



## EMC TEST REPORT For VCCI

Test Report No. : KES-EM-21T0649-R1  
Date of Issue : Feb. 24, 2023  
Product name : NETWORK CAMERA  
Model/Type No. : QNP-6320R  
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)  
Date of Receipt : Jun. 16, 2021  
Test date : Jul. 03, 2021  
Test Results : ☒ **In Compliance** ☐ **Not in Compliance**

Tested by

Kang Hyeon, Kim  
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.

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**REPORT REVISION HISTORY**

Date	Test Report No.	Revision History
Jul. 26, 2021	KES-EM-21T0649	Issued
Feb. 24, 2023	KES-EM-21T0649-R1	Change the Applicant and manufacturer at the request of the customer

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## 1.0 General Product Description

### Main Specifications of EUT are:

Video	
Imaging Device	1/2.8" CMOS
Resolution	1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264: Max. 60fps/50fps(60Hz/50Hz) MJPEG: Max. 30fps/25fps(60Hz/50Hz)
NETD	None
Pixel Size	None
Min. Illumination	Color: 0.05Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)
Video Out	None
Video Transmission Distance	None
Lens	
Focal Length (Zoom Ratio)	4.44~142.6mm(32x) zoom
Max. Aperture Ratio	F1.6(Wide)~F4.4(Tele)
Angular Field of View	H: 64.66°(Wide)~2.29°(Tele) / V: 38.08°(Wide)~1.30°(Tele)
Min. Object Distance	Wide: 1.5m(4.92ft), Tele: 2m(6.56ft)
Focus Control	Oneshot AF, Focus save
Lens Type	DC auto iris
Mount Type	None
Optional Lens	None
Pan / Tilt / Rotate	
Pan / Tilt / Rotate Range	None
Pan Range	360° Endless
Pan Speed	Preset: 700°/sec, Manual: 0.024°/sec~250°/sec
Tilt Range	110°(-20°~90°)
Tilt Speed	Preset: 300°/sec, Manual: 0.024°/sec~250°/sec
Rotate Range	None
Sequence	Preset(300ea), Swing, Group(6ea), Trace, Tour, Auto Run, Schedule

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Preset Accuracy	±0.2° (±20°C by temperature at preset setting)
<b>Operational</b>	
Camera Title	Displayed up to 85 characters
Direction Indicator	Support
Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SSDR
Wide Dynamic Range	120dB
Digital Noise Reduction	SSNR V
Digital Image Stabilization	Support(built-in gyro sensor)
Defog	Support
Motion Detection	8ea, 8point polygonal zones
Privacy Masking	32ea, Quadrangle Support - Color: Grey/Green/Red/Blue/Black/White - Solid/Mosaic
Gain Control	Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor / Mercury / Sodium
LDC	None
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2~1/12,000sec)
Digital PTZ	None
Video Rotation	Flip, Mirror
Analytics	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection(with NW I/O Box)
Alarm Triggers	Analytics, Network disconnect * Alarm input(with NW I/O Box)
Alarm Events	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers PTZ Preset Handover * Alarm output(with NW I/O Box)
Audio In	None
Audio Out	None
IR Viewable Length	100m(328.08ft)

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<b>Radiometry</b>	
Temperature detect range	None
Temperature accuracy	None
Temperature detection	None
Additional	None
<b>Network</b>	
Ethernet	Metal shielded RJ-45(10/100BASE-T)
Video Compression	H.265/H.264,MJPEG
Audio Compression	None
Smart Codec	Manual(5ea area), WiseStreamII
Video Quality Adjustment	H.264/H.265: Target bitrate level control MJPEG: Target bitrate level control
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast (128 user) Multiple streaming(Up to 10 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, PIM-SM, UPnP, Bonjour,LLDP, SRTP
Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP)
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform
<b>General</b>	
Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Swedish,, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Web Viewer	None
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB

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Memory	1024MB RAM, 256MB Flash
<b>Environmental &amp; Electrical</b>	
Operating Temperature / Humidity	Normal : -35°C~+55°(-31°F ~ +131°F) / Intermittent : -40°C~+60°C(-40°F ~ +140°F) * Start up should be done at above -30°C Less than 95% RH(Non-condensing)
Storage Temperature / Humidity	-50°C~+60°C (-58°F~+140°F) / Less than 95% RH(Non-condensing)
Certification	IP66, IK10, NEMA4X
Input Voltage	PoE+(IEEE802.3at, Class4)
Power Consumption	Typ.14.7W, Max.25.5W Camera only
<b>Mechanical</b>	
Color / Material	Body : White / Aluminum Head : Black / Polycarbonate Hard-coated dome
RAL Code	RAL9003
Product dimensions / weight	Ø158x293.3mm / 3.04Kg
Conduit hole	None
Hanging mount(Dome)	None
Skin cover(Dome)	None
Weather cap(Dome)	None
Power module	None
Backbox	None
<b>DORI (EN62676-4 standard)</b>	
Detect (25PPM/ 8PPF)	Wide: 64.2m(199.1ft) / Tele: 1921.3m(6303.4ft)
Observe (63PPM/ 19PPF)	Wide: 24.3m(79.6ft) / Tele: 768.5m(2521.4ft)
Recognize (125PPM/ 38PPF)	Wide: 12.1m(39.8ft) / Tele: 384.3m(1260.7ft)
Identify (250PPM/ 76PPF)	Wide: 6.1m(19.9ft) / Tele: 192.1m(630.3ft)

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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.

☒ 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	QNP-6320R	-	HANWHA VISION VIETNAM COMPANY LIMITED	EUT

## 1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
Notebook	P95G001	8KM8HT2	Wistron Infocom (Chengdu) Company Limited	-
Notebook Adapter	LA65NS2-01	-	LITE-ON TECHNOLOGY (CHANGZHOU)CO.,LTD.	-
Micro SD Card	-	-	SanDisk	16 GB
PoE Adapter	POE 36U-1AT-R	P90215791A1	PHIHONG	-





## 1.6 External I/O Cabling

Start		END		Cable Spec.	
Description	I/O Port	Description	I/O Port	Length	Shield
NETWORK CAMERA (EUT)	SLOT	Micro SD Card	SLOT	-	-
	RJ-45 (PoE)	PoE Adapter	RJ-45 (PoE)	4.0	S
Notebook	RJ-45 (LAN)		RJ-45 (LAN)	3.0	S
	DC Jack	Notebook Adapter	DC Jack	1.5	U

\* Unshielded=U, Shielded=S

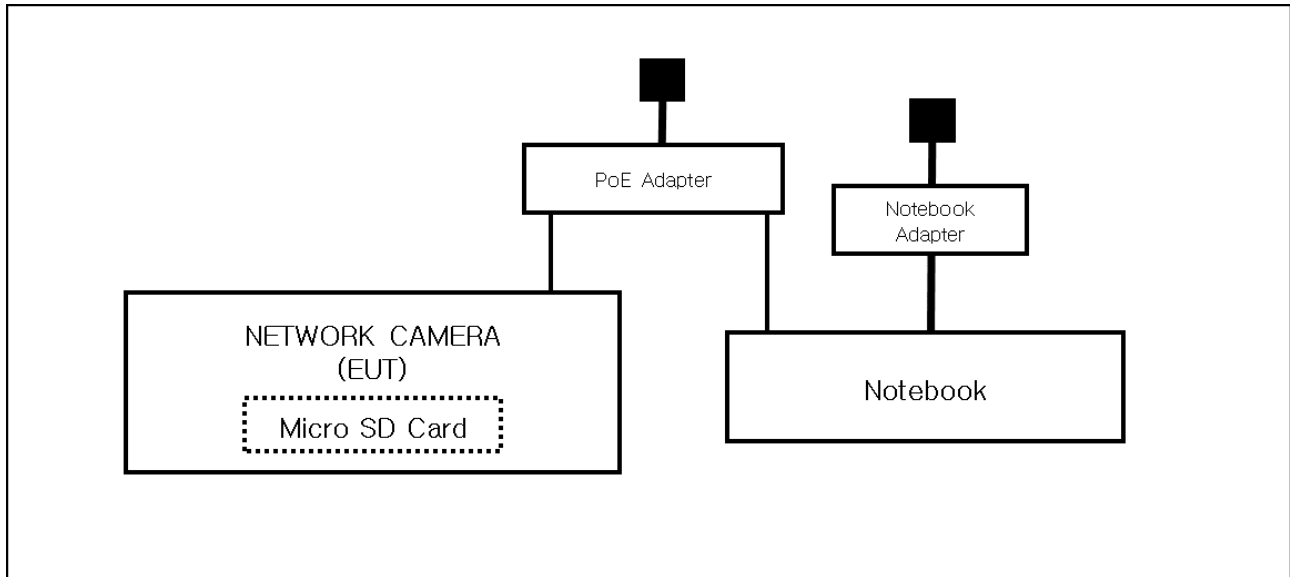
## 1.7 EUT Operating Mode(s)

Test Mode	operating
Operation	the test was conducted while checking the camera video output from the laptop and making sure that they operate normally while performing a ping test.

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

- Micro USB port are for administrator use and are excluded from testing.
- The main power ports were excluded tested because the EUT operated by PoE power.







## 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:

☐ **EMC – Directive 2014/30/EU**

☐ EN 61000-6-3:2011

☐ EN 61000-6-1:2007

☐ EN 61000-6-4:2007 +A1:2011

☐ EN 61000-6-2:2005

☐ EN 55011:2007 +A1:2010

☐ Group 1  
☐ Class A

☐ Group 2  
☐ Class B

☐ EN 55014-1:2006 +A2:2011

☐ EN 55014-2:1997 +A2:2008

☐ EN 55015:2013

☐ EN 61547 :2009

☐ EN 55032:2015

☐ Class A

☐ Class B

☐ EN 55024:2010 +A1:2015

☐ EN 50130-4:2011 +A1:2014

☐ EN 61000-3-2:2014

☐ EN 61000-3-3:2013

☐ EN 61326-1:2013



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- |   |   |                                  |
|---|---|----------------------------------|
| <input checked="" type="checkbox"/> <b>VCCI-CISPR 32:2016</b> | <input checked="" type="checkbox"/> Class A | <input type="checkbox"/> Class B |
| <input type="checkbox"/> <b>AS/NZS CISPR32:2015</b>           | <input type="checkbox"/> Class A            | <input type="checkbox"/> Class B |
| <input type="checkbox"/> <b>47 CFR Part 15, Subpart B</b>     |   |                                  |
| <input type="checkbox"/> CISPR 22:2009 +A1:2010               | <input type="checkbox"/> Class A            | <input type="checkbox"/> Class B |
| <input type="checkbox"/> ANSI C63.4-2009                      |   |                                  |
| <input type="checkbox"/> <b>IC Regulation ICES-003 : 2016</b> |   |                                  |
| <input type="checkbox"/> CAN/CSA CISPR 22-10                  | <input type="checkbox"/> Class A            | <input type="checkbox"/> Class B |
| <input type="checkbox"/> ANSI C63.4-2014                      |   |                                  |
| <input type="checkbox"/> <b>RE- Directive 2014/53/EU</b>      |   |                                  |
| <input type="checkbox"/> EN 301 489-1 V1.9.2                  |   |                                  |
| <input type="checkbox"/> Equipment for fixed use              |   |                                  |
| <input type="checkbox"/> Equipment for vehicular use          |   |                                  |
| <input type="checkbox"/> Equipment for portable use           |   |                                  |
| <input type="checkbox"/> EN 301 489-3 V1.6.1                  |   |                                  |
| <input type="checkbox"/> EN 301 489-17 V2.2.1                 |   |                                  |
| <input type="checkbox"/> EN 60945:2002                        |   |                                  |

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## 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	01, 15, 2022
<input type="checkbox"/>	LISN	ENV216	R & S	101787	12, 29, 2021
<input type="checkbox"/>	LISN	ESH2-Z5	R & S	100450	12, 29, 2021
<input type="checkbox"/>	PULSE LIMITER	ESH3-Z2	R & S	101915	12, 29, 2021

### 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

Please refer to the Remarks when standards applied.



## 2.2 Conducted Emissions at Telecommunication Ports

### Test Date

Jul. 03, 2021

### 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	01, 15, 2022
<input checked="" type="checkbox"/>	LISN	ENV216	R & S	101787	12, 29, 2021
<input checked="" type="checkbox"/>	LISN	ESH2-Z5	R & S	100450	12, 29, 2021
<input checked="" type="checkbox"/>	PULSE LIMITER	ESH3-Z2	R & S	101915	12, 29, 2021
<input type="checkbox"/>	8-WIRE ISN CAT3,5	ENY81	R & S	100174	12, 30, 2021
<input type="checkbox"/>	8-WIRE ISN CAT6	ENY81-CAT6	R & S	101665	12, 30, 2021
<input checked="" type="checkbox"/>	ISN	ISN S8	SCHWARZBECK	ISN-S8-0019	03, 10, 2022
<input type="checkbox"/>	CDN	CDNS502A	TESEQ	40431	12, 29, 2021

### Test Conditions

Temperature: (25,4 ± 0,4) °C

Relative Humidity: (46,8 ± 0,4) % 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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## 2.3 Radiated Electric Field Emissions(Below 1 GHz)

### Test Date

Jul. 03, 2021

### 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	04, 01, 2022
<input checked="" type="checkbox"/>	AMPLIFIER	SCU 01	R & S	100603	11, 25, 2021
<input checked="" type="checkbox"/>	TRILOG-BROADBAND ANTENNA	VULB9163	Schwarzbeck	715	12, 08, 2022
<input checked="" type="checkbox"/>	ATTENUATOR	8491A	HP	32173	03, 10, 2022

### Test Conditions

Temperature: (24,8 ± 0,5) °C  
Relative Humidity: (49,3 ± 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

Jul. 03, 2021

### 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	08, 05, 2021
<input checked="" type="checkbox"/>	PREAMPLIFIER	8449B	AGILENT	3008A01967	04, 07, 2022
<input type="checkbox"/>	ATTENUATOR	8491A	HP	35496	03, 10, 2022
<input checked="" type="checkbox"/>	DOUBLE RIDGED HORN ANTENNA	SAS-571	A.H.SYSTEM,INC	781	03, 11, 2022

### Test Conditions

Temperature: (25,1 ± 0,4) °C

Relative Humidity: (48,2 ± 0,4) % 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.



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## **APPENDIX A – TEST DATA**

### **Conducted Emissions at Mains Power Ports**

HOT LINE

N/A

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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))

---

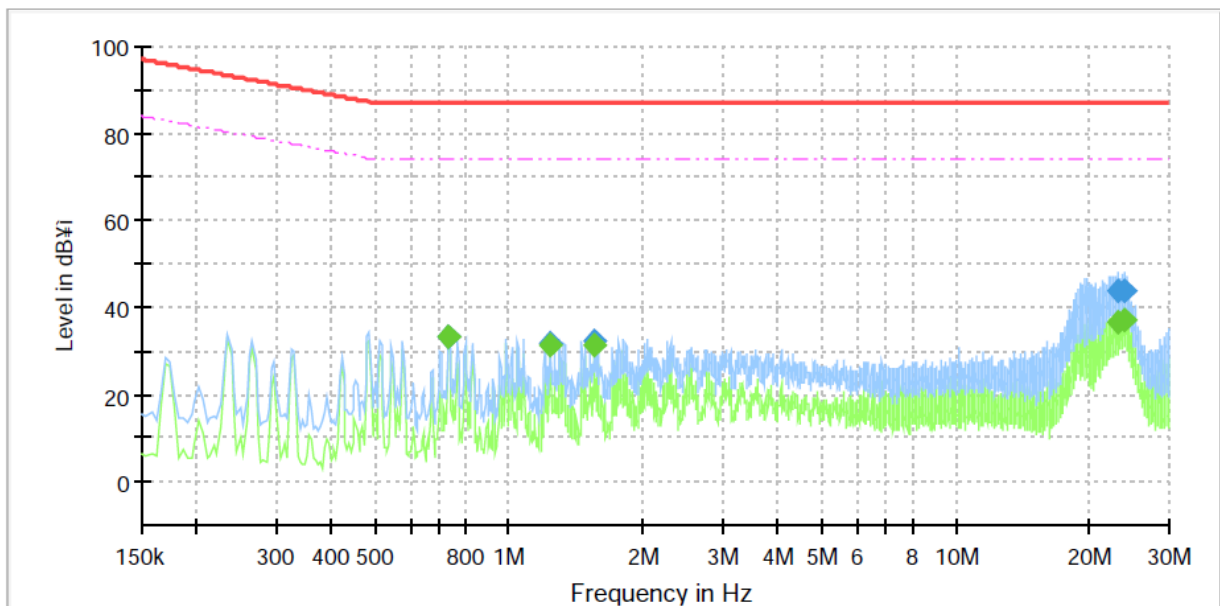
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## Conducted Emissions at Telecommunication Ports

[100 Mbps]

### Common Information

Test Description: Telecommunication Emission  
Model No.: QNP-6320R  
Mode :  
Speed :  
Operator Name: KES



### Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.734000	---	33.21	74.00	40.79	1000.0	9.000	Single Line	19.8
0.734000	33.36	---	87.00	53.64	1000.0	9.000	Single Line	19.8
1.234000	---	31.37	74.00	42.63	1000.0	9.000	Single Line	20.0
1.234000	31.76	---	87.00	55.24	1000.0	9.000	Single Line	20.0
1.546000	---	31.21	74.00	42.79	1000.0	9.000	Single Line	20.1
1.546000	32.21	---	87.00	54.79	1000.0	9.000	Single Line	20.1
23.106000	---	36.63	74.00	37.37	1000.0	9.000	Single Line	20.2
23.106000	43.57	---	87.00	43.43	1000.0	9.000	Single Line	20.2
24.022000	---	37.00	74.00	37.00	1000.0	9.000	Single Line	20.2
24.022000	43.71	---	87.00	43.29	1000.0	9.000	Single Line	20.2

#### ◆ Calculation

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

QuasiPeak / CAverage : The Final Value

Reading Value : Not shown in the table.

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

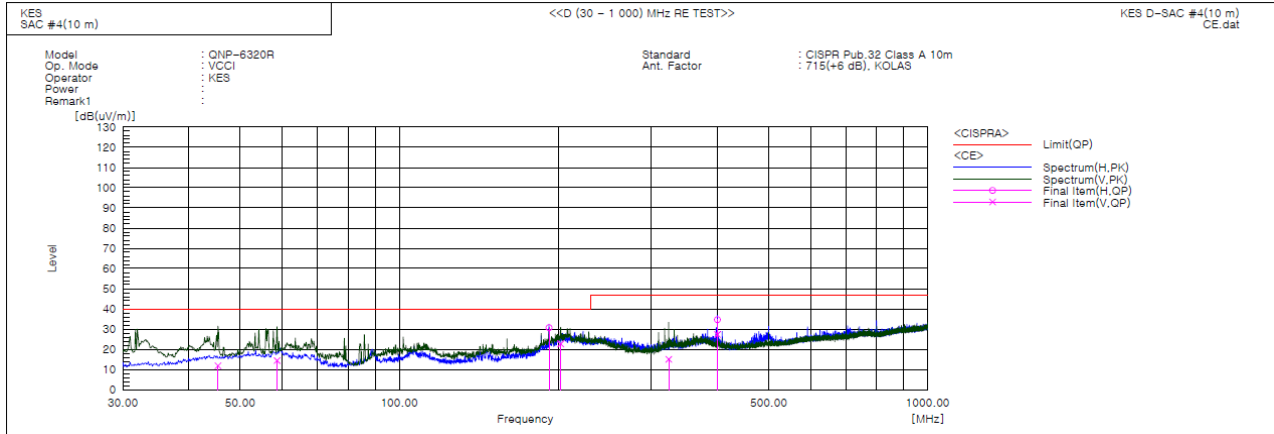
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## Radiated Electric Field Emissions(Below 1 GHz)



### 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	45.399	V	33.3	-21.4	11.9	40.0	28.1	143.0	144.0	
2	58.736	V	36.2	-21.8	14.4	40.0	25.6	179.0	144.0	
3	191.990	H	52.4	-21.7	30.7	40.0	9.3	400.0	275.0	
4	202.054	V	43.4	-20.7	22.7	40.0	17.3	206.0	144.0	
5	323.425	V	31.6	-16.5	15.1	47.0	31.9	112.0	136.0	
6	400.055	V	41.7	-14.3	27.4	47.0	19.6	130.0	25.0	
7	400.055	H	49.0	-14.3	34.7	47.0	12.3	100.0	110.0	

### ◆ Calculation

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

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

Correction Factor : ANT FACTOR + Cable loss



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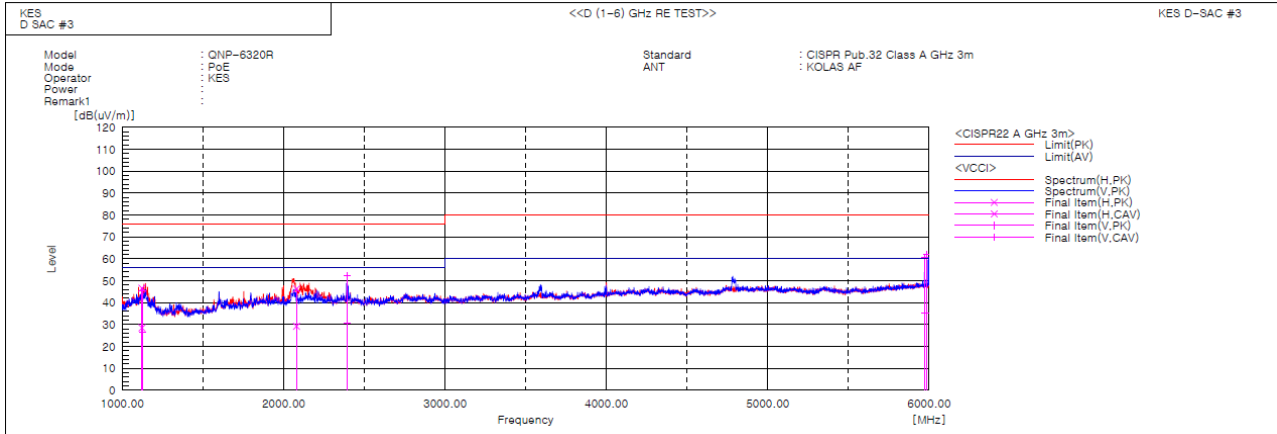
3701, 40, Simin-daero 365beon-gil,  
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea  
Tel: +82-31-425-6200 / Fax: +82-31-424-0450  
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Report No.:

KES-EM-21T0649-R1

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## Radiated Electric Field Emissions(Above 1 GHz)



### Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1121.744	H	55.4	37.3	-8.8	46.6	28.5	76.0	56.0	29.4	27.5	100.0	326.1	
2	1125.934	V	53.9	35.1	-8.7	45.2	26.4	76.0	56.0	30.8	29.6	100.0	47.3	
3	2080.227	H	46.9	29.9	-0.6	46.3	29.3	76.0	56.0	29.7	26.7	100.0	251.4	
4	2392.569	V	52.2	30.5	0.2	52.4	30.7	76.0	56.0	23.6	25.3	100.0	282.3	
5	5972.403	V	49.9	24.7	10.8	60.7	35.5	80.0	60.0	19.3	24.5	100.0	353.9	
6	5987.212	V	51.1	24.6	10.8	61.9	35.4	80.0	60.0	18.1	24.6	100.0	356.3	

### ◆ 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

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## **Test Setup Photos and Configuration**

### **Conducted Emissions at Mains Power Ports**

N/A

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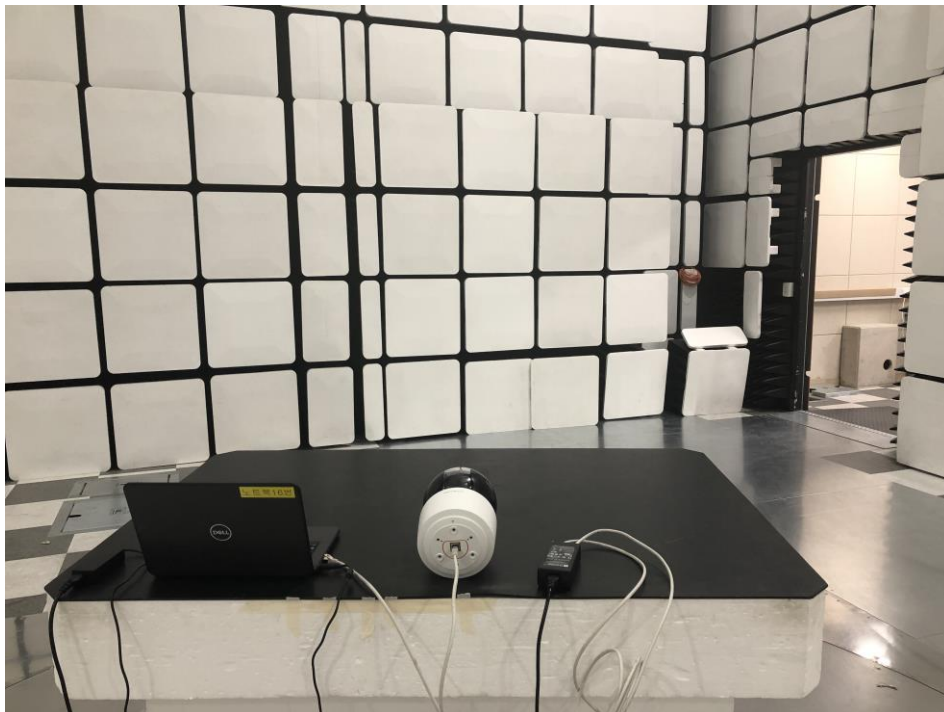
## Conducted Emissions at Telecommunication Ports



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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)





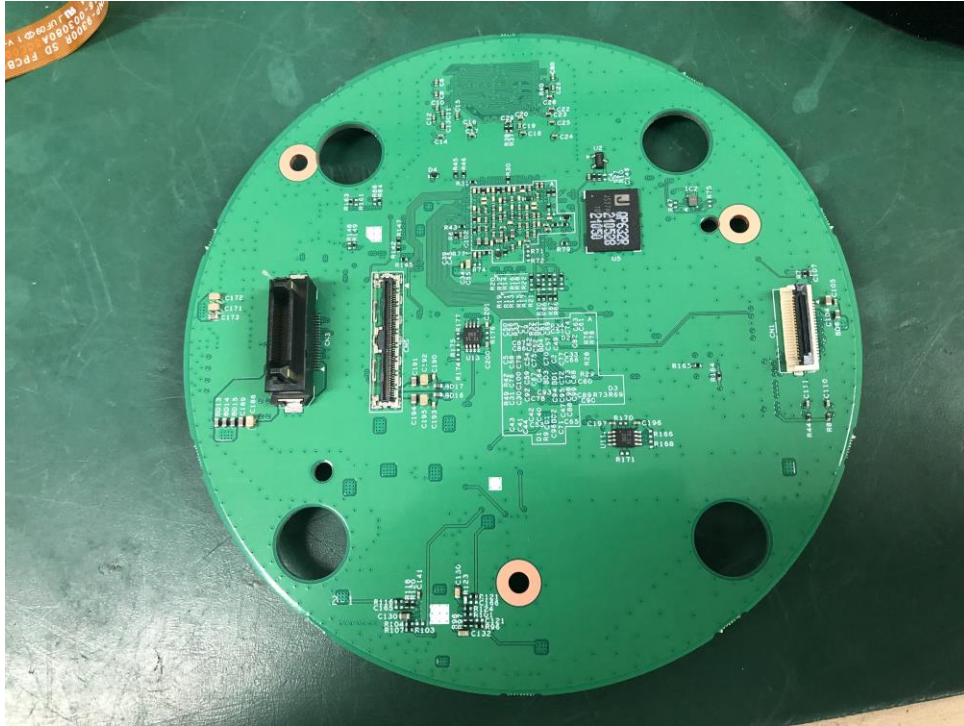
## EUT Internal Photographs

(Internal View)

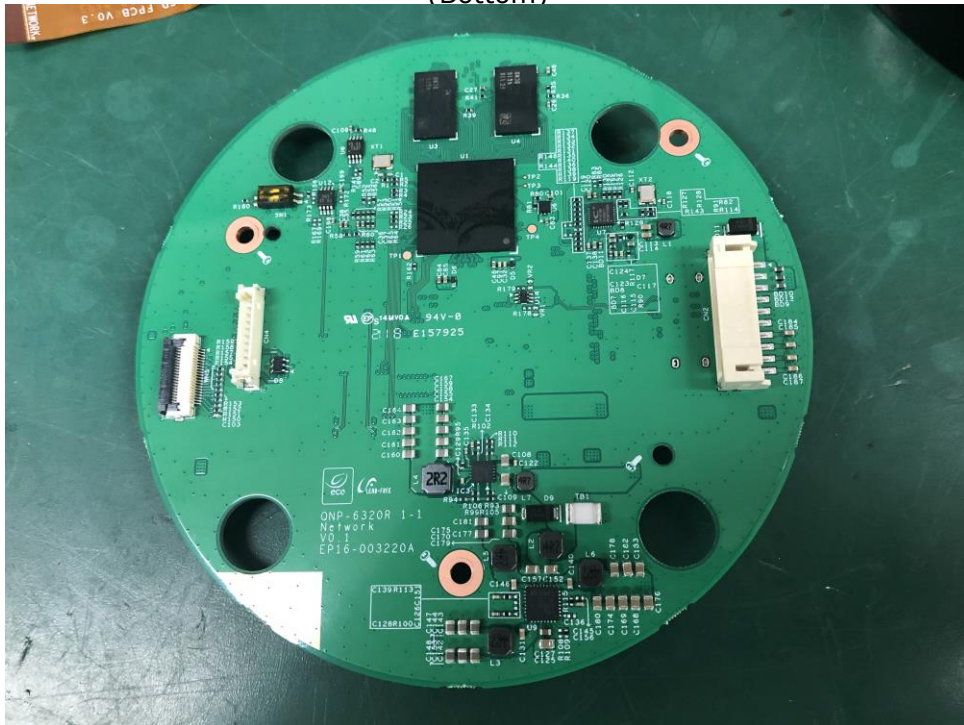


## EUT Internal View – Board 1

(Top)



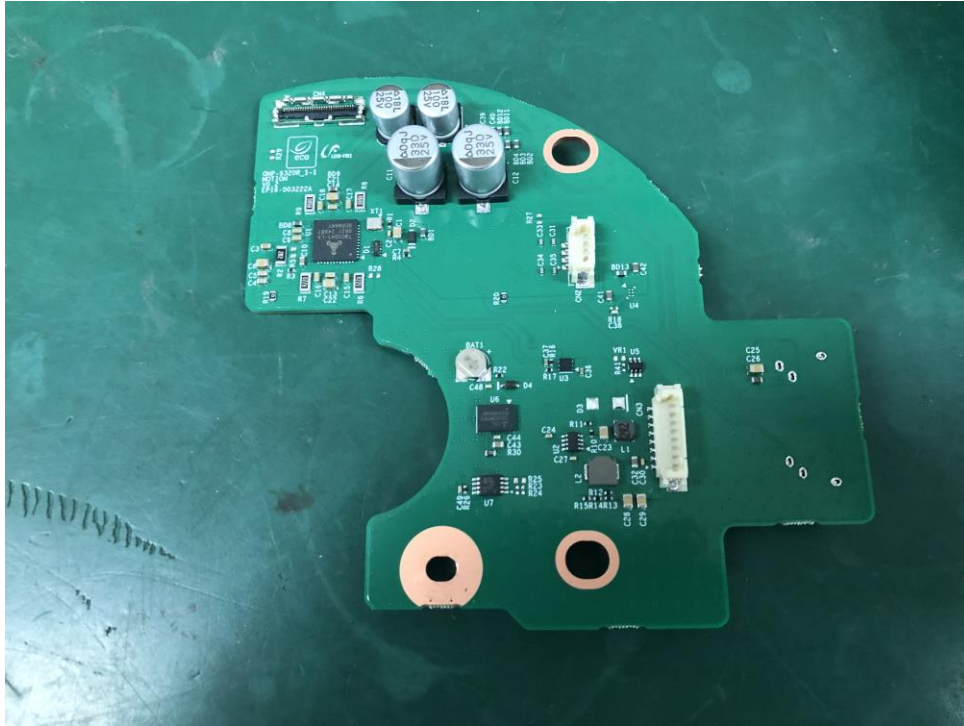
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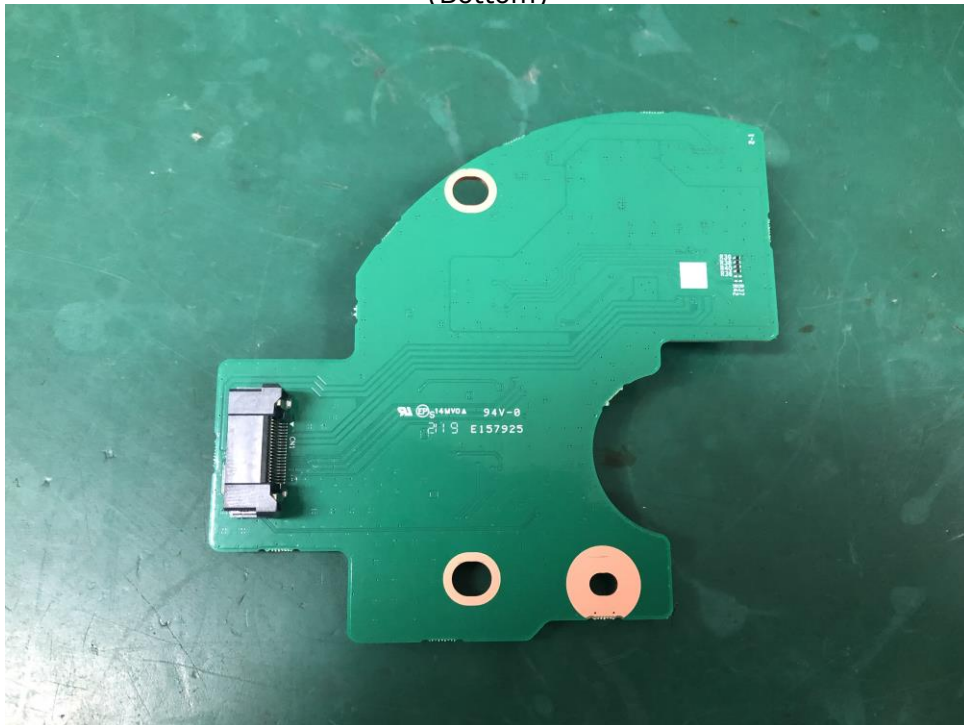
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## EUT Internal View – Board 2

(Top)



(Bottom)



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## EUT Internal View – Board 3

(Top)



(Bottom)



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## EUT Internal View – Board 4

(Top)



(Bottom)





**EUT Internal View – Board 5**

(Top)

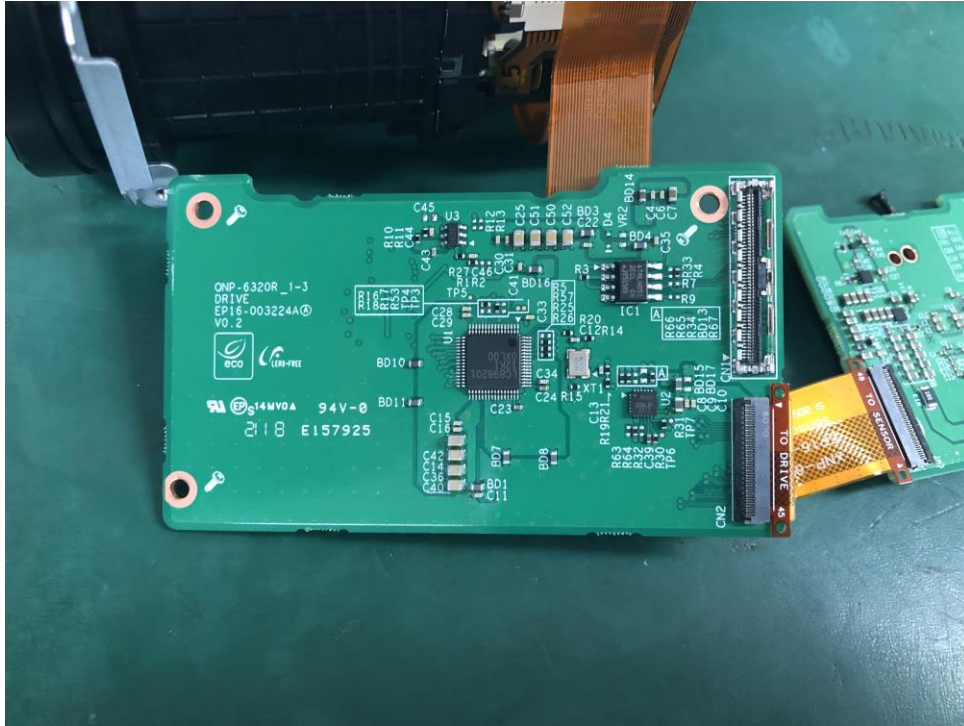


(Bottom)



## EUT Internal View – Board 6

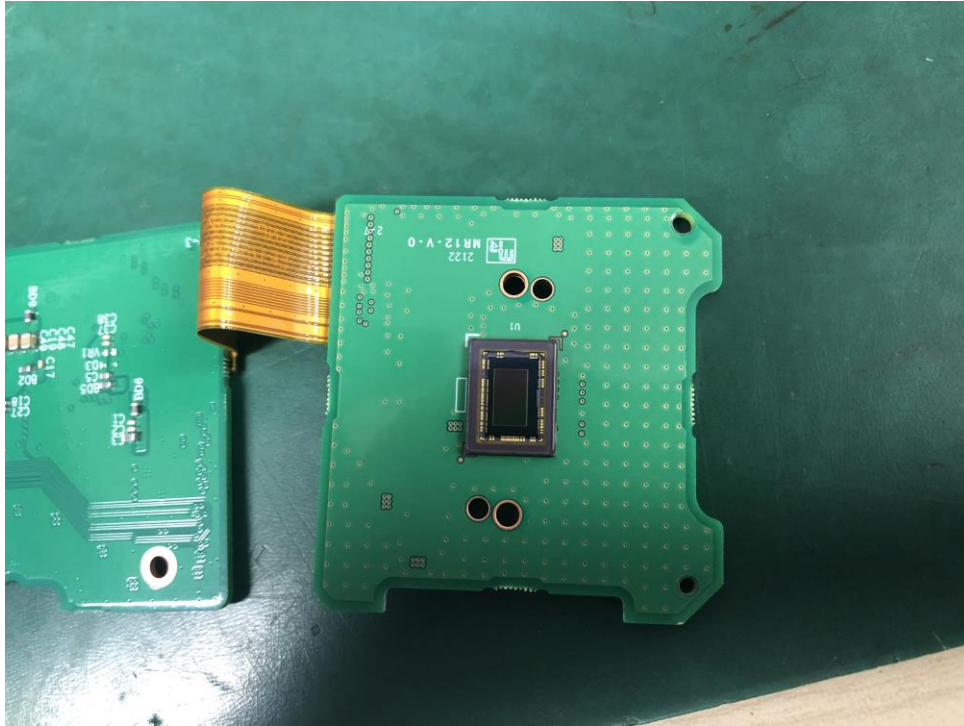
(Top)





## EUT Internal View – Board 7

(Top)



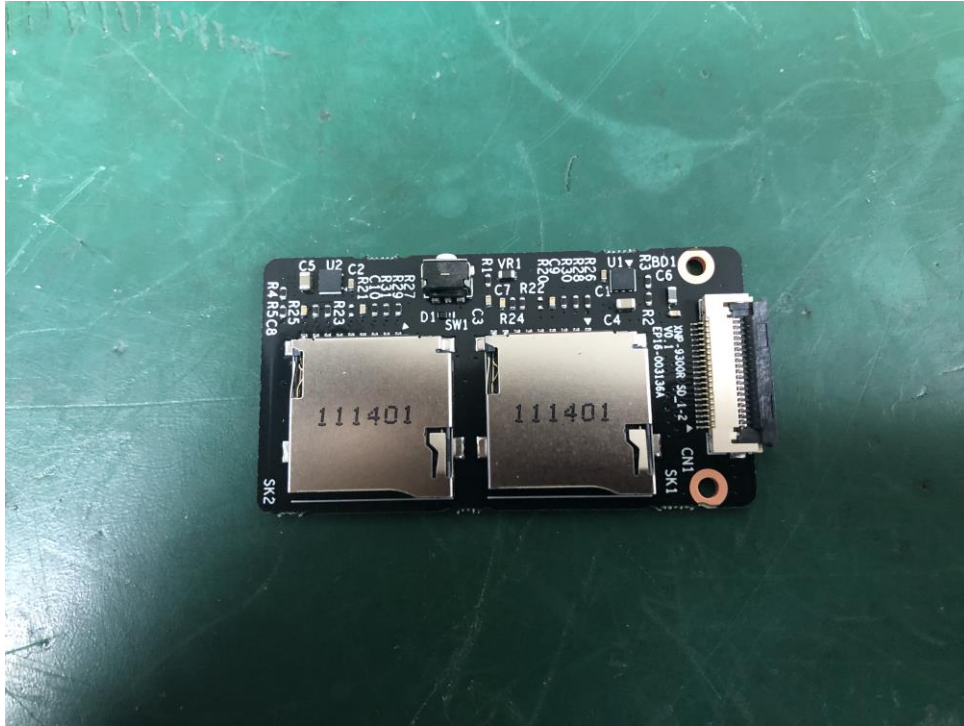
(Bottom)



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## EUT Internal View – Board 8

(Top)



(Bottom)



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## Label Photographs



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VCCI-A