TEST REPORT

Applicant Name :	Franklin Technology Inc.
Address :	906 JEI Platz, 186, Gasan digital 1-ro, Gumcheon-Gu Seoul, South Korea 08502
Report Number :	RA230104-00558E-RF-00B
FCC ID:	XHG-CG890

Test Standard (s)

FCC PART 15.407

Sample Description

Product Type:	Mobile Hotspot CG890
Model No.:	CG890
Multiple Model(s) No.:	N/A
Trade Mark:	N/A
Date Received:	2023/01/04
Report Date:	2023/02/27

Test Result:	Pass*

* In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Andy Yu
EMC Engineer

Approved By:

Candy Li
EMC Engineer

Note: This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★ ".
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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	RA230104-00558E-RF-00B	Original Report	2023-02-27

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Frequency Range	5G Wi-Fi: 5150~5250MHz ; 5725~5850 MHz
Mode	802.11 n20/n40/ac20/ac40/ac80/ax20/ax40/ax80
Device Type	Indoor AP
Maximum Conducted Average Output Power	5150-5250MHz: 20.38dBm 5725-5850MHz: 20.08dBm
Modulation Technique	OFDM
Antenna Specification*	ANT 1 :2.1dBi; ANT 2:1.9dBi (provided by the applicant)
Voltage Range	DC 12V from adapter or DC 3.8V from battery
Sample serial number	1XJ8-3 for Conducted Emissions & Radiated Emissions Test 1XJH-12 for RF Conducted Test (Assigned by ATC)
Sample/EUT Status	Good condition
Adapter information	Model: APS-M024120200W-G Input: AC 100-240V, 50/60Hz, 0.6A Max Output: DC 12V, 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 Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

Measurement Uncertainty

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

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

Test Facility

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

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

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

SYSTEM TEST CONFIGURATION

Description of Test Configuration

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

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

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

EUT Exercise Software

"QRCT" Exercise Software was used. The software and power level was provided by the manufacturer.

The worst case was performed under:

U-NII	Mode	Data Rate	Power Level*		
			Low	Middle	High
5150 – 5250MHz	802.11 n20	MCS0	12	12	12
	802.11 n40	MCS0	12	/	12
	802.11 ac20	MCS0	12	12	12
	802.11 ac40	MCS0	13	/	13
	802.11 ac80	MCS0	/	13	/
	802.11 ax20	MCS0	13	13	13
	802.11 ax40	MCS0	13	/	13
	802.11 ax80	MCS0	/	13	/

U-NII	Mode	Data Rate	Power Level*		
			Low	Middle	High
5725 – 5850MHz	802.11 n20	MCS0	12	12	12
	802.11 n40	MCS0	12	/	12
	802.11 ac20	MCS0	13	13	13
	802.11 ac40	MCS0	12	/	12
	802.11 ac80	MCS0	/	12	/
	802.11 ax20	MCS0	14	14	13
	802.11 ax40	MCS0	14	/	14
	802.11 ax80	MCS0	/	14	/

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

The device have two antennas and support SISO/MIMO transmitting, scan SISO/MIMO, the worst case MIMO was selected to test.

For 802.11 ax mode, the device only support full RU mode, not support partial RU mode.

The two antennas have same power setting.

Duty cycle

Test Result: Pass. Please refer to the Appendix.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

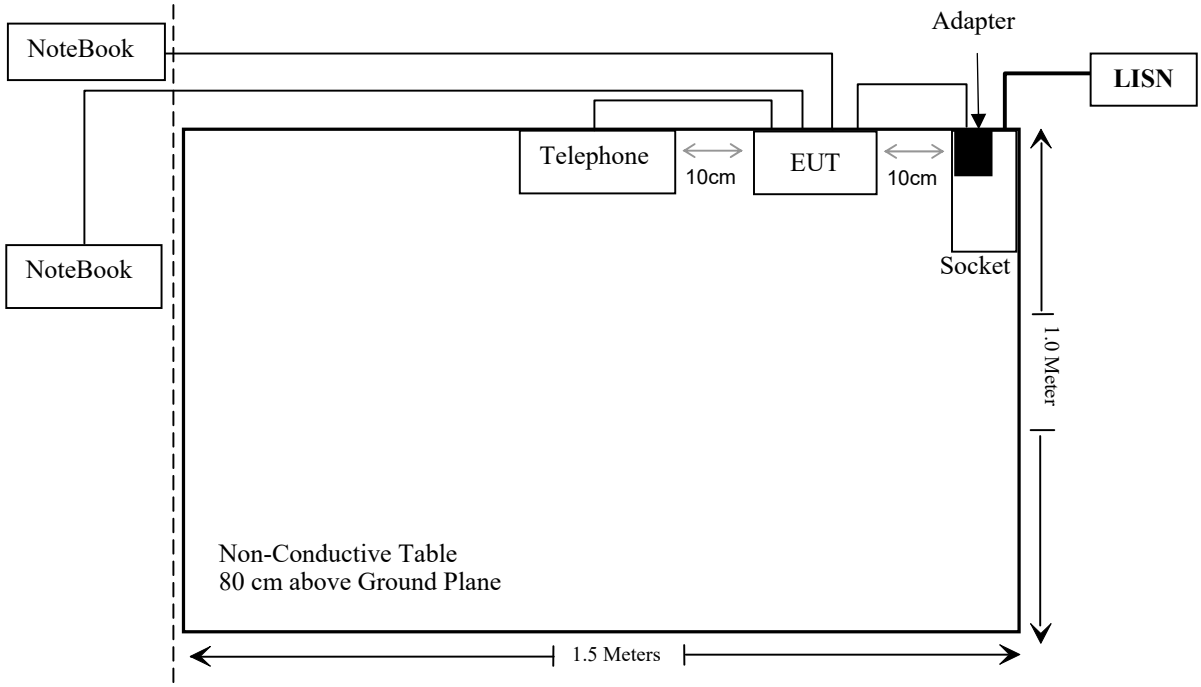
Manufacturer	Description	Model	Serial Number
Grandstream	Telephone	GXV3450	Unknown
DELL	NoteBook*2	XXJL-2	Unknown

External I/O Cable

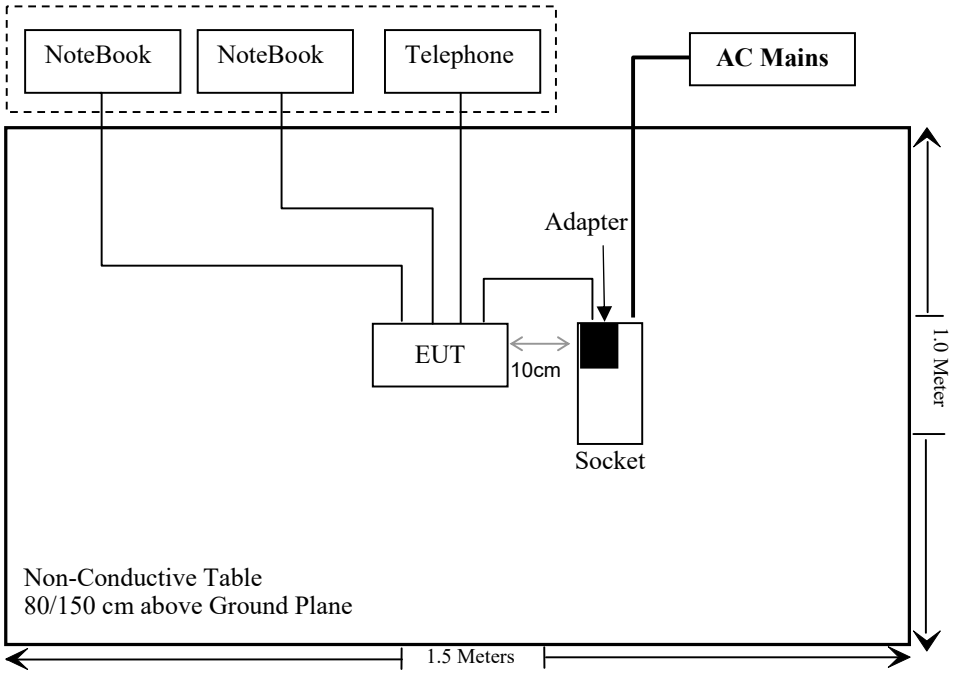
Cable Description	Length (m)	From Port	To
Un-shielded Un-detachable DC cable	1.0	Adapter	EUT
Un-shielded detachable RJ45 cable*2	8.0	NoteBook	EUT
Un-shielded detachable RJ11 cable	1.5	Telephone	EUT

Block Diagram of Test Setup

For conducted emission:



For Radiated Emissions:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC §1.1307 (b) (3) & §2.1091	MPE-Based Exemption	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 EUT not operating within frequency range of 5250-5350MHz&5470-5725MHz.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emissions Test					
Rohde& Schwarz	EMI Test Receiver	ESCI	100784	2022/11/25	2023/11/24
Rohde & Schwarz	L.I.S.N.	ESH3-Z5	100305	2022/12/01	2023/11/30
Anritsu Corp	50 Coaxial Switch	MP59B	6100237248	2022/12/07	2023/12/06
Unknown	RF Coaxial Cable	No.17	N0350	2022/11/25	2023/11/24
Conducted Emission Test Software: e3 19821b (V9)					
Radiated Emissions Test					
Rohde& Schwarz	Test Receiver	ESR	102725	2022/11/25	2023/11/24
Rohde&Schwarz	Spectrum Analyzer	FSV40	101949	2022/11/25	2023/11/24
SONOMA INSTRUMENT	Amplifier	310 N	186131	2022/11/08	2023/11/07
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2022/11/08	2023/11/07
Quinstar	Amplifier	QLW-18405536-J0	15964001002	2022/11/08	2023/11/07
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2021/07/06	2024/07/05
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-1067	2022/11/30	2025/11/29
Schwarzbeck	HORN ANTENNA	BBHA9170	9170-359	2022/12/26	2025/12/25
Radiated Emission Test Software: e3 19821b (V9)					
Unknown	RF Coaxial Cable	No.10	N050	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.11	N1000	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.12	N040	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.13	N300	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.14	N800	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.15	N600	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.16	N650	2022/11/25	2023/11/24
CD	Band Reject Filter	BRM-5.15/5.35g-45	075	2022/11/25	2023/11/24
CD	Band Reject Filter	BRM-5.725/5.875G-45	065	2022/11/25	2023/11/24

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde&Schwarz	Spectrum Analyzer	FSV-40	101590	2022/11/25	2023/11/24
Tonscend	RF Control Unit	JS0806-2	19G8060182	2022/10/24	2023/10/23
HP	20dB Attenuator	8491A	53857	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.31	RF-01	Each time	Each time

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

FCC §1.1307 (b) (3) & §2.1091- MPE-Based Exemption

Applicable Standard

According to subpart 15.247 (i) and subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

According to KDB 447498 D04 Interim General RF Exposure Guidance

MPE-Based Exemption:

General frequency and separation-distance dependent MPE-based effective radiated power(ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(1)(i)(C)] to support an exemptionfrom further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1,920 R^2.
1.34-30	3,450 R^2/f^2.
30-300	3.83 R^2.
300-1,500	0.0128 R^2f.
1,500-100,000	19.2R^2.

Ris the minimum separation distance in meters
f = frequency in MHz

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

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

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

Result

For worst case:

Mode	Frequency (MHz)	Tune up conducted power	Antenna Gain		ERP		Evaluation Distance (m)	ERP Limit (W)
		(dBm)	(dBi)	(dBd)	(dBm)	(W)		
2.4G Wi-Fi	2412-2462	21.5	3.0	0.85	22.35	0.172	0.3	1.728
5G Wi-Fi	5150-5250	20.5	2.1	-0.05	20.45	0.111	0.3	1.728
	5725-5850	20.5	2.1	-0.05	20.45	0.111	0.3	1.728
WCDMA B2	1850-1910	24.0	3.5	1.35	25.35	0.343	0.3	1.728
WCDMA B4	1710-1755	24.0	3.5	1.35	25.35	0.343	0.3	1.728
WCDMA B5	824-849	25.0	1.9	-0.25	24.75	0.299	0.3	0.949
LTE B2	1850-1910	23.0	3.5	1.35	24.35	0.272	0.3	1.728
LTE B4	1710-1755	23.5	3.5	1.35	24.85	0.305	0.3	1.728
LTE B5	824-849	23.5	1.9	-0.25	23.25	0.211	0.3	0.949
LTE B7	2500-2570	24.0	0.2	-1.95	22.05	0.160	0.3	1.728
LTE B12	699-716	24.0	2.1	-0.05	23.95	0.248	0.3	0.805
LTE B41	2496-2690	27.0	0.2	-1.95	25.05	0.320	0.3	1.728
LTE B48	3550-3700	23.0	3.4	1.25	24.25	0.266	0.3	1.728
LTE B66	1710-1780	23.5	3.5	1.35	24.85	0.305	0.3	1.728
LTE B71	663-698	24.0	1.7	-0.45	23.55	0.226	0.3	0.764
5G n48	3550-3700	23.5	3.4	1.25	24.75	0.299	0.3	1.728
5G n66	1710-1780	24.0	3.5	1.35	25.35	0.343	0.3	1.728
5G n71	663-698	24.5	1.7	-0.45	24.05	0.254	0.3	0.764

Note: 1. The tune up conducted power and antenna gain was declared by the applicant.
2. The 2.4G Wi-Fi can transmit at the same time with the 5G Wi-Fi.
3. 0dBd=2.15dBi

Simultaneous transmitting consideration (worst case):

The ratio= $ERP_{2.4G\ Wi\text{-}Fi}/ ERP_{Limit} + ERP_{5G\ Wi\text{-}Fi}/ ERP_{Limit} + ERP_{LTE}/ERP_{Limit}+ERP_{5G\ NR}/ ERP_{Limit}$
=0.172/1.728+0.111/1.728+0.299/0.949+0.254/0.764=0.811＜1.0

So simultaneous exposure is compliant.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 30cm from nearby persons.

Result: Compliant.

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

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

1) Antenna must be permanently attached to the unit.
2) Antenna must use a unique type of connector to attach to the EUT.
3) Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

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

Antenna Connector Construction

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

Antenna	Type	Antenna Gain	Impedance	Frequency Range
ANT 1	PCB	2.1dBi	50 Ω	5150-5850MHz
ANT 2	PCB	1.9dBi	50 Ω	5150-5850MHz

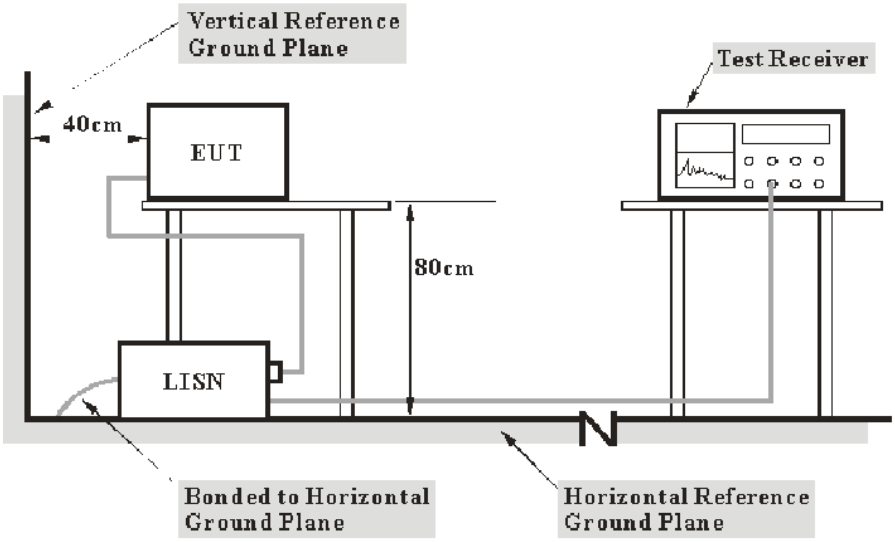
Result: Compliant.

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 Ave.erage detection mode.

Corrected Factor & Margin Calculation

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

Transd Factor = LISN VDF + 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:

Over Limit = Level – Limit
Level = Read Level + Factor

Test Data

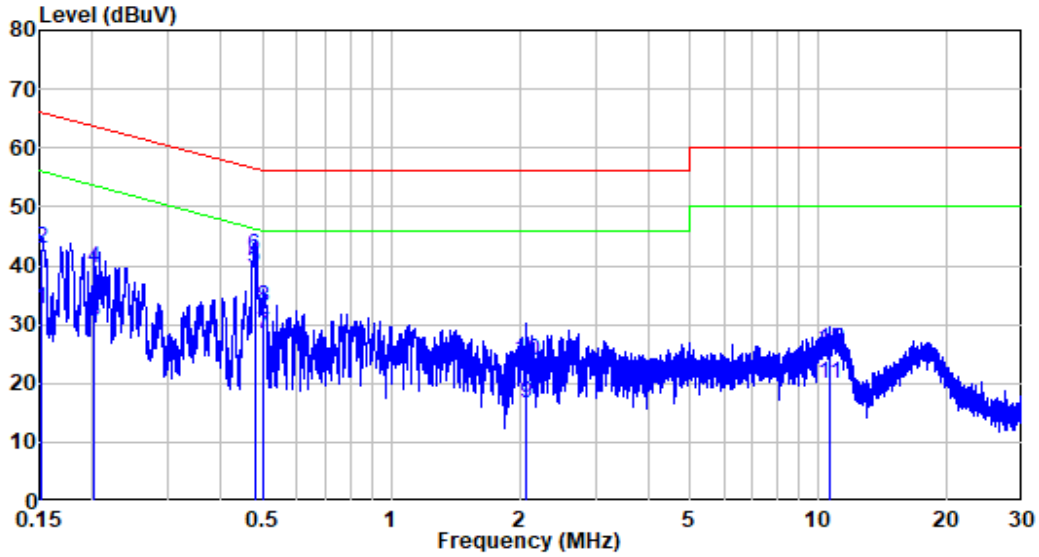
Environmental Conditions

Temperature:	23 °C
Relative Humidity:	52%
ATM Pressure:	101.0 kPa

The testing was performed by Lipa on 2023-02-10.

EUT operation mode: Transmitting (worst case is 802.11n20, 5200MHz)

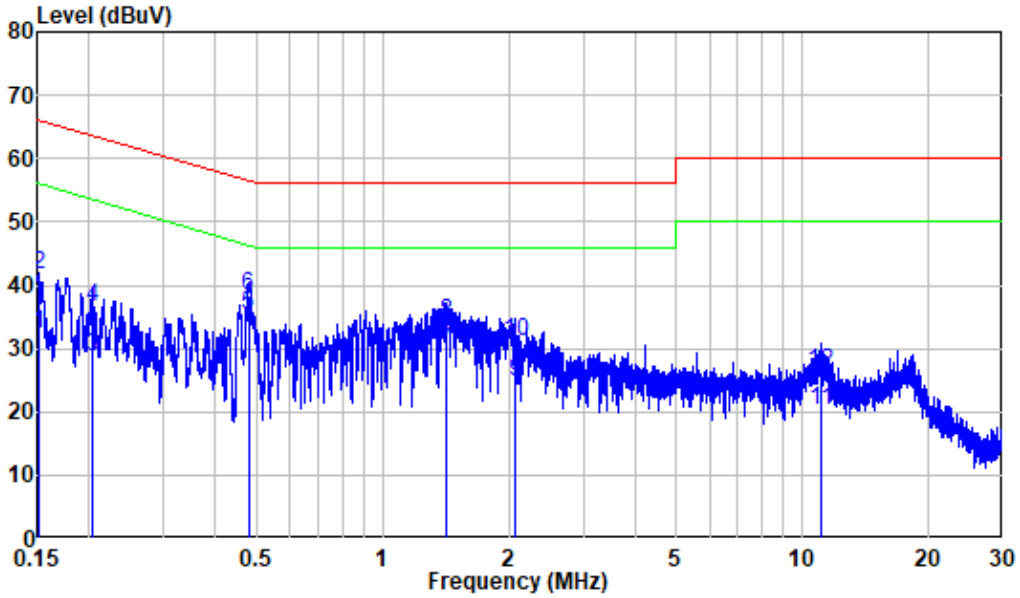
AC 120V/60 Hz, Line



Site : Shielding Room
Condition: Line
Job No. : RA230104-00558E-RF
Mode : 5G Wifi
Power : AC 120V 60Hz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.152	9.90	22.80	32.70	55.90	-23.20	Average
2	0.152	9.90	32.97	42.87	65.90	-23.03	QP
3	0.201	9.90	20.55	30.45	53.58	-23.13	Average
4	0.201	9.90	29.79	39.69	63.58	-23.89	QP
5	0.478	9.80	29.81	39.61	46.37	-6.76	Average
6	0.478	9.80	31.85	41.65	56.37	-14.72	QP
7	0.500	9.80	18.53	28.33	46.00	-17.67	Average
8	0.500	9.80	22.97	32.77	56.00	-23.23	QP
9	2.069	9.92	6.79	16.71	46.00	-29.29	Average
10	2.069	9.92	13.79	23.71	56.00	-32.29	QP
11	10.634	10.01	9.92	19.93	50.00	-30.07	Average
12	10.634	10.01	15.71	25.72	60.00	-34.28	QP

AC 120V/60 Hz, Neutral



Site : Shielding Room
Condition: Neutral
Job No. : RA230104-00558E-RF
Mode : 5G Wifi
Power : AC 120V 60Hz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.151	9.80	22.56	32.36	55.94	-23.58	Average
2	0.151	9.80	31.72	41.52	65.94	-24.42	QP
3	0.203	9.80	18.75	28.55	53.48	-24.93	Average
4	0.203	9.80	26.74	36.54	63.48	-26.94	QP
5	0.478	9.90	25.34	35.24	46.37	-11.13	Average
6	0.478	9.90	28.55	38.45	56.37	-17.92	QP
7	1.410	9.81	20.25	30.06	46.00	-15.94	Average
8	1.410	9.81	24.42	34.23	56.00	-21.77	QP
9	2.058	9.82	15.08	24.90	46.00	-21.10	Average
10	2.058	9.82	21.18	31.00	56.00	-25.00	QP
11	11.021	10.01	10.29	20.30	50.00	-29.70	Average
12	11.021	10.01	16.22	26.23	60.00	-33.77	QP

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

Applicable Standard

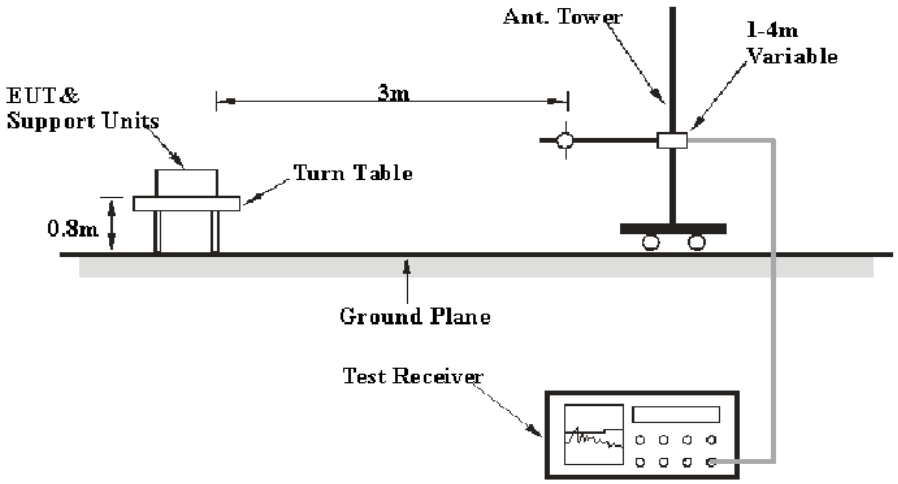
FCC §15.407 (b); §15.209; §15.205;

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(4) For transmitters operating in the 5.725-5.85 GHz band:
(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

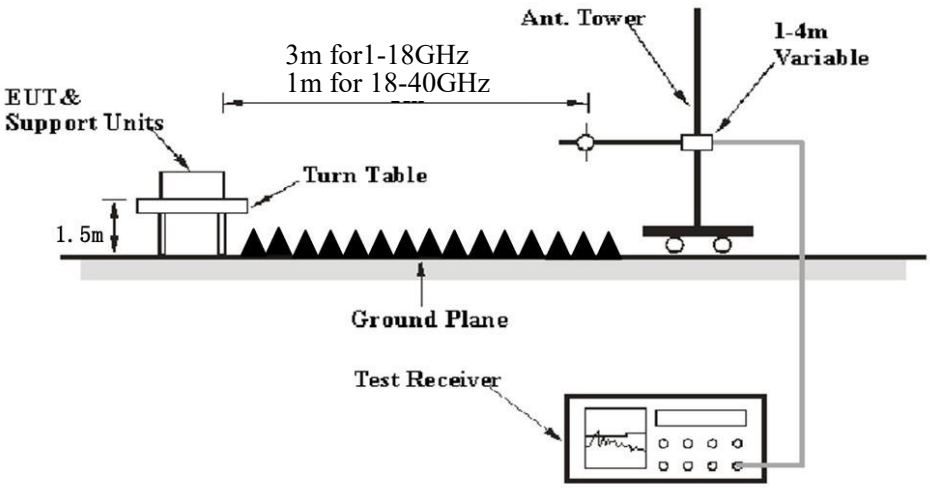
Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

EUT Setup

Below 1 GHz:



Above 1 GHz:



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

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

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz.

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

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

Note 1: when duty cycle is no less than 98%
Note 2: when duty cycle is less than 98%

Test Procedure

Radiated Spurious Emission

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

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

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

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

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

where

$E_{\mathrm{SpecLimit}}$	is the field strength of the emission at the distance specified by the limit, in dBμV/m
E_{Meas}	is the field strength of the emission at the measurement distance, in dBμV/m
d_{Meas}	is the measurement distance, in m
$d_{\mathrm{SpecLimit}}$	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 & 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:

Factor = Antenna Factor + Cable Loss - 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:

Over Limit/Margin = Level / Corrected Amplitude – Limit
Level / Corrected Amplitude = Read Level + Factor

Test Data

Environmental Conditions

Temperature:	24~25℃
Relative Humidity:	50~59%
ATM Pressure:	101.0 kPa

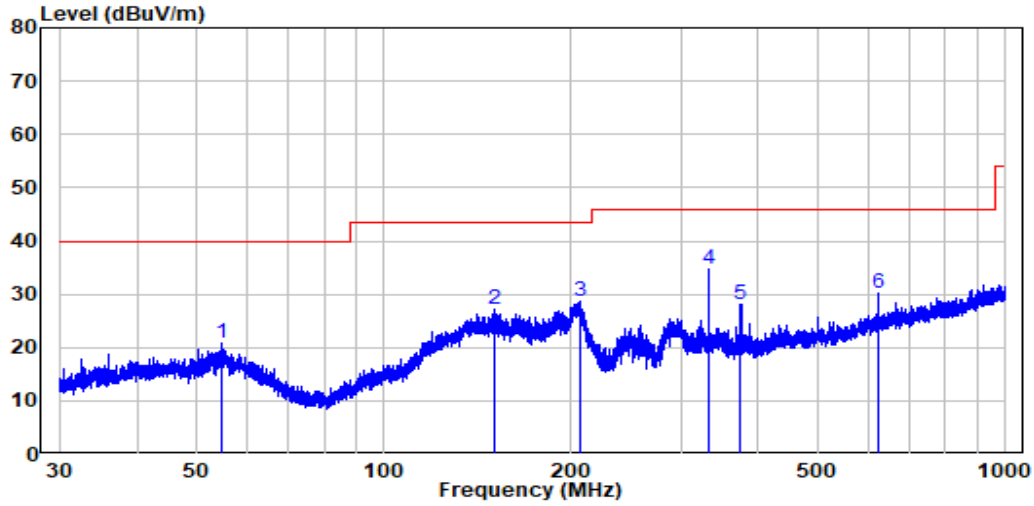
The testing was performed by Jimi Zheng on 2023-02-10 for below 1GHz and on 2023-01-11 for above 1GHz.

EUT operation mode: Transmitting (Pre-scan in the X,Y and Z axes of orientation, the worst case Y-axes of orientation was recorded)

30 MHz – 1 GHz: *(worst case is 802.11n20 5200MHz)*

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

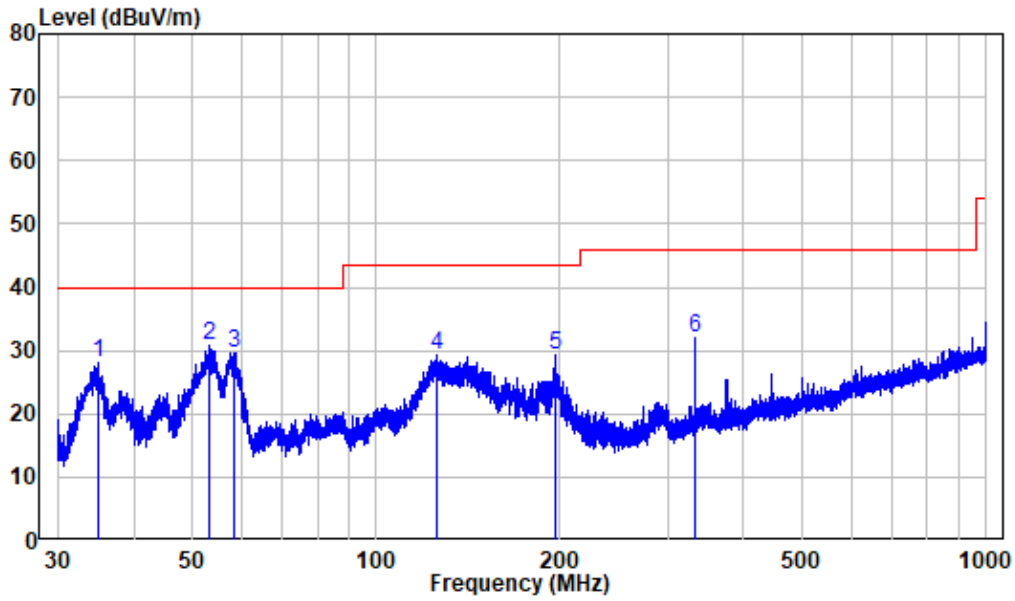
Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : RA230104-00558E-RF
Test Mode: 5G WIFI

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	54.931	-10.28	31.04	20.76	40.00	-19.24	Peak
2	150.604	-15.24	42.44	27.20	43.50	-16.30	Peak
3	206.760	-11.85	40.48	28.63	43.50	-14.87	Peak
4	333.394	-7.74	42.32	34.58	46.00	-11.42	Peak
5	374.951	-7.27	35.37	28.10	46.00	-17.90	Peak
6	625.078	-2.35	32.41	30.06	46.00	-15.94	Peak

Vertical



Site : chamber
Condition: 3m VERTICAL
Job No. : RA230104-00558E-RF
Test Mode: 5G WIFI

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	34.974	-11.55	39.75	28.20	40.00	-11.80	Peak
2	53.318	-10.22	40.93	30.71	40.00	-9.29	Peak
3	58.587	-10.11	39.72	29.61	40.00	-10.39	Peak
4	125.942	-14.40	43.73	29.33	43.50	-14.17	Peak
5	197.114	-11.56	40.95	29.39	43.50	-14.11	Peak
6	333.394	-7.74	39.65	31.91	46.00	-14.09	Peak

Above 1GHz:

5150-5250 MHz:

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11N20									
5180MHz									
4500	64.29	PK	200	1.4	H	-4.72	59.57	74	-14.43
4500	50.23	AV	200	1.4	H	-4.72	45.51	54	-8.49
4500	64.26	PK	50	1.6	V	-4.72	59.54	74	-14.46
4500	51.05	AV	50	1.6	V	-4.72	46.33	54	-7.67
5150	69.43	PK	296	1.2	H	-2.73	66.70	74	-7.30
5150	53.22	AV	296	1.2	H	-2.73	50.49	54	-3.51
5150	67.52	PK	108	2.3	V	-2.73	64.79	74	-9.21
5150	53.24	AV	108	2.3	V	-2.73	50.51	54	-3.49
10360	52.84	PK	140	2.2	H	8.12	60.96	68.2	-7.24
10360	53.52	PK	243	2.2	V	8.12	61.64	68.2	-6.56
5200MHz									
10400	53.08	PK	236	2.4	H	8.24	61.32	68.2	-6.88
10400	52.12	PK	47	2.4	V	8.24	60.36	68.2	-7.84
5240MHz									
5350	65.59	PK	341	2.4	H	-2.33	63.26	74	-10.74
5350	51.36	AV	341	2.4	H	-2.33	49.03	54	-4.97
5350	65.19	PK	84	1.9	V	-2.33	62.86	74	-11.14
5350	51.64	AV	84	1.9	V	-2.33	49.31	54	-4.69
5460	64.09	PK	103	2.1	H	-2.26	61.83	74	-12.17
5460	50.28	AV	103	2.1	H	-2.26	48.02	54	-5.98
5460	64.27	PK	196	2.3	V	-2.26	62.01	74	-11.99
5460	49.87	AV	196	2.3	V	-2.26	47.61	54	-6.39
10480	53.13	PK	222	2.2	H	8.56	61.69	68.2	-6.51
10480	52.81	PK	108	2.2	V	8.56	61.37	68.2	-6.83

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11N40									
5190MHz									
4500	65.04	PK	318	2.5	H	-4.72	60.32	74	-13.68
4500	50.82	AV	318	2.5	H	-4.72	46.10	54	-7.90
4500	64.48	PK	100	1.0	V	-4.72	59.76	74	-14.24
4500	51.16	AV	100	1.0	V	-4.72	46.44	54	-7.56
5150	68.23	PK	174	2.0	H	-2.73	65.50	74	-8.50
5150	52.56	AV	174	2.0	H	-2.73	49.83	54	-4.17
5150	68.20	PK	287	1.0	V	-2.73	65.47	74	-8.53
5150	52.42	AV	287	1.0	V	-2.73	49.69	54	-4.31
10380	52.48	PK	19	1.4	H	8.18	60.66	68.2	-7.54
10380	51.69	PK	262	1.4	V	8.18	59.87	68.2	-8.33
5230MHz									
5350	65.42	PK	122	1.6	H	-2.33	63.09	74	-10.91
5350	51.20	AV	122	1.6	H	-2.33	48.87	54	-5.13
5350	65.44	PK	98	1.6	V	-2.33	63.11	74	-10.89
5350	51.50	AV	98	1.6	V	-2.33	49.17	54	-4.83
5460	64.24	PK	25	1.3	H	-2.26	61.98	74	-12.02
5460	49.99	AV	25	1.3	H	-2.26	47.73	54	-6.27
5460	64.09	PK	114	2.1	V	-2.26	61.83	74	-12.17
5460	49.94	AV	114	2.1	V	-2.26	47.68	54	-6.32
10460	51.57	PK	1	1.2	H	8.47	60.04	68.2	-8.16
10460	52.47	PK	102	1.2	V	8.47	60.94	68.2	-7.26

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AC20									
5180MHz									
4500	64.89	PK	171	1.8	H	-4.72	60.17	74	-13.83
4500	51.16	AV	171	1.8	H	-4.72	46.44	54	-7.56
4500	64.23	PK	255	1.1	V	-4.72	59.51	74	-14.49
4500	50.96	AV	255	1.1	V	-4.72	46.24	54	-7.76
5150	69.46	PK	313	1.4	H	-2.73	66.73	74	-7.27
5150	53.16	AV	313	1.4	H	-2.73	50.43	54	-3.57
5150	68.46	PK	23	2.4	V	-2.73	65.73	74	-8.27
5150	53.09	AV	23	2.4	V	-2.73	50.36	54	-3.64
10360	51.78	PK	333	2.3	H	8.12	59.90	68.2	-8.30
10360	52.33	PK	274	2.3	V	8.12	60.45	68.2	-7.75
5200MHz									
10400	52.21	PK	116	1.1	H	8.24	60.45	68.2	-7.75
10400	51.82	PK	61	1.1	V	8.24	60.06	68.2	-8.14
5240MHz									
5350	65.24	PK	32	2.0	H	-2.33	62.91	74	-11.09
5350	51.34	AV	32	2.0	H	-2.33	49.01	54	-4.99
5350	65.33	PK	59	1.5	V	-2.33	63.00	74	-11.00
5350	51.18	AV	59	1.5	V	-2.33	48.85	54	-5.15
5460	64.15	PK	245	1.8	H	-2.26	61.89	74	-12.11
5460	49.87	AV	245	1.8	H	-2.26	47.61	54	-6.39
5460	63.85	PK	306	1.3	V	-2.26	61.59	74	-12.41
5460	50.28	AV	306	1.3	V	-2.26	48.02	54	-5.98
10480	51.94	PK	226	2.2	H	8.56	60.50	68.2	-7.70
10480	51.67	PK	177	2.2	V	8.56	60.23	68.2	-7.97

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AC40									
5190MHz									
4500	65.10	PK	257	2.4	H	-4.72	60.38	74	-13.62
4500	50.78	AV	257	2.4	H	-4.72	46.06	54	-7.94
4500	64.35	PK	259	1.3	V	-4.72	59.63	74	-14.37
4500	50.49	AV	259	1.3	V	-4.72	45.77	54	-8.23
5150	68.00	PK	147	2.3	H	-2.73	65.27	74	-8.73
5150	53.11	AV	147	2.3	H	-2.73	50.38	54	-3.62
5150	67.60	PK	221	1.4	V	-2.73	64.87	74	-9.13
5150	52.83	AV	221	1.4	V	-2.73	50.10	54	-3.90
10380	52.33	PK	216	1.7	H	8.18	60.51	68.2	-7.69
10380	52.14	PK	152	1.7	V	8.18	60.32	68.2	-7.88
5230MHz									
5350	65.23	PK	108	2.3	H	-2.33	62.90	74	-11.10
5350	51.28	AV	108	2.3	H	-2.33	48.95	54	-5.05
5350	65.19	PK	154	1.4	V	-2.33	62.86	74	-11.14
5350	51.51	AV	154	1.4	V	-2.33	49.18	54	-4.82
5460	63.93	PK	87	1.8	H	-2.26	61.67	74	-12.33
5460	50.13	AV	87	1.8	H	-2.26	47.87	54	-6.13
5460	63.89	PK	55	1.9	V	-2.26	61.63	74	-12.37
5460	49.99	AV	55	1.9	V	-2.26	47.73	54	-6.27
10460	51.97	PK	133	1.1	H	8.47	60.44	68.2	-7.76
10460	52.33	PK	93	1.1	V	8.47	60.80	68.2	-7.40

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AC80									
5210MHz									
4500	64.80	PK	102	2.1	H	-4.72	60.08	74	-13.92
4500	50.26	AV	102	2.1	H	-4.72	45.54	54	-8.46
4500	64.89	PK	278	1.4	V	-4.72	60.17	74	-13.83
4500	50.80	AV	278	1.4	V	-4.72	46.08	54	-7.92
5150	67.11	PK	29	2.4	H	-2.73	64.38	74	-9.62
5150	53.31	AV	29	2.4	H	-2.73	50.58	54	-3.42
5150	67.05	PK	46	1.7	V	-2.73	64.32	74	-9.68
5150	52.90	AV	46	1.7	V	-2.73	50.17	54	-3.83
5350	64.31	PK	142	1.1	H	-2.33	61.98	74	-12.02
5350	51.60	AV	142	1.1	H	-2.33	49.27	54	-4.73
5350	64.55	PK	69	1.5	V	-2.33	62.22	74	-11.78
5350	51.55	AV	69	1.5	V	-2.33	49.22	54	-4.78
5460	62.85	PK	288	1.7	H	-2.26	60.59	74	-13.41
5460	50.18	AV	288	1.7	H	-2.26	47.92	54	-6.08
5460	62.98	PK	346	1.5	V	-2.26	60.72	74	-13.28
5460	49.95	AV	346	1.5	V	-2.26	47.69	54	-6.31
10420	51.51	PK	329	1	H	8.32	59.83	68.2	-8.37
10420	52.23	PK	344	1	V	8.32	60.55	68.2	-7.65

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AX20									
5180MHz									
4500	64.34	PK	291	1.7	H	-4.72	59.62	74	-14.38
4500	50.57	AV	291	1.7	H	-4.72	45.85	54	-8.15
4500	64.55	PK	33	1.1	V	-4.72	59.83	74	-14.17
4500	50.34	AV	33	1.1	V	-4.72	45.62	54	-8.38
5150	71.69	PK	326	1.3	H	-2.73	68.96	74	-5.04
5150	52.98	AV	326	1.3	H	-2.73	50.25	54	-3.75
5150	72.37	PK	102	1.8	V	-2.73	69.64	74	-4.36
5150	53.00	AV	102	1.8	V	-2.73	50.27	54	-3.73
10360	51.70	PK	215	1.4	H	8.12	59.82	68.2	-8.38
10360	52.07	PK	192	1.4	V	8.12	60.19	68.2	-8.01
5200MHz									
10400	52.54	PK	33	1.9	H	8.24	60.78	68.2	-7.42
10400	52.16	PK	237	1.9	V	8.24	60.4	68.2	-7.80
5240MHz									
5350	64.30	PK	217	1.8	H	-2.33	61.97	74	-12.03
5350	51.53	AV	217	1.8	H	-2.33	49.20	54	-4.80
5350	64.58	PK	25	2.2	V	-2.33	62.25	74	-11.75
5350	51.21	AV	25	2.2	V	-2.33	48.88	54	-5.12
5460	63.01	PK	188	1	H	-2.26	60.75	74	-13.25
5460	50.30	AV	188	1	H	-2.26	48.04	54	-5.96
5460	63.06	PK	225	1.3	V	-2.26	60.80	74	-13.20
5460	50.03	AV	225	1.3	V	-2.26	47.77	54	-6.23
10480	51.57	PK	140	1.6	H	8.56	60.13	68.2	-8.07
10480	52.21	PK	265	1.6	V	8.56	60.77	68.2	-7.43

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AX40									
5190MHz									
4500	64.32	PK	65	1.7	H	-4.72	59.60	74	-14.40
4500	50.34	AV	65	1.7	H	-4.72	45.62	54	-8.38
4500	64.28	PK	349	1.4	V	-4.72	59.56	74	-14.44
4500	50.51	AV	349	1.4	V	-4.72	45.79	54	-8.21
5150	70.58	PK	142	1.4	H	-2.73	67.85	74	-6.15
5150	52.84	AV	142	1.4	H	-2.73	50.11	54	-3.89
5150	71.54	PK	45	1.9	V	-2.73	68.81	74	-5.19
5150	53.20	AV	45	1.9	V	-2.73	50.47	54	-3.53
10380	52.10	PK	63	1.6	H	8.18	60.28	68.2	-7.92
10380	52.47	PK	3	1.6	V	8.18	60.65	68.2	-7.55
5230MHz									
5350	64.62	PK	201	1.1	H	-2.33	62.29	74	-11.71
5350	51.28	AV	201	1.1	H	-2.33	48.95	54	-5.05
5350	64.49	PK	169	1.9	V	-2.33	62.16	74	-11.84
5350	51.20	AV	169	1.9	V	-2.33	48.87	54	-5.13
5460	62.94	PK	162	2.4	H	-2.26	60.68	74	-13.32
5460	49.85	AV	162	2.4	H	-2.26	47.59	54	-6.41
5460	62.86	PK	138	1.9	V	-2.26	60.60	74	-13.40
5460	50.29	AV	138	1.9	V	-2.26	48.03	54	-5.97
10460	52.14	PK	345	2.4	H	8.47	60.61	68.2	-7.59
10460	51.69	PK	347	2.4	V	8.47	60.16	68.2	-8.04

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AX80									
5210MHz									
4500	64.41	PK	98	1.8	H	-4.72	59.69	74	-14.31
4500	50.34	AV	98	1.8	H	-4.72	45.62	54	-8.38
4500	64.31	PK	222	2.5	V	-4.72	59.59	74	-14.41
4500	50.35	AV	222	2.5	V	-4.72	45.63	54	-8.37
5150	69.15	PK	15	1.2	H	-2.73	66.42	74	-7.58
5150	53.00	AV	15	1.2	H	-2.73	50.27	54	-3.73
5150	69.24	PK	190	1.3	V	-2.73	66.51	74	-7.49
5150	53.31	AV	190	1.3	V	-2.73	50.58	54	-3.42
5350	64.61	PK	131	2	H	-2.33	62.28	74	-11.72
5350	51.50	AV	131	2	H	-2.33	49.17	54	-4.83
5350	64.57	PK	174	1.3	V	-2.33	62.24	74	-11.76
5350	51.27	AV	174	1.3	V	-2.33	48.94	54	-5.06
5460	63.18	PK	36	1.4	H	-2.26	60.92	74	-13.08
5460	50.31	AV	36	1.4	H	-2.26	48.05	54	-5.95
5460	62.94	PK	78	2.1	V	-2.26	60.68	74	-13.32
5460	50.04	AV	78	2.1	V	-2.26	47.78	54	-6.22
10420	52.45	PK	259	2	H	8.32	60.77	68.2	-7.43
10420	51.70	PK	72	2	V	8.32	60.02	68.2	-8.18

5725-5850 MHz:

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11N20									
5745MHz									
5650	62.03	PK	265	1.6	H	-1.95	60.08	68.2	-8.12
5700	62.59	PK	61	1.9	H	-2.02	60.57	105.2	-44.63
5720	73.91	PK	172	1.5	H	-1.97	71.94	110.8	-38.86
5725	78.24	PK	106	2.3	H	-1.96	76.28	122.2	-45.92
5650	61.84	PK	359	2.5	V	-1.95	59.89	68.2	-8.31
5700	62.56	PK	360	1.7	V	-2.02	60.54	105.2	-44.66
5720	73.55	PK	337	1.4	V	-1.97	71.58	110.8	-39.22
5725	78.16	PK	174	1.4	V	-1.96	76.20	122.2	-46.00
11490	53.47	PK	330	1.4	H	6.63	60.10	74	-13.90
11490	41.15	AV	346	1.4	H	6.63	47.78	54	-6.22
11490	53.33	PK	200	1	V	6.63	59.96	74	-14.04
11490	40.97	AV	38	1	V	6.63	47.60	54	-6.40
5785MHz									
11570	53.96	PK	178	2.2	H	6.59	60.55	74	-13.45
11570	41.47	AV	69	2.2	H	6.59	48.06	54	-5.94
11570	54.00	PK	266	1.1	V	6.59	60.59	74	-13.41
11570	41.51	AV	228	1.1	V	6.59	48.10	54	-5.90
5825MHz									
5850	78.44	PK	170	1.9	H	-1.81	76.63	122.2	-45.57
5855	72.81	PK	32	2.5	H	-1.82	70.99	110.8	-39.81
5875	63.93	PK	25	2.5	H	-1.84	62.09	105.2	-43.11
5925	63.38	PK	185	2.4	H	-1.82	61.56	68.2	-6.64
5850	78.44	PK	268	2.4	V	-1.81	76.63	122.2	-45.57
5855	72.56	PK	310	2.3	V	-1.82	70.74	110.8	-40.06
5875	63.74	PK	4	1.2	V	-1.84	61.90	105.2	-43.30
5925	63.78	PK	11	2.5	V	-1.82	61.96	68.2	-6.24
11650	53.11	PK	353	1.2	H	6.77	59.88	74	-14.12
11650	40.85	AV	309	1.2	H	6.77	47.62	54	-6.38
11650	53.24	PK	340	1.6	V	6.77	60.01	74	-13.99
11650	40.95	AV	219	1.6	V	6.77	47.72	54	-6.28

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11N40									
5755MHz									
5650	61.65	PK	315	1.4	H	-1.95	59.70	68.2	-8.50
5700	67.03	PK	8	1.7	H	-2.02	65.01	105.2	-40.19
5720	77.18	PK	126	1.1	H	-1.97	75.21	110.8	-35.59
5725	81.34	PK	53	2	H	-1.96	79.38	122.2	-42.82
5650	61.68	PK	169	1.7	V	-1.95	59.73	68.2	-8.47
5700	65.63	PK	359	2.5	V	-2.02	63.61	105.2	-41.59
5720	77.89	PK	176	1.2	V	-1.97	75.92	110.8	-34.88
5725	80.39	PK	22	1.1	V	-1.96	78.43	122.2	-43.77
11510	53.61	PK	121	1.4	H	6.59	60.20	74	-13.80
11510	41.06	AV	310	1.4	H	6.59	47.65	54	-6.35
11510	53.15	PK	150	1.2	V	6.59	59.74	74	-14.26
11510	41.15	AV	25	1.2	V	6.59	47.74	54	-6.26
5795MHz									
5850	69.12	PK	344	2.1	H	-1.81	67.31	122.2	-54.89
5855	67.28	PK	349	1.8	H	-1.82	65.46	110.8	-45.34
5875	63.82	PK	358	2.5	H	-1.84	61.98	105.2	-43.22
5925	63.90	PK	214	1.8	H	-1.82	62.08	68.2	-6.12
5850	69.16	PK	89	1.3	V	-1.81	67.35	122.2	-54.85
5855	66.88	PK	216	1.6	V	-1.82	65.06	110.8	-45.74
5875	63.41	PK	265	1	V	-1.84	61.57	105.2	-43.63
5925	63.69	PK	288	2.2	V	-1.82	61.87	68.2	-6.33
11590	53.56	PK	148	2.3	H	6.57	60.13	74	-13.87
11590	41.27	AV	334	2.3	H	6.57	47.84	54	-6.16
11590	53.79	PK	192	1.3	V	6.57	60.36	74	-13.64
11590	41.44	AV	114	1.3	V	6.57	48.01	54	-5.99

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AC20									
5745MHz									
5650	62.03	PK	80	2.1	H	-1.95	60.08	68.2	-8.12
5700	62.23	PK	224	1.8	H	-2.02	60.21	105.2	-44.99
5720	73.52	PK	35	2.2	H	-1.97	71.55	110.8	-39.25
5725	79.88	PK	213	1.8	H	-1.96	77.92	122.2	-44.28
5650	62.05	PK	196	1	V	-1.95	60.10	68.2	-8.10
5700	62.33	PK	98	2.2	V	-2.02	60.31	105.2	-44.89
5720	73.46	PK	106	1.1	V	-1.97	71.49	110.8	-39.31
5725	79.77	PK	197	2.1	V	-1.96	77.81	122.2	-44.39
11490	53.90	PK	300	2	H	6.63	60.53	74	-13.47
11490	41.28	AV	276	2	H	6.63	47.91	54	-6.09
11490	53.50	PK	343	2.3	V	6.63	60.13	74	-13.87
11490	41.31	AV	198	2.3	V	6.63	47.94	54	-6.06
5785MHz									
11570	53.66	PK	334	1.1	H	6.59	60.25	74	-13.75
11570	41.21	AV	219	1.1	H	6.59	47.80	54	-6.20
11570	53.65	PK	21	1.3	V	6.59	60.24	74	-13.76
11570	41.56	AV	91	1.3	V	6.59	48.15	54	-5.85
5825MHz									
5850	72.71	PK	245	1.8	H	-1.81	70.90	122.2	-51.30
5855	68.66	PK	142	1.2	H	-1.82	66.84	110.8	-43.96
5875	63.53	PK	301	1.8	H	-1.84	61.69	105.2	-43.51
5925	63.27	PK	64	1.6	H	-1.82	61.45	68.2	-6.75
5850	72.88	PK	158	1.6	V	-1.81	71.07	122.2	-51.13
5855	69.21	PK	43	1.9	V	-1.82	67.39	110.8	-43.41
5875	63.56	PK	241	1.7	V	-1.84	61.72	105.2	-43.48
5925	63.51	PK	0	1.4	V	-1.82	61.69	68.2	-6.51
11650	53.25	PK	173	1.5	H	6.77	60.02	74	-13.98
11650	40.77	AV	345	1.5	H	6.77	47.54	54	-6.46
11650	52.75	PK	239	1.5	V	6.77	59.52	74	-14.48
11650	40.92	AV	244	1.5	V	6.77	47.69	54	-6.31

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AC40									
5755MHz									
5650	62.06	PK	209	1.7	H	-1.95	60.11	68.2	-8.09
5700	65.17	PK	119	2.2	H	-2.02	63.15	105.2	-42.05
5720	75.95	PK	74	1.8	H	-1.97	73.98	110.8	-36.82
5725	78.95	PK	30	1.7	H	-1.96	76.99	122.2	-45.21
5650	61.71	PK	226	1.4	V	-1.95	59.76	68.2	-8.44
5700	67.08	PK	190	1.3	V	-2.02	65.06	105.2	-40.14
5720	75.54	PK	44	2.5	V	-1.97	73.57	110.8	-37.23
5725	79.09	PK	98	2	V	-1.96	77.13	122.2	-45.07
11510	53.71	PK	254	1.1	H	6.59	60.30	74	-13.70
11510	41.44	AV	134	1.1	H	6.59	48.03	54	-5.97
11510	53.52	PK	268	1.6	V	6.59	60.11	74	-13.89
11510	41.46	AV	69	1.6	V	6.59	48.05	54	-5.95
5795MHz									
5850	68.85	PK	6	1.2	H	-1.81	67.04	122.2	-55.16
5855	67.16	PK	18	1.3	H	-1.82	65.34	110.8	-45.46
5875	63.93	PK	300	1	H	-1.84	62.09	105.2	-43.11
5925	63.89	PK	360	2.5	H	-1.82	62.07	68.2	-6.13
5850	69.10	PK	182	1.8	V	-1.81	67.29	122.2	-54.91
5855	67.33	PK	271	1.2	V	-1.82	65.51	110.8	-45.29
5875	63.30	PK	128	1.2	V	-1.84	61.46	105.2	-43.74
5925	63.80	PK	179	2.3	V	-1.82	61.98	68.2	-6.22
11590	53.60	PK	60	2.4	H	6.57	60.17	74	-13.83
11590	41.55	AV	326	2.4	H	6.57	48.12	54	-5.88
11590	54.10	PK	338	1	V	6.57	60.67	74	-13.33
11590	41.44	AV	270	1	V	6.57	48.01	54	-5.99

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AC80									
5775MHz									
5650	64.21	PK	20	1.4	H	-1.95	62.26	68.2	-5.94
5700	73.71	PK	352	2.2	H	-2.02	71.69	105.2	-33.51
5720	75.81	PK	95	1.7	H	-1.97	73.84	110.8	-36.96
5725	78.24	PK	211	1.5	H	-1.96	76.28	122.2	-45.92
5650	64.51	PK	180	2	V	-1.95	62.56	68.2	-5.64
5700	72.23	PK	37	2.2	V	-2.02	70.21	105.2	-34.99
5720	75.40	PK	144	1.7	V	-1.97	73.43	110.8	-37.37
5725	78.03	PK	193	2.2	V	-1.96	76.07	122.2	-46.13
5850	77.27	PK	213	1	H	-1.81	75.46	122.2	-46.74
5855	70.78	PK	275	1.1	H	-1.82	68.96	110.8	-41.84
5875	66.71	PK	327	2.3	H	-1.84	64.87	105.2	-40.33
5925	63.46	PK	309	1.9	H	-1.82	61.64	68.2	-6.56
5850	76.72	PK	104	1.8	V	-1.81	74.91	122.2	-47.29
5855	70.97	PK	283	1.6	V	-1.82	69.15	110.8	-41.65
5875	66.87	PK	288	1.8	V	-1.84	65.03	105.2	-40.17
5925	63.39	PK	201	1.3	V	-1.82	61.57	68.2	-6.63
11550	53.18	PK	342	1	H	6.61	59.79	74	-14.21
11550	41.62	AV	321	1	H	6.61	48.23	54	-5.77
11550	53.38	PK	268	1.8	V	6.61	59.99	74	-14.01
11550	41.50	AV	21	1.8	V	6.61	48.11	54	-5.89

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AX20									
5745MHz									
5650	61.74	PK	314	1.4	H	-1.95	59.79	68.2	-8.41
5700	62.58	PK	158	2.4	H	-2.02	60.56	105.2	-44.64
5720	71.70	PK	141	1	H	-1.97	69.73	110.8	-41.07
5725	76.29	PK	90	2	H	-1.96	74.33	122.2	-47.87
5650	62.09	PK	150	1	V	-1.95	60.14	68.2	-8.06
5700	62.37	PK	203	1.2	V	-2.02	60.35	105.2	-44.85
5720	71.21	PK	187	1.1	V	-1.97	69.24	110.8	-41.56
5725	77.75	PK	109	1.3	V	-1.96	75.79	122.2	-46.41
11490	53.51	PK	207	1.4	H	6.63	60.14	74	-13.86
11490	41.34	AV	94	1.4	H	6.63	47.97	54	-6.03
11490	53.74	PK	358	1.9	V	6.63	60.37	74	-13.63
11490	41.17	AV	168	1.9	V	6.63	47.80	54	-6.20
5785MHz									
11570	53.63	PK	230	2.2	H	6.59	60.22	74	-13.78
11570	41.23	AV	276	2.2	H	6.59	47.82	54	-6.18
11570	53.50	PK	123	2	V	6.59	60.09	74	-13.91
11570	41.55	AV	186	2	V	6.59	48.14	54	-5.86
5825MHz									
5850	76.72	PK	178	2.4	H	-1.81	74.91	122.2	-47.29
5855	70.83	PK	255	1.7	H	-1.82	69.01	110.8	-41.79
5875	63.38	PK	100	1.6	H	-1.84	61.54	105.2	-43.66
5925	63.50	PK	110	1.8	H	-1.82	61.68	68.2	-6.52
5850	76.64	PK	357	2.2	V	-1.81	74.83	122.2	-47.37
5855	71.28	PK	4	1.8	V	-1.82	69.46	110.8	-41.34
5875	63.80	PK	279	1.8	V	-1.84	61.96	105.2	-43.24
5925	63.28	PK	229	1.1	V	-1.82	61.46	68.2	-6.74
11650	52.80	PK	124	1.9	H	6.77	59.57	74	-14.43
11650	40.67	AV	354	1.9	H	6.77	47.44	54	-6.56
11650	52.77	PK	45	1.3	V	6.77	59.54	74	-14.46
11650	40.84	AV	56	1.3	V	6.77	47.61	54	-6.39

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AX40									
5755MHz									
5650	61.69	PK	108	2	H	-1.95	59.74	68.2	-8.46
5700	65.78	PK	169	1	H	-2.02	63.76	105.2	-41.44
5720	77.90	PK	72	1.4	H	-1.97	75.93	110.8	-34.87
5725	80.83	PK	164	1.8	H	-1.96	78.87	122.2	-43.33
5650	61.92	PK	272	1.8	V	-1.95	59.97	68.2	-8.23
5700	65.60	PK	49	2.1	V	-2.02	63.58	105.2	-41.62
5720	77.22	PK	13	1.2	V	-1.97	75.25	110.8	-35.55
5725	80.14	PK	152	1.2	V	-1.96	78.18	122.2	-44.02
11510	53.73	PK	244	1.7	H	6.59	60.32	74	-13.68
11510	41.03	AV	108	1.7	H	6.59	47.62	54	-6.38
11510	53.67	PK	200	1.7	V	6.59	60.26	74	-13.74
11510	41.03	AV	254	1.7	V	6.59	47.62	54	-6.38
5795MHz									
5850	68.64	PK	301	1.2	H	-1.81	66.83	122.2	-55.37
5855	67.00	PK	250	1.7	H	-1.82	65.18	110.8	-45.62
5875	63.77	PK	243	2.2	H	-1.84	61.93	105.2	-43.27
5925	63.76	PK	54	1.2	H	-1.82	61.94	68.2	-6.26
5850	68.99	PK	321	1.9	V	-1.81	67.18	122.2	-55.02
5855	66.57	PK	127	1.3	V	-1.82	64.75	110.8	-46.05
5875	63.86	PK	35	1.1	V	-1.84	62.02	105.2	-43.18
5925	64.02	PK	74	2.2	V	-1.82	62.20	68.2	-6.00
11590	53.65	PK	76	2.4	H	6.57	60.22	74	-13.78
11590	41.63	AV	292	2.4	H	6.57	48.20	54	-5.80
11590	53.47	PK	169	2.4	V	6.57	60.04	74	-13.96
11590	41.50	AV	161	2.4	V	6.57	48.07	54	-5.93

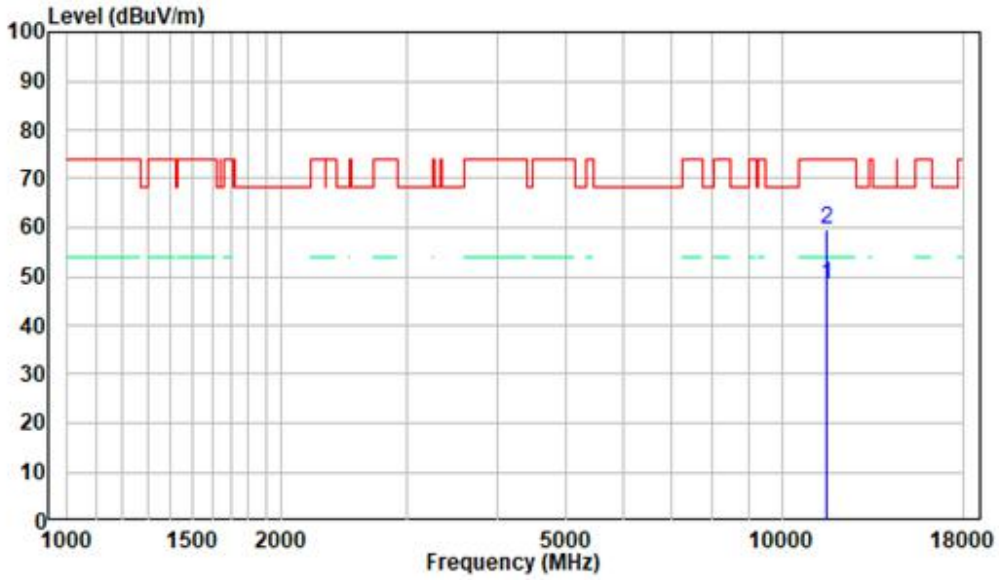
Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AX80									
5775MHz									
5650	64.36	PK	120	1.3	H	-1.95	62.41	68.2	-5.79
5700	73.78	PK	322	1	H	-2.02	71.76	105.2	-33.44
5720	75.60	PK	111	2.2	H	-1.97	73.63	110.8	-37.17
5725	78.22	PK	40	1.6	H	-1.96	76.26	122.2	-45.94
5650	64.19	PK	351	2.2	V	-1.95	62.24	68.2	-5.96
5700	73.15	PK	181	2.1	V	-2.02	71.13	105.2	-34.07
5720	75.26	PK	294	1.8	V	-1.97	73.29	110.8	-37.51
5725	77.37	PK	116	2.2	V	-1.96	75.41	122.2	-46.79
5850	76.64	PK	349	2.3	H	-1.81	74.83	122.2	-47.37
5855	70.81	PK	354	2.5	H	-1.82	68.99	110.8	-41.81
5875	67.02	PK	32	1.1	H	-1.84	65.18	105.2	-40.02
5925	63.81	PK	60	1.8	H	-1.82	61.99	68.2	-6.21
5850	77.10	PK	54	2.1	V	-1.81	75.29	122.2	-46.91
5855	71.27	PK	95	1.7	V	-1.82	69.45	110.8	-41.35
5875	67.23	PK	94	1.4	V	-1.84	65.39	105.2	-39.81
5925	63.85	PK	360	1.3	V	-1.82	62.03	68.2	-6.17
11550	54.15	PK	24	1.4	H	6.61	60.76	74	-13.24
11550	41.18	AV	166	1.4	H	6.61	47.79	54	-6.21
11550	53.44	PK	39	1.6	V	6.61	60.05	74	-13.95
11550	41.26	AV	342	1.6	V	6.61	47.87	54	-6.13

Note:
Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Absolute Level (Corrected Amplitude) = Factor + Reading
Margin = Absolute Level (Corrected Amplitude) - Limit
The other spurious emission which is 20dB below to the limit was not recorded.

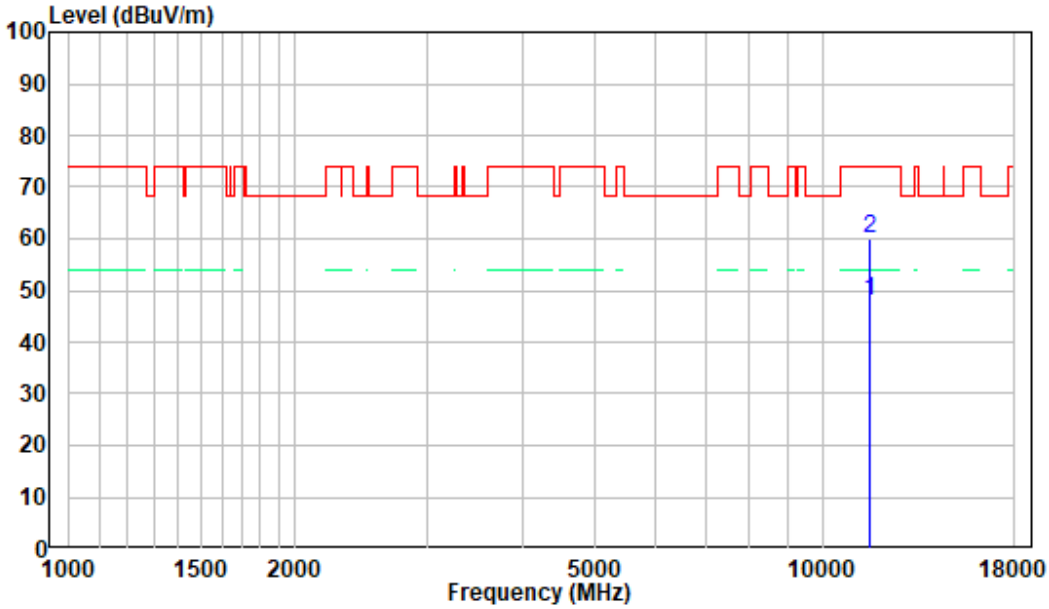
1 GHz - 18 GHz: (Pre-Scan plots)

802.11ac80, 5775MHz

Horizontal



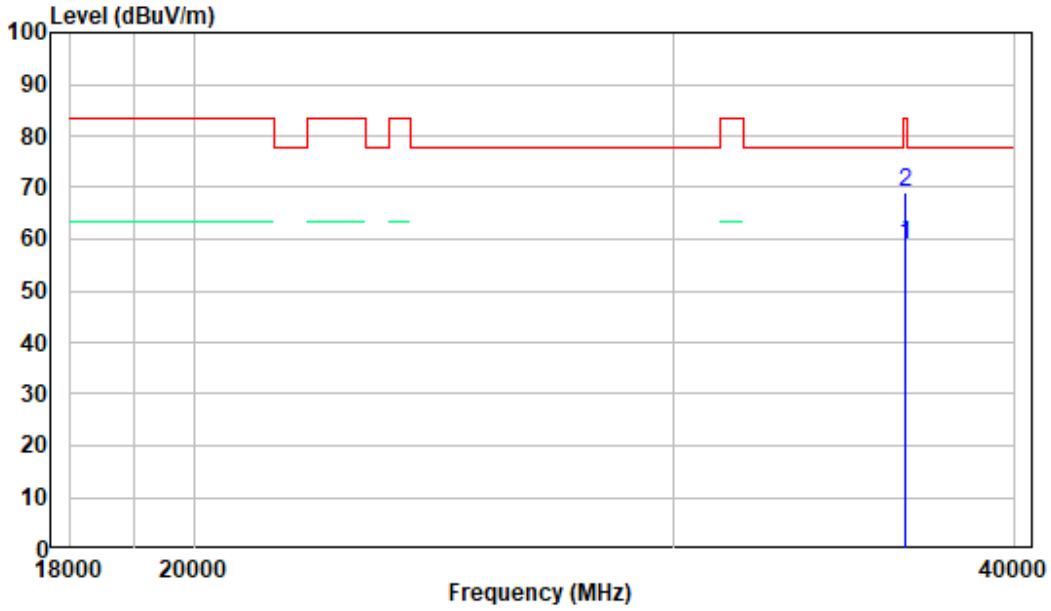
Vertical



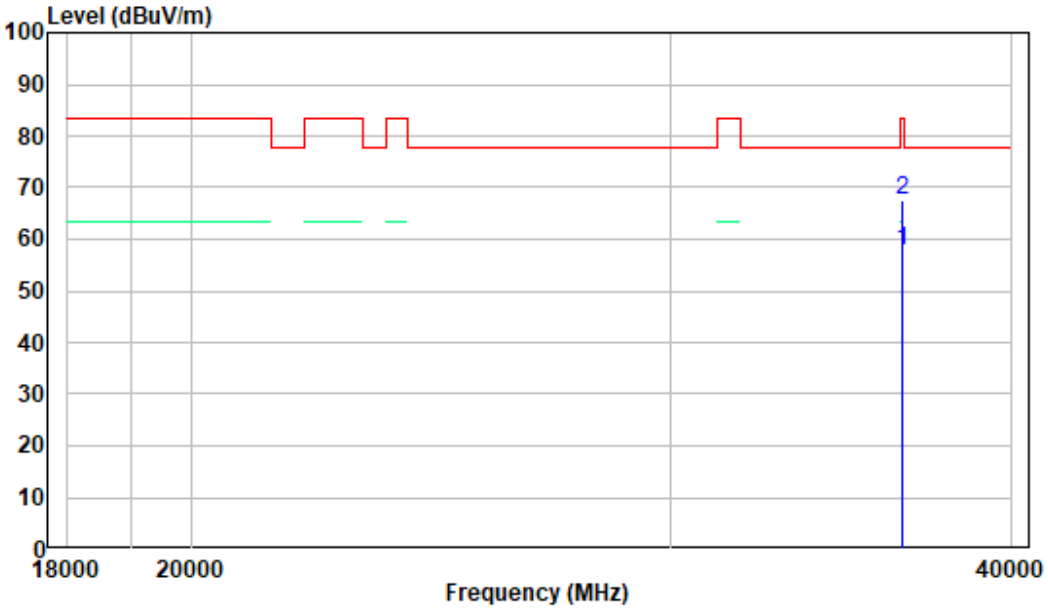
18-40GHz: (Pre-Scan plots)

802.11ac80, 5775MHz

Horizontal



Vertical



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

Applicable Standard

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

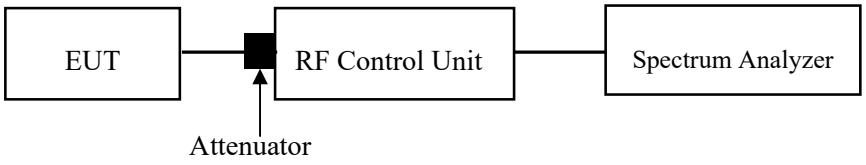
Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Procedure

Test Method: KDB789033 D02 Clause II.C

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) ≥ 3 × RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



Test Data

Environmental Conditions

Temperature:	24.5 ℃
Relative Humidity:	56%
ATM Pressure:	101.0 kPa

The testing was performed by Glenn Jiang on 2023-02-10 and 2023-02-11.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the Appendix.

FCC §15.407(a) – CONDUCTED TRANSMITTER OUTPUT POWER

Applicable Standard

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

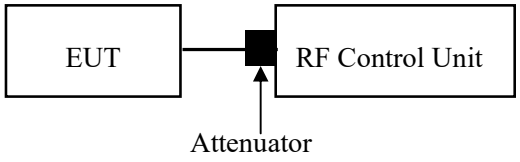
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11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

Test Method: KDB789033 D02 Clause II.E.3

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.
c) Add a correction factor to the display.



Note: the RF control unit has a built-in power sensor.

Test Data

Environmental Conditions

Temperature:	24.5 ℃
Relative Humidity:	56%
ATM Pressure:	101.0 kPa

The testing was performed by Glenn Jiang on 2023-02-10 and 2023-02-11.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the Appendix.

FCC §15.407(a) - POWER SPECTRAL DENSITY

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 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 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.

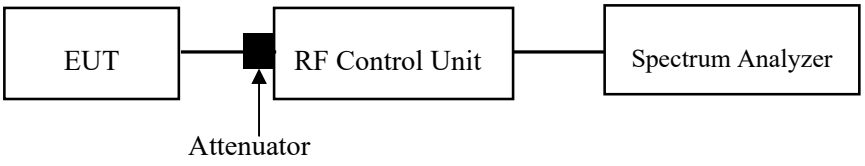
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum 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

Test Method: KDB789033 D02 Clause II.F

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

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



Test Data

Environmental Conditions

Temperature:	24.5 ℃
Relative Humidity:	56%
ATM Pressure:	101.0 kPa

The testing was performed by Glenn Jiang on 2023-02-10 and 2023-02-11.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the Appendix.

APPENDIX

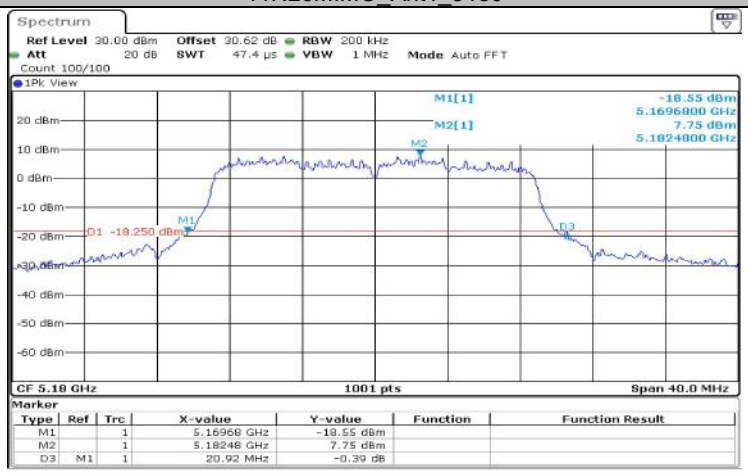
Appendix A1: Emission Bandwidth

Test Result

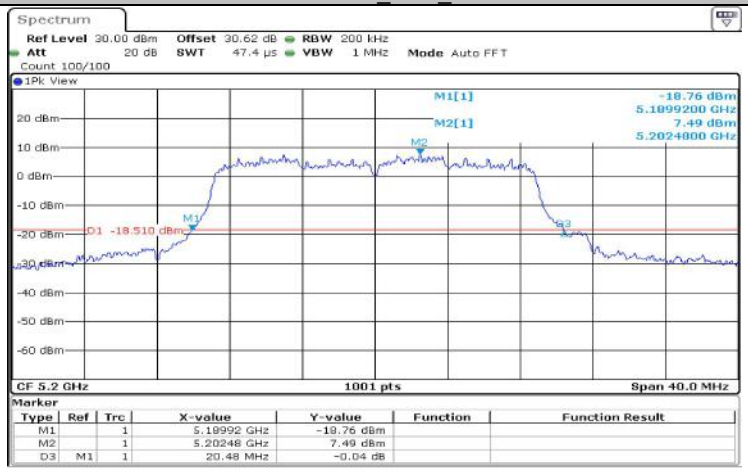
Test Mode	Antenna	Channel	26db EBW [MHz]	Limit[MHz]	Verdict
11N20MIMO	Ant1	5180	20.92	---	---
	Ant1	5200	20.48	---	---
	Ant1	5240	20.28	---	---
11N40MIMO	Ant1	5190	40.00	---	---
	Ant1	5230	40.24	---	---
11AC20MIMO	Ant1	5180	20.52	---	---
	Ant1	5200	20.20	---	---
	Ant1	5240	20.24	---	---
11AC40MIMO	Ant1	5190	40.24	---	---
	Ant1	5230	40.32	---	---
11AC80MIMO	Ant1	5210	82.72	---	---
11AX20MIMO	Ant1	5180	21.08	---	---
	Ant1	5200	21.16	---	---
	Ant1	5240	21.00	---	---
11AX40MIMO	Ant1	5190	40.96	---	---
	Ant1	5230	41.36	---	---
11AX80MIMO	Ant1	5210	83.36	---	---

Test Graphs

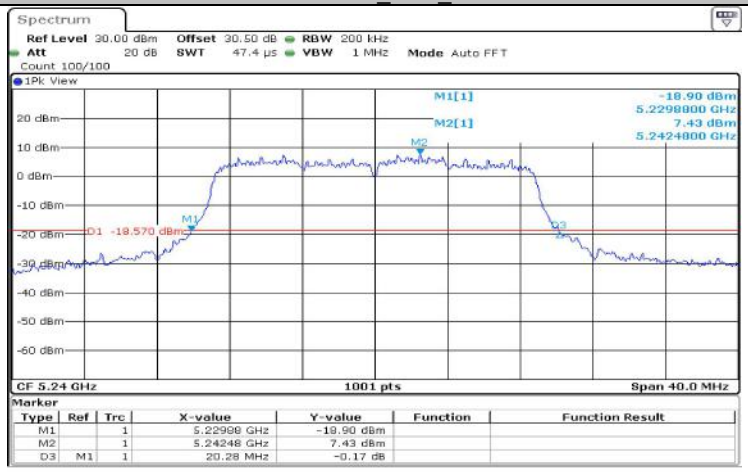
11N20MIMO_Ant1_5180



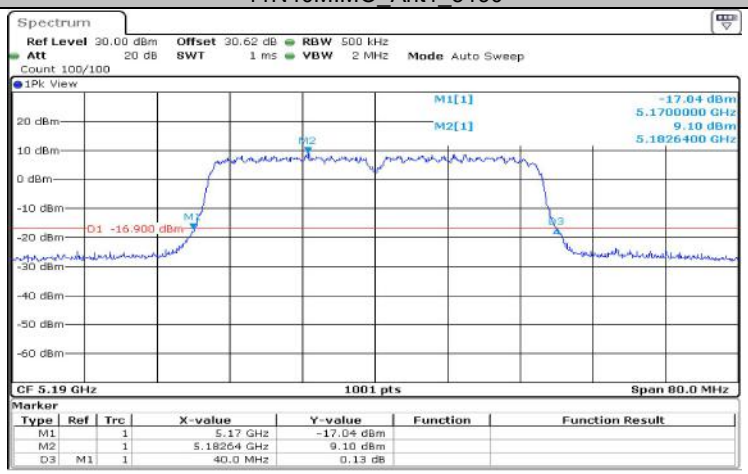
11N20MIMO_Ant1_5200



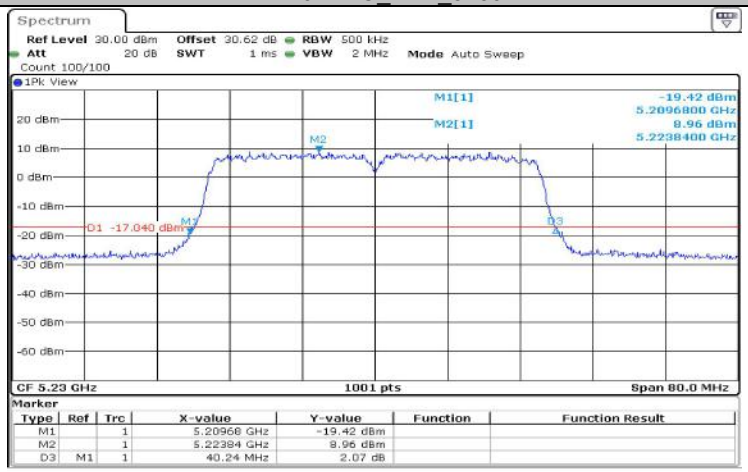
11N20MIMO_Ant1_5240



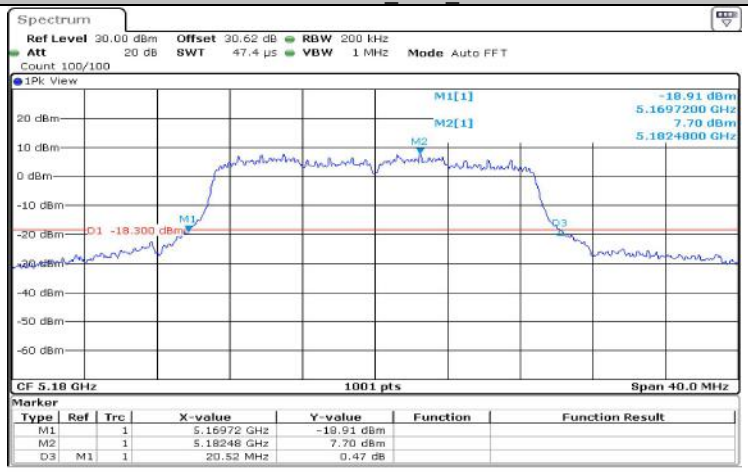
11N40MIMO_Ant1_5190



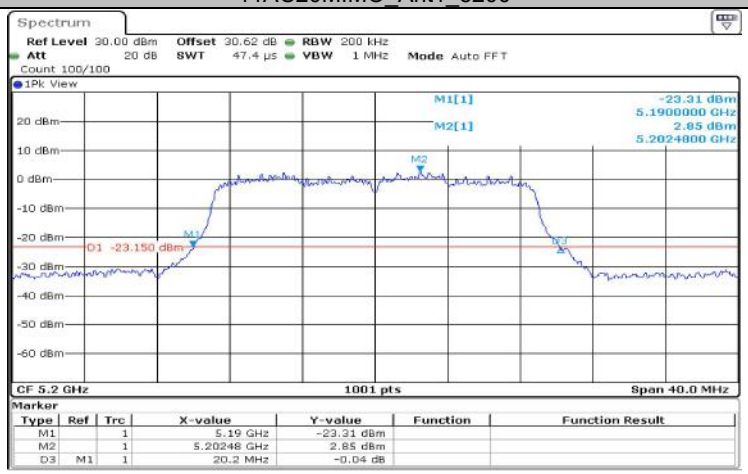
11N40MIMO_Ant1_5230



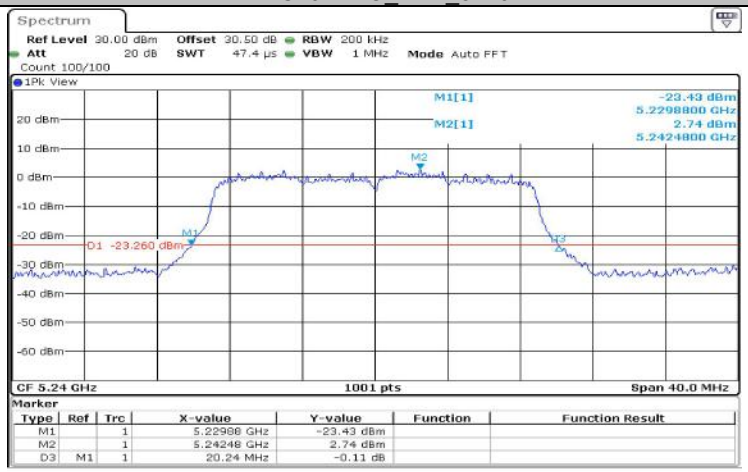
11AC20MIMO_Ant1_5180



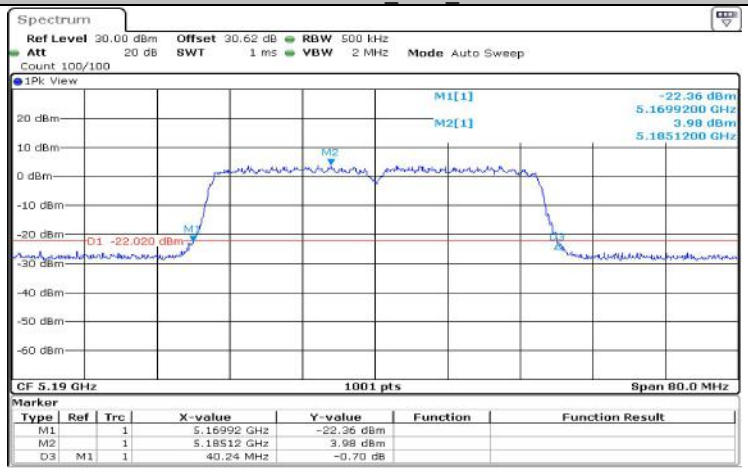
11AC20MIMO_Ant1_5200



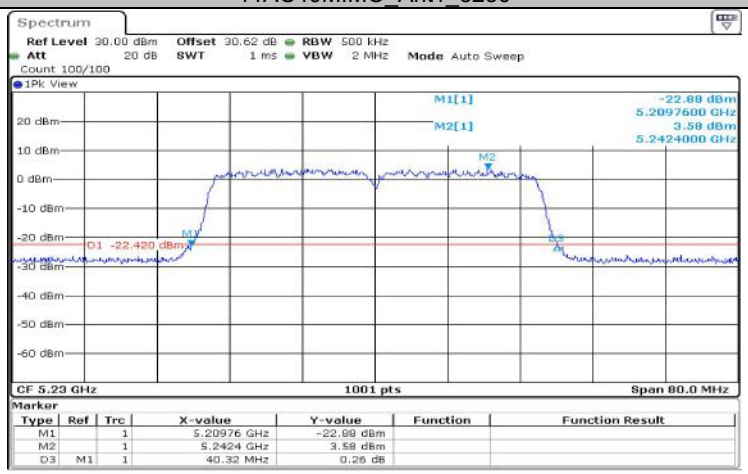
11AC20MIMO_Ant1_5240



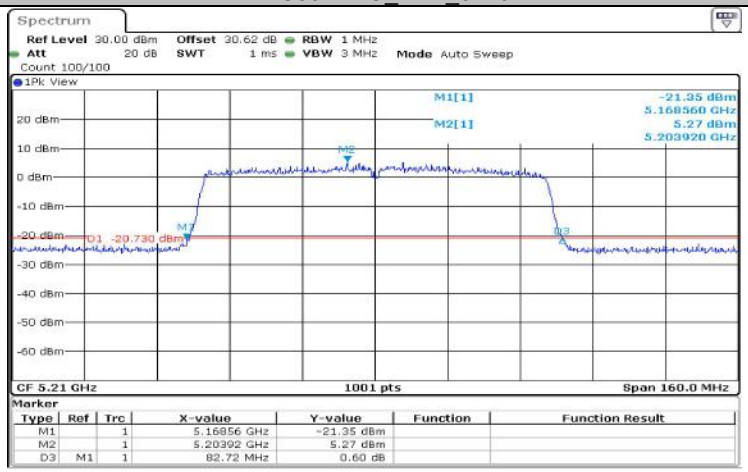
11AC40MIMO_Ant1_5190



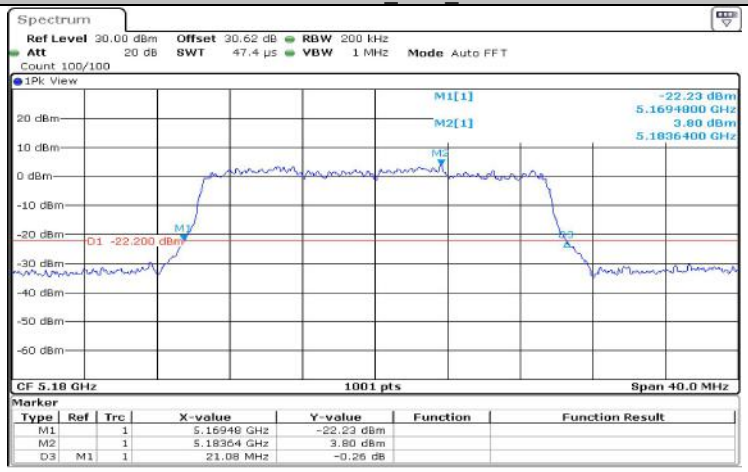
11AC40MIMO_Ant1_5230



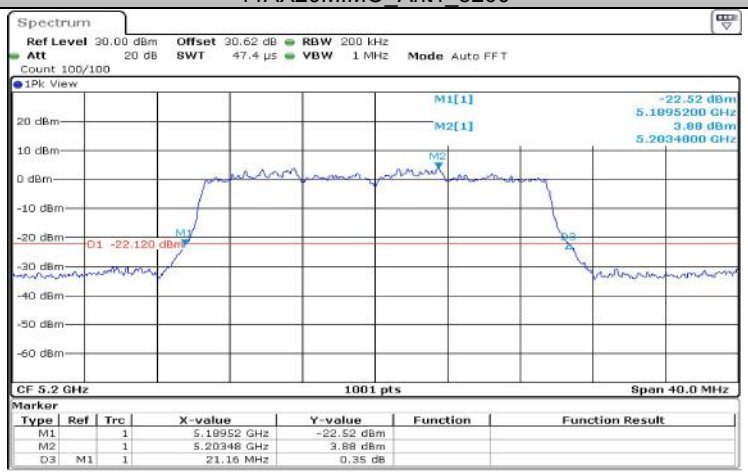
11AC80MIMO_Ant1_5210



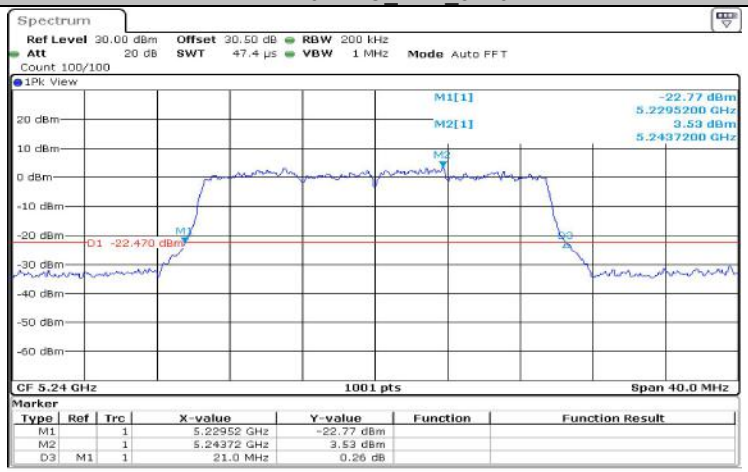
11AX20MIMO_Ant1_5180



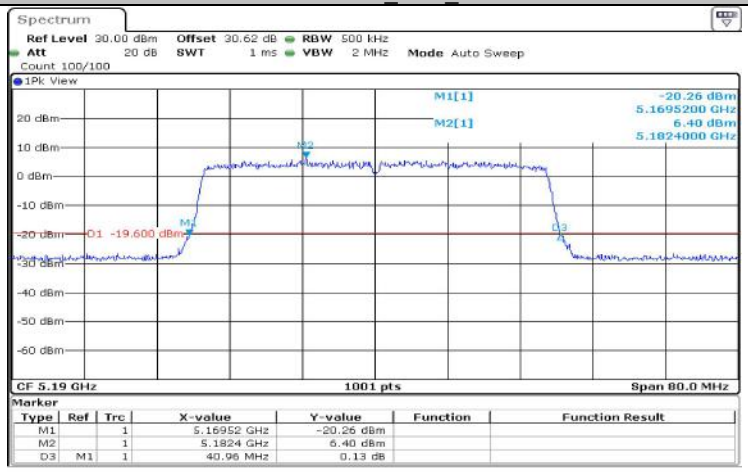
11AX20MIMO_Ant1_5200



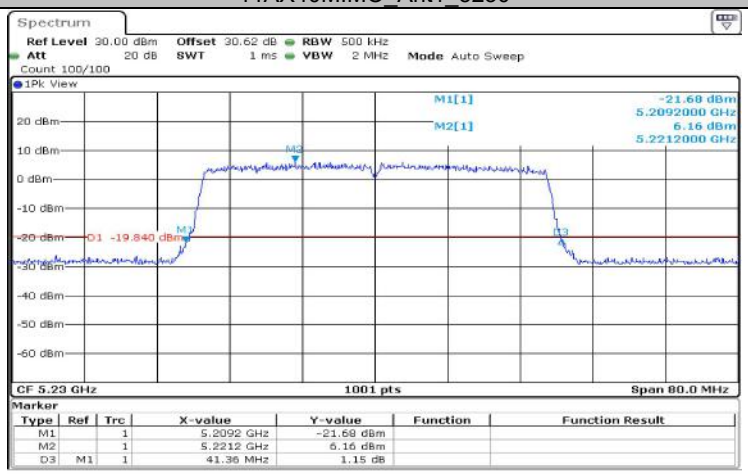
11AX20MIMO_Ant1_5240



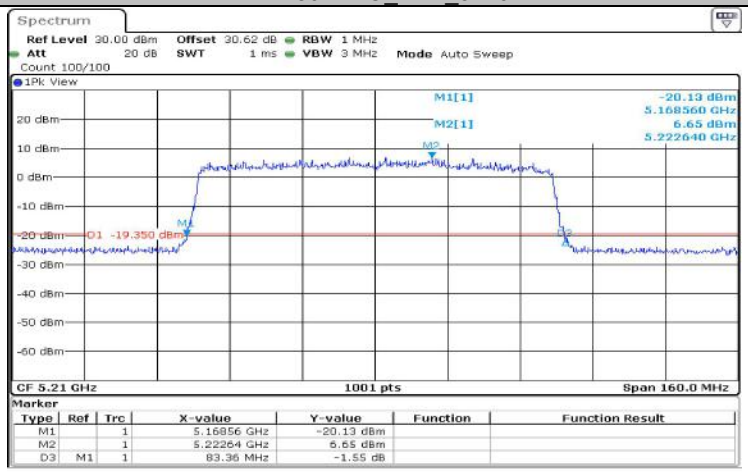
11AX40MIMO_Ant1_5190



11AX40MIMO_Ant1_5230



11AX80MIMO_Ant1_5210



Appendix A2: Occupied channel bandwidth

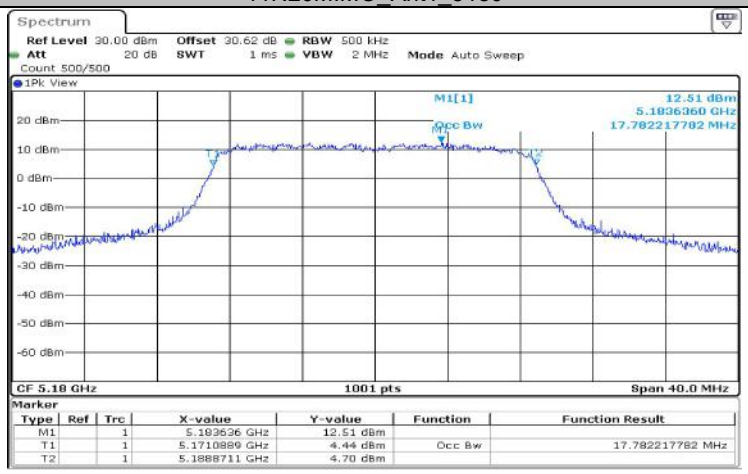
Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11N20MIMO	Ant1	5180	17.782	5171.089	5188.871	---	---
	Ant1	5200	17.782	5191.129	5208.911	---	---
	Ant1	5240	17.742	5231.129	5248.871	---	---
	Ant1	5745	17.942	5736.009	5753.951	---	---
	Ant1	5785	18.022	5775.969	5793.991	---	---
	Ant1	5825	17.982	5816.009	5833.991	---	---
11N40MIMO	Ant1	5190	36.204	5171.938	5208.142	---	---
	Ant1	5230	36.284	5211.858	5248.142	---	---
	Ant1	5755	36.683	5736.698	5773.382	---	---
	Ant1	5795	36.923	5776.538	5813.462	---	---
11AC20MIMO	Ant1	5180	17.782	5171.089	5188.871	---	---
	Ant1	5200	17.702	5191.169	5208.871	---	---
	Ant1	5240	17.742	5231.129	5248.871	---	---
	Ant1	5745	17.742	5736.129	5753.871	---	---
	Ant1	5785	17.742	5776.129	5793.871	---	---
	Ant1	5825	17.742	5816.129	5833.871	---	---
11AC40MIMO	Ant1	5190	36.364	5171.858	5208.222	---	---
	Ant1	5230	36.364	5211.858	5248.222	---	---
	Ant1	5755	36.444	5736.858	5773.302	---	---
	Ant1	5795	36.444	5776.858	5813.302	---	---
11AC80MIMO	Ant1	5210	76.084	5171.958	5248.042	---	---
	Ant1	5775	76.244	5737.118	5813.362	---	---
11AX20MIMO	Ant1	5180	19.021	5170.490	5189.510	---	---
	Ant1	5200	19.061	5190.490	5209.550	---	---
	Ant1	5240	19.101	5230.450	5249.550	---	---
	Ant1	5745	19.101	5735.450	5754.550	---	---
	Ant1	5785	19.101	5775.450	5794.550	---	---
	Ant1	5825	19.061	5815.490	5834.550	---	---
11AX40MIMO	Ant1	5190	38.122	5170.979	5209.101	---	---
	Ant1	5230	37.962	5211.059	5249.021	---	---
	Ant1	5755	38.122	5735.979	5774.101	---	---
	Ant1	5795	38.122	5775.979	5814.101	---	---
11AX80MIMO	Ant1	5210	77.682	5171.319	5249.001	---	---
	Ant1	5775	78.002	5736.159	5814.161	---	---

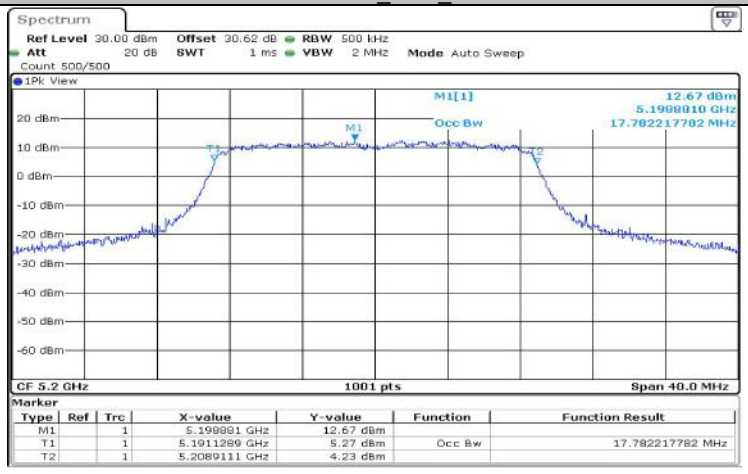
Note: the device will not operate with any part of OBW fall within 5250-5350MHz and 5470-5725MHz range.

Test Graphs

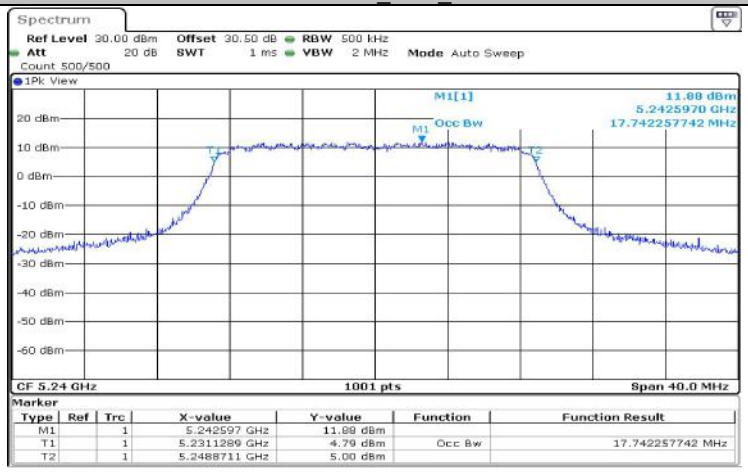
11N20MIMO_Ant1_5180



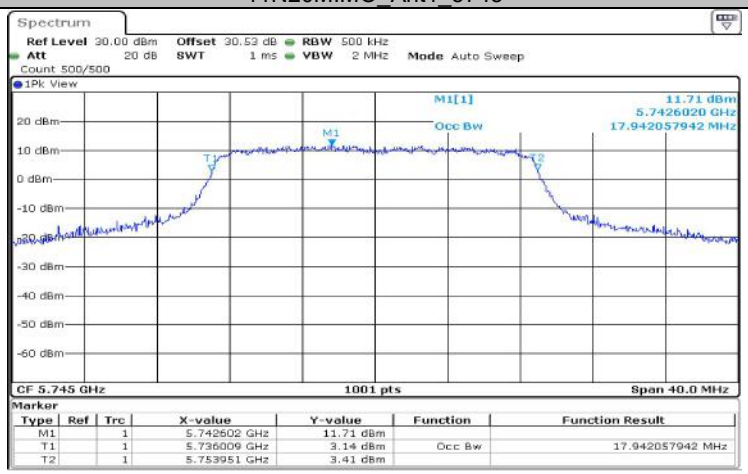
11N20MIMO_Ant1_5200



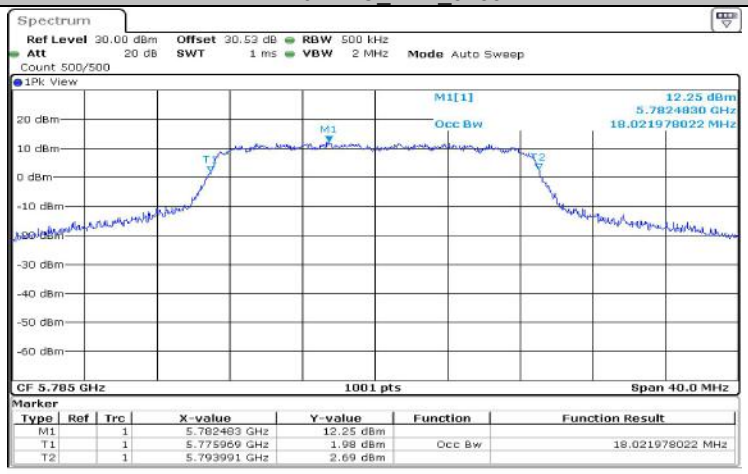
11N20MIMO_Ant1_5240



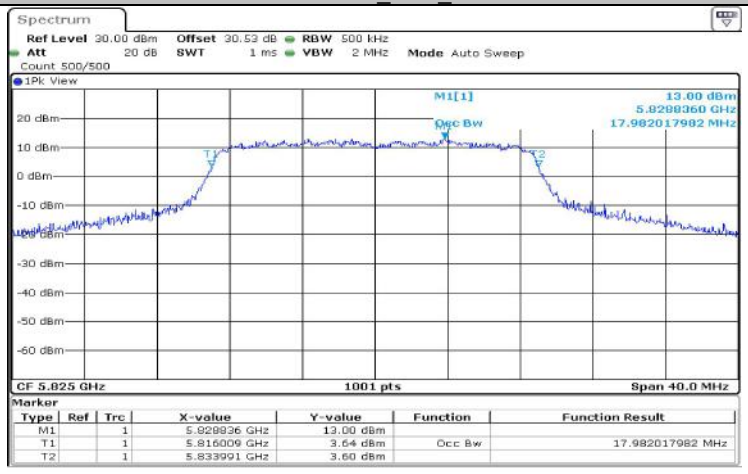
11N20MIMO_Ant1_5745



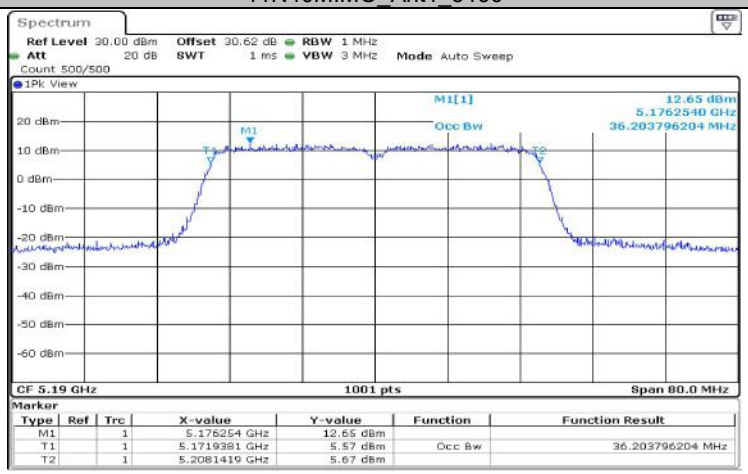
11N20MIMO_Ant1_5785



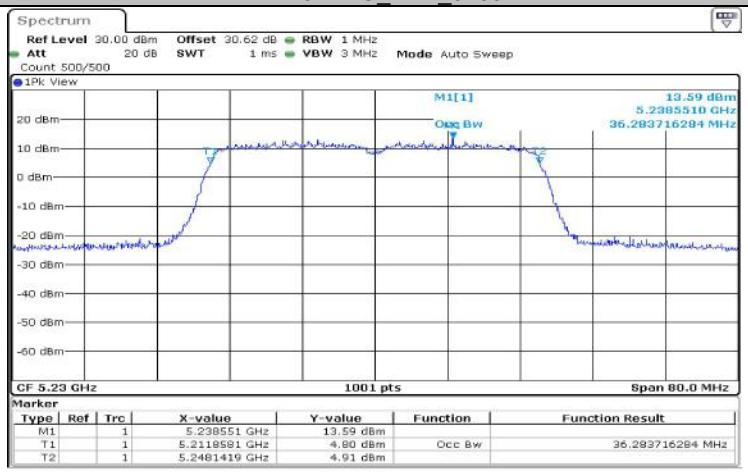
11N20MIMO_Ant1_5825



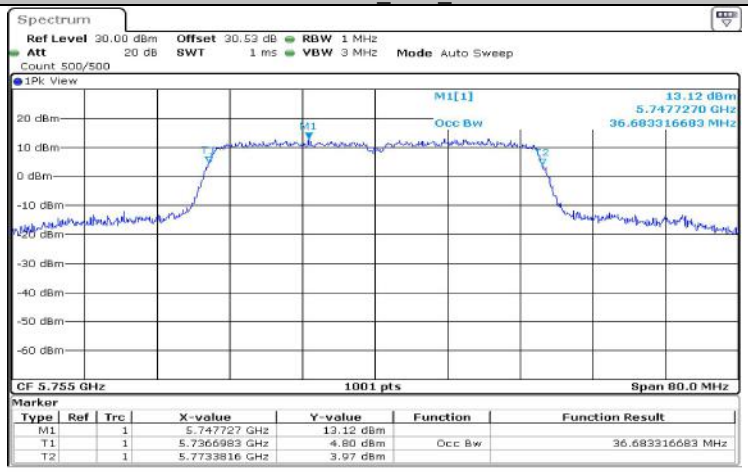
11N40MIMO_Ant1_5190



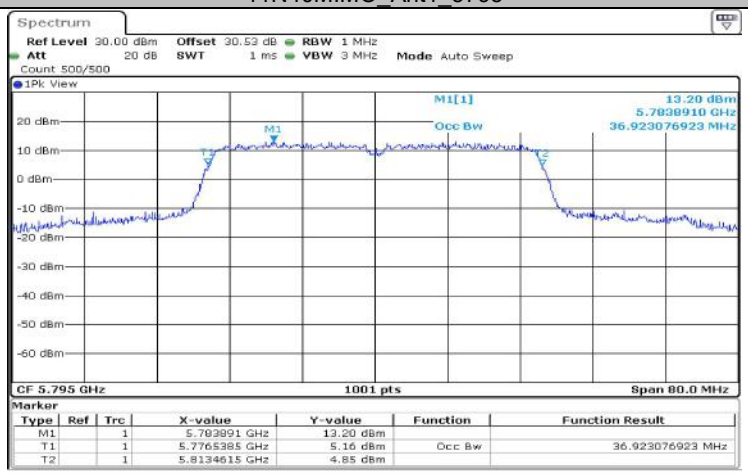
11N40MIMO_Ant1_5230



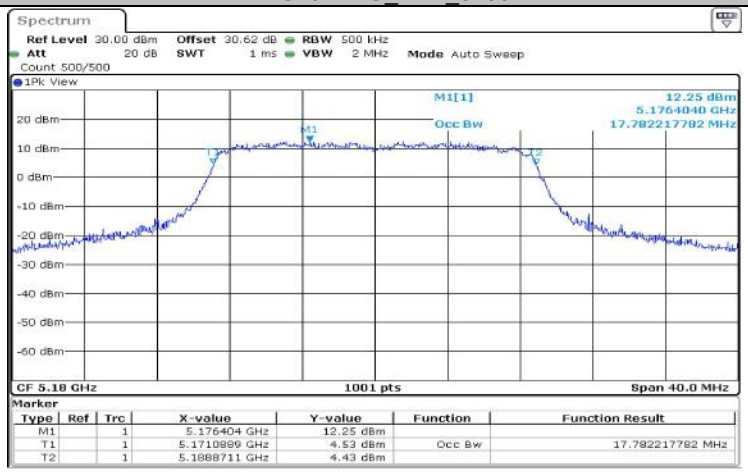
11N40MIMO_Ant1_5755



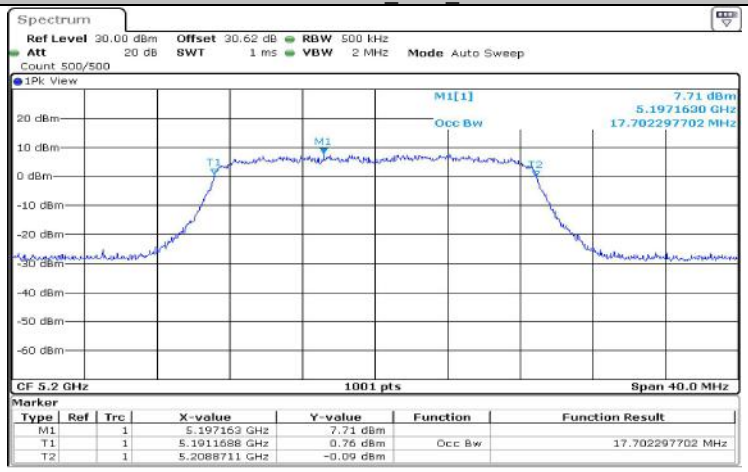
11N40MIMO_Ant1_5795



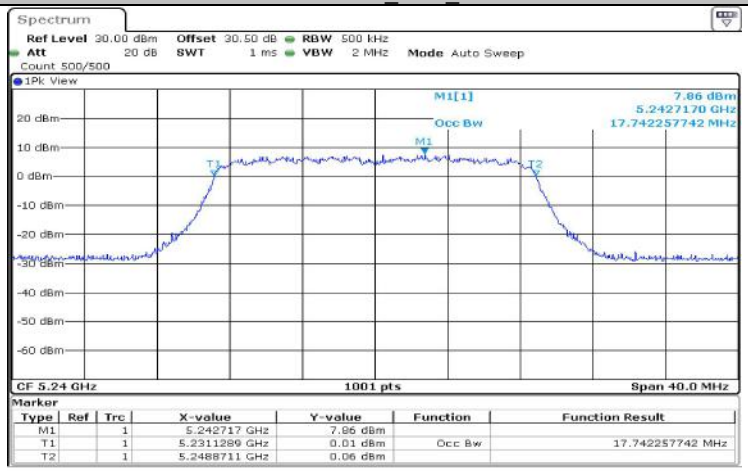
11AC20MIMO_Ant1_5180



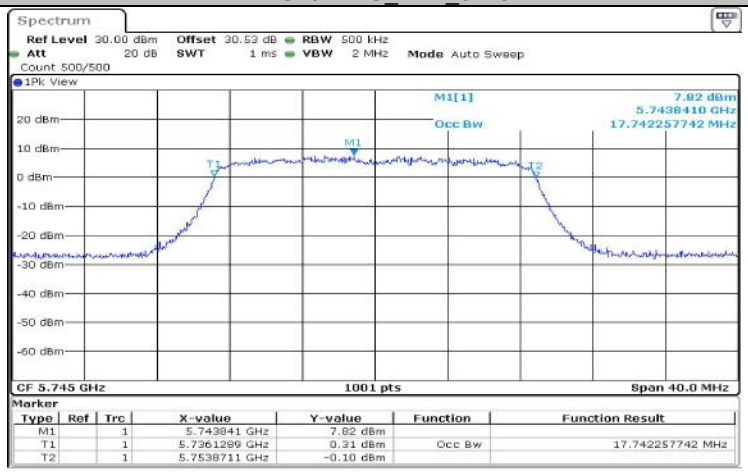
11AC20MIMO_Ant1_5200



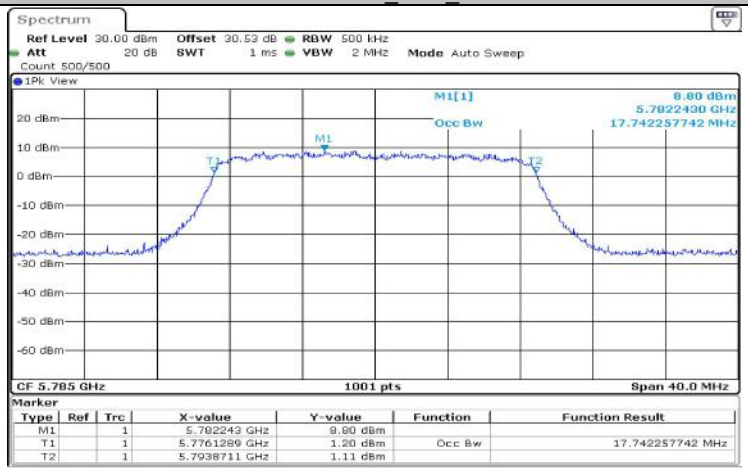
11AC20MIMO_Ant1_5240



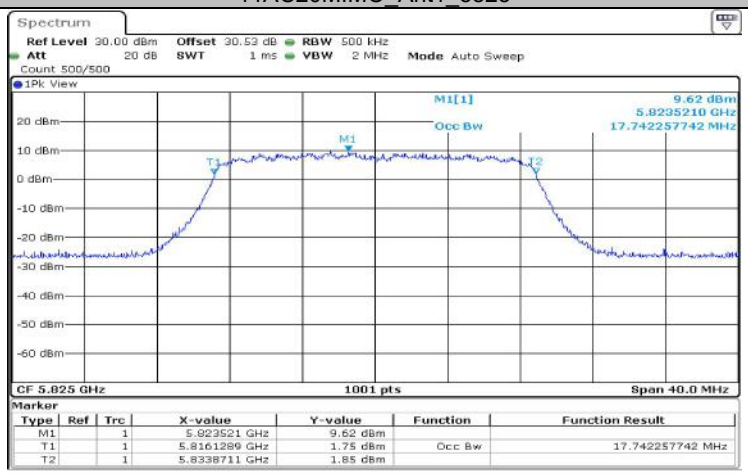
11AC20MIMO_Ant1_5745



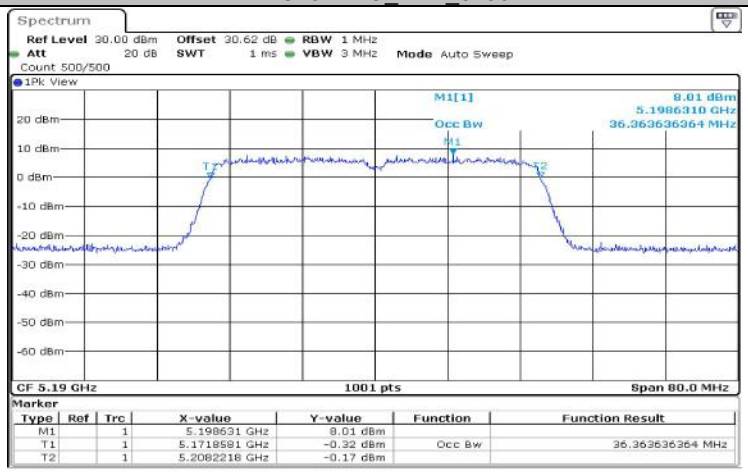
11AC20MIMO_Ant1_5785



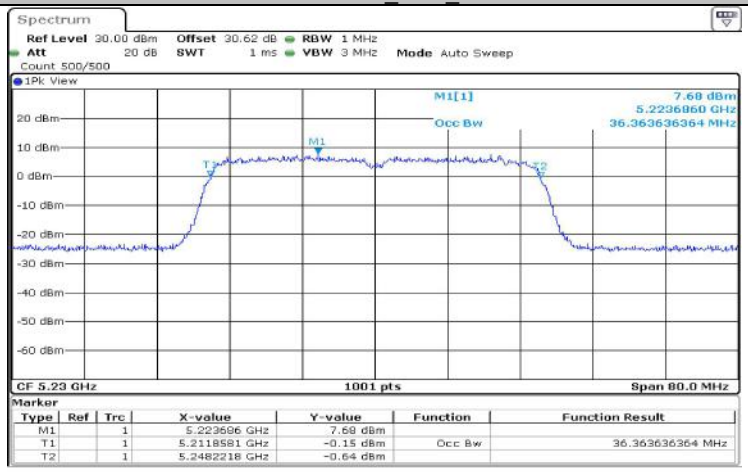
11AC20MIMO_Ant1_5825



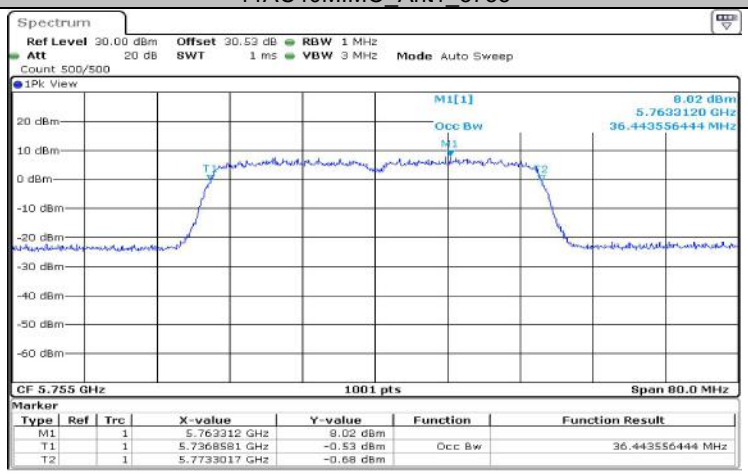
11AC40MIMO_Ant1_5190



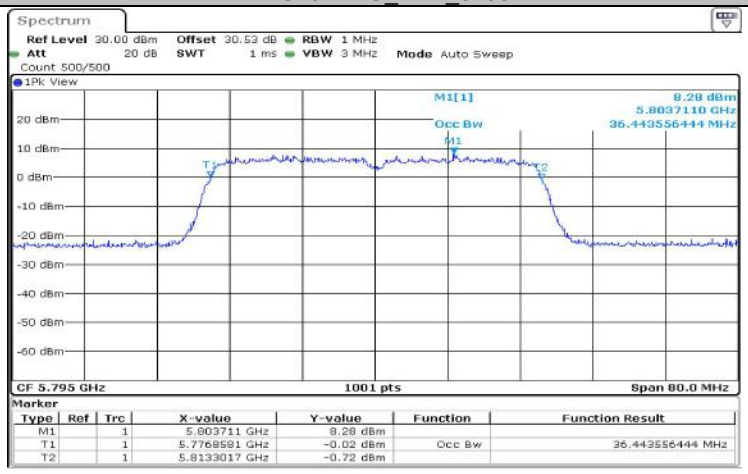
11AC40MIMO_Ant1_5230



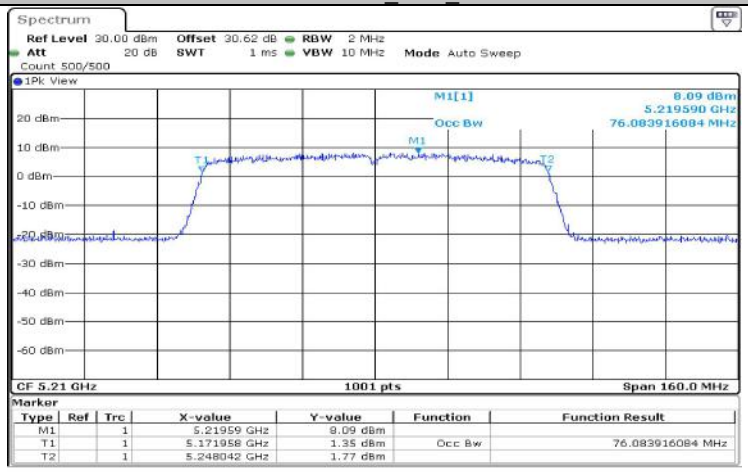
11AC40MIMO_Ant1_5755



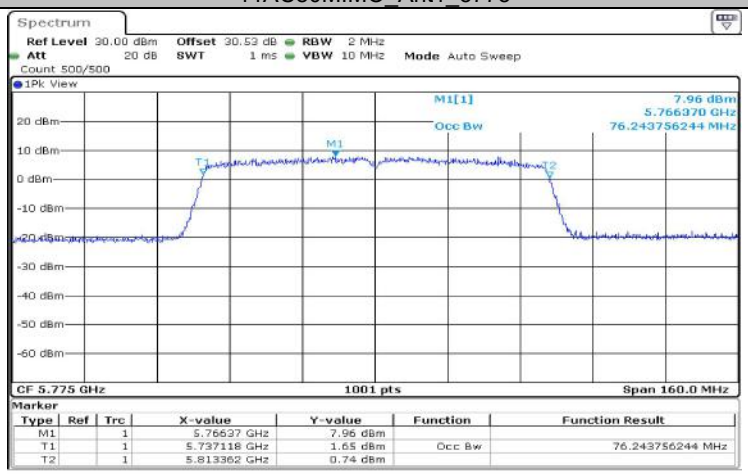
11AC40MIMO_Ant1_5795



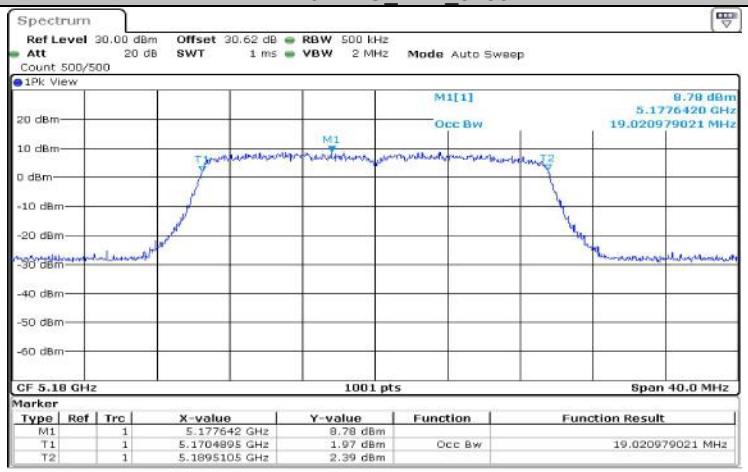
11AC80MIMO_Ant1_5210



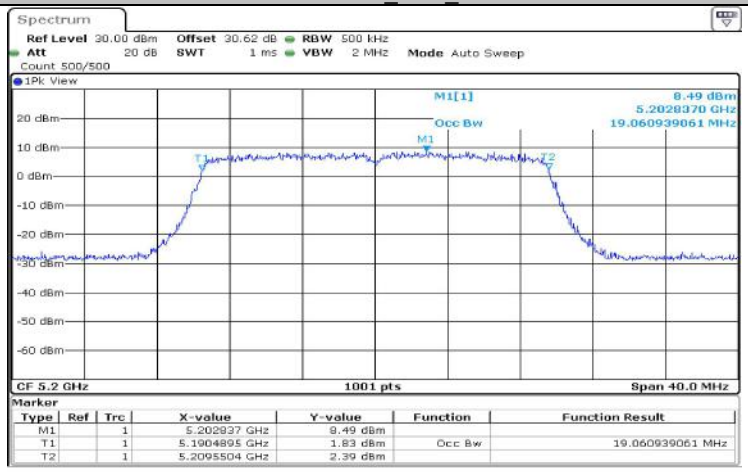
11AC80MIMO_Ant1_5775



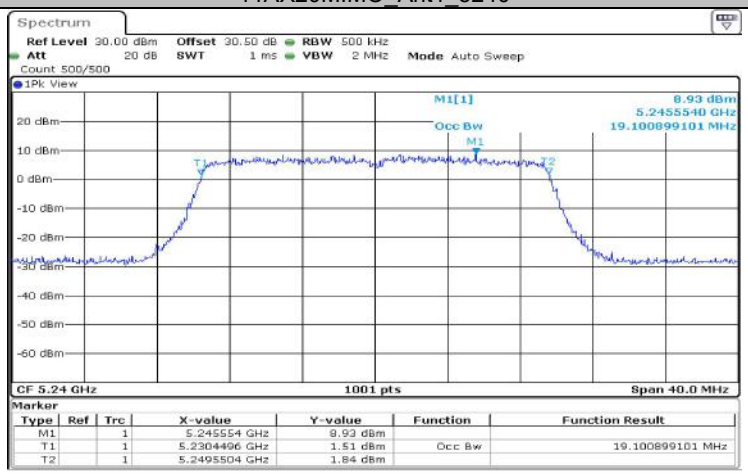
11AX20MIMO_Ant1_5180



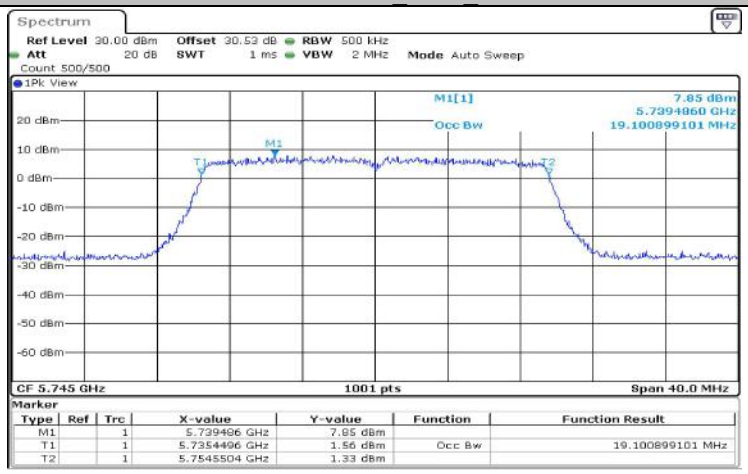
11AX20MIMO_Ant1_5200



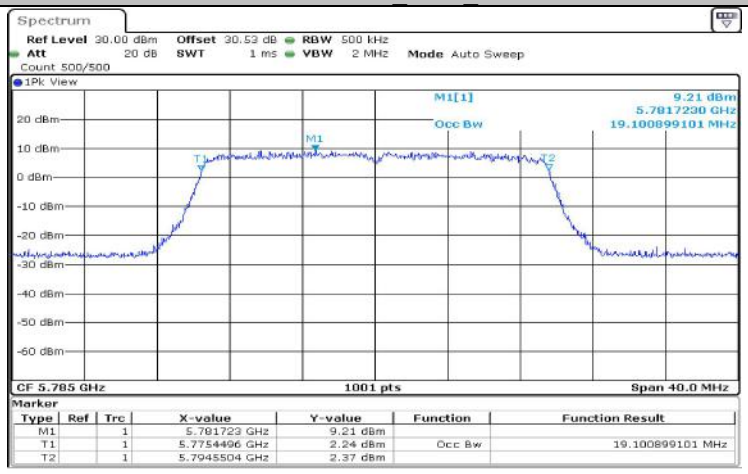
11AX20MIMO_Ant1_5240



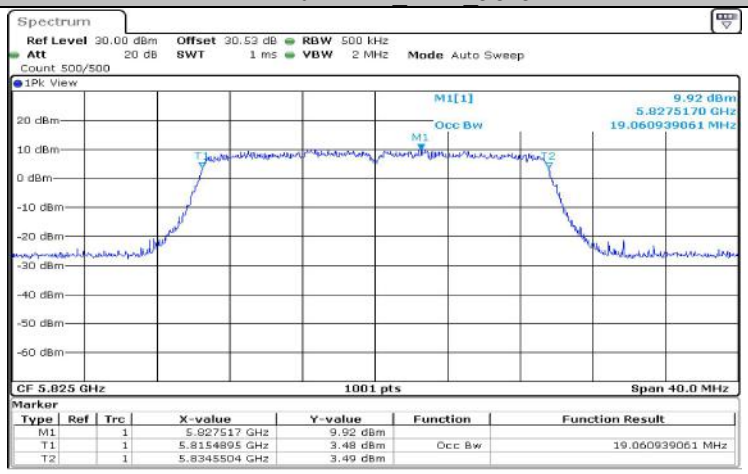
11AX20MIMO_Ant1_5745



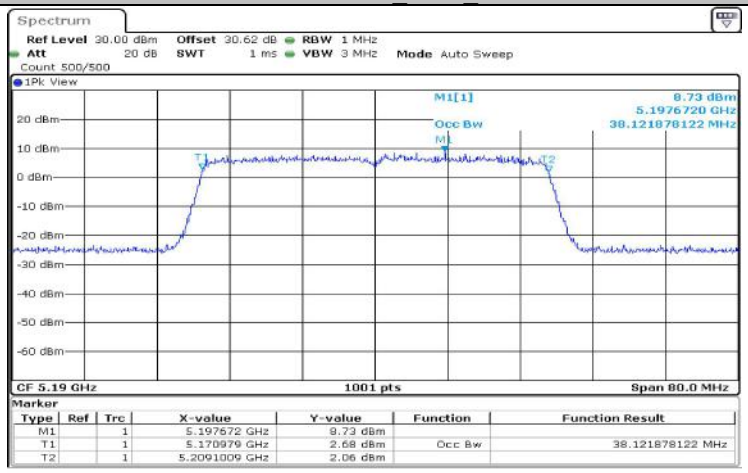
11AX20MIMO_Ant1_5785



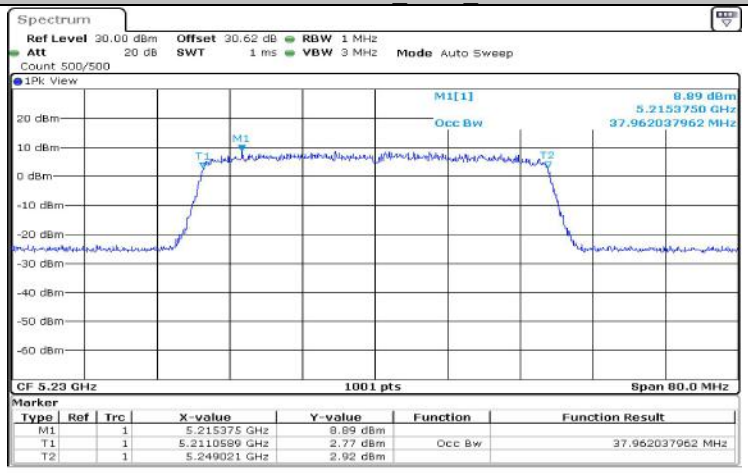
11AX20MIMO_Ant1_5825



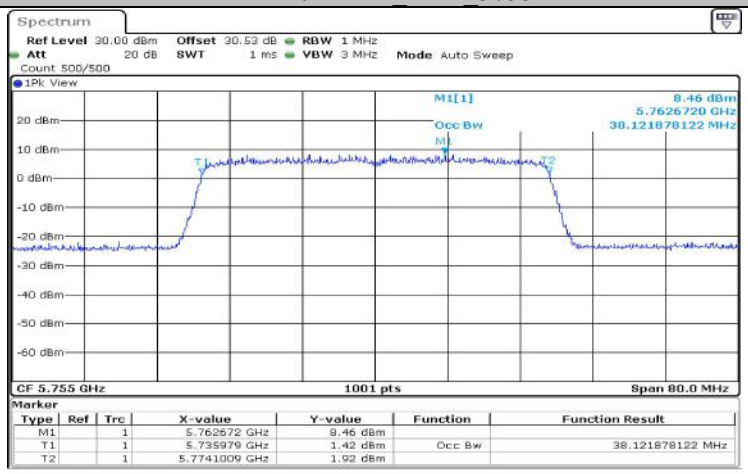
11AX40MIMO_Ant1_5190



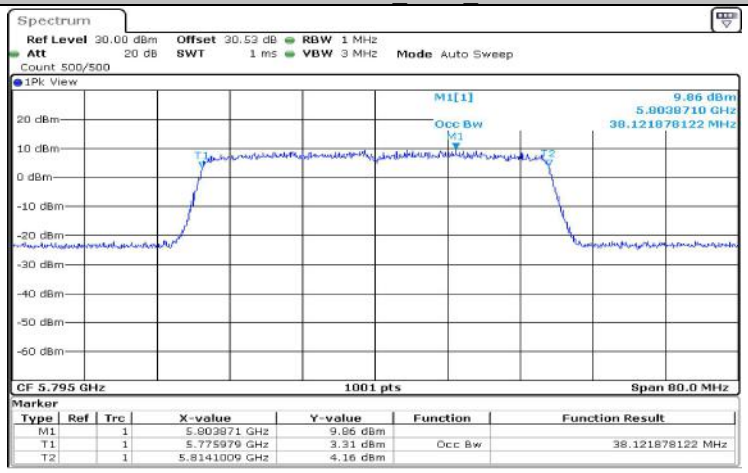
11AX40MIMO_Ant1_5230



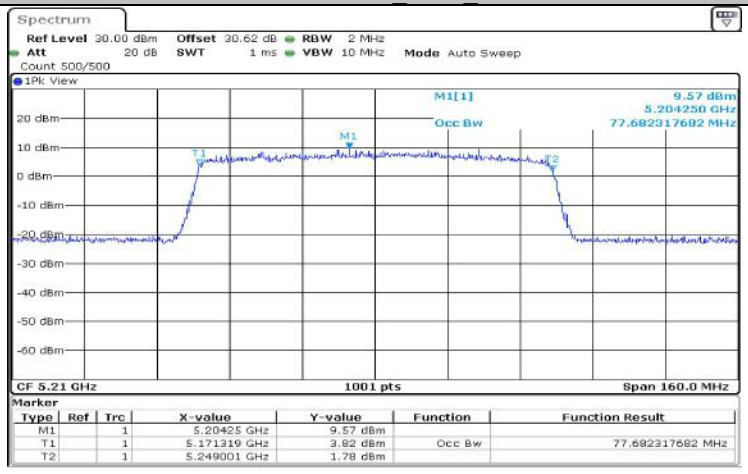
11AX40MIMO_Ant1_5755



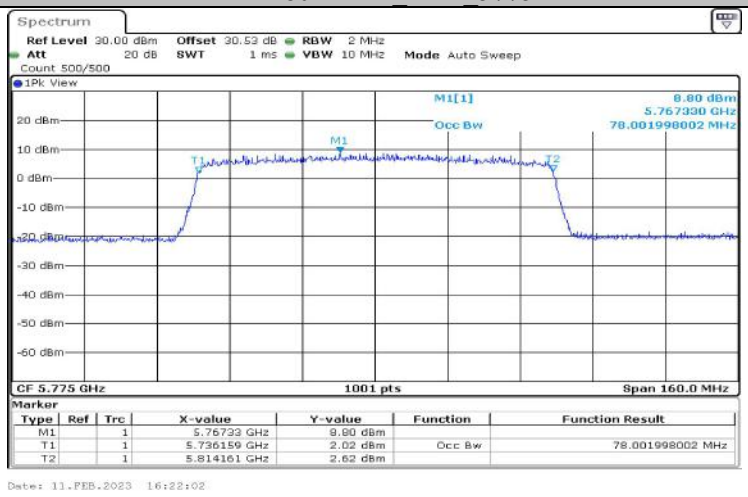
11AX40MIMO_Ant1_5795



11AX80MIMO_Ant1_5210



11AX80MIMO_Ant1_5775



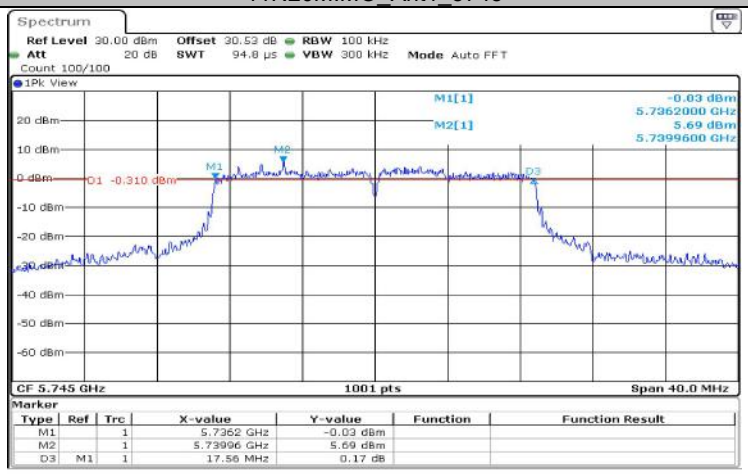
Appendix A3: Min emission bandwidth

Test Result

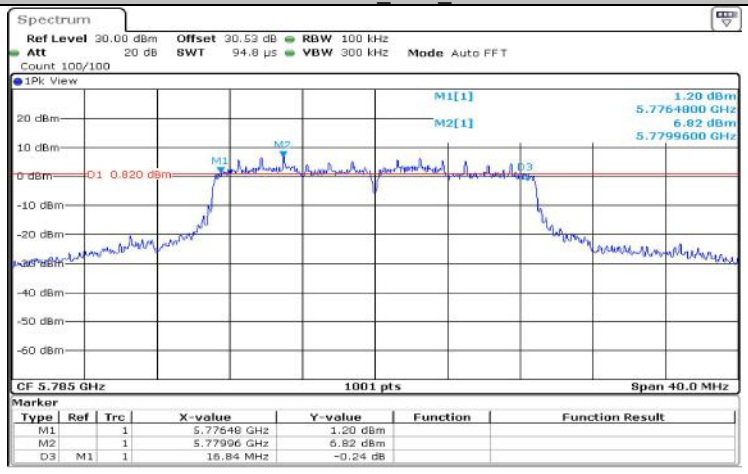
Test Mode	Antenna	Frequency[MHz]	6db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11N20MIMO	Ant1	5745	17.56	5736.20	5753.76	0.5	PASS
	Ant1	5785	16.84	5776.48	5793.32	0.5	PASS
	Ant1	5825	17.56	5816.20	5833.76	0.5	PASS
11N40MIMO	Ant1	5755	36.00	5737.08	5773.08	0.5	PASS
	Ant1	5795	36.48	5776.76	5813.24	0.5	PASS
11AC20MIMO	Ant1	5745	17.24	5736.36	5753.60	0.5	PASS
	Ant1	5785	17.56	5776.20	5793.76	0.5	PASS
	Ant1	5825	17.40	5816.36	5833.76	0.5	PASS
11AC40MIMO	Ant1	5755	36.16	5737.08	5773.24	0.5	PASS
	Ant1	5795	35.92	5777.08	5813.00	0.5	PASS
11AC80MIMO	Ant1	5775	75.04	5737.56	5812.60	0.5	PASS
11AX20MIMO	Ant1	5745	18.92	5735.56	5754.48	0.5	PASS
	Ant1	5785	17.56	5776.00	5793.56	0.5	PASS
	Ant1	5825	18.56	5815.76	5834.32	0.5	PASS
11AX40MIMO	Ant1	5755	37.92	5736.04	5773.96	0.5	PASS
	Ant1	5795	37.76	5776.04	5813.80	0.5	PASS
11AX80MIMO	Ant1	5775	76.64	5742.36	5812.60	0.5	PASS

Test Graphs

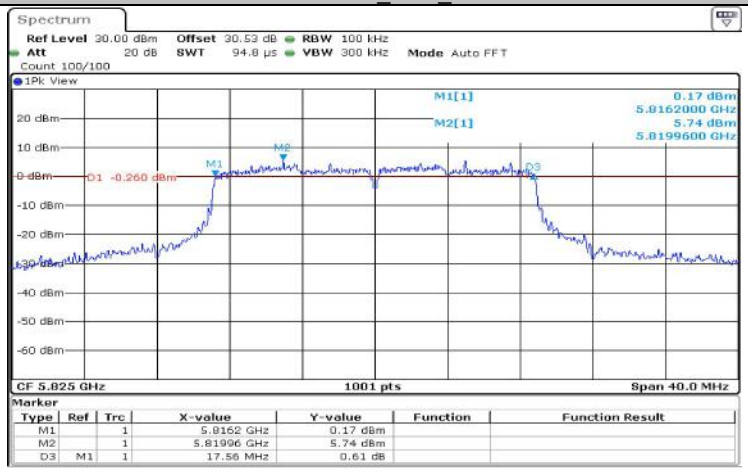
11N20MIMO_Ant1_5745



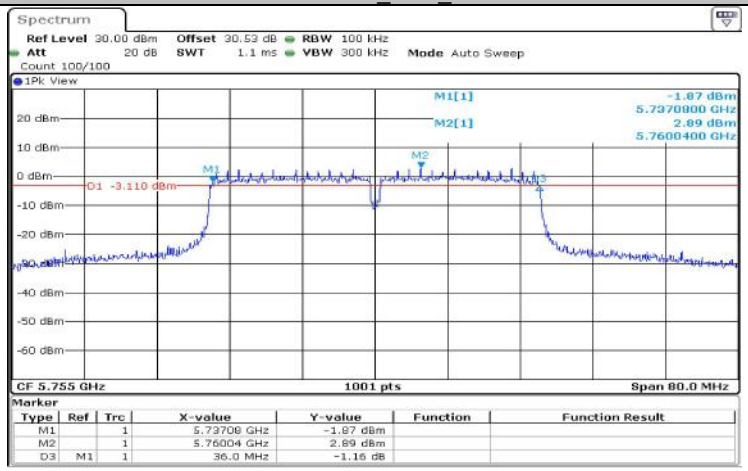
11N20MIMO_Ant1_5785



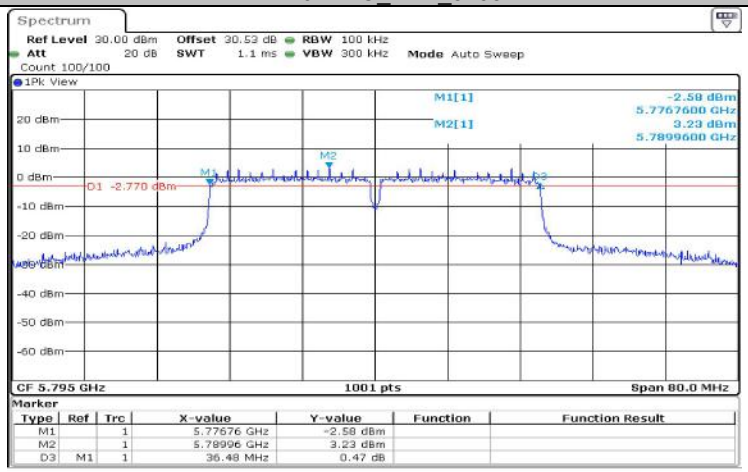
11N20MIMO_Ant1_5825



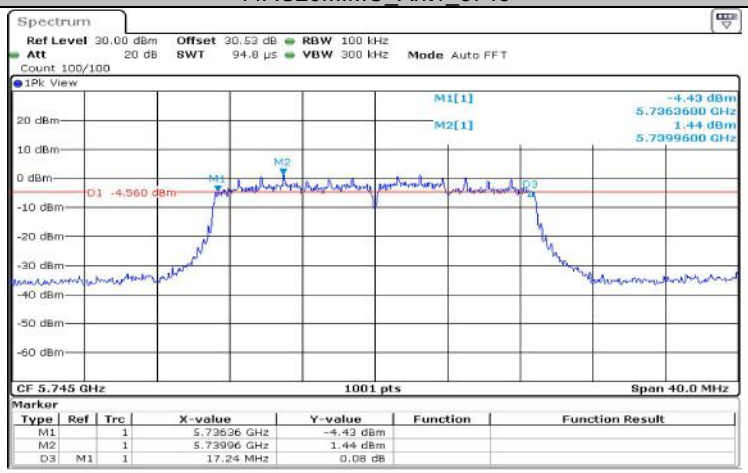
11N40MIMO_Ant1_5755



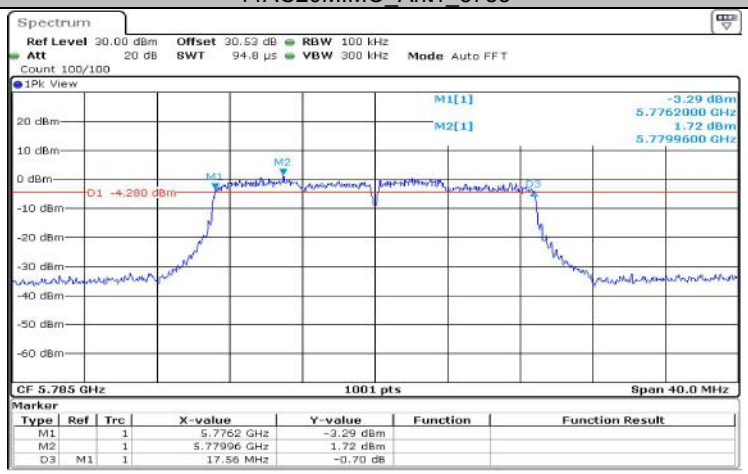
11N40MIMO_Ant1_5795



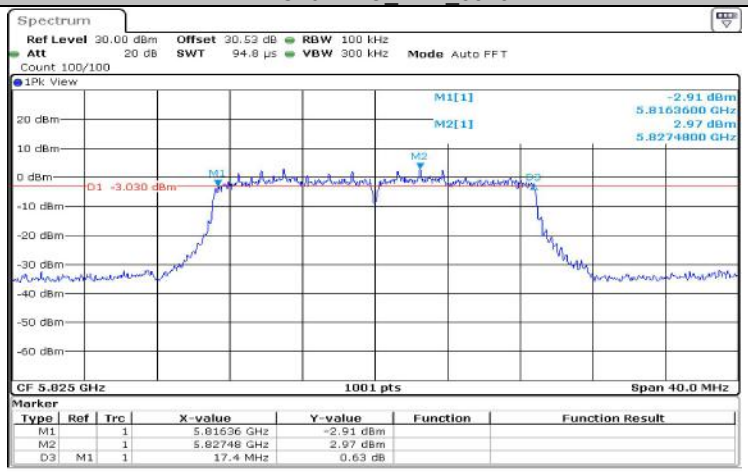
11AC20MIMO_Ant1_5745



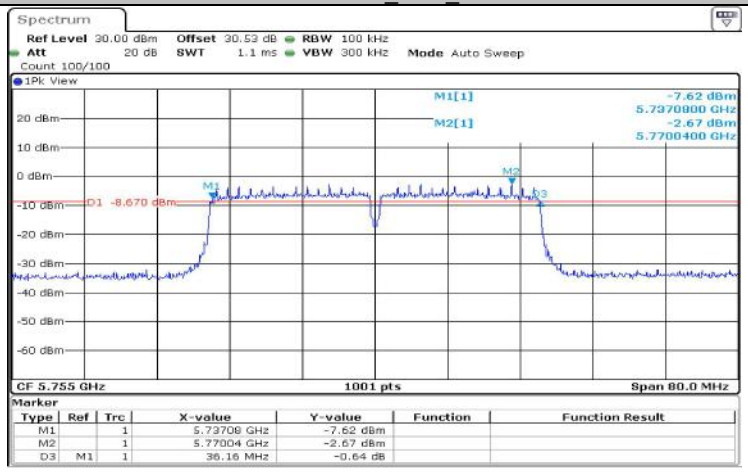
11AC20MIMO_Ant1_5785



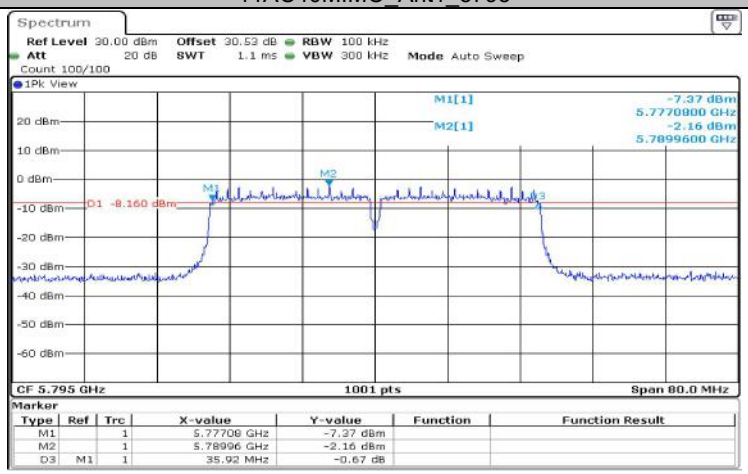
11AC20MIMO_Ant1_5825



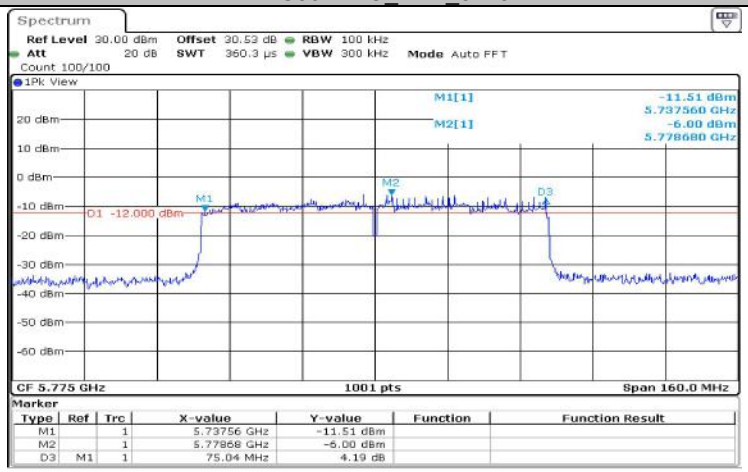
11AC40MIMO_Ant1_5755



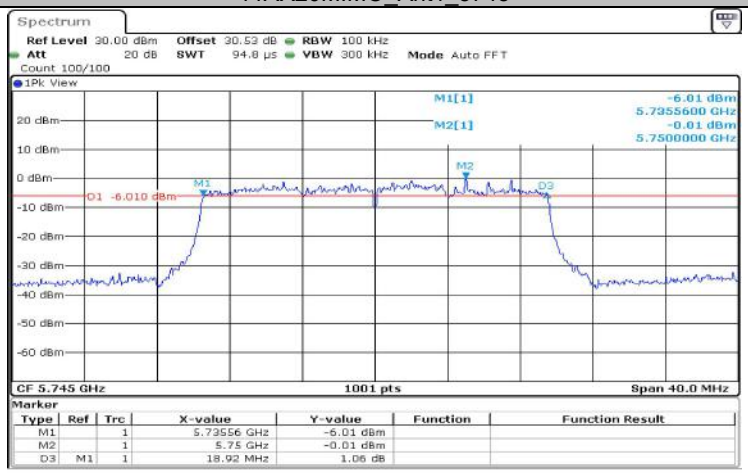
11AC40MIMO_Ant1_5795



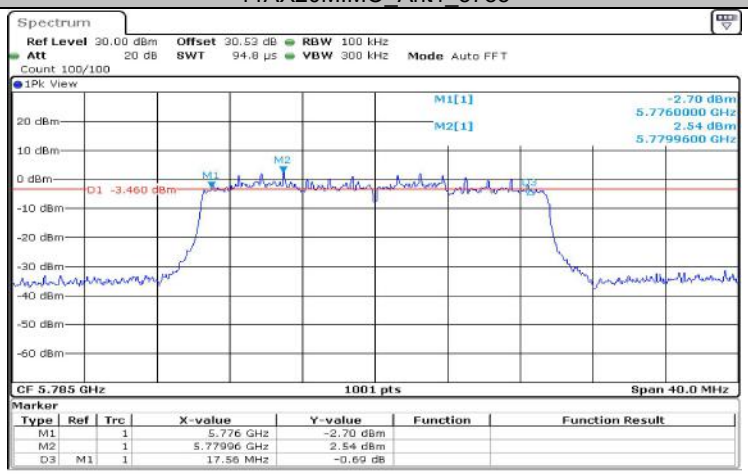
11AC80MIMO_Ant1_5775



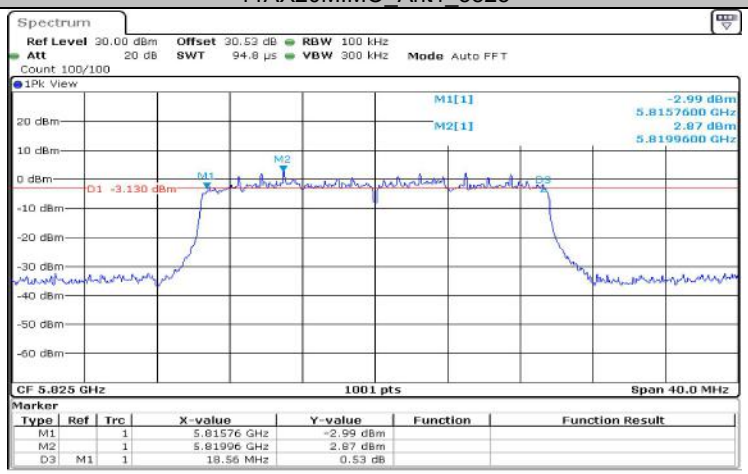
11AX20MIMO_Ant1_5745



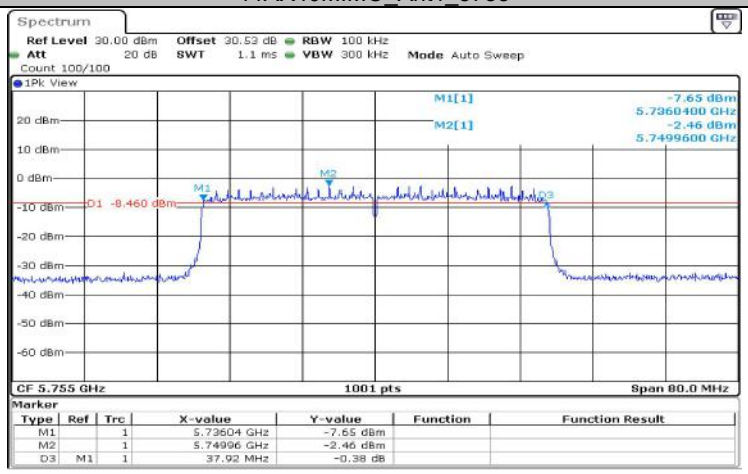
11AX20MIMO_Ant1_5785



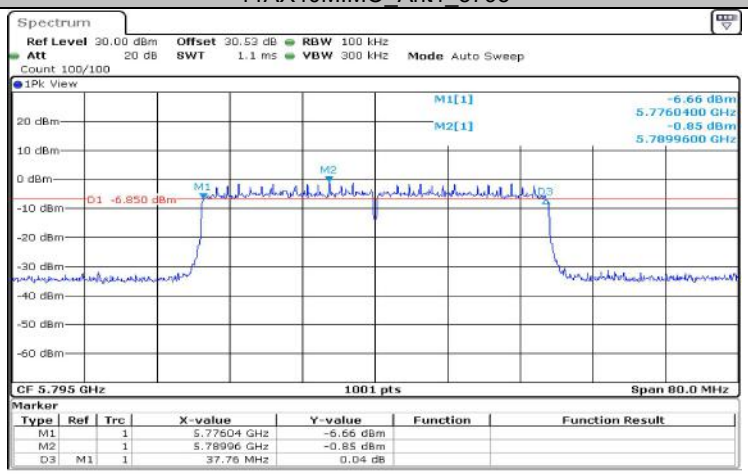
11AX20MIMO_Ant1_5825



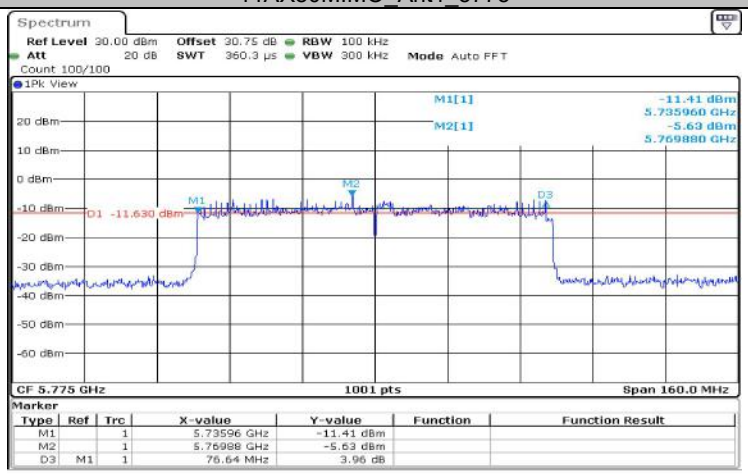
11AX40MIMO_Ant1_5755



11AX40MIMO_Ant1_5795



11AX80MIMO_Ant1_5775



Appendix B: Maximum conducted output power

Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11N20MIMO	Ant1	5180	17.19	≤30.00	PASS
	Ant2	5180	17.54	≤30.00	PASS
	total	5180	20.38	≤30.00	PASS
	Ant1	5200	17.08	≤30.00	PASS
	Ant2	5200	17.52	≤30.00	PASS
	total	5200	20.32	≤30.00	PASS
	Ant1	5240	16.81	≤30.00	PASS
	Ant2	5240	17.43	≤30.00	PASS
	total	5240	20.14	≤30.00	PASS
	Ant1	5745	16.62	≤30.00	PASS
	Ant2	5745	15.82	≤30.00	PASS
	total	5745	19.25	≤30.00	PASS
	Ant1	5785	16.91	≤30.00	PASS
	Ant2	5785	16.02	≤30.00	PASS
	total	5785	19.50	≤30.00	PASS
	Ant1	5825	17.55	≤30.00	PASS
	Ant2	5825	16.53	≤30.00	PASS
	total	5825	20.08	≤30.00	PASS
11N40MIMO	Ant1	5190	16.36	≤30.00	PASS
	Ant2	5190	16.86	≤30.00	PASS
	total	5190	19.63	≤30.00	PASS
	Ant1	5230	16.41	≤30.00	PASS
	Ant2	5230	17.05	≤30.00	PASS
	total	5230	19.75	≤30.00	PASS
	Ant1	5755	16.92	≤30.00	PASS
	Ant2	5755	16.18	≤30.00	PASS
	total	5755	19.58	≤30.00	PASS
	Ant1	5795	17.14	≤30.00	PASS
	Ant2	5795	16.21	≤30.00	PASS
	total	5795	19.71	≤30.00	PASS
11AC20MIMO	Ant1	5180	12.35	≤30.00	PASS
	Ant2	5180	12.65	≤30.00	PASS
	total	5180	15.51	≤30.00	PASS
	Ant1	5200	12.25	≤30.00	PASS
	Ant2	5200	12.70	≤30.00	PASS
	total	5200	15.49	≤30.00	PASS
	Ant1	5240	12.03	≤30.00	PASS
	Ant2	5240	12.93	≤30.00	PASS
	total	5240	15.51	≤30.00	PASS
	Ant1	5745	12.91	≤30.00	PASS
	Ant2	5745	12.21	≤30.00	PASS
	total	5745	15.58	≤30.00	PASS
	Ant1	5785	13.31	≤30.00	PASS
	Ant2	5785	12.42	≤30.00	PASS
	total	5785	15.90	≤30.00	PASS
	Ant1	5825	13.11	≤30.00	PASS
	Ant2	5825	11.85	≤30.00	PASS
	total	5825	15.54	≤30.00	PASS
11AC40MIMO	Ant1	5190	11.49	≤30.00	PASS
	Ant2	5190	11.69	≤30.00	PASS
	total	5190	14.60	≤30.00	PASS
	Ant1	5230	11.36	≤30.00	PASS
	Ant2	5230	12.19	≤30.00	PASS
	total	5230	14.81	≤30.00	PASS
	Ant1	5755	11.39	≤30.00	PASS

	Ant2	5755	10.58	≤30.00	PASS
	total	5755	14.01	≤30.00	PASS
	Ant1	5795	11.71	≤30.00	PASS
	Ant2	5795	10.54	≤30.00	PASS
	total	5795	14.17	≤30.00	PASS
11AC80MIMO	Ant1	5210	11.47	≤30.00	PASS
	Ant2	5210	11.94	≤30.00	PASS
	total	5210	14.72	≤30.00	PASS
	Ant1	5775	12.11	≤30.00	PASS
	Ant2	5775	11.44	≤30.00	PASS
	total	5775	14.80	≤30.00	PASS
11AX20MIMO	Ant1	5180	12.56	≤30.00	PASS
	Ant2	5180	12.71	≤30.00	PASS
	total	5180	15.65	≤30.00	PASS
	Ant1	5200	12.47	≤30.00	PASS
	Ant2	5200	12.76	≤30.00	PASS
	total	5200	15.63	≤30.00	PASS
	Ant1	5240	12.20	≤30.00	PASS
	Ant2	5240	12.98	≤30.00	PASS
	total	5240	15.62	≤30.00	PASS
	Ant1	5745	12.35	≤30.00	PASS
	Ant2	5745	11.36	≤30.00	PASS
	total	5745	14.89	≤30.00	PASS
	Ant1	5785	12.91	≤30.00	PASS
	Ant2	5785	11.50	≤30.00	PASS
	total	5785	15.27	≤30.00	PASS
	Ant1	5825	13.54	≤30.00	PASS
	Ant2	5825	11.97	≤30.00	PASS
	total	5825	15.84	≤30.00	PASS
11AX40MIMO	Ant1	5190	12.49	≤30.00	PASS
	Ant2	5190	12.72	≤30.00	PASS
	total	5190	15.62	≤30.00	PASS
	Ant1	5230	12.60	≤30.00	PASS
	Ant2	5230	13.20	≤30.00	PASS
	total	5230	15.92	≤30.00	PASS
	Ant1	5755	11.41	≤30.00	PASS
	Ant2	5755	10.52	≤30.00	PASS
	total	5755	14.00	≤30.00	PASS
	Ant1	5795	11.79	≤30.00	PASS
	Ant2	5795	10.46	≤30.00	PASS
	total	5795	14.19	≤30.00	PASS
11AX80MIMO	Ant1	5210	12.69	≤30.00	PASS
	Ant2	5210	12.99	≤30.00	PASS
	total	5210	15.85	≤30.00	PASS
	Ant1	5775	11.56	≤30.00	PASS
	Ant2	5775	10.27	≤30.00	PASS
	total	5775	13.97	≤30.00	PASS

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

Note 2: The EUT employ CDD for MIMO

Directional Gain = G_{ANT} + *Array Gain*

For Output Power Measurement, *Array Gain* = 0dB for $N_{ANT} \leqslant 4$

G_{ANT1} = 2.1dBi, G_{ANT2} = 1.9dBi, use the higher antenna gain to calculate the worst case:

Directional Gain = 2.1dBi + 0dB = 2.1dBi < 6dBi

Appendix C: Maximum power spectral density

Test Result

Test Mode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11N20MIMO	Ant1	5180	5.80	≤17.00	PASS
	Ant2	5180	6.08	≤17.00	PASS
	total	5180	8.95	≤17.00	PASS
	Ant1	5200	5.79	≤17.00	PASS
	Ant2	5200	6.13	≤17.00	PASS
	total	5200	8.97	≤17.00	PASS
	Ant1	5240	5.58	≤17.00	PASS
	Ant2	5240	6.02	≤17.00	PASS
	total	5240	8.82	≤17.00	PASS
	Ant1	5745	1.71	≤30.00	PASS
	Ant2	5745	1.31	≤30.00	PASS
	total	5745	4.52	≤30.00	PASS
	Ant1	5785	2.30	≤30.00	PASS
	Ant2	5785	1.79	≤30.00	PASS
	total	5785	5.06	≤30.00	PASS
	Ant1	5825	3.38	≤30.00	PASS
	Ant2	5825	2.6	≤30.00	PASS
	total	5825	6.02	≤30.00	PASS
11N40MIMO	Ant1	5190	1.75	≤17.00	PASS
	Ant2	5190	2.30	≤17.00	PASS
	total	5190	5.04	≤17.00	PASS
	Ant1	5230	1.92	≤17.00	PASS
	Ant2	5230	2.58	≤17.00	PASS
	total	5230	5.27	≤17.00	PASS
	Ant1	5755	-0.77	≤30.00	PASS
	Ant2	5755	-0.93	≤30.00	PASS
	total	5755	2.16	≤30.00	PASS
	Ant1	5795	-0.65	≤30.00	PASS
	Ant2	5795	-1.2	≤30.00	PASS
	total	5795	2.09	≤30.00	PASS
11AC20MIMO	Ant1	5180	0.56	≤17.00	PASS
	Ant2	5180	1.44	≤17.00	PASS
	total	5180	4.03	≤17.00	PASS
	Ant1	5200	0.97	≤17.00	PASS
	Ant2	5200	1.28	≤17.00	PASS
	total	5200	4.14	≤17.00	PASS
	Ant1	5240	0.51	≤17.00	PASS
	Ant2	5240	1.31	≤17.00	PASS
	total	5240	3.94	≤17.00	PASS
	Ant1	5745	-1.73	≤30.00	PASS
	Ant2	5745	-2.12	≤30.00	PASS
	total	5745	1.09	≤30.00	PASS
	Ant1	5785	-0.81	≤30.00	PASS
	Ant2	5785	-2.1	≤30.00	PASS
	total	5785	1.60	≤30.00	PASS
	Ant1	5825	-1.22	≤30.00	PASS
	Ant2	5825	-2	≤30.00	PASS
	total	5825	1.42	≤30.00	PASS
11AC40MIMO	Ant1	5190	-3.18	≤17.00	PASS
	Ant2	5190	-2.89	≤17.00	PASS
	total	5190	-0.02	≤17.00	PASS
	Ant1	5230	-3.08	≤17.00	PASS
	Ant2	5230	-2.23	≤17.00	PASS
	total	5230	0.38	≤17.00	PASS
	Ant1	5755	-6.09	≤30.00	PASS

	Ant2	5755	-6.97	≤30.00	PASS
	total	5755	-3.50	≤30.00	PASS
	Ant1	5795	-6.04	≤30.00	PASS
	Ant2	5795	-6.83	≤30.00	PASS
	total	5795	-3.41	≤30.00	PASS
11AC80MIMO	Ant1	5210	-5.72	≤17.00	PASS
	Ant2	5210	-5.32	≤17.00	PASS
	total	5210	-2.51	≤17.00	PASS
	Ant1	5775	-8.44	≤30.00	PASS
	Ant2	5775	-8.83	≤30.00	PASS
	total	5775	-5.62	≤30.00	PASS
11AX20MIMO	Ant1	5180	0.95	≤17.00	PASS
	Ant2	5180	1.27	≤17.00	PASS
	total	5180	4.12	≤17.00	PASS
	Ant1	5200	0.72	≤17.00	PASS
	Ant2	5200	1.21	≤17.00	PASS
	total	5200	3.98	≤17.00	PASS
	Ant1	5240	0.41	≤17.00	PASS
	Ant2	5240	1.43	≤17.00	PASS
	total	5240	3.96	≤17.00	PASS
	Ant1	5745	-1.93	≤30.00	PASS
	Ant2	5745	-2.59	≤30.00	PASS
	total	5745	0.76	≤30.00	PASS
	Ant1	5785	-1.26	≤30.00	PASS
	Ant2	5785	-2.55	≤30.00	PASS
	total	5785	1.15	≤30.00	PASS
	Ant1	5825	-1.69	≤30.00	PASS
	Ant2	5825	-2.81	≤30.00	PASS
	total	5825	0.80	≤30.00	PASS
11AX40MIMO	Ant1	5190	-3.06	≤17.00	PASS
	Ant2	5190	-2.03	≤17.00	PASS
	total	5190	0.50	≤17.00	PASS
	Ant1	5230	-2.7	≤17.00	PASS
	Ant2	5230	-1.55	≤17.00	PASS
	total	5230	0.92	≤17.00	PASS
	Ant1	5755	-5.29	≤30.00	PASS
	Ant2	5755	-5.33	≤30.00	PASS
	total	5755	-2.30	≤30.00	PASS
	Ant1	5795	-4.74	≤30.00	PASS
	Ant2	5795	-5.27	≤30.00	PASS
	total	5795	-1.99	≤30.00	PASS
11AX80MIMO	Ant1	5210	-5.4	≤17.00	PASS
	Ant2	5210	-4.52	≤17.00	PASS
	total	5210	-1.93	≤17.00	PASS
	Ant1	5775	-7.52	≤30.00	PASS
	Ant2	5775	-8.2	≤30.00	PASS
	total	5775	-4.84	≤30.00	PASS

Note 1: The Result and Limit Unit is dBm/500 kHz in the band 5.725−5.85 GHz.
Note 2: The Duty Cycle Factor is compensated in the graph.
Note 3: The EUT employ CDD for MIMO,*Directional Gain* = G_{ANT} + *Array Gain*
For PSD Measurement, *Array Gain = 10*logN$_{ANT}$=10*log2=3dB*
G_{ANT1} = 2.1dBi, G_{ANT2} = 1.9dBi, use the higher antenna gain to calculate the worst case:
Directional Gain = 2.1dBi + 3dB = 5.1dBi < 6dBi

Test Graphs

11N20MIMO_Ant1_5180

11N20MIMO_Ant2_5180

11N20MIMO_Ant1_5200

11N20MIMO_Ant2_5200

11N20MIMO_Ant1_5240

11N20MIMO_Ant2_5240

11N20MIMO_Ant1_5745

11N20MIMO_Ant2_5745

11N20MIMO_Ant1_5785

11N20MIMO_Ant2_5785

11N20MIMO_Ant1_5825

11N20MIMO_Ant2_5825

11N40MIMO_Ant1_5190

11N40MIMO_Ant2_5190

11N40MIMO_Ant1_5230

11N40MIMO_Ant2_5230

11N40MIMO_Ant1_5755

11N40MIMO_Ant2_5755

11N40MIMO_Ant1_5795

11N40MIMO_Ant2_5795

11AC20MIMO_Ant1_5180

11AC20MIMO_Ant2_5180

11AC20MIMO_Ant1_5200

11AC20MIMO_Ant2_5200

11AC20MIMO_Ant1_5240

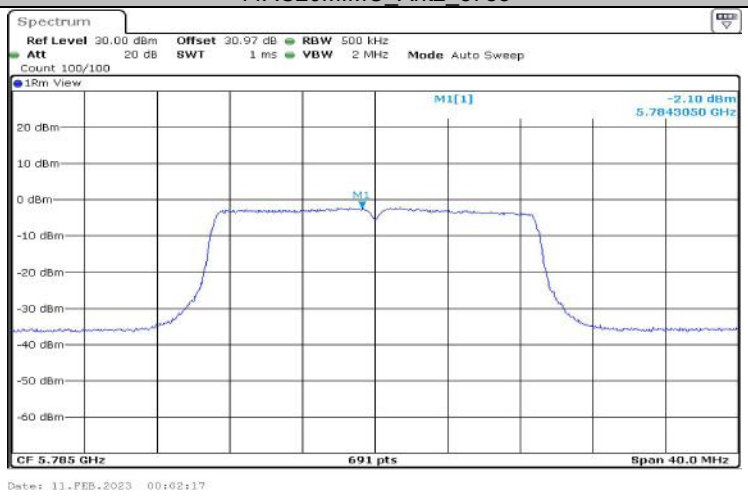
11AC20MIMO_Ant2_5240

11AC20MIMO_Ant1_5745

11AC20MIMO_Ant2_5745

11AC20MIMO_Ant1_5785

11AC20MIMO_Ant2_5785



11AC20MIMO_Ant1_5825

11AC20MIMO_Ant2_5825

11AC40MIMO_Ant1_5190

11AC40MIMO_Ant2_5190

11AC40MIMO_Ant1_5230

11AC40MIMO_Ant2_5230

11AC40MIMO_Ant1_5755

11AC40MIMO_Ant2_5755

11AC40MIMO_Ant1_5795

11AC40MIMO_Ant2_5795

11AC80MIMO_Ant1_5210

11AC80MIMO_Ant2_5210

11AC80MIMO_Ant1_5775

11AC80MIMO_Ant2_5775

11AX20MIMO_Ant1_5180

11AX20MIMO_Ant2_5180

11AX20MIMO_Ant1_5200

11AX20MIMO_Ant2_5200

11AX20MIMO_Ant1_5240

11AX20MIMO_Ant2_5240

11AX20MIMO_Ant1_5745

11AX20MIMO_Ant2_5745

11AX20MIMO_Ant1_5785

11AX20MIMO_Ant2_5785

11AX20MIMO_Ant1_5825

11AX20MIMO_Ant2_5825

11AX40MIMO_Ant1_5190

11AX40MIMO_Ant2_5190

11AX40MIMO_Ant1_5230

11AX40MIMO_Ant2_5230

11AX40MIMO_Ant1_5755

11AX40MIMO_Ant2_5755

11AX40MIMO_Ant1_5795

11AX40MIMO_Ant2_5795

11AX80MIMO_Ant1_5210

11AX80MIMO_Ant2_5210

11AX80MIMO_Ant1_5775

11AX80MIMO_Ant2_5775

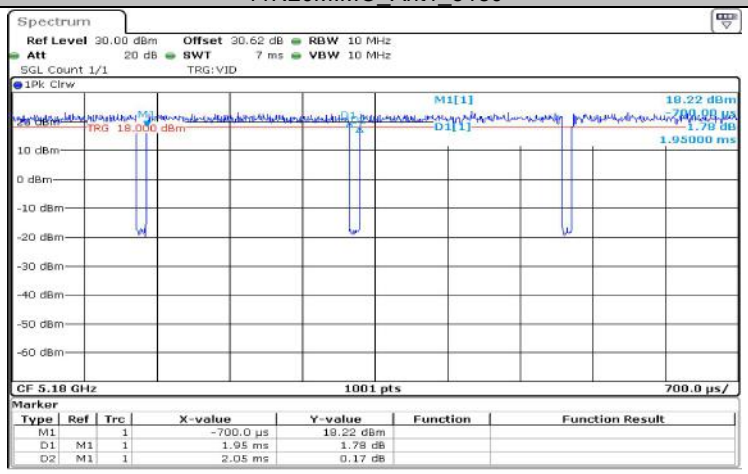

Appendix D: Duty Cycle

Test Result

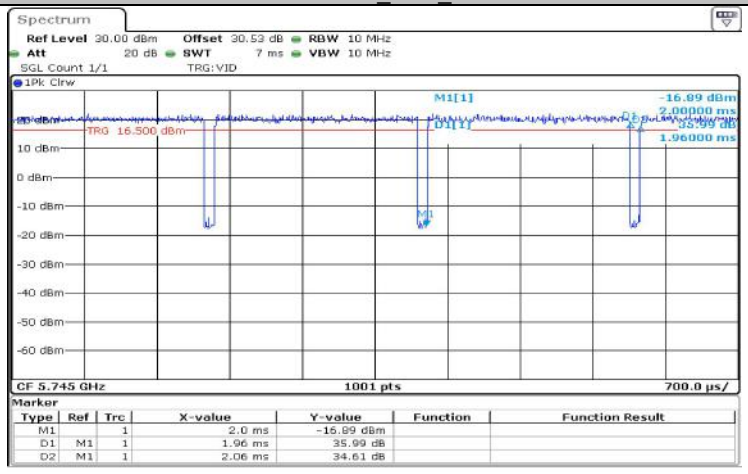
Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11N20MIMO	Ant1	5180	1.95	2.05	95.12
	Ant1	5745	1.96	2.06	95.15
11N40MIMO	Ant1	5190	1.99	2.09	95.22
	Ant1	5755	2.00	2.09	95.69
11AC20MIMO	Ant1	5180	1.95	2.05	95.12
	Ant1	5745	1.96	2.05	95.61
11AC40MIMO	Ant1	5190	2.00	2.09	95.69
	Ant1	5755	2.00	2.10	95.24
11AC80MIMO	Ant1	5210	1.99	2.09	95.22
	Ant1	5775	1.98	2.08	95.19
11AX20MIMO	Ant1	5180	1.96	2.06	95.15
	Ant1	5745	1.96	2.06	95.15
11AX40MIMO	Ant1	5190	1.99	2.09	95.22
	Ant1	5755	1.98	2.08	95.19
11AX80MIMO	Ant1	5210	1.98	2.08	95.19
	Ant1	5775	1.99	2.08	95.67

Test Graphs

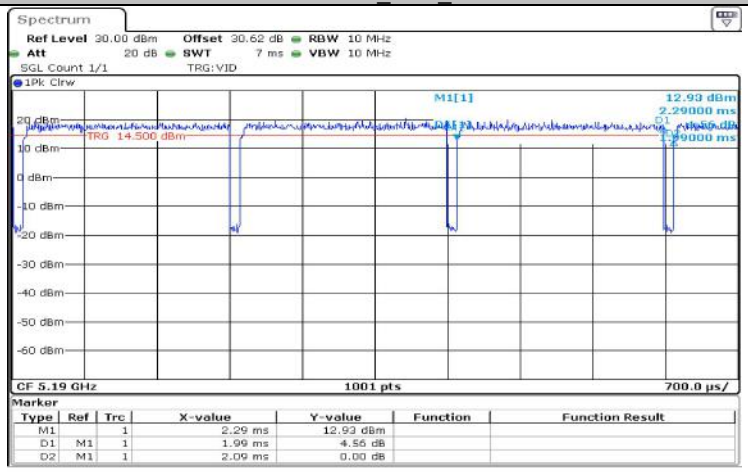
11N20MIMO_Ant1_5180



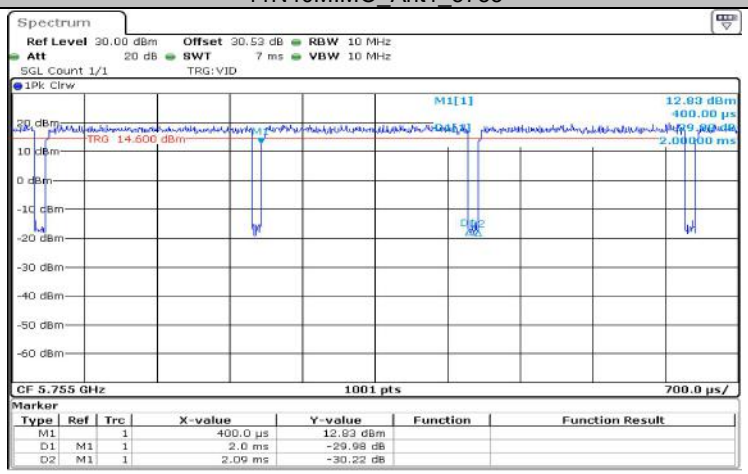
11N20MIMO_Ant1_5745



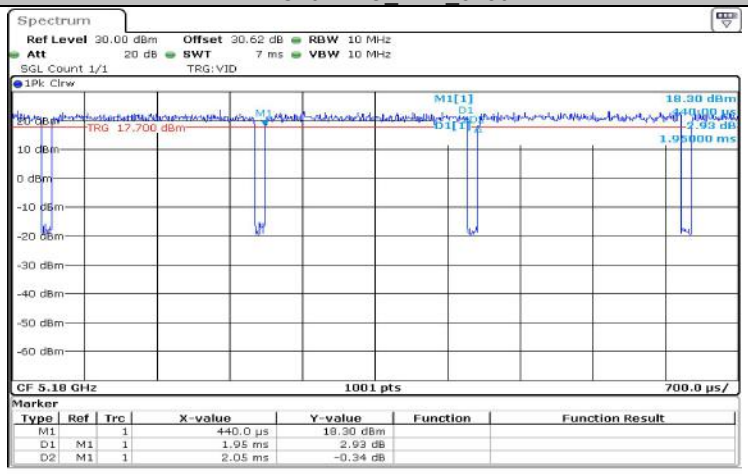
11N40MIMO_Ant1_5190



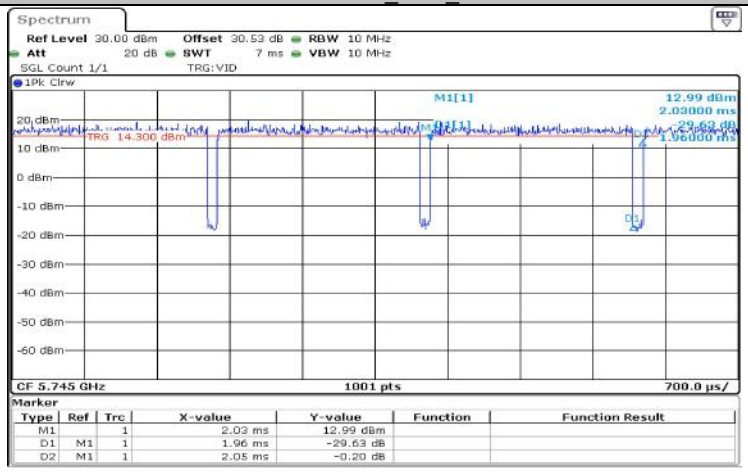
11N40MIMO_Ant1_5755



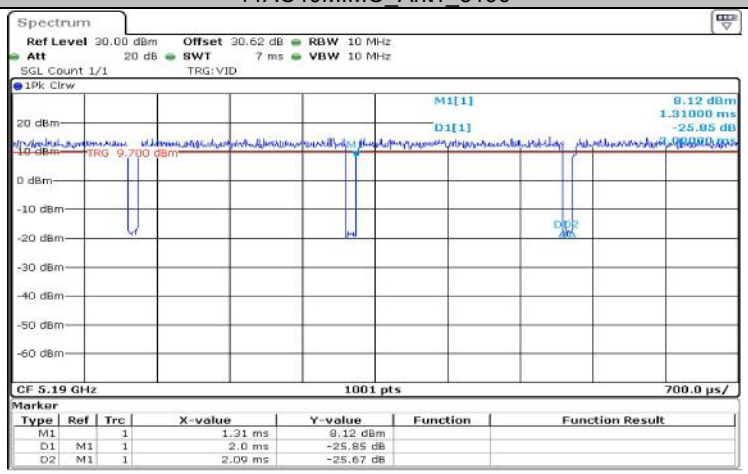
11AC20MIMO_Ant1_5180



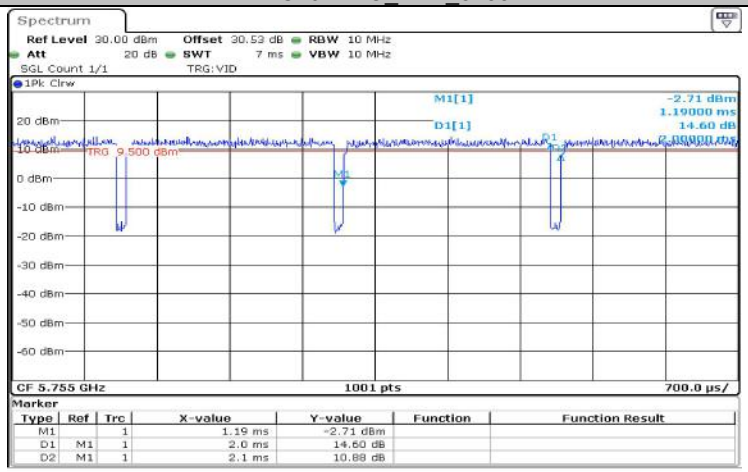
11AC20MIMO_Ant1_5745



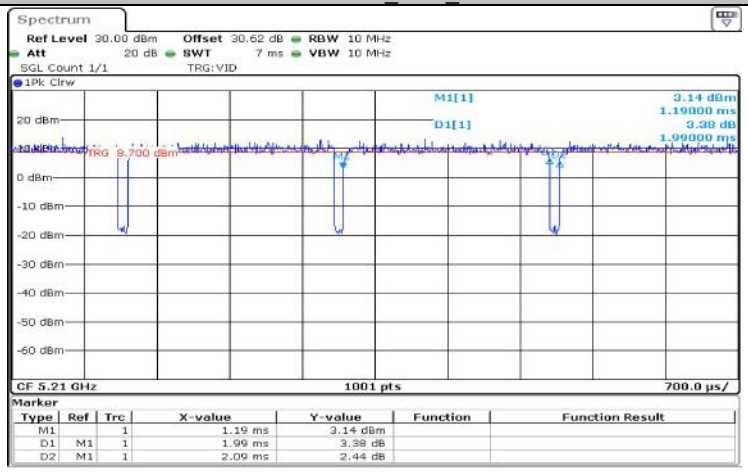
11AC40MIMO_Ant1_5190



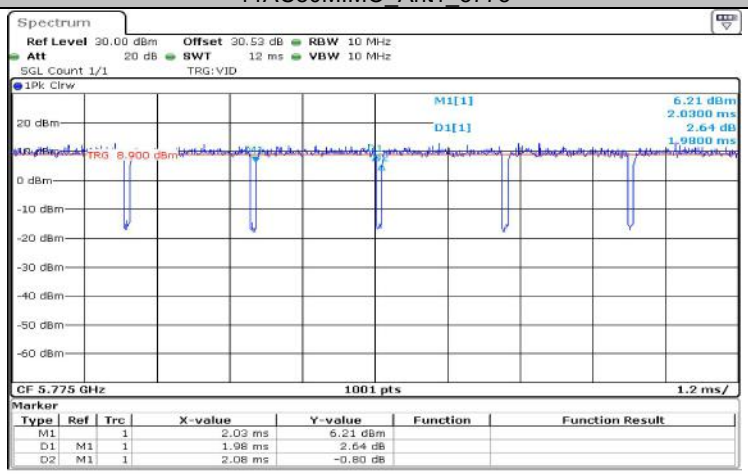
11AC40MIMO_Ant1_5755



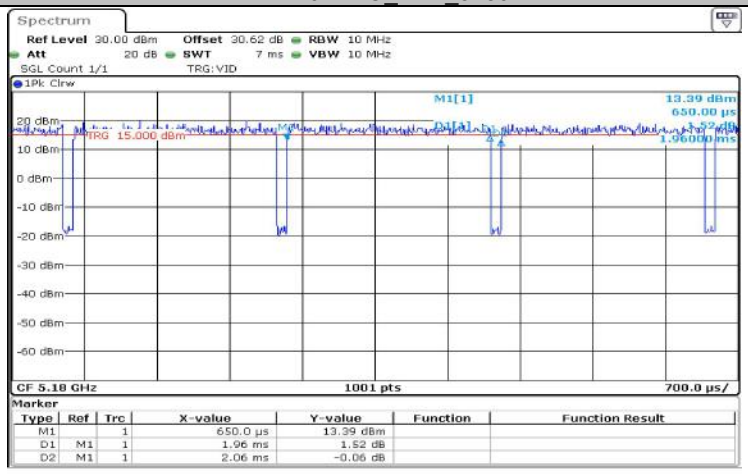
11AC80MIMO_Ant1_5210



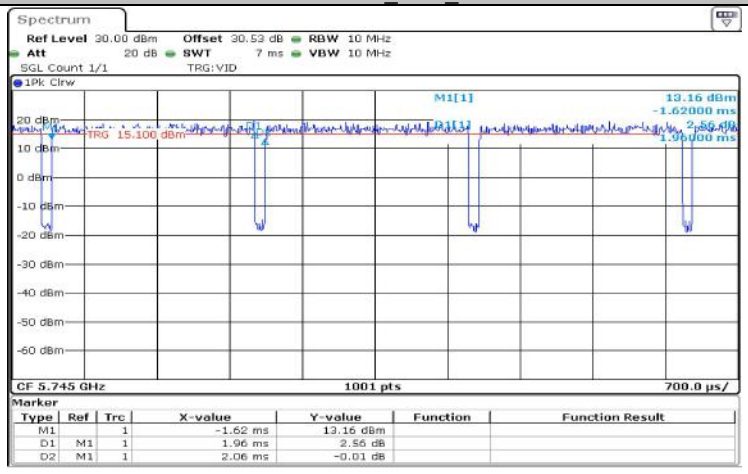
11AC80MIMO_Ant1_5775



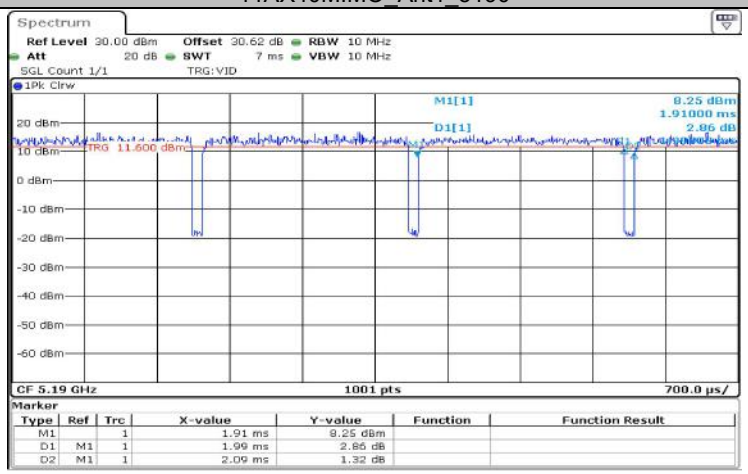
11AX20MIMO_Ant1_5180



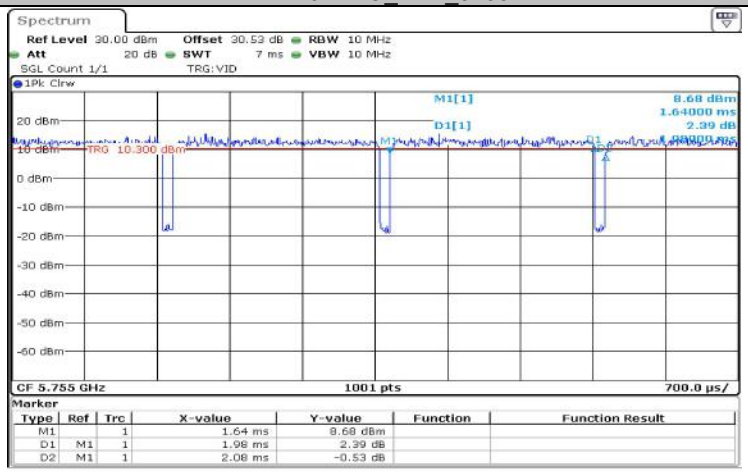
11AX20MIMO_Ant1_5745



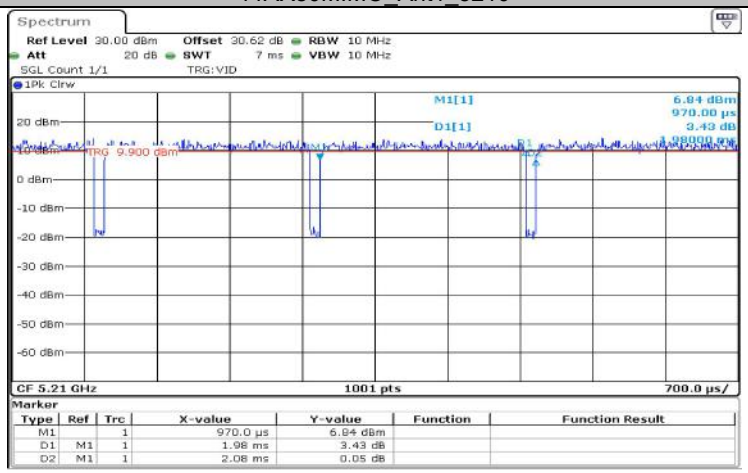
11AX40MIMO_Ant1_5190



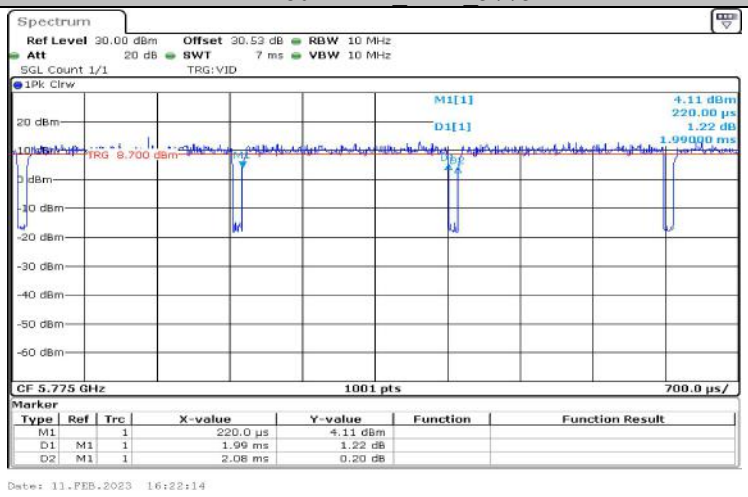
11AX40MIMO_Ant1_5755



11AX80MIMO_Ant1_5210



11AX80MIMO_Ant1_5775



******* END OF REPORT *******