



## FCC Part 15.249

### TEST REPORT

For

**3Egreen Technology, INC.**

5F, No. 283 Songjiang Road, Zhongshan District, Taipei, Taiwan

**FCC ID: 2AMHJRP01000000**

<b>Report Type:</b> Original Report	<b>Product Type:</b> Tiny BLE to Sub-1G Repeater
<b>Report Producer :</b> <u>Kaylee Chiang</u>	<u>Kaylee Chiang</u>
<b>Report Number :</b> <u>RXZ190226004-00B</u>	
<b>Report Date :</b> <u>2019-06-06</u>	
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## Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
1.0	RXZ190226004	RXZ190226004-00B	2019-06-06	Original Report	Kaylee Chiang

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## 1 General Information

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

Applicant	3Egreen Technology, INC. 5F, No. 283 Songjiang Road, Zhongshan District, Taipei, Taiwan
Manufacturer	3Egreen Technology, INC. 5F, No. 283 Songjiang Road, Zhongshan District, Taipei, Taiwan
Brand(Trade) Name	3Egreen
Product (Equipment)	Tiny BLE to Sub-1G Repeater
Main Model Name	RP01
Series Model Name	N/A
Frequency Range	920.5 MHz ~ 924.5MHz
Antenna Specification	Dipole Antenna / 3 dBi
Power Operation (Voltage Range)	<input type="checkbox"/> AC 120V/60Hz <input type="checkbox"/> Adapter <input type="checkbox"/> By AC Power Cord <input type="checkbox"/> PoE  <input checked="" type="checkbox"/> DC Type <input type="checkbox"/> Battery <input type="checkbox"/> DC Power Supply <input checked="" type="checkbox"/> External from USB Cable: 5Vdc <input type="checkbox"/> External DC Adapter  <input type="checkbox"/> Host System
Received Date	Feb 26, 2019
Date of Test	May 25, 2019 ~ Jun 4, 2019

\*All measurement and test data in this report was gathered from production sample serial number: 190226004  
(Assigned by BACL, Taiwan).

## 1.2 Objective

This report is prepared on behalf of *3Egreen Technology, INC.* in accordance with Part 2, Subpart J, Part 15, Subparts A and C of the Federal Communication Commission's rules.

The tests were performed in order to determine of EUT compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.209 and 15.249 rules.

## 1.3 Related Submittal(s)/Grant(s)

FCC Part 15.247 DTS submission with FCC ID: 2AMHJRP01000000.

## 1.4 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.

## 1.5 Test Facility

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

70, Lane 169, Sec. 2, Datong Road, Xizhi Dist., New Taipei City 22183, Taiwan, R.O.C.

68-3, Lane 169, Sec. 2, Datong Road, Xizhi Dist., New Taipei City 22183, Taiwan, R.O.C.

Bay Area Compliance Laboratories Corp. (Taiwan) Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3180) and the FCC designation No.TW3180 under the Mutual Recognition Agreement (MRA) in FCC Test. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.10.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 974454. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

## 2 System Test Configuration

### 2.1 Description of Test Configuration

The system was configured for testing in an engineering mode, which was provided by manufacturer. The engineering mode was configured the system transmitting with maximum power.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	920.5	6	923
2	921	7	923.5
3	921.5	8	924
4	922	9	924.5
5	922.5	-	-

Were tested with channel 1 and 9

### 2.2 Equipment Modifications

No modification was made to the EUT.

### 2.3 EUT Exercise Software

The software was used “SmartRF\_Studio\_7-2.6.1”.

### 2.4 Support Equipment List and Details

Description	Manufacturer	Model Number	BSMI	FCC ID	S/N
NB	DELL	E6410	N/A	PD98260NGU	10912240367
FIX	N/A	N/A	N/A	N/A	N/A

### 2.5 External Cable List and Details

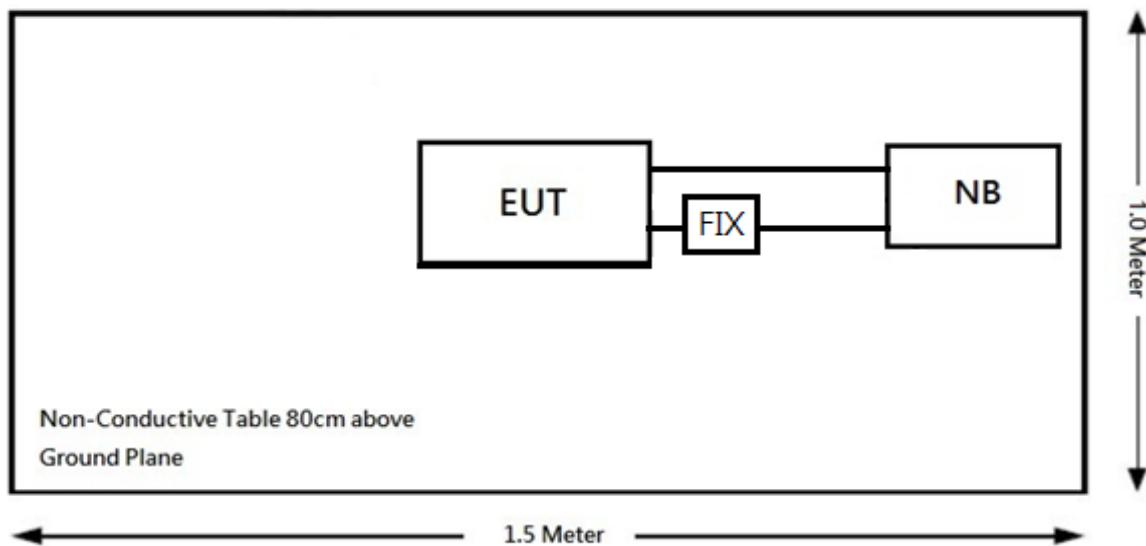
Cable Description	Length (m)	From	To
Micro USB Cable	1.5	NB	EUT
Micro USB Cable	1.5	NB	FIX
Control Cable	0.5	FIX	EUT

## 2.6 Block Diagram of Test Setup

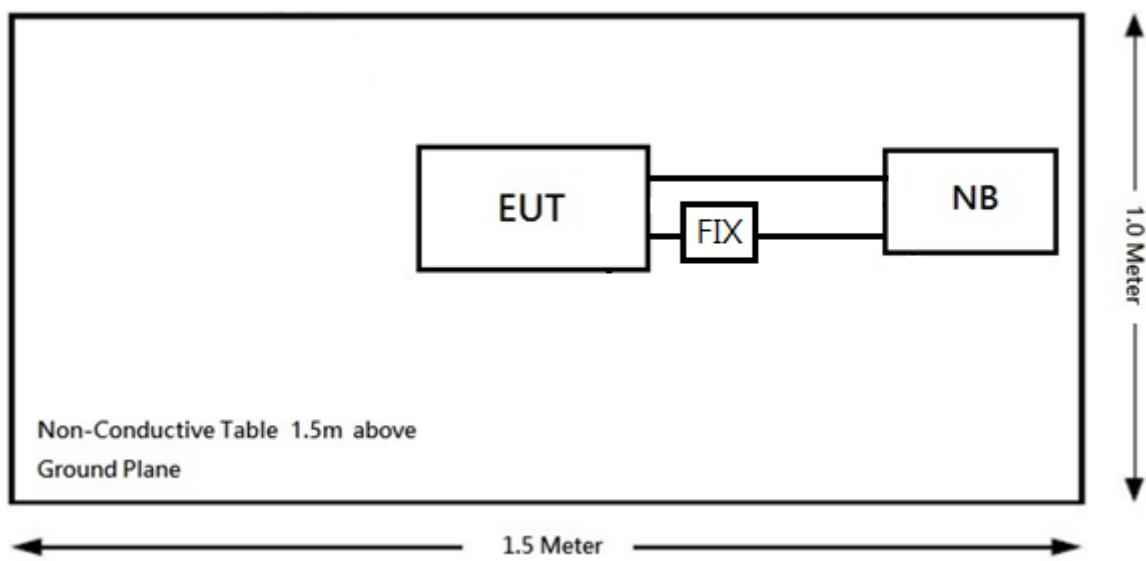
See test photographs attached in setup photos for the actual connections between EUT and support equipment.

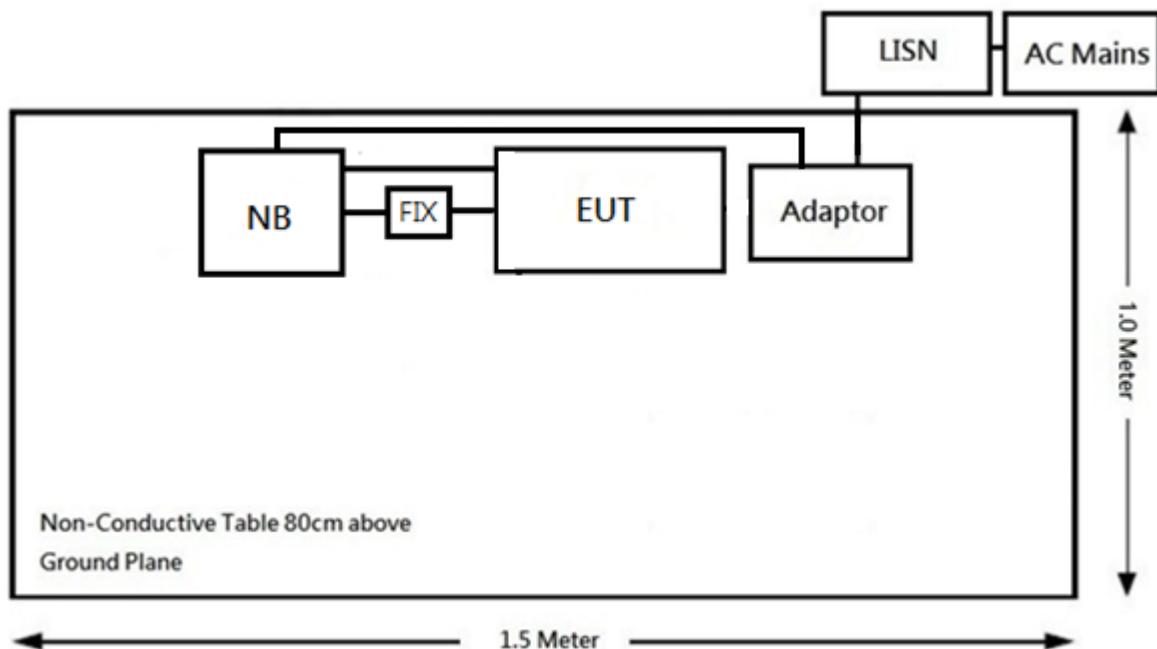
### Radiation:

Below 1GHz:



Above 1GHz:



**Conduction:**

### 3 Summary of Test Results

FCC Rules	Description of Test	Results
§15.203	Antenna Requirement	Compliance
§15.207 (a)	AC Line Conducted Emissions	Compliance
§15.205, §15.209,§15.249	Radiated Emissions	Compliance
§15.215 (c)	20 dB Emission Bandwidth	Compliance

## 4 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
AC Line Conduction Room (CON-A)					
LISN	Rohde & Schwarz	ENV216	101612	2019/02/21	2020/02/20
EMI Test Receiver	Rohde & Schwarz	ESR7	101419	2018/10/23	2019/10/22
Pulse Limiter	Rohde & Schwarz	ESH3Z2	TXZEM104	2018/08/03	2019/08/02
RF Cable	EMEC	EM-CB5D	001	2018/07/02	2019/07/01
Software	AUDIX	E3	V9.150826k	N.C.R	N.C.R
Radiated Room (966-A)					
Bilog Antenna with 6 dB Attenuator	SUNOL SCIENCES & MINI-CIRCUITS	JB6/UNAT-6+	A050115/1554 2_01	2018/12/11	2019/12/10
Horn Antenna	EMCO	3115	9311-4158	2019/04/17	2020/04/16
Horn Antenna	ETS-Lindgren	3116	62638	2018/08/29	2019/08/28
Preamplifier	Sonoma	310N	130602	2018/07/04	2019/07/03
Preamplifier	EM Electronics Corp.	EM01G18G	060657	2018/12/07	2019/12/06
Microware Preamplifier	EM Electronics Corporation	EM18G40G	060656	2019/01/11	2020/01/10
EMI Test Receiver	Rohde & Schwarz	ESR7	101419	2018/10/23	2019/10/22
Spectrum Analyzer	Rohde & Schwarz	FSV40	101435	2019/02/13	2020/02/12
Micro flex Cable	UTIFLEX	FSCM 64639 / (2M)	93D0127	2018/07/31	2019/07/30
Micro flex Cable	UTIFLEX	UFA210A-1-3149-300300	MFR64639 226389-001	2018/11/16	2019/11/15
Micro flex Cable	ROSNOL	K1K50-UP0264-K1K50-450CM	160309-1	2019/03/04	2020/03/03
Micro flex Cable	ROSNOL	K1K50-UP0264-K1K50-80CM	160309-2	2019/01/16	2020/01/15
Turn Table	Champro	TT-2000	060772-T	N.C.R	N.C.R
Antenna Tower	Champro	AM-BS-4500-B	060772-A	N.C.R	N.C.R
Controller	Champro	EM1000	60772	N.C.R	N.C.R
Software	Farad	EZ_EMC	BACL-03A1	N.C.R	N.C.R

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Room					
Spectrum Analyzer	Rohde & Schwarz	FSV40	101140	2018/11/22	2019/11/21
Cable	WOKEN	SFL402	S02-160323-07	2019/02/11	2020/02/10
Attenuator	MINI-CIRCUITS	BW-S10W5+	N/A	2019/03/07	2020/03/07

**\*Statement of Traceability:** BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to the SI System of Units via the R.O.C. Center for Measurement Standards of the Electronics Testing Center, Taiwan (ETC) or to another internationally recognized National Metrology Institute (NMI), and were compliant with the current Taiwan Accreditation Foundation (TAF) requirements

## 5 FCC §15.203 – Antenna Requirements

### 5.1 Applicable Standard

For intentional device, 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.

### 5.2 Antenna Information

Manufacturer	Type	Antenna Gain	Result
EBYTE	Dipole Antenna	3 dBi	Compliance

The antenna connection is fixed with glue and is not removable. It complies with the provisions of 15.203.

Like the photo below:



**Result:** Compliance.

## 6 FCC §15.207(a) – AC Line Conducted Emissions

### 6.1 Applicable Standard

According to §15.207

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequencies ranges.

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

*Note 1: Decreases with the logarithm of the frequency.*

*Note 2: A linear average detector is required*

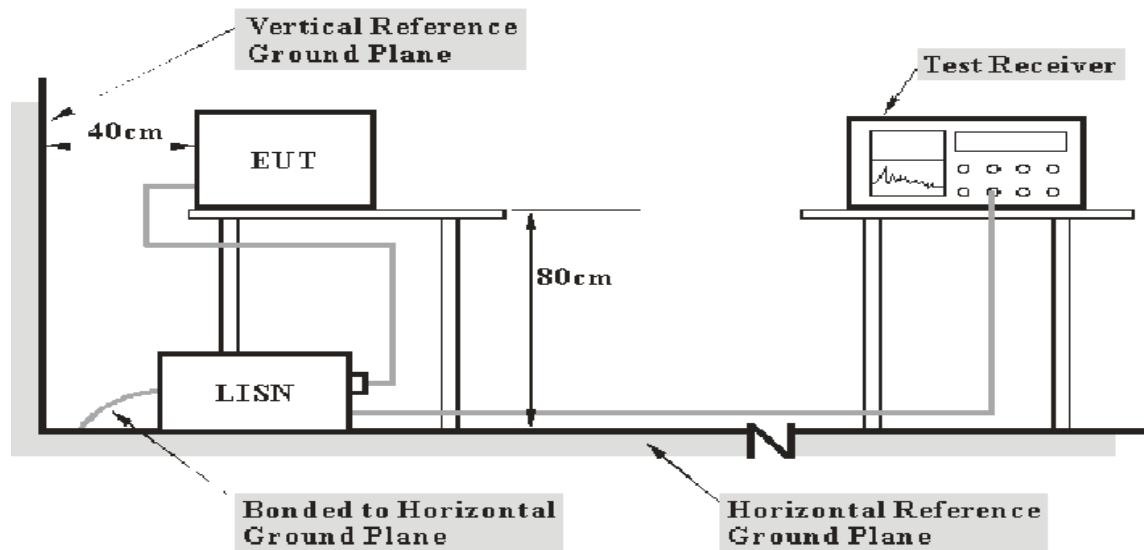
### 6.2 Measurement Uncertainty

Input quantities to be considered for conducted disturbance measurements maybe receiver reading, attenuation of the connection between LISN/ISN and receiver, LISN/ISN voltage division factor, LISN/ISN VDF frequency interpolation and receiver related input quantities, etc.

Based on CISPR 16-4-2:2011, the expended combined standard uncertainty of conducted disturbance test at Bay Area Compliance Laboratories Corp. (Taiwan) is shown as below. And the uncertainty will not be taken into consideration for the test data recorded in the report

Port	Expanded Measurement uncertainty
AC Mains	4.22 dB (k=2, 95% level of confidence)

### 6.3 EUT Setup



**Note:** 1. Support units were connected to second LISN.  
 2. Both of LISNs (AMIN) 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.

### 6.4 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150kHz to 30MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations

Frequency Range	IF B/W
150kHz – 30MHz	9kHz

### 6.5 Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

## 6.6 Corrected Factor & Margin Calculation

The factor is calculated by adding LISN/ISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss} + \text{Transient Limiter Attenuation}$$

The “Over Limit” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of -7 dB means the emission is 7 dB below the limit. The equation for Over Limit calculation is as follows:

$$\text{Over Limit} = \text{Level} - \text{Limit Line}$$

## 6.7 Environmental Conditions

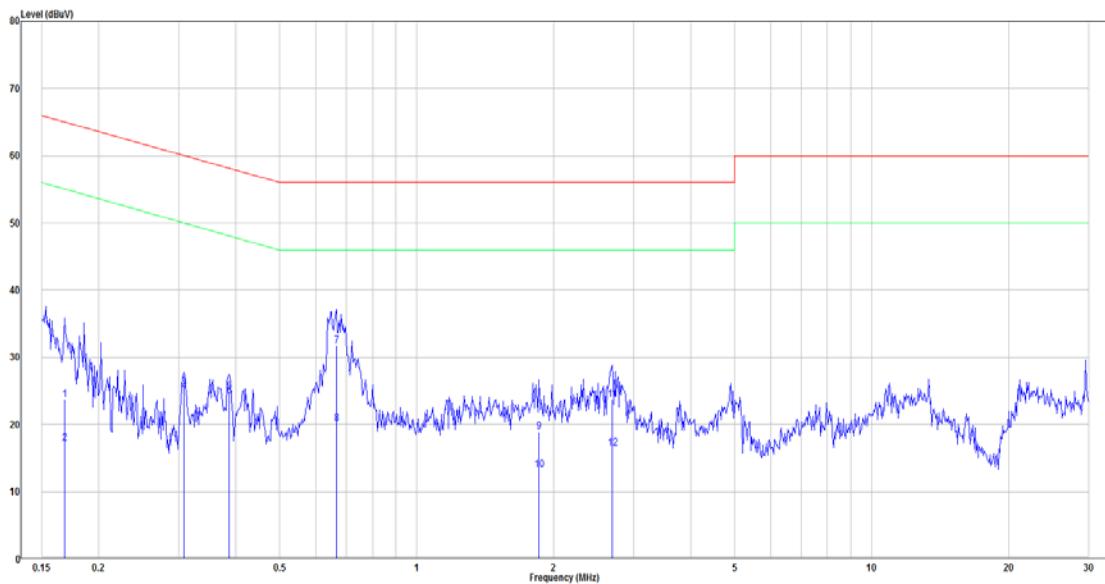
<b>Temperature:</b>	25 °C
<b>Relative Humidity:</b>	55 %
<b>ATM Pressure:</b>	1010 hPa

*The testing was performed by Tom Hsu on 2019-05-31.*

## 6.8 Test Results

Test Mode: Transmitting

Main: AC120 V, 60 Hz, Line



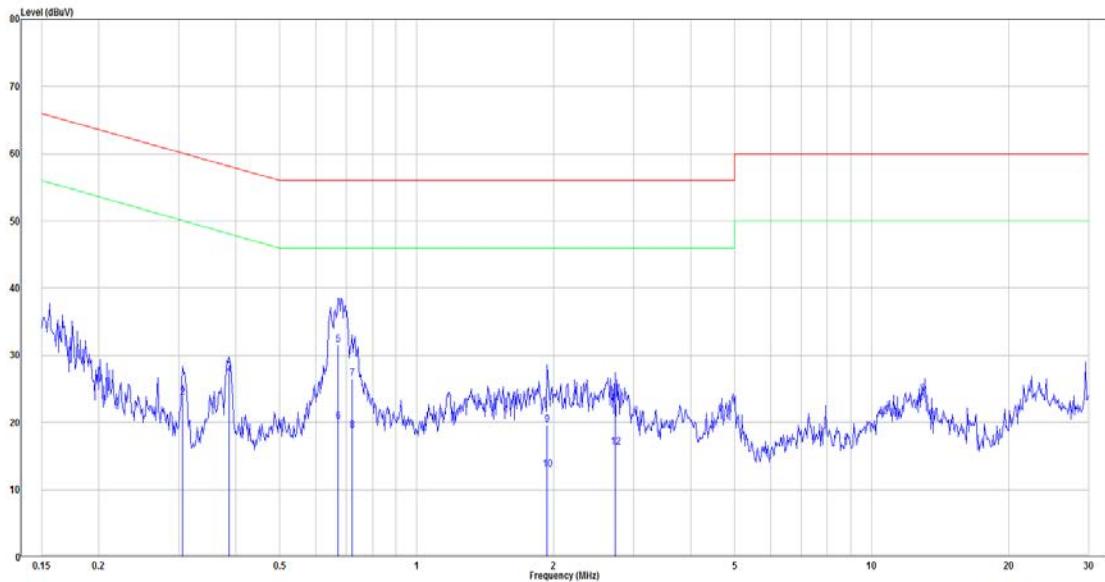
No.	Frequency (MHz)	Reading (dB $\mu$ V)	Correct Factor(dB)	Result (dB $\mu$ V)	Limit (dB $\mu$ V)	Over limit (dB)	Remark
1	0.168	4.29	19.45	23.74	65.05	-41.31	QP
2	0.168	-2.30	19.45	17.16	55.05	-37.89	Average
3	0.307	6.04	19.47	25.51	60.04	-34.53	QP
4	0.307	5.52	19.47	24.99	50.04	-25.05	Average
5	0.387	5.45	19.47	24.92	58.13	-33.22	QP
6	0.387	4.70	19.47	24.17	48.13	-23.97	Average
7	0.666	12.24	19.48	31.73	56.00	-24.27	QP
8	0.666	0.62	19.48	20.11	46.00	-25.89	Average
9	1.859	-0.64	19.54	18.90	56.00	-37.10	QP
10	1.859	-6.21	19.54	13.33	46.00	-32.67	Average
11	2.688	4.14	19.56	23.70	56.00	-32.30	QP
12	2.688	-3.15	19.56	16.41	46.00	-29.59	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

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

**Main: AC120 V, 60 Hz, Neutral**

No.	Frequency (MHz)	Reading (dB $\mu$ V)	Correct Factor(dB)	Result (dB $\mu$ V)	Limit (dB $\mu$ V)	Over limit (dB)	Remark
1	0.306	4.61	19.46	24.07	60.08	-36.01	QP
2	0.306	4.30	19.46	23.76	50.08	-26.32	Average
3	0.387	8.02	19.46	27.48	58.13	-30.66	QP
4	0.387	7.52	19.46	26.98	48.13	-21.15	Average
5	0.672	12.11	19.47	31.58	56.00	-24.42	QP
6	0.672	0.64	19.47	20.11	46.00	-25.89	Average
7	0.721	7.10	19.47	26.58	56.00	-29.42	QP
8	0.721	-0.63	19.47	18.84	46.00	-27.16	Average
9	1.934	0.10	19.54	19.63	56.00	-36.37	QP
10	1.934	-6.48	19.54	13.05	46.00	-32.95	Average
11	2.728	3.26	19.56	22.81	56.00	-33.19	QP
12	2.728	-3.16	19.56	16.39	46.00	-29.61	Average

Note:

Level = Read Level + Factor

Over Limit = Level - Limit Line

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

## 7 FCC §15.209, §15.205 , §15.249 - Radiated Emissions

### 7.1 Applicable Standard

As per FCC§15.249 (a), except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (millivolts/meter)
920-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

### 7.2 Measurement Uncertainty

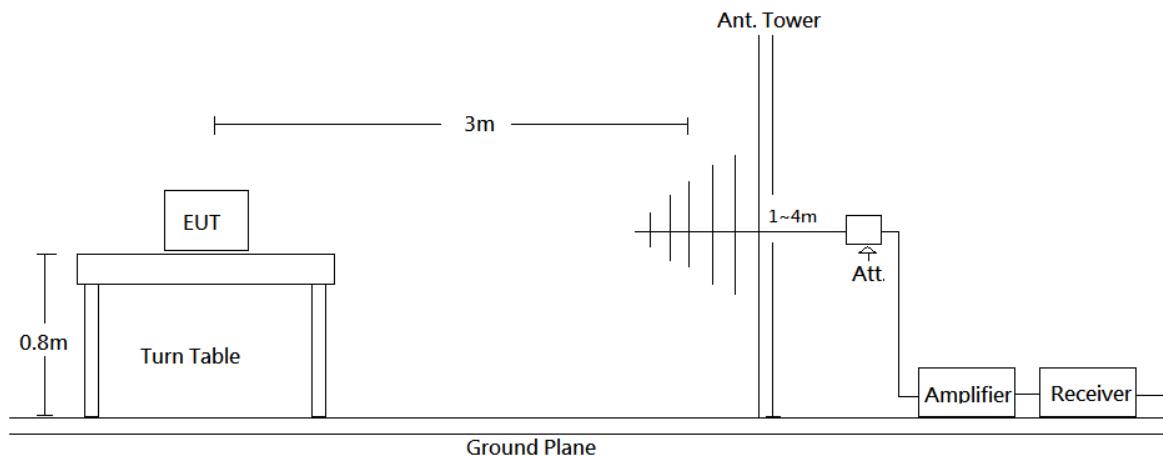
All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on CISPR 16-4-2:2011, the expended combined standard uncertainty of radiation emissions at Bay Area Compliance Laboratories Corp. (Taiwan) is shown in below table. And the uncertainty will not be taken into consideration for the test data recorded in the report.

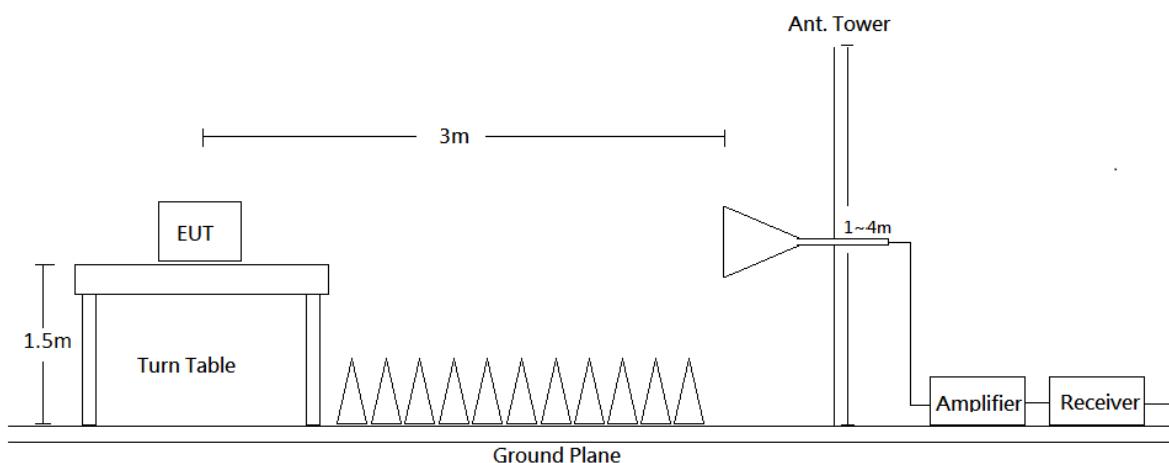
Frequency	Measurement uncertainty
30 MHz~200 MHz	3.75 dB (k=2, 95% level of confidence)
200 MHz~1 GHz	4.21 dB (k=2, 95% level of confidence)
1 GHz~6 GHz	4.83 dB (k=2, 95% level of confidence)
6 GHz~18 GHz	5.18 dB (k=2, 95% level of confidence)
18 GHz~26 GHz	4.55 dB (k=2, 95% level of confidence)
26 GHz~40 GHz	4.67 dB (k=2, 95% level of confidence)

### 7.3 EUT Setup

Below 1 GHz:



Above 1 GHz:



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, and FCC 15.249 limits.

### 7.4 EMI Test Receiver & Spectrum Analyzer Setup

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

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

## 7.5 Test Procedure

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

All data was recorded in the Quasi-peak detector mode from 30 MHz to 1 GHz and PK and average detector modes for frequencies above 1 GHz.

## 7.6 Corrected Factor & Margin Calculation

The Correct Factor 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:

$$\text{Correct Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

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

$$\text{Margin} = \text{Result} - \text{Limit}$$

## 7.7 Test Results Summary

According to the data in the following table, the EUT complied with the FCC §15.209 Limit.

## 7.8 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	55 %
ATM Pressure:	1010 hPa

*The Radiation Spurious Emissions testing was performed by Tom Hsu on 2019-06-03 ~ 2019-06-04.*

## 7.9 Test Results

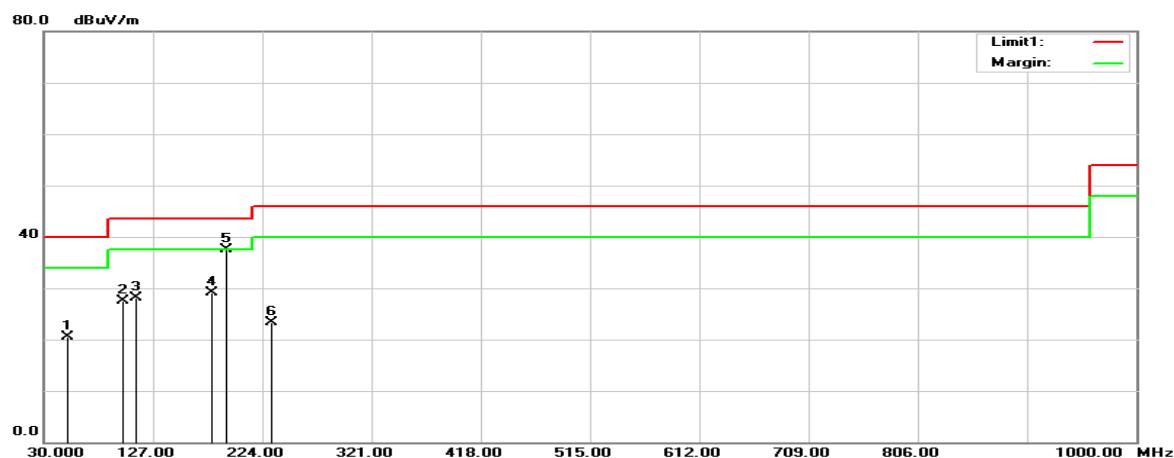
*Test Mode: Transmitting*

*(Pre-scan with three orthogonal axis, and worse case as Y axis.)*

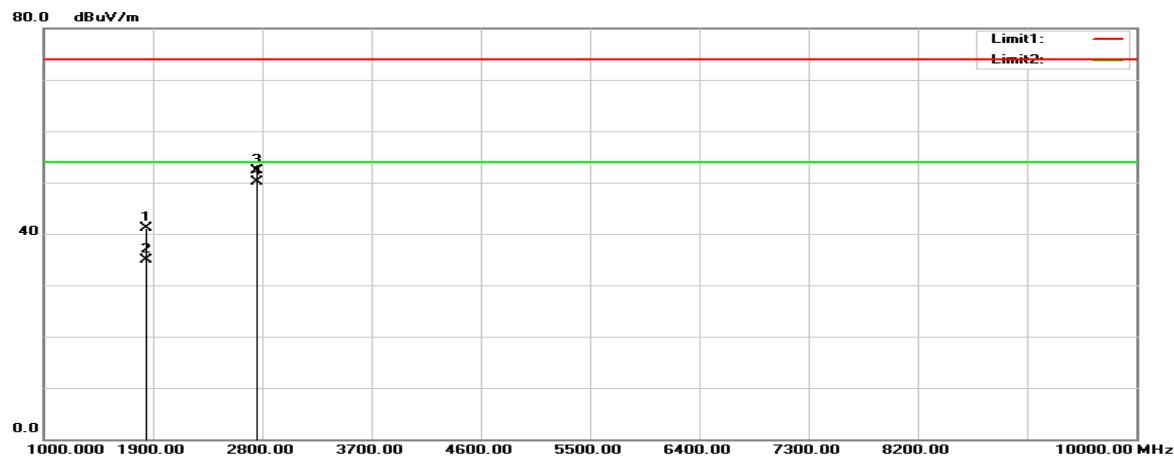
*Worst Plots (920.5 MHz)*

### Horizontal

30MHz-1GHz:

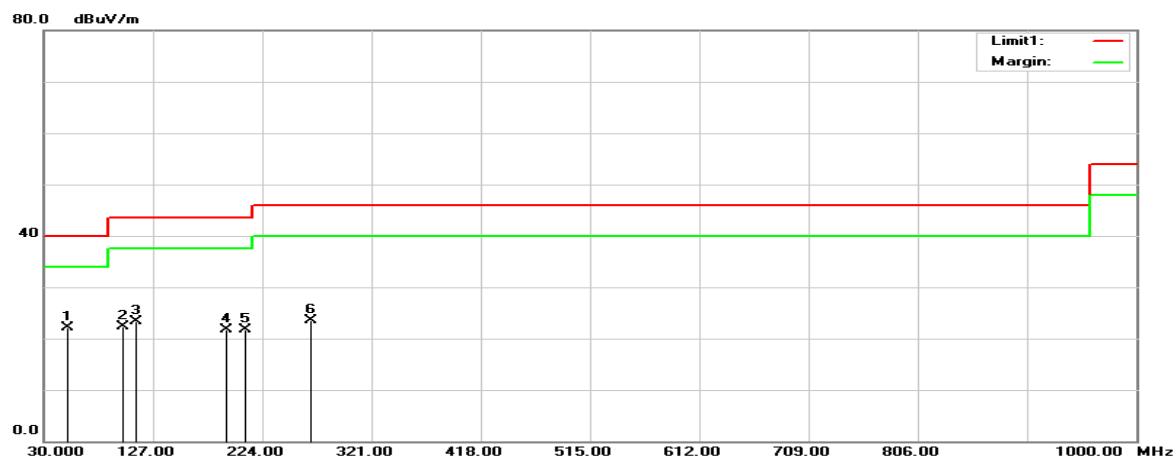


1GHz-10GHz:

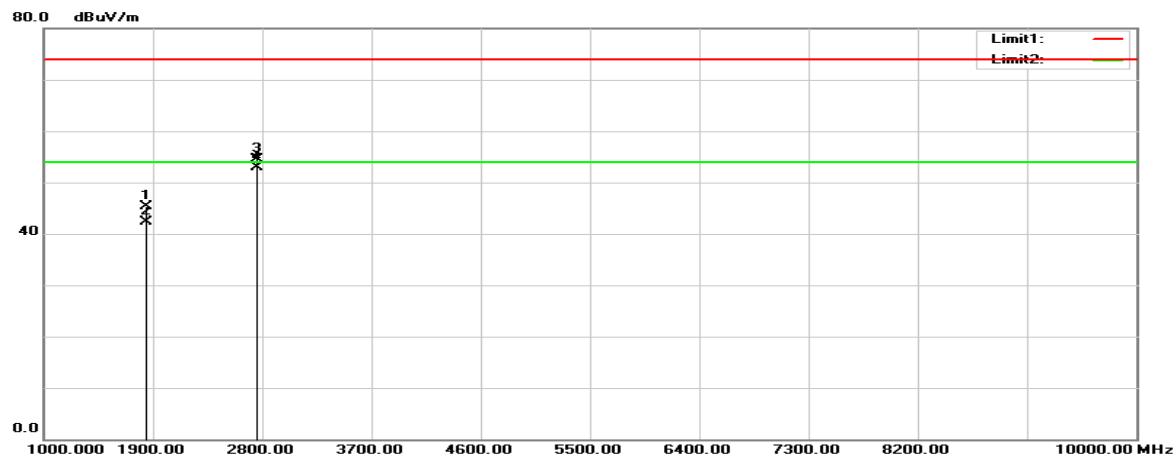


**Vertical**

30MHz-1GHz:



1GHz-18GHz:



**Below 1GHz****Horizontal**

Frequency (MHz)	Reading (dB $\mu$ V)	Correct Factor(dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
51.3400	36.95	-16.38	20.57	40.00	-19.43	100	115	QP
99.8400	41.97	-14.54	27.43	43.50	-16.07	100	148	QP
112.4500	39.75	-11.68	28.07	43.50	-15.43	100	142	QP
179.3800	42.16	-13.04	29.12	43.50	-14.38	100	360	QP
191.9900	49.94	-12.35	37.59	43.50	-5.91	100	296	QP
231.7600	35.60	-12.26	23.34	46.00	-22.66	100	95	QP

**Vertical**

Frequency (MHz)	Reading (dB $\mu$ V)	Correct Factor(dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
51.3400	38.39	-16.38	22.01	40.00	-17.99	100	209	QP
99.8400	36.93	-14.54	22.39	43.50	-21.11	100	52	QP
111.4800	35.18	-11.79	23.39	43.50	-20.11	100	61	QP
191.9900	34.01	-12.35	21.66	43.50	-21.84	100	31	QP
209.4500	34.46	-12.85	21.61	43.50	-21.89	100	95	QP
266.6800	34.08	-10.64	23.44	46.00	-22.56	100	31	QP

Result = Reading + Correct Factor

Margin = Result - Limit

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain

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

**Above 1GHz****Horizontal**

Frequency (MHz)	Reading (dB $\mu$ V)	Correct Factor(dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
920.5 MHz								
1841.000	47.96	-6.81	41.15	74.00	-32.85	150	33	peak
1841.000	41.81	-6.81	35.00	54.00	-19.00	150	33	AVG
2761.500	54.77	-2.55	52.22	74.00	-21.78	150	360	peak
2761.500	52.72	-2.55	50.17	54.00	-3.83	150	360	AVG
924.5 MHz								
1849.000	44.31	-6.76	37.55	74.00	-36.45	150	354	peak
1849.000	35.20	-6.76	28.44	54.00	-25.56	150	354	AVG
2773.500	54.45	-2.59	51.86	74.00	-22.14	150	6	peak
2773.500	52.23	-2.59	49.64	54.00	-4.36	150	6	AVG

**Vertical**

Frequency (MHz)	Reading (dB $\mu$ V)	Correct Factor(dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
920.5 MHz								
1841.000	52.20	-6.81	45.39	74.00	-28.61	150	227	peak
1841.000	49.20	-6.81	42.39	54.00	-11.61	150	227	AVG
2761.500	57.05	-2.55	54.50	74.00	-19.50	150	7	peak
2761.500	55.48	-2.55	52.93	54.00	-1.07	150	7	AVG
924.5 MHz								
1849.000	51.63	-6.76	44.87	74.00	-29.13	150	138	peak
1849.000	50.59	-6.76	43.83	54.00	-10.17	150	138	AVG
2773.500	52.01	-2.59	49.42	74.00	-24.58	150	217	peak
2773.500	48.76	-2.59	46.17	54.00	-7.83	150	217	AVG

Result = Reading + Correct Factor

Margin = Result - Limit

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain

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

**Fundamental Test****Horizontal**

Frequency (MHz)	Reading (dB $\mu$ V)	Correct Factor(dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
920.5MHz								
902.0000	29.10	0.70	29.80	46.00	-16.20	100	358	QP
920.5000	84.90	1.13	86.03	93.98	-7.95	100	168	QP
924.5MHz								
924.5000	86.00	1.22	87.22	93.98	-6.76	100	318	QP
928.0000	26.63	1.30	27.93	46.00	-18.07	100	310	QP

**Vertical**

Frequency (MHz)	Reading (dB $\mu$ V)	Correct Factor(dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
920.5MHz								
902.0000	30.50	0.70	31.20	46.00	-14.80	100	1	QP
920.5000	92.70	1.13	93.83	93.98	-0.15	100	235	QP
924.5MHz								
924.5000	91.87	1.22	92.88	93.98	-1.10	100	154	QP
928.0000	26.43	1.30	26.76	46.00	-19.24	100	296	QP

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

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

## **8 FCC §15.215(c) – 20 dB Bandwidth Testing**

### **8.1 Applicable Standard**

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.

### **8.2 Test Procedure**

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

### **8.3 Environmental Conditions**

<b>Temperature:</b>	25 °C
<b>Relative Humidity:</b>	55 %
<b>ATM Pressure:</b>	1010 hPa

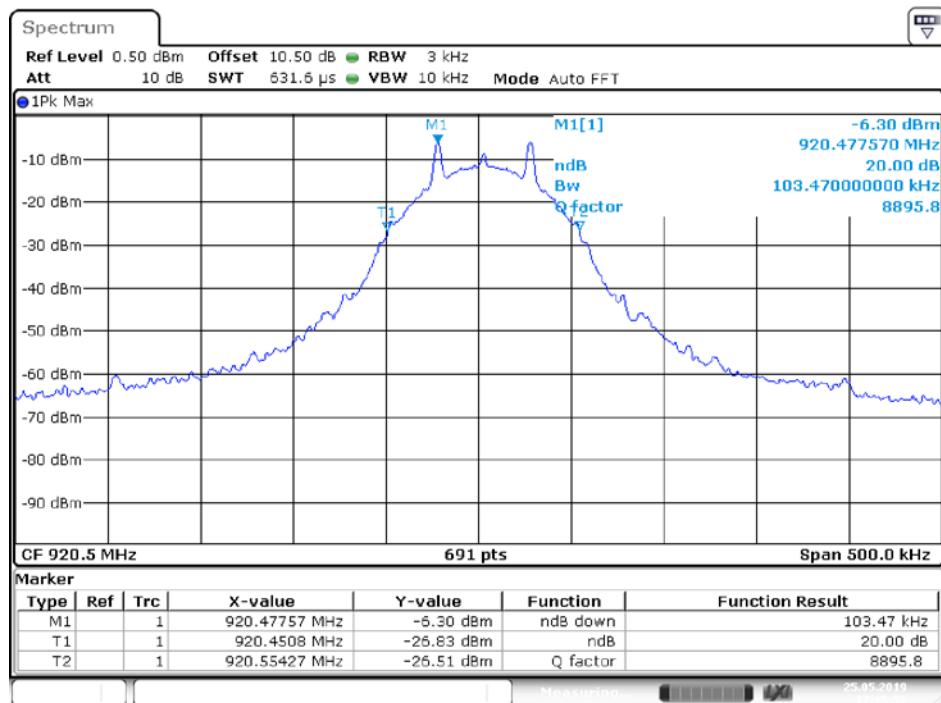
*The testing was performed by Tom Hsu on 2019-05-25.*

## 8.4 Test Results

Frequency (MHz)	20 dB Emission Bandwidth (MHz)
920.5	0.103
924.5	0.103

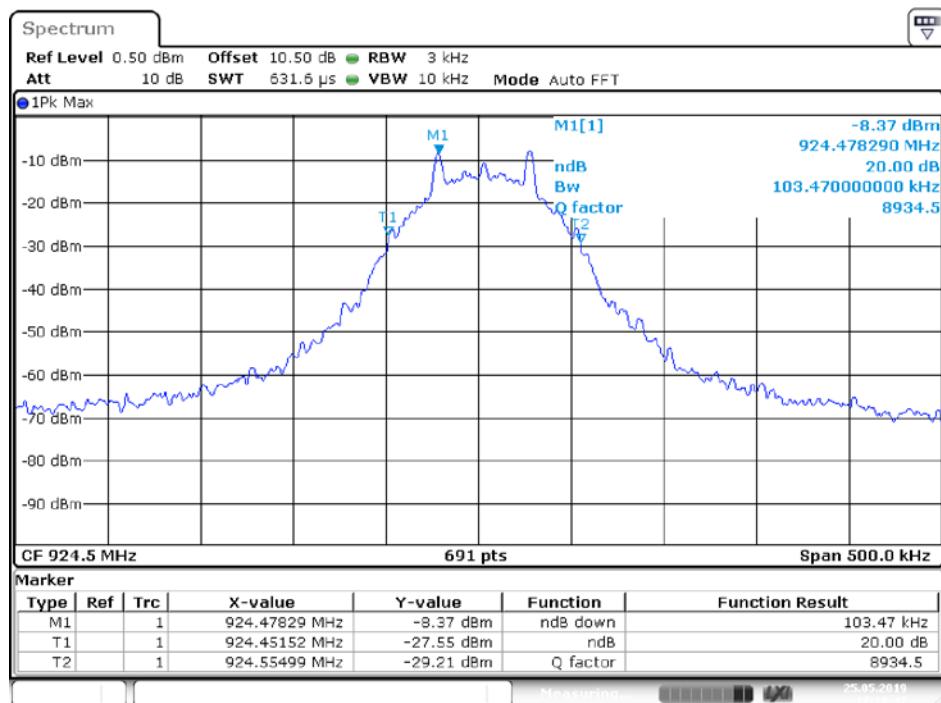
Please refer to the following plots

### 920.5 MHz



Date: 25.MAY.2019 17:15:58

## 924.5 MHz



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