TEST REPORT

KES Co., Ltd.
3701, 40, Simin-daero 365beon-gil,Dongan-gu, Anyang-si,
Gyeonggi-do,14057, Korea
Tel : +82-31-425-6200, Fax : +82-31-425-6200

1. Client

Applicant	: Hanwha Vision Co., Ltd
Applicant Address	: 6, Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea

2. Sample Description

Product name	: Public view monitor
Model/Type No.	: SMT-3231PV
Variant Model	: -
Manufacturer	: OIC KOREA Co., Ltd.
Manufacturer Address	: 5F, 12, Annam-ro 369beon-gil, Bupyeong-gu, Incheon, 21312, Korea
3. Date of Receipt	: Sep. 25, 2023
4. Test date	: Oct. 06, 2023 ~ Oct. 24, 2023
5. Date of Issue	: Nov. 06, 2023
6. Test Results	: In Compliance

Tested by

Dae Soo Kim
EMC Test Engineer

Reviewed by

Seong Min Choi
EMC Technical Manager

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

REPORT REVISION HISTORY

Date	Test Report No.	Revision History
Nov. 06, 2023	KES-EM-23T0939	Issued

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1.0 General Product Description

Main Specifications of EUT are:

Display		
Type		LED Monitor
Screen Size		31.55"
Max. Resolution		1920*1080 60Hz (FHD)
Brightness		400 cd/m²
Contrast Ratio		1300:1
Aspect Ratio		16:9
Viewing Angle (H/V)		178°/178°
Display Color		16.7M Colors
Response Time		25ms
Video System		None
Panel Life		30,000 hours
Filter Type		None
Interface		
Video	Connectors	Camera(Internal, PIP/PBP), HDMI#1(PIP/PBP), HDMI#2 * two windows PIP/PBP : Internal Camera and HDMI#1
Composite Video	Input	None
VGA	Connector	None
	Input Signal	None
	Available Format	None
HDMI	Connector	HDMI 1.4 x 2
	Available Format	- 640×480@60Hz/72Hz/75Hz - 800×600@60Hz/72Hz/75Hz - 1024×768@60Hz/75Hz, - 1280x720p@50Hz/60Hz - 1280x1024@60Hz/75Hz - 1440x9000@60Hz - 1680x1050@60Hz - 1920×1080@60Hz
DP	Connector	None
	Available Format	None
Audio	Connector	None
	Output Signal	Speakers : 8Ω 2Wx 2
Alarm	Alarm I/O	Input 1ea / Output 1ea
Network	Ethernet	1 RJ-45 10/100BASE-T,
General	Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB
Application Support		None
On Screen Display		
Functions		VESA™ DPM Compatible
Language		English, Spanish, French
General		
Electrical	Input Voltage	DC24V, HPOE 802.3bt
	Power Consumption	56W
Environmental	Operating Temperature	0 ~ +40°C (+32°F ~ +104°F)
	Operating Humidity	10% ~ 80% (non-condensing)
Mechanical	Dimensions with Stand (WxHxD)	None
	Dimensions without Stand (WxHxD)	734mm(W) x 490mm(H) x 68mm(D)
	Weight with Packing	16.1Kg
	Weight without Packing	12.4kg
	Protection Glass	None
	Cabinet Color	Black
	Wall Mounts	None
	VESA Mounts Interface	VESA 100 x 100mm, 200 x 100mm, 200 x 200mm

Camera		
Video	Imaging Device	1/2.8" 2MP CMOS
	Max. Framerate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 15fps/12fps(60Hz/50Hz)
	Min. Illumination	Color: 0.03Lux (F1.6, 1/30sec) (TBD)
Lens	Focal Length (Zoom Ratio)	3.06mm fixed focal
	Max. Aperture Ratio	F1.6
	Angular Field of View	H: 107.7° / V: 59.0° / D: 126.7°
Operational	Backlight Compensation	BLC, WDR, SSDR
	Wide Dynamic Range	120dB
	Digital Noise Reduction	SSNRV, WiseNRⅡ(Based on AI engine)
	Motion Detection	8ea, 8point Polygonal zones
	Privacy Masking	32ea, 4point Quadrangle zones
	Gain Control	Low / Middle / High
	White Balance	ATW / AWC / Manual / Indoor / Outdoor
	LDC	Support
	Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1/5~1/12,000sec)
	Digital PTZ	Support
	Video Rotation	Flip, Mirror, Hallway view(90˚/270˚)
	Analytics	Classified object type: Person/Face Attributes: Not support Support DetectionShot Analytics events based on AI engine - Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events - Defocus detection, Tampering, Virtual area(Appear/Disappear)
	Business Intelligence	People counting, Queue management, Heatmap based on AI engine
	Alarm Triggers	Analytics, Network disconnect, Alarm input
	Alarm Events	When alarm trigger occurred - File upload(image) : e-mail/FTP - Notification : e-mail - Recording : SD/SDHC/SDXC or NAS recording at event triggers - Alarm output - Handover(PTZ preset, Send message by HTTP/HTTPS/TCP)
	Smart Codec	WiseStreamⅢ
	Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access Log 802.1X Authentication(EAP-TLS, EAP-LEAP) Device Certificate(Hanwha Techwin Root CA, pre-installed)
	Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API)
	Memory	2GB RAM, 1GB Flash

1.1 Test Voltage & Frequency

Unless indicated otherwise on the individual data sheet or test results, the test voltage and frequency was as indicated below.

☒ AC 230 V / 50 Hz(AC/DC ADAPTOR) ☒ PoE

1.2 Variant Model Differences

Not applicable

1.3 Device Modifications

Not applicable

1.4 Equipment Under Test

Description	Model Number	Serial Number	Manufacturer	Remarks
Public view monitor	SMT-3231PV	-	OIC KOREA Co., Ltd.	EUT
AC/DC ADAPTOR	FSP060-DAAN3	-	FSP	EUT
IR REMOCON	-	-	-	EUT

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
Micro SD Card	-	-	SanDisk	-
Laptop	LG15N54	506NZGK000615	LG ELECTRONICS NANJING NEW TECHNOLOGY CO., LTD	-
Laptop Adapter	PA-1650-43(65W)	OF58U63849302Y609	LITE-ON TECHNOLOGY (CHANGZHOU)CO., LTD	-
PoE Injector	PT-PSE109GBRO-AH	-	Dongguan PROCET Network Technology Co., Ltd	-
LED Alarm	PRO-SL	-	SENSOR PRO	-
Button Alarm	-	-	-	-

1.6 External I/O Cabling

■ DC-HDMI, DC-CAMERA MODE

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
Public view monitor (EUT)	Micro SD Slot	Micro SD Card	Micro SD Slot	-	-
	DC JACK	AC/DC ADAPTOR	DC JACK	1.0	U
	ALARM IN	Button Alarm	Alarm Out	3.1	U
	ALARM OUT	LED Alarm	Alarm In	3.1	U
	PoE	Laptop	RJ-45	3.1	S
	HDMI 1		HDMI	1.6	S
	IR	IR REMOCON	IR	-	-
Laptop	DC jack	Laptop Adapter	DC jack	1.5	U

* Unshielded=U, Shielded=S

■ PoE-HDMI, PoE-CAMERA MODE

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
Public view monitor (EUT)	Micro SD Slot	Micro SD Card	Micro SD Slot	-	-
	PoE	PoE Injector	RJ-45 (PoE)	3.1	S
	ALARM IN	Button Alarm	Alarm Out	3.1	U
	ALARM OUT	LED Alarm	Alarm In	3.1	U
	HDMI 1	Laptop	HDMI	1.6	S
	IR	IR REMOCON	IR	-	-
PoE Injector	RJ-45 (DATA)	Laptop	RJ-45	2.5	U
Laptop	DC jack	Laptop Adapter	DC jack	1.5	U

* Unshielded=U, Shielded=S

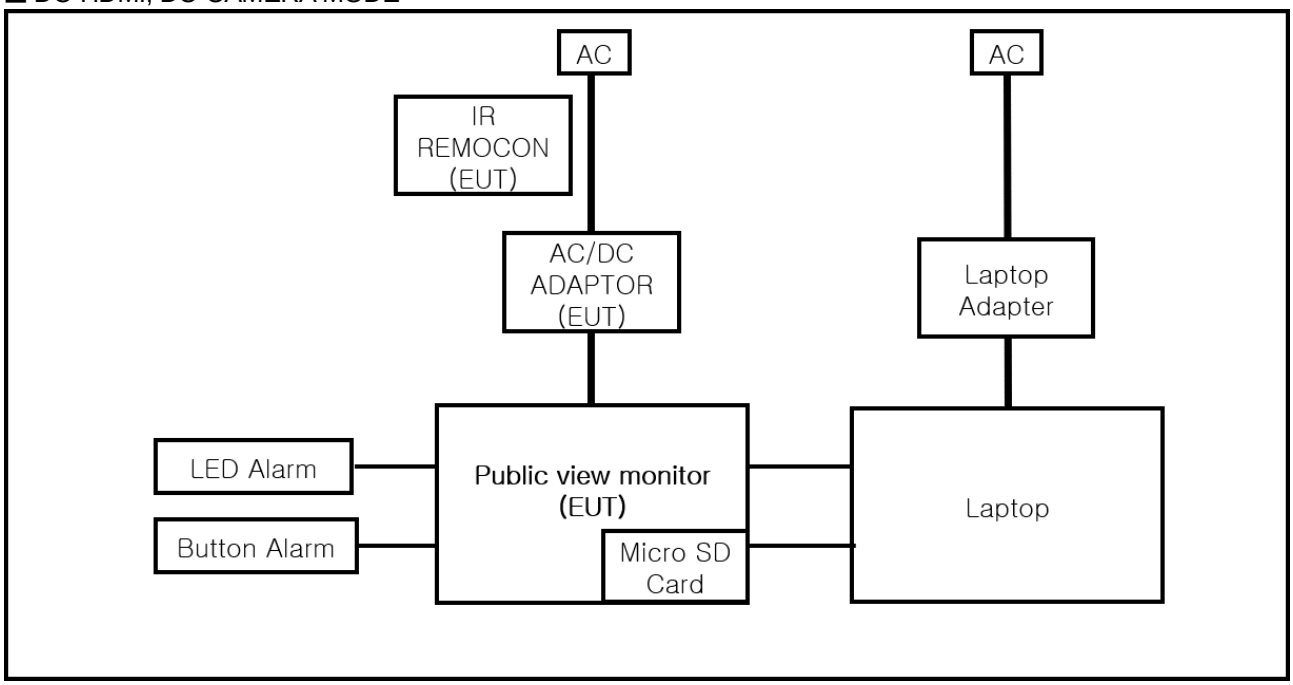
1.7 EUT Operating Mode(s)

Test mode	operating
Operation MODE (DC-HDMI, DC-CAMERA MODE PoE-HDMI, PoE-CAMERA MODE)	Monitoring EUT Using Web Viewer, Ping Test HDMI : The screen of the laptop is output on the EUT as HDMI. CAMERA : The camera screen is output on the EUT. SD CARD : After the test, check if the EUT video has been recorded normally.

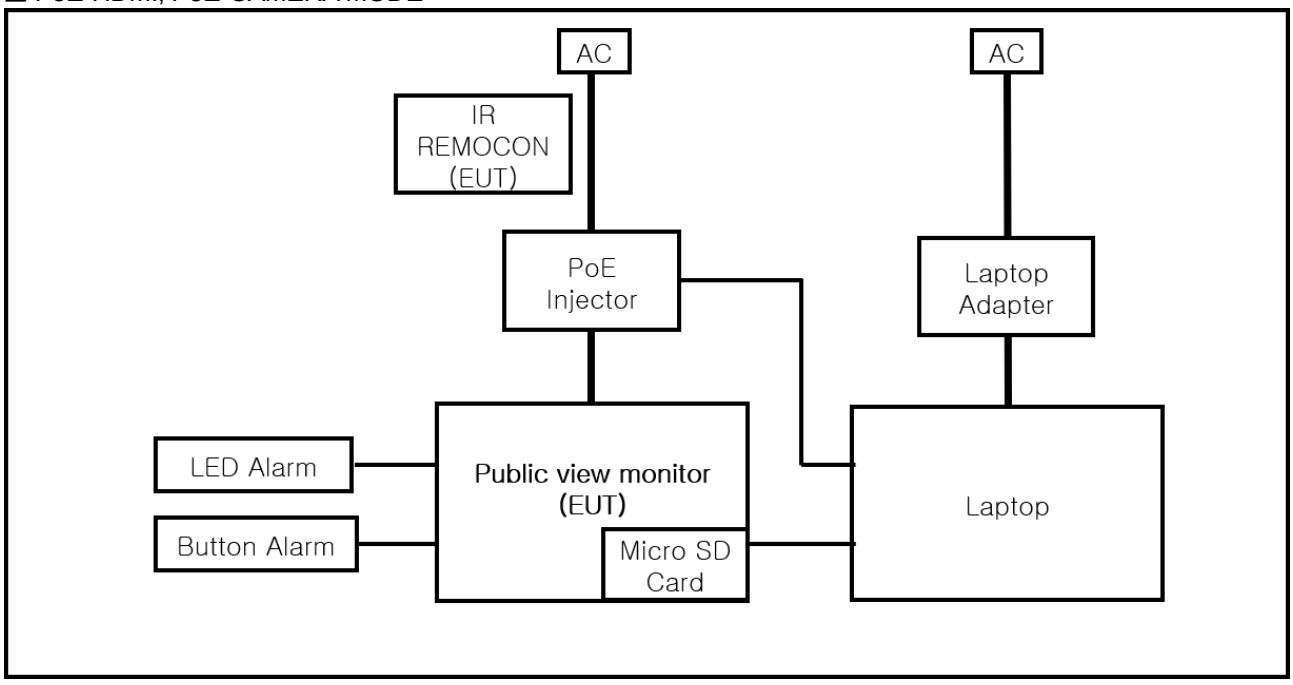
EUT Test operating S/W		
Name	**Version**	**Manufacture Company**
Web Viewer	-	Hanwha Vision Co., Ltd.

1.8 Configuration

■ DC-HDMI, DC-CAMERA MODE



■ PoE-HDMI, PoE-CAMERA MODE



1.9 Remarks when standards applied

- The USB port was excluded from the test because it was for administrators.
- The PoE mode of this test equipment receives PoE power, and the PoE port is considered a wired network port, so the test items related to the power port are not applicable.

1.10 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less.

1.11 Test Facility

The measurement facility is located at 473-21, Gayeo-ro, Yeoju-si, Gyeonggi-do, 12658, Korea, Republic of. The sites are constructed in conformance with the requirements of ANSI C63.4a-2017 and CISPR 16-1-4:2019

1.12 Laboratory Accreditations and Listings

Country	Agency	Scope of Accreditation	Logo
KOREA	**RRA**	EMI (3 m & 10 m Semi-Anechoic Chamber and conducted test site) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)	KR0100
International	**KOLAS**	EMI (3 m & 10 m Semi-Anechoic Chamber and conducted test site) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)	KT489
USA	**FCC**	3 m & 10 m Semi-Anechoic Chamber Conducted test site to perform FCC Part 15/18 measurements.	KR0100
Canada	**ISED**	3 m & 10 m Semi-Anechoic Chamber and Conducted test site	23298
JAPAN	**VCCI**	EMI (3 m & 10 m Semi-Anechoic Chamber and conducted test site)	C-20136, T-20137, R-20181, G-20176
Europe	**TÜV SÜD**	EMI (3 m & 10 m Semi-Anechoic Chamber and conducted test site) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)	CARAT 001633 0004

2.0 Test Regulations

The emissions tests were performed according to following regulations:

☒ **EMC – Directive 2014/30/EU**

☒ EN 55032:2015/A11:2020	☒ Class A	☐ Class B
☒ EN 50130-4:2011/A1:2014		
☒ EN 61000-3-2:2014		
☒ EN 61000-3-3:2013		

☒ **EMC – Regulations 2016**

☒ EN 55032:2015/A11:2020	☒ Class A	☐ Class B
☒ EN 50130-4:2011/A1:2014		
☒ EN 61000-3-2:2014		
☒ EN 61000-3-3:2013		

2.1 Conducted Emissions at Mains Power Ports

Test Date
Oct. 17, 2023

Test Location
Electro wave Shieldroom #6

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	EMC32	R & S	9.12.00	-
☒	EMI TEST RECEIVER	ESR3	R & S	101783	11, 11, 2023
☒	LISN	ENV216	R & S	101787	11, 10, 2023
☒	LISN	ESH2-Z5	R & S	100450	11, 10, 2023
☒	PULSE LIMITER	ESH3-Z2	R & S	101915	11, 10, 2023

Test Conditions
Temperature: (23,1 ± 0,1) ℃
Relative Humidity: (46,5 ± 0,1) % R.H.

Frequency Range of Measurement
150 ㎑ to 30 ㎒

Instrument Settings
IF Band Width: 9 ㎑

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
See Appendix A for test data.

2.2 Conducted Emissions at Telecommunication Ports

Test Date
Oct. 17, 2023

Test Location
Electro wave Shieldroom #6

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	EMC32	R & S	9.12.00	-
☒	EMI TEST RECEIVER	ESR3	R & S	101783	11, 11, 2023
☒	LISN	ENV216	R & S	101787	11, 10, 2023
☒	LISN	ESH2-Z5	R & S	100450	11, 10, 2023
☒	PULSE LIMITER	ESH3-Z2	R & S	101915	11, 10, 2023
☒	ISN	ISN S8	SCHWARZBECK	ISN-S8-0019	03, 06, 2024
☐	CDN	CDNS502A	TESEQ	40431	11, 10, 2023

Test Conditions
Temperature: (23,1 ± 0,1) ℃
Relative Humidity: (46,5 ± 0,1) % R.H.

Frequency Range of Measurement
150 ㎑ to 30 ㎒

Instrument Settings
IF Band Width: 9 ㎑

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
- See Appendix A for test data.
- For Ethernet interfaces, measurements are required at the highest data rate supported by the interface.

2.3 Radiated Electric Field Emissions(Below 1 ㎓)

Test Date
Oct. 07, 2023

Test Location
☐ OPEN AREA TEST SITE #2 ☒ SEMI ANECHOIC CHAMBER #4(10m)

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	EP5/RE	TOYO Corporation	6.0.0	-
☒	EMI TEST RECEIVER	ESU26	R & S	100551	03, 21, 2024
☒	AMPLIFIER	SCU 01	R & S	100603	11, 10, 2023
☒	TRILOG-BROADBAND ANTENNA	VULB9163	Schwarzbeck	715	11, 17, 2024
☒	ATTENUATOR	8491A	HP	32173	03, 03, 2024

Test Conditions
Temperature: (22,9 ± 0,1) ℃
Relative Humidity: (45,2 ± 0,1) % R.H.

Frequency Range of Measurement
30 ㎒ to 1 ㎓

Instrument Settings
IF Band Width: 120 ㎑

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
See Appendix A for test data.

2.4 Radiated Electric Field Emissions(Above 1 ㎓)

Test Date
Oct. 06, 2023

Test Location
SEMI ANECHOIC CHAMBER #5

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	ES10/RE	TOYO Corporation	2022.01.000	-
☒	EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100552	03, 21, 2024
☒	HORN ANTENNA	BBHA 9120D	SCHWARZBECK	9120D-1802	11, 08, 2023
☒	PREAMPLIFIER	8449B	HP	3008A00538	05, 31, 2024
☒	ATTENUATOR	8491B	HP	23094	03, 21, 2024

Test Conditions
Temperature: (23,3 ± 0,2) ℃
Relative Humidity: (47,5 ± 0,2) % R.H.

Frequency Range of Measurement
1 ㎓ to 6 ㎓

Instrument Settings
IF Band Width: 1 ㎒

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
See Appendix A for test data.

2.5 Harmonic Current Emissions

Test Date
Oct. 24, 2023

Test Location
Electro wave Shieldroom #3

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	net.control	EM TEST	2.1.4	-
☒	DIGITAL POWER ANALYZER	DPA 500N	EM TEST	V1024106759	03, 27, 2024
☒	POWER SOURCE	ACS 500N6	EM TEST	V1024106760	-

Test Conditions

Temperature: (23,2 ± 0,1) ℃
Relative Humidity: (45,3 ± 0,1) % R.H.

Classification of Equipment for Harmonic Current Emissions

☐ Class A
☐ Class B
☐ Class C(Below 25 W)
☐ Class C(Above 25 W)
☒ Class D

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
See Appendix A for test data.

2.6 Voltage Fluctuations and Flicker

Test Date
Oct. 24, 2023

Test Location
Electro wave Shieldroom #3

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	net.control	EM TEST	2.1.4	-
☒	DIGITAL POWER ANALYZER	DPA 500N	EM TEST	V1024106759	03, 27, 2024
☒	POWER SOURCE	ACS 500N6	EM TEST	V1024106760	-

Test Conditions

Temperature: (23,2 ± 0,2) ℃
Relative Humidity: (45,3 ± 0,2) % R.H.

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
See Appendix A for test data.

3.0 Criteria for compliance

Criteria for compliance was based on the following guidelines:
EN 50130-4:2011 Alarm systems-Part 4: Electromagnetic compatibility Product family standard: Immunity requirements for components of fire, intruder and social alarm systems

The variety and the diversity of the apparatus within the scope of this document makes it difficult to define precise criteria for the evaluation of the immunity test results.

If as a result of the application of the tests defined in this standard, the apparatus

becomes dangerous or unsafe then the apparatus shall be deemed to have failed the test.

A functional description and a definition of performance by the manufacture and noted in the test

report, based on the following criteria:

Electrostatic discharge

There shall be no damage, malfunction or change of status due to the conditioning.

Flickering of an indicator during the application of discharge is permissible, providing that is no

residual change in the EUT or any change in outputs, which could be interpreted by associated

equipment as a change.

Radiated electromagnetic fields

There shall be no damage, malfunction or change of status due to the conditioning.

Flickering of an indicator during the application of discharge is permissible, providing

which could be interpreted by associated equipment as a change, and no such

Flickering of indicators occurs at a field strength of 3 V/m.

For components of CCTV systems, where the picture is allowed at 10 V/m, providing.

(a) there is no permanent damage or change to EUT

(e.g. no corruption of memory or changes to programmable setting etc.)

(b) at 3 V/m, any deterioration of the picture is so minor that the system could still be used; and

(c) there is no observable deterioration of the picture at 1 V/m.

Fast transient burst / slow high energy voltage surge

There shall be no damage, malfunction or change of status due to the conditioning.

Flickering of an indicator during the application of discharge is permissible, providing

That there is no residual is permissible, providing that there is no residual change in the EUT or any change in outputs, which could be interpreted by associated equipment as a change.

Conducted RF immunity

There shall be no damage, malfunction or change of status due to the conditioning.

Flickering of an indicator during the application of discharge is permissible, providing

That there is no residual is permissible, providing that there is no residual change in the EUT or any change in outputs, which could be interpreted by associated equipment as a change,

and no such flickering of indicators oeuvres at U = 130 $dB\mu V$.

For component of CCTV systems, where the status is monitored by observing the TV picture,

then deterioration of the picture is allowed at U = 140 $dB\mu V$, providing:

(a) there is no permanent damage or change to the EUT

(e.g. no corruption of memory or changes to programmable settings etc.)

(b) at U = 130 $dB\mu V$, any deterioration of the picture is so minor that the system could

still be used; and

(c) there in no observable deterioration of the picture at U = 120 $dB\mu V$.

Voltage dip/interruption / Voltage variation

There shall be no damage, malfunction or change of status due to the conditioning.

Flickering of an indicator during the conditioning is permissible, providing that there is no residual change in the EUT or any change in outputs, which could be interpreted by associated equipment as a change. The EUT shall meet the acceptance criteria for the functional test, after the conditioning.

3.1 Electrostatic Discharge

Reference Standard
EN 61000-4-2:2009

Test Date
Oct. 10, 2023

Test Location
EMS-ESD: Electro wave Shieldroom #7

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	ESD SIMULATOR	ESS-2000	Noise Ken	ESS01Z0454	01, 31, 2024
☒	HCP	-	KES	-	-
☒	VCP	-	Noise Ken	-	-

Test Conditions

Temperature: (23,5 ± 0,0) ℃
Relative Humidity: (47,2 ± 0,0) % R.H.
Atmospheric Pressure: (100,1 ± 0,0) kPa

Test Specifications

Discharge Factor: ≥ 1 s

Discharge Impedance: 330 ohm / 150 pF

Kind of Discharge: Air, Contact (direct and indirect)

Polarity: Positive and Negative

Number of Discharge: 10 at all locations for Air discharge
10 at all locations for Contact discharge

Discharge Voltage:	Contact	Air	HCP	VCP
	☐ 2 kV	☒ 2 kV	☐ 2 kV	☐ 2 kV
	☐ 4 kV	☒ 4 kV	☐ 4 kV	☐ 4 kV
	☒ 6 kV	☐ 6 kV	☒ 6 kV	☒ 6 kV
	☐ 8 kV	☒ 8 kV	☐ 8 kV	☐ 8 kV
	☐ 15 kV	☐ 15 kV	☐ 15 kV	☐ 15 kV

Notes: HCP: Horizontal coupling plane
VCP: Vertical coupling plane

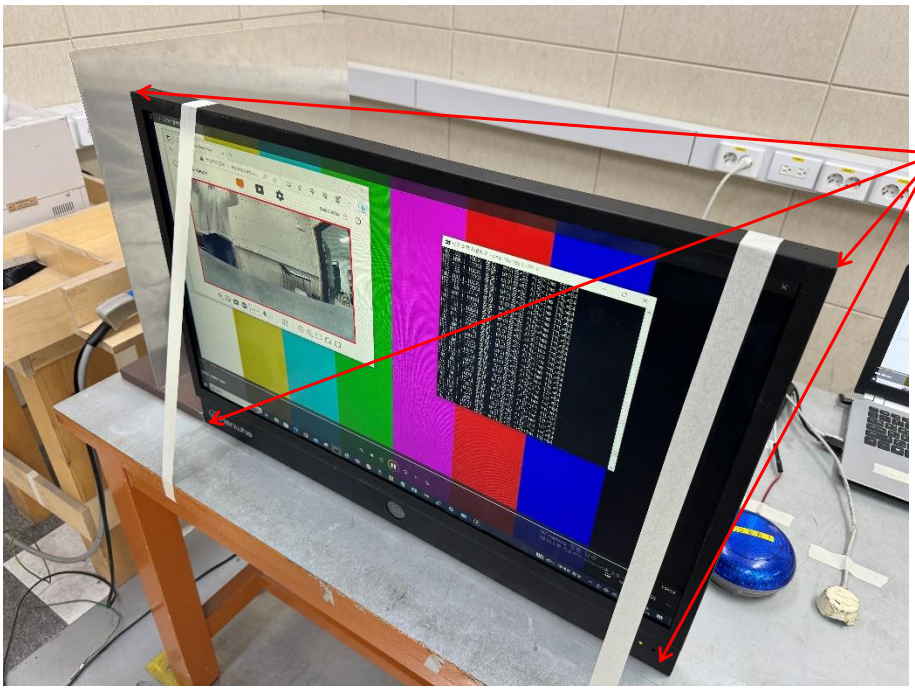
Required Performance Criteria: ☒ Complied

Location of Discharge:

Air

Contact

■ DC-HDMI, DC-CAMERA MODE



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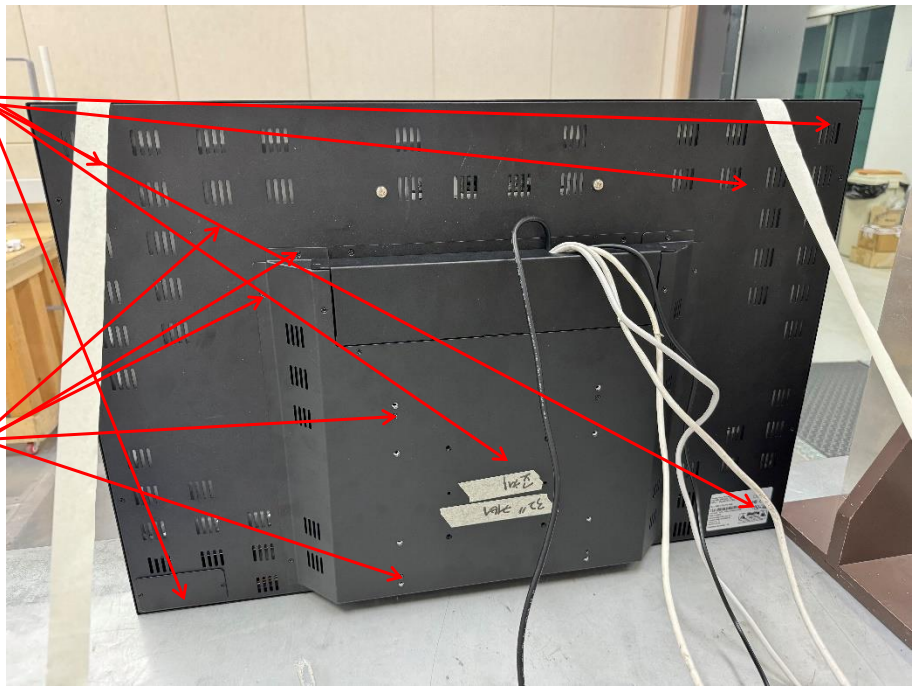

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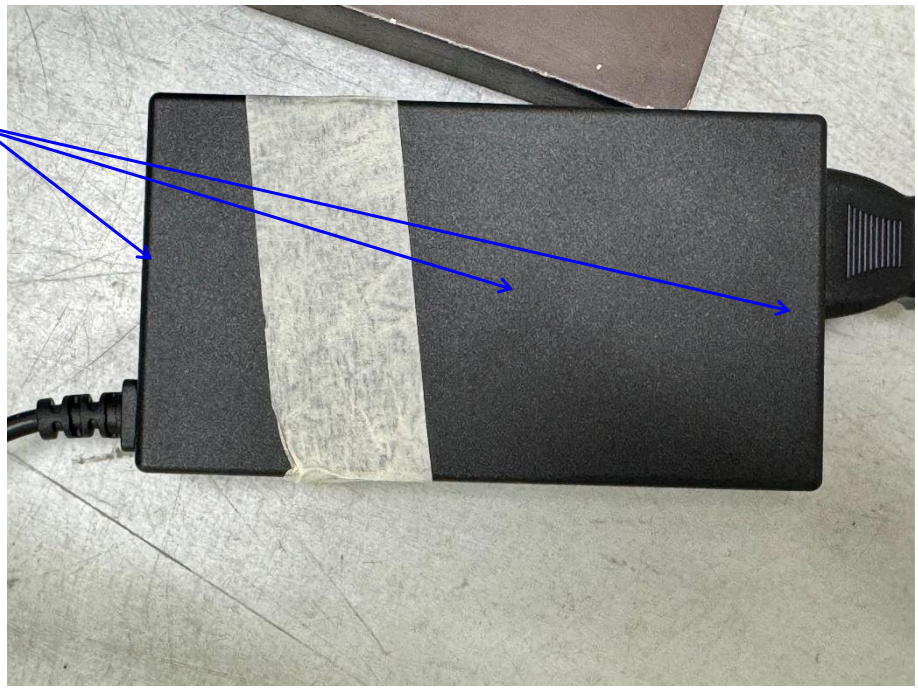
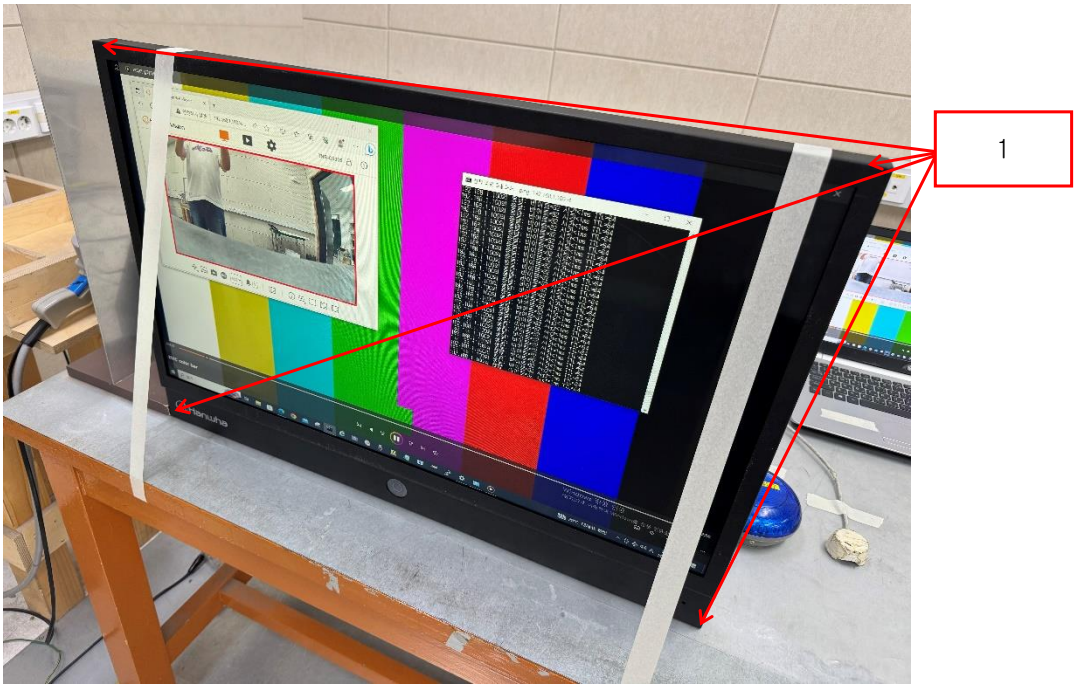
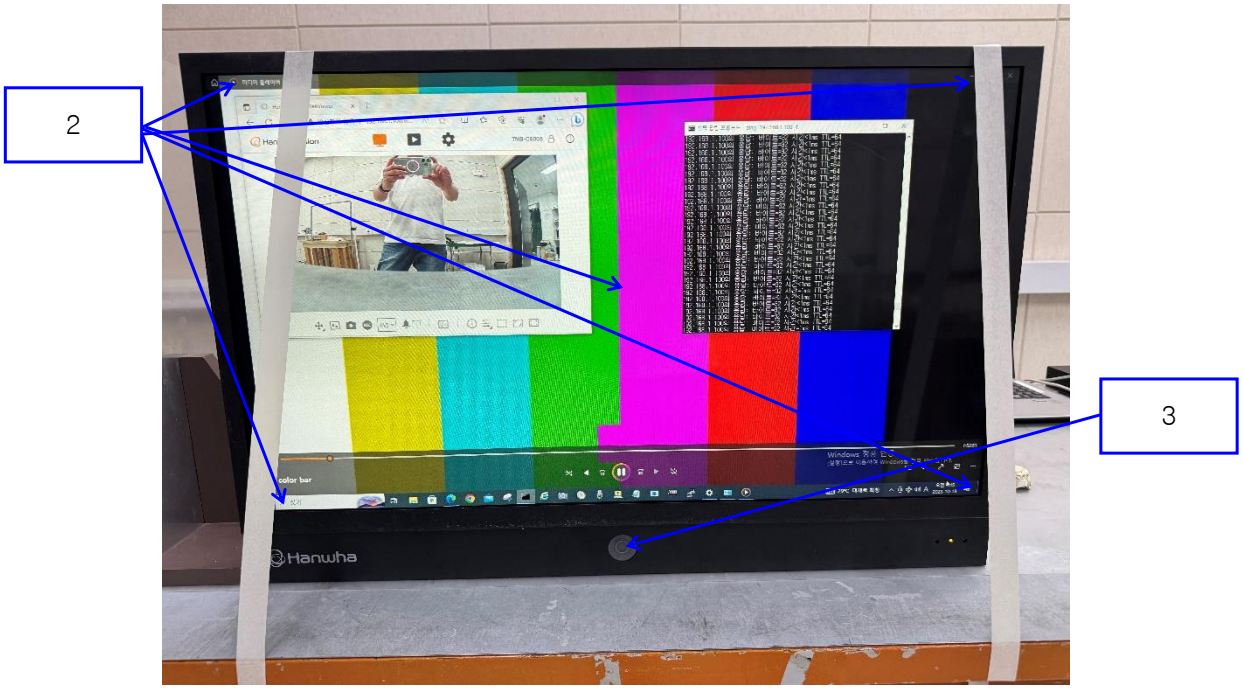
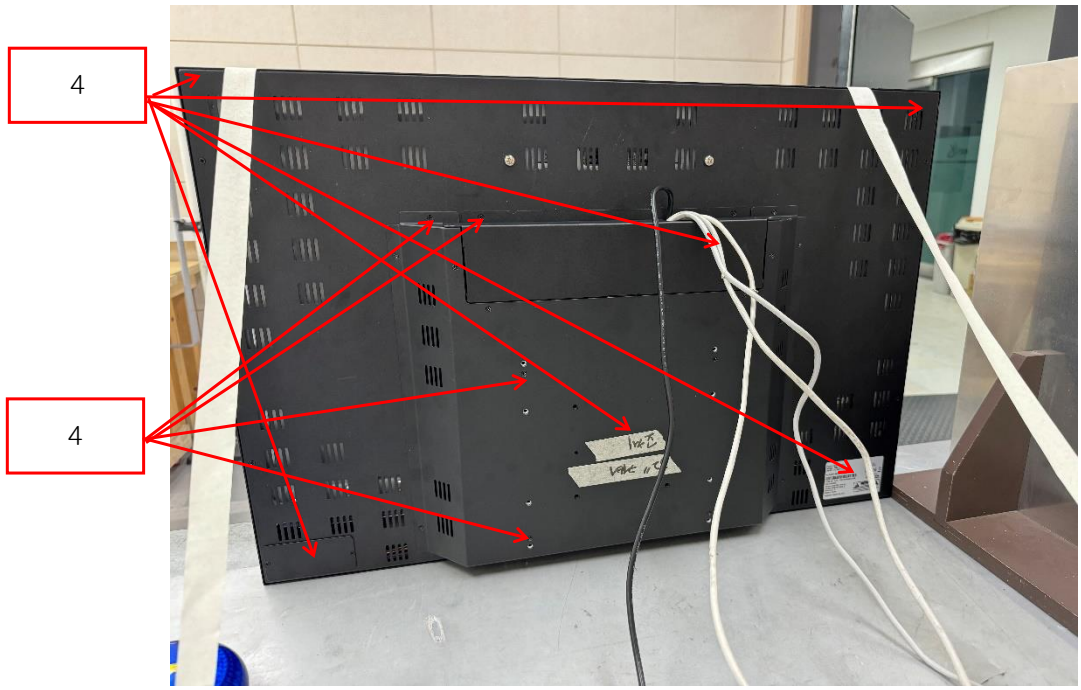


■ PoE-HDMI, PoE-CAMERA MODE







Test Data

■ DC-HDMI MODE

Indirect Discharge

No.	Test Point	Discharge Method	Observations	Remarks
1	HCP Contact	Contact Discharge	Complied	-
2	VCP Contact	Contact Discharge	Complied	-

Direct Discharge

No.	Test Point	Discharge Method	Observations	Remarks
1	Enclosure	Contact Discharge	Complied	-
2	LCD Panel	Air Discharge	Complied	-
3	LENZ	Air Discharge	Complied	-
4	Back Enclosure, Screw	Contact Discharge	Complied	-
5	AC/DC ADAPTOR	Air Discharge	Complied	-

■ DC-CAMERA MODE

Indirect Discharge

No.	Test Point	Discharge Method	Observations	Remarks
1	HCP Contact	Contact Discharge	Complied	-
2	VCP Contact	Contact Discharge	Complied	-

Direct Discharge

No.	Test Point	Discharge Method	Observations	Remarks
1	Enclosure	Contact Discharge	Complied	-
2	LCD Panel	Air Discharge	Complied	-
3	LENZ	Air Discharge	Complied	-
4	Back Enclosure, Screw	Contact Discharge	Complied	-
5	AC/DC ADAPTOR	Air Discharge	Complied	-

■ PoE-HDMI MODE

Indirect Discharge

No.	Test Point	Discharge Method	Observations	Remarks
1	HCP Contact	Contact Discharge	Complied	-
2	VCP Contact	Contact Discharge	Complied	-

Direct Discharge

No.	Test Point	Discharge Method	Observations	Remarks
1	Enclosure	Contact Discharge	Complied	-
2	LCD Panel	Air Discharge	Complied	-
3	LENZ	Air Discharge	Complied	-
4	Back Enclosure, Screw	Contact Discharge	Complied	-

■ PoE-CAMERA MODE

Indirect Discharge

No.	Test Point	Discharge Method	Observations	Remarks
1	HCP Contact	Contact Discharge	Complied	-
2	VCP Contact	Contact Discharge	Complied	-

Direct Discharge

No.	Test Point	Discharge Method	Observations	Remarks
1	Enclosure	Contact Discharge	Complied	-
2	LCD Panel	Air Discharge	Complied	-
3	LENZ	Air Discharge	Complied	-
4	Back Enclosure, Screw	Contact Discharge	Complied	-

Note: “Blank” = Not performed

Observations:
Complied – No degradation of function

Test Results

☒ PASS Required Performance Criteria
☐ NOT PASS Required Performance Criteria

Remarks

PASS Required Performance Criteria

3.2 Radiated Electric Field Immunity

Reference Standard
EN IEC 61000-4-3:2020

Test Date
Oct. 12, 2023

Test Location
EMS-RS: ☐ SEMI ANECHOIC CHAMBER #2 ☒ SEMI ANECHOIC CHAMBER #3

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMS Test S/W	EMC32	R & S	10.10.02	-
☒	SIGNAL GENERATOR	SMB 100A	Rohde & Schwarz	108252	07, 31, 2024
☒	HIGH POWER DUAL AMP	SSA532	SUNGSAN	SSA532-001	-
☒	POWER METER	E4419B	Agilent	GB40203000	03, 21, 2024
☒	AVERAGE POWER SENSOR	E9301A	Agilent	MY52170007	03, 21, 2024
☒	AVERAGE POWER SENSOR	E9301A	Agilent	MY41498669	03, 21, 2024
☒	STACKED DOUBLE LOG-PER- ANTENNA	STPL9128 E	Schwarzbeck	9128ES-121	-
☒	DOUBLE RIDGED HORN ANTENNA	SAS-571	A.H.SYSTEM,INC	781	03, 06, 2024

Test Conditions
Temperature: (23,2 ± 0,3) ℃
Relative Humidity: (44,9 ± 0,3) % R.H.
Atmospheric Pressure: (100,0 ± 0,0) kPa

Test Specifications

Antenna Polarization:	Horizontal & vertical unless indicated otherwise
Antenna Distance:	☒ 3 m
Field Strength:	☐ 1 V/m ☐ 3 V/m ☒ 10 V/m
Frequency Range:	☐ 80 MHz to 1 GHz ☐ 1,4 GHz to 2,7 GHz ☒ 80 MHz to 2,7 GHz
Modulation:	☒ AM, 80 %, 1 kHz sine wave ☒ PM, 1 Hz (0,5 s ON : 0,5 s OFF)
Frequency step:	☒ 1 % step
Dwell Time:	☐ 1 s ☒ 3 s
# of Sides Radiated:	☒ 4
Required Performance Criteria:	☒ Complied

Test Data

■ DC-HDMI MODE

Side Exposed	Observations	
	Horizontal	Vertical
Front	Complied	Complied
Right	Complied	Complied
Back	Complied	Complied
Left	Complied	Complied

■ DC-CAMERA MODE

Side Exposed	Observations	
	Horizontal	Vertical
Front	Complied	Complied
Right	Complied	Complied
Back	Complied	Complied
Left	Complied	Complied

■ PoE-HDMI MODE

Side Exposed	Observations	
	Horizontal	Vertical
Front	Complied	Complied
Right	Complied	Complied
Back	Complied	Complied
Left	Complied	Complied

■ PoE-CAMERA MODE

Side Exposed	Observations	
	Horizontal	Vertical
Front	Complied	Complied
Right	Complied	Complied
Back	Complied	Complied
Left	Complied	Complied

Note: “Blank” = Not performed

Observations:
Complied – No degradation of function

Test Results

☒ PASS Required Performance Criteria
☐ NOT PASS Required Performance Criteria

Remarks

PASS Required Performance Criteria

3.3 Electrical Fast Transients/Bursts

Reference Standard
EN 61000-4-4:2012

Test Date
Oct. 10, 2023

Test Location
EMS-EFT: Electro wave Shieldroom #7

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMS Test S/W	iec.control	EM TEST	5.4.8	-
☒	ULTRA COMPACT SIMULATOR	UCS 500N7	EM TEST	P1608172950	11, 28, 2023
☒	MOTOR VARIAC	MV2616	EM TEST	P1552169719	11, 29, 2023
☒	CAPACITIVE COUPLING CLAMP	HFK	EM TEST	P1633183115	11, 28, 2023

Test Conditions

Temperature: (23,5 ± 0,1) ℃
Relative Humidity: (47,2 ± 0,1) % R.H.
Atmospheric Pressure: (100,1 ± 0,0) ㎪

Test Specifications

Pulse Amplitude & Polarity: (AC Power Lines)	☐ ± 1.0 ㎸	☒ ± 2.0 ㎸
	☐ ± 4.0 ㎸	
Pulse Amplitude & Polarity: (Other supply / Signal Lines)	☐ ± 0.5 ㎸	☒ ± 1.0 ㎸
	☐ ± 2.0 ㎸	
Burst Period:	☒ 300 ㎳	☐ 2 s
Repetition Rate:	☐ 5 ㎑	☒ 100 ㎑
Duration of Test Voltage:	☒ ≥ 1 min	
Required Performance Criteria:	☒ Complied	

Test Data

■ DC-HDMI MODE

☒ Input a.c. power ports – Coupling/Decoupling Network used

Mode of Application	Observations	
	(+) Burst (㎸)	(-) Burst (㎸)
L	Complied	Complied
N	Complied	Complied
PE	Complied	Complied
L - N	Complied	Complied
L –PE	Complied	Complied
N –PE	Complied	Complied
L –N - PE	Complied	Complied

☐ Input d.c. power ports – Coupling/Decoupling Network used

Mode of Application	Observations	
	(+) Burst (㎸)	(-) Burst (㎸)
-	-	-

☒ Signal ports and telecommunication ports – Coupling Clamp used

Mode of Application	Observations	
	(+) Burst (㎸)	(-) Burst (㎸)
RJ-45 (LAN)	Complied	Complied
Alarm IN	Complied	Complied
Alarm OUT	Complied	Complied

■ DC-CAMERA MODE

☒ Input a.c. power ports – Coupling/Decoupling Network used

Mode of Application	Observations	
	(+) Burst (㎸)	(-) Burst (㎸)
L	Complied	Complied
N	Complied	Complied
PE	Complied	Complied
L - N	Complied	Complied
L –PE	Complied	Complied
N –PE	Complied	Complied
L –N - PE	Complied	Complied

☐ Input d.c. power ports – Coupling/Decoupling Network used

Mode of Application	Observations	
	(+) Burst (㎸)	(-) Burst (㎸)
-	-	-

☒ Signal ports and telecommunication ports – Coupling Clamp used

Mode of Application	Observations	
	(+) Burst (㎸)	(-) Burst (㎸)
RJ-45 (LAN)	Complied	Complied
Alarm IN	Complied	Complied
Alarm OUT	Complied	Complied

■ PoE-HDMI MODE

☐ Input a.c. power ports – Coupling/Decoupling Network used

Mode of Application	Observations	
	(+) Burst (㎸)	(-) Burst (㎸)
-	-	-

☐ Input d.c. power ports – Coupling/Decoupling Network used

Mode of Application	Observations	
	(+) Burst (㎸)	(-) Burst (㎸)
-	-	-

☒ Signal ports and telecommunication ports – Coupling Clamp used

Mode of Application	Observations	
	(+) Burst (㎸)	(-) Burst (㎸)
RJ-45 (PoE)	Complied	Complied
Alarm IN	Complied	Complied
Alarm OUT	Complied	Complied

■ PoE-CAMERA MODE

☐ Input a.c. power ports – Coupling/Decoupling Network used

Mode of Application	Observations	
	(+) Burst (㎸)	(-) Burst (㎸)
-	-	-

☐ Input d.c. power ports – Coupling/Decoupling Network used

Mode of Application	Observations	
	(+) Burst (㎸)	(-) Burst (㎸)
-	-	-

☒ Signal ports and telecommunication ports – Coupling Clamp used

Mode of Application	Observations	
	(+) Burst (㎸)	(-) Burst (㎸)
RJ-45 (PoE)	Complied	Complied
Alarm IN	Complied	Complied
Alarm OUT	Complied	Complied

Note: "Blank" = Not performed
Observations:
Complied – No degradation of function

Test Results

☒ PASS Required Performance Criteria
☐ NOT PASS Required Performance Criteria

Remarks

PASS Required Performance Criteria

3.4 Surge Transients

Reference Standard
EN 61000-4-5:2014/A1:2017

Test Date
Oct. 10, 2023

Test Location
EMS-Surge: Electro wave Shieldroom #7

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMS Test S/W	iec.control	EM TEST	5.4.8	-
☒	ULTRA COMPACT SIMULATOR	UCS 500N7	EM TEST	P1608172950	11, 28, 2023
☒	MOTOR VARIAC	MV2616	EM TEST	P1552169719	11, 29, 2023
☒	CDN	CNV 508N1	EM TEST	P1610176296	11, 29, 2023

Test Conditions

Temperature: (23,5 ± 0,2) ℃
Relative Humidity: (47,2 ± 0,2) % R.H.
Atmospheric Pressure: (100,0 ± 0,0) kPa

Test Specifications

AC Power Lines

Source Impedance:	12 ohm for common Mode and 2 ohm for differential Mode
Surge Amplitude :	Common Mode ☒ (0,5 / 1,0 / 2,0) kV Differential Mode ☒ (0,5 / 1,0) kV
Number of Surges:	☒ 5 surges per angle
Angle:	☒ 0°, 90°, 180°, 270° (input a.c. power port)
Polarity:	☒ Positive & Negative
Repetition Rate:	☒ 1 surge per min ☐ 1 surge per 30 sec.
Required Performance Criteria:	☒ Complied

Other supply / Signal Lines

Source Impedance:	42 ohm for common Mode
Surge Amplitude:	Common Mode ☒ (0,5 / 1,0) kV
Number of Surges:	☒ 5 Surges
Polarity:	☒ Positive & Negative
Repetition Rate:	☒ 1 surge per min ☐ 1 surge per 30 sec.
Required Performance Criteria:	☒ Complied

Test Data

■ DC-HDMI MODE

☒ Line to Line – Differential Mode

Mode of Application	Observations	
	(+) Surge (㎸)	(-) Surge (㎸)
L – N	Complied	Complied

☒ Line to Earth – Common Mode

Mode of Application	Observations	
	(+) Surge (㎸)	(-) Surge (㎸)
L – PE	Complied	Complied
N – PE	Complied	Complied

Signal Lines

☒ Line to Earth – Common Mode

Mode of Application	Coupling Method	Observations	
		(+) Surge (㎸)	(-) Surge (㎸)
RJ-45	CDN	Complied	Complied
	LINE	Complied	Complied

■ DC-CAMERA MODE

☒ Line to Line – Differential Mode

Mode of Application	Observations	
	(+) Surge (㎸)	(-) Surge (㎸)
L – N	Complied	Complied

☒ Line to Earth – Common Mode

Mode of Application	Observations	
	(+) Surge (㎸)	(-) Surge (㎸)
L – PE	Complied	Complied
N – PE	Complied	Complied

Signal Lines

☒ Line to Earth – Common Mode

Mode of Application	Coupling Method	Observations	
		(+) Surge (㎸)	(-) Surge (㎸)
RJ-45	CDN	Complied	Complied
	LINE	Complied	Complied

■ PoE-HDMI MODE

☐ Line to Line – Differential Mode

Mode of Application	Observations	
	(+) Surge (㎸)	(-) Surge (㎸)
-	-	-

☐ Line to Earth – Common Mode

Mode of Application	Observations	
	(+) Surge (㎸)	(-) Surge (㎸)
-	-	-

Signal Lines

☒ Line to Earth – Common Mode

Mode of Application	Coupling Method	Observations	
		(+) Surge (㎸)	(-) Surge (㎸)
RJ-45	CDN	Complied	Complied
	LINE	Complied	Complied

■ PoE-CAMERA MODE

☐ Line to Line – Differential Mode

Mode of Application	Observations	
	(+) Surge (㎸)	(-) Surge (㎸)
-	-	-

☐ Line to Earth – Common Mode

Mode of Application	Observations	
	(+) Surge (㎸)	(-) Surge (㎸)
-	-	-

Signal Lines

☒ Line to Earth – Common Mode

Mode of Application	Coupling Method	Observations	
		(+) Surge (㎸)	(-) Surge (㎸)
RJ-45	CDN	Complied	Complied

Note:“Blank” = Not performed
Observations:
Complied – No degradation of function

Test Results

☒ PASS Required Performance Criteria
☐ NOT PASS Required Performance Criteria

Remarks

PASS Required Performance Criteria

3.5 Conducted Disturbance

Reference Standard
EN 61000-4-6:2014

Test Date
Oct. 14, 2023

Test Location
EMS-CS: Electro wave Shieldroom #6

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMS Test S/W	icd.control	EM TEST	5.3.12	-
☒	CONTINUOUS WAVE SIMULATOR	CWS 500N1.4	EM TEST	P1602169880	11, 10, 2023
☒	ATTENUATOR	ATT 6/80	EM TEST	P1614178148	11, 10, 2023
☒	CDN	CDN M016	TESEQ	43694	11, 10, 2023
☒	CDN	CDN M016	TESEQ	43697	11, 10, 2023
☒	CDN	CDN S751A	TESEQ	43954	11, 10, 2023
☒	EM CLAMP	KEMZ 801A	TESEQ	44099	11, 14, 2023

Test Conditions

Temperature: (22,8 ± 0,2) ℃
Relative Humidity: (47,4 ± 0,1) % R.H.
Atmospheric Pressure: (100,1 ± 0,0) kPa

Test Specifications

Frequency range:	☒ 150 ㎑ to 100 ㎒	☐ 150 ㎑ to 80 ㎒
Voltage Level:	☐ 1 Vrms ☒ 10 Vrms	☐ 3 Vrms
Modulation:	☒ AM, 80 %, 1 ㎑ sine wave ☒ PM, 1 ㎐ (0,5 s ON : 0,5 s OFF)	
Frequency step:	☒ 1 % step	
Dwell Time:	☐ 1 s	☒ 3 s
Required Performance Criteria:	☒ Complied	

Test Data

■ DC-HDMI MODE

☒ Input a.c. power ports

Coupling Location (Line Stressed)	Coupling Method	Observations
L – N – PE	CDN	Complied

☐ Input d.c. power ports

Coupling Location (Line Stressed)	Coupling Method	Observations
-	-	-

☒ Signal ports and telecommunication ports

Coupling Location (Line Stressed)	Coupling Method	Observations
RJ-45	CDN	Complied
Alarm IN	Clamp	Complied
Alarm OUT	Clamp	Complied

■ DC-CAMERA MODE

☒ Input a.c. power ports

Coupling Location (Line Stressed)	Coupling Method	Observations
L – N – PE	CDN	Complied

☐ Input d.c. power ports

Coupling Location (Line Stressed)	Coupling Method	Observations
-	-	-

☒ Signal ports and telecommunication ports

Coupling Location (Line Stressed)	Coupling Method	Observations
RJ-45	CDN	Complied
Alarm IN	Clamp	Complied
Alarm OUT	Clamp	Complied

■ PoE-HDMI MODE

☐ Input a.c. power ports

Coupling Location (Line Stressed)	Coupling Method	Observations
-	-	-

☐ Input d.c. power ports

Coupling Location (Line Stressed)	Coupling Method	Observations
-	-	-

☒ Signal ports and telecommunication ports

Coupling Location (Line Stressed)	Coupling Method	Observations
RJ-45	CDN	Complied
Alarm IN	Clamp	Complied
Alarm OUT	Clamp	Complied

■ PoE-CAMERA MODE

☐ Input a.c. power ports

Coupling Location (Line Stressed)	Coupling Method	Observations
-	-	-

☐ Input d.c. power ports

Coupling Location (Line Stressed)	Coupling Method	Observations
-	-	-

☒ Signal ports and telecommunication ports

Coupling Location (Line Stressed)	Coupling Method	Observations
RJ-45	CDN	Complied
Alarm IN	Clamp	Complied
Alarm OUT	Clamp	Complied

Notes: CDN = Coupling Decoupling Network
"blank" = Not performed

Observations:
Complied – No degradation of function

Test Results

☒ PASS Required Performance Criteria
☐ NOT PASS Required Performance Criteria

Remarks

PASS Required Performance Criteria

3.6 Voltage Dips and Short Interruptions

Reference Standard
EN IEC 61000-4-11:2020

Test Date
Oct. 10, 2023

Test Location
EMS-Voltage dip: Electro wave Shieldroom #7

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMS Test S/W	iec.control	EM TEST	5.4.8	-
☒	ULTRA COMPACT SIMULATOR	UCS 500N7	EM TEST	P1608172950	11, 29, 2023
☒	MOTOR VARIAC	MV2616	EM TEST	P1552169719	11, 29, 2023

Test Conditions

Temperature: (23,5 ± 0,1) ℃
Relative Humidity: (47,2 ± 0,1) % R.H.
Atmospheric Pressure: (100,1 ± 0,0) kPa

Test Specifications & Observations/Remarks

■ DC-HDMI MODE

- Voltage Dips and Short Interruptions

Test Level	Duration [in period/ms (50 ㎐)]	Results
☒ 20 % dip	☒ 250 / 5 000	Complied
☒ 30 % dip	☒ 25 / 500	Complied
☒ 60 % dip	☒ 10 / 200	Complied
☒ 100 % dip	☒ 250 / 5 000	Degradation

- Voltage variations

☒ Unom + 10 %	☒ 253.0 V (ac)	Complied
☒ Unom - 15 %	☒ 195.5 V (ac)	Complied

■ DC-CAMERA MODE

- Voltage Dips and Short Interruptions

Test Level	Duration [in period/ms (50 ㎐)]	Results
☒ 20 % dip	☒ 250 / 5 000	Complied
☒ 30 % dip	☒ 25 / 500	Complied
☒ 60 % dip	☒ 10 / 200	Complied
☒ 100 % dip	☒ 250 / 5 000	Degradation

- Voltage variations

☒ Unom + 10 %	☒ 253.0 V (ac)	Complied
☒ Unom - 15 %	☒ 195.5 V (ac)	Complied

Observations:
Complied – No degradation of function
Degradation - See "Remarks "

Test Results

☒ PASS Required Performance Criteria
☐ NOT PASS Required Performance Criteria
☐ NOT APPLICABLE

Remarks

During the test(100%, 250cycle), EUT was turned off but after the test, it was recovered by no operator's intervention.

APPENDIX A – TEST DATA

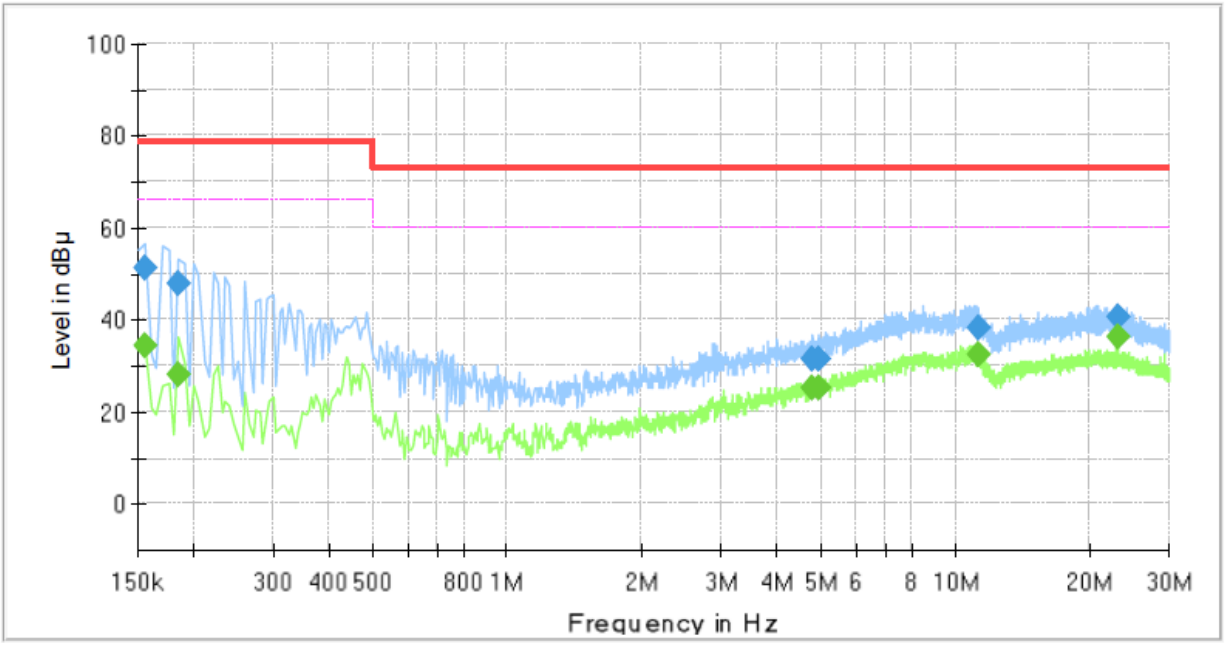
Conducted Emissions at Mains Power Ports

■ DC-HDMI MODE

[HOT]

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-3231PV
Phase:	H
Mode:	DC_HDMI
Operator Name:	KES



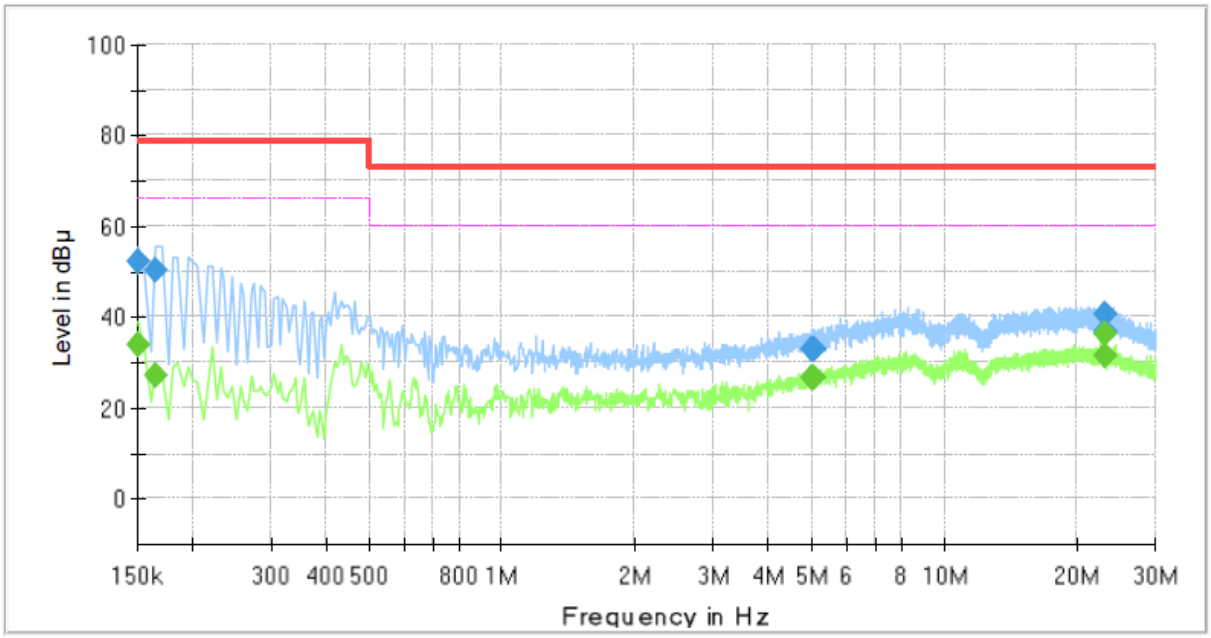
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.155000	51.28	---	79.00	27.72	1000.0	9.000	L1	19.4
0.155000	---	34.20	66.00	31.80	1000.0	9.000	L1	19.4
0.185000	47.84	---	79.00	31.16	1000.0	9.000	L1	19.4
0.185000	---	28.15	66.00	37.85	1000.0	9.000	L1	19.4
4.805000	31.43	---	73.00	41.57	1000.0	9.000	L1	19.7
4.805000	---	25.31	60.00	34.69	1000.0	9.000	L1	19.7
4.930000	31.67	---	73.00	41.33	1000.0	9.000	L1	19.7
4.930000	---	25.41	60.00	34.59	1000.0	9.000	L1	19.7
11.255000	38.10	---	73.00	34.90	1000.0	9.000	L1	20.0
11.255000	---	32.26	60.00	27.74	1000.0	9.000	L1	20.0
23.130000	---	36.51	60.00	23.49	1000.0	9.000	L1	20.3
23.130000	40.65	---	73.00	32.35	1000.0	9.000	L1	20.3

[NEUTRAL]

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-3231PV
Phase:	N
Mode:	DC_HDMI
Operator Name:	KES



Final_Result

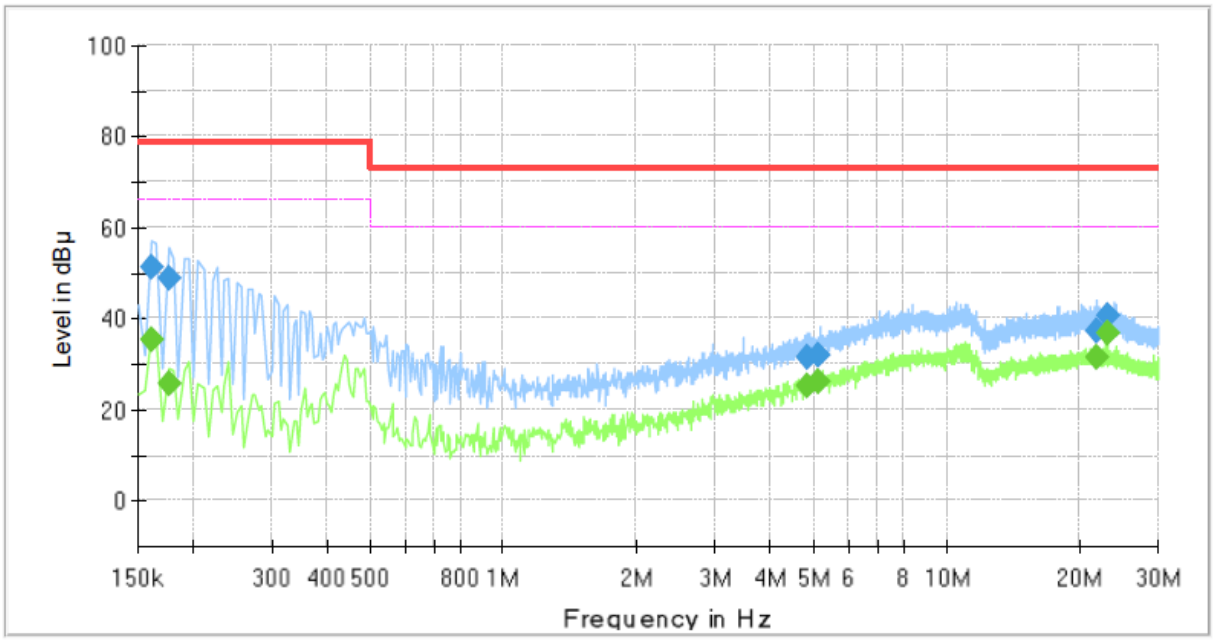
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	---	33.88	66.00	32.12	1000.0	9.000	N	19.4
0.150000	52.22	---	79.00	26.78	1000.0	9.000	N	19.4
0.165000	---	27.00	66.00	39.00	1000.0	9.000	N	19.4
0.165000	50.27	---	79.00	28.73	1000.0	9.000	N	19.4
5.030000	---	26.66	60.00	33.34	1000.0	9.000	N	19.7
5.030000	32.83	---	73.00	40.17	1000.0	9.000	N	19.7
5.075000	---	26.62	60.00	33.38	1000.0	9.000	N	19.7
5.075000	32.71	---	73.00	40.29	1000.0	9.000	N	19.7
22.980000	---	31.30	60.00	28.70	1000.0	9.000	N	20.3
22.980000	36.85	---	73.00	36.15	1000.0	9.000	N	20.3
23.130000	---	36.49	60.00	23.51	1000.0	9.000	N	20.3
23.130000	40.48	---	73.00	32.52	1000.0	9.000	N	20.3

■ DC-CAMERA MODE

[HOT]

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-3231PV
Phase:	H
Mode:	DC_CAMERA
Operator Name:	KES



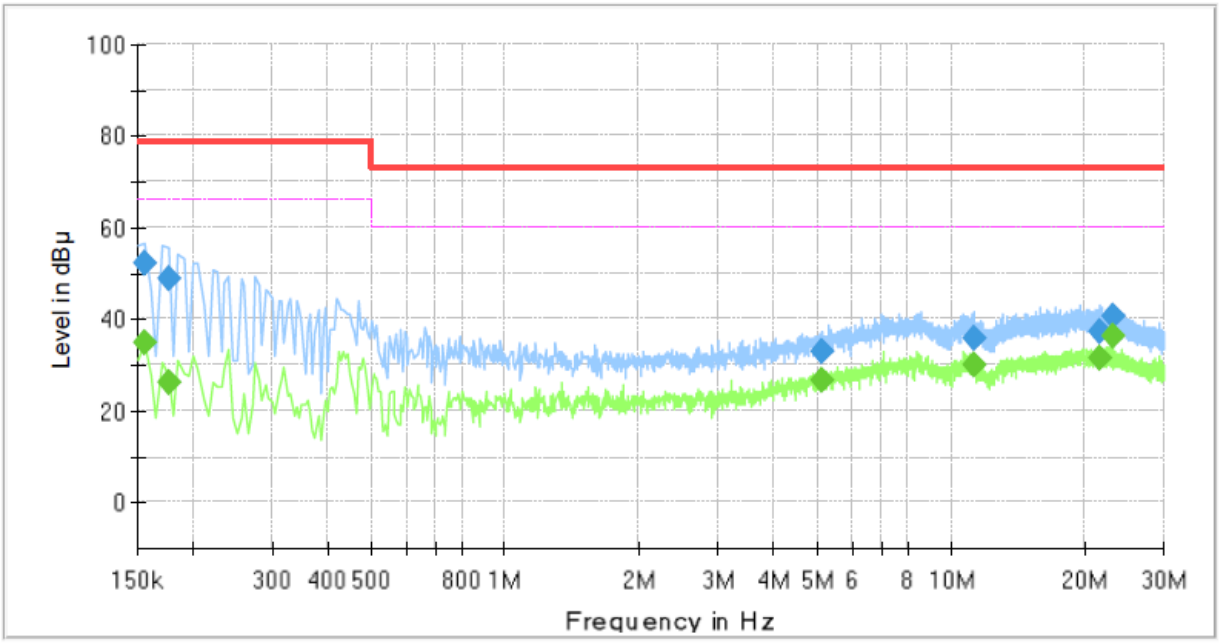
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.160000	51.45	---	79.00	27.55	1000.0	9.000	L1	19.4
0.160000	---	35.27	66.00	30.73	1000.0	9.000	L1	19.4
0.175000	---	25.85	66.00	40.15	1000.0	9.000	L1	19.4
0.175000	48.91	---	79.00	30.09	1000.0	9.000	L1	19.4
4.825000	---	25.39	60.00	34.61	1000.0	9.000	L1	19.7
4.825000	31.71	---	73.00	41.29	1000.0	9.000	L1	19.7
5.105000	---	26.08	60.00	33.92	1000.0	9.000	L1	19.7
5.105000	32.14	---	73.00	40.86	1000.0	9.000	L1	19.7
21.895000	---	31.72	60.00	28.28	1000.0	9.000	L1	20.2
21.895000	37.32	---	73.00	35.68	1000.0	9.000	L1	20.2
23.130000	---	36.59	60.00	23.41	1000.0	9.000	L1	20.3
23.130000	40.63	---	73.00	32.37	1000.0	9.000	L1	20.3

[NEUTRAL]

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-3231PV
Phase:	N
Mode:	DC_CAMERA
Operator Name:	KES



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.155000	52.37	---	79.00	26.63	1000.0	9.000	N	19.4
0.155000	---	34.87	66.00	31.13	1000.0	9.000	N	19.4
0.175000	---	26.35	66.00	39.65	1000.0	9.000	N	19.4
0.175000	49.01	---	79.00	29.99	1000.0	9.000	N	19.4
5.115000	32.90	---	73.00	40.10	1000.0	9.000	N	19.7
5.115000	---	26.89	60.00	33.11	1000.0	9.000	N	19.7
11.305000	---	29.96	60.00	30.04	1000.0	9.000	N	20.0
11.305000	35.71	---	73.00	37.29	1000.0	9.000	N	20.0
21.655000	37.30	---	73.00	35.70	1000.0	9.000	N	20.2
21.655000	---	31.58	60.00	28.42	1000.0	9.000	N	20.2
23.130000	40.58	---	73.00	32.42	1000.0	9.000	N	20.3
23.130000	---	36.52	60.00	23.48	1000.0	9.000	N	20.3

♦ Calculation
QuasiPeak[^{dB}uV] / CAverage [^{dB}uV] = Reading Value[^{dB}uV] + Corr. [^{dB}]
QuasiPeak / CAverage : The Final Value
Reading Value : Not shown in the table.
Corr. : Correction values (LISN FACTOR + (Cable Loss + Pulse Limiter FACTOR))

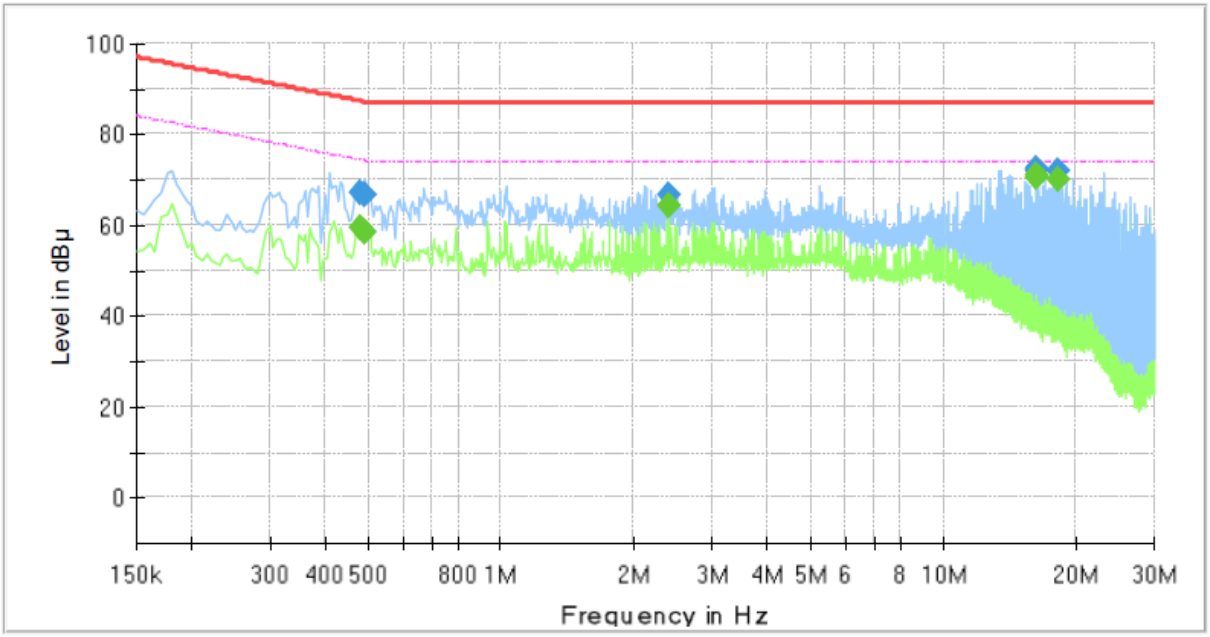
Conducted Emissions at Telecommunication Ports

■ DC-HDMI MODE

[100 Mbps]

Common Information

Test Description:	Telecommunication Emission
Model No.:	SMT-3231PV
Mode :	DC_HDMI
Speed :	100 Mbps
Operator Name:	KES



Final_Result

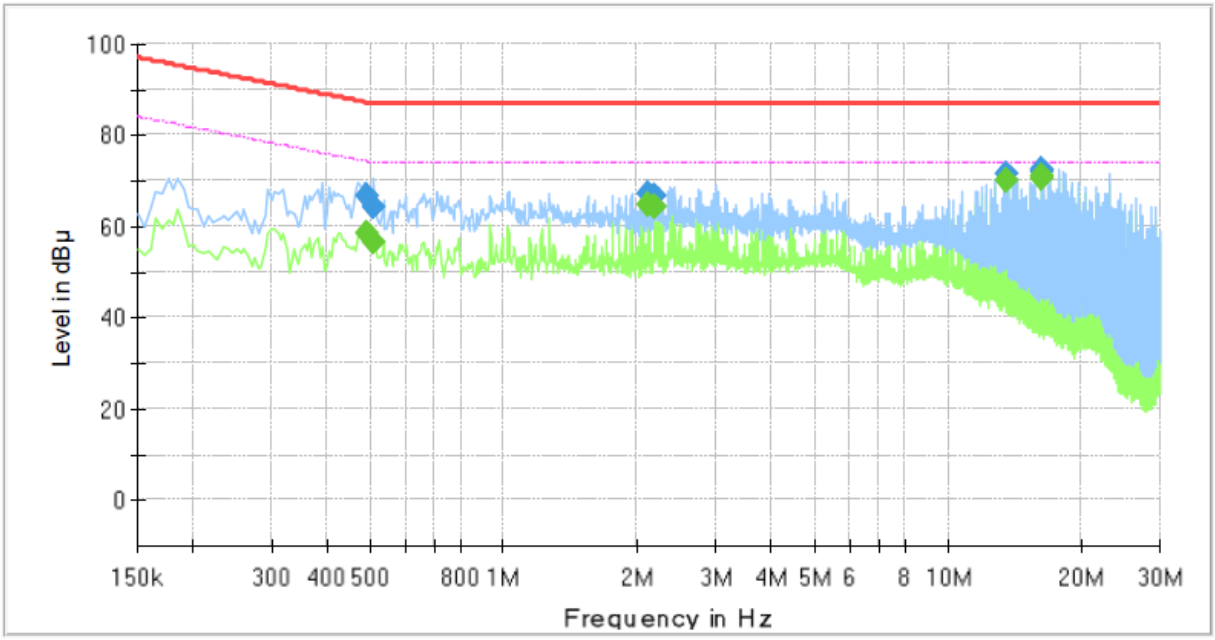
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.480000	67.25	---	87.34	20.09	1000.0	9.000	Single Line	19.5
0.480000	---	59.32	74.34	15.02	1000.0	9.000	Single Line	19.5
0.490000	66.84	---	87.17	20.33	1000.0	9.000	Single Line	19.5
0.490000	---	58.74	74.17	15.43	1000.0	9.000	Single Line	19.5
2.395000	66.51	---	87.00	20.49	1000.0	9.000	Single Line	19.4
2.395000	---	64.14	74.00	9.86	1000.0	9.000	Single Line	19.4
16.165000	71.94	---	87.00	15.06	1000.0	9.000	Single Line	19.9
16.165000	---	70.68	74.00	3.32	1000.0	9.000	Single Line	19.9
16.230000	72.68	---	87.00	14.32	1000.0	9.000	Single Line	19.9
16.230000	---	71.28	74.00	2.72	1000.0	9.000	Single Line	19.9
18.245000	---	70.12	74.00	3.88	1000.0	9.000	Single Line	19.9
18.245000	71.81	---	87.00	15.19	1000.0	9.000	Single Line	19.9

■ DC-CAMERA MODE

[100 Mbps]

Common Information

Test Description:	Telecommunication Emission
Model No.:	SMT-3231PV
Mode :	DC_CAMERA
Speed :	100 Mbps
Operator Name:	KES



Final_Result

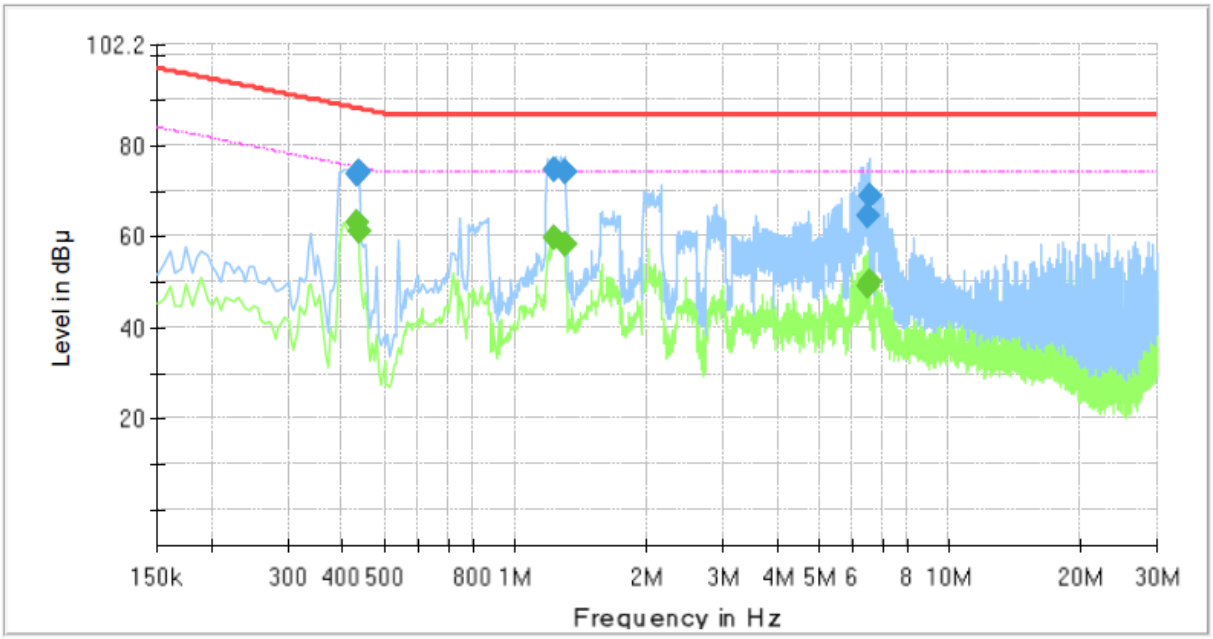
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.490000	66.93	---	87.17	20.24	1000.0	9.000	Single Line	19.5
0.490000	---	58.67	74.17	15.50	1000.0	9.000	Single Line	19.5
0.510000	64.25	---	87.00	22.75	1000.0	9.000	Single Line	19.4
0.510000	---	56.41	74.00	17.59	1000.0	9.000	Single Line	19.4
2.120000	67.05	---	87.00	19.95	1000.0	9.000	Single Line	19.4
2.120000	---	64.64	74.00	9.36	1000.0	9.000	Single Line	19.4
2.185000	66.68	---	87.00	20.32	1000.0	9.000	Single Line	19.4
2.185000	---	64.17	74.00	9.83	1000.0	9.000	Single Line	19.4
13.480000	---	69.98	74.00	4.02	1000.0	9.000	Single Line	19.8
13.480000	71.30	---	87.00	15.70	1000.0	9.000	Single Line	19.8
16.225000	---	70.52	74.00	3.48	1000.0	9.000	Single Line	19.9
16.225000	71.89	---	87.00	15.11	1000.0	9.000	Single Line	19.9
16.230000	---	71.27	74.00	2.73	1000.0	9.000	Single Line	19.9
16.230000	72.67	---	87.00	14.33	1000.0	9.000	Single Line	19.9

■ PoE-HDMI MODE

[100 Mbps]

Common Information

Test Description:	Telecommunication Emission
Model No.:	SMT-3231PV
Mode :	PoE_HDMI
Speed :	100 Mbps
Operator Name:	KES



Final_Result

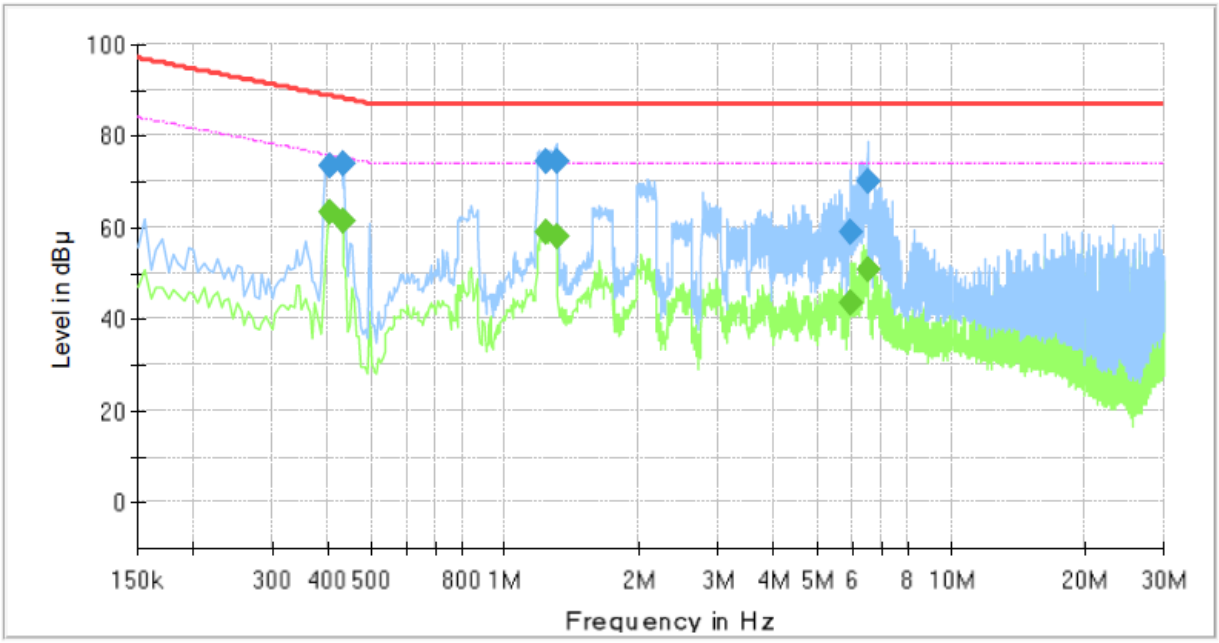
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.430000	---	62.99	75.25	12.26	1000.0	9.000	Single Line	19.5
0.430000	73.90	---	88.25	14.35	1000.0	9.000	Single Line	19.5
0.435000	---	61.18	75.16	13.98	1000.0	9.000	Single Line	19.5
0.435000	74.27	---	88.16	13.89	1000.0	9.000	Single Line	19.5
1.235000	---	59.74	74.00	14.26	1000.0	9.000	Single Line	19.4
1.235000	74.65	---	87.00	12.35	1000.0	9.000	Single Line	19.4
1.300000	---	58.07	74.00	15.93	1000.0	9.000	Single Line	19.4
1.300000	74.38	---	87.00	12.62	1000.0	9.000	Single Line	19.4
6.480000	---	49.05	74.00	24.95	1000.0	9.000	Single Line	19.6
6.480000	64.48	---	87.00	22.52	1000.0	9.000	Single Line	19.6
6.525000	---	50.10	74.00	23.90	1000.0	9.000	Single Line	19.6
6.525000	68.93	---	87.00	18.07	1000.0	9.000	Single Line	19.6

■ PoE-CAMERA MODE

[100 Mbps]

Common Information

Test Description:	Telecommunication Emission
Model No.:	SMT-3231PV
Mode :	PoE_CAMERA
Speed :	100 Mbps
Operator Name:	KES



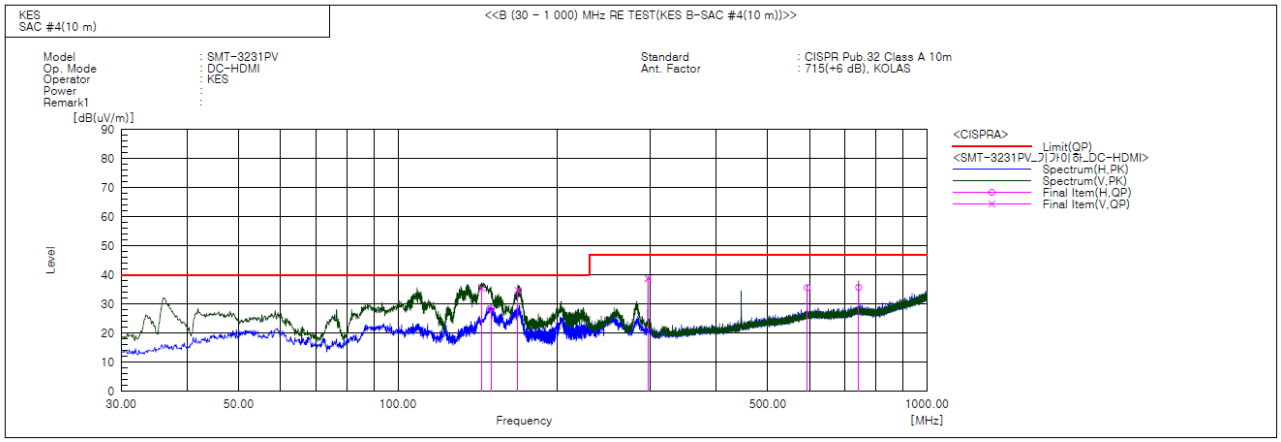
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.405000	73.31	---	88.75	15.44	1000.0	9.000	Single Line	19.5
0.405000	---	63.36	75.75	12.39	1000.0	9.000	Single Line	19.5
0.435000	74.15	---	88.16	14.01	1000.0	9.000	Single Line	19.5
0.435000	---	61.28	75.16	13.88	1000.0	9.000	Single Line	19.5
1.235000	74.61	---	87.00	12.39	1000.0	9.000	Single Line	19.4
1.235000	---	58.90	74.00	15.10	1000.0	9.000	Single Line	19.4
1.300000	74.39	---	87.00	12.61	1000.0	9.000	Single Line	19.4
1.300000	---	58.18	74.00	15.82	1000.0	9.000	Single Line	19.4
5.925000	58.97	---	87.00	28.03	1000.0	9.000	Single Line	19.6
5.925000	---	43.42	74.00	30.58	1000.0	9.000	Single Line	19.6
6.525000	---	50.95	74.00	23.05	1000.0	9.000	Single Line	19.6
6.525000	70.04	---	87.00	16.96	1000.0	9.000	Single Line	19.6

♦ Calculation
QuasiPeak[dBuV] / CAverage [dBuV] = Reading Value[dBuV] + Corr. [dB]
QuasiPeak / CAverage : The Final Value
Reading Value : Not shown in the table.
Corr. : Correction values (ISN FACTOR + (Cable Loss + Pulse Limiter FACTOR))

Radiated Electric Field Emissions(Below 1 ㎓)

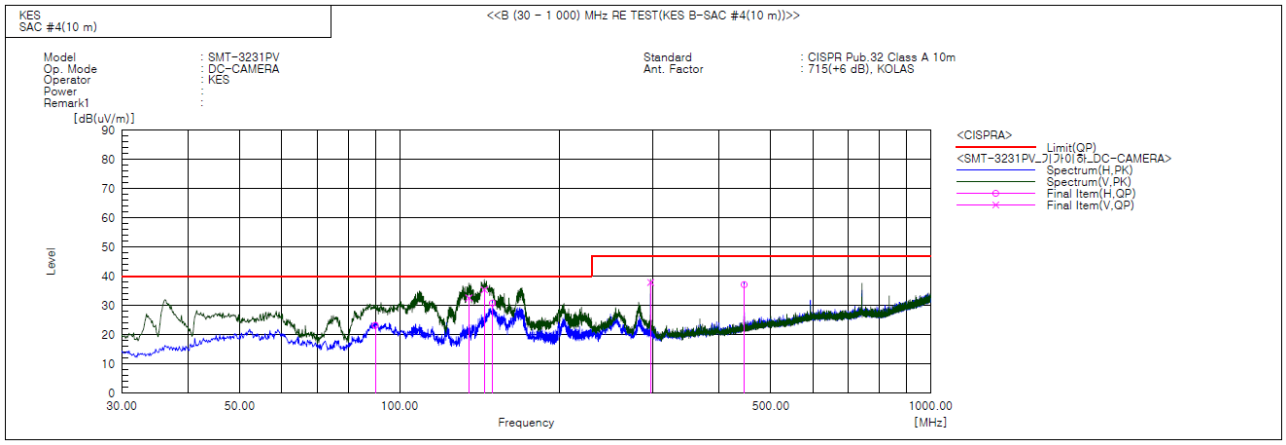
■ DC-HDMI MODE



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	143.975	V	60.3	-25.0	35.3	40.0	4.7	100.0	140.0	
2	149.916	H	53.6	-25.0	28.6	40.0	11.4	357.0	222.0	
3	168.468	V	58.9	-24.2	34.7	40.0	5.3	113.0	289.0	
4	296.993	V	56.3	-17.6	38.7	47.0	8.3	108.0	337.0	
5	593.449	H	43.5	-7.9	35.6	47.0	11.4	389.0	229.0	
6	742.465	H	41.8	-6.1	35.7	47.0	11.3	400.0	1.0	

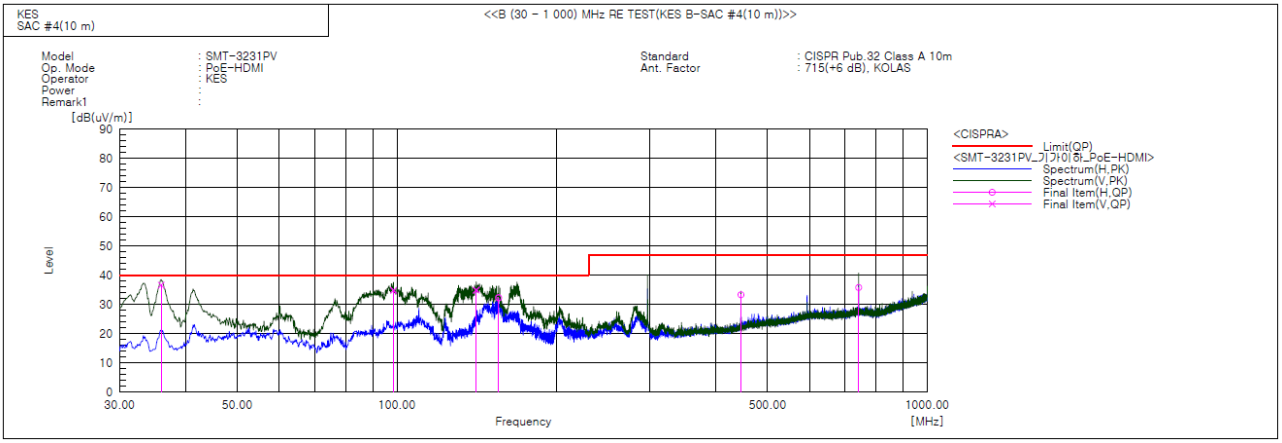
■ DC-CAMERA MODE



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	90.019	H	47.0	-23.8	23.2	40.0	16.8	400.0	135.0	
2	135.003	V	57.6	-25.0	32.6	40.0	7.4	109.0	250.0	
3	144.460	V	60.3	-25.0	35.3	40.0	4.7	100.0	157.0	
4	149.553	H	55.8	-25.0	30.8	40.0	9.2	348.0	225.0	
5	296.993	V	55.5	-17.6	37.9	47.0	9.1	124.0	90.0	
6	445.524	H	49.6	-12.5	37.1	47.0	9.9	216.0	183.0	

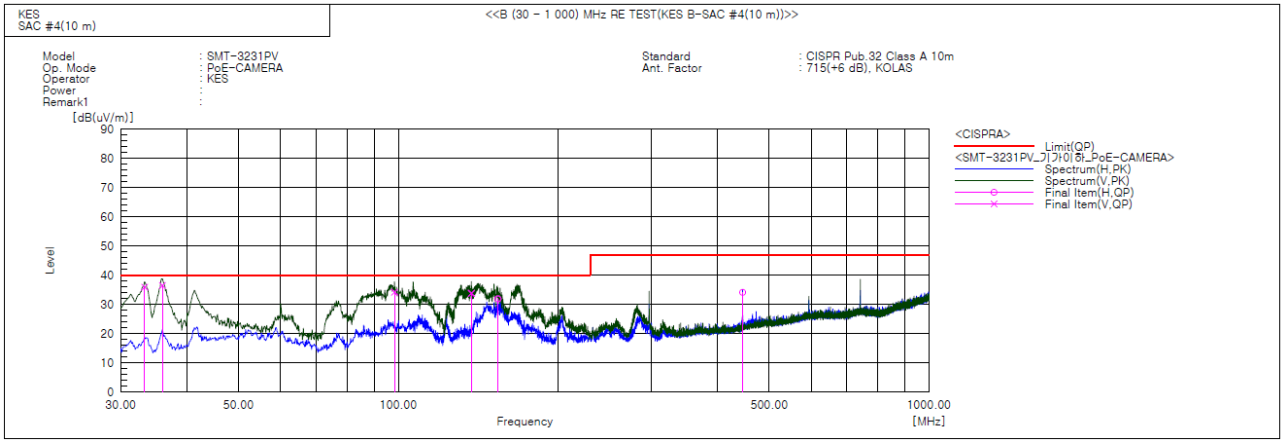
■ PoE-HDMI MODE



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	35.941	V	60.4	-23.8	36.6	40.0	3.4	100.0	94.0	
2	98.506	V	56.9	-22.1	34.8	40.0	5.2	108.0	150.0	
3	141.186	V	60.0	-25.1	34.9	40.0	5.1	122.0	191.0	
4	155.615	H	57.1	-24.8	32.3	40.0	7.7	347.0	136.0	
5	445.524	H	45.8	-12.5	33.3	47.0	13.7	318.0	46.0	
6	742.586	H	41.9	-6.1	35.8	47.0	11.2	279.0	229.0	

■ PoE-CAMERA MODE



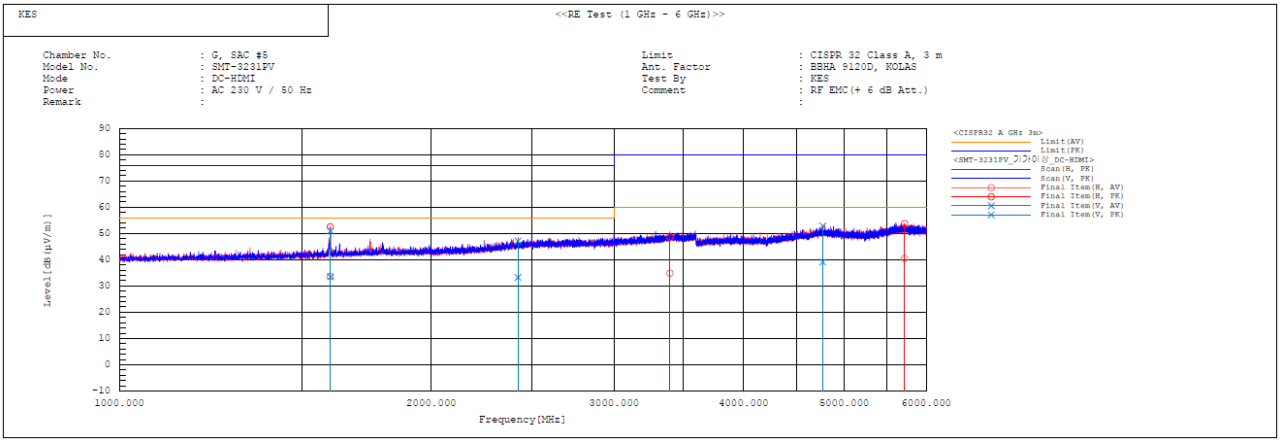
Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	33.274	V	60.3	-24.4	35.9	40.0	4.1	100.0	347.0	
2	35.941	V	60.3	-23.8	36.5	40.0	3.5	107.0	91.0	
3	98.385	V	56.3	-22.1	34.2	40.0	5.8	124.0	110.0	
4	137.306	V	58.9	-25.1	33.8	40.0	6.2	164.0	207.0	
5	154.160	H	56.8	-24.9	31.9	40.0	8.1	400.0	6.0	
6	445.524	H	46.6	-12.5	34.1	47.0	12.9	296.0	186.0	

♦ Calculation
Result(QP) [dB(㎶/m)] = (Reading(QP)[dB(㎶)] + c.f[dB(1/m)]
Margin(QP)[dB] = Limit[dB(㎶/m)] - Result(QP) [dB(㎶/m)]
Reading(QP) : Reading value, Result(QP) : Reading value + Factor value
Limit(QP) : Limit value, c.f : (ANT Factor + Cable Loss - Preamp Factor), Margin: Margin value

Radiated Electric Field Emissions(Above 1 ㎓)

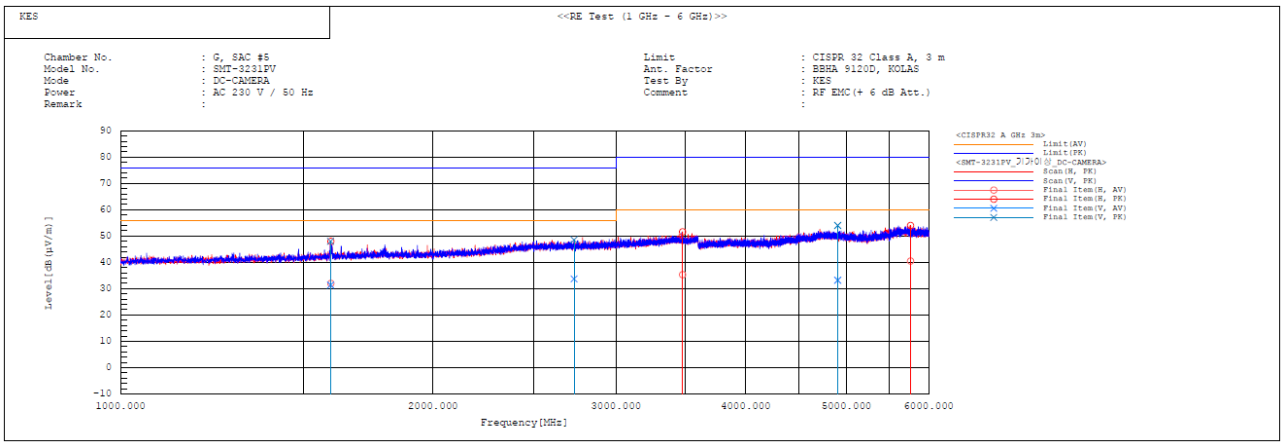
■ DC-HDMI MODE



Final Result

No.	Frequency [MHz]	Pol	Reading AV [dB(μV)]	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result AV [dB(μV/m)]	Result PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]	Remark
1	1597.500	H	32.5	51.4	1.1	33.6	52.5	56.0	76.0	22.4	23.5	100.0	33.9	
2	1599.000	V	32.4	50.0	1.1	33.5	51.1	56.0	76.0	22.5	24.9	100.0	215.2	
3	2424.000	V	28.9	42.7	4.4	33.3	47.1	56.0	76.0	22.7	28.9	100.0	0.2	
4	3397.000	H	28.1	41.8	6.8	34.9	48.6	60.0	80.0	25.1	31.4	100.0	359.9	
5	4769.000	V	27.8	41.6	11.3	39.1	52.9	60.0	80.0	20.9	27.1	100.0	36.7	
6	5719.500	H	27.2	40.4	13.3	40.5	53.7	60.0	80.0	19.5	26.3	100.0	0.7	

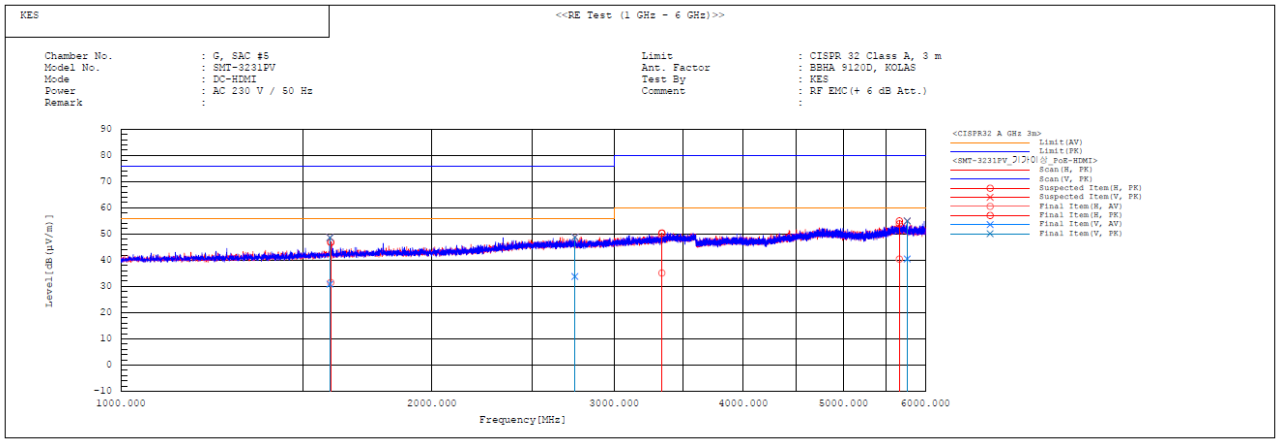
■ DC-CAMERA MODE



Final Result

No.	Frequency [MHz]	Pol	Reading AV [dB(μV)]	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result AV [dB(μV/m)]	Result PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]	Remark
1	1594.000	V	30.3	46.9	1.1	31.4	48.0	56.0	76.0	24.6	28.0	100.0	220.5	
2	1594.500	H	30.9	46.9	1.1	32.0	48.0	56.0	76.0	24.0	28.0	100.0	34.4	
3	2733.500	V	28.3	43.1	5.4	33.7	48.5	56.0	76.0	22.3	27.5	100.0	158.0	
4	3477.000	H	28.5	44.8	6.8	35.3	51.6	60.0	80.0	24.7	28.4	100.0	0.6	
5	4905.000	V	21.3	42.1	11.9	33.2	54.0	60.0	80.0	26.8	26.0	100.0	199.4	
6	5763.500	H	27.1	40.6	13.4	40.5	54.0	60.0	80.0	19.5	26.0	100.0	2.6	

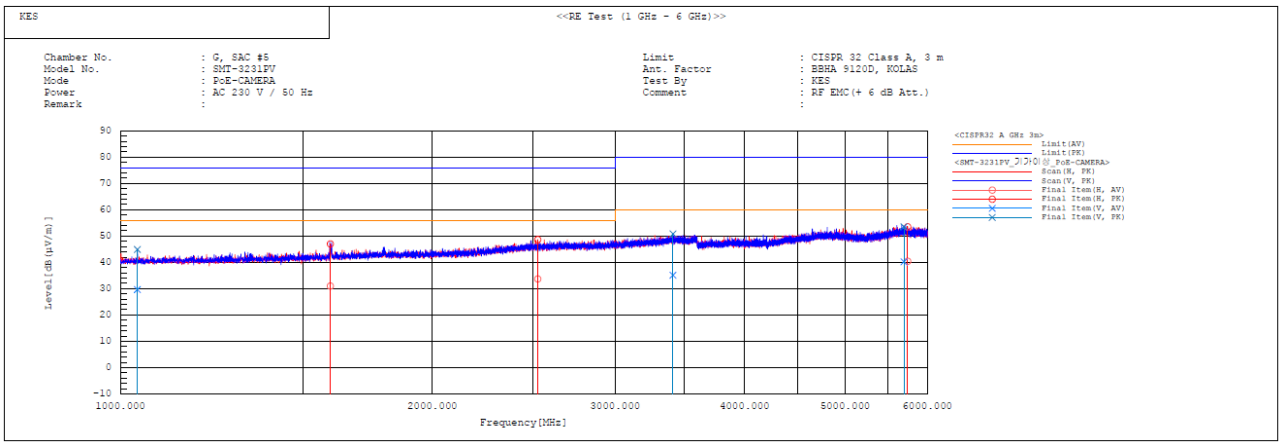
■ PoE-HDMI MODE



Final Result

No.	Frequency [MHz]	Pol	Reading AV [dB(μV)]	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result AV [dB(μV/m)]	Result PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]	Remark
1	1593.500	V	29.8	47.5	1.1	30.9	48.6	56.0	76.0	25.1	27.4	100.0	217.3	
2	1596.500	H	30.4	45.7	1.1	31.5	46.8	56.0	76.0	24.5	29.2	100.0	273.7	
3	2749.500	V	28.3	43.3	5.5	33.8	48.8	56.0	76.0	22.2	27.2	100.0	358.8	
4	3337.000	H	28.4	43.6	6.7	35.1	50.3	60.0	80.0	24.9	29.7	100.0	129.5	
5	5663.000	H	27.2	41.8	13.2	40.4	55.0	60.0	80.0	19.6	25.0	100.0	37.9	
6	5764.500	V	27.1	41.6	13.4	40.5	55.0	60.0	80.0	19.5	25.0	100.0	65.9	

■ PoE-CAMERA MODE



Final Result

No.	Frequency [MHz]	Pol	Reading AV [dB(μV)]	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result AV [dB(μV/m)]	Result PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]	Remark
1	1039.000	V	31.4	46.6	-1.7	29.7	44.9	56.0	76.0	26.3	31.1	100.0	189.3	
2	1594.500	H	29.9	45.9	1.1	31.0	47.0	56.0	76.0	25.0	29.0	100.0	278.0	
3	2527.000	H	28.9	43.8	4.8	33.7	48.6	56.0	76.0	22.3	27.4	100.0	289.8	
4	3412.500	V	28.3	44.0	6.8	35.1	50.8	60.0	80.0	24.9	29.2	100.0	1.3	
5	5698.000	V	26.9	40.2	13.3	40.2	53.5	60.0	80.0	19.8	26.5	100.0	325.1	
6	5745.000	H	27.1	40.2	13.3	40.4	53.5	60.0	80.0	19.6	26.5	100.0	267.5	

♦ Calculation

Result(PK/CAV) [dB(μV/m)] = (Reading(PK/CAV)[dB(μV)] + c.f[dB(1/m)]

Margin(PK/CAV)[dB] = Limit[dB(μV/m)] - Result(PK/CAV) [dB(μV/m)]

Reading(PK/CAV) : Reading value, Result(PK/CAV) : Reading value + Factor value

Limit(QP) : Limit value, c.f : (ANT Factor + Cable Loss - Preamp Factor), Margin: Margin value

Harmonic Current Emissions and Voltage Fluctuations and Flicker

■ DC-HDMI MODE

Average harmonic current results

Hn	Ieff [A]	% of Limit	Limit [A]	Result
1	0.119			
2	0.002			
3	0.113	4.929	2.300	PASS
4	0.002			
5	0.110	9.614	1.140	PASS
6	0.003			
7	0.107	13.856	0.770	PASS
8	0.003			
9	0.104	25.909	0.400	PASS
10	0.003			
11	0.098	29.815	0.330	PASS
12	0.003			
13	0.092	43.673	0.210	PASS
14	0.003			
15	0.085	56.483	0.150	PASS
16	0.003			
17	0.078	59.027	0.132	PASS
18	0.003			
19	0.071	59.965	0.118	PASS
20	0.003			
21	0.063	39.453	0.161	PASS
22	0.003			
23	0.056	37.914	0.147	PASS
24	0.002			
25	0.048	35.765	0.135	PASS
26	0.002			
27	0.041	33.074	0.125	PASS
28	0.002			
29	0.034	29.359	0.117	PASS
30	0.002			
31	0.028	25.713	0.110	PASS
32	0.002			
33	0.023	22.070	0.102	PASS
34	0.002			
35	0.018	18.281	0.096	PASS
36	0.002			
37	0.013	14.735	0.092	PASS
38	0.001			
39	0.010	11.747	0.087	PASS
40	0.001			

Note: Harmonic currents less than 0.6 % of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.

* Application of limits for average is 100% except for odd harmonics from 21 to 39, where 150% applies.

Test Data - Harmonics (continued)

Maximum harmonic current results

Hn	Ieff [A]	% of Limit	Limit [A]	Result
1	0.119			
2	0.003			
3	0.114	3.290	3.450	PASS
4	0.003			
5	0.110	6.454	1.710	PASS
6	0.003			
7	0.107	9.273	1.155	PASS
8	0.003			
9	0.104	17.298	0.600	PASS
10	0.003			
11	0.099	19.913	0.495	PASS
12	0.003			
13	0.092	29.164	0.315	PASS
14	0.003			
15	0.085	37.768	0.225	PASS
16	0.003			
17	0.078	39.406	0.198	PASS
18	0.003			
19	0.071	40.071	0.177	PASS
20	0.003			
21	0.063	39.533	0.161	PASS
22	0.003			
23	0.056	37.997	0.147	PASS
24	0.003			
25	0.048	35.835	0.135	PASS
26	0.003			
27	0.041	33.149	0.125	PASS
28	0.002			
29	0.034	29.453	0.117	PASS
30	0.002			
31	0.028	25.826	0.110	PASS
32	0.002			
33	0.023	22.181	0.102	PASS
34	0.002			
35	0.018	18.450	0.096	PASS
36	0.002			
37	0.014	14.887	0.092	PASS
38	0.002			
39	0.010	11.888	0.087	PASS
40	0.002			

Note: Harmonic currents less than 0.6 % of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.
* Application of limits for average is 100% except for odd harmonics from 21 to 39, where 150% applies.

■ DC-CAMERA MODE

Average harmonic current results

Hn	Ieff [A]	% of Limit	Limit [A]	Result
1	0.121			
2	0.002			
3	0.116	5.029	2.300	PASS
4	0.002			
5	0.112	9.822	1.140	PASS
6	0.003			
7	0.109	14.160	0.770	PASS
8	0.003			
9	0.106	26.443	0.400	PASS
10	0.003			
11	0.100	30.425	0.330	PASS
12	0.003			
13	0.094	44.593	0.210	PASS
14	0.003			
15	0.087	57.706	0.150	PASS
16	0.003			
17	0.080	60.290	0.132	PASS
18	0.003			
19	0.072	61.195	0.118	PASS
20	0.003			
21	0.065	40.266	0.161	PASS
22	0.003			
23	0.057	38.716	0.147	PASS
24	0.002			
25	0.049	36.562	0.135	PASS
26	0.002			
27	0.042	33.863	0.125	PASS
28	0.002			
29	0.035	30.120	0.117	PASS
30	0.002			
31	0.029	26.480	0.110	PASS
32	0.002			
33	0.023	22.800	0.102	PASS
34	0.002			
35	0.018	18.959	0.096	PASS
36	0.002			
37	0.014	15.353	0.092	PASS
38	0.002			
39	0.011	12.236	0.087	PASS
40	0.001			

Note: Harmonic currents less than 0.6 % of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.

* Application of limits for average is 100% except for odd harmonics from 21 to 39, where 150% applies.

Test Data - Harmonics (continued)

Maximum harmonic current results

Hn	Ieff [A]	% of Limit	Limit [A]	Result
1	0.122			
2	0.002			
3	0.116	3.357	3.450	PASS
4	0.003			
5	0.113	6.628	1.710	PASS
6	0.003			
7	0.110	9.504	1.155	PASS
8	0.003			
9	0.106	17.660	0.600	PASS
10	0.004			
11	0.101	20.323	0.495	PASS
12	0.004			
13	0.094	29.775	0.315	PASS
14	0.003			
15	0.087	38.701	0.225	PASS
16	0.003			
17	0.080	40.358	0.198	PASS
18	0.003			
19	0.072	40.896	0.177	PASS
20	0.003			
21	0.065	40.371	0.161	PASS
22	0.003			
23	0.057	38.817	0.147	PASS
24	0.003			
25	0.050	36.675	0.135	PASS
26	0.003			
27	0.042	33.974	0.125	PASS
28	0.003			
29	0.035	30.316	0.117	PASS
30	0.002			
31	0.029	26.616	0.110	PASS
32	0.002			
33	0.023	22.964	0.102	PASS
34	0.002			
35	0.018	19.226	0.096	PASS
36	0.002			
37	0.014	15.624	0.092	PASS
38	0.002			
39	0.011	12.470	0.087	PASS
40	0.002			

Note: Harmonic currents less than 0.6 % of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.
* Application of limits for average is 100% except for odd harmonics from 21 to 39, where 150% applies.

Test Data - Voltage Fluctuations

Maximum Flicker results

■ DC-HDMI MODE

Flicker Measurements					
	Plt	**Max Pst**	**Max Dc**	**Max Dmax**	**Max Tmax**
Line 1:	0.028	0.028	0	< 0.2	0
Limits:	0.65	1	3.3	4	0.5
Results:	PASS	PASS	PASS	PASS	PASS

■ DC-CAMERA MODE

Flicker Measurements					
	Plt	**Max Pst**	**Max Dc**	**Max Dmax**	**Max Tmax**
Line 1:	0.028	0.028	0	< 0.2	0
Limits:	0.65	1	3.3	4	0.5
Results:	PASS	PASS	PASS	PASS	PASS

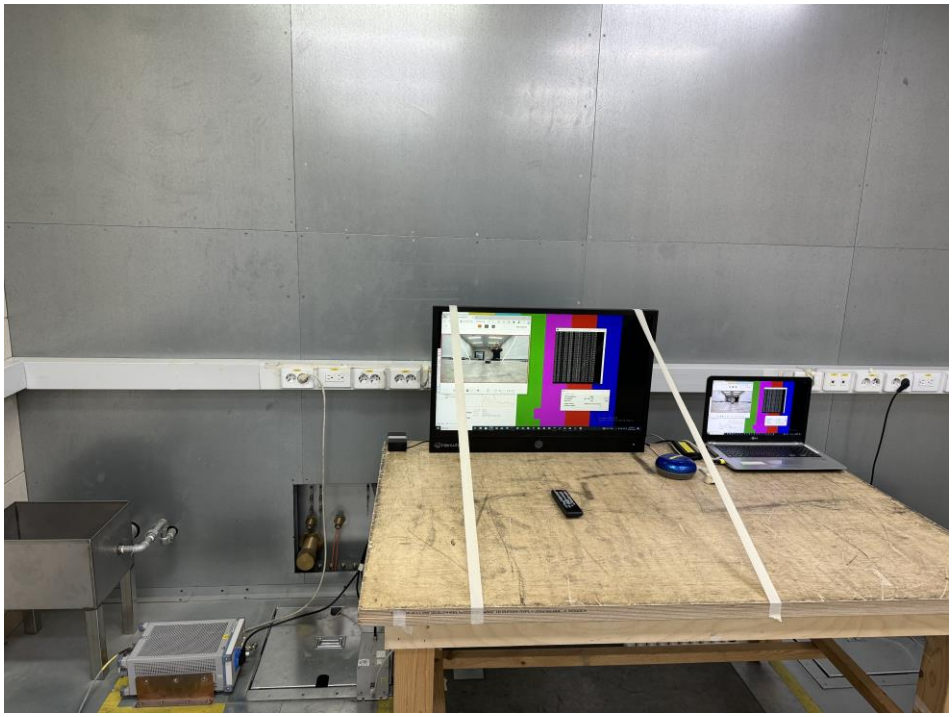
Test Setup Photos and Configuration

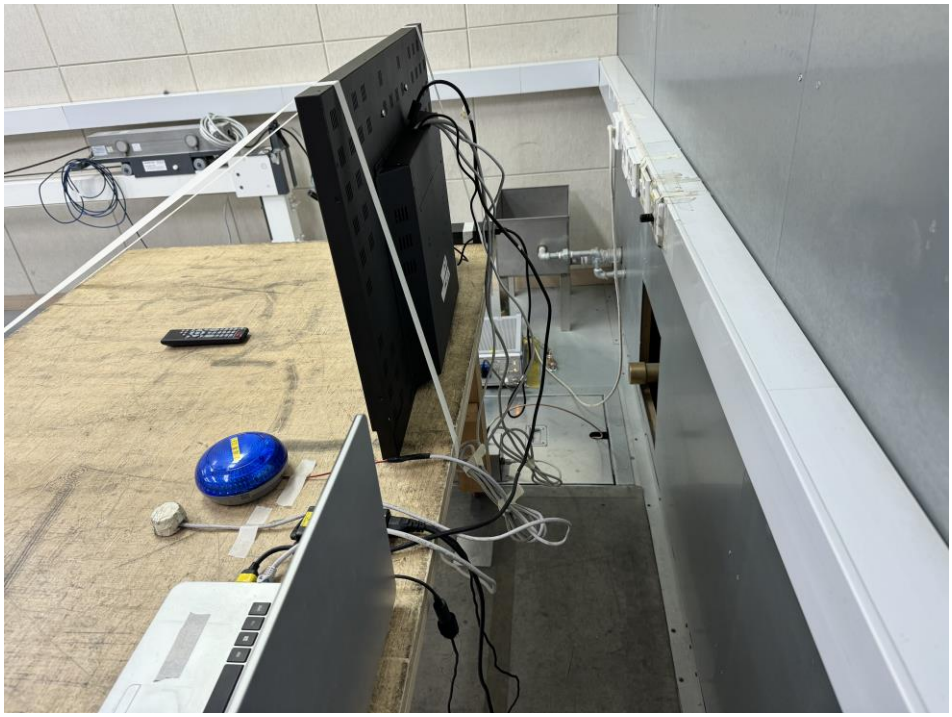
Conducted Emissions at Mains Power Ports

■ DC-HDMI, DC-CAMERA MODE

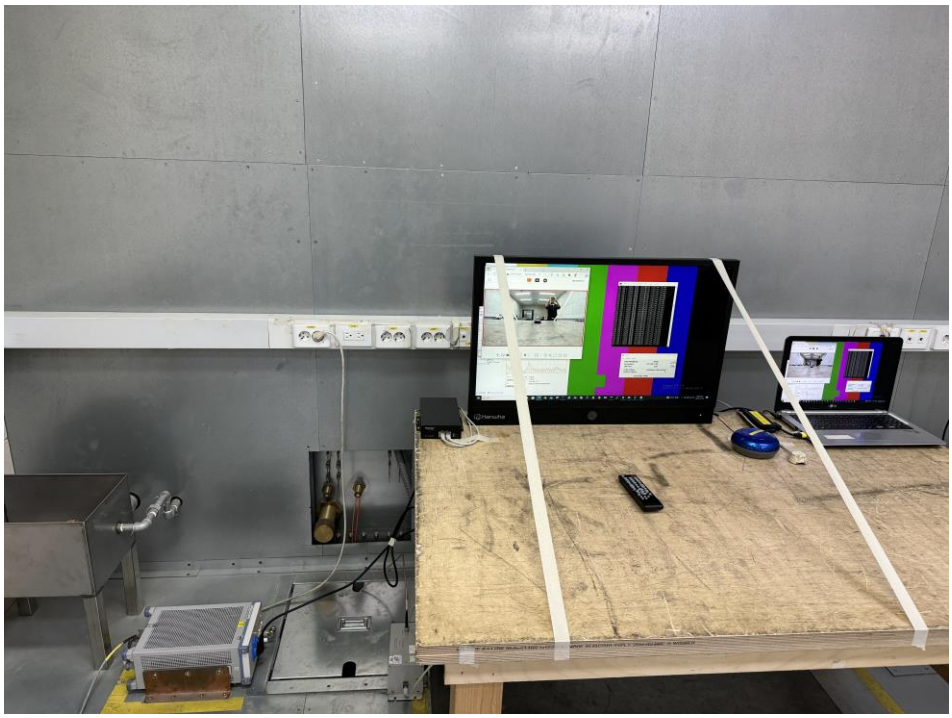
Conducted Emissions at Telecommunication Ports

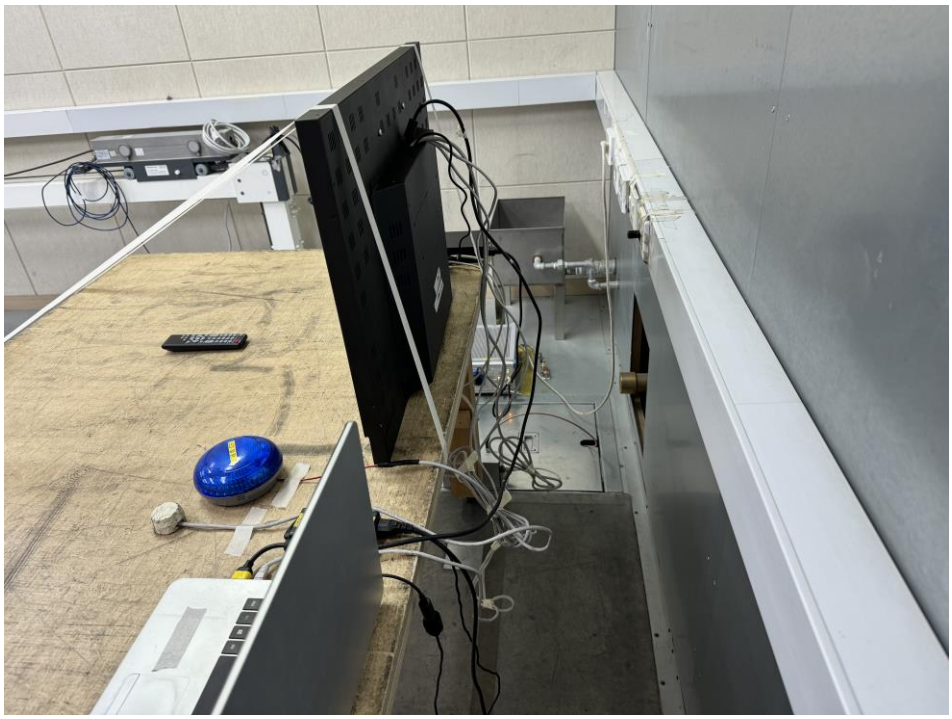
■ DC-HDMI, DC-CAMERA MODE





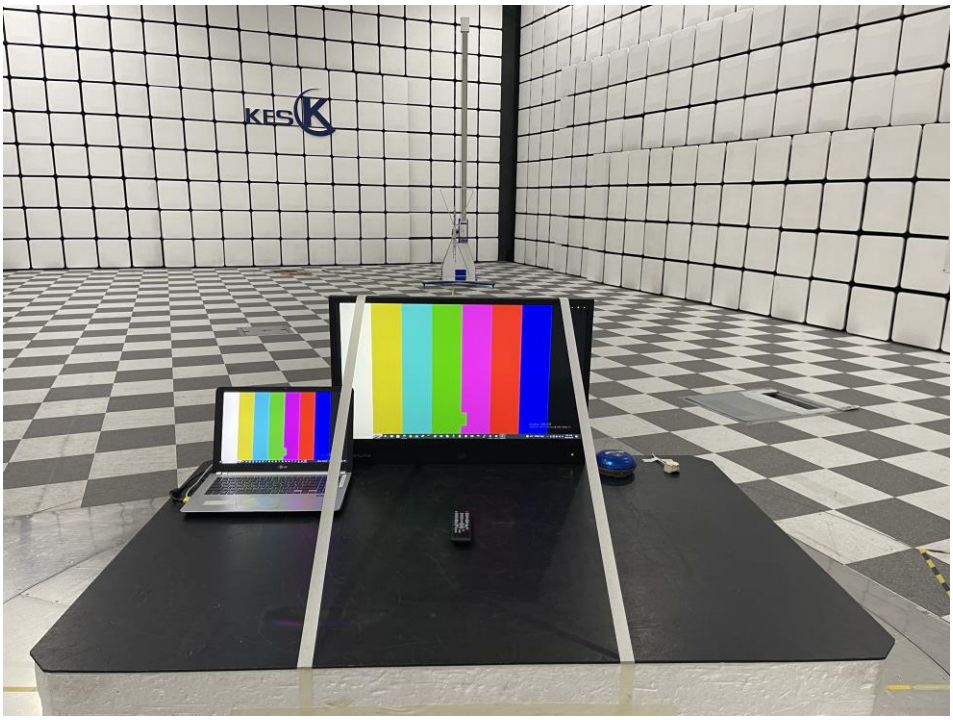
■ PoE-HDMI, PoE-CAMERA MODE

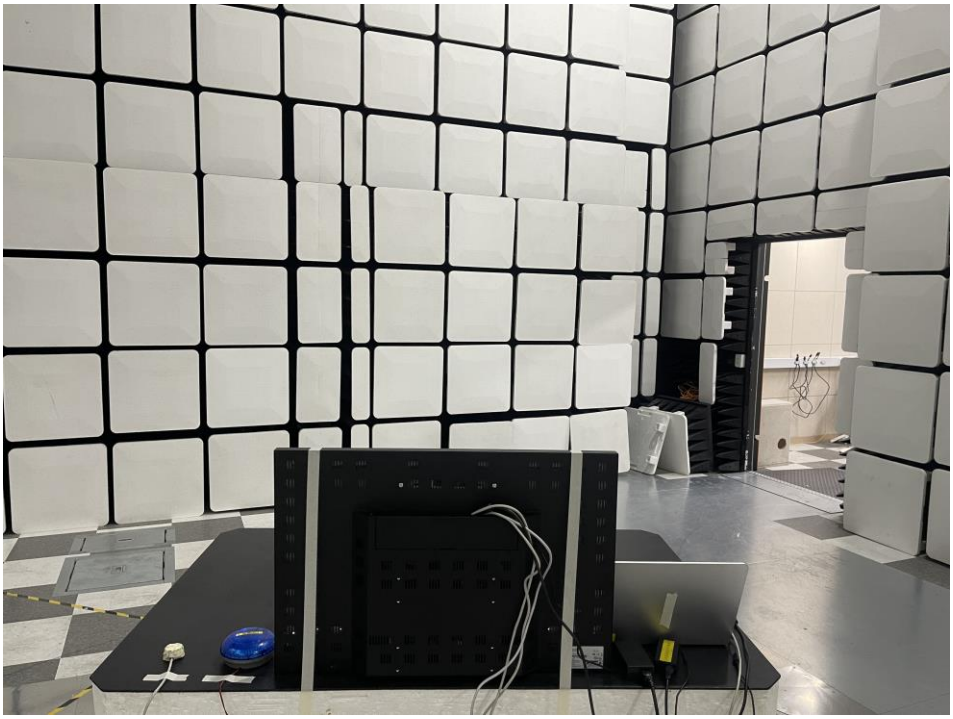




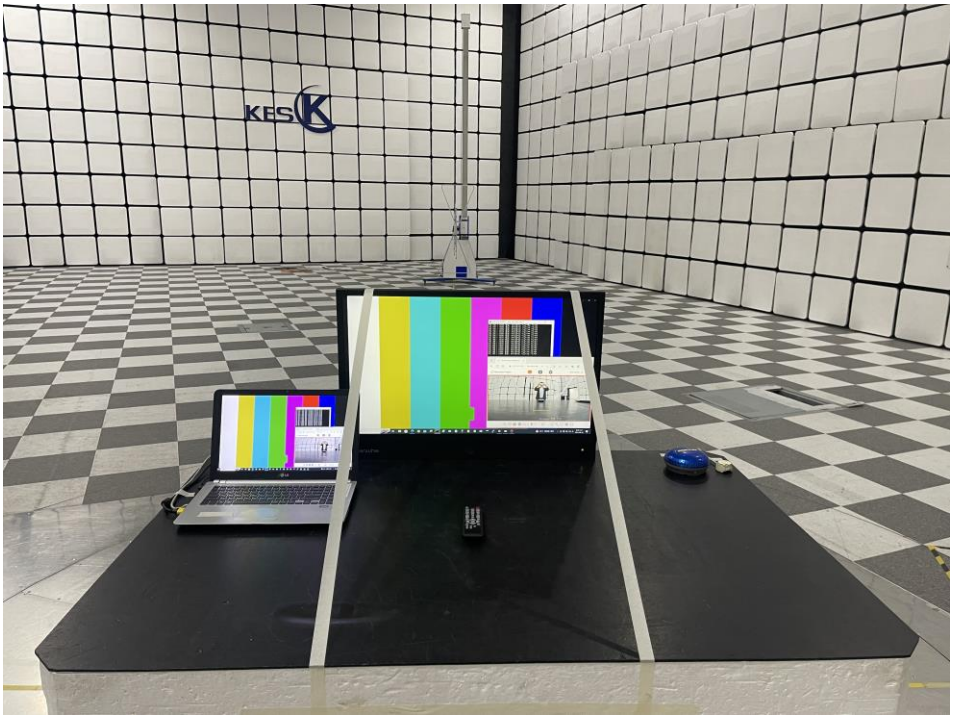
Radiated Electric Field Emissions(Below 1 ㎓)

■ DC-HDMI, DC-CAMERA MODE



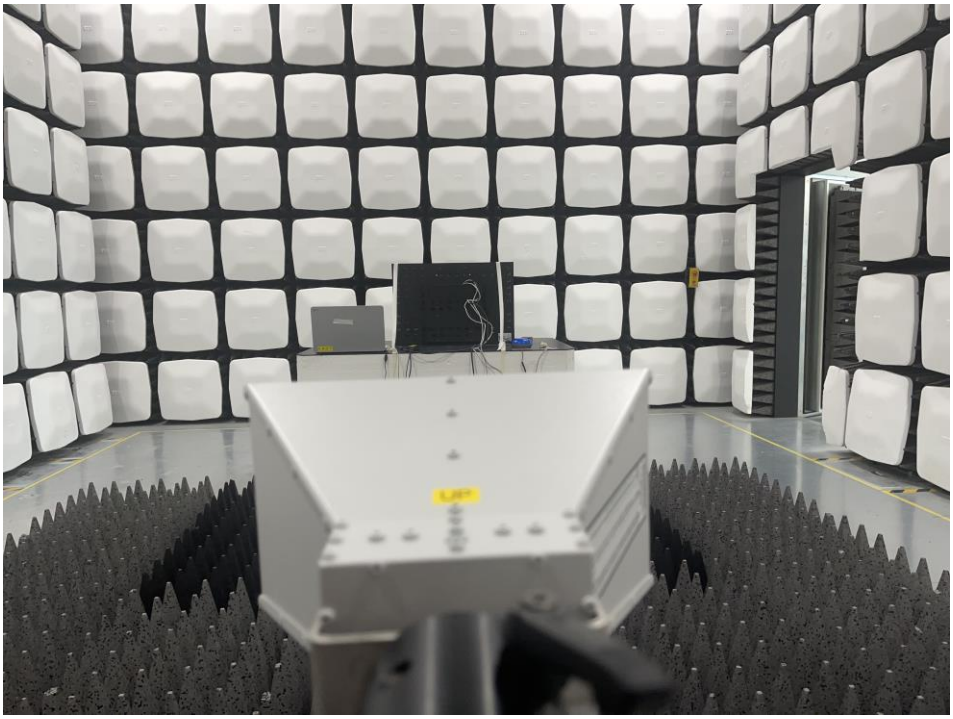


■ PoE-HDMI, PoE-CAMERA MODE

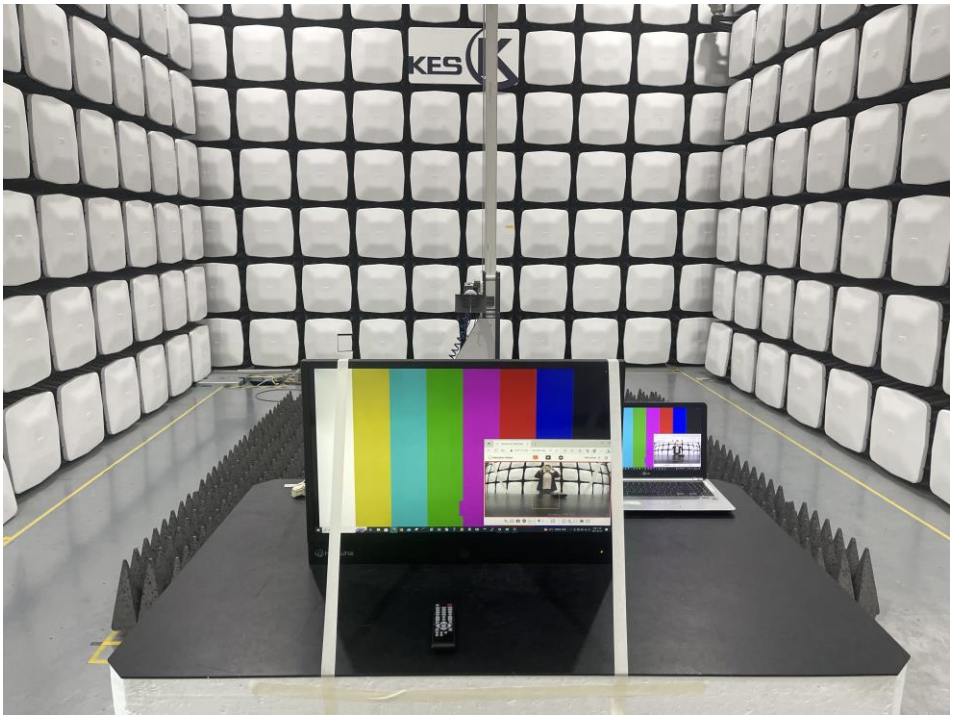


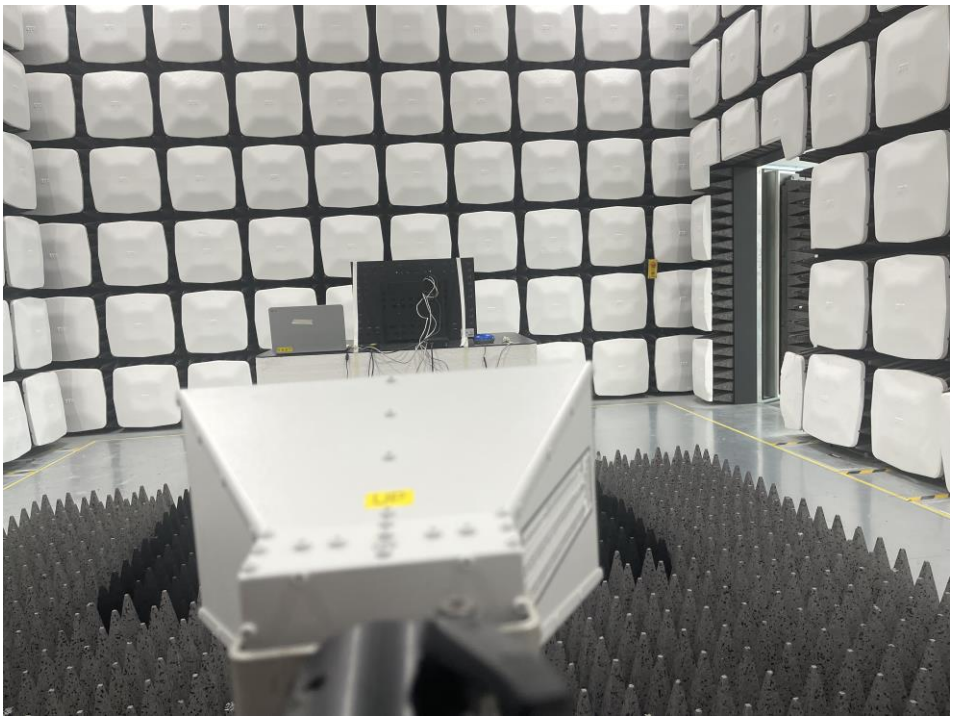
Radiated Electric Field Emissions(Above 1 ㎓)

■ DC-HDMI, DC-CAMERA MODE



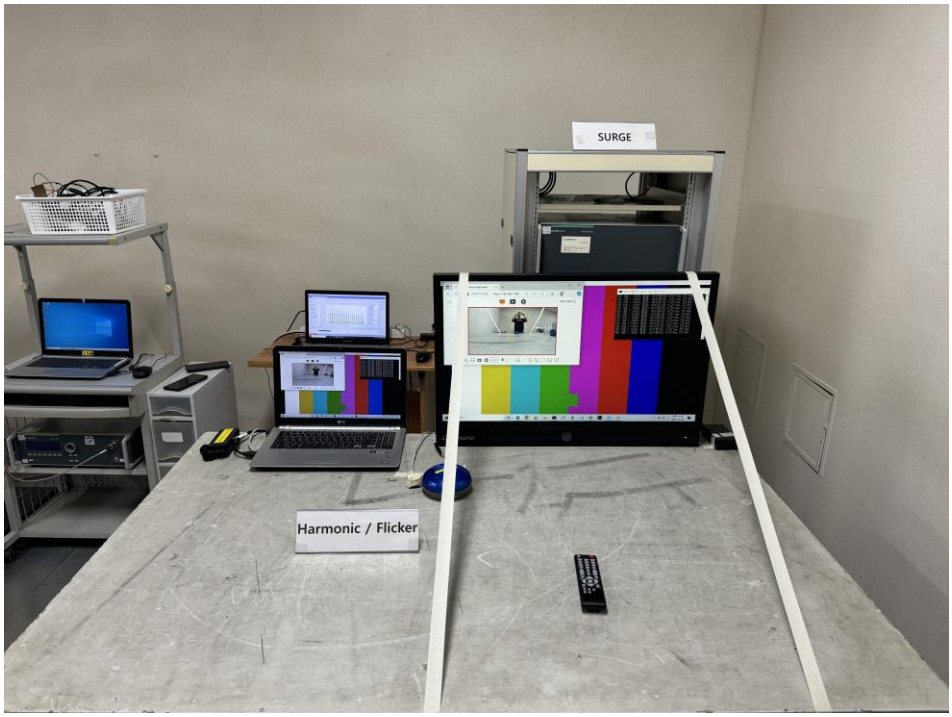
■ PoE-HDMI, PoE-CAMERA MODE





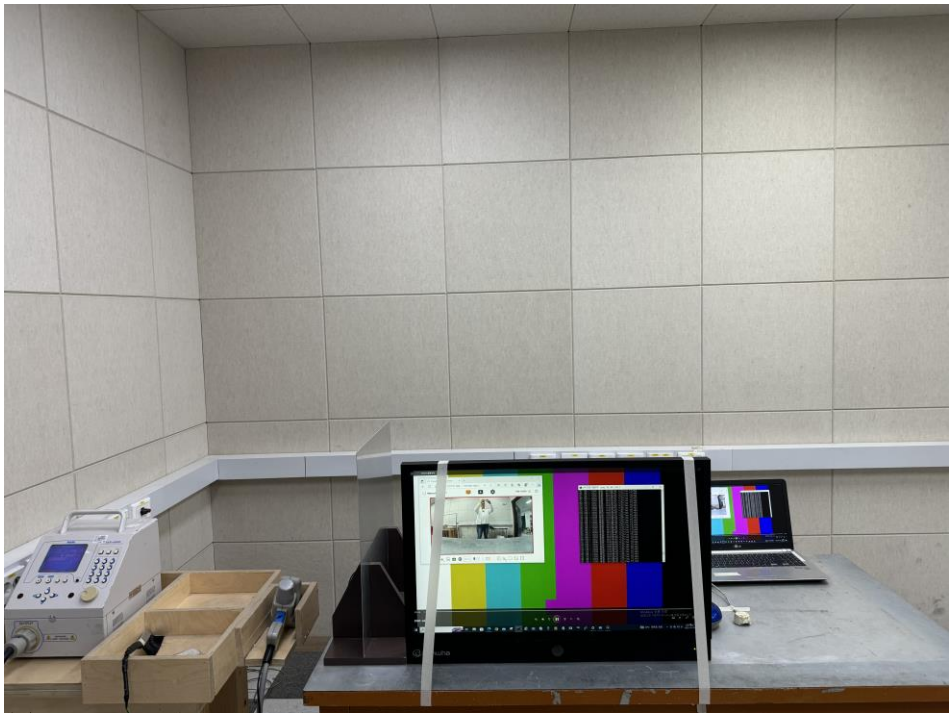
Harmonic Current Emissions and Voltage Fluctuations and Flicker

■ DC-HDMI, DC-CAMERA MODE

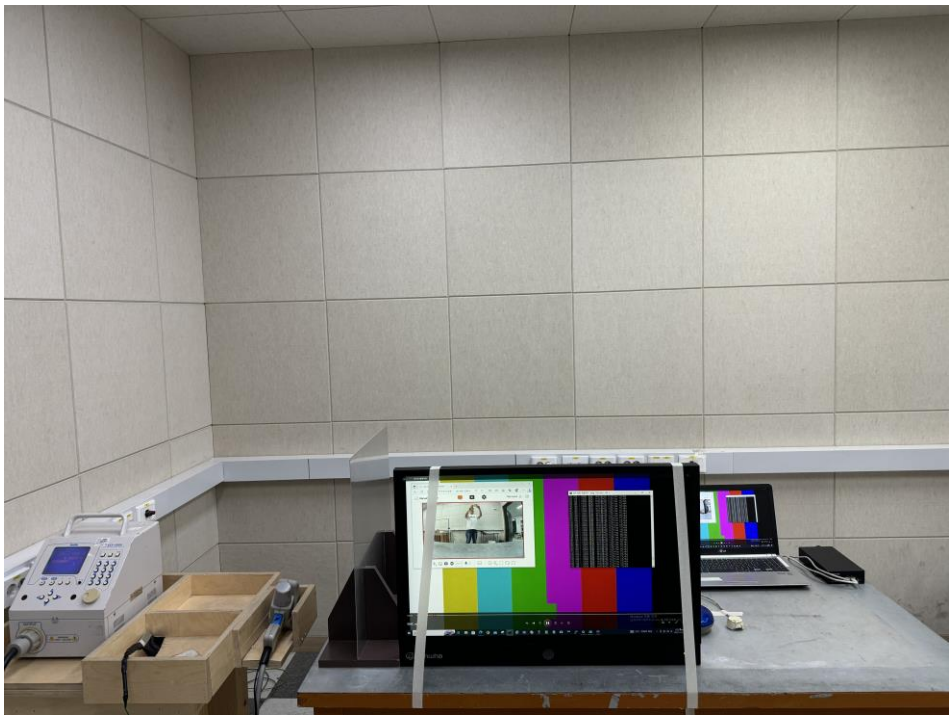


Electrostatic Discharge

■ DC-HDMI, DC-CAMERA MODE

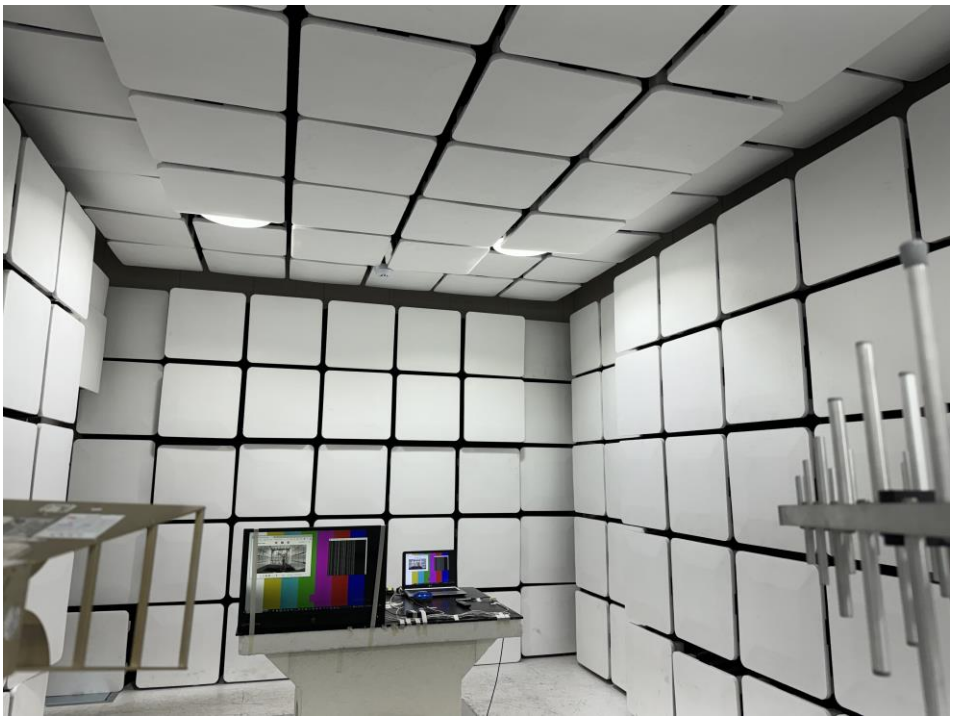


■ PoE-HDMI, PoE-CAMERA MODE

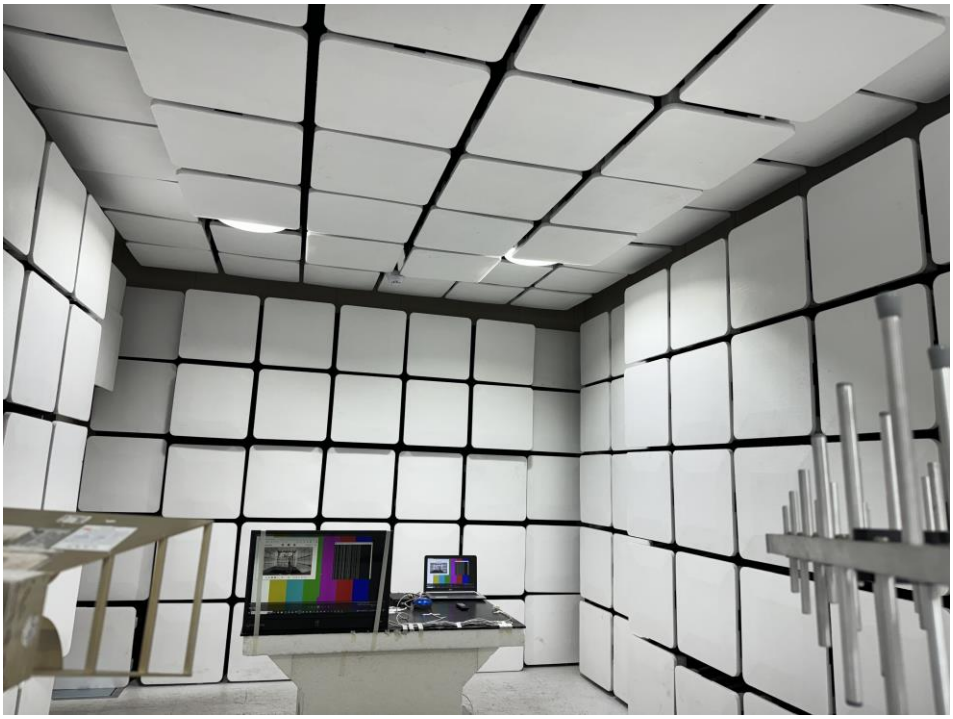


Radiated Electric Field Immunity

■ DC-HDMI, DC-CAMERA MODE

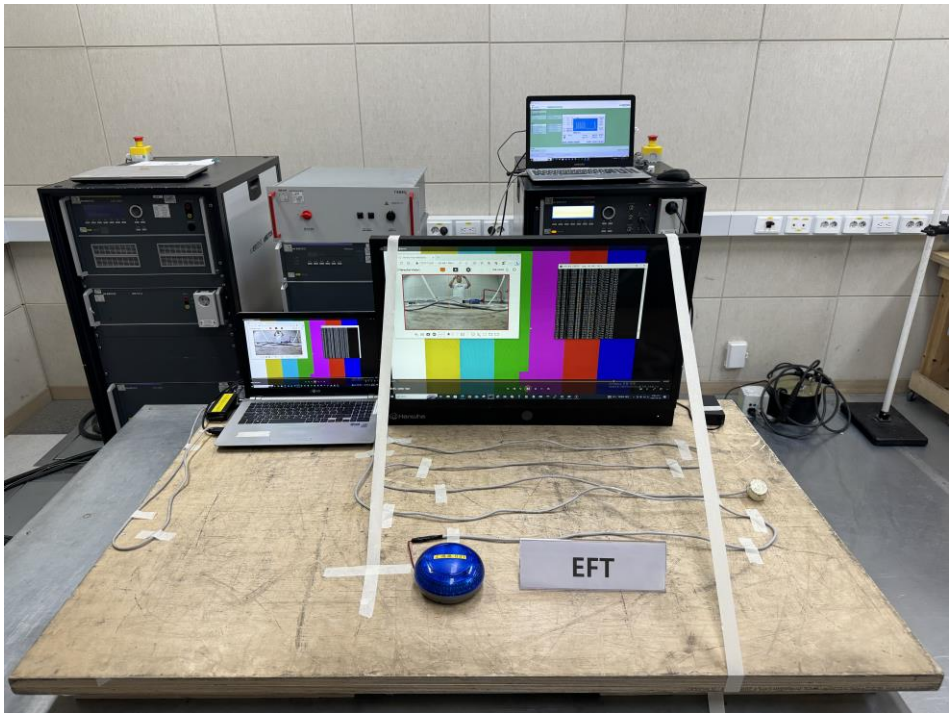


■ PoE-HDMI, PoE-CAMERA MODE

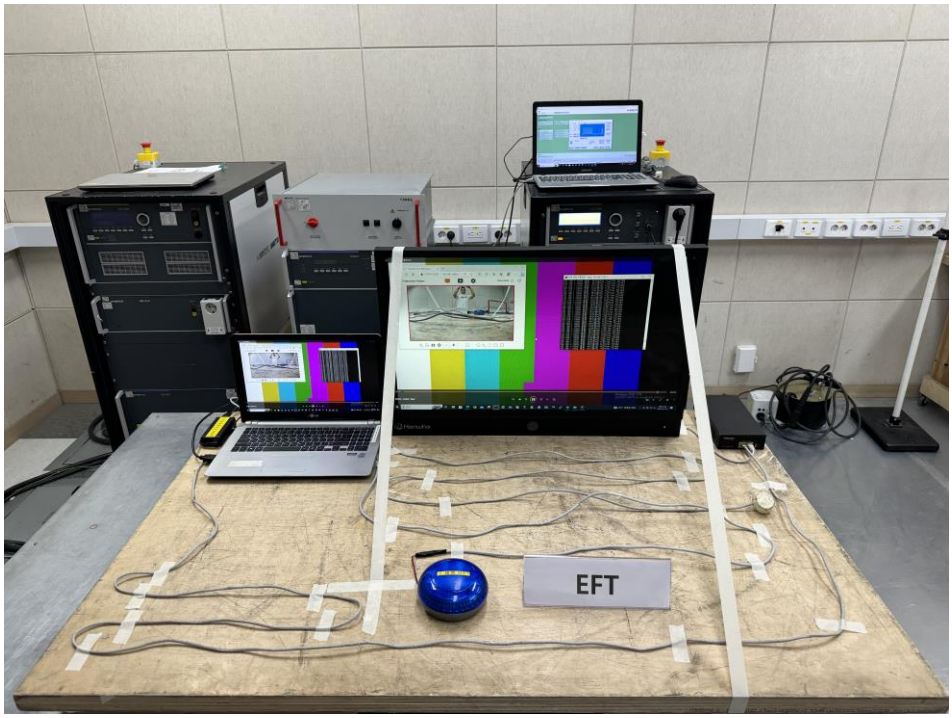


Electrical Fast Transients/Bursts

■ DC-HDMI, DC-CAMERA MODE

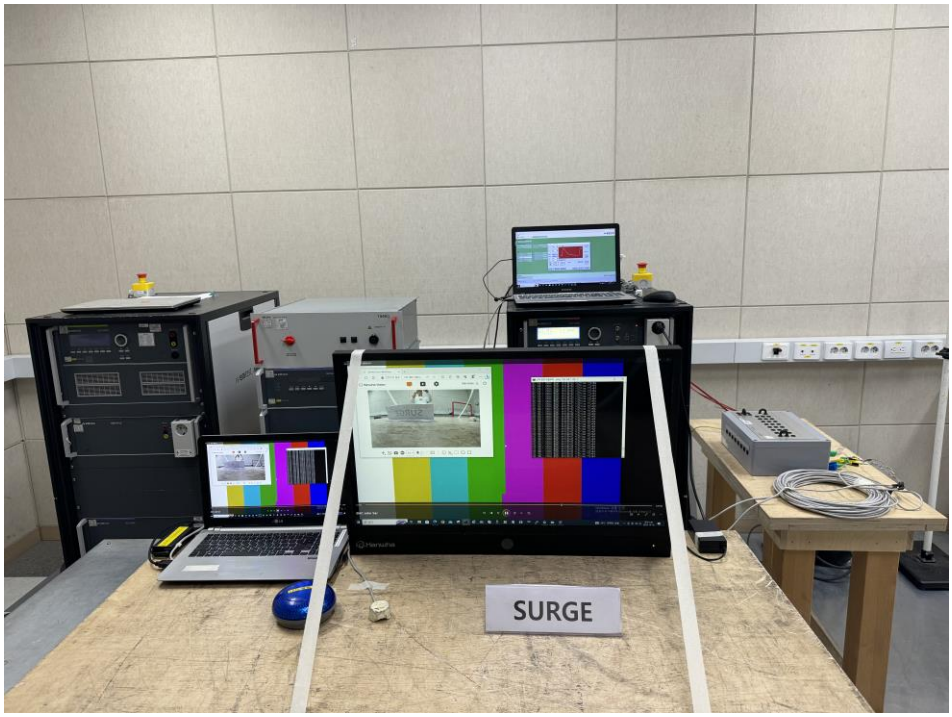


■ PoE-HDMI, PoE-CAMERA MODE

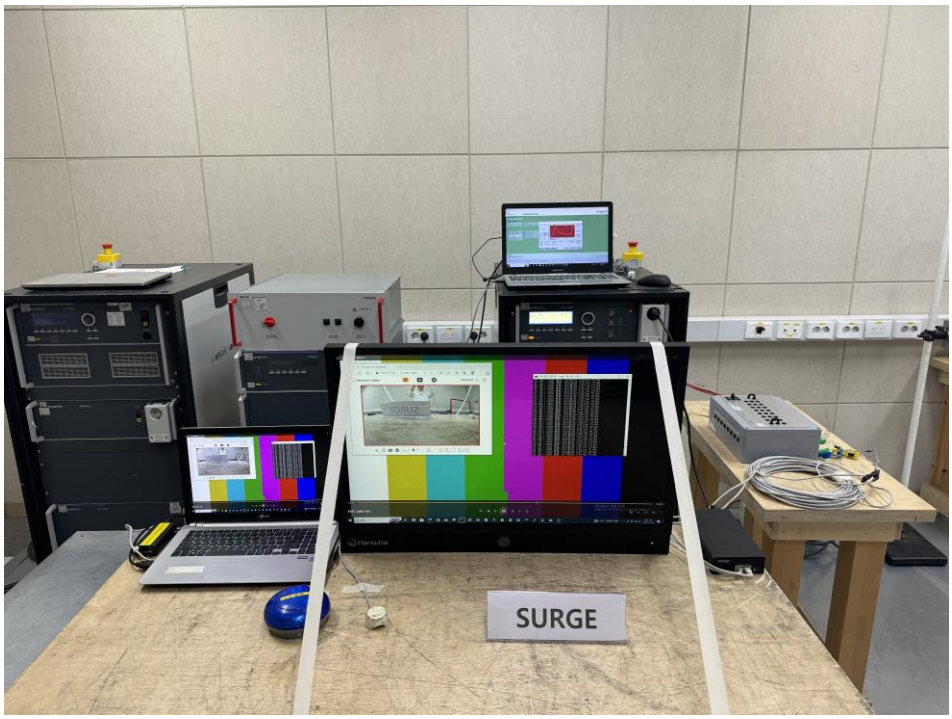


Surge Transients

■ DC-HDMI, DC-CAMERA MODE

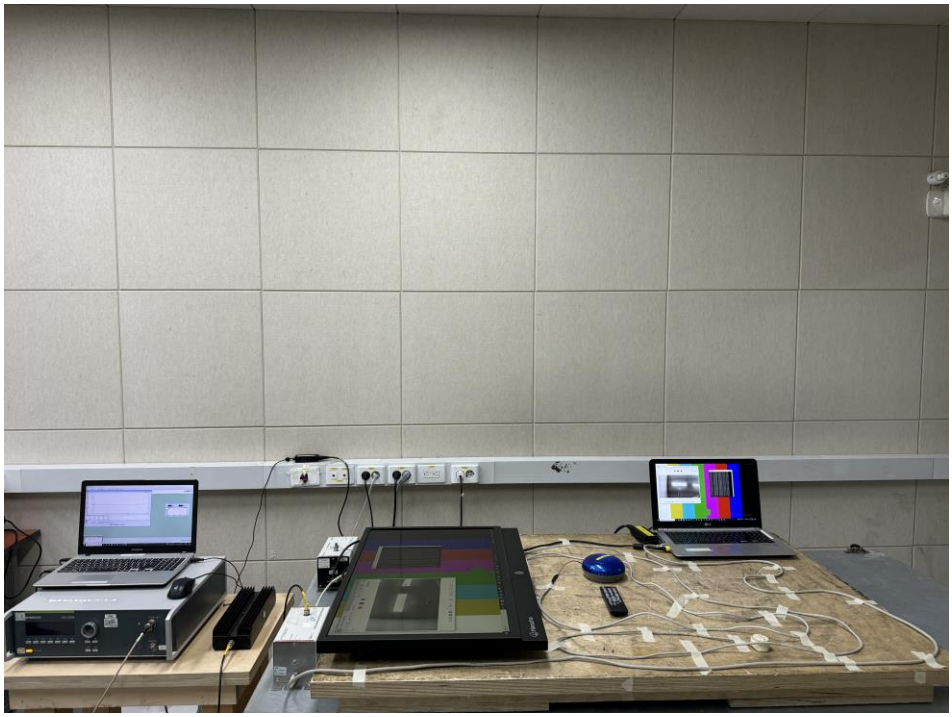


■ PoE-HDMI, PoE-CAMERA MODE

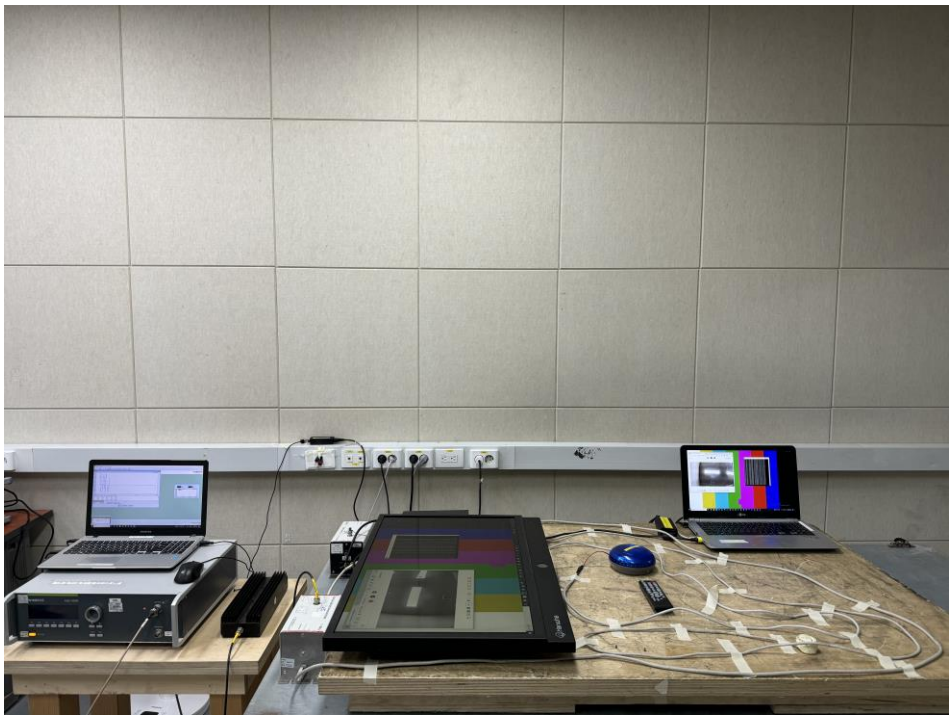


Conducted Disturbance

■ DC-HDMI, DC-CAMERA MODE

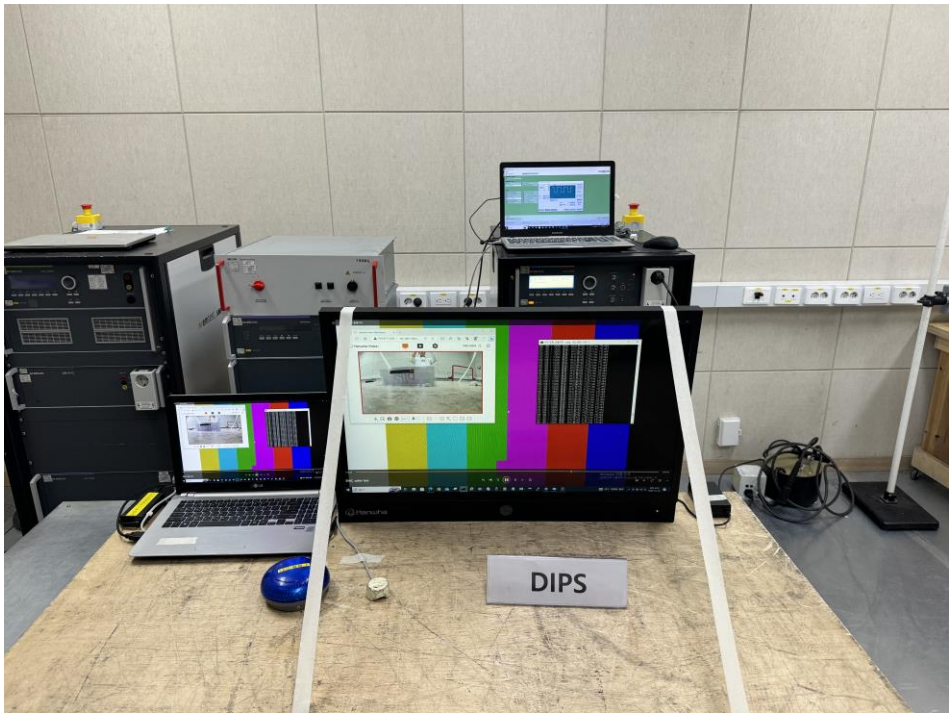


■ PoE-HDMI, PoE-CAMERA MODE



Voltage Dips and Short Interruptions

■ DC-HDMI, DC-CAMERA MODE



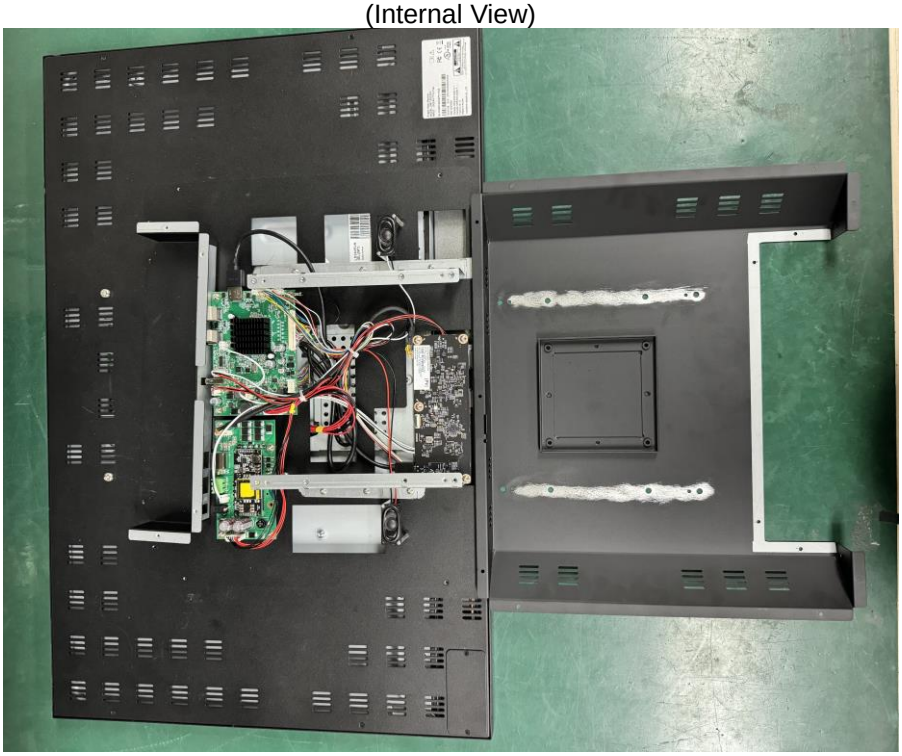
EUT External Photographs

(Top)

(Bottom)

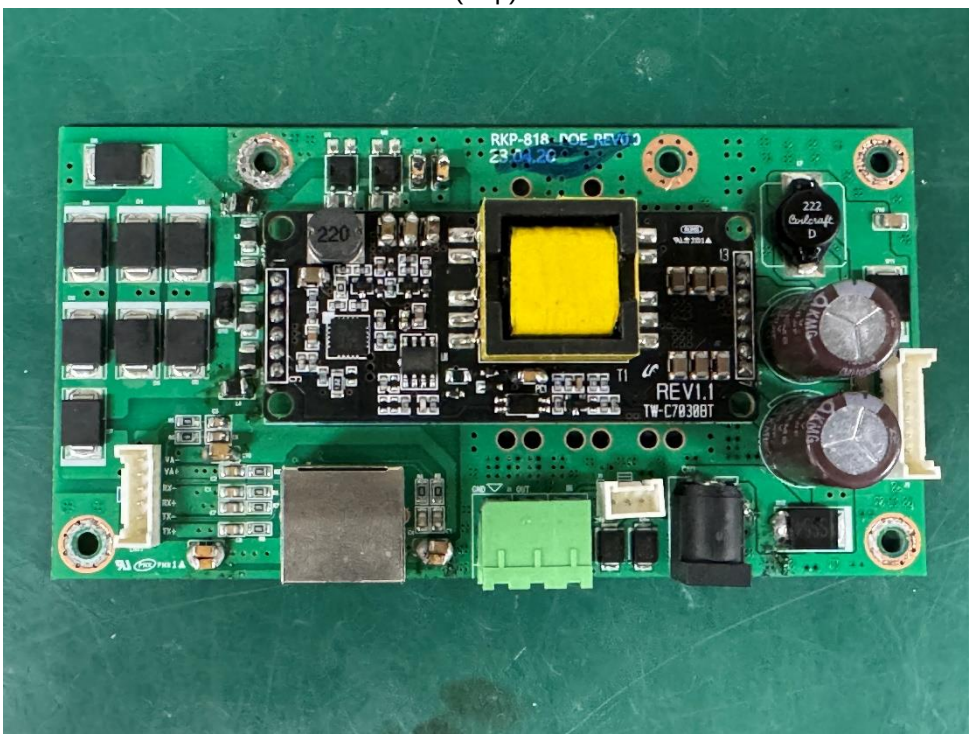
EUT Internal Photographs

(Internal View)



EUT Internal View – Board 1

(Top)



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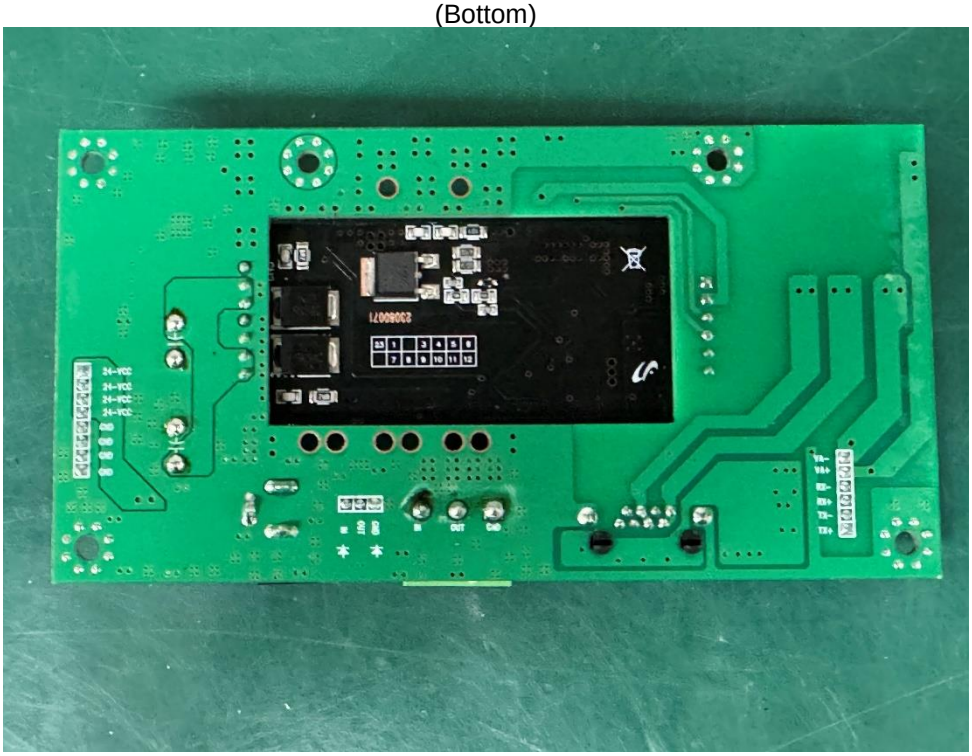
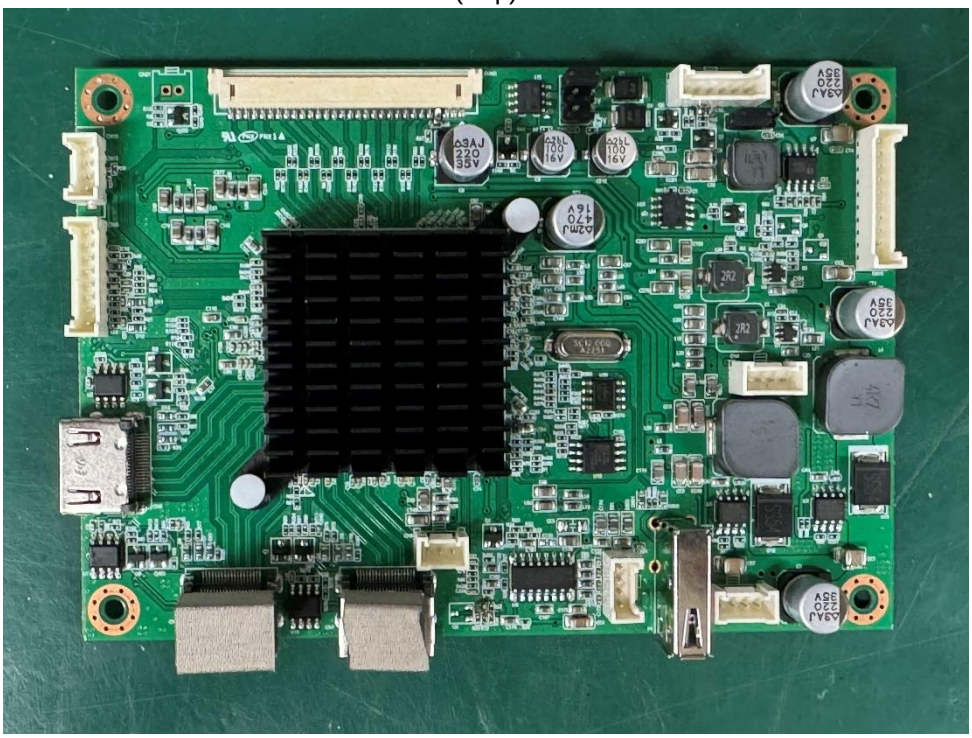


EUT Internal View – Board 2

(Top)



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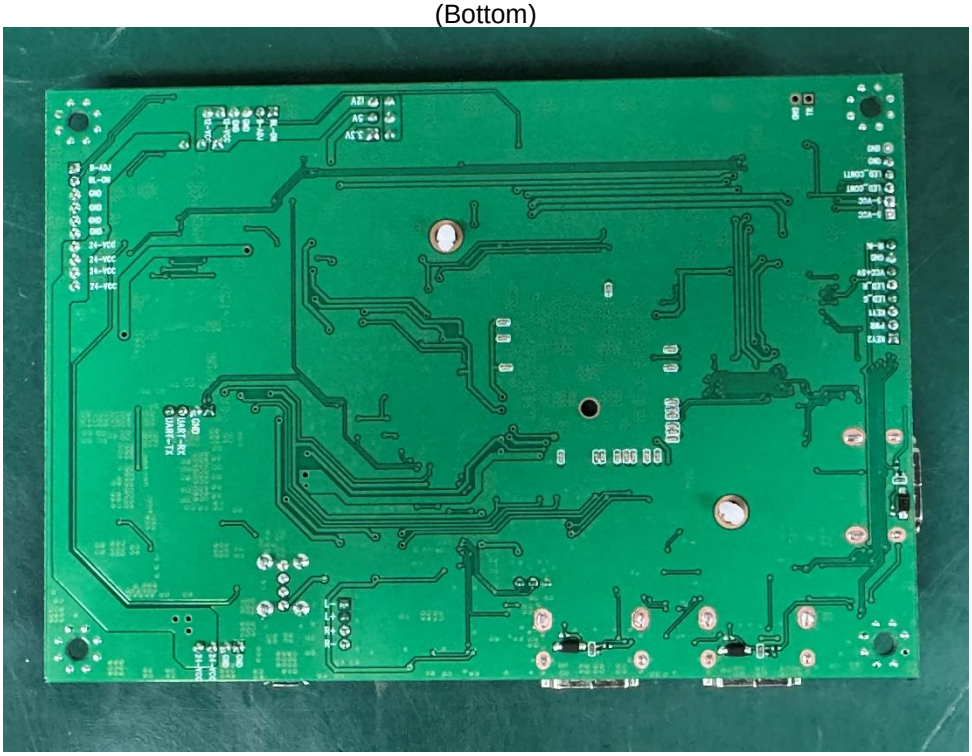
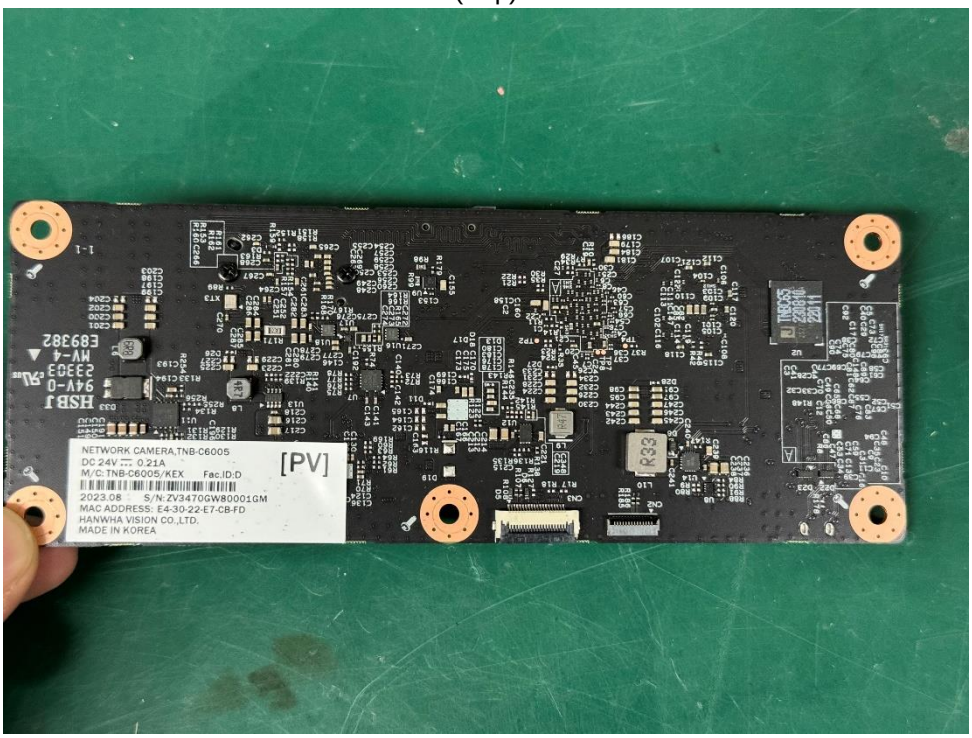


EUT Internal View – Board 3

(Top)



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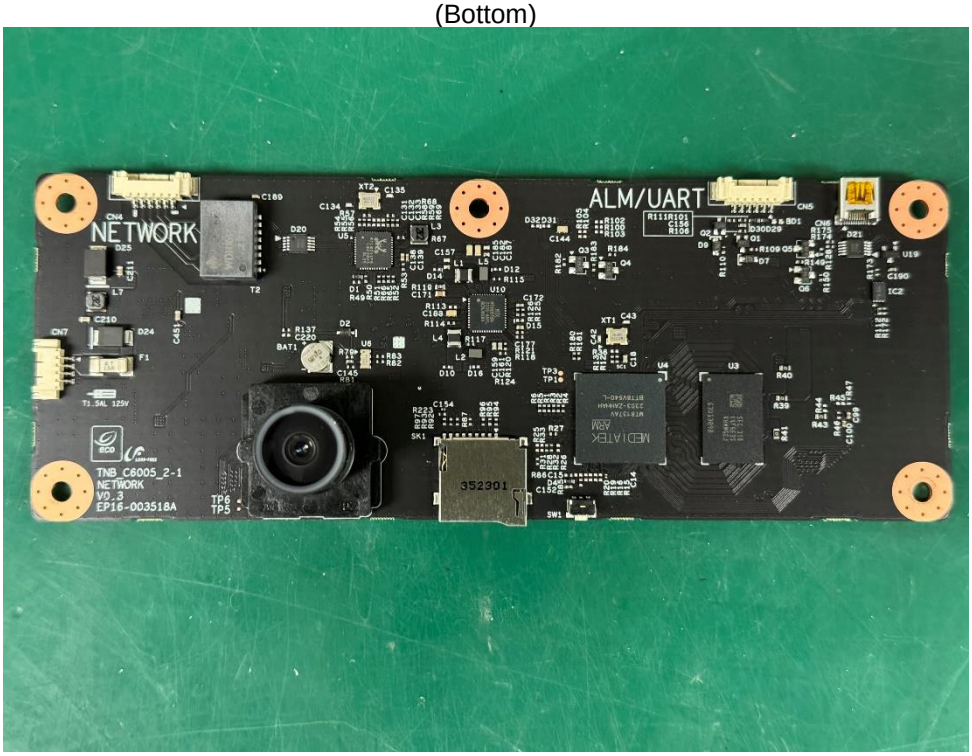
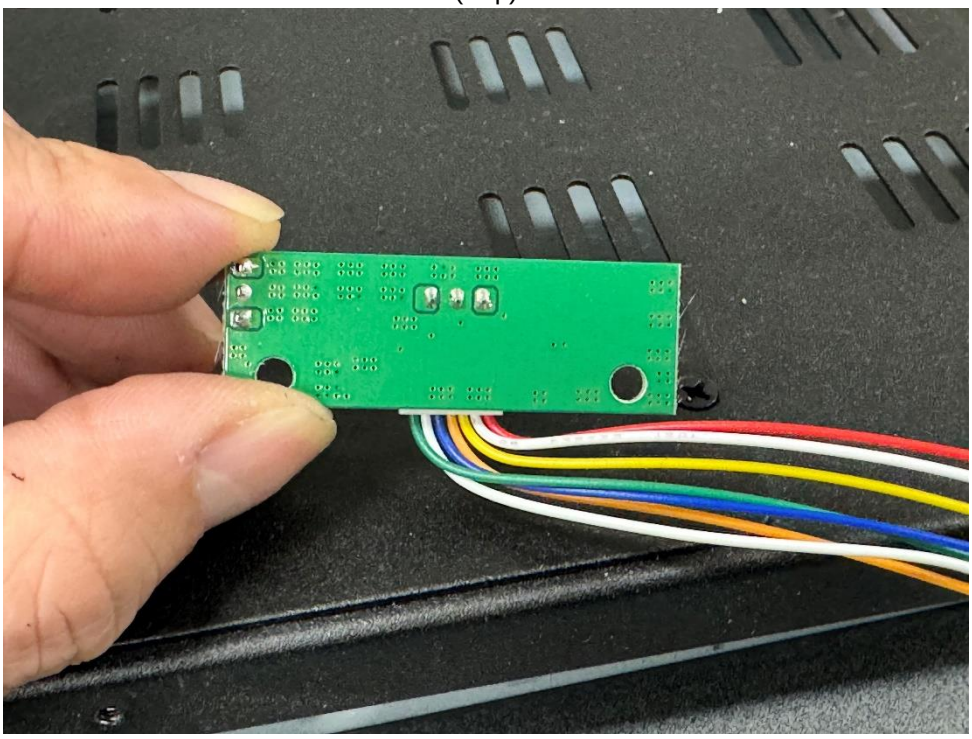


EUT Internal View – Board 4

(Top)



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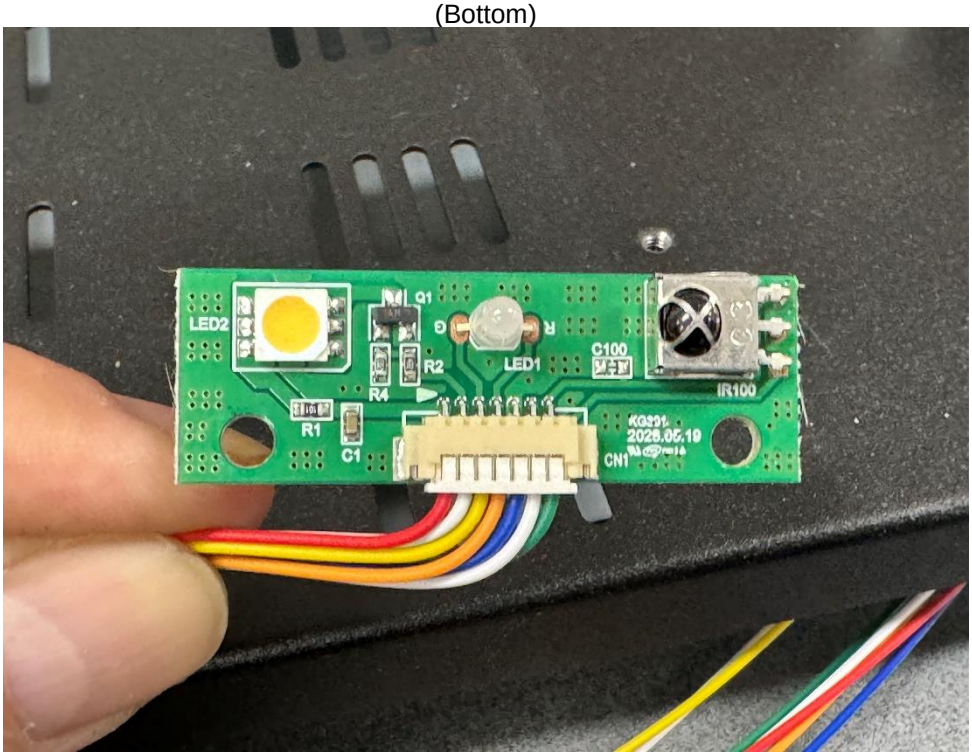
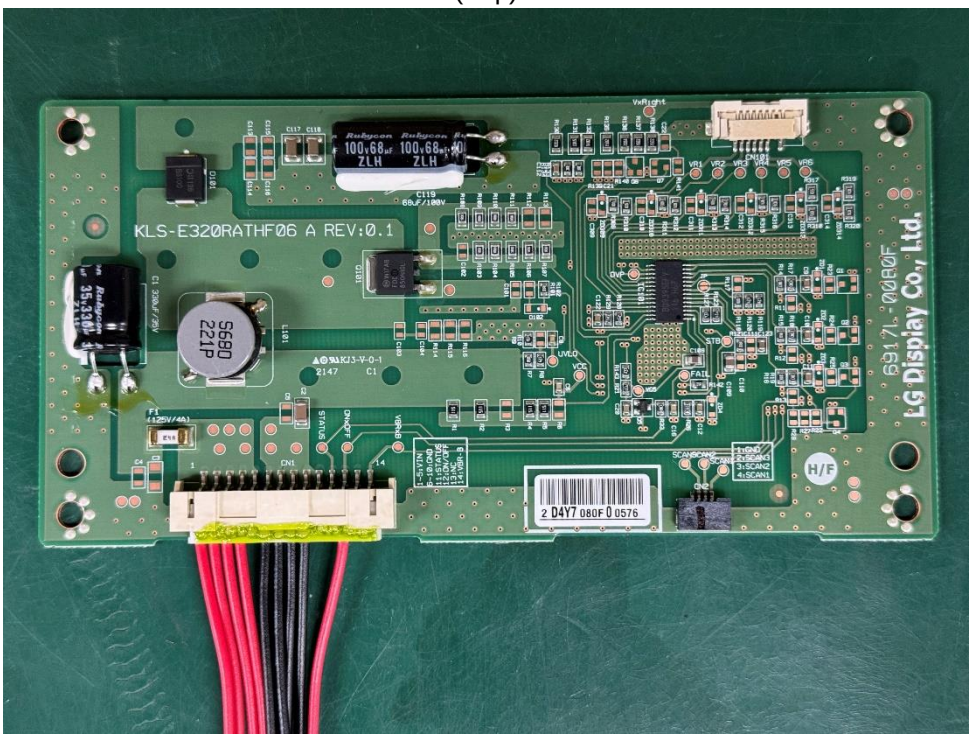


EUT Internal View – Board 5

(Top)



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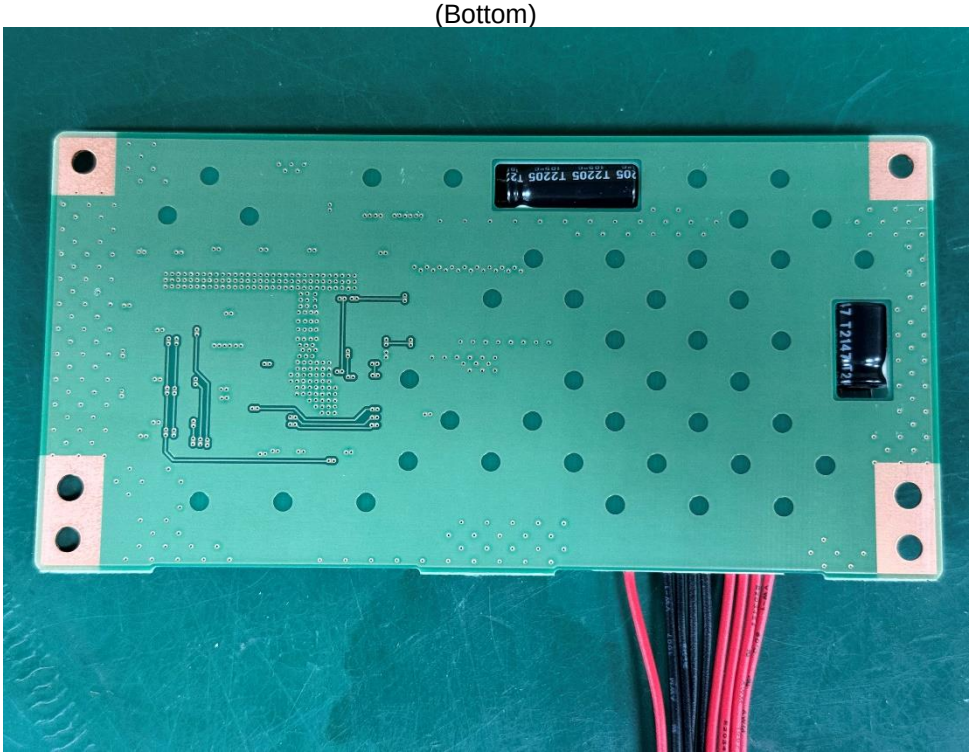
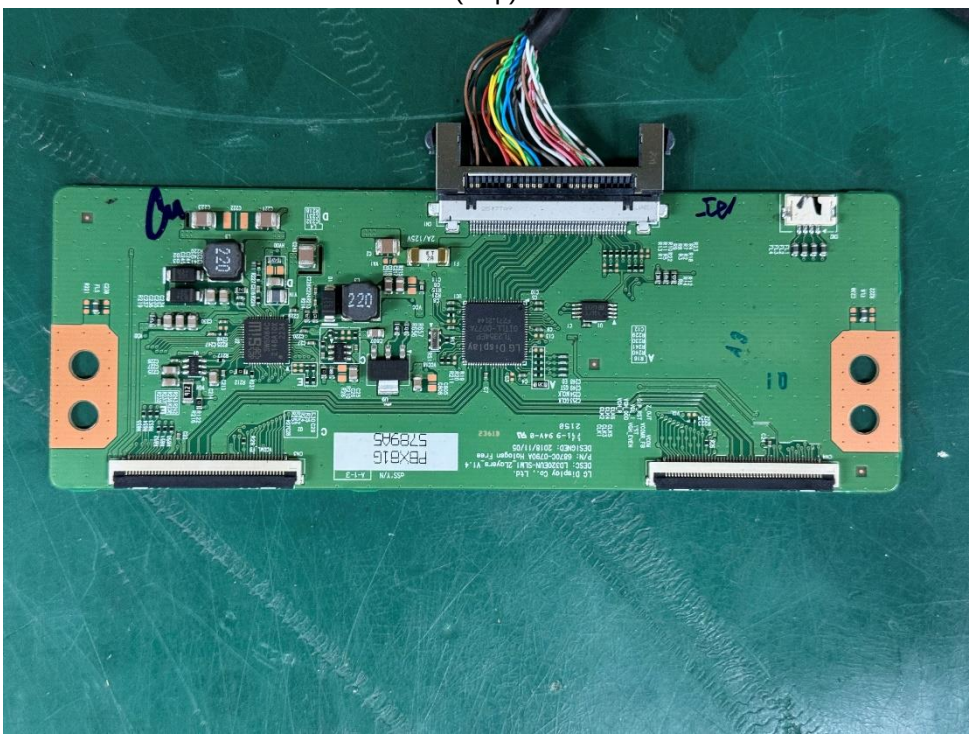
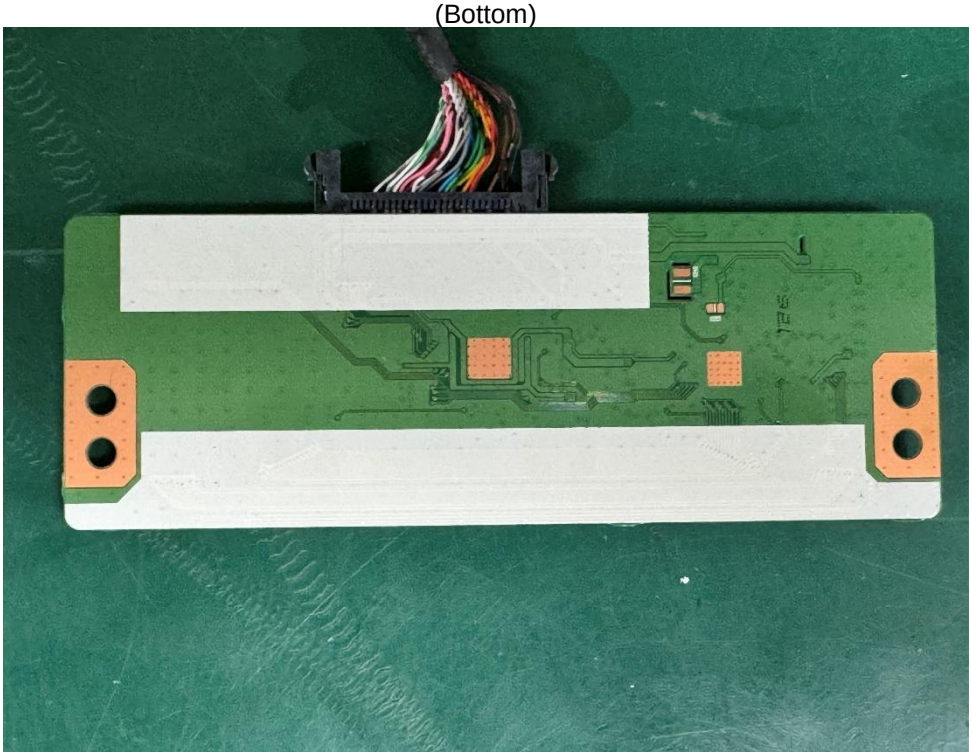


EUT Internal View – Board 6

(Top)

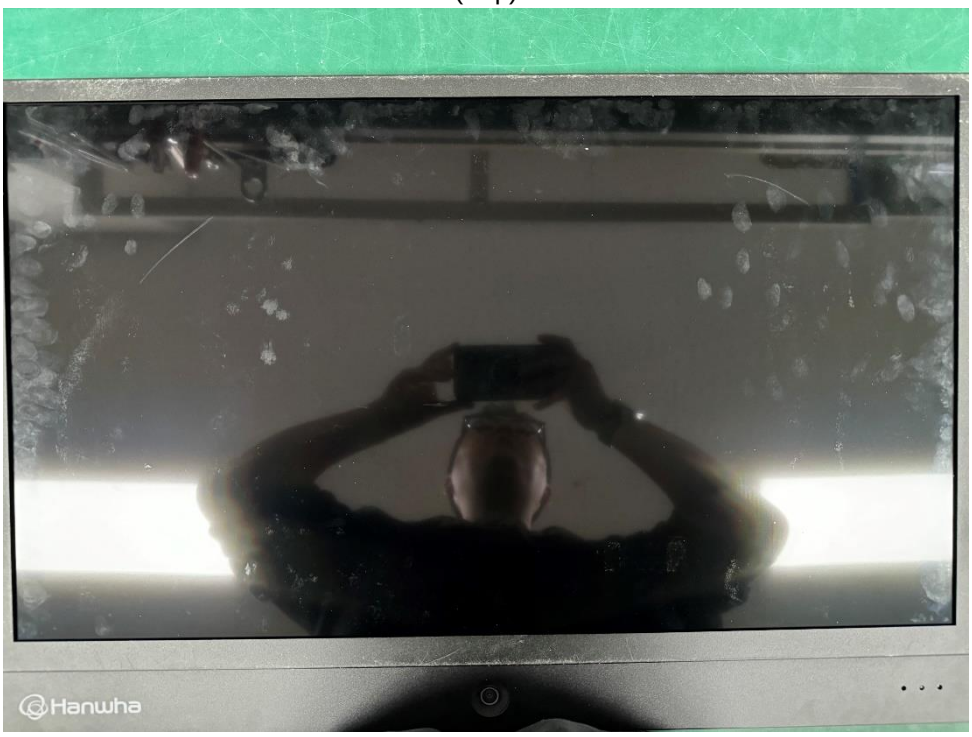


(Bottom)

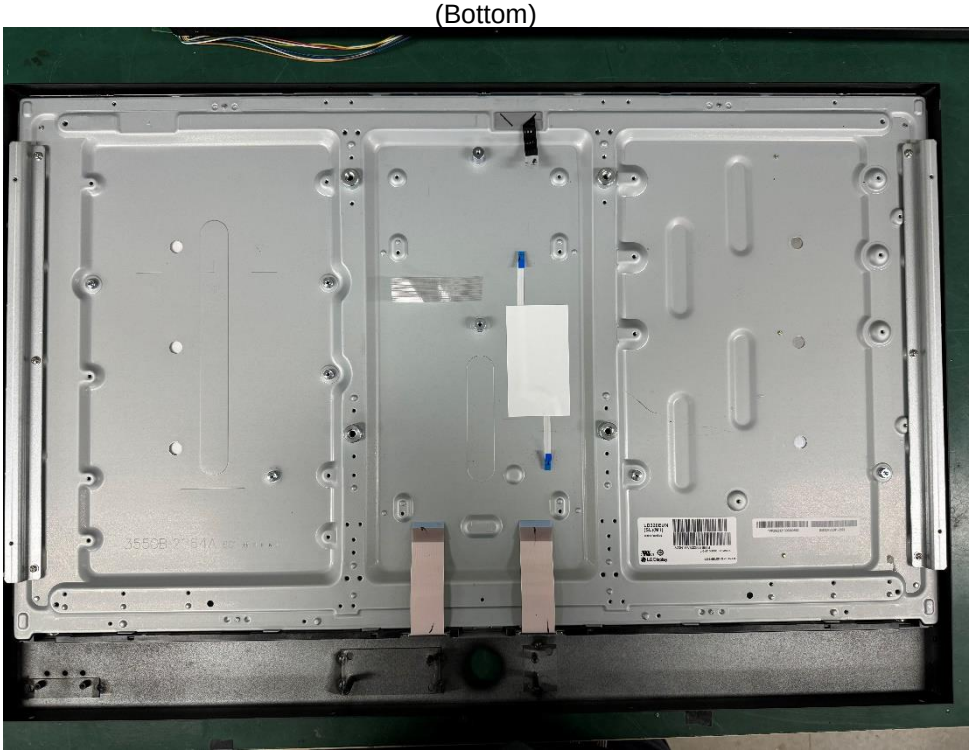


EUT Internal View – Panel

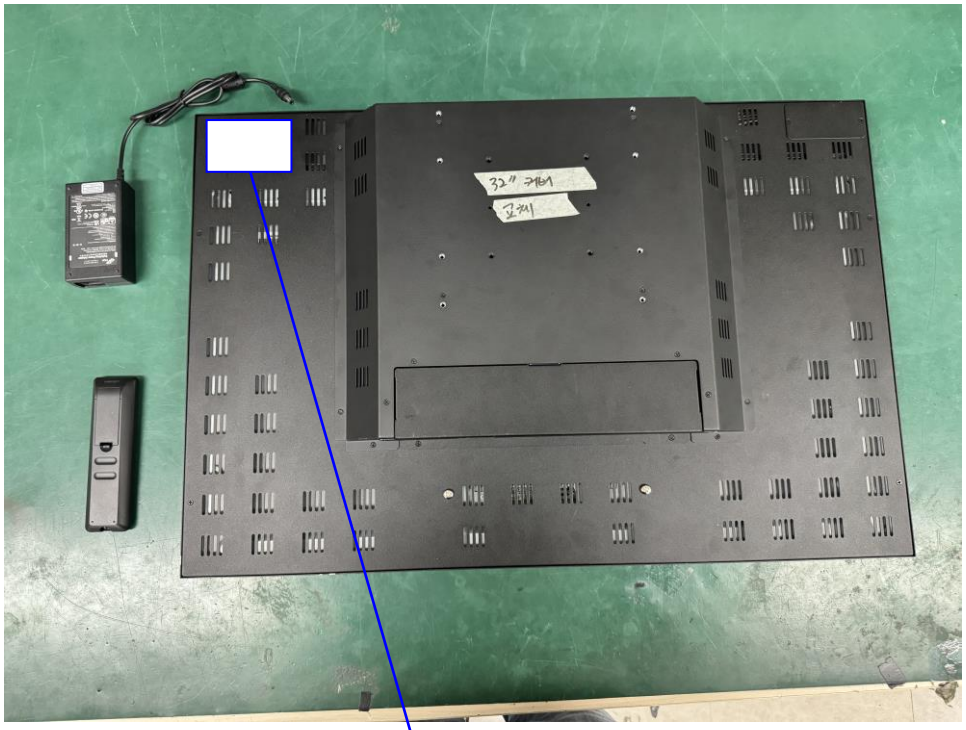
(Top)



(Bottom)



Label and Location



Public view monitor

Model No : SMT-3231PV

Manufacturer : OIC KOREA Co., Ltd.

Made in Korea