

Electromagnetic Emission

FCC MEASUREMENT REPORT

PRODUCT	:	Binary-CDMA Wireless Network
MODEL/TYPE NO.	:	SKYBRIDGE SB-200
FCC ID	:	2AOJBSKYBRIDGESB200
TRADE NAME	:	N/A
APPLICANT	:	<p>Globalbridge Co., Ltd. #1710, 17F, Songdo Smart valley-A, Songdomirae-ro 30 beon-gil, Yeonsu-gu, Incheon, South Korea Kyunghwan Jang / Manager</p>
FCC CLASSIFICATION	:	All other devices Class B
FCC RULE PART(S)	:	FCC Part 15 Subpart B
FCC PROCEDURE	:	sDoC
DATES OF TEST	:	July 19, 2019
DATES OF ISSUE	:	July 24, 2019
TEST REPORT No.	:	BWS-19-EF-0020
TEST LAB.	:	BWS TECH Inc. (Designation Number : KR0017)

This SKYBRIDGE SB-200 has been tested in accordance with the measurement procedures specified in ANSI C63.4-2014 at the BWS TECH/EMC Test Laboratory and has been shown to be complied with the electromagnetic emission limits specified in FCC Rule Part15 Subpart B Section15.107 and 15.109

I attest to the accuracy of data. All measurement herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them. The results of testing in this report apply to the product/system which was tested only. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

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This test report is not related to KS Q ISO/IEC 17025 and KOLAS accreditation.

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Appendix 1. Test Setup Photos

Appendix 2. FCC ID Label and location

Appendix 3. External Photos of EUT

Description of Version

This Test Report shall not be reproduced, except in full, without the written approval of the **BWS TECH Inc.** This document may be altered or revised by **BWS TECH Inc.** personnel only, and shall be noted in the revision section of the document. Any alteration of this document not carried out by **BWS TECH Inc.** will constitute fraud and shall nullify the document.

FCC TEST REPORT

Scope – *Measurement and determination of electromagnetic emission (EME) of radio frequency devices including intentional radiators and/or unintentional radiators for compliance with the technical rules and regulations of the U.S Federal Communications Commission (FCC)*

1. General Information

1.1 Applicant Information

Company Name : Globalbridge Co., Ltd.
Company Address : #1710, 17F, Songdo Smart valley-A, Songdomirae-ro 30 beon-gil,
Yeonsu-gu, Incheon, South Korea
Tel / Fax : Tel) +821031588991 Fax) -

1.2 Manufacturer Information

Company Name : Globalbridge Co., Ltd.
Company Address : #1710, 17F, Songdo Smart valley-A, Songdomirae-ro 30 beon-gil,
Yeonsu-gu, Incheon, South Korea

- **EUT Type** : Binary-CDMA Wireless Network
- **Model Number** : SKYBRIDGE SB-200
- **Test Voltage** : AC 110 V, 60 Hz
- **FCC Identifier** : 2AOJBSKYBRIDGESB200
- **S/N** : Prototype
- **FCC Rule Part(s)** : CFR Title 47 Part 15 Subpart B Class B
- **Test Procedure** : ANSI C63.4-2014
- **Dates of Tests** : July 19, 2019
- **Place of Tests :** BWS TECH Inc.
EMC Testing Lab (NRRA Designation Number : [KR0017](#))
23, Gokhyeon-ro 480 Beon-gil, Mohyeon-eup, Cheoin-gu, Yongin-si,
Gyeonggi-do 17031, Korea
TEL: +82 31 333 5997 FAX: +82 31 333 0017
- **Test Report No.** : BWS-19-EF-0020

2. Description of Test Facility

The measurement for radiated emission test were practiced at the 3 m Semi-Anechoic Chamber of BWS TECH Inc. Measurement for conducted emission test were practiced at the EMC shielded room of BWS TECH Inc. facility located at **23, Gokhyeon-ro 480 Beon-gil, Mohyeon-eup, Cheoin-gu, Yongin-si, Gyeonggi-do 17031, Korea.**

The site is constructed in conformance with the requirements of the ANSI C63.4-2014 and CISPR Publication 16. The BWS TECH measurement facility has been filed to the Commission with the FCC for 3 and 10 meter site configurations. Detailed description of test facility was found to be in compliance with the requirements of Section 2.948 FCC Rules according to the ANSI C63.4-2014 and registered to the Federal Communications Commission.

Accredited by MRA(National Radio Research Agency), Jul 18,2017 The Designation Number is KR0017.

The measurement procedure described in American National Standard for Method of Measurement of Radio-Noise Emission from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz (ANSI C63.4-2014) was used in determining radiated and conducted emissions from the Globalbridge Co., Ltd. Binary-CDMA Wireless Network Model: SKYBRIDGE SB-200.

3. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4-2014.

All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicate a 95 % Level of confidence.

The measurement data shown herein meets or exceeds the U_{cispr} measurement

Uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits To determine compliance.

Parameter	Expanded Uncertainty (dB)
Conducted Emission (0.15 MHz to 30 MHz)	± 1.88 dB ($k = 2$)
Radiated Emission (30 MHz to 1 GHz)	± 5.26 dB ($k = 2$)
Radiated Emission (1 GHz to 6 GHz)	± 4.26 dB ($k = 2$)

4. Product Information

4.1 Variations covered by this report

- N/A

4.2 Additional Information Related to Testing

Test results apply only to the particular sample tested and functionality described in this test report. This report may be reproduced in full. Partial reproduction may only be made with the written permission of the BWS TECH Inc.

4.3 Derived Models

- N/A

5. Description of Tests

5.1 Measurement of Conducted Emission

The test procedure was in accordance with ANSI C63.4-2014

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN).
If the EUT is connected to the PC through USB, the AC power-line adapter of the PC is directly connected to a line impedance stabilization network (LISN).
Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/50uH of coupling impedance for the measuring instrument.
- b. Both conducted lines are measured in Quasi-Peak and Average mode, including the worst-case data points for each tested configuration.
- c. The Frequency range from 150 kHz to 30 MHz was searched.

5.1.1 Conducted Limits [§15.107 (a)_CLASS B]

Frequency of emission (MHz)	Resolution Bandwidth (kHz)	Conducted limit (dB μ V)	
		Quasi-Peak	Average
0.15 to 0.5	9	66 to 56*	56 to 46*
0.5 to 5	9	56	46
5 to 30	9	60	50

5.1.2 Conducted Limits [§15.107 (b)_CLASS A]

Frequency of emission (MHz)	Resolution Bandwidth (kHz)	Conducted limit (dB μ V)	
		Quasi-Peak	Average
0.15 to 0.5	9	79	66
0.5 to 30	9	73	60

* Decreases with the logarithm of the frequency.

5.2 §15.109 Measurement of Radiated Emission

The test procedure was in accordance with ANSI C63.4-2014

- a. The EUT was placed on the top of a turn table 0.8 meters above the ground at a semi anechoic chamber. The Table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 m away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied form 1 m to 4 m above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 m to 4 m and the turn table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to Peak and Average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- g. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented fir maximum response.
(1 GHz to 40 GHz)

5.2.1 Radiated Emission Limits [§15.109 (a)_CLASS B]

Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of emission (MHz)	Antenna Distance (m)	Field Strength (μ V/m)	Quasi-Peak (dB μ V/m)
30 to 88	3	100	40.00
88 to 216	3	150	43.52
216 to 960	3	200	46.02
Above 960	3	500	53.98
Frequency of emission (MHz)	Antenna Distance (m)	Peak (dB μ V/m)	Average (dB μ V/m)
Above 1000	3	74	54

5.2.2 Radiated Emission Limits [§15.109 (b)_CLASS A]

The field strength of radiated emissions from a Class A digital device, as determined at a distance of 10 meters, shall not exceed the following:

Frequency of emission (MHz)	Antenna Distance (m)	Field Strength (μ V/m)	Quasi-Peak (dB μ V/m)
30 to 88	10	90	39.08
88 to 216	10	150	43.52
216 to 960	10	210	46.44
Above 960	10	300	49.54
Frequency of emission (MHz)	Antenna Distance (m)	Peak (dB μ V/m)	Average (dB μ V/m)
Above 1000	3	80	60

5.2.3 Frequency Range of Radiated Measurements [§15.33]

An unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a Radiated Emission limit is specified, up to the frequency shown in the following table.

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)	Test frequency marking
Below 1.705	30	<input type="checkbox"/>
1.705 to 108	1 000	<input type="checkbox"/>
108 to 500	2 000	<input type="checkbox"/>
500 to 1 000	5 000	<input checked="" type="checkbox"/>
Above 1 000	5th harmonic of the highest frequency or 40 GHz, whichever is lower	<input type="checkbox"/>

6. Test Condition

6.1 Test Configuration

The device was configured for testing in a typical fashion (as a customer would normally use it). During the tests, the EUT and the supported equipments were installed to meet FCC requirement and operated in a manner which tends to maximize its emission level in a typical application.

Radiated Emission Test

Preliminary radiated emission tests were conducted using the procedure in ANSI C63.4/2014 Clause 8.3.1.1 to determine the worst operating condition. Final radiated emission tests were conducted at 3 m Semi-Anechoic Chamber.

6.2 EUT operation

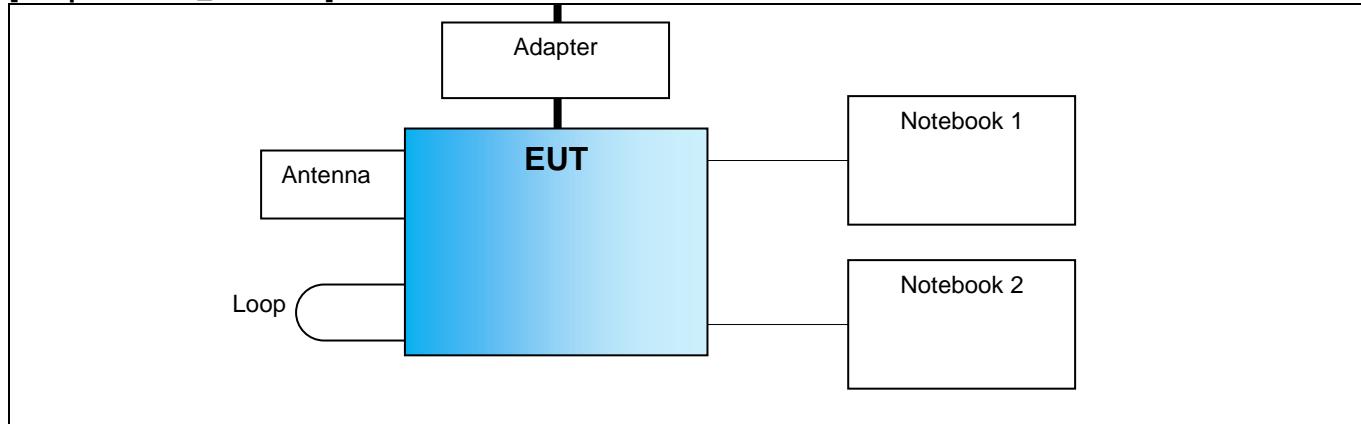
EUT was tested according to the following operation modes provided by the specifications given by the manufacturer.

Operation Modes	The environment(s) in which the equipment is intended to be used.
Adapter mode	
PoE mode	This EUT verifies and tests each IP through the Laptop.

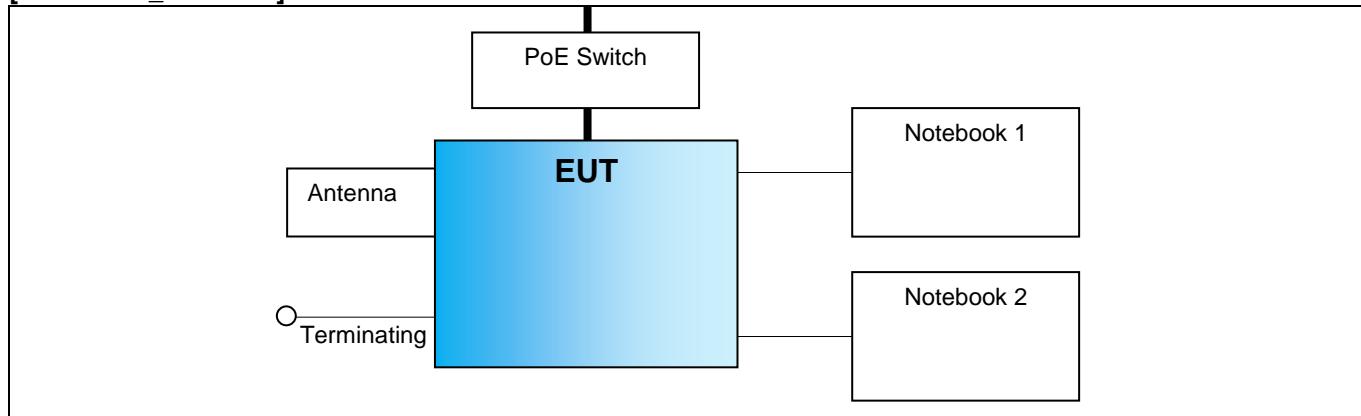
6.3 Test System layout on EUT and peripherals

— Interface cable — Power cable

[Adapter mode_EMI/EMS]



[PoE mode_EMI/EMS]



6.4 Peripherals / Support Equipment Used

Following peripheral devices and interface cables were connected during the measurement:

6.4.1 Type of Peripheral Equipment Used

Description	Model Name	Serial No.	Manufacturer	FCC ID
EUT	SKYBRIDGE SB-200	N/A	Globalbridge Co., Ltd.	2AOJBSKYBRID GESB200
Adapter	AEB70US48	70480-0008909	Dongguan Dongcheng zhushan Cincon Electronics Factory	N/A
PoE Switch	SFC508HP	16098180000459	N/A	N/A
Notebook 1	LGR58	003QTKV034038	LG	N/A
Notebook 2	R570-K.ARA3L	004QTJG048668	LG	N/A
Antenna	N/A	N/A	N/A	N/A
Modular	SKYBRIDGE RF-100	N/A	Globalbridge Co., Ltd.	2AOJBSKYBRID GERF100

6.4.2 Type of Cables Used

[Adapter mode]

Device from	I/O Port	Device to	I/O Port	Length(m)	Type of Shield
EUT	DC IN	Adapter	DC OUT	1.0	Unshielded
	LAN	Notebook 1	LAN	3.0	Unshielded
	LAN	Notebook 2	LAN	3.0	Unshielded
	LAN	Loop	-	3.0	Unshielded
	-	Antenna	-	Direct	-
Adapter	AC IN	AC Power Socket	AC OUT	1.2	Unshielded

[PoE mode]

Device from	I/O Port	Device to	I/O Port	Length(m)	Type of Shield
EUT	LAN	PoE Switch	LAN	3.0	Unshielded
	LAN	Notebook 1	LAN	3.0	Unshielded
	LAN	Notebook 2	LAN	3.0	Unshielded
	LAN	Terminating	-	3.0	Unshielded
	-	Antenna	-	Direct	-
PoE Switch	AC IN	AC Power Socket	AC OUT	1.5	Unshielded

6.4.3 System configuration

Description	Model Name	Serial No.	Manufacturer
-	-	-	-

7. TEST RESULTS

7.1 Summary of Test Results

The measurement results were obtained with the EUT tested in the conditions described in this report. Detailed measurement data and photos showing the maximum emission of the EUT are reported.

Mode	FCC Rule Parts	Measurement Required	Result
Adapter	15.107 (a)	Conducted Emissions	Passed by – 19.75 dB (Quasi-Peak)
	15.109 (a)	Radiated Emissions Below 1 GHz	Passed by – 5.00dB (Quasi-Peak)
	15.109 (a)	Radiated Emissions Above 1 GHz	Passed by – 19.33 dB (MAX-Peak)
PoE	15.107 (a)	Conducted Emissions	<i>* PoE is considered a wired network port and excludes power port testing.</i>
	15.109 (a)	Radiated Emissions Below 1 GHz	Passed by – 7.55 dB (Quasi-Peak)
	15.109 (a)	Radiated Emissions Above 1 GHz	Passed by – 1.63 dB (MAX-Peak)

The data collected shows that the Globalbridge Co., Ltd. Binary-CDMA Wireless Network Model: SKYBRIDGE SB-200 complies with technical requirements of the Part 15.107 and 15.109 of the FCC Rules.

7.2 Conducted Emissions

The Test results of conducted emission at mains ports provide the following information:

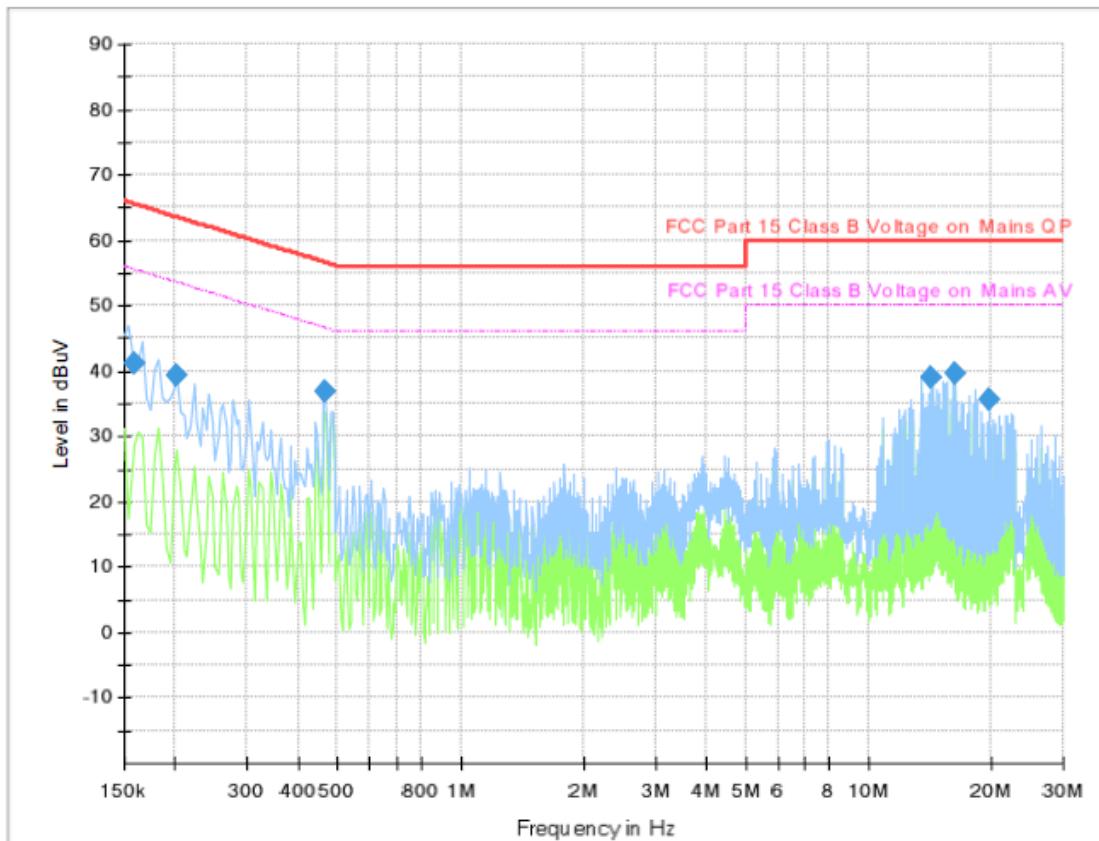
Rule Part / Standard	:	15.107 (a)
Detector	:	Quasi-Peak, CISPR-Average
Bandwidth	:	9 kHz (6 dB)
Operation Mode	:	Normal operation mode
Kind of Test Site	:	EMI Shielded Room
Temperature	:	28 °C
Relative Humidity	:	48 %
Atmospheric pressure	:	100.0 kPa
Test Date	:	July 19, 2019

* ***Calculation Formula:***

1. Conductor L1 = Hot, Conductor N = Neutral
2. Corr. = LISN Factor + Cable Loss
3. Quasi Peak or CAverage = Receiver Reading + Corr.
4. Margin = Limit – Quasi Peak of CAverage

Conducted Emission Test Data

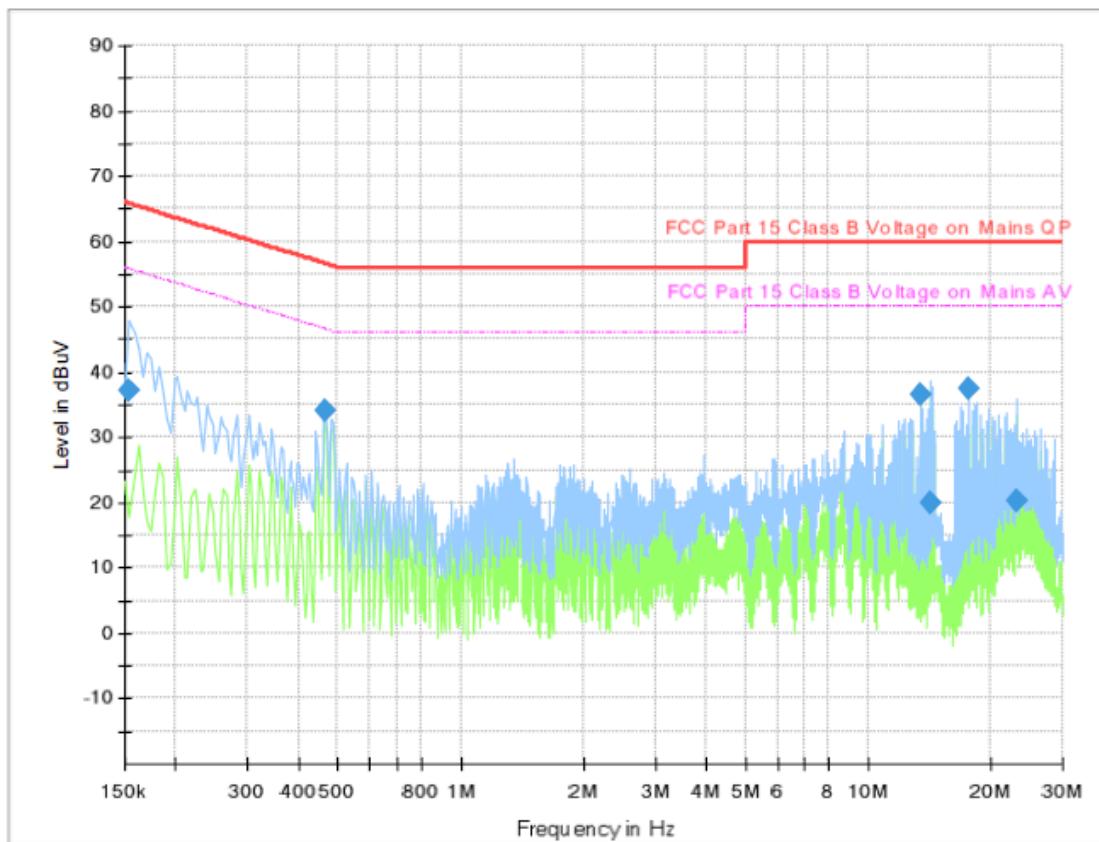
Adapter mode_L1



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	PE	Corr. (dB)
0.158500	41.21	65.54	24.33	3000.0	9.000	L1	FLO	8.1
0.201500	39.29	63.55	24.26	3000.0	9.000	L1	FLO	8.2
0.465500	36.84	56.59	19.75	3000.0	9.000	L1	FLO	8.1
14.150930	38.94	60.00	21.06	3000.0	9.000	L1	FLO	8.9
16.229170	39.58	60.00	20.42	3000.0	9.000	L1	FLO	9.0
19.707450	35.48	60.00	24.52	3000.0	9.000	L1	FLO	9.1

Conducted Emission Test Data
Adapter mode_N



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	PE	Corr. (dB)
0.154000	37.30	65.78	28.48	3000.0	9.000	N	GND	8.2
0.466500	34.04	56.58	22.54	3000.0	9.000	N	GND	8.1
13.419210	36.63	60.00	23.37	3000.0	9.000	N	GND	8.8
14.214630	20.07	60.00	39.93	3000.0	9.000	N	GND	8.8
17.693530	37.44	60.00	22.56	3000.0	9.000	N	GND	9.1
23.130370	20.29	60.00	39.71	3000.0	9.000	N	GND	9.6

7.3 Radiated Emissions

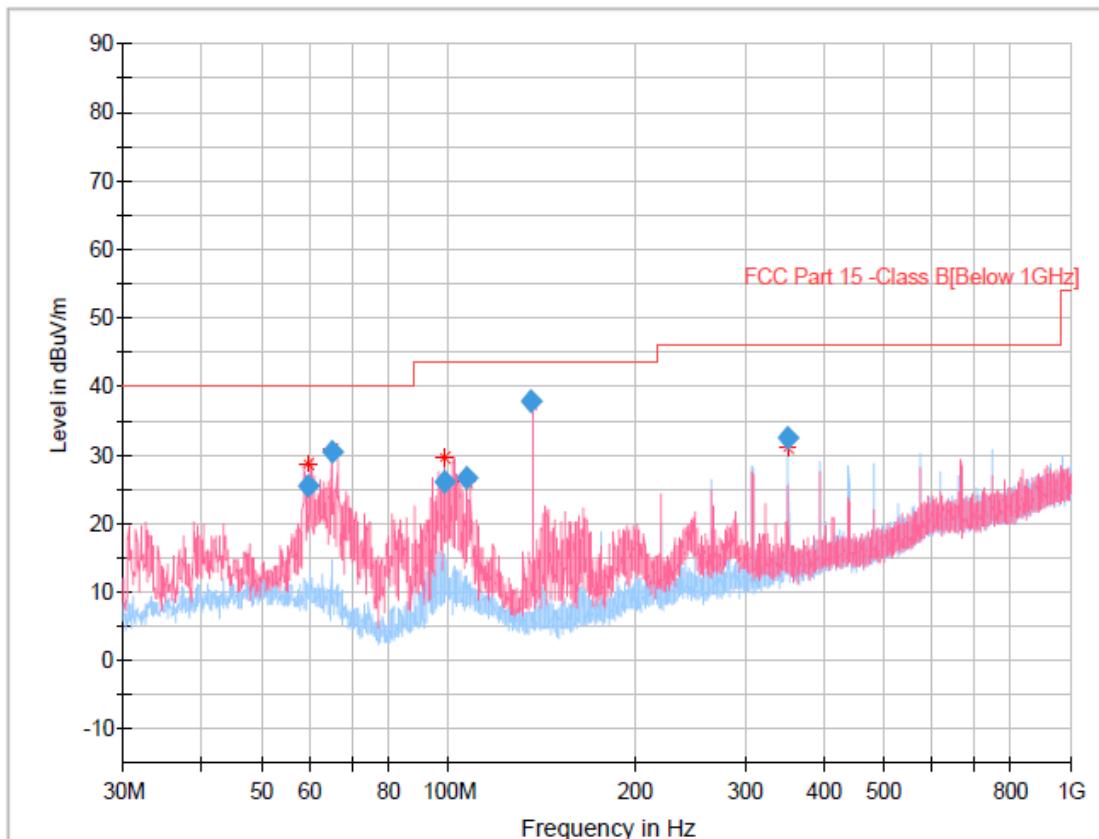
The Test results of radiated emission provide the following information:

Rule Part / Standard	:	15.109 (a)
Detector	:	Quasi-Peak
Bandwidth	:	120 kHz (6 dB)
Operation Mode	:	Normal operation mode
Kind of Test Site	:	10 m chamber
Measurement Distance	:	3 meters
Temperature	:	29 °C
Relative Humidity	:	49 %
Atmospheric pressure	:	100.1 kPa
Test Date	:	July 19, 2019

* Calculation Formula:

1. POL. H: Horizontal, POL. V: Vertical
2. Quasi Peak = Reading (Receiver Reading) + Corr.
3. Corr. (Correction Factor) = Antenna Factor + Cable Loss
4. Margin = Limit – Quasi Peak

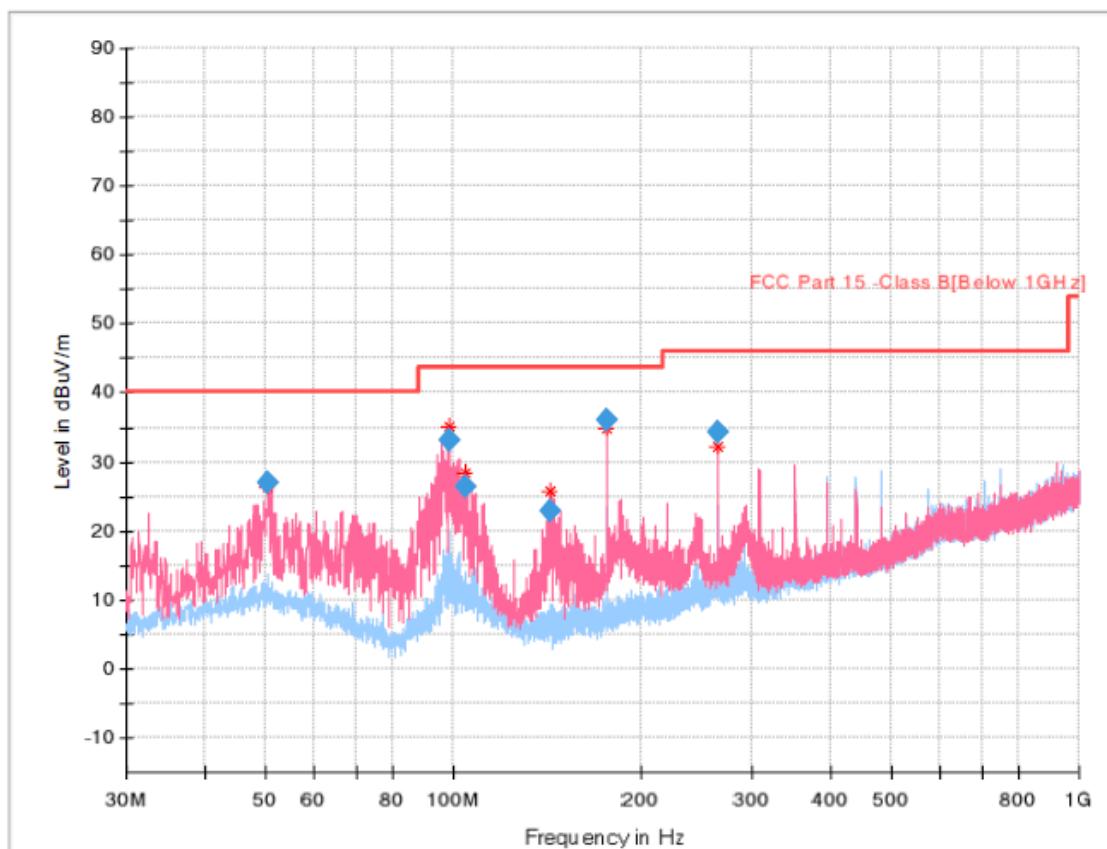
Radiated Emission Test Data
Adapter mode_Below 1 GHz



Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
59.312000	25.42	40.00	14.58	15000.0	120.000	100.0	V	268.0	-26.2
64.774500	30.49	40.00	9.51	15000.0	120.000	261.0	V	174.0	-27.7
98.463500	26.20	43.52	17.32	15000.0	120.000	161.0	V	10.0	-26.7
106.697000	26.55	43.52	16.97	15000.0	120.000	119.0	V	10.0	-26.4
135.063500	38.52	43.52	5.00	15000.0	120.000	131.0	V	79.0	-29.6
351.991500	32.44	46.02	13.58	15000.0	120.000	300.0	H	106.0	-20.9

Radiated Emission Test Data
PoE mode_Below 1 GHz



Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
50.448500	27.06	40.00	12.94	15000.0	120.000	158.0	V	319.0	-24.9
98.433500	33.21	43.52	10.31	15000.0	120.000	200.0	V	158.0	-26.7
104.757000	26.46	43.52	17.06	15000.0	120.000	122.0	V	236.0	-26.4
143.277500	22.87	43.52	20.65	15000.0	120.000	109.0	V	230.0	-29.9
176.015000	35.97	43.52	7.55	15000.0	120.000	100.0	V	171.0	-28.3
264.012500	34.13	46.02	11.89	15000.0	120.000	100.0	V	62.0	-24.2

7.4 Radiated Emissions (Above 1 GHz)

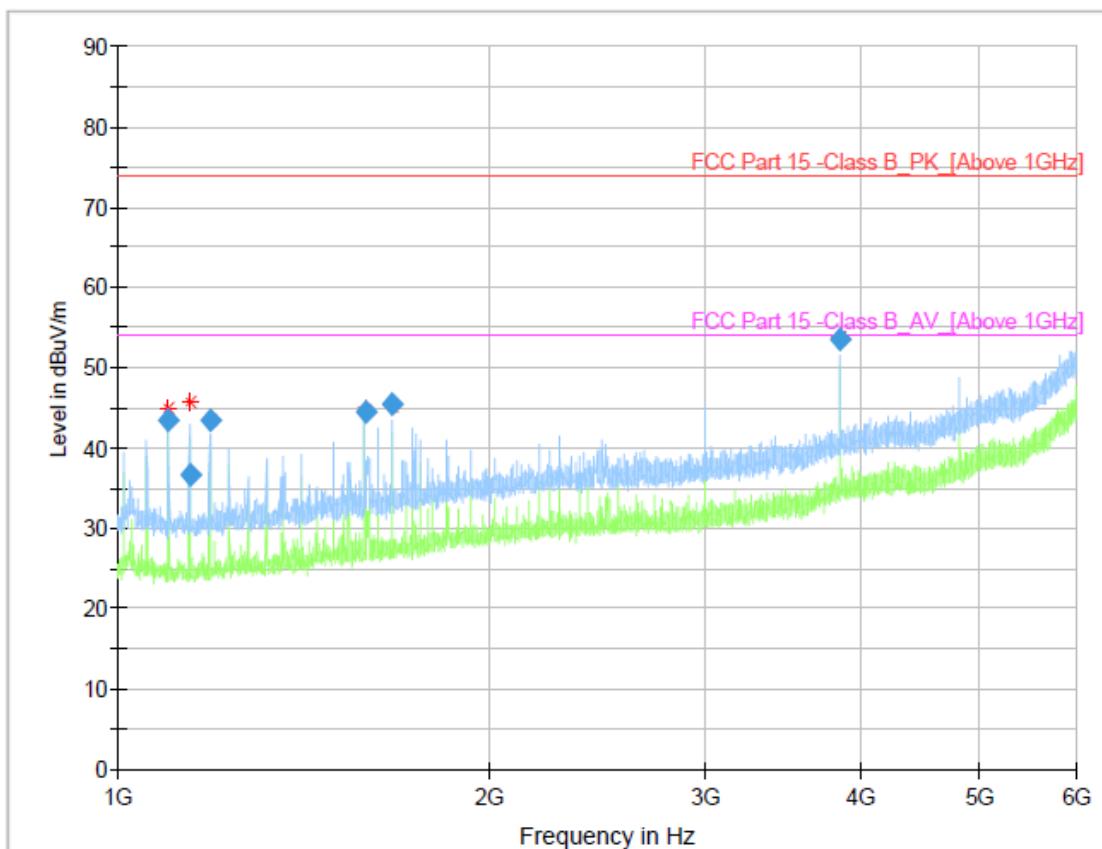
The Test results of radiated emission provide the following information:

Rule Part / Standard	:	15.109 (a)
Detector	:	Peak mode: Peak (RBW: 1 MHz, VBW: 3 MHz) CISPR-Average mode: (RBW: 1 MHz, VBW: 10 MHz)
Highest Operating Frequency	:	N/A
Upper Frequency of Measurement Range	:	5 000 MHz
Operation Mode	:	Normal operation mode
Kind of Test Site	:	10 m chamber
Measurement Distance	:	3 meters
Temperature	:	28 °C
Relative Humidity	:	48 %
Atmospheric pressure	:	100.0 kPa
Test Date	:	July 19, 2019

* Calculation Formula:

1. POL. H: Horizontal, POL. V: Vertical
2. Quasi Peak = Reading (Receiver Reading) + Corr.
3. Corr. (Correction Factor) = Antenna Factor + Cable Loss – Amplifier Gain
4. Margin = Limit – Quasi Peak

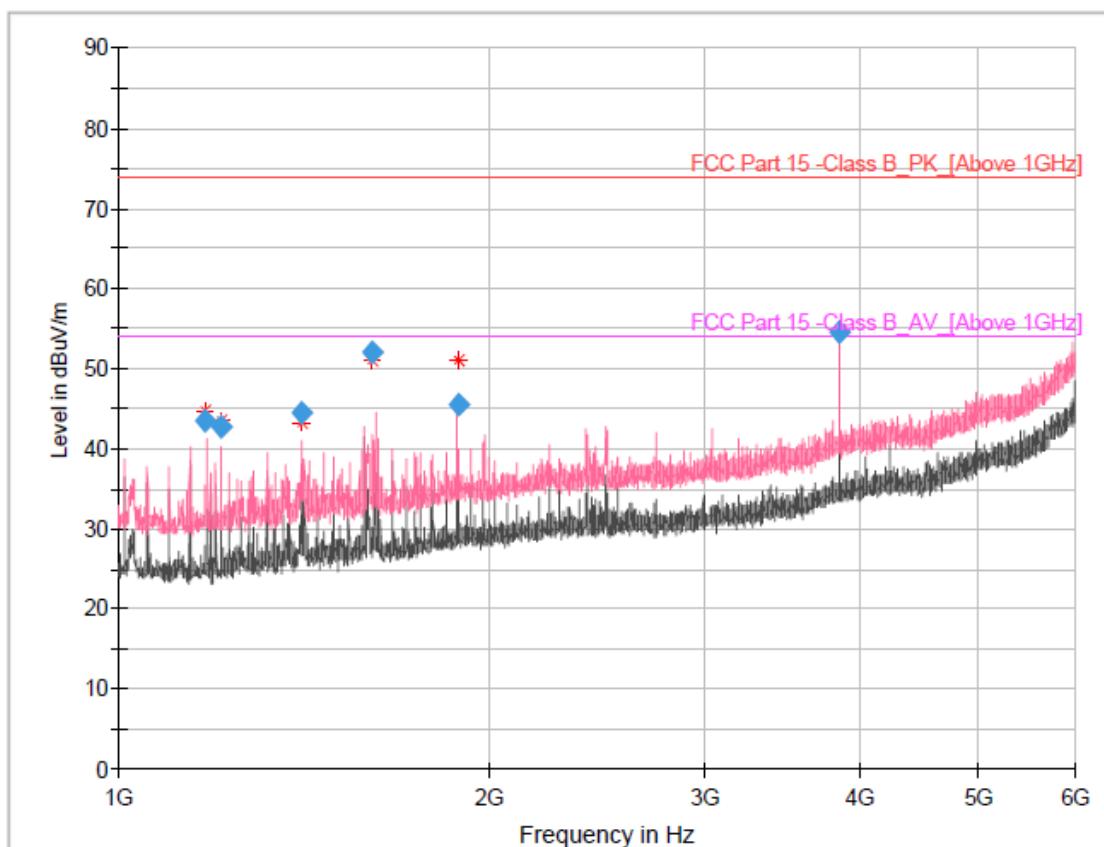
Radiated Emission Test Data
Adapter mode_Above 1 GHz Horizontal



Final_Result

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1100.000000	43.58	74.00	30.42	1000.0	1000.000	100.0	H	213.0	-10.6
1144.000000	36.78	74.00	37.22	1000.0	1000.000	100.0	H	202.0	-10.4
1188.000000	43.41	74.00	30.59	1000.0	1000.000	100.0	H	272.0	-10.2
1592.750000	44.45	74.00	29.55	1000.0	1000.000	100.0	H	61.0	-8.1
1672.000000	45.53	74.00	28.47	1000.0	1000.000	100.0	H	308.0	-7.5
3854.000000	53.47	74.00	20.53	1000.0	1000.000	100.0	H	102.0	-0.1

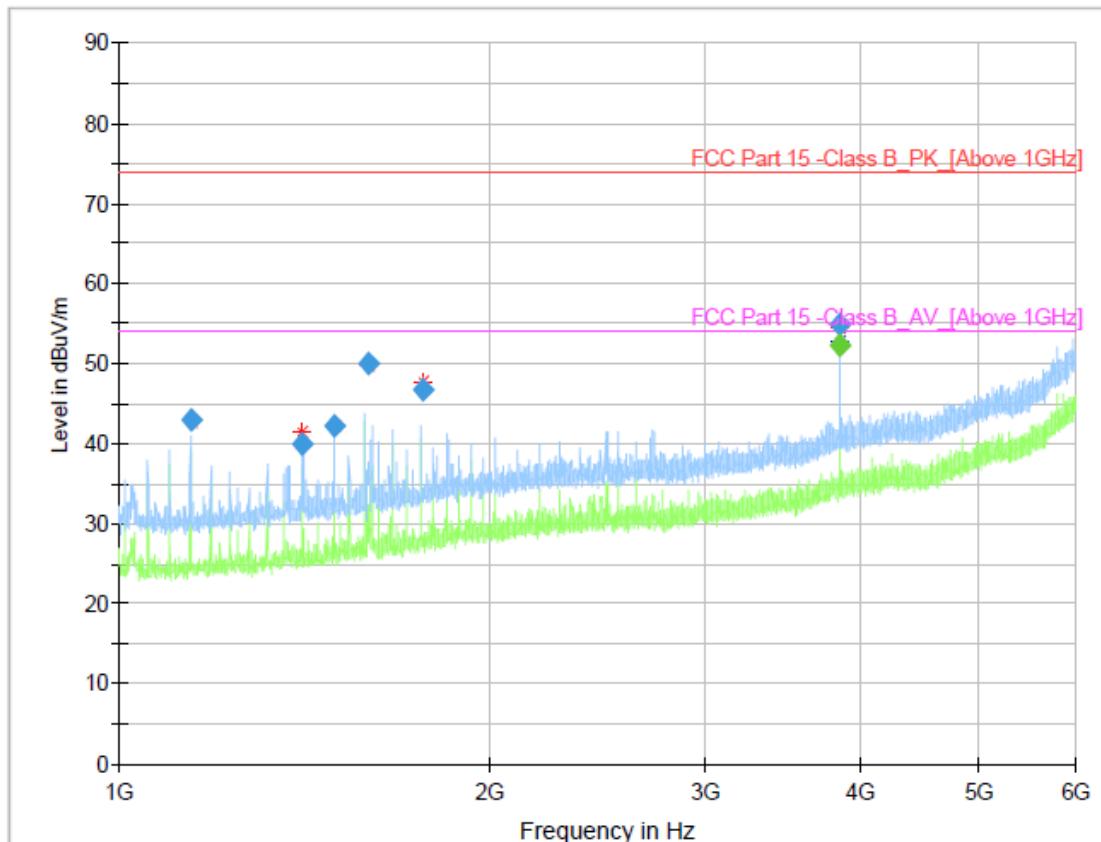
Radiated Emission Test Data
Adapter mode_Above 1 GHz Vertical



Final_Result

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1174.250000	43.60	74.00	30.40	1000.0	1000.000	100.0	V	68.0	-10.3
1212.250000	42.67	74.00	31.33	1000.0	1000.000	100.0	V	37.0	-10.1
1408.000000	44.43	74.00	29.57	1000.0	1000.000	100.0	V	33.0	-9.2
1610.750000	52.04	74.00	21.96	1000.0	1000.000	100.0	V	232.0	-8.0
1888.750000	45.50	74.00	28.50	1000.0	1000.000	100.0	V	250.0	-5.9
3854.000000	54.67	74.00	19.33	1000.0	1000.000	100.0	V	88.0	-0.1

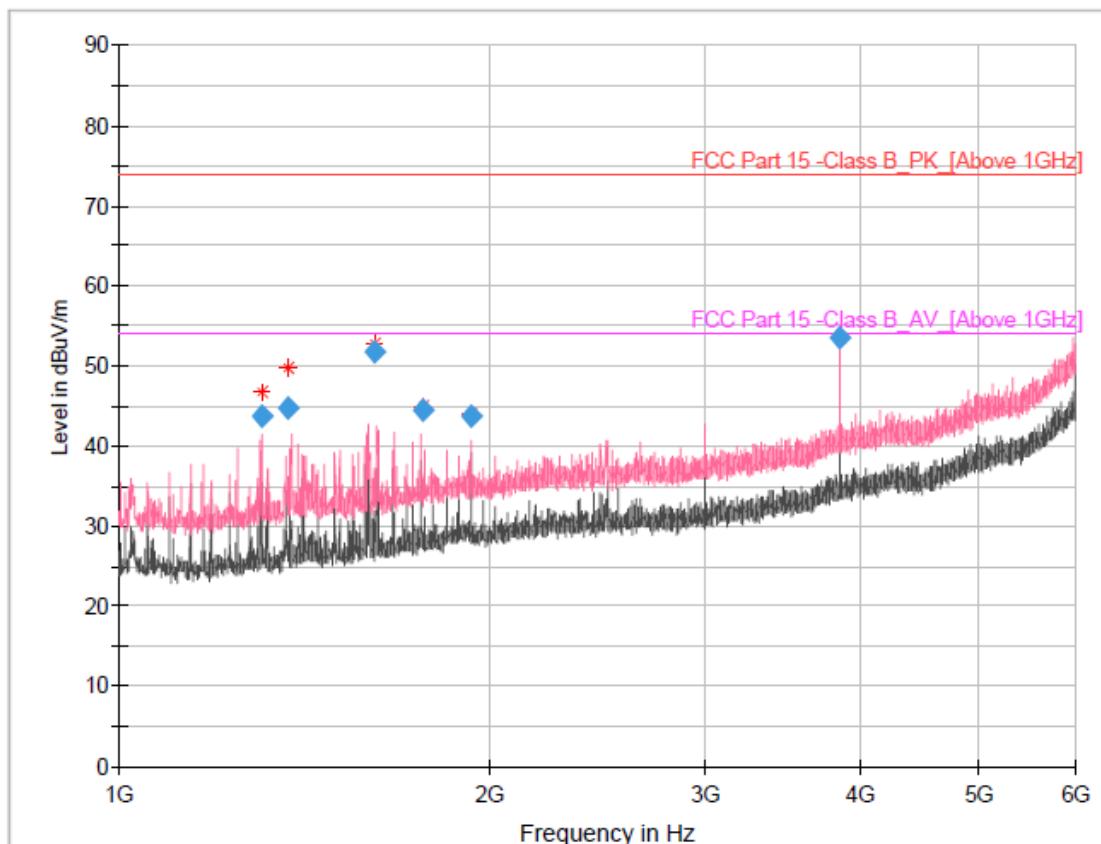
Radiated Emission Test Data
PoE mode_Above 1 GHz Horizontal



Final Result

Frequency (MHz)	MaxPeak (dBuV/m)	CAverage (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
1144.000000	43.10	---	74.00	30.90	1000.0	1000.000	100.0	H	96.0
1410.750000	39.91	---	74.00	34.09	1000.0	1000.000	100.0	H	227.0
1496.000000	42.32	---	74.00	31.68	1000.0	1000.000	100.0	H	133.0
1593.500000	49.91	---	74.00	24.09	1000.0	1000.000	100.0	H	81.0
1766.500000	46.80	---	74.00	27.20	1000.0	1000.000	100.0	H	265.0
3854.000000	—	52.37	54.00	1.63	1000.0	1000.000	100.0	H	153.0
3854.000000	54.92	---	74.00	19.08	1000.0	1000.000	100.0	H	153.0

Radiated Emission Test Data
PoE mode_Above 1 GHz Vertical



Final Result

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1309.000000	43.70	74.00	30.30	1000.0	1000.000	100.0	V	242.0	-9.7
1374.500000	44.84	74.00	29.16	1000.0	1000.000	100.0	V	52.0	-9.4
1615.000000	51.84	74.00	22.16	1000.0	1000.000	100.0	V	57.0	-7.9
1766.500000	44.58	74.00	29.42	1000.0	1000.000	100.0	V	234.0	-6.8
1936.000000	43.77	74.00	30.23	1000.0	1000.000	100.0	V	197.0	-5.6
3854.000000	53.53	74.00	20.47	1000.0	1000.000	100.0	V	116.0	-0.1

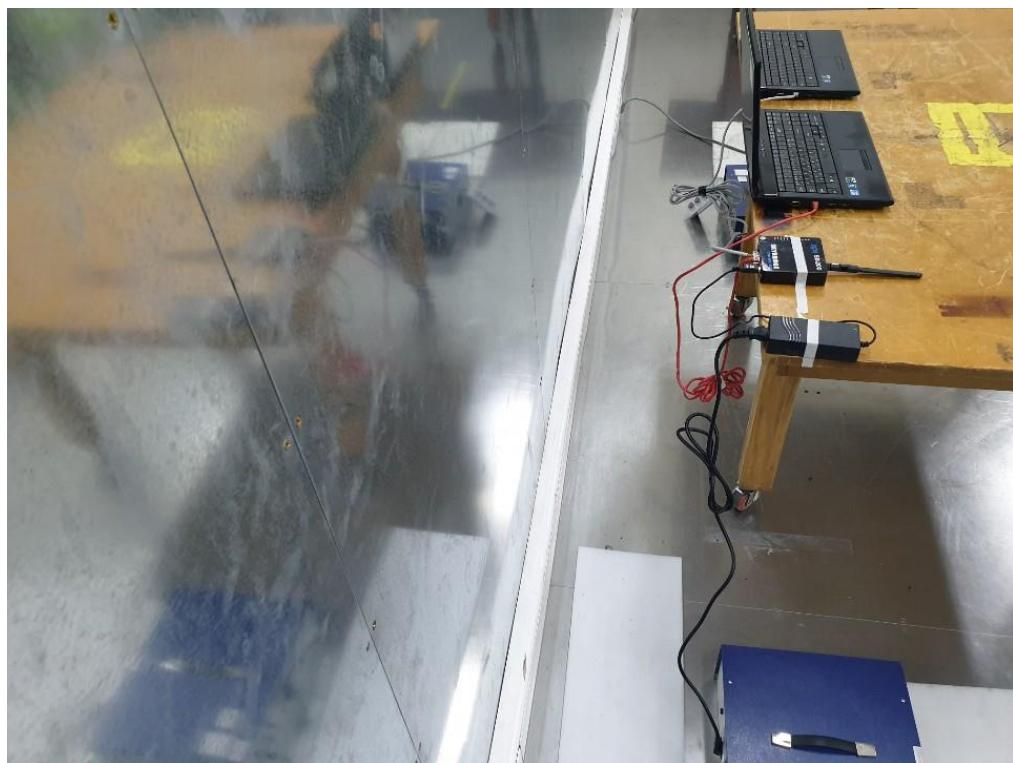
8. TEST EQUIPMENTS LIST

The listing below denotes the test equipments utilized for the test(s).

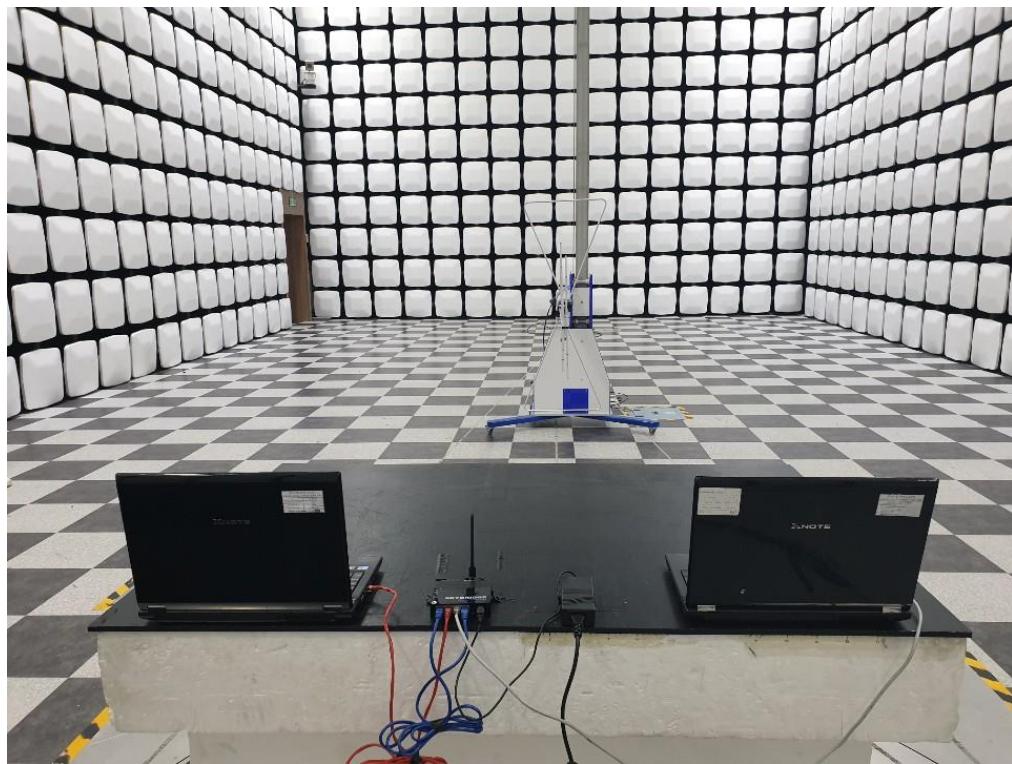
Equipment Type	Model	Manufacturer	Serial No	Cal Due Date	Use
EMI Test Receiver	ESPI	ROHDE & SCHWARZ	1164.6407.03	2020-01-02	<input checked="" type="checkbox"/>
Impulse-Begrenzer Pulse Limiter	ESH3-Z2	ROHDE & SCHWARZ	100092	2020-01-02	<input checked="" type="checkbox"/>
LISN	LN2-16N	EMCIS	LN16005	2019-11-16	<input checked="" type="checkbox"/>
EMI Test Receiver	ESR	ROHDE & SCHWARZ	101450	2020-01-02	<input checked="" type="checkbox"/>
Bilog Antenna	VULB9163	SCHWARZBECK	01063	2020-11-14	<input checked="" type="checkbox"/>
RF Amplifier	MPA-10-40	RF Bay	21163921	2020-06-07	<input checked="" type="checkbox"/>
Horn Antenna	AHA-118	COM-POWER CORP.	701064	2020-11-20	<input checked="" type="checkbox"/>
Antenna Mast (4 m)	AM 4.0	MATURO	AM4.0/225 /17240915	N/A	<input checked="" type="checkbox"/>
Positioner Controller	CO2000	MATURO	NCU/459/17240915	N/A	<input checked="" type="checkbox"/>
Antenna Mast (2 m)	AM 2.5	MATURO	AM2.5/226 /17240915	N/A	<input checked="" type="checkbox"/>

Appendix 1. Test Setup Photographs

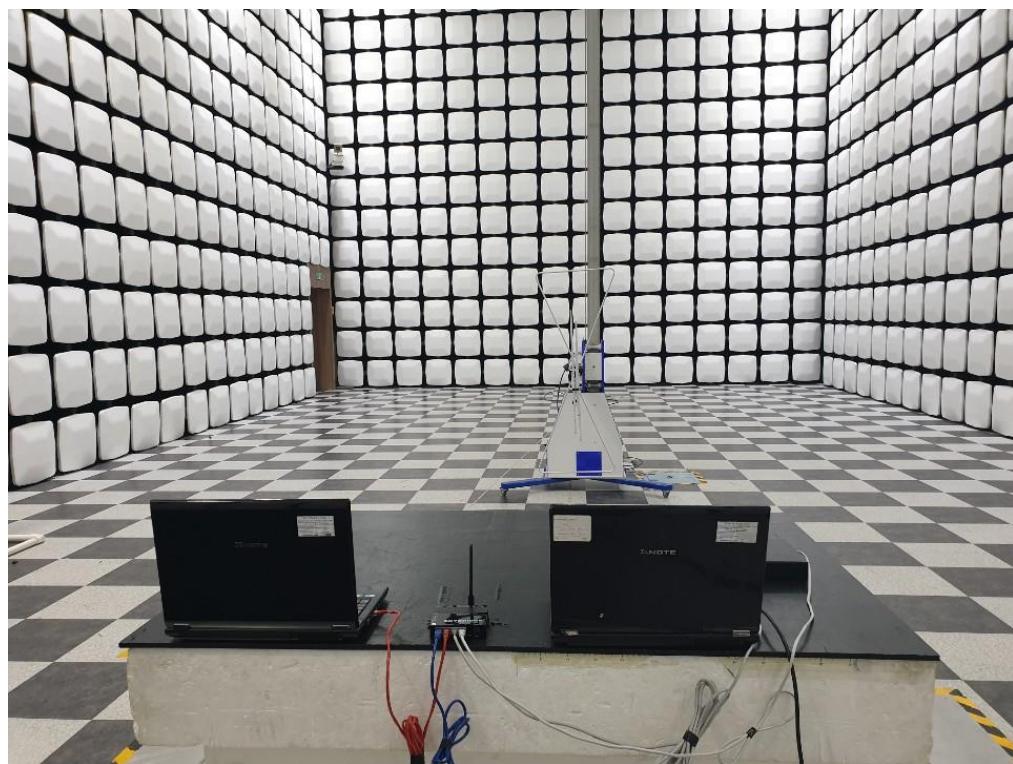
Conducted Emission Test Setup Adapter mode



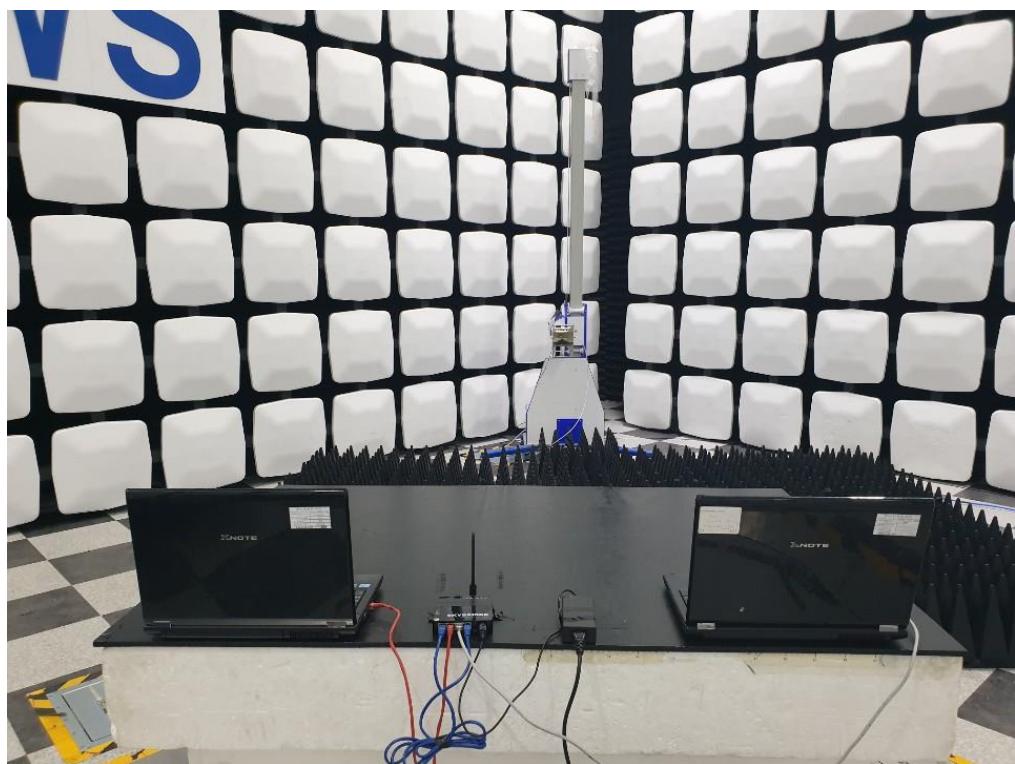
**Radiated Emission Test Setup – Below 1 GHz
Adapter mode**



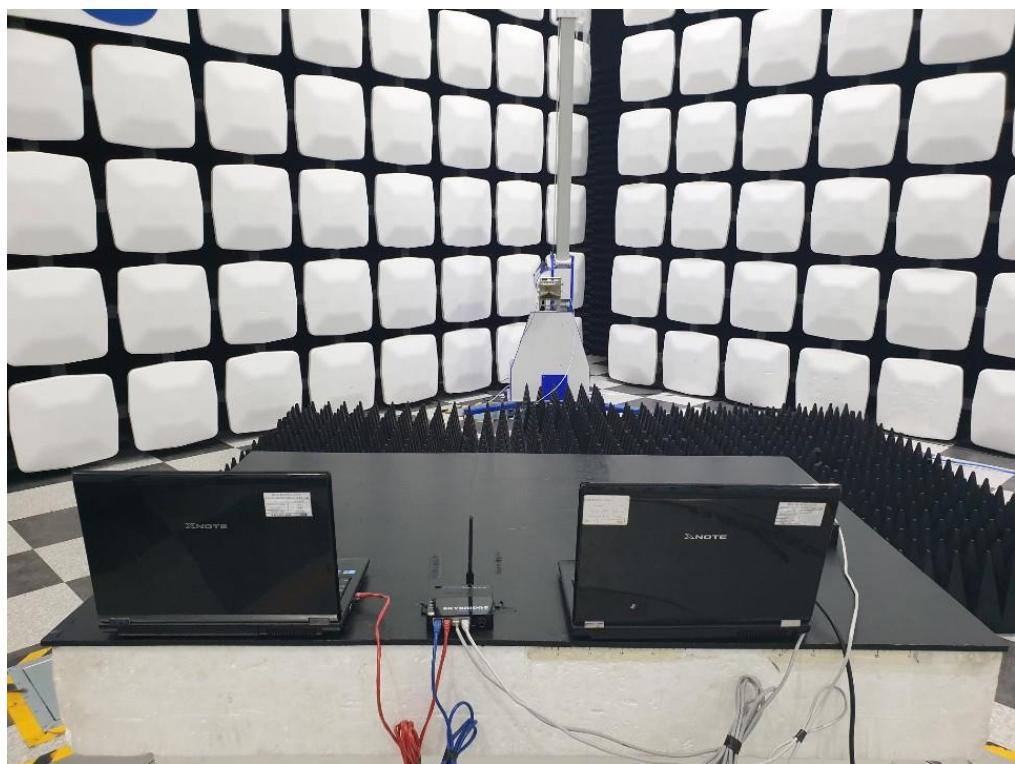
**Radiated Emission Test Setup – Below 1 GHz
PoE mode**



**Radiated Emission Test Setup – Above 1 GHz
Adapter mode**



**Radiated Emission Test Setup – Above 1 GHz
PoE mode**



Appendix 2. FCC ID Label and location

Product Label Sample with FCC ID Label information

Following is a sample copy of the label that will be placed on the rear cabinet of the product.
The FCC identifier is marked in the product label.

The warning statement and Information to the User are described in the user manual.



Label Location

The label shown above shall be permanently affixed at a conspicuous location on the device and be readily visible to the user at the time purchase. (Labeling requirements per 2.925)

Appendix 3. External Photographs of EUT

[Front of EUT]



[Rear of EUT]

