

## EMC TEST REPORT

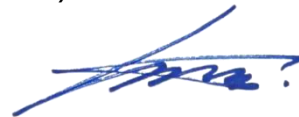
Test Report No. : KES-EM-23T0114  
Date of Issue : Feb. 14, 2023  
Product name : NETWORK CAMERA  
Model/Type No. : QNO-C8083R  
Variant Model : -  
Applicant : Hanwha Vision Co., Ltd  
Applicant Address : 6, Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si,  
Gyeonggi-do, Republic of Korea  
Manufacturer : 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 : Jan. 17, 2023  
Test date : Jan. 27, 2023 ~ Jan. 30, 2023  
Test Results : ☒ **In Compliance** ☐ **Not in Compliance**

Tested by



Jae Won, Lee  
EMC Test Engineer

Reviewed by



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
Feb. 14, 2023	KES-EM-23T0114	Issued

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## 1.0 General Product Description

### Main Specifications of EUT are:

	QNO-C8083R
<b>Video</b>	
Imaging Device	1/2.8" CMOS
Resolution	2592x1944, 2560x1440, 1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 5fps
NETD	None
Pixel Size	None
Min. Illumination	Color: 0.15Lux(F1.6, 1/30sec) BW: 0.015Lux(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(3.1x) motorized varifocal
Max. Aperture Ratio	F1.6(Wide)~F3.1(Tele)
Angular Field of View	H: 101°(Wide)~31°(Tele) V: 73°(Wide)~23°(Tele) D: 134°(Wide)~38°(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	None
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, 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: Vehicle(Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot <b>Analytics events based on AI engine</b> - Motion detection*, Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit) <b>Analytics events</b> - 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 Triggers	Analytics, Network disconnect, Alarm input

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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 (TBD)
Audio Streaming	None
Audio In	Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 25K Ohm
Audio Out	Line out, Max.output level: 0.5Vrms
IR Viewable Length	30m(98.42ft)
IR Illuminator (Optional)	None
IR Radiation angle	None
IR LED	2ea
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
<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(Sea area), WiseStreamII

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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(6 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, SRTP (TCP, UDP Unicast)
SIP support (VoIP, Peer-to-peer, SIP/PBX)	None
Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP) Device Certificate(Hanwha Techwin Root CA, pre-installed) Secure boot
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API)
<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 (TBD)
Memory	2GB RAM, 1GB Flash
<b>Environmental &amp; Electrical</b>	
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) / Less than 95% RH
Certification	IP66, IK10
Input Voltage	PoE(IEEE802.3af, Class3)
Power Consumption	PoE: Max 12W, typical 5.3W
<b>Mechanical</b>	
Color / Material	White / Aluminum
RAL Code	RAL9003
Product Dimensions / Weight	ø92.0x251.0mm(ø3.62x9.88"), 00g(0.00 lb) (TBD)
<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: 42.7m(140.20ft) / Tele: 186.9m(613.28ft)
Observe (63PPM/ 19PPF)	Wide: 17.2m(56.08ft) / Tele: 75.4m(245.31ft)
Recognize (125PPM/ 38PPF)	Wide: 8.5m(28.04ft) / Tele: 37.4m(122.66ft)
Identify (250PPM/ 76PPF)	Wide: 4.3m(14.02ft) / Tele: 18.7m(61.33ft)

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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	QNO-C8083R	-	HANWHA VISION VIETNAM COMPANY LIMITED	EUT

## 1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
PoE Adaptor	PT-PSE109GBRO-AH	-	Dongguan PROCET Network Technology Co.,Ltd	-
Notebook	P95G001	9JM8HT2	DELL INC.	-
Notebook Adaptor	LA65NS2-01	-	LITE-ON TECHNOLOGY (CHANGZHOU)CO.,LTD.	-
Button Alarm	-	-	-	-
Alarm	-	-	-	-
Smartphone	-	-	SAMSUNG	-
Headset	K550	-	Britz®	-
Micro SD Card	-	-	Sandisk	8 GB

## 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 Adaptor	RJ-45 (PoE)	3.0	U
	Slot	Micro SD Card	Slot	-	-
	Alarm OUT	Alarm	Alarm IN	3.0	U
	Alarm IN	Button Alarm	Alarm OUT	3.0	U
	Audio IN	Headset	Audio OUT	1.7	U
	Audio OUT		Audio IN	1.7	U
Notebook	RJ-45 (LAN)	PoE Adaptor	RJ-45 (LAN)	3.5	U
	3.5 mm	Smartphone	3.5 mm	0.8	U
	JACK	Notebook Adaptor	JACK	1.7	U

\* Unshielded = U, Shielded = S

## 1.7 EUT Operating Mode(s)

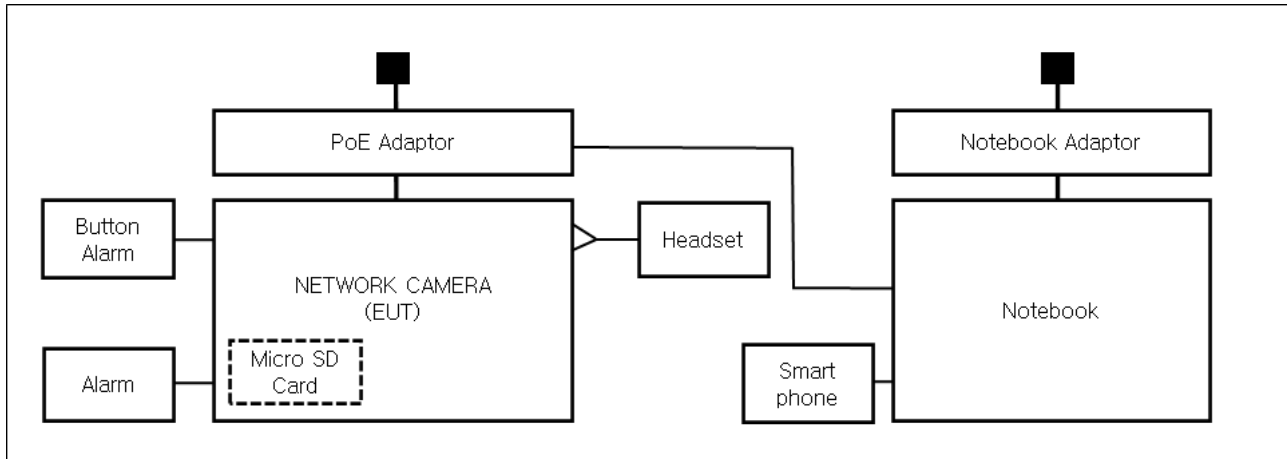
Test mode	operating
Operater	1. Check the camera video output on the laptop 2. Check if the network status is operating normally during PING TEST 3. Check the output of the 1 kHz tone output from the smartphone and the microphone input from the headset 4. Press the alarm button to check the normal operation of the button alarm. 5. Checked the files stored in the Micro SD Card after testing.

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

USB port are not used and have not been tested.







## 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

Jan. 30, 2023

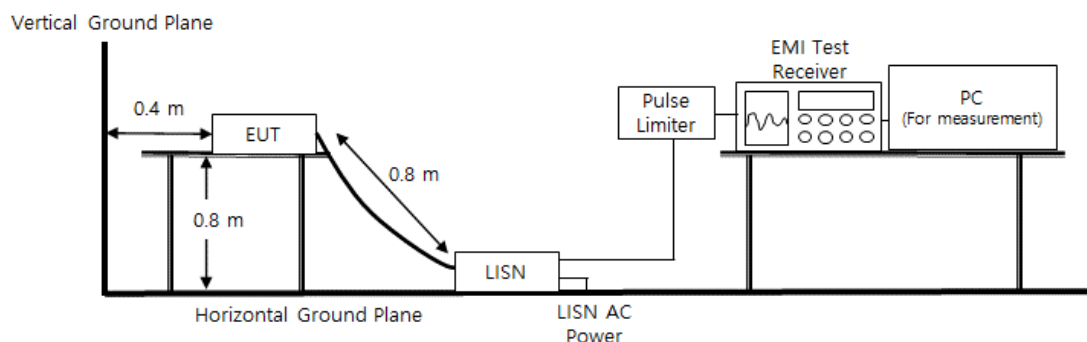
### Test Location

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, 11, 2023
<input checked="" type="checkbox"/>	LISN	ENV216	R & S	101787	11, 10, 2023
<input checked="" type="checkbox"/>	LISN	ESH2-Z5	R & S	100450	11, 10, 2023
<input checked="" type="checkbox"/>	PULSE LIMITER	ESH3-Z2	R & S	101915	11, 10, 2023

### Diagram of test setup





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### Test Conditions

Temperature:  $(22,3 \pm 0,1) ^\circ\text{C}$   
Relative Humidity:  $(45,4 \pm 0,1) \% \text{ R.H.}$

### 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

Jan. 27, 2023

### Test Location

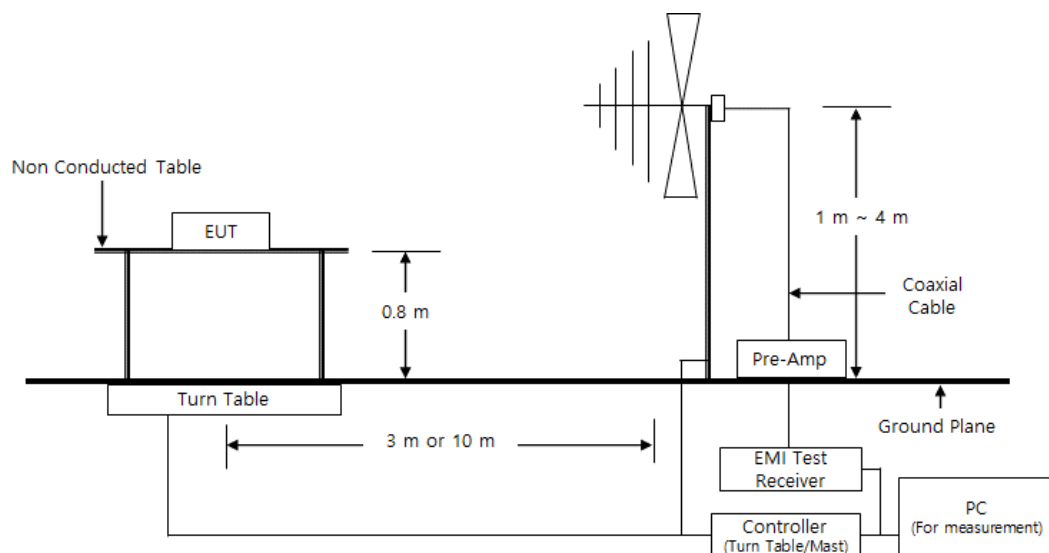
☐ OPEN AREA TEST SITE #2

☒ SEMI ANECHOIC CHAMBER #4(10 m)

### Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
<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, 31, 2023
<input checked="" type="checkbox"/>	AMPLIFIER	SCU 01	R & S	100603	11, 10, 2023
<input checked="" type="checkbox"/>	TRILOG-BROADBAND ANTENNA	VULB9163	Schwarzbeck	715	11, 17, 2024
<input checked="" type="checkbox"/>	ATTENUATOR	8491A	HP	32173	03, 08, 2023

### Diagram of test setup





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### Test Conditions

Temperature:  $(22,0 \pm 0,1) ^\circ\text{C}$   
Relative Humidity:  $(45,7 \pm 0,1) \% \text{ R.H.}$

### 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

Jan. 27, 2023

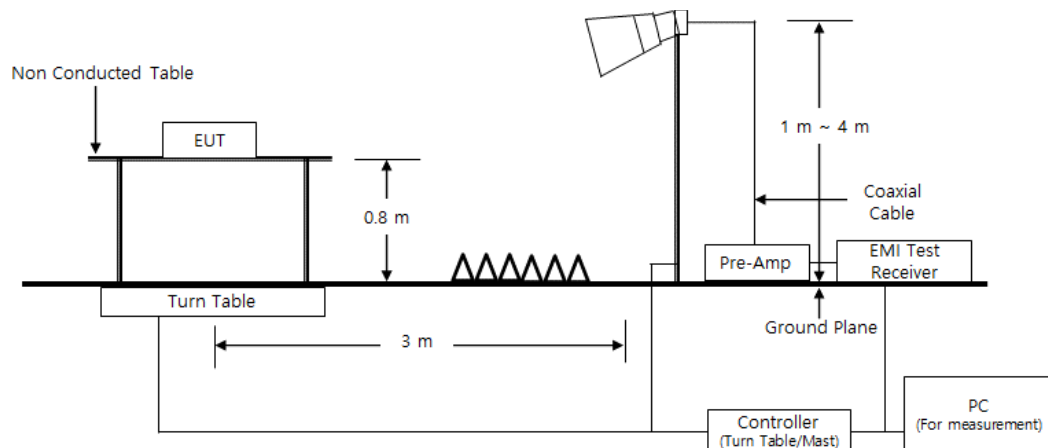
### Test Location

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	03, 31, 2023
<input checked="" type="checkbox"/>	HORN ANTENNA	BBHA 9120D	SCHWARZBECK	9120D-1802	11, 08, 2023
<input checked="" type="checkbox"/>	PREAMPLIFIER	8449B	HP	3008A00538	06, 02, 2023
<input checked="" type="checkbox"/>	ATTENUATOR	8491B	HP	23094	04, 21, 2023

### Diagram of test setup







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### Test Conditions

Temperature:  $(22,2 \pm 0,1) ^\circ\text{C}$   
Relative Humidity:  $(46,0 \pm 0,1) \% \text{ R.H.}$

### 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.

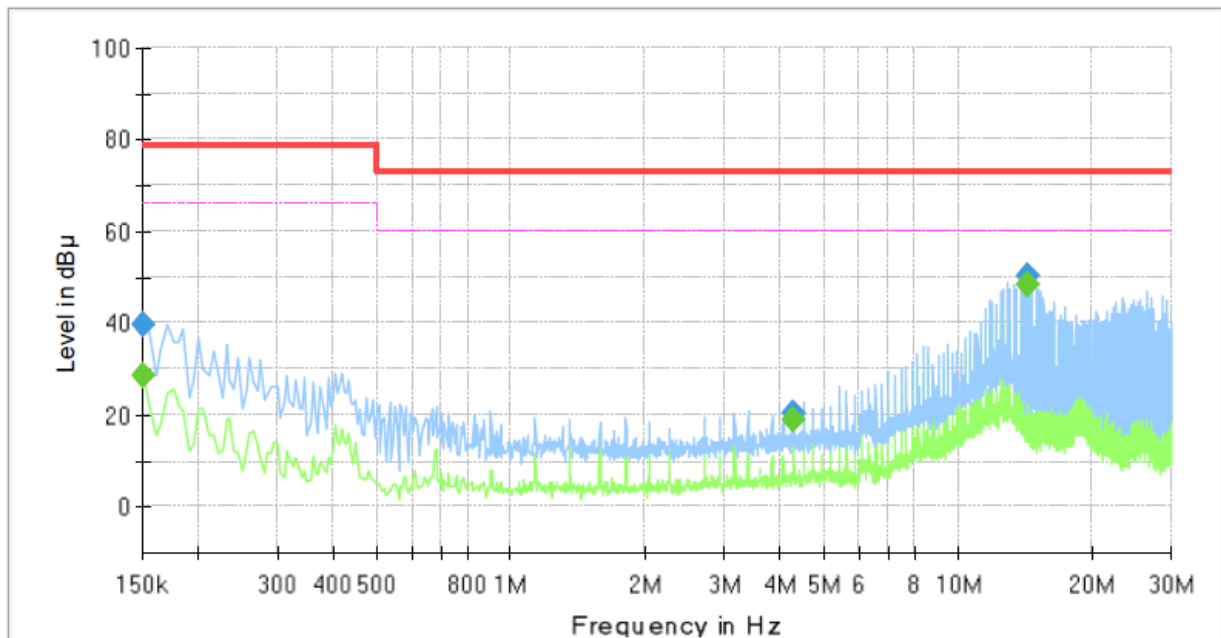
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## APPENDIX A – TEST DATA

### Conducted Emissions at Mains Power Ports HOT LINE

#### Common Information

Test Description:	Conducted Emission
Model No.:	QNO-C8083R
Phase:	L1
Mode:	
Operator Name:	KES



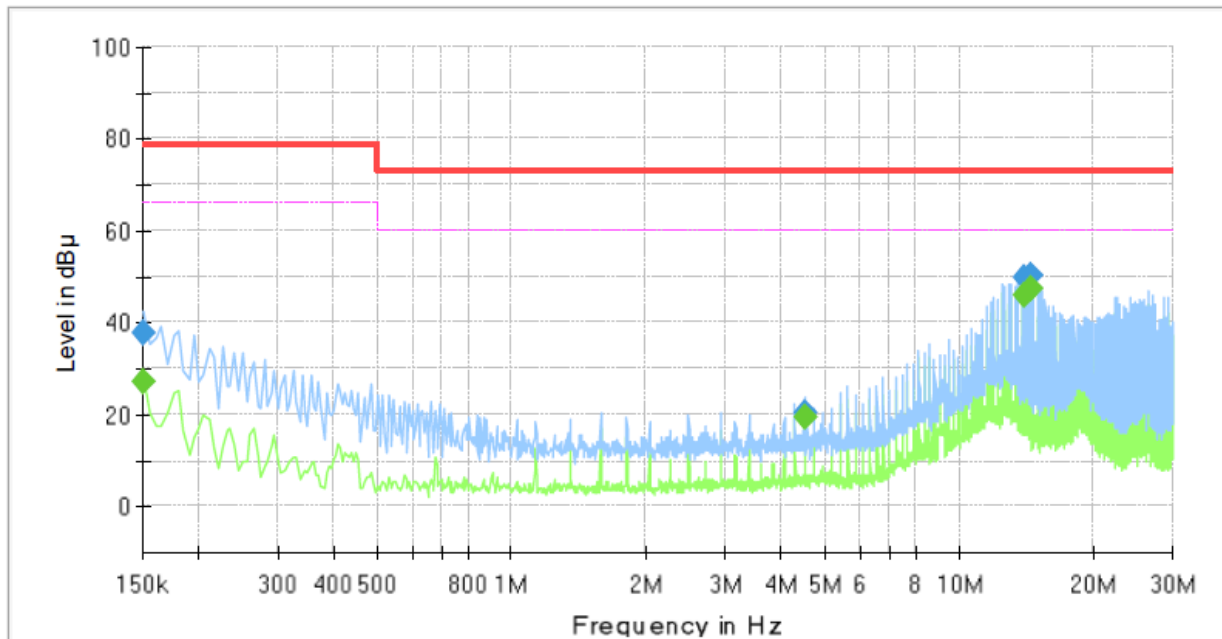
#### Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	---	28.48	66.00	37.52	1000.0	9.000	L1	19.5
0.150000	39.54	---	79.00	39.46	1000.0	9.000	L1	19.5
4.290000	---	19.13	60.00	40.87	1000.0	9.000	L1	19.9
4.290000	20.21	---	73.00	52.79	1000.0	9.000	L1	19.9
14.225000	---	48.33	60.00	11.67	1000.0	9.000	L1	20.0
14.225000	50.15	---	73.00	22.85	1000.0	9.000	L1	20.0

## NEUTRAL LINE

### Common Information

Test Description: Conducted Emission  
 Model No.: QNO-C8083R  
 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	---	27.17	66.00	38.83	1000.0	9.000	N	19.4
0.150000	37.96	---	79.00	41.04	1000.0	9.000	N	19.4
4.515000	---	19.36	60.00	40.64	1000.0	9.000	N	19.8
4.515000	20.55	---	73.00	52.45	1000.0	9.000	N	19.8
14.000000	---	45.81	60.00	14.19	1000.0	9.000	N	20.0
14.000000	49.94	---	73.00	23.06	1000.0	9.000	N	20.0
14.450000	---	47.55	60.00	12.45	1000.0	9.000	N	20.0
14.450000	50.17	---	73.00	22.83	1000.0	9.000	N	20.0

#### ◆ Calculation

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

QuasiPeak / CAverage : The Final Value

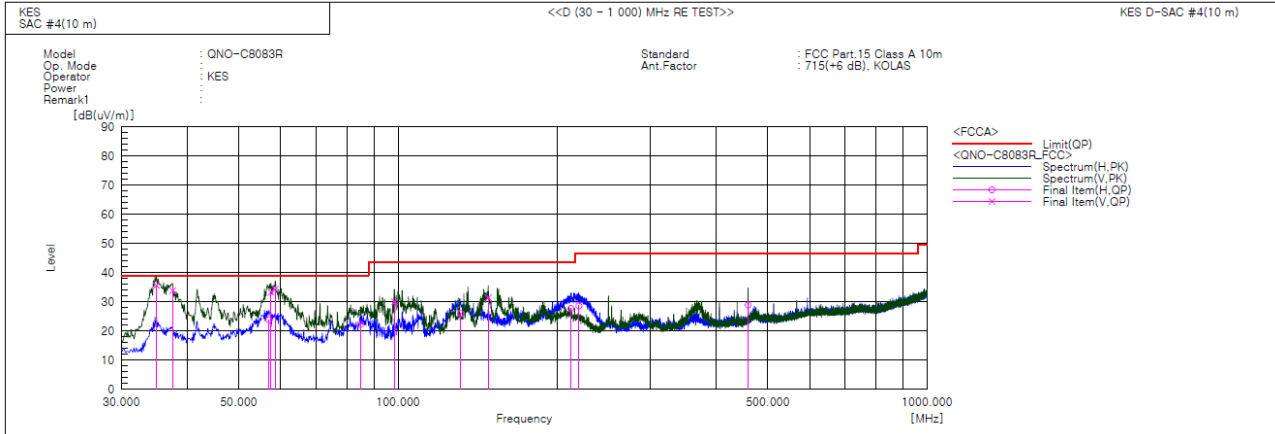
Reading Value : Not shown in the table.

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



## Radiated Electric Field Emissions(Below 1 GHz)

- 47 CFR Part 15, Subpart B

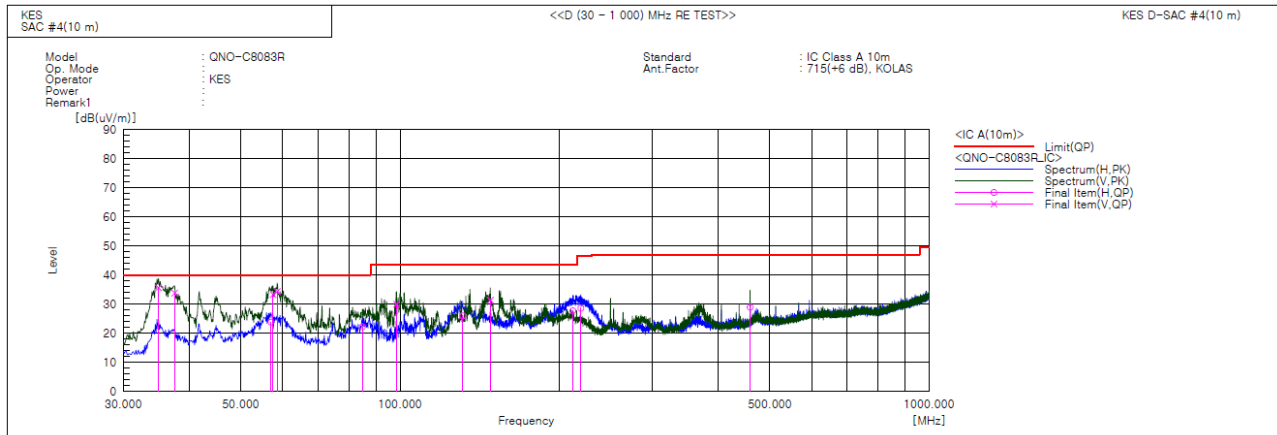


### Final Result

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	34.971	V	59.8	-24.2	35.6	39.0	3.4	100.0	62.0	
2	37.518	V	57.1	-23.3	33.8	39.0	5.2	112.0	106.0	
3	57.039	H	44.8	-21.0	23.8	39.0	15.2	394.0	265.0	
4	57.524	V	54.4	-21.1	33.3	39.0	5.7	106.0	95.0	
5	58.615	V	55.6	-21.3	34.3	39.0	4.7	142.0	119.0	
6	84.926	H	48.2	-26.0	22.2	39.0	16.8	398.0	231.0	
7	98.506	V	52.1	-22.1	30.0	43.5	13.5	111.0	155.0	
8	131.365	H	50.8	-24.8	26.0	43.5	17.5	399.0	26.0	
9	148.098	V	56.3	-24.9	31.4	43.5	12.1	112.0	43.0	
10	212.239	H	47.7	-20.0	27.7	43.5	15.8	396.0	85.0	
11	219.756	H	48.2	-19.6	28.6	46.5	17.9	396.0	70.0	
12	458.983	H	41.0	-12.1	28.9	46.5	17.6	195.0	121.0	

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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	34.971	V	59.8	-24.2	35.6	40.0	4.4	100.0	62.0	
2	37.518	V	57.1	-23.3	33.8	40.0	6.2	112.0	106.0	
3	57.039	H	44.8	-21.0	23.8	40.0	16.2	394.0	265.0	
4	57.524	V	54.4	-21.1	33.3	40.0	6.7	106.0	95.0	
5	58.615	V	55.6	-21.3	34.3	40.0	5.7	142.0	119.0	
6	84.926	H	48.2	-26.0	22.2	40.0	17.8	398.0	231.0	
7	98.506	V	52.1	-22.1	30.0	43.5	13.5	111.0	155.0	
8	131.365	H	50.8	-24.8	26.0	43.5	17.5	399.0	26.0	
9	148.098	V	56.3	-24.9	31.4	43.5	12.1	112.0	43.0	
10	212.239	H	47.7	-20.0	27.7	43.5	15.8	396.0	85.0	
11	219.756	H	48.2	-19.6	28.6	46.4	17.8	396.0	70.0	
12	458.983	H	41.0	-12.1	28.9	47.0	18.1	195.0	121.0	

## ◆ Calculation – SAC #4(10 m)

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

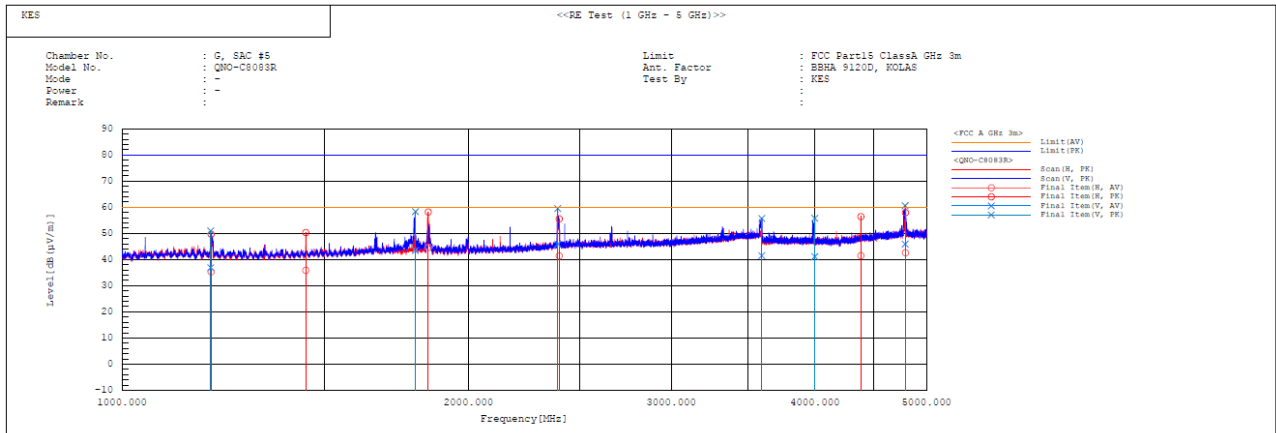
Margin(QP)[dB] = Limit[dB(μV/m)] - Result(QP) [dB(μV/m)]

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)



### 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	1194.447	V	38.4	52.5	-1.5	36.9	51.0	60.0	80.0	23.1	29.0	378.0	356.7	
2	1195.229	H	36.8	51.2	-1.5	35.3	49.7	60.0	80.0	24.7	30.3	102.0	326.4	
3	1444.899	H	36.2	50.6	-0.3	35.9	50.3	60.0	80.0	24.1	29.7	397.0	102.2	
4	1798.898	V	42.3	57.1	1.2	43.5	58.3	60.0	80.0	16.5	21.7	378.0	156.4	
5	1845.597	H	43.2	56.8	1.4	44.6	58.2	60.0	80.0	15.4	21.8	197.0	359.2	
6	2391.239	V	42.7	56.3	3.2	45.9	59.5	60.0	80.0	14.1	20.5	399.0	320.9	
7	2398.872	H	38.1	52.3	3.3	41.4	55.6	60.0	80.0	18.6	24.4	399.0	257.7	
8	3596.578	V	35.5	49.7	6.0	41.5	55.7	60.0	80.0	18.5	24.3	105.0	168.8	
9	3999.197	V	34.4	49.1	6.7	41.1	55.8	60.0	80.0	18.9	24.2	103.0	177.5	
10	4384.899	H	32.9	47.8	8.6	41.5	56.4	60.0	80.0	18.5	23.6	397.0	74.4	
11	4791.174	V	35.9	50.6	10.0	45.9	60.6	60.0	80.0	14.1	19.4	109.0	174.5	
12	4794.548	H	32.6	48.0	10.0	42.6	58.0	60.0	80.0	17.4	22.0	397.0	76.2	

### ◆ 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

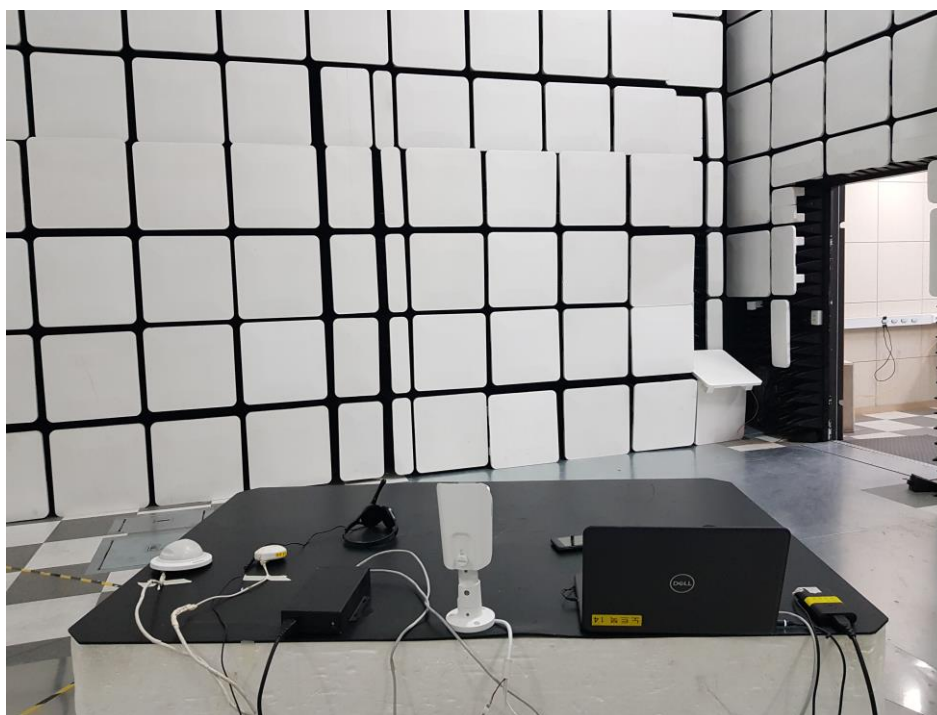
### Conducted Emissions at Mains Power Ports



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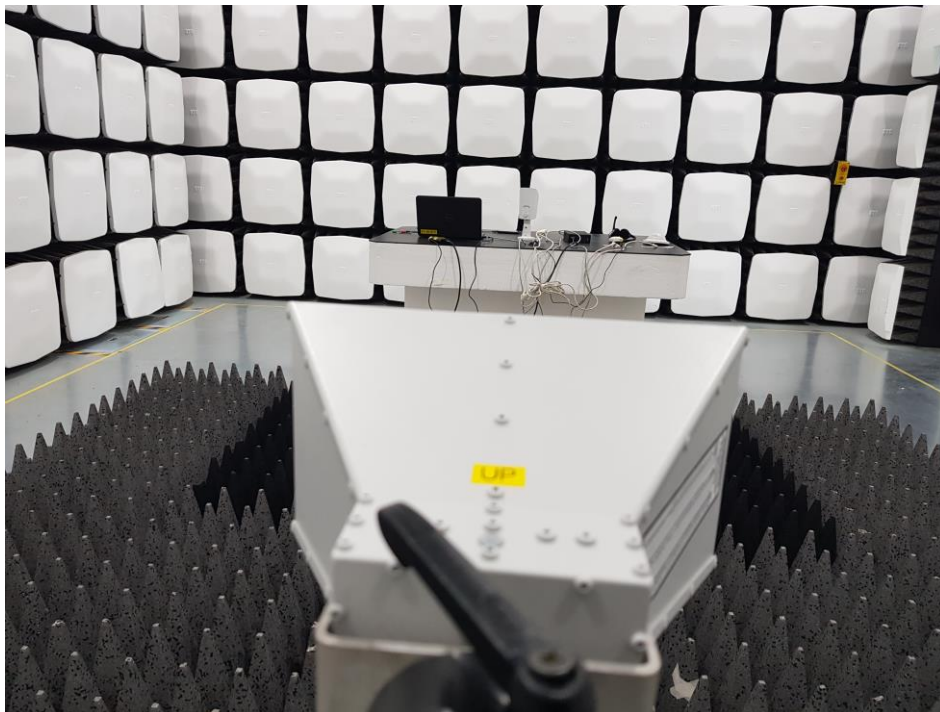
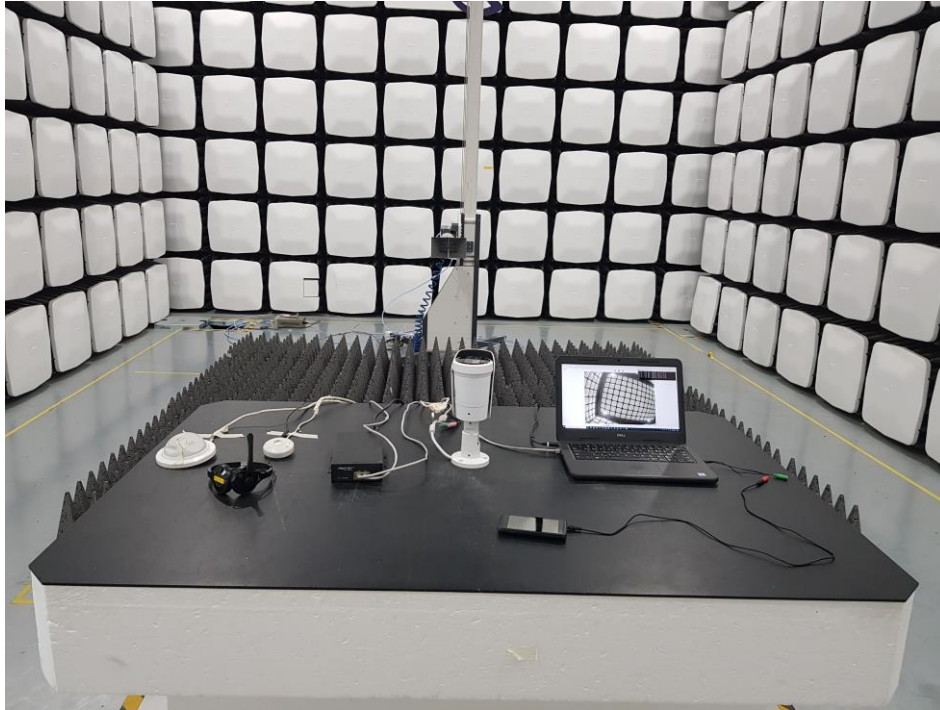
## Radiated Electric Field Emissions(Below 1 GHz)



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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)

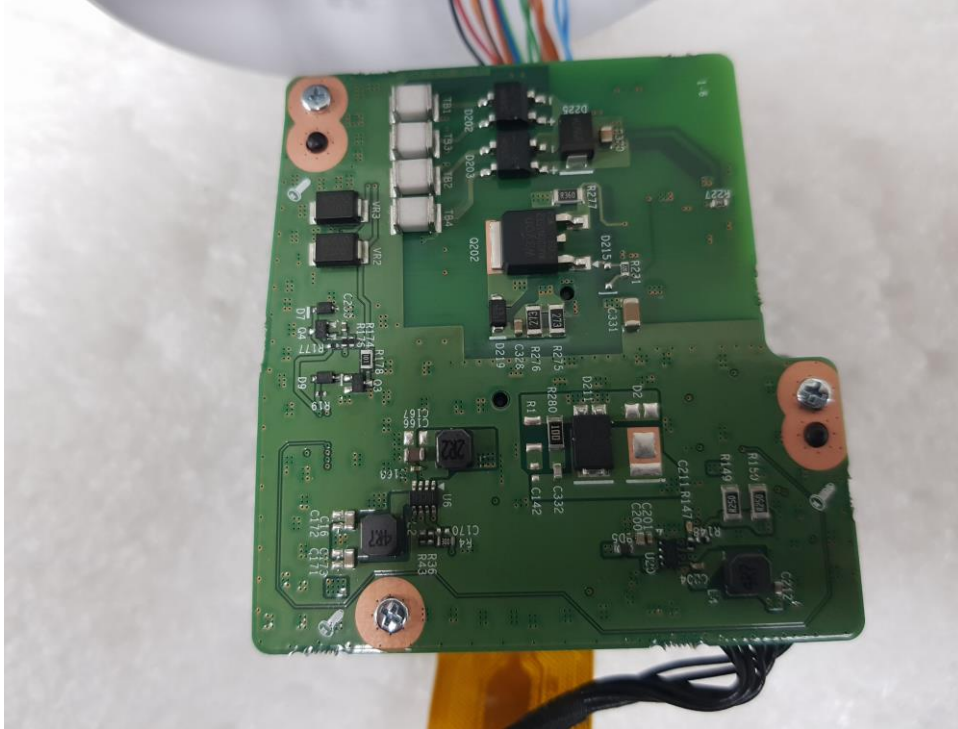


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## EUT Internal View – Main Board 1

(Top)



(Bottom)



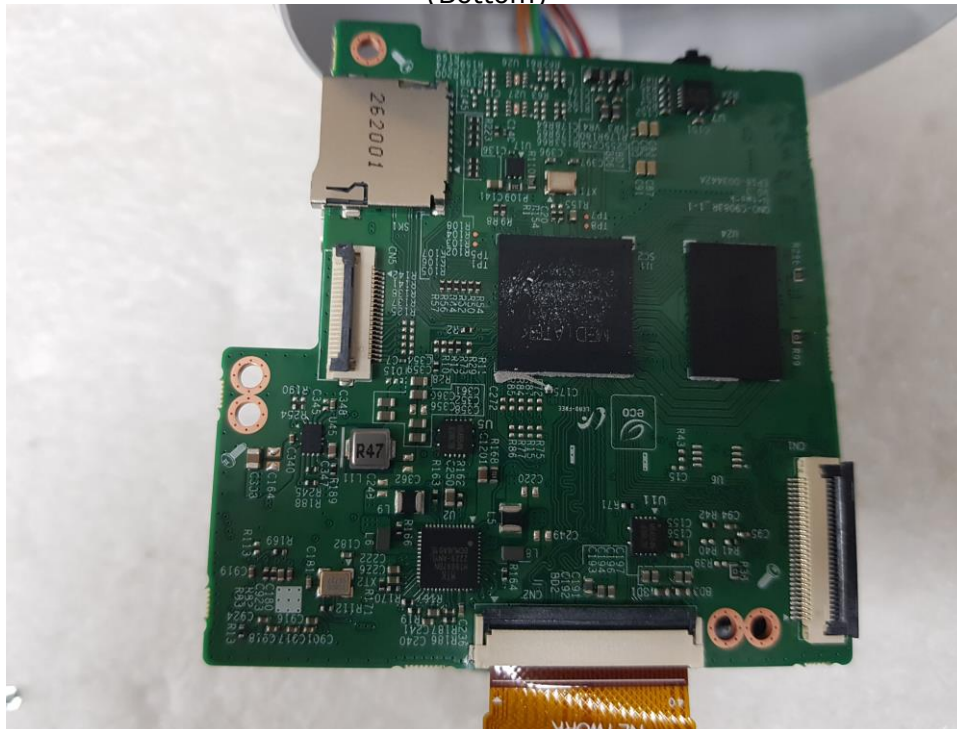
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## EUT Internal View – Main Board 2

(Top)



(Bottom)



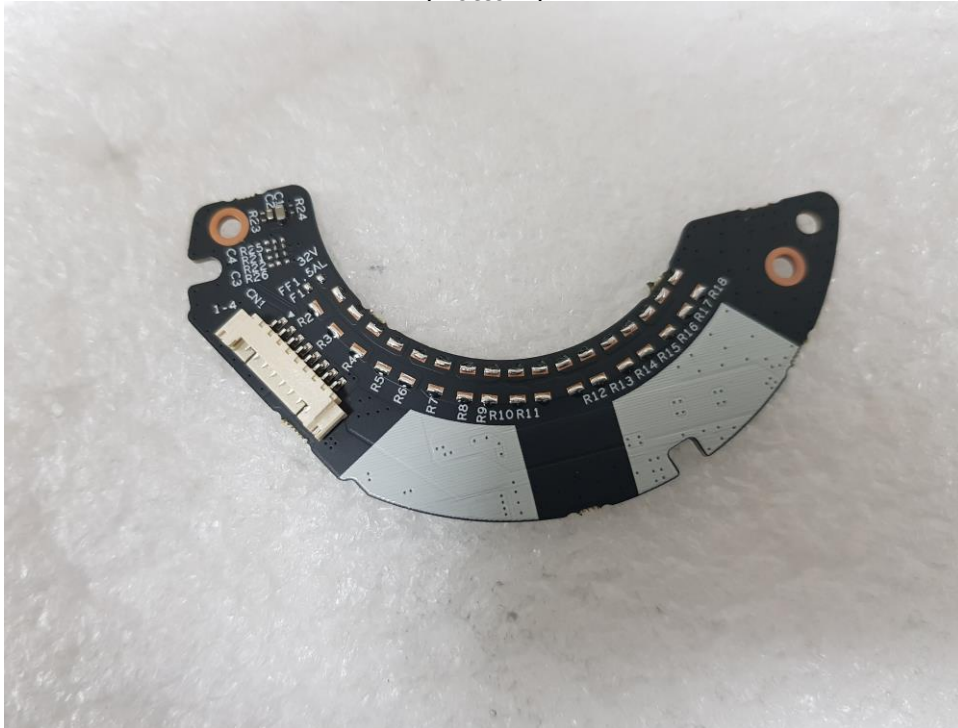
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**EUT Internal View – SUB Board**

(Top)



(Bottom)

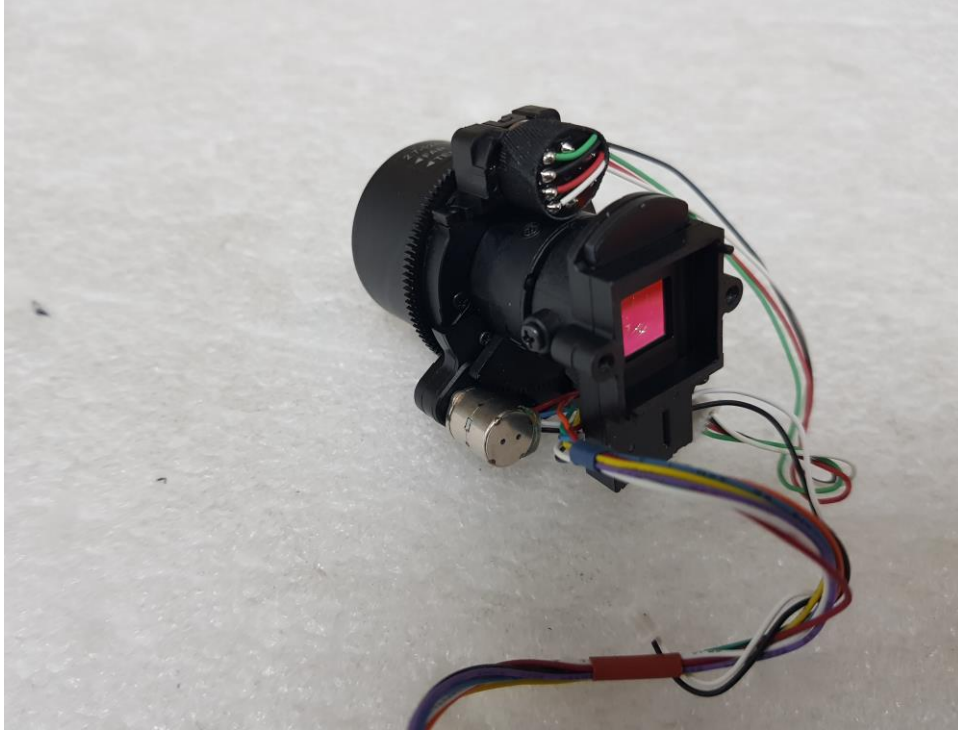


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**EUT Internal View – Camera Lens**

(Top)



(Bottom)



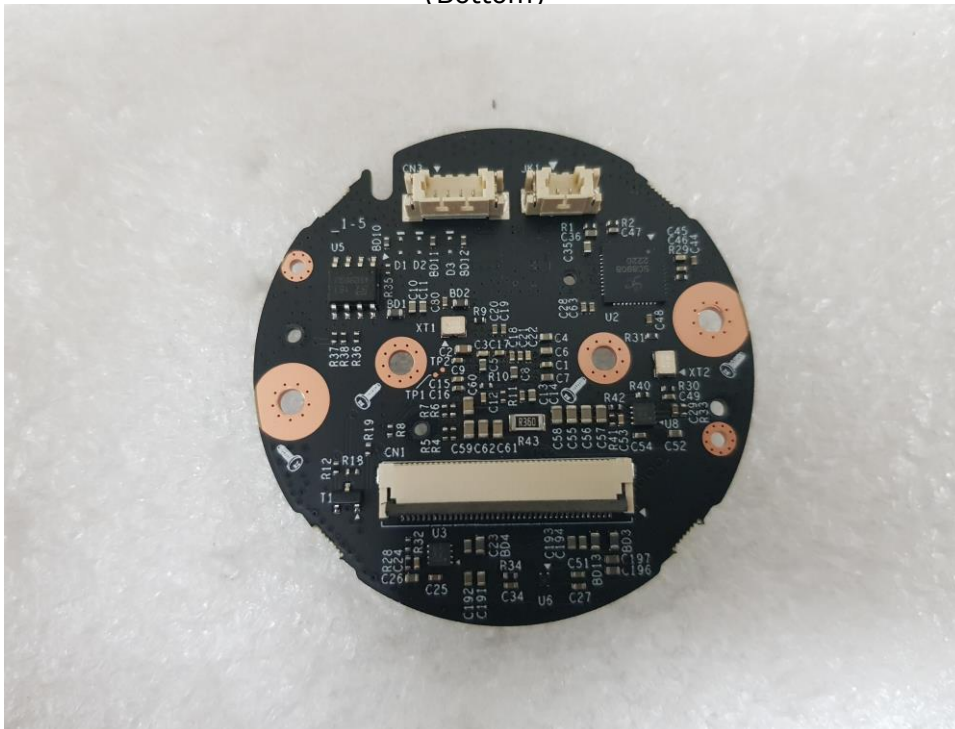
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## EUT Internal View – Camera Lens Board

(Top)



(Bottom)



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## Label Photographs

### FCC Label



Hanwha Vision Co., Ltd

QNO-C8083R

### 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.