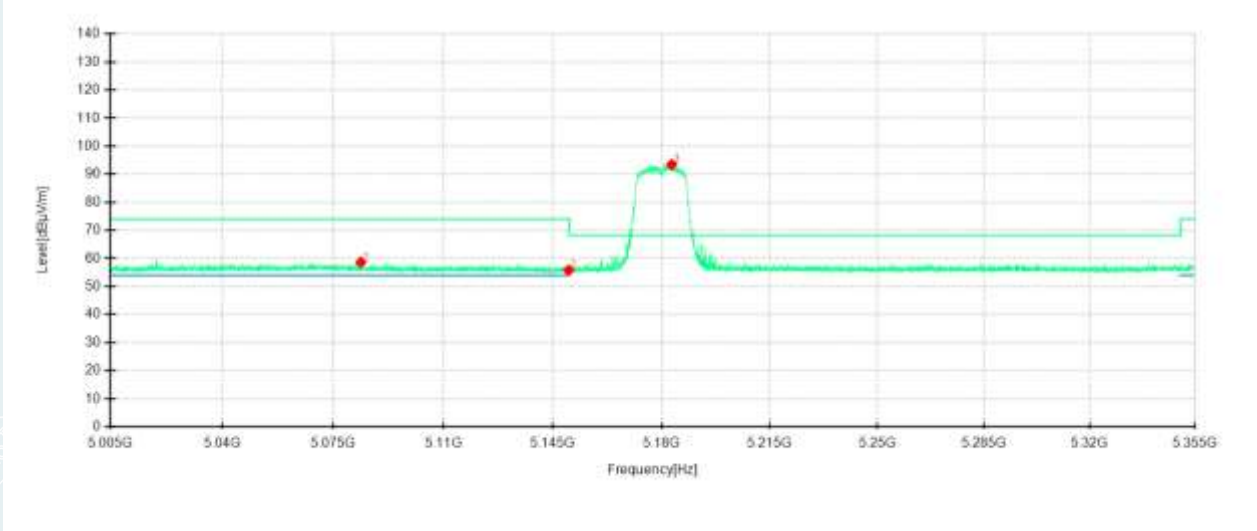
6.4 TEST RESULTS

Environment: 23.2°C/63%RH/101.0kPa	Power supply:DC 13.5V
Test Engineer: Chen Xiacong	Test Date: 2023-05-09 to 2023-05-10

802.11a mode ANT1/5180MHz

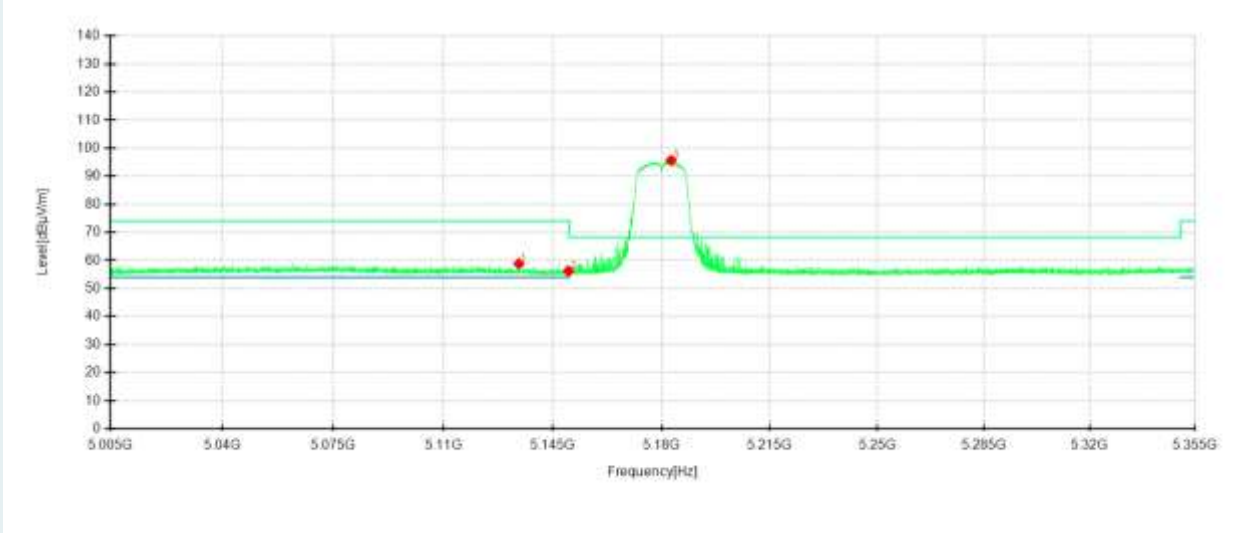
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

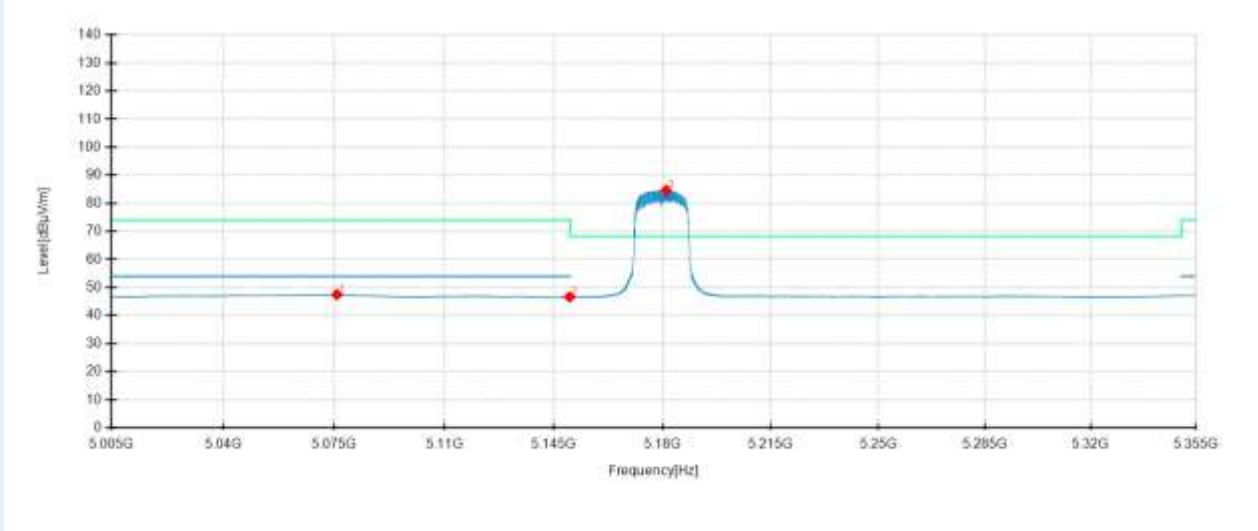


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5083.785	42.05	58.60	16.55	74.00	15.40	100	207	Horizontal	/
2	5150	39.46	55.74	16.28	68.30	12.56	100	308	Horizontal	/
3	5183.22	77.04	93.46	16.42	68.30	-25.16	200	61	Horizontal	No limit
1	5134.08	42.53	58.77	16.24	74.00	15.23	100	234	Vertical	/
2	5150	40.05	56.13	16.08	68.30	12.17	200	310	Vertical	/
3	5183.01	79.47	95.63	16.16	68.30	-27.33	200	358	Vertical	No limit

802.11a mode ANT1/5180MHz

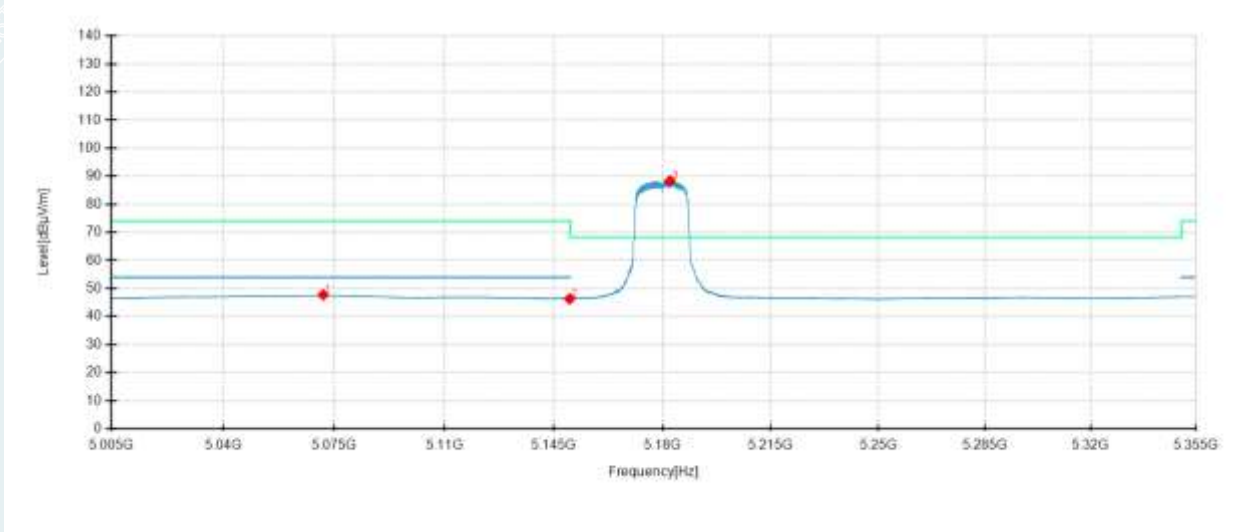
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

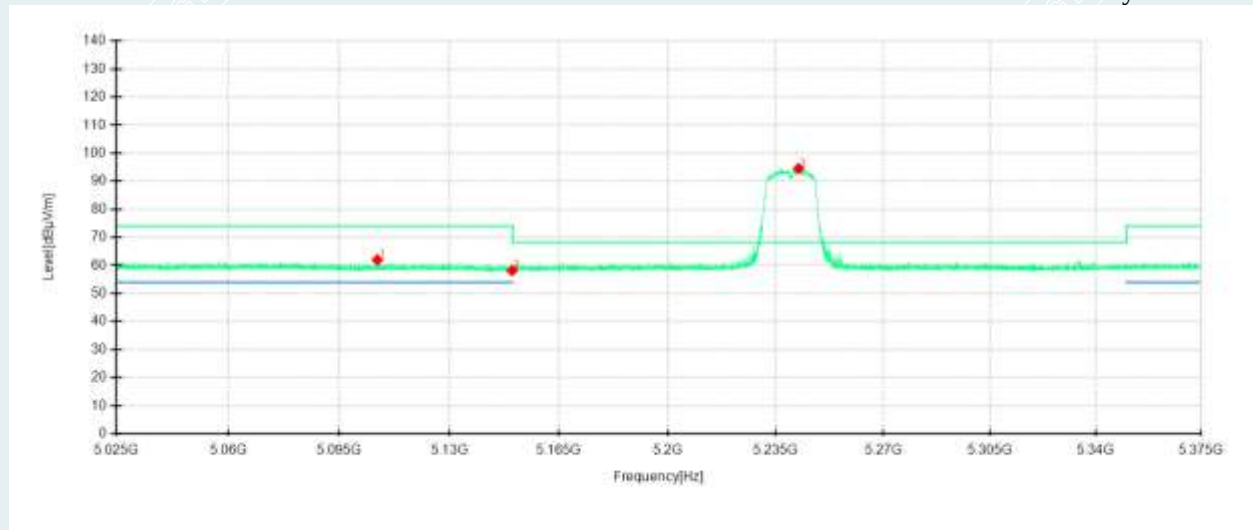


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5075.91	27.84	47.44	19.60	54.00	6.56	100	35	Horizontal	/
2	5150	27.32	46.60	19.28	54.00	7.40	200	63	Horizontal	/
3	5181.05	65.16	84.58	19.42	-	-	200	53	Horizontal	No limit
1	5071.535	28.01	47.73	19.72	54.00	6.27	200	178	Vertical	/
2	5150	27.19	46.27	19.08	54.00	7.73	200	360	Vertical	/
3	5182.38	69.21	88.37	19.16	-	-	200	16	Vertical	No limit

802.11a mode ANT1/5240MHz

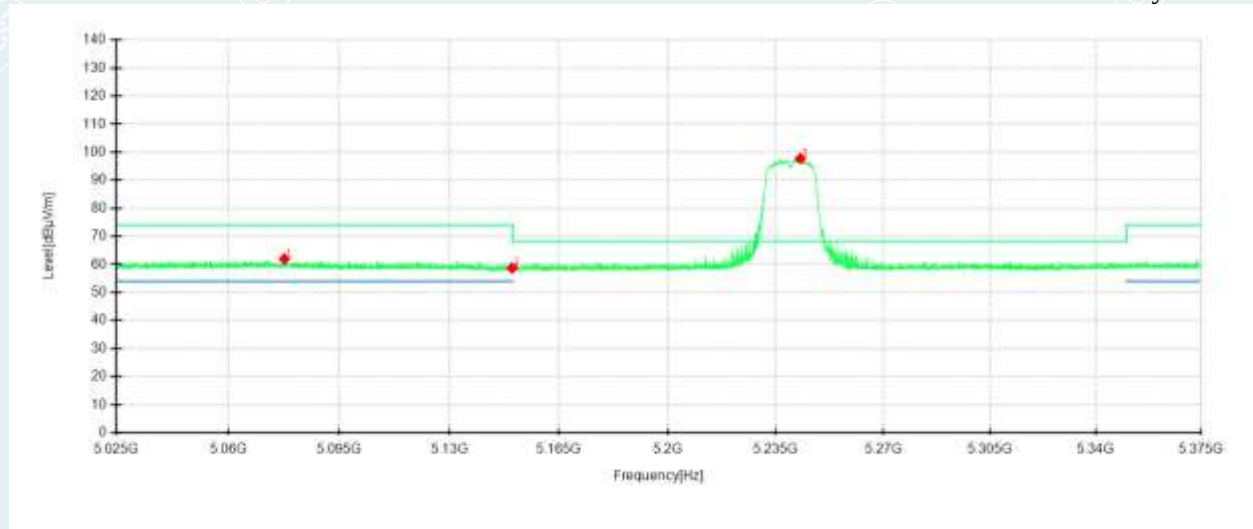
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

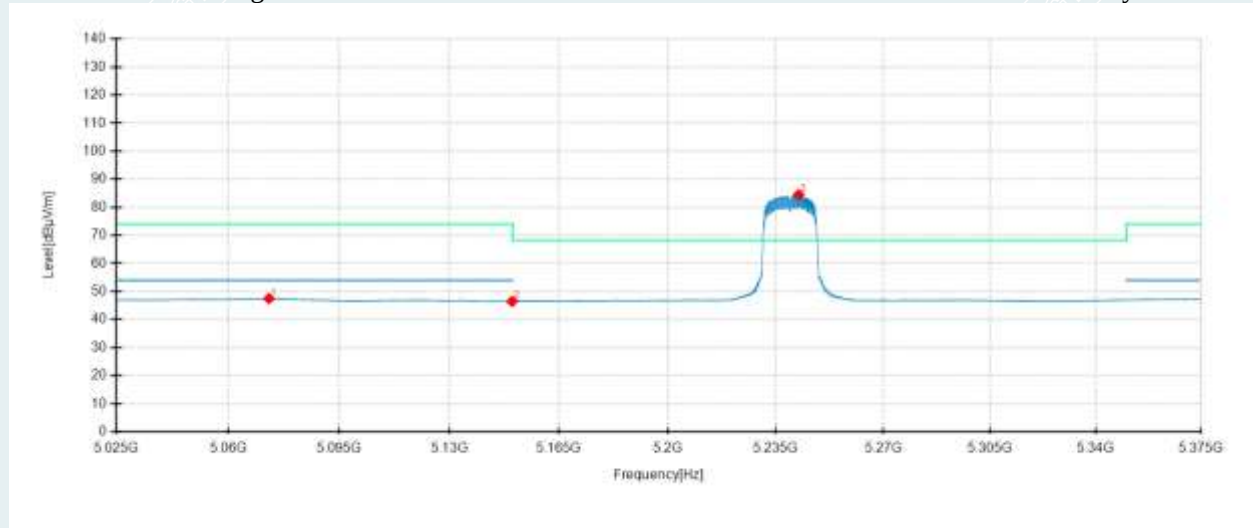


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5107.145	42.51	61.96	19.45	74.00	12.04	200	345	Horizontal	/
2	5150	38.83	58.11	19.28	68.30	10.19	200	224	Horizontal	/
3	5242.42	75.09	94.51	19.42	68.30	-26.21	200	293	Horizontal	No limit
1	5077.71	42.25	61.94	19.69	74.00	12.06	200	359	Vertical	/
2	5150	39.62	58.70	19.08	68.30	9.60	200	86	Vertical	/
3	5242.98	78.68	97.71	19.03	68.30	-29.41	200	359	Vertical	No limit

802.11a mode ANT1/5240MHz

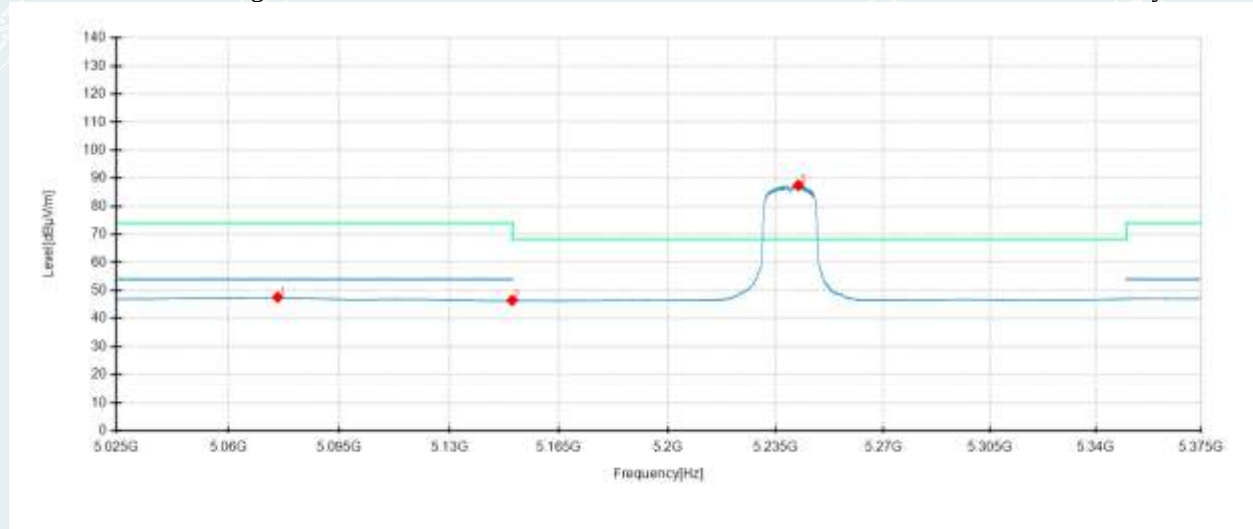
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

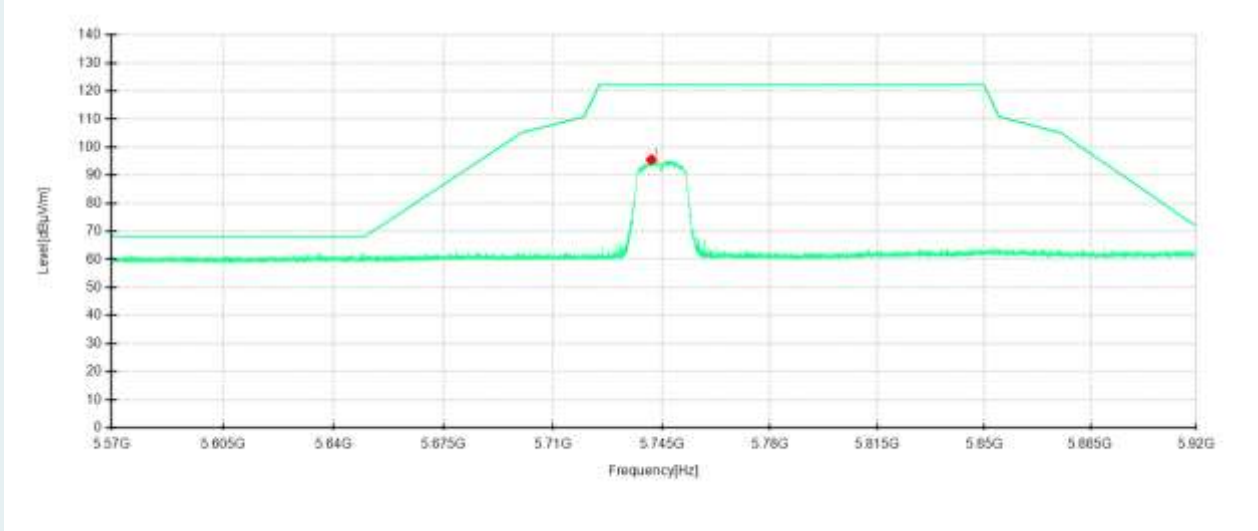


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5072.88	27.85	47.46	19.61	54.00	6.54	100	78	Horizontal	/
2	5150	27.14	46.42	19.28	54.00	7.58	100	301	Horizontal	/
3	5242.42	65.04	84.46	19.42	-	-	200	294	Horizontal	No limit
1	5075.61	27.87	47.57	19.70	54.00	6.43	200	236	Vertical	/
2	5150	27.34	46.42	19.08	54.00	7.58	200	35	Vertical	/
3	5242.35	68.44	87.47	19.03	-	-	200	360	Vertical	No limit

802.11a mode ANT1/5745MHz

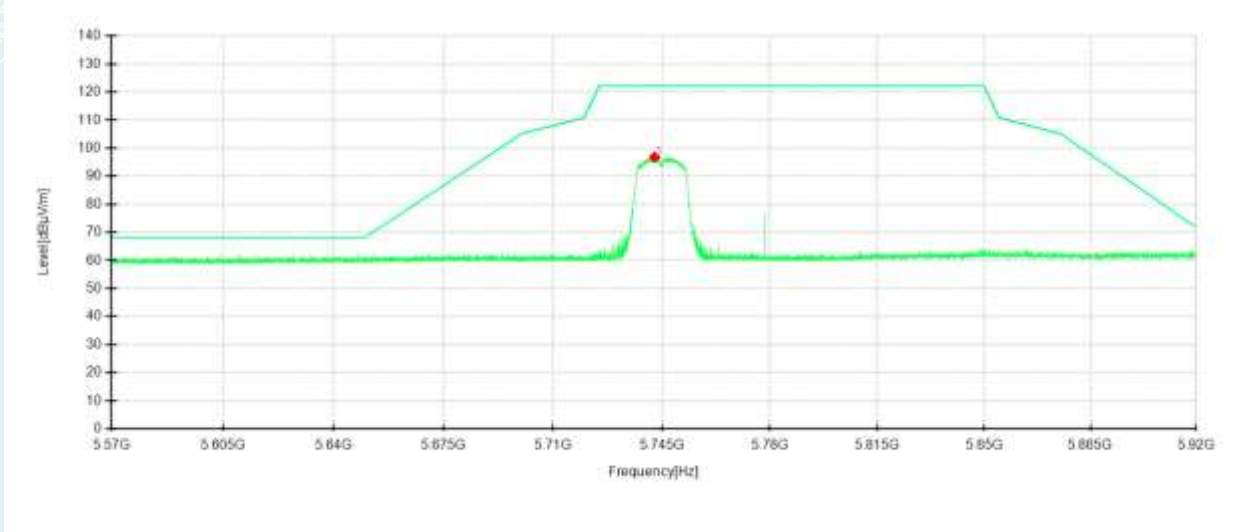
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

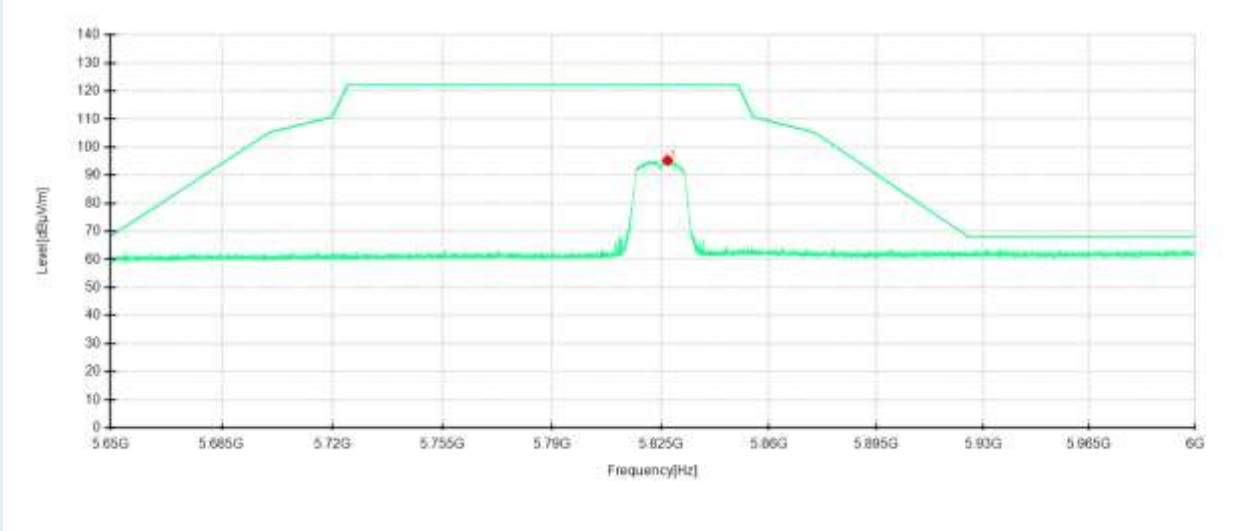


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5741.64	74.26	95.54	21.28	122.20	26.66	200	334	Horizontal	No limit
1	5742.655	75.68	96.78	21.10	122.20	25.42	200	15	Vertical	No limit

802.11a mode ANT1/5825MHz

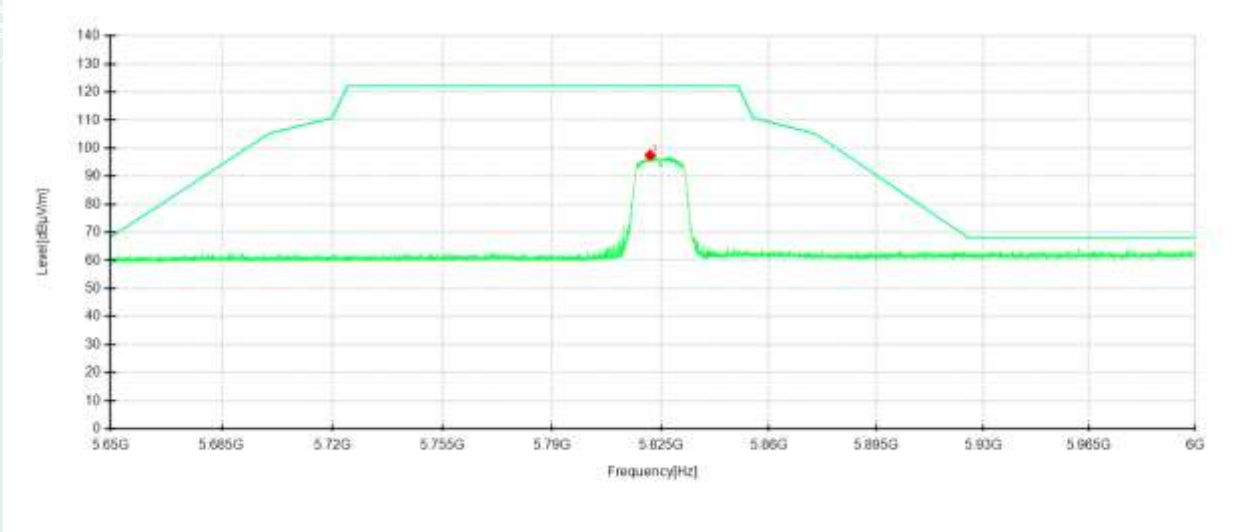
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

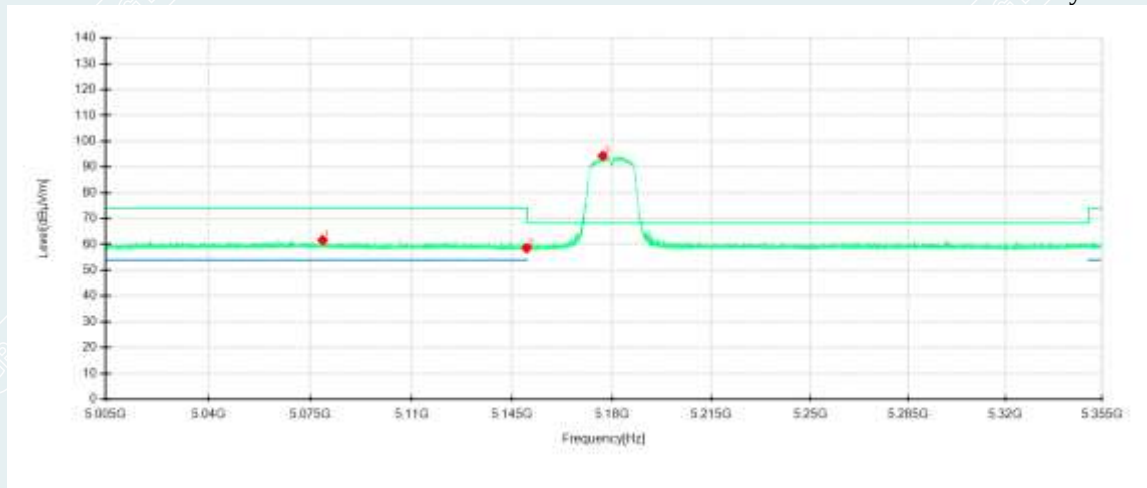


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5827.205	73.08	95.29	22.21	122.20	26.91	200	334	Horizontal	No limit
1	5821.605	75.73	97.46	21.73	122.20	24.74	200	17	Vertical	No limit

802.11a mode ANT2/5180MHz

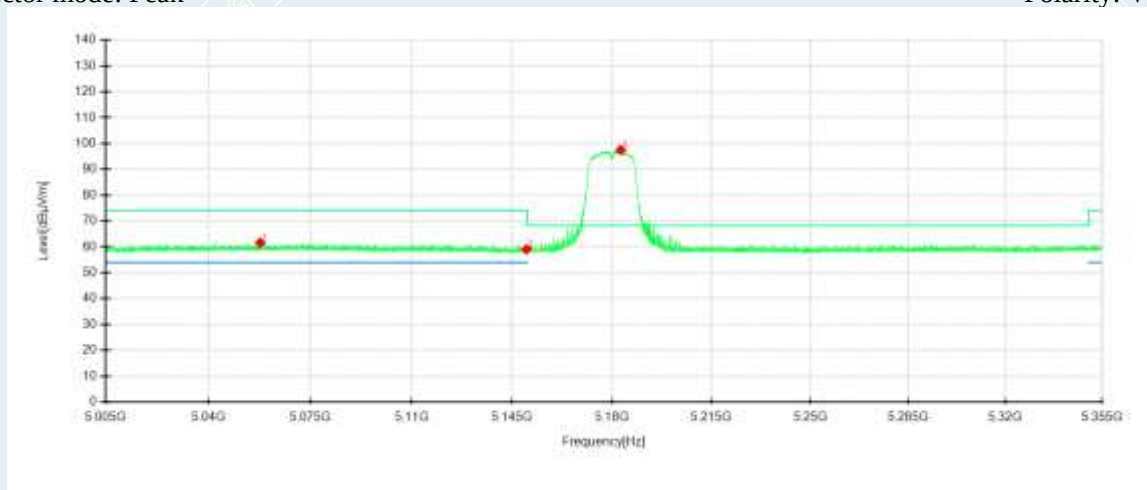
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

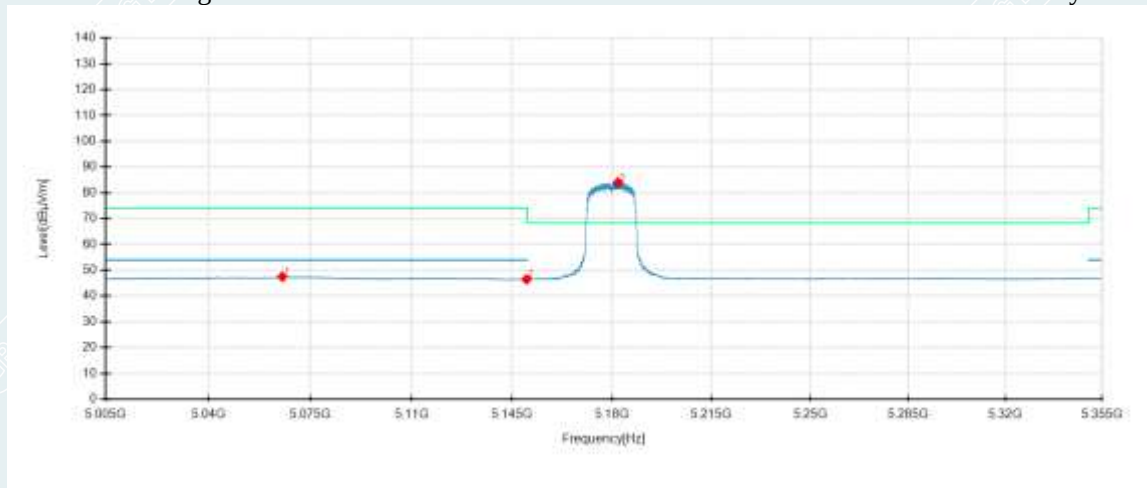


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5079.235	42.11	61.69	19.58	74.00	12.31	100	188	Horizontal	/
2	5150	39.23	58.51	19.28	68.30	9.79	100	218	Horizontal	/
3	5176.71	74.94	94.34	19.40	68.30	-26.04	200	64	Horizontal	No limit
1	5057.815	41.85	61.64	19.79	74.00	12.36	100	214	Vertical	/
2	5150	39.97	59.05	19.08	68.30	9.25	100	344	Vertical	/
3	5182.975	78.34	97.50	19.16	68.30	-29.20	200	360	Vertical	No limit

802.11a mode ANT2/5180MHz

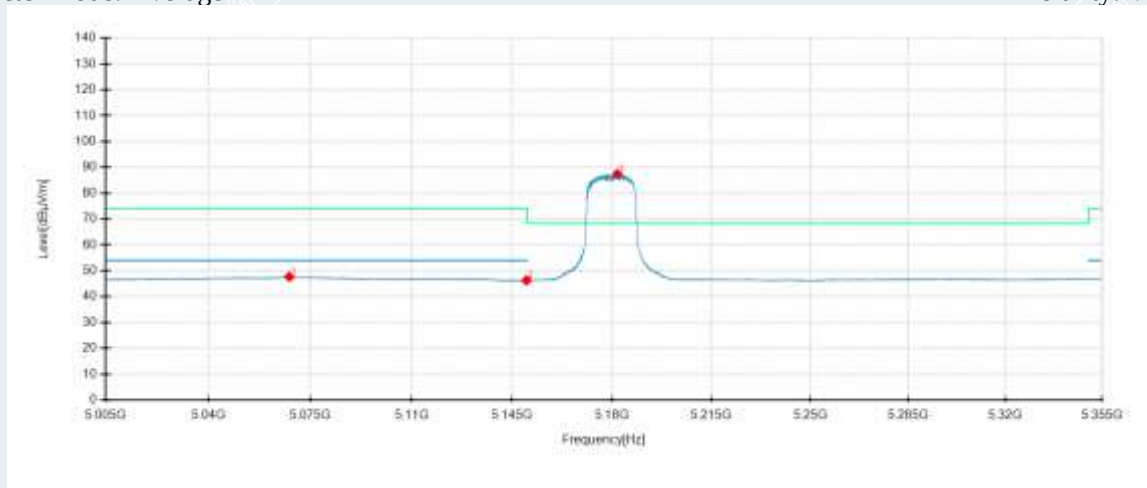
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

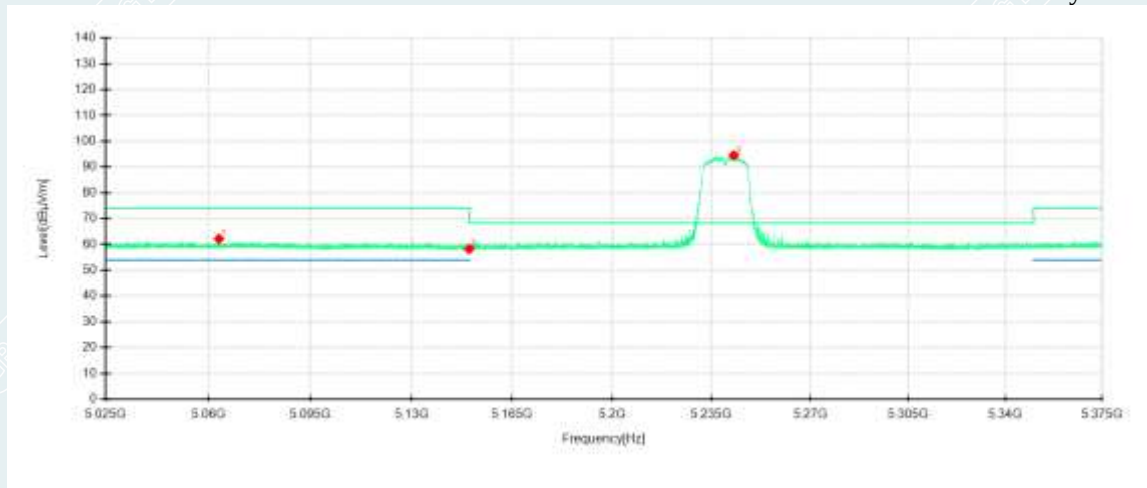


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5065.375	27.79	47.44	19.65	54.00	6.56	200	22	Horizontal	/
2	5150	27.15	46.43	19.28	54.00	7.57	100	349	Horizontal	/
3	5182.03	64.53	83.95	19.42	-	-	200	53	Horizontal	No limit
1	5067.755	27.92	47.66	19.74	54.00	6.34	100	182	Vertical	/
2	5150	27.19	46.27	19.08	54.00	7.73	100	19	Vertical	/
3	5181.75	68.23	87.38	19.15	-	-	200	360	Vertical	No limit

802.11a mode ANT2/5240MHz

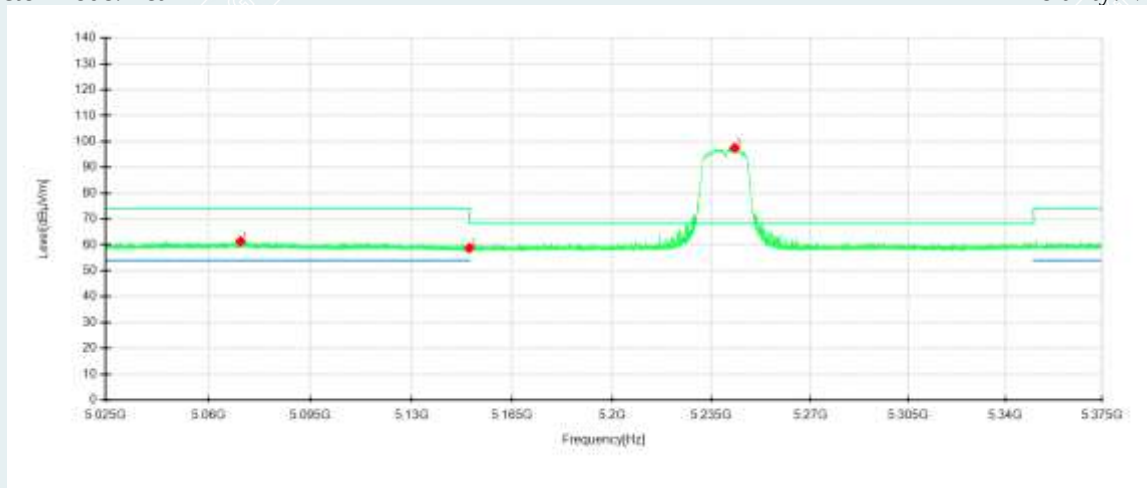
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

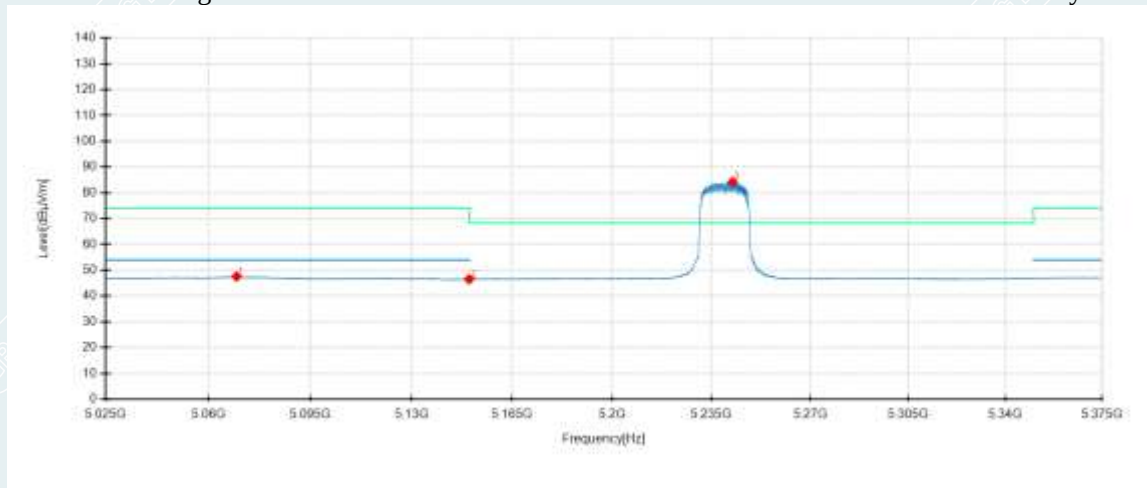


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5063.675	42.50	62.16	19.66	74.00	11.84	100	156	Horizontal	/
2	5150	38.92	58.20	19.28	68.30	10.10	100	55	Horizontal	/
3	5242.91	75.08	94.49	19.41	68.30	-26.19	200	294	Horizontal	No limit
1	5071.025	41.67	61.39	19.72	74.00	12.61	200	277	Vertical	/
2	5150	39.63	58.71	19.08	68.30	9.59	100	12	Vertical	/
3	5243.19	78.44	97.47	19.03	68.30	-29.17	200	358	Vertical	No limit

802.11a mode ANT2/5240MHz

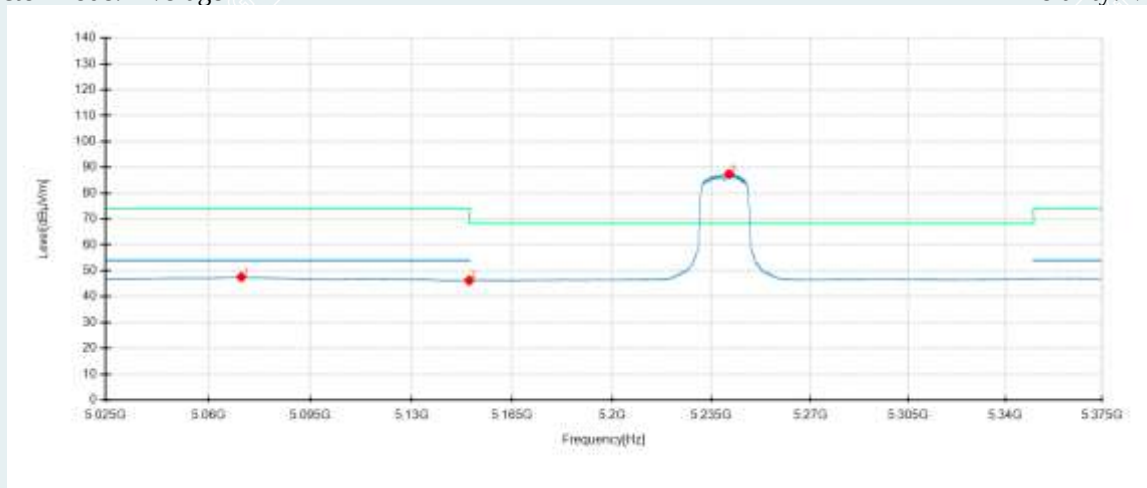
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

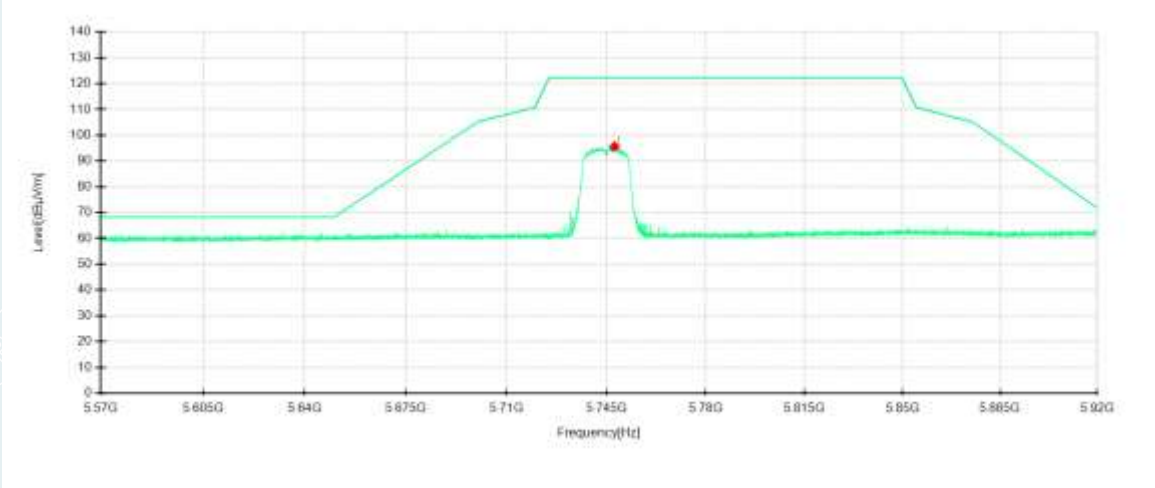


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5069.695	27.91	47.54	19.63	54.00	6.46	100	155	Horizontal	/
2	5150	27.19	46.47	19.28	54.00	7.53	100	257	Horizontal	/
3	5242.455	64.74	84.16	19.42	-	-	200	295	Horizontal	No limit
1	5071.34	27.85	47.57	19.72	54.00	6.43	200	36	Vertical	/
2	5150	27.14	46.22	19.08	54.00	7.78	100	345	Vertical	/
3	5241.195	68.35	87.39	19.04	-	-	200	360	Vertical	No limit

802.11a mode ANT2/5745MHz

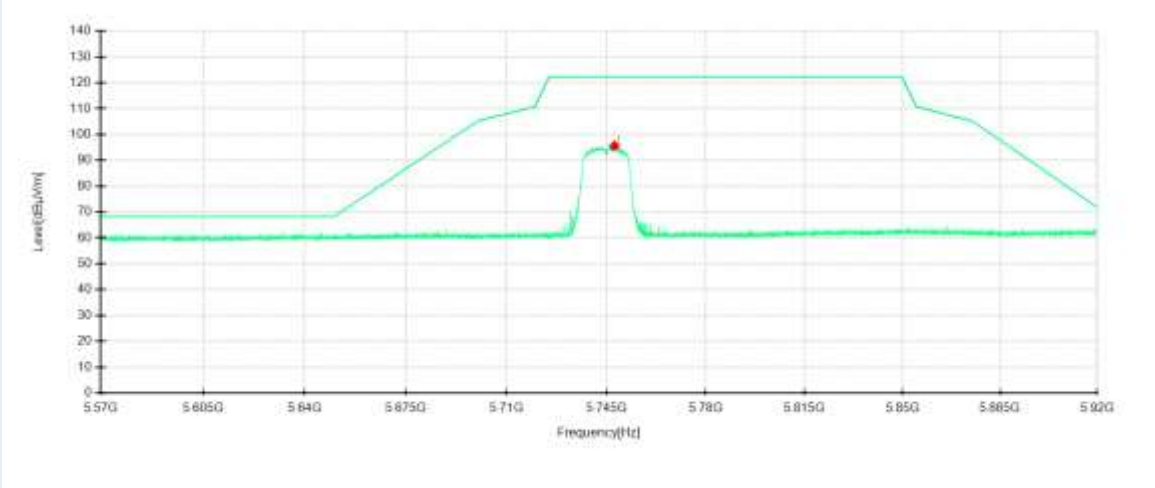
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

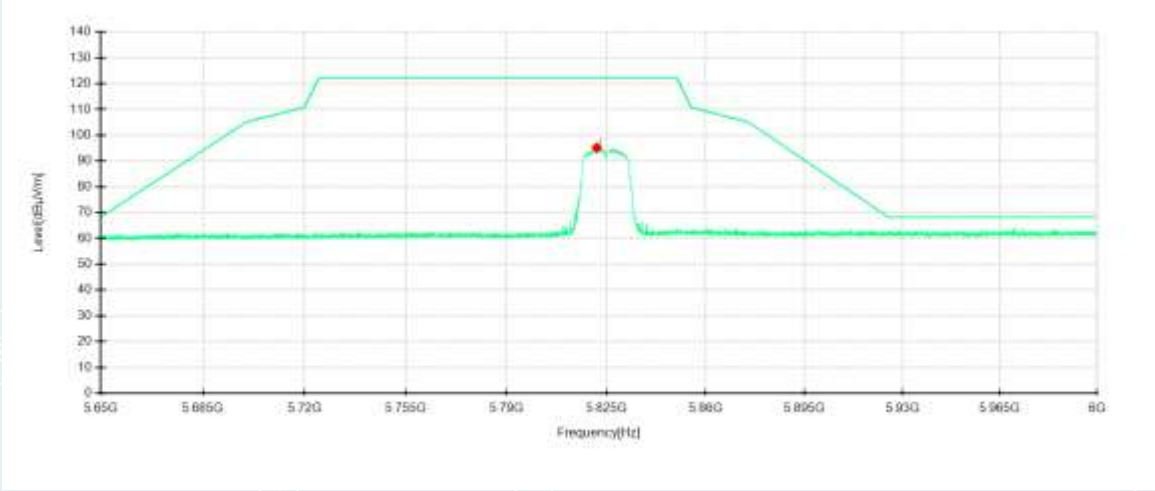


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5747.87	74.31	95.62	21.31	122.20	26.58	200	295	Horizontal	No limit
1	5741.57	77.24	98.33	21.09	122.20	23.87	200	16	Vertical	No limit

802.11a mode ANT2/5825MHz

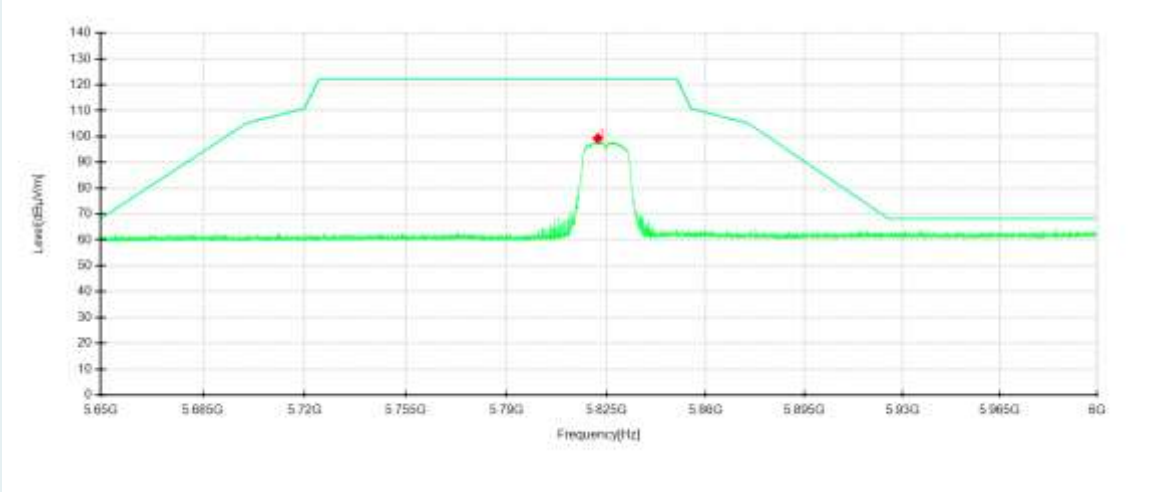
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

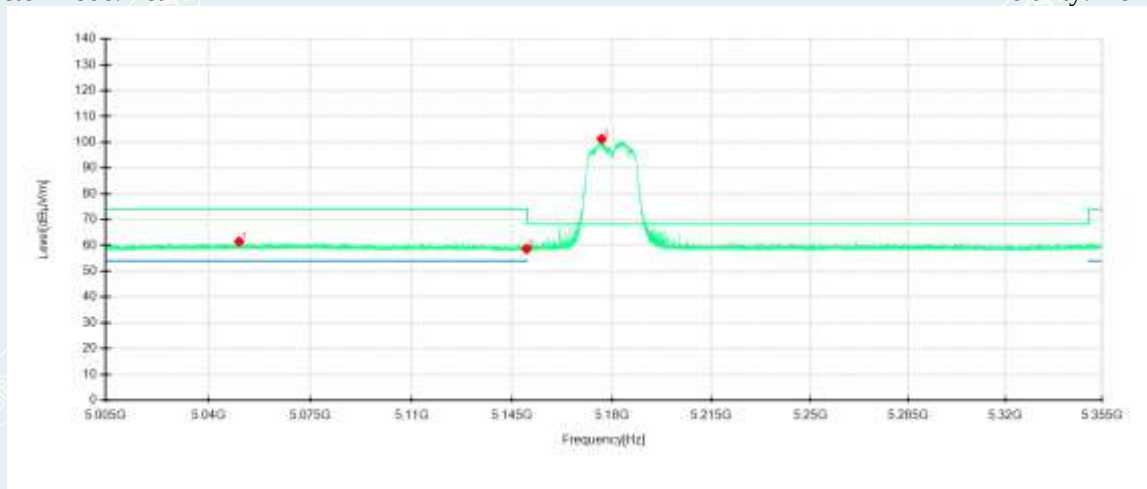


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5821.64	73.09	95.17	22.08	122.20	27.03	200	52	Horizontal	No limit
1	5822.095	77.54	99.28	21.74	122.20	22.92	200	360	Vertical	No limit

802.11n HT20 MIMO mode/5180MHz

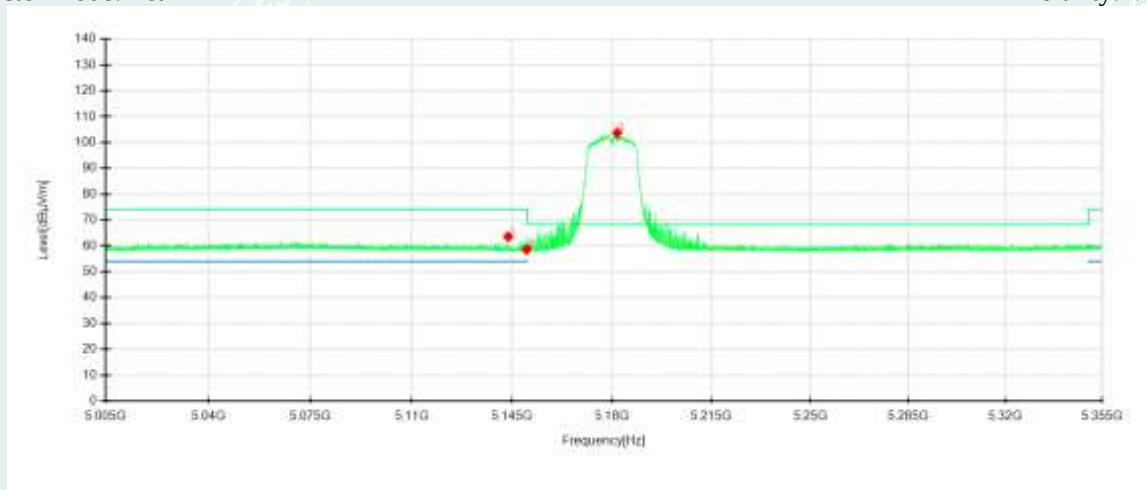
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

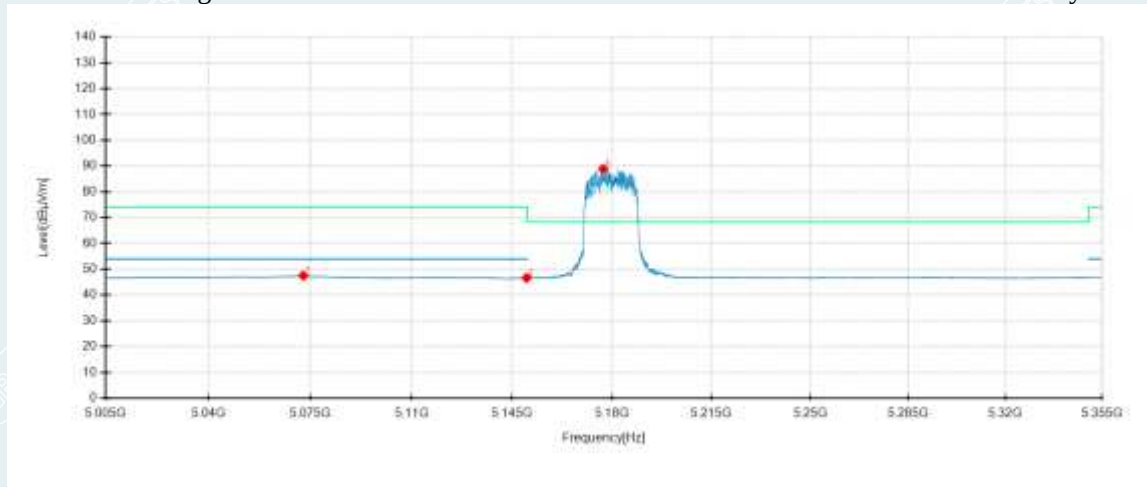


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5050.57	41.70	61.43	19.73	74.00	12.57	100	97	Horizontal	/
2	5150	39.33	58.61	19.28	68.30	9.69	100	220	Horizontal	/
3	5176.29	81.85	101.25	19.40	68.30	-32.95	200	60	Horizontal	No limit
1	5143.6	44.43	63.57	19.14	74.00	10.43	200	16	Vertical	/
2	5150	39.46	58.54	19.08	68.30	9.76	200	16	Vertical	/
3	5181.715	84.53	103.68	19.15	68.30	-35.38	200	358	Vertical	No limit

802.11n HT20 MIMO mode/5180MHz

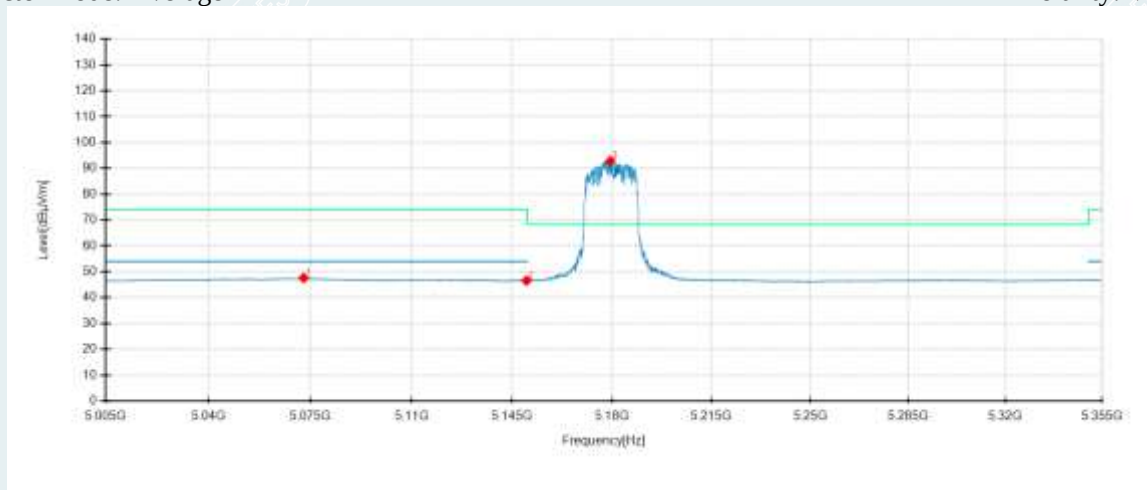
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

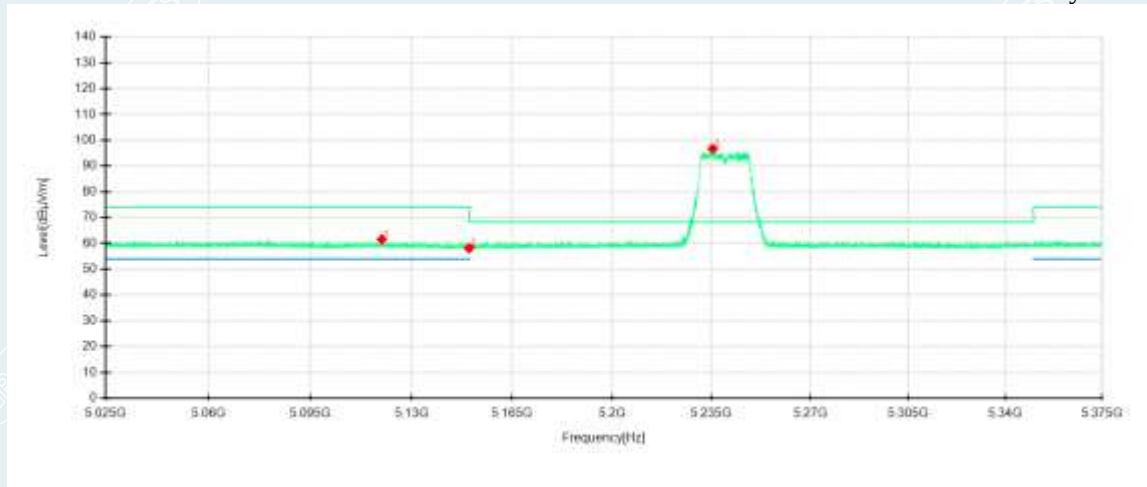


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5072.62	27.87	47.48	19.61	54.00	6.52	100	16	Horizontal	/
2	5150	27.34	46.62	19.28	54.00	7.38	200	60	Horizontal	/
3	5176.85	69.45	88.85	19.40	-	-	200	50	Horizontal	No limit
1	5072.725	27.89	47.60	19.71	54.00	6.40	200	198	Vertical	/
2	5150	27.47	46.55	19.08	54.00	7.45	200	16	Vertical	/
3	5179.37	73.65	92.80	19.15	-	-	200	360	Vertical	No limit

802.11n HT20 MIMO mode/5240MHz

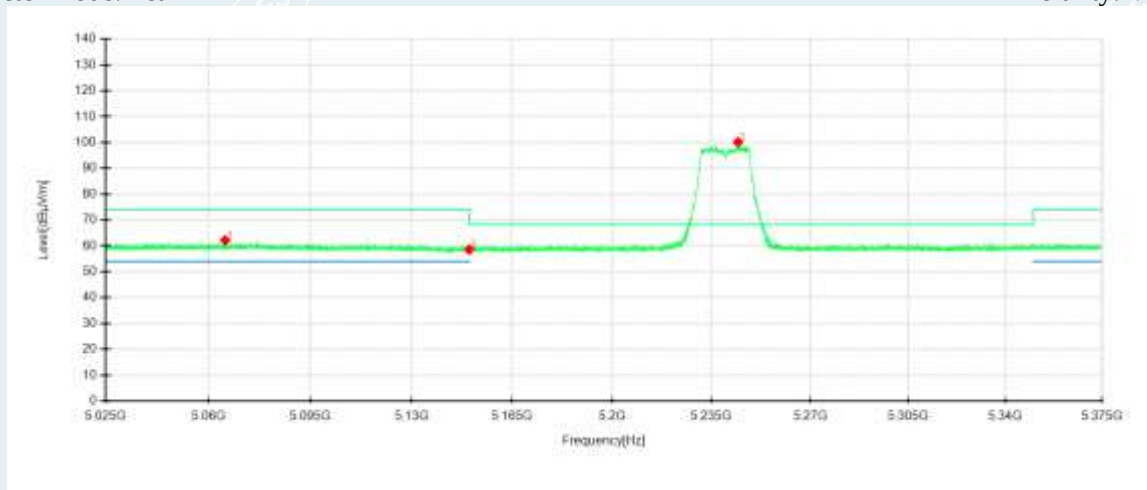
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

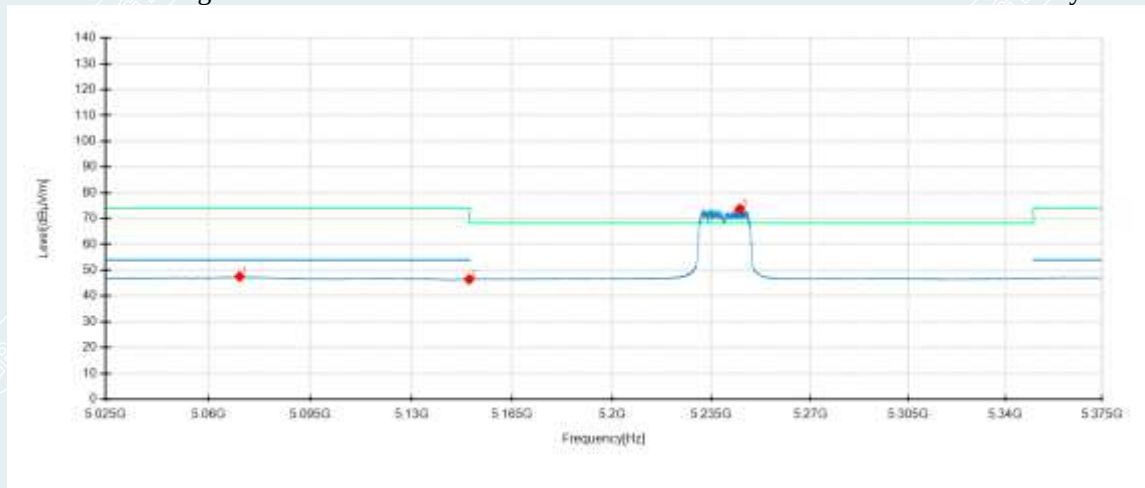


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5119.71	42.20	61.59	19.39	74.00	12.41	200	72	Horizontal	/
2	5150	38.85	58.13	19.28	68.30	10.17	100	87	Horizontal	/
3	5235.42	77.24	96.67	19.43	68.30	-28.37	200	61	Horizontal	No limit
1	5065.81	42.40	62.15	19.75	74.00	11.85	100	234	Vertical	/
2	5150	39.44	58.52	19.08	68.30	9.78	100	253	Vertical	/
3	5244.38	81.06	100.08	19.02	68.30	-31.78	200	359	Vertical	No limit

802.11n HT20 MIMO mode/5240MHz

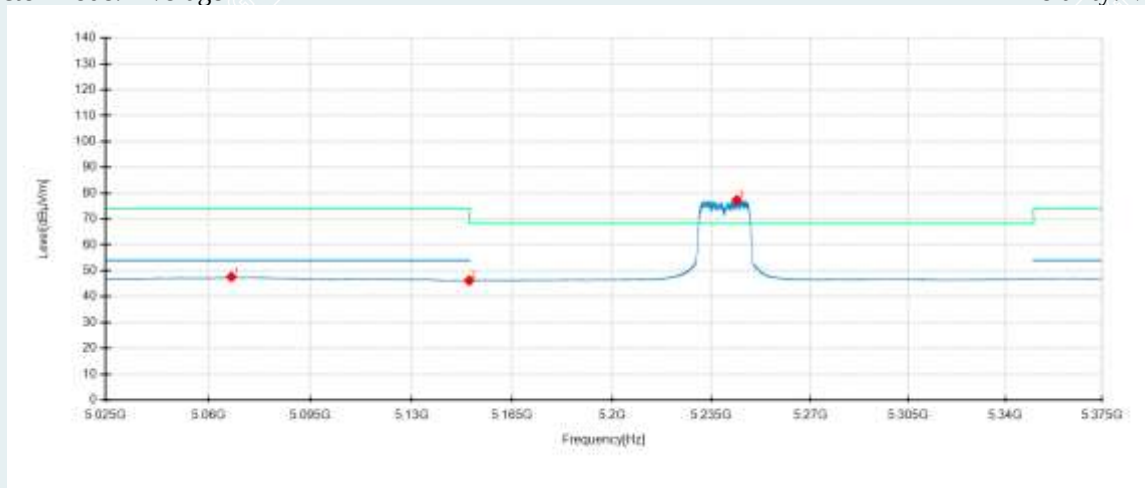
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

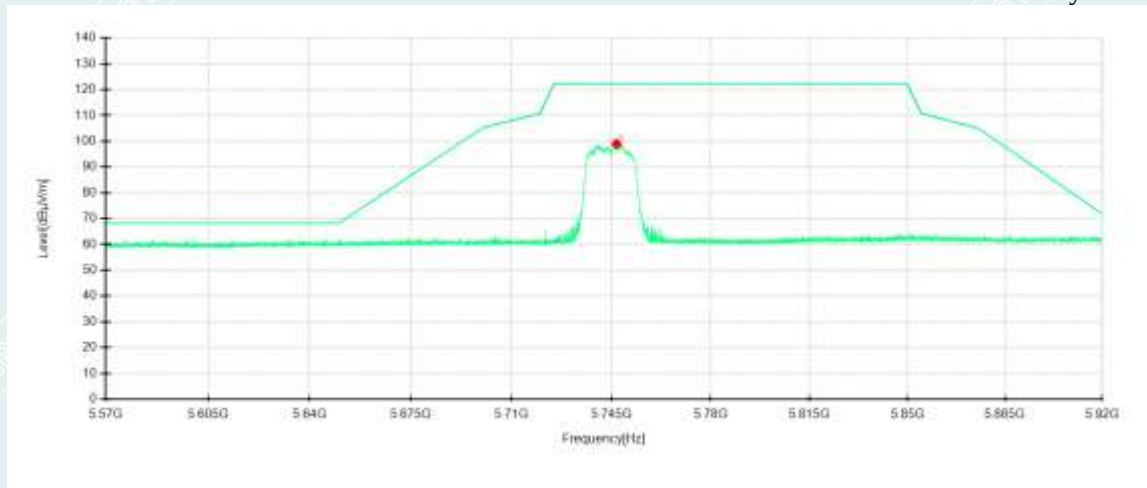


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5070.745	27.90	47.52	19.62	54.00	6.48	100	75	Horizontal	/
2	5150	27.15	46.43	19.28	54.00	7.57	200	206	Horizontal	/
3	5245.01	54.40	73.81	19.41	-	-	200	52	Horizontal	No limit
1	5067.945	27.88	47.62	19.74	54.00	6.38	100	324	Vertical	/
2	5150	27.12	46.20	19.08	54.00	7.80	100	344	Vertical	/
3	5243.925	58.29	77.31	19.02	-	-	200	16	Vertical	No limit

802.11n HT20 MIMO mode/5745MHz

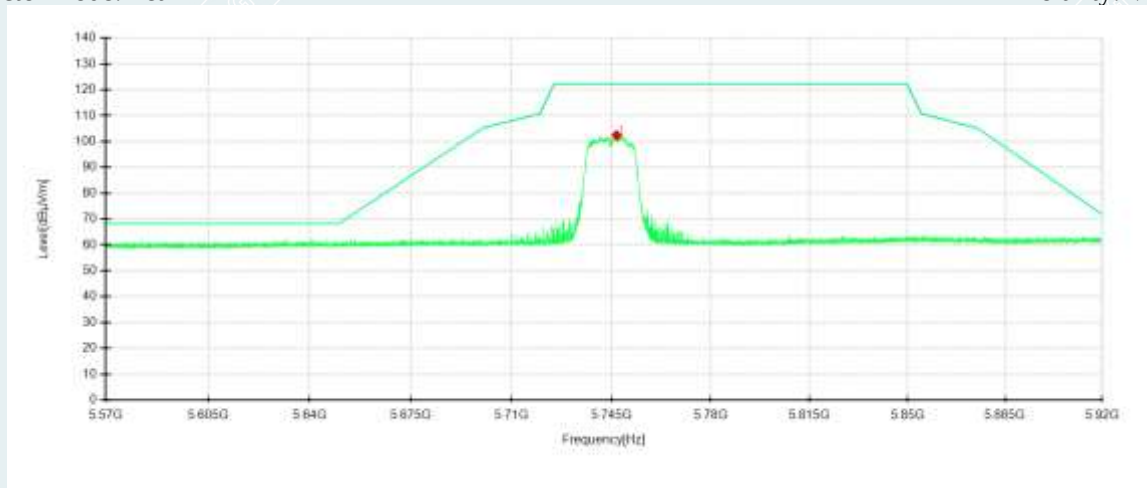
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

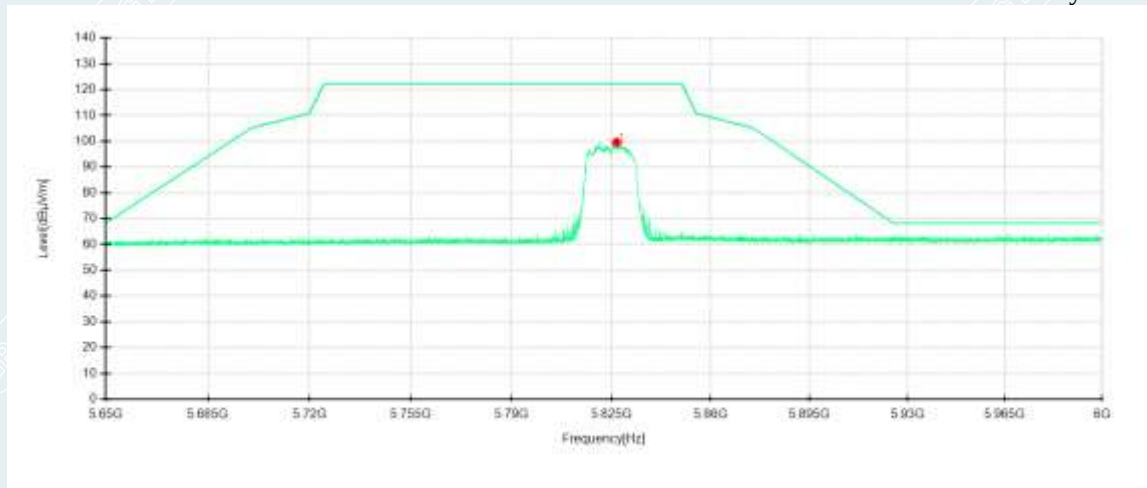


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5746.82	77.71	99.02	21.31	122.20	23.18	200	52	Horizontal	No limit
1	5746.855	81.34	102.45	21.11	122.20	19.75	200	26	Vertical	No limit

802.11n HT20 MIMO mode/5825MHz

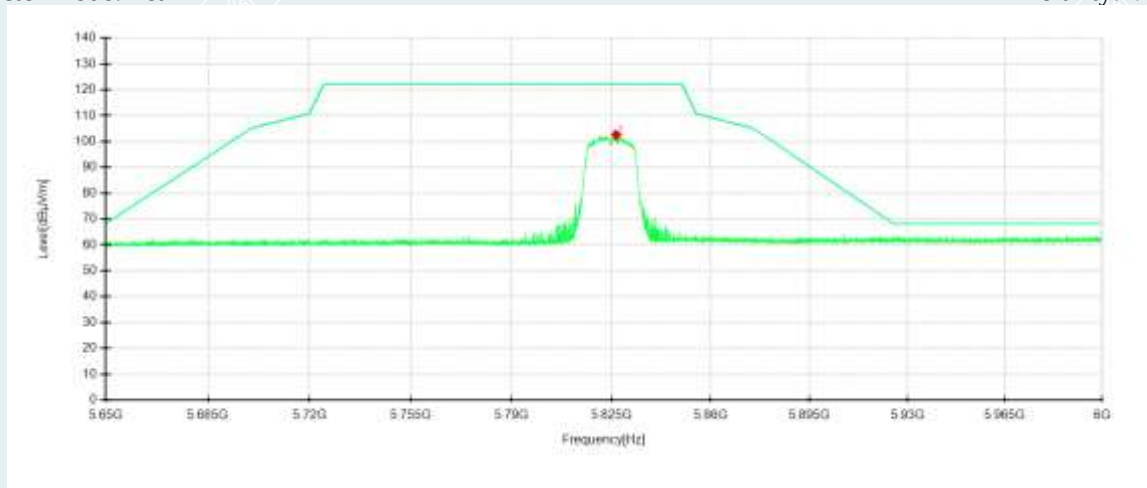
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

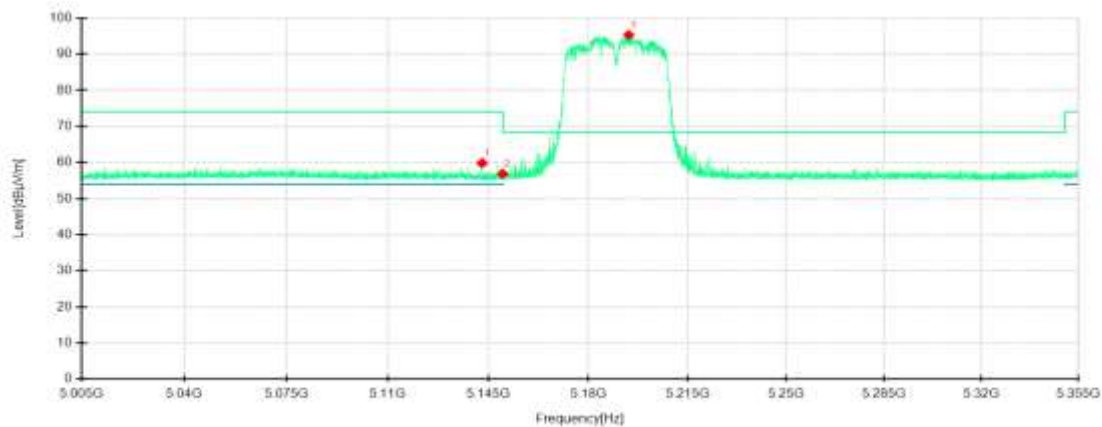


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5826.925	77.41	99.62	22.21	122.20	22.58	200	52	Horizontal	No limit
1	5826.715	80.75	102.61	21.86	122.20	19.59	100	23	Vertical	No limit

802.11n HT40 MIMO mode/5190MHz

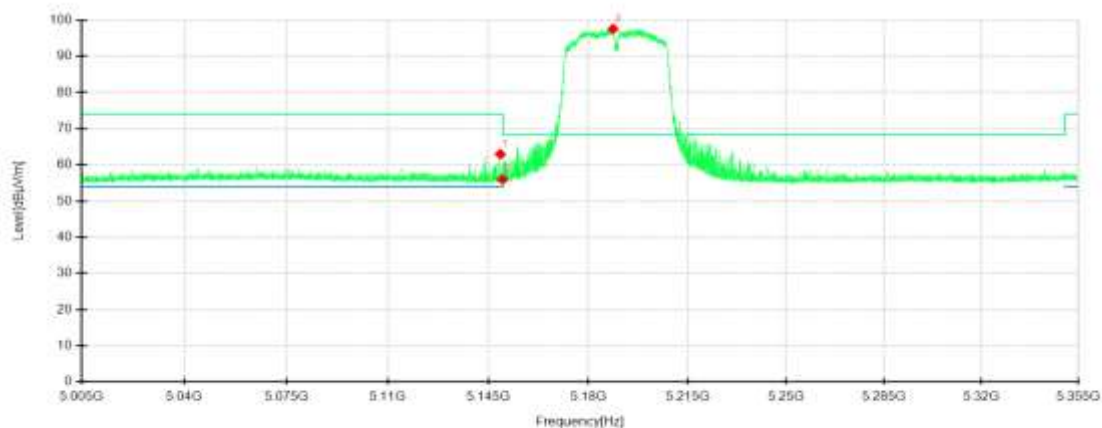
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

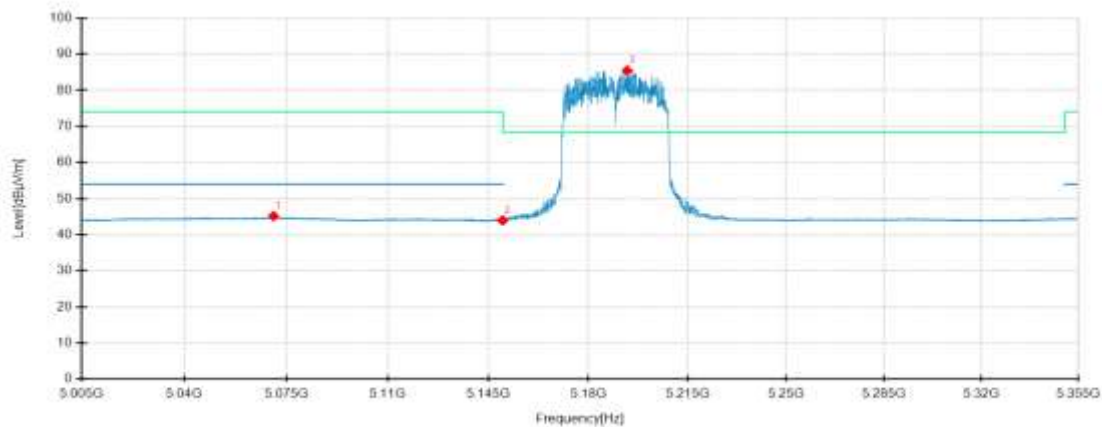


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5142.83	43.51	59.81	16.30	74.00	14.19	200	67	Horizontal	/
2	5150	40.57	56.85	16.28	68.30	11.45	200	96	Horizontal	/
3	5194.245	78.84	95.31	16.47	68.30	-27.01	200	67	Horizontal	No limit
1	5149.2	46.88	62.97	16.09	74.00	11.03	200	0	Vertical	/
2	5150	39.87	55.95	16.08	68.30	12.35	200	1	Vertical	/
3	5188.715	81.37	97.55	16.18	68.30	-29.25	200	1	Vertical	No limit

802.11n HT40 MIMO mode/5190MHz

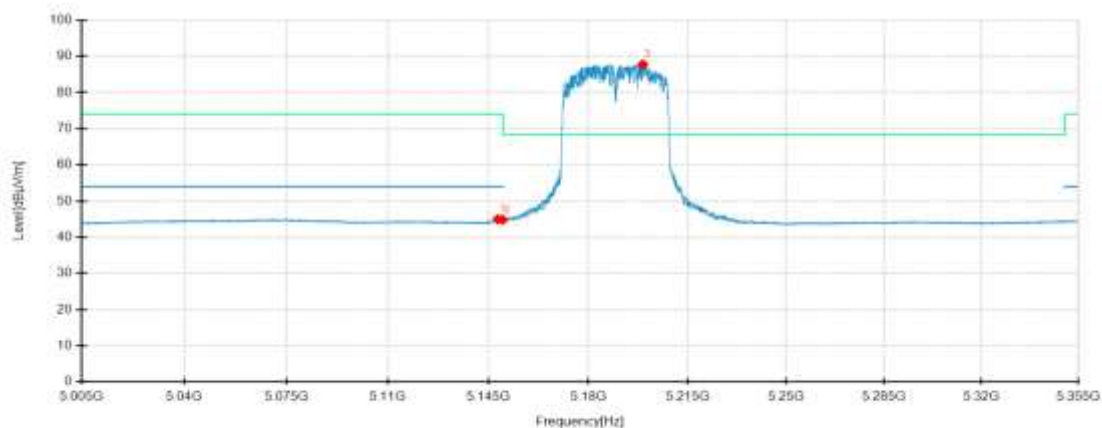
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

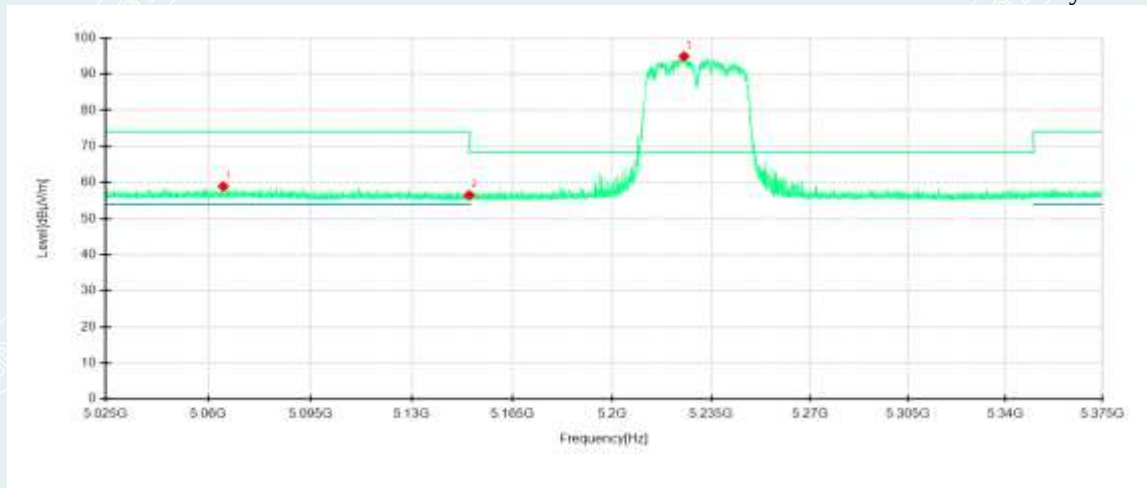


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5070.625	28.53	45.15	16.62	54.00	8.85	100	90	Horizontal	/
2	5150	27.67	43.95	16.28	54.00	10.05	200	75	Horizontal	/
3	5193.685	68.99	85.46	16.47	-	-	200	65	Horizontal	No limit
1	5148.36	28.89	44.98	16.09	54.00	9.02	200	0	Vertical	/
2	5150	28.75	44.83	16.08	54.00	9.17	200	344	Vertical	/
3	5199.25	71.54	87.74	16.20	-	-	200	0	Vertical	No limit

802.11n HT40 MIMO mode/5230MHz

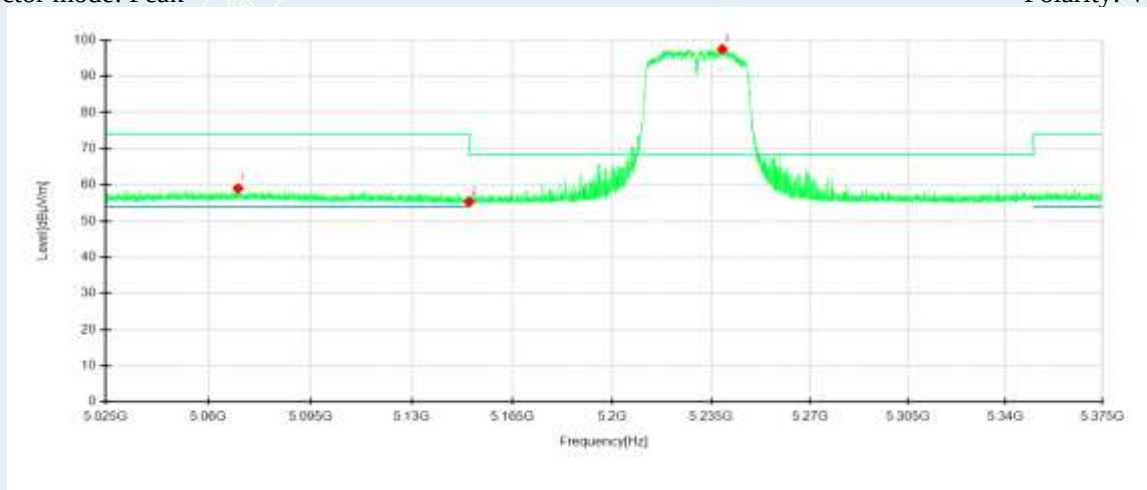
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

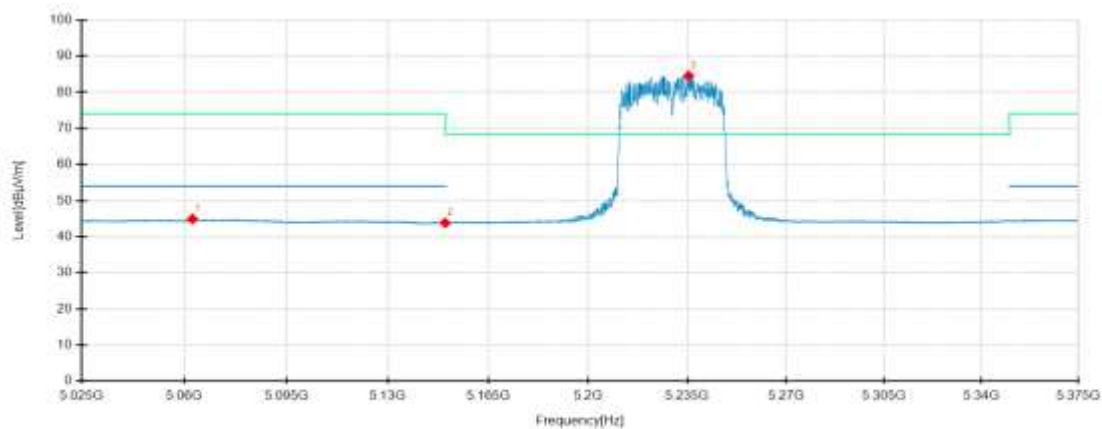


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5065.145	42.25	58.90	16.65	74.00	15.10	100	304	Horizontal	/
2	5150	40.21	56.49	16.28	68.30	11.81	100	100	Horizontal	/
3	5225.34	78.50	94.95	16.45	68.30	-26.65	200	66	Horizontal	No limit
1	5070.185	42.29	59.02	16.73	74.00	14.98	100	279	Vertical	/
2	5150	39.21	55.29	16.08	68.30	13.01	200	152	Vertical	/
3	5238.85	81.47	97.51	16.04	68.30	-29.21	200	1	Vertical	No limit

802.11n HT40 MIMO mode/5230MHz

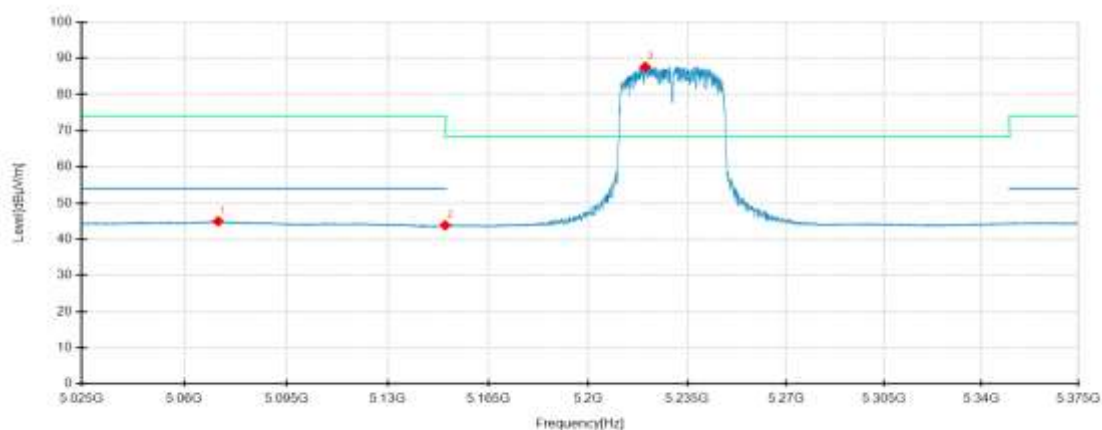
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

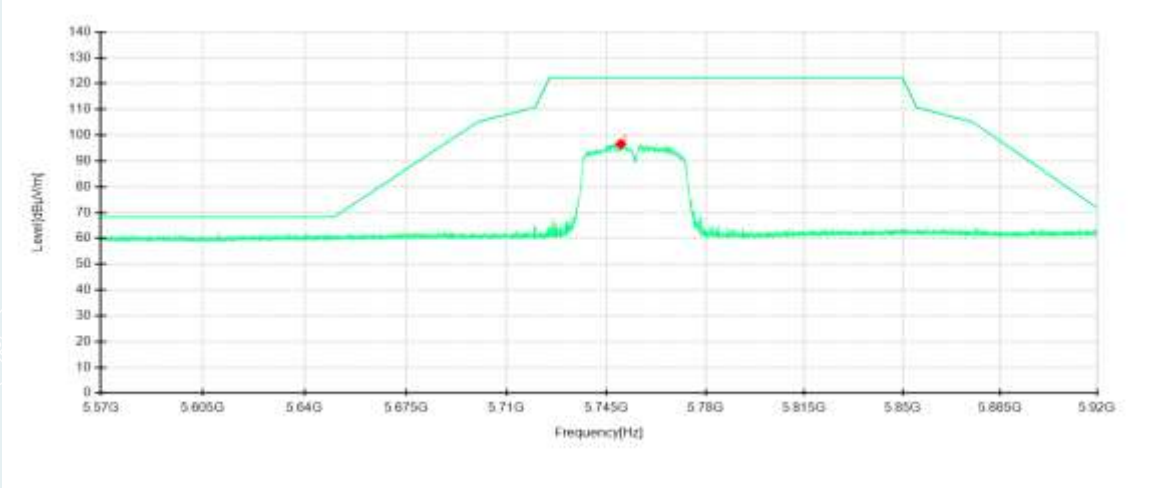


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5062.8	28.24	44.90	16.66	54.00	9.10	100	84	Horizontal	/
2	5150	27.54	43.82	16.28	54.00	10.18	100	344	Horizontal	/
3	5235.42	68.14	84.57	16.43	-	-	200	66	Horizontal	No limit
1	5071.585	28.25	44.97	16.72	54.00	9.03	200	344	Vertical	/
2	5150	27.76	43.84	16.08	54.00	10.16	200	1	Vertical	/
3	5220.09	71.51	87.63	16.12	-	-	200	344	Vertical	No limit

802.11n HT40 MIMO mode/5755MHz

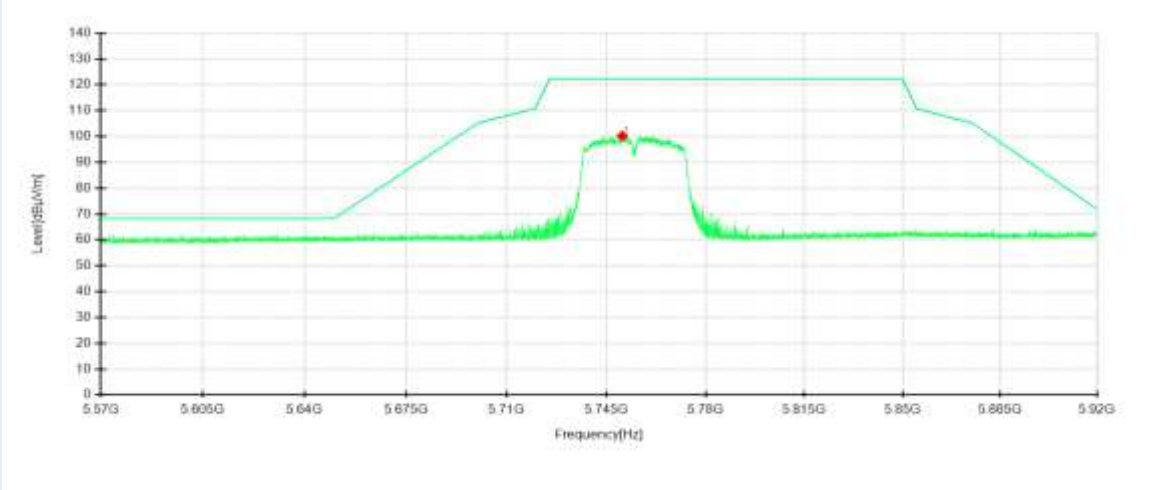
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

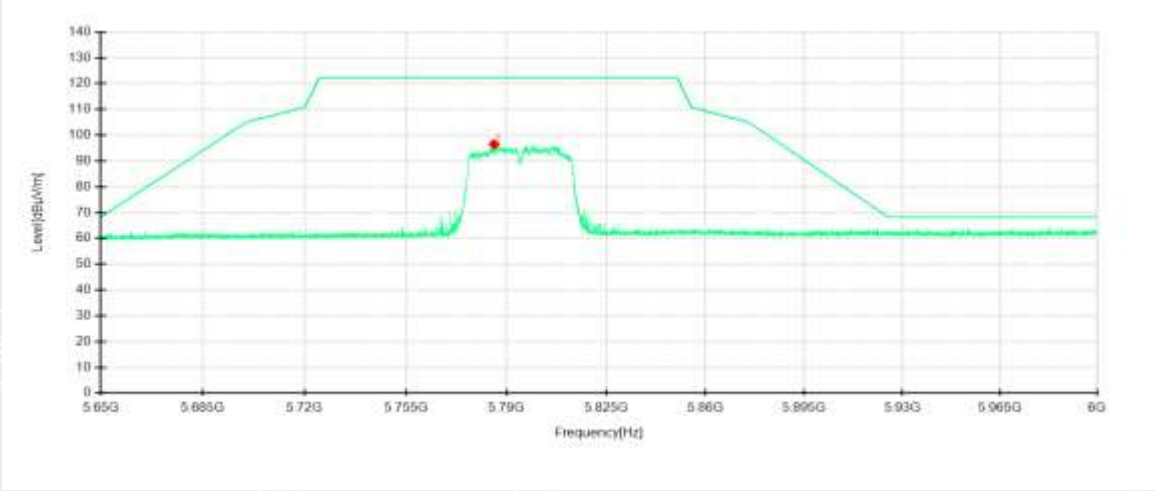


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5750.075	75.32	96.65	21.33	122.20	25.55	200	46	Horizontal	No limit
1	5750.565	79.10	100.23	21.13	122.20	21.97	200	13	Vertical	No limit

802.11n HT40 MIMO mode/5795MHz

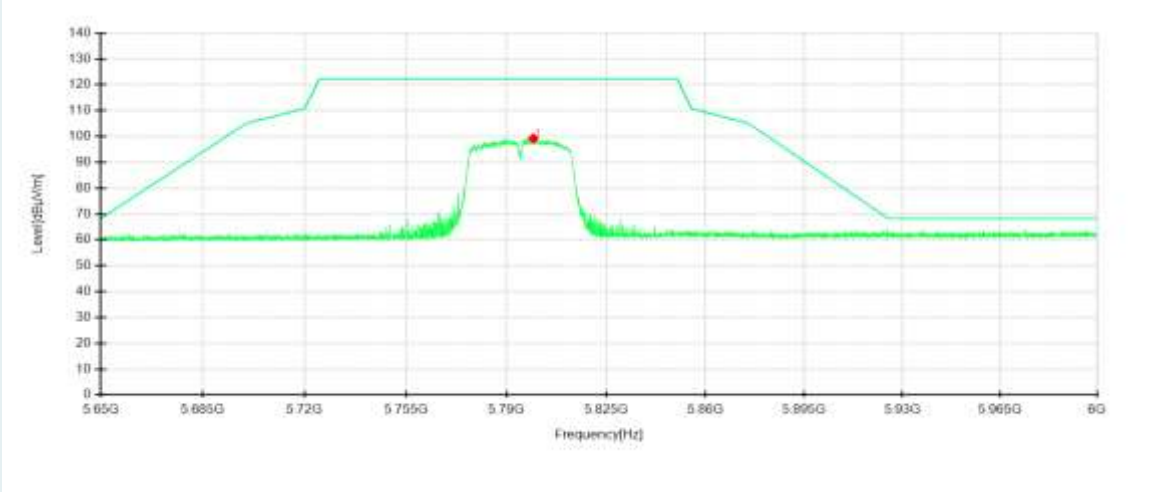
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

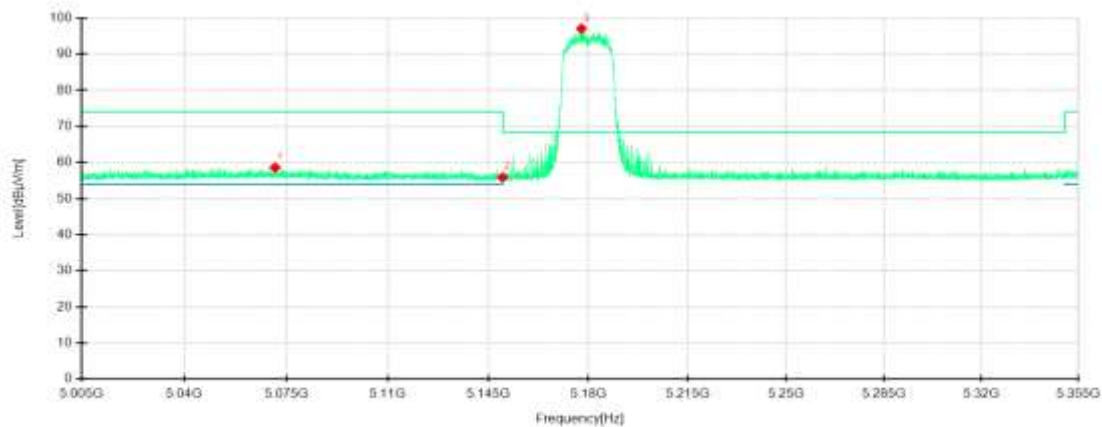


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5785.695	75.07	96.55	21.48	122.20	25.65	200	56	Horizontal	No limit
1	5799.45	78.07	99.22	21.15	122.20	22.98	200	11	Vertical	No limit

802.11ac VHT20 MIMO mode/5180MHz

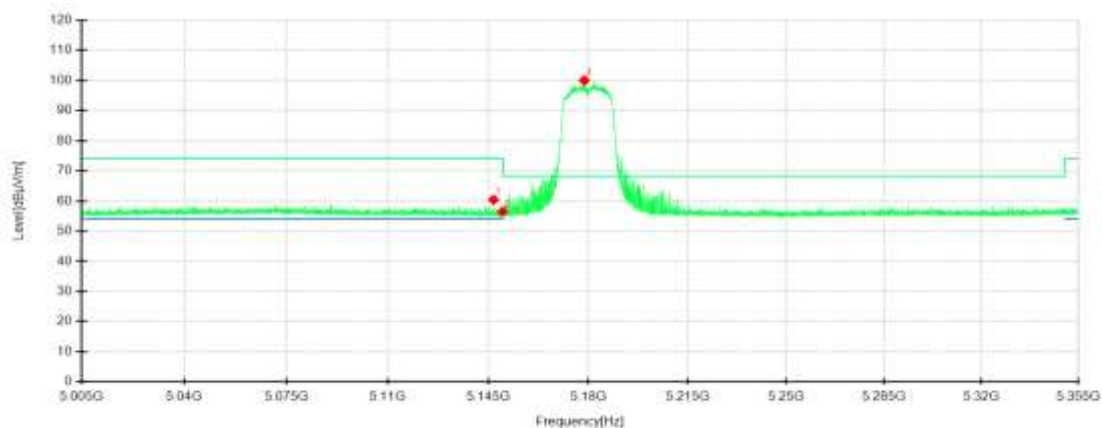
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

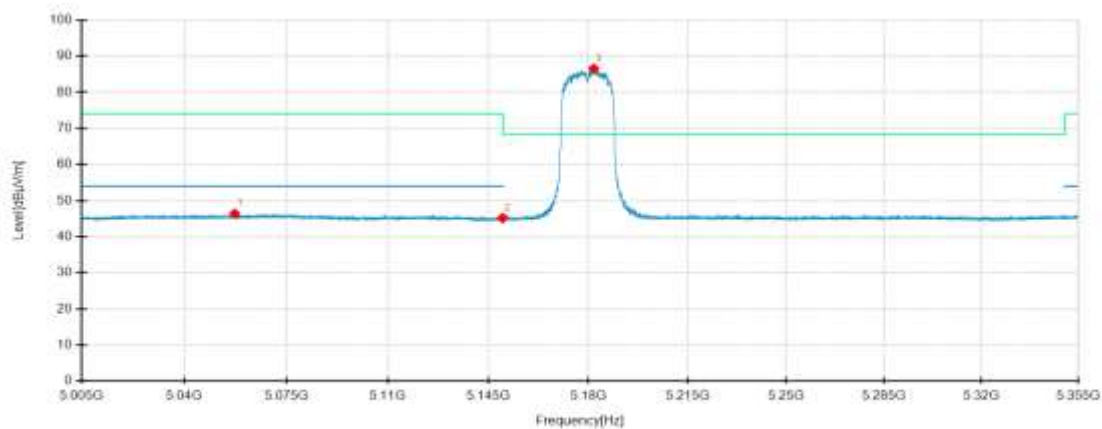


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5071.15	41.98	58.60	16.62	74.00	15.40	100	165	Horizontal	/
2	5150	39.58	55.86	16.28	68.30	12.44	200	179	Horizontal	/
3	5177.62	80.65	97.05	16.40	68.30	-28.75	200	68	Horizontal	No limit
1	5146.89	44.33	60.44	16.11	74.00	13.56	200	0	Vertical	/
2	5150	40.38	56.46	16.08	68.30	11.84	100	356	Vertical	/
3	5178.6	83.85	100.00	16.15	68.30	-31.70	200	2	Vertical	No limit

802.11ac VHT20 MIMO mode/5180MHz

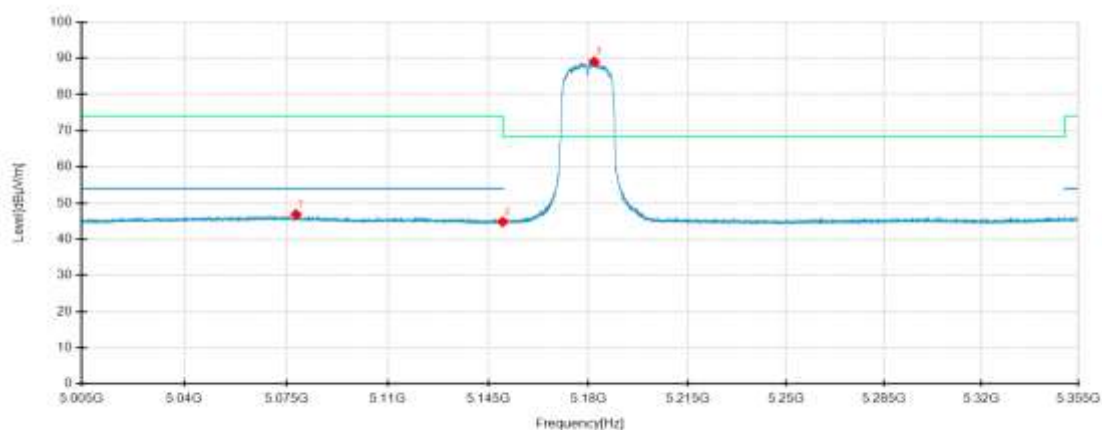
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

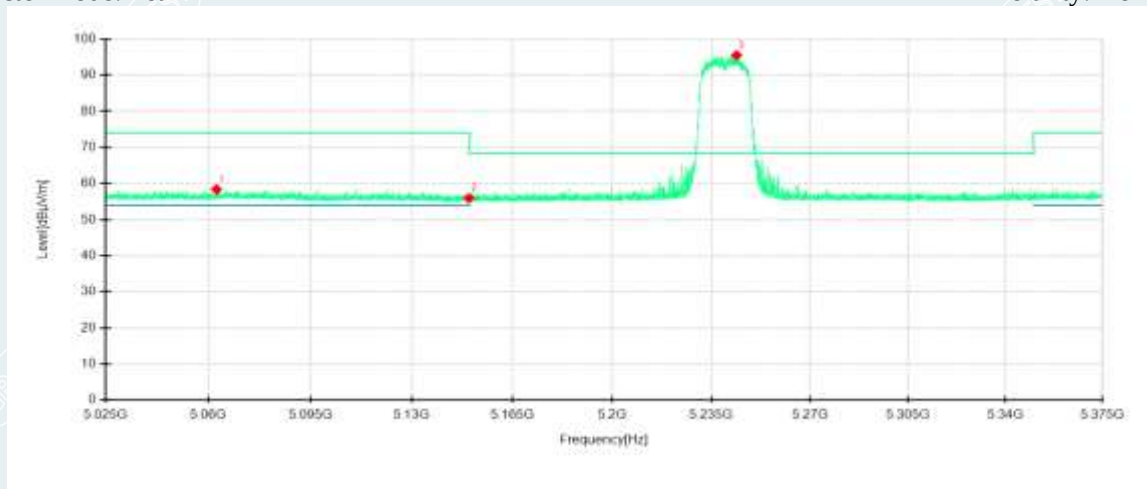


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5057.29	29.68	46.37	16.69	54.00	7.63	100	8	Horizontal	/
2	5150	28.87	45.15	16.28	54.00	8.85	200	55	Horizontal	/
3	5181.96	70.10	86.52	16.42	-	-	200	64	Horizontal	No limit
1	5078.395	30.19	46.87	16.68	54.00	7.13	100	34	Vertical	/
2	5150	28.72	44.80	16.08	54.00	9.20	200	33	Vertical	/
3	5182.135	72.91	89.07	16.16	-	-	200	344	Vertical	No limit

802.11ac VHT20 MIMO mode/5240MHz

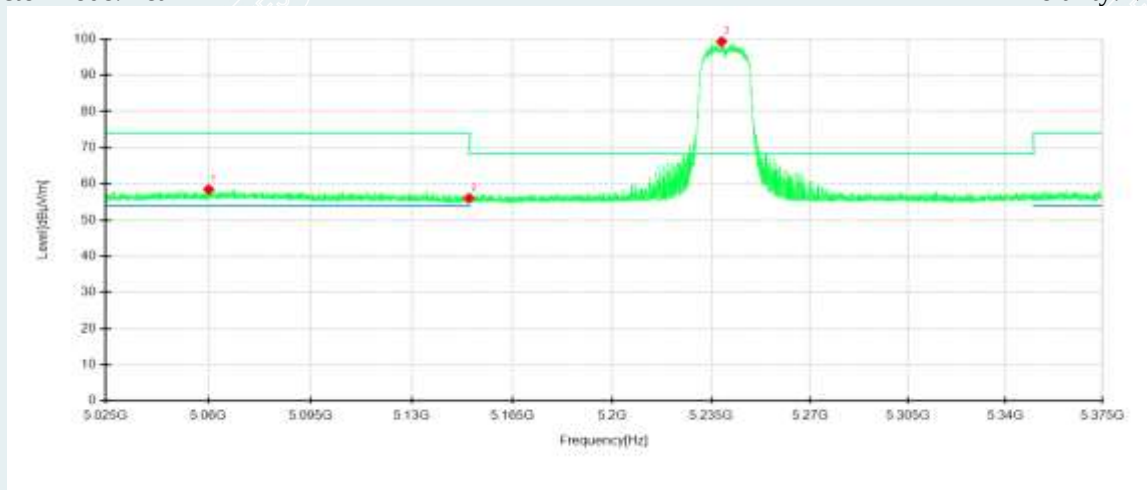
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

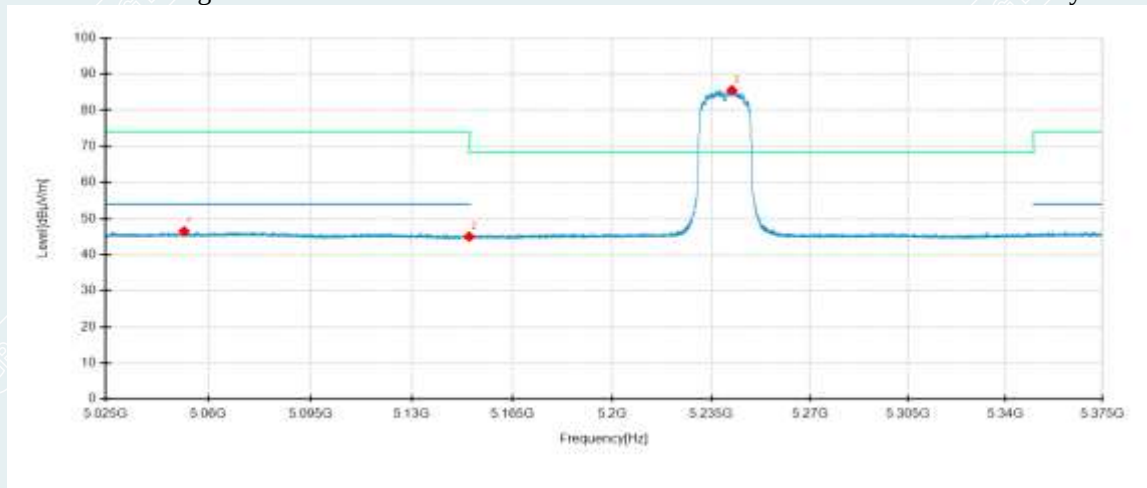


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5062.8	41.70	58.36	16.66	74.00	15.64	200	258	Horizontal	/
2	5150	39.66	55.94	16.28	68.30	12.36	100	250	Horizontal	/
3	5243.89	79.08	95.49	16.41	68.30	-27.19	200	66	Horizontal	No limit
1	5060.14	41.69	58.47	16.78	74.00	15.53	100	129	Vertical	/
2	5150	39.94	56.02	16.08	68.30	12.28	100	220	Vertical	/
3	5238.64	83.30	99.35	16.05	68.30	-31.05	200	0	Vertical	No limit

802.11ac VHT20 MIMO mode/5240MHz

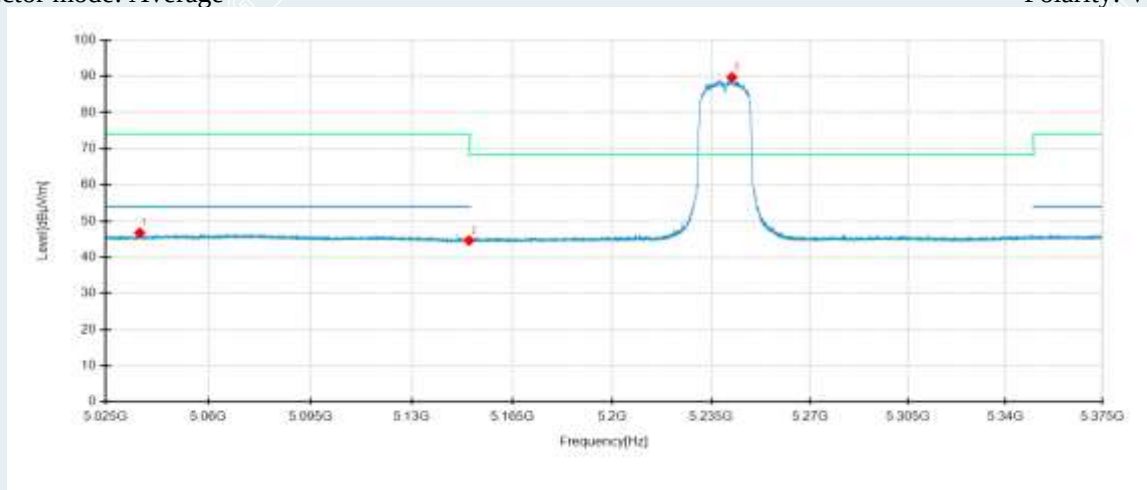
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

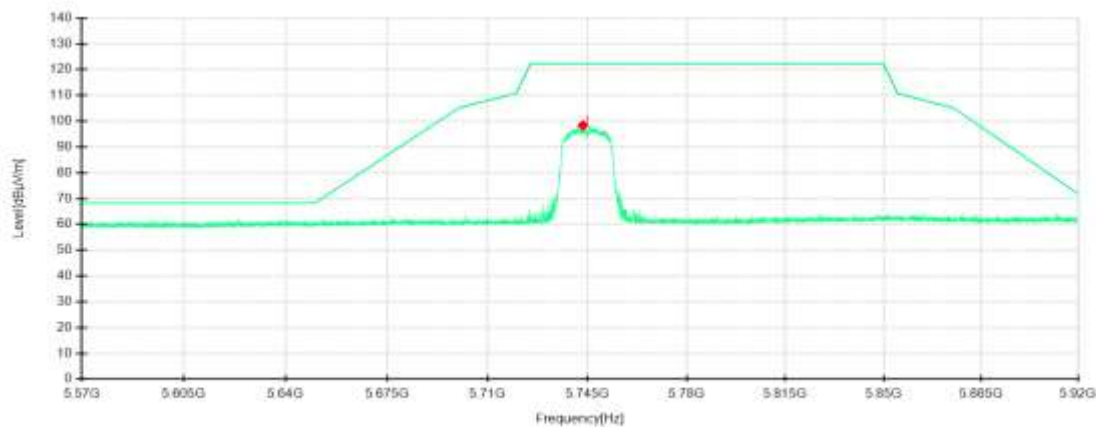


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5051.775	29.76	46.48	16.72	54.00	7.52	200	331	Horizontal	/
2	5150	28.71	44.99	16.28	54.00	9.01	100	30	Horizontal	/
3	5242.245	69.13	85.55	16.42	-	-	200	66	Horizontal	No limit
1	5036.62	30.13	46.75	16.62	54.00	7.25	100	46	Vertical	/
2	5150	28.54	44.62	16.08	54.00	9.38	100	15	Vertical	/
3	5242.245	73.69	89.72	16.03	-	-	200	1	Vertical	No limit

802.11ac VHT20 MIMO mode/5745MHz

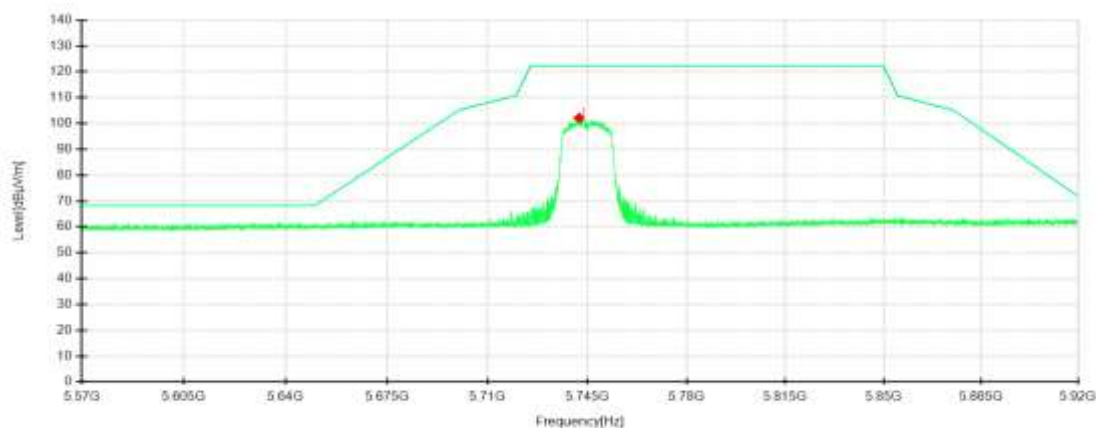
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

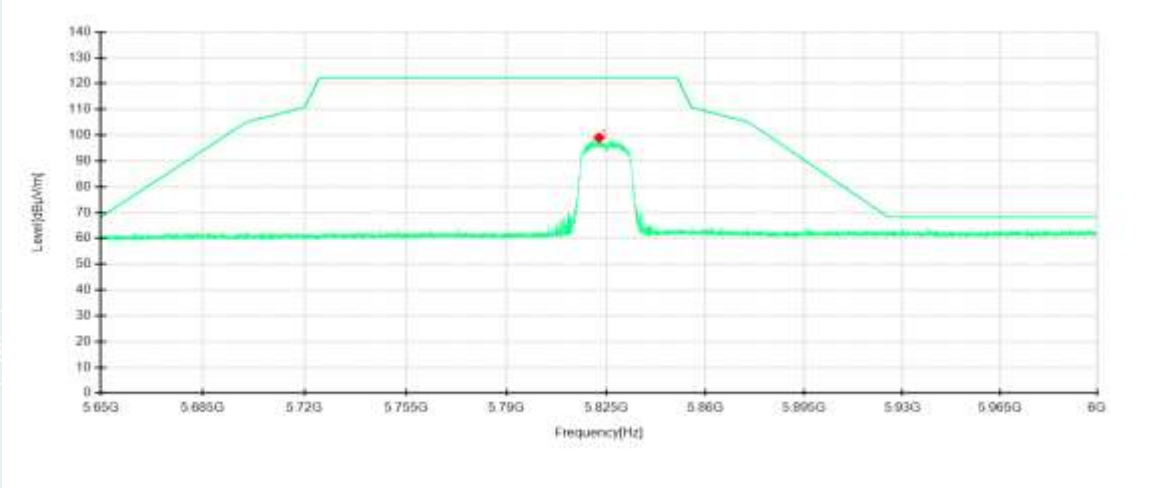


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5743.46	77.11	98.39	21.28	122.20	23.81	200	56	Horizontal	No limit
1	5742.13	81.06	102.15	21.09	122.20	20.05	200	20	Vertical	No limit

802.11ac VHT20 MIMO mode/5825MHz

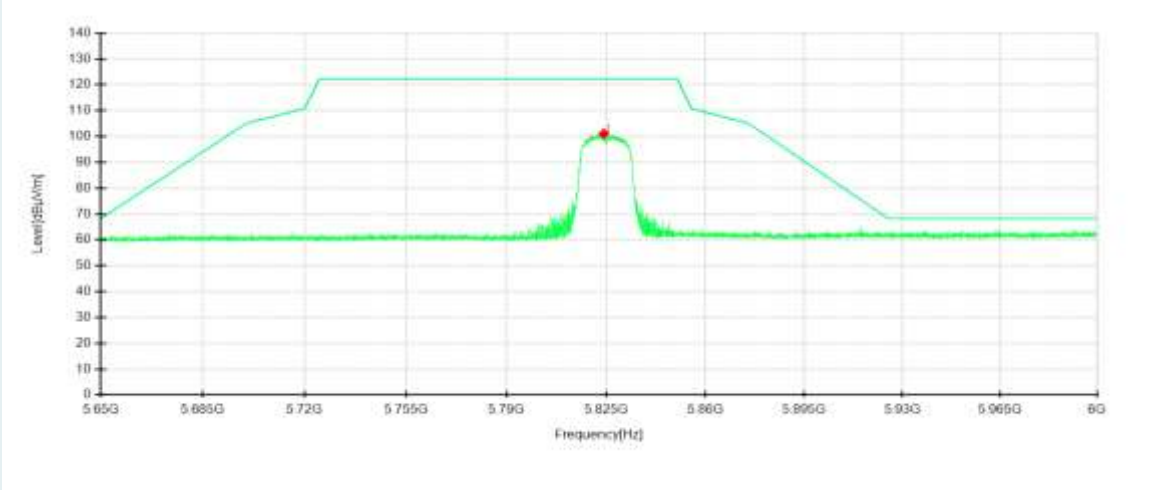
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

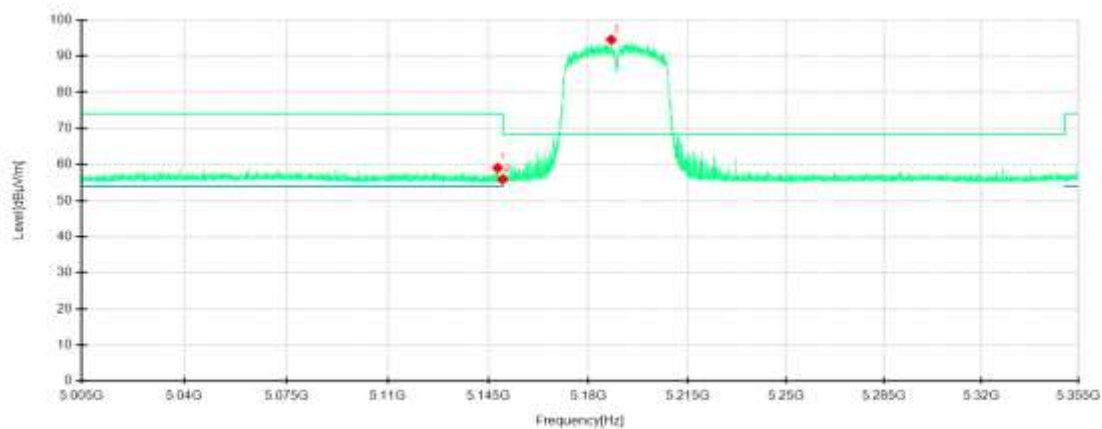


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5822.515	76.96	99.07	22.11	122.20	23.13	200	59	Horizontal	No limit
1	5824.195	79.25	101.05	21.80	122.20	21.15	200	13	Vertical	No limit

802.11ac VHT40 MIMO mode/5190MHz

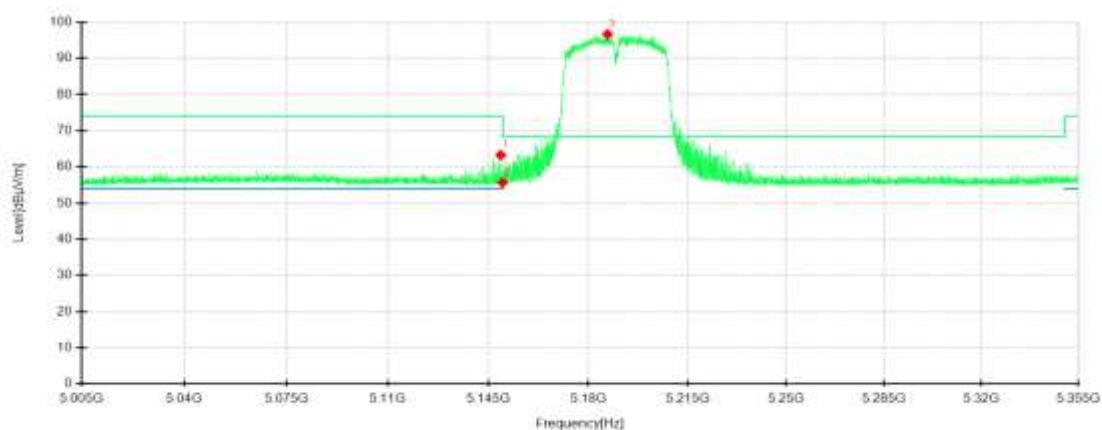
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

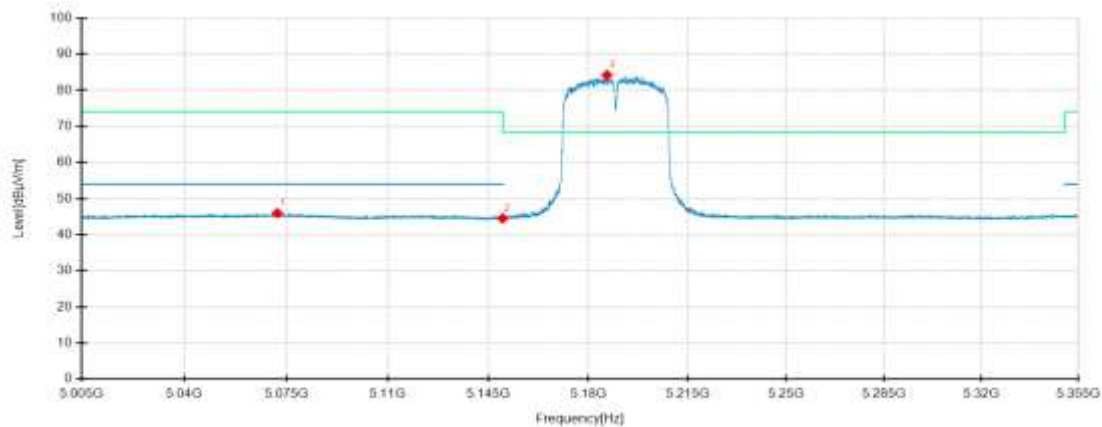


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5148.29	42.78	59.06	16.28	74.00	14.94	200	67	Horizontal	/
2	5150	39.62	55.90	16.28	68.30	12.40	100	0	Horizontal	/
3	5188.12	78.12	94.56	16.44	68.30	-26.26	200	67	Horizontal	No limit
1	5149.34	47.18	63.27	16.09	74.00	10.73	200	1	Vertical	/
2	5150	39.59	55.67	16.08	68.30	12.63	200	19	Vertical	/
3	5186.825	80.46	96.63	16.17	68.30	-28.33	200	344	Vertical	No limit

802.11ac VHT40 MIMO mode/5190MHz

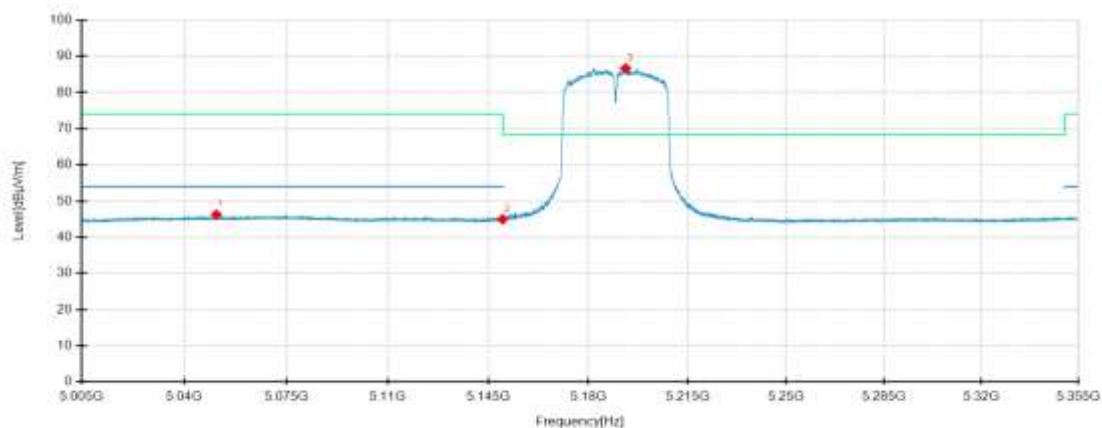
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

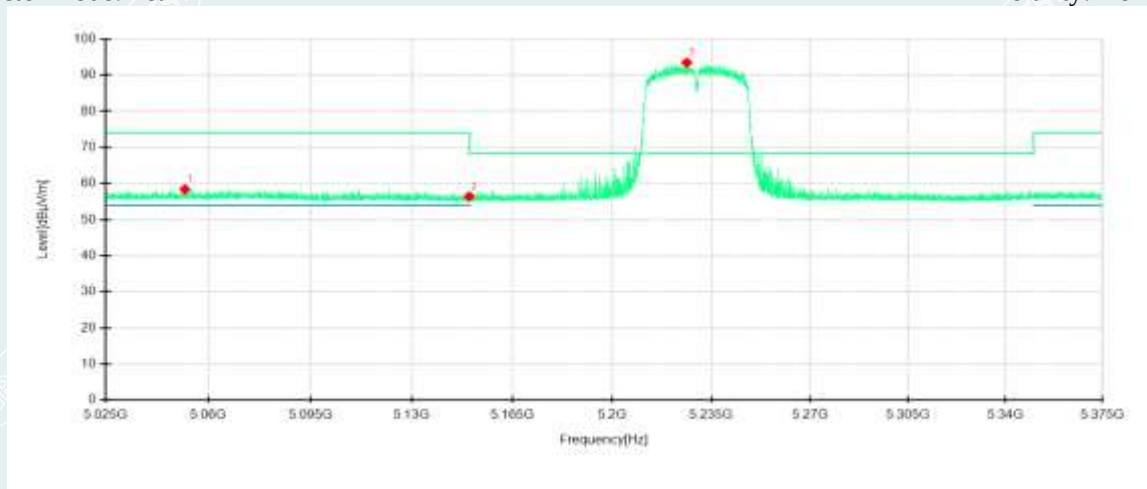


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5071.92	29.32	45.94	16.62	54.00	8.06	200	359	Horizontal	/
2	5150	28.23	44.51	16.28	54.00	9.49	100	344	Horizontal	/
3	5186.58	67.77	84.21	16.44	-	-	200	67	Horizontal	No limit
1	5050.955	29.41	46.24	16.83	54.00	7.76	200	173	Vertical	/
2	5150	28.88	44.96	16.08	54.00	9.04	100	14	Vertical	/
3	5193.125	70.47	86.66	16.19	-	-	200	0	Vertical	No limit

802.11ac VHT40 MIMO mode/5230MHz

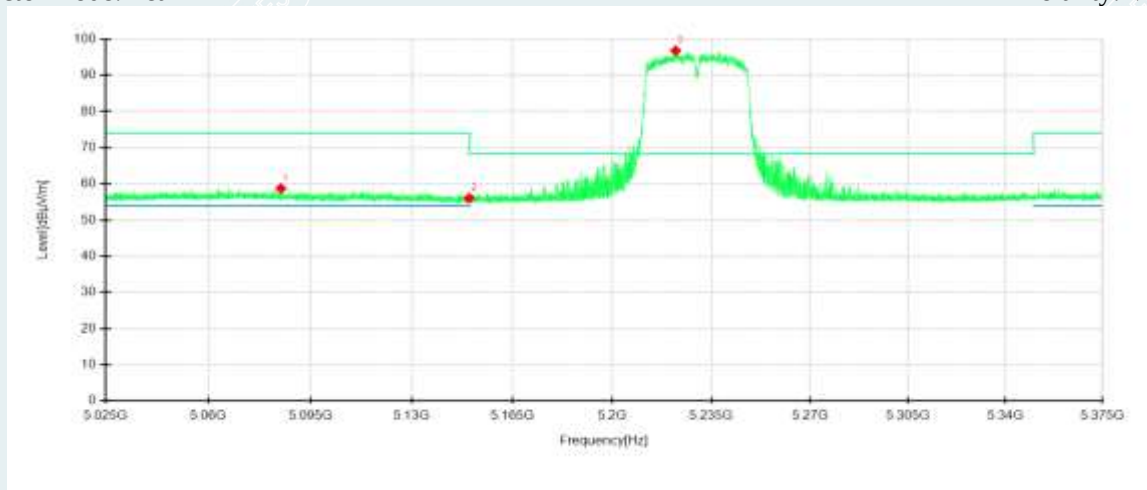
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

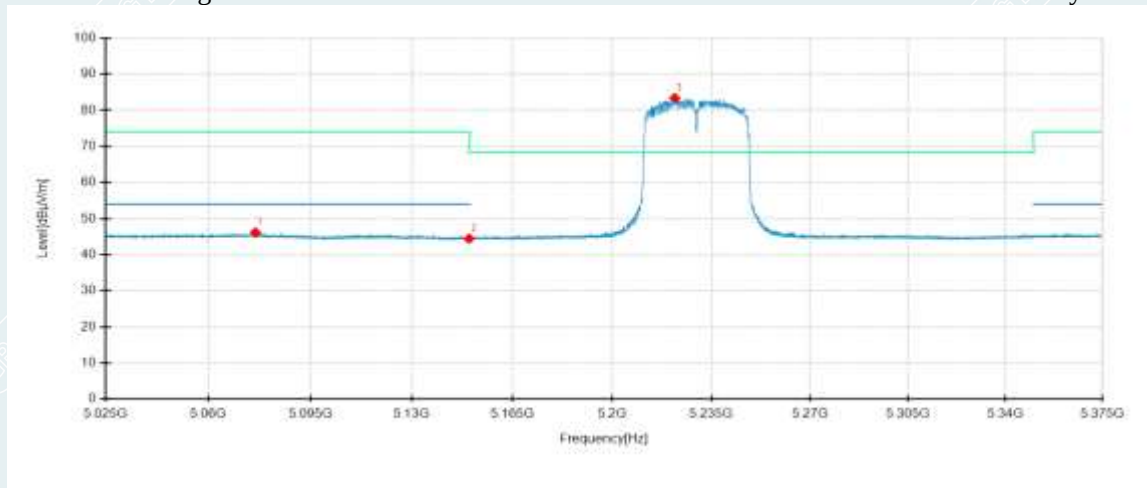


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5052.055	41.66	58.38	16.72	74.00	15.62	100	233	Horizontal	/
2	5150	40.11	56.39	16.28	68.30	11.91	100	344	Horizontal	/
3	5226.32	77.00	93.45	16.45	68.30	-25.15	200	70	Horizontal	No limit
1	5084.92	42.08	58.73	16.65	74.00	15.27	200	182	Vertical	/
2	5150	39.93	56.01	16.08	68.30	12.29	100	65	Vertical	/
3	5222.33	80.70	96.81	16.11	68.30	-28.51	200	1	Vertical	No limit

802.11ac VHT40 MIMO mode/5230MHz

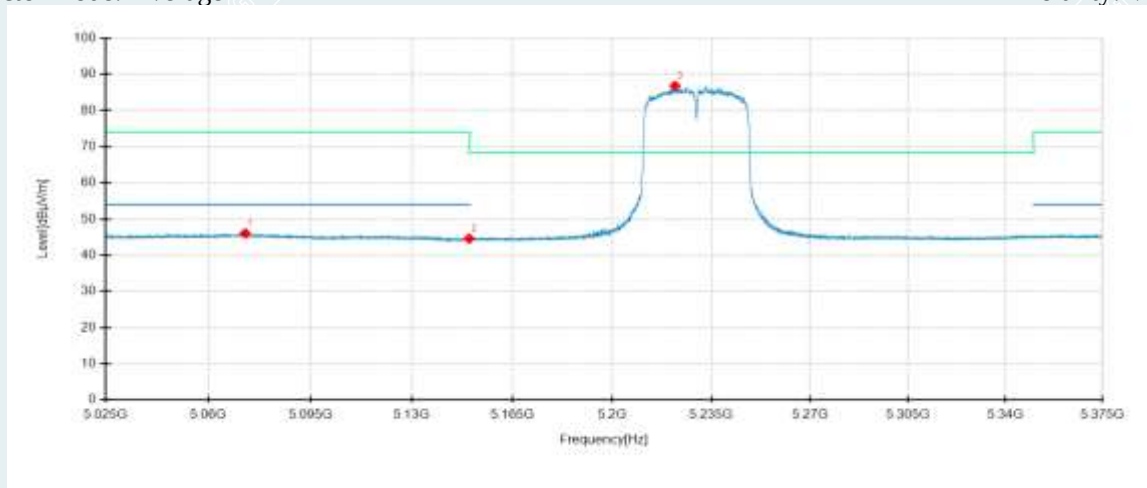
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

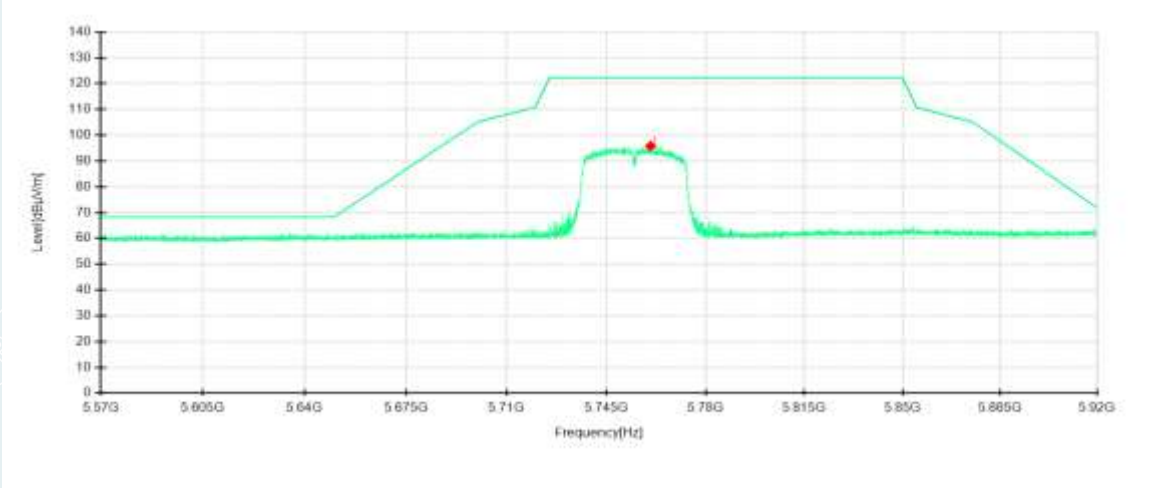


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5076.135	29.55	46.14	16.59	54.00	7.86	100	344	Horizontal	/
2	5150	28.18	44.46	16.28	54.00	9.54	200	78	Horizontal	/
3	5222.015	66.90	83.36	16.46	-	-	200	66	Horizontal	No limit
1	5072.67	29.33	46.04	16.71	54.00	7.96	100	114	Vertical	/
2	5150	28.50	44.58	16.08	54.00	9.42	100	75	Vertical	/
3	5222.12	70.70	86.81	16.11	-	-	200	0	Vertical	No limit

802.11ac VHT40 MIMO mode/5755MHz

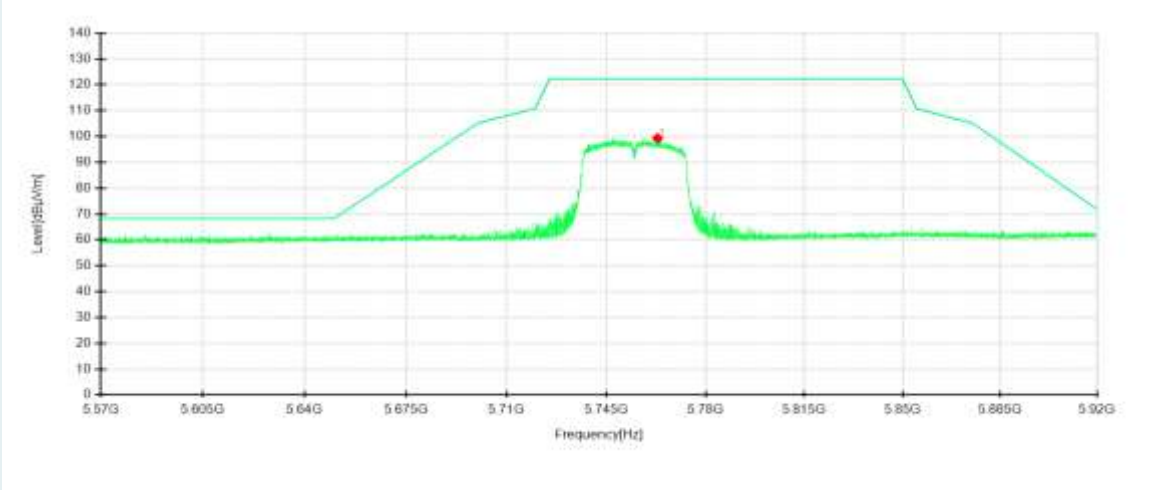
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

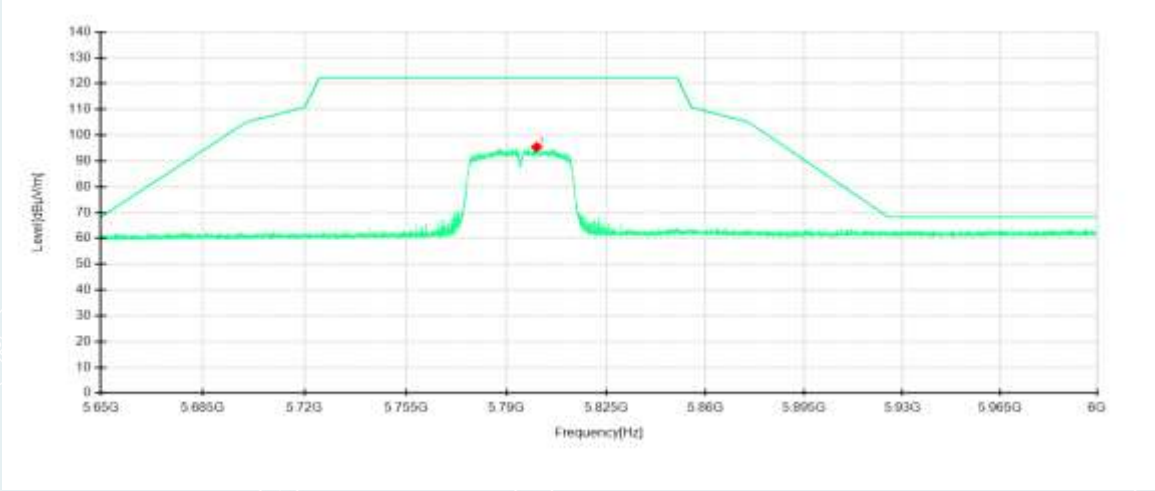


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5760.575	74.45	95.82	21.37	122.20	26.38	200	56	Horizontal	No limit
1	5762.955	78.19	99.33	21.14	122.20	22.87	200	21	Vertical	No limit

802.11ac VHT40 MIMO mode/5795MHz

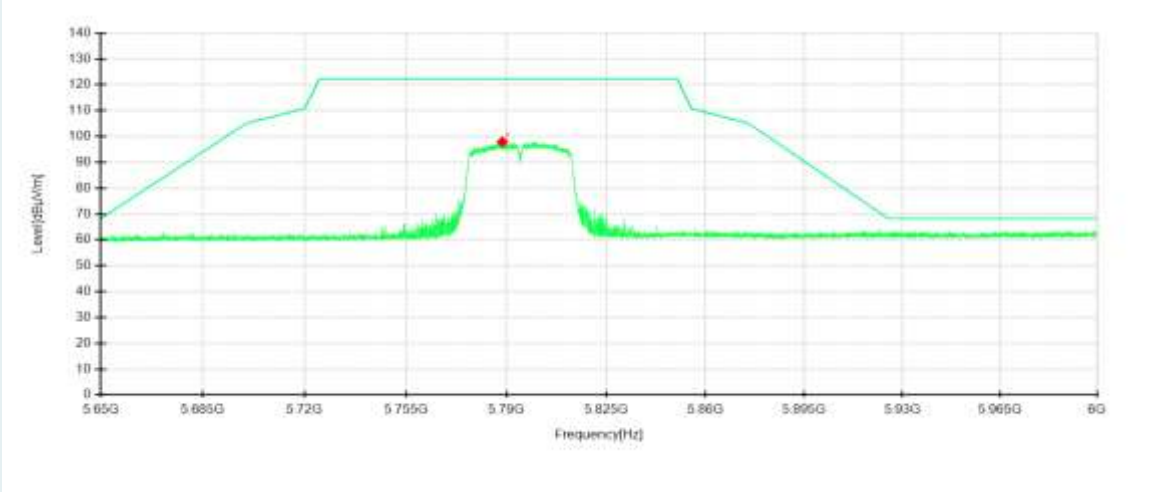
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

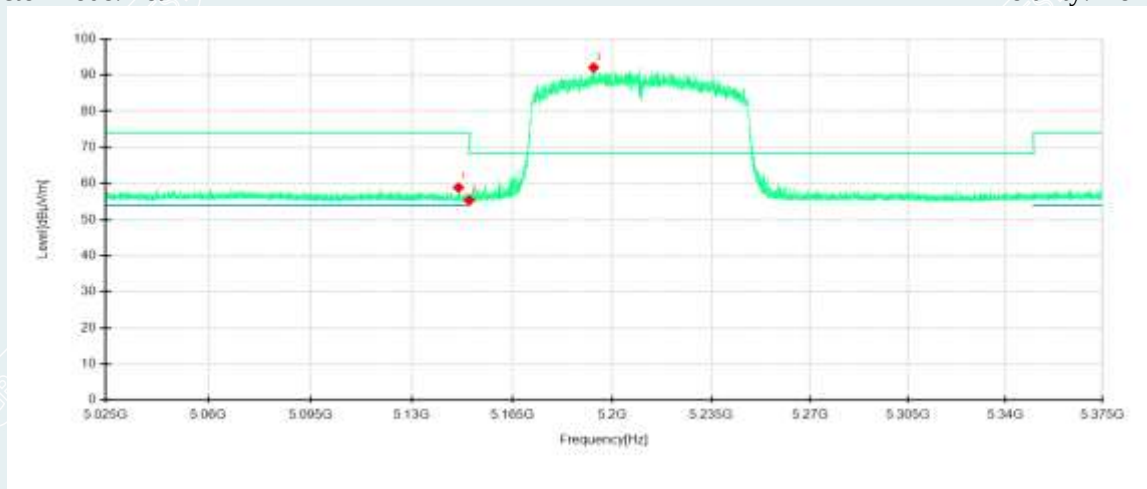


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5800.605	73.84	95.40	21.56	122.20	26.80	200	56	Horizontal	No limit
1	5788.6	76.79	97.94	21.15	122.20	24.26	200	9	Vertical	No limit

802.11ac VHT80 MIMO mode/5210MHz

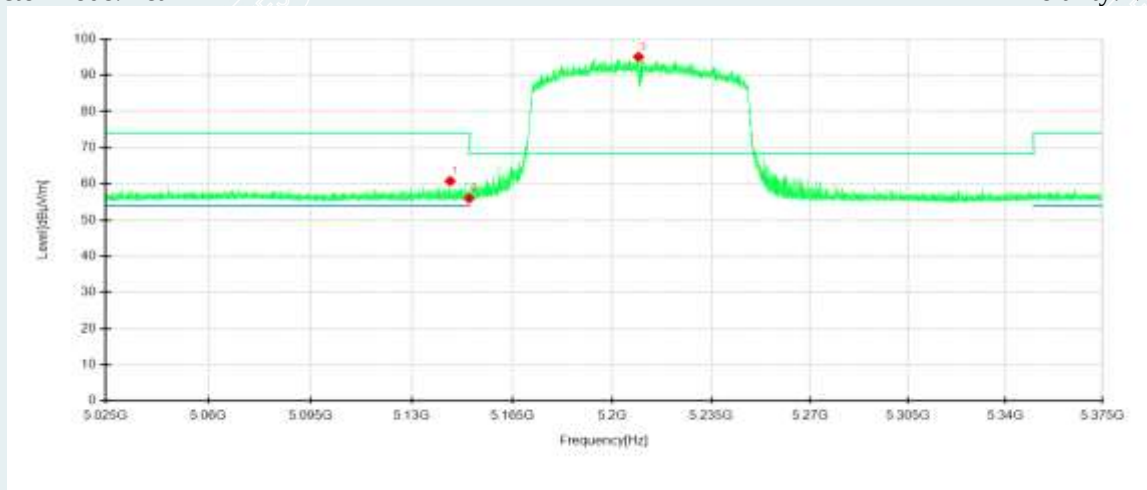
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical

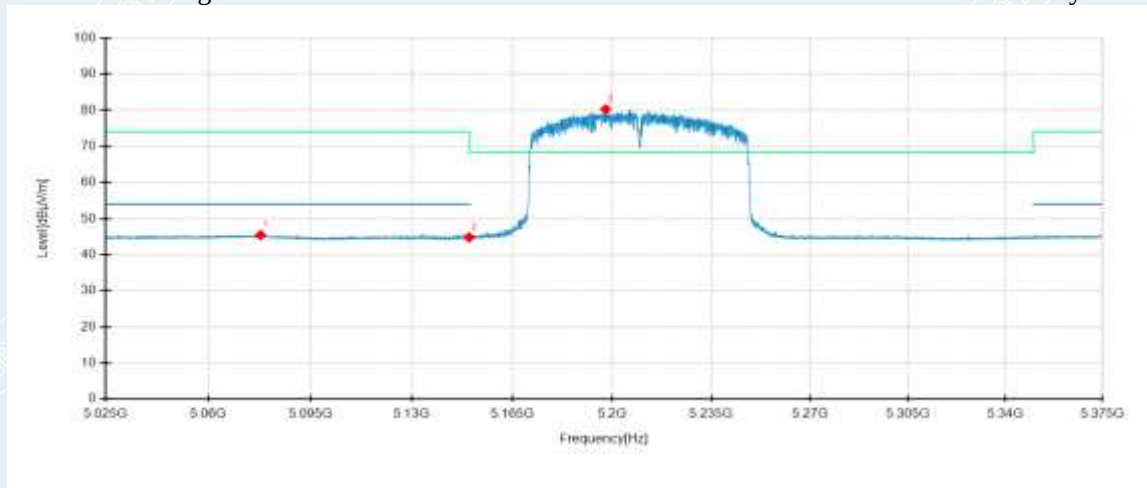


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5146.275	42.56	58.86	16.30	74.00	15.14	200	66	Horizontal	/
2	5150	39.07	55.35	16.28	68.30	12.95	100	11	Horizontal	/
3	5193.49	75.65	92.12	16.47	68.30	-23.82	200	66	Horizontal	No limit
1	5143.37	44.63	60.77	16.14	74.00	13.23	200	345	Vertical	/
2	5150	39.92	56.00	16.08	68.30	12.30	200	1	Vertical	/
3	5209.24	78.94	95.10	16.16	68.30	-26.80	200	345	Vertical	No limit

802.11ac VHT80 MIMO mode/5210MHz

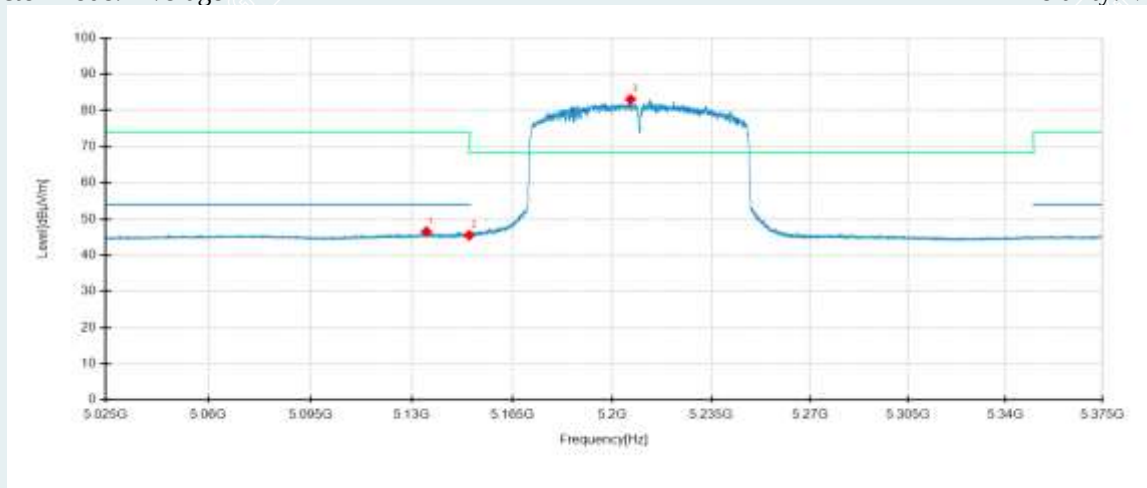
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical

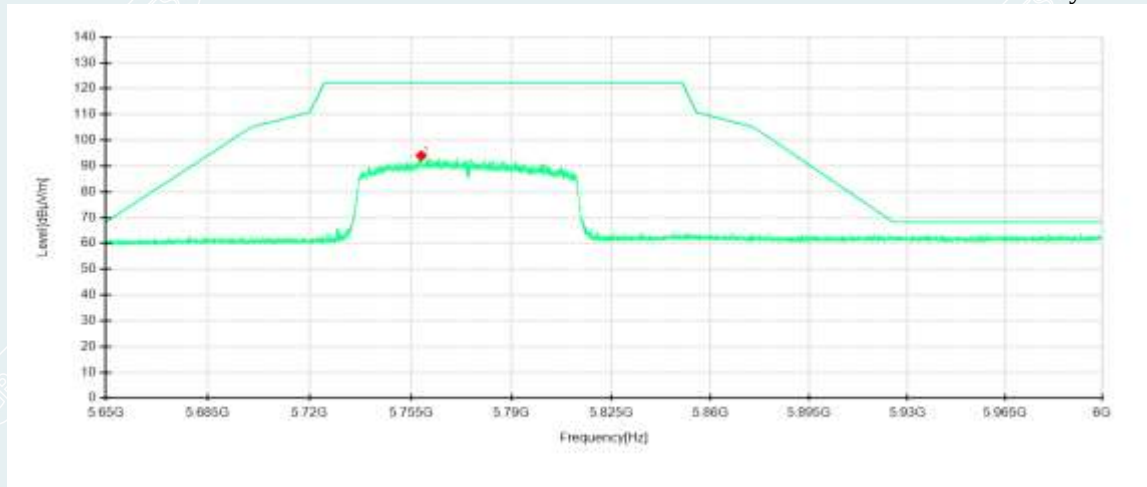


No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5077.92	28.89	45.47	16.58	54.00	8.53	100	344	Horizontal	/
2	5150	28.54	44.82	16.28	54.00	9.18	200	45	Horizontal	/
3	5197.725	63.77	80.26	16.49	-	-	200	65	Horizontal	No limit
1	5135.11	30.29	46.52	16.23	54.00	7.48	200	1	Vertical	/
2	5150	29.43	45.51	16.08	54.00	8.49	200	344	Vertical	/
3	5206.475	66.91	83.08	16.17	-	-	200	344	Vertical	No limit

802.11ac VHT80 MIMO mode/5775MHz

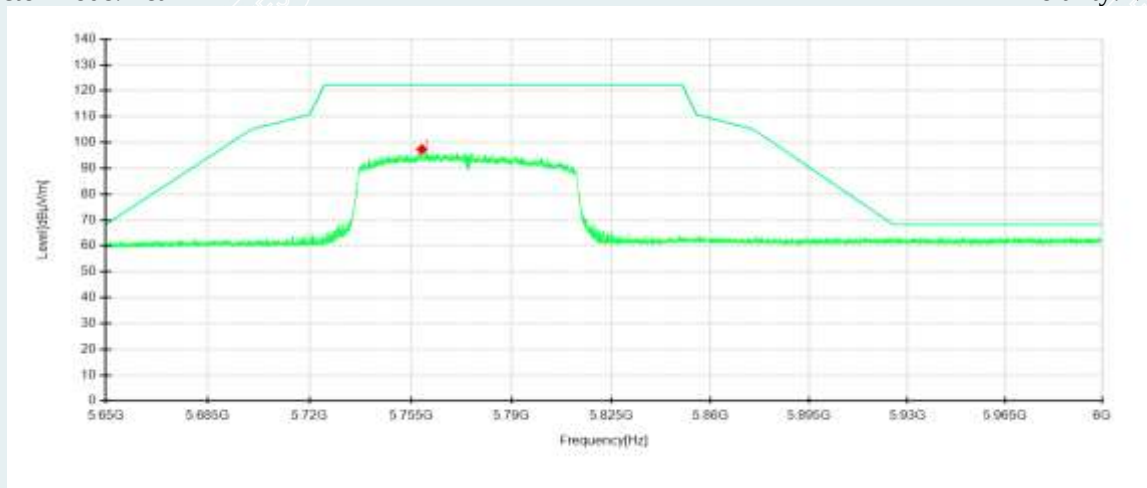
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	5758.64	72.67	94.03	21.36	122.20	28.17	200	56	Horizontal	No limit
1	5758.85	76.24	97.37	21.13	122.20	24.83	200	11	Vertical	No limit

Remark: Max field strength in 3m distance. No any other emission which falls in restricted bands can be detected and be reported.

7. 6dB BANDWIDTH & 26dB BANDWIDTH & 99% OCCUPIED BANDWIDTH

7.1 LIMITS

Band	Frequency (MHz)	Test Item	Limit
U-NII-1	5150-5250	26dB Bandwidth&99% Occupied Bandwidth	N/A
U-NII-3	5725-5850	6dB Bandwidth&99% Occupied Bandwidth	6dB Bandwidth $\geq$ 500KHz

7.2 TEST PROCEDURES

For 26dB Bandwidth Measurement :

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with table 1.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the instrument. Readjust RBW and repeat measurements as needed until the RBW/EBW ratio is approximately 1%.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

For 6dB Bandwidth Measurement :

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with table 2.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

For 99% Occupied Bandwidth Measurement :

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with table 3.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, use the 99% power bandwidth function to measure bandwidth.
- Repeat above procedures until all modes and channels were measured.

Record the results in the test report.

----- The following blanks -----

Table 1:

26dB Bandwidth	
Spectrum Parameters	Setting
RBW	approximately 1% of the emission bandwidth
VBW	> RBW
Span	40MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

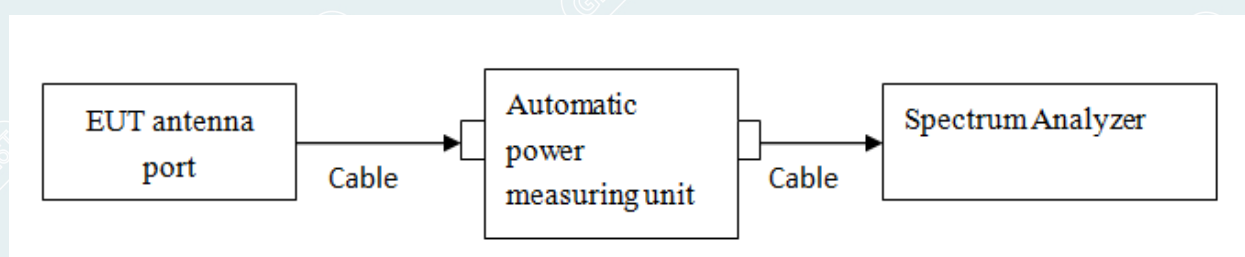
Table 2:

6dB Bandwidth	
Spectrum Parameters	Setting
RBW	100KHz
VBW	300KHz
Span	40MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

Table 3:

99% Occupied Bandwidth	
Spectrum Parameters	Setting
RBW	1% to 5% of the OBW
VBW	approximately three times the RBW
Span	between 1.5 times and 5.0 times the OBW
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

7.3 TEST SETUP



7.4 TEST RESULTS

Environmental Conditions	23.5℃/55%RH/101.0kPa	Test Voltage	DC 13.5V
Tested By	Qing Tingting	Tested Date	2023-05-12

6dB BANDWIDTH

Test Mode	Antenna	Freq[MHz]	6dB EBW [MHz]	F _L [MHz]	F _H [MHz]	Limit[MHz]	Verdict
802.11a	Ant1	5745	15.76	5737.12	5752.88	≥0.5	PASS
	Ant2	5745	15.12	5737.44	5752.56	≥0.5	PASS
	Ant1	5785	15.32	5777.24	5792.56	≥0.5	PASS
	Ant2	5785	15.12	5777.44	5792.56	≥0.5	PASS
	Ant1	5825	15.32	5817.24	5832.56	≥0.5	PASS
	Ant2	5825	15.08	5817.48	5832.56	≥0.5	PASS
802.11n HT20 MIMO	Ant1	5745	15.48	5737.40	5752.88	≥0.5	PASS
	Ant2	5745	15.72	5736.84	5752.56	≥0.5	PASS
	Ant1	5785	15.12	5777.44	5792.56	≥0.5	PASS
	Ant2	5785	15.72	5776.84	5792.56	≥0.5	PASS
	Ant1	5825	15.72	5816.84	5832.56	≥0.5	PASS
	Ant2	5825	15.72	5816.84	5832.56	≥0.5	PASS
802.11n HT40 MIMO	Ant1	5755	35.12	5737.40	5772.52	≥0.5	PASS
	Ant2	5755	35.12	5737.40	5772.52	≥0.5	PASS
	Ant1	5795	35.12	5777.40	5812.52	≥0.5	PASS
	Ant2	5795	35.04	5777.48	5812.52	≥0.5	PASS
802.11ac VHT20 MIMO	Ant1	5745	15.12	5737.44	5752.56	≥0.5	PASS
	Ant2	5745	15.72	5736.84	5752.56	≥0.5	PASS
	Ant1	5785	15.12	5777.44	5792.56	≥0.5	PASS
	Ant2	5785	15.72	5776.84	5792.56	≥0.5	PASS
	Ant1	5825	15.16	5817.40	5832.56	≥0.5	PASS
	Ant2	5825	15.72	5816.84	5832.56	≥0.5	PASS
802.11ac VHT40 MIMO	Ant1	5755	35.04	5737.48	5772.52	≥0.5	PASS
	Ant2	5755	35.04	5737.48	5772.52	≥0.5	PASS
	Ant1	5795	35.12	5777.40	5812.52	≥0.5	PASS
	Ant2	5795	35.12	5777.40	5812.52	≥0.5	PASS
802.11ac VHT80 MIMO	Ant1	5775	72.64	5737.40	5810.04	≥0.5	PASS
	Ant2	5775	72.64	5737.40	5810.04	≥0.5	PASS

26dB BANDWIDTH

Test Mode	Antenna	Freq[MHz]	26dB EBW [MHz]	F _L [MHz]	F _H [MHz]	Limit[MHz]	Verdict
802.11a	Ant1	5180	19.84	5169.72	5189.56	---	PASS
	Ant2	5180	20.16	5169.68	5189.84	---	PASS
	Ant1	5200	19.88	5189.68	5209.56	---	PASS
	Ant2	5200	19.68	5190.20	5209.88	---	PASS
	Ant1	5240	19.24	5230.56	5249.80	---	PASS
	Ant2	5240	20.48	5229.68	5250.16	---	PASS
802.11n HT20 MIMO	Ant1	5180	20.64	5169.28	5189.92	---	PASS
	Ant2	5180	19.92	5170.24	5190.16	---	PASS
	Ant1	5200	19.88	5190.04	5209.92	---	PASS
	Ant2	5200	20.32	5190.08	5210.40	---	PASS
	Ant1	5240	19.92	5230.00	5249.92	---	PASS
	Ant2	5240	19.76	5230.20	5249.96	---	PASS
802.11n HT40 MIMO	Ant1	5190	40.32	5169.60	5209.92	---	PASS
	Ant2	5190	40.72	5169.28	5210.00	---	PASS
	Ant1	5230	41.44	5209.04	5250.48	---	PASS
	Ant2	5230	40.64	5209.36	5250.00	---	PASS
802.11ac VHT20 MIMO	Ant1	5180	19.92	5170.00	5189.92	---	PASS
	Ant2	5180	20.00	5170.16	5190.16	---	PASS
	Ant1	5200	19.80	5190.12	5209.92	---	PASS
	Ant2	5200	20.00	5189.80	5209.80	---	PASS
	Ant1	5240	19.72	5230.12	5249.84	---	PASS
	Ant2	5240	20.36	5229.72	5250.08	---	PASS
802.11ac VHT40 MIMO	Ant1	5190	41.44	5169.28	5210.72	---	PASS
	Ant2	5190	39.92	5170.00	5209.92	---	PASS
	Ant1	5230	40.72	5209.76	5250.48	---	PASS
	Ant2	5230	40.08	5209.92	5250.00	---	PASS
802.11ac VHT80 MIMO	Ant1	5210	81.12	5170.00	5251.12	---	PASS
	Ant2	5210	80.16	5170.00	5250.16	---	PASS

----- The following blanks -----

99% OCCUPIED BANDWIDTH

Test Mode	Antenna	Freq[MHz]	OCB [MHz]	F _L [MHz]	F _H [MHz]	Limit[MHz]	Verdict
802.11a	Ant1	5180	16.464	5171.7682	5188.2318	---	PASS
	Ant2	5180	16.424	5171.7682	5188.1918	---	PASS
	Ant1	5200	16.503	5191.7682	5208.2717	---	PASS
	Ant2	5200	16.543	5191.7283	5208.2717	---	PASS
	Ant1	5240	16.464	5231.7682	5248.2318	---	PASS
	Ant2	5240	16.464	5231.7682	5248.2318	---	PASS
	Ant1	5745	16.543	5736.6883	5753.2318	---	PASS
	Ant2	5745	16.543	5736.7283	5753.2717	---	PASS
	Ant1	5785	16.464	5776.7283	5793.1918	---	PASS
	Ant2	5785	16.464	5776.7682	5793.2318	---	PASS
	Ant1	5825	16.623	5816.6484	5833.2717	---	PASS
	Ant2	5825	16.464	5816.7283	5833.1918	---	PASS
802.11n HT20 MIMO	Ant1	5180	17.542	5171.2088	5188.7512	---	PASS
	Ant2	5180	17.542	5171.2088	5188.7512	---	PASS
	Ant1	5200	17.582	5191.2088	5208.7912	---	PASS
	Ant2	5200	17.542	5191.2088	5208.7512	---	PASS
	Ant1	5240	17.542	5231.2088	5248.7512	---	PASS
	Ant2	5240	17.542	5231.2088	5248.7512	---	PASS
	Ant1	5745	17.582	5736.1688	5753.7512	---	PASS
	Ant2	5745	17.463	5736.2488	5753.7113	---	PASS
	Ant1	5785	17.622	5776.1688	5793.7912	---	PASS
	Ant2	5785	17.582	5776.1688	5793.7512	---	PASS
	Ant1	5825	17.582	5816.1688	5833.7512	---	PASS
	Ant2	5825	17.582	5816.1688	5833.7512	---	PASS
802.11n HT40 MIMO	Ant1	5190	36.044	5172.0180	5208.0619	---	PASS
	Ant2	5190	36.204	5171.8581	5208.0619	---	PASS
	Ant1	5230	35.964	5212.0180	5247.9820	---	PASS
	Ant2	5230	36.124	5211.9381	5248.0619	---	PASS
	Ant1	5755	36.204	5736.7782	5772.9820	---	PASS
	Ant2	5755	35.964	5737.0180	5772.9820	---	PASS
	Ant1	5795	36.444	5776.6983	5813.1419	---	PASS
	Ant2	5795	36.124	5776.8581	5812.9820	---	PASS

802.11ac VHT20 MIMO	Ant1	5180	17.542	5171.2088	5188.7512	---	PASS
	Ant2	5180	17.622	5171.1688	5188.7912	---	PASS
	Ant1	5200	17.622	5191.1688	5208.7912	---	PASS
	Ant2	5200	17.582	5191.2088	5208.7912	---	PASS
	Ant1	5240	17.542	5231.2488	5248.7912	---	PASS
	Ant2	5240	17.542	5231.2088	5248.7512	---	PASS
	Ant1	5745	17.622	5736.1688	5753.7912	---	PASS
	Ant2	5745	17.502	5736.2488	5753.7512	---	PASS
	Ant1	5785	17.582	5776.1688	5793.7512	---	PASS
	Ant2	5785	17.582	5776.1688	5793.7512	---	PASS
	Ant1	5825	17.542	5816.2088	5833.7512	---	PASS
	Ant2	5825	17.542	5816.1688	5833.7113	---	PASS
802.11ac VHT40 MIMO	Ant1	5190	36.044	5172.0180	5208.0619	---	PASS
	Ant2	5190	35.964	5172.0180	5207.9820	---	PASS
	Ant1	5230	35.964	5212.0180	5247.9820	---	PASS
	Ant2	5230	36.204	5211.7782	5247.9820	---	PASS
	Ant1	5755	35.884	5737.0180	5772.9021	---	PASS
	Ant2	5755	36.124	5736.8581	5772.9820	---	PASS
	Ant1	5795	36.044	5776.9381	5812.9820	---	PASS
	Ant2	5795	36.124	5776.8581	5812.9820	---	PASS
802.11ac VHT80 MIMO	Ant1	5210	75.285	5172.4376	5247.7223	---	PASS
	Ant2	5210	75.445	5172.2777	5247.7223	---	PASS
	Ant1	5775	75.764	5737.1179	5812.8821	---	PASS
	Ant2	5775	75.445	5737.1179	5812.5624	---	PASS

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6dB BANDWIDTH

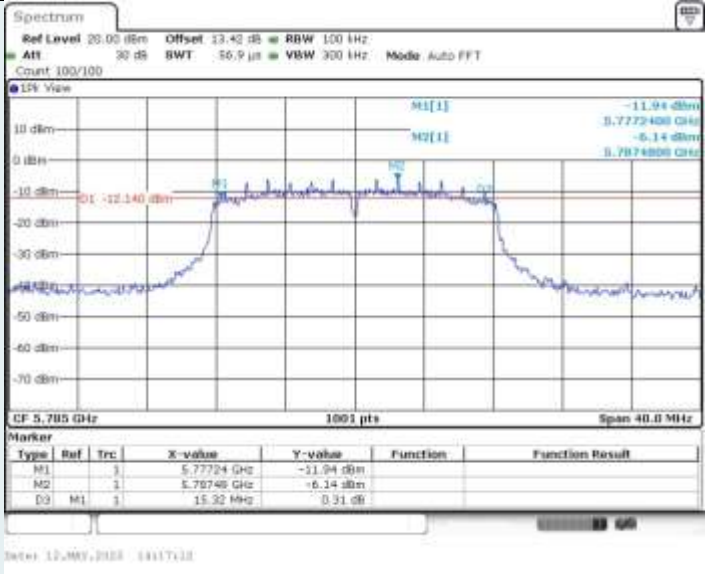
802.11a_Ant1_5745MHz



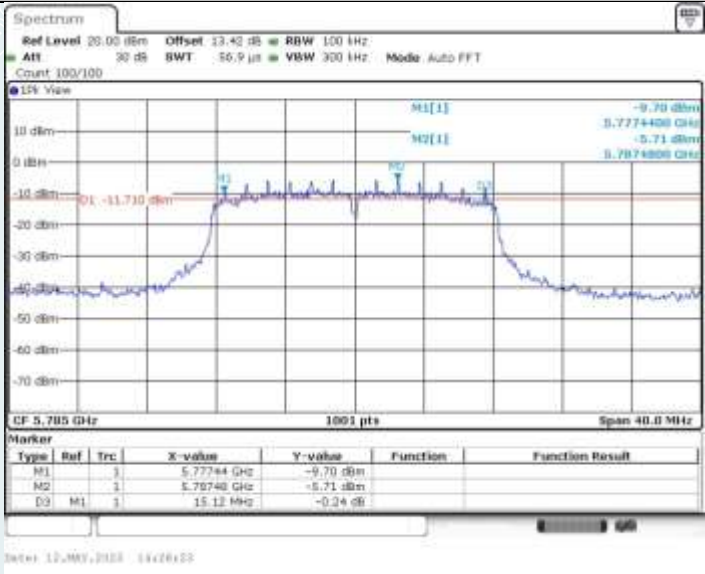
802.11a_Ant2_5745MHz

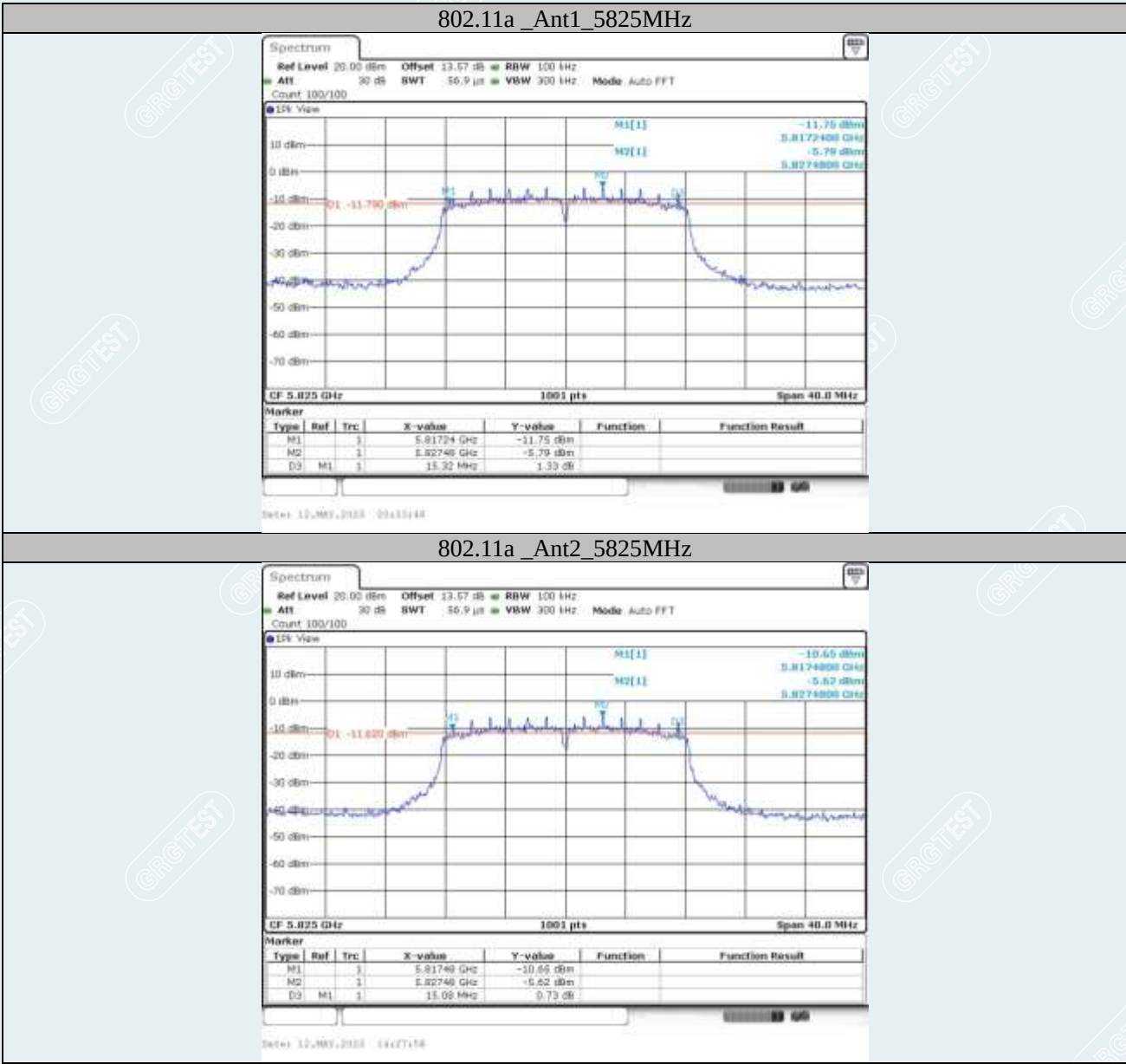


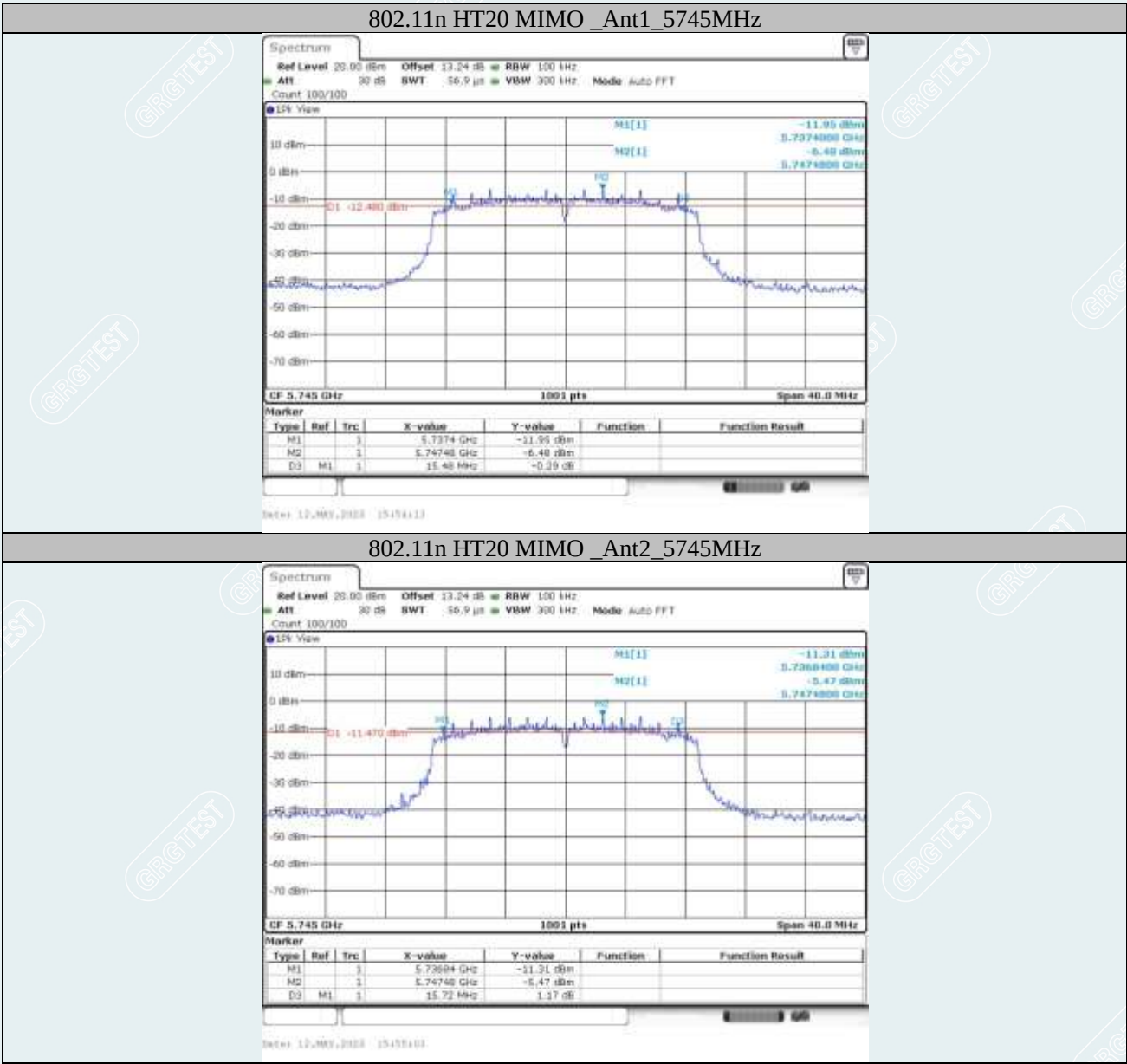
802.11a_Ant1_5785MHz



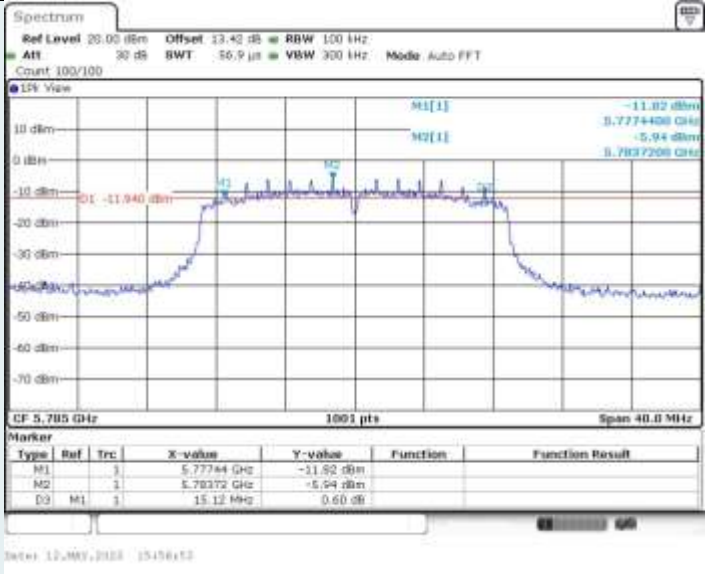
802.11a_Ant2_5785MHz



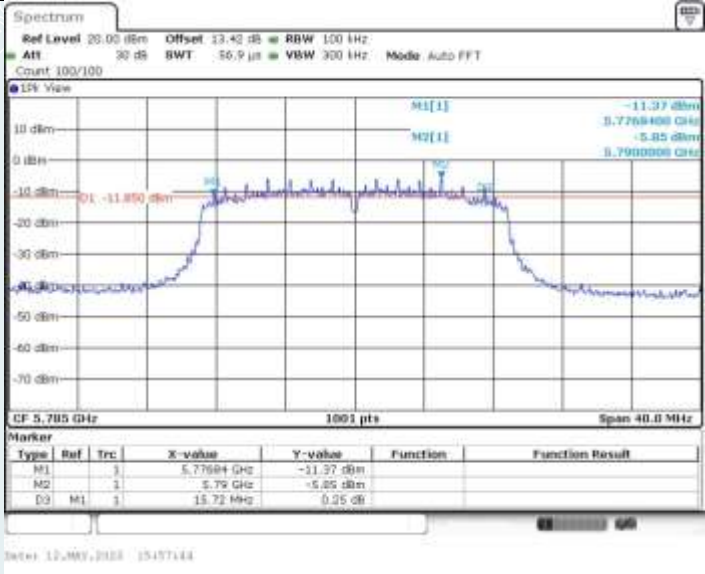




802.11n HT20 MIMO_Ant1_5785MHz



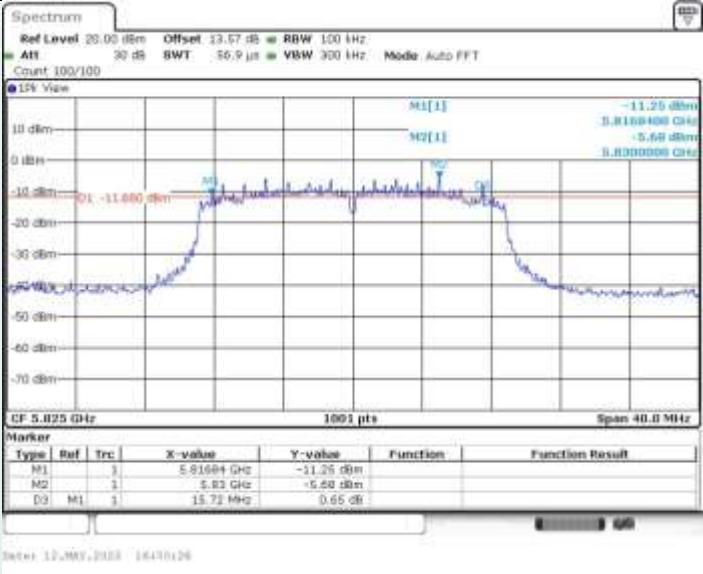
802.11n HT20 MIMO_Ant2_5785MHz



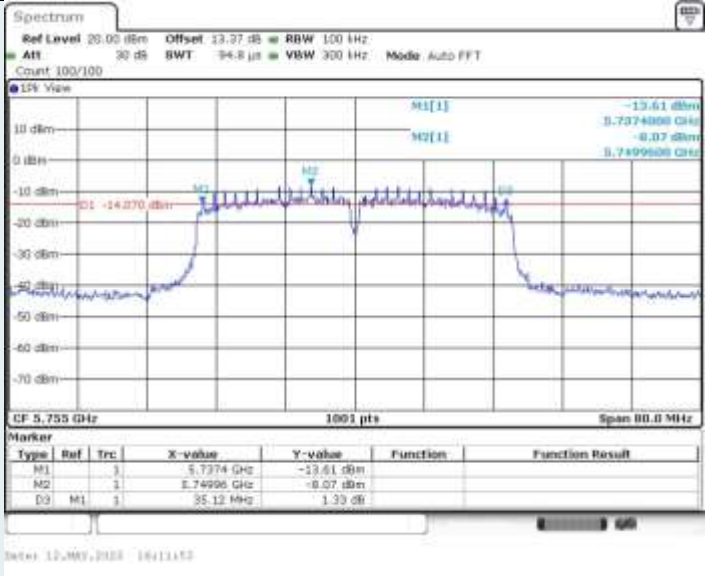
802.11n HT20 MIMO_Ant1_5825MHz



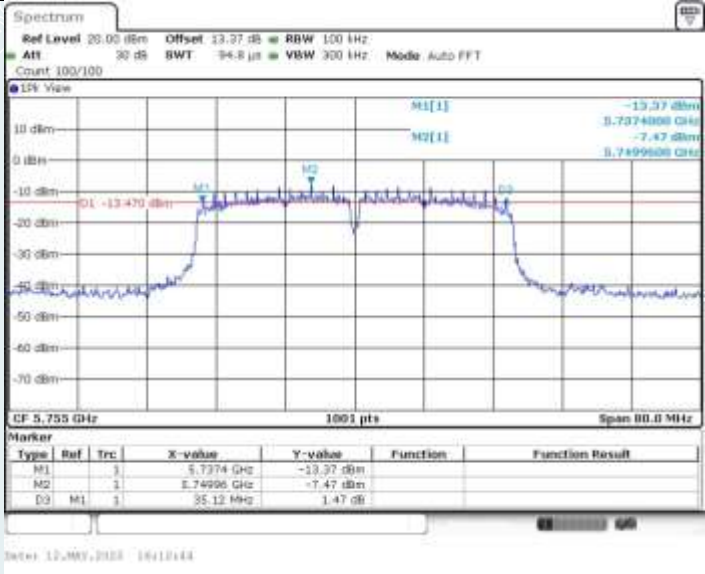
802.11n HT20 MIMO_Ant2_5825MHz



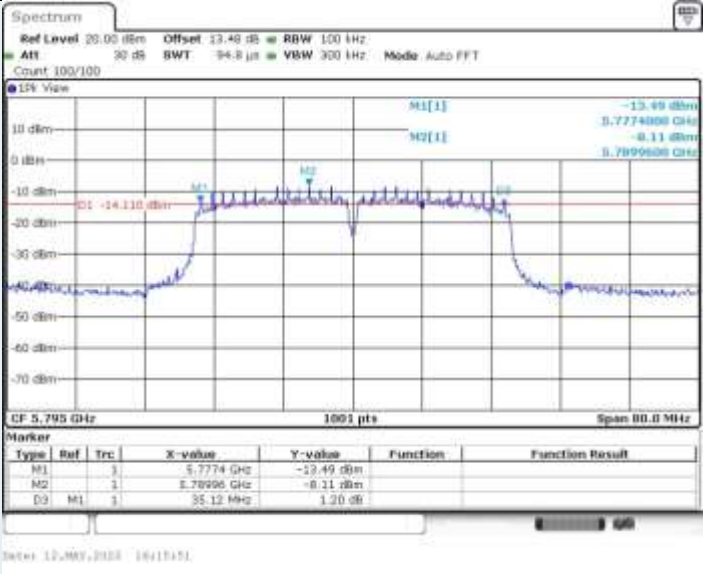
802.11n HT40 MIMO_Ant1_5755MHz



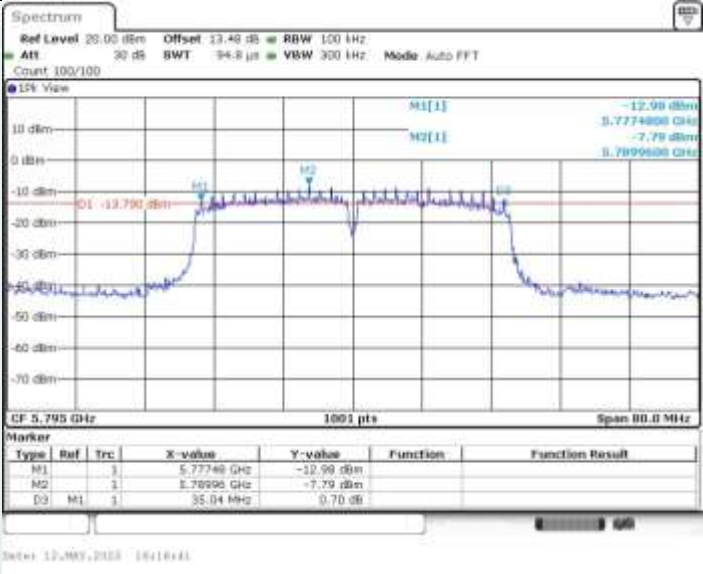
802.11n HT40 MIMO_Ant2_5755MHz



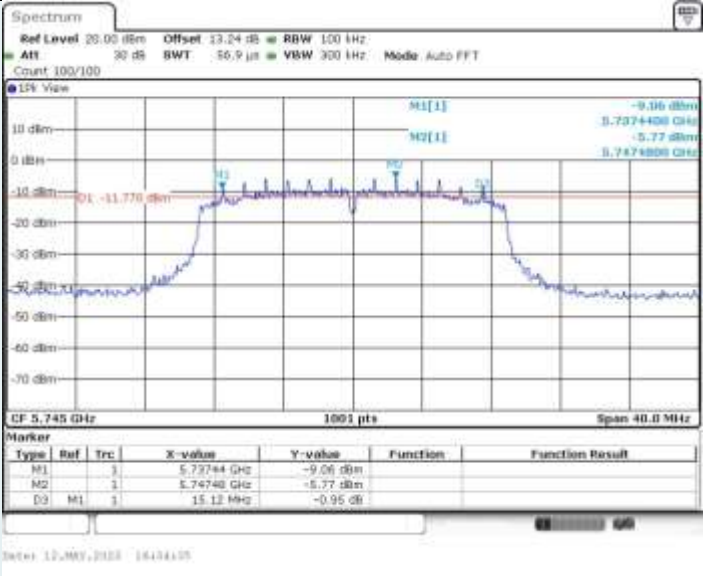
802.11n HT40 MIMO_Ant1_5795MHz



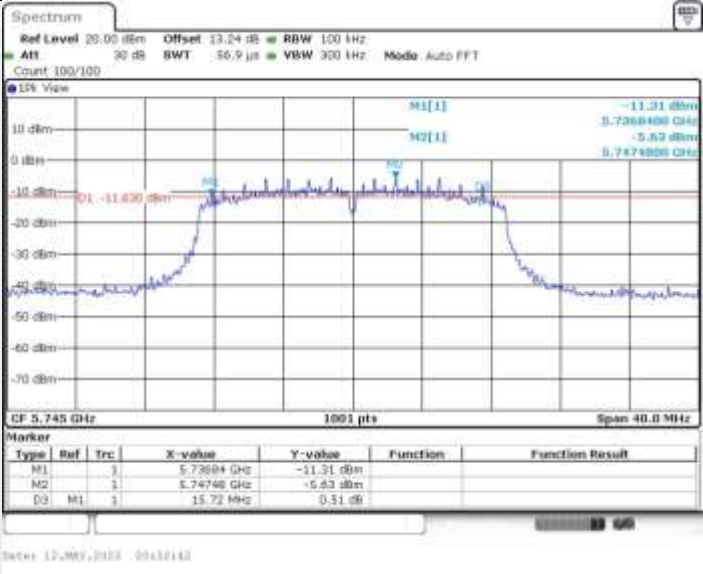
802.11n HT40 MIMO_Ant2_5795MHz



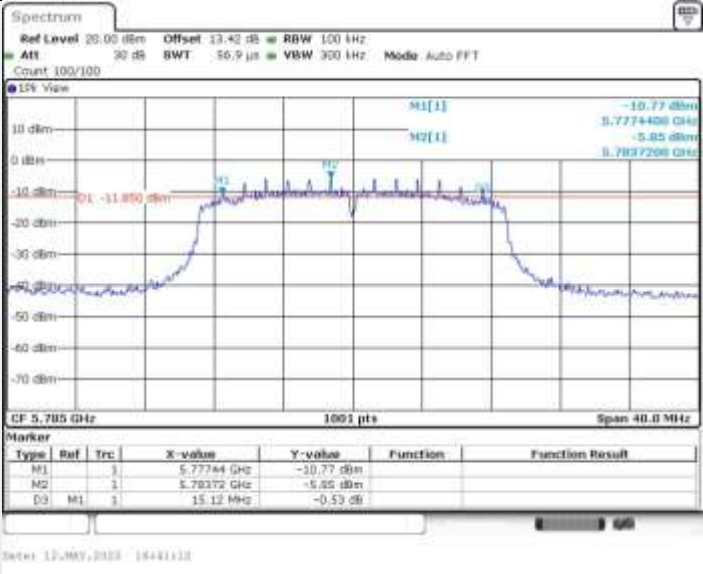
802.11ac VHT20 MIMO_Ant1_5745MHz



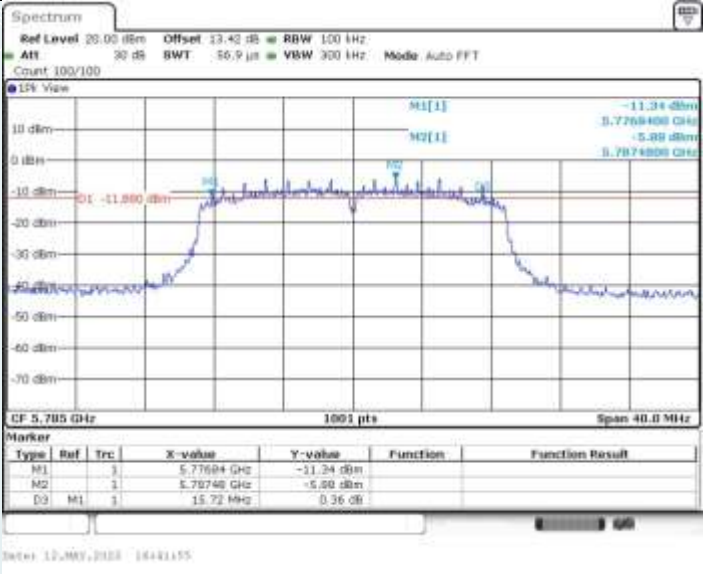
802.11ac VHT20 MIMO_Ant2_5745MHz



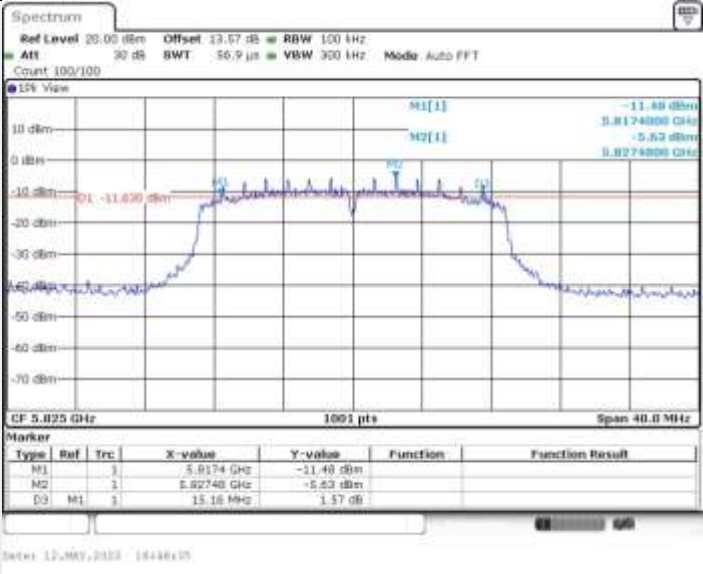
802.11ac VHT20 MIMO_Ant1_5785MHz



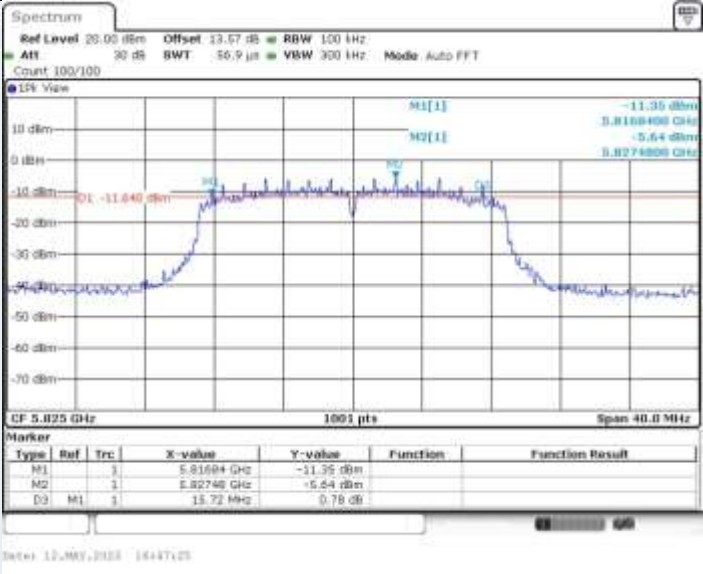
802.11ac VHT20 MIMO_Ant2_5785MHz



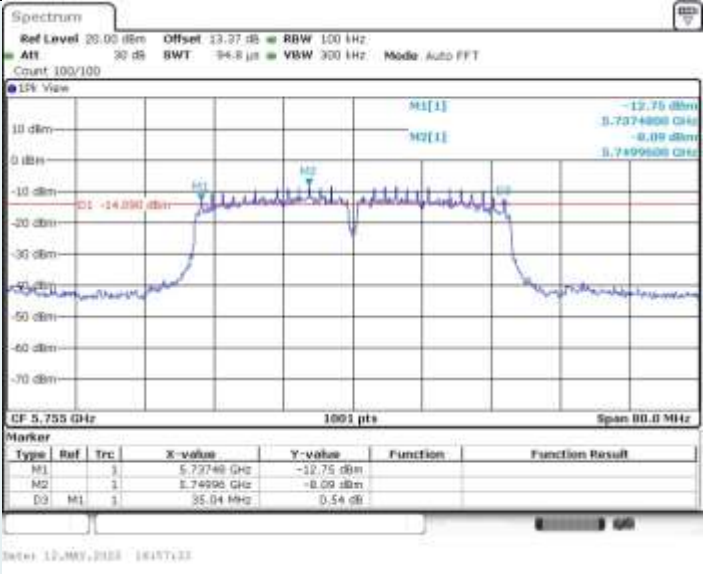
802.11ac VHT20 MIMO_Ant1_5825MHz



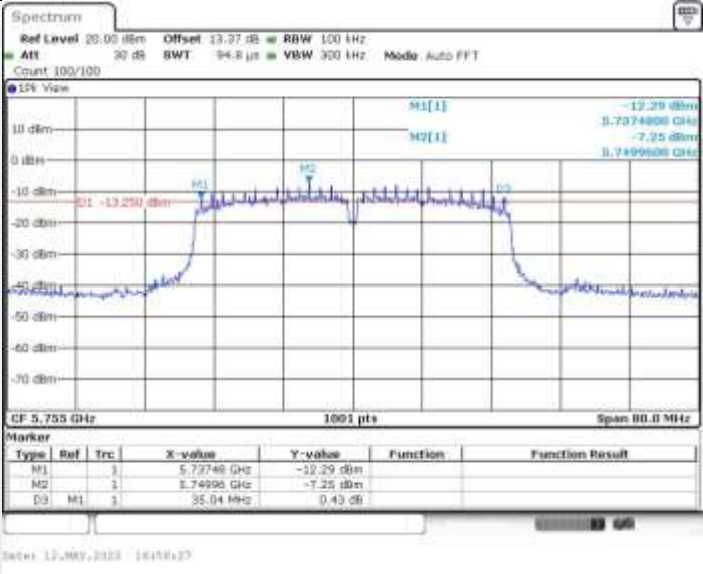
802.11ac VHT20 MIMO_Ant2_5825MHz



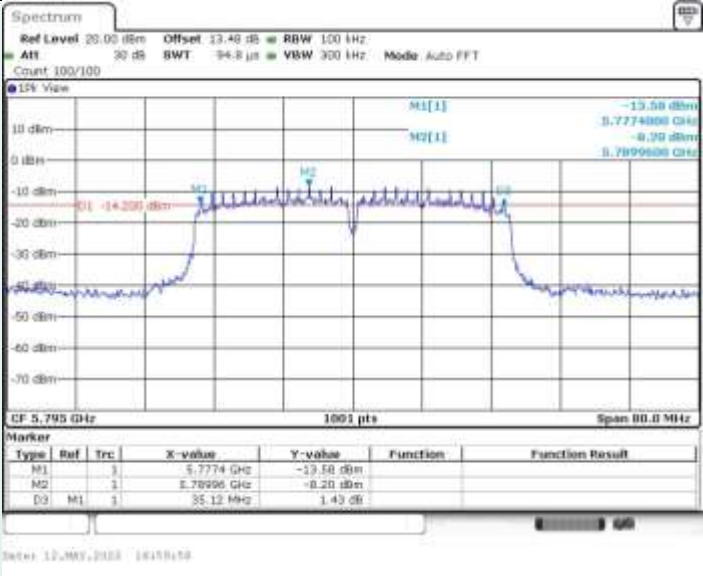
802.11ac VHT40 MIMO_Ant1_5755MHz



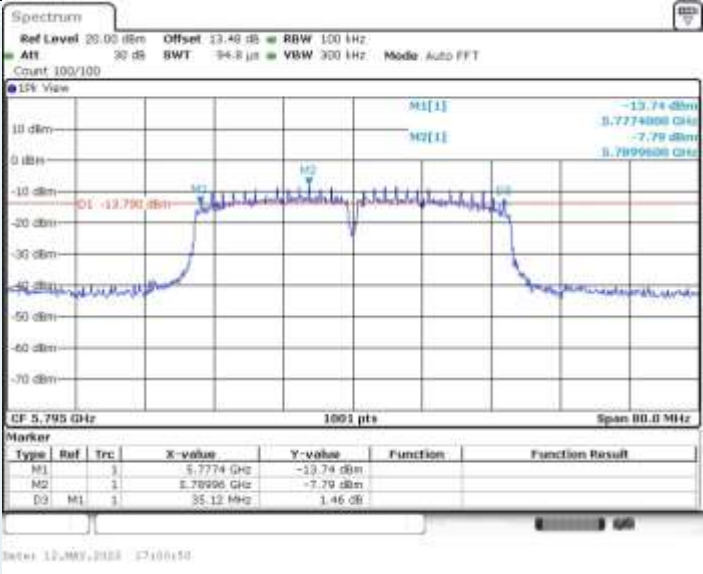
802.11ac VHT40 MIMO_Ant2_5755MHz



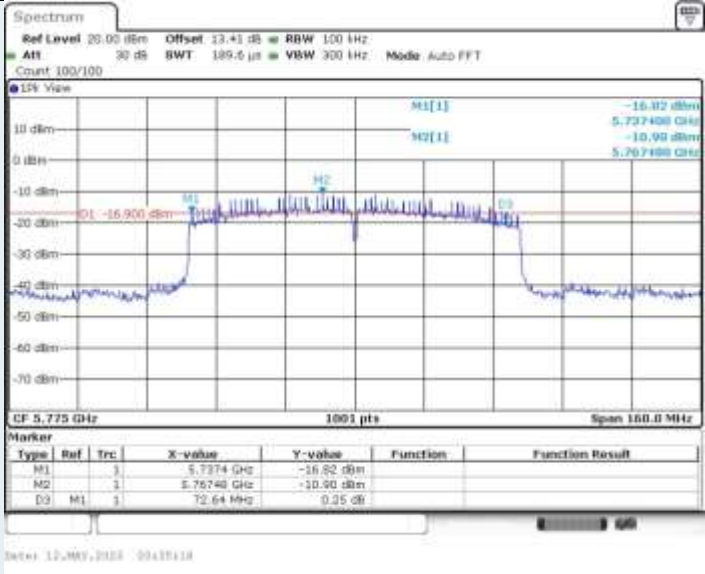
802.11ac VHT40 MIMO_Ant1_5795MHz



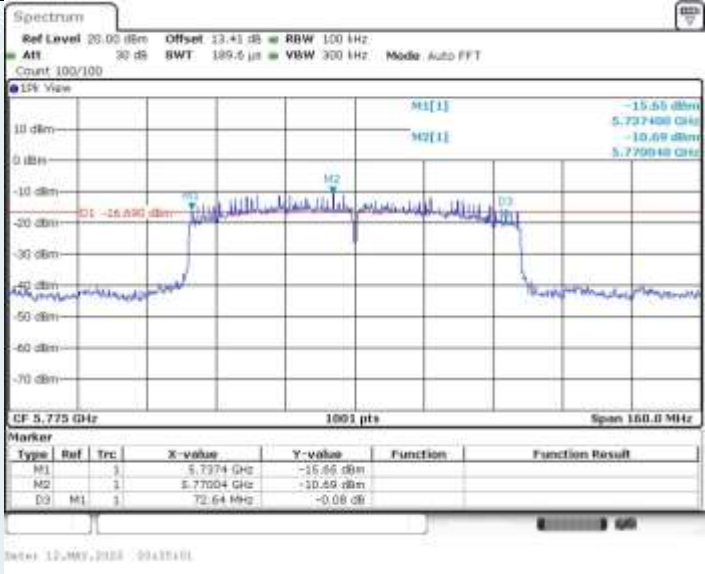
802.11ac VHT40 MIMO_Ant2_5795MHz



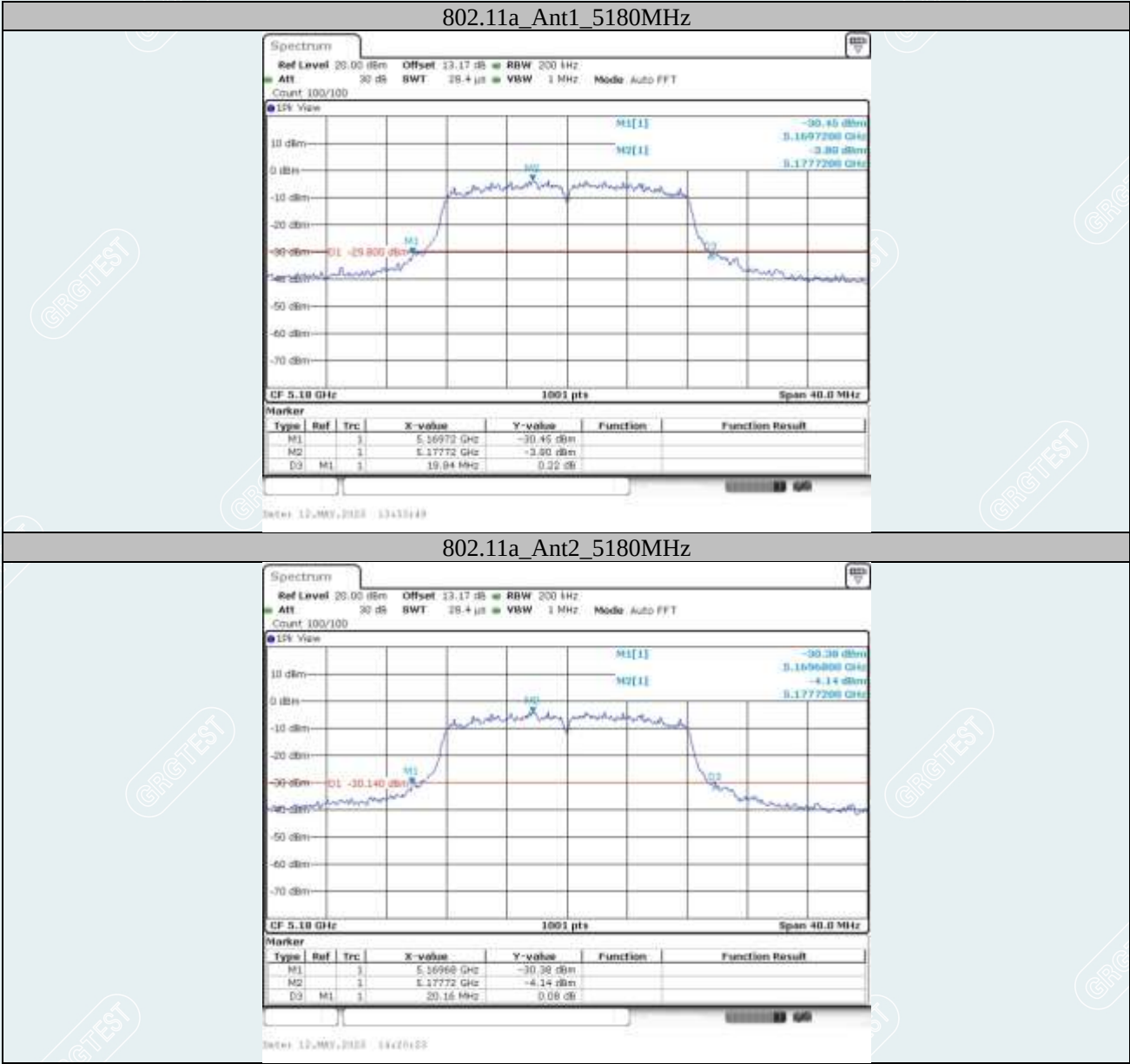
802.11ac VHT80 MIMO_Ant1_5775MHz

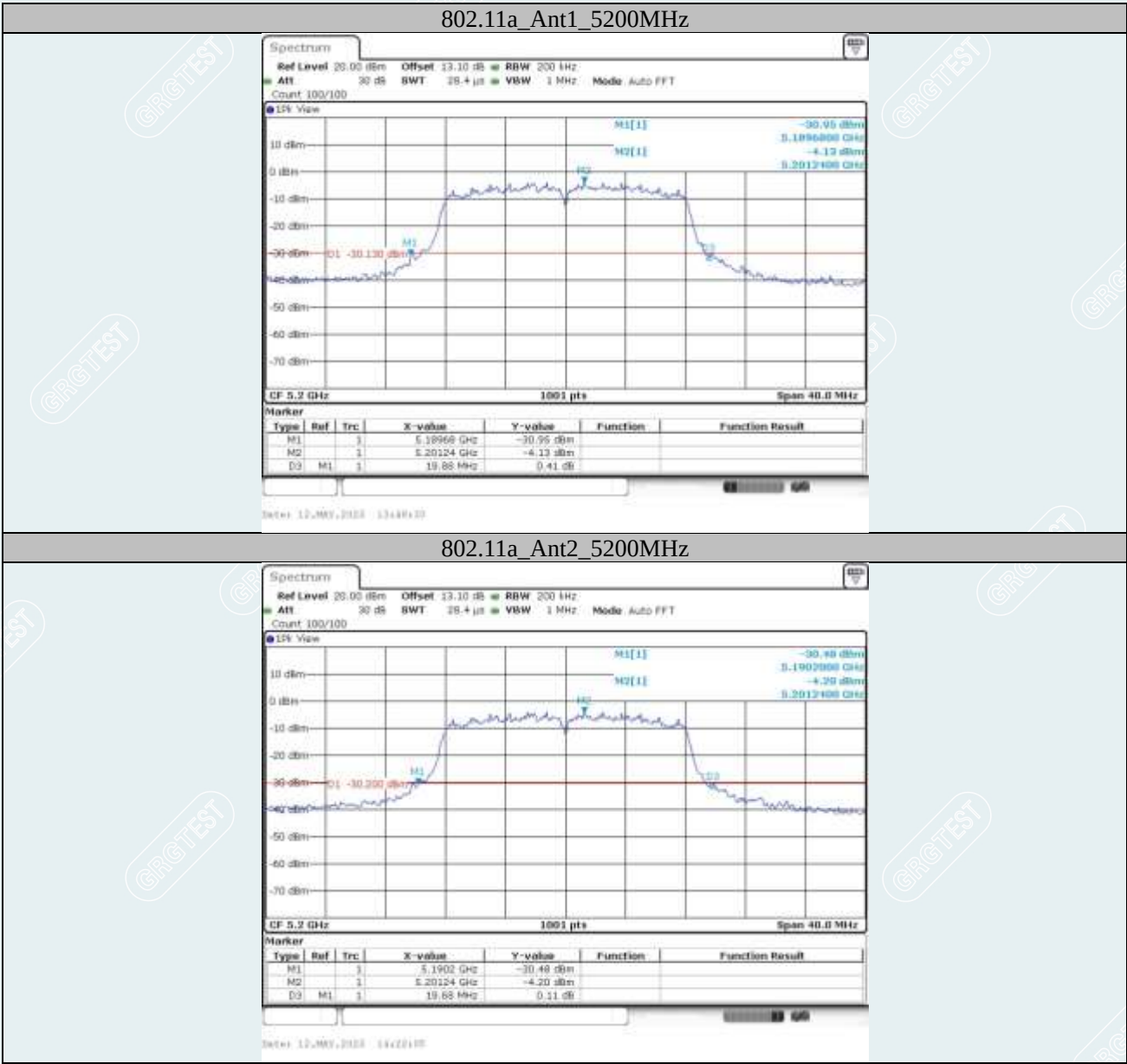


802.11ac VHT80 MIMO_Ant2_5775MHz



26dB BANDWIDTH

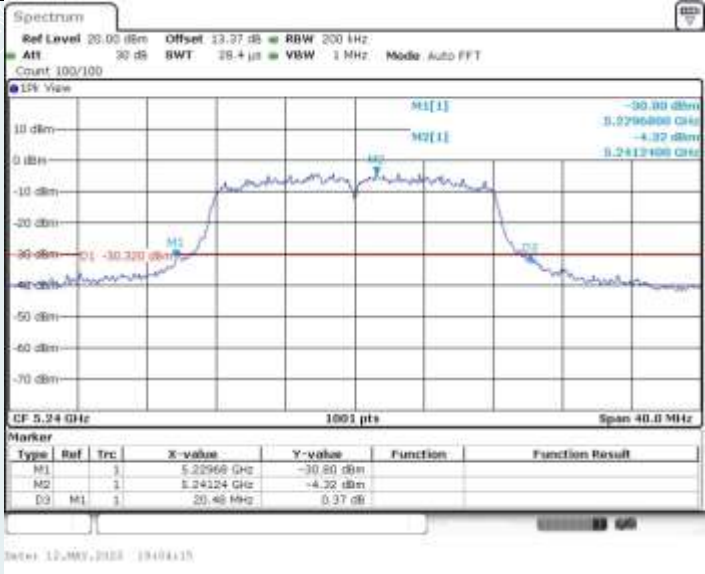


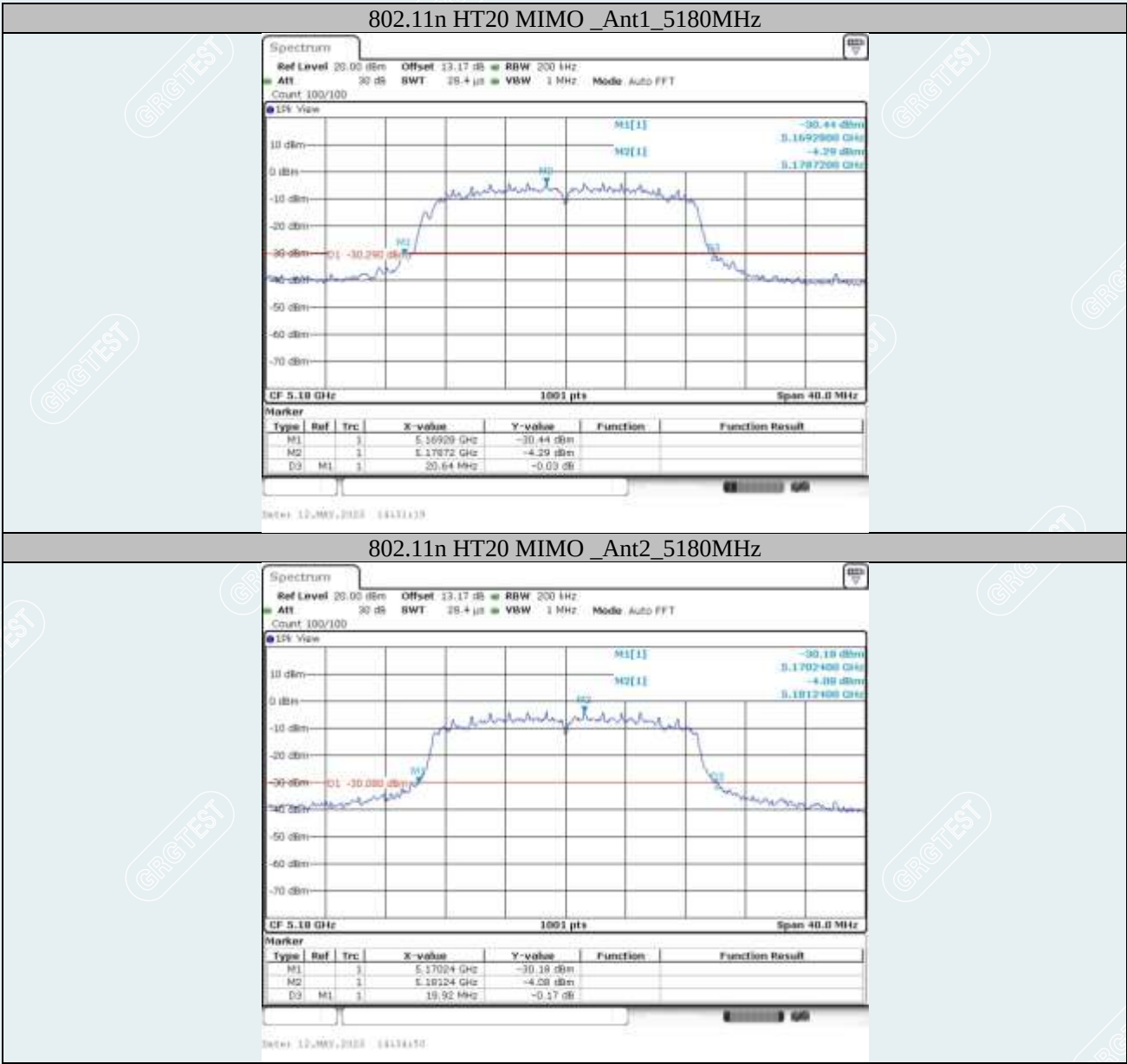


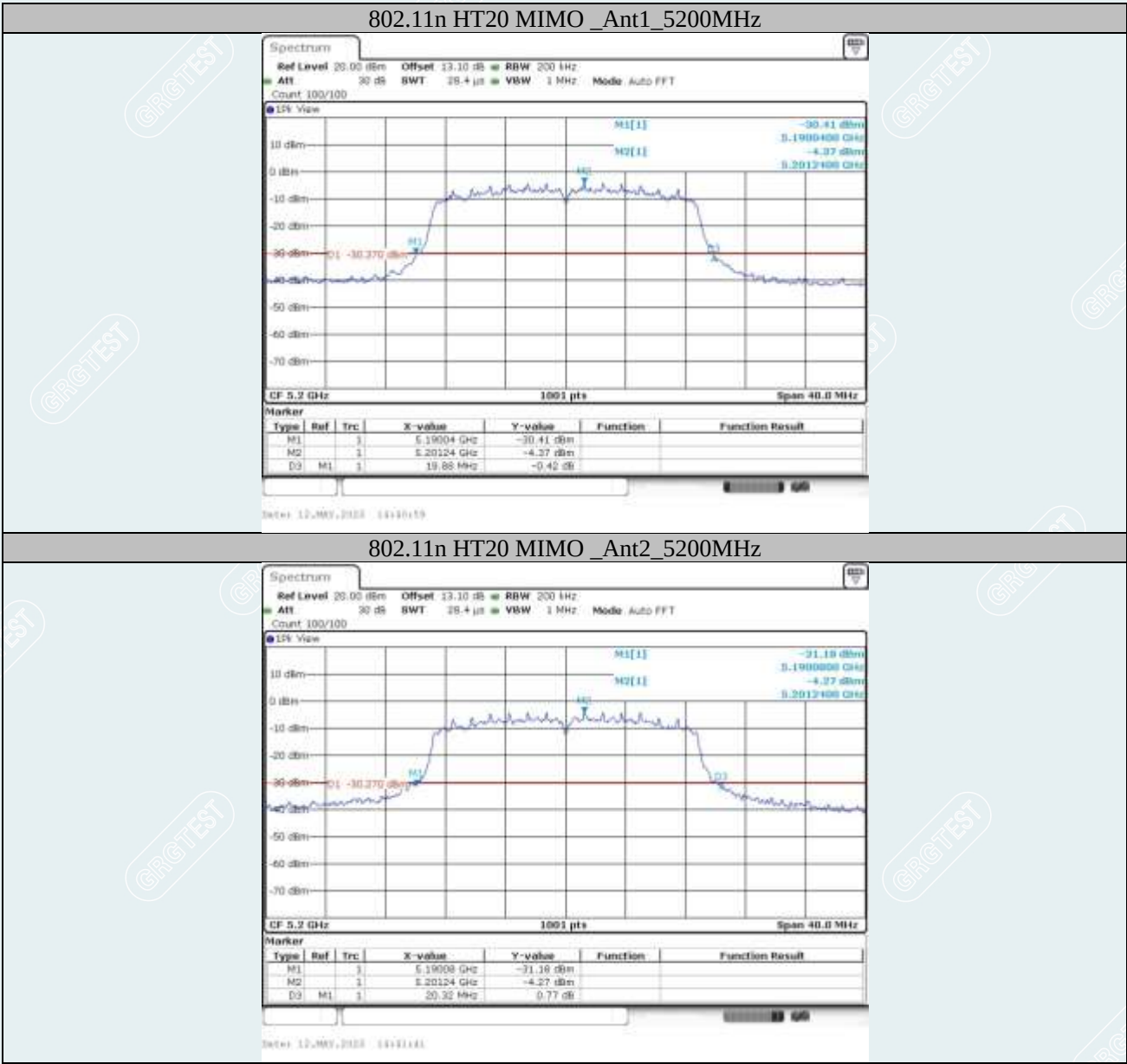
802.11a_Ant1_5240MHz

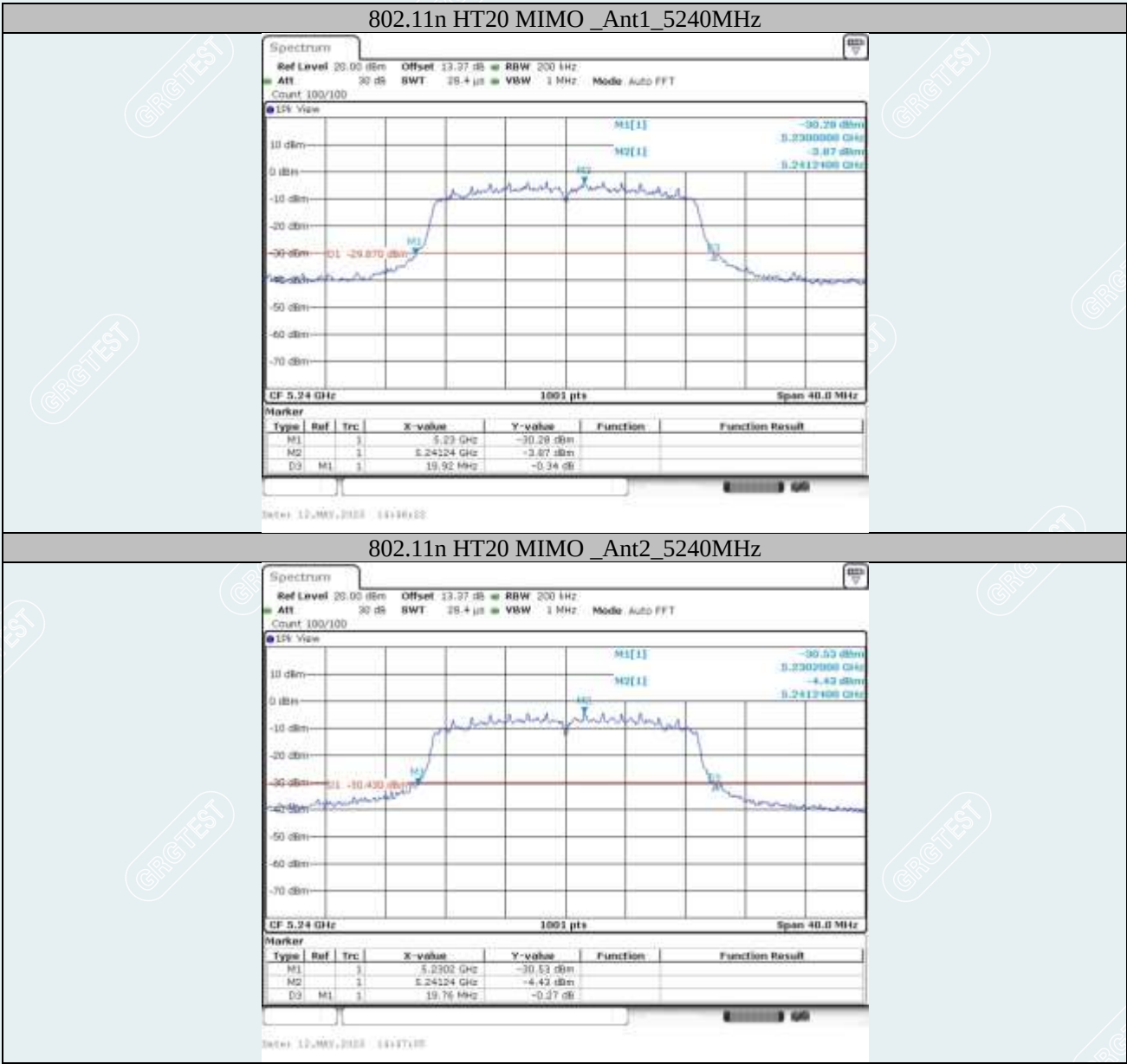


802.11a_Ant2_5240MHz







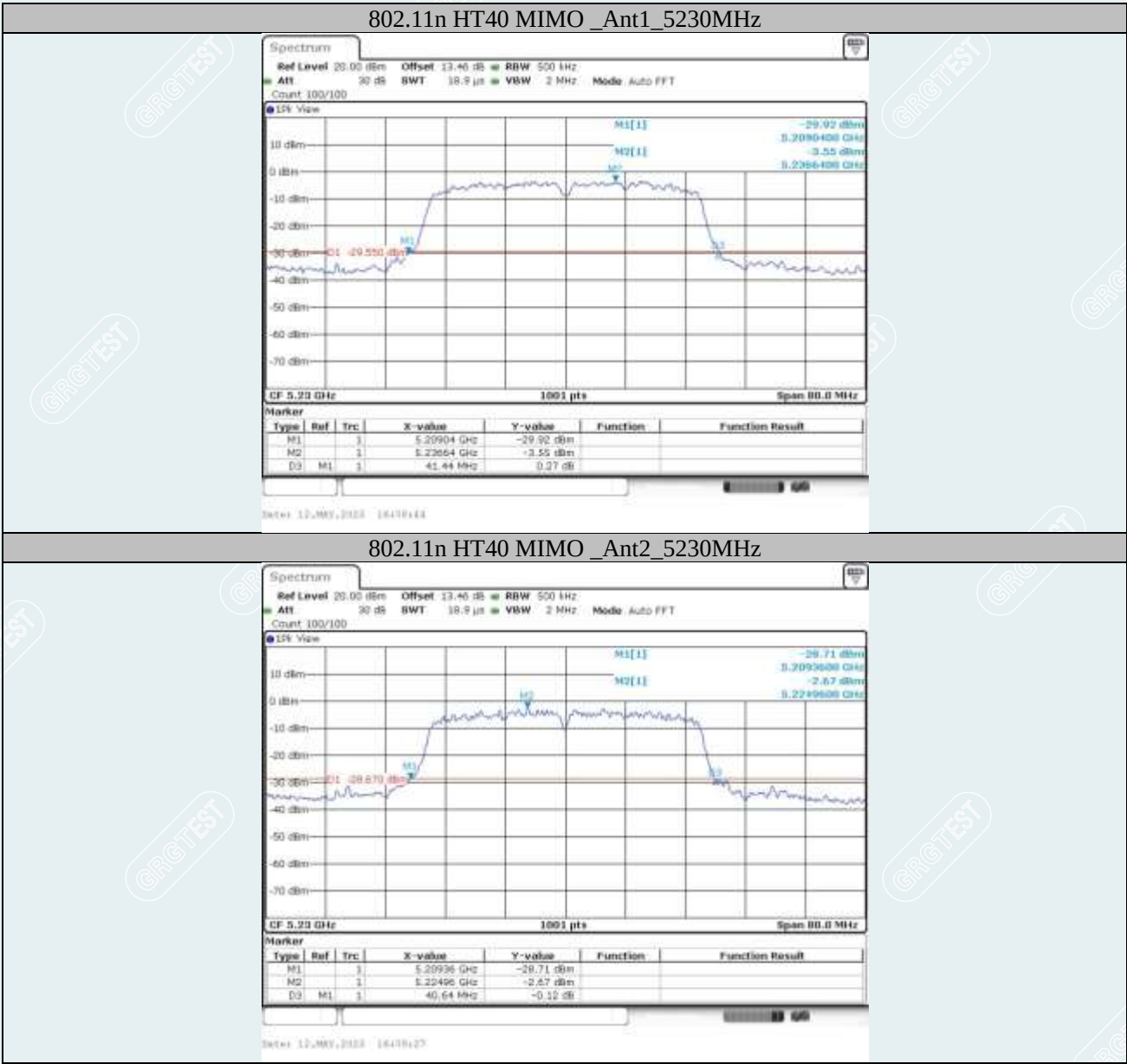


802.11n HT40 MIMO_Ant1_5190MHz



802.11n HT40 MIMO_Ant2_5190MHz





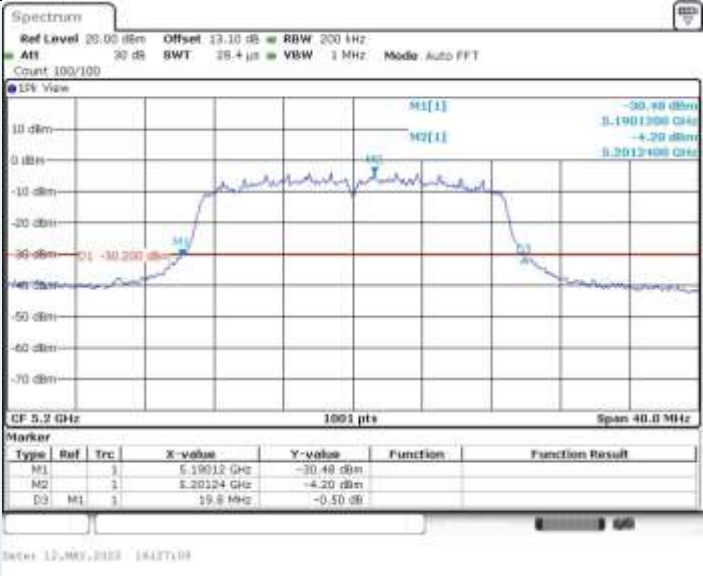
802.11ac VHT20 MIMO_Ant1_5180MHz



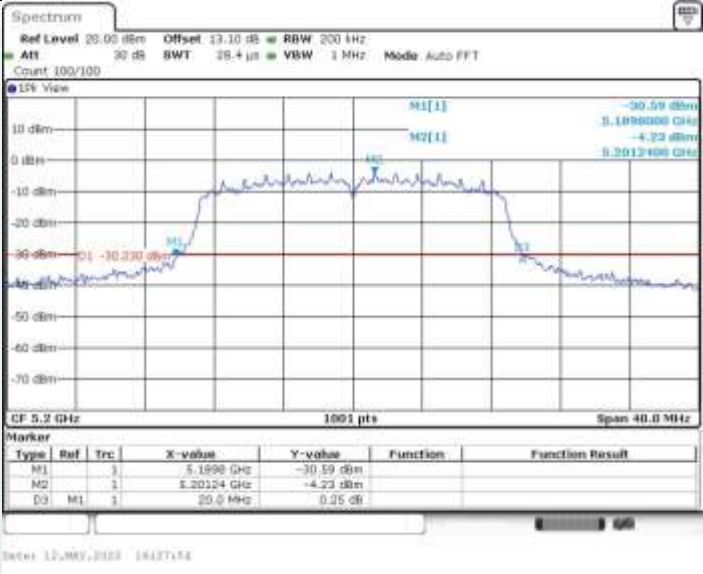
802.11ac VHT20 MIMO_Ant2_5180MHz



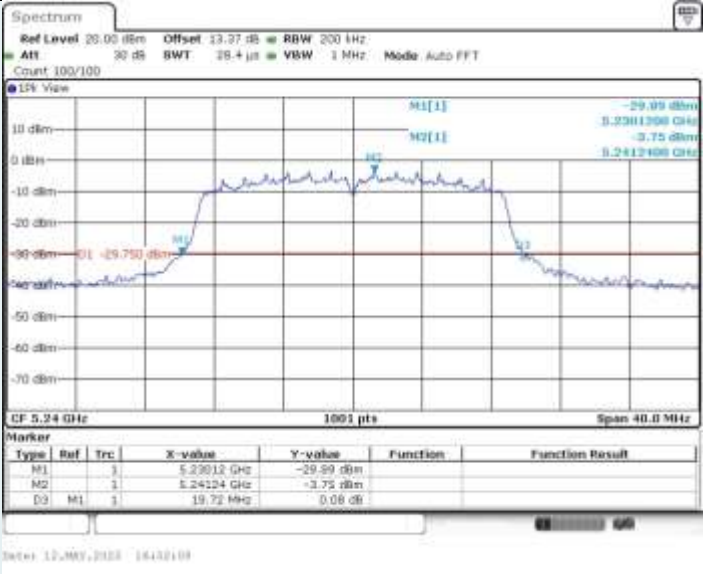
802.11ac VHT20 MIMO_Ant1_5200MHz



802.11ac VHT20 MIMO_Ant2_5200MHz



802.11ac VHT20 MIMO_Ant1_5240MHz



802.11ac VHT20 MIMO_Ant2_5240MHz



802.11ac VHT40 MIMO_Ant1_5190MHz



802.11ac VHT40 MIMO_Ant2_5190MHz



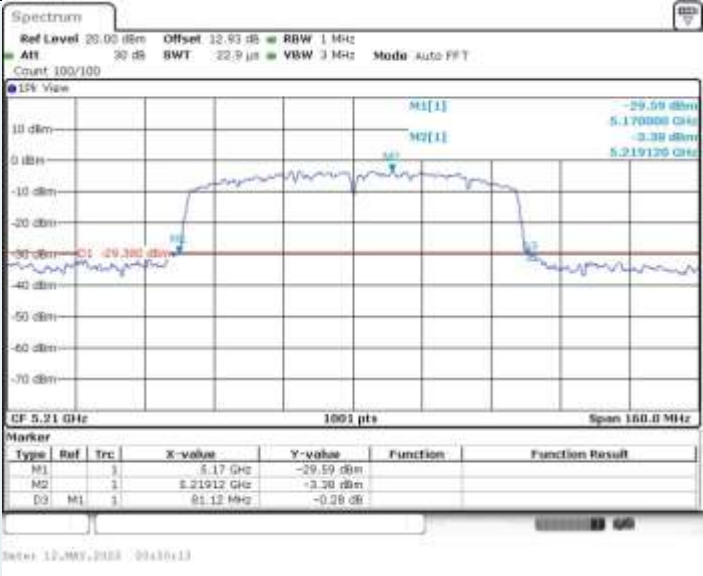
802.11ac VHT40 MIMO_Ant1_5230MHz



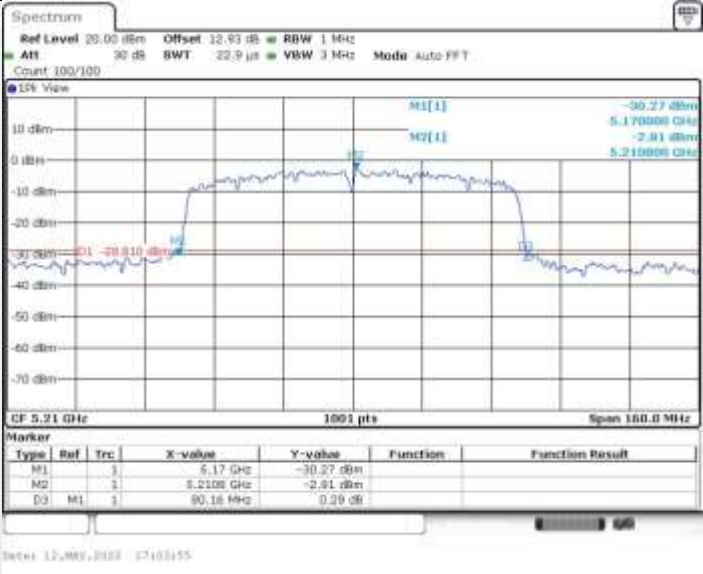
802.11ac VHT40 MIMO_Ant2_5230MHz



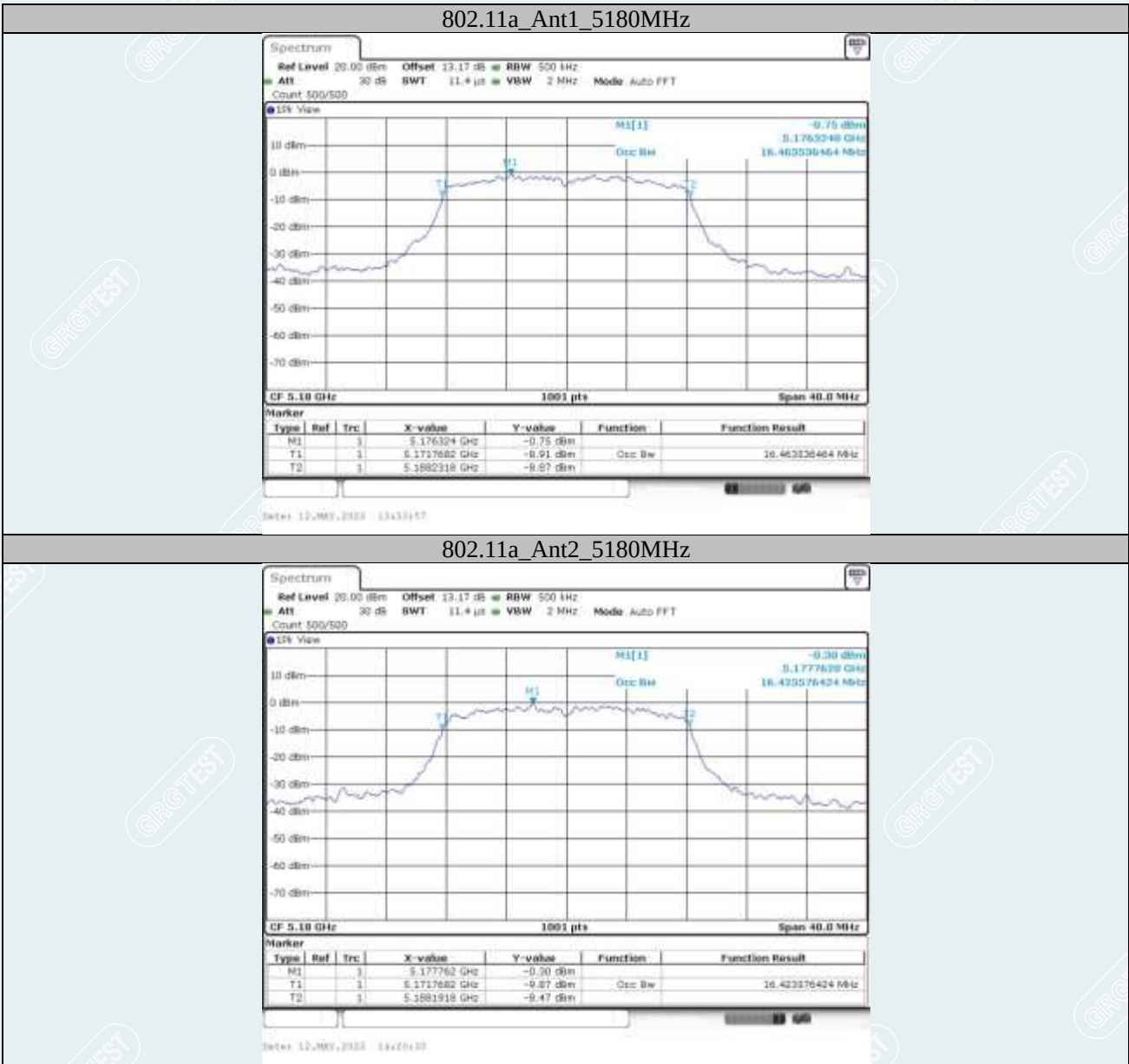
802.11ac VHT80 MIMO_Ant1_5210MHz

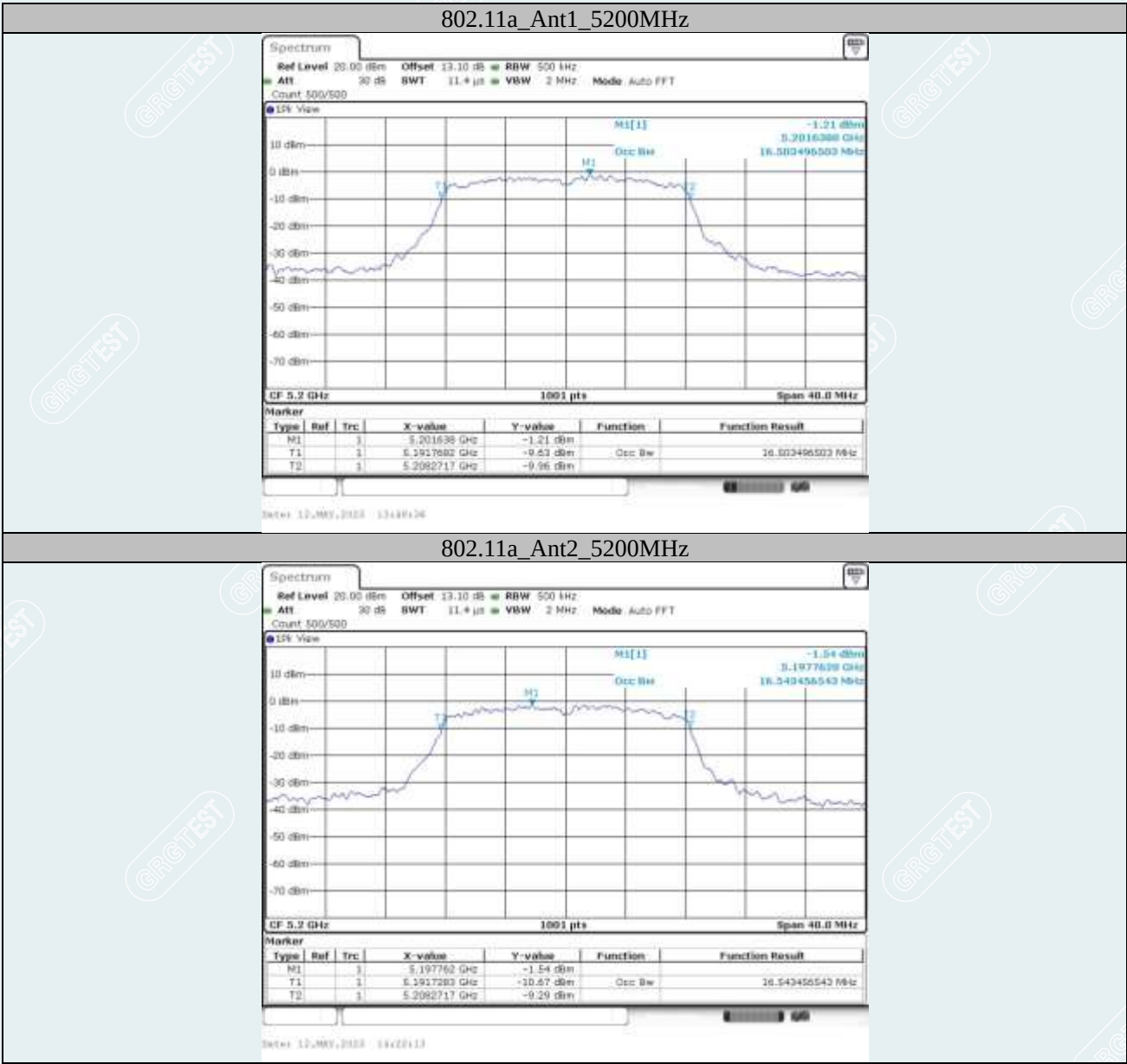


802.11ac VHT80 MIMO_Ant2_5210MHz



99% OCCUPIED BANDWIDTH





802.11a_Ant1_5240MHz



802.11a_Ant2_5240MHz



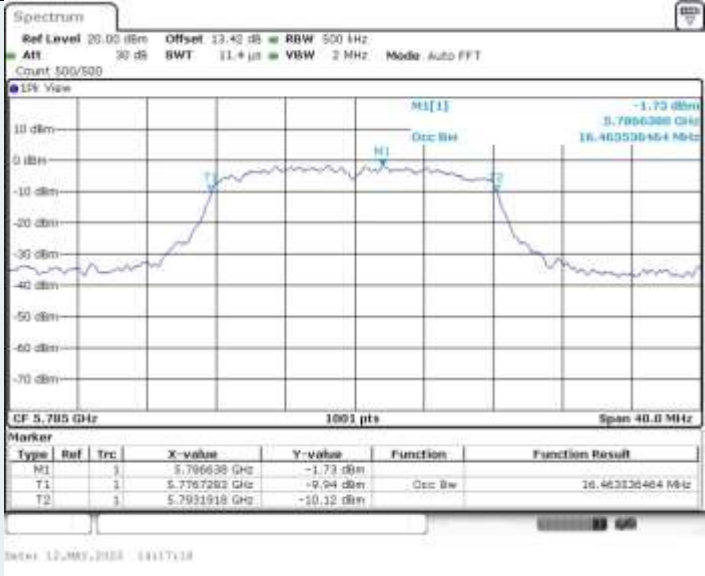
802.11a_Ant1_5745MHz



802.11a_Ant2_5745MHz



802.11a_Ant1_5785MHz



802.11a_Ant2_5785MHz



802.11a_Ant1_5825MHz



802.11a_Ant2_5825MHz



802.11n HT20 MIMO_Ant1_5180MHz



802.11n HT20 MIMO_Ant2_5180MHz



802.11n HT20 MIMO_Ant1_5200MHz



802.11n HT20 MIMO_Ant2_5200MHz







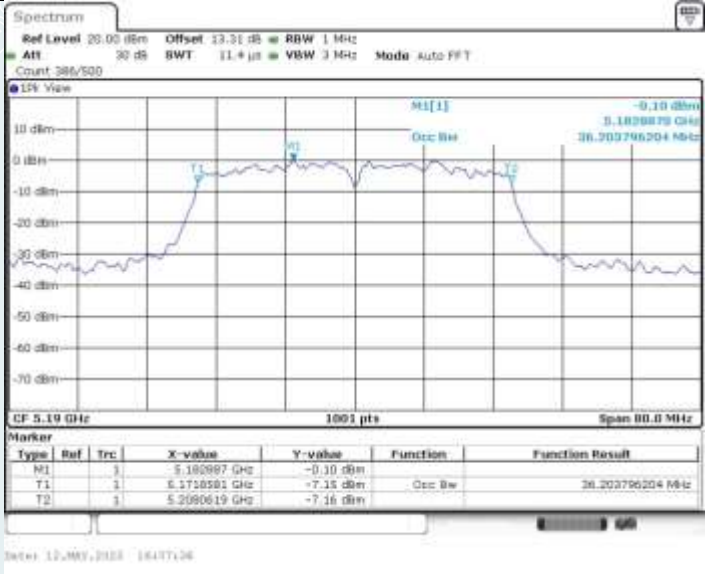




802.11n HT40 MIMO_Ant1_5190MHz



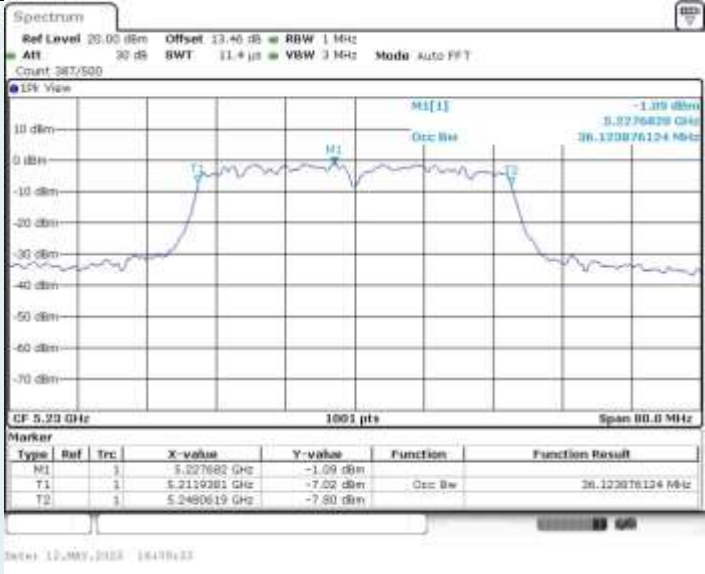
802.11n HT40 MIMO_Ant2_5190MHz



802.11n HT40 MIMO_Ant1_5230MHz



802.11n HT40 MIMO_Ant2_5230MHz





802.11n HT40 MIMO_Ant1_5795MHz



802.11n HT40 MIMO_Ant2_5795MHz



802.11ac VHT20 MIMO_Ant1_5180MHz



802.11ac VHT20 MIMO_Ant2_5180MHz



802.11ac VHT20 MIMO_Ant1_5200MHz



802.11ac VHT20 MIMO_Ant2_5200MHz



802.11ac VHT20 MIMO_Ant1_5240MHz



802.11ac VHT20 MIMO_Ant2_5240MHz



802.11ac VHT20 MIMO_Ant1_5745MHz



802.11ac VHT20 MIMO_Ant2_5745MHz



802.11ac VHT20 MIMO_Ant1_5785MHz



802.11ac VHT20 MIMO_Ant2_5785MHz



802.11ac VHT20 MIMO_Ant1_5825MHz



802.11ac VHT20 MIMO_Ant2_5825MHz



802.11ac VHT40 MIMO_Ant1_5190MHz



802.11ac VHT40 MIMO_Ant2_5190MHz



802.11ac VHT40 MIMO_Ant1_5230MHz



802.11ac VHT40 MIMO_Ant2_5230MHz



802.11ac VHT40 MIMO_Ant1_5755MHz



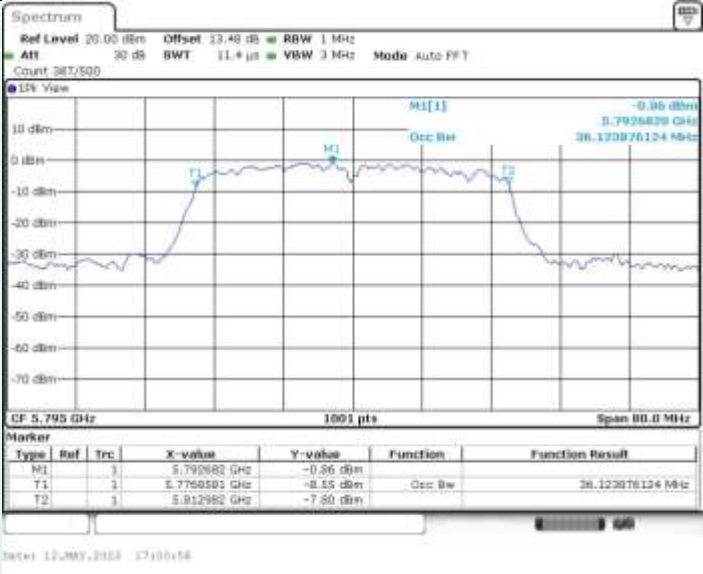
802.11ac VHT40 MIMO_Ant2_5755MHz



802.11ac VHT40 MIMO_Ant1_5795MHz



802.11ac VHT40 MIMO_Ant2_5795MHz



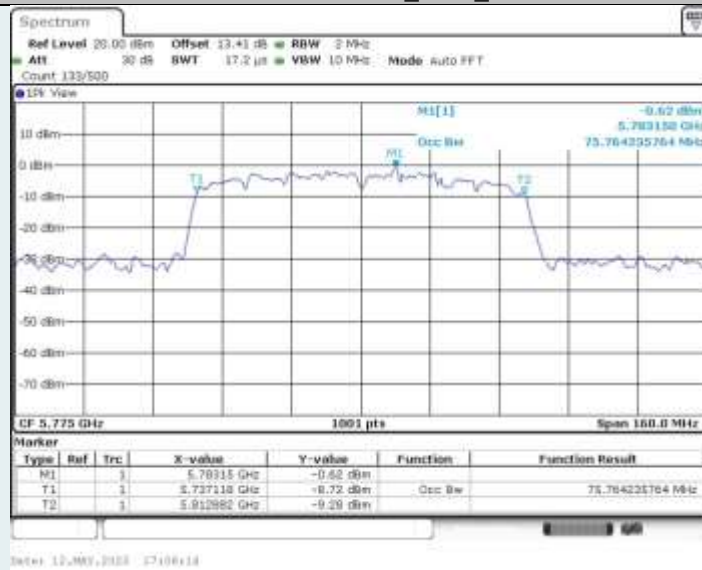
802.11ac VHT80 MIMO_Ant1_5210MHz



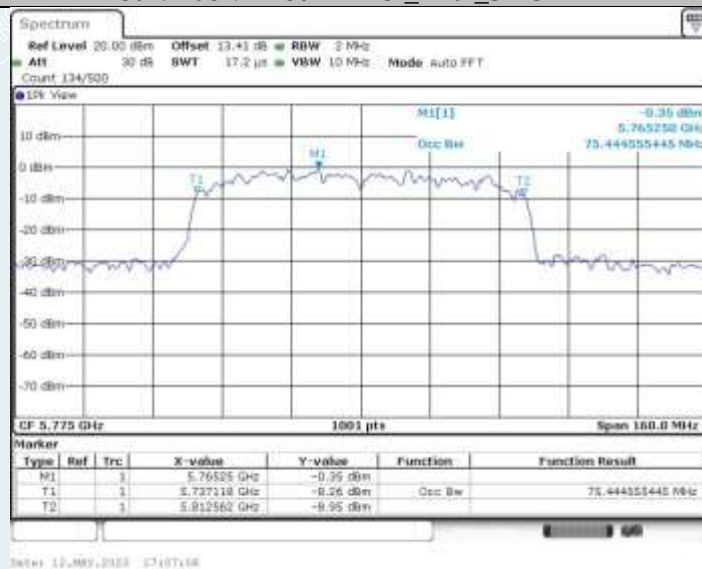
802.11ac VHT80 MIMO_Ant2_5210MHz



802.11ac VHT80 MIMO_Ant1_5775MHz



802.11ac VHT80 MIMO_Ant2_5775MHz



8. OUTPUT POWER

8.1 LIMITS

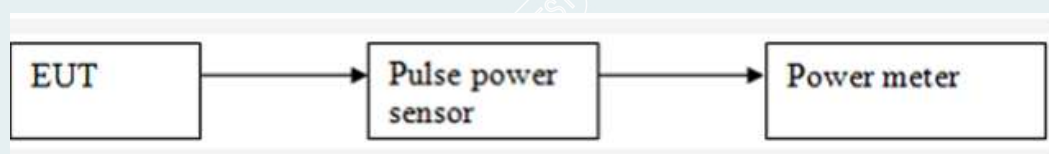
The FCC 15.407(a), The maximum conducted output power should not exceed:

Band	EUT Type	Limit
U-NII-1	Outdoor Access Point	1W(30dBm) (Max. e.i.r.p $\leq$ 125mW at any elevation angle above 30 degrees as measured from the horizon)
	Indoor Access Point	1W(30dBm)
	Fixed point-to-point Access Point	1W(30dBm)
	Mobile and Portable Client Device	250mW(23.98dBm)
U-NII-3	All Device	1W(30dBm)

8.2 TEST PROCEDURES

- 1) The RF output of EUT was connected to the broadband average RF power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 2) Set to the maximum power setting and enable the EUT transmit continuously.
- 3) Measure the conducted output power and record the results in the test report.

8.3 TEST SETUP



----- The following blanks -----

8.4 TEST RESULTS

Environmental Conditions	23.5℃/55%RH/101.0kPa	Test Voltage	DC 13.5V
Tested By	Qing Tingting	Tested Date	2023-04-14

Test Mode	Band	Frequency [MHz]	AVG Conducted Output Power with Duty Factor (dBm)			Limit[dBm]	Verdict
			Antenna 1	Antenna 2	total		
802.11a	U-NII-1	5180	4.52	5.34	/	≤23.98	PASS
		5200	4.58	5.25	/	≤23.98	PASS
		5240	5.07	5.21	/	≤23.98	PASS
	U-NII-3	5745	5.16	5.90	/	≤30	PASS
		5785	5.27	5.94	/	≤30	PASS
		5825	5.30	6.05	/	≤30	PASS
802.11n HT20 MIMO	U-NII-1	5180	4.51	5.57	8.08	≤22.23	PASS
		5200	4.63	5.52	8.11	≤22.23	PASS
		5240	5.14	5.65	8.41	≤22.23	PASS
	U-NII-3	5745	5.11	6.10	8.64	≤28.48	PASS
		5785	5.30	6.16	8.76	≤28.48	PASS
		5825	5.35	6.20	8.80	≤28.48	PASS
802.11n HT40 MIMO	U-NII-1	5190	5.31	6.09	8.73	≤22.23	PASS
		5230	5.76	6.26	9.03	≤22.23	PASS
	U-NII-3	5755	5.80	6.67	9.27	≤28.48	PASS
		5795	5.84	6.79	9.35	≤28.48	PASS
802.11ac VHT20 MIMO	U-NII-1	5180	4.19	5.20	7.74	≤22.23	PASS
		5200	4.30	5.13	7.75	≤22.23	PASS
		5240	4.84	5.31	8.09	≤22.23	PASS
	U-NII-3	5745	4.77	5.63	8.23	≤28.48	PASS
		5785	4.90	5.75	8.36	≤28.48	PASS
		5825	4.96	5.96	8.50	≤28.48	PASS
802.11ac VHT40 MIMO	U-NII-1	5190	5.24	6.08	8.69	≤22.23	PASS
		5230	5.68	6.10	8.91	≤22.23	PASS
	U-NII-3	5755	5.86	6.60	9.26	≤28.48	PASS
		5795	5.99	6.75	9.40	≤28.48	PASS
802.11ac VHT80 MIMO	U-NII-1	5210	5.45	6.09	8.80	≤22.23	PASS
	U-NII-3	5775	5.75	6.58	9.20	≤28.48	PASS

U-NII-1 :

Note1: This EUT supports MIMO 2X2, any transmit signals are correlated with each other,
So Directional gain = $10\log[(10^{4.26/20} + 10^{5.19/20})^2/2]$ dBi, that is Directional gain (dBi) = 7.75

Note2: Antenna gain is greater than 6, Output Power Limit = $23.98 - (7.75 - 6) = 22.23$ dBm

U-NII-3:

Note1: This EUT supports MIMO 2X2, any transmit signals are correlated with each other,
So Directional gain = $10\log[(10^{4.96/20} + 10^{4.03/20})^2/2]$ dBi, that is Directional gain (dBi) = 7.52

Note2: Antenna gain is greater than 6, Output Power Limit = $30 - (7.52 - 6) = 28.48$ dBm

----- The following blanks -----

9. POWER SPECTRAL DENSITY

9.1 LIMITS

FCC 15.407(a)

The maximum power spectral density should not exceed:

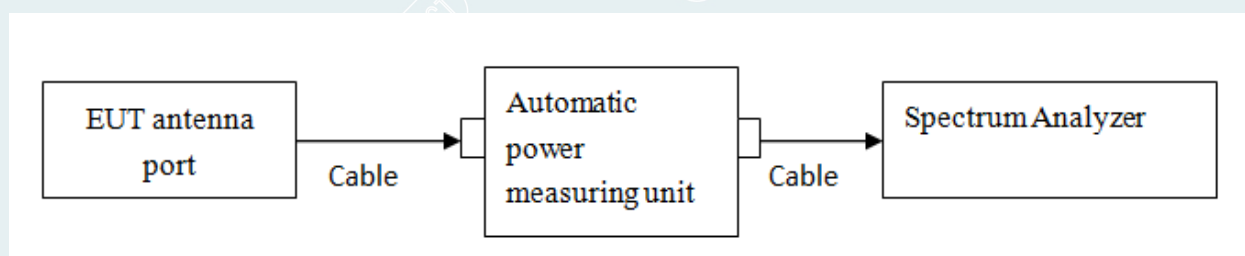
Band	EUT Type	Limit
U-NII-1	Outdoor Access Point	17dBm/MHz
	Indoor Access Point	17dBm/MHz
	Fixed point-to-point Access Point	17dBm/MHz
	Mobile and Portable Client Device	11dBm/MHz
U-NII-3	All Device	30dBm/500kHz

If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

9.2 TEST PROCEDURES

Spectrum Parameters	Setting
RBW	1MHz(For U-NII-1) 500kHz(For U-NII-3)
VBW	3MHz(For U-NII-1) 2MHz(For U-NII-3)
Span	encompass the entire 26 dB EBW or 99% OBW of the signal
Sweep Time	Auto
Number of Sweep Point	$\geq 2 \times \text{SPAN/RBW}$
Detector	RMS(power averaging)
Trace Average	≥ 100 traces

9.3 TEST SETUP



9.4 TEST RESULTS

Environmental Conditions	23.5°C/55%RH/101.0kPa	Test Voltage	DC 13.5V
Tested By	Qing Tingting	Tested Date	2023-05-12

Test Mode	Antenna	Band	Frequency [MHz]	Result + Duty factor [dBm/MHz]	Limit [dBm/MHz]	Verdict
802.11a	Ant1	U-NII-1	5180	-5.01	≤11.00	PASS
	Ant2	U-NII-1	5180	-5.45	≤11.00	PASS
	Ant1	U-NII-1	5200	-5.64	≤11.00	PASS
	Ant2	U-NII-1	5200	-5.54	≤11.00	PASS
	Ant1	U-NII-1	5240	-5.42	≤11.00	PASS
	Ant2	U-NII-1	5240	-5.70	≤11.00	PASS
802.11n HT20 MIMO	Ant1	U-NII-1	5180	-5.36	≤11.00	PASS
	Ant2	U-NII-1	5180	-5.45	≤11.00	PASS
	total	U-NII-1	5180	-2.39	≤9.25	PASS
	Ant1	U-NII-1	5200	-5.72	≤11.00	PASS
	Ant2	U-NII-1	5200	-6.37	≤11.00	PASS
	total	U-NII-1	5200	-2.19	≤9.25	PASS
	Ant1	U-NII-1	5240	-5.46	≤11.00	PASS
	Ant2	U-NII-1	5240	-5.82	≤11.00	PASS
	total	U-NII-1	5240	-2.63	≤9.25	PASS
802.11n HT40 MIMO	Ant1	U-NII-1	5190	-8.35	≤11.00	PASS
	Ant2	U-NII-1	5190	-7.75	≤11.00	PASS
	total	U-NII-1	5190	-5.03	≤9.25	PASS
	Ant1	U-NII-1	5230	-7.35	≤11.00	PASS
	Ant2	U-NII-1	5230	-8.23	≤11.00	PASS
	total	U-NII-1	5230	-4.76	≤9.25	PASS
802.11ac VHT20 MIMO	Ant1	U-NII-1	5180	-5.94	≤11.00	PASS
	Ant2	U-NII-1	5180	-5.71	≤11.00	PASS
	total	U-NII-1	5180	-2.81	≤9.25	PASS
	Ant1	U-NII-1	5200	-5.75	≤11.00	PASS
	Ant2	U-NII-1	5200	-5.80	≤11.00	PASS
	total	U-NII-1	5200	-2.76	≤9.25	PASS
	Ant1	U-NII-1	5240	-5.78	≤11.00	PASS
	Ant2	U-NII-1	5240	-5.82	≤11.00	PASS
802.11ac VHT40 MIMO	total	U-NII-1	5240	-2.79	≤9.25	PASS
	Ant1	U-NII-1	5190	-7.49	≤11.00	PASS
	Ant2	U-NII-1	5190	-7.55	≤11.00	PASS
	total	U-NII-1	5190	-4.51	≤9.25	PASS
	Ant1	U-NII-1	5230	-7.42	≤11.00	PASS
	Ant2	U-NII-1	5230	-7.53	≤11.00	PASS
802.11ac VHT80 MIMO	total	U-NII-1	5230	-4.46	≤9.25	PASS
	Ant1	U-NII-1	5210	-10.81	≤11.00	PASS
	Ant2	U-NII-1	5210	-10.35	≤11.00	PASS
	total	U-NII-1	5210	-7.56	≤9.25	PASS

Note: 1.The Duty Cycle Factor is compensated in the graph.

Test Mode	Antenna	Band	Freq[MHz]	Result+Duty factor [dBm/500kHz]	Limit [dBm/500kHz]	Verdict
802.11a	Ant1	U-NII-3	5745	-9.05	≤30.00	PASS
	Ant2	U-NII-3	5745	-8.52	≤30.00	PASS
	Ant1	U-NII-3	5785	-9.08	≤30.00	PASS
	Ant2	U-NII-3	5785	-8.82	≤30.00	PASS
	Ant1	U-NII-3	5825	-8.70	≤30.00	PASS
	Ant2	U-NII-3	5825	-8.93	≤30.00	PASS
802.11n HT20 MIMO	Ant1	U-NII-3	5745	-9.00	≤30.00	PASS
	Ant2	U-NII-3	5745	-8.65	≤30.00	PASS
	total	U-NII-3	5745	-5.81	≤28.48	PASS
	Ant1	U-NII-3	5785	-9.23	≤30.00	PASS
	Ant2	U-NII-3	5785	-9.03	≤30.00	PASS
	total	U-NII-3	5785	-6.12	≤28.48	PASS
	Ant1	U-NII-3	5825	-9.00	≤30.00	PASS
	Ant2	U-NII-3	5825	-9.27	≤30.00	PASS
802.11n HT40 MIMO	total	U-NII-3	5825	-6.12	≤28.48	PASS
	Ant1	U-NII-3	5755	-11.57	≤30.00	PASS
	Ant2	U-NII-3	5755	-11.11	≤30.00	PASS
	total	U-NII-3	5755	-8.18	≤28.48	PASS
	Ant1	U-NII-3	5795	-11.94	≤30.00	PASS
	Ant2	U-NII-3	5795	-10.96	≤30.00	PASS
802.11ac VHT20 MIMO	total	U-NII-3	5795	-8.41	≤28.48	PASS
	Ant1	U-NII-3	5745	-9.41	≤30.00	PASS
	Ant2	U-NII-3	5745	-9.05	≤30.00	PASS
	total	U-NII-3	5745	-6.22	≤28.48	PASS
	Ant1	U-NII-3	5785	-8.92	≤30.00	PASS
	Ant2	U-NII-3	5785	-8.69	≤30.00	PASS
	total	U-NII-3	5785	-5.79	≤28.48	PASS
	Ant1	U-NII-3	5825	-9.09	≤30.00	PASS
	Ant2	U-NII-3	5825	-9.46	≤30.00	PASS
802.11ac VHT40 MIMO	total	U-NII-3	5825	-6.26	≤28.48	PASS
	Ant1	U-NII-3	5755	-11.48	≤30.00	PASS
	Ant2	U-NII-3	5755	-10.77	≤30.00	PASS
	total	U-NII-3	5755	-8.10	≤28.48	PASS
	Ant1	U-NII-3	5795	-11.93	≤30.00	PASS
	Ant2	U-NII-3	5795	-11.50	≤30.00	PASS
802.11ac VHT80 MIMO	total	U-NII-3	5795	-8.70	≤28.48	PASS
	Ant1	U-NII-3	5775	-14.50	≤30.00	PASS
	Ant2	U-NII-3	5775	-13.97	≤30.00	PASS
	total	U-NII-3	5775	-11.22	≤28.48	PASS

Note: 1.The Duty Cycle Factor is compensated in the graph.

U-NII-1 :

Note1: This EUT supports MIMO 2X2, any transmit signals are correlated with each other,
So Directional gain = $10\log[(10^{4.26/20} + 10^{5.19/20})^2/2]$ dBi, that is Directional gain (dBi)= 7.75

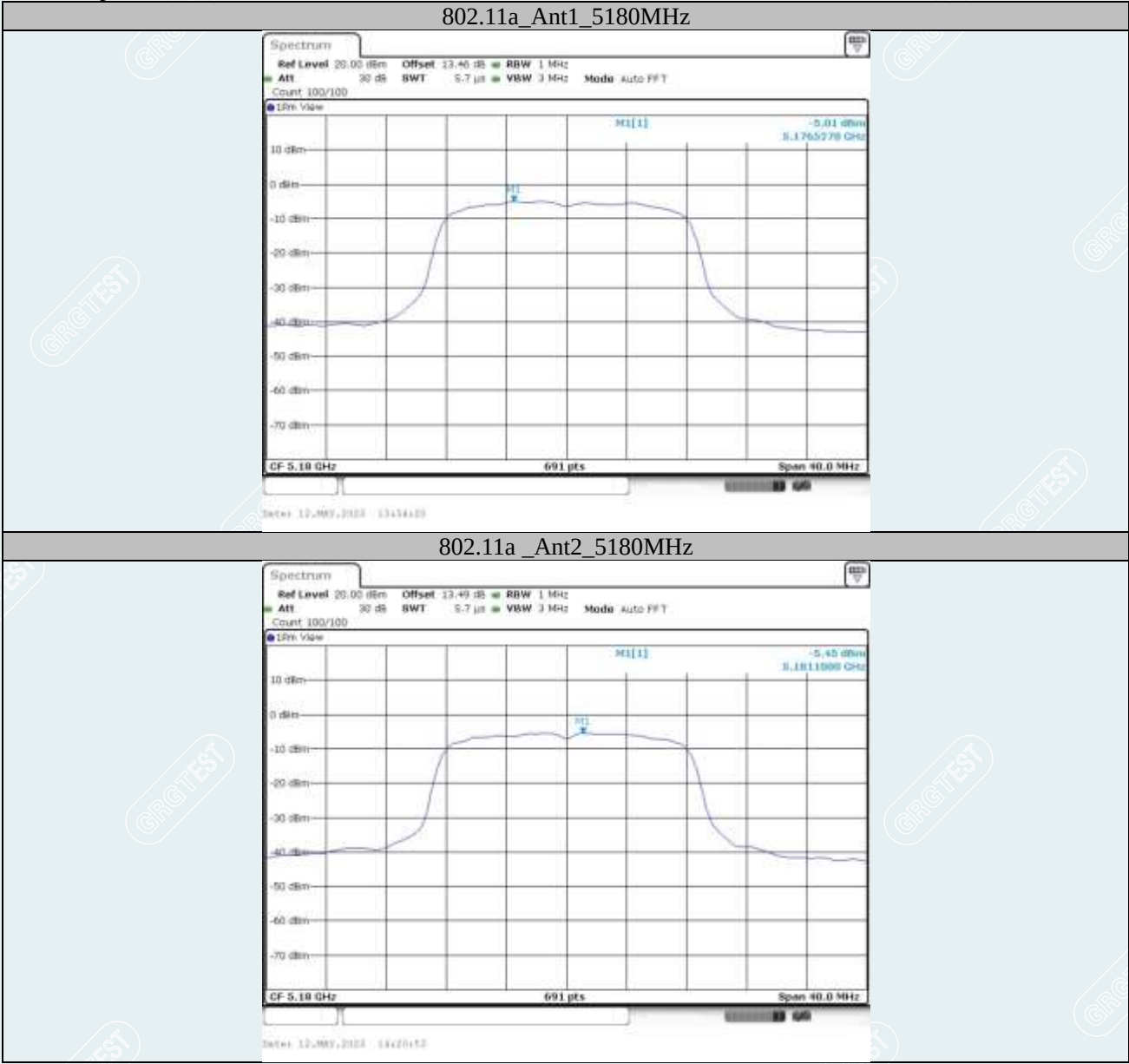
Note2: Antenna gain is greater than 6, Power Spectral Density Limit=11-(7.75-6)=9.25dBm

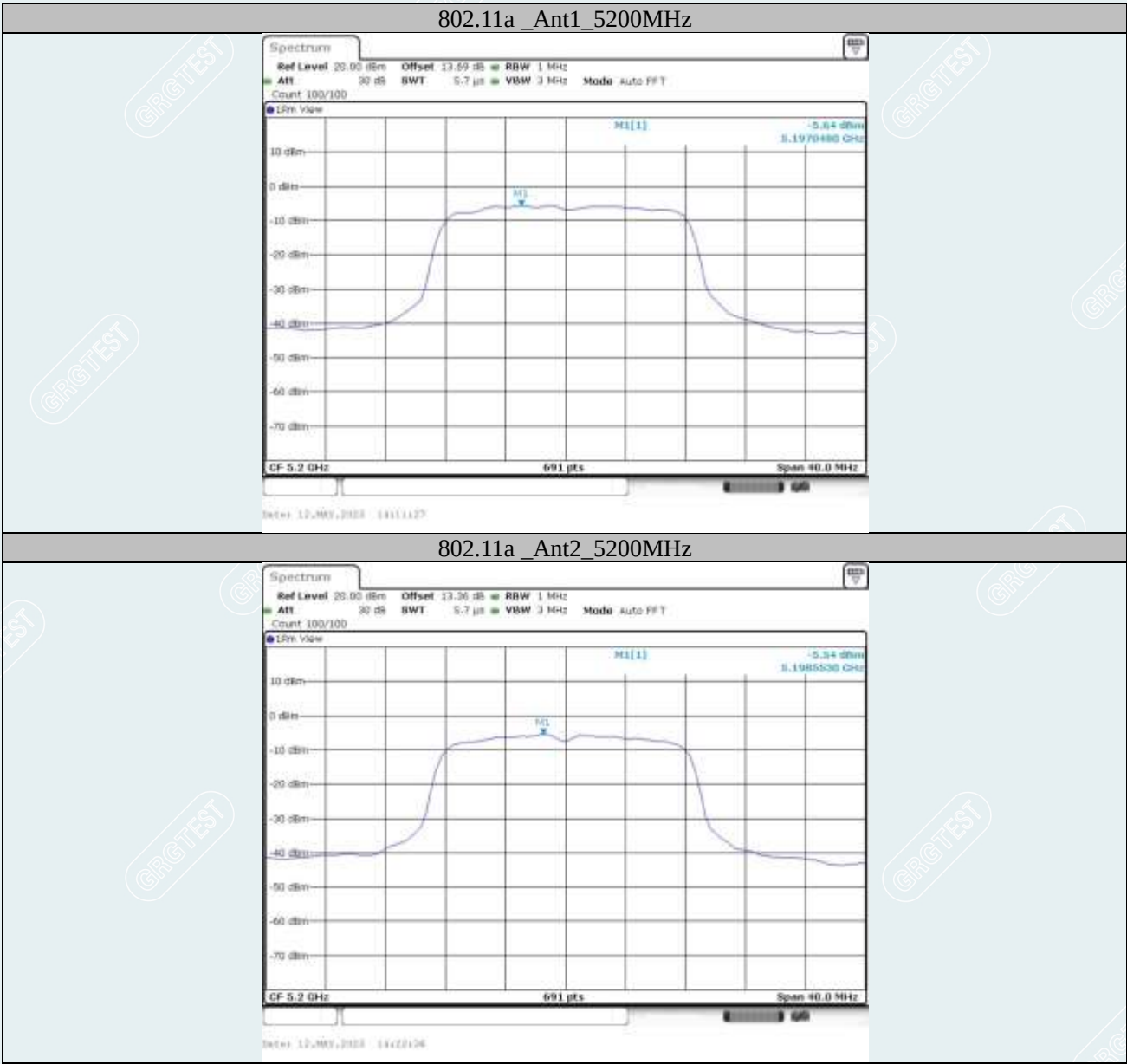
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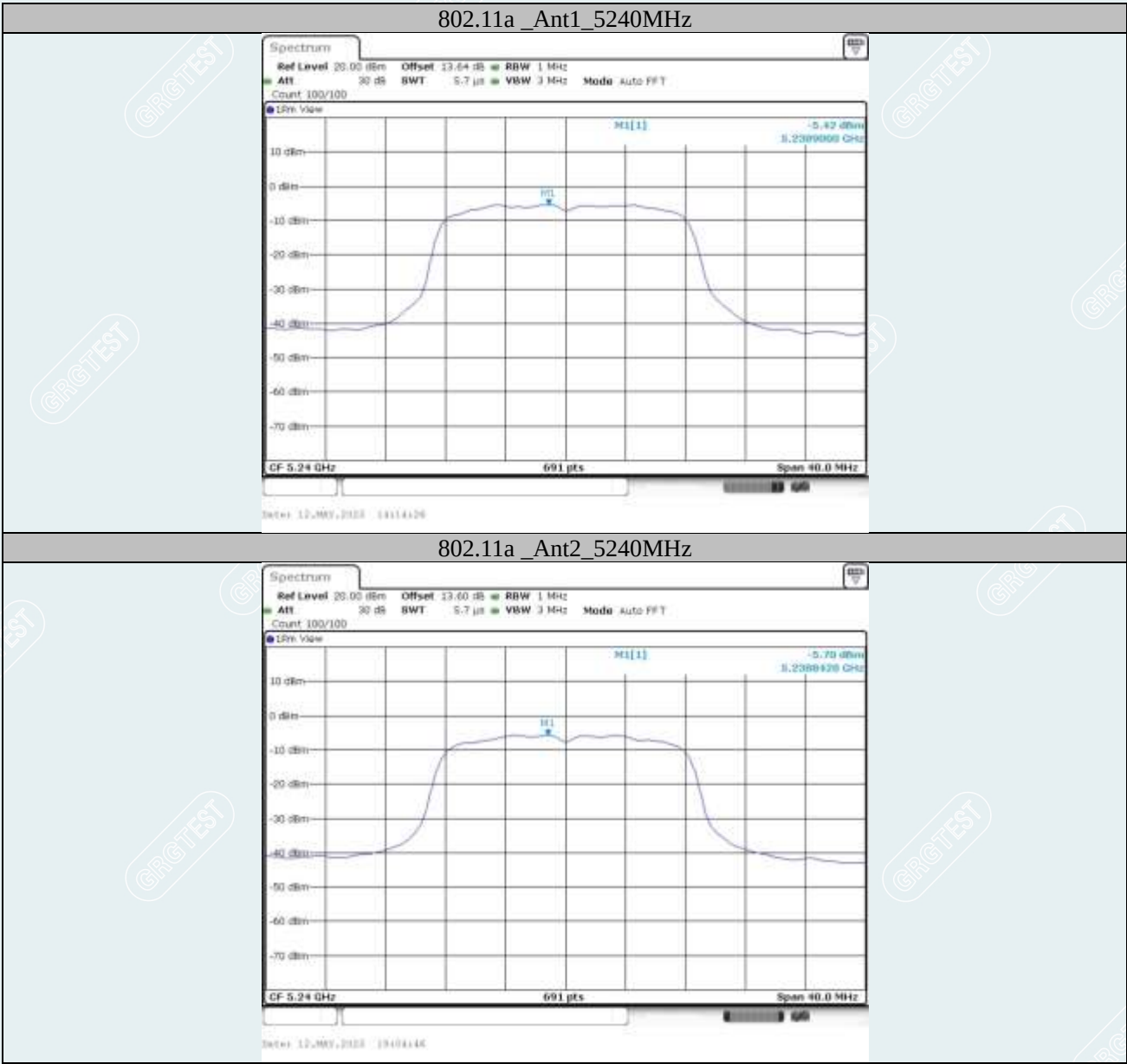
Note1: This EUT supports MIMO 2X2, any transmit signals are correlated with each other,
So Directional gain = $10\log[(10^{4.96/20} + 10^{4.03/20})^2/2]$ dBi, that is Directional gain (dBi)= 7.52

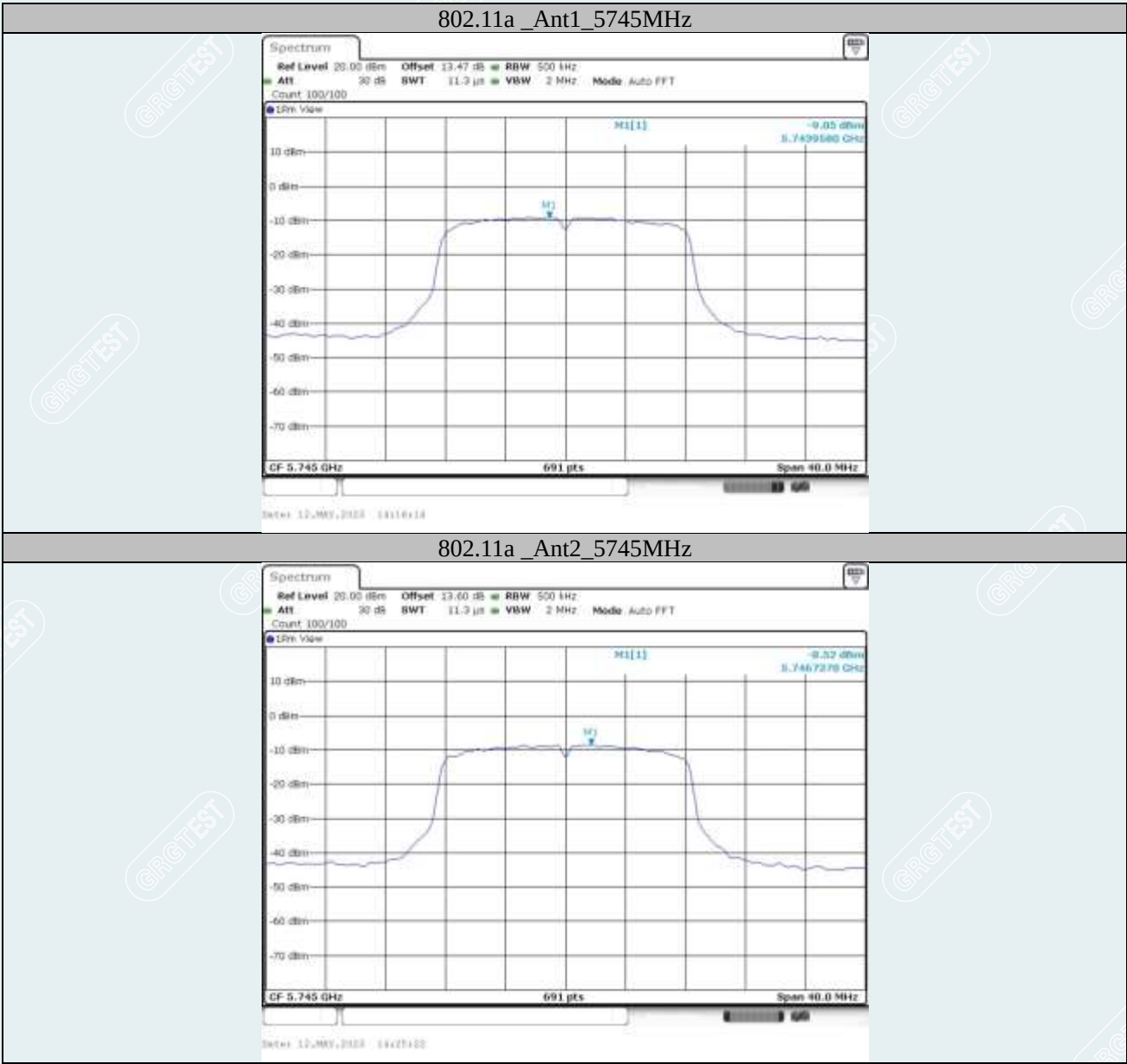
Note2: Antenna gain is greater than 6, Power Spectral Density Limit=30-(7.52-6)=28.48dBm

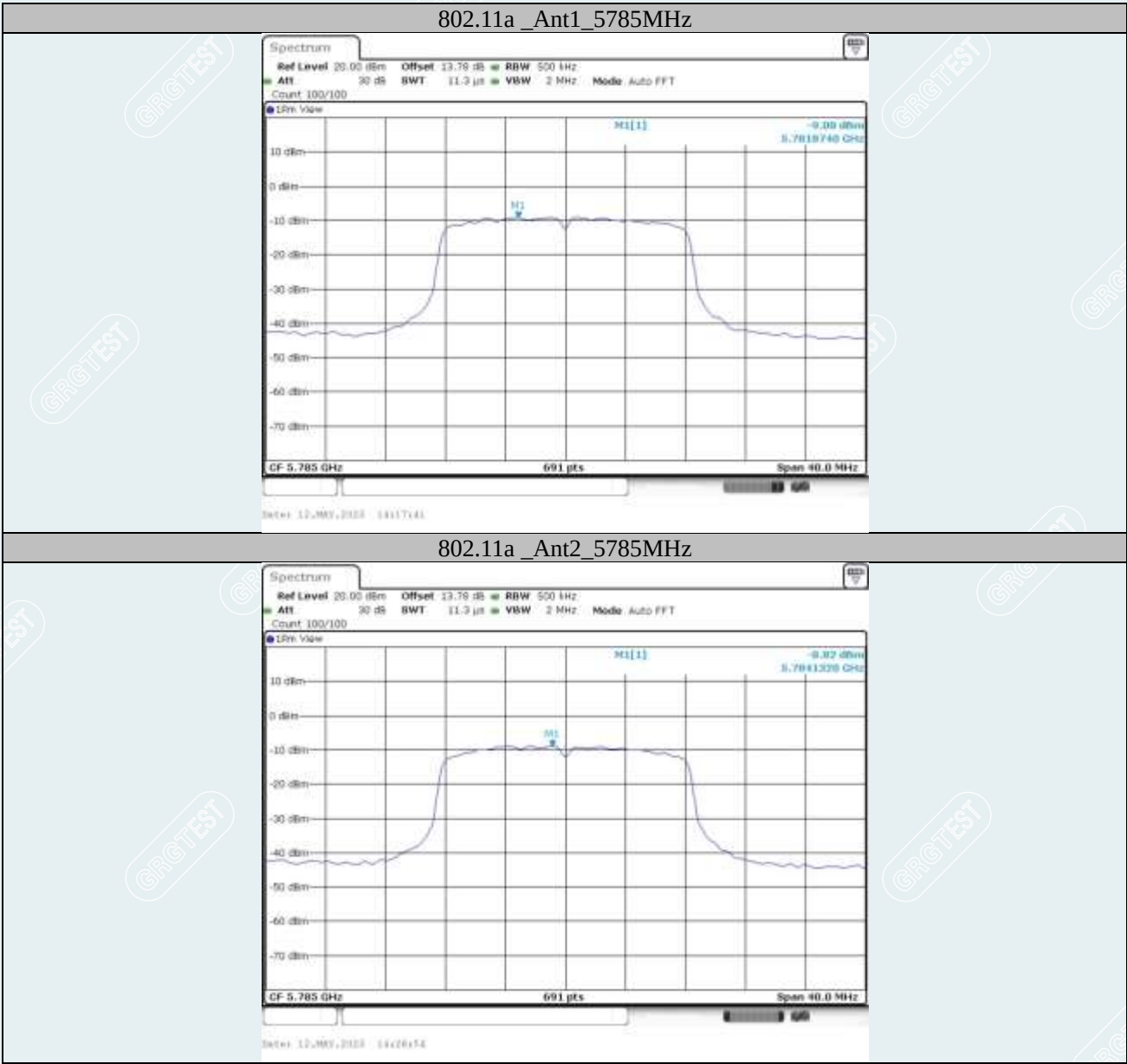
Test Graphs

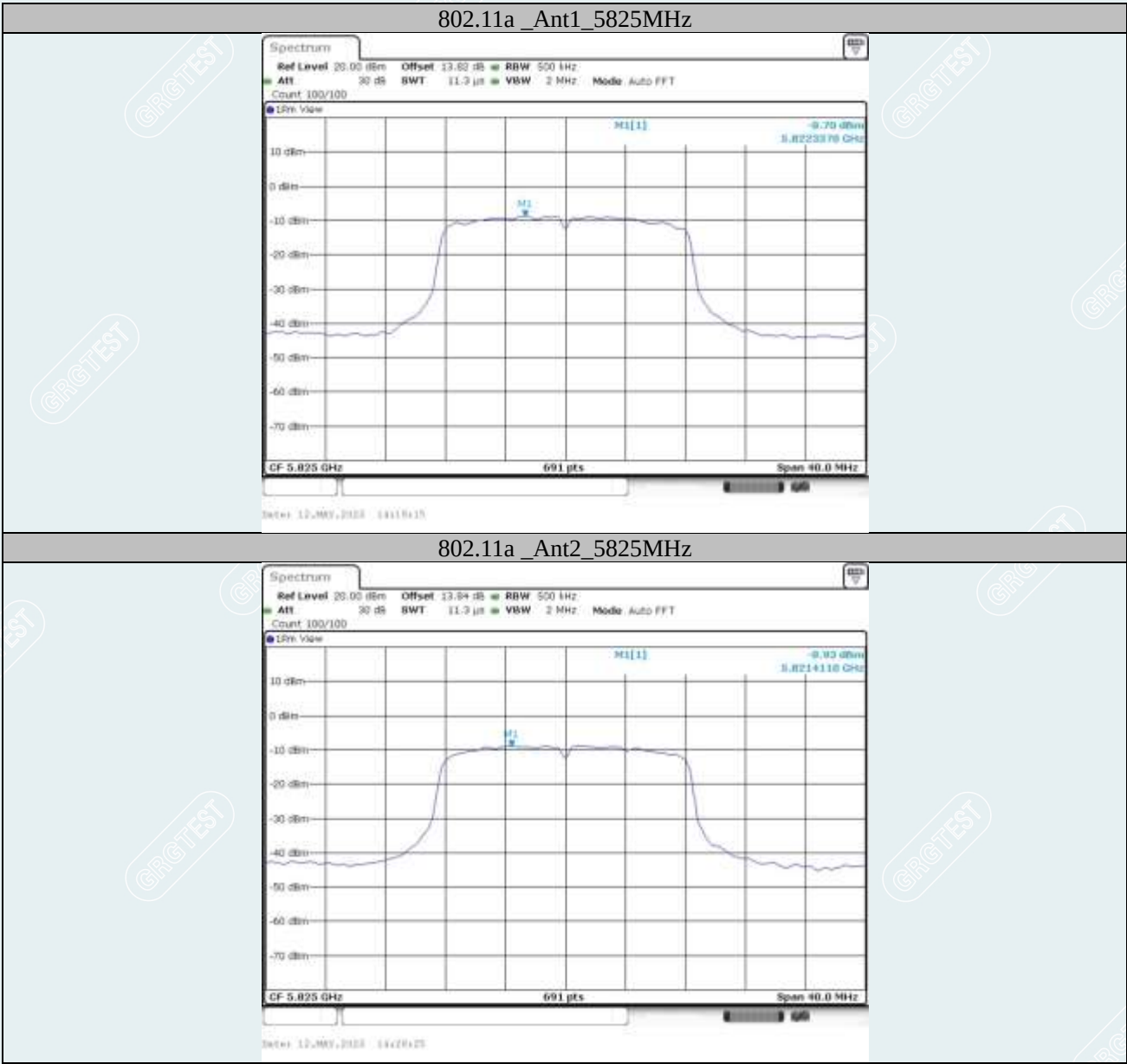


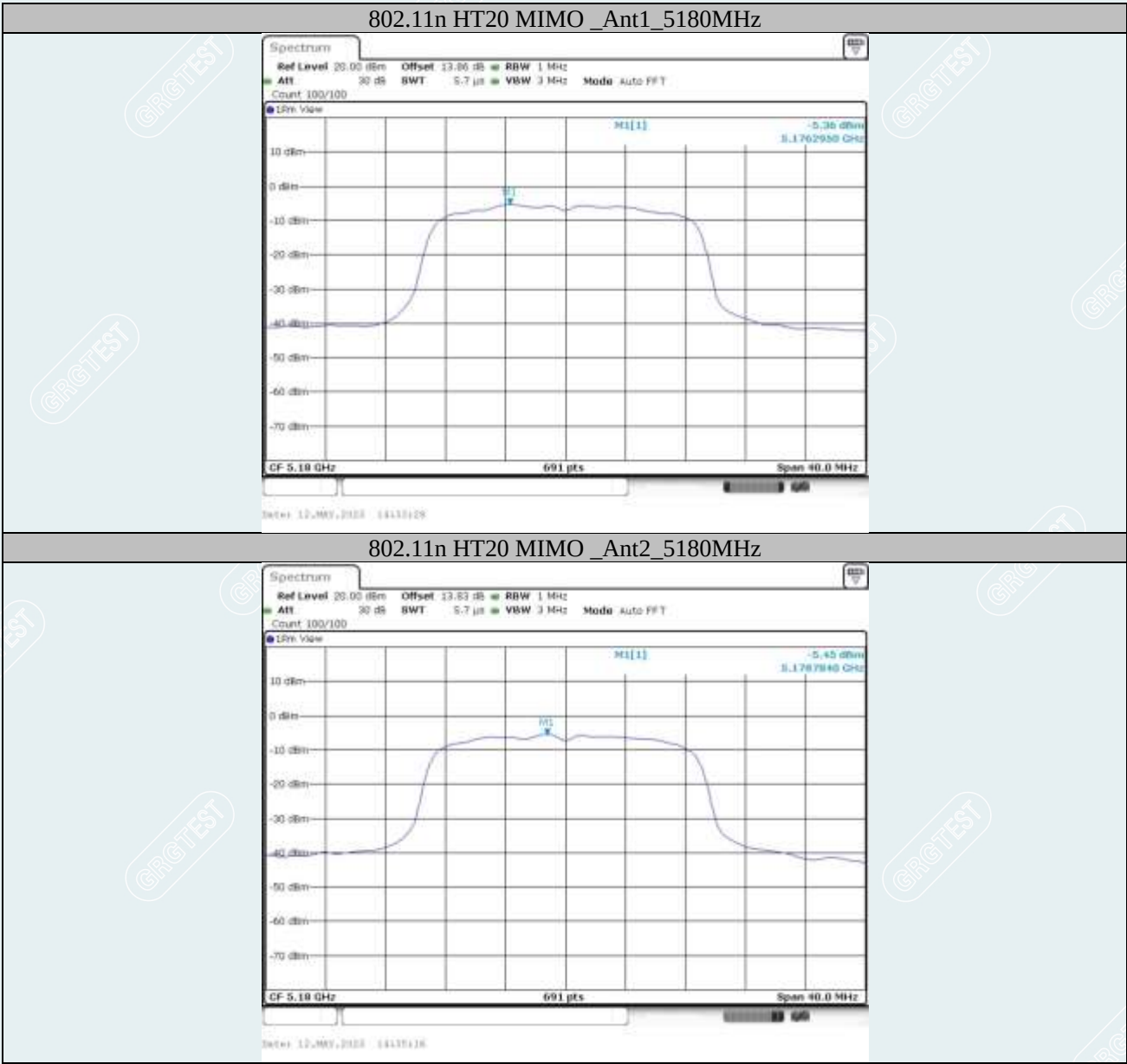


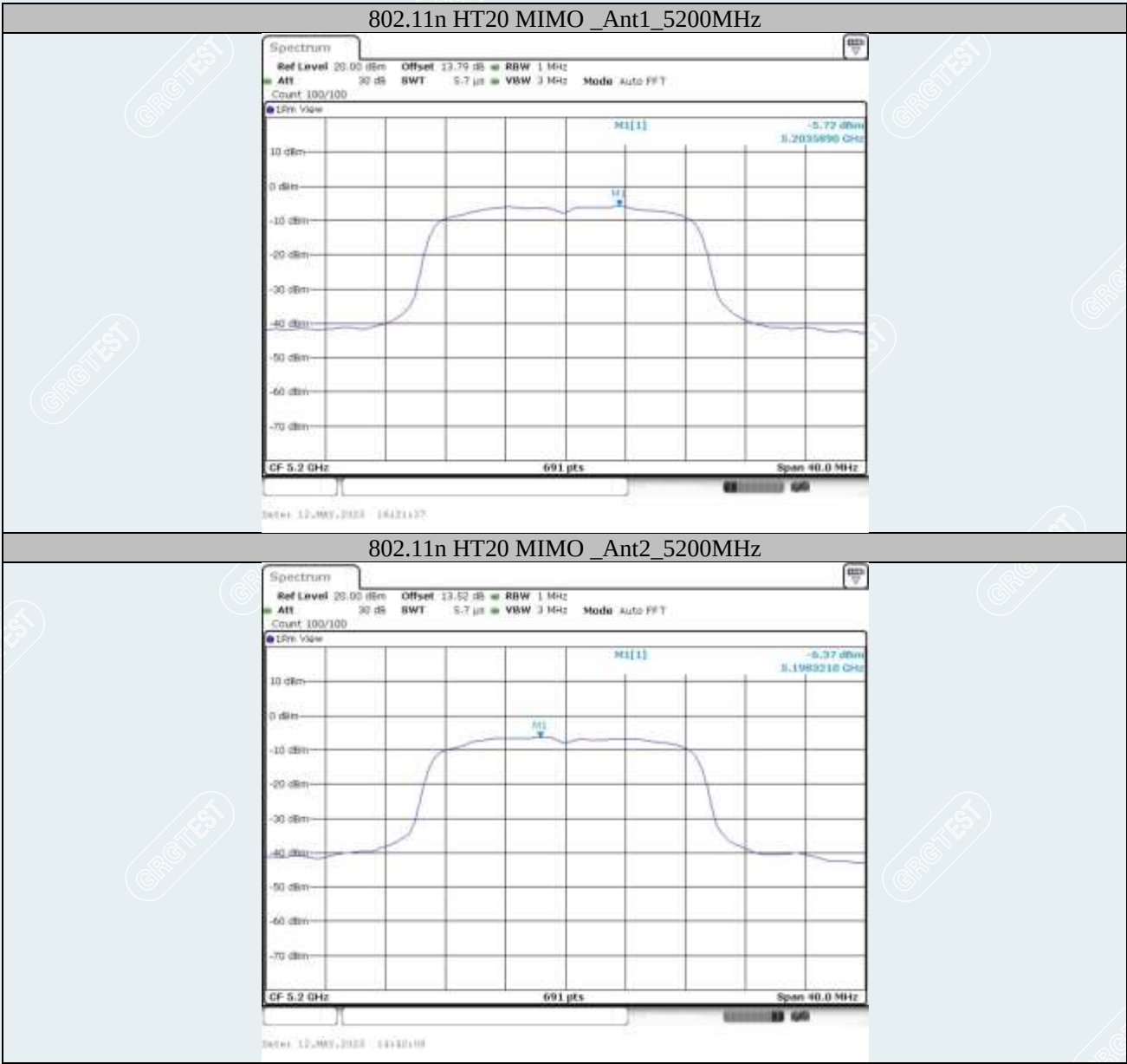


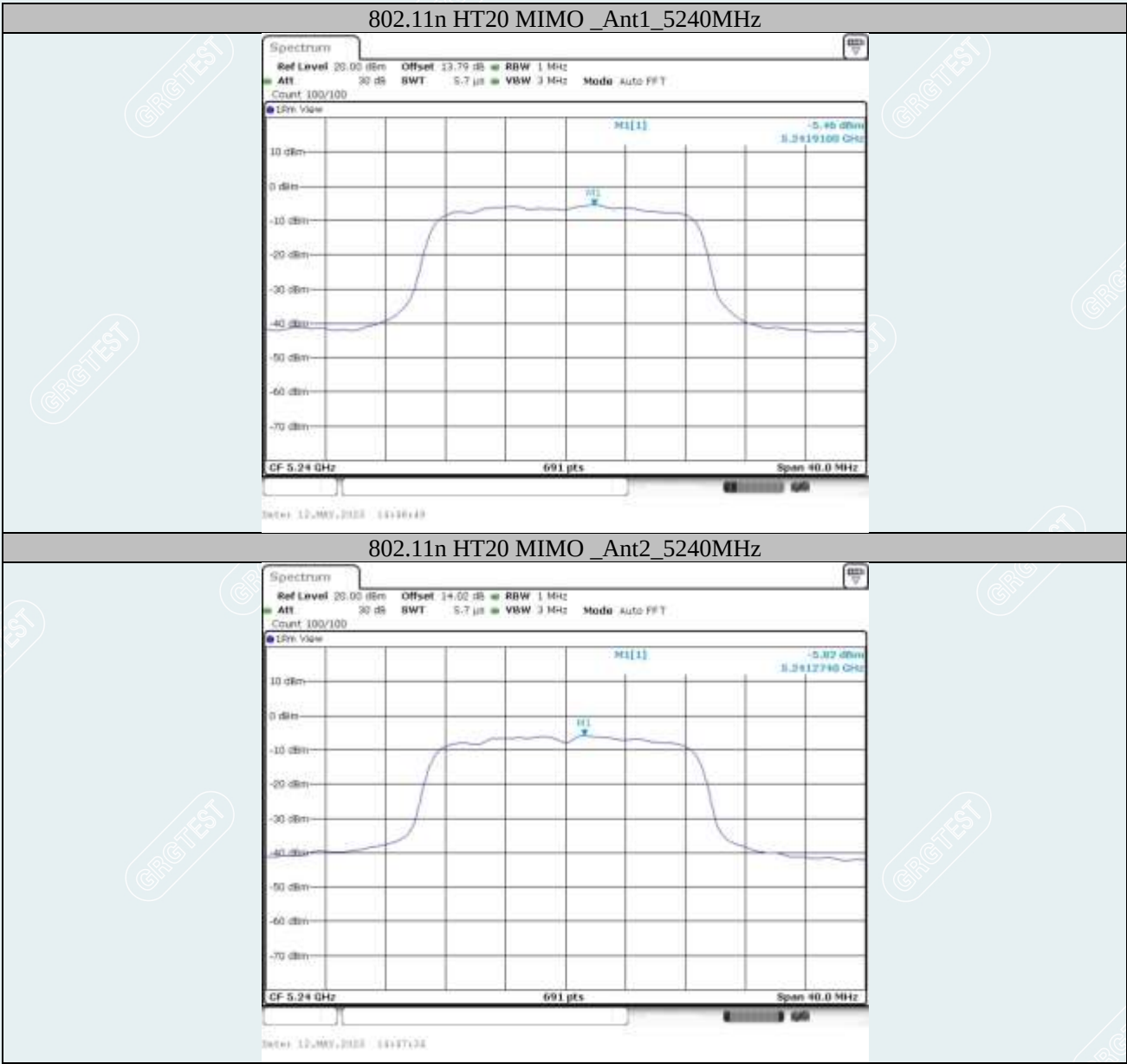


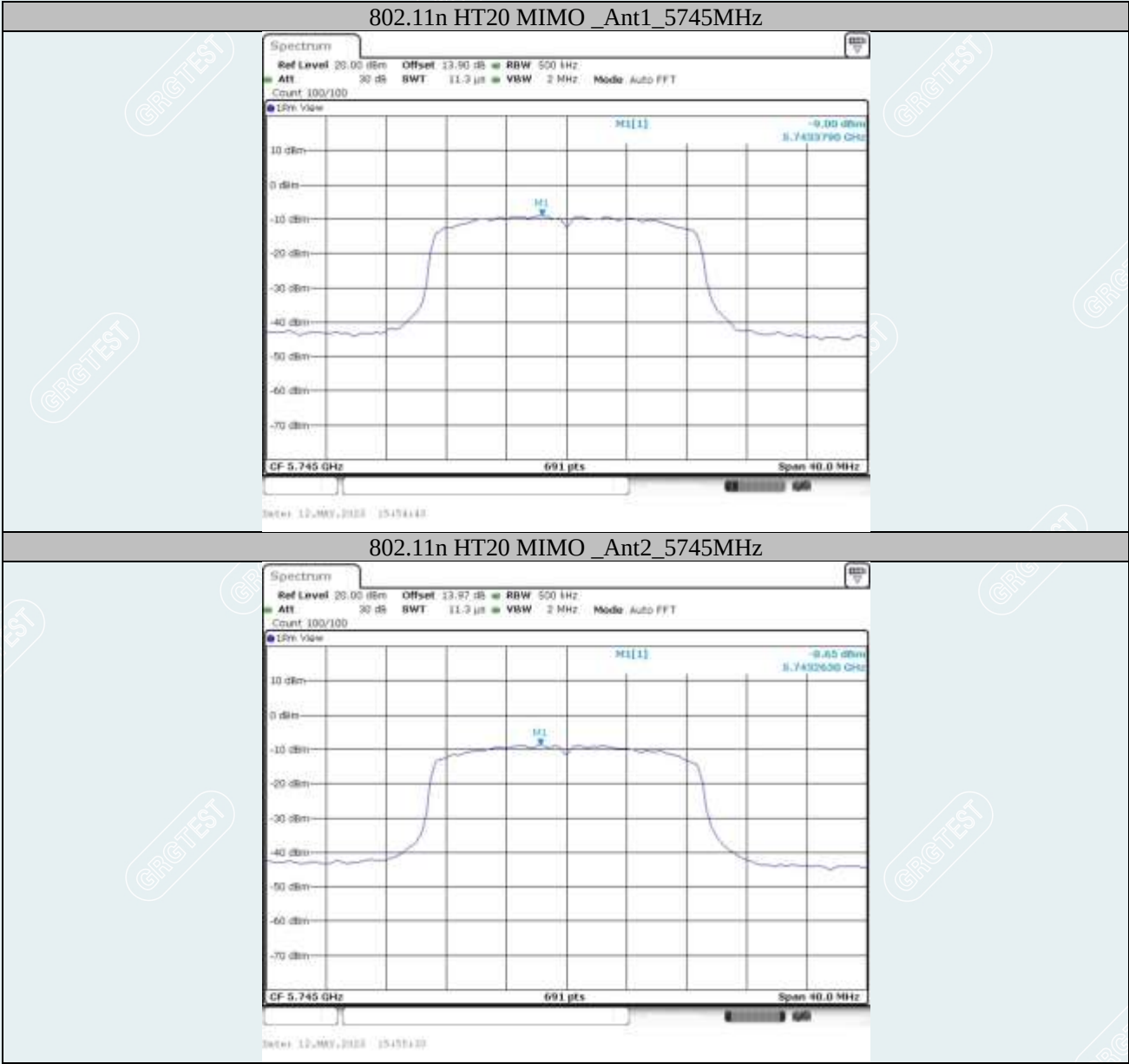


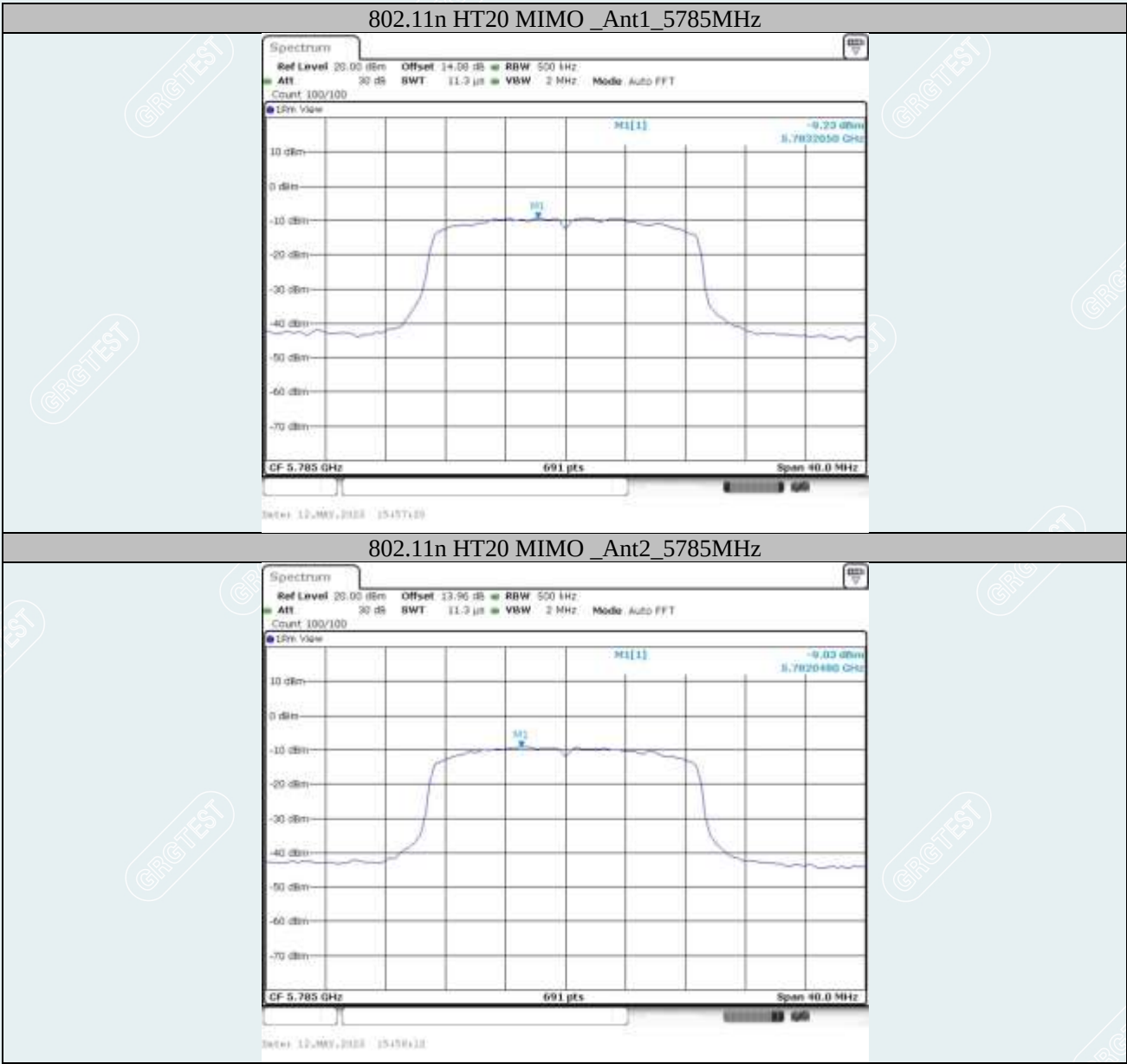


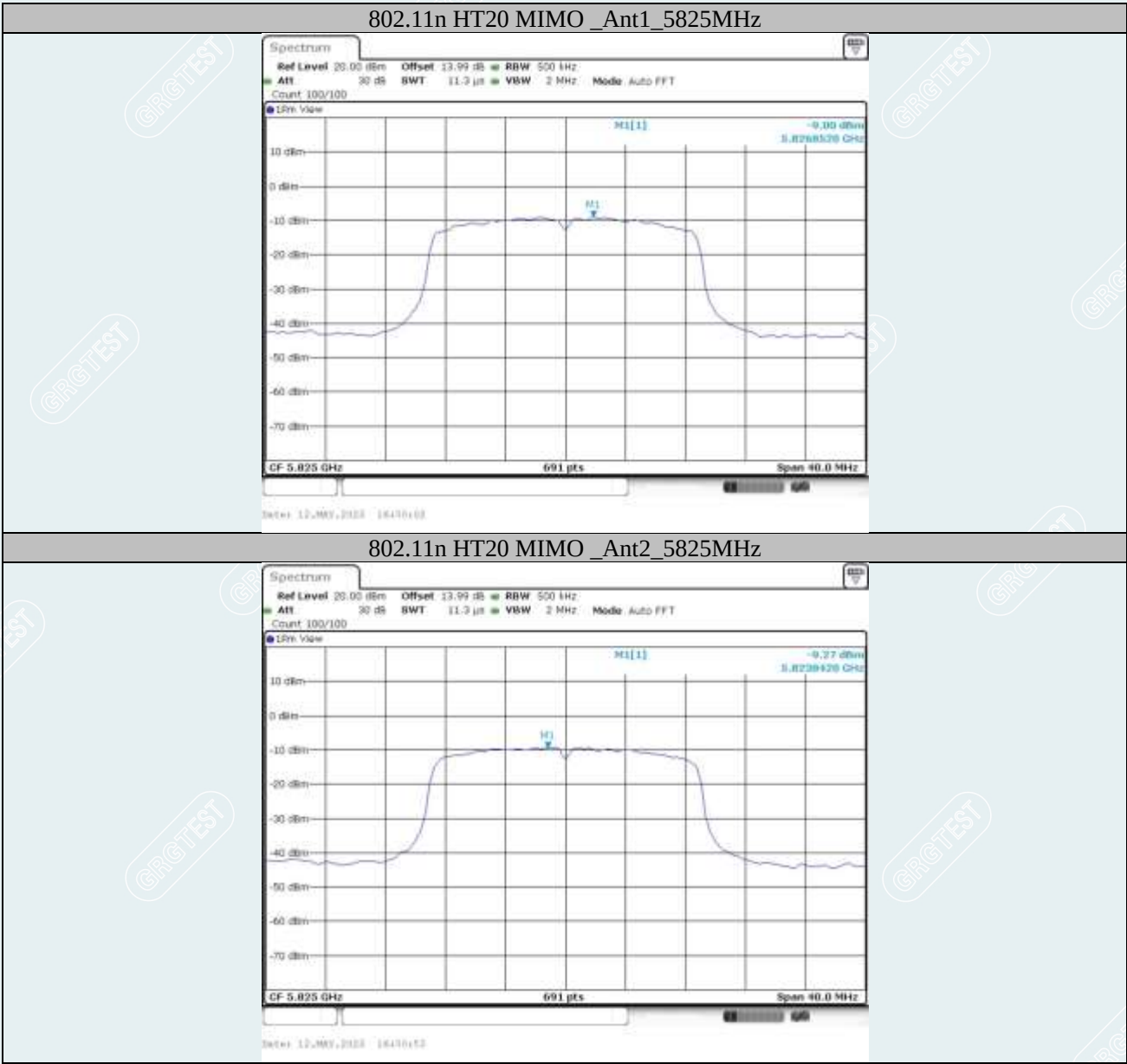


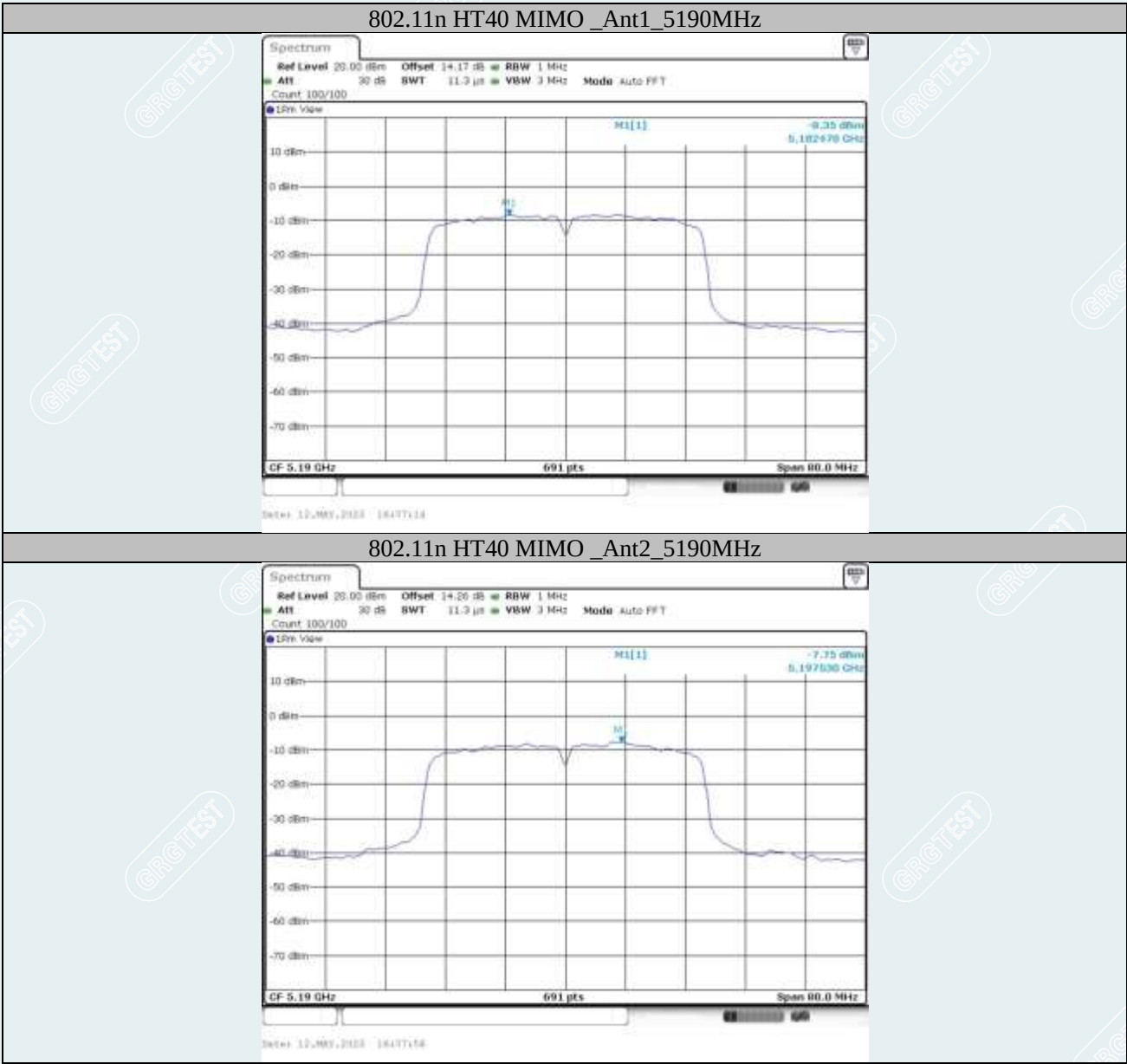


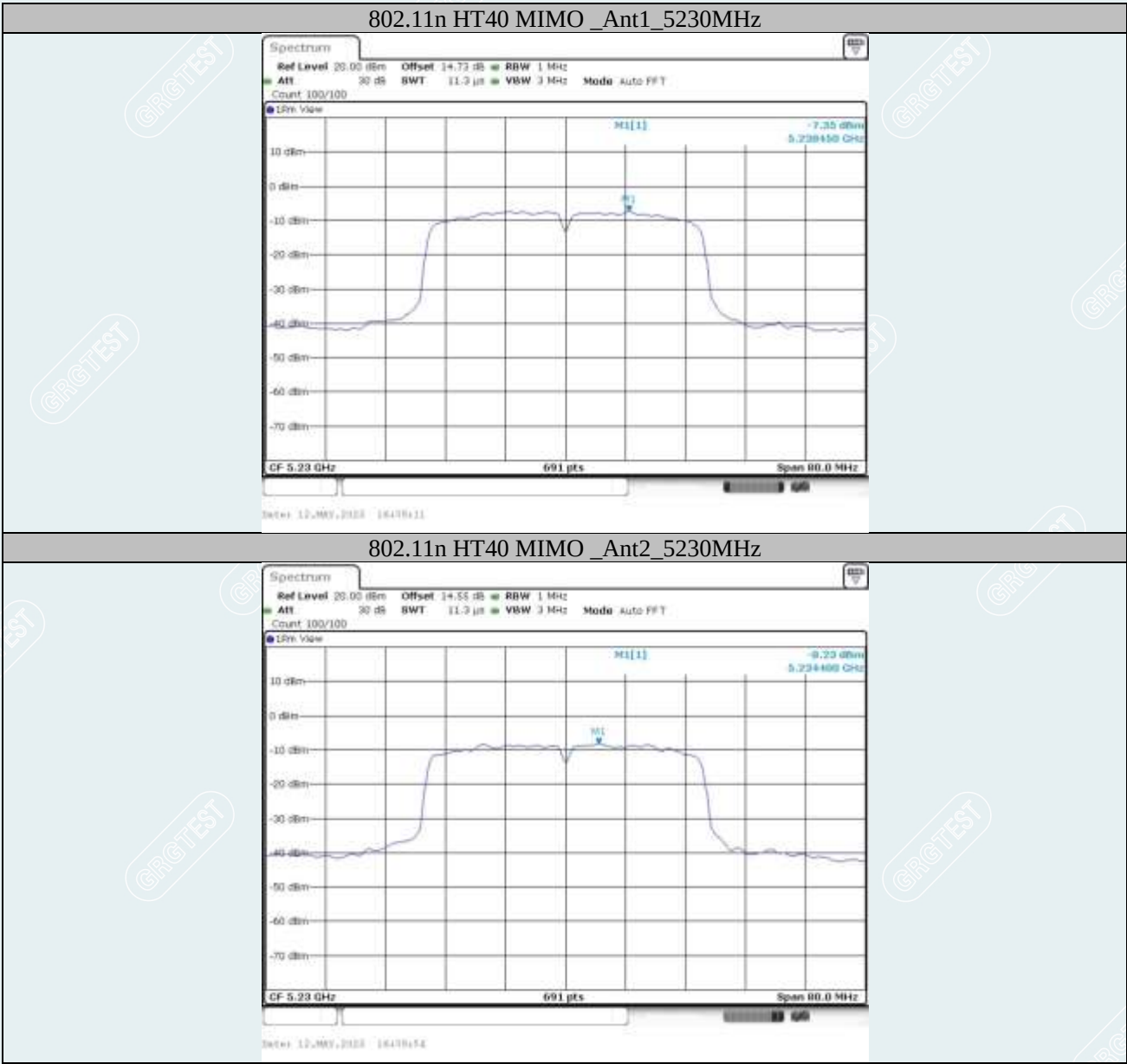


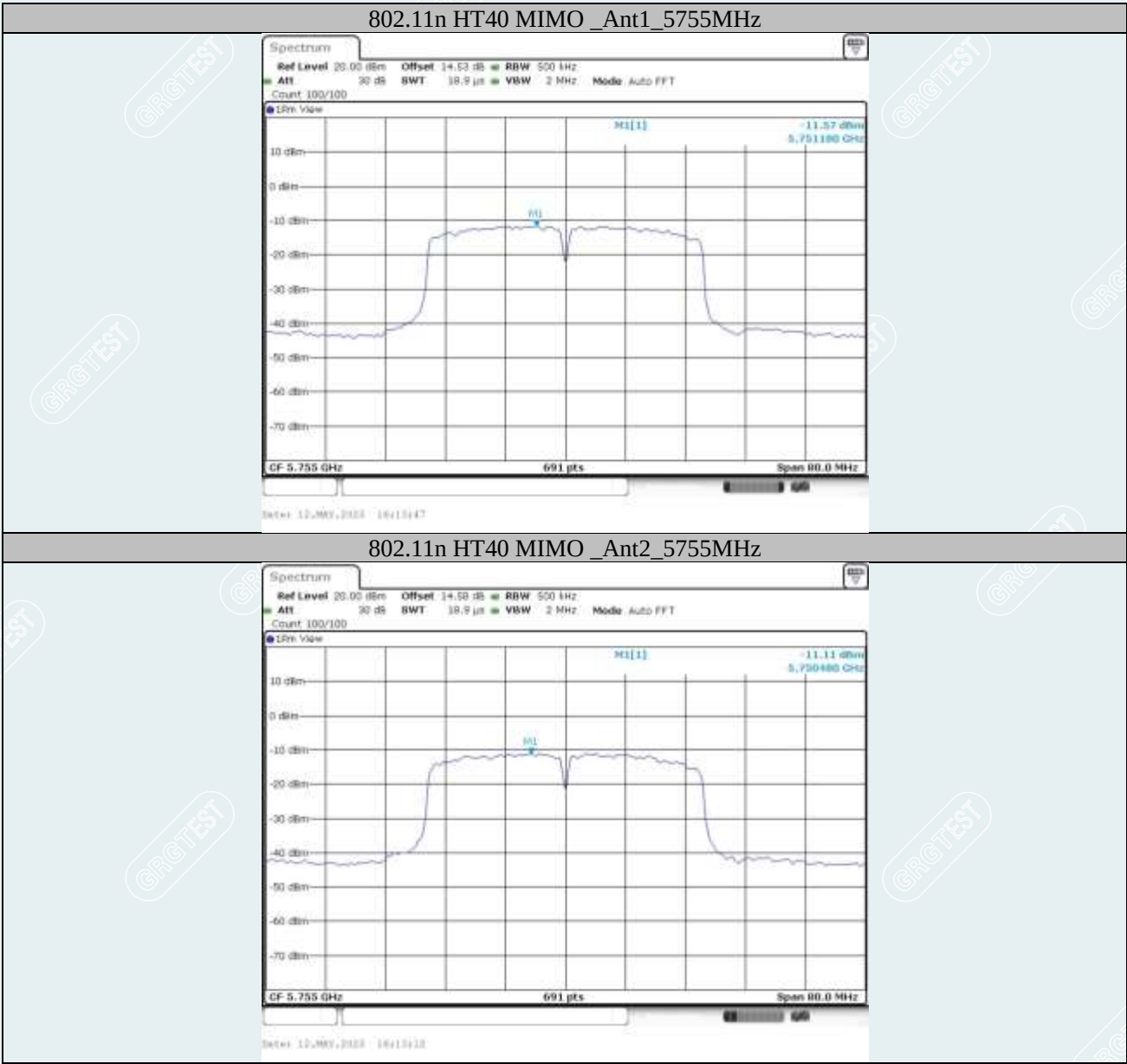


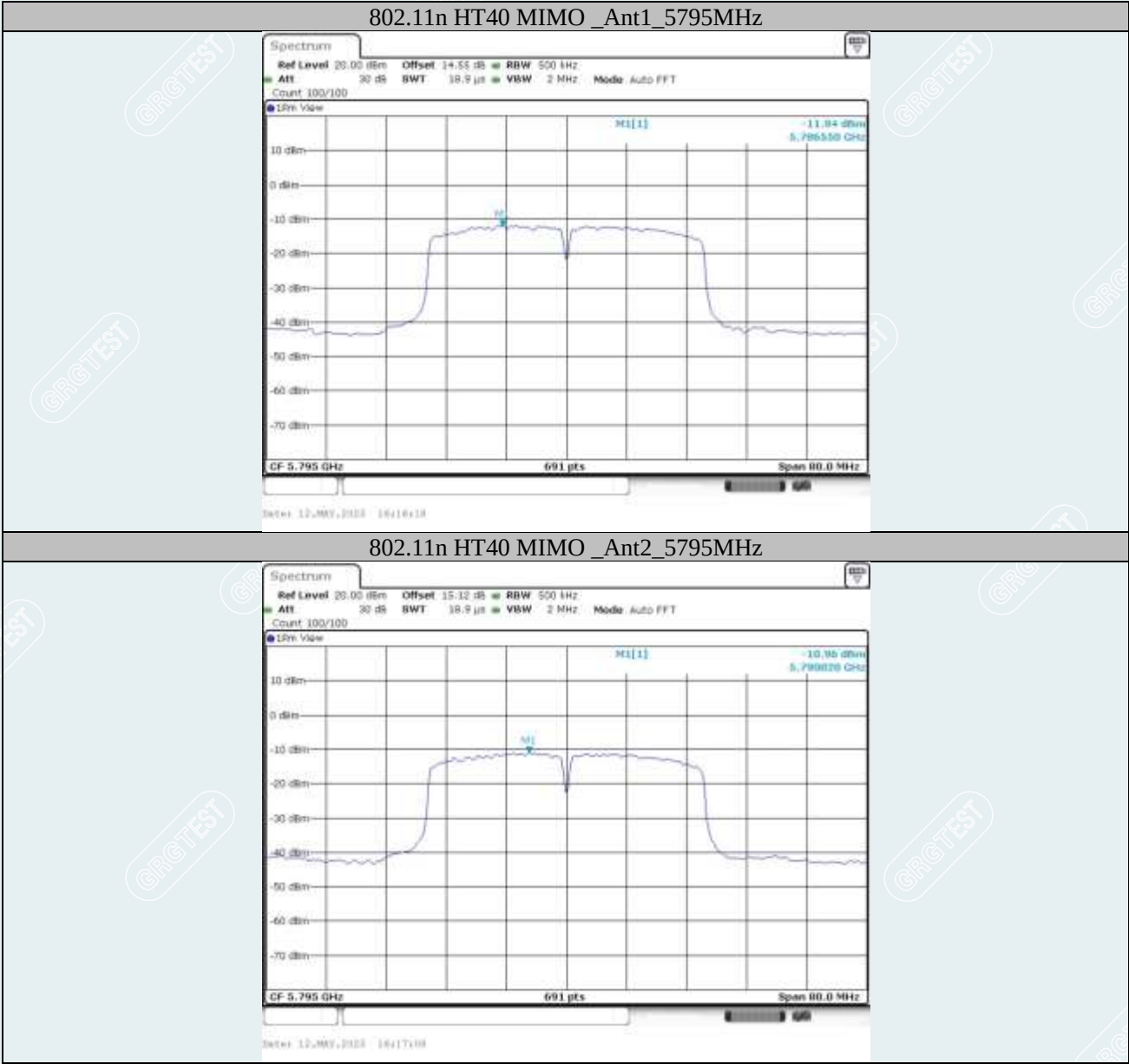












802.11ac VHT20 MIMO_Ant1_5180MHz



802.11ac VHT20 MIMO_Ant2_5180MHz



802.11ac VHT20 MIMO_Ant1_5200MHz



802.11ac VHT20 MIMO_Ant2_5200MHz



802.11ac VHT20 MIMO_Ant1_5240MHz



802.11ac VHT20 MIMO_Ant2_5240MHz



802.11ac VHT20 MIMO_Ant1_5745MHz



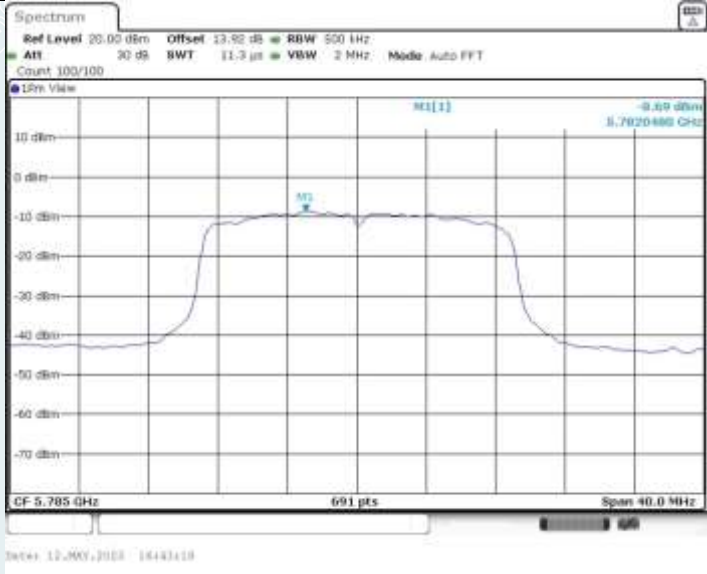
802.11ac VHT20 MIMO_Ant2_5745MHz



802.11ac VHT20 MIMO_Ant1_5785MHz



802.11ac VHT20 MIMO_Ant2_5785MHz



802.11ac VHT20 MIMO_Ant1_5825MHz



802.11ac VHT20 MIMO_Ant2_5825MHz



802.11ac VHT40 MIMO_Ant1_5190MHz



802.11ac VHT40 MIMO_Ant2_5190MHz

