



FCC RADIO TEST REPORT

FCC ID : 2AUPE-8959
Equipment : Digital Media Receiver
Model Name : T4E4AT
Applicant : Turley White LLC
35 Village Road, Suite 100
Middleton, MA 01949
United States
Standard : FCC Part 15 Subpart C §15.247

The product was received on May 07, 2020 and testing was started from May 21, 2020 and completed on Jul. 08, 2020. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issued Date
FR020110-01C	01	Initial issue of report	Jul. 22, 2020
FR020110-01C	02	1. Revise connection diagram of test system 2. Revise carrier frequency and channel in section 2.1	Jul. 28, 2020

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)
3.1	15.247(a)(2)	6dB Bandwidth	Pass
3.1	2.1049	99% Occupied Bandwidth	Reporting only
3.2	15.247(b)	Power Output Measurement	Pass
3.3	15.247(e)	Power Spectral Density	Pass
3.4	15.247(d)	Conducted Band Edges	Pass
		Conducted Spurious Emission	Pass
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	Pass
3.6	15.207	AC Conducted Emission	Pass
3.7	15.203 & 15.247(b)	Antenna Requirement	Pass

Declaration of Conformity:

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

Comments and Explanations:

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

Reviewed by: Wii Chang

Report Producer: Amy Chen

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	T4E4AT
FCC ID	2AUPE-8959
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE Zigbee/FSK/LoRa

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	2412 MHz ~ 2472 MHz
Maximum Output Power to Antenna	MIMO <Ant. 1+2> 802.11b : 19.01 dBm (0.0796 W) 802.11g : 19.16 dBm (0.0824 W) 802.11n HT20 : 19.01 dBm (0.0796 W)
99% Occupied Bandwidth	MIMO <Ant. 1> 802.11b : 13.50 MHz 802.11g : 16.70 MHz 802.11n HT20 : 17.75 MHz MIMO <Ant. 2> 802.11b : 13.40 MHz 802.11g : 16.85 MHz 802.11n HT20 : 17.70 MHz
Antenna Type / Gain	Ant. 1: Loop Antenna with gain 4.89 dBi Ant. 2: Loop Antenna with gain 3.52 dBi
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

Note: MIMO Ant. 1+2 is a calculated result from sum of the power MIMO Ant. 1 and MIMO Ant. 2.

1.3 Modification of EUT

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

1.4 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory	
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	
	TH05-HY	CO05-HY

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

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory	
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855	
Test Site No.	Sporton Site No.	
	03CH16-HY	

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

FCC designation No.: TW1190 and TW0007

1.5 Applicable Standards

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

- ♦ FCC Part 15 Subpart C §15.247
- ♦ FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05r02
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in two degrees (0 and 40). The worst cases (Degree 40) were recorded in this report.
- b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	1	2412	8	2447
	2	2417	9	2452
	3	2422	10	2457
	4	2427	11	2462
	5	2432	12	2467
	6	2437	13	2472
	7	2442		

2.2 Test Mode

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

Modulation	Data Rate
802.11b	1 Mbps
802.11g	6 Mbps
802.11n HT20	MCS0

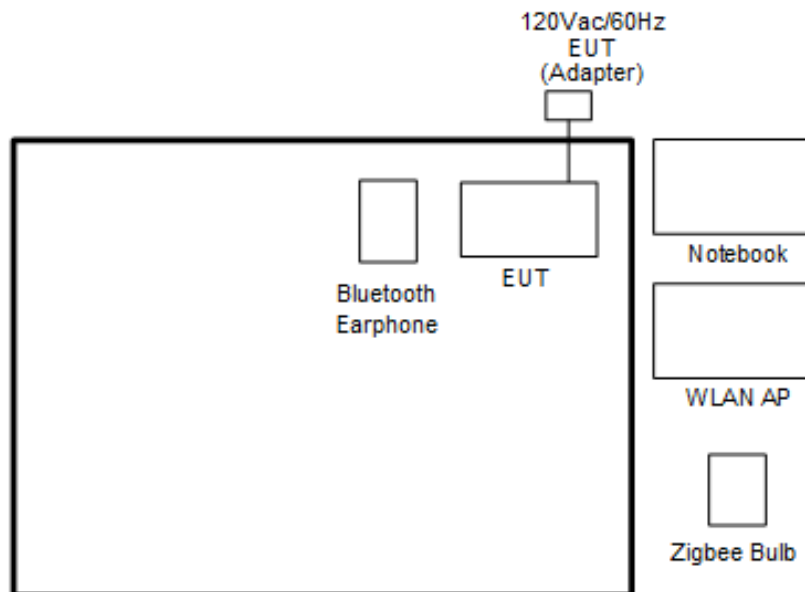
Test Cases	
AC Conducted Emission	Mode 1 : WLAN (2.4GHz) Link + Bluetooth Link + Zigbee Link + Motor + Adapter + H-Pattern + Audio + Display 40 Mode 2 : Lora Tx + Adapter + Display 40
Remark: The worst case of conducted emission is mode 2; only the test data of it was reported.	

Ch. #	2400-2483.5 MHz		
	802.11b	802.11g	802.11n HT20
Low	01	01	01
Middle	06	06	06
High	11	11	11
	12	12	12
	13	13	13

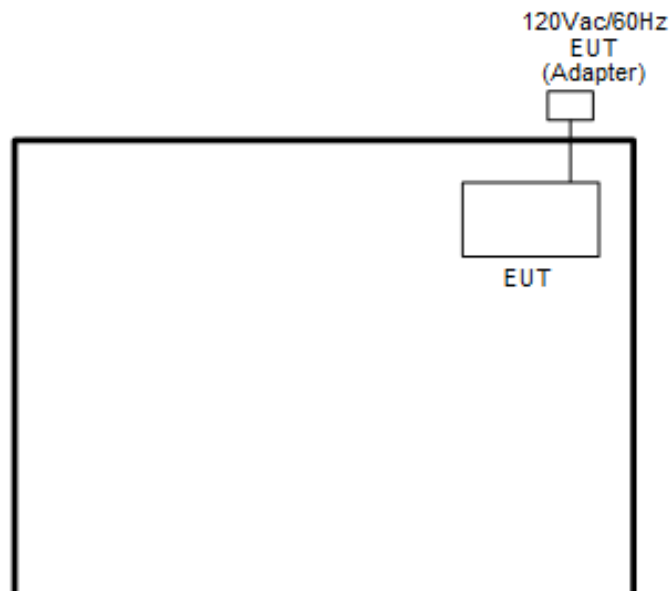
Remark: For radiation spurious emission, the final modulation and the worst data rate was reference the max RF conducted power.

2.3 Connection Diagram of Test System

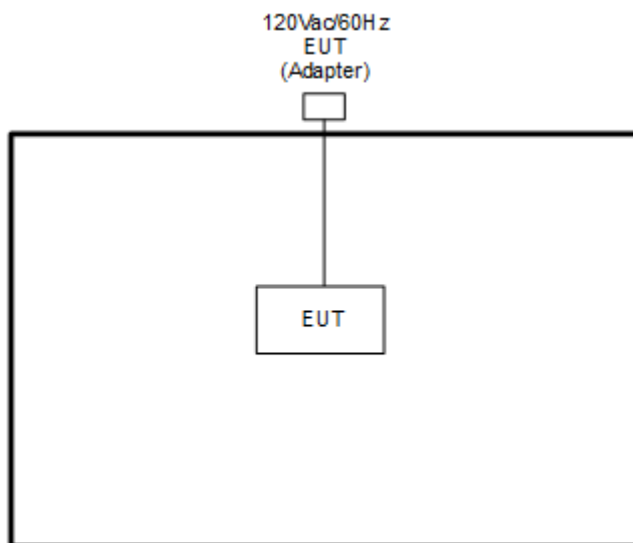
<AC Conducted Emission with WLAN (2.4GHz)/Bluetooth/Zigbee Mode>



<AC Conducted Emission Lora Tx Mode>



<WLAN Tx Mode >



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	SonyEricsson	MW600	PY7DDA-2029	N/A	N/A
2.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,1.8m
3.	Zigbee Bulb	OSRAM	73674	DZO-IQHOM	N/A	N/A
4.	Notebook	DELL	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m



2.5 EUT Operation Test Setup

The RF test items, utility "Compliance v1.0.0.80" was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example:

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

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 4.2 + 10 = 14.2 \text{ (dB)} \end{aligned}$$

3 Test Result

3.1 6dB and 99% Bandwidth Measurement

3.1.1 Limit of 6dB and 99% Bandwidth

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

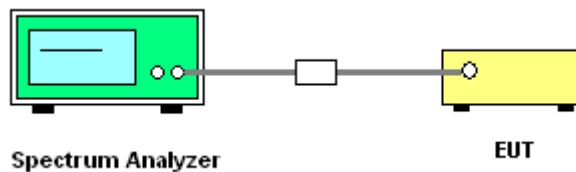
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
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) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) $\geq 3 * RBW$.
6. Measure and record the results in the test report.

3.1.4 Test Setup



3.2 Output Power Measurement

3.2.1 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.

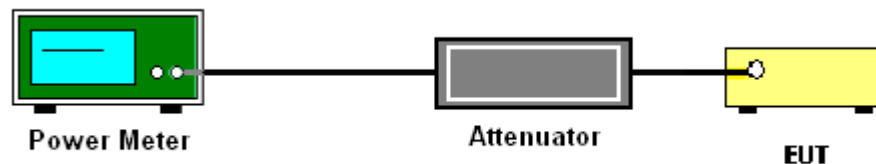
3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 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.

3.2.4 Test Setup



3.2.5 Test Result of Average Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 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.

3.3.2 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 11.10.2 Method PKPSD.
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. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.
7. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

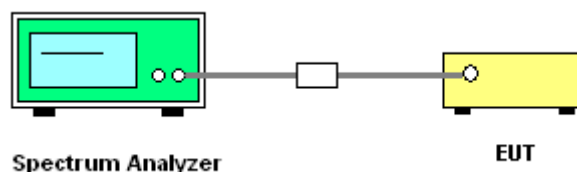
If measurements performed using method (2) plus $10 \log(N)$ exceeds the emission limit, the test should choose method (1) before declaring that the device fails the emission limit.

Method (1): Measure and sum the spectra across the outputs.

The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points, the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

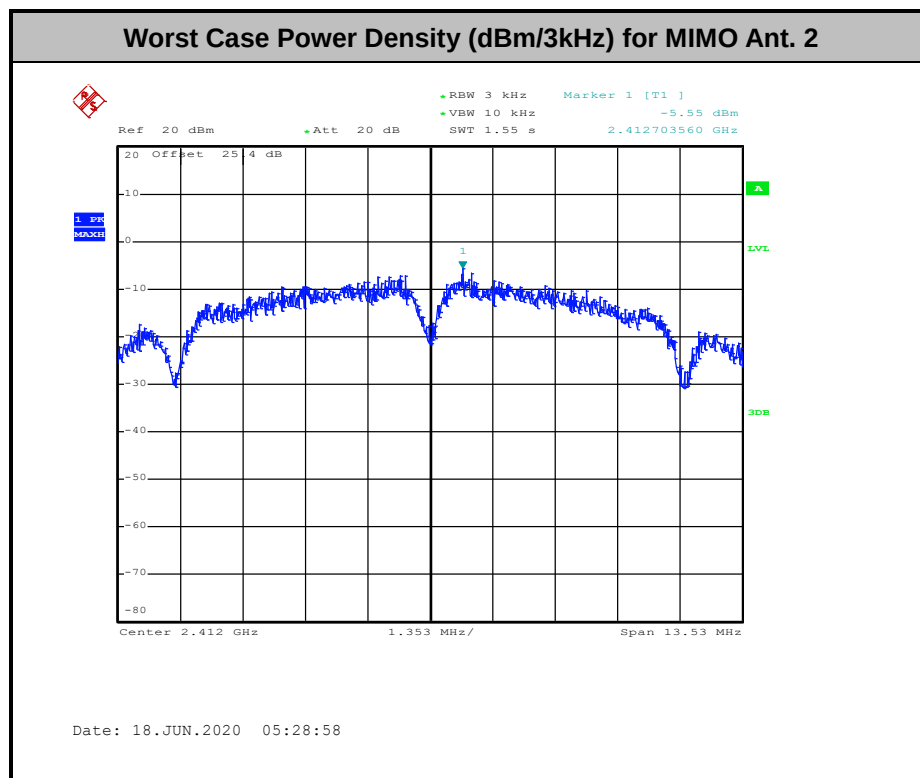
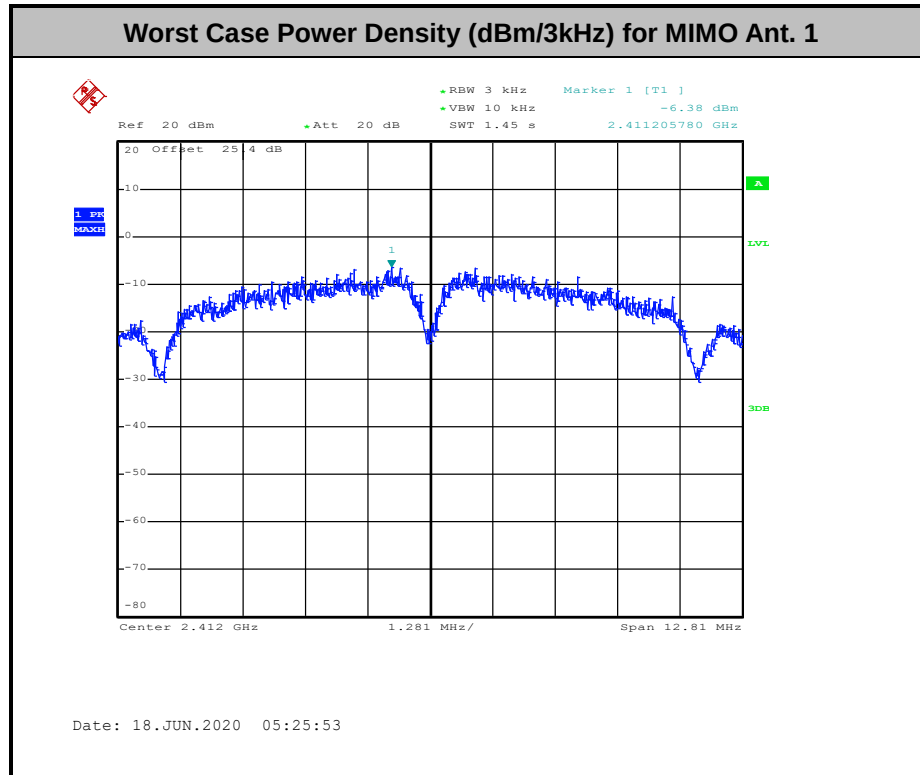
Method (2): Measure and add $10 \log(N)$ dB, where N is the number of outputs. (N=2)

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement.

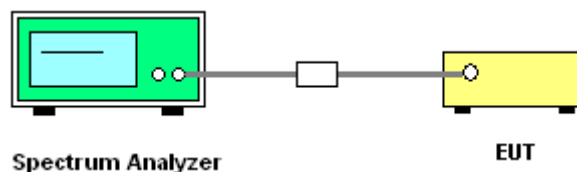
3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.11.3 Emission level measurement.
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. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.4.4 Test Setup



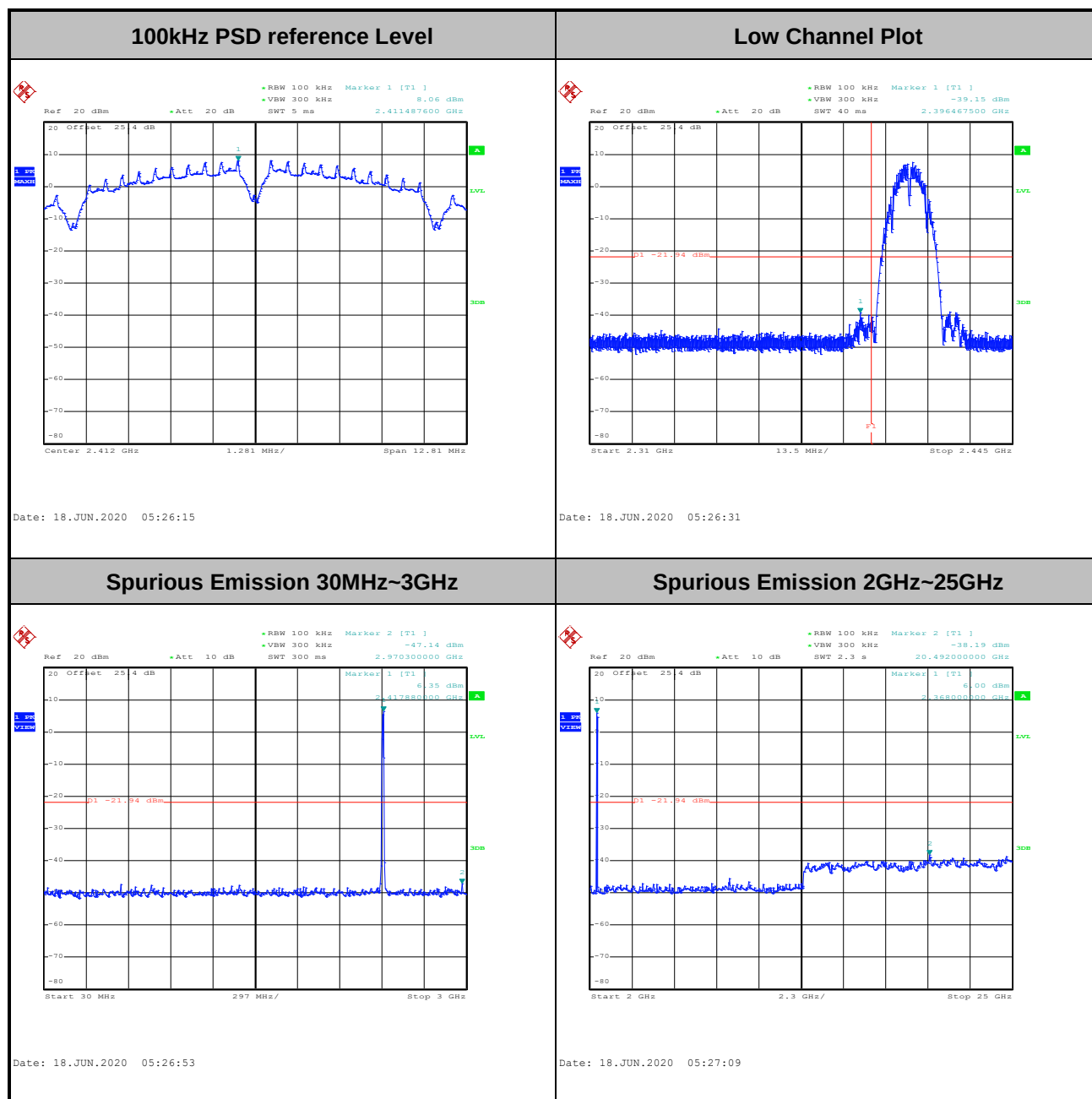


3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Test Engineer :	Hank Hsu	Temperature :	21.3~23.7°C
		Relative Humidity :	47.2~57.8%

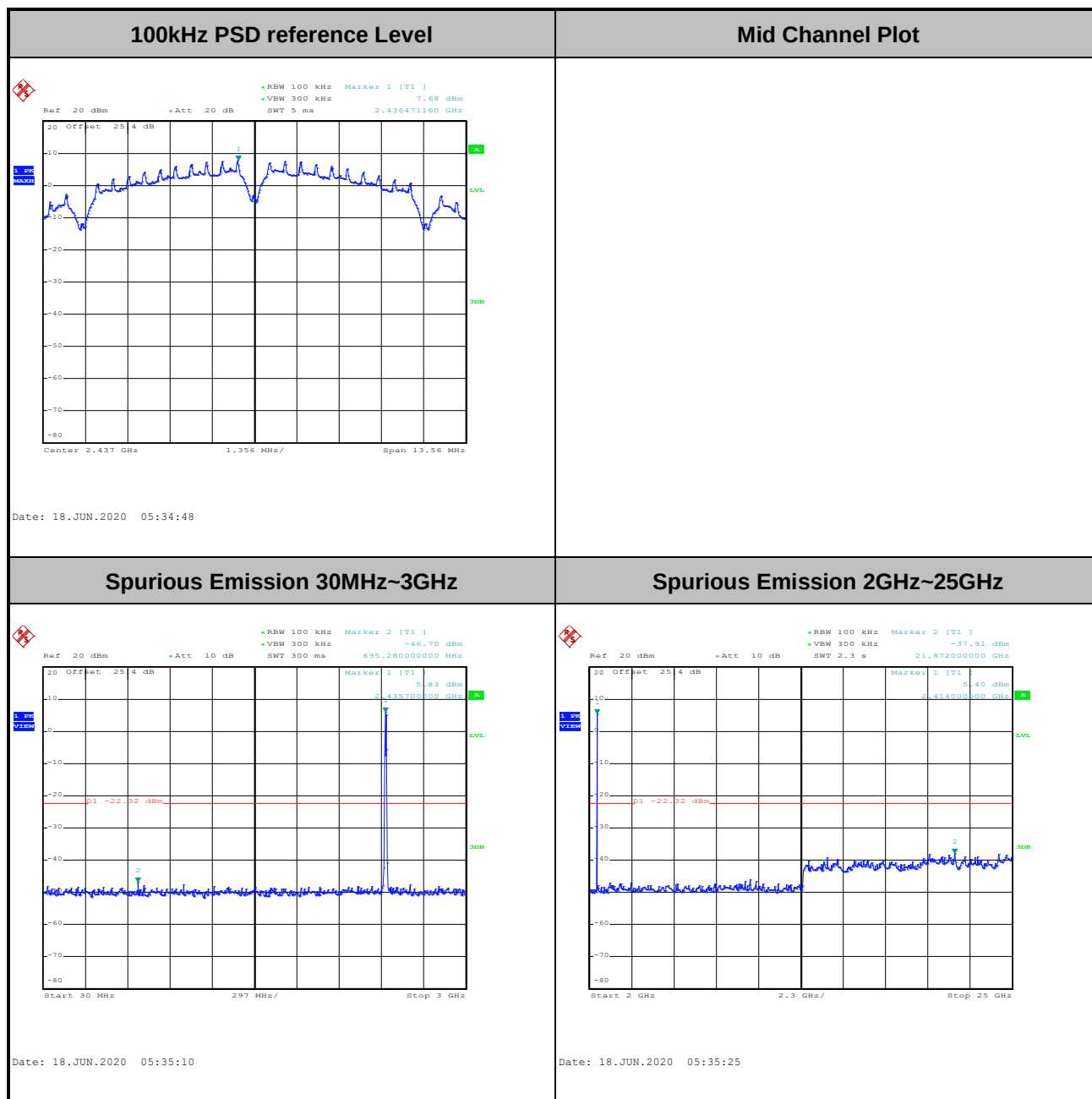
Number of TX = 2, Ant. 1 (Measured)

Test Mode :	802.11b	Test Channel :	01
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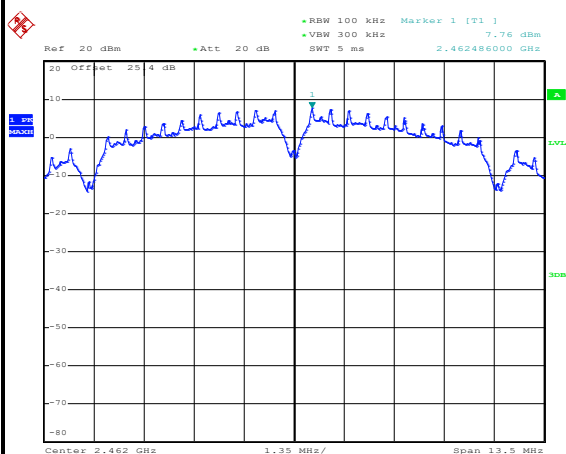
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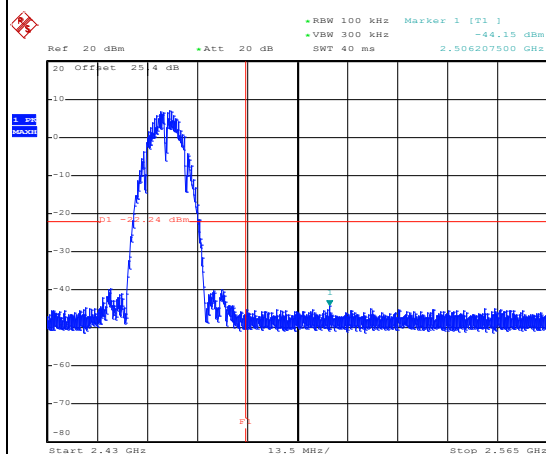
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100kHz PSD reference Level



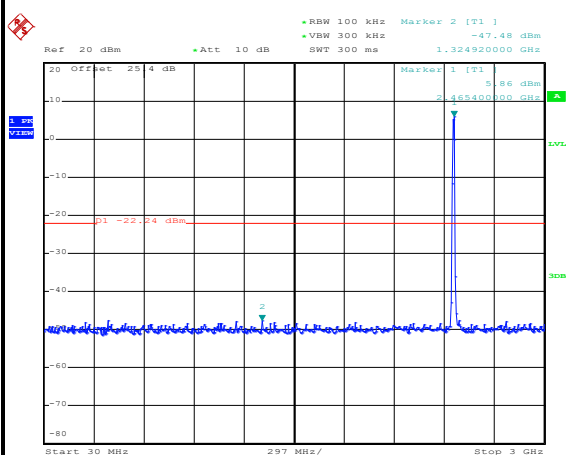
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High Channel Plot



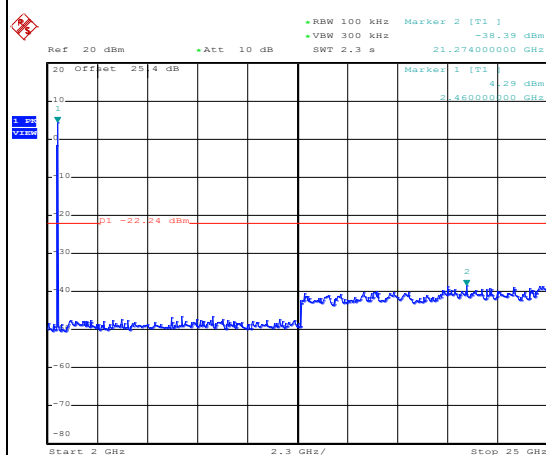
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Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 05:49:58

Spurious Emission 2GHz~25GHz

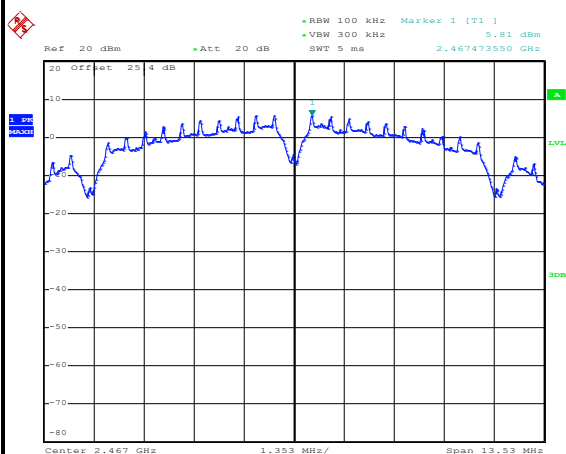


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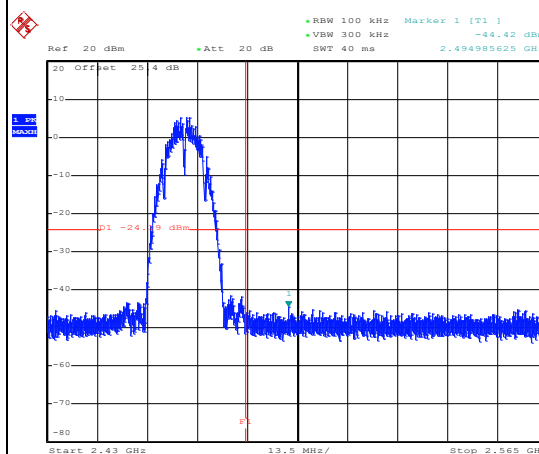
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100kHz PSD reference Level



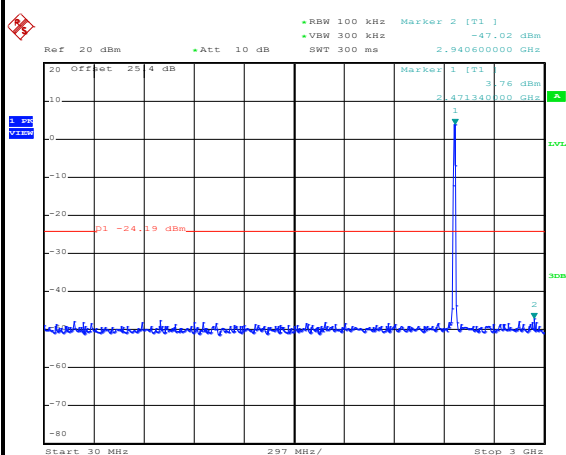
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High Channel Plot



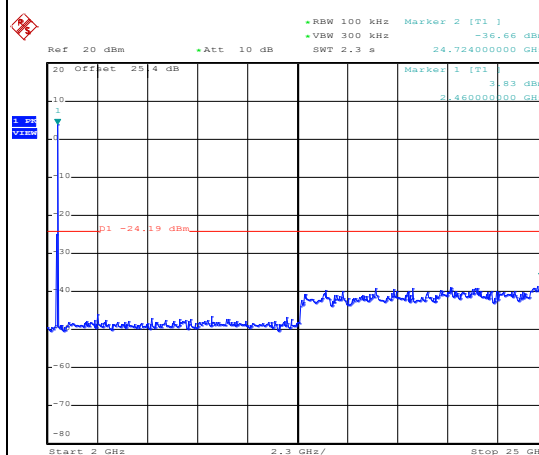
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Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 06:06:34

Spurious Emission 2GHz~25GHz

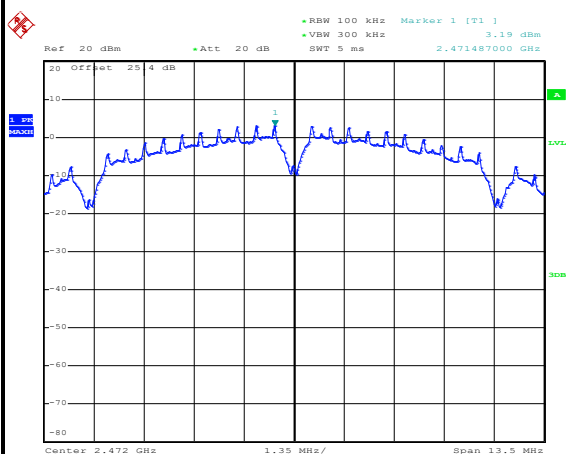


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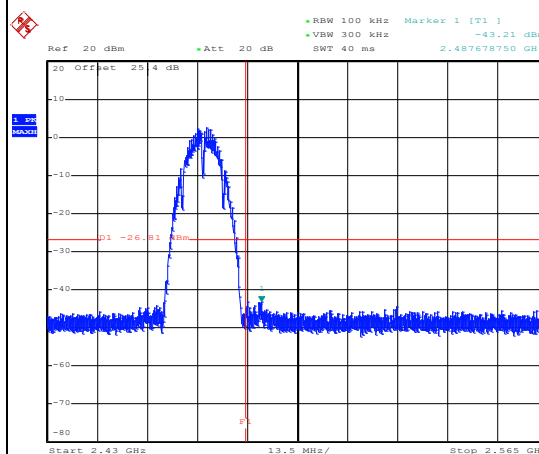
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100kHz PSD reference Level



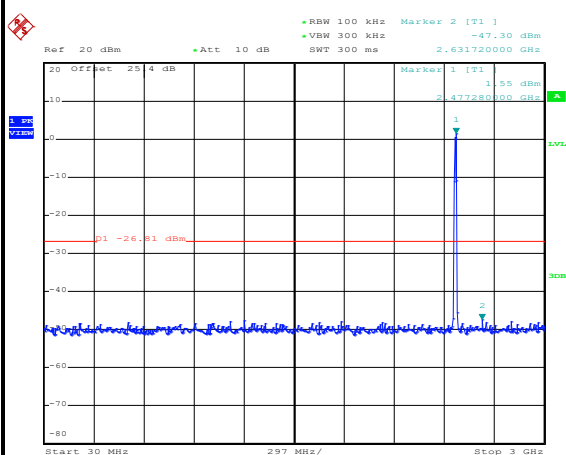
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High Channel Plot



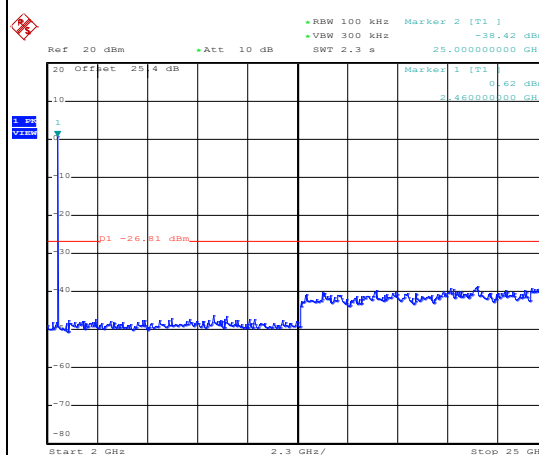
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Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 06:16:03

Spurious Emission 2GHz~25GHz

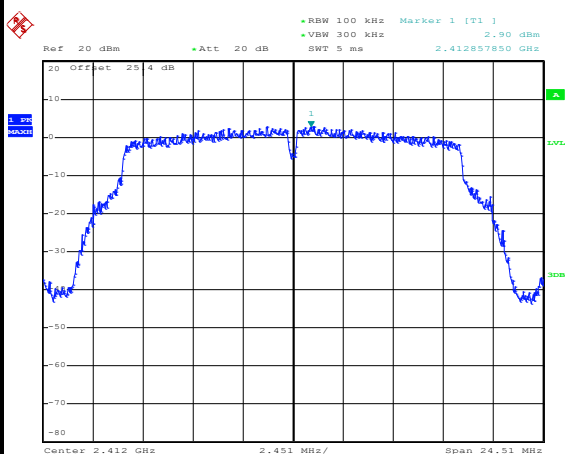


Date: 18.JUN.2020 06:16:19



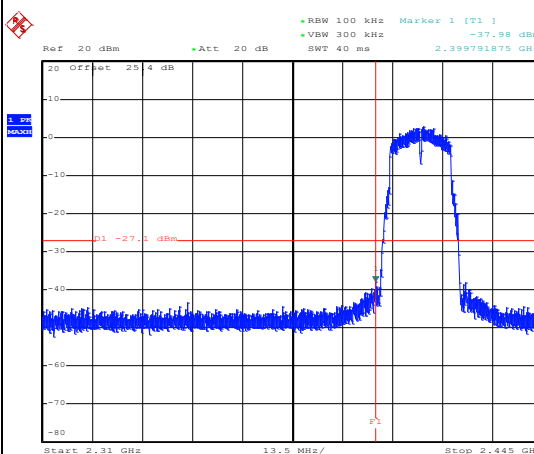
Test Mode :	802.11g	Test Channel :	01
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100kHz PSD reference Level



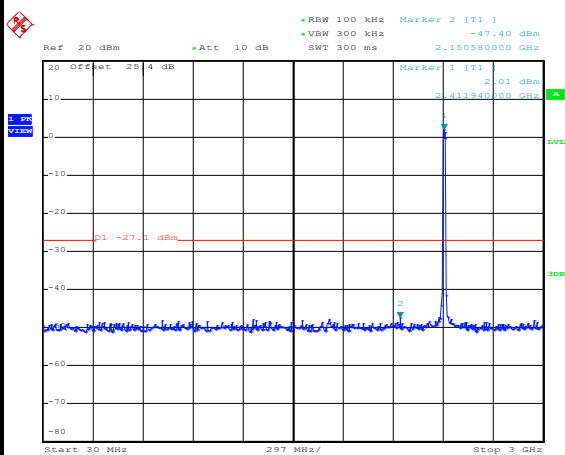
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Low Channel Plot



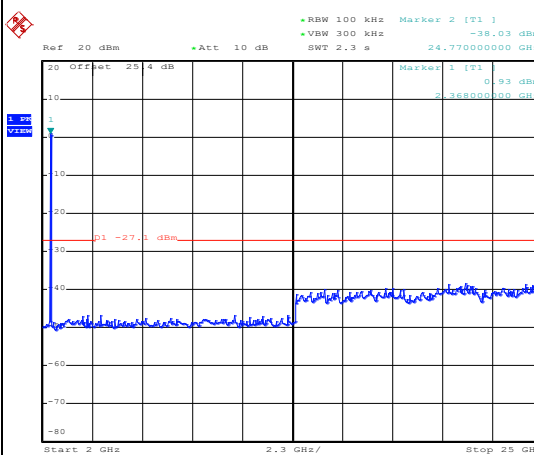
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Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 06:25:16

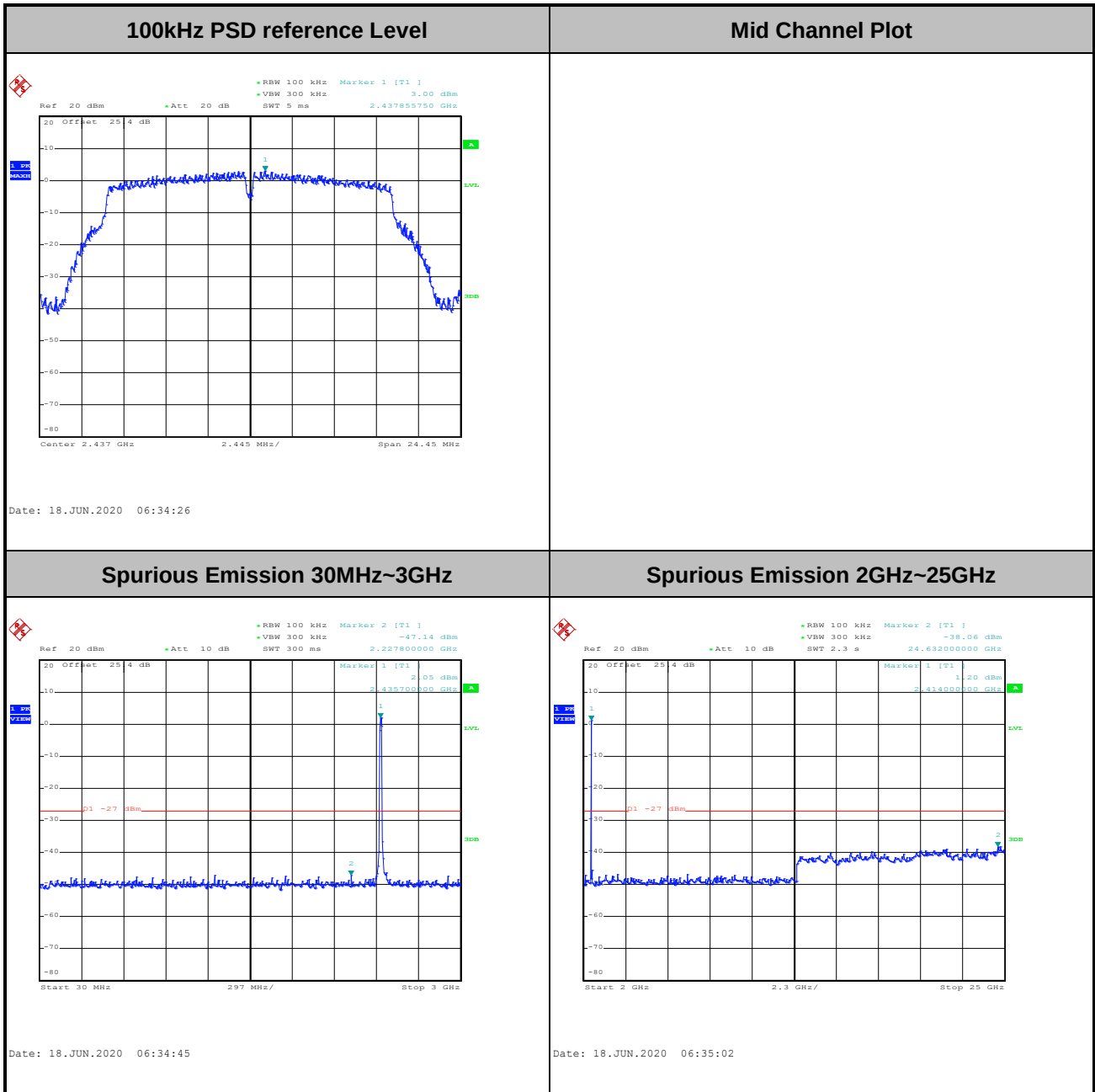
Spurious Emission 2GHz~25GHz



Date: 18.JUN.2020 06:25:32



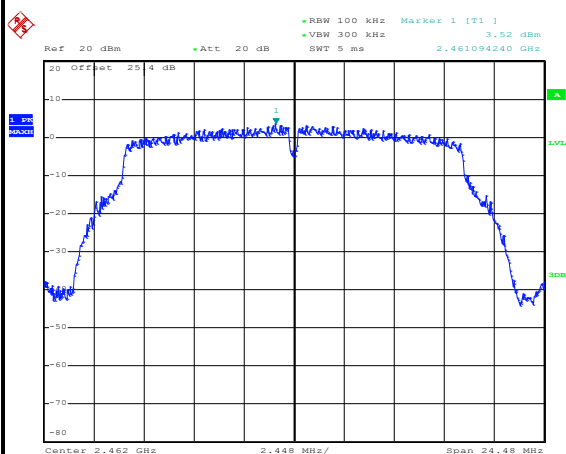
Test Mode :	802.11g	Test Channel :	06
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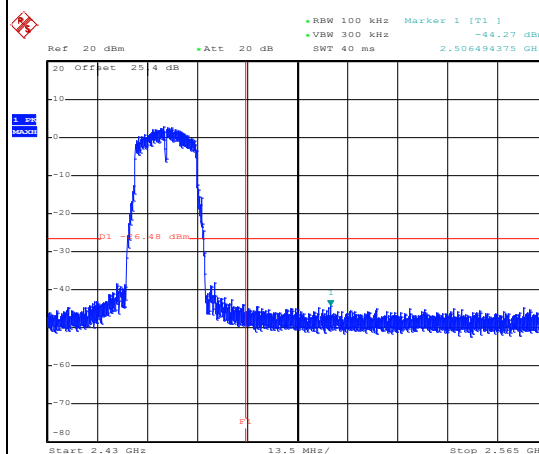
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100kHz PSD reference Level



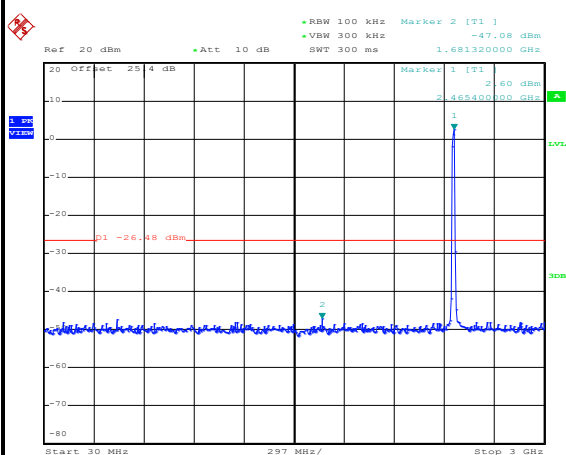
Date: 18.JUN.2020 07:00:00

High Channel Plot



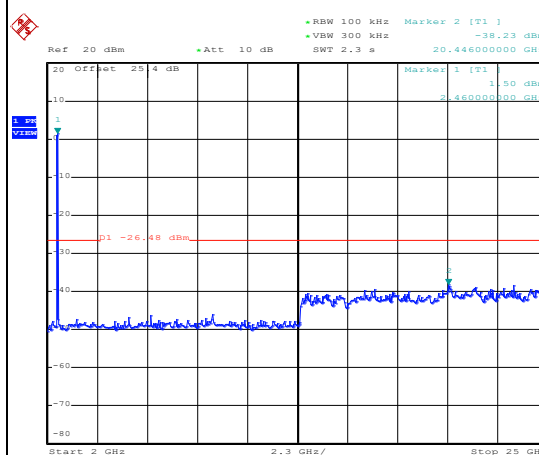
Date: 18.JUN.2020 07:00:32

Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 07:00:49

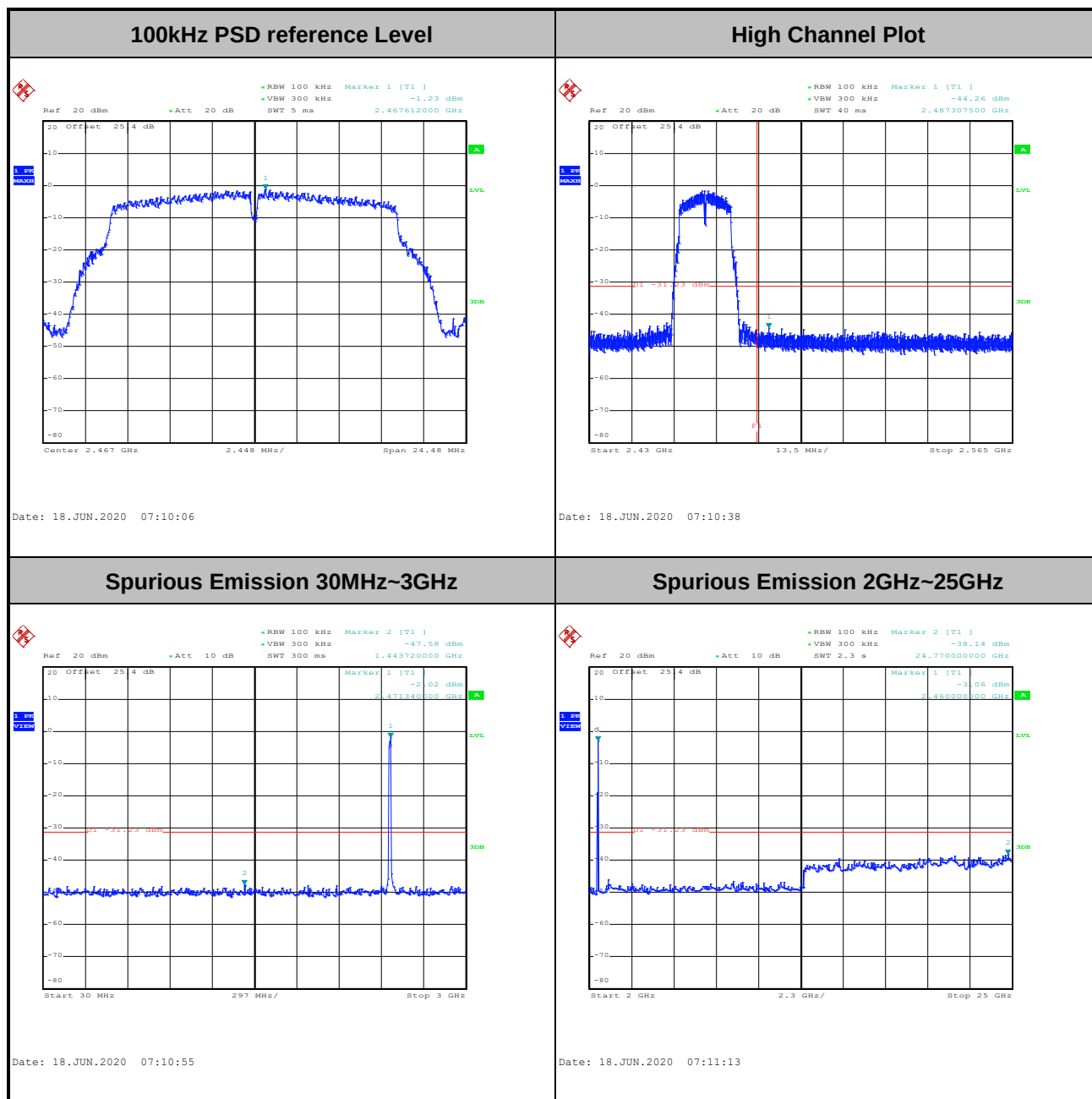
Spurious Emission 2GHz~25GHz



Date: 18.JUN.2020 07:01:07



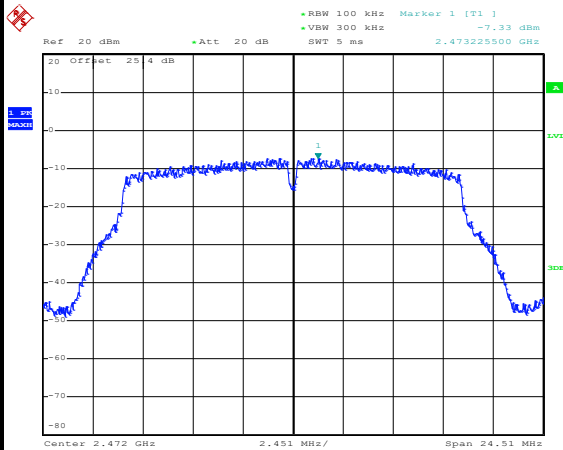
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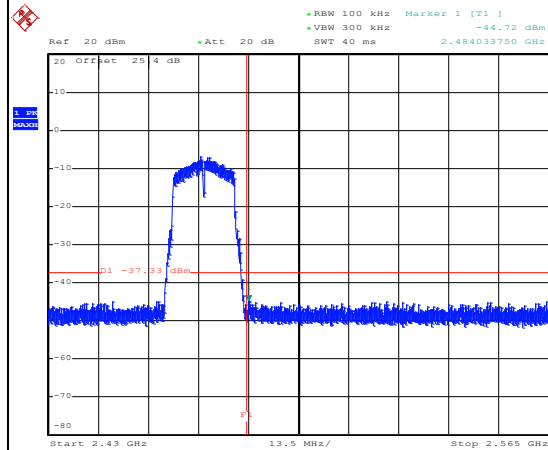
Test Mode :	802.11g	Test Channel :	13
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100kHz PSD reference Level



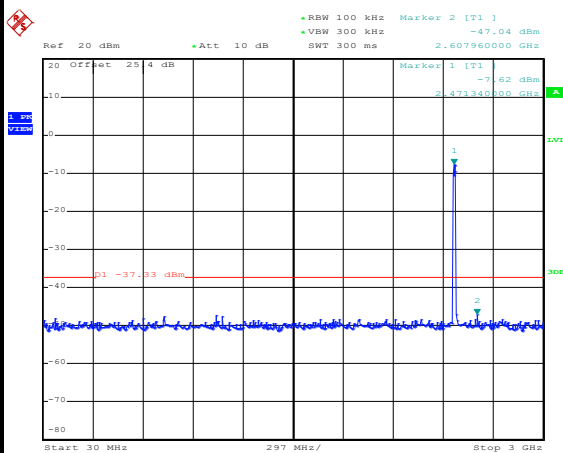
Date: 18.JUN.2020 07:17:17

High Channel Plot



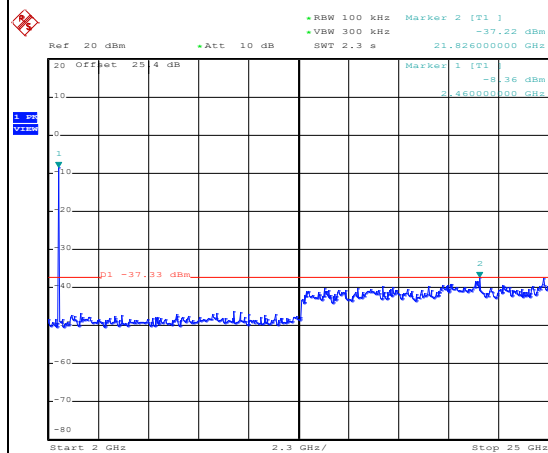
Date: 18.JUN.2020 07:17:44

Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 07:17:59

Spurious Emission 2GHz~25GHz

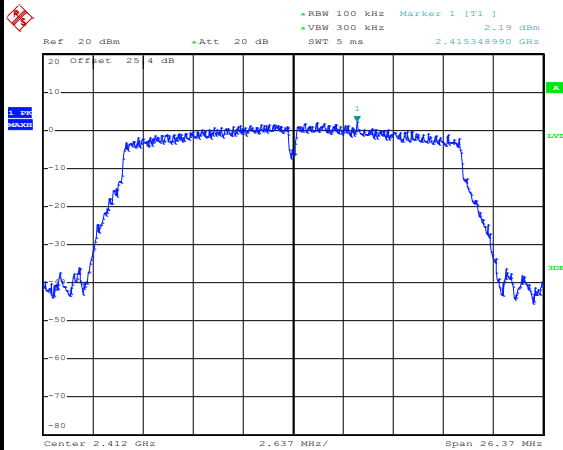


Date: 18.JUN.2020 07:18:34



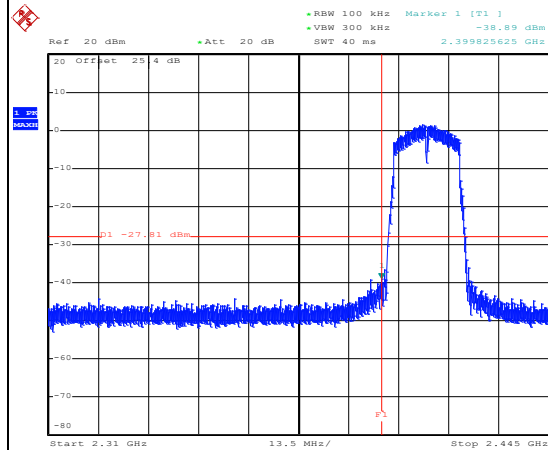
Test Mode :	802.11n HT20	Test Channel :	01
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100kHz PSD reference Level



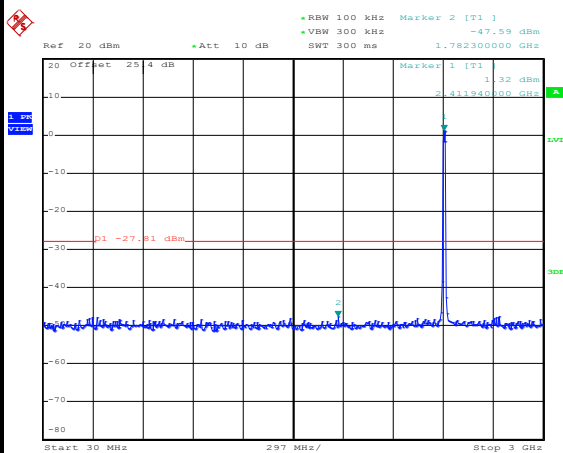
Date: 18.JUN.2020 07:23:55

Low Channel Plot



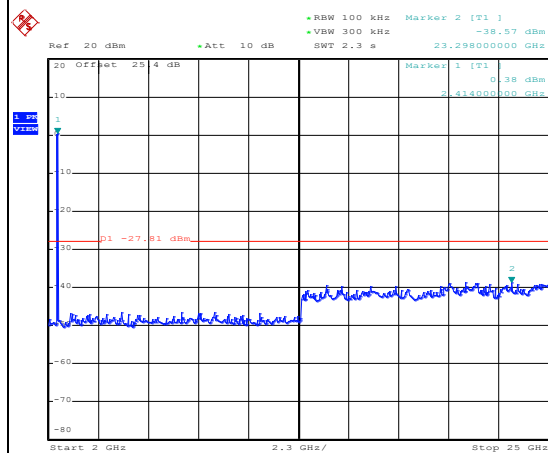
Date: 18.JUN.2020 07:24:17

Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 07:24:33

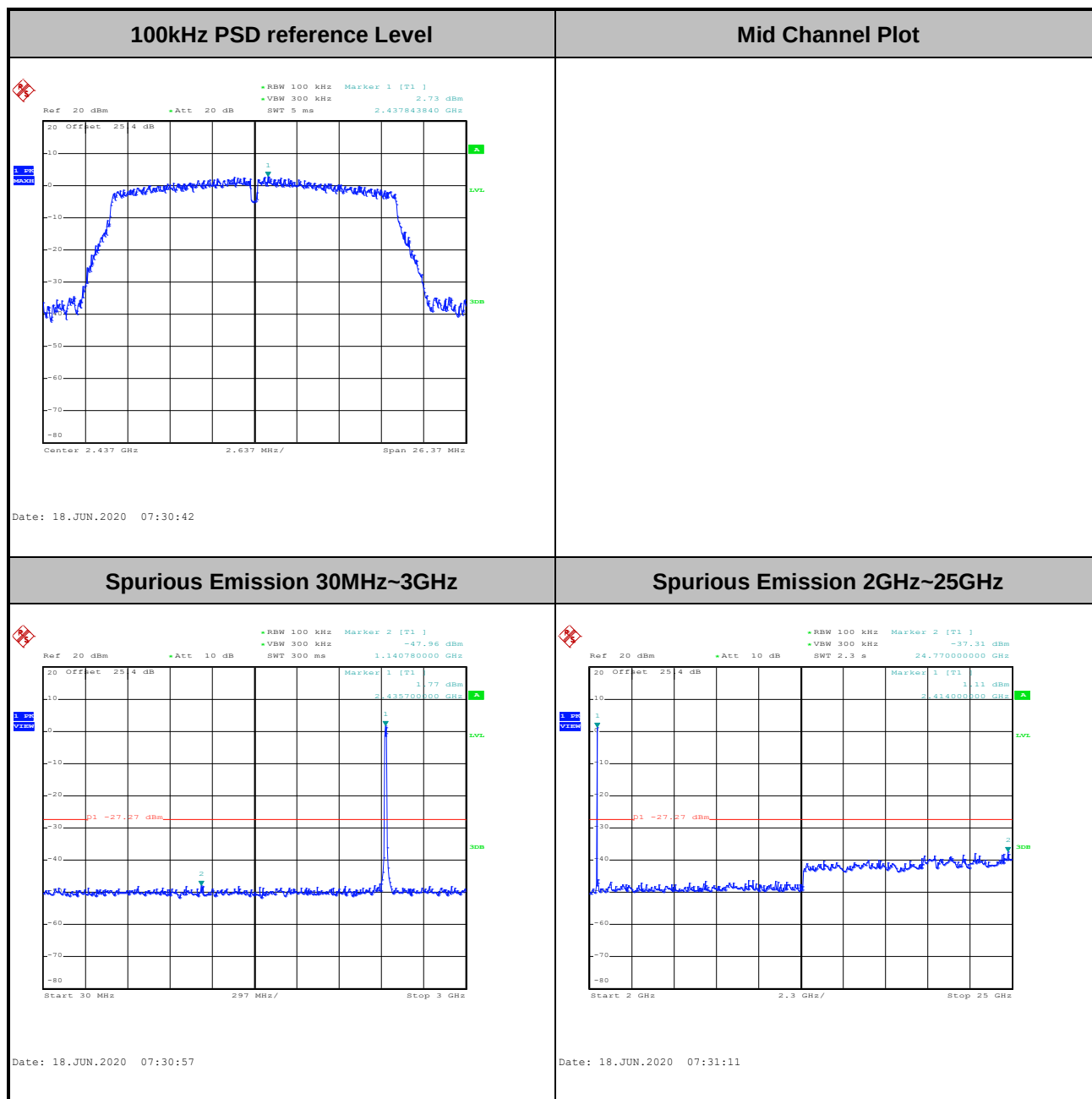
Spurious Emission 2GHz~25GHz



Date: 18.JUN.2020 07:24:47



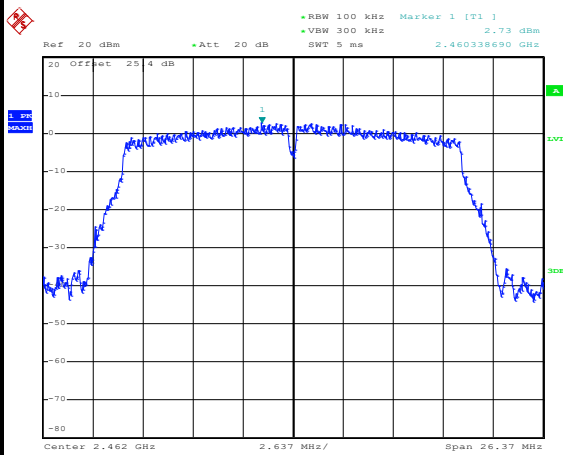
Test Mode :	802.11n HT20	Test Channel :	06
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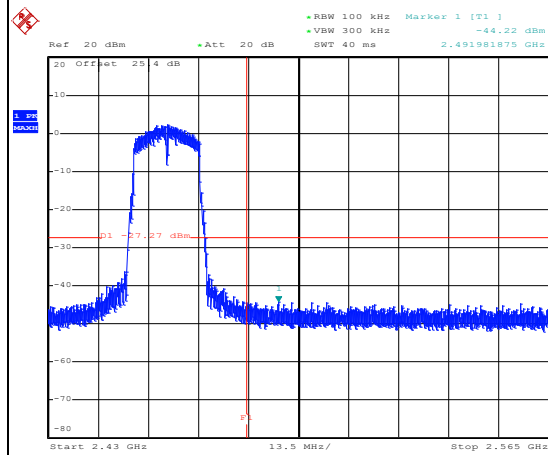
Test Mode :	802.11n HT20	Test Channel :	11
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100kHz PSD reference Level



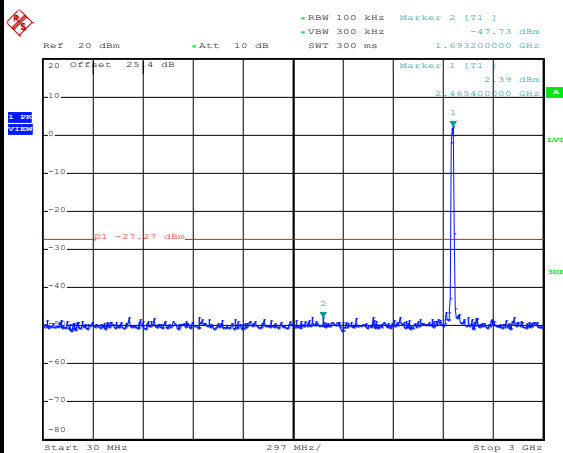
Date: 18.JUN.2020 07:35:33

High Channel Plot



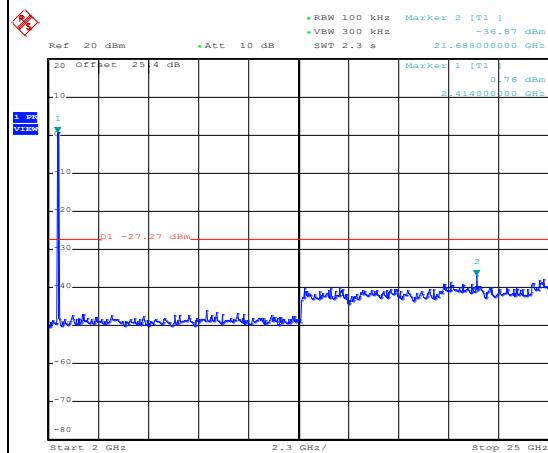
Date: 18.JUN.2020 07:36:19

Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 07:36:40

Spurious Emission 2GHz~25GHz

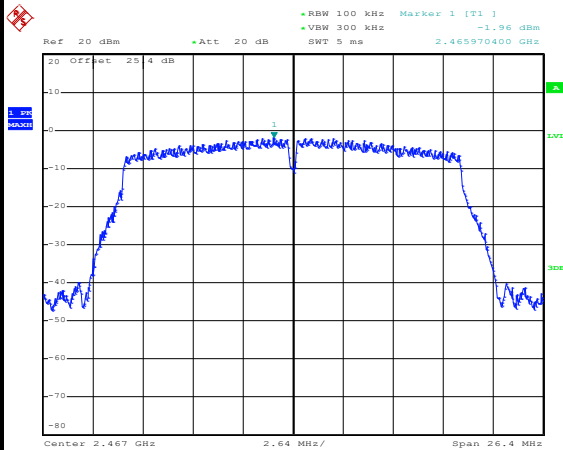


Date: 18.JUN.2020 07:36:56



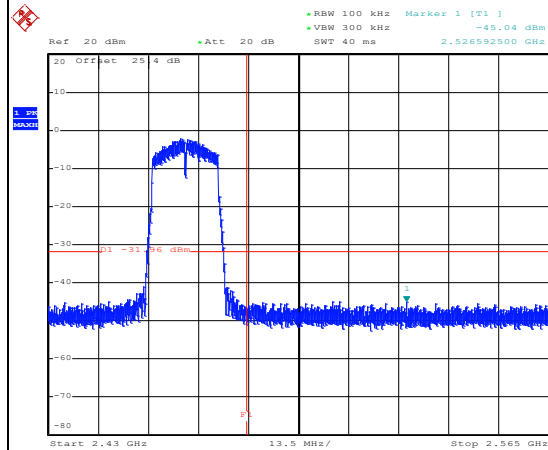
Test Mode :	802.11n HT20	Test Channel :	12
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100kHz PSD reference Level



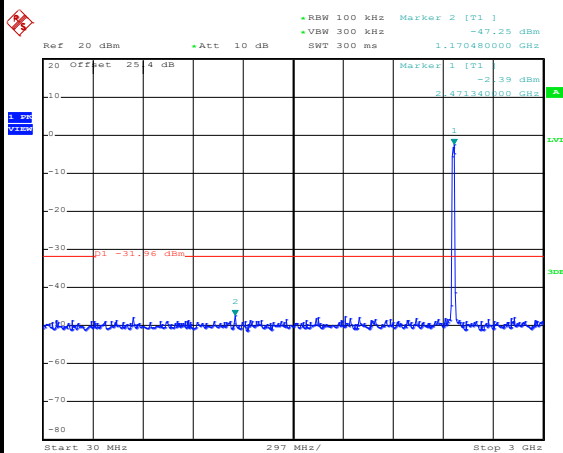
Date: 18.JUN.2020 07:41:41

High Channel Plot



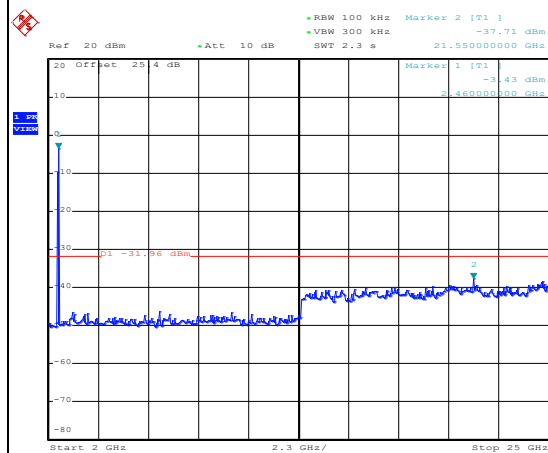
Date: 18.JUN.2020 07:43:30

Spurious Emission 30MHz~3GHz

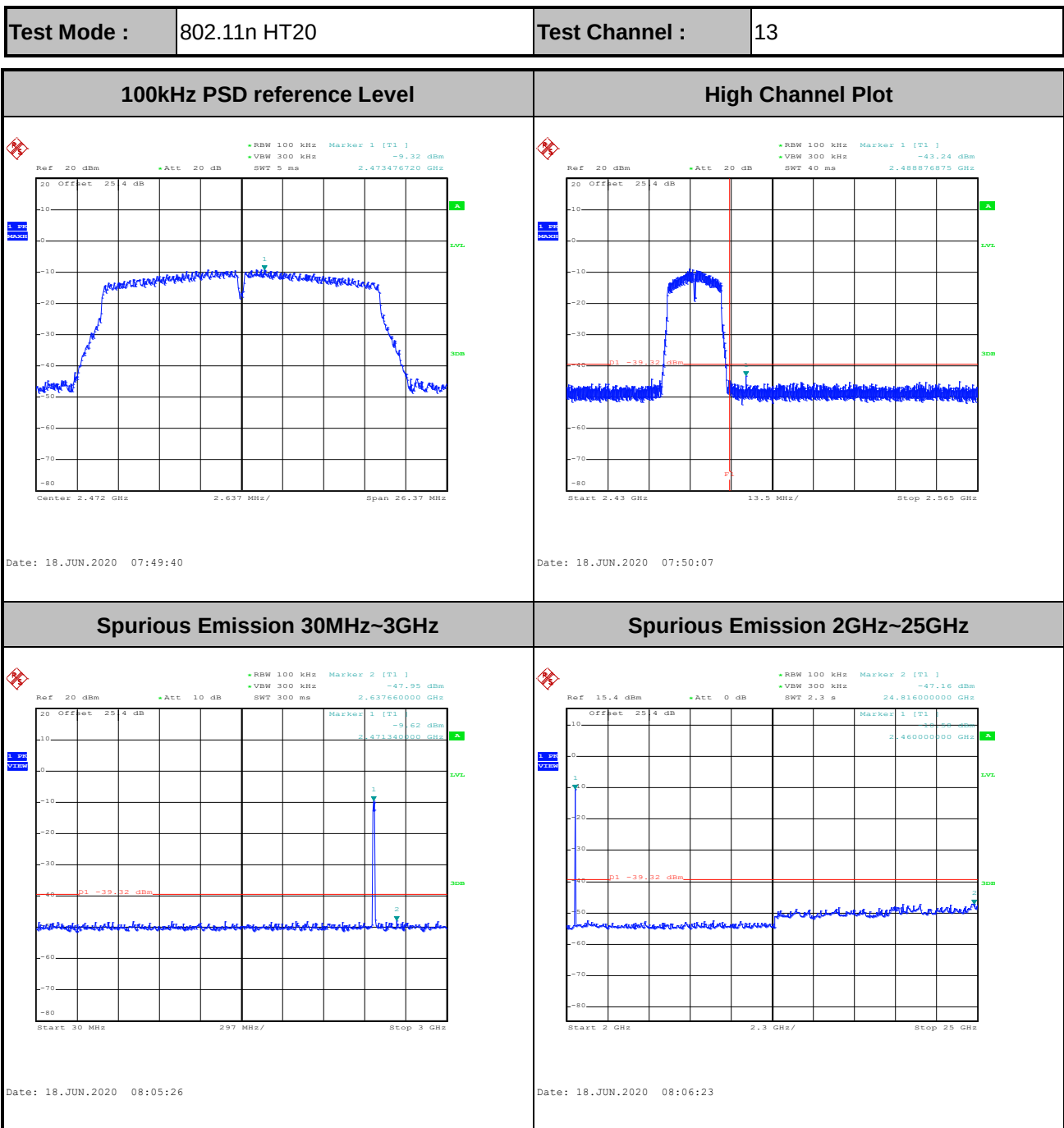


Date: 18.JUN.2020 07:43:47

Spurious Emission 2GHz~25GHz



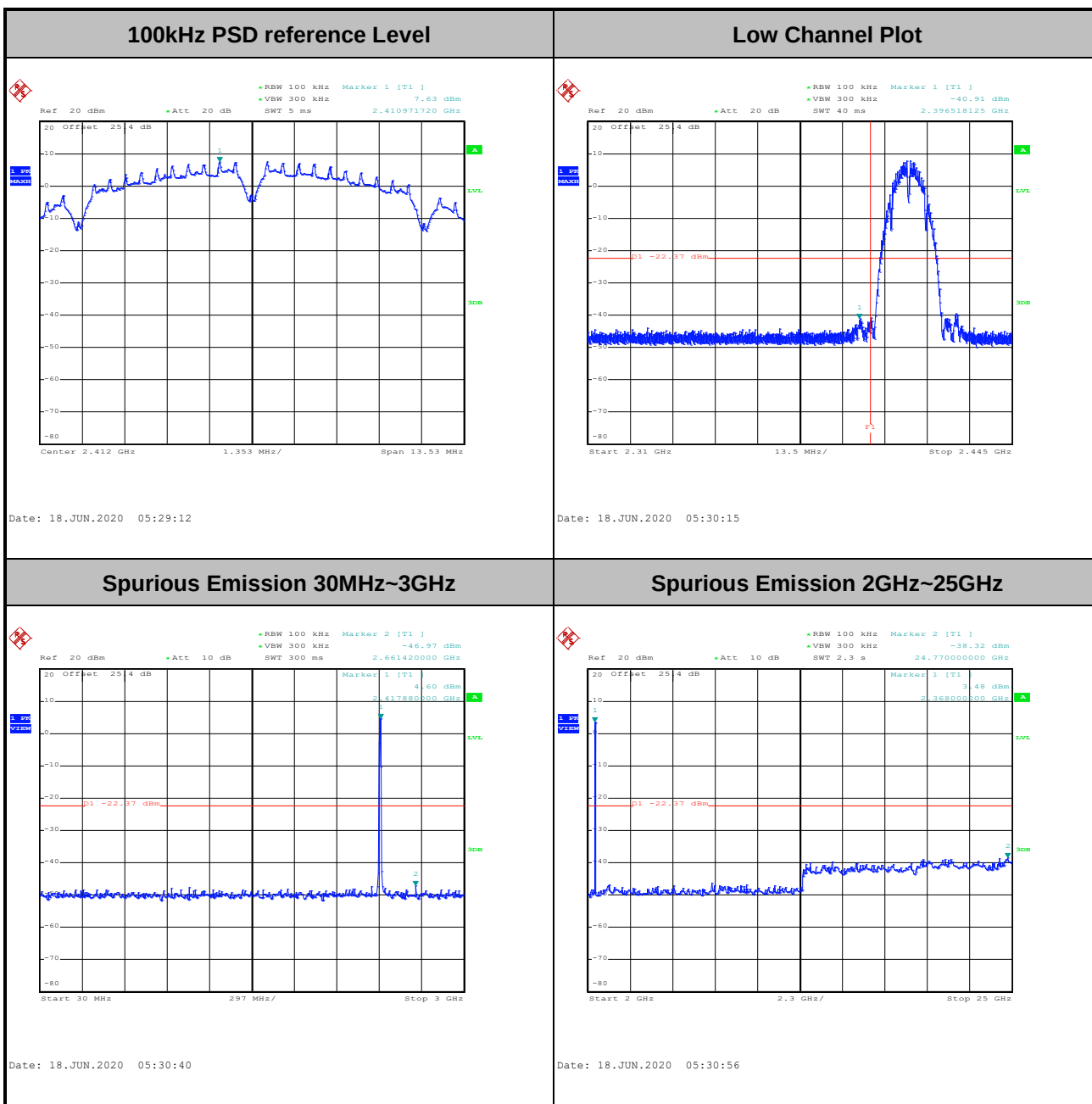
Date: 18.JUN.2020 07:44:02





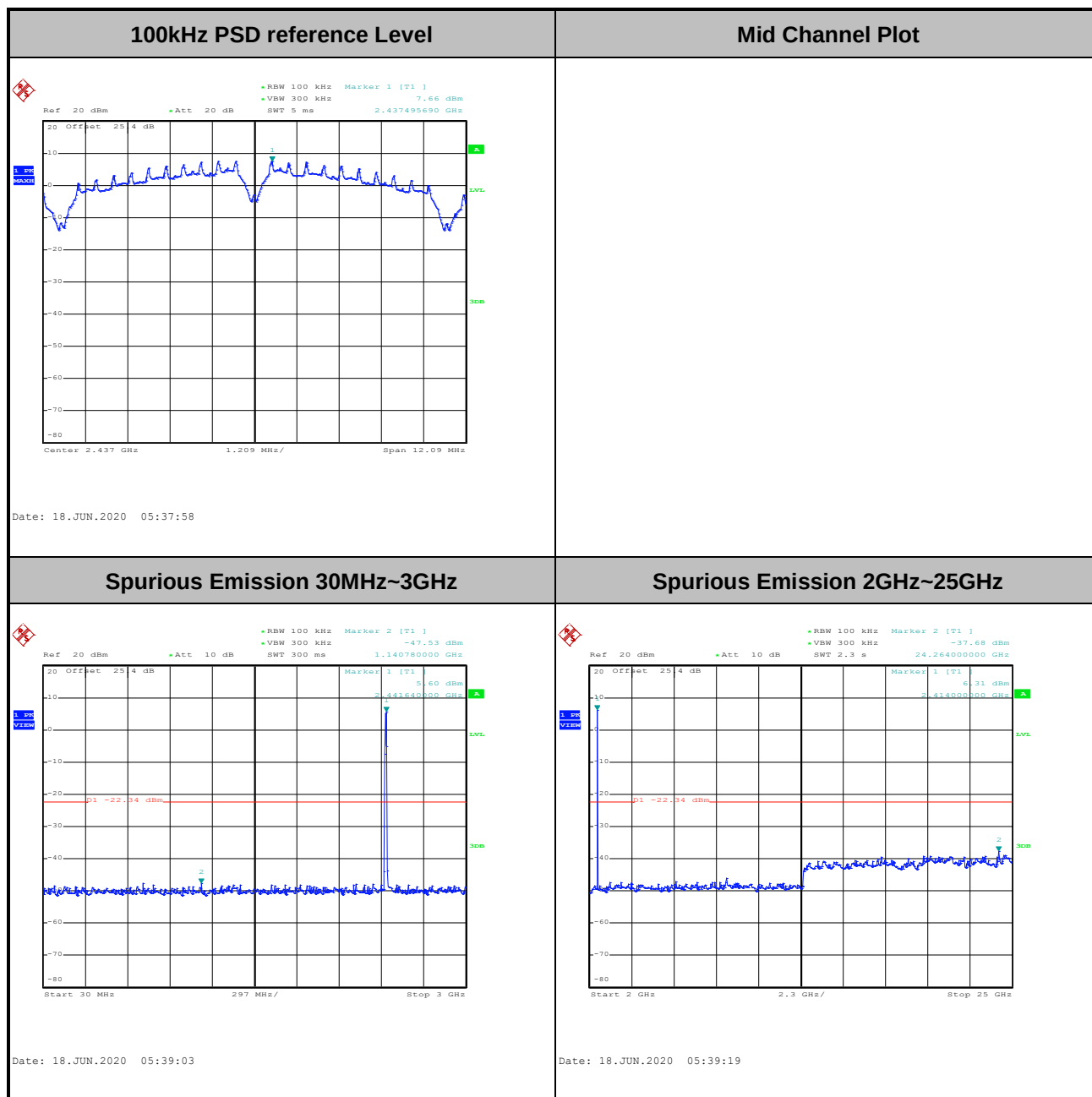
Number of TX = 2, Ant. 2 (Measured)

Test Mode :	802.11b	Test Channel :	01
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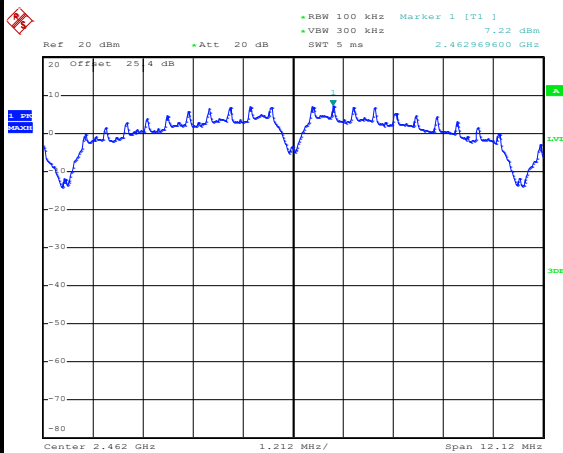
Test Mode :	802.11b	Test Channel :	06
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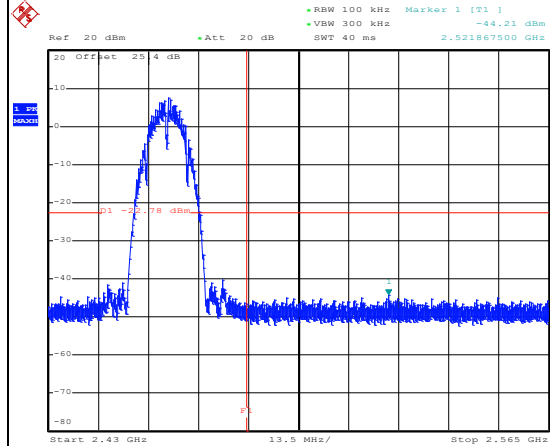
Test Mode :	802.11b	Test Channel :	11
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100kHz PSD reference Level



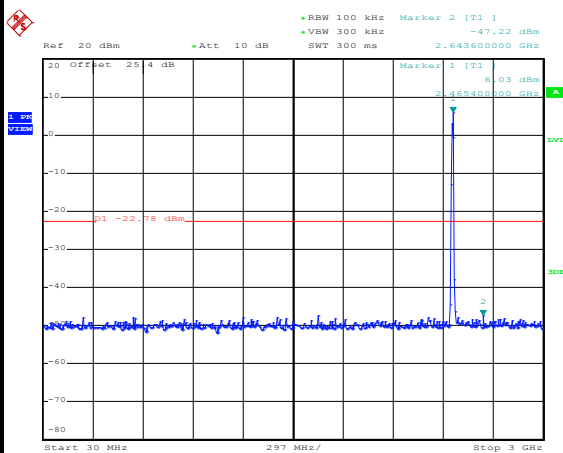
Date: 18.JUN.2020 05:58:33

High Channel Plot



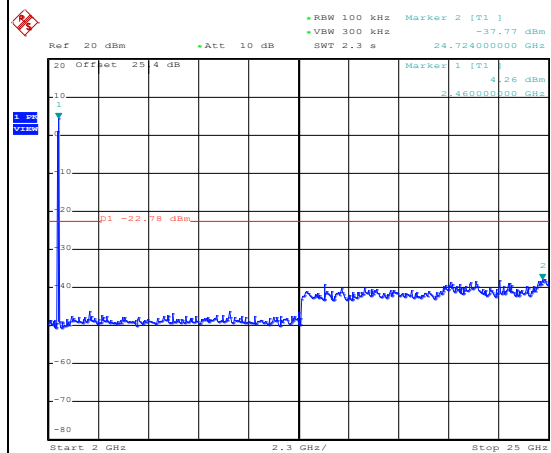
Date: 18.JUN.2020 05:58:58

Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 06:01:09

Spurious Emission 2GHz~25GHz

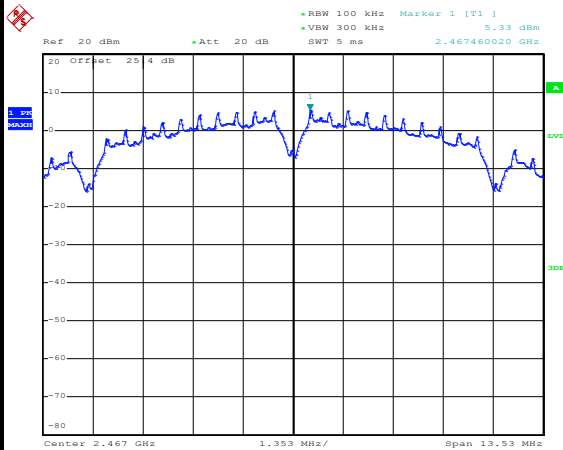


Date: 18.JUN.2020 06:01:23



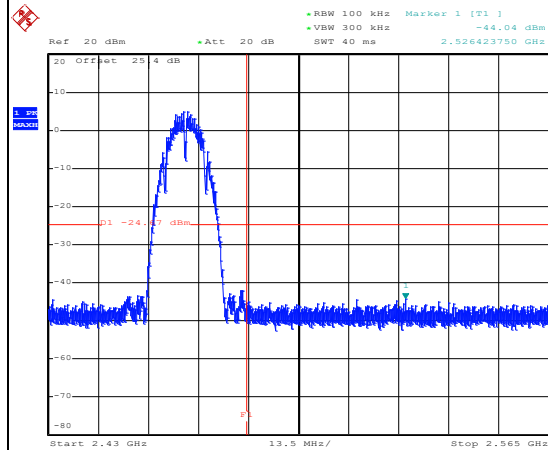
Test Mode :	802.11b	Test Channel :	12
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100kHz PSD reference Level



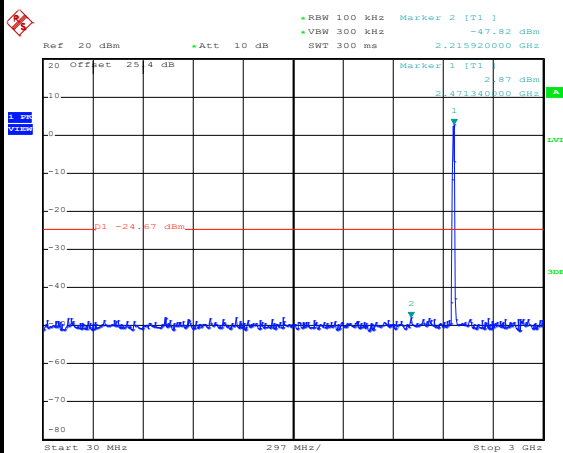
Date: 18.JUN.2020 06:08:37

High Channel Plot



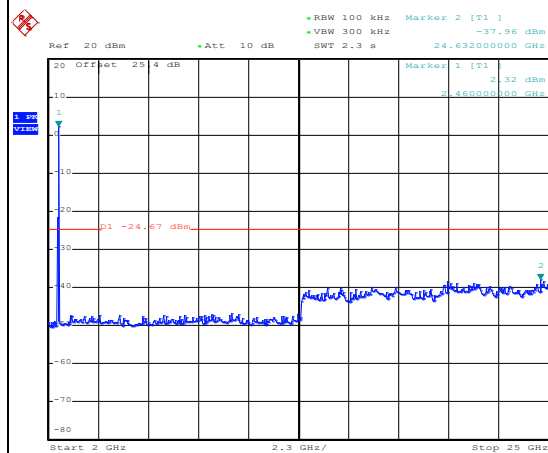
Date: 18.JUN.2020 06:09:02

Spurious Emission 30MHz~3GHz

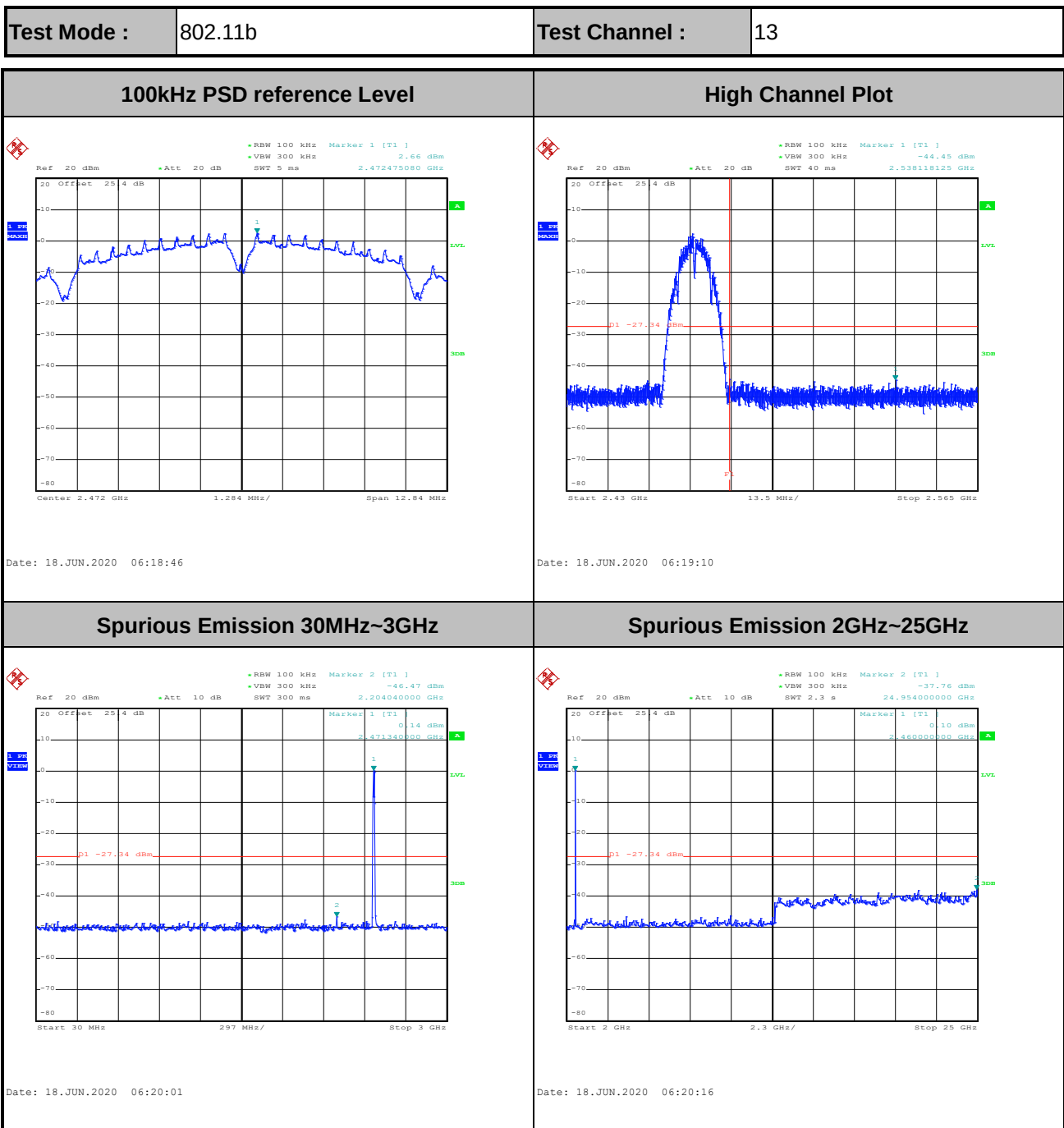


Date: 18.JUN.2020 06:09:32

Spurious Emission 2GHz~25GHz



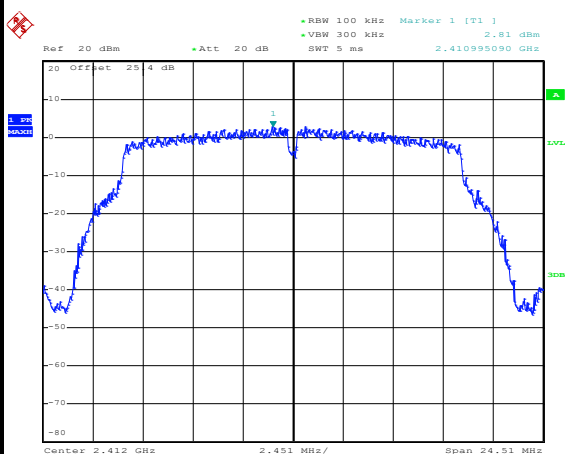
Date: 18.JUN.2020 06:09:51





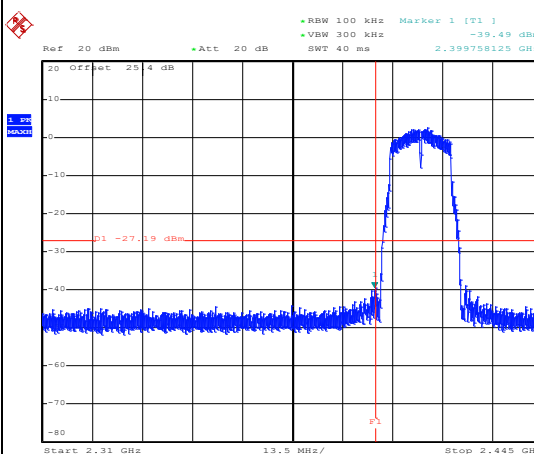
Test Mode :	802.11g	Test Channel :	01
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100kHz PSD reference Level



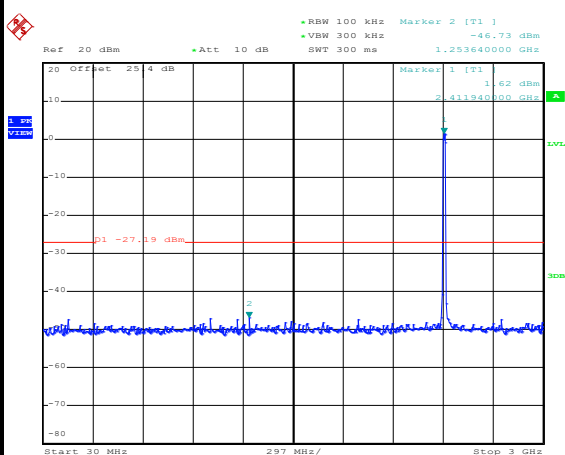
Date: 18.JUN.2020 06:29:03

Low Channel Plot



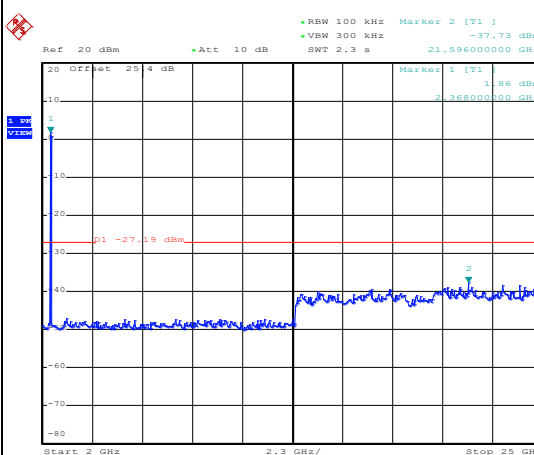
Date: 18.JUN.2020 06:29:55

Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 06:31:06

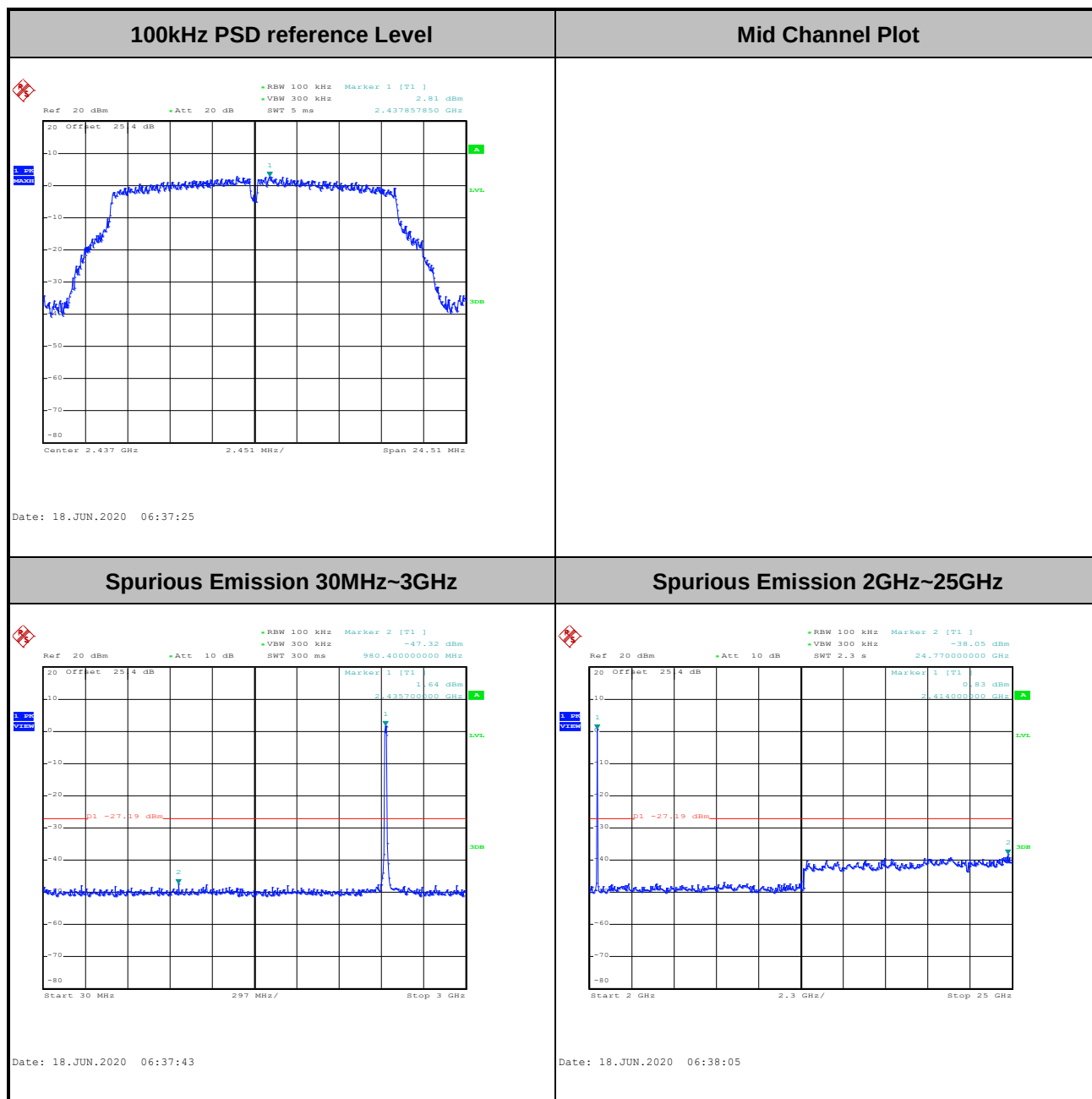
Spurious Emission 2GHz~25GHz



Date: 18.JUN.2020 06:31:26



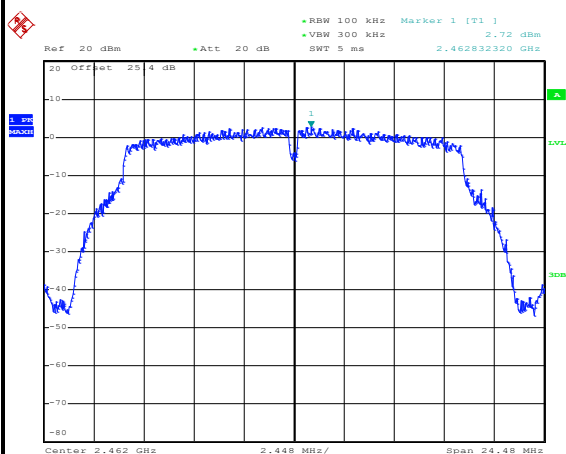
Test Mode :	802.11g	Test Channel :	06
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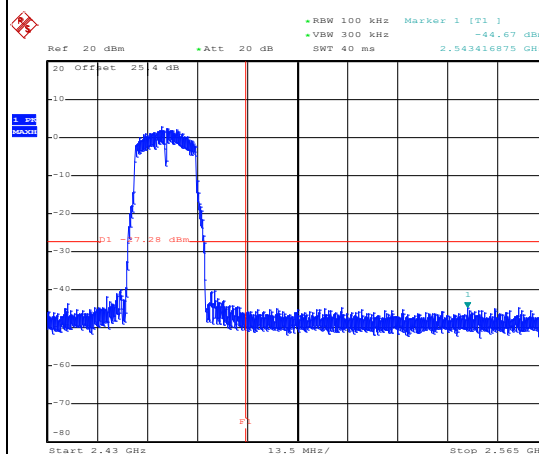
Test Mode :	802.11g	Test Channel :	11
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100kHz PSD reference Level



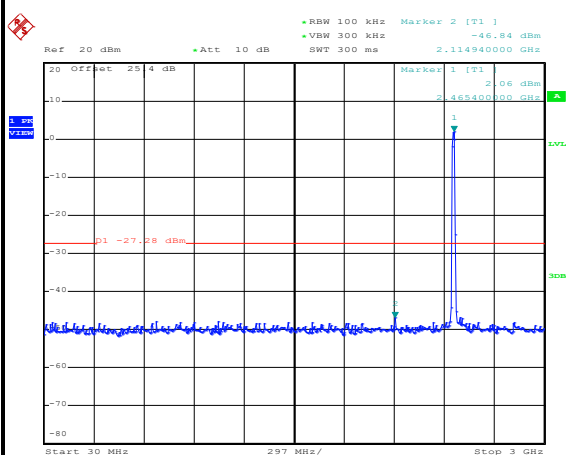
Date: 18.JUN.2020 07:06:04

High Channel Plot



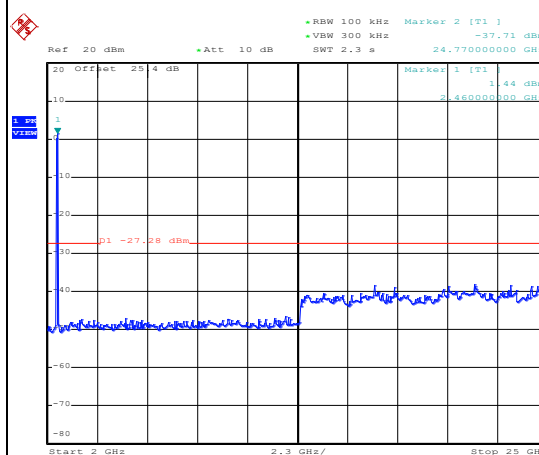
Date: 18.JUN.2020 07:06:43

Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 07:07:19

Spurious Emission 2GHz~25GHz

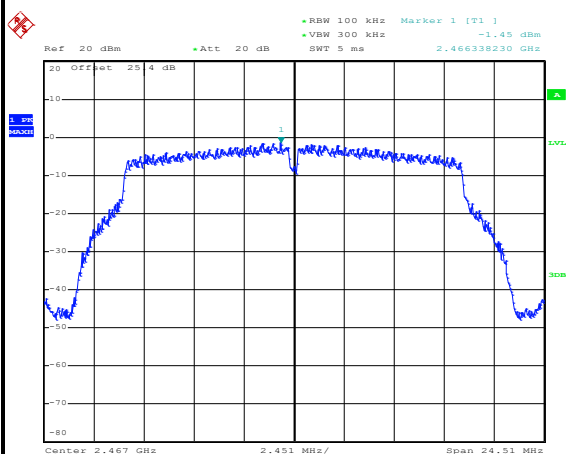


Date: 18.JUN.2020 07:07:34



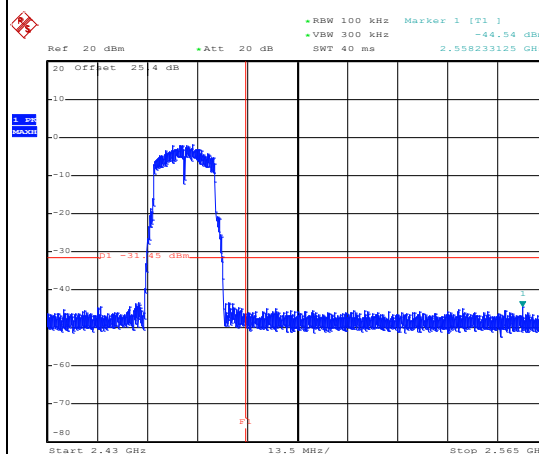
Test Mode :	802.11g	Test Channel :	12
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100kHz PSD reference Level



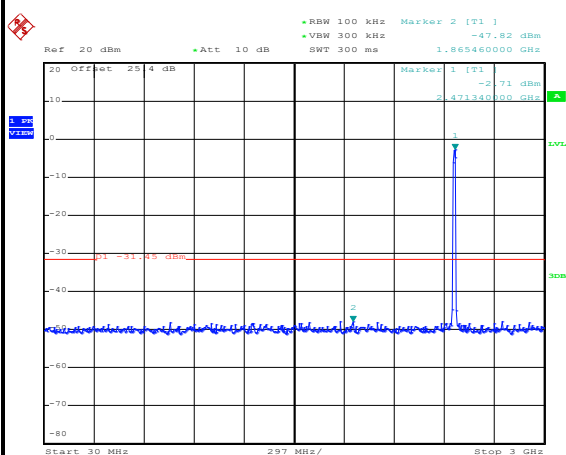
Date: 18.JUN.2020 07:13:31

High Channel Plot



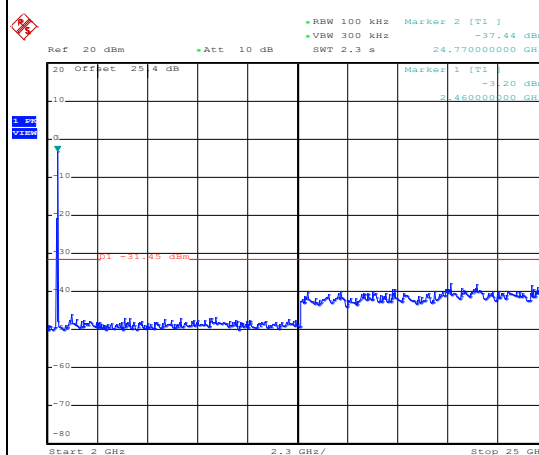
Date: 18.JUN.2020 07:14:05

Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 07:14:25

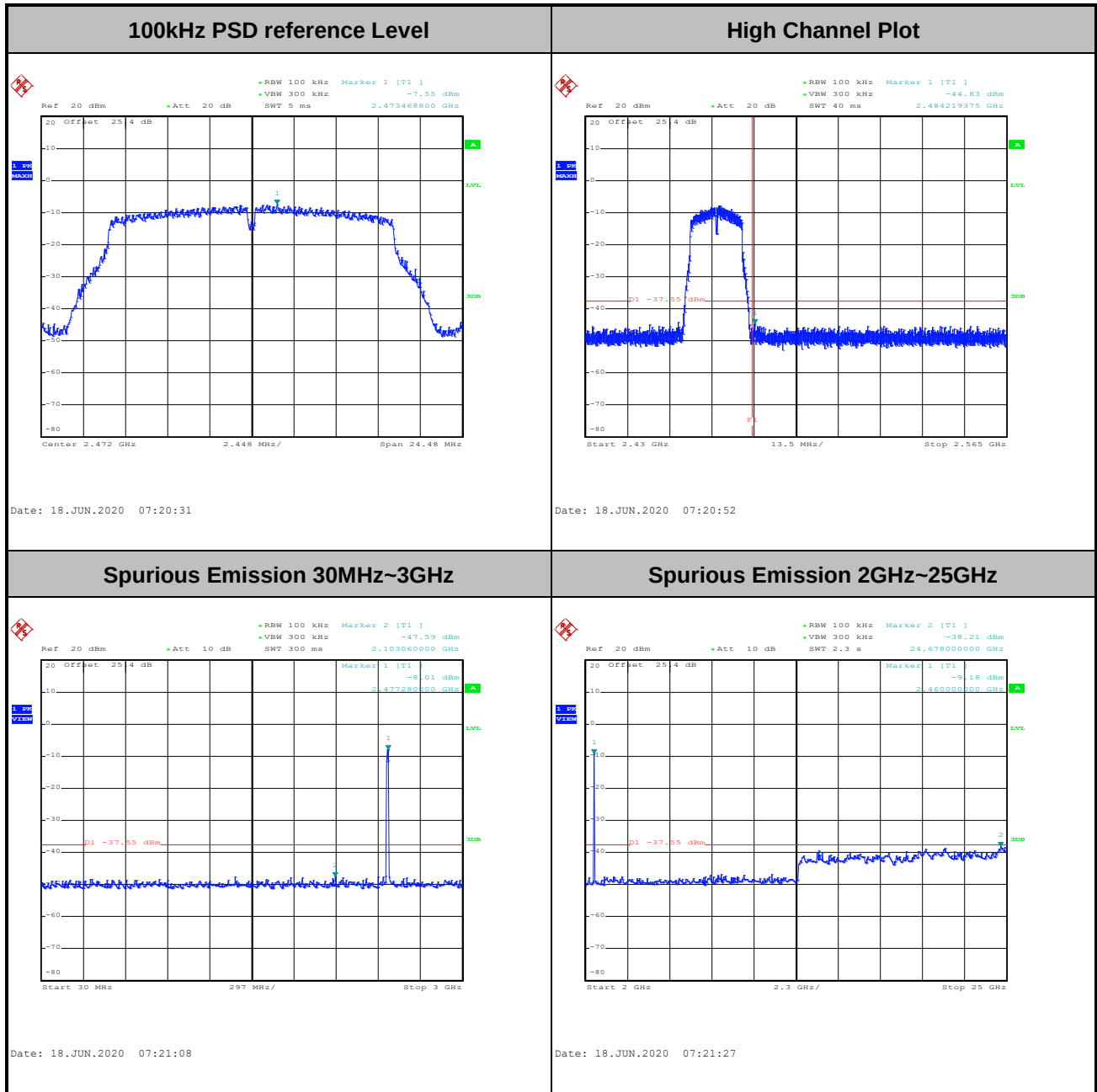
Spurious Emission 2GHz~25GHz



Date: 18.JUN.2020 07:14:41

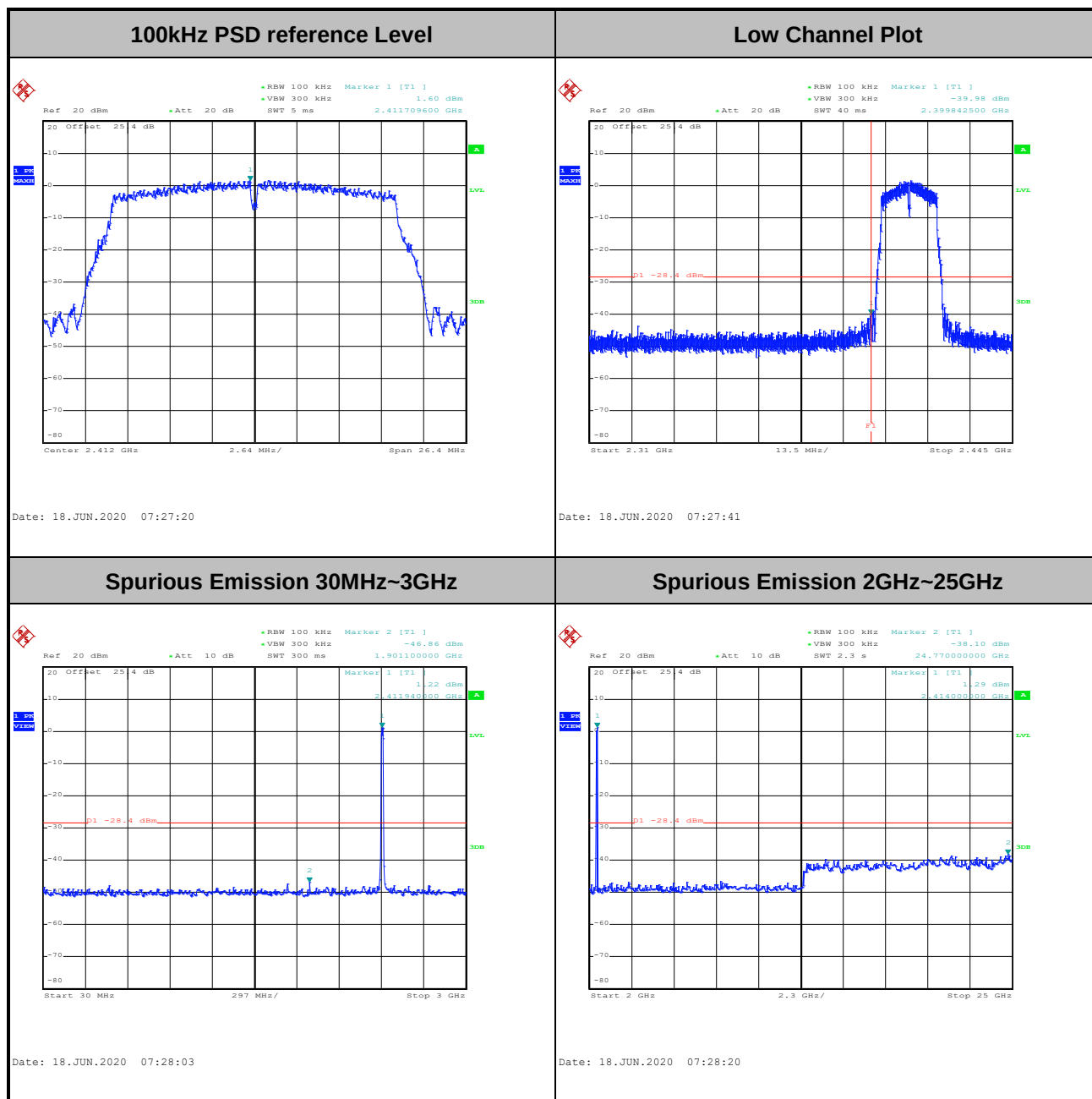


Test Mode :	802.11g	Test Channel :	13
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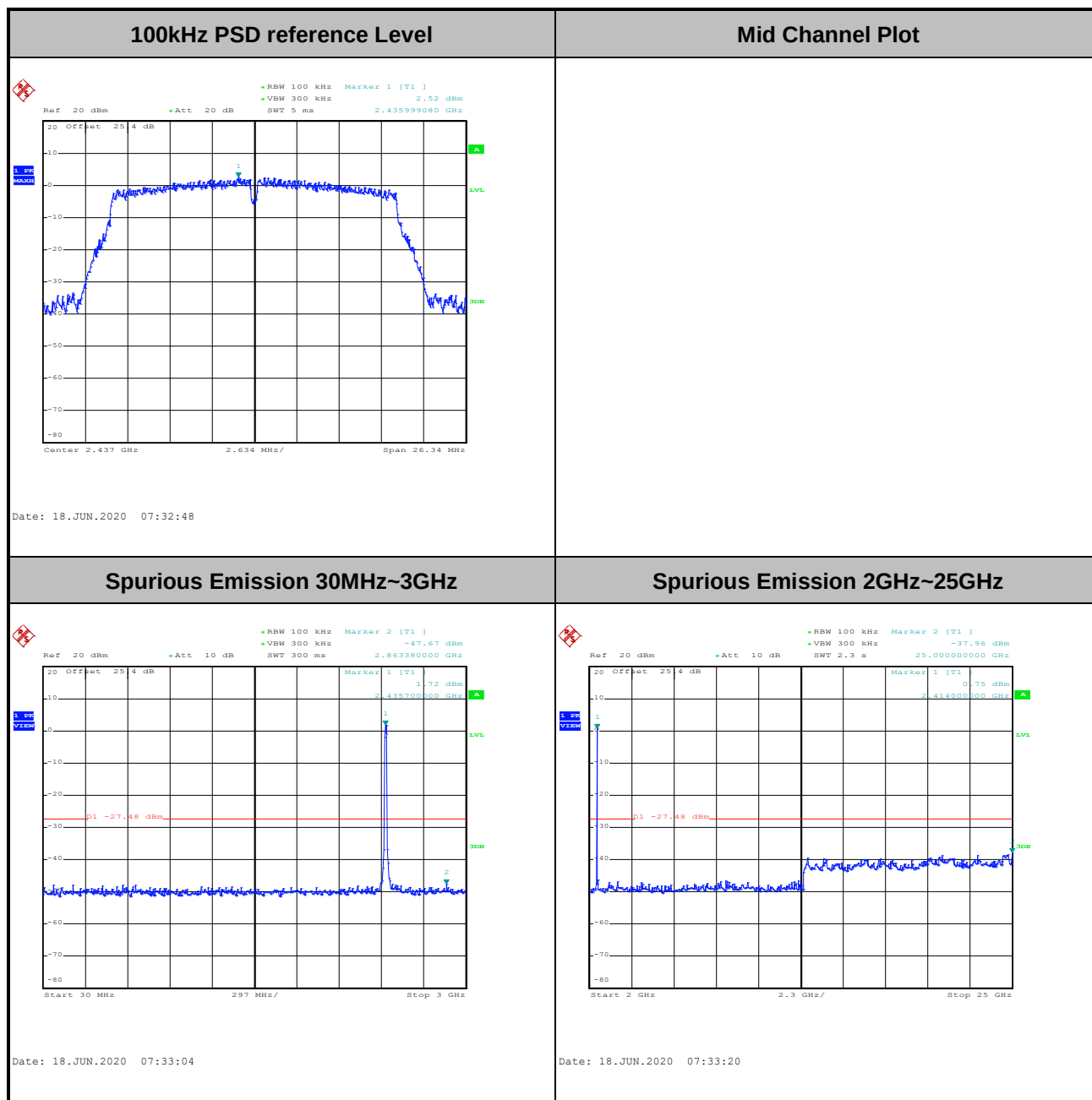


Test Mode :	802.11n HT20	Test Channel :	01
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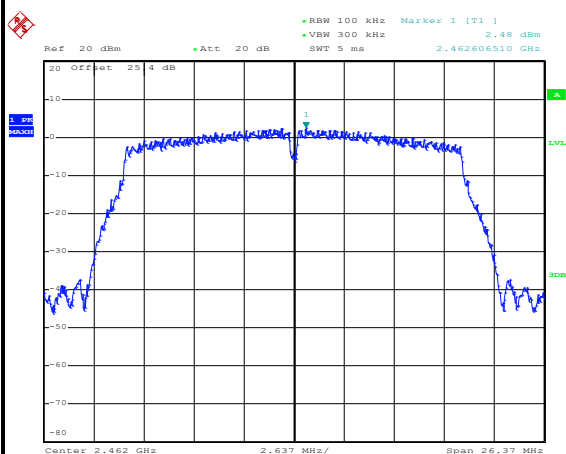
Test Mode :	802.11n HT20	Test Channel :	06
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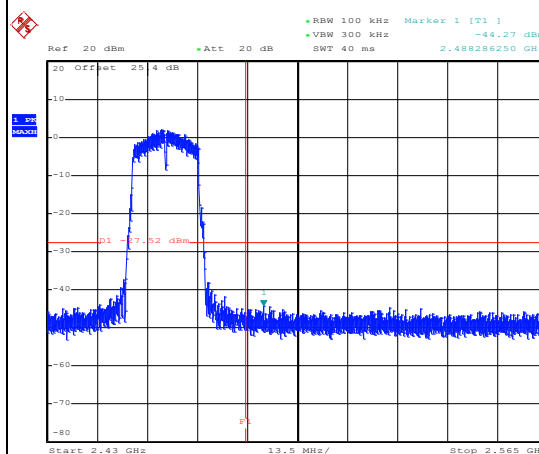
Test Mode :	802.11n HT20	Test Channel :	11
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100kHz PSD reference Level



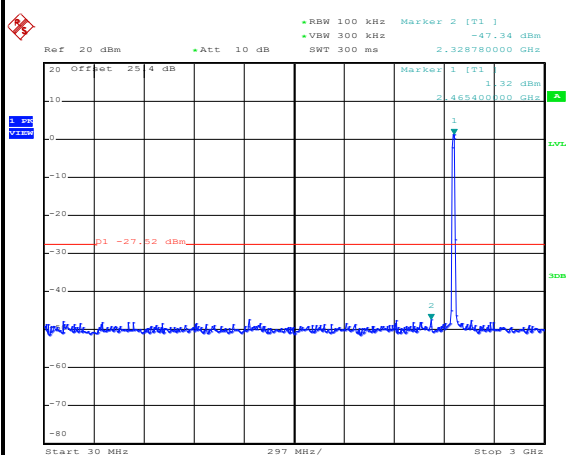
Date: 18.JUN.2020 07:38:25

High Channel Plot



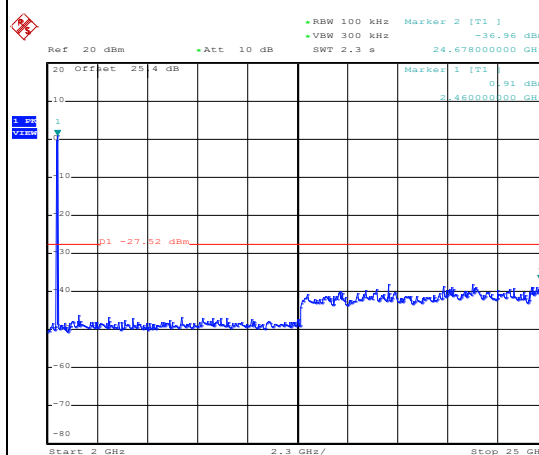
Date: 18.JUN.2020 07:38:48

Spurious Emission 30MHz~3GHz



Date: 18.JUN.2020 07:39:13

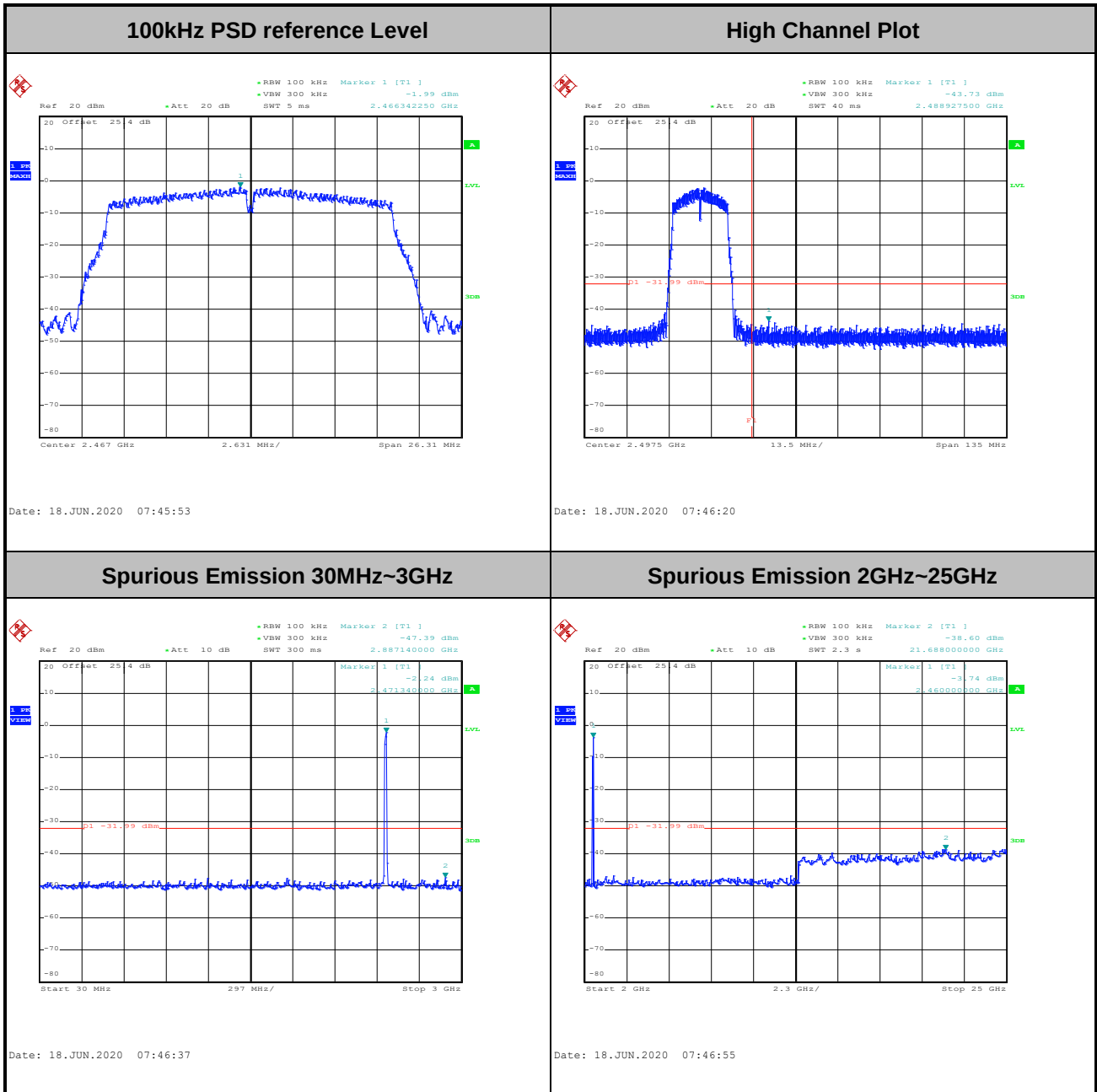
Spurious Emission 2GHz~25GHz



Date: 18.JUN.2020 07:39:29

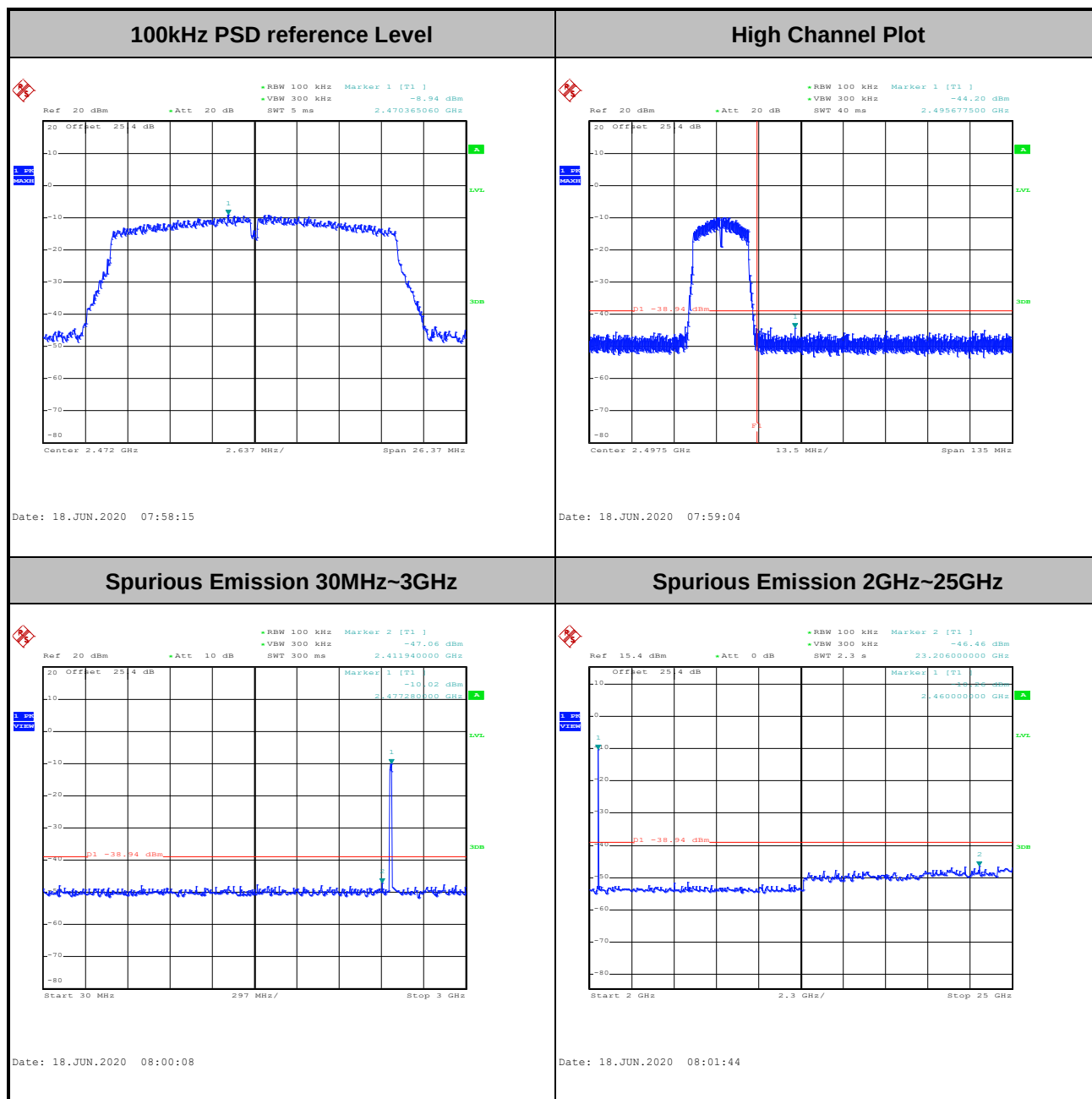


Test Mode :	802.11n HT20	Test Channel :	12
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Test Mode :	802.11n HT20	Test Channel :	13
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3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated 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

3.5.2 Measuring Instruments

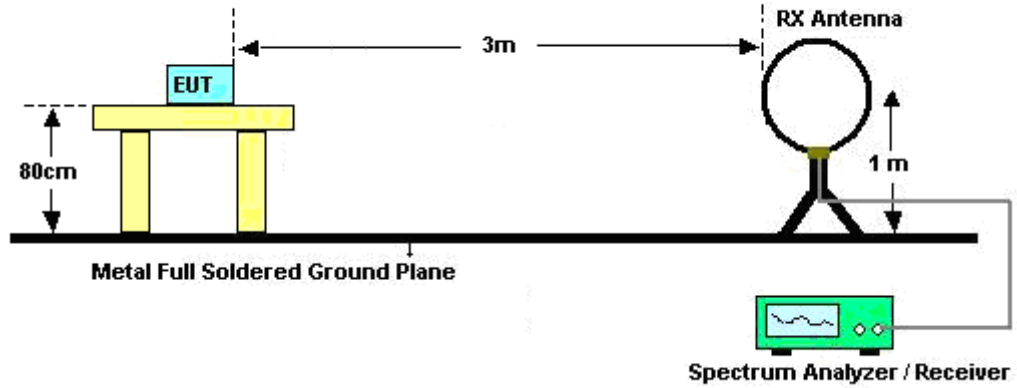
See list of measuring equipment of this test report.

3.5.3 Test Procedures

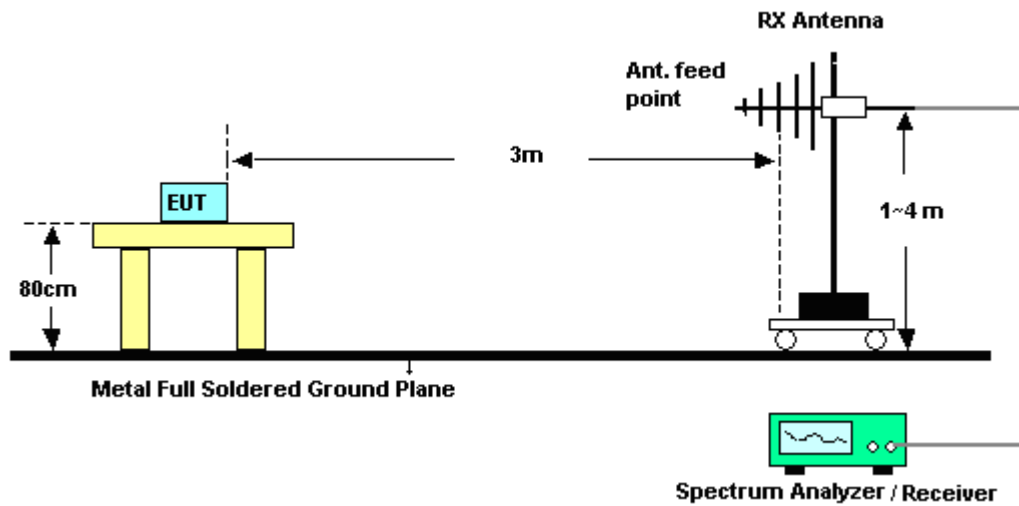
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than 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.
8. 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; $VBW \geq RBW$; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.
For average measurement:
 - $VBW = 10$ Hz, when duty cycle is no less than 98 percent.
 - $VBW \geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.5.4 Test Setup

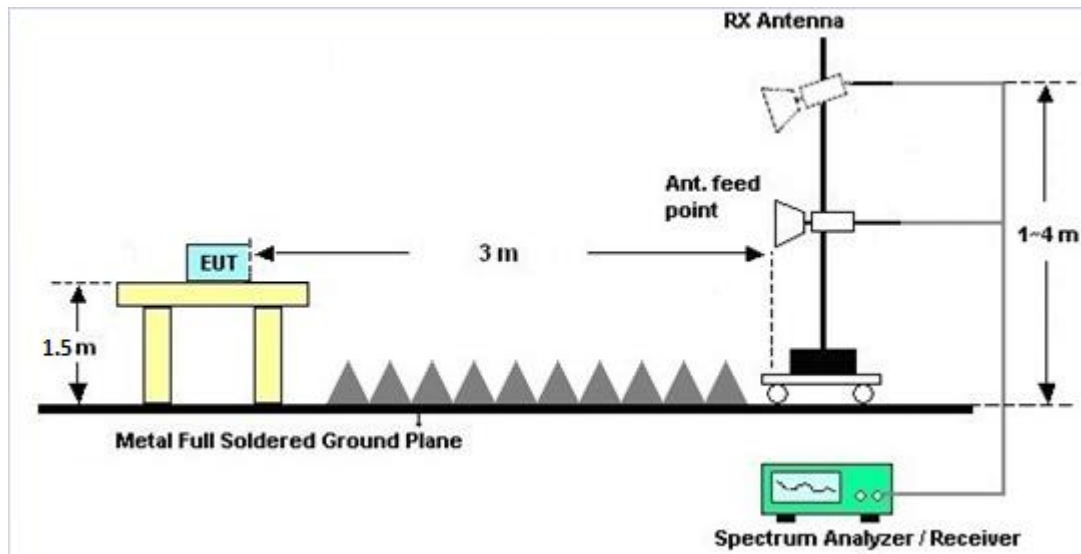
For radiated emissions below 30MHz



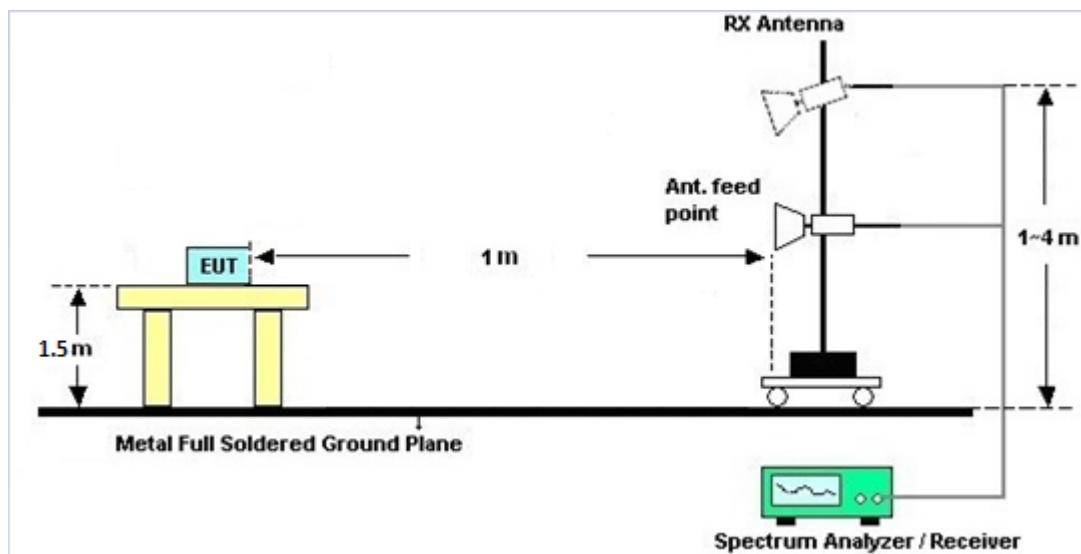
For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



For radiated emissions above 18GHz





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

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

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.5.7 Duty Cycle

Please refer to Appendix E.

3.5.8 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix C and D.

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

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

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

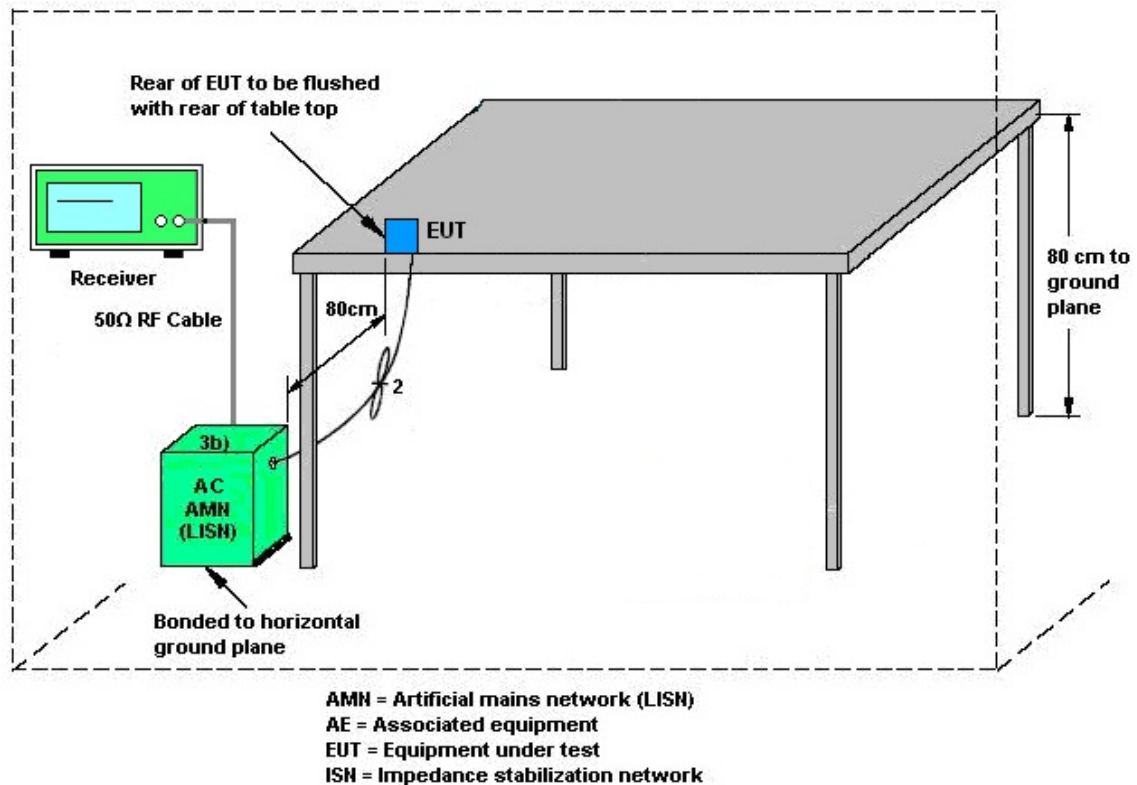
3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF bandwidth = 9kHz) with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.7 Antenna Requirements

3.7.1 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.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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

Array Gain = $10 \log(N_{ANT}/N_{SS}=1)$ dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

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

The EUT supports CDD mode.

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

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

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

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

<CDD Modes>						
			DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
	Ant. 1 (dBi)	Ant. 2 (dBi)				
2.4 GHz	4.89	3.52	4.89	7.24	0.00	1.24

Power Limit Reduction = $DG(\text{Power}) - 6\text{dBi}$, (min = 0)

PSD Limit Reduction = $DG(\text{PSD}) - 6\text{dBi}$, (min = 0)



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jan. 09, 2020	May 21.,2020~ Jun. 18.,2020	Jan. 08, 2021	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL6111D& 00802N1D0 1N-06	47020&06	30MHz to 1GHz	Oct. 12, 2019	May 21.,2020~ Jun. 18.,2020	Oct. 11, 2020	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1522	1G~18GHz	Sep. 19, 2019	May 21.,2020~ Jun. 18.,2020	Sep. 18, 2020	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA917098 0	18GHz~40GHz	Jan.10, 2020	May 21.,2020~ Jun. 18.,2020	Jan. 09, 2021	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1G	Oct. 01, 2019	May 21.,2020~ Jun. 18.,2020	Sep. 30, 2020	Radiation (03CH16-HY)
Preamplifier	Jet-Power	JPA0118-55- 303	1710001800 055006	1GHz~18GHz	May 07, 2020	May 21.,2020~ Jun. 18.,2020	May 06, 2021	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~40GHz	Dec. 13, 2019	May 21.,2020~ Jun. 18.,2020	Dec. 12, 2020	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 11, 2019	May 21.,2020~ Jun. 18.,2020	Dec. 10, 2020	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A (MXE)	MY57290111	3Hz~26.5GHz	Dec. 05, 2019	May 21.,2020~ Jun. 18.,2020	Dec. 04, 2020	Radiation (03CH16-HY)
Spectrum Analyzer	Agilent	E4446A	MY50180136	3Hz~44GHz	May 04, 2020	May 21.,2020~ Jun. 18.,2020	May 03, 2021	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY11680/4P E	NA	Aug. 30, 2019	May 21.,2020~ Jun. 18.,2020	Aug. 29, 2020	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY11688/4P E	NA	Aug. 30, 2019	May 21.,2020~ Jun. 18.,2020	Aug. 29, 2020	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-5 757	NA	Aug. 30, 2019	May 21.,2020~ Jun. 18.,2020	Aug. 29, 2020	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	May 21.,2020~ Jun. 18.,2020	N/A	Radiation (03CH16-HY)
Hygrometer	Testo	HTC-1	2	N/A	Mar. 02, 2020	May 27, 2020~ Jun. 18, 2020	Mar. 01, 2021	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SN O10	10MHz~6GHz	Dec. 23, 2019	May 27, 2020~ Jun. 18, 2020	Dec. 22, 2020	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz-40GHz	Aug. 14, 2019	May 27, 2020~ Jun. 18, 2020	Aug. 13, 2020	Conducted (TH05-HY)
Switch Control Manframe	Burgeon	ETF-058	EC1300484	N/A	Aug. 22, 2019	May 27, 2020~ Jun. 18, 2020	Aug. 21, 2020	Conducted (TH05-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jun. 22, 2020~ Jul. 08, 2020	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 15, 2019	Jun. 22, 2020~ Jul. 08, 2020	Nov. 14, 2020	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 07, 2019	Jun. 22, 2020~ Jul. 08, 2020	Nov. 06, 2020	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 15, 2019	Jun. 22, 2020~ Jul. 08, 2020	Nov. 14, 2020	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jun. 22, 2020~ Jul. 08, 2020	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 02, 2020	Jun. 22, 2020~ Jul. 08, 2020	Jan. 01, 2021	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 02, 2020	Jun. 22, 2020~ Jul. 08, 2020	Jan. 01, 2021	Conduction (CO05-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.3
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.9
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.7
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.9
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Appendix A. Test Result of Conducted Test Items

Test Engineer:	Hank Hsu	Temperature:	21.3~23.7	°C
Test Date:	2020/5/27~2020/6/18	Relative Humidity:	47.2~57.8	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band MIMO										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant1	Ant2	Ant1	Ant2		
11b	1Mbps	2	1	2412	13.50	13.40	8.54	9.02	0.50	Pass
11b	1Mbps	2	6	2437	13.45	13.35	9.04	8.06	0.50	Pass
11b	1Mbps	2	11	2462	13.35	13.35	9.00	8.08	0.50	Pass
11b	1Mbps	2	12	2467	13.40	13.35	9.02	9.02	0.50	Pass
11b	1Mbps	2	13	2472	13.30	13.35	9.00	8.56	0.50	Pass
11g	6Mbps	2	1	2412	16.60	16.65	16.34	16.34	0.50	Pass
11g	6Mbps	2	6	2437	16.65	16.85	16.30	16.34	0.50	Pass
11g	6Mbps	2	11	2462	16.70	16.65	16.32	16.32	0.50	Pass
11g	6Mbps	2	12	2467	16.70	16.70	16.32	16.34	0.50	Pass
11g	6Mbps	2	13	2472	16.60	16.60	16.34	16.32	0.50	Pass
HT20	MCS0	2	1	2412	17.65	17.65	17.58	17.60	0.50	Pass
HT20	MCS0	2	6	2437	17.70	17.70	17.58	17.56	0.50	Pass
HT20	MCS0	2	11	2462	17.70	17.70	17.58	17.58	0.50	Pass
HT20	MCS0	2	12	2467	17.65	17.70	17.60	17.54	0.50	Pass
HT20	MCS0	2	13	2472	17.75	17.70	17.58	17.58	0.50	Pass

TEST RESULTS DATA
Average Output Power

2.4GHz Band MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	2	1	2412	15.90	15.80	18.86	30.00		4.89		23.75		36.00		Pass
11b	1Mbps	2	6	2437	15.90	15.80	18.86	30.00		4.89		23.75		36.00		Pass
11b	1Mbps	2	11	2462	16.10	15.90	19.01	30.00		4.89		23.90		36.00		Pass
11b	1Mbps	2	12	2467	14.20	14.00	17.11	30.00		4.89		22.00		36.00		Pass
11b	1Mbps	2	13	2472	11.40	11.20	14.31	30.00		4.89		19.20		36.00		Pass
11g	6Mbps	2	1	2412	15.90	15.90	18.91	30.00		4.89		23.80		36.00		Pass
11g	6Mbps	2	6	2437	15.80	15.90	18.86	30.00		4.89		23.75		36.00		Pass
11g	6Mbps	2	11	2462	16.20	16.10	19.16	30.00		4.89		24.05		36.00		Pass
11g	6Mbps	2	12	2467	11.50	11.40	14.46	30.00		4.89		19.35		36.00		Pass
11g	6Mbps	2	13	2472	6.20	5.70	8.97	30.00		4.89		13.86		36.00		Pass
HT20	MCS0	2	1	2412	15.30	15.40	18.36	30.00		4.89		23.25		36.00		Pass
HT20	MCS0	2	6	2437	15.60	15.70	18.66	30.00		4.89		23.55		36.00		Pass
HT20	MCS0	2	11	2462	16.00	16.00	19.01	30.00		4.89		23.90		36.00		Pass
HT20	MCS0	2	12	2467	11.50	11.20	14.36	30.00		4.89		19.25		36.00		Pass
HT20	MCS0	2	13	2472	4.20	4.00	7.11	30.00		4.89		12.00		36.00		Pass

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

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band MIMO												
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant1	Ant2	Worse + 3.01	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	2	1	2412	-6.38	-5.55	-2.54	7.24		6.76		Pass
11b	1Mbps	2	6	2437	-5.98	-6.40	-2.97	7.24		6.76		Pass
11b	1Mbps	2	11	2462	-5.98	-7.37	-2.97	7.24		6.76		Pass
11b	1Mbps	2	12	2467	-9.06	-7.59	-4.58	7.24		6.76		Pass
11b	1Mbps	2	13	2472	-11.21	-10.82	-7.81	7.24		6.76		Pass
11g	6Mbps	2	1	2412	-9.13	-8.81	-5.80	7.24		6.76		Pass
11g	6Mbps	2	6	2437	-7.53	-8.87	-4.52	7.24		6.76		Pass
11g	6Mbps	2	11	2462	-9.20	-8.45	-5.44	7.24		6.76		Pass
11g	6Mbps	2	12	2467	-13.06	-13.88	-10.05	7.24		6.76		Pass
11g	6Mbps	2	13	2472	-18.78	-18.24	-15.23	7.24		6.76		Pass
HT20	MCS0	2	1	2412	-8.28	-10.77	-5.27	7.24		6.76		Pass
HT20	MCS0	2	6	2437	-8.72	-7.66	-4.65	7.24		6.76		Pass
HT20	MCS0	2	11	2462	-9.46	-10.04	-6.45	7.24		6.76		Pass
HT20	MCS0	2	12	2467	-13.28	-13.83	-10.27	7.24		6.76		Pass
HT20	MCS0	2	13	2472	-21.01	-20.77	-17.76	7.24		6.76		Pass

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



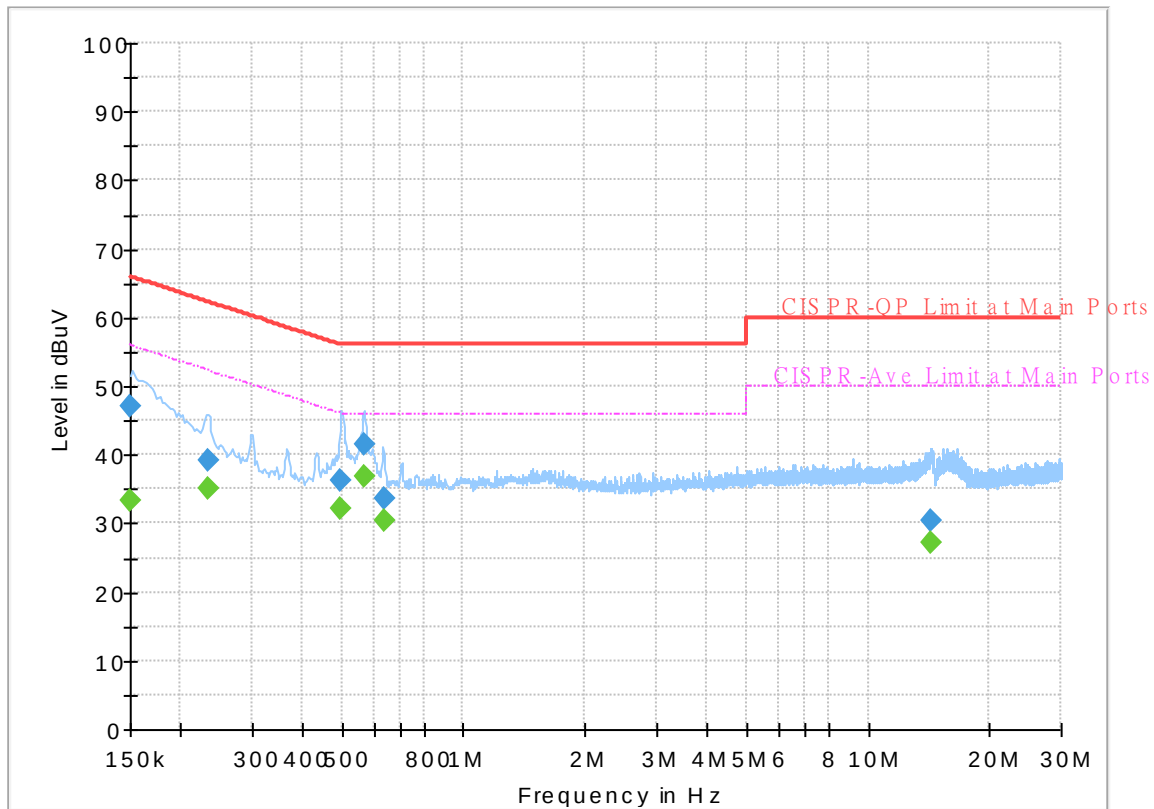
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	Temperature :	23~25℃
		Relative Humidity :	42~50%

EUT Information

Report NO : 020110-01
 Test Mode : Mode 2
 Test Voltage : 120Vac/60Hz
 Phase : Line

Full Spectrum



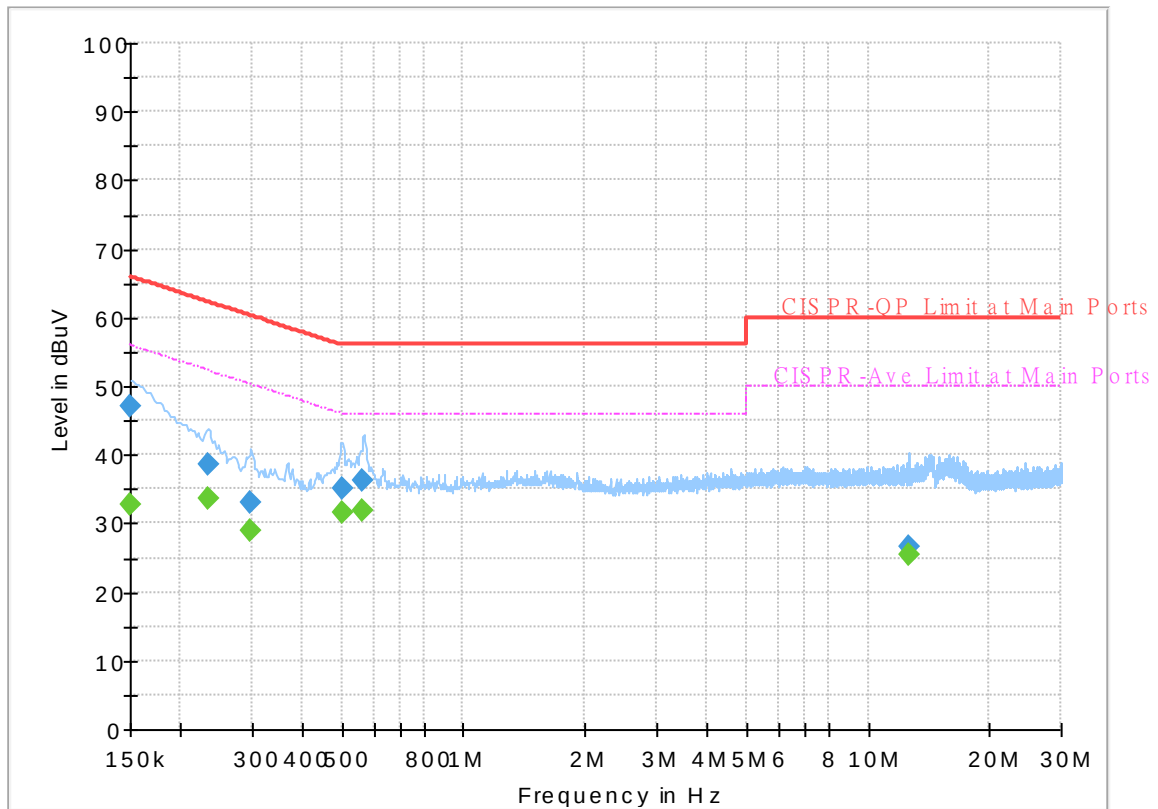
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	33.20	56.00	22.80	L1	OFF	19.6
0.150000	46.93	---	66.00	19.07	L1	OFF	19.6
0.233430	---	35.04	52.33	17.29	L1	OFF	19.6
0.233430	39.08	---	62.33	23.25	L1	OFF	19.6
0.498750	---	32.13	46.02	13.89	L1	OFF	19.6
0.498750	36.16	---	56.02	19.86	L1	OFF	19.6
0.566520	---	36.70	46.00	9.30	L1	OFF	19.6
0.566520	41.46	---	56.00	14.54	L1	OFF	19.6
0.634560	---	30.36	46.00	15.64	L1	OFF	19.6
0.634560	33.49	---	56.00	22.51	L1	OFF	19.6
14.364510	---	27.10	50.00	22.90	L1	OFF	20.2
14.364510	30.34	---	60.00	29.66	L1	OFF	20.2

EUT Information

Report NO : 020110-01
Test Mode : Mode 2
Test Voltage : 120Vac/60Hz
Phase : Neutral

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	32.84	56.00	23.16	N	OFF	19.6
0.150000	47.00	---	66.00	19.00	N	OFF	19.6
0.233250	---	33.74	52.33	18.59	N	OFF	19.5
0.233250	38.70	---	62.33	23.63	N	OFF	19.5
0.296070	---	28.81	50.35	21.54	N	OFF	19.5
0.296070	33.04	---	60.35	27.31	N	OFF	19.5
0.502620	---	31.54	46.00	14.46	N	OFF	19.5
0.502620	35.19	---	56.00	20.81	N	OFF	19.5
0.561750	---	31.73	46.00	14.27	N	OFF	19.5
0.561750	36.33	---	56.00	19.67	N	OFF	19.5
12.601500	---	25.30	50.00	24.70	N	OFF	19.9
12.601500	26.59	---	60.00	33.41	N	OFF	19.9



Appendix C. Radiated Spurious Emission

Test Engineer :	Karl Hou, Andy Yang, and CR Liro	Temperature :	20~25°C
		Relative Humidity :	50~60%

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preampl Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2356.62	58.9	-15.1	74	42.86	27.77	18.04	29.77	303	122	P	H
		2387.49	46.19	-7.81	54	30.23	27.65	18.09	29.78	303	122	A	H
	*	2412	113.63	-	-	97.69	27.6	18.13	29.79	303	122	P	H
	*	2412	110.56	-	-	94.62	27.6	18.13	29.79	303	122	A	H
		2387.28	57.89	-16.11	74	41.93	27.65	18.09	29.78	200	168	P	V
		2387.07	47.3	-6.7	54	31.34	27.65	18.09	29.78	200	168	A	V
	*	2412	116.57	-	-	100.63	27.6	18.13	29.79	200	168	P	V
	*	2412	113.44	-	-	97.5	27.6	18.13	29.79	200	168	A	V
802.11b CH 06 2437MHz		2331.28	56.89	-17.11	74	40.78	27.87	18	29.76	298	118	P	H
		2386.86	45.7	-8.3	54	29.74	27.65	18.09	29.78	298	118	A	H
	*	2437	114.28	-	-	98.31	27.6	18.17	29.8	298	118	P	H
	*	2437	111.22	-	-	95.25	27.6	18.17	29.8	298	118	A	H
		2487.68	57.89	-16.11	74	41.94	27.52	18.25	29.82	298	118	P	H
		2492.02	45.97	-8.03	54	30.02	27.52	18.26	29.83	298	118	A	H
		2387.28	57.56	-16.44	74	41.6	27.65	18.09	29.78	193	167	P	V
		2389.8	46.08	-7.92	54	30.13	27.64	18.09	29.78	193	167	A	V
	*	2437	117.25	-	-	101.28	27.6	18.17	29.8	193	167	P	V
	*	2437	114.16	-	-	98.19	27.6	18.17	29.8	193	167	A	V
		2495.31	57.78	-16.22	74	41.84	27.51	18.26	29.83	193	167	P	V
		2488.94	46.37	-7.63	54	30.43	27.52	18.25	29.83	193	167	A	V



802.11b CH 11 2462MHz	*	2462	114.4	-	-	98.42	27.58	18.21	29.81	315	132	P	H
	*	2462	111.34	-	-	95.36	27.58	18.21	29.81	315	132	A	H
		2490.64	57.64	-16.36	74	41.69	27.52	18.26	29.83	315	132	P	H
		2483.92	46.54	-7.46	54	30.59	27.53	18.24	29.82	315	132	A	H
	*	2462	116.87	-	-	100.89	27.58	18.21	29.81	183	167	P	V
	*	2462	113.77	-	-	97.79	27.58	18.21	29.81	183	167	A	V
		2483.6	58.98	-15.02	74	43.03	27.53	18.24	29.82	183	167	P	V
		2483.92	47.76	-6.24	54	31.81	27.53	18.24	29.82	183	167	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 12 2467MHz	*	2467	110.36	-	-	94.39	27.57	18.22	29.82	315	128	P	H
	*	2467	107.32	-	-	91.35	27.57	18.22	29.82	315	128	A	H
		2483.8	59.72	-14.28	74	43.77	27.53	18.24	29.82	315	128	P	H
		2483.88	50.95	-3.05	54	35	27.53	18.24	29.82	315	128	A	H
	*	2467	112.81	-	-	96.84	27.57	18.22	29.82	175	168	P	V
	*	2467	109.68	-	-	93.71	27.57	18.22	29.82	175	168	A	V
		2483.72	61.33	-12.67	74	45.38	27.53	18.24	29.82	175	168	P	V
		2483.92	52.78	-1.22	54	36.83	27.53	18.24	29.82	175	168	A	V
802.11b CH 13 2472MHz	*	2472	107.22	-	-	91.25	27.56	18.23	29.82	320	130	P	H
	*	2472	104.13	-	-	88.16	27.56	18.23	29.82	320	130	A	H
		2487.52	60.06	-13.94	74	44.11	27.52	18.25	29.82	320	130	P	H
		2487.72	51.59	-2.41	54	35.64	27.52	18.25	29.82	320	130	A	H
	*	2472	109.98	-	-	94.01	27.56	18.23	29.82	179	170	P	V
	*	2472	106.86	-	-	90.89	27.56	18.23	29.82	179	170	A	V
		2487.48	60.23	-13.77	74	44.27	27.53	18.25	29.82	179	170	P	V
		2487.68	52.81	-1.19	54	36.86	27.52	18.25	29.82	179	170	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	45.25	-28.75	74	60.76	31.15	12.43	59.09	100	0	P	H
		4824	48.43	-25.57	74	63.94	31.15	12.43	59.09	100	0	P	V
802.11b CH 06 2437MHz		4874	42.56	-31.44	74	58.1	31.1	12.48	59.12	100	0	P	H
		7311	46.19	-27.81	74	52.63	36.44	15.68	58.56	100	0	P	H
		4874	43.75	-30.25	74	59.29	31.1	12.48	59.12	100	0	P	V
		7311	46.44	-27.56	74	52.88	36.44	15.68	58.56	100	0	P	V
802.11b CH 11 2462MHz		4924	43.37	-30.63	74	58.9	31.1	12.52	59.15	100	0	P	H
		7386	47.62	-26.38	74	53.89	36.53	15.66	58.46	100	0	P	H
		4924	44.99	-29.01	74	60.52	31.1	12.52	59.15	100	0	P	V
		7386	46.55	-27.45	74	52.82	36.53	15.66	58.46	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 12 2467MHz		4934	42.83	-31.17	74	58.32	31.14	12.53	59.16	100	0	P	H
		7401	48.3	-25.7	74	54.58	36.5	15.66	58.44	100	0	P	H
		4934	42.58	-31.42	74	58.07	31.14	12.53	59.16	100	0	P	V
		7401	46.79	-27.21	74	53.07	36.5	15.66	58.44	100	0	P	V
802.11b CH 13 2472MHz		4944	43.62	-30.38	74	59.06	31.18	12.55	59.17	100	0	P	H
		7416	47.15	-26.85	74	53.33	36.53	15.71	58.42	100	0	P	H
		4944	44.39	-29.61	74	59.83	31.18	12.55	59.17	100	0	P	V
		7416	46.8	-27.2	74	52.98	36.53	15.71	58.42	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2390	60.19	-13.81	74	44.24	27.64	18.09	29.78	340	120	P	H
		2390	50.34	-3.66	54	34.39	27.64	18.09	29.78	340	120	A	H
	*	2412	113.42	-	-	97.48	27.6	18.13	29.79	340	120	P	H
	*	2412	106.15	-	-	90.21	27.6	18.13	29.79	340	120	A	H
		2389.8	64.62	-9.38	74	48.67	27.64	18.09	29.78	252	169	P	V
		2390	52.49	-1.51	54	36.54	27.64	18.09	29.78	252	169	A	V
	*	2412	116.95	-	-	101.01	27.6	18.13	29.79	252	169	P	V
	*	2412	109.27	-	-	93.33	27.6	18.13	29.79	252	169	A	V
802.11g CH 06 2437MHz		2387.84	58.45	-15.55	74	42.49	27.65	18.09	29.78	296	121	P	H
		2389.94	47.94	-6.06	54	31.99	27.64	18.09	29.78	296	121	A	H
	*	2437	115.88	-	-	99.91	27.6	18.17	29.8	296	121	P	H
	*	2437	108.43	-	-	92.46	27.6	18.17	29.8	296	121	A	H
		2485.37	59.14	-14.86	74	43.18	27.53	18.25	29.82	296	121	P	H
		2483.62	48.05	-5.95	54	32.1	27.53	18.24	29.82	296	121	A	H
		2389.8	59.12	-14.88	74	43.17	27.64	18.09	29.78	193	171	P	V
		2389.94	48.71	-5.29	54	32.76	27.64	18.09	29.78	193	171	A	V
	*	2437	119.6	-	-	103.63	27.6	18.17	29.8	193	171	P	V
	*	2437	111.81	-	-	95.84	27.6	18.17	29.8	193	171	A	V
		2483.97	59.86	-14.14	74	43.91	27.53	18.24	29.82	193	171	P	V
		2483.55	48.97	-5.03	54	33.02	27.53	18.24	29.82	193	171	A	V



802.11g CH 11 2462MHz	*	2462	115.03	-	-	99.05	27.58	18.21	29.81	316	133	P	H
	*	2462	106.88	-	-	90.9	27.58	18.21	29.81	316	133	A	H
		2484.76	64.76	-9.24	74	48.8	27.53	18.25	29.82	316	133	P	H
		2483.56	51.24	-2.76	54	35.29	27.53	18.24	29.82	316	133	A	H
	*	2462	117.29	-	-	101.31	27.58	18.21	29.81	187	169	P	V
	*	2462	109.48	-	-	93.5	27.58	18.21	29.81	187	169	A	V
		2485.88	67	-7	74	51.04	27.53	18.25	29.82	187	169	P	V
		2483.52	53.17	-0.83	54	37.22	27.53	18.24	29.82	187	169	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 12 2467MHz	*	2467	108.77	-	-	92.8	27.57	18.22	29.82	303	135	P	H
	*	2467	101.7	-	-	85.73	27.57	18.22	29.82	303	135	A	H
		2484.72	62.96	-11.04	74	47	27.53	18.25	29.82	303	135	P	H
		2483.52	50.4	-3.6	54	34.45	27.53	18.24	29.82	303	135	A	H
	*	2467	112.18	-	-	96.21	27.57	18.22	29.82	187	171	P	V
	*	2467	104.7	-	-	88.73	27.57	18.22	29.82	187	171	A	V
		2485.28	66.26	-7.74	74	50.3	27.53	18.25	29.82	187	171	P	V
		2483.52	52.76	-1.24	54	36.81	27.53	18.24	29.82	187	171	A	V
802.11g CH 13 2472MHz	*	2472	104.13	-	-	88.16	27.56	18.23	29.82	292	128	P	H
	*	2472	96.57	-	-	80.6	27.56	18.23	29.82	292	128	A	H
		2484.28	60.92	-13.08	74	44.97	27.53	18.24	29.82	292	128	P	H
		2484.2	50.69	-3.31	54	34.74	27.53	18.24	29.82	292	128	A	H
	*	2472	106.78	-	-	90.81	27.56	18.23	29.82	181	169	P	V
	*	2472	99.18	-	-	83.21	27.56	18.23	29.82	181	169	A	V
		2484.04	62.76	-11.24	74	46.81	27.53	18.24	29.82	181	169	P	V
		2484.2	52.95	-1.05	54	37	27.53	18.24	29.82	181	169	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**2.4GHz 2400~2483.5MHz****WIFI 802.11g (Harmonic @ 3m)**

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	44.19	-29.81	74	59.7	31.15	12.43	59.09	100	0	P	H
		4824	43.96	-30.04	74	59.47	31.15	12.43	59.09	100	0	P	V
802.11g CH 06 2437MHz		4874	45.07	-28.93	74	60.59	31.1	12.5	59.12	100	0	P	H
		7311	47.73	-26.27	74	54.25	36.44	15.6	58.56	100	0	P	H
		4874	46.21	-27.79	74	61.73	31.1	12.5	59.12	100	0	P	V
		7311	49.65	-24.35	74	56.17	36.44	15.6	58.56	100	0	P	V
802.11g CH 11 2462MHz		4924	42.2	-31.8	74	57.72	31.1	12.53	59.15	100	0	P	H
		7386	46.4	-27.6	74	52.73	36.53	15.6	58.46	100	0	P	H
		4924	42.17	-31.83	74	57.69	31.1	12.53	59.15	100	0	P	V
		7386	47.82	-26.18	74	54.15	36.53	15.6	58.46	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 12 2467MHz		4934	41.56	-32.44	74	57.04	31.14	12.54	59.16	100	0	P	H
		7401	46.28	-27.72	74	52.62	36.5	15.6	58.44	100	0	P	H
		4934	41.44	-32.56	74	56.92	31.14	12.54	59.16	100	0	P	V
		7401	45.97	-28.03	74	52.31	36.5	15.6	58.44	100	0	P	V
802.11g CH 13 2472MHz		4944	41.41	-32.59	74	56.84	31.18	12.56	59.17	100	0	P	H
		7416	46.62	-27.38	74	52.86	36.53	15.65	58.42	100	0	P	H
		4944	41.69	-32.31	74	57.12	31.18	12.56	59.17	100	0	P	V
		7416	47	-27	74	53.24	36.53	15.65	58.42	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		2389.59	59.52	-14.48	74	43.57	27.64	18.09	29.78	343	121	P	H
		2390	49.53	-4.47	54	33.58	27.64	18.09	29.78	343	121	A	H
	*	2412	113.01	-	-	97.07	27.6	18.13	29.79	343	121	P	H
	*	2412	105.11	-	-	89.17	27.6	18.13	29.79	343	121	A	H
		2389.695	63.55	-10.45	74	47.6	27.64	18.09	29.78	194	168	P	V
		2390	52.6	-1.4	54	36.65	27.64	18.09	29.78	194	168	A	V
	*	2412	116.32	-	-	100.38	27.6	18.13	29.79	194	168	P	V
	*	2412	108.65	-	-	92.71	27.6	18.13	29.79	194	168	A	V
802.11n HT20 CH 06 2437MHz		2388.96	58.12	-15.88	74	42.17	27.64	18.09	29.78	113	76	P	H
		2389.94	47.29	-6.71	54	31.34	27.64	18.09	29.78	113	76	A	H
	*	2437	114.93	-	-	98.96	27.6	18.17	29.8	113	76	P	H
	*	2437	107.35	-	-	91.38	27.6	18.17	29.8	113	76	A	H
		2490.69	59.65	-14.35	74	43.7	27.52	18.26	29.83	113	76	P	H
		2483.62	48.25	-5.75	54	32.3	27.53	18.24	29.82	113	76	A	H
		2388.82	59.6	-14.4	74	43.65	27.64	18.09	29.78	148	76	P	V
		2389.94	48.6	-5.4	54	32.65	27.64	18.09	29.78	148	76	A	V
	*	2437	117.9	-	-	101.93	27.6	18.17	29.8	148	76	P	V
	*	2437	110	-	-	94.03	27.6	18.17	29.8	148	76	A	V
		2483.76	61.33	-12.67	74	45.38	27.53	18.24	29.82	148	76	P	V
		2483.5	49.45	-4.55	54	33.5	27.53	18.24	29.82	148	76	A	V



802.11n HT20 CH 11 2462MHz	*	2462	113.94	-	-	97.96	27.58	18.21	29.81	315	123	P	H
	*	2462	106.36	-	-	90.38	27.58	18.21	29.81	315	123	A	H
		2483.6	63.66	-10.34	74	47.71	27.53	18.24	29.82	315	123	P	H
		2483.52	51.6	-2.4	54	35.65	27.53	18.24	29.82	315	123	A	H
	*	2462	116.31	-	-	100.33	27.58	18.21	29.81	218	177	P	V
	*	2462	108.58	-	-	92.6	27.58	18.21	29.81	218	177	A	V
		2484.52	66.06	-7.94	74	50.1	27.53	18.25	29.82	218	177	P	V
		2483.72	52.54	-1.46	54	36.59	27.53	18.24	29.82	218	177	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 12 2467MHz	*	2467	109.5	-	-	93.53	27.57	18.22	29.82	332	125	P	H
	*	2467	101.67	-	-	85.7	27.57	18.22	29.82	332	125	A	H
		2484.76	64.36	-9.64	74	48.4	27.53	18.25	29.82	332	125	P	H
		2483.52	50.45	-3.55	54	34.5	27.53	18.24	29.82	332	125	A	H
	*	2467	112.14	-	-	96.17	27.57	18.22	29.82	181	169	P	V
	*	2467	104.39	-	-	88.42	27.57	18.22	29.82	181	169	A	V
		2484.68	64.92	-9.08	74	48.96	27.53	18.25	29.82	181	169	P	V
		2483.52	52.61	-1.39	54	36.66	27.53	18.24	29.82	181	169	A	V
802.11n HT20 CH 13 2472MHz	*	2472	102.47	-	-	86.5	27.56	18.23	29.82	320	131	P	H
	*	2472	94.54	-	-	78.57	27.56	18.23	29.82	320	131	A	H
		2483.72	59.58	-14.42	74	43.63	27.53	18.24	29.82	320	131	P	H
		2483.52	50.93	-3.07	54	34.98	27.53	18.24	29.82	320	131	A	H
	*	2472	104.93	-	-	88.96	27.56	18.23	29.82	180	169	P	V
	*	2472	97.48	-	-	81.51	27.56	18.23	29.82	180	169	A	V
		2483.52	62.66	-11.34	74	46.71	27.53	18.24	29.82	180	169	P	V
		2483.52	53.23	-0.77	54	37.28	27.53	18.24	29.82	180	169	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	42.36	-31.64	74	57.85	31.15	12.45	59.09	100	0	P	H
		4824	42.31	-31.69	74	57.8	31.15	12.45	59.09	100	0	P	V
802.11n HT20 CH 06 2437MHz		4874	43.42	-30.58	74	58.94	31.1	12.5	59.12	100	0	P	H
		7311	49.11	-24.89	74	55.63	36.44	15.6	58.56	100	0	P	H
		4874	45.08	-28.92	74	60.6	31.1	12.5	59.12	100	0	P	V
		7311	50.59	-23.41	74	57.11	36.44	15.6	58.56	100	0	P	V
802.11n HT20 CH 11 2462MHz		4924	44.39	-29.61	74	59.91	31.1	12.53	59.15	100	0	P	H
		7386	47.15	-26.85	74	53.48	36.53	15.6	58.46	100	0	P	H
		4924	45.62	-28.38	74	61.14	31.1	12.53	59.15	100	0	P	V
		7386	47.07	-26.93	74	53.4	36.53	15.6	58.46	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		4934	40.5	-33.5	74	55.98	31.14	12.54	59.16	100	0	P	H
HT20		7401	46.79	-27.21	74	53.13	36.5	15.6	58.44	100	0	P	H
CH 12		4934	40.75	-33.25	74	56.23	31.14	12.54	59.16	100	0	P	V
2467MHz		7401	46.18	-27.82	74	52.52	36.5	15.6	58.44	100	0	P	V
802.11n		4944	41.48	-32.52	74	56.91	31.18	12.56	59.17	100	0	P	H
HT20		7416	47.03	-26.97	74	53.27	36.53	15.65	58.42	100	0	P	H
CH 13		4944	41.8	-32.2	74	57.23	31.18	12.56	59.17	100	0	P	V
2472MHz		7416	47.44	-26.56	74	53.68	36.53	15.65	58.42	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Emission above 18GHz****2.4GHz WIFI 802.11n HT20 (SHF)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11n HT20 SHFF		20877	38.65	-35.35	74	41.77	38.3	12	53.42	150	0	P	H
		22025	39.38	-34.62	74	42.2	37.94	12.65	53.41	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Emission below 1GHz

2.4GHz WIFI 802.11n HT20 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11n HT20 LF		70.74	29.49	-10.51	40	48.14	12.28	1.43	32.36	-	-	P	V
		113.42	35.12	-8.38	43.5	48.46	17.09	1.83	32.26	100	0	P	V
		191.02	24.02	-19.48	43.5	39.24	14.7	2.39	32.31	-	-	P	V
		645.95	28.85	-17.15	46	30.14	26.39	4.35	32.03	-	-	P	V
		853.53	32.1	-13.9	46	30.13	29.07	5.03	32.13	-	-	P	V
		946.65	33.81	-12.19	46	29.29	30.59	5.3	31.37	-	-	P	V
		43.58	33.6	-6.4	40	47.48	17.38	1.09	32.35	100	0	P	H
		88.2	33.34	-10.16	43.5	49.72	14.32	1.59	32.29	-	-	P	H
		112.45	36.94	-6.56	43.5	50.39	16.99	1.82	32.26	-	-	P	H
		713.85	32.26	-13.74	46	33.14	26.71	4.59	32.18	-	-	P	H
		890.39	36.05	-9.95	46	33.91	28.97	5.13	31.96	-	-	P	H
		953.44	33.62	-12.38	46	28.76	30.83	5.32	31.29	-	-	P	H
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	P eak or A verage
H/V	H orizontal or V ertical

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)
= 55.45 (dBμV/m)
2. Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 55.45(dBμV/m) – 74(dBμV/m)
= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)
= 43.54 (dBμV/m)
2. Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 43.54(dBμV/m) – 54(dBμV/m)
= -10.46(dB)

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



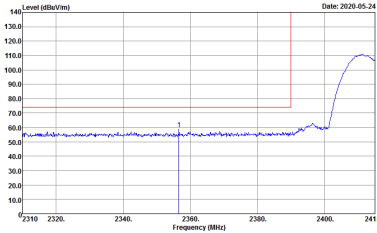
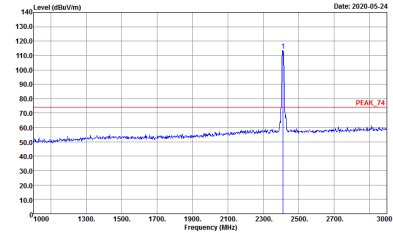
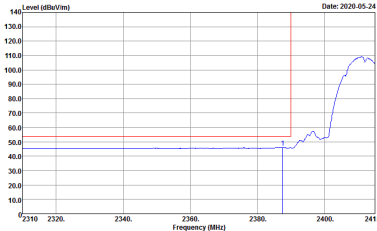
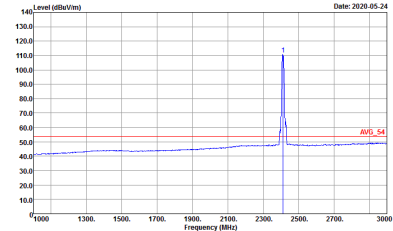
Appendix D. Radiated Spurious Emission Plots

Test Engineer :	Karl Hou, Andy Yang, and CR Liro	Temperature :	20~25°C
		Relative Humidity :	50~60%

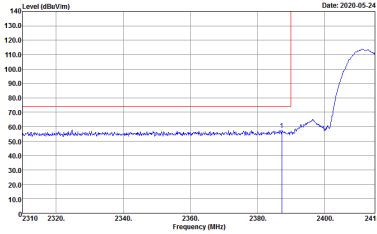
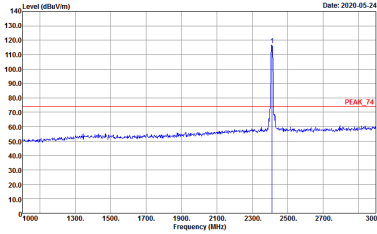
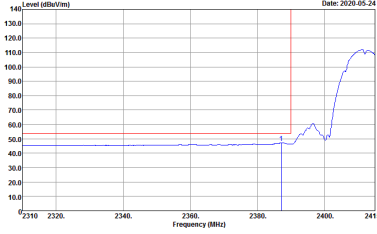
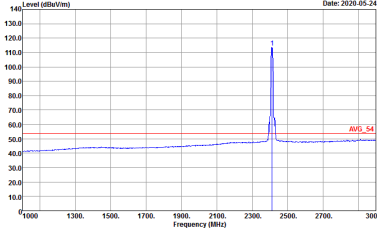
Note symbol

-L	Low channel location
-R	High channel location

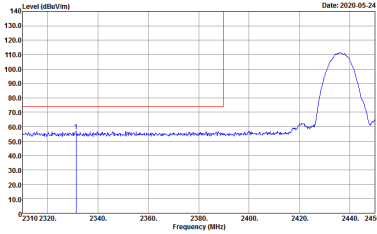
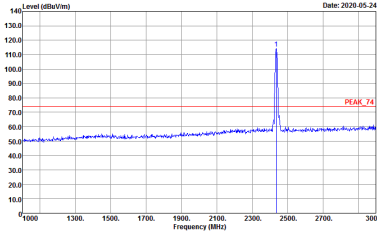
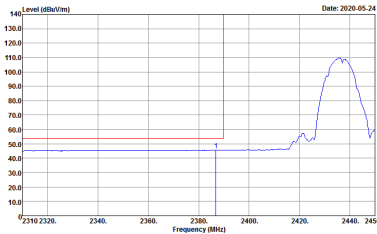
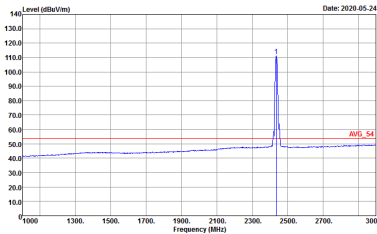
2.4GHz 2400~2483.5MHz
WIFI 802.11b (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01
	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01

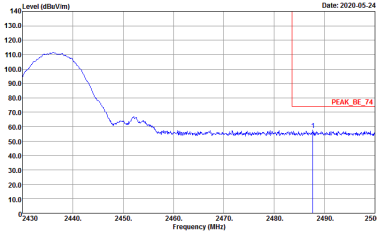
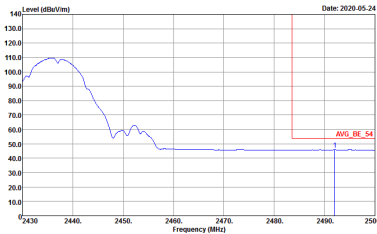


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

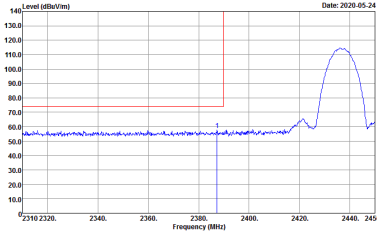
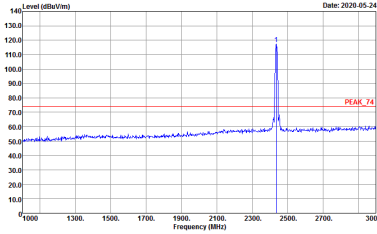
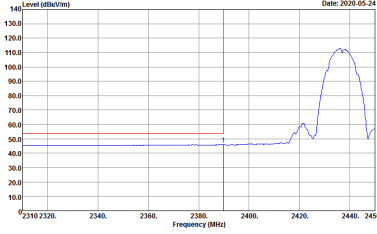
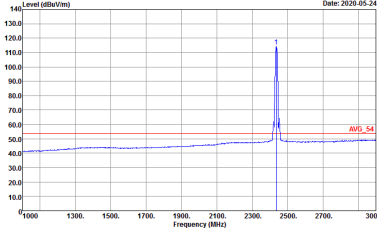


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

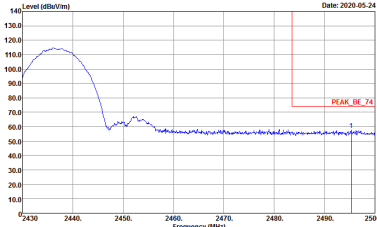
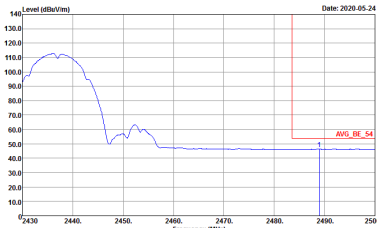


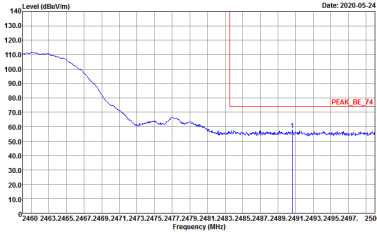
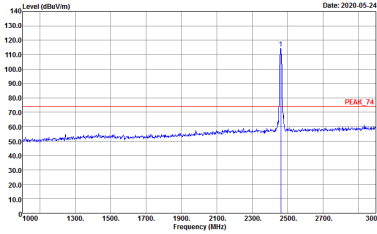
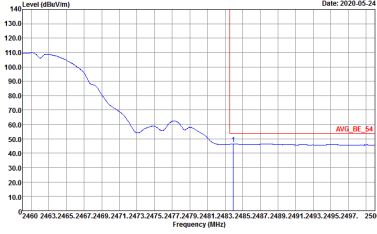
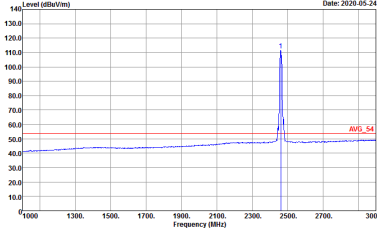
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	Left blank



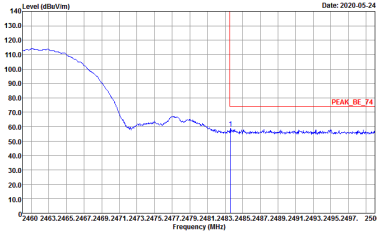
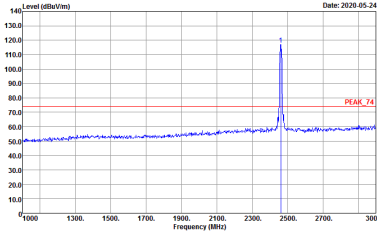
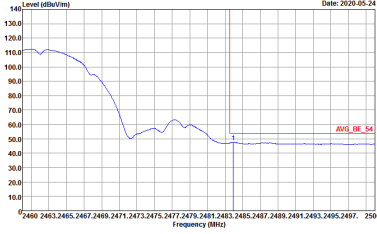
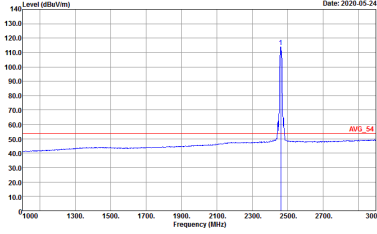
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01



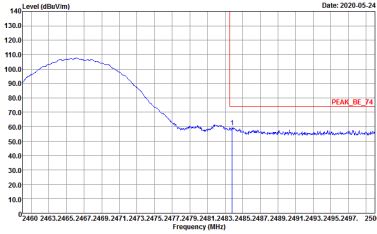
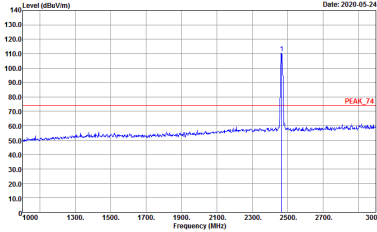
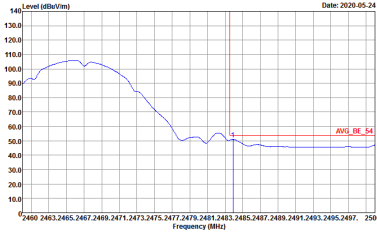
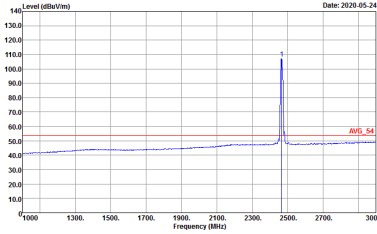
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	Left blank

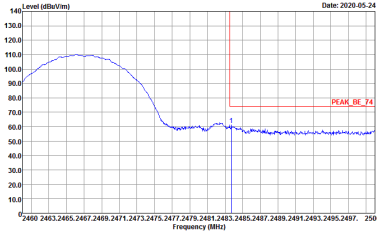
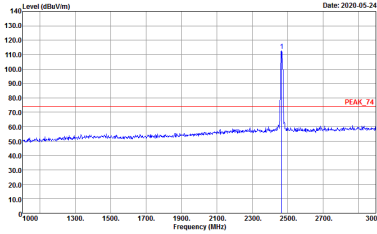
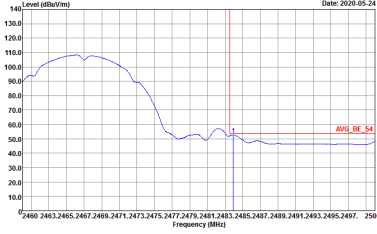
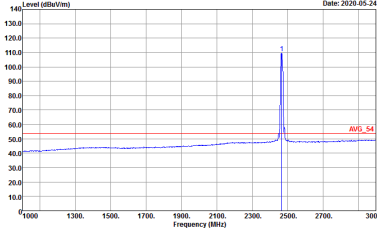
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01



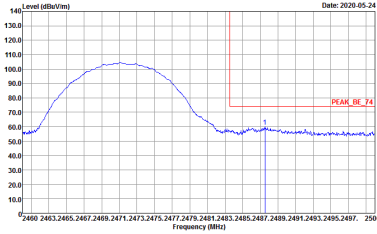
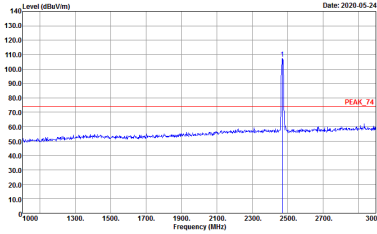
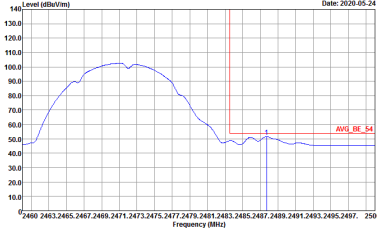
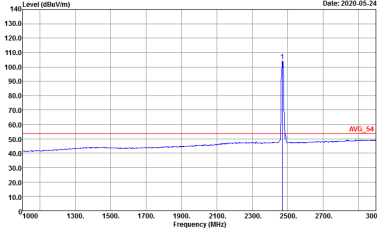
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01



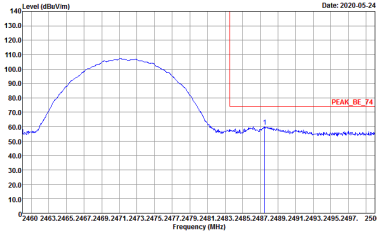
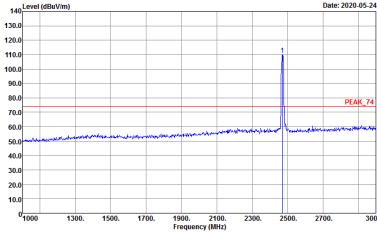
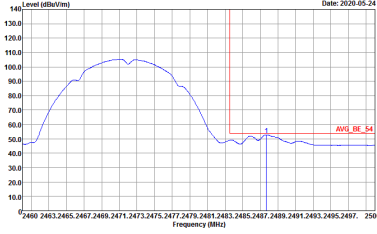
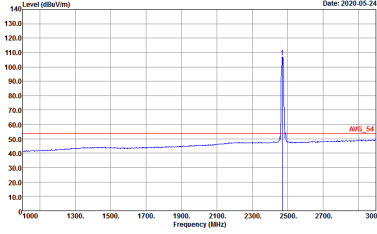
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH12 2467MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH12 2467MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak : 020110-01



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

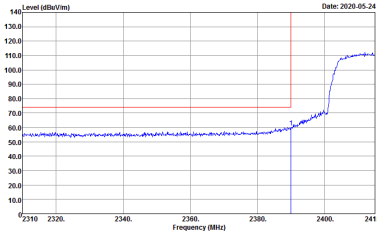
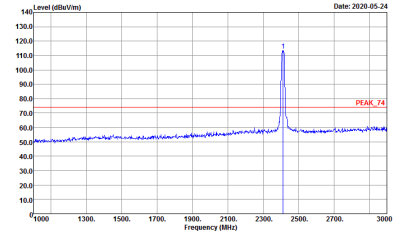
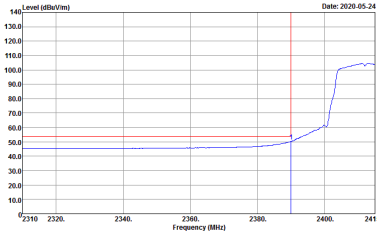
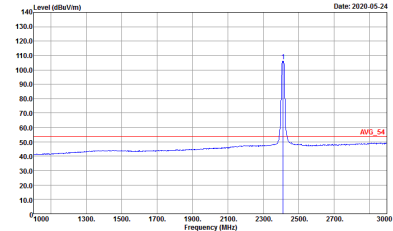


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

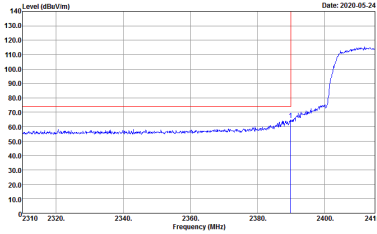
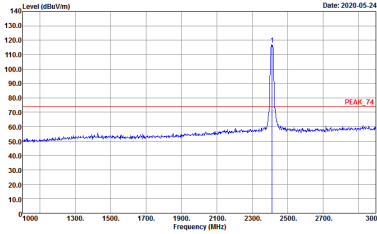
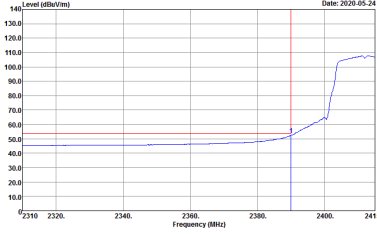
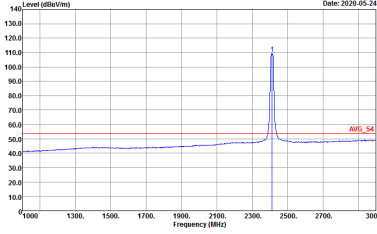


2.4GHz 2400~2483.5MHz

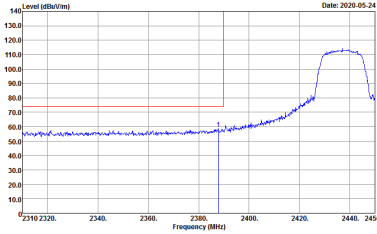
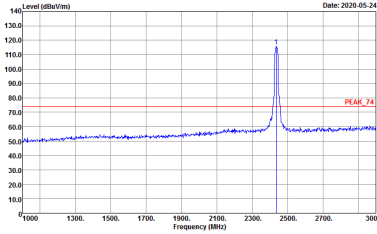
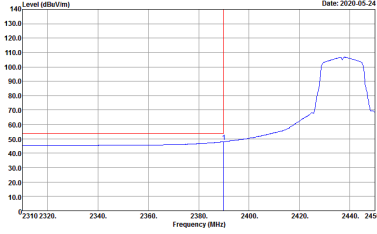
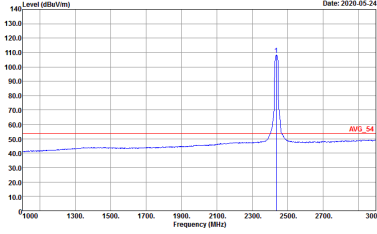
WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 020110-01

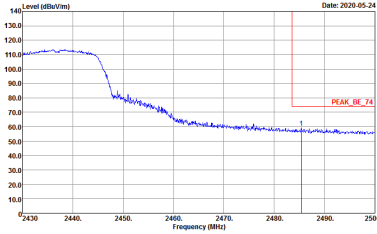
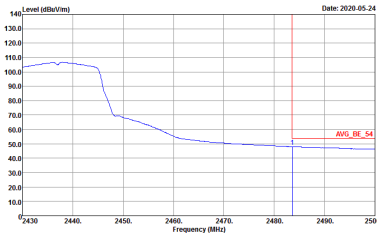


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

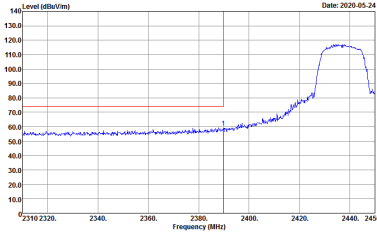
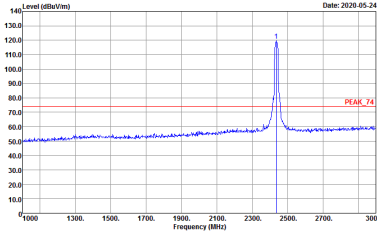
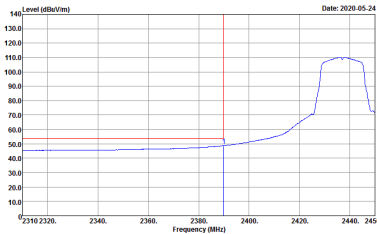
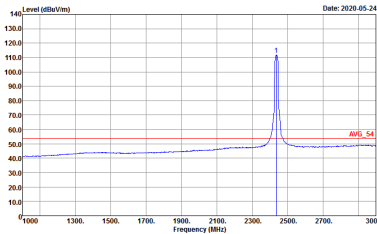


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

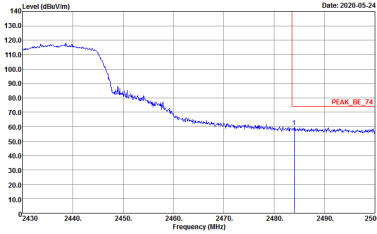
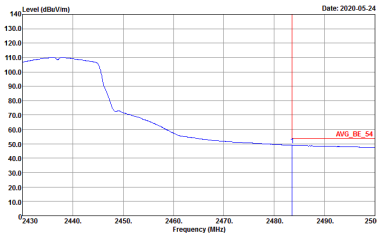


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	Left blank

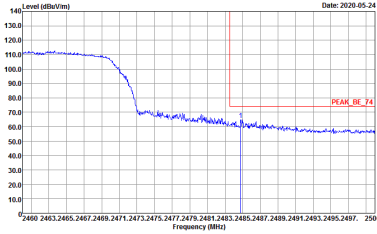
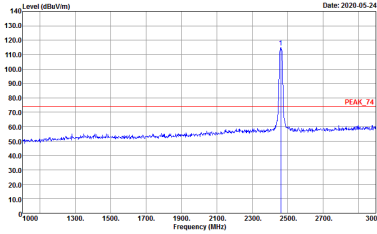
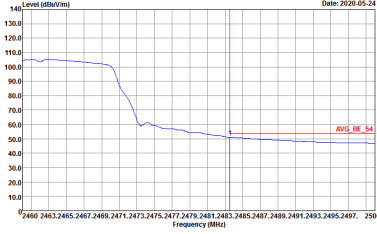
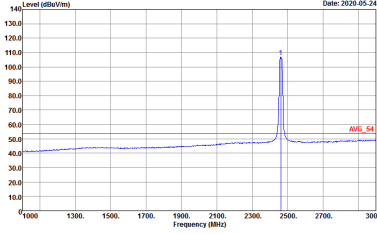


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

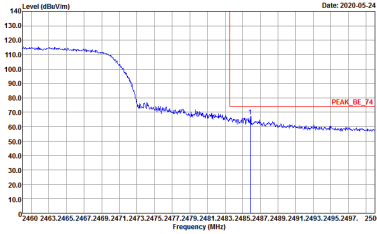
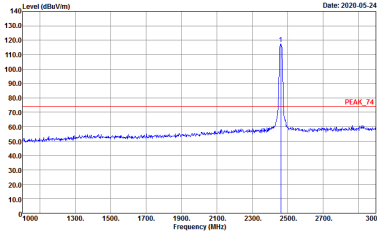
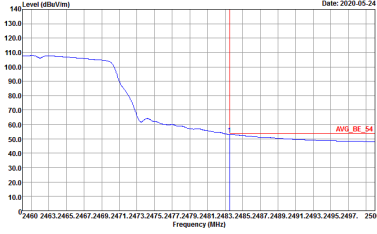
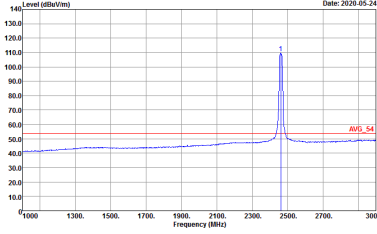


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	Left Blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	Left Blank

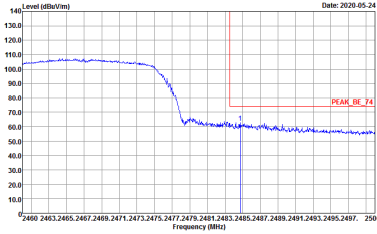
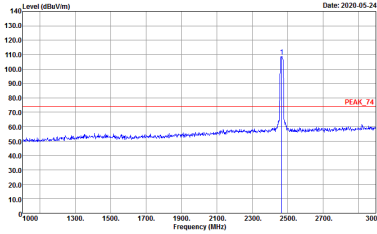
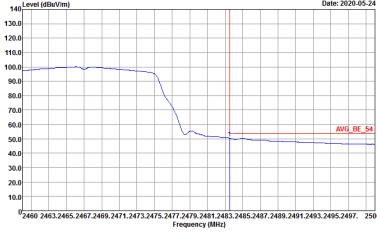
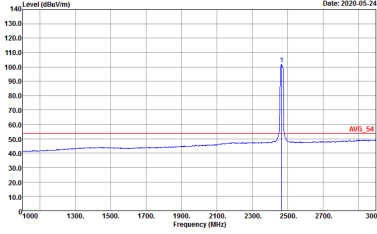


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

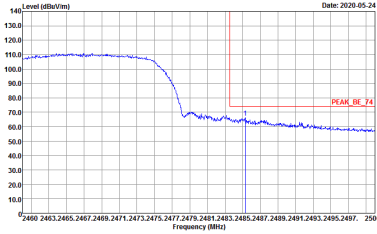
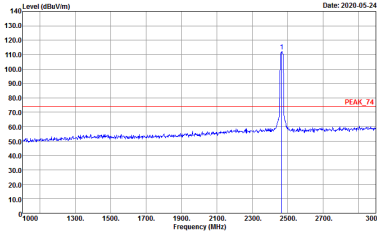
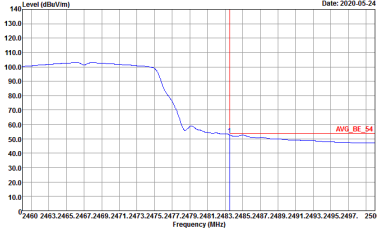
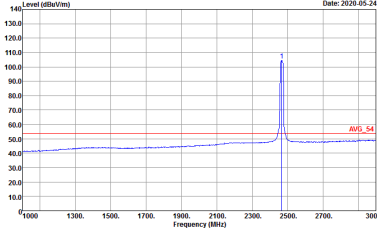


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

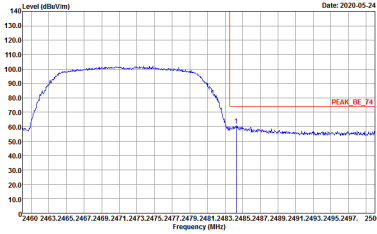
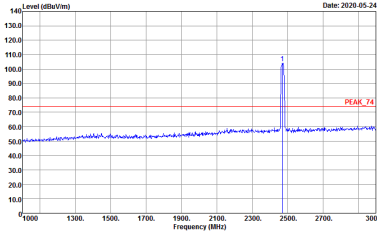
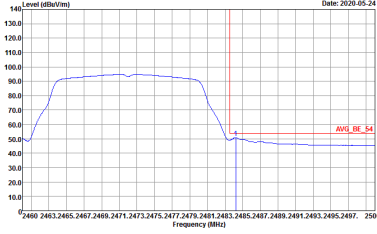
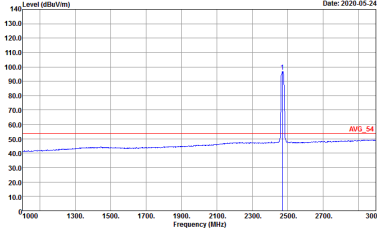


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH12 2467MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

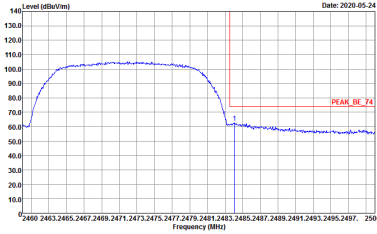
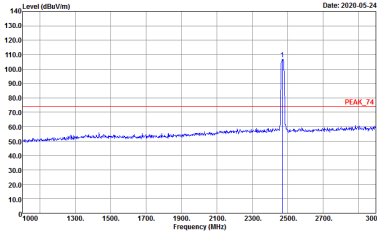
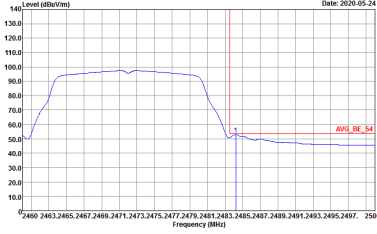
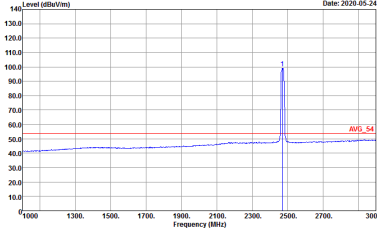


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH12 2467MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Project : 020110-01

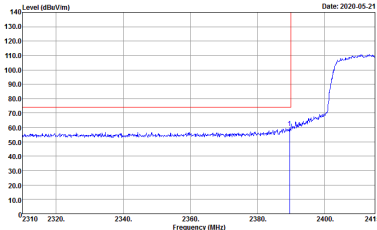
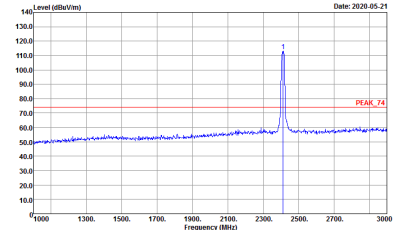
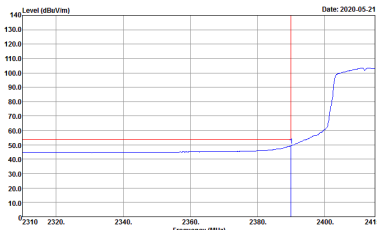
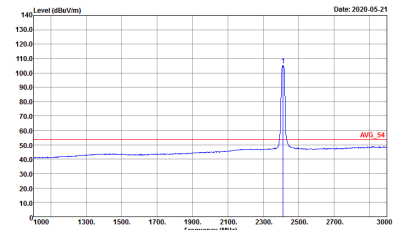


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH13 2472MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

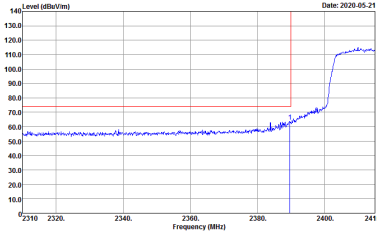
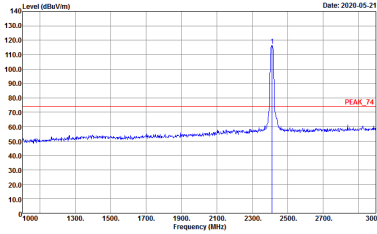
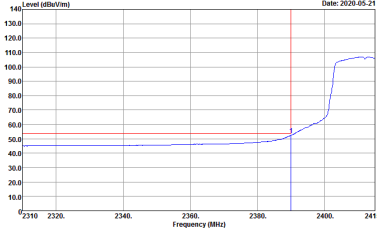
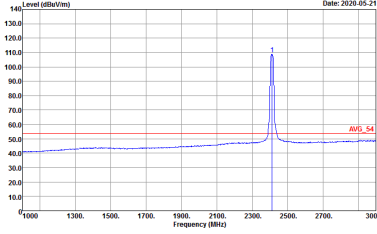


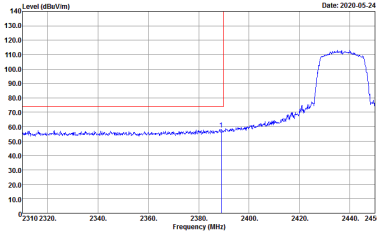
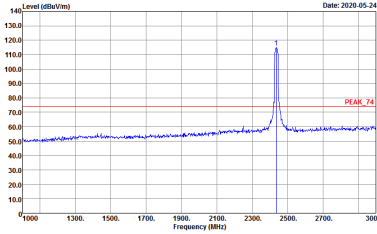
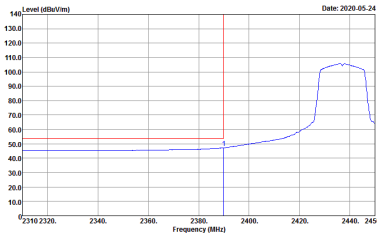
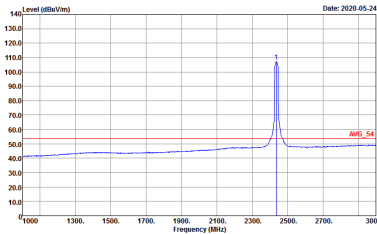
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH13 2472MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak : 020110-01

2.4GHz 2400~2483.5MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

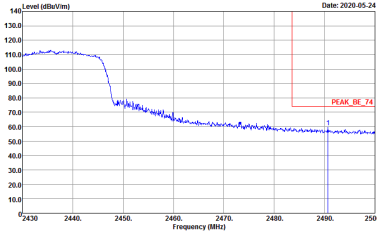
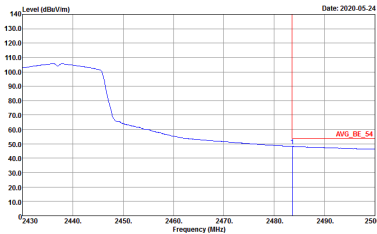
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01
	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01



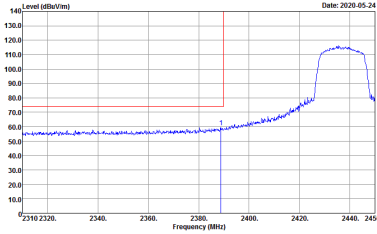
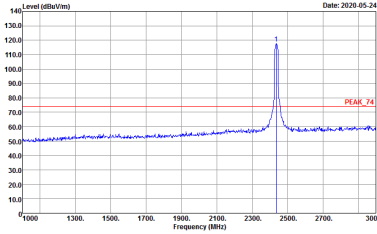
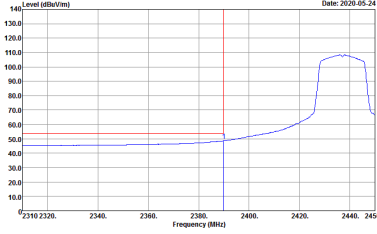
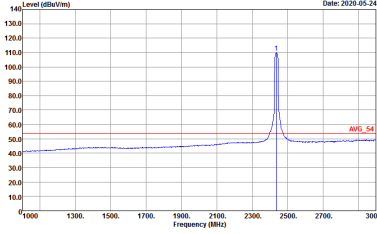
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

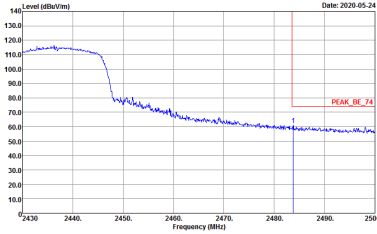
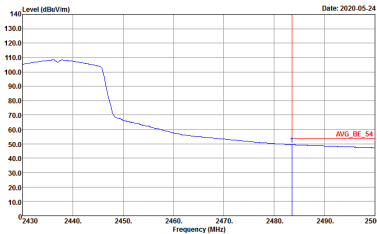


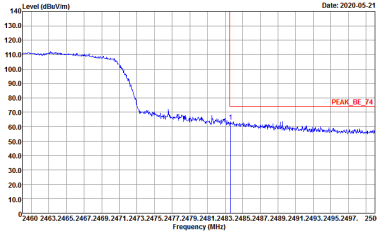
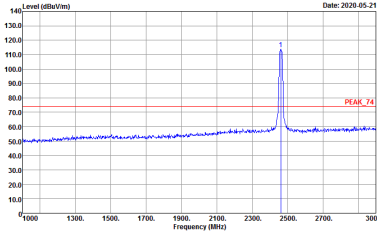
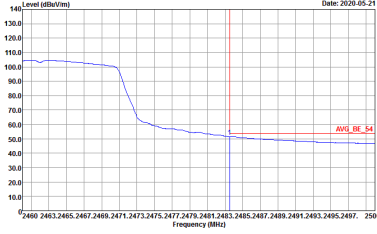
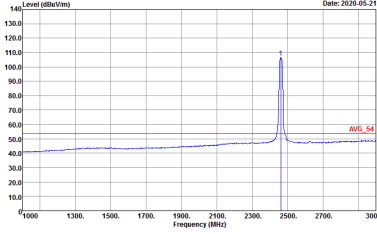
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	Left blank



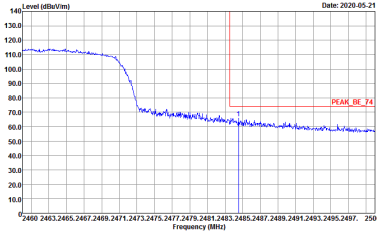
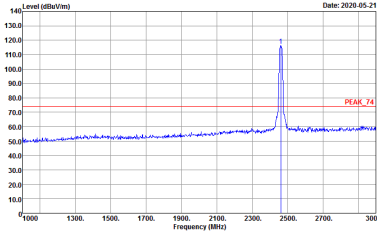
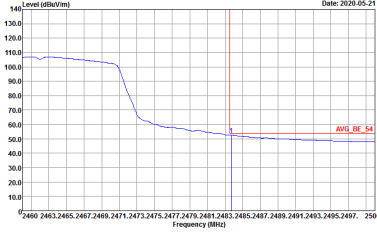
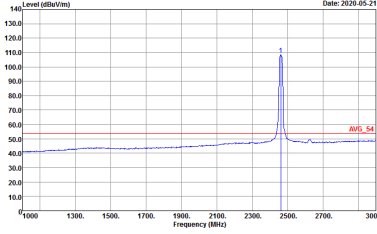
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01



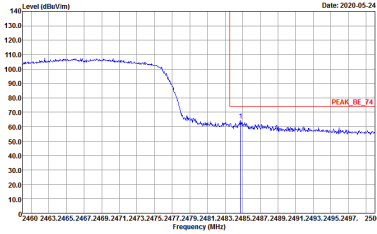
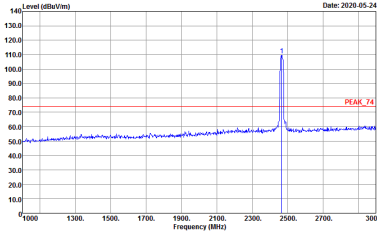
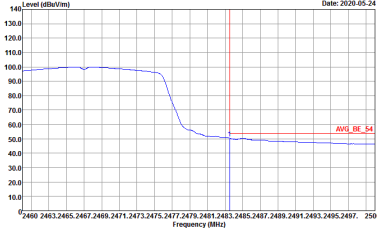
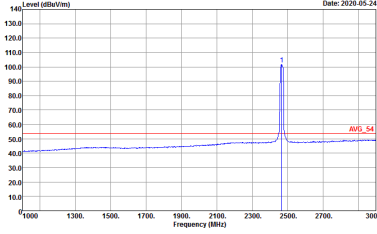
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	Left Blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	Left Blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

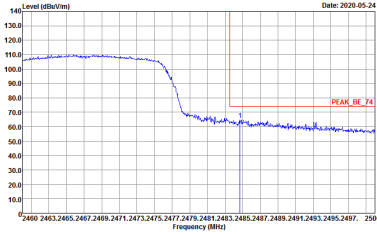
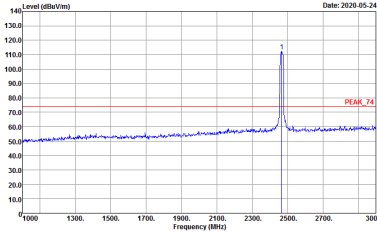
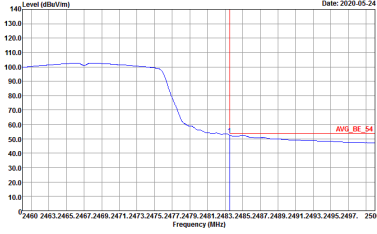
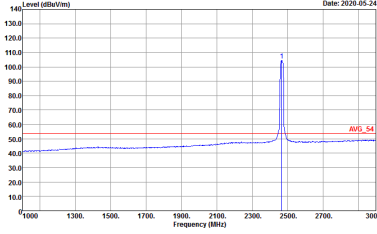


WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

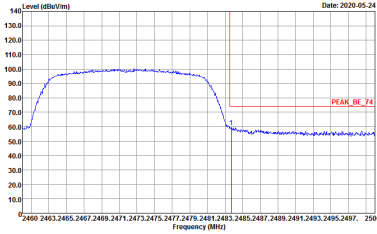
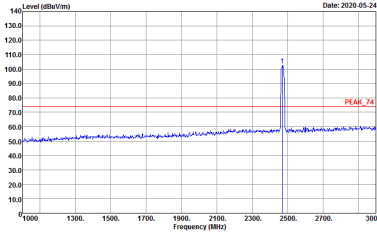
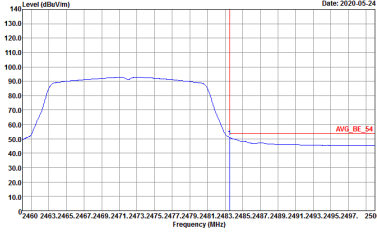
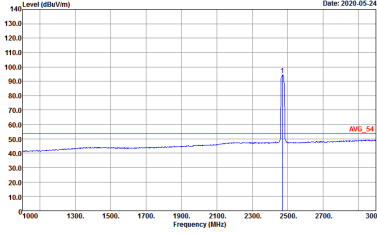


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

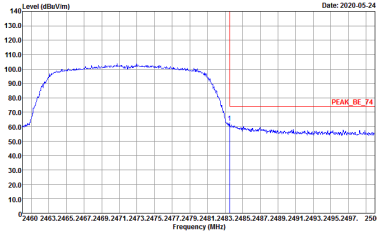
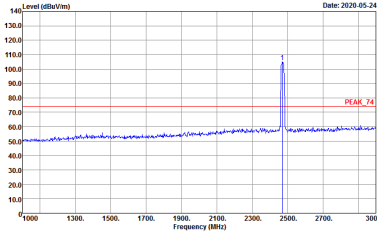
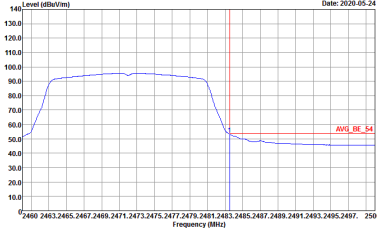
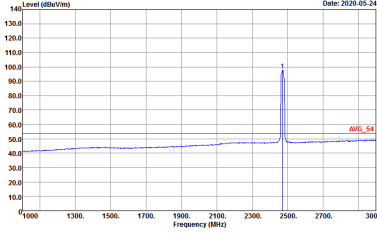


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Project : 020110-01

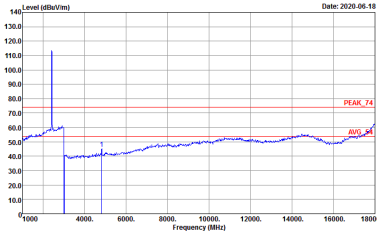
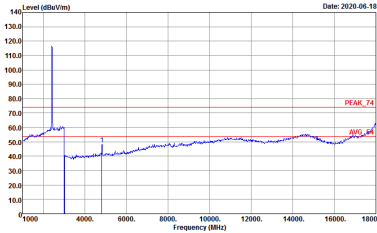


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 020110-01

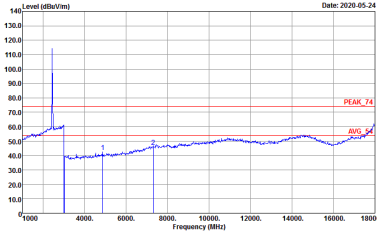
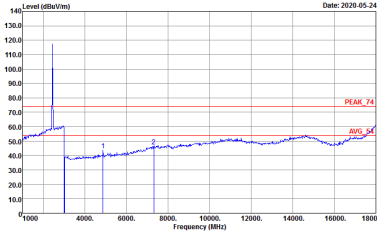


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak : 020110-01
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak : 020110-01	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak : 020110-01

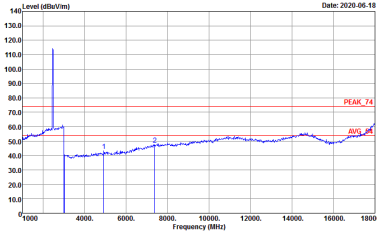
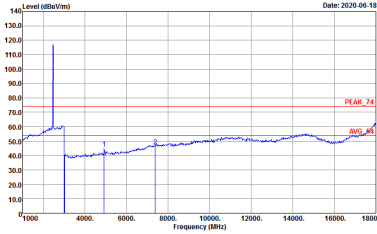
**2.4GHz 2400~2483.5MHz****WIFI 802.11b (Harmonic @ 3m)**

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

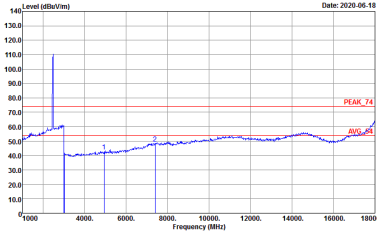
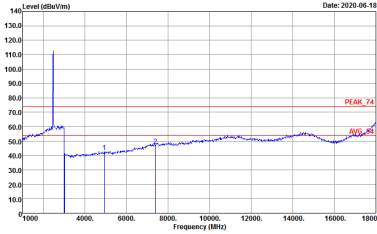


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

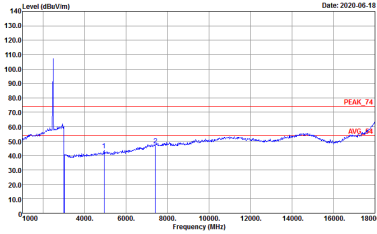
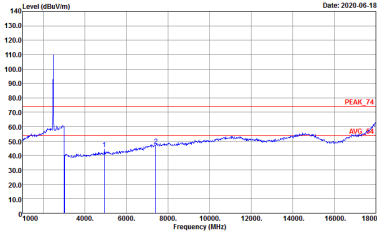


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

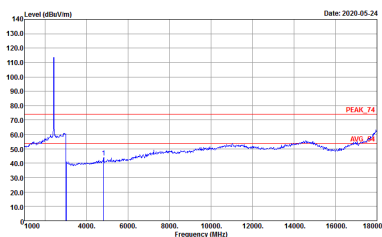
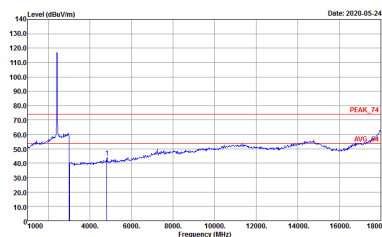


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH12 2467MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

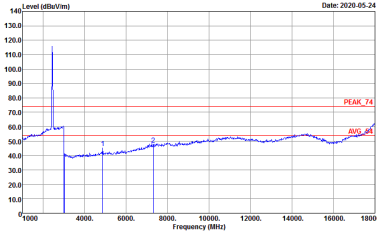
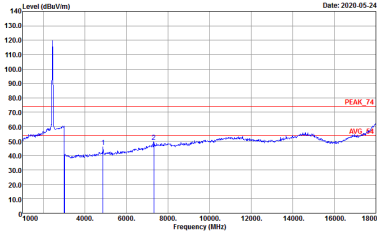


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH13 2472MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

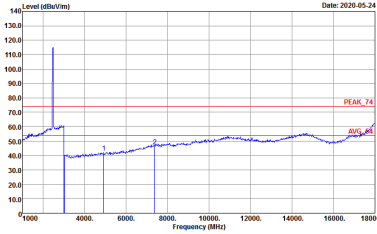
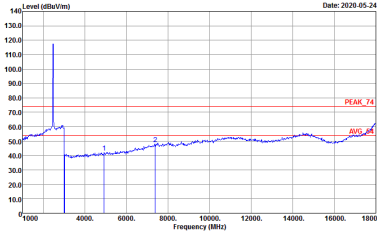
2.4GHz 2400~2483.5MHz
WIFI 802.11g (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

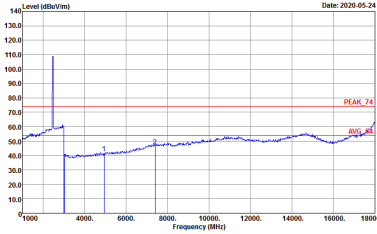
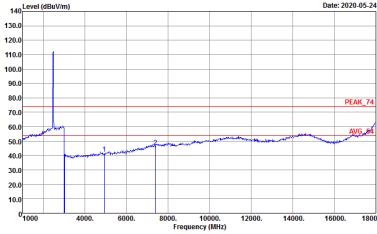


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

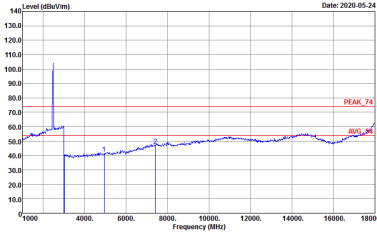
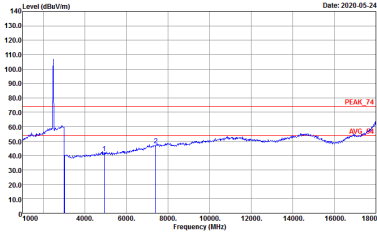


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

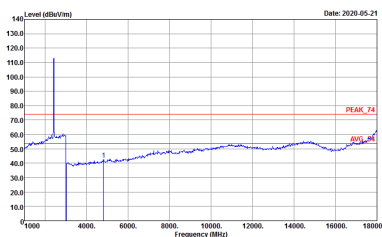
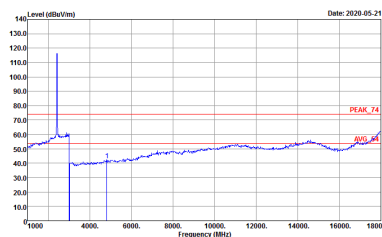


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH12 2467MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

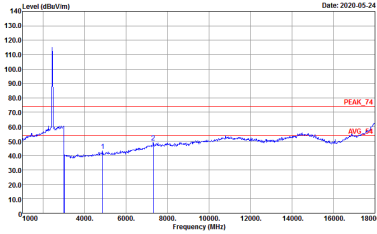
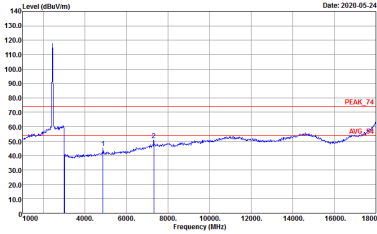


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH13 2472MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

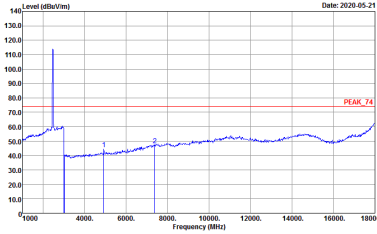
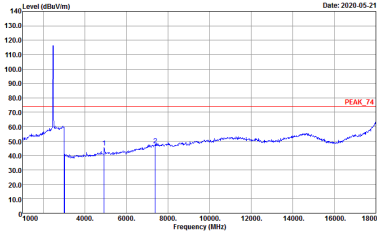
2.4GHz 2400~2483.5MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-1FY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-1FY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

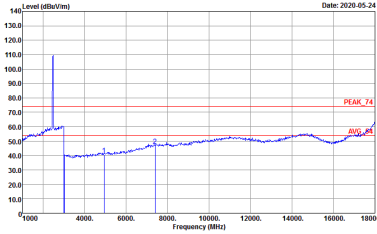
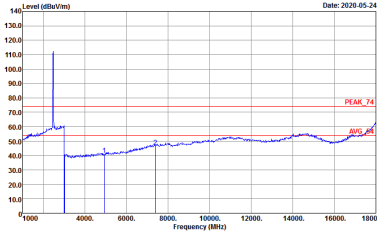


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

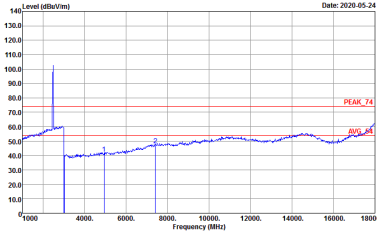
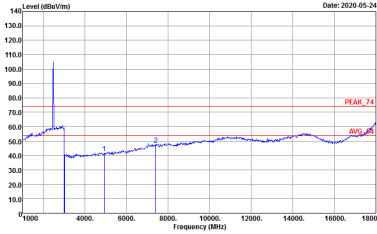


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

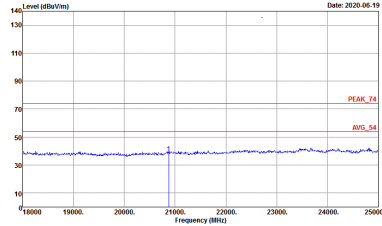
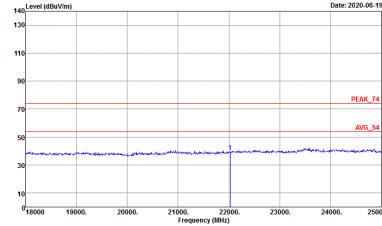


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH12 2462MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

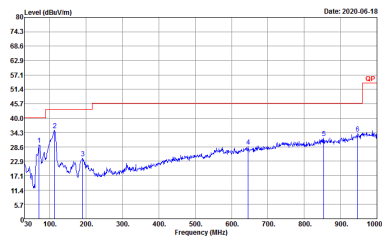
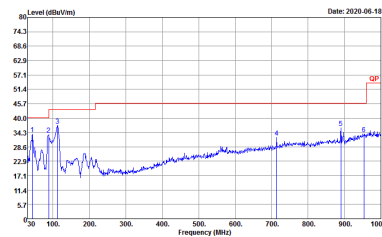


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak Project : 020110-01

Emission above 18GHz
2.4GHz WIFI 802.11n HT20 (SHF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT20 SHF	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 1m SHF HORN 88HA9170584 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : PEAK_74 1m SHF HORN 88HA9170584 VERTICAL Detector : Peak Project : 020110-01

Emission below 1GHz
2.4GHz WIFI 802.11n HT20 (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT20 LF	
1+2	Horizontal	Vertical
QP / Peak	 Site : 03CH16-HY Condition : QP 3m BTL06_47020406 HORIZONTAL Detector : Peak Project : 020110-01	 Site : 03CH16-HY Condition : QP 3m BTL06_47020406 VERTICAL Detector : Peak Project : 020110-01



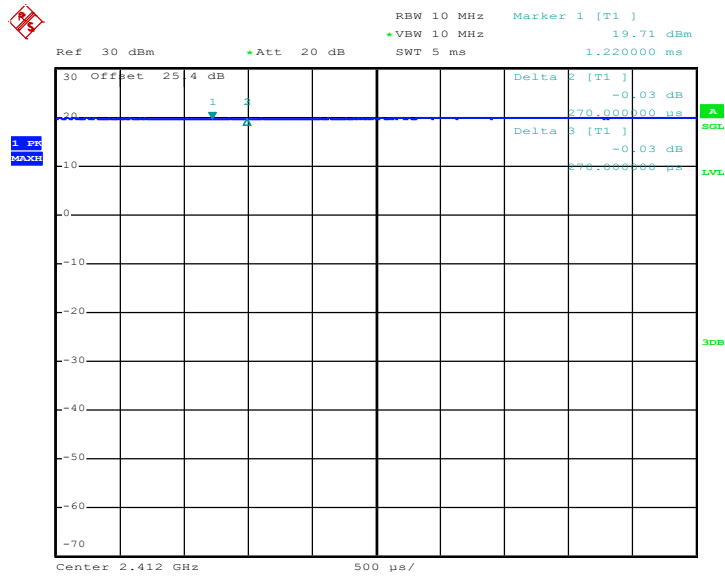
Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1+2	802.11b for Ant.1	100.00	-	-	10Hz	0.00
1+2	802.11b for Ant.2	100.00	-	-	10Hz	0.00
1+2	802.11g for Ant.1	100.00	-	-	10Hz	0.00
1+2	802.11g for Ant.2	100.00	-	-	10Hz	0.00
1+2	802.11n HT20 for Ant.1	100.00	-	-	10Hz	0.00
1+2	802.11n HT20 for Ant.2	100.00	-	-	10Hz	0.00



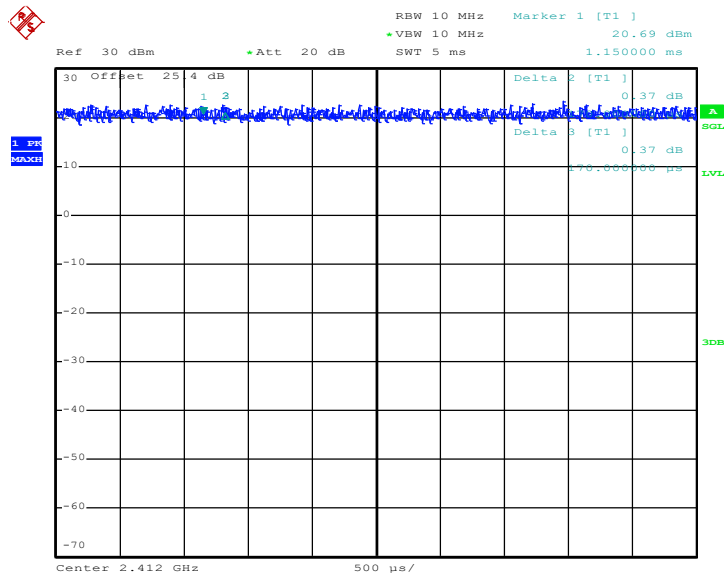
MIMO <Ant. 1>

802.11b

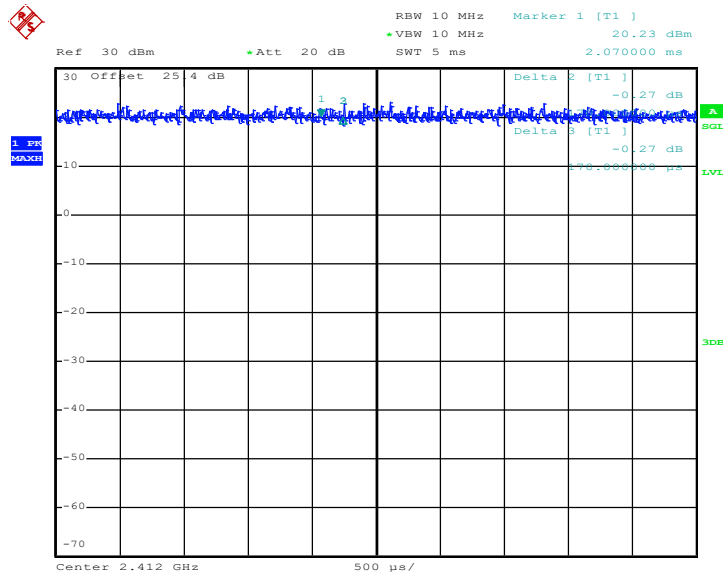


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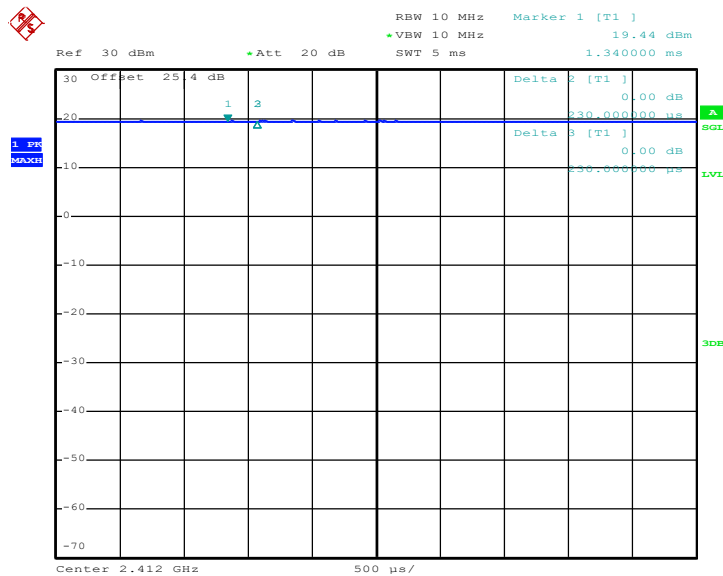
802.11g



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802.11n HT20


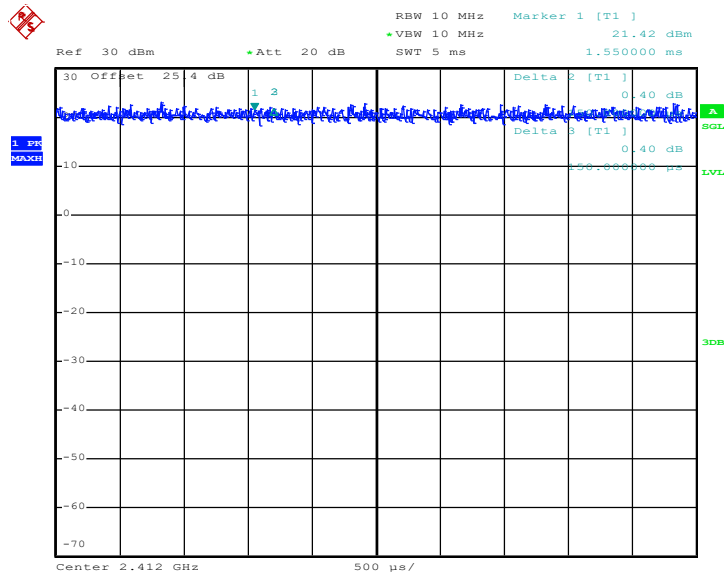
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MIMO <Ant. 2>
802.11b


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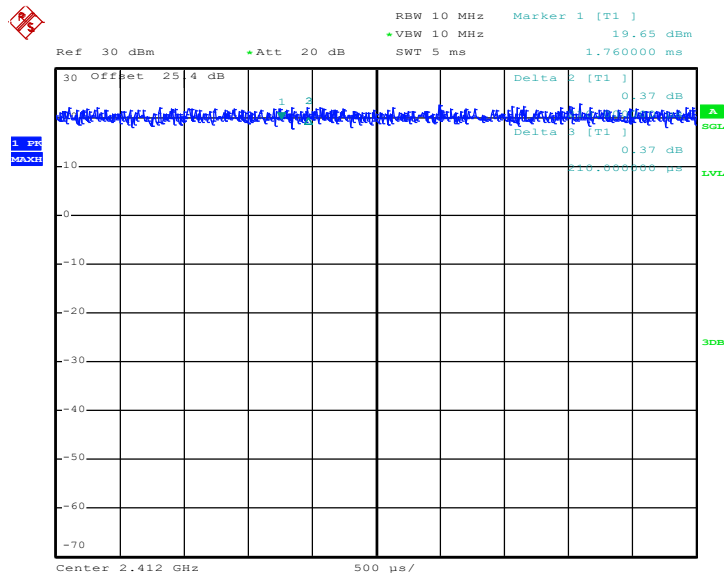


802.11g



Date: 28.MAY.2020 03:12:59

802.11n HT20



Date: 28.MAY.2020 03:14:49

—THE END—