

FCC PART 15C

TEST REPORT

For

AKUVOX (XIAMEN) NETWORKS CO., LTD.

10/F, No.56, Software Park II, Xiamen, China

FCC ID: 2AHCR-R28A

Report Type: Original Report	Product Name: Door Phone
Report Number: RXM190515053-00A	
Report Date: 2019-08-19	
Reviewed By:	Jerry Zhang EMC Manager <i>Jerry Zhang</i>
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Dongguan) No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

EUT Name:	Door Phone
EUT Model:	R28A
Multiple Model:	R28V
Operation Frequency:	125 kHz 13.56 MHz
Modulation Type:	ASK
Rated Input Voltage:	DC 12V from the adapter or DC 48V from PoE
External Dimension:	280mm(L)*130mm(W)*30mm(H) 1000g
Serial Number:	190515053
EUT Received Date:	2019-05-17

Note: The series products models R28V is electrically identical with R28A, we selected R28A for fully testing, the details of the difference between them were explained in the attached declaration letter.

Objective

This Type approval report is prepared on behalf of *AKUVOX (XIAMEN) NETWORKS CO., LTD.* in accordance with Part 2, Subpart J, and Part 15, Subparts A and C of the Federal Communications Commission's rules.

The objective is to determine the compliance of the EUT with FCC rules, sec 15.203, 15.205, 15.207, 15.209, 15.215 and 15.225.

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".

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Dongguan). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement Uncertainty

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	$\pm 5\%$
radiated Emissions	9kHz~30MHz: 4.12dB 30M~200MHz: 4.55 dB, 200M~1GHz: 5.92 dB
Temperature	$\pm 1^{\circ}\text{C}$
Humidity	$\pm 5\%$
DC and low frequency voltages	$\pm 0.4\%$
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 lab has been recognized as the FCC accredited lab 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 lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in a test mode

The device operates in 125 kHz and 13.56 MHz simultaneously for RFID detection.

EUT Exercise Software

No software used in test.

Support Equipment List and Details

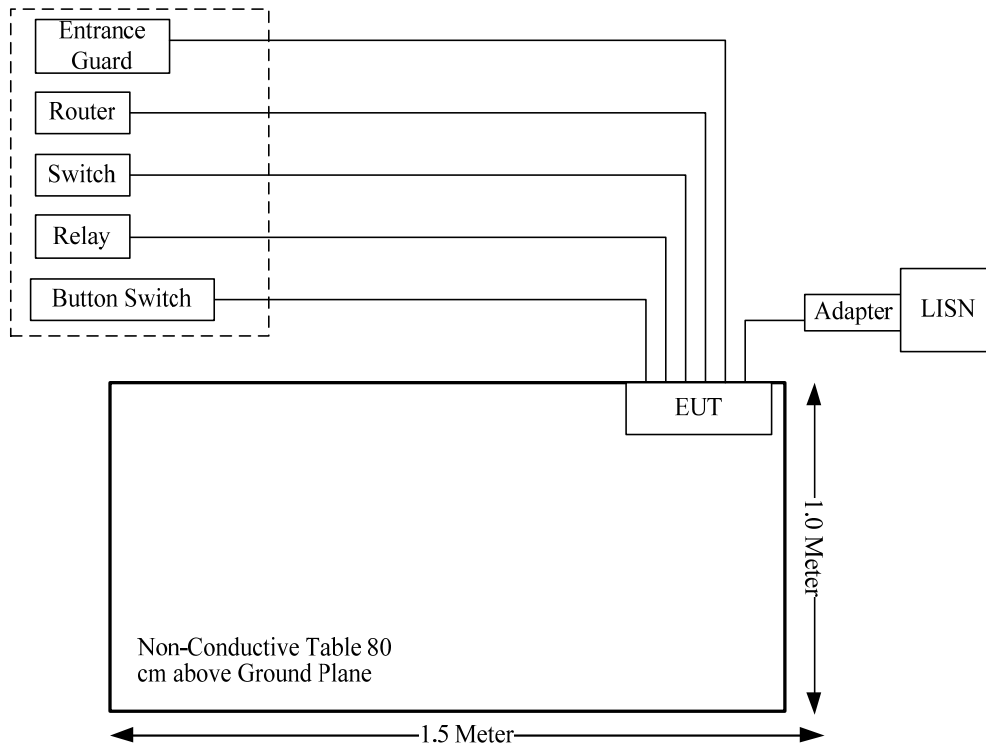
Manufacturer	Description	Model	Serial Number
Tenda	PoE	O2	N/A
HUAWEI	Adapter	HW-120200U6W	N/A
RSD	Button Switch	KCD1	N/A
Lotus	Entrance Guard	L8MF-W	N/A
Schneider	Relay	RXM2LB2BD	N/A
TP-LINK	Switch	TL-SF1008P	114A297001782
Tenda	Router	D301	E3941017710003629

Support Cable List and Details

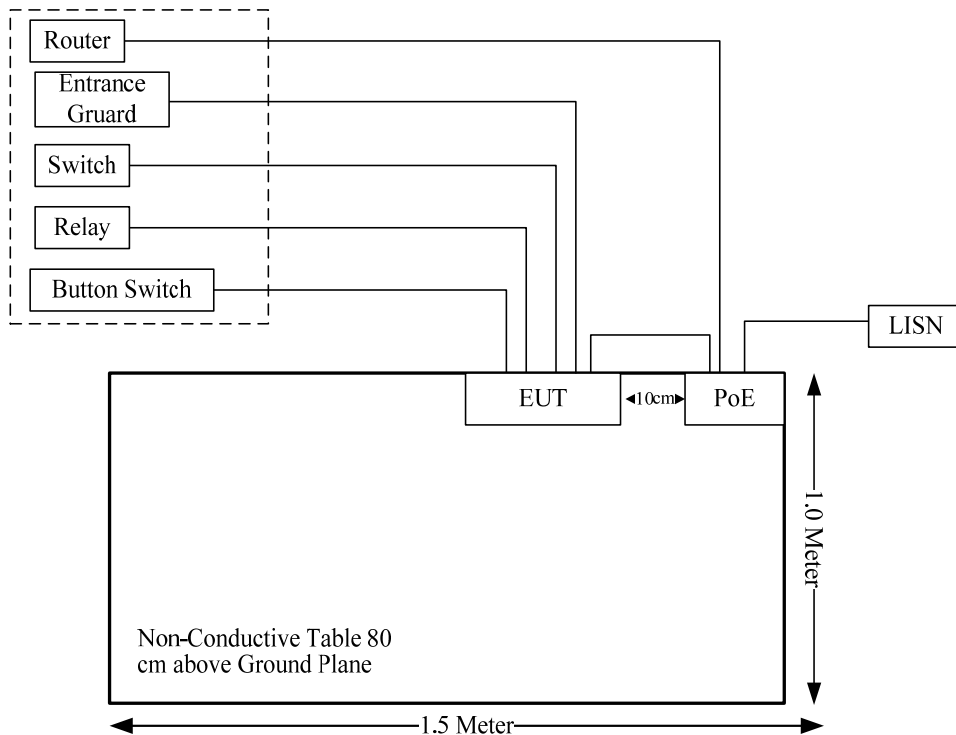
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
RJ45 Cable	No	No	5	EUT or PoE	router
Signal Cable	No	No	5	EUT	Button Switch
Signal Cable	No	No	5	EUT	Entrance Guard
RS485 Cable	No	No	5	EUT	Switch
Signal Cable	No	No	5	EUT	Relay
RJ45 Cable	No	No	1	EUT	PoE

Block Diagram of Test Setup

AC/DC Adapter supply



PoE supply



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliance
§15.207	AC Line Conducted Emission	Compliance
§15.225 §15.209 §15.205	Radiated Emission Test	Compliance
§15.225(e)	Frequency Stability	Compliance
§15.215(c)	20 dB Emission Bandwidth	Compliance

FCC§15.203 - ANTENNA REQUIREMENT

Applicable Standard

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.

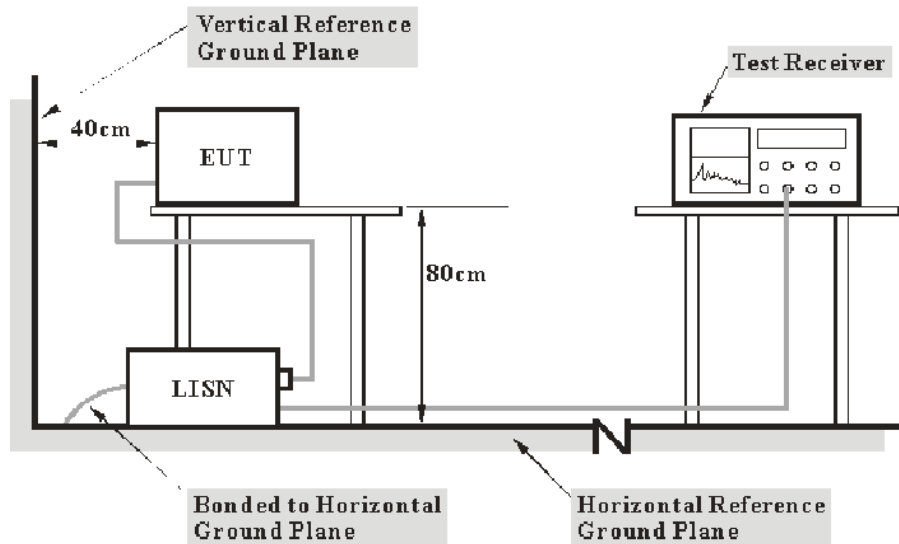
Antenna Connected Construction

The EUT has two integral antenna arrangement, one for 13.56MHz, one for 125kHz, which was permanently attached and fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliance.

FCC §15.207 – AC LINE CONDUCTED EMISSION

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 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.

The adapter was connected to the main LISN with an AC 120V/60Hz 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-01	2018-09-05	2019-09-05
R&S	Test Software	EMC32	Version8.53.0	N/A	N/A
R&S	Two-line V-network	ENV 216	101614	2018-12-10	2019-12-10
R&S	EMI Test Receiver	ESPI	100120	2019-05-09	2020-05-09

* **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 or POE 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.

According FCC publication number 174176, for a device with a permanent antenna operating at or below 30 MHz, the measurements done with a suitable dummy load, in lieu of the permanent antenna under the following conditions: (1) perform the AC line conducted tests with the permanent antenna to determine compliance with the Section 15.207 limits outside the transmitter's fundamental emission band; (2) retest with a dummy load in lieu of the permanent antenna to determine compliance with the Section 15.207 limits within the transmitter's fundamental emission band.

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

$$V_C = V_R + A_C + VDF$$

Herein,

V_C : corrected voltage amplitude

V_R : reading voltage amplitude

A_C : attenuation caused by cable loss

VDF: voltage division factor of AMN or ISN

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:

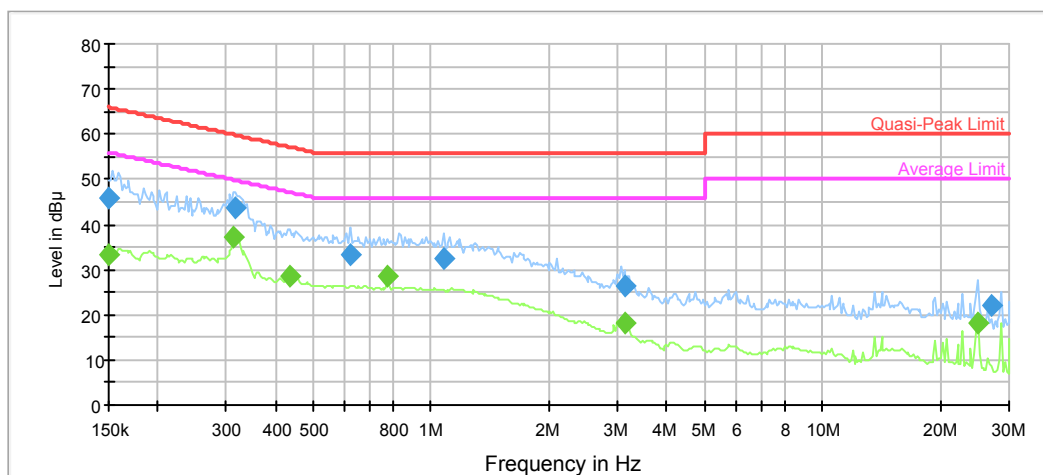
$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

Test Data**Environmental Conditions**

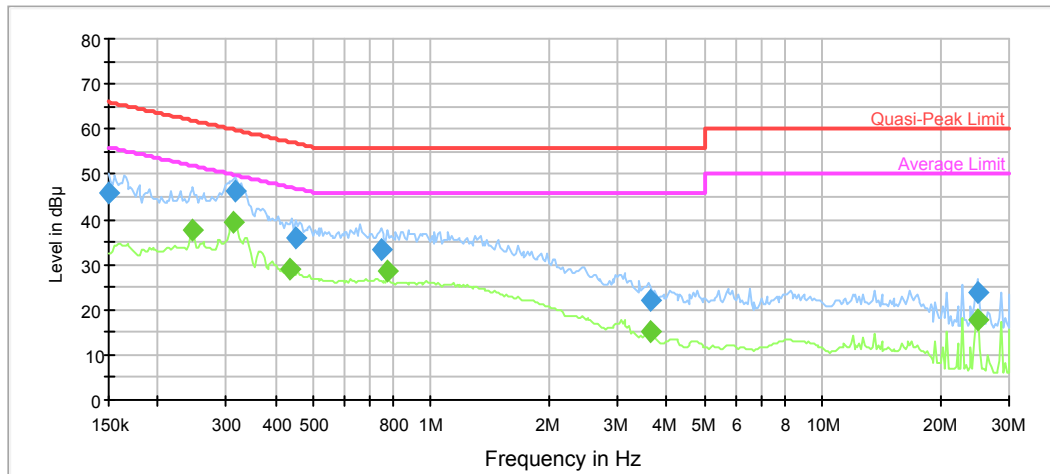
Temperature:	29.1℃
Relative Humidity:	51%
ATM Pressure:	99.7kPa
Test by:	Lily Xie
Test Date:	2019-07-10

Test mode: Transmitting*Test Mode:* AC/DC Adapter supply**AC 120V, 60 Hz, Line:**

Frequency (MHz)	Quasi Peak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	45.8	9.000	L1	11.2	19.2	66.0
0.316369	43.5	9.000	L1	10.1	16.3	59.8
0.622369	33.3	9.000	L1	9.8	22.7	56.0
1.075780	32.4	9.000	L1	9.8	23.6	56.0
3.119684	26.4	9.000	L1	9.8	29.6	56.0
26.961902	22.3	9.000	L1	9.8	35.7	60.0

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	33.1	9.000	L1	11.2	22.9	56.0
0.313237	37.3	9.000	L1	10.1	12.6	49.9
0.434989	28.5	9.000	L1	9.9	18.7	47.2
0.774673	28.6	9.000	L1	9.8	17.4	46.0
3.119684	18.1	9.000	L1	9.8	27.9	46.0
25.063636	18.3	9.000	L1	9.8	31.7	50.0

AC120 V, 60 Hz, Neutral:

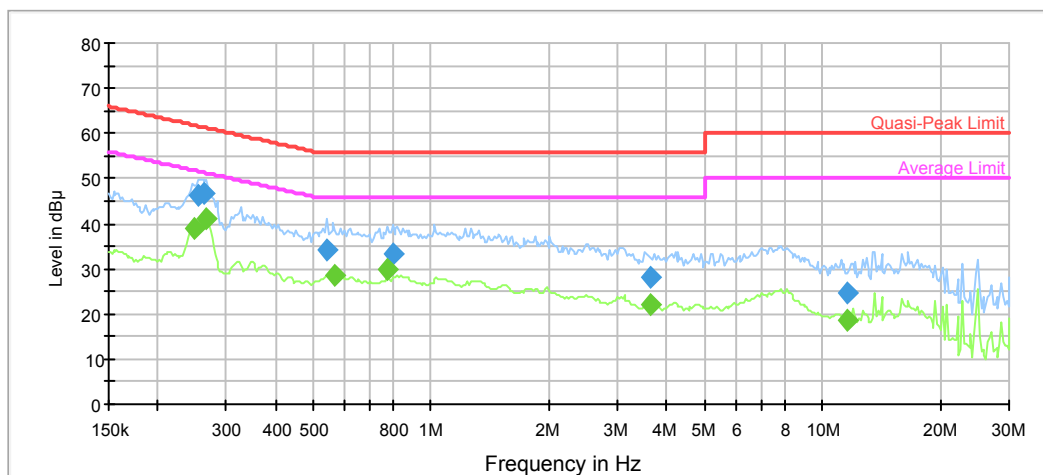


Frequency (MHz)	Quasi Peak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	45.8	9.000	N	11.2	20.2	66.0
0.316369	46.4	9.000	N	10.1	10.4	59.8
0.452652	35.7	9.000	N	9.9	20.1	56.8
0.744445	33.2	9.000	N	9.8	22.8	56.0
3.621856	22.2	9.000	N	9.8	33.8	56.0
24.961021	23.7	9.000	N	9.8	36.3	60.0

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.244252	37.8	9.000	N	11.2	14.2	52.0
0.313237	39.4	9.000	N	10.1	10.5	49.9
0.434989	29.1	9.000	N	9.9	18.1	47.2
0.774673	28.6	9.000	N	9.8	17.4	46.0
3.621856	15.0	9.000	N	9.8	31.0	46.0
24.961921	17.5	9.000	N	9.8	32.5	50.0

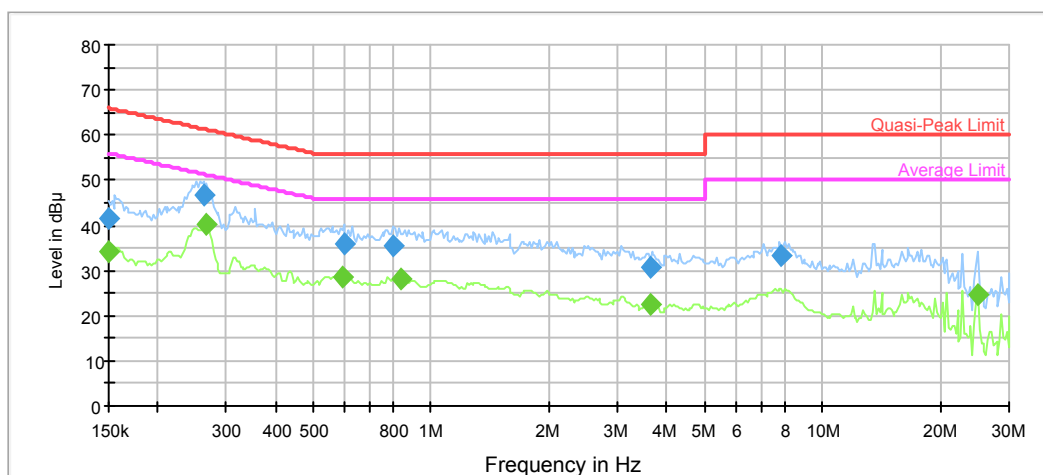
Test Mode: PoE Power supply

AC 120V, 60 Hz, Line:



Frequency (MHz)	Quasi Peak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.254170	46.1	9.000	L1	10.3	15.5	61.6
0.261872	46.6	9.000	L1	10.3	14.7	61.4
0.541438	34.0	9.000	L1	9.9	22.0	56.0
0.798146	33.3	9.000	L1	9.8	22.7	56.0
3.621856	28.0	9.000	L1	9.8	28.0	56.0
11.601974	24.7	9.000	L1	9.8	35.3	60.0

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.249162	39.0	9.000	L1	10.3	12.8	51.8
0.267135	40.9	9.000	L1	10.3	10.3	51.2
0.569057	28.5	9.000	L1	9.8	17.5	46.0
0.774673	29.6	9.000	L1	9.8	16.4	46.0
3.621856	21.9	9.000	L1	9.8	24.1	46.0
11.601974	18.8	9.000	L1	9.8	31.2	50.0

AC120 V, 60 Hz, Neutral:

Frequency (MHz)	Quasi Peak (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.150000	41.3	9.000	N	11.2	24.7	66.0
0.261872	46.7	9.000	N	10.3	14.7	61.4
0.598084	35.8	9.000	N	9.8	20.2	56.0
0.798146	35.4	9.000	N	9.8	20.6	56.0
3.621856	30.5	9.000	N	9.8	25.5	56.0
7.870427	33.3	9.000	N	9.8	26.7	60.0

Frequency (MHz)	Average (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.150000	34.1	9.000	N	11.2	21.9	56.0
0.267135	40.1	9.000	N	10.3	11.1	51.2
0.592163	28.5	9.000	N	9.8	17.5	46.0
0.838859	28.2	9.000	N	9.8	17.8	46.0
3.621856	22.4	9.000	N	9.8	23.6	46.0
24.987412	24.5	9.000	N	9.8	25.5	50.0

FCC§15.225, §15.205 & §15.209 - RADIATED EMISSIONS TEST

Applicable Standard

FCC Part 15.205, 15.209, 15.225

- (a) The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.
- (b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
- (c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
- (d) The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

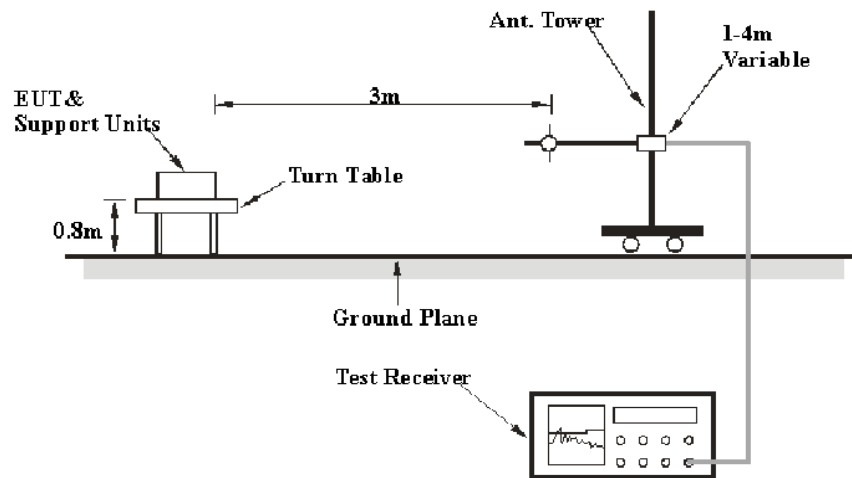
As per FCC Part 15.209

(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 (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

**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 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§15.231 and 15.241.

EUT Setup



The radiated emission tests were performed in the 10-meter chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC Part Subpart C limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The system was investigated from 9 kHz to 1 GHz.

During the radiated emission test, the EMI test Receiver was set with the following configurations:

Frequency Range	RBW	Video B/W	Measurement
9 kHz – 150 kHz	200 Hz	1 kHz	QP/Average
150 kHz – 30 MHz	9 kHz	30 kHz	QP/Average
30 MHz – 1000 MHz	120 kHz	300 kHz	QP

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

If the maximized peak measured value complies with the limit, then it is unnecessary to perform an QP/Average measurement

Corrected Amplitude & Margin Calculation

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

$$\text{Corr. Ampl.} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

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:

$$\text{Margin} = \text{Limit} - \text{Corr. Ampl.}$$

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESR3	102453	2019-06-26	2020-06-26
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
EMCO	Passive Loop	6512	9706-1206	2017-03-05	2020-03-04
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2018-09-05	2019-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2018-09-05	2019-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-1400-01	2019-05-06	2020-05-06
Sunol Sciences	Antenna	JB3	A060611-1	2017-11-10	2020-11-10
HP	Amplifier	8447D	2727A05902	2018-09-05	2019-09-05

* **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 Results Summary

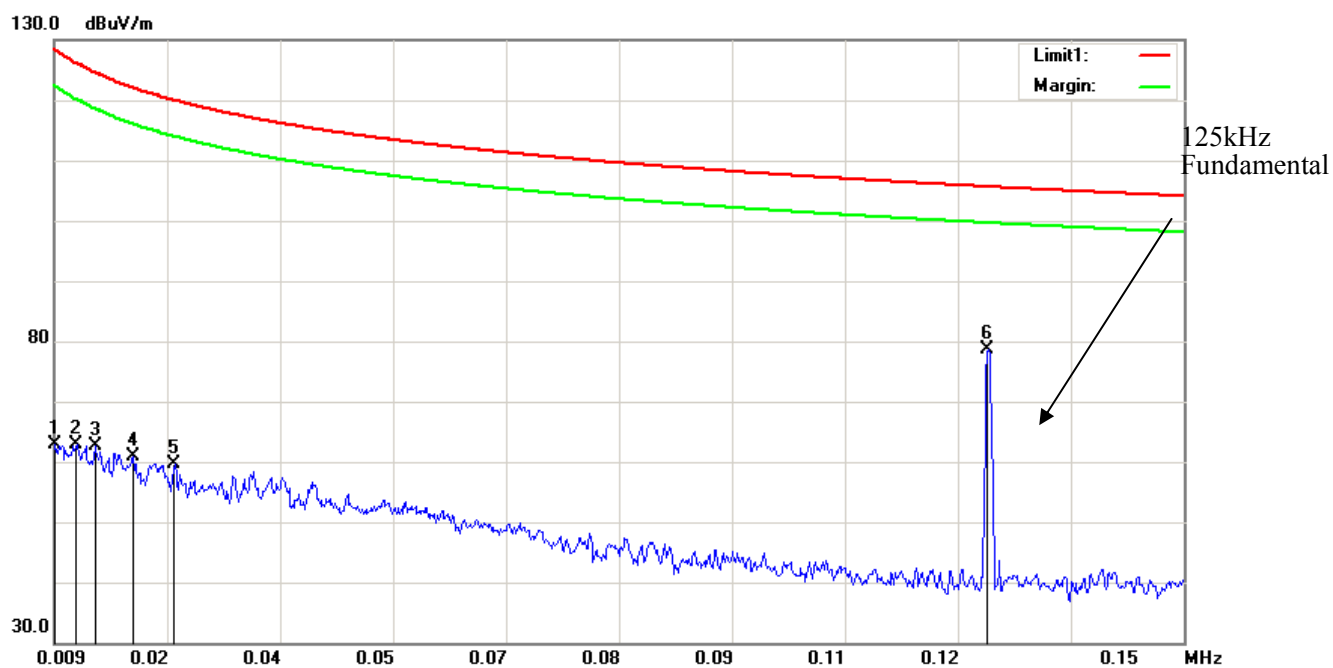
According to the data in the following table, the EUT complied with the FCC Part 15.209&15.225.

Test Data**Environmental Conditions**

Temperature:	24.2 °C
Relative Humidity:	53 %
ATM Pressure:	100.3 kPa
Tester:	Tyler Pan
Test Date:	2019-06-28

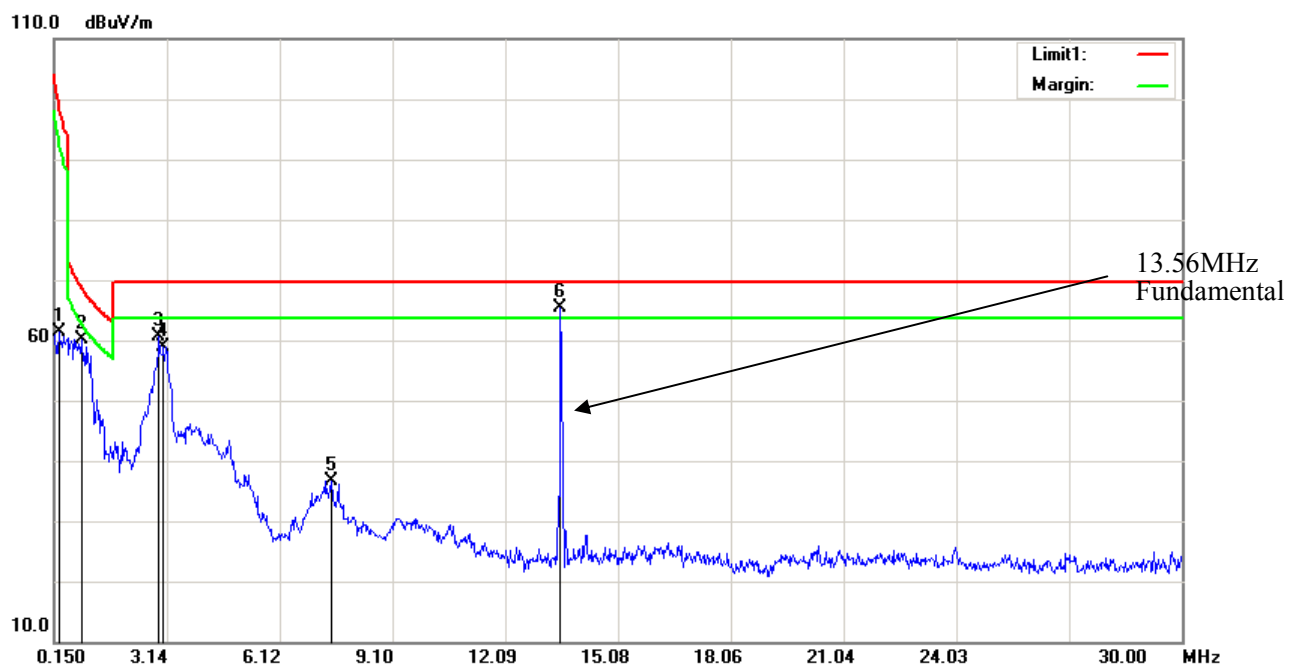
Test mode: Transmitting(AC/DC Adapter supply was the worst)

1) 9 kHz~150 kHz:



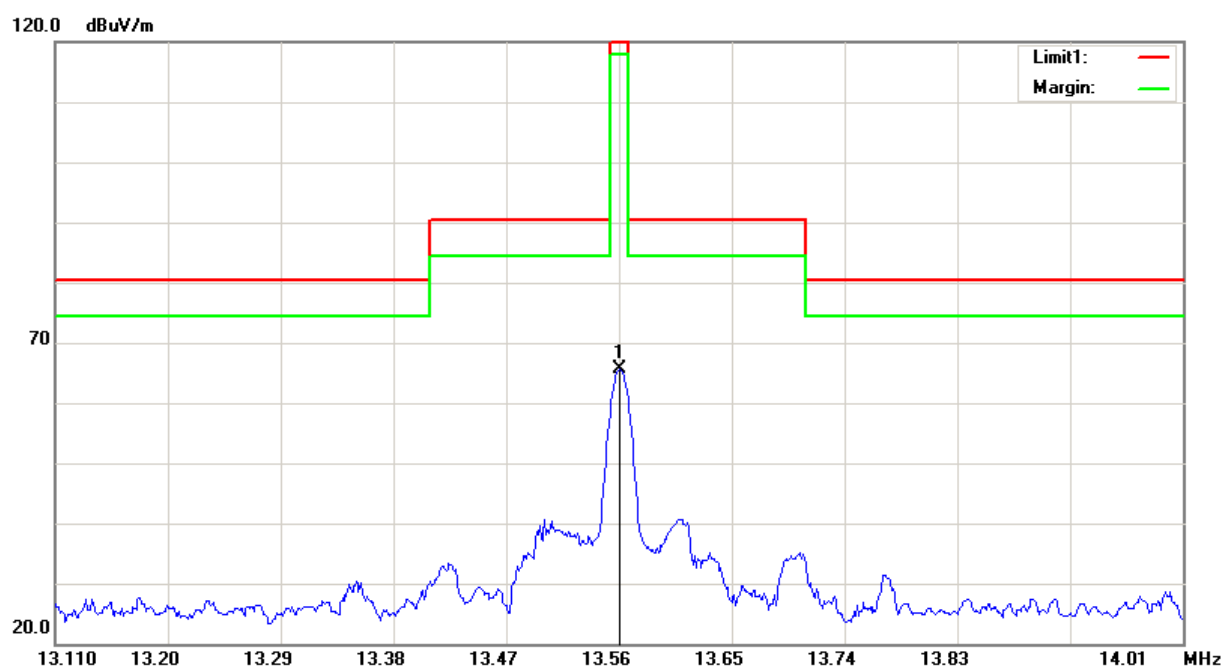
Frequency (MHz)	Receiver Reading (dBμV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
0.0091	-25.81	peak	88.67	62.86	128.42	65.56
0.0117	-24.45	peak	87.26	62.81	126.24	63.43
0.0140	-22.68	peak	85.35	62.67	124.68	62.01
0.0190	-20.36	peak	81.21	60.85	122.03	61.18
0.0240	-19.36	peak	79.02	59.66	120.00	60.34
0.1255	13.35	peak	65.36	78.71	105.63	26.92

150 kHz~30 MHz:



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)
0.2692	28.98	peak	32.40	61.38	99.00	37.62
0.8662	37.26	peak	22.85	60.11	68.85	8.74
2.9260	47.37	peak	13.33	60.70	69.54	8.84
3.0455	45.93	peak	13.05	58.98	69.54	10.56
7.4931	27.07	peak	9.59	36.66	69.54	32.88

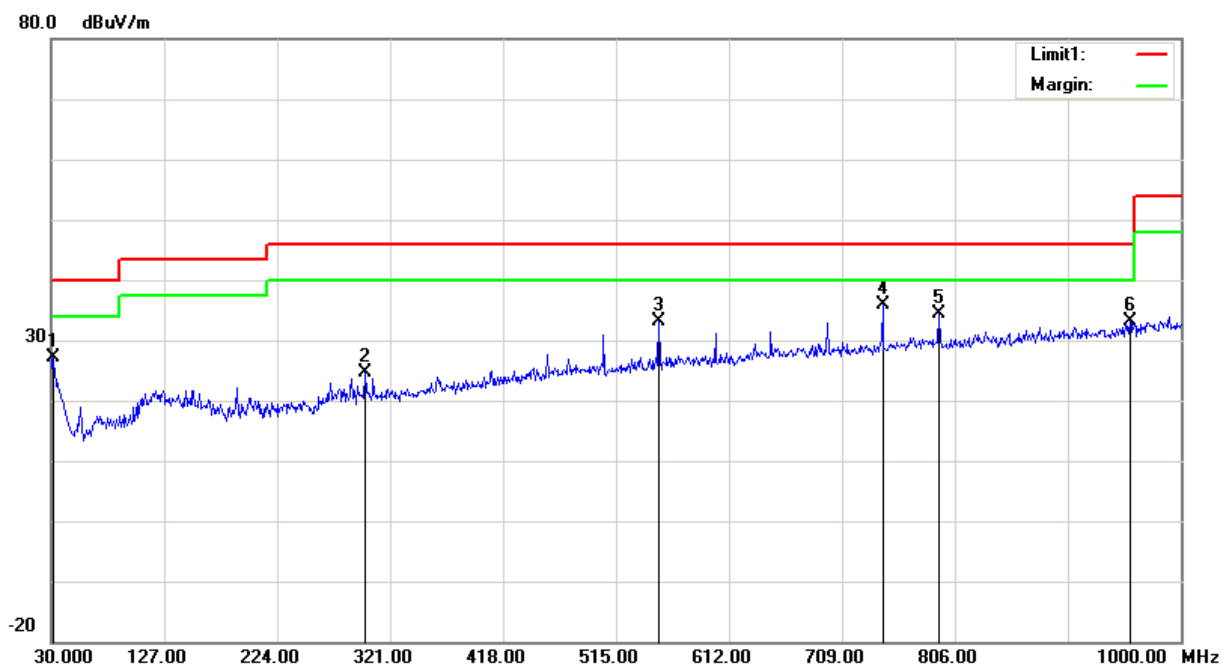
Fundamental:



Frequency (MHz)	Receiver Reading (dBμV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
13.5610	56.27	peak	9.36	65.63	124.00	58.37

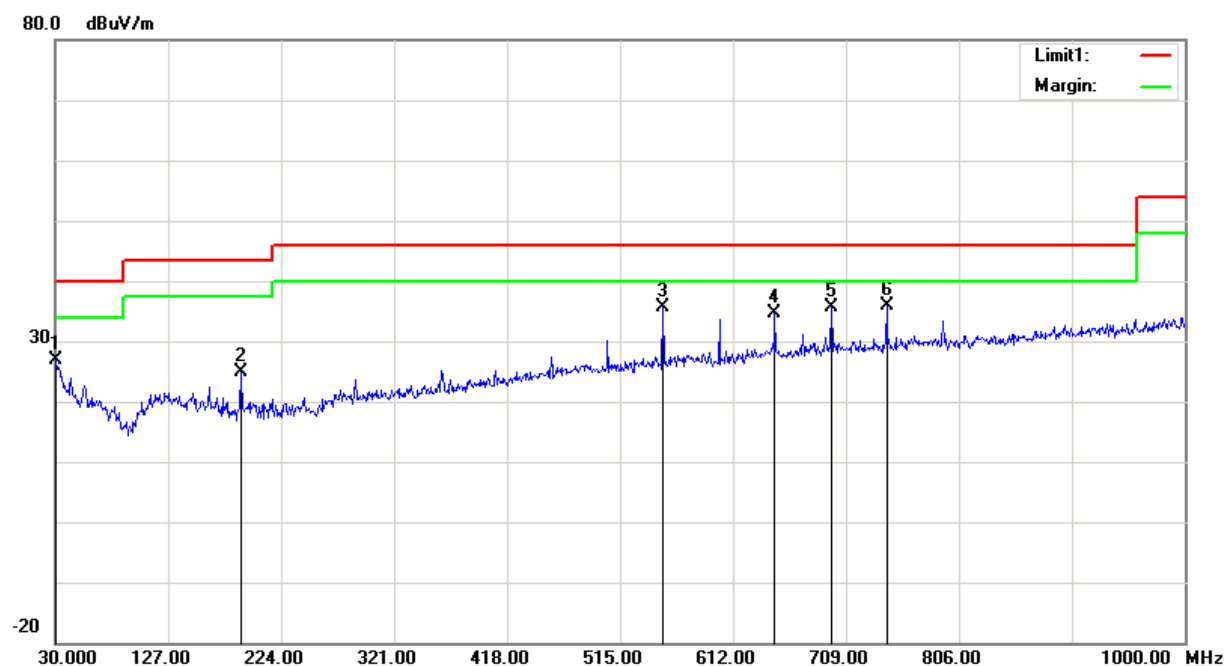
2) Above 30 MHz

Horizontal



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)
31.9400	27.03	peak	0.19	27.22	40.00	12.78
299.6600	28.50	peak	-3.83	24.67	46.00	21.33
551.8600	32.88	peak	0.35	33.23	46.00	12.77
743.9200	32.33	peak	3.56	35.89	46.00	10.11
792.4200	29.99	peak	4.34	34.33	46.00	11.67
956.3500	32.12	peak	0.89	33.01	46.00	12.99

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)
30.0000	25.28	peak	1.72	27.00	40.00	13.00
189.0800	32.00	peak	-7.17	24.83	43.50	18.67
551.8600	35.16	peak	0.35	35.51	46.00	10.49
647.8900	32.48	peak	2.15	34.63	46.00	11.37
696.3900	32.74	peak	2.89	35.63	46.00	10.37
743.9200	32.43	peak	3.56	35.99	46.00	10.01

FCC§15.225(e) - FREQUENCY STABILITY

Applicable Standard

The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ of the operating frequency over a temperature variation of -20 degrees to $+50$ degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

Test Procedure

Frequency Stability vs. Temperature: The adapter under test was connected to an external power.

The EUT was placed inside the temperature chamber.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the Spectrum Analyzer.

Frequency Stability vs. Voltage: An external variable power supply Source connected to the EUT or EUT adapter. Test the frequency output in the extremity voltage.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESR3	102453	2019-06-26	2020-06-26
EMCO	Passive Loop	6512	9706-1206	2017-03-05	2020-03-04
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2018-09-05	2019-09-05
HP	Amplifier	8447D	2727A05902	2018-09-05	2019-09-05
UNI-T	Multimeter	UT39A	M130199938	2018-07-24	2019-07-24
ESPEC	Constant temperature and humidity Tester	ESX-4CA	018 463	2019-03-26	2020-03-26
Schneider	AC Power Supply	YF6005	005	N/A	N/A
Pro instrument	DC Power Supply	pps3300	N/A	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:	24.2 °C
Relative Humidity:	53 %
ATM Pressure:	100.3 kPa
Tester:	Tyler Pan
Test Date:	2019-06-28

Test Mode: Transmitting

Test Result: Pass

POE adapter:

$f_0 = 13.56 \text{ MHz}$				
Temperature	Voltage	Measured frequency	Frequency Error	Limit
°C	V _{AC}	MHz	Hz	Hz
-20	120V	13.560614	614	±1356
-10		13.560613	613	±1356
0		13.560607	607	±1356
10		13.560615	615	±1356
20		13.560609	609	±1356
25		13.560608	608	±1356
30		13.560615	615	±1356
40		13.560611	611	±1356
50		13.560619	619	±1356
25	102	13.560627	627	±1356
25	138	13.560614	614	±1356

DC Port input:

$f_0 = 13.56 \text{ MHz}$				
Temperature	Voltage	Measured frequency	Frequency Error	Limit
°C	V _{DC}	MHz	Hz	Hz
-20	12V	13.56008	80	±1356
-10		13.56007	70	±1356
0		13.56011	110	±1356
10		13.56012	120	±1356
20		13.56013	130	±1356
25		13.56007	70	±1356
30		13.56006	60	±1356
40		13.56008	80	±1356
50		13.56009	90	±1356
25	9.0	13.56012	120	±1356
25	15.0	13.56012	120	±1356

Note: Operation voltage range declared by manufacturer.

FCC §15.215(c) – 20 dB EMISSION BANDWIDTH

Applicable Standard

Per FCC §15.215 (c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §15.217 through § 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

Test Procedure

Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESR3	102453	2019-06-26	2020-06-26
EMCO	Passive Loop	6512	9706-1206	2017-03-05	2020-03-04
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2018-09-05	2019-09-05
HP	Amplifier	8447D	2727A05902	2018-09-05	2019-09-05

* **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:	24.0 °C~24.2 °C
Relative Humidity:	50 %~53 %
ATM Pressure:	100.1 kPa~100.3 kPa
Tester:	Tyler Pan
Test Date:	2019-06-27~2019-08-09

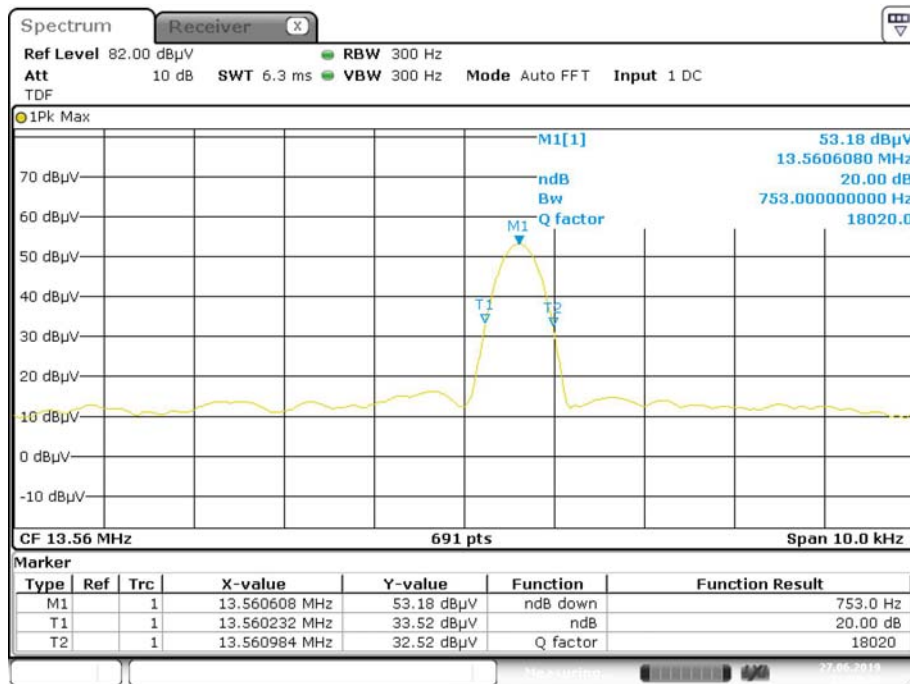
Test Result: Compliance.

Please refer to following tables and plots

Test Frequency (MHz)	20 dB Bandwidth (kHz)
13.56	0.753
0.125	0.832

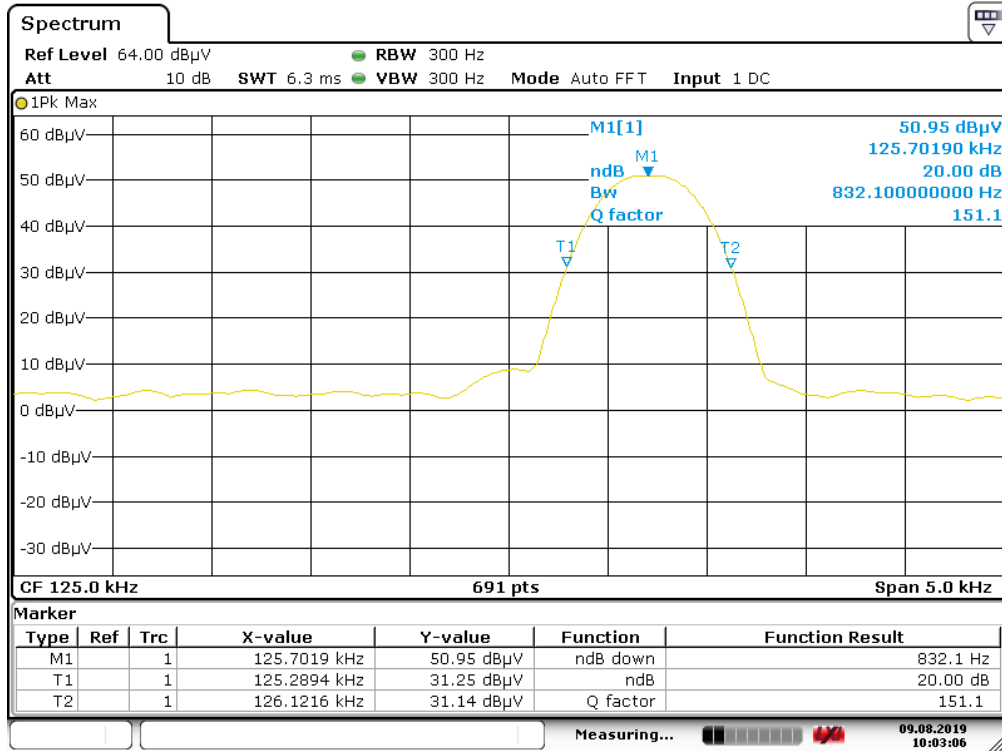
Test Mode: Transmitting

20 dB Emission Bandwidth-13.56 MHz



Date: 27.JUN.2019 21:58:21

20 dB Emission Bandwidth-125 kHz



Date: 9.AUG.2019 10:03:06

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