

FCC PART 15.407

TEST REPORT

For

Shenzhen Crystal Video Technology Co.,LTD.

F13, F518 Idea Land, BaoYuan Road,Baoan Central Area,Shenzhen 518102,China

FCC ID: Y3H705120180319

Report Type: Original Report	Product Name: HD wireless video transmitter
Report Number: RDG180111005-00A	
Report Date: 2018-04-11	
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:		HD wireless video transmitter
EUT Model:		7051, 7059
FCC ID:		Y3H705120180319
Rated Input Voltage:		Powered by DC 7-36V from DC input port or powered by Sony F-Type Battery
Adapter Information	Model:	GPE024C-120200-Z
	Input:	AC120-240V, 50/60Hz 0.75A
	Output:	DC 12V, 2000 mA 24W
External Dimension:		7051: Length (120 mm)*Width (75.7 mm)*High (32 mm); 7059: Length (126 mm)*Width (79 mm)*High (22 mm);
Serial Number:		180111005-1(7051), 180111005-2(7059),
EUT Received Date:		2018.01.03

Note: The series product, models 7051, 7059 are electrically identical, the details differences between them were explained in the attached declaration letter.

Objective

This type approval report is prepared on behalf of **Shenzhen Crystal Video Technology Co.,LTD.** in accordance with Part 2-Subpart J, Part 15-Subparts A and E of the Federal Communications Commission's rules .

The tests were performed in order to determine compliance with FCC Rules Part 15, Subpart E, section 15.203, 15.205, 15.207, 15.209 and 15.407 rules.

Related Submittal(s)/Grant(s)

N/A

Test Methodology

All measurements detailed in this Test Report were performed in accordance with ANSI C63.10-2013 "American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices" . And KDB 789033 D02 General U-NII Test Procedures New Rules v02r01.

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: 4.58 dB for Horizontal, 4.59 dB for Vertical 200M~1GHz: 4.83 dB for Horizontal, 5.85 dB for Vertical 1G~6GHz: 4.45 dB, 6G~40GHz: 5.23 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 EUT was configured for testing in an engineering mode which was provided by the manufacturer.

The device has 2 external antennas and only supports 2TX mode. The system only supports 40MHz mode, total 4 channels were used:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	5190	2	5230
3	5755	4	5795

Equipment Modifications

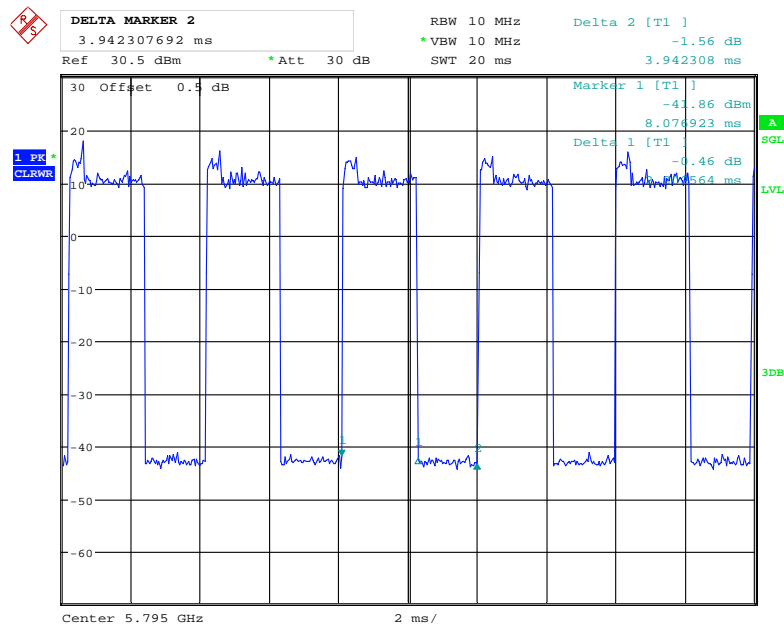
No modification was made to the EUT tested.

EUT Exercise Software

The software “Transmitting Mode” was used for testing, which was provided by manufacturer. The maximum power was configured by system default setting. The software only used for change channels

The duty cycle as below:

T _{on} (ms)	T _{on+off} (ms)	Duty Cycle (%)	Duty Cycle Factor (10*log(1/x)) (dB)
2.203	3.942	55.9	2.53



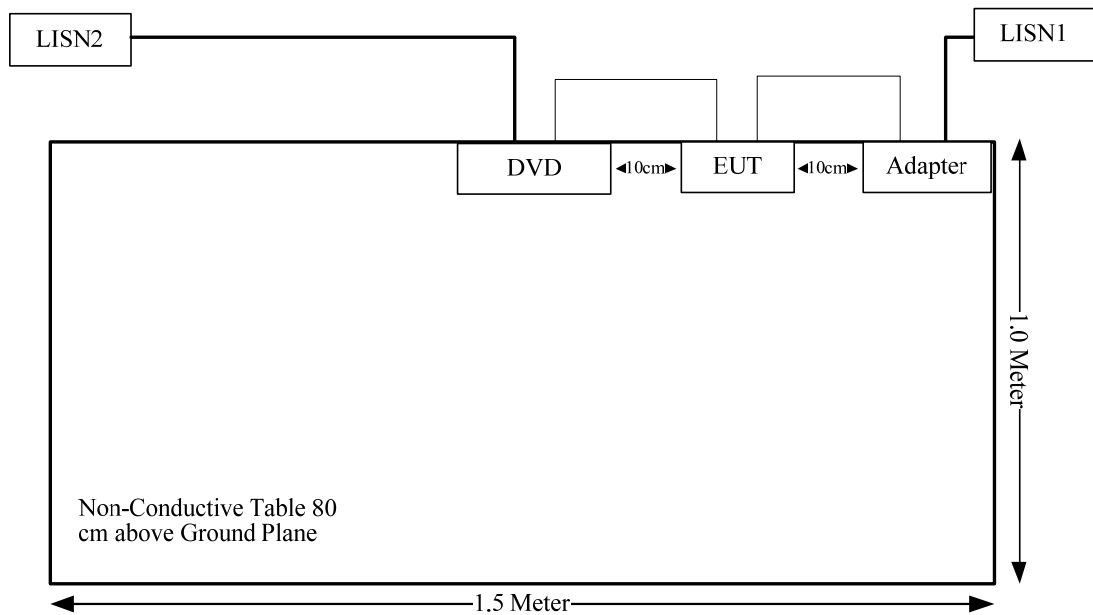
Date: 3.JAN.2018 10:26:18

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Philips	DVD	DVP3560K/93	KX1C1108079973

Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
DC Power Cable	No	No	1.5	Adapter	EUT
HDMI Cable	yes	Yes	0.85	DVD	EUT

Block Diagram of Test Setup

SUMMARY OF TEST RESULTS

Rules	Description of Test	Result
FCC §15.407 (f) & §1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	Compliance
FCC§15.203	Antenna Requirement	Compliance
FCC§15.207 (a)	AC Line Conducted Emissions	Compliance
FCC§15.205& §15.209 &§15.407(b)	Undesirable Emission& Restricted Bands	Compliance
FCC§15.407(b) (1),(2),(3),(4)	Out Of Band Emissions	Compliance
FCC§15.407(a)	Emission Bandwidth	Compliance
FCC§15.407(a)	Conducted Transmitter Output Power	Compliance
FCC§15.407 (a)	Power Spectral Density	Compliance

FCC §15.407 (f) & §1.1310 & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.407(f) 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 ²)	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

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

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

Calculation formula:

Prediction of power density at the distance of the applicable MPE limit

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

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);

Calculated Data:

Frequency Band (MHz)	Antenna Gain		Output Power including Turn-Up tolerance		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
	(dBi)	(numeric)	(dBm)	(mW)			
5150-5250	4.5	2.82	15	31.62	20.00	0.02	1.0
5725-5850	4.5	2.82	23	199.53	20.00	0.11	1.0

Result: The device meet FCC MPE at 20 cm distance

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.

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 have 2 external antennas with RP-SMA connector, fulfill the requirement of this section. All the antenna gains are 4.5dBi. Please refer to the EUT photo.

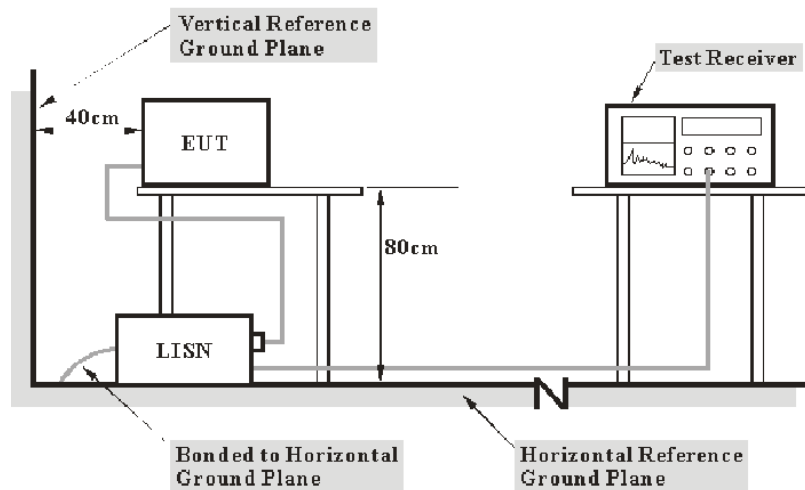
Result: Compliance.

FCC §15.407 (b) (6) §15.207 (a) – CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a), §15.407(b) (6)

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 limits.

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

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
N/A	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
R&S	L.I.S.N	ESH2-Z5	892107/021	2017-09-25	2018-09-25

* **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 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.

Test Data**Environmental Conditions**

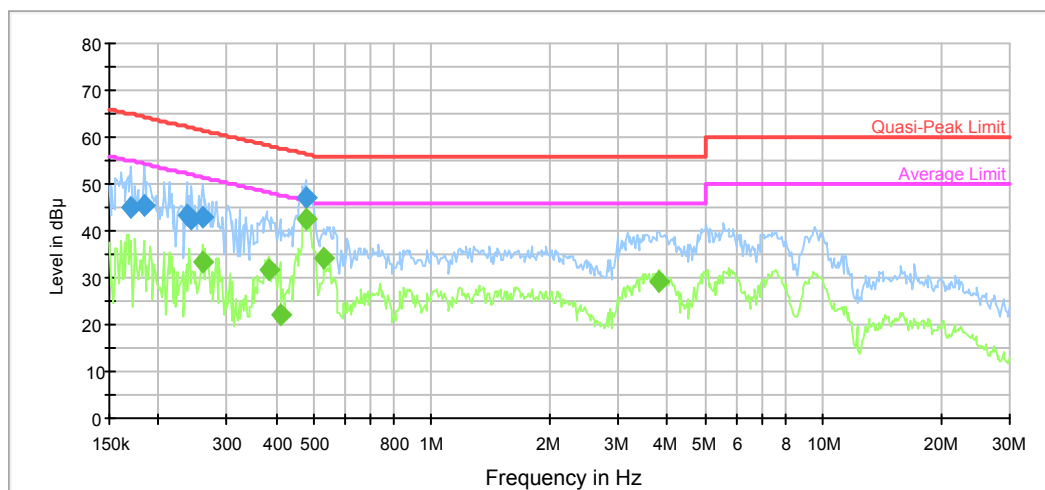
Temperature:	23.9°C
Relative Humidity:	37 %
ATM Pressure:	101.6kPa

The testing was performed by Jim Zhang on 2018-03-23.

Test Mode: Transmitting

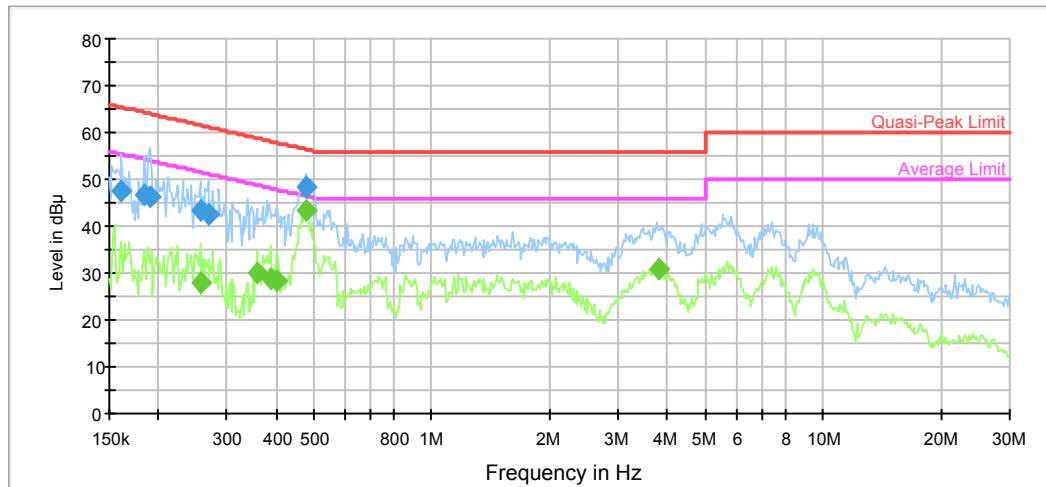
Model: 7051

AC120 V, 60 Hz, Line:



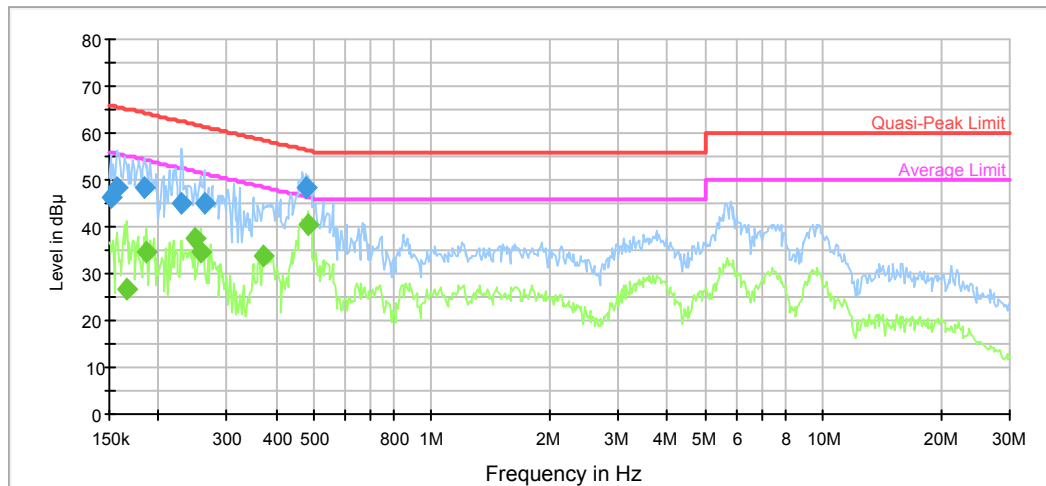
Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.170396	45.1	9.000	L1	10.9	19.8	64.9	Compliance
0.184529	45.6	9.000	L1	10.8	18.7	64.3	Compliance
0.236234	43.2	9.000	L1	10.4	19.0	62.2	Compliance
0.243884	42.7	9.000	L1	10.4	19.3	62.0	Compliance
0.259937	43.0	9.000	L1	10.3	18.4	61.4	Compliance
0.476287	47.3	9.000	L1	9.9	9.1	56.4	Compliance

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.259937	33.5	9.000	L1	10.3	18.1	51.4	Compliance
0.384091	31.9	9.000	L1	10.0	16.3	48.2	Compliance
0.409372	22.2	9.000	L1	10.0	25.5	47.7	Compliance
0.476287	42.6	9.000	L1	9.9	3.8	46.4	Compliance
0.532496	34.2	9.000	L1	9.9	11.8	46.0	Compliance
3.811251	29.0	9.000	L1	9.8	17.0	46.0	Compliance

AC120 V, 60 Hz, Neutral:

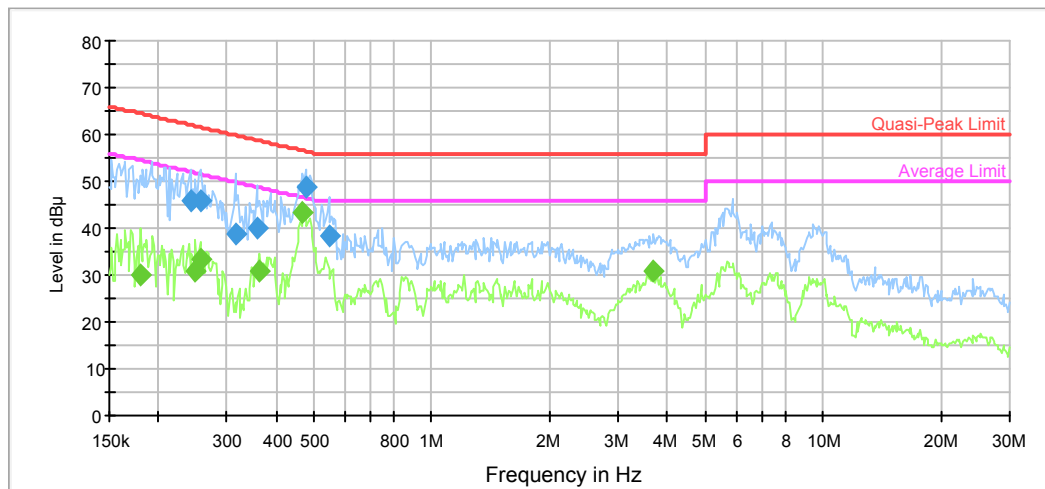
Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.161152	47.4	9.000	N	11.0	18.0	65.4	Compliance
0.184529	46.5	9.000	N	10.8	17.8	64.3	Compliance
0.190505	46.3	9.000	N	10.7	17.7	64.0	Compliance
0.255827	43.4	9.000	N	10.3	18.2	61.6	Compliance
0.268355	42.7	9.000	N	10.3	18.5	61.2	Compliance
0.476287	48.2	9.000	N	9.9	8.2	56.4	Compliance

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.255827	28.0	9.000	N	10.3	23.6	51.6	Compliance
0.357511	30.2	9.000	N	10.0	18.6	48.8	Compliance
0.387164	28.9	9.000	N	10.0	19.2	48.1	Compliance
0.402900	28.2	9.000	N	10.0	19.6	47.8	Compliance
0.480097	43.5	9.000	N	9.9	2.8	46.3	Compliance
3.811251	30.7	9.000	N	9.8	15.3	46.0	Compliance

Model: 7059**AC120 V, 60 Hz, Line:**

Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.151200	46.1	9.000	L1	11.2	19.8	65.9	Compliance
0.157346	48.3	9.000	L1	11.1	17.3	65.6	Compliance
0.184529	48.4	9.000	L1	10.8	15.9	64.3	Compliance
0.228823	44.8	9.000	L1	10.4	17.7	62.5	Compliance
0.262017	45.1	9.000	L1	10.3	16.3	61.4	Compliance
0.476287	48.4	9.000	L1	9.9	8.0	56.4	Compliance

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.166371	26.8	9.000	L1	11.0	28.3	55.1	Compliance
0.187494	34.5	9.000	L1	10.7	19.6	54.1	Compliance
0.247802	37.4	9.000	L1	10.3	14.4	51.8	Compliance
0.255827	34.5	9.000	L1	10.3	17.1	51.6	Compliance
0.369089	34.0	9.000	L1	10.0	14.5	48.5	Compliance
0.483938	40.6	9.000	L1	9.9	5.7	46.3	Compliance

AC120 V, 60 Hz, Neutral:

Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.241949	45.6	9.000	N	10.4	16.4	62.0	Compliance
0.255827	45.8	9.000	N	10.3	15.8	61.6	Compliance
0.314718	38.8	9.000	N	10.1	21.0	59.8	Compliance
0.357511	39.9	9.000	N	10.0	18.9	58.8	Compliance
0.476287	48.8	9.000	N	9.9	7.6	56.4	Compliance
0.545378	38.4	9.000	N	9.9	17.6	56.0	Compliance

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.180171	30.0	9.000	N	10.8	24.5	54.5	Compliance
0.249785	30.9	9.000	N	10.3	20.9	51.8	Compliance
0.255827	33.5	9.000	N	10.3	18.1	51.6	Compliance
0.363254	31.0	9.000	N	10.0	17.7	48.7	Compliance
0.468757	43.4	9.000	N	9.9	3.1	46.5	Compliance
3.691692	30.8	9.000	N	9.8	15.2	46.0	Compliance

FCC §15.209, §15.205 , §15.407(b) –UNWANTED EMISSION

Applicable Standard

According to FCC §15.407; §15.209; §15.205;

(b) *Undesirable emission limits.* Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

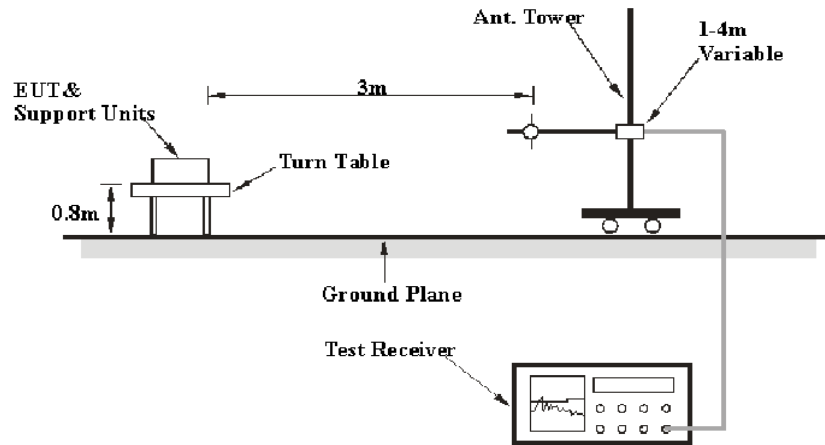
(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

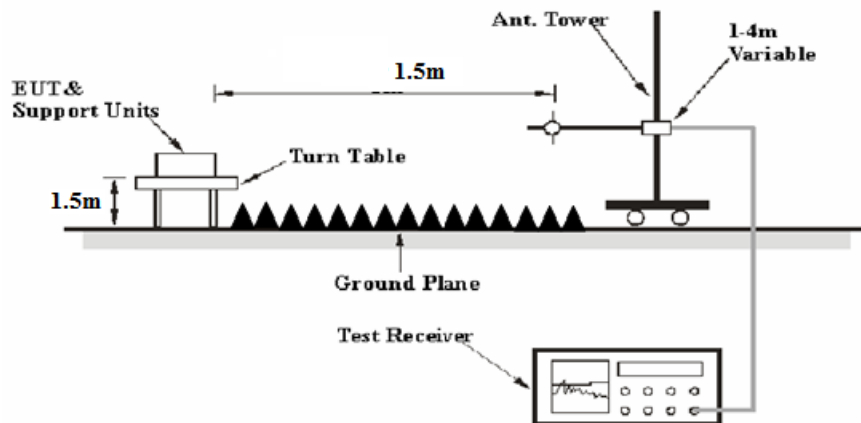
(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

EUT Setup

Below 1 GHz:



Above 1 GHz:



The 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 FCC 15.209, FCC 15.407 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz.

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

30-1000MHz:

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

1GHz- 40GHz:

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

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-1GHz, peak and Average detection modes for frequencies above 1GHz.

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, emission shall be computed as: $E [dB\mu V/m] = EIRP[dBm] + 95.2$, for $d = 3$ meters.

According to C63.10, the above 1G test result shall be extrapolated to the specified distance using an extrapolation factor of 20dB/decade from 3m to 1.5m

Distance extrapolation factor = $20 \log (\text{specific distance [3m]}/\text{test distance [1.5m]})$ dB = 6.02 dB

All emissions under the average limit and under the noise floor have not recorded in the report.

Corrected Amplitude & Margin Calculation

For the range 30MHz-1GHz, 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:

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

For the range 1GHz-40GHz, Test performed at 1.5m, the Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading and the Distance extrapolation factor. The basic equation is as follows:

$$\begin{aligned}\text{Corrected Amplitude} &= \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain} \\ \text{Extrapolation result} &= \text{Corrected Amplitude} - \text{Distance extrapolation factor}\end{aligned}$$

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:

$$\text{Margin} = \text{Extrapolation result} - \text{Limit}$$

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB3	A060611-1	2017-11-10	2020-11-10
R&S	EMI Test Receiver	ESCI	100224	2017-12-11	2018-12-11
HP	Amplifier	8447D	2727A05902	2017-09-05	2018-09-05
N/A	Coaxial Cable	C-NJNJ-50	C-0400-01	2017-09-05	2018-09-05
N/A	Coaxial Cable	C-NJNJ-50	C-0075-01	2017-09-05	2018-09-05
N/A	Coaxial Cable	C-NJNJ-50	C-1000-01	2017-09-05	2018-09-05
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
Ducommun Technologies	Horn Antenna	ARH-2823-02	1007726-01 1302	2016-11-18	2019-11-18
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-01 1304	2016-11-18	2019-11-18
Quinstar	Amplifier	QLW-18405536-JO	15964001001	2017-06-27	2018-06-27
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
ETS-Lindgren	Horn Antenna	3115	000 527 35	2016-01-05	2019-01-04
N/A	Coaxial Cable	C-SJSJ-50	C-0800-01	2017-09-05	2018-09-05
R&S	Spectrum Analyzer	FSP 38	100478	2017-12-08	2018-12-08
N/A	Coaxial Cable	C-2.4J2.4J-50	C-0700-02	2017-06-27	2018-06-27
Chengdu OuLi	Bandrejector Filter	5725-5850	005	2017-09-05	2018-09-05
Chengdu OuLi	Bandrejector Filter	5150-5350	004	2017-09-05	2018-09-05

* **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).

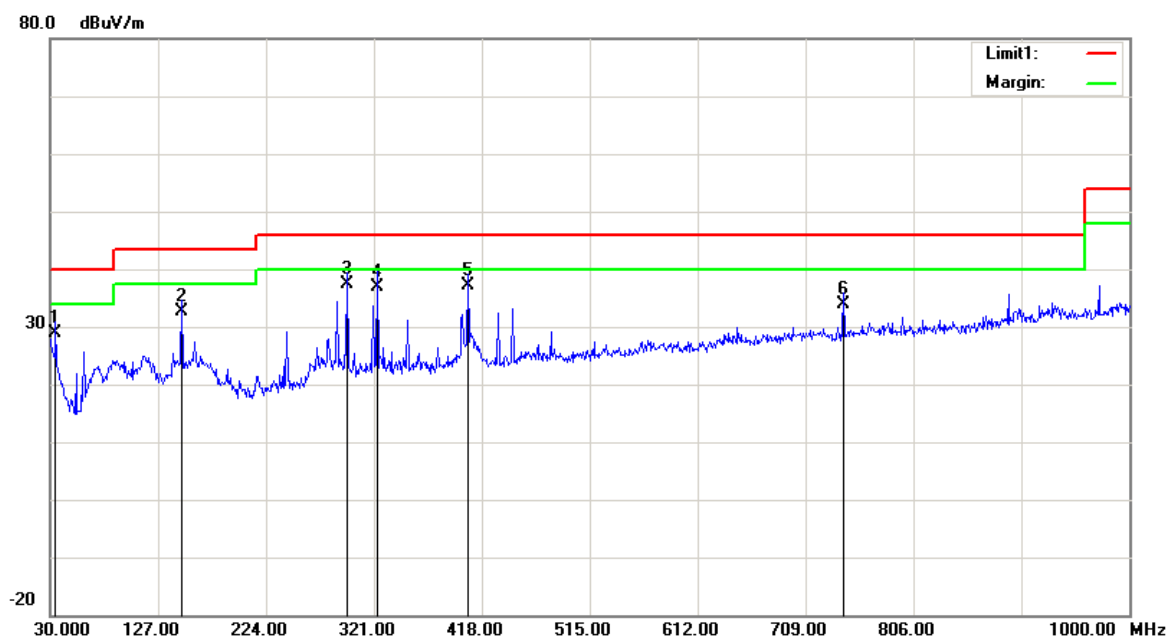
Test Data**Environmental Conditions**

Temperature:	17.6~20.8 °C
Relative Humidity:	41 %
ATM Pressure:	101~102.2 kPa

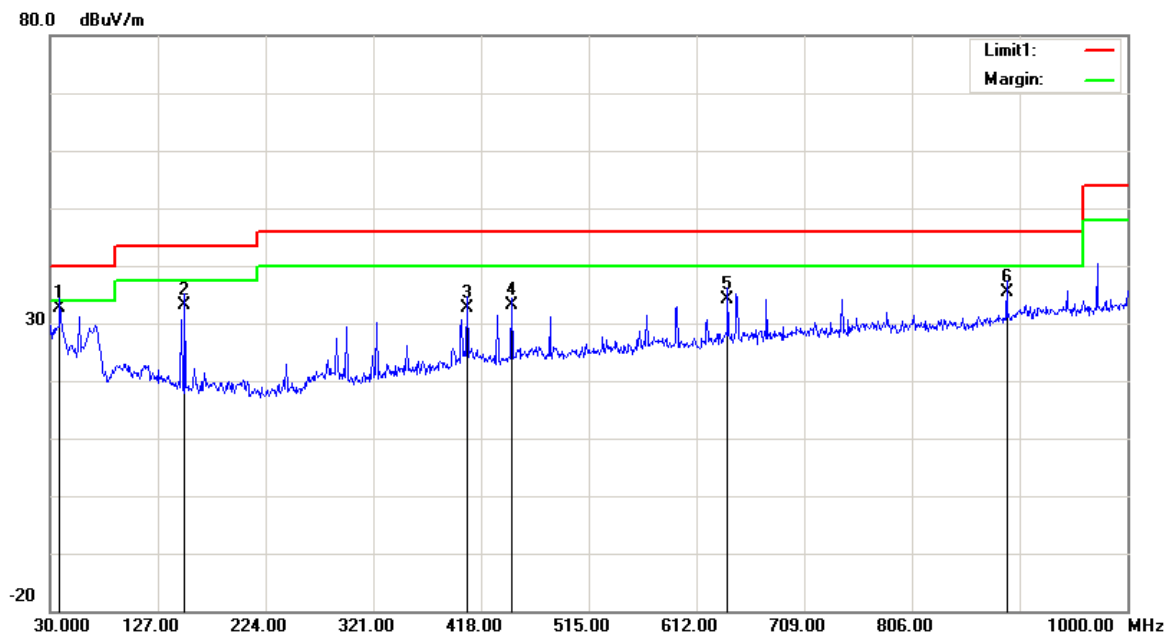
The testing was performed by Sunny Cen on 2018-01-29 & 2018-01-31.

Test Mode: Transmitting(pre-test two models, 7051 was the worst)

1) 30MHz-1GHz(5795 MHz was the worst):

Horizontal:

Frequency (MHz)	Receiver Reading (dBμV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
34.8500	31.37	QP	-2.47	28.90	40.00	11.10
148.3400	39.20	QP	-6.50	32.70	43.50	10.80
296.7500	41.57	QP	-4.27	37.30	46.00	8.70
323.9100	40.77	QP	-3.97	36.80	46.00	9.20
405.3900	39.27	QP	-2.17	37.10	46.00	8.90
742.9500	30.87	QP	3.03	33.90	46.00	12.10

Vertical:

Frequency (MHz)	Receiver Reading (dB μ V)	Detector	Correction Factor (dB/m)	Cord. Amp. (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
38.7300	37.97	QP	-5.37	32.60	40.00	7.40
151.2500	39.70	QP	-6.50	33.20	43.50	10.30
405.3900	34.77	QP	-2.17	32.60	46.00	13.40
445.1600	34.67	QP	-1.57	33.10	46.00	12.90
640.1300	32.24	QP	1.86	34.10	46.00	11.90
891.3600	29.72	QP	5.58	35.30	46.00	10.70

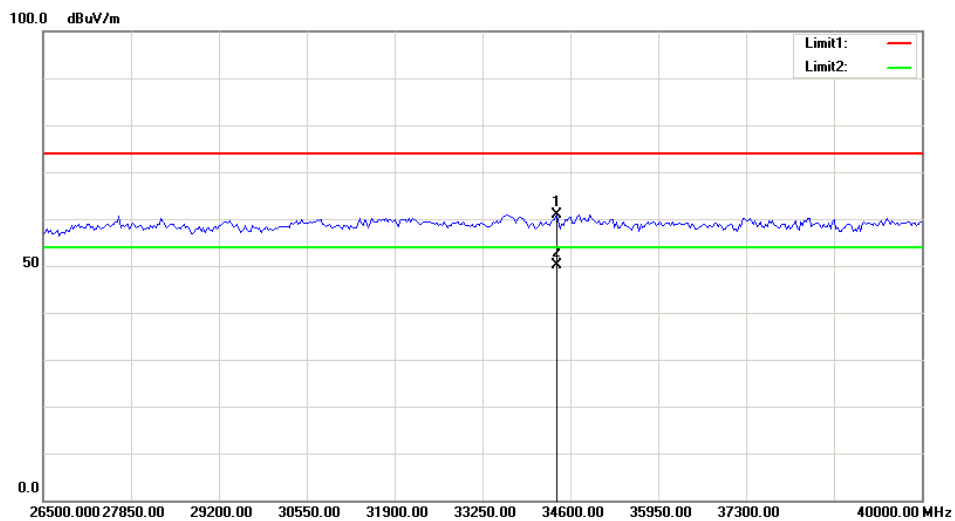
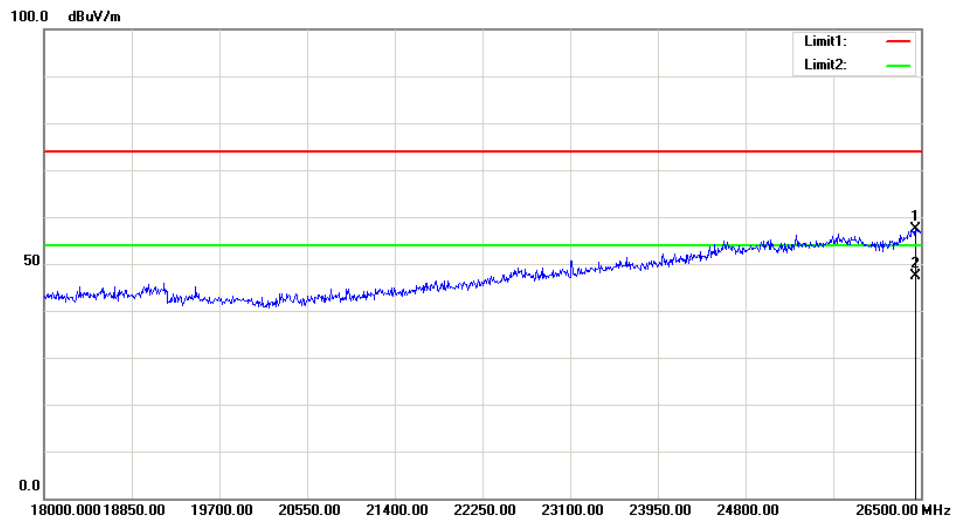
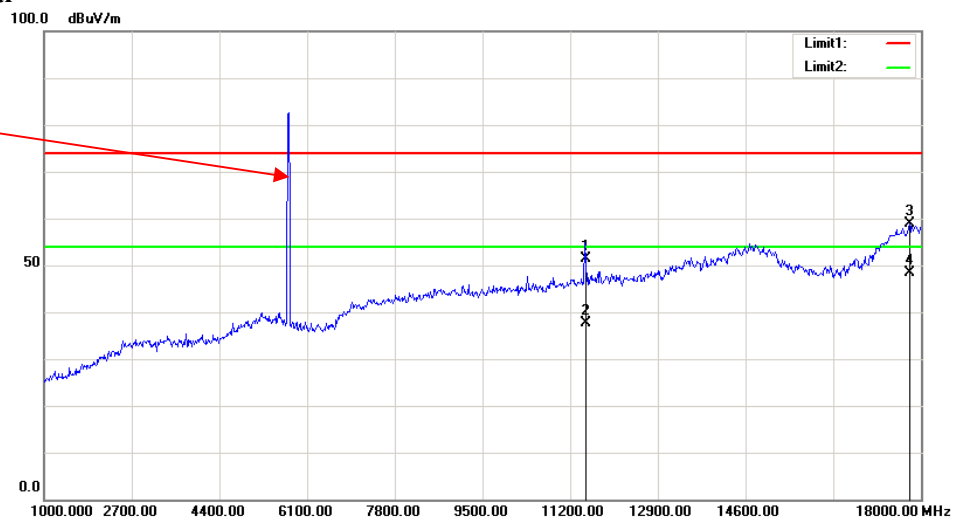
2) 1-40GHz:

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5190 MHz										
5190.00	56.73	PK	H	33.60	3.59	0.00	93.92	87.9	N/A	N/A
5190.00	45.72	AV	H	33.60	3.59	0.00	82.91	76.89	N/A	N/A
5190.00	78.54	PK	V	33.60	3.59	0.00	115.73	109.71	N/A	N/A
5190.00	68.34	AV	V	33.60	3.59	0.00	105.53	99.51	N/A	N/A
5150.00	29.10	PK	V	33.54	3.56	0.00	66.20	60.18	74.00	13.82
5150.00	16.04	AV	V	33.54	3.56	0.00	53.14	47.12	54.00	6.88
10380.00	62.42	PK	V	38.18	6.31	36.85	70.06	64.04	74.00	9.96
10380.00	44.71	AV	V	38.18	6.31	36.85	52.35	46.33	54.00	7.67
15570.00	47.24	PK	V	38.03	8.84	39.06	55.05	49.03	74.00	24.97
15570.00	34.47	AV	V	38.03	8.84	39.06	42.28	36.26	54.00	17.74
High Channel: 5230 MHz										
5230.00	56.27	PK	H	33.67	3.54	0.00	93.48	87.46	N/A	N/A
5230.00	45.78	AV	H	33.67	3.54	0.00	82.99	76.97	N/A	N/A
5230.00	76.37	PK	V	33.67	3.54	0.00	113.58	107.56	N/A	N/A
5230.00	66.28	AV	V	33.67	3.54	0.00	103.49	97.465	N/A	N/A
5350.00	32.42	PK	V	33.86	3.52	0.00	69.80	63.78	74.00	10.22
5350.00	15.73	AV	V	33.86	3.52	0.00	53.11	47.09	54.00	6.91
10460.00	61.47	PK	V	38.19	6.36	36.87	69.15	63.13	74.00	10.87
10460.00	47.22	AV	V	38.19	6.36	36.87	54.90	48.88	54.00	5.12
15690.00	45.75	PK	V	37.91	8.80	39.15	53.31	47.29	74.00	26.71
15690.00	33.35	AV	V	37.91	8.80	39.15	40.91	34.89	54.00	19.11

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5755 MHz										
5755.00	69.84	PK	H	34.20	3.70	0.00	107.74	101.72	N/A	N/A
5755.00	51.75	AV	H	34.20	3.70	0.00	89.65	83.63	N/A	N/A
5755.00	87.94	PK	V	34.20	3.70	0.00	125.84	119.82	N/A	N/A
5755.00	70.43	AV	V	34.20	3.70	0.00	108.33	102.31	N/A	N/A
5725.00	53.07	PK	V	34.19	3.69	0.00	90.95	84.93	122.20	37.27
5720.00	54.35	PK	V	34.19	3.69	0.00	92.23	86.21	110.80	24.59
5700.00	45.29	PK	V	34.18	3.68	0.00	83.15	77.13	105.20	28.07
5650.00	33.94	PK	V	34.16	3.63	0.00	71.73	65.71	68.20	2.49
11510.00	56.09	PK	V	39.00	6.59	37.37	64.31	58.29	74.00	15.71
11510.00	36.68	AV	V	39.00	6.59	37.37	44.90	38.88	54.00	15.12
17265.00	47.35	PK	V	41.74	8.79	38.58	59.30	53.28	74.00	20.72
17265.00	34.38	AV	V	41.74	8.79	38.58	46.33	40.31	54.00	13.69
High Channel: 5795 MHz										
5795.00	69.43	PK	H	34.22	3.71	0.00	107.36	101.34	N/A	N/A
5795.00	52.07	AV	H	34.22	3.71	0.00	90.00	83.98	N/A	N/A
5795.00	87.38	PK	V	34.22	3.71	0.00	125.31	119.29	N/A	N/A
5795.00	71.45	AV	V	34.22	3.71	0.00	109.38	103.36	N/A	N/A
5850.00	46.91	PK	V	34.24	3.75	0.00	84.90	78.88	122.20	43.32
5855.00	40.67	PK	V	34.24	3.75	0.00	78.66	72.64	110.80	38.16
5875.00	34.96	PK	V	34.25	3.77	0.00	72.98	66.96	105.20	38.24
5925.00	28.44	PK	V	34.27	3.80	0.00	66.51	60.49	68.20	7.71
11590.00	55.68	PK	V	39.00	6.62	37.46	63.84	57.82	74.00	16.18
11590.00	36.15	AV	V	39.00	6.62	37.46	44.31	38.29	54.00	15.71
17385.00	47.36	PK	V	42.43	8.82	38.50	60.11	54.09	74.00	19.91
17385.00	34.42	AV	V	42.43	8.82	38.50	47.17	41.15	54.00	12.85

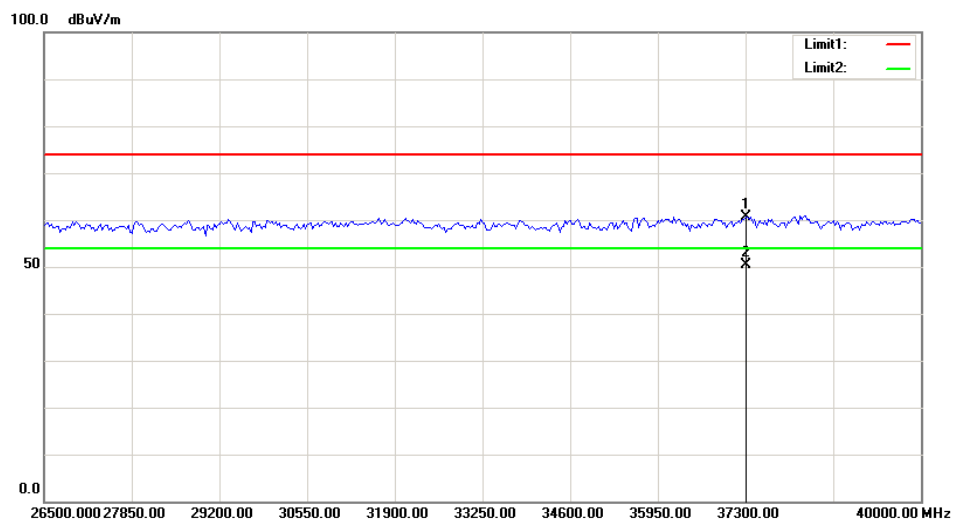
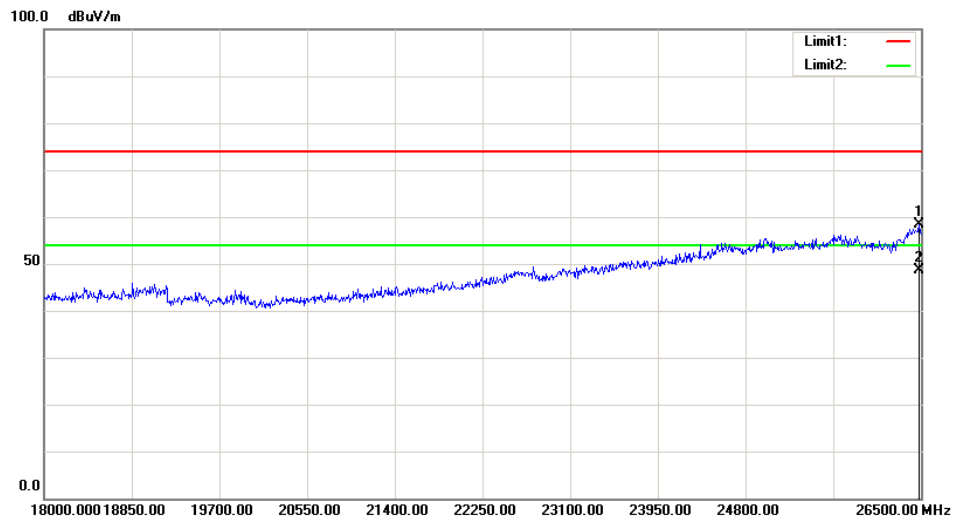
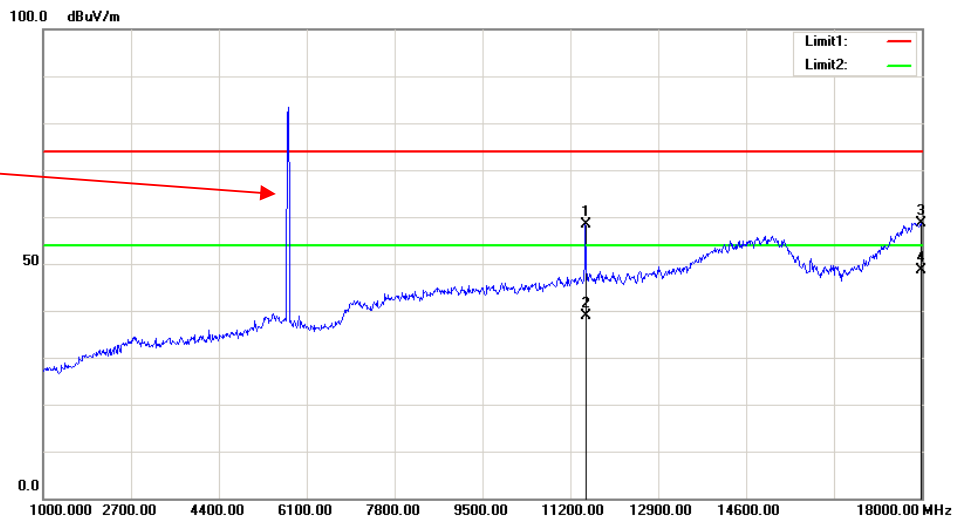
Worst plots (5795MHz) **Horizontal**

Fundamental
Test with Band
Rejection Filter



Vertical

Fundamental
Test with Band
Rejection Filter



FCC §15.407(a) – EMISSION BANDWIDTH AND OCCUPIED BANDWIDTH**Applicable Standard**

15.407(a) , RSS-247 §6.2.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200256	2018-01-04	2019-01-04
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	/

* **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 Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 .

Test Data**Environmental Conditions**

Temperature:	24.8~26.1 °C
Relative Humidity:	46~52 %
ATM Pressure:	100.9~101.2 kPa

The testing was performed by Nami Quan from 2018-01-26 to 2018-03-28.

Test Result: Pass.

Please refer to the following tables and plots.

Test mode: Transmitting (Test was performed at chain 0)

5150-5250 MHz:

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
Low	5190	38.48	37.60
High	5230	38.64	37.44

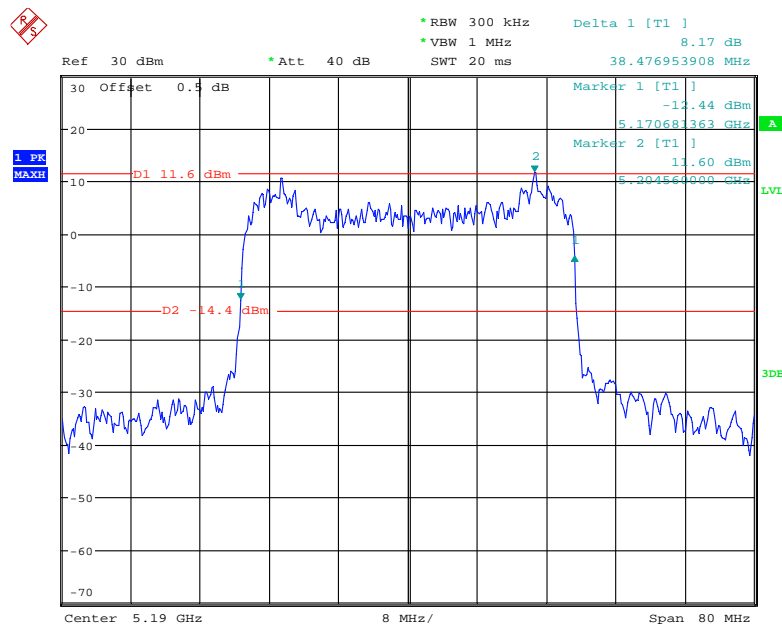
5725-5850 MHz:

Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
Low	5755	35.73	37.44
High	5795	35.66	37.60

Note: the 99% Occupied Bandwidth has not fell into the frequency 5250-5350MHz and 5470-5725MHz, please refer to the test plots of 99% Occupied Bandwidth.

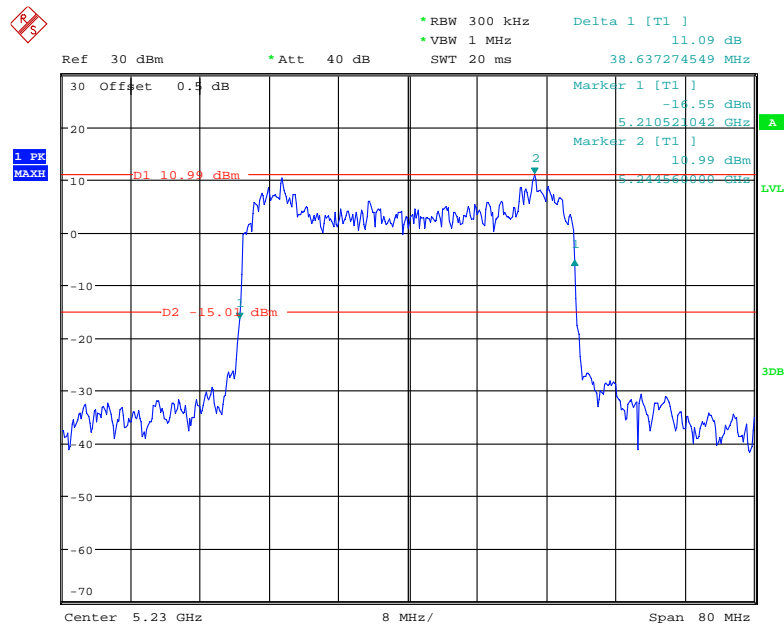
5150-5250MHz 26dB Bandwidth:

Low Channel



Date: 26.JAN.2018 11:03:52

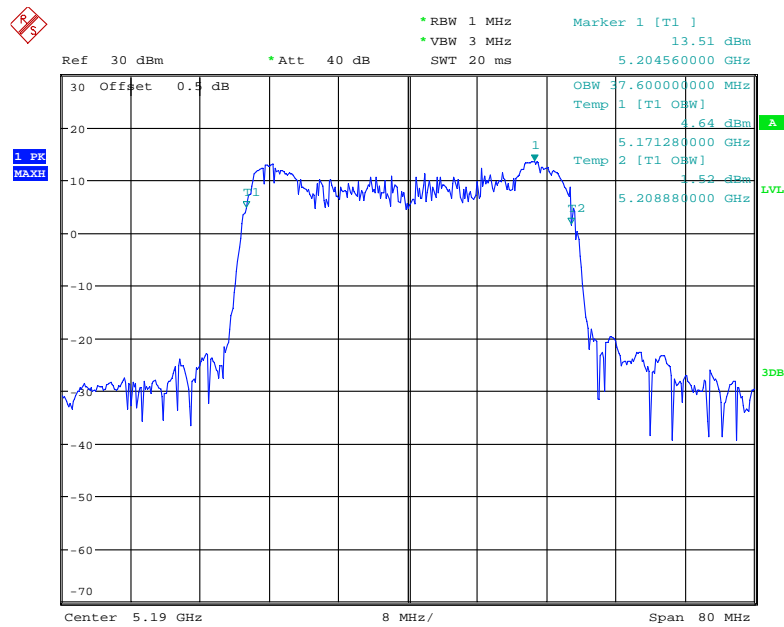
High Channel



Date: 26.JAN.2018 11:01:54

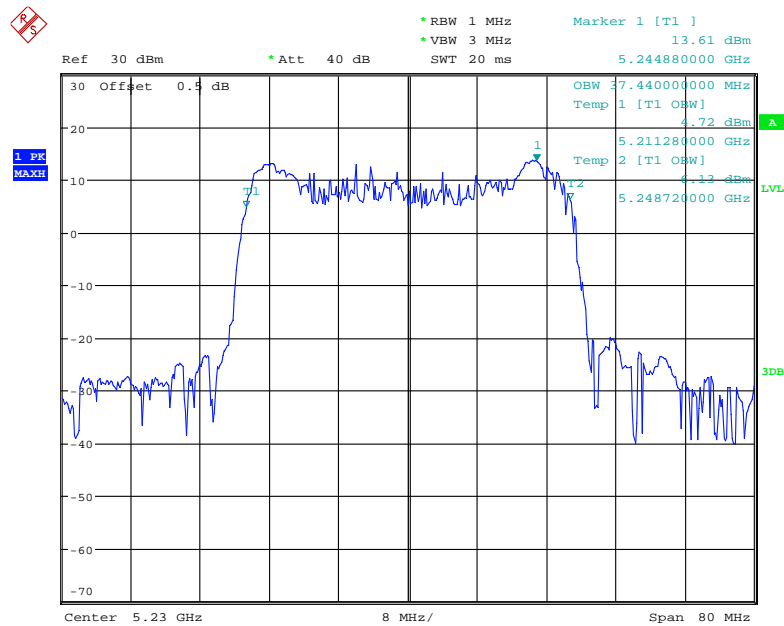
99% Occupied Bandwidth:

Low Channel



Date: 26.JAN.2018 11:04:05

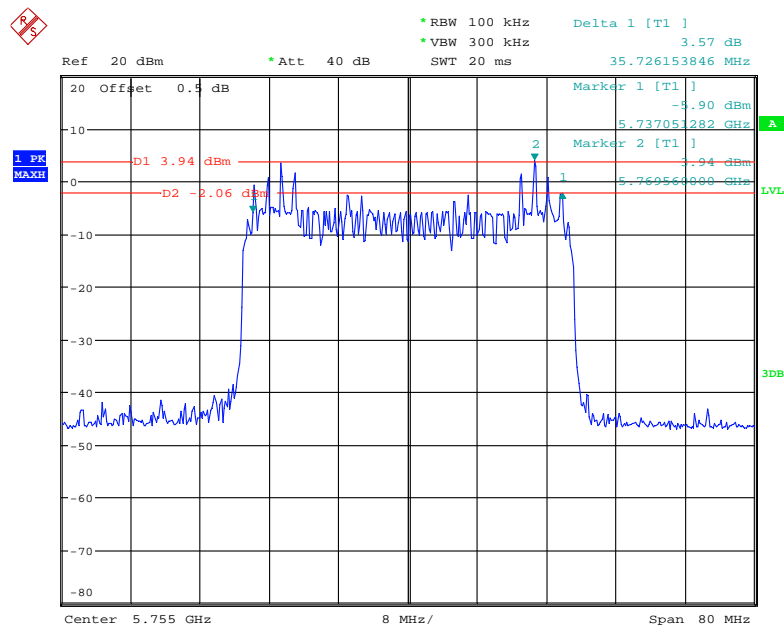
High Channel



Date: 26.JAN.2018 11:02:08

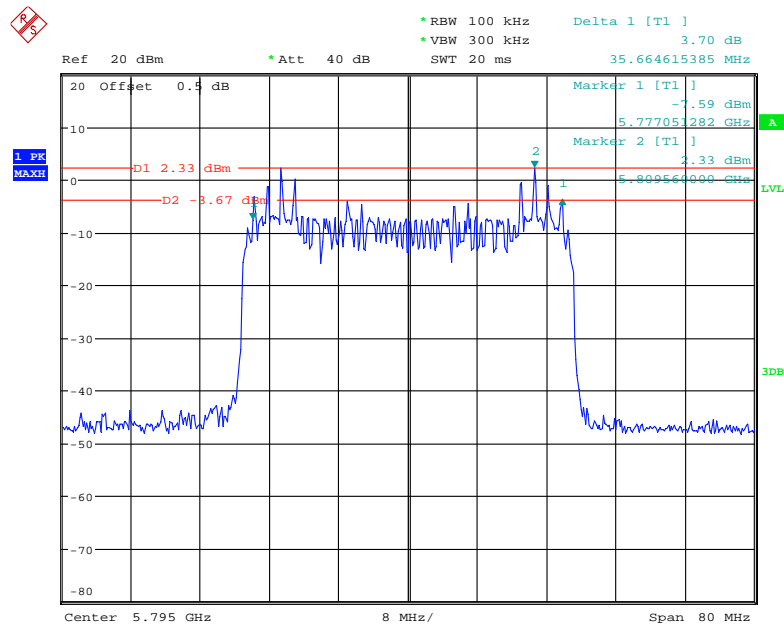
5725-5850 MHz:
6dB Bandwidth:

Low Channel



Date: 28.MAR.2018 16:16:59

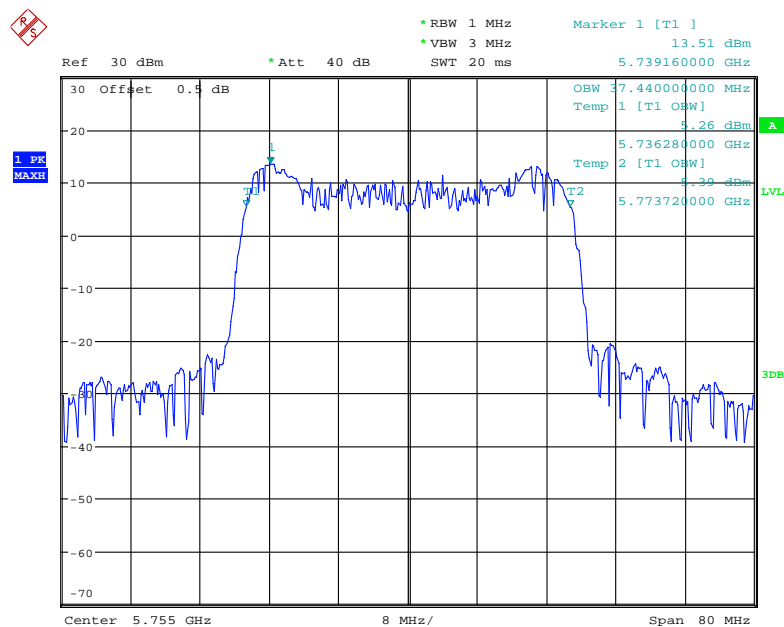
High Channel



Date: 28.MAR.2018 15:55:01

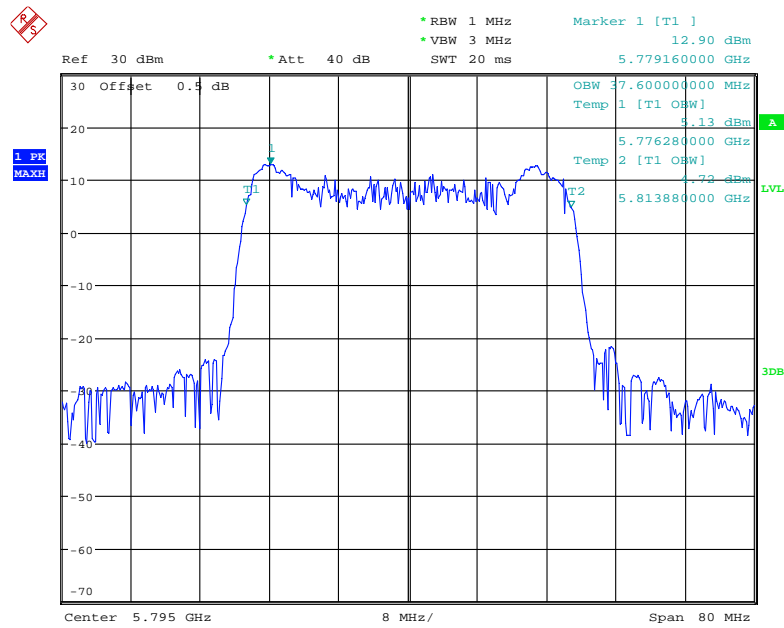
99% Occupied Bandwidth:

Low Channel



Date: 26.JAN.2018 11:10:32

High Channel



Date: 26.JAN.2018 11:12:59

FCC §15.407(a) – MAXIMUM CONDUCTED OUTPUT POWER

Applicable Standard

According to FCC §15.407(a)

(a) Power limits:

(1) For the band 5.15-5.25 GHz.

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(4) The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	USB Wideband Power Sensor	U2022XA	MY5417006	2017-12-11	2018-12-11
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	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 Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Test Data

Environmental Conditions

Temperature:	24.8 °C
Relative Humidity:	46 %
ATM Pressure:	101.2 kPa

The testing was performed by Nami Quan on 2018-01-26.

Test Mode: Transmitting

Frequency (MHz)	Maximum Conducted Average Output Power (dBm)			Limit (dBm)
	Chain 0	Chain 1	Total	
5190	10.54	12.99	14.95	30
5230	10.58	12.92	14.92	30
5755	17.48	20.18	22.05	30
5795	17.56	20.03	21.98	30

Note 1: the power sensor is a gated RF average power meter.

Note 2: The maximum antenna gain is 4.5dBi in 5GHz band. The device employed Cyclic Delay Diversity (CDD) for 2 TX transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on:

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

So:

Directional gain = $G_{ANT} + \text{Array Gain} = 4.5\text{dBi} < 6\text{dBi}$

FCC §15.407(a) - POWER SPECTRAL DENSITY

Applicable Standard

According to FCC §15.407(a)

(a) Power limits:

(1) For the band 5.15-5.25 GHz.

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200256	2018-01-04	2019-01-04
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	/

* **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:	24.8~25.4 °C
Relative Humidity:	46~51 %
ATM Pressure:	101~101.2 kPa

The testing was performed by Nami Quan on 2018-01-26 and 2018-04-10.

Test Mode: Transmitting

Test Result: Compliance. Please refer to the following table and plot.

5150-5250MHz:

Frequency (MHz)	Reading (dBm/MHz)		Duty Cycle Factor (dB)	Total (dBm/MHz)	Limit (dBm/MHz)
	Chain 0	Chain 1			
5190	2.40	6.34	2.53	10.34	17
5230	2.50	5.28	2.53	9.65	17

Note: the maximum antenna gain is 4.5 dBi, the device employed Cyclic Delay Diversity (CDD), per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices:

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

$$N_{\text{SS}}=2, N_{\text{ANT}}=2$$

So:

$$\text{Directional gain} = \text{GANT} + \text{Array Gain} = 4.5 + 10 \cdot \log(2/2) = 4.5 \text{ dBi}$$

5725-5850MHz:

Frequency (MHz)	Reading (dBm/300kHz)		Duty Cycle Factor (dB)	Total (dBm/ 500kHz)	Limit (dBm/500kHz)
	Chain 0	Chain 1			
5755	6.69	10.56	2.53	16.80	30
5795	3.90	6.04	2.53	12.86	30

Note:

the maximum antenna gain is 4.5 dBi, the device employed Cyclic Delay Diversity (CDD), per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices:

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

$$N_{\text{SS}}=2, N_{\text{ANT}}=2$$

So:

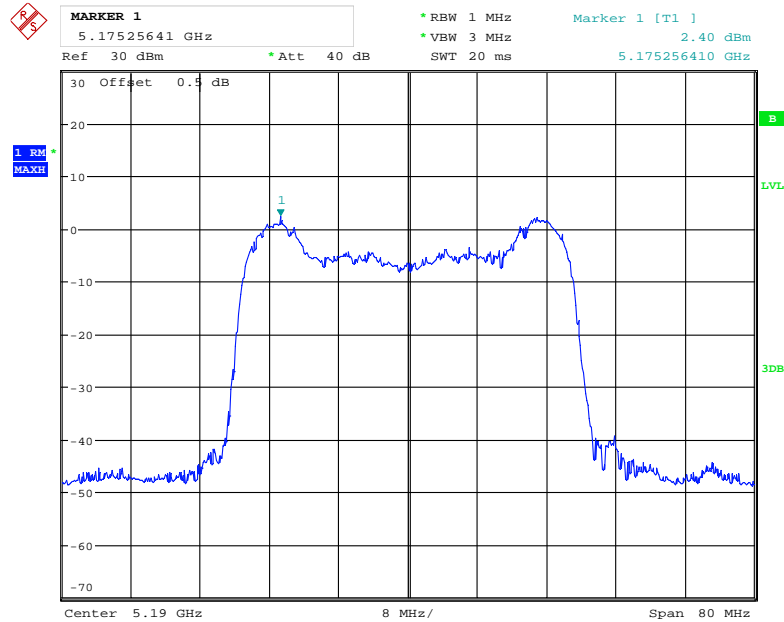
$$\text{Directional gain} = \text{GANT} + \text{Array Gain} = 4.5 + 10 \cdot \log(2/2) = 4.5 \text{ dBi}$$

For 5.8GHz band, If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10 \log(500 \text{ kHz} / \text{RBW})$ to the measured result, whereas RBW (< 500 KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

5150-5250MHz

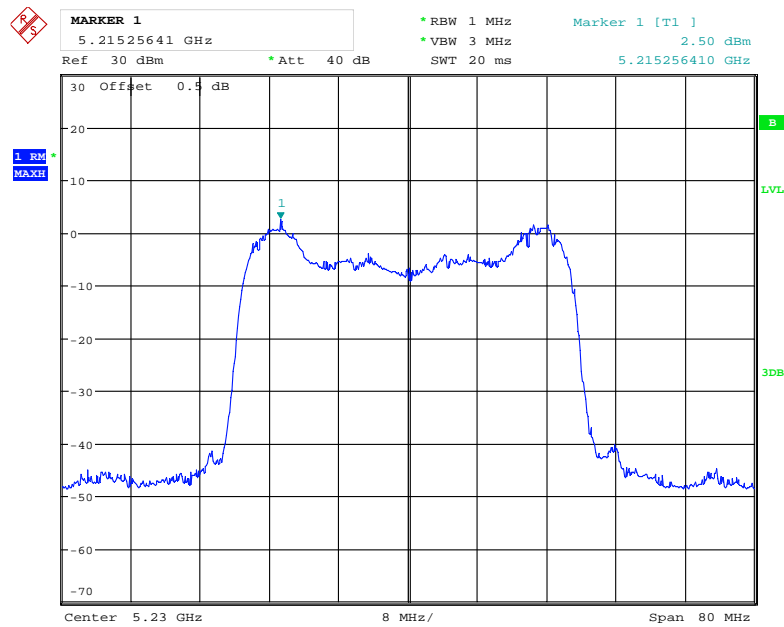
Chain 0:

Low Channel



Date: 10.APR.2018 11:44:33

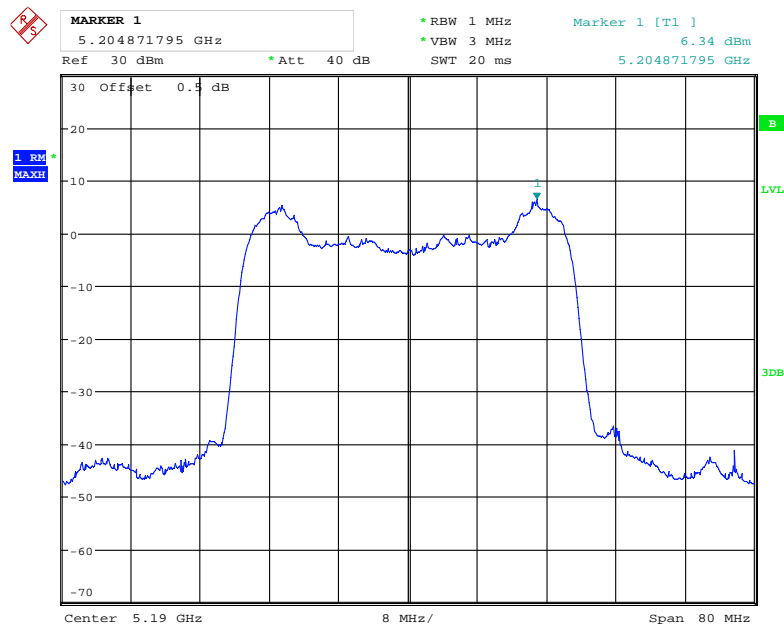
High Channel



Date: 10.APR.2018 11:43:53

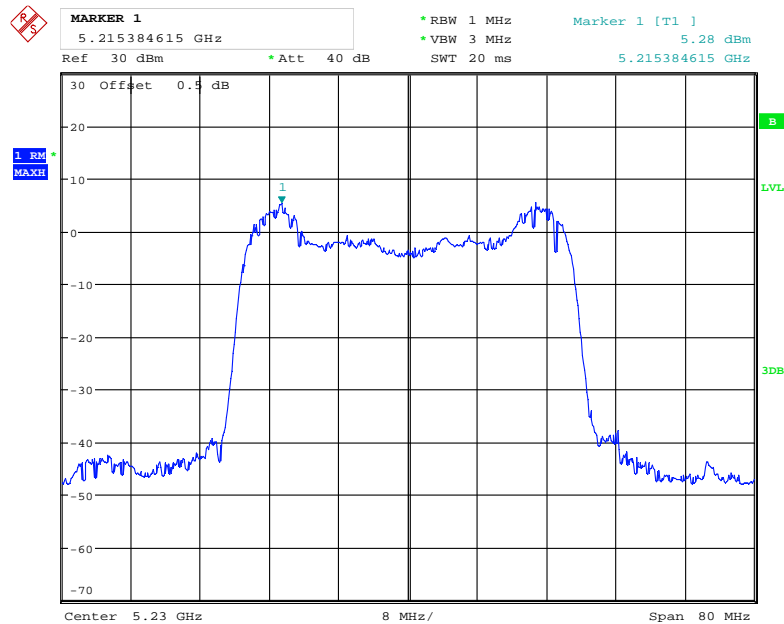
Chain 1:

Low Channel



Date: 10.APR.2018 11:42:00

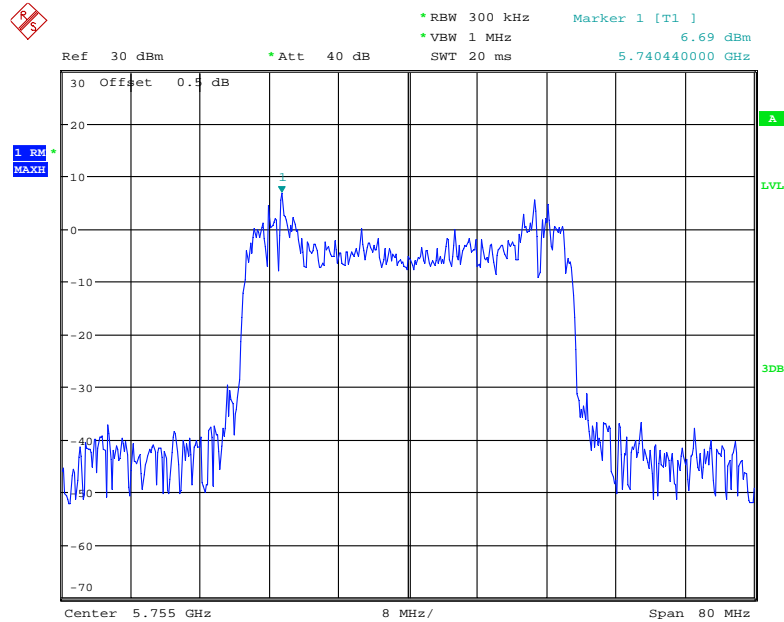
High Channel



Date: 10.APR.2018 11:42:41

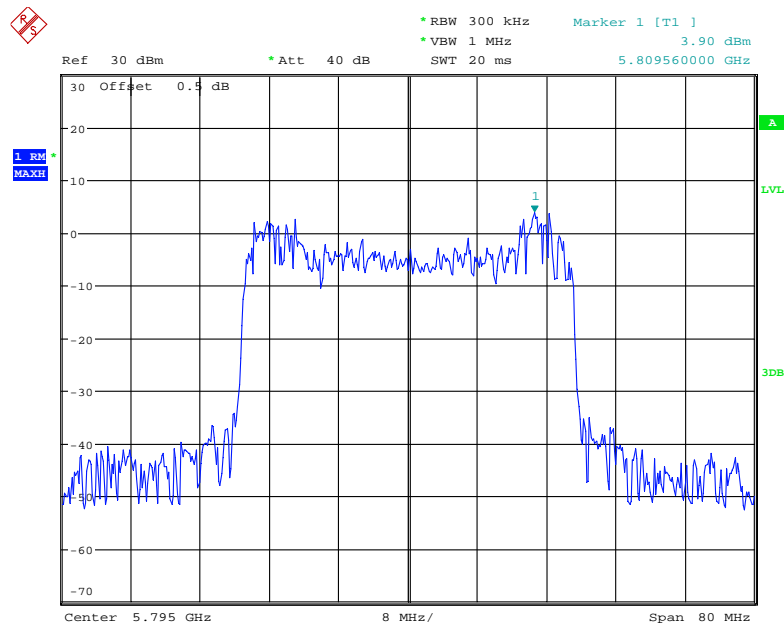
5725-5850MHz
Chain 0:

Low Channel



Date: 26.JAN.2018 11:10:42

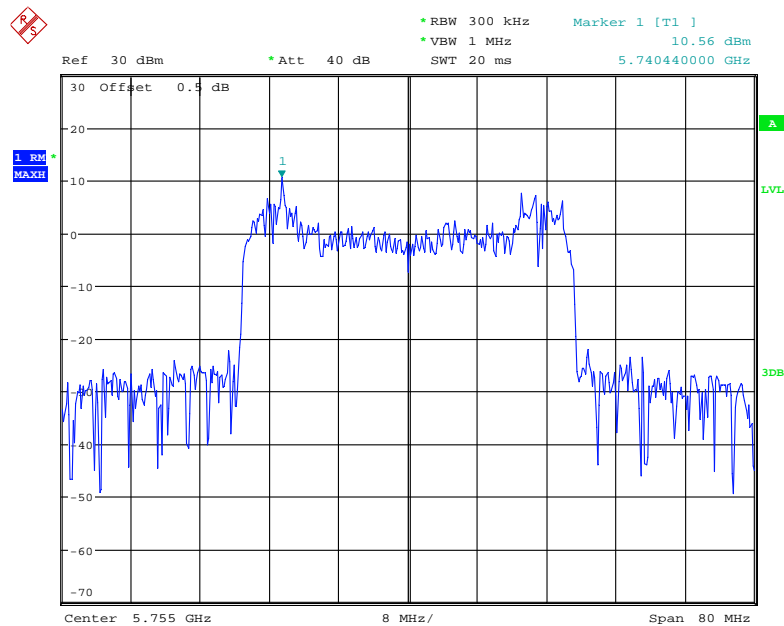
High Channel



Date: 26.JAN.2018 11:13:09

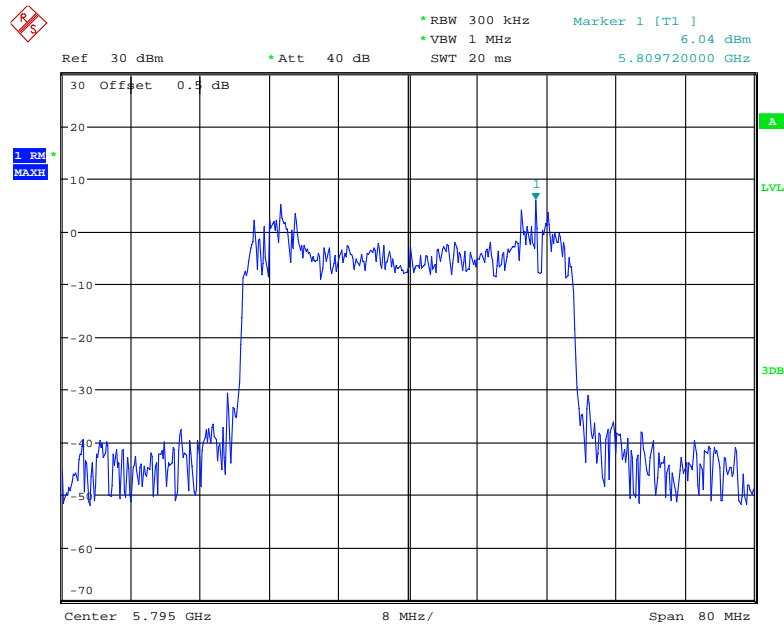
Chain 1:

Low Channel



Date: 26.JAN.2018 11:24:46

High Channel



Date: 26.JAN.2018 11:36:59

FCC §15.407(b) – OUT- OF-BAND EMISSIONS

Applicable Standard

FCC §15.407

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200256	2018-01-04	2019-01-04
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	/

* **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:	22.7~23.9 °C
Relative Humidity:	40~46 %
ATM Pressure:	101.2~102.1 kPa

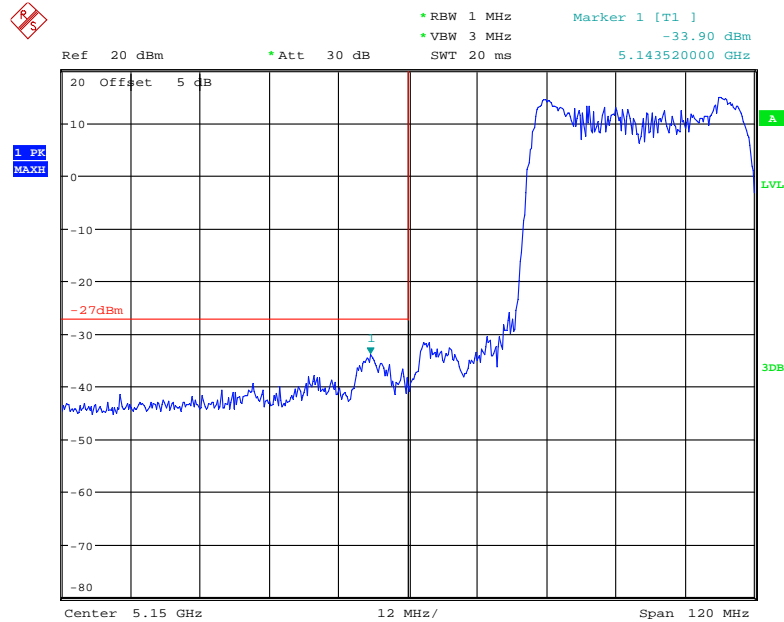
The testing was performed by Nami Quan from 2018-01-26 to 2018-04-08.

Test Result: Pass. Please refer to the following plots.

5150-5250MHz (Antenna gain+cable loss was offsetted in the display, all emissions out of band were under limit more than 3dB, so combine two chains are compliance with the EIRP limits)

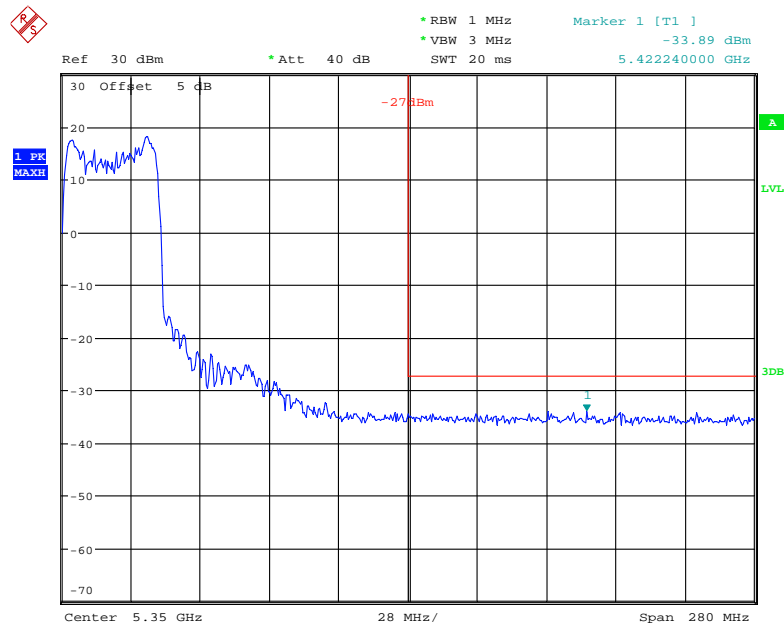
Chain 0:

Low Channel

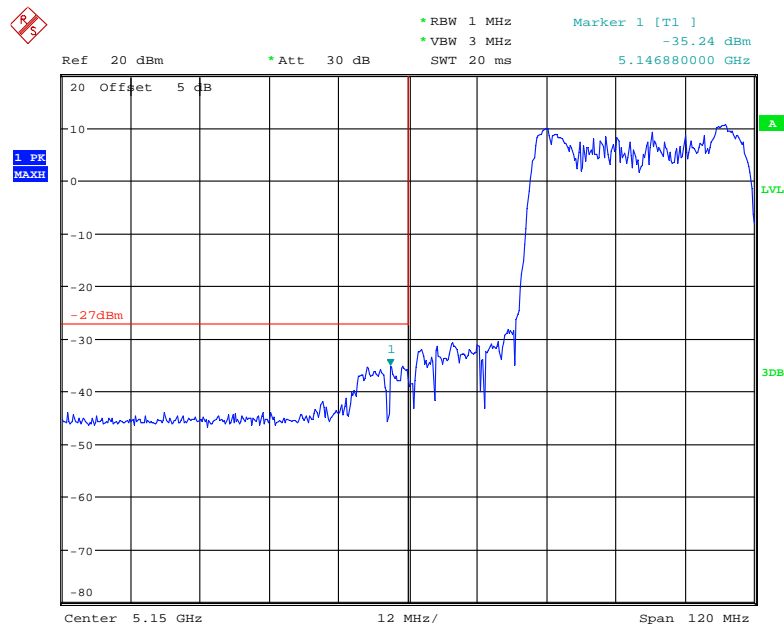


Date: 26.MAR.2018 15:30:49

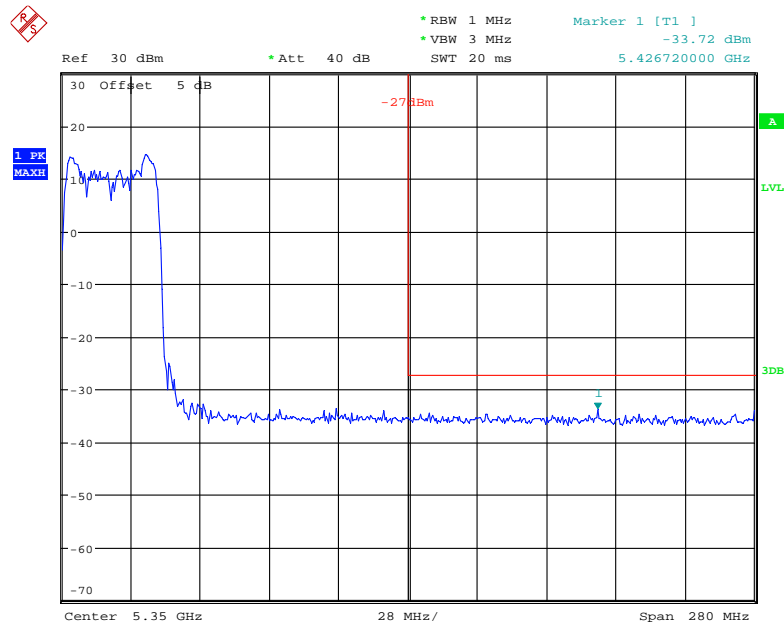
High Channel



Date: 26.JAN.2018 11:02:41

Chain 1:**Low Channel**

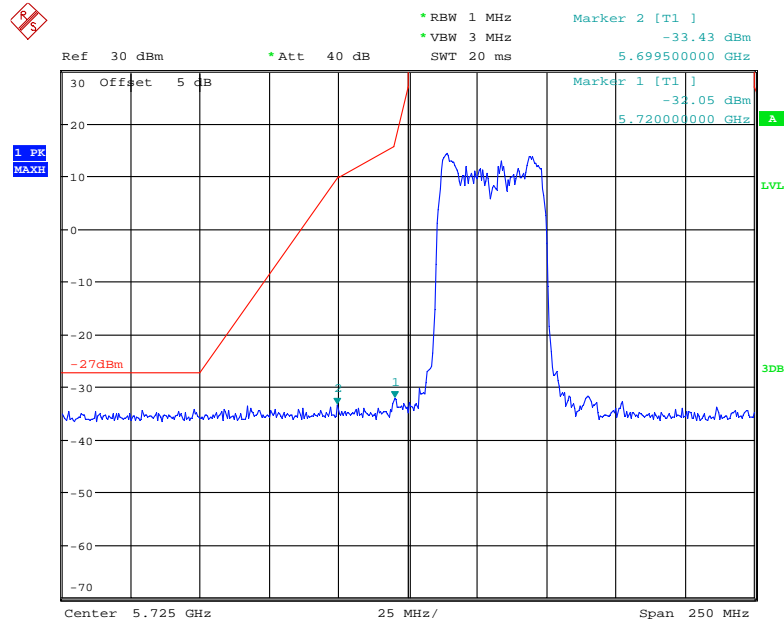
Date: 26.MAR.2018 15:25:50

High Channel

Date: 8.APR.2018 16:54:27

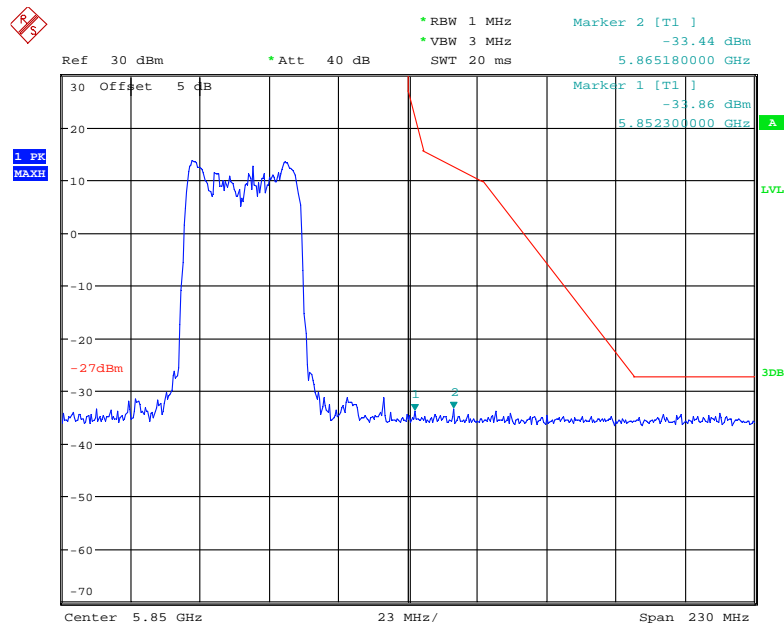
5725-5850MHz, Chain 0(Antenna gain+cable loss was offsetted in the display, all emissions out of band were under limit more than 3dB, so combine two chains are compliance with the EIRP limits):

Low Channel



Date: 8.APR.2018 16:53:44

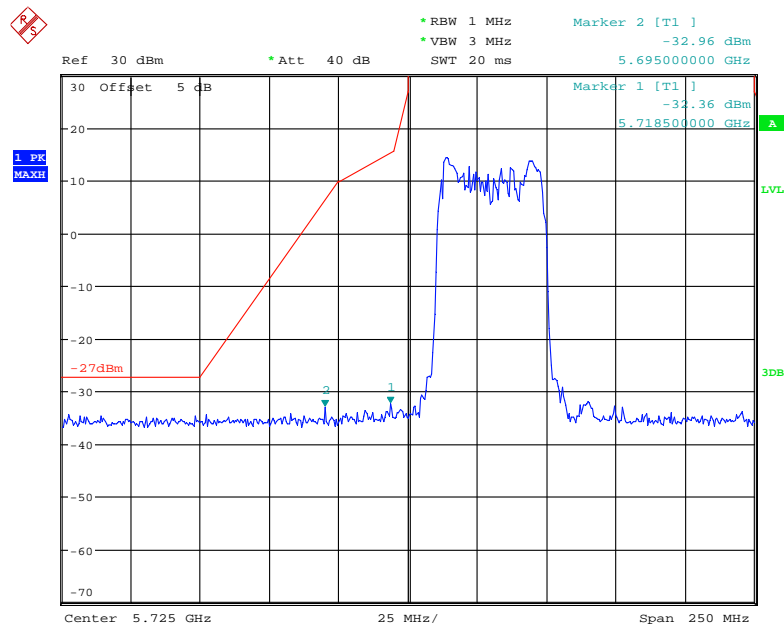
High Channel



Date: 8.APR.2018 17:13:23

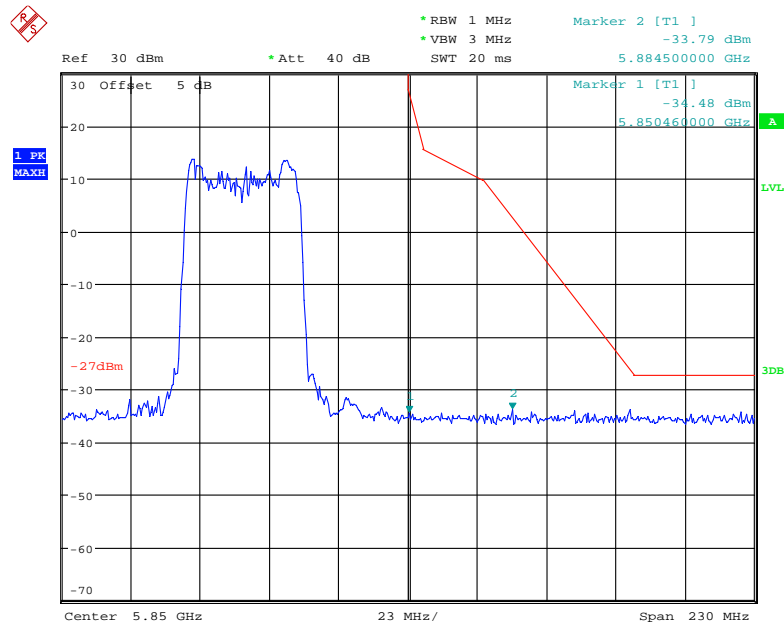
Chain 1:

Low Channel



Date: 8.APR.2018 16:59:22

High Channel



Date: 8.APR.2018 17:00:09

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