



FCC RF Test Report

APPLICANT : vivo Mobile Communication Co., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : vivo
MODEL NAME : V2158
FCC ID : 2AUCY-V2158
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure
TEST DATE(S) : Jul. 07, 2022 ~ Jul. 27, 2022

We, Sporton International Inc. (ShenZhen), would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (ShenZhen), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (ShenZhen)

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People's Republic of China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR260201F	Rev. 01	Initial issue of report	Aug. 08, 2022

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.403(i)	6dB, 26dB and 99% Occupied Bandwidth	> 500kHz	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 30 dBm	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 30 dBm/500kHz	Pass	-
3.4	15.407(b)	Unwanted Emissions	15.407(b)(4)(i) & 15.209(a)	Pass	Under limit 3.94 dB at 11650.000 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 12.71 dB at 0.170 MHz
3.6	15.203 & 15.407(a)	Antenna Requirement	15.203 & 15.407(a)	Pass	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



1 General Description

1.1 Applicant

vivo Mobile Communication Co., Ltd.

No.1, vivo Road, Chang'an, Dongguan,Guangdong,China

1.2 Manufacturer

vivo Mobile Communication Co., Ltd.

No.1, vivo Road, Chang'an, Dongguan,Guangdong,China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	vivo
Model Name	V2158
FCC ID	2AUCY-V2158
IMEI Code	Conducted: 861185069997473 Conduction: 861185069997911/861185069997903 Radiation: 861185069998653/861185069998646
HW Version	MP_0.1
SW Version	PD2204CF_EX_A_12.0.5.2.W30.V000L1
EUT Stage	Production Unit

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification			
Tx/Rx Channel Frequency Range		5745 MHz ~ 5825 MHz	
Maximum Output Power		MIMO< Ant. 1+2> <5745 MHz ~ 5825 MHz> 802.11a : 19.68 dBm / 0.0929 W 802.11n HT20 : 19.96 dBm / 0.0991 W 802.11n HT40 : 19.91 dBm / 0.0979 W 802.11ac VHT20: 19.30 dBm / 0.0851 W 802.11ac VHT40: 18.91 dBm / 0.0778 W 802.11ac VHT80: 18.93 dBm / 0.0782 W 802.11ax HE20: 20.29 dBm / 0.1069 W 802.11ax HE40: 19.88 dBm / 0.0973 W 802.11ax HE80: 19.40 dBm / 0.0871 W	
99% Occupied Bandwidth		MIMO <Ant.1> 802.11a : 17.08 MHz 802.11n HT20 : 18.03 MHz 802.11n HT40 : 37.56 MHz 802.11ac VHT80 : 75.52 MHz 802.11ax HE20 : 18.88 MHz 802.11ax HE40 : 37.96 MHz 802.11ax HE80 : 77.20 MHz MIMO <Ant.2> 802.11a : 16.63 MHz 802.11n HT20 : 17.73 MHz 802.11n HT40 : 36.76 MHz 802.11ac VHT80 : 75.40 MHz 802.11ax HE20 : 18.83 MHz 802.11ax HE40 : 37.86 MHz 802.11ax HE80 : 77.20 MHz	
Type of Modulation		802.11a/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11ax: OFDMA (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM)	
Antenna Type / Gain		<Ant. 1> : PIFA Antenna with gain -3.00 dBi <Ant. 2> : PIFA Antenna with gain -3.00 dBi	
Antenna Function Description			
		802.11 a/n/ac/ax SISO/MIMO	Ant. 1 V Ant. 2 V

Note:

- For 802.11n HT20 / ac VHT20 and 802.11n HT40 / ac VHT40 mode, the whole testing have assessed only 802.11n HT20/HT40 by referring to their maximum conducted power.
- For SISO & MIMO (CDD) mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power.
- The device support partial RU for 802.11ax mode.



1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Testing Location

Sporton International Inc. (Shenzhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	CO01-SZ TH01-SZ	CN1256	421272

Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103 TEL: +86-755-33202398		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH03-SZ	CN1256	421272

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH03-SZ	AUDIX	E3	6.2009-8-24
2.	CO01-SZ	AUDIX	E3	6.120613b



1.8 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.
- b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5745-5825 MHz U-NII-3	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155 [#]	5775	165	5825

Note:

1. The above Frequency and Channel in "*" were 802.11n HT40 and 802.11ac VHT40.
2. The above Frequency and Channel in "[#]" were 802.11ac VHT80.

2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

MIMO Mode

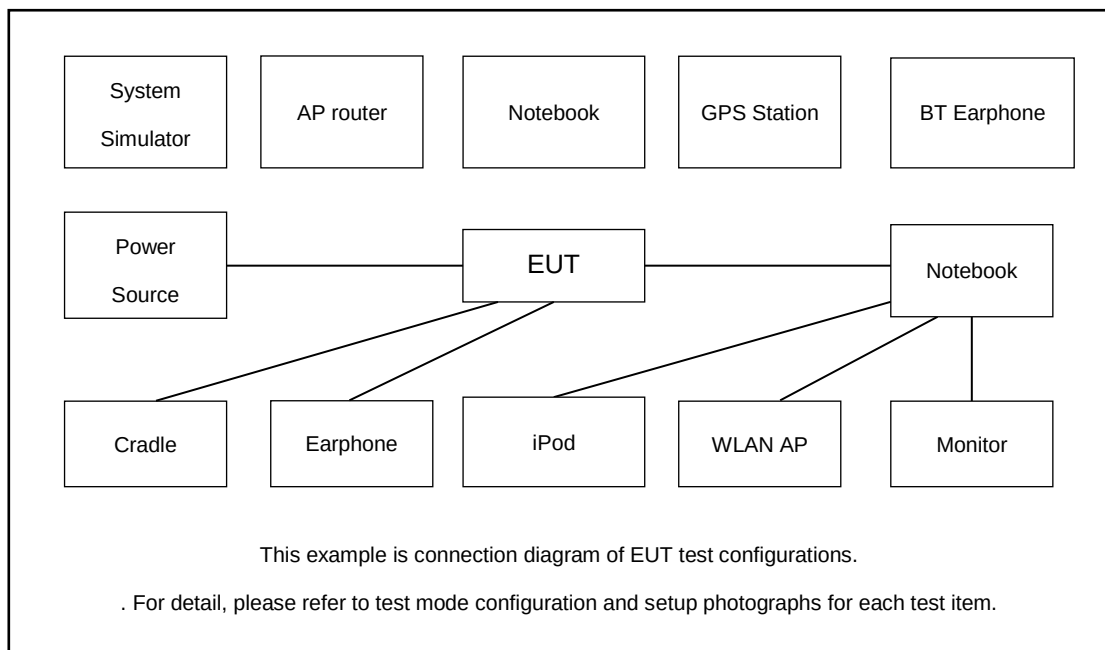
Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20 (Covered by HT20)	MCS0
802.11ac VHT40 (Covered by HT40)	MCS0
802.11ac VHT80	MCS0
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	MCS0

AC Conducted Emission	Mode 1 : GSM 850 Idle + WLAN Link (5G) + USB Cable (Charging from Adapter) + Battery
------------------------------	--

Ch. #		U-NII-3 : 5745-5825 MHz			
		802.11a	802.11n HT20	802.11n HT40	802.11ac VHT80
L	Low	149	149	151	-
M	Middle	157	157	-	155
H	High	165	165	159	-

Ch. #		Band IV : 5725-5850 MHz		
		802.11ax HE20	802.11ax HE40	802.11ax HE80
L	Low	149	151	-
M	Middle	157	-	155
H	High	165	159	-

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Base Station (LTE)	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8m
2.	WLAN AP	Dlink	DIR-820L	KA2IR820LA1	N/A	Unshielded, 1.8m



2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program was provided and enabled to make EUT continuous transmit.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 2.8 dB and 10 dB attenuator.

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 2.8 + 10 = 12.8 \text{ (dB)}\end{aligned}$$

3 Test Result

3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

3.1.1 Description of 6dB and 26dB and 99% Occupied Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

26dB and 99% Occupied bandwidth are reporting only.

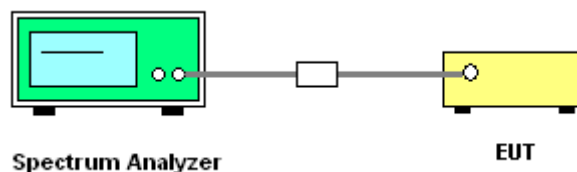
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Section C) Emission bandwidth for the band 5.725-5.85GHz
2. For 6dB BW, Set RBW = 100kHz.
For 26dB BW, Set RBW = approximately 1% of the emission bandwidth.
For 99% OBW, Set RBW = 1% to 5% of the OBW.
3. For 26dB BW, Set the VBW > RBW.
For 6dB BW & 99% OBW, Set the VBW $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

3.1.4 Test Setup

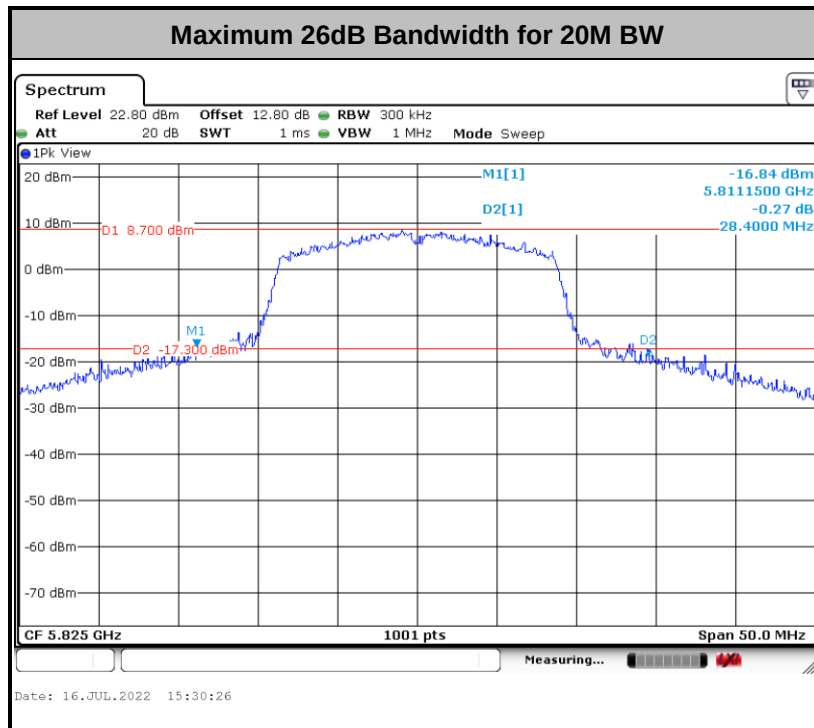
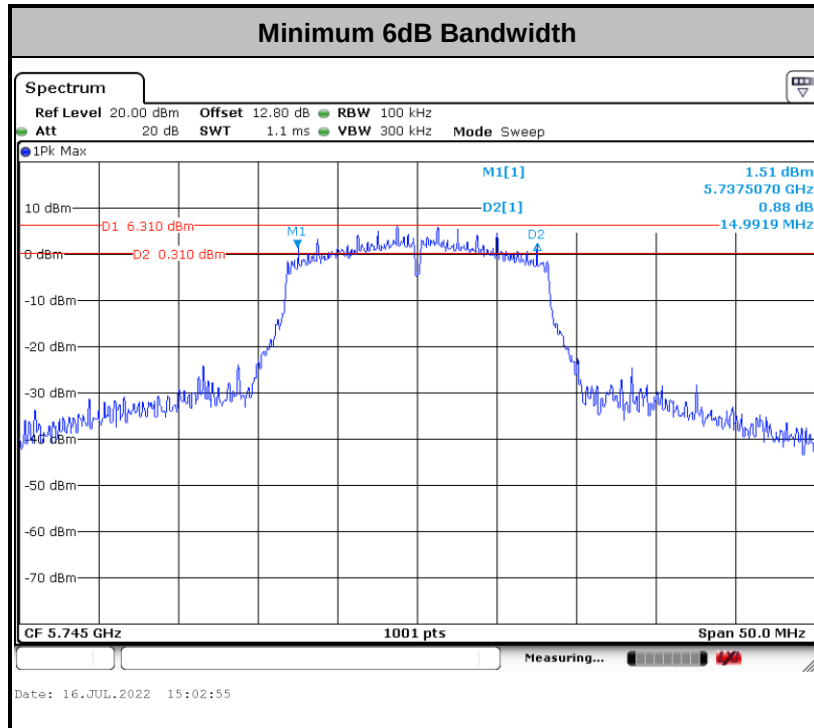


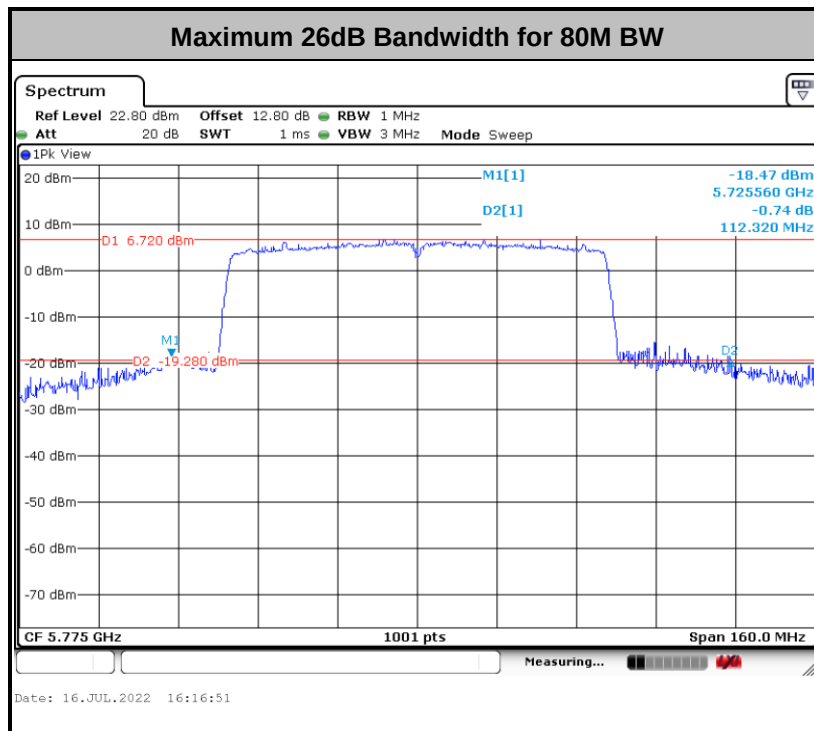
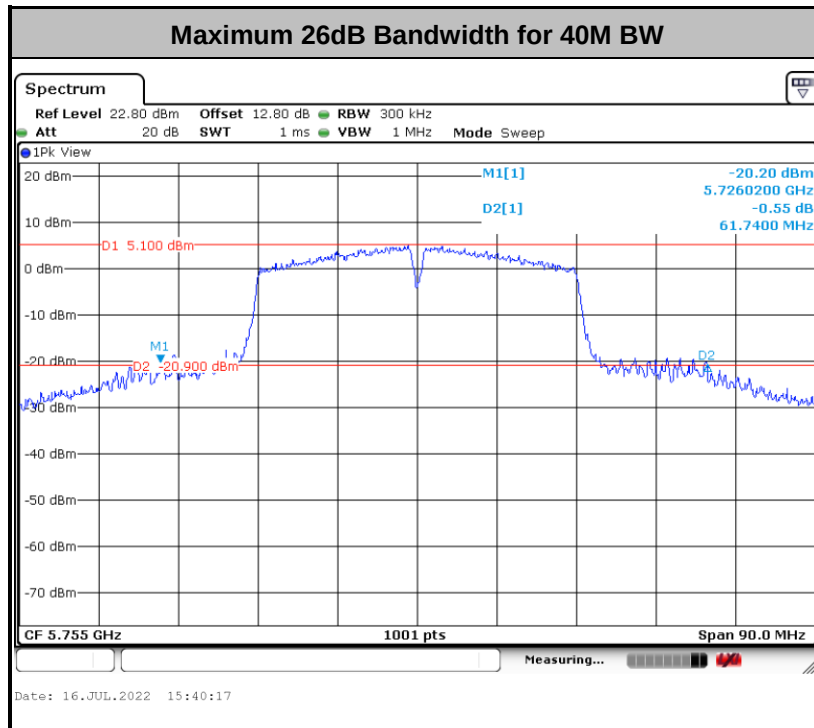
3.1.5 Test Result of 6dB Bandwidth

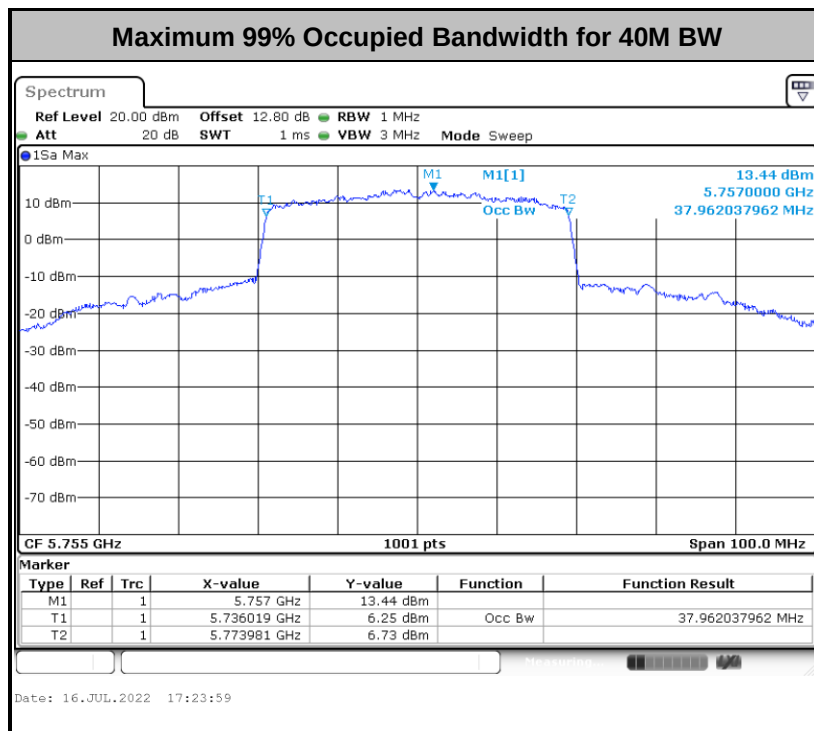
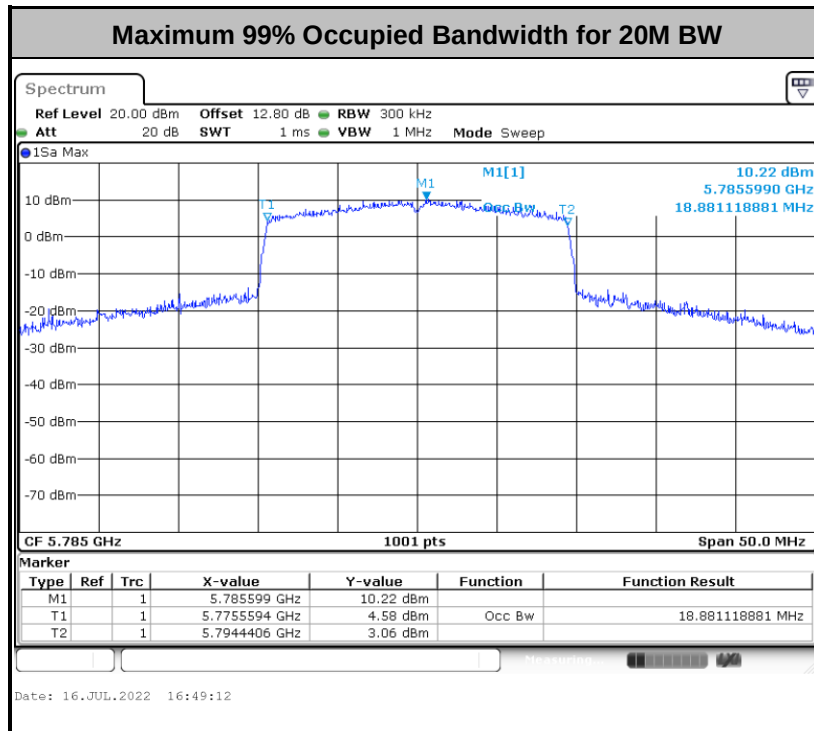
Please refer to Appendix A.

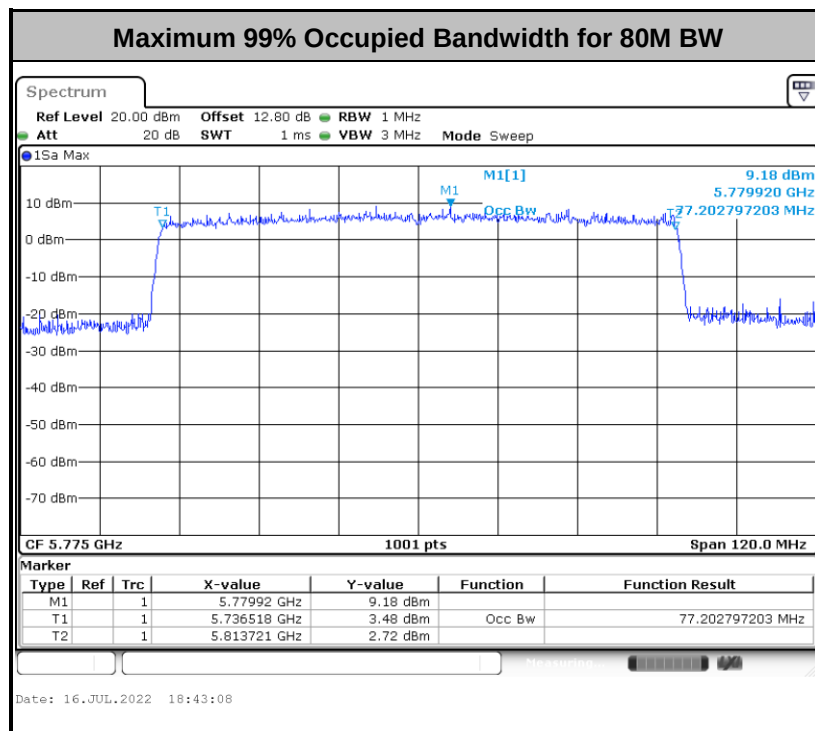


<CDD Mode>









Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

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

3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

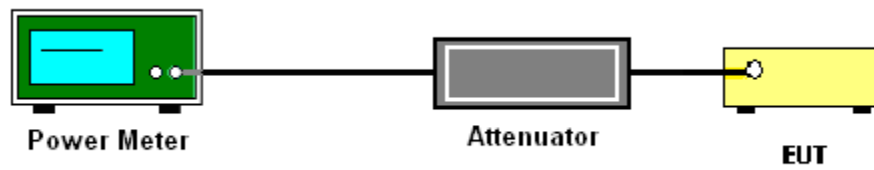
3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, $10 \log(1/x)$, where x is the duty cycle.
4. For MIMO mode, the measure-and-sum technique should be used for measuring the in-band transmit power of a device.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

For the band 5.725–5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

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

3.3.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section F) Maximum power spectral density.

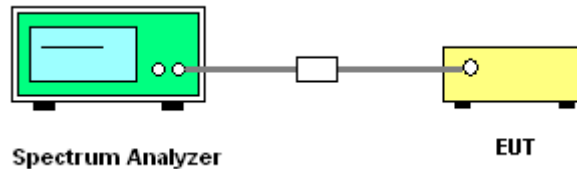
Method SA-2

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz.
- Set VBW $\geq$ 1 MHz.
- Number of points in sweep $\geq$ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add $10 \log(500\text{kHz}/\text{RBW})$ to the test result.
- Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.

1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PSD and record it.

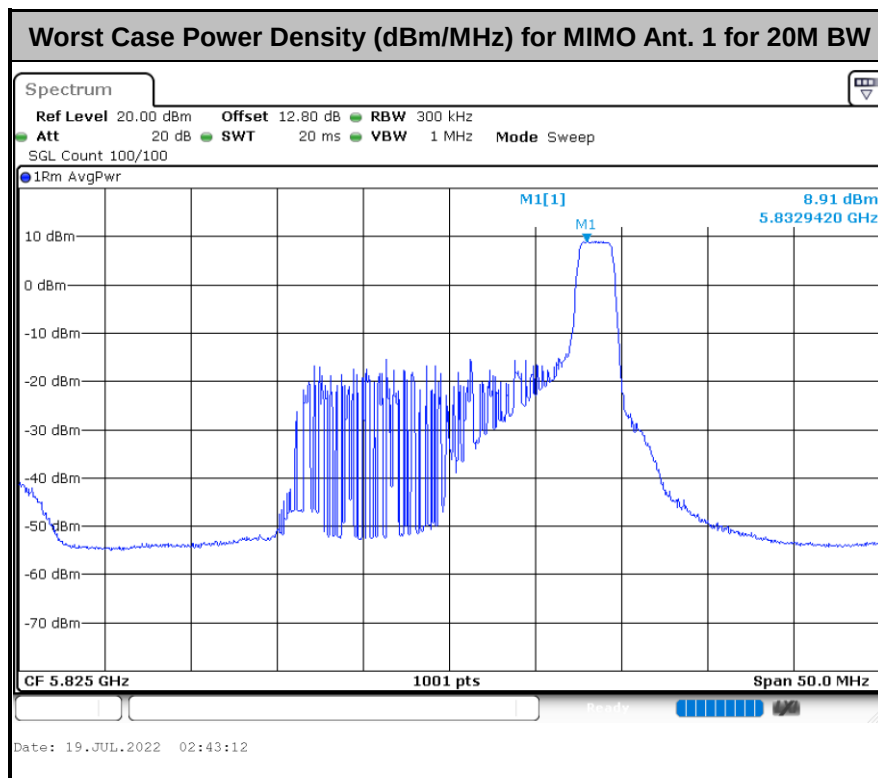
3.3.4 Test Setup

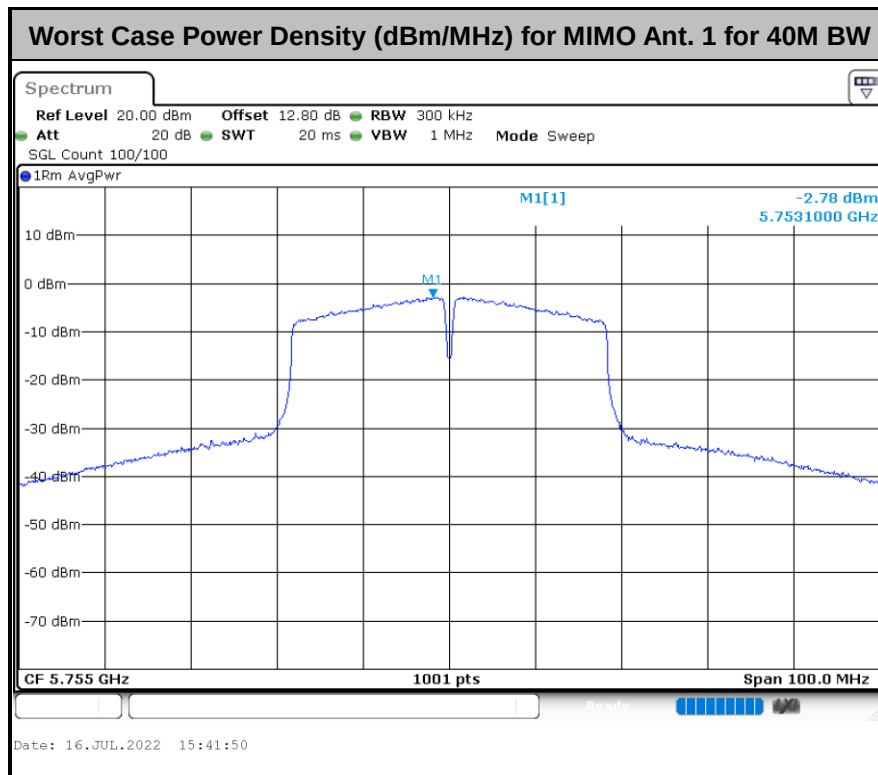
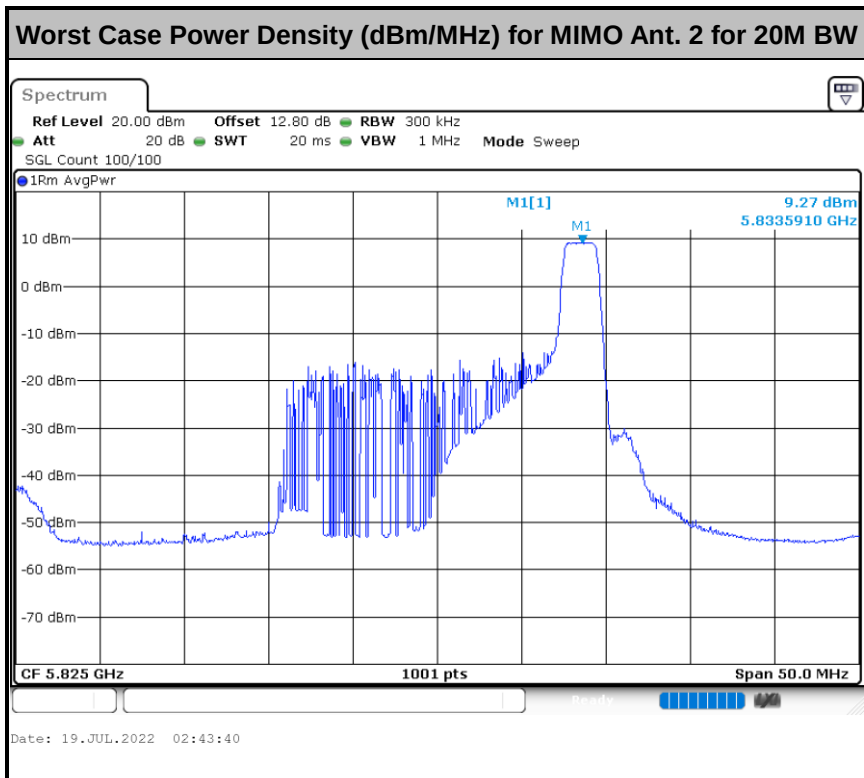


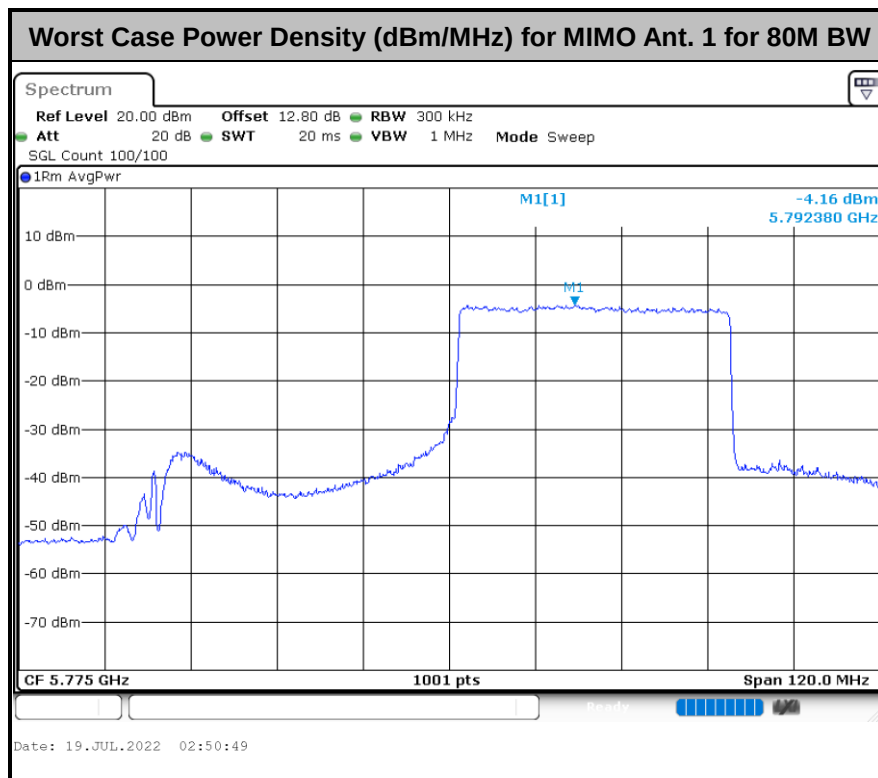
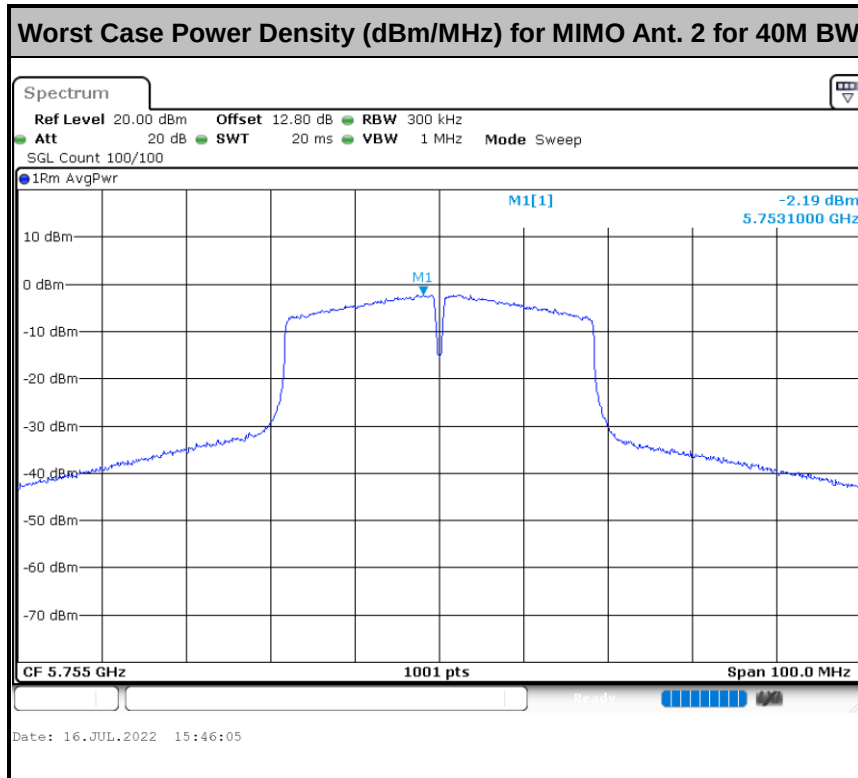
3.3.5 Test Result of Power Spectral Density

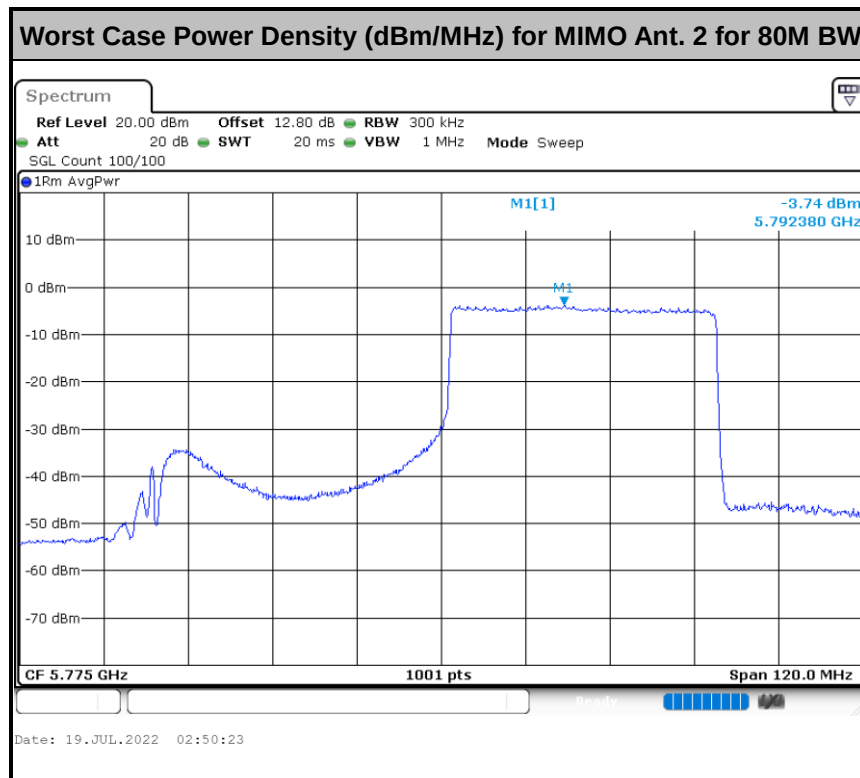
Please refer to Appendix A.

<CDD Modes>









Note: Average Power Density (dB) = Measured value (MIMO ANT1+2) + Duty Factor

3.4 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.4.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 5.725-5.85 GHz band:

15.407(b)(4)(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.

- (2) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table,

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27	68.3

Note: The following formula is used to convert the EIRP to field strength.

$$\text{EIRP} = E_{\text{Meas}} + 20\log(d_{\text{Meas}}) - 104.7$$

where

EIRP is the equivalent isotropically radiated power, in dBm

E_{Meas} is the field strength of the emission at the measurement distance, in dBμV/m

d_{Meas} is the measurement distance, in m

(3) ANSI C63.10-2013 clause 12.7.3 note 97

As specified by regulatory requirements, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit. However, an out-of-band emission that complies with both the average and peak general regulatory limits is not required to satisfy the peak emission limit.

3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.



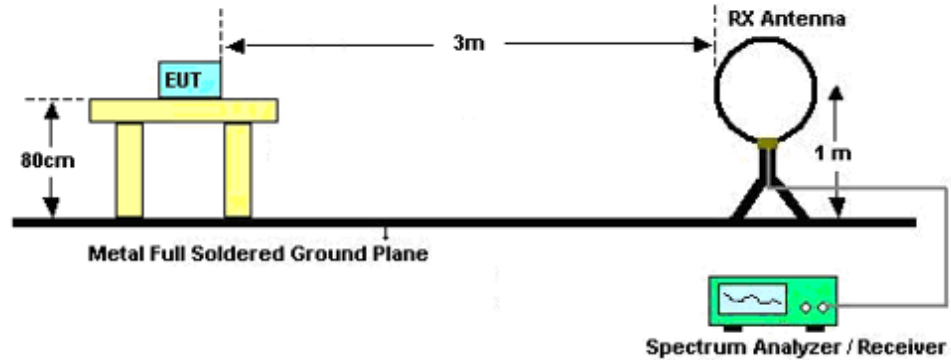
3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Section G) Unwanted emissions measurement.
 - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
 - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW $\geq$ 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold
 - (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
 - RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than peak limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.



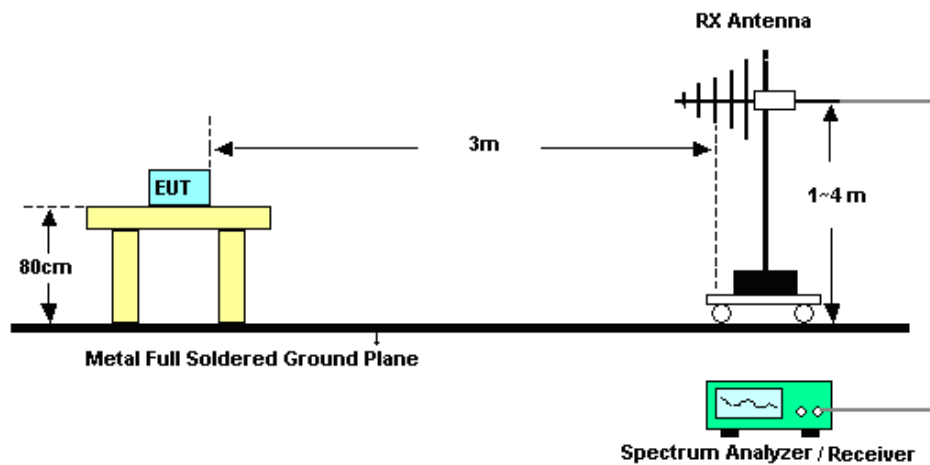
3.4.4 Test Setup

For radiated emissions below 30MHz



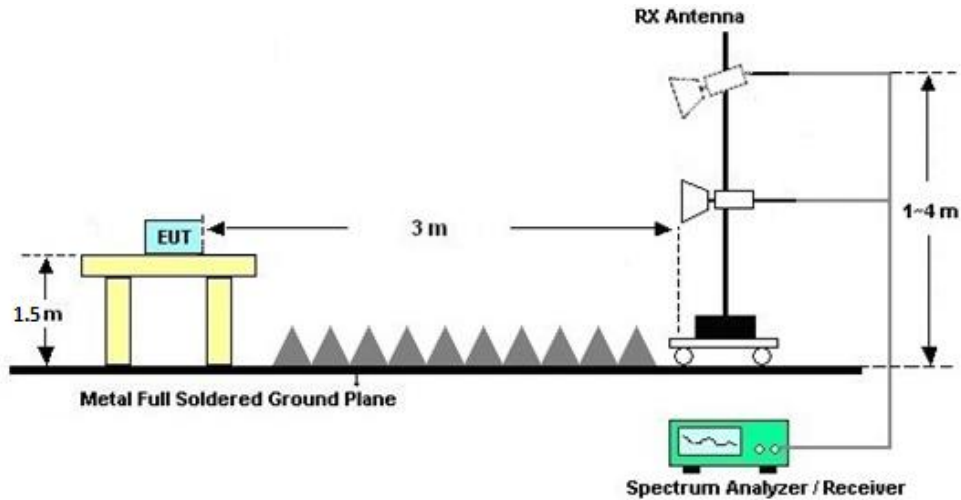
For radiated emissions from 30MHz to 1GHz

<CDD Mode>



For radiated emissions above 1GHz

<CDD Mode>



3.4.5 Test Results of Radiated Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.4.6 Test Result of Radiated Band Edges

Please refer to Appendix C.

3.4.7 Duty Cycle

Please refer to Appendix D.

3.4.8 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic or 40GHz, whichever is lower)

Please refer to Appendix C.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

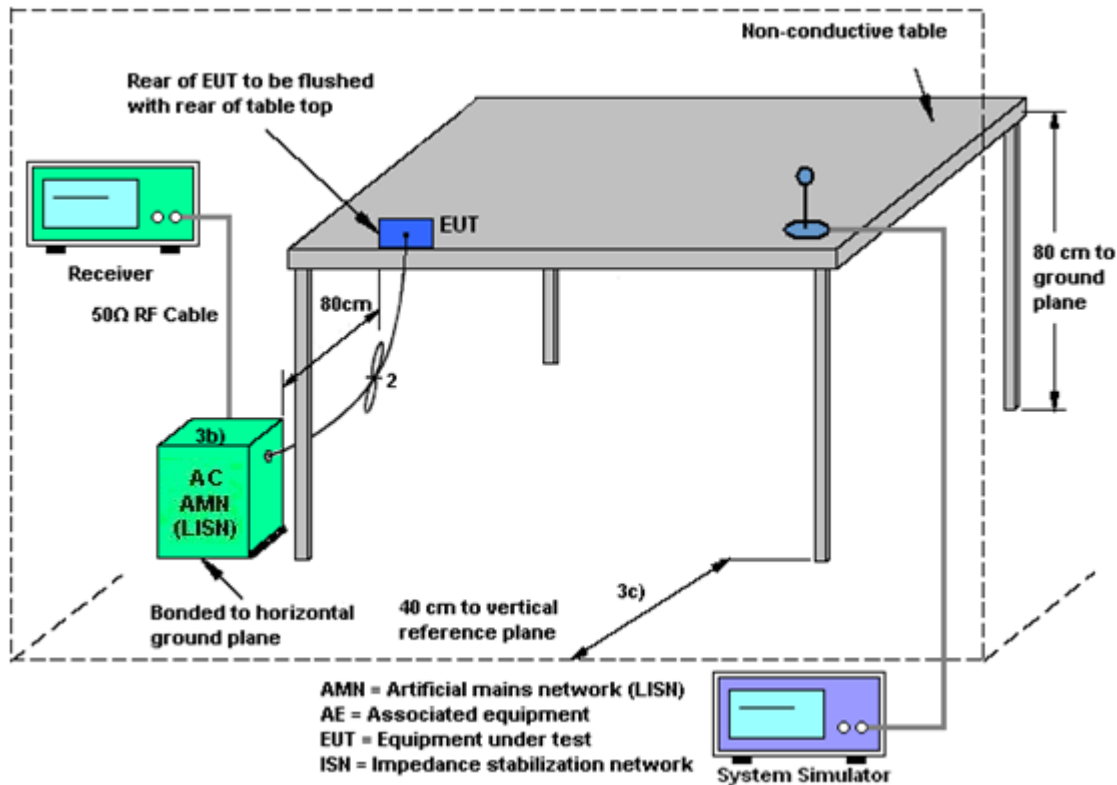
3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Antenna Requirements

3.6.1 Standard Applicable

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain = 10 log(NANT/NSS=1) dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

For power, the directional gain G_{ANT} is set equal to the antenna having the highest gain, i.e., F)2)f)i).

For PSD, the directional gain calculation is following F)2)f)ii) of KDB 662911 D01 v02r01.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain "DG" is calculated as following table.

<CDD Modes>						
			DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
	Ant. 1 (dBi)	Ant. 2 (dBi)				
Band IV	-3.00	-3.00	-3.00	0.01	0.00	0.00

Power Limit Reduction = DG(Power) – 6dBi, (min = 0)

PSD Limit Reduction = DG(PSD) – 6dBi, (min = 0)



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 07, 2022	Jul. 07, 2022~ Jul. 23, 2022	Apr. 06, 2023	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1339473	30MHz~40GHz	Dec. 28, 2021	Jul. 07, 2022~ Jul. 23, 2022	Dec. 27, 2022	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1542004	50MHz Bandwidth	Dec. 28, 2021	Jul. 07, 2022~ Jul. 23, 2022	Dec. 27, 2022	Conducted (TH01-SZ)
DC Power Supply	TTI	PL330P	290070	Max 32V , 3A	Oct. 25, 2021	Jul. 07, 2022~ Jul. 23, 2022	Oct. 24, 2022	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhonggroup	LP-150U	H2014081803	-40~+150°C	Jul. 07, 2022	Jul. 07, 2022~ Jul. 23, 2022	Jul. 06, 2023	Conducted (TH01-SZ)
EMI Receiver	R&S	ESR7	101630	9kHz~7GHz;	Sep. 1, 2021	Jul. 18, 2022	Aug. 31, 2022	Conduction (CO01-SZ)
AC LISN	R&S	ENV216	100063	9kHz~30MHz	Sep. 1, 2021	Jul. 18, 2022	Aug. 31, 2022	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Oct. 29, 2021	Jul. 18, 2022	Oct. 28, 2022	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Jul. 07, 2022	Jul. 18, 2022	Jul. 06, 2023	Conduction (CO01-SZ)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	Apr. 06, 2022	Jul. 27, 2022	Apr. 05, 2023	Radiation (03CH03-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	Apr. 06, 2022	Jul. 27, 2022	Apr. 05, 2023	Radiation (03CH03-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 17, 2022	Jul. 27, 2022	Jul. 16, 2024	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6111D	41909	30MHz~1GHz	Oct. 22,2021	Jul. 27, 2022	Oct. 21,2022	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	Apr. 08 2022	Jul. 27, 2022	Apr. 07. 2023	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Oct. 22,2021	Jul. 27, 2022	Oct. 21,2022	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz~40GHz	Apr. 10, 2022	Jul. 27, 2022	Apr. 09, 2023	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz~3000MHz	Oct. 22,2021	Jul. 27, 2022	Oct. 21,2022	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	AMF-7D-001 01800-30-10 P-R	1943528	1GHz~18GHz	Oct. 22,2021	Jul. 27, 2022	Oct. 21,2022	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 30,2021	Jul. 27, 2022	Dec. 29,2022	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Jul. 27, 2022	NCR	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jul. 27, 2022	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jul. 27, 2022	NCR	Radiation (03CH03-SZ)

NCR: No Calibration Required



5 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10-2013. All the measurement uncertainty value were shown with a coverage $K=2$ to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.2 dB
---	--------

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.0 dB
---	--------

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.9 dB
---	--------

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.0 dB
---	--------

----- THE END -----



Appendix A. Conducted Test Results

Test Engineer:	Ma Jie	Temperature:	21~25	°C
Test Date:	2022/07/08	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 26dB EBW and 99% OBW

Band IV													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6 dB Bandwidth (MHz)		6 dB Bandwidth Min. Limit (MHz)		Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	149	5745	16.88	16.48	26.65	20.00	15.04	14.99	0.5		Pass
11a	6Mbps	2	157	5785	17.08	16.63	30.65	20.75	15.10	16.24	0.5		Pass
11a	6Mbps	2	165	5825	16.83	16.53	24.85	20.60	15.09	15.05	0.5		Pass
HT20	MCS0	2	149	5745	17.83	17.63	24.20	20.55	15.05	15.04	0.5		Pass
HT20	MCS0	2	157	5785	18.03	17.73	28.15	22.55	15.09	15.09	0.5		Pass
HT20	MCS0	2	165	5825	17.98	17.73	28.40	22.05	15.05	15.65	0.5		Pass
HT40	MCS0	2	151	5755	37.56	36.76	61.74	40.41	35.08	35.10	0.5		Pass
HT40	MCS0	2	159	5795	37.16	36.46	58.68	39.51	35.10	35.10	0.5		Pass
VHT80	MCS0	2	155	5775	75.52	75.40	112.32	80.32	75.20	75.20	0.5		Pass
HE20	MCS0	2	149	5745	18.78	18.78	24.00	19.95	16.80	15.35	0.5		Pass
HE20	MCS0	2	157	5785	18.88	18.83	20.70	20.00	18.20	16.40	0.5		Pass
HE20	MCS0	2	165	5825	18.83	18.78	24.15	20.00	17.10	16.65	0.5		Pass
HE40	MCS0	2	151	5755	37.96	37.86	39.33	39.42	35.91	35.10	0.5		Pass
HE40	MCS0	2	159	5795	37.96	37.76	39.33	39.33	35.46	35.10	0.5		Pass
HE80	MCS0	2	155	5775	77.20	77.20	88.96	80.80	77.60	77.12	0.5		Pass

TEST RESULTS DATA
Average Power Table

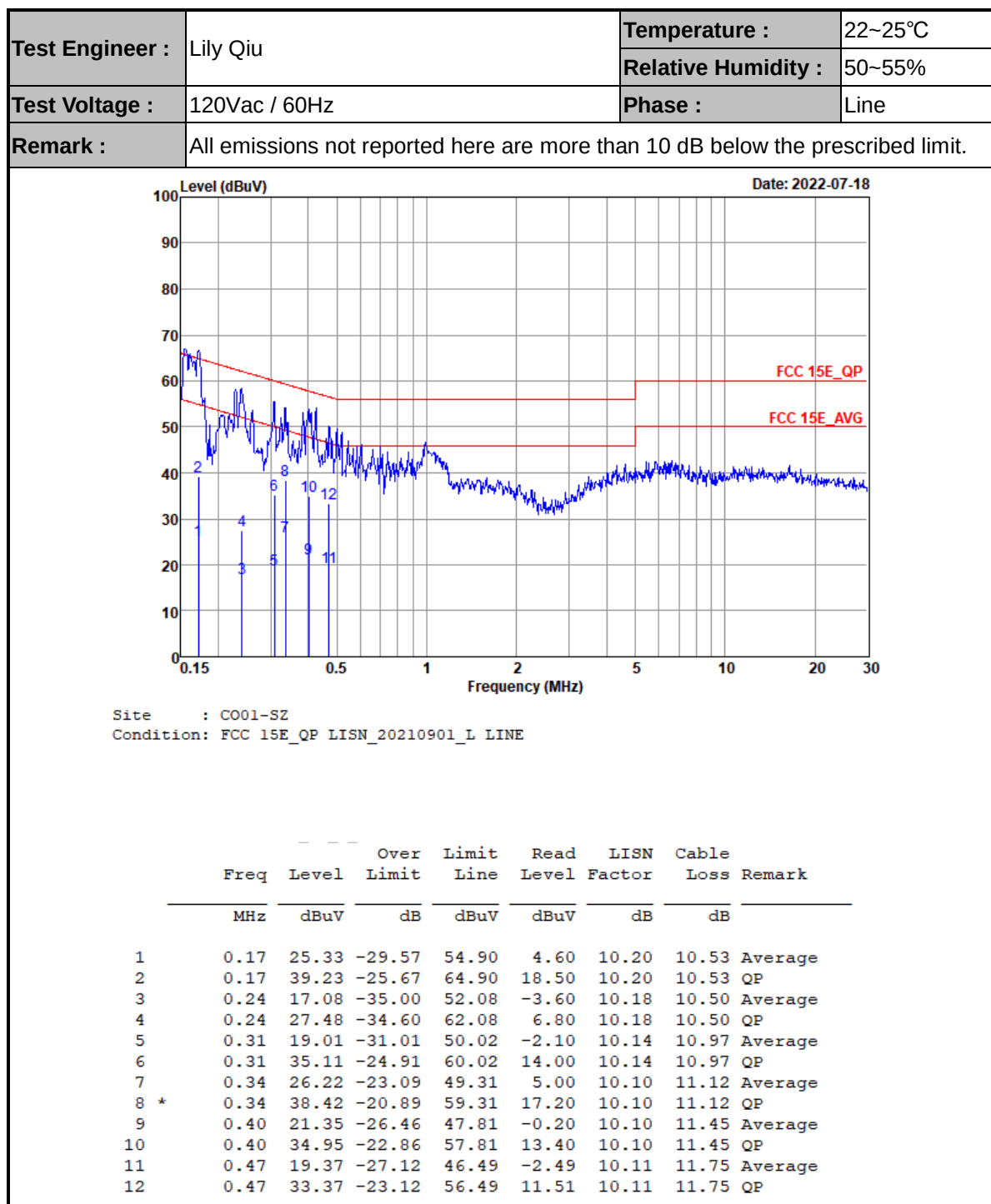
Band IV															
Mod.	Data Rate	NTx	CH.	RU Config	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	149	Full	5745	0.13	0.13	16.45	16.88	19.68	30.00		-3.00		Pass
11a	6Mbps	2	157	Full	5785	0.13	0.13	16.40	16.60	19.51	30.00		-3.00		Pass
11a	6Mbps	2	165	Full	5825	0.13	0.13	16.35	16.64	19.51	30.00		-3.00		Pass
HT20	MCS0	2	149	Full	5745	0.17	0.14	16.76	17.08	19.93	30.00		-3.00		Pass
HT20	MCS0	2	157	Full	5785	0.17	0.14	16.80	16.94	19.88	30.00		-3.00		Pass
HT20	MCS0	2	165	Full	5825	0.17	0.14	16.74	17.15	19.96	30.00		-3.00		Pass
HT40	MCS0	2	151	Full	5755	0.28	0.30	16.63	17.15	19.91	30.00		-3.00		Pass
HT40	MCS0	2	159	Full	5795	0.28	0.30	16.63	17.09	19.88	30.00		-3.00		Pass
VHT20	MCS0	2	149	Full	5745	0.15	0.14	15.75	15.86	18.82	30.00		-3.00		Pass
VHT20	MCS0	2	157	Full	5785	0.15	0.14	16.13	16.39	19.27	30.00		-3.00		Pass
VHT20	MCS0	2	165	Full	5825	0.15	0.14	16.21	16.37	19.30	30.00		-3.00		Pass
VHT40	MCS0	2	151	Full	5755	0.28	0.28	15.75	16.05	18.91	30.00		-3.00		Pass
VHT40	MCS0	2	159	Full	5795	0.28	0.28	15.80	15.89	18.86	30.00		-3.00		Pass
VHT80	MCS0	2	155	Full	5775	0.55	0.55	15.78	16.07	18.93	30.00		-3.00		Pass
HE20	MCS0	2	149	Full	5745	0.19	0.22	16.51	16.85	19.70	30.00		-3.00		Pass
HE20	MCS0	2	149	26/0	5745	0.19	0.22	16.94	17.07	20.02	30.00		-3.00		Pass
HE20	MCS0	2	149	52/37	5745	0.19	0.22	16.43	16.71	19.58	30.00		-3.00		Pass
HE20	MCS0	2	149	106/53	5745	0.19	0.22	16.38	16.67	19.54	30.00		-3.00		Pass
HE20	MCS0	2	157	Full	5785	0.19	0.22	16.67	16.84	19.77	30.00		-3.00		Pass
HE20	MCS0	2	165	Full	5825	0.19	0.22	16.35	16.64	19.51	30.00		-3.00		Pass
HE20	MCS0	2	165	26/8	5825	0.19	0.22	17.19	17.36	20.29	30.00		-3.00		Pass
HE20	MCS0	2	165	52/40	5825	0.19	0.22	16.96	17.02	20.00	30.00		-3.00		Pass
HE20	MCS0	2	165	106/54	5825	0.19	0.22	16.62	16.89	19.77	30.00		-3.00		Pass
HE40	MCS0	2	151	Full	5755	0.34	0.34	16.07	16.36	19.23	30.00		-3.00		Pass
HE40	MCS0	2	151	242/61	5755	0.34	0.34	16.40	16.51	19.47	30.00		-3.00		Pass
HE40	MCS0	2	159	Full	5795	0.34	0.34	15.98	16.17	19.09	30.00		-3.00		Pass
HE40	MCS0	2	159	242/62	5795	0.34	0.34	16.78	16.96	19.88	30.00		-3.00		Pass
HE80	MCS0	2	155	Full	5775	0.61	0.60	15.92	16.08	19.01	30.00		-3.00		Pass
HE80	MCS0	2	155	484/65	5775	0.61	0.60	15.90	16.05	18.99	30.00		-3.00		Pass
HE80	MCS0	2	155	484/66	5775	0.61	0.60	16.30	16.48	19.40	30.00		-3.00		Pass

TEST RESULTS DATA
Power Spectral Density

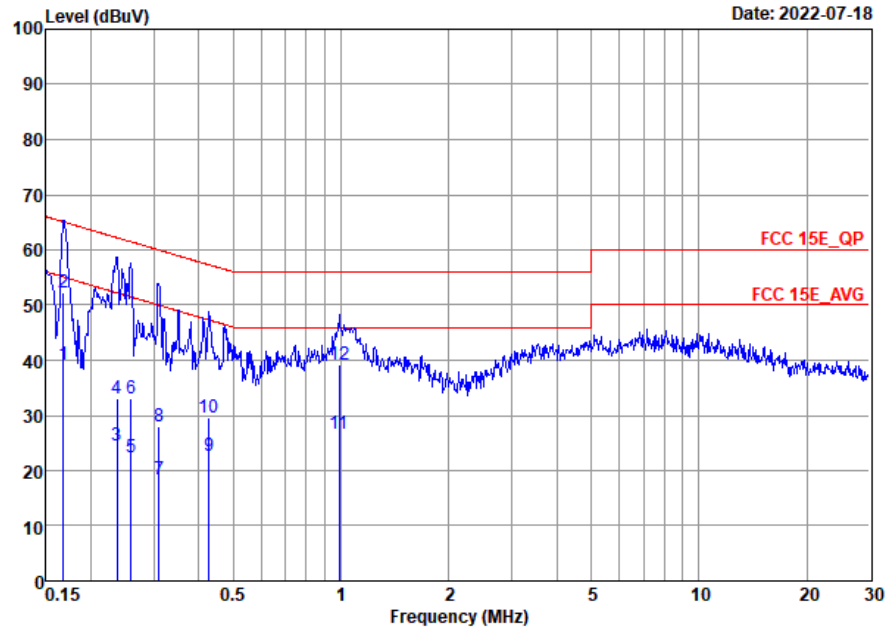
Band IV																	
Mod.	Data Rate	NTx	CH.	RU Config	Freq. (MHz)	Duty Factor (dB)		10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
						Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	149	Full	5745	0.13	0.13	2.22					6.84	30.00	0.01		Pass
11a	6Mbps	2	157	Full	5785	0.13	0.13	2.22					6.90	30.00	0.01		Pass
11a	6Mbps	2	165	Full	5825	0.13	0.13	2.22					6.92	30.00	0.01		Pass
HT20	MCS0	2	149	Full	5745	0.17	0.14	2.22					6.56	30.00	0.01		Pass
HT20	MCS0	2	157	Full	5785	0.17	0.14	2.22					6.44	30.00	0.01		Pass
HT20	MCS0	2	165	Full	5825	0.17	0.14	2.22					6.49	30.00	0.01		Pass
HT40	MCS0	2	151	Full	5755	0.28	0.30	2.22					3.34	30.00	0.01		Pass
HT40	MCS0	2	159	Full	5795	0.28	0.30	2.22					2.84	30.00	0.01		Pass
VHT80	MCS0	2	155	Full	5775	0.55	0.55	2.22					-1.21	30.00	0.01		Pass
HE20	MCS0	2	149	Full	5745	0.19	0.22	2.22					5.67	30.00	0.01		Pass
HE20	MCS0	2	149	26/0	5745	0.19	0.22	2.22					11.88	30.00	0.01		Pass
HE20	MCS0	2	149	52/37	5745	0.19	0.22	2.22					6.36	30.00	0.01		Pass
HE20	MCS0	2	149	106/53	5745	0.19	0.22	2.22					6.54	30.00	0.01		Pass
HE20	MCS0	2	157	Full	5785	0.19	0.22	2.22					5.81	30.00	0.01		Pass
HE20	MCS0	2	165	Full	5825	0.19	0.22	2.22					5.96	30.00	0.01		Pass
HE20	MCS0	2	165	26/8	5825	0.19	0.22	2.22					12.07	30.00	0.01		Pass
HE20	MCS0	2	165	52/40	5825	0.19	0.22	2.22		9.73	30.00	0.01		Pass			
HE20	MCS0	2	165	106/54	5825	0.19	0.22	2.22		6.60	30.00	0.01		Pass			
HE40	MCS0	2	151	Full	5755	0.34	0.34	2.22		2.20	30.00	0.01		Pass			
HE40	MCS0	2	151	242/61	5755	0.34	0.34	2.22		2.91	30.00	0.01		Pass			
HE40	MCS0	2	159	Full	5795	0.34	0.34	2.22		2.26	30.00	0.01		Pass			
HE40	MCS0	2	159	242/62	5795	0.34	0.34	2.22		2.69	30.00	0.01		Pass			
HE80	MCS0	2	155	Full	5775	0.61	0.00	2.22		-1.85	30.00	0.01		Pass			
HE80	MCS0	2	155	484/65	5775	0.61	0.00	2.22		-0.99	30.00	0.01		Pass			
HE80	MCS0	2	155	484/66	5775	0.61	0.00	2.22		-0.71	30.00	0.01		Pass			



Appendix B. AC Conducted Emission Test Results



Test Engineer :	Lily Qiu	Temperature :	22~25°C
		Relative Humidity :	50~55%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : C001-SZ
Condition: FCC 15E_QP LISN_20210901_N NEUTRAL

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.17	39.07	-16.01	55.08	18.20	10.30	10.57	Average
2 *	0.17	52.37	-12.71	65.08	31.50	10.30	10.57	QP
3	0.24	24.63	-27.59	52.22	3.90	10.26	10.47	Average
4	0.24	33.13	-29.09	62.22	12.40	10.26	10.47	QP
5	0.26	22.48	-28.99	51.47	1.61	10.24	10.63	Average
6	0.26	32.98	-28.49	61.47	12.11	10.24	10.63	QP
7	0.31	18.27	-31.70	49.97	-2.90	10.20	10.97	Average
8	0.31	28.07	-31.90	59.97	6.90	10.20	10.97	QP
9	0.43	22.66	-24.63	47.29	0.90	10.19	11.57	Average
10	0.43	29.56	-27.73	57.29	7.80	10.19	11.57	QP
11	0.99	26.69	-19.31	46.00	6.20	10.22	10.27	Average
12	0.99	39.19	-16.81	56.00	18.70	10.22	10.27	QP

Note:

- Level(dBμV) = Read Level(dBμV) + LISN Factor(dB) + Cable Loss(dB)
- Over Limit(dB) = Level(dBμV) – Limit Line(dBμV)



Appendix C. Radiated Spurious Emission

Test Engineer :	ZhangXu	Temperature :	24~25°C
		Relative Humidity :	48~49%



Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5641.4	49.65	-18.65	68.3	40.24	34.58	8.2	33.37	316	329	P	H
		5695	51.97	-49.55	101.52	42.15	34.69	8.49	33.36	316	329	P	H
		5718.6	62.34	-48.07	110.41	52.51	34.7	8.48	33.35	316	329	P	H
		5723.6	67.32	-51.69	119.01	57.5	34.7	8.47	33.35	316	329	P	H
	*	5745	101.21	-----	-----	91.43	34.7	8.43	33.35	316	329	P	H
	*	5745	93.32	-----	-----	83.54	34.7	8.43	33.35	316	329	A	H
		5627.2	52.06	-16.24	68.3	42.77	34.55	8.12	33.38	298	290	P	V
		5698.4	61.03	-42.99	104.02	51.18	34.7	8.51	33.36	298	290	P	V
		5718.4	71.35	-39	110.35	61.52	34.7	8.48	33.35	298	290	P	V
		5724.6	77.24	-44.05	121.29	67.42	34.7	8.47	33.35	298	290	P	V
	*	5745	110.11	-----	-----	100.33	34.7	8.43	33.35	298	290	P	V
	*	5745	102.76	-----	-----	92.98	34.7	8.43	33.35	298	290	A	V



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 157 5785MHz		5633.4	50.61	-17.69	68.3	41.27	34.57	8.15	33.38	299	333	P	H
		5683.6	49.9	-43.23	93.13	40.17	34.67	8.43	33.37	299	333	P	H
		5704.6	50.55	-55.94	106.49	40.7	34.7	8.51	33.36	299	333	P	H
		5722	50.01	-65.35	115.36	40.18	34.7	8.48	33.35	299	333	P	H
	*	5785	101.53	-----	-----	91.76	34.77	8.35	33.35	299	333	P	H
	*	5785	93.51	-----	-----	83.74	34.77	8.35	33.35	299	333	A	H
		5851	49.1	-70.82	119.92	39.12	34.9	8.41	33.33	299	333	P	H
		5860.6	51.67	-57.56	109.23	41.65	34.92	8.43	33.33	299	333	P	H
		5920.6	50.21	-21.23	71.44	39.97	35.04	8.52	33.32	299	333	P	H
		5944.2	50.41	-17.89	68.3	40.09	35.09	8.54	33.31	299	333	P	H
													H
													H
		5615.2	50.08	-18.22	68.3	40.88	34.53	8.05	33.38	308	290	P	V
		5676.6	50.1	-37.87	87.97	40.43	34.65	8.39	33.37	308	290	P	V
		5719.6	51.35	-59.34	110.69	41.52	34.7	8.48	33.35	308	290	P	V
		5723	54.89	-62.75	117.64	45.07	34.7	8.47	33.35	308	290	P	V
	*	5785	108.59	-----	-----	98.82	34.77	8.35	33.35	308	290	P	V
	*	5785	100.21	-----	-----	90.44	34.77	8.35	33.35	308	290	A	V
		5852.6	49.6	-66.67	116.27	39.61	34.91	8.41	33.33	308	290	P	V
		5862.8	49.76	-58.85	108.61	39.73	34.93	8.43	33.33	308	290	P	V
		5915.2	50.43	-25	75.43	40.21	35.03	8.51	33.32	308	290	P	V
		5935	50.48	-17.82	68.3	40.19	35.07	8.53	33.31	308	290	P	V
													V
													V



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 165 5825MHz	*	5825	99.37	-----	-----	89.49	34.85	8.36	33.33	324	337	P	H
	*	5825	92.32	-----	-----	82.44	34.85	8.36	33.33	324	337	A	H
		5850.4	62.76	-58.53	121.29	52.78	34.9	8.41	33.33	324	337	P	H
		5855.6	59.18	-51.45	110.63	49.18	34.91	8.42	33.33	324	337	P	H
		5880	51.4	-50.09	101.49	41.31	34.96	8.46	33.33	324	337	P	H
		5928.8	50.21	-18.09	68.3	39.94	35.06	8.52	33.31	324	337	P	H
	*	5825	108.94	-----	-----	99.06	34.85	8.36	33.33	290	291	P	V
	*	5825	101.88	-----	-----	92	34.85	8.36	33.33	290	291	A	V
		5852	69.74	-47.9	117.64	59.76	34.9	8.41	33.33	290	291	P	V
		5858.8	64.11	-45.62	109.73	54.09	34.92	8.43	33.33	290	291	P	V
		5876.4	53.45	-50.71	104.16	43.37	34.95	8.46	33.33	290	291	P	V
		5929.2	50.18	-18.12	68.3	39.91	35.06	8.52	33.31	290	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		11490	55.58	-18.42	74	59.46	38.29	11.54	53.71	199	337	P	H
		11490	47.87	-6.13	54	51.75	38.29	11.54	53.71	199	337	A	H
		17235	50.9	-17.4	68.3	46.57	41.79	14.91	52.37	-	-	P	H
		11490	54.75	-19.25	74	58.63	38.29	11.54	53.71	295	342	P	V
		11490	47.19	-6.81	54	51.07	38.29	11.54	53.71	295	342	A	V
		17235	51.41	-16.89	68.3	47.08	41.79	14.91	52.37	-	-	P	V
802.11a CH 157 5785MHz		11570	55.69	-18.31	74	59.39	38.34	11.61	53.65	120	336	P	H
		11570	47.77	-6.23	54	51.47	38.34	11.61	53.65	120	336	A	H
		17355	51.15	-17.15	68.3	46.86	41.64	15.1	52.45	-	-	P	H
		11570	54.61	-19.39	74	58.31	38.34	11.61	53.65	294	343	P	V
		11570	47.19	-6.81	54	50.89	38.34	11.61	53.65	294	343	A	V
		17355	50.96	-17.34	68.3	46.67	41.64	15.1	52.45	-	-	P	V
802.11a CH 165 5825MHz		11650	57.55	-16.45	74	61.1	38.39	11.67	53.61	104	335	P	H
		11650	49.7	-4.3	54	53.25	38.39	11.67	53.61	104	335	A	H
		17475	51.36	-16.94	68.3	47.12	41.48	15.29	52.53	-	-	P	H
		11650	58.3	-16.93	68.3	61.85	38.39	11.67	53.61	201	11	P	V
		11650	50.06	-3.94	54	53.61	38.39	11.67	53.61	201	11	A	V
		17475	51.37	-16.93	68.3	47.13	41.48	15.29	52.53	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		5629.8	50.67	-17.63	68.3	41.36	34.56	8.13	33.38	315	328	P	H
		5699	53.9	-50.57	104.47	44.05	34.7	8.51	33.36	315	328	P	H
		5719.2	68.16	-42.42	110.58	58.33	34.7	8.48	33.35	315	328	P	H
		5722.6	69.33	-47.4	116.73	59.51	34.7	8.47	33.35	315	328	P	H
	*	5745	100.96	-----	-----	91.18	34.7	8.43	33.35	315	328	P	H
	*	5745	93.19	-----	-----	83.41	34.7	8.43	33.35	315	328	A	H
		5621.8	51.16	-17.14	68.3	41.91	34.54	8.09	33.38	298	290	P	V
		5694	59.45	-41.34	100.79	49.63	34.69	8.49	33.36	298	290	P	V
		5719.2	73.24	-37.34	110.58	63.41	34.7	8.48	33.35	298	290	P	V
		5724.6	76.63	-44.66	121.29	66.81	34.7	8.47	33.35	298	290	P	V
	*	5745	109.47	-----	-----	99.69	34.7	8.43	33.35	298	290	P	V
	*	5745	101.55	-----	-----	91.77	34.7	8.43	33.35	298	290	A	V



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 157 5785MHz		5617.2	49.5	-18.8	68.3	40.29	34.53	8.06	33.38	311	330	P	H
		5671	50.09	-33.75	83.84	40.46	34.64	8.36	33.37	311	330	P	H
		5717	50.19	-59.77	109.96	40.35	34.7	8.49	33.35	311	330	P	H
		5720.8	49.58	-63.04	112.62	39.75	34.7	8.48	33.35	311	330	P	H
	*	5785	99.21	-----	-----	89.44	34.77	8.35	33.35	311	330	P	H
	*	5785	91.96	-----	-----	82.19	34.77	8.35	33.35	311	330	A	H
		5852.8	49.26	-66.56	115.82	39.26	34.91	8.42	33.33	311	330	P	H
		5860.6	50.31	-58.92	109.23	40.29	34.92	8.43	33.33	311	330	P	H
		5918.6	50.61	-22.31	72.92	40.38	35.04	8.51	33.32	311	330	P	H
		5927.2	49.95	-18.35	68.3	39.69	35.05	8.52	33.31	311	330	P	H
		5629.2	51.4	-16.9	68.3	42.09	34.56	8.13	33.38	293	292	P	V
		5654.8	51.02	-20.84	71.86	41.51	34.61	8.27	33.37	293	292	P	V
		5713.2	50.36	-58.54	108.9	40.52	34.7	8.49	33.35	293	292	P	V
		5723.6	51.29	-67.72	119.01	41.47	34.7	8.47	33.35	293	292	P	V
	*	5785	108.39	-----	-----	98.62	34.77	8.35	33.35	293	292	P	V
	*	5785	100.21	-----	-----	90.44	34.77	8.35	33.35	293	292	A	V
		5850.8	49.72	-70.66	120.38	39.74	34.9	8.41	33.33	293	292	P	V
		5865.4	50.62	-57.27	107.89	40.58	34.93	8.44	33.33	293	292	P	V
		5920	51.15	-20.74	71.89	40.91	35.04	8.52	33.32	293	292	P	V
		5938.8	50.57	-17.73	68.3	40.27	35.08	8.53	33.31	293	292	P	V



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 165 5825MHz	*	5825	100.11	-----	-----	90.23	34.85	8.36	33.33	296	334	P	H
	*	5825	92.07	-----	-----	82.19	34.85	8.36	33.33	296	334	A	H
		5851.8	58.61	-59.49	118.1	48.63	34.9	8.41	33.33	296	334	P	H
		5858.8	54.61	-55.12	109.73	44.59	34.92	8.43	33.33	296	334	P	H
		5878	50.53	-52.44	102.97	40.44	34.96	8.46	33.33	296	334	P	H
		5949.2	49.67	-18.63	68.3	39.34	35.1	8.54	33.31	296	334	P	H
	*	5825	108.63	-----	-----	98.75	34.85	8.36	33.33	290	292	P	V
	*	5825	101.52	-----	-----	91.64	34.85	8.36	33.33	290	292	A	V
		5850.2	67.8	-53.94	121.74	57.82	34.9	8.41	33.33	290	292	P	V
		5855.4	64.18	-46.51	110.69	54.18	34.91	8.42	33.33	290	292	P	V
		5880.8	53.31	-47.58	100.89	43.21	34.96	8.47	33.33	290	292	P	V
		5938.4	50.53	-17.77	68.3	40.23	35.08	8.53	33.31	290	292	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		11490	56.91	-17.09	74	60.79	38.29	11.54	53.71	105	335	P	H
		11490	48.87	-5.13	54	52.75	38.29	11.54	53.71	105	335	A	H
		17235	50.49	-17.81	68.3	46.16	41.79	14.91	52.37	-	-	P	H
		11490	55.89	-18.11	74	59.77	38.29	11.54	53.71	201	2	P	V
		11490	47.47	-6.53	54	51.35	38.29	11.54	53.71	201	2	A	V
		17235	50.75	-17.55	68.3	46.42	41.79	14.91	52.37	-	-	P	V
802.11n HT20 CH 157 5785MHz		11570	56.89	-17.11	74	60.59	38.34	11.61	53.65	127	355	P	H
		11570	48.56	-5.44	54	52.26	38.34	11.61	53.65	127	355	A	H
		17355	50.1	-18.2	68.3	45.81	41.64	15.1	52.45	-	-	P	H
		11570	56.31	-17.69	74	60.01	38.34	11.61	53.65	192	8	P	V
		11570	47.99	-6.01	54	51.69	38.34	11.61	53.65	192	8	A	V
		17355	50.56	-17.74	68.3	46.27	41.64	15.1	52.45	-	-	P	V
802.11n HT20 CH 165 5825MHz		11650	57.99	-16.01	74	61.54	38.39	11.67	53.61	127	355	P	H
		11650	49.61	-4.39	54	53.16	38.39	11.67	53.61	127	355	A	H
		17475	50.48	-17.82	68.3	46.24	41.48	15.29	52.53	-	-	P	H
		11650	56.79	-17.21	74	60.34	38.39	11.67	53.61	195	6	P	V
		11650	49.85	-4.15	54	53.4	38.39	11.67	53.61	195	6	A	V
		17475	51.67	-16.63	68.3	47.43	41.48	15.29	52.53	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		5650	50.8	-17.5	68.3	41.33	34.6	8.24	33.37	301	333	P	H
		5698.6	62.51	-41.66	104.17	52.66	34.7	8.51	33.36	301	333	P	H
		5718.8	68.31	-42.15	110.46	58.48	34.7	8.48	33.35	301	333	P	H
		5723.4	76.31	-42.24	118.55	66.49	34.7	8.47	33.35	301	333	P	H
	*	5755	98.47	-----	-----	88.7	34.71	8.41	33.35	301	333	P	H
	*	5755	91.31	-----	-----	81.54	34.71	8.41	33.35	301	333	A	H
		5853.2	51.93	-62.97	114.9	41.93	34.91	8.42	33.33	301	333	P	H
		5874.8	50.88	-54.38	105.26	40.81	34.95	8.45	33.33	301	333	P	H
		5893	50.05	-41.79	91.84	39.9	34.99	8.49	33.33	301	333	P	H
		5936.4	50.48	-17.82	68.3	40.19	35.07	8.53	33.31	301	333	P	H
		5641.2	53.27	-15.03	68.3	43.86	34.58	8.2	33.37	297	291	P	V
		5700	66.66	-38.54	105.2	56.8	34.7	8.52	33.36	297	291	P	V
		5720	74.9	-35.9	110.8	65.07	34.7	8.48	33.35	297	291	P	V
		5724.8	79.94	-41.8	121.74	70.12	34.7	8.47	33.35	297	291	P	V
	*	5755	105.41	-----	-----	95.64	34.71	8.41	33.35	297	291	P	V
	*	5755	97.26	-----	-----	87.49	34.71	8.41	33.35	297	291	A	V
		5850.6	52.99	-67.84	120.83	43.01	34.9	8.41	33.33	297	291	P	V
		5861.2	53.5	-55.56	109.06	43.48	34.92	8.43	33.33	297	291	P	V
		5876.2	51.77	-52.54	104.31	41.69	34.95	8.46	33.33	297	291	P	V
		5936.4	50.29	-18.01	68.3	40	35.07	8.53	33.31	297	291	P	V



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 159 5795MHz		5639	50.47	-17.83	68.3	41.08	34.58	8.18	33.37	312	330	P	H
		5680.2	51.15	-39.48	90.63	41.45	34.66	8.41	33.37	312	330	P	H
		5718	51.51	-58.73	110.24	41.68	34.7	8.48	33.35	312	330	P	H
		5724.4	50.86	-69.97	120.83	41.04	34.7	8.47	33.35	312	330	P	H
	*	5795	97.44	-----	-----	87.66	34.79	8.33	33.34	312	330	P	H
	*	5795	89.33	-----	-----	79.55	34.79	8.33	33.34	312	330	A	H
		5850	57.39	-64.81	122.2	47.41	34.9	8.41	33.33	312	330	P	H
		5855.2	54.01	-56.73	110.74	44.01	34.91	8.42	33.33	312	330	P	H
		5878.2	50.78	-52.04	102.82	40.69	34.96	8.46	33.33	312	330	P	H
		5927.8	49.7	-18.6	68.3	39.43	35.06	8.52	33.31	312	330	P	H
		5642.2	49.42	-18.88	68.3	40.01	34.58	8.2	33.37	291	292	P	V
		5687.6	54.71	-41.37	96.08	44.94	34.68	8.45	33.36	291	292	P	V
		5718.8	54.35	-56.11	110.46	44.52	34.7	8.48	33.35	291	292	P	V
		5722.4	54.1	-62.17	116.27	44.27	34.7	8.48	33.35	291	292	P	V
	*	5795	105.2	-----	-----	95.42	34.79	8.33	33.34	291	292	P	V
	*	5795	97.11	-----	-----	87.33	34.79	8.33	33.34	291	292	A	V
		5853.4	63.14	-51.31	114.45	53.14	34.91	8.42	33.33	291	292	P	V
		5857.4	57.68	-52.45	110.13	47.68	34.91	8.42	33.33	291	292	P	V
		5877	54.48	-49.23	103.71	44.4	34.95	8.46	33.33	291	292	P	V
		5944.8	50.32	-17.98	68.3	40	35.09	8.54	33.31	291	292	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		11510	54.05	-19.95	74	57.87	38.31	11.56	53.69	121	334	P	H
		11510	47.51	-6.49	54	51.33	38.31	11.56	53.69	121	334	A	H
		17265	50.99	-17.31	68.3	46.67	41.76	14.95	52.39	-	-	P	H
		11510	54.05	-19.95	74	57.87	38.31	11.56	53.69	195	5	P	V
		11510	46.43	-7.57	54	50.25	38.31	11.56	53.69	195	5	A	V
		17265	50.74	-17.56	68.3	46.42	41.76	14.95	52.39	-	-	P	V
802.11n HT40 CH 159 5795MHz		11590	53.28	-20.72	74	56.95	38.35	11.62	53.64	124	335	P	H
		11590	47.31	-6.69	54	50.98	38.35	11.62	53.64	124	355	A	H
		17385	50.79	-17.51	68.3	46.51	41.6	15.15	52.47	-	-	P	H
		11590	52.66	-21.34	74	56.33	38.35	11.62	53.64	192	360	P	V
		11590	45.86	-8.14	54	49.53	38.35	11.62	53.64	192	360	A	V
		17385	50.85	-17.45	68.3	46.57	41.6	15.15	52.47	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5606.2	50.6	-17.7	68.3	41.47	34.51	8	33.38	357	324	P	H
		5683.4	52.84	-40.15	92.99	43.11	34.67	8.43	33.37	357	324	P	H
		5701.8	58.08	-47.62	105.7	48.22	34.7	8.52	33.36	357	324	P	H
		5724.4	57.45	-63.38	120.83	47.63	34.7	8.47	33.35	357	324	P	H
	*	5775	92.87	-----	-----	83.1	34.75	8.37	33.35	357	324	P	H
	*	5775	84.82	-----	-----	75.05	34.75	8.37	33.35	357	324	A	H
		5850.4	53.64	-67.65	121.29	43.66	34.9	8.41	33.33	357	324	P	H
		5868.4	55.75	-51.3	107.05	45.7	34.94	8.44	33.33	357	324	P	H
		5882	51.54	-48.46	100	41.44	34.96	8.47	33.33	357	324	P	H
		5945.8	49.51	-18.79	68.3	39.19	35.09	8.54	33.31	357	324	P	H
		5638.8	52.56	-15.74	68.3	43.17	34.58	8.18	33.37	294	291	P	V
		5699.2	65.79	-38.82	104.61	55.93	34.7	8.52	33.36	294	291	P	V
		5717	67.39	-42.57	109.96	57.55	34.7	8.49	33.35	294	291	P	V
		5721	68.02	-45.06	113.08	58.19	34.7	8.48	33.35	294	291	P	V
	*	5775	99.35	-----	-----	89.58	34.75	8.37	33.35	294	291	P	V
	*	5775	92.21	-----	-----	82.44	34.75	8.37	33.35	294	291	A	V
		5854.6	60.08	-51.63	111.71	50.08	34.91	8.42	33.33	294	291	P	V
		5860.2	62.63	-46.71	109.34	52.61	34.92	8.43	33.33	294	291	P	V
		5880.4	56.86	-44.33	101.19	46.77	34.96	8.46	33.33	294	291	P	V
		5937.4	51.26	-17.04	68.3	40.97	35.07	8.53	33.31	294	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Band 4 5725~5850MHz****WIFI 802.11ac VHT80 (Harmonic @ 3m)**

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11550	48.15	-25.85	74	51.89	38.33	11.59	53.66	-	-	P	H
VHT80		17325	50.27	-18.03	68.3	45.97	41.68	15.05	52.43	-	-	P	H
CH 155		11550	49.5	-24.5	74	53.24	38.33	11.59	53.66	-	-	P	V
5775MHz		17325	50.5	-17.8	68.3	46.2	41.68	15.05	52.43	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax HE20_Full (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Full CH 149 5745MHz		5611	51.19	-17.11	68.3	42.02	34.52	8.03	33.38	315	329	P	H
		5699.4	54.38	-50.38	104.76	44.52	34.7	8.52	33.36	315	329	P	H
		5720	65.1	-45.7	110.8	55.27	34.7	8.48	33.35	315	329	P	H
		5724	69.74	-50.18	119.92	59.92	34.7	8.47	33.35	315	329	P	H
	*	5745	100.7	-----	-----	90.92	34.7	8.43	33.35	315	329	P	H
	*	5745	92.66	-----	-----	82.88	34.7	8.43	33.35	315	329	A	H
		5609.8	50.01	-18.29	68.3	40.85	34.52	8.02	33.38	297	290	P	V
		5697.6	57.9	-45.54	103.44	48.05	34.7	8.51	33.36	297	290	P	V
		5717.2	71.18	-38.84	110.02	61.34	34.7	8.49	33.35	297	290	P	V
		5723	73.49	-44.15	117.64	63.67	34.7	8.47	33.35	297	290	P	V
	*	5745	109.06	-----	-----	99.28	34.7	8.43	33.35	297	290	P	V
	*	5745	100.97	-----	-----	91.19	34.7	8.43	33.35	297	290	A	V



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Full CH 157 5785MHz		5644.6	49.97	-18.33	68.3	40.53	34.59	8.22	33.37	287	335	P	H
		5676	49.88	-37.65	87.53	40.21	34.65	8.39	33.37	287	335	P	H
		5711	49.55	-58.73	108.28	39.71	34.7	8.5	33.36	287	335	P	H
		5724.4	50.74	-70.09	120.83	40.92	34.7	8.47	33.35	287	335	P	H
	*	5785	100.31	-----	-----	90.54	34.77	8.35	33.35	287	335	P	H
	*	5785	92.56	-----	-----	82.79	34.77	8.35	33.35	287	335	A	H
		5852.4	49.31	-67.42	116.73	39.33	34.9	8.41	33.33	287	335	P	H
		5871.4	50.06	-56.15	106.21	40	34.94	8.45	33.33	287	335	P	H
		5885.2	49.5	-48.13	97.63	39.39	34.97	8.47	33.33	287	335	P	H
		5930.8	50.98	-17.32	68.3	40.71	35.06	8.52	33.31	287	335	P	H
		5634.8	51.18	-17.12	68.3	41.83	34.57	8.16	33.38	292	290	P	V
		5699.2	50.53	-54.08	104.61	40.67	34.7	8.52	33.36	292	290	P	V
		5716	51.3	-58.38	109.68	41.46	34.7	8.49	33.35	292	290	P	V
		5723	56.41	-61.23	117.64	46.59	34.7	8.47	33.35	292	290	P	V
	*	5785	108.1	-----	-----	98.33	34.77	8.35	33.35	292	290	P	V
	*	5785	100.96	-----	-----	91.19	34.77	8.35	33.35	292	290	A	V
		5852.4	50.75	-65.98	116.73	40.77	34.9	8.41	33.33	292	290	P	V
		5866.8	50.15	-57.34	107.49	40.11	34.93	8.44	33.33	292	290	P	V
		5888.2	51.71	-43.69	95.4	41.58	34.98	8.48	33.33	292	290	P	V
		5947.6	50.36	-17.94	68.3	40.03	35.1	8.54	33.31	292	290	P	V



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Full CH 165 5825MHz	*	5825	100.54	-----	-----	90.66	34.85	8.36	33.33	322	326	P	H
	*	5825	92.35	-----	-----	82.47	34.85	8.36	33.33	322	326	A	H
		5853.6	58.26	-55.73	113.99	48.26	34.91	8.42	33.33	322	326	P	H
		5860.2	53.82	-55.52	109.34	43.8	34.92	8.43	33.33	322	326	P	H
		5886.2	50.75	-46.13	96.88	40.63	34.97	8.48	33.33	322	326	P	H
		5948.6	50.88	-17.42	68.3	40.55	35.1	8.54	33.31	322	326	P	H
	*	5825	107.93	-----	-----	98.05	34.85	8.36	33.33	291	292	P	V
	*	5825	100.65	-----	-----	90.77	34.85	8.36	33.33	291	292	A	V
		5850.8	64.55	-55.83	120.38	54.57	34.9	8.41	33.33	291	292	P	V
		5855.4	62.69	-48	110.69	52.69	34.91	8.42	33.33	291	292	P	V
		5919	52.33	-20.29	72.62	42.09	35.04	8.52	33.32	291	292	P	V
		5945.8	49.95	-18.35	68.3	39.63	35.09	8.54	33.31	291	292	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Full CH 149 5745MHz		11490	56.03	-17.97	74	59.91	38.29	11.54	53.71	112	335	P	H
		11490	46.68	-7.32	54	50.56	38.29	11.54	53.71	112	335	A	H
		17235	51.87	-16.43	68.3	47.54	41.79	14.91	52.37	-	-	P	H
		11490	53.44	-20.56	74	57.32	38.29	11.54	53.71	188	360	P	V
		11490	45.49	-8.51	54	49.37	38.29	11.54	53.71	188	360	A	V
		17235	51.65	-16.65	68.3	47.32	41.79	14.91	52.37	-	-	P	V
802.11ax HE20 Full CH 157 5785MHz		11570	54.82	-19.18	74	58.52	38.34	11.61	53.65	117	335	P	H
		11570	46.42	-7.58	54	50.12	38.34	11.61	53.65	117	335	A	H
		17355	50.56	-17.74	68.3	46.27	41.64	15.1	52.45	-	-	P	H
		11570	54.19	-19.81	74	57.89	38.34	11.61	53.65	207	10	P	V
		11570	46.4	-7.6	54	50.1	38.34	11.61	53.65	207	10	A	V
		17355	50.31	-17.99	68.3	46.02	41.64	15.1	52.45	-	-	P	V
802.11ax HE20 Full CH 165 5825MHz		11650	54.93	-19.07	74	58.48	38.39	11.67	53.61	119	335	P	H
		11650	47.06	-6.94	54	50.61	38.39	11.67	53.61	119	335	A	H
		17475	50.27	-18.03	68.3	46.03	41.48	15.29	52.53	-	-	P	H
		11650	55.48	-18.52	74	59.03	38.39	11.67	53.61	216	8	P	V
		11650	47.11	-6.89	54	50.66	38.39	11.67	53.61	216	8	A	V
		17475	51.43	-16.87	68.3	47.19	41.48	15.29	52.53	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 - 5725~5850MHz

WIFI 802.11ax HE20_Partial 26 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE20 Partial 26/0 CH 149 5745MHz		5629.8	51.81	-16.49	68.3	42.5	34.56	8.13	33.38	140	136	P	H
		5700	58.28	-46.92	105.2	48.42	34.7	8.52	33.36	140	136	P	H
		5701	70.41	-35.07	105.48	60.55	34.7	8.52	33.36	140	136	P	H
		5723.8	72.34	-47.12	119.46	62.52	34.7	8.47	33.35	140	136	P	H
	*	5745	112.45	-----	-----	102.67	34.7	8.43	33.35	140	136	P	H
	*	5745	105.22	-----	-----	95.44	34.7	8.43	33.35	140	136	A	H
		5642.2	51.08	-17.22	68.3	41.67	34.58	8.2	33.37	325	288	P	V
		5700	67.25	-37.95	105.2	57.39	34.7	8.52	33.36	325	288	P	V
		5703	77.09	-28.95	106.04	67.24	34.7	8.51	33.36	325	288	P	V
		5724	76.05	-43.87	119.92	66.23	34.7	8.47	33.35	325	288	P	V
	*	5745	117.36	-----	-----	107.58	34.7	8.43	33.35	325	288	P	V
	*	5745	109.89	-----	-----	100.11	34.7	8.43	33.35	325	288	A	V



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Partial 26/8 CH 165 5825MHz	*	5825	117.19	-----	-----	107.31	34.85	8.36	33.33	379	306	P	H
	*	5825	109.92	-----	-----	100.04	34.85	8.36	33.33	379	306	A	H
		5854.2	69.97	-42.65	112.62	59.97	34.91	8.42	33.33	379	306	P	H
		5866.8	80.49	-27	107.49	70.45	34.93	8.44	33.33	379	306	P	H
		5879.2	55.1	-46.98	102.08	45.01	34.96	8.46	33.33	379	306	P	H
		5938.2	51.77	-16.53	68.3	41.47	35.08	8.53	33.31	379	306	P	H
	*	5825	110.67	-----	-----	100.79	34.85	8.36	33.33	144	137	P	V
	*	5825	103.32	-----	-----	93.44	34.85	8.36	33.33	144	137	A	V
		5852.2	62.36	-54.82	117.18	52.38	34.9	8.41	33.33	144	137	P	V
		5867.6	70.42	-36.85	107.27	60.37	34.94	8.44	33.33	144	137	P	V
		5917.4	50.93	-22.87	73.8	40.71	35.03	8.51	33.32	144	137	P	V
		5939.6	51.22	-17.08	68.3	40.92	35.08	8.53	33.31	144	137	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax HE40_Full (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 151 5755MHz		5643	51.74	-16.56	68.3	42.31	34.59	8.21	33.37	300	330	P	H
		5698.6	59.22	-44.95	104.17	49.37	34.7	8.51	33.36	300	330	P	H
		5718.8	70.88	-39.58	110.46	61.05	34.7	8.48	33.35	300	330	P	H
		5723.4	72.11	-46.44	118.55	62.29	34.7	8.47	33.35	300	330	P	H
	*	5755	97.57	-----	-----	87.8	34.71	8.41	33.35	300	330	P	H
	*	5755	90.54	-----	-----	80.77	34.71	8.41	33.35	300	330	A	H
		5850.8	49.43	-70.95	120.38	39.45	34.9	8.41	33.33	300	330	P	H
		5856.4	51.2	-59.21	110.41	41.2	34.91	8.42	33.33	300	330	P	H
		5916.6	50.53	-23.86	74.39	40.31	35.03	8.51	33.32	300	330	P	H
		5928.4	50.02	-18.28	68.3	39.75	35.06	8.52	33.31	300	330	P	H
		5645.4	55.03	-13.27	68.3	45.59	34.59	8.22	33.37	296	292	P	V
		5698.4	64.13	-39.89	104.02	54.28	34.7	8.51	33.36	296	292	P	V
		5715.6	73.26	-36.31	109.57	63.42	34.7	8.49	33.35	296	292	P	V
		5724	73.67	-46.25	119.92	63.85	34.7	8.47	33.35	296	292	P	V
	*	5755	104.59	-----	-----	94.82	34.71	8.41	33.35	296	292	P	V
	*	5755	96.54	-----	-----	86.77	34.71	8.41	33.35	296	292	A	V
		5851	51.66	-68.26	119.92	41.68	34.9	8.41	33.33	296	292	P	V
		5859.4	52.21	-57.36	109.57	42.19	34.92	8.43	33.33	296	292	P	V
		5884.6	51.66	-46.41	98.07	41.55	34.97	8.47	33.33	296	292	P	V
		5940.2	50.88	-17.42	68.3	40.58	35.08	8.53	33.31	296	292	P	V



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 159 5795MHz		5636.2	50.3	-18	68.3	40.93	34.57	8.17	33.37	312	330	P	H
		5695.2	50.28	-51.39	101.67	40.46	34.69	8.49	33.36	312	330	P	H
		5719.6	50.61	-60.08	110.69	40.78	34.7	8.48	33.35	312	330	P	H
		5721.8	49.77	-65.13	114.9	39.94	34.7	8.48	33.35	312	330	P	H
	*	5795	96.23	-----	-----	86.45	34.79	8.33	33.34	312	330	P	H
	*	5795	88.18	-----	-----	78.4	34.79	8.33	33.34	312	330	A	H
		5851	50.68	-69.24	119.92	40.7	34.9	8.41	33.33	312	330	P	H
		5859.2	49.92	-59.7	109.62	39.9	34.92	8.43	33.33	312	330	P	H
		5908.4	51.01	-29.44	80.45	40.8	35.02	8.51	33.32	312	330	P	H
		5930.2	50.31	-17.99	68.3	40.04	35.06	8.52	33.31	312	330	P	H
		5646.6	51.04	-17.26	68.3	41.59	34.59	8.23	33.37	292	291	P	V
		5681.6	50.9	-40.76	91.66	41.19	34.66	8.42	33.37	292	291	P	V
		5703.4	52.5	-53.65	106.15	42.65	34.7	8.51	33.36	292	291	P	V
		5723	52	-65.64	117.64	42.18	34.7	8.47	33.35	292	291	P	V
	*	5795	104.34	-----	-----	94.56	34.79	8.33	33.34	292	291	P	V
	*	5795	96.22	-----	-----	86.44	34.79	8.33	33.34	292	291	A	V
		5854.2	54.09	-58.53	112.62	44.09	34.91	8.42	33.33	292	291	P	V
		5856.8	53.68	-56.62	110.3	43.68	34.91	8.42	33.33	292	291	P	V
		5882.8	52.53	-46.88	99.41	42.42	34.97	8.47	33.33	292	291	P	V
		5933.6	49.68	-18.62	68.3	39.39	35.07	8.53	33.31	292	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax HE40_Full (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 151 5755MHz		11510	52.65	-21.35	74	56.47	38.31	11.56	53.69	131	355	P	H
		11510	45.32	-8.68	54	49.14	38.31	11.56	53.69	131	335	A	H
		17265	50.77	-17.53	68.3	46.45	41.76	14.95	52.39	-	-	P	H
		11510	52.94	-21.06	74	56.76	38.31	11.56	53.69	209	6	P	V
		11510	45.27	-8.73	54	49.09	38.31	11.56	53.69	209	6	A	V
		17265	50.45	-17.85	68.3	46.13	41.76	14.95	52.39	-	-	P	V
802.11ax HE40 Full CH 159 5795MHz		11590	53.21	-20.79	74	56.88	38.35	11.62	53.64	118	335	P	H
		11590	45.27	-8.73	54	48.94	38.35	11.62	53.64	118	335	A	H
		17385	50.37	-17.93	68.3	46.09	41.6	15.15	52.47	-	-	P	H
		11590	52.52	-21.48	74	56.19	38.35	11.62	53.64	202	10	P	V
		11590	44.77	-9.23	54	48.44	38.35	11.62	53.64	202	10	A	V
		17385	50.35	-17.95	68.3	46.07	41.6	15.15	52.47	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax HE40_Partial 242 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Partial 262/61 CH 151 5755MHz		5608.4	50.72	-17.58	68.3	41.56	34.52	8.02	33.38	139	134	P	H
		5693	55.75	-44.3	100.05	45.94	34.69	8.48	33.36	139	134	P	H
		5720	67.71	-43.09	110.8	57.88	34.7	8.48	33.35	139	134	P	H
		5724.4	69.88	-50.95	120.83	60.06	34.7	8.47	33.35	139	134	P	H
	*	5755	102.86	-----	-----	93.09	34.71	8.41	33.35	139	134	P	H
	*	5755	95.21	-----	-----	85.44	34.71	8.41	33.35	139	134	A	H
		5854.2	49.93	-62.69	112.62	39.93	34.91	8.42	33.33	139	134	P	H
		5864.4	49.98	-58.19	108.17	39.94	34.93	8.44	33.33	139	134	P	H
		5913	50.02	-27.03	77.05	39.8	35.03	8.51	33.32	139	134	P	H
		5946.2	51.46	-16.84	68.3	41.14	35.09	8.54	33.31	139	134	P	H
		5647.2	51.32	-16.98	68.3	41.87	34.59	8.23	33.37	356	292	P	V
		5695.2	60.92	-40.75	101.67	51.1	34.69	8.49	33.36	356	292	P	V
		5718.2	73.79	-36.51	110.3	63.96	34.7	8.48	33.35	356	292	P	V
		5725	76.88	-45.32	122.2	67.06	34.7	8.47	33.35	356	292	P	V
	*	5755	110.34	-----	-----	100.57	34.71	8.41	33.35	356	292	P	V
	*	5755	102.54	-----	-----	92.77	34.71	8.41	33.35	356	292	A	V
		5853	51.14	-64.22	115.36	41.14	34.91	8.42	33.33	356	292	P	V
		5872	51.2	-54.84	106.04	41.14	34.94	8.45	33.33	356	292	P	V
		5909.4	51.14	-28.57	79.71	40.93	35.02	8.51	33.32	356	292	P	V
		5926.8	50.14	-18.16	68.3	39.88	35.05	8.52	33.31	356	292	P	V



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Partial 262/62 CH 159 5795MHz		5621.2	50.44	-17.86	68.3	41.19	34.54	8.09	33.38	148	137	P	H
		5682.2	51.06	-41.04	92.1	41.35	34.66	8.42	33.37	148	137	P	H
		5718.8	52.61	-57.85	110.46	42.78	34.7	8.48	33.35	148	137	P	H
		5722.4	53.84	-62.43	116.27	44.01	34.7	8.48	33.35	148	137	P	H
	*	5795	102.61	-----	-----	92.83	34.79	8.33	33.34	148	137	P	H
	*	5795	95.22	-----	-----	85.44	34.79	8.33	33.34	148	137	A	H
		5850	59.37	-62.83	122.2	49.39	34.9	8.41	33.33	148	137	P	H
		5857.8	57.1	-52.91	110.01	47.09	34.92	8.42	33.33	148	137	P	H
		5876.8	52.45	-51.41	103.86	42.37	34.95	8.46	33.33	148	137	P	H
		5945.8	51.23	-17.07	68.3	40.91	35.09	8.54	33.31	148	137	P	H
		5623	51.33	-16.97	68.3	42.06	34.55	8.1	33.38	359	292	P	V
		5693.8	53.85	-46.79	100.64	44.03	34.69	8.49	33.36	359	292	P	V
		5717	57.09	-52.87	109.96	47.25	34.7	8.49	33.35	359	292	P	V
		5723.2	55.76	-62.34	118.1	45.94	34.7	8.47	33.35	359	292	P	V
	*	5795	108.15	-----	-----	98.37	34.79	8.33	33.34	359	292	P	V
	*	5795	100.97	-----	-----	91.19	34.79	8.33	33.34	359	292	A	V
		5854.4	68.03	-44.14	112.17	58.03	34.91	8.42	33.33	359	292	P	V
		5855.4	64.78	-45.91	110.69	54.78	34.91	8.42	33.33	359	292	P	V
		5876.8	56.74	-47.12	103.86	46.66	34.95	8.46	33.33	359	292	P	V
		5945.2	50.15	-18.15	68.3	39.83	35.09	8.54	33.31	359	292	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax HE80_Full (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE80 Full CH 155 5775MHz		5650	50.54	-17.76	68.3	41.07	34.6	8.24	33.37	298	330	P	H
		5683.8	57.6	-35.68	93.28	47.87	34.67	8.43	33.37	298	330	P	H
		5707.8	61.12	-46.27	107.39	51.28	34.7	8.5	33.36	298	330	P	H
		5723.2	61.59	-56.51	118.1	51.77	34.7	8.47	33.35	298	330	P	H
	*	5775	93.2	-----	-----	83.43	34.75	8.37	33.35	298	330	P	H
	*	5775	85.1	-----	-----	75.33	34.75	8.37	33.35	298	330	A	H
		5852.4	59.53	-57.2	116.73	49.55	34.9	8.41	33.33	298	330	P	H
		5856.8	60.12	-50.18	110.3	50.12	34.91	8.42	33.33	298	330	P	H
		5877.2	53.76	-49.81	103.57	43.68	34.95	8.46	33.33	298	330	P	H
		5945.8	50.44	24.9	68.3	40.12	35.09	8.54	33.31	298	330	P	H
		5637.8	52.21	-16.09	68.3	42.82	34.58	8.18	33.37	295	291	P	V
		5681.2	61.85	-29.51	91.36	52.14	34.66	8.42	33.37	295	291	P	V
		5716.4	64.07	-45.72	109.79	54.23	34.7	8.49	33.35	295	291	P	V
		5721	66.4	-46.68	113.08	56.57	34.7	8.48	33.35	295	291	P	V
	*	5775	100.08	-----	-----	90.31	34.75	8.37	33.35	295	291	P	V
	*	5775	91.96	-----	-----	82.19	34.75	8.37	33.35	295	291	A	V
		5850.2	60.27	-61.47	121.74	50.29	34.9	8.41	33.33	295	291	P	V
		5865.8	61.87	-45.9	107.77	51.83	34.93	8.44	33.33	295	291	P	V
		5875.2	57.7	-47.35	105.05	47.62	34.95	8.46	33.33	295	291	P	V
		5927.2	50.92	-17.38	68.3	40.66	35.05	8.52	33.31	295	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Band 4 5725~5850MHz****WIFI 802.11ax HE80_Full (Harmonic @ 3m)**

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax		11550	49.03	-24.97	74	52.77	38.33	11.59	53.66	-	-	P	H
HE80 Full		17325	50	-18.3	68.3	45.7	41.68	15.05	52.43	-	-	P	H
CH 155		11550	48.67	-25.33	74	52.41	38.33	11.59	53.66	-	-	P	V
5775MHz		17325	50.64	-17.66	68.3	46.34	41.68	15.05	52.43	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax HE80_Partial 484 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE80 Partial 484/65 CH 155 5775MHz		5644	50.59	-17.71	68.3	41.16	34.59	8.21	33.37	141	136	P	H
		5698.8	61.23	-43.09	104.32	51.38	34.7	8.51	33.36	141	136	P	H
		5719.2	67.11	-43.47	110.58	57.28	34.7	8.48	33.35	141	136	P	H
		5723	68.78	-48.86	117.64	58.96	34.7	8.47	33.35	141	136	P	H
	*	5775	100.23	-----	-----	90.46	34.75	8.37	33.35	141	136	P	H
	*	5775	91.74	-----	-----	81.97	34.75	8.37	33.35	141	136	A	H
		5851.6	50.99	-67.56	118.55	41.01	34.9	8.41	33.33	141	136	P	H
		5863	50.82	-57.74	108.56	40.79	34.93	8.43	33.33	141	136	P	H
		5911.2	50.58	-27.8	78.38	40.37	35.02	8.51	33.32	141	136	P	H
		5934.8	50.59	-17.71	68.3	40.3	35.07	8.53	33.31	141	136	P	H
		5641	59.2	-9.1	68.3	49.79	34.58	8.2	33.37	352	295	P	V
		5699.8	66.11	-38.94	105.05	56.25	34.7	8.52	33.36	352	295	P	V
		5715.2	71.97	-37.49	109.46	62.13	34.7	8.49	33.35	352	295	P	V
		5724	74.6	-45.32	119.92	64.78	34.7	8.47	33.35	352	295	P	V
	*	5775	107.44	-----	-----	97.67	34.75	8.37	33.35	352	295	P	V
	*	5775	99.51	-----	-----	89.74	34.75	8.37	33.35	352	295	A	V
		5852.8	56.42	-59.4	115.82	46.42	34.91	8.42	33.33	352	295	P	V
		5870	53.37	-53.23	106.6	43.31	34.94	8.45	33.33	352	295	P	V
		5878.2	53.53	-49.29	102.82	43.44	34.96	8.46	33.33	352	295	P	V
		5927.4	51.32	-16.98	68.3	41.06	35.05	8.52	33.31	352	295	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE80 Partial 484/66 CH 155 5775MHz		5611.4	50.18	-18.12	68.3	41.01	34.52	8.03	33.38	151	136	P	H
		5694.6	55.98	-45.25	101.23	46.16	34.69	8.49	33.36	151	136	P	H
		5717.4	58.08	-51.99	110.07	48.24	34.7	8.49	33.35	151	136	P	H
		5723.2	58.39	-59.71	118.1	48.57	34.7	8.47	33.35	151	136	P	H
	*	5775	98.93	-----	-----	89.16	34.75	8.37	33.35	151	136	P	H
	*	5775	91.89	-----	-----	82.12	34.75	8.37	33.35	151	136	A	H
		5852.4	56.74	-59.99	116.73	46.76	34.9	8.41	33.33	151	136	P	H
		5857	53.07	-57.17	110.24	43.07	34.91	8.42	33.33	151	136	P	H
		5877.4	52.53	-50.89	103.42	42.45	34.95	8.46	33.33	151	136	P	H
		5948.2	50.48	-17.82	68.3	40.15	35.1	8.54	33.31	151	136	P	H
		5647	52.53	-15.77	68.3	43.08	34.59	8.23	33.37	348	294	P	V
		5697.6	61.92	-41.52	103.44	52.07	34.7	8.51	33.36	348	294	P	V
		5715.8	62.53	-47.1	109.63	52.69	34.7	8.49	33.35	348	294	P	V
		5724.8	62.37	-59.37	121.74	52.55	34.7	8.47	33.35	348	294	P	V
	*	5775	105.57	-----	-----	95.8	34.75	8.37	33.35	348	294	P	V
	*	5775	98.24	-----	-----	88.47	34.75	8.37	33.35	348	294	A	V
		5852.6	63.69	-52.58	116.27	53.7	34.91	8.41	33.33	348	294	P	V
		5855.2	61.81	-48.93	110.74	51.81	34.91	8.42	33.33	348	294	P	V
		5884.4	57.33	-40.89	98.22	47.22	34.97	8.47	33.33	348	294	P	V
		5932.4	52.89	-15.41	68.3	42.61	35.06	8.53	33.31	348	294	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz
WIFI 802.11a (LF @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a LF		30.97	24.97	-15.03	40	31.54	25.29	0.54	32.4	-	-	P	H
		100.81	18.79	-24.71	43.5	33.76	16.21	1.02	32.2	-	-	P	H
		276.38	20.17	-25.83	46	30.85	19.34	1.73	31.75	-	-	P	H
		591.63	28.54	-17.46	46	30.43	26.31	2.54	30.74	-	-	P	H
		817.64	31.41	-14.59	46	30.91	28.86	2.98	31.34	-	-	P	H
		945.68	33.28	-12.72	46	30.56	31	3.22	31.5	-	-	P	H
		30	25.49	-14.51	40	31.5	25.86	0.53	32.4	-	-	P	V
		44.55	22.43	-17.57	40	36.7	17.48	0.65	32.4	-	-	P	V
		118.27	18.26	-25.24	43.5	31.71	17.64	1.11	32.2	-	-	P	V
		382.11	22.42	-23.58	46	30.31	21.56	2.06	31.51	-	-	P	V
		615.88	28.94	-17.06	46	30.66	26.42	2.59	30.73	-	-	P	V
		949.56	32.88	-13.12	46	30.01	31.14	3.23	31.5	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

**Note symbol**

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is Margin line.
P/A	Peak or Average
H/V	Horizontal or Vertical



A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		11213	48.14	-25.86	74	59.06	39.72	17.65	68.29	-	-	P	H
		11213	37.67	-16.33	54	48.59	39.72	17.65	68.29	-	-	A	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Margin(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 11213MHz:

1. Level(dBμV/m)
 = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
 = 39.72(dB/m) + 17.65(dB) + 59.06(dBμV) – 68.29 (dB)
 = 48.14 (dBμV/m)
2. Margin(dB)
 = Level(dBμV/m) – Limit Line(dBμV/m)
 = 48.14(dBμV/m) – 74(dBμV/m)
 = -25.86(dB)

For Average Limit @ 11213MHz:

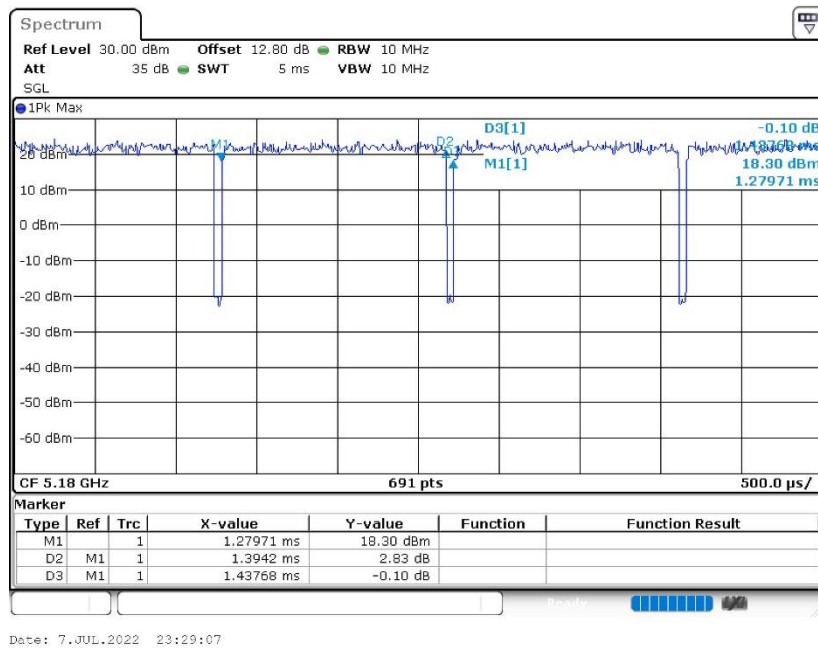
1. Level(dBμV/m)
 = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
 = 39.72(dB/m) + 17.65(dB) + 48.59(dBμV) – 68.29 (dB)
 = 37.67 (dBμV/m)
2. Margin(dB) = Level(dBμV/m) – Limit Line(dBμV/m)
 = 37.67(dBμV/m) – 54(dBμV/m)
 = -16.33(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.

Appendix D. Duty Cycle Plots

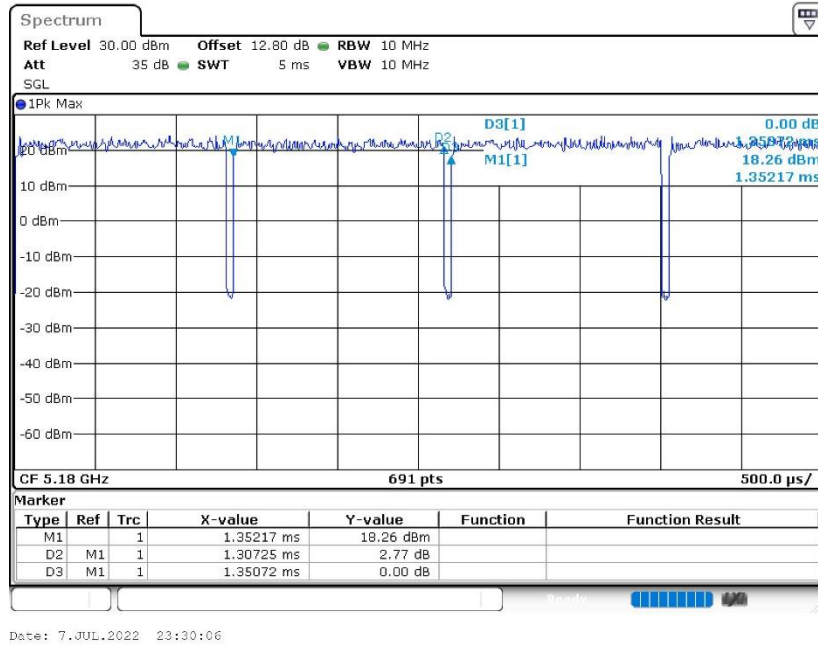
Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	96.98	1.39	0.717	1KHz
802.11n HT20	96.78	1.31	0.765	1KHz
802.11n HT40	93.35	0.65	1.537	3KHz
802.11ac VHT20	96.79	1.31	0.762	1KHz
802.11ac VHT40	93.75	0.65	1.533	3KHz
802.11ac VHT80	88.19	0.33	3.080	10Hz
802.11ax HE20	94.98	1.01	0.986	1KHz
802.11ax HE40	92.50	0.54	1.865	3KHz
802.11ax HE80	87.01	0.29	3.433	10Hz

802.11a

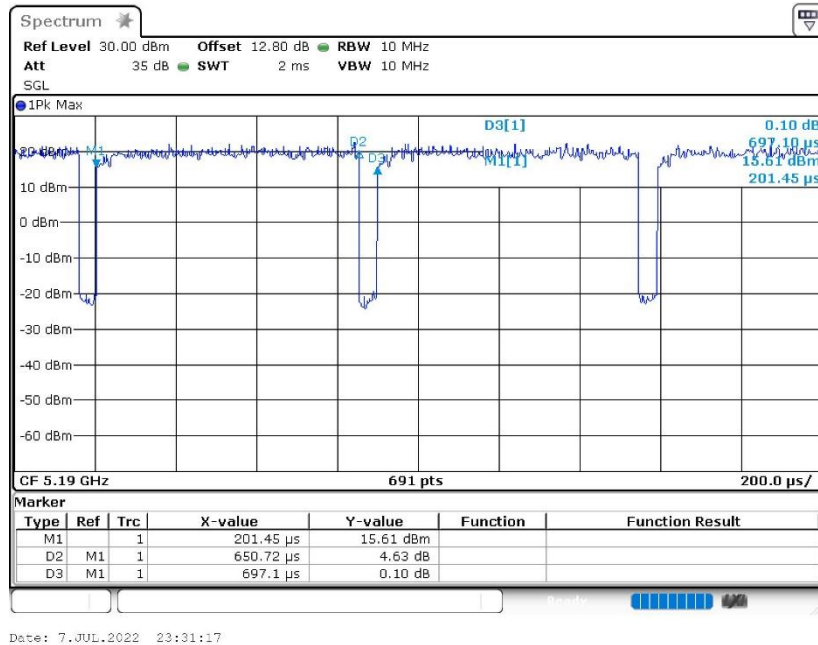




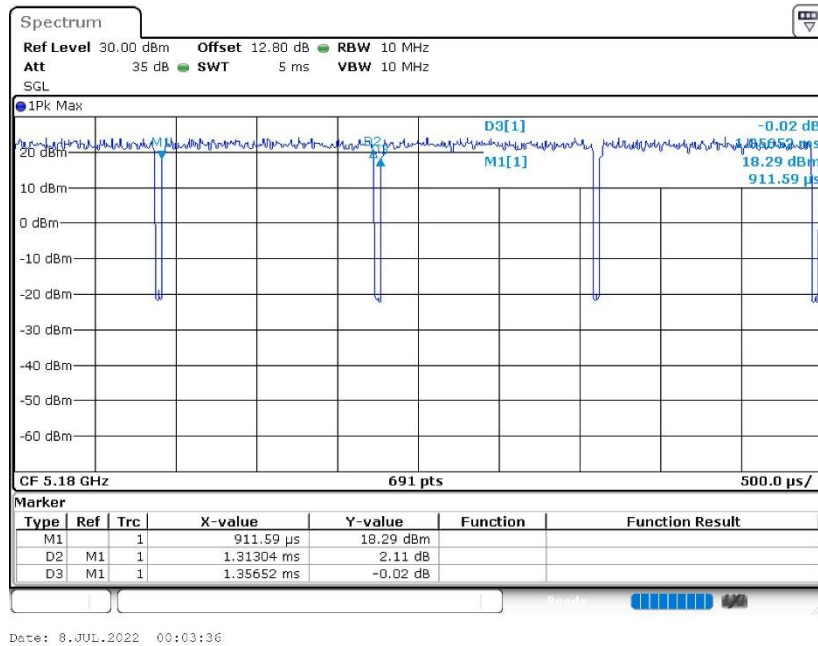
802.11n HT20



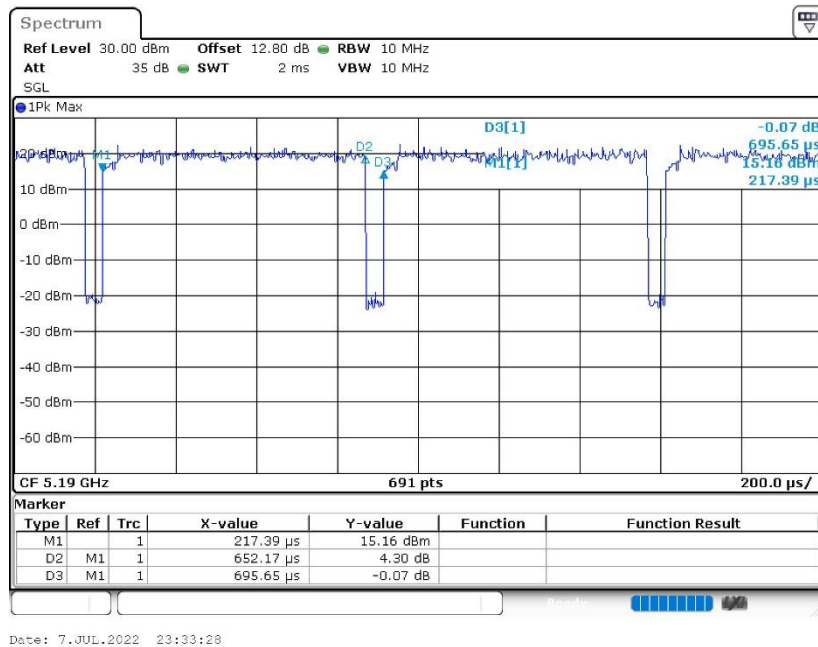
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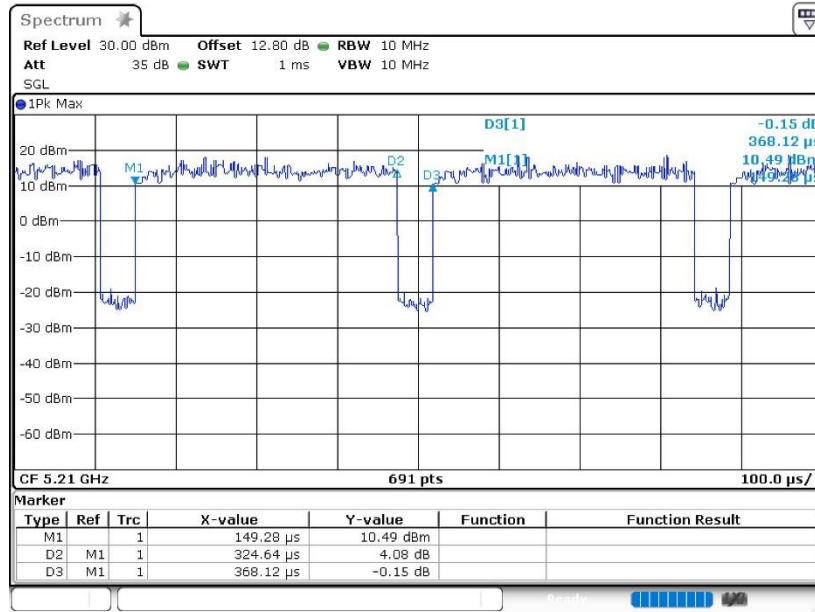


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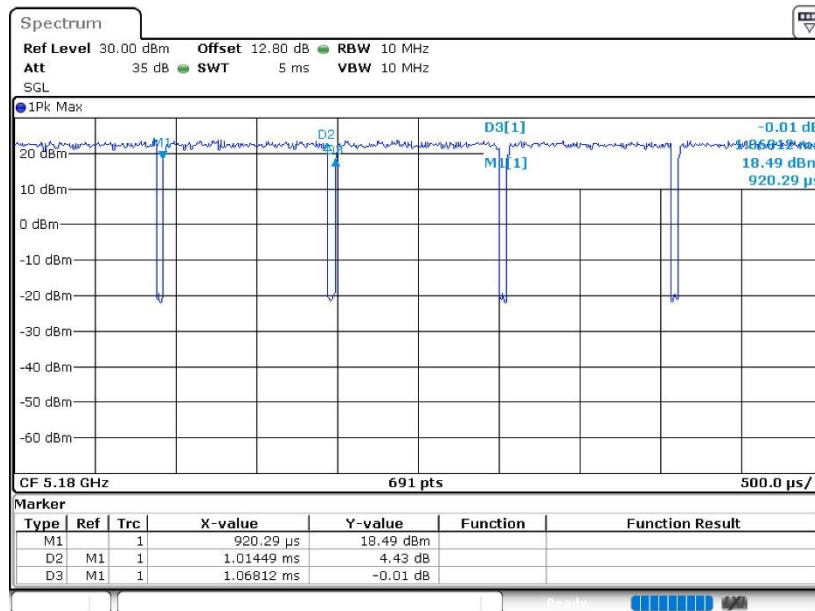


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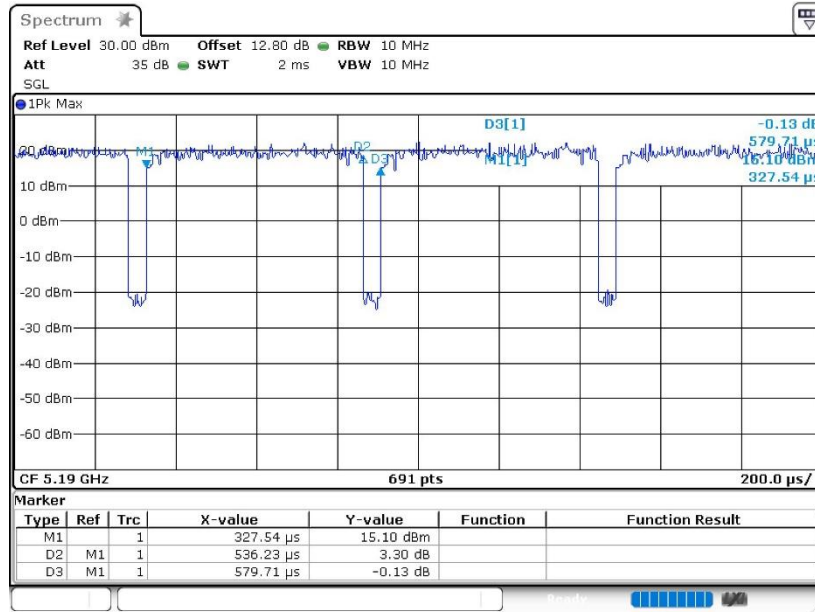
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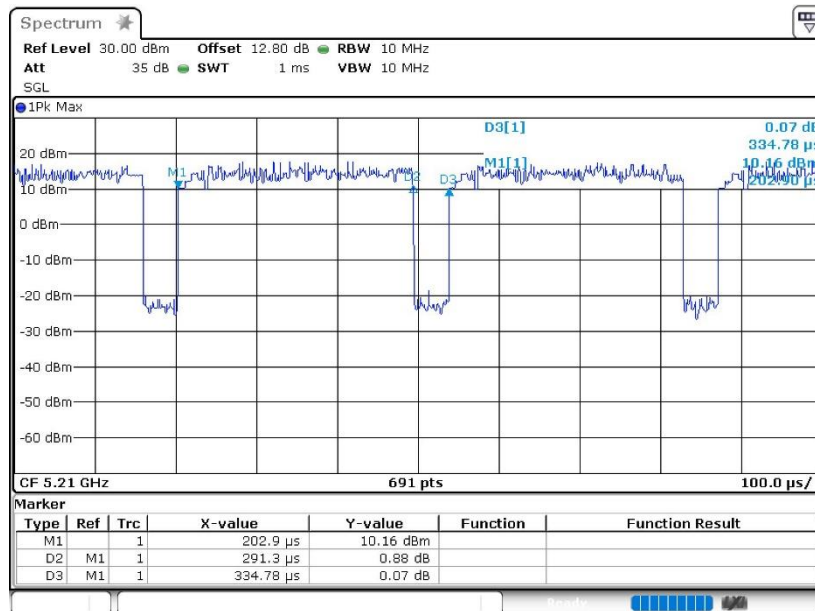
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