FCC RADIO TEST REPORT

FCC ID	:	**I28-WYSBHVDXP**
Equipment	:	**WLAN/BTLE module**
Brand Name	:	**ZEBRA**
Model Name	:	**WYSBHVDXP**
Applicant	:	**Zebra Technologies Corporation** **3 Overlook Point, Lincolnshire, IL 60069, United States**
Manufacturer	:	**Zebra Technologies Corporation** **3 Overlook Point, Lincolnshire, IL 60069, United States**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on Mar. 08, 2021 and testing was started from Mar. 19, 2021 and completed on Apr. 27, 2021. We, Sporton International Inc. Wensan Laboratory, 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. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory
No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)

TEL: 886-3-327-0868
FAX: 886-3-327-0855

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History of this test report

Report No.	Version	Description	Issued Date
FR0D2423E	01	Initial issue of report	May 05, 2021

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403(i)	6dB & 26dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.407(a)	Maximum Conducted Output Power	Pass	-
3.3	15.407(a)	Power Spectral Density	Pass	-
3.4	15.407(b)	Unwanted Emissions	Pass	Under limit 6.42 dB at 197.810 MHz
3.5	15.207	AC Conducted Emission	Pass	Under limit 9.36 dB at 13.241 MHz
3.6	15.407(c)	Automatically Discontinue Transmission	Pass	-
3.7	15.203 15.407(a)	Antenna Requirement	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.

Reviewed by: Wii Chang

Report Producer: Vivian Hsu

1 General Description

1.1 Product Feature of Equipment Under Test

Product Specification subjective to this standard	
Equipment	WLAN/BTLE module
Brand Name	ZEBRA
Model Name	WYSBHVDXP
FCC ID	I28-WYSBHVDXP
EUT supports Radios application	WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 WLAN 11ax HE20/HE40/HE80 Bluetooth BR/EDR/LE
HW Version	Revision F
SW Version	17.68.01.p13
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer.

Supported Unit Used in Test Configuration and System				
Printer	**Brand Name**	ZEBRA	**Model Name**	ZQ521
Battery	**Brand Name**	ZEBRA	**Part Number**	P1089503-003
AC Adapter	**Brand Name**	ZEBRA	**Model Name**	FSP025-DYAA3
Bluetooth Antenna 1	**Brand Name**	gigaAnt	**Model Name**	3030A5645-01
Bluetooth Antenna 2	**Brand Name**	TAIYO YUDEN	**Model Name**	AH 168M245001
Bluetooth Antenna 3	**Brand Name**	Johanson Technology	**Model Name**	2450AT07A0100
WLAN Antenna 1	**Brand Name**	Laird	**Model Name**	RD2458-5
WLAN Antenna 2	**Brand Name**	Pulse	**Model Name**	W3006
WLAN Antenna 3	**Brand Name**	Auden	**Model Name**	220370-09
WLAN Antenna 4	**Brand Name**	Auden	**Model Name**	B91882-30

1.2 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx/Rx Frequency Range	5745 MHz ~ 5825 MHz
Maximum Output Power to Antenna	**<Ant. 1>** 802.11a: 14.00 dBm / 0.0251 W **<Ant. 2>** 802.11a: 14.00 dBm / 0.0251 W **MIMO<Ant. 1 + 2>** 802.11n HT20: 12.44 dBm / 0.0175 W 802.11n HT40: 11.86 dBm / 0.0153 W 802.11ac VHT20: 12.34 dBm / 0.0171 W 802.11ac VHT40: 11.76 dBm / 0.0150 W 802.11ac VHT80: 8.91 dBm / 0.0078 W 802.11ax HE20: 12.54 dBm / 0.0179 W 802.11ax HE40: 11.96 dBm / 0.0157 W 802.11ax HE80: 4.87 dBm / 0.0031 W
99% Occupied Bandwidth	**<Ant. 1>** 802.11a: 16.83 MHz **<Ant. 2>** 802.11a: 16.78 MHz **MIMO<Ant. 1>** 802.11ac VHT80: 77.32 MHz 802.11ax HE20: 18.83 MHz 802.11ax HE40: 37.76 MHz **MIMO<Ant. 2>** 802.11ac VHT80: 77.20 MHz 802.11ax HE20: 18.78 MHz 802.11ax HE40: 37.86 MHz
Antenna Type / Gain	**<RD2458-5>** <Ant. 1>: Dipole Antenna with gain 5.0 dBi <Ant. 2>: Dipole Antenna with gain 5.0 dBi **<W3006>** <Ant. 1>: Chip Antenna with gain 4.2 dBi <Ant. 2>: Chip Antenna with gain 4.2 dBi **<220370-09>** <Ant. 1>: Mylar Antenna with gain 2.69 dBi <Ant. 2>: Mylar Antenna with gain 2.69 dBi **<B91882-30>** <Ant. 1>: Mylar Antenna with gain 4.0 dBi <Ant. 2>: Mylar Antenna with gain 4.0 dBi
Type of Modulation	802.11a/n : OFDM (BPSK/QPSK/16QAM/64QAM) 802.11ac : OFDM (BPSK/QPSK/16QAM/64QAM/256QAM) 802.11ax : OFDM (BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM)
Antenna Function Description	<table><tr><td></td><td>Ant. 1</td><td>Ant. 2</td></tr><tr><td>802.11 a</td><td>V</td><td>V</td></tr><tr><td>802.11 n/ac/ax MIMO</td><td>V</td><td>V</td></tr></table>

Remark:

1. MIMO Ant. 1+2 is a calculated result from sum of the power MIMO Ant. 1 and MIMO Ant. 2.
2. The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.3 Modification of EUT

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

1.4 Testing Location

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	TH05-HY; 03CH15-HY, CO07-HY

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC designation No.: TW3786

1.5 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- 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. The TAF code is not including all the FCC KDB listed without accreditation.
3. 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 two antenna polarization (Horizontal and Vertical). The worst cases (Ant. Vertical for RD2458-5; Ant. Vertical for W3006 and Ant. Vertical for 220370-09) 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)
5725-5850 MHz Band 4 (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 and 802.11ax HE40.
2. The above Frequency and Channel in "#" were 802.11ac VHT80 and 802.11ax HE80.

2.2 Test Mode

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

Single Mode

Modulation	Data Rate
802.11a	**6 Mbps**

MIMO Mode

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

Test Cases	
AC Conducted Emission	Mode 1 :WLAN (5GHz) Link + Bluetooth Link + Printer + AC Adapter + WLAN Antenna *2 + Bluetooth Antenna

Ch. #		Band IV：5725-5850 MHz			
		802.11a	802.11ax HE20	802.11ax HE40	802.11ac VHT80
L	Low	149	149	151	-
M	Middle	157	157	-	155
H	High	165	165	159	-

Remark: For radiation spurious emission, the final modulation and the worst data rate was reference the max RF conducted power.

<Ant. 1>

802.11a RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	Data Rate (bps)	Channel	Data Rate (bps)						
		6M		9M	12M	18M	24M	36M	48M	54M
CH 149	5745	13.50	CH 165	13.90	13.90	13.90	13.90	13.90	13.90	13.90
CH 157	5785	13.50								
CH 165	5825	**14.00**								

<Ant. 2>

802.11a RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	Data Rate (bps)	Channel	Data Rate (bps)						
		6M		9M	12M	18M	24M	36M	48M	54M
CH 149	5745	12.90	CH 165	13.90	13.90	13.90	13.90	13.90	13.90	13.90
CH 157	5785	12.80								
CH 165	5825	**14.00**								

MIMO <Ant. 1+2>

802.11n HT20 RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS Index MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 149	5745	**12.44**	CH 149	12.34	12.34	12.34	12.34	12.34	12.34	12.34
CH 157	5785	12.41								
CH 165	5825	12.32								

802.11n HT40 RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS Index MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 151	5755	**11.86**	CH 151	11.76	11.76	11.76	11.76	11.76	11.76	11.76
CH 159	5795	11.69								

802.11ac VHT20 RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS Index MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
CH 149	5745	**12.34**	CH 149	12.24	12.24	12.24	12.24	12.24	12.24	12.24	12.24
CH 157	5785	12.31									
CH 165	5825	12.22									

802.11ac VHT40 RF Output Power (dBm)											
Power vs. Channel			Power vs Data Rate								
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS Index MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 151	5755	**11.76**	CH 151	11.66	11.66	11.66	11.66	11.66	11.66	11.66	11.66	11.66
CH 159	5795	11.59										

802.11ac VHT80 RF Output Power (dBm)												
Power vs. Channel			Power vs Data Rate									
Channel	Frequency (MHz)	MCS Index	Channel	MCS Index								
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 155	5775	**8.91**	CH 155	8.81	8.81	8.81	8.81	8.81	8.81	8.81	8.81	8.81

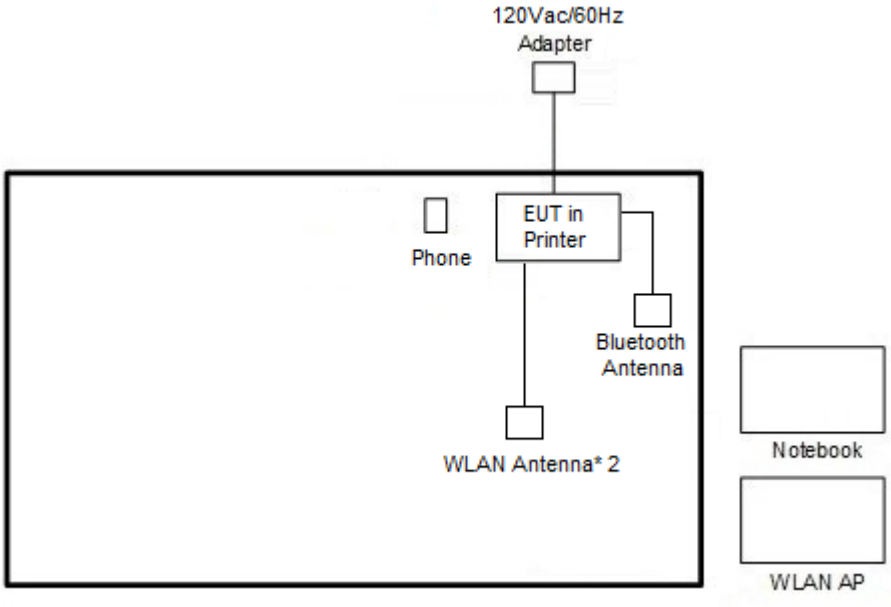
802.11ax HE20 RF Output Power (dBm)														
Power vs. Channel				Power vs Data Rate										
Channel	Frequency (MHz)	RU Config.	MCS Index	Channel	MCS Index									
			MCS0		MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9	MCS 10	MCS 11
CH 149	5745	Full	**12.54**	CH 149	12.44	12.44	12.44	12.44	12.44	12.44	12.44	12.44	12.44	12.44	12.44
CH 157	5785	Full	12.51												
CH 157	5785	Full	12.42												

802.11ax HE40 RF Output Power (dBm)														
Power vs. Channel				Power vs Data Rate										
Channel	Frequency (MHz)	RU Config.	MCS Index	Channel	MCS Index									
			MCS0		MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9	MCS 10	MCS 11
CH 151	5755	Full	**11.96**	CH 151	11.86	11.86	11.86	11.86	11.86	11.86	11.86	11.86	11.86	11.86	11.86
CH 159	5795	Full	11.79												

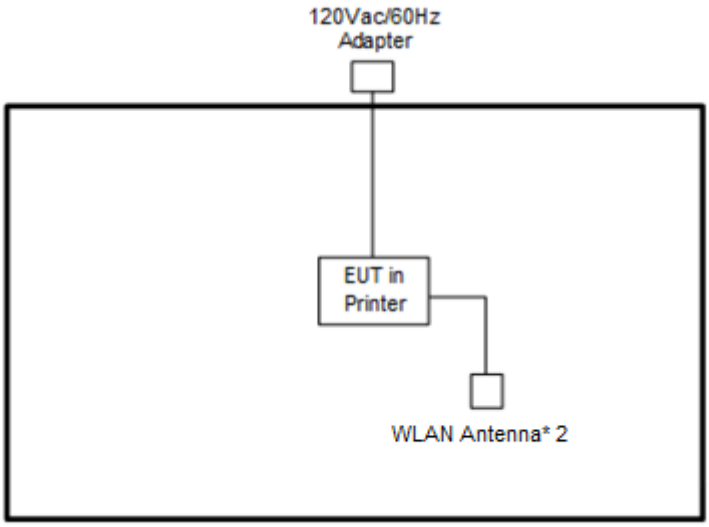
802.11ax HE80 RF Output Power (dBm)														
Power vs. Channel				Power vs Data Rate										
Channel	Frequency (MHz)	RU Config.	MCS Index	Channel	MCS Index									
			MCS0		MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9	MCS 10	MCS 11
CH 155	5775	Full	**4.87**	CH 155	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77

2.3 Connection Diagram of Test System

<AC Conducted Emission Mode>



<WLAN Tx Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	Lenovo	L570	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	Notebook	DELL	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Phone	SUGAR	Y12s	FCC DoC	N/A	N/A
4.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, utility “Toolbox_Version 1.84” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

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 4.2 dB and 10 dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.2 + 10 = 14.2 (dB)

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.

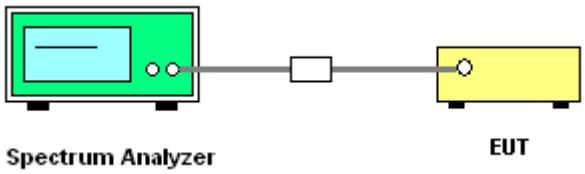
3.1.2 Measuring Instruments

See list of measuring equipment 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 5.725-5.85 GHz
2. Set RBW = 100 kHz.
3. Set the VBW ≥ 3 x 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 and 26dB and 99% Occupied Bandwidth

Test Engineer :	Hank Hsu	Temperature :	21~25℃
		Relative Humidity :	51~54%

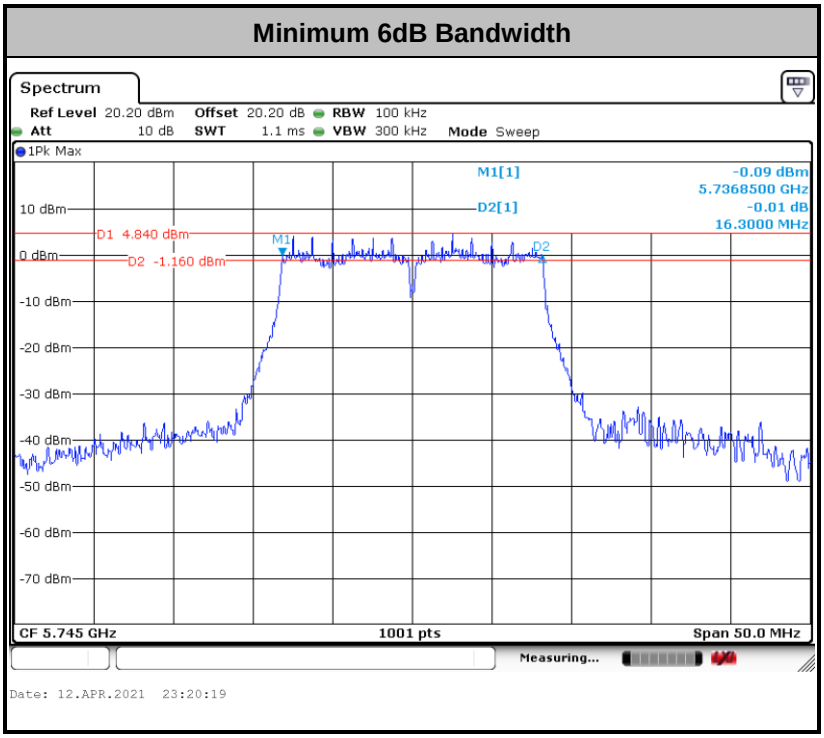
Band IV single antenna

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		
11a	6Mbps	1	149	5745	16.73	**16.78**	21.75	**22.20**	16.35	**16.30**	0.5	Pass
11a	6Mbps	1	157	5785	16.78	16.73	**22.40**	22.10	16.35	**16.30**	0.5	Pass
11a	6Mbps	1	165	5825	**16.83**	**16.78**	21.45	21.90	16.35	16.35	0.5	Pass

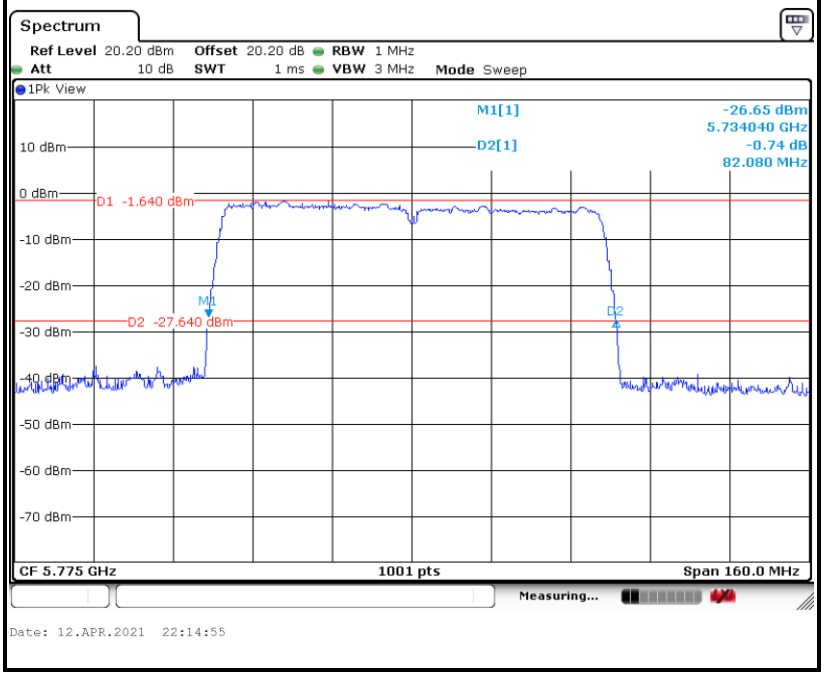
Band IV MIMO

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		
VHT80	MCS0	2	155	5775	**77.32**	**77.20**	**82.08**	**81.44**	76.00	75.84	0.5	Pass

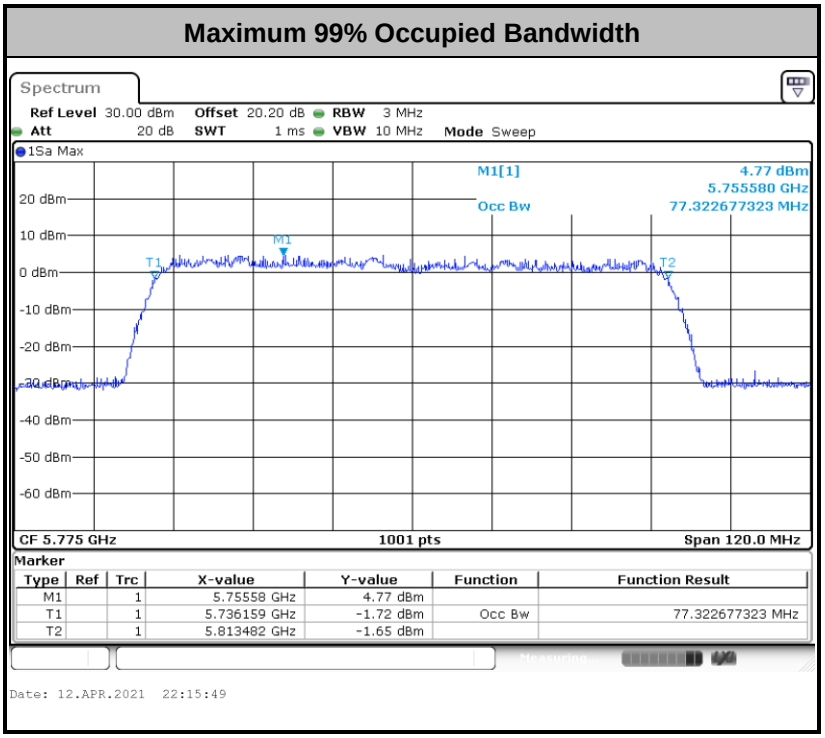
Minimum 6dB Bandwidth



Maximum 26dB Bandwidth



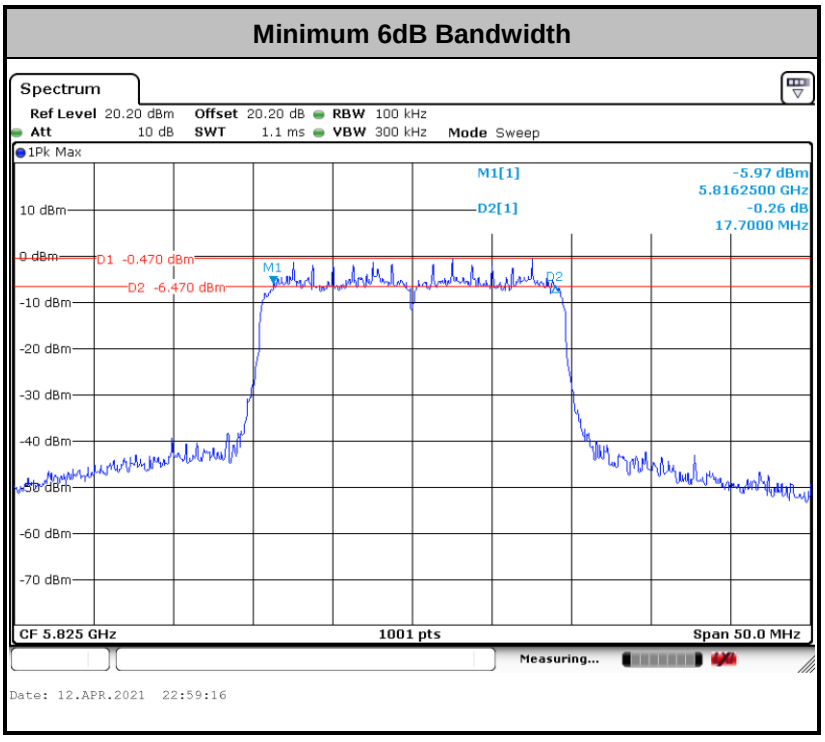
Maximum 99% Occupied Bandwidth



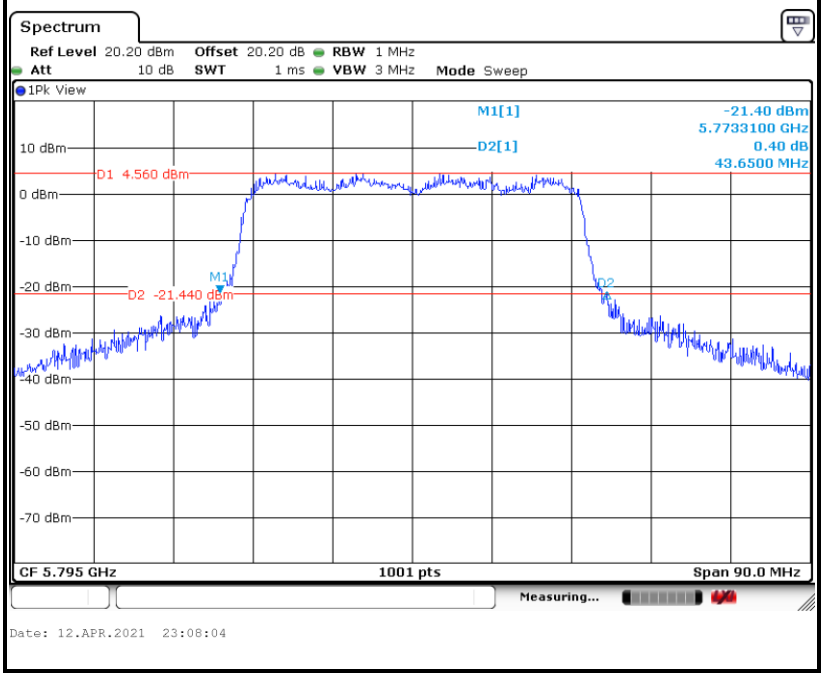
<For 802.11ax Mode>

Band IV MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	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		
HE20	MCS0	2	149	5745	Full	18.78	18.73	22.05	21.75	17.80	17.90	0.5	Pass
HE20	MCS0	2	157	5785	Full	18.83	18.78	22.10	21.70	17.90	18.00	0.5	Pass
HE20	MCS0	2	165	5825	Full	18.78	18.78	22.20	21.90	**17.70**	17.90	0.5	Pass
HE40	MCS0	2	151	5755	Full	37.56	**37.86**	41.94	43.20	36.45	36.09	0.5	Pass
HE40	MCS0	2	159	5795	Full	**37.76**	**37.86**	**42.21**	**43.65**	36.54	36.27	0.5	Pass

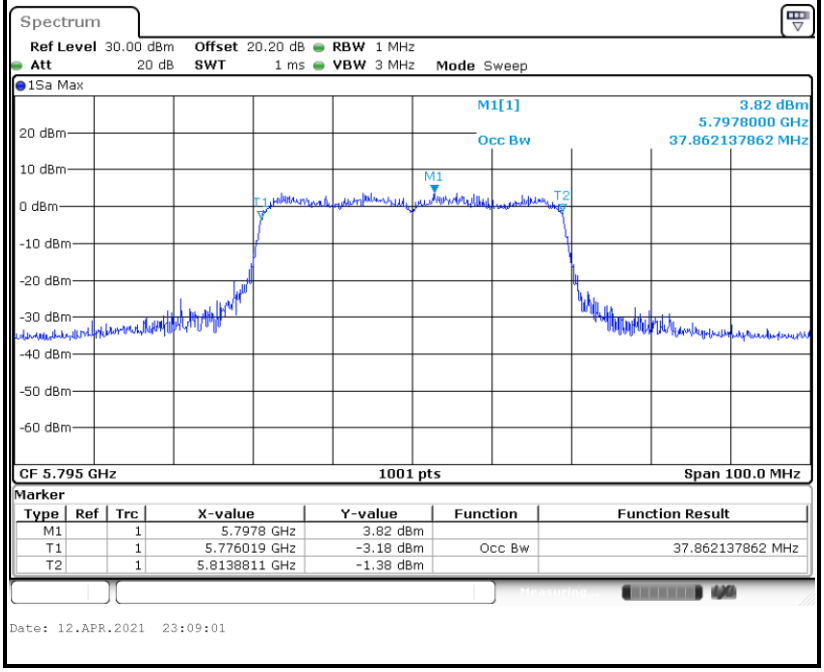
Minimum 6dB Bandwidth



Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak 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

See list of measuring equipment of this test report.

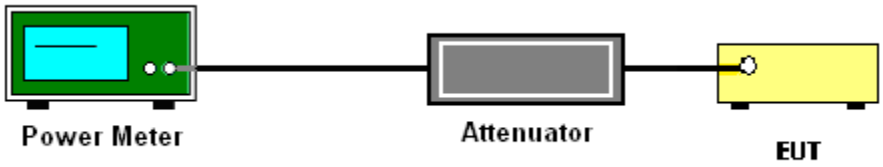
3.2.3 Test Procedures

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

Method PM-G (Measurement using a gated RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit at its maximum power control level.
3. Measure the average power of the transmitter.
4. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Test Engineer :	Hank Hsu	Temperature :	21~25℃
		Relative Humidity :	51~54%

Band IV single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	13.50	12.90	-	30.00	30.00	5.00	5.00	Pass
11a	6Mbps	1	157	5785	13.50	12.80		30.00	30.00	5.00	5.00	Pass
11a	6Mbps	1	165	5825	**14.00**	**14.00**		30.00	30.00	5.00	5.00	Pass

Band IV MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
HT20	MCS0	2	149	5745	9.90	8.90	**12.44**	30.00		5.00		Pass
HT20	MCS0	2	157	5785	10.00	8.70	12.41	30.00		5.00		Pass
HT20	MCS0	2	165	5825	10.00	8.50	12.32	30.00		5.00		Pass
HT40	MCS0	2	151	5755	9.70	7.80	11.86	30.00		5.00		Pass
HT40	MCS0	2	159	5795	9.60	7.50	11.69	30.00		5.00		Pass
VHT20	MCS0	2	149	5745	9.80	8.80	12.34	30.00		5.00		Pass
VHT20	MCS0	2	157	5785	9.90	8.60	12.31	30.00		5.00		Pass
VHT20	MCS0	2	165	5825	9.90	8.40	12.22	30.00		5.00		Pass
VHT40	MCS0	2	151	5755	9.60	7.70	11.76	30.00		5.00		Pass
VHT40	MCS0	2	159	5795	9.50	7.40	11.59	30.00		5.00		Pass
VHT80	MCS0	2	155	5775	6.90	4.60	8.91	30.00		5.00		Pass

<For 802.11ax Mode>

Band IV MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
						Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
HE20	MCS0	2	149	5745	Full	10.00	9.00	**12.54**	30.00		5.00		Pass
HE20	MCS0	2	157	5785	Full	10.10	8.80	12.51	30.00		5.00		Pass
HE20	MCS0	2	165	5825	Full	10.10	8.60	12.42	30.00		5.00		Pass
HE40	MCS0	2	151	5755	Full	9.80	7.90	11.96	30.00		5.00		Pass
HE40	MCS0	2	159	5795	Full	9.70	7.60	11.79	30.00		5.00		Pass
HE80	MCS0	2	155	5775	Full	2.90	0.50	4.87	30.00		5.00		Pass

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.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak 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

See list of measuring equipment 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.

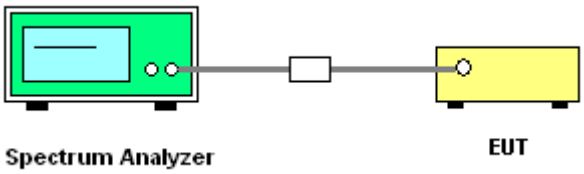
 # Method SA-3 #

(power averaging (rms) detection with max hold):

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time ≤ (number of points in sweep) × 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.
  Detector = power averaging (rms).
- Trace mode = max hold.
- Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

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 PPSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
   Method (c): Measure and add 10 log(N_{ANT}) dB.
   With this technique, spectrum measurements are performed at each output of the device, but rather than summing the spectra or the spectral peaks across the outputs, the quantity 10 log(N_{ANT}) dB is added to each spectrum value before comparing to the emission limit. The addition of 10 log(N_{ANT}) dB serves to apportion the emission limit among the N_{ANT} outputs so that each output is permitted to contribute no more than $1/N_{ANT}$ th of the PSD limit.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

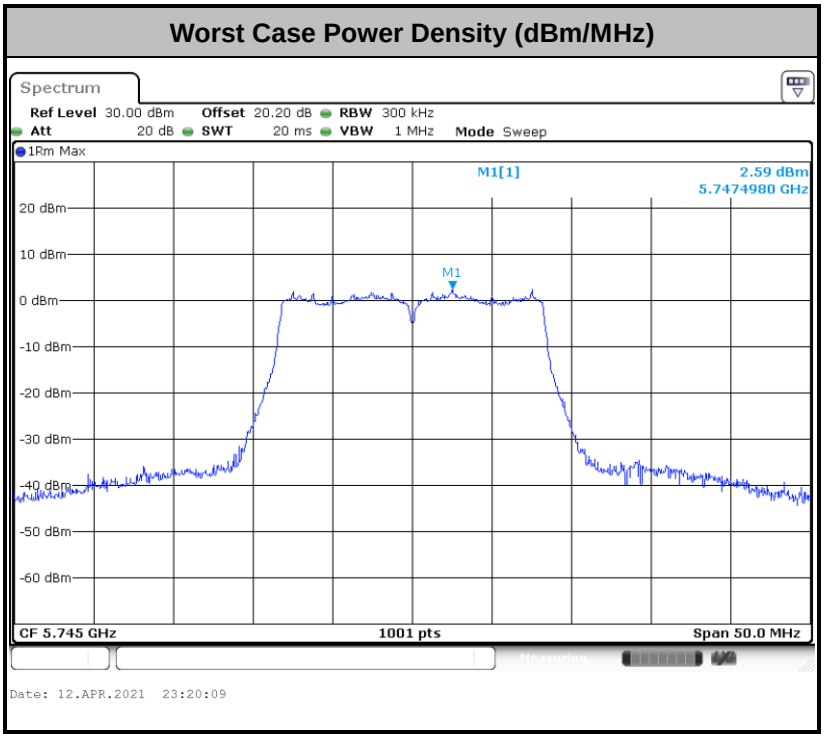
Test Engineer :	Hank Hsu	Temperature :	21~25℃
		Relative Humidity :	51~54%

Band IV single antenna														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	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	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	2.22	2.22	2.59	**4.81**		30.00	30.00	5.00	5.00	Pass
11a	6Mbps	1	157	5785	2.22	2.22	2.66	4.07	-	30.00	30.00	5.00	5.00	Pass
11a	6Mbps	1	165	5825	2.22	2.22	**3.44**	3.53		30.00	30.00	5.00	5.00	Pass

Band IV MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	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	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
VHT80	MCS0	2	155	5775	2.22		-9.32	-11.57	**-6.31**	27.99		8.01		Pass

Note: PSD Sum = Max PSD (Ant. 1, Ant. 2) + 10 log (n)

Worst Case Power Density (dBm/MHz)

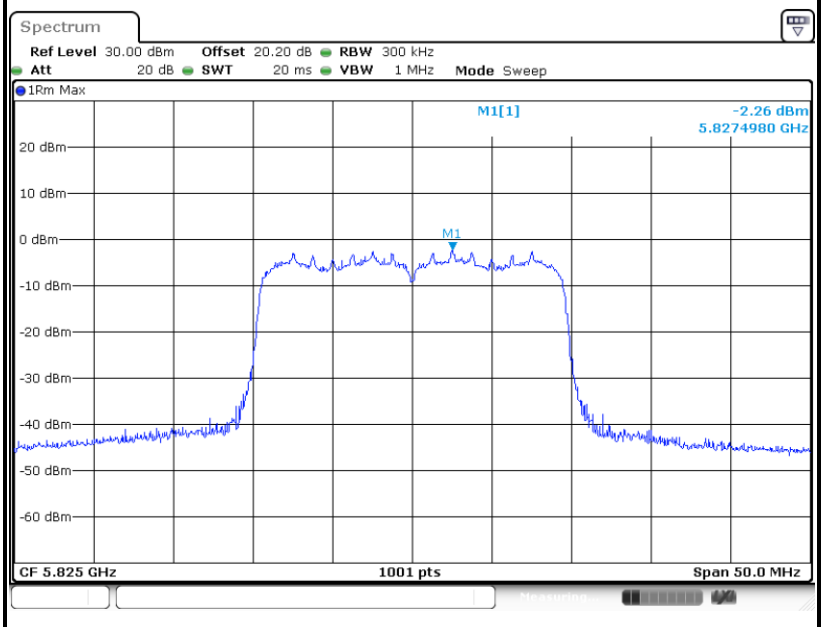


<For 802.11ax Mode>

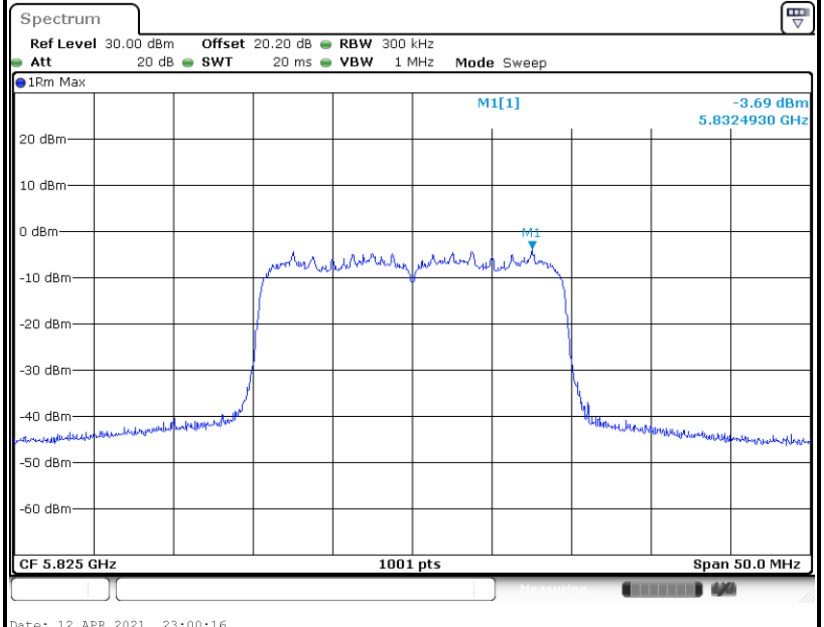
Band IV MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
HE20	MCS0	2	149	5745	Full	2.22		-0.55	-1.01	2.46	27.99		8.01		Pass
HE20	MCS0	2	157	5785	Full	2.22		-0.72	-1.92	2.29	27.99		8.01		Pass
HE20	MCS0	2	165	5825	Full	2.22		-0.04	-1.47	**2.97**	27.99		8.01		Pass
HE40	MCS0	2	151	5755	Full	2.22		-2.90	-4.86	0.11	27.99		8.01		Pass
HE40	MCS0	2	159	5795	Full	2.22		-3.97	-5.61	-0.96	27.99		8.01		Pass

Note: PSD Sum = Max PSD (Ant. 1, Ant. 2) + 10 log (n)

Worst Case Power Density (dBm/MHz) for MIMO Ant. 1



Worst Case Power Density (dBm/MHz) for MIMO Ant. 2



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

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

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts)

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

(3) KDB789033 D02 v02r01 G)2)c)

(i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of −27 dBm/MHz.

(ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are based on the use of a peak detector.

3.4.2 Measuring Instruments

See list of measuring equipment 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 1000 MHz

   - 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 ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

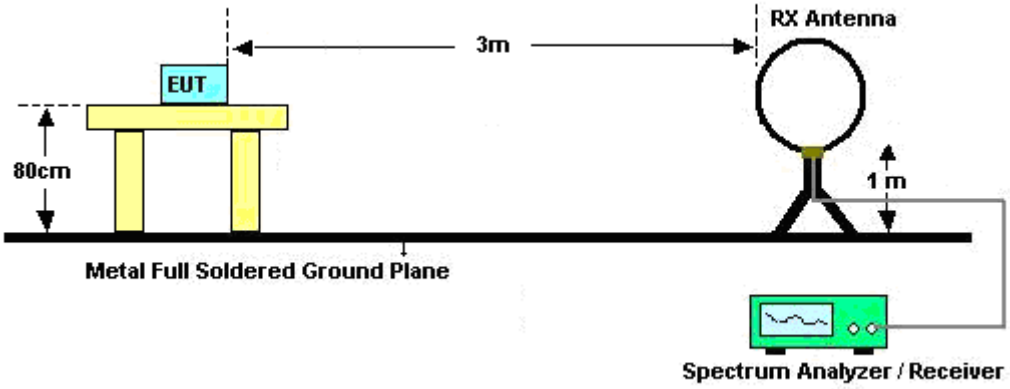
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 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 1 GHz and 1.5 meter for frequency above 1 GHz 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 1 GHz, 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.

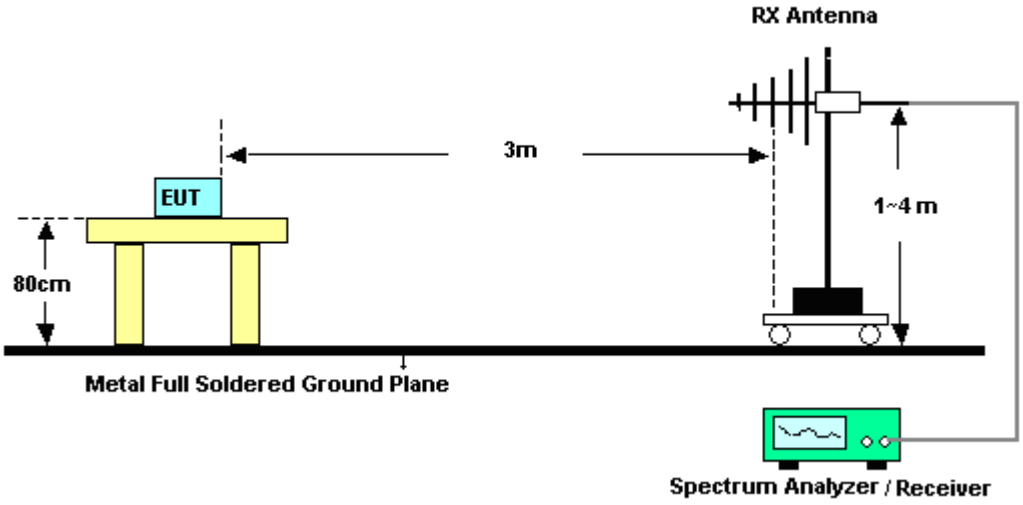
7. For testing above 1 GHz, the emission level of the EUT in peak mode was 20 dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.4.4 Test Setup

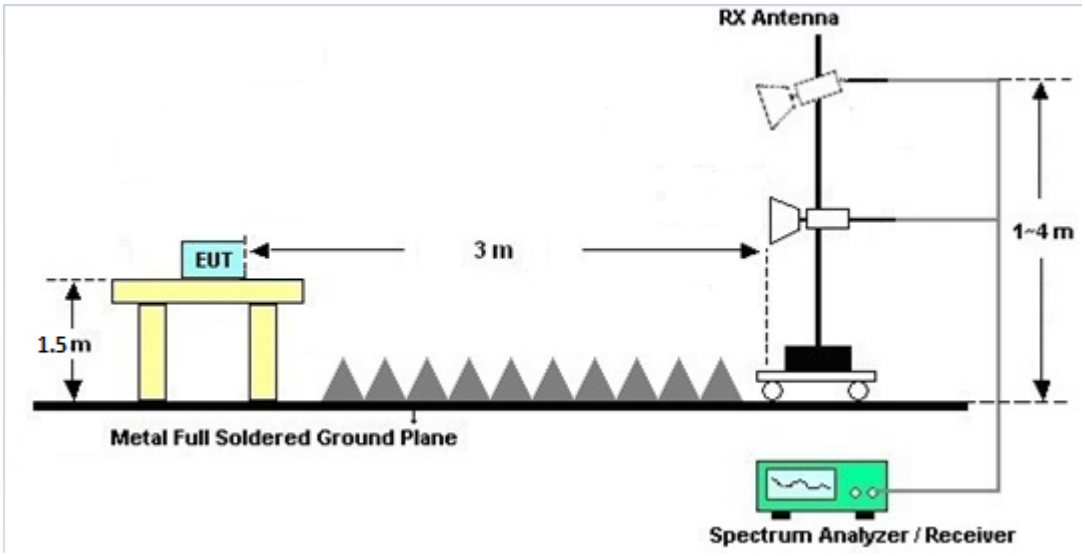
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated test above 1GHz



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 alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.4.6 Test Result of Radiated Band Edges

Please refer to Appendix B and C.

3.4.7 Duty Cycle

Please refer to Appendix D.

3.4.8 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix B and 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.

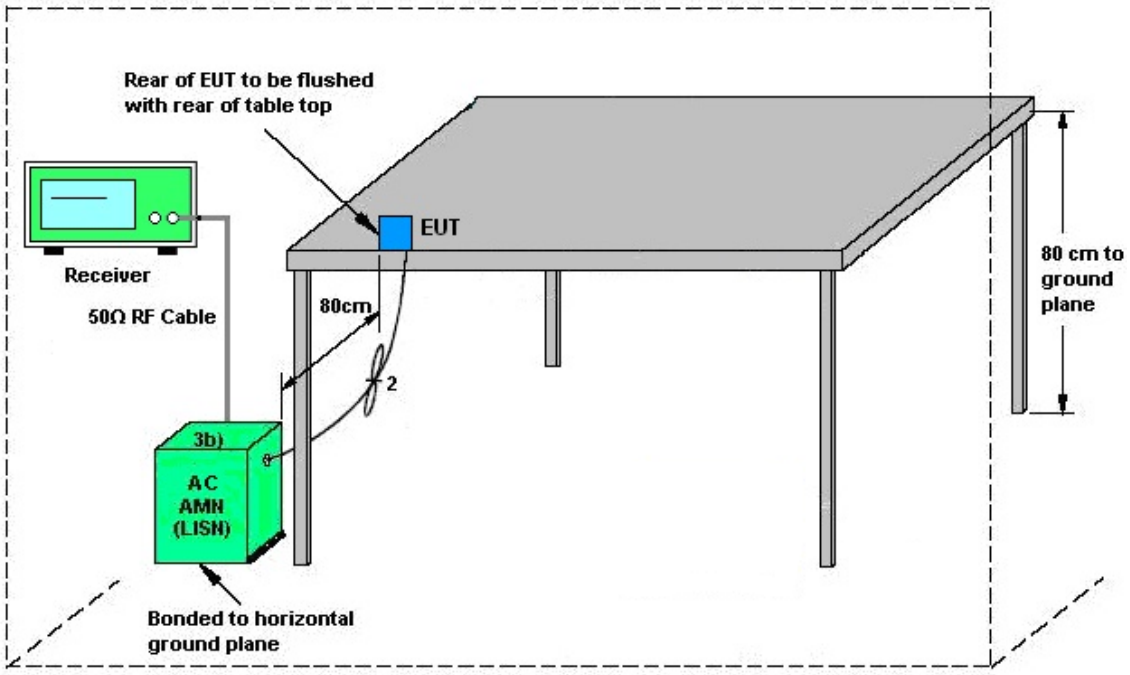
3.5.2 Measuring Instruments

See list of measuring equipment 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 shall 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



AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix A.

3.6 Automatically Discontinue Transmission

3.6.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Result of Automatically Discontinue Transmission

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

3.7 Antenna Requirements

3.7.1 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.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = GANT + 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	DG for PSD	Power Limit Reduction	PSD Limit Reduction
	Ant. 1 (dBi)	Ant. 2 (dBi)	(dBi)	(dBi)	(dB)	(dB)
Band IV	5.00	5.00	5.00	8.01	0.00	2.01

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

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

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jul. 14, 2020	Mar. 25, 2021~ Apr. 27, 2021	Jul. 13, 2021	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	41912 & 05	30MHz~1GHz	Feb. 08, 2021	Mar. 25, 2021~ Apr. 27, 2021	Feb. 07, 2022	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Dec. 28, 2020	Mar. 25, 2021~ Apr. 27, 2021	Dec. 27, 2021	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-01620	1GHz~18GHz	Nov. 03, 2020	Mar. 25, 2021~ Apr. 27, 2021	Nov. 02, 2021	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Dec. 02, 2020	Mar. 25, 2021~ Apr. 27, 2021	Dec. 01, 2021	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JPA0118-55-303	1710001800055006	1GHz~18GHz	May 07, 2020	Mar. 25, 2021~ Apr. 27, 2021	May 06, 2021	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY53270195	1GHz~26.5GHz	Aug. 21, 2020	Mar. 25, 2021~ Apr. 27, 2021	Aug. 20, 2021	Radiation (03CH15-HY)
Preamplifier	EMEC	EM18G40G	0600789	18-40GHz	Oct. 27, 2020	Mar. 25, 2021~ Apr. 27, 2021	Oct. 26, 2021	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20MHz~8.4GHz	Nov. 02, 2020	Mar. 25, 2021~ Apr. 27, 2021	Nov. 01, 2021	Radiation (03CH15-HY
Spectrum Analyzer	Agilent	E4446A	MY50180136	3Hz~44GHz	May 04, 2020	Mar. 25, 2021~ Apr. 27, 2021	May 03, 2021	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Mar. 25, 2021~ Apr. 27, 2021	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Mar. 25, 2021~ Apr. 27, 2021	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24 (k5)	RK-000451	N/A	N/A	Mar. 25, 2021~ Apr. 27, 2021	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104, 102E	MY36980/4, MY9838/4PE ,508405/2E	30MHz~18G	Nov. 16, 2020	Mar. 25, 2021~ Apr. 27, 2021	Nov. 15, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz-40GHz	Feb. 22, 2021	Mar. 25, 2021~ Apr. 27, 2021	Feb. 21, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz-40GHz	Feb. 22, 2021	Mar. 25, 2021~ Apr. 27, 2021	Feb. 21, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Mar. 25, 2021~ Apr. 27, 2021	Mar. 10, 2022	Radiation (03CH15-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN6	6.75GHz High Pass Filter	Jul. 01, 2020	Mar. 25, 2021~ Apr. 27, 2021	Jun. 30, 2021	Radiation (03CH15-HY)
Filter	Wainwright	WLJ4-1000-1530-6000-40ST	SN4	1.53GHz Low Pass Filter	Jul. 03, 2020	Mar. 25, 2021~ Apr. 27, 2021	Jul. 02, 2021	Radiation (03CH15-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ACPOWER	AFC-11003G	F317040033	N/A	N/A	Apr. 27, 2021	N/A	Conduction (CO07-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Apr. 27, 2021	N/A	Conduction (CO07-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	9561-F N00373	9kHz-200MHz	Nov. 02, 2020	Apr. 27, 2021	Nov. 01, 2021	Conduction (CO07-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	N/A	Apr. 27, 2021	N/A	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 51	45051	N/A	Feb. 01, 2021	Apr. 27, 2021	Jan. 31, 2022	Conduction (CO07-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102317	9kHz~3.6GHz	Sep. 11, 2020	Apr. 27, 2021	Sep. 10, 2021	Conduction (CO07-HY)
Hygrometer	Testo	608-H1	34913904	N/A	Jul. 27, 2020	Mar. 19, 2021~ Apr. 12, 2021	Jul. 26, 2021	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO10	10MHz~6GHz	Dec. 09, 2020	Mar. 19, 2021~ Apr. 12, 2021	Dec. 08, 2021	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz ~ 40GHz	Jul. 22, 2020	Mar. 19, 2021~ Apr. 12, 2021	Jul. 21, 2021	Conducted (TH05-HY)
Switch Control Manframe	EM Electronics	EMSW18	SW1070903	N/A	Aug. 16, 2020	Mar. 19, 2021~ Apr. 12, 2021	Aug. 15, 2021	Conducted (TH05-HY)

5 Uncertainty of Evaluation

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.7**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.3**

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

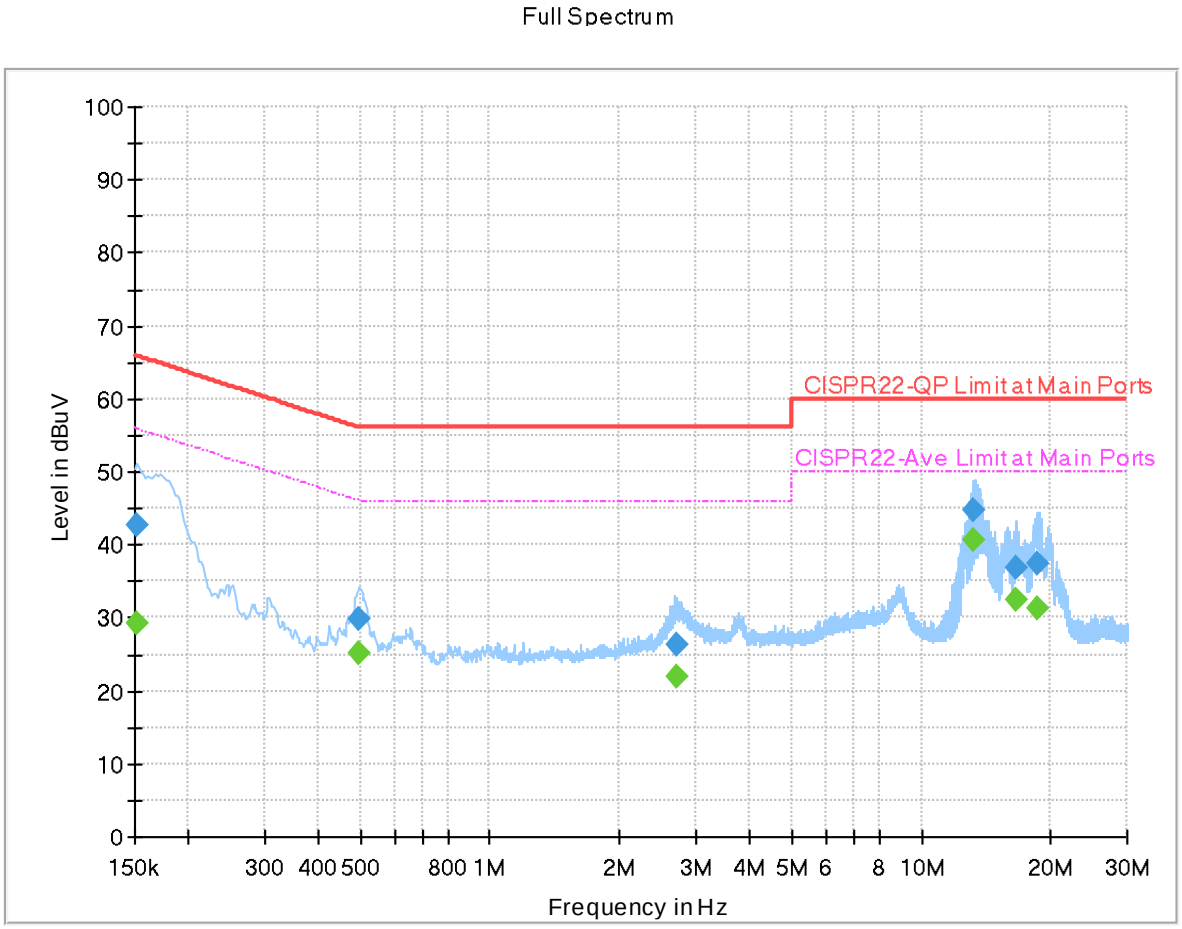
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.9**

Appendix A. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	**Temperature :**	23~26℃
		Relative Humidity :	40~50%

EUT Information

Report NO :	0D2423
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

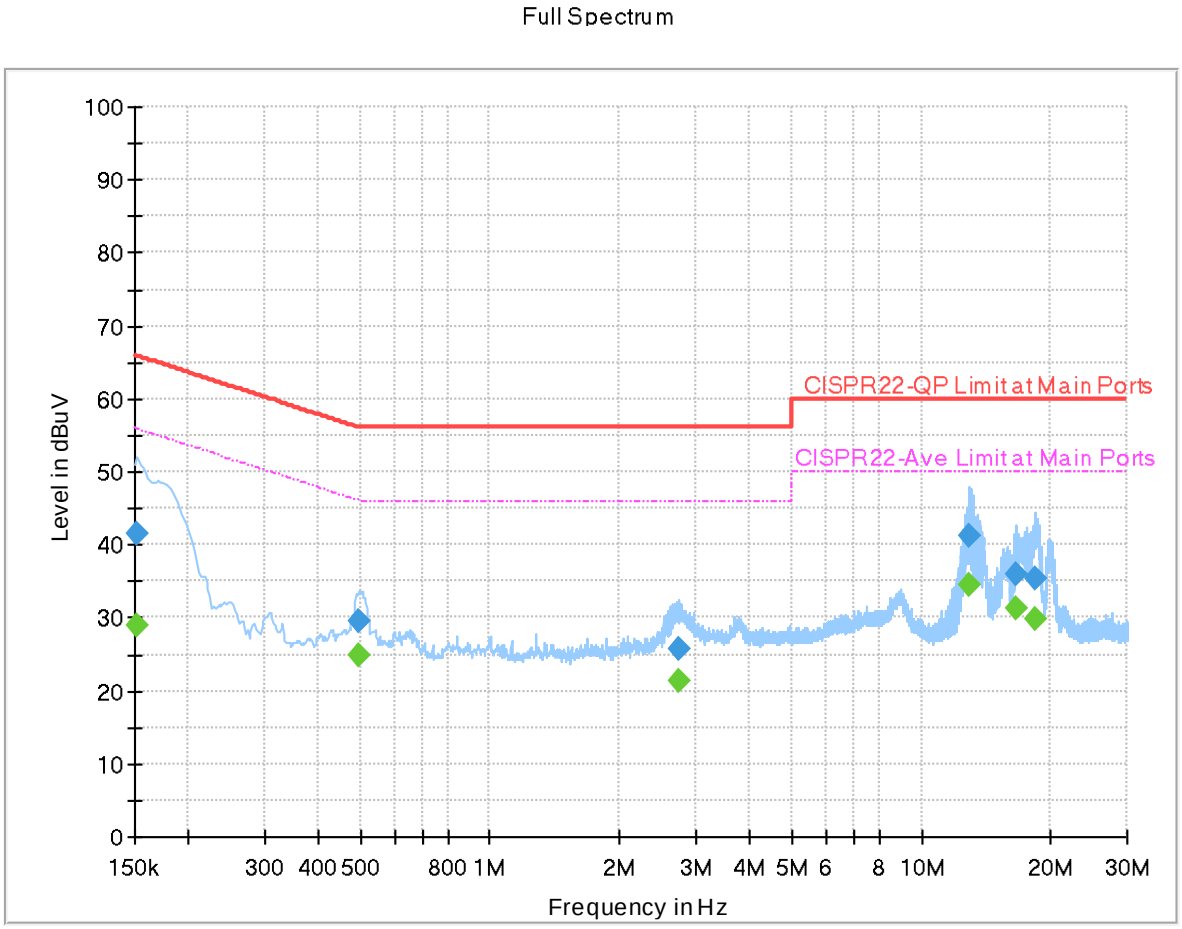


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	29.18	55.88	26.70	L1	OFF	20.0
0.152250	42.59	---	65.88	23.29	L1	OFF	20.0
0.498750	---	25.09	46.02	20.93	L1	OFF	20.0
0.498750	29.86	---	56.02	26.16	L1	OFF	20.0
2.717250	---	21.83	46.00	24.17	L1	OFF	20.1
2.717250	26.41	---	56.00	29.59	L1	OFF	20.1
13.240500	---	40.64	50.00	9.36	L1	OFF	20.2
13.240500	44.66	---	60.00	15.34	L1	OFF	20.2
16.599750	---	32.37	50.00	17.63	L1	OFF	20.2
16.599750	36.87	---	60.00	23.13	L1	OFF	20.2
18.550500	---	31.27	50.00	18.73	L1	OFF	20.2
18.550500	37.40	---	60.00	22.60	L1	OFF	20.2

EUT Information

Report NO :	0D2423
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	28.88	55.88	27.00	N	OFF	20.0
0.152250	41.52	---	65.88	24.36	N	OFF	20.0
0.498750	---	24.90	46.02	21.12	N	OFF	20.0
0.498750	29.58	---	56.02	26.44	N	OFF	20.0
2.733000	---	21.39	46.00	24.61	N	OFF	20.1
2.733000	25.60	---	56.00	30.40	N	OFF	20.1
12.943500	---	34.63	50.00	15.37	N	OFF	20.2
12.943500	41.21	---	60.00	18.79	N	OFF	20.2
16.597500	---	31.37	50.00	18.63	N	OFF	20.2
16.597500	36.01	---	60.00	23.99	N	OFF	20.2
18.480750	---	29.81	50.00	20.19	N	OFF	20.3
18.480750	35.32	---	60.00	24.68	N	OFF	20.3

Appendix B. Radiated Spurious Emission

Test Engineer :	Leo Lee, Mancy Chou and Bigshow Wang	Temperature :	22.5~23°C
		Relative Humidity :	47~52%

<RD2458-5>

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5603	51.42	-16.78	68.2	39.49	31.61	10.38	30.06	250	104	P	H
		5666.8	51.09	-29.58	80.67	39.05	31.7	10.45	30.11	250	104	P	H
		5709	51.69	-56.03	107.72	39.61	31.72	10.5	30.14	250	104	P	H
		5722.4	51.79	-64.48	116.27	39.69	31.74	10.51	30.15	250	104	P	H
	*	5745	96.96	-	-	84.8	31.79	10.54	30.17	250	104	P	H
	*	5745	89.63	-	-	77.47	31.79	10.54	30.17	250	104	A	H
													H
													H
		5646.6	52.08	-16.12	68.2	40.06	31.69	10.43	30.1	198	9	P	V
		5693.4	54.52	-45.81	100.33	42.47	31.7	10.48	30.13	198	9	P	V
		5718.6	58.47	-51.94	110.41	46.37	31.74	10.51	30.15	198	9	P	V
		5724.6	61.64	-59.65	121.29	49.52	31.75	10.52	30.15	198	9	P	V
	*	5745	107.16	-	-	95	31.79	10.54	30.17	198	9	P	V
	*	5745	99.12	-	-	86.96	31.79	10.54	30.17	198	9	A	V
													V
													V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5646.6	51.51	-16.69	68.2	39.49	31.69	10.43	30.1	230	107	P	H
		5681.4	51.4	-40.07	91.47	39.35	31.7	10.47	30.12	230	107	P	H
		5713.8	51.48	-57.59	109.07	39.38	31.73	10.51	30.14	230	107	P	H
		5720.8	50.49	-62.13	112.62	38.39	31.74	10.51	30.15	230	107	P	H
	*	5785	93.06	-	-	80.88	31.8	10.58	30.2	230	107	P	H
	*	5785	85.8	-	-	73.62	31.8	10.58	30.2	230	107	A	H
		5853.65	50.04	-63.84	113.88	37.63	32.01	10.64	30.24	230	107	P	H
		5862.875	51.34	-57.25	108.59	38.92	32.03	10.64	30.25	230	107	P	H
		5895.88	51.72	-37.99	89.71	39.24	32.09	10.67	30.28	230	107	P	H
		5931.755	51.18	-17.02	68.2	38.63	32.16	10.69	30.3	230	107	P	H
													H
802.11a CH 157 5785MHz													H
		5633	51.7	-16.5	68.2	39.7	31.67	10.42	30.09	220	14	P	V
		5677.6	52.02	-36.64	88.66	39.97	31.7	10.47	30.12	220	14	P	V
		5718.2	51.66	-58.64	110.3	39.56	31.74	10.51	30.15	220	14	P	V
		5722.8	50.75	-66.43	117.18	38.63	31.75	10.52	30.15	220	14	P	V
	*	5785	105.34	-	-	93.16	31.8	10.58	30.2	220	14	P	V
	*	5785	97.96	-	-	85.78	31.8	10.58	30.2	220	14	A	V
		5851.19	50.81	-68.68	119.49	38.41	32	10.64	30.24	220	14	P	V
		5860.005	51.2	-58.2	109.4	38.79	32.02	10.64	30.25	220	14	P	V
		5901.415	51.82	-33.79	85.61	39.33	32.1	10.67	30.28	220	14	P	V
		5927.245	52.03	-16.17	68.2	39.49	32.15	10.69	30.3	220	14	P	V
													V
													V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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)
	*	5825	95.58	-	-	83.28	31.9	10.62	30.22	245	107	P	H
	*	5825	88.12	-	-	75.82	31.9	10.62	30.22	245	107	A	H
		5850.2	52.12	-69.62	121.74	39.72	32	10.64	30.24	245	107	P	H
		5857.2	52.32	-57.86	110.18	39.92	32.01	10.64	30.25	245	107	P	H
		5924.8	51.6	-16.75	68.35	39.06	32.15	10.69	30.3	245	107	P	H
		5946.4	51.62	-16.58	68.2	39.04	32.19	10.7	30.31	245	107	P	H
													H
802.11a													H
CH 165	*	5825	106.1	-	-	93.8	31.9	10.62	30.22	208	14	P	V
5825MHz	*	5825	98.91	-	-	86.61	31.9	10.62	30.22	208	14	A	V
		5851.6	60.22	-58.33	118.55	47.82	32	10.64	30.24	208	14	P	V
		5858.6	57.57	-52.22	109.79	45.16	32.02	10.64	30.25	208	14	P	V
		5909.6	52.89	-26.67	79.56	40.37	32.12	10.68	30.28	208	14	P	V
		5936.4	52.36	-15.84	68.2	39.79	32.17	10.7	30.3	208	14	P	V
													V
													V
													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. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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	49.92	-24.08	74	55.7	40.09	15.03	60.9	100	0	P	H
		17235	50.8	-17.4	68.2	50.27	40.87	18.48	58.82	100	0	P	H
													H
													H
		11490	49.83	-24.17	74	55.61	40.09	15.03	60.9	100	0	P	V
		17235	51.06	-17.14	68.2	50.53	40.87	18.48	58.82	100	0	P	V
													V
													V
802.11a CH 157 5785MHz		11570	49.29	-24.71	74	55.17	40.03	15.07	60.98	100	0	P	H
		17355	51.95	-16.25	68.2	50.45	41.6	18.57	58.67	100	0	P	H
													H
													H
		11570	49.98	-24.02	74	55.86	40.03	15.07	60.98	100	0	P	V
		17355	53.15	-15.05	68.2	51.65	41.6	18.57	58.67	100	0	P	V
													V
													V
802.11a CH 165 5825MHz		11650	49.87	-24.13	74	56.14	39.7	15.11	61.08	100	0	P	H
		17475	53.04	-15.16	68.2	50.13	42.78	18.66	58.53	100	0	P	H
													H
													H
		11650	49.49	-24.51	74	55.76	39.7	15.11	61.08	100	0	P	V
		17475	52.72	-15.48	68.2	49.81	42.78	18.66	58.53	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

5GHz WIFI 802.11a (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11a LF		30.97	22.27	-17.73	40	29.88	24.21	0.68	32.5	-	-	P	H
		92.08	25.98	-17.52	43.5	42.3	14.82	1.35	32.49	-	-	P	H
		260.86	38.58	-7.42	46	48.79	19.91	2.3	32.42	100	58	Q	H
		324.88	36.57	-9.43	46	46.97	19.63	2.48	32.51	-	-	P	H
		705.12	38	-8	46	40.42	26.43	3.6	32.45	-	-	P	H
		896.21	37.71	-8.29	46	36.34	28.87	4.15	31.65	-	-	P	H
													H
													H
													H
													H
													H
													H
		30.97	22.09	-17.91	40	29.7	24.21	0.68	32.5	-	-	P	V
		204.6	28.04	-15.46	43.5	43.26	15.15	2.07	32.44	-	-	P	V
		261.83	39.5	-6.5	46	49.68	19.93	2.31	32.42	100	0	P	V
		717.73	33.7	-12.3	46	35.76	26.76	3.63	32.45	-	-	P	V
		740.04	36.4	-9.6	46	37.39	27.76	3.7	32.45	-	-	P	V
		888.45	32.63	-13.37	46	31.35	28.84	4.13	31.69	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Band 4 - 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	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)
		5615.6	51.1	-17.1	68.2	39.14	31.63	10.4	30.07	240	64	P	H
		5653.8	51.28	-19.74	71.02	39.24	31.7	10.44	30.1	240	64	P	H
		5713	51.18	-57.66	108.84	39.09	31.73	10.5	30.14	240	64	P	H
		5725	49.87	-72.33	122.2	37.75	31.75	10.52	30.15	240	64	P	H
	*	5775	84.65	-	-	72.47	31.8	10.57	30.19	240	64	P	H
	*	5775	77.58	-	-	65.4	31.8	10.57	30.19	240	64	A	H
		5854.47	51.04	-60.97	112.01	38.64	32.01	10.64	30.25	240	64	P	H
		5872.715	51.31	-54.53	105.84	38.87	32.05	10.65	30.26	240	64	P	H
		5912.895	51.47	-25.66	77.13	38.95	32.13	10.68	30.29	240	64	P	H
		5945.9	51.55	-16.65	68.2	38.97	32.19	10.7	30.31	240	64	P	H
802.11ac													H
VHT80													H
CH 155		5640.4	51.81	-16.39	68.2	39.8	31.68	10.42	30.09	188	360	P	V
5775MHz		5676.8	51.87	-36.2	88.07	39.83	31.7	10.46	30.12	188	360	P	V
		5717.6	52.95	-57.18	110.13	40.85	31.74	10.51	30.15	188	360	P	V
		5722.8	52.01	-65.17	117.18	39.89	31.75	10.52	30.15	188	360	P	V
	*	5775	92.81	-	-	80.63	31.8	10.57	30.19	188	360	P	V
	*	5775	85.88	-	-	73.7	31.8	10.57	30.19	188	360	A	V
		5854.265	51.69	-60.78	112.47	39.29	32.01	10.64	30.25	188	360	P	V
		5867.59	52.03	-55.24	107.27	39.59	32.04	10.65	30.25	188	360	P	V
		5875.175	52.39	-52.68	105.07	39.95	32.05	10.65	30.26	188	360	P	V
		5935.24	51.41	-16.79	68.2	38.85	32.17	10.69	30.3	188	360	P	V
													V
													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)	Over Limit (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)
		11550	49.26	-24.74	74	55.11	40.05	15.06	60.96	100	0	P	H
		17325	52.52	-15.68	68.2	51.4	41.28	18.55	58.71	100	0	P	H
802.11ac													H
VHT80													H
CH 155		11550	49.64	-24.36	74	55.49	40.05	15.06	60.96	100	0	P	V
5775MHz		17325	51.57	-16.63	68.2	50.45	41.28	18.55	58.71	100	0	P	V
													V
													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)	Over Limit (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)
		5626.6	51.05	-17.15	68.2	39.07	31.65	10.41	30.08	221	64	P	H
		5690.8	50.47	-47.95	98.42	38.42	31.7	10.48	30.13	221	64	P	H
		5719	51.03	-59.49	110.52	38.93	31.74	10.51	30.15	221	64	P	H
		5723	51.62	-66.02	117.64	39.5	31.75	10.52	30.15	221	64	P	H
	*	5745	97.48	-	-	85.32	31.79	10.54	30.17	221	64	P	H
	*	5745	88.15	-	-	75.99	31.79	10.54	30.17	221	64	A	H
802.11ax													H
HE20 Full													H
CH 149		5627.2	51.37	-16.83	68.2	39.39	31.65	10.41	30.08	199	352	P	V
5745MHz		5696.2	53.97	-48.43	102.4	41.91	31.7	10.49	30.13	199	352	P	V
		5718.8	59.15	-51.31	110.46	47.05	31.74	10.51	30.15	199	352	P	V
		5721.8	60.23	-54.67	114.9	48.13	31.74	10.51	30.15	199	352	P	V
	*	5745	106.95	-	-	94.79	31.79	10.54	30.17	199	352	P	V
	*	5745	98.74	-	-	86.58	31.79	10.54	30.17	199	352	A	V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5626.4	51.63	-16.57	68.2	39.65	31.65	10.41	30.08	246	62	P	H
		5677.8	50.81	-38	88.81	38.76	31.7	10.47	30.12	246	62	P	H
		5714.8	50.61	-58.74	109.35	38.51	31.73	10.51	30.14	246	62	P	H
		5722.6	51.52	-65.21	116.73	39.41	31.75	10.51	30.15	246	62	P	H
	*	5785	95.05	-	-	82.87	31.8	10.58	30.2	246	62	P	H
	*	5785	85.6	-	-	73.42	31.8	10.58	30.2	246	62	A	H
		5850.37	50.12	-71.24	121.36	37.72	32	10.64	30.24	246	62	P	H
		5861.85	51.1	-57.78	108.88	38.69	32.02	10.64	30.25	246	62	P	H
		5921.505	51.46	-19.32	70.78	38.92	32.14	10.69	30.29	246	62	P	H
		5948.565	51.69	-16.51	68.2	39.1	32.2	10.7	30.31	246	62	P	H
802.11ax													H
HE20 Full													H
CH 157		5633.2	51.37	-16.83	68.2	39.37	31.67	10.42	30.09	232	15	P	V
5785MHz		5656	51.35	-21.31	72.66	39.31	31.7	10.44	30.1	232	15	P	V
		5706	51.4	-55.48	106.88	39.33	31.71	10.5	30.14	232	15	P	V
		5723.4	51.29	-67.26	118.55	39.17	31.75	10.52	30.15	232	15	P	V
	*	5785	105.52	-	-	93.34	31.8	10.58	30.2	232	15	P	V
	*	5785	96.2	-	-	84.02	31.8	10.58	30.2	232	15	A	V
		5853.24	50.7	-64.11	114.81	38.29	32.01	10.64	30.24	232	15	P	V
		5873.74	51.46	-54.09	105.55	39.02	32.05	10.65	30.26	232	15	P	V
		5879.685	51.55	-50.17	101.72	39.09	32.06	10.66	30.26	232	15	P	V
		5939.75	51.05	-17.15	68.2	38.48	32.18	10.7	30.31	232	15	P	V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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	95.8	-	-	83.5	31.9	10.62	30.22	245	63	P	H
	*	5825	86.54	-	-	74.24	31.9	10.62	30.22	245	63	A	H
		5852.4	51.24	-65.49	116.73	38.84	32	10.64	30.24	245	63	P	H
		5875	51.43	-53.77	105.2	38.99	32.05	10.65	30.26	245	63	P	H
		5890	52.21	-41.86	94.07	39.74	32.08	10.66	30.27	245	63	P	H
		5938.8	52.16	-16.04	68.2	39.59	32.18	10.7	30.31	245	63	P	H
													H
													H
	*	5825	105.54	-	-	93.24	31.9	10.62	30.22	201	13	P	V
	*	5825	96.3	-	-	84	31.9	10.62	30.22	201	13	A	V
		5850.4	61.6	-59.69	121.29	49.2	32	10.64	30.24	201	13	P	V
		5855.6	59.76	-50.87	110.63	47.36	32.01	10.64	30.25	201	13	P	V
		5877.8	53.59	-49.53	103.12	41.14	32.06	10.65	30.26	201	13	P	V
		5928.2	51.96	-16.24	68.2	39.41	32.16	10.69	30.3	201	13	P	V
													V
													V
													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)	Over Limit (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)
		11490	49.97	-24.03	74	55.75	40.09	15.03	60.9	100	0	P	H
		17235	50.76	-17.44	68.2	50.23	40.87	18.48	58.82	100	0	P	H
802.11ax													H
HE20 Full													H
CH 149		11490	49.19	-24.81	74	54.97	40.09	15.03	60.9	100	0	P	V
5745MHz		17235	50.48	-17.72	68.2	49.95	40.87	18.48	58.82	100	0	P	V
													V
													V
		11570	48.86	-25.14	74	54.74	40.03	15.07	60.98	100	0	P	H
		17355	52.02	-16.18	68.2	50.52	41.6	18.57	58.67	100	0	P	H
802.11ax													H
HE20 Full													H
CH 157		11570	49.88	-24.12	74	55.76	40.03	15.07	60.98	100	0	P	V
5785MHz		17355	52.13	-16.07	68.2	50.63	41.6	18.57	58.67	100	0	P	V
													V
													V
		11650	49.83	-24.17	74	56.1	39.7	15.11	61.08	100	0	P	H
		17475	53.53	-14.67	68.2	50.62	42.78	18.66	58.53	100	0	P	H
802.11ax													H
HE20 Full													H
CH 165		11650	49.72	-24.28	74	55.99	39.7	15.11	61.08	100	0	P	V
5825MHz		17475	53.75	-14.45	68.2	50.84	42.78	18.66	58.53	100	0	P	V
													V
													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)	Over Limit (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)
		5638.4	51.65	-16.55	68.2	39.64	31.68	10.42	30.09	221	65	P	H
		5664.2	51.38	-27.36	78.74	39.34	31.7	10.45	30.11	221	65	P	H
		5718.8	53.89	-56.57	110.46	41.79	31.74	10.51	30.15	221	65	P	H
		5725	55.67	-66.53	122.2	43.55	31.75	10.52	30.15	221	65	P	H
	*	5755	95.05	-	-	82.87	31.8	10.55	30.17	221	65	P	H
	*	5755	87.69	-	-	75.51	31.8	10.55	30.17	221	65	A	H
		5850.985	51.22	-68.73	119.95	38.82	32	10.64	30.24	221	65	P	H
		5864.925	51.27	-56.75	108.02	38.84	32.03	10.65	30.25	221	65	P	H
		5891.165	52.69	-40.51	93.2	40.22	32.08	10.66	30.27	221	65	P	H
		5947.335	51.92	-16.28	68.2	39.34	32.19	10.7	30.31	221	65	P	H
802.11ax													H
HE40 Full													H
CH 151		5646.6	51.89	-16.31	68.2	39.87	31.69	10.43	30.1	195	356	P	V
5755MHz		5699.4	54.91	-49.85	104.76	42.85	31.7	10.49	30.13	195	356	P	V
		5719.6	64.31	-46.38	110.69	52.21	31.74	10.51	30.15	195	356	P	V
		5724	65.91	-54.01	119.92	53.79	31.75	10.52	30.15	195	356	P	V
	*	5755	104.13	-	-	91.95	31.8	10.55	30.17	195	356	P	V
	*	5755	96.72	-	-	84.54	31.8	10.55	30.17	195	356	A	V
		5853.035	50.87	-64.41	115.28	38.46	32.01	10.64	30.24	195	356	P	V
		5860.21	51.33	-58.01	109.34	38.92	32.02	10.64	30.25	195	356	P	V
		5916.175	51.68	-23.03	74.71	39.16	32.13	10.68	30.29	195	356	P	V
		5932.78	52.02	-16.18	68.2	39.46	32.17	10.69	30.3	195	356	P	V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5632.4	51.01	-17.19	68.2	39.02	31.66	10.42	30.09	244	64	P	H
		5699.2	52.1	-52.51	104.61	40.04	31.7	10.49	30.13	244	64	P	H
		5715.4	50.94	-58.57	109.51	38.85	31.73	10.51	30.15	244	64	P	H
		5724	50.37	-69.55	119.92	38.25	31.75	10.52	30.15	244	64	P	H
	*	5795	94.41	-	-	82.22	31.8	10.59	30.2	244	64	P	H
	*	5795	85.99	-	-	73.8	31.8	10.59	30.2	244	64	A	H
		5854.265	51.13	-61.34	112.47	38.73	32.01	10.64	30.25	244	64	P	H
		5856.11	52.9	-57.59	110.49	40.5	32.01	10.64	30.25	244	64	P	H
		5912.485	51.95	-25.48	77.43	39.44	32.12	10.68	30.29	244	64	P	H
		5931.755	51.51	-16.69	68.2	38.96	32.16	10.69	30.3	244	64	P	H
802.11ax													H
HE40 Full													H
CH 159		5602	51.54	-16.66	68.2	39.62	31.6	10.38	30.06	204	358	P	V
5795MHz		5655.8	51.97	-20.54	72.51	39.93	31.7	10.44	30.1	204	358	P	V
		5718	51.88	-58.36	110.24	39.78	31.74	10.51	30.15	204	358	P	V
		5722.4	52.29	-63.98	116.27	40.19	31.74	10.51	30.15	204	358	P	V
	*	5795	103.23	-	-	91.04	31.8	10.59	30.2	204	358	P	V
	*	5795	95.36	-	-	83.17	31.8	10.59	30.2	204	358	A	V
		5852.83	52.44	-63.31	115.75	40.03	32.01	10.64	30.24	204	358	P	V
		5857.75	52.57	-57.46	110.03	40.16	32.02	10.64	30.25	204	358	P	V
		5904.08	51.95	-31.69	83.64	39.45	32.11	10.67	30.28	204	358	P	V
		5936.675	52.07	-16.13	68.2	39.5	32.17	10.7	30.3	204	358	P	V
													V
													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)	Over Limit (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)
		11510	48.85	-25.15	74	54.63	40.09	15.04	60.91	100	0	P	H
		17265	50.51	-17.69	68.2	49.86	40.93	18.5	58.78	100	0	P	H
802.11ax													H
HE40 Full													H
CH 151		11510	48.87	-25.13	74	54.65	40.09	15.04	60.91	100	0	P	V
5755MHz		17265	50.52	-17.68	68.2	49.87	40.93	18.5	58.78	100	0	P	V
													V
													V
		11590	49.89	-24.11	74	55.81	40.01	15.08	61.01	100	0	P	H
		17385	52.5	-15.7	68.2	50.62	41.93	18.59	58.64	100	0	P	H
802.11ax													H
HE40 Full													H
CH 159		11590	49.17	-24.83	74	55.09	40.01	15.08	61.01	100	0	P	V
5795MHz		17385	52.13	-16.07	68.2	50.25	41.93	18.59	58.64	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11ax HE20 Full (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	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 Full LF		30.97	22.27	-17.73	40	29.88	24.21	0.68	32.5	-	-	P	H
		92.08	25.98	-17.52	43.5	42.3	14.82	1.35	32.49	-	-	P	H
		260.86	38.58	-7.42	46	48.79	19.91	2.3	32.42	100	58	Q	H
		324.88	36.57	-9.43	46	46.97	19.63	2.48	32.51	-	-	P	H
		705.12	38	-8	46	40.42	26.43	3.6	32.45	-	-	P	H
		896.21	37.71	-8.29	46	36.34	28.87	4.15	31.65	-	-	P	H
													H
													H
													H
													H
													H
													H
		30.97	22.09	-17.91	40	29.7	24.21	0.68	32.5	-	-	P	V
		204.6	28.04	-15.46	43.5	43.26	15.15	2.07	32.44	-	-	P	V
		261.83	39.5	-6.5	46	49.68	19.93	2.31	32.42	100	0	P	V
		717.73	33.7	-12.3	46	35.76	26.76	3.63	32.45	-	-	P	V
		740.04	36.4	-9.6	46	37.39	27.76	3.7	32.45	-	-	P	V
		888.45	32.63	-13.37	46	31.35	28.84	4.13	31.69	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

<W3006>

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5627.6	51.98	-16.22	68.2	39.99	31.66	10.41	30.08	250	221	P	H
		5654	52.54	-18.63	71.17	40.5	31.7	10.44	30.1	250	221	P	H
		5719.8	58.22	-52.52	110.74	46.12	31.74	10.51	30.15	250	221	P	H
		5724.2	62.46	-57.92	120.38	50.34	31.75	10.52	30.15	250	221	P	H
	*	5745	105.88	-	-	93.72	31.79	10.54	30.17	250	221	P	H
	*	5745	98.54	-	-	86.38	31.79	10.54	30.17	250	221	A	H
													H
													H
		5605	52.4	-15.8	68.2	40.47	31.61	10.39	30.07	250	95	P	V
		5699.6	53.75	-51.16	104.91	41.69	31.7	10.49	30.13	250	95	P	V
		5717.2	57.34	-52.68	110.02	45.25	31.73	10.51	30.15	250	95	P	V
		5723	59.88	-57.76	117.64	47.76	31.75	10.52	30.15	250	95	P	V
	*	5745	104.38	-	-	92.22	31.79	10.54	30.17	250	95	P	V
	*	5745	97.03	-	-	84.87	31.79	10.54	30.17	250	95	A	V
													V
													V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5630	51.59	-16.61	68.2	39.6	31.66	10.41	30.08	242	323	P	H
		5699	51.41	-53.05	104.46	39.35	31.7	10.49	30.13	242	323	P	H
		5710.8	52.28	-55.95	108.23	40.2	31.72	10.5	30.14	242	323	P	H
		5722	51.41	-63.95	115.36	39.31	31.74	10.51	30.15	242	323	P	H
	*	5785	104.86	-	-	92.68	31.8	10.58	30.2	242	323	P	H
	*	5785	97.59	-	-	85.41	31.8	10.58	30.2	242	323	A	H
		5853.24	51.39	-63.42	114.81	38.98	32.01	10.64	30.24	242	323	P	H
		5868.205	51.51	-55.59	107.1	39.08	32.04	10.65	30.26	242	323	P	H
		5888.705	53.03	-42	95.03	40.56	32.08	10.66	30.27	242	323	P	H
		5926.015	51.76	-16.44	68.2	39.22	32.15	10.69	30.3	242	323	P	H
													H
802.11a CH 157 5785MHz													H
		5627	51.52	-16.68	68.2	39.54	31.65	10.41	30.08	250	115	P	V
		5690.2	52.36	-45.61	97.97	40.31	31.7	10.48	30.13	250	115	P	V
		5709.4	51.64	-56.19	107.83	39.56	31.72	10.5	30.14	250	115	P	V
		5724.4	50.74	-70.09	120.83	38.62	31.75	10.52	30.15	250	115	P	V
	*	5785	104.73	-	-	92.55	31.8	10.58	30.2	250	115	P	V
	*	5785	96.81	-	-	84.63	31.8	10.58	30.2	250	115	A	V
		5849.96	51.38	-82.82	134.2	38.99	32	10.63	30.24	250	115	P	V
		5864.515	53.24	-54.89	108.13	40.81	32.03	10.65	30.25	250	115	P	V
		5876.2	52.37	-51.94	104.31	39.93	32.05	10.65	30.26	250	115	P	V
		5949.59	51.89	-16.31	68.2	39.3	32.2	10.7	30.31	250	115	P	V
													V
													V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
	*	5825	107.24	-	-	94.94	31.9	10.62	30.22	242	327	P	H
	*	5825	99.38	-	-	87.08	31.9	10.62	30.22	242	327	A	H
		5850	66.96	-55.24	122.2	54.56	32	10.64	30.24	242	327	P	H
		5856.2	59.64	-50.82	110.46	47.24	32.01	10.64	30.25	242	327	P	H
		5876	55.42	-49.04	104.46	42.98	32.05	10.65	30.26	242	327	P	H
		5930.2	53.44	-14.76	68.2	40.89	32.16	10.69	30.3	242	327	P	H
													H
802.11a													H
CH 165	*	5825	106.36	-	-	94.06	31.9	10.62	30.22	250	113	P	V
5825MHz	*	5825	98.11	-	-	85.81	31.9	10.62	30.22	250	113	A	V
		5850.4	65.31	-55.98	121.29	52.91	32	10.64	30.24	250	113	P	V
		5855.2	59.95	-50.79	110.74	47.55	32.01	10.64	30.25	250	113	P	V
		5883.6	53.56	-45.25	98.81	41.1	32.07	10.66	30.27	250	113	P	V
		5926.6	52.67	-15.53	68.2	40.13	32.15	10.69	30.3	250	113	P	V
													V
													V
													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. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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	47.85	-26.15	74	53.63	40.09	15.03	60.9	100	0	P	H
		17235	49.72	-18.48	68.2	49.19	40.87	18.48	58.82	100	0	P	H
													H
													H
		11490	47.55	-26.45	74	53.33	40.09	15.03	60.9	100	0	P	V
		17235	49.48	-18.72	68.2	48.95	40.87	18.48	58.82	100	0	P	V
													V
													V
802.11a CH 157 5785MHz		11570	48.39	-25.61	74	54.27	40.03	15.07	60.98	100	0	P	H
		17355	50.96	-17.24	68.2	49.46	41.6	18.57	58.67	100	0	P	H
													H
													H
		11570	49.21	-24.79	74	55.09	40.03	15.07	60.98	100	0	P	V
		17355	50.91	-17.29	68.2	49.41	41.6	18.57	58.67	100	0	P	V
													V
													V
802.11a CH 165 5825MHz		11650	47.8	-26.2	74	54.07	39.7	15.11	61.08	100	0	P	H
		17475	53.8	-14.4	68.2	50.89	42.78	18.66	58.53	100	0	P	H
													H
													H
		11650	48.32	-25.68	74	54.59	39.7	15.11	61.08	100	0	P	V
		17475	51.92	-16.28	68.2	49.01	42.78	18.66	58.53	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

5GHz WIFI 802.11a (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11a LF		58.13	22.29	-17.71	40	41.87	11.94	1.03	32.55	-	-	P	H
		197.81	37.08	-6.42	43.5	52.63	14.85	2.04	32.44	-	-	P	H
		251.16	38	-8	46	49.58	18.54	2.28	32.4	100	285	Q	H
		593.57	38.32	-7.68	46	41.81	25.61	3.37	32.47	-	-	P	H
		659.53	32.63	-13.37	46	35.28	26.23	3.5	32.38	-	-	P	H
		792.42	34.53	-11.47	46	34.86	28	3.87	32.2	-	-	P	H
													H
													H
													H
													H
													H
													H
		59.1	23.57	-16.43	40	43.18	11.9	1.04	32.55	-	-	P	V
		88.2	26.68	-16.82	43.5	43.49	14.36	1.33	32.5	-	-	P	V
		197.81	31.65	-11.85	43.5	47.2	14.85	2.04	32.44	100	0	P	V
		270.56	32.2	-13.8	46	43.25	19.06	2.33	32.44	-	-	P	V
		593.57	33.76	-12.24	46	37.25	25.61	3.37	32.47	-	-	P	V
		885.54	32.41	-13.59	46	31.12	28.86	4.13	31.7	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.

Band 4 - 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	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)
		5633.8	51.76	-16.44	68.2	39.76	31.67	10.42	30.09	257	42	P	H
		5673	52.22	-33.04	85.26	40.17	31.7	10.46	30.11	257	42	P	H
		5704.4	51.54	-54.89	106.43	39.48	31.71	10.49	30.14	257	42	P	H
		5723	51.12	-66.52	117.64	39	31.75	10.52	30.15	257	42	P	H
	*	5775	92	-	-	79.82	31.8	10.57	30.19	257	42	P	H
	*	5775	84.73	-	-	72.55	31.8	10.57	30.19	257	42	A	H
		5854.06	51.67	-61.27	112.94	39.26	32.01	10.64	30.24	257	42	P	H
		5859.39	51.48	-58.09	109.57	39.07	32.02	10.64	30.25	257	42	P	H
		5912.895	51.88	-25.25	77.13	39.36	32.13	10.68	30.29	257	42	P	H
		5944.26	51.9	-16.3	68.2	39.32	32.19	10.7	30.31	257	42	P	H
802.11ac													H
VHT80													H
CH 155		5605	51.42	-16.78	68.2	39.49	31.61	10.39	30.07	250	247	P	V
5775MHz		5670.4	52.75	-30.59	83.34	40.7	31.7	10.46	30.11	250	247	P	V
		5711.6	52.14	-56.31	108.45	40.06	31.72	10.5	30.14	250	247	P	V
		5721.6	52.55	-61.9	114.45	40.45	31.74	10.51	30.15	250	247	P	V
	*	5775	91.37	-	-	79.19	31.8	10.57	30.19	250	247	P	V
	*	5775	85.56	-	-	73.38	31.8	10.57	30.19	250	247	A	V
		5853.445	50.68	-63.66	114.34	38.27	32.01	10.64	30.24	250	247	P	V
		5862.465	51.31	-57.4	108.71	38.9	32.02	10.64	30.25	250	247	P	V
		5915.355	52.15	-23.16	75.31	39.63	32.13	10.68	30.29	250	247	P	V
		5933.6	52.66	-15.54	68.2	40.1	32.17	10.69	30.3	250	247	P	V
													V
													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)	Over Limit (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)
		11550	49.03	-24.97	74	54.88	40.05	15.06	60.96	100	0	P	H
		17325	51.22	-16.98	68.2	50.1	41.28	18.55	58.71	100	0	P	H
802.11ac													H
VHT80													H
CH 155		11550	48.28	-25.72	74	54.13	40.05	15.06	60.96	100	0	P	V
5775MHz		17325	50.26	-17.94	68.2	49.14	41.28	18.55	58.71	100	0	P	V
													V
													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)	Over Limit (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)
		5608.2	52	-16.2	68.2	40.06	31.62	10.39	30.07	257	43	P	H
		5672.6	52.88	-32.08	84.96	40.83	31.7	10.46	30.11	257	43	P	H
		5719.6	56.13	-54.56	110.69	44.03	31.74	10.51	30.15	257	43	P	H
		5722.4	62.27	-54	116.27	50.17	31.74	10.51	30.15	257	43	P	H
	*	5745	106.28	-	-	94.12	31.79	10.54	30.17	257	43	P	H
	*	5745	96.99	-	-	84.83	31.79	10.54	30.17	257	43	A	H
802.11ax													H
HE20 Full													H
CH 149		5647.8	52.5	-15.7	68.2	40.47	31.7	10.43	30.1	250	245	P	V
5745MHz		5699.8	55.31	-49.74	105.05	43.25	31.7	10.49	30.13	250	245	P	V
		5719.6	60.84	-49.85	110.69	48.74	31.74	10.51	30.15	250	245	P	V
		5724.8	63.08	-58.66	121.74	50.96	31.75	10.52	30.15	250	245	P	V
	*	5745	107.53	-	-	95.37	31.79	10.54	30.17	250	245	P	V
	*	5745	97.78	-	-	85.62	31.79	10.54	30.17	250	245	A	V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5623.6	51.36	-16.84	68.2	39.38	31.65	10.41	30.08	250	42	P	H
		5665.2	51.32	-28.16	79.48	39.28	31.7	10.45	30.11	250	42	P	H
		5700.4	51.75	-53.56	105.31	39.69	31.7	10.49	30.13	250	42	P	H
		5722	51.27	-64.09	115.36	39.17	31.74	10.51	30.15	250	42	P	H
	*	5785	105.88	-	-	93.7	31.8	10.58	30.2	250	42	P	H
	*	5785	96.3	-	-	84.12	31.8	10.58	30.2	250	42	A	H
		5851.19	50.29	-69.2	119.49	37.89	32	10.64	30.24	250	42	P	H
		5857.135	51.96	-58.24	110.2	39.56	32.01	10.64	30.25	250	42	P	H
		5906.335	52.15	-29.83	81.98	39.65	32.11	10.67	30.28	250	42	P	H
		5935.855	52.61	-15.59	68.2	40.04	32.17	10.7	30.3	250	42	P	H
802.11ax													H
HE20 Full													H
CH 157		5609.6	52.64	-15.56	68.2	40.7	31.62	10.39	30.07	250	244	P	V
5785MHz		5676.8	51.81	-36.26	88.07	39.77	31.7	10.46	30.12	250	244	P	V
		5713.6	51.35	-57.66	109.01	39.26	31.73	10.5	30.14	250	244	P	V
		5724.8	50.92	-70.82	121.74	38.8	31.75	10.52	30.15	250	244	P	V
	*	5785	105.38	-	-	93.2	31.8	10.58	30.2	250	244	P	V
	*	5785	97.66	-	-	85.48	31.8	10.58	30.2	250	244	A	V
		5853.24	50.9	-63.91	114.81	38.49	32.01	10.64	30.24	250	244	P	V
		5863.49	52.04	-56.38	108.42	39.62	32.03	10.64	30.25	250	244	P	V
		5887.68	52.6	-43.19	95.79	40.13	32.08	10.66	30.27	250	244	P	V
		5925.4	52.51	-15.69	68.2	39.97	32.15	10.69	30.3	250	244	P	V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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	105.59	-	-	93.29	31.9	10.62	30.22	250	42	P	H
	*	5825	96.11	-	-	83.81	31.9	10.62	30.22	250	42	A	H
		5850.2	55.58	-66.16	121.74	43.18	32	10.64	30.24	250	42	P	H
		5859.2	53.21	-56.41	109.62	40.8	32.02	10.64	30.25	250	42	P	H
		5887.8	52.92	-42.78	95.7	40.45	32.08	10.66	30.27	250	42	P	H
		5938	52.49	-15.71	68.2	39.92	32.18	10.7	30.31	250	42	P	H
													H
													H
	*	5825	105.94	-	-	93.64	31.9	10.62	30.22	250	244	P	V
	*	5825	96.74	-	-	84.44	31.9	10.62	30.22	250	244	A	V
		5850	61.37	-60.83	122.2	48.97	32	10.64	30.24	250	244	P	V
		5855	59.04	-51.76	110.8	46.64	32.01	10.64	30.25	250	244	P	V
		5876.6	54	-50.01	104.01	41.56	32.05	10.65	30.26	250	244	P	V
		5940.6	52.46	-15.74	68.2	39.89	32.18	10.7	30.31	250	244	P	V
													V
													V
													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)	Over Limit (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)
		11490	47.91	-26.09	74	53.69	40.09	15.03	60.9	100	0	P	H
		17235	50.08	-18.12	68.2	49.55	40.87	18.48	58.82	100	0	P	H
802.11ax													H
HE20 Full													H
CH 149		11490	49.03	-24.97	74	54.81	40.09	15.03	60.9	100	0	P	V
5745MHz		17235	49.8	-18.4	68.2	49.27	40.87	18.48	58.82	100	0	P	V
													V
													V
		11570	48.84	-25.16	74	54.72	40.03	15.07	60.98	100	0	P	H
		17355	51.65	-16.55	68.2	50.15	41.6	18.57	58.67	100	0	P	H
802.11ax													H
HE20 Full													H
CH 157		11570	49.28	-24.72	74	55.16	40.03	15.07	60.98	100	0	P	V
5785MHz		17355	50.81	-17.39	68.2	49.31	41.6	18.57	58.67	100	0	P	V
													V
													V
		11650	48.51	-25.49	74	54.78	39.7	15.11	61.08	100	0	P	H
		17475	51.56	-16.64	68.2	48.65	42.78	18.66	58.53	100	0	P	H
802.11ax													H
HE20 Full													H
CH 165		11650	49.09	-24.91	74	55.36	39.7	15.11	61.08	100	0	P	V
5825MHz		17475	51.9	-16.3	68.2	48.99	42.78	18.66	58.53	100	0	P	V
													V
													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)	Over Limit (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)
		5642.4	51.67	-16.53	68.2	39.65	31.68	10.43	30.09	252	40	P	H
		5671.2	52.94	-30.99	83.93	40.89	31.7	10.46	30.11	252	40	P	H
		5712.6	62.24	-46.49	108.73	50.15	31.73	10.5	30.14	252	40	P	H
		5724.2	63.86	-56.52	120.38	51.74	31.75	10.52	30.15	252	40	P	H
	*	5755	103.36	-	-	91.18	31.8	10.55	30.17	252	40	P	H
	*	5755	94.73	-	-	82.55	31.8	10.55	30.17	252	40	A	H
		5851.19	50.8	-68.69	119.49	38.4	32	10.64	30.24	252	40	P	H
		5864.72	51.62	-56.46	108.08	39.19	32.03	10.65	30.25	252	40	P	H
		5880.095	52.28	-49.14	101.42	39.82	32.06	10.66	30.26	252	40	P	H
		5934.625	52.57	-15.63	68.2	40.01	32.17	10.69	30.3	252	40	P	H
802.11ax													H
HE40 Full													H
CH 151		5603.4	51.58	-16.62	68.2	39.65	31.61	10.38	30.06	250	246	P	V
5755MHz		5696.4	53.73	-48.82	102.55	41.67	31.7	10.49	30.13	250	246	P	V
		5718.2	61.71	-48.59	110.3	49.61	31.74	10.51	30.15	250	246	P	V
		5724.8	60.55	-61.19	121.74	48.43	31.75	10.52	30.15	250	246	P	V
	*	5755	104.1	-	-	91.92	31.8	10.55	30.17	250	246	P	V
	*	5755	95.91	-	-	83.73	31.8	10.55	30.17	250	246	A	V
		5853.445	51.61	-62.73	114.34	39.2	32.01	10.64	30.24	250	246	P	V
		5857.75	51.74	-58.29	110.03	39.33	32.02	10.64	30.25	250	246	P	V
		5885.015	52.37	-45.39	97.76	39.91	32.07	10.66	30.27	250	246	P	V
		5931.345	51.9	-16.3	68.2	39.35	32.16	10.69	30.3	250	246	P	V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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)
		5629.8	51.84	-16.36	68.2	39.85	31.66	10.41	30.08	250	41	P	H
		5687.2	51.46	-44.3	95.76	39.4	31.7	10.48	30.12	250	41	P	H
		5707.6	52.62	-54.71	107.33	40.54	31.72	10.5	30.14	250	41	P	H
		5720.8	50.52	-62.1	112.62	38.42	31.74	10.51	30.15	250	41	P	H
	*	5795	101.77	-	-	89.58	31.8	10.59	30.2	250	41	P	H
	*	5795	93.36	-	-	81.17	31.8	10.59	30.2	250	41	A	H
		5850.985	51.39	-68.56	119.95	38.99	32	10.64	30.24	250	41	P	H
		5861.235	52.18	-56.87	109.05	39.77	32.02	10.64	30.25	250	41	P	H
		5882.555	53.09	-46.5	99.59	40.63	32.07	10.66	30.27	250	41	P	H
		5933.805	52	-16.2	68.2	39.44	32.17	10.69	30.3	250	41	P	H
802.11ax													H
HE40 Full													H
CH 159		5639.6	51.23	-16.97	68.2	39.22	31.68	10.42	30.09	250	244	P	V
5795MHz		5680.4	50.92	-39.81	90.73	38.87	31.7	10.47	30.12	250	244	P	V
		5711.2	51.48	-56.86	108.34	39.4	31.72	10.5	30.14	250	244	P	V
		5723.2	53.61	-64.49	118.1	41.49	31.75	10.52	30.15	250	244	P	V
	*	5795	102.1	-	-	89.91	31.8	10.59	30.2	250	244	P	V
	*	5795	94.8	-	-	82.61	31.8	10.59	30.2	250	244	A	V
		5852.625	53.59	-62.62	116.21	41.18	32.01	10.64	30.24	250	244	P	V
		5857.75	53.21	-56.82	110.03	40.8	32.02	10.64	30.25	250	244	P	V
		5913.715	52.52	-24	76.52	40	32.13	10.68	30.29	250	244	P	V
		5944.465	52.02	-16.18	68.2	39.44	32.19	10.7	30.31	250	244	P	V
													V
													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)	Over Limit (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)
		11510	48.89	-25.11	74	54.67	40.09	15.04	60.91	100	0	P	H
		17265	49.52	-18.68	68.2	48.87	40.93	18.5	58.78	100	0	P	H
802.11ax													H
HE40 Full													H
CH 151		11510	48.86	-25.14	74	54.64	40.09	15.04	60.91	100	0	P	V
5755MHz		17265	50.06	-18.14	68.2	49.41	40.93	18.5	58.78	100	0	P	V
													V
													V
		11590	48.24	-25.76	74	54.16	40.01	15.08	61.01	100	0	P	H
		17385	51.31	-16.89	68.2	49.43	41.93	18.59	58.64	100	0	P	H
802.11ax													H
HE40 Full													H
CH 159		11590	48.26	-25.74	74	54.18	40.01	15.08	61.01	100	0	P	V
5795MHz		17385	50.83	-17.37	68.2	48.95	41.93	18.59	58.64	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	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)
		58.13	22.03	-17.97	40	41.61	11.94	1.03	32.55	-	-	P	H
		197.81	36.73	-6.77	43.5	52.28	14.85	2.04	32.44	-	-	P	H
		257.95	39.09	-6.91	46	49.63	19.57	2.3	32.41	100	298	Q	H
		367.56	35.25	-10.75	46	44.25	20.88	2.61	32.49	-	-	P	H
		593.57	38.32	-7.68	46	41.81	25.61	3.37	32.47	-	-	P	H
		891.36	35.15	-10.85	46	33.84	28.84	4.14	31.67	-	-	P	H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT80		37.76	23.71	-16.29	40	34.77	20.72	0.77	32.55	-	-	P	V
LF		89.17	25.97	-17.53	43.5	42.61	14.52	1.34	32.5	-	-	P	V
		197.81	31.66	-11.84	43.5	47.21	14.85	2.04	32.44	-	-	P	V
		266.68	31.46	-14.54	46	41.9	19.67	2.32	32.43	-	-	P	V
		593.57	33.12	-12.88	46	36.61	25.61	3.37	32.47	-	-	P	V
		894.27	37.55	-8.45	46	36.2	28.86	4.15	31.66	100	0	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

<220370-09>

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5628.4	50.88	-17.32	68.2	38.89	31.66	10.41	30.08	100	239	P	H
		5676.8	51.3	-36.77	88.07	39.26	31.7	10.46	30.12	100	239	P	H
		5719.2	53.17	-57.41	110.58	41.07	31.74	10.51	30.15	100	239	P	H
		5724.6	56.31	-64.98	121.29	44.19	31.75	10.52	30.15	100	239	P	H
	*	5745	101.68	-	-	89.52	31.79	10.54	30.17	100	239	P	H
	*	5745	93.9	-	-	81.74	31.79	10.54	30.17	100	239	A	H
													H
802.11a													H
CH 149		5600.8	52.07	-16.13	68.2	40.15	31.6	10.38	30.06	100	315	P	V
5745MHz		5695.2	53.67	-47.99	101.66	41.62	31.7	10.48	30.13	100	315	P	V
		5718.8	61.4	-49.06	110.46	49.3	31.74	10.51	30.15	100	315	P	V
		5722.8	63.85	-53.33	117.18	51.73	31.75	10.52	30.15	100	315	P	V
	*	5745	108.06	-	-	95.9	31.79	10.54	30.17	100	315	P	V
	*	5745	100.53	-	-	88.37	31.79	10.54	30.17	100	315	A	V
													V
													V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5617	51.27	-16.93	68.2	39.31	31.63	10.4	30.07	100	210	P	H
		5659.4	50.91	-24.27	75.18	38.86	31.7	10.45	30.1	100	210	P	H
		5709.8	50.46	-57.49	107.95	38.38	31.72	10.5	30.14	100	210	P	H
		5724.6	50.19	-71.1	121.29	38.07	31.75	10.52	30.15	100	210	P	H
	*	5785	101.56	-	-	89.38	31.8	10.58	30.2	100	210	P	H
	*	5785	93.95	-	-	81.77	31.8	10.58	30.2	100	210	A	H
		5853.035	50.32	-64.96	115.28	37.91	32.01	10.64	30.24	100	210	P	H
		5858.775	51.14	-58.6	109.74	38.73	32.02	10.64	30.25	100	210	P	H
		5911.87	51.47	-26.42	77.89	38.96	32.12	10.68	30.29	100	210	P	H
		5939.135	51.12	-17.08	68.2	38.55	32.18	10.7	30.31	100	210	P	H
													H
802.11a CH 157 5785MHz													H
		5640.4	52.08	-16.12	68.2	40.07	31.68	10.42	30.09	100	316	P	V
		5671.6	52.45	-31.77	84.22	40.4	31.7	10.46	30.11	100	316	P	V
		5709.6	52.09	-55.8	107.89	40.01	31.72	10.5	30.14	100	316	P	V
		5724.4	52.47	-68.36	120.83	40.35	31.75	10.52	30.15	100	316	P	V
	*	5785	108.71	-	-	96.53	31.8	10.58	30.2	100	316	P	V
	*	5785	101.01	-	-	88.83	31.8	10.58	30.2	100	316	A	V
		5855.085	53.53	-57.25	110.78	41.13	32.01	10.64	30.25	100	316	P	V
		5855.085	53.53	-57.25	110.78	41.13	32.01	10.64	30.25	100	316	P	V
		5885.63	53.3	-44.01	97.31	40.84	32.07	10.66	30.27	100	316	P	V
		5937.7	52.76	-15.44	68.2	40.19	32.18	10.7	30.31	100	316	P	V
													V
													V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
	*	5825	103.11	-	-	90.81	31.9	10.62	30.22	100	211	P	H
	*	5825	95.03	-	-	82.73	31.9	10.62	30.22	100	211	A	H
		5852.8	59.15	-56.67	115.82	46.74	32.01	10.64	30.24	100	211	P	H
		5855.4	54.86	-55.83	110.69	42.46	32.01	10.64	30.25	100	211	P	H
		5906.4	52.03	-29.9	81.93	39.53	32.11	10.67	30.28	100	211	P	H
		5932.8	52.52	-15.68	68.2	39.96	32.17	10.69	30.3	100	211	P	H
													H
802.11a													H
CH 165	*	5825	110.27	-	-	97.97	31.9	10.62	30.22	100	315	P	V
5825MHz	*	5825	102.72	-	-	90.42	31.9	10.62	30.22	100	315	A	V
		5852.2	68.59	-48.59	117.18	56.19	32	10.64	30.24	100	315	P	V
		5855.4	62.82	-47.87	110.69	50.42	32.01	10.64	30.25	100	315	P	V
		5881	54.66	-46.08	100.74	42.2	32.06	10.66	30.26	100	315	P	V
		5927.2	52.96	-15.24	68.2	40.42	32.15	10.69	30.3	100	315	P	V
													V
													V
													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. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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	47.97	-26.03	74	53.75	40.09	15.03	60.9	100	0	P	H
		17235	50.18	-18.02	68.2	49.65	40.87	18.48	58.82	100	0	P	H
													H
													H
		11490	49.02	-24.98	74	54.8	40.09	15.03	60.9	100	0	P	V
		17235	50.39	-17.81	68.2	49.86	40.87	18.48	58.82	100	0	P	V
													V
													V
802.11a CH 157 5785MHz		11570	49	-25	74	54.88	40.03	15.07	60.98	100	0	P	H
		17355	50.85	-17.35	68.2	49.35	41.6	18.57	58.67	100	0	P	H
													H
													H
		11570	49	-25	74	54.88	40.03	15.07	60.98	100	0	P	V
		17355	52.03	-16.17	68.2	50.53	41.6	18.57	58.67	100	0	P	V
													V
													V
802.11a CH 165 5825MHz		11650	47.55	-26.45	74	53.82	39.7	15.11	61.08	100	0	P	H
		17475	52.14	-16.06	68.2	49.23	42.78	18.66	58.53	100	0	P	H
													H
													H
		11650	48.03	-25.97	74	54.3	39.7	15.11	61.08	100	0	P	V
		17475	52.41	-15.79	68.2	49.5	42.78	18.66	58.53	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

5GHz WIFI 802.11a (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11a LF		59.1	23.05	-16.95	40	42.66	11.9	1.04	32.55	-	-	P	H
		134.76	25.75	-17.75	43.5	39.12	17.48	1.66	32.51	-	-	P	H
		303.54	37.36	-8.64	46	48.21	19.23	2.41	32.49	100	0	P	H
		380.17	34.88	-11.12	46	43.49	21.19	2.66	32.46	-	-	P	H
		750.71	31.04	-14.96	46	31.86	27.91	3.72	32.45	-	-	P	H
		930.16	32.87	-13.13	46	30.39	29.64	4.27	31.43	-	-	P	H
													H
													H
													H
													H
													H
													H
		59.1	25.19	-14.81	40	44.8	11.9	1.04	32.55	-	-	P	V
		90.14	25.27	-18.23	43.5	41.82	14.61	1.34	32.5	-	-	P	V
		261.83	26.07	-19.93	46	36.25	19.93	2.31	32.42	-	-	P	V
		347.19	28.19	-17.81	46	37.84	20.34	2.55	32.54	-	-	P	V
		454.86	27.54	-18.46	46	33.84	23.26	2.87	32.43	-	-	P	V
		892.33	33.9	-12.1	46	32.59	28.84	4.14	31.67	100	0	P	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.

Band 4 - 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	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)
		5631	51.85	-16.35	68.2	39.86	31.66	10.41	30.08	100	260	P	H
		5667.2	51.65	-29.31	80.96	39.61	31.7	10.45	30.11	100	260	P	H
		5718.2	51.51	-58.79	110.3	39.41	31.74	10.51	30.15	100	260	P	H
		5720.4	50.4	-61.31	111.71	38.3	31.74	10.51	30.15	100	260	P	H
	*	5775	85.85	-	-	73.67	31.8	10.57	30.19	100	260	P	H
	*	5775	78.55	-	-	66.37	31.8	10.57	30.19	100	260	A	H
		5851.395	50.89	-68.13	119.02	38.49	32	10.64	30.24	100	260	P	H
		5873.33	51.36	-54.31	105.67	38.92	32.05	10.65	30.26	100	260	P	H
		5909.41	51.72	-27.98	79.7	39.2	32.12	10.68	30.28	100	260	P	H
		5924.99	51.39	-16.82	68.21	38.85	32.15	10.69	30.3	100	260	P	H
802.11ac													H
VHT80													H
CH 155		5602	50.72	-17.48	68.2	38.8	31.6	10.38	30.06	100	260	P	V
5775MHz		5684.6	51.83	-42.01	93.84	39.78	31.7	10.47	30.12	100	260	P	V
		5719	52.2	-58.32	110.52	40.1	31.74	10.51	30.15	100	260	P	V
		5723	50.98	-66.66	117.64	38.86	31.75	10.52	30.15	100	260	P	V
	*	5775	93.78	-	-	81.6	31.8	10.57	30.19	100	260	P	V
	*	5775	86.18	-	-	74	31.8	10.57	30.19	100	260	A	V
		5850.37	51.15	-70.21	121.36	38.75	32	10.64	30.24	100	260	P	V
		5863.285	51.52	-56.96	108.48	39.1	32.03	10.64	30.25	100	260	P	V
		5896.495	51.92	-37.34	89.26	39.44	32.09	10.67	30.28	100	260	P	V
		5942.005	51.25	-16.95	68.2	38.68	32.18	10.7	30.31	100	260	P	V
													V
													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)	Over Limit (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)
		11550	49.34	-24.66	74	55.19	40.05	15.06	60.96	100	0	P	H
		17325	51.57	-16.63	68.2	50.45	41.28	18.55	58.71	100	0	P	H
802.11ac													H
VHT80													H
CH 155		11550	48.73	-25.27	74	54.58	40.05	15.06	60.96	100	0	P	V
5775MHz		17325	51.11	-17.09	68.2	49.99	41.28	18.55	58.71	100	0	P	V
													V
													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)	Over Limit (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)
		5650	51.3	-16.9	68.2	39.26	31.7	10.44	30.1	100	258	P	H
		5651.6	51.71	-17.68	69.39	39.67	31.7	10.44	30.1	100	258	P	H
		5716.2	51.73	-58.01	109.74	39.64	31.73	10.51	30.15	100	258	P	H
		5723.2	54.65	-63.45	118.1	42.53	31.75	10.52	30.15	100	258	P	H
	*	5745	99.81	-	-	87.65	31.79	10.54	30.17	100	258	P	H
	*	5745	91.15	-	-	78.99	31.79	10.54	30.17	100	258	A	H
802.11ax													H
HE20 Full													H
CH 149		5636	51.38	-16.82	68.2	39.38	31.67	10.42	30.09	100	230	P	V
5745MHz		5666.8	53.2	-27.47	80.67	41.16	31.7	10.45	30.11	100	230	P	V
		5719.4	58	-52.63	110.63	45.9	31.74	10.51	30.15	100	230	P	V
		5725	63.66	-58.54	122.2	51.54	31.75	10.52	30.15	100	230	P	V
	*	5745	107.9	-	-	95.74	31.79	10.54	30.17	100	230	P	V
	*	5745	99.25	-	-	87.09	31.79	10.54	30.17	100	230	A	V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5646.8	51.08	-17.12	68.2	39.06	31.69	10.43	30.1	100	254	P	H
		5654.8	51.12	-20.65	71.77	39.08	31.7	10.44	30.1	100	254	P	H
		5704.8	50.97	-55.58	106.55	38.9	31.71	10.5	30.14	100	254	P	H
		5720.8	51.18	-61.44	112.62	39.08	31.74	10.51	30.15	100	254	P	H
	*	5785	99.16	-	-	86.98	31.8	10.58	30.2	100	254	P	H
	*	5785	90.45	-	-	78.27	31.8	10.58	30.2	100	254	A	H
		5852.215	50.78	-66.37	117.15	38.38	32	10.64	30.24	100	254	P	H
		5859.8	52.69	-56.76	109.45	40.28	32.02	10.64	30.25	100	254	P	H
		5899.365	51.98	-35.15	87.13	39.49	32.1	10.67	30.28	100	254	P	H
		5945.08	51.57	-16.63	68.2	38.99	32.19	10.7	30.31	100	254	P	H
802.11ax													H
HE20 Full													H
CH 157		5645.4	51.56	-16.64	68.2	39.53	31.69	10.43	30.09	100	312	P	V
5785MHz		5655.4	51.97	-20.24	72.21	39.93	31.7	10.44	30.1	100	312	P	V
		5701	51.02	-54.46	105.48	38.96	31.7	10.49	30.13	100	312	P	V
		5725	51.38	-70.82	122.2	39.26	31.75	10.52	30.15	100	312	P	V
	*	5785	108.01	-	-	95.83	31.8	10.58	30.2	100	312	P	V
	*	5785	98.41	-	-	86.23	31.8	10.58	30.2	100	312	A	V
		5851.6	51.28	-67.27	118.55	38.88	32	10.64	30.24	100	312	P	V
		5865.335	52.41	-55.49	107.9	39.98	32.03	10.65	30.25	100	312	P	V
		5901.62	51.84	-33.62	85.46	39.35	32.1	10.67	30.28	100	312	P	V
		5949.18	51.63	-16.57	68.2	39.04	32.2	10.7	30.31	100	312	P	V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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	100.8	-	-	88.5	31.9	10.62	30.22	100	233	P	H
	*	5825	91.29	-	-	78.99	31.9	10.62	30.22	100	233	A	H
		5853.8	56.07	-57.47	113.54	43.66	32.01	10.64	30.24	100	233	P	H
		5857.2	55.02	-55.16	110.18	42.62	32.01	10.64	30.25	100	233	P	H
		5892.6	52.58	-39.56	92.14	40.1	32.09	10.66	30.27	100	233	P	H
		5940.4	51.47	-16.73	68.2	38.9	32.18	10.7	30.31	100	233	P	H
													H
													H
	*	5825	108.29	-	-	95.99	31.9	10.62	30.22	100	312	P	V
	*	5825	99.27	-	-	86.97	31.9	10.62	30.22	100	312	A	V
		5854.2	58.26	-54.36	112.62	45.86	32.01	10.64	30.25	100	312	P	V
		5857.6	56.43	-53.64	110.07	44.02	32.02	10.64	30.25	100	312	P	V
		5891.8	52.62	-40.11	92.73	40.15	32.08	10.66	30.27	100	312	P	V
		5948.6	52.14	-16.06	68.2	39.55	32.2	10.7	30.31	100	312	P	V
													V
													V
													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)	Over Limit (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)
		11490	47.2	-26.8	74	52.98	40.09	15.03	60.9	100	0	P	H
		17235	50.22	-17.98	68.2	49.69	40.87	18.48	58.82	100	0	P	H
802.11ax													H
HE20 Full													H
CH 149		11490	48.23	-25.77	74	54.01	40.09	15.03	60.9	100	0	P	V
5745MHz		17235	49.66	-18.54	68.2	49.13	40.87	18.48	58.82	100	0	P	V
													V
													V
		11570	49.05	-24.95	74	54.93	40.03	15.07	60.98	100	0	P	H
		17355	51.38	-16.82	68.2	49.88	41.6	18.57	58.67	100	0	P	H
802.11ax													H
HE20 Full													H
CH 157		11570	49.72	-24.28	74	55.6	40.03	15.07	60.98	100	0	P	V
5785MHz		17355	51.81	-16.39	68.2	50.31	41.6	18.57	58.67	100	0	P	V
													V
													V
		11650	48.73	-25.27	74	55	39.7	15.11	61.08	100	0	P	H
		17475	51.77	-16.43	68.2	48.86	42.78	18.66	58.53	100	0	P	H
802.11ax													H
HE20 Full													H
CH 165		11650	49.1	-24.9	74	55.37	39.7	15.11	61.08	100	0	P	V
5825MHz		17475	52.16	-16.04	68.2	49.25	42.78	18.66	58.53	100	0	P	V
													V
													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)	Over Limit (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)
		5611.2	51.09	-17.11	68.2	39.15	31.62	10.39	30.07	100	258	P	H
		5689.4	50.92	-46.46	97.38	38.87	31.7	10.48	30.13	100	258	P	H
		5720	55.23	-55.57	110.8	43.13	31.74	10.51	30.15	100	258	P	H
		5723.4	59.07	-59.48	118.55	46.95	31.75	10.52	30.15	100	258	P	H
	*	5755	95.91	-	-	83.73	31.8	10.55	30.17	100	258	P	H
	*	5755	88.7	-	-	76.52	31.8	10.55	30.17	100	258	A	H
		5853.445	50.16	-64.18	114.34	37.75	32.01	10.64	30.24	100	258	P	H
		5857.545	51.21	-58.88	110.09	38.8	32.02	10.64	30.25	100	258	P	H
		5923.555	51.86	-17.4	69.26	39.31	32.15	10.69	30.29	100	258	P	H
		5930.73	51.47	-16.73	68.2	38.92	32.16	10.69	30.3	100	258	P	H
802.11ax													H
HE40 Full													H
CH 151		5621	51.53	-16.67	68.2	39.57	31.64	10.4	30.08	100	311	P	V
5755MHz		5697.2	54.03	-49.11	103.14	41.97	31.7	10.49	30.13	100	311	P	V
		5720	62.11	-48.69	110.8	50.01	31.74	10.51	30.15	100	311	P	V
		5724	64.32	-55.6	119.92	52.2	31.75	10.52	30.15	100	311	P	V
	*	5755	103.2	-	-	91.02	31.8	10.55	30.17	100	311	P	V
	*	5755	96.31	-	-	84.13	31.8	10.55	30.17	100	311	A	V
		5850.985	51.88	-68.07	119.95	39.48	32	10.64	30.24	100	311	P	V
		5871.28	51.15	-55.09	106.24	38.72	32.04	10.65	30.26	100	311	P	V
		5901.21	51.89	-33.88	85.77	39.4	32.1	10.67	30.28	100	311	P	V
		5933.6	51.95	-16.25	68.2	39.39	32.17	10.69	30.3	100	311	P	V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5608.4	51.51	-16.69	68.2	39.57	31.62	10.39	30.07	100	257	P	H
		5656.2	51.33	-21.48	72.81	39.29	31.7	10.44	30.1	100	257	P	H
		5711	50.62	-57.66	108.28	38.54	31.72	10.5	30.14	100	257	P	H
		5722.6	50.66	-66.07	116.73	38.55	31.75	10.51	30.15	100	257	P	H
	*	5795	95.2	-	-	83.01	31.8	10.59	30.2	100	257	P	H
	*	5795	88.14	-	-	75.95	31.8	10.59	30.2	100	257	A	H
		5850.165	50.55	-71.27	121.82	38.15	32	10.64	30.24	100	257	P	H
		5865.95	51.93	-55.8	107.73	39.5	32.03	10.65	30.25	100	257	P	H
		5903.465	51.89	-32.21	84.1	39.39	32.11	10.67	30.28	100	257	P	H
		5928.065	51.59	-16.61	68.2	39.04	32.16	10.69	30.3	100	257	P	H
802.11ax													H
HE40 Full													H
CH 159		5608.6	51.41	-16.79	68.2	39.47	31.62	10.39	30.07	100	312	P	V
5795MHz		5654.4	51.52	-19.95	71.47	39.48	31.7	10.44	30.1	100	312	P	V
		5719	52.8	-57.72	110.52	40.7	31.74	10.51	30.15	100	312	P	V
		5724	51.78	-68.14	119.92	39.66	31.75	10.52	30.15	100	312	P	V
	*	5795	102.6	-	-	90.41	31.8	10.59	30.2	100	312	P	V
	*	5795	95.48	-	-	83.29	31.8	10.59	30.2	100	312	A	V
		5853.035	52.77	-62.51	115.28	40.36	32.01	10.64	30.24	100	312	P	V
		5857.135	53.32	-56.88	110.2	40.92	32.01	10.64	30.25	100	312	P	V
		5920.685	51.66	-19.72	71.38	39.13	32.14	10.68	30.29	100	312	P	V
		5943.235	51.7	-16.5	68.2	39.12	32.19	10.7	30.31	100	312	P	V
													V
													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)	Over Limit (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)
		11510	49.06	-24.94	74	54.84	40.09	15.04	60.91	100	0	P	H
		17265	50.17	-18.03	68.2	49.52	40.93	18.5	58.78	100	0	P	H
802.11ax													H
HE40 Full													H
CH 151		11510	48.44	-25.56	74	54.22	40.09	15.04	60.91	100	0	P	V
5755MHz		17265	50.51	-17.69	68.2	49.86	40.93	18.5	58.78	100	0	P	V
													V
													V
		11590	48.85	-25.15	74	54.77	40.01	15.08	61.01	100	0	P	H
		17385	51.86	-16.34	68.2	49.98	41.93	18.59	58.64	100	0	P	H
802.11ax													H
HE40 Full													H
CH 159		11590	49.07	-24.93	74	54.99	40.01	15.08	61.01	100	0	P	V
5795MHz		17385	52.83	-15.37	68.2	50.95	41.93	18.59	58.64	100	0	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

Emission below 1GHz

WIFI 802.11ax HE20 Full (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	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 Full LF		58.13	22.86	-17.14	40	42.44	11.94	1.03	32.55	-	-	P	H
		155.13	27.07	-16.43	43.5	41.03	16.76	1.78	32.5	-	-	P	H
		205.57	27.9	-15.6	43.5	43.11	15.16	2.07	32.44	-	-	P	H
		305.48	37.2	-8.8	46	48	19.28	2.42	32.5	100	0	P	H
		744.89	31.88	-14.12	46	32.75	27.87	3.71	32.45	-	-	P	H
		885.54	33.01	-12.99	46	31.72	28.86	4.13	31.7	-	-	P	H
													H
													H
													H
													H
													H
													H
		58.13	25.28	-14.72	40	44.86	11.94	1.03	32.55	-	-	P	V
		107.6	24.66	-18.84	43.5	38.95	16.75	1.48	32.52	-	-	P	V
		270.56	25.72	-20.28	46	36.77	19.06	2.33	32.44	-	-	P	V
		461.65	29.06	-16.94	46	35.26	23.35	2.9	32.45	-	-	P	V
		713.85	31.44	-14.56	46	33.67	26.6	3.62	32.45	-	-	P	V
		923.37	31.66	-14.34	46	29.51	29.39	4.24	31.48	100	0	P	V
													V
													V
													V
													V
													V
													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 **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	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. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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

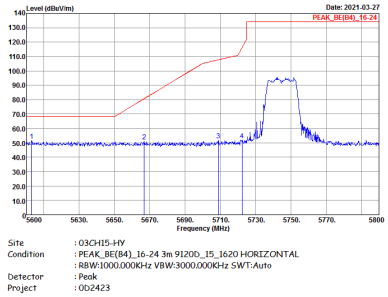
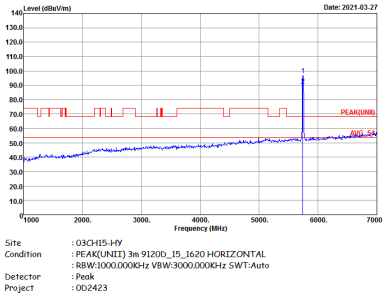
Appendix C. Radiated Spurious Emission Plots

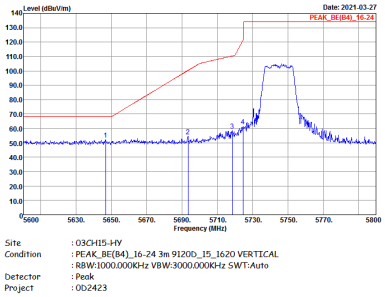
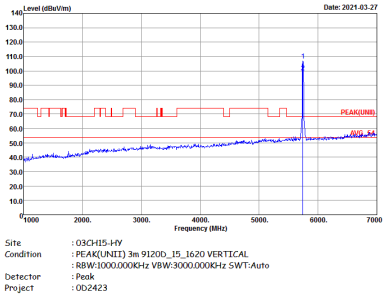
Test Engineer :	Leo Lee, Mancy Chou and Bigshow Wang	**Temperature :**	22.5~23°C
		Relative Humidity :	47~52%

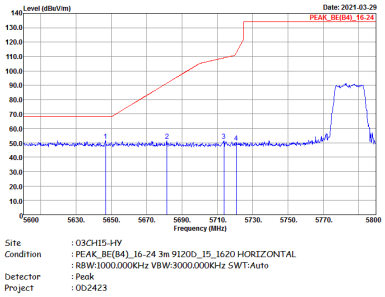
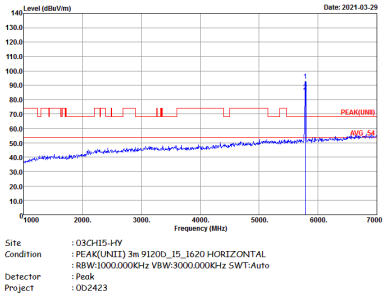
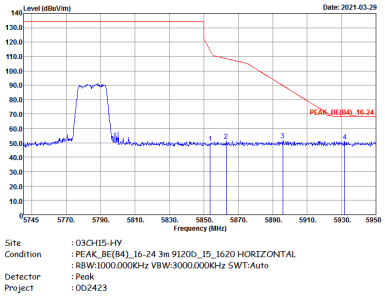
<RD2458-5>

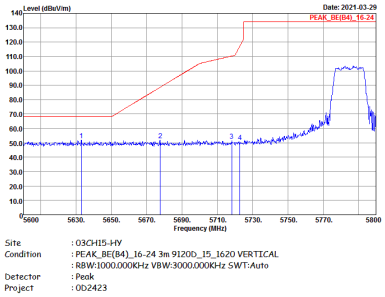
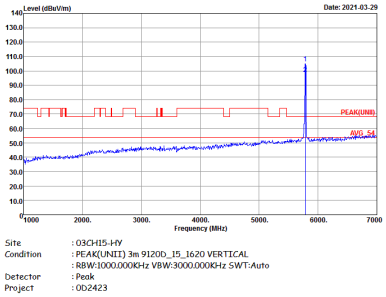
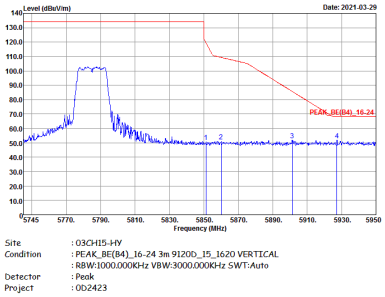
Band 4 - 5725~5850MHz

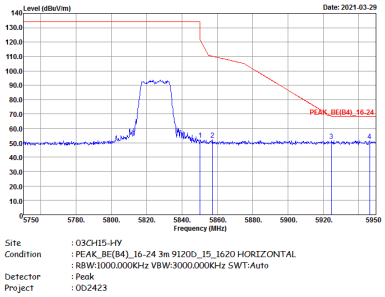
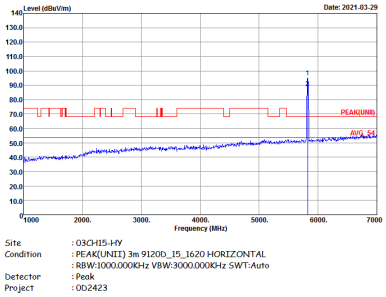
WIFI 802.11a (Band Edge @ 3m)

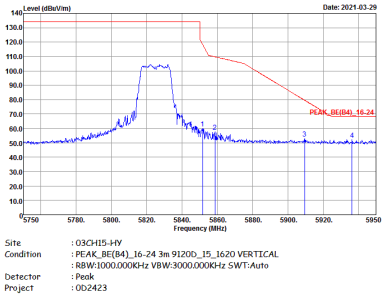
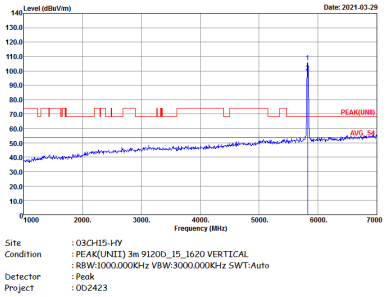
WIFI	**Band 4 5725~5850MHz Band Edge @ 3m**	
ANT	**802.11a CH149 5745MHz**	
2	**Horizontal**	**Fundamental**
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Vertical	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

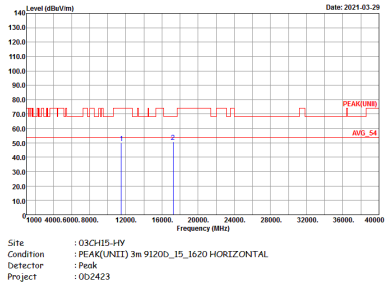
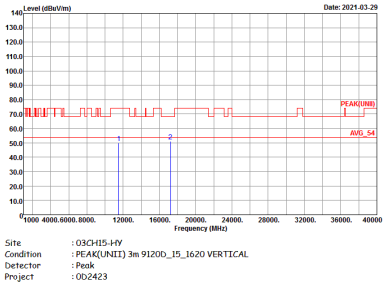
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

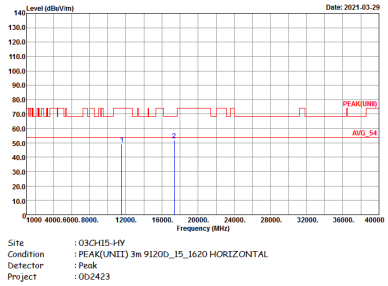
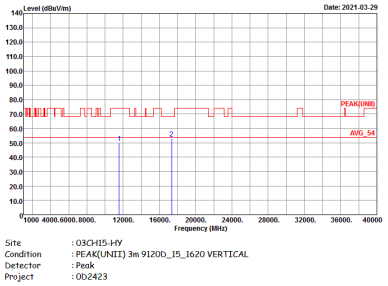
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Fundamental
Peak		

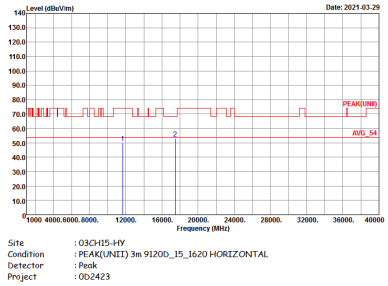
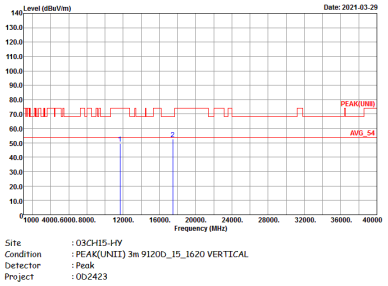
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Vertical	Fundamental
Peak		

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

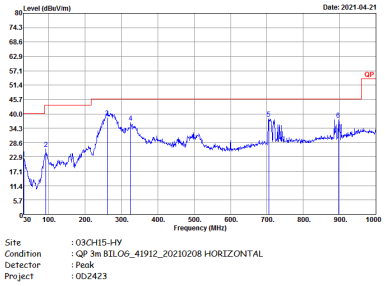
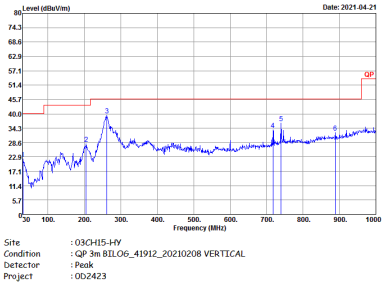
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Vertical
Peak Avg.		

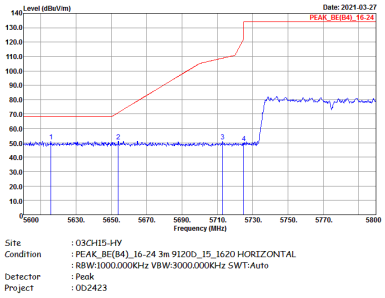
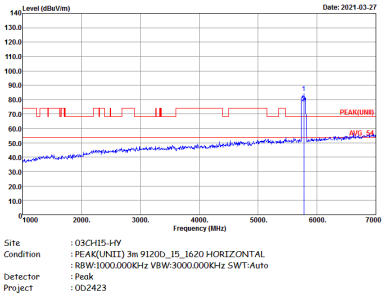
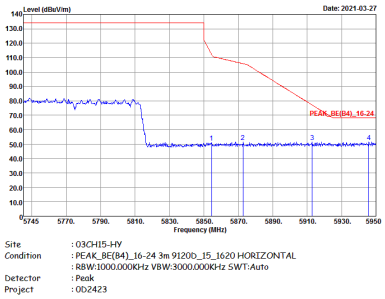
Emission below 1GHz

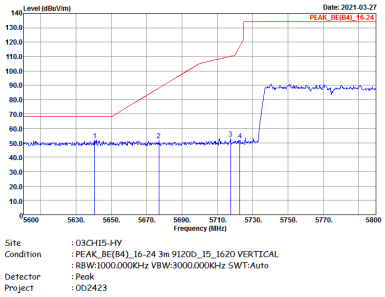
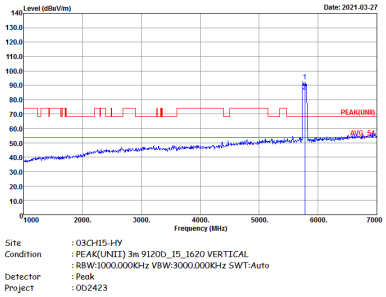
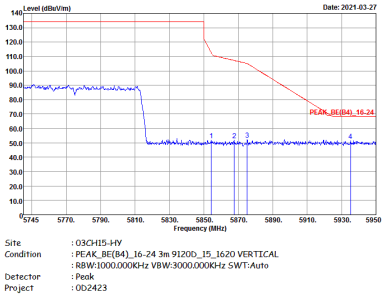
5GHz WIFI 802.11a (LF)

WIFI	5GHz 5725~5850MHz	
ANT	802.11a LF	
2	Horizontal	Vertical
QP / Peak		

Band 4 - 5725~5850MHz

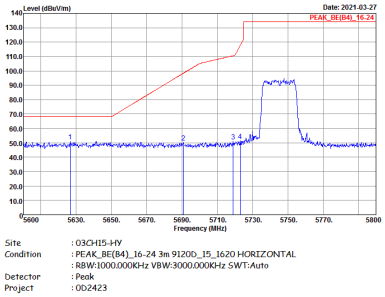
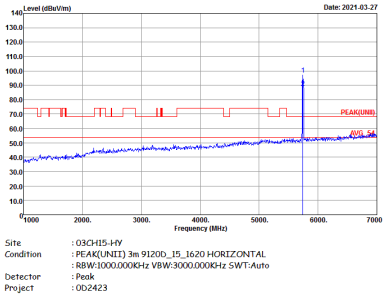
WIFI 802.11ac VHT80 (Band Edge @ 3m)

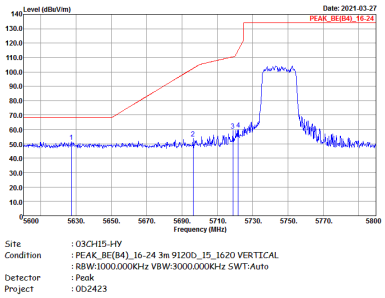
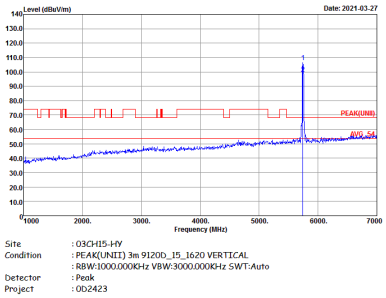
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

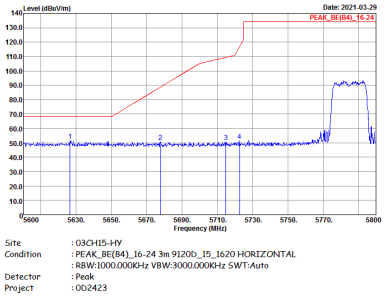
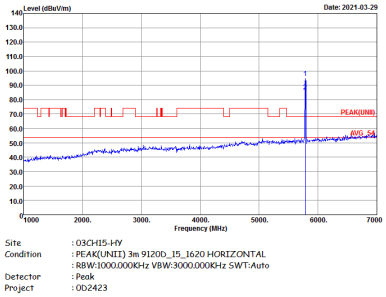
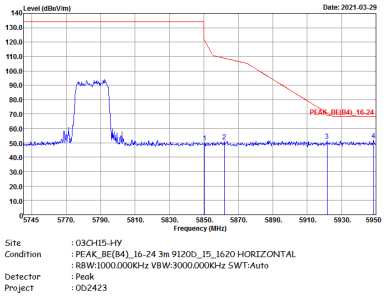
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

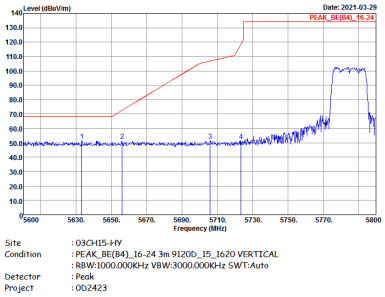
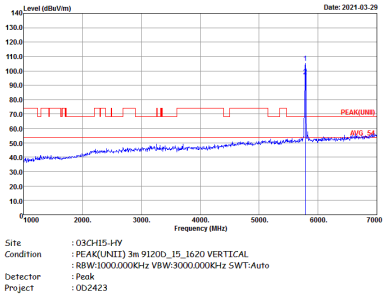
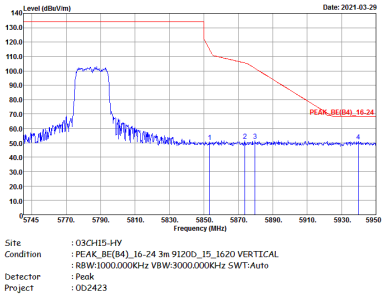
Band 4 - 5725~5850MHz

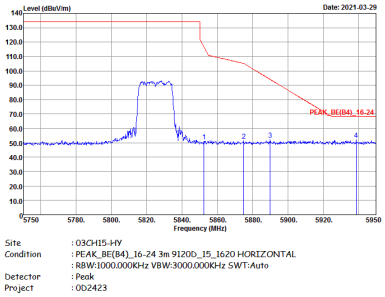
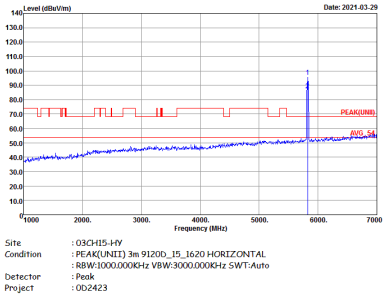
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

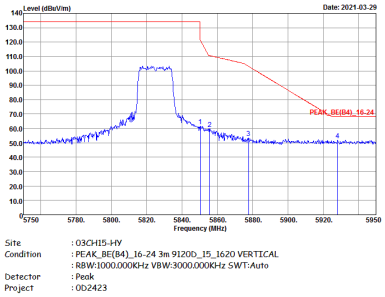
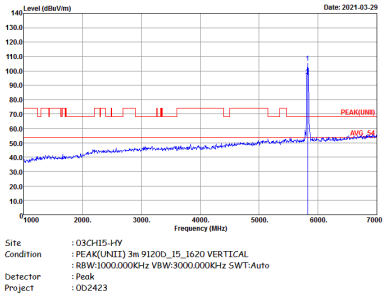
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+2	Vertical	Fundamental
Peak		

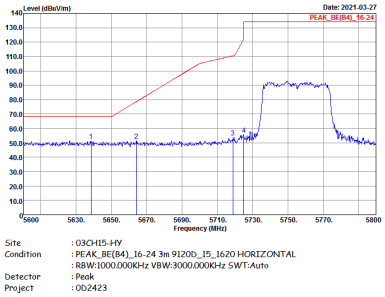
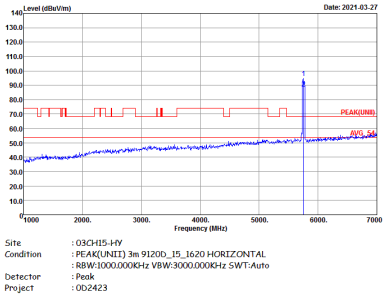
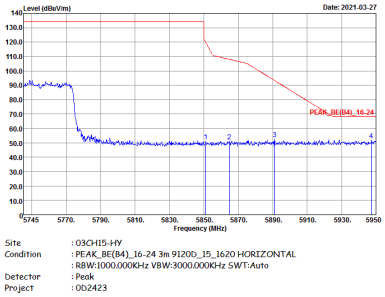
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

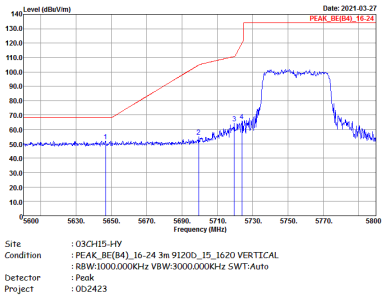
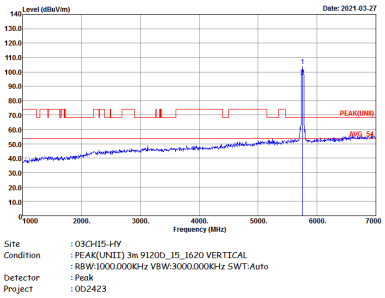
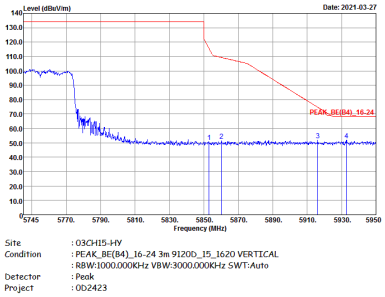
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

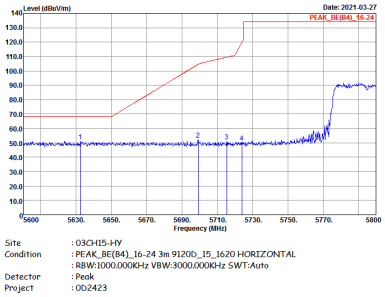
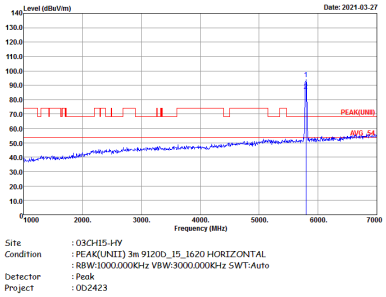
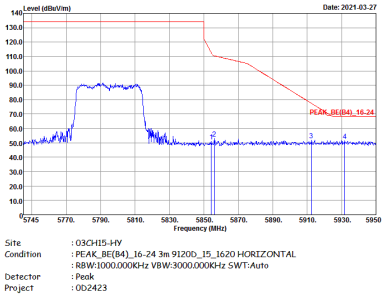
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak		

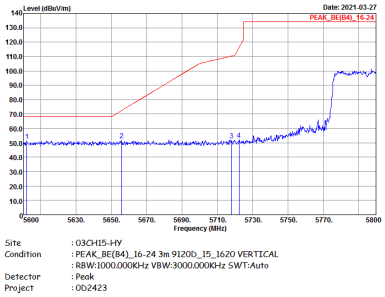
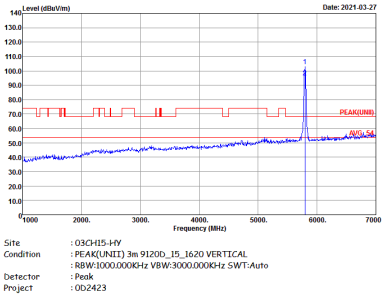
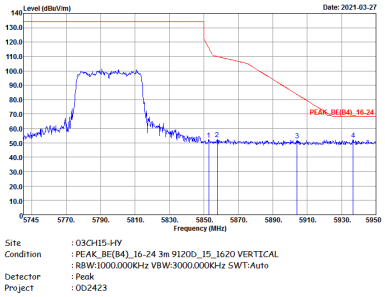
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+2	Vertical	Fundamental
Peak		

Band 4 5725~5850MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

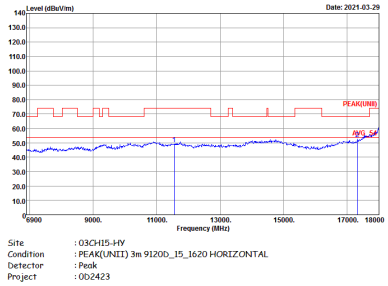
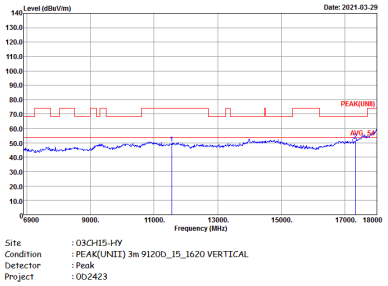
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full HT40 CH159 5795MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

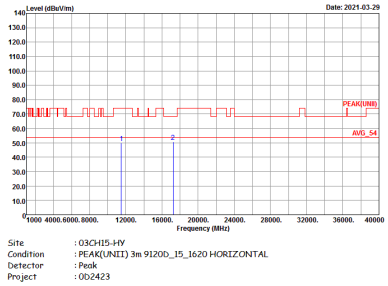
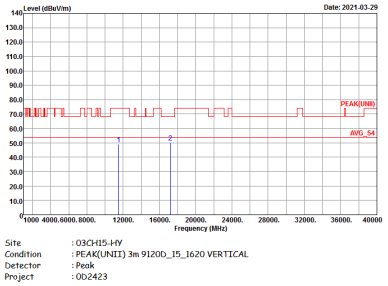
Band 4 - 5725~5850MHz

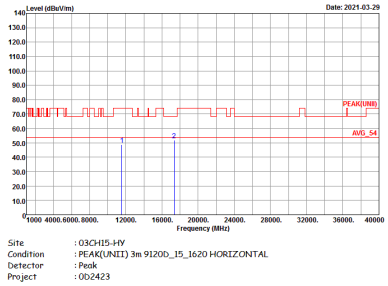
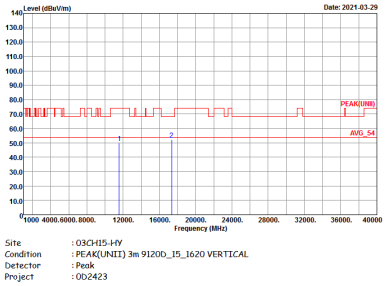
WIFI 802.11ac VHT80 (Harmonic @ 3m)

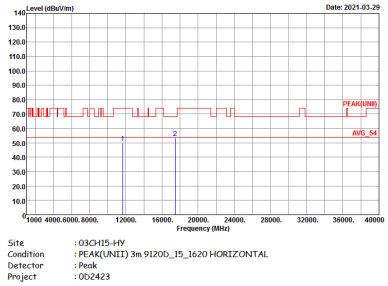
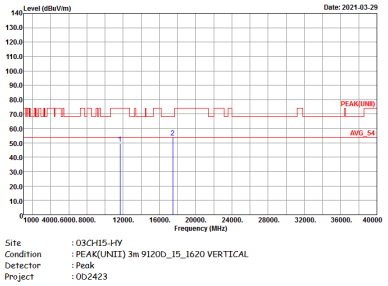
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 4 - 5725~5850MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

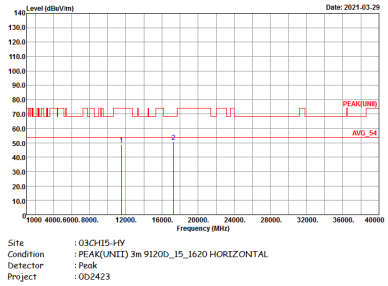
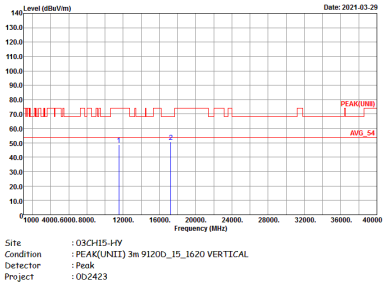
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.		

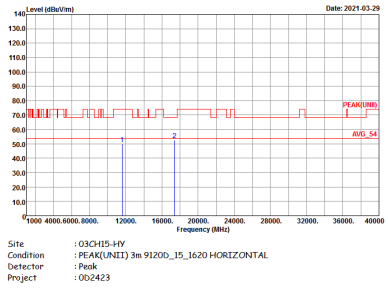
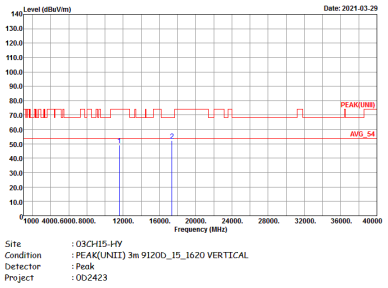
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

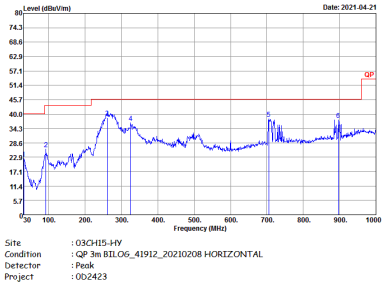
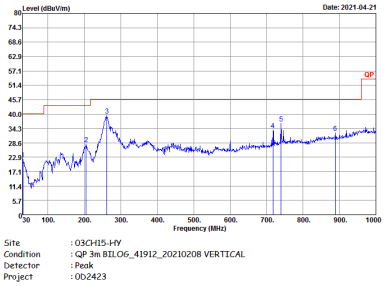
WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

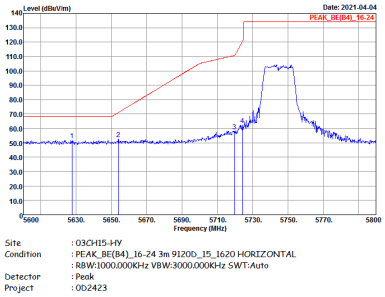
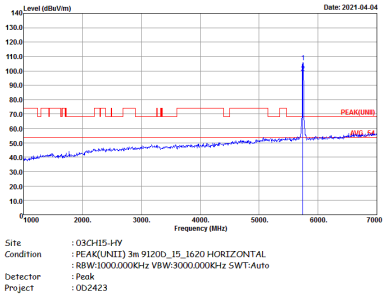
5GHz WIFI 802.11ax HE20 Full (LF)

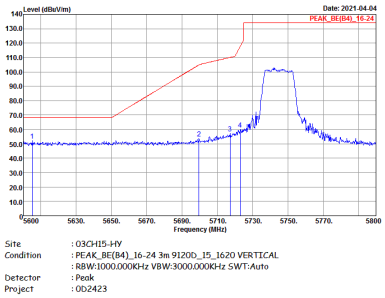
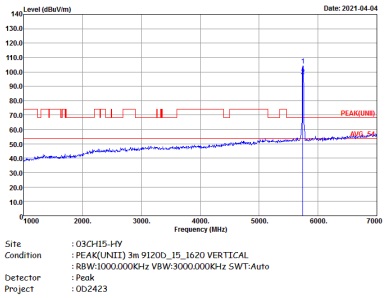
WIFI	5GHz WIFI	
ANT	802.11ax HE20 Full LF	
1+2	Horizontal	Vertical
QP / Peak		

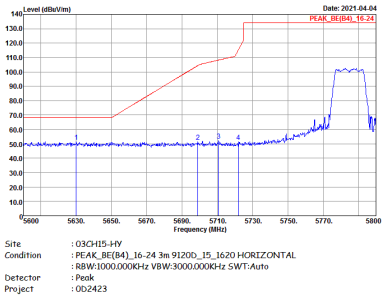
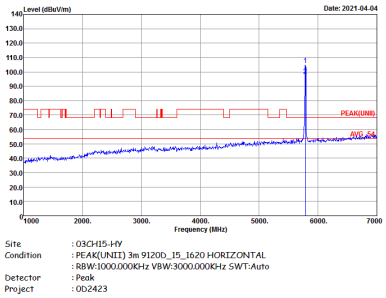
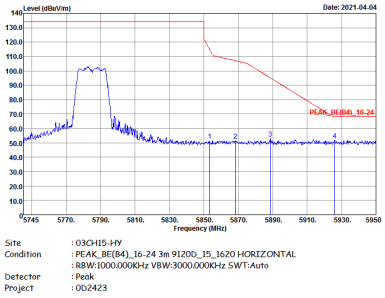
<W3006>

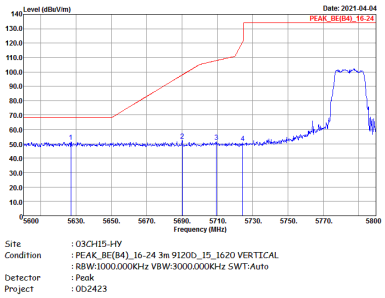
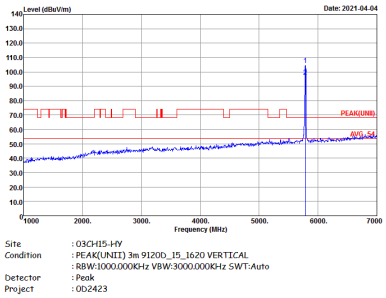
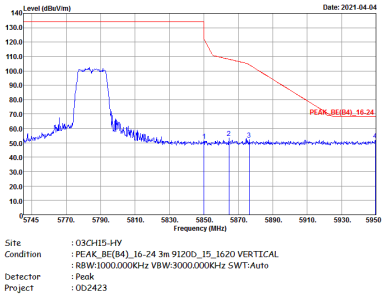
Band 4 - 5725~5850MHz

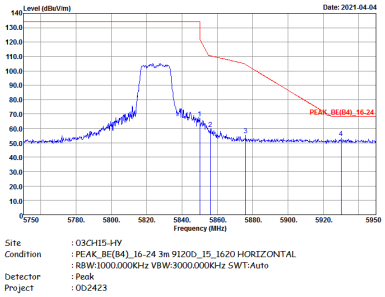
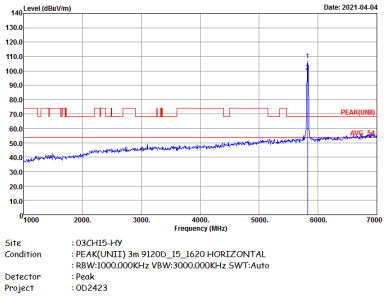
WIFI 802.11a (Band Edge @ 3m)

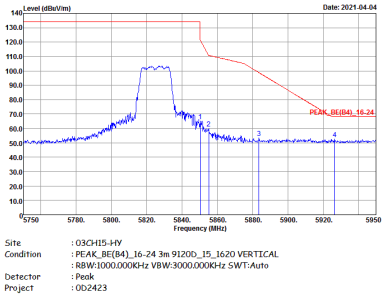
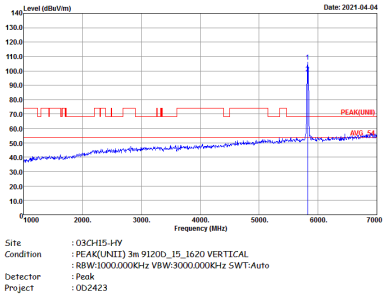
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Vertical	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

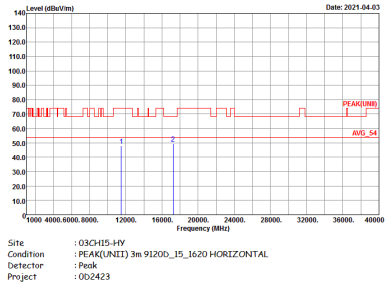
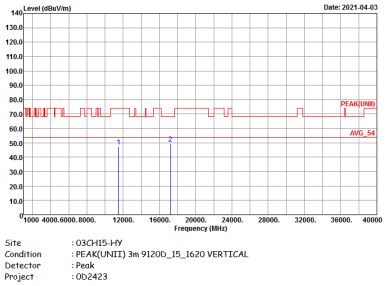
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

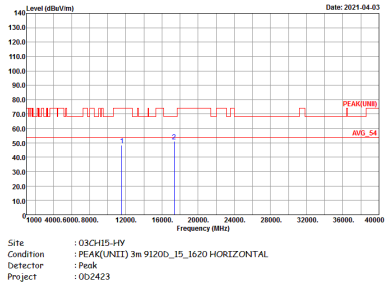
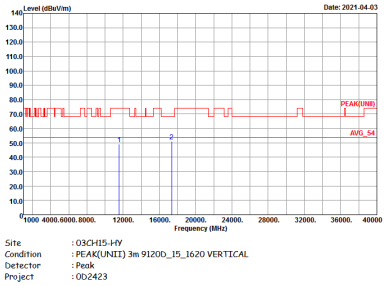
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Fundamental
Peak		

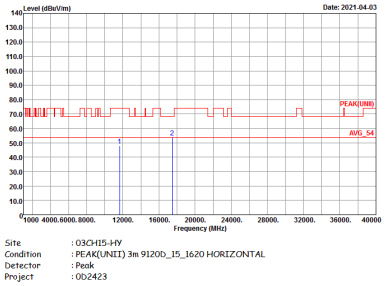
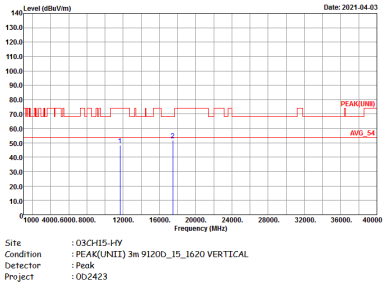
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Vertical	Fundamental
Peak		

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

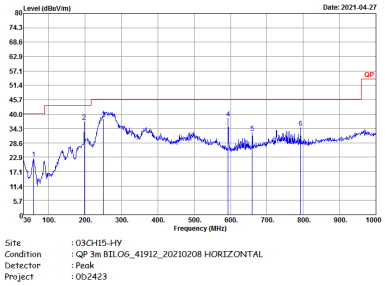
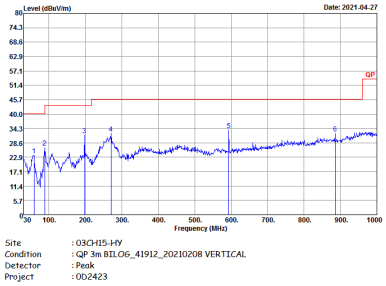
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Vertical
Peak Avg.		

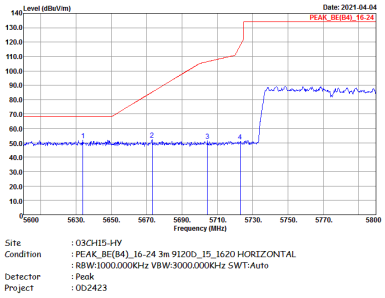
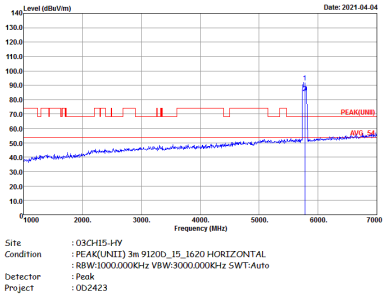
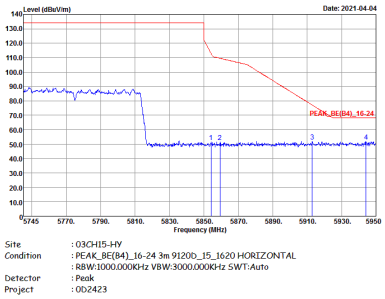
Emission below 1GHz

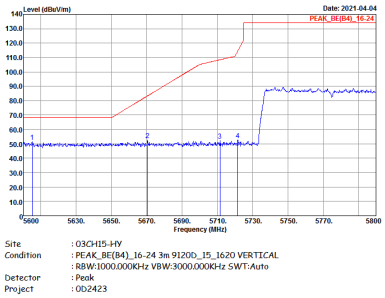
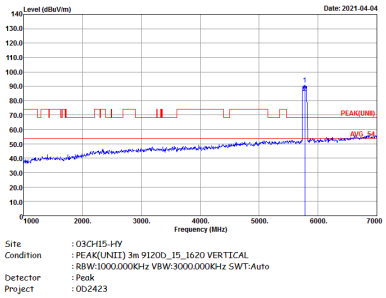
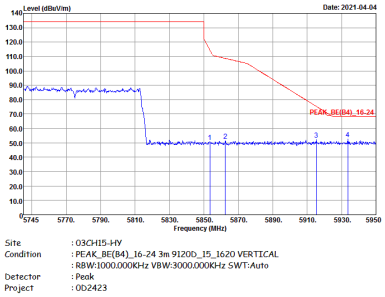
5GHz WIFI 802.11a (LF)

WIFI	5GHz 5725~5850MHz	
ANT	802.11a LF	
2	Horizontal	Vertical
QP / Peak		

Band 4 - 5725~5850MHz

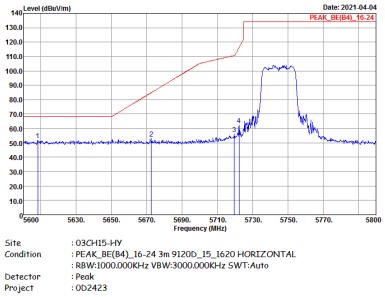
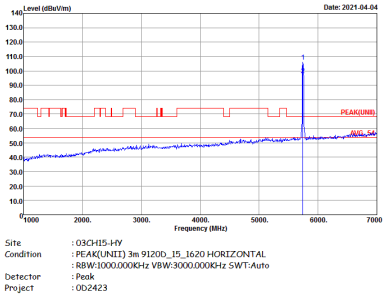
WIFI 802.11ac VHT80 (Band Edge @ 3m)

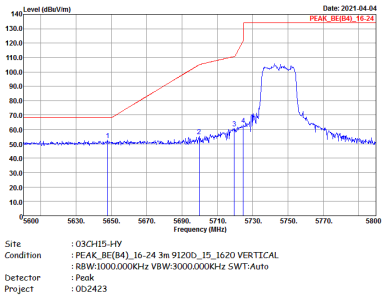
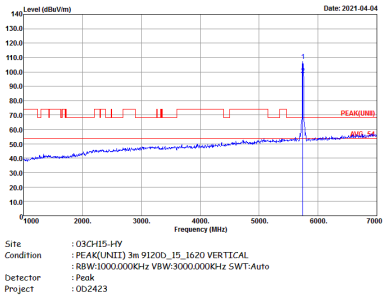
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

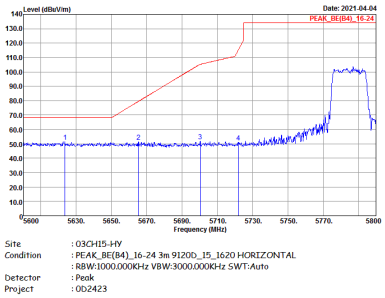
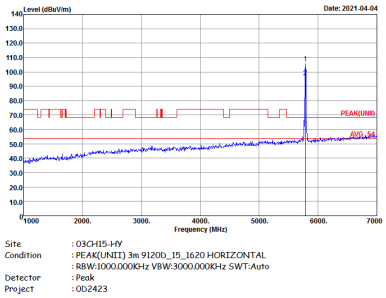
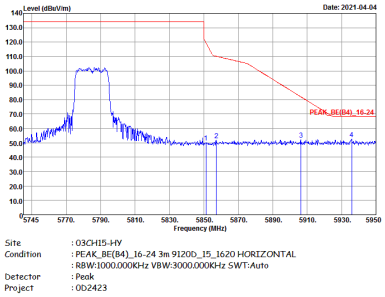
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

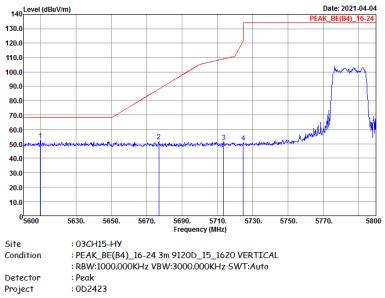
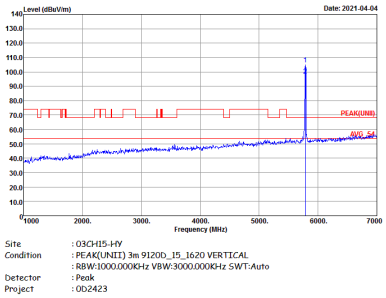
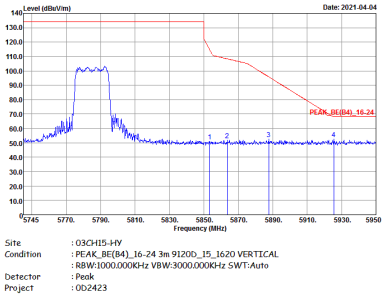
Band 4 - 5725~5850MHz

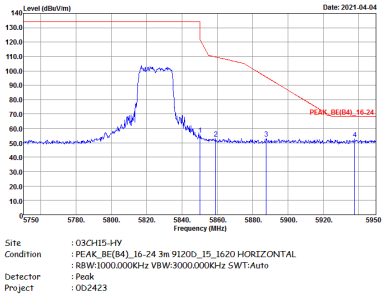
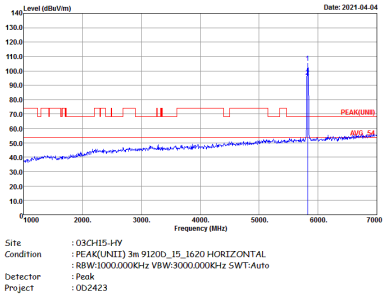
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

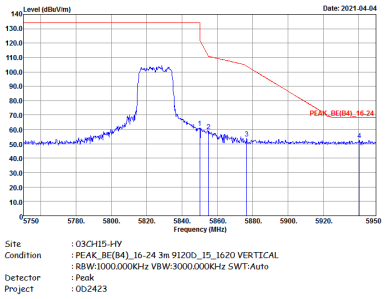
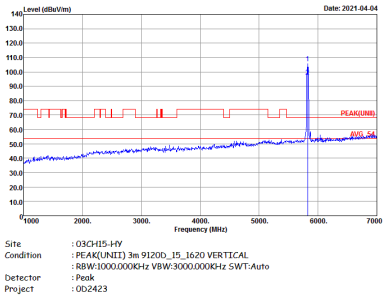
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+2	Vertical	Fundamental
Peak		

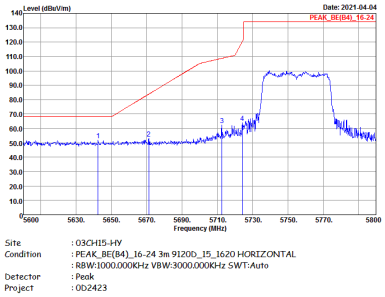
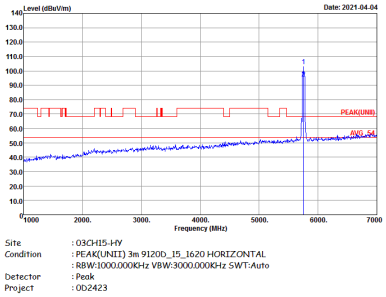
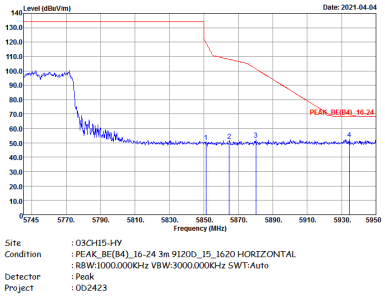
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+2	Vertical	Fundamental
Peak		

Band 4 5725~5850MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

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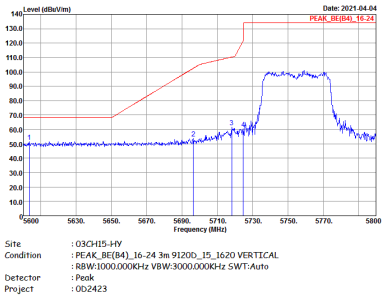
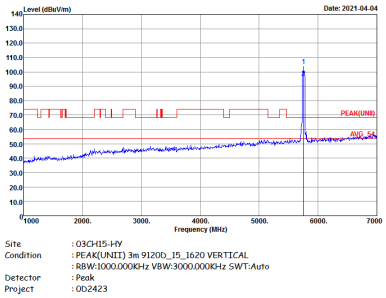
<tr><td>ANT</td><td colspan="2">802.11ax HE40 Full CH151 5755MHz</td></tr>
<tr><td>1+2</td><td>Vertical</td><td>Fundamental</td></tr>
<tr><td>Peak</td><td> 
</td><td> 
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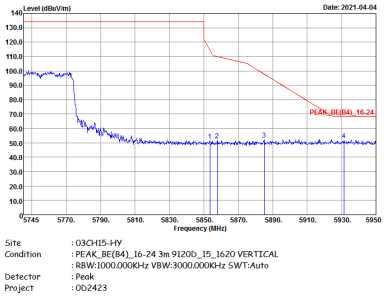
<tr><td>Peak</td><td> 
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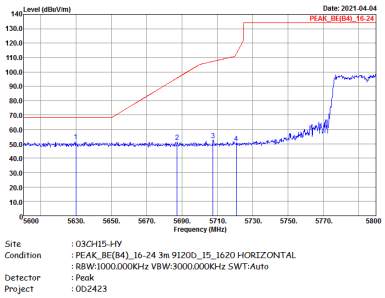
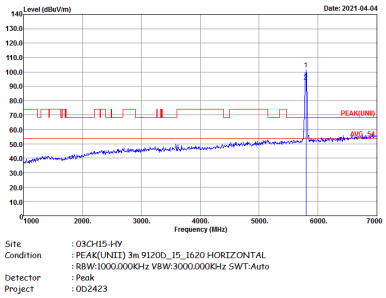
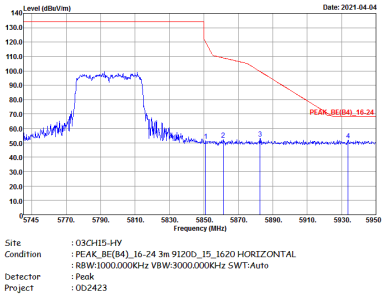
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full HT40 CH159 5795MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

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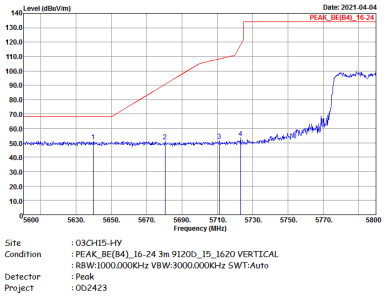
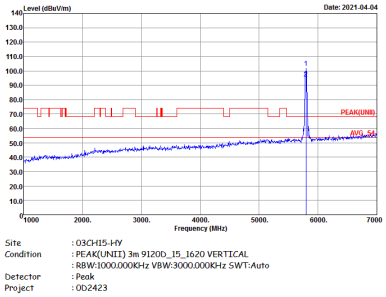
<tr><td>WIFI</td><td colspan="2">Band 4 5725~5850MHz Band Edge @ 3m</td></tr>
<tr><td>ANT</td><td colspan="2">802.11ax HE40 Full CH159 5795MHz</td></tr>
<tr><td>1+2</td><td>Vertical</td><td>Fundamental</td></tr>
<tr><td>Peak</td><td> 
</td><td> 
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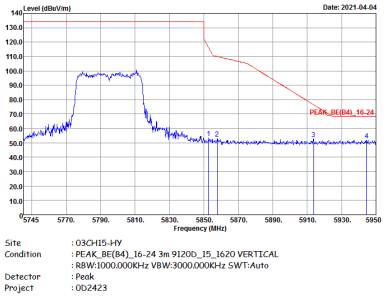
<tr><td>Peak</td><td> 
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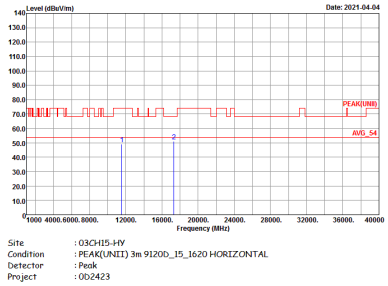
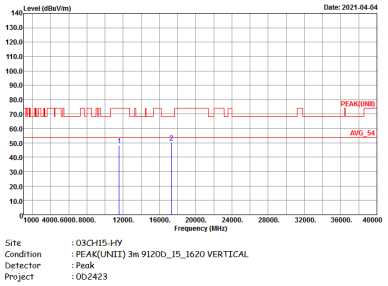
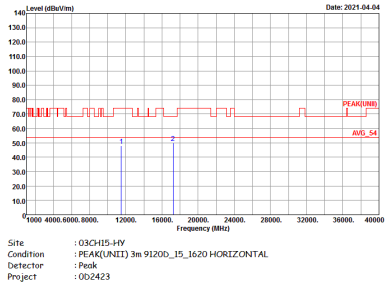
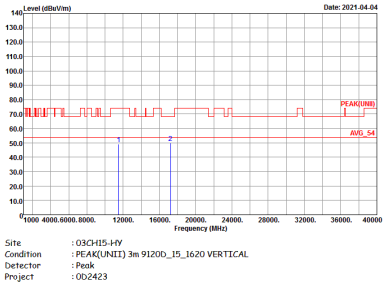
Band 4 - 5725~5850MHz

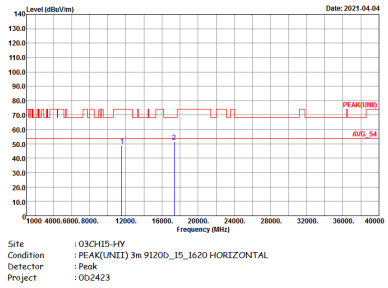
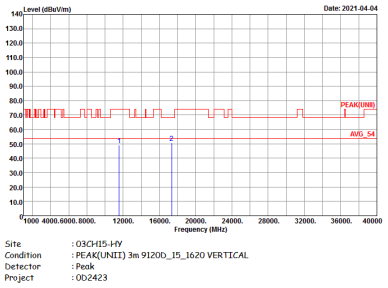
WIFI 802.11ac VHT80 (Harmonic @ 3m)

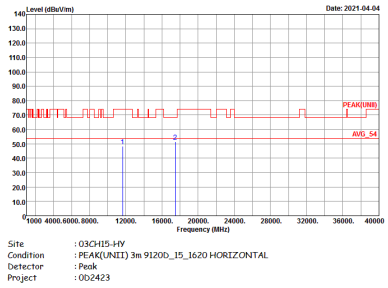
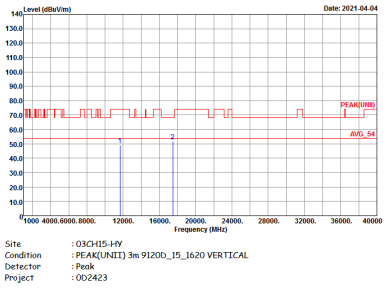
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 4 - 5725~5850MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

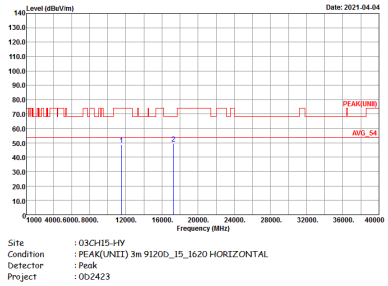
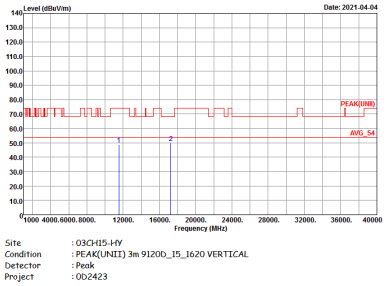
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.		

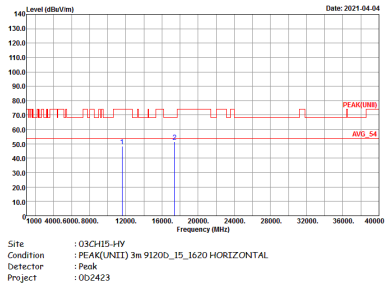
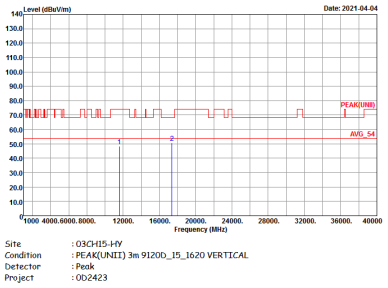
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

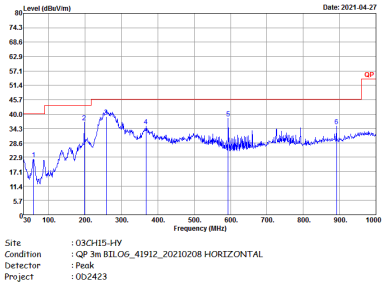
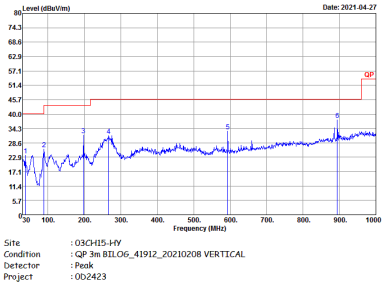
WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

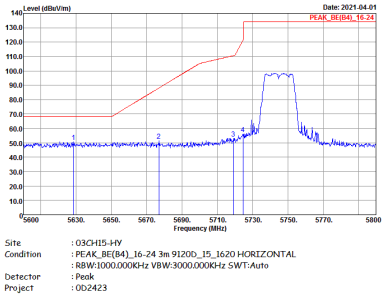
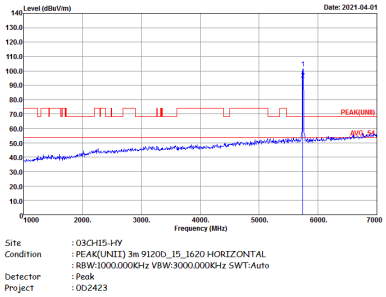
5GHz WIFI 802.11ac VHT80 (LF)

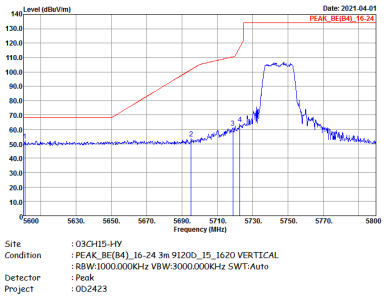
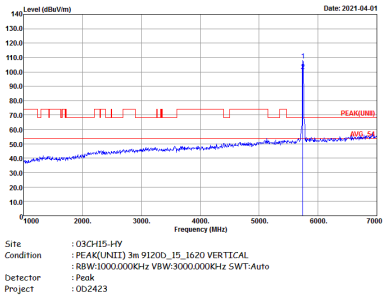
WIFI	5GHz WIFI	
ANT	802.11ac VHT80 LF	
1+2	Horizontal	Vertical
QP / Peak		

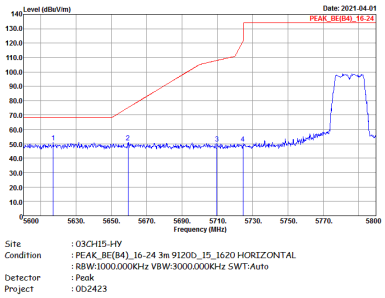
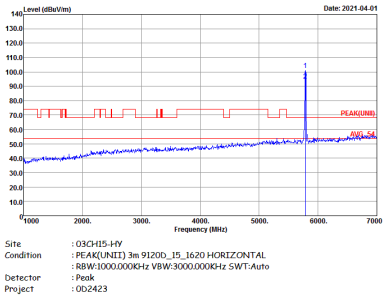
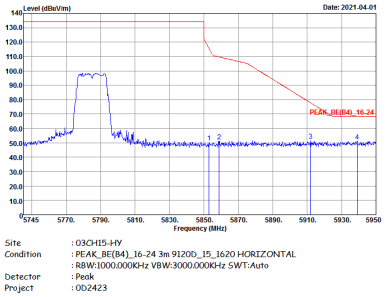
<220370-09>

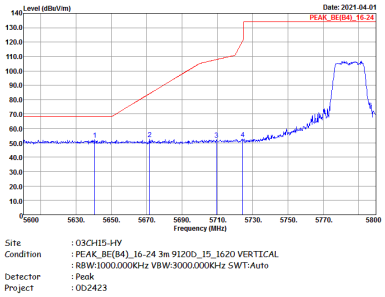
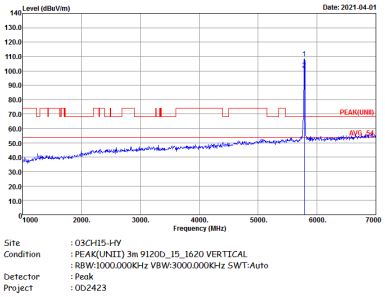
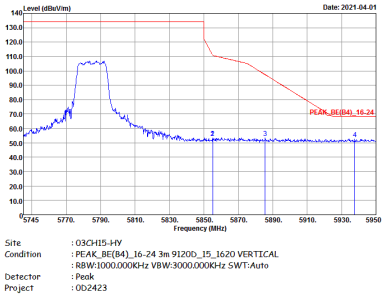
Band 4 - 5725~5850MHz

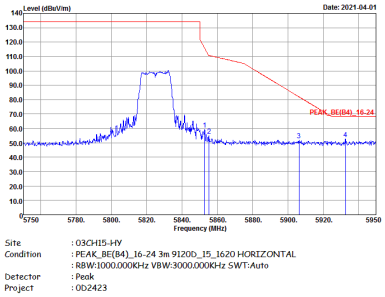
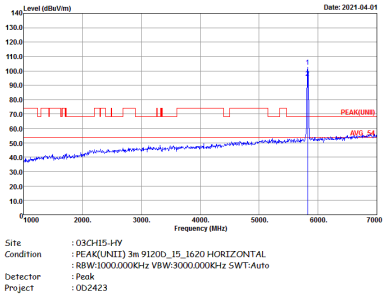
WIFI 802.11a (Band Edge @ 3m)

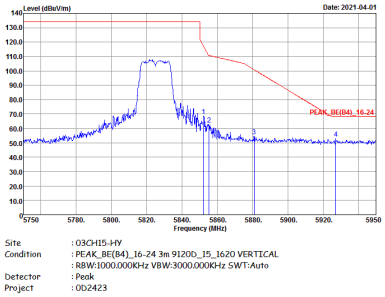
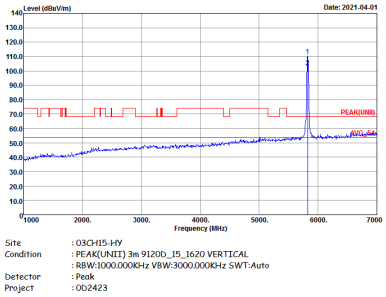
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Vertical	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

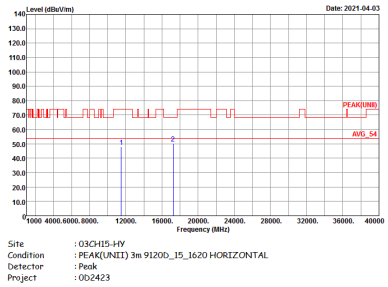
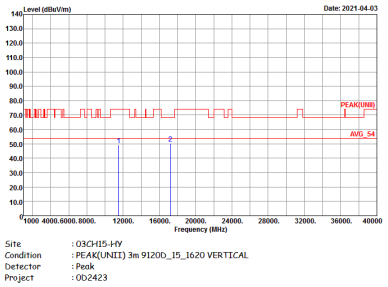
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

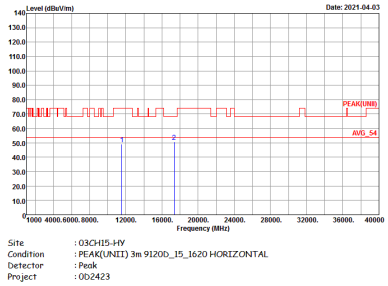
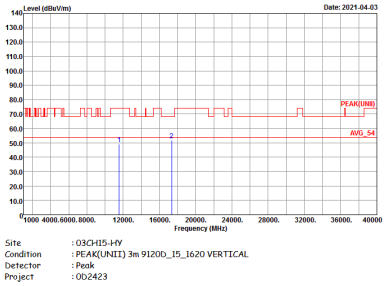
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Fundamental
Peak		

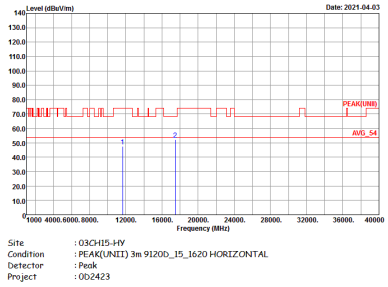
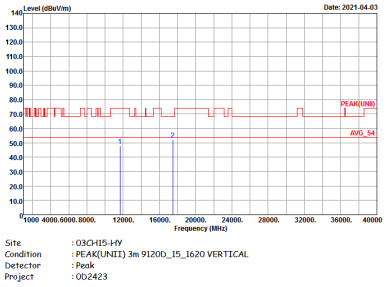
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Vertical	Fundamental
Peak		

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

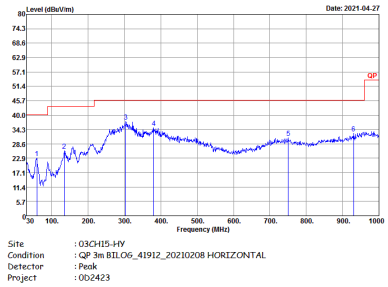
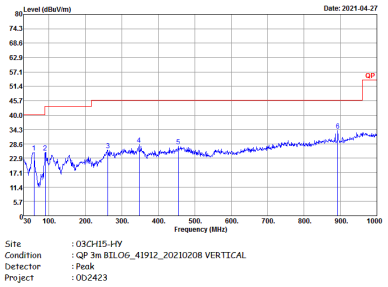
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Vertical
Peak Avg.		

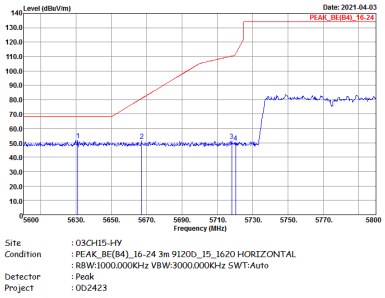
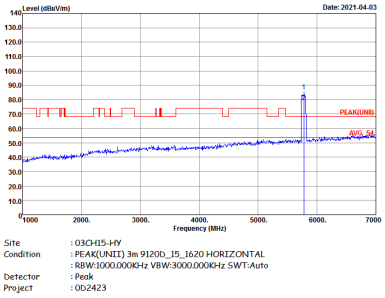
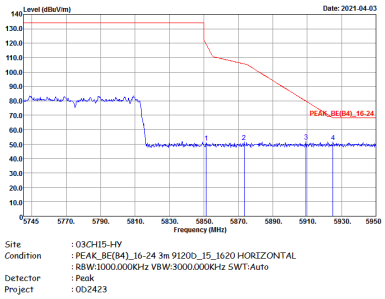
Emission below 1GHz

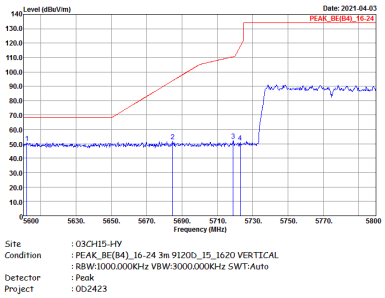
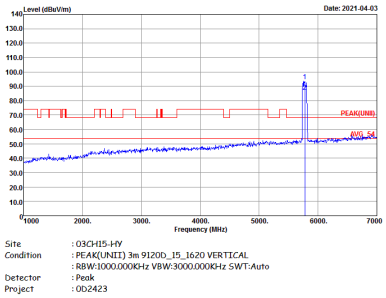
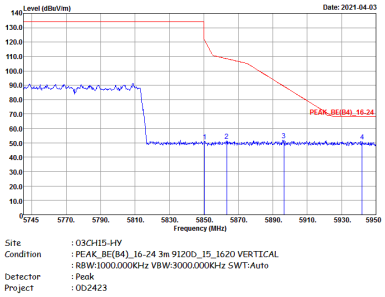
5GHz WIFI 802.11a (LF)

WIFI	5GHz 5725~5850MHz	
ANT	802.11a LF	
2	Horizontal	Vertical
QP / Peak		

Band 4 - 5725~5850MHz

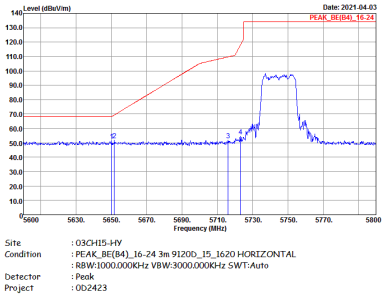
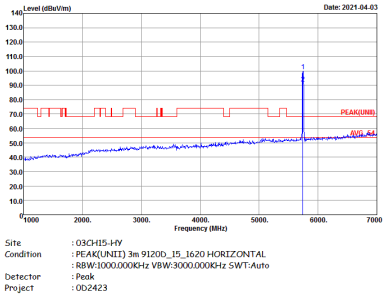
WIFI 802.11ac VHT80 (Band Edge @ 3m)

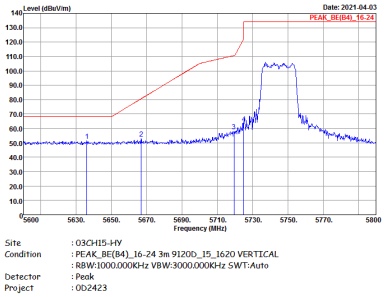
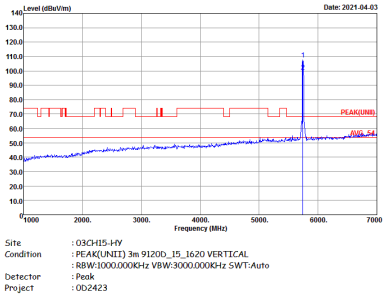
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

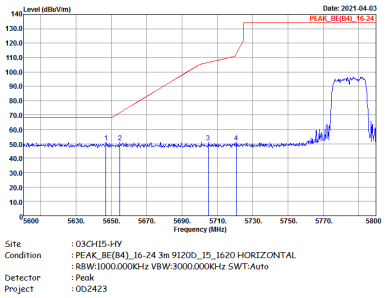
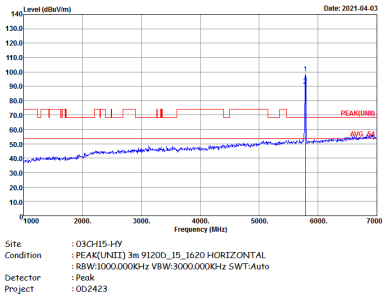
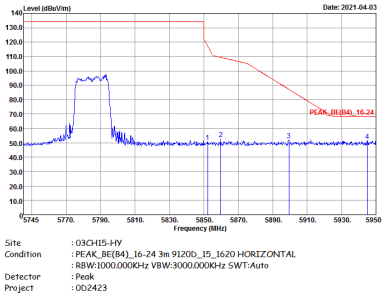
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

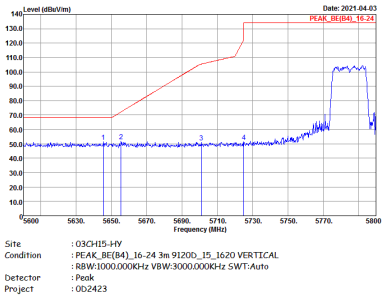
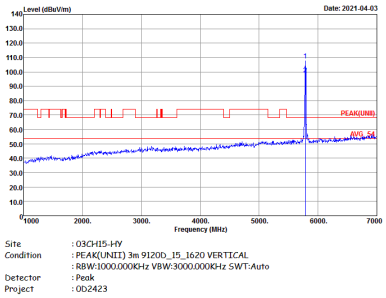
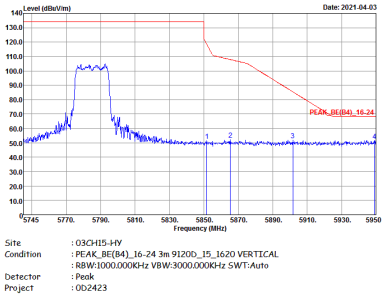
Band 4 - 5725~5850MHz

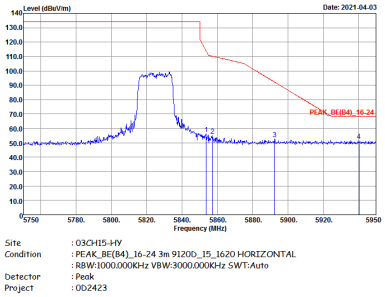
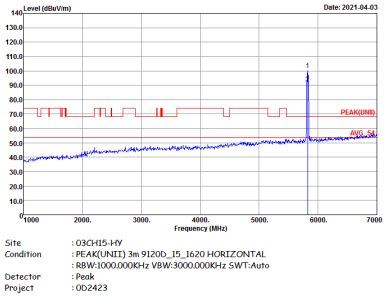
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

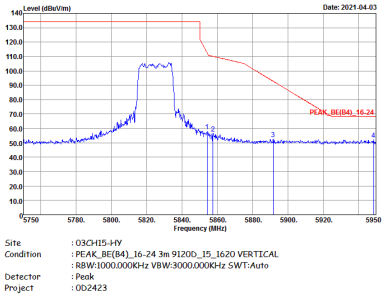
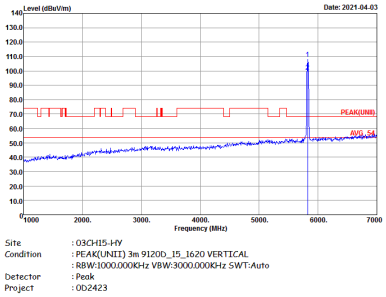
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+2	Vertical	Fundamental
Peak		

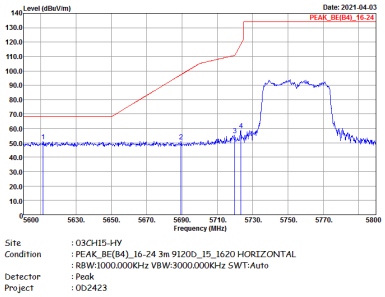
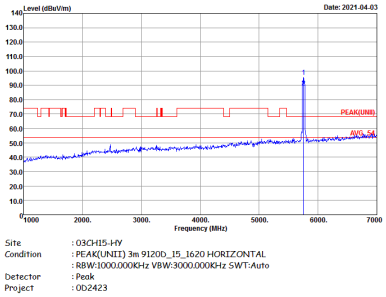
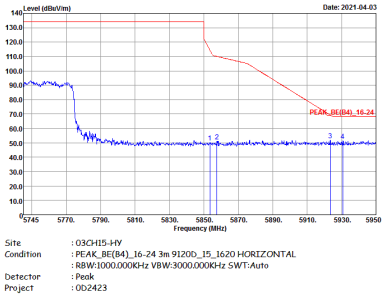
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

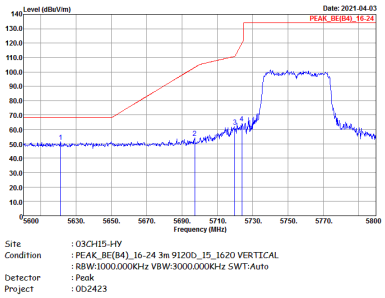
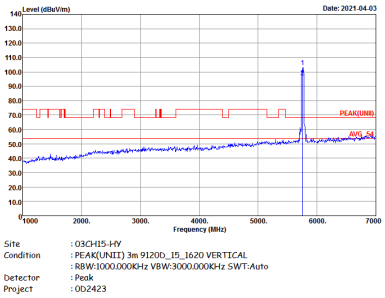
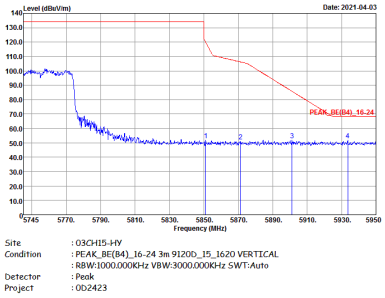
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

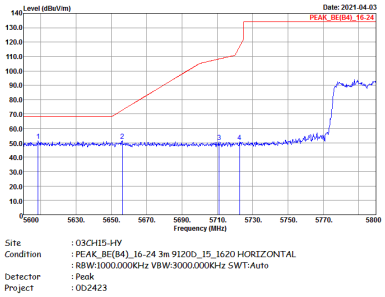
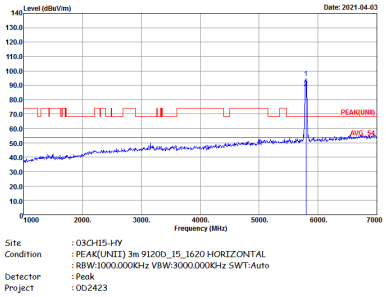
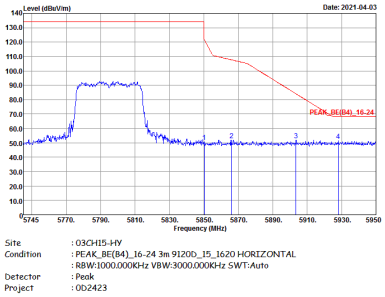
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak		

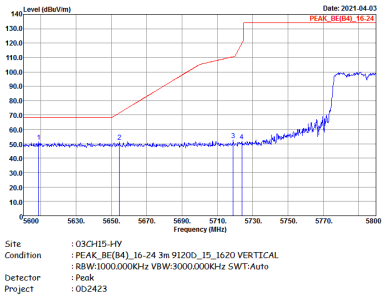
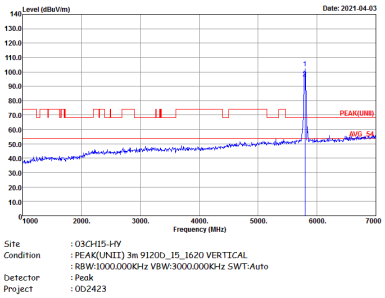
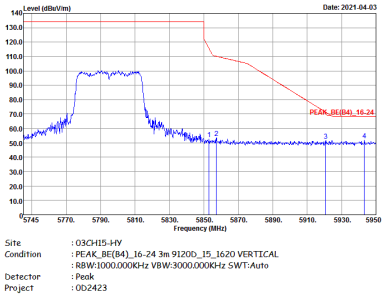
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+2	Vertical	Fundamental
Peak		

Band 4 5725~5850MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

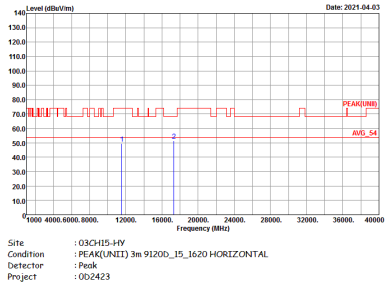
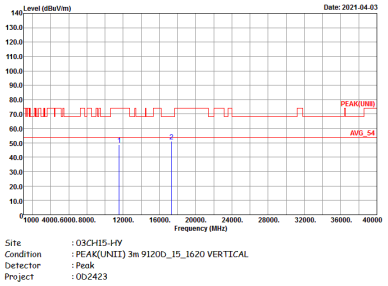
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full HT40 CH159 5795MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

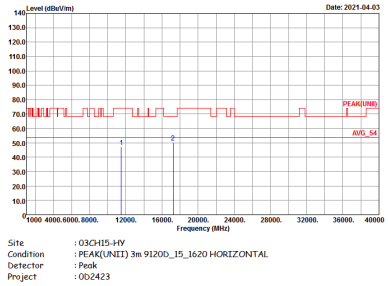
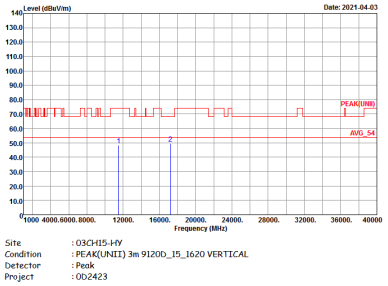
Band 4 - 5725~5850MHz

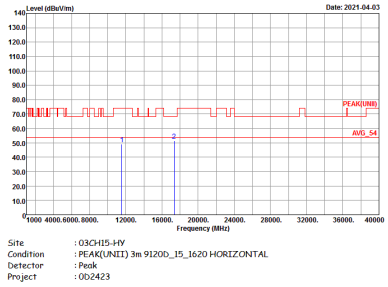
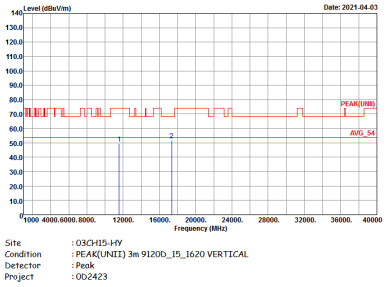
WIFI 802.11ac VHT80 (Harmonic @ 3m)

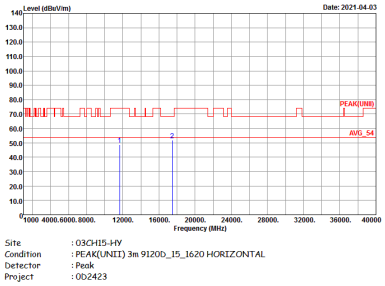
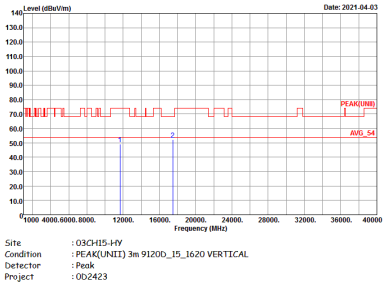
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 4 - 5725~5850MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

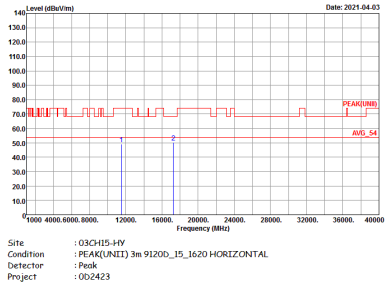
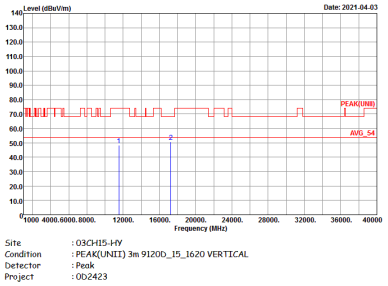
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.		

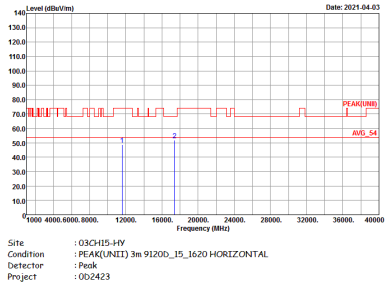
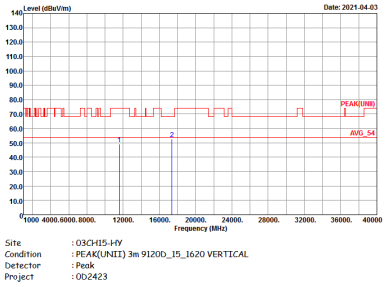
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

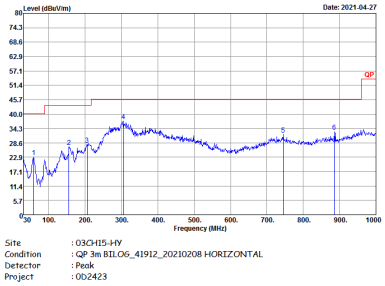
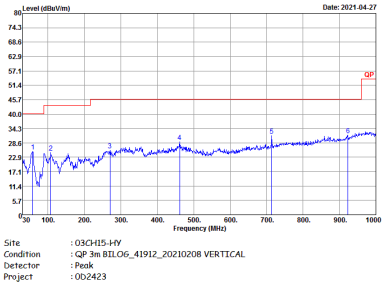
WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

5GHz WIFI 802.11ax HE20 Full (LF)

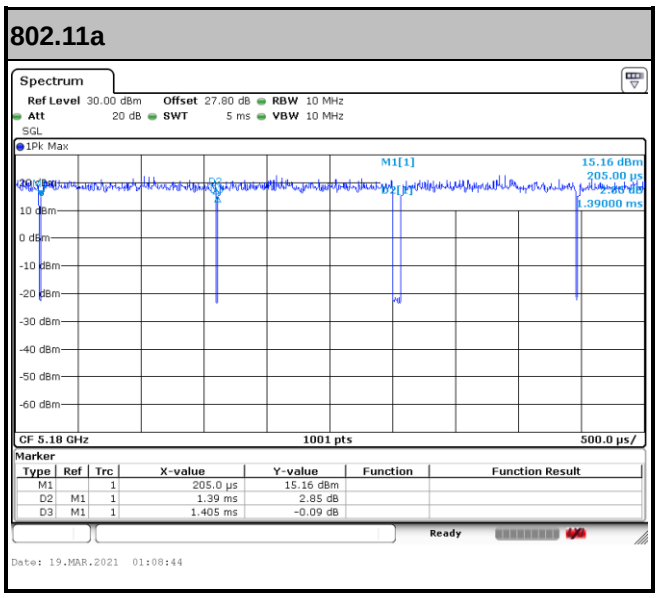
WIFI	5GHz WIFI	
ANT	802.11ax HE20 Full LF	
1+2	Horizontal	Vertical
QP / Peak		

Appendix D. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1	802.11a	98.93	-	-	10Hz	0.05
2	802.11a	98.94	-	-	10Hz	0.05
1+2	5GHz 802.11ac VHT80 for Ant. 1	92.16	188	5.32	10kHz	0.35
1+2	5GHz 802.11ac VHT80 for Ant. 2	92.16	188	5.32	10kHz	0.35
1+2	5GHz 802.11ax HE20 Full RU for Ant. 1	97.30	540	1.85	3kHz	0.12
1+2	5GHz 802.11ax HE20 Full RU for Ant. 2	97.30	540	1.85	3kHz	0.12
1+2	5GHz 802.11ax HE40 Full RU for Ant. 1	95.57	302	3.31	10kHz	0.20
1+2	5GHz 802.11ax HE40 Full RU for Ant. 2	94.94	300	3.33	10kHz	0.23

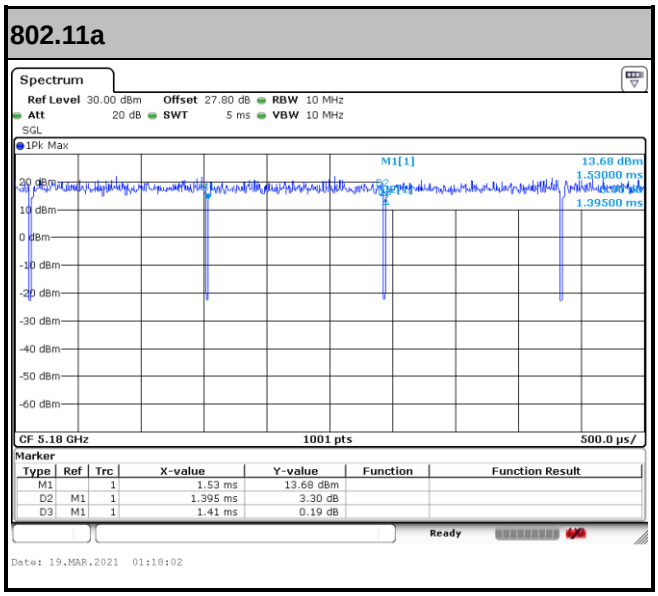
<Ant. 1>

802.11a

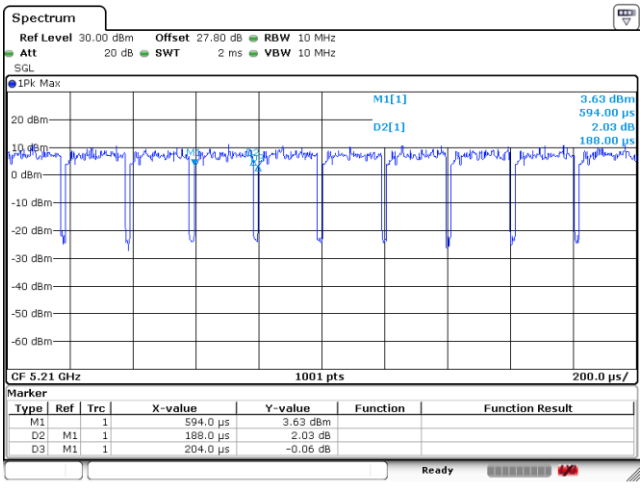
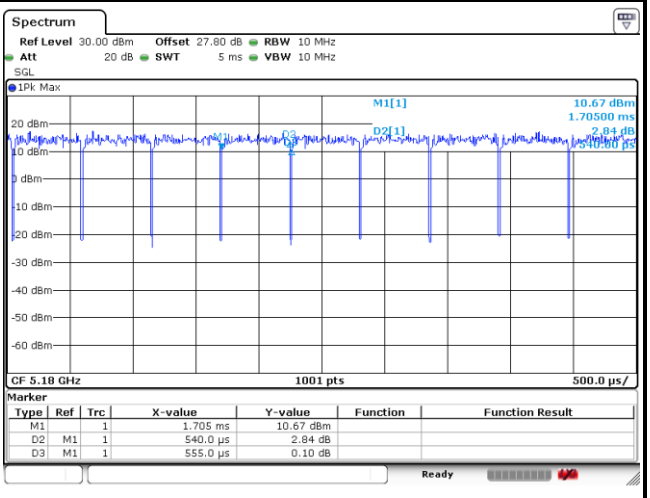


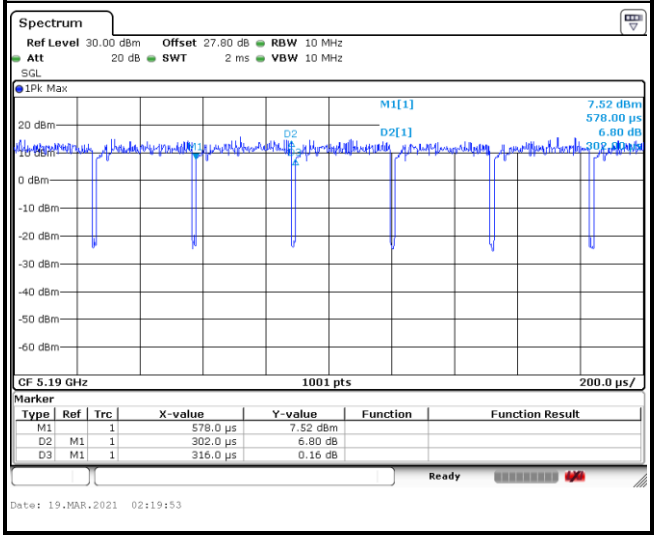
<Ant. 2>

802.11a

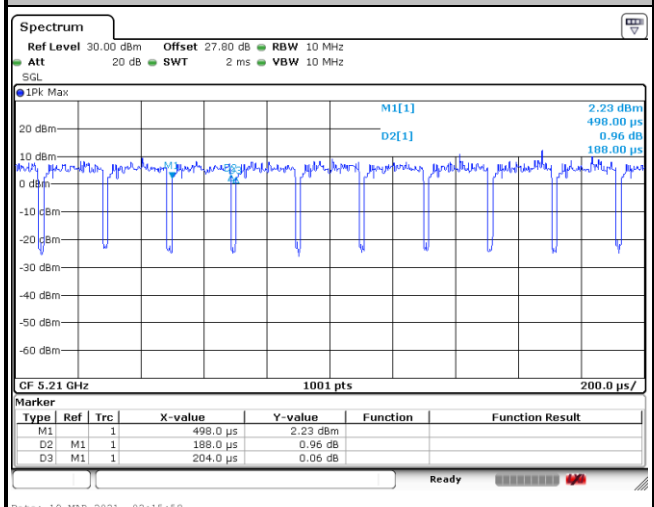
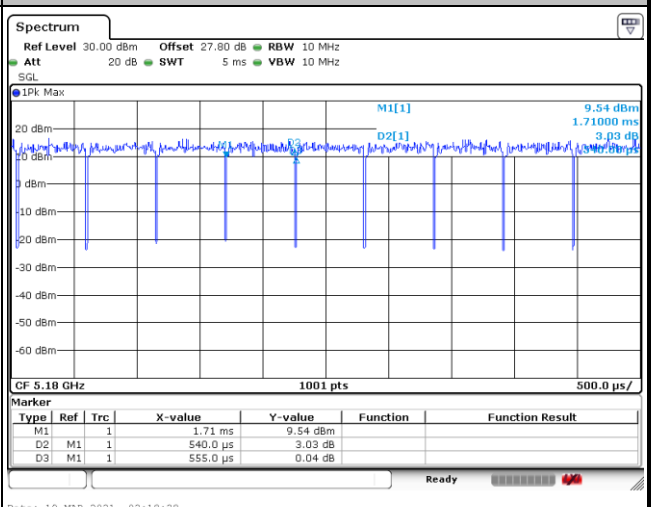


MIMO <Ant. 1>

802.11ac VHT80	802.11ax HE20 Full RU
	

802.11ax HE40 Full RU


MIMO <Ant. 2>

802.11ac VHT80	802.11ax HE20 Full RU
	

802.11ax HE40 Full RU