



FCC RADIO TEST REPORT

FCC ID : GKRGBZ4S
Equipment : Wireless Device
Model Name : GBZ4S
Applicant : Compal Electronics, Inc.
No. 581-1 & 581, Ruiguang Rd.,
Nei-hu District, Taipei City 114,
TAIWAN (R.O.C.)
Standard : FCC Part 15 Subpart C §15.247

The product was received on Apr. 28, 2021 and testing was started from May 04, 2021 and completed on Dec. 11, 2021. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

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



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History of this test report

Report No.	Version	Description	Issued Date
FR0D2204-01C	01	Initial issue of report	Dec. 14, 2021
FR0D2204-01C	02	1. Revise Support Unit used in test configuration and system and Radiated Spurious Emission test Item 2. Add remark in Test Mode	Dec. 23, 2021

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
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	Under limit 1.83 dB at 2483.560 MHz
3.6	15.207	AC Conducted Emission	Pass	Under limit 9.43 dB at 0.569 MHz
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: Avis Chuang

Report Producer: Lucy Wu

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Wireless Device
Model Name	GBZ4S
FCC ID	GKRGBZ4S
EUT supports Radios application	WCDMA/HSPA/LTE/ NFC (Passive) WLAN 11b/g/n HT20 Bluetooth BR/EDR/LE

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

EUT Information List	
S/N	Performed Test Item
14151FQEJXR04E	RF Conducted Measurement1
14231FQEJSR00T	Radiated Spurious Emission
14171FQEJSR06S	Conducted Emission

1.2 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx/Rx Channel Frequency Range	2412 MHz ~ 2462 MHz
Maximum Output Power to Antenna	802.11b: 18.50 dBm / 0.0708 W 802.11g: 18.40 dBm / 0.0692 W 802.11n HT20: 17.10 dBm / 0.0513 W
99% Occupied Bandwidth	802.11b: 9.18 MHz 802.11g: 16.83 MHz 802.11n HT20: 17.83 MHz
Antenna Type / Gain	IFA Antenna with gain -5.40 dBi
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.3 Modification of EUT

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

1.4 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. CO05-HY (TAF Code: 1190)
Remark	The Conducted Emission test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory.

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

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. 03CH13-HY ; TH05-HY

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

FCC designation No.: TW1190 and TW3786

1.5 Applicable Standards

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

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

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF code is not including all the FCC KDB listed without accreditation.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). The measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find X Plane with Charger and Strap 1 as worst plane.
- 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	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437		

2.2 Test Mode

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

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

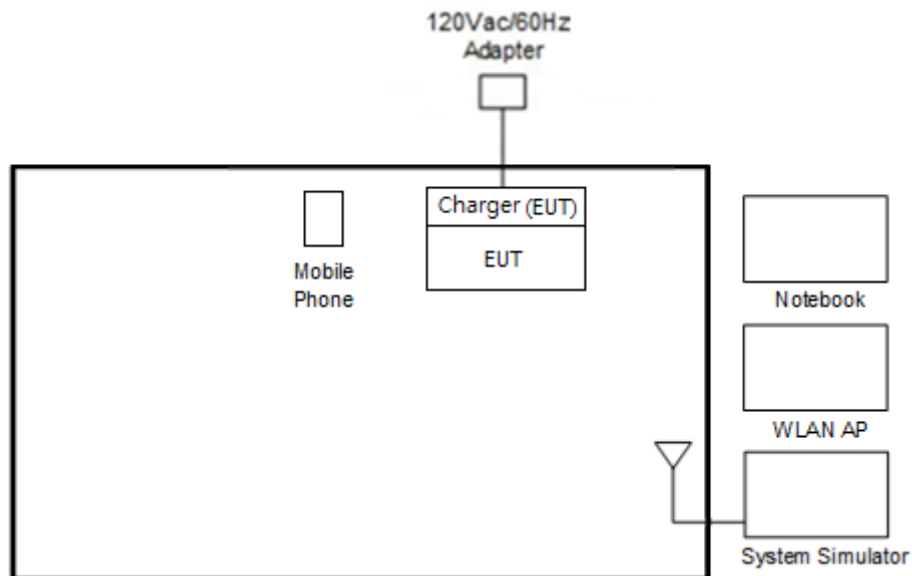
Test Cases	
AC Conducted Emission	Mode 1: LTE Band 5 Idle + WLAN (2.4GHz) Link + Bluetooth Link + Charger (Charging from AC Adapter) + NFC (Passive) On + Battery <50% ; Charging Mode

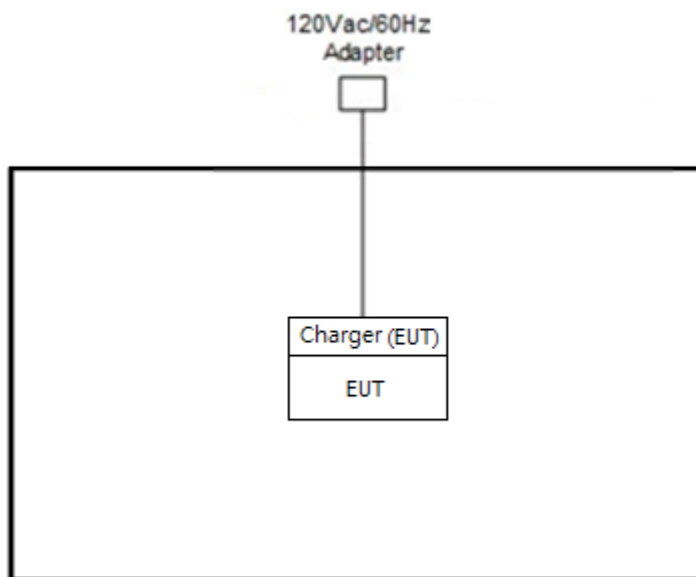
Ch. #	2400-2483.5 MHz		
	802.11b	802.11g	802.11n HT20
Low	01	01	01
Middle	06	06	06
High	11	11	11

Remark:

1. For radiation spurious emission, the final modulation and the worst data rate was reference the max RF conducted power.
2. Radiation Spurious Emission full test on EUT with Strap 1 and spot check the worst case with Strap 3.

2.3 Connection Diagram of Test System

<AC Conducted Emission Mode>


<WLAN Tx Mode>

2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
3.	Notebook	DELL	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Mobile Phone	SAMSUNG	SM-A730F/DS	A3LSMA730F	N/A	N/A
5.	AC Adapter	N/A	N/A	N/A	N/A	N/A
6.	Wireless Device	N/A	G943M	GKRG943M	N/A	Unshielded, 1.0m

2.5 EUT Operation Test Setup

The RF test items, utility “CMD ver.10.0.18362.1256” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.



2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example:

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

Offset = RF cable loss + attenuator factor.

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

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

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.

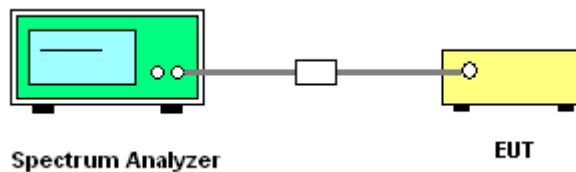
3.1.2 Measuring Instruments

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 the maximum power setting and enable the EUT to 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.

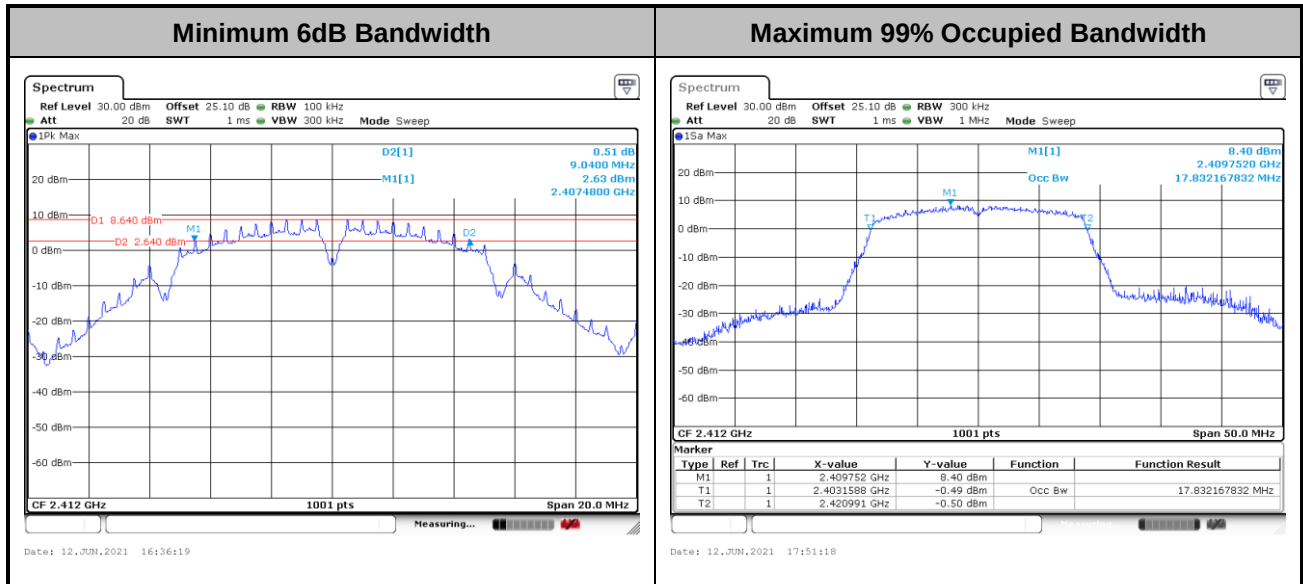
3.1.4 Test Setup





3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A.



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

3.2 Output Power Measurement

3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5 MHz, the limit for output power is 30 dBm. If transmitting antenna with directional gain greater than 6 dBi 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 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

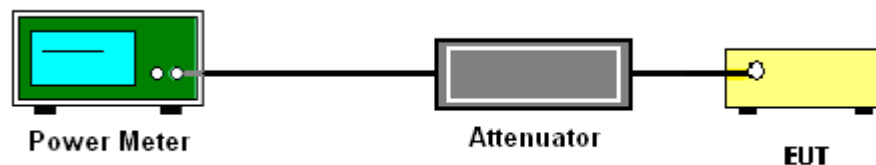
3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

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 the maximum power setting and enable the EUT to transmit continuously.
4. Measure the conducted output power and record the results in the test report.

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 8 dBm in any 3 kHz band at any time interval of continuous transmission.

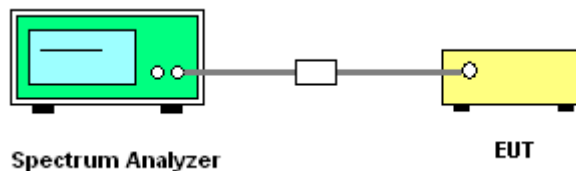
3.3.2 Measuring Instruments

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 the maximum power setting and enable the EUT to 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.

3.3.4 Test Setup





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.

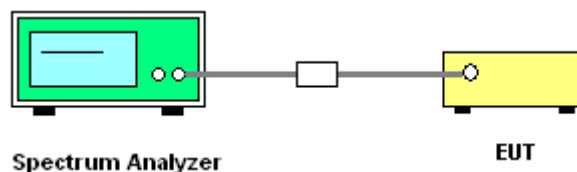
3.4.2 Measuring Instruments

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 the maximum power setting and enable the EUT to 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.

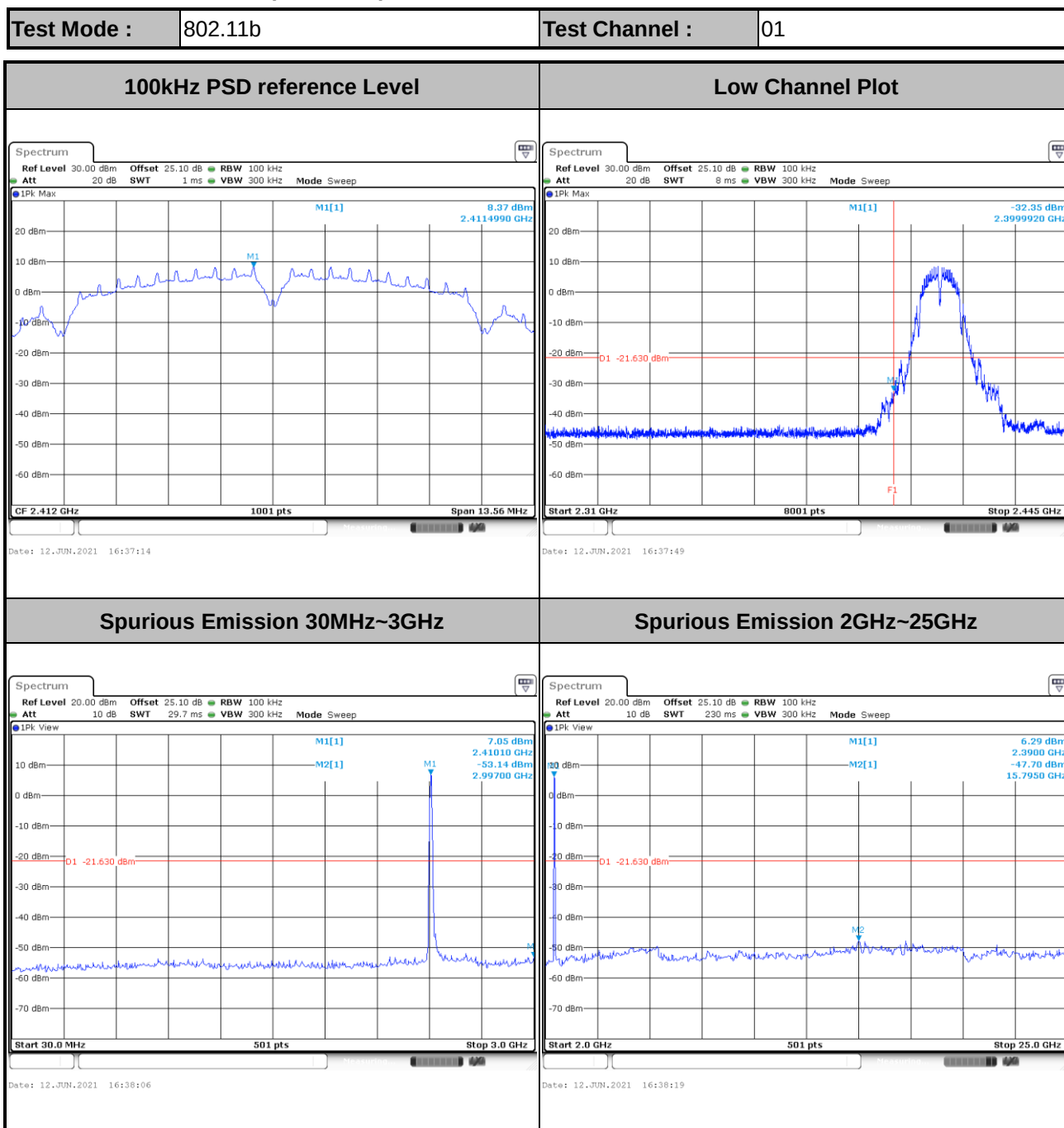
3.4.4 Test Setup





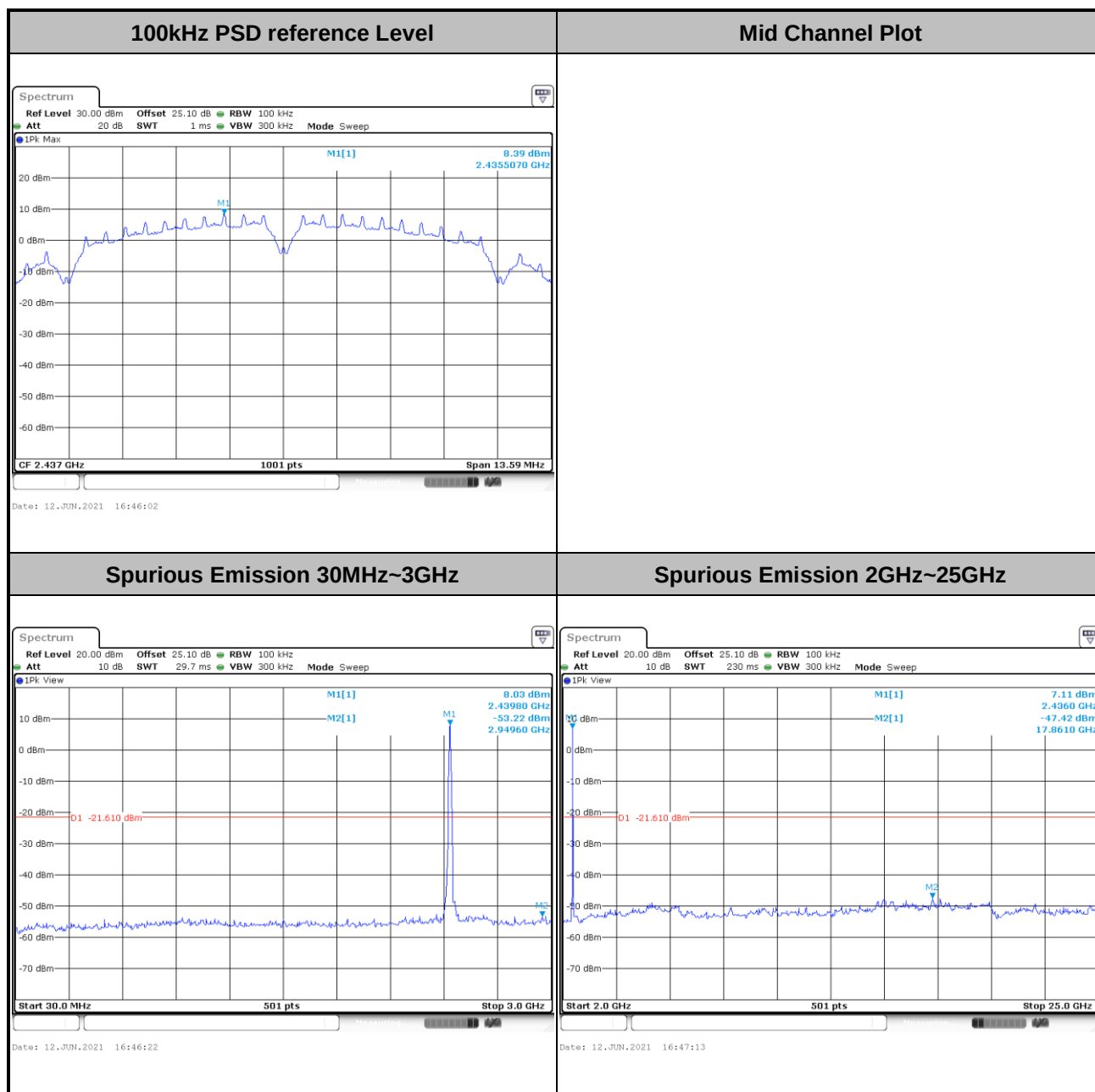
3.4.5 Test Result of Conducted Band Edges and Spurious Emission

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



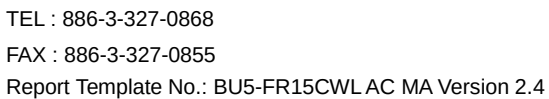


Test Mode :	802.11b	Test Channel :	06
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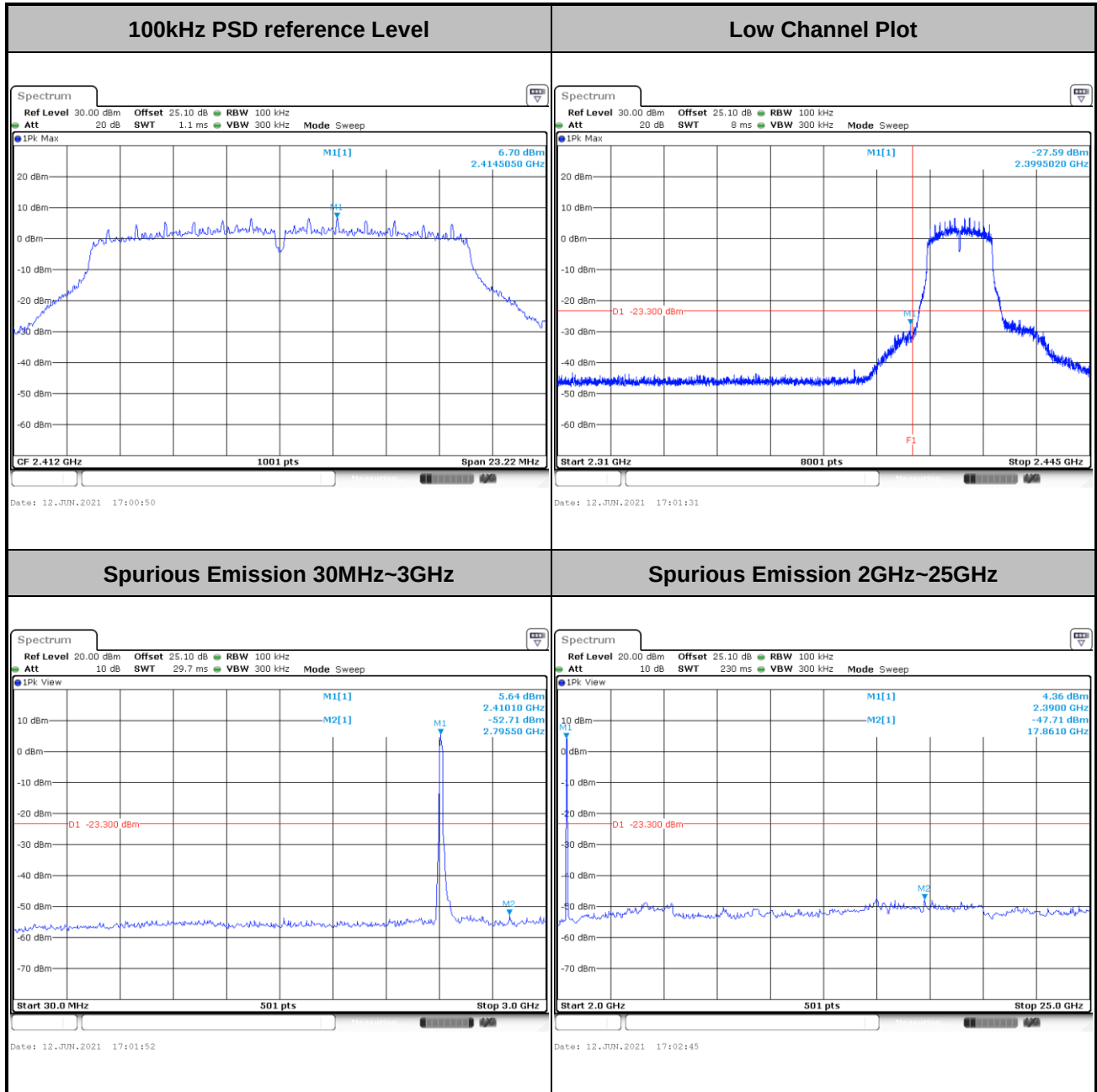


Test Mode :	802.11b	Test Channel :	11
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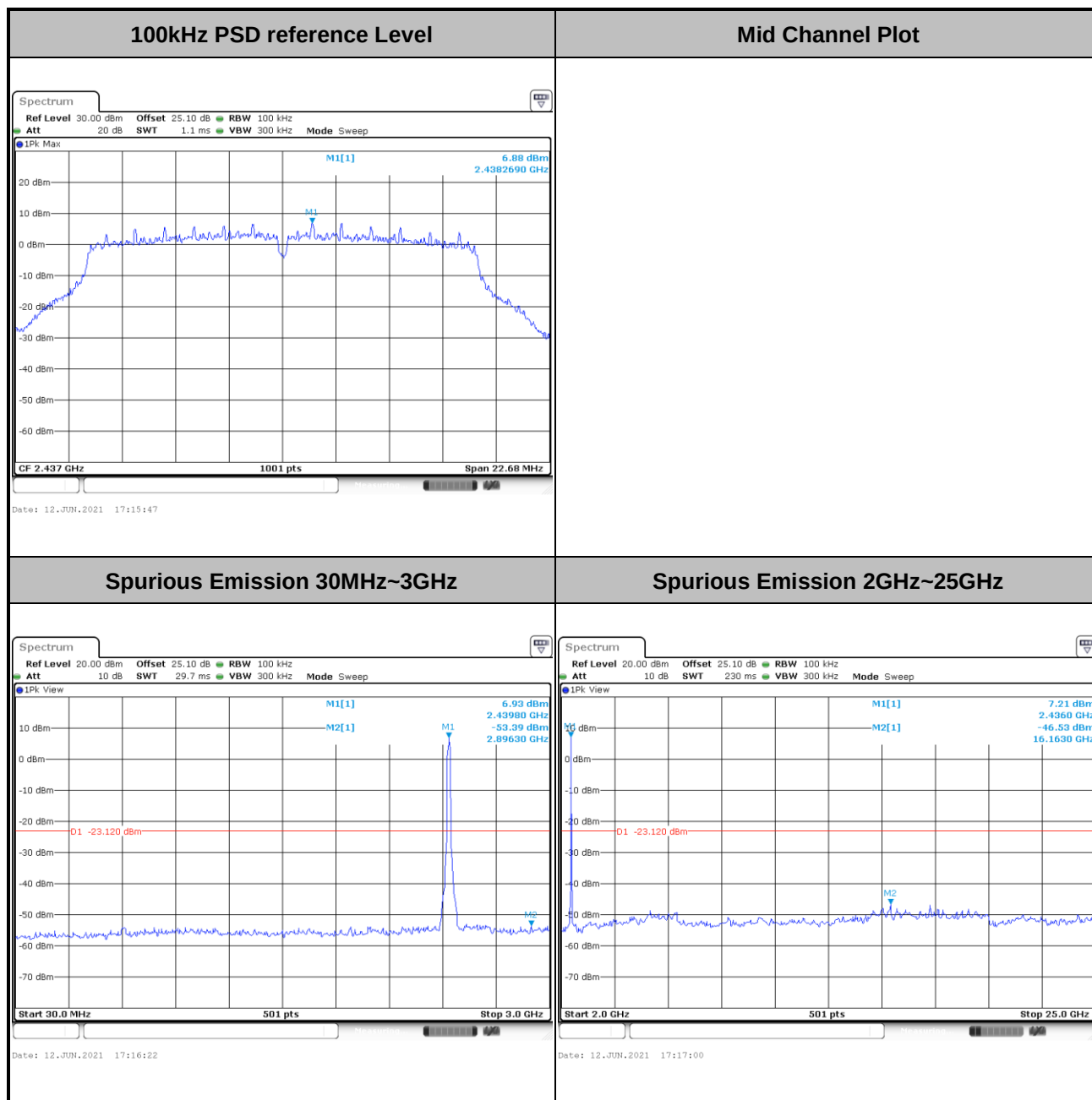


Test Mode :	802.11g	Test Channel :	01
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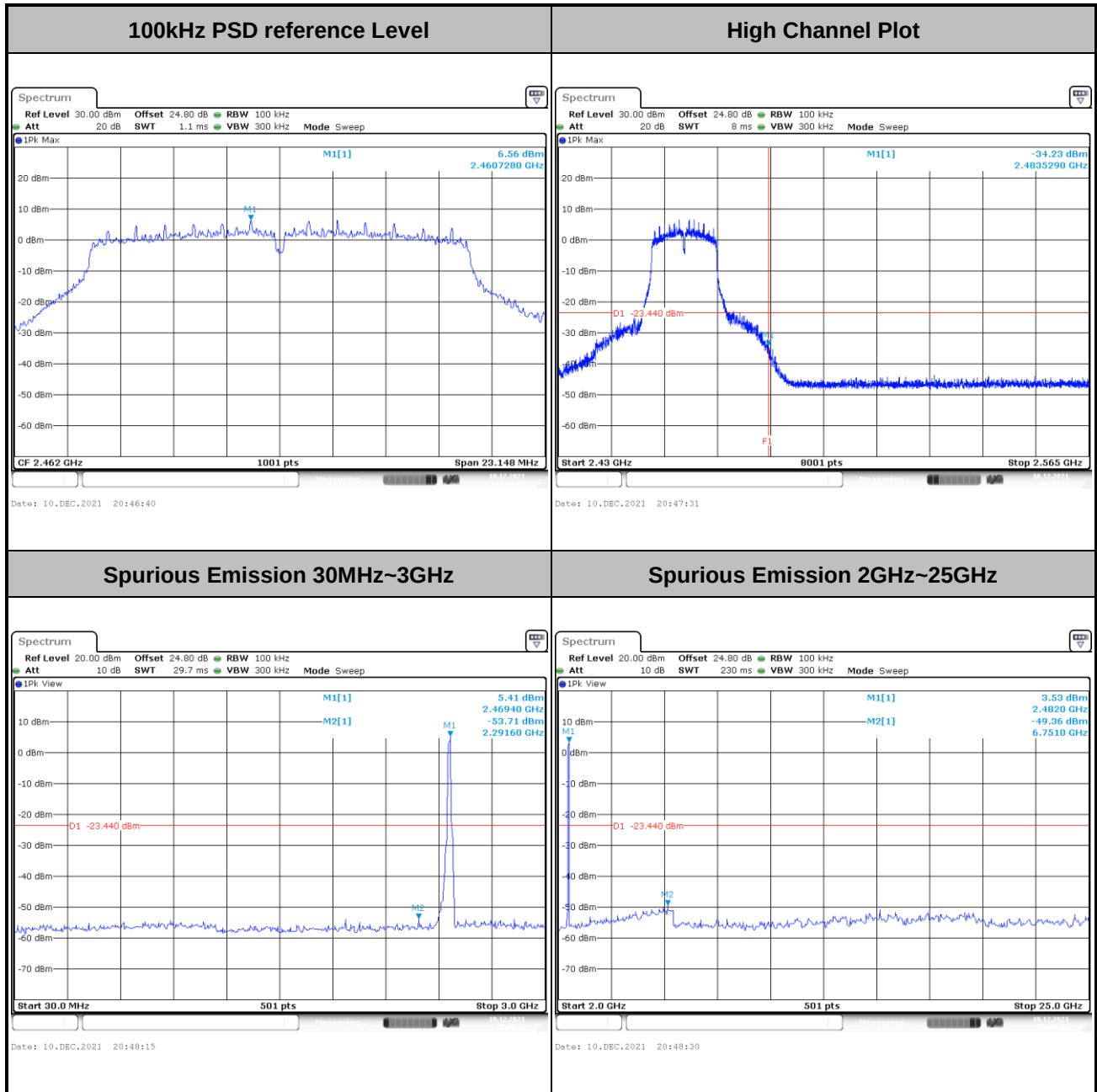


Test Mode :	802.11g	Test Channel :	06
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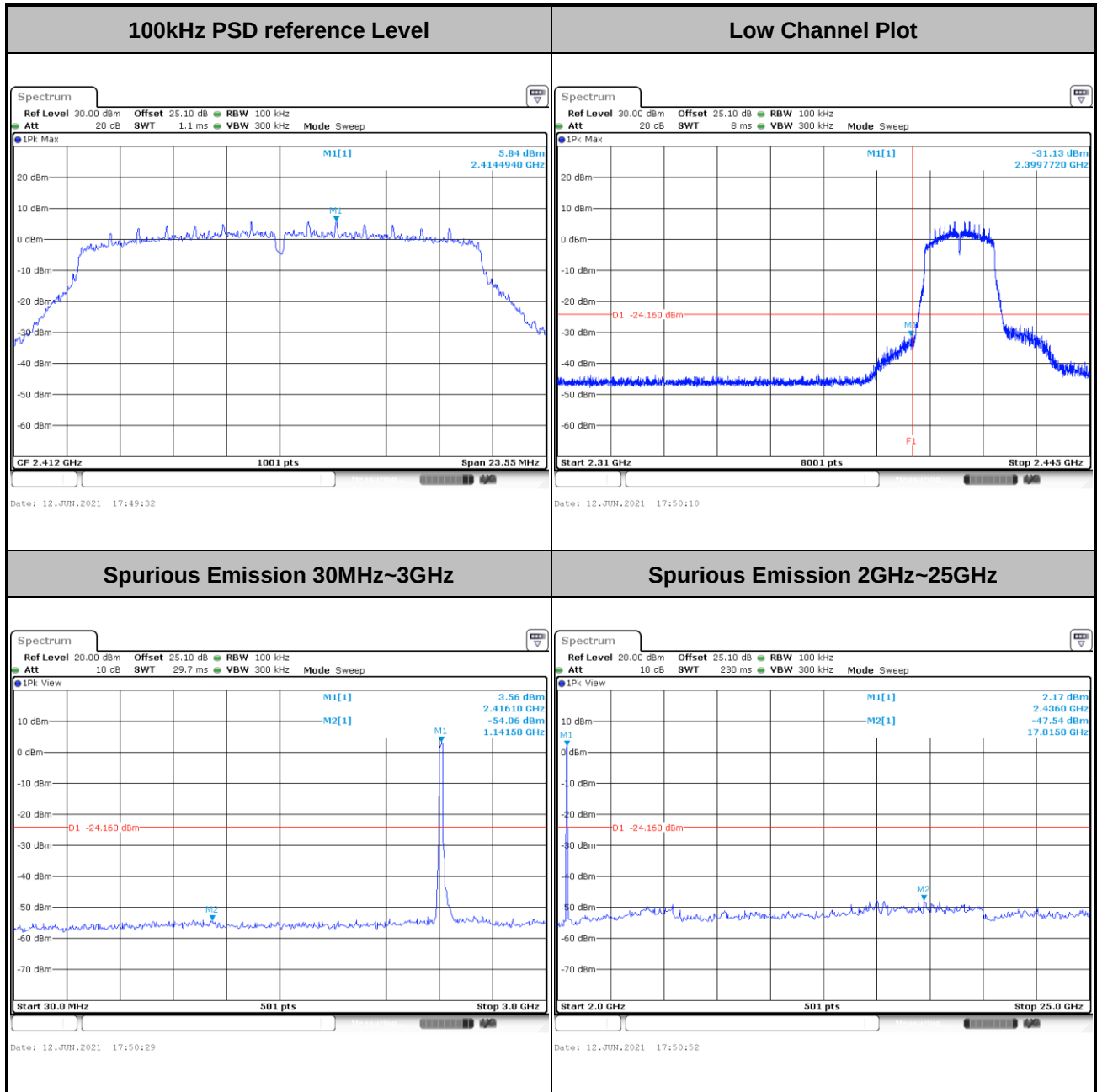


Test Mode :	802.11g	Test Channel :	11
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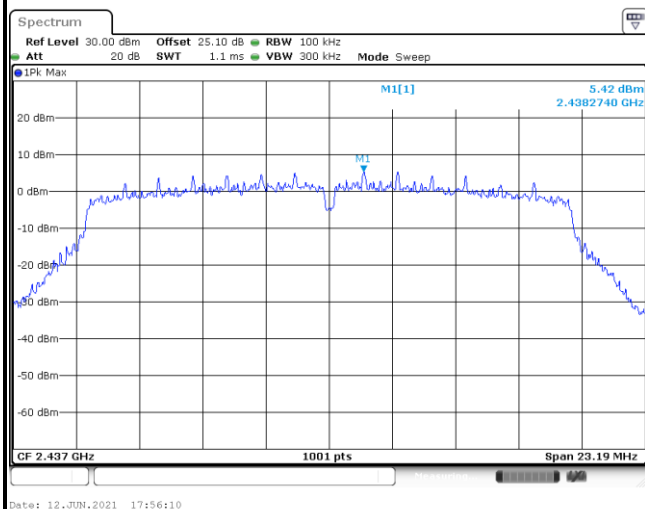
Test Mode :	802.11n HT20	Test Channel :	01
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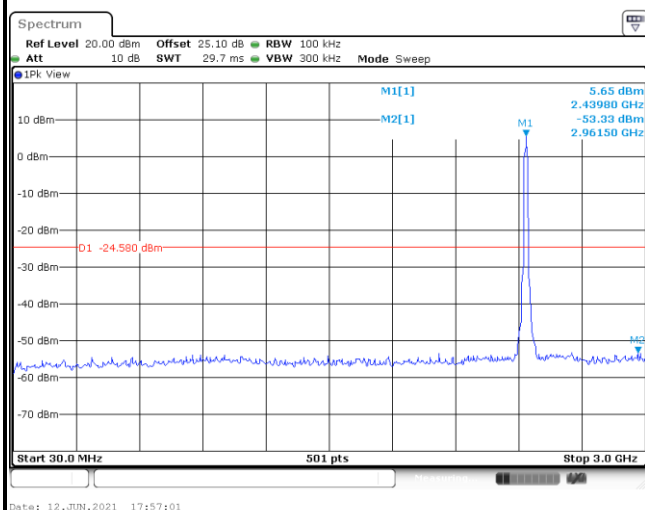
Test Mode :	802.11n HT20	Test Channel :	06
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100kHz PSD reference Level

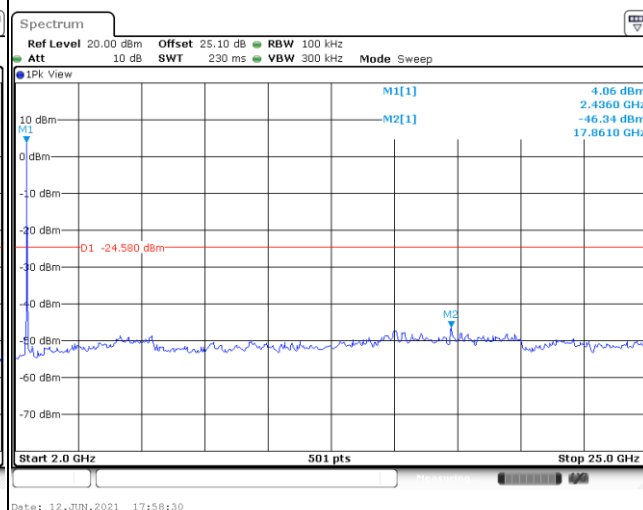


Mid Channel Plot

Spurious Emission 30MHz~3GHz

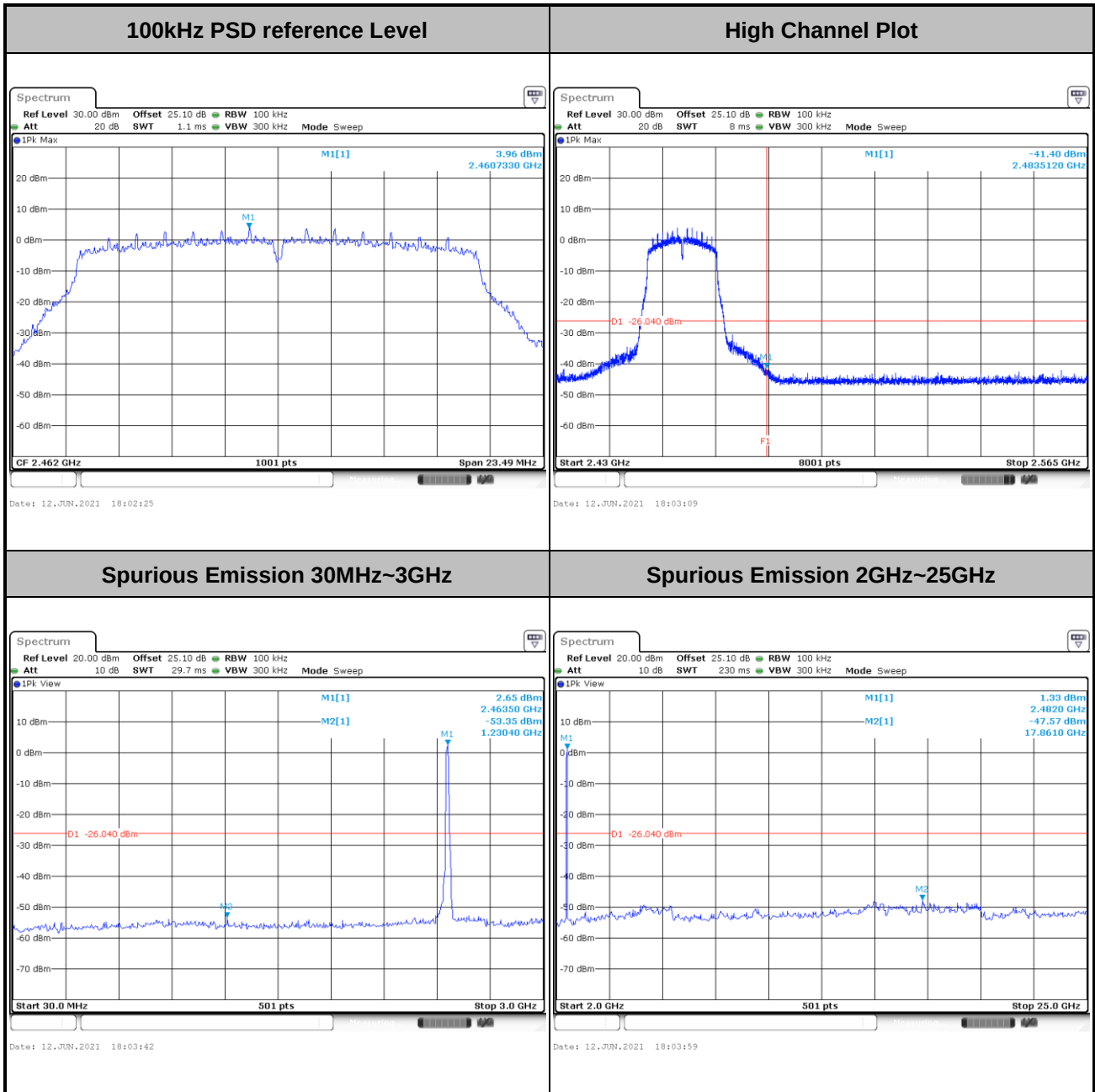


Spurious Emission 2GHz~25GHz





Test Mode :	802.11n HT20	Test Channel :	11
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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

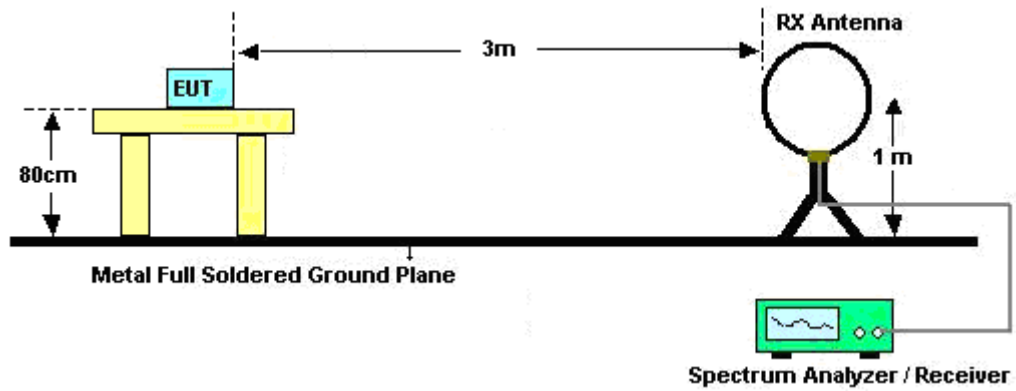
See list of measuring equipment of this test report.

3.5.3 Test Procedures

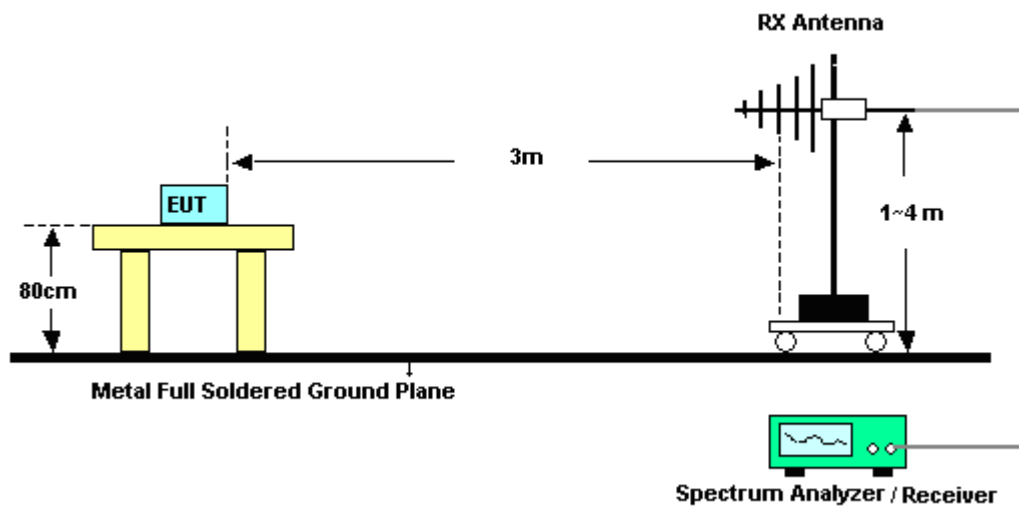
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz 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 1 GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1 GHz, the emission level of the EUT in peak mode was 20 dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
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= 3 MHz 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

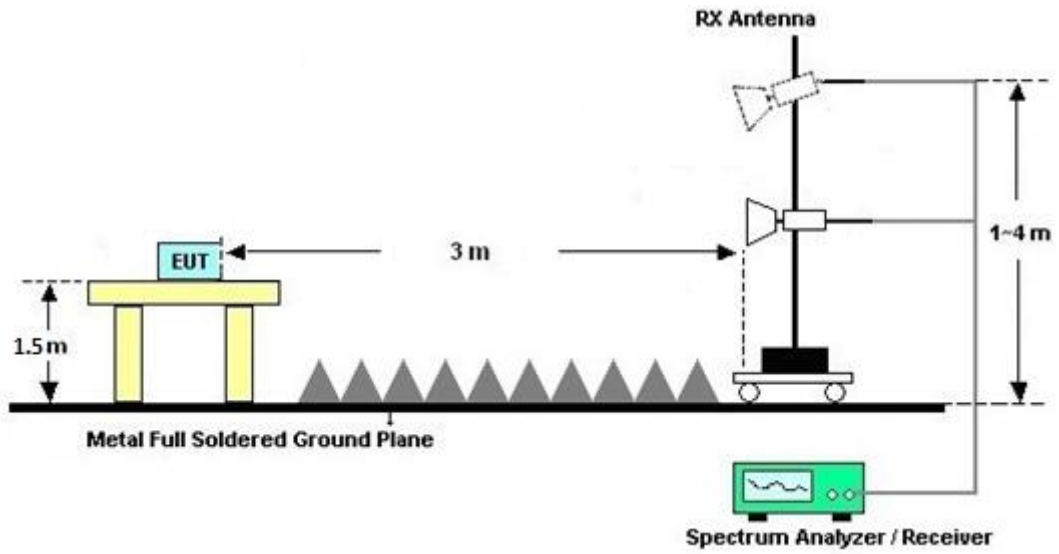
For radiated emissions below 30MHz



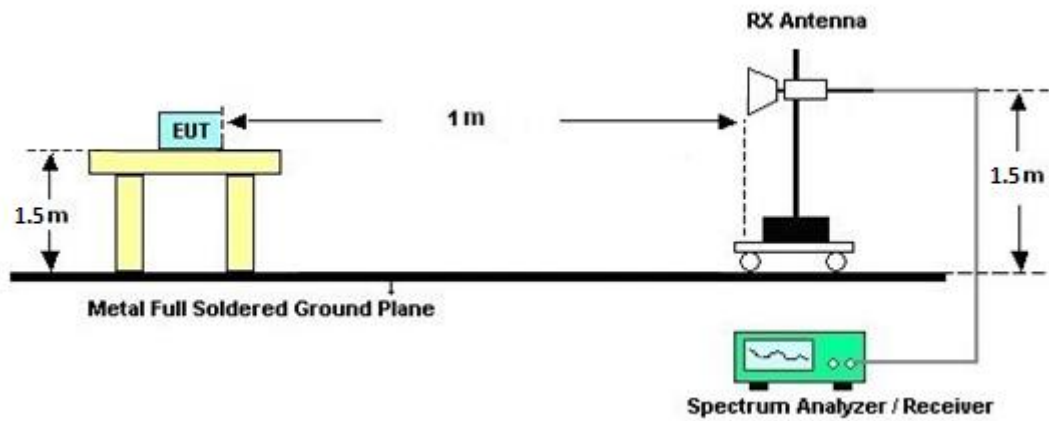
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test 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 adequate comparison measurement 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.

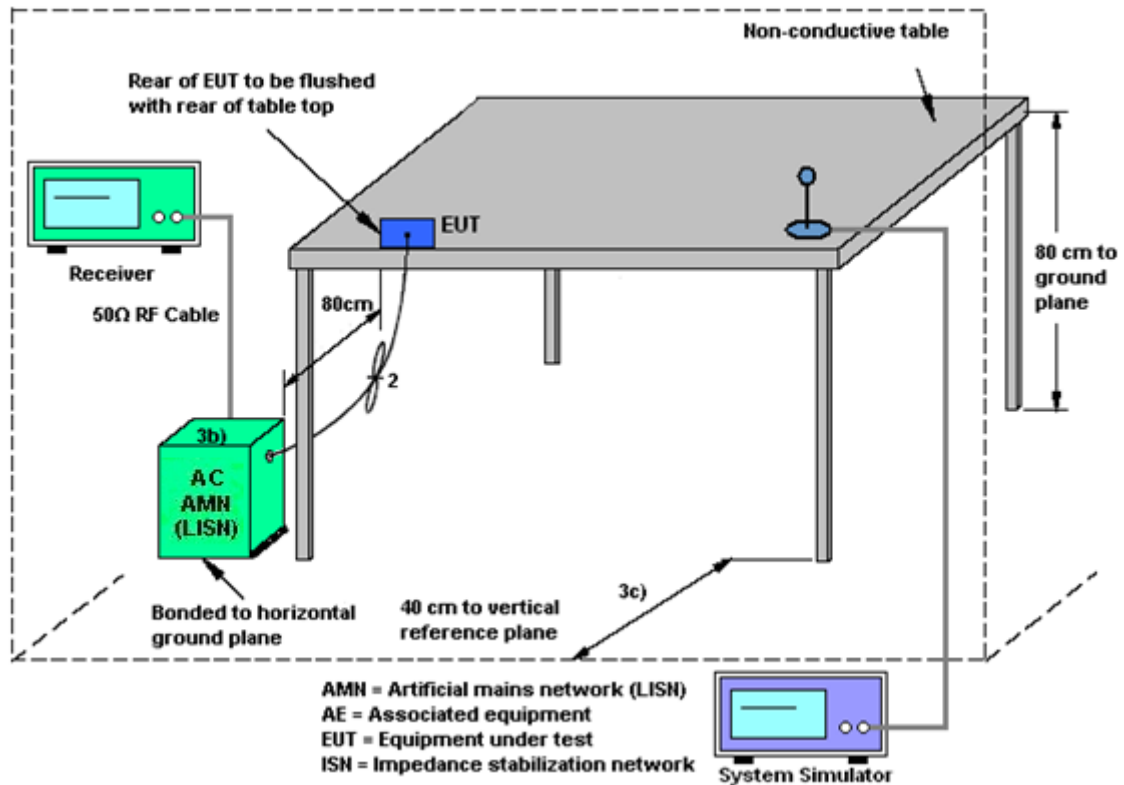
3.6.2 Measuring Instruments

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 shall be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (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 6 dBi, the power shall be reduced by the same level in dB comparing to gain minus 6 dBi. 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

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Jun. 02, 2021~ Dec. 09, 2021	Jan. 03, 2022	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 16, 2020	Jun. 02, 2021~ Dec. 09, 2021	Dec. 15, 2021	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	40103&07	30MHz to 1GHz	Apr. 28, 2021	Jun. 02, 2021~ Dec. 09, 2021	Apr. 27, 2022	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz ~ 18GHz	Jul. 15, 2020	Jun. 02, 2021~ Jul. 13, 2021	Jul. 14, 2021	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz ~ 18GHz	Jul. 13, 2021	Jul. 13, 2021~ Dec. 09, 2021	Jul. 12, 2022	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590074	1GHz~18GHz	May 18, 2021	Jun. 02, 2021~ Dec. 09, 2021	May 17, 2022	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Oct. 28, 2020	Jun. 02, 2021~ Oct. 26, 2021	Oct. 27, 2021	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Oct. 26, 2021	Oct. 26, 2021~ Dec. 09, 2021	Oct. 25, 2022	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 18, 2021	Jun. 02, 2021~ Dec. 09, 2021	Mar. 17, 2022	Radiation (03CH13-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Jun. 02, 2021~ Dec. 09, 2021	N/A	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Jun. 02, 2021~ Dec. 09, 2021	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Jun. 02, 2021~ Dec. 09, 2021	N/A	Radiation (03CH13-HY)
Software	Audix	E3 6.2009-8-24	RK-000992	N/A	N/A	Jun. 02, 2021~ Dec. 09, 2021	N/A	Radiation (03CH13-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 11, 2020	Jun. 02, 2021~ Dec. 09, 2021	Dec. 10, 2021	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0030/126E	30M-18G	Feb. 10, 2021	Jun. 02, 2021~ Dec. 09, 2021	Feb. 09, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	804793/4	30M-18G	Feb. 10, 2021	Jun. 02, 2021~ Dec. 09, 2021	Feb. 09, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M~40GHz	Feb. 22, 2021	Jun. 02, 2021~ Dec. 09, 2021	Feb. 21, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30MHz~40GHz	Mar. 11, 2021	Jun. 02, 2021~ Dec. 09, 2021	Mar. 10, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24961/4	30M-18G	Feb. 10, 2021	Jun. 02, 2021~ Dec. 09, 2021	Feb. 09, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Jun. 02, 2021~ Dec. 09, 2021	Mar. 10, 2022	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	00994	18GHz- 40GHz	Nov. 19, 2020	Jun. 02, 2021~ Nov. 03, 2021	Nov. 18, 2021	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	00994	18GHz- 40GHz	Nov. 04, 2021	Nov. 04, 2021~ Dec. 09, 2021	Nov. 03, 2022	Radiation (03CH13-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Filter	Wainwright	WLK4-1000-15 30-8000-40SS	SN12	1.53GHz Low Pass Filter	Sep. 15, 2020	Jun. 02, 2021~ Sep. 13, 2021	Sep. 14, 2021	Radiation (03CH13-HY)
Filter	Wainwright	WLK4-1000-15 30-8000-40SS	SN12	1.53GHz Low Pass Filter	Sep. 14, 2021	Sep. 14, 2021~ Dec. 09, 2021	Sep. 13, 2022	Radiation (03CH13-HY)
Filter	Wainwright	WHKX12-2700 -3000-18000-6 OSS	SN2	3GHz High Pass Filter	Jul. 13, 2020	Jun. 02, 2021~ Jul. 11, 2021	Jul. 12, 2021	Radiation (03CH13-HY)
Filter	Wainwright	WHKX12-2700 -3000-18000-6 OSS	SN2	3GHz High Pass Filter	Jul. 12, 2021	Jul. 12, 2021~ Dec. 09, 2021	Jul. 11, 2022	Radiation (03CH13-HY)
Hygrometer	TECEP	DTM-303A	TP182676	N/A	Nov. 18, 2020	Jun. 02, 2021~ Oct. 15, 2021	Nov. 17, 2021	Radiation (03CH13-HY)
Hygrometer	TECEP	DTM-303A	TP157066	N/A	May 07, 2021	Oct. 16, 2021~ Dec. 09, 2021	May 06, 2022	Radiation (03CH13-HY)
Hygrometer	TECEP	TR-32	HE17XB2468	N/A	Mar. 09, 2021	May 04, 2021~ Dec. 11, 2021	Mar. 08, 2022	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO 12	10MHz~6GHz	Dec. 16, 2020	May 04, 2021~ Dec. 11, 2021	Dec. 15, 2021	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz ~ 40GHz	Jul. 22, 2020	May 04, 2021~ Jul. 20, 2021	Jul. 21, 2021	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101565	10Hz ~ 40GHz	Nov. 13, 2020	Jul. 21, 2021~ Nov. 11, 2021	Nov. 12, 2021	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz ~ 40GHz	Aug. 30, 2021	Nov. 12, 2021~ Dec. 11, 2021	Aug. 29, 2022	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	GEO821763	N/A	Sep. 16, 2020	May 04, 2021~ Aug. 13, 2021	Sep. 15, 2021	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890089	1V~20V 0.5A~5A	Feb. 20, 2021	Aug. 14, 2021~ Dec. 11, 2021	Feb. 19, 2022	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF058	EC1300484	N/A	Nov. 19, 2020	May 04, 2021~ Aug. 13, 2021	Nov. 18, 2021	Conducted (TH05-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW191204(B OX8)	N/A	Jan. 07, 2021	Aug. 14, 2021~ Dec. 11, 2021	Jan. 06, 2022	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jun. 01, 2021~ Jun. 24, 2021	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 30, 2020	Jun. 01, 2021~ Jun. 24, 2021	Nov. 29, 2021	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 18, 2020	Jun. 01, 2021~ Jun. 24, 2021	Nov. 17, 2021	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 01, 2020	Jun. 01, 2021~ Jun. 24, 2021	Nov. 30, 2021	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jun. 01, 2021~ Jun. 24, 2021	N/A	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Feb. 25, 2021	Jun. 01, 2021~ Jun. 24, 2021	Feb. 24, 2022	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 31, 2020	Jun. 01, 2021~ Jun. 24, 2021	Dec. 30, 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 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.0 dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.8 dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.9 dB
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Appendix A. Test Result of Conducted Test Items

Test Engineer:	Mina Liu / Tommy Lee	Temperature:	21~25	°C
Test Date:	2021/5/4~2021/12/11	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band Single Antenna										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant0	Ant1	Ant0	Ant1		
11b	1Mbps	1	1	2412	8.61	-	9.04	-	0.50	Pass
11b	1Mbps	1	6	2437	8.66	-	9.06	-	0.50	Pass
11b	1Mbps	1	11	2462	9.18	-	9.06	-	0.50	Pass
11g	6Mbps	1	1	2412	16.78	-	15.48	-	0.50	Pass
11g	6Mbps	1	6	2437	16.78	-	15.12	-	0.50	Pass
11g	6Mbps	1	11	2462	16.83	-	15.43	-	0.50	Pass
HT20	MCS0	1	1	2412	17.83	-	15.70	-	0.50	Pass
HT20	MCS0	1	6	2437	17.78	-	15.46	-	0.50	Pass
HT20	MCS0	1	11	2462	17.78	-	15.66	-	0.50	Pass

TEST RESULTS DATA
Average Output Power

2.4GHz Band Single Antenna																
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
					Ant0	Ant1	SUM	Ant0	Ant1	Ant0	Ant1	Ant0	Ant1	Ant0	Ant1	
11b	1Mbps	1	1	2412	18.00	-		30.00	-	-5.40	-	12.60	-	36.00	-	Pass
11b	1Mbps	1	6	2437	18.30	-		30.00	-	-5.40	-	12.90	-	36.00	-	Pass
11b	1Mbps	1	11	2462	18.50	-		30.00	-	-5.40	-	13.10	-	36.00	-	Pass
11g	6Mbps	1	1	2412	18.40	-		30.00	-	-5.40	-	13.00	-	36.00	-	Pass
11g	6Mbps	1	6	2437	18.40	-		30.00	-	-5.40	-	13.00	-	36.00	-	Pass
11g	6Mbps	1	11	2462	17.90	-		30.00	-	-5.40	-	12.50	-	36.00	-	Pass
HT20	MCS0	1	1	2412	17.00	-		30.00	-	-5.40	-	11.60	-	36.00	-	Pass
HT20	MCS0	1	6	2437	17.10	-		30.00	-	-5.40	-	11.70	-	36.00	-	Pass
HT20	MCS0	1	11	2462	16.70	-		30.00	-	-5.40	-	11.30	-	36.00	-	Pass

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

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band Single Antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant0	Ant1	Worse + 3.01	Ant0	Ant1	Ant0	Ant1	
11b	1Mbps	1	1	2412	-4.63	-		-5.40	-	8.00	-	Pass
11b	1Mbps	1	6	2437	-4.56	-		-5.40	-	8.00	-	Pass
11b	1Mbps	1	11	2462	-4.07	-		-5.40	-	8.00	-	Pass
11g	6Mbps	1	1	2412	-7.47	-		-5.40	-	8.00	-	Pass
11g	6Mbps	1	6	2437	-7.25	-		-5.40	-	8.00	-	Pass
11g	6Mbps	1	11	2462	-7.77	-		-5.40	-	8.00	-	Pass
HT20	MCS0	1	1	2412	-8.59	-		-5.40	-	8.00	-	Pass
HT20	MCS0	1	6	2437	-8.56	-		-5.40	-	8.00	-	Pass
HT20	MCS0	1	11	2462	-9.96	-		-5.40	-	8.00	-	Pass

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



Appendix B. AC Conducted Emission Test Results

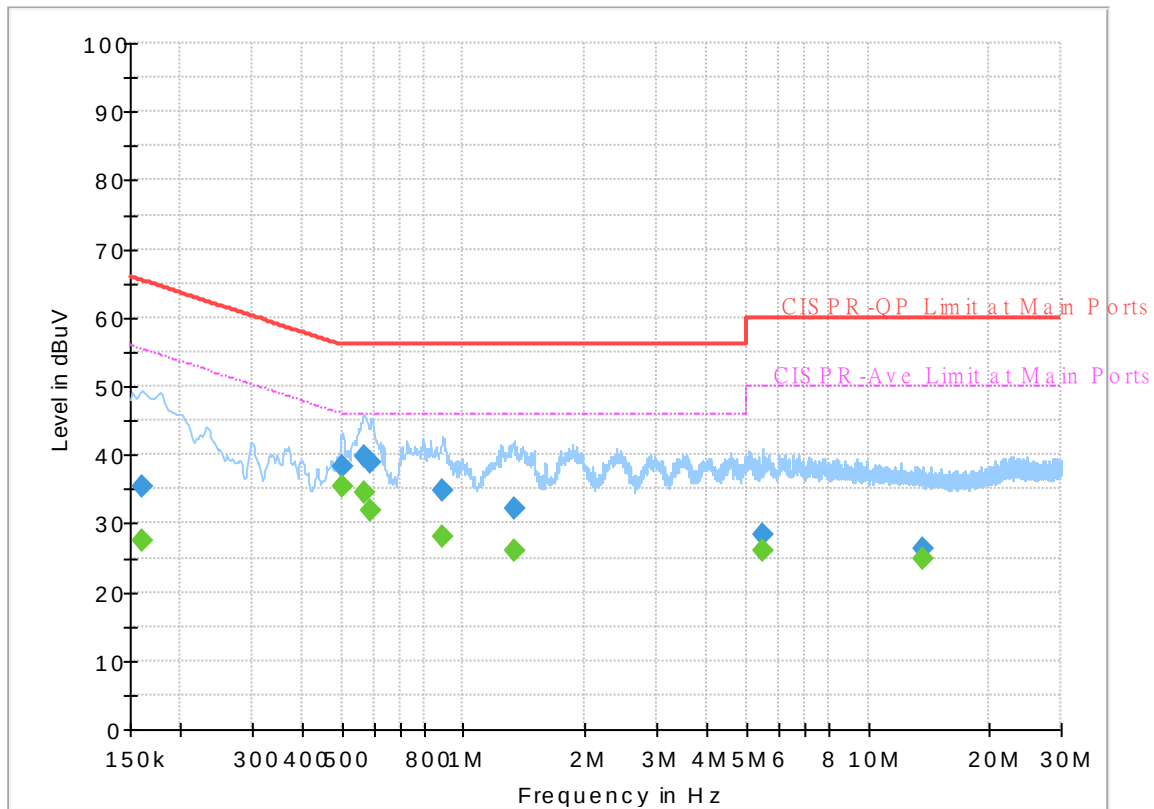
Test Engineer :	Calvin Wang and Tom Lee	Temperature :	23~26°C
		Relative Humidity :	40~50%

EUT Information

Report NO : 0D2204-01

Test Voltage : 120Vac/60Hz
Phase : Line

Full Spectrum



Final_Result

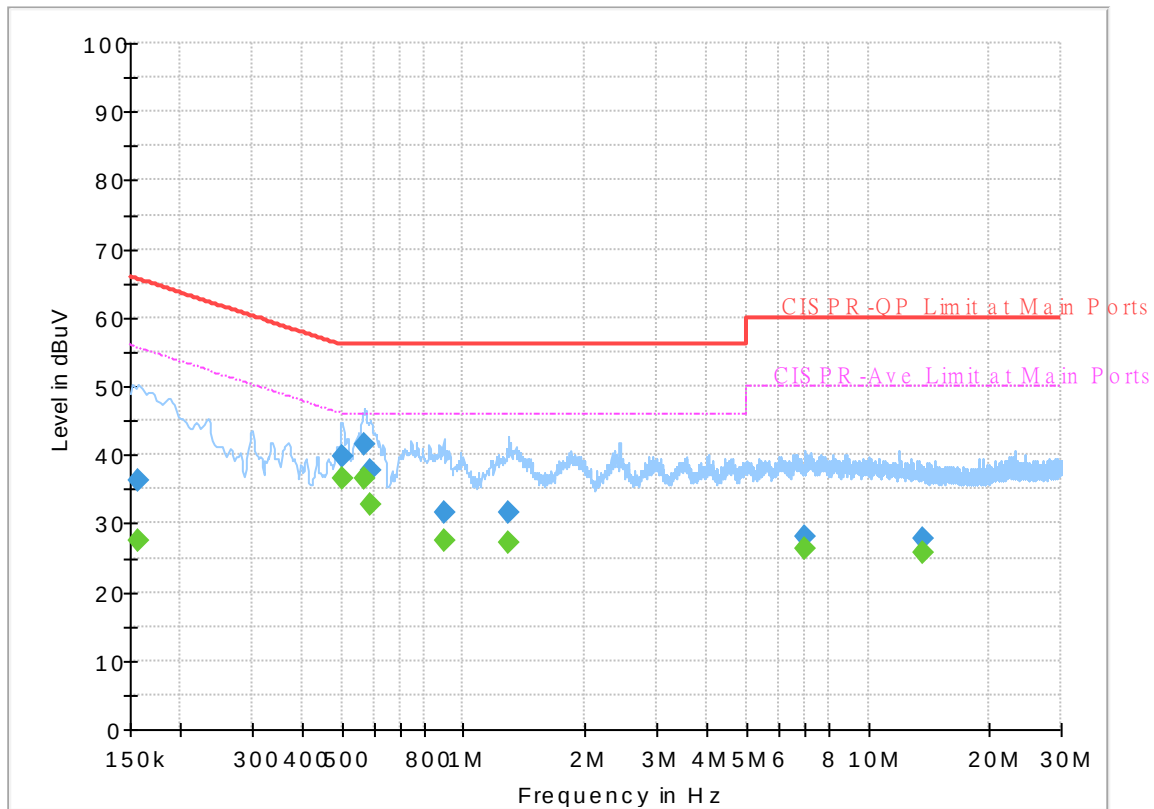
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.161250	---	27.62	55.40	27.78	L1	OFF	19.5
0.161250	35.51	---	65.40	29.89	L1	OFF	19.5
0.503250	---	35.45	46.00	10.55	L1	OFF	19.7
0.503250	38.33	---	56.00	17.67	L1	OFF	19.7
0.566250	---	34.39	46.00	11.61	L1	OFF	19.7
0.566250	39.74	---	56.00	16.26	L1	OFF	19.7
0.588750	---	31.76	46.00	14.24	L1	OFF	19.7
0.588750	38.76	---	56.00	17.24	L1	OFF	19.7
0.888000	---	28.18	46.00	17.82	L1	OFF	20.0
0.888000	34.73	---	56.00	21.27	L1	OFF	20.0
1.331250	---	25.88	46.00	20.12	L1	OFF	20.0
1.331250	32.28	---	56.00	23.72	L1	OFF	20.0
5.500500	---	26.02	50.00	23.98	L1	OFF	19.9
5.500500	28.22	---	60.00	31.78	L1	OFF	19.9
13.560000	---	24.78	50.00	25.22	L1	OFF	20.1
13.560000	26.28	---	60.00	33.72	L1	OFF	20.1

EUT Information

Report NO : 0D2204-01

Test Voltage : 120Vac/60Hz
Phase : Neutral

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.156750	36.14	---	65.63	29.49	N	OFF	19.5
0.156750	---	27.57	55.63	28.06	N	OFF	19.5
0.501000	39.88	---	56.00	16.12	N	OFF	19.7
0.501000	---	36.42	46.00	9.58	N	OFF	19.7
0.568500	41.43	---	56.00	14.57	N	OFF	19.8
0.568500	---	36.57	46.00	9.43	N	OFF	19.8
0.588750	37.78	---	56.00	18.22	N	OFF	19.8
0.588750	---	32.65	46.00	13.35	N	OFF	19.8
0.892500	31.49	---	56.00	24.51	N	OFF	20.0
0.892500	---	27.46	46.00	18.54	N	OFF	20.0
1.293000	31.48	---	56.00	24.52	N	OFF	20.0
1.293000	---	27.17	46.00	18.83	N	OFF	20.0
7.008000	28.03	---	60.00	31.97	N	OFF	20.0
7.008000	---	26.17	50.00	23.83	N	OFF	20.0
13.560000	27.89	---	60.00	32.11	N	OFF	20.2
13.560000	---	25.81	50.00	24.19	N	OFF	20.2



Appendix C. Radiated Spurious Emission

Test Engineer :	Daniel Lee, Jacky Hong and Wilson Wu	Temperature :	20~25°C
		Relative Humidity :	50~60%

<EUT with Strap 1>

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant. 0	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		2389.59	55.18	-18.82	74	41.28	27.62	14.12	27.84	354	53	P	H
		2390	45.06	-8.94	54	31.16	27.62	14.12	27.84	354	53	A	H
	*	2412	100.76	-	-	86.88	27.58	14.14	27.84	354	53	P	H
	*	2412	97.77	-	-	83.89	27.58	14.14	27.84	354	53	A	H
													H
													H
		2364.6	55.18	-18.82	74	41.27	27.67	14.09	27.85	355	111	P	V
		2390	45.29	-8.71	54	31.39	27.62	14.12	27.84	355	111	A	V
	*	2412	103.25	-	-	89.37	27.58	14.14	27.84	355	111	P	V
	*	2412	100.21	-	-	86.33	27.58	14.14	27.84	355	111	A	V
													V
													V
802.11b CH 06 2437MHz		2388.54	54.66	-19.34	74	40.76	27.62	14.12	27.84	300	53	P	H
		2387.84	43.69	-10.31	54	29.79	27.62	14.12	27.84	300	53	A	H
	*	2437	101.12	-	-	87.26	27.53	14.16	27.83	300	53	P	H
	*	2437	98.09	-	-	84.23	27.53	14.16	27.83	300	53	A	H
		2492.44	54.16	-19.84	74	40.28	27.5	14.2	27.82	300	53	P	H
		2483.62	43.68	-10.32	54	29.8	27.5	14.2	27.82	300	53	A	H
		2385.74	54.58	-19.42	74	40.67	27.63	14.12	27.84	324	17	P	V
		2389.8	43.79	-10.21	54	29.89	27.62	14.12	27.84	324	17	A	V
	*	2437	103.9	-	-	90.04	27.53	14.16	27.83	324	17	P	V
	*	2437	100.89	-	-	87.03	27.53	14.16	27.83	324	17	A	V
		2496.85	54.82	-19.18	74	40.93	27.5	14.21	27.82	324	17	P	V
		2483.89	43.8	-10.2	54	29.92	27.5	14.2	27.82	324	17	A	V



802.11b CH 11 2462MHz	*	2462	98.68	-	-	84.83	27.5	14.18	27.83	198	46	P	H
	*	2462	95.77	-	-	81.92	27.5	14.18	27.83	198	46	A	H
		2483.6	55.14	-18.86	74	41.26	27.5	14.2	27.82	198	46	P	H
		2483.52	47.37	-6.63	54	33.49	27.5	14.2	27.82	198	46	A	H
													H
													H
	*	2462	102.62	-	-	88.77	27.5	14.18	27.83	301	13	P	V
	*	2462	99.53	-	-	85.68	27.5	14.18	27.83	301	13	A	V
		2484.04	57.41	-16.59	74	43.53	27.5	14.2	27.82	301	13	P	V
		2483.52	46.24	-7.76	54	32.36	27.5	14.2	27.82	301	13	A	V
													V
													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. 0	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	39.03	-34.97	74	58.35	31.15	6.59	57.06	-	-	P	H
		17895	54.92	-19.08	74	53.31	45.21	13.11	56.71	-	-	P	H
		17895	45.58	-8.42	54	43.97	45.21	13.11	56.71	-	-	A	H
													H
		4824	38.88	-35.12	74	58.2	31.15	6.59	57.06	-	-	P	V
		17925	54.88	-19.12	74	52.47	46	13.13	56.72	-	-	P	V
		17925	46.27	-7.73	54	43.86	46	13.13	56.72	-	-	A	V
													V
802.11b CH 06 2437MHz		4874	40.82	-33.18	74	59.79	31.2	6.8	56.97	-	-	P	H
		7311	45.73	-28.27	74	57.12	36.78	8.73	56.9	-	-	P	H
		17955	55.66	-18.34	74	52.39	46.84	13.15	56.72	-	-	P	H
		17955	47.26	-6.74	54	43.99	46.84	13.15	56.72	-	-	A	H
		4874	38.59	-35.41	74	57.56	31.2	6.8	56.97	-	-	P	V
		7311	44.8	-29.2	74	56.19	36.78	8.73	56.9	-	-	P	V
		17970	56.32	-17.68	74	52.62	47.26	13.16	56.72	-	-	P	V
		17970	47.66	-6.34	54	43.96	47.26	13.16	56.72	-	-	A	V
802.11b CH 11 2462MHz		4924	40.03	-33.97	74	58.59	31.3	7.02	56.88	-	-	P	H
		7386	44.93	-29.07	74	56.7	36.56	8.72	57.05	-	-	P	H
		17895	55.42	-18.58	74	53.81	45.21	13.11	56.71	-	-	P	H
		17895	46.58	-7.42	54	44.97	45.21	13.11	56.71	-	-	A	H
		4924	39.34	-34.66	74	57.9	31.3	7.02	56.88	-	-	P	V
		7386	44.7	-29.3	74	56.47	36.56	8.72	57.05	-	-	P	V
		17865	54.08	-19.92	74	53.03	44.67	13.09	56.71	-	-	P	V
		17865	45.83	-8.17	54	44.78	44.67	13.09	56.71	-	-	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as “-” means no suspected emission found with sufficient margin against limit line or noise floor only. 4. The emission level close to 18GHz is checked that average emission level is noise floor only.												



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

WIFI Ant. 0	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	55.48	-18.52	74	41.58	27.62	14.12	27.84	177	46	P	H
		2390	46.83	-7.17	54	32.93	27.62	14.12	27.84	177	46	A	H
	*	2412	99.97	-	-	86.09	27.58	14.14	27.84	177	46	P	H
	*	2412	92.04	-	-	78.16	27.58	14.14	27.84	177	46	A	H
													H
													H
		2390	59.08	-14.92	74	45.18	27.62	14.12	27.84	281	11	P	V
		2390	48.43	-5.57	54	34.53	27.62	14.12	27.84	281	11	A	V
	*	2412	104.08	-	-	90.2	27.58	14.14	27.84	281	11	P	V
	*	2412	96.04	-	-	82.16	27.58	14.14	27.84	281	11	A	V
													V
													V
802.11g CH 06 2437MHz		2338.14	54.61	-19.39	74	40.67	27.72	14.07	27.85	201	48	P	H
		2365.86	44.5	-9.5	54	30.58	27.67	14.1	27.85	201	48	A	H
	*	2437	100.92	-	-	87.06	27.53	14.16	27.83	201	48	P	H
	*	2437	92.84	-	-	78.98	27.53	14.16	27.83	201	48	A	H
		2485.79	54.35	-19.65	74	40.47	27.5	14.2	27.82	201	48	P	H
		2483.62	44.81	-9.19	54	30.93	27.5	14.2	27.82	201	48	A	H
		2344.16	54.73	-19.27	74	40.8	27.71	14.07	27.85	308	12	P	V
		2364.18	44.51	-9.49	54	30.6	27.67	14.09	27.85	308	12	A	V
	*	2437	105.91	-	-	92.05	27.53	14.16	27.83	308	12	P	V
	*	2437	98.06	-	-	84.2	27.53	14.16	27.83	308	12	A	V
		2483.69	56.01	-17.99	74	42.13	27.5	14.2	27.82	308	12	P	V
		2483.69	45.64	-8.36	54	31.76	27.5	14.2	27.82	308	12	A	V



802.11g CH 11 2462MHz	*	2462	102.48	-	-	87.72	27.62	4.25	27.04	100	283	P	H
	*	2462	94.41	-	-	79.65	27.62	4.25	27.04	100	283	A	H
		2483.52	64.53	-9.47	74	49.7	27.67	4.27	27.04	100	283	P	H
		2483.56	52.17	-1.83	54	37.34	27.67	4.27	27.04	100	283	A	H
													H
													H
	*	2462	96.64	-	-	81.88	27.62	4.25	27.04	300	65	P	V
	*	2462	88.6	-	-	73.84	27.62	4.25	27.04	300	65	A	V
		2483.76	59.83	-14.17	74	45	27.67	4.27	27.04	300	65	P	V
		2483.68	48.66	-5.34	54	33.83	27.67	4.27	27.04	300	65	A	V
													V
													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. 0	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	38.73	-35.27	74	58.05	31.15	6.59	57.06	-	-	P	H
		17985	56.64	-17.36	74	52.51	47.68	13.17	56.72	-	-	P	H
		17985	47.93	-6.07	54	43.8	47.68	13.17	56.72	-	-	A	H
													H
		4824	39.53	-34.47	74	58.85	31.15	6.59	57.06	-	-	P	V
		18000	56.71	-17.29	74	52.15	48.1	13.18	56.72	-	-	P	V
		18000	48.07	-5.93	54	43.51	48.1	13.18	56.72	-	-	A	V
													V
802.11g CH 06 2437MHz		4874	38.47	-35.53	74	57.44	31.2	6.8	56.97	-	-	P	H
		7311	44.98	-29.02	74	56.37	36.78	8.73	56.9	-	-	P	H
		18000	56.86	-17.14	74	52.3	48.1	13.18	56.72	-	-	P	H
		18000	46.76	-7.24	54	42.2	48.1	13.18	56.72	-	-	A	H
		4874	39.2	-34.8	74	58.17	31.2	6.8	56.97	-	-	P	V
		7311	45.26	-28.74	74	56.65	36.78	8.73	56.9	-	-	P	V
		18000	57.86	-16.14	74	53.3	48.1	13.18	56.72	-	-	P	V
		18000	46.96	-7.04	54	42.4	48.1	13.18	56.72	-	-	A	V
802.11g CH 11 2462MHz		4924	40.9	-33.1	74	59.25	31.54	6.5	56.88	-	-	P	H
		7386	46.27	-27.73	74	57.6	37.07	8.2	57.05	-	-	P	H
		18000	57.56	-16.44	74	52.81	48.5	12.38	56.72	-	-	P	H
		18000	47.35	-6.65	54	42.6	48.5	12.38	56.72	-	-	A	H
		4924	39.87	-34.13	74	58.22	31.54	6.5	56.88	-	-	P	V
		7386	45.82	-28.18	74	57.15	37.07	8.2	57.05	-	-	P	V
		18000	57.17	-16.83	74	52.42	48.5	12.38	56.72	-	-	P	V
		18000	47.26	-6.74	54	42.51	48.5	12.38	56.72	-	-	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as “-” means no suspected emission found with sufficient margin against limit line or noise floor only. 4. The emission level close to 18GHz is checked that average emission level is noise floor only.												



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 0	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	55.48	-18.52	74	41.58	27.62	14.12	27.84	152	307	P	H
		2389.905	45.61	-8.39	54	31.71	27.62	14.12	27.84	152	307	A	H
	*	2412	101.45	-	-	87.57	27.58	14.14	27.84	152	307	P	H
	*	2412	93.64	-	-	79.76	27.58	14.14	27.84	152	307	A	H
													H
													H
		2387.07	55.25	-18.75	74	41.34	27.63	14.12	27.84	306	266	P	V
		2389.905	46.67	-7.33	54	32.77	27.62	14.12	27.84	306	266	A	V
	*	2412	104.64	-	-	90.76	27.58	14.14	27.84	306	266	P	V
	*	2412	96.97	-	-	83.09	27.58	14.14	27.84	306	266	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2333.8	55.18	-18.82	74	41.24	27.73	14.06	27.85	299	320	P	H
		2361.1	44.61	-9.39	54	30.69	27.68	14.09	27.85	299	320	A	H
	*	2437	103.1	-	-	89.24	27.53	14.16	27.83	299	320	P	H
	*	2437	95.12	-	-	81.26	27.53	14.16	27.83	299	320	A	H
		2485.72	54.05	-19.95	74	40.17	27.5	14.2	27.82	299	320	P	H
		2484.18	44.77	-9.23	54	30.89	27.5	14.2	27.82	299	320	A	H
		2381.68	55.53	-18.47	74	41.62	27.64	14.11	27.84	341	283	P	V
		2389.1	44.82	-9.18	54	30.92	27.62	14.12	27.84	341	283	A	V
	*	2437	106.9	-	-	93.04	27.53	14.16	27.83	341	283	P	V
	*	2437	99.51	-	-	85.65	27.53	14.16	27.83	341	283	A	V
		2483.55	54.64	-19.36	74	40.76	27.5	14.2	27.82	341	283	P	V
		2483.62	45.63	-8.37	54	31.75	27.5	14.2	27.82	341	283	A	V



802.11n HT20 CH 11 2462MHz	*	2462	101.71	-	-	86.95	27.62	4.25	27.04	100	280	P	H
	*	2462	93.95	-	-	79.19	27.62	4.25	27.04	100	280	A	H
		2483.72	65.32	-8.68	74	50.49	27.67	4.27	27.04	100	280	P	H
		2483.52	51.33	-2.67	54	36.5	27.67	4.27	27.04	100	280	A	H
													H
													H
	*	2462	96.67	-	-	81.91	27.62	4.25	27.04	300	82	P	V
	*	2462	89.05	-	-	74.29	27.62	4.25	27.04	300	82	A	V
		2483.88	60.92	-13.08	74	46.09	27.67	4.27	27.04	300	82	P	V
		2483.64	48.81	-5.19	54	33.98	27.67	4.27	27.04	300	82	A	V
													V
													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. 0	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	38.87	-35.13	74	58.19	31.15	6.59	57.06	-	-	P	H
		17985	57.03	-16.97	74	52.9	47.68	13.17	56.72	-	-	P	H
		17985	46.63	-7.37	54	42.5	47.68	13.17	56.72	-	-	A	H
													H
		4824	40.09	-33.91	74	59.41	31.15	6.59	57.06	-	-	P	V
		17985	56.73	-17.27	74	52.6	47.68	13.17	56.72	-	-	P	V
		17985	46.43	-7.57	54	42.3	47.68	13.17	56.72	-	-	A	V
													V
802.11n HT20 CH 06 2437MHz		4874	39.73	-34.27	74	58.7	31.2	6.8	56.97	-	-	P	H
		7311	45.53	-28.47	74	56.92	36.78	8.73	56.9	-	-	P	H
		17985	56.03	-17.97	74	51.9	47.68	13.17	56.72	-	-	P	H
		17985	46.33	-7.67	54	42.2	47.68	13.17	56.72	-	-	A	H
		4874	38.9	-35.1	74	57.87	31.2	6.8	56.97	-	-	P	V
		7311	45.18	-28.82	74	56.57	36.78	8.73	56.9	-	-	P	V
		17970	56.5	-17.5	74	52.8	47.26	13.16	56.72	-	-	P	V
		17970	46.3	-7.7	54	42.6	47.26	13.16	56.72	-	-	A	V
802.11n HT20 CH 11 2462MHz		4924	39.92	-34.08	74	58.27	31.54	6.5	56.88	-	-	P	H
		7386	46.11	-27.89	74	57.44	37.07	8.2	57.05	-	-	P	H
		18000	57.22	-16.78	74	52.47	48.5	12.38	56.72	-	-	P	H
		18000	47.27	-6.73	54	42.52	48.5	12.38	56.72	-	-	A	H
		4924	41.09	-32.91	74	59.44	31.54	6.5	56.88	-	-	P	V
		7386	46.03	-27.97	74	57.36	37.07	8.2	57.05	-	-	P	V
		18000	56.92	-17.08	74	52.17	48.5	12.38	56.72	-	-	P	V
		18000	47.21	-6.79	54	42.46	48.5	12.38	56.72	-	-	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as “-” means no suspected emission found with sufficient margin against limit line or noise floor only. 4. The emission level close to 18GHz is checked that average emission level is noise floor only.												



Emission above 18GHz

2.4GHz WIFI 802.11g (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.	
0		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g SHF		22906	39.83	-34.17	74	57.12	40.08	6.35	54.18	-	-	P	H
													H
													H
													H
		23016	39.05	-34.95	74	56.34	39.97	6.38	54.1	-	-	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line. 3. The emission position marked as “-” means no suspected emission found with sufficient margin against limit line or noise floor only.												

Emission below 1GHz

2.4GHz WIFI 802.11g (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.	
0		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g LF		102.75	36.07	-7.43	43.5	51.13	16.22	0.95	32.23	-	-	P	H
		278.32	37.64	-8.36	46	49.32	18.75	1.52	31.95	-	-	P	H
		403.45	30.99	-15.01	46	38.91	21.86	1.77	31.55	-	-	P	H
		713.85	30.57	-15.43	46	33.9	26.24	2.4	31.97	-	-	P	H
		848.68	31.98	-14.02	46	31.9	28.63	2.64	31.19	-	-	P	H
		942.77	32.45	-13.55	46	30.68	29.82	2.78	30.83	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
		45.52	32.97	-7.03	40	47.99	16.62	0.64	32.28	-	-	P	V
		103.72	33.91	-9.59	43.5	48.81	16.38	0.95	32.23	-	-	P	V
		276.38	31.52	-14.48	46	43.24	18.73	1.51	31.96	-	-	P	V
		366.59	30.67	-15.33	46	39.92	20.71	1.69	31.65	-	-	P	V
		507.24	32.01	-13.99	46	38.15	23.86	2	32	-	-	P	V
		947.62	32.24	-13.76	46	30.12	30.12	2.8	30.8	-	-	P	V
													V
													V
													V
													V
													V
													V
	Remark	1. No other spurious found.											
2. All results are PASS against limit line.													
3. The emission position marked as “-“ means no suspected emission found with sufficient margin against limit line or noise floor only.													



<EUT with Strap 3>

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 0	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 11 2462MHz	*	2462	94.16	-	-	80.26	27.55	14.18	27.83	344	73	P	H
	*	2462	85.91	-	-	72.01	27.55	14.18	27.83	344	73	A	H
		2483.6	57.67	-16.33	74	43.66	27.63	14.2	27.82	344	73	P	H
		2483.72	46.9	-7.1	54	32.89	27.63	14.2	27.82	344	73	A	H
													H
													H
	*	2462	101.71	-	-	87.81	27.55	14.18	27.83	100	126	P	V
	*	2462	93.04	-	-	79.14	27.55	14.18	27.83	100	126	A	V
		2483.6	64.86	-9.14	74	50.85	27.63	14.2	27.82	100	126	P	V
		2483.56	51.31	-2.69	54	37.3	27.63	14.2	27.82	100	126	A	V
													V
													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. 0	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 11 2462MHz		4924	40.34	-33.66	74	57.36	32.84	7.02	56.88	-	-	P	H
		7386	44.4	-29.6	74	56.32	36.41	8.72	57.05	-	-	P	H
		18000	50.51	-23.49	74	52.25	41.8	13.18	56.72	-	-	P	H
		18000	41.97	-12.03	54	43.71	41.8	13.18	56.72	-	-	A	H
		4924	40.56	-33.44	74	57.58	32.84	7.02	56.88	-	-	P	V
		7386	44.45	-29.55	74	56.37	36.41	8.72	57.05	-	-	P	V
		17940	51.27	-22.73	74	53.47	41.38	13.14	56.72	-	-	P	V
		17940	41.47	-12.53	54	43.67	41.38	13.14	56.72	-	-	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as “-” means no suspected emission found with sufficient margin against limit line or noise floor only. 4. The emission level close to 18GHz is checked that average emission level is noise floor only.												



Emission above 18GHz

2.4GHz WIFI 802.11g (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.	
0		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g SHF		24248	39.89	-34.11	74	56.94	39.3	6.69	53.5	-	-	P	H
													H
													H
													H
		23346	40.45	-33.55	74	57.78	39.75	6.49	54.03	-	-	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line. 3. The emission position marked as “-” means no suspected emission found with sufficient margin against limit line or noise floor only.												



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	Peak or Average
H/V	Horizontal or Vertical



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.	
0		(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

$$1. \text{ Path Loss(dB)} = \text{Cable loss(dB)} + \text{Filter loss(dB)} + \text{Attenuator loss(dB)}$$

$$2. \text{ Level(dB}\mu\text{V/m)} =$$

$$\text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$3. \text{ Over Limit(dB)} = \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

For Peak Limit @ 2390MHz:

$$1. \text{ Level(dB}\mu\text{V/m)}$$

$$= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$= 32.22(\text{dB/m}) + 4.58(\text{dB}) + 54.51(\text{dB}\mu\text{V}) - 35.86(\text{dB})$$

$$= 55.45(\text{dB}\mu\text{V/m})$$

$$2. \text{ Over Limit(dB)}$$

$$= \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

$$= 55.45(\text{dB}\mu\text{V/m}) - 74(\text{dB}\mu\text{V/m})$$

$$= -18.55(\text{dB})$$

For Average Limit @ 2390MHz:

$$1. \text{ Level(dB}\mu\text{V/m)}$$

$$= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$= 32.22(\text{dB/m}) + 4.58(\text{dB}) + 42.6(\text{dB}\mu\text{V}) - 35.86(\text{dB})$$

$$= 43.54(\text{dB}\mu\text{V/m})$$

$$2. \text{ Over Limit(dB)}$$

$$= \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

$$= 43.54(\text{dB}\mu\text{V/m}) - 54(\text{dB}\mu\text{V/m})$$

$$= -10.46(\text{dB})$$

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



Appendix D. Radiated Spurious Emission Plots

Test Engineer :	Daniel Lee, Jacky Hong and Wilson Wu	Temperature :	20~25°C
		Relative Humidity :	50~60%

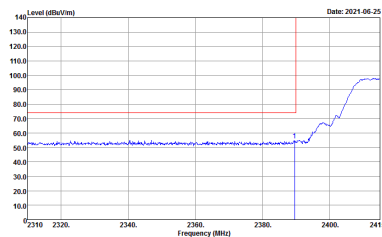
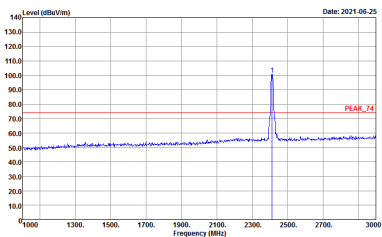
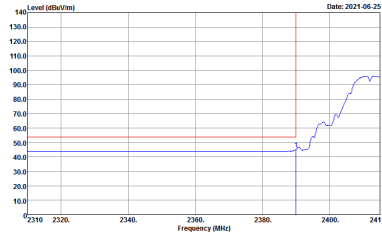
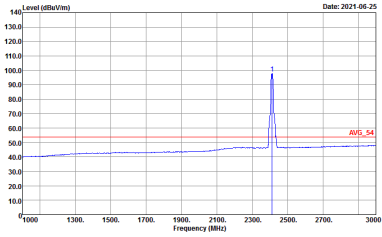
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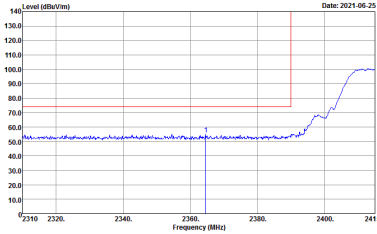
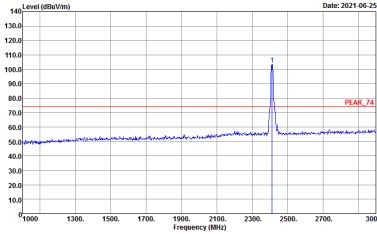
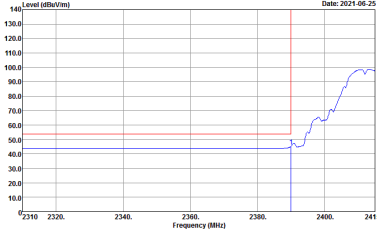
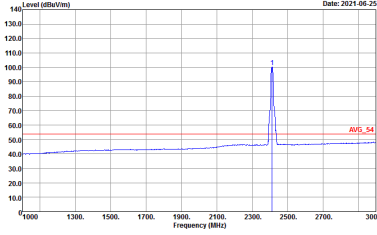
-L	Low channel location
-R	High channel location



<EUT with Strap 1>

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

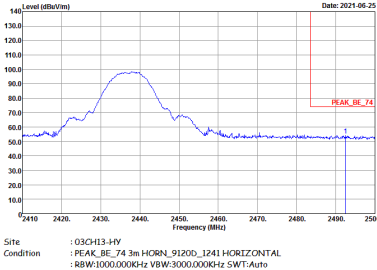
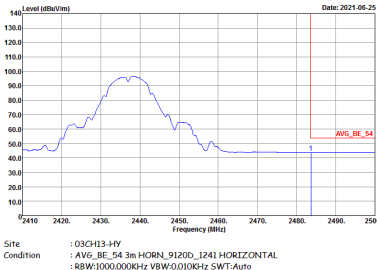
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
0	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
0	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto
Avg.		



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
0	Horizontal	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto	Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto

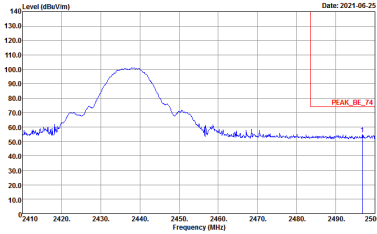
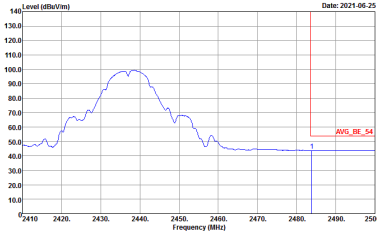


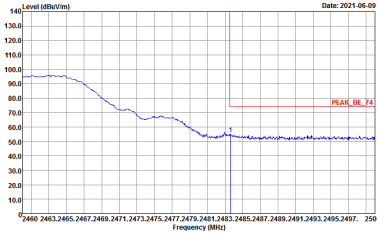
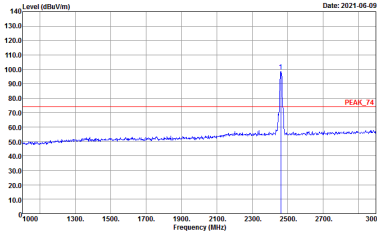
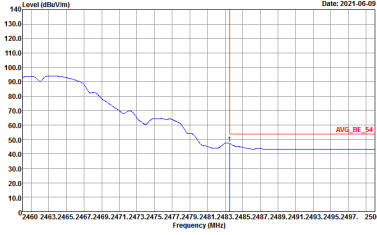
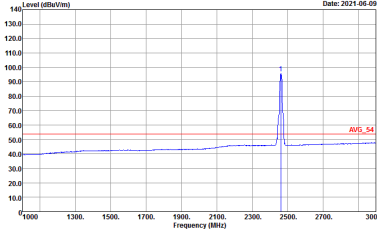
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
0	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

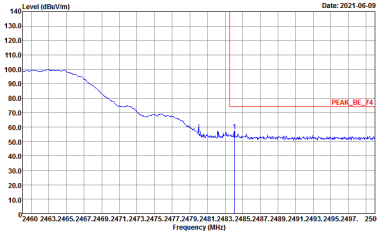
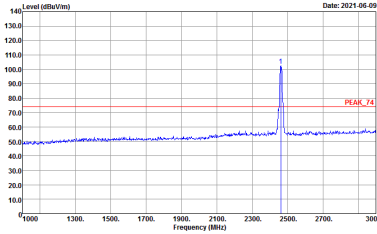
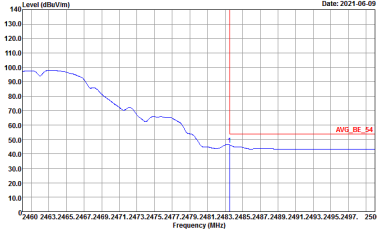
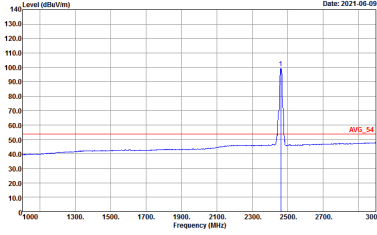


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
0	Vertical	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

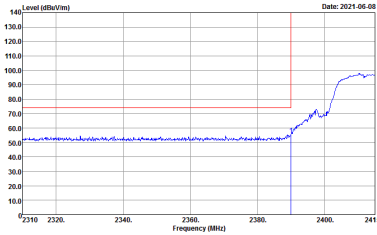
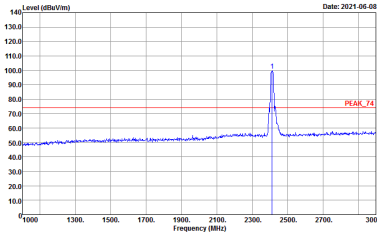
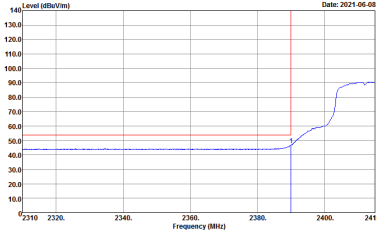
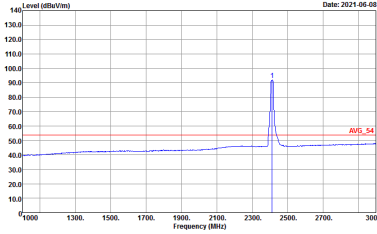


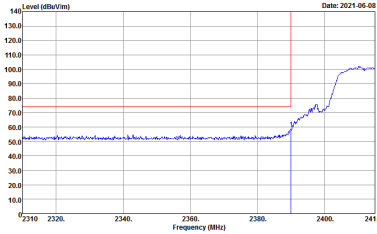
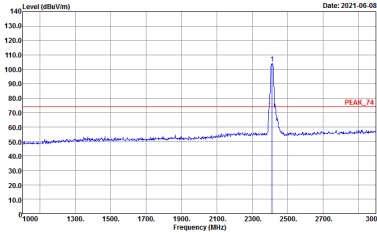
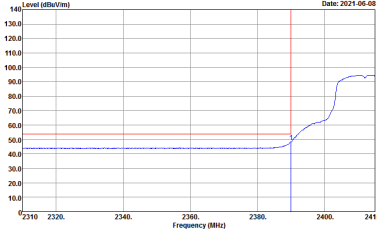
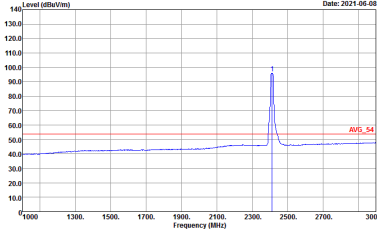
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
0	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
0	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto
Avg.		

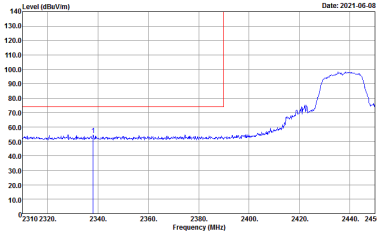
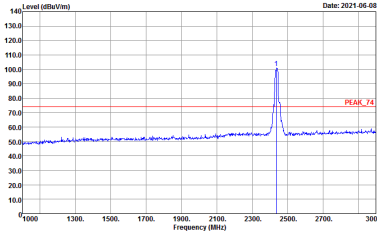
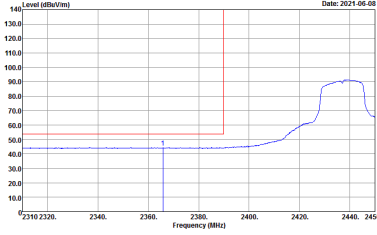
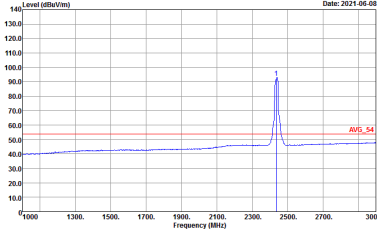
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
0	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto
Avg.		

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

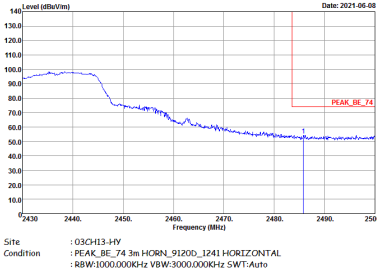
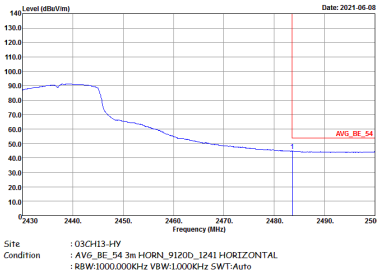
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
0	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto
Avg.		

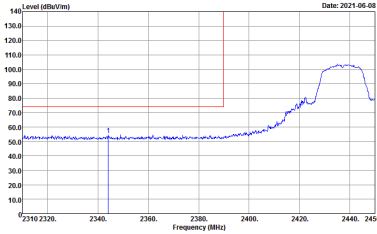
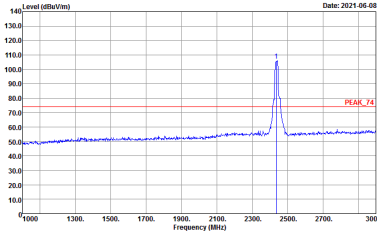
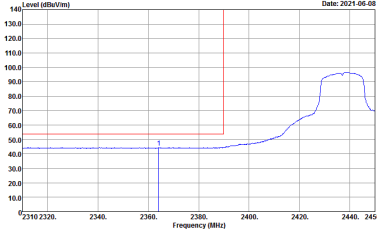
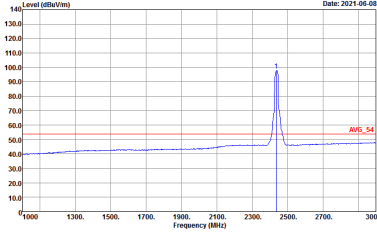
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
0	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto
Avg.		



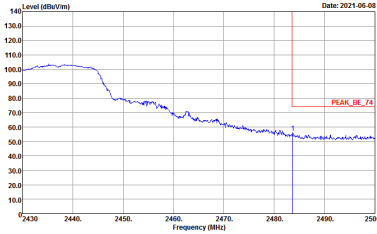
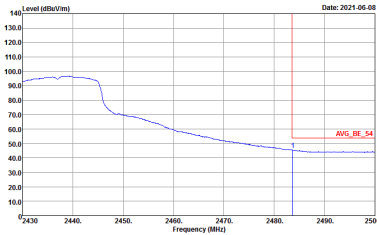
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
0	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:1.000kHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:1.000kHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
0	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Date: 2021-06-08	Left blank
Avg.	 Site : 03CH13-HY Condition : : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:1.000kHz SWT:Auto Date: 2021-06-08	Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
0	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto
Avg.		



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
0	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left Blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	Left Blank



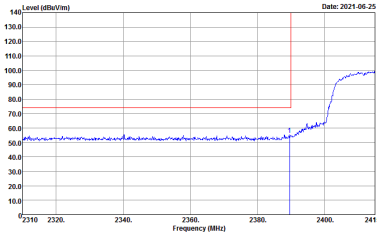
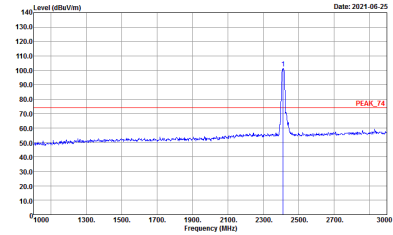
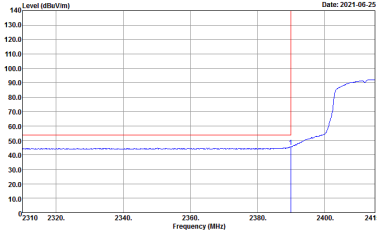
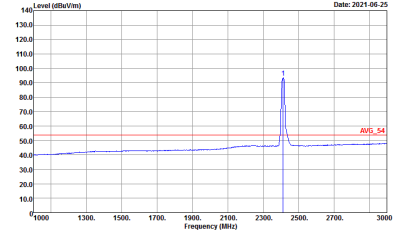
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
0	Horizontal	Fundamental
Peak	Data: 3 Level (dBuV/m) 140.0 130.0 120.0 110.0 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0 2400 2463.2465.2467.2469.2471.2473.2475.2477.2479.2481.2483.2485.2487.2489.2491.2493.2495.2497. 2500 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto PEAK_BE_74	Data: 1 Level (dBuV/m) 140.0 130.0 120.0 110.0 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0 1000 1300 1500 1700 1900 2100 2300 2500 2700 3000 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto PEAK_74
Avg.	Data: 4 Level (dBuV/m) 140.0 130.0 120.0 110.0 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0 2400 2463.2465.2467.2469.2471.2473.2475.2477.2479.2481.2483.2485.2487.2489.2491.2493.2495.2497. 2500 Frequency (MHz) Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto AVG_BE_54	Data: 2 Level (dBuV/m) 140.0 130.0 120.0 110.0 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0 1000 1300 1500 1700 1900 2100 2300 2500 2700 3000 Frequency (MHz) Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto AVG_54

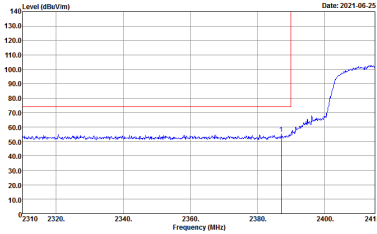
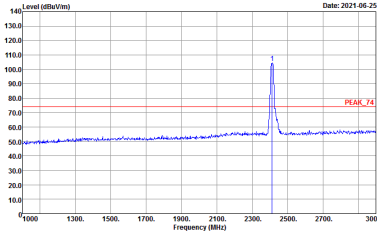
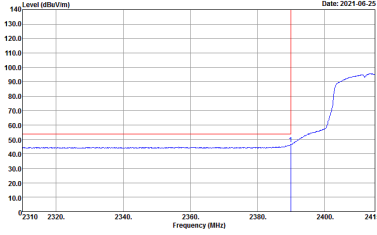
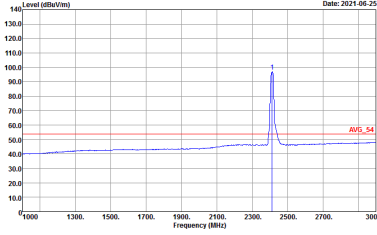


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
0	Vertical	Fundamental
Peak	Data: 7 Level (dBuV/m) 140 130.0 120.0 110.0 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0 2400 2463.2465.2467.2469.2471.2473.2475.2477.2479.2481.2483.2485.2487.2489.2491.2493.2495.2497. 2500 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto PEAK_BE_74	Data: 5 Level (dBuV/m) 140 130.0 120.0 110.0 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0 1000 1300. 1500. 1700. 1900. 2100. 2300. 2500. 2700. 3000 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto PEAK_74
Avg.	Data: 8 Level (dBuV/m) 140 130.0 120.0 110.0 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0 2400 2463.2465.2467.2469.2471.2473.2475.2477.2479.2481.2483.2485.2487.2489.2491.2493.2495.2497. 2500 Frequency (MHz) Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto AVG_BE_54	Data: 6 Level (dBuV/m) 140 130.0 120.0 110.0 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0 1000 1300. 1500. 1700. 1900. 2100. 2300. 2500. 2700. 3000 Frequency (MHz) Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto AVG_54



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

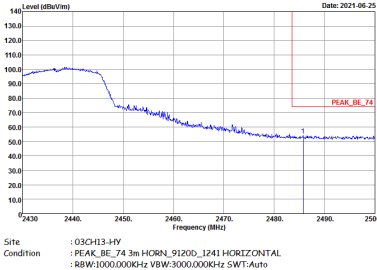
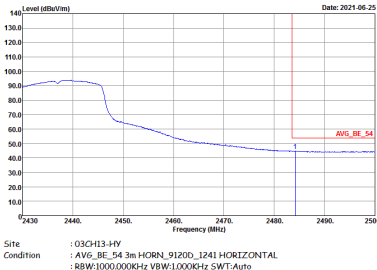
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
0	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
0	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto
Avg.		



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
0	Horizontal	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto

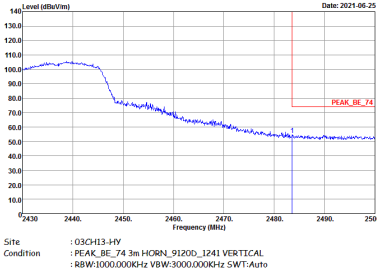
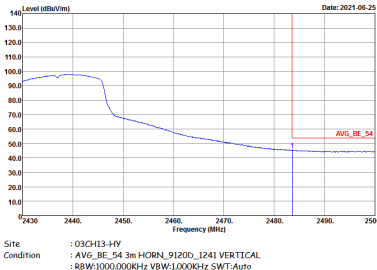


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
0	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Date: 2021-06-25	Left blank
Avg.	 Site : 03CH13-HY Condition : : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:1.000kHz SWT:Auto Date: 2021-06-25	Left blank

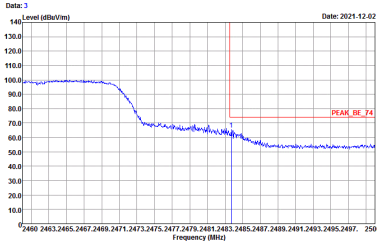
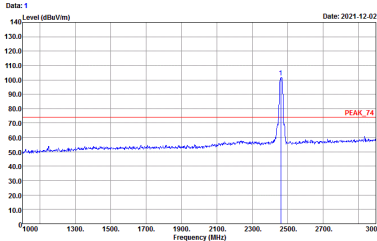
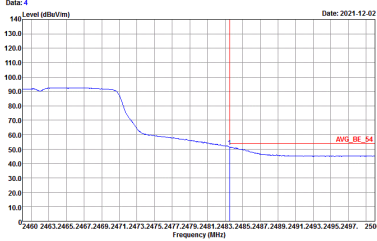
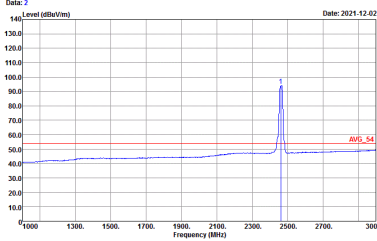


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
0	Vertical	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto

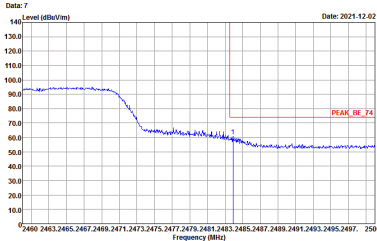
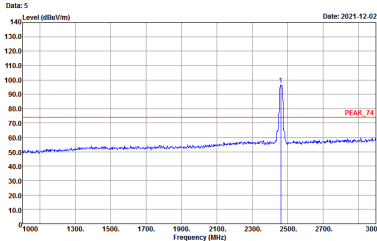
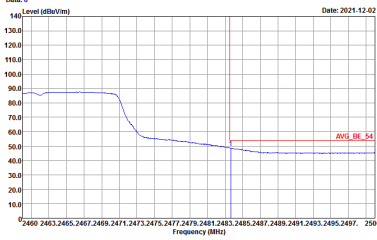
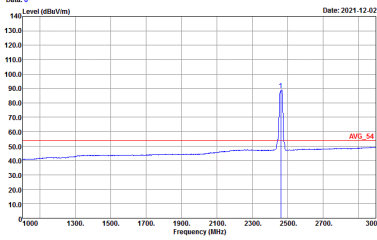


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
0	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : : PEAK_BE_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left Blank
Avg.	 Site : 03CH13-HY Condition : : AVG_BE_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	Left Blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
0	Horizontal	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto 	Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto 
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto 	Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto 

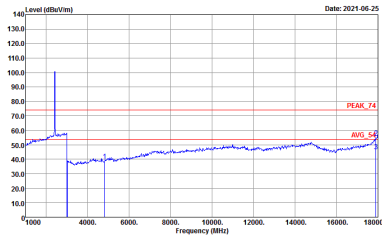
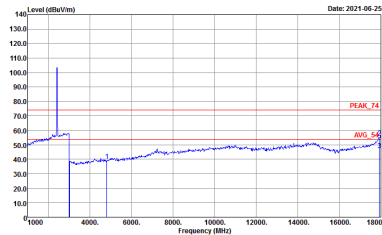


WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
0	Vertical	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto 	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto 
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto 	Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto 



2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
0	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
0	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2021-06-25 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL	Level (dBuV/m) Date: 2021-06-25 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL

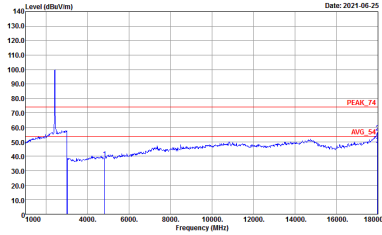
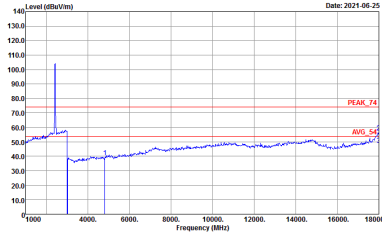


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
0	Horizontal	Vertical
Peak Avg.	Level (dBu/m) Date: 2021-06-25 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL	Level (dBu/m) Date: 2021-06-25 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL



2.4GHz 2400~2483.5MHz

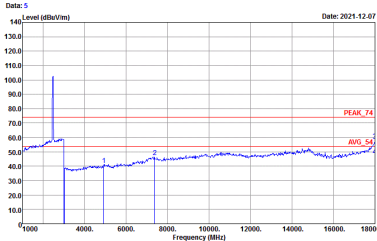
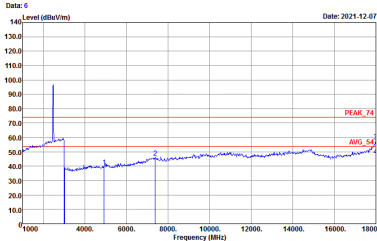
WIFI 802.11g (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
0	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL



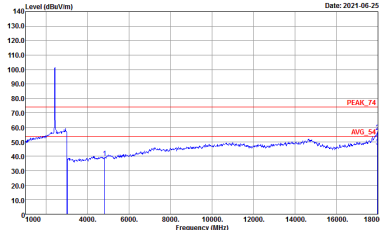
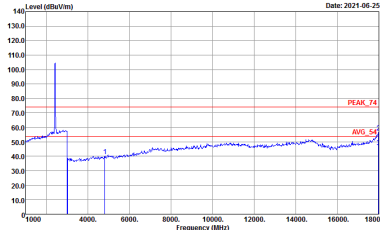
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
0	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2021-06-25 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL	Level (dBuV/m) Date: 2021-06-25 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
0	Horizontal	Vertical
Peak Avg.	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL 	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL 



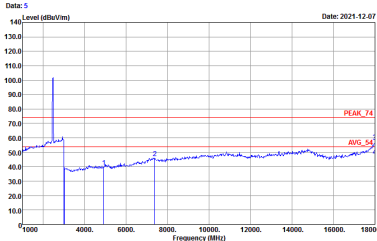
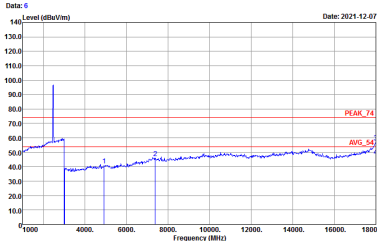
2.4GHz 2400~2483.5MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
0	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL



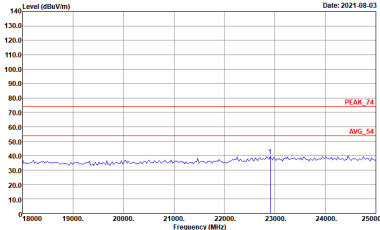
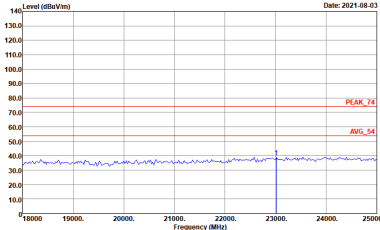
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
0	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2021-06-25 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL	Level (dBuV/m) Date: 2021-06-25 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
0	Horizontal	Vertical
Peak Avg.	Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL 	Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL 

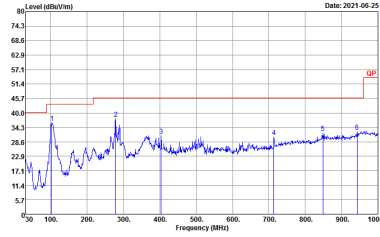
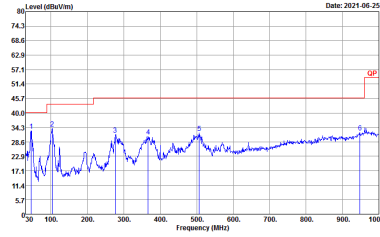


Emission above 18GHz
2.4GHz WIFI 802.11g (SHF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g SHF	
0	Horizontal	Vertical
Peak / Avg.	 Site : 03CH13-HY Condition : PEAK_74 1m SHF ANT_9170_00994 HORIZONTAL	 Site : 03CH13-HY Condition : PEAK_74 1m SHF ANT_9170_00994 VERTICAL



Emission below 1GHz
2.4GHz WIFI 802.11g (LF)

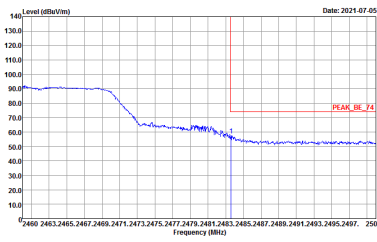
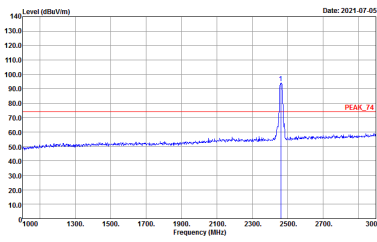
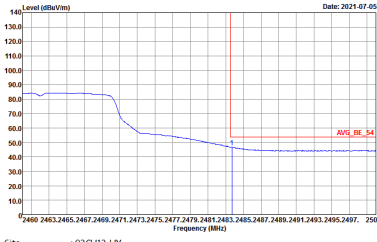
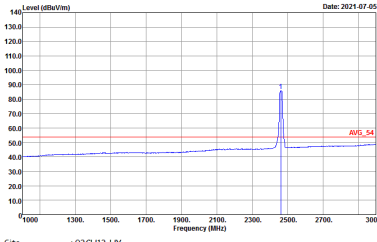
WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g LF	
0	Horizontal	Vertical
QP / Peak	 Site : 03CH13-HY Condition : QP 3m BILOG_40103 HORIZONTAL	 Site : 03CH13-HY Condition : QP 3m BILOG_40103 VERTICAL

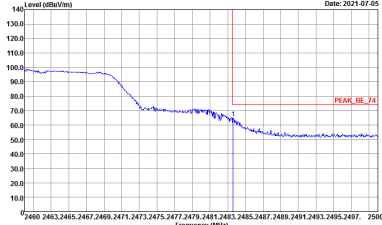
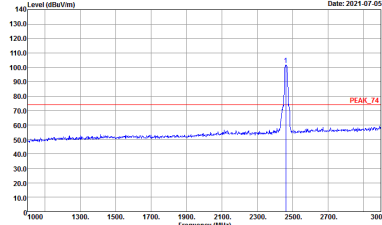
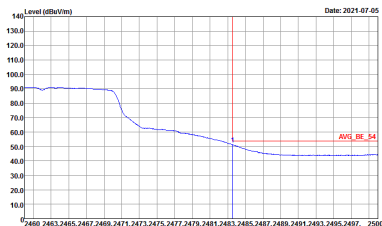
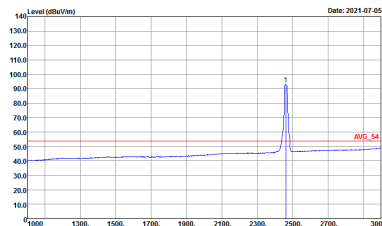


<EUT with Strap 3>

2.4GHz 2400~2483.5MHz

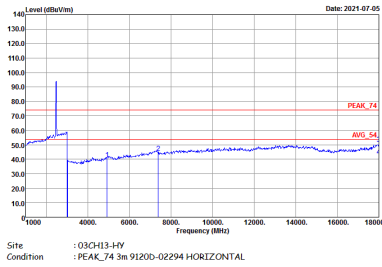
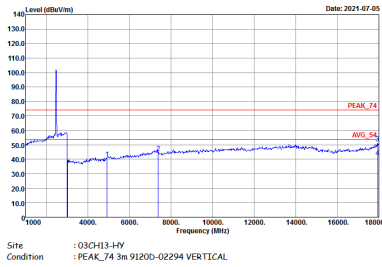
WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
0	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m 91200-02294 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m 91200-02294 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m 91200-02294 HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m 91200-02294 HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
0	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m 91200-02294 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m 91200-02294 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m 91200-02294 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m 91200-02294 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto
Avg.		

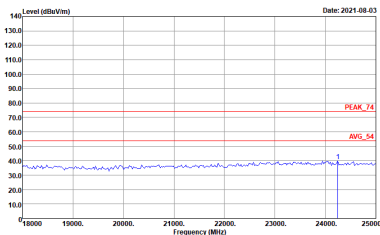
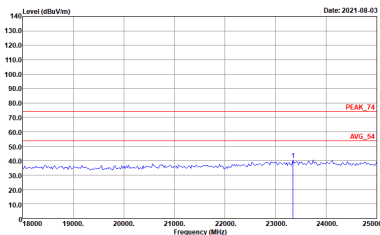


2.4GHz 2400~2483.5MHz
WIFI 802.11g (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
0	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m 91200-02294 HORIZONTAL	 Site : 03CH13-HY Condition : PEAK_74 3m 91200-02294 VERTICAL



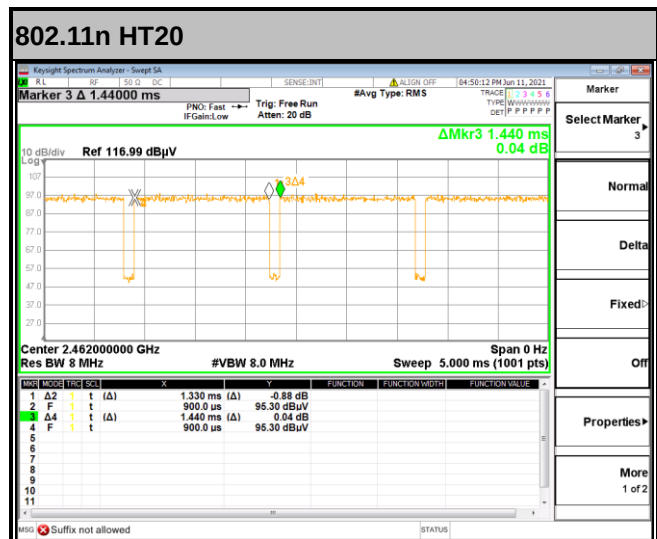
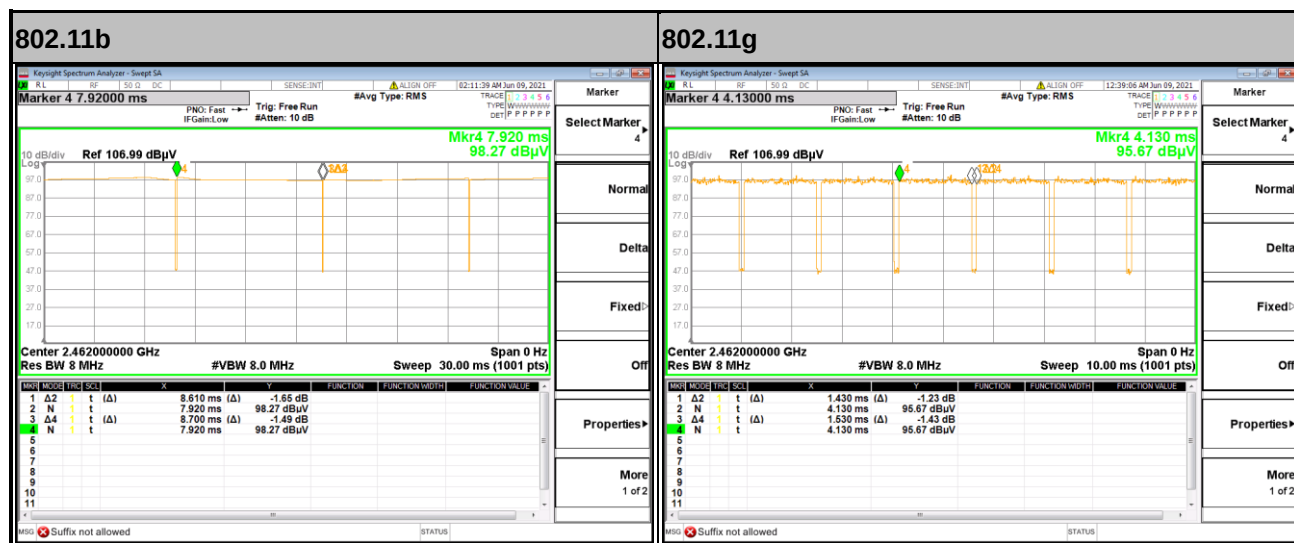
Emission above 18GHz
2.4GHz WIFI 802.11g (SHF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g SHF	
0	Horizontal	Vertical
Peak / Avg.	 Site : 03CH13-HY Condition : PEAK_74 1m SHF ANT_9170_00994 HORIZONTAL	 Site : 03CH13-HY Condition : PEAK_74 1m SHF ANT_9170_00994 VERTICAL



Appendix E. Duty Cycle Plots

Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
802.11b	98.97	-	-	10Hz
802.11g	93.46	1430	0.70	1kHz
2.4GHz 802.11n HT20	92.36	1330	0.75	1kHz



—THE END—