



TEST REPORT



Report No. : KES-EM250239

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KES Co., Ltd.

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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. : XNV-A8084R

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 City, Bac Ninh Province, Vietnam
2. 173-25, Saneop-ro, Gwonseon-gu, Suwon-si, Gyeonggi- do, Korea (Suwon Industrial Complex)

3. Equipment authorization : Supplier's Declaration of Conformity

4. Date of Receipt : Jan. 20, 2025

5. Test date : Jan. 26, 2025 ~ Jan. 27, 2025

6. Date of Issue : Feb. 24, 2025

7. Test Results : In Compliance

Tested by

Reviewed by

Se Heon, Kim
EMC Test Engineer

Seong Min, Choi
EMC Technical Manager

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

KES-QP16-F01(00-23-01-01)

KES Co., Ltd.

The authenticity of this test report can be found on the verification page of our website (www.kes.co.kr)



REPORT REVISION HISTORY

Date	Test Report No.	Revision History
Feb. 24, 2025	KES-EM250239	Issued

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1.0 General Product Description

Main Specifications of EUT are:

Internal highest clock frequency : 3 200 MHz

	XNV-A8084R
Video	
Imaging Device	1/2.8" CMOS
Resolution	2560x1920, 2560x1440, 1920x1080, 1600x1200, 1280x960, 1280x720, 1024x768, 800x600, 640x480, 640x360, 320x240, 320x180
Max. Framerate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 30fps(@5MP Max. 5fps)
NETD	None
Pixel Size	None
Video Out	USB: Micro USB Type C for installation
Video Transmission Distance	None
Lens	
Focal Length (Zoom Ratio)	3.3~9.3mm(2.8x) motorized varifocal
Optical Zoom	None
Max. Aperture Ratio	F1.3(Wide)~F2.3(Tele)
Min. Object Distance	0.5m(1.64ft)
Focus Control	Simple focus, manual
Lens Type	P-iris(IR corrected)
Mount Type	None
Optional Lens	None
Pan / Tilt / Rotate	
Pan / Tilt / Rotate Range	0°~360° / 0°~75° / 0°~355°
Pan Range	None
Pan Speed	None
Tilt Range	None
Tilt Speed	None
Rotate Range	None
Sequence	None
Preset Accuracy	None
Operational	
Camera Title	Displayed up to 85 characters
Direction Indicator	None
Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SDR
Wide Dynamic Range	120dB
Digital Noise Reduction	SSNRV, WiseNR II (Based on AI engine)
Digital Image Stabilization	Support
Defog	Support
Motion Detection	8ea, 8point polygonal zones
Gain Control	Off / Max Gain / Manual
White Balance	ATW / NarrowATW / AWC / Manual / Indoor / Outdoor
LDC	Support(Fill/Stretch mode)
Digital PTZ	None
Video Rotation	Flip, mirror, hallway view(90°/270°)
Analytics	Classified object type: Person/Face/Vehicle(Type: car/bus/truck/motorcycle/bicycle)/License plate Attributes: Person(Gender, Clothing top/bottom color, Bag), Face(Age, Gender, Mask, Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle, Color) Support BestShot Support Re-ID(Person)
	Analytics events based on AI engine - Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear), Slip & fall detection, Face mask detection, Social distancing detection, Sound classification(To be released) Analytics events - Defocus detection, Tampering, Shock detection, Audio detection
Business Intelligence	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap
Serial Interface	None
Alarm I/O	2 configurable I/O ports *Support extra alarm I/O via optional I/O box
Alarm Triggers	Analytics, Network disconnection, 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(WAV, MP3) - MQTT: publication - SIP: call generation
Audio Streaming	None
Audio In	Selectable(mic in/line in)
Audio Out	Line out
Light Type	IR LED
Light Viewable Length	WiseIR 40m(131.23ft)
IR Viewable Length	None
IR Illuminator (Optional)	None
IR Radiation angle	None
IR LED	None
IR Wavelength	850nm
IR Operation	None
Water Removal	None
Auto Tracking	None
Coaxial Protocol	None
Color Palettes	None
Radiometry	
Temperature Detect Range	None
Temperature Accuracy	None
Temperature Detection	None
Additional	None
Network	
Ethernet	Metal shielded RJ-45(10/100BASE-T)
Video Compression	H.265/H.264: Main/Baseline/High MJPEG
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)
Video Quality Adjustment	None
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast Multiple streaming(Up to 5 profiles, 3 virtual channel support)
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP/SFTP, SMTP(StartTLS), ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, SRTP(TCP, UDP Unicast), CDP, MQTT, Syslog, SIP
SIP support (VoIP, Peer-to-peer)	Support
Security	None
Application Programming Interf.	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Hanwha Vision Open Platform
Security	
OS / Firmware Protect	Encrypted Firmware, Secure boot, Signed Firmware
User authentication	Digest Authentication, Prevent brute-force attack
Network authentication	802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2)
Secure Communication	HTTPS, SRTP, WSS(Websocket secure)
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	Secure element, SDcard partition encrypt



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General	
Webpage Language	English, Korean, Simplified Chinese, Traditional Chinese , French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Web Viewer	None
Edge Storage	Micro SD/SDHC/SDXC 1slot 1TB
Memory	4GB RAM, 8GB eMMC
Environmental & Electrical	
Operating Temperature / Humidity	-40°C~+50°C(-40°F~+122°F) +74°C(+165°F)(MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30°C 0~100%RH(Condensing) Humidity control with AIR vent
Storage Temperature / Humidity	-50°C~+60°C(-58°F~+140°F) / 0~90% RH
Wind Load	None
Certification	IP66/IP67, NEMA4X, IK10, NEMA-TS 2(2.2.7.2-8, 2.2.8, 2.2.9)
Input Voltage	PoE(IEEE802.3af, Class3)
Power Consumption	PoE: Max. 12.95W
Mechanical	
Color / Material	White / Aluminum Bubble: Hard-coated dome Recycled plastic: ??%
RAL Code	RAL9003
Compatible Conduit hole / Gang	12.7mm(1/2")(M20) Single, double, 4" octagon, 4" square
Certifications & Standards	
Network	None
EMC	FCC 47 CFR 15 Subpart B Class A ICES-3(A)/NMB-3(A) CE/UKCA - EN 55032 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/EN 62471
Environment	IEC/EN 63000 IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK10, NEMA 250 Type 4X, NEMA-TS 2(2.2.7.2-8, 2.2.8, 2.2.9) IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78
Video	None
Compatible Models	
Hanging Adaptor	SBP-160HMMW1
Back Box	SBV-180BW, SBV-180WW
Ceiling Mount (Assy)	SBP-150CMI, SBP-300CMI, SBP-300CMW1, SBP-900CMW, SBP-300CMTW, SBP-300CMTS
Ceiling Mount (Single Unit)	SBP-180CMB, SBP-140CMB, SBP-180CMS, SBP-900CMP, SBP-300CMP, SBP-150CMP, SBP-C15P, SBP-C15H
Wall Mount	SBP-160WMW1, SBP-400WMW, SBP-250WMW, SBP-300WMW, SBP-300WMW1
Wall Mount Adaptor	None
Pole Mount	SBD-180PMW, SBP-300PMW2
In-ceiling Mount	SHD-1600FPW, SHD-1600FW
Corner Mount	SBP-156KMW, SBP-300KMW1, SBD-180KMA
Parapet Mount	SBP-156LMW1, SBP-300LMW
Tilt Mount	SBP-160TMW1
Cabinet	SBP-150NBW, SBP-300NBW
Housing	None
Gang Plate	None
Skin Cover	None
Weather Cap	SBV-161WCW
Dome Cover	None
Conduit Adaptor	None
Power Module	None
Interface Box	SPM-4210
Other Compatible Models	SPP-C7400, SPB-VAN88W, SBP-115PFA

KES-QP16-F01(00-23-01-01)

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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 (PoE Adapter Input Power)

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	XNV-A8084R	-	HANWHA VISION VIETNAM COMPANY LIMITED	EUT

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
PoE Injector	POE 29U-1AT	-	PHIHONG	-
Laptop	LG15U47	9JM8HT2	Tech-Front (Chongqing) Computer Co., Ltd.	-
Laptop Adapter	ADP-40PH BB	-	LITEON Technology	-
Micro SD Card	-	-	-	-
Headset	K550	-	Britz®	-
Alarm	PRO-SL	-	SENSOR PRO	-
Button Alarm	-	-	-	-



1.6 External I/O Cabling

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)	3.5	U
	7 Pin (Audio OUT)	Headset	7 Pin (Audio IN)	2.0	U
	7 Pin (Audio IN)		7 Pin (Audio OUT)	2.0	U
	7 Pin (Alarm OUT)	Alarm	7 Pin (Alarm IN)	3.5	U
	7 Pin (Alarm IN)	Button Alarm	7 Pin (Alarm OUT)	3.5	U
	Micro SD Slot	Micor SD Card	Micro SD Slot	-	-
PoE Injector	RJ-45 (LAN)	Laptop	RJ-45 (LAN)	2.0	U
Laptop	DC Jack	Laptop Adapter	DC Jack	1.5	U

* Unshielded=U, Shielded=S

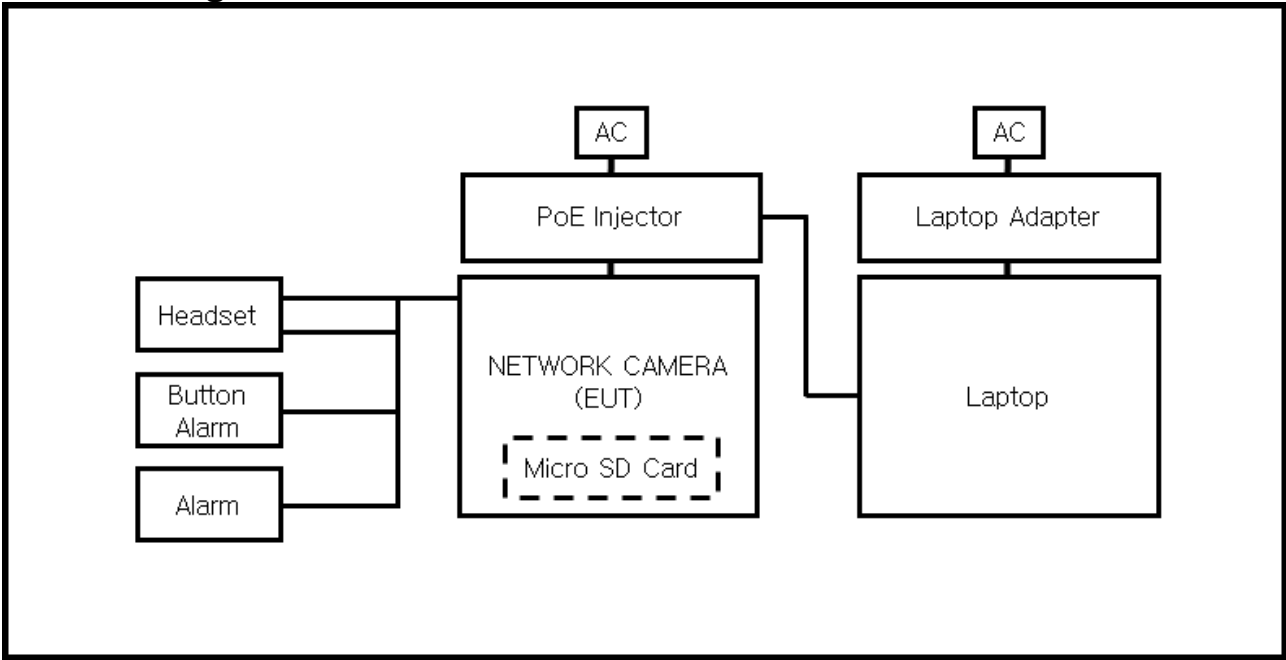
1.7 EUT Operating Mode(s)

Test mode	Normal operating	Test Voltages
Operating	<ul style="list-style-type: none">- Monitoring EUT Using Web Viewer, Ping Test- When the Button Alarm is pressed, make sure the Alarm is working- Uploaded the 1 kHz tone sound to the Web Viewer and checked if the sound is output to the headset.- After the test, the recorded video stored on the Micro SD Card was checked and the microphone motion was also confirmed.	AC 120 V, 60 Hz

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



1.8 Configuration





1.9 Remarks when standards applied

The USB port was excluded from the test as a port 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, Yeosu-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:

☒ **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

Jan. 26, 2025

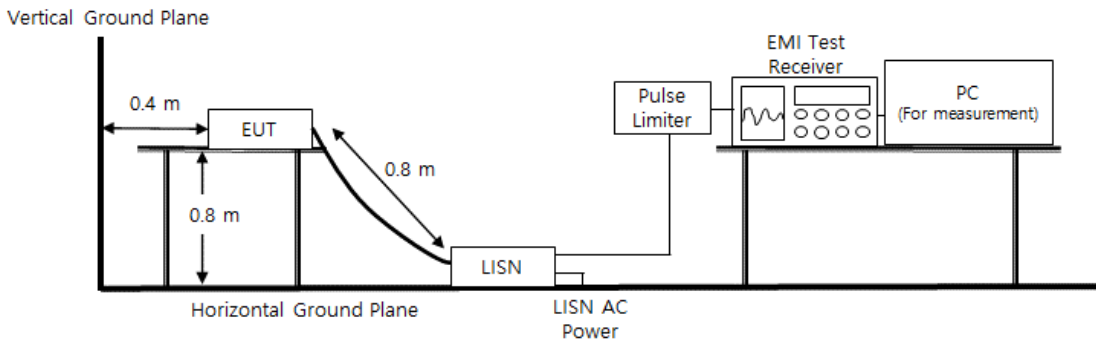
Test Location

Electro wave Shieldroom #6

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
<input checked="" type="checkbox"/>	EMI Test S/W	EMC32	R & S	9.12.00	-
<input checked="" type="checkbox"/>	EMI TEST RECEIVER	ESR3	R & S	101783	11, 06, 2025
<input checked="" type="checkbox"/>	LISN	ENV216	R & S	101786	01, 09, 2026
<input checked="" type="checkbox"/>	ARTIFICIAL MAINS NETWORK	ESH2-Z5	R & S	100450	11, 06, 2025
<input checked="" type="checkbox"/>	PULSE LIMITER	ESH3-Z2	R & S	101915	11, 06, 2025

Diagram of test setup





Test Conditions

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

Frequency Range of Measurement

150 kHz to 30 MHz

Instrument Settings

IF Band Width: 9 kHz

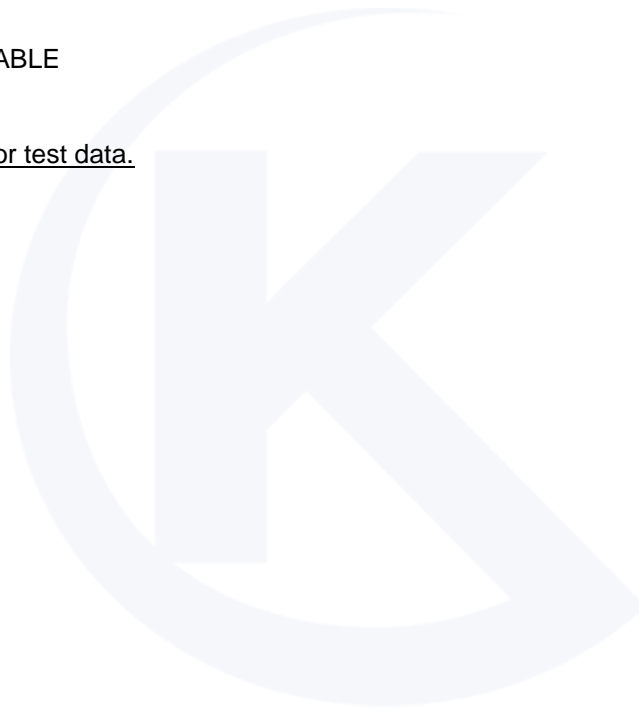
Test Results

The requirements are:

- ☒ PASS
- ☐ NOT PASS
- ☐ NOT APPLICABLE

Remarks

See Appendix A for test data.





2.2 Radiated Electric Field Emissions(Below 1 GHz)

Test Date

Jan. 26, 2025

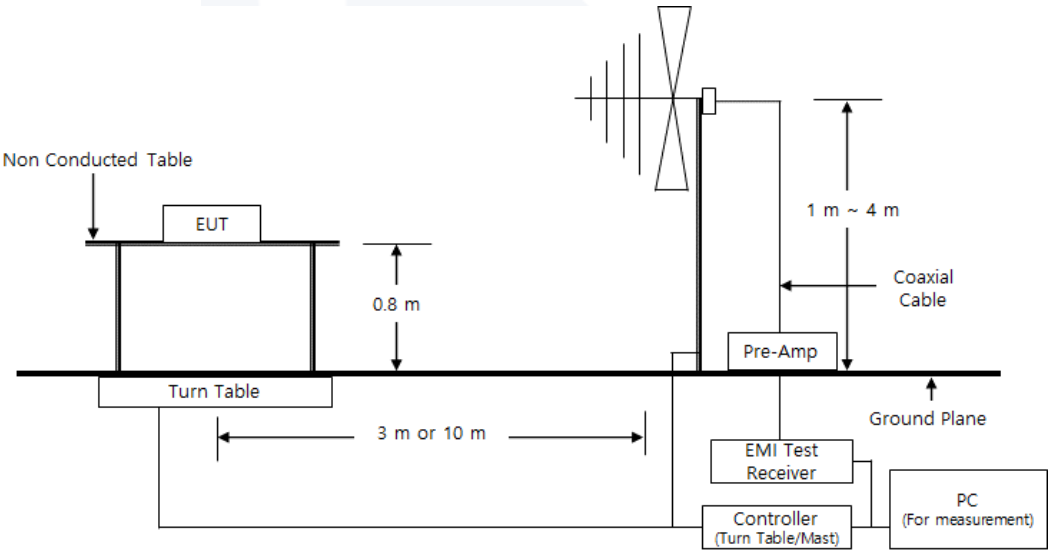
Test Location

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

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
<input checked="" type="checkbox"/>	EMI Test S/W	EP5/RE	TOYO Corporation	6.0.0	-
<input checked="" type="checkbox"/>	EMI TEST RECEIVER	ESU26	R & S	100551	02, 13, 2025
<input checked="" type="checkbox"/>	AMPLIFIER	SCU 01	R & S	100603	11, 06, 2025
<input checked="" type="checkbox"/>	BILOG ANTENNA	VULB 9168	SCHWARZBECK	9168-461	05, 09, 2026
<input checked="" type="checkbox"/>	ATTENUATOR	6806.17.A	HUBER+SUHNER	-	02, 13, 2025

Diagram of test setup





Test Conditions

Temperature: (22,5 ± 0,0) °C
Relative Humidity: (45,9 ± 0,1) % R.H.

Frequency Range of Measurement

30 MHz to 1 GHz

Instrument Settings

IF Band Width: 120 kHz

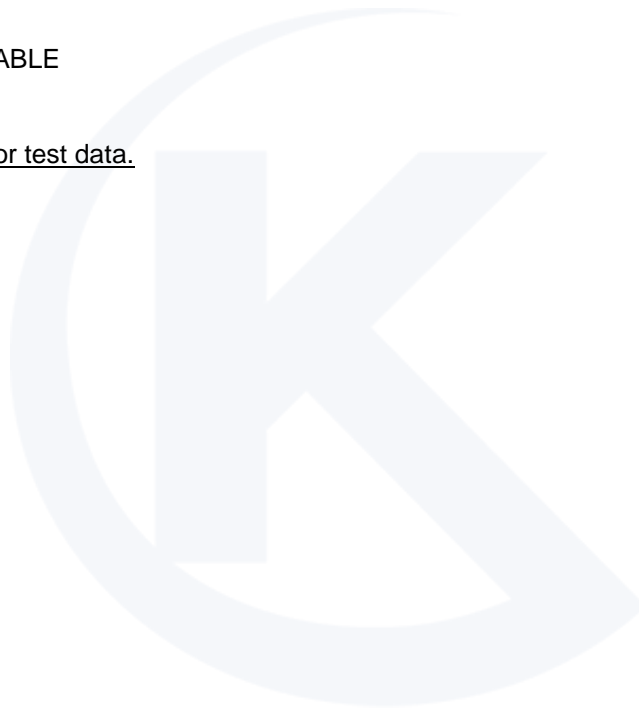
Test Results

The requirements are:

- ☒ PASS
- ☐ NOT PASS
- ☐ NOT APPLICABLE

Remarks

See Appendix A for test data.





2.3 Radiated Electric Field Emissions(Above 1 GHz)

Test Date

Jan. 27, 2025

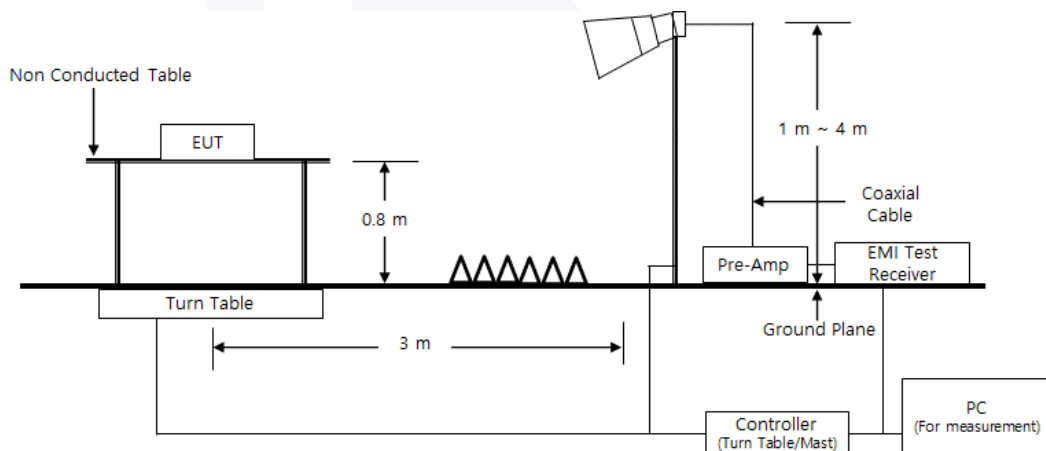
Test Location

SEMI ANECHOIC CHAMBER #5

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
<input checked="" type="checkbox"/>	EMI Test S/W	ES10/RE	TOYO Corporation	2022.01.000	-
<input checked="" type="checkbox"/>	EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100552	02, 13, 2025
<input checked="" type="checkbox"/>	HORN ANTENNA	BBHA 9120D	SCHWARZBECK	9120D-1802	11, 04, 2025
<input checked="" type="checkbox"/>	PREAMPLIFIER	8449B	HP	3008A00538	04, 30, 2025
<input checked="" type="checkbox"/>	ATTENUATOR	8491B	HP	23094	02, 13, 2025

Diagram of test setup





Test Conditions

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

Frequency Range of Measurement

1 GHz to 16 GHz

Instrument Settings

IF Band Width: 1 MHz

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.

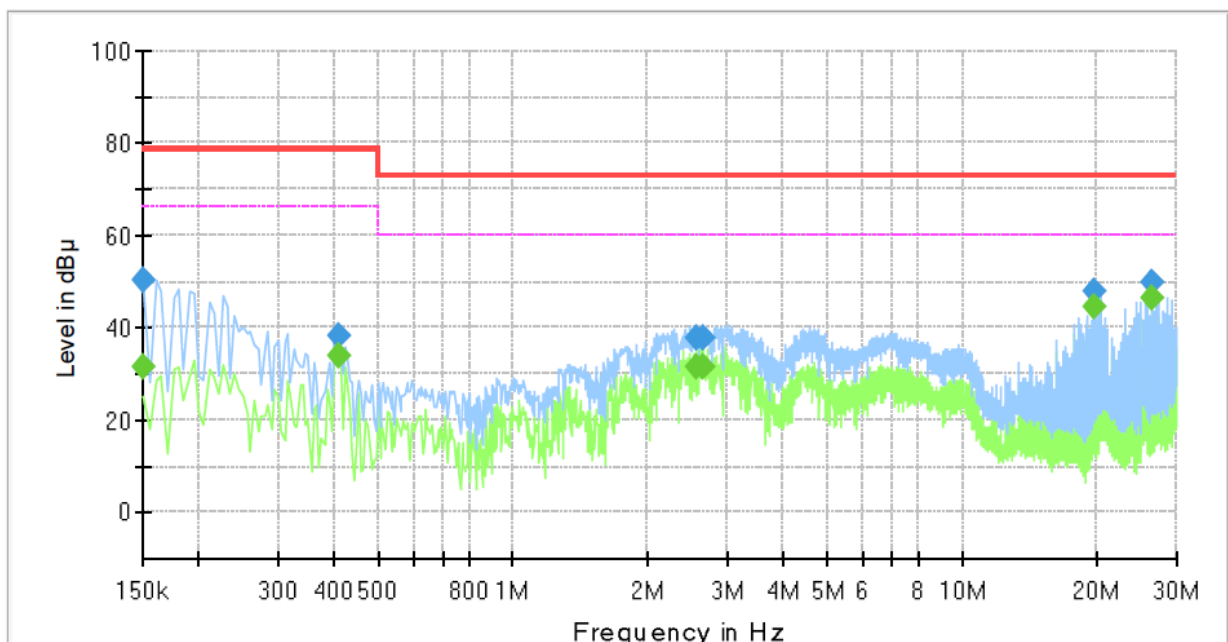


APPENDIX A – TEST DATA

Conducted Emissions at Mains Power Ports

HOT LINE

Test Description: Conducted Emission
Job No.: KES-EM250239
Phase: L
Mode:
Operator Name: KES



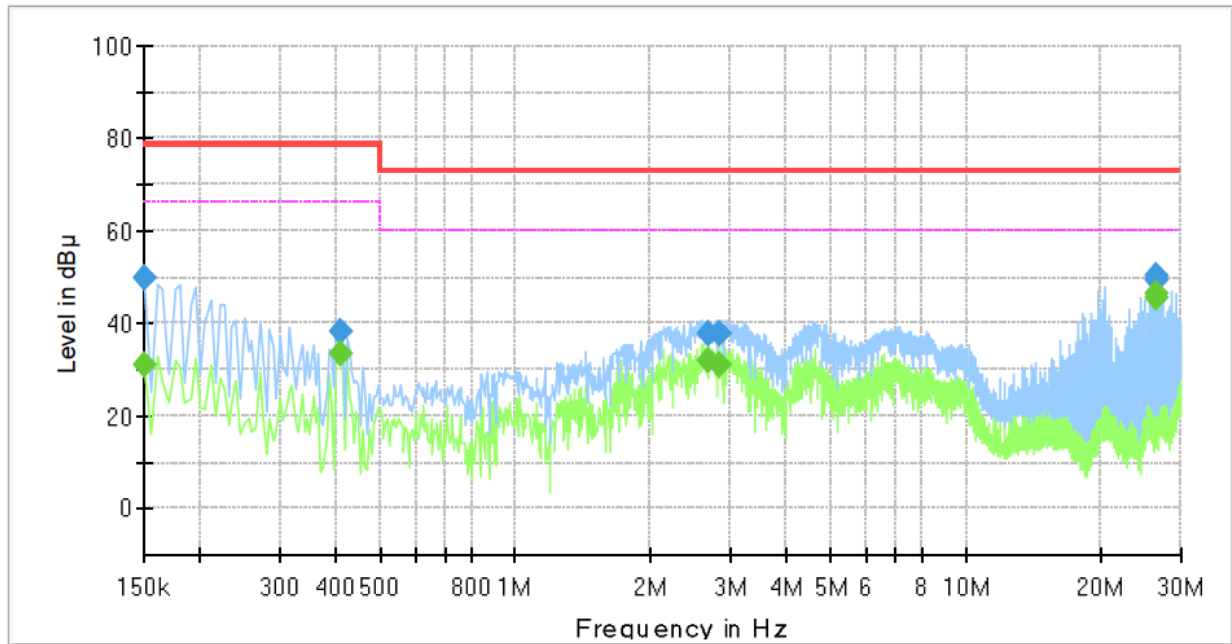
Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	---	31.29	66.00	34.71	1000.0	9.000	L1	19.6
0.150000	50.17	---	79.00	28.83	1000.0	9.000	L1	19.6
0.410000	---	33.81	66.00	32.19	1000.0	9.000	L1	19.6
0.410000	38.07	---	79.00	40.93	1000.0	9.000	L1	19.6
2.560000	---	31.68	60.00	28.32	1000.0	9.000	L1	19.8
2.560000	37.88	---	73.00	35.12	1000.0	9.000	L1	19.8
2.635000	---	31.51	60.00	28.49	1000.0	9.000	L1	19.8
2.635000	37.53	---	73.00	35.47	1000.0	9.000	L1	19.8
19.710000	---	44.30	60.00	15.70	1000.0	9.000	L1	20.4
19.710000	47.70	---	73.00	25.30	1000.0	9.000	L1	20.4
26.610000	---	46.54	60.00	13.46	1000.0	9.000	L1	20.7
26.610000	50.06	---	73.00	22.94	1000.0	9.000	L1	20.7



NEUTRAL LINE

Test Description: Conducted Emission
Job No.: KES-EM250239
Phase: N
Mode:
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	---	31.14	66.00	34.86	1000.0	9.000	N	19.6
0.150000	50.04	---	79.00	28.96	1000.0	9.000	N	19.6
0.410000	---	33.40	66.00	32.60	1000.0	9.000	N	19.6
0.410000	38.16	---	79.00	40.84	1000.0	9.000	N	19.6
2.690000	---	31.88	60.00	28.12	1000.0	9.000	N	19.8
2.690000	37.62	---	73.00	35.38	1000.0	9.000	N	19.8
2.850000	---	31.22	60.00	28.78	1000.0	9.000	N	19.8
2.850000	37.82	---	73.00	35.18	1000.0	9.000	N	19.8
26.485000	---	45.64	60.00	14.36	1000.0	9.000	N	20.6
26.485000	49.15	---	73.00	23.85	1000.0	9.000	N	20.6
26.610000	---	46.59	60.00	13.41	1000.0	9.000	N	20.6
26.610000	50.10	---	73.00	22.90	1000.0	9.000	N	20.6

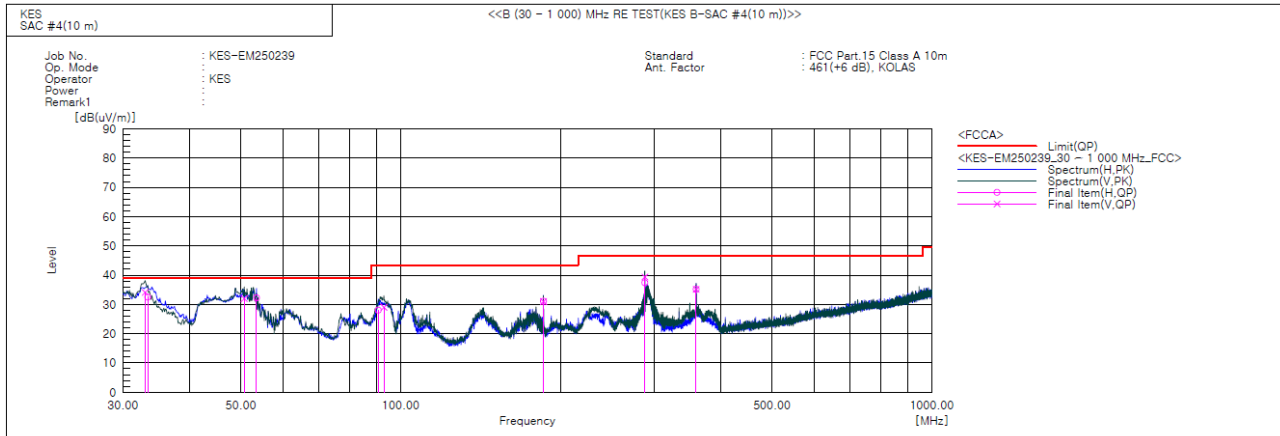
◆ Calculation

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

QuasiPeak / CAverage : The Final Value

Reading Value : Not shown in the table.

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

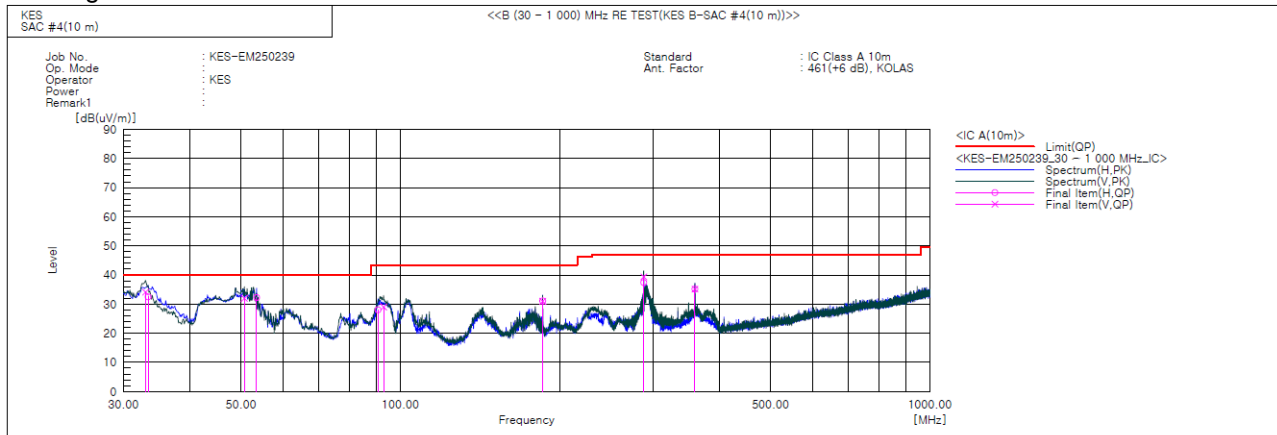
**Radiated Electric Field Emissions(Below 1 GHz)****- 47 CFR Part 15, Subpart B****Final Result**

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	33.031	V	56.7	-22.6	34.1	39.0	4.9	112.0	289.0	
2	33.395	H	55.0	-22.5	32.5	39.0	6.5	361.0	12.0	
3	50.734	V	53.1	-21.1	32.0	39.0	7.0	120.0	12.0	
4	53.523	H	53.4	-21.1	32.3	39.0	6.7	339.0	251.0	
5	90.746	H	54.4	-26.3	28.1	43.5	15.4	350.0	211.0	
6	92.929	V	55.1	-26.1	29.0	43.5	14.5	100.0	229.0	
7	185.564	V	52.4	-21.4	31.0	43.5	12.5	148.0	165.0	
8	185.564	H	52.5	-21.4	31.1	43.5	12.4	341.0	135.0	
9	288.020	H	55.1	-17.7	37.4	46.5	9.1	370.0	150.0	
10	288.020	V	57.1	-17.7	39.4	46.5	7.1	145.0	143.0	
11	359.679	V	50.5	-15.3	35.2	46.5	11.3	164.0	150.0	
12	359.679	H	50.5	-15.3	35.2	46.5	11.3	360.0	164.0	



Report No. : KES-EM250239

- 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	33.031	V	56.7	-22.6	34.1	40.0	5.9	112.0	289.0	
2	33.395	H	55.0	-22.5	32.5	40.0	7.5	361.0	12.0	
3	50.734	V	53.1	-21.1	32.0	40.0	8.0	120.0	12.0	
4	53.523	H	53.4	-21.1	32.3	40.0	7.7	339.0	251.0	
5	90.746	H	54.4	-26.3	28.1	43.5	15.4	350.0	211.0	
6	92.929	V	55.1	-26.1	29.0	43.5	14.5	100.0	229.0	
7	185.564	V	52.4	-21.4	31.0	43.5	12.5	148.0	165.0	
8	185.564	H	52.5	-21.4	31.1	43.5	12.4	341.0	135.0	
9	288.020	H	55.1	-17.7	37.4	47.0	9.6	370.0	150.0	
10	288.020	V	57.1	-17.7	39.4	47.0	7.6	145.0	143.0	
11	359.679	V	50.5	-15.3	35.2	47.0	11.8	164.0	150.0	
12	359.679	H	50.5	-15.3	35.2	47.0	11.8	360.0	164.0	

◆ Calculation

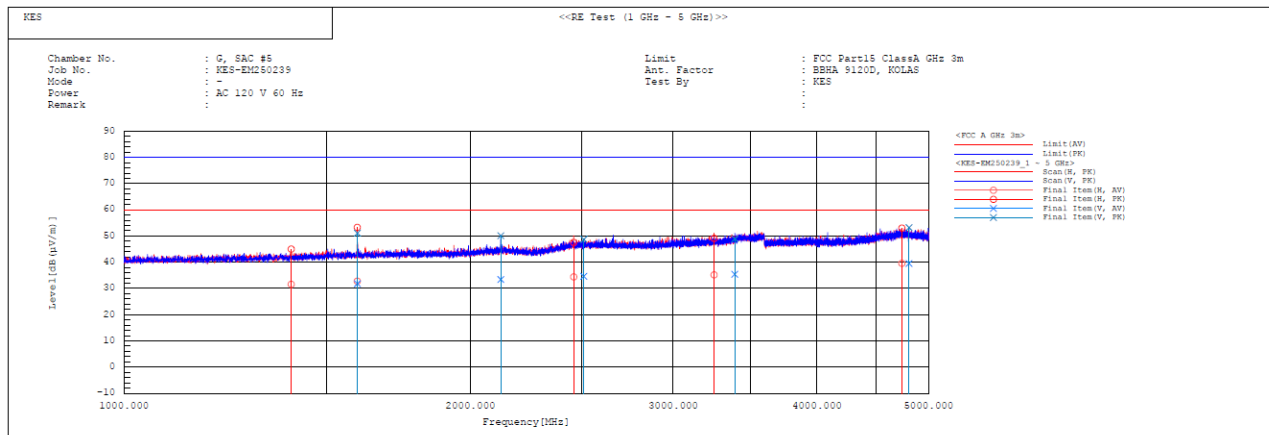
$$\text{Result(QP)} [\text{dB}(\mu\text{V/m})] = (\text{Reading(QP)} [\text{dB}(\mu\text{V})] + \text{c.f} [\text{dB}(1/\text{m})])$$
$$\text{Margin(QP)} [\text{dB}] = \text{Limit} [\text{dB}(\mu\text{V/m})] - \text{Result(QP)} [\text{dB}(\mu\text{V/m})]$$

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)**

(1 ~ 5) GHz



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	1397.600	H	31.1	44.5	0.5	31.6	45.0	60.0	80.0	28.4	35.0	302.5	137.8	
2	1594.800	H	31.4	51.9	1.4	32.8	53.3	60.0	80.0	27.2	26.7	338.1	122.5	
3	1595.600	V	30.4	49.7	1.4	31.8	51.1	60.0	80.0	28.2	28.9	149.0	95.3	
4	2124.800	V	30.1	46.8	3.3	33.4	50.1	60.0	80.0	26.6	29.9	168.3	152.6	
5	2458.800	H	29.7	42.9	4.7	34.4	47.6	60.0	80.0	25.6	32.4	391.0	316.5	
6	2508.800	V	29.7	43.8	4.9	34.6	48.7	60.0	80.0	25.4	31.3	108.3	324.0	
7	3256.000	H	28.7	42.6	6.5	35.2	49.1	60.0	80.0	24.8	30.9	293.7	60.0	
8	3394.000	V	28.6	42.1	6.8	35.4	48.9	60.0	80.0	24.6	31.1	119.8	348.3	
9	4739.200	H	28.4	41.8	11.2	39.6	53.0	60.0	80.0	20.4	27.0	298.1	0.1	
10	4808.400	V	28.1	41.8	11.4	39.5	53.2	60.0	80.0	20.5	26.8	101.6	0.1	



(5 ~ 16) GHz

- PK

Frequency (MHz)	Reading PK (dBuV)	Polarization	Height (m)	ANT Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
6 868.100	41.000	V	1.000	35.840	9.110	34.680	51.270	80.000	28.730
8 731.000	40.900	H	1.000	37.920	10.800	33.910	55.710	80.000	24.290

- CISPR AV

Frequency (MHz)	Reading CISPR AV (dBuV)	Polarization	Height (m)	ANT Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
6 868.100	27.500	V	1.000	35.840	9.110	34.680	37.770	60.000	22.230
8 731.000	27.400	H	1.000	37.920	10.800	33.910	42.210	60.000	17.790

◆ Calculation

$$\text{Result(QP)} [\text{dB}(\mu\text{V/m})] = (\text{Reading(QP)}[\text{dB}(\mu\text{V})] + \text{c.f}[\text{dB}(1/\text{m})])$$
$$\text{Margin(QP)}[\text{dB}] = \text{Limit}[\text{dB}(\mu\text{V/m})] - \text{Result(QP)} [\text{dB}(\mu\text{V/m})]$$

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



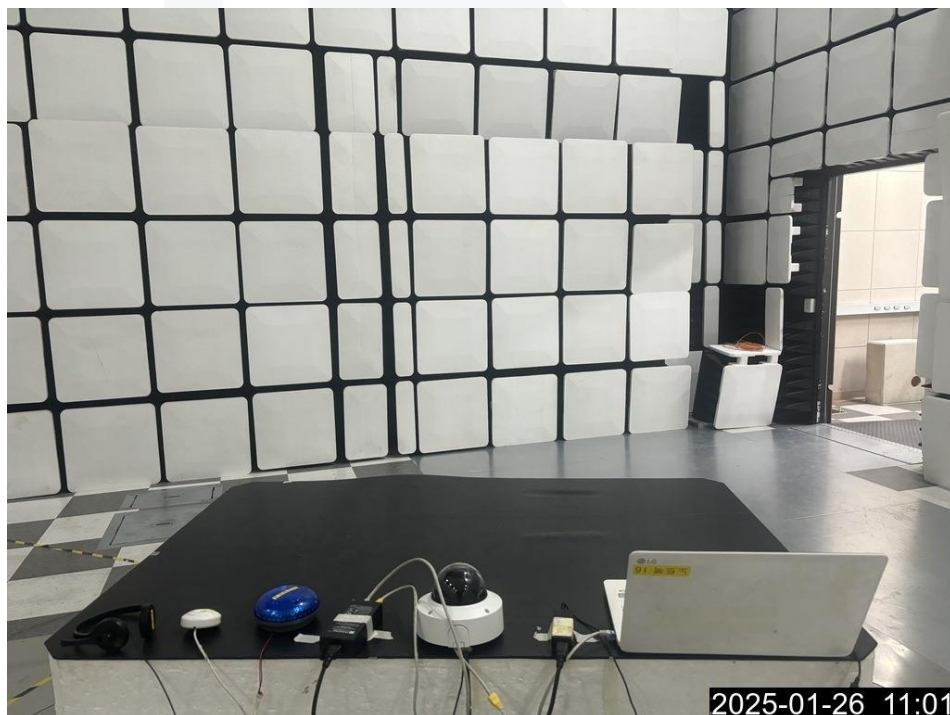
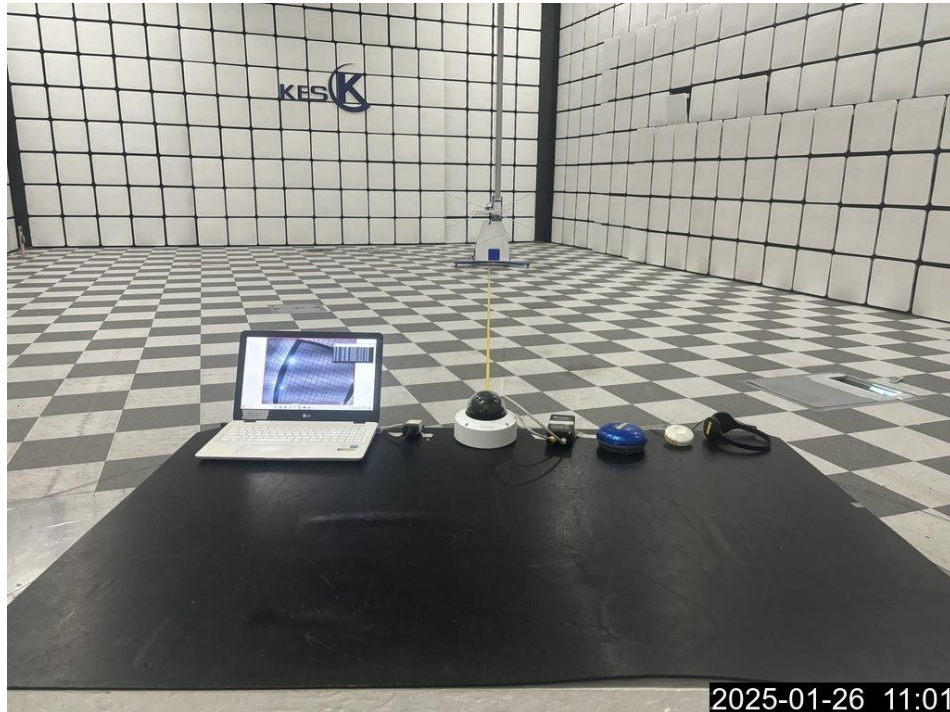
Test Setup Photos and Configuration

Conducted Emissions at Mains Power Ports



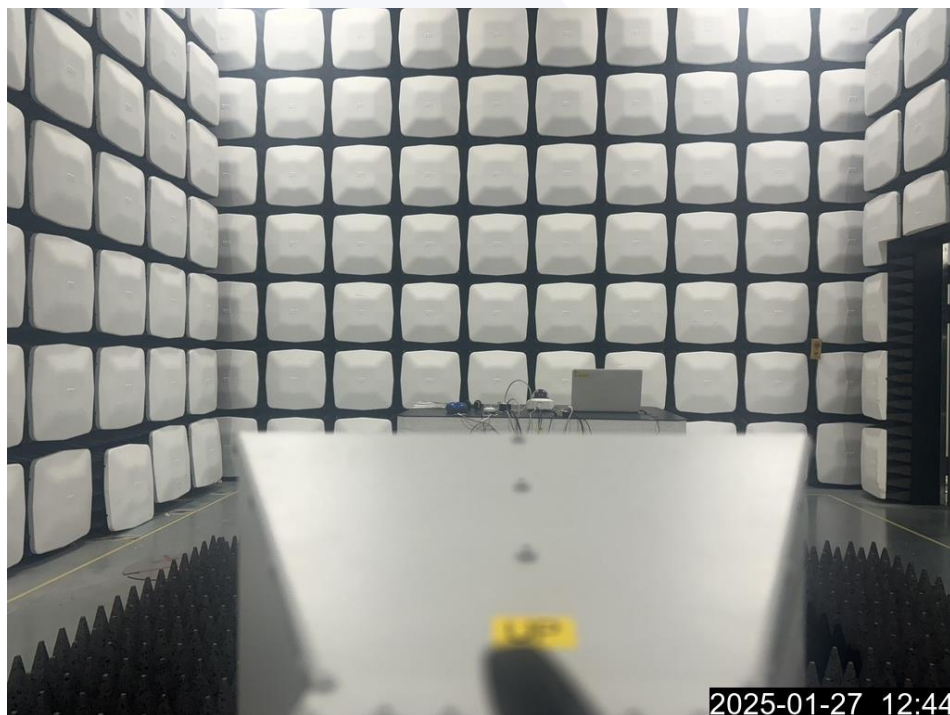
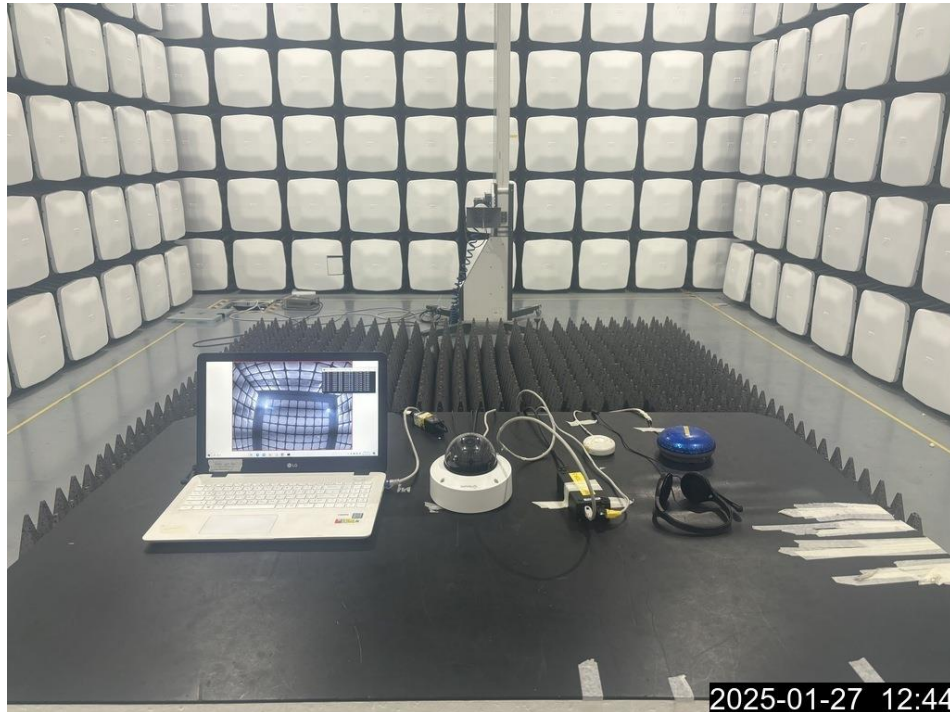


Radiated Electric Field Emissions(Below 1 GHz)





Radiated Electric Field Emissions(Above 1 GHz)



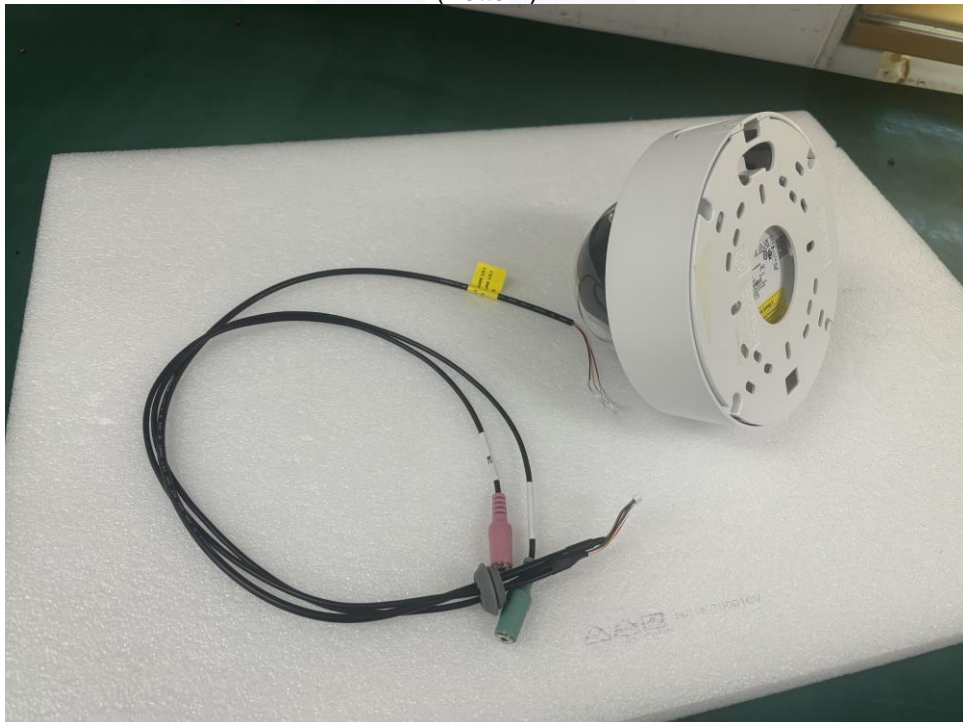


EUT External Photographs

(Top)



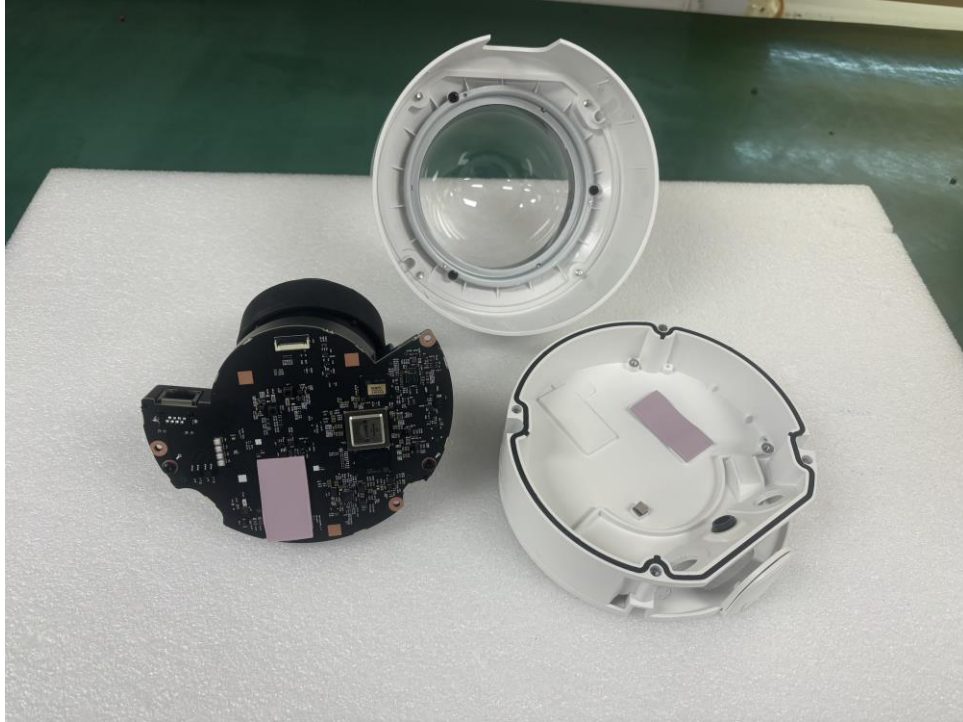
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EUT Internal Photographs

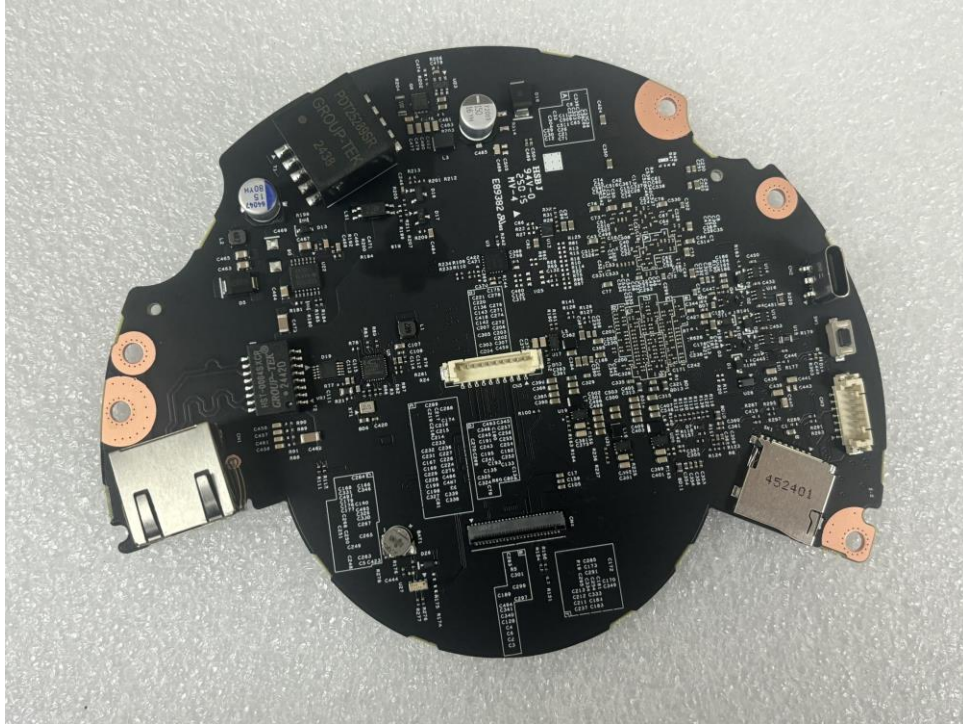
(Internal View)



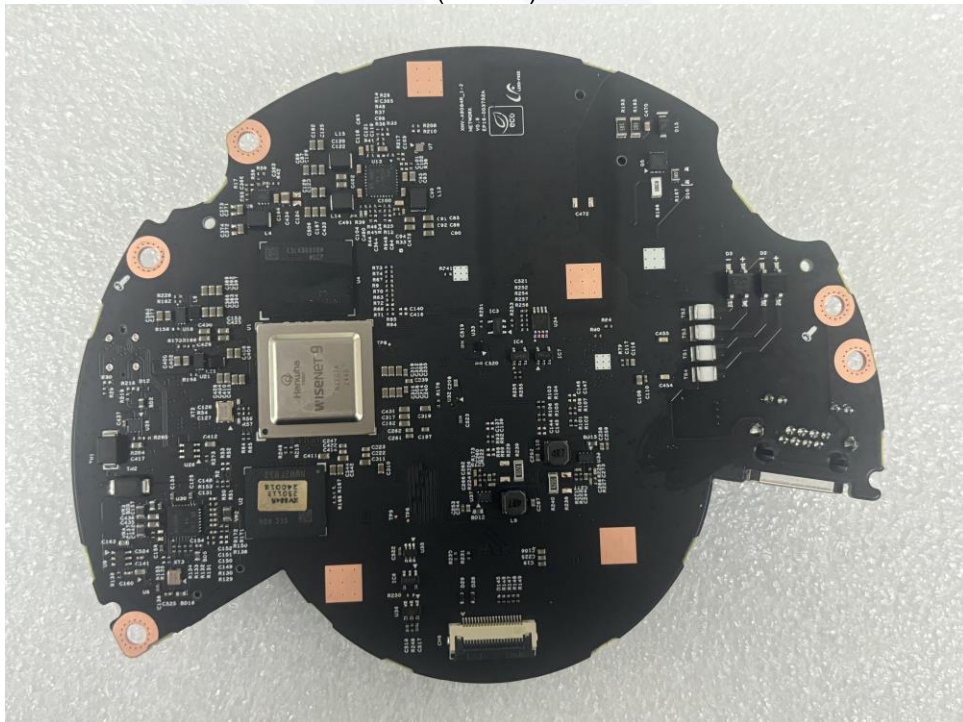


EUT Internal View – Board 1

(Top)



(Bottom)





EUT Internal View – Board 2

(Top)



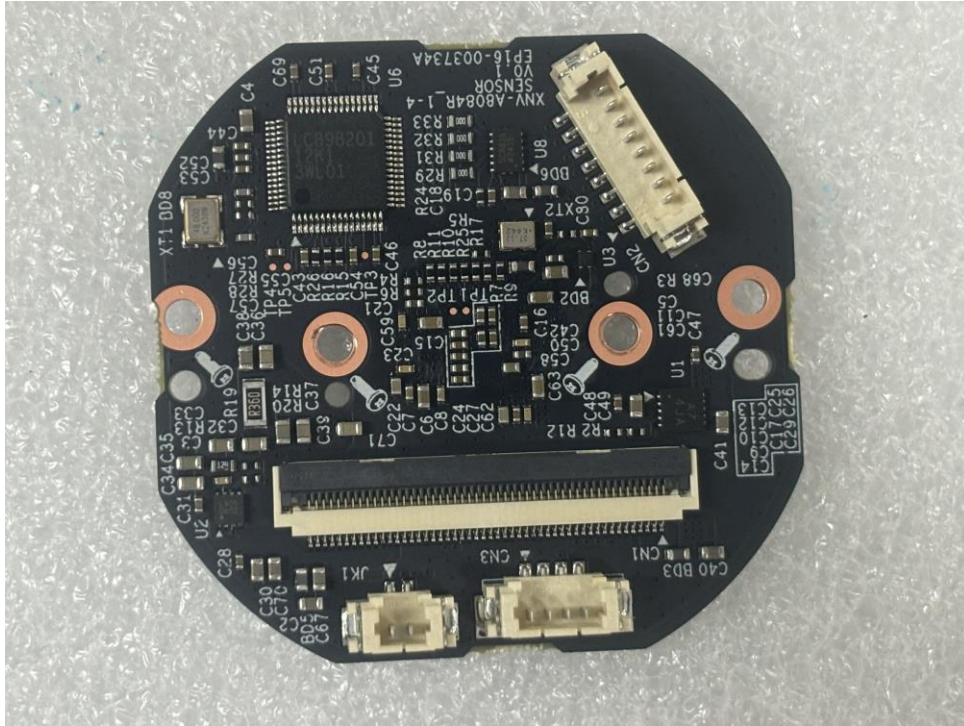
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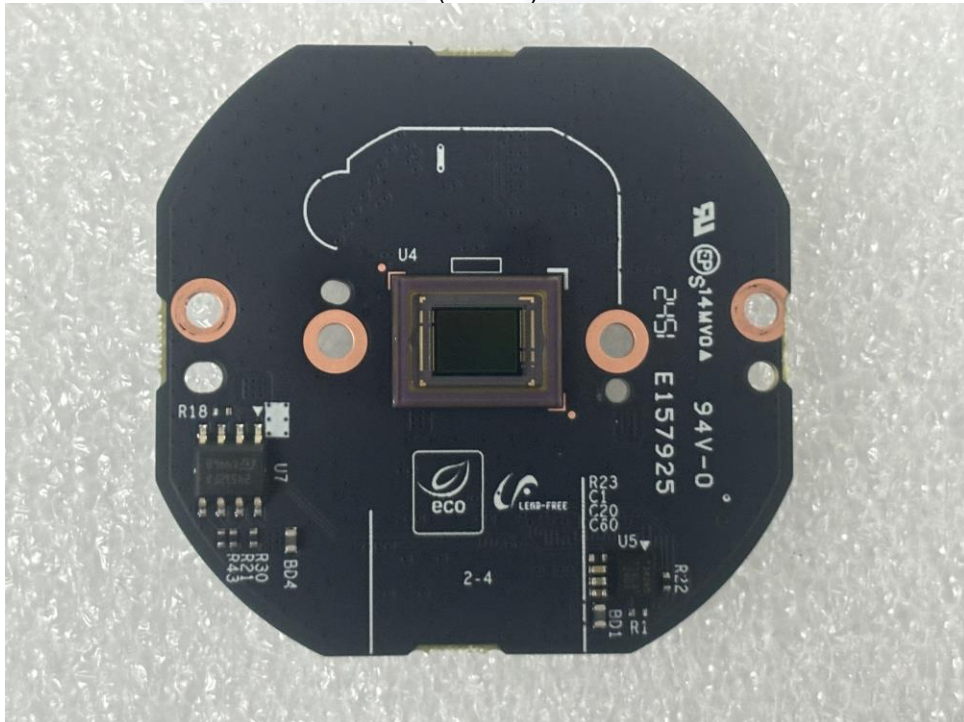


EUT Internal View – Board 3

(Top)



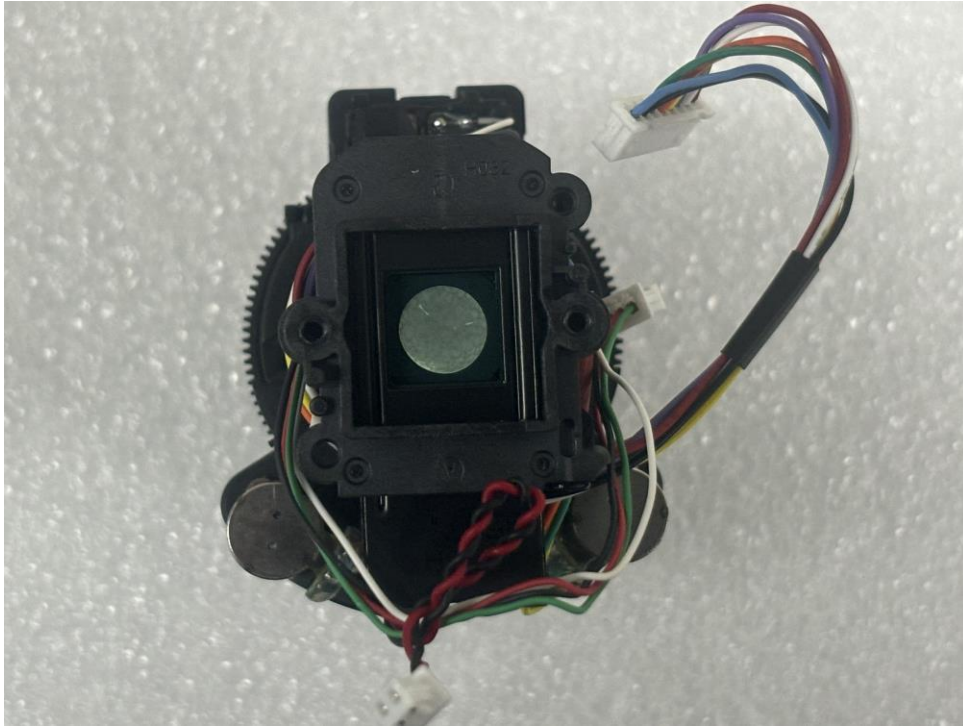
(Bottom)





EUT Internal View – Lens

(Top)



(Bottom)





Label Photographs

FCC Label



NETWORK CAMERA

XNV-A8084R

IC Label

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

This device complies with ICES-003 Canada Rules 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.

The End.