Certificate

Issue Date: February 10, 2026
Ref. Report No. ISL-26LE0111CE35

Product Name	:	Mother Board
Main Model	:	CI870CW
Series Model	:	NA
Brand	:	LEX
Responsible Party	:	LEX COMPUTECH CO.,LTD.
Address	:	3F.No.77, LI DE St. Chung Ho District 235 New Taipei City, Taiwan

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

The sample ISL received which bearing the trade name and model specified above has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in European Council Directive EMC Directive 2014/30/EU and UK Directive Electromagnetic Compatibility Regulations 2016. Our laboratory is an accredited laboratory and is approved according to ISO/IEC 17025. The device was passed the test performed according to :

Standards:

CE

EN 55032:2015+A11:2020 and EN 55032:2015+A1:2020 and CISPR 32:2015+A1:2019 Class B
EN 61000-3-2:2014 and IEC 61000-3-2:2014
EN 61000-3-3:2013 and IEC 61000-3-3:2013
EN IEC 61000-3-2:2019+A2:2024 and IEC 61000-3-2:2018/AMD2:2024
EN 61000-3-3:2013+A2:2021+AC:2022 and IEC 61000-3-3:2013+A2:2021+COR1:2022
EN 55035:2017+A11:2020 and CISPR 35:2016 modified
EN 61000-4-2:2009 and IEC 61000-4-2:2008
EN IEC 61000-4-3:2020 and IEC 61000-4-3:2020
EN 61000-4-4:2012 and IEC 61000-4-4:2012
EN 61000-4-5:2014+A1:2017 and IEC 61000-4-5:2014+A1:2017
EN IEC 61000-4-6:2023 and IEC 61000-4-6:2023
EN 61000-4-8:2010 and IEC 61000-4-8:2009
EN IEC 61000-4-11:2020+AC:2022 and IEC 61000-4-11:2020+COR2:2022

UK

BS EN 55032:2015+A11:2020 and
BS EN 55032:2015+A1:2020 Class B
BS EN IEC 61000-3-2:2019+A2:2024
BS EN 61000-3-3:2013+A2:2021+AC:2022
BS EN 55035: 2017+A11:2020
BS EN 61000-4-2:2009
BS EN IEC 61000-4-3:2020
BS EN 61000-4-4:2012
BS EN 61000-4-5:2014+A1:2017
BS EN IEC 61000-4-6:2023
BS EN 61000-4-8:2010
BS EN IEC 61000-4-11:2020+AC:2022

ACMA

AS/NZS CISPR 32:2015+A1:2020 Class B

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 Laboratory evaluates measurement inaccuracies based on regulatory or standard document specifications and is listed in the report for reference. According to customer agreement, the laboratory issues test reports based on the regulations or standards specifications, the measurement uncertainty is not considered in conformity decision rules.

Benson Chen / Sr. Manager

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TEST REPORT

of

EN 55032 / CISPR 32 / BS EN 55032
AS/NZS CISPR 32 Class B
EN 55035 / CISPR 35 / BS EN 55035 IMMUNITY
EN IEC 61000-3-2 / BS EN IEC 61000-3-2
EN 61000-3-3 / BS EN 61000-3-3

Product:	**Mother Board**
Main Model:	**CI870CW**
Series Model:	**NA**
Brand:	**LEX**
Applicant:	**LEX COMPUTECH CO.,LTD.**
Address:	**3F.No.77, LI DE St. Chung Ho District 235 New Taipei City, Taiwan**

Test Performed by:

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

Report No.: **ISL-26LE0111CE35**
Issue Date : **February 10, 2026**

Testing Laboratory 0997

Contents of Report

Contents of Report

1. General

1.1 Certification of Accuracy of Test Data

Standards:	Please refer to 1.2
Equipment Tested:	Mother Board
Main Model:	CI870CW
Series Model:	NA
Brand:	LEX
Applicant:	LEX COMPUTECH CO.,LTD.
Sample received Date:	October 22, 2025
Final test Date:	EMI: refer to the date of test data EMS: February 9, 2026
Test Site:	Chamber 02; Chamber 14; Conduction 03; Immunity 02
Test Distance:	10m; 3m (above 1GHz) (EMI test)
Temperature:	refer to each site test data
Humidity:	refer to each site test data
Atmospheric Pressure:	86 kPa to 106 kPa
Input power:	Conduction input power: DC 24 V Radiation input power: DC 24 V Immunity input power: DC 24 V
Test Result:	**PASS**
Report Engineer:	Kelly YL Chen
Test Engineer:	Hasan Yu Hasan Yu
Approved By:	Angus Chu Angus Chu / Sr. Manager

1.2 Test Standards

The tests which this report describes were conducted by an independent electromagnetic compatibility consultant, International Standards Laboratory Corp. in accordance with the following

EN 55032:2015+A11:2020 and EN 55032:2015+A1:2020 and CISPR 32:2015+A1:2019 and BS EN 55032:2015+A11:2020 and BS EN 55032:2015+A1:2020 Class B Electromagnetic compatibility of multimedia equipment - Emission requirements.
AS/NZS CISPR 32:2015+A1:2020 Class B Electromagnetic compatibility of multimedia equipment- Emission requirements

Performed Item	Test Performed	Deviation	Result
Conducted emissions from the AC mains power ports	Yes	No	PASS
Telecommunication Port Conducted Emissions (asymmetric mode)	Yes	No	PASS
Radiated emissions at frequencies below 1 GHz	Yes	No	PASS
Radiated emissions at frequencies above 1 GHz	Yes	No	PASS
Radiated emissions from FM receivers	N/A	N/A	N/A
Voltage Disturbance Emissions at Antenna Terminals	N/A	N/A	N/A
Differential voltage emissions	N/A	N/A	N/A
Outdoor units of home satellite receiving systems	N/A	N/A	N/A

EN 55035:2017+A11:2020 and CISPR 35:2016 modified and BS EN 55035: 2017+A11:2020 Electromagnetic compatibility of multimedia equipment - Immunity requirements.

Standard	Description	Results	Criteria
EN 61000-4-2:2009 IEC 61000-4-2:2008 BS EN 61000-4-2:2009	Electrostatic discharge immunity	Pass	B
EN IEC 61000-4-3:2020 IEC 61000-4-3:2020 BS EN IEC 61000-4-3:2020	Radiated, radio-frequency, electromagnetic field immunity	Pass	A
EN 61000-4-4:2012 IEC 61000-4-4:2012 BS EN 61000-4-4:2012	Electrical fast transient/burst immunity	Pass	B
EN 61000-4-5:2014+A1:2017 IEC 61000-4-5:2014+A1:2017 BS EN 61000-4-5:2014+A1:2017	Surge immunity	Pass	B
EN IEC 61000-4-6:2023 IEC 61000-4-6:2023 BS EN IEC 61000-4-6:2023	Immunity to conducted disturbances	Pass	A
EN 61000-4-8:2010 IEC 61000-4-8:2009 BS EN 61000-4-8:2010	Power frequency magnetic field immunity	Pass	A
EN IEC 61000-4-11:2020+AC:2022 IEC 61000-4-11:2020+COR2:2022 BS EN IEC 61000-4-11:2020+AC:2022	Voltage dips, short interruptions and voltage variations immunity		
	>95% in 0.5 cycle	N/A	B
	30% in 25 cycle	N/A	C
	>95% in 250 cycle	N/A	C

Standard	Description	Results
EN 61000-3-2:2014 IEC 61000-3-2:2014 EN IEC 61000-3-2:2019+A2:2024 IEC 61000-3-2:2018/AMD2:2024 BS EN IEC 61000-3-2:2019+A2:2024	Limits for harmonic current emissions (equipment input current ≤ 16A per phase)	N/A
EN 61000-3-3:2013 IEC 61000-3-3:2013 EN 61000-3-3:2013+A2:2021+AC:2022 IEC 61000-3-3:2013+A2:2021+COR1:2022 BS EN 61000-3-3:2013+A2:2021+AC:2022	Limits for voltage fluctuations and flicker in low-voltage supply systems (equipment with input current ≤ 16 A per phase)	N/A

1.2.1 Performance Criteria for Compliance: EN 55035 and BS EN 55035

Performance criterion A
The equipment shall continue to operate as intended without operator intervention. No degradation of performance, loss of function or change of operating state is allowed below a performance level specified by the manufacturer when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

Performance criterion B
During the application of the disturbance, degradation of performance is allowed. However, no unintended change of actual operating state or stored data is allowed to persist after the test.

After the test, the equipment shall continue to operate as intended without operator intervention; no degradation of performance or loss of function is allowed, below a performance level specified by the manufacturer, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance.

If the minimum performance level (or the permissible performance loss), or recovery time, is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

Performance criterion C
Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions. A reboot or re-start operation is allowed.

Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

1.3 Description of EUT

EUT

Description	Mother Board
Main Model	CI870CW
Series Model	N/A
Condition	Pre-Production
Serial Number	N/A
Maximum display resolution	3840*2160 60Hz

The I/O ports of EUT are listed below:

I/O Port Type	Quantity
HDMI Port	1
Display Port	1
LAN Port (10M/100M/1G/2.5Gbps)	5
USB 3.2 Port	4
USB Type C Port	1
COM Port	6

All the devices listed below are chosen by the applicant to be the representative configuration for testing in this report.

Configuration	1
Main board	**LEX CI870CW(EUT)**
CPU	Intel Ultra 9 285 2.5GHz
Memory	TEAMGROUP TE48GFSXV2TH-V 48GB*2
M.2 SSD(PCIe)	UDINFO 256GB M2P42DE256GBBDP31
Resolution	HDMI+ Display 3840*2160 60Hz
Support system: TWISTER(L) - CI870CW	

EMI Noise Source:

Refer to the photo	Crystal	Location
EUT-3	38.4MHz	X1
EUT-4	32.768kHz	X3
EUT-5	27 MHz	X4
EUT-6	48 MHz	X5
EUT-7	48 MHz	X6
EUT-8	25MHz	X7
EUT-9	25MHz	X8
EUT-10	25MHz	X9
EUT-11	25MHz	X10
EUT-12	25MHz	X11

EMI Solution:

N/A

1.4 Description of Support Equipment

For EMI test configuration 1~7
For EMS test configuration 5~11

No	Unit	Model / Serial No.	Brand	Power Cord	FCC ID
1	USB Keyboard	KB216 S/N: N/A	DELL	N/A	FCC DOC
2	USB Mouse	MS116 S/N: N/A	DELL	N/A	FCC DOC
3	External hard drive*3	My Passport Ultra S/N: N/A	WD	N/A	FCC DOC
4	LCD Monitor*2	P2723QE S/N: N/A	DELL	Non-shielded	FCC DOC
5	Modem*6	DM1414 S/N: N/A	Aceex	Non-shielded	FCC DOC
6	Personal Computer	RW7 S/N: N/A	Lenovo	Non-shielded	FCC DOC
7	TWISTER System	TWISTER(L) - CI870CW S/N: N/A	LEX	Non-shielded	FCC DOC
8	LCD Monitor*2	P2715Q S/N: N/A	DELL	Non-shielded	FCC DOC
9	USB Mouse	MOCZUL S/N: N/A	DELL	N/A	FCC DOC
10	USB Keyboard	SK-8175 S/N: N/A	DELL	N/A	FCC DOC
11	External hard drive*3	SK2-U31AS-AKT S/N: N/A	AKiTiO	N/A	FCC DOC

1.5 Software for Controlling Support Unit

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

1. Send Color Bar to the LCD Monitor through EUT HDMI & Display port.
2. Read and write data through M.2 SSD.
3. Read and write External hard drive through EUT USB 3.2 & USB Type C port.
4. Send signal to the Modem through EUT COM port.
5. Receive and transmit packet of EUT to the Personal Computer through LAN port.
6. Repeat the above steps.

	File	Version
LCD Monitor	Windows Media Player	12.0
M.2 SSD	Intel EMC	1.1
External hard drive	Intel EMC	1.1
Modem	Intel EMC	1.1
EUT LAN	Ping	-

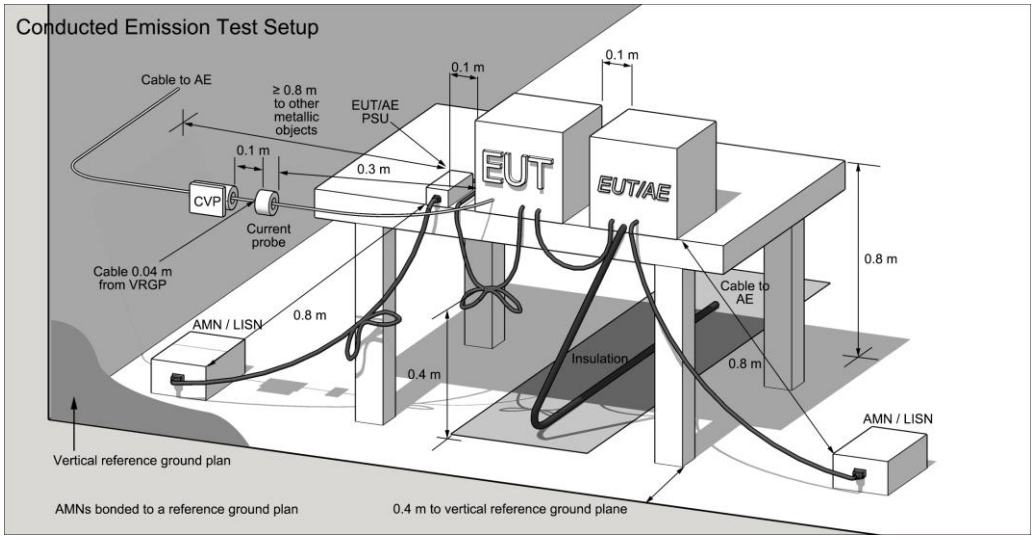
1.6 I/O Cable Condition of EUT and Support Units

Description	Path	Length	Shielding	Core	Remark
Power cable	24Vdc to EUT	1.8m	No	No	
HDMI Cable	LCD Monitor to EUT HDMI Port	1.8m	Yes	No	
Display Cable	LCD Monitor to EUT Display Port	1.8m	Yes	No	
Modem data Cable*6	Modem to EUT COM Port	1.8m	Yes	No	
USB Cable*2 (EMI)	External hard drive to EUT USB3.2 port	1.5m	Yes	No	
USB Cable (EMI)	External hard drive to EUT USB Type C port	1.5m	Yes	No	
USB Cable*2 (EMS)	External hard drive to EUT USB3.2 port	1.0m	Yes	No	
USB Cable (EMS)	External hard drive to EUT USB Type C port	1.0m	Yes	No	
USB Mouse Cable	USB Mouse to EUT USB3.2 port	1.8m	Yes	No	
USB Keyboard Cable	USB Keyboard to EUT USB3.2 port	1.8m	Yes	No	
LAN Cable*5	Personal Computer to EUT LAN Port	10m	No	No	Cat 6a

2. Power Main Port 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 AMN which has the Impedance (50ohm/50uH) vs. Frequency Characteristic in accordance with the standard. Power to the AMNs 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 AMN through a ganged, metal power outlet box which is bonded to the ground plane at the AMN.

The interconnecting cables were arranged and moved to get the maximum measurement. Both the line of power cord, live and neutral, were measured. All of the interface cables were manipulated according to EN 55032 / BS EN 55032 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 from the AC mains power ports of Class_A equipment:

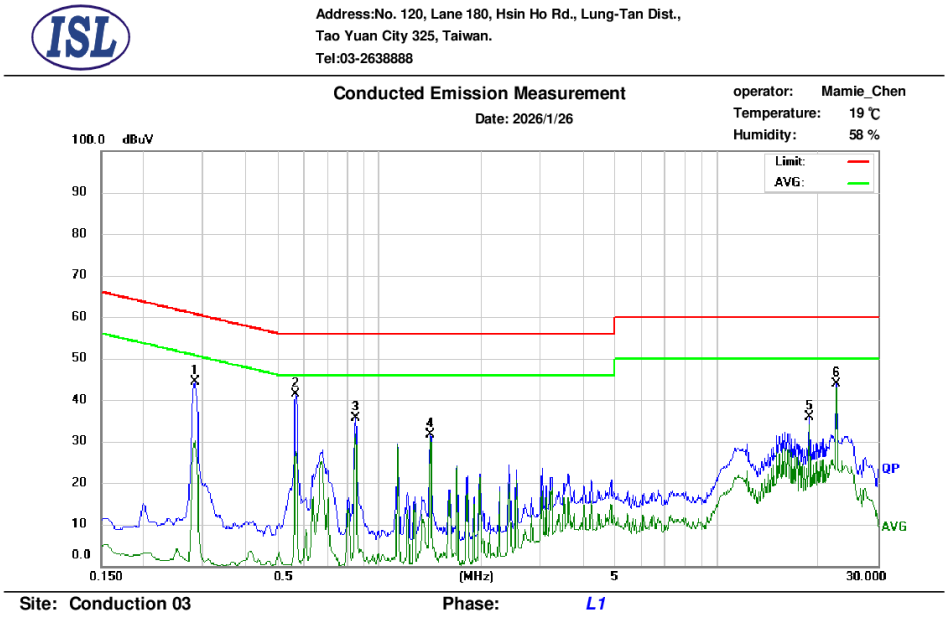
Frequency	QP	AV
MHz	dB(μV)	dB(μV)
0.15 - 0.50	79	66
0.50 - 30	73	60
Note: The lower limit shall apply at the transition frequencies		

Conducted emissions from the AC mains power ports of Class_B equipment:

Frequency	QP	AV
MHz	dB(μV)	dB(μV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50
Note: The lower limit shall apply at the transition frequencies		

2.2 Conduction Test Data: Configuration 1

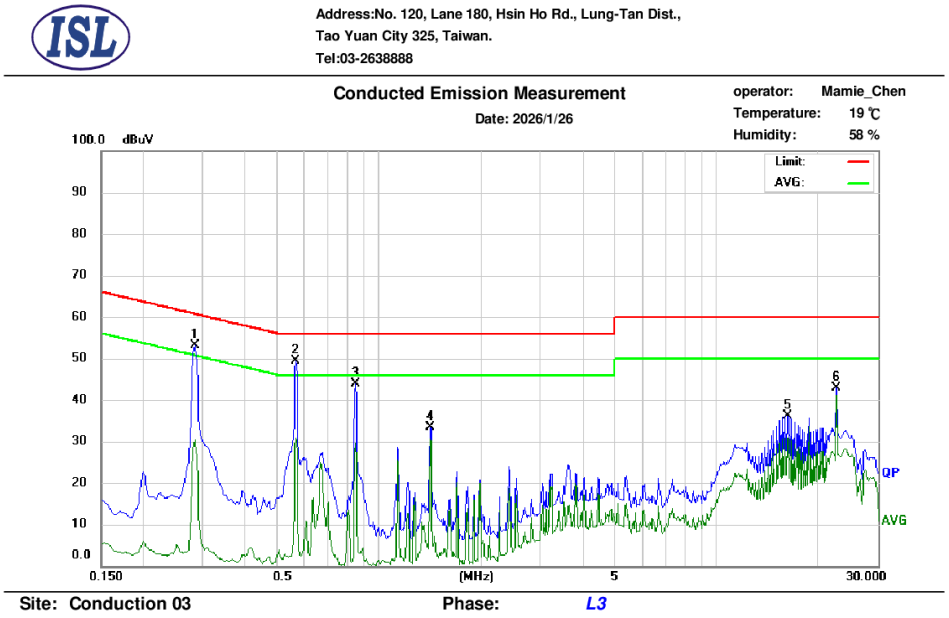
-Live



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	0.283	34.69	20.33	9.71	44.40	60.73	-16.33	30.04	50.73	-20.69
2	0.566	31.76	18.00	9.69	41.45	56.00	-14.55	27.69	46.00	-18.31
3	0.850	25.97	22.20	9.69	35.66	56.00	-20.34	31.89	46.00	-14.11
4	1.417	22.01	21.02	9.73	31.74	56.00	-24.26	30.75	46.00	-15.25
5	18.809	25.56	24.02	10.21	35.77	60.00	-24.23	34.23	50.00	-15.77
6*	22.569	33.55	32.56	10.33	43.88	60.00	-16.12	42.89	50.00	-7.11

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

- Neutral



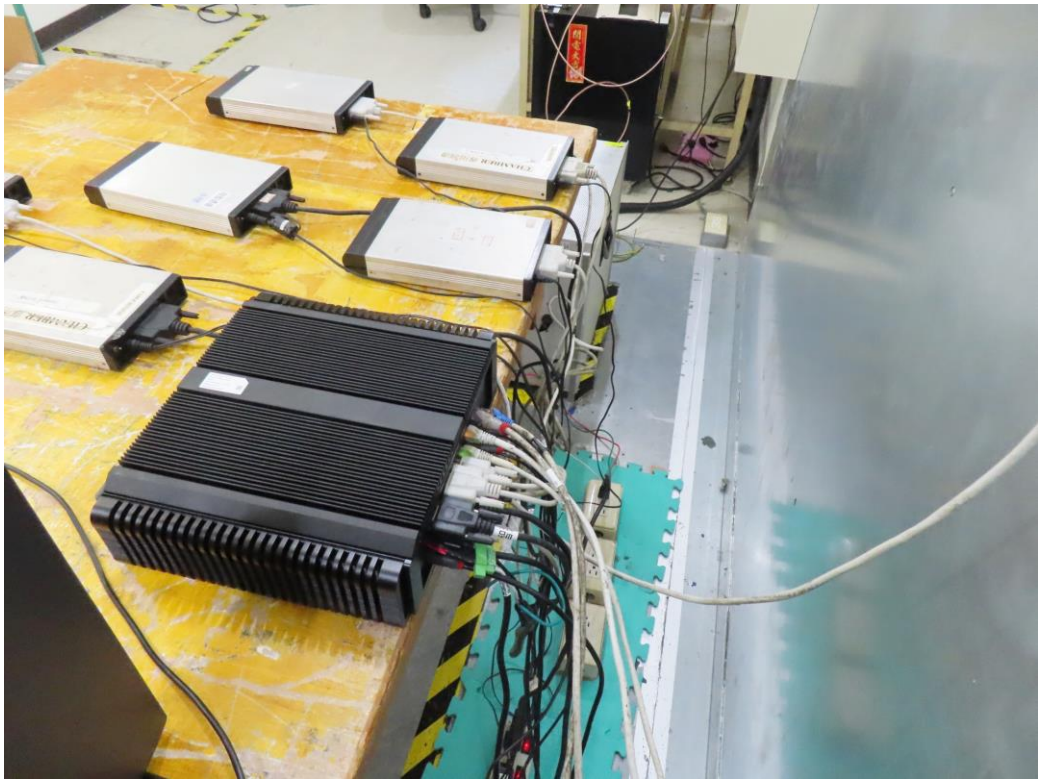
No.	Frequency (MHz)	QP_R (dBuV)	AVG_R (dBuV)	Correct Factor (dB)	QP Emission (dBuV)	QP Limit (dBuV)	QP Margin (dB)	AVG Emission (dBuV)	AVG Limit (dBuV)	AVG Margin (dB)
1	0.283	43.54	20.77	9.71	53.25	60.73	-7.48	30.48	50.73	-20.25
2*	0.566	39.58	21.21	9.68	49.26	56.00	-6.74	30.89	46.00	-15.11
3	0.850	34.27	20.05	9.69	43.96	56.00	-12.04	29.74	46.00	-16.26
4	1.417	23.69	20.99	9.73	33.42	56.00	-22.58	30.72	46.00	-15.28
5	16.161	26.01	20.65	10.17	36.18	60.00	-23.82	30.82	50.00	-19.18
6	22.569	32.51	30.81	10.40	42.91	60.00	-17.09	41.21	50.00	-8.79

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

2.3 Test Setup Photo

Front View

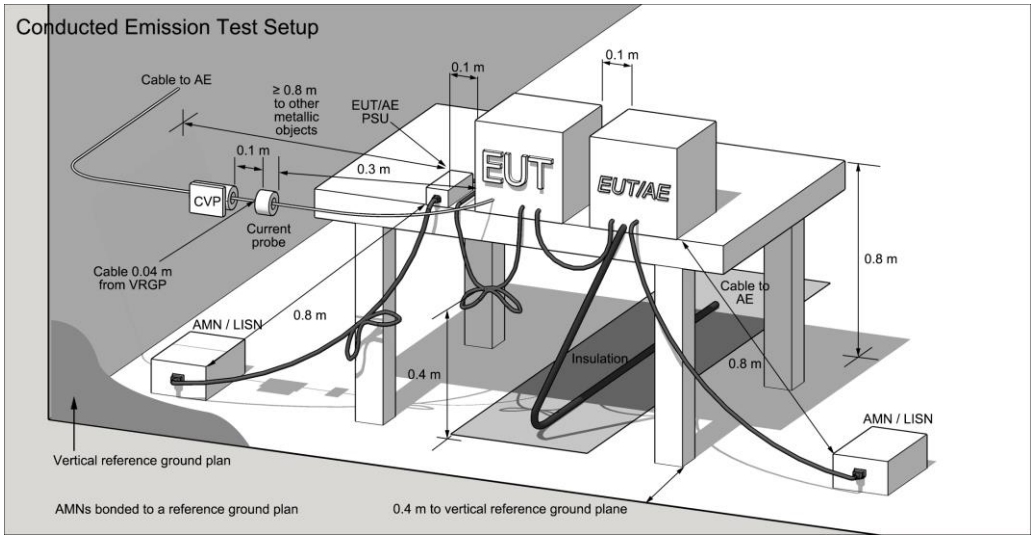
Back View



3. Telecommunication Port Conducted Emissions

3.1 Test Setup and Procedure

3.1.1 Test Setup



3.1.2 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.

The EUT, any support equipment, and any interconnecting cables were arranged and moved to get the maximum measurement. All of the interface cables were manipulated according to EN 55032 / BS EN 55032 requirements.

The port of the EUT was connected to the support equipment through the AAN and linked in normal condition.

AC input power for the EUT & the support equipment power outlets were obtained from the same filtered source that provided input power to the AMN.

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 could be useful in reducing their amplitude.

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

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

3.1.4 Limit

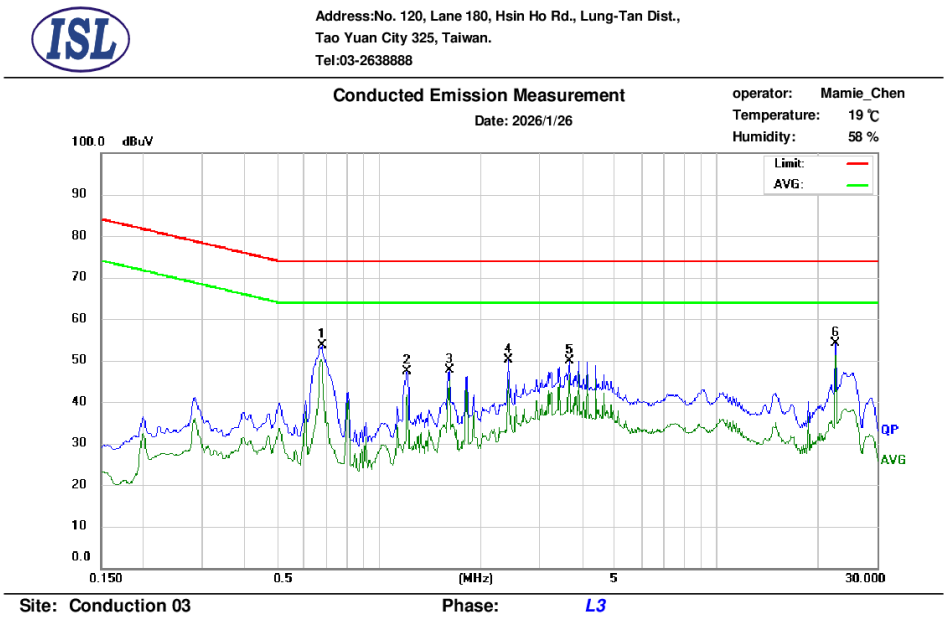
Asymmetric mode conducted emissions from Class_A equipment:
Applicable to
1. wired network ports.
2. optical fiber ports with metallic shield or tension members.
3. antenna ports.

Frequency range MHz	Coupling device	Detector type / bandwidth	Class_A voltage limits dB(μV)	Class_A current limits dB(μA)
0.15 - 0.5	AAN	Quasi Peak / 9 kHz	97 - 87	n/a
0.5 - 30			87	
0.15 - 0.5	AAN	Average / 9 kHz	84 - 74	
0.5 - 30			74	
0.15 - 0.5	CVP and current probe	Quasi Peak / 9 kHz	97 - 87	53 - 43
0.5 - 30			87	43
0.15 - 0.5	CVP and current probe	Average / 9 kHz	84 - 74	40 - 30
0.5 - 30			74	30
0.15 - 0.5	Current Probe	Quasi Peak / 9 kHz	n/a	53 - 43
0.5 - 30				43
0.15 - 0.5	Current Probe	Average / 9 kHz		40 - 30
0.5 - 30				30

Asymmetric mode conducted emissions from Class_B equipment:
Applicable to:
1. wired network ports.
2. optical fiber ports with metallic shield or tension members.
3. broadcast receiver tuner ports.
4. antenna ports.

Frequency range MHz	Coupling device	Detector type / bandwidth	Class_B voltage limits dB(μV)	Class_B current limits dB(μA)
0.15 - 0.5	AAN	Quasi Peak / 9 kHz	84 - 74	n/a
0.5 - 30			74	
0.15 - 0.5	AAN	Average / 9 kHz	74 - 64	
0.5 - 30			64	
0.15 - 0.5	CVP and current probe	Quasi Peak / 9 kHz	84 - 74	40 - 30
0.5 - 30			74	30
0.15 - 0.5	CVP and current probe	Average / 9 kHz	74 - 64	30 - 20
0.5 - 30			64	20
0.15 - 0.5	Current Probe	Quasi Peak / 9 kHz	n/a	40 - 30
0.5 - 30				30
0.15 - 0.5	Current Probe	Average / 9 kHz		30 - 20
0.5 - 30				20

3.2 Test Data: LAN 1\2.5G

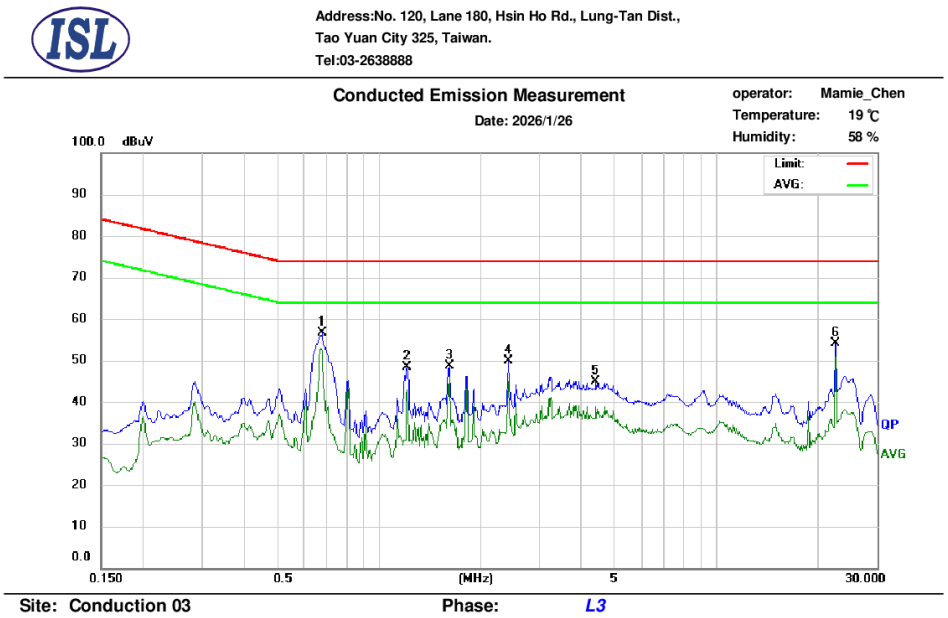


No.	Frequency (MHz)	QP_R (dBuV)	AVG_R (dBuV)	Correct Factor (dB)	QP Emission (dBuV)	QP Limit (dBuV)	QP Margin (dB)	AVG Emission (dBuV)	AVG Limit (dBuV)	AVG Margin (dB)
1	0.676	43.50	39.30	10.21	53.71	74.00	-20.29	49.51	64.00	-14.49
2	1.212	37.34	31.41	10.14	47.48	74.00	-26.52	41.55	64.00	-22.45
3	1.619	37.58	35.21	10.11	47.69	74.00	-26.31	45.32	64.00	-18.68
4	2.429	40.08	35.20	10.08	50.16	74.00	-23.84	45.28	64.00	-18.72
5	3.664	39.78	36.49	10.06	49.84	74.00	-24.16	46.55	64.00	-17.45
6*	22.569	43.95	40.94	10.23	54.18	74.00	-19.82	51.17	64.00	-12.83

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

3.3 Test Data: LAN 2\2.5G

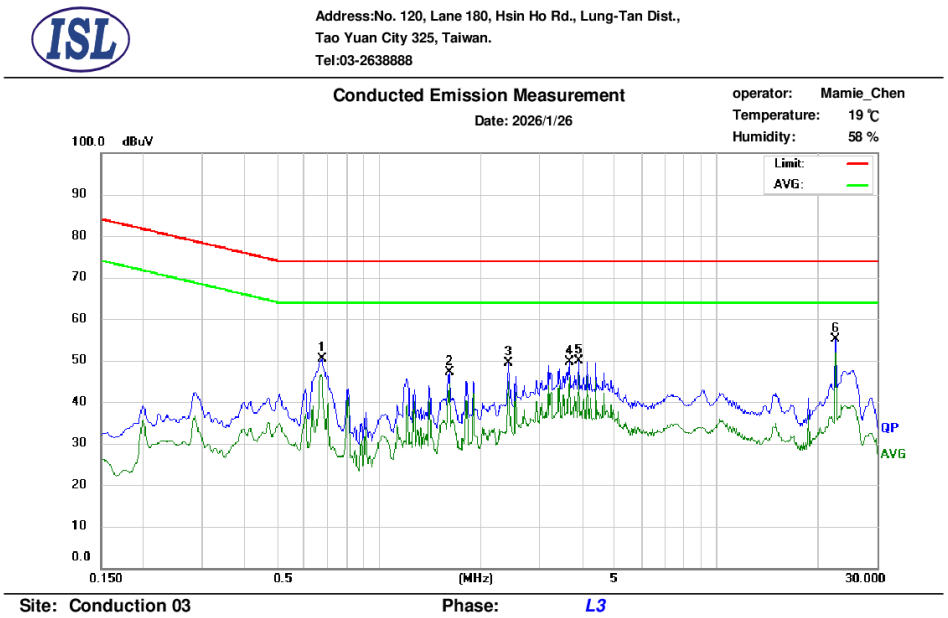


No.	Frequency (MHz)	QP_R (dBuV)	AVG_R (dBuV)	Correct Factor (dB)	QP Emission (dBuV)	QP Limit (dBuV)	QP Margin (dB)	AVG Emission (dBuV)	AVG Limit (dBuV)	AVG Margin (dB)
1*	0.676	46.47	41.92	10.21	56.68	74.00	-17.32	52.13	64.00	-11.87
2	1.212	38.22	32.85	10.14	48.36	74.00	-25.64	42.99	64.00	-21.01
3	1.619	38.54	35.92	10.11	48.65	74.00	-25.35	46.03	64.00	-17.97
4	2.429	39.85	34.90	10.08	49.93	74.00	-24.07	44.98	64.00	-19.02
5	4.398	34.92	28.71	10.06	44.98	74.00	-29.02	38.77	64.00	-25.23
6	22.569	43.87	40.70	10.23	54.10	74.00	-19.90	50.93	64.00	-13.07

Note :

Margin = QP/AVG Emission – Limit
Correct Factor = LISN Loss + Cable Loss
QP/AVG Emission = QP_R/AVG_R + Correct Factor
A margin of -8dB means that the emission is 8dB below the limit

3.4 Test Data: LAN 3\2.5G

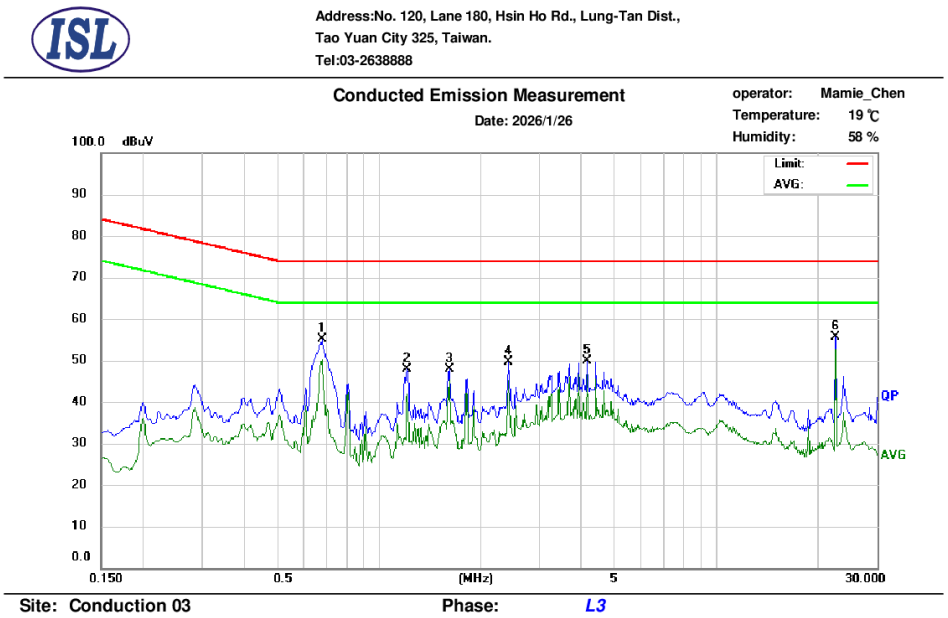


No.	Frequency (MHz)	QP_R (dBuV)	AVG_R (dBuV)	Correct Factor (dB)	QP Emission (dBuV)	QP Limit (dBuV)	QP Margin (dB)	AVG Emission (dBuV)	AVG Limit (dBuV)	AVG Margin (dB)
1	0.676	40.25	35.19	10.21	50.46	74.00	-23.54	45.40	64.00	-18.60
2	1.619	37.04	34.28	10.11	47.15	74.00	-26.85	44.39	64.00	-19.61
3	2.429	39.30	34.85	10.08	49.38	74.00	-24.62	44.93	64.00	-19.07
4	3.664	39.68	35.90	10.06	49.74	74.00	-24.26	45.96	64.00	-18.04
5	3.908	39.85	36.53	10.06	49.91	74.00	-24.09	46.59	64.00	-17.41
6*	22.569	44.97	41.64	10.23	55.20	74.00	-18.80	51.87	64.00	-12.13

Note :

Margin = QP/AVG Emission – Limit
Correct Factor = LISN Loss + Cable Loss
QP/AVG Emission = QP_R/AVG_R + Correct Factor
A margin of -8dB means that the emission is 8dB below the limit

3.5 Test Data: LAN 4\2.5G

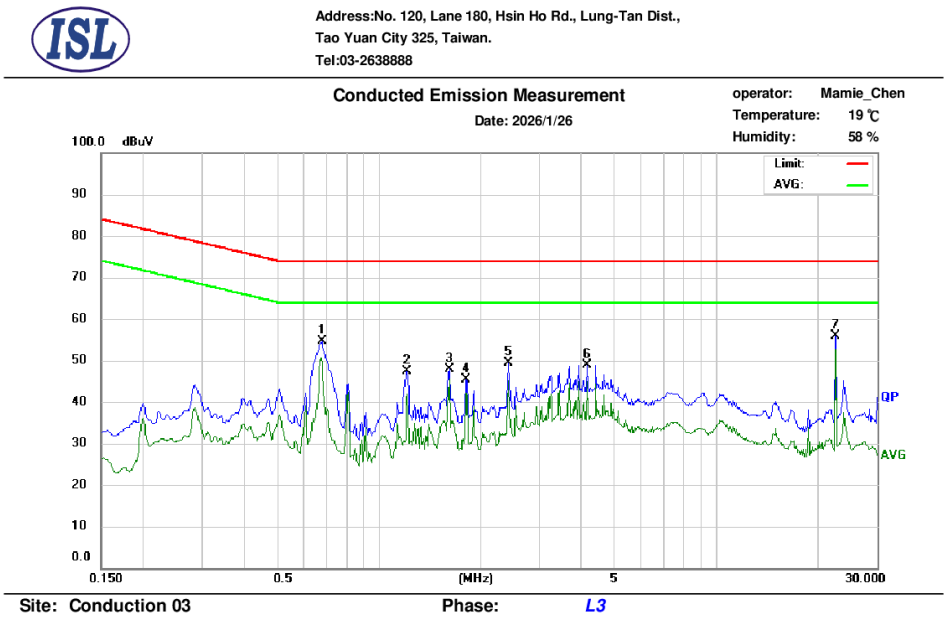


No.	Frequency (MHz)	QP_R (dBuV)	AVG_R (dBuV)	Correct Factor (dB)	QP Emission (dBuV)	QP Limit (dBuV)	QP Margin (dB)	AVG Emission (dBuV)	AVG Limit (dBuV)	AVG Margin (dB)
1	0.676	44.85	40.02	10.21	55.06	74.00	-18.94	50.23	64.00	-13.77
2	1.212	37.72	31.77	10.14	47.86	74.00	-26.14	41.91	64.00	-22.09
3	1.619	37.87	35.32	10.11	47.98	74.00	-26.02	45.43	64.00	-18.57
4	2.429	39.46	34.94	10.08	49.54	74.00	-24.46	45.02	64.00	-18.98
5	4.153	39.70	36.56	10.06	49.76	74.00	-24.24	46.62	64.00	-17.38
6*	22.569	45.49	42.29	10.23	55.72	74.00	-18.28	52.52	64.00	-11.48

Note :

Margin = QP/AVG Emission – Limit
Correct Factor = LISN Loss + Cable Loss
QP/AVG Emission = QP_R/AVG_R + Correct Factor
A margin of -8dB means that the emission is 8dB below the limit

3.6 Test Data: LAN 5\2.5G



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	0.676	44.31	39.52	10.21	54.52	74.00	-19.48	49.73	64.00	-14.27
2	1.212	37.16	31.66	10.14	47.30	74.00	-26.70	41.80	64.00	-22.20
3	1.619	37.84	35.43	10.11	47.95	74.00	-26.05	45.54	64.00	-18.46
4	1.817	35.22	31.90	10.11	45.33	74.00	-28.67	42.01	64.00	-21.99
5	2.429	39.19	35.08	10.08	49.27	74.00	-24.73	45.16	64.00	-18.84
6	4.153	38.87	34.84	10.06	48.93	74.00	-25.07	44.90	64.00	-19.10
7*	22.569	45.53	42.34	10.23	55.76	74.00	-18.24	52.57	64.00	-11.43

Note :

Margin = QP/AVG Emission – Limit
Correct Factor = LISN Loss + Cable Loss
QP/AVG Emission = QP_R/AVG_R + Correct Factor
A margin of -8dB means that the emission is 8dB below the limit

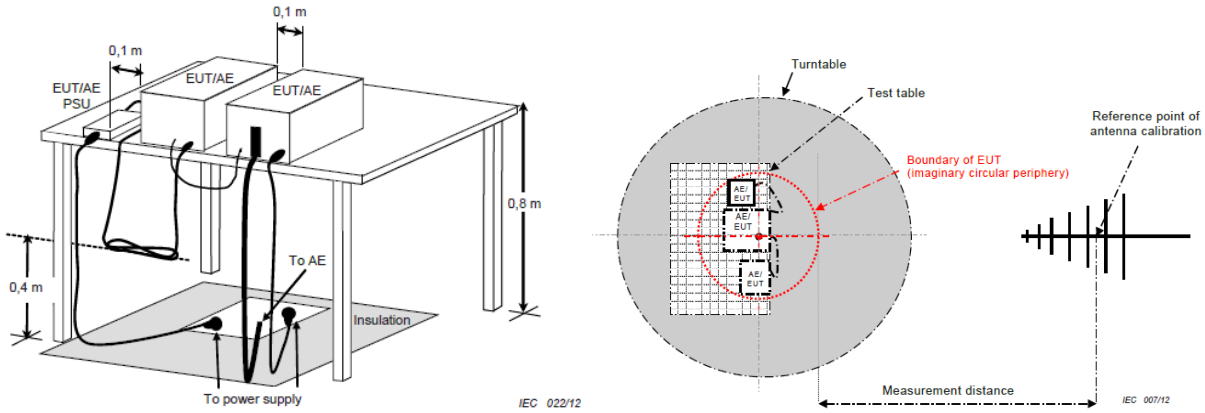
3.7 Test Setup Photo

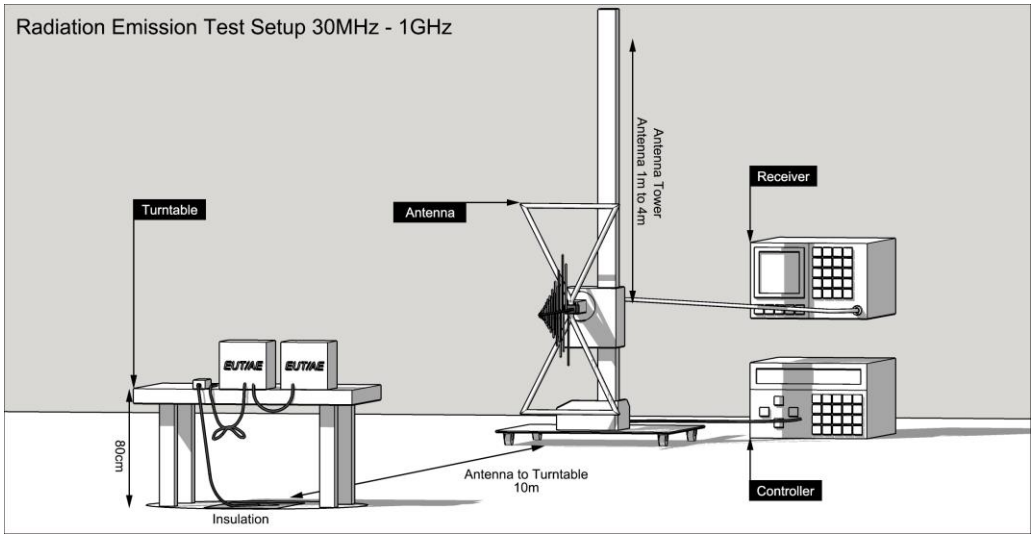
Refer to the Setup Photos for Power Main Port Conducted Emissions

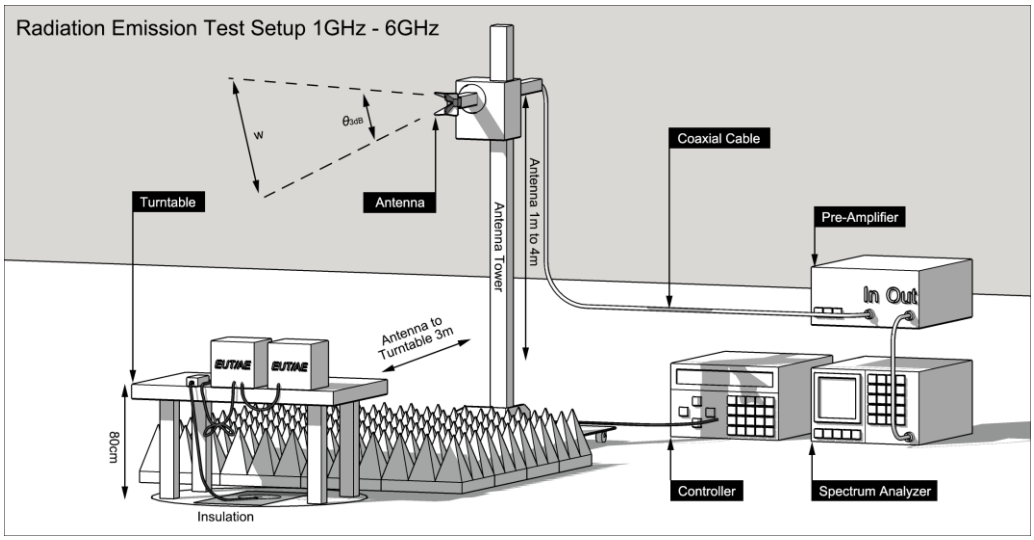
4. Radiated Disturbance Emissions

4.1 Test Setup and Procedure

4.1.1 Test Setup







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

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

4.1.2 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 FRP stand 0.8 meter above the ground or floor-standing arrangement shall be placed on the horizontal ground reference 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 6 GHz were analyzed in details by operating the spectrum analyzer in peak and average mode to determine the precise amplitude of the emissions. The test volume for a height of up to 30 cm may be obstructed by absorber placed on the ground plane.

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 EN 55032 / BS EN 55032 requirements.

The highest internal source of an 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 6 GHz, whichever is less.

4.1.3 Spectrum Analyzer Configuration (for the frequencies tested)

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

Frequency Range: Above 1 GHz - 6 GHz
Detector Function: Peak/Average Mode
Resolution Bandwidth: 1MHz

4.2 Limit

Radiated emissions at frequencies up to 1 GHz for Class_A equipment:

Frequency range MHz	Measurement		Class_A limits dB(μV/m)
	Distance m	Detector type / bandwidth	OATS/SAC
30 - 230	10	Quasi Peak / 120 kHz	40
230 - 1000			47
30 - 230	3		50
230 - 1000			57

Radiated emissions at frequencies above 1 GHz for Class_A equipment of the EN 55032:2015+A11:2020:

Frequency range MHz	Measurement		Class_A limits dB(μV/m)
	Distance m	Detector type / bandwidth	FSOATS
1000 - 3000	3	Average / 1MHz	56
3000 - 6000			60
1000 - 3000		Peak / 1MHz	76
3000 - 6000			80

Radiated emissions at frequencies above 1 GHz for Class_A equipment of the EN 55032:2015+A1:2020:

Frequency range MHz	Measurement		Class_A limits dB(μV/m)
	Distance m	Detector type / bandwidth	FSOATS
1000 - 6000	3	Average / 1MHz	60
1000 - 6000		Peak / 1MHz	80

Note 1: The radiated emissions at frequencies above 1 GHz test limit in this report is based on EN 55032:2015+A11:2020.

Note 2: Test data in this report has been taken against the EN 55032:2015+A11:2020 limit as it is the most stringent limit. By complying with the more restrictive EN 55032:2015+A11:2020 limit compliance with the EN 55032:2015+A1:2020 limit is also demonstrated.

Radiated emissions at frequencies up to 1 GHz for Class_B equipment:

Frequency range MHz	Measurement		Class_B limits dB(μV/m)
	Distance m	Detector type / bandwidth	OATS/SAC
30 - 230	10	Quasi Peak / 120 kHz	30
230 - 1000			37
30 - 230	3		40
230 - 1000			47

Radiated emissions at frequencies above 1 GHz for Class_B equipment of the EN 55032:2015+A11:2020:

Frequency range MHz	Measurement		Class_B limits dB(μV/m)
	Distance m	Detector type / bandwidth	FSOATS
1000 - 3000	3	Average / 1MHz	50
3000 - 6000			54
1000 - 3000		Peak / 1MHz	70
3000 - 6000			74

Radiated emissions at frequencies above 1 GHz for Class_B equipment of the EN 55032:2015+A1:2020:

Frequency range MHz	Measurement		Class_B limits dB(μV/m)
	Distance m	Detector type / bandwidth	FSOATS
1000 - 6000	3	Average / 1MHz	54
1000 - 6000		Peak / 1MHz	74

Note 1: The radiated emissions at frequencies above 1 GHz test limit in this report is based on EN 55032:2015+A11:2020.

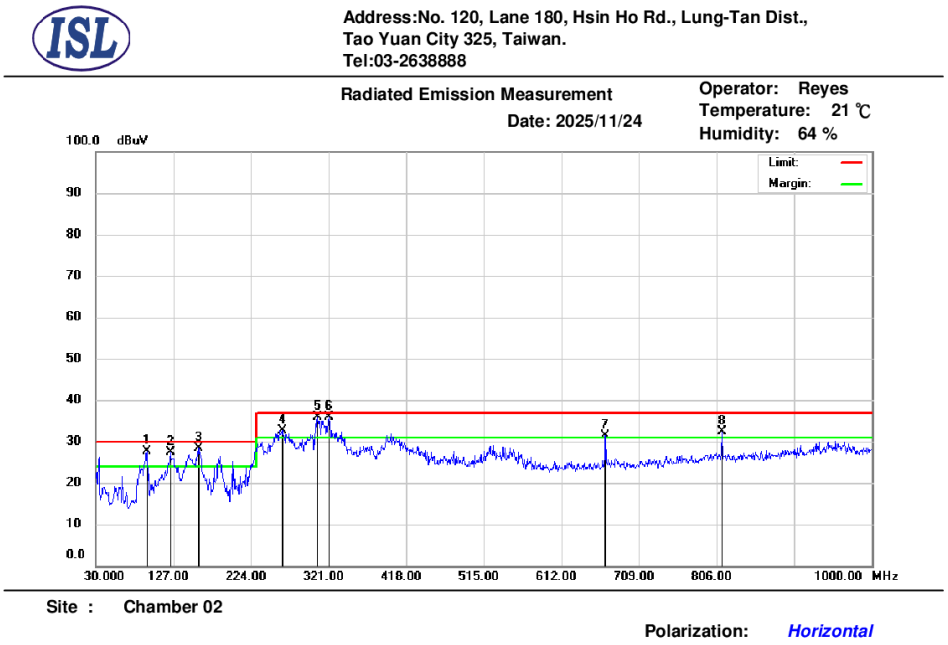
Note 2: Test data in this report has been taken against the EN 55032:2015+A11:2020 limit as it is the most stringent limit. By complying with the more restrictive EN 55032:2015+A11:2020 limit compliance with the EN 55032:2015+A1:2020 limit is also demonstrated.

Radiated emissions from FM receivers:

Frequency range MHz	Measurement		Class_B limits dB(μV/m)	
	Distance m	Detector type / bandwidth	Fundamental	Harmonics
			OATS/SAC	OATS/SAC
30 - 230	10	Quasi Peak / 120 kHz	50	42
230 - 300				42
300 - 1000				46
30 - 230	3		60	52
230 - 300				52
300 - 1000				56

4.3 Radiation Test Data: Configuration 1

- Radiated Emissions (Horizontal)



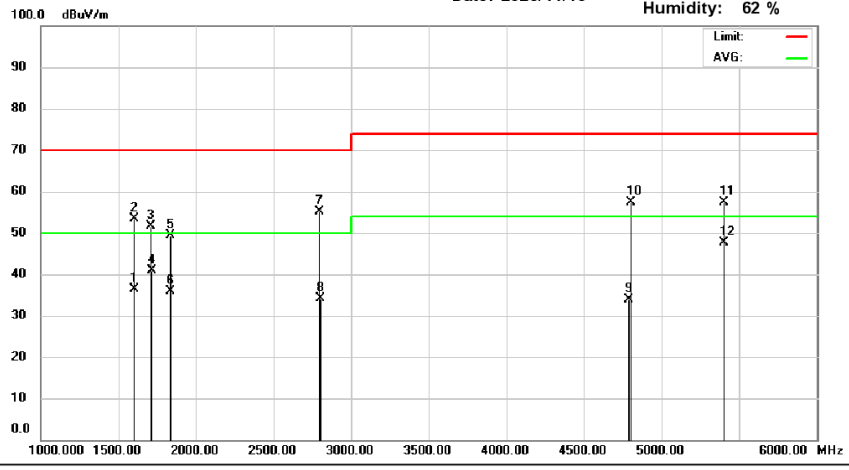
Mk.	Frequency (MHz)	RX_R (dBuV)	Correct Factor(dB)	Emission (dBuV)	Limit (dBuV)	Margin (dB)	Ant.Pos (cm)	Tab.Pos (deg.)	Detector
1!	94.02	48.97	-21.36	27.61	30.00	-2.39	300	313	peak
2!	123.12	45.29	-17.87	27.42	30.00	-2.58	400	5	peak
3!	158.04	44.09	-15.65	28.44	30.00	-1.56	400	167	peak
4!	262.80	48.48	-15.79	32.69	37.00	-4.31	400	340	peak
5*	307.42	50.19	-14.20	35.99	37.00	-1.01	300	278	peak
6!	321.00	49.62	-13.74	35.88	37.00	-1.12	300	313	peak
7!	667.29	38.12	-6.63	31.49	37.00	-5.51	100	192	peak
8!	812.79	36.89	-4.42	32.47	37.00	-4.53	101	360	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
If the peak measured value meets the QP limit, The QP value is inherently compliant.

Address:No. 120, Lane 180, Hsin Ho Rd., Lung-Tan Dist.,
Tao Yuan City 325, Taiwan.
Tel:03-2638888

Radiated Emission Measurement
Date: 2025/11/10

Operator: Kevin Chan
Temperature: 25 ℃
Humidity: 62 %



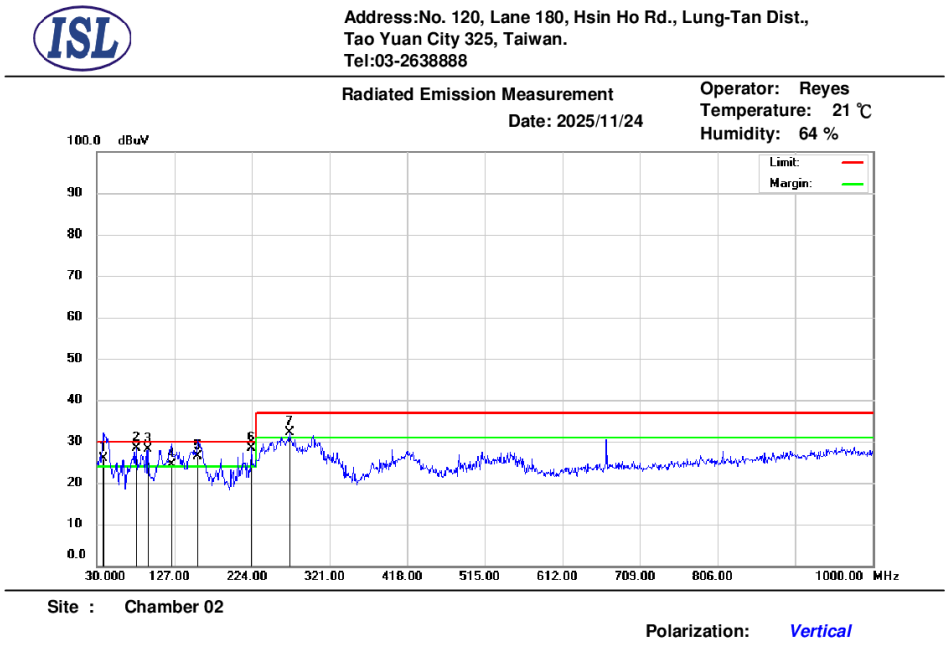
Site : Chamber 14

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	1599.75	58.46	-22.01	36.45	50.00	-13.55	100	151	AVG
2	1600.00	75.48	-22.01	53.47	70.00	-16.53	100	146	peak
3	1710.00	72.39	-20.78	51.61	70.00	-18.39	146	352	peak
4	1710.90	61.57	-20.77	40.80	50.00	-9.20	146	360	AVG
5	1835.00	68.88	-19.39	49.49	70.00	-20.51	100	179	peak
6	1835.00	55.21	-19.39	35.82	50.00	-14.18	100	189	AVG
7	2795.00	72.48	-17.28	55.20	70.00	-14.80	100	126	peak
8	2796.30	51.43	-17.28	34.15	50.00	-15.85	100	130	AVG
9	4789.50	49.37	-15.41	33.96	54.00	-20.04	100	189	AVG
10	4800.00	72.76	-15.35	57.41	74.00	-16.59	100	176	peak
11	5400.00	72.52	-15.26	57.26	74.00	-16.74	100	146	peak
12*	5400.20	62.96	-15.26	47.70	54.00	-6.30	100	135	AVG

* 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
If the peak measured value meets the Average limit, The Average value is inherently compliant.

-Radiated Emissions (Vertical)



Mk.	Frequency (MHz)	RX_R (dBuV)	Correct Factor(dB)	Emission (dBuV)	Limit (dBuV)	Margin (dB)	Ant.Pos (cm)	Tab.Pos (deg.)	Detector
1!	38.73	43.29	-17.31	25.98	30.00	-4.02	100	0	QP
2*	79.47	48.58	-20.24	28.34	30.00	-1.66	200	266	peak
3!	94.02	49.42	-21.36	28.06	30.00	-1.94	100	287	peak
4!	123.12	42.17	-17.87	24.30	30.00	-5.70	100	133	QP
5!	156.10	41.95	-15.68	26.27	30.00	-3.73	100	81	QP
6!	223.03	46.81	-18.54	28.27	30.00	-1.73	200	66	peak
7!	270.56	47.53	-15.38	32.15	37.00	-4.85	100	201	peak

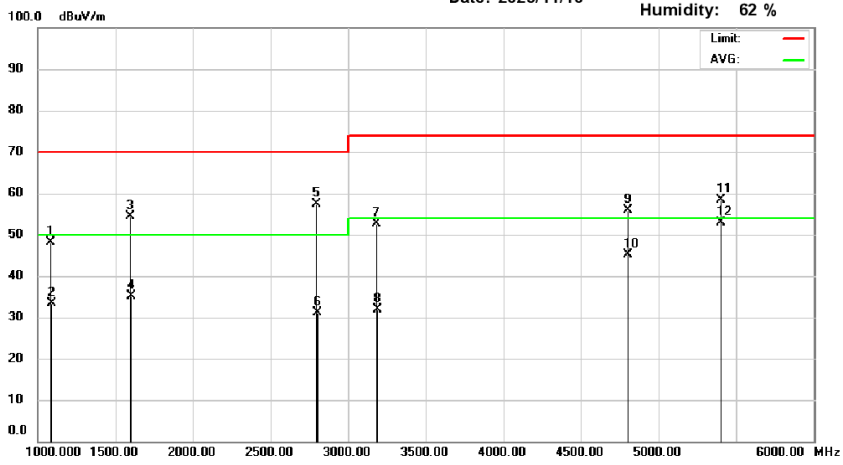
* Note:
Margin = Emission – Limit
Emission = Radiated Amplitude + Correct Factor
Correct Factor = Antenna Correction Factor + Cable Loss – Pre-Amplifier Gain
A margin of -8dB means that the emission is 8dB below the limit
Antenna Distance: 10 meters
If the peak measured value meets the QP limit, The QP value is inherently compliant.

Address:No. 120, Lane 180, Hsin Ho Rd., Lung-Tan Dist.,
Tao Yuan City 325, Taiwan.
Tel:03-2638888

Radiated Emission Measurement

Operator: Kevin Chan
Temperature: 25 ℃
Humidity: 62 %

Date: 2025/11/10



Site : Chamber 14

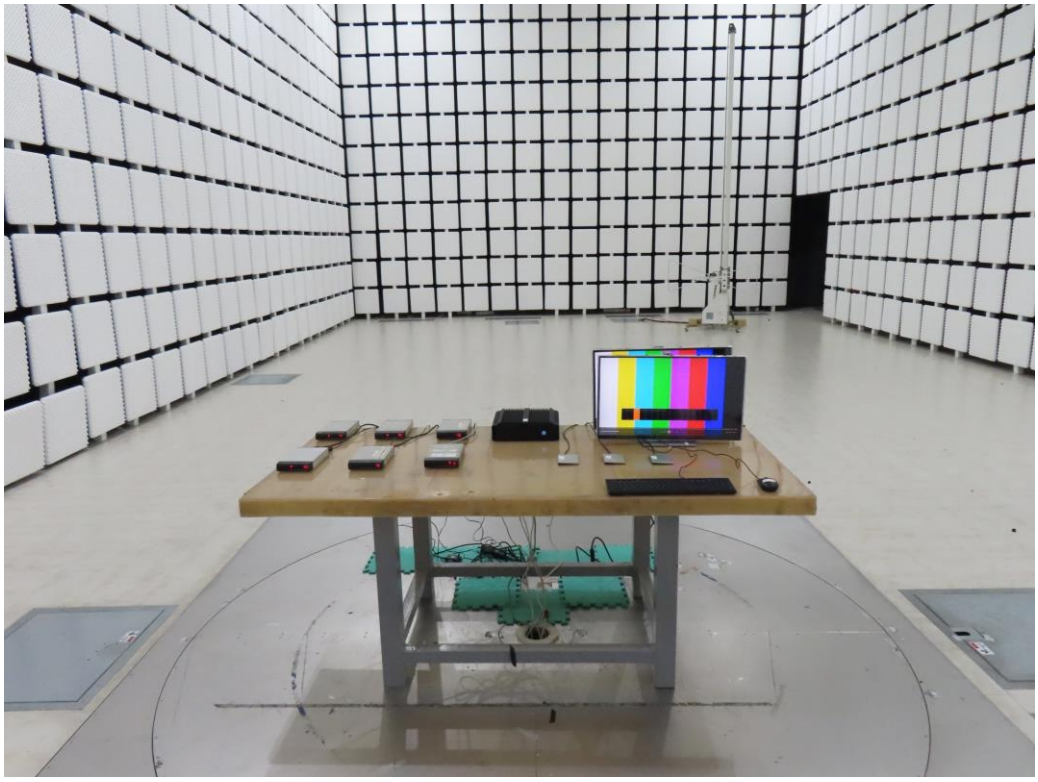
Polarization: *Vertical*

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	1080.00	71.10	-22.96	48.14	70.00	-21.86	100	195	peak
2	1086.70	56.26	-22.96	33.30	50.00	-16.70	101	201	AVG
3	1595.00	76.51	-22.07	54.44	70.00	-15.56	100	325	peak
4	1597.60	57.06	-22.03	35.03	50.00	-14.97	100	317	AVG
5	2795.00	74.67	-17.28	57.39	70.00	-12.61	300	211	peak
6	2799.70	48.31	-17.27	31.04	50.00	-18.96	300	209	AVG
7	3185.00	69.31	-16.72	52.59	74.00	-21.41	100	181	peak
8	3185.30	48.72	-16.72	32.00	54.00	-22.00	100	175	AVG
9	4800.00	71.19	-15.35	55.84	74.00	-18.16	100	126	peak
10	4800.00	60.51	-15.35	45.16	54.00	-8.84	100	131	AVG
11	5400.00	73.61	-15.26	58.35	74.00	-15.65	100	177	peak
12*	5400.14	68.13	-15.26	52.87	54.00	-1.13	100	180	AVG

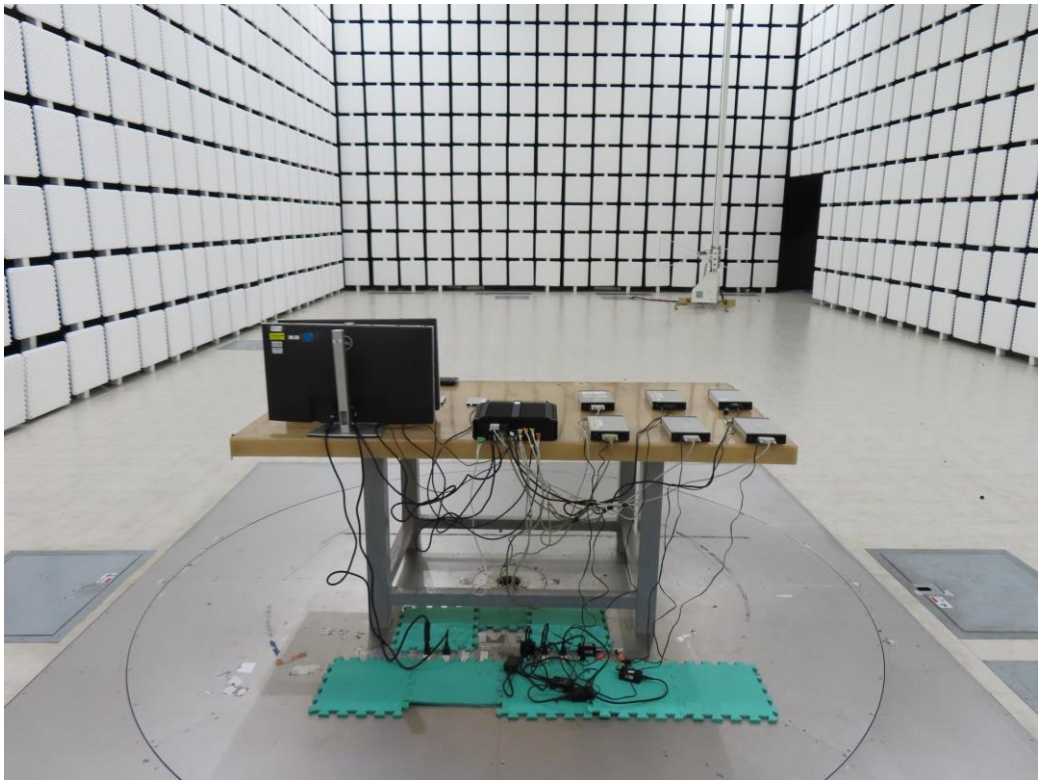
* Note:
Margin = Emission – Limit
Emission = Radiated Amplitude + Correct Factor
Correct Factor = Antenna Correction Factor + Cable Loss – Pre-Amplifier Gain
A margin of -8dB means that the emission is 8dB below the limit
Antenna Distance: 3 meters
If the peak measured value meets the Average limit, The Average value is inherently compliant.

4.4 Test Setup Photo

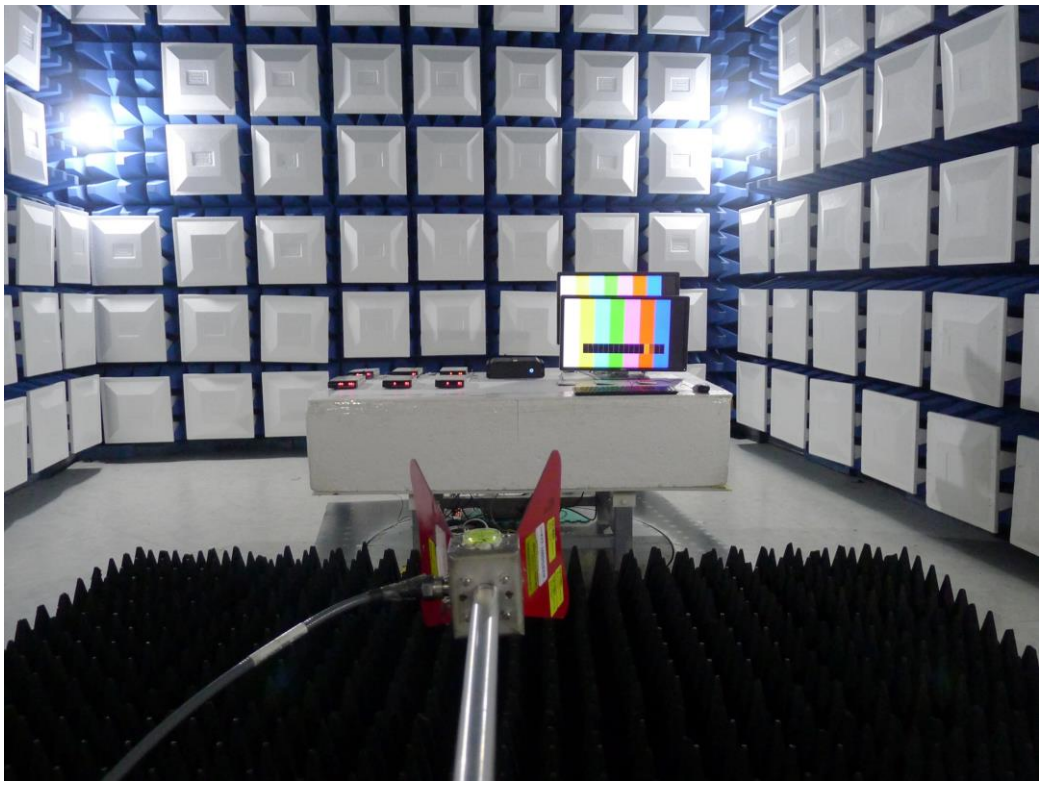
Front View (30MHz - 1GHz)



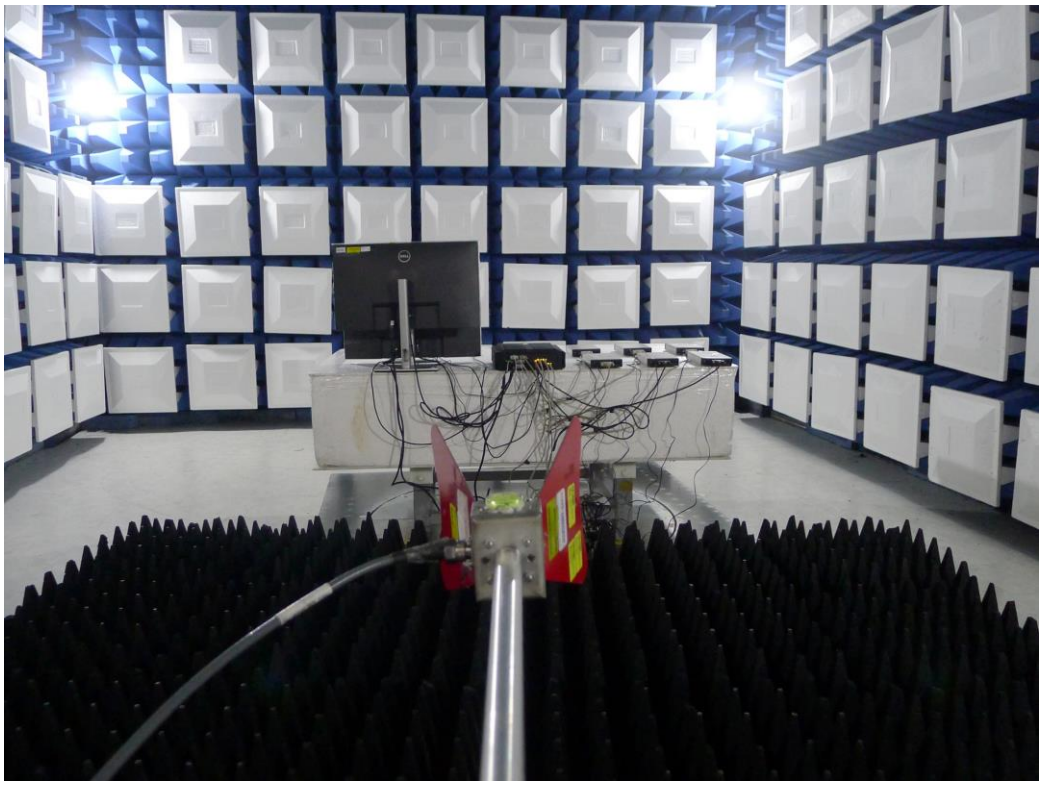
Back View (30MHz - 1GHz)



Front View (above 1GHz)



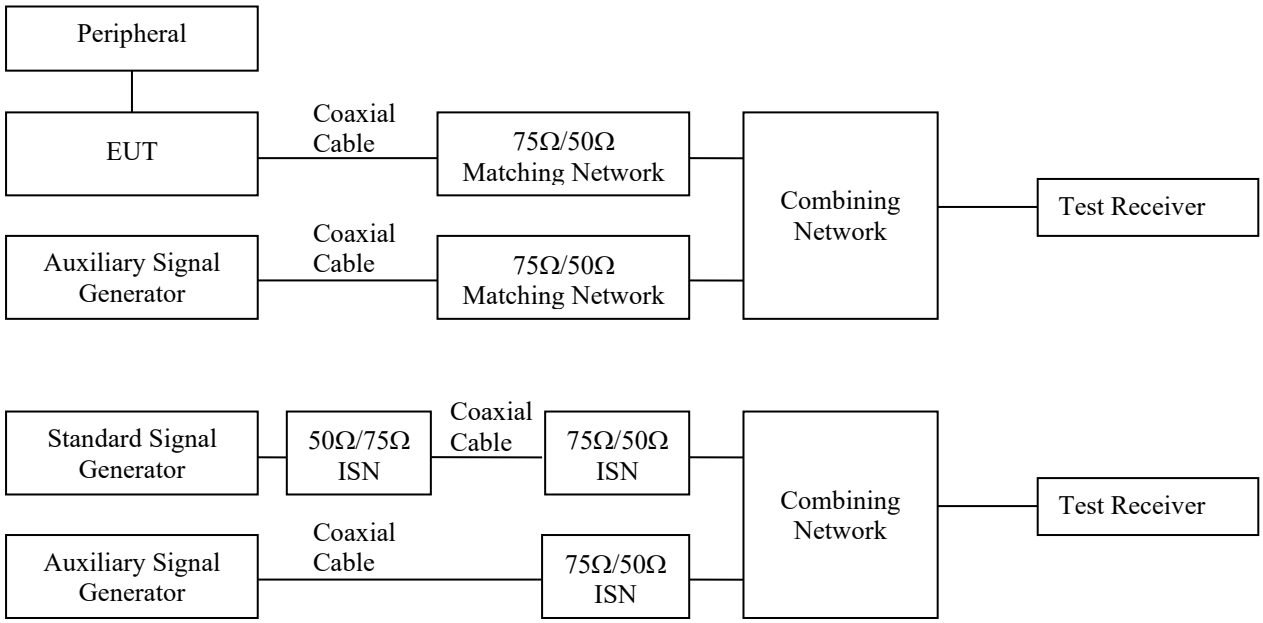
Back View (above 1GHz)



5. Voltage Disturbance Emissions at Antenna Terminals

5.1 Test Setup and Procedure

5.1.1 Test Setup



5.1.2 Test Procedure

The output level of the auxiliary signal generator was set to 70dBμV at the EUT antenna terminal with 75 ohms impedance with an un-modulated carrier.
The highest emissions 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 power of EUT was switched off to make sure the emission was not contributed by the auxiliary signal generator. While doing so, the interconnecting cables and major parts of the system were moved around to maximize the emission.

5.1.3 EMI Receiver Configuration (for the frequencies tested)

Frequency Range:	30MHz - 2150MHz
Detector Function:	Quasi-Peak Mode
Resolution Bandwidth:	120kHz

5.1.4 Limit

Applicable to:

1. TV broadcast receiver tuner ports with an accessible connector.
2. RF modulator output ports.
3. FM broadcast receiver tuner ports with an accessible connector.

Applicable to
1. TV broadcast receiver tuner ports (3.1.8) with an accessible connector
2. RF modulator output ports (3.1.29)
3. FM broadcast receiver tuner ports (3.1.8) with an accessible connector

Table clause	Frequency range MHz	Detector type/ bandwidth	Class B limits dB(μV) 75 Ω			Applicability
			Other	Local Oscillator Fundamental	Local Oscillator Harmonics	
A13.1	30 to 950	For frequencies ≤1 GHz Quasi Peak/ 120 kHz	46	46	46	See [a]
	950 to 2 150		46	54	54	
A13.2	950 to 2 150		46	54	54	See [b]
A13.3	30 to 300		46	54	50	See [c]
	300 to 1 000				52	
A13.4	30 to 300	For frequencies ≥1 GHz Peak/ 1 MHz	46	66	59	See [d]
	300 to 1 000				52	
A13.5	30 to 950		46	76	46	See [e]
	950 to 2 150			n/a	54	

[a] Television receivers (analogue or digital), video recorders and PC TV broadcast receiver tuner cards working in channels between 30 MHz and 1 GHz, and digital audio receivers.

[b] Tuner units (not the LNB) for satellite signal reception.

[c] Frequency modulation audio receivers and PC tuner cards.

[d] Frequency modulation car radios.

[e] Applicable to EUTs with RF modulator output ports (for example DVD equipment, video recorders, camcorders and decoders etc.) designed to connect to TV broadcast receiver tuner ports. Limits specified for the LO are for the RF modulator carrier signal and harmonics.

The term 'other' refers to all emissions other than the fundamental and the harmonics of the LO.

The measurement shall cover the entire frequency range.

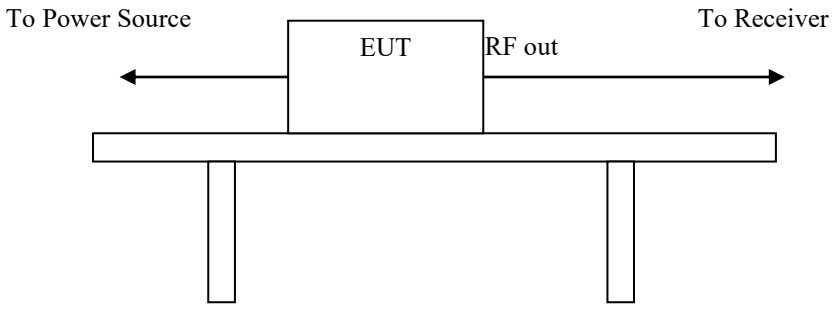
The EUT shall be tuned in accordance with Table B.3 and clause C.4.2.1.

****Remarks: It is not necessary to be tested on this item.**

6. Differential Voltage Emissions

6.1 Test Setup and Procedure

6.1.1 Test Setup



6.1.2 Test Procedure

The output level of the auxiliary signal generator was set to 70dBμV at the EUT antenna terminal with 75 ohms impedance with an un-modulated carrier.
The highest emissions 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 power of EUT was switched off to make sure the emission was not contributed by the auxiliary signal generator. While doing so, the interconnecting cables and major parts of the system were moved around to maximize the emission.

6.1.3 EMI Receiver Configuration (for the frequencies tested)

Frequency Range:	30MHz - 2150MHz
Detector Function:	Quasi-Peak Mode
Resolution Bandwidth:	120kHz

6.1.4 Limit

Applicable to:

1. TV broadcast receiver tuner ports with an accessible connector.
2. RF modulator output ports.
3. FM broadcast receiver tuner ports with an accessible connector.

Applicable to
1. TV broadcast receiver tuner ports (3.1.8) with an accessible connector
2. RF modulator output ports (3.1.29)
3. FM broadcast receiver tuner ports (3.1.8) with an accessible connector

Table clause	Frequency range MHz	Detector type/ bandwidth	Class B limits dB(μV) 75 Ω			Applicability
			Other	Local Oscillator Fundamental	Local Oscillator Harmonics	
A13.1	30 to 950	For frequencies ≤1 GHz Quasi Peak/ 120 kHz	46	46	46	See [a]
	950 to 2 150		46	54	54	
A13.2	950 to 2 150		46	54	54	See [b]
A13.3	30 to 300		46	54	50	See [c]
	300 to 1 000				52	
A13.4	30 to 300	For frequencies ≥1 GHz Peak/ 1 MHz	46	66	59	See [d]
	300 to 1 000				52	
A13.5	30 to 950		46	76	46	See [e]
	950 to 2 150			n/a	54	

[a] Television receivers (analogue or digital), video recorders and PC TV broadcast receiver tuner cards working in channels between 30 MHz and 1 GHz, and digital audio receivers.

[b] Tuner units (not the LNB) for satellite signal reception.

[c] Frequency modulation audio receivers and PC tuner cards.

[d] Frequency modulation car radios.

[e] Applicable to EUTs with RF modulator output ports (for example DVD equipment, video recorders, camcorders and decoders etc.) designed to connect to TV broadcast receiver tuner ports. Limits specified for the LO are for the RF modulator carrier signal and harmonics.

The term 'other' refers to all emissions other than the fundamental and the harmonics of the LO.

The measurement shall cover the entire frequency range.

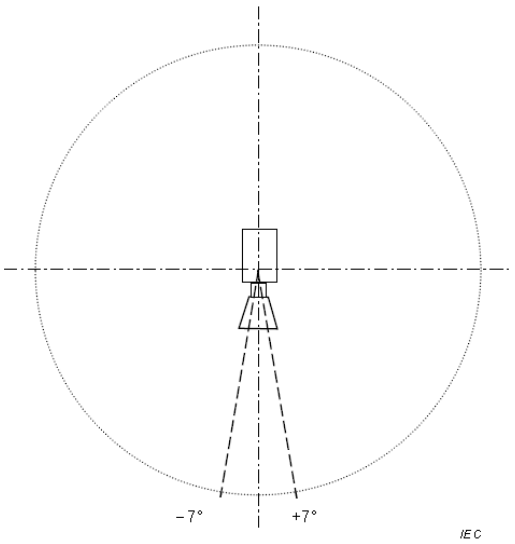
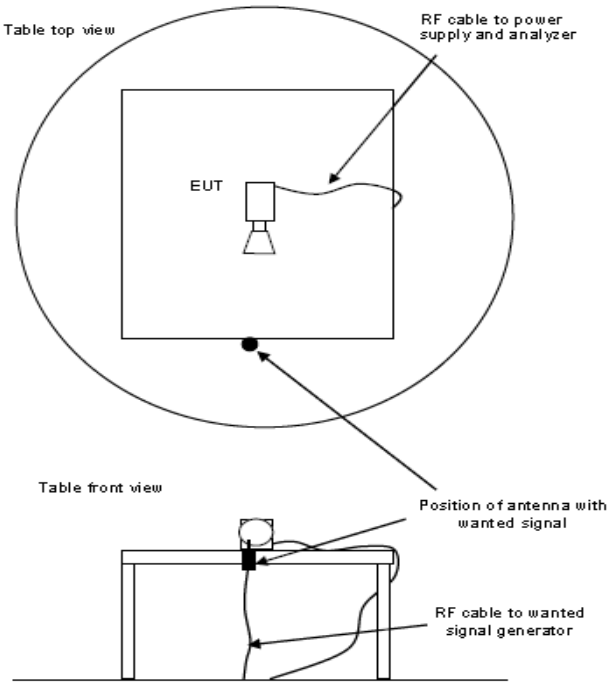
The EUT shall be tuned in accordance with Table B.3 and clause C.4.2.1.

****Remarks: It is not necessary to be tested on this item.**

7. Outdoor units of home satellite receiving systems

7.1 Test Setup and Procedure

7.1.1 Test Setup

	
Description of ±7° of the main beam axis of the EUT	Measurement arrangements of transmit antenna for the wanted signal

7.1.2 Test Procedure

The input signal shall be adjusted to get the maximum rated output level from the EUT. For the measurement in the frequency range from 30 MHz to 18 GHz the input signal shall be adjusted so that the output frequency is within this frequency range. For the measurement in the frequency range above 1 GHz, the frequency of the input signal shall be adjusted in such a way that the EUT is measured, as a minimum, at the lowest, middle and highest rated output frequency within the measured frequency range.

7.1.3 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

7.1.4 Limit

EN 55032:2015+A11:2020

Table Clause	Frequency Range MHz	Measurement			Class B Limits	Applicable to
		Facility (see Table A.1)	Distance m	Detector type / Bandwidth		
A7.1	30 to 1 000	SAC / OATS / FAR	See Table A.4	Quasi Peak / 120 kHz	See Table A.4	
A7.2	1 000 to 2 500	FSOATS	3	Average / 1 MHz	50 dB(µV/m)	LO leakage and spurious radiated emissions from the EUT, in the region outside ±7° of the main beam axis. See Figure H.1
	2 500 to 18 000				64 dB(µV/m)	
A7.3	1 000 to 18 000	FSOATS	3	Average / 1 MHz	37 dB(µV/m)	LO leakage from the EUT, in the region within ±7° of the main beam axis. See Figure H.1
A7.4	1 000 to 18 000	Conducted (Clause H.4)	n/a	Average / 1 MHz	30 dBpW	
For details of the EUT configuration, see Annex H. For radiated emissions measurements at frequencies up to 1 GHz, the requirements defined in Table A.4 shall be satisfied. Apply the appropriate limits across the entire frequency range. Apply the limits defined in table Clause A7.1 and A7.2. Also apply the limits defined in either table Clause A7.3 or A7.4.						

EN 55032:2015+A1:2020

Table Clause	Frequency Range MHz	Measurement			Class B Limits	Notes
		Facility (see Table A.1)	Distance m	Detector type / Bandwidth		
A7.1	30 to 1 000	SAC / OATS / FAR	See Table A.4	Quasi Peak / 120 kHz	See Table A.4	See Annex H
A7.2	1 000 to 2 500	FSOATS	3	Average / 1 MHz	50 dB(µV/m)	LO leakage and spurious radiated emissions from the EUT, in the region outside ±7° azimuth of the main beam axis. See Annex H
	2 500 to 18 000				64 dB(µV/m)	
A7.3	1 000 to 18 000	FSOATS	3	Average / 1 MHz	70 dB(µV/m)	LO leakage from the EUT, in the region within ±7° azimuth of the main beam axis. See Annex H
A7.4	1 000 to 18 000	Conducted (Clause H.4)	n/a	Average / 1 MHz	63 dBpW	
Apply the limits defined in table Clause A7.1 and A7.2. Also apply the limits defined in either table Clause A7.3 or A7.4. For details of the EUT configuration, see Annex H. For radiated emissions measurements at frequencies up to 1 GHz, the requirements defined in Table A.4 shall be satisfied. Apply the appropriate limits across the entire frequency range.						

Note 1: The test limit in this report is based on EN 55032:2015+A11:2020.
Note 2: Test data in this report has been taken against the EN 55032:2015+A11:2020 limit as it is the most stringent limit. By complying with the more restrictive EN 55032:2015+A11:2020 limit compliance with the EN 55032:2015+A1:2020 limit is also demonstrated.

****Remarks: It is not necessary to be tested on this item.**

8. Electrostatic discharge immunity

8.1 Test Specification and Setup

8.1.1 Test Specification

Port:	Enclosure
Basic Standard:	EN 61000-4-2 / IEC 61000-4-2 / BS EN 61000-4-2 (details referred to Sec 1.2)
Test Level:	Air +/- 2 kV, +/- 4 kV, +/- 8 kV Contact +/- 4 kV
Criteria:	B
Test Procedure:	refer to ISL SOP-EN 61000-4-2 TEST SOP
Temperature:	24°C
Humidity:	40%

Selected Test Point

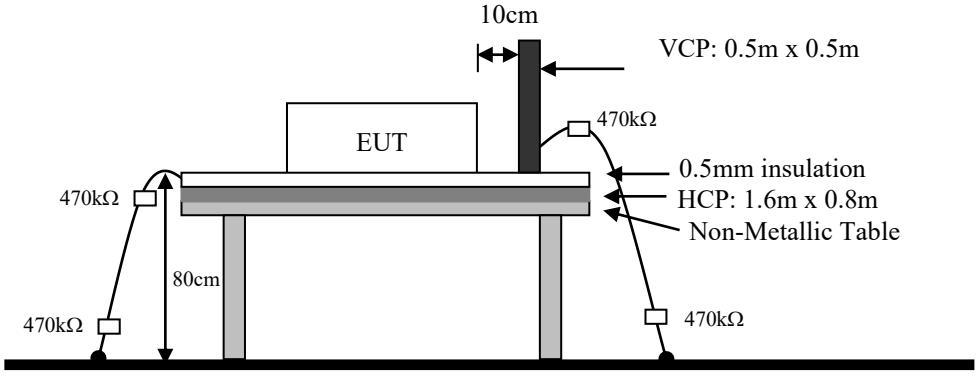
Air: discharges were applied to slots, aperture or insulating surfaces. 10 single air discharges were applied to each selected points.

Contact: 10 discharges minimum were to the selected contact points.

Indirect Contact Points: 10 discharges were applied to center of one edge of VCP and each EUT side of HCP with 10 cm away from EUT.

8.1.2 Test Setup

A minimum distance of 0.8 m shall be provided between the EUT and the walls of the laboratory and any other metallic structures. The coupling planes shall be connected to the RGP via a cable with two (470 ± 10 %) kΩ resistors located up to 10 cm from each end. (i.e. bleeder resistor cable).



8.1.3 Test Result

Performance of EUT complies with the given specification.

8.2 Test Point

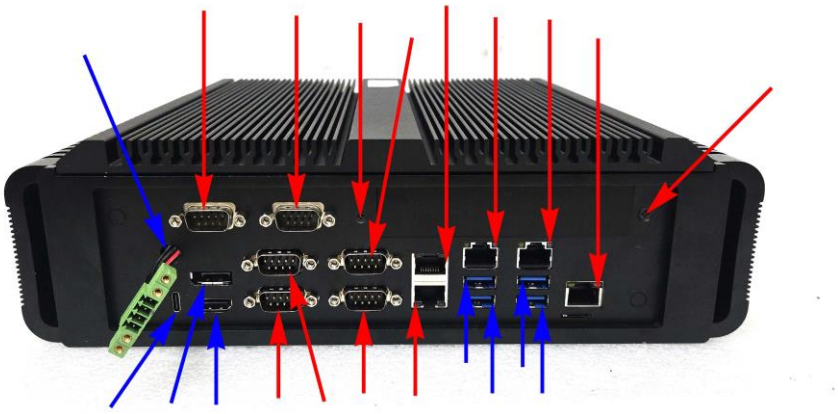
Red arrow lines indicate the contact points, and blue arrow lines indicate the air points.

Figure 1 :

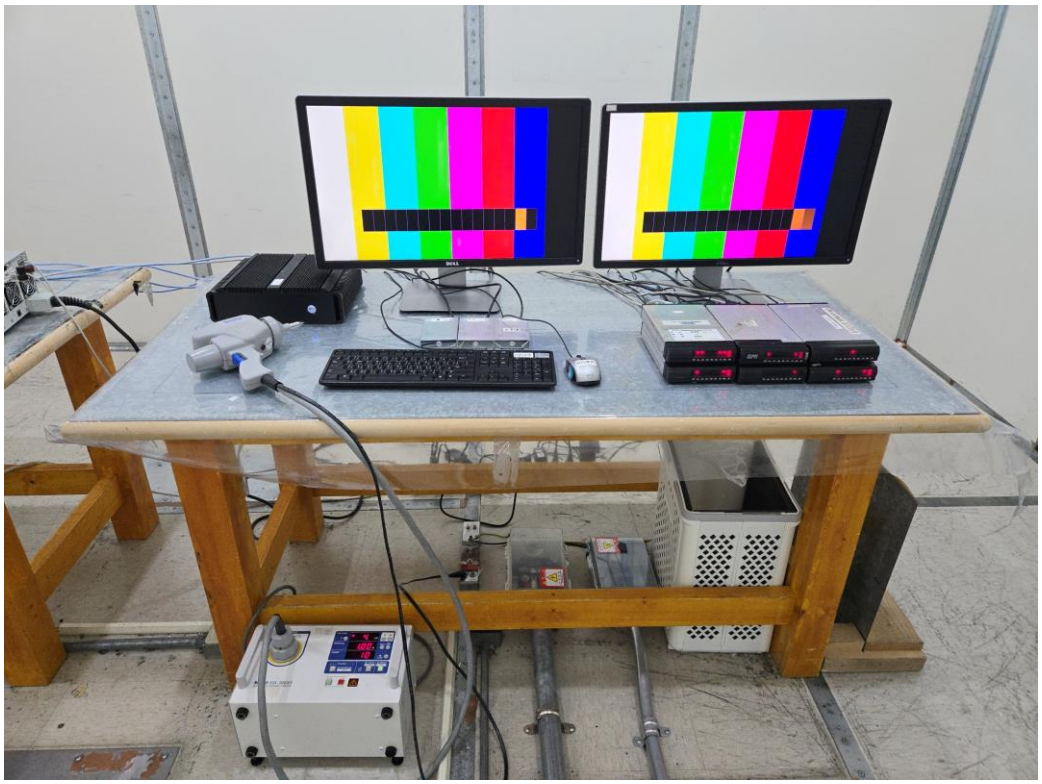
Figure 2 :

Figure 3 :

Figure 4 :



8.3 Test Setup Photo



9. Radiated, radio-frequency, electromagnetic field immunity

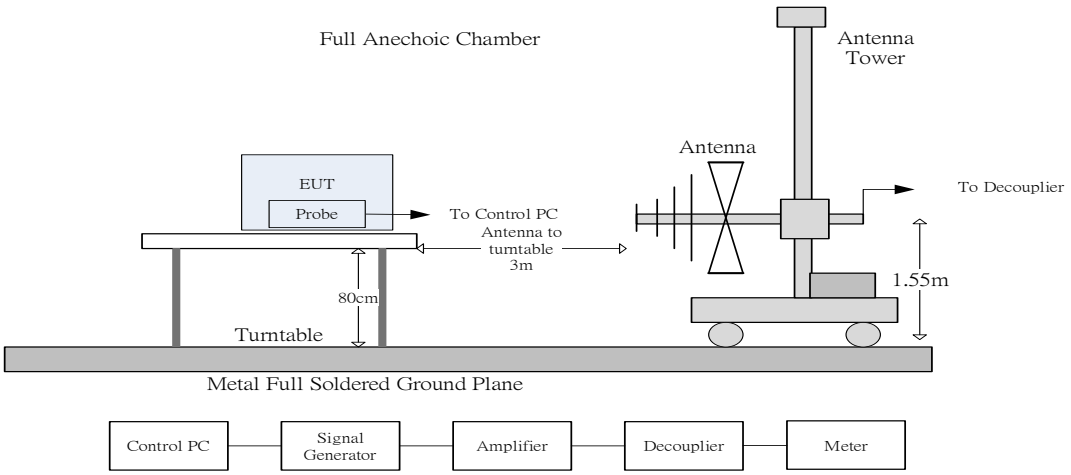
9.1 Test Specification and Setup

9.1.1 Test Specification

Port:	Enclosure
Basic Standard:	EN IEC 61000-4-3 / IEC 61000-4-3 / BS EN IEC 61000-4-3 (details referred to Sec 1.2)
Test Level:	3 V/m
Modulation:	AM 1kHz 80%
Frequency range:	80 MHz - 1 GHz 1800MHz, 2600MHz, 3500MHz, 5000MHz
Frequency Step:	1% of last step frequency
Dwell time:	2s
Polarization:	Vertical and Horizontal
EUT Azimuth Angle	☒0° ☒90° ☒180° ☒270°
Criteria:	A
Test Procedure:	refer to ISL SOP-EN 61000-4-3 TEST SOP
Temperature:	22°C
Humidity:	65%

9.1.2 Test Setup

The field sensor is placed at one calibration grid point to check the intensity of the established fields on both polarizations. EUT is adjusted to have each side of EUT face coincident with the calibration plane. A CCD camera and speakers are used to monitor the condition of EUT for the performance judgment.



9.1.3 Test Result

Performance of EUT complies with the given specification.

9.2 Test Setup Photo

10. Electrical fast transient/burst immunity

10.1 Test Specification and Setup

10.1.1 Test Specification

Port:	DC mains; Twisted Pair LAN Port
Basic Standard:	EN 61000-4-4 / IEC 61000-4-4 / BS EN 61000-4-4 (details referred to Sec 1.2)
Test Level:	DC Power Port: +/- 1 kV Twisted Pair LAN Port; (I/O Cables): +/- 0.5 kV
Rise Time:	5ns
Hold Time:	50ns
Burst Period:	300ms
Repetition Frequency:	5kHz
Criteria:	B
Test Procedure:	refer to ISL SOP-EN 61000-4-4 TEST SOP
Temperature:	21°C
Humidity:	64%

Test Procedure

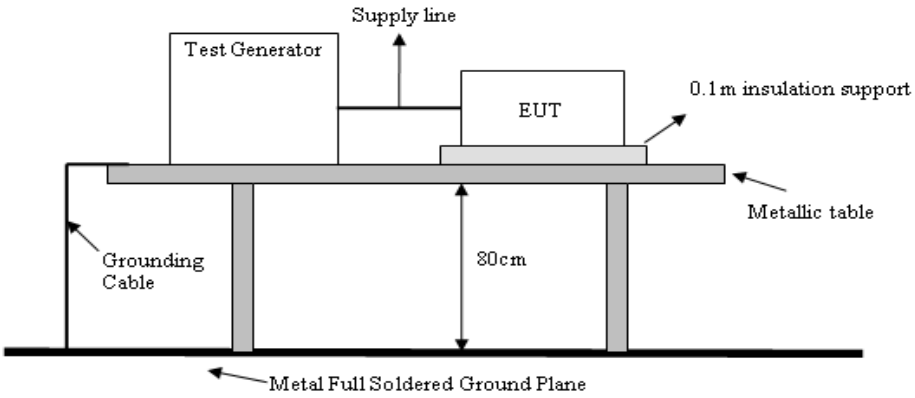
The EUT was setup on a nonconductive table 0.1 m above a reference ground plane.

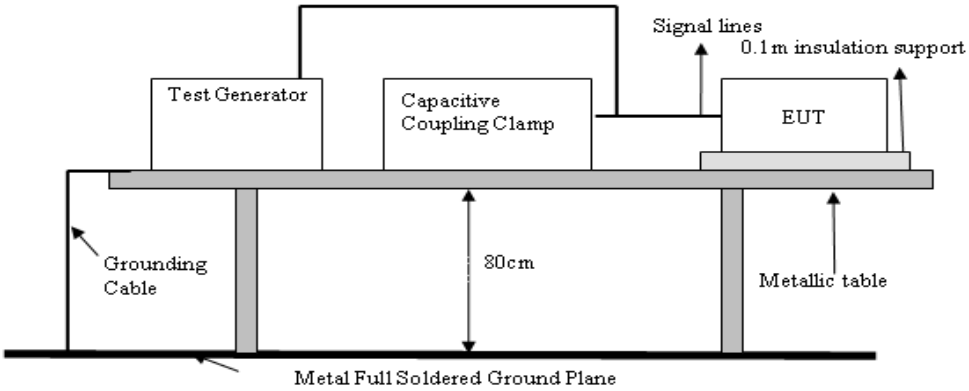
Test Points	Polarity	Result	Comment
Line	+	N	60 sec
	-	N	60 sec
Neutral	+	N	60 sec
	-	N	60 sec
Line and Neutral	+	N	60 sec
	-	N	60 sec
Capacitive coupling clamp	+	N	60 sec
	-	N	60 sec

Note: 'N' means normal, the EUT function is correct during the test.

10.1.2 Test Setup

EUT is at least 50cm from the conductive structure.





10.1.3 Test Result

Performance of EUT complies with the given specification.

10.2 Test Setup Photo

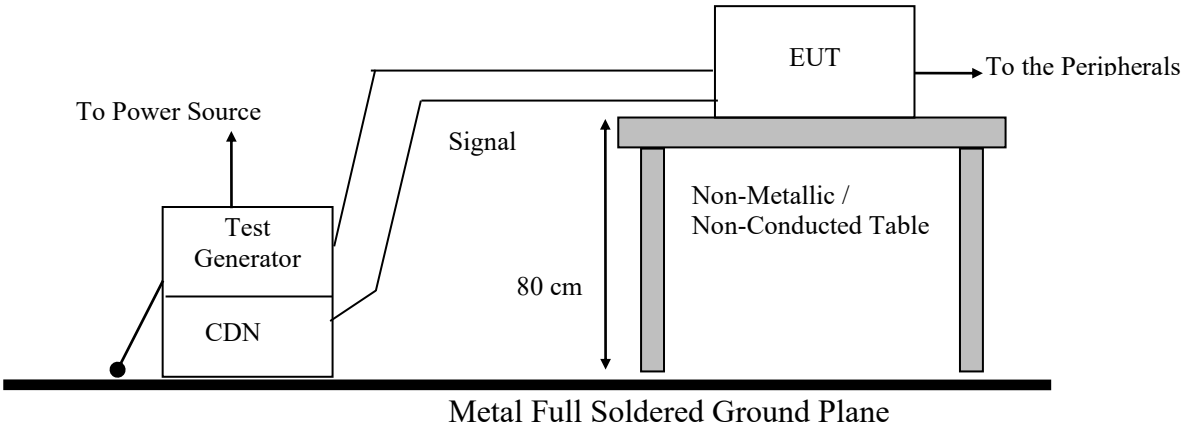
11. Surge immunity

11.1 Test Specification and Setup

11.1.1 Test Specification

Port:	DC mains	Analogue/digital data ports -Twisted Pair LAN Port
Basic Standard:	EN 61000-4-5 / IEC 61000-4-5 / BS EN 61000-4-5 (details referred to Sec 1.2)	
Test Level:	Line to Line: +/- 0.5 kV, +/- 1 kV	Line to Earth: +/- 0.5 kV, +/- 1 kV
Rise Time:	1.2us	10us
Hold Time:	50us	700us
Repetition Rate:	30 seconds	60 seconds
Angle:	☐0° ☐90° ☐180° ☐270°	NA
Criteria:	B	C
Remarks:		Where the coupling network for the 10/700 us waveform affects the functioning of high speed data ports, the test shall be carried out using a 1.2/50 (8/20) us waveform and appropriate coupling network.
Test Procedure:	refer to ISL SOP-EN 61000-4-5 TEST SOP	
Temperature:	21°C	
Humidity:	64%	

11.1.2 Test Setup



11.1.3 Test Result

Performance of EUT complies with the given specification.

11.2 Test Setup Photo

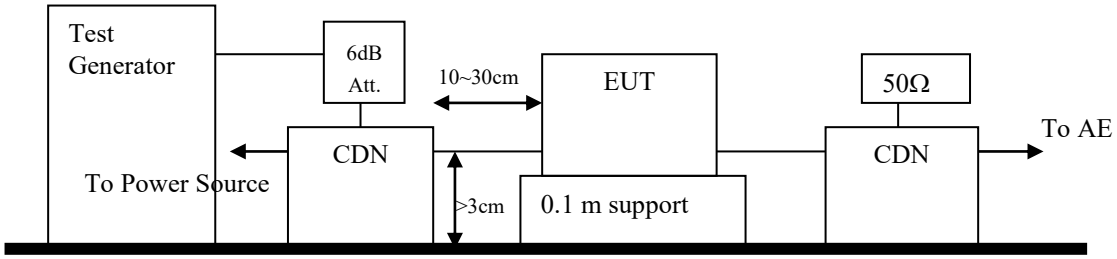
12. Immunity to conducted disturbances

12.1 Test Specification and Setup

12.1.1 Test Specification

Port:	DC mains; Twisted Pair LAN Por
Basic Standard:	EN IEC 61000-4-6 / IEC 61000-4-6 / BS EN IEC 61000-4-6 (details referred to Sec 1.2)
Frequency range and Test Level:	0.15MHz - 10MHz: 3 Vrms 10MHz - 30MHz: 3Vrms to 1Vrms 30MHz - 80MHz: 1Vrms
Modulation:	AM 1kHz 80%
Frequency Step:	1% of last Frequency
Dwell time:	2s
Criteria:	A
CDN Type:	CDN M2+M3, CDN T8, EM Clamp
Test Procedure:	refer to ISL SOP-EN 61000-4-6 TEST SOP
Temperature:	21°C
Humidity:	63%

12.1.2 Test Setup



Reference Ground Plane

12.1.3 Test Result

Performance of EUT complies with the given specification.

12.2 Test Setup Photo

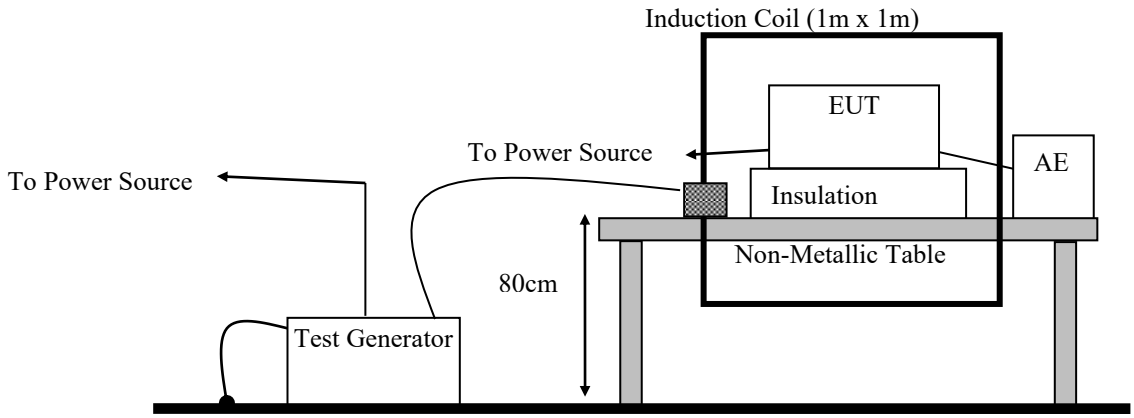
13. Power frequency magnetic field immunity

13.1 Test Specification and Setup

13.1.1 Test Specification

Port:	Enclosure
Basic Standard:	EN 61000-4-8 / IEC 61000-4-8 / BS EN 61000-4-8 (details referred to Sec 1.2)
Test Level:	1A/m
Polarization:	X, Y, Z
Criteria:	A
Test Procedure:	refer to ISL SOP-EN 61000-4-8 TEST SOP
Temperature:	21°C
Humidity:	63%

13.1.2 Test Setup



13.1.3 Test Result

Performance of EUT complies with the given specification.

13.2 Test Setup Photo

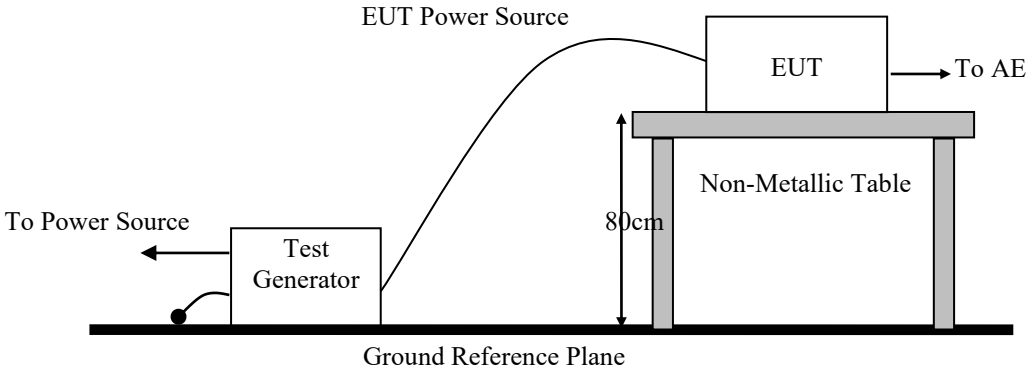
14. Voltage dips, short interruptions and voltage variations immunity

14.1 Test Specification and Setup

14.1.1 Test Specification

Port:	AC mains
Basic Standard:	EN IEC 61000-4-11 / IEC 61000-4-11 / BS EN IEC 61000-4-11 (details referred to Sec 1.2)
When the product is greater than 16A does not apply to this Standard, it is not necessary to be tested on this item. In addition, IEC/EN 61000-4-34 Standard was used to evaluating.	
Test Level: Criteria:	>95% in 0.5 cycle B
Test Level: Criteria:	30% in 25 cycle C
Test Level: Criteria:	>95% in 250 cycle C
Phase:	0°; 180°
Test intervals:	3 times with 10s each
Test Procedure:	refer to ISL SOP-EN 61000-4-11 TEST SOP

14.1.2 Test Setup



14.1.3 Test Result

****Remarks: It is not necessary to be tested on this item.**

15. Harmonics

15.1 Test Specification and Setup

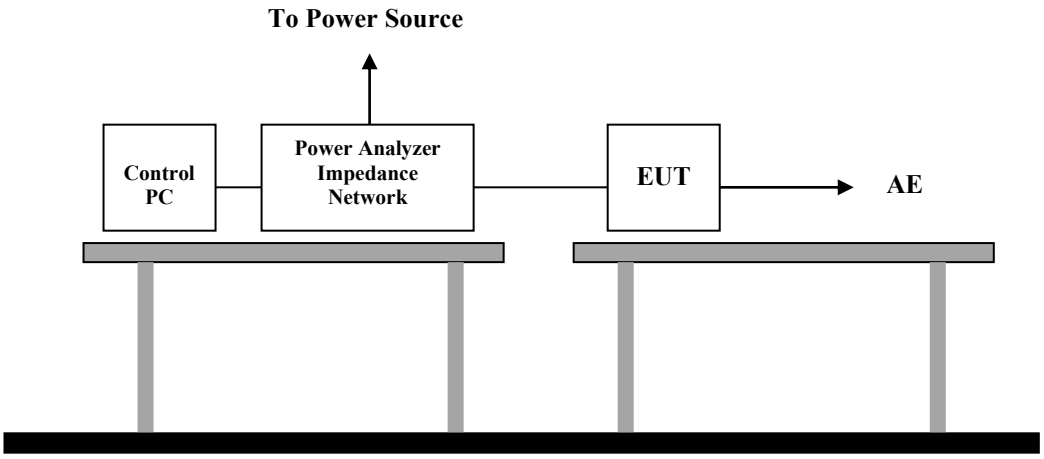
15.1.1 Test Specification

Port:	AC mains
Active Input Power:	-
Basic Standard:	EN IEC 61000-3-2 / IEC 61000-3-2 / BS EN IEC 61000-3-2 (details referred to Sec 1.2)
Test Duration:	2.5min
Class:	D
Test Procedure:	refer to ISL SOP-HARMONIC AND FLICKER TEST SOP

Test Procedure

The EUT is supplied in series with shunts or current transformers from a source having the same nominal voltage and frequency as the rated supply voltage and frequency of the EUT. The EUT is configured to its rated current with additional resistive load when the testing is performed.
Equipment having more than one rated voltage shall be tested at the rated voltage producing the highest harmonics as compared with the limits.

15.1.2 Test Setup



15.1.3 Limit

Limits of Class **D** Harmonics Currents

Harmonics Order N	Maximum Permissible harmonic current per watt mA/W	Maximum Permissible harmonic current A
3	3.4	2.30
5	1.9	1.14
7	1.0	0.77
9	0.5	0.40
11	0.35	0.33
$13 \leq n \leq 39$ (odd harmonics only)	3.85/n	See limit of Class A

15.1.4 Test Result

****Remarks: It is not necessary to be tested on this item.**

16. Voltage fluctuations and flicker

16.1 Test Specification and Setup

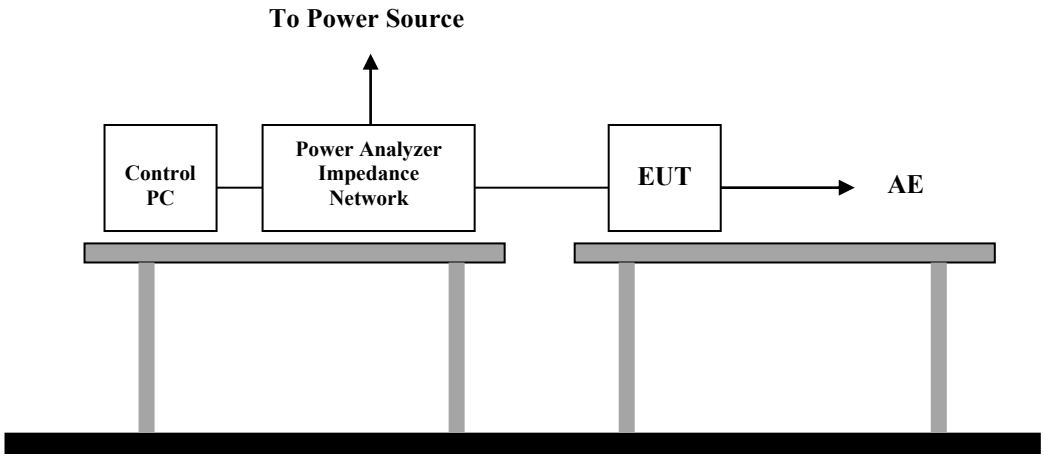
16.1.1 Test Specification

Port:	AC mains
Basic Standard:	EN 61000-3-3 / IEC 61000-3-3 / BS EN 61000-3-3 (details referred to Sec 1.2)
Test Procedure:	refer to ISL SOP-HARMONIC AND FLICKER TEST SOP
Observation period:	For Pst 10min
	For Plt 2 hours

Test Procedure

The EUT is supplied in series with reference impedance from a power source with the voltage and frequency as the nominal supply voltage and frequency of the EUT.

16.1.2 Test Setup



16.1.3 Test Result

****Remarks: It is not necessary to be tested on this item.**

17. Appendix

17.1 Appendix A: Test Equipment

17.1.1 Test Equipment List

Location	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Conduction 03	EMI Receiver_21	R&S	ESR 3	103410	07/18/2025	07/18/2026
Conduction 03	Conduction03 Cable_01	HUBER+SUHNER	RG 400/U	Conduction03 Cable 01	04/07/2025	04/07/2026
Conduction 03	LISN_22	ROHDE & SCHWARZ	ENV216	101478	09/12/2025	09/12/2026
Conduction 03	ISN T8 CAT6A_03	SCHWARZBECK	NTFM 8158	NTFM 8158-00367	05/29/2025	05/29/2026
Conduction 03 (>16A)	LISN_24	SCHWARZBECK	NNLK 8121	8121-829	06/27/2025	06/27/2026

Location Chamber02	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Radiation	BILOG Antenna_17 (30MHz~1GHz)	SCHWARZBECK	VULB 9168+EMCI-N-6-05	645	12/15/2025	12/15/2026
Radiation	Preamplifier_25	EMCI	EMC9135	980295	04/10/2025	04/10/2026
Radiation	Coaxial Cable Chmb 02-10M_02	EMC	RG214U	Chmb 02-10M-02	08/26/2025	08/26/2026
Radiation	EMI Receiver_14	R&S	ESCI	101034	05/15/2025	05/15/2026

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	11/04/2025	11/04/2026
Rad. Above 1GHz	Horn Antenna_06	ETS-Lindgren	3117	00066665	12/09/2025	12/09/2026
Rad. Above 1GHz	Preamplifier_31	EMC INSTRUMENT	EMC051845SE	981108	06/11/2025	06/11/2026
Rad. Above 1GHz	Microwave Cable _49	WOKEN	WCBA-WCA206NM.SM6	1-18G-4	10/16/2025	10/16/2026
Rad. Above 1GHz	Microwave Cable_38	woken	WCBA-WCA04NM	Chamber14-4	04/24/2025	04/24/2026

Location	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
EN61K-4-2	ESD Gun_07	NoiseKen	ESS-2002EX	ESS0878638/ ESS0868589	01/05/2026	01/05/2027
EN61K-4-3	Broadband Log-Periodic Antenna	AR	AT1080	310698	N/A	N/A
EN61K-4-3	Horn Antenna RF-01	AR	ATS700M11G	0335864	N/A	N/A
EN61K-4-3	Amplifier 80MHz-1GHz 250W	AR	250W1000C	358877	N/A	N/A
EN61K-4-3	Amplifier 0.7-6GHz 60W	AR	60S1G6	358973	N/A	N/A
EN61K-4-3	Broadband Coupler 80MHz-1GHz	Amplifier Research	DC6180A	0341805	N/A	N/A
EN61K-4-3	Coaxial Cable	INSULATED	NPS-4806-2360-NP3	108599.003.01.03	N/A	N/A
EN61K-4-3	Broadband Coupler 1-6GHz	Woken	STI07-0005-40	N/A	N/A	N/A
EN61K-4-3	Power Meter_05	BOONTON	4232A	12933	08/26/2025	08/26/2026
EN61K-4-3	Power Sensor_05	BOONTON	51013-4E	35242	08/26/2025	08/26/2026
EN61K-4-3	Power Sensor_09	BOONTON	51075A	36964	08/26/2025	08/26/2026
EN61K-4-3	Signal Generator_07	R&S	SMB100A	107780	10/30/2025	10/30/2026
EN61K-4-4	EFT Clamp_01	EMC-PARTNER	CN-EFT1000	CNEFT1000-103	03/08/2025	03/08/2026
EN61K-4-4	Signal Generator _11_EFT	EMC Partner	IMU3000	IMU3000 F5-S6-1501	09/09/2025	09/09/2026
EN61K-4-4	CDN-A_01_EFT	EMC Partner	CDN-A-6-125	109037-3199	04/22/2025	04/22/2026
EN61K-4-5	Signal Generator _11_Surge	EMC Partner	IMU3000	IMU3000 F5-S6-1501	09/09/2025	09/09/2026
EN61K-4-5	CDN-A_01_Surge	EMC Partner	CDN-A-6-125	109037-3199	04/22/2025	04/22/2026
EN61K-4-6	CDN M2+M3_04	TESEQ	CDN M016	43257	07/18/2025	07/18/2026
EN61K-4-6	CDN T8-10_03	TESEQ	CDN T8-10	42000	07/19/2025	07/19/2026
EN61K-4-6	CDN M2+M3_02	TESEQ	FRANKONIA	A3011024	09/13/2025	09/13/2026
EN61K-4-6	Coaxial Cable 4-6 02-1			4-6 02-1	N/A	N/A
EN61K-4-6	CIT-100_01	FRANKONIA	CIT-100-75-MIL	11865-1	10/23/2025	10/23/2026
EN61K-4-6	EM Clamp_02	TESEQ	KEMZ801	41397	10/22/2025	10/22/2026
EN61K-4-8	Magnetic Field Immunity Loop_01	FCC	F-1000-4-8-L-1M	01037	04/10/2025	04/10/2026
EN61K-4-8	Magnetic Field Test Generator_01	FCC	F-1000-4-8-G-125A	01038	04/10/2025	04/10/2026

PS: N/A => The equipment does not need calibration.

**Software for Controlling Spectrum/Receiver and Calculating Test Data

Test Item	Filename	Version
EN 61000-4-2	N/A	2.0
EN IEC 61000-4-3	i2	529b
EN 61000-4-4	TEM A3000	v4.12.1
EN 61000-4-5	TEM A3000	v4.12.1
EN 61000-4-6	i2	529b
EN 61000-4-8	N/A	

Site	Filename	Version
Conduction/Radiation	EZ EMC	ISL-03A2

17.2 Appendix B: 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 03>	
AMN:	± 2.9 dB
ISN-T8	± 3.2 dB
(Cat 6a_10Gbps):	

<Chamber 02 (10m)>	
Horizontal	
30MHz - 200MHz:	± 4.5 dB
200MHz - 1000MHz:	± 3.9 dB
Vertical	
30MHz - 200MHz:	± 4.7 dB
200MHz - 1000MHz:	± 4.3 dB

<Chamber 14 (3m)>	
1GHz - 6GHz:	± 5.3 dB

<Immunity 02>

Test item	Uncertainty	Test item	Uncertainty
EN 61000-4-2 (ESD)		EN 61000-4-6 (CS)	
Rise time tr	≦ 9.0 %	CDN	1.8 dB
Peak current Ip	≦ 5.6 %	EM Clamp	3.4 dB
current at 30 ns	≦ 5.7 %	EN 61000-4-8 (Magnetic)	5.6 %
current at 60 ns	≦ 5.6 %		
EN IEC 61000-4-3 (RS)	1.7 dB		
EN 61000-4-4 (EFT)			
voltage rise time (tr)	6.1 %		
peak voltage value (VP)	6.4 %		
voltage pulse width (t_w)	5.8 %		
EN 61000-4-5 (Surge)			
open-circuit voltage front time	12 %		
open-circuit voltage peak value	8.7 %		
open-circuit voltage duration (T_d)	0.55%		

17.3 Appendix C: Photographs of EUT

Please refer to the File of **ISL-26LE0111P**

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