Certificate

Issue Date: February 2, 2021
Ref. Report No. ISL-21LE080FCC-MA

Product Name	:	Little PC
Model(s)	:	LPC-49xxxx (“x” can be 0-9, A-Z or blank for marketing purpose)
Applicant	:	Stealth
Address	:	1 – 7550 Highway 27, Woodbridge, Ontario, L4H 0S2, Canada

We, **International Standards Laboratory Corp.**, hereby certify that:

The sample ISL received which bearing the trade name and model specified above has shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified. (refer to Test Report if any modifications were made for compliance). And Our laboratories is the accredited laboratories and are approved according to ISO/IEC 17025.

Standards:

FCC CFR Title 47 Part 15 Subpart B: Section 15.107 and 15.109
ANSI C63.4-2014
Class A

I attest to the accuracy of data and all measurements reported 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 determination of the test results is determined by customer agreement, regulations or standard document specifications.
The Laboratory evaluates measurement inaccuracies based on regulatory or standard document specifications and is listed in the report for reference. The quantitative project part judges the conformity of the test results based on the evaluation results of the standard cited uncertainty, and the qualitative project does not temporarily evaluate the measurement uncertainty.

Angus Chu

Angus Chu / Director

International Standards Laboratory Corp. LT Lab.
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No. 120, Lane 180, Hsin Ho Rd., Lung-Tan Dist., Tao Yuan City 325, Taiwan

FCC TEST REPORT

of

CFR 47 Part 15 Subpart B Class A

Application Type: Supplier's Declaration of Conformity

Product : **Little PC**
Model(s): **LPC-49xxxx ("x" can be 0-9, A-Z or blank for marketing purpose)**

Applicant: **Stealth**
Address: **1 – 7550 Highway 27, Woodbridge, Ontario, L4H 0S2, Canada**

Test Performed by:

International Standards Laboratory Corp. LT Lab.
TEL: +886-3-263-8888 FAX: +886-3-263-8899
No. 120, Lane 180, Hsin Ho Rd., Lung-Tan Dist., Tao Yuan City 325, Taiwan

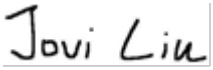
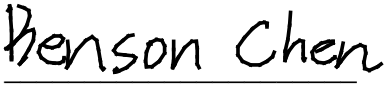
Report No.: **ISL-21LE080FCC-MA**
Issue Date : **February 2, 2021**

Testing Laboratory
0997

Contents of Report

1. General

1.1 Certification of Accuracy of Test Data

Standards:	FCC CFR Title 47 Part 15 Subpart B: Section 15.107 and 15.109 ANSI C63.4-2014 Class A
Equipment Tested:	Industrial PC
Model:	LPC-49xxxx ("x" can be 0-9, A-Z or blank for marketing purpose)
Applicant:	Stealth
Sample received Date:	November 6, 2020
Final test Date:	refer to the date of test data
Test Site:	Chamber 02; Chamber 14; Conduction 04
Test Distance:	10m; 3m (above1GHz-18GHz)
Temperature:	refer to each site test data
Humidity:	refer to each site test data
Input power:	Conduction input power: AC 120 V / 60 Hz Radiation input power: AC 120 V / 60 Hz
Test Result:	**PASS**
Report Engineer:	Betty Huang
Test Engineer:	 Jovi Liu
Approved By:	 Benson Chen / Associate Director

1.2 Description of EUT

EUT

This report test data using the report number 21LE080FCC

Description	Little PC
Condition	Pre-Production
Model	LPC-49xxxx(“x” can be 0-9, A-Z or blank for marketing purpose)
Serial Number	N/A
Maximum resolution	1920*1080 @60Hz
Maximum Operating Frequency	2.4GHz

The devices can be installed inside the EUT are listed below:

Component	Vendor	Description
Motherboard	Stealth	LI91
CPU	Intel	i7-8700T 2.4GHz
Memory	Micron	MTA16ATF2G64HZ-2G6E1
2.5” SATA SSD	WD	WDS120G2G0A-00JH30
ODD	Sony	CRX890S
Adapter (Dedicated peripheral)	FSP	FSP180-AAAN3

The I/O ports of EUT are listed below:

I/O Port Type	Quantity
DC Power Port	1
Audio Port	2
LAN Port (10Mbps/100Mbps/1Gbps)	4
USB 3.0 Port	6
COM Port	2
DVI Port	1
Display Port	1
PS/2 Keyboard Port	1
PS/2 Mouse Port	1

Test Configuration

Configuration	1
Motherboard	Stealth LI91
CPU	Intel i7-8700T 2.4GHz
Memory	Micron MTA16ATF2G64HZ-2G6E1*2
2.5” SATA SSD	WD WDS120G2G0A-00JH30
ODD	Sony CRX890S
Power Supply	FSP FSP180-AAAN3

EMI Noise Source:
Please refer to the technical documents.
EMI Solution:
N/A

1.3 Description of Support Equipment

No	Unit	Model Serial No.	Brand	Power Cord	FCC ID
1	AKiTiO Type-C HDD*6	SK2-U31AS-AKT S/N: N/A	AKiTiO	N/A	FCC DOC
2	PS/2 Keyboard	Y-S0002 S/N: N/A	Logitch	N/A	FCC DOC
3	PS/2 Mouse	M-SBM96B S/N: N/A	Logitch	N/A	FCC DOC
4	LCD Monitor*2	U2412M S/N: N/A	DELL	Non-shielded	FCC DOC
5	Speaker/microphone *2	RC E160 S/N: N/A	HTC	N/A	FCC DOC
6	Modem*2	DM1414 S/N: N/A	Aceex	Non-shielded	FCC DOC
7	Personal Computer	RW7 S/N: N/A	Lenovo	Non-shielded, Detachable	FCC DOC

1.4 Software for Controlling Support Unit

Test programs exercising various part of EUT were used. The programs were executed as follows:

1. Send H Pattern to the LCD Monitor.
2. Read and write data through EUT SSD.
3. Read and write AKiTiO Type-C HDD through EUT USB 3.0 port.
4. Send audio signal to the Speaker/microphone through EUT Audio Port.
5. Receive and transmit packet of EUT to Personal Computer through EUT LAN Port.
6. Repeat the above steps.

	Filename	Issued Date
EUT SSD	Intel EMC	09/04/2000
LCD Monitor	Intel EMC	09/04/2000
AKiTiO Type-C HDD	Intel EMC	09/04/2000
LAN	ping.exe	
Speaker/microphone	Windows Media Player	10/11/2016
Modem	Intel EMC	09/04/2000

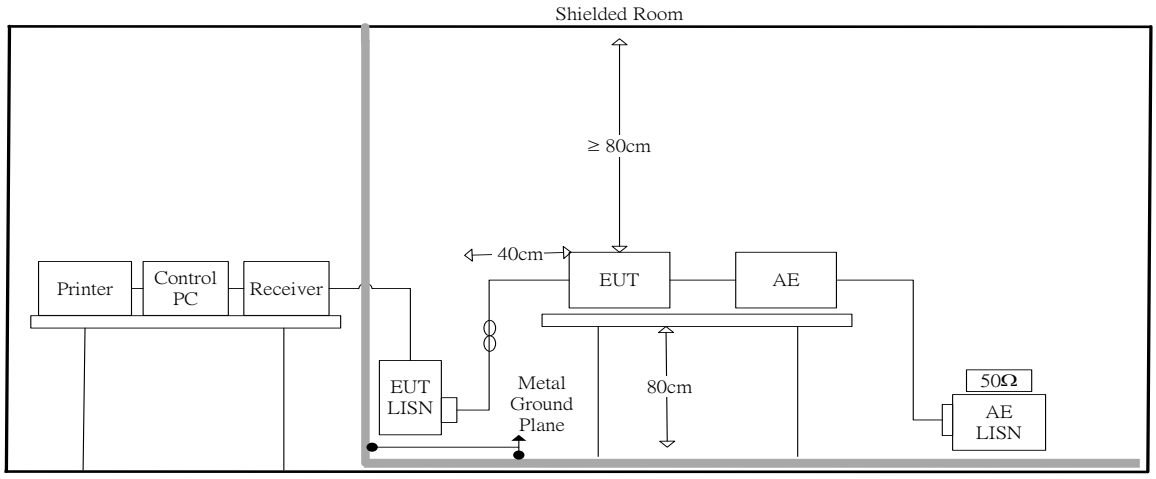
1.5 I/O Cable Condition of EUT and Support Units

Description	Path	Length	Shielding	Core	Remark
AC Power Cord	120V to EUT ADAPTER	1.8m	No	No	
USB Cable*6	AKiTiO Type-C HDD to EUT USB 3.0Port	1.27m	Yes	No	
Keyboard Cable	PS/2 Keyboard to EUT PS/2 Keyboard Port	1.8m	Yes	No	
Mouse Cable	PS/2 Mouse to EUT PS/2 Mouse Port	1.8m	Yes	No	
Display Cable	LCD Monitor to EUT Display Port	1.8m	Yes	No	
DVI Cable	LCD Monitor to EUT DVI Port	1.8m	Yes	Yes	
Audio Cable*2	Speaker/microphone to EUT Audio Port	1.4m	No	No	
COM Cable*2	Modem to EUT COM Port	1.8m	Yes	No	
LAN Cable*4	Personal Computer LAN Port to EUT LAN Port	10m	No	No	Cat 5e

2. Power Line Conducted Emissions

2.1 Test Setup and Procedure

2.1.1 Test Setup



2.1.2 Test Procedure

The measurements are performed in a shielded room test site. The EUT was placed on non-conduction 1.0m x 1.5m table, which is 0.8 meters above an earth-grounded.

Power to the EUT was provided through the LISN which has the Impedance (50ohm/50uH) vs. Frequency Characteristic in accordance with the standard. Power to the LISNs were filtered to eliminate ambient signal interference and these filters were bonded to the ground plane. Peripheral equipment required to provide a functional system (support equipment) for EUT testing was powered from the second LISN through a ganged, metal power outlet box which is bonded to the ground plane at the LISN.

The interconnecting cables were arranged and moved to get the maximum measurement. Both the line of power cord, hot and neutral, were measured. All of the interface cables were manipulated according to ANSI C63.4 requirements.

The highest emissions were analyzed in details by operating the spectrum analyzer in fixed tuned mode to determine the nature of the emissions and to provide information which could be useful in reducing their amplitude.

2.1.3 EMI Receiver/Spectrum Analyzer Configuration (for the frequencies tested)

Frequency Range:	150kHz~30MHz
Detector Function:	Quasi-Peak / Average Mode
Resolution Bandwidth:	9kHz

2.1.4 Limit

Conducted emissions limits of Class_A equipment. (AC mains power terminals):

Frequency range (MHz)	Quasi-peak (dBμV)	Average (dBμV)
0.15-0.50	79	66
0.50-5.0	73	60
5.0-30	73	60

Note 1: Conducted emissions limits of FCC CFR Title 47 Part 15 Subpart B & Industry Canada Interference-Causing Equipment Standard ICES-003 are same.
Note2: The more stringent limit applies at transition frequencies.

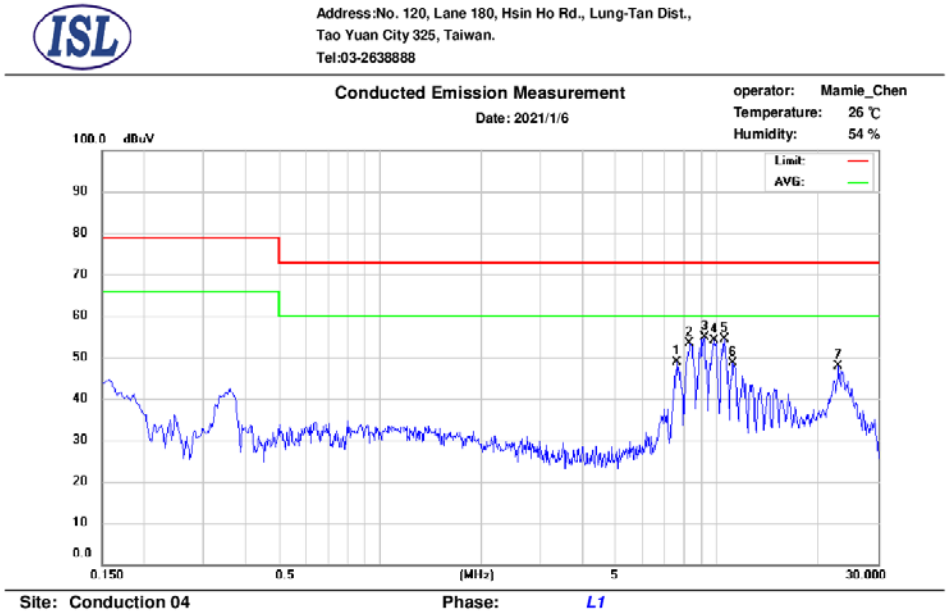
Conducted emissions limits of Class_B equipment. (AC mains power terminals):

Frequency range (MHz)	Quasi-peak (dBμV)	Average (dBμV)
0.15-0.50	66 to 56*	56-46*
0.50-5.0	56	46
5.0-30	60	50
*The limit level in dBμV decreases linearly with the logarithm of frequency.		

Note 1: Conducted emissions limits of FCC CFR Title 47 Part 15 Subpart B & Industry Canada Interference-Causing Equipment Standard ICES-003 are same.
Note2: The more stringent limit applies at transition frequencies.

2.2 Conduction Test Data: Configuration 1

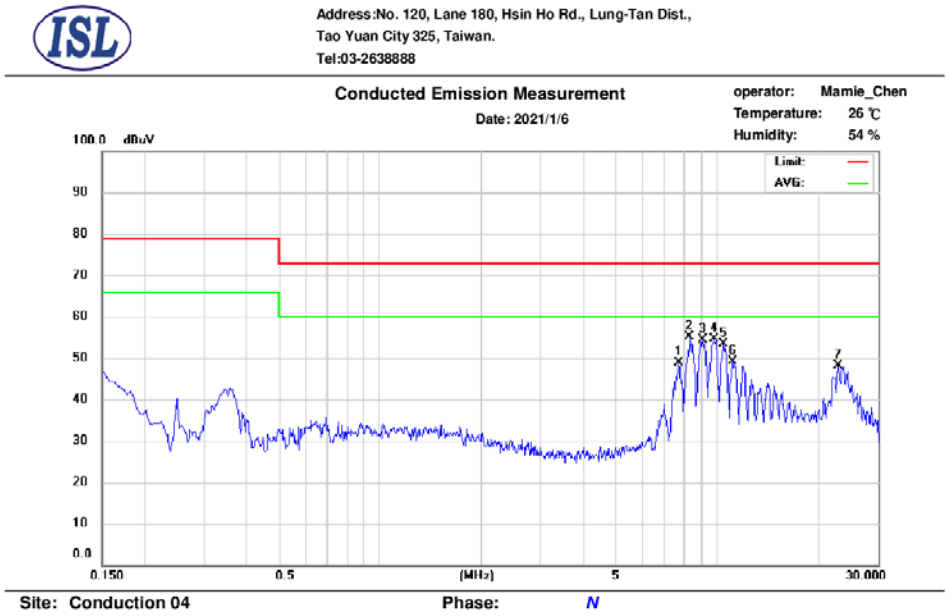
- Line



No.	Frequency (MHz)	QP_R (dBuV)	AVG_R (dBuV)	Correct Factor (dB)	QP Emission (dBuV)	QP Limit (dBuV)	QP Margin (dB)	AVG Emission (dBuV)	AVG Limit (dBuV)	AVG Margin (dB)
1	7.630	30.19	23.91	9.81	40.00	73.00	-33.00	33.72	60.00	-26.28
2	8.318	37.45	31.41	9.83	47.28	73.00	-25.72	41.24	60.00	-18.76
3	9.194	35.65	29.19	9.84	45.49	73.00	-27.51	39.03	60.00	-20.97
4	9.798	37.80	31.72	9.87	47.67	73.00	-25.33	41.59	60.00	-18.41
5	10.510	37.71	30.61	9.87	47.58	73.00	-25.42	40.48	60.00	-19.52
6	11.166	31.47	25.67	9.88	41.35	73.00	-31.65	35.55	60.00	-24.45
7	22.910	30.44	24.30	9.97	40.41	73.00	-32.59	34.27	60.00	-25.73

Note:
Margin = QP/AVG Emission - Limit
QP/AVG Emission = QP_R/AVG_R + Correct Factor
Correct Factor = LISN Loss + Cable Loss
A margin of -8dB means that the emission is 8dB below the limit
The frequency spectrum graph is for final peak graph, and the attached table is for QP/AVG test result.
If peak data can pass, it will be shown in “QP/AVG Correct” column, if not, QP/AVG data will instead.
The CISPR 22 limits would be applied to all FCC Part 15 devices.

- Neutral



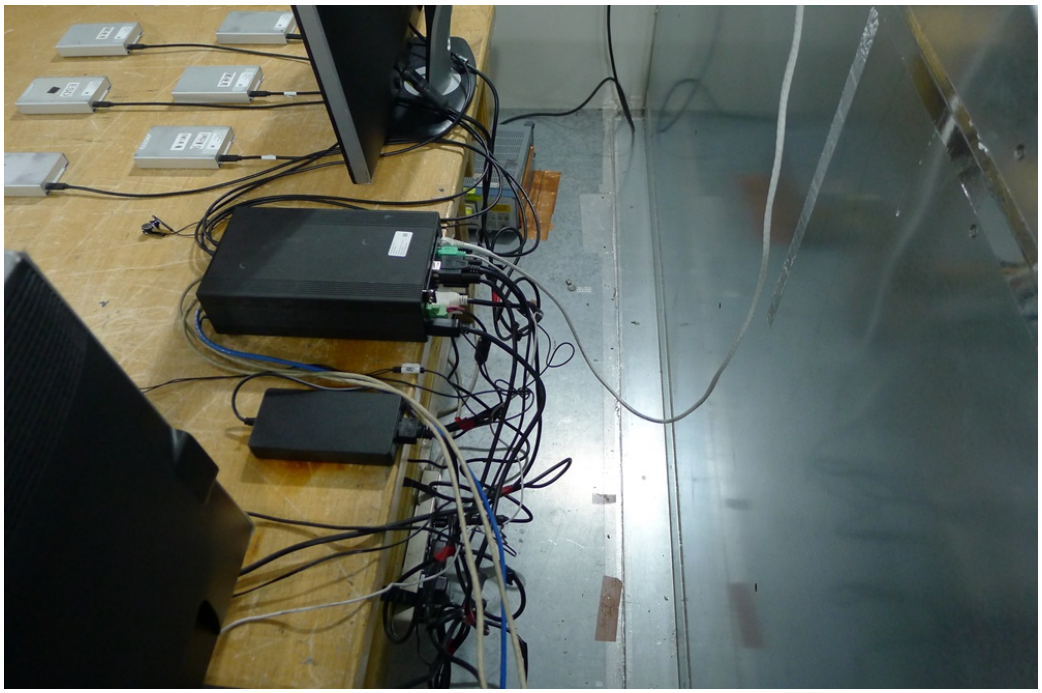
No.	Frequency (MHz)	QP_R (dBuV)	AVG_R (dBuV)	Correct Factor (dB)	QP Emission (dBuV)	QP Limit (dBuV)	QP Margin (dB)	AVG Emission (dBuV)	AVG Limit (dBuV)	AVG Margin (dB)
1	7.706	30.48	24.51	9.85	40.33	73.00	-32.67	34.36	60.00	-25.64
2	8.290	36.66	30.32	9.86	46.52	73.00	-26.48	40.18	60.00	-19.82
3	9.062	36.94	31.08	9.88	46.82	73.00	-26.18	40.96	60.00	-19.04
4	9.846	37.40	31.35	9.91	47.31	73.00	-25.69	41.26	60.00	-18.74
5	10.458	35.94	29.89	9.92	45.86	73.00	-27.14	39.81	60.00	-20.19
6	11.106	31.26	25.00	9.93	41.19	73.00	-31.81	34.93	60.00	-25.07
7	22.866	30.88	24.88	10.14	41.02	73.00	-31.98	35.02	60.00	-24.98

Note:
Margin = QP/AVG Emission - Limit
QP/AVG Emission = QP_R/AVG_R + Correct Factor
Correct Factor = LISN Loss + Cable Loss
A margin of -8dB means that the emission is 8dB below the limit
The frequency spectrum graph is for final peak graph, and the attached table is for QP/AVG test result.
If peak data can pass, it will be shown in “QP/AVG Correct” column, if not, QP/AVG data will instead.
The CISPR 22 limits would be applied to all FCC Part 15 devices.

2.3 Test Setup Photo

Front View

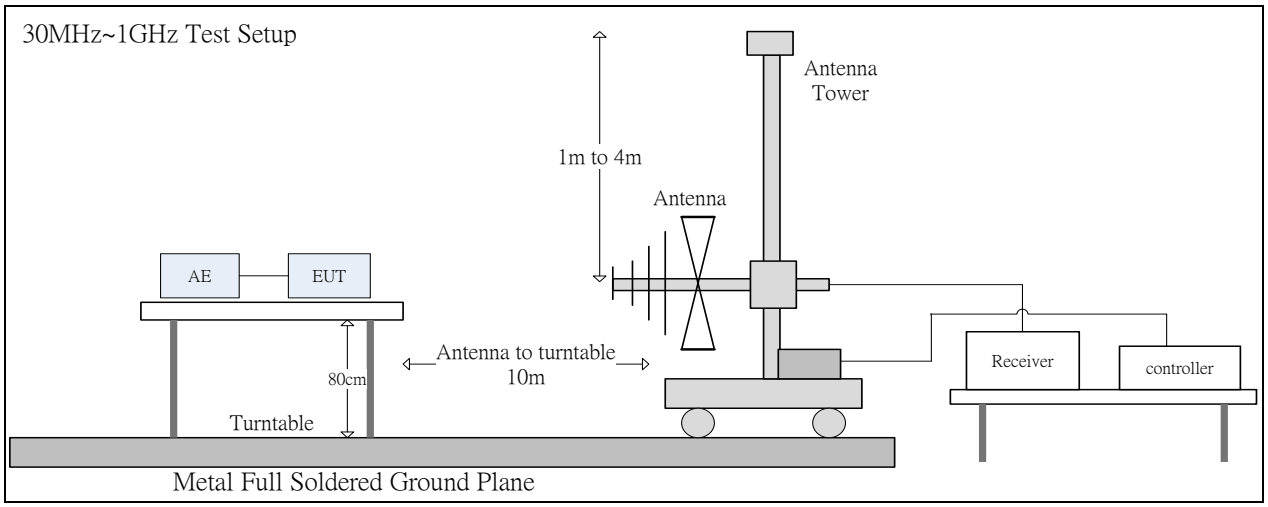
Back View

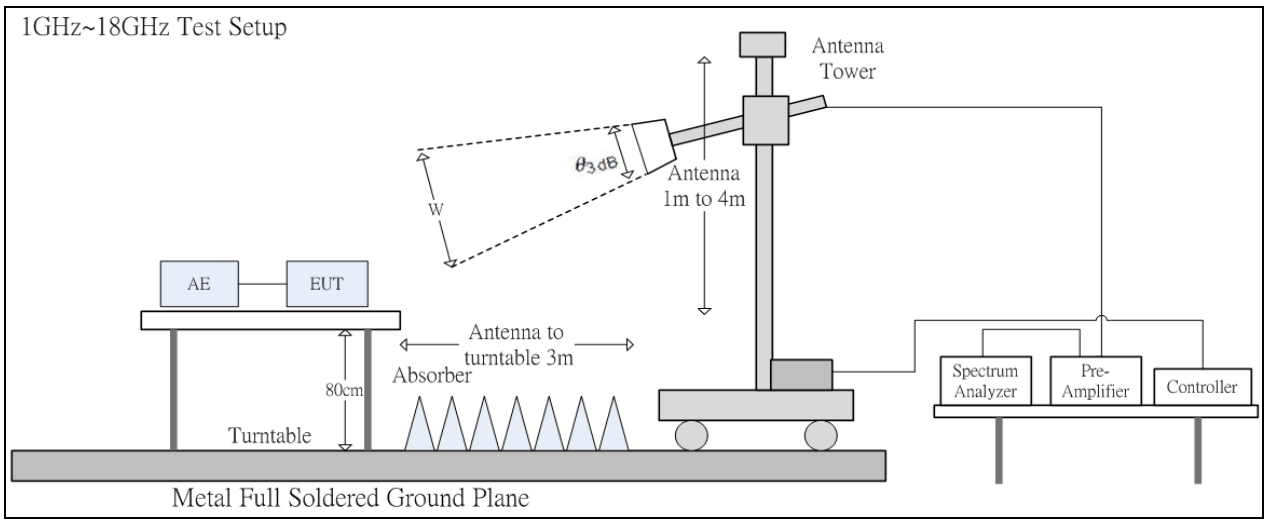


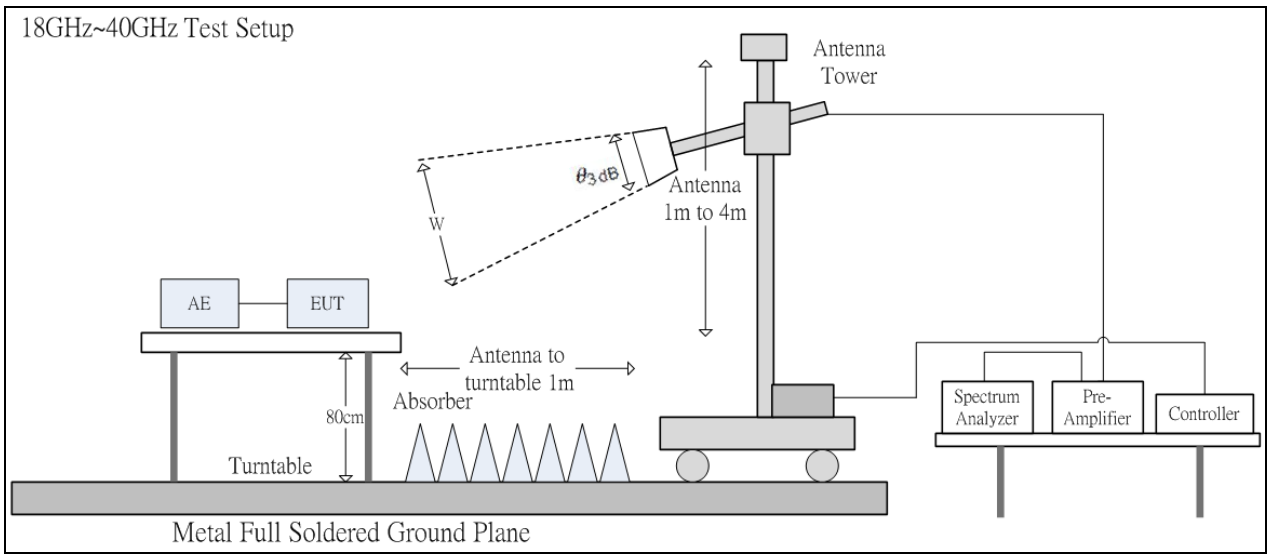
3. Radiated Emissions

3.1 Test Setup and Procedure

3.1.1 Test Setup







The 3dB beam width of the horn antenna used for the test is as shown in the table below.

1GHz~18GHz

Frequency GHz	E-plane	H-plane	$\theta_{3\,dB}$(min)	d= 3 m
				w (m)
1	88°	147°	88°	5.79
2	68°	119°	68°	4.04
3	73°	92°	73°	4.44
4	70°	89°	70°	4.20
5	55°	60°	55°	3.12
6	63°	62°	62°	3.60
7	48°	49°	48°	2.67
8	39°	46°	39°	2.12
9	32°	42°	32°	1.72
10	30°	39°	30°	1.61
11	32°	35°	32°	1.72
12	35°	32°	35°	1.89
13	34°	31°	31°	1.66
14	32°	27°	27°	1.44
15	36°	26°	26°	1.39
16	40°	28°	28°	1.50
17	43°	26°	26°	1.39
18	41°	22°	22°	1.17

18 GHz~26.5 GHz

Frequency GHz	E-plane	H-plane	$\theta_{3\,dB}$(min)	d= 1 m	d= 3 m
				w (m)	w (m)
18	11.4°	12.7°	11.4°	0.199	0.598
19	10.9°	12.4°	10.9°	0.190	0.572
20	10.8°	12.4°	10.8°	0.189	0.567
21	9.8°	12°	9.8°	0.171	0.514
22	9.7°	11°	9.7°	0.169	0.509
23	10°	11.8°	10°	0.174	0.524
24	9°	11°	9°	0.157	0.472
25	10°	12.3°	10°	0.174	0.524
26	9.9°	11.1°	9.9°	0.173	0.519
26.5	9.4°	11.3°	9.4°	0.164	0.493

26 GHz~40 GHz

Frequency GHz	E-plane	H-plane	$\theta_{3\,dB}$(min)	d= 1 m	d= 3 m
				w (m)	w (m)
26	12°	12.2°	12°	0.210	0.631
27	13°	10.5°	10.5°	0.184	0.551
28	13.2°	12.3°	12.3°	0.216	0.647
29	11.5°	12.8°	11.5°	0.201	0.604
30	12°	8°	8°	0.140	0.420
31	11.5°	10.1°	10.1°	0.177	0.530
32	11.8°	10°	10°	0.175	0.525
33	11.8°	9.5°	9.5°	0.166	0.499
34	11.6°	10°	10°	0.175	0.525

35	10.9°	9.8°	9.8°	0.171	0.514
36	11.8°	8.6°	8.6°	0.150	0.451
37	12.9°	10.5°	10.5°	0.184	0.551
38	12°	10.3°	10.3°	0.180	0.541
39	11.8°	9.8°	9.8°	0.171	0.514
40	12.5°	11.2°	11.2°	0.196	0.588

3.1.2 Test Procedure

The radiated emissions test will then be repeated on the chamber to measure the amplitudes accurately and without the multiple reflections existing in the shielded room. The EUT and support equipment are set up on the turntable of one of 10 meter chamber. Desktop EUT are set up on a wooden stand 0.8 meter above the ground or floor-standing arrangement shall be placed on the horizontal ground reference plane. The test volume for a height of up to 30 cm may be obstructed by absorber placed on the ground plane.

For the initial measurements, the receiving antenna is varied from 1-4 meter height and is changed in the vertical plane from vertical to horizontal polarization at each frequency. The highest emissions between 30 MHz to 1000 MHz were analyzed in details by operating the spectrum analyzer and/or EMI receiver in quasi-peak mode to determine the precise amplitude of the emissions. The highest emissions between 1 GHz to 40 GHz were analyzed in details by operating the spectrum analyzer in peak and average mode to determine the precise amplitude of the emissions.

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 antenna in the cone of radiation from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response. At the highest amplitudes observed, the EUT is rotated in the horizontal plane while changing the antenna polarization in the vertical plane to maximize the reading. The interconnecting cables were arranged and moved to get the maximum measurement. Once the maximum reading is obtained, the antenna elevation and polarization will be varied between specified limits to maximize the readings. All of the interface cables were manipulated according to ANSI C63.4 requirements.

The highest internal source of the EUT is defined as the highest frequency generated or used within the EUT or on which the EUT operates or tunes. If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, the measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is less.

3.1.3 Spectrum Analyzer Configuration (for the frequencies tested)

Frequency Range: 30MHz--1000MHz
Detector Function: Quasi-Peak Mode
Resolution Bandwidth: 120kHz

Frequency Range: Above 1000MHz
Detector Function: Peak/Average Mode
Resolution Bandwidth: 1MHz

3.1.4 Limit

Radiated emissions limits of Class_A equipment. (30 MHz to 1 GHz)

Frequency range (MHz)	at 10 m distance Quasi-peak (dBμV/m)
30-230	40.0
230-1000	47.0
Note: The more stringent limit applies at transition frequencies.	

Radiated emission limits of Class_A equipment at 3 m distance (at and above 1 GHz)

Frequency range (GHz)	Average dB(μV/m)	Peak dB(μV/m)
1 – 18G	60	80

Radiated emission limits of Class_A equipment at 1 m distance (at and above 1 GHz)

Frequency range (GHz)	Average dB(μV/m)	Peak dB(μV/m)
18 – 40G	69.5	89.5

Note 1: Limit is measurement distance using an inverse linear distance extrapolation factor (20dB/decade).

Radiated emissions limits of Class_B equipment. (30 MHz to 1 GHz)

Frequency range (MHz)	at 10 m distance Quasi-peak (dBμV/m)
30-230	30.0
230-1000	37.0
Note: The more stringent limit applies at transition frequencies.	

Radiated emission limits of Class_B equipment at 3 m distance (at and above 1 GHz)

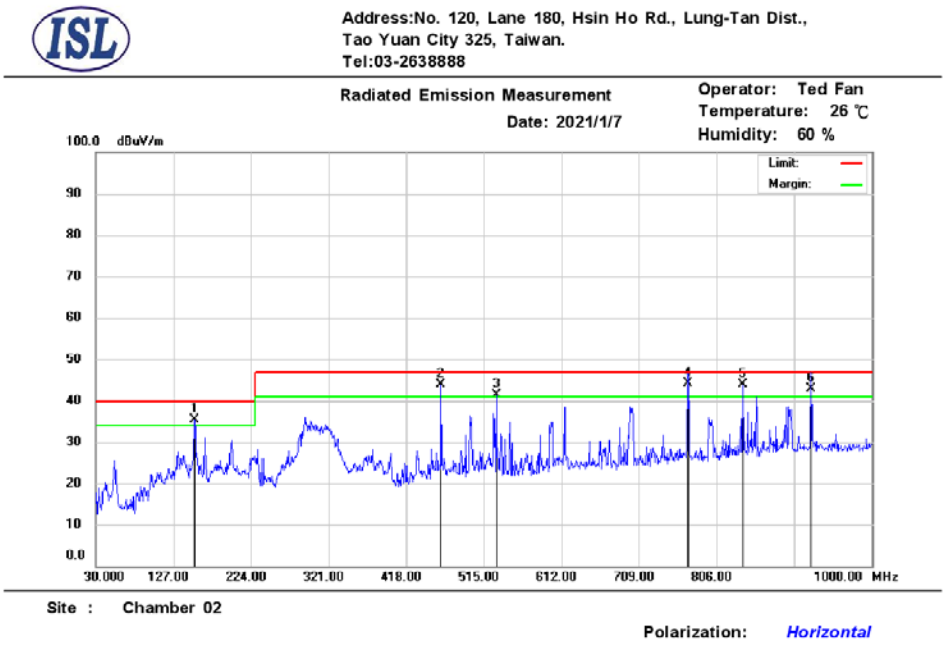
Frequency range (GHz)	Average dB(μV/m)	Peak dB(μV/m)
1 – 18G	54	74

Radiated emission limits of Class_B equipment at 1 m distance (at and above 1 GHz)

Frequency range (GHz)	Average dB(μV/m)	Peak dB(μV/m)
18 – 40G	63.5	83.5

Note 1: Limit is measurement distance using an inverse linear distance extrapolation factor (20dB/decade).

3.2 Radiation Test Data: Configuration 1
- Radiated Emissions (Horizontal)



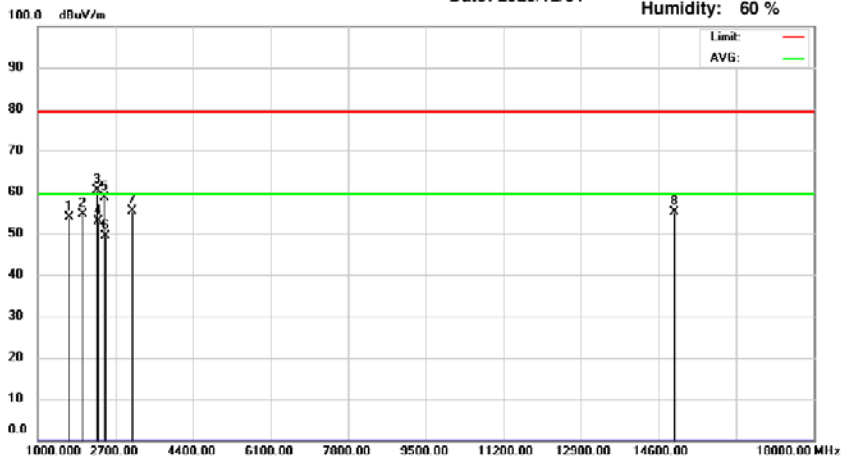
Mk.	Frequency (MHz)	RX_R (dBuV)	Correct Factor(dB/m)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.Pos (cm)	Tab.Pos (deg.)	Detector
1	153.19	51.07	-15.80	35.27	40.00	-4.73	400	233	peak
2	461.65	53.24	-9.34	43.90	47.00	-3.10	300	203	peak
3	530.52	49.27	-7.82	41.45	47.00	-5.55	200	81	peak
4	770.11	47.25	-3.13	44.12	47.00	-2.88	100	315	QP
5	838.98	46.35	-2.52	43.83	47.00	-3.17	100	250	peak
6	924.34	44.12	-1.31	42.81	47.00	-4.19	100	202	QP

* Note:
Margin = Emission – Limit
Emission = Radiated Amplitude + Correct Factor
Correct Factor = Antenna Correction Factor + Cable Loss – Pre-Amplifier Gain
A margin of -8dB means that the emission is 8dB below the limit
Antenna Distance: 10 meters
The CISPR 22 limits would be applied to all FCC Part 15 devices.
Below 1GHz test, if the peak measured value meets the QP limit, it is unnecessary to perform the QP measurement.

Address:No. 120, Lane 180, Hsin Ho Rd., Lung-Tan Dist.,
Tao Yuan City 325, Taiwan.
Tel:03-4071718

Radiated Emission Measurement
Date: 2020/12/31

Operator: James Kuo
Temperature: 26 ℃
Humidity: 60 %



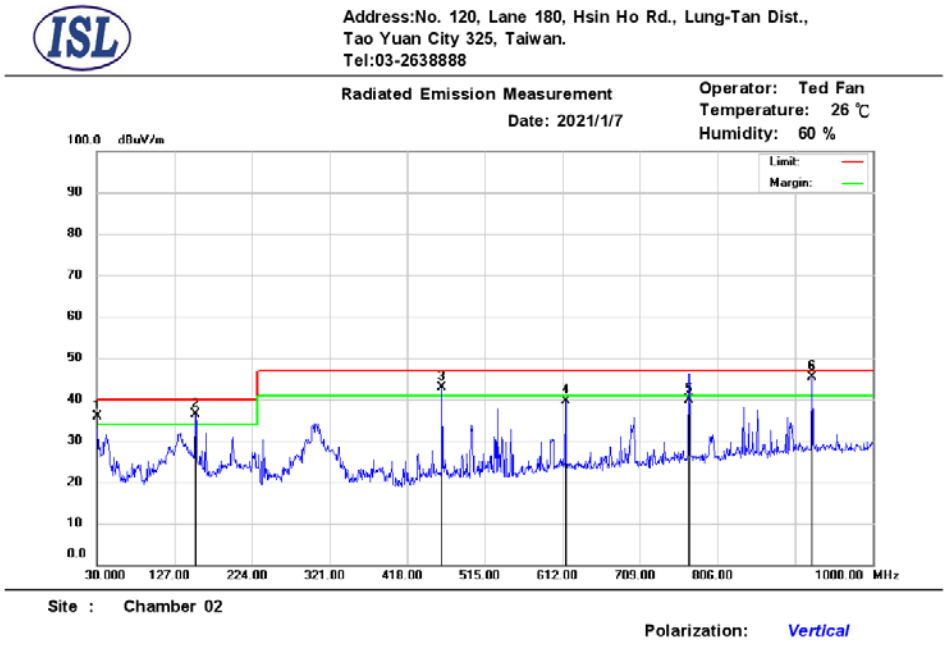
Site : Chamber 14

Polarization: *Horizontal*

Mk.	Frequency (MHz)	RX_R (dBuV)	Correct Factor(dB/m)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.Pos (cm)	Tab.Pos (deg.)	Detector
1	1680.00	69.04	-15.08	53.96	79.50	-25.54	100	130	peak
2	1986.00	67.32	-12.77	54.55	79.50	-24.95	100	69	peak
3	2309.00	72.47	-12.17	60.30	79.50	-19.20	100	146	peak
4	2309.93	64.99	-12.17	52.82	59.50	-6.68	101	142	AVG
5	2462.00	70.18	-11.53	58.65	79.50	-20.85	200	167	peak
6	2464.05	60.97	-11.52	49.45	59.50	-10.05	201	170	AVG
7	3074.00	65.93	-10.50	55.43	79.50	-24.07	200	208	peak
8	14940.00	59.12	-4.06	55.06	79.50	-24.44	300	0	peak

* Note:
Margin = Emission – Limit
Emission = Radiated Amplitude + Correct Factor
Correct Factor = Antenna Correction Factor + Cable Loss – Pre-Amplifier Gain
A margin of -8dB means that the emission is 8dB below the limit
Antenna Distance: 3 meters
Above 1GHz test, if the peak measured value meets the average limit, it is unnecessary to perform the average measurement.

-Radiated Emissions (Vertical)



Mk.	Frequency (MHz)	RX_R (dBuV)	Correct Factor(dB/m)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.Pos (cm)	Tab.Pos (deg.)	Detector
1	30.00	54.67	-18.81	35.86	40.00	-4.14	100	81	peak
2	153.19	52.22	-15.80	36.42	40.00	-3.58	100	181	peak
3	461.65	52.12	-9.34	42.78	47.00	-4.22	200	192	peak
4	615.88	45.37	-5.79	39.58	47.00	-7.42	100	343	peak
5	770.11	43.12	-3.13	39.99	47.00	-7.01	200	158	QP
6	924.34	46.64	-1.31	45.33	47.00	-1.67	300	184	peak

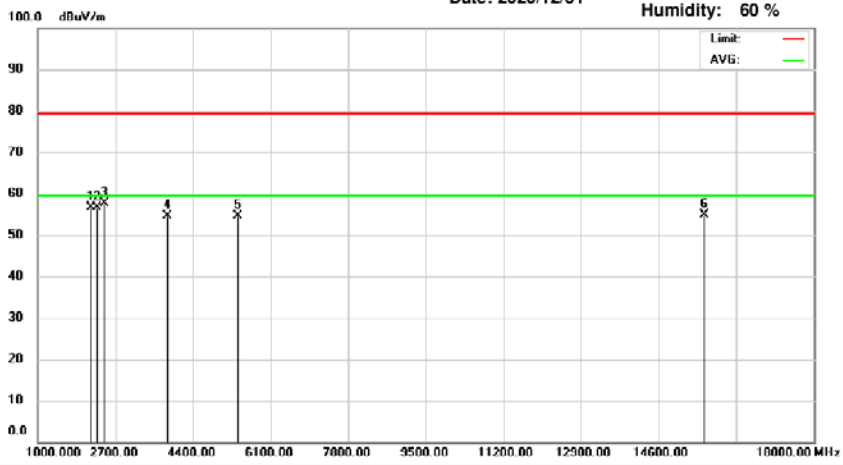
* Note:
Margin = Emission – Limit
Emission = Radiated Amplitude + Correct Factor
Correct Factor = Antenna Correction Factor + Cable Loss – Pre-Amplifier Gain
A margin of -8dB means that the emission is 8dB below the limit
Antenna Distance: 10 meters
The CISPR 22 limits would be applied to all FCC Part 15 devices.
Below 1GHz test, if the peak measured value meets the QP limit, it is unnecessary to perform the QP measurement.

Address:No. 120, Lane 180, Hsin Ho Rd., Lung-Tan Dist.,
Tao Yuan City 325, Taiwan.
Tel:03-4071718

Radiated Emission Measurement

Operator: James Kuo
Temperature: 26 ℃
Humidity: 60 %

Date: 2020/12/31



Site : Chamber 14

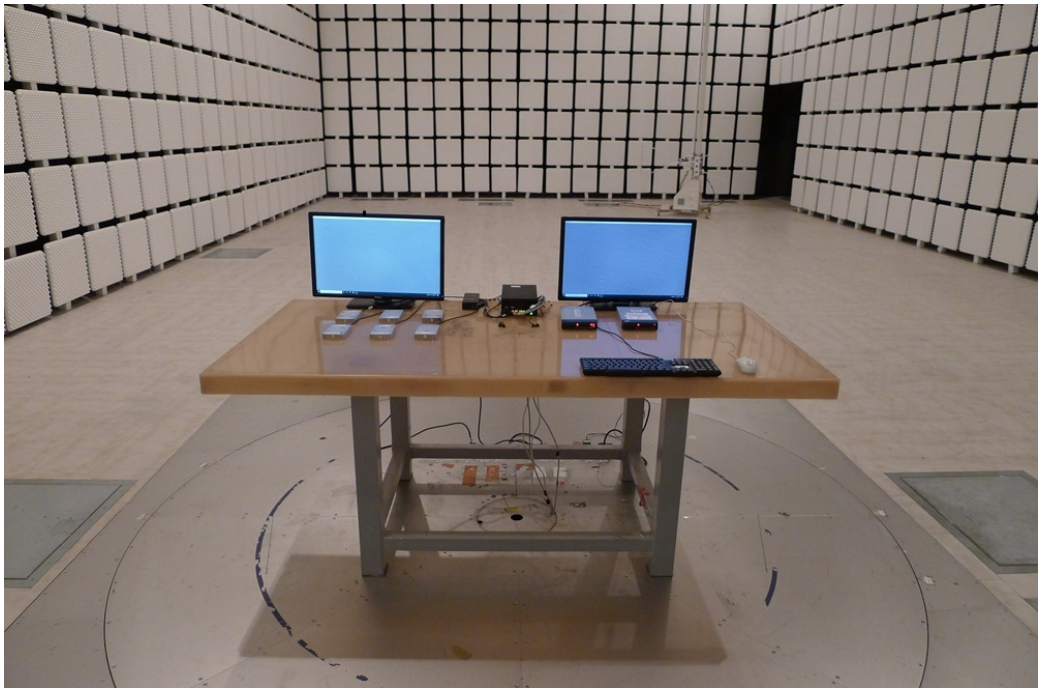
Polarization: *Vertical*

Mk.	Frequency (MHz)	RX_R (dBuV)	Correct Factor(dB/m)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.Pos (cm)	Tab.Pos (deg.)	Detector
1	2156.00	69.03	-12.41	56.62	79.50	-22.88	100	157	peak
2	2309.00	68.81	-12.17	56.64	79.50	-22.86	150	149	peak
3	2462.00	69.28	-11.53	57.75	79.50	-21.75	100	153	peak
4	3839.00	64.35	-9.61	54.74	79.50	-24.76	100	121	peak
5	5386.00	62.68	-8.09	54.59	79.50	-24.91	100	150	peak
6	15603.00	57.67	-2.83	54.84	79.50	-24.66	350	195	peak

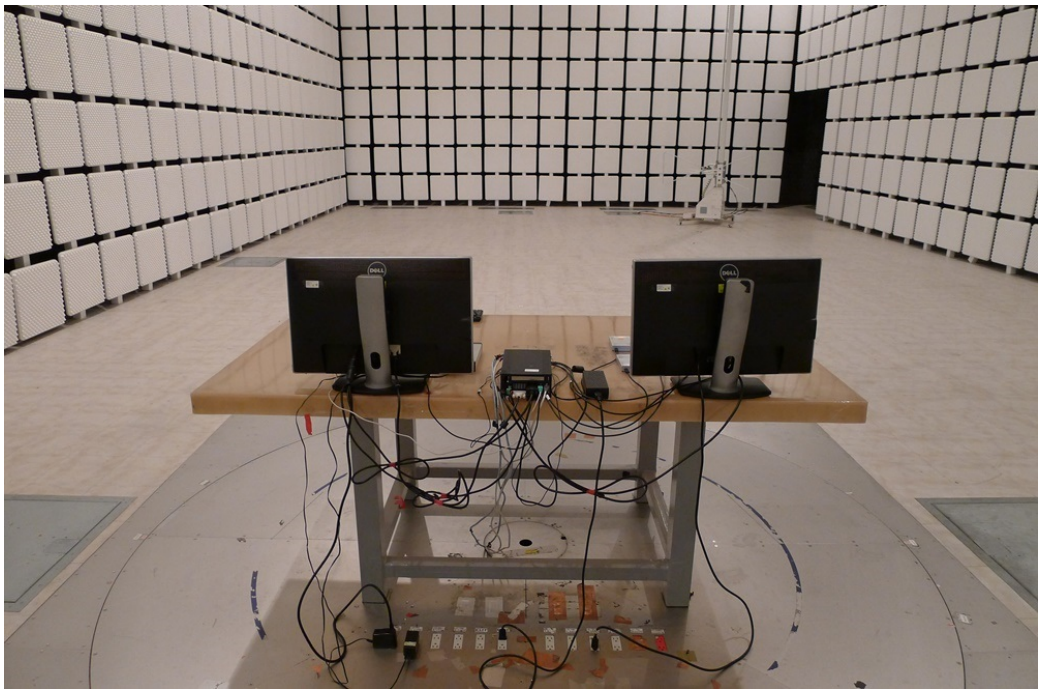
* Note:
Margin = Emission – Limit
Emission = Radiated Amplitude + Correct Factor
Correct Factor = Antenna Correction Factor + Cable Loss – Pre-Amplifier Gain
A margin of -8dB means that the emission is 8dB below the limit
Antenna Distance: 3 meters
Above 1GHz test, if the peak measured value meets the average limit, it is unnecessary to perform the average measurement.

3.3 Test Setup Photo

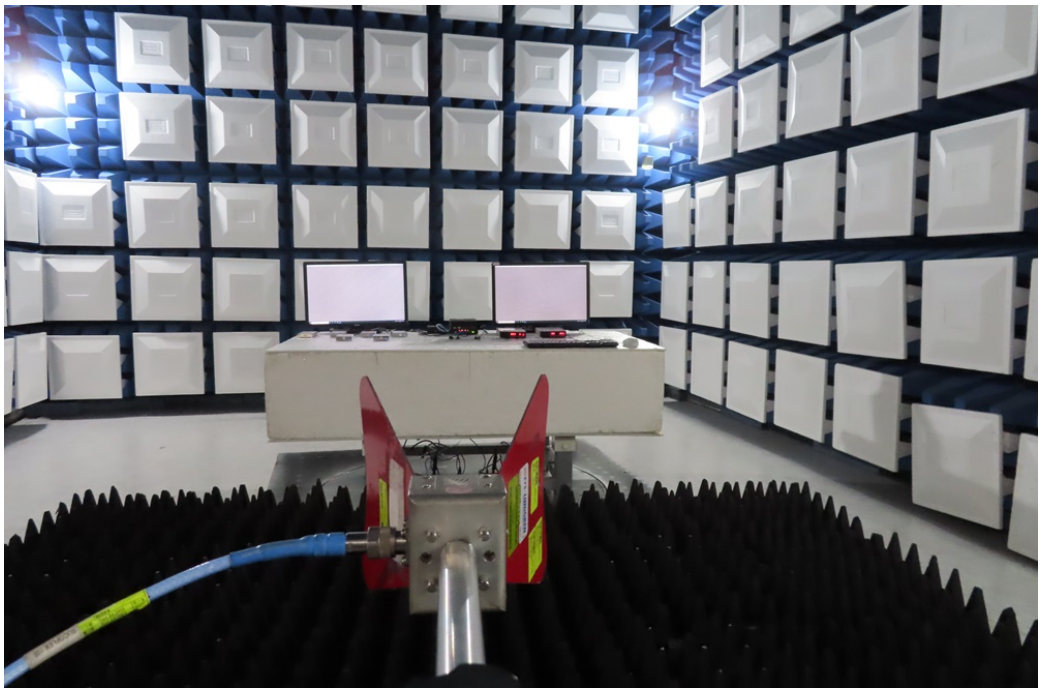
Front View (30MHz~1GHz)



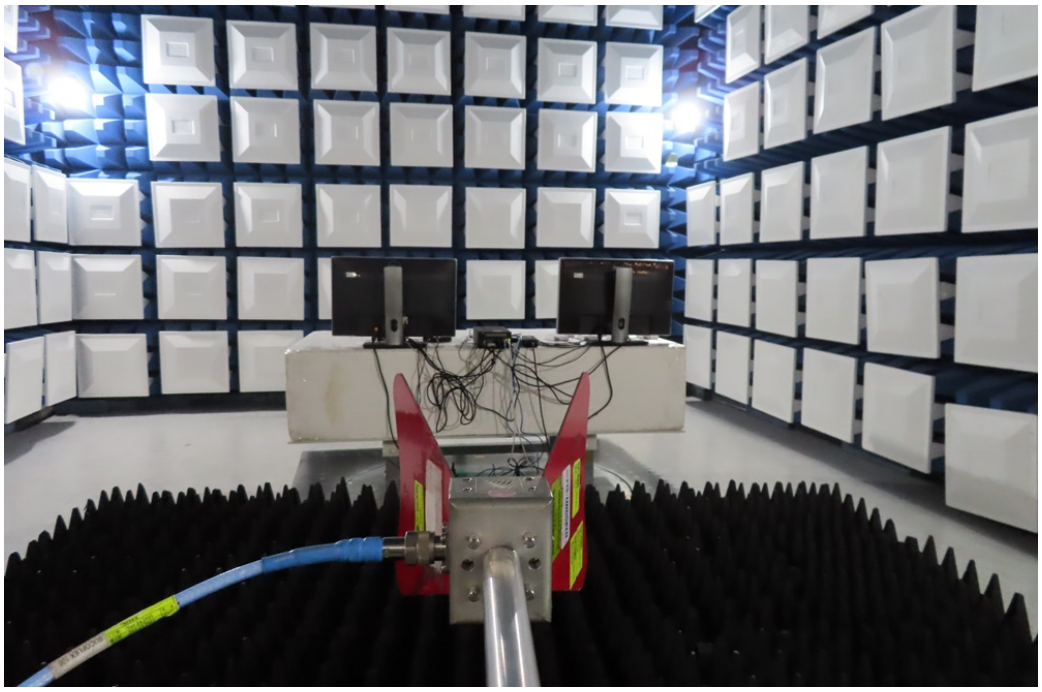
Back View (30MHz~1GHz)



Front View (above 1GHz)



Back View (above 1GHz)



4. Appendix

4.1 Appendix A: Warning Labels

Label Requirements

A Class A digital device subject to authorization under Supplier's Declaration of Conformity of FCC shall carry a label which includes the following statement:

*** * * W A R N I N G * * ***

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Devices subject to authorization under Supplier's Declaration of Conformity may be labeled with FCC logo on a voluntary basis as a visual indication that the product complies with the applicable FCC requirements

The sample label shown shall be permanently affixed at a conspicuous location on the device and be readily visible to the user at the time of purchase.

When the device is so small or for such use that it is impracticable to label it with the statement specified under (§15.19 Labeling requirements) paragraph (a) of this section in a font that is four-point or larger, and the device does not have a display that can show electronic labeling, then the information required by this paragraph shall be placed in the user manual and must also either be placed on the device packaging or on a removable label attached to the device.

4.2 Appendix B: Warning Statement

Statement Requirements

The operators' manual for a Class A digital device shall contain the following statements or their equivalent:

*** * * W A R N I N G * * ***

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equivalent.

* * * * * * * * * *

If the EUT was tested with special shielded cables the operator's manual for such product shall also contain the following statements or their equivalent:

Shielded interface cables and/or AC power cord, if any, must be used in order to comply with the emission limits.

4.3 Appendix C: Test Equipment

4.3.1 Test Equipment List

Location	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Conduction 04	LISN 18	ROHDE & SCHWARZ	ENV216	101424	07/01/2020	07/01/2021
Conduction 04	LISN 03	R&S	ESH3-Z5	828874/010	11/05/2020	11/05/2021
Conduction 04	Chamber05 -1 Cable	WOKEN	CFD 300-NL	Chamber05 -1 Cable	08/22/2020	08/22/2021
Conduction 04	EMI Receiver 18	ROHDE&SCHWARZ	ESCI	101392	06/03/2020	06/03/2021

Location Chamber02	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Radiation (Chamber02)	BILOG Antenna 17	Schwarzbeck	Schwarzbeck VULB 9168+EMCI-N-6-05	645	03/09/2020	03/09/2021
Radiation (Chamber02)	Preamplifier 25	EMCI	EMC9135	980295	03/05/2020	03/05/2021
Radiation (Chamber02)	Coaxial Cable Chmb 02-10M-02	EMC	RG214U	Chmb 02-10M-02	10/14/2020	10/14/2021
Radiation (Chamber02)	EMI Receiver 12	ROHDE & SCHWARZ	ESCI	100804	08/19/2020	08/19/2021

Location Chmb14	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Rad. Above 1GHz	Spectrum Analyzer 25	R&S	FSV 40	101499	11/04/2020	11/04/2021
Rad. Above 1GHz	Horn Antenna 06	ETS-Lindgren	3117	00066665	11/04/2020	11/04/2021
Rad. Above 1GHz	Preamplifier 20	EMC INSTRUMENT	EMC051845	980084	11/19/2020	11/19/2021
Rad. Above 1GHz	Microwave Cable-11	HUBER SUHNER	SUCOFLEX 106	78034/6	02/03/2020	02/03/2021
Rad. Above 1GHz	Microwave Cable-26	EMCI	EMC104-NM-SM-800	141112	02/26/2020	02/26/2021

4.3.2 Software for Controlling Spectrum/Receiver and Calculating Test Data

Site	Filename	Version	Issue Date
Conduction/Radiation	EZ EMC	ISL-03A2	3/6/2013

4.4 Appendix D: Uncertainty of Measurement

The laboratory measurement uncertainty accordance with refers to CISPR 16-4-2. If Ulab is less than or equal to Ucispr in Table 1, then the test report may either state the value of Ulab or state that Ulab is less than Ucispr.
The coverage factor k = 2 yields approximately a 95 % level of confidence.

<Conduction 04>
AMN: ±2.90dB

<Chamber 02 (10M)>
Horizontal
30MHz~200MHz: ±4.52dB
200MHz~1000MHz: ±4.42dB
Vertical
30MHz~200MHz: ±4.51dB
200MHz~1000MHz: ±4.70dB

<Chamber 14 (3M)>
1GHz~18GHz: ±4.48dB

4.5 Appendix E: Photographs of EUT

Please refer to the File of **ISL-21LE080P-MA**

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