

TEST REPORT

of

CFR 47 Part 15 Subpart B Class B


Application Type: Supplier's Declaration of Conformity

Product: **SATA Flash Drive**
Main Model: **ST18X-25 (X=A~Z,0~9)**
Series Model: **NA**
Brand: **Apacer**
Applicant: **Apacer Technology Inc.**
Address: **1F., No.32, Zhongcheng Rd., Tucheng Dist., New Taipei City 236, Taiwan , R.O.C.**

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-20LE763FB-MH**
Issue Date : **December 6, 2022**



Test results given in this report apply only to the specific sample(s) tested and are traceable to national or international standard through calibration of the equipment and evaluating measurement uncertainty herein. The uncertainty of the measurement does not include in consideration of the test result unless the customer required the determination of uncertainty via the agreement, regulation or standard document specification. This test report shall not be reproduced except in full, without the written approval of International Standards Laboratory Corp.

Contents of Report

1.	General	1
1.1	Certification of Accuracy of Test Data	1
1.2	Description of EUT	2
1.3	Description of Support Equipment	3
1.4	Software for Controlling Support Unit	4
1.5	I/O Cable Condition of EUT and Support Units	5
2.	Power Line Conducted Emissions	6
2.1	Test Setup and Procedure	6
2.1.1	Test Setup	6
2.1.2	Test Procedure	6
2.1.3	EMI Receiver/Spectrum Analyzer Configuration (for the frequencies tested)	6
2.2	Conduction Test Data: Configuration 1	7
2.3	Test Setup Photo	9
3.	Radiated Emissions	11
3.1	Test Setup and Procedure	11
3.1.1	Test Setup	11
3.1.2	Test Procedure	13
3.1.3	Spectrum Analyzer Configuration (for the frequencies tested)	13
3.2	Radiation Test Data: Configuration 1	14
3.3	Test Setup Photo	18
4.	Appendix	20
4.1	Appendix A: Warning Labels	20
4.2	Appendix B: Warning Statement	21
4.3	Appendix C: Test Equipment	22
4.3.1	Test Equipment List	22
4.3.2	Software for Controlling Spectrum/Receiver and Calculating Test Data	23
4.4	Appendix D: Uncertainty of Measurement	23
4.5	Appendix E: Photographs of EUT Please refer to the File of ISL-20LE763P-MH 24	

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
Industry Canada Interference-Causing Equipment Standard ICES-003 Issue 6: 2016
Class B

Equipment Tested: SATA Flash Drive

Main Model: ST18X-25 (X=A~Z,0~9)

Brand: Apacer

Applicant: Apacer Technology Inc.

Sample received Date: September 14, 2020

Final test Date: refer to the date of test data

Test Site: Chamber 02; Chamber 14; Conduction 03

Test Distance: 10m; 3m (above 1GHz)

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: Helena Tsai

Test Engineer: Jovi Liu
Jovi Liu

Approved By: Benson Chen
Benson Chen / Manager

1.2 Description of EUT

EUT

This report test data using the report number ISL-20LE763FB

Description	SATA Flash Drive
Condition	Pre-Production
Model	ST18X-25 (X=A~Z,0~9)
Serial Number	N/A
Power	From Personal Computer Supply
Control IC	PS3112-S12
PCB Number	A085012SE00G401E-V1
Memory Capacity	1GB~16TB
Highest working frequency:	6GHz

The memory capacities listed below is chosen by the applicant to be the representative configuration for testing in this report.

Test configurations:

Configuration	Control IC	PCB Number	Memory Capacity
1	PS3112-S12	A085012SE00G401E-V1	16TB

Different Model list:

Model	Market
ST18X-25 (X=A~Z)	Different customer

EMI Noise Source:

Refer to the photo	Crystal	Point
EUT-6	25MHz	Y1

EMI Solution:

NA

1.3 Description of Support Equipment

No	Unit	Model / Serial No.	Brand	Power Cord	FCC ID
1	LCD Monitor	P2416D S/N: N/A	DELL	Non-shielded	FCC DOC
2	PS/2 Keyboard	Y-S0002 S/N: N/A	Logitech	N/A	FCC DOC
3	PS/2 Mouse	M-SBM96B S/N: N/A	Logitech	N/A	FCC DOC
4	Printer	C930 S/N: N/A	HP	Non-shielded	FCC DOC
5	Modem	DM1414 S/N: N/A	Aceex	Non-shielded	FCC DOC
6	Personal Computer	HP ProDesk 400 G3 MT S/N: N/A	HP	Non-shielded	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. PC running Winthrax.exe to read and write the EUT.
2. Send signal to the Printer through PC USB Port.
3. Send signal to the Modem through PC Serial Port.
4. Send H Pattern to the LCD Monitor through PC D-SUB Port.
5. Repeat the above steps.

	Filename	Issued Date
EUT	Winthrax.exe	Winthrax.exe
LCD Monitor	IntelEMC	04/11/2007
Printer	IntelEMC	04/11/2007
Modem	IntelEMC	04/11/2007

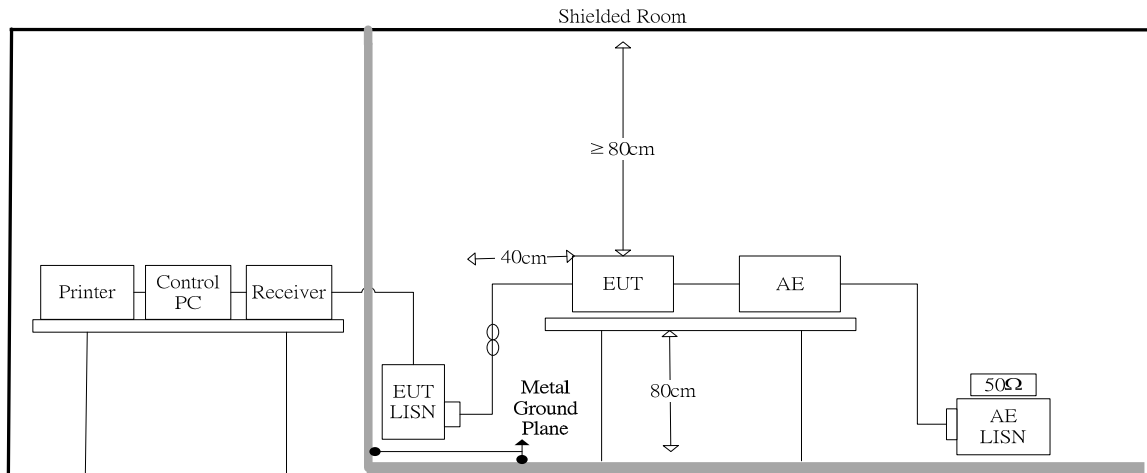
1.5 I/O Cable Condition of EUT and Support Units

Description	Path	Cable Length	Shielding	Core	Remark
AC Power Cable	100V (~240V) to PC SPS	1.8m	NO	NO	
Monitor Data Cable	Monitor D-SUB Port to PC D-SUB Port	1.8m	YES	YES	
Keyboard Data Cable	PS/2 Keyboard to PC PS/2 Port	1.8m	YES	NO	
Mouse Data Cable	PS/2 Mouse to PC PS/2 Port	1.8m	YES	NO	
Printer Data Cable	Printer to PC USB Port	1.8m	YES	NO	
Modem Data Cable	Modem to PC Serial Port	1.8m	YES	NO	

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.

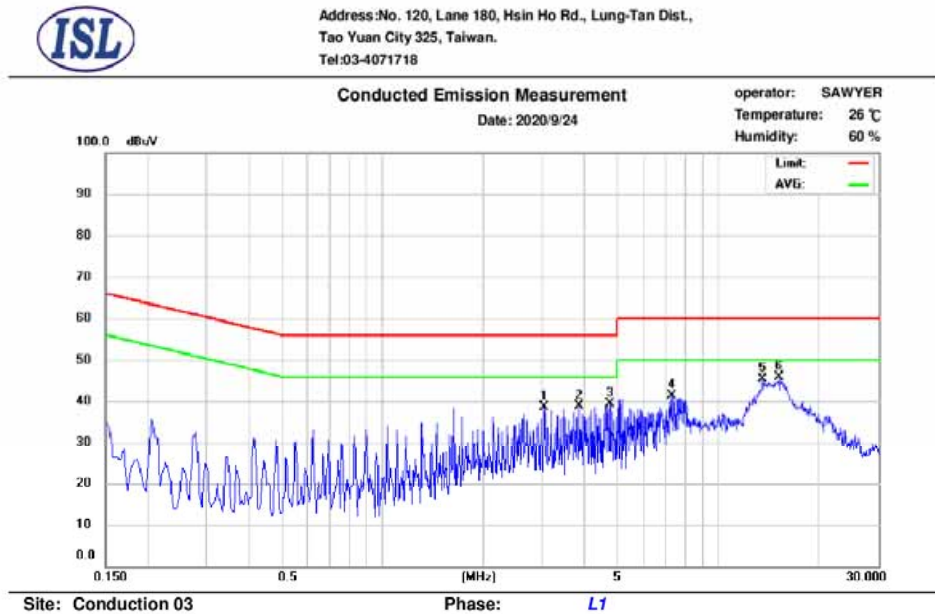
The highest emissions were analyzed in details by operating the spectrum analyzer in fixed tuned mode to determine the nature of the emissions and to provide information which could be useful in reducing their amplitude.

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

2.2 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	3.038	28.04	26.82	9.81	37.85	56.00	-18.15	36.63	46.00	-9.37
2	3.870	27.98	27.69	9.84	37.82	56.00	-18.18	37.53	46.00	-8.47
3	4.766	27.94	27.22	9.86	37.80	56.00	-18.20	37.08	46.00	-8.92
4	7.254	28.38	26.97	9.92	38.30	60.00	-21.70	36.89	50.00	-13.11
5	13.586	31.48	26.39	10.03	41.51	60.00	-18.49	36.42	50.00	-13.58
6	15.202	30.74	25.62	10.05	40.79	60.00	-19.21	35.67	50.00	-14.33

Note:

Margin = QP/AVG Emission - Limit

QP/AVG Emission = QP_R/AVG_R + Correct Factor

Correct Factor = LISN Loss + Cable Loss

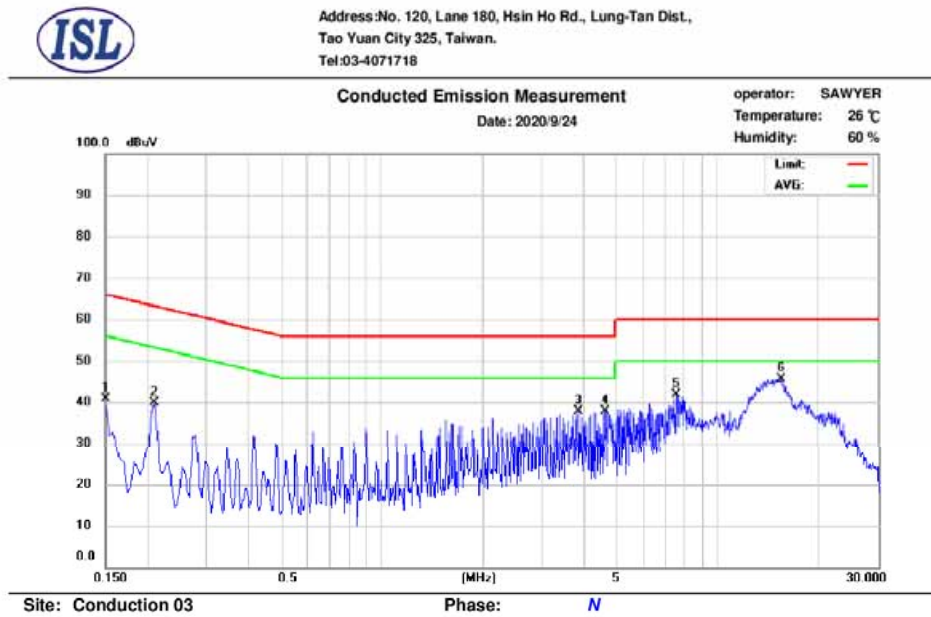
A margin of -8dB means that the emission is 8dB below the limit

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	0.150	25.31	11.61	9.70	35.01	66.00	-30.99	21.31	56.00	-34.69
2	0.210	28.05	25.20	9.68	37.73	63.21	-25.48	34.88	53.21	-18.33
3	3.870	27.38	27.23	9.83	37.21	56.00	-18.79	37.06	46.00	-8.94
4	4.630	27.15	26.97	9.85	37.00	56.00	-19.00	36.82	46.00	-9.18
5	7.534	30.54	29.58	9.93	40.47	60.00	-19.53	39.51	50.00	-10.49
6	15.478	31.09	25.91	10.09	41.18	60.00	-18.82	36.00	50.00	-14.00

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.

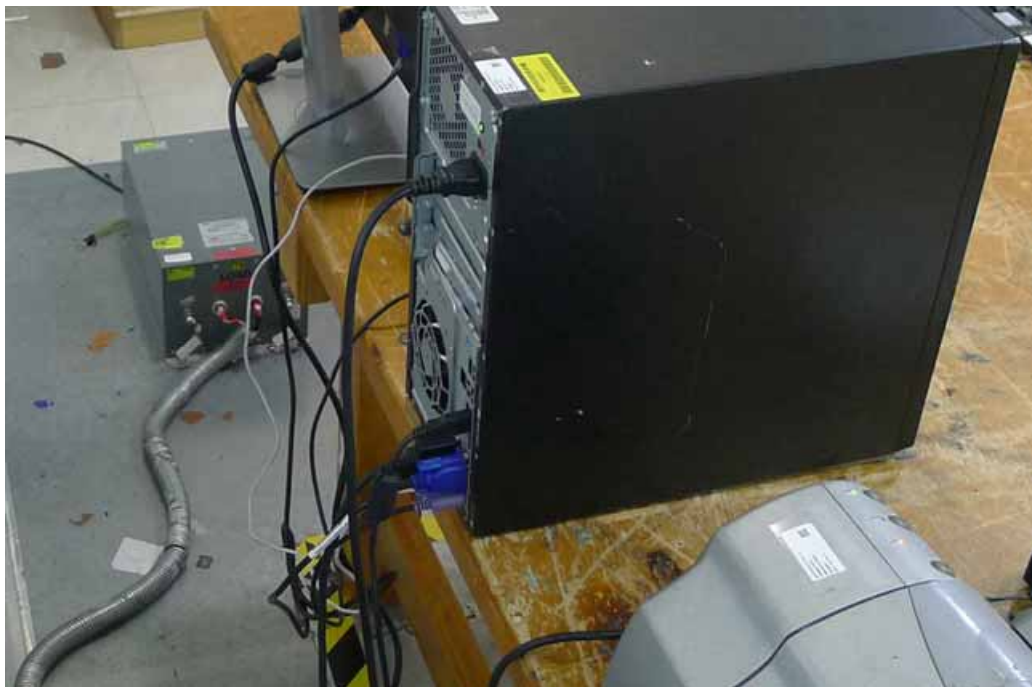
The CISPR 22 limits would be applied to all FCC Part 15 devices.

2.3 Test Setup Photo

Front View



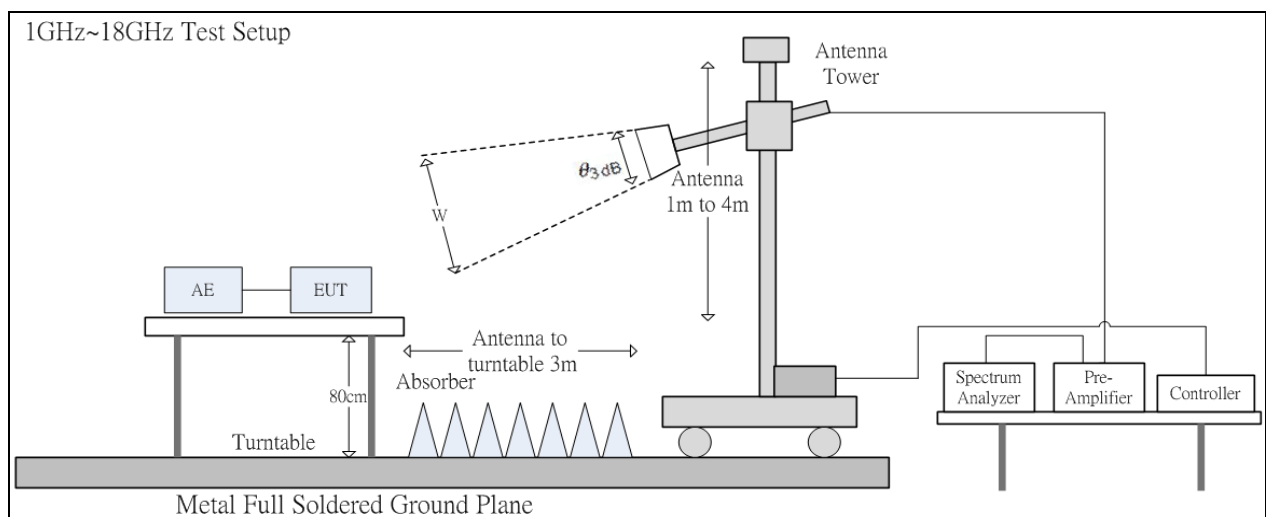
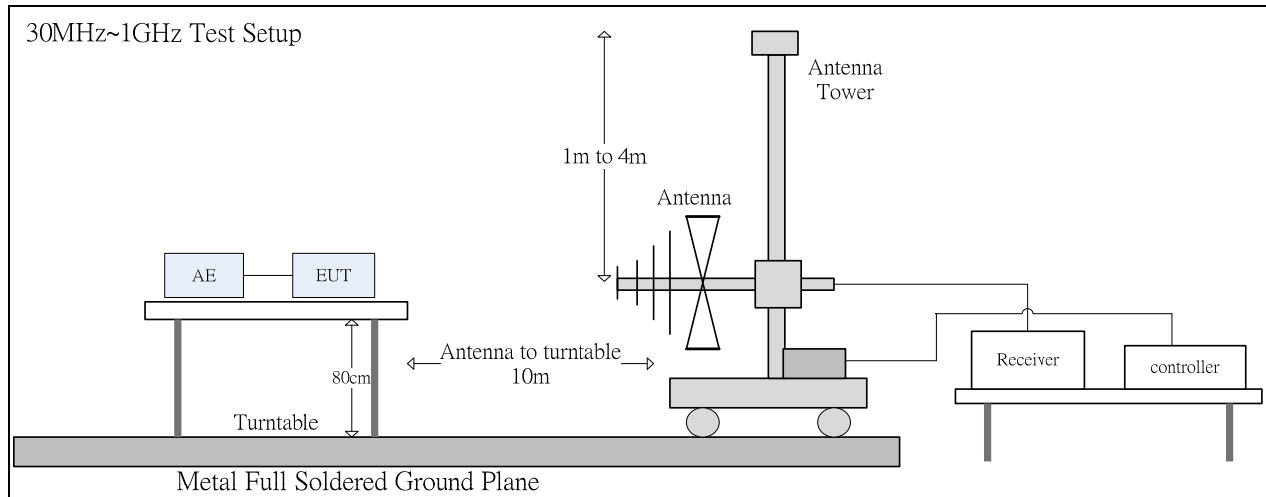
Back View



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	$\theta_{3dB}(\text{min})$	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

Frequency GHz	E-plane	H-plane	$\theta_{3\text{dB}}(\text{min})$	d= 3 m
				w (m)
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	$\theta_{3\text{dB}}(\text{min})$	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	$\theta_{3\text{dB}}(\text{min})$	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.

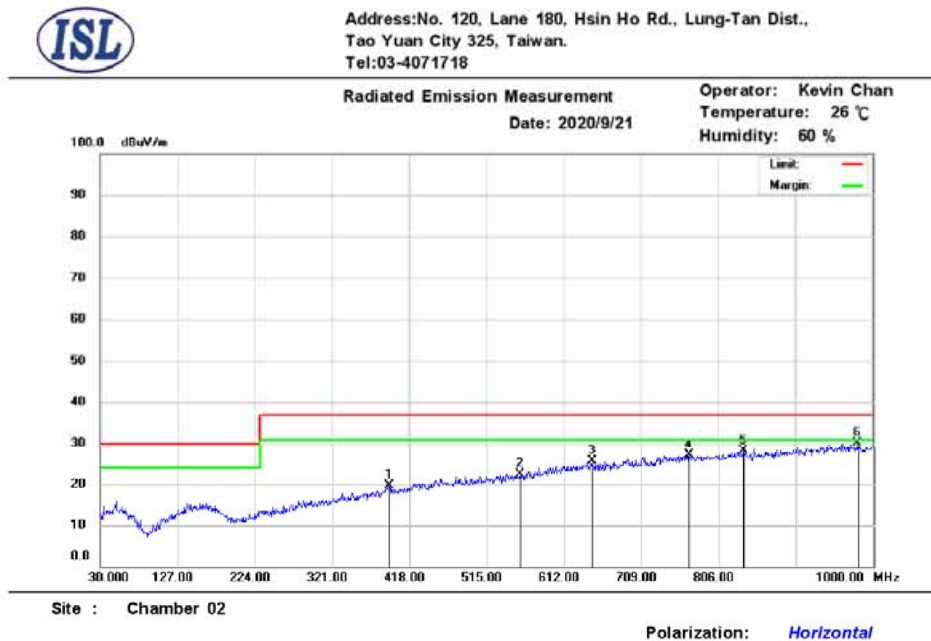
The highest internal source of the EUT is defined as the highest frequency generated or used within the EUT or on which the EUT operates or tunes. If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency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

3.2 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	392.78	30.84	-11.22	19.62	37.00	-17.38	200	352	QP
2	556.71	30.01	-7.55	22.46	37.00	-14.54	100	18	QP
3	646.92	31.02	-5.32	25.70	37.00	-11.30	396	246	QP
4	769.14	30.13	-3.10	27.03	37.00	-9.97	251	360	QP
5	837.04	30.52	-2.51	28.01	37.00	-8.99	100	122	QP
6	981.57	30.58	-0.44	30.14	37.00	-6.86	200	70	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.

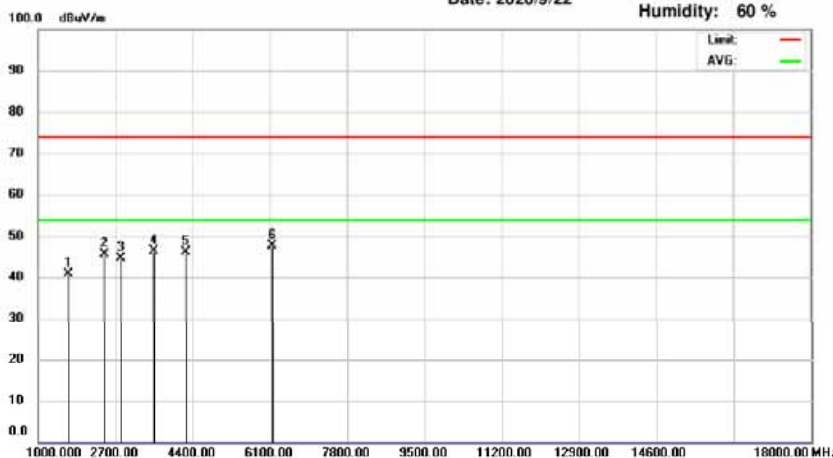
Below 1GHz test, if the peak measured value meets the QP limit, it is unnecessary to perform the QP measurement.



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

Radiated Emission Measurement
Date: 2020/9/22

Operator: Jerry Su
Temperature: 26 °C
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	1663.00	55.93	-15.10	40.83	74.00	-33.17	207	310	peak
2	2462.00	57.08	-11.45	45.63	74.00	-28.37	124	62	peak
3	2819.00	55.85	-11.17	44.68	74.00	-29.32	123	49	peak
4	3550.00	55.52	-9.14	46.38	74.00	-27.62	338	310	peak
5	4247.00	55.65	-9.57	46.08	74.00	-27.92	339	257	peak
6	6151.00	54.83	-7.15	47.68	74.00	-26.32	100	193	peak

* Note:

Margin = Emission - Limit

Emission = Radiated Amplitude + Correct Factor

Correct Factor = Antenna Correction Factor + Cable Loss - Pre-Amplifier Gain

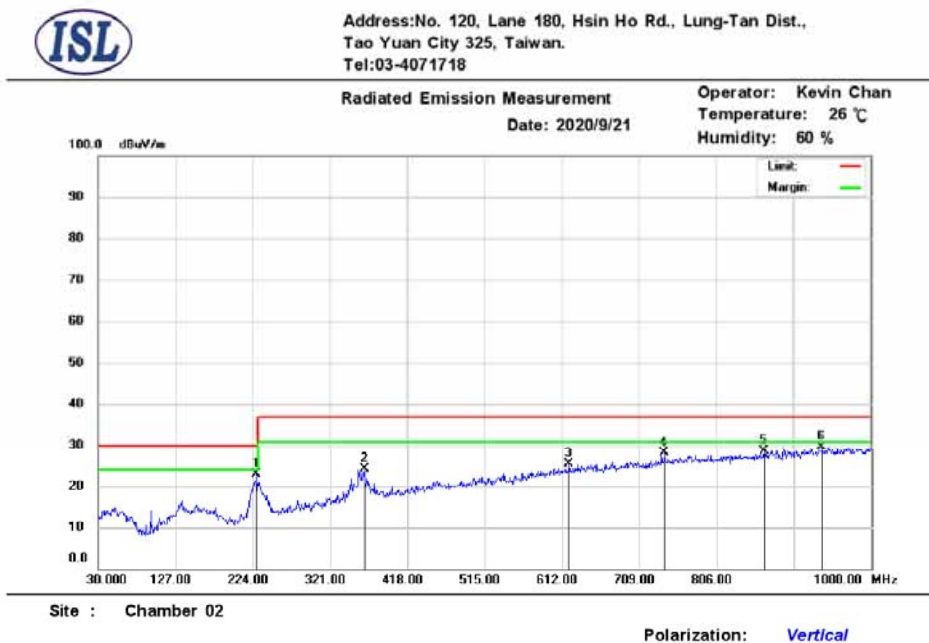
A margin of -8dB means that the emission is 8dB below the limit

Antenna Distance: 3 meters

Above 1GHz test, if the peak measured value meets the average limit, it is unnecessary to perform the average measurement.

No signal can be detected from 18GHz to 30GHz, so the graphs are omitted above 18GHz.

-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	228.85	40.84	-18.00	22.84	30.00	-7.16	100	354	QP
2	363.68	36.32	-12.27	24.05	37.00	-12.95	100	350	QP
3	620.73	31.11	-5.61	25.50	37.00	-11.50	200	270	QP
4	741.01	31.67	-3.60	28.07	37.00	-8.93	300	116	QP
5	866.14	30.85	-2.30	28.55	37.00	-8.45	300	360	QP
6	938.89	30.60	-1.08	29.52	37.00	-7.48	373	0	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.

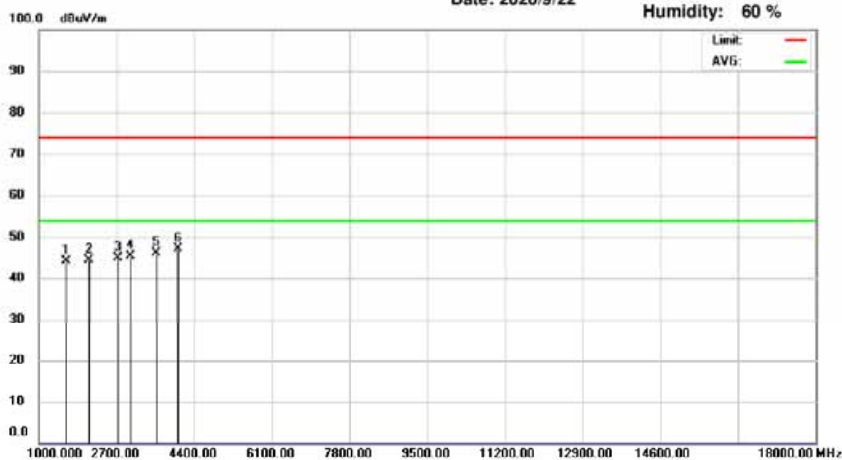


Address: No. 120, Lane 180, Hsin Ho Rd., Lung-Tan Dist.,
Tao Yuan City 325, Taiwan.
Tel: 03-4071718

Radiated Emission Measurement

Date: 2020/9/22

Operator: Jerry Su
Temperature: 26 °C
Humidity: 60 %



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	1595.00	59.81	-15.79	44.02	74.00	-29.98	100	341	peak
2	2105.00	56.75	-12.49	44.26	74.00	-29.74	146	259	peak
3	2734.00	56.11	-11.11	45.00	74.00	-29.00	261	24	peak
4	3006.00	56.20	-10.77	45.43	74.00	-28.57	372	332	peak
5	3567.00	55.60	-9.51	46.09	74.00	-27.91	379	90	peak
6	4043.00	56.78	-9.71	47.07	74.00	-26.93	184	292	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

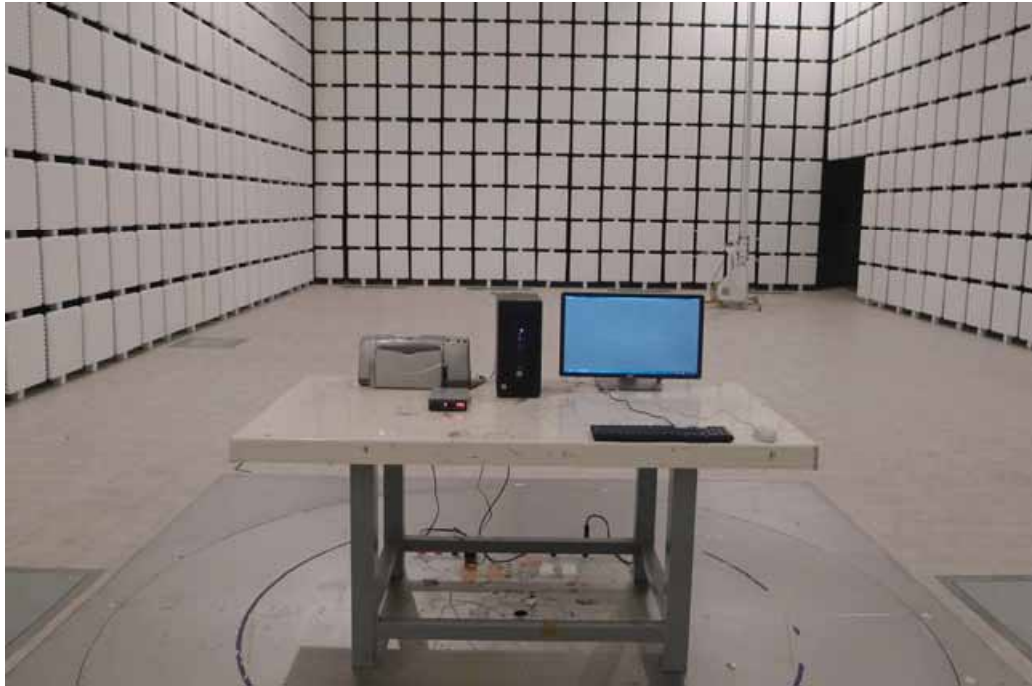
Antenna Distance: 3 meters

Above 1GHz test, if the peak measured value meets the average limit, it is unnecessary to perform the average measurement.

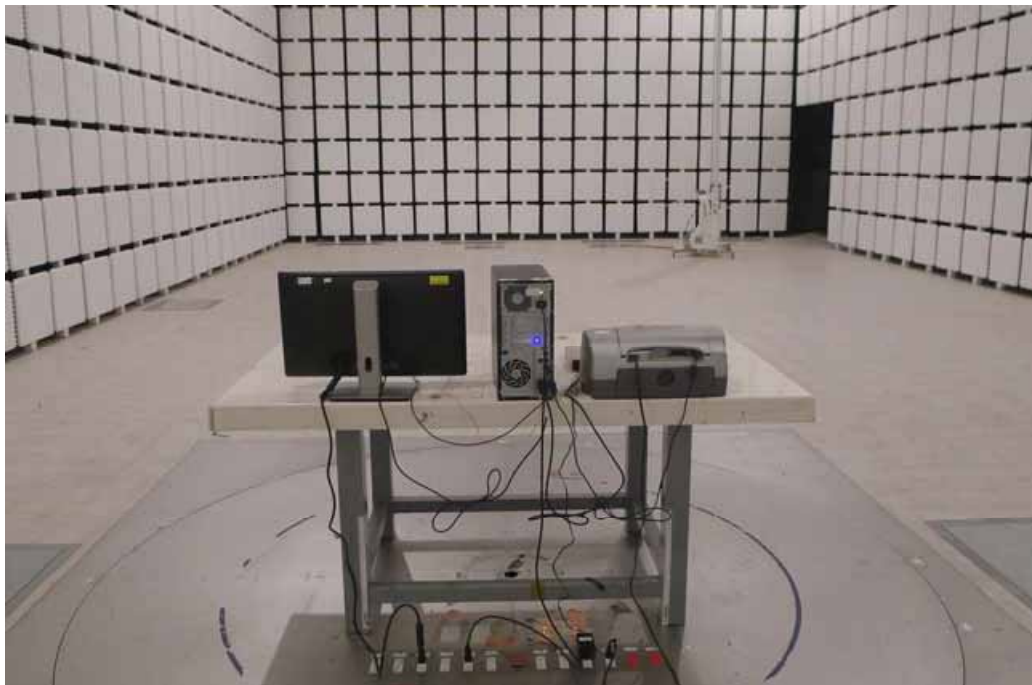
No signal can be detected from 18GHz to 30GHz, so the graphs are omitted above 18GHz.

3.3 Test Setup Photo

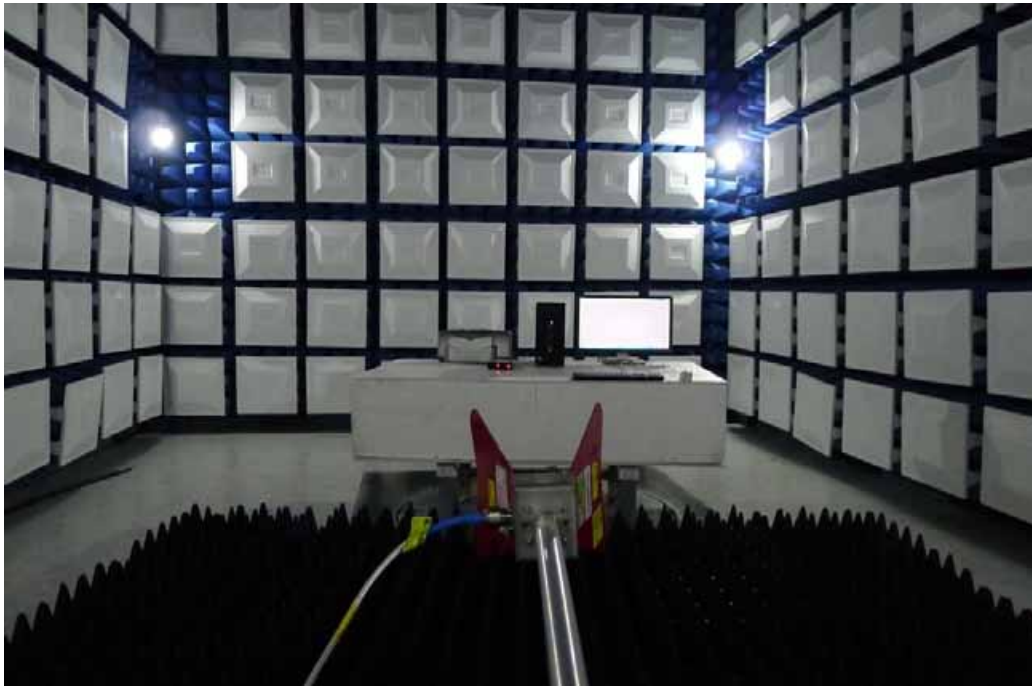
Front View (30MHz~1GHz)



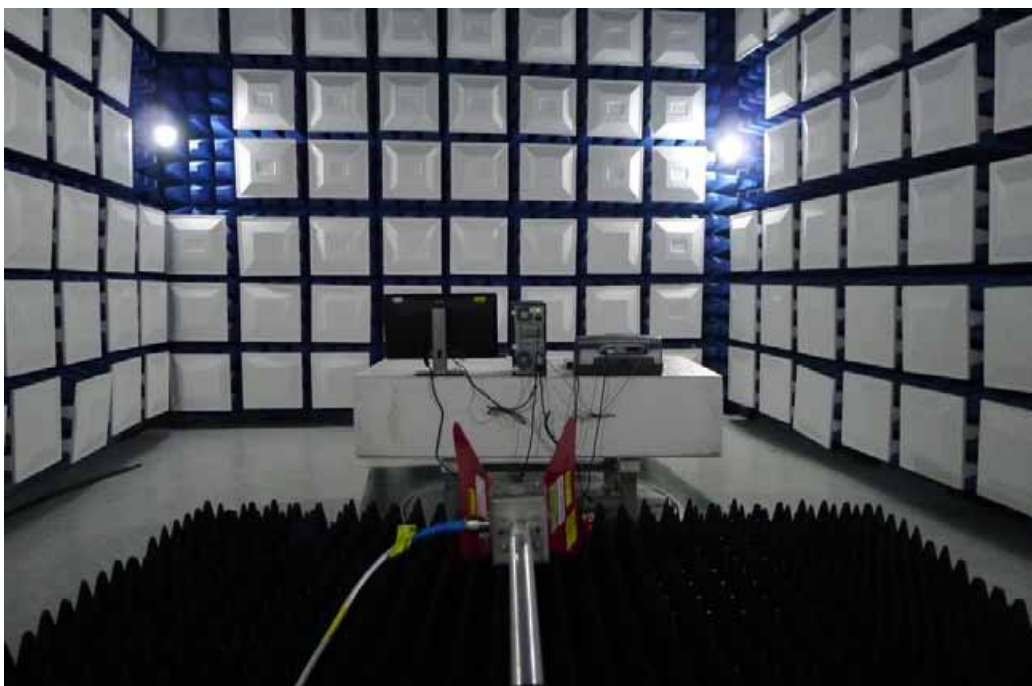
Back View (30MHz~1GHz)



Front View (above 1GHz)



Back View (above 1GHz)



4. Appendix

4.1 Appendix A: Warning Labels

Label Requirements

A Class B 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 B 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 B 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	
Con03	Conduction 03	EMI Receiver 15	ROHDE & SCHWARZ	ESCI	101166	07/29/2020	07/29/2021
Conduction 03	LISN 15	R&S	ENV216	101335	12/12/2019	12/12/2020	
Conduction 03	LISN 22	R&S	ENV216	101478	08/10/2020	08/10/2021	
Conduction 03	Conduction 04-3 Cable	WOKEN	CFD 300-NL	conduction 04-3	09/07/2020	09/07/2021	

Location	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	09/16/2020	09/16/2021
Radiation (Chamber02)	EMI Receiver 12	ROHDE & SCHWARZ	ESCI	100804	08/19/2020	08/19/2021

Location	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Rad. Above 1GHz	Spectrum Analyzer 25	R&S	FSV 40	101499	11/01/2019	11/01/2020
Rad. Above 1GHz	Horn Antenna 06	ETS-Lindgren	3117	00066665	11/04/2019	11/04/2020
Rad. Above 1GHz	Preamplifier 20	EMC INSTRUMENT	EMC051845	980084	11/28/2019	11/28/2020
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-S M-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 U_{lab} is less than or equal to U_{CISPR} in Table 1, then the test report may either state the value of U_{lab} or state that U_{lab} is less than U_{CISPR} .

The coverage factor $k = 2$ yields approximately a 95 % level of confidence.

<Conduction 03>

AMN: $\pm 2.90\text{dB}$

<Chamber 02 (10M)>

Horizontal

30MHz~200MHz: $\pm 4.52\text{dB}$

200MHz~1000MHz: $\pm 4.42\text{dB}$

Vertical

30MHz~200MHz: $\pm 4.51\text{dB}$

200MHz~1000MHz: $\pm 4.70\text{dB}$

<Chamber 14 (3M)>

1GHz~18GHz: $\pm 4.48\text{dB}$

4.5 Appendix E: Photographs of EUT

Please refer to the File of **ISL-20LE763P-MH**