TEST REPORT

KES Co., Ltd.
#3002, #3503, #3701, 40, Simin-daero365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057,
Republic of 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-1031PVW

Variant Model : SMT-1031PV

Manufacturer : OIC KOREA Co., Ltd.

Manufacturer Address : 5F, 12, Annam-ro 369beon-gil, Bupyeong-gu, Incheon, 21312, Korea

3. Equipment authorization : Supplier's Declaration of Conformity

3. Date of Receipt : Dec. 22, 2023

4. Test date : Dec. 26, 2023

5. Date of Issue : Jan. 05, 2024

7. Test Results : In Compliance

Tested by

[장성민]2024/01/05

Seong Min Jang
EMC Test Engineer

Reviewed by

[김효진]2024/01/05

Hyo Jin Kim
EMC Assistant 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
Jan. 05, 2024	EM-234364	Issued

TABLE OF CONTENTS

1.0 General Product Description

Main Specifications of EUT are:

		SMT-1031PVW
Brightness		500cd/m²
Contrast Ratio		500:1
Aspect Ratio		16:9
Viewing Angle (H/V)		140° / 120°
Display Color		16.7M Colors
Response Time		20ms
Video System		None
Panel Life		50,000 hours
Filter Type		None
Interface		
Video	Connectors	Camera(Internal)
Composite Video	Input	None
VGA	Connector	None
	Input Signal	None
	Available Format	None
HDMI	Connector	None
	Available Format	None
DP	Connector	None
	Available Format	None
Audio	Connector	None
	Output Signal	Speakers : 8Ω 1Wx 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, POE+ 802.3at
	Power Consumption	14W
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)	245.5mm(W) x 178.2mm(H) x 35.5mm(D)
	Weight with Packing	1.25Kg
	Weight without Packing	900g
	Protection Glass	None
	Cabinet Color	White
	Wall Mounts	None
	VESA Mounts Interface	VESA 75 x 75mm

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 120 V / 60 Hz(AC/DC ADAPTOR) ☒ PoE

1.2 Variant Model Differences

Adding derivatives due to color differences

1.3 Device Modifications

Not applicable

1.4 Equipment Under Test

Description	Model Number	Serial Number	Manufacturer	Remarks
Public view monitor	SMT-1031PVW	-	OIC KOREA Co., Ltd.	EUT
remote controller	-	-	-	EUT

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
Micro SD Card	-	-	SanDisk	-
Adapter	GFD-2401000K	-	-	-
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 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	Adapter	DC Jack	1.0	U
	2 Pin	Button Alarm	2 Pin	3.1	U
	2 Pin	LED Alarm	2 Pin	3.1	U
	IR	remote controller	IR	-	-
	RJ-45	Laptop	RJ-45	3.3	U
Laptop	DC jack	Laptop Adapter	DC jack	1.5	U

* Unshielded=U, Shielded=S

■ PoE 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)	3.3	S
	2 Pin	Button Alarm	2 Pin	3.1	U
	2 Pin	LED Alarm	2 Pin	3.1	U
	IR	remote controller	IR	-	-
PoE Injector	RJ-45	Laptop	RJ-45	2.6	U
Laptop	DC jack	Laptop Adapter	DC jack	1.5	U

* Unshielded=U, Shielded=S

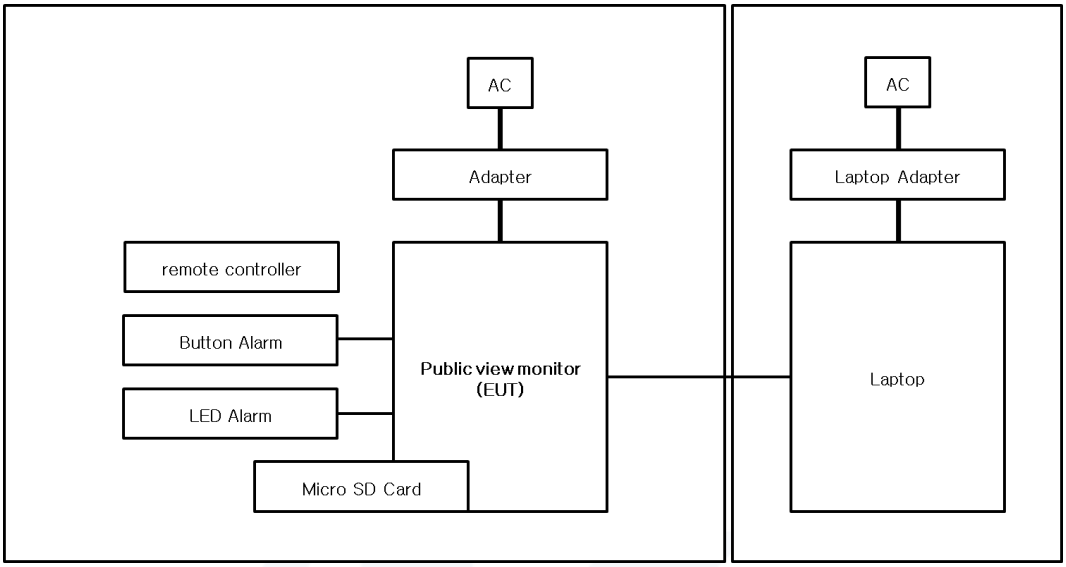
1.7 EUT Operating Mode(s)

Test mode	operating
Operation MODE (DC, PoE)	1. Monitoring EUT Using Web Viewer, 2. Ping Test Mode 3. After the test, check if the EUT video has been recorded normally.

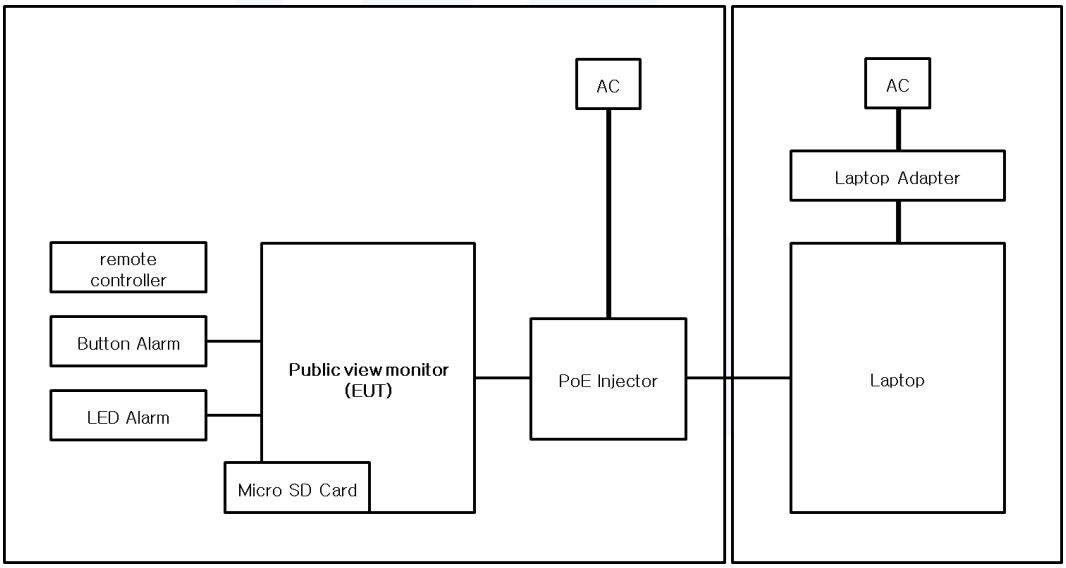
EUT Test operating S/W		
Name	**Version**	**Manufacture Company**
Web Viewer	-	Hanwha Vision Co., Ltd

1.8 Configuration

■ DC Mode



■ PoE Mode



1.9 Remarks when standards applied

The USB port was excluded from the test because it was for administrators.

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:

☒ **47 CFR Part 15, Subpart B**

☐ CISPR 22:2009 +A1:2010	☐ Class A	☐ Class B
☒ ANSI C63.4a-2017	☒ Class A	☐ Class B

☒ **IC Regulation ICES-003 Issue 7**

☐ CAN/CSA-CISPR 32:17	☐ Class A	☐ Class B
☒ ANSI C63.4a-2017	☒ Class A	☐ Class B

2.1 Conducted Emissions at Mains Power Ports

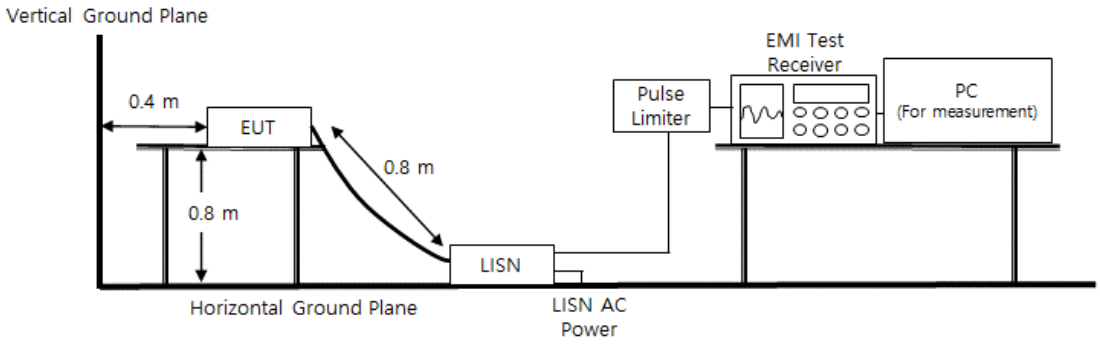
Test Date
Dec. 26, 2023

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, 08, 2024
☒	LISN	ENV216	R & S	101787	11, 08, 2024
☒	LISN	ESH2-Z5	R & S	100450	11, 08, 2024
☒	PULSE LIMITER	ESH3-Z2	R & S	101915	11, 08, 2024

Diagram of test setup



Test Conditions

Temperature: (21,6 ± 0,1) ℃

Relative Humidity: (46,7 ± 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 Radiated Electric Field Emissions(Below 1 ㎓)

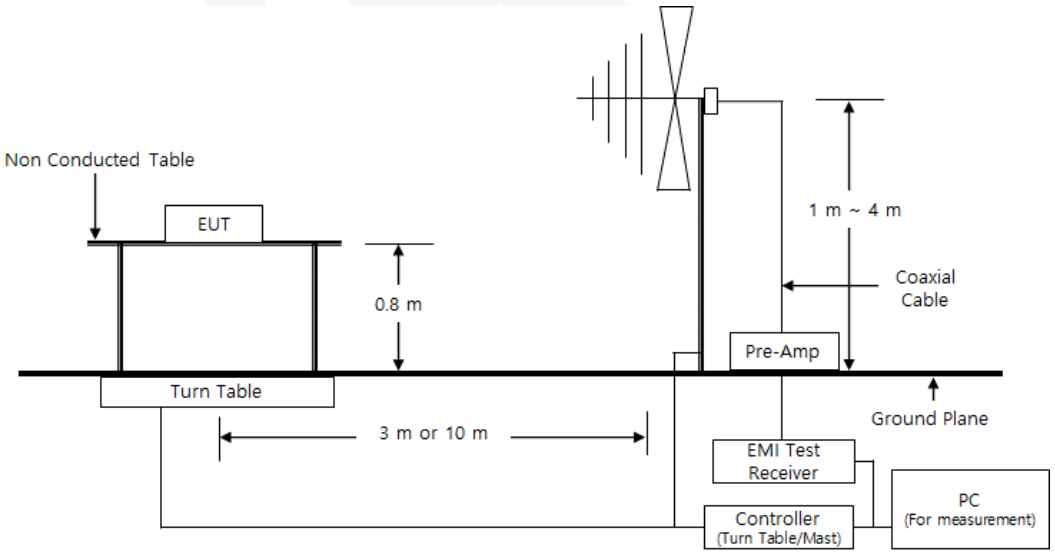
Test Date
Dec. 26, 2023

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, 08, 2024
☒	TRILOG-BROADBAND ANTENNA	VULB9163	Schwarzbeck	715	11, 17, 2024
☒	ATTENUATOR	8491A	HP	32173	03, 03, 2024

Diagram of test setup



Test Conditions

Temperature: (21,9 ± 0,2) ℃

Relative Humidity: (46,0 ± 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.

2.3 Radiated Electric Field Emissions(Above 1 ㎓)

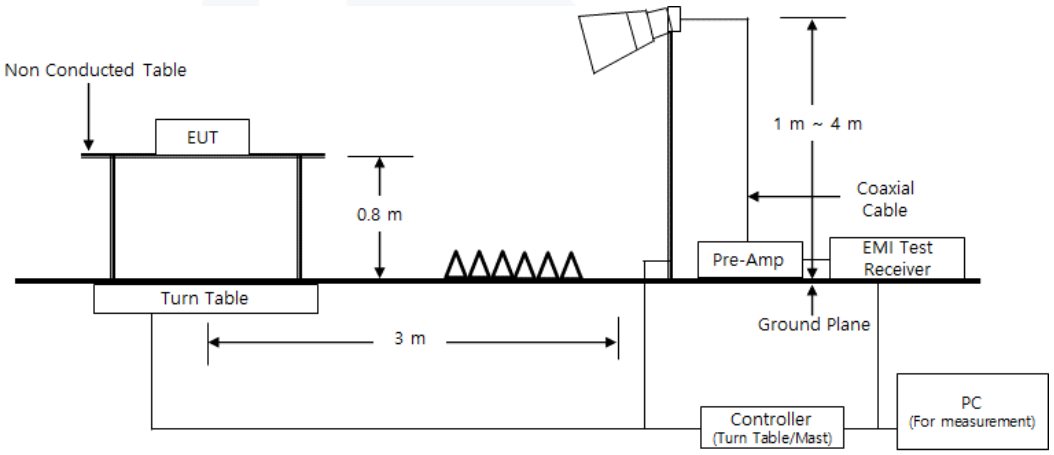
Test Date
Dec. 26, 2023

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, 03, 2024
☒	PREAMPLIFIER	8449B	HP	3008A00538	05, 31, 2024
☒	ATTENUATOR	8491B	HP	23094	03, 21, 2024

Diagram of test setup



Test Conditions

Temperature: (22,4 ± 0,2) ℃
Relative Humidity: (45,3 ± 0,1) % R.H.

Frequency Range of Measurement

1 ㎓ to 5 ㎓

Instrument Settings

IF Band Width: 1 ㎒

Test Results

The requirements are:
☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks

- See Appendix A for test data.
-The Average of the test data is the cispr average result.

APPENDIX A – TEST DATA

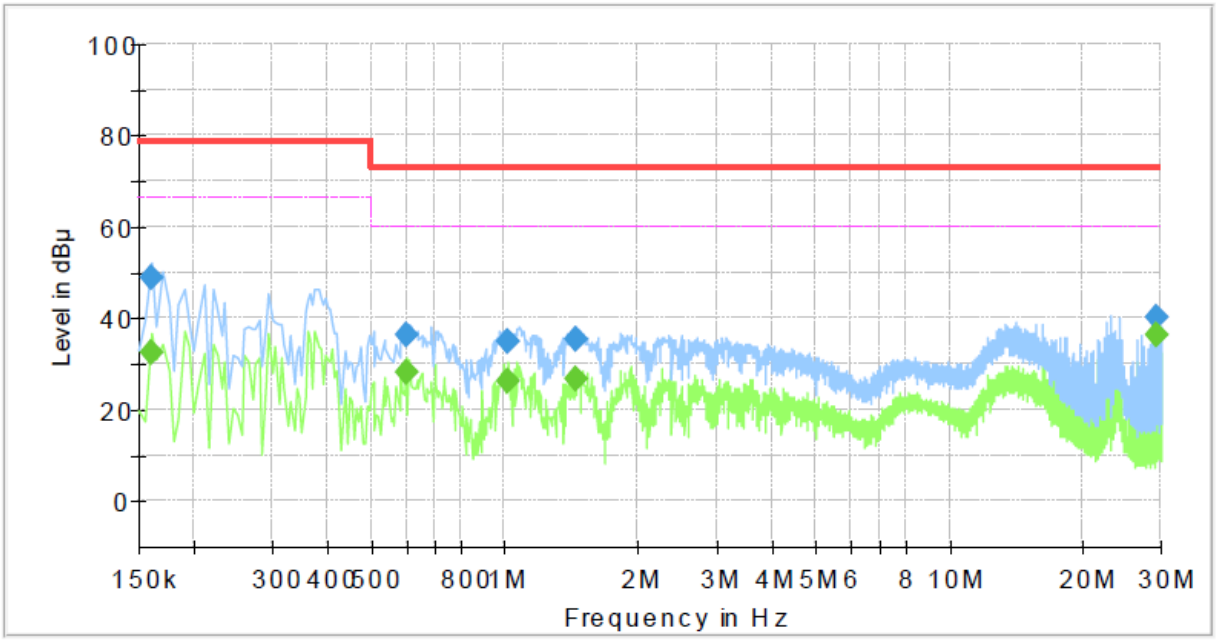
Conducted Emissions at Mains Power Ports

■ DC Mode

HOT LINE

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-1031PVW
Phase:	L1
Mode:	DC
Operator Name:	KES



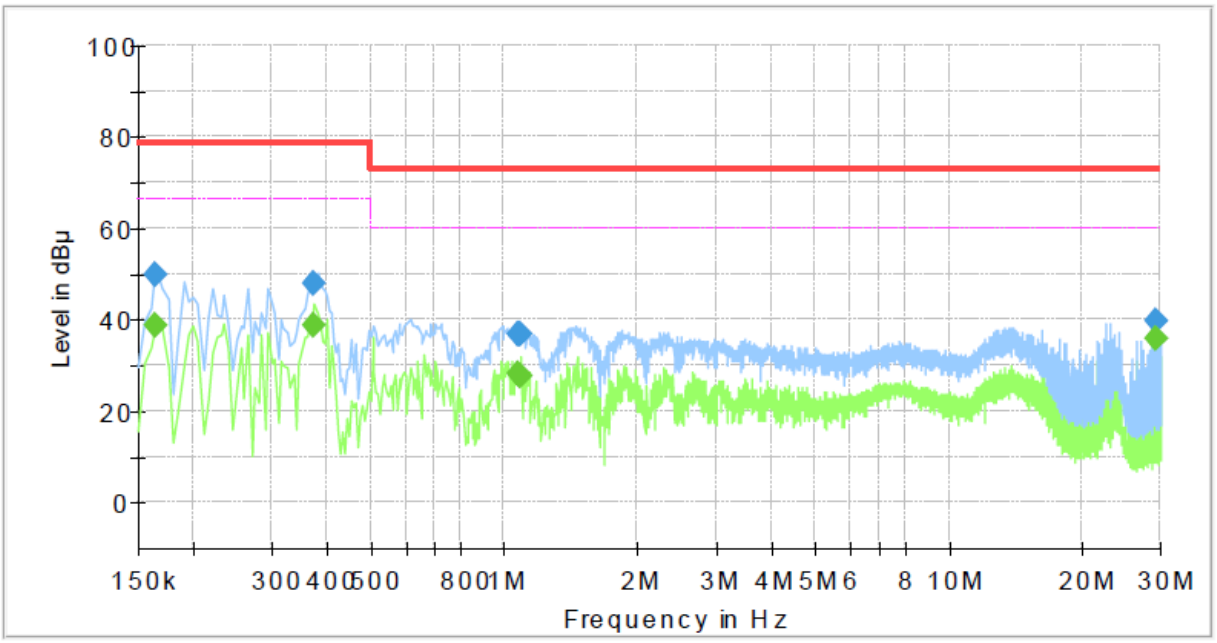
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.160000	---	32.66	66.00	33.34	1000.0	9.000	L1	19.4
0.160000	49.02	---	79.00	29.98	1000.0	9.000	L1	19.4
0.600000	---	27.93	60.00	32.07	1000.0	9.000	L1	19.5
0.600000	36.38	---	73.00	36.62	1000.0	9.000	L1	19.5
1.020000	---	26.33	60.00	33.67	1000.0	9.000	L1	19.5
1.020000	35.08	---	73.00	37.92	1000.0	9.000	L1	19.5
1.440000	---	26.73	60.00	33.27	1000.0	9.000	L1	19.5
1.440000	35.58	---	73.00	37.42	1000.0	9.000	L1	19.5
29.235000	---	36.34	60.00	23.66	1000.0	9.000	L1	20.4
29.235000	40.06	---	73.00	32.94	1000.0	9.000	L1	20.4

NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-1031PVW
Phase:	N
Mode:	DC
Operator Name:	KES



Final_Result

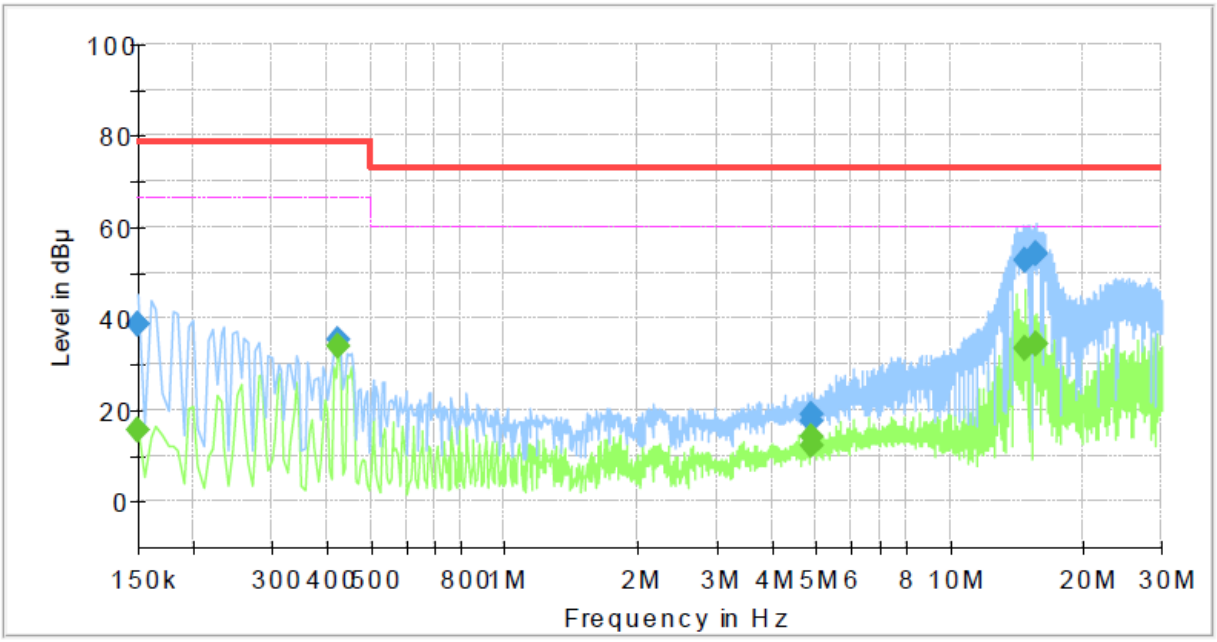
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.165000	---	38.69	66.00	27.31	1000.0	9.000	N	19.3
0.165000	49.69	---	79.00	29.31	1000.0	9.000	N	19.3
0.375000	---	38.49	66.00	27.51	1000.0	9.000	N	19.4
0.375000	47.92	---	79.00	31.08	1000.0	9.000	N	19.4
1.075000	---	28.31	60.00	31.69	1000.0	9.000	N	19.5
1.075000	37.03	---	73.00	35.97	1000.0	9.000	N	19.5
1.090000	---	27.49	60.00	32.51	1000.0	9.000	N	19.5
1.090000	36.93	---	73.00	36.07	1000.0	9.000	N	19.5
29.235000	---	35.79	60.00	24.21	1000.0	9.000	N	20.4
29.235000	39.50	---	73.00	33.50	1000.0	9.000	N	20.4

■ PoE Mode

HOT LINE

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-1031PVW
Phase:	L1
Mode:	PoE
Operator Name:	KES



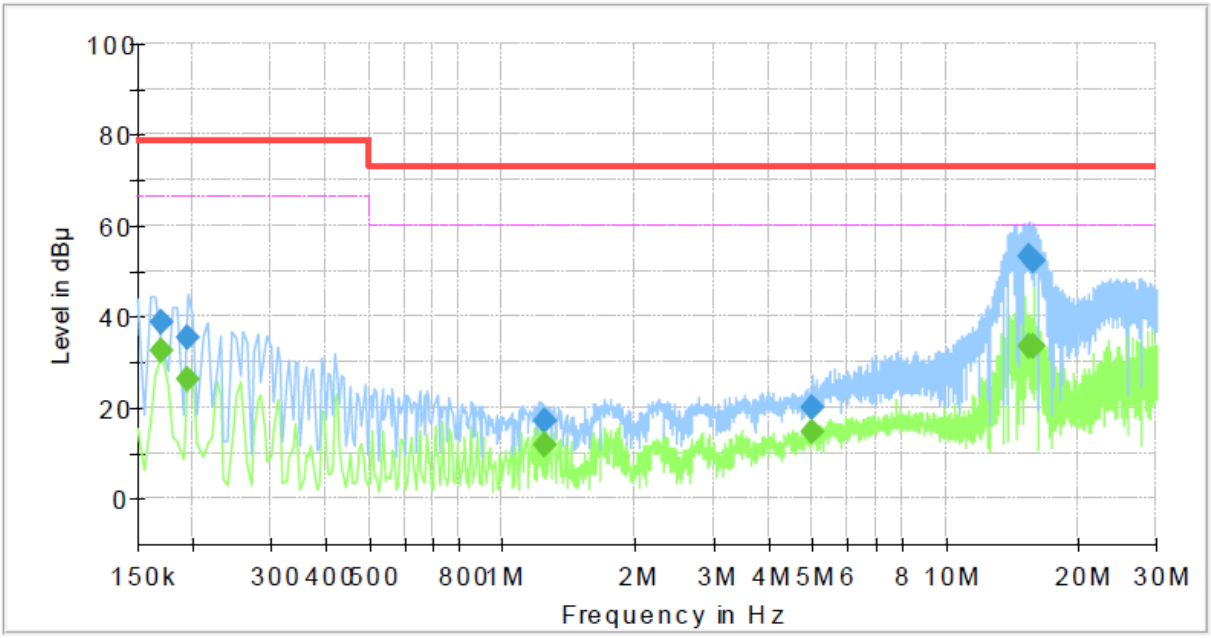
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	---	15.39	66.00	50.61	1000.0	9.000	L1	19.4
0.150000	38.58	---	79.00	40.42	1000.0	9.000	L1	19.4
0.425000	---	34.00	66.00	32.00	1000.0	9.000	L1	19.5
0.425000	35.41	---	79.00	43.59	1000.0	9.000	L1	19.5
4.880000	---	12.37	60.00	47.63	1000.0	9.000	L1	19.8
4.880000	17.36	---	73.00	55.64	1000.0	9.000	L1	19.8
4.905000	---	14.35	60.00	45.65	1000.0	9.000	L1	19.8
4.905000	19.01	---	73.00	53.99	1000.0	9.000	L1	19.8
14.860000	---	33.33	60.00	26.67	1000.0	9.000	L1	20.1
14.860000	52.84	---	73.00	20.16	1000.0	9.000	L1	20.1
15.705000	---	34.46	60.00	25.54	1000.0	9.000	L1	20.2
15.705000	54.34	---	73.00	18.66	1000.0	9.000	L1	20.2

NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-1031PVW
Phase:	N
Mode:	PoE
Operator Name:	KES



Final_Result

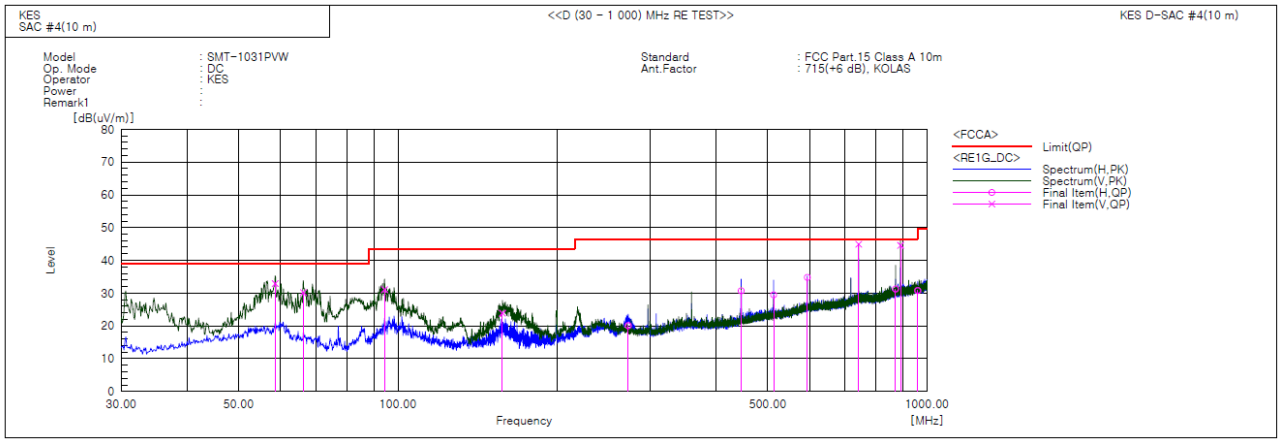
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.170000	---	32.36	66.00	33.64	1000.0	9.000	N	19.3
0.170000	38.72	---	79.00	40.28	1000.0	9.000	N	19.3
0.195000	---	26.00	66.00	40.00	1000.0	9.000	N	19.4
0.195000	35.22	---	79.00	43.78	1000.0	9.000	N	19.4
1.250000	---	11.63	60.00	48.37	1000.0	9.000	N	19.5
1.250000	17.20	---	73.00	55.80	1000.0	9.000	N	19.5
5.030000	---	14.43	60.00	45.57	1000.0	9.000	N	19.8
5.030000	19.71	---	73.00	53.29	1000.0	9.000	N	19.8
15.495000	---	33.41	60.00	26.59	1000.0	9.000	N	20.2
15.495000	53.35	---	73.00	19.65	1000.0	9.000	N	20.2
15.865000	---	33.50	60.00	26.50	1000.0	9.000	N	20.2
15.865000	52.26	---	73.00	20.74	1000.0	9.000	N	20.2

♦ 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 (LISN FACTOR + (Cable Loss + Pulse Limiter FACTOR))

Radiated Electric Field Emissions(Below 1 ㎓)

■ DC Mode

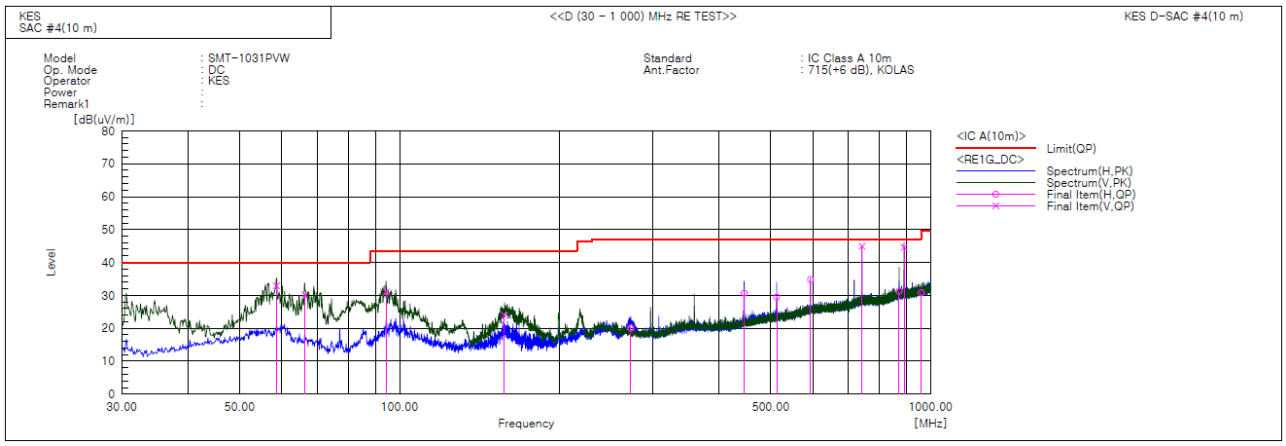
- 47 CFR Part 15, Subpart B



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	58.615	V	54.7	-21.8	32.9	39.0	6.1	103.0	111.0	
2	66.254	V	53.9	-23.7	30.2	39.0	8.8	100.0	141.0	
3	94.384	V	54.0	-22.9	31.1	43.5	12.4	101.0	249.0	
4	157.555	V	48.8	-24.9	23.9	43.5	19.6	106.0	312.0	
5	272.500	H	38.4	-18.3	20.1	46.5	26.4	397.0	206.0	
6	445.524	H	43.6	-12.9	30.7	46.5	15.8	208.0	228.0	
7	512.939	H	40.2	-10.7	29.5	46.5	17.0	396.0	202.0	
8	594.055	H	42.9	-8.1	34.8	46.5	11.7	400.0	330.0	
9	742.465	V	50.1	-5.2	44.9	46.5	1.6	167.0	303.0	
10	871.960	H	34.8	-3.5	31.3	46.5	15.2	399.0	149.0	
11	891.118	V	47.8	-3.2	44.6	46.5	1.9	161.0	167.0	
12	960.351	H	33.3	-2.5	30.8	49.5	18.7	400.0	127.0	

- IC Regulation ICES-003 Issue 7

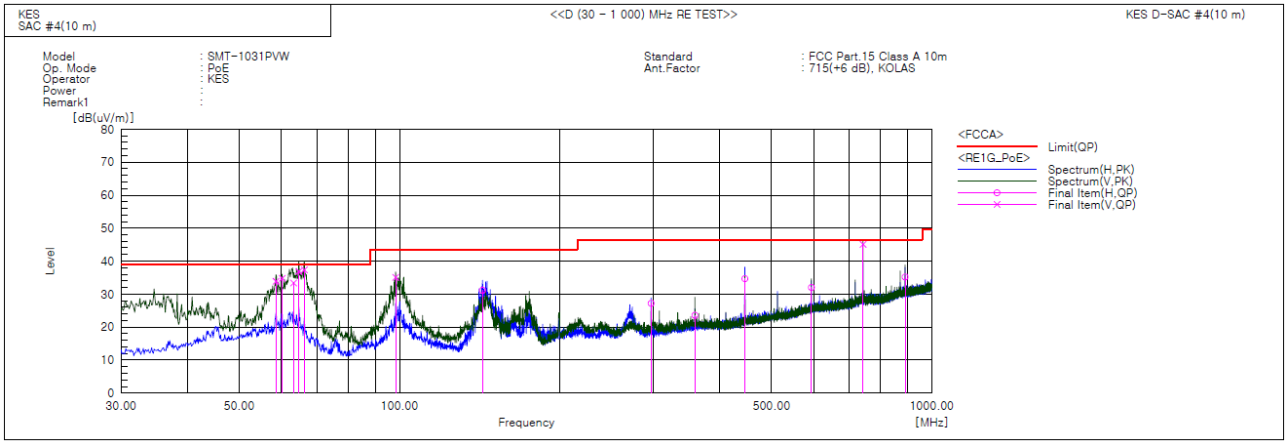


Final Result

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	58.615	V	54.7	-21.8	32.9	40.0	7.1	103.0	111.0	
2	66.254	V	53.9	-23.7	30.2	40.0	9.8	100.0	141.0	
3	94.384	V	54.0	-22.9	31.1	43.5	12.4	101.0	249.0	
4	157.555	V	48.8	-24.9	23.9	43.5	19.6	106.0	312.0	
5	272.500	H	38.4	-18.3	20.1	47.0	26.9	397.0	206.0	
6	445.524	H	43.6	-12.9	30.7	47.0	16.3	208.0	228.0	
7	512.939	H	40.2	-10.7	29.5	47.0	17.5	396.0	202.0	
8	594.055	H	42.9	-8.1	34.8	47.0	12.2	400.0	330.0	
9	742.465	V	50.1	-5.2	44.9	47.0	2.1	167.0	303.0	
10	871.960	H	34.8	-3.5	31.3	47.0	15.7	399.0	149.0	
11	891.118	V	47.8	-3.2	44.6	47.0	2.4	161.0	167.0	
12	960.351	H	33.3	-2.5	30.8	49.5	18.7	400.0	127.0	

■ PoE Mode

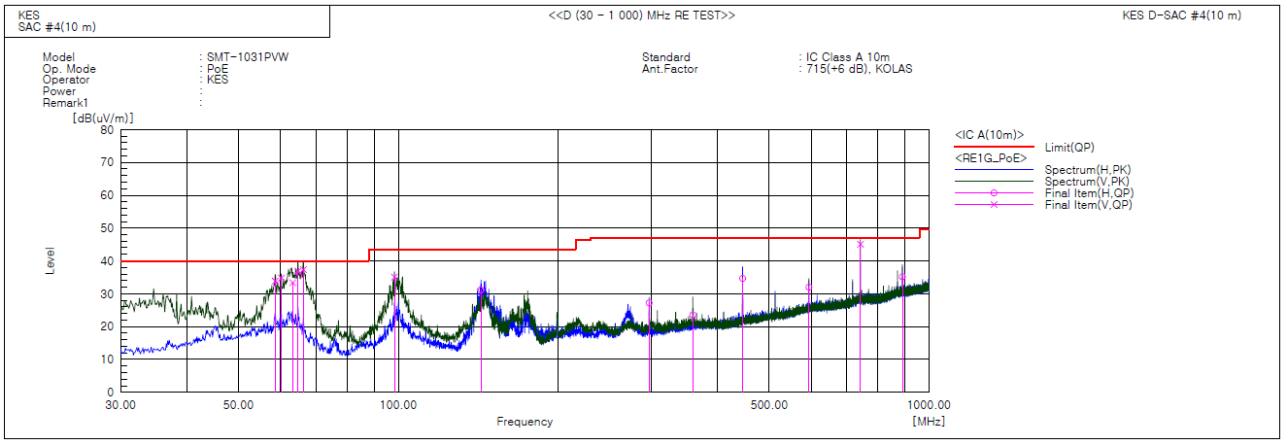
- 47 CFR Part 15, Subpart B



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	58.615	V	55.7	-21.8	33.9	39.0	5.1	107.0	191.0	
2	60.191	V	56.9	-22.1	34.8	39.0	4.2	111.0	254.0	
3	63.223	V	56.2	-22.8	33.4	39.0	5.6	100.0	210.0	
4	64.678	V	60.1	-23.2	36.9	39.0	2.1	102.0	318.0	
5	66.254	V	61.1	-23.7	37.4	39.0	1.6	100.0	258.0	
6	98.350	V	57.5	-22.4	35.1	43.5	8.4	150.0	236.0	
7	143.248	H	56.4	-25.2	31.2	43.5	12.3	400.0	178.0	
8	296.993	H	44.8	-17.6	27.2	46.5	19.3	399.0	189.0	
9	359.073	H	38.3	-14.7	23.6	46.5	22.9	400.0	189.0	
10	445.524	H	47.6	-12.9	34.7	46.5	11.8	386.0	187.0	
11	594.055	H	40.1	-8.1	32.0	46.5	14.5	366.0	348.0	
12	742.465	V	50.3	-5.2	45.1	46.5	1.4	162.0	303.0	
13	891.118	H	38.4	-3.2	35.2	46.5	11.3	389.0	322.0	

- IC Regulation ICES-003 Issue 7



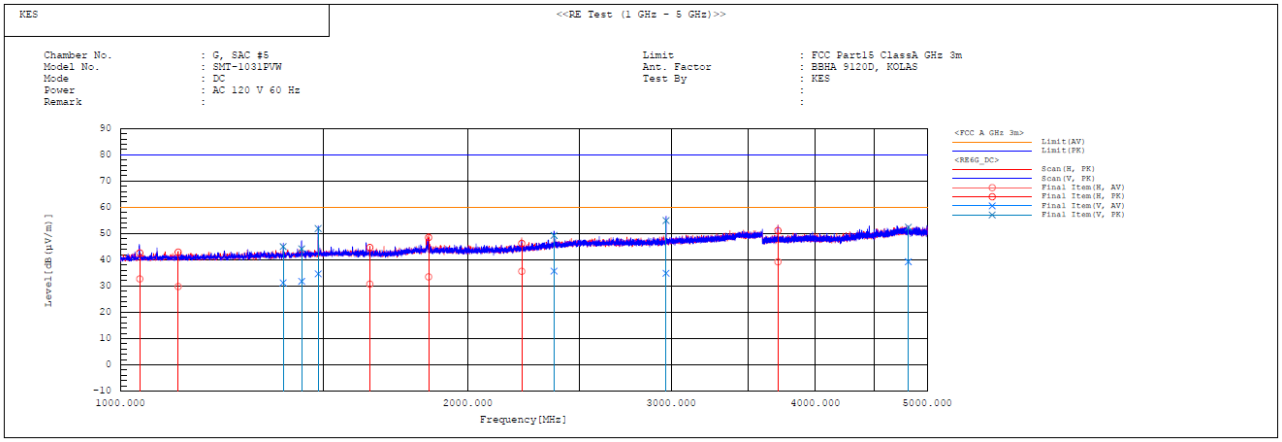
Final Result

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	58.615	V	55.7	-21.8	33.9	40.0	6.1	107.0	191.0	
2	60.191	V	56.9	-22.1	34.8	40.0	5.2	111.0	254.0	
3	63.223	V	56.2	-22.8	33.4	40.0	6.6	100.0	210.0	
4	64.678	V	60.1	-23.2	36.9	40.0	3.1	102.0	318.0	
5	66.254	V	61.1	-23.7	37.4	40.0	2.6	100.0	258.0	
6	98.350	V	57.5	-22.4	35.1	43.5	8.4	150.0	236.0	
7	143.248	H	56.4	-25.2	31.2	43.5	12.3	400.0	178.0	
8	296.993	H	44.8	-17.6	27.2	47.0	19.8	399.0	189.0	
9	359.073	H	38.3	-14.7	23.6	47.0	23.4	400.0	189.0	
10	445.524	H	47.6	-12.9	34.7	47.0	12.3	386.0	187.0	
11	594.055	H	40.1	-8.1	32.0	47.0	15.0	366.0	348.0	
12	742.465	V	50.3	-5.2	45.1	47.0	1.9	162.0	303.0	
13	891.118	H	38.4	-3.2	35.2	47.0	11.8	389.0	322.0	

♦ 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 ㎓)

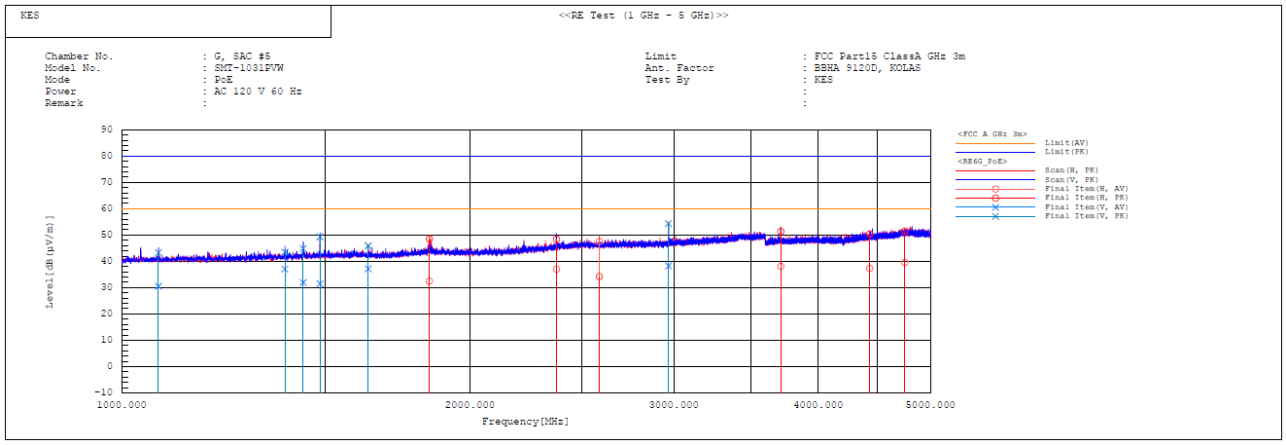
■ DC Mode



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	1039.984	H	34.5	44.4	-1.8	32.7	42.6	60.0	80.0	27.3	37.4	186.0	12.4	
2	1122.632	H	31.1	44.2	-1.3	29.8	42.9	60.0	80.0	30.2	37.1	109.0	266.3	
3	1384.217	V	31.2	45.0	0.0	31.2	45.0	60.0	80.0	28.8	35.0	142.0	0.5	
4	1436.009	V	31.5	43.9	0.3	31.8	44.2	60.0	80.0	28.2	35.8	163.0	0.5	
5	1484.177	V	34.1	51.4	0.5	34.6	51.9	60.0	80.0	25.4	28.1	102.0	301.2	
6	1645.001	H	29.5	43.5	1.2	30.7	44.7	60.0	80.0	29.3	35.3	107.0	289.9	
7	1849.547	H	31.5	46.5	2.0	33.5	48.5	60.0	80.0	26.5	31.5	276.0	48.9	
8	2227.001	H	32.1	42.7	3.5	35.6	46.2	60.0	80.0	24.4	33.8	203.0	359.1	
9	2375.474	V	31.5	45.1	4.2	35.7	49.3	60.0	80.0	24.3	30.7	110.0	314.9	
10	2970.218	V	28.6	48.7	6.2	34.8	54.9	60.0	80.0	25.2	25.1	175.0	352.2	
11	3712.471	H	31.7	43.6	7.5	39.2	51.1	60.0	80.0	20.8	28.9	126.0	1.7	
12	4816.403	V	27.6	40.8	11.6	39.2	52.4	60.0	80.0	20.8	27.6	399.0	150.5	

■ PoE 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	1076.329	V	32.1	44.9	-1.6	30.5	43.3	60.0	80.0	29.5	36.7	163.0	222.6	
2	1384.328	V	37.0	43.5	0.0	37.0	43.5	60.0	80.0	23.0	36.5	100.0	351.2	
3	1435.241	V	31.6	44.5	0.3	31.9	44.8	60.0	80.0	28.1	35.2	173.0	8.5	
4	1484.263	V	31.0	48.8	0.5	31.5	49.3	60.0	80.0	28.5	30.7	103.0	310.4	
5	1633.329	V	35.9	44.7	1.2	37.1	45.9	60.0	80.0	22.9	34.1	116.0	341.5	
6	1845.321	H	30.5	46.5	2.0	32.5	48.5	60.0	80.0	27.5	31.5	383.0	249.4	
7	2376.039	H	32.8	44.2	4.2	37.0	48.4	60.0	80.0	23.0	31.6	226.0	12.9	
8	2587.318	H	42.6	29.2	5.0	47.6	34.2	60.0	80.0	12.4	45.8	203.0	285.2	
9	2969.329	V	32.1	48.2	6.1	38.2	54.3	60.0	80.0	21.8	25.7	115.0	307.1	
10	3712.841	H	30.6	43.8	7.5	38.1	51.3	60.0	80.0	21.9	28.7	203.0	346.3	
11	4430.333	H	26.9	40.0	10.4	37.3	50.4	60.0	80.0	22.7	29.6	108.0	115.8	
12	4752.771	H	28.3	40.2	11.3	39.6	51.5	60.0	80.0	20.4	28.5	385.0	46.9	

♦ 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

Test Setup Photos and Configuration

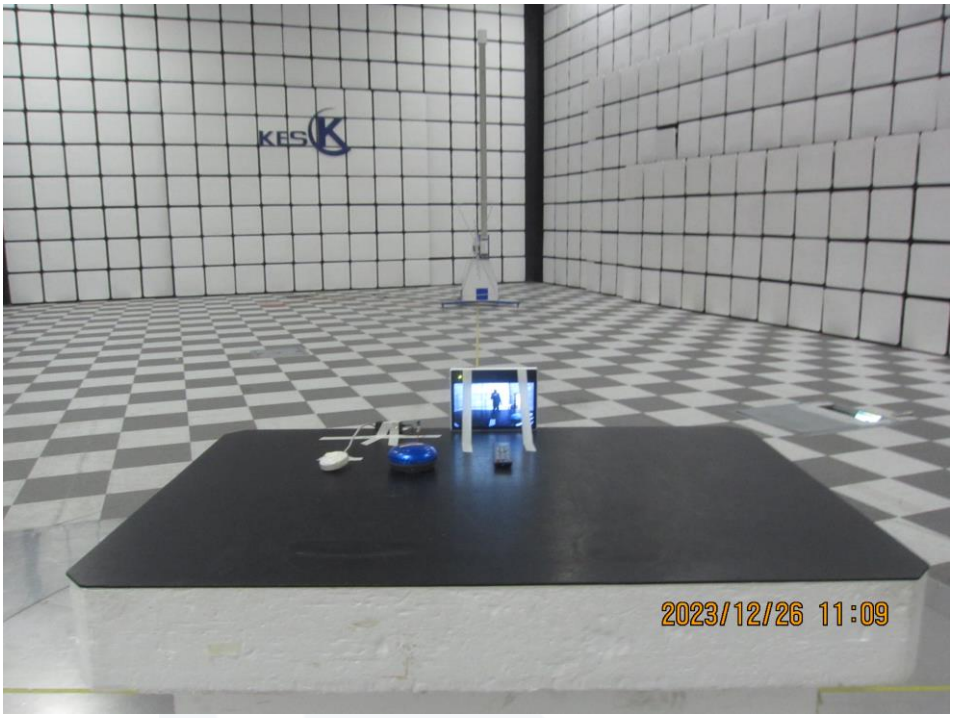
Conducted Emissions at Mains Power Ports

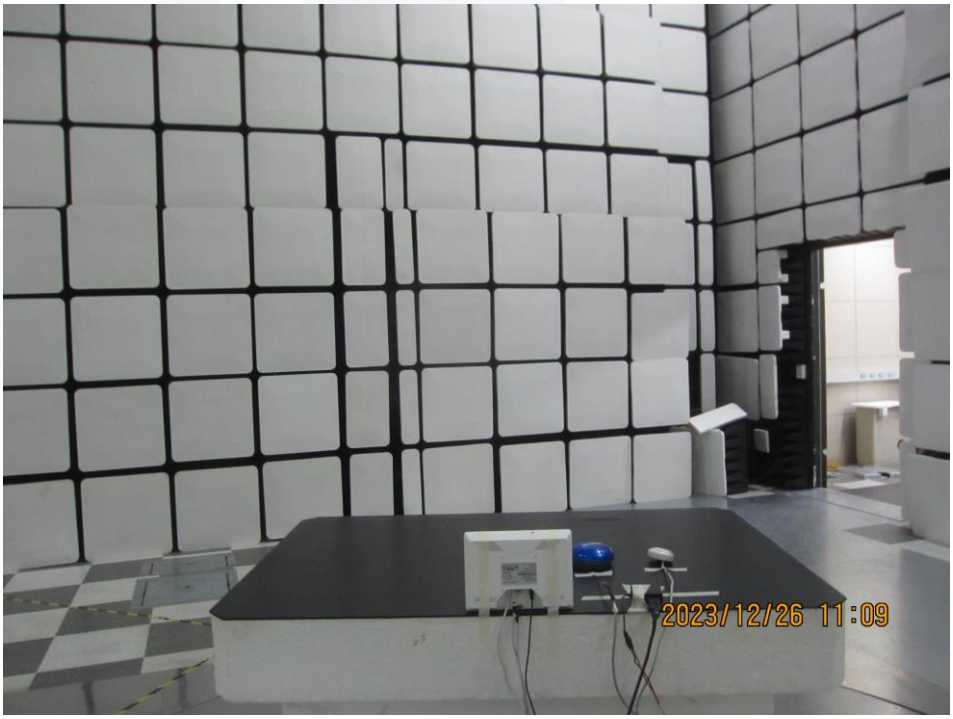
■ DC Mode

■ PoE Mode

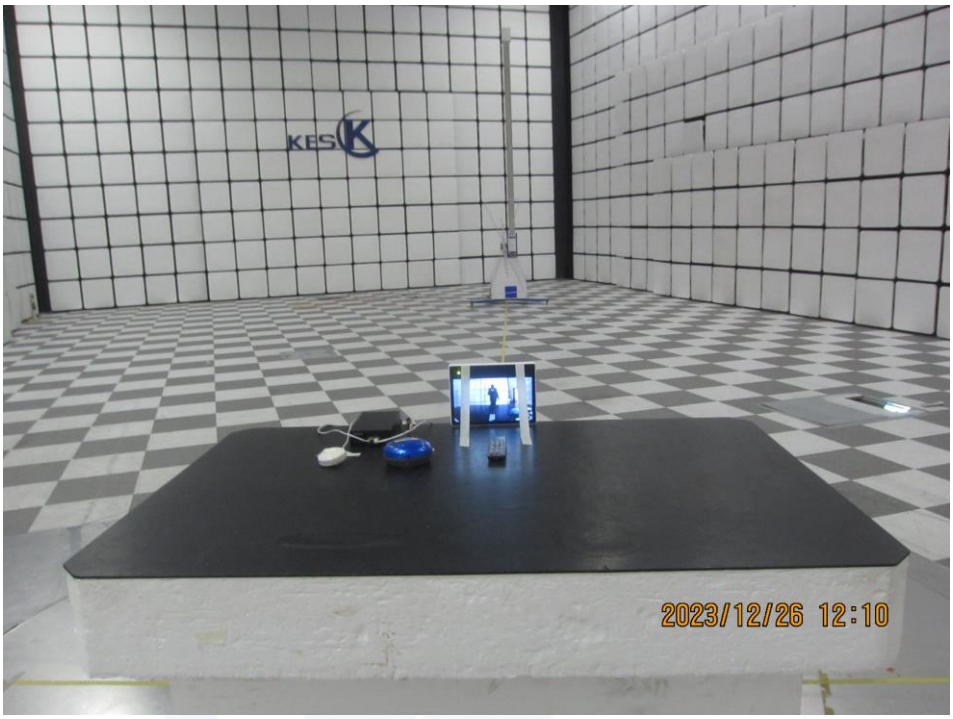
Radiated Electric Field Emissions(Below 1 ㎓)

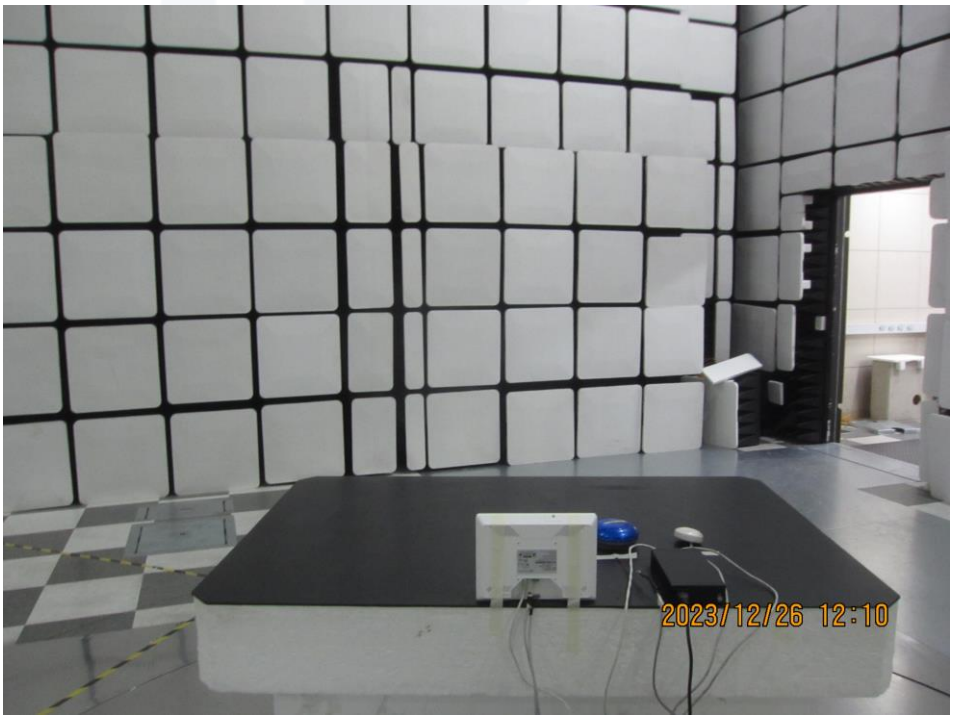
■ DC Mode





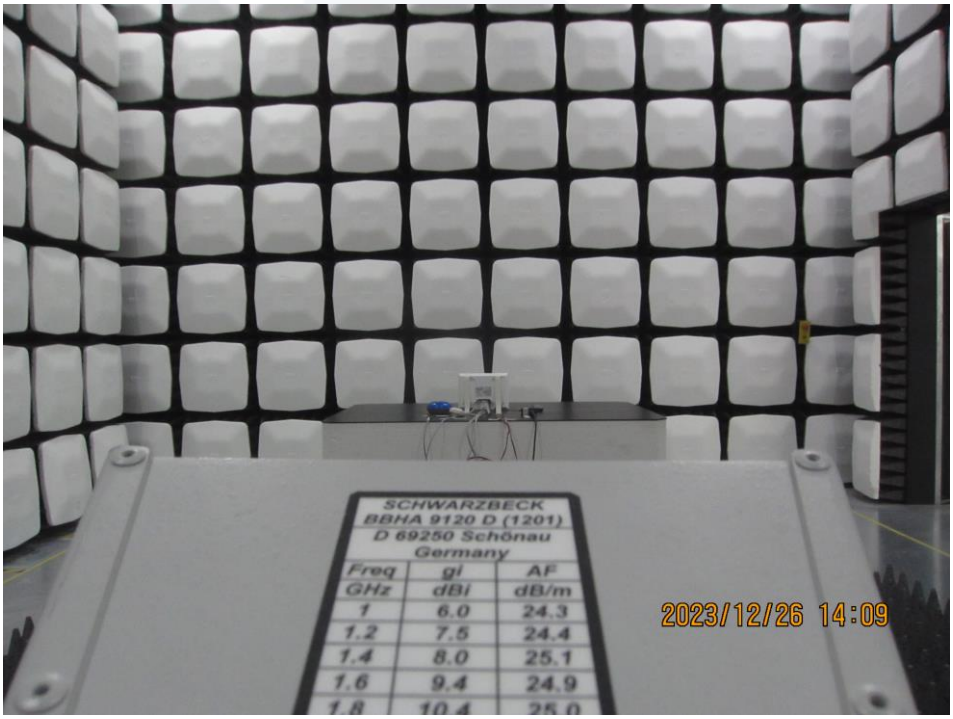
■ PoE Mode



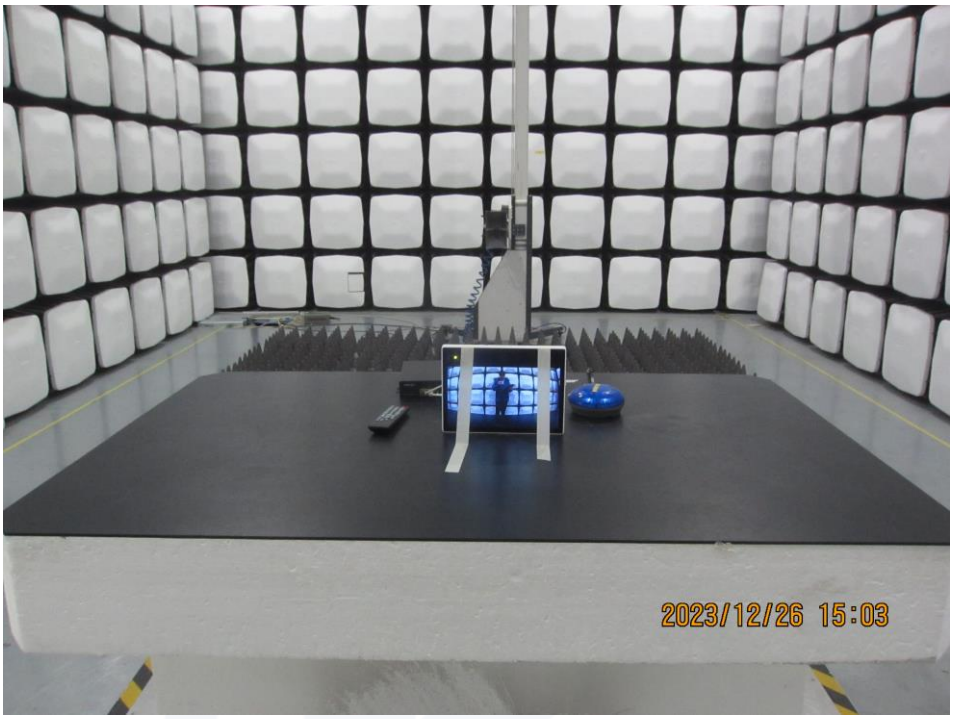


Radiated Electric Field Emissions(Above 1 ㎓)

■ DC Mode



■ PoE Mode



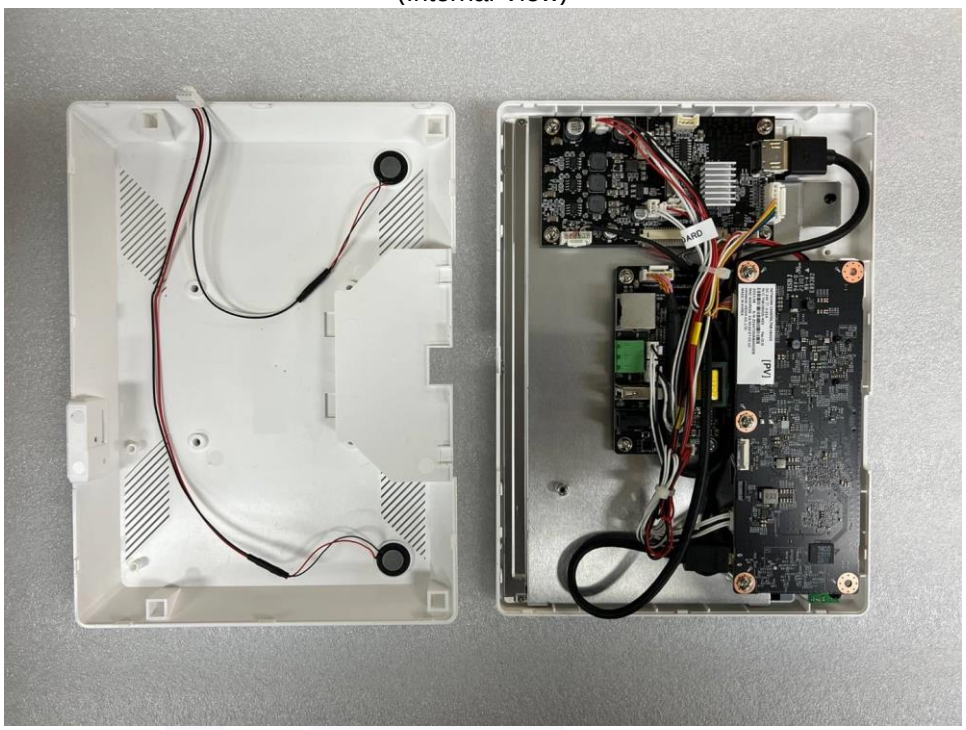
EUT External Photographs

(Top)

(Bottom)

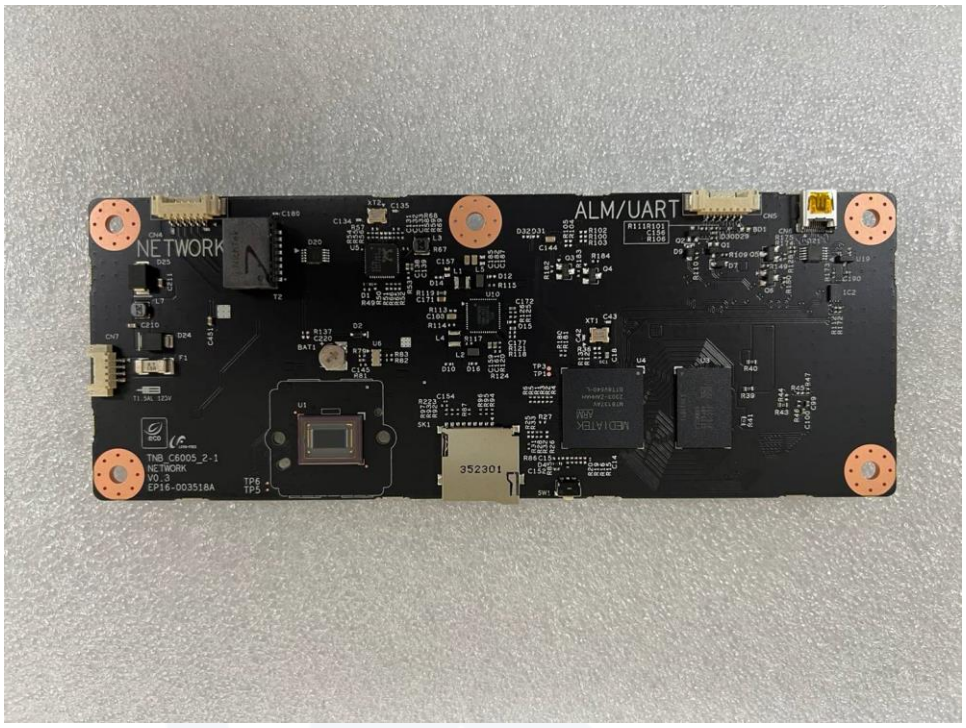
EUT Internal Photographs

(Internal View)

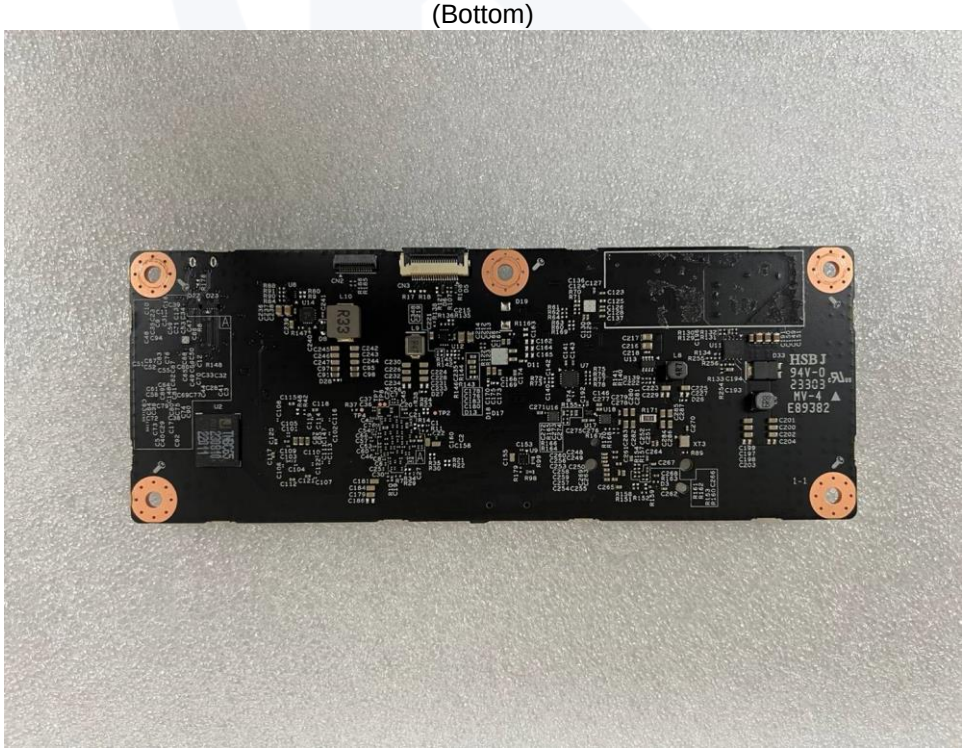


EUT Internal View – Board 1

(Top)

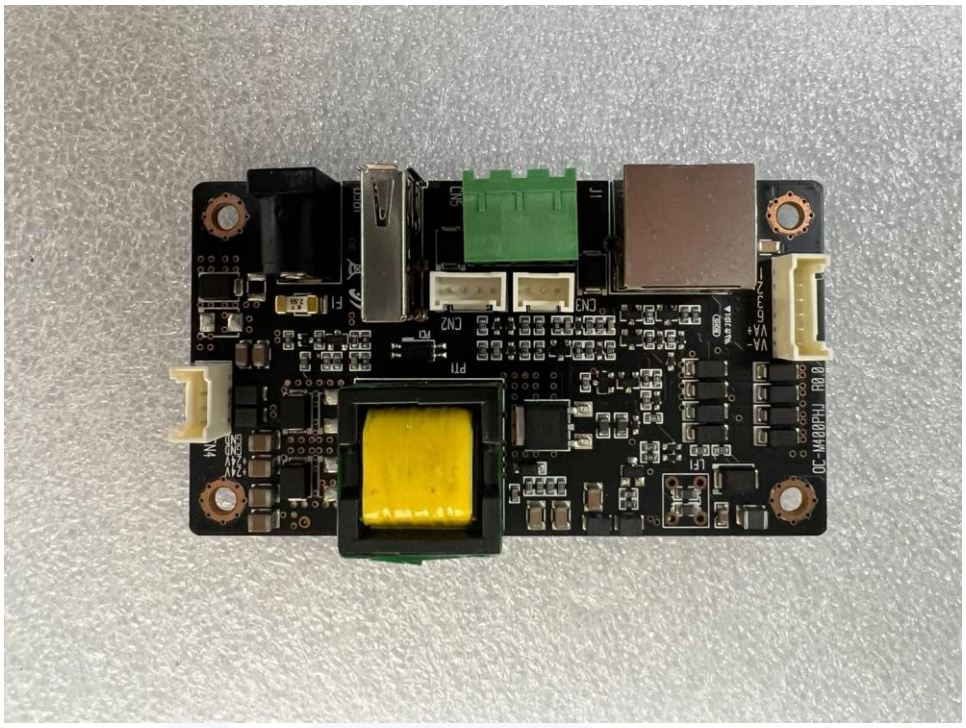


(Bottom)

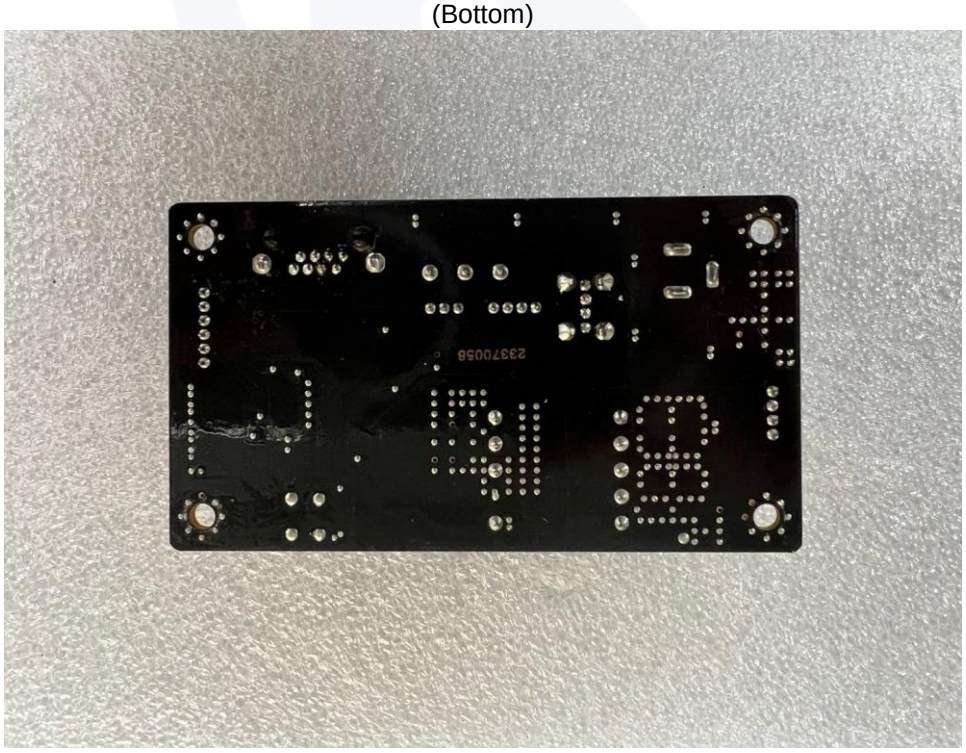


EUT Internal View – Board 2

(Top)

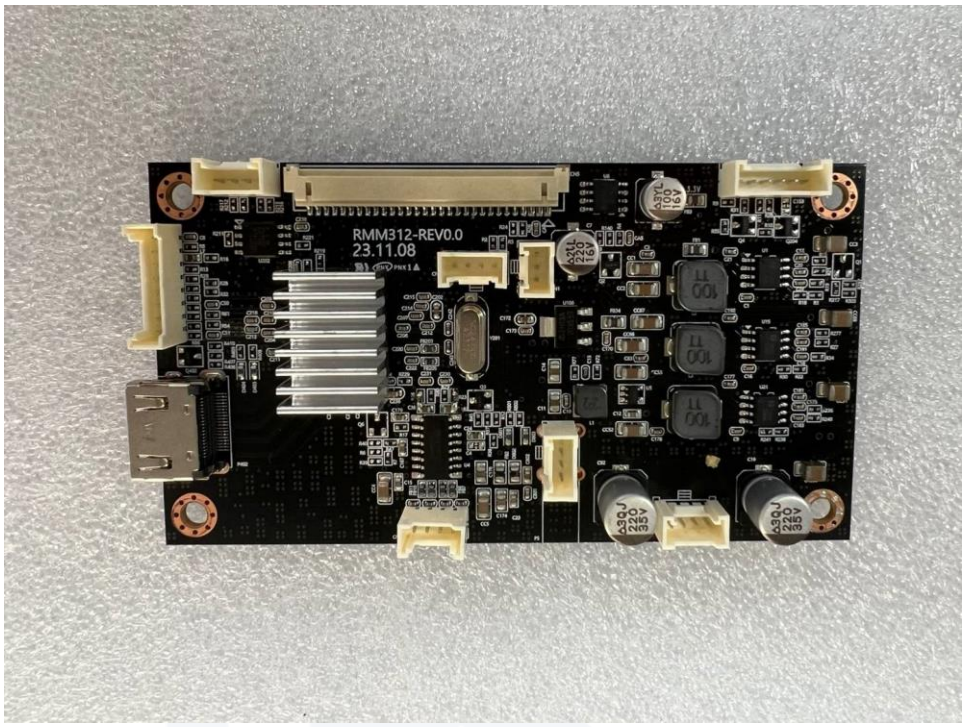


(Bottom)

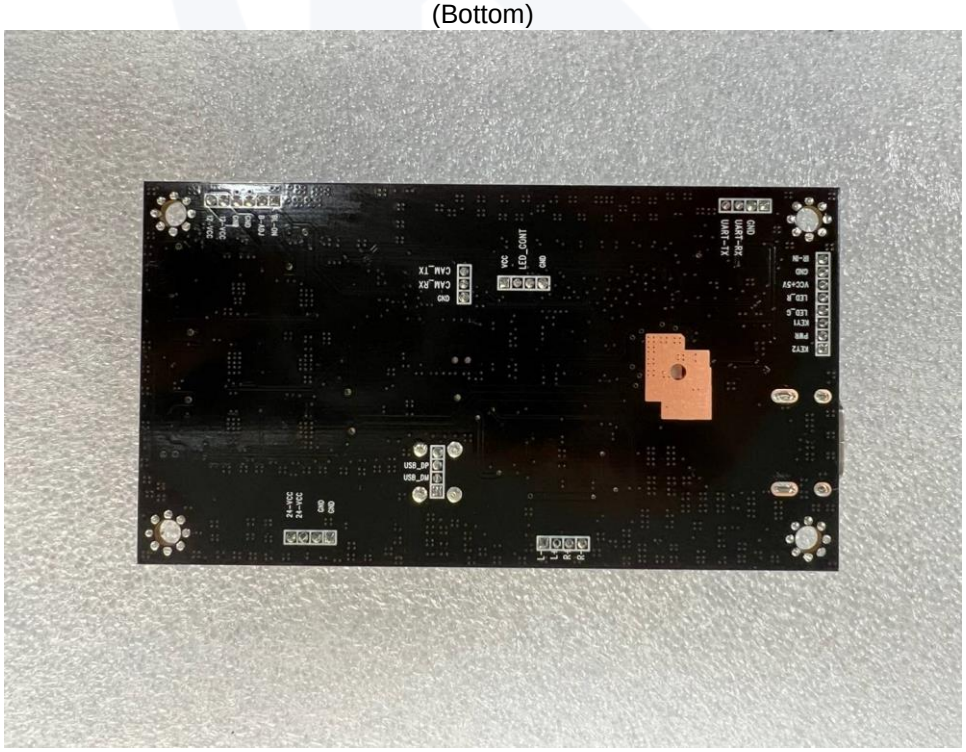


EUT Internal View – Board 3

(Top)



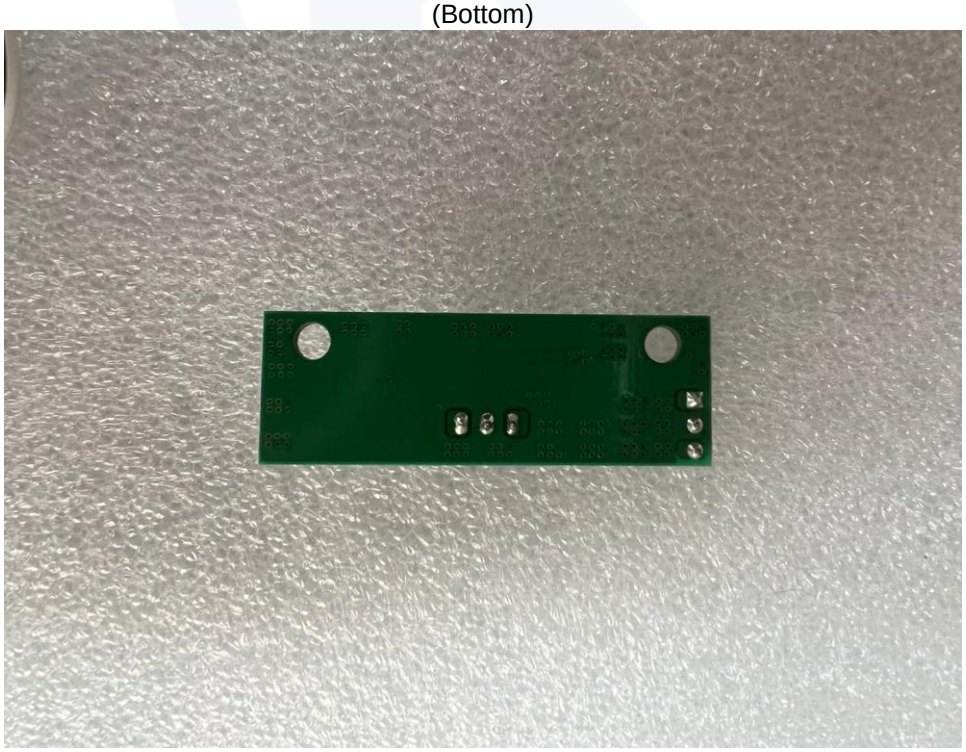
(Bottom)



EUT Internal View – Board 4

(Top)

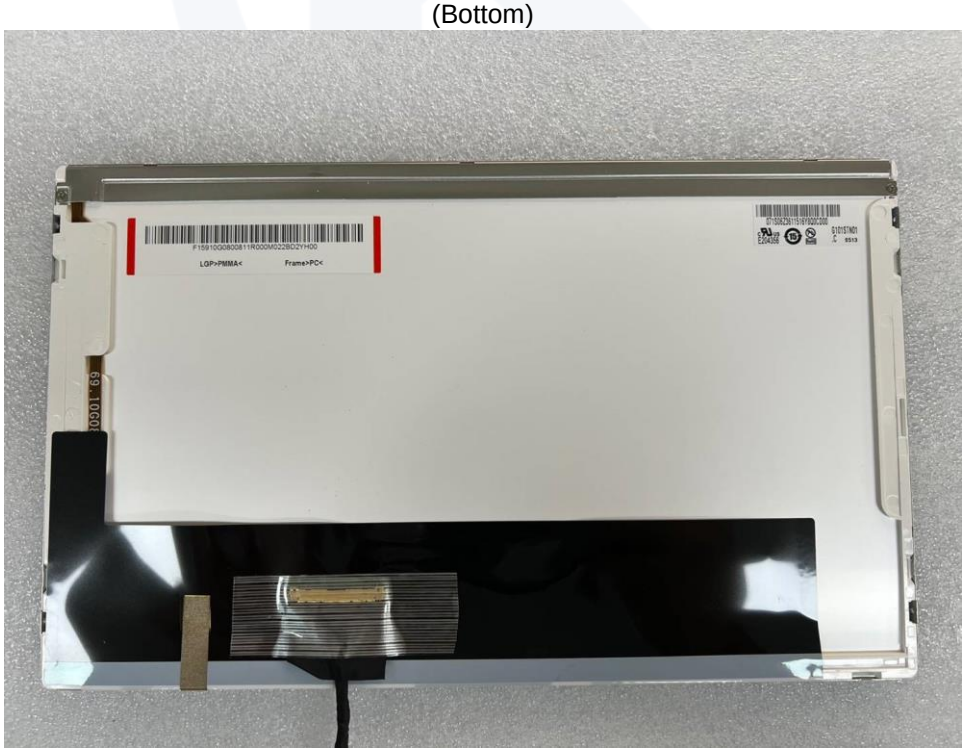
(Bottom)



EUT Internal View – LCD

(Top)

(Bottom)



Label Photographs

FCC Label

Public view monitor

SMT-1031PVW

IC Label

CAN ICES-003(A) / NMB-003(A)

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.