

# TEST REPORT

Applicant Name : Grandstream Networks, Inc.  
Address : 126 Brookline Ave, 3rd Floor Boston, MA 02215, USA  
Manufacturer Name : Grandstream Networks, Inc.  
Address : 126 Brookline Ave, 3rd Floor Boston, MA 02215, USA  
Report Number : SZ1210914-52933E-RF-00  
FCC ID: YZZGAC2570

## Test Standard (s)

FCC PART 15.407

## Sample Description

Product Type: Enterprise Conference Phone  
Model No.: GAC2570  
Multiple Model(s) No.: N/A  
Trade Mark: GRANDSTREAM  
Date Received: 2021/09/14  
Report Date: 2022/07/24

Test Result:	Pass*
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\* In the configuration tested, the EUT complied with the standards above.

## Prepared and Checked By:



Ting Lü  
EMC Engineer

## Approved By:



Candy Li  
EMC Engineer

Note: This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "\*" .

Shenzhen Accurate Technology Co., Ltd. is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with an asterisk "\*\*". Customer model name, addresses, names, trademarks etc. are not considered data.

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## GENERAL INFORMATION

### Product Description for Equipment under Test (EUT)

Frequency Range	5G Wi-Fi: 5150-5250MHz; 5250-5350MHz; 5470-5725MHz; 5725-5850MHz
Mode	802.11a/n20/n40/ac20/ac40/ac80/ax20/ax40/ax80
Maximum Conducted Average Output Power	5150-5250 MHz: 19.06dBm 5250-5350MHz: 17.98dBm 5470-5725MHz: 17.30dBm 5725-5850 MHz: 19.69dBm
Modulation Technique	OFDM, OFDMA
Antenna Specification*	Antenna 1: 5dBi Antenna 2: 4.5dBi (It is provided by the manufacturer)
TPC	Not support
Beamforming	Not support
Voltage Range	DC 48V from POE
Sample serial number	SZ1210914-52933E-RF-S2 for Conducted and Radiated Emissions SZ1210914-52933E-RF-S1 for RF Conducted Test (Assigned by ATC)
Sample/EUT Status	Good condition
POE information	Model: G0720-480-050 Input: AC 100-240V, 50/60Hz, 0.75A, MAX Output: DC 48V, 0.5A, 24.0W

### Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and E of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart E, section 15.203, 15.205, 15.207, 15.209 and 15.407 rules.

### Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices. And KDB789033 D02 General U-NII Test Procedures New Rules v02r01.

All emissions measurement was performed at Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

## Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		5%
RF Frequency		$0.082 \times 10^{-7}$
RF output power, conducted		0.73dB
Unwanted Emission, conducted		1.6dB
AC Power Lines Conducted Emissions		2.72dB
Emissions, Radiated	9kHz - 30MHz	2.66dB
	30MHz - 1GHz	4.28dB
	1GHz - 18GHz	4.98dB
	18GHz - 26.5GHz	5.06dB
	26.5GHz - 40GHz	4.72dB
Temperature		1°C
Humidity		6%
Supply voltages		0.4%

*Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor  $K$  with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.*

## Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 708358, the FCC Designation No.: CN1189. Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 429 7.01.

Listed by Innovation, Science and Economic Development Canada (ISED), the Registration Number is 5077A.

## SYSTEM TEST CONFIGURATION

### Description of Test Configuration

The system was configured for testing in an engineering mode, which was provided by manufacturer.

The device supports 5G Wi-Fi 802.11a/n20/n40/ac20/ac40/ac80/ax20/ax40/ax80 modes.

For 5150-5250MHz Band, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
38	5190	46	5230
40	5200	48	5240
42	5210	/	/

For 802.11a, 802.11n20/ac20/ax20 mode: channel 36, 40, 48 were tested; For 802.11n40/ac40/ax40 mode: channel 38, 46 were tested. For 802.11ac80/ax80 mode, channel 42 was tested.

For 5250-5350MHz Band, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300
54	5270	62	5310
56	5280	64	5320
58	5290	/	/

For 802.11a, 802.11n20/ac20/ax20 mode: channel 52, 56, 64 were tested; For 802.11n40/ac40/ax40 mode: channel 54, 62 were tested. For 802.11ac80/ax80 mode, channel 58 was tested.

For 5470-5725MHz Band, 18 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	120	5600
102	5510	122	5610
104	5520	124	5620
106	5530	126	5630
108	5540	128	5640
110	5550	132	5660
112	5560	134	5670
116	5580	136	5680
118	5590	140	5700

For 802.11a, 802.11n20/ac20/ax20 mode: channel 100, 116, 140 were tested; For 802.11n40/ac40/ax40 mode: channel 102, 110, 134 were tested. For 802.11ac80/ax80 mode, channel 106, 122 was tested.

For 5725-5850MHz Band, 8 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785
151	5755	159	5795
153	5765	161	5805
155	5775	165	5825

For 802.11a, 802.11n20/ac20/ax20 mode: channel 149, 157, 165 were tested; For 802.11n40/ac40/ax40 mode: channel 151, 159 were tested. For 802.11ac80/ax80 mode, channel 155 was tested.

### EUT Exercise Software

“adb” exercise software was used. The software and power level was provided by the applicant.

The worst case was performed under:

U-NII	Mode	Data Rate	Power Level*		
			Low Channel	Middle Channel	High Channel
5150 – 5250MHz	802.11 a	6Mbps	14	14	14
	802.11 n20	MCS0	10	9	8
	802.11 n40	MCS0	13	/	12
	802.11 ac20	MCS0	10	9	8
	802.11 ac40	MCS0	13	/	13
	802.11 ac80	MCS0	/	default	/
5250 – 5350MHz	802.11 a	6Mbps	14	14	14
	802.11 n20	MCS0	9	8	8
	802.11 n40	MCS0	13	/	12
	802.11 ac20	MCS0	9	8	8
	802.11 ac40	MCS0	13	/	12
	802.11 ac80	MCS0	/	default	/
5470 – 5725MHz	802.11 a	6Mbps	14	14	14
	802.11 n20	MCS0	10	10	9
	802.11 n40	MCS0	14	14	14
	802.11 ac20	MCS0	10	10	10
	802.11 ac40	MCS0	14	/	14
	802.11 ac80	MCS0	/	16	/
5725 – 5850MHz	802.11 a	6Mbps	default	default	default
	802.11 n20	MCS0	default	default	default
	802.11 n40	MCS0	default	/	default
	802.11 ac20	MCS0	default	default	default
	802.11 ac40	MCS0	default	/	default
	802.11 ac80	MCS0	/	default	/

U-NII	Mode	Ru Size	Ru Index	Power Level*			
				Low Channel	Middle Channel	High Channel	
5150 – 5250MHz	802.11ax20	26Tone	RU0	8	8	8	
		52Tone	RU37	11	11	11	
		106Tone	RU53	13	13	13	
		242Tone	RU61	13	13	13	
	802.11ax40	26Tone	RU0	9	/	10	
		52Tone	RU37	12	/	11	
		106Tone	RU53	15	/	Default	
		242Tone	RU61	Default	/	Default	
	802.11ax80	484Tone	RU65	Default	/	Default	
		26Tone	RU0	/	10	/	
		52Tone	RU37	/	10	/	
		106Tone	RU53	/	10	/	
	5250 – 5350MHz	802.11ax20	242Tone	RU61	/	10	/
			484Tone	RU65	/	10	/
			996Tone	RU67	/	10	/
26Tone			RU0	9	9	8	
802.11ax40		52Tone	RU37	12	12	11	
		106Tone	RU53	13	15	15	
	242Tone	RU61	13	Default	Default		
	26Tone	RU0	9	/	11		
802.11ax80	52Tone	RU37	14	/	14		
	106Tone	RU53	Default	/	Default		
	242Tone	RU61	Default	/	Default		
	484Tone	RU65	Default	/	Default		
	26Tone	RU0	/	11	/		
	52Tone	RU37	/	12	/		
802.11ax80	106Tone	RU53	/	12	/		
	242Tone	RU61	/	12	/		
	484Tone	RU65	/	12	/		
	996Tone	RU67	/	12	/		



U-NII	Mode	Ru Size	Ru Index	Power Level*		
				Low Channel	Middle Channel	High Channel
5470 – 5725MHz	802.11ax20	26Tone	RU0	8	8	9
		52Tone	RU37	11	11	12
		106Tone	RU53	14	14	14
		242Tone	RU61	14	14	14
	802.11ax40	26Tone	RU0	11	11	11
		52Tone	RU37	12	12	12
		106Tone	RU53	12	12	12
		242Tone	RU61	12	12	12
		484Tone	RU65	12	12	12
	802.11ax80	26Tone	RU0	10	/	10
		52Tone	RU37	10	/	10
		106Tone	RU53	10	/	10
		242Tone	RU61	10	/	10
		484Tone	RU65	10	/	10
		996Tone	RU67	10	/	10
5725 – 5850MHz	802.11ax20	26Tone	RU0	Default	Default	Default
		52Tone	RU37	Default	Default	Default
		106Tone	RU53	Default	Default	Default
		242Tone	RU61	Default	Default	Default
	802.11ax40	26Tone	RU0	Default	/	Default
		52Tone	RU37	Default	/	Default
		106Tone	RU53	Default	/	Default
		242Tone	RU61	Default	/	Default
		484Tone	RU65	Default	/	Default
	802.11ax80	26Tone	RU0	/	16	/
		52Tone	RU37	/	Default	/
		106Tone	RU53	/	Default	/
		242Tone	RU61	/	Default	/
		484Tone	RU65	/	Default	/
		996Tone	RU67	/	Default	/

The worse-case data rates are determined to be as follows for each mode based upon investigations by measuring the output power and PSD across all data rated bandwidths, and modulations.

EUT have two antennas for Wi-Fi mode.

For 802.11a mode, only support SISO.

For 802.11 n/ac/ax mode support SISO/MIMO transmitting, the SISO/MIMO mode has same parameter setting, pre-scan all modes, the worst case MIMO was test and record in report.

**Duty cycle**

Test Result: Pass. Please refer to the Appendix.

**Equipment Modifications**

No modification was made to the EUT tested.

**Support Equipment List and Details**

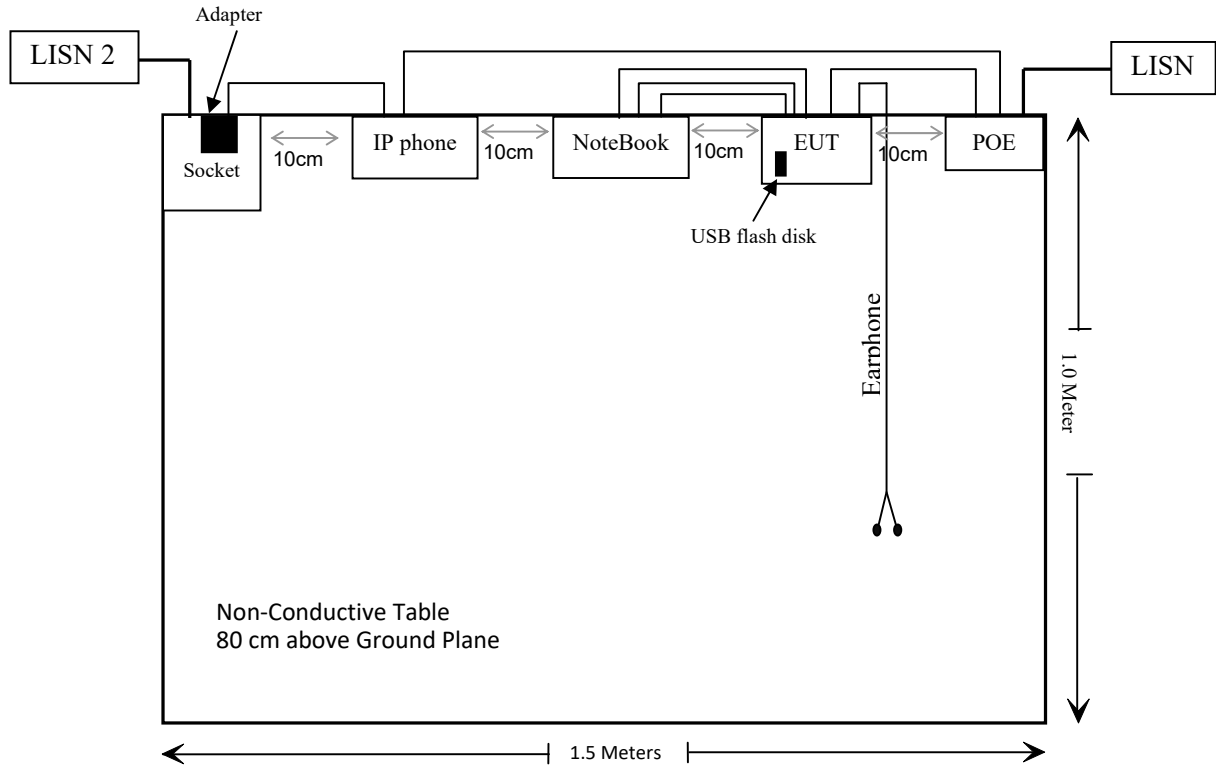
Manufacturer	Description	Model	Serial Number
DELL	Notebook	Latitude E6410	11429208685
Grandstream	IP phone	GXP2130	20EYZK2KA013E117
Sandisk	USB flash disk	Unknown	Unknown
Unknown	Earphone	Unknown	Unknown
GOSPELL	POE	G0720-480-050	G0720-480-050

**External I/O Cable**

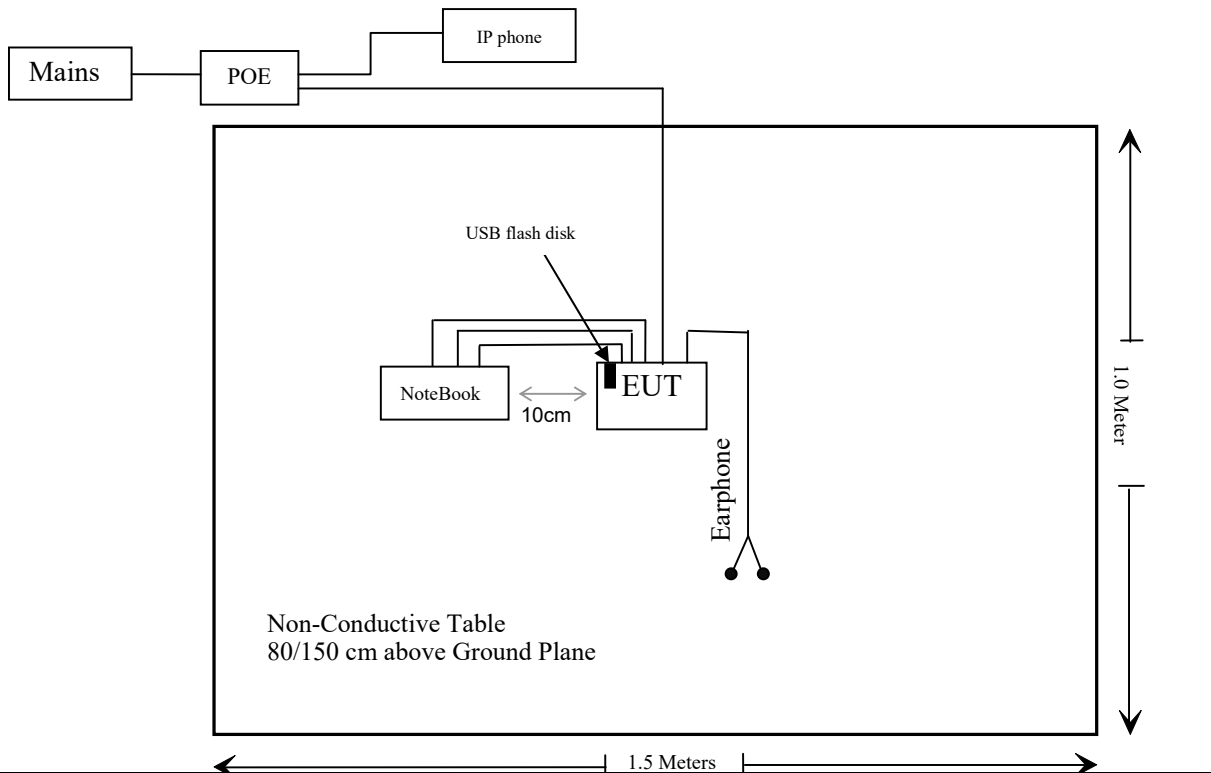
Cable Description	Length (m)	From Port	To
Un-shielded detachable AC cable	1.0	LISN	POE
Un-shielded detachable RJ45 cable	5.0	POE	EUT
Un-shielded detachable RJ45 cable	4.0	EUT	NoteBook
Un-shielded detachable RJ45 cable	4.0	POE	IP phone
Un-shielded detachable HDMI cable	2.0	EUT	NoteBook
Un-shielded detachable USB cable	2.5	EUT	NoteBook
Un-shielded detachable earphone cable	1.2	EUT	Earphone
Un-shielded un-detachable AC cable	1.0	Socket	LISN 2
Un-shielded un-detachable DC cable	1.5	IP phone	Adapter

### Block Diagram of Test Setup

**For conducted emission:**



**For radiated emission:**



## SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.407(f), §1.1307(b)	RF Exposure	Compliant
§15.203	Antenna Requirement	Compliant
§15.407(b)(9)& §15.207(a)	Conducted Emissions	Compliant
§15.205& §15.209 &§15.407(b)	Undesirable Emission& Restricted Bands	Compliant
§15.407(a) (e)	26 dB Emission Bandwidth & 6dB Bandwidth	Compliant
§15.407(a)	Conducted Transmitter Output Power	Compliant
§15.407 (a)	Power Spectral Density	Compliant
§15.407 (h)	Transmit Power Control (TPC)	Not Applicable
§15.407 (h)	Dynamic Frequency Selection (DFS)	Compliant*

Not Applicable: the EUT has no TPC function which was declared by the applicant.

Compliant\*: Please refer to the DFS report: SZ1210914-52933E-RFD.

**TEST EQUIPMENT LIST**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted emission test					
Rohde& Schwarz	EMI Test Receiver	ESCI	100784	2021/12/13	2022/12/12
Rohde & Schwarz	L.I.S.N.	ENV216	101314	2021/12/13	2022/12/12
Anritsu Corp	50 Coaxial Switch	MP59B	6100237248	2021/12/13	2022/12/12
Unknown	RF Coaxial Cable	No.17	N0350	2021/12/14	2022/12/13
Conducted Emission Test Software: e3 19821b (V9)					
Radiated emission test(Below 1GHz)					
Rohde& Schwarz	Test Receiver	ESR	102725	2021/12/13	2022/12/12
SONOMA INSTRUMENT	Amplifier	310 N	186131	2021/11/09	2022/11/08
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2021/07/06	2024/07/05
Unknown	RF Coaxial Cable	No.12	N040	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.13	N300	2021/12/14	2022/12/13
Radiated Emission Test Software: e3 19821b (V9)					
Radiated emission test(Above 1GHz)					
Rohde&Schwarz	Spectrum Analyzer	FSV40	101949	2020/12/13	2021/12/12
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2020/11/09	2021/11/08
Quinstar	Amplifier	QLW-18405536-J0	15964001002	2020/11/11	2021/11/10
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-1067	2020/01/05	2023/01/04
Schwarzbeck	HORN ANTENNA	BBHA9170	9170-359	2020/01/05	2023/01/04
Unknown	RF Coaxial Cable	No.10	N050	2020/12/25	2021/12/24
Unknown	RF Coaxial Cable	No.11	N1000	2020/12/25	2021/12/24
Unknown	RF Coaxial Cable	No.15	N600	2020/12/25	2021/12/24
Unknown	RF Coaxial Cable	No.16	N650	2020/12/25	2021/12/24
CD	Band Reject Filter	BRM-5.15/5.35g-45	075	2020/12/25	2021/12/24
CD	Band Reject Filter	BRM-5.47/5.725G-45	075	2020/12/25	2021/12/24
CD	Band Reject Filter	BRM-5.725/5.875G-45	065	2020/12/25	2021/12/24

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF conducted test					
Rohde & Schwarz	Spectrum Analyzer	FSV-40	101495	2020/12/24	2021/12/23
\Rohde & Schwarz	Spectrum Analyzer	FSV-40	101495	2021/12/24	2022/12/23
Tonscend	RF Control Unit	JS0806-2	19G8060182	2021/07/06	2022/07/05
Unknown	RF Cable	Unknown	3	Each time	

\* **Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

## FCC§15.407 (f), §1.1307 (b) (3) – RF EXPOSURE

### Applicable Standard

According to FCC §15.407(f) and §1.1307(b) (3), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB 447498 D04 Interim General RF Exposure Guidance

SAR-Based Exemption:

SAR-based thresholds are derived based on frequency, power, and separation distance of the RF source. The formula defines the thresholds in general for either available maximum timeaveraged power or maximum time-averaged ERP, whichever is greater.

Per § 1.1307(b)(3)(i)(B), for single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold  $P_{th}$  (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive).  $P_{th}$  is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left( \frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

$d$  = the separation distance (cm);

For multiple RF sources: Multiple RF sources are exempt if:

in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation:

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{\text{Evaluated}_k}{\text{Exposure Limit}_k} \leq 1$$

**Result****For worst case:**

Mode	Frequency (MHz)	Tune up conducted power	Antenna Gain		ERP		Evaluation Distance (m)	Pth (mW)
		(dBm)	(dBi)	(dBd)	(dBm)	(mW)		
BT	2402-2480	7.0	4.5	2.35	9.35	8.61	0.20	3060
BLE	2402-2480	6.5	4.5	2.35	8.85	7.67	0.20	3060
SRD	2402-2480	4.0	3.5	1.35	5.35	3.43	0.20	3060
2.4GHz Wi-Fi	2412-2462	26.0	6.0	3.85	29.85	966.05	0.20	3060
5GHz Wi-Fi	5180-5240	19.5	5.0	2.85	22.35	171.79	0.20	3060
	5260-5280	18.5	5.0	2.85	21.35	136.46	0.20	3060
	5500-5700	17.5	5.0	2.85	20.35	108.39	0.20	3060
	5745-5825	20.0	5.0	2.85	22.85	192.75	0.20	3060

Note: 1. The tune up conducted power was declared by the applicant.

2. BT/SRD can transmit at same time with Wi-Fi, the 2.4G Wi-Fi cannot transmit at the same time with the 5G Wi-Fi, the BT cannot transmit at the same time with the SRD.

Simultaneous transmitting consideration (worst case):

The ratio= $P_{BT}/P_{th_{BT}} + P_{Wi-Fi}/P_{th_{Wi-Fi}} = 8.61/3060 + 966.05/3060 = 0.319 < 1.0$ , so simultaneous exposure is compliant.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

**Result: Compliant.**



## **FCC §15.203 – ANTENNA REQUIREMENT**

### **Applicable Standard**

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.407 (a), if the transmitting antennas of directional gain greater than 6dBi are used, the transmit power and power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### **Antenna Connector Construction**

The EUT has two internal antennas arrangement for 5G Wi-Fi which were permanently attached. Please refer to the EUT photos.

<b>ANT</b>	<b>Type</b>	<b>Antenna Gain</b>	<b>Impedance</b>
ANT 1	PCB	5.0dBi	50 Ω
ANT 2	PCB	4.5 dBi	50 Ω

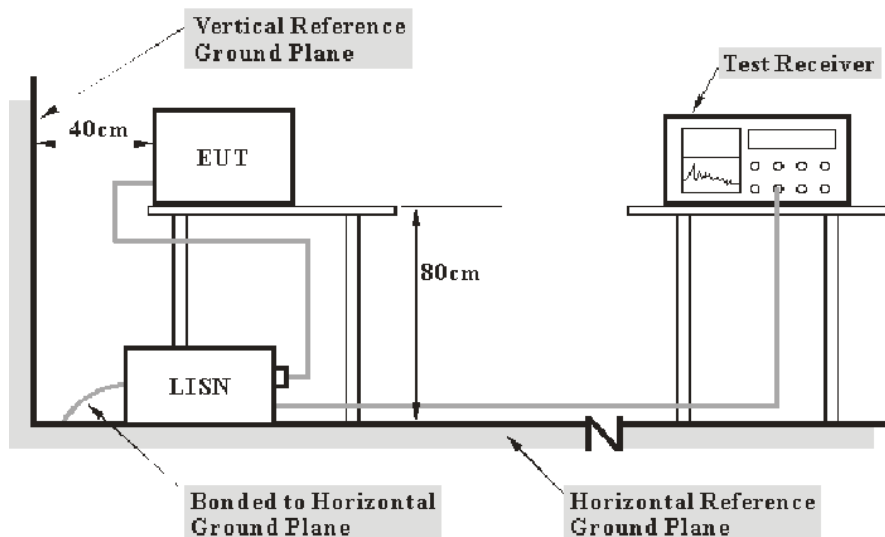
**Result:** Compliant.

## FCC §15.407 (b) (6) §15.207 (a) – CONDUCTED EMISSIONS

### Applicable Standard

FCC §15.207, §15.407(b) (6)

### EUT Setup



- Note: 1. Support units were connected to second LISN.  
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

### EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

### Test Procedure

During the conducted emission test, the adapter was connected to the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and Average detection mode.

## Corrected Factor & Margin Calculation

The Transd factor is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss. The basic equation is as follows:

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss}$$

The “**Over Limit**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a over limit of -7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

$$\begin{aligned} \text{Over Limit} &= \text{level} - \text{Limit} \\ \text{Level} &= \text{reading level} + \text{Transd Factor} \end{aligned}$$

## Test Data

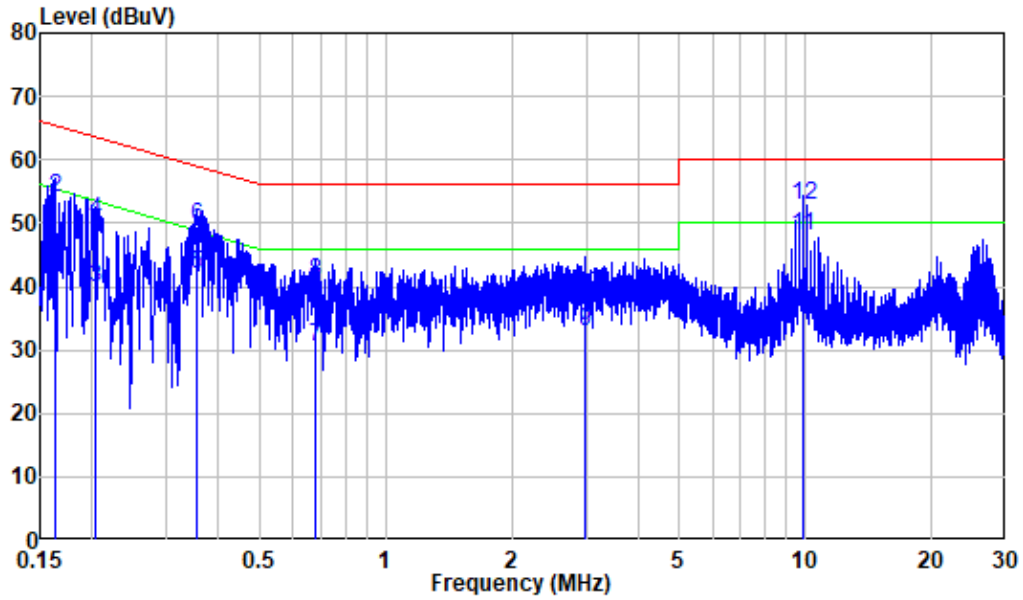
### Environmental Conditions

<b>Temperature:</b>	25 °C
<b>Relative Humidity:</b>	64 %
<b>ATM Pressure:</b>	101.0 kPa

*The testing was performed by Bin Duan on 2021-12-23.*

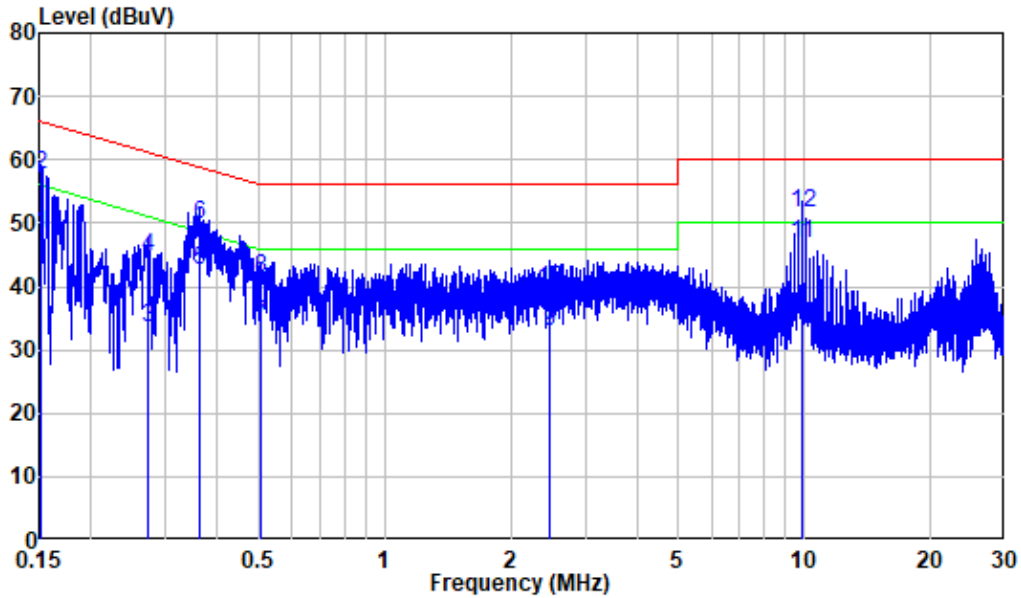
*EUT operation mode: Transmitting (worst case is 802.11ax20 mode, 5785MHz)*

**AC 120V/60 Hz, Line:**



	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.162	9.87	32.67	42.54	55.34	-12.80	Average
2	0.162	9.87	44.27	54.14	65.34	-11.20	QP
3	0.202	9.80	30.19	39.99	53.51	-13.52	Average
4	0.202	9.80	40.62	50.42	63.51	-13.09	QP
5	0.353	9.80	32.09	41.89	48.88	-6.99	Average
6	0.353	9.80	39.66	49.46	58.88	-9.42	QP
7	0.682	9.81	20.54	30.35	46.00	-15.65	Average
8	0.682	9.81	30.87	40.68	56.00	-15.32	QP
9	2.991	9.93	22.87	32.80	46.00	-13.20	Average
10	2.991	9.93	28.72	38.65	56.00	-17.35	QP
11	9.867	10.10	37.76	47.86	50.00	-2.14	Average
12	9.867	10.10	42.73	52.83	60.00	-7.17	QP

AC 120V/60 Hz, Neutral:



	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.151	9.90	38.49	48.39	55.94	-7.55	Average
2	0.151	9.90	47.78	57.68	65.94	-8.26	QP
3	0.274	9.97	23.61	33.58	51.01	-17.43	Average
4	0.274	9.97	34.60	44.57	61.01	-16.44	QP
5	0.361	9.94	32.51	42.45	48.71	-6.26	Average
6	0.361	9.94	39.93	49.87	58.71	-8.84	QP
7	0.505	9.90	24.11	34.01	46.00	-11.99	Average
8	0.505	9.90	31.54	41.44	56.00	-14.56	QP
9	2.464	9.95	22.86	32.81	46.00	-13.19	Average
10	2.464	9.95	29.64	39.59	56.00	-16.41	QP
11	9.867	10.10	36.71	46.81	50.00	-3.19	Average
12	9.867	10.10	41.49	51.59	60.00	-8.41	QP

## §15.205 & §15.209 & §15.407(B)– UNDESIRABLE EMISSION

### Applicable Standard

FCC §15.407 (b); §15.209; §15.205;

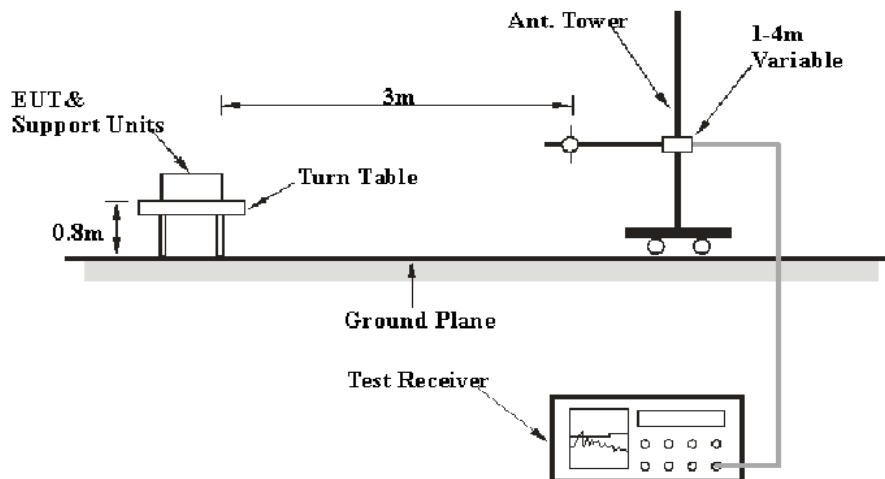
(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

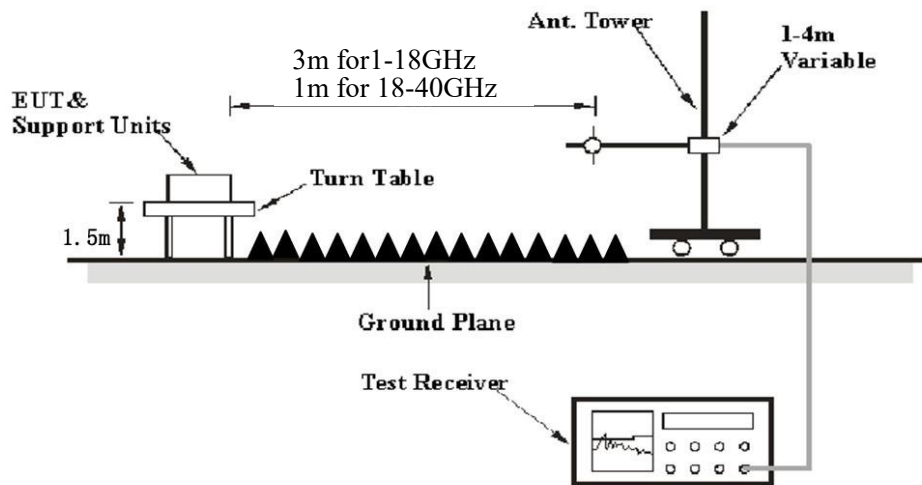
- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of  $-27$  dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of  $-27$  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:
  - (i) 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.

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

### EUT Setup

**Below 1 GHz:**



**Above 1 GHz:**

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC 15.209 and FCC 15.407 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

**EMI Test Receiver & Spectrum Analyzer Setup**

The system was investigated from 30 MHz to 40 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	PK
	1MHz	10 Hz <sup>Note 1</sup>	/	Average
	1MHz	> 1/T <sup>Note 2</sup>	/	Average

Note 1: when duty cycle is no less than 98%

Note 2: when duty cycle is less than 98%

**Test Procedure****Radiated Spurious Emission**

During the radiated emission test, the adapter was connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all the installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1GHz, peak and Average detection modes for frequencies above 1GHz.

According to ANSI C63.10-2013,9.4: For field strength measurements made at other than the distance at which the applicable limit is specified, extrapolate the measured field strength to the field strength at the distance specified by the limit using an inverse distance correction factor (20 dB/decade of distance). In some cases, a different distance correction factor may be required;

$$E_{\text{SpecLimit}} = E_{\text{Meas}} + 20 \log \left( \frac{d_{\text{Meas}}}{d_{\text{SpecLimit}}} \right)$$

where

$E_{\text{SpecLimit}}$	is the field strength of the emission at the distance specified by the limit, in dB $\mu$ V/m
$E_{\text{Meas}}$	is the field strength of the emission at the measurement distance, in dB $\mu$ V/m
$d_{\text{Meas}}$	is the measurement distance, in m
$d_{\text{SpecLimit}}$	is the distance specified by the limit, in m

So the extrapolation factor of 1m is  $20 \cdot \log(1/3) = -9.5$  dB, for 18-40GHz range, the limit of 1m distance was added by 9.5dB from limit of 3m to compared with the result measurement at 1m distance.

### Corrected Factor & Margin Calculation

The Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain. The basic equation is as follows:

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Over Limit/Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit/margin of -7dB means the emission is 7dB below the limit. The equation for calculation is as follows:

$$\begin{aligned} \text{Over Limit/Margin} &= \text{Level} / \text{Corrected Amplitude} - \text{Limit} \\ \text{Level} / \text{Corrected Amplitude} &= \text{Read Level} + \text{Factor} \end{aligned}$$

### Test Data

#### Environmental Conditions

<b>Temperature:</b>	24~25.1 °C
<b>Relative Humidity:</b>	52~59 %
<b>ATM Pressure:</b>	101.0 kPa

*The testing was performed by Bin Duan on 2021-12-23 for below 1GHz, Bin Duan and Caro Hu from 2021-10-21 to 2021-10-24, Chao Mo and Nick Fang from 2022-05-17 to 2022-05-21 for above 1GHz.*

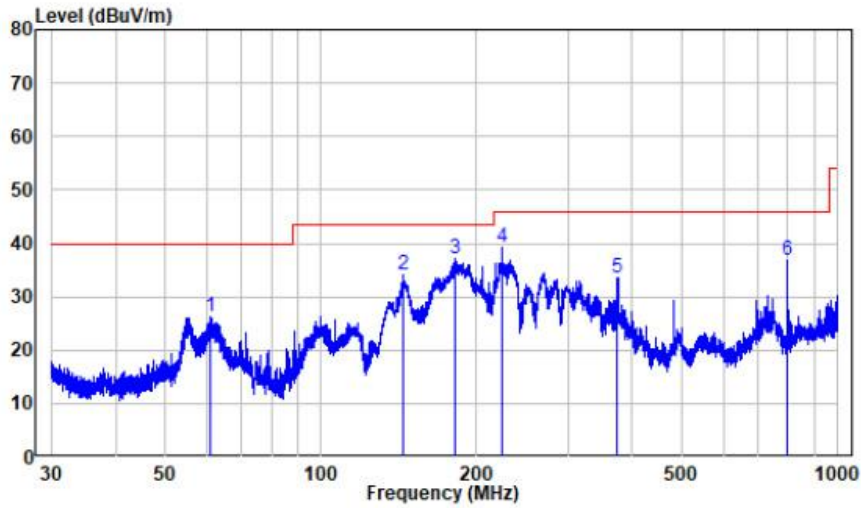
*EUT operation mode: Transmitting*



**30 MHz – 1 GHz:** (the worst case is 802.11ax20 mode, 5785MHz )

Note: When the test result of peak was less than the limit of QP more than 6dB, just peak value were recorded.

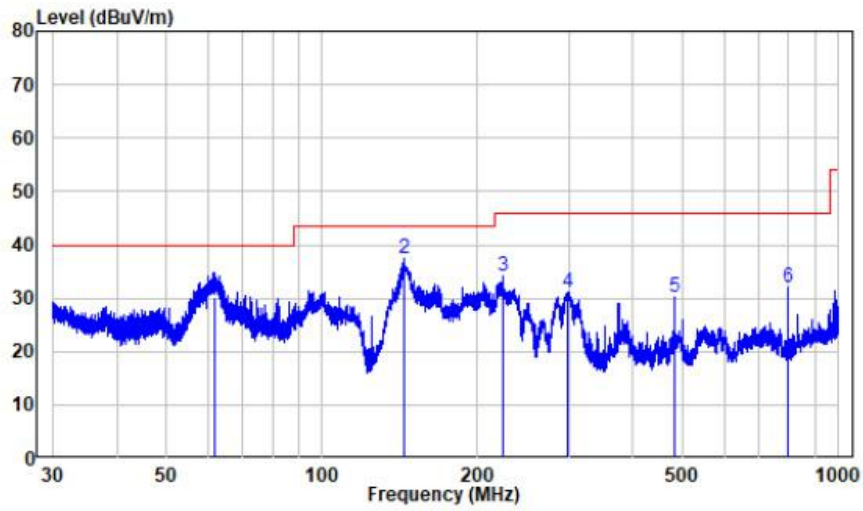
Horizontal



Site : chamber  
 Condition: 3m HORIZONTAL  
 Job No. : SZ1210914-52933E-RF  
 Mode : 5GWIFI

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	60.84	-19.67	45.96	26.29	40.00	-13.71	Peak
2	144.46	-21.79	55.78	33.99	43.50	-9.51	Peak
3	182.08	-21.12	58.14	37.02	43.50	-6.48	Peak
4	224.22	-18.95	58.33	39.38	46.00	-6.62	Peak
5	374.95	-15.70	49.29	33.59	46.00	-12.41	Peak
6	800.03	-11.52	48.50	36.98	46.00	-9.02	Peak

Vertical



Site : chamber  
 Condition: 3m VERTICAL  
 Job No. : SZ1210914-52933E-RF  
 Mode : 5GWIFI

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	62.05	-19.88	50.11	30.23	40.00	-9.77	QP
2	144.40	-21.79	59.16	37.37	43.50	-6.13	Peak
3	224.32	-18.95	53.06	34.11	46.00	-11.89	Peak
4	299.05	-16.64	47.63	30.99	46.00	-15.01	Peak
5	480.11	-14.42	44.69	30.27	46.00	-15.73	Peak
6	800.03	-11.52	43.66	32.14	46.00	-13.86	Peak

**5150-5250 MHz:**

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11a (worst case ANT 2)									
5180 MHz									
4500	67.90	PK	118	1	H	-4.72	63.18	74	-10.82
4500	55.36	AV	118	1	H	-4.72	50.64	54	-3.36
4500	66.54	PK	66	2.2	V	-4.72	61.82	74	-12.18
4500	54.69	AV	66	2.2	V	-4.72	49.97	54	-4.03
5150	64.71	PK	337	2	H	-2.73	61.98	74	-12.02
5150	51.84	AV	337	2	H	-2.73	49.11	54	-4.89
5150	64.69	PK	306	1.5	V	-2.73	61.96	74	-12.04
5150	51.67	AV	306	1.5	V	-2.73	48.94	54	-5.06
10360	47.10	PK	244	1.6	H	8.10	55.20	68.2	-13.00
10360	46.26	PK	292	1.6	V	8.10	54.36	68.2	-13.84
5200 MHz									
10400	47.60	PK	55	1.2	H	8.24	55.84	68.2	-12.36
10400	48.71	PK	69	1.2	V	8.24	56.95	68.2	-11.25
5240 MHz									
5350	61.94	PK	175	2.4	H	-2.33	59.61	74	-14.39
5350	49.67	AV	175	2.4	H	-2.33	47.34	54	-6.66
5350	61.90	PK	191	2.3	V	-2.33	59.57	74	-14.43
5350	49.95	AV	191	2.3	V	-2.33	47.62	54	-6.38
5460	64.06	PK	231	2	H	-2.3	61.76	74	-12.24
5460	51.02	AV	231	2	H	-2.3	48.72	54	-5.28
5460	64.40	PK	262	1.1	V	-2.3	62.1	74	-11.90
5460	51.30	AV	262	1.1	V	-2.3	49	54	-5.00
10480	46.62	PK	273	1.7	H	8.6	55.22	68.2	-12.98
10480	49.45	PK	229	1.7	V	8.6	58.05	68.2	-10.15

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11n20									
5180 MHz									
4500	68.80	PK	228	2.2	H	-4.72	64.08	74	-9.92
4500	56.30	AV	228	2.2	H	-4.72	51.58	54	-2.42
4500	66.91	PK	232	2.1	V	-4.72	62.19	74	-11.81
4500	55.60	AV	232	2.1	V	-4.72	50.88	54	-3.12
5150	64.96	PK	328	2.4	H	-2.73	62.23	74	-11.77
5150	53.62	AV	328	2.4	H	-2.73	50.89	54	-3.11
5150	64.61	PK	170	1.5	V	-2.73	61.88	74	-12.12
5150	53.44	AV	170	1.5	V	-2.73	50.71	54	-3.29
10360	45.25	PK	289	1.6	H	8.10	53.35	68.2	-14.85
10360	46.99	PK	165	1.6	V	8.10	55.09	68.2	-13.11
5200 MHz									
10400	43.98	PK	315	1.2	H	8.24	52.22	68.2	-15.98
10400	45.88	PK	112	1.2	V	8.24	54.12	68.2	-14.08
5240 MHz									
5350	62.54	PK	19	2.3	H	-2.33	60.21	74	-13.79
5350	52.10	AV	19	2.3	H	-2.33	49.77	54	-4.23
5350	62.28	PK	65	2	V	-2.33	59.95	74	-14.05
5350	51.75	AV	65	2	V	-2.33	49.42	54	-4.58
5460	64.25	PK	3	2.5	H	-2.3	61.95	74	-12.05
5460	53.56	AV	3	2.5	H	-2.3	51.26	54	-2.74
5460	64.10	PK	42	1.3	V	-2.3	61.8	74	-12.20
5460	53.11	AV	42	1.3	V	-2.3	50.81	54	-3.19
10480	44.81	PK	47	1.7	H	8.6	53.41	68.2	-14.79
10480	46.73	PK	295	1.7	V	8.6	55.33	68.2	-12.87

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11n40									
5190 MHz									
4500	68.08	PK	114	2.3	H	-4.72	63.36	74	-10.64
4500	56.13	AV	114	2.3	H	-4.72	51.41	54	-2.59
4500	65.51	PK	20	2.4	V	-4.72	60.79	74	-13.21
4500	54.81	AV	20	2.4	V	-4.72	50.09	54	-3.91
5150	65.07	PK	334	2	H	-2.73	62.34	74	-11.66
5150	54.39	AV	334	2	H	-2.73	51.66	54	-2.34
5150	64.51	PK	7	1.3	V	-2.73	61.78	74	-12.22
5150	53.65	AV	7	1.3	V	-2.73	50.92	54	-3.08
10380	43.91	PK	68	2.1	H	8.20	52.11	68.2	-16.09
10380	44.58	PK	189	2.1	V	8.20	52.78	68.2	-15.42
5230 MHz									
5350	62.79	PK	294	1.8	H	-2.33	60.46	74	-13.54
5350	51.80	AV	294	1.8	H	-2.33	49.47	54	-4.53
5350	62.73	PK	333	1.8	V	-2.33	60.4	74	-13.60
5350	52.16	AV	333	1.8	V	-2.33	49.83	54	-4.17
5460	64.38	PK	153	2.5	H	-2.3	62.08	74	-11.92
5460	53.31	AV	153	2.5	H	-2.3	51.01	54	-2.99
5460	63.92	PK	13	1.3	V	-2.3	61.62	74	-12.38
5460	53.38	AV	13	1.3	V	-2.3	51.08	54	-2.92
10460	43.66	PK	272	1.7	H	8.43	52.09	68.2	-16.11
10460	44.87	PK	46	1.7	V	8.43	53.30	68.2	-14.90

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11ac20									
5180 MHz									
4500	71.88	PK	328	1.6	H	-4.72	67.16	74	-6.84
4500	54.67	AV	328	1.6	H	-4.72	49.95	54	-4.05
4500	73.50	PK	241	1.5	V	-4.72	68.78	74	-5.22
4500	56.07	AV	241	1.5	V	-4.72	51.35	54	-2.65
5150	64.11	PK	149	1.3	H	-2.73	61.38	74	-12.62
5150	51.59	AV	149	1.3	H	-2.73	48.86	54	-5.14
5150	64.87	PK	43	1.5	V	-2.73	62.14	74	-11.86
5150	51.62	AV	43	1.5	V	-2.73	48.89	54	-5.11
10360	44.38	PK	326	1.4	H	8.10	52.48	68.2	-15.72
10360	44.01	PK	72	1.4	V	8.10	52.11	68.2	-16.09
5200 MHz									
10400	44.56	PK	104	1.7	H	8.24	52.8	68.2	-15.40
10400	44.42	PK	124	1.7	V	8.24	52.66	68.2	-15.54
5240 MHz									
5350	63.05	PK	94	1	H	-2.33	60.72	74	-13.28
5350	50.02	AV	94	1	H	-2.33	47.69	54	-6.31
5350	62.08	PK	240	1.4	V	-2.33	59.75	74	-14.25
5350	49.71	AV	240	1.4	V	-2.33	47.38	54	-6.62
5460	64.37	PK	87	2.1	H	-2.3	62.07	74	-11.93
5460	50.94	AV	87	2.1	H	-2.3	48.64	54	-5.36
5460	64.85	PK	289	1.9	V	-2.3	62.55	74	-11.45
5460	51.22	AV	289	1.9	V	-2.3	48.92	54	-5.08
10480	43.51	PK	267	1.7	H	8.6	52.11	68.2	-16.09
10480	43.82	PK	16	1.7	V	8.6	52.42	68.2	-15.78

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11ac40									
5190 MHz									
4500	72.90	PK	119	1.7	H	-4.72	68.18	74	-5.82
4500	56.39	AV	119	1.7	H	-4.72	51.67	54	-2.33
4500	66.11	PK	46	2.4	V	-4.72	61.39	74	-12.61
4500	54.63	AV	46	2.4	V	-4.72	49.91	54	-4.09
5150	63.69	PK	231	1.9	H	-2.73	60.96	74	-13.04
5150	51.63	AV	231	1.9	H	-2.73	48.90	54	-5.10
5150	63.77	PK	199	1.6	V	-2.73	61.04	74	-12.96
5150	51.52	AV	199	1.6	V	-2.73	48.79	54	-5.21
10380	43.33	PK	236	1.3	H	8.20	51.53	68.2	-16.67
10380	45.55	PK	282	1.3	V	8.20	53.75	68.2	-14.45
5230 MHz									
5350	63.30	PK	49	1.2	H	-2.33	60.97	74	-13.03
5350	50.72	AV	49	1.2	H	-2.33	48.39	54	-5.61
5350	62.41	PK	181	2.2	V	-2.33	60.08	74	-13.92
5350	50.49	AV	181	2.2	V	-2.33	48.16	54	-5.84
5460	63.26	PK	339	1.3	H	-2.3	60.96	74	-13.04
5460	51.42	AV	339	1.3	H	-2.3	49.12	54	-4.88
5460	63.42	PK	176	1.1	V	-2.3	61.12	74	-12.88
5460	51.46	AV	176	1.1	V	-2.3	49.16	54	-4.84
10460	43.04	PK	264	1.7	H	8.43	51.47	68.2	-16.73
10460	44.94	PK	208	1.7	V	8.43	53.37	68.2	-14.83

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11ac80									
5210 MHz									
4500	69.37	PK	288	1.2	H	-4.72	64.65	74	-9.35
4500	55.63	AV	288	1.2	H	-4.72	50.91	54	-3.09
4500	67.83	PK	106	2	V	-4.72	63.11	74	-10.89
4500	55.00	AV	106	2	V	-4.72	50.28	54	-3.72
5150	66.44	PK	90	1.2	H	-2.73	63.71	74	-10.29
5150	52.52	AV	90	1.2	H	-2.73	49.79	54	-4.21
5150	65.42	PK	289	1.1	V	-2.73	62.69	74	-11.31
5150	52.50	AV	289	1.1	V	-2.73	49.77	54	-4.23
5350	63.56	PK	219	2.2	H	-2.33	61.23	74	-12.77
5350	52.17	AV	219	2.2	H	-2.33	49.84	54	-4.16
5350	63.67	PK	227	2.4	V	-2.33	61.34	74	-12.66
5350	52.03	AV	227	2.4	V	-2.33	49.7	54	-4.30
5460	62.62	PK	220	1.7	H	-2.3	60.32	74	-13.68
5460	51.04	AV	220	1.7	H	-2.3	48.74	54	-5.26
5460	63.08	PK	250	1.9	V	-2.3	60.78	74	-13.22
5460	51.14	AV	250	1.9	V	-2.3	48.84	54	-5.16
10420	43.42	PK	252	1.2	H	8.24	51.66	68.2	-16.54
10420	44.66	PK	226	1.2	V	8.24	52.9	68.2	-15.30



Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ax20									
5180MHz_242Tone_RU61(Worst Case)									
4500	63.20	PK	294	1.8	H	-4.72	58.48	74	-15.52
4500	50.17	AV	294	1.8	H	-4.72	45.45	54	-8.55
4500	63.35	PK	276	1.6	V	-4.72	58.63	74	-15.37
4500	50.28	AV	276	1.6	V	-4.72	45.56	54	-8.44
5150	64.18	PK	223	1.7	H	-2.73	61.45	74	-12.55
5150	51.41	AV	223	1.7	H	-2.73	48.68	54	-5.32
5150	66.17	PK	342	1.9	V	-2.73	63.44	74	-10.56
5150	52.26	AV	342	1.9	V	-2.73	49.53	54	-4.47
5180MHz_106Tone_RU53(Worst Case)									
10360	55.97	PK	42	1.9	H	8.12	64.09	68.2	-4.11
10360	58.72	PK	358	1.9	V	8.12	66.84	68.2	-1.36
5200MHz_106Tone_RU53(Worst Case)									
10400	55.10	PK	141	1.5	H	8.24	63.34	68.2	-4.86
10400	57.41	PK	241	1.8	V	8.24	65.65	68.2	-2.55
5240MHz_242Tone_RU61(Worst Case)									
5350	64.41	PK	80	2.0	H	-2.33	62.08	74	-11.92
5350	51.08	AV	80	2.0	H	-2.33	48.75	54	-5.25
5350	64.56	PK	147	1.9	V	-2.33	62.23	74	-11.77
5350	51.20	AV	147	1.9	V	-2.33	48.87	54	-5.13
5460	63.48	PK	95	1.8	H	-2.26	61.22	74	-12.78
5460	50.86	AV	95	1.8	H	-2.26	48.60	54	-5.40
5460	63.57	PK	59	1.8	V	-2.26	61.31	74	-12.69
5460	51.05	AV	59	1.8	V	-2.26	48.79	54	-5.21
5240MHz_106Tone_RU54(Worst Case)									
10480	54.81	PK	178	1.7	H	8.56	63.37	68.2	-4.83
10480	56.23	PK	258	2.0	V	8.56	64.79	68.2	-3.41

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ax40									
5190MHz_484Tone_RU65(Worst Case)									
4500	62.61	PK	109	1.6	H	-4.72	57.89	74	-16.11
4500	50.83	AV	109	1.6	H	-4.72	46.11	54	-7.89
4500	63.55	PK	139	1.6	V	-4.72	58.83	74	-15.17
4500	50.69	AV	139	1.6	V	-4.72	45.97	54	-8.03
5150	69.90	PK	53	2.1	H	-2.73	67.17	74	-6.83
5150	55.25	AV	53	2.1	H	-2.73	52.52	54	-1.48
5150	67.71	PK	21	1.6	V	-2.73	64.98	74	-9.02
5150	54.43	AV	21	1.6	V	-2.73	51.70	54	-2.30
5190MHz_242Tone_RU61(Worst Case)									
10380	55.16	PK	357	2.1	H	8.18	63.34	68.2	-4.86
10380	57.47	PK	192	2.0	V	8.18	65.65	68.2	-2.55
5230MHz_242Tone_RU62(Worst Case)									
5350	63.96	PK	184	1.9	H	-2.33	61.63	74	-12.37
5350	51.00	AV	184	1.9	H	-2.33	48.67	54	-5.33
5350	64.82	PK	4	1.8	V	-2.33	62.49	74	-11.51
5350	51.27	AV	4	1.8	V	-2.33	48.94	54	-5.06
5460	64.50	PK	185	1.7	H	-2.26	62.24	74	-11.76
5460	50.96	AV	185	1.7	H	-2.26	48.70	54	-5.30
5460	64.08	PK	248	1.6	V	-2.26	61.82	74	-12.18
5460	51.09	AV	248	1.6	V	-2.26	48.83	54	-5.17
5230MHz_242Tone_RU62(Worst Case)									
10460	54.90	PK	316	1.6	H	8.47	63.37	68.2	-4.83
10460	56.32	PK	68	1.8	V	8.47	64.79	68.2	-3.41

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11ax80									
5210MHz_26Tone_RU0(Worst Case)									
4500	63.10	PK	192	1.8	H	-4.72	58.38	74	-15.62
4500	51.28	AV	192	1.8	H	-4.72	46.56	54	-7.44
4500	63.24	PK	237	1.9	V	-4.72	58.52	74	-15.48
4500	51.41	AV	237	1.9	V	-4.72	46.69	54	-7.31
5150	65.96	PK	136	1.9	H	-2.73	63.23	74	-10.77
5150	53.64	AV	136	1.9	H	-2.73	50.91	54	-3.09
5150	69.32	PK	229	1.9	V	-2.73	66.59	74	-7.41
5150	54.97	AV	229	1.9	V	-2.73	52.24	54	-1.76
5210MHz_26Tone_RU36(Worst Case)									
5350	66.45	PK	307	1.6	H	-2.33	64.12	74	-9.88
5350	52.91	AV	307	1.6	H	-2.33	50.58	54	-3.42
5350	67.07	PK	137	2.0	V	-2.33	64.74	74	-9.26
5350	53.40	AV	137	2.0	V	-2.33	51.07	54	-2.93
5460	63.29	PK	130	1.5	H	-2.26	61.03	74	-12.97
5460	52.05	AV	130	1.5	H	-2.26	49.79	54	-4.21
5460	63.40	PK	130	1.5	V	-2.26	61.14	74	-12.86
5460	52.27	AV	130	1.5	V	-2.26	50.01	54	-3.99
5210MHz_26Tone_RU0(Worst Case)									
10420	41.05	PK	329	2.0	H	8.32	49.37	68.2	-18.83
10420	41.39	PK	133	2.0	V	8.32	49.71	68.2	-18.49

**5250-5350 MHz:**

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11a(worst case ANT 2)									
5260MHz									
4500	66.50	PK	313	2	H	-4.72	61.78	74	-12.22
4500	52.60	AV	313	2	H	-4.72	47.88	54	-6.12
4500	66.42	PK	123	2.1	V	-4.72	61.70	74	-12.3
4500	52.48	AV	123	2.1	V	-4.72	47.76	54	-6.24
5150	64.33	PK	34	2.3	H	-2.73	61.60	74	-12.4
5150	51.17	AV	34	2.3	H	-2.73	48.44	54	-5.56
5150	64.57	PK	272	1.6	V	-2.73	61.84	74	-12.16
5150	51.06	AV	272	1.6	V	-2.73	48.33	54	-5.67
10520	45.16	PK	56	2.4	H	8.65	53.81	68.2	-14.39
10520	49.68	PK	104	2.4	V	8.65	58.33	68.2	-9.87
5280MHz									
10560	46.29	PK	112	1.3	H	8.65	54.94	68.2	-13.26
10560	50.52	PK	191	1.3	V	8.65	59.17	68.2	-9.03
5320MHz									
5350	63.95	PK	61	1.9	H	-2.33	61.62	74	-12.38
5350	49.97	AV	61	1.9	H	-2.33	47.64	54	-6.36
5350	63.79	PK	298	1.1	V	-2.33	61.46	74	-12.54
5350	50.14	AV	298	1.1	V	-2.33	47.81	54	-6.19
5460	67.53	PK	9	1.2	H	-2.3	65.23	74	-8.77
5460	52.54	AV	9	1.2	H	-2.3	50.24	54	-3.76
5460	67.00	PK	219	2.1	V	-2.3	64.7	74	-9.3
5460	52.36	AV	219	2.1	V	-2.3	50.06	54	-3.94
10640	45.89	PK	352	1.1	H	8.9	54.79	74	-19.21
10640	33.40	AV	352	1.1	H	8.9	42.30	54	-11.7
10640	49.43	PK	134	1.5	V	8.9	58.33	74	-15.67
10640	36.35	AV	134	1.5	V	8.9	45.25	54	-8.75

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11n20									
5260MHz									
4500	66.29	PK	144	1	H	-4.72	61.57	74	-12.43
4500	55.16	AV	144	1	H	-4.72	50.44	54	-3.56
4500	65.74	PK	307	1.4	V	-4.72	61.02	74	-12.98
4500	55.80	AV	307	1.4	V	-4.72	51.08	54	-2.92
5150	65.30	PK	146	1.1	H	-2.73	62.57	74	-11.43
5150	53.74	AV	146	1.1	H	-2.73	51.01	54	-2.99
5150	64.47	PK	36	1.7	V	-2.73	61.74	74	-12.26
5150	53.38	AV	36	1.7	V	-2.73	50.65	54	-3.35
10520	46.69	PK	187	2.1	H	8.65	55.34	68.2	-12.86
10520	49.13	PK	113	2.1	V	8.65	57.78	68.2	-10.42
5280MHz									
10560	47.11	PK	203	1	H	8.65	55.76	68.2	-12.44
10560	50.03	PK	239	1	V	8.65	58.68	68.2	-9.52
5320MHz									
5350	63.24	PK	348	2.1	H	-2.33	60.91	74	-13.09
5350	52.80	AV	348	2.1	H	-2.33	50.47	54	-3.53
5350	64.08	PK	241	1.3	V	-2.33	61.75	74	-12.25
5350	52.55	AV	241	1.3	V	-2.33	50.22	54	-3.78
5460	63.94	PK	283	2.4	H	-2.3	61.64	74	-12.36
5460	53.71	AV	283	2.4	H	-2.3	51.41	54	-2.59
5460	64.35	PK	311	2.3	V	-2.3	62.05	74	-11.95
5460	53.22	AV	311	2.3	V	-2.3	50.92	54	-3.08
10640	46.48	PK	20	1.7	H	8.9	55.38	74	-18.62
10640	33.96	AV	20	1.7	H	8.9	42.86	54	-11.14
10640	48.26	PK	130	2	V	8.9	57.16	74	-16.84
10640	37.97	AV	130	2	V	8.9	46.87	54	-7.13

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11n40									
5270MHz									
4500	65.86	PK	51	1.2	H	-4.72	61.14	74	-12.86
4500	55.02	AV	51	1.2	H	-4.72	50.30	54	-3.7
4500	66.07	PK	64	2.2	V	-4.72	61.35	74	-12.65
4500	54.85	AV	64	2.2	V	-4.72	50.13	54	-3.87
5150	64.38	PK	304	2	H	-2.73	61.65	74	-12.35
5150	52.37	AV	304	2	H	-2.73	49.64	54	-4.36
5150	64.90	PK	66	2.4	V	-2.73	62.17	74	-11.83
5150	53.49	AV	66	2.4	V	-2.73	50.76	54	-3.24
10540	42.62	PK	209	1.2	H	8.65	51.27	68.2	-16.93
10540	46.74	PK	41	1.2	V	8.65	55.39	68.2	-12.81
5310MHz									
5350	63.34	PK	98	2.4	H	-2.33	61.01	74	-12.99
5350	52.34	AV	98	2.4	H	-2.33	50.01	54	-3.99
5350	63.49	PK	16	1.4	V	-2.33	61.16	74	-12.84
5350	52.49	AV	16	1.4	V	-2.33	50.16	54	-3.84
5460	67.30	PK	218	2.1	H	-2.3	65	74	-9
5460	53.78	AV	218	2.1	H	-2.3	51.48	54	-2.52
5460	66.14	PK	15	1.1	V	-2.3	63.84	74	-10.16
5460	53.27	AV	15	1.1	V	-2.3	50.97	54	-3.03
10620	43.66	PK	74	2.5	H	8.8	52.46	74	-21.54
10620	47.17	PK	131	1.1	V	8.8	55.97	74	-18.03
10620	36.29	AV	131	1.1	V	8.8	45.09	54	-8.91

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11ac20									
5260MHz									
4500	66.36	PK	324	1.1	H	-4.72	61.64	74	-12.36
4500	52.71	AV	324	1.1	H	-4.72	47.99	54	-6.01
4500	66.37	PK	208	1.7	V	-4.72	61.65	74	-12.35
4500	52.91	AV	208	1.7	V	-4.72	48.19	54	-5.81
5150	64.37	PK	247	1.3	H	-2.73	61.64	74	-12.36
5150	51.34	AV	247	1.3	H	-2.73	48.61	54	-5.39
5150	64.32	PK	182	2.1	V	-2.73	61.59	74	-12.41
5150	51.44	AV	182	2.1	V	-2.73	48.71	54	-5.29
10520	45.64	PK	262	2.3	H	8.65	54.29	68.2	-13.91
10520	48.79	PK	131	2.3	V	8.65	57.44	68.2	-10.76
5280MHz									
10560	46.53	PK	246	2.4	H	8.65	55.18	68.2	-13.02
10560	49.03	PK	344	2.4	V	8.65	57.68	68.2	-10.52
5320MHz									
5350	63.82	PK	145	1.9	H	-2.33	61.49	74	-12.51
5350	50.34	AV	145	1.9	H	-2.33	48.01	54	-5.99
5350	64.13	PK	324	2.4	V	-2.33	61.8	74	-12.2
5350	49.90	AV	324	2.4	V	-2.33	47.57	54	-6.43
5460	68.04	PK	140	2.1	H	-2.3	65.74	74	-8.26
5460	52.94	AV	140	2.1	H	-2.3	50.64	54	-3.36
5460	66.74	PK	206	2.4	V	-2.3	64.44	74	-9.56
5460	52.15	AV	206	2.4	V	-2.3	49.85	54	-4.15
10640	46.18	PK	350	1.4	H	8.9	55.08	74	-18.92
10640	32.77	AV	350	1.4	H	8.9	41.67	54	-12.33
10640	49.51	PK	233	1.9	V	8.9	58.41	74	-15.59
10640	37.55	AV	233	1.9	V	8.9	46.45	54	-7.55

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ac40									
5270MHz									
4500	64.94	PK	131	2.3	H	-4.72	60.22	74	-13.78
4500	53.17	AV	131	2.3	H	-4.72	48.45	54	-5.55
4500	64.70	PK	117	1.7	V	-4.72	59.98	74	-14.02
4500	53.40	AV	117	1.7	V	-4.72	48.68	54	-5.32
5150	63.49	PK	14	2.2	H	-2.73	60.76	74	-13.24
5150	51.95	AV	14	2.2	H	-2.73	49.22	54	-4.78
5150	63.47	PK	193	1.5	V	-2.73	60.74	74	-13.26
5150	51.92	AV	193	1.5	V	-2.73	49.19	54	-4.81
10540	42.44	PK	91	2.3	H	8.65	51.09	68.2	-17.11
10540	45.59	PK	336	2.3	V	8.65	54.24	68.2	-13.96
5310MHz									
5350	62.42	PK	173	1.8	H	-2.33	60.09	74	-13.91
5350	50.87	AV	173	1.8	H	-2.33	48.54	54	-5.46
5350	62.90	PK	296	2.3	V	-2.33	60.57	74	-13.43
5350	50.89	AV	296	2.3	V	-2.33	48.56	54	-5.44
5460	69.40	PK	246	1.6	H	-2.3	67.1	74	-6.9
5460	53.93	AV	246	1.6	H	-2.3	51.63	54	-2.37
5460	66.81	PK	19	1.5	V	-2.3	64.51	74	-9.49
5460	52.69	AV	19	1.5	V	-2.3	50.39	54	-3.61
10620	43.86	PK	10	2.3	H	8.8	52.66	74	-21.34
10620	45.33	PK	289	1.3	V	8.8	54.13	74	-19.87
10620	32.11	AV	289	1.3	V	8.8	40.91	54	-13.09



Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ac80									
5290MHz									
4500	65.21	PK	339	1.7	H	-4.72	60.49	74	-13.51
4500	54.12	AV	339	1.7	H	-4.72	49.40	54	-4.6
4500	65.38	PK	319	2.4	V	-4.72	60.66	74	-13.34
4500	53.99	AV	319	2.4	V	-4.72	49.27	54	-4.73
5150	62.22	PK	215	2.5	H	-2.73	59.49	74	-14.51
5150	51.60	AV	215	2.5	H	-2.73	48.87	54	-5.13
5150	62.05	PK	254	1.2	V	-2.73	59.32	74	-14.68
5150	51.04	AV	254	1.2	V	-2.73	48.31	54	-5.69
5350	68.03	PK	250	2	H	-2.33	65.7	74	-8.3
5350	54.52	AV	250	2	H	-2.33	52.19	54	-1.81
5350	67.39	PK	204	1.5	V	-2.33	65.06	74	-8.94
5350	54.09	AV	204	1.5	V	-2.33	51.76	54	-2.24
5460	66.64	PK	118	2.2	H	-2.3	64.34	74	-9.66
5460	53.14	AV	118	2.2	H	-2.3	50.84	54	-3.16
5460	67.02	PK	274	1.8	V	-2.3	64.72	74	-9.28
5460	52.84	AV	274	1.8	V	-2.3	50.54	54	-3.46
10580	43.57	PK	23	1.9	H	8.7	52.27	68.2	-15.93
10580	42.86	PK	128	1.9	V	8.7	51.56	68.2	-16.64

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ax20									
5260MHz_242Tone_RU61(Worst Case)									
4500	63.04	PK	2	1.5	H	-4.72	58.32	74	-15.68
4500	50.31	AV	2	1.5	H	-4.72	45.59	54	-8.41
4500	62.95	PK	325	2.1	V	-4.72	58.23	74	-15.77
4500	50.20	AV	325	2.1	V	-4.72	45.48	54	-8.52
5150	63.90	PK	3	2.0	H	-2.73	61.17	74	-12.83
5150	50.59	AV	3	2.0	H	-2.73	47.86	54	-6.14
5150	63.76	PK	351	1.6	V	-2.73	61.03	74	-12.97
5150	50.47	AV	351	1.6	V	-2.73	47.74	54	-6.26
5260MHz_106Tone_RU53(Worst Case)									
10520	45.97	PK	168	1.5	H	8.65	54.62	68.2	-13.58
10520	47.11	PK	52	2.1	V	8.65	55.76	68.2	-12.44
5280MHz_106Tone_RU53(Worst Case)									
10560	45.38	PK	347	2.2	H	8.65	54.03	68.2	-14.17
10560	46.34	PK	290	2.2	V	8.65	54.99	68.2	-13.21
5320MHz_106Tone_RU54(Worst Case)									
5350	68.78	PK	231	2.0	H	-2.33	66.45	74	-7.55
5350	52.16	AV	231	2.0	H	-2.33	49.83	54	-4.17
5350	68.39	PK	355	1.8	V	-2.33	66.06	74	-7.94
5350	51.47	AV	355	1.8	V	-2.33	49.14	54	-4.86
5460	63.58	PK	144	2.0	H	-2.26	61.32	74	-12.68
5460	50.85	AV	144	2.0	H	-2.26	48.59	54	-5.41
5460	63.45	PK	245	1.6	V	-2.26	61.19	74	-12.81
5460	50.76	AV	245	1.6	V	-2.26	48.50	54	-5.50
5320MHz_106Tone_RU54(Worst Case)									
10640	44.31	PK	40	2.4	H	8.93	53.24	74	-20.76
10640	45.17	PK	341	2.5	V	8.93	54.1	74	-19.9
10640	28.22	AV	341	2.5	V	8.93	37.15	54	-16.85

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ax40									
5270MHz_242Tone_RU61(Worst Case)									
4500	63.14	PK	37	1.9	H	-4.72	58.42	74	-15.58
4500	50.57	AV	37	1.9	H	-4.72	45.85	54	-8.15
4500	63.25	PK	316	2.0	V	-4.72	58.53	74	-15.47
4500	50.68	AV	316	2.0	V	-4.72	45.96	54	-8.04
5150	64.02	PK	12	2.0	H	-2.73	61.29	74	-12.71
5150	50.90	AV	12	2.0	H	-2.73	48.17	54	-5.83
5150	64.17	PK	357	1.8	V	-2.73	61.44	74	-12.56
5150	51.01	AV	357	1.8	V	-2.73	48.28	54	-5.72
5270MHz_106Tone_RU53(Worst Case)									
10540	43.14	PK	343	1.6	H	8.65	51.79	68.2	-16.41
10540	43.75	PK	155	1.6	H	8.65	52.40	68.2	-15.80
5310MHz_484Tone_RU65(Worst Case)									
5350	71.77	PK	49	1.6	H	-2.33	69.44	74	-4.56
5350	55.06	AV	49	1.6	H	-2.33	52.73	54	-1.27
5350	73.43	PK	270	1.7	V	-2.33	71.10	74	-2.90
5350	55.28	AV	270	1.7	V	-2.33	52.95	54	-1.05
5460	63.85	PK	326	2.1	H	-2.26	61.59	74	-12.41
5460	51.46	AV	326	2.1	H	-2.26	49.20	54	-4.80
5460	63.98	PK	283	1.7	V	-2.26	61.72	74	-12.28
5460	51.57	AV	283	1.7	V	-2.26	49.31	54	-4.69
5310MHz_106Tone_RU56(Worst Case)									
10620	43.96	PK	311	1.6	H	8.8	52.76	74	-21.24
10620	45.65	PK	8	1.6	V	8.8	54.45	74	-19.55
10620	29.68	AV	8	1.6	V	8.8	38.48	54	-15.52

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11ax80									
5290MHz_52Tone_RU37(Worst Case)									
4500	63.20	PK	121	1.6	H	-4.72	58.48	74	-15.52
4500	51.28	AV	121	1.6	H	-4.72	46.56	54	-7.44
4500	63.34	PK	1	2.0	V	-4.72	58.62	74	-15.38
4500	51.39	AV	1	2.0	V	-4.72	46.67	54	-7.33
5150	64.49	PK	102	1.5	H	-2.73	61.76	74	-12.24
5150	52.32	AV	102	1.5	H	-2.73	49.59	54	-4.41
5150	64.80	PK	322	2.0	V	-2.73	62.07	74	-11.93
5150	53.18	AV	322	2.0	V	-2.73	50.45	54	-3.55
5290MHz_106Tone_RU60(Worst Case)									
5350	66.77	PK	242	2.0	H	-2.33	64.44	74	-9.56
5350	54.30	AV	242	2.0	H	-2.33	51.97	54	-2.03
5350	68.38	PK	258	2.1	V	-2.33	66.05	74	-7.95
5350	55.15	AV	258	2.1	V	-2.33	52.82	54	-1.18
5460	63.40	PK	71	2.0	H	-2.26	61.14	74	-12.86
5460	52.25	AV	71	2.0	H	-2.26	49.99	54	-4.01
5460	63.64	PK	71	2.0	V	-2.26	61.38	74	-12.62
5460	52.42	AV	71	2.0	V	-2.26	50.16	54	-3.84
5290MHz_52Tone_RU37(Worst Case)									
10580	41.84	PK	75	1.6	H	8.7	50.54	68.2	-17.66
10580	42.40	PK	3	1.7	V	8.7	51.10	68.2	-17.10

**5470-5725MHz:**

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11a(worst case ANT 2)									
5500MHz									
5400	74.21	PK	150	2.1	H	-2.29	71.92	74	-2.08
5400	54.50	AV	150	2.1	H	-2.29	52.21	54	-1.79
5400	71.76	PK	349	1.3	V	-2.29	69.47	74	-4.53
5400	53.21	AV	349	1.3	V	-2.29	50.92	54	-3.08
5460	71.93	PK	189	2.3	H	-2.26	69.67	74	-4.33
5460	52.33	AV	189	2.3	H	-2.26	50.07	54	-3.93
5460	71.39	PK	137	1.9	V	-2.26	69.13	74	-4.87
5460	50.53	AV	137	1.9	V	-2.26	48.27	54	-5.73
5470	66.88	PK	196	1.9	H	-2.2	64.68	68.2	-3.52
5470	66.33	PK	226	1.8	V	-2.2	64.13	68.2	-4.07
11000	41.06	PK	198	1.5	H	9.67	50.73	74	-23.27
11000	41.08	PK	136	2.2	V	9.67	50.75	74	-23.25
5580MHz									
11160	41.92	PK	288	1.3	H	8.60	50.52	74	-23.48
11160	41.58	PK	25	1.3	V	8.60	50.18	74	-23.82
5700MHz									
5725	64.59	PK	6	1.4	H	-2.02	62.57	68.2	-5.63
5725	64.52	AV	6	1.4	H	-2.02	62.5	68.2	-5.70
5745	66.13	PK	73	1.9	V	-1.9	64.23	68.2	-3.97
5745	66.22	AV	73	1.9	V	-1.9	64.32	68.2	-3.88
11400	43.58	PK	256	2	H	7.26	50.84	74	-23.16
11400	43.24	PK	141	1.6	V	7.26	50.5	74	-23.50

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11n20									
5500MHz									
5400	73.30	PK	187	2.5	H	-2.29	71.01	74	-2.99
5400	53.09	AV	187	2.5	H	-2.29	50.80	54	-3.20
5400	71.67	PK	33	1.9	V	-2.29	69.38	74	-4.62
5400	50.80	AV	33	1.9	V	-2.29	48.51	54	-5.49
5460	72.22	PK	18	1.4	H	-2.26	69.96	74	-4.04
5460	52.62	AV	18	1.4	H	-2.26	50.36	54	-3.64
5460	71.68	PK	196	1.4	V	-2.26	69.42	74	-4.58
5460	50.82	AV	196	1.4	V	-2.26	48.56	54	-5.44
5470	64.74	PK	248	1.7	H	-2.2	62.54	68.2	-5.66
5470	64.56	PK	288	2.4	V	-2.2	62.36	68.2	-5.84
11000	40.77	PK	259	1.9	H	9.67	50.44	74	-23.56
11000	40.83	PK	89	2	V	9.67	50.5	74	-23.50
5580MHz									
11160	41.76	PK	226	2.4	H	8.60	50.36	74	-23.64
11160	41.82	PK	346	2.4	V	8.60	50.42	74	-23.58
5700MHz									
5725	64.66	PK	23	1.9	H	-2.02	62.64	68.2	-5.56
5725	64.01	AV	23	1.9	H	-2.02	61.99	68.2	-6.21
5745	68.00	PK	231	1.8	V	-1.9	66.1	68.2	-2.10
5745	67.73	AV	231	1.8	V	-1.9	65.83	68.2	-2.37
11400	43.20	PK	50	2.1	H	7.26	50.46	74	-23.54
11400	43.44	PK	56	1.9	V	7.26	50.7	74	-23.30

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11n40									
5510MHz									
5400	73.87	PK	69	1.9	H	-2.29	71.58	74	-2.42
5400	53.80	AV	69	1.9	H	-2.29	51.51	54	-2.49
5400	72.13	PK	134	1.1	V	-2.29	69.84	74	-4.16
5400	50.63	AV	134	1.1	V	-2.29	48.34	54	-5.66
5460	72.34	PK	242	1.9	H	-2.26	70.08	74	-3.92
5460	52.74	AV	242	1.9	H	-2.26	50.48	54	-3.52
5460	71.80	PK	93	1.6	V	-2.26	69.54	74	-4.46
5460	50.94	AV	93	1.6	V	-2.26	48.68	54	-5.32
5470	64.21	PK	230	2	H	-2.2	62.01	68.2	-6.19
5470	64.81	PK	163	2.2	V	-2.2	62.61	68.2	-5.59
11020	41.15	PK	46	1.1	H	9.6	50.75	74	-23.25
11020	40.86	PK	176	1.7	V	9.6	50.46	74	-23.54
5550MHz									
11100	40.52	PK	314	1.3	H	9.12	49.64	74	-24.36
11100	40.31	PK	57	1.3	V	9.12	49.43	74	-24.57
5670MHz									
5725	63.91	PK	252	1.3	H	-2.02	61.89	68.2	-6.31
5725	64.57	AV	252	1.3	H	-2.02	62.55	68.2	-5.65
5745	67.12	PK	123	2.4	V	-1.9	65.22	68.2	-2.98
5745	67.04	AV	123	2.4	V	-1.9	65.14	68.2	-3.06
11340	42.80	PK	124	2.2	H	7.6	50.4	74	-23.60
11340	42.56	PK	272	1	V	7.6	50.16	74	-23.84

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ac20									
5500MHz									
5400	73.04	PK	239	1	H	-2.29	70.75	74	-3.25
5400	52.67	AV	239	1	H	-2.29	50.38	54	-3.62
5400	71.63	PK	116	1.5	V	-2.29	69.34	74	-4.66
5400	50.35	AV	116	1.5	V	-2.29	48.06	54	-5.94
5460	72.10	PK	258	1.5	H	-2.26	69.84	74	-4.16
5460	52.50	AV	258	1.5	H	-2.26	50.24	54	-3.76
5460	71.56	PK	270	1.6	V	-2.26	69.30	74	-4.70
5460	50.70	AV	270	1.6	V	-2.26	48.44	54	-5.56
5470	64.47	PK	74	1.2	H	-2.2	62.27	68.2	-5.93
5470	64.96	PK	260	1.8	V	-2.2	62.76	68.2	-5.44
11000	41.03	PK	359	2.5	H	9.67	50.7	74	-23.30
11000	40.89	PK	301	2.4	V	9.67	50.56	74	-23.44
5580MHz									
11160	41.63	PK	241	1.8	H	8.60	50.23	74	-23.77
11160	41.71	PK	273	1.8	V	8.60	50.31	74	-23.69
5700 MHz									
5725	64.29	PK	163	1.5	H	-2.02	62.27	68.2	-5.93
5725	64.42	AV	163	1.5	H	-2.02	62.4	68.2	-5.80
5745	66.90	PK	106	1.2	V	-1.9	65	68.2	-3.20
5745	66.81	AV	106	1.2	V	-1.9	64.91	68.2	-3.29
11400	43.32	PK	9	1.8	H	7.26	50.58	74	-23.42
11400	43.53	PK	184	1.1	V	7.26	50.79	74	-23.21



Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ac40									
5510MHz									
5400	73.68	PK	344	1.1	H	-2.29	71.39	74	-2.61
5400	53.70	AV	344	1.1	H	-2.29	51.41	54	-2.59
5400	71.88	PK	50	1.1	V	-2.29	69.59	74	-4.41
5400	51.00	AV	50	1.1	V	-2.29	48.71	54	-5.29
5460	72.02	PK	76	2.3	H	-2.26	69.76	74	-4.24
5460	52.42	AV	76	2.3	H	-2.26	50.16	54	-3.84
5460	71.48	PK	148	2.5	V	-2.26	69.22	74	-4.78
5460	50.62	AV	148	2.5	V	-2.26	48.36	54	-5.64
5470	64.59	PK	246	1.7	H	-2.2	62.39	68.2	-5.81
5470	64.54	PK	299	1.1	V	-2.2	62.34	68.2	-5.86
11020	40.82	PK	61	1.2	H	9.6	50.42	74	-23.58
11020	41.17	PK	334	2	V	9.6	50.77	74	-23.23
5550 MHzz									
11100	40.74	PK	235	2.2	H	9.12	49.86	74	-24.14
11100	40.45	PK	71	2.2	V	9.12	49.57	74	-24.43
5670 MHz									
5725	63.99	PK	187	2.2	H	-2.02	61.97	68.2	-6.23
5725	63.98	AV	187	2.2	H	-2.02	61.96	68.2	-6.24
5745	66.81	PK	250	1.4	V	-1.9	64.91	68.2	-3.29
5745	66.60	AV	250	1.4	V	-1.9	64.7	68.2	-3.50
11340	42.94	PK	179	1.3	H	7.6	50.54	74	-23.46
11340	42.90	PK	97	2	V	7.6	50.5	74	-23.50

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11ac80									
5530MHz									
5400	73.09	PK	273	1.7	H	-2.29	70.80	74	-3.20
5400	53.23	AV	273	1.7	H	-2.29	50.94	54	-3.06
5400	71.60	PK	25	1.3	V	-2.29	69.31	74	-4.69
5400	50.01	AV	25	1.3	V	-2.29	47.72	54	-6.28
5460	71.90	PK	66	2.2	H	-2.26	69.64	74	-4.36
5460	52.30	AV	66	2.2	H	-2.26	50.04	54	-3.96
5460	71.36	PK	195	2.4	V	-2.26	69.10	74	-4.90
5460	50.50	AV	195	2.4	V	-2.26	48.24	54	-5.76
5470	64.54	PK	322	2.2	H	-2.2	62.34	68.2	-5.86
5470	64.92	PK	323	1.2	V	-2.2	62.72	68.2	-5.48
11060	40.04	PK	78	1.4	H	9.40	49.44	74	-24.56
11060	40.09	PK	328	1.4	V	9.40	49.49	74	-24.51
5610 MHz									
5725	64.09	PK	90	2.4	H	-2.02	62.07	68.2	-6.13
5725	64.53	AV	90	2.4	H	-2.02	62.51	68.2	-5.69
5745	67.18	PK	343	1.1	V	-1.9	65.28	68.2	-2.92
5745	66.92	AV	343	1.1	V	-1.9	65.02	68.2	-3.18
11220	41.38	PK	84	2.2	H	8.40	49.78	74	-24.22
11220	41.29	PK	341	2.2	V	8.40	49.69	74	-24.31

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11ax20									
5500MHz_242Tone_RU61(Worst Case)									
5460	64.58	PK	304	1.9	H	-2.26	62.32	74	-11.68
5460	51.07	AV	304	1.9	H	-2.26	48.81	54	-5.19
5460	64.46	PK	93	1.8	V	-2.26	62.20	74	-11.80
5460	50.99	AV	93	1.8	V	-2.26	48.73	54	-5.27
5470	67.39	PK	250	1.7	H	-2.2	65.19	68.2	-3.01
5470	66.75	AV	250	1.7	H	-2.2	64.55	68.2	-3.65
5500MHz_106Tone_RU53(Worst Case)									
11000	41.62	PK	90	1.6	H	9.67	51.29	74	-22.71
11000	41.7	PK	259	1.7	V	9.67	51.37	74	-22.63
5580MHz_106Tone_RU53 (Worst Case)									
11160	42.38	PK	93	1.7	H	8.6	50.98	74	-23.02
11160	42.45	PK	101	1.6	V	8.6	51.05	74	-22.95
5700MHz_242Tone_RU61(Worst Case)									
5725	67.79	PK	350	1.6	V	-2.02	65.77	68.2	-2.43
5725	67.06	AV	350	1.6	V	-2.02	65.04	68.2	-3.16
5700MHz_106Tone_RU54(Worst Case)									
11400	44.23	PK	65	2.0	H	7.26	51.49	74	-22.51
11400	44.17	PK	193	1.5	V	7.26	51.43	74	-22.57

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ax40									
5510MHz_106Tone_RU53(Worst Case)									
5460	64.88	PK	42	2.1	H	-2.26	62.62	74	-11.38
5460	51.49	AV	42	2.1	H	-2.26	49.23	54	-4.77
5460	64.77	PK	281	1.8	V	-2.26	62.51	74	-11.49
5460	51.36	AV	281	1.8	V	-2.26	49.10	54	-4.90
5470	69.28	PK	126	2.0	H	-2.2	67.08	68.2	-1.12
5470	68.85	AV	126	2.0	H	-2.2	66.65	68.2	-1.55
5510MHz_106Tone_RU53(Worst Case)									
11020	40.83	PK	116	1.9	H	9.6	50.43	74	-23.57
11020	41.15	PK	278	1.8	V	9.6	50.75	74	-23.25
5550MHz_106Tone_RU54(Worst Case)									
11100	40.25	PK	101	1.8	H	9.12	49.37	74	-24.63
11100	40.49	PK	305	1.6	V	9.12	49.61	74	-24.39
5670MHz_106Tone_RU56(Worst Case)									
5725	68.88	PK	278	1.8	V	-2.02	66.86	68.2	-1.34
5725	68.16	AV	278	1.8	V	-2.02	66.14	68.2	-2.06
5670MHz_106Tone_RU56(Worst Case)									
11340	42.36	PK	145	1.8	H	7.6	49.96	74	-24.04
11340	42.55	PK	339	1.9	V	7.6	50.15	74	-23.85

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ac80									
5530MHz_26Tone_RU0(Worst Case)									
5460	65.12	PK	39	1.7	H	-2.26	62.86	74	-11.14
5460	51.87	AV	39	1.7	H	-2.26	49.61	54	-4.39
5460	65.04	PK	24	1.9	V	-2.26	62.78	74	-11.22
5460	51.75	AV	24	1.9	V	-2.26	49.49	54	-4.51
5470	69.22	PK	68	1.5	H	-2.2	67.02	68.2	-1.18
5470	69.00	AV	68	1.5	H	-2.2	66.80	68.2	-1.40
5530MHz_106Tone_RU53(Worst Case)									
11060	39.06	PK	182	1.8	H	9.4	48.46	74	-25.54
11060	39.34	PK	337	2.1	V	9.4	48.74	74	-25.26
5610MHz_106Tone_RU60(Worst Case)									
5725	68.46	PK	142	1.8	V	-2.02	66.44	68.2	-1.76
5725	67.87	AV	142	1.8	V	-2.02	65.85	68.2	-2.35
5610MHz_26Tone_RU36(Worst Case)									
11220	41.33	PK	299	1.8	H	8.4	49.73	74	-24.27
11220	41.64	PK	211	1.9	V	8.4	50.04	74	-23.96

**5725-5850 MHz:**

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11a(worst case ANT 2)									
5745MHz									
5650	65.78	PK	295	1.4	H	-1.95	63.83	68.2	-4.37
5650	64.28	PK	60	1.3	V	-1.95	62.33	68.2	-5.87
5700	67.83	PK	109	2.3	H	-2.02	65.81	105.2	-39.39
5700	67.20	PK	304	2.2	V	-2.02	65.18	105.2	-40.02
5720	75.71	PK	286	1	H	-2	73.71	110.8	-37.09
5720	74.38	PK	358	1.8	V	-2	72.38	110.8	-38.42
5725	77.16	PK	146	1.7	H	-2	75.16	122.2	-47.04
5725	76.48	PK	327	1.7	V	-2	74.48	122.2	-47.72
11490	46.31	PK	1	1.4	H	6.58	52.89	74	-21.11
11490	48.93	PK	99	2.5	V	6.58	55.51	74	-18.49
11490	36.05	AV	99	2.5	V	6.58	42.63	54	-11.37
5785 MHz									
11570	46.04	PK	329	2.1	H	6.6	52.64	74	-21.36
11570	49.03	PK	238	1.7	V	6.6	55.63	74	-18.37
11570	36.16	AV	238	1.7	V	6.6	42.76	54	-11.24
5825MHz									
5850	71.49	PK	130	1.3	H	-1.81	69.68	122.2	-52.52
5850	72.39	PK	278	1.5	V	-1.81	70.58	122.2	-51.62
5855	247.32	PK	154	1.3	H	-1.81	66.32	110.8	-44.48
5855	67.14	PK	100	1.9	V	-1.81	65.33	110.8	-45.47
5875	65.62	PK	285	1.5	H	-1.84	63.78	105.2	-41.42
5875	65.45	PK	162	1.4	V	-1.84	63.61	105.2	-41.59
5925	65.39	PK	141	1.7	H	-1.8	63.59	68.2	-4.61
5925	65.68	PK	20	1.7	V	-1.8	63.88	68.2	-4.32
11650	44.84	PK	121	1.4	H	6.77	51.61	74	-22.39
11650	46.74	PK	95	2.3	V	6.77	53.51	74	-20.49

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11n20									
5745MHz									
5650	65.08	PK	86	1.3	H	-1.95	63.13	68.2	-5.07
5650	65.41	PK	338	2.1	V	-1.95	63.46	68.2	-4.74
5700	69.17	PK	139	2.4	H	-2.02	67.15	105.2	-38.05
5700	68.92	PK	31	1.9	V	-2.02	66.9	105.2	-38.3
5720	77.66	PK	7	1	H	-2	75.66	110.8	-35.14
5720	77.27	PK	335	1.6	V	-2	75.27	110.8	-35.53
5725	82.17	PK	128	1.7	H	-2	80.17	122.2	-42.03
5725	81.21	PK	249	1.7	V	-2	79.21	122.2	-42.99
11490	47.90	PK	41	2.2	H	6.58	54.48	74	-19.52
11490	34.36	AV	41	2.2	H	6.58	40.94	54	-13.06
11490	49.94	PK	305	1.1	V	6.58	56.52	74	-17.48
11490	35.10	AV	305	1.1	V	6.58	41.68	54	-12.32
5785 MHz									
11570	46.68	PK	184	1.7	H	6.6	53.28	74	-20.72
11570	49.46	PK	161	1.7	V	6.6	56.06	74	-17.94
11570	35.56	AV	161	1.7	V	6.6	42.16	54	-11.84
5825MHz									
5850	76.33	PK	212	1.4	H	-1.81	74.52	122.2	-47.68
5850	78.00	PK	9	1.2	V	-1.81	76.19	122.2	-46.01
5855	249.69	PK	256	2.1	H	-1.81	68.69	110.8	-42.11
5855	71.29	PK	102	2.1	V	-1.81	69.48	110.8	-41.32
5875	67.33	PK	342	1.7	H	-1.84	65.49	105.2	-39.71
5875	67.38	PK	169	2.5	V	-1.84	65.54	105.2	-39.66
5925	65.35	PK	166	1.7	H	-1.8	63.55	68.2	-4.65
5925	65.52	PK	94	1.7	V	-1.8	63.72	68.2	-4.48
11650	45.17	PK	36	1	H	6.77	51.94	74	-22.06
11650	47.59	PK	267	2.5	V	6.77	54.36	74	-19.64
11650	34.17	AV	267	2.5	V	6.77	40.94	54	-13.06

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11n40									
5755MHz									
5650	64.86	PK	115	1.6	H	-1.95	62.91	68.2	-5.29
5650	65.14	PK	345	1.1	V	-1.95	63.19	68.2	-5.01
5700	70.68	PK	277	1.1	H	-2.02	68.66	105.2	-36.54
5700	69.84	PK	145	1.2	V	-2.02	67.82	105.2	-37.38
5720	77.52	PK	192	2.2	H	-2	75.52	110.8	-35.28
5720	77.61	PK	128	2.3	V	-2	75.61	110.8	-35.19
5725	79.57	PK	351	1.7	H	-2	77.57	122.2	-44.63
5725	79.23	PK	201	1.7	V	-2	77.23	122.2	-44.97
11510	46.64	PK	308	1.2	H	6.5	53.14	74	-20.86
11510	46.90	PK	138	2	V	6.5	53.40	74	-20.6
5795 MHz									
5850	71.55	PK	161	1.5	H	-1.81	69.74	122.2	-52.46
5850	72.36	PK	325	2	V	-1.81	70.55	122.2	-51.65
5855	247.88	PK	61	1.7	H	-1.81	66.88	110.8	-43.92
5855	68.60	PK	265	1.1	V	-1.81	66.79	110.8	-44.01
5875	65.57	PK	102	1.9	H	-1.84	63.73	105.2	-41.47
5875	65.45	PK	99	2.3	V	-1.84	63.61	105.2	-41.59
5925	65.22	PK	192	1.7	H	-1.8	63.42	68.2	-4.78
5925	65.45	PK	165	1.7	V	-1.8	63.65	68.2	-4.55
11590	45.68	PK	114	2.3	H	6.58	52.26	74	-21.74
11590	45.82	PK	292	1.3	V	6.58	52.40	74	-21.6



Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ac20									
5745MHz									
5650	64.09	PK	119	1.5	H	-1.95	62.14	68.2	-6.06
5650	63.72	PK	325	2.3	V	-1.95	61.77	68.2	-6.43
5700	68.18	PK	247	1.3	H	-2.02	66.16	105.2	-39.04
5700	67.78	PK	175	2.3	V	-2.02	65.76	105.2	-39.44
5720	77.84	PK	249	1	H	-2	75.84	110.8	-34.96
5720	76.65	PK	11	1.1	V	-2	74.65	110.8	-36.15
5725	81.72	PK	259	1.7	H	-2	79.72	122.2	-42.48
5725	80.52	PK	34	1.7	V	-2	78.52	122.2	-43.68
11490	46.91	PK	283	1.4	H	6.58	53.49	74	-20.51
11490	48.88	PK	249	2.4	V	6.58	55.46	74	-18.54
11490	35.30	AV	249	2.4	V	6.58	41.88	54	-12.12
5785 MHz									
11570	47.22	PK	79	1.8	H	6.6	53.82	74	-20.18
11570	49.03	PK	282	1.7	V	6.6	55.63	74	-18.37
11570	35.56	AV	282	1.7	V	6.6	42.16	54	-11.84
5825 MHz									
5850	74.73	PK	1	1.5	H	-1.81	72.92	122.2	-49.28
5850	74.33	PK	4	2.2	V	-1.81	72.52	122.2	-49.68
5855	247.77	PK	224	1	H	-181	66.77	110.8	-44.03
5855	68.69	PK	14	2.3	V	-1.81	66.88	110.8	-43.92
5875	65.61	PK	244	1.1	H	-1.84	63.77	105.2	-41.43
5875	65.83	PK	267	2.2	V	-1.84	63.99	105.2	-41.21
5925	65.04	PK	44	1.7	H	-1.8	63.24	68.2	-4.96
5925	64.99	PK	240	1.7	V	-1.8	63.19	68.2	-5.01
11650	45.17	PK	337	2.3	H	6.77	51.94	74	-22.06
11650	47.79	PK	97	1.8	V	6.77	54.56	74	-19.44
11650	34.62	AV	97	1.8	V	6.77	41.39	54	-12.61

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ac40									
5755MHz									
5650	68.06	PK	115	2.1	H	-1.95	66.11	68.2	-2.09
5650	67.93	PK	252	1.2	V	-1.95	65.98	68.2	-2.22
5700	76.25	PK	211	1.4	H	-2.02	74.23	105.2	-30.97
5700	76.64	PK	359	1.9	V	-2.02	74.62	105.2	-30.58
5720	81.49	PK	0	1.7	H	-2	79.49	110.8	-31.31
5720	81.26	PK	337	1.9	V	-2	79.26	110.8	-31.54
5725	81.77	PK	293	1.7	H	-2	79.77	122.2	-42.43
5725	81.65	PK	74	1.7	V	-2	79.65	122.2	-42.55
11510	45.59	PK	111	1.1	H	6.5	52.09	74	-21.91
11510	46.58	PK	289	2	V	6.5	53.08	74	-20.92
5795 MHz									
5850	72.39	PK	221	1.3	H	-1.81	70.58	122.2	-51.62
5850	74.03	PK	145	1.3	V	-1.81	72.22	122.2	-49.98
5855	248.77	PK	272	1.7	H	-1.81	67.77	110.8	-43.03
5855	70.65	PK	121	1.1	V	-1.81	68.84	110.8	-41.96
5875	66.28	PK	68	1.1	H	-1.84	64.44	105.2	-40.76
5875	67.35	PK	11	1.9	V	-1.84	65.51	105.2	-39.69
5925	66.16	PK	75	1.7	H	-1.8	64.36	68.2	-3.84
5925	66.02	PK	141	1.7	V	-1.8	64.22	68.2	-3.98
11590	46.39	PK	65	1.6	H	6.58	52.97	74	-21.03
11590	47.80	PK	128	1.2	V	6.58	54.38	74	-19.62
11590	35.71	AV	128	1.2	V	6.58	42.29	54	-11.71

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	FCC Part 15.407	
	Reading (dB $\mu$ V)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dB $\mu$ V/m)	Margin (dB)
802.11ac80									
5775MHz									
5650	68.05	PK	32	1.7	H	-1.95	66.10	68.2	-2.1
5650	68.07	PK	299	1.8	V	-1.95	66.12	68.2	-2.08
5700	74.83	PK	140	1.8	H	-2.02	72.81	105.2	-32.39
5700	74.52	PK	291	2.2	V	-2.02	72.5	105.2	-32.7
5720	78.22	PK	44	2.5	H	-2	76.22	110.8	-34.58
5720	78.00	PK	159	1.3	V	-2	76	110.8	-34.8
5725	78.62	PK	115	1.7	H	-2	76.62	122.2	-45.58
5725	78.26	PK	65	1.7	V	-2	76.26	122.2	-45.94
5850	74.11	PK	321	2	H	-1.81	72.30	122.2	-49.9
5850	73.89	PK	122	1.5	V	-1.81	72.08	122.2	-50.12
5855	252.35	PK	56	2.3	H	-181	71.35	110.8	-39.45
5855	72.80	PK	185	2.1	V	-1.81	70.99	110.8	-39.81
5875	69.04	PK	78	2.4	H	-1.84	67.2	105.2	-38
5875	68.62	PK	119	1	V	-1.84	66.78	105.2	-38.42
5925	68.00	PK	39	1.7	H	-1.8	66.20	68.2	-2
5925	67.98	PK	317	1.7	V	-1.8	66.18	68.2	-2.02
11550	44.36	PK	246	1.3	H	6.61	50.97	74	-23.03
11550	45.92	PK	284	1.9	V	6.61	52.53	74	-21.47

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ax20									
5745MHz_242Tone_RU61(Worst Case)									
5725	68.17	PK	7	1.6	H	-1.96	66.21	122.2	-55.99
5725	71.37	PK	213	2.1	V	-1.96	69.41	122.2	-52.79
5720	65.51	PK	139	1.6	H	-1.97	63.54	110.8	-47.26
5720	66.95	PK	153	2.1	V	-1.97	64.98	110.8	-45.82
5700	66.38	PK	9	1.8	H	-2.02	64.36	105.2	-40.84
5700	66.68	PK	248	1.8	V	-2.02	64.66	105.2	-40.54
5650	66.19	PK	332	2.0	H	-1.95	64.24	68.2	-3.96
5650	66.48	PK	28	1.5	V	-1.95	64.53	68.2	-3.67
5745MHz_26Tone_RU0(Worst Case)									
11490	46.27	PK	18	1.5	H	6.63	52.9	74	-21.10
11490	52.46	PK	204	1.6	V	6.63	59.09	74	-14.91
11490	42.33	AV	204	1.6	V	6.63	48.96	54	-5.04
5785MHz_26Tone_RU4(Worst Case)									
11570	46.09	PK	342	1.7	H	6.59	52.68	74	-21.32
11570	52.28	PK	292	2.1	V	6.59	58.87	74	-15.13
11570	42.04	AV	292	2.1	V	6.59	48.63	54	-5.37
5825MHz_242Tone_RU61(Worst Case)									
5850	67.39	PK	207	1.9	H	-1.81	65.58	122.2	-56.62
5850	69.95	PK	167	2.0	V	-1.81	68.14	122.2	-54.06
5855	65.23	PK	105	1.9	H	-1.82	63.41	110.8	-47.39
5855	66.3	PK	129	1.8	V	-1.82	64.48	110.8	-46.32
5875	65.78	PK	300	1.9	H	-1.84	63.94	105.2	-41.26
5875	67.29	PK	294	1.7	V	-1.84	65.45	105.2	-39.75
5925	66.61	PK	221	1.5	H	-1.82	64.79	68.2	-3.41
5925	66.77	PK	289	2.0	V	-1.82	64.95	68.2	-3.25
5825MHz_26Tone_RU8(Worst Case)									
11650	44	PK	276	1.6	H	6.77	50.77	74	-23.23
11650	50.49	PK	155	1.9	V	6.77	57.26	74	-16.74
11650	40.34	AV	155	1.9	V	6.77	47.11	54	-6.89

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ac40									
5755MHz_242Tone_RU61(Worst Case)									
5725	71.26	PK	183	2.0	H	-1.96	69.3	122.2	-52.90
5725	71.48	PK	71	1.9	V	-1.96	69.52	122.2	-52.68
5720	69.95	PK	165	1.7	H	-1.97	67.98	110.8	-42.82
5720	70.33	PK	144	2.0	V	-1.97	68.36	110.8	-42.44
5700	68.76	PK	312	1.6	H	-2.02	66.74	105.2	-38.46
5700	68.75	PK	297	1.5	V	-2.02	66.73	105.2	-38.47
5650	66.26	PK	138	1.6	H	-1.95	64.31	68.2	-3.89
5650	66.59	PK	154	1.5	V	-1.95	64.64	68.2	-3.56
5755MHz_26Tone_RU0(Worst Case)									
11510	46.2	PK	305	1.5	H	6.59	52.79	74	-21.21
11510	51.84	PK	140	2.0	V	6.59	58.43	74	-15.57
11510	41.23	AV	140	2.0	V	6.59	47.82	54	-6.18
5795MHz_484Tone_RU66(Worst Case)									
5850	67.5	PK	168	1.6	H	-1.81	65.69	122.2	-56.51
5850	69.65	PK	328	1.9	V	-1.81	67.84	122.2	-54.36
5855	66.05	PK	118	1.7	H	-1.82	64.23	110.8	-46.57
5855	66.74	PK	48	1.8	V	-1.82	64.92	110.8	-45.88
5875	65.78	PK	306	1.6	H	-1.84	63.94	105.2	-41.26
5875	67.47	PK	109	2.0	V	-1.84	65.63	105.2	-39.57
5925	66.65	PK	260	1.9	H	-1.82	64.83	68.2	-3.37
5925	66.74	PK	191	1.6	V	-1.82	64.92	68.2	-3.28
5795MHz_26Tone_RU36(Worst Case)									
11590	45.27	PK	75	2.0	H	6.57	51.84	74	-22.16
11590	51.63	PK	112	1.5	V	6.57	58.2	74	-15.80
11590	41.01	AV	112	1.5	V	6.57	47.58	54	-6.42

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	PK/QP/AV		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11ac80									
5775MHz_52Tone_RU37(Worst Case)									
5725	73.73	PK	217	2.1	H	-1.96	71.77	122.2	-50.43
5725	77	PK	259	1.7	V	-1.96	75.04	122.2	-47.16
5720	70.61	PK	124	2.1	H	-1.97	68.64	110.8	-42.16
5720	72.49	PK	194	1.5	V	-1.97	70.52	110.8	-40.28
5700	69.95	PK	96	1.8	H	-2.02	67.93	105.2	-37.27
5700	71.12	PK	54	1.5	V	-2.02	69.1	105.2	-36.10
5650	66.27	PK	283	1.7	H	-1.95	64.32	68.2	-3.88
5650	66.62	PK	98	2.1	V	-1.95	64.67	68.2	-3.53
5775MHz_996Tone_RU67(Worst Case)									
5850	73.59	PK	4	1.6	H	-1.81	71.78	122.2	-50.42
5850	76.93	PK	108	1.6	V	-1.81	75.12	122.2	-47.08
5855	70.19	PK	216	1.5	H	-1.82	68.37	110.8	-42.43
5855	72.4	PK	134	1.7	V	-1.82	70.58	110.8	-40.22
5875	69.83	PK	77	2.1	H	-1.84	67.99	105.2	-37.21
5875	70.69	PK	65	2.0	V	-1.84	68.85	105.2	-36.35
5925	66.83	PK	7	2.1	H	-1.82	65.01	68.2	-3.19
5925	66.84	PK	191	1.9	V	-1.82	65.02	68.2	-3.18
5775MHz_996Tone_RU67(Worst Case)									
11550	45.68	PK	307	1.7	H	6.61	52.29	74	-21.71
11550	52.55	PK	135	1.8	V	6.61	59.16	74	-14.84
11550	43.52	AV	135	1.8	V	6.61	50.13	54	-3.87

**Simultaneously transmit:**

Frequency (MHz)	Receiver		Turn-Table Angle Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/AV)		Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
Worst case is BT 2402MHz + 802.11ax Mode 5180MHz									
4804	58.99	PK	39	1.1	H	-3.51	55.48	74	-18.52
4804	49.12	AV	39	1.1	H	-3.51	45.61	54	-8.39
4804	56.83	PK	331	1.8	V	-3.51	53.32	74	-20.68
10360	55.57	PK	170	1.3	H	8.12	63.69	68.2	-4.51
10360	58.75	PK	75	2.3	V	8.12	66.87	68.2	-1.33

**Note:**

Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor

Corrected Amplitude = Corrected Factor + Reading

Margin = Corrected Amplitude – Limit

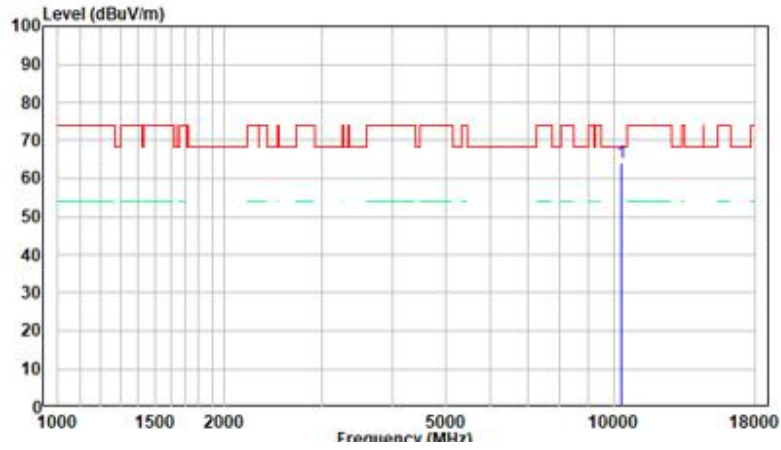
The other spurious emission which is in the noise floor level was not recorded.

The test result of peak was less than the limit of average, so just peak values were recorded.

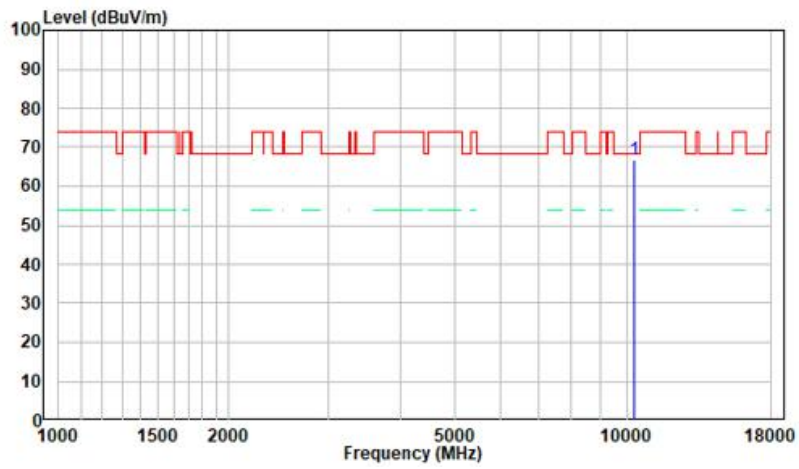
**1 GHz - 18 GHz: (Pre-Scan plots)**

802.11 ax20 mode, 5180MHz

Horizontal



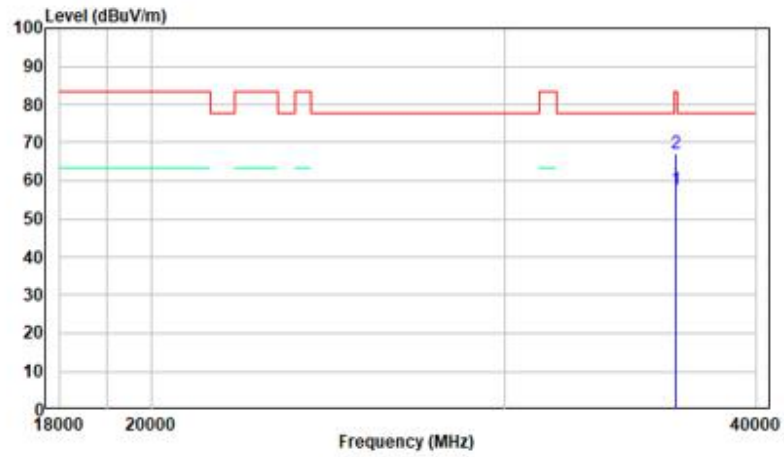
Vertical



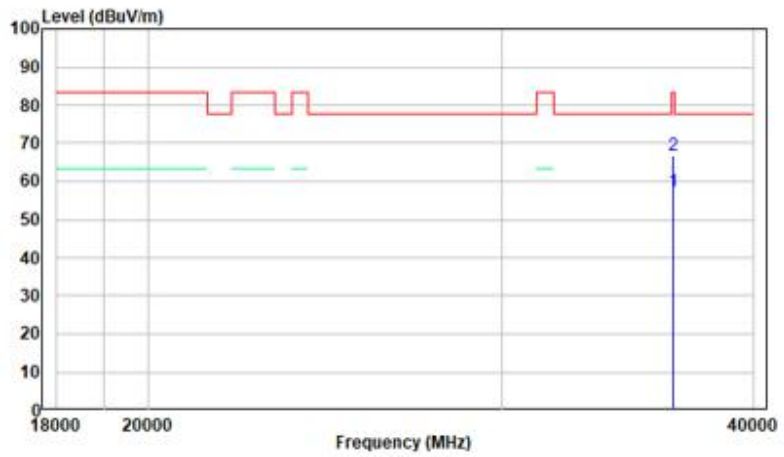
**18-40GHz:** (Pre-Scan plots)

802.11 ax20 mode, 5180MHz

Horizontal



Vertical





## FCC §15.407(a),(e) – 26 dB & 6dB EMISSION BANDWIDTH

### Applicable Standard

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

### Test Procedure

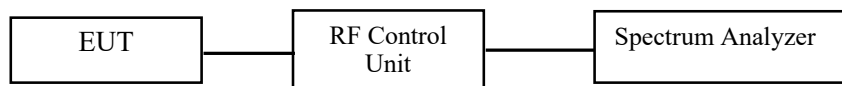
#### 1. Emission Bandwidth (EBW)

- a) Set RBW = approximately 1% of the emission bandwidth.
- b) Set the VBW > RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

#### 2. Minimum Emission Bandwidth for the band 5.725-5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) 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.



**Test Data****Environmental Conditions**

<b>Temperature:</b>	22~26 °C
<b>Relative Humidity:</b>	44~55 %
<b>ATM Pressure:</b>	100.2~101.0 kPa

*The testing was performed by Paul Liu and Carl Yang from 2021-11-05 to 2022-06-06.*

*EUT operation mode: Transmitting (worst case ANT 1)*

**Test Result: Pass**

*Please refer to the Appendix.*

## **FCC §15.407(a) – CONDUCTED TRANSMITTER OUTPUT POWER**

### **Applicable Standard**

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. 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.

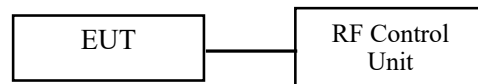
For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting 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.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. 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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

### **Test Procedure**

- c. Place the EUT on a bench and set it in transmitting mode.
- d. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
- e. Add a correction factor to the display.



Note: The RF control Unit built-in a power sensor.

**Test Data****Environmental Conditions**

<b>Temperature:</b>	22~26 °C
<b>Relative Humidity:</b>	44~55 %
<b>ATM Pressure:</b>	100.2~101.0 kPa

*The testing was performed by Paul Liu and Carl Yang from 2021-11-05 to 2022-06-06.*

*EUT operation mode: Transmitting*

**Test Result: Pass**

*Please refer to the Appendix.*

## **FCC §15.407(a) - POWER SPECTRAL DENSITY**

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.

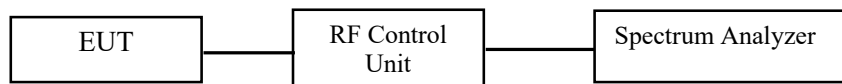
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. 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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

### **Test Procedure**

For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:

- a) Set  $RBW \geq 1/T$ , where T is defined in section II.B.1.a).
- b) Set  $VBW \geq 3 \text{ RBW}$ .
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add  $10 \log (500 \text{ kHz}/RBW)$  to the measured result, whereas  $RBW (< 500 \text{ kHz})$  is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add  $10 \log (1\text{MHz}/RBW)$  to the measured result, whereas  $RBW (< 1 \text{ MHz})$  is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.



**Test Data****Environmental Conditions**

<b>Temperature:</b>	22~26 °C
<b>Relative Humidity:</b>	44~55 %
<b>ATM Pressure:</b>	100.2~101.0 kPa

*The testing was performed by Paul Liu and Carl Yang from 2021-11-05 to 2022-06-26.*

*EUT operation mode: Transmitting*

**Test Result: Pass**

*Please refer to the Appendix.*

## APPENDIX

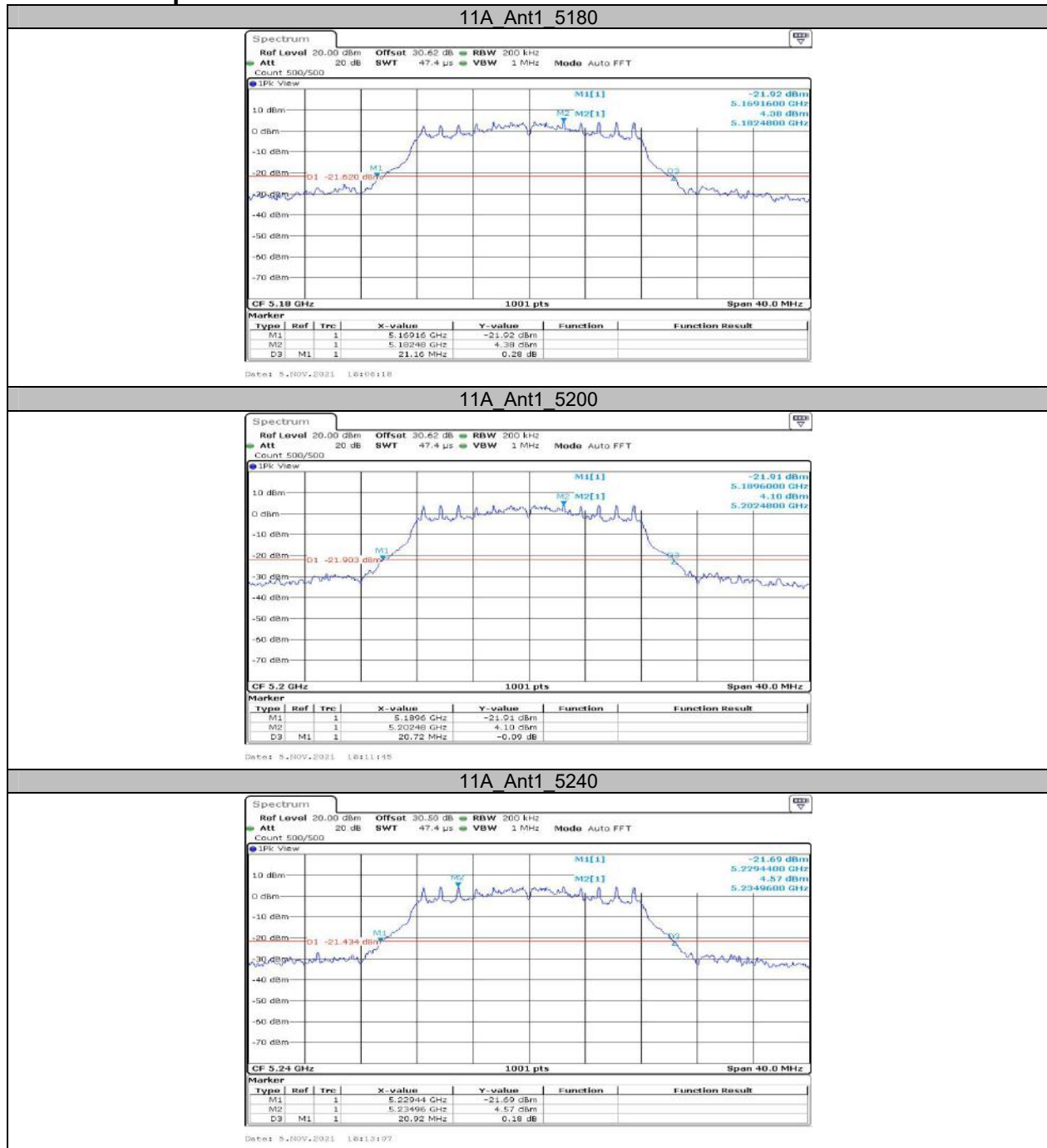
### Appendix A1: Emission Bandwidth Test Result

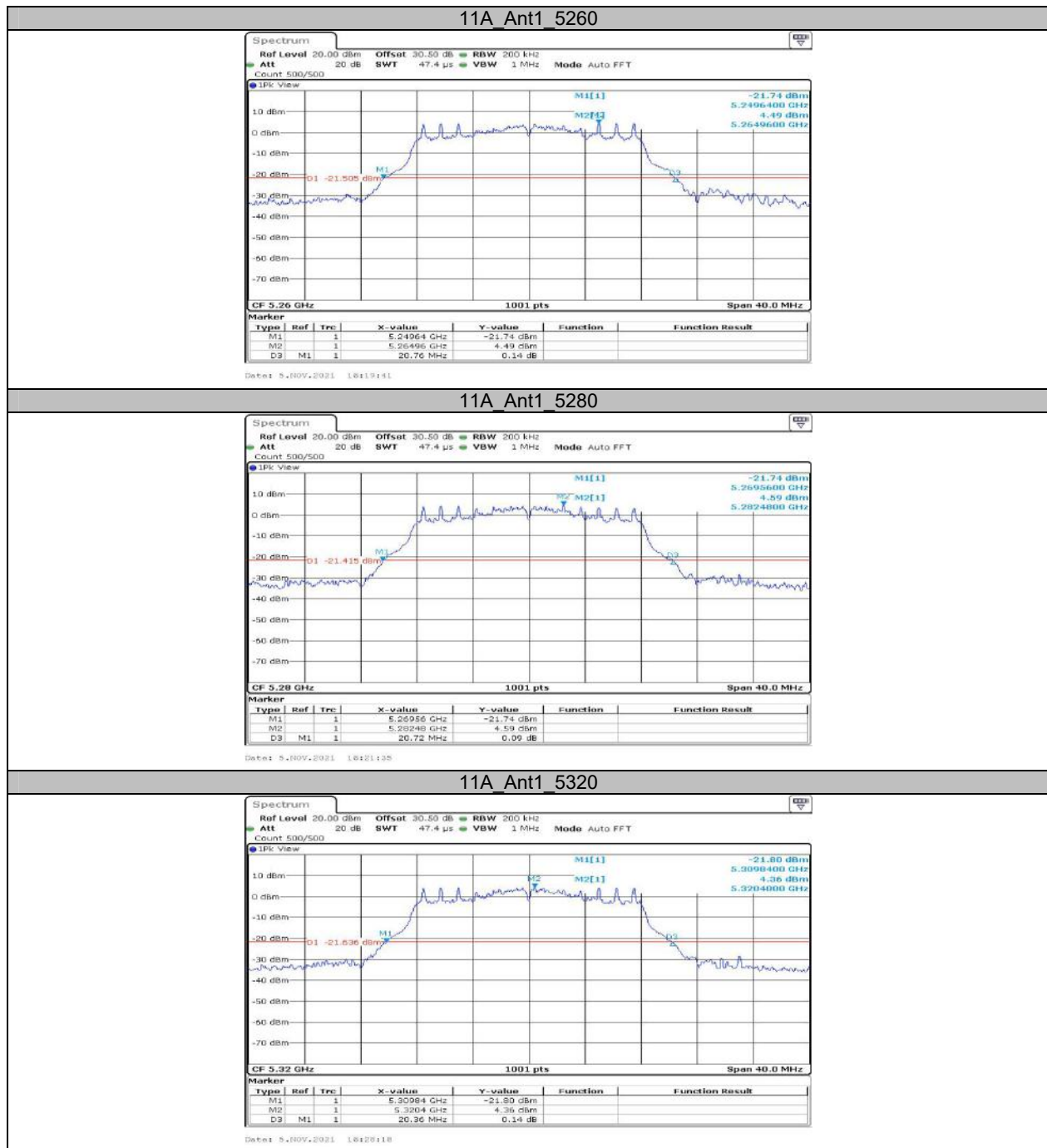
TestMode	Antenna	Channel	26db EBW [MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	21.160	---	PASS
	Ant1	5200	20.720	---	PASS
	Ant1	5240	20.920	---	PASS
	Ant1	5260	20.760	---	PASS
	Ant1	5280	20.720	---	PASS
	Ant1	5320	20.360	---	PASS
	Ant1	5500	20.760	---	PASS
	Ant1	5580	21.280	---	PASS
11N20MIMO	Ant1	5700	20.720	---	PASS
	Ant1	5180	21.440	---	PASS
	Ant1	5200	21.360	---	PASS
	Ant1	5240	21.880	---	PASS
	Ant1	5260	21.400	---	PASS
	Ant1	5280	21.480	---	PASS
	Ant1	5320	21.640	---	PASS
	Ant1	5500	22.200	---	PASS
11N40MIMO	Ant1	5580	23.240	---	PASS
	Ant1	5700	21.880	---	PASS
	Ant1	5190	51.200	---	PASS
	Ant1	5230	49.360	---	PASS
	Ant1	5270	49.120	---	PASS
	Ant1	5310	40.560	---	PASS
11AC20MIMO	Ant1	5510	70.480	---	PASS
	Ant1	5550	69.120	---	PASS
	Ant1	5670	58.480	---	PASS
	Ant1	5180	21.160	---	PASS
	Ant1	5200	20.880	---	PASS
	Ant1	5240	20.960	---	PASS
	Ant1	5260	20.760	---	PASS
	Ant1	5280	20.880	---	PASS
11AC40MIMO	Ant1	5320	21.080	---	PASS
	Ant1	5500	21.080	---	PASS
	Ant1	5580	21.880	---	PASS
	Ant1	5700	21.000	---	PASS
	Ant1	5190	39.920	---	PASS
	Ant1	5230	40.160	---	PASS
11AC80MIMO	Ant1	5270	39.840	---	PASS
	Ant1	5310	40.000	---	PASS
	Ant1	5510	45.040	---	PASS
	Ant1	5550	57.600	---	PASS
	Ant1	5670	57.680	---	PASS
	Ant1	5210	81.280	---	PASS
11AX20MIMO (worst case 242 tone)	Ant1	5290	81.280	---	PASS
	Ant1	5530	98.880	---	PASS
	Ant1	5610	80.960	---	PASS
	Ant1	5180	21.68	---	PASS
	Ant1	5200	21.56	---	PASS
	Ant1	5240	21.48	---	PASS
	Ant1	5260	21.84	---	PASS
	Ant1	5280	26.52	---	PASS
Ant1	5320	24.28	---	PASS	
Ant1	5500	22.24	---	PASS	
Ant1	5580	22.00	---	PASS	

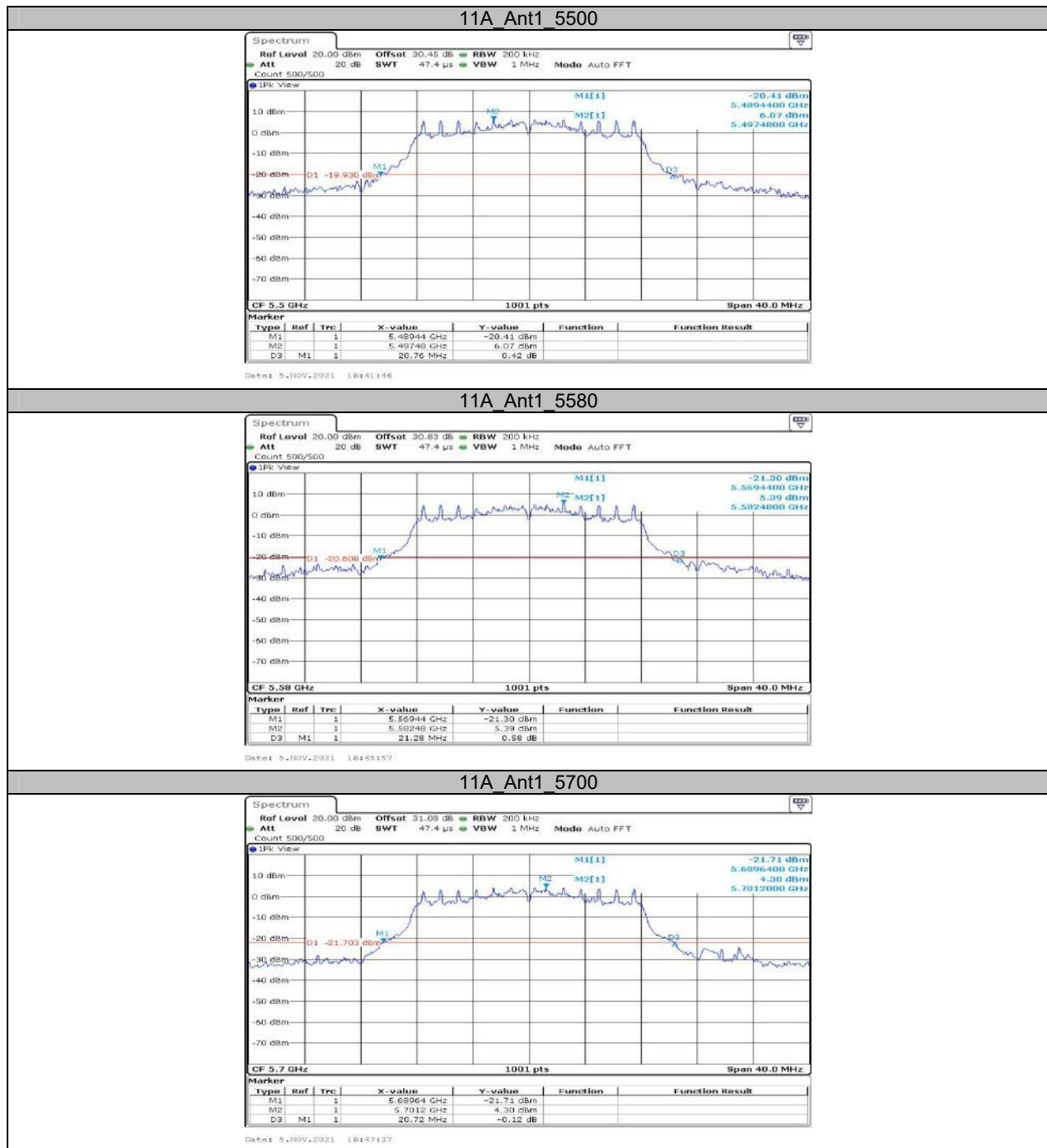
	Ant1	5700	21.84	---	PASS
11AX40MIMO (worst case 484 tone)	Ant1	5190	40.40	---	PASS
	Ant1	5230	40.40	---	PASS
	Ant1	5270	40.80	---	PASS
	Ant1	5310	41.60	---	PASS
	Ant1	5510	40.40	---	PASS
	Ant1	5550	40.32	---	PASS
	Ant1	5670	40.48	---	PASS
11AX80MIMO (worst case 996 tone)	Ant1	5210	82.24	---	PASS
	Ant1	5290	82.08	---	PASS
	Ant1	5530	82.56	---	PASS
	Ant1	5610	82.24	---	PASS

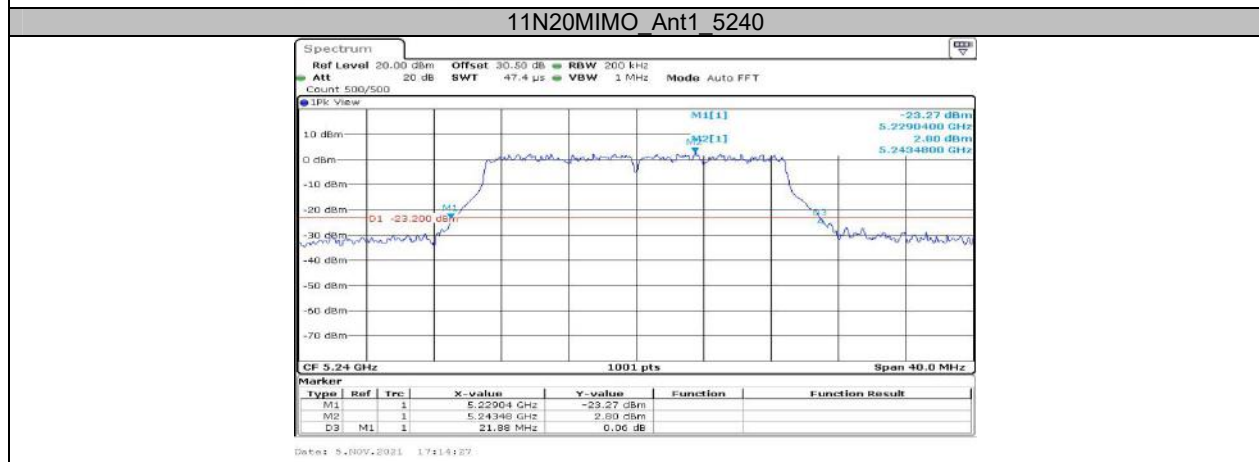
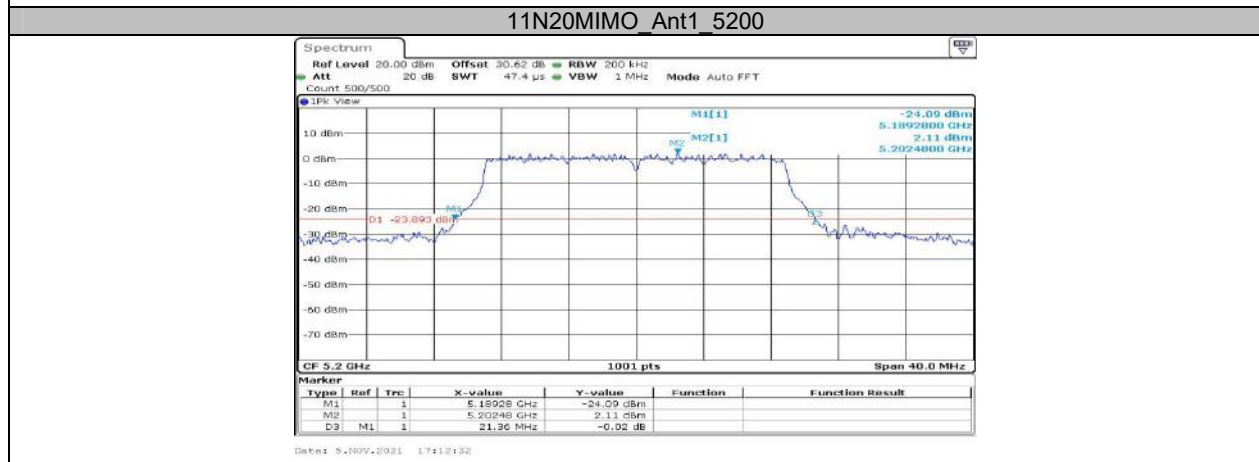
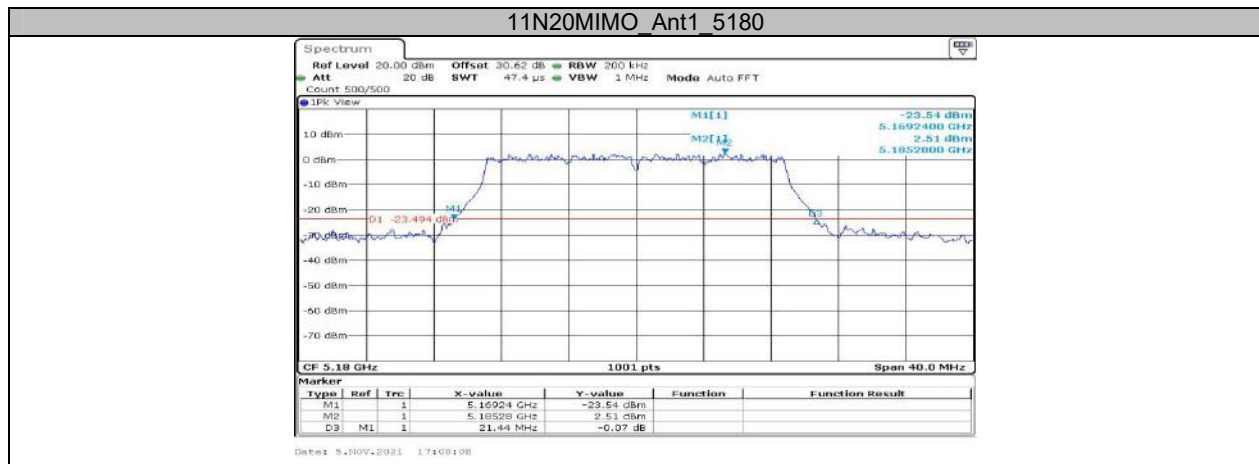


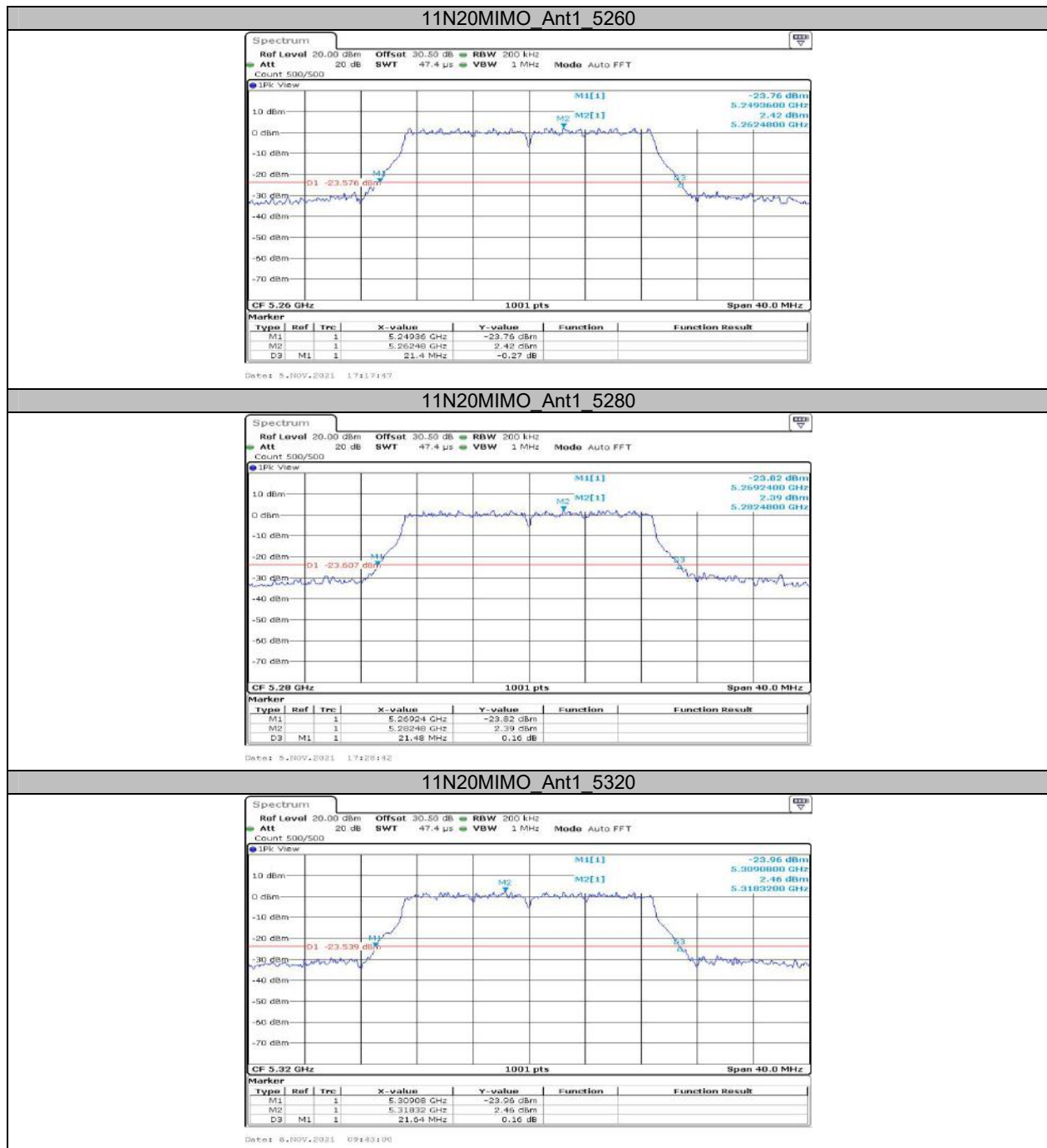
### Test Graphs





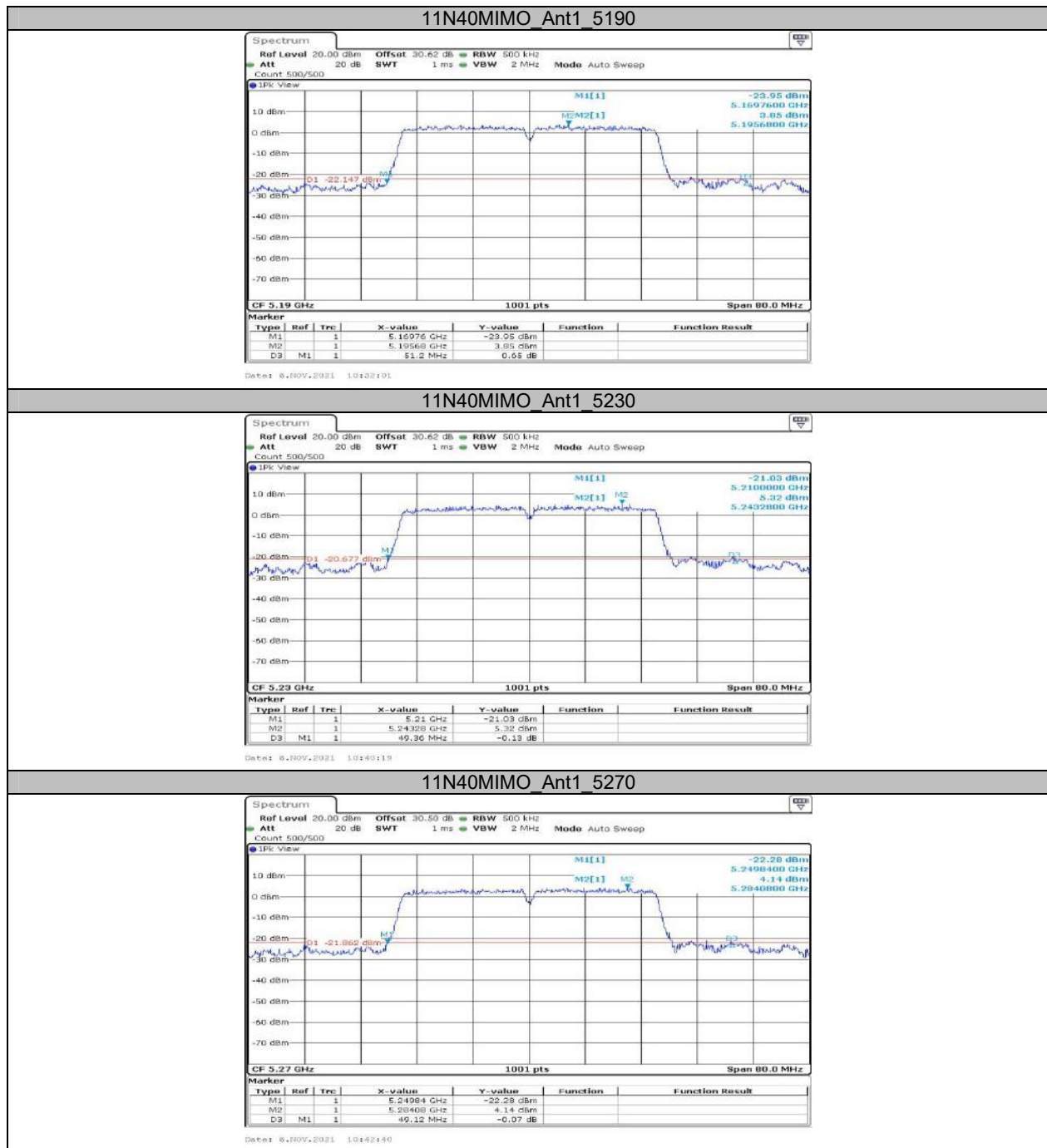


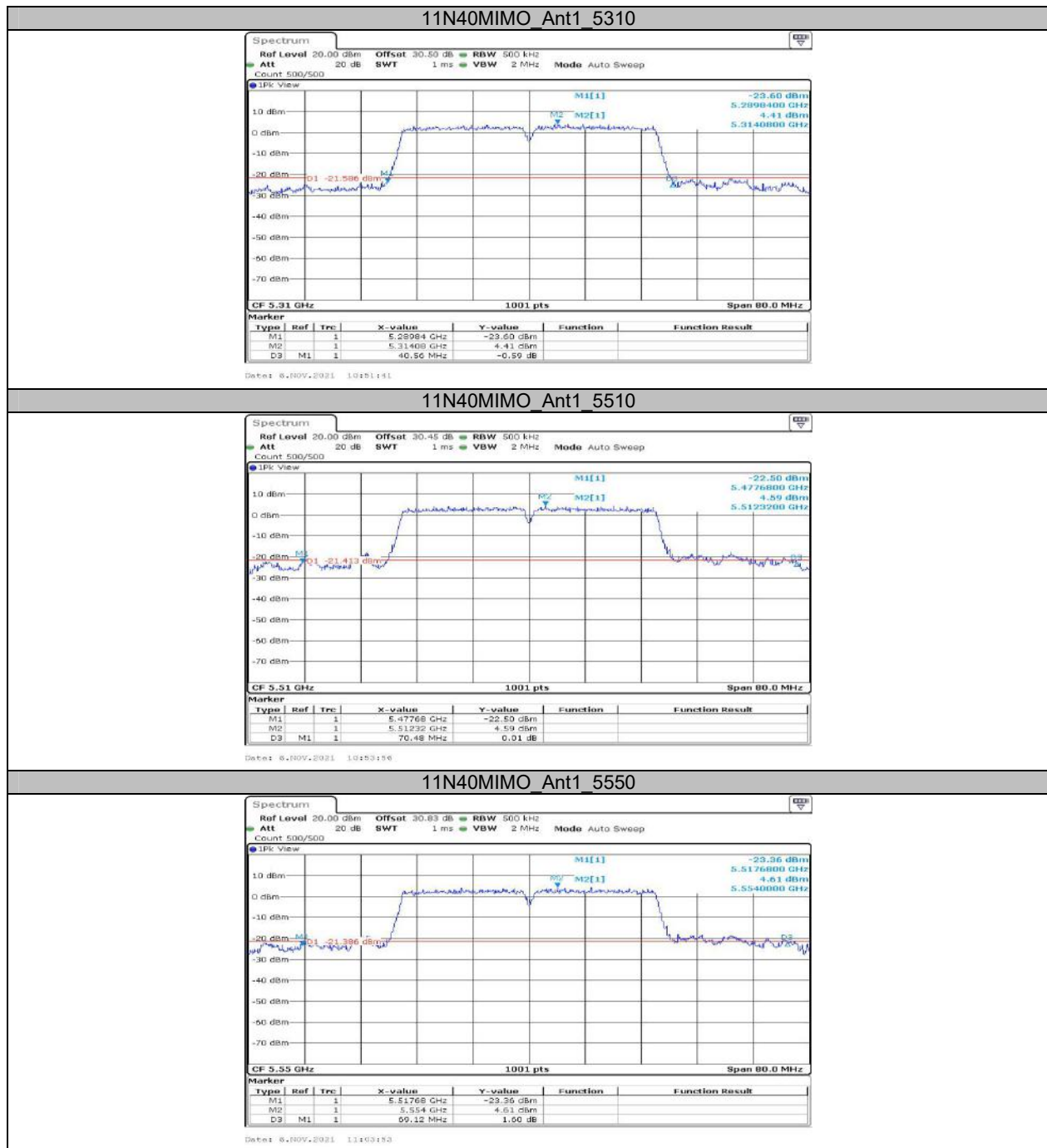




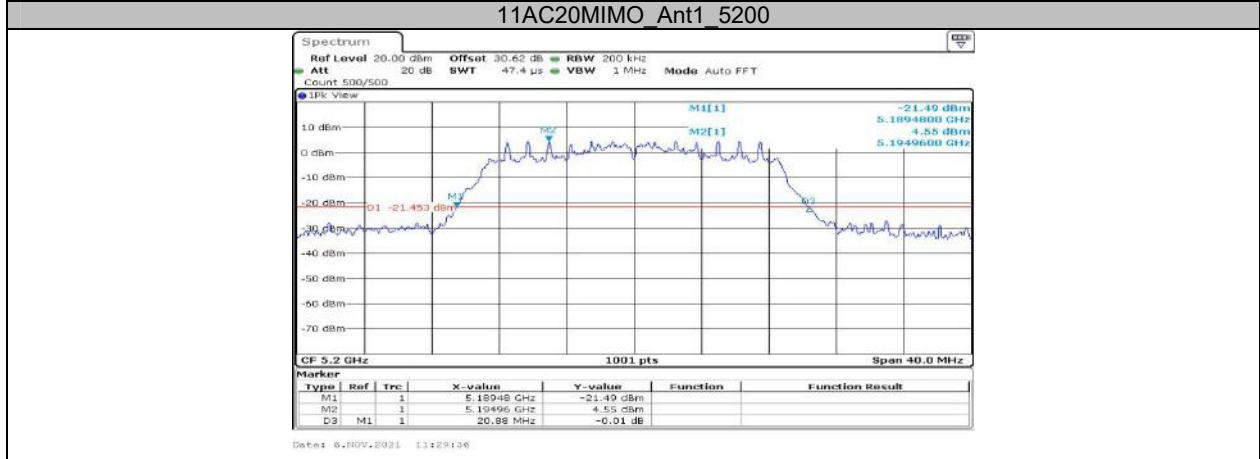
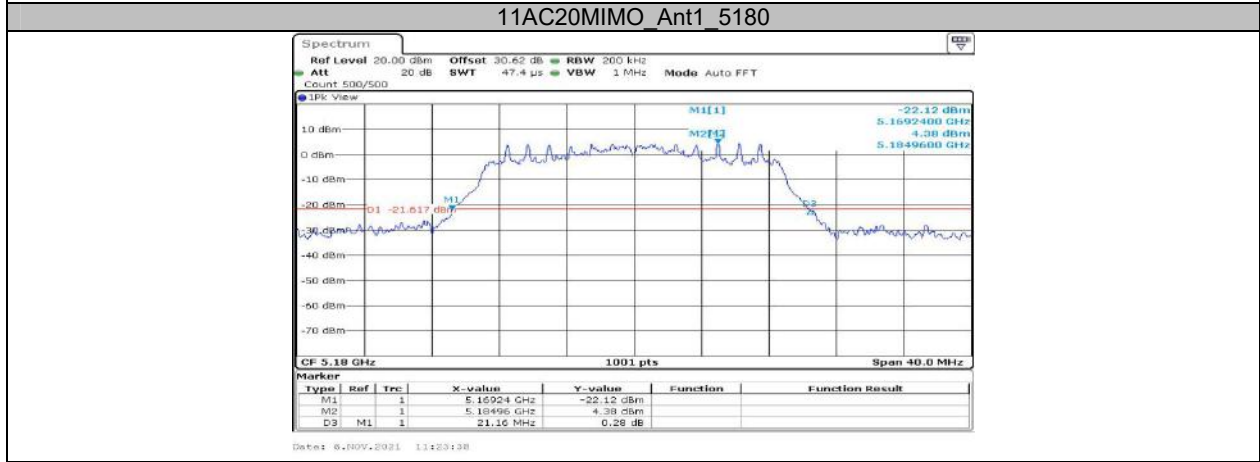
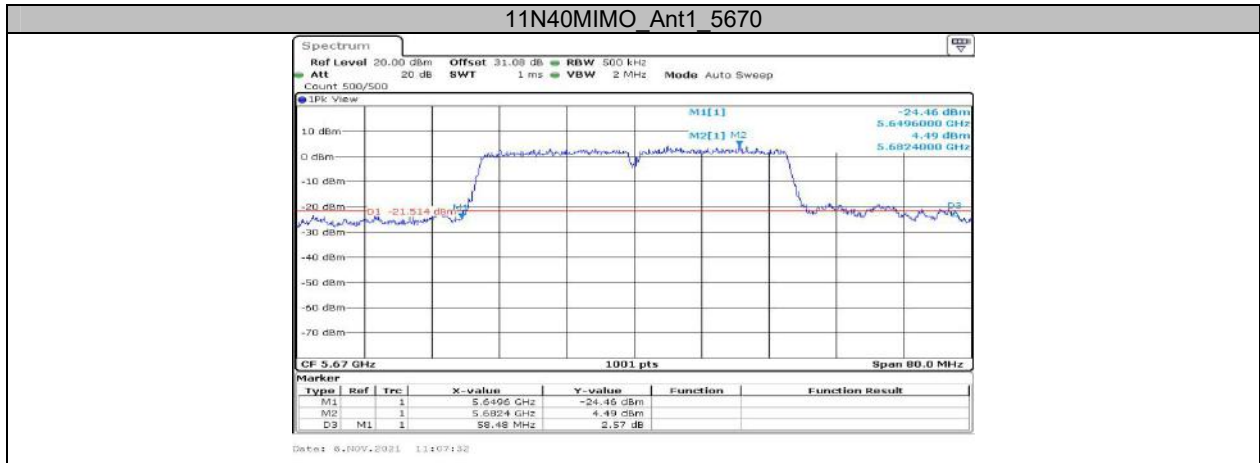


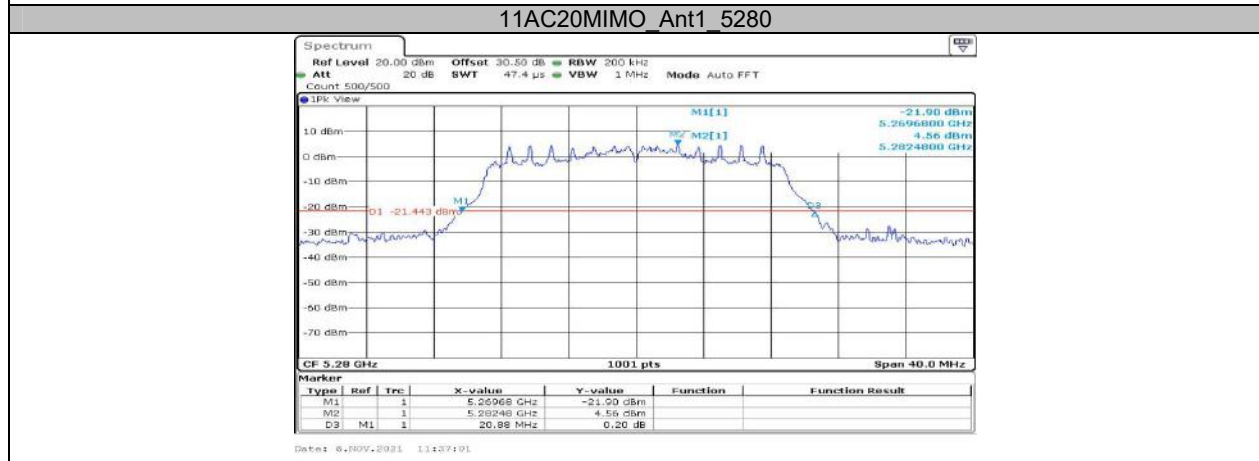
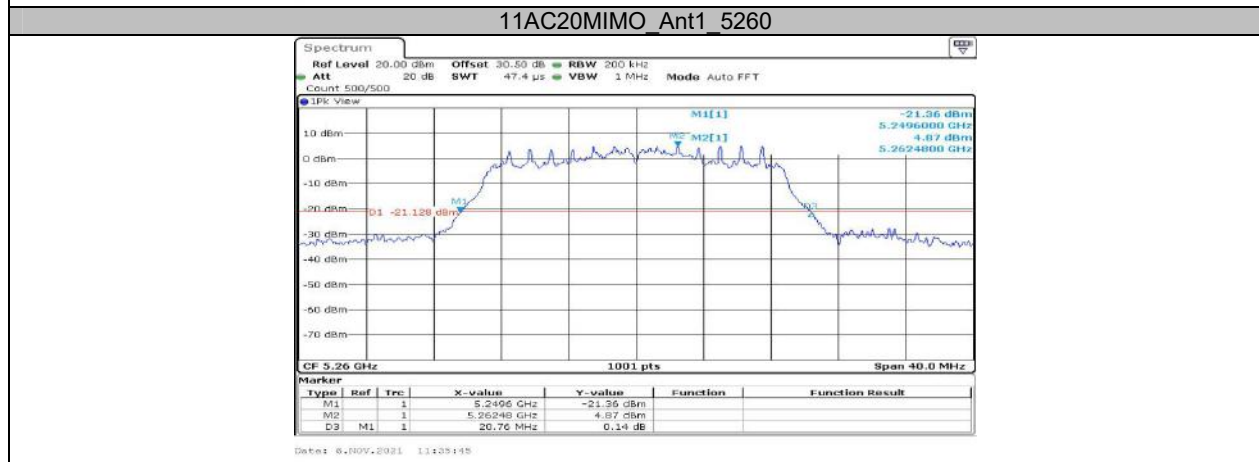
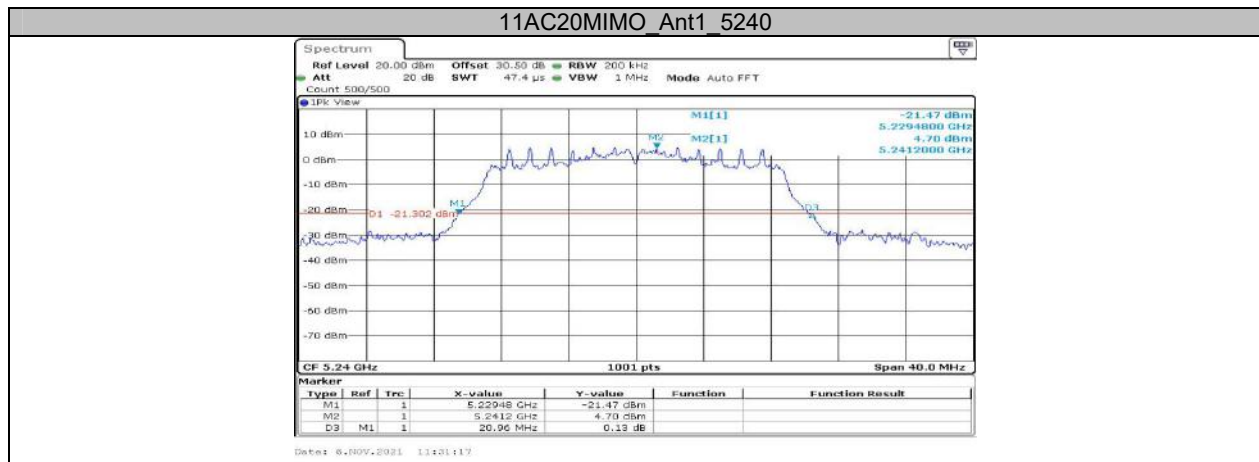


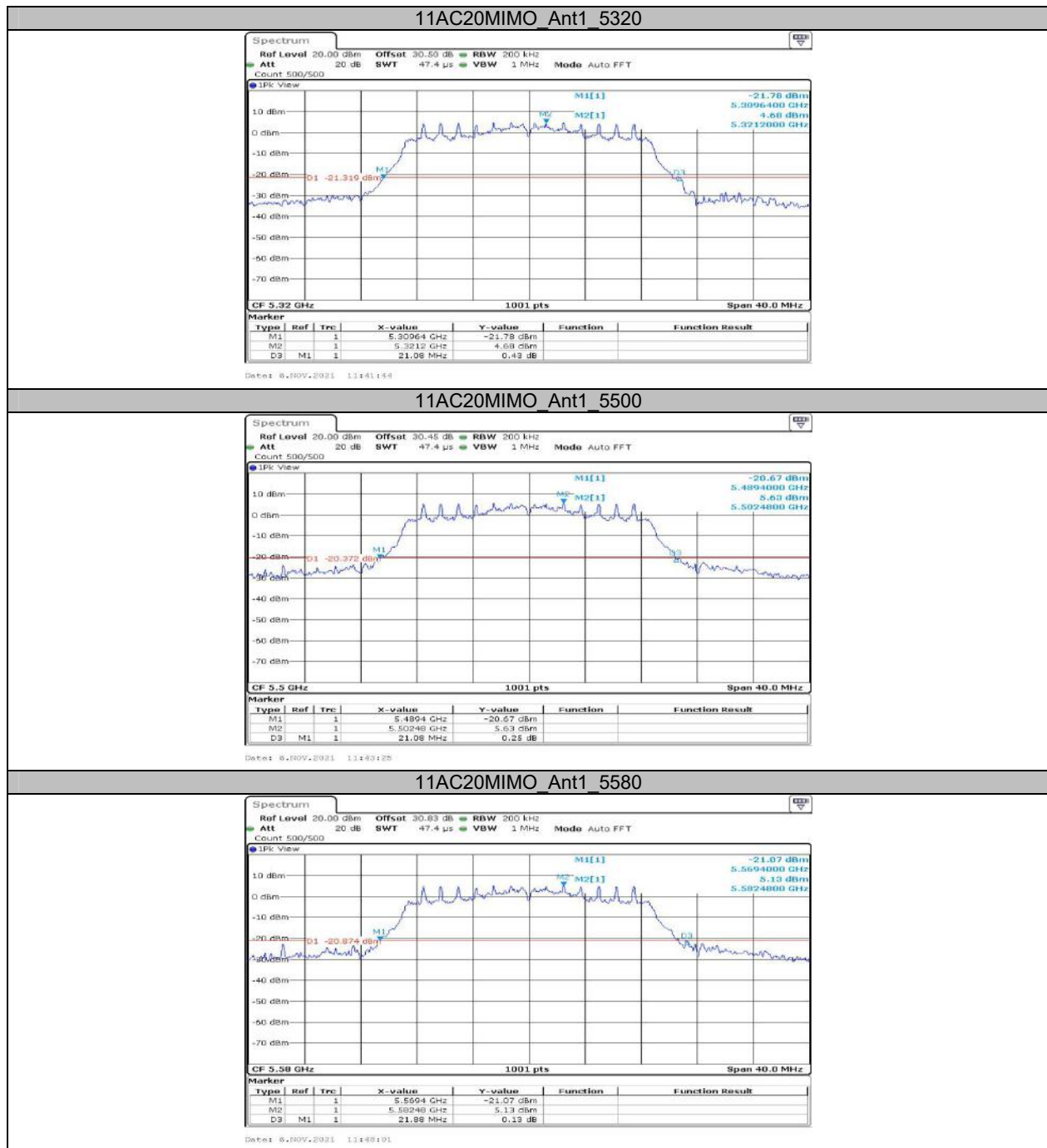


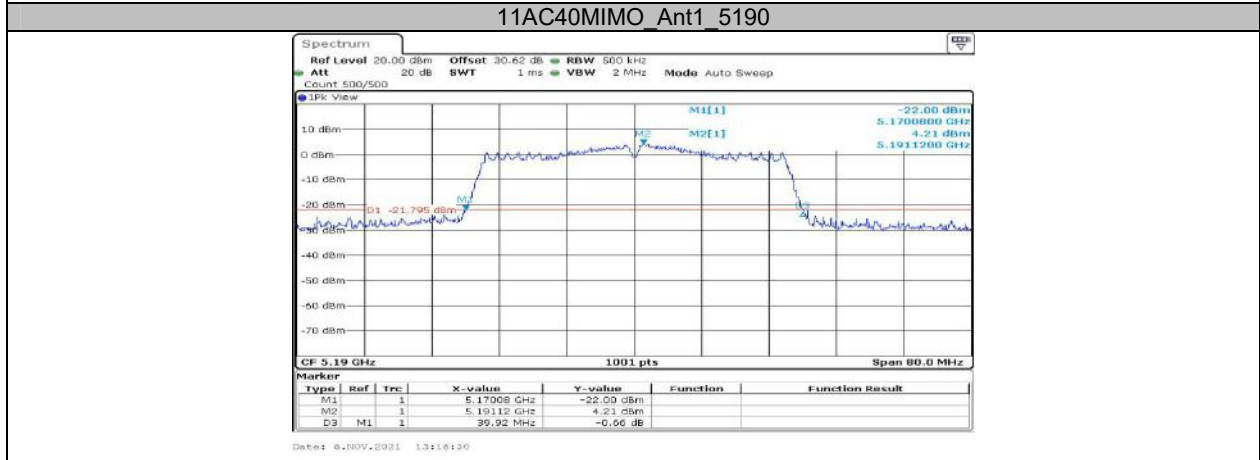
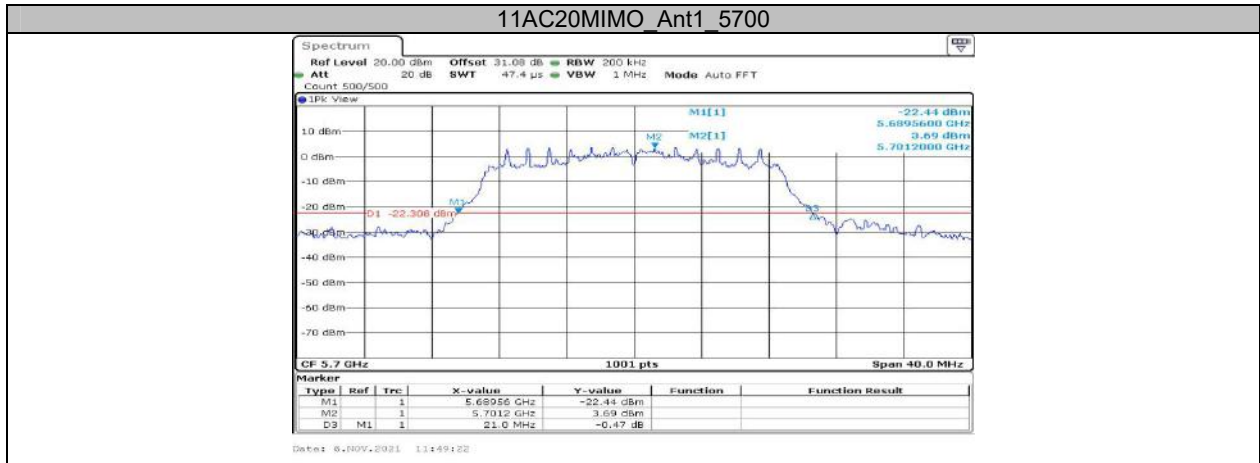


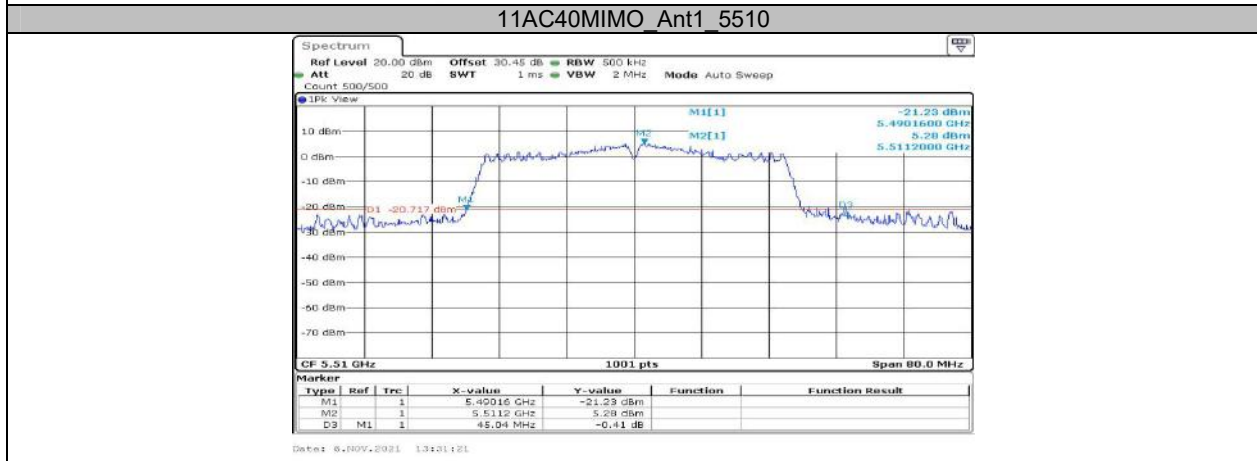
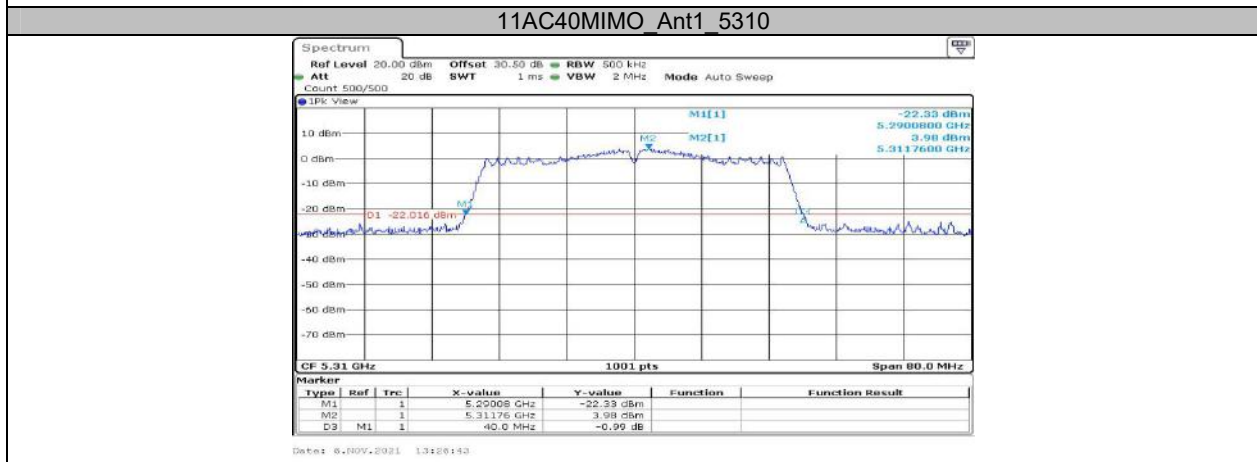
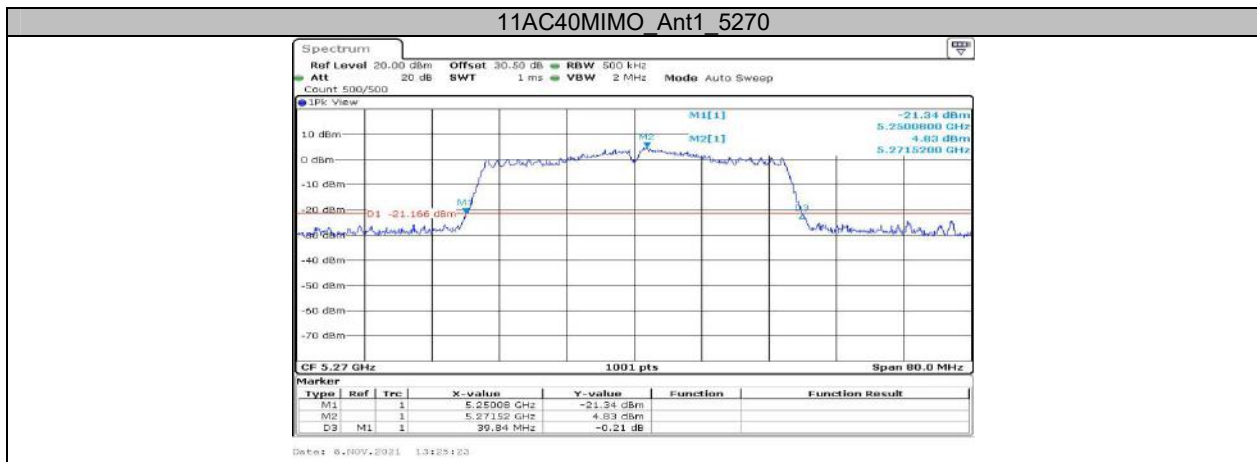


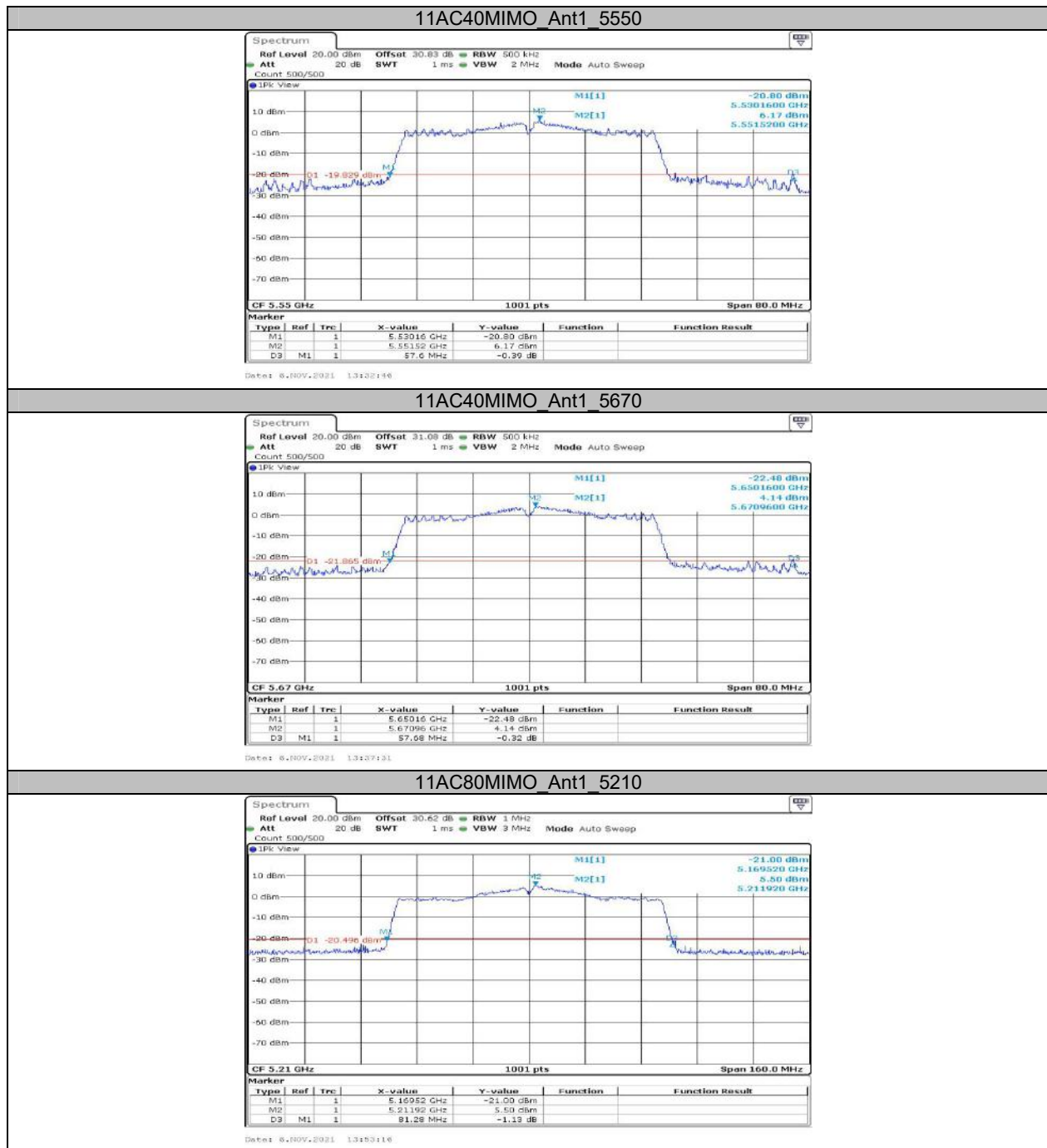




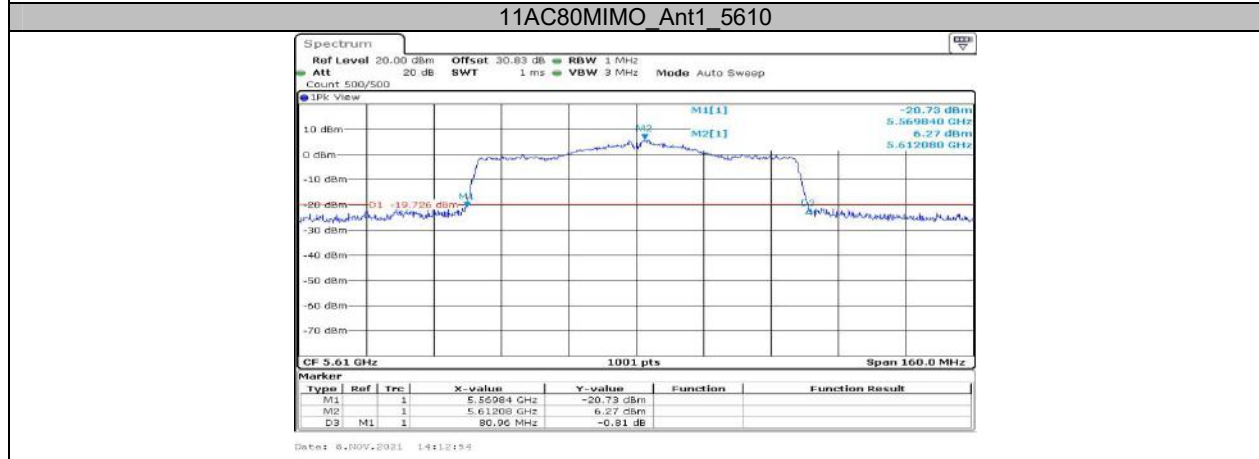
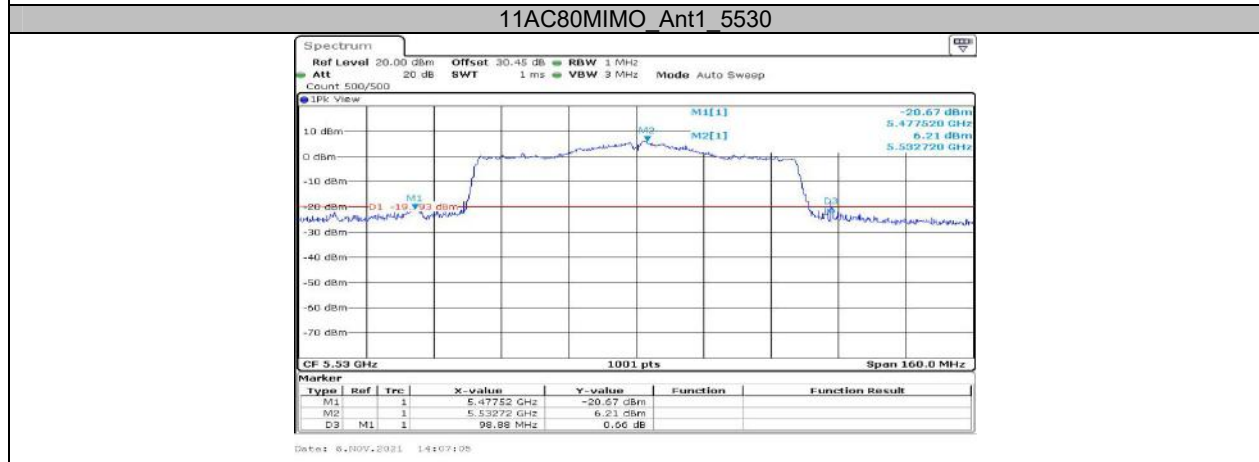
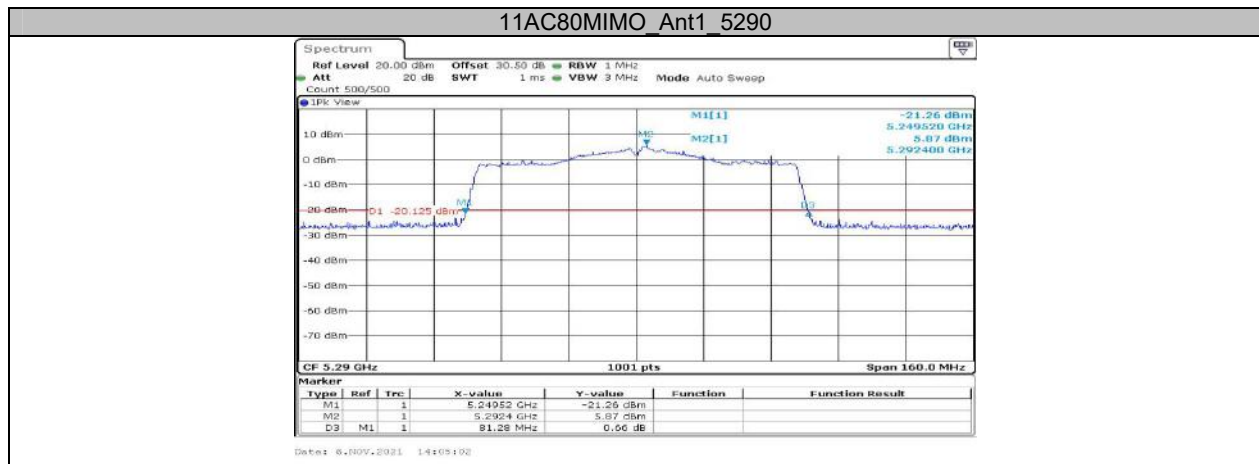


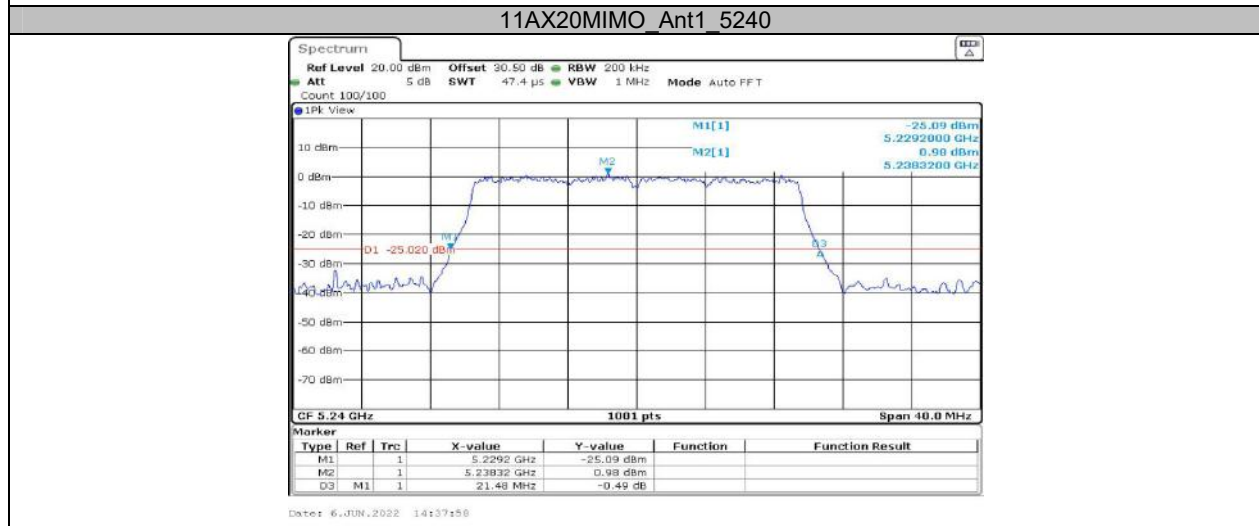
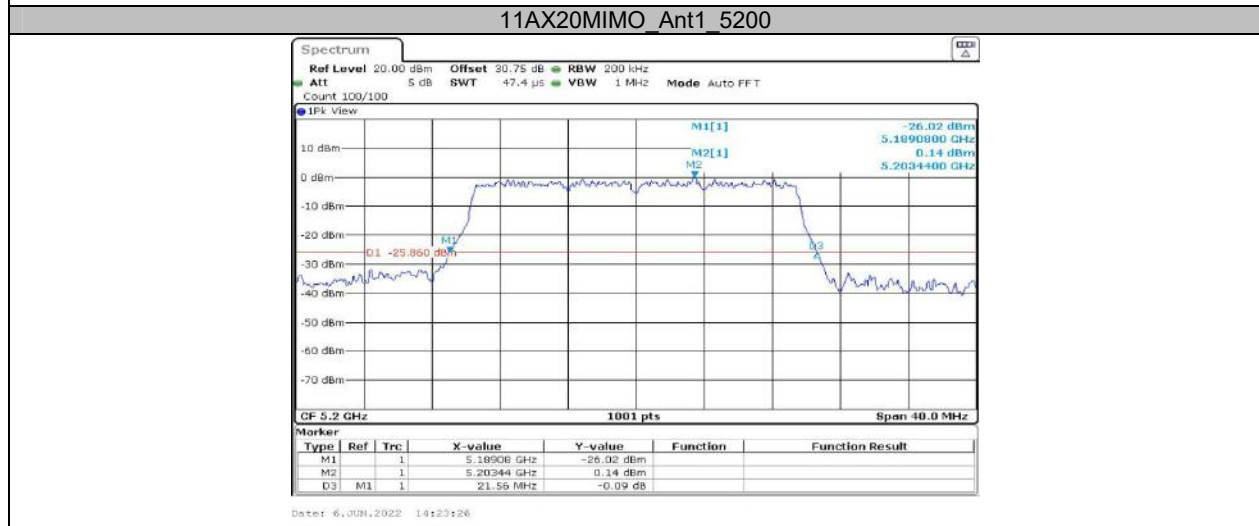
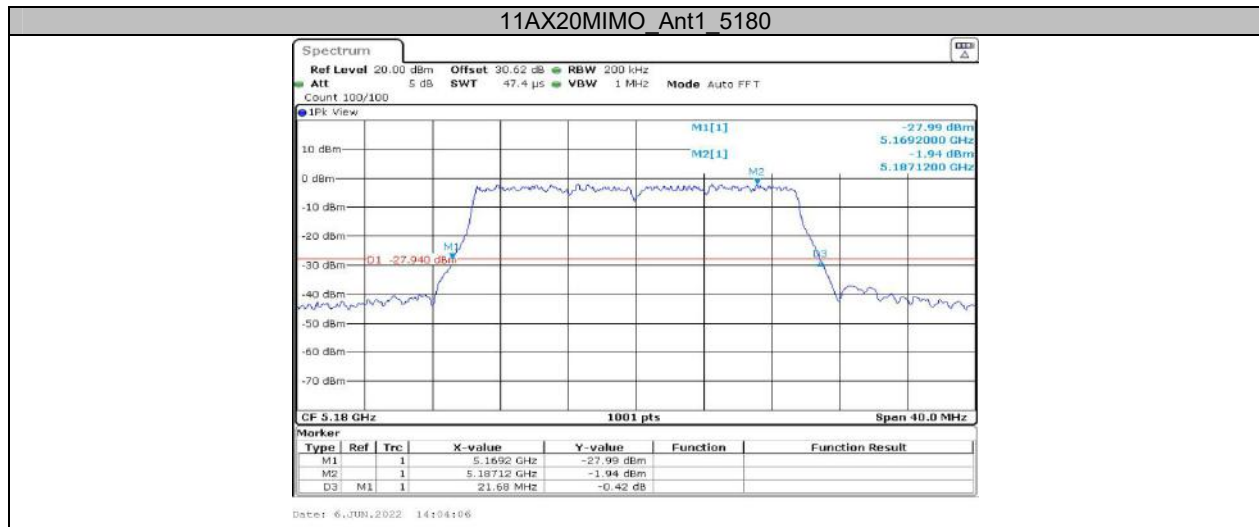






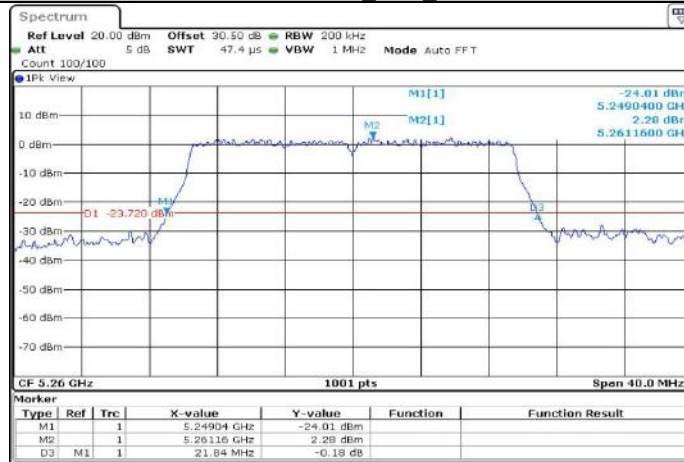




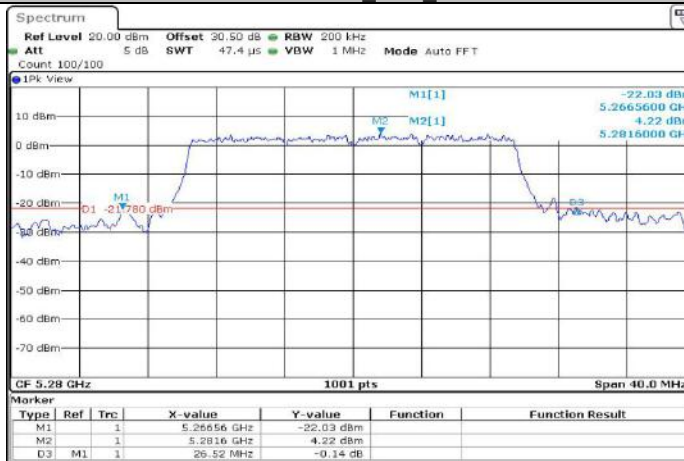




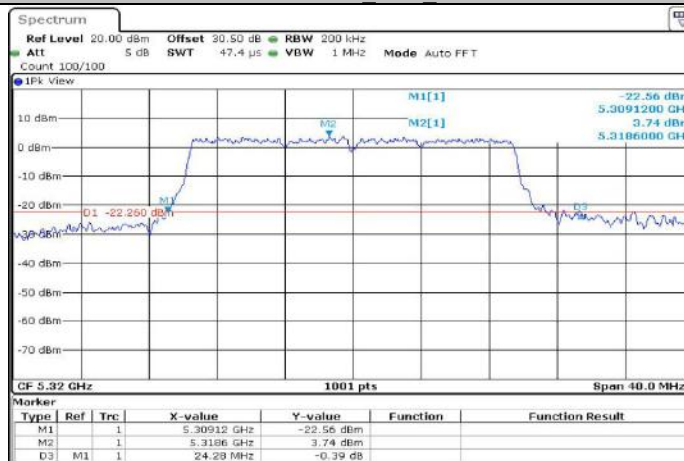
11AX20MIMO\_Ant1\_5260

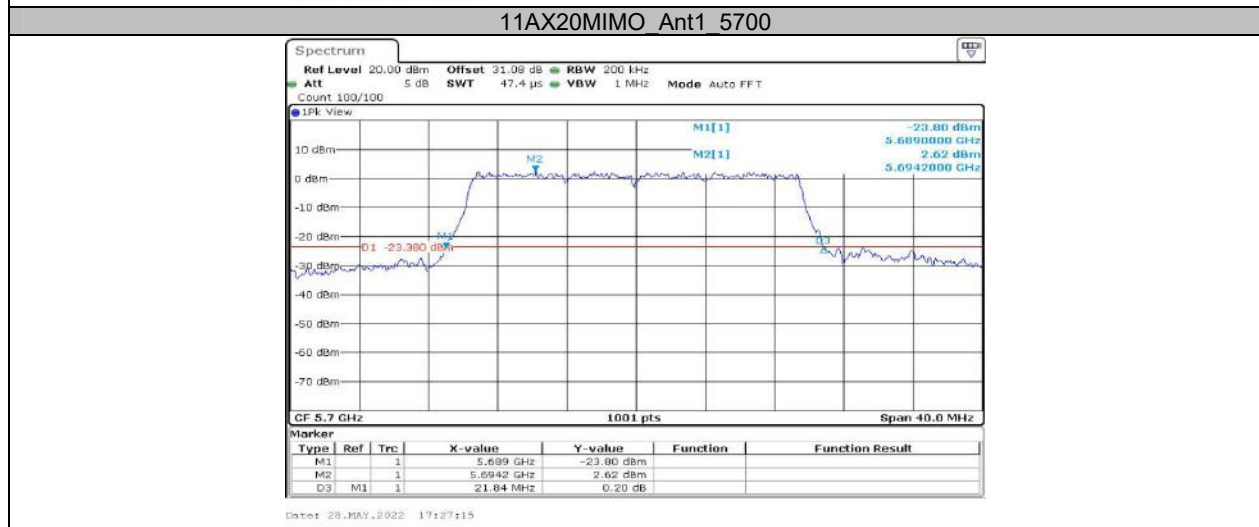
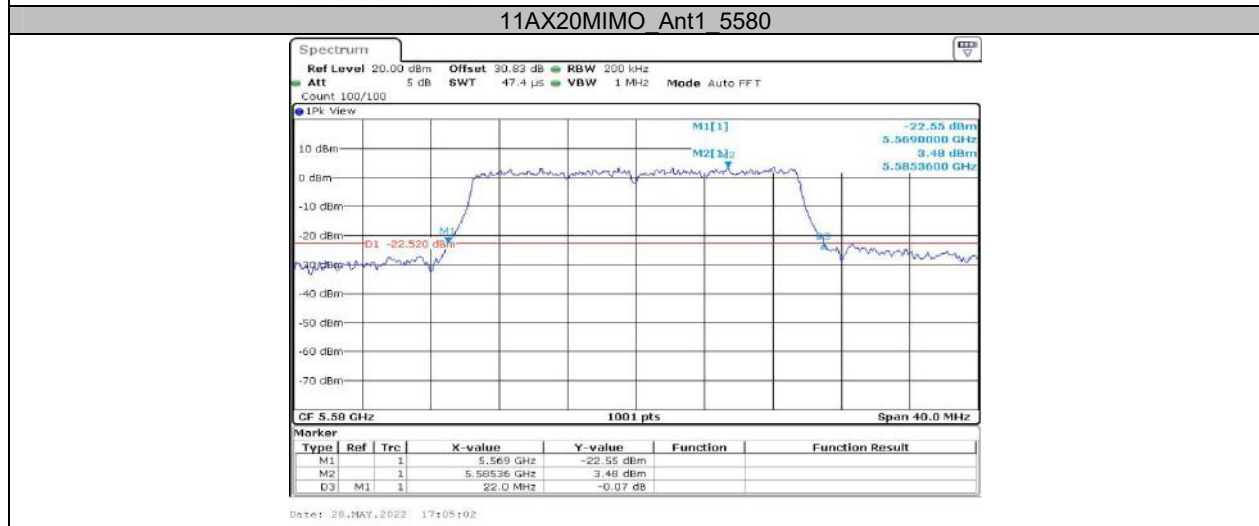
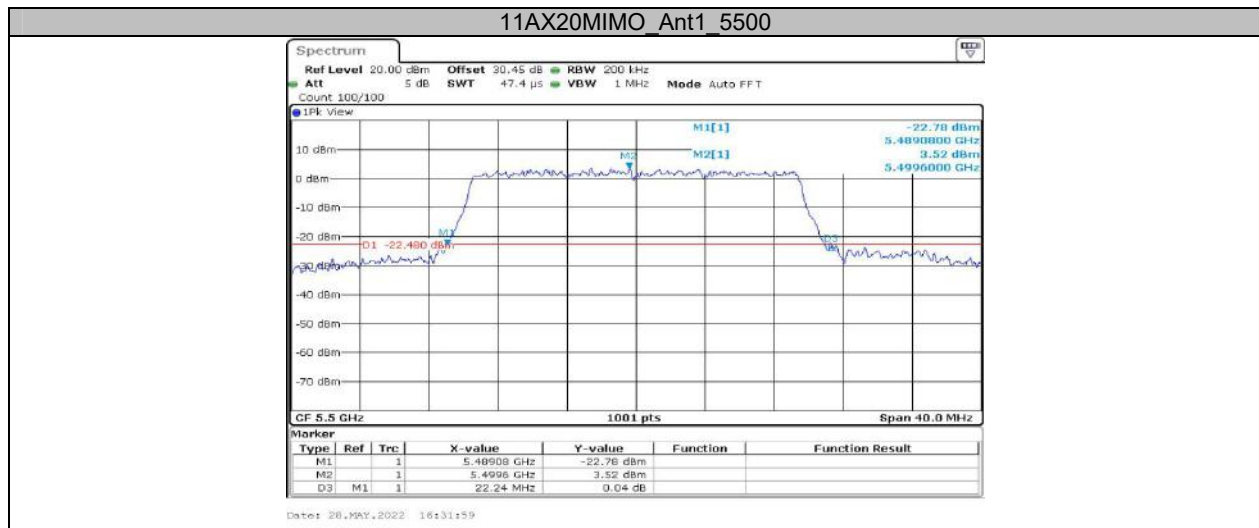


11AX20MIMO\_Ant1\_5280

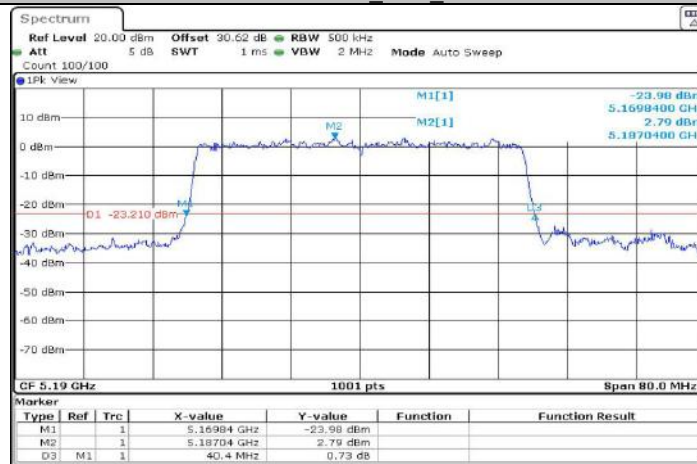


11AX20MIMO\_Ant1\_5320



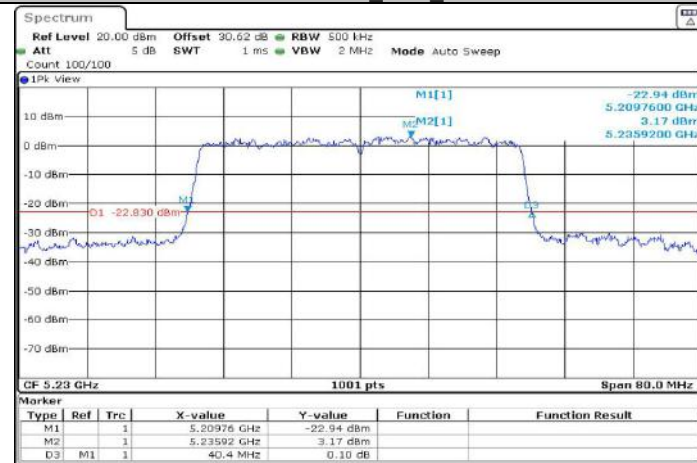


11AX40MIMO\_Ant1\_5190



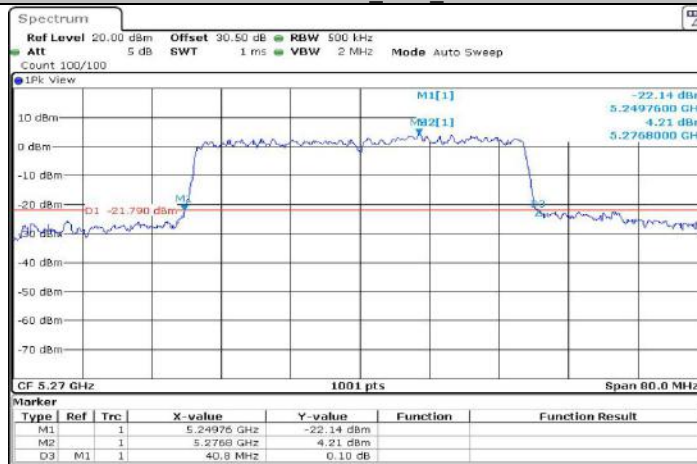
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11AX40MIMO\_Ant1\_5230



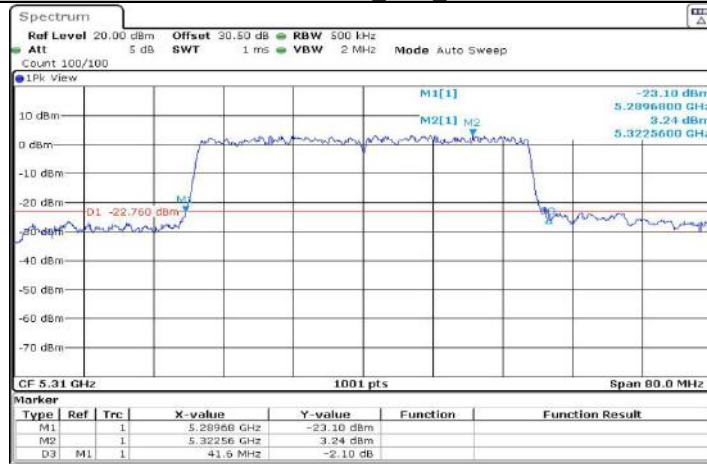
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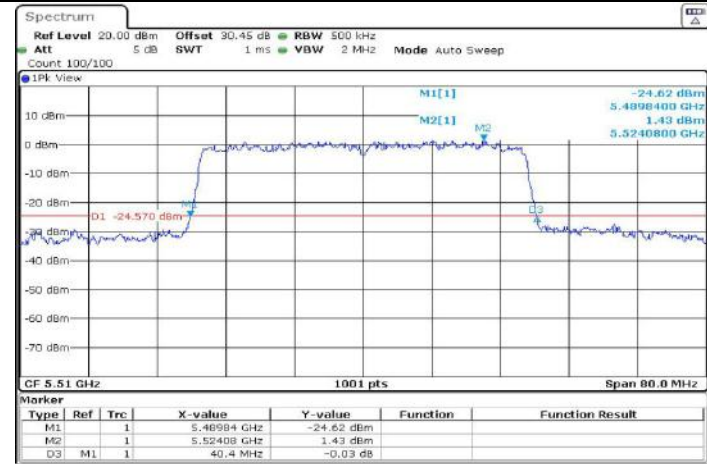
Date: 5 JUN 2022 14:33:06

11AX40MIMO Ant1 5310



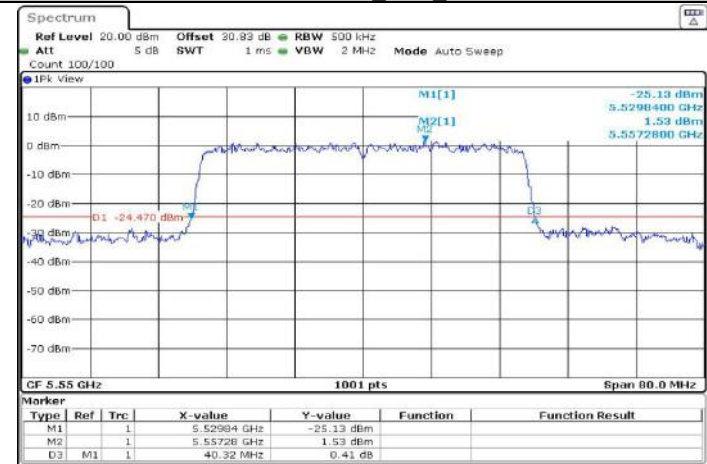
Date: 5 JUN 2022 15:01:41

11AX40MIMO Ant1 5510

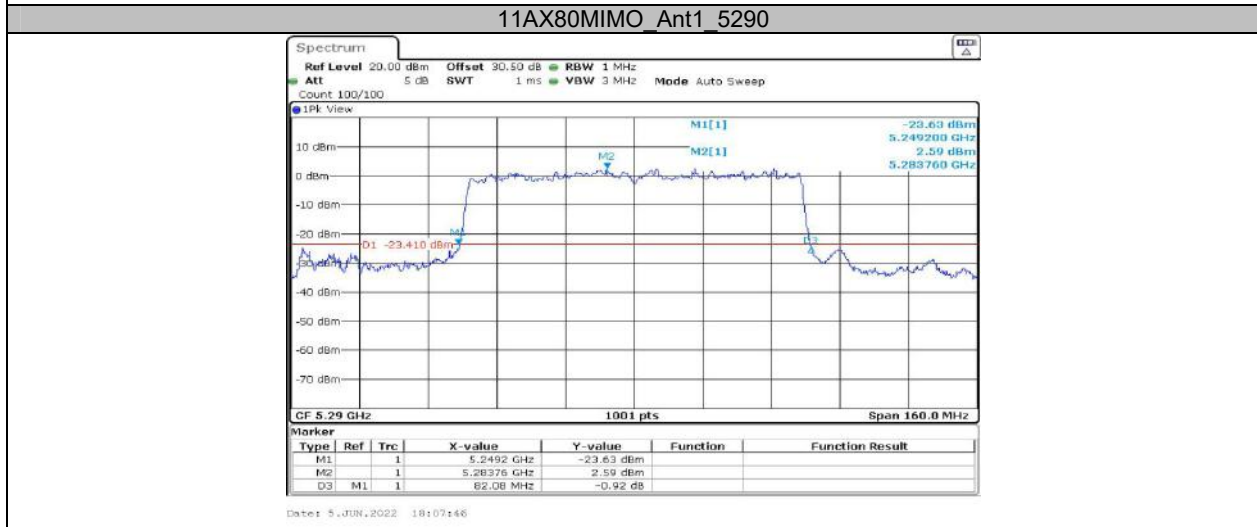
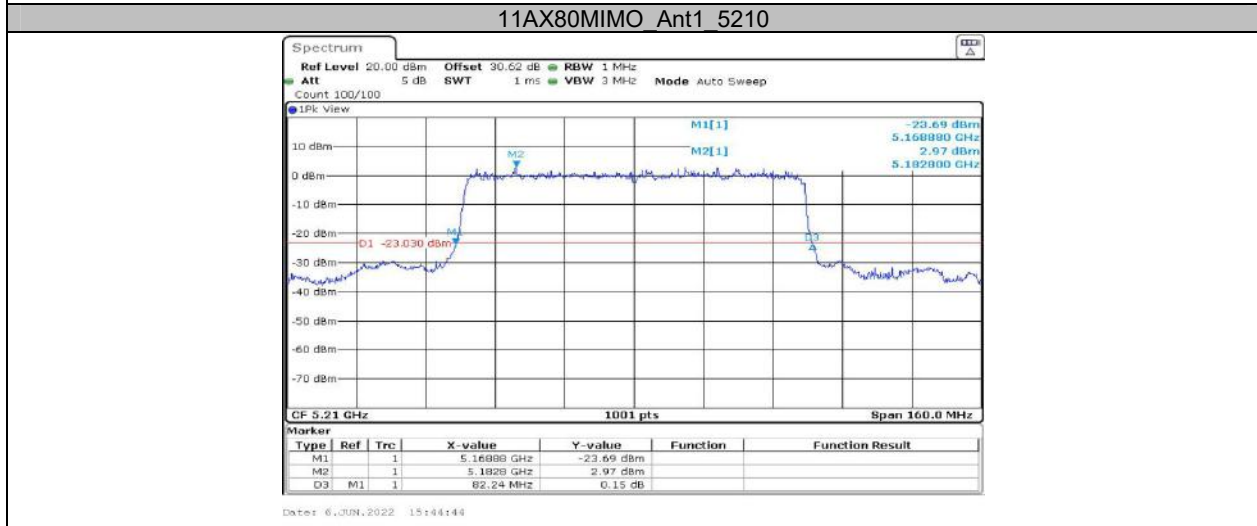
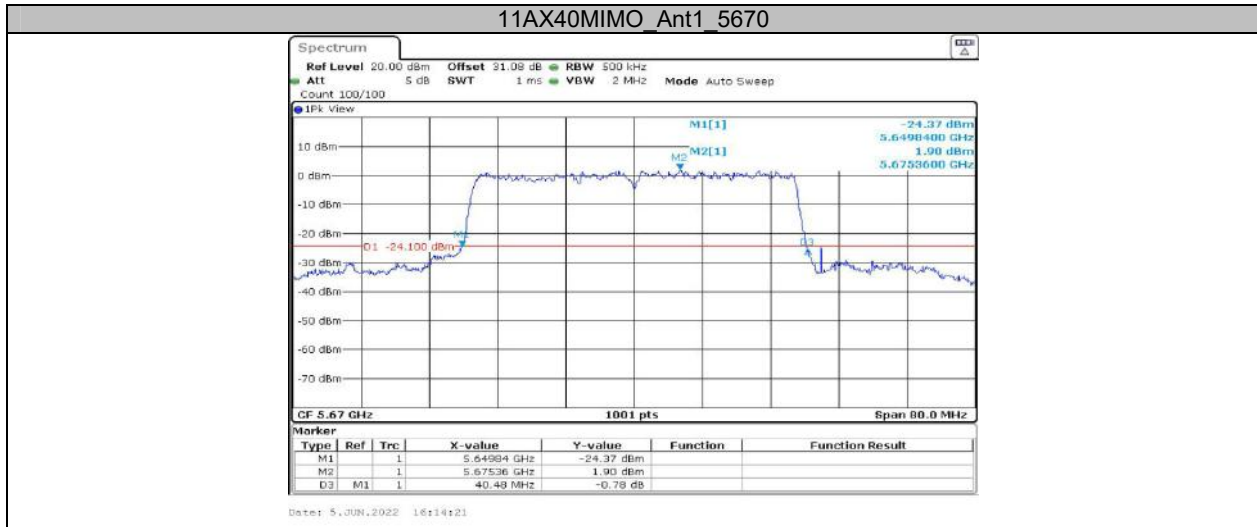


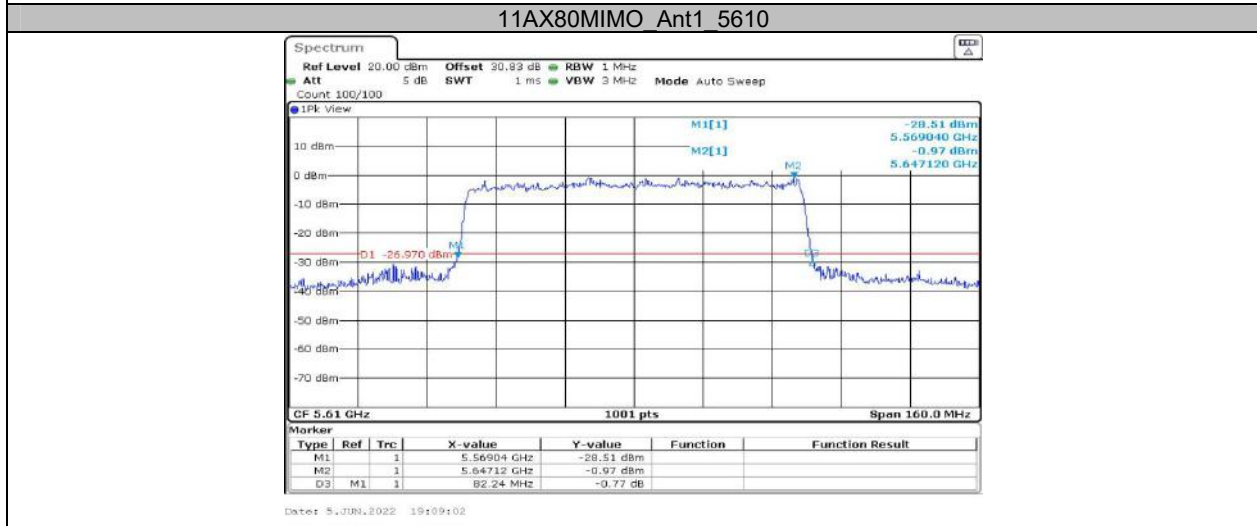
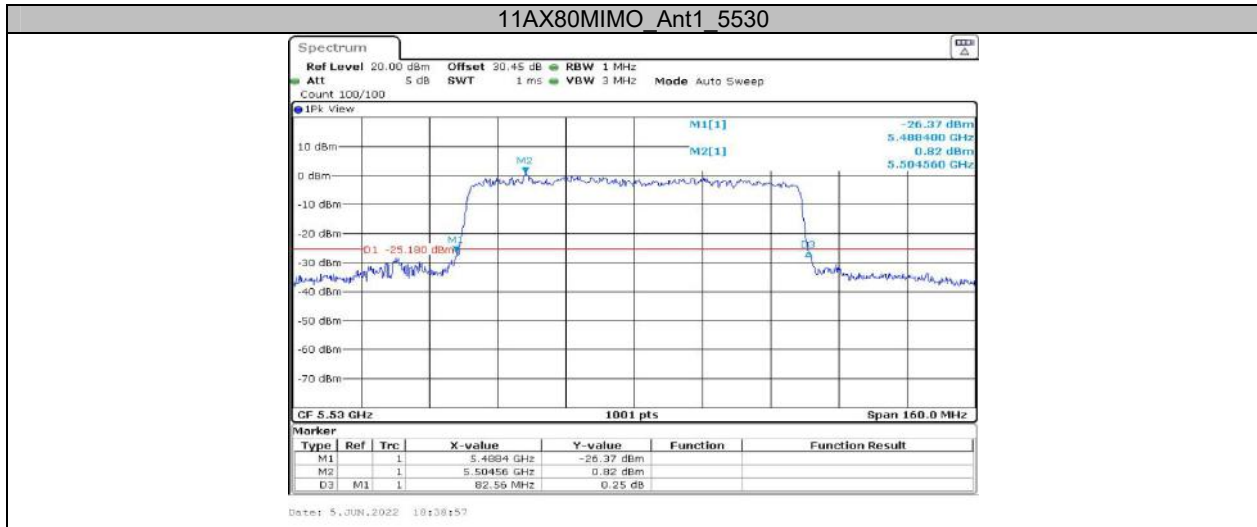
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11AX40MIMO Ant1 5550



Date: 5 JUN 2022 15:46:12





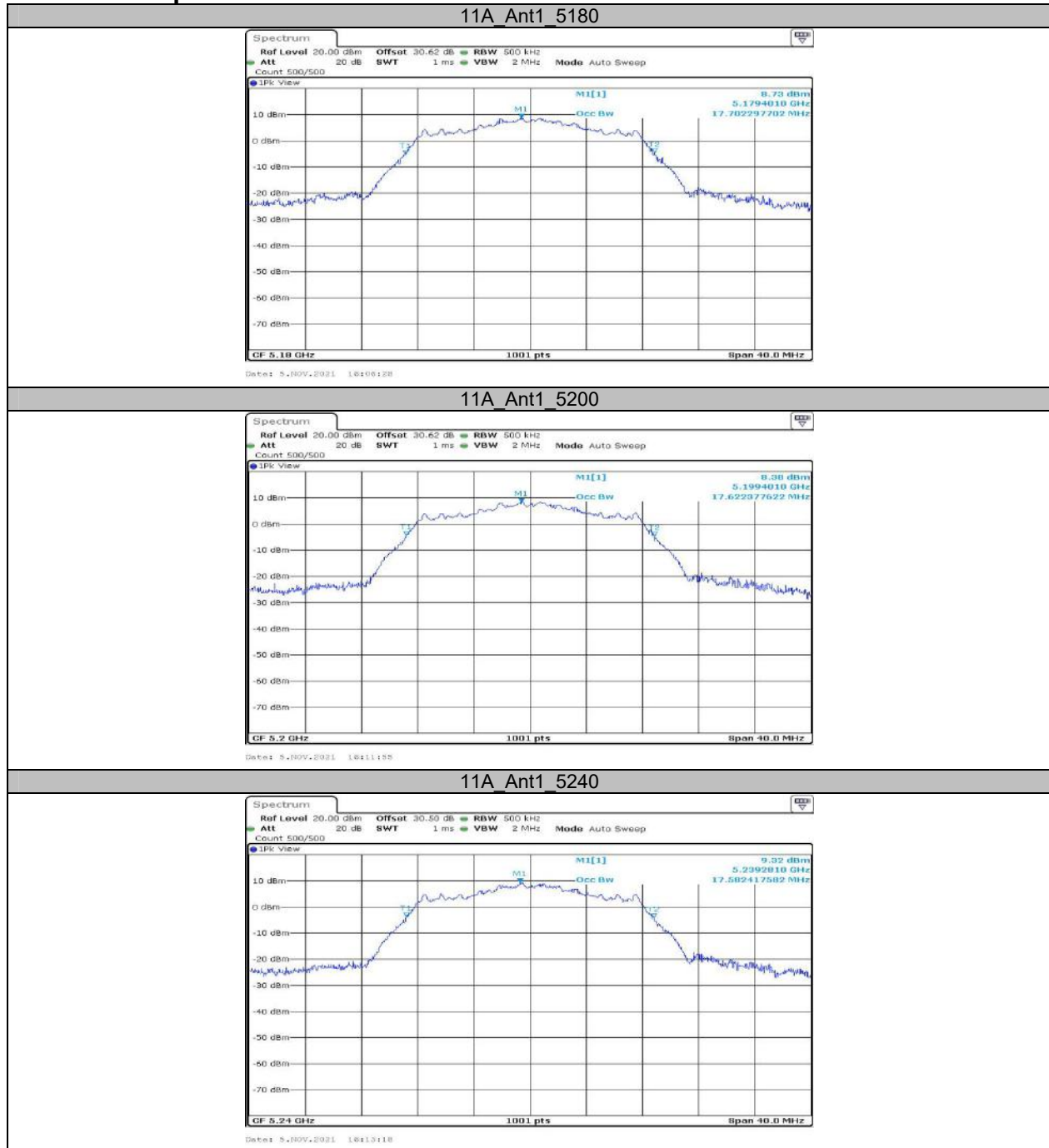
## Appendix A2: Occupied channel bandwidth Test Result

Test Mode	Antenna	Channel	OCB [MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.702	---	PASS
	Ant1	5200	17.622	---	PASS
	Ant1	5240	17.582	---	PASS
	Ant1	5260	17.542	---	PASS
	Ant1	5280	17.463	---	PASS
	Ant1	5320	17.502	---	PASS
	Ant1	5500	17.902	---	PASS
	Ant1	5580	17.982	---	PASS
	Ant1	5700	17.662	---	PASS
	Ant1	5745	17.982	---	PASS
	Ant1	5785	18.062	---	PASS
11N20MIMO	Ant1	5825	17.942	---	PASS
	Ant1	5180	18.581	---	PASS
	Ant1	5200	18.581	---	PASS
	Ant1	5240	18.581	---	PASS
	Ant1	5260	18.541	---	PASS
	Ant1	5280	18.501	---	PASS
	Ant1	5320	18.541	---	PASS
	Ant1	5500	18.901	---	PASS
	Ant1	5580	18.741	---	PASS
	Ant1	5700	18.661	---	PASS
	Ant1	5745	18.741	---	PASS
11N40MIMO	Ant1	5785	18.701	---	PASS
	Ant1	5825	18.621	---	PASS
	Ant1	5190	37.003	---	PASS
	Ant1	5230	37.083	---	PASS
	Ant1	5270	37.003	---	PASS
	Ant1	5310	37.003	---	PASS
	Ant1	5510	37.323	---	PASS
	Ant1	5550	37.323	---	PASS
11AC20MIMO	Ant1	5670	37.243	---	PASS
	Ant1	5755	37.802	---	PASS
	Ant1	5795	37.722	---	PASS
	Ant1	5180	18.621	---	PASS
	Ant1	5200	18.541	---	PASS
	Ant1	5240	18.501	---	PASS
	Ant1	5260	18.501	---	PASS
	Ant1	5280	18.462	---	PASS
	Ant1	5320	18.501	---	PASS
	Ant1	5500	18.741	---	PASS
	Ant1	5580	18.861	---	PASS
11AC40MIMO	Ant1	5700	18.621	---	PASS
	Ant1	5745	18.901	---	PASS
	Ant1	5785	18.941	---	PASS
	Ant1	5825	18.901	---	PASS
	Ant1	5190	36.444	---	PASS
	Ant1	5230	36.444	---	PASS
	Ant1	5270	36.444	---	PASS
	Ant1	5310	36.444	---	PASS
11AC80MIMO	Ant1	5510	36.603	---	PASS
	Ant1	5550	36.603	---	PASS
	Ant1	5670	36.603	---	PASS
	Ant1	5755	37.163	---	PASS
	Ant1	5795	37.243	---	PASS
	Ant1	5210	75.924	---	PASS
	Ant1	5290	75.764	---	PASS

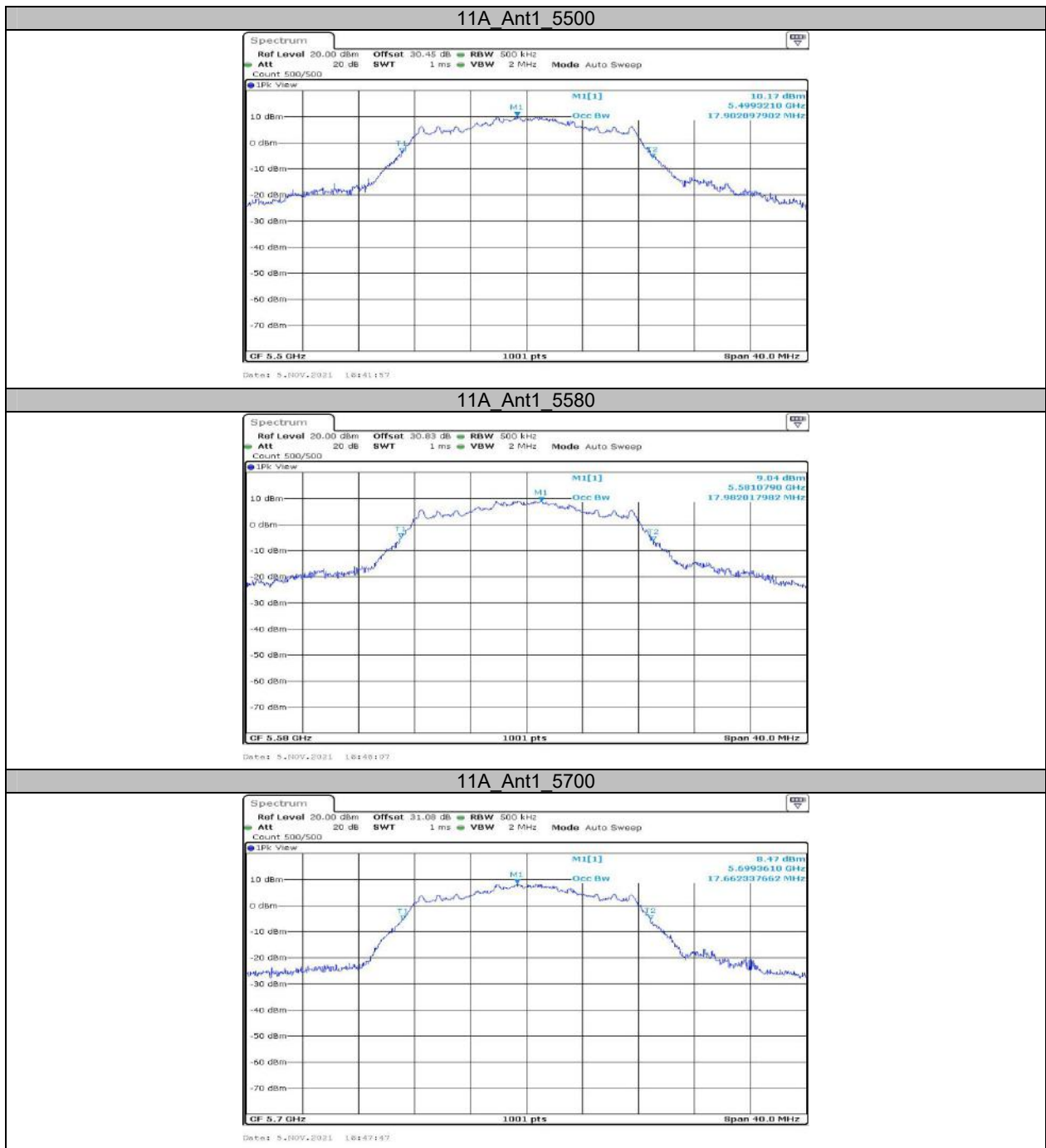
	Ant1	5530	75.764	---	PASS
	Ant1	5610	76.084	---	PASS
	Ant1	5775	76.244	---	PASS
11AX20MIMO (worst case 242 tone)	Ant1	5180	19.341	---	PASS
	Ant1	5200	19.301	---	PASS
	Ant1	5240	19.381	---	PASS
	Ant1	5260	19.301	---	PASS
	Ant1	5280	19.5	---	PASS
	Ant1	5320	19.5	---	PASS
	Ant1	5500	19.421	---	PASS
	Ant1	5580	19.461	---	PASS
	Ant1	5700	19.54	---	PASS
	Ant1	5745	19.5	---	PASS
	Ant1	5785	19.461	---	PASS
	Ant1	5825	19.62	---	PASS
11AX40MIMO (worst case 484 tone)	Ant1	5190	38.042	---	PASS
	Ant1	5230	37.802	---	PASS
	Ant1	5270	38.122	---	PASS
	Ant1	5310	38.042	---	PASS
	Ant1	5510	37.882	---	PASS
	Ant1	5550	38.042	---	PASS
	Ant1	5670	37.962	---	PASS
	Ant1	5755	38.122	---	PASS
	Ant1	5795	37.962	---	PASS
11AX80MIMO (worst case 996 tone)	Ant1	5210	77.842	---	PASS
	Ant1	5290	78.002	---	PASS
	Ant1	5530	78.002	---	PASS
	Ant1	5610	78.482	---	PASS
	Ant1	5775	79.121	---	PASS



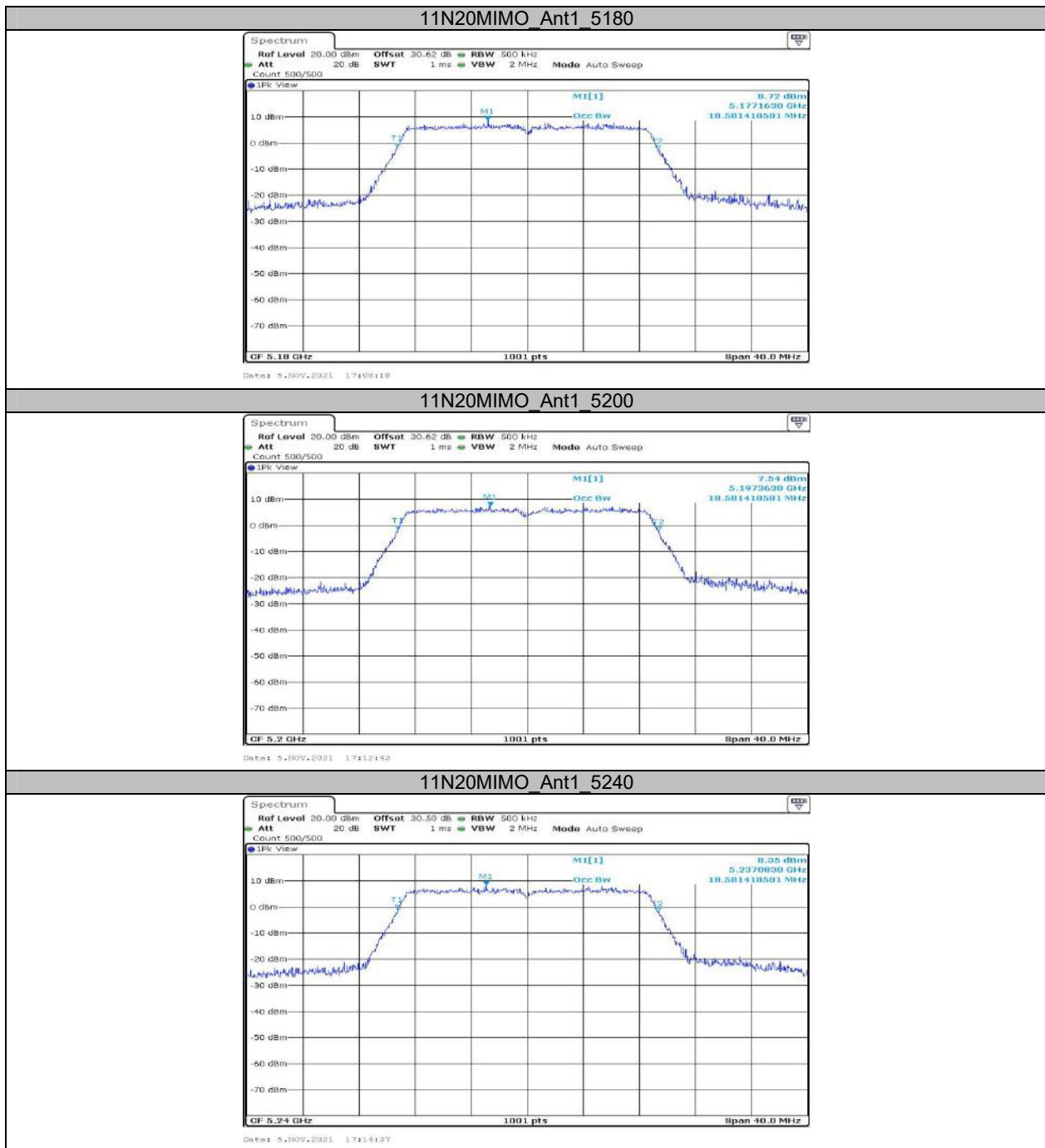
### Test Graphs





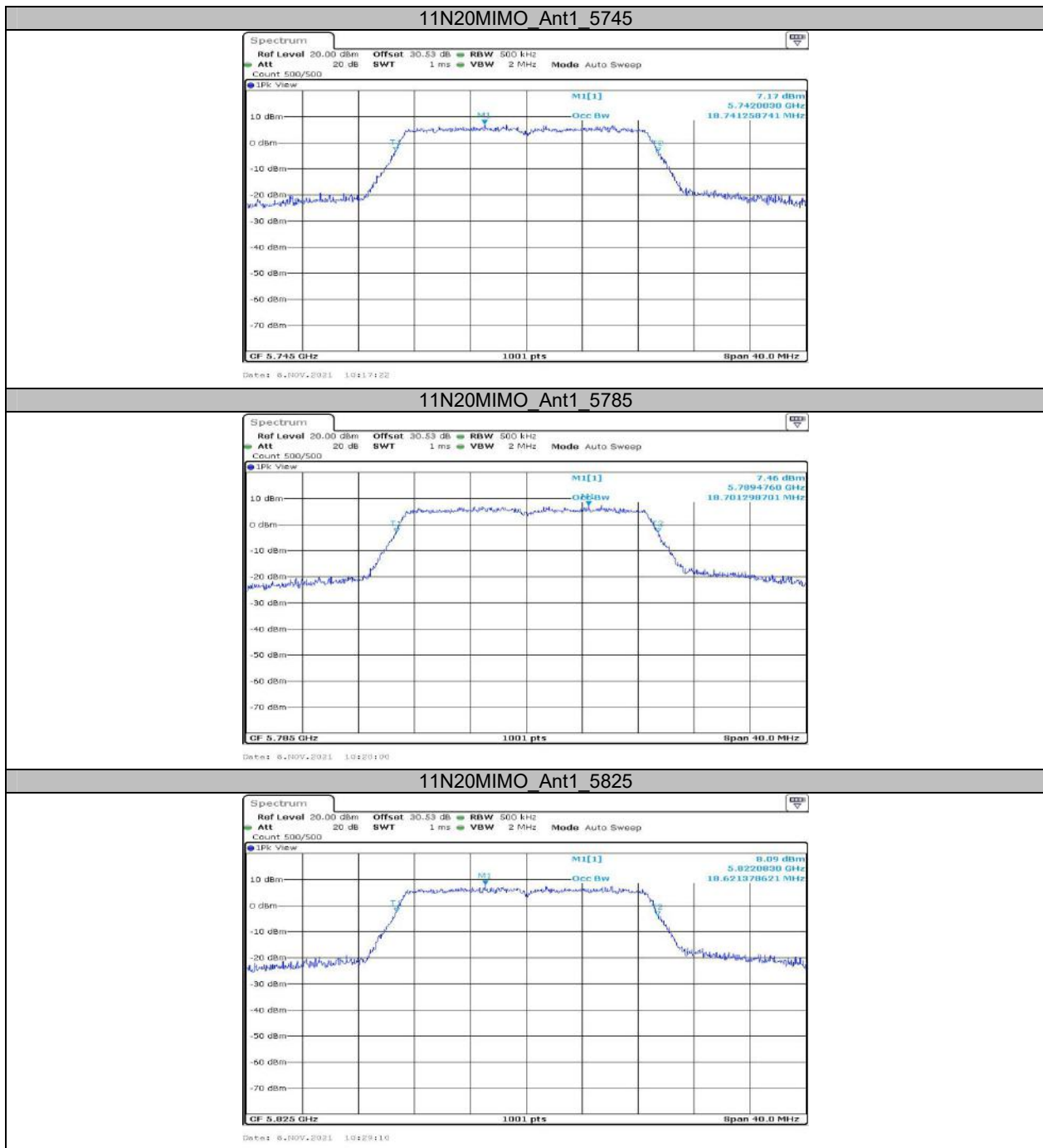




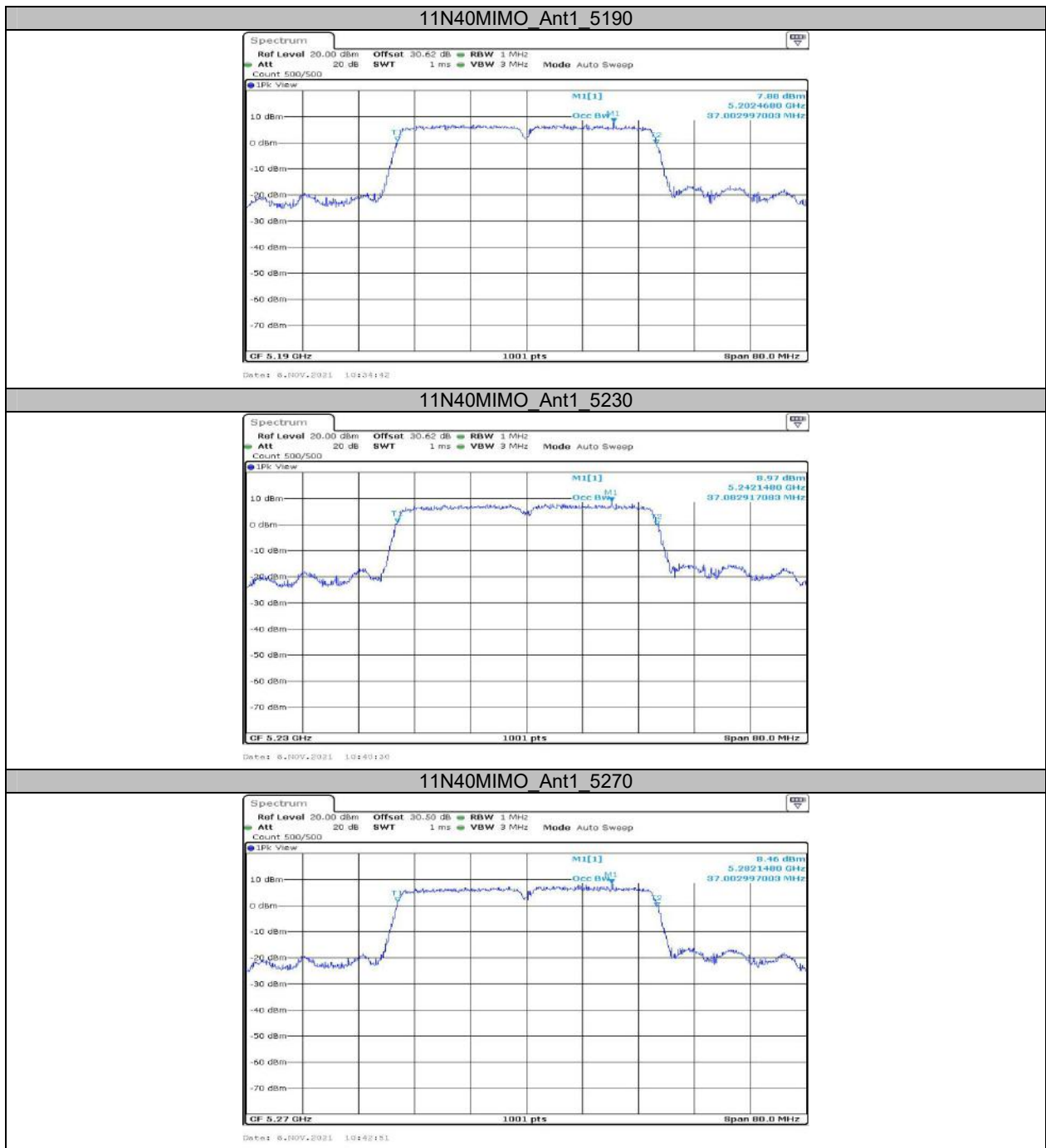


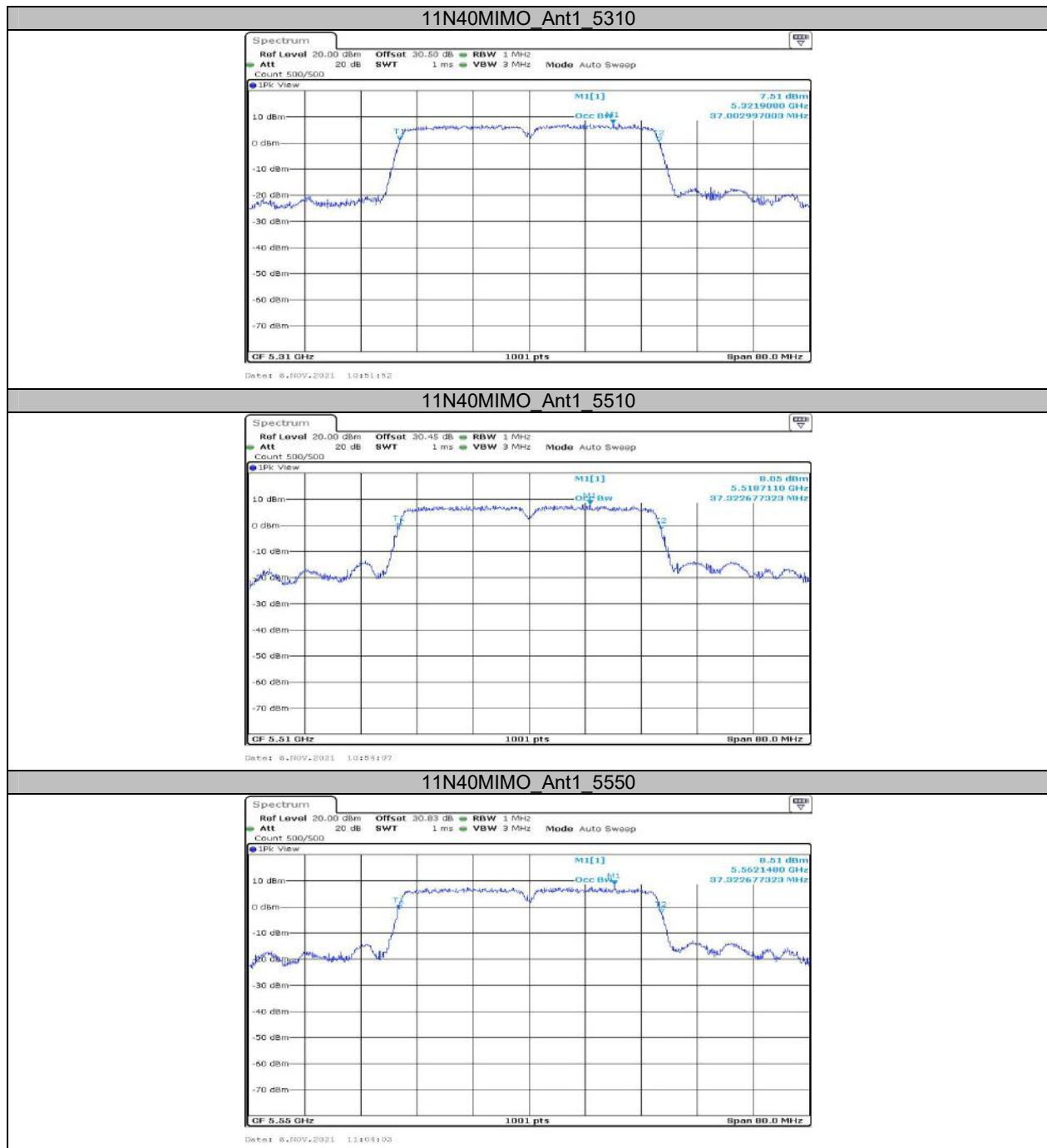


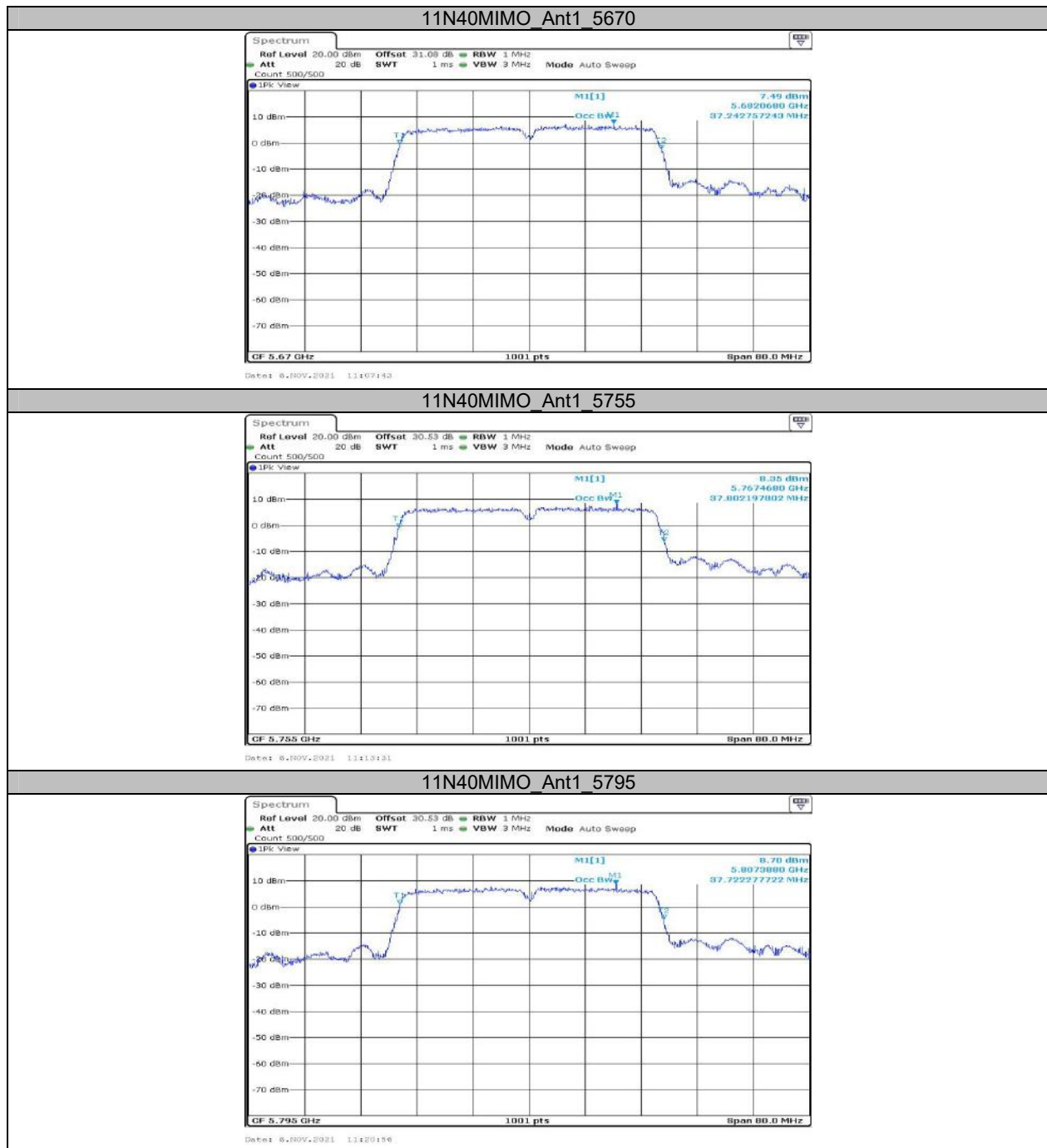


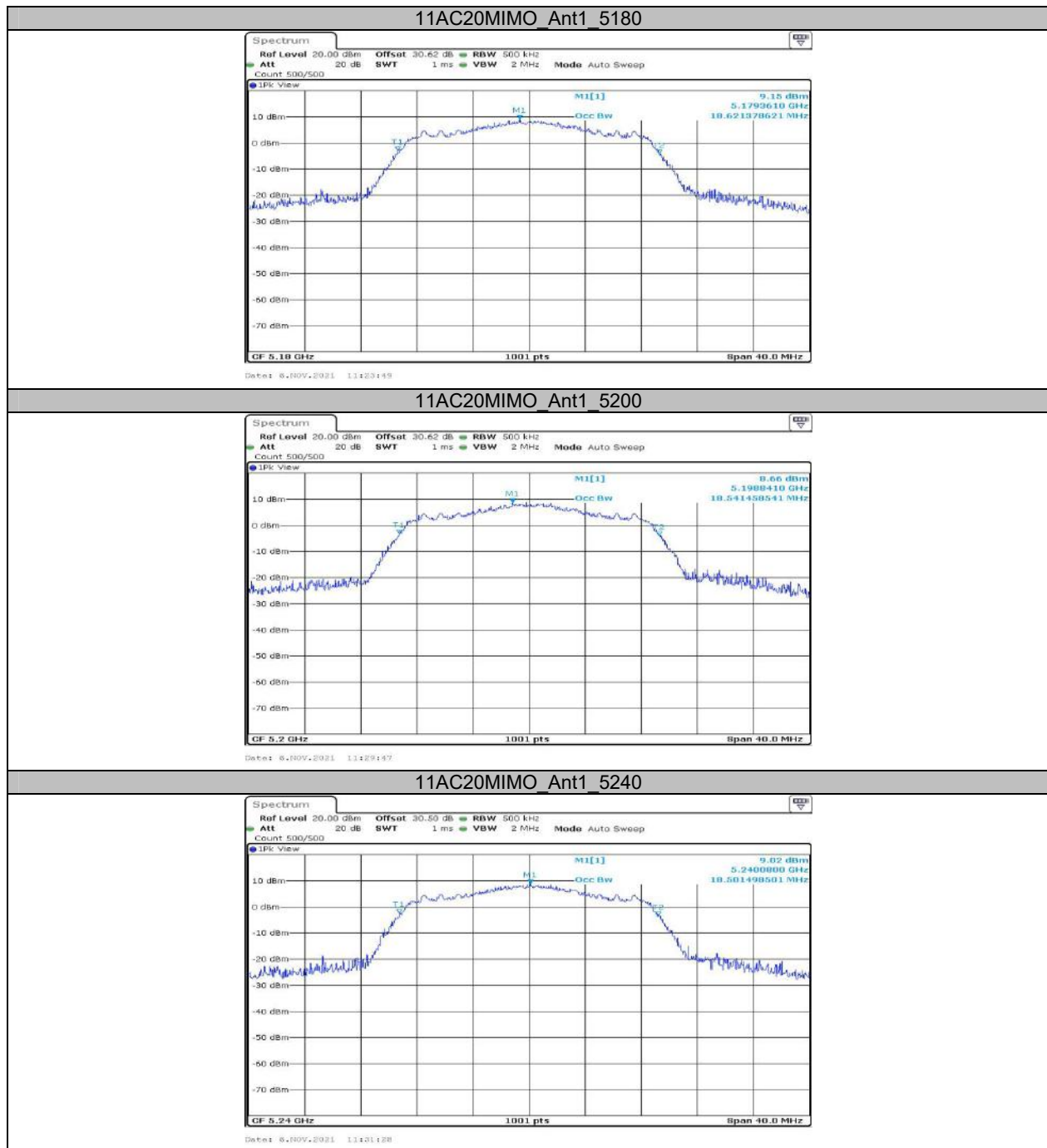












11AC20MIMO\_Ant1\_5260



Date: 6.NOV.2021 11:25:55

11AC20MIMO\_Ant1\_5280

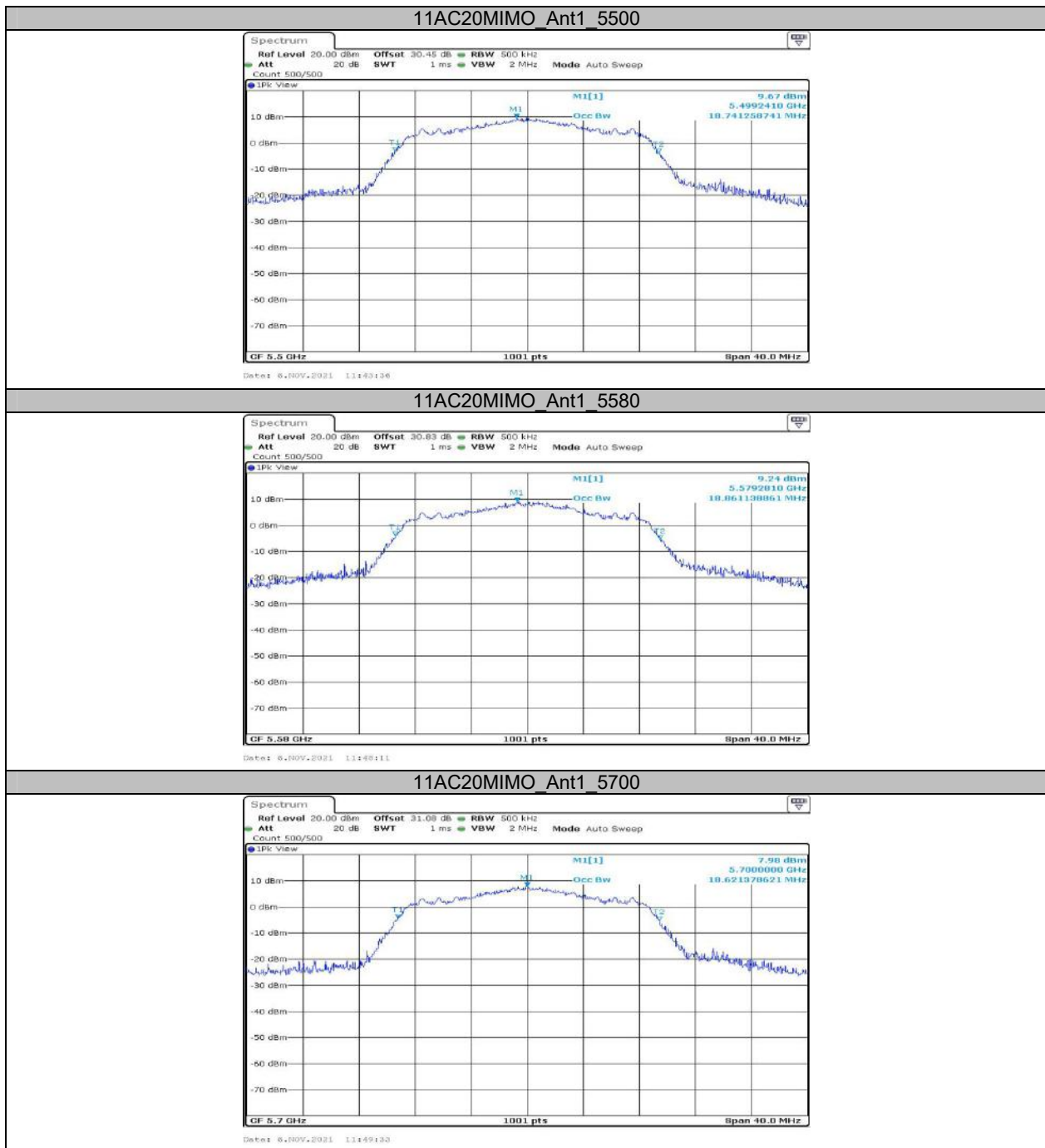


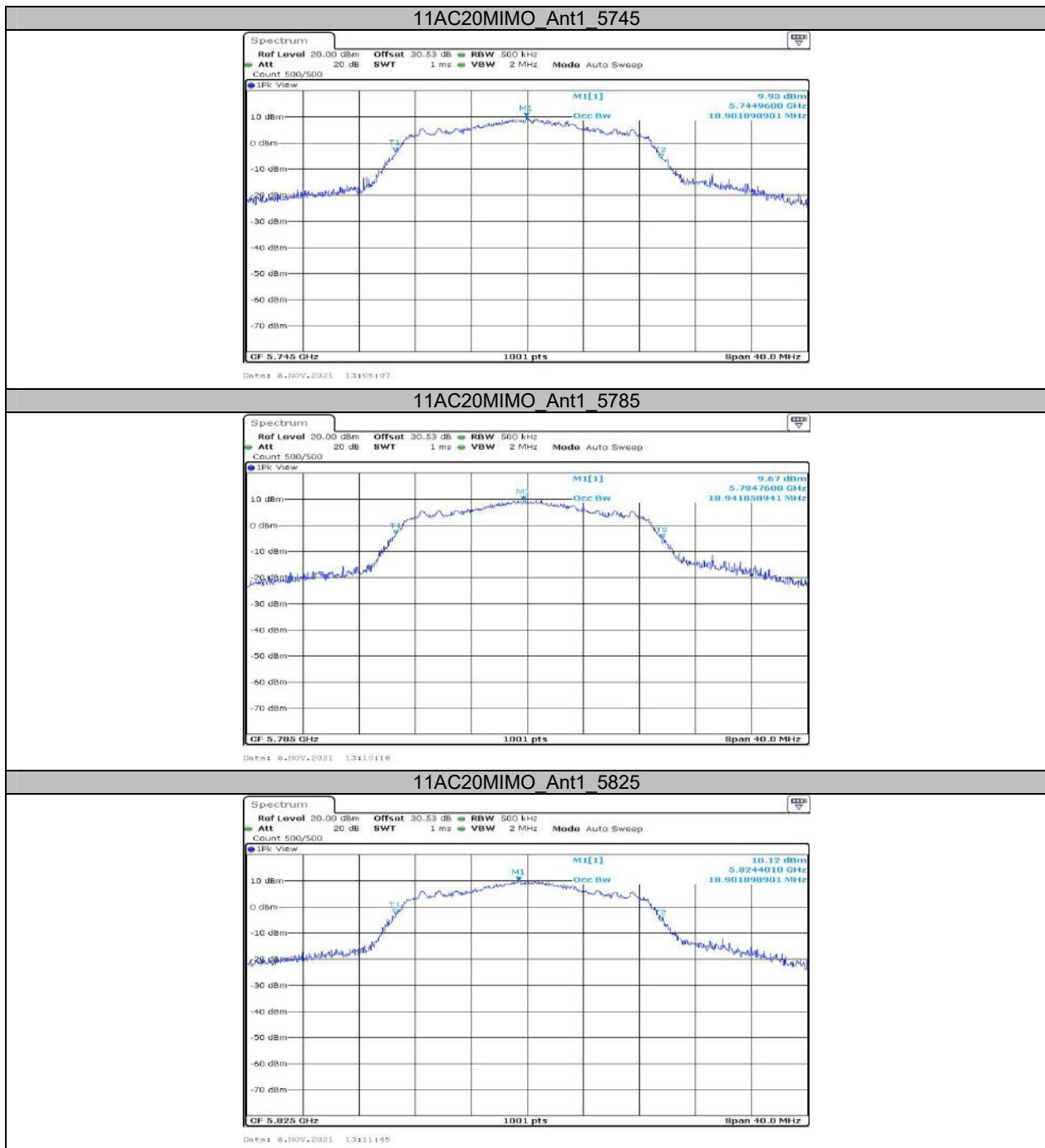
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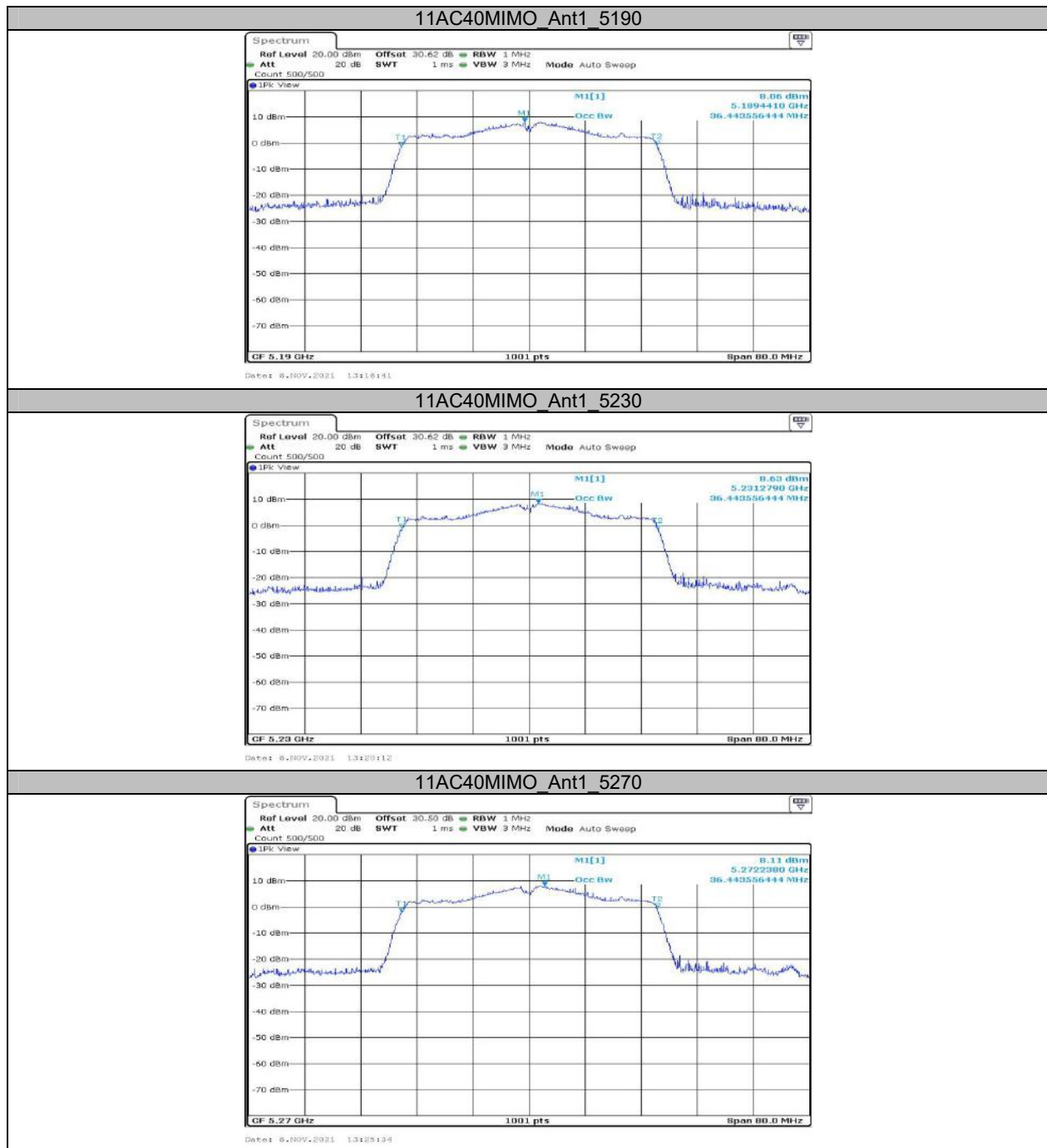
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Date: 6.NOV.2021 11:41:59







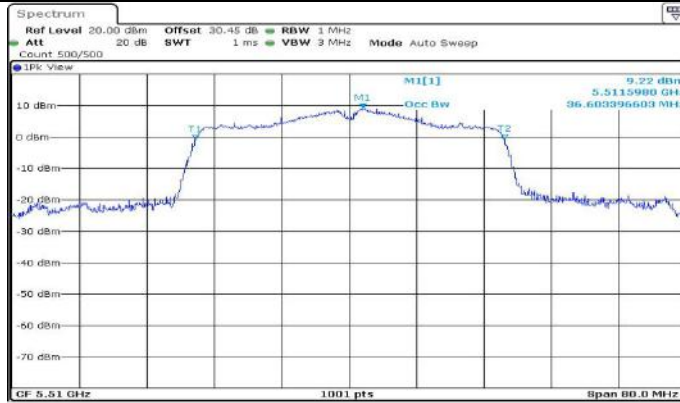


11AC40MIMO\_Ant1\_5310



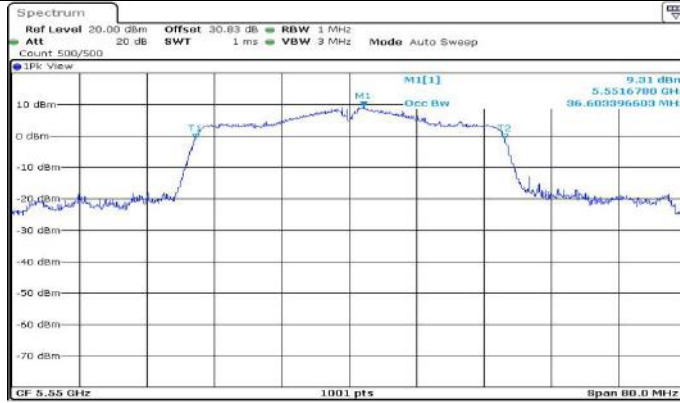
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11AC40MIMO\_Ant1\_5510



Date: 6.NOV.2021 13:31:31

11AC40MIMO\_Ant1\_5550



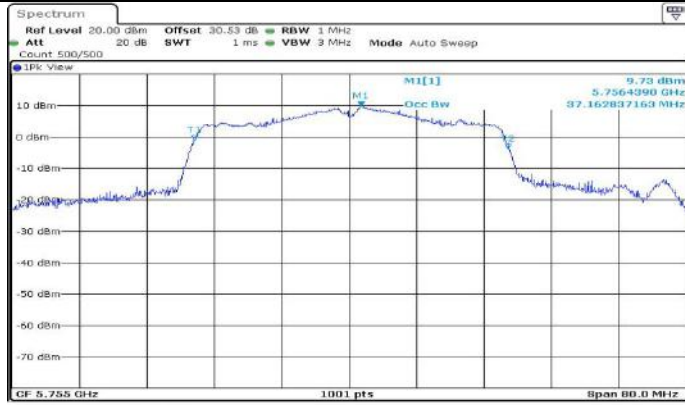
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Date: 6.NOV.2021 13:27:42

11AC40MIMO\_Ant1\_5755

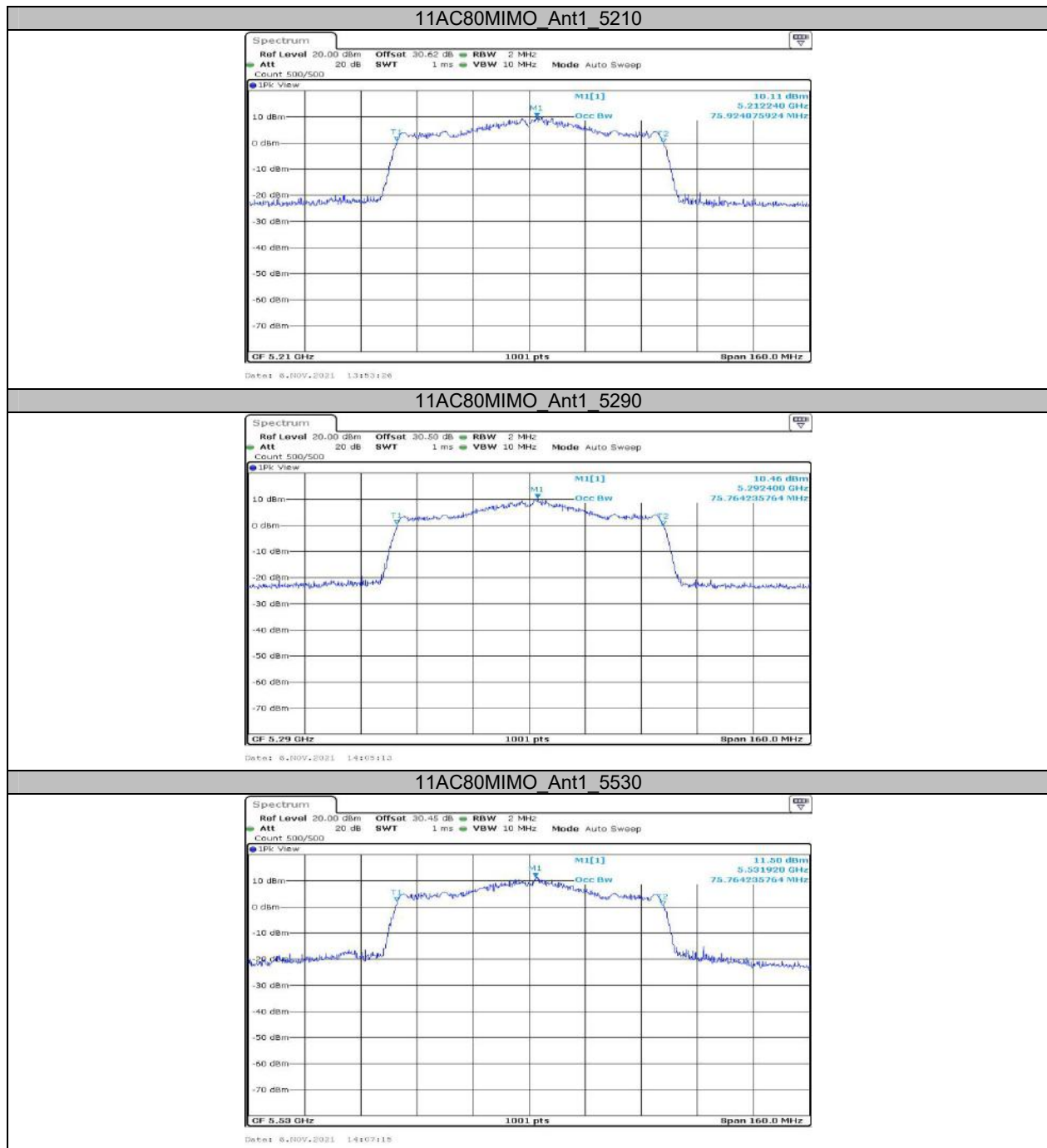


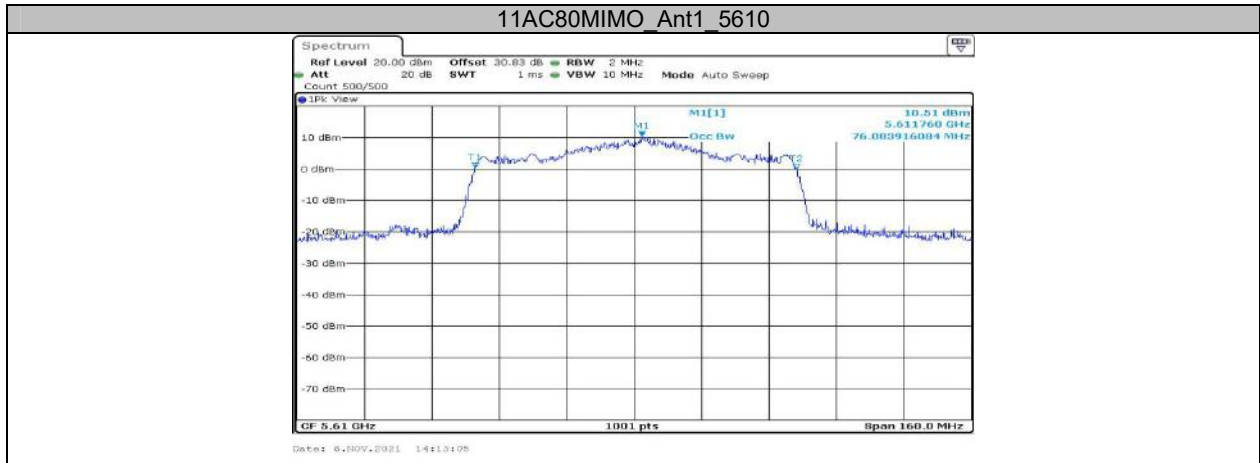
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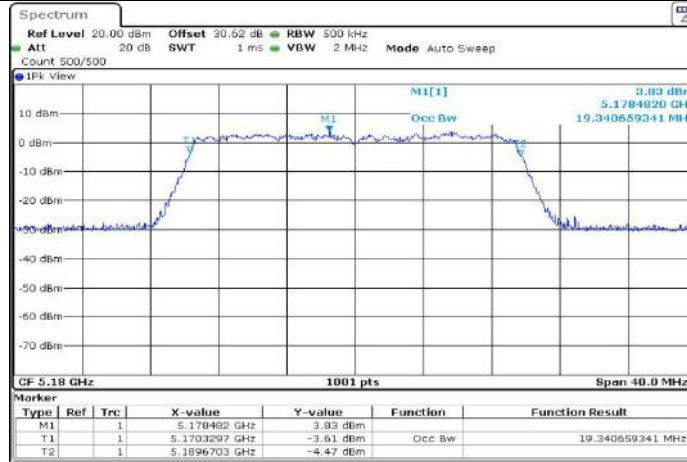


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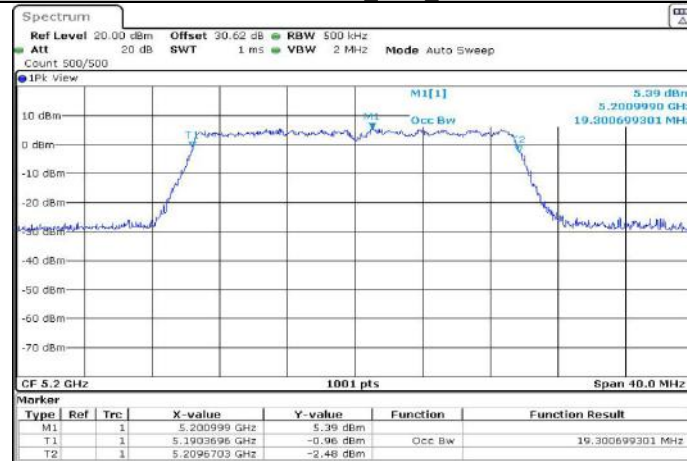


11AX20MIMO\_Ant1\_5180



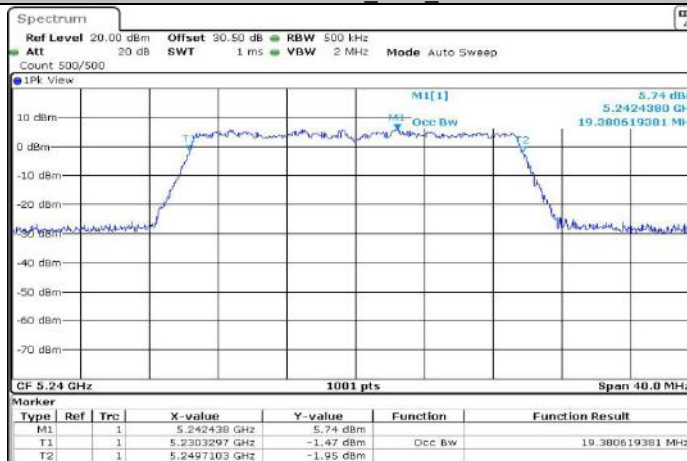
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Date: 6 JUN 2022 14:22:29

11AX20MIMO\_Ant1\_5240



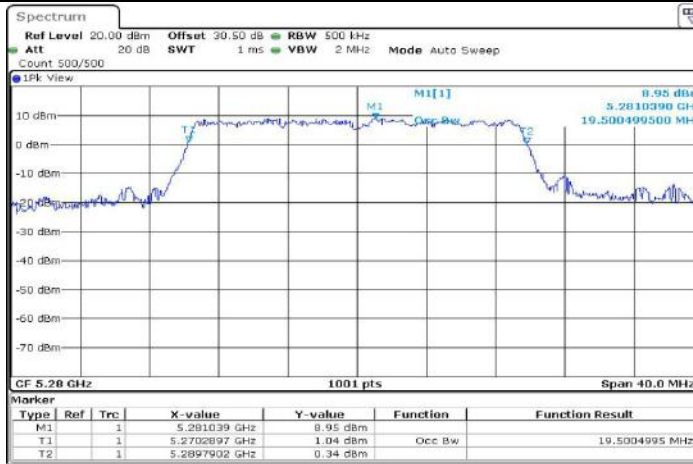
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11AX20MIMO Ant1 5260



Date: 28.MAY.2022 15:28:42

11AX20MIMO Ant1 5280



Date: 28.MAY.2022 15:50:53

11AX20MIMO Ant1 5320



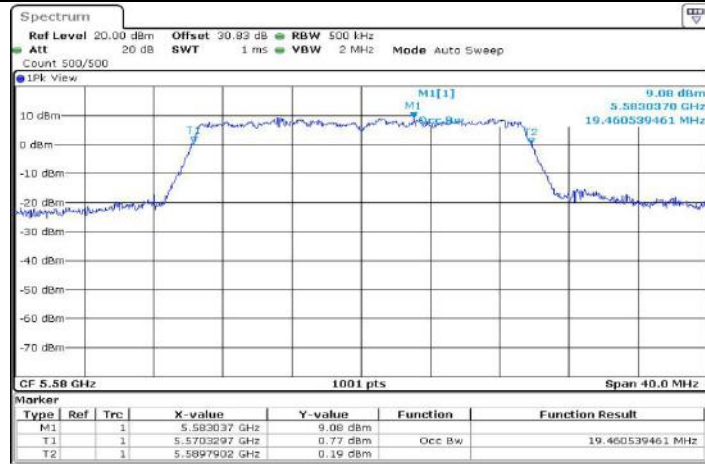
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11AX20MIMO Ant1 5500



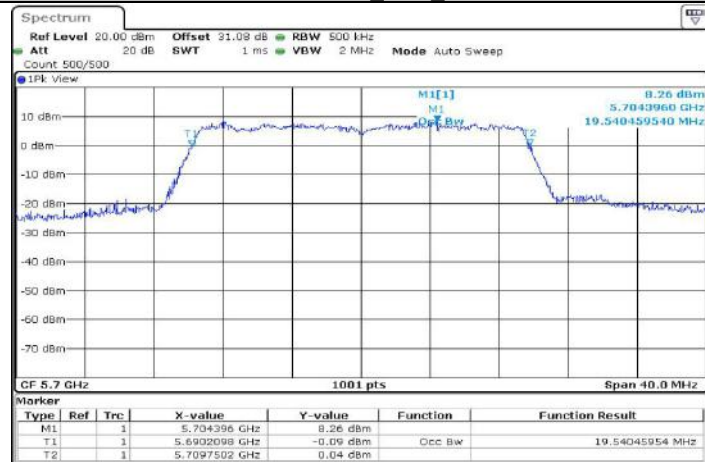
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11AX20MIMO Ant1 5580



Date: 28.MAY.2022 17:05:15

11AX20MIMO Ant1 5700



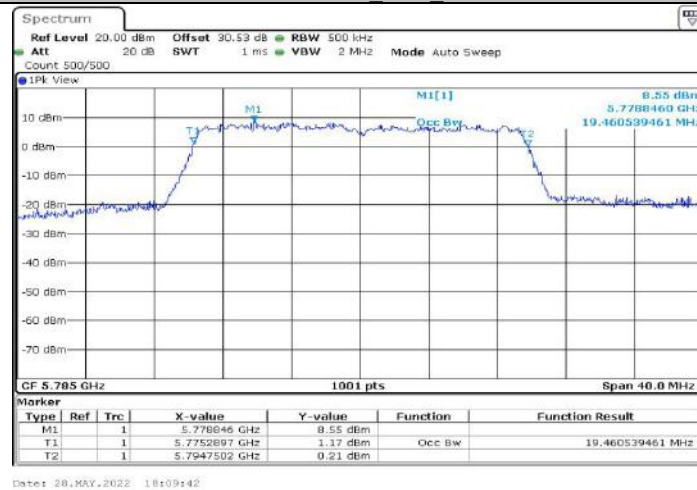
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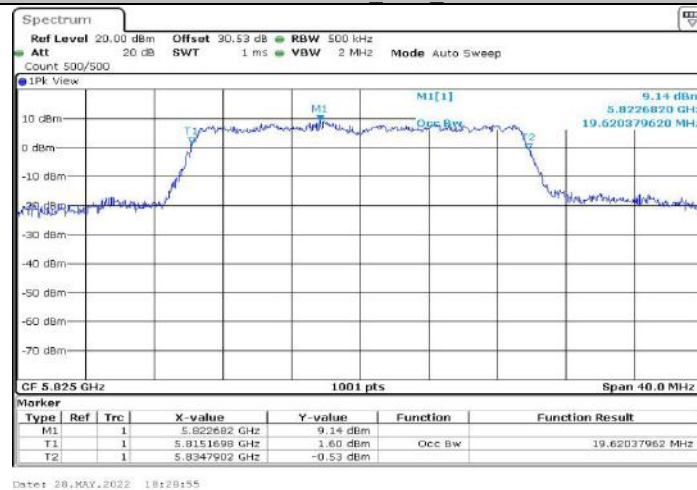
11AX20MIMO Ant1\_5745



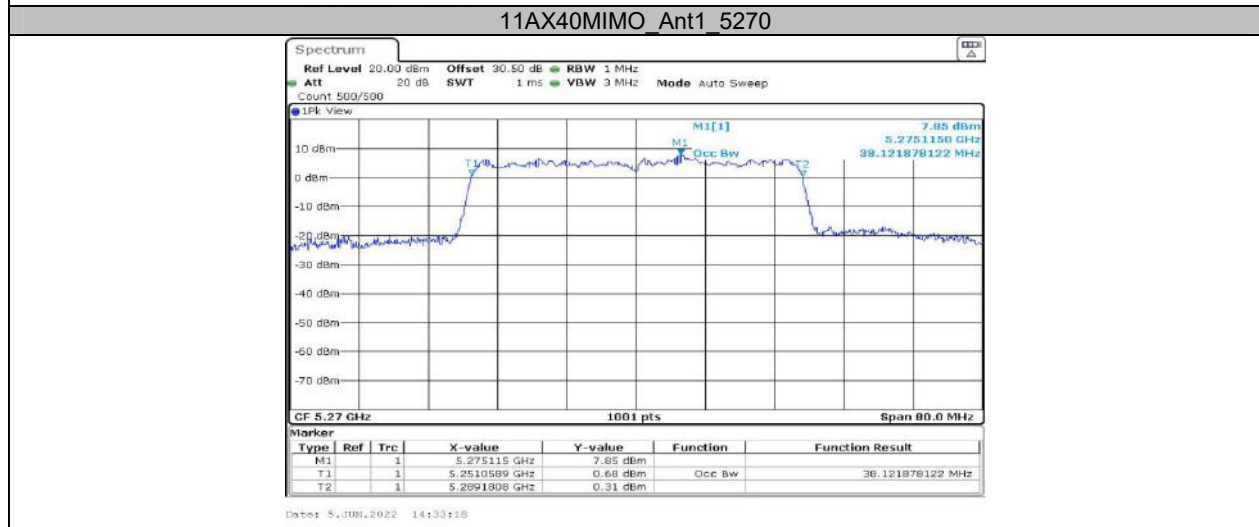
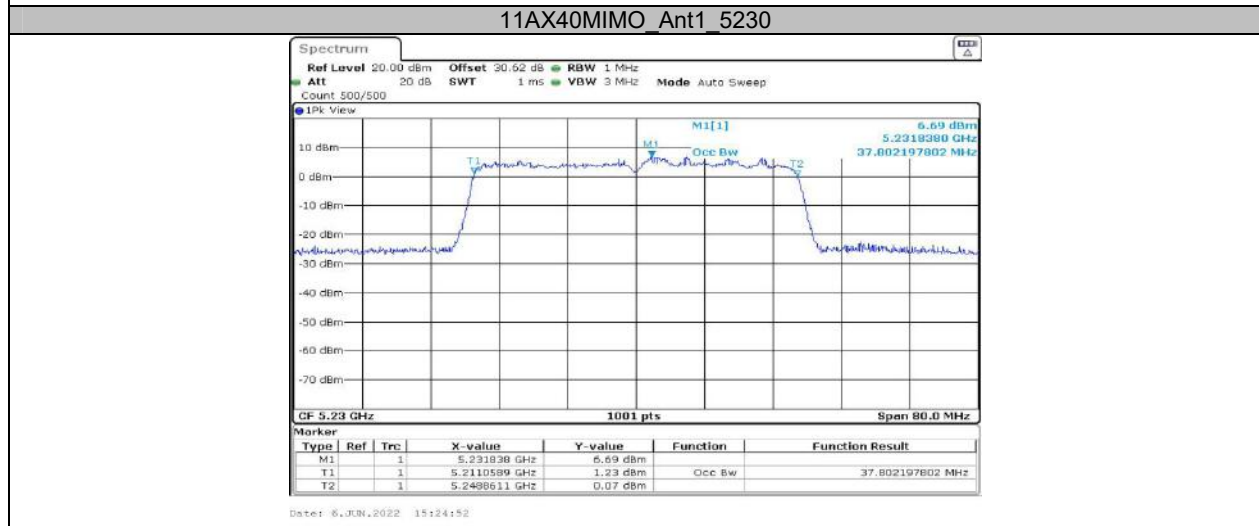
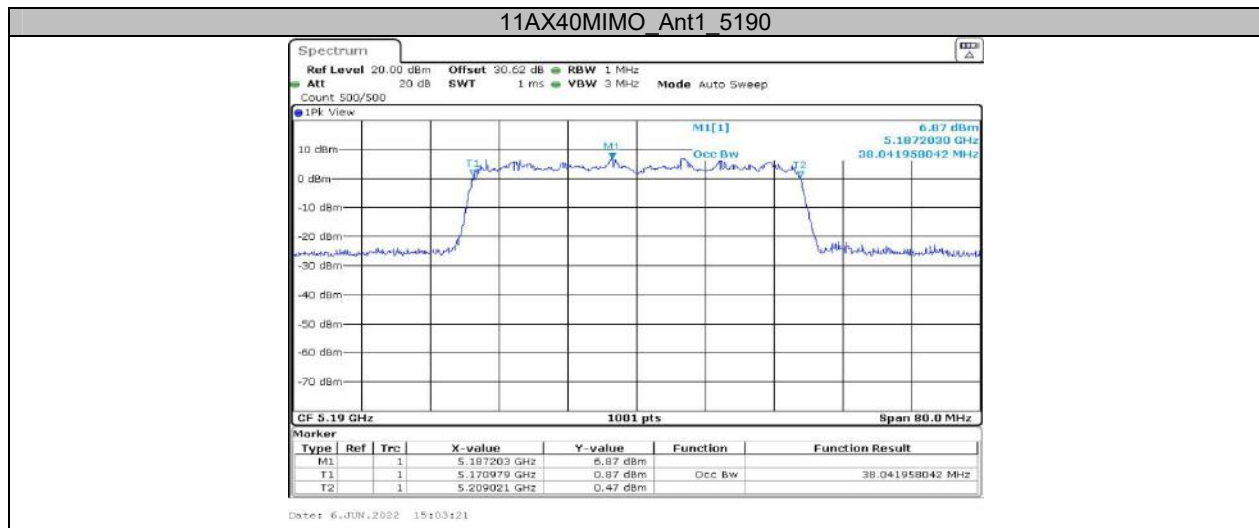
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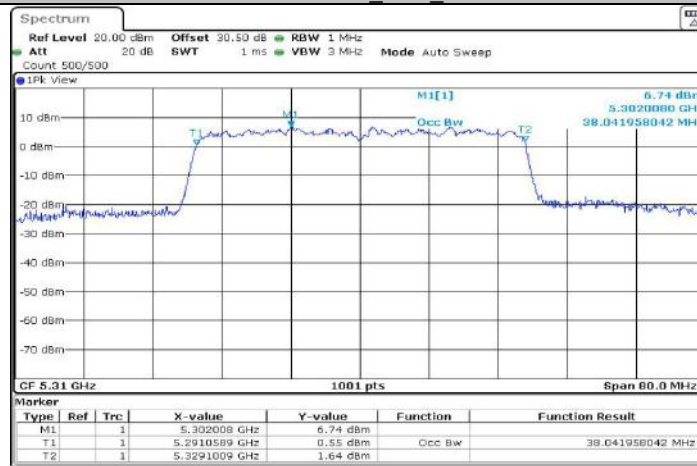
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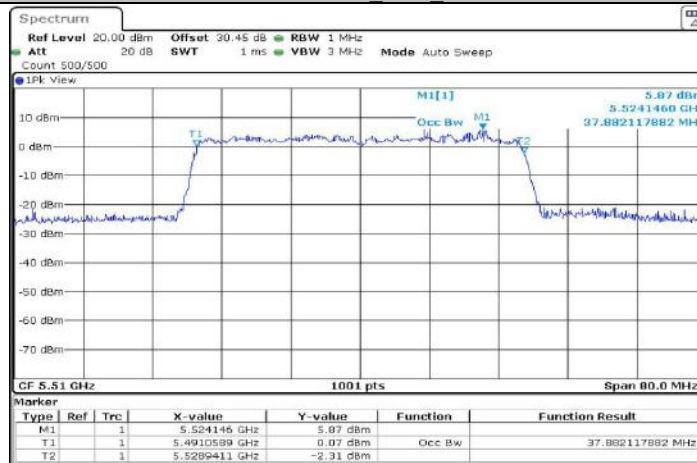


11AX40MIMO Ant1 5310



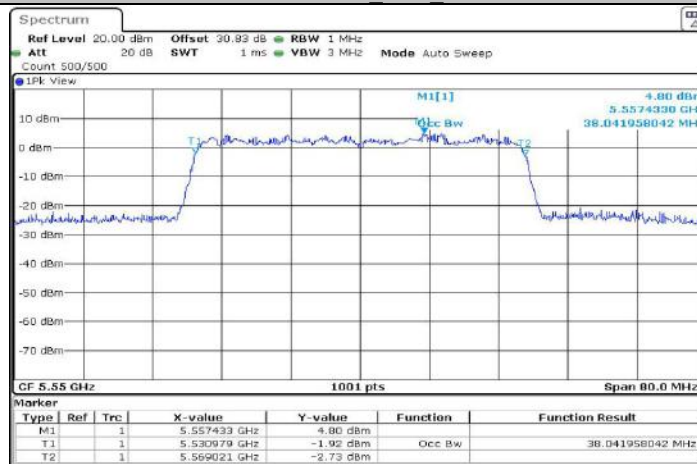
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11AX40MIMO Ant1 5510



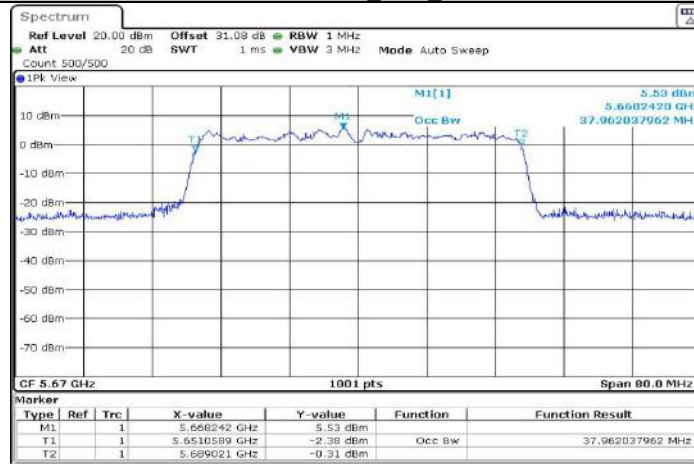
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11AX40MIMO Ant1 5550

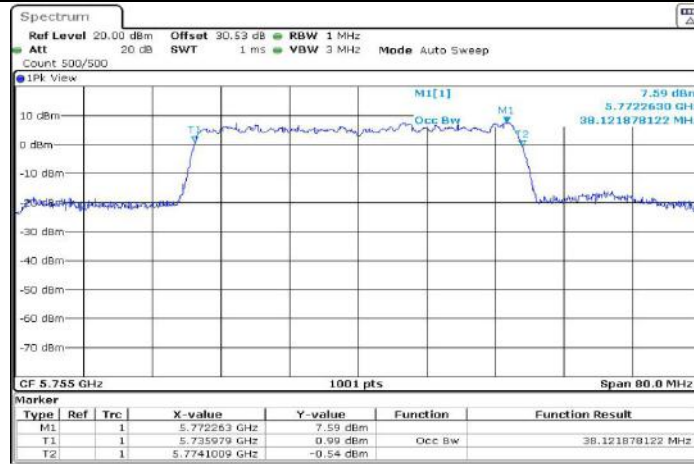


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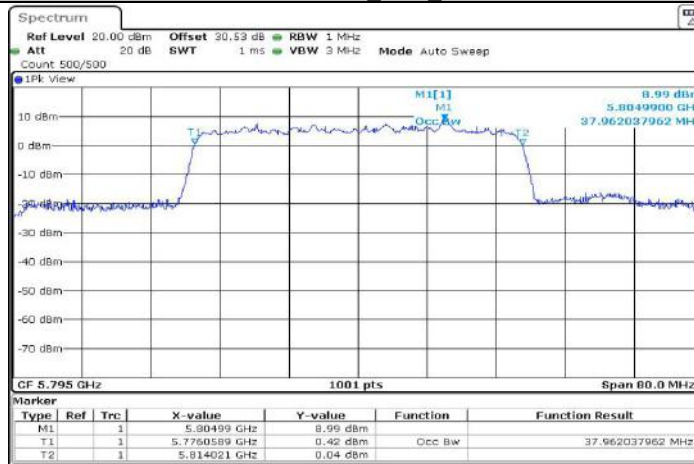
11AX40MIMO Ant1\_5670



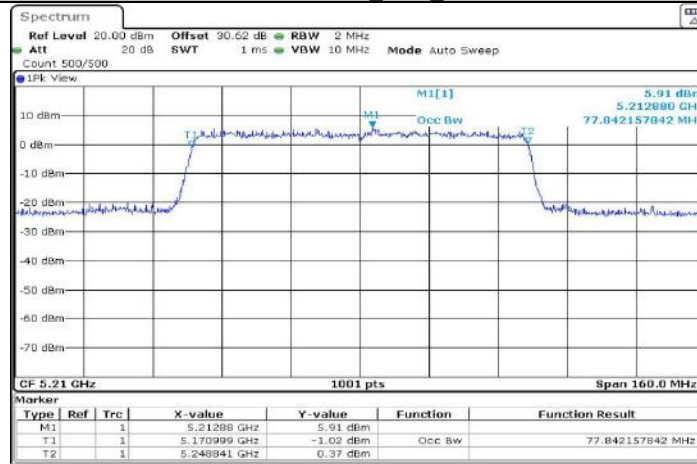
11AX40MIMO Ant1\_5755



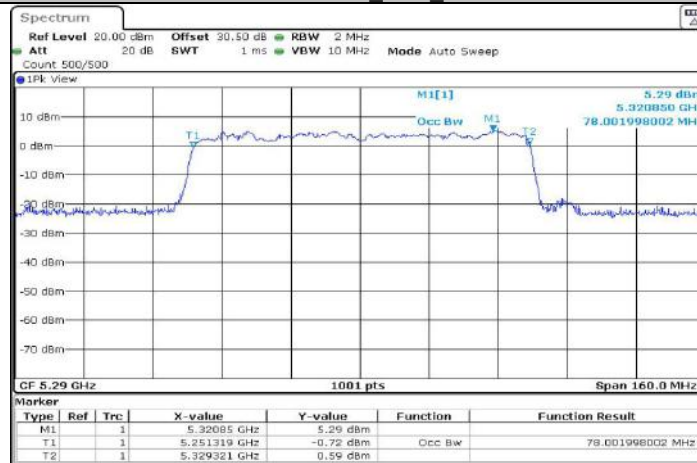
11AX40MIMO Ant1\_5795



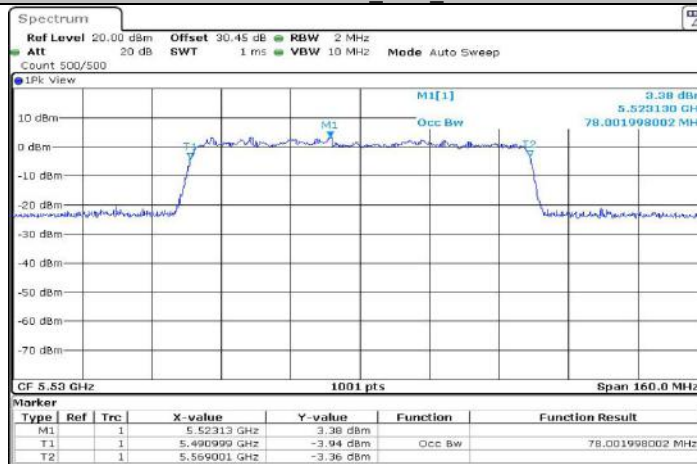
11AX80MIMO\_Ant1\_5210

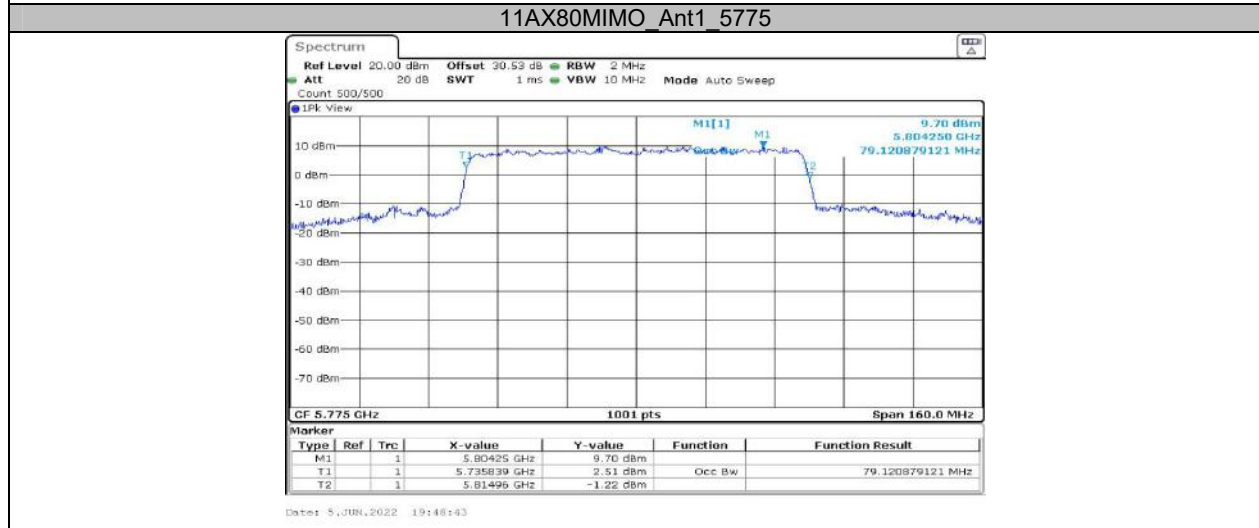
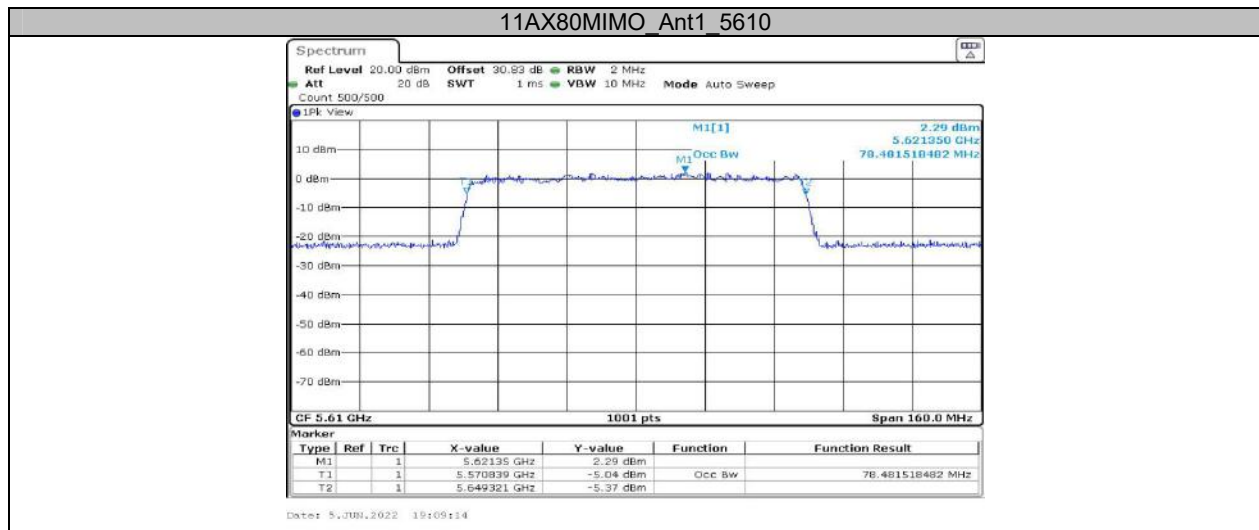


11AX80MIMO\_Ant1\_5290



11AX80MIMO\_Ant1\_5530

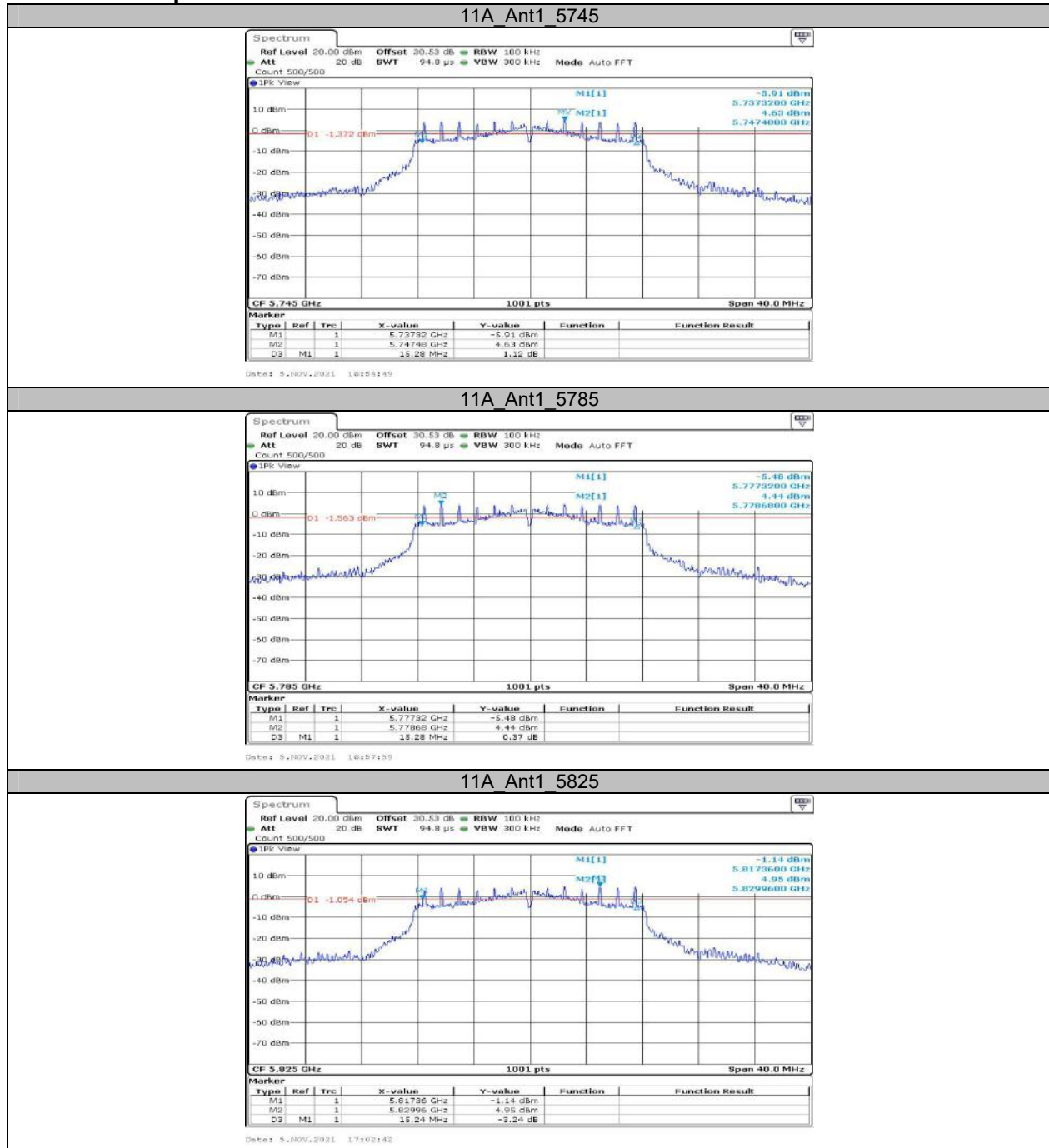




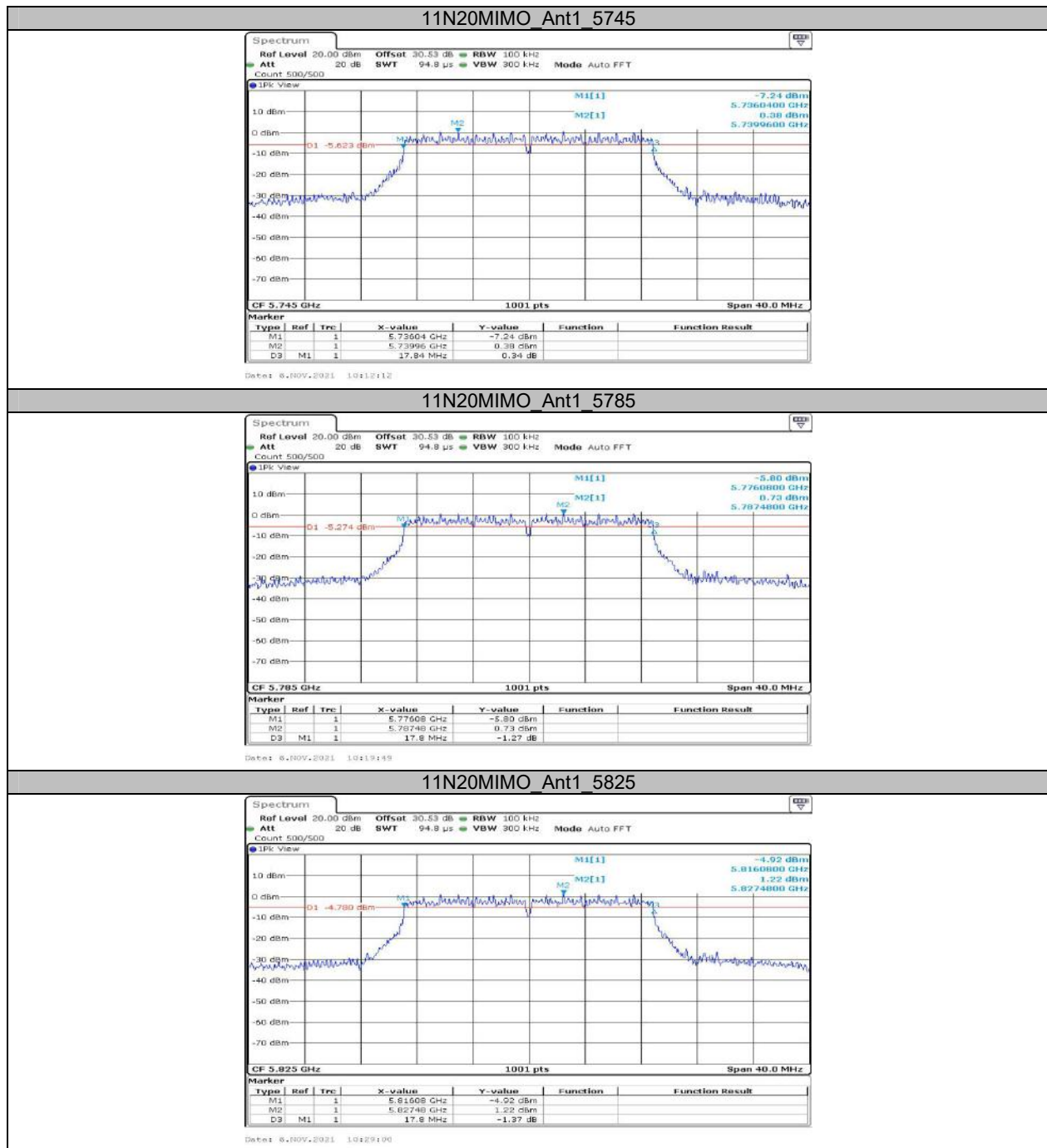
### Appendix A3: Min emission bandwidth Test Result

Test Mode	Antenna	Channel	6db EBW [MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.280	0.5	PASS
	Ant1	5785	15.280	0.5	PASS
	Ant1	5825	15.240	0.5	PASS
11N20MIMO	Ant1	5745	17.840	0.5	PASS
	Ant1	5785	17.800	0.5	PASS
	Ant1	5825	17.800	0.5	PASS
11N40MIMO	Ant1	5755	36.640	0.5	PASS
	Ant1	5795	36.560	0.5	PASS
11AC20MIMO	Ant1	5745	15.280	0.5	PASS
	Ant1	5785	15.280	0.5	PASS
	Ant1	5825	15.280	0.5	PASS
11AC40MIMO	Ant1	5755	35.360	0.5	PASS
	Ant1	5795	35.360	0.5	PASS
11AC80MIMO	Ant1	5775	75.520	0.5	PASS
11AX20MIMO (worst case 242Tones)	Ant1	5745	15.280	0.5	PASS
	Ant1	5785	15.280	0.5	PASS
	Ant1	5825	15.280	0.5	PASS
11AX40MIMO (worst case 484Tones)	Ant1	5755	35.360	0.5	PASS
	Ant1	5795	35.360	0.5	PASS
11AX80MIMO (worst case 996Tones)	Ant1	5775	75.520	0.5	PASS

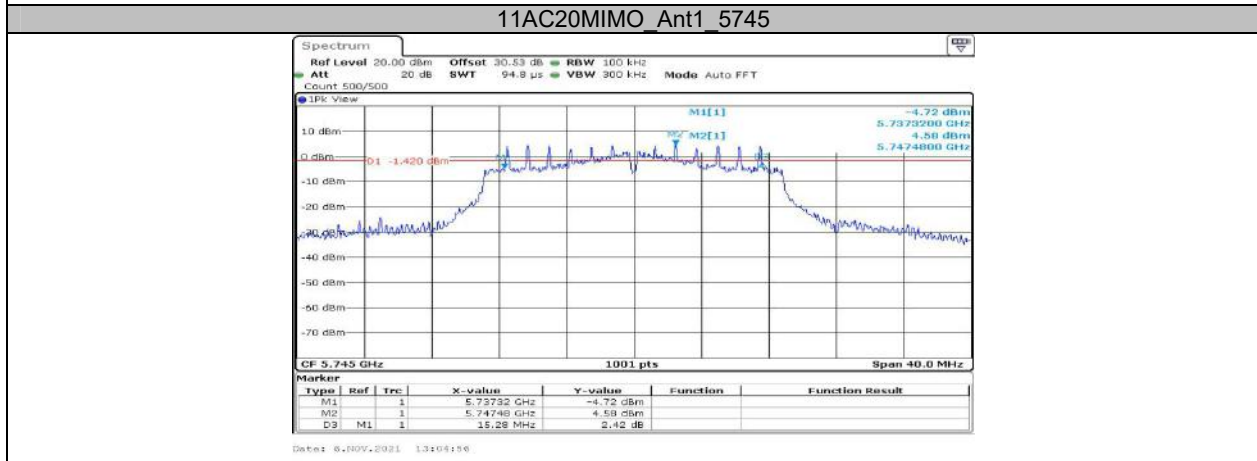
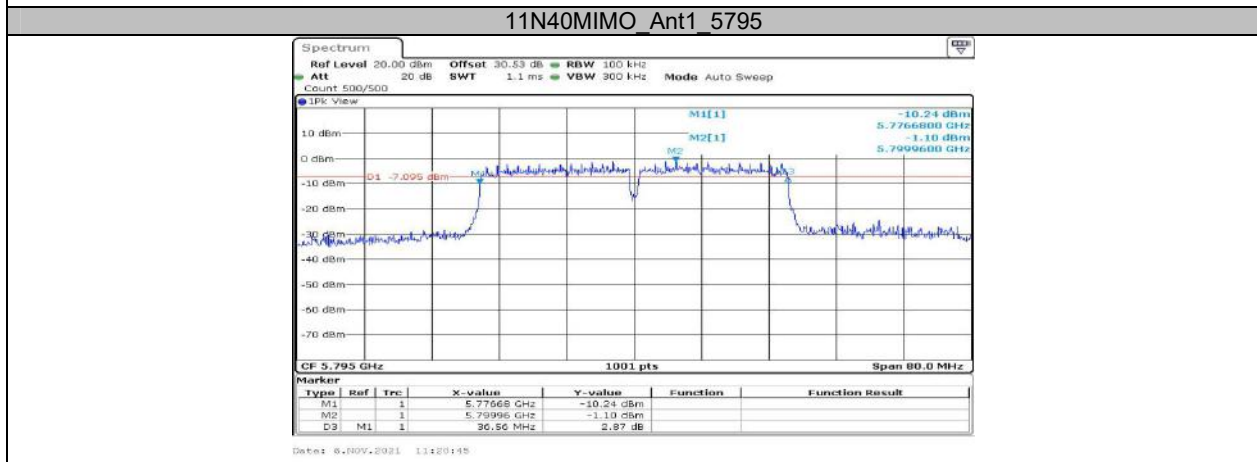
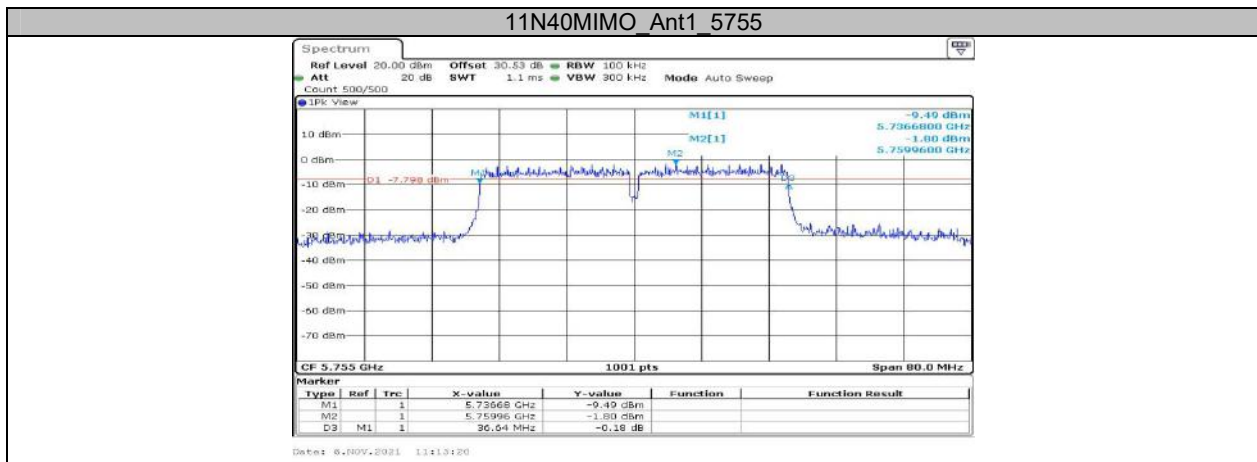
### Test Graphs

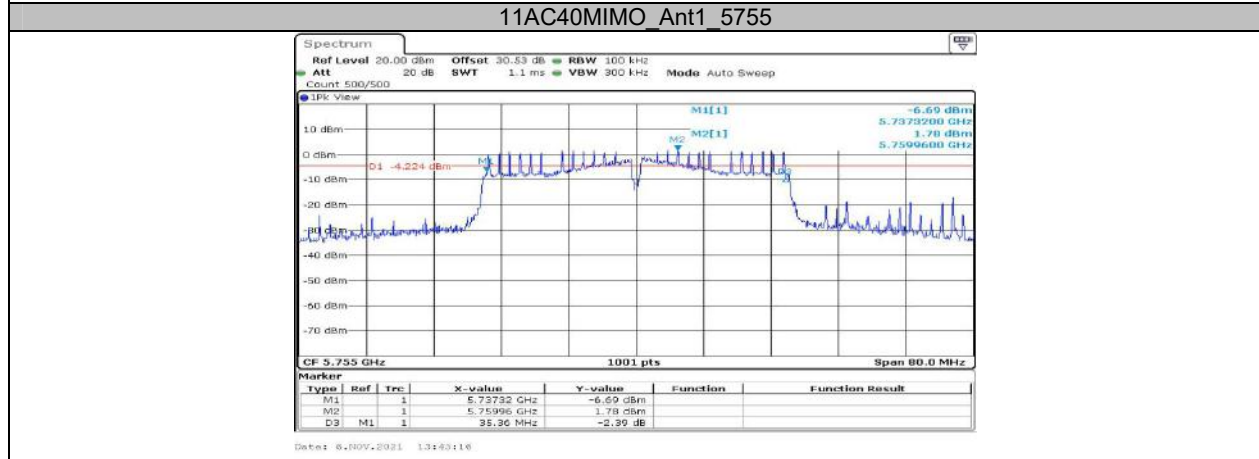
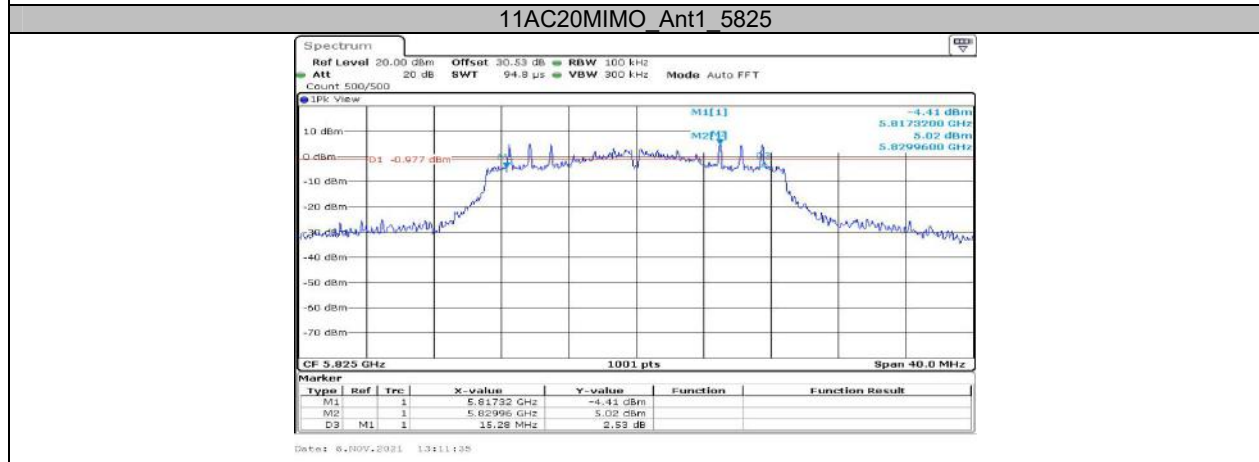
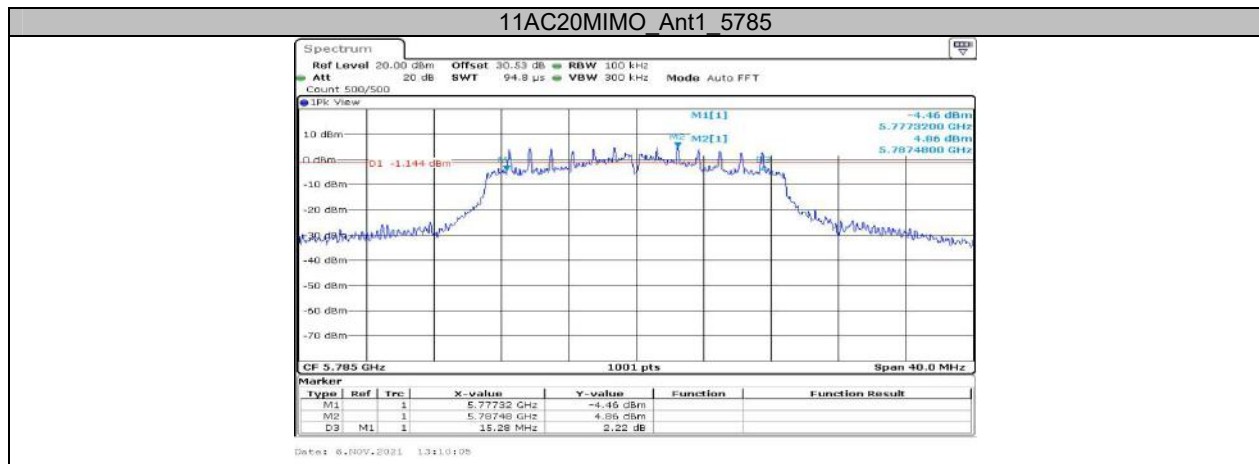


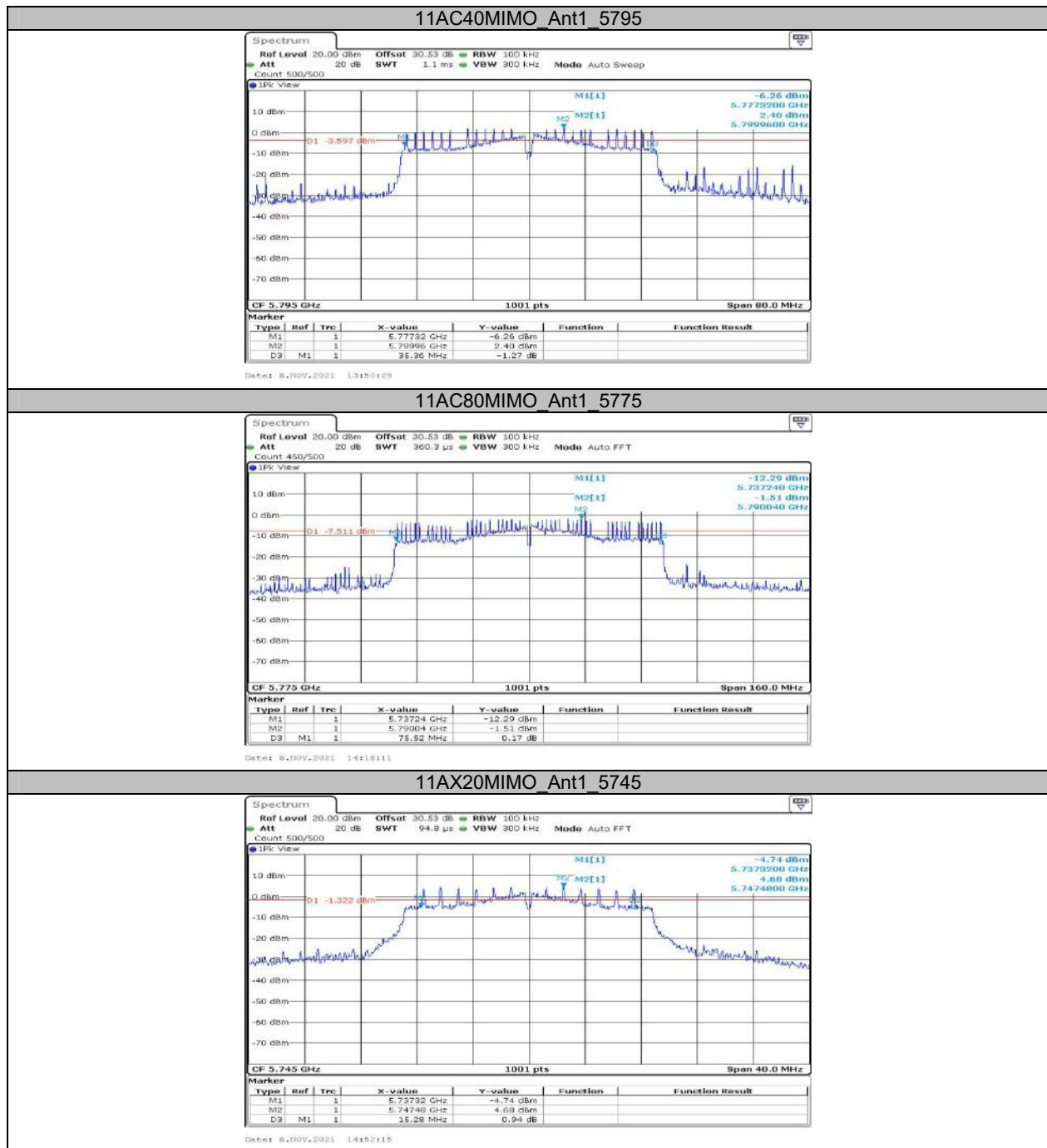


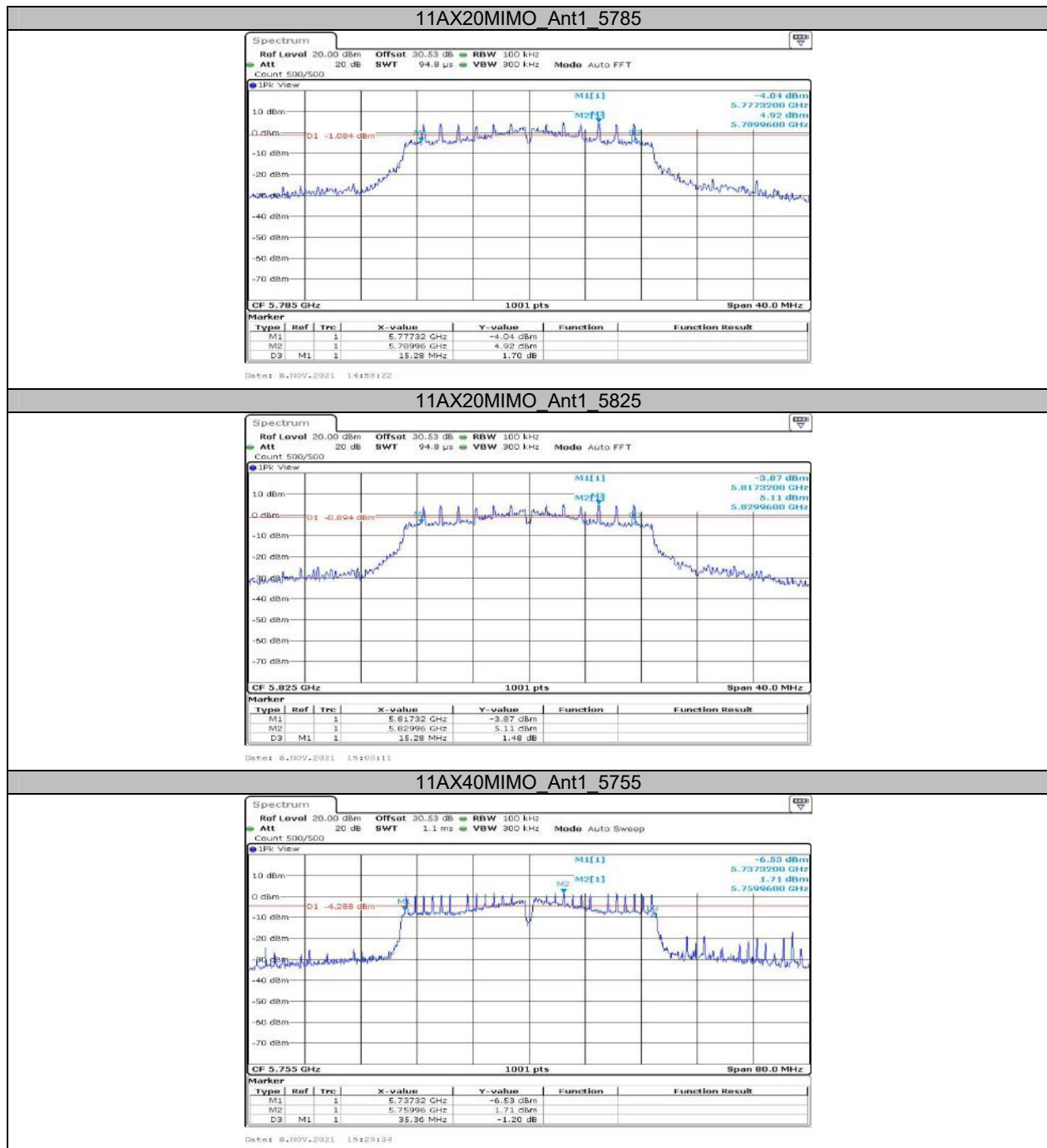


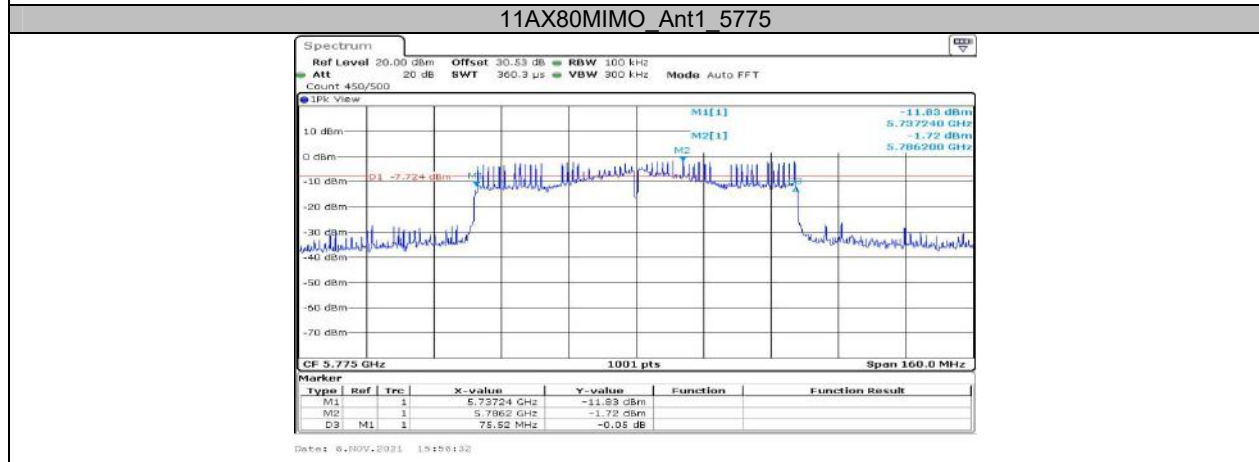
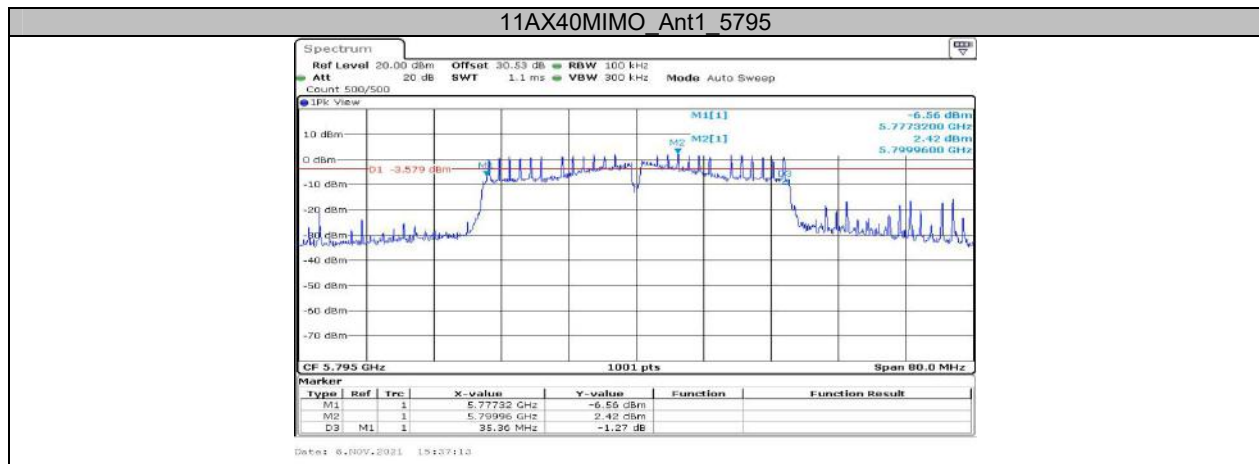












### Appendix B: Maximum conducted output power Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	13.42	≤24	PASS
	Ant2	5180	13.74	≤24	PASS
	Ant1	5200	13.67	≤24	PASS
	Ant2	5200	14.27	≤24	PASS
	Ant1	5240	13.81	≤24	PASS
	Ant2	5240	15.23	≤24	PASS
	Ant1	5260	13.58	≤24	PASS
	Ant2	5260	15.27	≤24	PASS
	Ant1	5280	13.66	≤24	PASS
	Ant2	5280	15.62	≤24	PASS
	Ant1	5320	13.82	≤24	PASS
	Ant2	5320	15.88	≤24	PASS
	Ant1	5500	14.79	≤24	PASS
	Ant2	5500	13.43	≤24	PASS
	Ant1	5580	13.96	≤24	PASS
	Ant2	5580	13.71	≤24	PASS
	Ant1	5700	13.01	≤24	PASS
	Ant2	5700	15.14	≤24	PASS
	Ant1	5745	15.13	≤30	PASS
	Ant2	5745	16.02	≤30	PASS
	Ant1	5785	15.38	≤30	PASS
	Ant2	5785	16.28	≤30	PASS
	Ant1	5825	15.63	≤30	PASS
	Ant2	5825	15.86	≤30	PASS
11N20MIMO	Ant1	5180	10.19	≤24	PASS
	Ant2	5180	9.35	≤24	PASS
	total	5180	12.8	≤24	PASS
	Ant1	5200	9.80	≤24	PASS
	Ant2	5200	8.48	≤24	PASS
	total	5200	12.2	≤24	PASS
	Ant1	5240	10.56	≤24	PASS
	Ant2	5240	8.94	≤24	PASS
	total	5240	12.8	≤24	PASS
	Ant1	5260	11.29	≤24	PASS
	Ant2	5260	9.56	≤24	PASS
	total	5260	13.5	≤24	PASS
	Ant1	5280	10.50	≤24	PASS
	Ant2	5280	8.59	≤24	PASS
	total	5280	12.7	≤24	PASS
	Ant1	5320	9.35	≤24	PASS
	Ant2	5320	8.70	≤24	PASS
	total	5320	12.0	≤24	PASS
	Ant1	5500	8.17	≤24	PASS
	Ant2	5500	9.87	≤24	PASS
	total	5500	12.1	≤24	PASS
	Ant1	5580	8.23	≤24	PASS
	Ant2	5580	10.20	≤24	PASS
	total	5580	12.3	≤24	PASS
	Ant1	5700	8.95	≤24	PASS
	Ant2	5700	9.02	≤24	PASS
	total	5700	12.0	≤24	PASS
	Ant1	5745	14.79	≤30	PASS
	Ant2	5745	15.38	≤30	PASS
	total	5745	18.1	≤30	PASS
Ant1	5785	14.23	≤30	PASS	

	Ant2	5785	15.37	≤30	PASS
	total	5785	17.8	≤30	PASS
	Ant1	5825	14.64	≤30	PASS
	Ant2	5825	15.52	≤30	PASS
	total	5825	18.1	≤30	PASS
11N40MIMO	Ant1	5190	11.94	≤24	PASS
	Ant2	5190	11.94	≤24	PASS
	total	5190	15.0	≤24	PASS
	Ant1	5230	10.95	≤24	PASS
	Ant2	5230	11.72	≤24	PASS
	total	5230	14.4	≤24	PASS
	Ant1	5270	11.48	≤24	PASS
	Ant2	5270	13.17	≤24	PASS
	total	5270	15.4	≤24	PASS
	Ant1	5310	10.27	≤24	PASS
	Ant2	5310	12.42	≤24	PASS
	total	5310	14.5	≤24	PASS
	Ant1	5510	12.53	≤24	PASS
	Ant2	5510	11.11	≤24	PASS
	total	5510	14.9	≤24	PASS
	Ant1	5550	12.40	≤24	PASS
	Ant2	5550	11.02	≤24	PASS
	total	5550	14.8	≤24	PASS
	Ant1	5670	10.94	≤24	PASS
	Ant2	5670	12.23	≤24	PASS
	total	5670	14.6	≤24	PASS
	Ant1	5755	13.75	≤30	PASS
	Ant2	5755	15.21	≤30	PASS
	total	5755	17.6	≤30	PASS
Ant1	5795	13.51	≤30	PASS	
Ant2	5795	14.92	≤30	PASS	
total	5795	17.3	≤30	PASS	
11AC20MIMO	Ant1	5180	10.41	≤24	PASS
	Ant2	5180	10.33	≤24	PASS
	total	5180	13.4	≤24	PASS
	Ant1	5200	9.44	≤24	PASS
	Ant2	5200	9.95	≤24	PASS
	total	5200	12.7	≤24	PASS
	Ant1	5240	8.59	≤24	PASS
	Ant2	5240	9.82	≤24	PASS
	total	5240	12.3	≤24	PASS
	Ant1	5260	9.23	≤24	PASS
	Ant2	5260	10.64	≤24	PASS
	total	5260	13.0	≤24	PASS
	Ant1	5280	8.29	≤24	PASS
	Ant2	5280	9.83	≤24	PASS
	total	5280	12.1	≤24	PASS
	Ant1	5320	9.40	≤24	PASS
	Ant2	5320	10.07	≤24	PASS
	total	5320	12.8	≤24	PASS
	Ant1	5500	10.30	≤24	PASS
	Ant2	5500	8.49	≤24	PASS
	total	5500	12.5	≤24	PASS
	Ant1	5580	9.48	≤24	PASS
	Ant2	5580	8.52	≤24	PASS
	total	5580	12.0	≤24	PASS
Ant1	5700	9.35	≤24	PASS	
Ant2	5700	9.81	≤24	PASS	
total	5700	12.6	≤24	PASS	
Ant1	5745	14.52	≤30	PASS	
Ant2	5745	15.37	≤30	PASS	

	total	5745	18.0	≤30	PASS
	Ant1	5785	14.39	≤30	PASS
	Ant2	5785	15.51	≤30	PASS
	total	5785	18.0	≤30	PASS
	Ant1	5825	14.59	≤30	PASS
	Ant2	5825	15.51	≤30	PASS
	total	5825	18.1	≤30	PASS
11AC40MIMO	Ant1	5190	11.95	≤24	PASS
	Ant2	5190	11.68	≤24	PASS
	total	5190	14.8	≤24	PASS
	Ant1	5230	12.03	≤24	PASS
	Ant2	5230	12.91	≤24	PASS
	total	5230	15.5	≤24	PASS
	Ant1	5270	11.32	≤24	PASS
	Ant2	5270	13.10	≤24	PASS
	total	5270	15.3	≤24	PASS
	Ant1	5310	12.31	≤24	PASS
	Ant2	5310	12.40	≤24	PASS
	total	5310	15.4	≤24	PASS
	Ant1	5510	12.35	≤24	PASS
	Ant2	5510	11.29	≤24	PASS
	total	5510	14.9	≤24	PASS
	Ant1	5550	12.40	≤24	PASS
	Ant2	5550	11.12	≤24	PASS
	total	5550	14.8	≤24	PASS
	Ant1	5670	11.94	≤24	PASS
	Ant2	5670	12.03	≤24	PASS
	total	5670	15.0	≤24	PASS
	Ant1	5755	13.85	≤30	PASS
	Ant2	5755	14.05	≤30	PASS
	total	5755	17.0	≤30	PASS
Ant1	5795	13.58	≤30	PASS	
Ant2	5795	15.39	≤30	PASS	
total	5795	17.6	≤30	PASS	
11AC80MIMO	Ant1	5210	15.41	≤24	PASS
	Ant2	5210	13.74	≤24	PASS
	total	5210	17.7	≤24	PASS
	Ant1	5290	14.40	≤24	PASS
	Ant2	5290	14.59	≤24	PASS
	total	5290	17.5	≤24	PASS
	Ant1	5530	14.82	≤24	PASS
	Ant2	5530	12.51	≤24	PASS
	total	5530	16.8	≤24	PASS
	Ant1	5610	14.36	≤24	PASS
	Ant2	5610	12.26	≤24	PASS
	total	5610	16.4	≤24	PASS
	Ant1	5775	12.47	≤30	PASS
	Ant2	5775	13.71	≤30	PASS
total	5775	16.1	≤30	PASS	



Test Mode	Antenna	Frequency [MHz]	Ru Size	Ru Index	Result [dBm]	Limit [dBm]	Verdict
11AX20 MIMO	Ant1	5180	26Tone	RU0	8.48	≤24	PASS
			52Tone	RU37	11.68	≤24	PASS
			106Tone	RU53	13.61	≤24	PASS
			242Tone	RU61	13.42	≤24	PASS
	Ant2	5180	26Tone	RU0	7.94	≤24	PASS
			52Tone	RU37	11.35	≤24	PASS
			106Tone	RU53	13.09	≤24	PASS
			242Tone	RU61	13.02	≤24	PASS
	total	5180	26Tone	RU0	11.23	≤24	PASS
			52Tone	RU37	14.53	≤24	PASS
			106Tone	RU53	16.37	≤24	PASS
			242Tone	RU61	16.23	≤24	PASS
	Ant1	5200	26Tone	RU0	8.69	≤24	PASS
			52Tone	RU37	11.68	≤24	PASS
			106Tone	RU53	13.53	≤24	PASS
			242Tone	RU61	13.59	≤24	PASS
	Ant2	5200	26Tone	RU0	8.16	≤24	PASS
			52Tone	RU37	11.50	≤24	PASS
			106Tone	RU53	13.22	≤24	PASS
			242Tone	RU61	13.18	≤24	PASS
	total	5200	26Tone	RU0	11.44	≤24	PASS
			52Tone	RU37	14.60	≤24	PASS
			106Tone	RU53	16.39	≤24	PASS
			242Tone	RU61	16.40	≤24	PASS
	Ant1	5240	26Tone	RU0	8.61	≤24	PASS
			52Tone	RU37	11.72	≤24	PASS
			106Tone	RU53	13.63	≤24	PASS
			242Tone	RU61	13.56	≤24	PASS
	Ant2	5240	26Tone	RU0	8.40	≤24	PASS
			52Tone	RU37	12.01	≤24	PASS
			106Tone	RU53	13.76	≤24	PASS
			242Tone	RU61	13.71	≤24	PASS
	total	5240	26Tone	RU0	11.52	≤24	PASS
			52Tone	RU37	14.88	≤24	PASS
			106Tone	RU53	16.71	≤24	PASS
			242Tone	RU61	16.65	≤24	PASS
	Ant1	5260	26Tone	RU0	9.41	≤24	PASS
			52Tone	RU37	12.22	≤24	PASS
			106Tone	RU53	13.26	≤24	PASS
			242Tone	RU61	13.18	≤24	PASS
	Ant2	5260	26Tone	RU0	8.55	≤24	PASS
			52Tone	RU37	12.56	≤24	PASS
			106Tone	RU53	13.41	≤24	PASS
			242Tone	RU61	13.54	≤24	PASS
	total	5260	26Tone	RU0	12.01	≤24	PASS
			52Tone	RU37	15.40	≤24	PASS
			106Tone	RU53	16.35	≤24	PASS
			242Tone	RU61	16.37	≤24	PASS
Ant1	5280	26Tone	RU0	9.52	≤24	PASS	
		52Tone	RU37	12.36	≤24	PASS	
		106Tone	RU53	14.92	≤24	PASS	
		242Tone	RU61	14.81	≤24	PASS	
Ant2	5280	26Tone	RU0	8.33	≤24	PASS	
		52Tone	RU37	12.70	≤24	PASS	
		106Tone	RU53	15.01	≤24	PASS	

		242Tone	RU61	15.06	≤24	PASS
		26Tone	RU0	11.98	≤24	PASS
		52Tone	RU37	15.54	≤24	PASS
		106Tone	RU53	17.98	≤24	PASS
		242Tone	RU61	17.95	≤24	PASS
		26Tone	RU0	8.57	≤24	PASS
		52Tone	RU37	11.44	≤24	PASS
		106Tone	RU53	14.93	≤24	PASS
		242Tone	RU61	14.91	≤24	PASS
		26Tone	RU0	8.36	≤24	PASS
		52Tone	RU37	11.62	≤24	PASS
		106Tone	RU53	14.99	≤24	PASS
		242Tone	RU61	15.03	≤24	PASS
		26Tone	RU0	11.48	≤24	PASS
		52Tone	RU37	14.54	≤24	PASS
		106Tone	RU53	17.97	≤24	PASS
		242Tone	RU61	17.98	≤24	PASS
		26Tone	RU0	8.86	≤24	PASS
		52Tone	RU37	11.63	≤24	PASS
		106Tone	RU53	14.44	≤24	PASS
		242Tone	RU61	14.31	≤24	PASS
		26Tone	RU0	9.46	≤24	PASS
		52Tone	RU37	11.57	≤24	PASS
		106Tone	RU53	14.14	≤24	PASS
		242Tone	RU61	14.08	≤24	PASS
		26Tone	RU0	12.18	≤24	PASS
		52Tone	RU37	14.61	≤24	PASS
		106Tone	RU53	17.30	≤24	PASS
		242Tone	RU61	17.21	≤24	PASS
		26Tone	RU0	8.34	≤24	PASS
		52Tone	RU37	11.25	≤24	PASS
		106Tone	RU53	14.12	≤24	PASS
		242Tone	RU61	14.21	≤24	PASS
		26Tone	RU0	8.66	≤24	PASS
		52Tone	RU37	11.54	≤24	PASS
		106Tone	RU53	14.30	≤24	PASS
		242Tone	RU61	14.26	≤24	PASS
		26Tone	RU0	11.51	≤24	PASS
		52Tone	RU37	14.41	≤24	PASS
		106Tone	RU53	17.22	≤24	PASS
		242Tone	RU61	17.25	≤24	PASS
		26Tone	RU0	9.11	≤24	PASS
		52Tone	RU37	12.10	≤24	PASS
		106Tone	RU53	13.89	≤24	PASS
		242Tone	RU61	13.87	≤24	PASS
		26Tone	RU0	9.71	≤24	PASS
		52Tone	RU37	11.85	≤24	PASS
		106Tone	RU53	13.61	≤24	PASS
		242Tone	RU61	13.77	≤24	PASS
		26Tone	RU0	12.43	≤24	PASS
		52Tone	RU37	14.99	≤24	PASS
		106Tone	RU53	16.76	≤24	PASS
		242Tone	RU61	16.83	≤24	PASS
		26Tone	RU0	16.37	≤30.00	PASS
		52Tone	RU37	16.51	≤30.00	PASS
		106Tone	RU53	16.42	≤30.00	PASS
		242Tone	RU61	14.57	≤30.00	PASS
		26Tone	RU0	16.51	≤30.00	PASS

			52Tone	RU37	16.57	≤30.00	PASS	
			106Tone	RU53	16.92	≤30.00	PASS	
			242Tone	RU61	15.41	≤30.00	PASS	
	total	5745		26Tone	RU0	19.45	≤30.00	PASS
				52Tone	RU37	19.55	≤30.00	PASS
				106Tone	RU53	19.69	≤30.00	PASS
	Ant1	5785		242Tone	RU61	18.02	≤30.00	PASS
				26Tone	RU0	16.12	≤30.00	PASS
				52Tone	RU37	16.14	≤30.00	PASS
	Ant2	5785		106Tone	RU53	16.17	≤30.00	PASS
				242Tone	RU61	14.22	≤30.00	PASS
				26Tone	RU0	16.76	≤30.00	PASS
	total	5785		52Tone	RU37	16.88	≤30.00	PASS
				106Tone	RU53	16.89	≤30.00	PASS
				242Tone	RU61	15.49	≤30.00	PASS
	Ant1	5825		26Tone	RU0	19.46	≤30.00	PASS
				52Tone	RU37	19.54	≤30.00	PASS
				106Tone	RU53	19.56	≤30.00	PASS
	Ant2	5825		242Tone	RU61	17.91	≤30.00	PASS
				26Tone	RU0	15.67	≤30.00	PASS
				52Tone	RU37	15.69	≤30.00	PASS
	total	5825		106Tone	RU53	15.77	≤30.00	PASS
				242Tone	RU61	13.91	≤30.00	PASS
				26Tone	RU0	16.88	≤30.00	PASS
Ant1	5825		52Tone	RU37	16.90	≤30.00	PASS	
			106Tone	RU53	16.94	≤30.00	PASS	
			242Tone	RU61	15.44	≤30.00	PASS	
Ant2	5825		26Tone	RU0	19.33	≤30.00	PASS	
			52Tone	RU37	19.35	≤30.00	PASS	
			106Tone	RU53	19.40	≤30.00	PASS	
total	5825		242Tone	RU61	17.75	≤30.00	PASS	
			26Tone	RU0	9.05	≤24	PASS	
			52Tone	RU37	12.11	≤24	PASS	
11AX40 MIMO	Ant1	5190	106Tone	RU53	15.37	≤24	PASS	
			242Tone	RU61	12.13	≤24	PASS	
			484Tone	RU65	12.67	≤24	PASS	
	Ant2	5190		26Tone	RU0	8.98	≤24	PASS
				52Tone	RU37	11.05	≤24	PASS
				106Tone	RU53	15.60	≤24	PASS
	total	5190		242Tone	RU61	12.95	≤24	PASS
				484Tone	RU65	13.27	≤24	PASS
				26Tone	RU0	12.03	≤24	PASS
	Ant1	5230		52Tone	RU37	14.62	≤24	PASS
				106Tone	RU53	18.50	≤24	PASS
				242Tone	RU61	15.57	≤24	PASS
	Ant2	5230		484Tone	RU65	15.99	≤24	PASS
				26Tone	RU0	8.80	≤24	PASS
				52Tone	RU37	9.81	≤24	PASS
	total	5230		106Tone	RU53	15.86	≤24	PASS
				242Tone	RU61	12.65	≤24	PASS
				484Tone	RU65	12.97	≤24	PASS
	Ant1	5230		26Tone	RU0	9.83	≤24	PASS
				52Tone	RU37	10.80	≤24	PASS
				106Tone	RU53	16.23	≤24	PASS
	Ant2	5230		242Tone	RU61	13.37	≤24	PASS
				484Tone	RU65	12.60	≤24	PASS
				26Tone	RU0	12.36	≤24	PASS
total	5230		52Tone	RU37	13.34	≤24	PASS	

			106Tone	RU53	19.06	≤24	PASS
			242Tone	RU61	16.04	≤24	PASS
			484Tone	RU65	15.80	≤24	PASS
	Ant1	5270	26Tone	RU0	9.38	≤24	PASS
			52Tone	RU37	12.44	≤24	PASS
			106Tone	RU53	13.03	≤24	PASS
	Ant2	5270	242Tone	RU61	12.38	≤24	PASS
			484Tone	RU65	12.86	≤24	PASS
			26Tone	RU0	8.78	≤24	PASS
	Ant2	5270	52Tone	RU37	13.39	≤24	PASS
			106Tone	RU53	12.75	≤24	PASS
			242Tone	RU61	12.94	≤24	PASS
	total	5270	484Tone	RU65	13.15	≤24	PASS
			26Tone	RU0	12.10	≤24	PASS
			52Tone	RU37	15.95	≤24	PASS
	Ant1	5310	106Tone	RU53	15.90	≤24	PASS
			242Tone	RU61	15.68	≤24	PASS
			484Tone	RU65	16.02	≤24	PASS
	Ant1	5310	26Tone	RU0	9.41	≤24	PASS
			52Tone	RU37	12.62	≤24	PASS
			106Tone	RU53	13.82	≤24	PASS
	Ant2	5310	242Tone	RU61	12.43	≤24	PASS
			484Tone	RU65	12.69	≤24	PASS
			26Tone	RU0	9.08	≤24	PASS
	Ant2	5310	52Tone	RU37	12.64	≤24	PASS
			106Tone	RU53	13.14	≤24	PASS
			242Tone	RU61	13.53	≤24	PASS
	total	5310	484Tone	RU65	13.56	≤24	PASS
			26Tone	RU0	12.26	≤24	PASS
			52Tone	RU37	15.64	≤24	PASS
	Ant1	5510	106Tone	RU53	16.50	≤24	PASS
			242Tone	RU61	16.03	≤24	PASS
			484Tone	RU65	16.16	≤24	PASS
	Ant1	5510	26Tone	RU0	9.95	≤24	PASS
			52Tone	RU37	11.05	≤24	PASS
			106Tone	RU53	11.31	≤24	PASS
	Ant2	5510	242Tone	RU61	11.16	≤24	PASS
			484Tone	RU65	10.73	≤24	PASS
			26Tone	RU0	8.97	≤24	PASS
	Ant2	5510	52Tone	RU37	9.99	≤24	PASS
			106Tone	RU53	10.20	≤24	PASS
			242Tone	RU61	10.34	≤24	PASS
	total	5510	484Tone	RU65	9.95	≤24	PASS
			26Tone	RU0	12.50	≤24	PASS
			52Tone	RU37	13.56	≤24	PASS
	Ant1	5550	106Tone	RU53	13.80	≤24	PASS
			242Tone	RU61	13.78	≤24	PASS
			484Tone	RU65	13.37	≤24	PASS
	Ant1	5550	26Tone	RU0	9.35	≤24	PASS
			52Tone	RU37	10.67	≤24	PASS
			106Tone	RU53	10.86	≤24	PASS
	Ant2	5550	242Tone	RU61	10.74	≤24	PASS
			484Tone	RU65	10.11	≤24	PASS
			26Tone	RU0	9.15	≤24	PASS
	Ant2	5550	52Tone	RU37	10.28	≤24	PASS
			106Tone	RU53	10.38	≤24	PASS
			242Tone	RU61	10.48	≤24	PASS
			484Tone	RU65	10.33	≤24	PASS