



# TEST REPORT



Report No. : KES-EM240515

Page 1 / 31

**KES Co., Ltd.**

#3002, #3503, #3701, 40, Simin-daero  
365beon-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 : NETWORK CAMERA  
Model/Type No. : QNO-C6083R  
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. Date of Receipt : Feb. 05, 2024

4. Test date : Feb. 13, 2024 ~ Feb. 14, 2024

5. Date of Issue : Feb. 27, 2024

6. Test Results : In Compliance

*Tested by*

*Reviewed by*

---

Seon Ho, Choi  
EMC Test Engineer

---

Dong Il, Lee  
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
Feb. 27, 2024	KES-EM240515	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 .....	6
1.2	Variant Model Differences .....	6
1.3	Device Modifications .....	6
1.4	Equipment Under Test .....	6
1.5	Support Equipments .....	6
1.6	External I/O Cabling.....	7
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) .....	18
	Radiated Electric Field Emissions(Above 1 GHz) .....	19
	Test Setup Photos and Configuration .....	20
	Conducted Emissions at Mains Power Ports .....	20
	Conducted Emissions at Telecommunication Ports.....	21
	Radiated Electric Field Emissions(Below 1 GHz) .....	22
	Radiated Electric Field Emissions(Above 1 GHz) .....	23
	EUT External Photographs .....	24
	EUT Internal Photographs .....	25



## 1.0 General Product Description

### Main Specifications of EUT are:

<b>Video</b>	
Imaging Device	1/2.8" CMOS
Resolution	1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 30fps(@2MP Max. 5fps)
NETD	None
Pixel Size	None
Min. Illumination	Color: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Out	USB: Micro USB Type B, 1280x720 for installation
Video Transmission Distance	None
<b>Lens</b>	
Focal Length (Zoom Ratio)	3.2~10.2mm(3.2x) motorized varifocal
Max. Aperture Ratio	F1.6(Wide)~F3.1(Tele)
Angular Field of View	H: 103.1°(Wide)~31.5°(Tele) V: 54.5°(Wide)~17.7°(Tele) D: 123.1°(Wide)~36.1°(Tele)
Min. Object Distance	1.2m (3.93ft)
Focus Control	Simple focus
Lens Type	DC auto iris(IR corrected)
Mount Type	None
Optional Lens	None
<b>Pan / Tilt / Rotate</b>	
Pan / Tilt / Rotate Range	0°~360° / 0°~100° / 0°~360°
Pan Range	None
Pan Speed	None
Tilt Range	None
Tilt Speed	None
Rotate Range	None
Sequence	None
Preset Accuracy	None
<b>Operational</b>	
Camera Title	Displayed up to 85 characters
Direction Indicator	None
Day & Night	Auto(ICR)
Backlight Compensation	BLC, WDR, SDR
Wide Dynamic Range	120dB
Digital Noise Reduction	SSNRV, WiseNR II(Based on AI engine)
Digital Image Stabilization	None
Defog	None
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 (1/5~1/25,000sec) <b>prefer shutter control</b>
Digital PTZ	Support
Video Rotation	Flip, Mirror, Hallway view(90°/270°)
Analytics	Classified object type: Person/Vehicle Attributes: Vehicle(Type:car/bus/truck/motorcycle/bicycle) 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)
	* Some of the video analytics only works with people and vehicle detection
Business Intelligence	Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap
Serial Interface	None
Alarm I/O	Input 1ea / Output 1ea
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) - Audio clip playback
Audio Streaming	None
Audio In	Selectable(mic in/line in)
Audio Out	Line out, Max.output level: 0.5Vrms
Light Type	None
Light Viewable Length	None
IR Viewable Length	30m(98.42ft)
IR Illuminator (Optional)	None
IR Radiation angle	None
IR LED	None
IR Wavelength	long-life 850 nm IR LED
IR Operation	None
Water Removal	None
Auto Tracking	None
Coaxial Protocol	None
Color Palettes	None
<b>Radiometry</b>	
Temperature Detect Range	None
Temperature Accuracy	None
Temperature Detection	None
Additional	None



Report No. : KES-EM240515

<b>Network</b>	
Ethernet	RJ-45 (10/100BASE-T)
Video Compression	H.265/H.264: Main/High, MJPEG
Audio Compression	G.711 u-law /G.726 Selectable G.726(ADPCM) 8KHz, G.711 8KHz G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps AAC-LC: 48Kbps at 16KHz
Smart Codec	Manual(5ea area), WiseStreamIII
Video Quality Adjustment	H.264/H.265: Target bitrate level control MJPEG: Quality Level control
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast Multiple streaming(Up to 5 profiles)
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP (TCP, UDP Unicast)
SIP support (VoIP, Peer-to-peer)	None
Security	None
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API)
<b>Security</b>	
OS / Firmware Protect	Secure boot, Signed firmware, Firmware encryption
User authentication	Digest Authentication, Prevent brute-force attack
Network authentication	802.1X Authentication(EAP-TLS, EAP-I-EAP, EAP-PEAP MSCHAPv2)
Secure Communication	HTTPS, SRTP, WSS(Websocket secure)
Access Control	Access control based on IP address
Data Protect	Authentication information encryption, ZIP compression encryption
Audit	User Access/System/Event log management
Device ID	Device Certificate(Hanwha Private Root CA)
Secure Storage	SDcard partition encrypt
Security Certificate	Secure by default
<b>General</b>	
Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Web Viewer	None
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB
Memory	2GB RAM, 1GB Flash
<b>Environmental &amp; Electrical</b>	
Operating Temperature / Humidity	-40°C~+55°C(-40°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C Humidity control /w Air vent
Storage Temperature / Humidity	-50°C~+60°C(-58°F ~ +140°F) / 0~95% RH
Certification	IP66, IK10
Input Voltage	PoE(IEEE802.3af, Class3)
Power Consumption	PoE: Max 8.9W, typical 3.7W
<b>Mechanical</b>	
Color / Material	White / Aluminum
RAL Code	RAL9003
Product Dimensions / Weight	ø93.4x245.8mm(ø3.68x9.68"), 930g(2.05 lb)
Compatible Conduit hole / Gang	Conduit hole : None Gangbox (SBO-090GP) : Single, Double, 4" Octagon (sold separately)
Hanging Mount (Dome)	None
Skin Cover	None
Skin Cover (Dome)	None
Weather Cap (Dome)	None
Power Module	None
Backbox	SBO-140BW
<b>Certifications &amp; Standards</b>	
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
Safety	UL 62368-1, CAN/CSA C22.2 NO. 62368-1 IEC/EN 62471
Environment	IEC/EN 63000 IEC/EN 60529 IP66, IEC/EN 62262 IK10
Video	None
<b>DORI (EN62676-4 standard)</b>	
Detect (25PPM/ 8PPF)	Wide: 30.5m(100.03ft) / Tele: 76.6m(251.27ft)
Observe (63PPM/ 19PPF)	Wide: 12.2m(40.01ft) / Tele: 30.6m(100.51ft)
Recognize (125PPM/ 38PPF)	Wide: 6.1m(20.01ft) / Tele: 15.3m(50.25ft)
Identify (250PPM/ 76PPF)	Wide: 3.0m(10.00ft) / Tele: 7.7m(25.13ft)
<b>LPR/ANPR/MMCR</b>	
Speed Description	None
Speed limit	None
Min. Forward Distance	None
Max. Forward Distance	None
Max. Horizontal Angle	None
Max. Vertical Angle	None
Horizontal Offset	None
Camera Height	None
Lane Coverage	None
Vehicle Recognition	None
Available Countries	None
<b>Wisenet Road AI LPR/ANPR/MMCR</b>	
Solution	None
Speed Description	None
Lane Coverage	None
Speed limit	None
Min. Forward Distance	None
Max. Forward Distance	None
Max. Horizontal Angle	None
Max. Vertical Angle	None
Horizontal Offset	None
Camera Height	None
Vehicle Recognition	None
Available Countries	None

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).



## 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.

☒ 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	QNO-C6083R	-	HANWHA VISION VIETNAM COMPANY LIMITED.	EUT

## 1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
Notebook	LG15U590	-	LG Electronics Co., Ltd.	-
Notebook Adapter	A13-040N3A	-	CHICONY POWER TECHNOLOGY (Chongqing) CO., LTD.	-
PoE Injector	GS728TPP	-	NETGEAR	-
Micro SD Card	-	-	Sandisk	-
Alarm	-	-	-	-
Button Alarm	-	-	-	-
Headset	K550	-	Britz®	-
Smart Phone	SM-G970	-	SAMSUNG	-



## 1.6 External I/O Cabling

Start		END		Cable Spec.	
Description	I/O Port	Description	I/O Port	Length	Shield
Network Camera (EUT)	Micro SD Slot	Micro SD Card	Micro SD Slot	-	-
	Alarm OUT	Alarm	Alarm IN	3.5	U
	Alarm IN	Button Alarm	Alarm OUT	3.5	U
	RJ-45(PoE)	PoE Injector	RJ-45(PoE)	3.5	U
	Audio IN	Headset	MIC	1.8	U
	Audio OUT		Speaker	1.8	U
PoE Injector	RJ-45(LAN)	Notebook	RJ-45(LAN)	2.0	U
Notebook	DC Jack	Notebook Adapter	DC Jack	1.6	U
	3.5 mm	Smart Phone	3.5 mm	1.2	U

\* Unshielded=U, Shielded=S

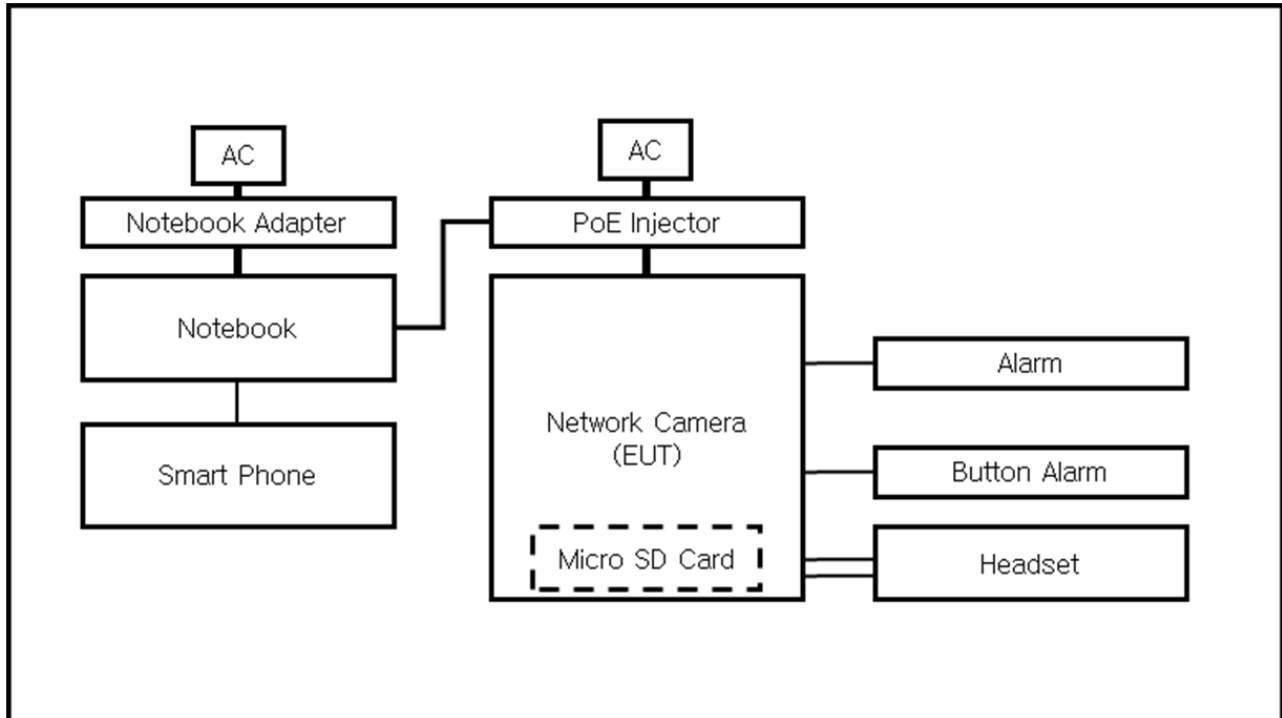
## 1.7 EUT Operating Mode(s)

Test mode	operating
Operating	<ol style="list-style-type: none"><li>1. Connect to the web viewer and test while checking the video output of the test equipment.</li><li>2. Run the Ping Test to check whether the network of the test equipment is operating normally.</li><li>3. After pressing the button alarm, the alarm was tested to confirm normal operation.</li><li>4. After the test, the files saved on the Micro SD Card were checked.</li><li>5. Tested by checking audio IN and OUT through headset.</li></ol>

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



## 1.8 Configuration





**1.9 Remarks when standards applied**

- It receives PoE power, and the PoE port is considered a wired network port. Test items related to the power port are not applicable.
- The USB port is an administrator port and was excluded from the test.

**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 0004



## 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**

N/A

**Test Location**

Electro wave Shieldroom #6

**Test Equipment**

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
<input type="checkbox"/>	EMI Test S/W	EMC32	R & S	9.12.00	-
<input type="checkbox"/>	EMI TEST RECEIVER	ESR3	R & S	101783	11, 08, 2024
<input type="checkbox"/>	LISN	ENV216	R & S	101787	11, 08, 2024
<input type="checkbox"/>	LISN	ESH2-Z5	R & S	100450	11, 08, 2024
<input type="checkbox"/>	PULSE LIMITER	ESH3-Z2	R & S	101915	11, 08, 2024

**Test Conditions**

Temperature:

°C

Relative Humidity:

% 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**

It receives PoE power, and the PoE port is considered a wired network port.  
Test items related to the power port are not applicable.



## 2.2 Conducted Emissions at Telecommunication Ports

**Test Date**

Feb. 14, 2024

**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, 08, 2024
<input checked="" type="checkbox"/>	LISN	ENV216	R & S	101787	11, 08, 2024
<input checked="" type="checkbox"/>	LISN	ESH2-Z5	R & S	100450	11, 08, 2024
<input checked="" type="checkbox"/>	PULSE LIMITER	ESH3-Z2	R & S	101915	11, 08, 2024
<input checked="" type="checkbox"/>	8-WIRE ISN CAT3,5	ENY81	R & S	100174	11, 09, 2024
<input type="checkbox"/>	8-WIRE ISN CAT6	ENY81-CAT6	R & S	101665	11, 09, 2024

**Test Conditions**

Temperature: (22,5 ± 0,1) °C

Relative Humidity: (46,2 ± 0,3) % 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.



## 2.3 Radiated Electric Field Emissions(Below 1 GHz)

**Test Date**

Feb. 13, 2024

**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	03, 21, 2024
<input checked="" type="checkbox"/>	AMPLIFIER	SCU 01	R & S	100603	11, 08, 2024
<input checked="" type="checkbox"/>	TRILOG-BROADBAND ANTENNA	VULB9163	Schwarzbeck	715	11, 17, 2024
<input checked="" type="checkbox"/>	ATTENUATOR	8491A	HP	32173	03, 03, 2024

**Test Conditions**

Temperature: (22,3 ± 0,2) °C

Relative Humidity: (46,2 ± 0,4) % 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.



## 2.4 Radiated Electric Field Emissions(Above 1 GHz)

**Test Date**

Feb. 13, 2024

**Test Location**

SEMI ANECHOIC CHAMBER #3

**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	ESR7	R & S	101190	07, 31, 2024
<input checked="" type="checkbox"/>	PREAMPLIFIER	8449B	AGILENT	3008A01967	03, 06, 2024
<input checked="" type="checkbox"/>	ATTENUATOR	8491A	HP	35496	02, 13, 2025
<input checked="" type="checkbox"/>	DOUBLE RIDGED HORN ANTENNA	SAS-571	A.H.SYSTEM,INC	781	03, 06, 2024

**Test Conditions**

Temperature: (22,5 ± 0,3) °C

Relative Humidity: (46,0 ± 0,3) % 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

**Remarks**See Appendix A for test data.



## APPENDIX A – TEST DATA

### Conducted Emissions at Mains Power Ports

HOT LINE

N/A



NEUTRAL LINE

N/A

◆ 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))

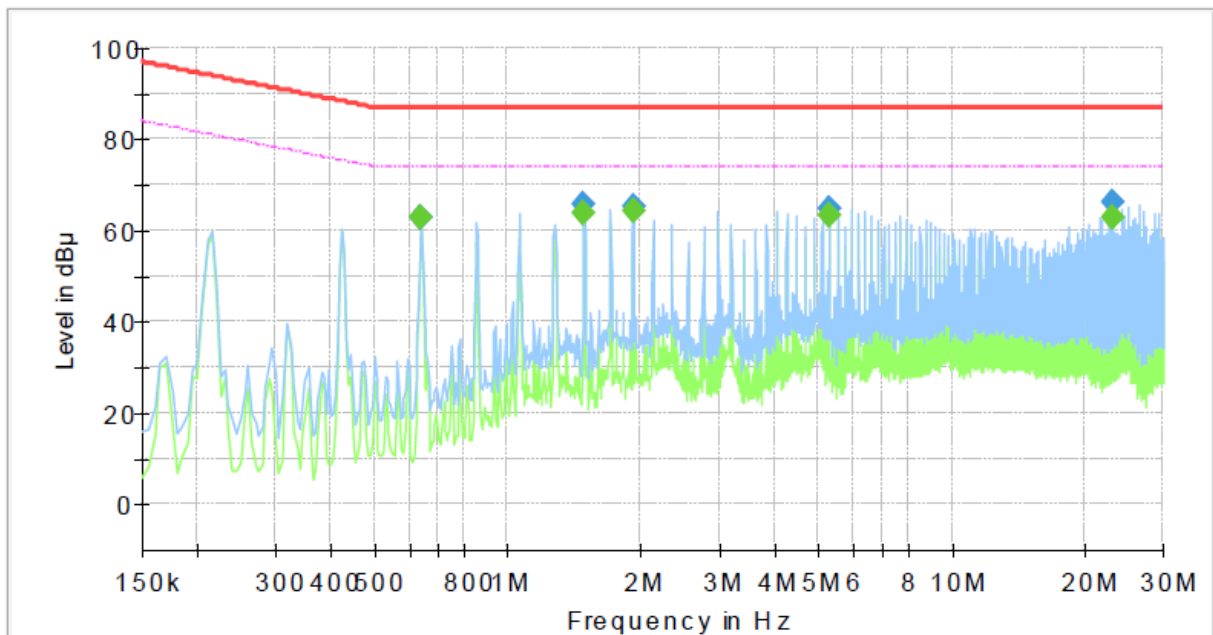


**Conducted Emissions at Telecommunication Ports**

[100 Mbps]

**Common Information**

Test Description: Telecommunication Emission  
Model No.: QNO-C6083R  
Mode :  
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)
0.640000	---	62.69	74.00	11.31	1000.0	9.000	Single Line	19.3
0.640000	62.83	---	87.00	24.17	1000.0	9.000	Single Line	19.3
1.490000	---	63.71	74.00	10.29	1000.0	9.000	Single Line	19.3
1.490000	65.58	---	87.00	21.42	1000.0	9.000	Single Line	19.3
1.915000	---	64.44	74.00	9.56	1000.0	9.000	Single Line	19.3
1.915000	65.39	---	87.00	21.61	1000.0	9.000	Single Line	19.3
5.320000	---	63.23	74.00	10.77	1000.0	9.000	Single Line	19.5
5.320000	64.67	---	87.00	22.33	1000.0	9.000	Single Line	19.5
23.130000	---	63.04	74.00	10.96	1000.0	9.000	Single Line	20.1
23.130000	66.41	---	87.00	20.59	1000.0	9.000	Single Line	20.1

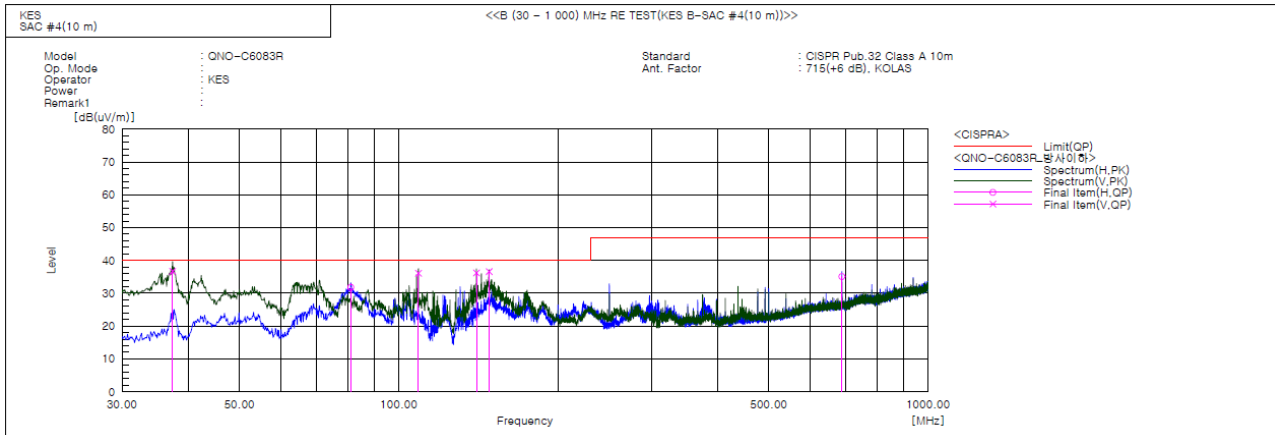
## ◆ Calculation

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

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)****Final Result**

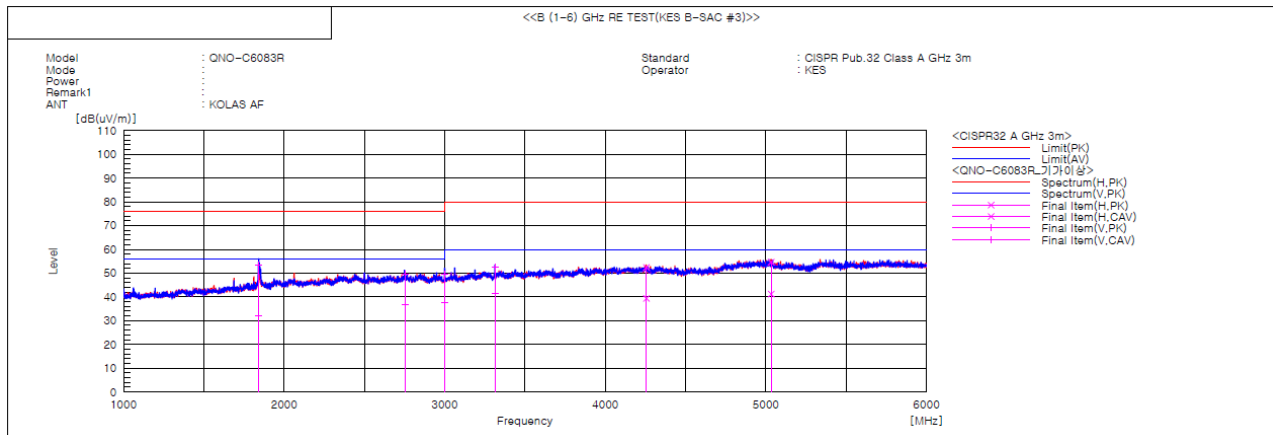
No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	37.396	V	60.6	-23.9	36.7	40.0	3.3	100.0	286.0	
2	81.168	H	59.4	-27.6	31.8	40.0	8.2	400.0	172.0	
3	108.934	V	58.9	-22.8	36.1	40.0	3.9	108.0	204.0	
4	140.216	V	61.5	-25.3	36.2	40.0	3.8	101.0	139.0	
5	148.098	V	61.8	-25.2	36.6	40.0	3.4	107.0	27.0	
6	687.539	H	41.9	-6.8	35.1	47.0	11.9	400.0	97.0	

**◆ Calculation**

Corrected Amplitude [dBuV] = Amplitude[dBuV] + Correction Factor [dB]

Corrected Amplitude : The Final Value, Amplitude : Reading Value,

Correction Factor : ANT FACTOR + Cable loss

**Radiated Electric Field Emissions(Above 1 GHz)****Final Result**

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading CAV [dB(μV)]	c.f [dB(1/m)]	Result PK [dB(μV/m)]	Result CAV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1842.669	V	49.6	28.4	3.8	53.4	32.2	76.0	56.0	22.6	23.8	100.0	34.7	
2	2751.250	V	41.2	28.3	8.3	49.5	36.6	76.0	56.0	26.5	19.4	100.0	160.2	
3	3000.850	V	41.4	29.4	8.2	49.6	37.6	80.0	60.0	30.4	22.4	100.0	205.2	
4	3313.334	V	43.1	31.8	9.6	52.7	41.4	80.0	60.0	27.3	18.6	100.0	194.4	
5	4255.779	H	39.3	26.3	13.1	52.4	39.4	80.0	60.0	27.6	20.6	100.0	306.7	
6	5033.905	H	38.6	25.2	16.0	54.6	41.2	80.0	60.0	25.4	18.8	100.0	97.3	

**◆ 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**

N/A



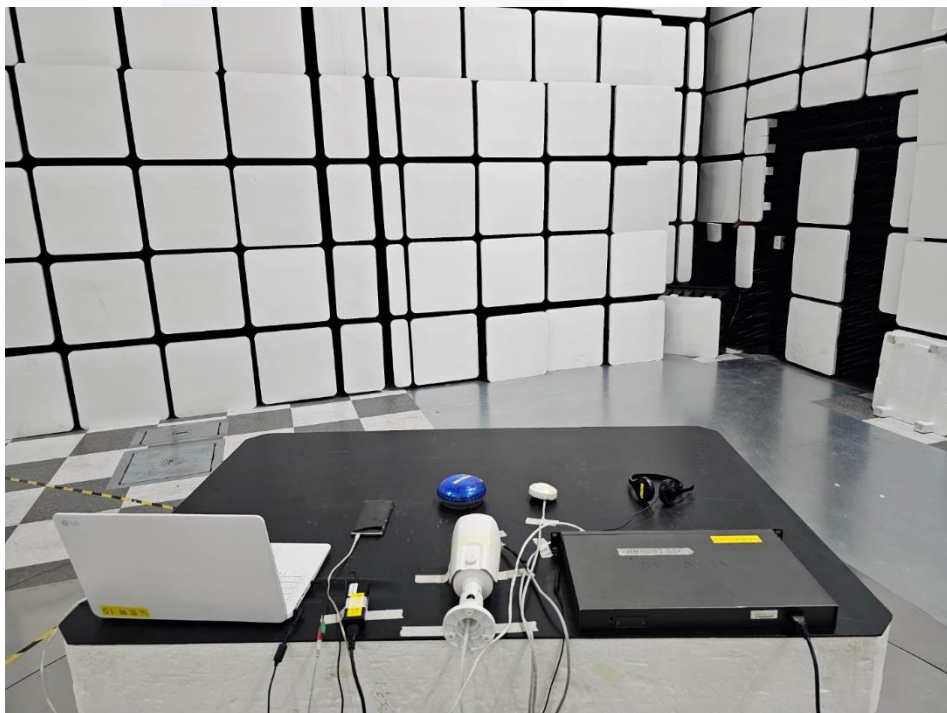
## Conducted Emissions at Telecommunication Ports







## Radiated Electric Field Emissions(Below 1 GHz)





## Radiated Electric Field Emissions(Above 1 GHz)





## EUT External Photographs

(Top)



(Bottom)







## EUT Internal Photographs

(Internal View)

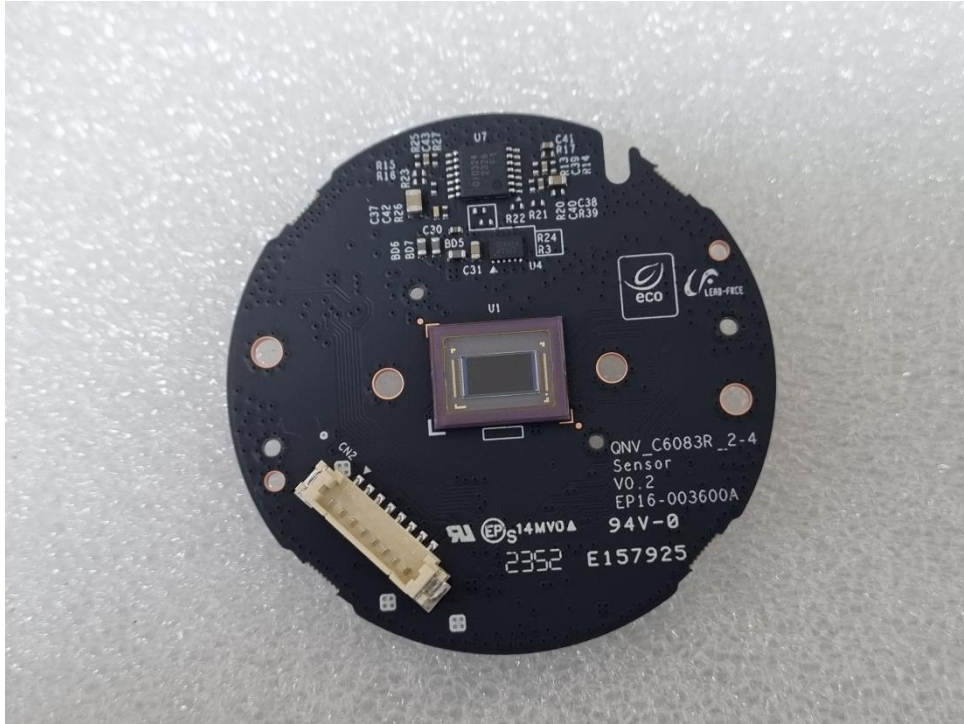




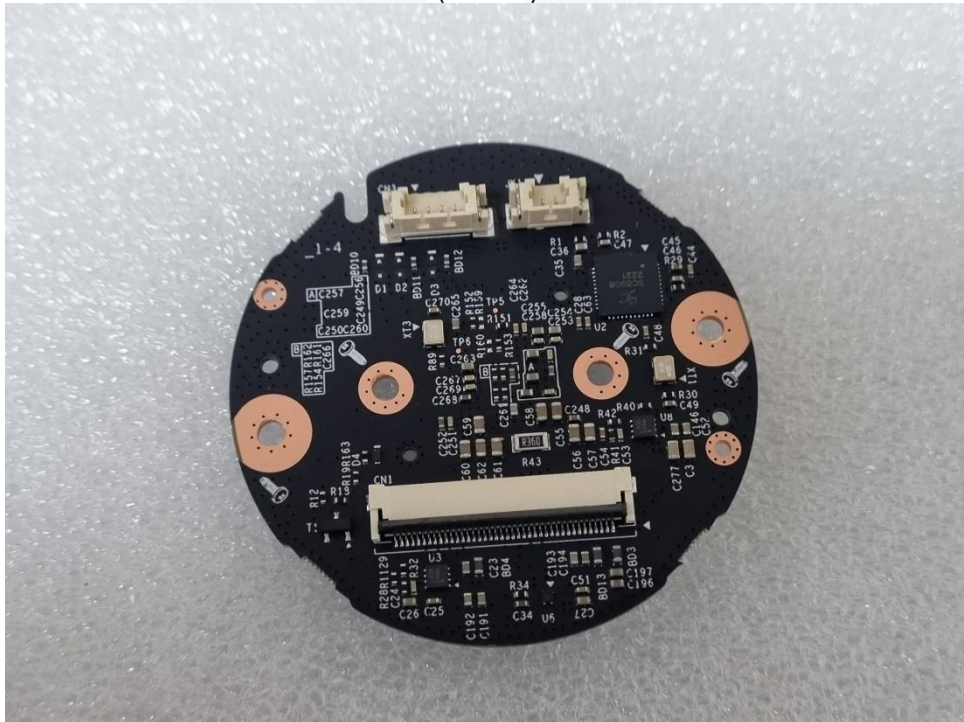


## EUT Internal View – Board 2

(Top)



(Bottom)

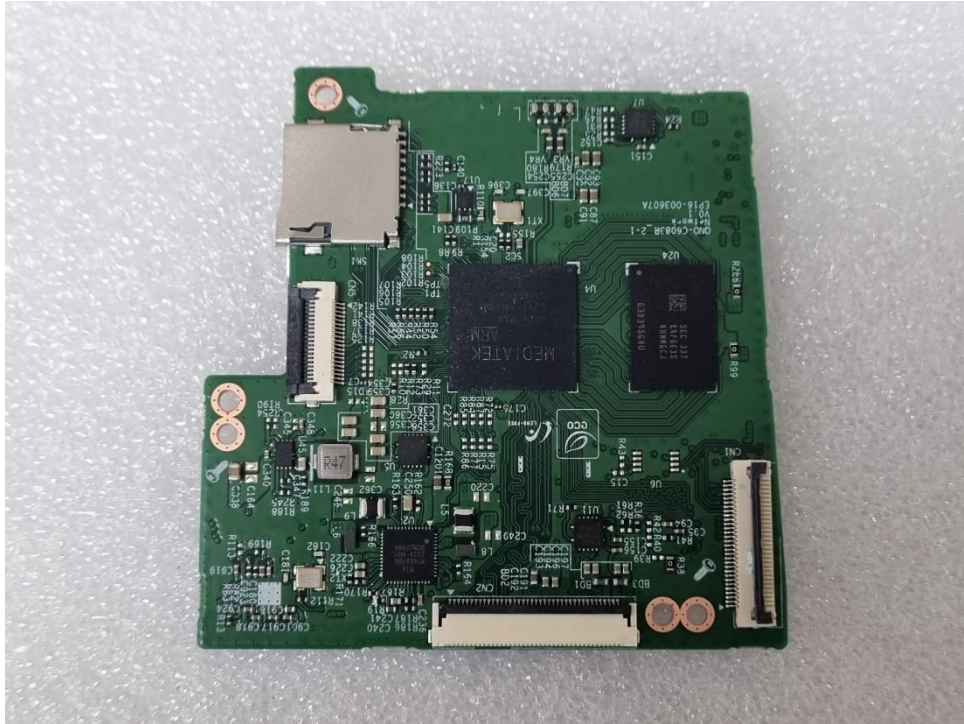






### EUT Internal View – Board 3

(Top)



(Bottom)

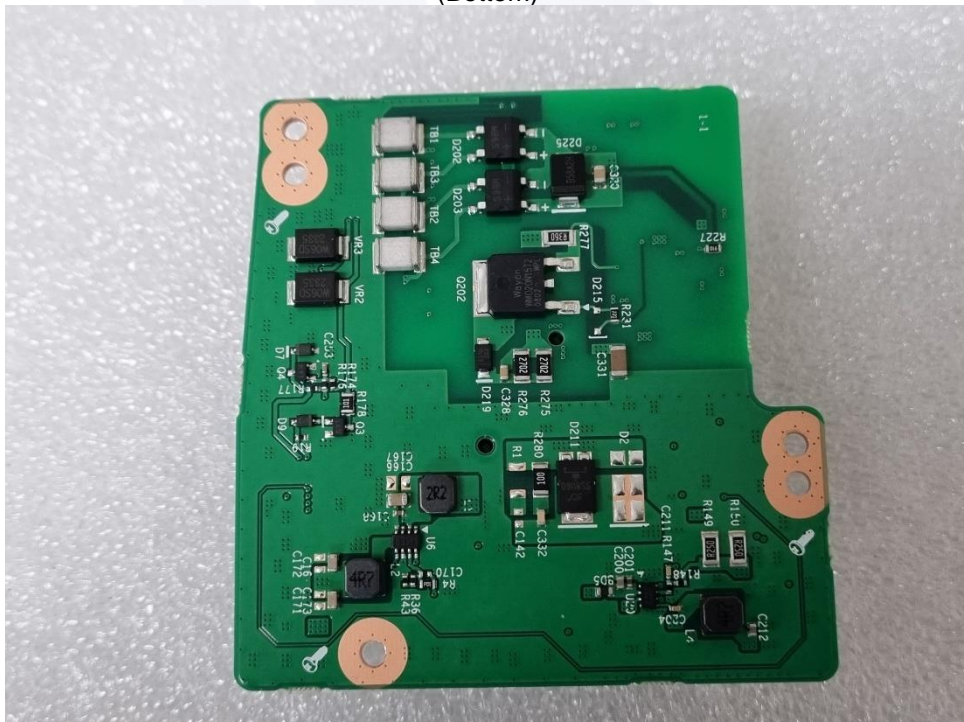


## EUT Internal View – Board 4

(Top)



(Bottom)

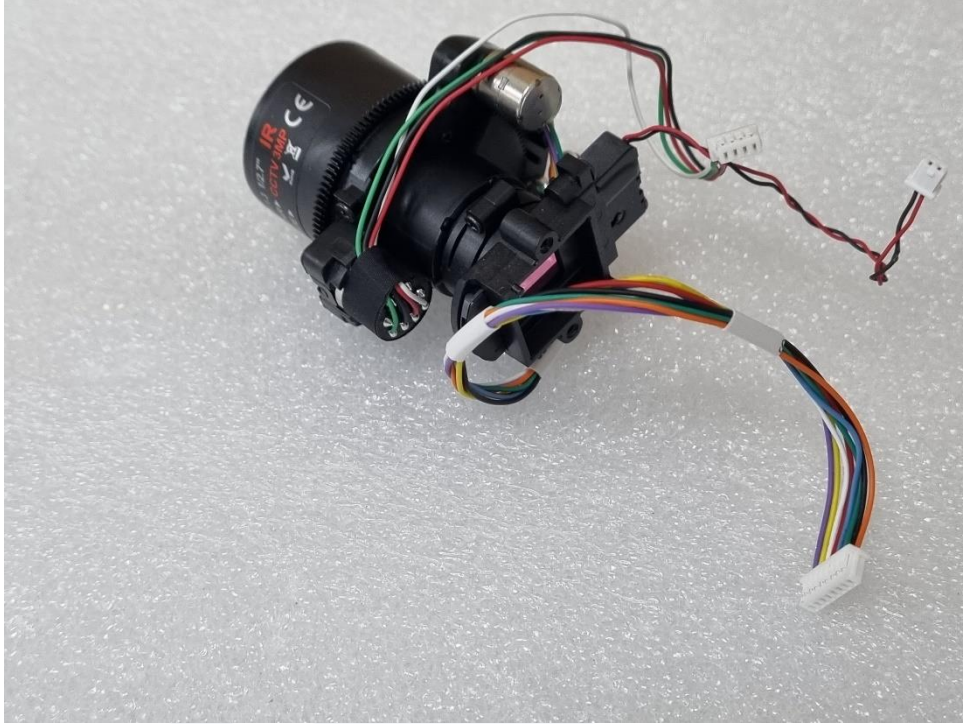




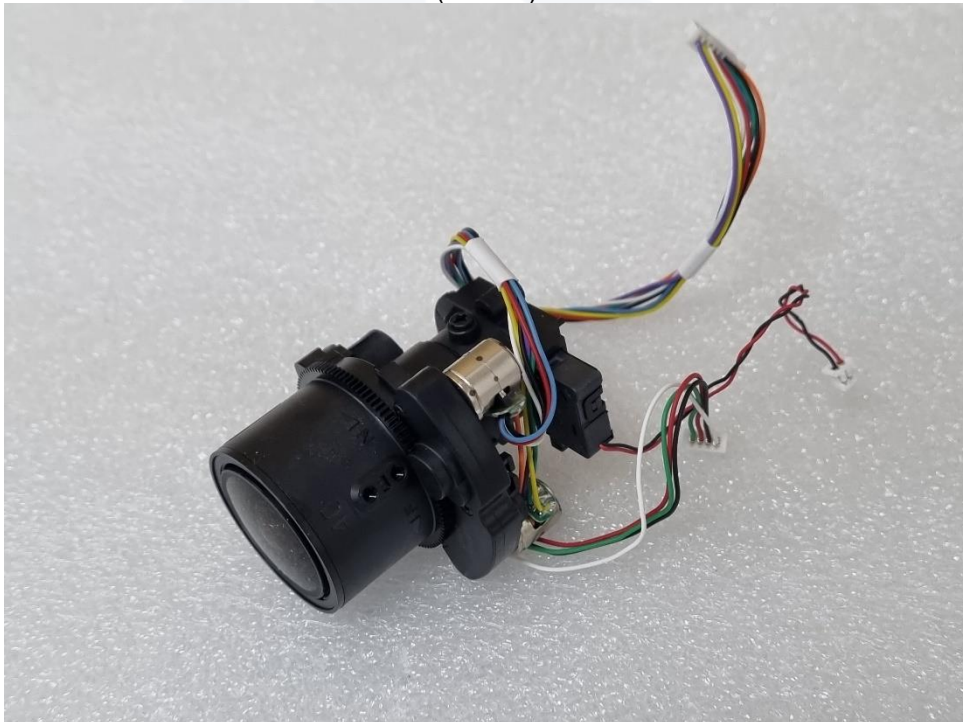


### EUT Internal View – Lens

(Top)

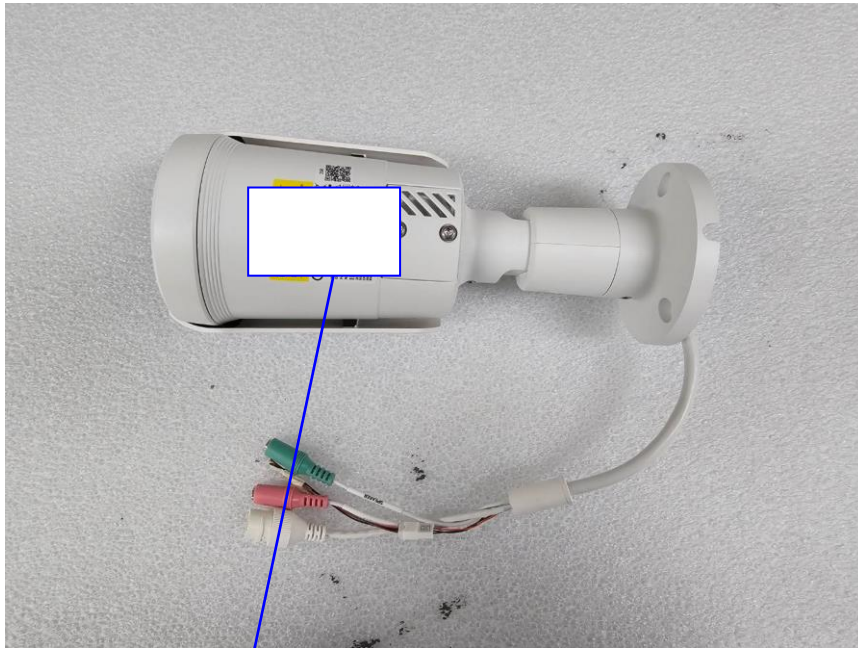


(Bottom)





## 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