



## FCC Part 15.247

**RSS-247 Issue 2, Feb 2017; RSS-Gen Issue 5, Mar 2019**

### TEST REPORT

For

### Silicon Labs

9th Floor, Maximus Towers 2B, Raheja Mindspace IT Park, APIIC Software Layout, Madhapur,  
Hyderabad, Telangana, India - 500 081

<b>Report Type:</b>	Original Report
<b>Brand Name:</b>	Silicon Labs
<b>FCC Identity:</b>	FCC ID: XF6-B001P5V2P1
<b>IC Identity:</b>	IC: 8407A-B001P5V2P1
<b>Product Name:</b>	WiFi bgn, BT5.0 SIP Module
<b>Model Name:</b>	RS9116-B00
<b>Report Number:</b>	RLK201108001-00C
<b>Report Date:</b>	2021/02/01
<b>Reviewed By:</b>	Flight Hsieh <i>Flight Hsieh</i>
<b>Prepared By:</b> Bay Area Compliance Laboratories Corp.(Linkou Laboratory) No. 6, Wende 2Rd., Guishan Dist., Taoyuan City 33382, Taiwan (R.O.C.) Tel: +886 (3)3961072; Fax: +886 (3) 3961027 www.bacl.com.tw	

**Note:** This test report is prepared for the customer shown above and for the device described herein.  
It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

## Revision History

Revision	Report Number	Issue Date	Description
1.0	RLK201108001-00C	2021/02/01	Original Report

**TABLE OF CONTENTS**

<b>1</b>	<b>GENERAL INFORMATION.....</b>	<b>5</b>
1.1	PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) .....	5
1.2	OBJECTIVE AND TEST METHODOLOGY .....	6
1.3	MEASUREMENT UNCERTAINTY .....	6
1.4	TEST FACILITY .....	6
<b>2</b>	<b>SYSTEM TEST CONFIGURATION.....</b>	<b>7</b>
2.1	TEST CHANNELS AND DESCRIPTION OF WORST TEST CONFIGURATION .....	7
2.2	SUPPORT EQUIPMENT LIST AND EXTERNAL CABLE LIST.....	8
2.3	BLOCK DIAGRAM OF TEST SETUP .....	8
2.4	DUTY CYCLE .....	9
2.5	ENVIRONMENTAL CONDITIONS AND TEST DATE.....	10
<b>3</b>	<b>SUMMARY OF TEST RESULTS .....</b>	<b>11</b>
<b>4</b>	<b>FCC§15.247(I), §1.1310, § 2.1091 – MAXIMUM PERMISSIBLE EXPOSURE (MPE).....</b>	<b>12</b>
4.1	APPLICABLE STANDARD.....	12
4.2	RF EXPOSURE EVALUATION RESULT .....	12
<b>5</b>	<b>RSS-102 SEC 2.5.2 - EXEMPTION LIMITS FOR ROUTINE EVALUATION – RF EXPOSURE EVALUATION.....</b>	<b>13</b>
5.1	APPLICABLE STANDARD.....	13
5.2	RF EXPOSURE EVALUATION RESULT .....	13
<b>6</b>	<b>FCC §15.203 AND RSS-GEN SEC 6.8- ANTENNA REQUIREMENTS .....</b>	<b>14</b>
6.1	APPLICABLE STANDARD.....	14
6.2	ANTENNA LIST AND DETAILS .....	14
<b>7</b>	<b>FCC §15.207 AND RSS-GEN SEC 8.8 - AC LINE CONDUCTED EMISSIONS .....</b>	<b>15</b>
7.1	APPLICABLE STANDARD.....	15
7.2	EUT SETUP AND TEST PROCEDURE .....	15
7.3	TEST EQUIPMENT LIST AND DETAILS.....	16
7.4	TEST RESULT.....	17
<b>8</b>	<b>FCC §15.209, §15.205, §15.247(D), RSS-GEN SEC 8.9, 8.10 AND RSS-247 SEC 5.5 – SPURIOUS EMISSIONS ....</b>	<b>18</b>
8.1	APPLICABLE STANDARD.....	18
8.2	EUT SETUP AND TEST PROCEDURE .....	21
8.3	TEST EQUIPMENT LIST AND DETAILS.....	22
8.4	TEST RESULTS .....	23
<b>9</b>	<b>FCC §15.247(A)(2), RSS-247 SEC 5.2 AND RSS-GEN SEC 6.7– 6 DB EMISSION BANDWIDTH AND 99% OBW ....</b>	<b>43</b>
9.1	APPLICABLE STANDARD.....	43
9.2	TEST PROCEDURE .....	44
9.3	TEST EQUIPMENT LIST AND DETAILS.....	45
9.4	TEST RESULTS .....	45
<b>10</b>	<b>FCC §15.247(B)(3) AND RSS-247 §5.4(D)– MAXIMUM OUTPUT POWER .....</b>	<b>50</b>
10.1	APPLICABLE STANDARD.....	50
10.2	TEST PROCEDURE .....	50
10.3	TEST EQUIPMENT LIST AND DETAILS.....	50
10.4	TEST RESULTS .....	51
<b>11</b>	<b>FCC §15.247(D) AND RSS-247 §5.5 – 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE .....</b>	<b>55</b>
11.1	APPLICABLE STANDARD.....	55
11.2	TEST PROCEDURE .....	55
11.3	TEST EQUIPMENT LIST AND DETAILS.....	56
11.4	TEST RESULTS .....	56
<b>12</b>	<b>FCC §15.247(E) AND RSS-247 §5.2(B) – POWER SPECTRAL DENSITY.....</b>	<b>64</b>
12.1	APPLICABLE STANDARD.....	64
12.2	TEST PROCEDURE .....	64
12.3	TEST EQUIPMENT LIST AND DETAILS.....	64

12.4 TEST RESULTS ..... 65

## 1 General Information

### 1.1 Product Description for Equipment under Test (EUT)

<b>Applicant</b>	<b>Silicon Labs</b> 9th Floor, Maximus Towers 2B, Raheja Mindspace IT Park, APIIC Software Layout, Madhapur, Hyderabad, Telangana, India - 500 081
<b>Manufacturer</b>	<b>Silicon Labs</b> 9th Floor, Maximus Towers 2B, Raheja Mindspace IT Park, APIIC Software Layout, Madhapur, Hyderabad, Telangana, India - 500 081
<b>Brand Name</b>	Silicon Labs
<b>Product (Equipment)</b>	WiFi bgn, BT5.0 SIP Module
<b>Model Name</b>	RS9116-B00
<b>Frequency Range</b>	IEEE 802.11b/g/n HT20: 2412 - 2462 MHz IEEE 802.11n HT40: 2422 - 2452 MHz
<b>Number of Channels</b>	IEEE 802.11b/g/n HT20: 11 Channels IEEE 802.11n HT40: 9 Channels
<b>Output Power</b>	<p><b>Chip Antenna (FR05-S1-N-0-102) with 1.8Vdc</b>            IEEE 802.11b: 16.48 dBm (0.0445 W)            IEEE 802.11g: 16.88 dBm (0.0488 W)            IEEE 802.11n HT20: 16.91 dBm (0.0491 W)            IEEE 802.11n HT40: 10.97 dBm (0.0125 W)</p> <p><b>Chip Antenna (FR05-S1-N-0-102) with 3.3Vdc</b>            IEEE 802.11b: 18.56 dBm (0.0718 W)            IEEE 802.11g: 21.75 dBm (0.1496 W)            IEEE 802.11n HT20: 21.93 dBm (0.1560 W)            IEEE 802.11n HT40: 15.18 dBm (0.0330 W)</p> <p><b>Dipole Antenna (GW.34.5153) with 1.8Vdc</b>            IEEE 802.11b: 16.85 dBm (0.0484 W)            IEEE 802.11g: 17.74 dBm (0.0594 W)            IEEE 802.11n HT20: 17.79 dBm (0.0601 W)            IEEE 802.11n HT40: 13.93 dBm (0.0247 W)</p> <p><b>Dipole Antenna (GW.34.5153) with 3.3Vdc</b>            IEEE 802.11b: 18.56 dBm (0.0718 W)            IEEE 802.11g: 21.75 dBm (0.1496 W)            IEEE 802.11n HT20: 22.98 dBm (0.1986 W)            IEEE 802.11n HT40: 18.42 dBm (0.0695 W)</p>
<b>Modulation Type</b>	IEEE 802.11b: DSSS; IEEE 802.11g/n HT 20/HT40: OFDM
<b>Power Operation (Voltage Range)</b>	<input checked="" type="checkbox"/> DC Type <input checked="" type="checkbox"/> From Host System: 1.8Vdc/3.3Vdc
<b>Related Submittal(s)/Grant(s)</b>	FCC Part 15.247 DSS with FCC ID: XF6-B001P5V2P1 FCC Part 15.247 DTS with FCC ID: XF6-B001P5V2P1
<b>Received Date</b>	2020/11/10
<b>Date of Test</b>	2020/11/10 - 2020/11/28

Note: All measurement and test data in this report was gathered from production sample serial number: 201108002. Assigned by Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

## 1.2 Objective and Test Methodology

The Objective of this Test Report was to document the compliance of the Silicon Labs. Appliance (Model: RS9116-B00) to the requirements of the following Standards:

- Part 2, Subpart J, Part 15, Subparts A and C, section 15.247 of the Federal Communication Commission's rules.
- ANSI C63.10-2013 of the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.
- RSS-Gen Issue 5, Mar 2019— General Requirements for Compliance of Radio Apparatus
- RSS-247 Issue 2, Feb 2017— Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

## 1.3 Measurement Uncertainty

Parameter	Expanded Measurement uncertainty
RF output power with Power Meter	$\pm 1.488$ dB
Occupied Channel Bandwidth	$\pm 453.927$ Hz
RF Conducted test with Spectrum	$\pm 2.77$ dB
AC Power Line Conducted Emission	$\pm 2.66$ dB
Radiated Below 1G	$\pm 3.57$ dB
Radiated Above 1G	$\pm 5.32$ dB

The test results with statement of conformity, the decision rules are based on the specifications and standards. The test results will not take the measurement uncertainty into account.

## 1.4 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Linkou Laboratory) to collect test data is located on

☒ No.6, Wende 2Rd., Guishan Dist., Taoyuan City 33382, Taiwan (R.O.C.).

Bay Area Compliance Laboratories Corp. (Linkou Laboratory) Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3546) by Mutual Recognition Agreement (MRA). The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database. The FCC Registration No.: 0027578244. Designation No.: TW3546. The Test Firm Registration No.: 181430.

## 2 System Test Configuration

### 2.1 Test Channels and Description of Worst Test Configuration

The system was configured for testing in testing mode which was provided by manufacturer. No special accessory, No modification was made to the EUT and No special equipment used during test.

For Wi-Fi 2.4G mode, there are totally 11 channels.

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

For 802.11b/g/n HT20: Channel 1, 6 and 11 were tested. For 802.11n HT40: Channel 3, 6 and 9 were tested.

-For Radiated Emission, Conducted Power, Conducted Band Edge and PSD had test for two antenna and two voltage that because the power setting is different, the result will be different. For Bandwidth, Conducted Emission only test one result that because the power not affect the result.

Modulation Used for Conformance Test			
Configuration	N <sub>TX</sub>	Data Rate	Worst Data Rate
802.11b	1	1-11 Mbps	1 Mbps
802.11g	1	6-54 Mbps	6 Mbps
802.11n HT 20	1	MCS 0-7	MCS 0
802.11n HT 40	1	MCS 0-7	MCS 0

Worst Case of Power Setting				
EUT Exercise Software		PER Test App		
Configuration	N <sub>TX</sub>	Low CH	Mid CH	High CH
<Chip Antenna (FR05-S1-N-0-102) with 1.8V <sub>dc</sub> >				
802.11b	1	12	22	13
802.11g	1	8	15	10
802.11n HT 20	1	7	15	9
802.11n HT 40	1	5	9	8
<Chip Antenna (FR05-S1-N-0-102) with 3.3V <sub>dc</sub> >				
802.11b	1	17	22	16
802.11g	1	12	20	14
802.11n HT 20	1	10	19	13
802.11n HT 40	1	8	12	12

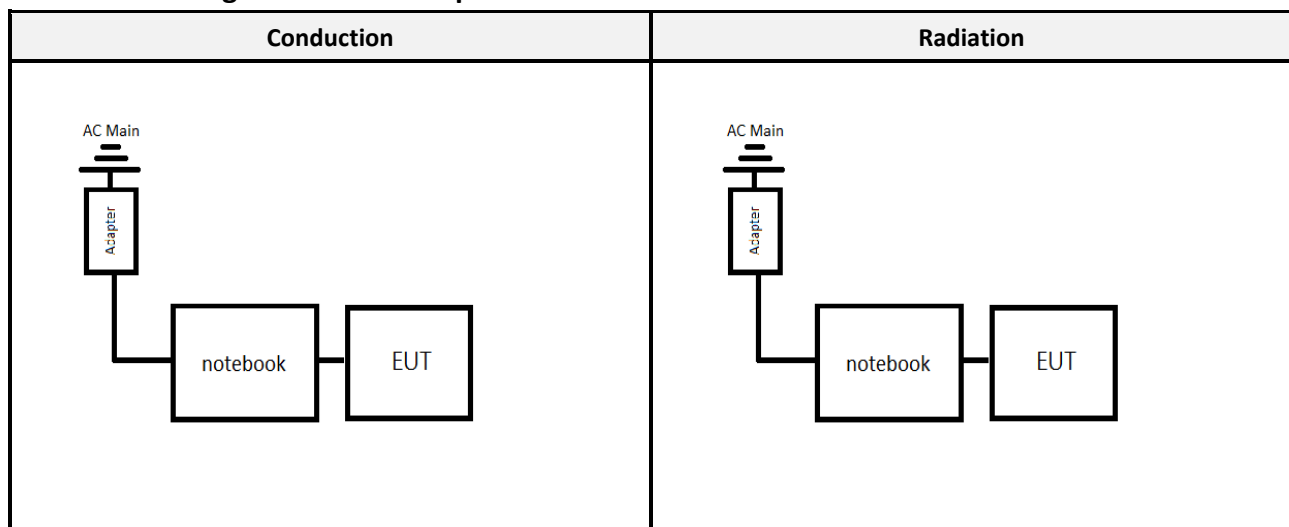
Worst Case of Power Setting				
EUT Exercise Software		PER Test App		
Configuration	N <sub>TX</sub>	Low CH	Mid CH	High CH
< Dipole Antenna (GW.34.5153) with 1.8Vdc>				
802.11b	1	13	22	12
802.11g	1	9	15	10
802.11n HT 20	1	7	15	9
802.11n HT 40	1	5	9	8
< Dipole Antenna (GW.34.5153) with 3.3Vdc>				
802.11b	1	17	22	16
802.11g	1	12	20	13
802.11n HT 20	1	12	20	13
802.11n HT 40	1	9	13	12

## 2.2 Support Equipment List and External Cable List

No.	Description	Manufacturer	Model Number	Serial Number
A	NoteBook	DELL	Latitude E6410	PP27LA001

No.	Description	Manufacturer	Model Number
1	USB Cable	Tensility International Corp	10-02331

## 2.3 Block Diagram of Test Setup

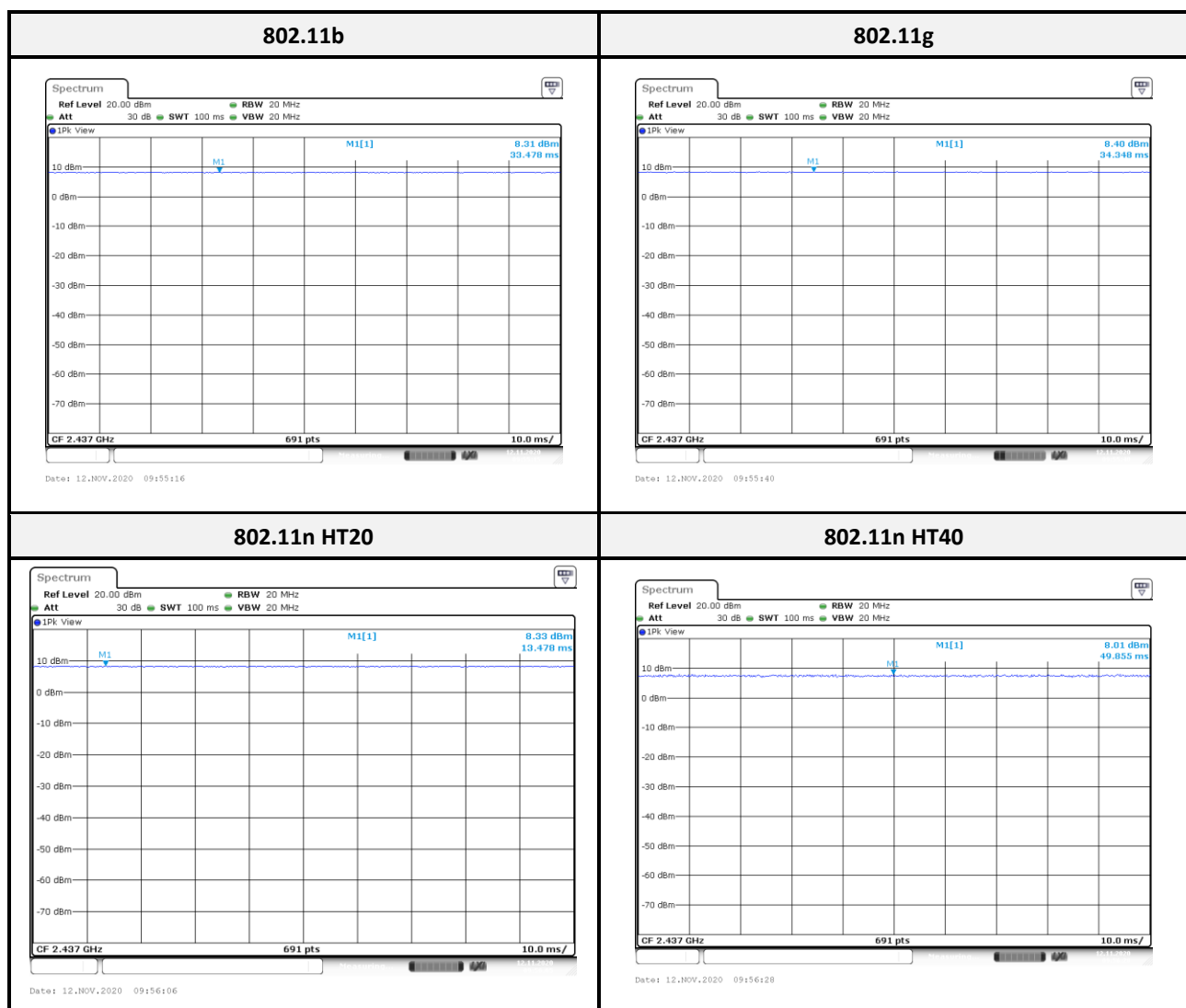




## 2.4 Duty Cycle

All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x, and maximum power transmission duration, T, are required for each tested mode of operation.

Configuration	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Factor (dB)
<b>802.11b</b>	100.00	100.00	100.00	0.00
<b>802.11g</b>	100.00	100.00	100.00	0.00
<b>802.11n HT20</b>	100.00	100.00	100.00	0.00
<b>802.11n HT40</b>	100.00	100.00	100.00	0.00



Note1: Duty Factor =  $10 \cdot \log(1/\text{Duty cycle})$

**2.5 Environmental Conditions and Test Date**

Test Site	Test Date	Temperature (°C)	Relative Humidity (% RH)	Test Engineer
Conduction (Con-01)	2020/11/26	20.9	57	Brian Chang
Radiated (966A)	2020/11/10 - 2020/11/23	19.8-23.2	50-58	Leo Cheng
Conducted (TH-02)	2020/11/12 - 2020/11/28	22.5-23.3	55-60	Blake Wang

### 3 Summary of Test Results

FCC Rules	Description of Test	Result
§15.247(i), §1.1310, §2.1091	Maximum Permissible Exposure (MPE)	Compliance
ISED RSS-102 Sec 2.5.2	Exemption Limits for Routine Evaluation – RF Exposure Evaluation	Compliance
§15.203 ISED RSS-Gen Sec 6.8	Antenna Requirement	Compliance
§15.207(a) ISED RSS-Gen Sec 6.8	AC Line Conducted Emissions	Compliance
§15.205, §15.209, §15.247(d) ISED RSS-Gen Sec 8.9 and 8.10 ISED RSS-247 Sec 5.5	Spurious Emissions	Compliance
§15.247(a)(2) ISED RSS-247 Sec 5.2 ISED RSS-Gen Sec 6.7	6 dB Emission Bandwidth and Occupied Bandwidth	Compliance
§15.247(b)(3) ISED RSS-247 Sec 5.4(d)	Maximum Output Power	Compliance
§15.247(d) ISED RSS-247 Sec 5.5	100 kHz Bandwidth of Frequency Band Edge	Compliance
§15.247(e) ISED RSS-247 Sec 5.2(b)	Power Spectral Density	Compliance

## 4 FCC§15.247(i), §1.1310, § 2.1091 – Maximum Permissible Exposure (MPE)

### 4.1 Applicable Standard

According to subpart 15.247(i) and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

#### Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

Note: f = frequency in MHz; \* = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

**Calculated Formulary:** Predication of MPE limit at a given distance

$S = PG/4\pi R^2$  = power density (in appropriate units, e.g. mW/cm<sup>2</sup>);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

### 4.2 RF Exposure Evaluation Result

#### MPE Evaluation:

Mode	Frequency Range (MHz)	Antenna Gain		Target Power		Evaluation Distance (cm)	Power Density (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )
		(dBi)	(numeric)	(dBm)	(mW)			
BLE	2402-2480	5.89	3.8815	21.00	125.8925	20	0.0973	1.0
BR/EDR	2402-2480	5.89	3.8815	21.00	125.8925	20	0.0973	1.0
Wi-Fi 2.4G	2412-2462	5.89	3.8815	23.00	199.5262	20	0.1542	1.0

Note: Wi-Fi and BT can't simultaneously.

**Result:** MPE evaluation of single and simultaneous transmission meet the requirement of standard.

## 5 RSS-102 Sec 2.5.2 - Exemption Limits for Routine Evaluation – RF Exposure Evaluation

### 5.1 Applicable Standard

According to subpart RSS-102 Sec 2.5.2,

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

- below 20 MHz<sup>6</sup> and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than  $4.49/f^{0.5}$  W (adjusted for tune-up tolerance), where  $f$  is in MHz;
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than  $1.31 \times 10^{-2} f^{0.6834}$  W (adjusted for tune-up tolerance), where  $f$  is in MHz;
- at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the e.i.r.p. was derived.

### 5.2 RF Exposure Evaluation Result

**BLE Max tune-up conducted output power** is 21.00 dBm (125.8925 mW) at 2402 MHz, Antenna Gain = 5.89 dBi, EIRP = 26.89 dBm (0.4887 W), so the maximum conducted and E.I.R.P. source-based, time-averaged output is less than 2.68 W for general public use.

**BR/EDR Max tune-up conducted output power** is 21.00 dBm (125.8925 mW) at 2402 MHz, Antenna Gain = 5.89 dBi, EIRP = 26.89 dBm (0.4887 W), so the maximum conducted and E.I.R.P. source-based, time-averaged output is less than 2.68 W for general public use.

**Wi-Fi 2.4G Max tune-up conducted output power** is 23.00 dBm (199.5262 mW) at 2437 MHz, Antenna Gain = 5.89 dBi, EIRP = 28.89 dBm (0.7745 W), so the maximum conducted and E.I.R.P. source-based, time-averaged output is less than 2.70 W for general public use.

Note: Wi-Fi and BT can't simultaneously.

**Result:** MPE evaluation of single and simultaneous transmission meet the requirement of standard.

## 6 FCC §15.203 and RSS-Gen Sec 6.8- Antenna Requirements

### 6.1 Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. 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 provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna does not exceed 6dBi.

According to RSS-Gen 6.8: Transmitter Antenna for Licence-Exempt Radio Apparatus

The applicant for equipment certification, as per RSP-100, must provide a list of all antenna types that may be used with the licence-exempt transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna.

Licence-exempt transmitters that have received equipment certification may operate with different types of antennas. However, it is not permissible to exceed the maximum equivalent isotropically radiated power (e.i.r.p.) limits specified in the applicable standard (RSS) for the licence-exempt apparatus.

Testing shall be performed using the highest gain antenna of each combination of licence-exempt transmitter and antenna type, with the transmitter output power set at the maximum level. Footnote 8 When a measurement at the antenna connector is used to determine RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna manufacturer.

User manuals for transmitters equipped with detachable antennas shall also contain the following notice in a conspicuous location:

This radio transmitter (identify the device by certification number) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types approved for use with the transmitter, indicating the maximum permissible antenna gain (in dBi).

### 6.2 Antenna List and Details

Brand	Model	Antenna Type	Antenna Gain	Result
Fractus	FR05-S1-N-0-102	Chip	1.70 dBi	Compliance
TAOGLAS	GW.34.5153	Dipole	5.89dBi	Compliance

The EUT have an internal and external antennas arrangement and fulfill the requirement of this section.

## 7 FCC §15.207 and RSS-Gen Sec 8.8 - AC Line Conducted Emissions

### 7.1 Applicable Standard

According to FCC §15.207,

For an intentional radiator 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, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequencies ranges.

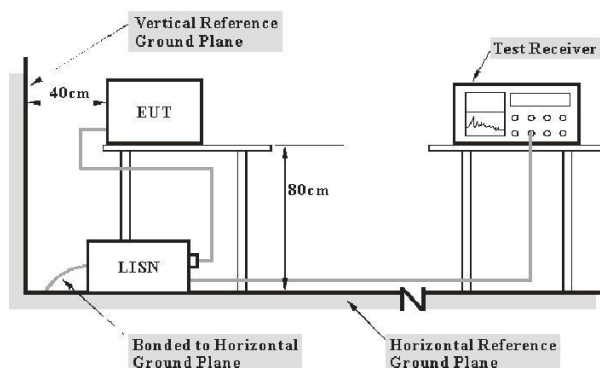
According to RSS-Gen 8.8 Conducted limits:

For an intentional radiator 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, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequencies ranges.

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56 <sup>Note 1</sup>	56 to 46 <sup>Note 2</sup>
0.5-5	56	46
5-30	60	50

Note 1: Decreases with the logarithm of the frequency. Note 2: A linear average detector is required

### 7.2 EUT Setup and Test Procedure



Note: 1. Support units were connected to second LISN.  
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 and RSS-Gen limits.

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz. During the conducted emission test, the EMI test receiver was set with the following configurations

Frequency Range	Receiver RBW
150 kHz - 30 MHz	9 kHz

During the conducted emission test, the adapter was connected to the outlet of the LISN. Maximizing procedure was performed on the six (6) highest emissions of the EUT. All data was recorded in the Quasi-peak and average detection mode.

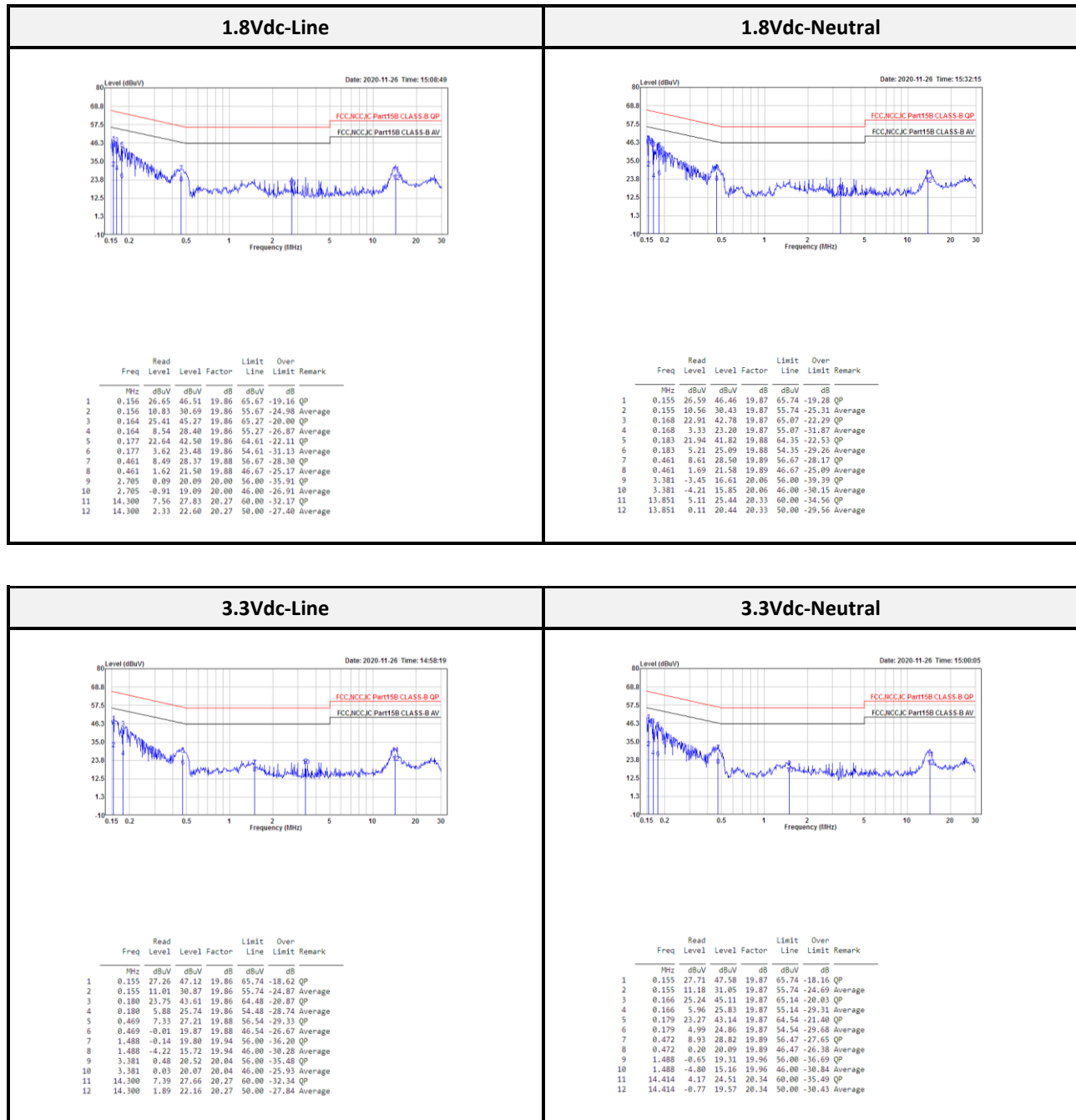
### 7.3 Test Equipment List and Details

Description	Manufacture	Model	Serial No.	Cal. Date.	Cal. Due.
<b>AC Line Conduction Room (CON-01)</b>					
Two-Line V-Network	Rohde & Schwarz	ENV216	100010	2020/09/14	2021/09/13
Pulse Limiter	SCHWARZBECK	VSTD 9561-F	00432	2020/09/11	2021/09/10
ESR EMI Test Receiver	Rohde & Schwarz	ESR3	102430	2020/05/07	2021/05/06
RF Cable	EMCI	EMCCFD300-BM-BM-8000	180526	2020/08/18	2021/08/17
Software	Audix	e3 v9	E3LK-03	N.C.R	N.C.R

**\*Statement of Traceability:** The testing equipment's listed above have finished the calibration by Electronics Testing Center, Taiwan (ETC) or other laboratories which were accredited by TAF or equivalent organizations. The calibration result could be traceable to the International System of Units (SI).



## 7.4 Test Result



Note:

Level = Read Level + Factor

Over Limit (Margin) = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

## 8 FCC §15.209, §15.205, §15.247(d), RSS-Gen Sec 8.9, 8.10 and RSS-247 Sec 5.5 – Spurious Emissions

### 8.1 Applicable Standard

As per FCC §15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function.

Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1MHz.

As Per FCC §15.205(a) except as show in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	13.36-13.41	399.9-410	4.5-5.15
0.495-0.505	16.42-16.423	608-614	5.35-5.46
2.1735-2.1905	16.69475-16.69525	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6

As per FCC §15.209(a): Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (micro volts/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

\*\* Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

As per FCC §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

As per RSS-Gen 8.9,

Except when the requirements applicable to a given device state otherwise, emissions from licence-exempt transmitters shall comply with the field strength limits shown in Table 4 and Table 5 below. Additionally, the level of any transmitter emission shall not exceed the level of the transmitter's fundamental emission.

**Table 4 – General Field Strength Limits for Licence-Exempt Transmitters at Frequencies Above 30 MHz**

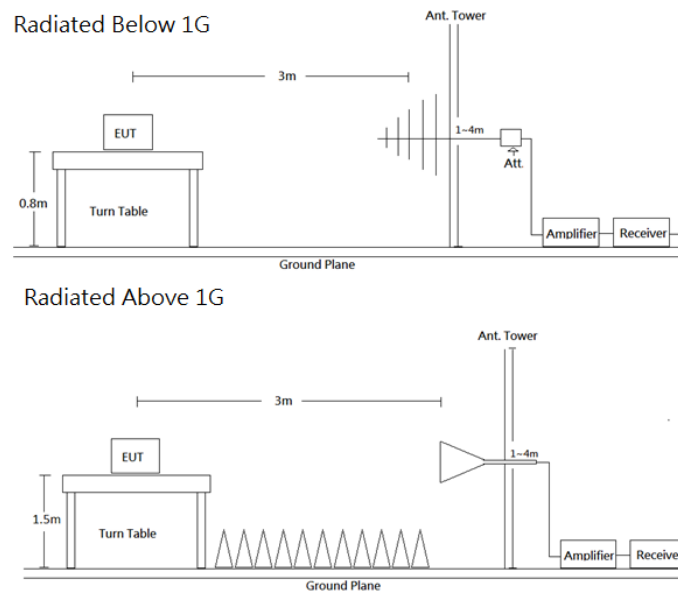
Frequency (MHz)	Field Strength (µV/m at 3 metres)
30-88	100
88-216	150
216-960	200
Above 960*	500

\* Unless otherwise specified, for all frequencies greater than 1 GHz, the radiated emission limits for licence-exempt radio apparatus stated in applicable RSSs (including RSS-Gen) are based on measurements using a linear average detector function having a minimum resolution bandwidth of 1 MHz. If an average limit is specified for the EUT, then the peak emission shall also be measured with instrumentation properly adjusted for such factors as pulse desensitization to ensure the peak emission is less than 20 dB above the average limit.

Note: Transmitting devices are not permitted in restricted frequency bands unless stated otherwise in the specific RSS.

As per RSS-247 §5.5, in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

## 8.2 EUT Setup and Test Procedure



Radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the RSS-Gen, FCC Part 15.209 and FCC 15.247 Limits.

The system was investigated from 30 MHz to 26.5 GHz. During the radiated emission test, the EMI test receiver was set with the following configurations measurement method 6.3 in ANSI C63.10.

Frequency Range	RBW	VBW	Duty cycle	Measurement method
30-1000 MHz	120 kHz	/	-	QP
Above 1 GHz	1 MHz	3 MHz	-	PK
	1 MHz	10 Hz	>98%	PK
	1 MHz	1/T	<98%	Ave

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations. All data was recorded in the Quasi-peak detector mode from 30 MHz to 1 GHz and PK and average detector modes for frequencies above 1 GHz.

### 8.3 Test Equipment List and Details

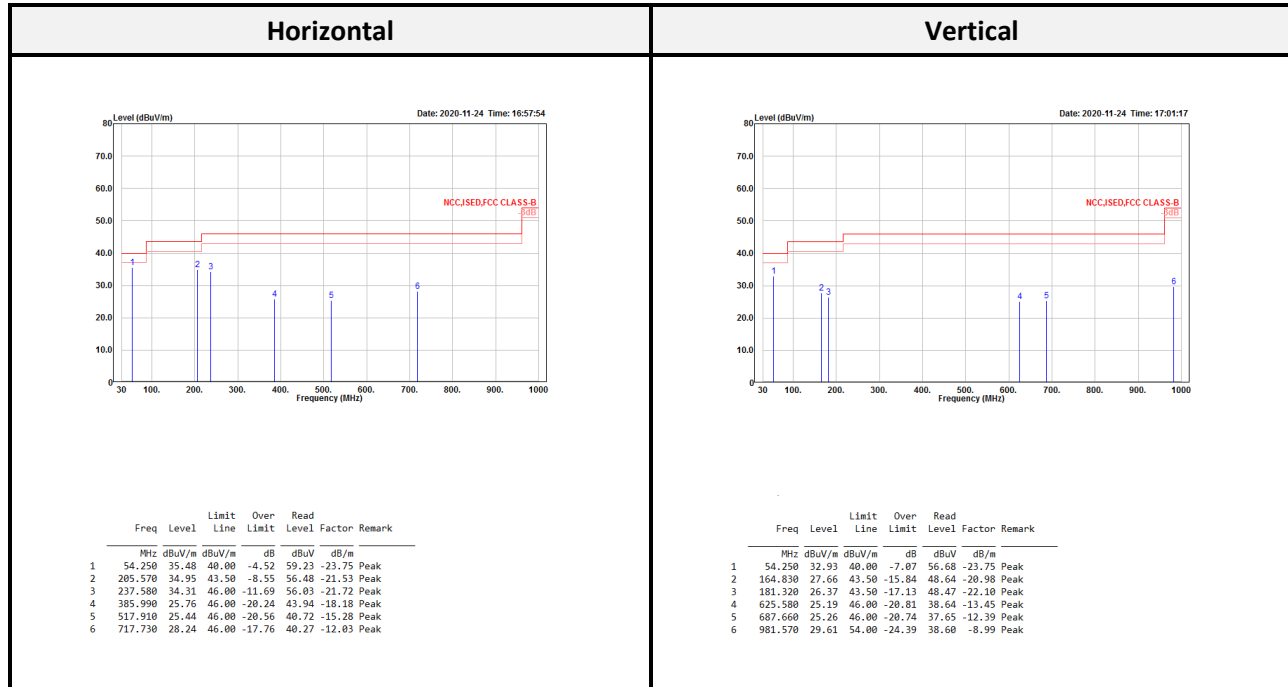
Description	Manufacture	Model	Serial No.	Cal. Date.	Cal. Due.
<b>Radiation 3M Room (966B)</b>					
Active Loop	EMCO	6502	0001-3322	2020/03/16	2021/03/15
Bilog Antenna/6 dB Attenuator	SUNOL SCIENCES & EMEC /EMCI	JB3/N-6-06	A111513/AT-N0668	2020/03/19	2021/03/18
Signal and Spectrum Analyzer	Rohde & Schwarz	FSV40	101434	2020/05/07	2021/05/06
Horn Antenna	ETS-Lindgren	3115	00109141	2020/07/15	2021/07/14
Horn Antenna	ETS-Lindgren	3160-09	00123852	2020/07/07	2021/07/06
Preamplifier	A.H. Systems	PAM-1840VH	174	2020/03/25	2021/03/24
Preamplifier	A.H. Systems	PAM-0118	478	2020/05/05	2021/05/04
Microflex Cable (1m)	EMCI	EMC102-KM-KM-1000	180524	2020/08/06	2021/08/05
Microflex Cable (2m)	EMCI	EMC106-SM-SM-2000	180516	2020/08/06	2021/08/05
Microflex Cable (8m)	UTIFLEX	UFA210A-1-3149-300300	MFR 64639 232490-002	2020/08/06	2021/08/05
Turn Table	Chaintek	T-200-S-1	003501	N.C.R	N.C.R
Antenna Tower	Chaintek	MBD-400-1	003504	N.C.R	N.C.R
Controller	Chaintek	3000-1	003507	N.C.R	N.C.R
Software	Audix	e3 v9	E3LK-01	N.C.R	N.C.R
<b>Conducted Room (TH-02)</b>					
Signal and Spectrum Analyzer	Rohde & Schwarz	FSV40	101434	2020/05/07	2021/05/06
Cable	MTJ	MT40S	620620-MT40S-100	Each Use	-

**\*Statement of Traceability:** The testing equipment's listed above have finished the calibration by Electronics Testing Center, Taiwan (ETC) or other laboratories which were accredited by TAF or equivalent organizations. The calibration result could be traceable to the International System of Units (SI).

## 8.4 Test Results

**Transmitting mode** (Pre-scan with three orthogonal axis, and worse case as Z axis)

**Below 1G (30 MHz-1 GHz) test the worst mode**



Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported

**Above 1G (1 GHz-26.5 GHz)**

**<Chip Antenna (FR05-S1-N-0-102) with 1.8V<sub>dc</sub>>**

IEEE 802.11b Low CH Horizontal							IEEE 802.11b Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2386.496	48.99	54.00	-5.01	56.76	-7.77	Average	2385.936	41.33	54.00	-12.67	49.10	-7.77	Average
2386.496	58.66	74.00	-15.34	66.43	-7.77	Peak	2385.936	53.06	74.00	-20.94	60.83	-7.77	Peak
2411.248	101.74			109.45	-7.71	Average	2411.248	94.33			102.04	-7.71	Average
2411.248	104.35			112.06	-7.71	Peak	2411.248	96.99			104.70	-7.71	Peak
3216.000	43.51	54.00	-10.49	48.97	-5.46	Average	3216.000	39.95	54.00	-14.05	45.41	-5.46	Average
3216.000	46.17	74.00	-27.83	51.63	-5.46	Peak	3216.000	43.83	74.00	-30.17	49.29	-5.46	Peak
4824.000	35.05	54.00	-18.95	36.70	-1.65	Average	4824.000	33.05	54.00	-20.95	34.70	-1.65	Average
4824.000	43.23	74.00	-30.77	44.88	-1.65	Peak	4824.000	43.00	74.00	-31.00	44.65	-1.65	Peak
7236.000	35.44	54.00	-18.56	29.87	5.57	Average	7236.000	34.87	54.00	-19.13	29.30	5.57	Average
7236.000	48.57	74.00	-25.43	43.00	5.57	Peak	7236.000	48.07	74.00	-25.93	42.50	5.57	Peak

IEEE 802.11b Middle CH Horizontal							IEEE 802.11b Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2388.892	48.08	54.00	-5.92	55.84	-7.76	Average	2389.376	40.93	54.00	-13.07	48.69	-7.76	Average
2388.892	58.99	74.00	-15.01	66.75	-7.76	Peak	2389.376	52.67	74.00	-21.33	60.43	-7.76	Peak
2436.324	104.68			112.33	-7.65	Average	2436.324	97.44			105.09	-7.65	Average
2436.324	107.51			115.16	-7.65	Peak	2436.324	100.12			107.77	-7.65	Peak
2488.596	43.73	54.00	-10.27	51.32	-7.59	Average	2547.402	38.53	54.00	-15.47	45.92	-7.39	Average
2488.596	56.29	74.00	-17.71	63.88	-7.59	Peak	2547.402	52.25	74.00	-21.75	59.64	-7.39	Peak
3249.300	45.48	54.00	-8.52	50.84	-5.36	Average	3249.300	44.19	54.00	-9.81	49.55	-5.36	Average
3249.300	47.79	74.00	-26.21	53.15	-5.36	Peak	3249.300	47.28	74.00	-26.72	52.64	-5.36	Peak
4874.000	44.11	54.00	-9.89	45.66	-1.55	Average	4874.000	45.87	54.00	-8.13	47.42	-1.55	Average
4874.000	47.32	74.00	-26.68	48.87	-1.55	Peak	4874.000	49.21	74.00	-24.79	50.76	-1.55	Peak
7311.000	44.62	54.00	-9.38	39.30	5.32	Average	7311.000	41.27	54.00	-12.73	35.95	5.32	Average
7311.000	52.13	74.00	-21.87	46.81	5.32	Peak	7311.000	49.74	74.00	-24.26	44.42	5.32	Peak

IEEE 802.11b High CH Horizontal							IEEE 802.11b High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2461.100	101.58			109.20	-7.62	Average	2461.200	94.02			101.64	-7.62	Average
2461.100	104.32			111.94	-7.62	Peak	2461.200	96.63			104.25	-7.62	Peak
2487.800	53.21	54.00	-0.79	60.80	-7.59	Average	2488.100	43.00	54.00	-11.00	50.59	-7.59	Average
2487.800	59.95	74.00	-14.05	67.54	-7.59	Peak	2488.100	54.50	74.00	-19.50	62.09	-7.59	Peak
3282.700	45.03	54.00	-8.97	50.33	-5.30	Average	3282.700	43.04	54.00	-10.96	48.34	-5.30	Average
3282.700	47.24	74.00	-26.76	52.54	-5.30	Peak	3282.700	46.03	74.00	-27.97	51.33	-5.30	Peak
4924.000	41.09	54.00	-12.91	42.52	-1.43	Average	4924.000	40.08	54.00	-13.92	41.51	-1.43	Average
4924.000	46.78	74.00	-27.22	48.21	-1.43	Peak	4924.000	46.08	74.00	-27.92	47.51	-1.43	Peak
7386.000	38.66	54.00	-15.34	33.22	5.44	Average	7386.000	36.94	54.00	-17.06	31.50	5.44	Average
7386.000	48.74	74.00	-25.26	43.30	5.44	Peak	7386.000	48.86	74.00	-25.14	43.42	5.44	Peak



IEEE 802.11g Low CH Horizontal							IEEE 802.11g Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.968	53.66	54.00	-0.34	61.42	-7.76	Average	2389.072	45.74	54.00	-8.26	53.50	-7.76	Average
2389.968	71.56	74.00	-2.44	79.32	-7.76	Peak	2389.072	63.65	74.00	-10.35	71.41	-7.76	Peak
2410.912	92.53			100.24	-7.71	Average	2413.712	85.83			93.54	-7.71	Average
2410.912	102.92			110.63	-7.71	Peak	2413.712	96.08			103.79	-7.71	Peak
3216.000	45.37	54.00	-8.63	50.83	-5.46	Average	3216.000	38.90	54.00	-15.10	44.36	-5.46	Average
3216.000	46.84	74.00	-27.16	52.30	-5.46	Peak	3216.000	43.63	74.00	-30.37	49.09	-5.46	Peak
4824.000	29.10	54.00	-24.90	30.75	-1.65	Average	4824.000	29.21	54.00	-24.79	30.86	-1.65	Average
4824.000	42.05	74.00	-31.95	43.70	-1.65	Peak	4824.000	42.30	74.00	-31.70	43.95	-1.65	Peak
7236.000	34.42	54.00	-19.58	28.85	5.57	Average	7236.000	34.52	54.00	-19.48	28.95	5.57	Average
7236.000	47.74	74.00	-26.26	42.17	5.57	Peak	7236.000	48.30	74.00	-25.70	42.73	5.57	Peak

IEEE 802.11g Middle CH Horizontal							IEEE 802.11g Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.860	51.05	54.00	-2.95	58.81	-7.76	Average	2389.376	44.57	54.00	-9.43	52.33	-7.76	Average
2389.860	69.08	74.00	-4.92	76.84	-7.76	Peak	2389.376	61.74	74.00	-12.26	69.50	-7.76	Peak
2438.744	98.65			106.30	-7.65	Average	2434.630	90.79			98.45	-7.66	Average
2438.744	109.06			116.71	-7.65	Peak	2434.630	101.19			108.85	-7.66	Peak
2486.176	46.88	54.00	-7.12	54.47	-7.59	Average	2501.180	39.18	54.00	-14.82	46.76	-7.58	Average
2486.176	61.46	74.00	-12.54	69.05	-7.59	Peak	2501.180	52.50	74.00	-21.50	60.08	-7.58	Peak
3249.300	44.87	54.00	-9.13	50.23	-5.36	Average	3249.300	43.94	54.00	-10.06	49.30	-5.36	Average
3249.300	48.23	74.00	-25.77	53.59	-5.36	Peak	3249.300	45.90	74.00	-28.10	51.26	-5.36	Peak
4874.000	31.37	54.00	-22.63	32.92	-1.55	Average	4874.000	30.11	54.00	-23.89	31.66	-1.55	Average
4874.000	44.57	74.00	-29.43	46.12	-1.55	Peak	4874.000	43.87	74.00	-30.13	45.42	-1.55	Peak
7311.000	37.95	54.00	-16.05	32.63	5.32	Average	7311.000	36.42	54.00	-17.58	31.10	5.32	Average
7311.000	50.42	74.00	-23.58	45.10	5.32	Peak	7311.000	49.72	74.00	-24.28	44.40	5.32	Peak

IEEE 802.11g High CH Horizontal							IEEE 802.11g High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2460.900	93.18			100.80	-7.62	Average	2459.400	85.11			92.73	-7.62	Average
2460.900	103.40			111.02	-7.62	Peak	2459.400	95.71			103.33	-7.62	Peak
2484.000	53.31	54.00	-0.69	60.90	-7.59	Average	2484.200	44.56	54.00	-9.44	52.15	-7.59	Average
2484.000	70.67	74.00	-3.33	78.26	-7.59	Peak	2484.200	62.18	74.00	-11.82	69.77	-7.59	Peak
3282.700	44.98	54.00	-9.02	50.28	-5.30	Average	3282.700	42.26	54.00	-11.74	47.56	-5.30	Average
3282.700	47.41	74.00	-26.59	52.71	-5.30	Peak	3282.700	43.99	74.00	-30.01	49.29	-5.30	Peak
4924.000	30.16	54.00	-23.84	31.59	-1.43	Average	4924.000	29.02	54.00	-24.98	30.45	-1.43	Average
4924.000	43.76	74.00	-30.24	45.19	-1.43	Peak	4924.000	43.48	74.00	-30.52	44.91	-1.43	Peak
7386.000	34.09	54.00	-19.91	28.65	5.44	Average	7386.000	34.58	54.00	-19.42	29.14	5.44	Average
7386.000	48.67	74.00	-25.33	43.23	5.44	Peak	7386.000	48.18	74.00	-25.82	42.74	5.44	Peak

IEEE 802.11n HT20 Low CH Horizontal							IEEE 802.11n HT20 Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.072	53.83	54.00	-0.17	61.59	-7.76	Average	2388.288	46.20	54.00	-7.80	53.97	-7.77	Average
2389.072	71.16	74.00	-2.84	78.92	-7.76	Peak	2388.288	61.90	74.00	-12.10	69.67	-7.77	Peak
2411.248	91.50			99.21	-7.71	Average	2414.048	84.77			92.48	-7.71	Average
2411.248	102.27			109.98	-7.71	Peak	2414.048	95.54			103.25	-7.71	Peak
3216.000	44.05	54.00	-9.95	49.51	-5.46	Average	3216.000	39.48	54.00	-14.52	44.94	-5.46	Average
3216.000	46.13	74.00	-27.87	51.59	-5.46	Peak	3216.000	43.96	74.00	-30.04	49.42	-5.46	Peak
4824.000	29.00	54.00	-25.00	30.65	-1.65	Average	4824.000	30.31	54.00	-23.69	31.96	-1.65	Average
4824.000	43.48	74.00	-30.52	45.13	-1.65	Peak	4824.000	44.16	74.00	-29.84	45.81	-1.65	Peak
7236.000	34.31	54.00	-19.69	28.74	5.57	Average	7236.000	34.83	54.00	-19.17	29.26	5.57	Average
7236.000	47.67	74.00	-26.33	42.10	5.57	Peak	7236.000	48.63	74.00	-25.37	43.06	5.57	Peak

IEEE 802.11n HT20 Middle CH Horizontal							IEEE 802.11n HT20 Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2387.924	53.39	54.00	-0.61	61.16	-7.77	Average	2389.134	45.67	54.00	-8.33	53.43	-7.76	Average
2387.924	70.53	74.00	-3.47	78.30	-7.77	Peak	2389.134	61.76	74.00	-12.24	69.52	-7.76	Peak
2435.356	98.97			106.62	-7.65	Average	2434.388	91.22			98.88	-7.66	Average
2435.356	109.91			117.56	-7.65	Peak	2434.388	102.30			109.96	-7.66	Peak
2488.838	46.88	54.00	-7.12	54.47	-7.59	Average	2485.692	40.25	54.00	-13.75	47.84	-7.59	Average
2488.838	61.65	74.00	-12.35	69.24	-7.59	Peak	2485.692	53.52	74.00	-20.48	61.11	-7.59	Peak
3249.300	45.62	54.00	-8.38	50.98	-5.36	Average	3249.300	43.84	54.00	-10.16	49.20	-5.36	Average
3249.300	47.98	74.00	-26.02	53.34	-5.36	Peak	3249.300	46.99	74.00	-27.01	52.35	-5.36	Peak
4874.000	31.21	54.00	-22.79	32.76	-1.55	Average	4874.000	30.41	54.00	-23.59	31.96	-1.55	Average
4874.000	44.00	74.00	-30.00	45.55	-1.55	Peak	4874.000	43.35	74.00	-30.65	44.90	-1.55	Peak
7311.000	37.43	54.00	-16.57	32.11	5.32	Average	7311.000	35.85	54.00	-18.15	30.53	5.32	Average
7311.000	50.82	74.00	-23.18	45.50	5.32	Peak	7311.000	48.76	74.00	-25.24	43.44	5.32	Peak

IEEE 802.11n HT20 High CH Horizontal							IEEE 802.11n HT20 High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2458.400	91.56			99.18	-7.62	Average	2459.300	83.77			91.39	-7.62	Average
2458.400	102.55			110.17	-7.62	Peak	2459.300	95.03			102.65	-7.62	Peak
2485.000	47.94	54.00	-6.06	55.53	-7.59	Average	2484.800	40.55	54.00	-13.45	48.14	-7.59	Average
2485.000	65.75	74.00	-8.25	73.34	-7.59	Peak	2484.800	58.34	74.00	-15.66	65.93	-7.59	Peak
3282.700	45.16	54.00	-8.84	50.46	-5.30	Average	3282.700	42.46	54.00	-11.54	47.76	-5.30	Average
3282.700	47.30	74.00	-26.70	52.60	-5.30	Peak	3282.700	45.64	74.00	-28.36	50.94	-5.30	Peak
4924.000	30.11	54.00	-23.89	31.54	-1.43	Average	4924.000	30.07	54.00	-23.93	31.50	-1.43	Average
4924.000	42.88	74.00	-31.12	44.31	-1.43	Peak	4924.000	43.68	74.00	-30.32	45.11	-1.43	Peak
7386.000	35.18	54.00	-18.82	29.74	5.44	Average	7386.000	34.77	54.00	-19.23	29.33	5.44	Average
7386.000	48.27	74.00	-25.73	42.83	5.44	Peak	7386.000	48.58	74.00	-25.42	43.14	5.44	Peak

IEEE 802.11n HT40 Low CH Horizontal							IEEE 802.11n HT40 Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2386.956	53.50	54.00	-0.50	61.27	-7.77	Average	2388.540	45.88	54.00	-8.12	53.65	-7.77	Average
2386.956	68.00	74.00	-6.00	75.77	-7.77	Peak	2388.540	60.57	74.00	-13.43	68.34	-7.77	Peak
2428.008	84.96			92.63	-7.67	Average	2417.184	78.07			85.76	-7.69	Average
2428.008	95.43			103.10	-7.67	Peak	2417.184	88.98			96.67	-7.69	Peak
3229.300	43.67	54.00	-10.33	49.09	-5.42	Average	3229.300	41.22	54.00	-12.78	46.64	-5.42	Average
3229.300	47.07	74.00	-26.93	52.49	-5.42	Peak	3229.300	45.27	74.00	-28.73	50.69	-5.42	Peak
4844.000	29.12	54.00	-24.88	30.74	-1.62	Average	4844.000	28.81	54.00	-25.19	30.43	-1.62	Average
4844.000	42.99	74.00	-31.01	44.61	-1.62	Peak	4844.000	44.02	74.00	-29.98	45.64	-1.62	Peak
7266.000	33.83	54.00	-20.17	28.41	5.42	Average	7266.000	33.72	54.00	-20.28	28.30	5.42	Average
7266.000	47.21	74.00	-26.79	41.79	5.42	Peak	7266.000	47.14	74.00	-26.86	41.72	5.42	Peak

IEEE 802.11n HT40 Middle CH Horizontal							IEEE 802.11n HT40 Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.134	53.94	54.00	-0.06	61.70	-7.76	Average	2389.376	46.39	54.00	-7.61	54.15	-7.76	Average
2389.134	70.35	74.00	-3.65	78.11	-7.76	Peak	2389.376	64.52	74.00	-9.48	72.28	-7.76	Peak
2430.032	88.95			96.62	-7.67	Average	2444.068	80.81			88.45	-7.64	Average
2430.032	99.55			107.22	-7.67	Peak	2444.068	91.12			98.76	-7.64	Peak
2484.240	49.97	54.00	-4.03	57.56	-7.59	Average	2483.998	41.60	54.00	-12.40	49.19	-7.59	Average
2484.240	67.78	74.00	-6.22	75.37	-7.59	Peak	2483.998	58.03	74.00	-15.97	65.62	-7.59	Peak
3249.300	45.51	54.00	-8.49	50.87	-5.36	Average	3249.300	43.50	54.00	-10.50	48.86	-5.36	Average
3249.300	47.95	74.00	-26.05	53.31	-5.36	Peak	3249.300	46.26	74.00	-27.74	51.62	-5.36	Peak
4874.000	29.06	54.00	-24.94	30.61	-1.55	Average	4874.000	29.21	54.00	-24.79	30.76	-1.55	Average
4874.000	42.62	74.00	-31.38	44.17	-1.55	Peak	4874.000	44.17	74.00	-29.83	45.72	-1.55	Peak
7311.000	33.90	54.00	-20.10	28.58	5.32	Average	7311.000	33.82	54.00	-20.18	28.50	5.32	Average
7311.000	47.05	74.00	-26.95	41.73	5.32	Peak	7311.000	48.24	74.00	-25.76	42.92	5.32	Peak

IEEE 802.11n HT40 High CH Horizontal							IEEE 802.11n HT40 High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2445.440	86.96			94.59	-7.63	Average	2445.440	79.69			87.32	-7.63	Average
2445.440	98.13			105.76	-7.63	Peak	2445.440	90.70			98.33	-7.63	Peak
2487.080	48.92	54.00	-5.08	56.51	-7.59	Average	2485.160	40.31	54.00	-13.69	47.90	-7.59	Average
2487.080	64.95	74.00	-9.05	72.54	-7.59	Peak	2485.160	55.41	74.00	-18.59	63.00	-7.59	Peak
3269.300	43.98	54.00	-10.02	49.31	-5.33	Average	3269.300	43.09	54.00	-10.91	48.42	-5.33	Average
3269.300	46.78	74.00	-27.22	52.11	-5.33	Peak	3269.300	46.06	74.00	-27.94	51.39	-5.33	Peak
4904.000	29.30	54.00	-24.70	30.77	-1.47	Average	4904.000	29.30	54.00	-24.70	30.77	-1.47	Average
4904.000	43.24	74.00	-30.76	44.71	-1.47	Peak	4904.000	43.10	74.00	-30.90	44.57	-1.47	Peak
7356.000	33.50	54.00	-20.50	28.23	5.27	Average	7356.000	33.71	54.00	-20.29	28.44	5.27	Average
7356.000	47.09	74.00	-26.91	41.82	5.27	Peak	7356.000	46.91	74.00	-27.09	41.64	5.27	Peak

<Chip Antenna (FR05-S1-N-0-102) with 3.3V<sub>dc</sub>>

IEEE 802.11b Low CH Horizontal							IEEE 802.11b Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.520	53.85	54.00	-0.15	61.61	-7.76	Average	2387.056	45.14	54.00	-8.86	52.91	-7.77	Average
2389.520	61.96	74.00	-12.04	69.72	-7.76	Peak	2387.056	55.08	74.00	-18.92	62.85	-7.77	Peak
2411.248	105.88			113.59	-7.71	Average	2411.248	99.62			107.33	-7.71	Average
2411.248	108.59			116.30	-7.71	Peak	2411.248	102.35			110.06	-7.71	Peak
3216.000	44.33	54.00	-9.67	49.79	-5.46	Average	3216.000	43.13	54.00	-10.87	48.59	-5.46	Average
3216.000	47.03	74.00	-26.97	52.49	-5.46	Peak	3216.000	46.16	74.00	-27.84	51.62	-5.46	Peak
4824.000	43.15	54.00	-10.85	44.80	-1.65	Average	4824.000	42.19	54.00	-11.81	43.84	-1.65	Average
4824.000	47.61	74.00	-26.39	49.26	-1.65	Peak	4824.000	46.45	74.00	-27.55	48.10	-1.65	Peak
7236.000	42.07	54.00	-11.93	36.50	5.57	Average	7236.000	41.87	54.00	-12.13	36.30	5.57	Average
7236.000	50.47	74.00	-23.53	44.90	5.57	Peak	7236.000	50.42	74.00	-23.58	44.85	5.57	Peak

IEEE 802.11b Middle CH Horizontal							IEEE 802.11b Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.860	44.87	54.00	-9.13	52.63	-7.76	Average	2353.318	39.85	54.00	-14.15	47.73	-7.88	Average
2389.860	57.99	74.00	-16.01	65.75	-7.76	Peak	2353.318	53.24	74.00	-20.76	61.12	-7.88	Peak
2436.324	106.60			114.25	-7.65	Average	2436.324	99.72			107.37	-7.65	Average
2436.324	109.55			117.20	-7.65	Peak	2436.324	102.57			110.22	-7.65	Peak
2517.152	42.79	54.00	-11.21	50.30	-7.51	Average	2515.942	38.56	54.00	-15.44	46.07	-7.51	Average
2517.152	56.91	74.00	-17.09	64.42	-7.51	Peak	2515.942	52.36	74.00	-21.64	59.87	-7.51	Peak
3249.300	46.34	54.00	-7.66	51.70	-5.36	Average	3249.300	45.39	54.00	-8.61	50.75	-5.36	Average
3249.300	48.58	74.00	-25.42	53.94	-5.36	Peak	3249.300	48.15	74.00	-25.85	53.51	-5.36	Peak
4874.000	49.31	54.00	-4.69	50.86	-1.55	Average	4874.000	47.27	54.00	-6.73	48.82	-1.55	Average
4874.000	51.88	74.00	-22.12	53.43	-1.55	Peak	4874.000	50.27	74.00	-23.73	51.82	-1.55	Peak
7311.000	48.42	54.00	-5.58	43.10	5.32	Average	7311.000	47.51	54.00	-6.49	42.19	5.32	Average
7311.000	54.17	74.00	-19.83	48.85	5.32	Peak	7311.000	53.22	74.00	-20.78	47.90	5.32	Peak

IEEE 802.11b High CH Horizontal							IEEE 802.11b High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2461.200	103.84			111.46	-7.62	Average	2461.100	96.38			104.00	-7.62	Average
2461.200	106.73			114.35	-7.62	Peak	2461.100	99.21			106.83	-7.62	Peak
2486.700	51.01	54.00	-2.99	58.60	-7.59	Average	2498.600	40.88	54.00	-13.12	48.46	-7.58	Average
2486.700	59.82	74.00	-14.18	67.41	-7.59	Peak	2498.600	53.25	74.00	-20.75	60.83	-7.58	Peak
3282.700	45.96	54.00	-8.04	51.26	-5.30	Average	3282.700	45.41	54.00	-8.59	50.71	-5.30	Average
3282.700	48.22	74.00	-25.78	53.52	-5.30	Peak	3282.700	47.45	74.00	-26.55	52.75	-5.30	Peak
4924.000	47.87	54.00	-6.13	49.30	-1.43	Average	4924.000	46.19	54.00	-7.81	47.62	-1.43	Average
4924.000	51.37	74.00	-22.63	52.80	-1.43	Peak	4924.000	49.30	74.00	-24.70	50.73	-1.43	Peak
7386.000	45.17	54.00	-8.83	39.73	5.44	Average	7386.000	42.24	54.00	-11.76	36.80	5.44	Average
7386.000	51.19	74.00	-22.81	45.75	5.44	Peak	7386.000	50.97	74.00	-23.03	45.53	5.44	Peak



IEEE 802.11g Low CH Horizontal							IEEE 802.11g Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.744	53.83	54.00	-0.17	61.59	-7.76	Average	2389.296	46.51	54.00	-7.49	54.27	-7.76	Average
2389.744	72.03	74.00	-1.97	79.79	-7.76	Peak	2389.296	63.87	74.00	-10.13	71.63	-7.76	Peak
2414.496	96.40			104.11	-7.71	Average	2410.240	89.83			97.54	-7.71	Average
2414.496	106.69			114.40	-7.71	Peak	2410.240	100.03			107.74	-7.71	Peak
3216.000	44.68	54.00	-9.32	50.14	-5.46	Average	3216.000	42.74	54.00	-11.26	48.20	-5.46	Average
3216.000	46.42	74.00	-27.58	51.88	-5.46	Peak	3216.000	45.84	74.00	-28.16	51.30	-5.46	Peak
4824.000	31.10	54.00	-22.90	32.75	-1.65	Average	4824.000	31.55	54.00	-22.45	33.20	-1.65	Average
4824.000	45.10	74.00	-28.90	46.75	-1.65	Peak	4824.000	43.88	74.00	-30.12	45.53	-1.65	Peak
7236.000	34.48	54.00	-19.52	28.91	5.57	Average	7236.000	34.85	54.00	-19.15	29.28	5.57	Average
7236.000	47.22	74.00	-26.78	41.65	5.57	Peak	7236.000	47.52	74.00	-26.48	41.95	5.57	Peak

IEEE 802.11g Middle CH Horizontal							IEEE 802.11g Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2385.020	51.40	54.00	-2.60	59.17	-7.77	Average	2389.860	44.36	54.00	-9.64	52.12	-7.76	Average
2385.020	67.16	74.00	-6.84	74.93	-7.77	Peak	2389.860	60.70	74.00	-13.30	68.46	-7.76	Peak
2438.744	102.11			109.76	-7.65	Average	2435.114	95.58			103.23	-7.65	Average
2438.744	112.88			120.53	-7.65	Peak	2435.114	105.76			113.41	-7.65	Peak
2484.482	50.92	54.00	-3.08	58.51	-7.59	Average	2484.482	41.64	54.00	-12.36	49.23	-7.59	Average
2484.482	69.98	74.00	-4.02	77.57	-7.59	Peak	2484.482	56.88	74.00	-17.12	64.47	-7.59	Peak
3249.300	46.59	54.00	-7.41	51.95	-5.36	Average	3249.300	46.49	54.00	-7.51	51.85	-5.36	Average
3249.300	48.64	74.00	-25.36	54.00	-5.36	Peak	3249.300	48.49	74.00	-25.51	53.85	-5.36	Peak
4874.000	36.81	54.00	-17.19	38.36	-1.55	Average	4874.000	35.43	54.00	-18.57	36.98	-1.55	Average
4874.000	49.22	74.00	-24.78	50.77	-1.55	Peak	4874.000	49.35	74.00	-24.65	50.90	-1.55	Peak
7311.000	43.53	54.00	-10.47	38.21	5.32	Average	7311.000	42.84	54.00	-11.16	37.52	5.32	Average
7311.000	56.94	74.00	-17.06	51.62	5.32	Peak	7311.000	56.19	74.00	-17.81	50.87	5.32	Peak

IEEE 802.11g High CH Horizontal							IEEE 802.11g High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2459.300	96.27			103.89	-7.62	Average	2459.400	88.82			96.44	-7.62	Average
2459.300	106.69			114.31	-7.62	Peak	2459.400	99.21			106.83	-7.62	Peak
2484.500	53.84	54.00	-0.16	61.43	-7.59	Average	2484.900	44.83	54.00	-9.17	52.42	-7.59	Average
2484.500	73.05	74.00	-0.95	80.64	-7.59	Peak	2484.900	63.08	74.00	-10.92	70.67	-7.59	Peak
3282.700	46.08	54.00	-7.92	51.38	-5.30	Average	3282.700	45.63	54.00	-8.37	50.93	-5.30	Average
3282.700	48.61	74.00	-25.39	53.91	-5.30	Peak	3282.700	48.24	74.00	-25.76	53.54	-5.30	Peak
4924.000	34.45	54.00	-19.55	35.88	-1.43	Average	4924.000	34.30	54.00	-19.70	35.73	-1.43	Average
4924.000	47.33	74.00	-26.67	48.76	-1.43	Peak	4924.000	47.32	74.00	-26.68	48.75	-1.43	Peak
7386.000	36.06	54.00	-17.94	30.62	5.44	Average	7386.000	35.74	54.00	-18.26	30.30	5.44	Average
7386.000	48.79	74.00	-25.21	43.35	5.44	Peak	7386.000	48.44	74.00	-25.56	43.00	5.44	Peak

IEEE 802.11n HT20 Low CH Horizontal							IEEE 802.11n HT20 Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2388.624	53.81	54.00	-0.19	61.58	-7.77	Average	2389.296	45.75	54.00	-8.25	53.51	-7.76	Average
2388.624	70.95	74.00	-3.05	78.72	-7.77	Peak	2389.296	61.51	74.00	-12.49	69.27	-7.76	Peak
2410.800	94.39			102.10	-7.71	Average	2410.576	87.99			95.70	-7.71	Average
2410.800	105.31			113.02	-7.71	Peak	2410.576	99.02			106.73	-7.71	Peak
3216.000	44.07	54.00	-9.93	49.53	-5.46	Average	3216.000	43.05	54.00	-10.95	48.51	-5.46	Average
3216.000	46.63	74.00	-27.37	52.09	-5.46	Peak	3216.000	46.23	74.00	-27.77	51.69	-5.46	Peak
4824.000	30.22	54.00	-23.78	31.87	-1.65	Average	4824.000	30.53	54.00	-23.47	32.18	-1.65	Average
4824.000	44.50	74.00	-29.50	46.15	-1.65	Peak	4824.000	42.55	74.00	-31.45	44.20	-1.65	Peak
7236.000	34.07	54.00	-19.93	28.50	5.57	Average	7236.000	35.11	54.00	-18.89	29.54	5.57	Average
7236.000	48.50	74.00	-25.50	42.93	5.57	Peak	7236.000	49.92	74.00	-24.08	44.35	5.57	Peak

IEEE 802.11n HT20 Middle CH Horizontal							IEEE 802.11n HT20 Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2388.408	51.86	54.00	-2.14	59.63	-7.77	Average	2389.134	44.34	54.00	-9.66	52.10	-7.76	Average
2388.408	67.24	74.00	-6.76	75.01	-7.77	Peak	2389.134	57.51	74.00	-16.49	65.27	-7.76	Peak
2435.114	101.44			109.09	-7.65	Average	2435.114	93.54			101.19	-7.65	Average
2435.114	112.06			119.71	-7.65	Peak	2435.114	103.96			111.61	-7.65	Peak
2483.998	49.35	54.00	-4.65	56.94	-7.59	Average	2483.756	41.60	54.00	-12.40	49.19	-7.59	Average
2483.998	66.93	74.00	-7.07	74.52	-7.59	Peak	2483.756	55.23	74.00	-18.77	62.82	-7.59	Peak
3249.300	46.50	54.00	-7.50	51.86	-5.36	Average	3249.300	46.44	54.00	-7.56	51.80	-5.36	Average
3249.300	48.36	74.00	-25.64	53.72	-5.36	Peak	3249.300	48.58	74.00	-25.42	53.94	-5.36	Peak
4874.000	35.56	54.00	-18.44	37.11	-1.55	Average	4874.000	34.36	54.00	-19.64	35.91	-1.55	Average
4874.000	48.90	74.00	-25.10	50.45	-1.55	Peak	4874.000	47.31	74.00	-26.69	48.86	-1.55	Peak
7311.000	41.72	54.00	-12.28	36.40	5.32	Average	7311.000	40.63	54.00	-13.37	35.31	5.32	Average
7311.000	55.65	74.00	-18.35	50.33	5.32	Peak	7311.000	53.82	74.00	-20.18	48.50	5.32	Peak

IEEE 802.11n HT20 High CH Horizontal							IEEE 802.11n HT20 High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2459.400	95.03			102.65	-7.62	Average	2460.900	87.18			94.80	-7.62	Average
2459.400	105.91			113.53	-7.62	Peak	2460.900	97.99			105.61	-7.62	Peak
2485.000	50.96	54.00	-3.04	58.55	-7.59	Average	2484.500	41.60	54.00	-12.40	49.19	-7.59	Average
2485.000	68.47	74.00	-5.53	76.06	-7.59	Peak	2484.500	59.50	74.00	-14.50	67.09	-7.59	Peak
3282.700	46.21	54.00	-7.79	51.51	-5.30	Average	3282.700	44.71	54.00	-9.29	50.01	-5.30	Average
3282.700	48.24	74.00	-25.76	53.54	-5.30	Peak	3282.700	47.12	74.00	-26.88	52.42	-5.30	Peak
4924.000	33.67	54.00	-20.33	35.10	-1.43	Average	4924.000	33.45	54.00	-20.55	34.88	-1.43	Average
4924.000	46.91	74.00	-27.09	48.34	-1.43	Peak	4924.000	47.17	74.00	-26.83	48.60	-1.43	Peak
7386.000	34.29	54.00	-19.71	28.85	5.44	Average	7386.000	34.24	54.00	-19.76	28.80	5.44	Average
7386.000	47.09	74.00	-26.91	41.65	5.44	Peak	7386.000	49.83	74.00	-24.17	44.39	5.44	Peak

IEEE 802.11n HT40 Low CH Horizontal							IEEE 802.11n HT40 Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2386.824	53.56	54.00	-0.44	61.33	-7.77	Average	2385.636	45.53	54.00	-8.47	53.30	-7.77	Average
2386.824	67.32	74.00	-6.68	75.09	-7.77	Peak	2385.636	59.87	74.00	-14.13	67.64	-7.77	Peak
2417.844	88.51			96.20	-7.69	Average	2418.768	81.46			89.14	-7.68	Average
2417.844	98.65			106.34	-7.69	Peak	2418.768	92.01			99.69	-7.68	Peak
3229.300	45.03	54.00	-8.97	50.45	-5.42	Average	3229.300	43.44	54.00	-10.56	48.86	-5.42	Average
3229.300	47.34	74.00	-26.66	52.76	-5.42	Peak	3229.300	45.99	74.00	-28.01	51.41	-5.42	Peak
4844.000	29.08	54.00	-24.92	30.70	-1.62	Average	4844.000	29.27	54.00	-24.73	30.89	-1.62	Average
4844.000	43.62	74.00	-30.38	45.24	-1.62	Peak	4844.000	44.26	74.00	-29.74	45.88	-1.62	Peak
7266.000	34.05	54.00	-19.95	28.63	5.42	Average	7266.000	33.87	54.00	-20.13	28.45	5.42	Average
7266.000	48.19	74.00	-25.81	42.77	5.42	Peak	7266.000	48.19	74.00	-25.81	42.77	5.42	Peak

IEEE 802.11n HT40 Middle CH Horizontal							IEEE 802.11n HT40 Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2387.198	53.33	54.00	-0.67	61.10	-7.77	Average	2386.714	45.03	54.00	-8.97	52.80	-7.77	Average
2387.198	69.33	74.00	-4.67	77.10	-7.77	Peak	2386.714	59.49	74.00	-14.51	67.26	-7.77	Peak
2434.388	91.58			99.24	-7.66	Average	2439.228	83.22			90.87	-7.65	Average
2434.388	102.30			109.96	-7.66	Peak	2439.228	94.11			101.76	-7.65	Peak
2485.450	46.01	54.00	-7.99	53.60	-7.59	Average	2484.240	39.21	54.00	-14.79	46.80	-7.59	Average
2485.450	62.40	74.00	-11.60	69.99	-7.59	Peak	2484.240	53.59	74.00	-20.41	61.18	-7.59	Peak
3249.300	46.16	54.00	-7.84	51.52	-5.36	Average	3249.300	44.47	54.00	-9.53	49.83	-5.36	Average
3249.300	48.17	74.00	-25.83	53.53	-5.36	Peak	3249.300	47.22	74.00	-26.78	52.58	-5.36	Peak
4874.000	30.40	54.00	-23.60	31.95	-1.55	Average	4874.000	30.32	54.00	-23.68	31.87	-1.55	Average
4874.000	43.00	74.00	-31.00	44.55	-1.55	Peak	4874.000	43.30	74.00	-30.70	44.85	-1.55	Peak
7311.000	34.77	54.00	-19.23	29.45	5.32	Average	7311.000	34.03	54.00	-19.97	28.71	5.32	Average
7311.000	48.82	74.00	-25.18	43.50	5.32	Peak	7311.000	48.69	74.00	-25.31	43.37	5.32	Peak

IEEE 802.11n HT40 High CH Horizontal							IEEE 802.11n HT40 High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2435.960	91.43			99.08	-7.65	Average	2447.120	83.08			90.71	-7.63	Average
2435.960	102.55			110.20	-7.65	Peak	2447.120	94.04			101.67	-7.63	Peak
2487.080	51.06	54.00	-2.94	58.65	-7.59	Average	2484.560	42.56	54.00	-11.44	50.15	-7.59	Average
2487.080	67.26	74.00	-6.74	74.85	-7.59	Peak	2484.560	57.64	74.00	-16.36	65.23	-7.59	Peak
3269.300	45.21	54.00	-8.79	50.54	-5.33	Average	3269.300	44.58	54.00	-9.42	49.91	-5.33	Average
3269.300	47.53	74.00	-26.47	52.86	-5.33	Peak	3269.300	47.51	74.00	-26.49	52.84	-5.33	Peak
4904.000	30.75	54.00	-23.25	32.22	-1.47	Average	4904.000	30.54	54.00	-23.46	32.01	-1.47	Average
4904.000	43.64	74.00	-30.36	45.11	-1.47	Peak	4904.000	43.92	74.00	-30.08	45.39	-1.47	Peak
7356.000	33.48	54.00	-20.52	28.21	5.27	Average	7356.000	34.44	54.00	-19.56	29.17	5.27	Average
7356.000	47.82	74.00	-26.18	42.55	5.27	Peak	7356.000	48.08	74.00	-25.92	42.81	5.27	Peak

< Dipole Antenna (GW.34.5153) with 1.8V<sub>dc</sub>>

IEEE 802.11b Low CH Horizontal							IEEE 802.11b Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.520	38.82	54.00	-15.18	46.58	-7.76	Average	2386.272	53.49	54.00	-0.51	61.26	-7.77	Average
2389.520	51.68	74.00	-22.32	59.44	-7.76	Peak	2386.272	61.60	74.00	-12.40	69.37	-7.77	Peak
2411.248	88.81			96.52	-7.71	Average	2411.248	103.81			111.52	-7.71	Average
2411.248	91.48			99.19	-7.71	Peak	2411.248	106.50			114.21	-7.71	Peak
3216.000	42.62	54.00	-11.38	48.08	-5.46	Average	3216.000	44.29	54.00	-9.71	49.75	-5.46	Average
3216.000	45.94	74.00	-28.06	51.40	-5.46	Peak	3216.000	47.31	74.00	-26.69	52.77	-5.46	Peak
4824.000	36.00	54.00	-18.00	37.65	-1.65	Average	4824.000	35.75	54.00	-18.25	37.40	-1.65	Average
4824.000	44.21	74.00	-29.79	45.86	-1.65	Peak	4824.000	43.67	74.00	-30.33	45.32	-1.65	Peak
7236.000	36.36	54.00	-17.64	30.79	5.57	Average	7236.000	37.97	54.00	-16.03	32.40	5.57	Average
7236.000	48.21	74.00	-25.79	42.64	5.57	Peak	7236.000	48.72	74.00	-25.28	43.15	5.57	Peak

IEEE 802.11b Middle CH Horizontal							IEEE 802.11b Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2382.600	38.03	54.00	-15.97	45.81	-7.78	Average	2389.376	48.34	54.00	-5.66	56.10	-7.76	Average
2382.600	51.24	74.00	-22.76	59.02	-7.78	Peak	2389.376	59.10	74.00	-14.90	66.86	-7.76	Peak
2436.324	92.13			99.78	-7.65	Average	2436.324	106.23			113.88	-7.65	Average
2436.324	94.97			102.62	-7.65	Peak	2436.324	108.94			116.59	-7.65	Peak
2512.312	38.58	54.00	-15.42	46.11	-7.53	Average	2487.386	46.73	54.00	-7.27	54.32	-7.59	Average
2512.312	51.94	74.00	-22.06	59.47	-7.53	Peak	2487.386	58.07	74.00	-15.93	65.66	-7.59	Peak
3249.300	41.82	54.00	-12.18	47.18	-5.36	Average	3249.300	46.87	54.00	-7.13	52.23	-5.36	Average
3249.300	45.17	74.00	-28.83	50.53	-5.36	Peak	3249.300	49.03	74.00	-24.97	54.39	-5.36	Peak
4874.000	45.36	54.00	-8.64	46.91	-1.55	Average	4874.000	44.99	54.00	-9.01	46.54	-1.55	Average
4874.000	48.98	74.00	-25.02	50.53	-1.55	Peak	4874.000	48.46	74.00	-25.54	50.01	-1.55	Peak
7311.000	39.95	54.00	-14.05	34.63	5.32	Average	7311.000	42.81	54.00	-11.19	37.49	5.32	Average
7311.000	49.09	74.00	-24.91	43.77	5.32	Peak	7311.000	50.52	74.00	-23.48	45.20	5.32	Peak

IEEE 802.11b High CH Horizontal							IEEE 802.11b High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2461.200	86.71			94.33	-7.62	Average	2461.200	101.24			108.86	-7.62	Average
2461.200	89.70			97.32	-7.62	Peak	2461.200	104.21			111.83	-7.62	Peak
2483.700	38.60	54.00	-15.40	46.19	-7.59	Average	2484.400	47.84	54.00	-6.16	55.43	-7.59	Average
2483.700	52.27	74.00	-21.73	59.86	-7.59	Peak	2484.400	57.76	74.00	-16.24	65.35	-7.59	Peak
3282.700	46.49	54.00	-7.51	51.79	-5.30	Average	3282.700	44.49	54.00	-9.51	49.79	-5.30	Average
3282.700	48.79	74.00	-25.21	54.09	-5.30	Peak	3282.700	45.89	74.00	-28.11	51.19	-5.30	Peak
4924.000	40.78	54.00	-13.22	42.21	-1.43	Average	4924.000	40.27	54.00	-13.73	41.70	-1.43	Average
4924.000	45.92	74.00	-28.08	47.35	-1.43	Peak	4924.000	46.27	74.00	-27.73	47.70	-1.43	Peak
7386.000	34.61	54.00	-19.39	29.17	5.44	Average	7386.000	35.19	54.00	-18.81	29.75	5.44	Average
7386.000	48.14	74.00	-25.86	42.70	5.44	Peak	7386.000	47.29	74.00	-26.71	41.85	5.44	Peak



IEEE 802.11g Low CH Horizontal							IEEE 802.11g Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.968	40.19	54.00	-13.81	47.95	-7.76	Average	2389.408	53.76	54.00	-0.24	61.52	-7.76	Average
2389.968	56.11	74.00	-17.89	63.87	-7.76	Peak	2389.408	71.83	74.00	-2.17	79.59	-7.76	Peak
2414.048	79.01			86.72	-7.71	Average	2413.824	93.04			100.75	-7.71	Average
2414.048	89.62			97.33	-7.71	Peak	2413.824	103.70			111.41	-7.71	Peak
3216.000	44.91	54.00	-9.09	50.37	-5.46	Average	3216.000	44.37	54.00	-9.63	49.83	-5.46	Average
3216.000	48.37	74.00	-25.63	53.83	-5.46	Peak	3216.000	47.48	74.00	-26.52	52.94	-5.46	Peak
4824.000	29.30	54.00	-24.70	30.95	-1.65	Average	4824.000	30.20	54.00	-23.80	31.85	-1.65	Average
4824.000	42.47	74.00	-31.53	44.12	-1.65	Peak	4824.000	42.98	74.00	-31.02	44.63	-1.65	Peak
7236.000	34.55	54.00	-19.45	28.98	5.57	Average	7236.000	36.07	54.00	-17.93	30.50	5.57	Average
7236.000	48.67	74.00	-25.33	43.10	5.57	Peak	7236.000	49.39	74.00	-24.61	43.82	5.57	Peak

IEEE 802.11g Middle CH Horizontal							IEEE 802.11g Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.860	39.54	54.00	-14.46	47.30	-7.76	Average	2389.860	52.42	54.00	-1.58	60.18	-7.76	Average
2389.860	53.89	74.00	-20.11	61.65	-7.76	Peak	2389.860	68.85	74.00	-5.15	76.61	-7.76	Peak
2434.630	86.20			93.86	-7.66	Average	2435.598	100.39			108.04	-7.65	Average
2434.630	96.33			103.99	-7.66	Peak	2435.598	110.65			118.30	-7.65	Peak
2484.240	39.21	54.00	-14.79	46.80	-7.59	Average	2489.080	48.40	54.00	-5.60	55.99	-7.59	Average
2484.240	53.15	74.00	-20.85	60.74	-7.59	Peak	2489.080	63.52	74.00	-10.48	71.11	-7.59	Peak
3249.300	46.69	54.00	-7.31	52.05	-5.36	Average	3249.300	46.19	54.00	-7.81	51.55	-5.36	Average
3249.300	49.05	74.00	-24.95	54.41	-5.36	Peak	3249.300	47.96	74.00	-26.04	53.32	-5.36	Peak
4874.000	31.19	54.00	-22.81	32.74	-1.55	Average	4874.000	32.27	54.00	-21.73	33.82	-1.55	Average
4874.000	43.96	74.00	-30.04	45.51	-1.55	Peak	4874.000	44.71	74.00	-29.29	46.26	-1.55	Peak
7311.000	35.72	54.00	-18.28	30.40	5.32	Average	7311.000	37.07	54.00	-16.93	31.75	5.32	Average
7311.000	49.84	74.00	-24.16	44.52	5.32	Peak	7311.000	50.25	74.00	-23.75	44.93	5.32	Peak

IEEE 802.11g High CH Horizontal							IEEE 802.11g High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2463.700	79.78			87.40	-7.62	Average	2459.900	94.29			101.91	-7.62	Average
2463.700	90.09			97.71	-7.62	Peak	2459.900	104.77			112.39	-7.62	Peak
2483.700	42.92	54.00	-11.08	50.51	-7.59	Average	2483.900	53.62	54.00	-0.38	61.21	-7.59	Average
2483.700	59.10	74.00	-14.90	66.69	-7.59	Peak	2483.900	73.44	74.00	-0.56	81.03	-7.59	Peak
3282.700	47.37	54.00	-6.63	52.67	-5.30	Average	3289.300	46.12	54.00	-7.88	51.40	-5.28	Average
3282.700	48.32	74.00	-25.68	53.62	-5.30	Peak	3289.300	48.40	74.00	-25.60	53.68	-5.28	Peak
4924.000	30.25	54.00	-23.75	31.68	-1.43	Average	4924.000	30.42	54.00	-23.58	31.85	-1.43	Average
4924.000	44.54	74.00	-29.46	45.97	-1.43	Peak	4924.000	43.87	74.00	-30.13	45.30	-1.43	Peak
7386.000	35.64	54.00	-18.36	30.20	5.44	Average	7386.000	35.09	54.00	-18.91	29.65	5.44	Average
7386.000	49.08	74.00	-24.92	43.64	5.44	Peak	7386.000	48.77	74.00	-25.23	43.33	5.44	Peak

IEEE 802.11n HT20 Low CH Horizontal							IEEE 802.11n HT20 Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2388.400	39.54	54.00	-14.46	47.31	-7.77	Average	2389.856	53.59	54.00	-0.41	61.35	-7.76	Average
2388.400	53.83	74.00	-20.17	61.60	-7.77	Peak	2389.856	69.69	74.00	-4.31	77.45	-7.76	Peak
2413.488	76.85			84.56	-7.71	Average	2413.824	91.07			98.78	-7.71	Average
2413.488	87.58			95.29	-7.71	Peak	2413.824	102.39			110.10	-7.71	Peak
3216.000	45.22	54.00	-8.78	50.68	-5.46	Average	3216.000	44.90	54.00	-9.10	50.36	-5.46	Average
3216.000	47.69	74.00	-26.31	53.15	-5.46	Peak	3216.000	47.37	74.00	-26.63	52.83	-5.46	Peak
4824.000	30.81	54.00	-23.19	32.46	-1.65	Average	4824.000	29.80	54.00	-24.20	31.45	-1.65	Average
4824.000	44.53	74.00	-29.47	46.18	-1.65	Peak	4824.000	42.56	74.00	-31.44	44.21	-1.65	Peak
7236.000	34.54	54.00	-19.46	28.97	5.57	Average	7236.000	34.54	54.00	-19.46	28.97	5.57	Average
7236.000	48.64	74.00	-25.36	43.07	5.57	Peak	7236.000	48.41	74.00	-25.59	42.84	5.57	Peak

IEEE 802.11n HT20 Middle CH Horizontal							IEEE 802.11n HT20 Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.134	40.05	54.00	-13.95	47.81	-7.76	Average	2386.956	53.58	54.00	-0.42	61.35	-7.77	Average
2389.134	55.02	74.00	-18.98	62.78	-7.76	Peak	2386.956	70.80	74.00	-3.20	78.57	-7.77	Peak
2434.388	85.95			93.61	-7.66	Average	2435.356	100.04			107.69	-7.65	Average
2434.388	97.13			104.79	-7.66	Peak	2435.356	111.16			118.81	-7.65	Peak
2483.756	39.24	54.00	-14.76	46.83	-7.59	Average	2486.176	48.83	54.00	-5.17	56.42	-7.59	Average
2483.756	53.10	74.00	-20.90	60.69	-7.59	Peak	2486.176	64.75	74.00	-9.25	72.34	-7.59	Peak
3249.300	46.22	54.00	-7.78	51.58	-5.36	Average	3249.300	43.18	54.00	-10.82	48.54	-5.36	Average
3249.300	49.16	74.00	-24.84	54.52	-5.36	Peak	3249.300	46.16	74.00	-27.84	51.52	-5.36	Peak
4874.000	31.11	54.00	-22.89	32.66	-1.55	Average	4874.000	32.08	54.00	-21.92	33.63	-1.55	Average
4874.000	44.31	74.00	-29.69	45.86	-1.55	Peak	4874.000	46.22	74.00	-27.78	47.77	-1.55	Peak
7311.000	35.54	54.00	-18.46	30.22	5.32	Average	7311.000	37.08	54.00	-16.92	31.76	5.32	Average
7311.000	49.10	74.00	-24.90	43.78	5.32	Peak	7311.000	50.27	74.00	-23.73	44.95	5.32	Peak

IEEE 802.11n HT20 High CH Horizontal							IEEE 802.11n HT20 High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2470.000	77.63			85.24	-7.61	Average	2460.200	92.68			100.30	-7.62	Average
2470.000	88.18			95.79	-7.61	Peak	2460.200	103.47			111.09	-7.62	Peak
2484.800	39.28	54.00	-14.72	46.87	-7.59	Average	2485.000	49.47	54.00	-4.53	57.06	-7.59	Average
2484.800	53.52	74.00	-20.48	61.11	-7.59	Peak	2485.000	67.23	74.00	-6.77	74.82	-7.59	Peak
3282.700	45.34	54.00	-8.66	50.64	-5.30	Average	3282.700	43.11	54.00	-10.89	48.41	-5.30	Average
3282.700	48.56	74.00	-25.44	53.86	-5.30	Peak	3282.700	45.41	74.00	-28.59	50.71	-5.30	Peak
4924.000	30.09	54.00	-23.91	31.52	-1.43	Average	4924.000	32.18	54.00	-21.82	33.61	-1.43	Average
4924.000	43.22	74.00	-30.78	44.65	-1.43	Peak	4924.000	44.67	74.00	-29.33	46.10	-1.43	Peak
7386.000	34.33	54.00	-19.67	28.89	5.44	Average	7386.000	34.09	54.00	-19.91	28.65	5.44	Average
7386.000	49.12	74.00	-24.88	43.68	5.44	Peak	7386.000	49.15	74.00	-24.85	43.71	5.44	Peak

IEEE 802.11n HT40 Low CH Horizontal							IEEE 802.11n HT40 Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2388.144	39.67	54.00	-14.33	47.44	-7.77	Average	2387.748	53.16	54.00	-0.84	60.93	-7.77	Average
2388.144	52.80	74.00	-21.20	60.57	-7.77	Peak	2387.748	67.30	74.00	-6.70	75.07	-7.77	Peak
2424.312	71.43			79.11	-7.68	Average	2425.368	85.72			93.39	-7.67	Average
2424.312	82.17			89.85	-7.68	Peak	2425.368	96.74			104.41	-7.67	Peak
3229.300	45.52	54.00	-8.48	50.94	-5.42	Average	3229.300	44.14	54.00	-9.86	49.56	-5.42	Average
3229.300	48.39	74.00	-25.61	53.81	-5.42	Peak	3229.300	46.56	74.00	-27.44	51.98	-5.42	Peak
4844.000	28.93	54.00	-25.07	30.55	-1.62	Average	4844.000	29.08	54.00	-24.92	30.70	-1.62	Average
4844.000	43.70	74.00	-30.30	45.32	-1.62	Peak	4844.000	43.40	74.00	-30.60	45.02	-1.62	Peak
7266.000	34.28	54.00	-19.72	28.86	5.42	Average	7266.000	35.00	54.00	-19.00	29.58	5.42	Average
7266.000	47.34	74.00	-26.66	41.92	5.42	Peak	7266.000	48.04	74.00	-25.96	42.62	5.42	Peak

IEEE 802.11n HT40 Middle CH Horizontal							IEEE 802.11n HT40 Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2388.408	40.34	54.00	-13.66	48.11	-7.77	Average	2389.860	53.77	54.00	-0.23	61.53	-7.76	Average
2388.408	54.44	74.00	-19.56	62.21	-7.77	Peak	2389.860	70.73	74.00	-3.27	78.49	-7.76	Peak
2432.210	76.08			83.74	-7.66	Average	2440.196	90.61			98.26	-7.65	Average
2432.210	86.69			94.35	-7.66	Peak	2440.196	101.43			109.08	-7.65	Peak
2484.966	41.34	54.00	-12.66	48.93	-7.59	Average	2484.240	53.28	54.00	-0.72	60.87	-7.59	Average
2484.966	56.10	74.00	-17.90	63.69	-7.59	Peak	2484.240	71.12	74.00	-2.88	78.71	-7.59	Peak
3249.300	46.44	54.00	-7.56	51.80	-5.36	Average	3249.300	44.76	54.00	-9.24	50.12	-5.36	Average
3249.300	49.10	74.00	-24.90	54.46	-5.36	Peak	3249.300	47.13	74.00	-26.87	52.49	-5.36	Peak
4874.000	29.50	54.00	-24.50	31.05	-1.55	Average	4874.000	29.41	54.00	-24.59	30.96	-1.55	Average
4874.000	42.80	74.00	-31.20	44.35	-1.55	Peak	4874.000	43.42	74.00	-30.58	44.97	-1.55	Peak
7311.000	34.26	54.00	-19.74	28.94	5.32	Average	7311.000	33.97	54.00	-20.03	28.65	5.32	Average
7311.000	47.47	74.00	-26.53	42.15	5.32	Peak	7311.000	48.85	74.00	-25.15	43.53	5.32	Peak

IEEE 802.11n HT40 High CH Horizontal							IEEE 802.11n HT40 High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2435.360	74.34			81.99	-7.65	Average	2446.400	88.67			96.30	-7.63	Average
2435.360	85.03			92.68	-7.65	Peak	2446.400	99.69			107.32	-7.63	Peak
2490.560	39.96	54.00	-14.04	47.55	-7.59	Average	2487.680	51.26	54.00	-2.74	58.85	-7.59	Average
2490.560	53.52	74.00	-20.48	61.11	-7.59	Peak	2487.680	66.78	74.00	-7.22	74.37	-7.59	Peak
3269.300	45.59	54.00	-8.41	50.92	-5.33	Average	3269.300	44.21	54.00	-9.79	49.54	-5.33	Average
3269.300	47.91	74.00	-26.09	53.24	-5.33	Peak	3269.300	46.53	74.00	-27.47	51.86	-5.33	Peak
4904.000	29.28	54.00	-24.72	30.75	-1.47	Average	4904.000	29.06	54.00	-24.94	30.53	-1.47	Average
4904.000	42.62	74.00	-31.38	44.09	-1.47	Peak	4904.000	43.13	74.00	-30.87	44.60	-1.47	Peak
7356.000	34.02	54.00	-19.98	28.75	5.27	Average	7356.000	33.84	54.00	-20.16	28.57	5.27	Average
7356.000	47.72	74.00	-26.28	42.45	5.27	Peak	7356.000	47.22	74.00	-26.78	41.95	5.27	Peak

< Dipole Antenna (GW.34.5153) with 3.3V<sub>dc</sub>>

IEEE 802.11b Low CH Horizontal							IEEE 802.11b Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.632	38.79	54.00	-15.21	46.55	-7.76	Average	2387.280	51.33	54.00	-2.67	59.10	-7.77	Average
2389.632	51.92	74.00	-22.08	59.68	-7.76	Peak	2387.280	59.97	74.00	-14.03	67.74	-7.77	Peak
2411.248	91.60			99.31	-7.71	Average	2411.248	105.82			113.53	-7.71	Average
2411.248	94.43			102.14	-7.71	Peak	2411.248	108.51			116.22	-7.71	Peak
3216.000	42.67	54.00	-11.33	48.13	-5.46	Average	3216.000	45.43	54.00	-8.57	50.89	-5.46	Average
3216.000	45.97	74.00	-28.03	51.43	-5.46	Peak	3216.000	47.99	74.00	-26.01	53.45	-5.46	Peak
4824.000	43.84	54.00	-10.16	45.49	-1.65	Average	4824.000	42.85	54.00	-11.15	44.50	-1.65	Average
4824.000	47.88	74.00	-26.12	49.53	-1.65	Peak	4824.000	47.08	74.00	-26.92	48.73	-1.65	Peak
7236.000	40.12	54.00	-13.88	34.55	5.57	Average	7236.000	43.54	54.00	-10.46	37.97	5.57	Average
7236.000	49.73	74.00	-24.27	44.16	5.57	Peak	7236.000	51.31	74.00	-22.69	45.74	5.57	Peak

IEEE 802.11b Middle CH Horizontal							IEEE 802.11b Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2383.568	37.53	54.00	-16.47	45.31	-7.78	Average	2385.262	43.78	54.00	-10.22	51.55	-7.77	Average
2383.568	51.53	74.00	-22.47	59.31	-7.78	Peak	2385.262	57.48	74.00	-16.52	65.25	-7.77	Peak
2436.324	95.54			103.19	-7.65	Average	2438.018	106.97			114.62	-7.65	Average
2436.324	98.29			105.94	-7.65	Peak	2438.018	109.56			117.21	-7.65	Peak
2532.398	38.28	54.00	-15.72	45.74	-7.46	Average	2484.966	44.17	54.00	-9.83	51.76	-7.59	Average
2532.398	51.74	74.00	-22.26	59.20	-7.46	Peak	2484.966	57.24	74.00	-16.76	64.83	-7.59	Peak
3249.300	44.86	54.00	-9.14	50.22	-5.36	Average	3249.300	47.07	54.00	-6.93	52.43	-5.36	Average
3249.300	47.59	74.00	-26.41	52.95	-5.36	Peak	3249.300	49.14	74.00	-24.86	54.50	-5.36	Peak
4874.000	47.99	54.00	-6.01	49.54	-1.55	Average	4874.000	50.16	54.00	-3.84	51.71	-1.55	Average
4874.000	50.83	74.00	-23.17	52.38	-1.55	Peak	4874.000	52.56	74.00	-21.44	54.11	-1.55	Peak
7311.000	44.84	54.00	-9.16	39.52	5.32	Average	7311.000	48.63	54.00	-5.37	43.31	5.32	Average
7311.000	51.94	74.00	-22.06	46.62	5.32	Peak	7311.000	54.29	74.00	-19.71	48.97	5.32	Peak

IEEE 802.11b High CH Horizontal							IEEE 802.11b High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2462.800	91.93			99.55	-7.62	Average	2461.200	104.68			112.30	-7.62	Average
2462.800	94.82			102.44	-7.62	Peak	2461.200	107.50			115.12	-7.62	Peak
2485.100	40.63	54.00	-13.37	48.22	-7.59	Average	2486.700	53.07	54.00	-0.93	60.66	-7.59	Average
2485.100	53.01	74.00	-20.99	60.60	-7.59	Peak	2486.700	60.98	74.00	-13.02	68.57	-7.59	Peak
3282.700	44.45	54.00	-9.55	49.75	-5.30	Average	3282.700	46.31	54.00	-7.69	51.61	-5.30	Average
3282.700	46.66	74.00	-27.34	51.96	-5.30	Peak	3282.700	50.59	74.00	-23.41	55.89	-5.30	Peak
4924.000	47.01	54.00	-6.99	48.44	-1.43	Average	4924.000	51.10	54.00	-2.90	52.53	-1.43	Average
4924.000	50.07	74.00	-23.93	51.50	-1.43	Peak	4924.000	53.33	74.00	-20.67	54.76	-1.43	Peak
7386.000	39.64	54.00	-14.36	34.20	5.44	Average	7386.000	42.54	54.00	-11.46	37.10	5.44	Average
7386.000	50.03	74.00	-23.97	44.59	5.44	Peak	7386.000	50.27	74.00	-23.73	44.83	5.44	Peak



IEEE 802.11g Low CH Horizontal							IEEE 802.11g Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.072	40.20	54.00	-13.80	47.96	-7.76	Average	2389.296	53.74	54.00	-0.26	61.50	-7.76	Average
2389.072	55.72	74.00	-18.28	63.48	-7.76	Peak	2389.296	70.50	74.00	-3.50	78.26	-7.76	Peak
2413.824	81.46			89.17	-7.71	Average	2414.496	95.62			103.33	-7.71	Average
2413.824	91.82			99.53	-7.71	Peak	2414.496	106.03			113.74	-7.71	Peak
3216.000	42.33	54.00	-11.67	47.79	-5.46	Average	3216.000	43.13	54.00	-10.87	48.59	-5.46	Average
3216.000	45.33	74.00	-28.67	50.79	-5.46	Peak	3216.000	45.93	74.00	-28.07	51.39	-5.46	Peak
4824.000	31.10	54.00	-22.90	32.75	-1.65	Average	4824.000	32.10	54.00	-21.90	33.75	-1.65	Average
4824.000	40.20	74.00	-33.80	41.85	-1.65	Peak	4824.000	44.86	74.00	-29.14	46.51	-1.65	Peak
7236.000	34.67	54.00	-19.33	29.10	5.57	Average	7236.000	34.87	54.00	-19.13	29.30	5.57	Average
7236.000	47.33	74.00	-26.67	41.76	5.57	Peak	7236.000	48.11	74.00	-25.89	42.54	5.57	Peak

IEEE 802.11g Middle CH Horizontal							IEEE 802.11g Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2385.262	39.18	54.00	-14.82	46.95	-7.77	Average	2389.860	52.35	54.00	-1.65	60.11	-7.76	Average
2385.262	53.31	74.00	-20.69	61.08	-7.77	Peak	2389.860	69.54	74.00	-4.46	77.30	-7.76	Peak
2438.260	90.67			98.32	-7.65	Average	2435.114	102.88			110.53	-7.65	Average
2438.260	100.85			108.50	-7.65	Peak	2435.114	113.47			121.12	-7.65	Peak
2485.692	40.13	54.00	-13.87	47.72	-7.59	Average	2484.482	52.94	54.00	-1.06	60.53	-7.59	Average
2485.692	56.98	74.00	-17.02	64.57	-7.59	Peak	2484.482	71.94	74.00	-2.06	79.53	-7.59	Peak
3249.300	46.09	54.00	-7.91	51.45	-5.36	Average	3249.300	47.51	54.00	-6.49	52.87	-5.36	Average
3249.300	48.42	74.00	-25.58	53.78	-5.36	Peak	3249.300	49.34	74.00	-24.66	54.70	-5.36	Peak
4874.000	36.16	54.00	-17.84	37.71	-1.55	Average	4874.000	37.98	54.00	-16.02	39.53	-1.55	Average
4874.000	49.09	74.00	-24.91	50.64	-1.55	Peak	4874.000	50.87	74.00	-23.13	52.42	-1.55	Peak
7311.000	39.99	54.00	-14.01	34.67	5.32	Average	7311.000	42.97	54.00	-11.03	37.65	5.32	Average
7311.000	52.95	74.00	-21.05	47.63	5.32	Peak	7311.000	56.54	74.00	-17.46	51.22	5.32	Peak

IEEE 802.11g High CH Horizontal							IEEE 802.11g High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2463.900	82.20			89.82	-7.62	Average	2458.200	96.30			103.92	-7.62	Average
2463.900	92.74			100.36	-7.62	Peak	2458.200	106.65			114.27	-7.62	Peak
2485.000	39.40	54.00	-14.60	46.99	-7.59	Average	2484.500	50.71	54.00	-3.29	58.30	-7.59	Average
2485.000	53.88	74.00	-20.12	61.47	-7.59	Peak	2484.500	68.48	74.00	-5.52	76.07	-7.59	Peak
3282.700	43.86	54.00	-10.14	49.16	-5.30	Average	3282.700	46.12	54.00	-7.88	51.42	-5.30	Average
3282.700	46.46	74.00	-27.54	51.76	-5.30	Peak	3282.700	48.02	74.00	-25.98	53.32	-5.30	Peak
4924.000	33.90	54.00	-20.10	35.33	-1.43	Average	4924.000	36.77	54.00	-17.23	38.20	-1.43	Average
4924.000	46.26	74.00	-27.74	47.69	-1.43	Peak	4924.000	50.47	74.00	-23.53	51.90	-1.43	Peak
7386.000	34.73	54.00	-19.27	29.29	5.44	Average	7386.000	34.05	54.00	-19.95	28.61	5.44	Average
7386.000	47.97	74.00	-26.03	42.53	5.44	Peak	7386.000	48.84	74.00	-25.16	43.40	5.44	Peak

IEEE 802.11n HT20 Low CH Horizontal							IEEE 802.11n HT20 Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.408	40.73	54.00	-13.27	48.49	-7.76	Average	2389.296	53.92	54.00	-0.08	61.68	-7.76	Average
2389.408	55.93	74.00	-18.07	63.69	-7.76	Peak	2389.296	70.97	74.00	-3.03	78.73	-7.76	Peak
2413.152	80.88			88.59	-7.71	Average	2413.488	94.46			102.17	-7.71	Average
2413.152	91.57			99.28	-7.71	Peak	2413.488	105.52			113.23	-7.71	Peak
3216.000	41.27	54.00	-12.73	46.73	-5.46	Average	3216.000	43.30	54.00	-10.70	48.76	-5.46	Average
3216.000	44.64	74.00	-29.36	50.10	-5.46	Peak	3216.000	45.89	74.00	-28.11	51.35	-5.46	Peak
4824.000	31.11	54.00	-22.89	32.76	-1.65	Average	4824.000	31.78	54.00	-22.22	33.43	-1.65	Average
4824.000	44.50	74.00	-29.50	46.15	-1.65	Peak	4824.000	45.10	74.00	-28.90	46.75	-1.65	Peak
7236.000	34.04	54.00	-19.96	28.47	5.57	Average	7236.000	34.57	54.00	-19.43	29.00	5.57	Average
7236.000	47.66	74.00	-26.34	42.09	5.57	Peak	7236.000	47.82	74.00	-26.18	42.25	5.57	Peak

IEEE 802.11n HT20 Middle CH Horizontal							IEEE 802.11n HT20 Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2378.970	39.47	54.00	-14.53	47.27	-7.80	Average	2388.892	51.89	54.00	-2.11	59.65	-7.76	Average
2378.970	53.56	74.00	-20.44	61.36	-7.80	Peak	2388.892	68.24	74.00	-5.76	76.00	-7.76	Peak
2438.260	90.75			98.40	-7.65	Average	2435.356	102.48			110.13	-7.65	Average
2438.260	101.39			109.04	-7.65	Peak	2435.356	113.20			120.85	-7.65	Peak
2483.756	40.92	54.00	-13.08	48.51	-7.59	Average	2483.998	53.78	54.00	-0.22	61.37	-7.59	Average
2483.756	57.23	74.00	-16.77	64.82	-7.59	Peak	2483.998	71.53	74.00	-2.47	79.12	-7.59	Peak
3249.300	45.49	54.00	-8.51	50.85	-5.36	Average	3249.300	47.56	54.00	-6.44	52.92	-5.36	Average
3249.300	47.55	74.00	-26.45	52.91	-5.36	Peak	3249.300	49.35	74.00	-24.65	54.71	-5.36	Peak
4874.000	35.41	54.00	-18.59	36.96	-1.55	Average	4874.000	38.18	54.00	-15.82	39.73	-1.55	Average
4874.000	50.06	74.00	-23.94	51.61	-1.55	Peak	4874.000	51.22	74.00	-22.78	52.77	-1.55	Peak
7311.000	40.14	54.00	-13.86	34.82	5.32	Average	7311.000	42.54	54.00	-11.46	37.22	5.32	Average
7311.000	52.30	74.00	-21.70	46.98	5.32	Peak	7311.000	55.64	74.00	-18.36	50.32	5.32	Peak

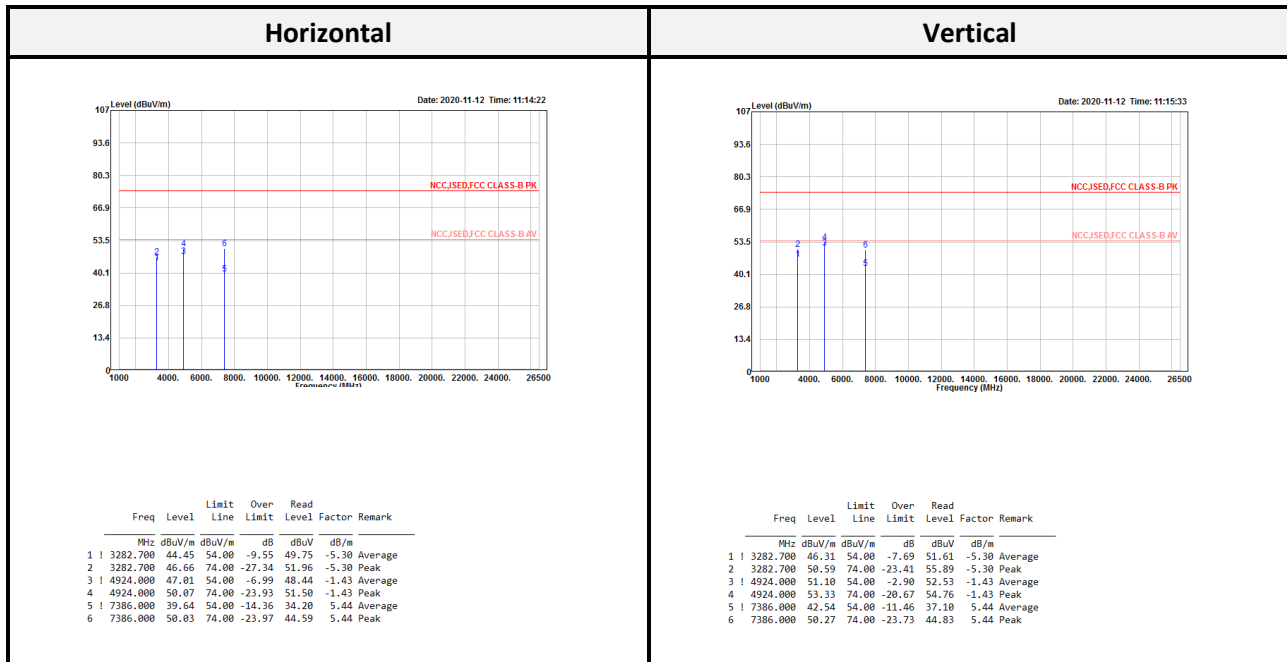
IEEE 802.11n HT20 High CH Horizontal							IEEE 802.11n HT20 High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2463.400	82.30			89.92	-7.62	Average	2459.200	95.78			103.40	-7.62	Average
2463.400	92.96			100.58	-7.62	Peak	2459.200	107.14			114.76	-7.62	Peak
2484.300	40.32	54.00	-13.68	47.91	-7.59	Average	2484.600	51.28	54.00	-2.72	58.87	-7.59	Average
2484.300	56.03	74.00	-17.97	63.62	-7.59	Peak	2484.600	72.61	74.00	-1.39	80.20	-7.59	Peak
3282.700	44.10	54.00	-9.90	49.40	-5.30	Average	3282.700	45.81	54.00	-8.19	51.11	-5.30	Average
3282.700	45.96	74.00	-28.04	51.26	-5.30	Peak	3282.700	47.65	74.00	-26.35	52.95	-5.30	Peak
4924.000	33.87	54.00	-20.13	35.30	-1.43	Average	4924.000	37.07	54.00	-16.93	38.50	-1.43	Average
4924.000	46.52	74.00	-27.48	47.95	-1.43	Peak	4924.000	49.97	74.00	-24.03	51.40	-1.43	Peak
7386.000	34.32	54.00	-19.68	28.88	5.44	Average	7386.000	34.09	54.00	-19.91	28.65	5.44	Average
7386.000	47.75	74.00	-26.25	42.31	5.44	Peak	7386.000	46.61	74.00	-27.39	41.17	5.44	Peak

IEEE 802.11n HT40 Low CH Horizontal							IEEE 802.11n HT40 Low CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2383.788	40.60	54.00	-13.40	48.38	-7.78	Average	2389.992	53.71	54.00	-0.29	61.47	-7.76	Average
2383.788	54.89	74.00	-19.11	62.67	-7.78	Peak	2389.992	67.85	74.00	-6.15	75.61	-7.76	Peak
2428.932	74.52			82.19	-7.67	Average	2425.368	89.18			96.85	-7.67	Average
2428.932	85.71			93.38	-7.67	Peak	2425.368	100.40			108.07	-7.67	Peak
3229.300	44.99	54.00	-9.01	50.41	-5.42	Average	3229.300	45.91	54.00	-8.09	51.33	-5.42	Average
3229.300	47.31	74.00	-26.69	52.73	-5.42	Peak	3229.300	48.03	74.00	-25.97	53.45	-5.42	Peak
4844.000	29.28	54.00	-24.72	30.90	-1.62	Average	4844.000	30.00	54.00	-24.00	31.62	-1.62	Average
4844.000	43.13	74.00	-30.87	44.75	-1.62	Peak	4844.000	42.98	74.00	-31.02	44.60	-1.62	Peak
7266.000	33.53	54.00	-20.47	28.11	5.42	Average	7266.000	33.82	54.00	-20.18	28.40	5.42	Average
7266.000	47.57	74.00	-26.43	42.15	5.42	Peak	7266.000	47.46	74.00	-26.54	42.04	5.42	Peak

IEEE 802.11n HT40 Middle CH Horizontal							IEEE 802.11n HT40 Middle CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2389.618	40.56	54.00	-13.44	48.32	-7.76	Average	2387.198	53.57	54.00	-0.43	61.34	-7.77	Average
2389.618	55.46	74.00	-18.54	63.22	-7.76	Peak	2387.198	70.31	74.00	-3.69	78.08	-7.77	Peak
2438.744	79.85			87.50	-7.65	Average	2434.630	93.41			101.07	-7.66	Average
2438.744	90.00			97.65	-7.65	Peak	2434.630	104.69			112.35	-7.66	Peak
2483.998	40.23	54.00	-13.77	47.82	-7.59	Average	2483.756	51.93	54.00	-2.07	59.52	-7.59	Average
2483.998	55.22	74.00	-18.78	62.81	-7.59	Peak	2483.756	69.04	74.00	-4.96	76.63	-7.59	Peak
3249.300	45.13	54.00	-8.87	50.49	-5.36	Average	3249.300	45.24	54.00	-8.76	50.60	-5.36	Average
3249.300	47.51	74.00	-26.49	52.87	-5.36	Peak	3249.300	47.70	74.00	-26.30	53.06	-5.36	Peak
4874.000	31.06	54.00	-22.94	32.61	-1.55	Average	4874.000	32.21	54.00	-21.79	33.76	-1.55	Average
4874.000	44.44	74.00	-29.56	45.99	-1.55	Peak	4874.000	45.05	74.00	-28.95	46.60	-1.55	Peak
7311.000	33.86	54.00	-20.14	28.54	5.32	Average	7311.000	34.02	54.00	-19.98	28.70	5.32	Average
7311.000	47.31	74.00	-26.69	41.99	5.32	Peak	7311.000	48.19	74.00	-25.81	42.87	5.32	Peak

IEEE 802.11n HT40 High CH Horizontal							IEEE 802.11n HT40 High CH Vertical						
Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Remark
MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
2446.400	78.09			85.72	-7.63	Average	2445.000	91.71			99.34	-7.63	Average
2446.400	89.36			96.99	-7.63	Peak	2445.000	102.58			110.21	-7.63	Peak
2485.400	40.51	54.00	-13.49	48.10	-7.59	Average	2484.200	51.83	54.00	-2.17	59.42	-7.59	Average
2485.400	56.12	74.00	-17.88	63.71	-7.59	Peak	2484.200	68.53	74.00	-5.47	76.12	-7.59	Peak
3269.300	44.18	54.00	-9.82	49.51	-5.33	Average	3269.300	45.86	54.00	-8.14	51.19	-5.33	Average
3269.300	47.19	74.00	-26.81	52.52	-5.33	Peak	3269.300	48.06	74.00	-25.94	53.39	-5.33	Peak
4904.000	30.84	54.00	-23.16	32.31	-1.47	Average	4904.000	32.98	54.00	-21.02	34.45	-1.47	Average
4904.000	43.85	74.00	-30.15	45.32	-1.47	Peak	4904.000	46.18	74.00	-27.82	47.65	-1.47	Peak
7356.000	33.77	54.00	-20.23	28.50	5.27	Average	7356.000	33.57	54.00	-20.43	28.30	5.27	Average
7356.000	47.15	74.00	-26.85	41.88	5.27	Peak	7356.000	47.42	74.00	-26.58	42.15	5.27	Peak

**Above 1G (1 GHz-26.5 GHz):** The worst mode is Dipole Antenna with 3.3V<sub>dc</sub> for 802.11b High CH.



Level = Read Level + Factor

Over Limit = Level – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

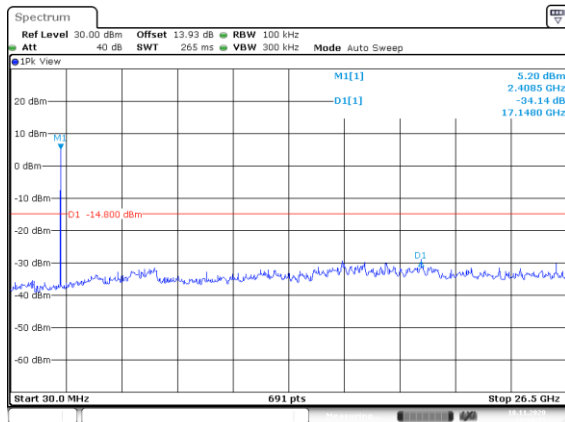
Spurious emissions more than 20 dB below the limit were not reported

### Conducted Spurious Emissions:

Configuration	Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
IEEE 802.11b	Low	2412	34.14	≥ 20	Compliance
	Mid	2437	34.61	≥ 20	Compliance
	High	2462	33.05	≥ 20	Compliance
IEEE 802.11g	Low	2412	36.86	≥ 20	Compliance
	Mid	2437	35.74	≥ 20	Compliance
	High	2462	37.31	≥ 20	Compliance
IEEE 802.11n HT20	Low	2412	37.85	≥ 20	Compliance
	Mid	2437	32.30	≥ 20	Compliance
	High	2462	37.64	≥ 20	Compliance
IEEE 802.11n HT40	Low	2422	28.80	≥ 20	Compliance
	Mid	2437	33.70	≥ 20	Compliance
	High	2452	31.64	≥ 20	Compliance

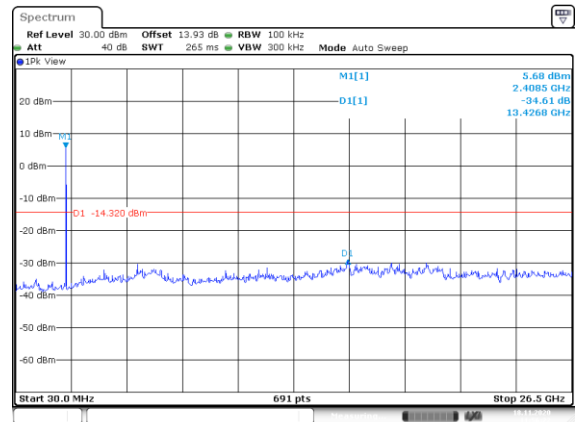


### IEEE 802.11b Low CH



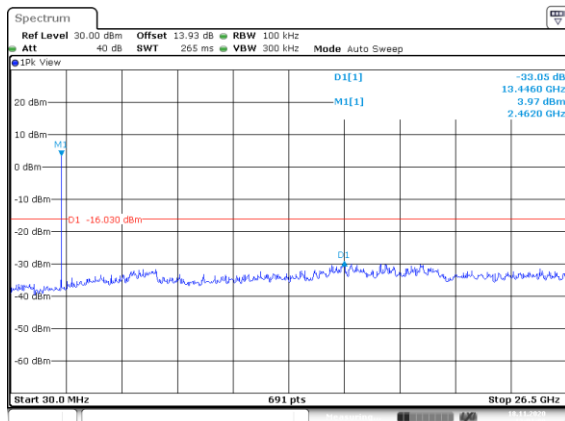
Date: 18.NOV.2020 11:54:35

### IEEE 802.11b Middle CH



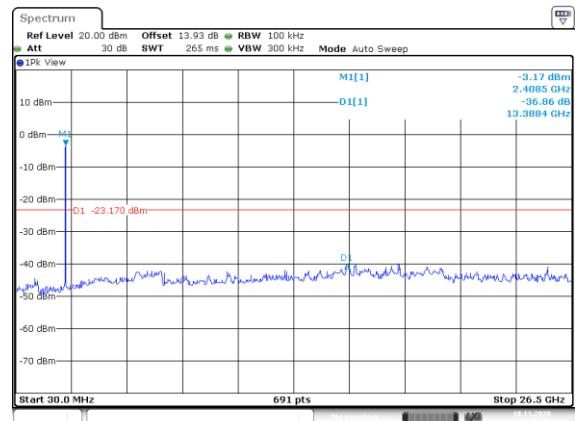
Date: 18.NOV.2020 11:56:22

### IEEE 802.11b High CH



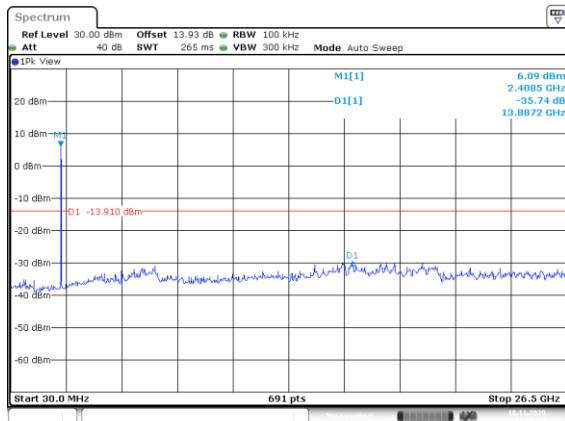
Date: 18.NOV.2020 12:01:08

### IEEE 802.11g Low CH



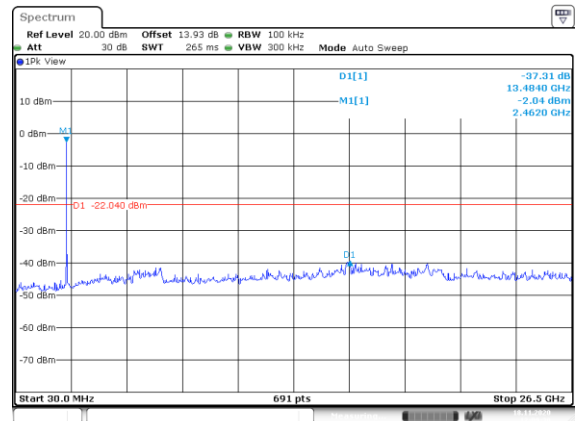
Date: 18.NOV.2020 12:03:25

### IEEE 802.11g Middle CH



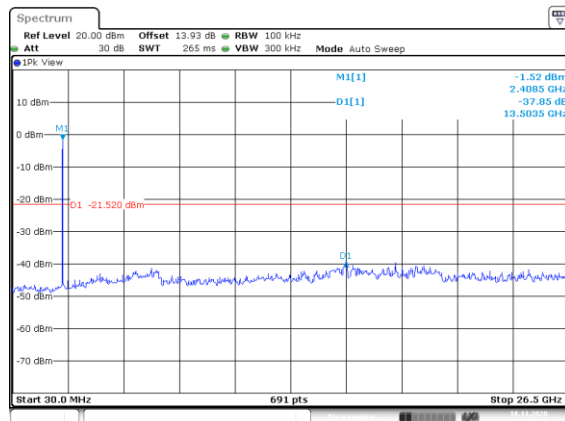
Date: 18.NOV.2020 12:05:14

### IEEE 802.11g High CH



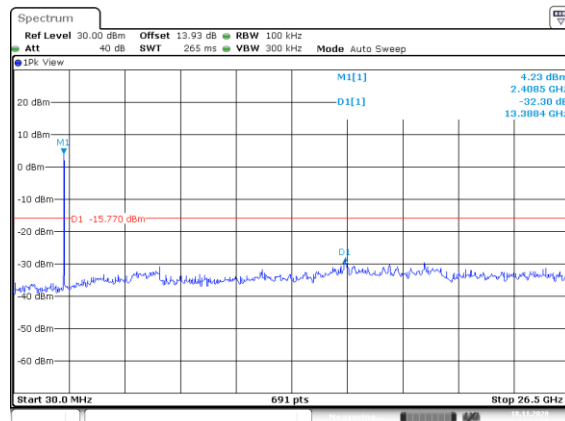
Date: 18.NOV.2020 12:09:30

### IEEE 802.11n HT20 Low CH



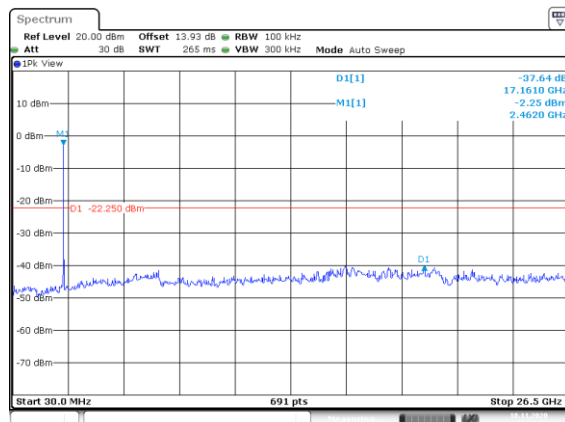
Date: 18.NOV.2020 12:11:07

### IEEE 802.11n HT20 Middle CH



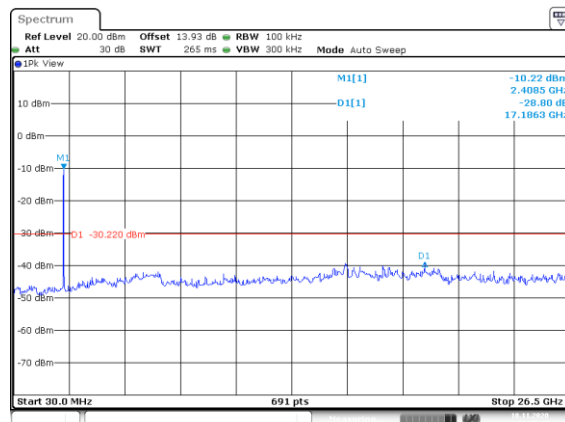
Date: 18.NOV.2020 12:17:59

### IEEE 802.11n HT20 High CH



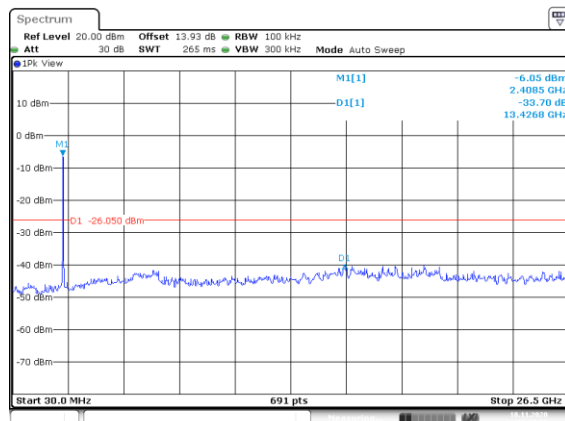
Date: 18.NOV.2020 12:21:55

### IEEE 802.11n HT40 Low CH



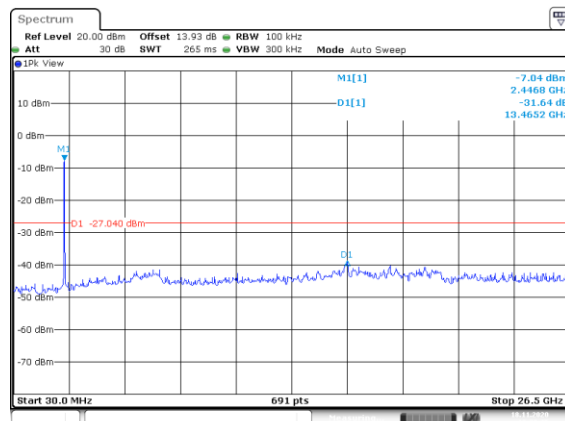
Date: 18.NOV.2020 12:25:40

### IEEE 802.11n HT40 Middle CH



Date: 18.NOV.2020 12:28:06

### IEEE 802.11n HT40 High CH



Date: 18.NOV.2020 12:39:35