



EMC TEST REPORT

Test Report No. : KES-EM-23T0425
Date of Issue : May. 22, 2023
Product name : NETWORK CAMERA
Model/Type No. : QNV-C9083R
Variant Model : -
Applicant : Hanwha Vision Co., Ltd
Applicant Address : 6, Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si,
Gyeonggi-do, Republic of Korea
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 commune, Bac Ninh city, Bac Ninh province, Vietnam
2. 173-25, Saneop-ro, Gwonseon-gu, Suwon-si, Gyeonggi- do,
Korea (Suwon Industrial Complex)
Equipment authorization : **Supplier's Declaration of Conformity**
Date of Receipt : Apr. 27, 2023
Test date : May. 15, 2023
Test Results : ☒ **In Compliance** ☐ **Not in Compliance**

Tested by

Jun Soo, Jung
EMC Test Engineer

Reviewed by

Hyo Jin, Kim
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
May. 22, 2023	KES-EM-23T0425	Issued

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1.0 General Product Description

Main Specifications of EUT are:

Video	
Imaging Device	1/2.8" CMOS
Resolution	3840x2160, 3328x1872, 3072x1728, 2592x1944, 2688x1520, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Frame rate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MIPEG: Max. 30fps(8MP Max. 5fps)
NETD	None
Pixel Size	None
Min. Illumination	Color: 0.065Lux(F1.6, 1/30sec) BW: 0.065Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Out	USB: Micro USB Type B, 1280x720 for installation
Video Transmission Distance	None
Lens	
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: 104°(Wide)~31°(Tele) V: 55°(Wide)~17°(Tele) D: 124°(Wide)~35°(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
Pan / Tilt / Rotate	
Pan / Tilt / Rotate Range	0°~350° / -35°~70° / 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, WDR, SSDR
Wide Dynamic Range	120dB
Digital Noise Reduction	SSNR-V, WiseNRI(Based on AI engine)
Digital Image Stabilization	None
Defog	None
Motion Detection	Bea, 8point Polygonal zones
Privacy Masking	32ea, rectangular 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/Vehicle
	Attributes: VehicleType(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	None
Serial Interface	None
Alarm I/O	Input 1ea / Output 1ea * Alarm I/O is supported through an optional cable(SPP-C7400)
Alarm Triggers	Analytics, Network disconnect, Alarm input When alarm trigger occurred - File upload(image) : e-mail/FTP - Notification : e-mail - Recording : SD/SDHC/SDXC or NAS recording at event triggers
Alarm Events	- Alarm output - Handover(PTZ preset, Send message by HTTP/HTTPS/TCP) - Audio clip playback
Audio Streaming	None
Audio In	Selectable(mic/inline in) * Audio In is supported through an optional cable(SPP-C7400)
Audio Out	Line out, Max.output level: 0.5Vrms * Audio Out is supported through an optional cable(SPP-C7400)
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
Radiometry	
Temperature Detect Range	None
Temperature Accuracy	None
Temperature Detection	None
Additional	None
Network	
Ethernet	RJ-45(10/100BASE-T)
Video Compression	H.265/H.264: Main/High, MIPEG 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
Audio Compression	Manual(Sea area), WiseStreamII
Smart Codec	H.264/H.265: Target bitrate level control MIPEG: Quality Level control
Video Quality Adjustment	H.264/H.265: CBR or VBR MIPEG: VBR
Bitrate Control	Multiple streaming(Up to 5 profiles)
Streaming	Unicast(H26 users) / Multicast
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTCP(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, 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)

Security	
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-LEAP, 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
General	
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
Environmental & Electrical	
Operating Temperature / Humidity	-30°C~+55°C(-22°F ~ +131°F) / 0~95% RH * Start up should be done at above -30°C
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 12.95W, typical 5.3W
Mechanical	
Color / Material	White / Aluminum
Bubble / Material	Bubble : Hard-coated dome
RAL Code	RAL9003
Product Dimensions / Weight	ø140x110.2mm(ø5.51x4.34"), 875g(1.93 lb)
Compatible Conduit hole / Gasket	Conduit hole : None Gangbox : Single, Double, 4" Octagon
Hanging Mount (Dome)	SBP-140H/MW
Skin Cover	None
Skin Cover (Dome)	None
Weather Cap (Dome)	None
Power Module	None
Backbox	SBV-140BW
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
	UL 62368-1, CAN/CSA C22.2 NO. 62368-1 IEC/EN 62471
	IEC/EN 63000 IEC/EN 60529 IP66, IEC/EN 62262 IK10
Environment	IEC/EN 60529 IP66, IEC/EN 62262 IK10
Video	None
DORI (EN62676-4 standard)	
Detect (25PPM/ 8PPF)	Wide: 60.0m(196.86ft) / Tele: 276.9m(908.57ft)
Observe (63PPM/ 19PPF)	Wide: 24.2m(78.74ft) / Tele: 111.7m(363.43ft)
Recognize (125PPM/ 38PPF)	Wide: 12.0m(39.37ft) / Tele: 55.4m(181.71ft)
Identify (250PPM/ 76PPF)	Wide: 6.0m(19.69ft) / Tele: 27.7m(90.86ft)
LPR/ANPR/MMCR	
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
Wisenet Road AI LPR/ANPR/MMCR	
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

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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	QNV-C9083R	-	HANWHA VISION VIETNAM COMPANY LIMITED	EUT

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
PoE Injector	PT-PSE109GBRO-AH-S	PT2250220748	Dongguan PROCET Network Technology Co.,Ltd	-
Notebook	9JM8HT2	9JM8HT2	DELL INC.	-
Notebook adapter	HA65NM130	-	Chicony Power Technology(Suzhou)Co.,Ltd.	-
Micro SD card	-	-	SanDisk	-
Alarm	PRO-SL	-	SENSOR PRO	-
Button Alarm	-	-	-	-
Headset	K550	-	Britz®	-
Smartphone	SM-N960N	R39K804BTK	SAMSUNG	-

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 Injector	RJ-45(PoE)	3.1	U
	Micro SD card slot	Micro SD card	Micro SD card slot	-	-
	Alarm OUT	Alarm	Alarm IN	3.1	U
	Alarm IN	Alarm Button	Alarm OUT	3.1	U
	Audio IN	Headset	Line	1.9	U
	Audio OUT				U
PoE Injector	RJ-45(LAN)	Notebook	RJ-45	2.5	U
Notebook	DC jack	Notebook adapter	Line	1.5	U

* Unshielded = U, Shielded = S

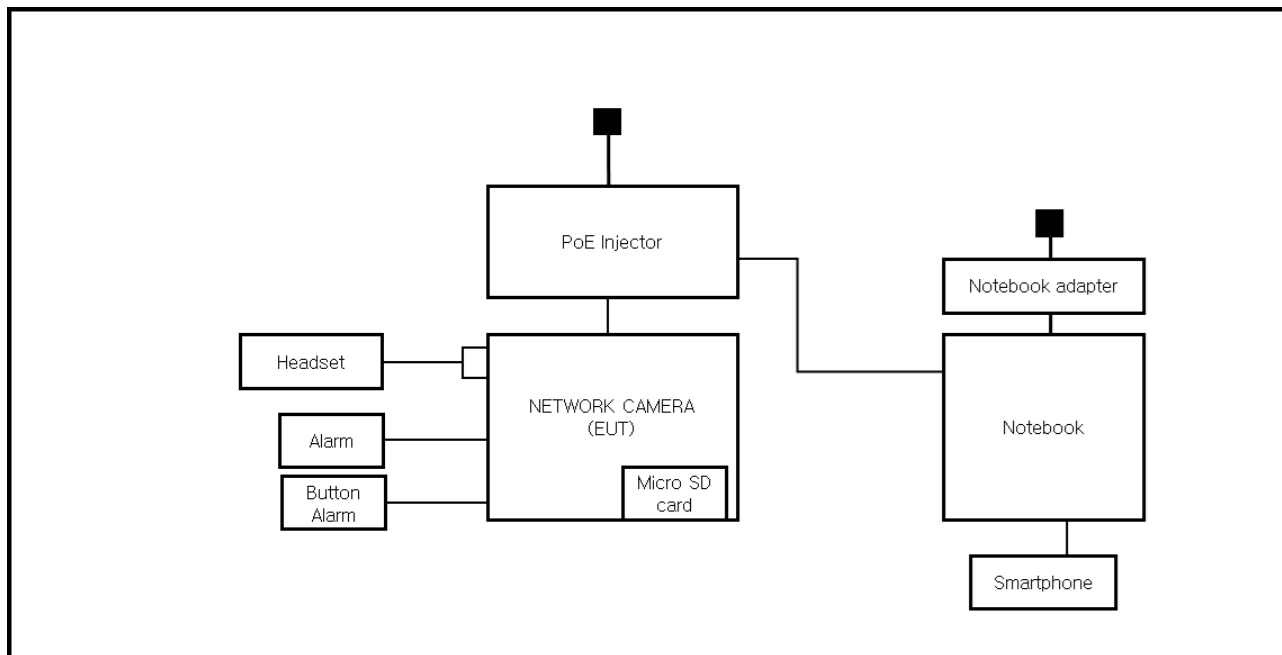
1.7 EUT Operating Mode(s)

Test mode	operating
Operation	1. Check if the EUT image is output to the laptop normally. 2. Check if the network is operating normally through a ping test. 3. Verify that the 1kHz tone sound played on the smartphone is outputted normally to the headset. 4. Press the Button alarm to check if the Alarm works properly. 5. 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

■ AC Main
□ DC Main



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, 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:

☒ **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

May. 15, 2023

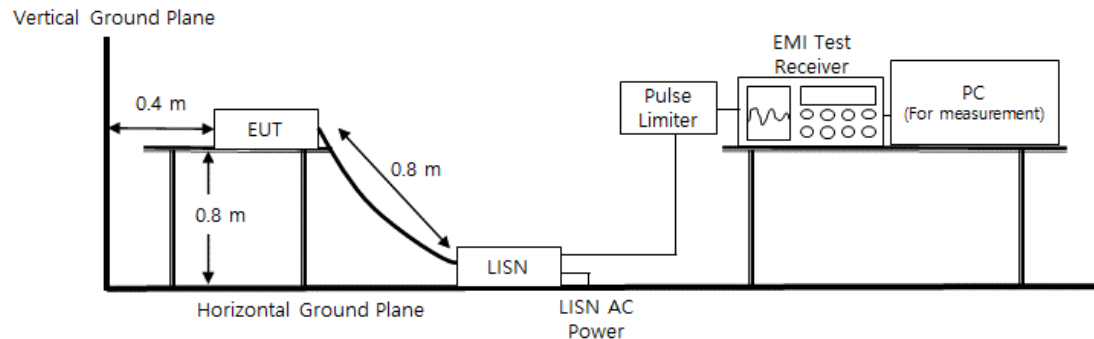
Test Location

Electro wave Shieldroom #6

Test Equipment

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

Diagram of test setup





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Test Conditions

Temperature: $(22,4 \pm 0,1) ^\circ\text{C}$
Relative Humidity: $(43,3 \pm 0,1) \% \text{ R.H.}$

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.

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2.2 Radiated Electric Field Emissions(Below 1 GHz)

Test Date

May. 15, 2023

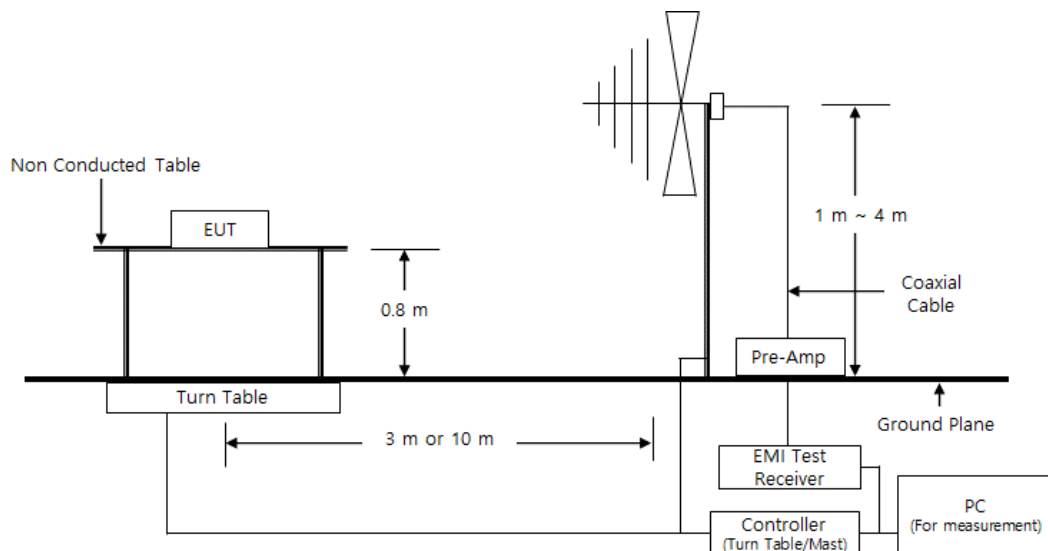
Test Location

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

Test Equipment

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

Diagram of test setup





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Test Conditions

Temperature: $(23,8 \pm 0,1) ^\circ\text{C}$
Relative Humidity: $(42,9 \pm 0,1) \% \text{ R.H.}$

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.

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2.3 Radiated Electric Field Emissions(Above 1 GHz)

Test Date

May. 15, 2023

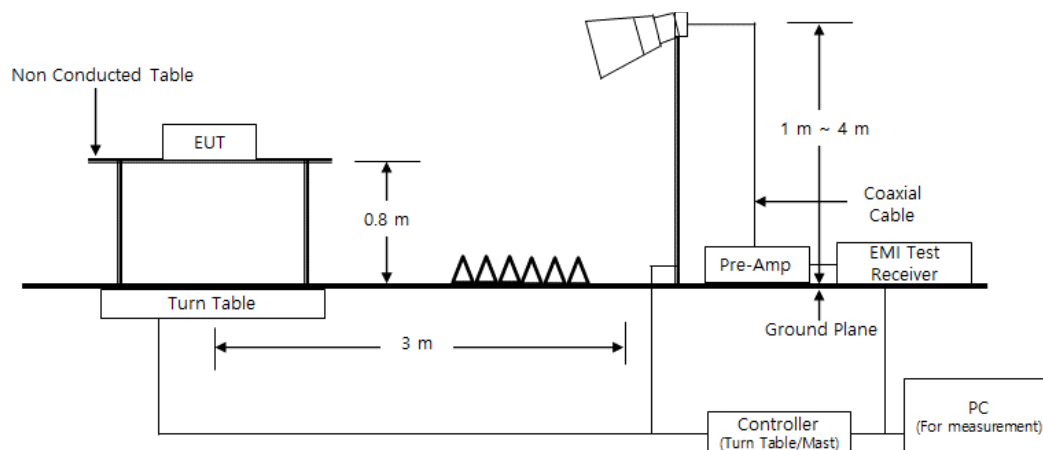
Test Location

SEMI ANECHOIC CHAMBER #5

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	ES10/RE	TOYO Corporation	2022.01.000	-
☒	EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100552	03, 21, 2024
☒	HORN ANTENNA	BBHA 9120D	SCHWARZBECK	9120D-1802	11, 08, 2023
☒	PREAMPLIFIER	8449B	HP	3008A00538	06, 02, 2023
☒	ATTENUATOR	8491B	HP	23094	03, 21, 2024

Diagram of test setup



Test Conditions

Temperature: (23,1 ± 0,1) °C
Relative Humidity: (42,0 ± 0,1) % R.H.

Frequency Range of Measurement

1 GHz to 5 GHz

Instrument Settings

IF Band Width: 1 MHz

Test Results

The requirements are:

- ☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks

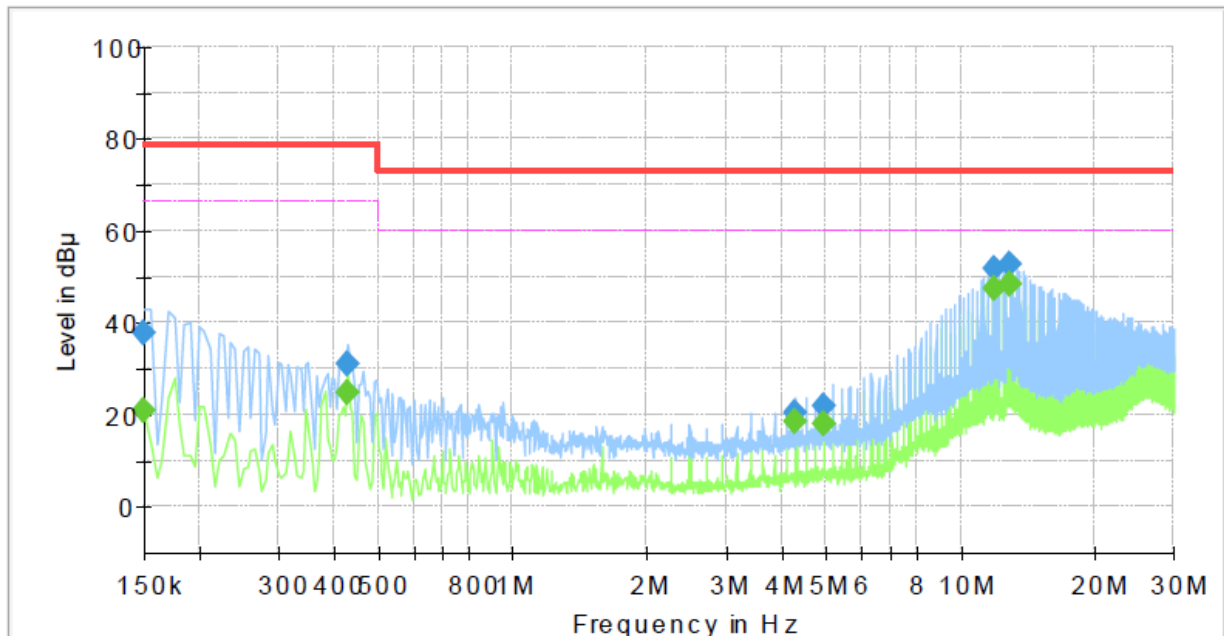
- See Appendix A for test data.
- The Average of the test data is the cispr average result.

APPENDIX A – TEST DATA

Conducted Emissions at Mains Power Ports HOT LINE

Common Information

Test Description:	Conducted Emission
Model No.:	QNV-C9083R
Phase:	L1
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	---	20.88	66.00	45.12	1000.0	9.000	L1	19.5
0.150000	37.74	---	79.00	41.26	1000.0	9.000	L1	19.5
0.430000	---	24.61	66.00	41.39	1000.0	9.000	L1	19.7
0.430000	30.86	---	79.00	48.14	1000.0	9.000	L1	19.7
4.295000	---	18.62	60.00	41.38	1000.0	9.000	L1	19.8
4.295000	20.51	---	73.00	52.49	1000.0	9.000	L1	19.8
4.975000	---	18.15	60.00	41.85	1000.0	9.000	L1	19.7
4.975000	21.69	---	73.00	51.31	1000.0	9.000	L1	19.7
11.985000	---	47.63	60.00	12.37	1000.0	9.000	L1	20.0
11.985000	51.76	---	73.00	21.24	1000.0	9.000	L1	20.0
12.890000	---	48.43	60.00	11.57	1000.0	9.000	L1	20.0
12.890000	52.65	---	73.00	20.35	1000.0	9.000	L1	20.0

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NEUTRAL LINE

Common Information

Test Description:

Model No.:

Phase:

Mode:

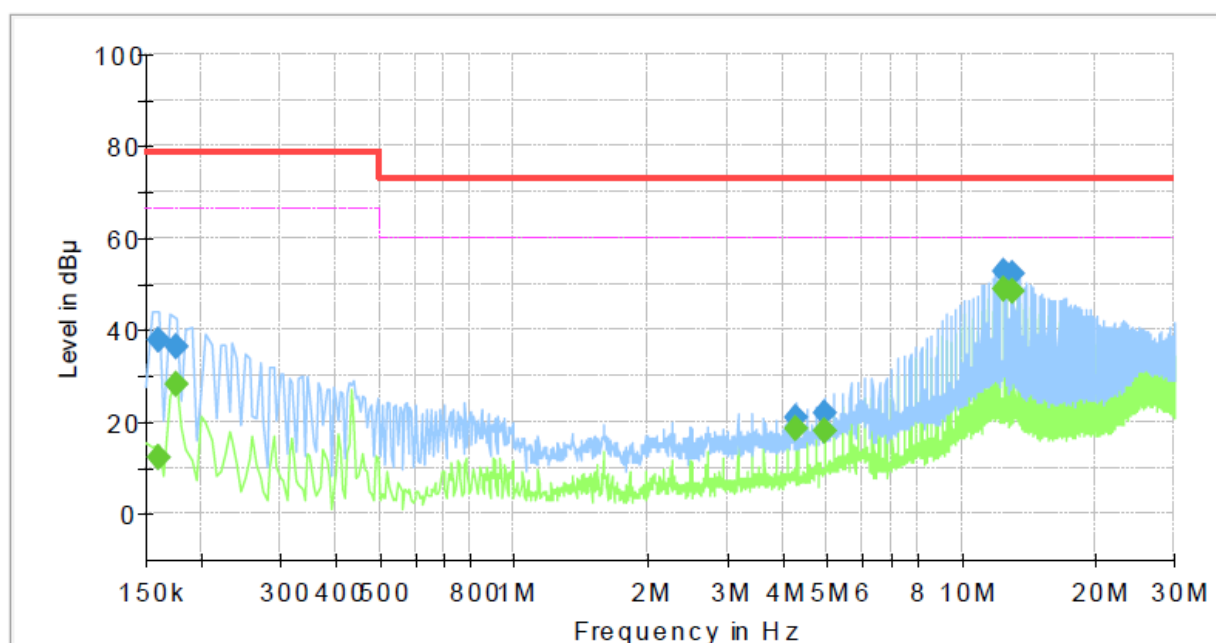
Operator Name:

Conducted Emission

QNV-C9083R

N

KES



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.160000	---	12.15	66.00	53.85	1000.0	9.000	N	19.4
0.160000	37.57	---	79.00	41.43	1000.0	9.000	N	19.4
0.175000	---	27.97	66.00	38.03	1000.0	9.000	N	19.5
0.175000	36.33	---	79.00	42.67	1000.0	9.000	N	19.5
4.295000	---	18.70	60.00	41.30	1000.0	9.000	N	19.8
4.295000	20.86	---	73.00	52.14	1000.0	9.000	N	19.8
4.975000	---	18.15	60.00	41.85	1000.0	9.000	N	19.7
4.975000	21.99	---	73.00	51.01	1000.0	9.000	N	19.7
12.435000	---	49.10	60.00	10.90	1000.0	9.000	N	20.0
12.435000	52.60	---	73.00	20.40	1000.0	9.000	N	20.0
13.115000	---	48.37	60.00	11.63	1000.0	9.000	N	20.0
13.115000	52.27	---	73.00	20.73	1000.0	9.000	N	20.0

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

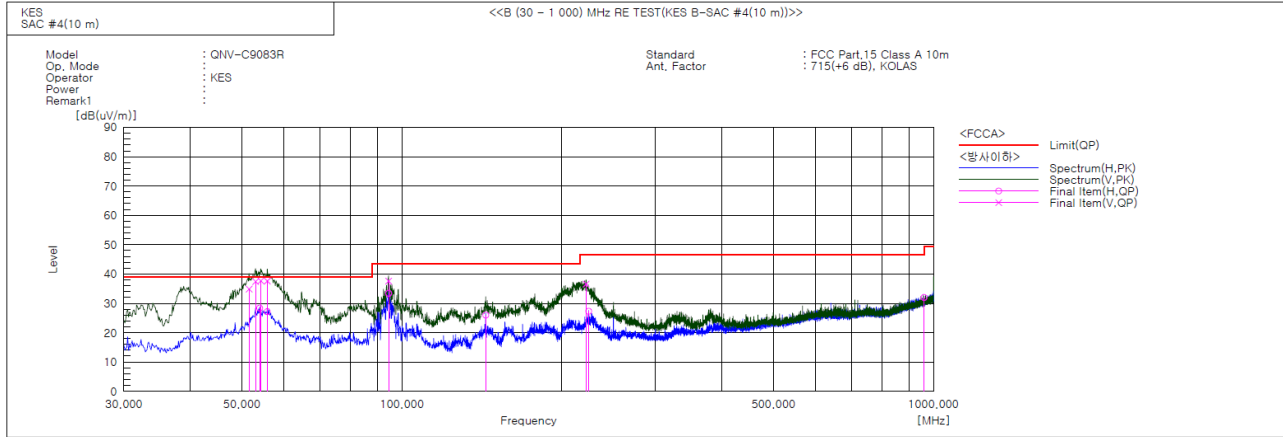
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Radiated Electric Field Emissions(Below 1 GHz)

- 47 CFR Part 15, Subpart B

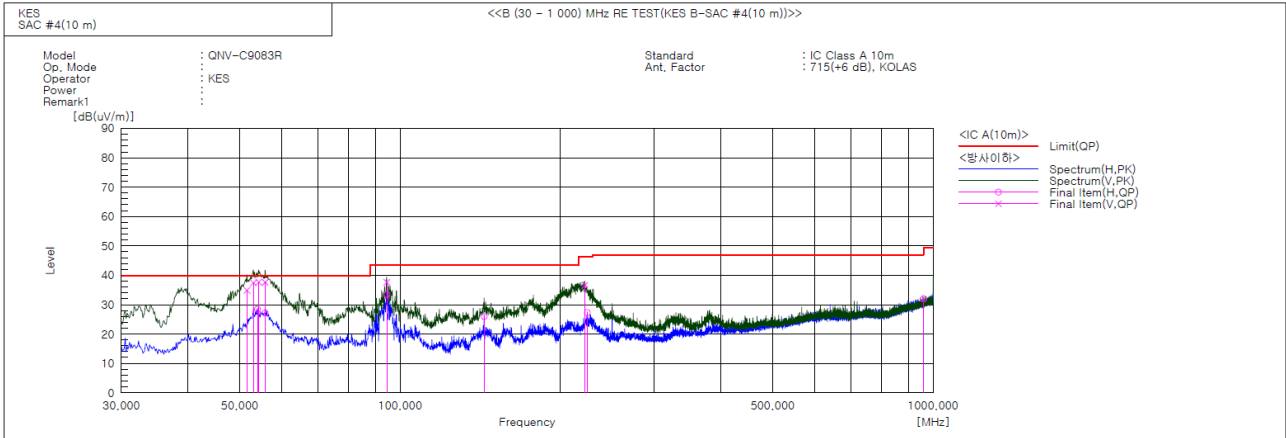


Final Result

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	51.583	V	55.6	-20.7	34.9	39.0	4.1	105.0	232.0	
2	53.038	V	58.1	-20.7	37.4	39.0	1.6	109.0	268.0	
3	54.008	H	49.2	-20.8	28.4	39.0	10.6	398.0	305.0	
4	54.250	V	58.5	-20.8	37.7	39.0	1.3	102.0	258.0	
5	55.826	V	58.6	-21.0	37.6	39.0	1.4	100.0	302.0	
6	55.826	H	48.2	-21.0	27.2	39.0	11.8	390.0	300.0	
7	94.384	V	60.5	-22.9	37.6	43.5	5.9	152.0	102.0	
8	94.384	H	56.3	-22.9	33.4	43.5	10.1	391.0	132.0	
9	143.733	H	51.4	-25.4	26.0	43.5	17.5	399.0	222.0	
10	222.060	V	56.4	-19.8	36.6	46.5	9.9	357.0	95.0	
11	224.485	H	47.1	-19.8	27.3	46.5	19.2	299.0	83.0	
12	959.503	H	35.2	-3.2	32.0	46.5	14.5	400.0	28.0	

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- 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	51.583	V	55.6	-20.7	34.9	40.0	5.1	105.0	232.0	
2	53.038	V	58.1	-20.7	37.4	40.0	2.6	109.0	268.0	
3	54.008	H	49.2	-20.8	28.4	40.0	11.6	398.0	305.0	
4	54.250	V	58.5	-20.8	37.7	40.0	2.3	102.0	258.0	
5	55.826	V	58.6	-21.0	37.6	40.0	2.4	100.0	302.0	
6	55.826	H	48.2	-21.0	27.2	40.0	12.8	390.0	300.0	
7	94.384	V	60.5	-22.9	37.6	43.5	5.9	152.0	102.0	
8	94.384	H	56.3	-22.9	33.4	43.5	10.1	391.0	132.0	
9	143.733	H	51.4	-25.4	26.0	43.5	17.5	399.0	222.0	
10	222.060	V	56.4	-19.8	36.6	46.4	9.8	357.0	95.0	
11	224.485	H	47.1	-19.8	27.3	46.4	19.1	299.0	83.0	
12	959.503	H	35.2	-3.2	32.0	47.0	15.0	400.0	28.0	

◆ Calculation - SAC #4(10 m)

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

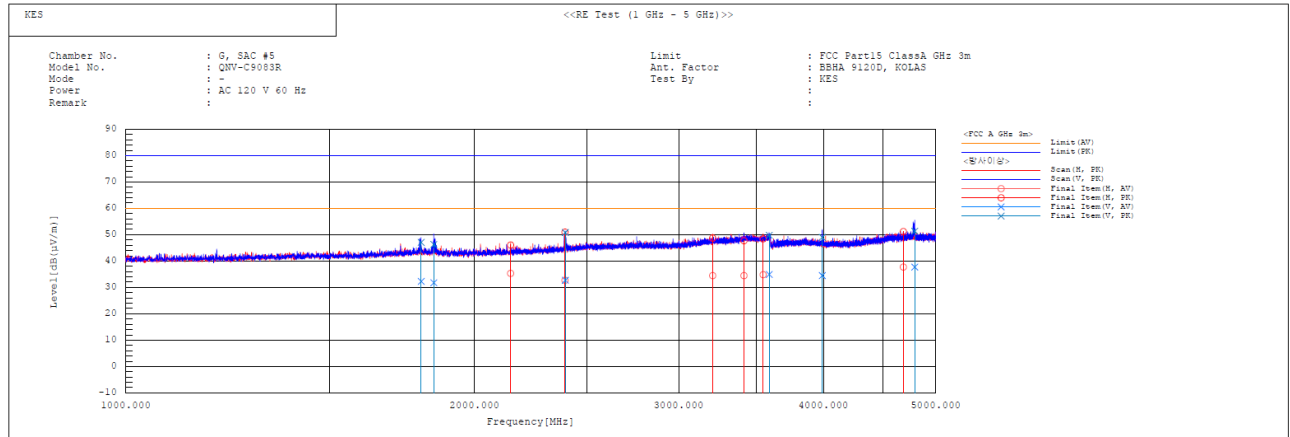
Margin(QP)[dB] = Limit[dB(μ V/m)] - Result(QP) [dB(μ V/m)]

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)



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	1798.734	V	30.5	45.3	1.8	32.3	47.1	60.0	80.0	27.7	32.9	107.0	140.1	
2	1844.076	V	30.0	44.5	1.8	31.8	46.3	60.0	80.0	28.2	33.7	144.0	358.8	
3	2148.442	H	32.8	43.6	2.5	35.3	46.1	60.0	80.0	24.7	33.9	348.0	341.7	
4	2393.099	H	29.6	47.9	3.1	32.7	51.0	60.0	80.0	27.3	29.0	390.0	343.5	
5	2394.808	V	29.6	47.7	3.1	32.7	50.8	60.0	80.0	27.3	29.2	100.0	219.0	
6	3209.467	H	28.5	42.7	6.0	34.5	48.7	60.0	80.0	25.5	31.3	400.0	41.4	
7	3414.651	H	28.7	41.9	5.8	34.5	47.7	60.0	80.0	25.5	32.3	388.0	121.1	
8	3547.585	H	28.9	42.5	5.9	34.8	48.4	60.0	80.0	25.2	31.6	398.0	192.6	
9	3590.557	V	29.0	43.9	5.9	34.9	49.8	60.0	80.0	25.1	30.2	124.0	358.8	
10	3990.114	V	27.6	42.1	6.9	34.5	49.0	60.0	80.0	25.5	31.0	105.0	144.6	
11	4686.935	H	27.9	41.4	9.8	37.7	51.2	60.0	80.0	22.3	28.8	400.0	217.3	
12	4794.012	V	27.7	41.3	10.0	37.7	51.3	60.0	80.0	22.3	28.7	108.0	140.1	

◆ Calculation

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

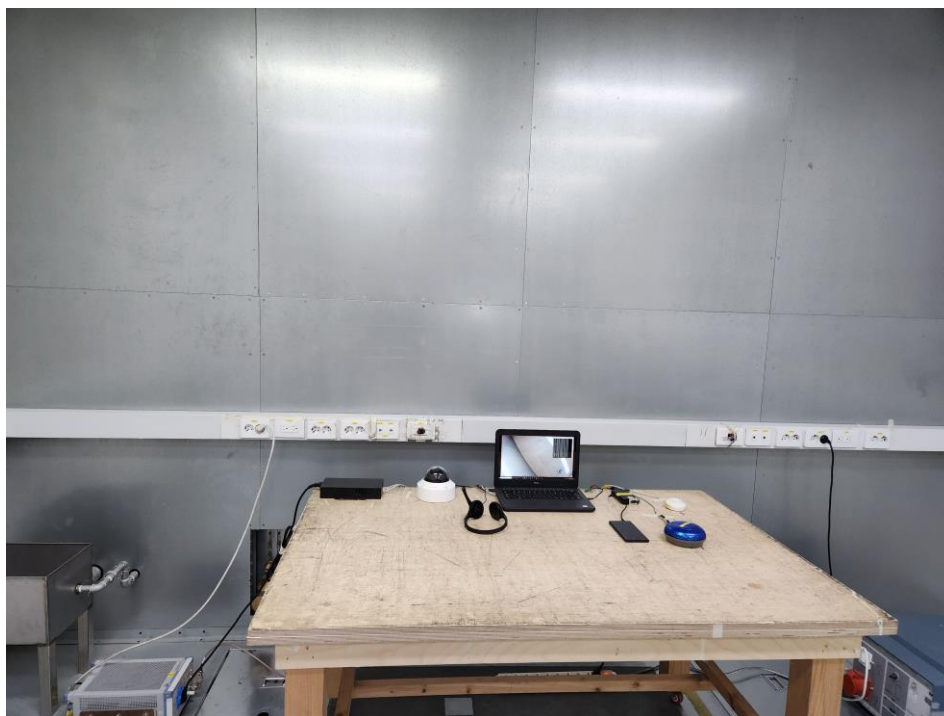
Margin(PK/CAV)[dB] = Limit[dB(μV/m)] - Result(PK/CAV) [dB(μV/m)]

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

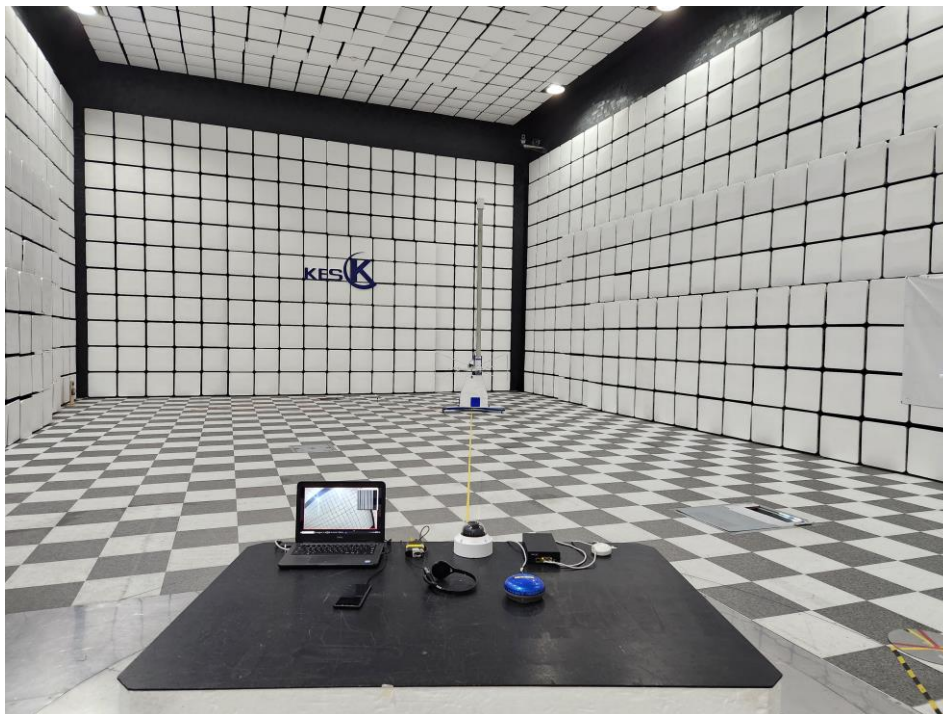
Test Setup Photos and Configuration

Conducted Emissions at Mains Power Ports



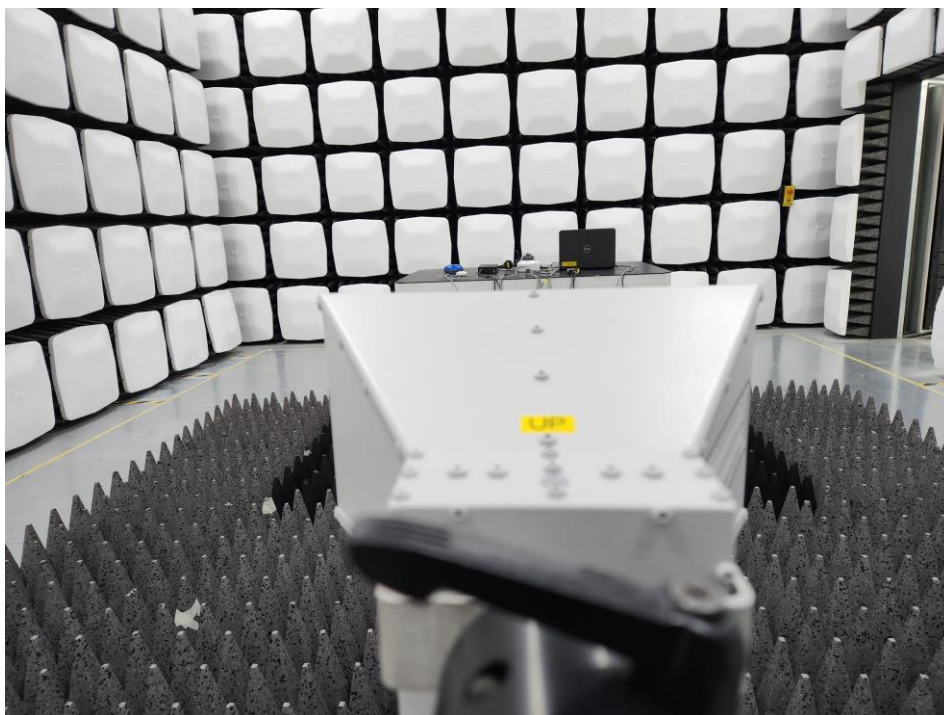
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Radiated Electric Field Emissions(Below 1 GHz)



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Radiated Electric Field Emissions(Above 1 GHz)



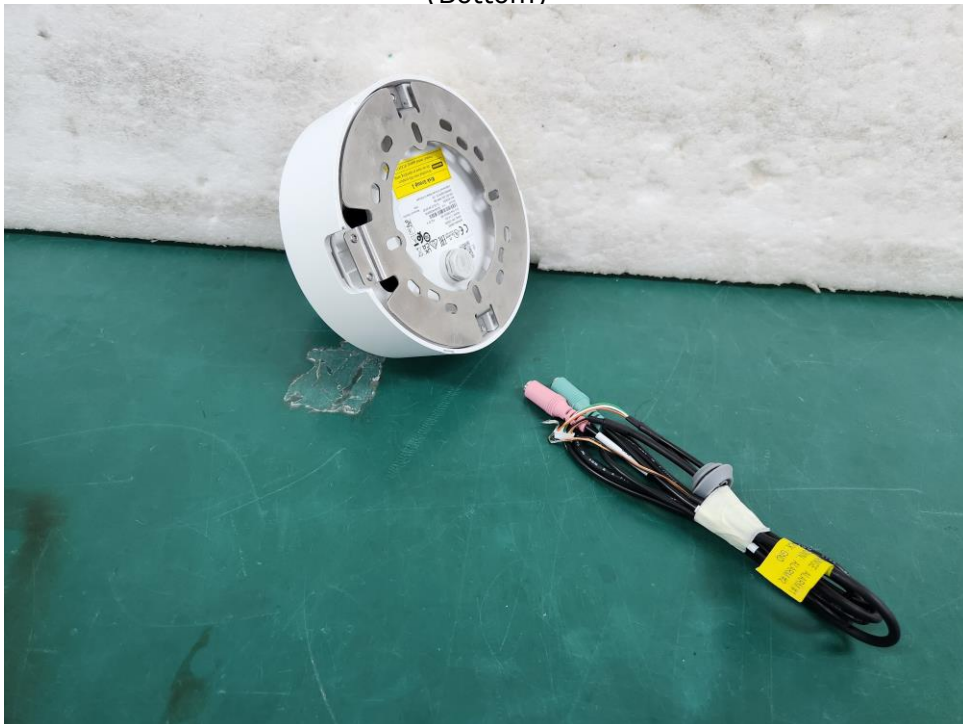
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EUT External Photographs

(Top)



(Bottom)



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EUT Internal Photographs

(Internal View)



EUT Internal View – Board 1

(Top)



(Bottom)



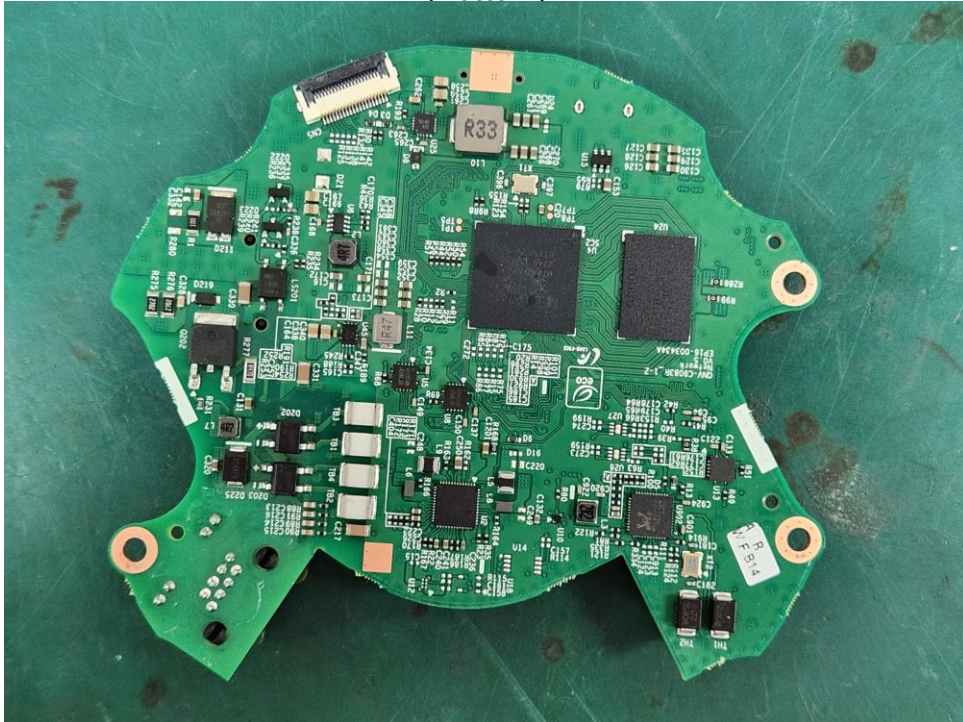
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EUT Internal View – Board 2

(Top)



(Bottom)



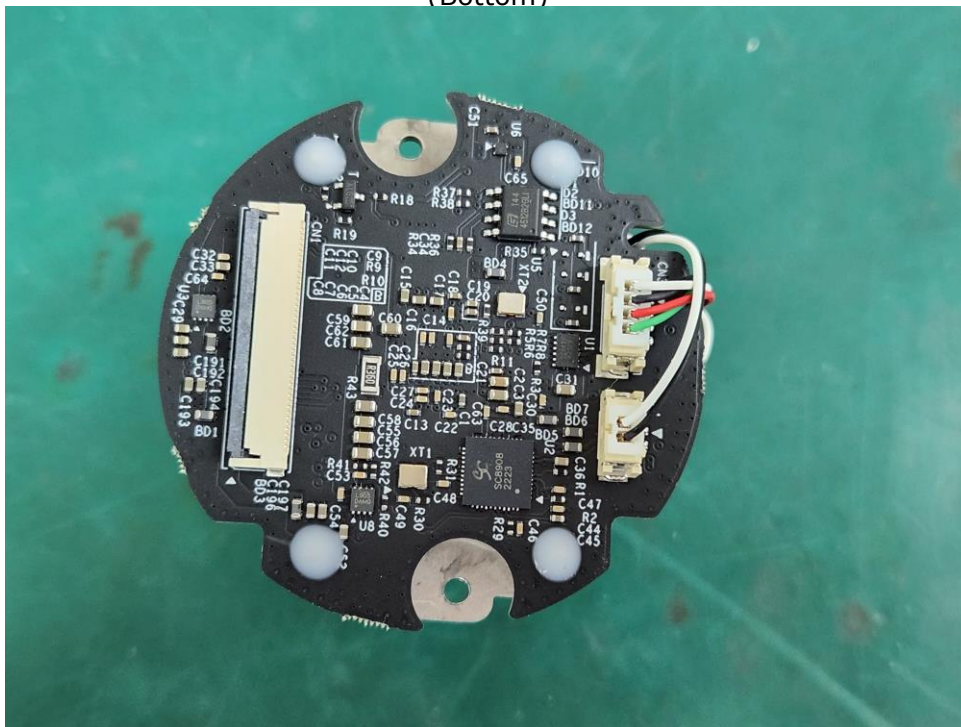
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EUT Internal View – Camera Lens Module

(Top)



(Bottom)



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Label Photographs

FCC Label



NETWORK CAMERA

QNV-C9083R

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.