



TESTING LABORATORY
CERTIFICATE #4820.01



FCC PART 15.247 TEST REPORT

For

Beijing Hanwang Blue Sky Technology Co., Ltd.

Room 322, 3/F, Building 5, No. 8 Dongbeiwang West Road, Haidian District, Beijing, China

FCC ID: 2AQJ83010318AIREAD

Report Type: Original Report	Product Name: AiRead N1
Report Number: RBJ180625051-00A	
Report Date: 2018-08-06	
Jerry Zhang	
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:	AiRead N1
EUT Model:	N1
Multiple Models:	N1-103, N1-105, N1-106
FCC ID:	2AQJ83010318AIREAD
Rated Input Voltage:	DC 3.7V or DC 5V from USB port
External Dimension:	124mm(L)*80mm(W)*31mm(H)
Serial Number:	180625051
EUT Received Date:	2018.07.01

Note: The series product, model N1, N1-103, N1-105, N1-106 are electrically identical, we selected N1 for fully testing, the differences details was explained in the declaration letter.

Objective

This report is prepared on behalf of *Beijing Hanwang Blue Sky Technology Co., Ltd.* in accordance with Part 2, Subpart J, Part 15, Subparts A and C of the Federal Communications Commission's rules.

The tests were performed in order to determine the compliance of the EUT with FCC Rules Part 15-Subpart C, section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Related Submittal(s)/Grant(s)

No related submittal(s)/grant(s).

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices. And KDB 558074 D01 DTS Meas Guidance v04.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Dongguan).

Measurement Uncertainty

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	30M~200MHz: 4.55 dB, 200M~1GHz: 5.92 dB, 1G~6GHz: 4.98 dB, 6G~18GHz: 5.89 dB, 18G~26.5G: 5.47 dB, 26.5G~40G: 5.63 dB
Unwanted Emissions, conducted	±1.5 dB
Temperature	±1 °C
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	3.12 dB (150 kHz to 30 MHz)

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China.

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, FCC Registration No. : 897218, the FCC Designation No. : CN1220.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062D.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in Engineering Mode, which was provided by the manufacturer.

The device built in a certified module, Model Number: HF-LPT100, FCC ID: AZY-HF-LPT100, all RF port conducted test was reduced, please refer to the module report: 201311815F, issued by Shenzhen Anbotek Compliance Laboratory Limited.

For 2.4GHz band, total 11 channels are provided:

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, 802.11g, and 802.11n ht20 modes were test with channel 1,6,11. For 802.11n ht40 mode was tested with channel 3, 6, 9.

The worst-case data rates are determined to be as follows for each mode based upon investigations by measuring the average power and PSD across all data rates bandwidths, and modulations.

EUT Exercise Software

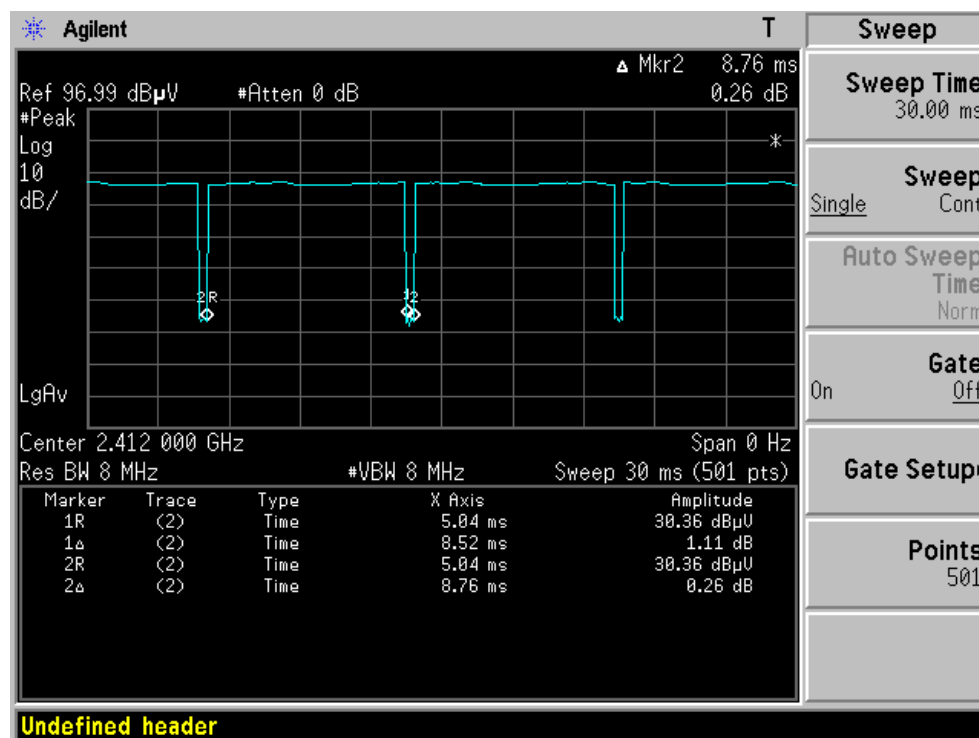
The software “Engineering Mode” was used for testing, which was provided by manufacturer. The power was configured as below table to reach the maximum rated power as the module report, that provided by the manufacturer:

Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Power level Setting
802.11b	Low	2412	1	0
	Middle	2437	1	0
	High	2462	1	0
802.11g	Low	2412	6	0
	Middle	2437	6	0
	High	2462	6	0
802.11n ht20	Low	2412	6	0
	Middle	2437	MCS0	0
	High	2462	MCS0	0
802.11n ht40	Low	2422	MCS0	0
	Middle	2437	MCS0	0
	High	2452	MCS0	0

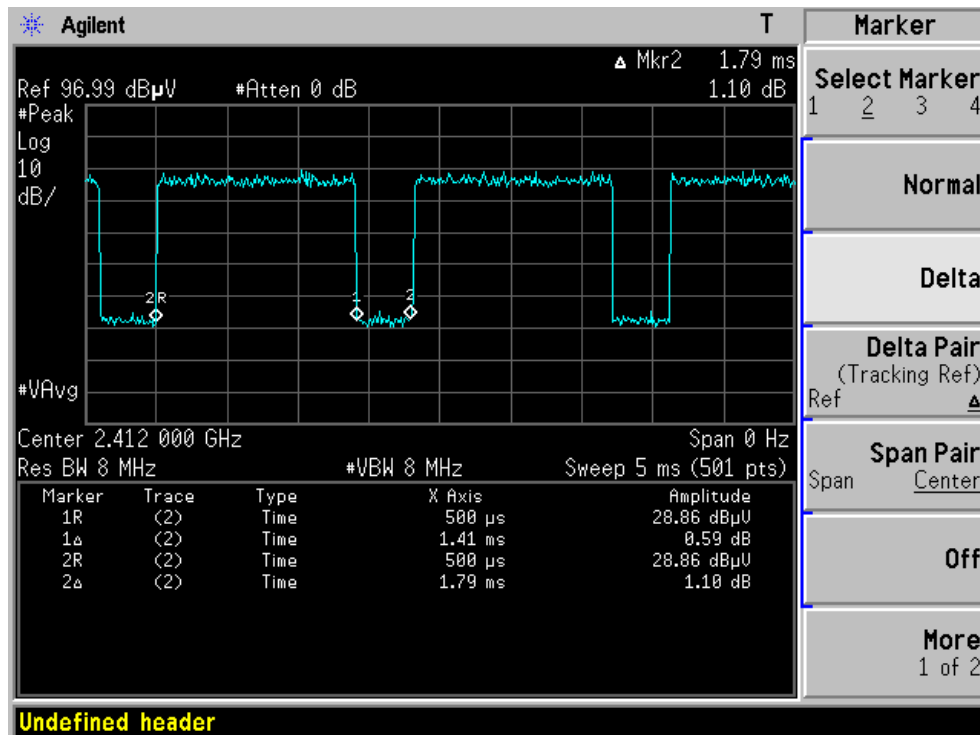
The maximum duty cycle as following table:

Test mode	T _{on} (ms)	T _{on+off} (ms)	Duty Cycle (%)
802.11b	8.52	8.76	97.26
802.11g	1.41	1.79	78.77
802.11n ht20	1.32	1.72	76.74
802.11n ht40	0.68	1.07	63.55

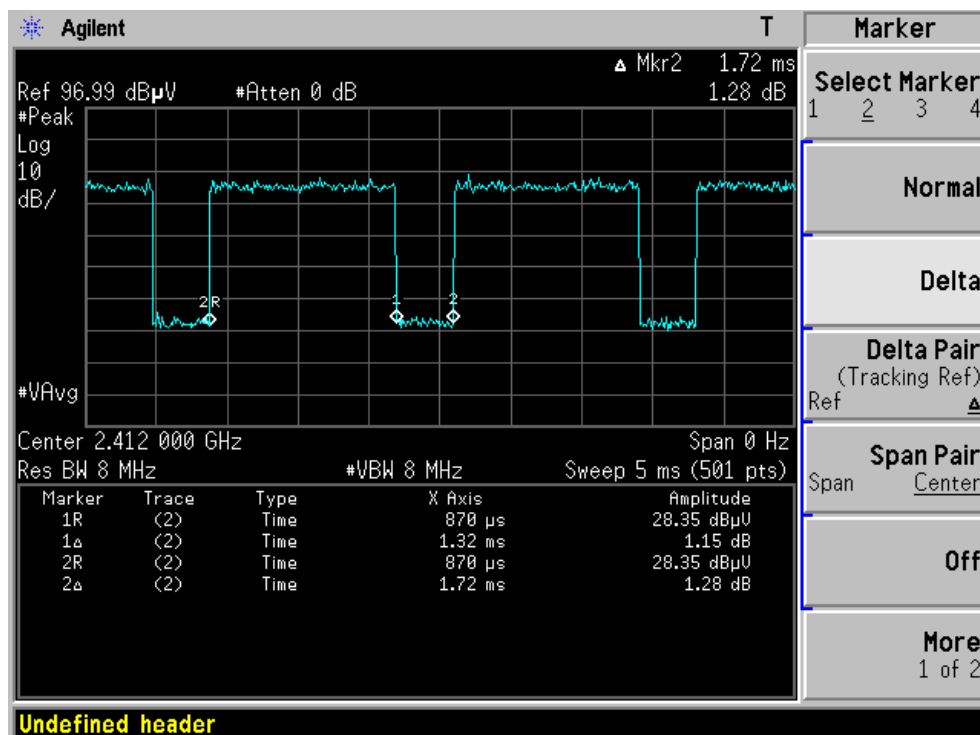
802.11b



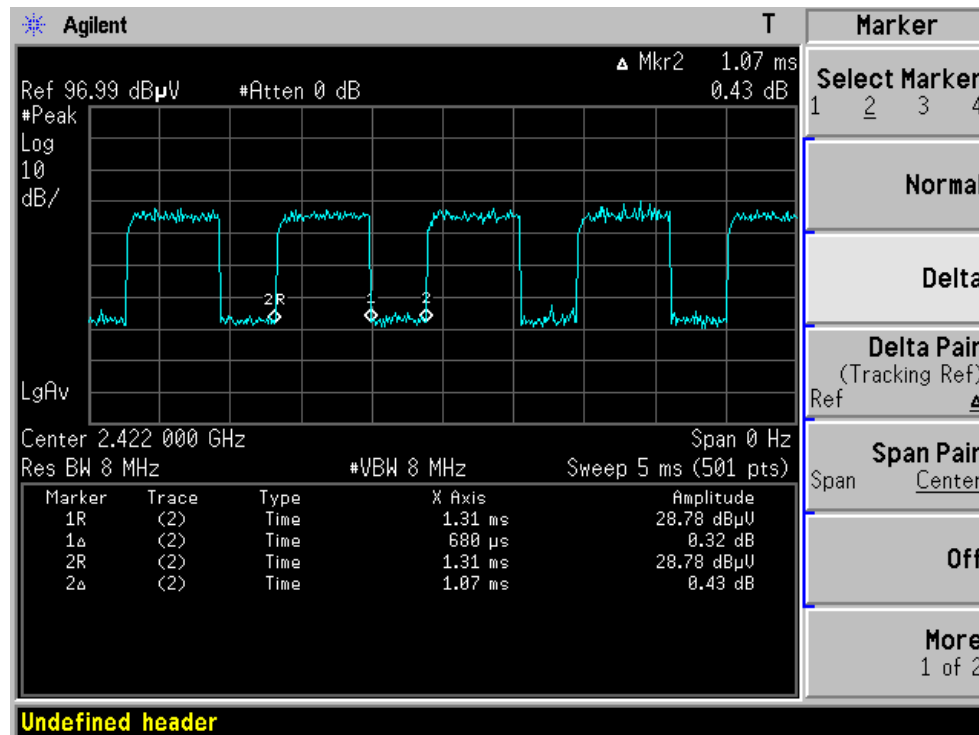
802.11g



802.11n ht20



802.11n ht40

**Equipment Modifications**

No modification was made to the EUT.

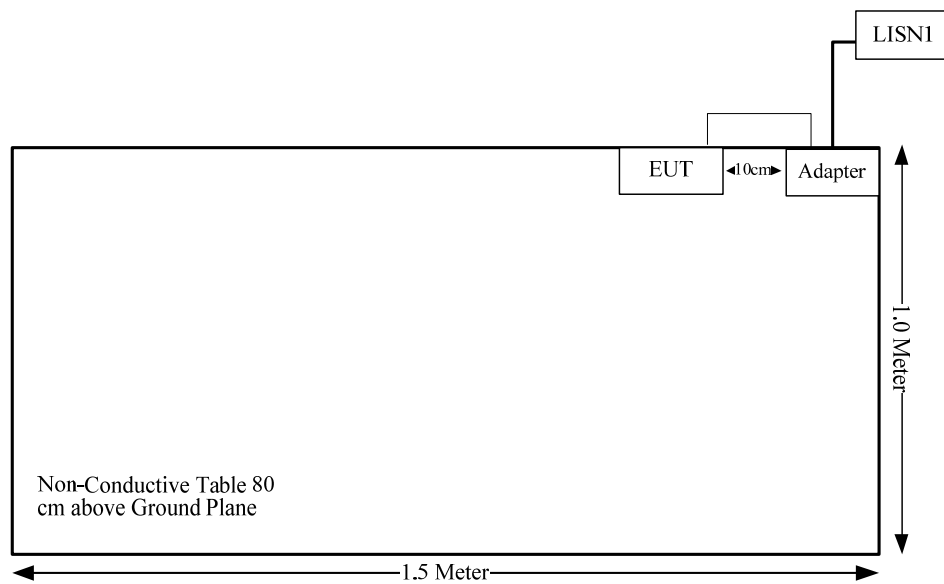
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
HUAWEI	AC Adapter	HW-050200C01	/

Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From	To
USB Cable	Yes	No	1	Adapter	EUT

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247 (i) & §1.1310 & §2.1093	RF Exposure	Compliance
§15.203	Antenna Requirement	Compliance
§15.207 (a)	AC Line Conducted Emissions	Compliance
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliance
§15.247 (a)(2)	6 dB Bandwidth	Compliance*
§15.247(b)(3)	Maximum Conducted Output Power	Compliance*
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliance*
§15.247(e)	Power Spectral Density	Compliance*

Compliance*: the device built in a certified module, Model Number: HF-LPT100, FCC ID: AZY-HF-LPT100, all RF port conducted test please refer to the module report: 201311815F, issued by Shenzhen Anbotek Compliance Laboratory Limited.

FCC §15.247 (i) & §1.1310 & §2.1093- RF EXPOSURE

Applicable Standard

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

Measurement Result

Compliance, please refer the SAR report: RBJ180625051-20.

FCC §15.203 - ANTENNA REQUIREMENT

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. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

Antenna Connector Construction

The EUT has one internal antenna arrangement, and the antenna gain is -1.0 dBi, fulfill the requirement of this section. Please refer to the EUT photos.

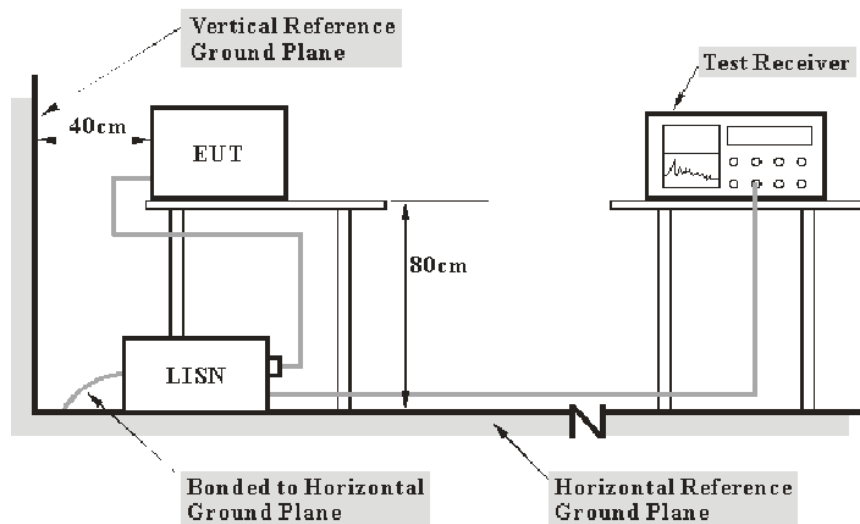
Result: Compliance.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC§15.207(a)

EUT Setup



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.

The spacing between the peripherals was 10 cm.

The adapter was connected to the main lisn with a 120 V/60 Hz AC power source.

EMI Test Receiver Setup

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	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the first 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.

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

$$V_C = V_R + A_C + VDF$$

$$C_f = A_C + VDF$$

Herein,

V_C (cord. Reading): corrected voltage amplitude

V_R : reading voltage amplitude

A_C : attenuation caused by cable loss

VDF: voltage division factor of AMN

C_f : Correction Factor

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCS 30	830245/006	2017-12-11	2018-12-11
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-01	2017-09-05	2018-09-05
R&S	Test Software	EMC32	Version8.53.0	N/A	N/A
R&S	Two-line V-network	ENV 216	101614	2017-12-08	2018-12-08

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

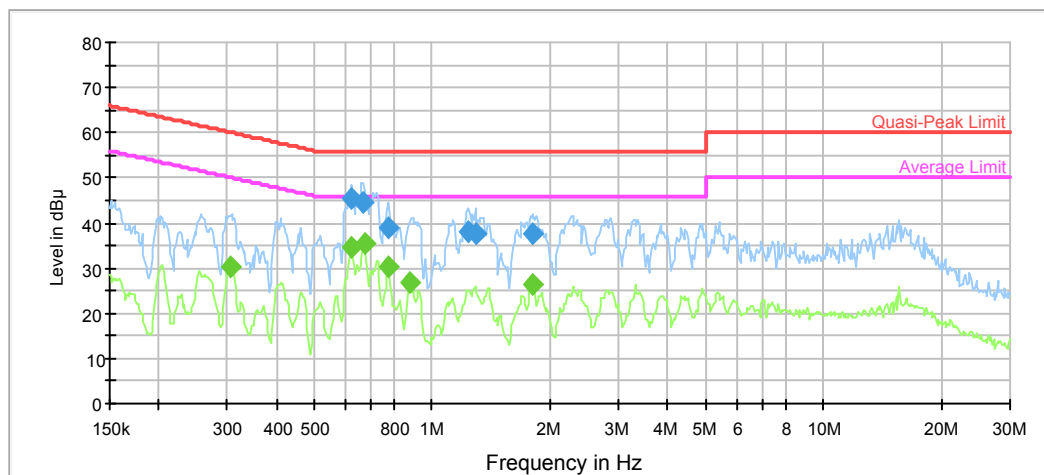
Test Data**Environmental Conditions**

Temperature:	28.2 °C
Relative Humidity:	56 %
ATM Pressure:	100.2 kPa

The testing was performed by Alex You on 2018-08-03.

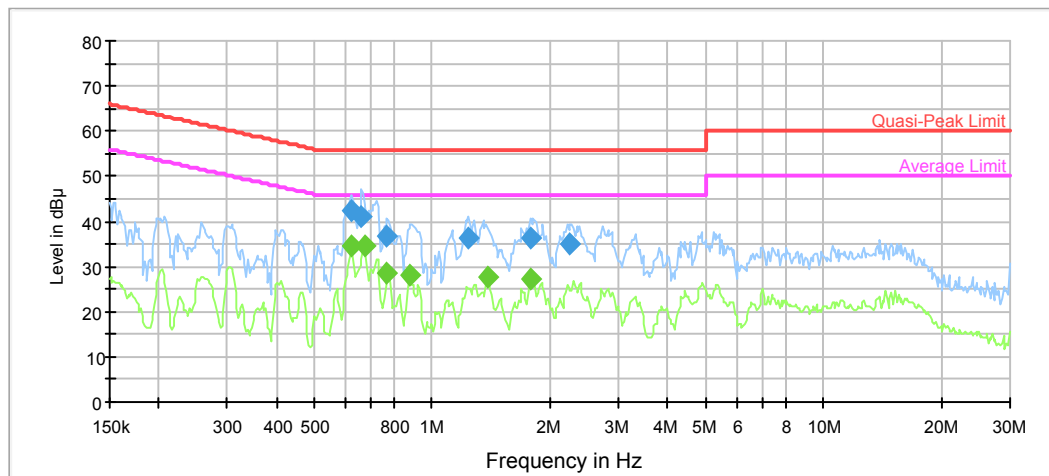
Test Mode: Transmitting

AC120 V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.624492	45.4	9.000	L1	9.8	10.6	56.0	Compliance
0.665597	44.4	9.000	L1	9.8	11.6	56.0	Compliance
0.774393	39.0	9.000	L1	9.8	17.0	56.0	Compliance
1.239175	38.1	9.000	L1	9.8	17.9	56.0	Compliance
1.289541	37.4	9.000	L1	9.8	18.6	56.0	Compliance
1.816511	37.7	9.000	L1	9.7	18.3	56.0	Compliance

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.304845	30.1	9.000	L1	10.1	20.0	50.1	Compliance
0.624492	34.5	9.000	L1	9.8	11.5	46.0	Compliance
0.670921	35.4	9.000	L1	9.8	10.6	46.0	Compliance
0.774393	30.1	9.000	L1	9.8	15.9	46.0	Compliance
0.879690	26.7	9.000	L1	9.8	19.3	46.0	Compliance
1.802095	26.6	9.000	L1	9.7	19.4	46.0	Compliance

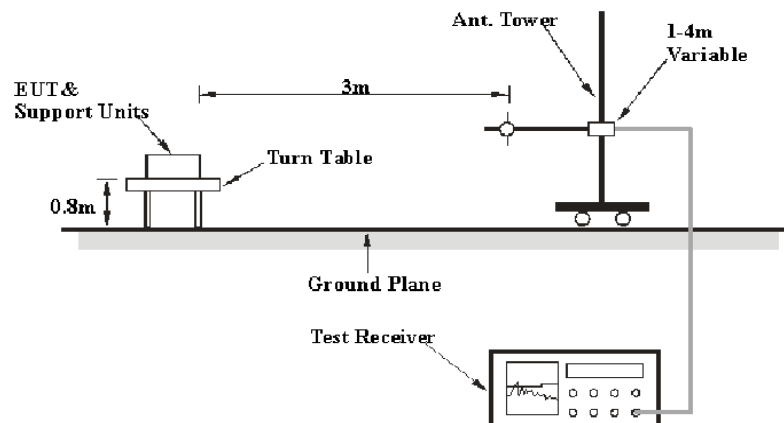
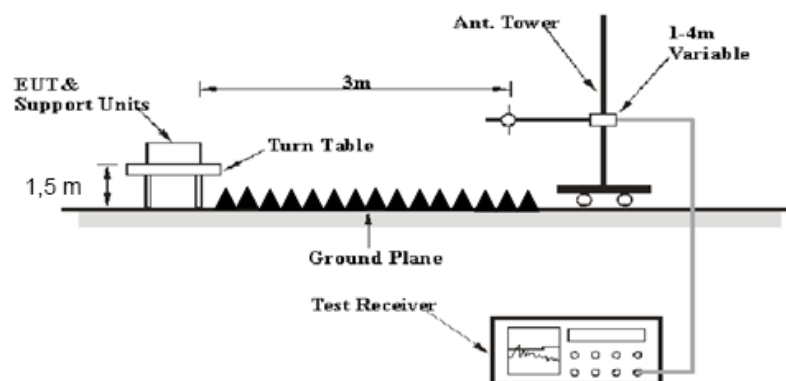
AC120 V, 60 Hz, Neutral:

Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.619536	42.6	9.000	N	9.8	13.4	56.0	Compliance
0.660314	40.9	9.000	N	9.8	15.1	56.0	Compliance
0.768247	36.9	9.000	N	9.8	19.1	56.0	Compliance
1.239175	36.3	9.000	N	9.8	19.7	56.0	Compliance
1.787792	36.2	9.000	N	9.7	19.8	56.0	Compliance
2.252540	35.0	9.000	N	9.8	21.0	56.0	Compliance

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.624492	34.5	9.000	N	9.8	11.5	46.0	Compliance
0.670921	34.8	9.000	N	9.8	11.2	46.0	Compliance
0.768247	28.4	9.000	N	9.8	17.6	46.0	Compliance
0.872708	28.0	9.000	N	9.8	18.0	46.0	Compliance
1.385415	27.5	9.000	N	9.7	18.5	46.0	Compliance
1.787792	27.2	9.000	N	9.7	18.8	46.0	Compliance

FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS**Applicable Standard**

FCC §15.247 (d); §15.209; §15.205;

EUT Setup**Below 1GHz:****Above 1GHz:**

The radiated emission Below 1GHz tests were performed in the 10 meters chamber test site, above 1GHz tests were performed in the 3 meters chamber test site B, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

30MHz-1000MHz:

Measurement	RBW	Video B/W	IF B/W
QP	120 kHz	300 kHz	120kHz

1GHz- 25GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
AV	>98%	1MHz	10 Hz
	<98%	1MHz	1/T

Note: T is minimum transmission duration

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1 GHz, peak and Average detection modes for frequencies above 1 GHz.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	100035	2017-08-04	2018-08-04
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
Sunol Sciences	Antenna	JB3	A060611-3	2017-07-21	2019-07-21
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-02	2017-09-05	2018-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-02	2017-09-05	2018-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-2200-01	2017-09-05	2018-09-05
HP	Amplifier	8447F	2443A01912	2017-09-05	2018-09-05
R&S	Spectrum Analyzer	FSP 38	100478	2017-12-08	2018-12-08
ETS-Lindgren	Horn Antenna	3115	000 527 35	2016-01-05	2019-01-04
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-01 1304	2016-11-18	2019-11-18
Unknown	Coaxial Cable	C-SJSJ-50	C-0800-01	2017-09-05	2018-09-05
MICRO-COAX	Coaxial Cable	UFA147-1-2362- 100100	64639 231029- 001	2018-02-24	2019-02-28
MITEQ	Amplifier	AFS42-00101800- 25-S-42	2001271	2017-09-05	2018-09-05
Agilent	Spectrum Analyzer	E4440A	SG43360054	2018-01-04	2019-01-04
Quinstar	Amplifier	QLW-18405536-JO	15964001001	2018-06-27	2019-06-27
E-Microwave	Band-stop Filters	OBSF-2400-2483.5- S	OE01601525	2018-06-16	2019-06-16
Micro-tronics	High Pass Filter	HPM50111	S/N-G217	2018-06-16	2019-06-16
Pro instrument	DC Power Supply	pps3300	3300012	N/A	N/A

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

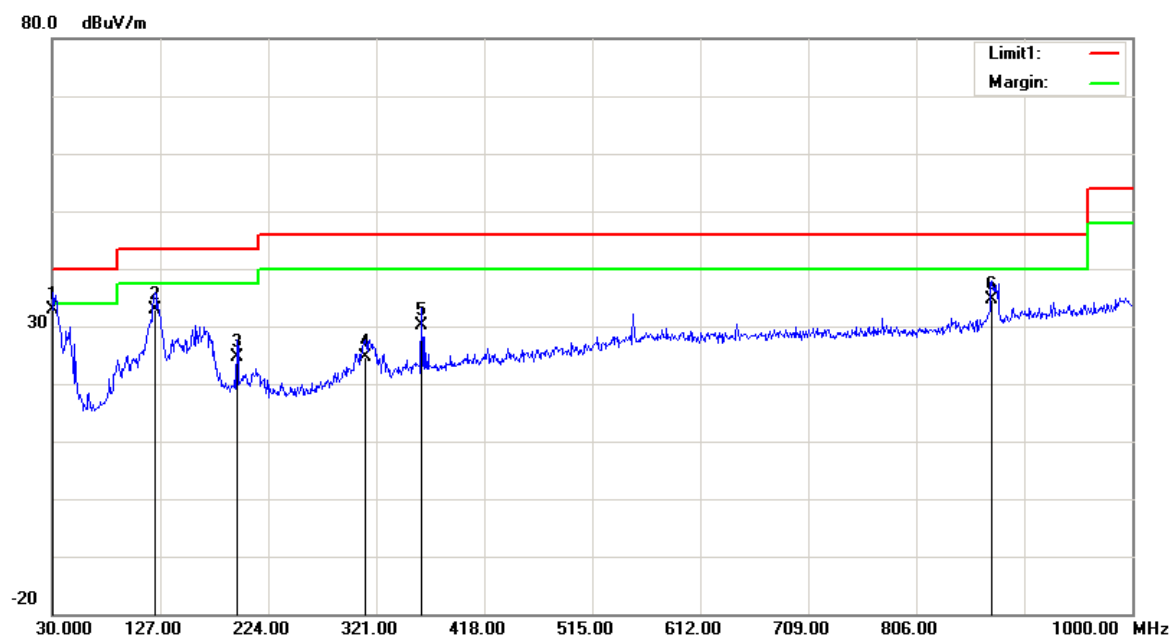
Test Data**Environmental Conditions**

Temperature:	27.2 °C
Relative Humidity:	40 %
ATM Pressure:	100.6 kPa

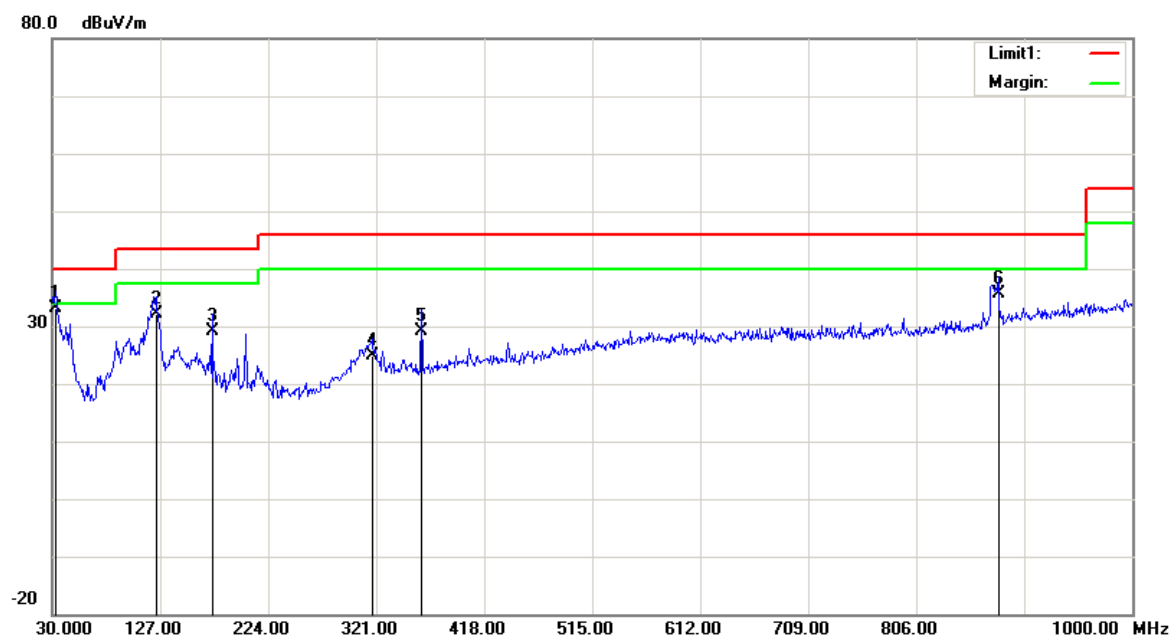
* The testing was performed by Tyler Pan on 2018-08-01.

Test Result: Compliance, please Refer to the following data

Test Mode: Transmitting

1) 30MHz-1GHz(802.11b middle channel was the worst)**Horizontal:**

Frequency (MHz)	Receiver Reading (dBuV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.0000	34.89	QP	-1.99	32.90	40.00	7.10
122.1500	42.63	QP	-9.83	32.80	43.50	10.70
195.8700	32.07	QP	-7.37	24.70	43.50	18.80
311.3000	29.34	QP	-4.64	24.70	46.00	21.30
361.7400	33.29	QP	-3.19	30.10	46.00	15.90
873.9000	27.77	QP	6.93	34.70	46.00	11.30

Vertical:

Frequency (MHz)	Receiver Reading (dBuV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
32.9100	36.52	QP	-3.42	33.10	40.00	6.90
123.1200	41.61	QP	-9.51	32.10	43.50	11.40
173.5600	36.44	QP	-7.24	29.20	43.50	14.30
317.1200	29.31	QP	-4.51	24.80	46.00	21.20
361.7400	32.39	QP	-3.19	29.20	46.00	16.80
879.7200	28.50	QP	7.20	35.70	46.00	10.30

**2) 1-25GHz:
802.11b Mode:**

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)					
Low Channel: 2412 MHz									
2412.00	64.21	PK	H	28.12	1.81	0.00	94.14	N/A	N/A
2412.00	60.92	AV	H	28.12	1.81	0.00	90.85	N/A	N/A
2412.00	62.31	PK	V	28.12	1.81	0.00	92.24	N/A	N/A
2412.00	59.41	AV	V	28.12	1.81	0.00	89.34	N/A	N/A
2390.00	24.76	PK	H	28.08	1.80	0.00	54.64	74.00	19.36
2390.00	14.18	AV	H	28.08	1.80	0.00	44.06	54.00	9.94
4824.00	48.89	PK	H	32.95	3.19	37.20	47.83	74.00	26.17
4824.00	36.45	AV	H	32.95	3.19	37.20	35.39	54.00	18.61
7236.00	46.21	PK	H	35.81	4.77	37.27	49.52	74.00	24.48
7236.00	33.75	AV	H	35.81	4.77	37.27	37.06	54.00	16.94
Middle Channel: 2437 MHz									
2437.00	62.02	PK	H	28.17	1.82	0.00	92.01	N/A	N/A
2437.00	59.25	AV	H	28.17	1.82	0.00	89.24	N/A	N/A
2437.00	60.63	PK	V	28.17	1.82	0.00	90.62	N/A	N/A
2437.00	57.58	AV	V	28.17	1.82	0.00	87.57	N/A	N/A
4874.00	48.65	PK	H	33.05	3.26	37.21	47.75	74.00	26.25
4874.00	36.10	AV	H	33.05	3.26	37.21	35.20	54.00	18.80
7311.00	45.87	PK	H	36.01	4.64	37.36	49.16	74.00	24.84
7311.00	34.46	AV	H	36.01	4.64	37.36	37.75	54.00	16.25
High Channel: 2462 MHz									
2462.00	60.87	PK	H	28.22	1.83	0.00	90.92	N/A	N/A
2462.00	57.94	AV	H	28.22	1.83	0.00	87.99	N/A	N/A
2462.00	60.10	PK	V	28.22	1.83	0.00	90.15	N/A	N/A
2462.00	56.89	AV	V	28.22	1.83	0.00	86.94	N/A	N/A
2483.50	25.23	PK	H	28.27	1.84	0.00	55.34	74.00	18.66
2483.50	14.56	AV	H	28.27	1.84	0.00	44.67	54.00	9.33
4924.00	48.76	PK	H	33.15	3.27	37.22	47.96	74.00	26.04
4924.00	36.34	AV	H	33.15	3.27	37.22	35.54	54.00	18.46
7386.00	46.06	PK	H	36.20	4.51	37.46	49.31	74.00	24.69
7386.00	33.58	AV	H	36.20	4.51	37.46	36.83	54.00	17.17

802.11g Mode:

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)					
Low Channel: 2412 MHz									
2412.00	67.03	PK	H	28.12	1.81	0.00	96.96	N/A	N/A
2412.00	58.06	AV	H	28.12	1.81	0.00	87.99	N/A	N/A
2412.00	65.22	PK	V	28.12	1.81	0.00	95.15	N/A	N/A
2412.00	56.79	AV	V	28.12	1.81	0.00	86.72	N/A	N/A
2390.00	28.91	PK	H	28.08	1.80	0.00	58.79	74.00	15.21
2390.00	14.53	AV	H	28.08	1.80	0.00	44.41	54.00	9.59
4824.00	49.16	PK	H	32.95	3.19	37.20	48.10	74.00	25.90
4824.00	36.84	AV	H	32.95	3.19	37.20	35.78	54.00	18.22
7236.00	46.22	PK	H	35.81	4.77	37.27	49.53	74.00	24.47
7236.00	33.85	AV	H	35.81	4.77	37.27	37.16	54.00	16.84
Middle Channel: 2437 MHz									
2437.00	65.46	PK	H	28.17	1.82	0.00	95.45	N/A	N/A
2437.00	56.51	AV	H	28.17	1.82	0.00	86.50	N/A	N/A
2437.00	64.61	PK	V	28.17	1.82	0.00	94.60	N/A	N/A
2437.00	55.96	AV	V	28.17	1.82	0.00	85.95	N/A	N/A
4874.00	48.76	PK	H	33.05	3.26	37.21	47.86	74.00	26.14
4874.00	36.37	AV	H	33.05	3.26	37.21	35.47	54.00	18.53
7311.00	46.31	PK	H	36.01	4.64	37.36	49.60	74.00	24.40
7311.00	33.89	AV	H	36.01	4.64	37.36	37.18	54.00	16.82
High Channel: 2462 MHz									
2462.00	64.62	PK	H	28.22	1.83	0.00	94.67	N/A	N/A
2462.00	55.89	AV	H	28.22	1.83	0.00	85.94	N/A	N/A
2462.00	62.87	PK	V	28.22	1.83	0.00	92.92	N/A	N/A
2462.00	54.10	AV	V	28.22	1.83	0.00	84.15	N/A	N/A
2483.50	27.21	PK	H	28.27	1.84	0.00	57.32	74.00	16.68
2483.50	14.64	AV	H	28.27	1.84	0.00	44.75	54.00	9.25
4924.00	48.61	PK	H	33.15	3.27	37.22	47.81	74.00	26.19
4924.00	36.21	AV	H	33.15	3.27	37.22	35.41	54.00	18.59
7386.00	45.95	PK	H	36.20	4.51	37.46	49.20	74.00	24.80
7386.00	33.64	AV	H	36.20	4.51	37.46	36.89	54.00	17.11

802.11n ht20 Mode:

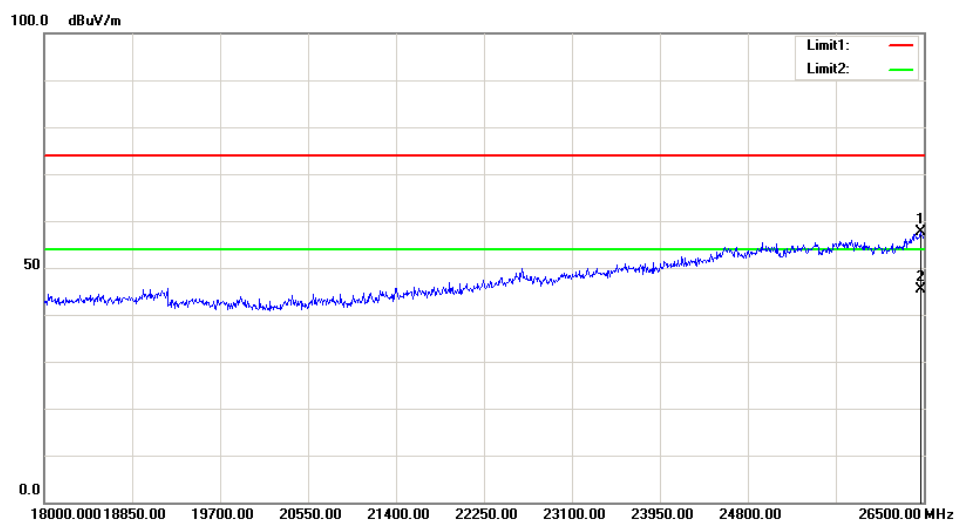
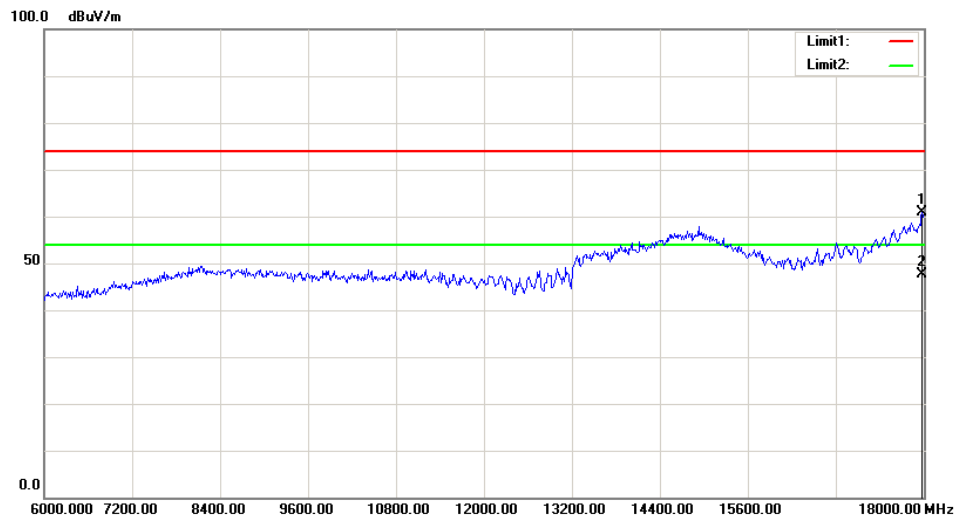
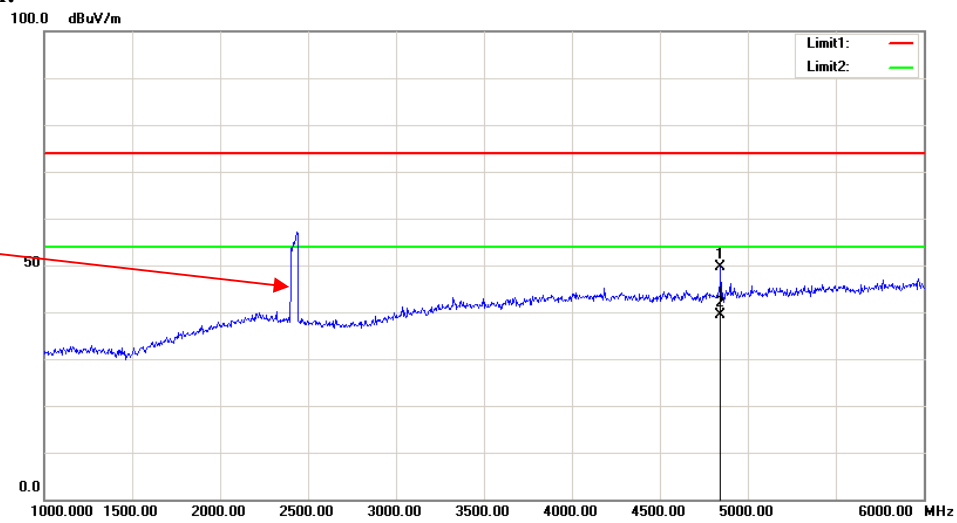
Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)					
Low Channel: 2412 MHz									
2412.00	66.38	PK	H	28.12	1.81	0.00	96.31	N/A	N/A
2412.00	57.33	AV	H	28.12	1.81	0.00	87.26	N/A	N/A
2412.00	65.81	PK	V	28.12	1.81	0.00	95.74	N/A	N/A
2412.00	56.90	AV	V	28.12	1.81	0.00	86.83	N/A	N/A
2390.00	29.12	PK	H	28.08	1.80	0.00	59.00	74.00	15.00
2390.00	14.38	AV	H	28.08	1.80	0.00	44.26	54.00	9.74
4824.00	50.31	PK	H	32.95	3.19	37.20	49.25	74.00	24.75
4824.00	38.46	AV	H	32.95	3.19	37.20	37.40	54.00	16.60
7236.00	45.93	PK	H	35.81	4.77	37.27	49.24	74.00	24.76
7236.00	33.62	AV	H	35.81	4.77	37.27	36.93	54.00	17.07
Middle Channel: 2437 MHz									
2437.00	65.17	PK	H	28.17	1.82	0.00	95.16	N/A	N/A
2437.00	56.10	AV	H	28.17	1.82	0.00	86.09	N/A	N/A
2437.00	64.63	PK	V	28.17	1.82	0.00	94.62	N/A	N/A
2437.00	55.54	AV	V	28.17	1.82	0.00	85.53	N/A	N/A
4874.00	50.02	PK	H	33.05	3.26	37.21	49.12	74.00	24.88
4874.00	38.59	AV	H	33.05	3.26	37.21	37.69	54.00	16.31
7311.00	45.78	PK	H	36.01	4.64	37.36	49.07	74.00	24.93
7311.00	33.41	AV	H	36.01	4.64	37.36	36.70	54.00	17.30
High Channel: 2462 MHz									
2462.00	63.97	PK	H	28.22	1.83	0.00	94.02	N/A	N/A
2462.00	54.86	AV	H	28.22	1.83	0.00	84.91	N/A	N/A
2462.00	63.26	PK	V	28.22	1.83	0.00	93.31	N/A	N/A
2462.00	54.20	AV	V	28.22	1.83	0.00	84.25	N/A	N/A
2483.50	27.16	PK	H	28.27	1.84	0.00	57.27	74.00	16.73
2483.50	16.02	AV	H	28.27	1.84	0.00	46.13	54.00	7.87
4924.00	49.52	PK	H	33.15	3.27	37.22	48.72	74.00	25.28
4924.00	37.10	AV	H	33.15	3.27	37.22	36.30	54.00	17.70
7386.00	45.26	PK	H	36.20	4.51	37.46	48.51	74.00	25.49
7386.00	33.05	AV	H	36.20	4.51	37.46	36.30	54.00	17.70

802.11n ht40 Mode:

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)					
Low Channel: 2422 MHz									
2422.00	64.46	PK	H	28.14	1.81	0.00	94.41	N/A	N/A
2422.00	55.51	AV	H	28.14	1.81	0.00	85.46	N/A	N/A
2422.00	63.23	PK	V	28.14	1.81	0.00	93.18	N/A	N/A
2422.00	54.18	AV	V	28.14	1.81	0.00	84.13	N/A	N/A
2390.00	27.10	PK	H	28.08	1.80	0.00	56.98	74.00	17.02
2390.00	15.97	AV	H	28.08	1.80	0.00	45.85	54.00	8.15
4844.00	51.10	PK	H	32.99	3.22	37.20	50.11	74.00	23.89
4844.00	40.89	AV	H	32.99	3.22	37.20	39.90	54.00	14.10
7266.00	46.38	PK	H	35.89	4.72	37.31	49.68	74.00	24.32
7266.00	33.74	AV	H	35.89	4.72	37.31	37.04	54.00	16.96
Middle Channel: 2437 MHz									
2437.00	62.34	PK	H	28.17	1.82	0.00	92.33	N/A	N/A
2437.00	53.45	AV	H	28.17	1.82	0.00	83.44	N/A	N/A
2437.00	61.77	PK	V	28.17	1.82	0.00	91.76	N/A	N/A
2437.00	52.73	AV	V	28.17	1.82	0.00	82.72	N/A	N/A
4874.00	50.16	PK	H	33.05	3.26	37.21	49.26	74.00	24.74
4874.00	40.33	AV	H	33.05	3.26	37.21	39.43	54.00	14.57
7311.00	46.13	PK	H	36.01	4.64	37.36	49.42	74.00	24.58
7311.00	33.59	AV	H	36.01	4.64	37.36	36.88	54.00	17.12
High Channel: 2452 MHz									
2452.00	62.20	PK	H	28.20	1.83	0.00	92.23	N/A	N/A
2452.00	53.19	AV	H	28.20	1.83	0.00	83.22	N/A	N/A
2452.00	61.44	PK	V	28.20	1.83	0.00	91.47	N/A	N/A
2452.00	52.58	AV	V	28.20	1.83	0.00	82.61	N/A	N/A
2483.50	26.93	PK	H	28.27	1.84	0.00	57.04	74.00	16.96
2483.50	15.74	AV	H	28.27	1.84	0.00	45.85	54.00	8.15
4904.00	49.97	PK	H	33.11	3.30	37.21	49.17	74.00	24.83
4904.00	37.77	AV	H	33.11	3.30	37.21	36.97	54.00	17.03
7356.00	45.98	PK	H	36.13	4.56	37.42	49.25	74.00	24.75
7356.00	33.61	AV	H	36.13	4.56	37.42	36.88	54.00	17.12

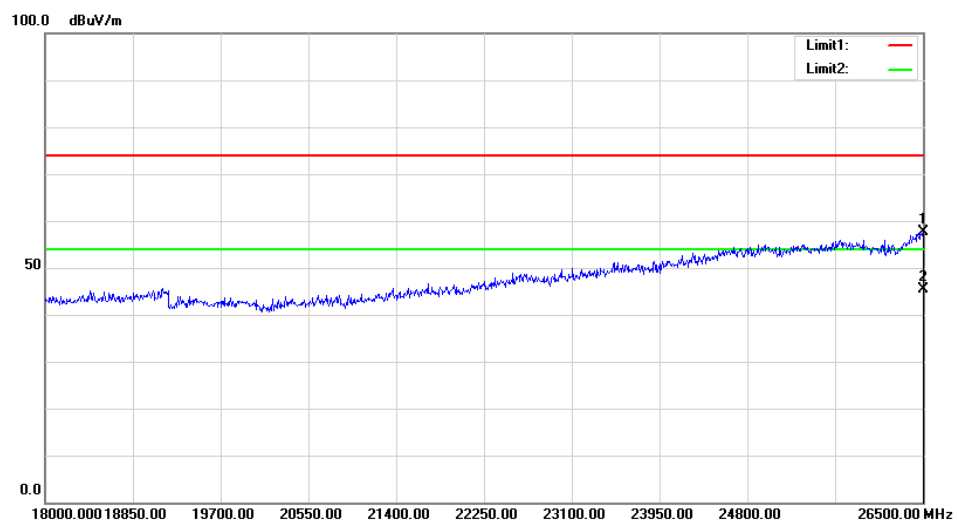
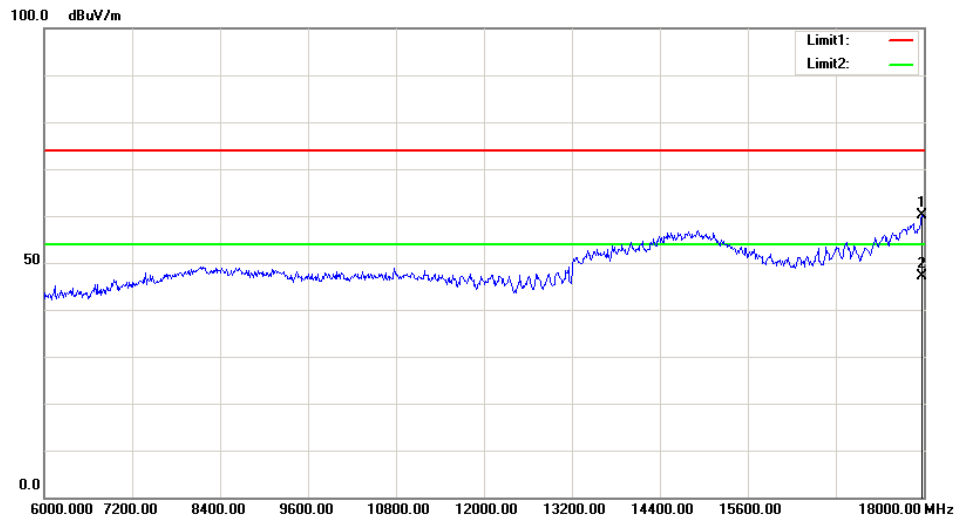
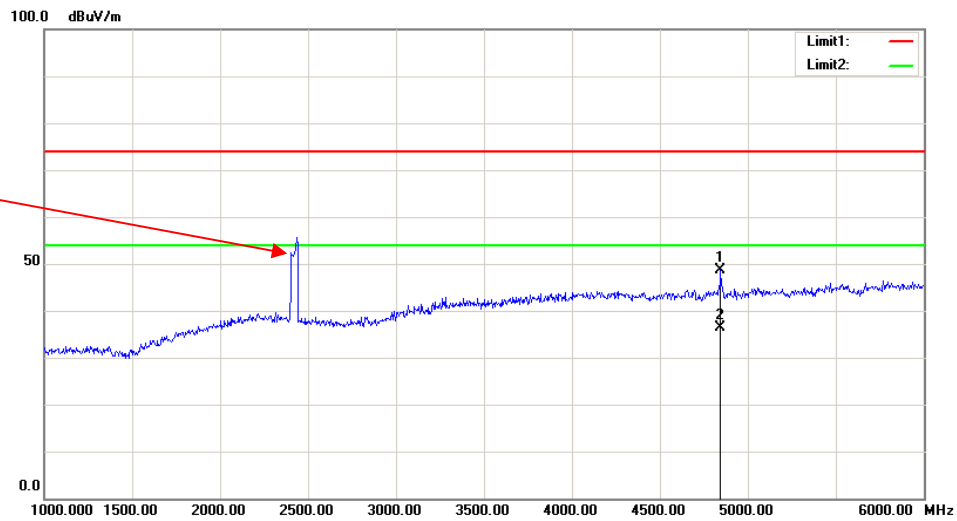
Test plots(802.11 b middle channel was the worst)
Horizontal:

Fundamental
Test with Band
Rejection Filter



Vertical:

Fundamental
Test with Band
Rejection Filter



***** END OF REPORT *****