

# TEST REPORT

Applicant Name: Fanvil Link Technology Co.,LTD  
Address: Room 1517, Building G, Hualian City Panorama.27 Region,  
Bao'an District;Shenzhen,China  
Report Number: SZ1240307-11374E-RF-00C  
FCC ID: 2BCUQ-W611WV2

**Test Standard (s)**  
FCC PART 15.407

## Sample Description

Product Type: Portable Wi-Fi Phone  
Model No.: W611W  
Multiple Model(s) No.: N/A  
Trade Mark: **LINKVIL**  
Date Received: 2024/03/07  
Issue Date: 2024/05/29

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

**Prepared and Checked By:**

*Jojo Guo*

Jojo Guo  
RF Engineer

**Approved By:**

*Jimmy Xiao*

Jimmy Xiao  
RF Supervisor

Note: The information marked # is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

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**Bay Area Compliance Laboratories Corp. (Shenzhen)**

5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China  
Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn

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**DOCUMENT REVISION HISTORY**

Revision Number	Report Number	Description of Revision	Date of Revision
0	SZ1240307-11374E-RF-00C	Original Report	2024/05/29

## GENERAL INFORMATION

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

Product	Portable Wi-Fi Phone
Tested Model	W611W
Multiple Model(s)	N/A
Frequency Range	5G Wi-Fi: 5150-5250MHz; 5725-5850MHz
Mode	802.11a/n20/n40/ac20/ac40/ac80/ax20/ax40/ax80
Maximum Conducted Average Output Power	5150-5250MHz: 15.16dBm 5725-5850MHz: 13.47dBm
Modulation Technique	OFDM, OFDMA
Antenna Specification <sup>#</sup>	B1: ANT1: 0.7dBi; ANT2: 1.5dBi B4: ANT1: 2.5dBi; ANT2: 2.3dBi (provided by the applicant)
Voltage Range	DC3.8V from battery or DC5V from adapter
Sample serial number	2IGP-2 for Conducted and Radiated Emissions Test 2IGP-1 for RF Conducted Test (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	Adapter 1 Model:F12L20-050200SPAU Input: AC 100-240V~50/60Hz 0.3A Output: DC 5.0V.2.0A 10.0W Adapter 2 Model:GQ12-050200-AU Input: AC 100-240V~50/60Hz 0.4A Max Output: DC 5.0V.2.0A

### 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 Bay Area Compliance Laboratories Corp. (Shenzhen). 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		213.55 Hz(k=2, 95% level of confidence)
RF output power, conducted		0.72 dB(k=2, 95% level of confidence)
Unwanted Emission, conducted		1.75 dB(k=2, 95% level of confidence)
AC Power Lines Conducted Emissions	9kHz-150kHz	3.94dB(k=2, 95% level of confidence)
	150kHz-30MHz	3.84dB(k=2, 95% level of confidence)
Radiated Emissions	9kHz - 30MHz	3.30dB(k=2, 95% level of confidence)
	30MHz~200MHz (Horizontal)	4.48dB(k=2, 95% level of confidence)
	30MHz~200MHz (Vertical)	4.55dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Horizontal)	4.85dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Vertical)	5.05dB(k=2, 95% level of confidence)
	1GHz - 6GHz	5.35dB(k=2, 95% level of confidence)
	6GHz - 18GHz	5.44dB(k=2, 95% level of confidence)
18GHz - 40GHz	5.16dB(k=2, 95% level of confidence)	
Temperature		±1°C
Humidity		±1%
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 Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 715558, the FCC Designation No. : CN5045.

## SYSTEM TEST CONFIGURATION

### Description of Test Configuration

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

The system support 802.11a/n ht20/n ht40/ac vht20/ac vht40/ac vht80/ax he20/ax he40/ax he80, the 802.11 n ht20/n ht40 were reduced since the identical parameters with 802.11ac vht20 and vht40.

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/ac20/ax20 mode: channel 36, 40, 48 were tested;

For 802.11ac40/ax40 mode: channel 38, 46 were tested;

For 802.11ac80/ax80 mode, channel 42 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/ac20/ax20 mode: channel 149, 157, 165 were tested;

For 802.11ac40/ax40 mode: channel 151, 159 were tested;

For 802.11ac80/ax80 mode, channel 155 was tested.

**EUT Exercise Software**

Test in the engineering mode and power level as below. The software and power level was provided by the applicant. The device was tested with the worst case was performed as below:

U-NII	Mode	Data rate	Power Level*		
			Low Channel	Middle Channel	High Channel
5150 – 5250MHz	802.11a	6Mbps	10	10	10
	802.11ac20	MCS0	10	10	10
	802.11ac40	MCS0	10	/	10
	802.11ac80	MCS0	/	10	/
	802.11ax20	MCS0	10	10	10
	802.11ax40	MCS0	10	/	10
	802.11ax80	MCS0	/	10	/
5725 – 5850MHz	802.11a	6Mbps	10	10	10
	802.11ac20	MCS0	10	10	10
	802.11ac40	MCS0	10	/	10
	802.11ac80	MCS0	/	10	/
	802.11ax20	MCS0	10	10	10
	802.11ax40	MCS0	10	/	10
	802.11ax80	MCS0	/	10	/

Note: the device support SISO/MIMO for all mode, SISO/MIMO with same setting for same mode, pre-scan SISO/MIMO, worst case MIMO was recorded in report. Two antennas with same power level setting For 802.11 ax mode, only support full RU mode.

**Duty cycle**

Test Result: Compliant. 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
/	/	/	/

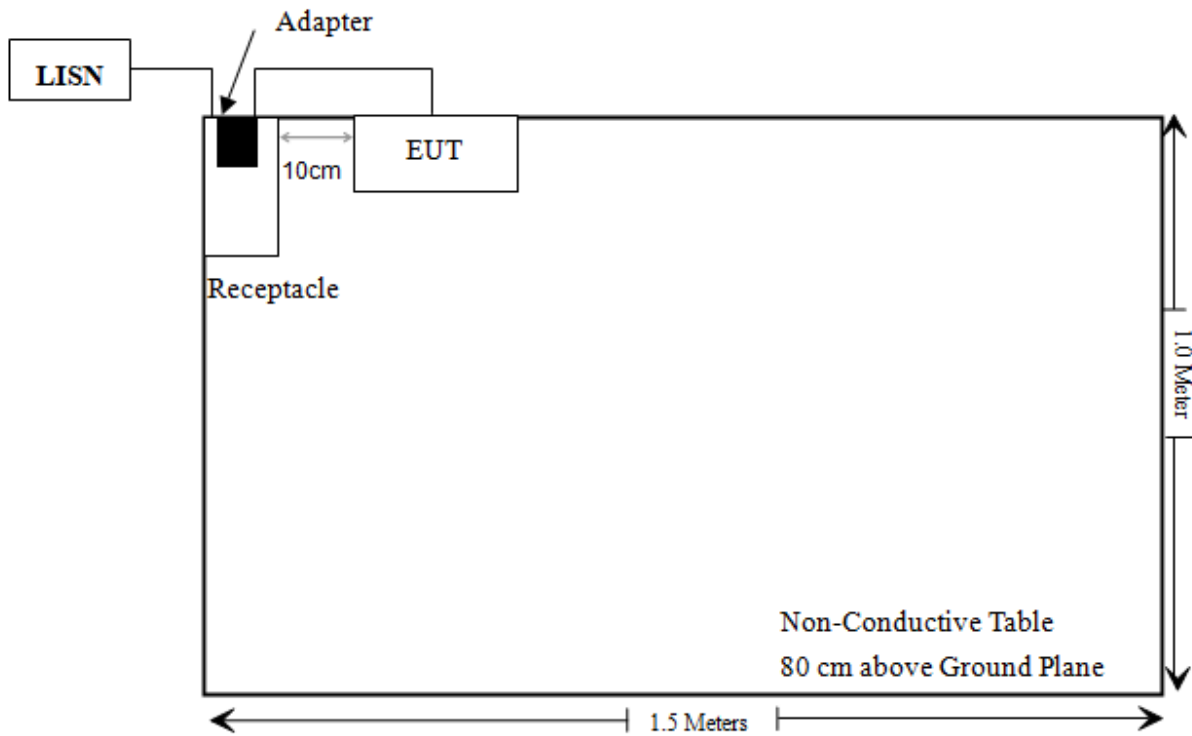


**External I/O Cable**

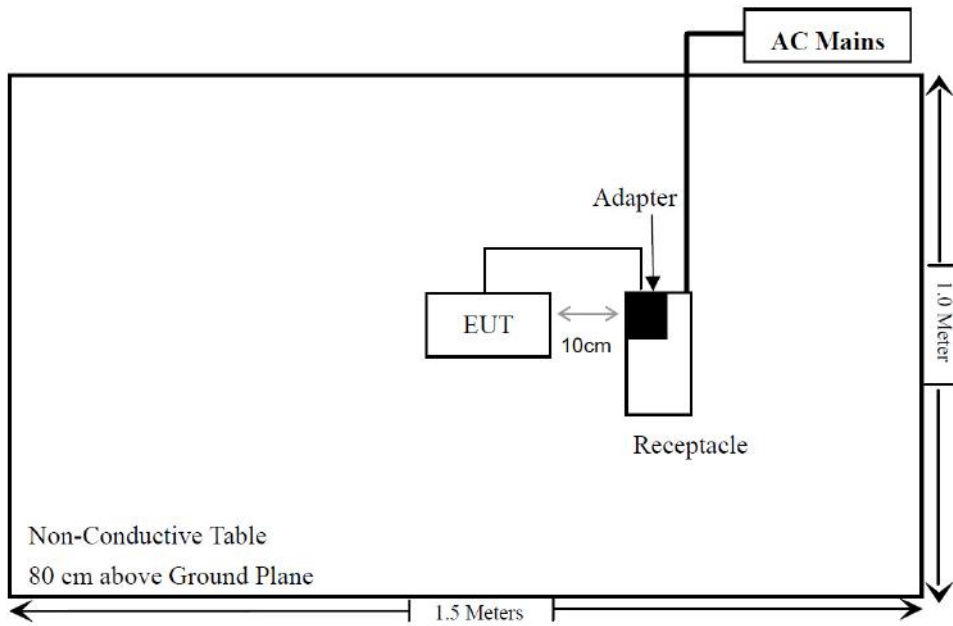
Cable Description	Length (m)	From Port	To
Un-shielding Detachable USB Cable	1.0	EUT	Adapter
Un-shielding Detachable AC Cable	1.2	Receptacle	LISN
Un-shielding Detachable AC Cable	1.2	Receptacle	AC Mains

**Block Diagram of Test Setup**

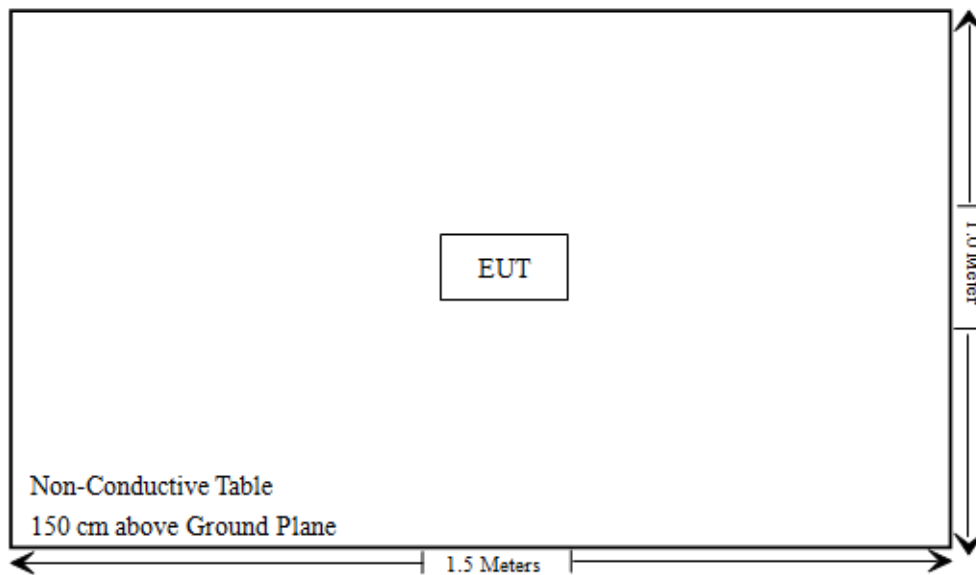
For Conducted Emissions:



For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1GHz):



**SUMMARY OF TEST RESULTS**

FCC Rules	Description of Test	Result
§1.1307 & §2.1093	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)	Not Applicable

Not Applicable: The supplier declared that the equipment has no this function.

**TEST EQUIPMENT LIST**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
<b>Conducted Emissions Test</b>					
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2024/01/16	2025/01/15
Rohde & Schwarz	LISN	ENV216	101613	2024/01/16	2025/01/15
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2023/08/03	2024/08/02
Unknown	CE Cable	CE Cable	UF A210B-1-0720-504504	2023/08/03	2024/08/02
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
<b>Radiated Emissions Test</b>					
R&S	EMI Test Receiver	ESR3	102455	2024/01/16	2025/01/15
Sonoma instrument	Pre-amplifier	310 N	186238	2023/06/08	2024/06/07
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
ETS	Passive Loop Antenna	6512	29604	2023/07/07	2026/07/06
Unknown	Cable	Chamber Cable 1	F-03-EM236	2023/08/03	2024/08/02
Unknown	Cable	Chamber Cable 4	EC-007	2023/08/03	2024/08/02
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2024/03/27	2025/03/26
COM-POWER	Pre-amplifier	PA-122	181919	2023/06/29	2024/06/28
Schwarzbeck	Horn Antenna	BBHA9120D(1201)	1143	2023/07/26	2026/07/25
Unknown	RF Cable	KMSE	0735	2023/10/08	2024/10/07
Unknown	RF Cable	UFA147	219661	2023/10/08	2024/10/07
SNSD	5G Band Reject filter	BSF5150-5850MN-0899-004	5G filter	2023/08/03	2024/08/02
A.H.System	Pre-amplifier	PAM-1840VH	190	2023/08/02	2024/08/01
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
UTIFLEX	RF Cable	NO. 13	232308-001	2023/08/03	2024/08/02
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
<b>RF Conducted Test</b>					
Tonscend	RF control Unit	JS0806-2	19D8060154	2023/09/06	2024/09/05
Rohde & Schwarz	Signal and Spectrum Analyzer	FSV40	101473	2024/01/16	2025/01/15
Narda	20dB Attenuator	99899	0107	2023/07/04	2024/07/03

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

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## **FCC §1.1307 & §2.1093 - RF EXPOSURE**

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### **Applicable Standard**

FCC§1.1310 and §2.1093.

### **Test Result**

Compliance, please refer to the SAR report: SZ1240307-11374E-SA.

## **FCC §15.203 - ANTENNA REQUIREMENT**

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### **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.
- c. 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 which was permanently attached, fulfill the requirement of this section. Please refer to the EUT photos.

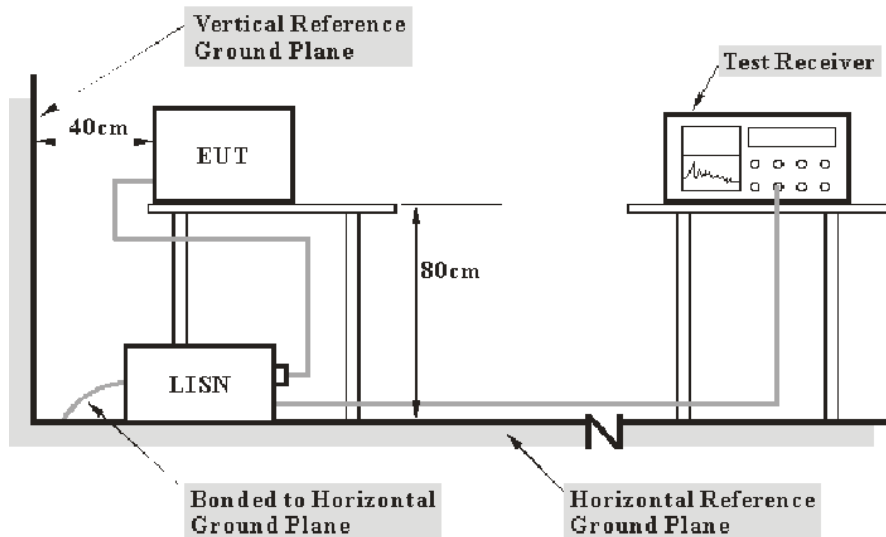
**Result: Compliant**

**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.

## Factor & Over Limit Calculation

The factor is calculated by adding LISN VDF (Voltage Division Factor) and 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, an Over limit of -7 dB means the emission is 7 dB below the limit. The equation for calculation is as follows:

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

Note: The term "cable loss" refers to the combination of a cable and a 10dB transient limiter (attenuator).

## Test Data

### Environmental Conditions

<b>Temperature:</b>	25 °C
<b>Relative Humidity:</b>	55 %
<b>ATM Pressure:</b>	101.0 kPa

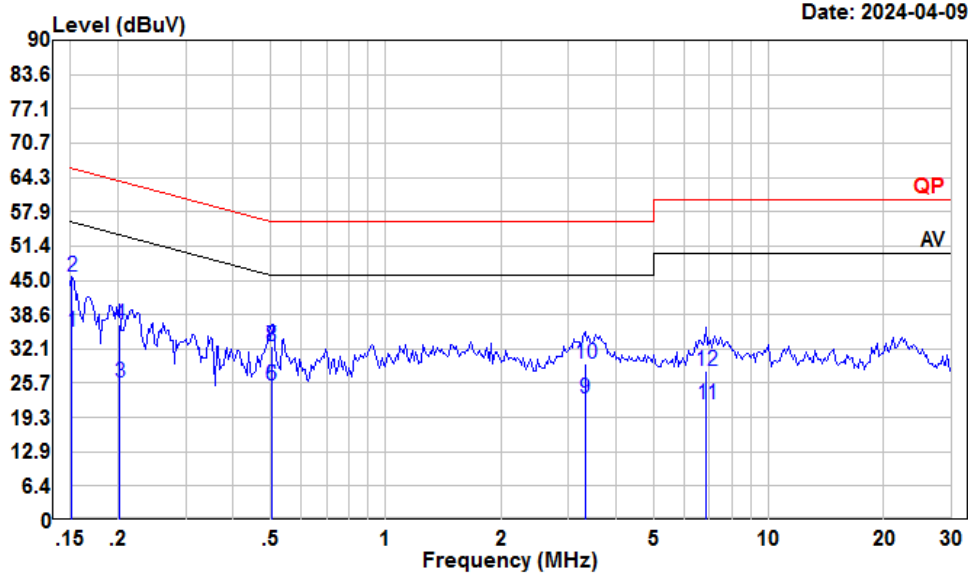
*The testing was performed by Macy Shi on 2024-04-09.*

*EUT operation mode: Transmitting (Maximum output mode 802.11AX20 5180MHz Channel)*



**For Adapter 1**

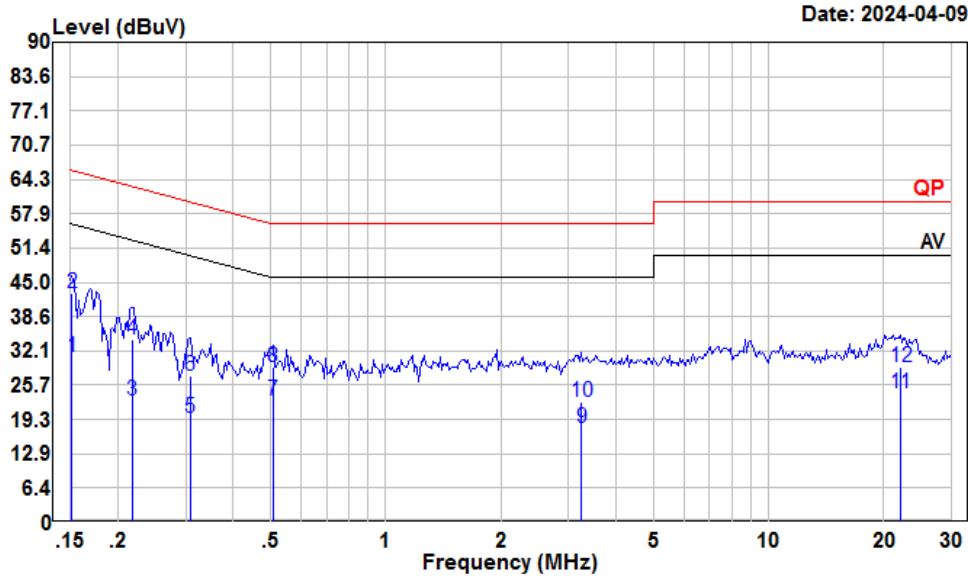
AC 120V/60 Hz, Line



Condition: Line  
 Project : SZ1240307-11374E-RF  
 Tester : Macy shi  
 Note : 5G WIFI

	Read Freq	Read Level	LISN Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.15	14.18	35.23	10.90	10.15	55.91	-20.68	Average
2	0.15	24.52	45.57	10.90	10.15	65.91	-20.34	QP
3	0.20	4.97	25.86	10.80	10.09	53.54	-27.68	Average
4	0.20	15.87	36.76	10.80	10.09	63.54	-26.78	QP
5	0.50	4.70	25.35	10.50	10.15	46.00	-20.65	Average
6	0.50	4.70	25.35	10.50	10.15	46.00	-20.65	Average
7	0.50	11.99	32.64	10.50	10.15	56.00	-23.36	QP
8	0.50	12.05	32.70	10.50	10.15	56.00	-23.30	QP
9	3.31	2.10	22.75	10.38	10.27	46.00	-23.25	Average
10	3.31	8.81	29.46	10.38	10.27	56.00	-26.54	QP
11	6.88	1.08	21.79	10.49	10.22	50.00	-28.21	Average
12	6.88	7.26	27.97	10.49	10.22	60.00	-32.03	QP

AC 120V/60 Hz, Neutral

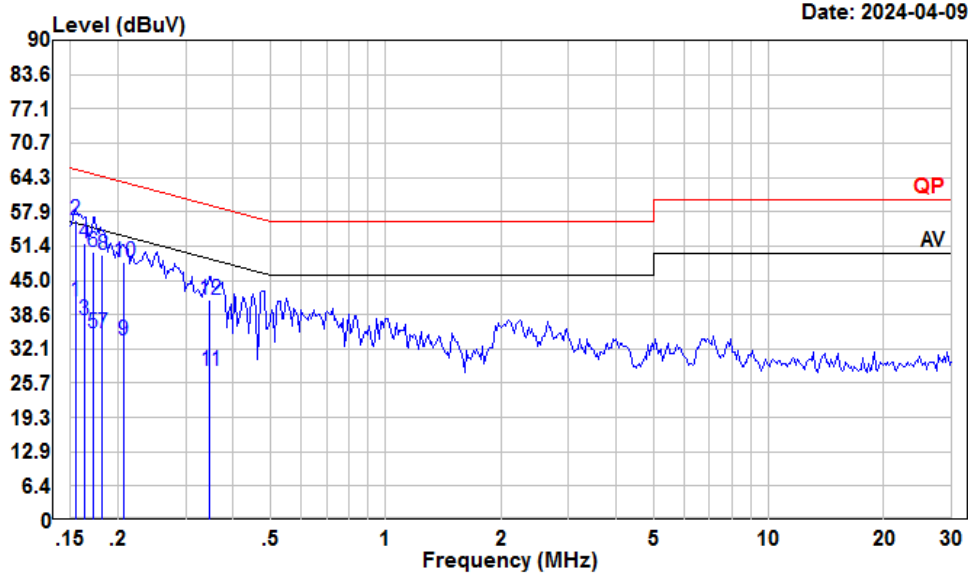


Condition: Neutral  
 Project : SZ1240307-11374E-RF  
 Tester : Macy shi  
 Note : 5G WIFI

	Read Freq	Read Level	LISN Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.15	10.39	31.13	10.59	10.15	55.91	-24.78	Average
2	0.15	22.22	42.96	10.59	10.15	65.91	-22.95	QP
3	0.22	2.28	22.84	10.43	10.13	52.92	-30.08	Average
4	0.22	13.70	34.26	10.43	10.13	62.92	-28.66	QP
5	0.31	-1.14	19.53	10.54	10.13	50.02	-30.49	Average
6	0.31	6.77	27.44	10.54	10.13	60.02	-32.58	QP
7	0.51	1.94	22.80	10.70	10.16	46.00	-23.20	Average
8	0.51	8.31	29.17	10.70	10.16	56.00	-26.83	QP
9	3.24	-3.01	17.66	10.40	10.27	46.00	-28.34	Average
10	3.24	1.98	22.65	10.40	10.27	56.00	-33.35	QP
11	22.06	3.41	24.22	10.65	10.16	50.00	-25.78	Average
12	22.06	8.20	29.01	10.65	10.16	60.00	-30.99	QP

**For Adapter 2**

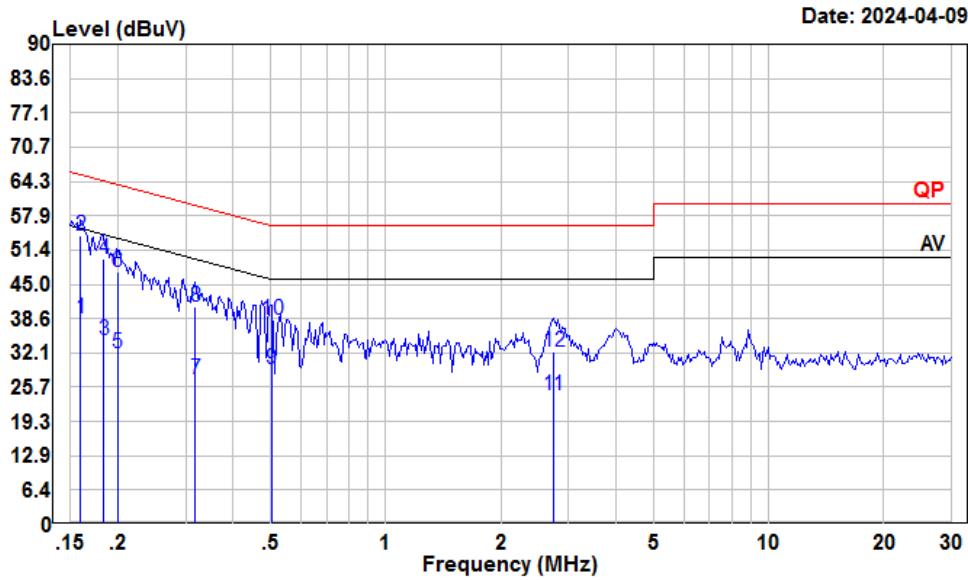
**AC 120V/60 Hz, Line**



Condition: Line  
 Project : SZ1240307-11374E-RF  
 Tester : Macy shi  
 Note : 5G WIFI

	Read Freq	Read Level	LISN Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.15	20.08	41.12	10.89	10.15	55.74	-14.62	Average
2	0.15	35.17	56.21	10.89	10.15	65.74	-9.53	QP
3	0.16	16.50	37.52	10.87	10.15	55.30	-17.78	Average
4	0.16	31.00	52.02	10.87	10.15	65.30	-13.28	QP
5	0.17	14.00	35.00	10.85	10.15	54.86	-19.86	Average
6	0.17	29.20	50.20	10.85	10.15	64.86	-14.66	QP
7	0.18	14.00	34.96	10.83	10.13	54.42	-19.46	Average
8	0.18	28.90	49.86	10.83	10.13	64.42	-14.56	QP
9	0.21	12.77	33.66	10.79	10.10	53.36	-19.70	Average
10	0.21	27.64	48.53	10.79	10.10	63.36	-14.83	QP
11	0.35	7.11	27.89	10.62	10.16	49.05	-21.16	Average
12	0.35	20.68	41.46	10.62	10.16	59.05	-17.59	QP

AC 120V/60 Hz, Neutral



Date: 2024-04-09

Condition: Neutral  
 Project : SZ1240307-11374E-RF  
 Tester : Macy shi  
 Note : 5G WIFI

	Read Freq	Read Level	LISN Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.16	17.93	38.64	10.56	10.15	55.47	-16.83	Average
2	0.16	33.54	54.25	10.56	10.15	65.47	-11.22	QP
3	0.18	14.00	34.58	10.46	10.12	54.33	-19.75	Average
4	0.18	29.20	49.78	10.46	10.12	64.33	-14.55	QP
5	0.20	11.48	31.97	10.40	10.09	53.62	-21.65	Average
6	0.20	26.90	47.39	10.40	10.09	63.62	-16.23	QP
7	0.32	6.57	27.25	10.55	10.13	49.75	-22.50	Average
8	0.32	20.20	40.88	10.55	10.13	59.75	-18.87	QP
9	0.50	8.15	29.00	10.70	10.15	46.00	-17.00	Average
10	0.50	17.63	38.48	10.70	10.15	56.00	-17.52	QP
11	2.74	3.53	24.17	10.40	10.24	46.00	-21.83	Average
12	2.74	11.71	32.35	10.40	10.24	56.00	-23.65	QP

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

### Applicable Standard

FCC §15.407 (b); §15.209; §15.205;

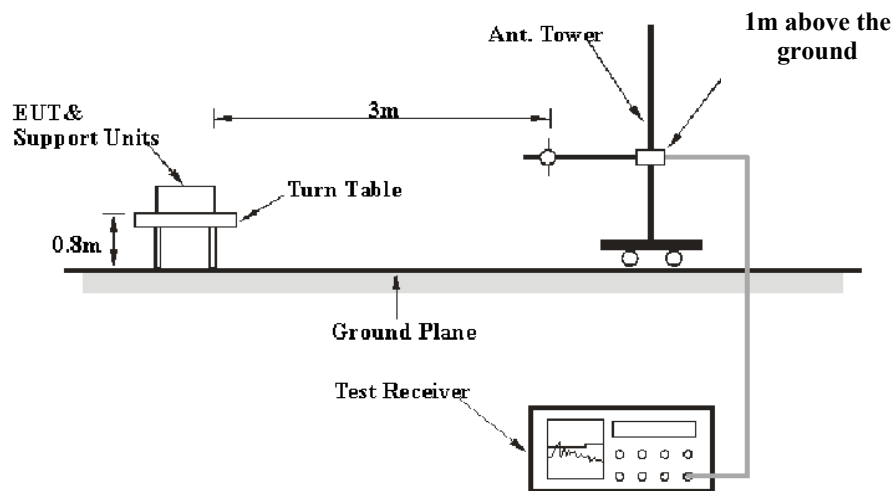
(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (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.

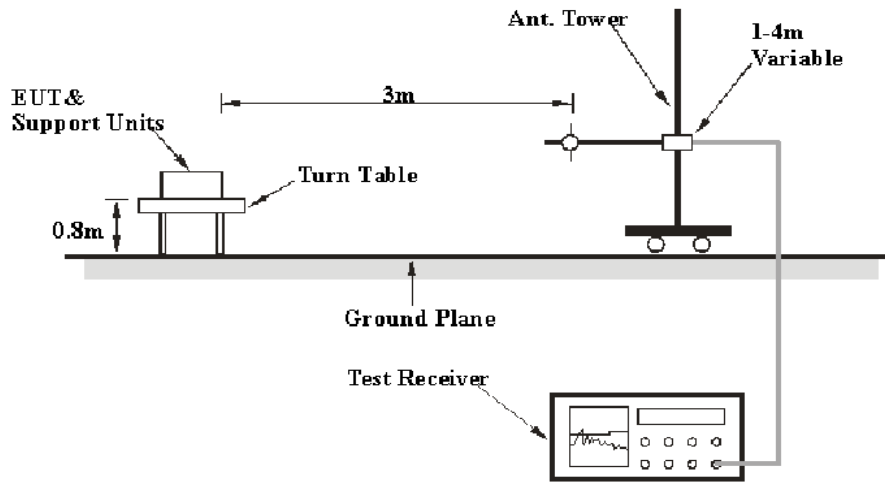
Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

### EUT Setup

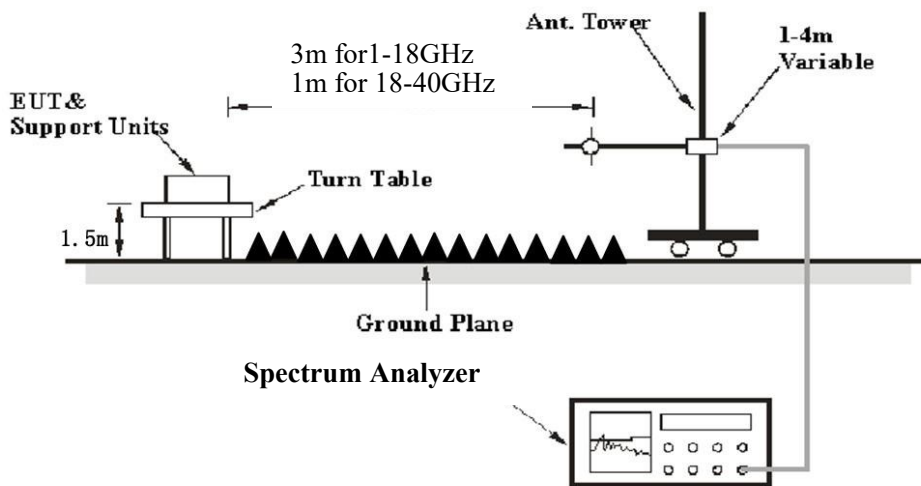
9 kHz-30MHz:



**30MHz-1GHz:**



**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 9 kHz to 40 GHz.

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

9 kHz-1GHz:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	/	/	200 Hz	QP
	300 Hz	1 kHz	/	PK
150 kHz – 30 MHz	/	/	9 kHz	QP
	10 kHz	30 kHz	/	PK
30 MHz – 1000 MHz	/	/	120 kHz	QP
	100 kHz	300 kHz	/	PK

1-40GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
AV	>98%	1MHz	10 Hz
	<98%	1MHz	≥1/Ton

Note: Ton is minimum transmission duration

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

## 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.

All final data was recorded in Quasi-peak detection mode except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz, average detection modes for frequency bands 9–90 kHz and 110–490 kHz, peak and average detection modes for frequencies above 1 GHz.

For 9 kHz-30MHz, the report shall list the six emissions with the smallest margin relative to the limit, for each of the three antenna orientations (parallel, perpendicular, and ground-parallel) unless the margin is greater than 20 dB.

All emissions under the average limit and under the noise floor have not recorded in the report.

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  $20 * \log(1/3) = -9.5$  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.

### Factor & Over Limit/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:

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

### Test Data

#### Environmental Conditions

<b>Temperature:</b>	25~25.5 °C
<b>Relative Humidity:</b>	50~55 %
<b>ATM Pressure:</b>	101.0 kPa

The testing was performed by Warren Huang on 2024-04-12 for below 1GHz and Zenos Qiao on 2024-04-20 for above 1GHz.

EUT operation mode: Transmitting

Note: After pre-scan in the X, Y and Z axes of orientation, the worst case is below.



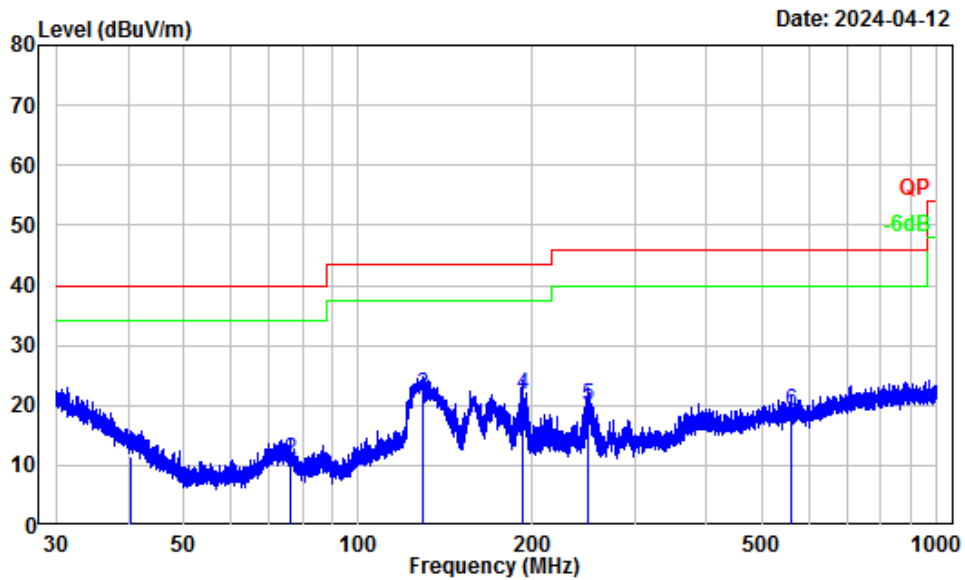
**9 kHz-30MHz:** (*Maximum output mode 802.11AX20 5180MHz Channel*)

Note: The data of 9kHz-30 MHz test is below the 20 dB limit or noise floor which is not recorded

**For adapter 1**

**30 MHz–1 GHz: (Maximum output mode 802.11AX20 5180MHz Channel)**

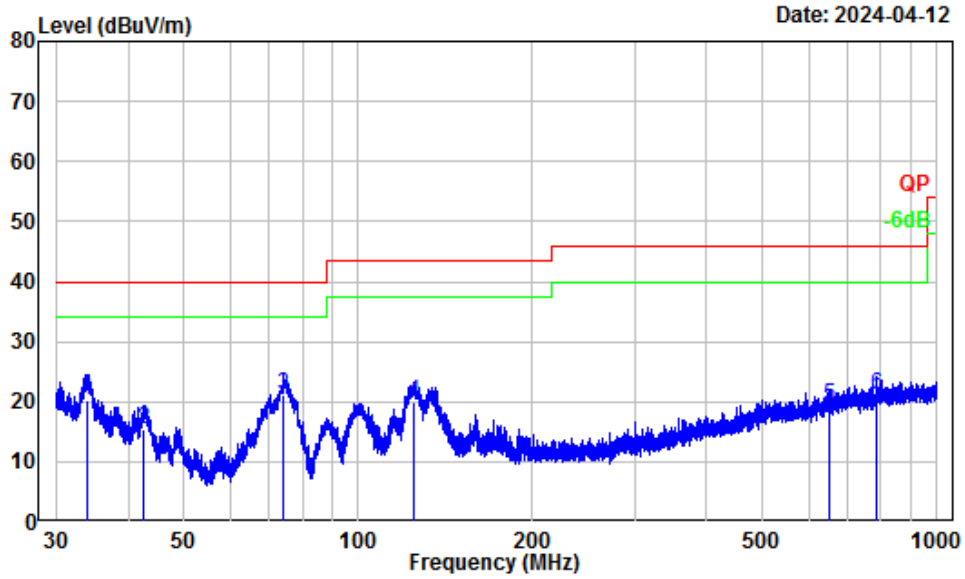
**Horizontal**



Site : Chamber A  
 Condition : 3m Horizontal  
 Project Number: SZ1240307-11374E-RF  
 Note : 5G WIFI  
 Tester : Warren Huang

	Freq	Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	40.56	-11.87	23.47	11.60	40.00	-28.40	QP
2	76.08	-17.97	28.84	10.87	40.00	-29.13	QP
3	129.01	-12.09	33.79	21.70	43.50	-21.80	QP
4	192.67	-14.36	36.20	21.84	43.50	-21.66	QP
5	249.64	-14.52	34.55	20.03	46.00	-25.97	QP
6	559.47	-8.01	26.98	18.97	46.00	-27.03	QP

**Vertical**



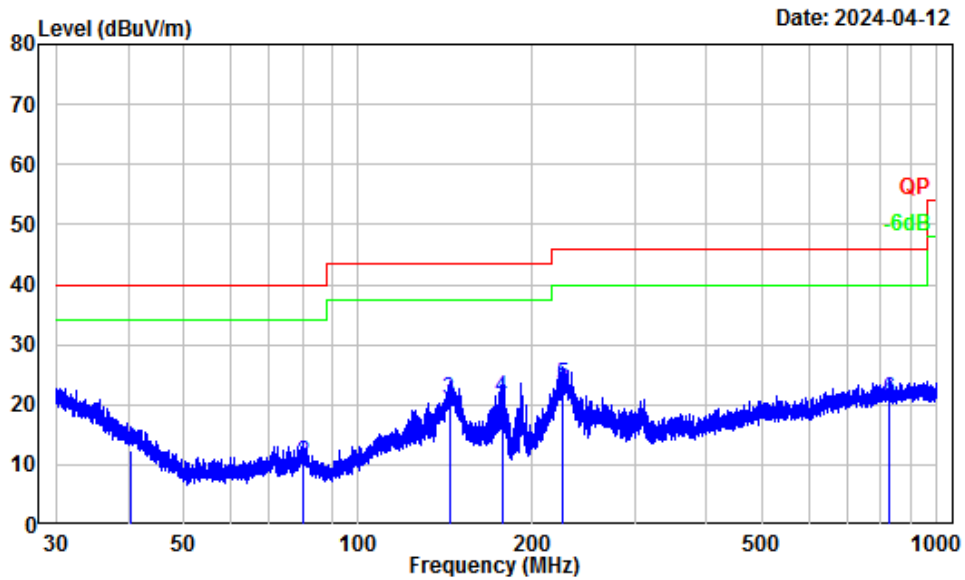
Site : Chamber A  
 Condition : 3m Vertical  
 Project Number: SZ1240307-11374E-RF  
 Note : 5G WIFI  
 Tester : Warren Huang

	Freq	Factor	Read Level	Level	Limit	Over	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	33.99	-9.15	29.50	20.35	40.00	-19.65	QP
2	42.64	-14.52	29.88	15.36	40.00	-24.64	QP
3	74.40	-18.69	39.71	21.02	40.00	-18.98	QP
4	125.12	-12.66	32.72	20.06	43.50	-23.44	QP
5	651.09	-7.05	26.24	19.19	46.00	-26.81	QP
6	787.51	-5.56	26.57	21.01	46.00	-24.99	QP

**For adapter 2**

**30 MHz–1 GHz: (Maximum output mode 802.11AX20 5180MHz Channel)**

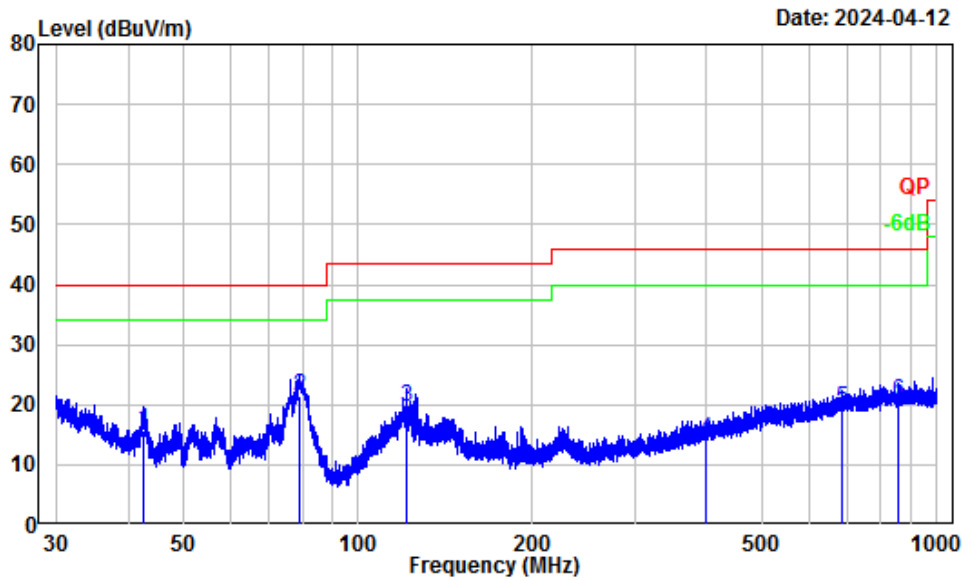
**Horizontal**



Site : Chamber A  
 Condition : 3m Horizontal  
 Project Number: SZ1240307-11374E-RF  
 Note : 5G WIFI  
 Tester : Warren Huang

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	40.49	-11.83	24.18	12.35	40.00	-27.65	QP
2	80.05	-18.24	28.45	10.21	40.00	-29.79	QP
3	143.58	-12.99	33.70	20.71	43.50	-22.79	QP
4	177.04	-14.62	35.86	21.24	43.50	-22.26	QP
5	225.90	-14.02	37.29	23.27	46.00	-22.73	QP
6	825.68	-5.05	26.03	20.98	46.00	-25.02	QP

**Vertical**



Site : Chamber A  
 Condition : 3m Vertical  
 Project Number: SZ1240307-11374E-RF  
 Note : 5G WIFI  
 Tester : Warren Huang

	Freq	Factor	Read Level	Level	Limit	Over	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	42.43	-14.39	30.11	15.72	40.00	-24.28	QP
2	79.21	-18.73	40.18	21.45	40.00	-18.55	QP
3	121.28	-12.74	32.34	19.60	43.50	-23.90	QP
4	399.21	-10.82	25.06	14.24	46.00	-31.76	QP
5	687.45	-6.70	26.14	19.44	46.00	-26.56	QP
6	860.41	-5.06	25.62	20.56	46.00	-25.44	QP

**Above 1GHz:**

**5150-5250 MHz:**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	PK/AV					
<b>802.11a</b>							
5180MHz							
5148.33	57.23	PK	H	2.70	59.93	74	-14.07
5148.33	41.84	AV	H	2.70	44.54	54	-9.46
5149.06	56.35	PK	V	2.71	59.06	74	-14.94
5149.06	41.56	AV	V	2.71	44.27	54	-9.73
10360.00	45.56	PK	H	13.07	58.63	68.2	-9.57
10360.00	45.39	PK	V	13.07	58.46	68.2	-9.74
5200MHz							
10400.00	45.93	PK	H	13.12	59.05	68.2	-9.15
10400.00	45.72	PK	V	13.12	58.84	68.2	-9.36
5240MHz							
5353.48	55.38	PK	H	3.07	58.45	74	-15.55
5353.48	41.54	AV	H	3.07	44.61	54	-9.39
5356.29	55.17	PK	V	3.07	58.24	74	-15.76
5356.29	41.41	AV	V	3.07	44.48	54	-9.52
10480.00	46.45	PK	H	13.07	59.52	68.2	-8.68
10480.00	46.24	PK	V	13.07	59.31	68.2	-8.89
<b>802.11ac20</b>							
5180MHz							
4822.14	55.86	PK	H	1.69	57.55	74	-16.45
4822.14	41.78	AV	H	1.69	43.47	54	-10.53
4945.37	55.57	PK	V	1.79	57.36	74	-16.64
4945.37	41.61	AV	V	1.79	43.40	54	-10.60
10360.00	45.87	PK	H	13.07	58.94	68.2	-9.26
10360.00	45.64	PK	V	13.07	58.71	68.2	-9.49
5200MHz							
10400.00	46.21	PK	H	13.12	59.33	68.2	-8.87
10400.00	45.98	PK	V	13.12	59.10	68.2	-9.10
5240MHz							
5359.52	55.69	PK	H	3.07	58.76	74	-15.24
5359.52	41.53	AV	H	3.07	44.60	54	-9.40
5355.75	55.42	PK	V	3.07	58.49	74	-15.51
5355.75	41.36	AV	V	3.07	44.43	54	-9.57
10480.00	46.68	PK	H	13.07	59.75	68.2	-8.45
10480.00	46.49	PK	V	13.07	59.56	68.2	-8.64

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
<b>802.11ac40</b>							
5190MHz							
5149.59	56.22	PK	H	2.71	58.93	74	-15.07
5149.59	43.39	AV	H	2.71	46.10	54	-7.90
5149.24	55.98	PK	V	2.71	58.69	74	-15.31
5149.24	43.15	AV	V	2.71	45.86	54	-8.14
10380.00	45.57	PK	H	13.09	58.66	68.2	-9.54
10380.00	45.32	PK	V	13.09	58.41	68.2	-9.79
5230MHz							
5459.12	55.54	PK	H	3.59	59.13	74	-14.87
5459.12	42.15	AV	H	3.59	45.74	54	-8.26
5455.46	55.36	PK	V	3.59	58.95	74	-15.05
5455.46	41.98	AV	V	3.59	45.57	54	-8.43
10460.00	46.24	PK	H	13.09	59.33	68.2	-8.87
10460.00	46.03	PK	V	13.09	59.12	68.2	-9.08
<b>802.11ac80</b>							
5210MHz							
5147.65	56.25	PK	H	2.70	58.95	74	-15.05
5147.65	43.84	AV	H	2.70	46.54	54	-7.46
5148.18	56.02	PK	V	2.70	58.72	74	-15.28
5148.18	43.67	AV	V	2.70	46.37	54	-7.63
5455.27	55.38	PK	H	3.59	58.97	74	-15.03
5455.27	43.01	AV	H	3.59	46.60	54	-7.40
5449.52	55.23	PK	V	3.27	58.50	74	-15.50
5449.52	42.87	AV	V	3.27	46.14	54	-7.86
10420.00	45.39	PK	H	13.12	58.51	68.2	-9.69
10420.00	45.16	PK	V	13.12	58.28	68.2	-9.92

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	PK/AV					
<b>802.11ax20</b>							
5180MHz							
5149.53	56.79	PK	H	2.71	59.50	74	-14.50
5149.53	41.93	AV	H	2.71	44.64	54	-9.36
5149.68	56.45	PK	V	2.71	59.16	74	-14.84
5149.68	41.68	AV	V	2.71	44.39	54	-9.61
10360.00	45.89	PK	H	13.07	58.96	68.2	-9.24
10360.00	45.56	PK	V	13.07	58.63	68.2	-9.57
5200MHz							
10400.00	46.25	PK	H	13.12	59.37	68.2	-8.83
10400.00	46.02	PK	V	13.12	59.14	68.2	-9.06
5240MHz							
5457.85	55.56	PK	H	3.59	59.15	74	-14.85
5457.85	41.64	AV	H	3.59	45.23	54	-8.77
5443.36	55.38	PK	V	3.27	58.65	74	-15.35
5443.36	41.41	AV	V	3.27	44.68	54	-9.32
10480.00	46.54	PK	H	13.07	59.61	68.2	-8.59
10480.00	46.27	PK	V	13.07	59.34	68.2	-8.86
<b>802.11ax40</b>							
5190MHz							
5149.64	56.41	PK	H	2.71	59.12	74	-14.88
5149.64	43.68	AV	H	2.71	46.39	54	-7.61
5148.45	56.19	PK	V	2.70	58.89	74	-15.11
5148.45	43.52	AV	V	2.70	46.22	54	-7.78
10380.00	45.91	PK	H	13.09	59.00	68.2	-9.20
10380.00	45.66	PK	V	13.09	58.75	68.2	-9.45
5230MHz							
5355.01	55.68	PK	H	3.07	58.75	74	-15.25
5355.01	42.03	AV	H	3.07	45.10	54	-8.90
5352.28	55.42	PK	V	3.07	58.49	74	-15.51
5352.28	41.84	AV	V	3.07	44.91	54	-9.09
10460.00	46.45	PK	H	13.09	59.54	68.2	-8.66
10460.00	46.19	PK	V	13.09	59.28	68.2	-8.92



Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
<b>802.11ax80</b>							
5210MHz							
5149.45	56.25	PK	H	2.71	58.96	74	-15.04
5149.45	44.17	AV	H	2.71	46.88	54	-7.12
5149.72	55.96	PK	V	2.71	58.67	74	-15.33
5149.72	44.02	AV	V	2.71	46.73	54	-7.27
5353.58	55.52	PK	H	3.07	58.59	74	-15.41
5353.58	43.08	AV	H	3.07	46.15	54	-7.85
5351.97	55.26	PK	V	3.07	58.33	74	-15.67
5351.97	42.91	AV	V	3.07	45.98	54	-8.02
10420.00	45.57	PK	H	13.12	58.69	68.2	-9.51
10420.00	45.32	PK	V	13.12	58.44	68.2	-9.76

**5725-5850 MHz:**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	PK/AV					
<b>802.11a</b>							
5745MHz							
5646.49	54.98	PK	H	3.59	58.57	68.20	-9.63
5695.91	57.07	PK	H	3.69	60.76	105.20	-44.44
5718.28	63.46	PK	H	4.09	67.55	110.80	-43.25
5723.84	67.59	PK	H	4.09	71.68	122.20	-50.52
5638.48	54.75	PK	V	3.59	58.34	68.20	-9.86
5699.96	56.53	PK	V	3.79	60.32	105.20	-44.88
5719.72	61.92	PK	V	4.09	66.01	110.80	-44.79
5724.39	66.87	PK	V	4.09	70.96	122.20	-51.24
11490.00	44.87	PK	H	14.31	59.18	74	-14.82
11490.00	30.68	AV	H	14.31	44.99	54	-9.01
11490.00	44.59	PK	V	14.31	58.90	74	-15.10
11490.00	30.51	AV	V	14.31	44.82	54	-9.18
5785MHz							
11570.00	45.56	PK	H	14.05	59.61	74	-14.39
11570.00	31.24	AV	H	14.05	45.29	54	-8.71
11570.00	45.31	PK	V	14.05	59.36	74	-14.64
11570.00	31.02	AV	V	14.05	45.07	54	-8.93
5825MHz							
5853.08	62.45	PK	H	4.09	66.54	122.20	-55.66
5857.15	61.39	PK	H	4.09	65.48	110.80	-45.32
5875.39	56.68	PK	H	4.19	60.87	105.20	-44.33
5954.53	54.76	PK	H	4.01	58.77	68.20	-9.43
5851.64	61.36	PK	V	4.09	65.45	122.20	-56.75
5856.75	60.25	PK	V	4.09	64.34	110.80	-46.46
5880.96	56.12	PK	V	4.19	60.31	105.20	-44.89
5927.32	54.51	PK	V	4.69	59.20	68.20	-9.00
11650.00	46.48	PK	H	13.83	60.31	74	-13.69
11650.00	31.73	AV	H	13.83	45.56	54	-8.44
11650.00	46.25	PK	V	13.83	60.08	74	-13.92
11650.00	31.58	AV	V	13.83	45.41	54	-8.59

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	PK/AV					
<b>802.11ac20</b>							
5745MHz							
5632.38	55.27	PK	H	3.59	58.86	68.20	-9.34
5699.02	59.13	PK	H	3.79	62.92	105.20	-42.28
5719.47	65.06	PK	H	4.09	69.15	110.80	-41.65
5724.86	67.91	PK	H	4.09	72.00	122.20	-50.20
5625.72	55.05	PK	V	3.59	58.64	68.20	-9.56
5698.54	58.36	PK	V	3.79	62.15	105.20	-43.05
5718.68	63.89	PK	V	4.09	67.98	110.80	-42.82
5723.93	66.42	PK	V	4.09	70.51	122.20	-51.69
11490.00	44.78	PK	H	14.31	59.09	74	-14.91
11490.00	30.57	AV	H	14.31	44.88	54	-9.12
11490.00	44.63	PK	V	14.31	58.94	74	-15.06
11490.00	30.42	AV	V	14.31	44.73	54	-9.27
5785MHz							
11570.00	45.45	PK	H	14.05	59.50	74	-14.50
11570.00	31.09	AV	H	14.05	45.14	54	-8.86
11570.00	45.27	PK	V	14.05	59.32	74	-14.68
11570.00	31.93	AV	V	14.05	45.98	54	-8.02
5825MHz							
5850.19	60.78	PK	H	4.09	64.87	122.20	-57.33
5861.52	58.93	PK	H	4.09	63.02	110.80	-47.78
5895.44	56.45	PK	H	4.19	60.64	105.20	-44.56
5930.38	55.22	PK	H	4.69	59.91	68.20	-8.29
5852.53	59.63	PK	V	4.09	63.72	122.20	-58.48
5856.92	58.16	PK	V	4.09	62.25	110.80	-48.55
5878.24	56.04	PK	V	4.19	60.23	105.20	-44.97
5926.47	54.97	PK	V	4.69	59.66	68.20	-8.54
11650.00	46.24	PK	H	13.83	60.07	74	-13.93
11650.00	31.59	AV	H	13.83	45.42	54	-8.58
11650.00	46.05	PK	V	13.83	59.88	74	-14.12
11650.00	31.38	AV	V	13.83	45.21	54	-8.79

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	PK/AV					
<b>802.11ac40</b>							
5755MHz							
5628.75	55.52	PK	H	3.59	59.11	68.20	-9.09
5699.67	59.87	PK	H	3.79	63.66	105.20	-41.54
5719.81	63.48	PK	H	4.09	67.57	110.80	-43.23
5723.59	65.19	PK	H	4.09	69.28	122.20	-52.92
5645.92	55.31	PK	V	3.59	58.90	68.20	-9.30
5698.54	58.86	PK	V	3.79	62.65	105.20	-42.55
5719.35	62.25	PK	V	4.09	66.34	110.80	-44.46
5724.06	63.94	PK	V	4.09	68.03	122.20	-54.17
11510.00	46.01	PK	H	14.29	60.30	74	-13.70
11510.00	31.54	AV	H	14.29	45.83	54	-8.17
11510.00	45.76	PK	V	14.29	60.05	74	-13.95
11510.00	31.39	AV	V	14.29	45.68	54	-8.32
5795MHz							
5852.14	58.95	PK	H	4.09	63.04	122.20	-59.16
5868.51	57.89	PK	H	4.19	62.08	110.80	-48.72
5876.32	56.37	PK	H	4.19	60.56	105.20	-44.64
5927.68	55.28	PK	H	4.69	59.97	68.20	-8.23
5850.69	58.16	PK	V	4.09	62.25	122.20	-59.95
5857.27	57.07	PK	V	4.09	61.16	110.80	-49.64
5885.75	55.94	PK	V	4.19	60.13	105.20	-45.07
5930.54	55.05	PK	V	4.69	59.74	68.20	-8.46
11590.00	46.48	PK	H	13.97	60.45	74	-13.55
11590.00	32.37	AV	H	13.97	46.34	54	-7.66
11590.00	46.25	PK	V	13.97	60.22	74	-13.78
11590.00	32.19	AV	V	13.97	46.16	54	-7.84

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
	Reading (dB $\mu$ V)	PK/AV					
<b>802.11ac80</b>							
5775MHz							
5625.78	56.31	PK	H	3.59	59.90	68.20	-8.30
5698.69	60.45	PK	H	3.79	64.24	105.20	-40.96
5718.24	62.96	PK	H	4.09	67.05	110.80	-43.75
5721.86	63.68	PK	H	4.09	67.77	122.20	-54.43
5623.87	56.07	PK	V	3.59	59.66	68.20	-8.54
5699.25	59.54	PK	V	3.79	63.33	105.20	-41.87
5719.64	61.63	PK	V	4.09	65.72	110.80	-45.08
5724.36	62.72	PK	V	4.09	66.81	122.20	-55.39
5851.63	61.57	PK	H	4.09	65.66	122.20	-56.54
5862.28	60.22	PK	H	4.09	64.31	110.80	-46.49
5883.49	57.61	PK	H	4.19	61.80	105.20	-43.40
5939.32	56.48	PK	H	4.69	61.17	68.20	-7.03
5852.45	61.19	PK	V	4.09	65.28	122.20	-56.92
5864.69	59.35	PK	V	4.19	63.54	110.80	-47.26
5878.52	57.02	PK	V	4.19	61.21	105.20	-43.99
5937.27	56.24	PK	V	4.69	60.93	68.20	-7.27
11550.00	46.31	PK	H	14.13	60.44	74	-13.56
11550.00	33.04	AV	H	14.13	47.17	54	-6.83
11550.00	46.12	PK	V	14.13	60.25	74	-13.75
11550.00	32.87	AV	V	14.13	47.00	54	-7.00

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	PK/AV					
<b>802.11ax20</b>							
5745MHz							
5637.16	55.18	PK	H	3.59	58.77	68.20	-9.43
5699.09	57.55	PK	H	3.79	61.34	105.20	-43.86
5719.32	64.67	PK	H	4.09	68.76	110.80	-42.04
5724.74	68.96	PK	H	4.09	73.05	122.20	-49.15
5636.54	55.01	PK	V	3.59	58.60	68.20	-9.60
5699.87	56.94	PK	V	3.79	60.73	105.20	-44.47
5718.93	63.45	PK	V	4.09	67.54	110.80	-43.26
5723.75	67.52	PK	V	4.09	71.61	122.20	-50.59
11490.00	45.56	PK	H	14.31	59.87	74	-14.13
11490.00	30.89	AV	H	14.31	45.20	54	-8.80
11490.00	45.35	PK	V	14.31	59.66	74	-14.34
11490.00	30.67	AV	V	14.31	44.98	54	-9.02
5785MHz							
11570.00	46.09	PK	H	14.05	60.14	74	-13.86
11570.00	31.32	AV	H	14.05	45.37	54	-8.63
11570.00	46.86	PK	V	14.05	60.91	74	-13.09
11570.00	31.13	AV	V	14.05	45.18	54	-8.82
5825MHz							
5852.01	63.72	PK	H	4.09	67.81	122.20	-54.39
5855.39	61.84	PK	H	4.09	65.93	110.80	-44.87
5881.64	60.69	PK	H	4.19	64.88	105.20	-40.32
5937.85	55.37	PK	H	4.69	60.06	68.20	-8.14
5850.94	62.48	PK	V	4.09	66.57	122.20	-55.63
5856.35	60.63	PK	V	4.09	64.72	110.80	-46.08
5875.87	59.35	PK	V	4.19	63.54	105.20	-41.66
5938.29	55.14	PK	V	4.69	59.83	68.20	-8.37
11650.00	46.61	PK	H	13.83	60.44	74	-13.56
11650.00	31.73	AV	H	13.83	45.56	54	-8.44
11650.00	46.38	PK	V	13.83	60.21	74	-13.79
11650.00	31.54	AV	V	13.83	45.37	54	-8.63

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	PK/AV					
<b>802.11ax40</b>							
5755MHz							
5646.06	55.78	PK	H	3.59	59.37	68.20	-8.83
5696.99	60.41	PK	H	3.79	64.20	105.20	-41.00
5717.58	66.39	PK	H	4.09	70.48	110.80	-40.32
5721.83	67.95	PK	H	4.09	72.04	122.20	-50.16
5648.91	55.52	PK	V	3.59	59.11	68.20	-9.09
5699.05	59.33	PK	V	3.79	63.12	105.20	-42.08
5719.36	65.15	PK	V	4.09	69.24	110.80	-41.56
5724.64	66.48	PK	V	4.09	70.57	122.20	-51.63
11510.00	45.66	PK	H	14.29	59.95	74	-14.05
11510.00	31.74	AV	H	14.29	46.03	54	-7.97
11510.00	45.49	PK	V	14.29	59.78	74	-14.22
11510.00	31.57	AV	V	14.29	45.86	54	-8.14
5795MHz							
5851.56	60.26	PK	H	4.09	64.35	122.20	-57.85
5872.61	58.95	PK	H	4.19	63.14	110.80	-47.66
5893.19	57.18	PK	H	4.19	61.37	105.20	-43.83
5927.32	55.43	PK	H	4.69	60.12	68.20	-8.08
5850.68	59.54	PK	V	4.09	63.63	122.20	-58.57
5856.45	58.07	PK	V	4.09	62.16	110.80	-48.64
5879.64	56.61	PK	V	4.19	60.80	105.20	-44.40
5926.93	55.25	PK	V	4.69	59.94	68.20	-8.26
11590.00	46.58	PK	H	13.97	60.55	74	-13.45
11590.00	32.39	AV	H	13.97	46.36	54	-7.64
11590.00	46.42	PK	V	13.97	60.39	74	-13.61
11590.00	32.21	AV	V	13.97	46.18	54	-7.82

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	PK/AV					
<b>802.11ax80</b>							
5775MHz							
5647.65	56.03	PK	H	3.59	59.62	68.20	-8.58
5699.74	60.32	PK	H	3.79	64.11	105.20	-41.09
5718.96	63.54	PK	H	4.09	67.63	110.80	-43.17
5722.27	64.78	PK	H	4.09	68.87	122.20	-53.33
5649.48	55.87	PK	V	3.59	59.46	68.20	-8.74
5698.87	59.21	PK	V	3.79	63.00	105.20	-42.20
5719.25	61.34	PK	V	4.09	65.43	110.80	-45.37
5723.64	63.56	PK	V	4.09	67.65	122.20	-54.55
5853.96	63.52	PK	H	4.09	67.61	122.20	-54.59
5855.84	62.27	PK	H	4.09	66.36	110.80	-44.44
5881.61	57.79	PK	H	4.19	61.98	105.20	-43.22
5936.22	55.83	PK	H	4.69	60.52	68.20	-7.68
5852.75	62.38	PK	V	4.09	66.47	122.20	-55.73
5857.46	61.09	PK	V	4.09	65.18	110.80	-45.62
5879.83	57.16	PK	V	4.19	61.35	105.20	-43.85
5932.54	55.64	PK	V	4.69	60.33	68.20	-7.87
11550.00	46.28	PK	H	14.13	60.41	74	-13.59
11550.00	33.15	AV	H	14.13	47.28	54	-6.72
11550.00	46.04	PK	V	14.13	60.17	74	-13.83
11550.00	32.89	AV	V	14.13	47.02	54	-6.98

**Note:**

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

Corrected Amplitude = Factor + Reading

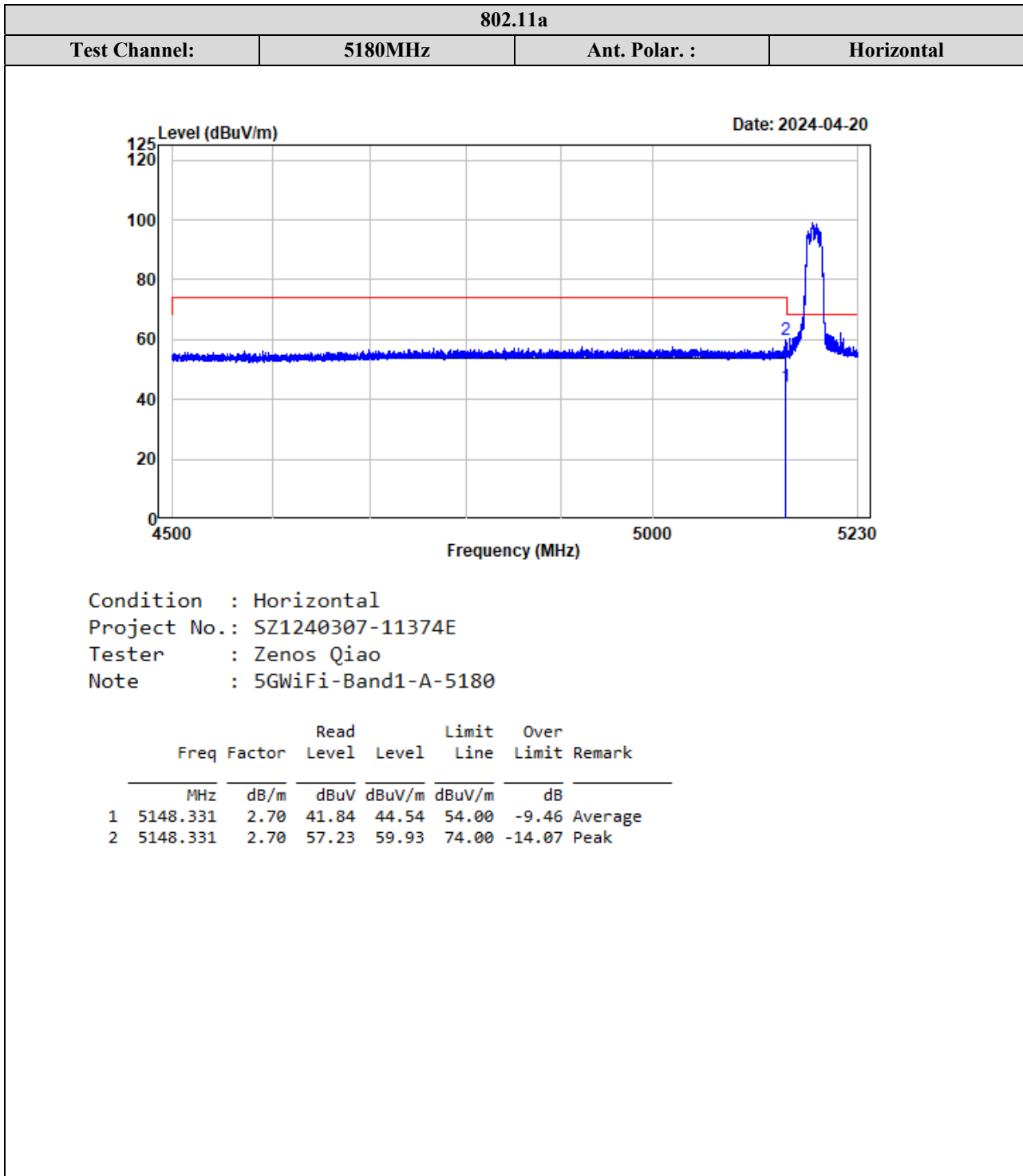
Margin = Corrected. Amplitude - Limit

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

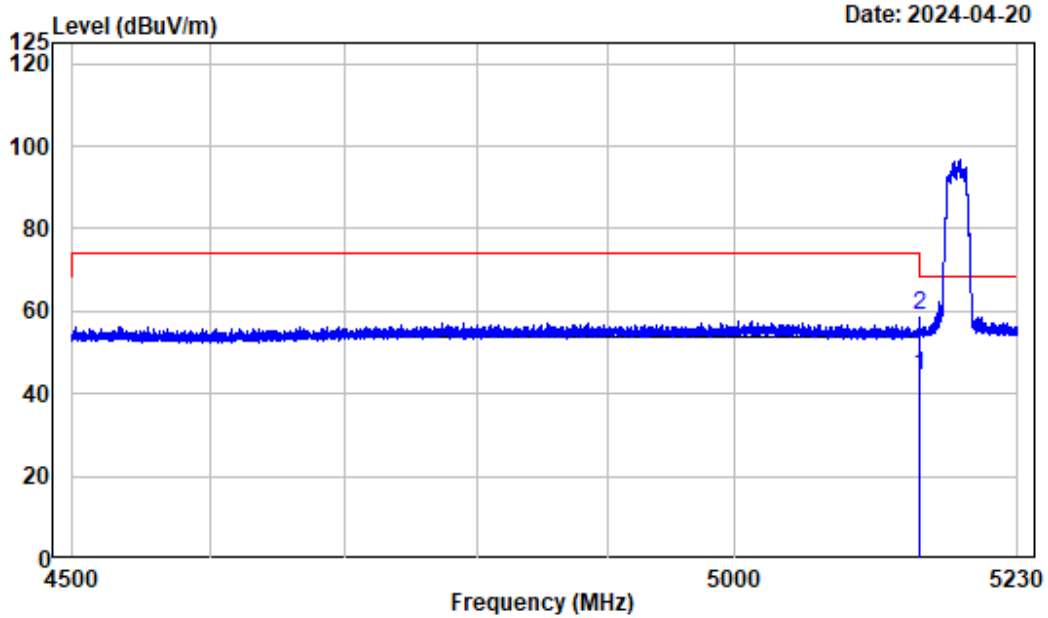


**Test plots for Band Edge Measurements (Radiated)**

**5150-5250MHz:**



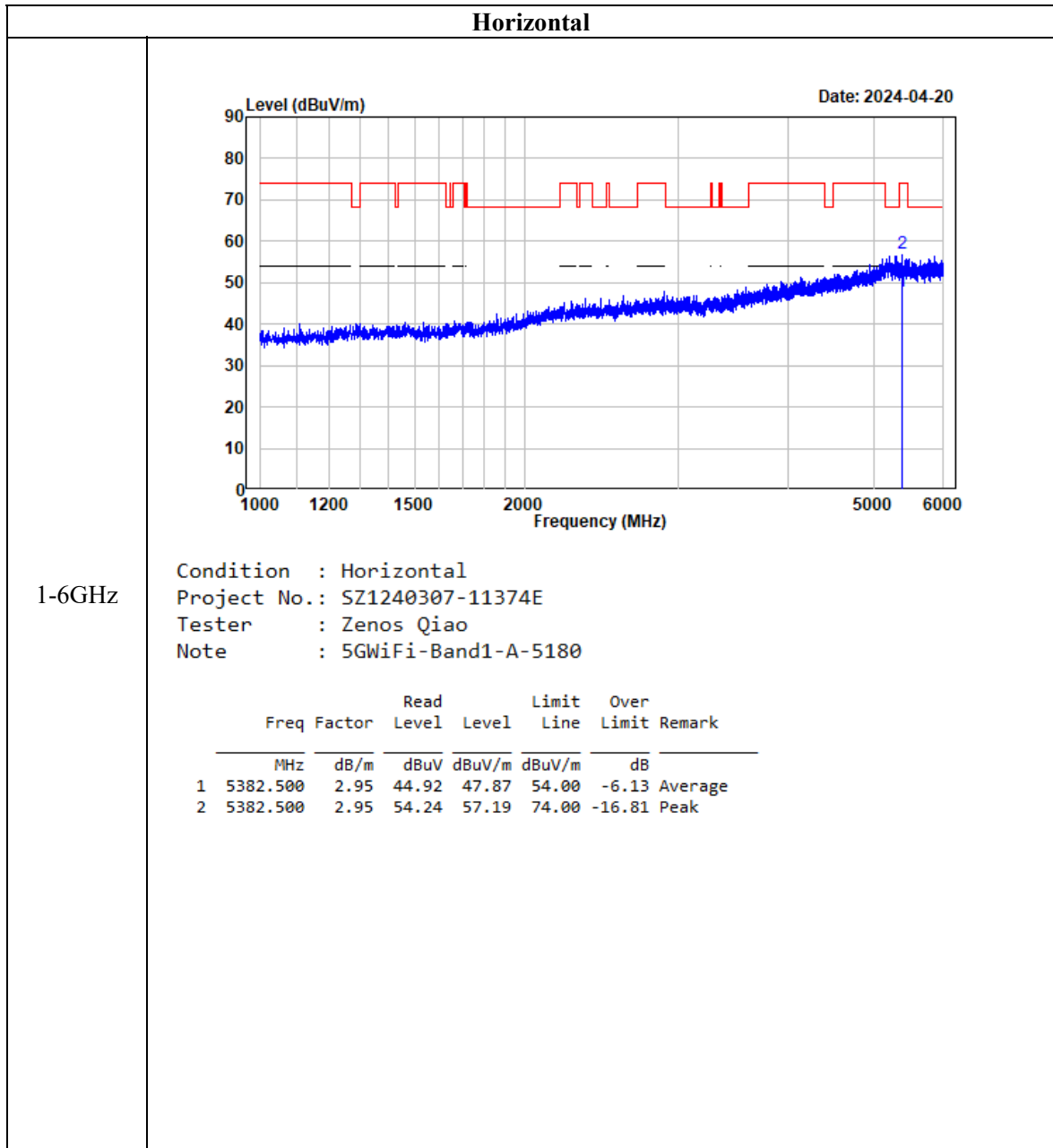
802.11a			
Test Channel:	5180MHz	Ant. Polar. :	Vertical



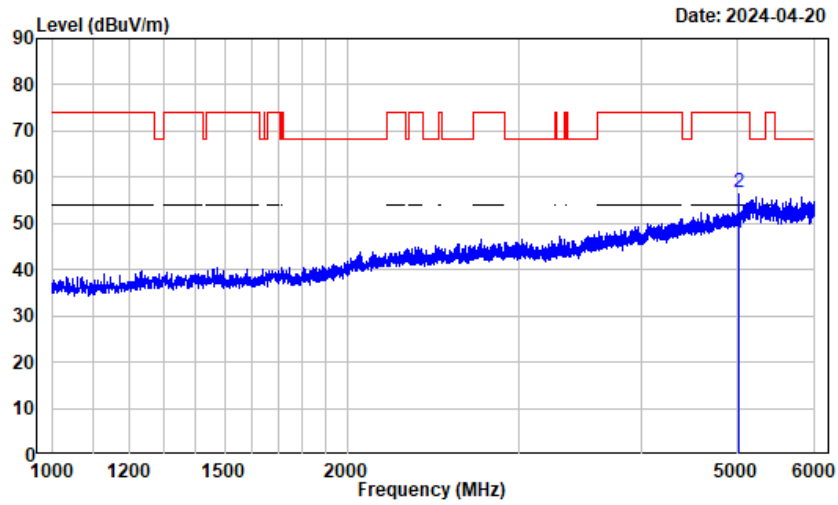
Condition : Vertical  
 Project No.: SZ1240307-11374E  
 Tester : Zenos Qiao  
 Note : 5GWiFi-Band1-A-5180

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5149.061	2.71	41.56	44.27	54.00	-9.73	Average
2	5149.061	2.71	56.35	59.06	74.00	-14.94	Peak

Listed with the worst harmonic margin test plot



**Vertical**

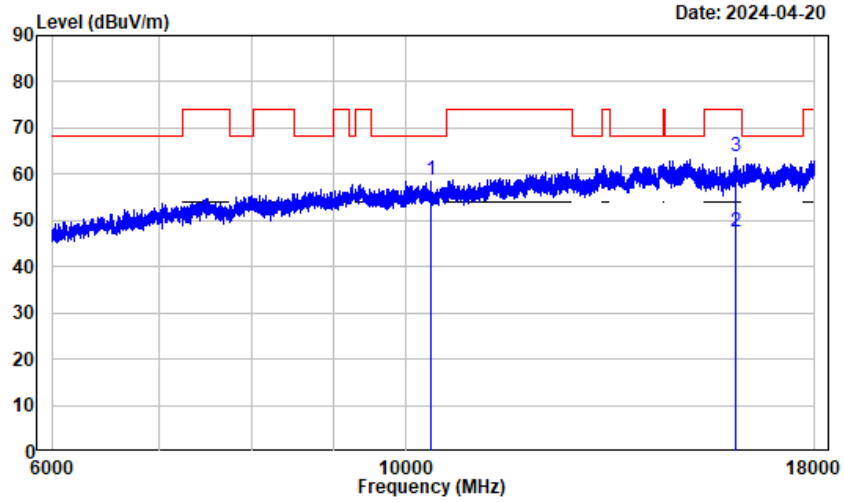


1-6GHz

Condition : Vertical  
 Project No.: SZ1240307-11374E  
 Tester : Zenos Qiao  
 Note : 5GWiFi-Band1-A-5180

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5027.500	2.96	44.76	47.72	54.00	-6.28	Average
2	5027.500	2.96	53.84	56.80	74.00	-17.20	Peak

**Horizontal**

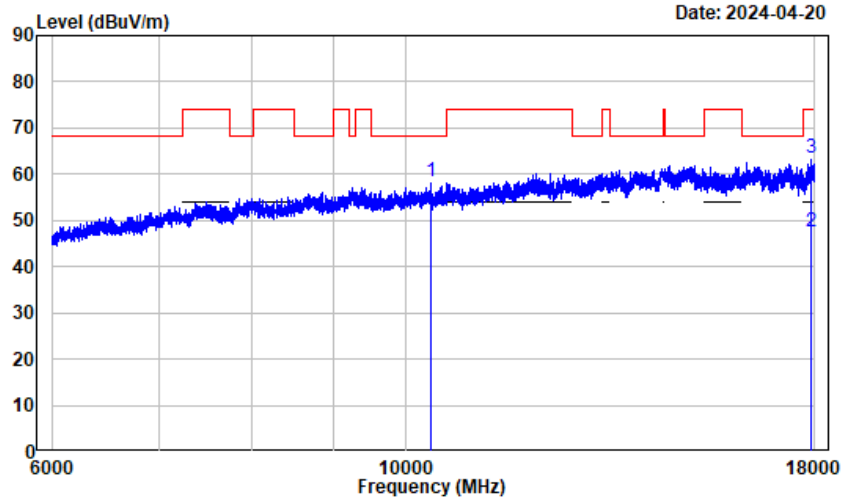


6-18GHz

Condition : Horizontal  
 Project No.: SZ1240307-11374E  
 Tester : Zenos Qiao  
 Note : 5GWiFi-Band1-A-5180

	Read	Limit	Over				
Freq	Factor	Level	Level	Line			
MHz	dB/m	dBuV	dBuV/m	dBuV/m			
1	10360.000	13.07	45.56	58.63	68.20	-9.57	Peak
2	16062.000	13.77	33.91	47.68	54.00	-6.32	Average
3	16062.000	13.77	50.08	63.85	74.00	-10.15	Peak

**Vertical**



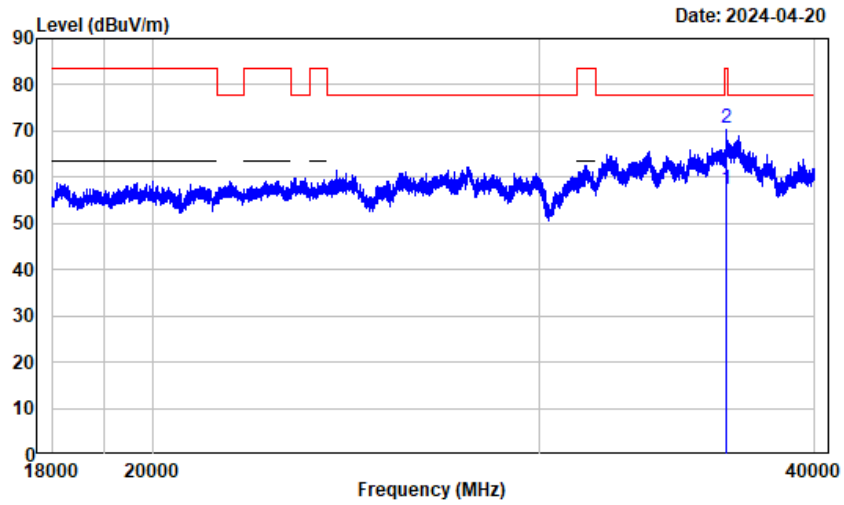
6-18GHz

Condition : Vertical  
 Project No.: SZ1240307-11374E  
 Tester : Zenos Qiao  
 Note : 5GWiFi-Band1-A-5180

	Read	Limit	Over				
Freq	Factor	Level	Level	Line			
MHz	dB/m	dBuV	dBuV/m	dBuV/m			
1	10360.000	13.07	45.39	58.46	68.20	-9.74	Peak
2	17913.000	24.00	23.52	47.52	54.00	-6.48	Average
3	17913.000	24.00	39.66	63.66	74.00	-10.34	Peak

**Horizontal**

18-40GHz

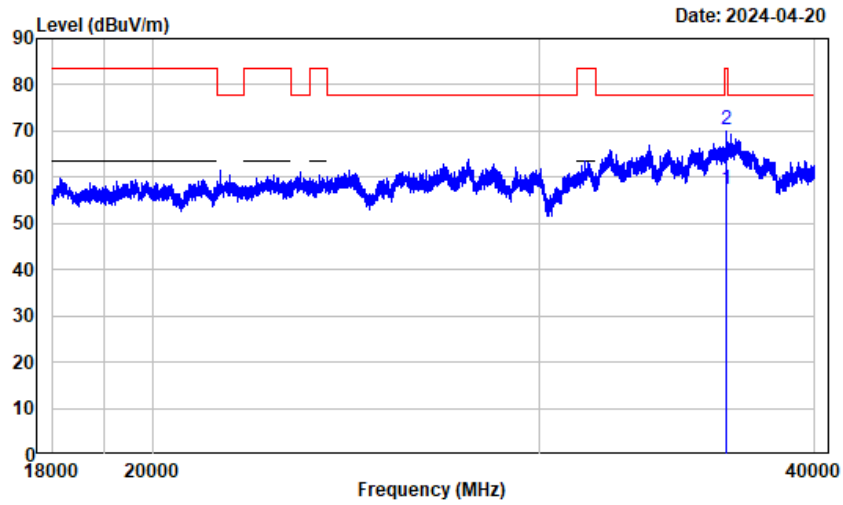


Condition : Horizontal  
 Project No.: SZ1240307-11374E  
 Tester : Zenos Qiao  
 Note : 5GWiFi-Band1-A-5180

	Read	Limit	Over				
Freq	Factor	Level	Level	Line			
MHz	dB/m	dBuV	dBuV/m	dBuV/m			
1	36484.070	25.34	32.05	57.39	63.50	-6.11	Average
2	36484.070	25.34	45.16	70.50	83.50	-13.00	Peak

**Vertical**

18-40GHz



Condition : Vertical  
 Project No.: SZ1240307-11374E  
 Tester : Zenos Qiao  
 Note : 5GWiFi-Band1-A-5180

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	36480.690	25.32	31.92	57.24	63.50	-6.26	Average
2	36480.690	25.32	44.90	70.22	83.50	-13.28	Peak



## **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**

According to KDB789033 D02 section II.C and section II.D

#### **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.

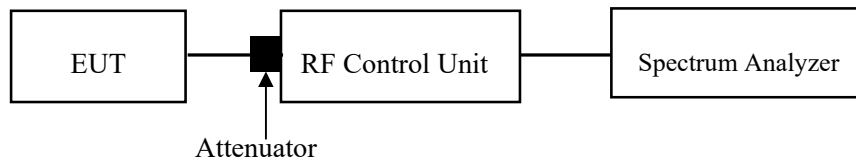
#### **3. 99% Occupied Bandwidth:**

According to ANSI C63.10-2013 Section 12.4.2&6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.

- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than  $[10 \log (OBW/RBW)]$  below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).



**Test Data**

**Environmental Conditions**

<b>Temperature:</b>	26~28 °C
<b>Relative Humidity:</b>	52~56 %
<b>ATM Pressure:</b>	101.0 kPa

*The testing was performed by Lee Li on 2024-04-23*

*EUT operation mode: Transmitting*

***Test Result: Compliant. 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.

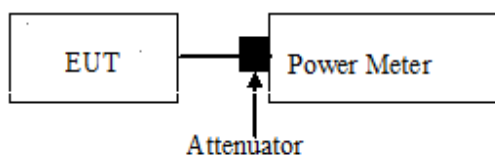
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall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

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method PM-G should be applied

- a. Place the EUT on a bench and set it in transmitting mode.
- b. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.



**Test Data**

**Environmental Conditions**

<b>Temperature:</b>	26~28 °C
<b>Relative Humidity:</b>	52~56 %
<b>ATM Pressure:</b>	101.0 kPa

*The testing was performed by Lee Li on 2024-04-23*

*EUT operation mode: Transmitting*

***Test Result: Compliant. 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**

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Duty cycle  $\geq 98\%$

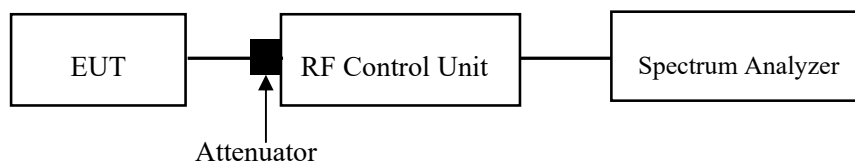
KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-1 should be applied.

Duty cycle  $< 98\%$ , duty cycle variations are less than  $\pm 2\%$

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-2 should be applied.

Duty cycle  $< 98\%$ , duty cycle variations exceed  $\pm 2\%$

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-3 should be applied.



**Test Data**

**Environmental Conditions**

<b>Temperature:</b>	26~28 °C
<b>Relative Humidity:</b>	52~56 %
<b>ATM Pressure:</b>	101.0 kPa

*The testing was performed by Lee Li on 2024-04-23*

*EUT operation mode: Transmitting*

***Test Result: Compliant. Please refer to the Appendix.***

## **EUT PHOTOGRAPHS**

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Please refer to the attachment SZ1240307-11374E-RF External photo and SZ1240307-11374E-RF Internal photo.

## **TEST SETUP PHOTOGRAPHS**

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Please refer to the attachment SZ1240307-11374E-RF Test Setup photo.



**APPENDIX**

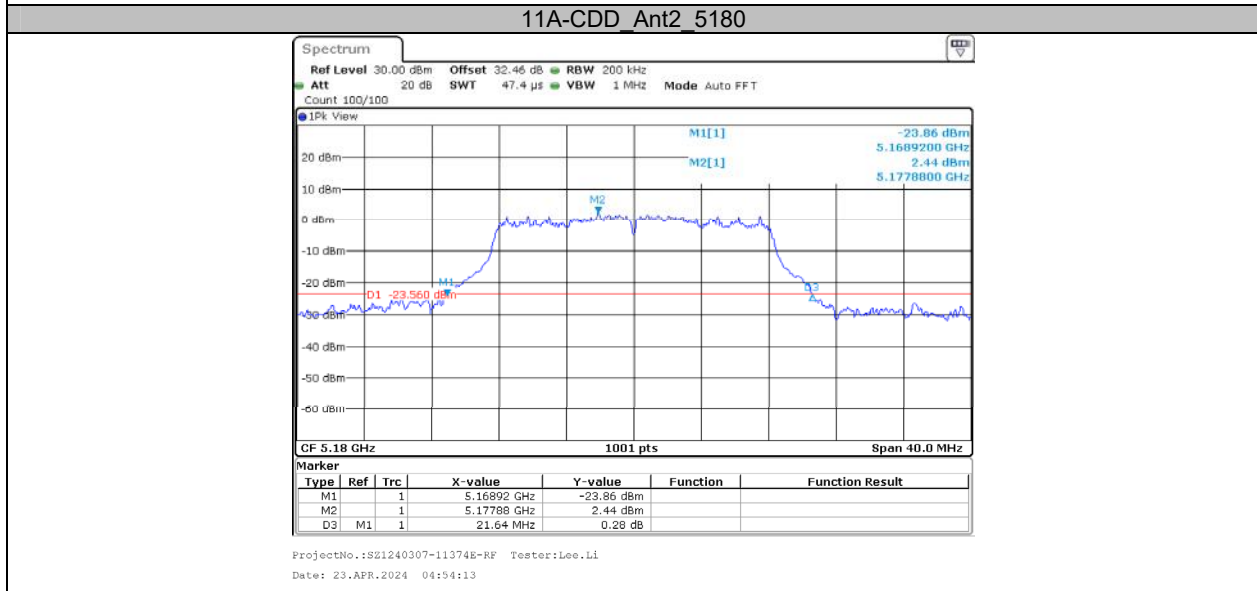
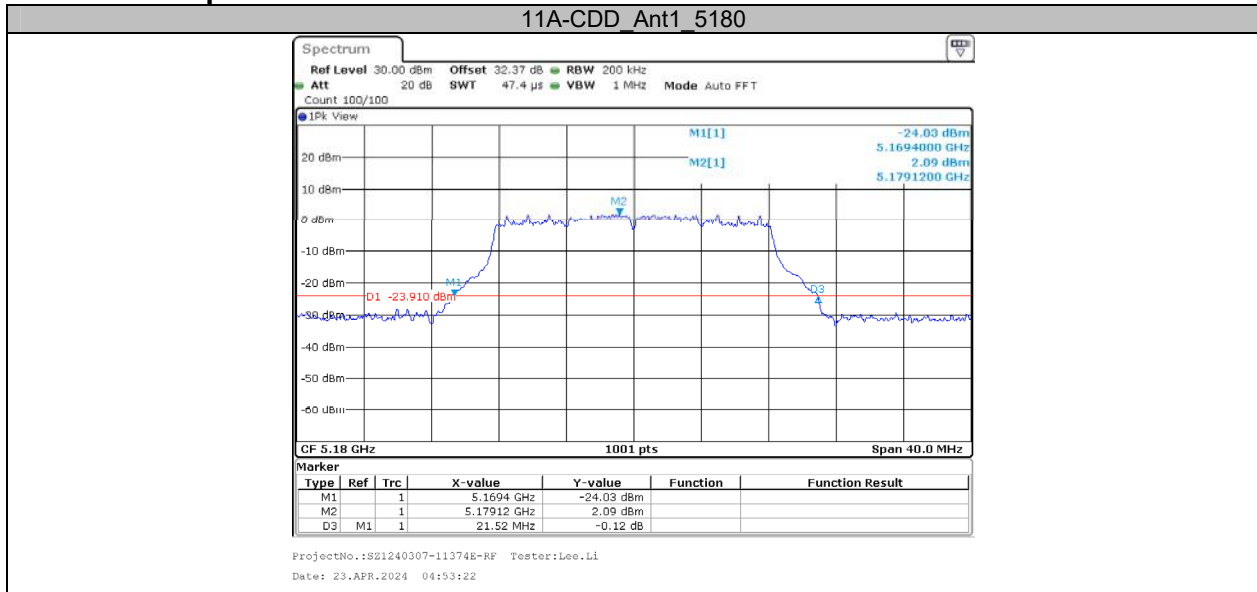
**Appendix A1: Emission Bandwidth**

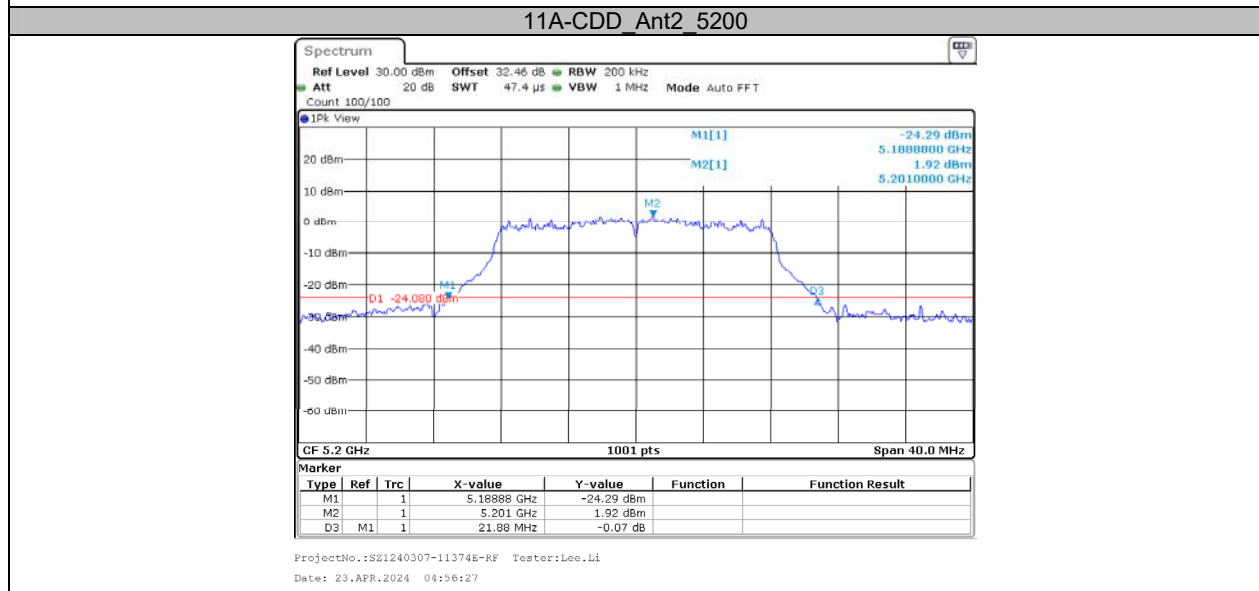
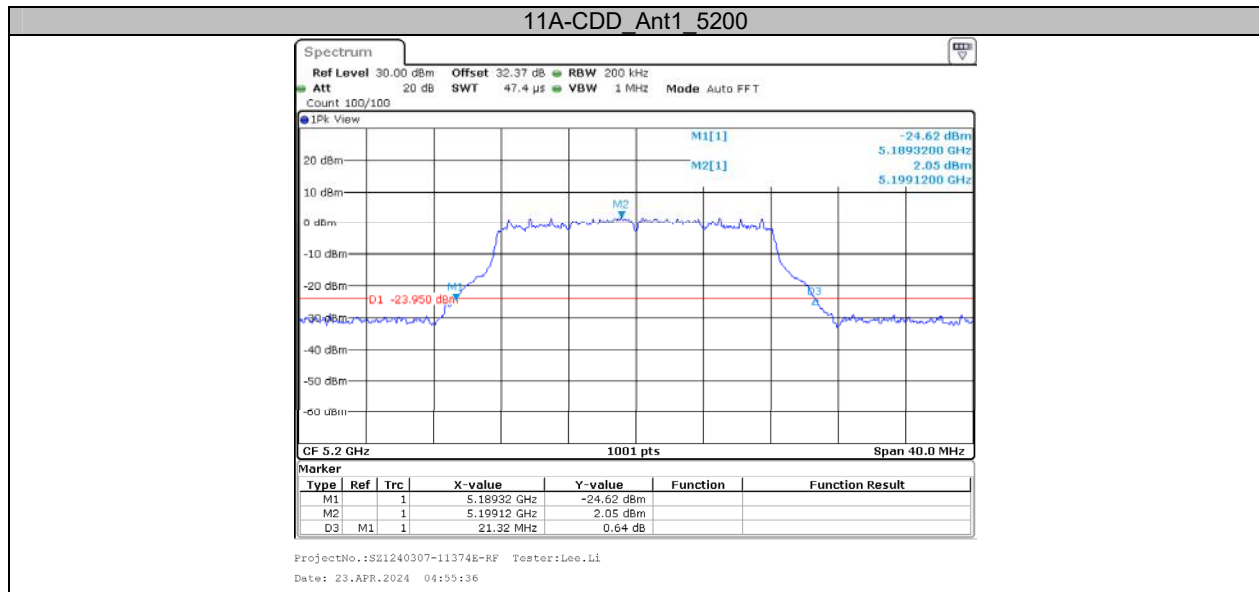
**Test Result**

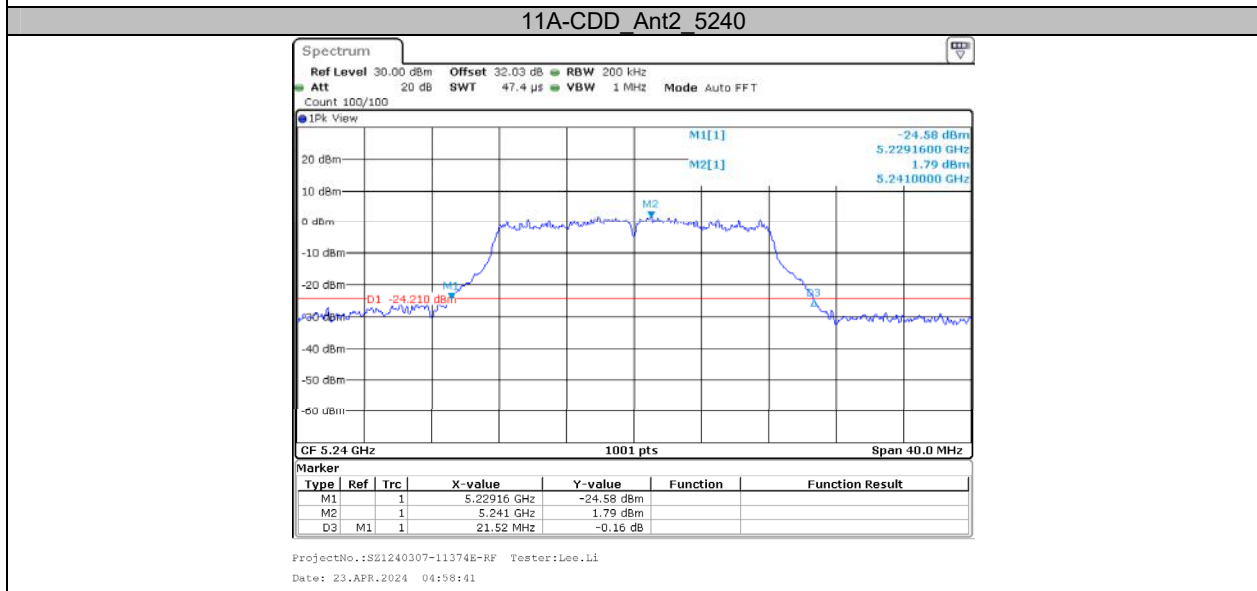
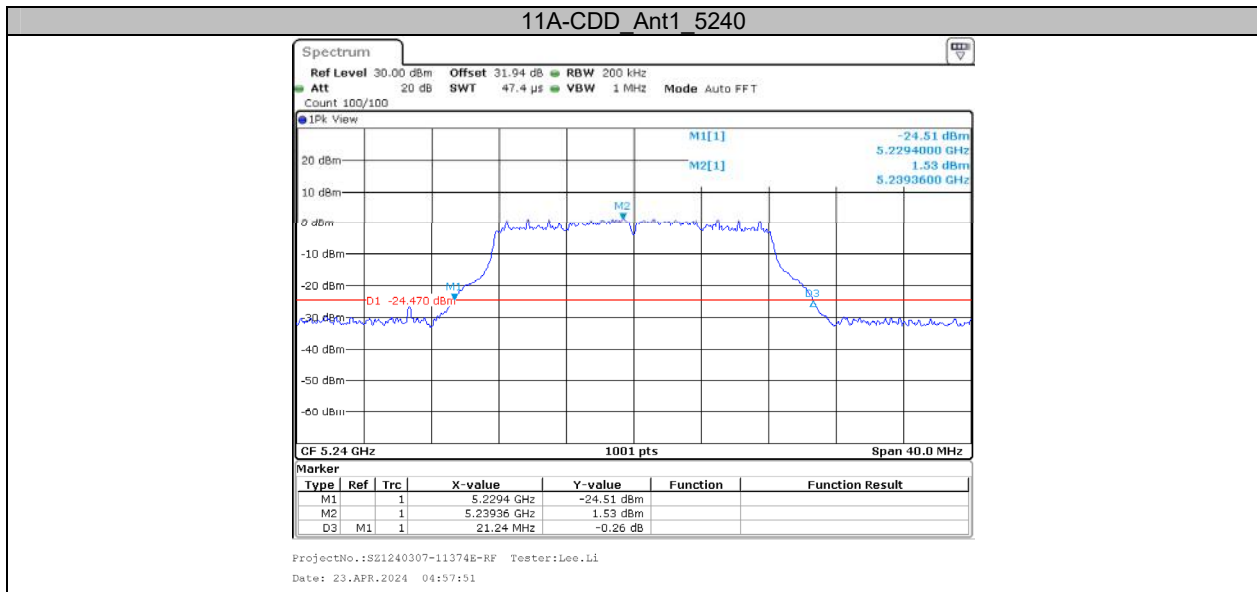
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11A-CDD	Ant1	5180	21.52	5169.40	5190.92	---	---
	Ant2	5180	21.64	5168.92	5190.56	---	---
	Ant1	5200	21.32	5189.32	5210.64	---	---
	Ant2	5200	21.88	5188.88	5210.76	---	---
	Ant1	5240	21.24	5229.40	5250.64	---	---
	Ant2	5240	21.52	5229.16	5250.68	---	---
	Ant1	5745	21.88	5733.96	5755.84	---	---
	Ant2	5745	21.92	5734.08	5756.00	---	---
	Ant1	5785	28.92	5766.96	5795.88	---	---
	Ant2	5785	21.68	5774.12	5795.80	---	---
11AC20MIMO	Ant1	5825	21.72	5814.04	5835.76	---	---
	Ant2	5825	21.64	5814.20	5835.84	---	---
	Ant1	5180	21.72	5169.04	5190.76	---	---
	Ant2	5180	21.72	5169.16	5190.88	---	---
	Ant1	5200	21.72	5189.20	5210.92	---	---
	Ant2	5200	21.44	5189.24	5210.68	---	---
	Ant1	5240	21.64	5229.20	5250.84	---	---
	Ant2	5240	22.44	5228.32	5250.76	---	---
	Ant1	5745	21.80	5734.00	5755.80	---	---
	Ant2	5745	24.68	5733.28	5757.96	---	---
11AC40MIMO	Ant1	5785	21.92	5773.88	5795.80	---	---
	Ant2	5785	22.00	5773.88	5795.88	---	---
	Ant1	5825	21.76	5814.08	5835.84	---	---
	Ant2	5825	21.72	5814.08	5835.80	---	---
	Ant1	5190	40.88	5169.52	5210.40	---	---
	Ant2	5190	40.48	5169.76	5210.24	---	---
	Ant1	5230	40.64	5209.68	5250.32	---	---
	Ant2	5230	40.64	5209.60	5250.24	---	---
11AC80MIMO	Ant1	5755	71.04	5717.32	5788.36	---	---
	Ant2	5755	78.64	5716.12	5794.76	---	---
	Ant1	5795	79.52	5755.24	5834.76	---	---
	Ant2	5795	76.08	5758.04	5834.12	---	---
	Ant1	5210	154.72	5131.76	5286.48	---	---
	Ant2	5210	118.56	5133.20	5251.76	---	---
11AX20MIMO	Ant1	5775	160.00	5695.00	5855.00	---	---
	Ant2	5775	160.00	5695.00	5855.00	---	---
	Ant1	5180	21.24	5169.44	5190.68	---	---
	Ant2	5180	21.48	5169.12	5190.60	---	---
	Ant1	5200	21.44	5189.20	5210.64	---	---
	Ant2	5200	21.36	5189.24	5210.60	---	---
	Ant1	5240	21.12	5229.44	5250.56	---	---
	Ant2	5240	21.40	5229.16	5250.56	---	---
	Ant1	5745	21.48	5734.16	5755.64	---	---
	Ant2	5745	21.52	5734.20	5755.72	---	---
	Ant1	5785	21.16	5774.44	5795.60	---	---
	Ant2	5785	29.84	5774.04	5803.88	---	---
	Ant1	5825	21.36	5814.16	5835.52	---	---
	Ant2	5825	21.52	5814.40	5835.92	---	---

Test Mode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11AX40MIMO	Ant1	5190	40.80	5169.68	5210.48	---	---
	Ant2	5190	41.20	5169.68	5210.88	---	---
	Ant1	5230	40.80	5209.76	5250.56	---	---
	Ant2	5230	40.88	5209.52	5250.40	---	---
	Ant1	5755	75.92	5717.48	5793.40	---	---
	Ant2	5755	80.00	5715.00	5795.00	---	---
	Ant1	5795	46.48	5769.72	5816.20	---	---
	Ant2	5795	80.00	5755.00	5835.00	---	---
11AX80MIMO	Ant1	5210	103.84	5168.56	5272.40	---	---
	Ant2	5210	91.68	5168.88	5260.56	---	---
	Ant1	5775	158.08	5696.60	5854.68	---	---
	Ant2	5775	160.00	5695.00	5855.00	---	---

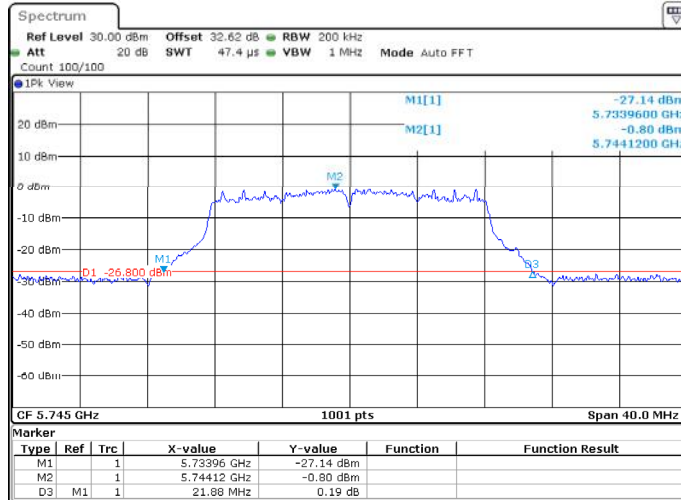
### Test Graphs





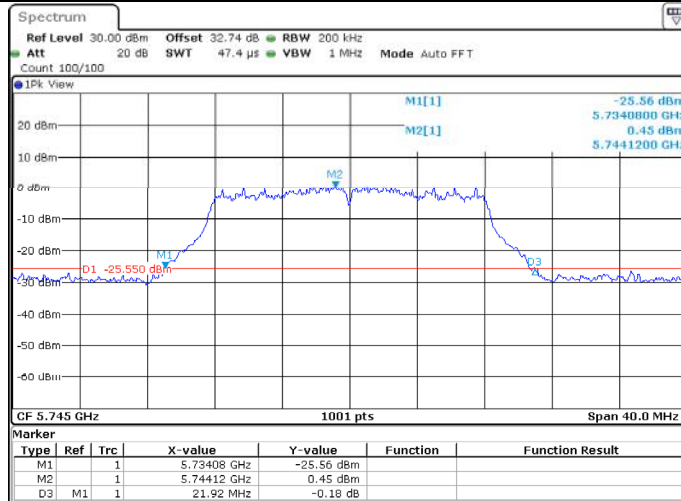


11A-CDD\_Ant1\_5745



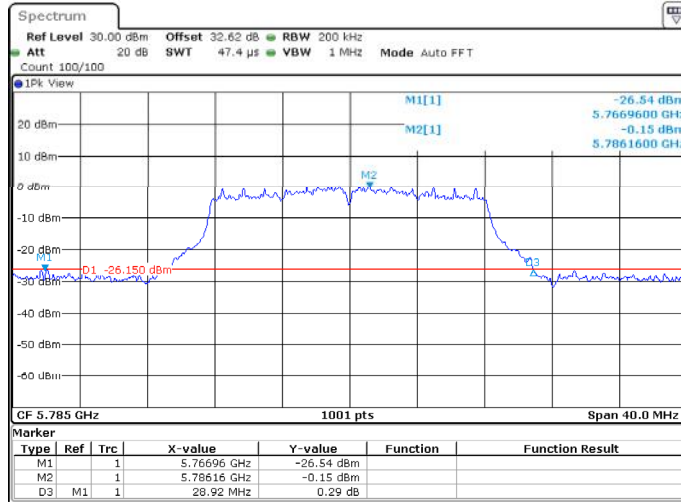
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11A-CDD\_Ant2\_5745



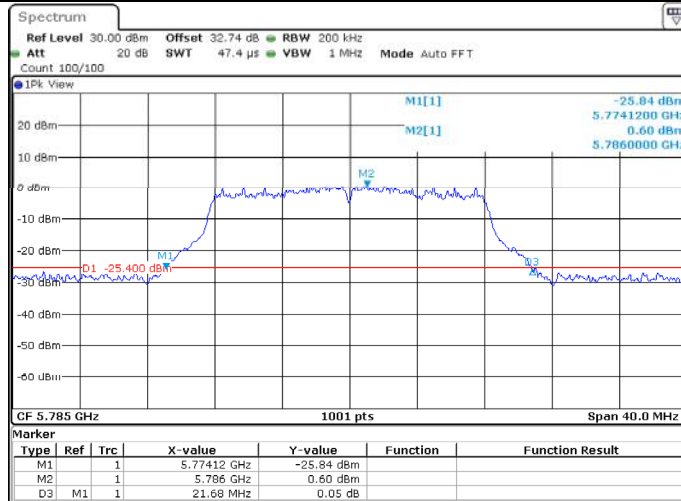
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11A-CDD\_Ant1\_5785



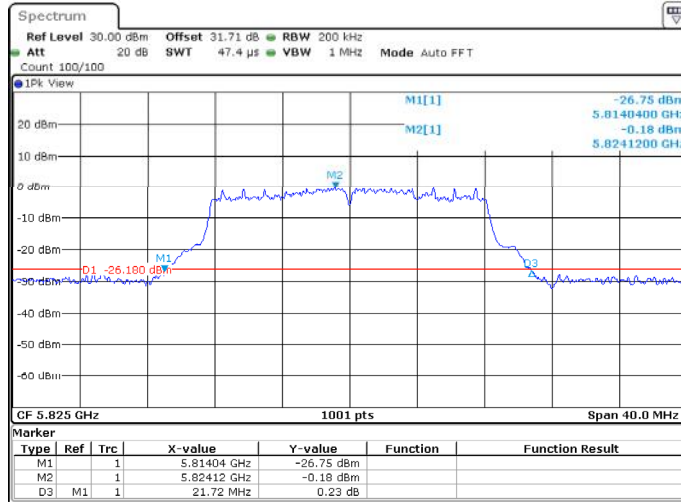
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11A-CDD\_Ant2\_5785



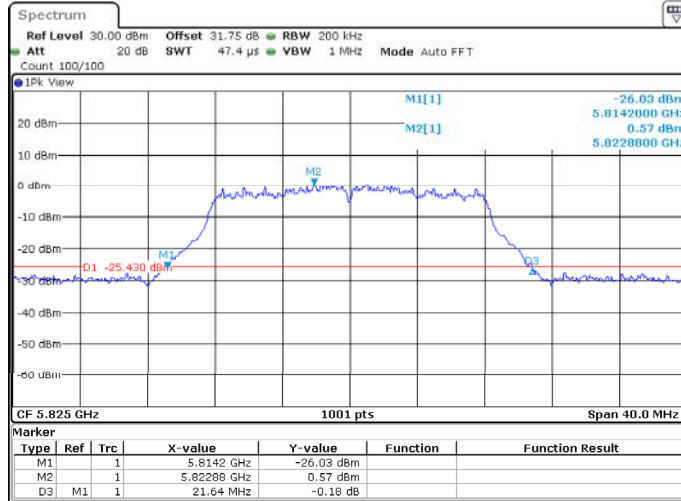
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11A-CDD\_Ant1\_5825



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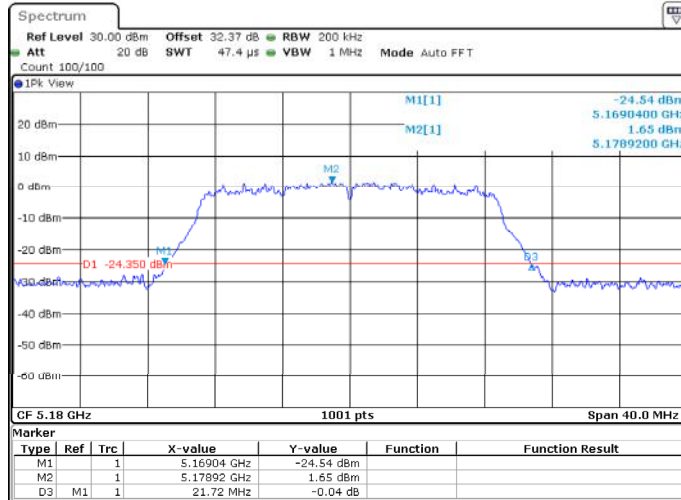
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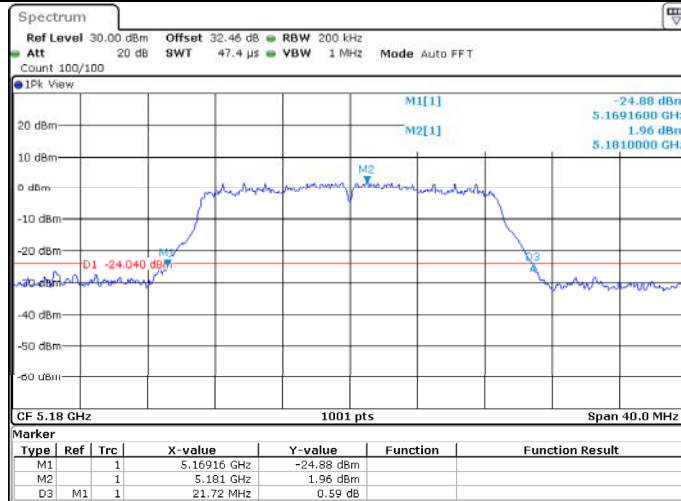


11AC20MIMO Ant1 5180



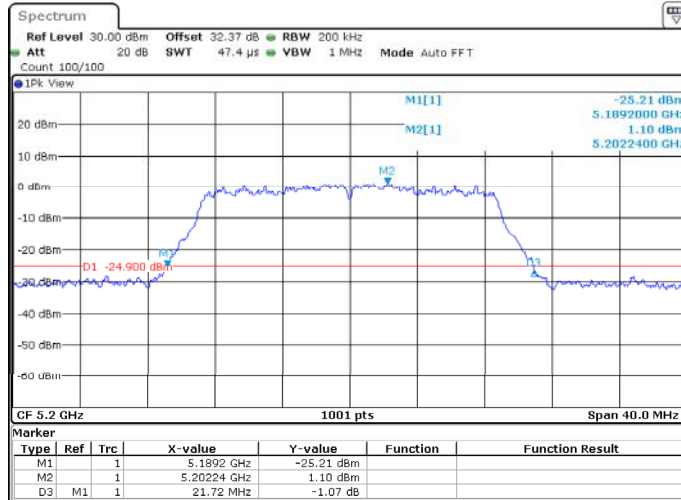
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11AC20MIMO Ant2 5180



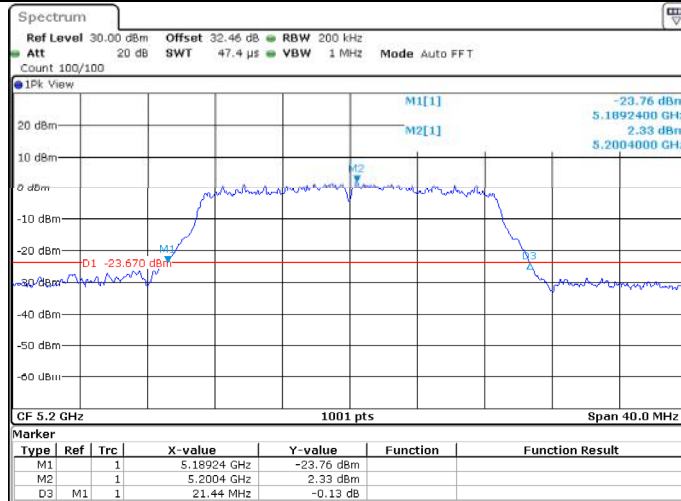
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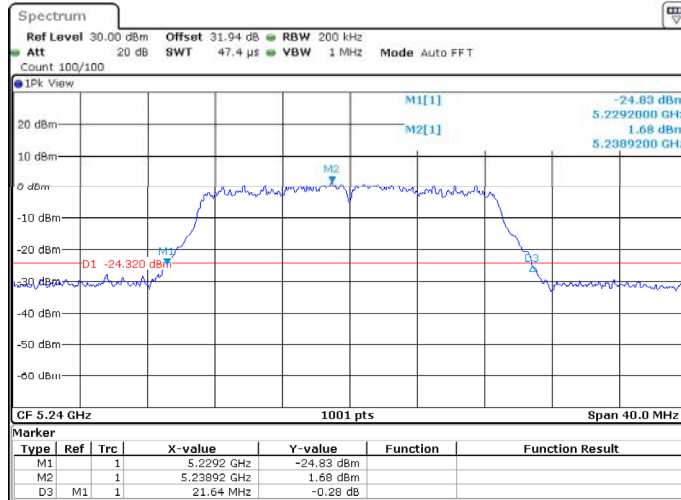
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11AC20MIMO Ant2 5200



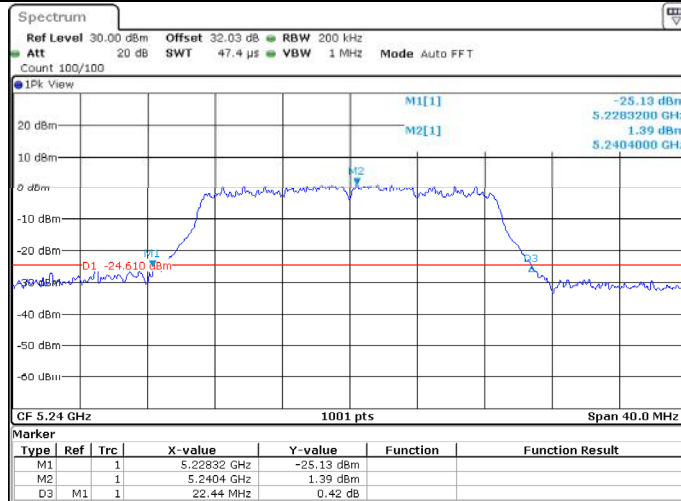
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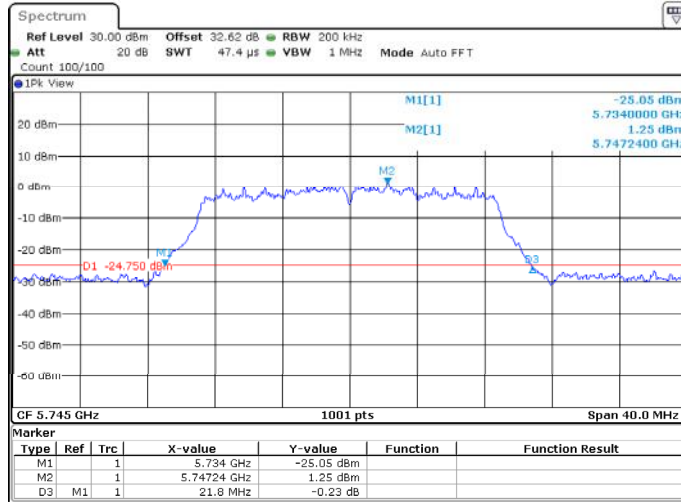
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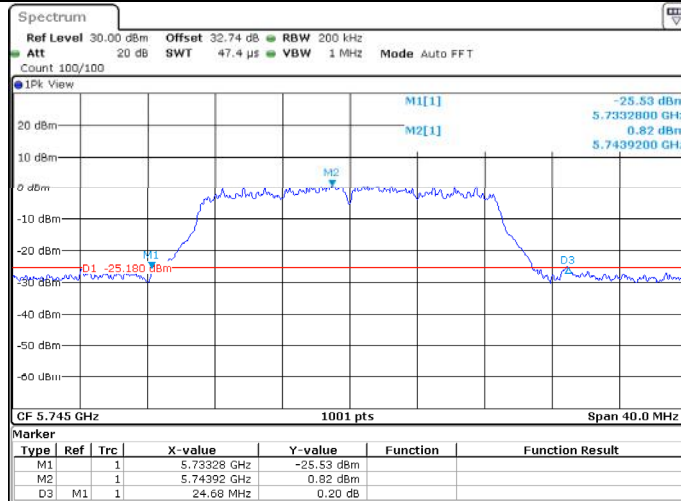
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11AC20MIMO Ant1 5745



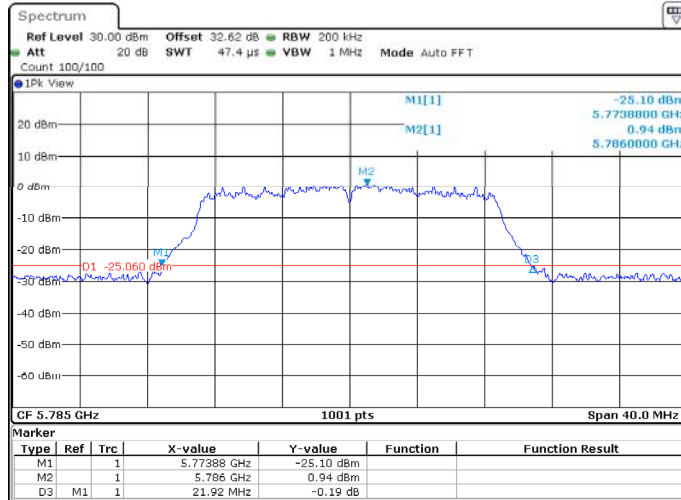
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11AC20MIMO Ant2 5745



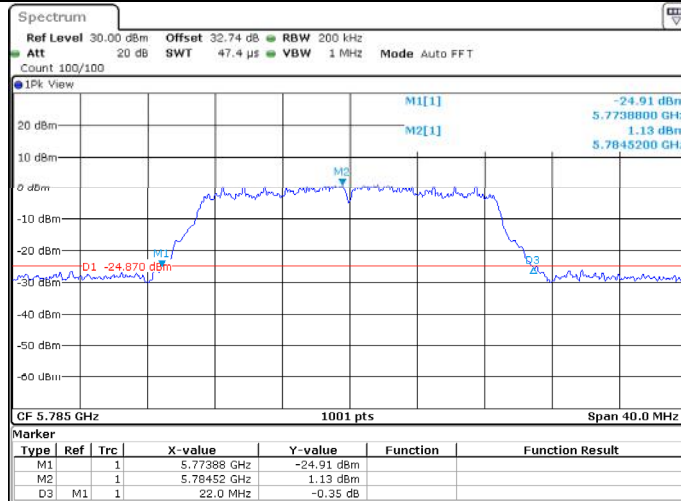
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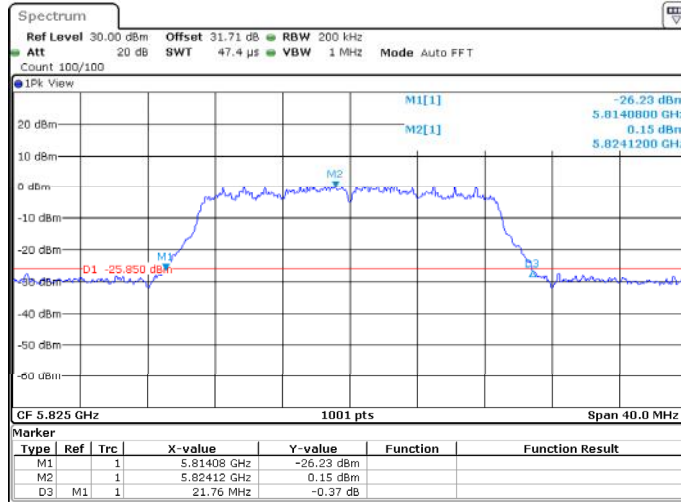
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11AC20MIMO Ant2 5785



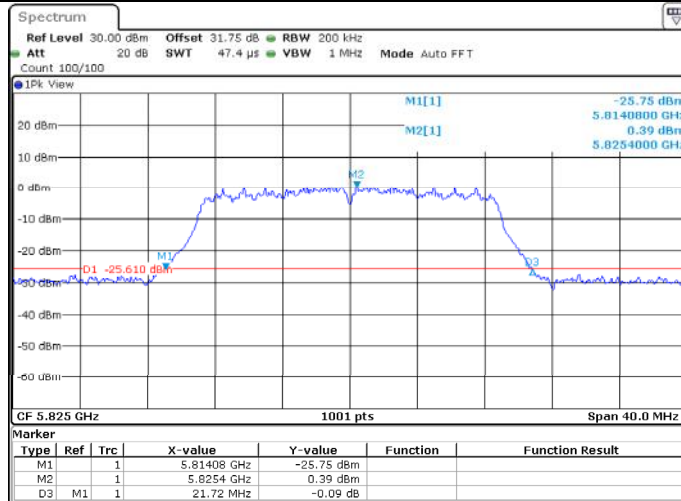
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11AC20MIMO Ant1 5825

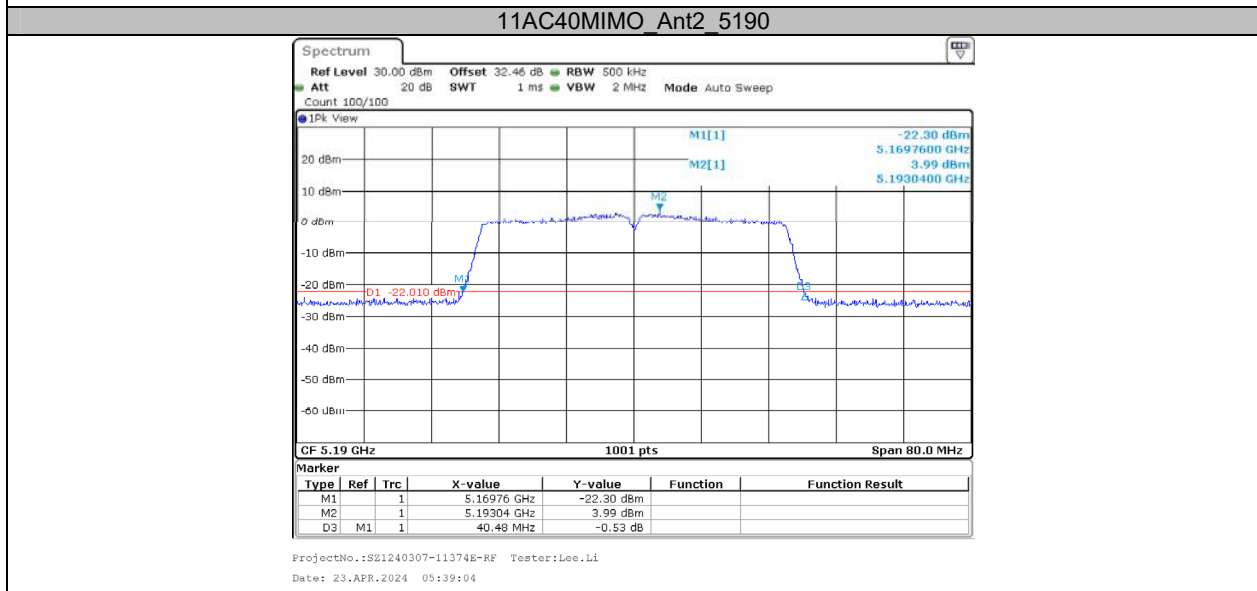
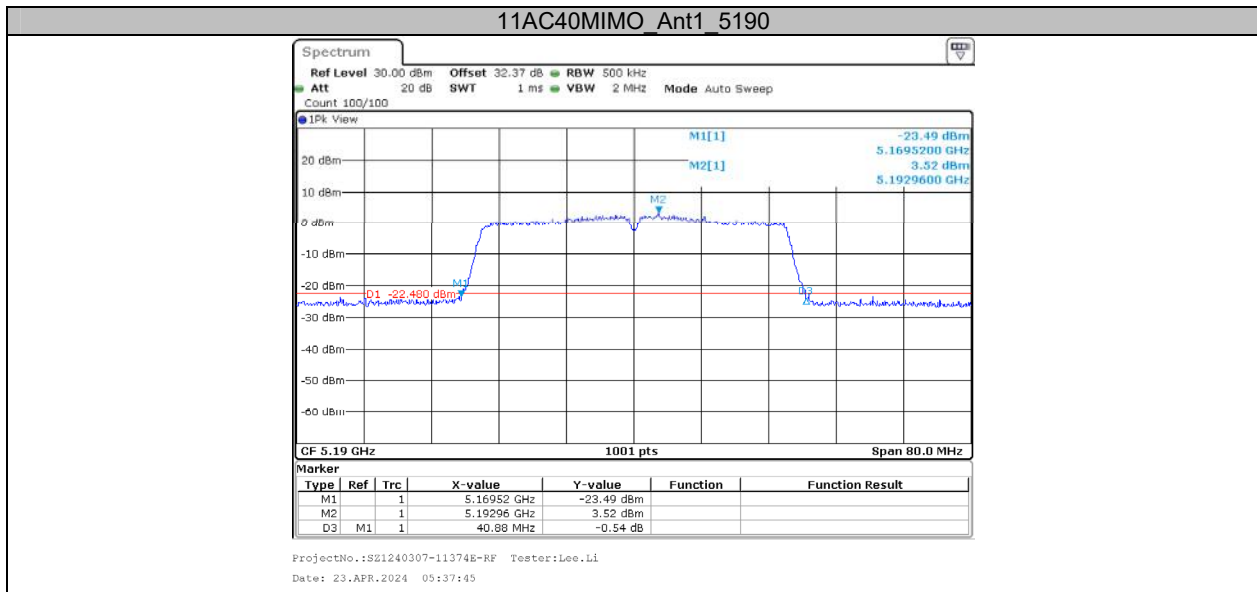


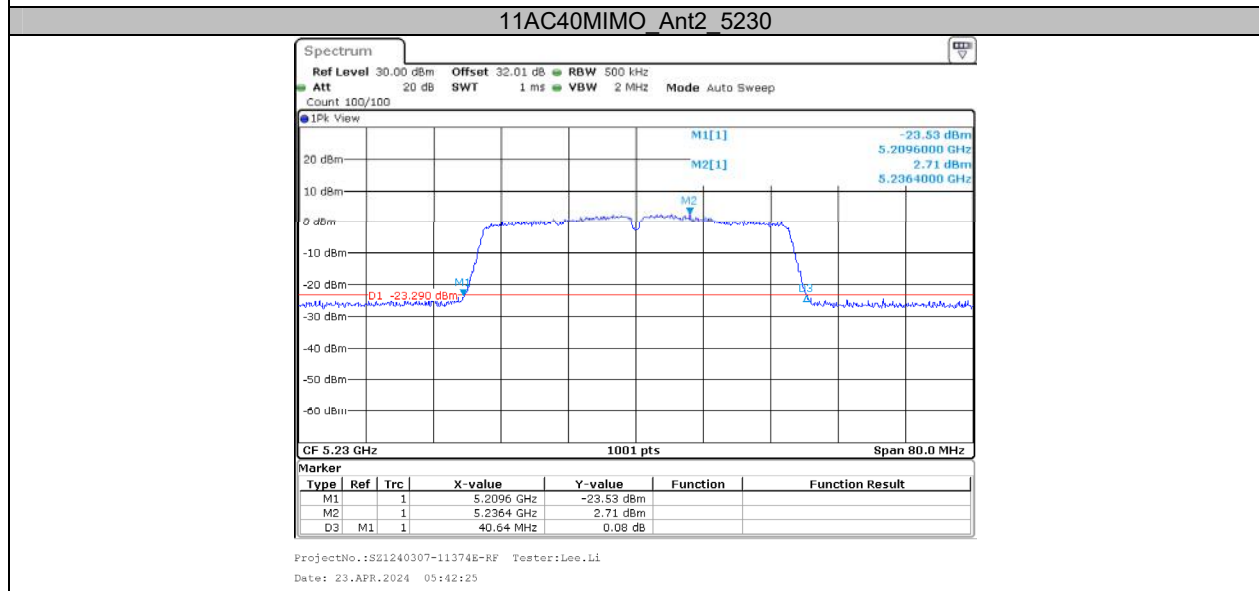
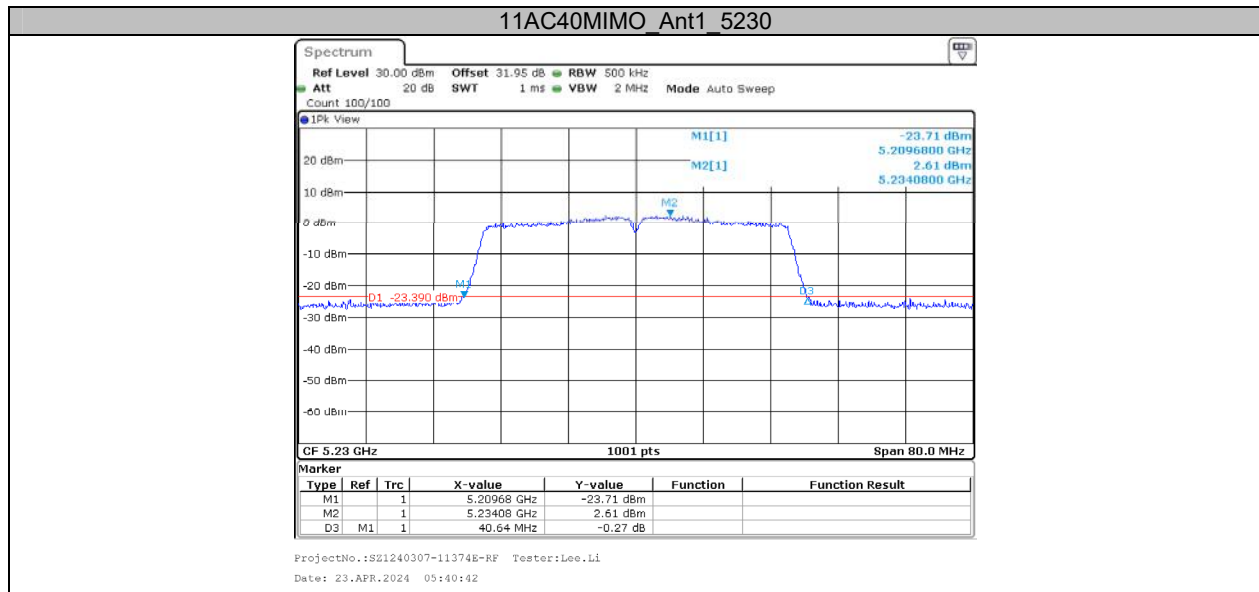
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11AC20MIMO Ant2 5825



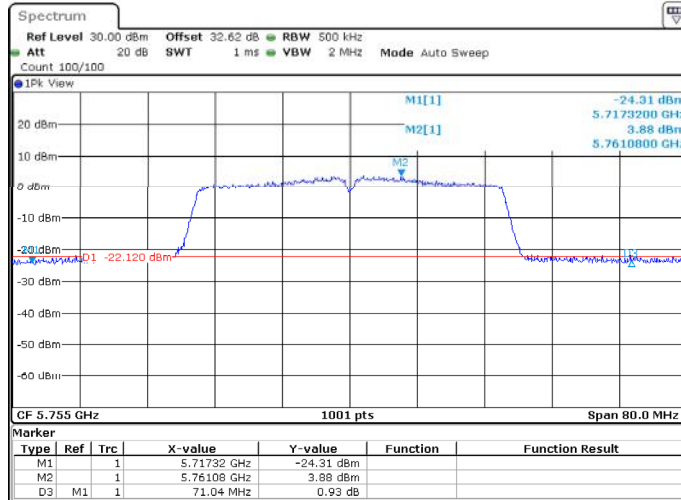
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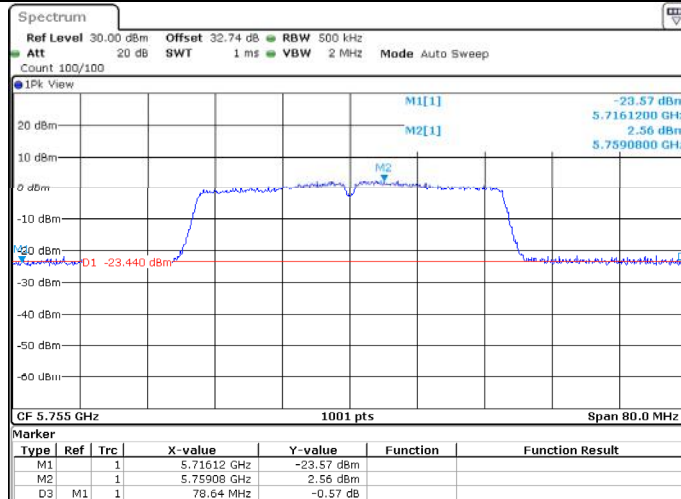


11AC40MIMO Ant1 5755

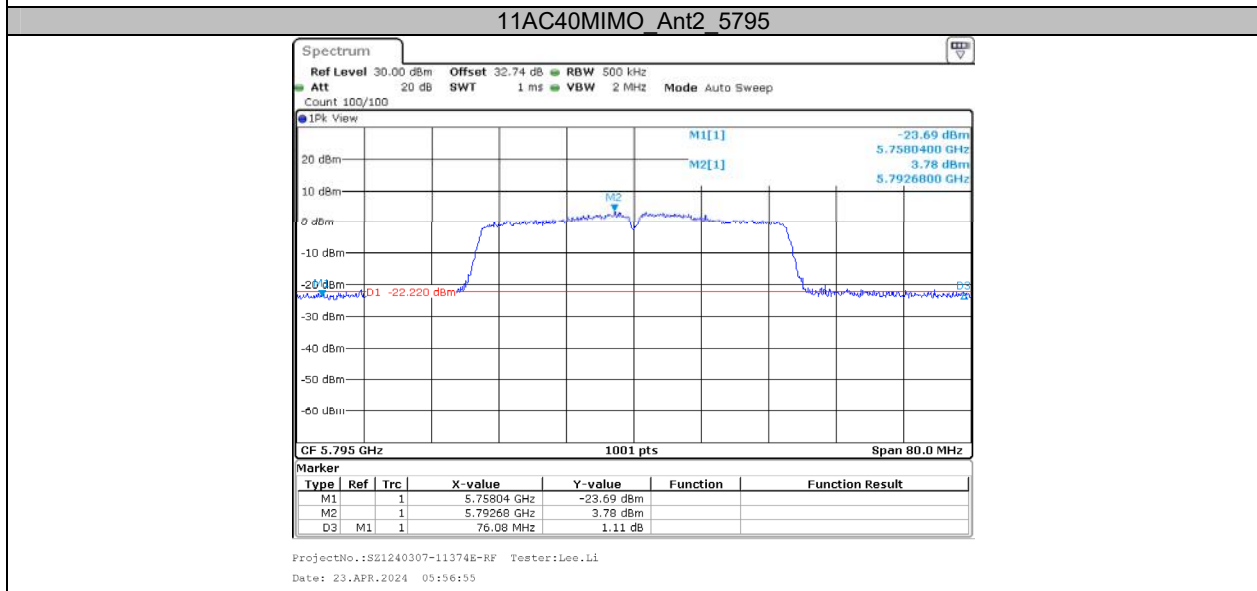
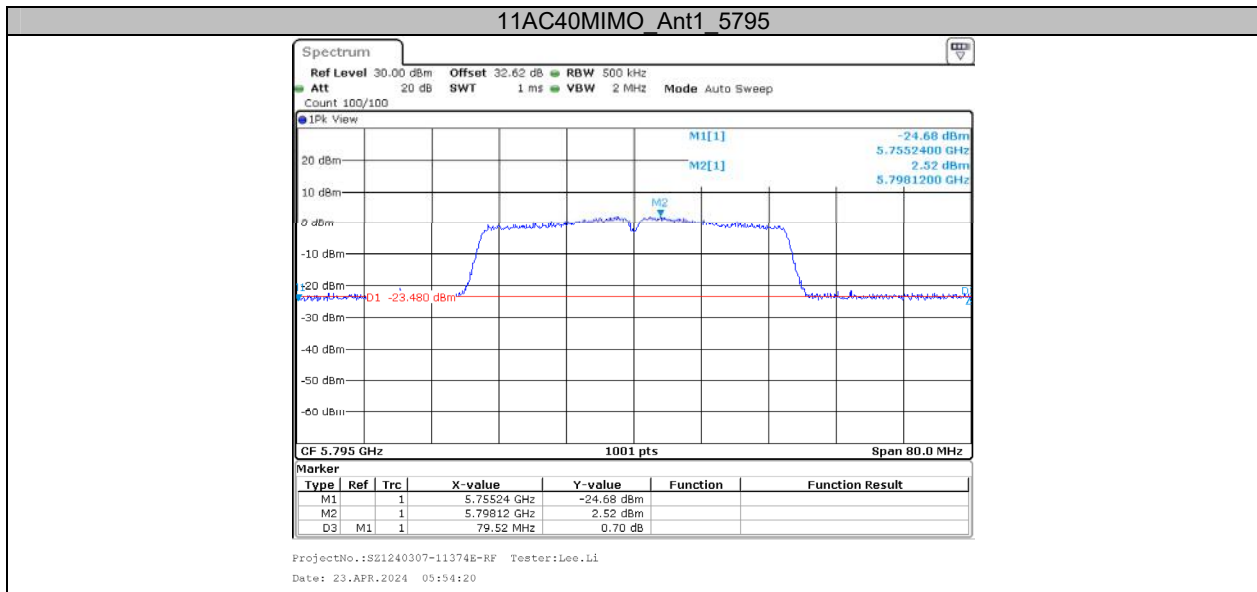


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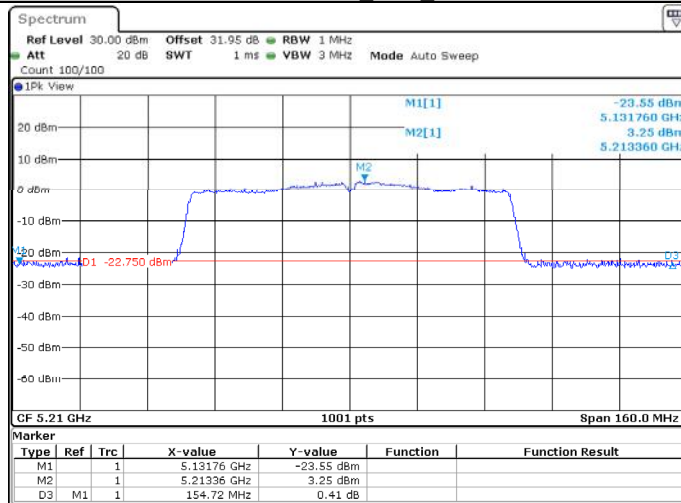
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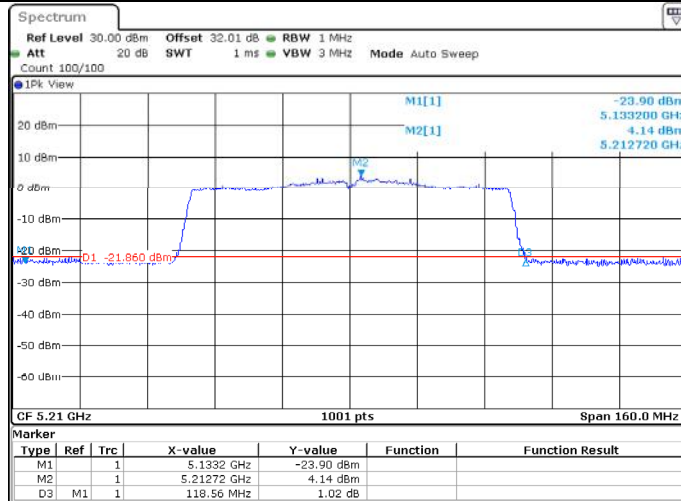


11AC80MIMO Ant1 5210

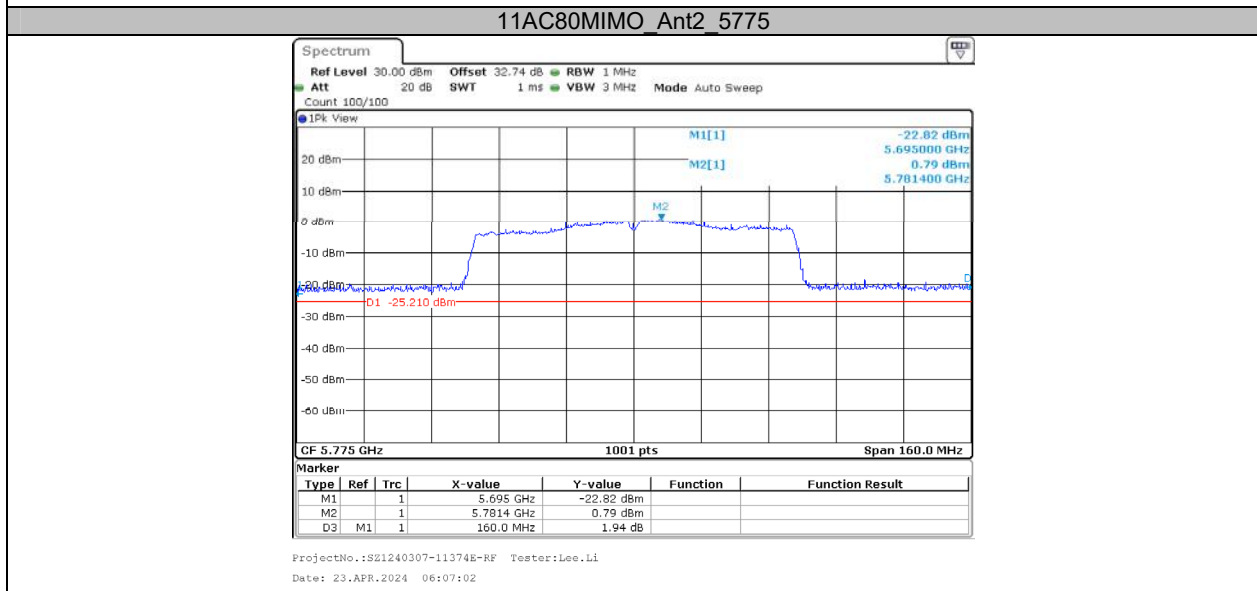
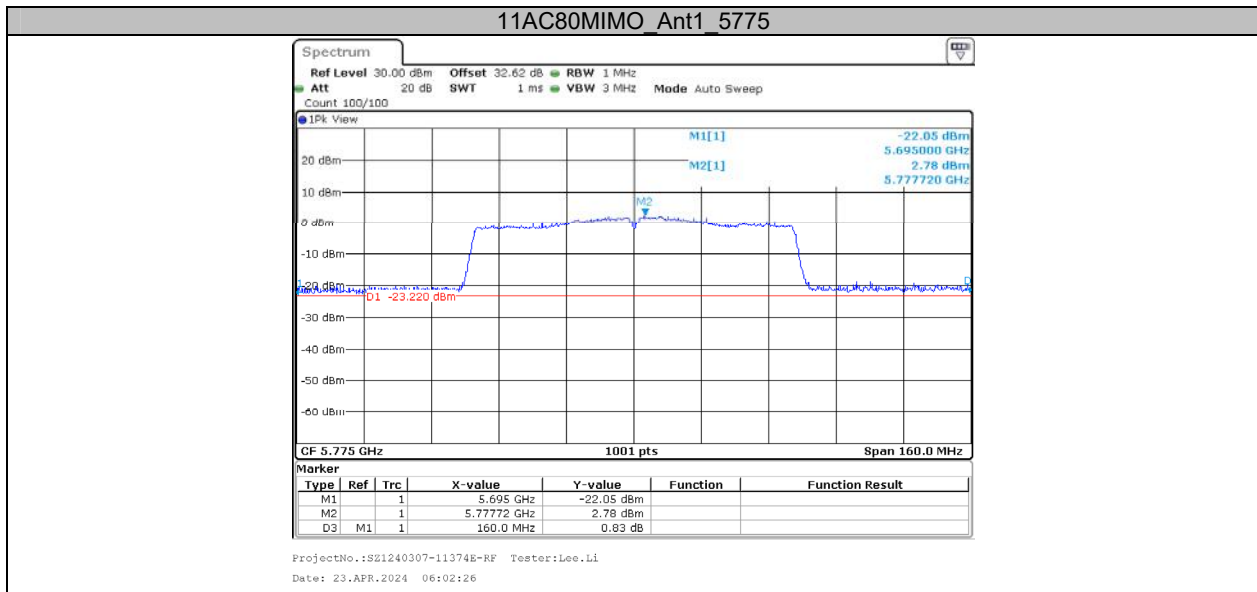


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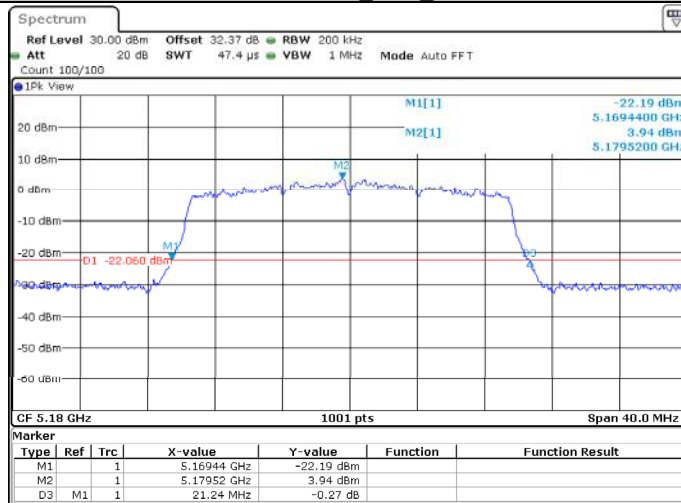
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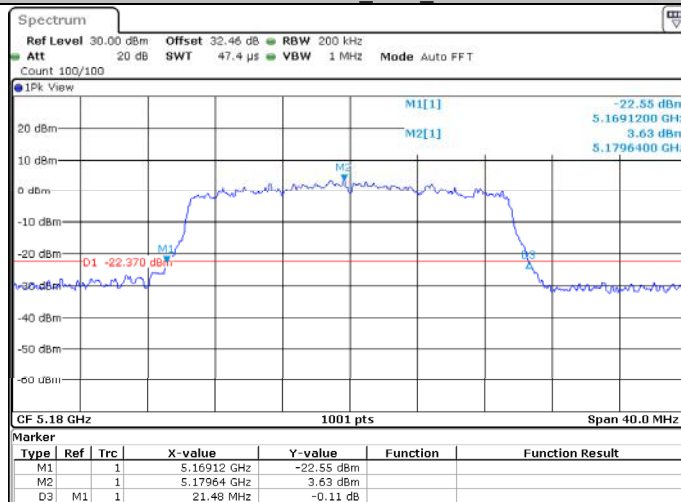


11AX20MIMO Ant1 5180



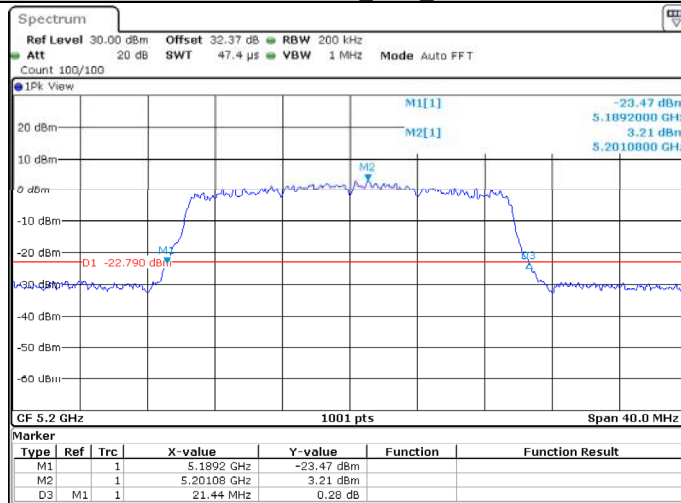
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11AX20MIMO Ant2 5180



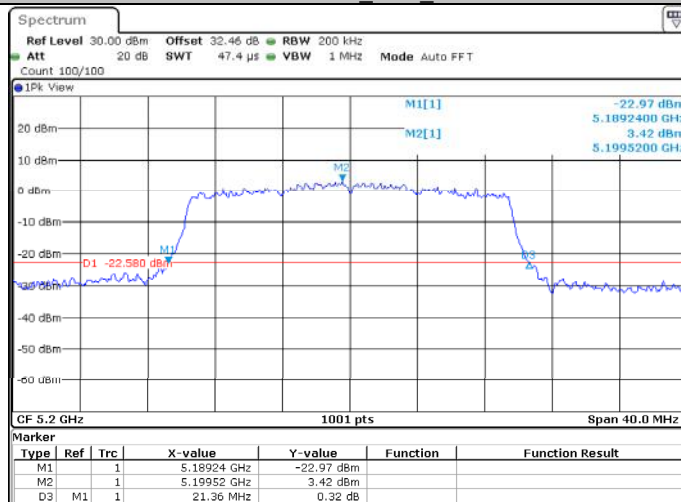
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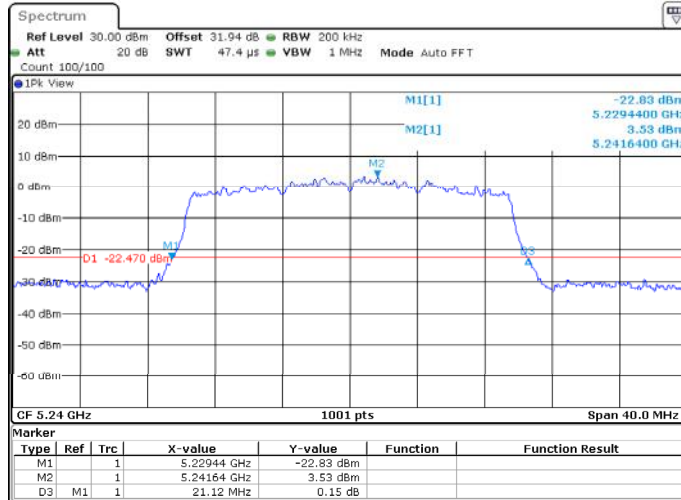
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 Date: 23.APR.2024 06:13:35

11AX20MIMO Ant2 5200



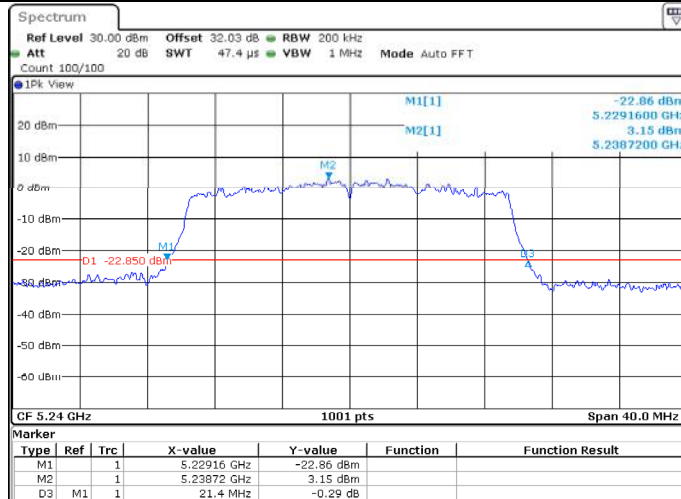
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:15:02

11AX20MIMO Ant1 5240



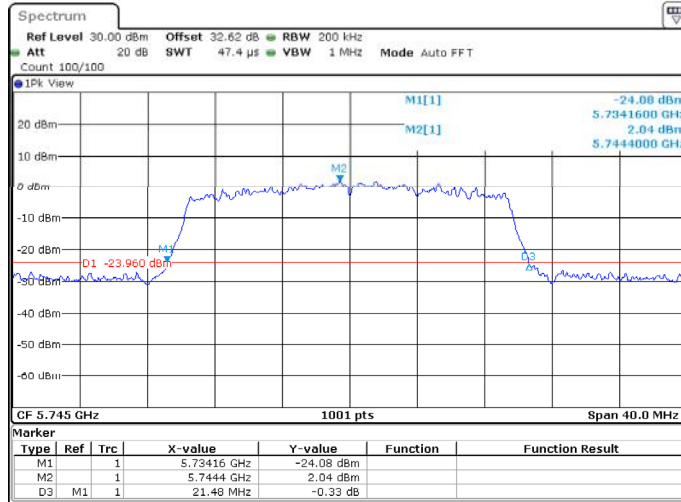
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:23:55

11AX20MIMO Ant2 5240



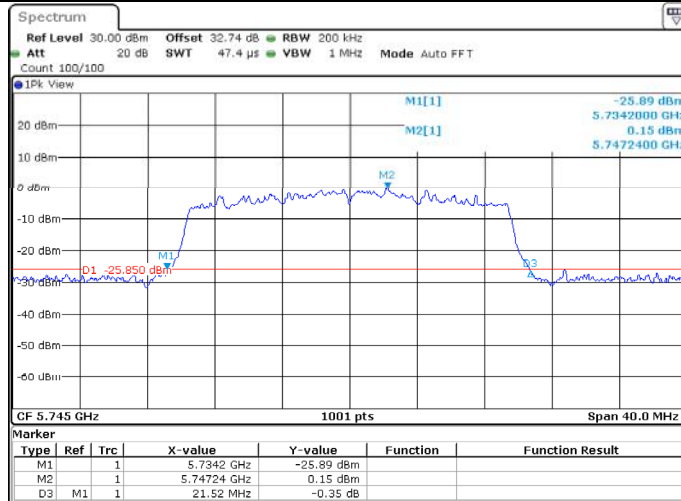
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:27:19

11AX20MIMO Ant1 5745



ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:28:56

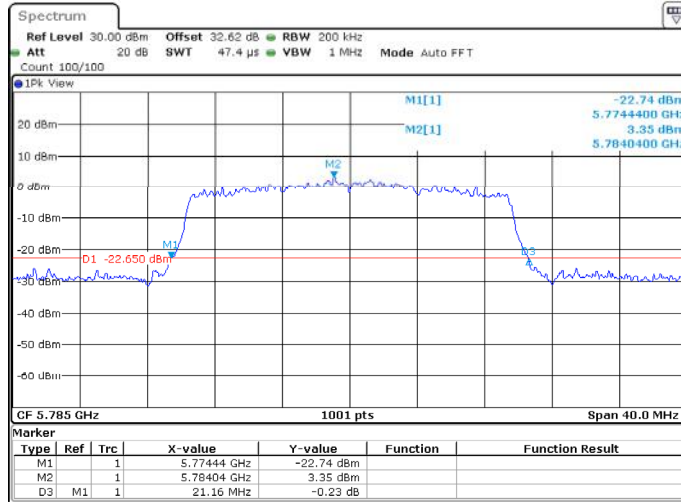
11AX20MIMO Ant2 5745



ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:30:22

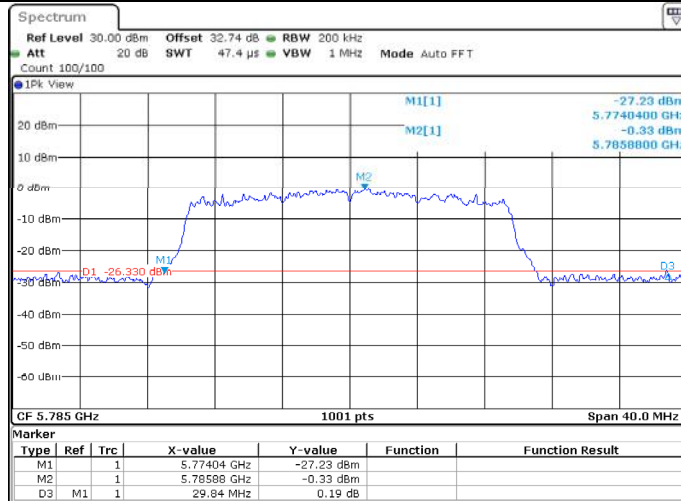


11AX20MIMO Ant1 5785



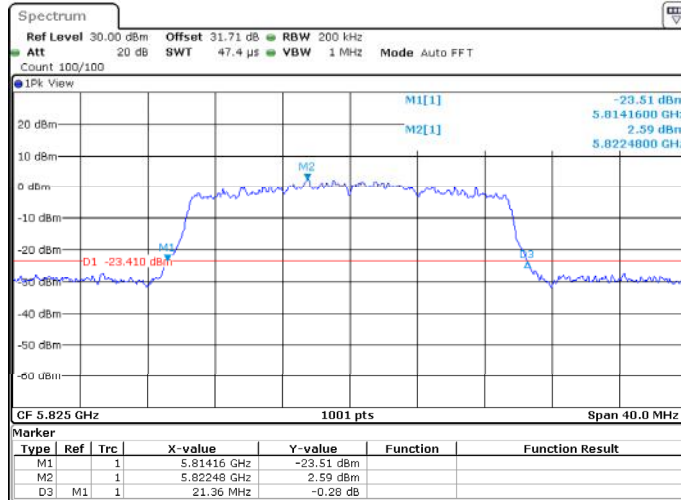
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:32:34

11AX20MIMO Ant2 5785



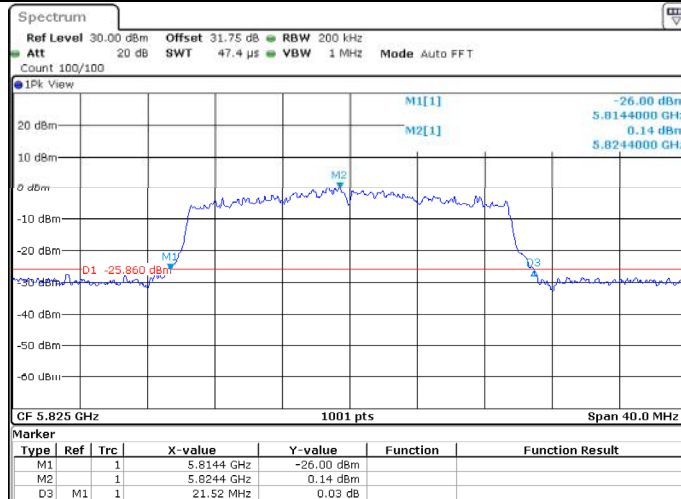
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:34:07

11AX20MIMO Ant1 5825

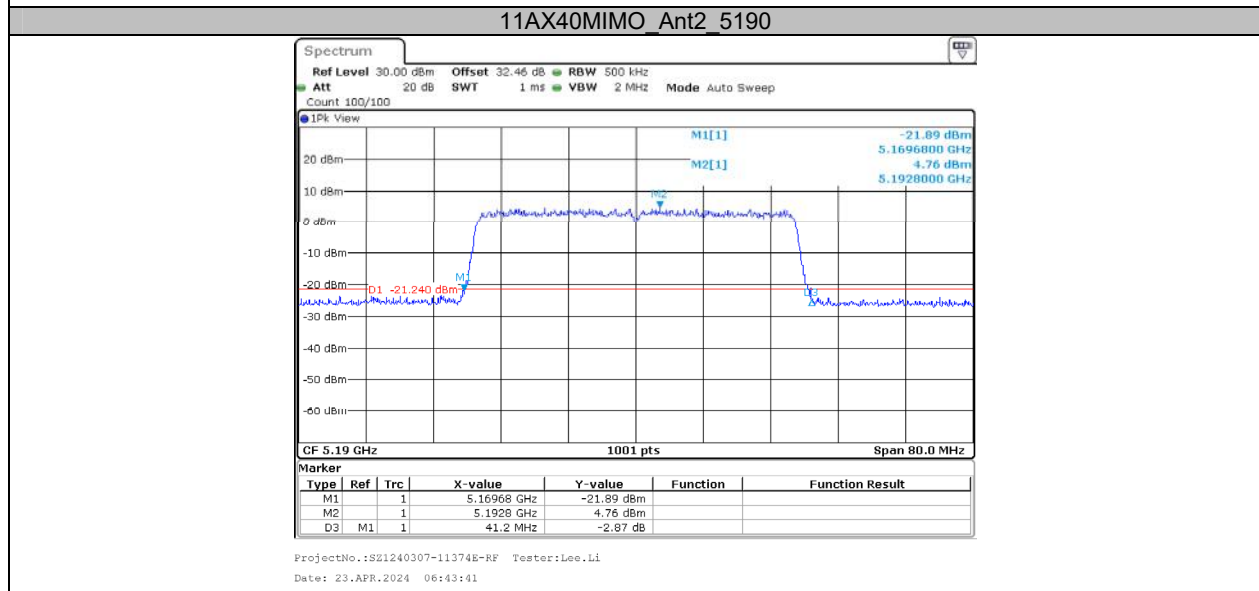
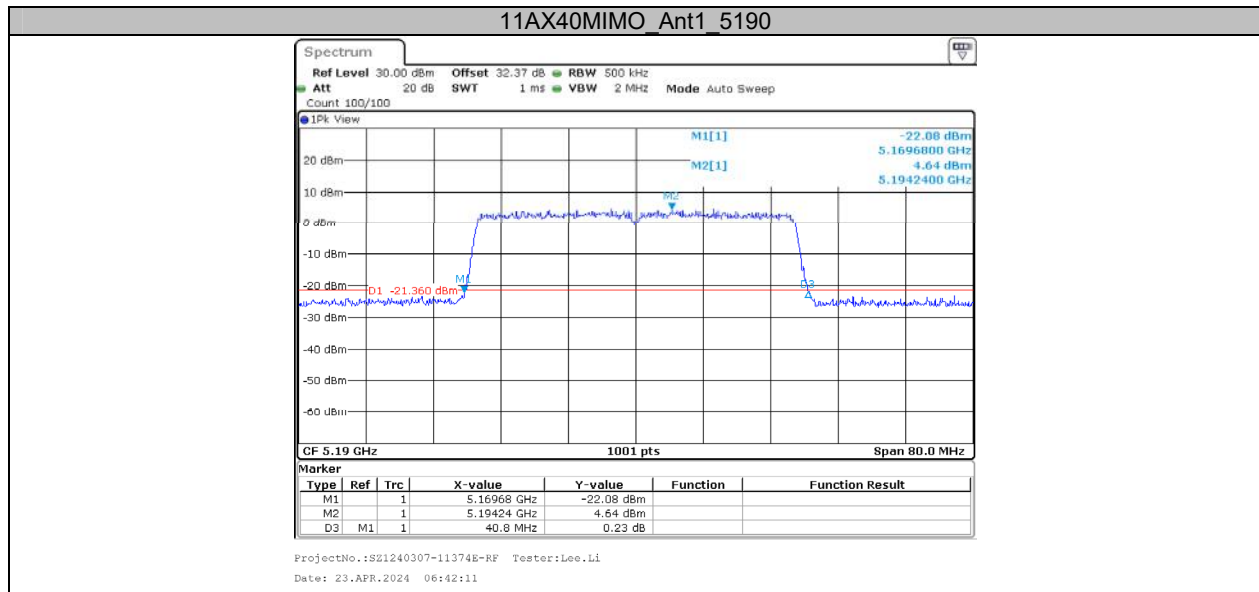


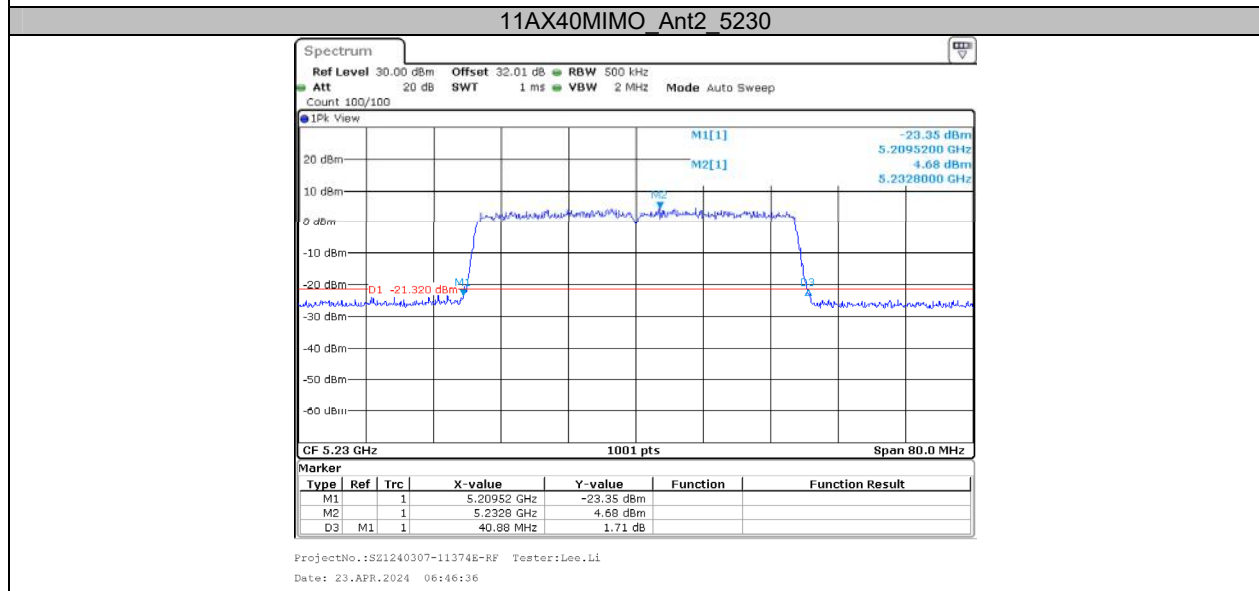
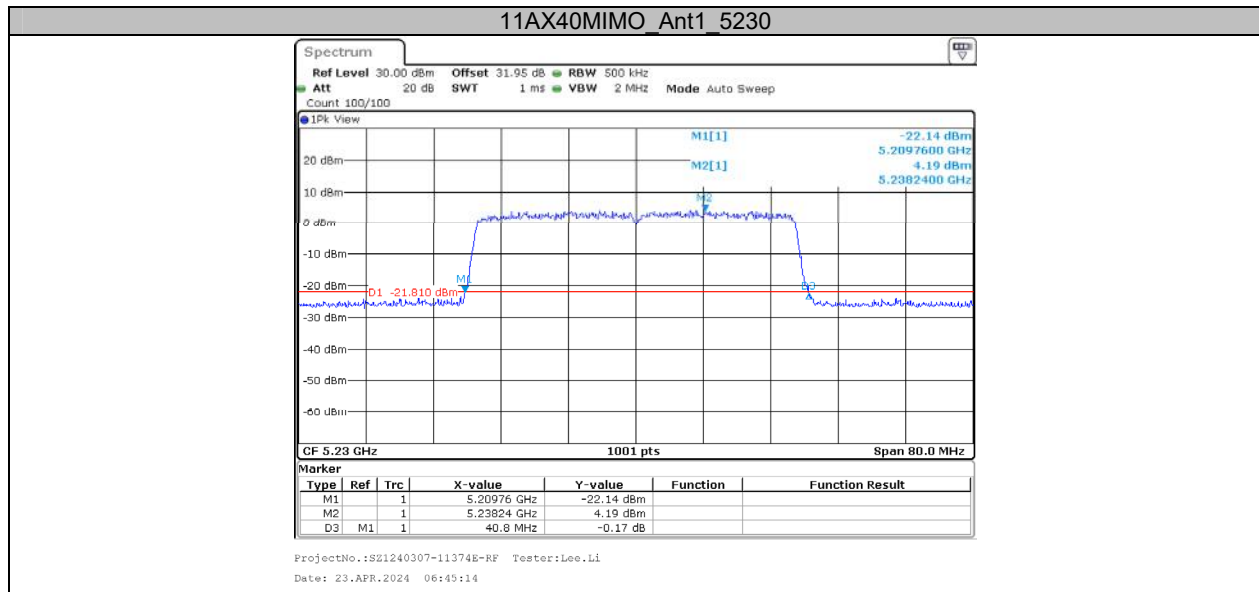
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:35:44

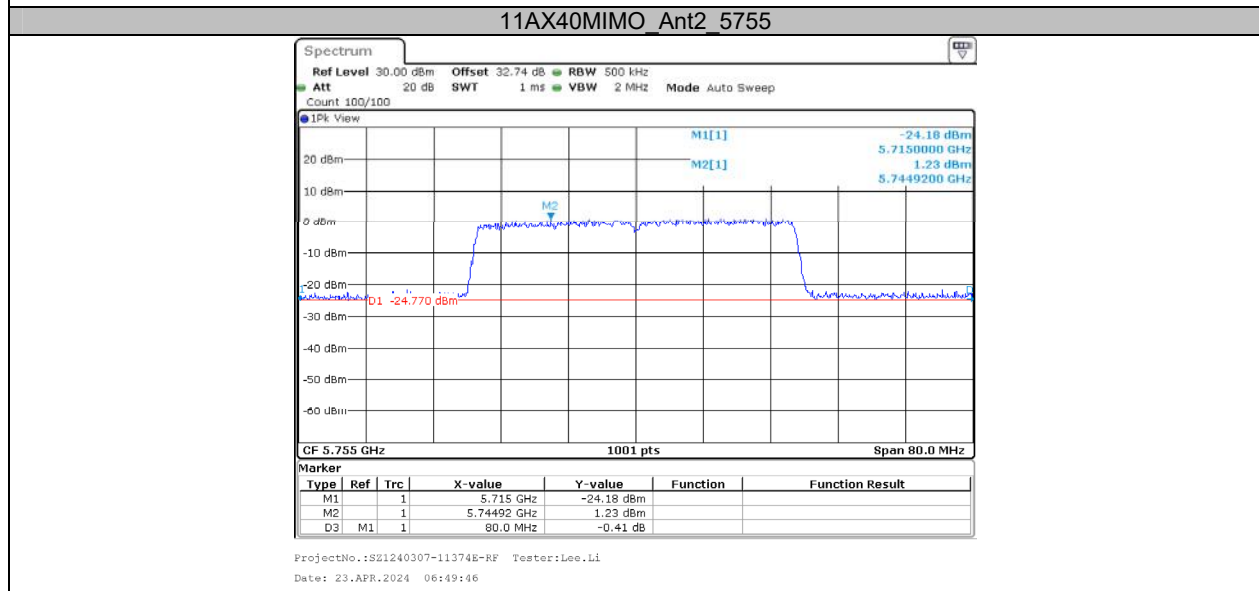
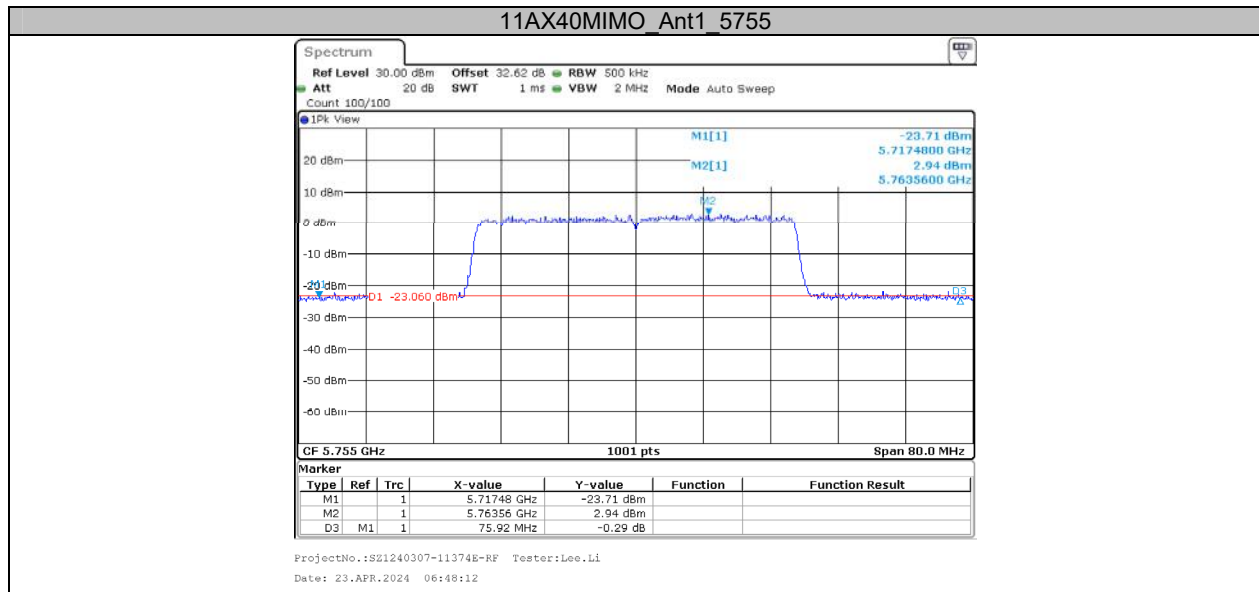
11AX20MIMO Ant2 5825



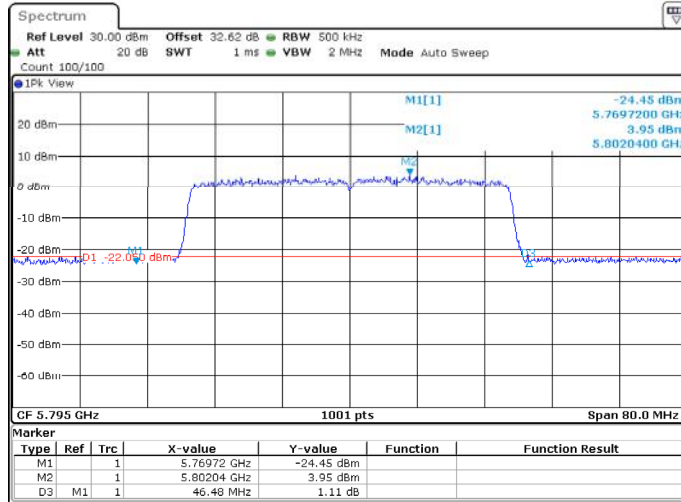
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:37:13





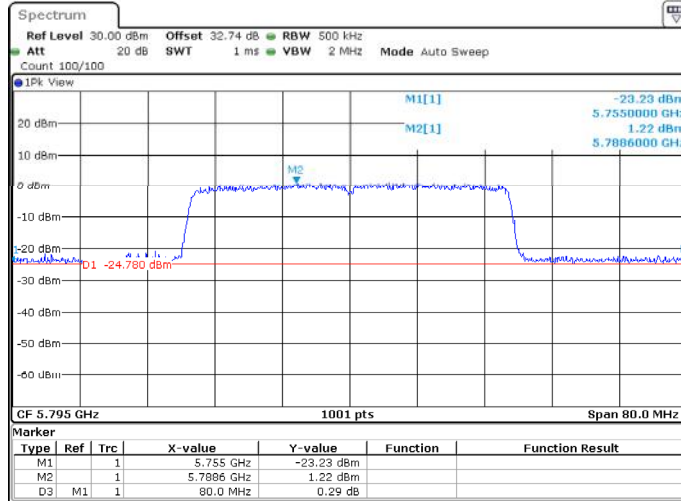


11AX40MIMO Ant1 5795

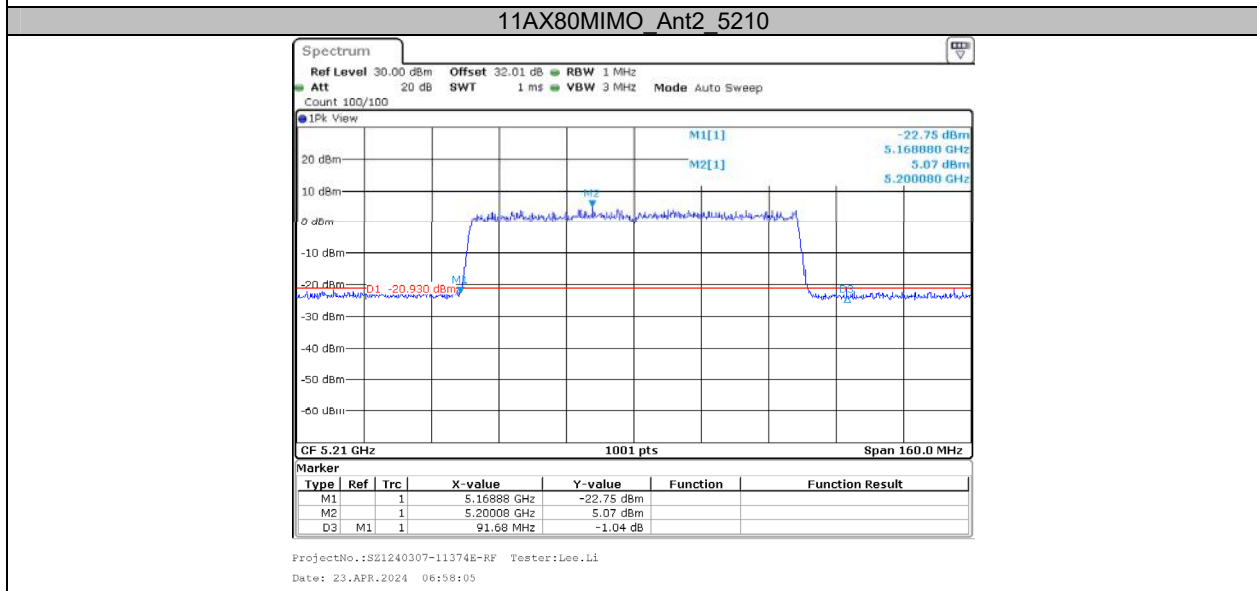
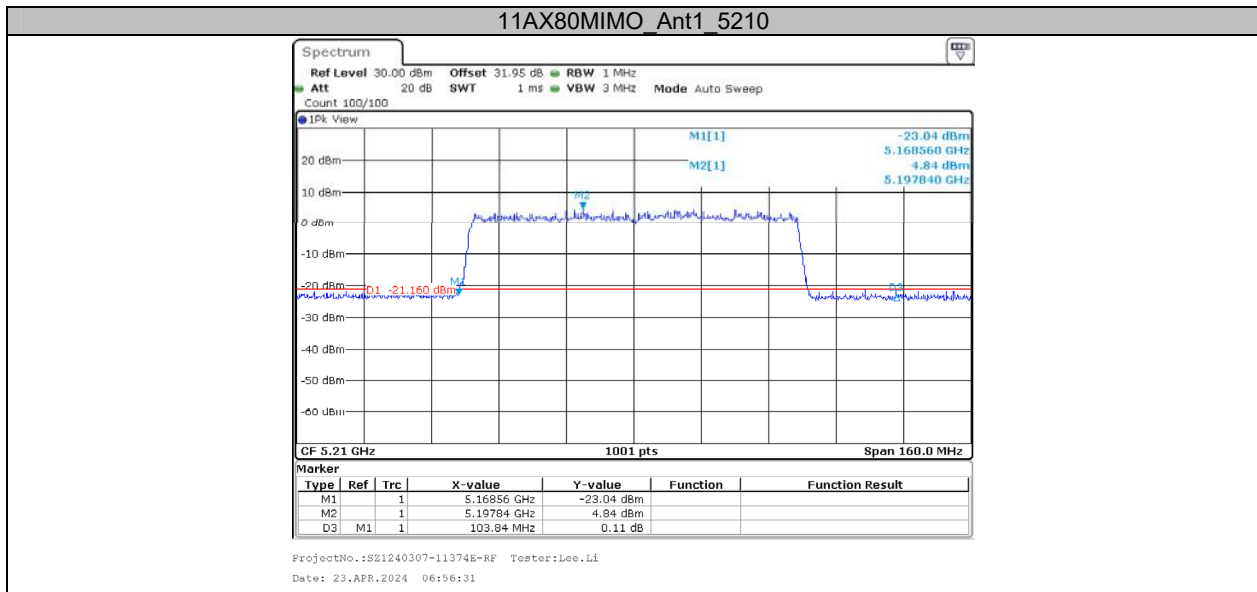


ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:52:33

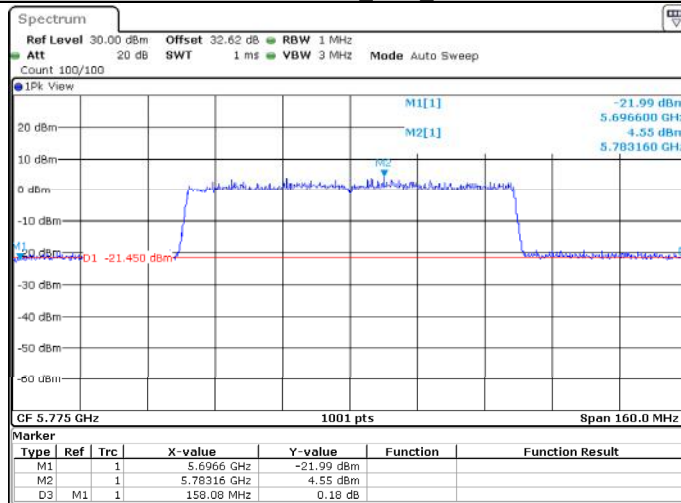
11AX40MIMO Ant2 5795



ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:54:44

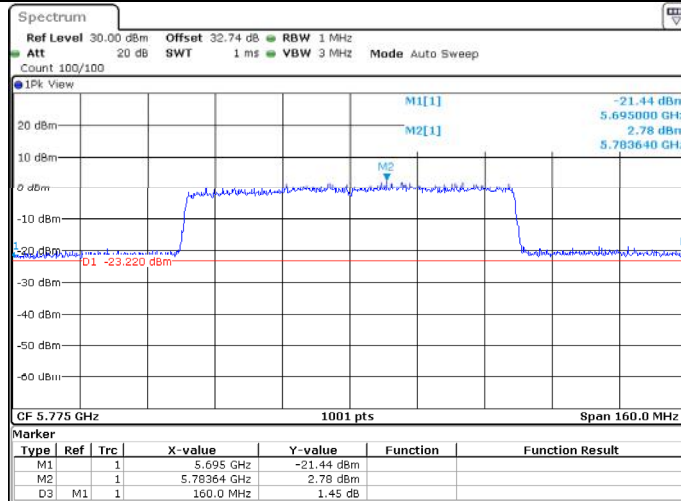


11AX80MIMO Ant1 5775



ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:59:53

11AX80MIMO Ant2 5775



ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 07:02:57



**Appendix A2: Occupied channel bandwidth**

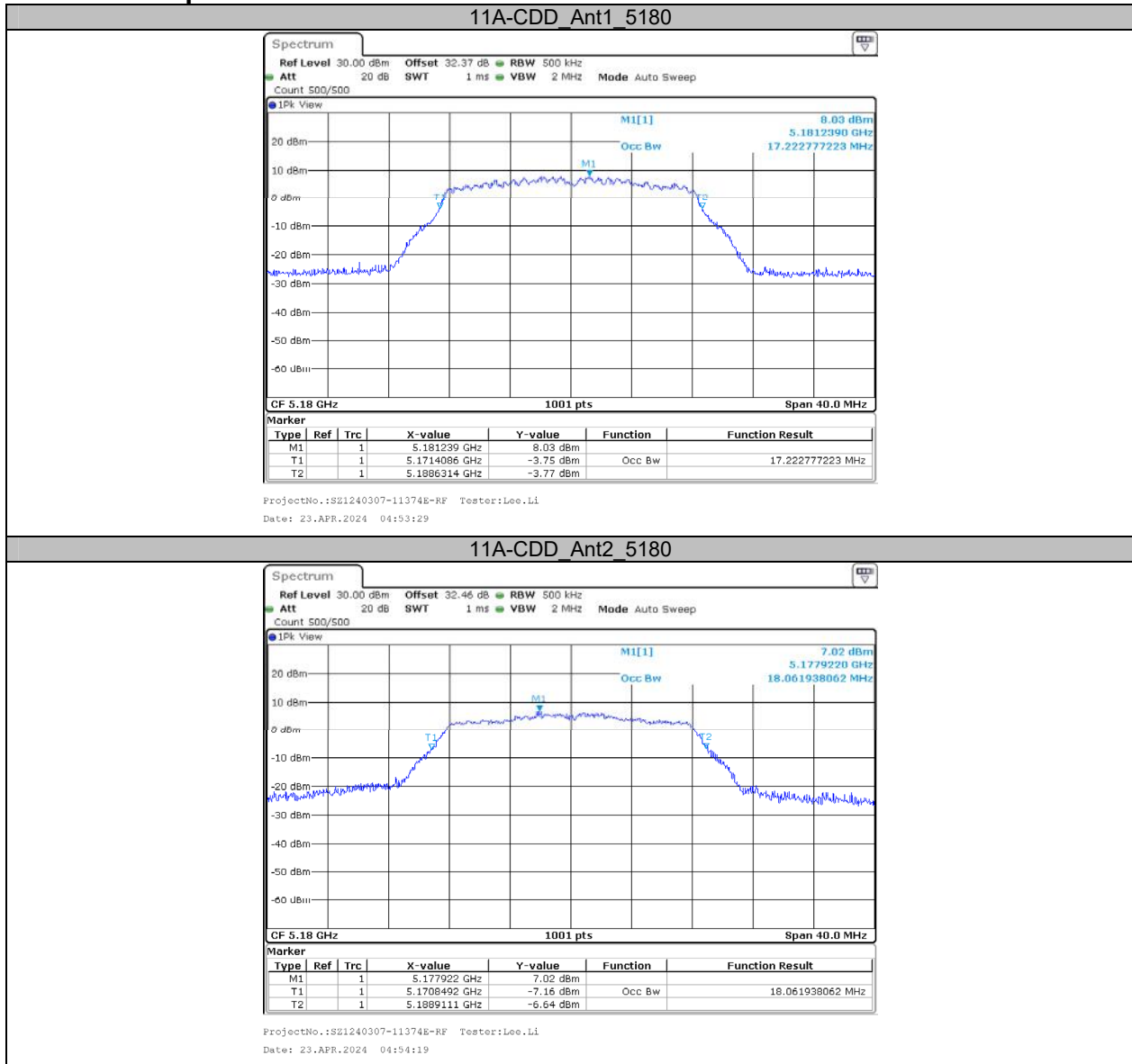
**Test Result**

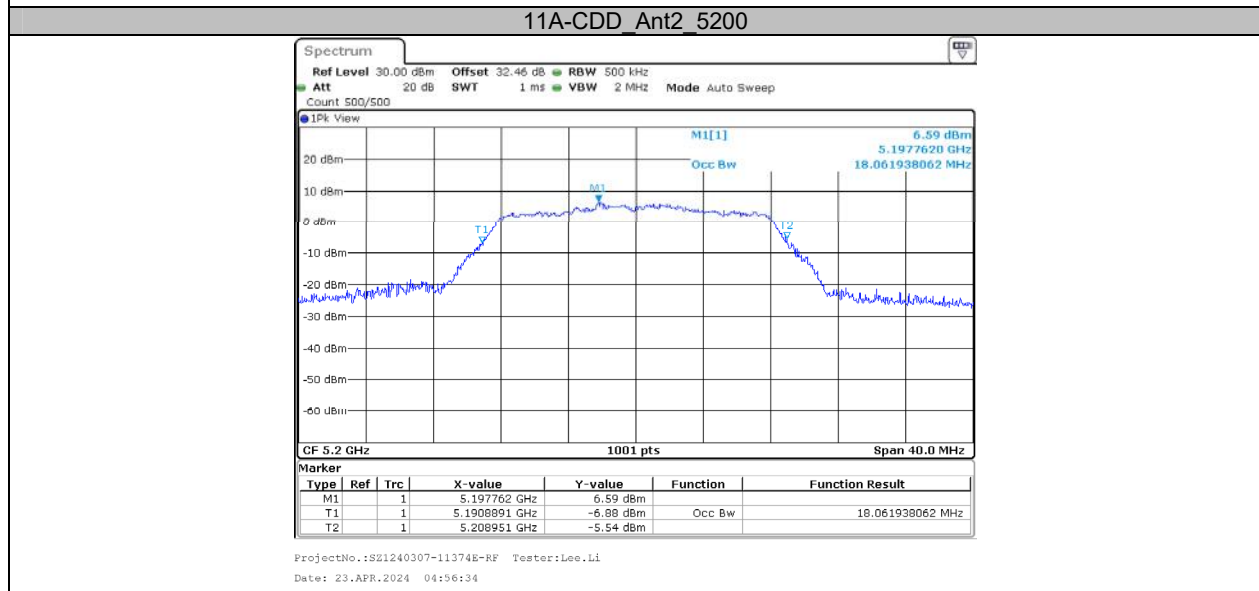
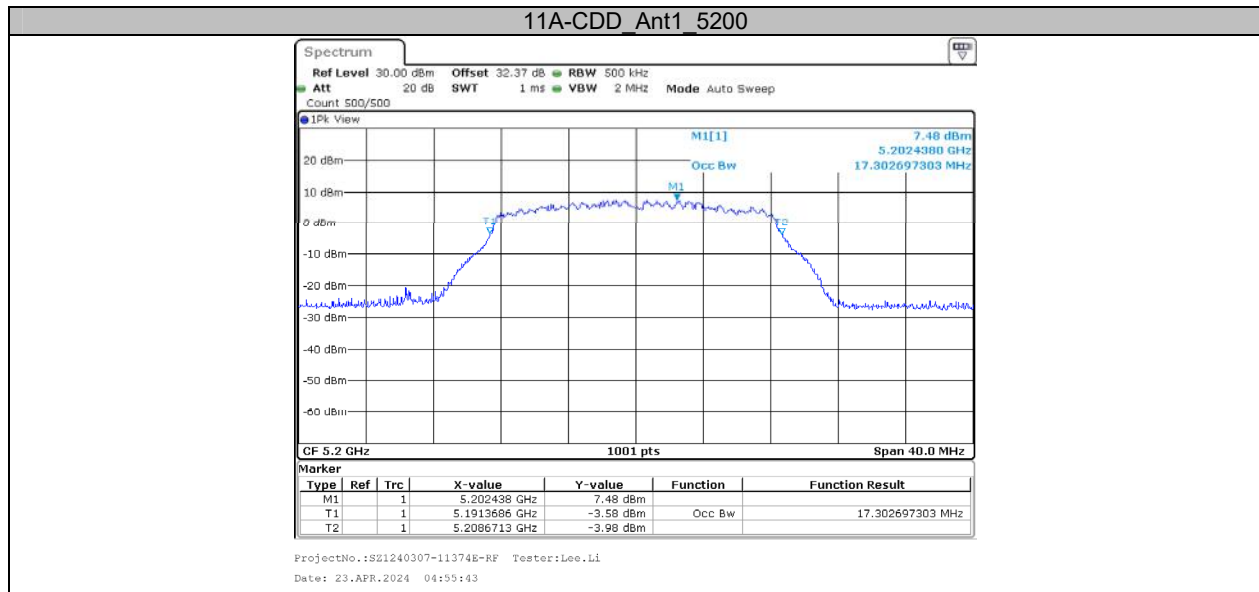
Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A-CDD	Ant1	5180	17.223	5171.4086	5188.6314	---	---
	Ant2	5180	18.062	5170.8492	5188.9111	---	---
	Ant1	5200	17.303	5191.3686	5208.6713	---	---
	Ant2	5200	18.062	5190.8891	5208.9510	---	---
	Ant1	5240	17.263	5231.4086	5248.6713	---	---
	Ant2	5240	18.102	5230.8891	5248.9910	---	---
	Ant1	5745	17.502	5736.2887	5753.7912	---	---
	Ant2	5745	18.102	5735.9690	5754.0709	---	---
	Ant1	5785	17.463	5776.2887	5793.7512	---	---
	Ant2	5785	18.022	5775.9690	5793.9910	---	---
11AC20MIMO	Ant1	5825	17.383	5816.3287	5833.7113	---	---
	Ant2	5825	17.982	5815.9690	5833.9510	---	---
	Ant1	5180	18.701	5170.6494	5189.3506	---	---
	Ant2	5180	18.781	5170.5295	5189.3107	---	---
	Ant1	5200	18.781	5190.5694	5209.3506	---	---
	Ant2	5200	18.821	5190.5295	5209.3506	---	---
	Ant1	5240	18.661	5230.6494	5249.3107	---	---
	Ant2	5240	18.861	5230.4895	5249.3506	---	---
	Ant1	5745	18.901	5735.5694	5754.4705	---	---
	Ant2	5745	18.901	5735.5295	5754.4306	---	---
11AC40MIMO	Ant1	5785	18.781	5775.5694	5794.3506	---	---
	Ant2	5785	18.821	5775.5694	5794.3906	---	---
	Ant1	5825	18.781	5815.5694	5834.3506	---	---
	Ant2	5825	18.781	5815.6094	5834.3906	---	---
	Ant1	5190	36.923	5171.5385	5208.4615	---	---
	Ant2	5190	36.843	5171.5385	5208.3816	---	---
	Ant1	5230	36.843	5211.6184	5248.4615	---	---
	Ant2	5230	36.843	5211.6184	5248.4615	---	---
11AC80MIMO	Ant1	5755	37.243	5736.4585	5773.7013	---	---
	Ant2	5755	37.802	5736.2188	5774.0210	---	---
	Ant1	5795	37.083	5776.4585	5813.5415	---	---
	Ant2	5795	37.003	5776.5385	5813.5415	---	---
11AX20MIMO	Ant1	5210	76.563	5171.7982	5248.3616	---	---
	Ant2	5210	76.404	5171.9580	5248.3616	---	---
	Ant1	5775	77.522	5736.4785	5814.0010	---	---
	Ant2	5775	79.76	5735.8392	5815.5994	---	---
11AX20MIMO	Ant1	5180	19.101	5170.4096	5189.5105	---	---
	Ant2	5180	19.181	5170.3696	5189.5504	---	---
	Ant1	5200	19.181	5190.4096	5209.5904	---	---
	Ant2	5200	19.181	5190.3696	5209.5504	---	---
	Ant1	5240	19.141	5230.4096	5249.5504	---	---
	Ant2	5240	19.141	5230.4096	5249.5504	---	---
	Ant1	5745	19.181	5735.4496	5754.6304	---	---
	Ant2	5745	19.221	5735.4096	5754.6304	---	---
	Ant1	5785	19.101	5775.4496	5794.5504	---	---
	Ant2	5785	19.221	5775.3696	5794.5904	---	---
	Ant1	5825	19.141	5815.4496	5834.5904	---	---
	Ant2	5825	19.221	5815.3696	5834.5904	---	---

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11AX40MIMO	Ant1	5190	37.962	5171.0589	5209.0210	---	---
	Ant2	5190	37.962	5171.0589	5209.0210	---	---
	Ant1	5230	37.882	5211.0589	5248.9411	---	---
	Ant2	5230	37.962	5211.0589	5249.0210	---	---
	Ant1	5755	38.122	5735.9790	5774.1009	---	---
	Ant2	5755	38.362	5735.8991	5774.2607	---	---
	Ant1	5795	38.042	5775.9790	5814.0210	---	---
	Ant2	5795	38.282	5775.8991	5814.1808	---	---
11AX80MIMO	Ant1	5210	78.162	5170.9990	5249.1608	---	---
	Ant2	5210	78.002	5171.1588	5249.1608	---	---
	Ant1	5775	78.641	5735.8392	5814.4805	---	---
	Ant2	5775	80.24	5735.3596	5815.5994	---	---

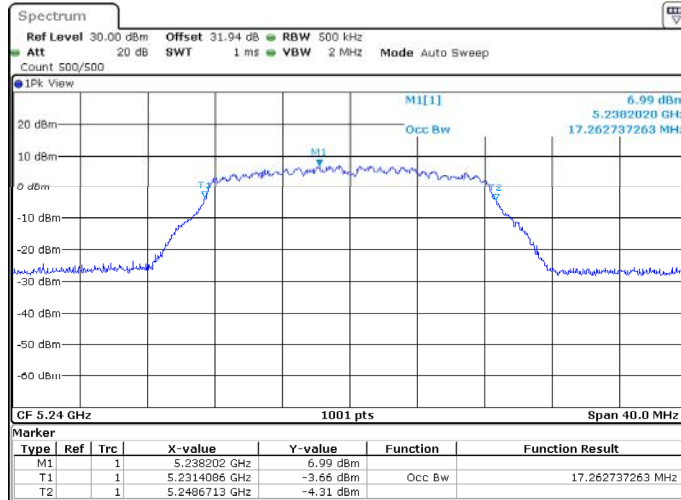
Note: the device not operate with any part of OBW within 5250-5350MHz and 5470-5725MHz range.

### Test Graphs



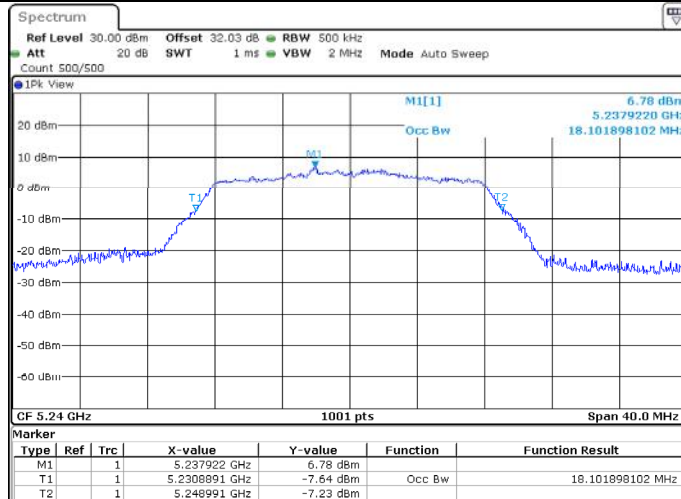


11A-CDD\_Ant1\_5240



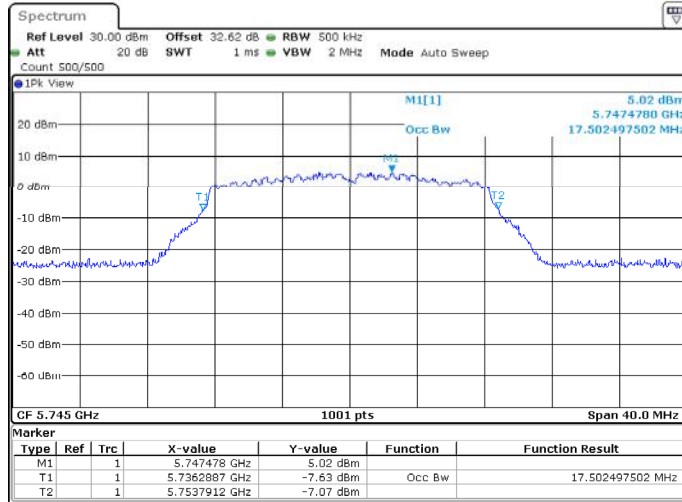
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 04:57:57

11A-CDD\_Ant2\_5240



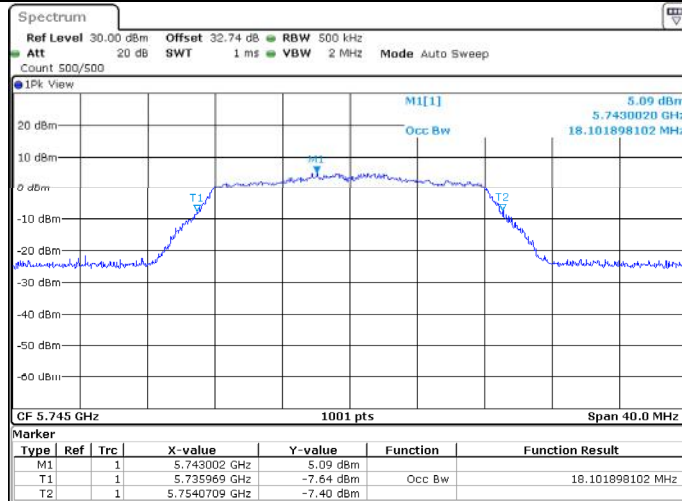
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 04:58:48

11A-CDD\_Ant1\_5745



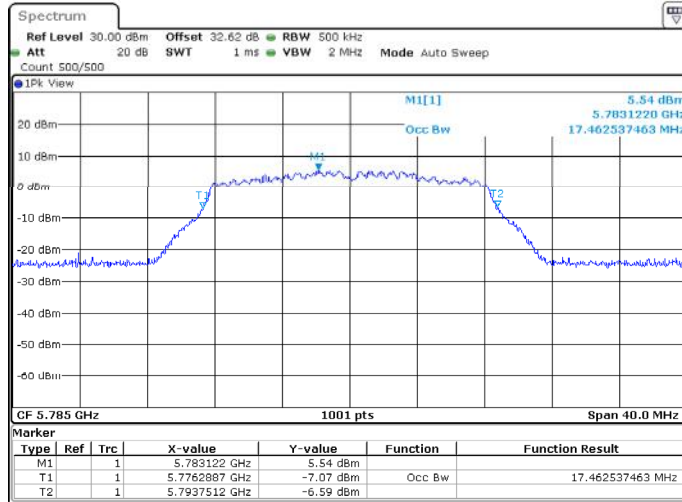
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 Date: 23.APR.2024 04:45:03

11A-CDD\_Ant2\_5745



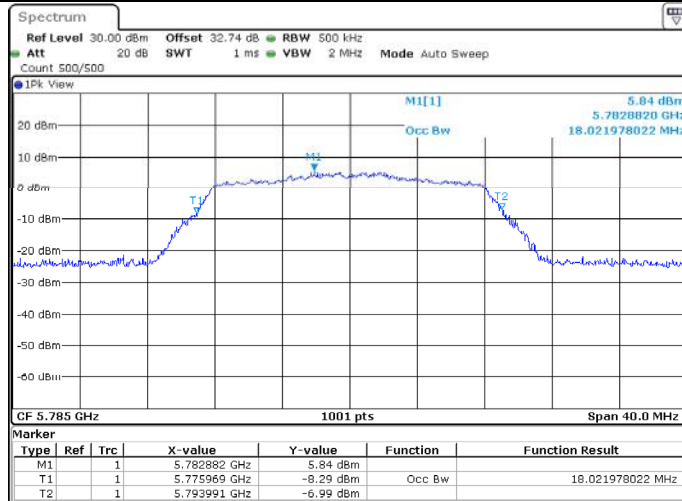
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 04:47:09

11A-CDD\_Ant1\_5785



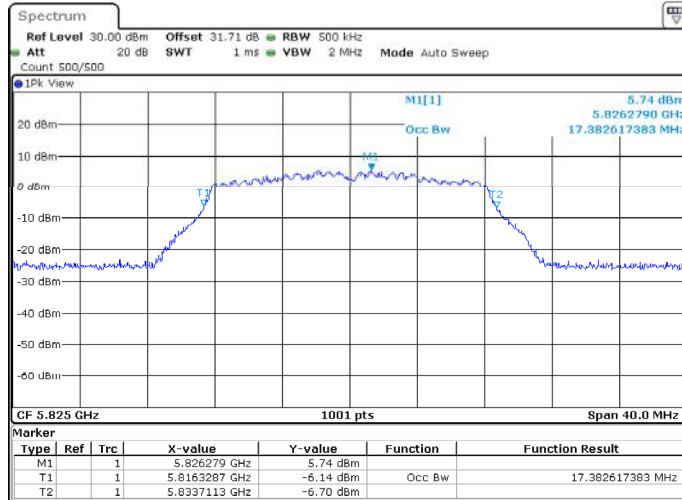
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 04:48:31

11A-CDD\_Ant2\_5785



ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 04:49:28

11A-CDD\_Ant1\_5825



ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 04:51:08

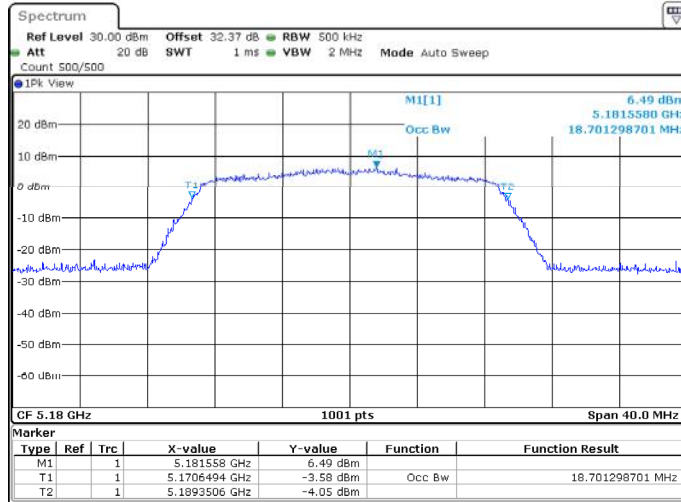
11A-CDD\_Ant2\_5825



ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 04:52:05

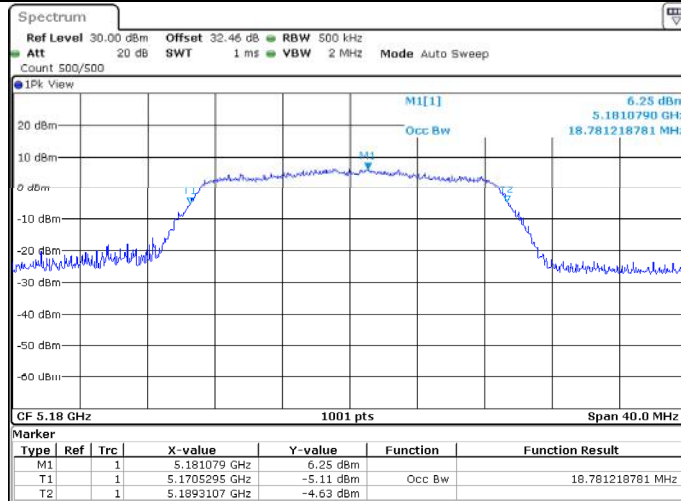


11AC20MIMO Ant1 5180



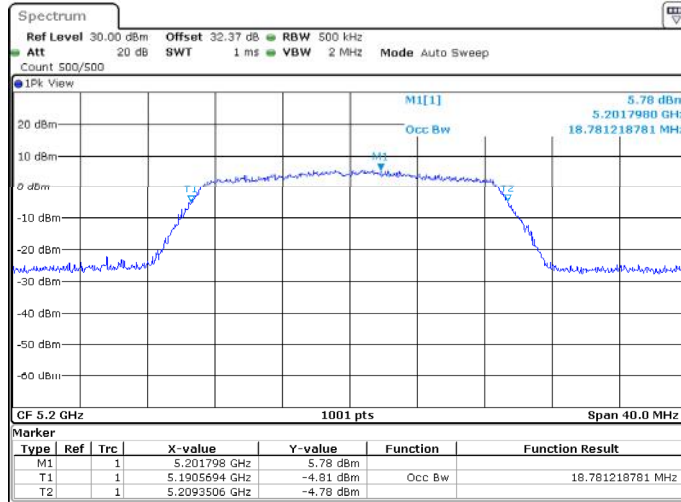
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:12:06

11AC20MIMO Ant2 5180



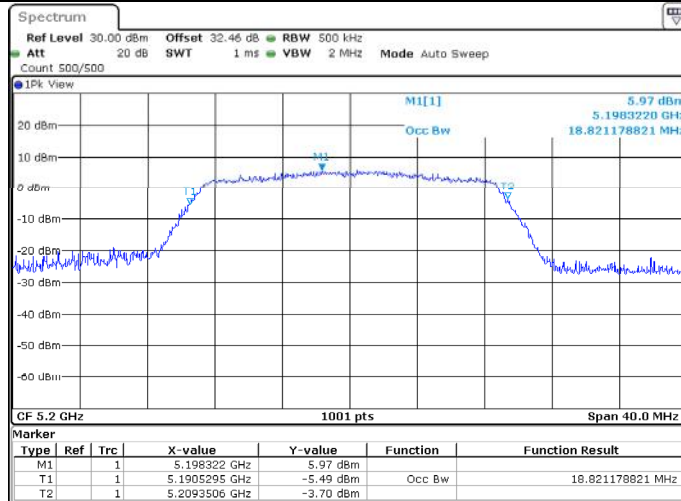
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:13:22

11AC20MIMO Ant1 5200



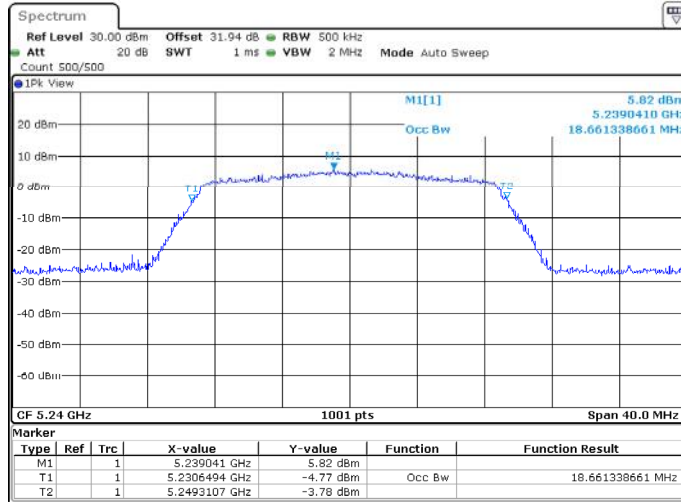
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 Date: 23.APR.2024 05:14:47

11AC20MIMO Ant2 5200



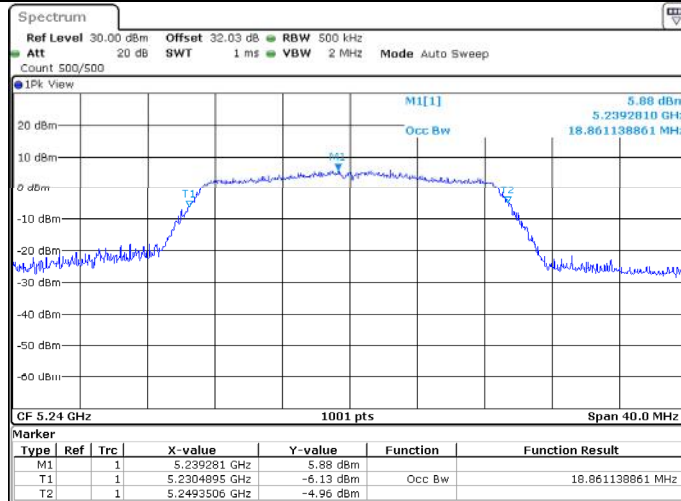
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11AC20MIMO Ant1 5240



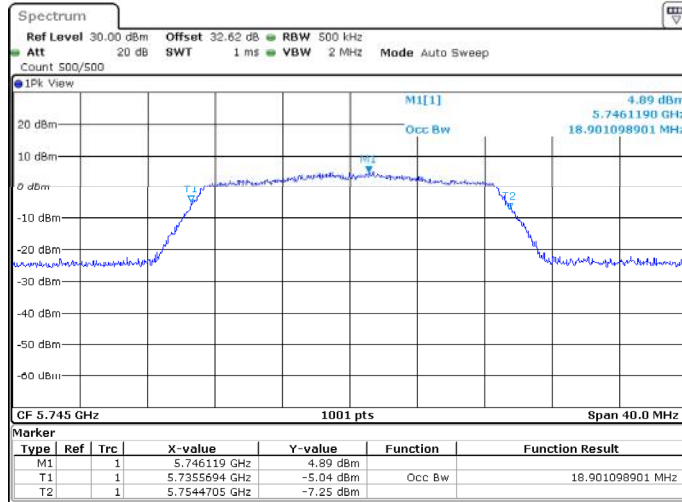
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 Date: 23.APR.2024 05:17:44

11AC20MIMO Ant2 5240



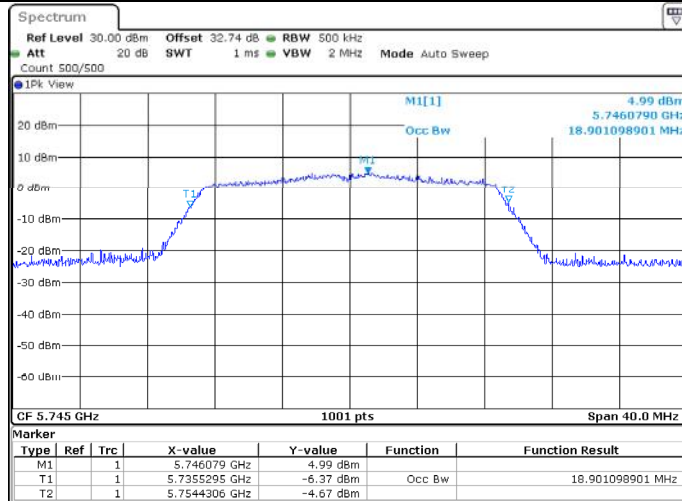
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11AC20MIMO Ant1 5745



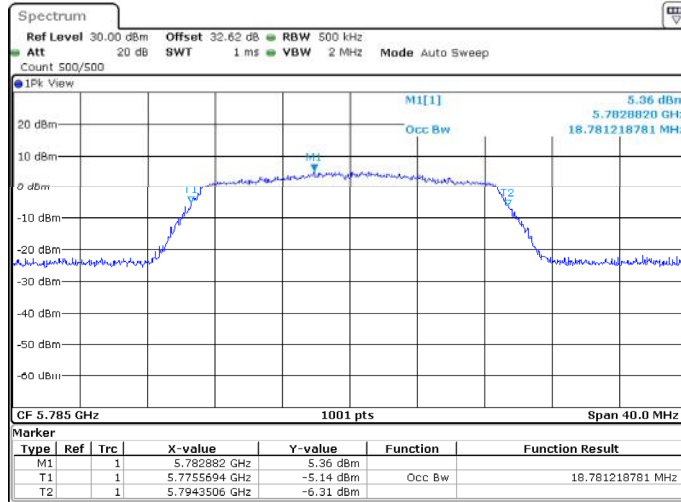
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11AC20MIMO Ant2 5745



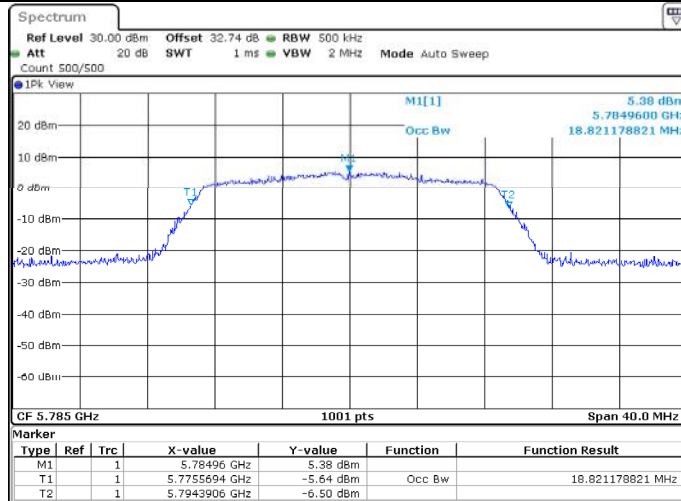
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:33:08

11AC20MIMO Ant1 5785



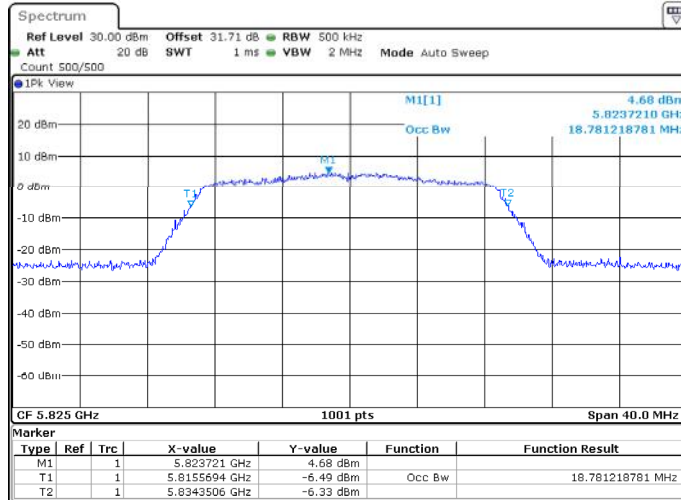
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 Date: 23.APR.2024 05:23:50

11AC20MIMO Ant2 5785



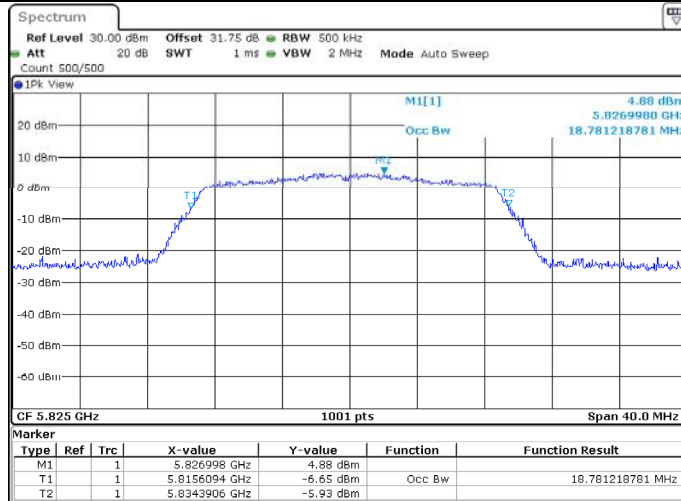
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:28:11

11AC20MIMO Ant1 5825



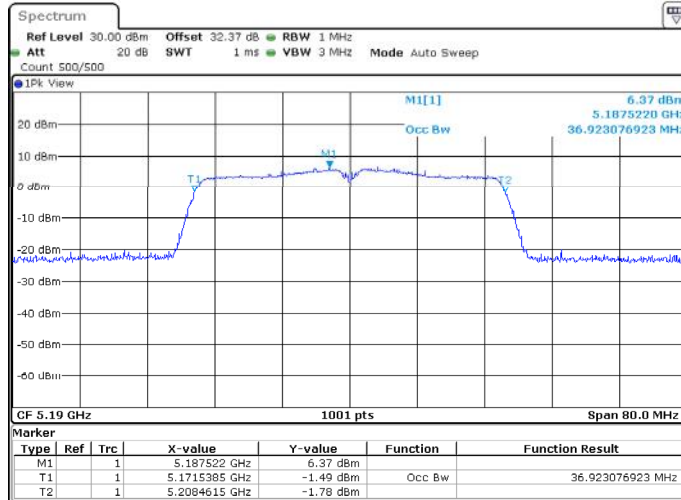
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:34:25

11AC20MIMO Ant2 5825



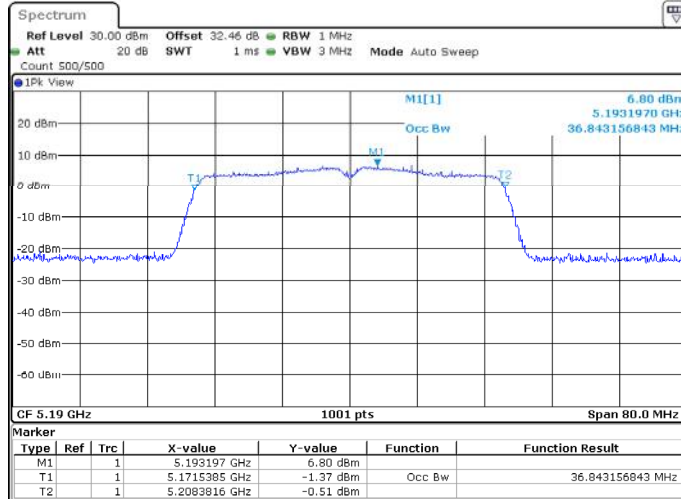
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:35:55

11AC40MIMO Ant1 5190



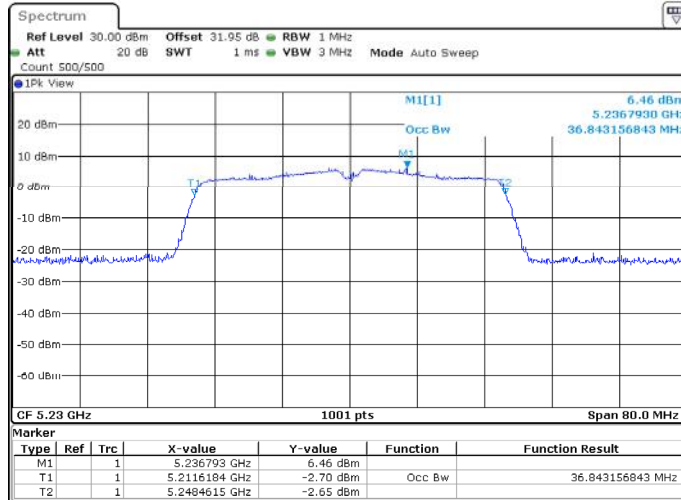
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:37:51

11AC40MIMO Ant2 5190



ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:39:10

11AC40MIMO Ant1 5230



ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:40:48

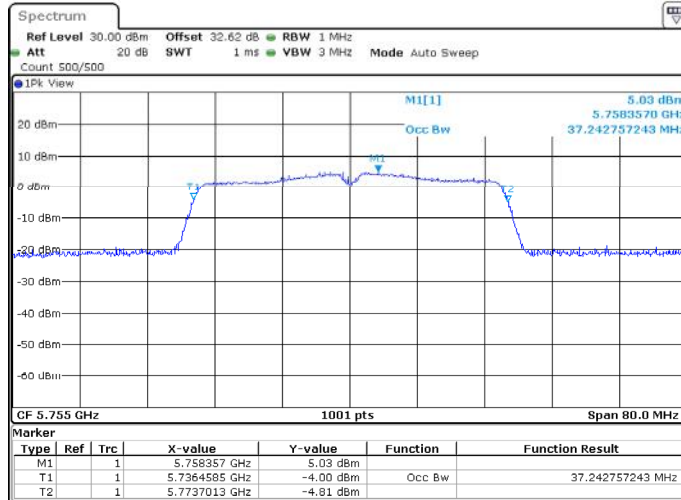
11AC40MIMO Ant2 5230



ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:42:31

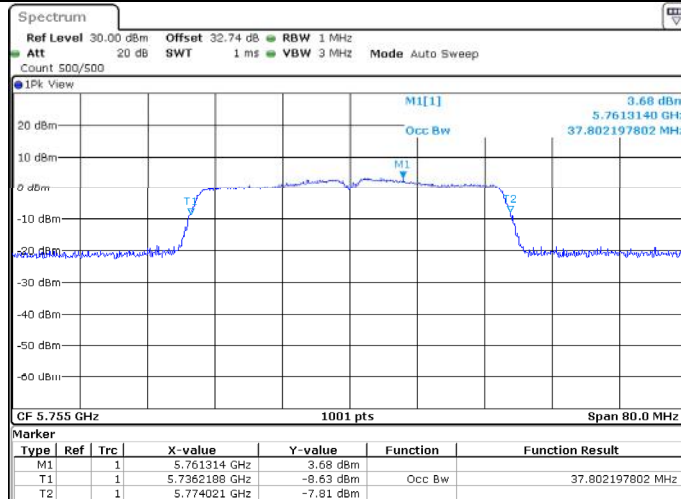


11AC40MIMO Ant1 5755



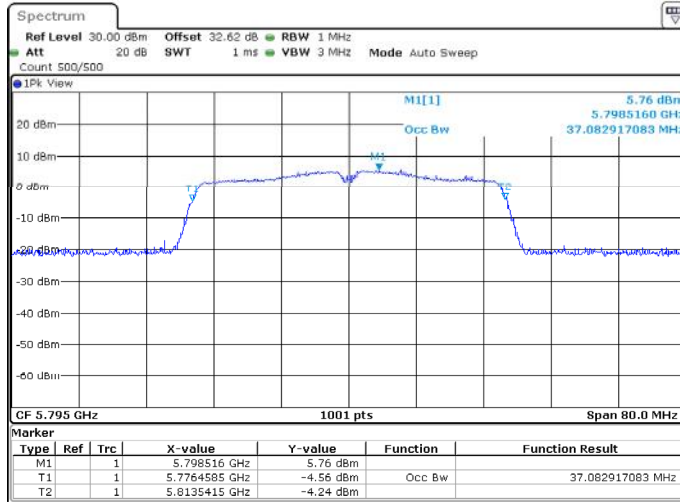
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:44:33

11AC40MIMO Ant2 5755



ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:52:14

11AC40MIMO Ant1 5795



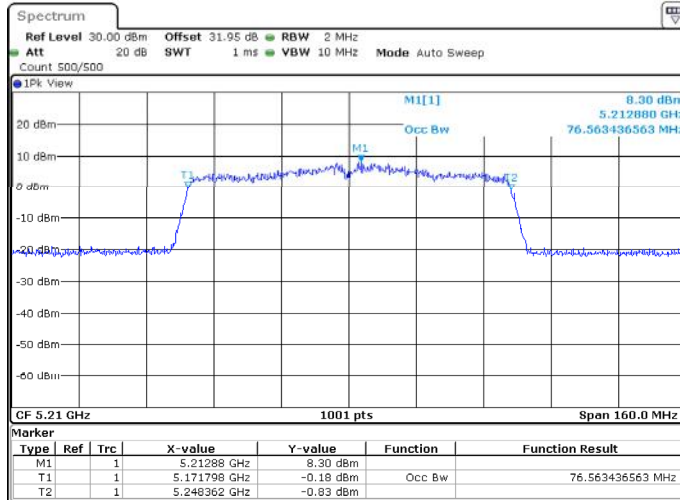
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 05:54:32

11AC40MIMO Ant2 5795



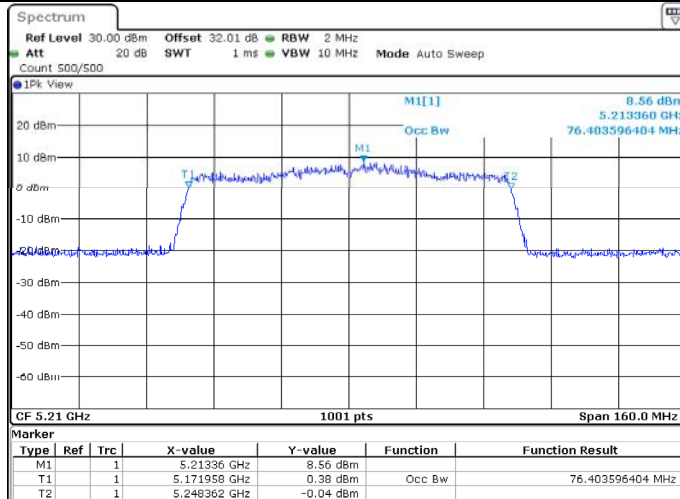
ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
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11AC80MIMO Ant1 5210



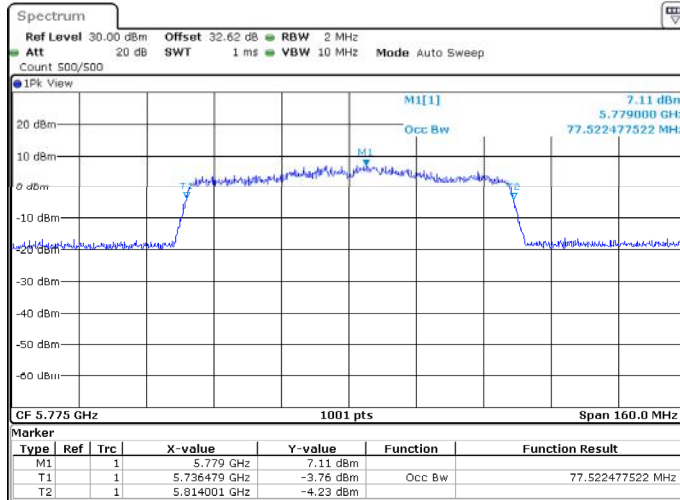
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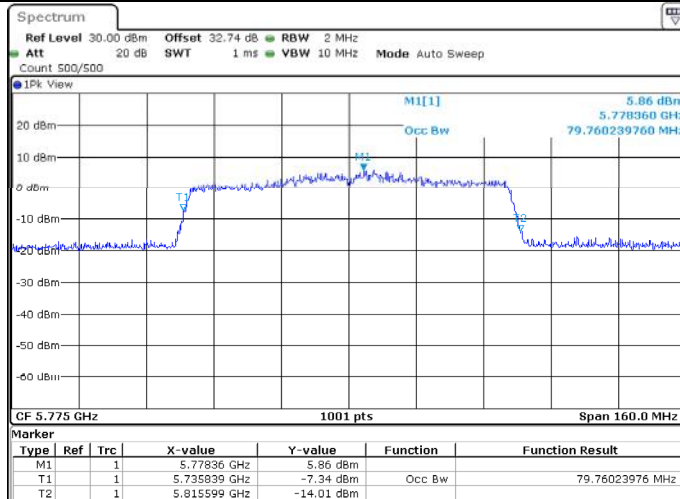
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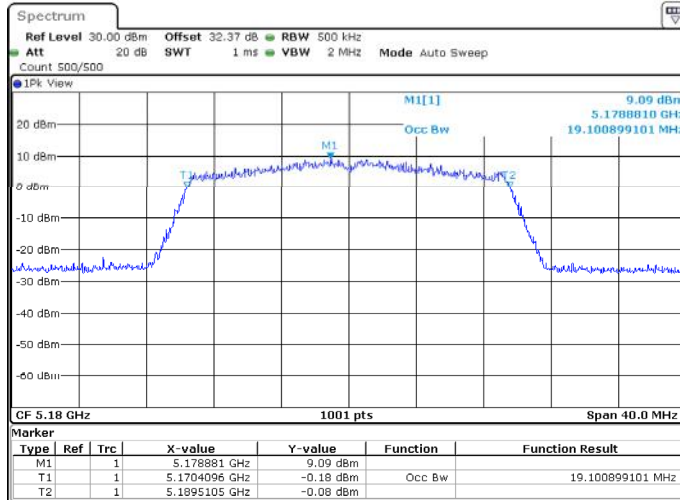
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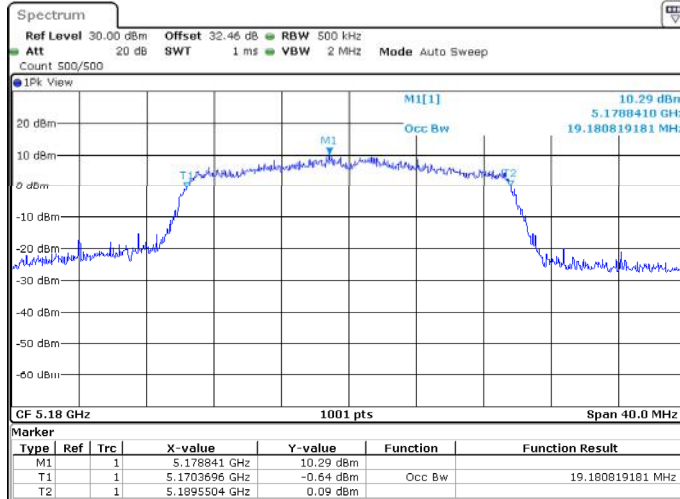
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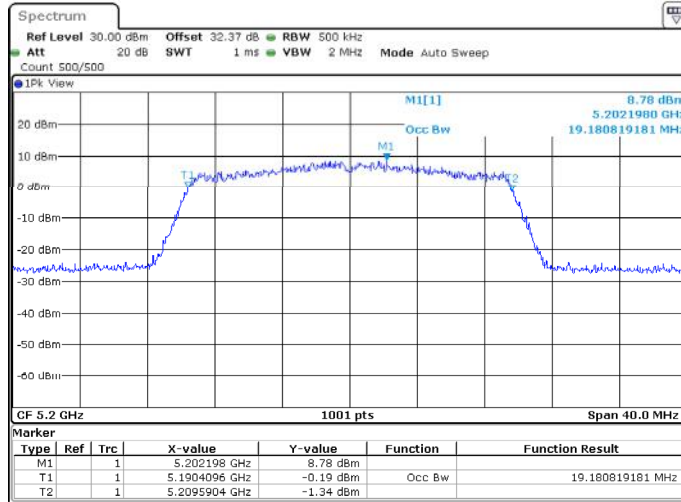
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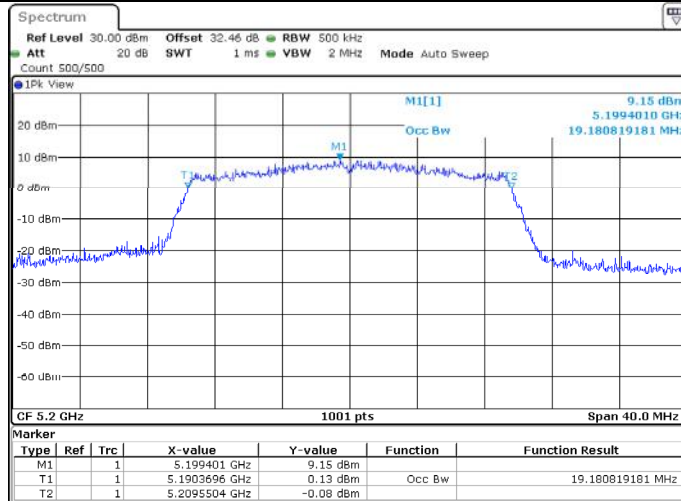
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ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:13:42

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ProjectNo.:SZ1240307-11374E-RF Tester:Lee.Li  
 Date: 23.APR.2024 06:15:08