FCC RADIO TEST REPORT

FCC ID	:	**S9GR750**
Equipment	:	**Acess Point**
Brand Name	:	**RUCKUS**
Model Name	:	**R750**
Applicant	:	**Ruckus Wirelss Inc.** **350 W. Java Dr., Sunnyvale CA 94089 USA**
Manufacturer	:	**Ruckus Wirelss Inc.** **350 W. Java Dr., Sunnyvale CA 94089 USA**
Standard	:	**FCC Part 15 Subpart C §15.247**

The product was received on Apr. 30, 2020 and testing was started from May 13, 2020 and completed on May 27, 2020. We, Sporton International (USA) Inc., 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 report must not be used by the client to claim product certification, approval, or endorsement by A2LA or any agency of government.

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

Approved by: Ken Chen

Sporton International (USA) Inc.
1175 Montague Expressway, Milpitas, CA 95035

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History of this test report

Report No.	Version	Description	Issued Date
FR200504001A	01	Initial issue of report	Jun. 02, 2020

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
-	15.247(a)(2)	6dB Bandwidth	-	See Note
-	2.1049	99% Occupied Bandwidth	-	See Note
3.1	15.247(b)	Power Output Measurement	Pass	-
3.2	15.247(e)	Power Spectral Density	Pass	-
-	15.247(d)	Conducted Band Edges	-	See Note
		Conducted Spurious Emission	-	
3.3	15.247(d)	Unwanted Emissions	Pass	Under limit 0.13 dB at 2390.000 MHz
-	15.207	AC Conducted Emission	-	See Note
3.4	15.203 & 15.247(b)	Antenna Requirement	Pass	-

Note: This is a spot check data report and data performed in appendix of this report are chosen from the worst case of the original FCC ID (S9GR750) report.

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Product Feature of Equipment Under Test

Bluetooth-LE, Wi-Fi 2.4GHz 802.11b/g/n/ax, Wi-Fi 5GHz 802.11a/n/ac/ax, and Zigbee.

Product Specification subjective to this standard	
Antenna Type	WLAN: **<Ant. 1>:** PCB Antenna **<Ant. 2>:** PCB Antenna **<Ant. 3>:** PCB Antenna **<Ant. 4>:** PCB Antenna **<Ant. 5>:** PCB Antenna **<Ant. 6>:** PCB Antenna **<Ant. 7>:** PCB Antenna **<Ant. 8>:** PCB Antenna Bluetooth: PIFA Antenna Zigbee: PIFA Antenna

1.2 Modification of EUT

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

1.3 Testing Location

Test Site	Sporton International (USA) Inc.	
Test Site Location	1175 Montague Expressway, Milpitas, CA 95035 TEL : 408 9043300	
Test Site No.	**Sporton Site No.**	
	TH01-CA	

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

1.4 Applicable Standards

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

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05r02
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

2 Test Configuration of Equipment Under Test

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437		

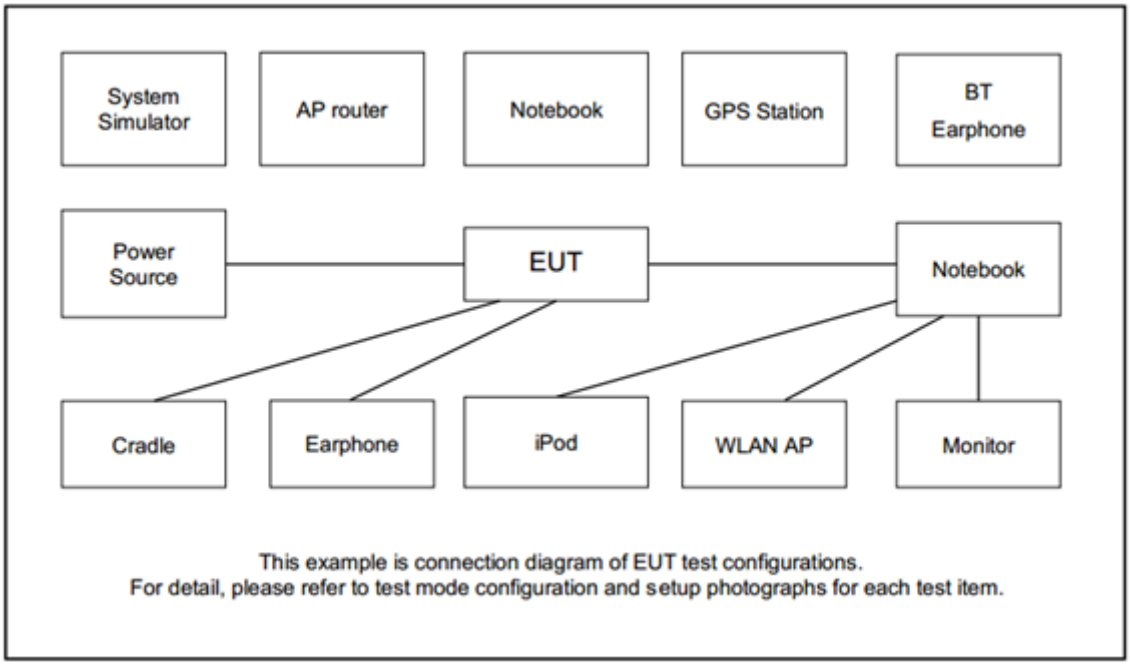
2.2 Test Mode

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

Modulation	Data Rate
802.11ax HE20	**MCS0**
802.11ax HE40	**MCS0**

Ch. #	2400-2483.5 MHz	
	802.11ax HE20	802.11ax HE40
Low	**01**	**03**
Middle	**06**	**06**
High	**11**	**09**

2.3 Connection Diagram of Test System



2.4 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 10dB attenuator.

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 Output Power Measurement

3.1.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for output power is 30dBm. If transmitting antenna with directional gain greater than 6dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

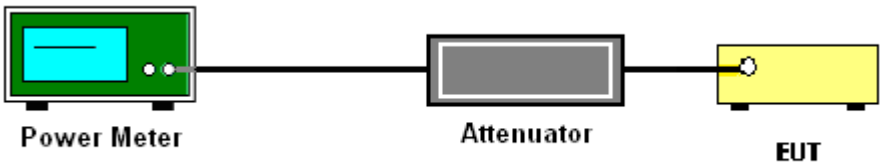
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

1. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

3.1.4 Test Setup



3.1.5 Test Result of Average Output Power

Please refer to Appendix A.

3.2 Power Spectral Density Measurement

3.2.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

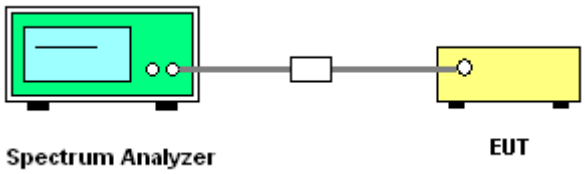
Method AVGPSD-2

1. The testing follows the ANSI C63.10 Section 11.10.5 Method AVGPSD-2.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW).
5. Number of points in sweep ≥ 2 Span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins).
6. Detector = RMS, Sweep time = auto couple.
7. Trace average at least 100 traces in power averaging mode.
8. Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.
9. Measure and record the results in the test report.
10. 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 .

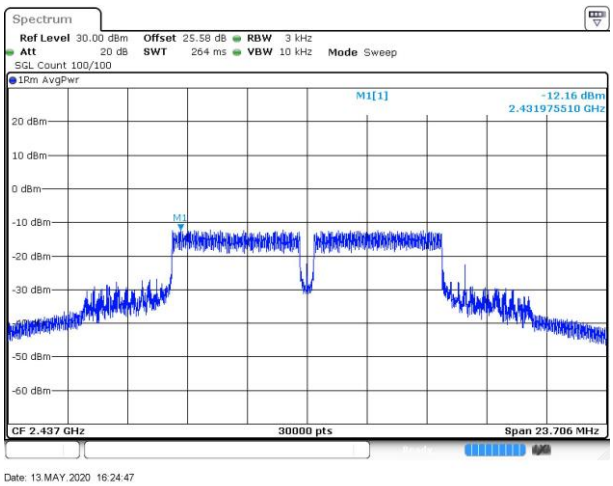
3.2.4 Test Setup

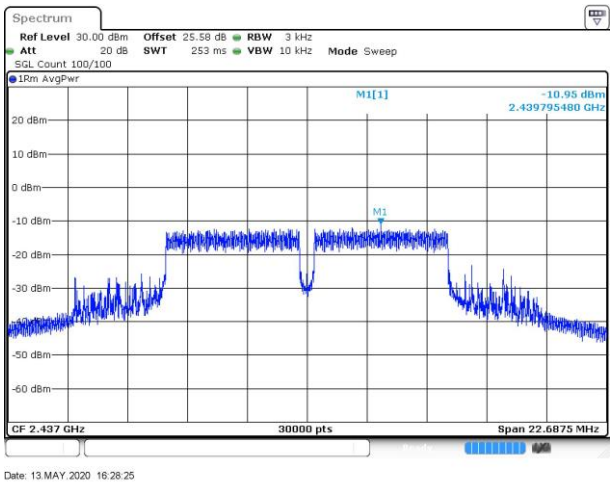


3.2.5 Test Result of Power Spectral Density

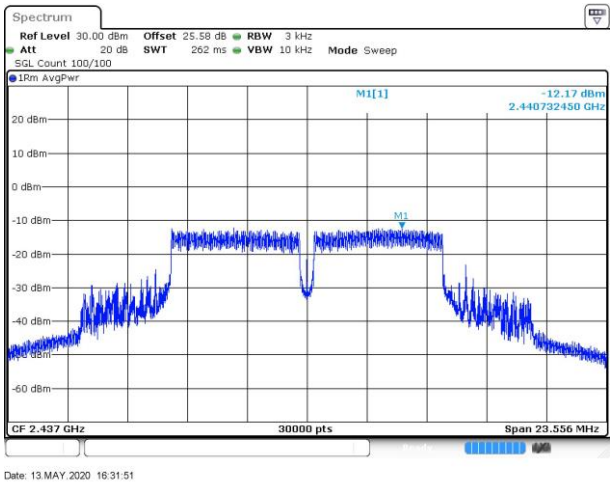
Please refer to Appendix A.

<For Band-edge Unmodulated>

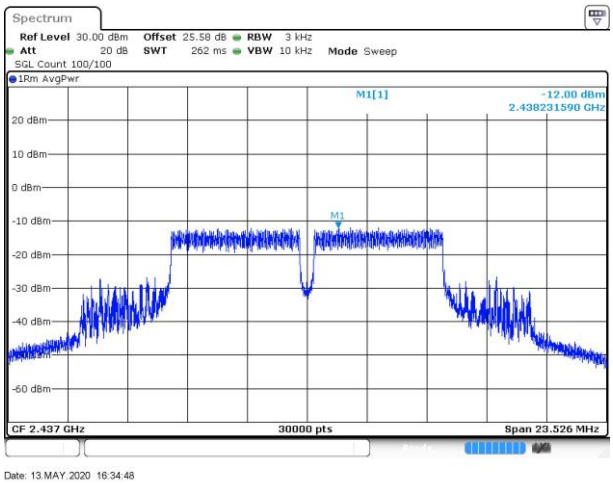
Worst Case Power Density (dBm/3kHz) for MIMO Ant. 1


Worst Case Power Density (dBm/3kHz) for MIMO Ant. 2


Worst Case Power Density (dBm/3kHz) for MIMO Ant. 3

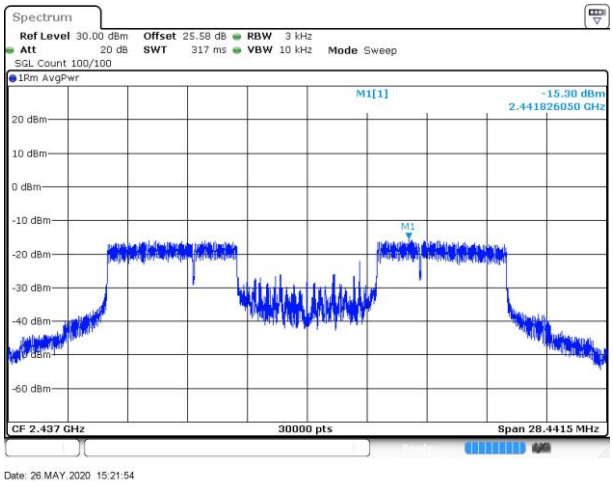


Worst Case Power Density (dBm/3kHz) for MIMO Ant. 4

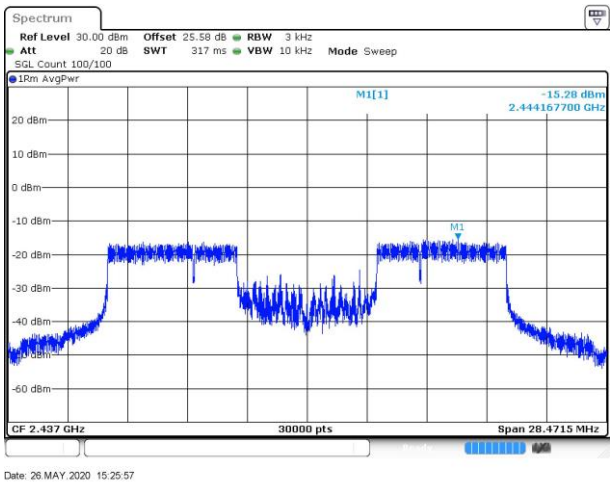


<For Middle Unmodulated >

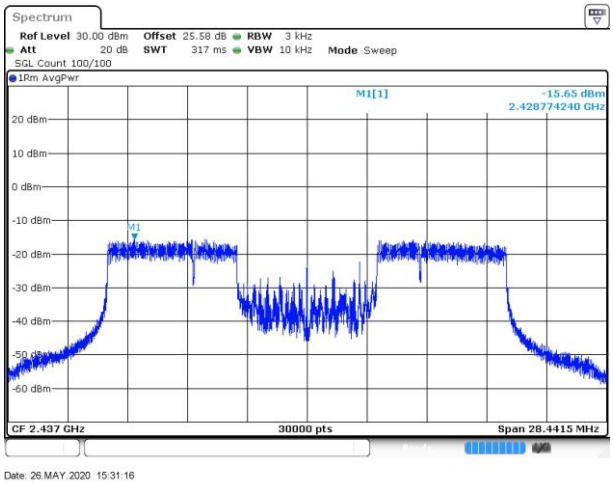
Worst Case Power Density (dBm/3kHz) for MIMO Ant. 1



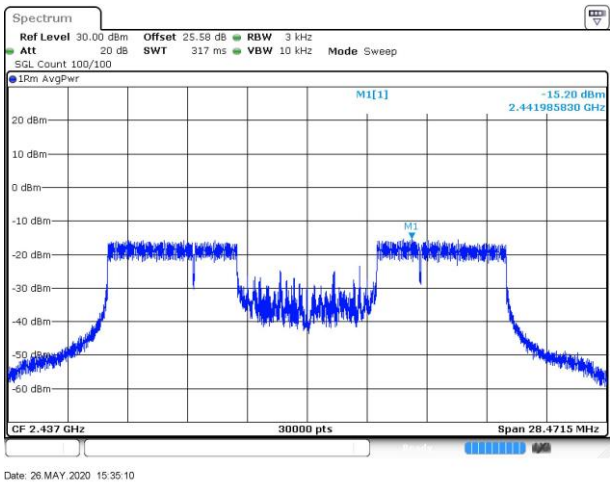
Worst Case Power Density (dBm/3kHz) for MIMO Ant. 2



Worst Case Power Density (dBm/3kHz) for MIMO Ant. 3



Worst Case Power Density (dBm/3kHz) for MIMO Ant. 4



3.3 Unwanted Emissions Measurement

3.3.1 Limit of Conducted band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

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

3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
3. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
4. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB 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.
5. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW=100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - 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.

3.3.4 Test Setup

3.3.5 Test Result of Conduced Spurious at Band Edges in the Restricted Band

Please refer to Appendix B and C.

3.3.6 Duty Cycle

Please refer to Appendix D.

3.3.7 Test Result of Conduced Spurious Emission in the Restricted Band

Please refer to Appendix B and C.

3.4 Antenna Requirements

3.4.1 Standard Applicable

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. The use of a permanently attached Antenna or of an Antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

3.4.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.4.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k / 20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

The EUT supports beamforming for 802.11ac modes.

The directional gain calculation is following F)2)e)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.

Antenna polarization	Horizontal Ant 2 (dBi)	Horizontal Ant 4 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
2.4GHz	2.00	2.00	5.01	5.01	0.00	0.00

Antenna polarization	Vertical Ant 1 (dBi)	Vertical Ant 3 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
2.4GHz	2.00	2.00	5.01	5.01	0.00	0.00

Note: Ant. 1 & 3 and Ant. 2 & 4 are cross-polarization antenna.

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

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	Testo	608-H1	45142595	N/A	Aug. 07, 2019	May 13, 2020~ May 27, 2020	Aug. 06, 2020	Conducted (TH01-CA)
Power Meter	Anritsu	ML2495A	1804004	N/A	Aug. 14, 2019	May 13, 2020~ May 27, 2020	Aug. 13, 2020	Conducted (TH01-CA)
Power Sensor	Anritsu	MA2411B	1726149	300MHz~40GHz	Aug. 15, 2019	May 13, 2020~ May 27, 2020	Aug. 14, 2020	Conducted (TH01-CA)
Spectrum Analyzer	Rohde & Schwarz	FSV 40	101089	10Hz~40GHz	Aug. 29, 2019	May 13, 2020~ May 27, 2020	Aug. 28, 2020	Conducted (TH01-CA)
Switch Box & RF Cable	EM	EMSW18	SW1070902	N/A	N/A	May 13, 2020~ May 27, 2020	N/A	Conducted (TH01-CA)
EMI Test Receiver	Rohde & Schwarz	ESU26	100123	20Hz~26.5GHz	Sep. 04, 2019	May 13, 2020~ May 27, 2020	Sep. 03, 2020	Conducted (TH01-CA)

Appendix A. Conducted Test Results

Test Engineer:	Jordan Huang	Temperature:	21~25	°C
Test Date:	2020/5/13~2020/5/27	Relative Humidity:	51~54	%

TEST RESULTS DATA
Average Output Power

<Band-edge Unmodulated>

2.4GHz Band												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power using gated RF power meter (dBm)					Directional Gain (dBi)	Conducted Power Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 3	Ant 4	SUM			
HE20	MCS0	4	1	2412	17.77	17.63	16.93	17.51	23.49	5.01	30.00	Pass
HE20	MCS0	4	6	2437	20.10	20.03	19.81	20.17	26.05	5.01	30.00	Pass
HE20	MCS0	4	11	2462	15.07	14.69	14.06	14.58	20.64	5.01	30.00	Pass
HE40	MCS0	4	3	2422	16.59	16.85	15.90	16.43	22.47	5.01	30.00	Pass
HE40	MCS0	4	6	2437	17.89	17.54	17.70	17.61	23.71	5.01	30.00	Pass
HE40	MCS0	4	9	2452	12.49	12.20	11.81	12.28	18.22	5.01	30.00	Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Power Spectral Density

2.4GHz Band																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)				Average PSD (dBm/3kHz)					DG (dBi)	Average PSD Limit (dBm/3kHz)	Pass/ Fail
					Ant1	Ant2	Ant3	Ant4	Ant 1	Ant 2	Ant 3	Ant 4	Worse + 3.01			
HE20	MCS0	4	1	2412	0.17	0.19	0.18	0.18	-14.31	-13.83	-15.06	-14.34	-10.82	5.01	8.00	Pass
HE20	MCS0	4	6	2437	0.17	0.19	0.18	0.18	-11.99	-10.76	-11.99	-11.82	-7.75	5.01	8.00	Pass
HE20	MCS0	4	11	2462	0.17	0.19	0.18	0.18	-17.00	-17.26	-17.98	-17.61	-13.99	5.01	8.00	Pass
HE40	MCS0	4	3	2422	0.27	0.28	0.25	0.27	-18.38	-18.43	-18.75	-18.81	-15.37	5.01	8.00	Pass
HE40	MCS0	4	6	2437	0.27	0.28	0.25	0.27	-16.98	-17.89	-17.36	-17.55	-13.97	5.01	8.00	Pass
HE40	MCS0	4	9	2452	0.27	0.28	0.25	0.27	-22.23	-22.10	-22.54	-22.11	-19.09	5.01	8.00	Pass

Measured power density (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

<Middle Unmodulated>

2.4GHz Band												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power using gated RF power meter (dBm)					Directional Gain (dBi)	Conducted Power Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 3	Ant 4	SUM			
HE20	MCS0	4	1	2412	12.21	12.12	11.75	11.93	18.03	2.00	30.00	Pass
HE20	MCS0	4	6	2437	17.99	17.93	17.81	18.06	23.97	2.00	30.00	Pass
HE20	MCS0	4	11	2462	8.88	8.37	8.19	8.45	14.50	2.00	30.00	Pass
HE40	MCS0	4	3	2422	16.65	16.64	15.83	16.27	22.38	2.00	30.00	Pass
HE40	MCS0	4	6	2437	12.36	12.38	12.03	12.21	18.27	2.00	30.00	Pass
HE40	MCS0	4	9	2452	13.59	13.21	13.26	13.34	19.37	2.00	30.00	Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Power Spectral Density

2.4GHz Band																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)				Average PSD (dBm/3kHz)					DG (dBi)	Average PSD Limit (dBm/3kHz)	Pass/ Fail
					Ant1	Ant2	Ant3	Ant4	Ant 1	Ant 2	Ant 3	Ant 4	Worse + 3.01			
HE20	MCS0	4	1	2412	0.46	0.46	0.48	0.46	-20.76	-20.74	-20.94	-21.36	-17.73	5.01	8.00	Pass
HE20	MCS0	4	6	2437	0.46	0.46	0.48	0.46	-14.84	-14.82	-15.17	-14.74	-11.73	5.01	8.00	Pass
HE20	MCS0	4	11	2462	0.46	0.46	0.48	0.46	-24.22	-24.45	-24.45	-24.77	-21.21	5.01	8.00	Pass
HE40	MCS0	4	3	2422	0.3	0.28	0.29	0.28	-17.61	-18.85	-18.93	-18.44	-14.60	5.01	8.00	Pass
HE40	MCS0	4	6	2437	0.3	0.28	0.29	0.28	-22.71	-22.62	-22.51	-22.75	-19.50	5.01	8.00	Pass
HE40	MCS0	4	9	2452	0.3	0.28	0.29	0.28	-20.24	-21.17	-20.71	-20.71	-17.23	5.01	8.00	Pass

Measured power density (dBm) has offset with cable loss.

Appendix B. Conducted Spurious Emission

Test Engineer :	Jordan Huang	Temperature :	23~25°C
		Relative Humidity :	52~58%

<Band-edge Unmodulated>

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant. 1		(MHz)	(dBm)	Limit (dB)	Line (dBm)	Level (dBm)	Gain (dBi)	Loss (dB)	Factor (dB)	Factor (dB)	Avg. (P/A)
		2390	-28.21	-7.01	-21.2	-44.35	5.01	11.13	0	0	P
802.11ax		2390	-49.49	-8.29	-41.2	-65.63	5.01	11.13	0	0	A
HE20	*	2412	23.17	-	-	7.03	5.01	11.13	0	0	P
CH 01	*	2412	11.5	-	-	-4.64	5.01	11.13	0	0	A
2412MHz											
		2389.66	-37.52	-16.32	-21.2	-53.66	5.01	11.13	0	0	P
802.11ax		2389.94	-53.53	-12.33	-41.2	-69.67	5.01	11.13	0	0	A
HE20	*	2437	25.33	-	-	9.19	5.01	11.13	0	0	P
CH 06	*	2437	14	-	-	-2.14	5.01	11.13	0	0	A
2437MHz		2484.08	-28.82	-7.62	-21.2	-44.96	5.01	11.13	0	0	P
		2484.92	-49.58	-8.38	-41.2	-65.72	5.01	11.13	0	0	A
	*	2462	21.47	-	-	5.33	5.01	11.13	0	0	P
802.11ax	*	2462	8.83	-	-	-7.31	5.01	11.13	0	0	A
HE20		2484.32	-26.32	-5.12	-21.2	-42.46	5.01	11.13	0	0	P
CH 11		2486.8	-48.99	-7.79	-41.2	-65.13	5.01	11.13	0	0	A
2462MHz											

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant. 1		(MHz)	(dBm)	Limit (dB)	Line (dBm)	Level (dBm)	Gain (dBi)	Loss (dB)	Factor (dB)	Factor (dB)	Avg. (P/A)
		2390	-27.79	-1.59	-21.2	-38.93	5.01	11.13	0	0	P
802.11ax		2390	-48.15	-6.95	-41.2	-64.29	5.01	11.13	0	0	A
HE40	*	2422	19.56	-	-	3.24	5.01	11.13	0	0	P
CH 03	*	2422	7.61	-	-	-8.53	5.01	11.13	0	0	A
2422MHz											
		2389.94	-29.55	-8.35	-21.2	-45.69	5.01	11.13	0	0	P
802.11ax		2389.94	-52.15	-10.95	-41.2	-68.29	5.01	11.13	0	0	A
HE40	*	2437	20.37	-	-	4.23	5.01	11.13	0	0	P
CH 06	*	2437	8.81	-	-	-7.33	5.01	11.13	0	0	A
2437MHz		2486.76	-21.53	-0.33	-21.2	-37.67	5.01	11.13	0	0	P
		2483.52	-46.45	-5.25	-41.2	-62.59	5.01	11.13	0	0	A
	*	2452	16.46	-	-	-0.32	5.01	11.13	0	0	P
802.11ax	*	2452	4.61	-	-	-11.53	5.01	11.13	0	0	A
HE40		2483.52	-21.57	-0.37	-21.2	-37.71	5.01	11.13	0	0	P
CH 09		2483.56	-49.34	-8.14	-41.2	-65.48	5.01	11.13	0	0	A
2452MHz											

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
2		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
		2390	-28.43	-7.23	-21.2	-44.57	5.01	11.13	0	0	P
802.11ax		2390	-50.6	-9.4	-41.2	-66.74	5.01	11.13	0	0	A
HE20	*	2412	23.73	-	-	7.59	5.01	11.13	0	0	P
CH 01	*	2412	11.82	-	-	-4.32	5.01	11.13	0	0	A
2412MHz											
		2389.38	-36.47	-15.27	-21.2	-52.61	5.01	11.13	0	0	P
802.11ax		2389.94	-53.89	-12.69	-41.2	-70.03	5.01	11.13	0	0	A
HE20	*	2437	24.38	-	-	8.24	5.01	11.13	0	0	P
CH 06	*	2437	13.22	-	-	-2.92	5.01	11.13	0	0	A
2437MHz		2484.04	-29.87	-8.67	-21.2	-46.01	5.01	11.13	0	0	P
		2483.52	-50.09	-8.89	-41.2	-66.23	5.01	11.13	0	0	A
	*	2462	20.88	-	-	4.74	5.01	11.13	0	0	P
802.11ax	*	2462	8.51	-	-	-7.63	5.01	11.13	0	0	A
HE20		2484.2	-26.56	-5.36	-21.2	-42.7	5.01	11.13	0	0	P
CH 11		2483.52	-49.65	-8.45	-41.2	-65.79	5.01	11.13	0	0	A
2462MHz											

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant. 2		(MHz)	(dBm)	Limit (dB)	Line (dBm)	Level (dBm)	Gain (dBi)	Loss (dB)	Factor (dB)	Factor (dB)	Avg. (P/A)
		2390	-21.33	-0.13	-21.2	-37.47	5.01	11.13	0	0	P
802.11ax		2390	-48.39	-7.19	-41.2	-64.53	5.01	11.13	0	0	A
HE40	*	2422	19.65	-	-	3.51	5.01	11.13	0	0	P
CH 03	*	2422	7.71	-	-	-8.43	5.01	11.13	0	0	A
2422MHz											
		2389.94	-29	-7.8	-21.2	-45.14	5.01	11.13	0	0	P
802.11ax		2389.94	-51.59	-10.39	-41.2	-67.73	5.01	11.13	0	0	A
HE40	*	2437	19.82	-	-	3.68	5.01	11.13	0	0	P
CH 06	*	2437	7.84	-	-	-8.3	5.01	11.13	0	0	A
2437MHz		2486.24	-21.97	-0.77	-21.2	-38.11	5.01	11.13	0	0	P
		2483.56	-46.79	-5.59	-41.2	-62.93	5.01	11.13	0	0	A
	*	2452	15.18	-	-	-0.96	5.01	11.13	0	0	P
802.11ax	*	2452	3.35	-	-	-12.79	5.01	11.13	0	0	A
HE40		2483.56	-22.58	-1.38	-21.2	-38.72	5.01	11.13	0	0	P
CH 09		2483.64	-51.12	-9.92	-41.2	-67.26	5.01	11.13	0	0	A
2452MHz											

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
3		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
		2389.905	-35.44	-14.24	-21.2	-51.58	5.01	11.13	0	0	P
802.11ax		2390	-53.82	-12.62	-41.2	-69.96	5.01	11.13	0	0	A
HE20	*	2412	22.48	-	-	6.34	5.01	11.13	0	0	P
CH 01	*	2412	10.69	-	-	-5.45	5.01	11.13	0	0	A
2412MHz											
		2389.94	-41.22	-20.02	-21.2	-57.36	5.01	11.13	0	0	P
802.11ax		2389.94	-53.78	-12.58	-41.2	-69.92	5.01	11.13	0	0	A
HE20	*	2437	24.86	-	-	8.72	5.01	11.13	0	0	P
CH 06	*	2437	13.47	-	-	-2.67	5.01	11.13	0	0	A
2437MHz		2487.52	-35.17	-13.97	-21.2	-51.31	5.01	11.13	0	0	P
		2484.2	-51.51	-10.01	-41.2	-67.35	5.01	11.13	0	0	A
	*	2462	20.26	-	-	4.12	5.01	11.13	0	0	P
802.11ax	*	2462	7.66	-	-	-8.48	5.01	11.13	0	0	A
HE20		2483.52	-32.53	-11.33	-21.2	-48.67	5.01	11.13	0	0	P
CH 11		2483.56	-53.16	-11.96	-41.2	-69.3	5.01	11.13	0	0	A
2462MHz											

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant. 3		(MHz)	(dBm)	Limit (dB)	Line (dBm)	Level (dBm)	Gain (dBi)	Loss (dB)	Factor (dB)	Factor (dB)	Avg. (P/A)
		2389.905	-27.31	-6.11	-21.2	-43.45	5.01	11.13	0	0	P
802.11ax		2390	-53.15	-11.95	-41.2	-69.29	5.01	11.13	0	0	A
HE40	*	2422	18.71	-	-	2.57	5.01	11.13	0	0	P
CH 03	*	2422	6.7	-	-	-9.44	5.01	11.13	0	0	A
2422MHz											
		2389.94	-31.17	-9.97	-21.2	-47.31	5.01	11.13	0	0	P
802.11ax		2389.94	-53.84	-12.64	-41.2	-69.98	5.01	11.13	0	0	A
HE40	*	2437	20.09	-	-	3.95	5.01	11.13	0	0	P
CH 06	*	2437	8.16	-	-	-7.98	5.01	11.13	0	0	A
2437MHz		2486.56	-24.87	-3.67	-21.2	-41.01	5.01	11.13	0	0	P
		2483.52	-51.2	-10	-41.2	-67.34	5.01	11.13	0	0	A
	*	2452	15.22	-	-	-0.92	5.01	11.13	0	0	P
802.11ax	*	2452	2.9	-	-	-13.24	5.01	11.13	0	0	A
HE40		2484.28	-31.28	-10.08	-21.2	-47.42	5.01	11.13	0	0	P
CH 09		2483.6	-53.27	-12.07	-41.2	-69.41	5.01	11.13	0	0	A
2452MHz											

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
		2390	-33.95	-12.75	-21.2	-50.09	5.01	11.13	0	0	P
802.11ax		2390	-53.54	-12.34	-41.2	-69.68	5.01	11.13	0	0	A
HE20	*	2412	23.49	-	-	7.35	5.01	11.13	0	0	P
CH 01	*	2412	10.94	-	-	-5.2	5.01	11.13	0	0	A
2412MHz											
		2389.8	-41.19	-19.99	-21.2	-57.33	5.01	11.13	0	0	P
802.11ax		2389.94	-53.58	-12.38	-41.2	-69.72	5.01	11.13	0	0	A
HE20	*	2437	25.32	-	-	9.18	5.01	11.13	0	0	P
CH 06	*	2437	13.67	-	-	-2.47	5.01	11.13	0	0	A
2437MHz		2484.2	-38.36	-17.16	-21.2	-54.5	5.01	11.13	0	0	P
		2485	-51	-9.8	-41.2	-67.14	5.01	11.13	0	0	A
	*	2462	20.49	-	-	4.35	5.01	11.13	0	0	P
802.11ax	*	2462	7.88	-	-	-8.26	5.01	11.13	0	0	A
HE20		2483.8	-29.1	-7.9	-21.2	-45.24	5.01	11.13	0	0	P
CH 11		2483.56	-51.08	-9.88	-41.2	-67.22	5.01	11.13	0	0	A
2462MHz											

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant. 4		(MHz)	(dBm)	Limit (dB)	Line (dBm)	Level (dBm)	Gain (dBi)	Loss (dB)	Factor (dB)	Factor (dB)	Avg. (P/A)
		2390	-28.01	-6.81	-21.2	-44.15	5.01	11.13	0	0	P
802.11ax		2390	-52.6	-11.4	-41.2	-68.74	5.01	11.13	0	0	A
HE40	*	2422	19.26	-	-	3.12	5.01	11.13	0	0	P
CH 03	*	2422	6.68	-	-	-9.46	5.01	11.13	0	0	A
2422MHz											
		2389.94	-30.96	-9.76	-21.2	-47.1	5.01	11.13	0	0	P
802.11ax		2389.94	-53.8	-12.6	-41.2	-69.94	5.01	11.13	0	0	A
HE40	*	2437	21.05	-	-	4.91	5.01	11.13	0	0	P
CH 06	*	2437	8.58	-	-	-7.56	5.01	11.13	0	0	A
2437MHz		2484.8	-23.18	-1.98	-21.2	-39.32	5.01	11.13	0	0	P
		2483.56	-51.08	-9.88	-41.2	-67.22	5.01	11.13	0	0	A
	*	2452	15.62	-	-	-0.52	5.01	11.13	0	0	P
802.11ax	*	2452	3.29	-	-	-12.85	5.01	11.13	0	0	A
HE40		2483.64	-30.63	-9.43	-21.2	-46.77	5.01	11.13	0	0	P
CH 09		2483.72	-52.74	-11.54	-41.2	-68.88	5.01	11.13	0	0	A
2452MHz											

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

<Middle Unmodulated>

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
1		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
		2390	-23.13	-2.03	-21.2	-39.37	5.01	11.13	0	0	P
802.11ax		2390	-49.1	-7.9	-41.2	-65.24	5.01	11.13	0	0	A
HE20	*	2412	17.42	-	-	1.28	5.01	11.13	0	0	P
CH 01	*	2412	5.35	-	-	-10.79	5.01	11.13	0	0	A
2412MHz											
		2389.8	-29.49	-8.29	-21.2	-45.63	5.01	11.13	0	0	P
802.11ax		2389.94	-49.26	-8.06	-41.2	-65.4	5.01	11.13	0	0	A
HE20	*	2437	21.48	-	-	5.34	5.01	11.13	0	0	P
CH 06	*	2437	10.47	-	-	-5.67	5.01	11.13	0	0	A
2437MHz		2484.92	-22.62	-1.42	-21.2	-38.76	5.01	11.13	0	0	P
		2483.92	-43.23	-2.03	-41.2	-59.37	5.01	11.13	0	0	A
	*	2462	14.18	-	-	-1.96	5.01	11.13	0	0	P
802.11ax	*	2462	1.88	-	-	-14.26	5.01	11.13	0	0	A
HE20		2483.8	-23.36	-2.16	-21.2	-39.5	5.01	11.13	0	0	P
CH 11		2483.52	-45.76	-4.56	-41.2	-61.9	5.01	11.13	0	0	A
2462MHz											

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant. 1		(MHz)	(dBm)	Limit (dB)	Line (dBm)	Level (dBm)	Gain (dBi)	Loss (dB)	Factor (dB)	Factor (dB)	Avg. (P/A)
		2390	-21.71	-0.51	-21.2	-37.85	5.01	11.13	0	0	P
802.11ax		2390	-45.27	-4.07	-41.2	-61.41	5.01	11.13	0	0	A
HE40	*	2422	20.06	-	-	3.92	5.01	11.13	0	0	P
CH 03	*	2422	7.75	-	-	-8.39	5.01	11.13	0	0	A
2422MHz											
		2389.94	-31.65	-10.45	-21.2	-47.79	5.01	11.13	0	0	P
802.11ax		2389.94	-53.67	-12.47	-41.2	-69.81	5.01	11.13	0	0	A
HE40	*	2437	15.26	-	-	-0.88	5.01	11.13	0	0	P
CH 06	*	2437	2.93	-	-	-13.21	5.01	11.13	0	0	A
2437MHz		2485.28	-22.83	-1.63	-21.2	-38.97	5.01	11.13	0	0	P
		2483.64	-48.72	-7.52	-41.2	-64.86	5.01	11.13	0	0	A
	*	2452	17.41	-	-	1.27	5.01	11.13	0	0	P
802.11ax	*	2452	5.34	-	-	-10.8	5.01	11.13	0	0	A
HE40		2489.32	-22.83	-1.63	-21.2	-38.97	5.01	11.13	0	0	P
CH 09		2490.6	-46.13	-4.93	-41.2	-62.27	5.01	11.13	0	0	A
2452MHz											

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
2		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
		2390	-23.13	-2.03	-21.2	-39.37	5.01	11.13	0	0	P
802.11ax		2390	-49.1	-7.9	-41.2	-65.24	5.01	11.13	0	0	A
HE20	*	2412	17.42	-	-	1.28	5.01	11.13	0	0	P
CH 01	*	2412	5.35	-	-	-10.79	5.01	11.13	0	0	A
2412MHz											
		2389.8	-29.49	-8.29	-21.2	-45.63	5.01	11.13	0	0	P
802.11ax		2389.94	-49.26	-8.06	-41.2	-65.4	5.01	11.13	0	0	A
HE20	*	2437	21.48	-	-	5.34	5.01	11.13	0	0	P
CH 06	*	2437	10.47	-	-	-5.67	5.01	11.13	0	0	A
2437MHz		2484.92	-22.62	-1.42	-21.2	-38.76	5.01	11.13	0	0	P
		2483.92	-43.23	-2.03	-41.2	-59.37	5.01	11.13	0	0	A
	*	2462	14.18	-	-	-1.96	5.01	11.13	0	0	P
802.11ax	*	2462	1.88	-	-	-14.26	5.01	11.13	0	0	A
HE20		2483.8	-23.36	-2.16	-21.2	-39.5	5.01	11.13	0	0	P
CH 11		2483.52	-45.76	-4.56	-41.2	-61.9	5.01	11.13	0	0	A
2462MHz											

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant. 2		(MHz)	(dBm)	Limit (dB)	Line (dBm)	Level (dBm)	Gain (dBi)	Loss (dB)	Factor (dB)	Factor (dB)	Avg. (P/A)
802.11ax HE40 CH 03 2422MHz		2390	-21.71	-0.51	-21.2	-37.85	5.01	11.13	0	0	P
		2390	-45.27	-4.07	-41.2	-61.41	5.01	11.13	0	0	A
	*	2422	20.06	-	-	3.92	5.01	11.13	0	0	P
	*	2422	7.75	-	-	-8.39	5.01	11.13	0	0	A
802.11ax HE40 CH 06 2437MHz		2389.94	-31.65	-10.45	-21.2	-47.79	5.01	11.13	0	0	P
		2389.94	-53.67	-12.47	-41.2	-69.81	5.01	11.13	0	0	A
	*	2437	15.26	-	-	-0.88	5.01	11.13	0	0	P
	*	2437	2.93	-	-	-13.21	5.01	11.13	0	0	A
		2485.28	-22.83	-1.63	-21.2	-38.97	5.01	11.13	0	0	P
		2483.64	-48.72	-7.52	-41.2	-64.86	5.01	11.13	0	0	A
802.11ax HE40 CH 09 2452MHz	*	2452	17.41	-	-	1.27	5.01	11.13	0	0	P
	*	2452	5.34	-	-	-10.8	5.01	11.13	0	0	A
		2489.32	-22.83	-1.63	-21.2	-38.97	5.01	11.13	0	0	P
		2490.6	-46.13	-4.93	-41.2	-62.27	5.01	11.13	0	0	A

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
3		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
		2389.905	-37.05	-15.85	-21.2	-53.19	5.01	11.13	0	0	P
802.11ax		2389.485	-51.94	-10.74	-41.2	-68.08	5.01	11.13	0	0	A
HE20	*	2412	16.85	-	-	0.71	5.01	11.13	0	0	P
CH 01	*	2412	4.8	-	-	-11.34	5.01	11.13	0	0	A
2412MHz											
		2389.66	-36.33	-15.13	-21.2	-52.47	5.01	11.13	0	0	P
802.11ax		2389.94	-53.15	-11.95	-41.2	-69.29	5.01	11.13	0	0	A
HE20	*	2437	22.29	-	-	6.15	5.01	11.13	0	0	P
CH 06	*	2437	10.5	-	-	-5.64	5.01	11.13	0	0	A
2437MHz		2484.16	-27.82	-6.62	-21.2	-43.96	5.01	11.13	0	0	P
		2483.76	-48.8	-7.6	-41.2	-64.94	5.01	11.13	0	0	A
	*	2462	13.48	-	-	-2.66	5.01	11.13	0	0	P
802.11ax	*	2462	0.91	-	-	-15.23	5.01	11.13	0	0	A
HE20		2483.6	-32.63	-11.43	-21.2	-48.77	5.01	11.13	0	0	P
CH 11		2483.52	-49.35	-8.15	-41.2	-65.49	5.01	11.13	0	0	A
2462MHz											

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant. 3		(MHz)	(dBm)	Limit (dB)	Line (dBm)	Level (dBm)	Gain (dBi)	Loss (dB)	Factor (dB)	Factor (dB)	Avg. (P/A)
		2389.8	-31.31	-10.11	-21.2	-47.45	5.01	11.13	0	0	P
802.11ax		2390	-52.76	-11.56	-41.2	-68.9	5.01	11.13	0	0	A
HE40	*	2422	19.44	-	-	3.3	5.01	11.13	0	0	P
CH 03	*	2422	6.94	-	-	-9.2	5.01	11.13	0	0	A
2422MHz											
		2374.4	-42.12	-20.92	-21.2	-58.25	5.01	11.13	0	0	P
802.11ax		2389.94	-54.59	-13.39	-41.2	-70.73	5.01	11.13	0	0	A
HE40	*	2437	15.76	-	-	-0.38	5.01	11.13	0	0	P
CH 06	*	2437	3.13	-	-	-13.01	5.01	11.13	0	0	A
2437MHz		2485.52	-36.87	-15.67	-21.2	-53.01	5.01	11.13	0	0	P
		2484.72	-51.76	-10.56	-41.2	-67.9	5.01	11.13	0	0	A
	*	2452	17.35	-	-	1.21	5.01	11.13	0	0	P
802.11ax	*	2452	4.64	-	-	-11.5	5.01	11.13	0	0	A
HE40		2484	-30.4	-9.2	-21.2	-46.54	5.01	11.13	0	0	P
CH 09		2490.84	-48.03	-6.83	-41.2	-64.17	5.01	11.13	0	0	A
2452MHz											

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
		2389.905	-33.68	-12.48	-21.2	-49.82	5.01	11.13	0	0	P
802.11ax		2390	-51.59	-10.39	-41.2	-67.73	5.01	11.13	0	0	A
HE20	*	2412	17.14	-	-	1	5.01	11.13	0	0	P
CH 01	*	2412	4.68	-	-	-11.46	5.01	11.13	0	0	A
2412MHz											
		2389.8	-34.01	-12.81	-21.2	-50.15	5.01	11.13	0	0	P
802.11ax		2389.94	-52.4	-11.2	-41.2	-68.54	5.01	11.13	0	0	A
HE20	*	2437	22.37	-	-	6.23	5.01	11.13	0	0	P
CH 06	*	2437	10.73	-	-	-5.41	5.01	11.13	0	0	A
2437MHz		2484.4	-24.97	-3.77	-21.2	-41.11	5.01	11.13	0	0	P
		2483.12	-48.34	-7.14	-41.2	-64.48	5.01	11.13	0	0	A
	*	2462	13.72	-	-	-2.42	5.01	11.13	0	0	P
802.11ax	*	2462	1.28	-	-	-14.86	5.01	11.13	0	0	A
HE20		2483.6	-30.34	-9.14	-21.2	-46.48	5.01	11.13	0	0	P
CH 11		2483.76	-46.9	-5.7	-41.2	-63.04	5.01	11.13	0	0	A
2462MHz											

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant. 4		(MHz)	(dBm)	Limit (dB)	Line (dBm)	Level (dBm)	Gain (dBi)	Loss (dB)	Factor (dB)	Factor (dB)	Avg. (P/A)
		2389.1	-30.41	-9.11	-21.2	-46.55	5.01	11.13	0	0	P
802.11ax		2389.94	-52.74	-11.54	-41.2	-68.88	5.01	11.13	0	0	A
HE40	*	2422	19.55	-	-	3.41	5.01	11.13	0	0	P
CH 03	*	2422	7.2	-	-	-8.94	5.01	11.13	0	0	A
2422MHz											
		2389.1	-41.65	-20.92	-21.2	-57.79	5.01	11.13	0	0	P
802.11ax		2389.94	-54.4	-13.39	-41.2	-70.54	5.01	11.13	0	0	A
HE40	*	2437	15.48	-	-	-0.66	5.01	11.13	0	0	P
CH 06	*	2437	3.02	-	-	-13.12	5.01	11.13	0	0	A
2437MHz		2486.16	-37.43	-16.23	-21.2	-53.57	5.01	11.13	0	0	P
		2483.52	-51.26	-10.06	-41.2	-67.4	5.01	11.13	0	0	A
	*	2452	17.45	-	-	131	5.01	11.13	0	0	P
802.11ax	*	2452	4.98	-	-	-11.16	5.01	11.13	0	0	A
HE40		2483.8	-31.14	-9.94	-21.2	-47.28	5.01	11.13	0	0	P
CH 09		2489.44	-46.62	-5.42	-41.2	-62.76	5.01	11.13	0	0	A
2452MHz											

Remark

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
1		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11b CH 01 2412MHz		2386.545	-39.03	-17.83	-21.2	-44.06	2	3.03	0	0	P
		2386.125	-48.1	-6.9	-41.2	-53.13	2	3.03	0	0	A

1. Level(dBm) =

Antenna Gain(dBi) + Path Loss(dB) + Read Level(dBm) + MIMO Factor(dB) + Grounding Factor(dB)

2. Over Limit(dB) = Level(dBm) – Limit Line(dBm)

For Peak Limit @ 2386.545MHz:

1. Level(dBm)

= Antenna Gain(dBi) + Path Loss(dB) + Read Level(dBm) + MIMO Factor(dB) + Grounding Factor(dB)

= 2(dB) + 3.03(dB) – 44.06(dBm)

= -39.03(dBm)

2. Over Limit(dB)

= Level(dBm) – Limit Line(dBm)

= -39.03(dBm) + 21.2(dBm)

= -17.83(dB)

For Average Limit @ 2386.125MHz:

1. Level(dBm)

= Antenna Gain(dBi) + Path Loss(dB) + Read Level(dBm) + MIMO Factor(dB) + Grounding Factor(dB)

= 2(dBi) + 3.03(dB) – 53.13(dBm)

= -48.1(dBm)

2. Over Limit(dB)

= Level(dBµV/m) – Limit Line(dBµV/m)

= 43.54(dBµV/m) – 54(dBµV/m)

= -6.9(dB)

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

Appendix C. Conducted Spurious Emission Plots

Test Engineer :	Jordan Huang	**Temperature :**	23~25°C
		Relative Humidity :	52~58%

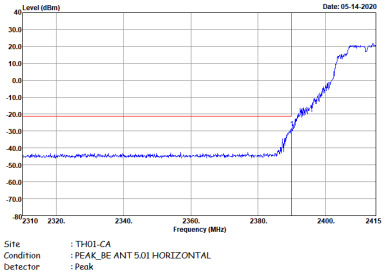
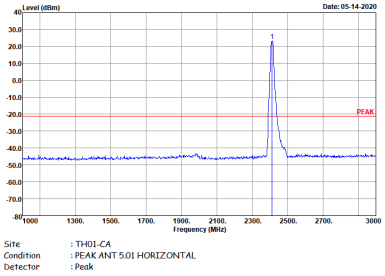
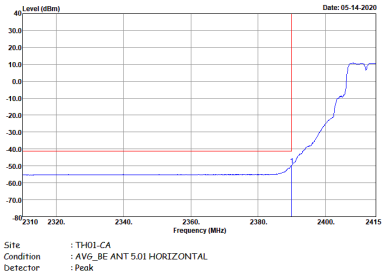
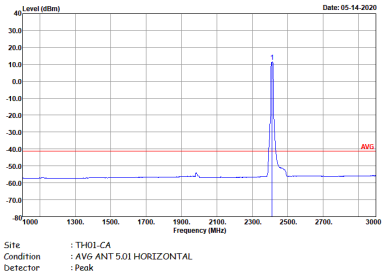
Note symbol

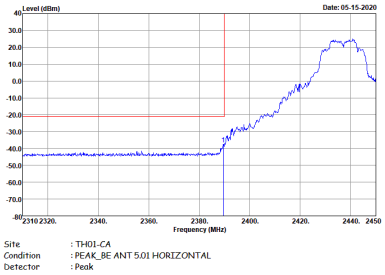
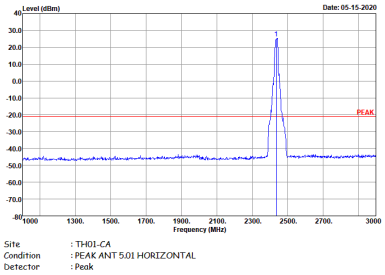
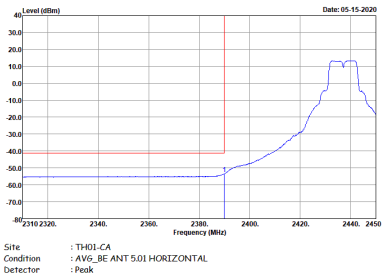
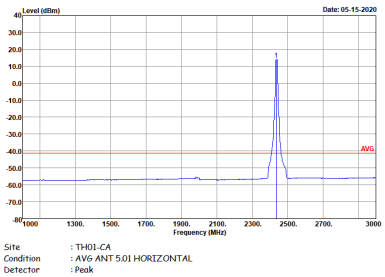
-L	**Low channel location**
-R	**High channel location**

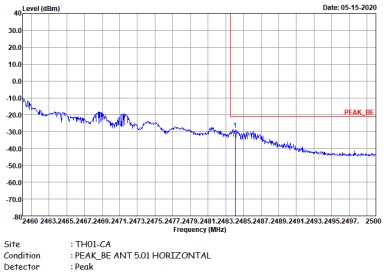
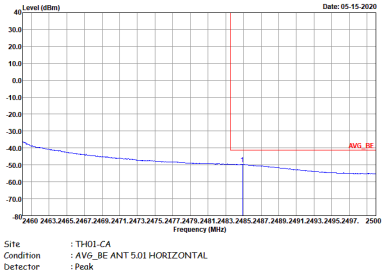
<Band-edge Unmodulated>

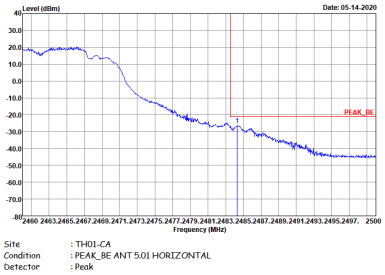
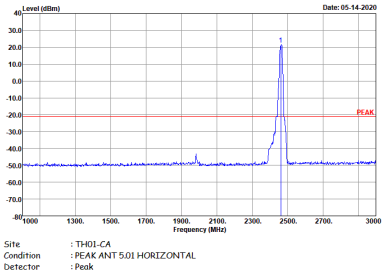
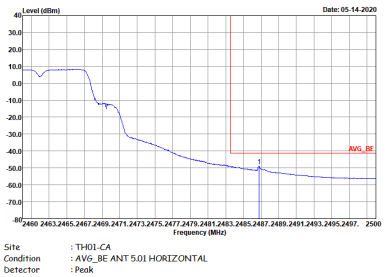
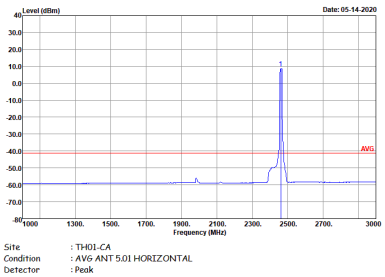
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH01 2412MHz	
1	CSE	Fundamental
Peak		
Avg.		

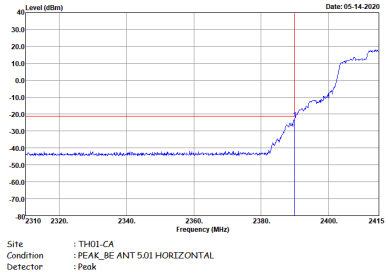
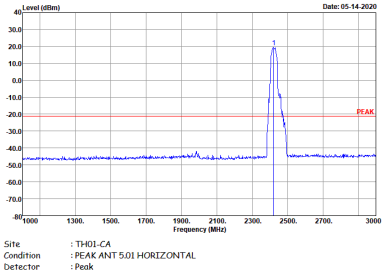
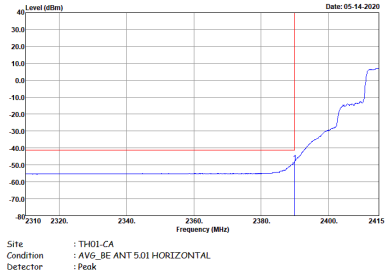
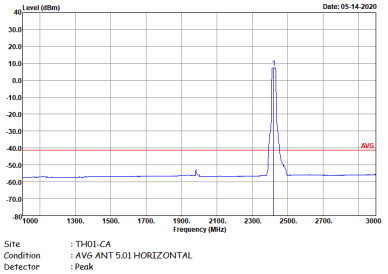
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - L	
1	CSE	Fundamental
Peak		
Avg.		

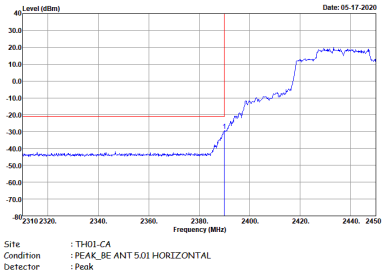
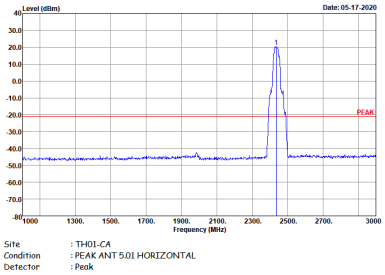
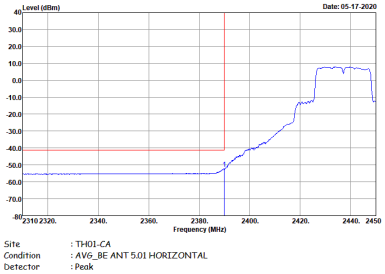
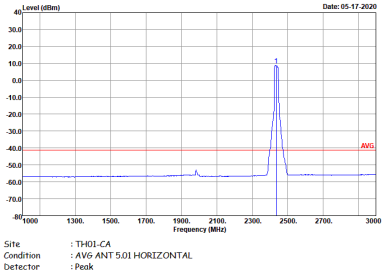
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - R	
1	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

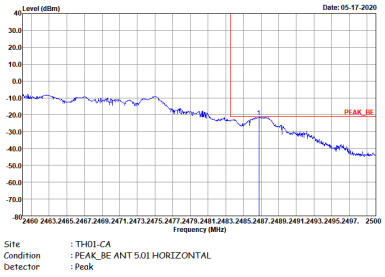
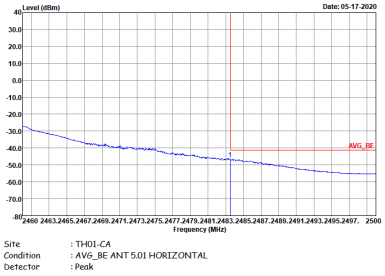
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH11 2462MHz	
1	CSE	Fundamental
Peak		
Avg.		

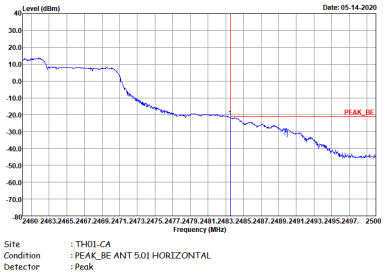
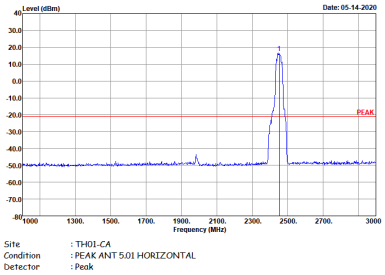
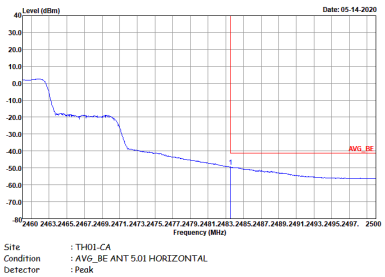
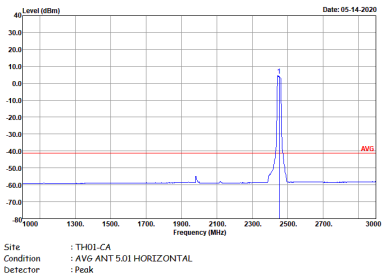
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH03 2422MHz	
1	CSE	Fundamental
Peak		
Avg.		

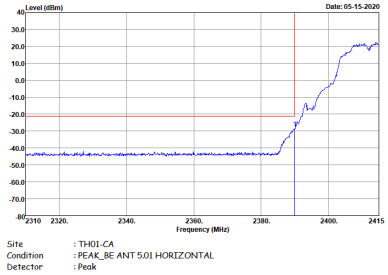
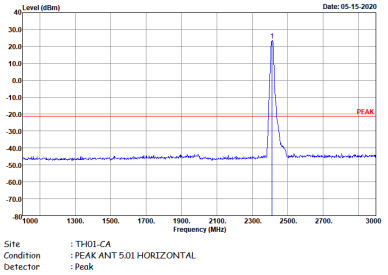
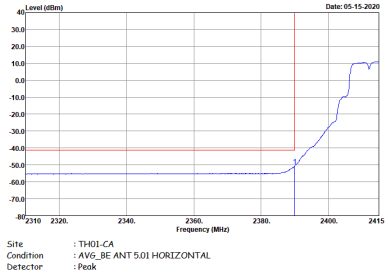
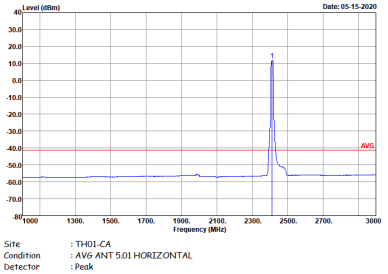
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - L	
1	CSE	Fundamental
Peak		
Avg.		

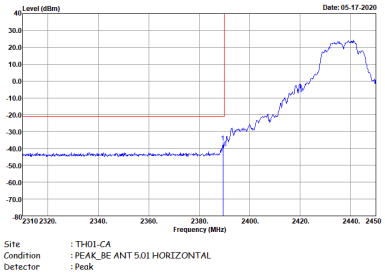
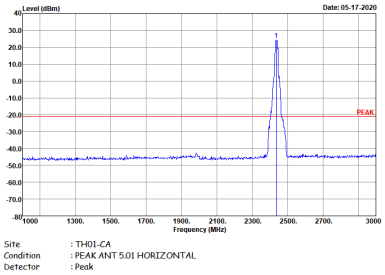
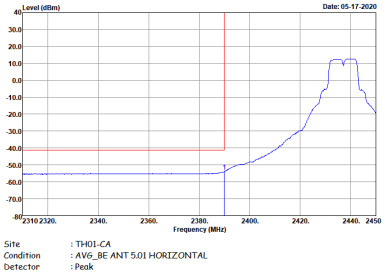
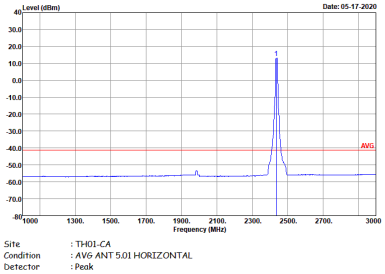
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - R	
1	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

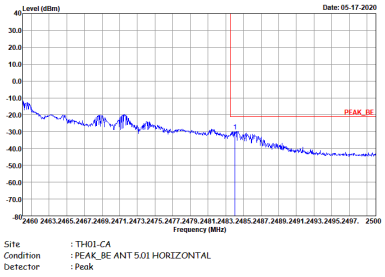
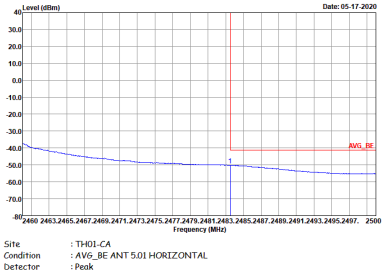
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH09 2452MHz	
1	CSE	Fundamental
Peak		
Avg.		

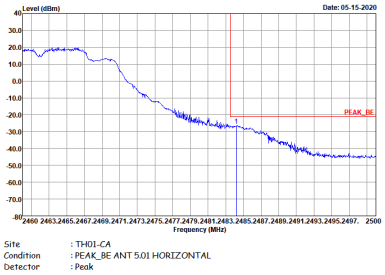
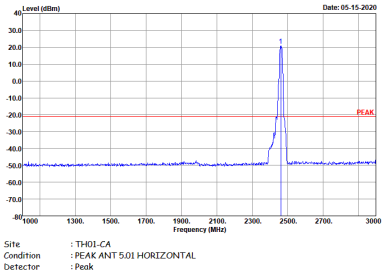
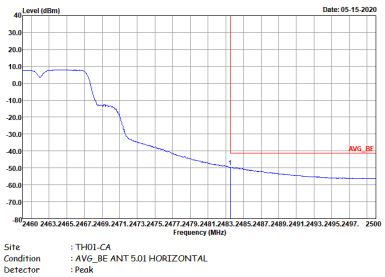
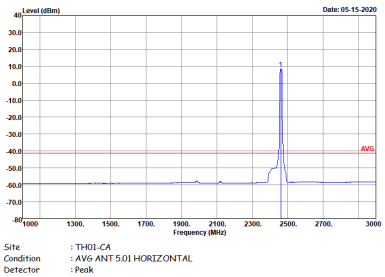
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH01 2412MHz	
2	CSE	Fundamental
Peak		
Avg.		

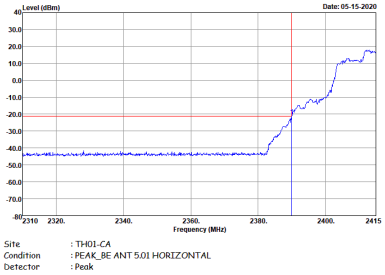
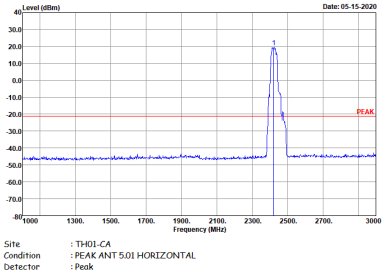
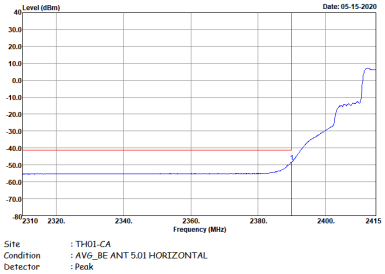
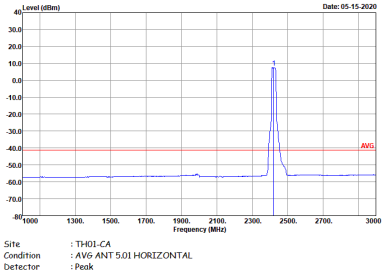
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - L	
2	CSE	Fundamental
Peak		
Avg.		

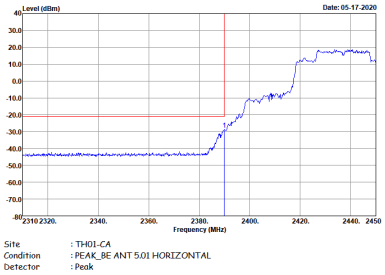
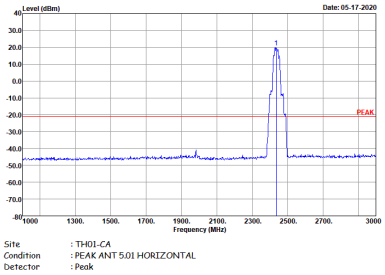
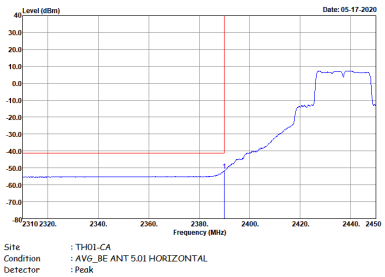
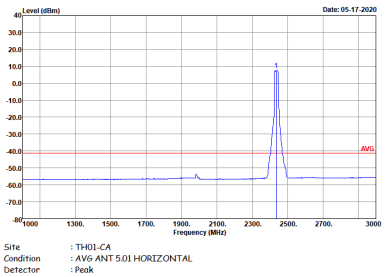
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - R	
2	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

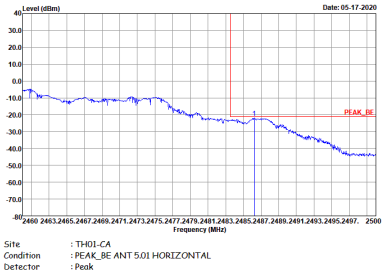
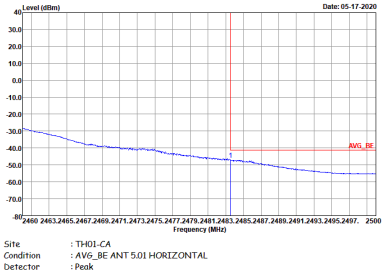
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH11 2462MHz	
2	CSE	Fundamental
Peak		
Avg.		

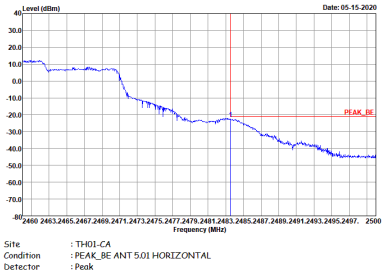
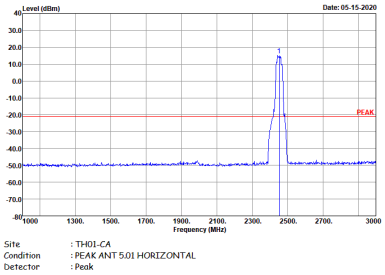
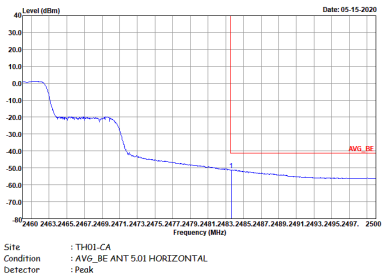
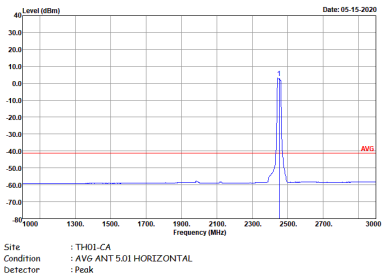
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH03 2422MHz	
2	CSE	Fundamental
Peak		
Avg.		

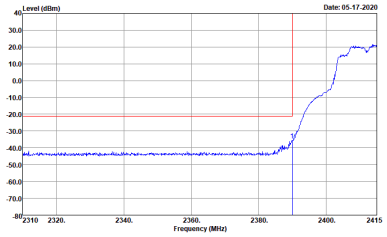
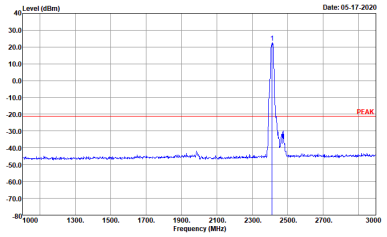
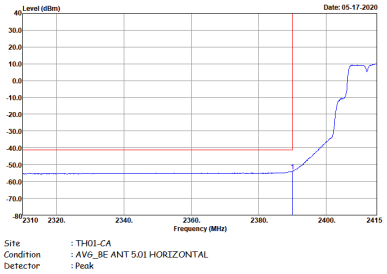
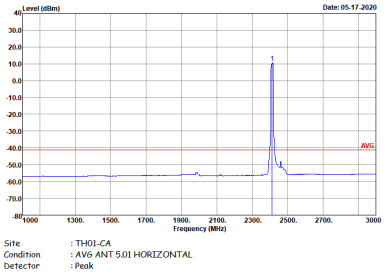
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - L	
2	CSE	Fundamental
Peak		
Avg.		

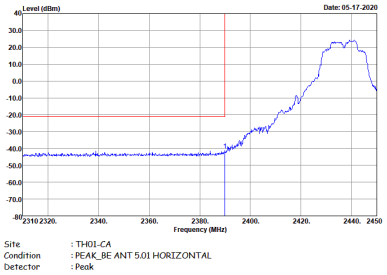
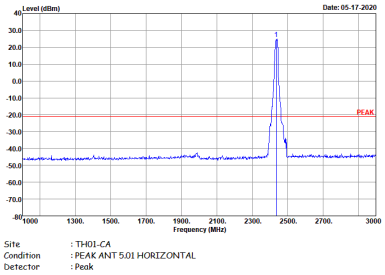
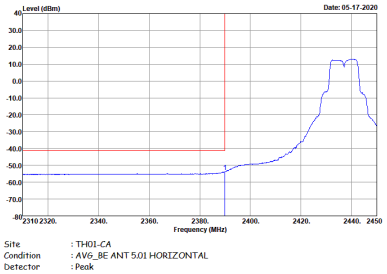
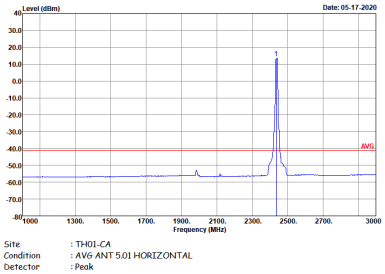
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - R	
2	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

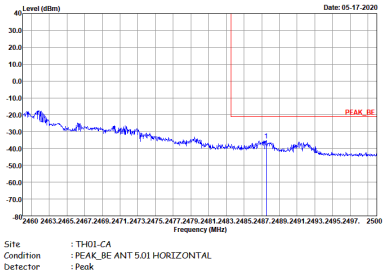
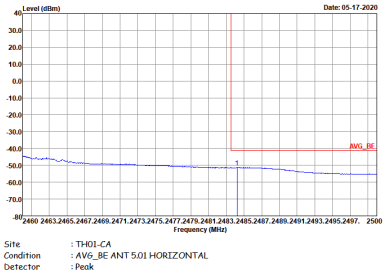
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH09 2452MHz	
2	CSE	Fundamental
Peak		
Avg.		

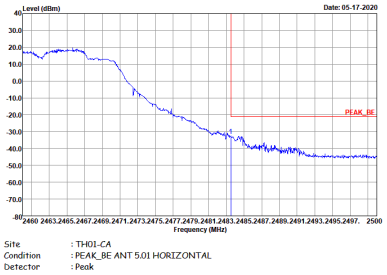
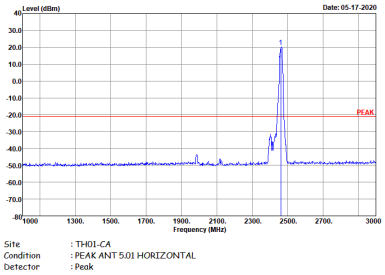
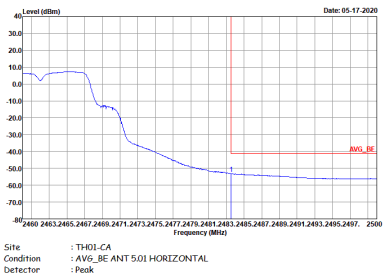
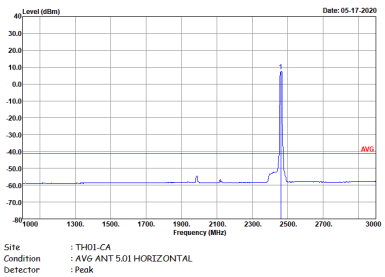
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH01 2412MHz	
3	CSE	Fundamental
Peak		
Avg.		

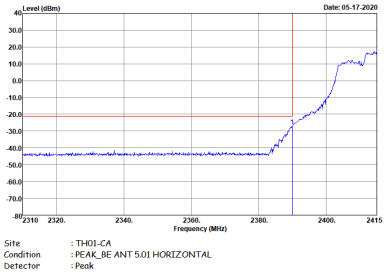
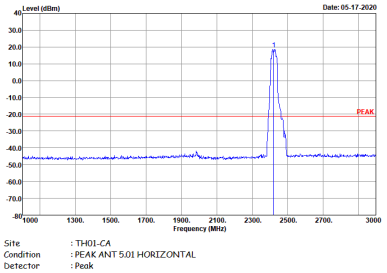
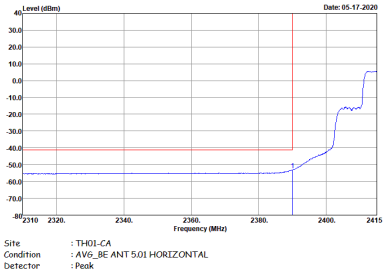
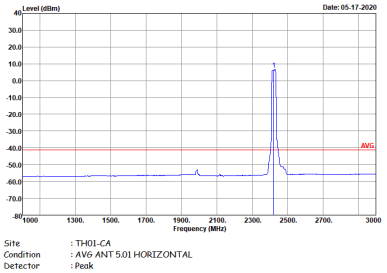
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - L	
3	CSE	Fundamental
Peak		
Avg.		

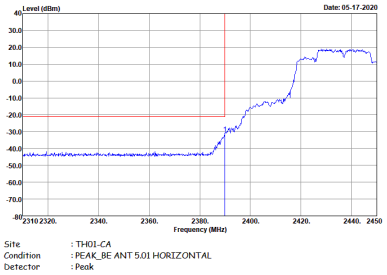
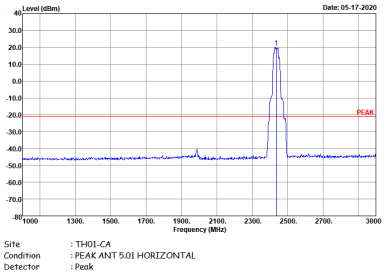
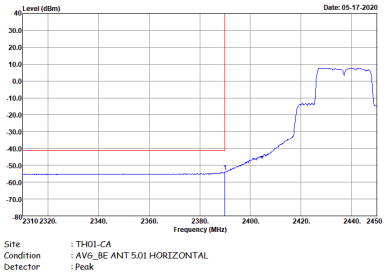
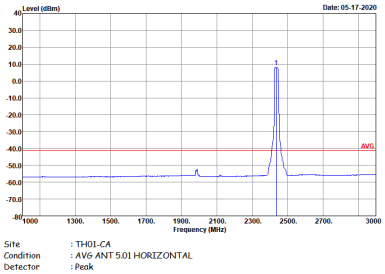
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - R	
3	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

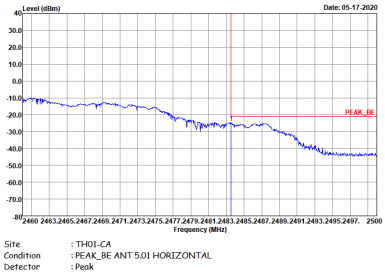
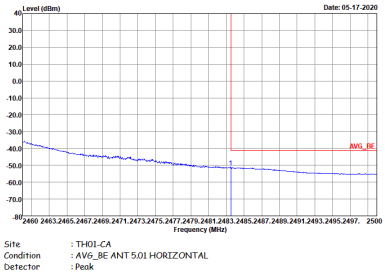
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH11 2462MHz	
3	CSE	Fundamental
Peak		
Avg.		

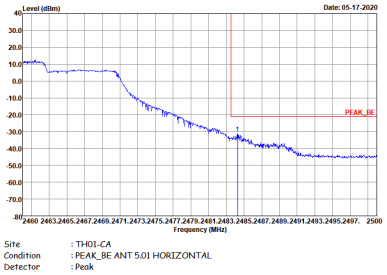
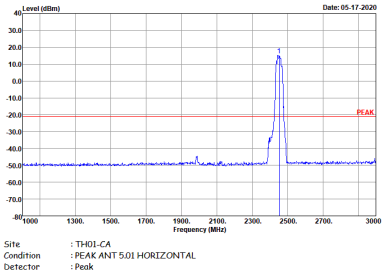
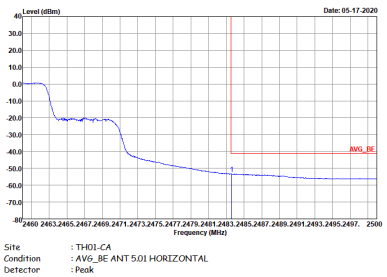
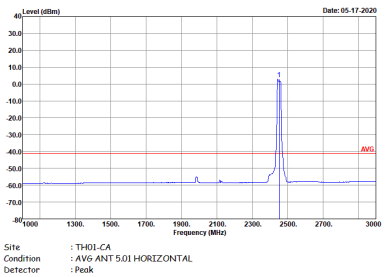
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH03 2422MHz	
3	CSE	Fundamental
Peak		
Avg.		

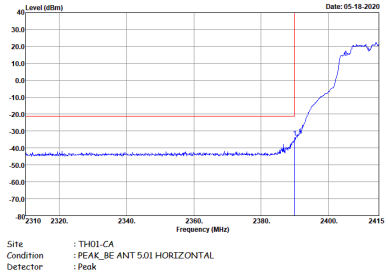
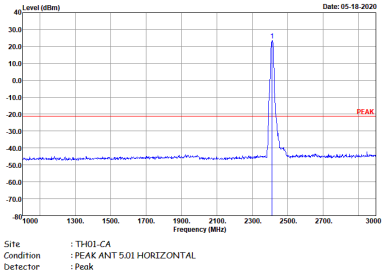
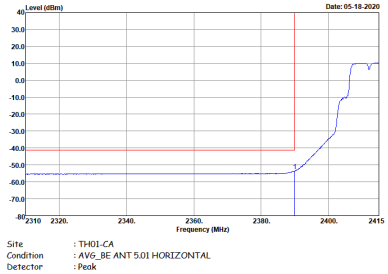
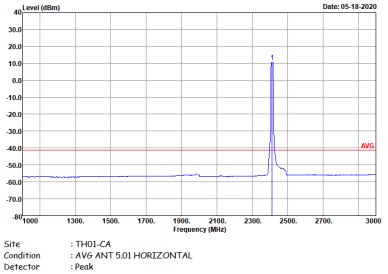
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - L	
3	CSE	Fundamental
Peak		
Avg.		

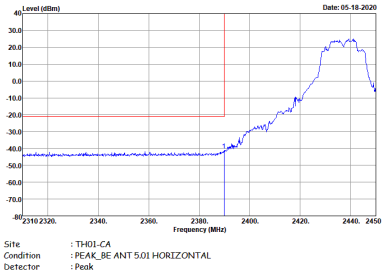
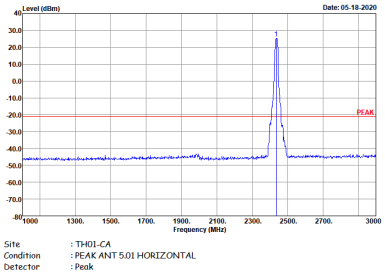
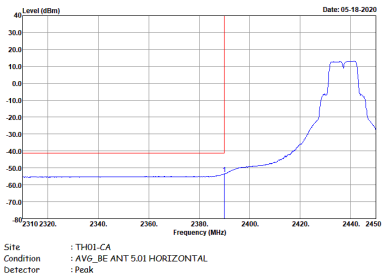
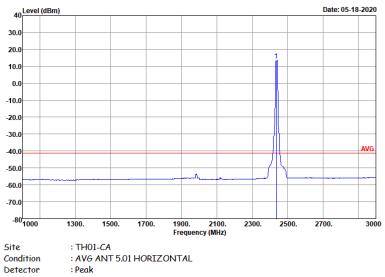
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - R	
3	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

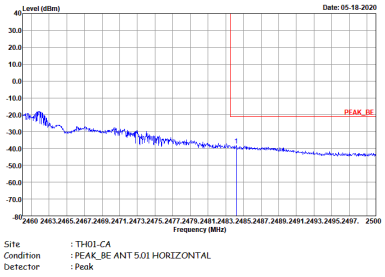
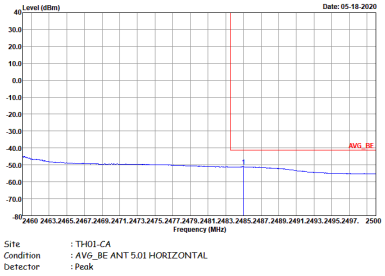
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH09 2452MHz	
3	CSE	Fundamental
Peak		
Avg.		

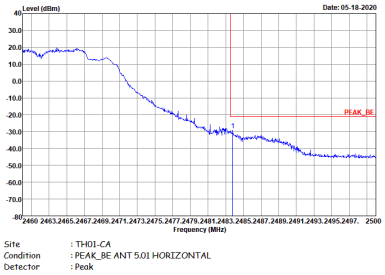
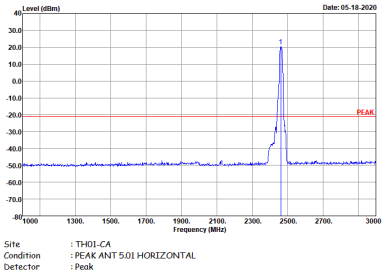
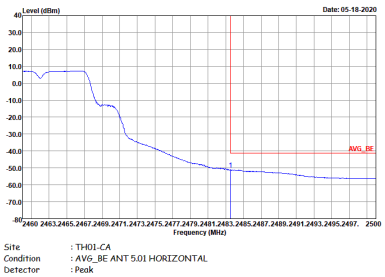
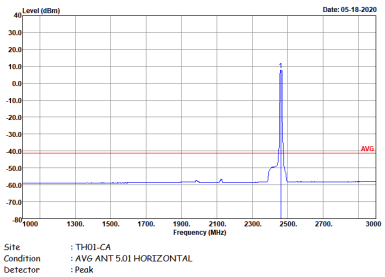
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH01 2412MHz	
4	CSE	Fundamental
Peak		
Avg.		

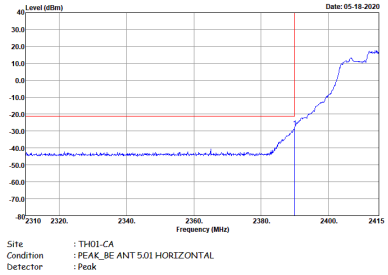
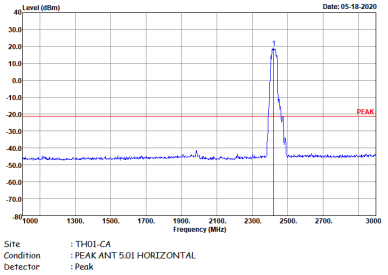
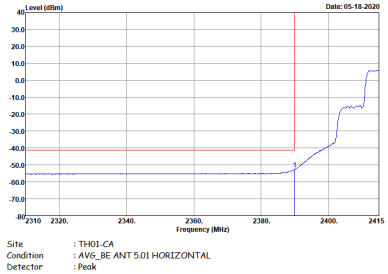
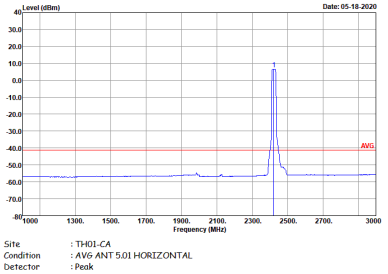
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - L	
4	CSE	Fundamental
Peak		
Avg.		

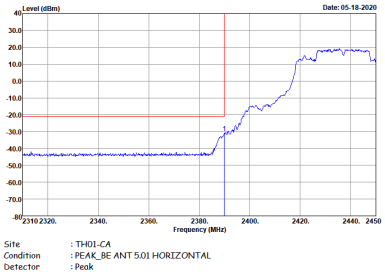
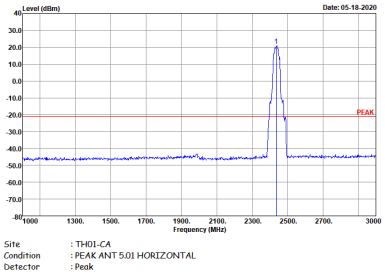
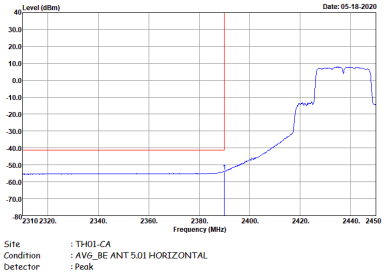
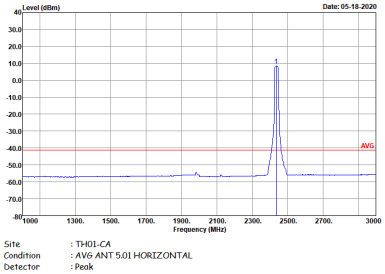
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - R	
4	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

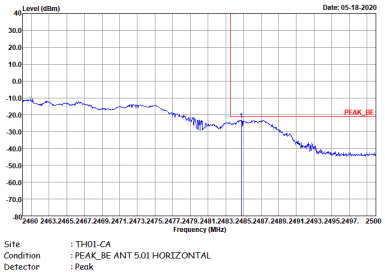
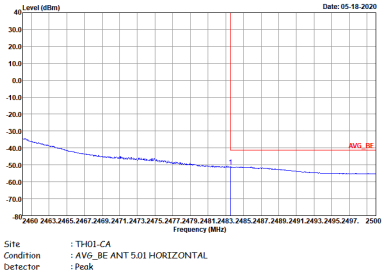
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH11 2462MHz	
4	CSE	Fundamental
Peak		
Avg.		

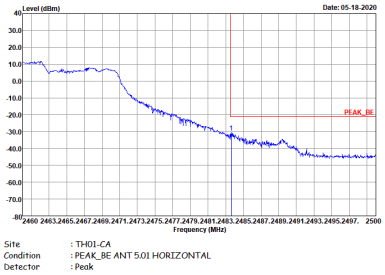
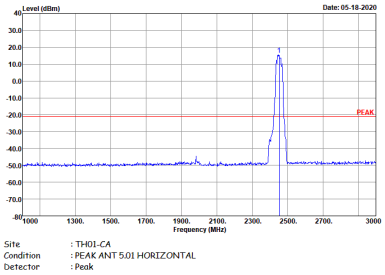
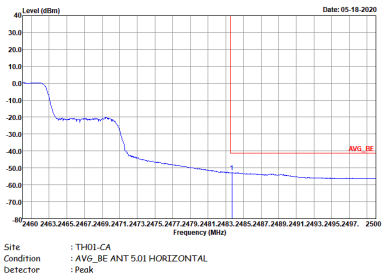
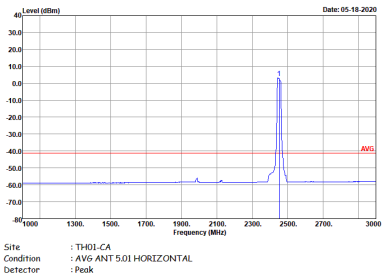
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH03 2422MHz	
4	CSE	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - L	
4	CSE	Fundamental
Peak		
Avg.		

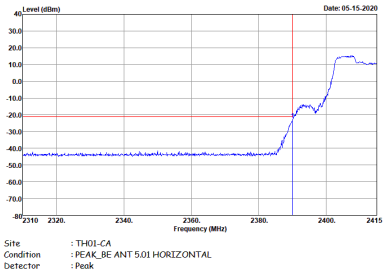
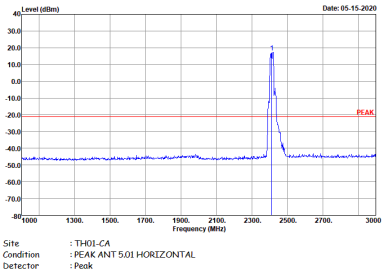
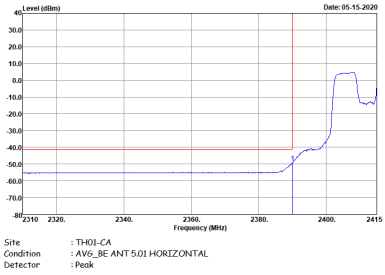
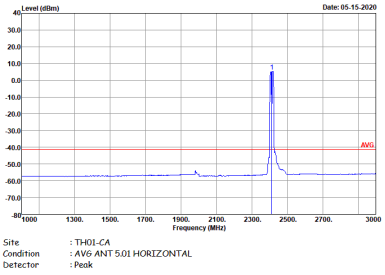
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - R	
4	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

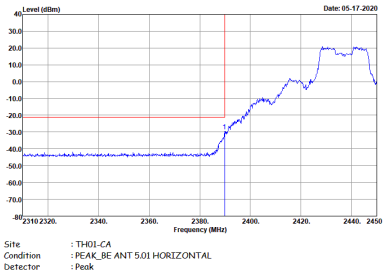
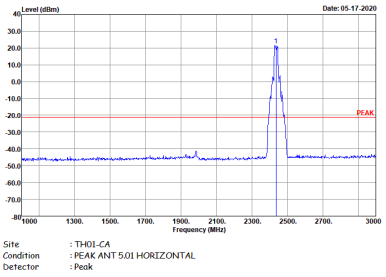
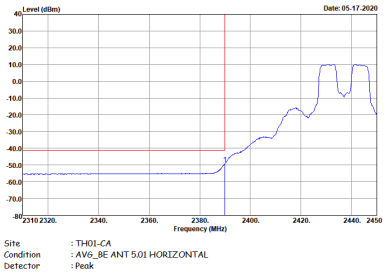
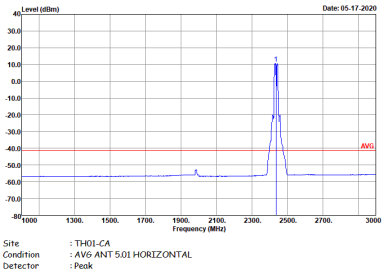
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH09 2452MHz	
4	CSE	Fundamental
Peak		
Avg.		

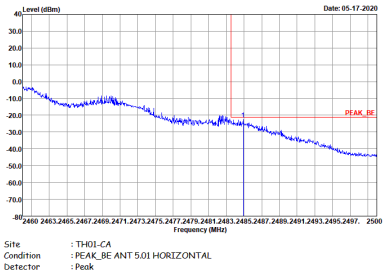
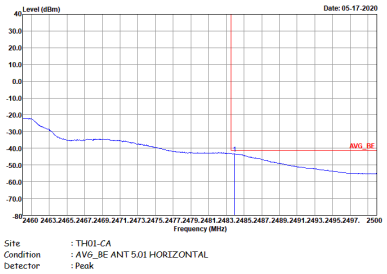
<Middle Unmodulated>

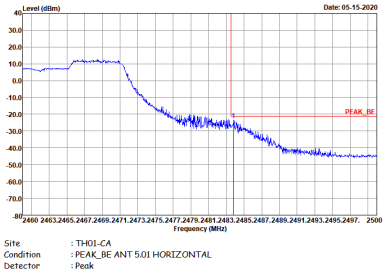
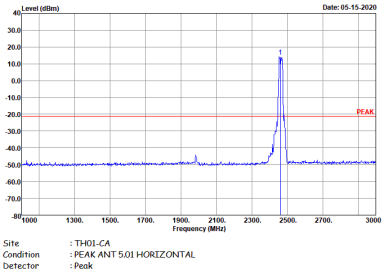
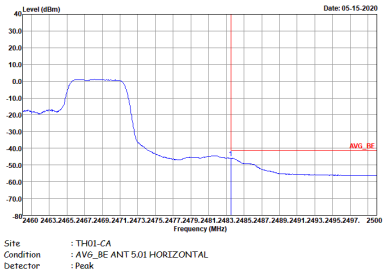
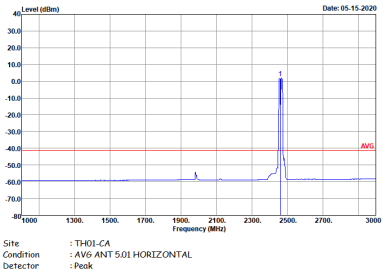
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH01 2412MHz	
1	CSE	Fundamental
Peak		
Avg.		

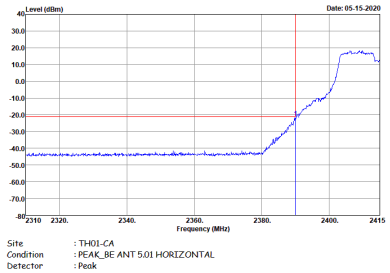
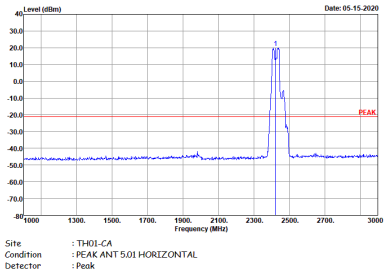
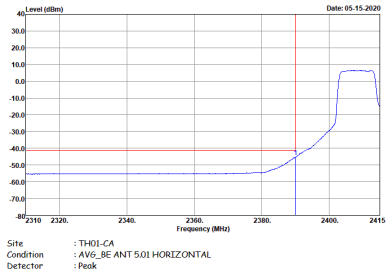
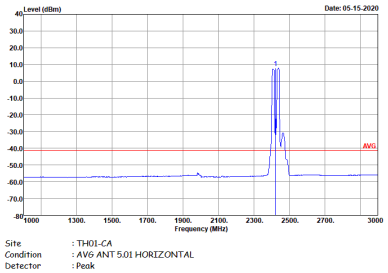
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - L	
1	CSE	Fundamental
Peak		
Avg.		

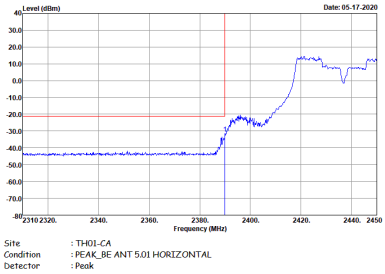
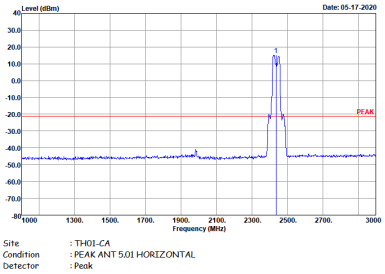
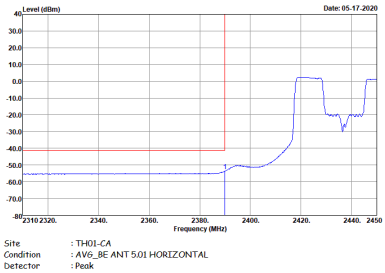
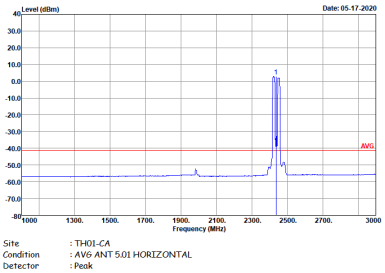
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - R	
1	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

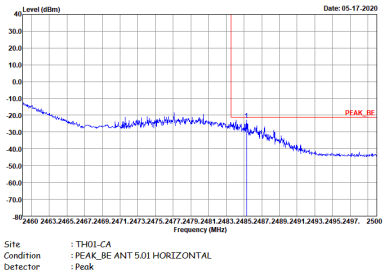
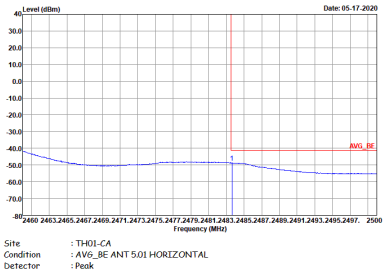
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH11 2462MHz	
1	CSE	Fundamental
Peak		
Avg.		

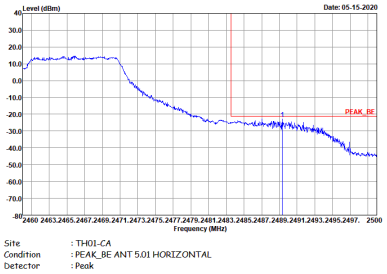
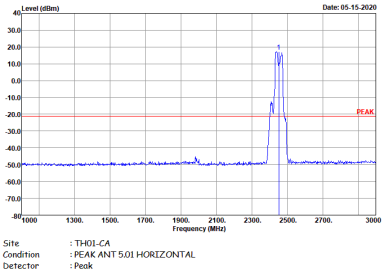
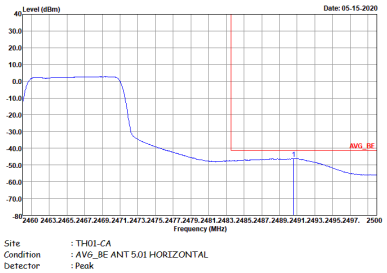
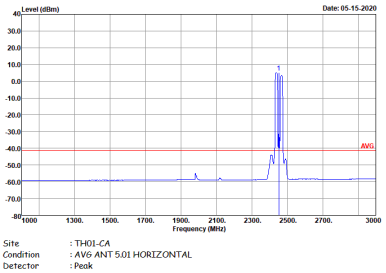
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH03 2422MHz	
1	CSE	Fundamental
Peak		
Avg.		

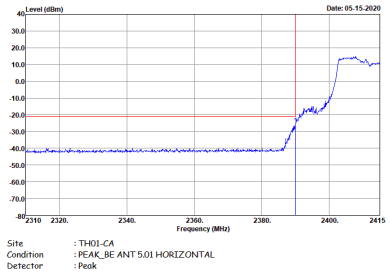
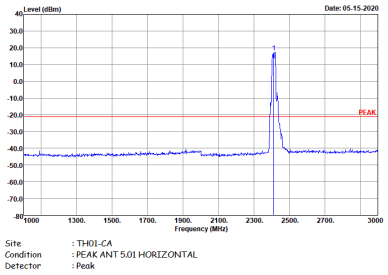
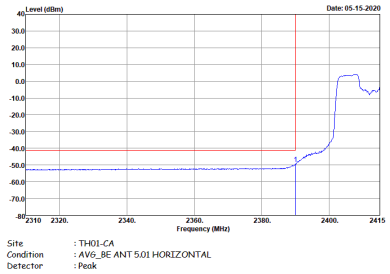
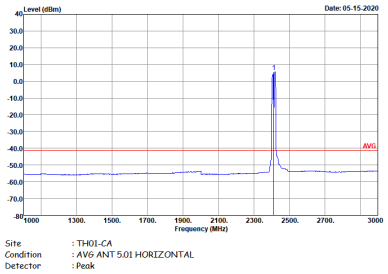
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - L	
1	CSE	Fundamental
Peak		
Avg.		

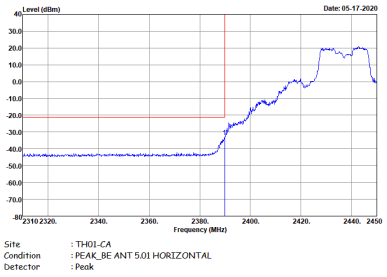
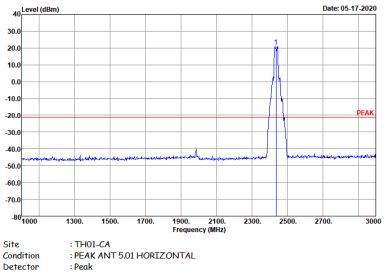
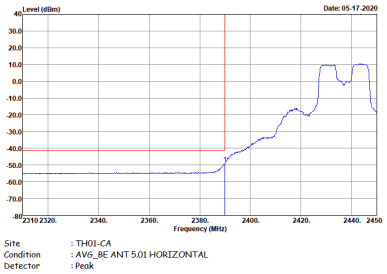
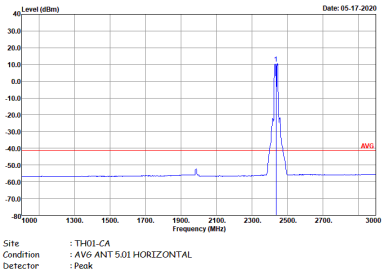
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - R	
1	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

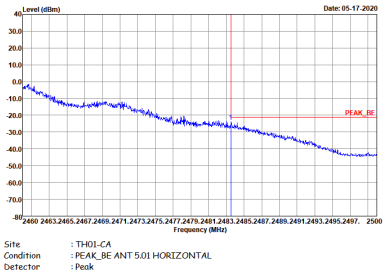
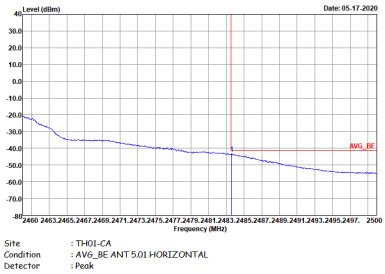
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH09 2452MHz	
1	CSE	Fundamental
Peak		
Avg.		

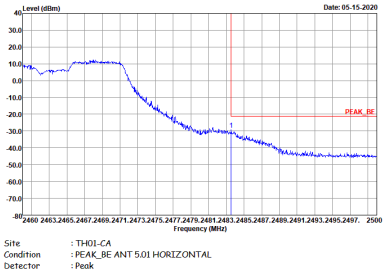
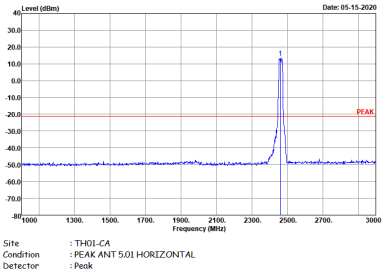
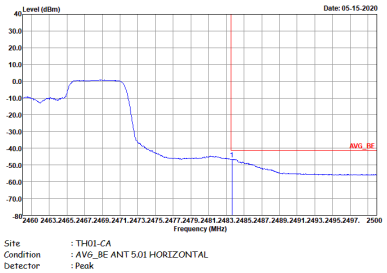
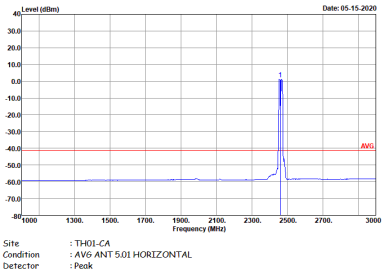
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH01 2412MHz	
2	CSE	Fundamental
Peak		
Avg.		

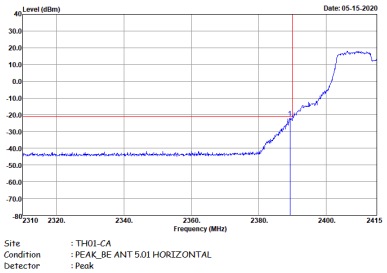
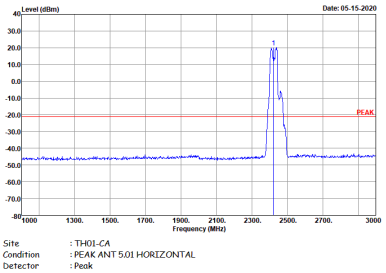
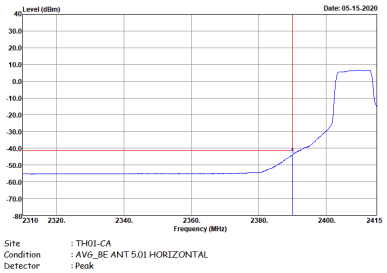
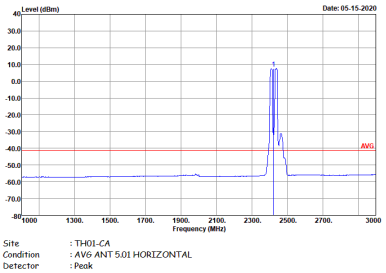
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - L	
2	CSE	Fundamental
Peak		
Avg.		

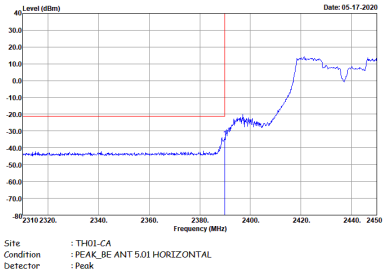
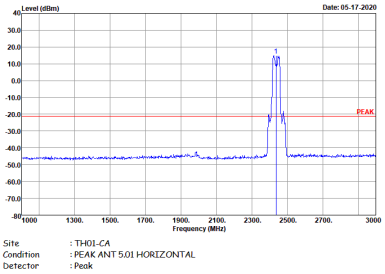
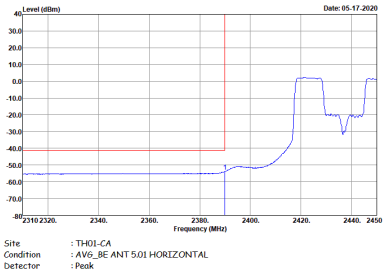
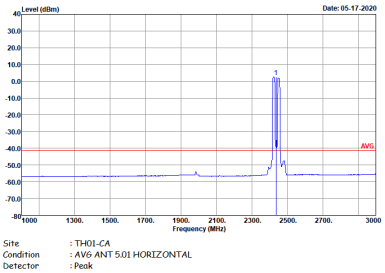
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - R	
2	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

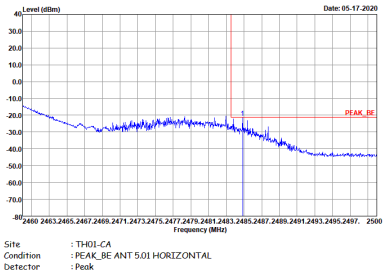
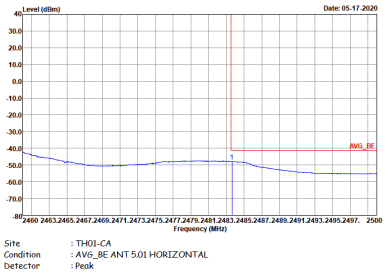
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH11 2462MHz	
2	CSE	Fundamental
Peak		
Avg.		

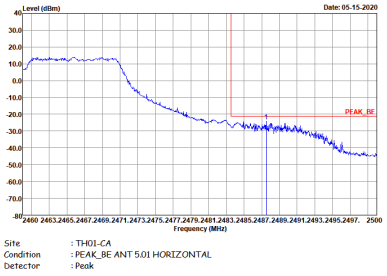
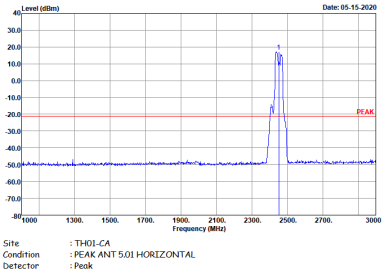
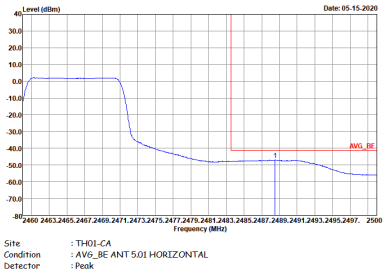
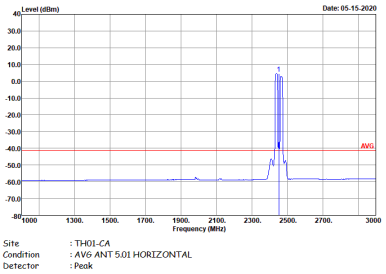
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH03 2422MHz	
2	CSE	Fundamental
Peak		
Avg.		

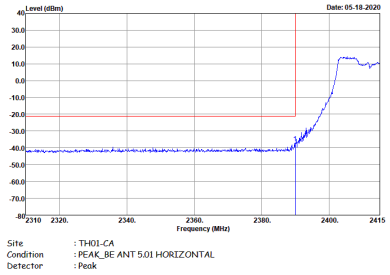
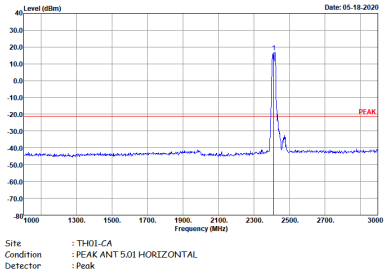
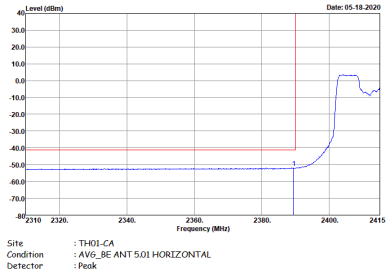
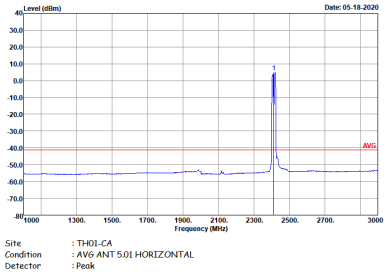
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - L	
2	CSE	Fundamental
Peak		
Avg.		

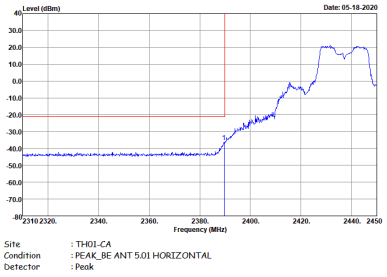
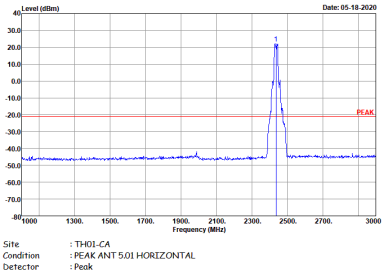
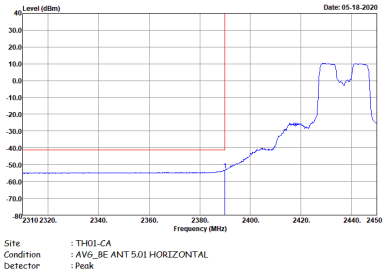
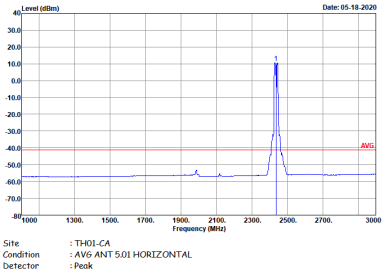
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - R	
2	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

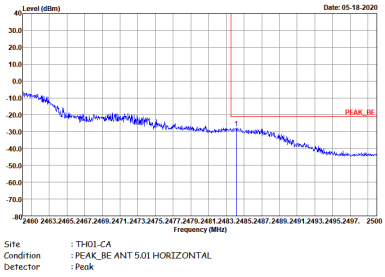
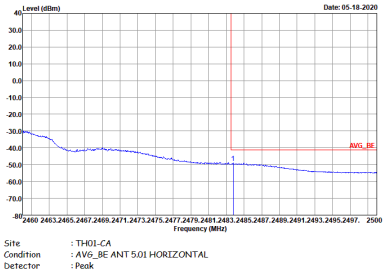
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH09 2452MHz	
2	CSE	Fundamental
Peak		
Avg.		

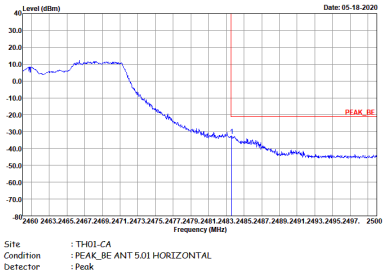
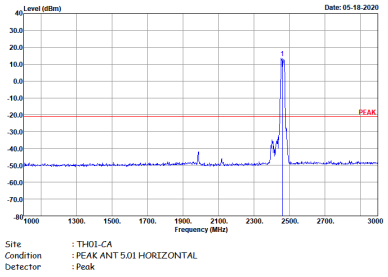
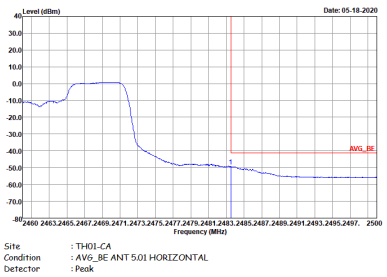
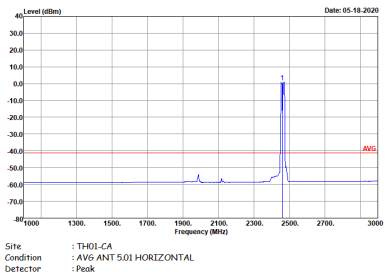
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH01 2412MHz	
3	CSE	Fundamental
Peak		
Avg.		

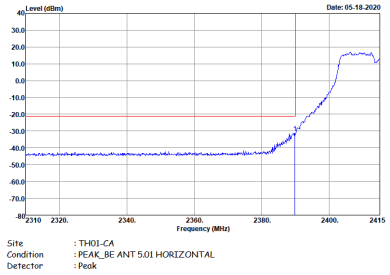
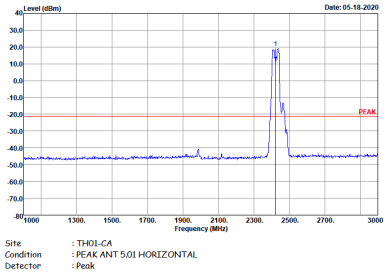
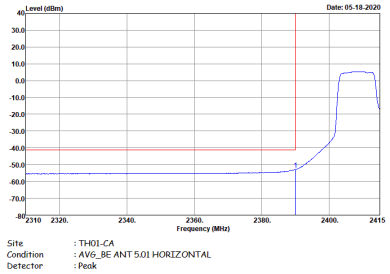
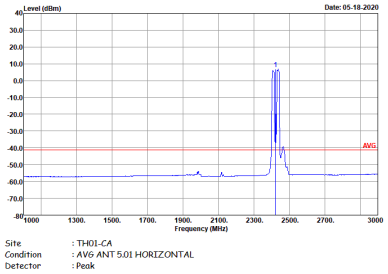
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - L	
3	CSE	Fundamental
Peak		
Avg.		

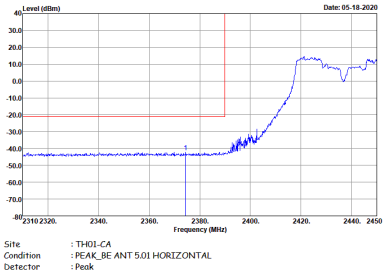
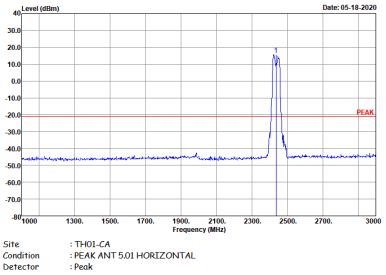
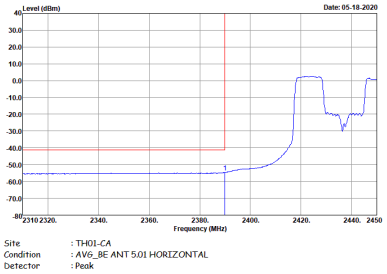
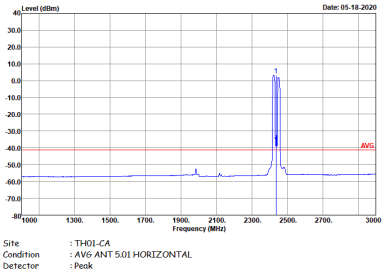
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - R	
3	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

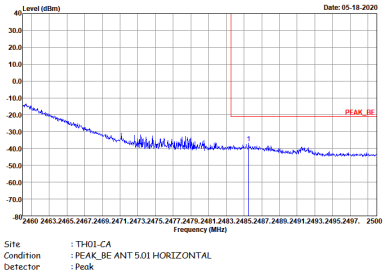
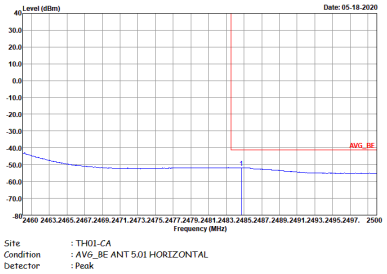
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH11 2462MHz	
3	CSE	Fundamental
Peak		
Avg.		

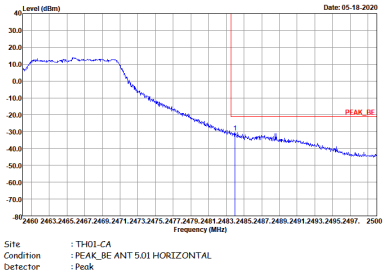
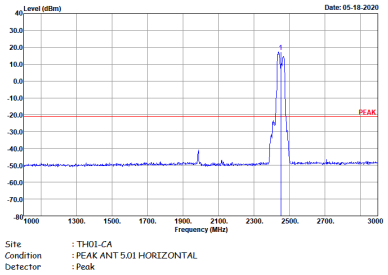
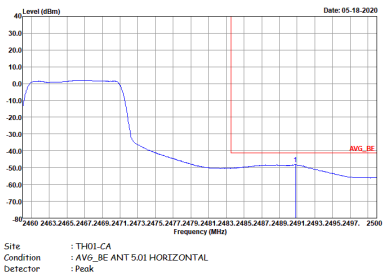
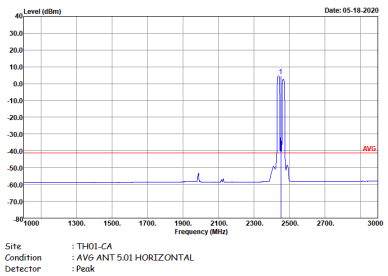
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH03 2422MHz	
3	CSE	Fundamental
Peak		
Avg.		

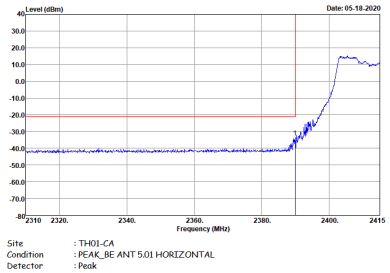
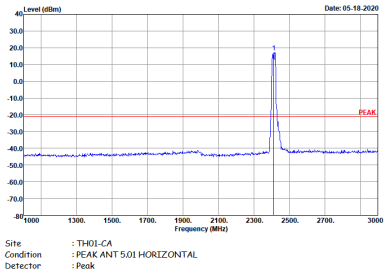
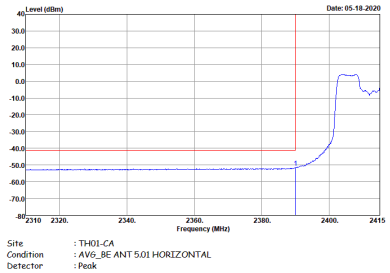
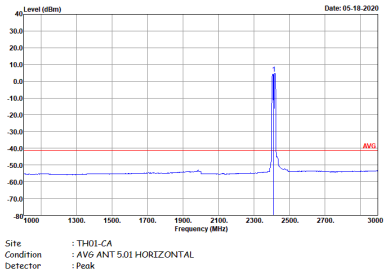
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - L	
3	CSE	Fundamental
Peak		
Avg.		

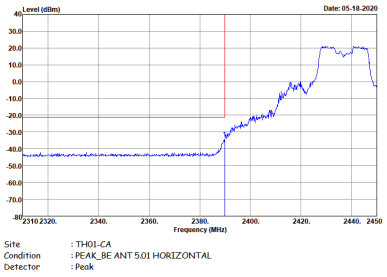
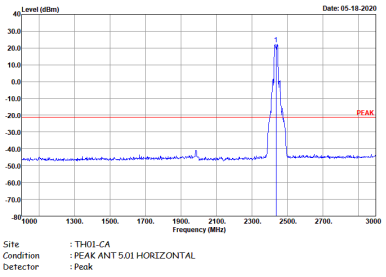
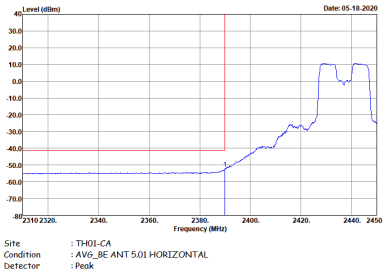
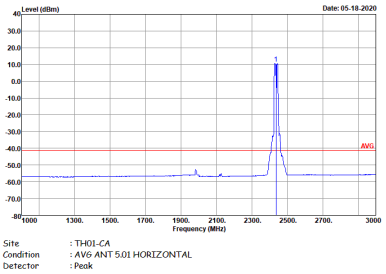
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - R	
3	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

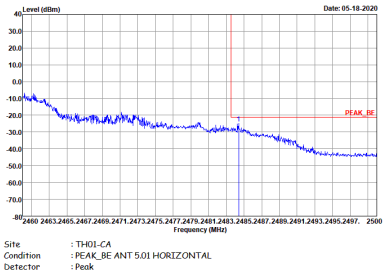
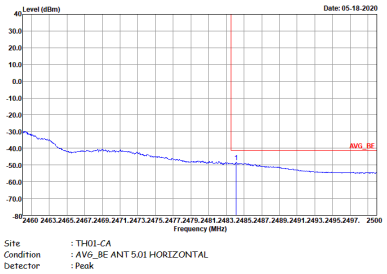
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH09 2452MHz	
3	CSE	Fundamental
Peak		
Avg.		

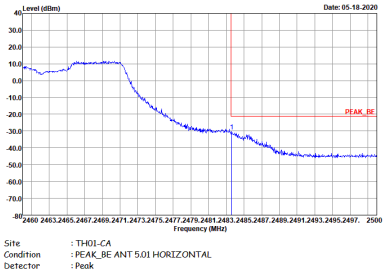
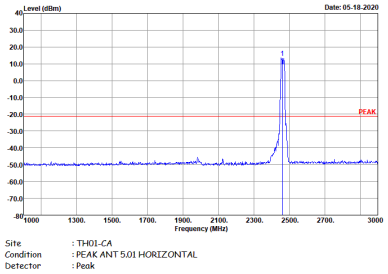
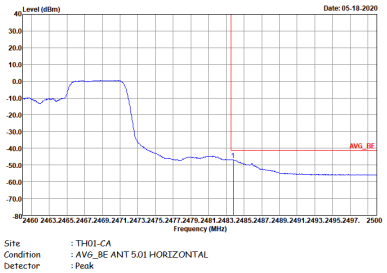
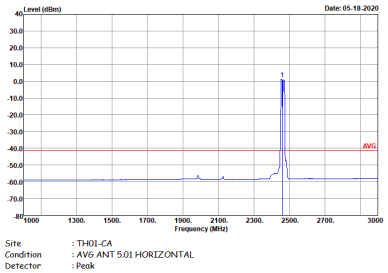
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH01 2412MHz	
4	CSE	Fundamental
Peak		
Avg.		

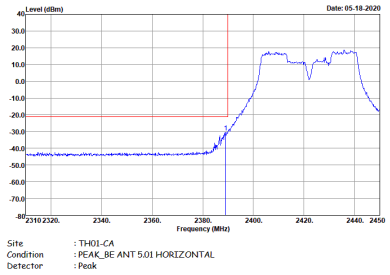
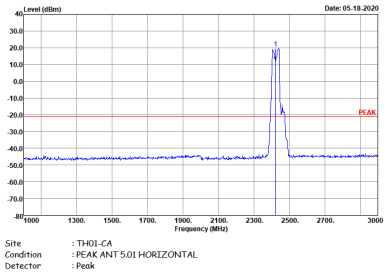
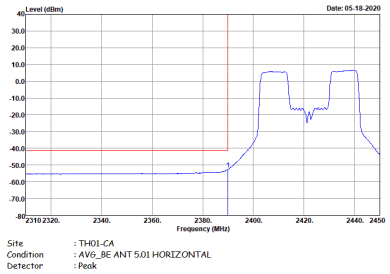
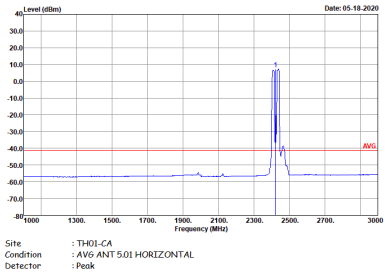
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - L	
4	CSE	Fundamental
Peak		
Avg.		

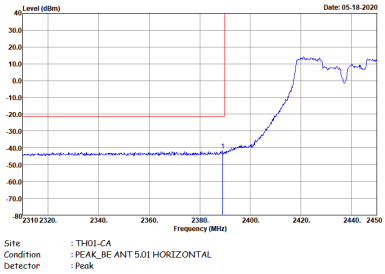
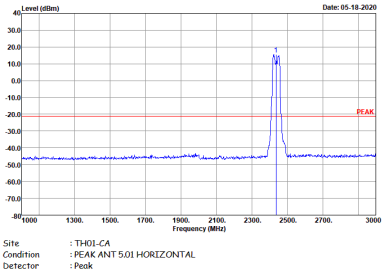
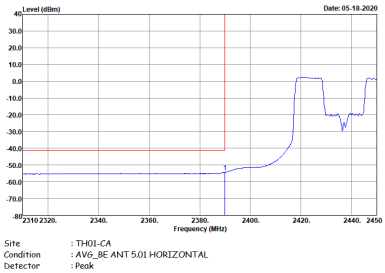
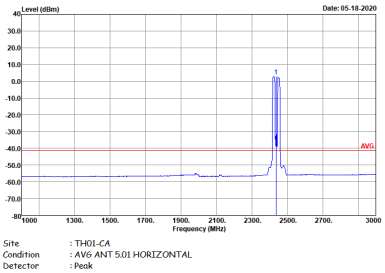
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH06 2437MHz - R	
4	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

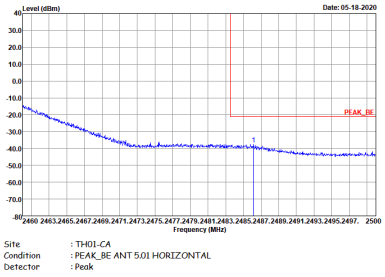
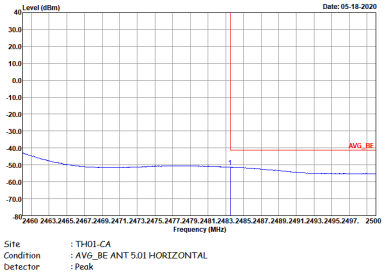
WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE20 CH11 2462MHz	
4	CSE	Fundamental
Peak		
Avg.		

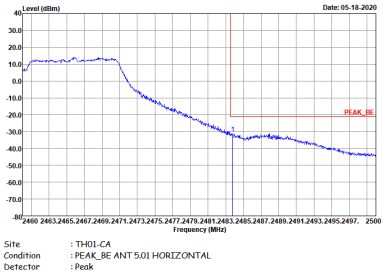
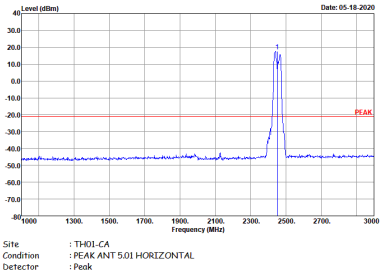
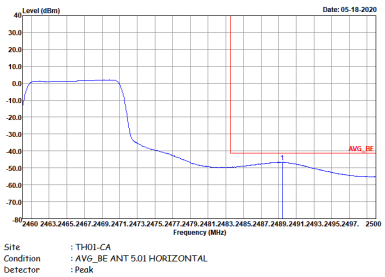
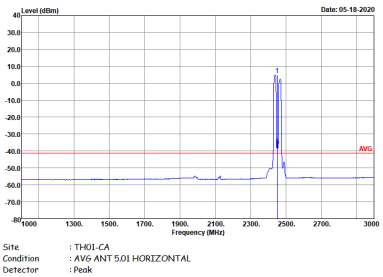
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 (Band Edge)

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH03 2422MHz	
4	CSE	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - L	
4	CSE	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH06 2437MHz - R	
4	CSE	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge	
ANT	802.11ax HE40 CH09 2452MHz	
4	CSE	Fundamental
Peak		
Avg.		

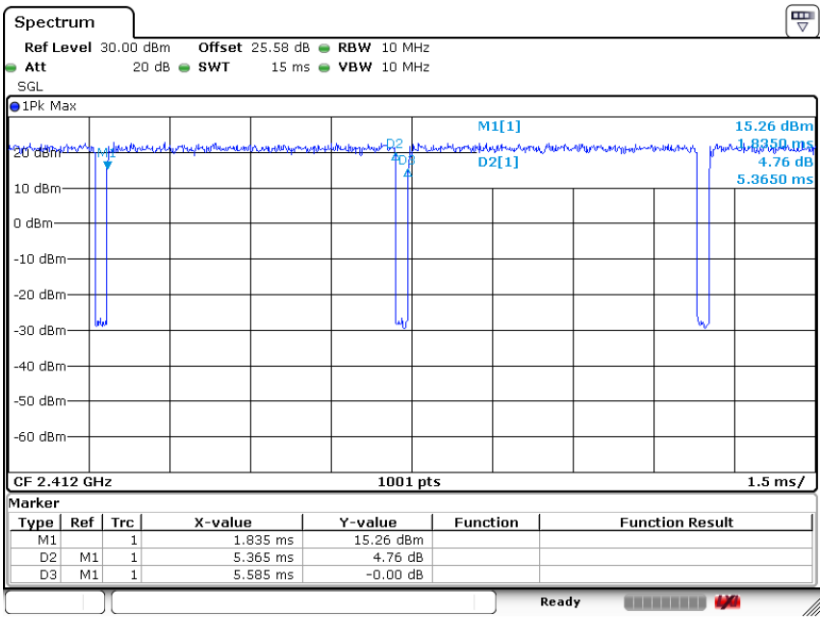
Appendix D. Duty Cycle Plots

<Band-edge Unmodulated>

Mode	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
4*4	2.4GHz 802.11ax20 for Ant. 1	96.06	5365	0.19	300Hz	0.17
4*4	2.4GHz 802.11ax20 for Ant. 2	95.72	5370	0.19	300Hz	0.19
4*4	2.4GHz 802.11ax20 for Ant. 3	95.97	5365	0.19	300Hz	0.18
4*4	2.4GHz 802.11ax20 for Ant. 4	95.97	5365	0.19	300Hz	0.18
4*4	2.4GHz 802.11ax40 for Ant. 1	93.94	4415	0.23	300Hz	0.27
4*4	2.4GHz 802.11ax40 for Ant. 2	93.86	4740	0.21	300Hz	0.28
4*4	2.4GHz 802.11ax40 for Ant. 3	94.48	5045	0.20	300Hz	0.25
4*4	2.4GHz 802.11ax40 for Ant. 4	94.05	4425	0.23	300Hz	0.27

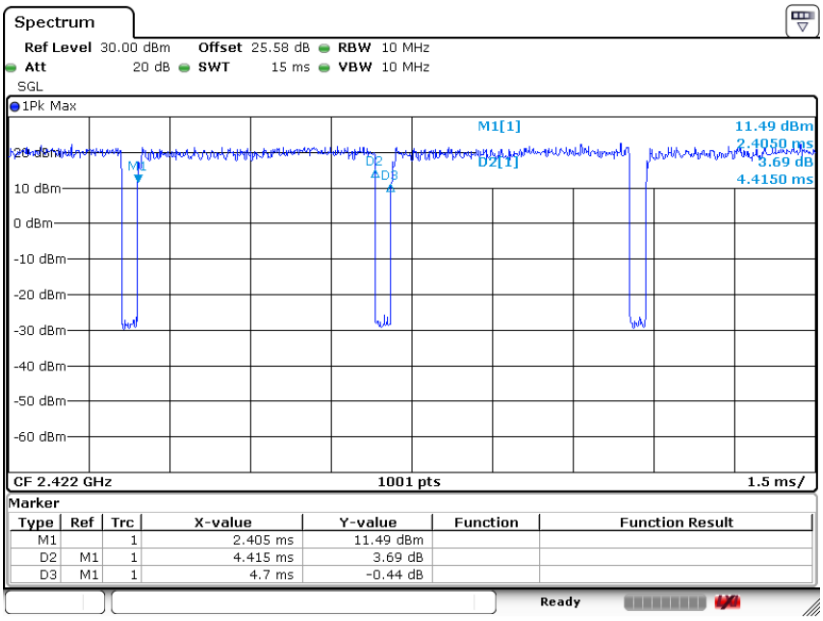
MIMO <Ant. 1>

802.11ax HE20



Date: 13.MAY.2020 11:38:02

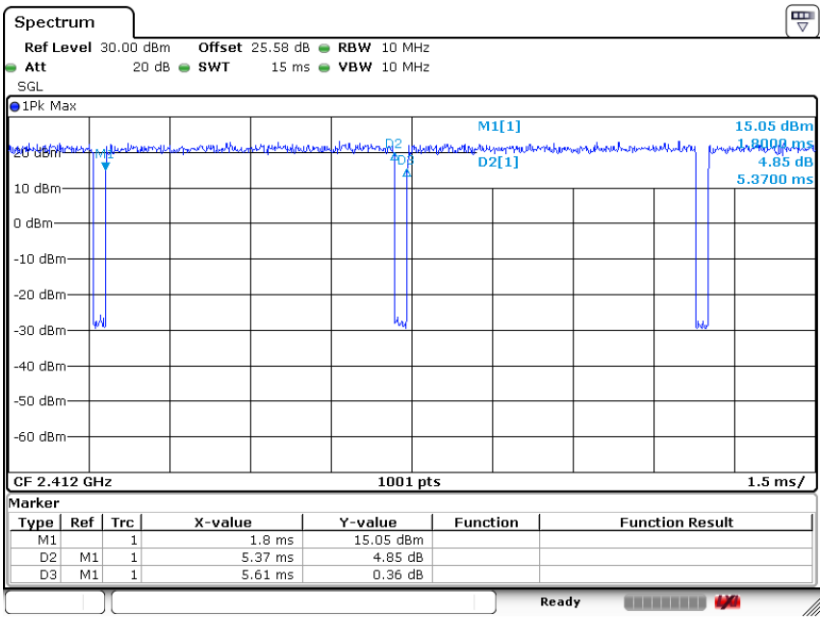
802.11ax HE40



Date: 13.MAY.2020 13:16:17

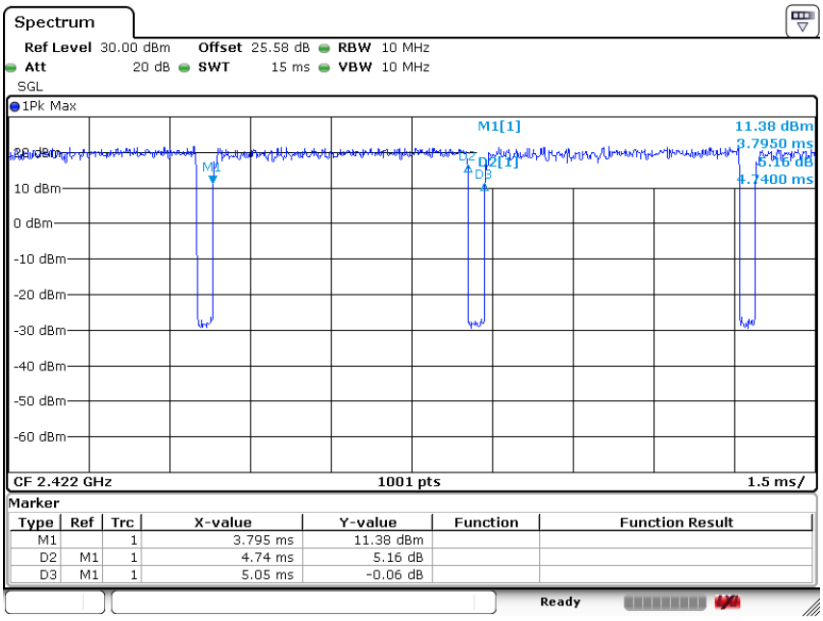
MIMO <Ant. 2>

802.11ax HE20



Date: 13.MAY.2020 11:39:02

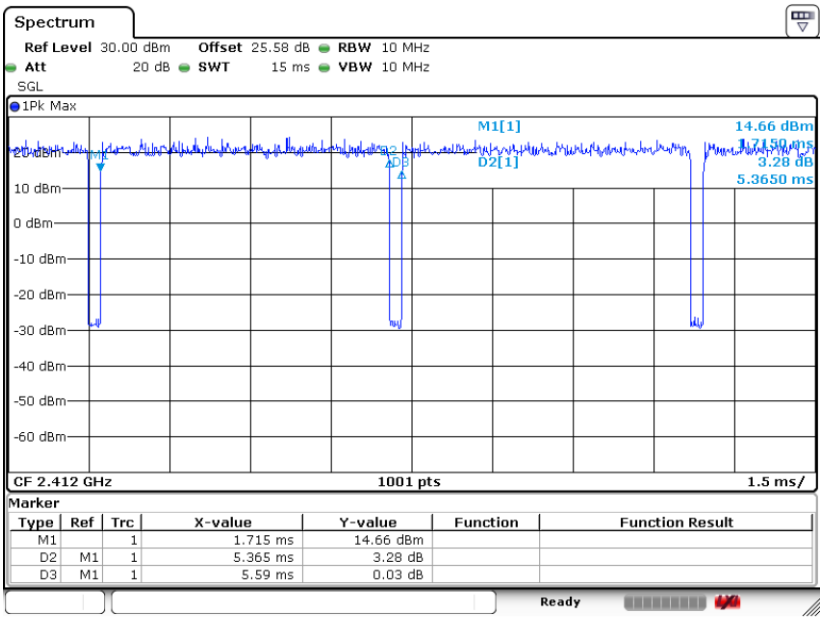
802.11ax HE40



Date: 13.MAY.2020 13:24:54

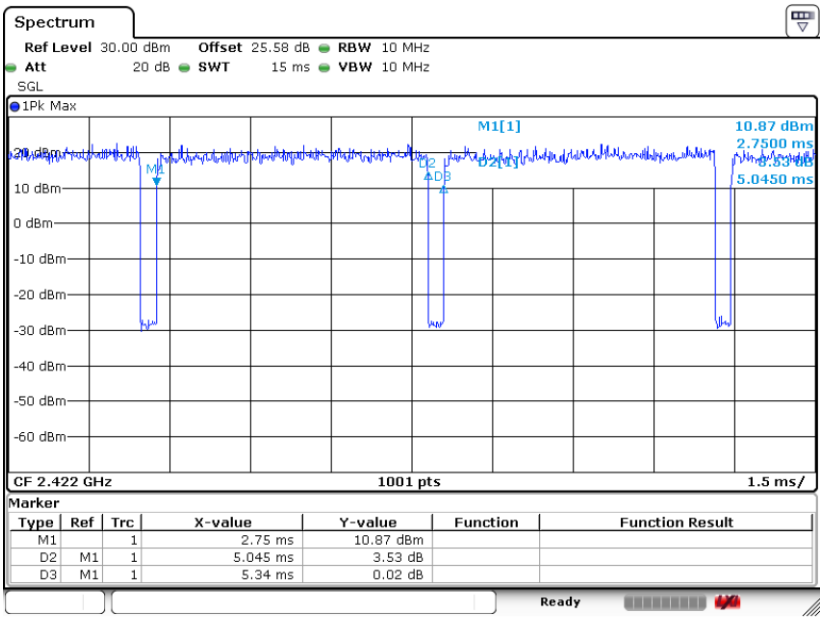
MIMO <Ant. 3>

802.11ax HE20



Date: 13.MAY.2020 12:02:43

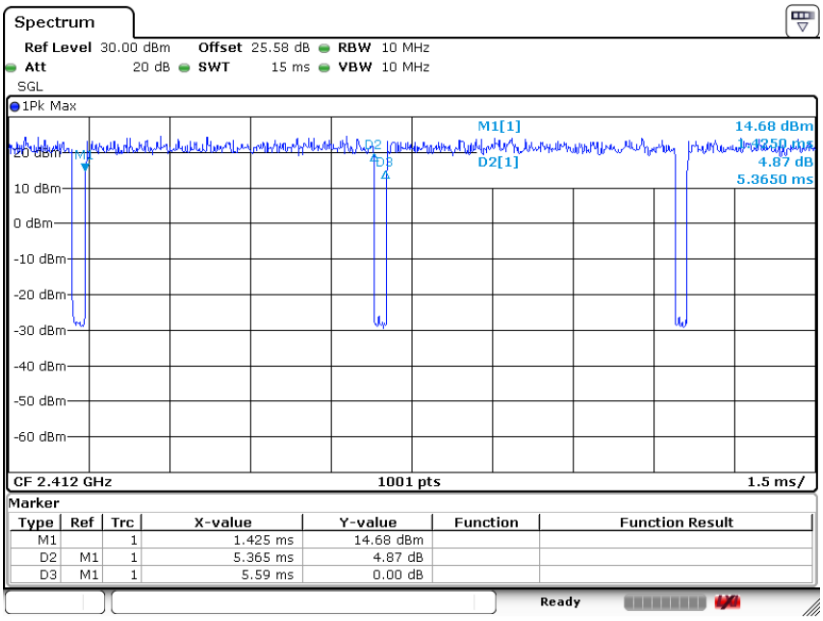
802.11ax HE40



Date: 13.MAY.2020 13:29:01

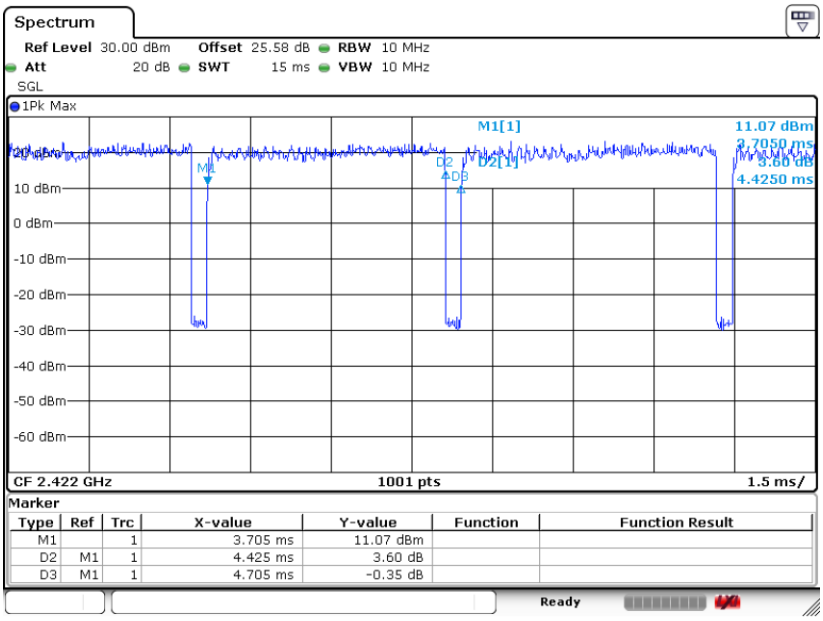
MIMO <Ant. 4>

802.11ax HE20



Date: 13.MAY.2020 12:03:37

802.11ax HE40



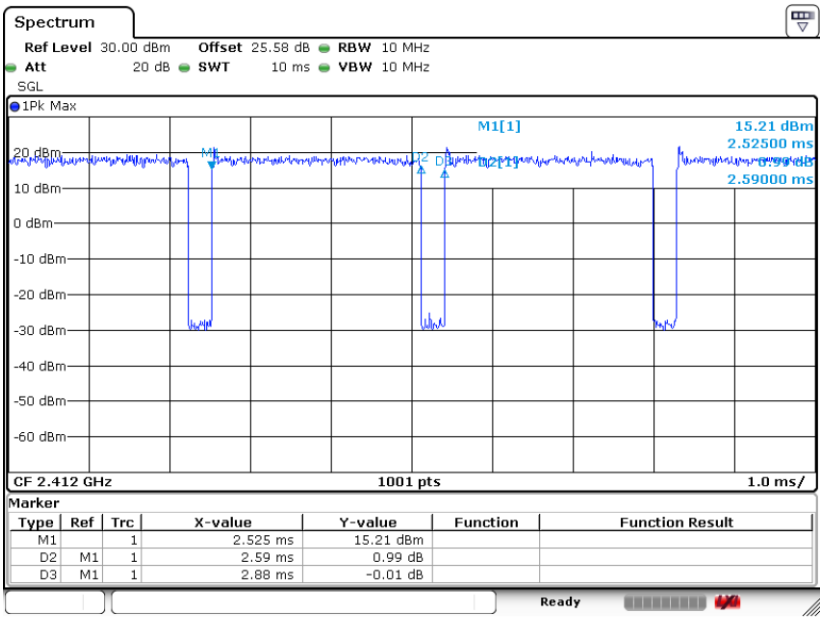
Date: 13.MAY.2020 13:38:50

<Middle Unmodulated>

Mode	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
4*4	2.4GHz 802.11ax20 for Ant. 1	89.93	2590	0.39	1kHz	0.46
4*4	2.4GHz 802.11ax20 for Ant. 2	89.91	2585	0.39	1kHz	0.46
4*4	2.4GHz 802.11ax20 for Ant. 3	89.60	2585	0.39	1kHz	0.48
4*4	2.4GHz 802.11ax20 for Ant. 4	89.98	2740	0.36	1kHz	0.46
4*4	2.4GHz 802.11ax40 for Ant. 1	93.30	3340	0.30	300Hz	0.30
4*4	2.4GHz 802.11ax40 for Ant. 2	93.84	3505	0.29	300Hz	0.28
4*4	2.4GHz 802.11ax40 for Ant. 3	93.55	3335	0.30	300Hz	0.29
4*4	2.4GHz 802.11ax40 for Ant. 4	93.83	3650	0.27	300Hz	0.28

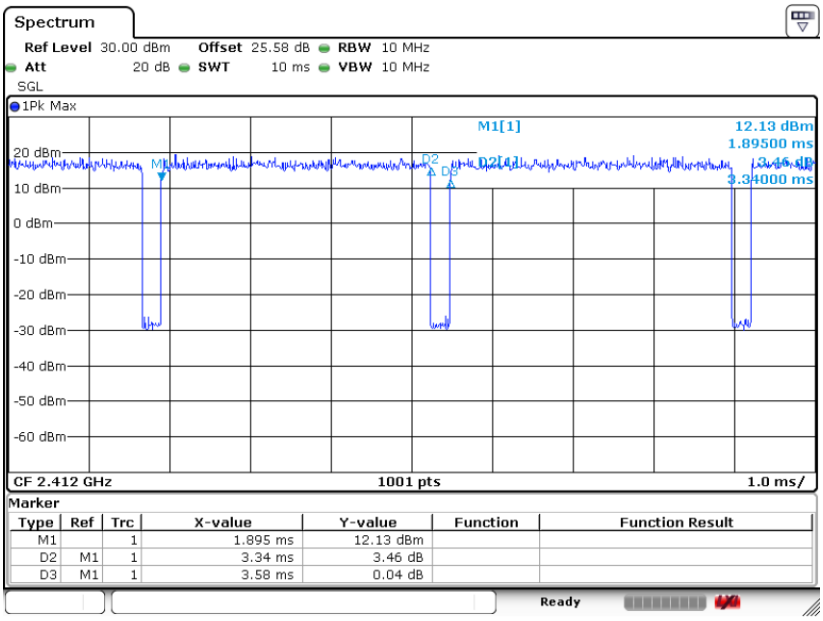
MIMO <Ant. 1>

802.11ax HE20



Date: 13.MAY.2020 13:46:51

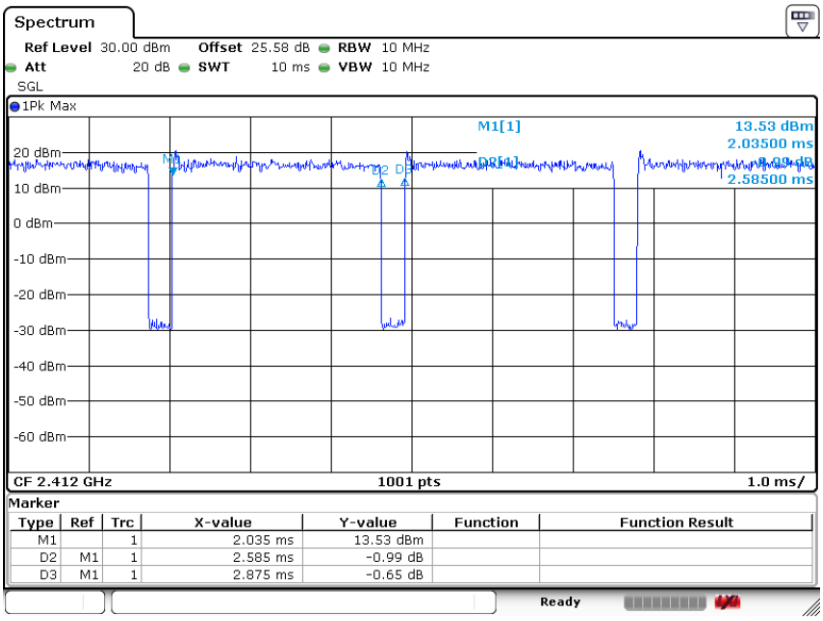
802.11ax HE40



Date: 13.MAY.2020 13:56:33

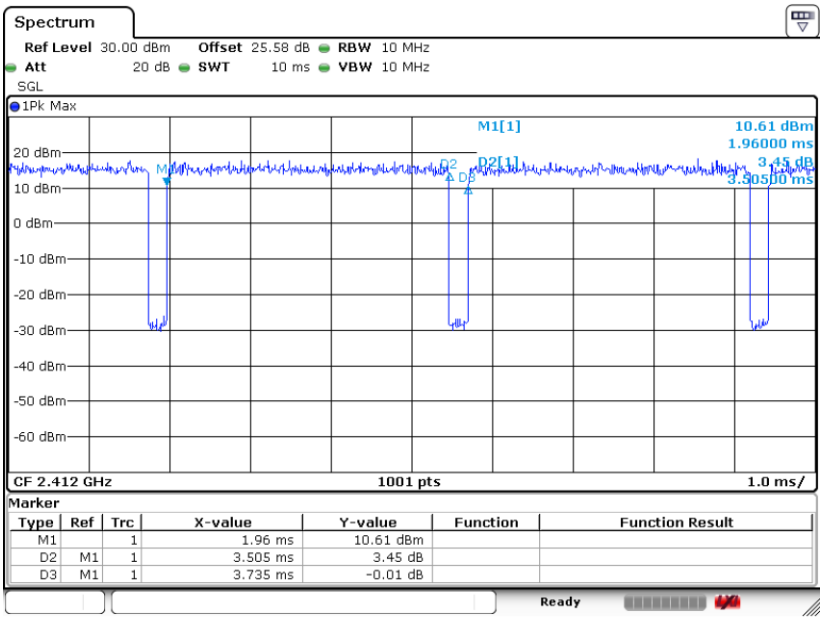
MIMO <Ant. 2>

802.11ax HE20



Date: 13.MAY.2020 13:47:57

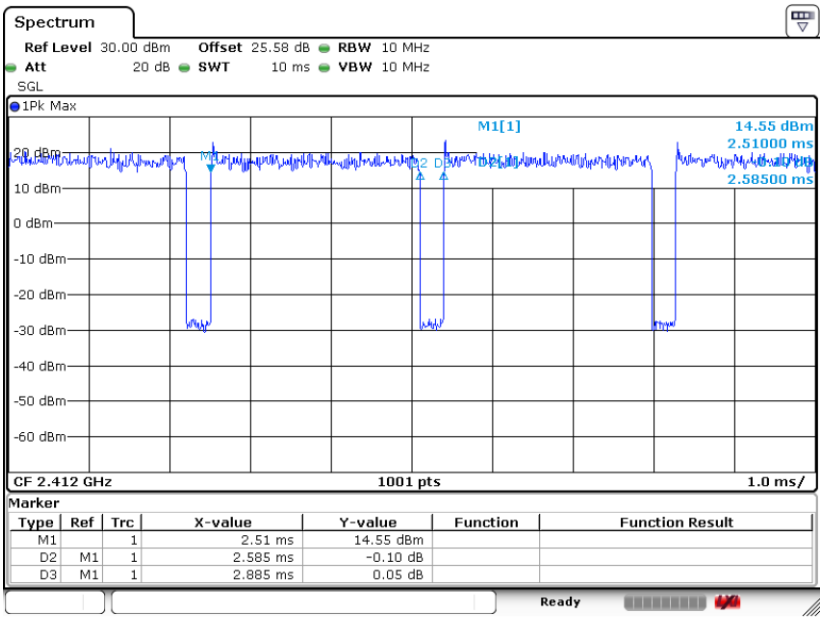
802.11ax HE40



Date: 13.MAY.2020 14:01:53

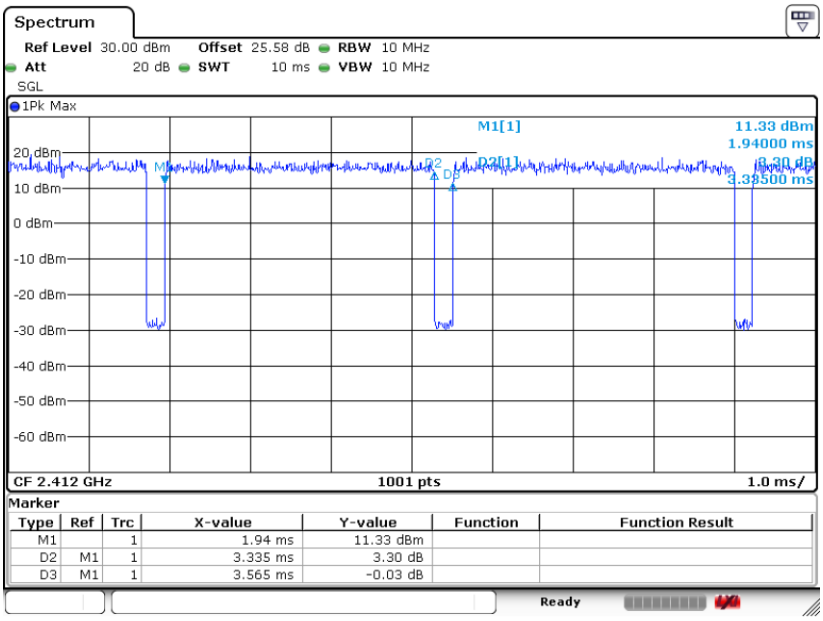
MIMO <Ant. 3>

802.11ax HE20



Date: 13.MAY.2020 13:48:59

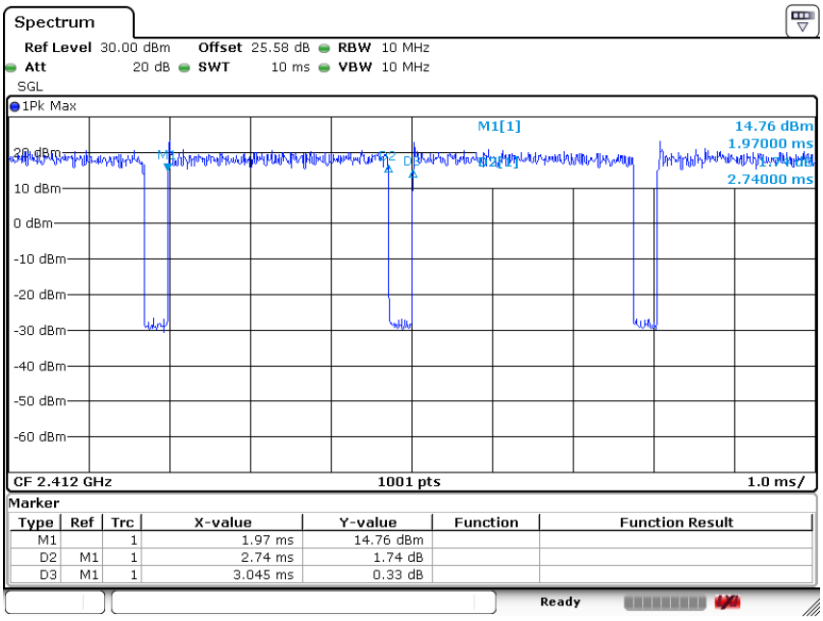
802.11ax HE40



Date: 13.MAY.2020 14:03:03

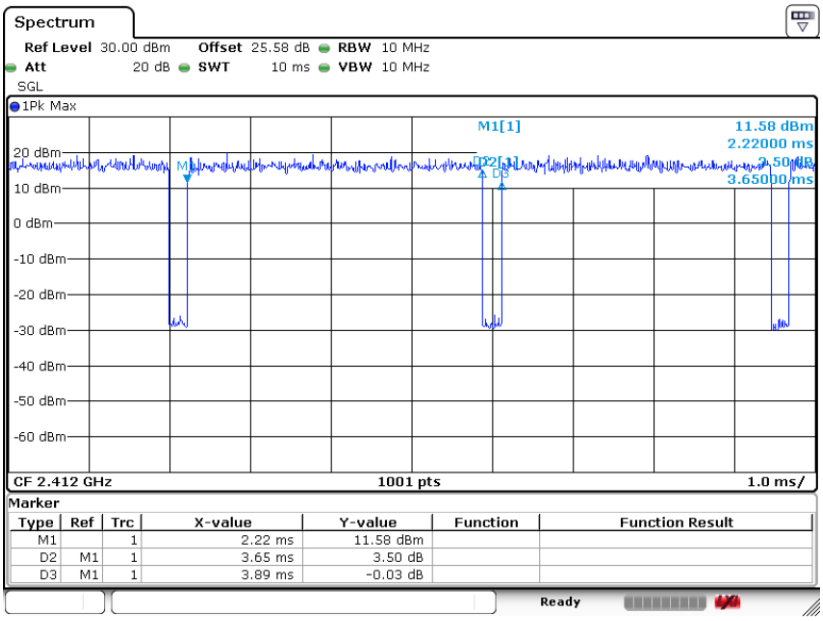
MIMO <Ant. 4>

802.11ax HE20



Date: 13.MAY.2020 13:50:10

802.11ax HE40



Date: 13.MAY.2020 14:05:12