



TEST REPORT



Report No. : KES-EM252069
Page 1 / 36

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 : +82-31-341-3838

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 : NETWORK CAMERA
Model/Type No. : XNB-A8004
Variant Model : -
Manufacturer : 1. HANWHA VISION VIETNAM COMPANY LIMITED
2. D-TECH CO.,LTD.
Manufacturer Address : 1. Lot O-2, Que Vo Industrial Zone Extended Area, Nam Son Ward, Bac Ninh Province, Vietnam
2. 173-25, Saneop-ro, Gwonseon-gu, Suwon-si, Gyeonggi- do, Korea (Suwon Industrial Complex)

3. Date of Receipt : Jun. 09, 2025

4. Test date : Jul. 16, 2025 ~ Jul. 17, 2025

5. Date of Issue : Aug. 19, 2025

6. Test Results : In Compliance

Tested by

Reviewed by

Seong Jun, Park
EMC Test Engineer

Dong Hun, Jang
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
Aug. 19, 2025	KES-EM252069	Issued

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd. This document may be altered or revised by KES Co., Ltd. personnel only, and shall be noted in the revision section of the document. Any alteration of this document not carried out by KES Co., Ltd. will constitute fraud and shall nullify the document.



TABLE OF CONTENTS

1.0	General Product Description.....	4
1.1	Test Voltage & Frequency	5
1.2	Variant Model Differences	5
1.3	Device Modifications	5
1.4	Equipment Under Test	5
1.5	Support Equipments	5
1.6	External I/O Cabling.....	6
1.7	EUT Operating Mode(s).....	7
1.8	Configuration.....	8
1.9	Remarks when standards applied	9
1.10	Calibration Details of Equipment Used for Measurement.....	9
1.11	Test Facility	9
1.12	Laboratory Accreditations and Listings	9
2.0	Test Regulations	10
2.1	Conducted Emissions Mains Power Ports.....	11
2.2	Conducted Emissions at Telecommunication Ports.....	12
2.3	Radiated Electric Field Emissions(Below 1 GHz).....	13
2.4	Radiated Electric Field Emissions(Above 1 GHz)	14
APPENDIX A – TEST DATA		15
Conducted Emissions at Mains Power Ports.....		15
Conducted Emissions at Telecommunication Ports.....		17
Radiated Electric Field Emissions(Below 1 GHz).....		19
Radiated Electric Field Emissions(Above 1 GHz)		21
Test Setup Photos and Configuration		23
Conducted Emissions at Mains Power Ports.....		23
Conducted Emissions at Telecommunication Ports.....		24
Radiated Electric Field Emissions(Below 1 GHz).....		26
Radiated Electric Field Emissions(Above 1 GHz)		28
EUT External Photographs		30
EUT Internal Photographs		31



1.0 General Product Description

Main Specifications of EUT are:

XNB-A8004		
Video		
Imaging Device	Size	1/2.8"
	Type	CMOS
Resolution	2560x1920, 2560x1440, 1920x1080, 1600x1200, 1280x960, 1280x720, 1024x768, 800x600, 640x480, 640x360, 320x240, 320x180	
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps(5MP Max. 5fps)
Video Out	USB: Micro USB Type C	
Lens		
Focus Control	Simple focus	
Lens Type	DC auto iris, P iris(IR corrected), Manual, I-CS	
Mount Type	C mount, CS mount	
Operational		
Day & Night	Auto(ICR)	
Backlight Compensation	BLC, HLC, WDR, SDR	
Wide Dynamic Range (dB)	120	
Digital Noise Reduction	WiseNRⅡ(Based on AI engine), SSNR-V	
Digital Image Stabilization	Support	
Defog	Support	
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	32ea
	Shape	8point Polygonal zones
	Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic, Purple, Yellow
	Dynamic Privacy Masking Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic, Purple, Yellow
Gain Control	Off, Max gain, Manual	
White Balance	ATW, NarrowATW, AWC, Manual, Indoor, Outdoor	
LDC	Support(Fill/stretch mode)	
Electronic Shutter	Mode	Minimum, Maximum, Anti Flicker, Prefer shutter control(Based on AI engine)
	Speed Range	2~1/30,000sec
Video Rotation	Flip, Mirror, Hallway view(90°/270°)	
Serial Interface	RS-485(Samsung-T, Pelco-D/P, Panasonic, Bosch, AD, GE, Vicon, Honeywell)	
Alarm Interface	In/Out	2 configurable I/O ports
	Others	Support extra alarm I/O via optional I/O box
Alarm Triggers	Analytics, Network disconnect, Alarm input, Time schedule, MQTT subscription, Day/Night, Storage disruption	
Alarm Events When Alarm Trigger Occurred	File upload(image): e-mail/FTP/SFTP, File upload(video clip): FTP/SFTP, Notification: e-mail, Recording: SD/SDHC/SDXC or NAS recording at event triggers, Alarm output, Handover: PTZ preset, send message by HTTP/HTTPS/TCP, Audio clip playback, MQTT: publication, SIP: call generation	
Audio In	Selectable(mic in/line in), Built-in mic	
Audio Out	Line out	

Analytics		
Classified Object Type	Person, Face, Vehicle, License plate	
Attributes	Person	Upper/Lower clothes color, Gender, Bag
	Vehicle	Type(car, bus, truck, motorcycle, bicycle), Color
	Face	Age, Gender, Face mask, Glasses
Re-ID	Person	
Thumbnail	BestShot	
Analytics Events	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Motion detection, Face mask detection, Social distancing detection, Slip & fall detection, Virtual area(Littering/Intrusion/Enter/Exit/Appear/Disappear)
	Normal	Defocus detection, Tampering, Audio detection, Shock detection
Business Intelligence	Based on AI Engine	People counting, Queue management, Heatmap, Vehicle counting, Crowd counting
Network		
Ethernet	Metal shielded RJ-45(10/100BASE-T)	
Video Compression	H.265/H.264: Main/Baseline/High, MPEG	
Audio Compression	G.711(PCM): 8kHz(64kbps), G.726(ADPCM): 8kHz(16/24/32/40kbps), AAC-LC: 16kHz(48kbps), OPUS: 48kHz(64kbps)	
Smart Codec	WiseStream(Based on AI engine)	
Bitrate Control	H.265/H.264: CBR or VBR, MPEG: VBR	
Streaming	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 5 profiles, 3 virtual channel support
Protocol		
IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTSP(TCP), RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SFTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT, SMTP(StartTLS), SIP, Syslog		
SIP support (VoIP, Peer-to-peer, SIP/PBX Integration)	Tested with Cisco, Grandstream, Yealink VoIP phones and Asterisk PBX software	
Application Programming Interface	ONVIF	S, G, T, M
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform
	OnCloud(미사용 항목)	OnCloud edge recording, compatible with Hanwha SD cards up to 1TB
Direct Cloud Connection		
Support		
Security		
OS / Firmware Protect	Encrypted firmware, Secure boot, Signed firmware	
User authentication	Digest authentication, Prevent brute-force attack	
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MICHAPv2)	
Secure Communication	HTTPS, WSS(WebSocket Secure), SRTP, 802.1AE(MACsec)	
Access Control	IP-based access control, MAC-based access control, Auto logout	
Data Protect	Encryption credentials, Encrypt compress for live recording file export	
Audit	Access / System / Event Log management	
Device ID	Device certificate(Hanwha Vision Root CA)	
Secure Storage	SDcard partition encrypt(AES-256), Secure element	
Supply Chain Security	SBOM	
Security Certificate	Secure element(RPS 140-3 level3, CC EAL6+), ETSI EN 303 645, IEC 62443-4-1	

General		
Memory	RAM	4GB
	Flash	8GB eMMC
Edge Storage	Micro SD/SDHC/SDXC	Max. 1TB x 2slot(Total 2TB)
	SSD	None
Environmental & Electrical		
Operating Condition	Temperature	-10°C~+55°C(+14°F~+131°F)
	Humidity	0~95% RH(non-condensing)
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
Input Voltage	PoE(IEEE802.3af, Class3), 12VDC	
Power Consumption	PoE	Max. 8.9W, typical 7.5W
	12VDC	Max. 8.1W, typical 6.7W
Wisepower	Power monitoring, ECO mode	
Power Redundance Follower	Support	
Mechanical		
Color	Black	
Material	Aluminum	
Material Management	Declaration	RoHS(EU RoHS directive 2011/65/EU and IEC/EN 63000:2018), REACH(Regulation (EC) No. 1907/2006), Conflict mineral policy(Section 1502 of US Dodd Frank Act)
	Recycle Rate	None
RAL Code	RAL9005	
Product Dimensions	81(W)x67(H)x165(D)mm(3.19x2.64x6.48")	
Product Weight	851g(1.88lb)	
Certifications & Standards		
EMC	FCC 47 CFR 15 Subpart B Class A, ICES-3(A)/NMB-3(A), CE/UKCA - EN55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3, VCCI CISPR 32 Class A, RCM AS-NZS CISPR 32 Class A, KS C 9832 Class A, KS C 9835	
Safety	UL 62368-1, CAN/CSA C22.2 NO. 62368-1, IEC 62471	
Environment	IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78	



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 100 V, 60 Hz ☒ 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
NETWORK CAMERA	XNB-A8004	-	HANWHA VISION VIETNAM COMPANY LIMITED	EUT

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
Adapter	FSP060-DIBAN2	-	FSP GROUP INC.	-
PoE Injector	PT-PSE106GBR-AH-S	-	Dongguan PROCET Network Technology Co., Ltd	-
Notebook	NT500R5W	-	Samsung Eelcotronics Co., Ltd.	-
Notebook Adapter	PA-1400-96	-	LITE-ON TECHNOLOGY CHANGZHOU CO.,LTD	-
Micro SD Card 1	-	-	SanDisk	-
Micro SD Card 2	-	-	SanDisk	-
LED Alarm	PRO-SL	-	SENSOR PRO	-
Button Alarm	-	-	-	-
Earphone	-	-	-	-
Smartphone	SM-N950N	-	Samsung Eelcotronics Co., Ltd.	-
Controller	SPC-1010	-	SamSung Techwin Co.,Ltd.	-



1.6 External I/O Cabling

■ mode 1

Start		END		Cable Spec.	
Description	I/O Port	Description	I/O Port	Length	Shield
NETWORK CAMERA (EUT)	2 Pin	Adapter	2 Pin	1.6	U
	Micro SD Card Slot	Micro SD Card 1	Micro SD Card Slot	-	-
	Micro SD Card Slot	Micro SD Card 2	Micro SD Card Slot	-	-
	RJ-45 (LAN)	Notebook	RJ-45 (LAN)	3.1	U
	Alarm IN (2 PIN)	Button Alarm	Alarm OUT	3.1	U
	Alarm OUT (2 PIN)	LED Alarm	Alarm IN	3.1	U
	RS-485 (2 PIN)	Controller	2 Pin	3.1	U
	Audio IN	Smartphone	3.5 mm	1.0	U
	Audio OUT	Earphone	3.5 mm	1.4	U
	Ground	Ground	Ground	1.5	-
Notebook	DC Jack	Notebook Adapter	DC Jack	1.6	U

* Unshielded=U, Shielded=S

■ mode 2

Start		END		Cable Spec.	
Description	I/O Port	Description	I/O Port	Length	Shield
NETWORK CAMERA (EUT)	RJ-45 (PoE)	PoE Injector	RJ-45 (PoE)	3.1	U
	Micro SD Card Slot	Micro SD Card 1	Micro SD Card Slot	-	-
	Micro SD Card Slot	Micro SD Card 2	Micro SD Card Slot	-	-
	Alarm IN (2 PIN)	Button Alarm	Alarm OUT	3.1	U
	Alarm OUT (2 PIN)	LED Alarm	Alarm IN	3.1	U
	RS-485 (2 PIN)	Controller	2 Pin	3.1	U
	Audio IN	Smartphone	3.5 mm	1.0	U
	Audio OUT	Earphone	3.5 mm	1.4	U
	Ground	Ground	Ground	1.5	-
Notebook	DC Jack	Notebook Adapter	DC Jack	1.6	U

* Unshielded=U, Shielded=S



1.7 EUT Operating Mode(s)

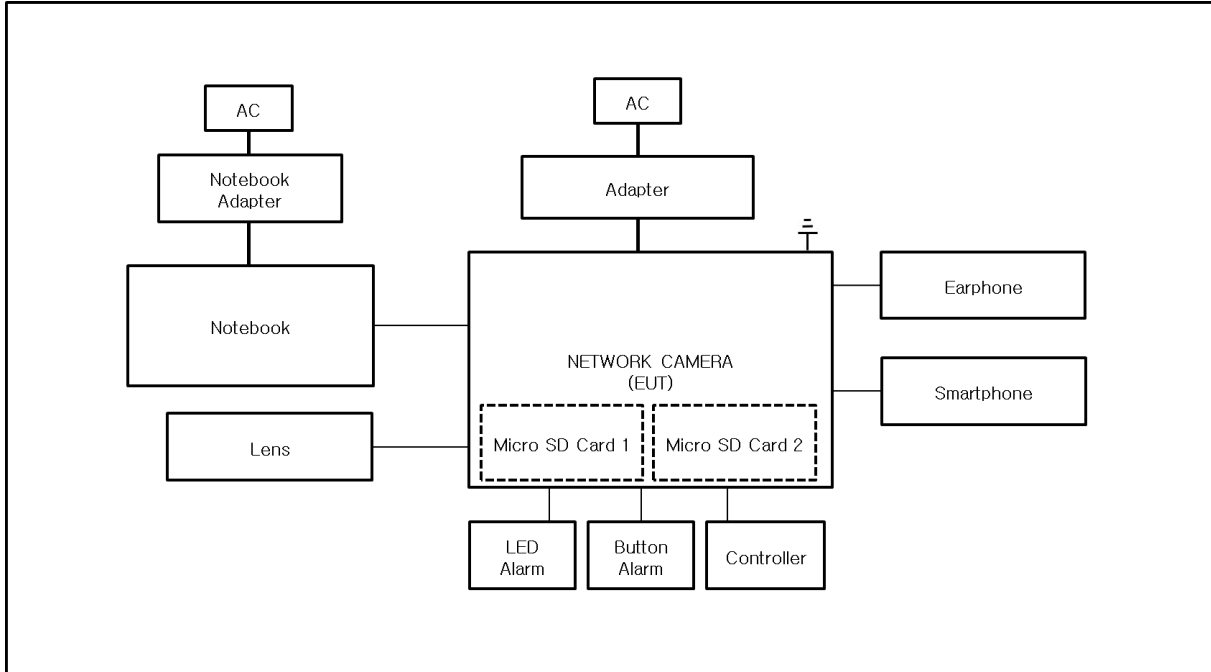
Test mode		Normal operating
mode 1	Adapter	- IP from the test equipment to the laptop was tested by Ping Test on the laptop. - The test was conducted by checking whether the camera image was output normally in the Web Viewer. - After the test, I checked whether the video was recorded normally on the Micro SD Card.
mode 2	PoE	

EUT Test operating S/W		
Name	Version	Manufacture Company
Web Viewer	-	HANWHA VISION VIETNAM COMPANY LIMITED

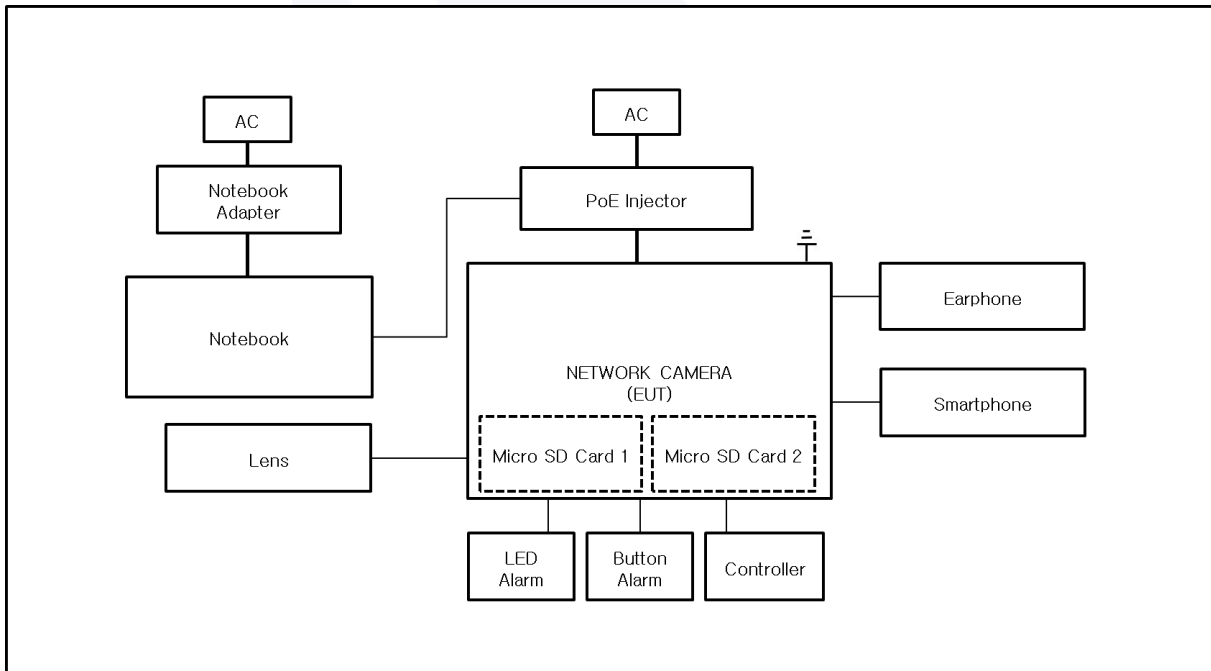


1.8 Configuration

■ mode 1



■ mode 2



**1.9 Remarks when standards applied**

N/A

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 0008



2.0 Test Regulations

The emissions tests were performed according to following regulations:

☒ **VCCI-CISPR 32:2016**

☒ Class A

☐ Class B





2.1 Conducted Emissions Mains Power Ports

Test Date

Jul. 17, 2025

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, 06, 2025
☒	LISN	ENV216	R & S	101786	01, 09, 2026
☒	ARTIFICIAL MAINS NETWORK	ESH2-Z5	R & S	100450	11, 06, 2025
☒	PULSE LIMITER	ESH3-Z2	R & S	101915	11, 06, 2025

Test Conditions

Temperature: (23,8 ± 0,1) °C

Relative Humidity: (46,2 ± 0,1) % R.H.

Frequency Range of Measurement

150 kHz to 30 MHz

Instrument Settings

IF Band Width: 9 kHz

Test Results

The requirements are:

- ☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

RemarksSee Appendix A for test data.



2.2 Conducted Emissions at Telecommunication Ports

Test Date

Jul. 17, 2025

Test Location

Electro wave Shieldroom #6

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test SW	EMC32	R & S	9.12.00	-
☒	EMI TEST RECEIVER	ESR3	R & S	101783	11, 06, 2025
☒	LISN	ENV216	R & S	101786	01, 09, 2026
☒	ARTIFICIAL MAINS NETWORK	ESH2-Z5	R & S	100450	11, 06, 2025
☒	PULSE LIMITER	ESH3-Z2	R & S	101915	11, 06, 2025
☒	8-WIRE ISN CAT3,5	ENY81	R & S	100174	11, 12, 2025

Test Conditions

Temperature: (23,8 ± 0,1) °C
Relative Humidity: (46,2 ± 0,1) % R.H.

Frequency Range of Measurement

150 kHz to 30 MHz

Instrument Settings

IF Band Width: 9 kHz

Test Results

The requirements are:

- ☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

RemarksSee Appendix A for test data.



2.3 Radiated Electric Field Emissions(Below 1 GHz)

Test Date

Jul. 16, 2025

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	ESW8	R & S	101319	03, 24, 2026
☒	AMPLIFIER	SCU 01	R & S	100603	11, 06, 2025
☒	BILOG ANTENNA	VULB 9168	SCHWARZBECK	9168-461	05, 09, 2026
☒	ATTENUATOR	6806.17.A	HUBER+SUHNER	-	02, 13, 2026

Test Conditions

Temperature: (24,4 ± 0,1) °C

Relative Humidity: (46,2 ± 0,1) % R.H.

Frequency Range of Measurement

30 MHz to 1 GHz

Instrument Settings

IF Band Width: 120 kHz

Test Results

The requirements are:

- ☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

RemarksSee Appendix A for test data.



2.4 Radiated Electric Field Emissions(Above 1 GHz)

Test Date

Jul. 16, 2025

Test Location

SEMI ANECHOIC CHAMBER #3

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	100517	10, 07, 2025
☒	PREAMPLIFIER	8449B	AGILENT	3008A01967	03, 05, 2026
☒	ATTENUATOR	8491A	HP	35496	02, 13, 2026
☒	DOUBLE RIDGED HORN ANTENNA	SAS-571	A.H.SYSTEM,INC	781	03, 05, 2026

Test Conditions

Temperature: (24,0 ± 0,1) °C

Relative Humidity: (47,5 ± 0,1) % R.H.

Frequency Range of Measurement

1 GHz to 6 GHz

Instrument Settings

IF Band Width: 1 MHz

Test Results

The requirements are:

- ☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

RemarksSee 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

■ mode 1

HOT LINE

Test Description:

Job No.:

Phase:

Mode:

Operator Name:

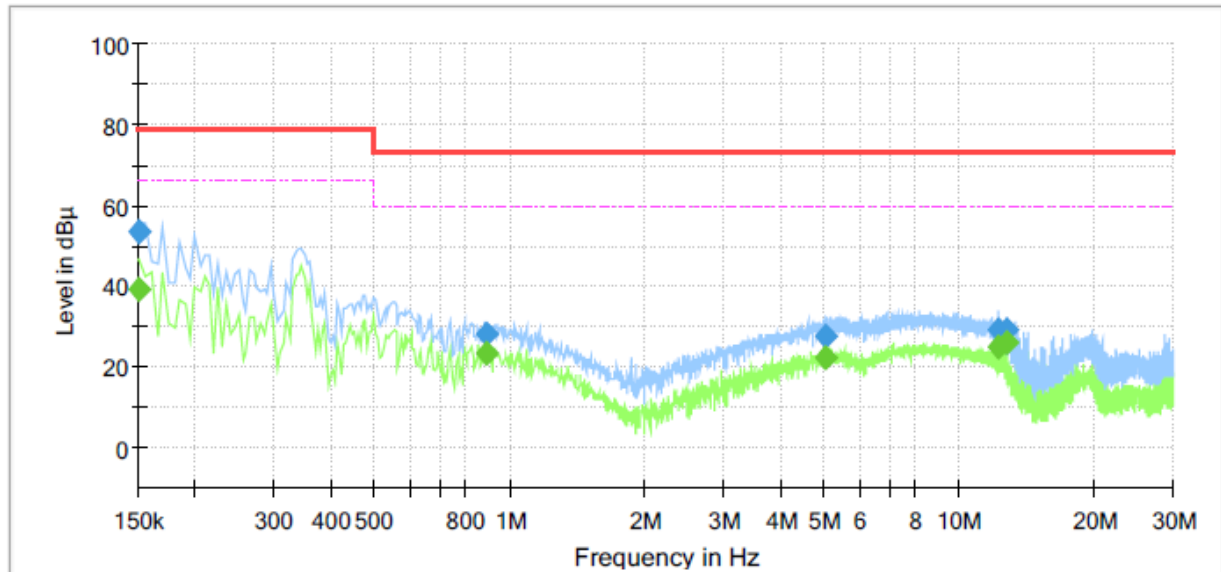
Conducted Emission

KES-EM252069

L

Mode 1

KES



Final Result

Frequency (MHz)	QuasiPeak (dB μ V)	CAverage (dB μ V)	Limit (dB μ V)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	---	39.12	66.00	26.88	1000.0	9.000	L1	19.5
0.150000	53.68	---	79.00	25.32	1000.0	9.000	L1	19.5
0.890000	---	23.22	60.00	36.78	1000.0	9.000	L1	19.6
0.890000	27.88	---	73.00	45.12	1000.0	9.000	L1	19.6
5.080000	---	22.30	60.00	37.70	1000.0	9.000	L1	19.9
5.080000	27.78	---	73.00	45.22	1000.0	9.000	L1	19.9
12.200000	---	24.84	60.00	35.16	1000.0	9.000	L1	20.1
12.200000	29.37	---	73.00	43.63	1000.0	9.000	L1	20.1
12.745000	---	25.92	60.00	34.08	1000.0	9.000	L1	20.2
12.745000	29.25	---	73.00	43.75	1000.0	9.000	L1	20.2



NEUTRAL LINE

Test Description:

Conducted Emission

Job No.:

KES-EM252069

Phase:

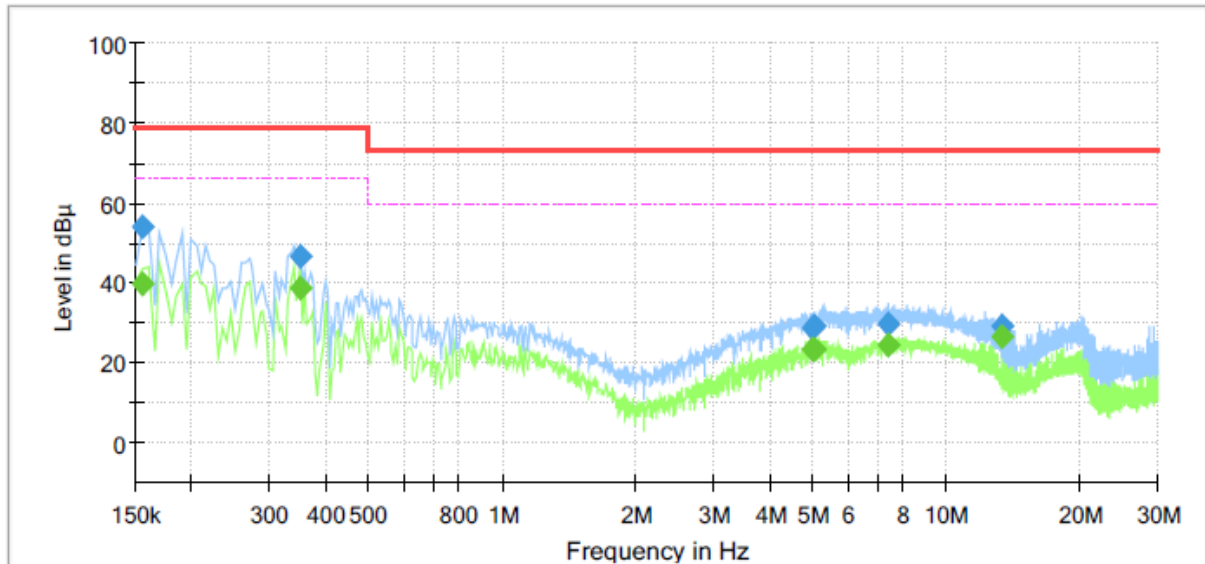
N

Mode:

Mode 1

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	---	39.82	66.00	26.18	1000.0	9.000	N	19.5
0.155000	53.75	---	79.00	25.25	1000.0	9.000	N	19.5
0.350000	---	38.56	66.00	27.44	1000.0	9.000	N	19.5
0.350000	46.49	---	79.00	32.51	1000.0	9.000	N	19.5
4.980000	---	23.07	60.00	36.93	1000.0	9.000	N	19.9
4.980000	28.79	---	73.00	44.21	1000.0	9.000	N	19.9
5.075000	---	23.29	60.00	36.71	1000.0	9.000	N	19.9
5.075000	29.07	---	73.00	43.93	1000.0	9.000	N	19.9
7.375000	---	24.27	60.00	35.73	1000.0	9.000	N	20.0
7.375000	29.55	---	73.00	43.45	1000.0	9.000	N	20.0
13.360000	---	26.65	60.00	33.35	1000.0	9.000	N	20.2
13.360000	29.09	---	73.00	43.91	1000.0	9.000	N	20.2

◆ Calculation

$$\text{QuasiPeak [dBμV]} / \text{CAverage [dBμV]} = \text{Reading Value [dBμV]} + \text{Corr. [dB]}$$

QuasiPeak / CAverage : The Final Value

Reading Value : Not shown in the table.

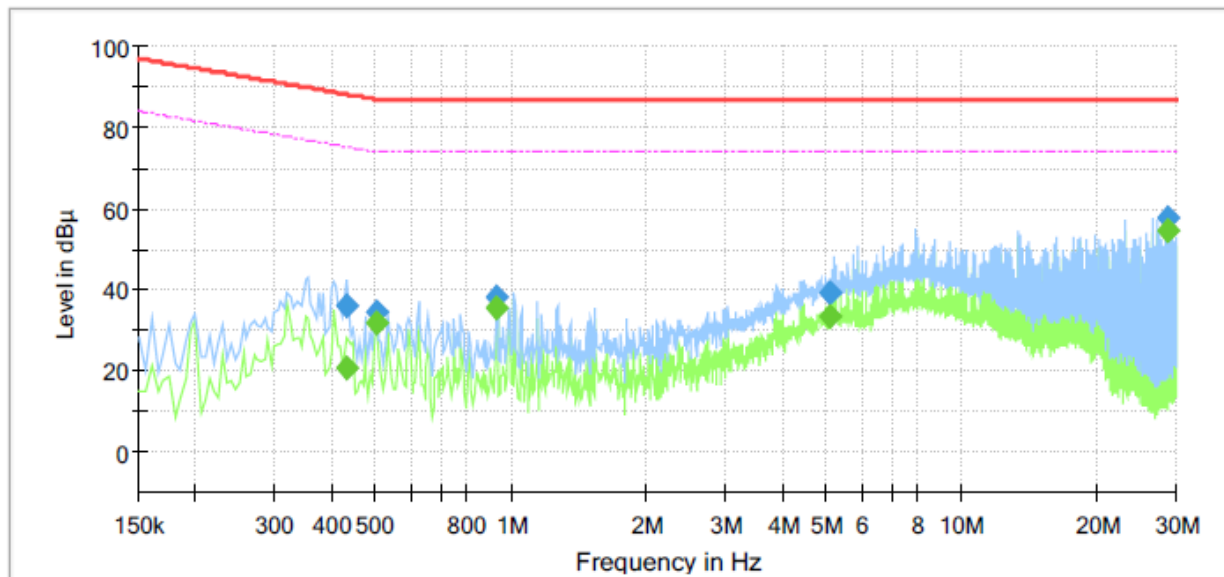
Corr. : Correction values (LISN FACTOR + (Cable Loss + Pulse Limiter FACTOR))

**Conducted Emissions at Telecommunication Ports**

■ mode 1

[100 Mbps]

Test Description: Telecommunication Emission
Job No.: KES-EM252069
Mode : Mode 1
Speed : 100 Mbps
Operator Name: KES

**Final_Result**

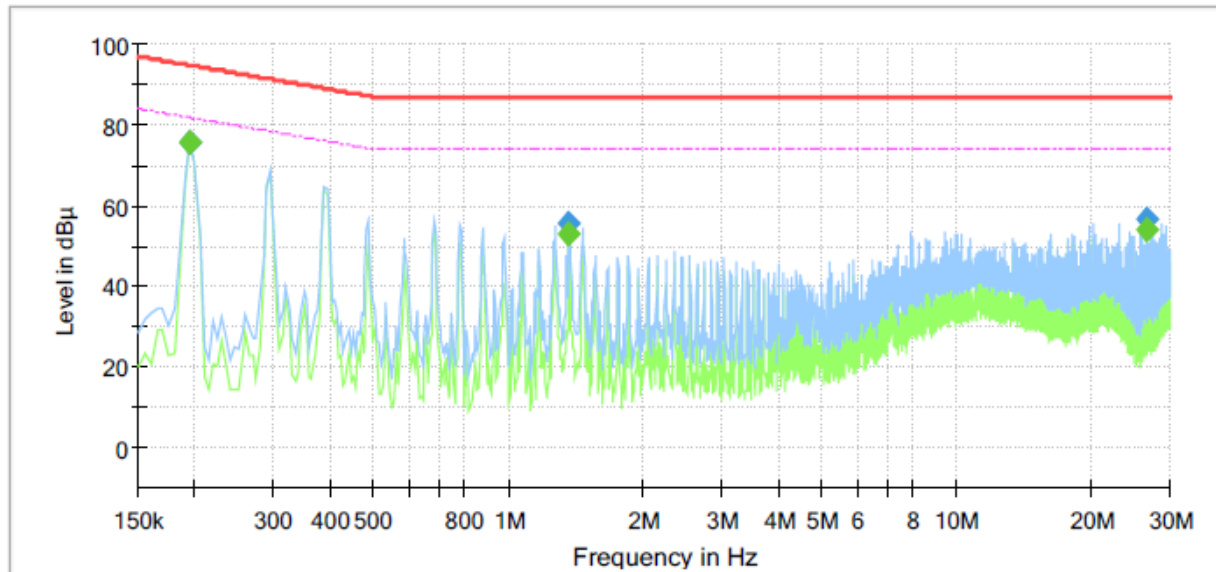
Frequency (MHz)	QuasiPeak (dB μ V)	CAverage (dB μ V)	Limit (dB μ V)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.435000	---	20.66	75.16	54.50	1000.0	9.000	Single Line	19.5
0.435000	36.17	---	88.16	51.99	1000.0	9.000	Single Line	19.5
0.505000	---	31.74	74.00	42.26	1000.0	9.000	Single Line	19.5
0.505000	34.60	---	87.00	52.40	1000.0	9.000	Single Line	19.5
0.930000	---	35.46	74.00	38.54	1000.0	9.000	Single Line	19.4
0.930000	38.07	---	87.00	48.93	1000.0	9.000	Single Line	19.4
5.110000	---	33.50	74.00	40.50	1000.0	9.000	Single Line	19.5
5.110000	39.16	---	87.00	47.84	1000.0	9.000	Single Line	19.5
28.685000	---	54.70	74.00	19.30	1000.0	9.000	Single Line	20.2
28.685000	57.68	---	87.00	29.32	1000.0	9.000	Single Line	20.2



■ mode 2

[100 Mbps]

Test Description: Telecommunication Emission
Job No.: KES-EM252069
Mode : Mode 2
Speed : 100 Mbps
Operator Name: KES



Final_Result

Frequency (MHz)	QuasiPeak (dB μV)	CAverage (dB μV)	Limit (dB μV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.195000	---	75.51	81.82	6.31	1000.0	9.000	Single Line	19.7
0.195000	75.56	---	94.82	19.26	1000.0	9.000	Single Line	19.7
1.370000	---	52.97	74.00	21.03	1000.0	9.000	Single Line	19.4
1.370000	55.49	---	87.00	31.51	1000.0	9.000	Single Line	19.4
26.610000	---	53.80	74.00	20.20	1000.0	9.000	Single Line	20.1
26.610000	56.56	---	87.00	30.44	1000.0	9.000	Single Line	20.1

◆ Calculation

QuasiPeak[dBuV] / CAverage [dBuV] = Reading Value[dBuV] + Corr. [dB]

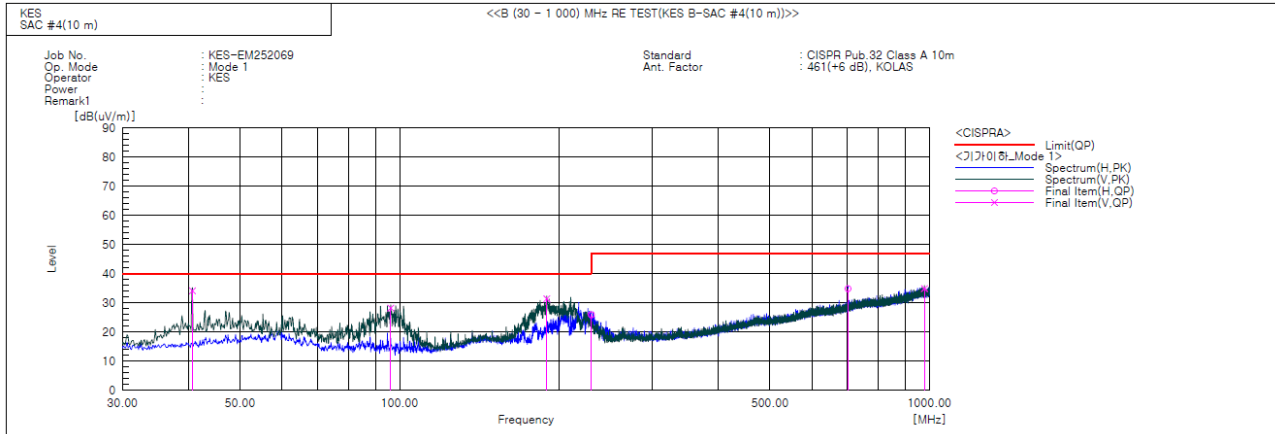
QuasiPeak / CAverage : The Final Value

Reading Value : Not shown in the table.

Corr. : Correction values (ISN FACTOR + (Cable Loss + Pulse Limiter FACTOR))

**Radiated Electric Field Emissions(Below 1 GHz)**

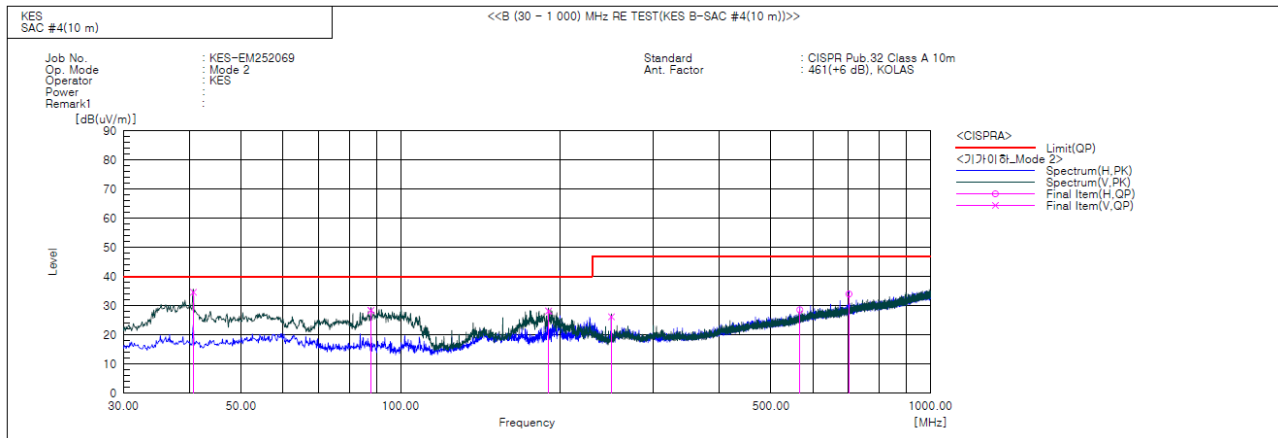
■ mode 1

**Final Result**

No.	Frequency [MHz]	(P)	Reading QP [dB(μV)]	c.f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	40.670	V	55.9	-21.8	34.1	40.0	5.9	161.0	158.0	
2	96.203	V	53.7	-25.5	28.2	40.0	11.8	126.0	98.0	
3	189.565	V	53.0	-21.6	31.4	40.0	8.6	155.0	351.0	
4	230.184	H	46.6	-20.7	25.9	47.0	21.1	310.0	261.0	
5	702.089	H	39.7	-4.9	34.8	47.0	12.2	205.0	299.0	
6	978.539	V	35.1	-0.2	34.9	47.0	12.1	152.0	26.0	



■ mode 2



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(μV)]	c.f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	40.670	V	56.4	-21.8	34.6	40.0	5.4	260.0	109.0	
2	87.958	V	54.6	-26.2	28.4	40.0	11.6	296.0	53.0	
3	190.171	V	49.8	-21.6	28.2	40.0	11.8	119.0	359.0	
4	249.948	V	45.6	-19.4	26.2	47.0	20.8	199.0	11.0	
5	567.016	H	36.9	-8.3	28.6	47.0	18.4	200.0	226.0	
6	702.089	H	38.9	-4.9	34.0	47.0	13.0	201.0	313.0	

◆ Calculation

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

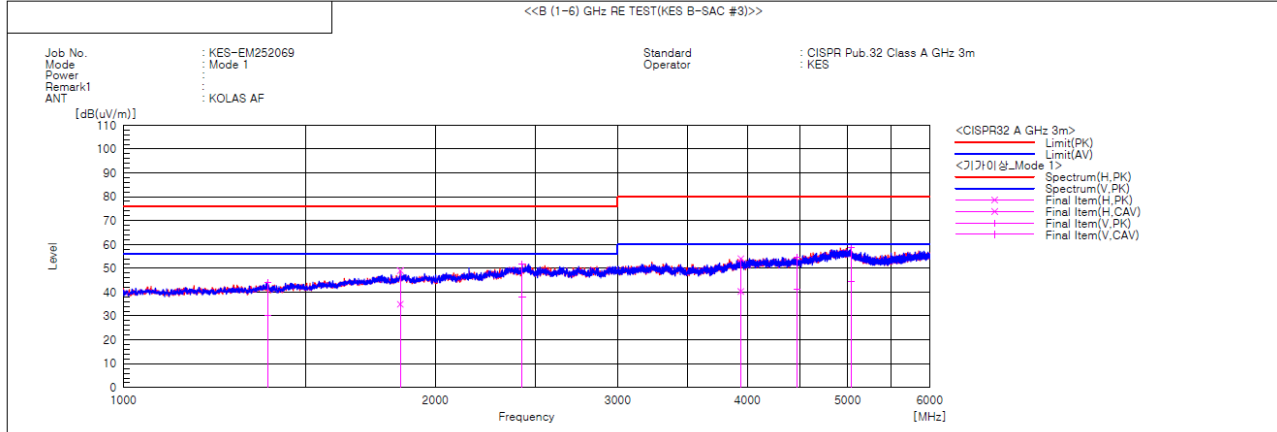
Margin(QP)[dB] = Limit[dB(μV/m)] - Result(QP) [dB(μV/m)]

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 GHz)**

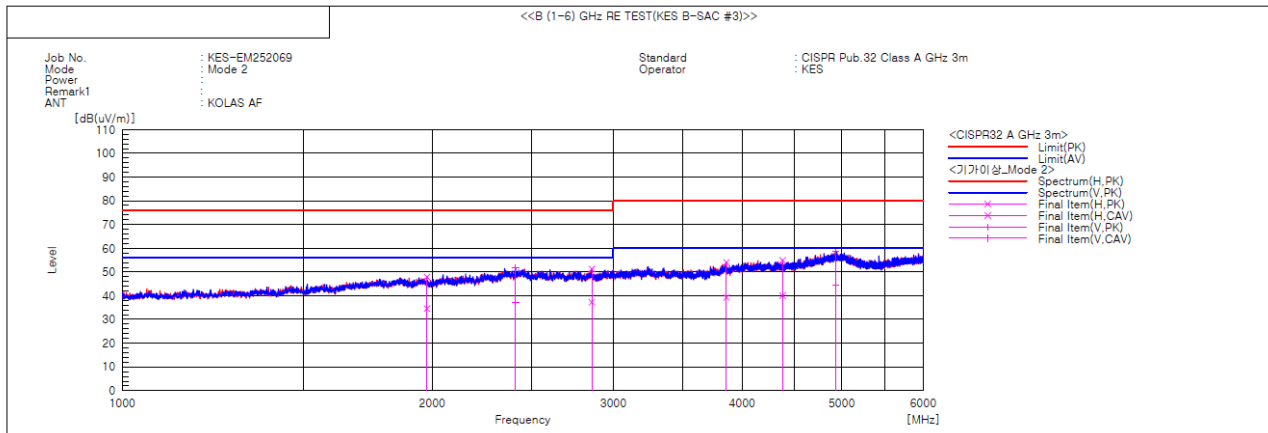
■ mode 1

**Final Result**

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1377.500	V	44.9	31.1	-0.7	44.2	30.4	76.0	56.0	31.8	25.6	100.0	148.0	
2	1850.625	H	44.7	30.6	4.3	49.0	34.9	76.0	56.0	27.0	21.1	100.0	193.0	
3	2426.875	V	43.9	30.0	7.8	51.7	37.8	76.0	56.0	24.3	18.2	100.0	231.4	
4	3943.125	H	42.0	28.2	12.1	54.1	40.3	80.0	60.0	25.9	19.7	100.0	182.1	
5	4465.625	V	40.2	26.9	14.5	54.7	41.4	80.0	60.0	25.3	18.6	100.0	91.3	
6	5038.750	V	41.2	26.9	17.6	58.8	44.5	80.0	60.0	21.2	15.5	100.0	357.1	



■ mode 2



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1976.875	H	43.0	29.7	4.9	47.9	34.6	76.0	56.0	28.1	21.4	100.0	297.9	
2	2410.000	V	43.9	29.2	7.8	51.7	37.0	76.0	56.0	24.3	19.0	100.0	311.8	
3	2858.125	H	42.7	28.7	8.6	51.3	37.3	76.0	56.0	24.7	18.7	100.0	305.9	
4	3863.750	H	42.4	27.6	11.7	54.1	39.3	80.0	60.0	25.9	20.7	100.0	230.3	
5	4380.625	H	40.9	26.1	14.0	54.9	40.1	80.0	60.0	25.1	19.9	100.0	38.6	
6	4936.250	V	41.0	26.8	17.6	58.6	44.4	80.0	60.0	21.4	15.6	100.0	297.9	

◆ Calculation

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

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

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

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



Test Setup Photos and Configuration

Conducted Emissions at Mains Power Ports

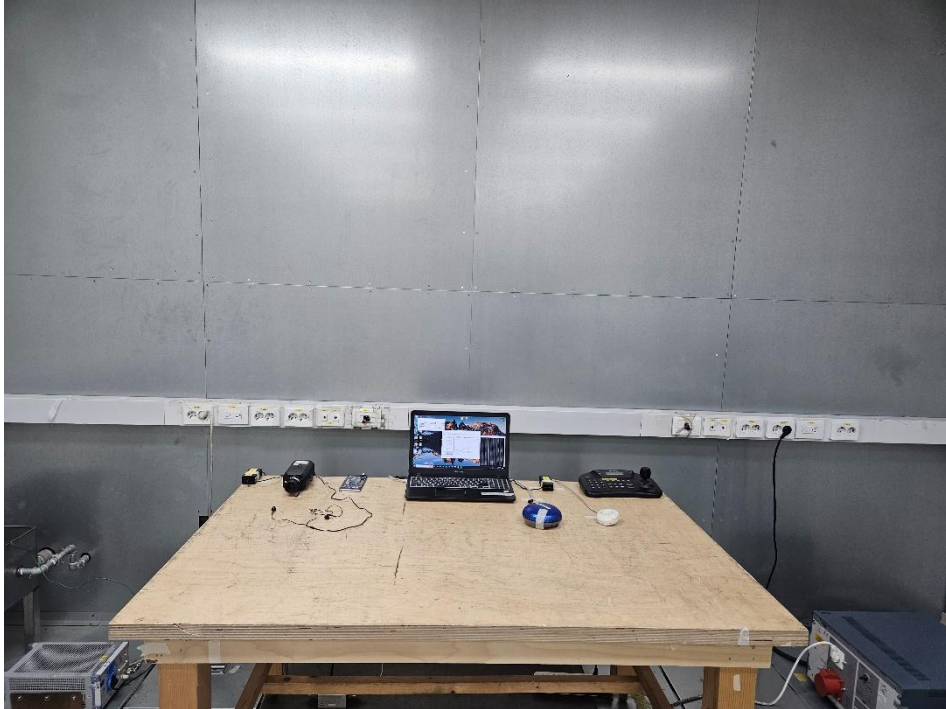
■ mode 1





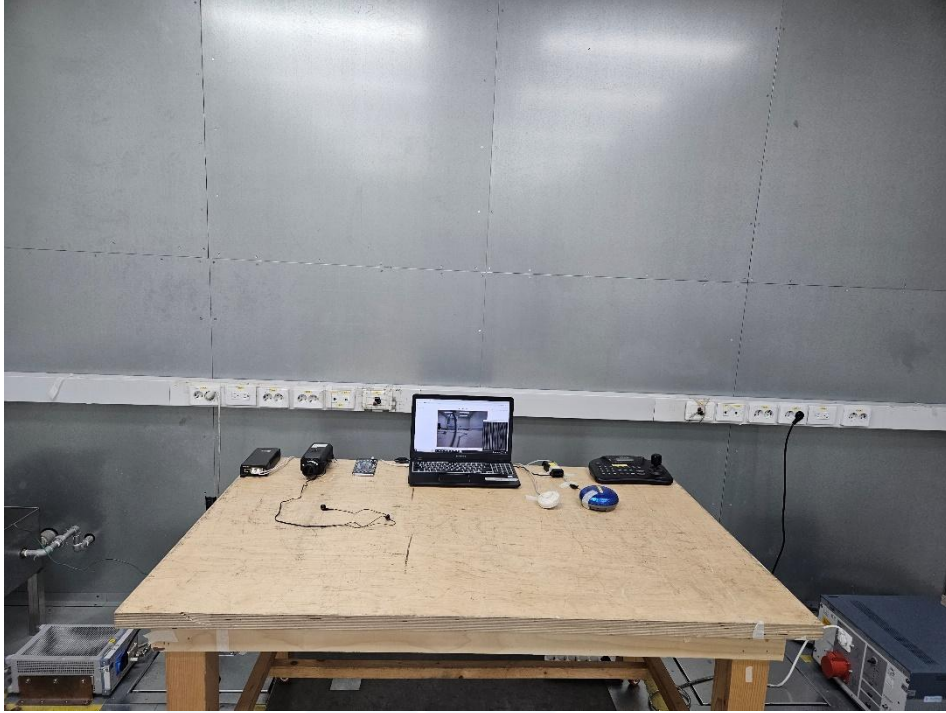
Conducted Emissions at Telecommunication Ports

■ mode 1





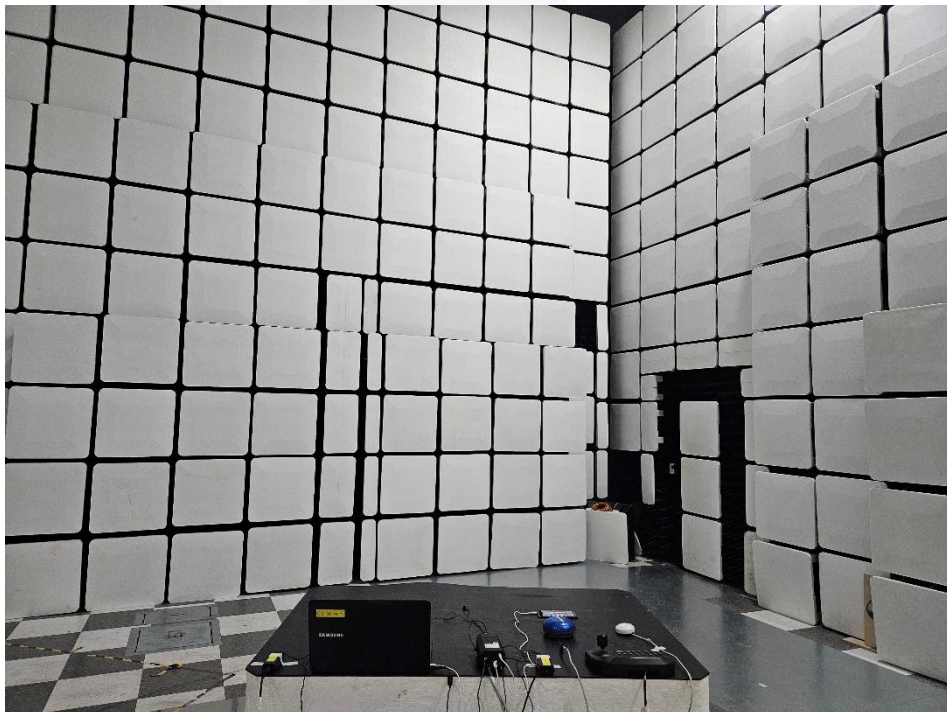
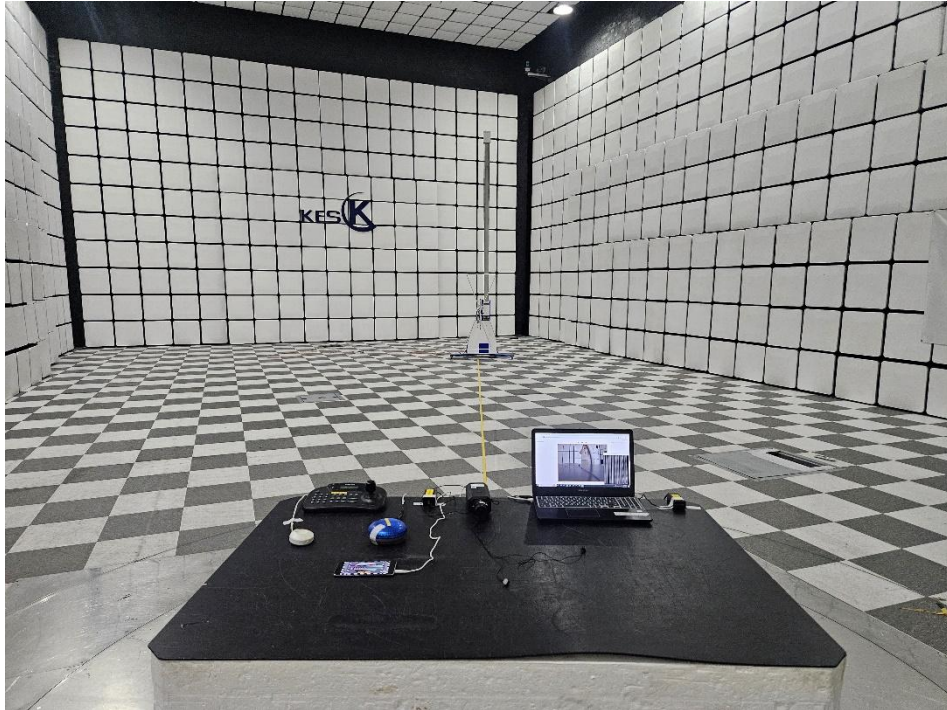
■ mode 2





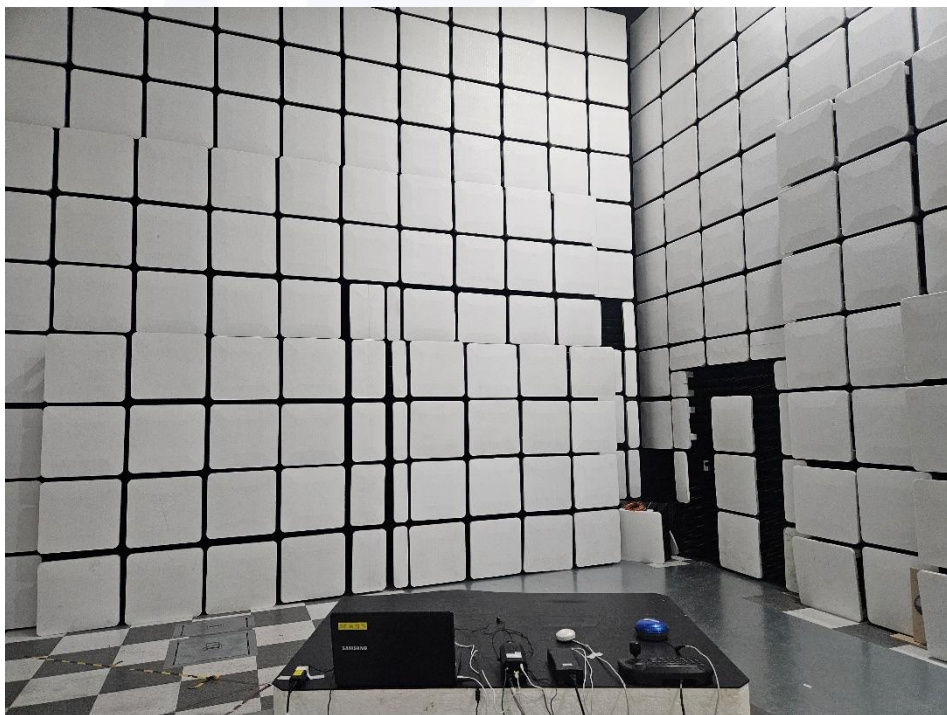
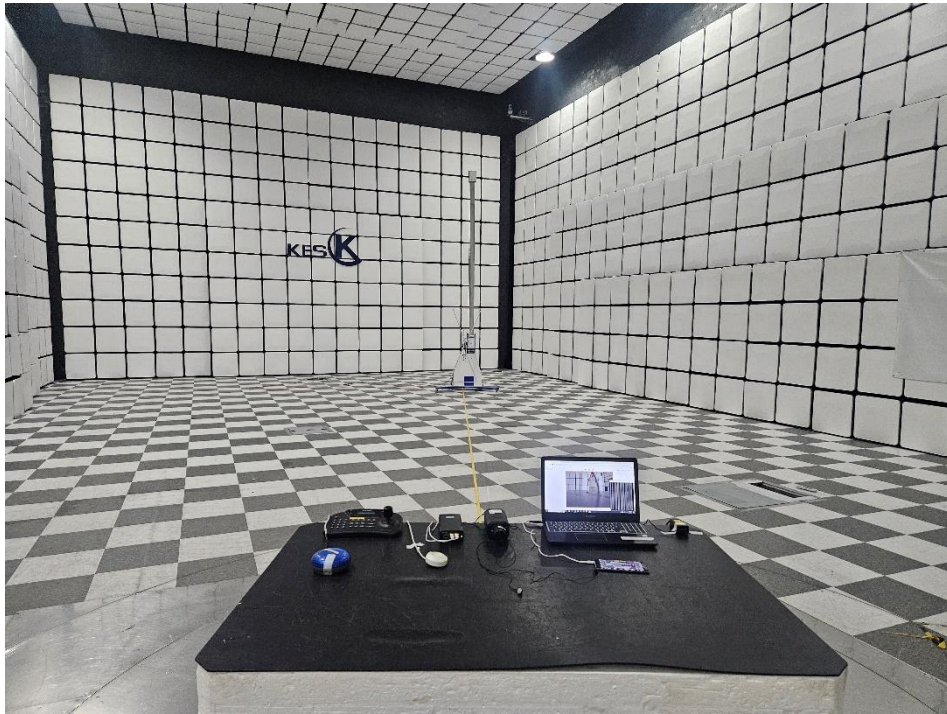
Radiated Electric Field Emissions(Below 1 GHz)

■ mode 1





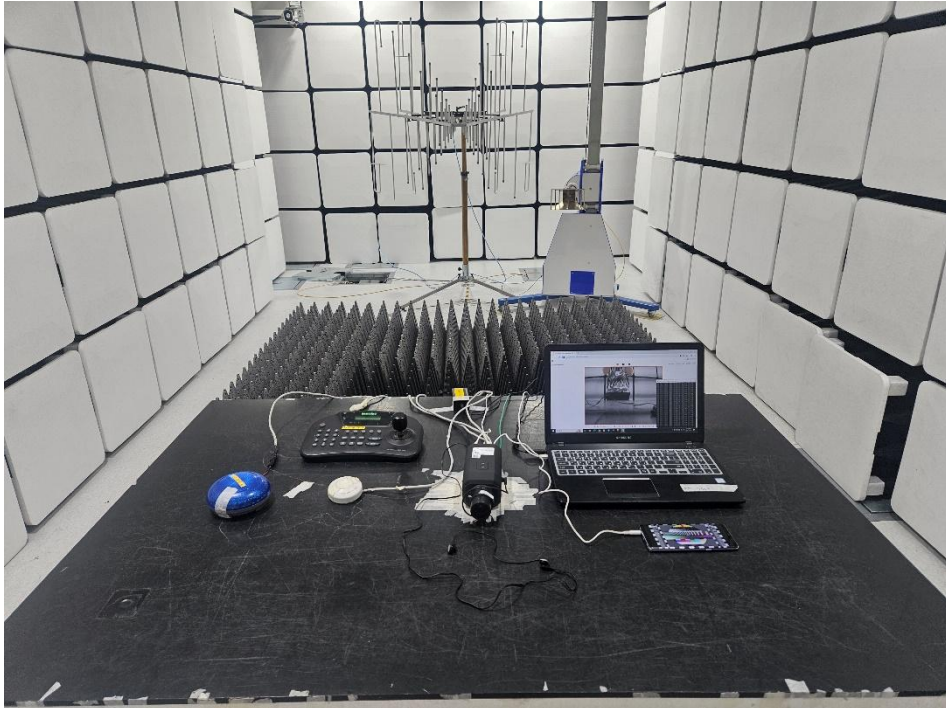
■ mode 2





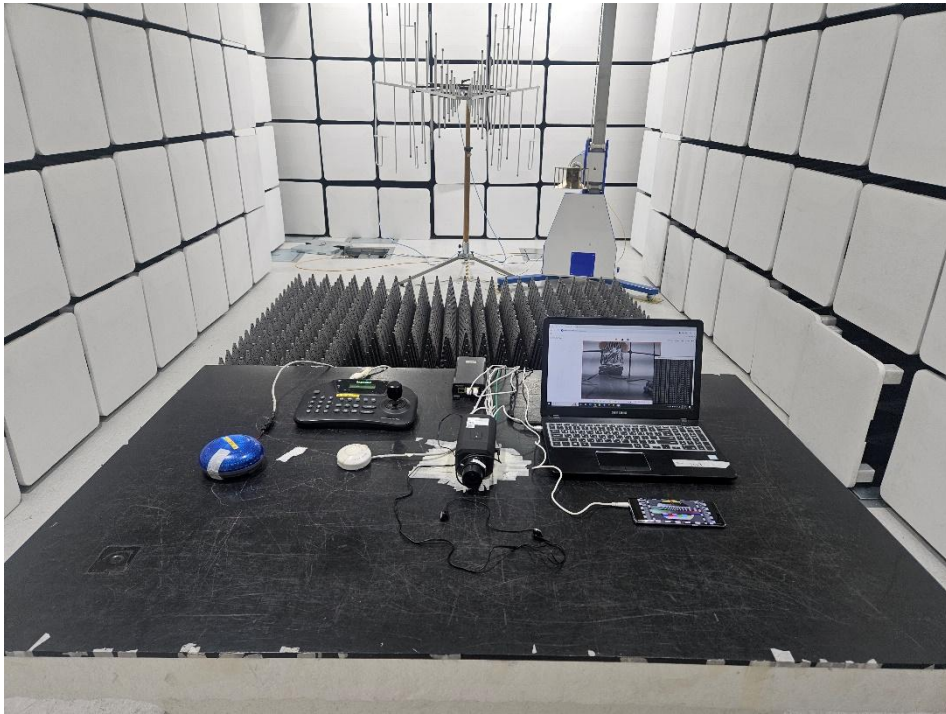
Radiated Electric Field Emissions(Above 1 GHz)

■ mode 1





■ mode 2





EUT External Photographs

(Top)



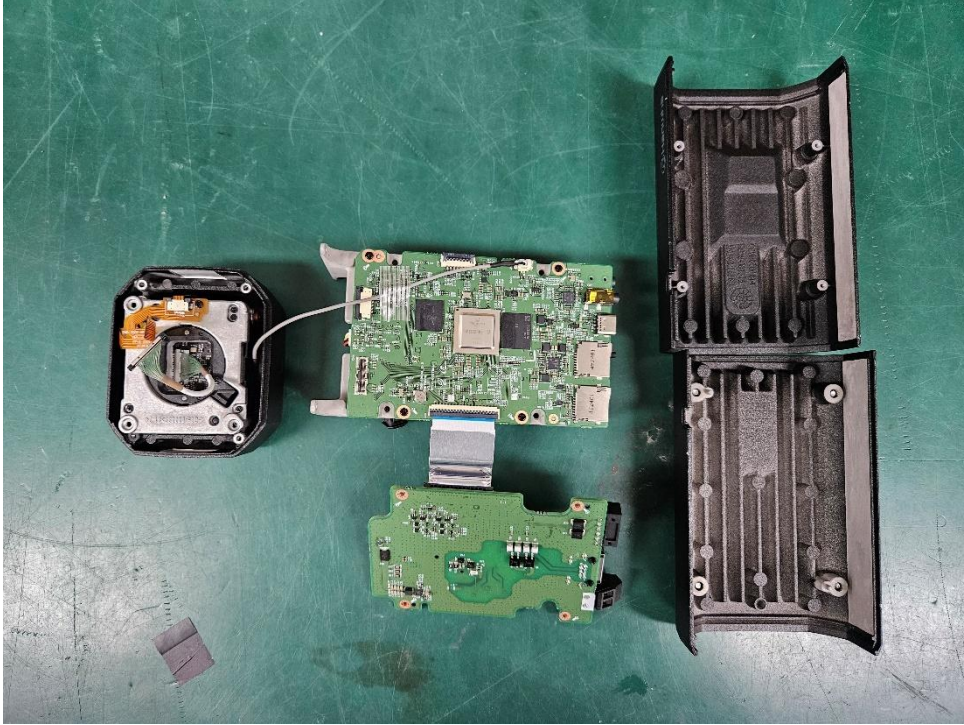
(Bottom)





EUT Internal Photographs

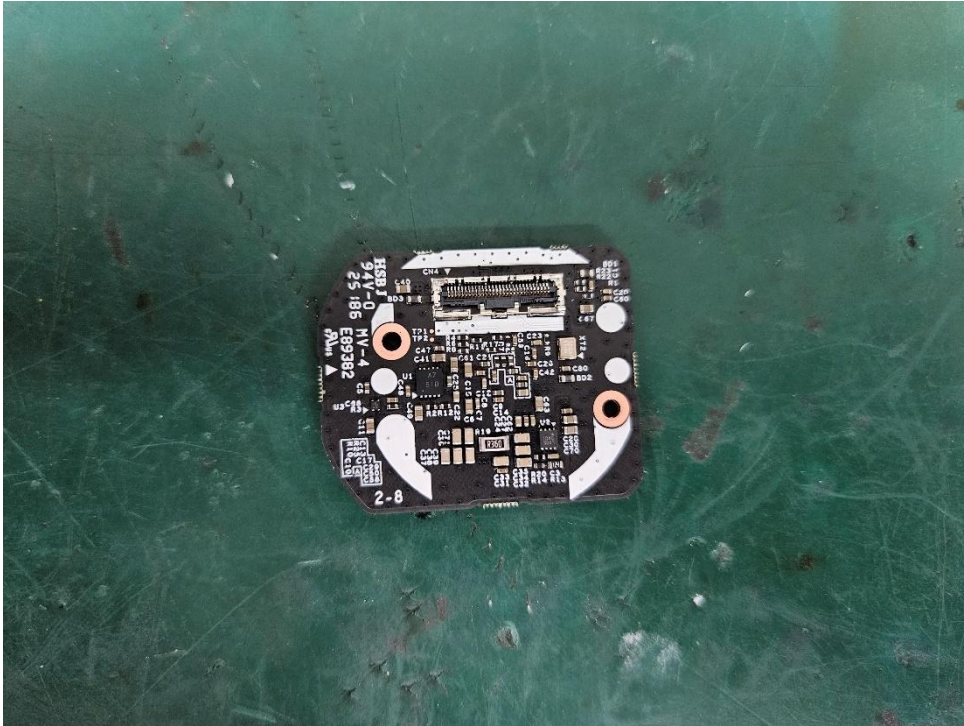
(Internal View)



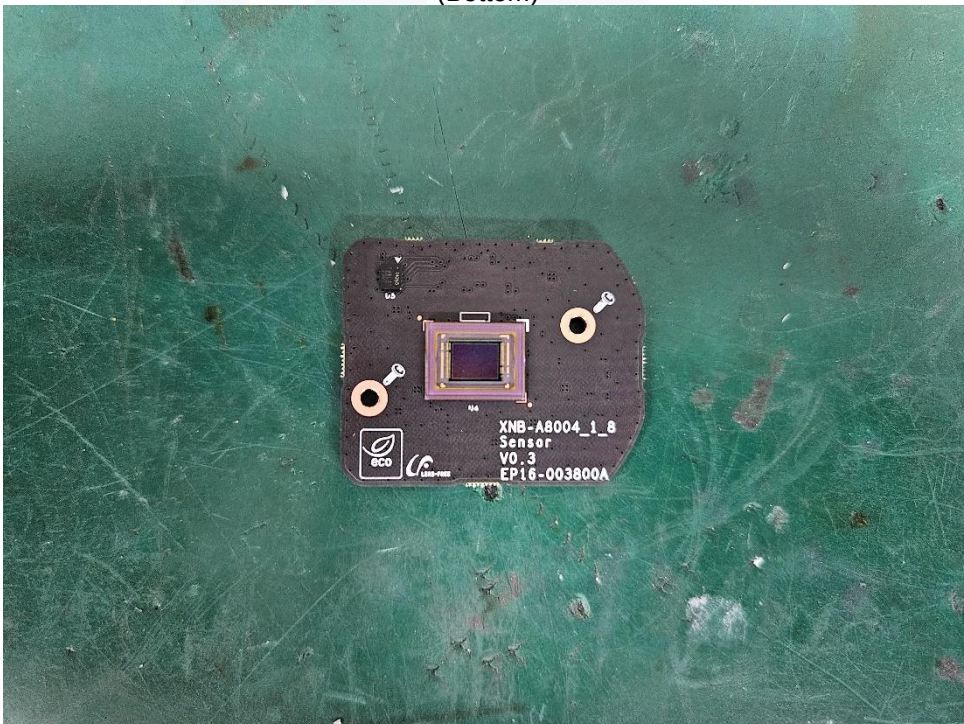


EUT Internal View – Board 1

(Top)



(Bottom)



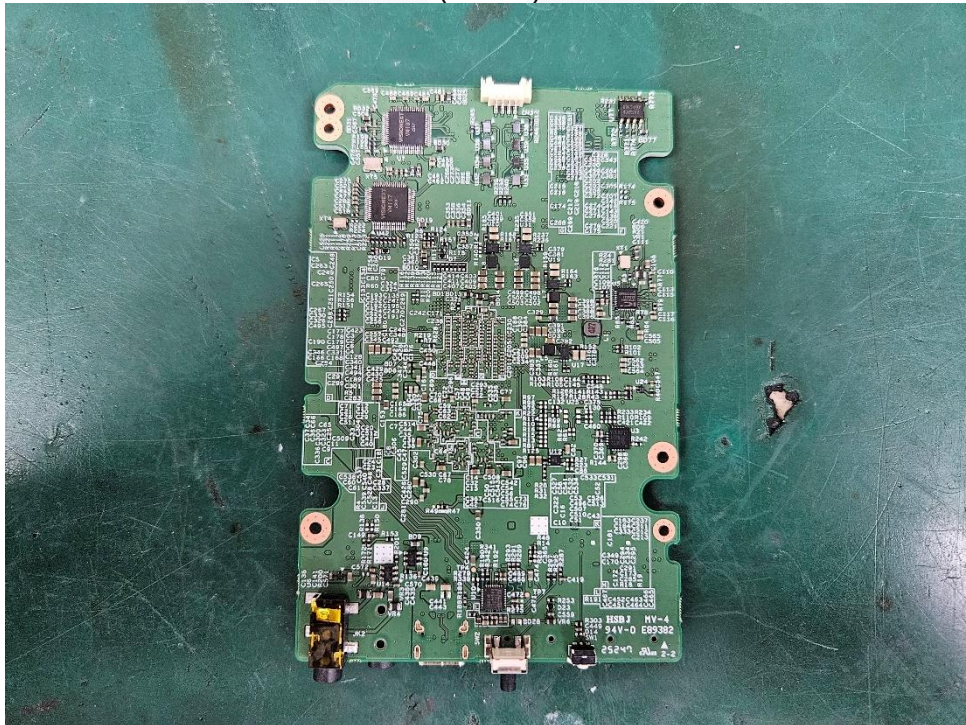


EUT Internal View – Board 2

(Top)



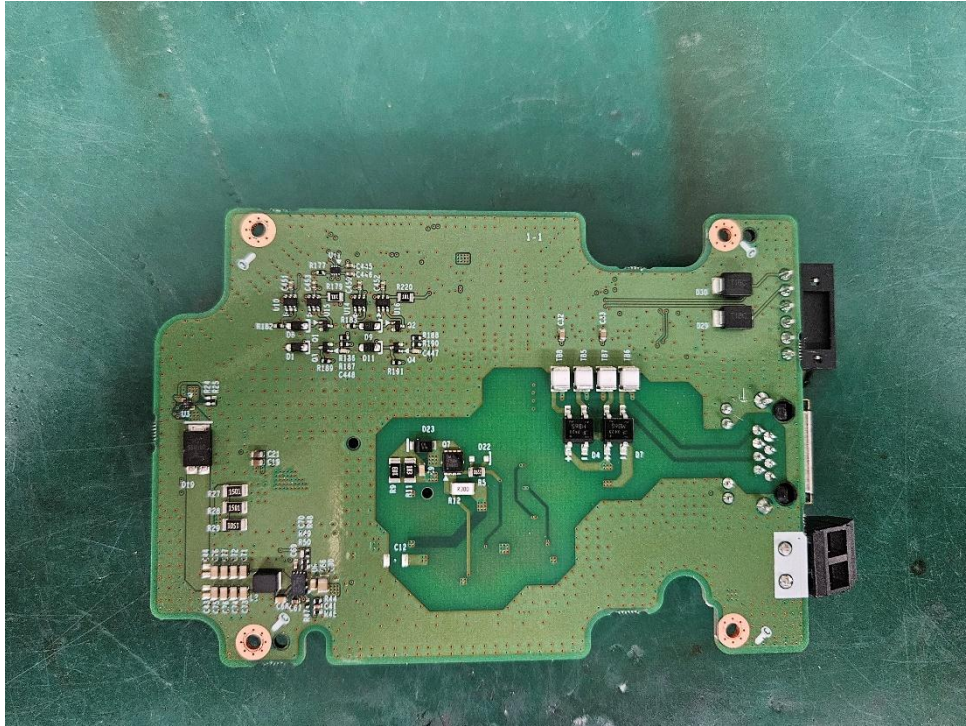
(Bottom)



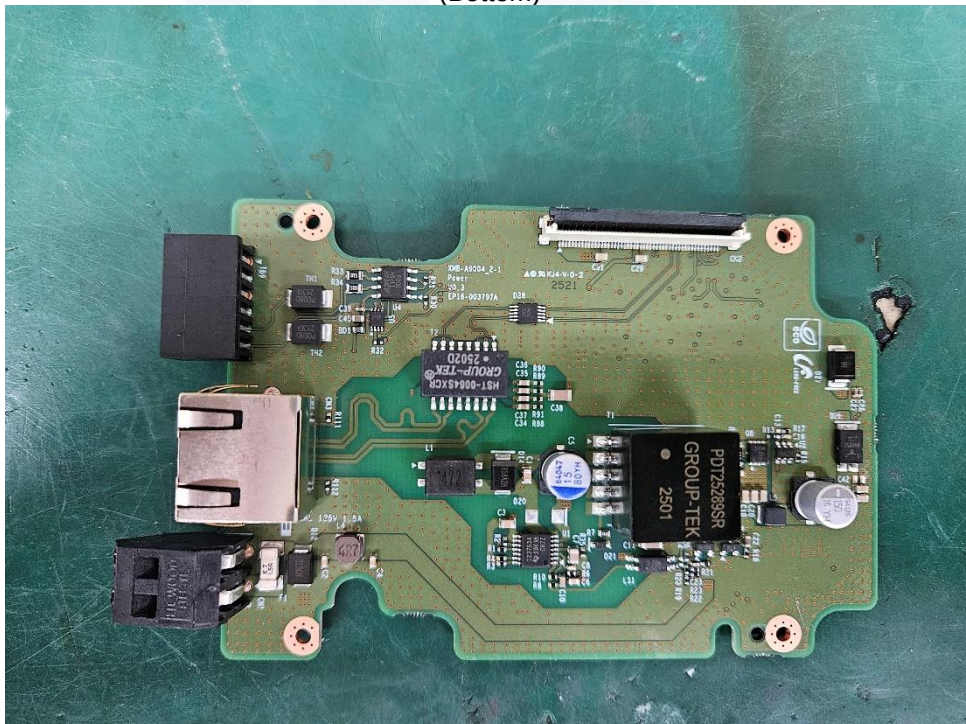


EUT Internal View – Board 3

(Top)



(Bottom)





EUT Internal View – Speaker

(Top)



(Bottom)





Label Photographs



この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。 VCCI-A

The End.