



TEST REPORT



Report No. : KES-EM-23T0911

Page 1 / 39

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Gyeonggi-do, 14057, 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. : XNP-C7310R

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

3. Equipment authorization : Supplier's Declaration of Conformity

4. Date of Receipt : Oct. 13, 2023

5. Test date : Oct. 16, 2023 ~ Oct. 17, 2023

6. Date of Issue : Oct. 26, 2023

7. Test Results : 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.

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

KES Co., Ltd.

The authenticity of the test report, contact kes@kes.co.kr



REPORT REVISION HISTORY

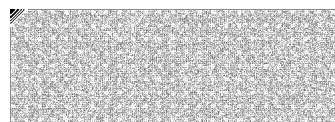
Date	Test Report No.	Revision History
Oct. 26, 2023	KES-EM-23T0911	Issued

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TABLE OF CONTENTS

1.0	General Product Description.....	4
1.1	Test Voltage & Frequency.....	5
1.2	Variant Model Differences.....	5
1.3	Device Modifications.....	5
1.4	Equipment Under Test.....	5
1.5	Support Equipments.....	5
1.6	External I/O Cabling.....	6
1.7	EUT Operating Mode(s).....	6
1.8	Configuration.....	7
1.9	Remarks when standards applied.....	8
1.10	Calibration Details of Equipment Used for Measurement.....	8
1.11	Test Facility.....	8
1.12	Laboratory Accreditations and Listings.....	8
2.0	Test Regulations.....	9
2.1	Conducted Emissions at Mains Power Ports.....	10
2.2	Radiated Electric Field Emissions(Below 1 GHz).....	12
2.3	Radiated Electric Field Emissions(Above 1 GHz).....	14
APPENDIX A – TEST DATA.....		16
	Conducted Emissions at Mains Power Ports.....	16
	Radiated Electric Field Emissions(Below 1 GHz).....	18
	Radiated Electric Field Emissions(Above 1 GHz).....	20
	Test Setup Photos and Configuration.....	21
	Conducted Emissions at Mains Power 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



Report No. : KES-EM-23T0911

Page 4 / 39

1.0 General Product Description

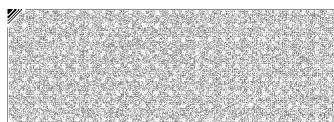
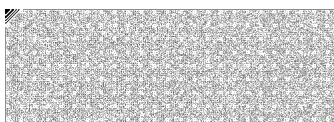
Main Specifications of EUT are:

Video		Radiometry	
Imaging Device	1/1.8" CMOS	Temperature Detect Range	None
Resolution	2592x1520, 2560x1440, 1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240	Temperature Accuracy	None
Max. Framerate	H.265/H.264: Max. 60fps/50fps(60Hz/50Hz)(WDR off) H.265/H.264: Max. 30fps/25fps(60Hz/50Hz)(WDR on) MPEG: Max. 30fps@4MP Max. 5fps	Temperature Detection	None
NETD	None	Additional	None
Pixel Size	None	Network	
Min. Illumination	Color: 0.04 Lux(F1.36, 1/30sec, 30 IRE) BW: 0.004 Lux(F1.36, IR LED Off), 0Lux (IR LED On)	Ethernet	Metal shielded RJ-45(10/100BASE-T)
Video Out	None	Video Compression	H.265/H.264: Main/Baseline/High, MPEG
Video Transmission Distance	None	Audio Compression	None
Lens		Smart Codec	Manual/Sea area, WiseStreamII, WiseStreamIII(Based on AI engine)
Focal Length (Zoom Ratio)	6.91 ~ 214.7mm(31x) zoom (digital 32x, total 992x zoom)	Video Quality Adjustment	H.264/H.265: Target bitrate level control MPEG: Target bitrate level control
Max. Aperture Ratio	F1.36(Wide)~F4.6(Tele)	Bitrate Control	H.264/H.265: CBR or VBR MPEG: VBR
Angular Field of View	H : 59.4°(Wide)~2.54°(Tele) V : 35.8°(Wide)~1.49°(Tele) D : 68.2°(Wide)~2.95°(Tele)	Streaming	Unicast(20 users) / Multicast Multiple streaming(Upto 10 profiles)
Min. Object Distance	3m(9.84ft)	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, SRTPTCP, UDP Unicast), NTCP, 120S, MQTT
Focus Control	Oneshot AF, Focus save, Focus scan, Wise auto focus	SIP support (VoIP, Peer-to-peer)	None
Lens Type	P-iris(IR corrected)	Security	None
Mount Type	None	Application Programming Inter	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform
Optional Lens	None	Security	
Pan / Tilt / Rotate		OS / Firmware Protect	Secure boot, Signed firmware, Firmware encryption
Pan / Tilt / Rotate Range	None	User authentication	Digest Authentication, Prevent brute-force attack
Pan Range	360° Endless	Network authentication	802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2)
Pan Speed	Preset: 550°/sec, Manual: 0.024°/sec~200°/sec	Secure Communication	Secure Communication
Tilt Range	110° (90° ~ -20°)	Access Control	Access control based on IP address
Tilt Speed	Preset: 550°/sec, Manual: 0.024°/sec~200°/sec	Data Protect	Authentication information encryption, ZIP compression encryption
Rotate Range	None	Audit	User Access/System/Event log management
Sequence	Preset(300ea), Swing, Group(6ea), Trace, Tour, Auto Run, Schedule	Device ID	Device Certificate(Hanwha Private Root CA)
Preset Accuracy	±0.07° (±0.2°C by temperature at preset setting)	Secure Storage	TPM(Trusted platform module), HTPM(Hanwha trusted platform module), SDcard partition encrypt
Operational		Security Certificate	TPM with FIPS 140-2 level 2
Camera Title	Displayed up to 85 characters	General	
Direction Indicator	Support	Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Day & Night	Auto(ICR)	Web Viewer	None
Backlight Compensation	BLC, HLC, WDR, SDDR	Edge Storage	Micro SD/SDHC/SDXC 2slot 1TB (512MBx2)
Wide Dynamic Range	120dB	Memory	4GB RAM, 512MB Flash
Digital Noise Reduction	WiseNRIII(Based on AI engine), SSNRV	Environmental & Electrical	
Digital Image Stabilization	Support(built-in gyro sensor)	Operating Temperature / Humidity	Normal : -50°C ~ +55°C, 58°F ~ +131°F +74°C(165°F)(Max) based on NEMA TS-2(2.2.7) * Start up should be done at above -30°C Less than 95%RH(Non-condensing)
Defog	Support	Storage Temperature / Humidity	-50°C ~ +60°C, 58°F ~ +140°F / 0~90% RH
Motion Detection	8ea, 8point polygonal zones	Certification	IP66/IP67, IK10, NEMA4X Safety(UL, KC, SDOCS), EMC(FCC, CE, VCCI, RCM, KC) NEMA-TS 2(2.2.7, 2.2.8, 2.2.9)
Privacy Masking	32ea, 4point quadrangle zones - Color: Gray/Green/Red/Blue/Black/White - Mosaic	Input Voltage	HPoE(IEEE802.3bt type4, Class8, injector included)
Gain Control	Off / Max gain / Manual	Power Consumption	HPoE: Max 62W, typical 23W
White Balance	ATW / NarrowATW / AWC / Manual / Indoor / Outdoor / Mercury / Sodium	Mechanical	
LDC	None	Color / Material	White / Aluminum
Electronic Shutter Speed	Minimum / Maximum / Anti Flicker (2~1/12,000sec)	RAL Code	RAL9003
Digital PTZ	None	Product Dimensions / Weight	1188x264.9mm(ø7.40x10.47") / 4400g (9.70lb)
Video Rotation	Flip&Mirror	Compatible Conduit hole / Gasket	None
	Classified object type : Person/Face/Vehicle/License plate Attributes : VehicleType(car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine - Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events - Motion detection, Tampering, Fog detection, Shock detection, Virtual area(Appear/Disappear) * Audio detection, Sound classification(Via optional I/O box SPM-4210)	Hanging Mount (Dome)	SBP-156HMMW
		Skin Cover	None
		Skin Cover (Dome)	None
		Weather Cap (Dome)	None
		Power Module	None
		Backbox	None
		Ceiling Mount (Assy)	SBP-156CMW, SBP-300CMTS, SBP-300CMW1/900CMW, SBP-150CM1/300CM1
		Wall Mount	SBP-156WMW, SBP-390WMW2
		Pole Mount	SBP-300PMW2
		In-ceiling Mount	None
		Parapet Mount	SBP-156LMW, SBP-300LMW
		Corner Mount	SBP-156KMW, SBP-300KMW1
		Tilt Mount	None
		Housing (Box)	None
		Cabinet	SBP-300NBW
		Gang Plate	None
		Conduit Adaptor	None
		Other Compatible Models	None
		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 55030-4, EN 61000-3-2, EN 61000-3-3 VCCI CISPR 32 Class A RCM AS/NZS CISPR 32 Class A KS C 9832 Class A, KS C 9835
		Safety	UL 62368-1, CAN/CSA C22.2 NO. 62368-1 IEC/EN 62471
		Environment	IEC/EN 63000 IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK10 NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9) NEMA 250 type 4X
		Video	None
		DORI (EN62676-4 standard)	
		Detect (25PPM/ BPPE)	Wide: 90.9m(298.18ft) / Tele: 233.8m(767.181ft)
		Observe (63PPM/ 19PPF)	Wide: 36.4m(119.27ft) / Tele: 935.3m(3068.72ft)
		Recognize (125PPM/ 38PPF)	Wide: 18.2m(59.64ft) / Tele: 467.7m(1534.36ft)
		Identify (250PPM/ 76PPF)	Wide: 9.1m(29.82ft) / Tele: 233.8m(767.18ft)
		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
		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
		Ver	
		Ver	2311

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Report No. : KES-EM-23T0911

Page 5 / 39

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

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	XNP-C7310R	-	HANWHA VISION VIETNAM COMPANY LIMITED	EUT

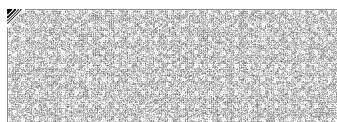
1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
Fiber PoE Injector	PT-PSE109GBRO-AH-S	PT2332221966	Dongguan PROCET Network Technology Co.,Ltd	-
Fiber PoE Injector	PT-PSE109GBRO-AH-S	PT2023220052	Dongguan PROCET Network Technology Co.,Ltd	-
Notebook 1	P95G001	8KM8HT2	DELL INC.	-
Notebook 1 Adapter	LA90PM130	-	ITE-ON TECHNOLOGY CHANGZHOU CO.,LTD	-
Notebook 2	Latitude 5300	8C47BE45C060	DELL INC.	-
Notebook 2 Adapter	LA90PM130	-	LITE-ON TECHNOLOGY CHANGZHOU CO.,LTD	-
Optical module 1	AFBR-57G5MZ-ELX	AD2008G0210	AVAGO	-
Optical module 2	NEXT-SFP10G-SR	-	NEXT	-
Micro SD Card 1	-	-	SanDisk	16 GB
Micro SD Card 2	-	-	SanDisk	16 GB

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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	Fiber PoE Injector (EUT)	RJ-45 (PoE)	2.0	U
	Micro SD Slot	Micro SD Card 1	Micro SD Slot	-	-
	Micro SD Slot	Micro SD Card 2	Micro SD Slot	-	-
Notebook 1 Adapter	Line	Notebook 1	DC Jack	1.5	U
Fiber PoE Injector (EUT)	RJ-45 (LAN)		RJ-45	4.0	U
	Ground	Enclosure ground	Ground	2.0	U
	SFP	Optical module 1	SFP	-	-
Optical module 2	Optical		Optical	5.0	U
	SFP	Fiber PoE Injector	SFP	-	-
Notebook 2	RJ-45		RJ-45 (LAN)	2.0	U
	DC Jack	Notebook 2 Adapter	Line	1.5	U

* Unshielded=U, Shielded=S

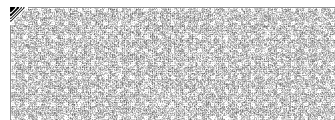
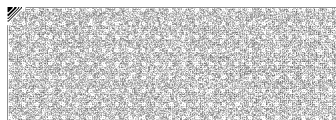
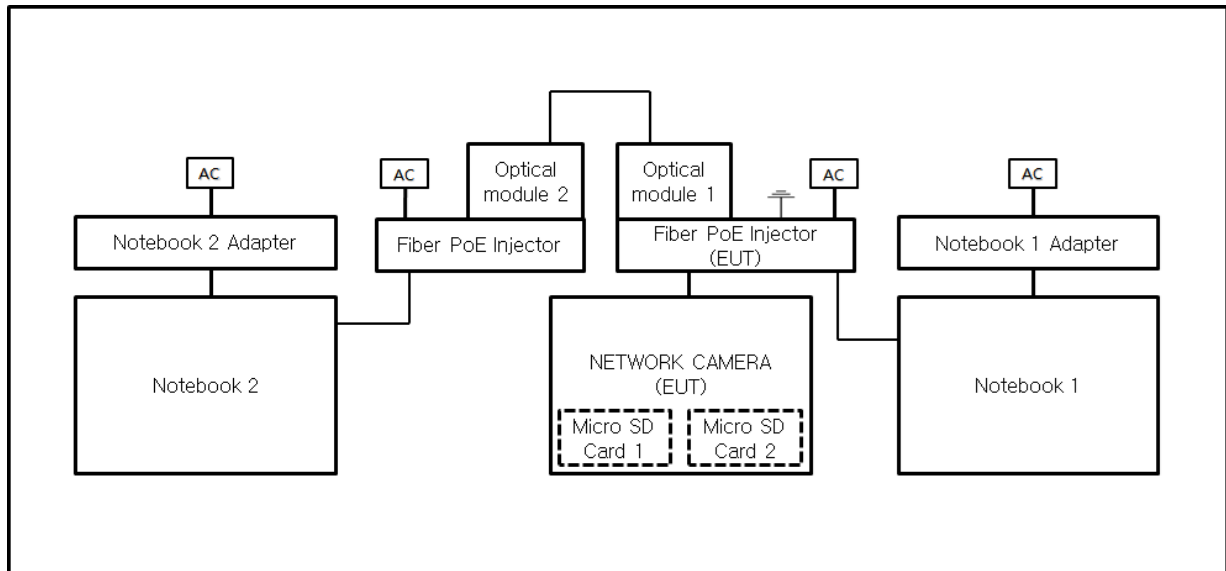
1.7 EUT Operating Mode(s)

Test mode	Normal operating	Test Voltages
Operating	1. Check if the EUT image is output to the Notebook normally. 2. Check if the network is operating normally through a ping test. 3. After testing, I checked the files stored on Micro SD card.	AC 100 V, 60 Hz

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



1.8 Configuration



1.9 Remarks when standards applied

N/A

1.10 Calibration Details of Equipment Used for Measurement

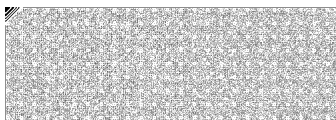
Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less.

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



Report No. : KES-EM-23T0911

Page 9 / 39

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

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2.1 Conducted Emissions at Mains Power Ports

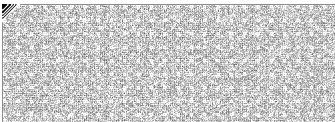
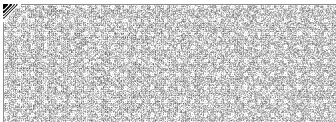
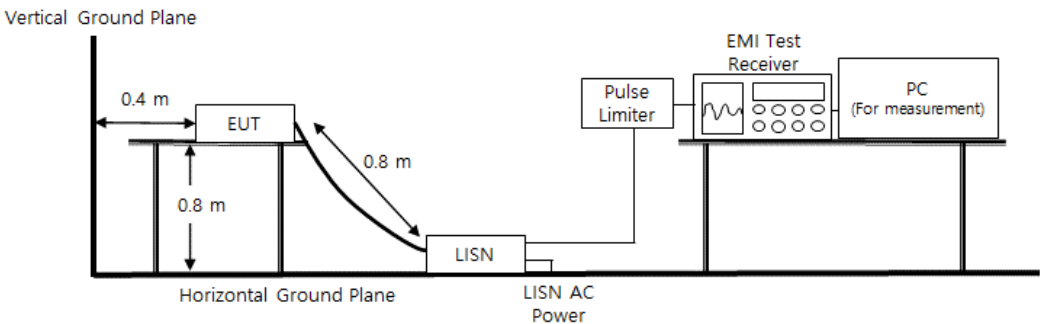
Test Date
Oct. 17, 2023

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



Report No. : KES-EM-23T0911

Page 11 / 39

Test Conditions

Temperature: (23,1 ± 0,1) °C
Relative Humidity: (46,5 ± 0,1) % R.H.

Frequency Range of Measurement

150 kHz to 30 MHz

Instrument Settings

IF Band Width: 9 kHz

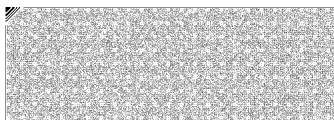
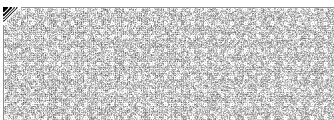
Test Results

The requirements are:

- ☒ PASS
- ☐ NOT PASS
- ☐ NOT APPLICABLE

Remarks

See Appendix A for test data.



2.2 Radiated Electric Field Emissions(Below 1 GHz)

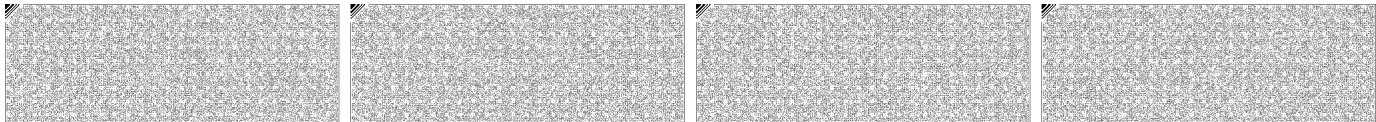
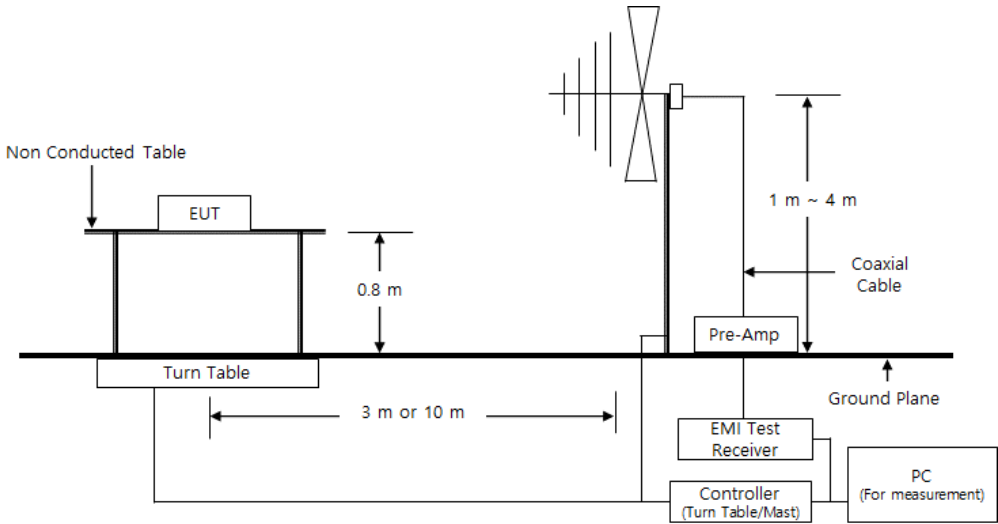
Test Date
Oct. 16, 2023

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

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



Report No. : KES-EM-23T0911

Page 13 / 39

Test Conditions

Temperature: (23,4 ± 0,1) °C
Relative Humidity: (46,8 ± 0,1) % R.H.

Frequency Range of Measurement

30 MHz to 1 GHz

Instrument Settings

IF Band Width: 120 kHz

Test Results

The requirements are:

- ☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks

See Appendix A for test data.



2.3 Radiated Electric Field Emissions(Above 1 GHz)

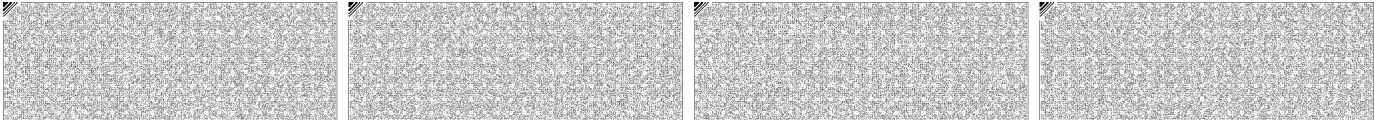
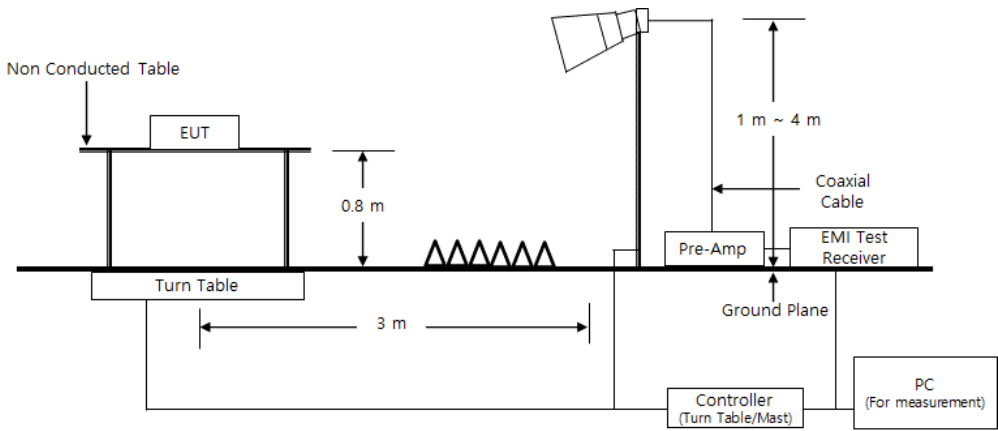
Test Date
Oct. 16, 2023

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	05, 31, 2024
☒	ATTENUATOR	8491B	HP	23094	03, 21, 2024

Diagram of test setup



Report No. : KES-EM-23T0911

Page 15 / 39

Test Conditions

Temperature: (23,5 ± 0,1) °C
Relative Humidity: (44,0 ± 0,1) % 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

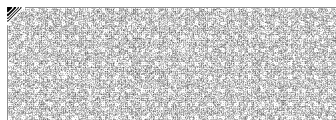
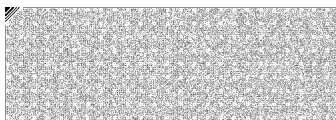
Remarks

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

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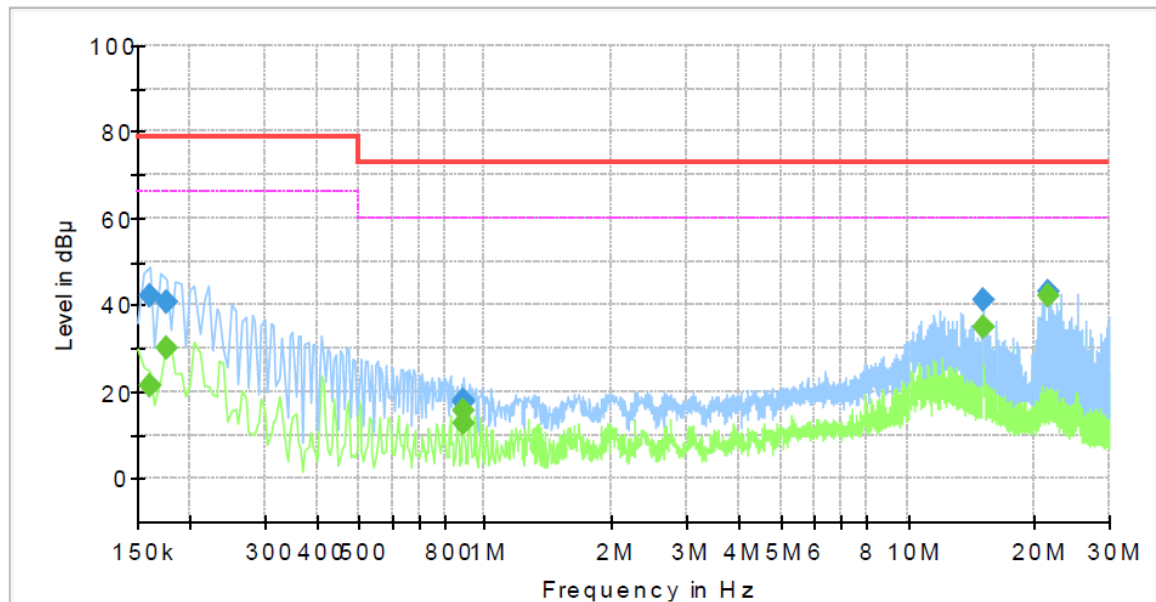
APPENDIX A – TEST DATA

Conducted Emissions at Mains Power Ports

HOT LINE

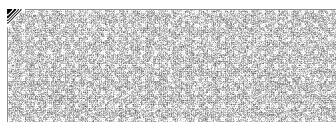
Common Information

Test Description: Conducted Emission
 Model No.: XNP-C7310R
 Phase: L1
 Mode:
 Operator Name: KES



Final Result

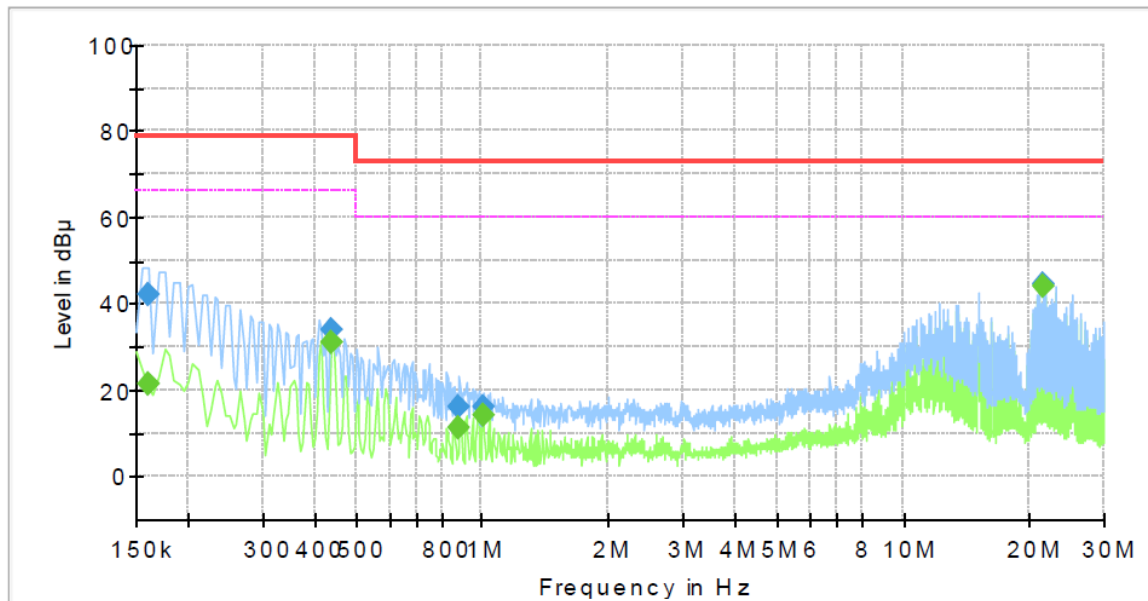
Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.160000	---	21.46	66.00	44.54	1000.0	9.000	L1	19.4
0.160000	42.27	---	79.00	36.73	1000.0	9.000	L1	19.4
0.175000	---	30.14	66.00	35.86	1000.0	9.000	L1	19.4
0.175000	40.73	---	79.00	38.27	1000.0	9.000	L1	19.4
0.885000	---	15.71	60.00	44.29	1000.0	9.000	L1	19.5
0.885000	18.19	---	73.00	54.81	1000.0	9.000	L1	19.5
0.890000	---	12.81	60.00	47.19	1000.0	9.000	L1	19.5
0.890000	17.71	---	73.00	55.29	1000.0	9.000	L1	19.5
15.130000	---	34.68	60.00	25.32	1000.0	9.000	L1	20.1
15.130000	41.06	---	73.00	31.94	1000.0	9.000	L1	20.1
21.660000	---	42.25	60.00	17.75	1000.0	9.000	L1	20.2
21.660000	42.94	---	73.00	30.06	1000.0	9.000	L1	20.2



NEUTRAL LINE

Common Information

Test Description: Conducted Emission
 Model No.: XNP-C7310R
 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)
0.160000	---	21.13	66.00	44.87	1000.0	9.000	N	19.4
0.160000	42.18	---	79.00	36.82	1000.0	9.000	N	19.4
0.440000	---	31.04	66.00	34.96	1000.0	9.000	N	19.4
0.440000	33.73	---	79.00	45.27	1000.0	9.000	N	19.4
0.880000	---	11.32	60.00	48.68	1000.0	9.000	N	19.5
0.880000	16.06	---	73.00	56.94	1000.0	9.000	N	19.5
1.005000	---	14.07	60.00	45.93	1000.0	9.000	N	19.5
1.005000	16.04	---	73.00	56.96	1000.0	9.000	N	19.5
21.665000	---	44.03	60.00	15.97	1000.0	9.000	N	20.2
21.665000	44.66	---	73.00	28.34	1000.0	9.000	N	20.2

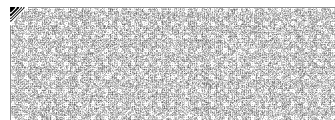
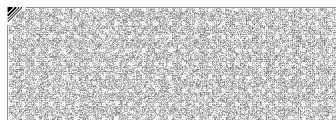
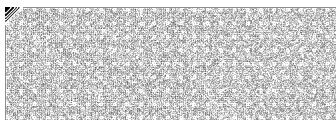
◆ Calculation

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

QuasiPeak / CAverage : The Final Value

Reading Value : Not shown in the table.

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

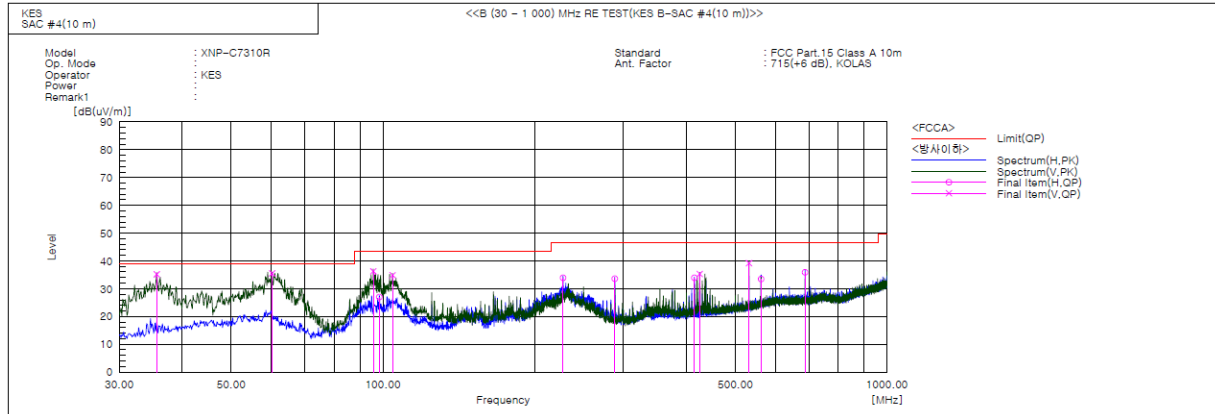


Report No. : KES-EM-23T0911

Page 18 / 39

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	35.578	V	59.1	-23.9	35.2	39.0	3.8	102.0	69.0	
2	60.313	V	57.1	-21.6	35.5	39.0	3.5	100.0	99.0	
3	95.718	V	58.7	-22.4	36.3	43.5	7.2	153.0	65.0	
4	98.385	H	49.1	-22.1	27.0	43.5	16.5	390.0	163.0	
5	104.448	V	57.1	-22.2	34.9	43.5	8.6	100.0	126.0	
6	227.638	H	53.2	-19.3	33.9	46.5	12.6	366.0	110.0	
7	288.263	H	51.5	-17.9	33.6	46.5	12.9	355.0	12.0	
8	414.726	H	47.2	-13.3	33.9	46.5	12.6	400.0	167.0	
9	424.669	V	48.4	-13.1	35.3	46.5	11.2	105.0	303.0	
10	531.975	V	49.2	-10.0	39.2	46.5	7.3	100.0	314.0	
11	562.530	H	42.5	-9.0	33.5	46.5	13.0	380.0	321.0	
12	687.660	H	43.1	-7.2	35.9	46.5	10.6	372.0	50.0	

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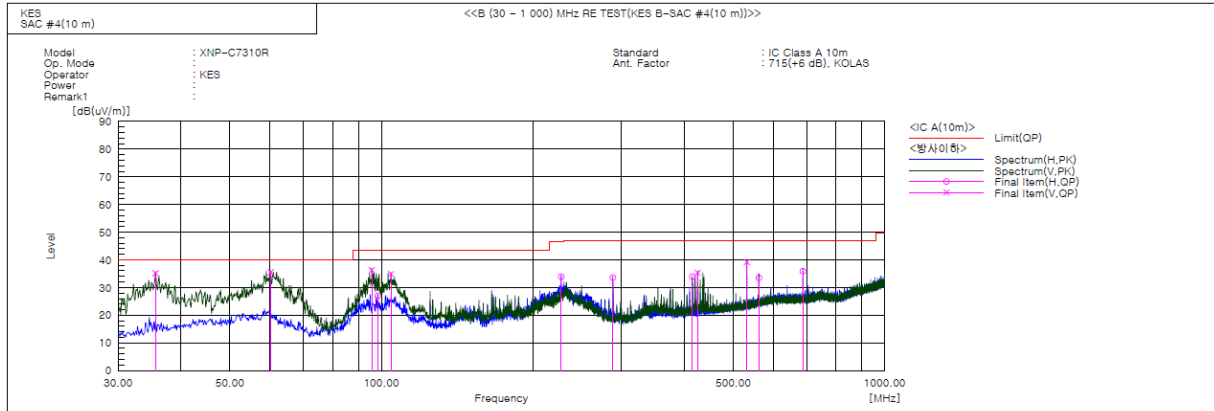
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Report No. : KES-EM-23T0911

Page 19 / 39

- 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	35.578	V	59.1	-23.9	35.2	40.0	4.8	102.0	69.0	
2	60.313	V	57.1	-21.6	35.5	40.0	4.5	100.0	99.0	
3	95.718	V	58.7	-22.4	36.3	43.5	7.2	153.0	65.0	
4	98.385	H	49.1	-22.1	27.0	43.5	16.5	390.0	163.0	
5	104.448	V	57.1	-22.2	34.9	43.5	8.6	100.0	126.0	
6	227.638	H	53.2	-19.3	33.9	46.4	12.5	366.0	110.0	
7	288.263	H	51.5	-17.9	33.6	47.0	13.4	355.0	12.0	
8	414.726	H	47.2	-13.3	33.9	47.0	13.1	400.0	167.0	
9	424.669	V	48.4	-13.1	35.3	47.0	11.7	105.0	303.0	
10	531.975	V	49.2	-10.0	39.2	47.0	7.8	100.0	314.0	
11	562.530	H	42.5	-9.0	33.5	47.0	13.5	380.0	321.0	
12	687.660	H	43.1	-7.2	35.9	47.0	11.1	372.0	50.0	

◆ 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)]

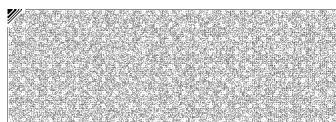
Reading(QP) : Reading value, Result(QP) : Reading value + Factor value

Limit(QP) : Limit value, c.f : (ANT Factor + Cable Loss - Preamp Factor), Margin: Margin value

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

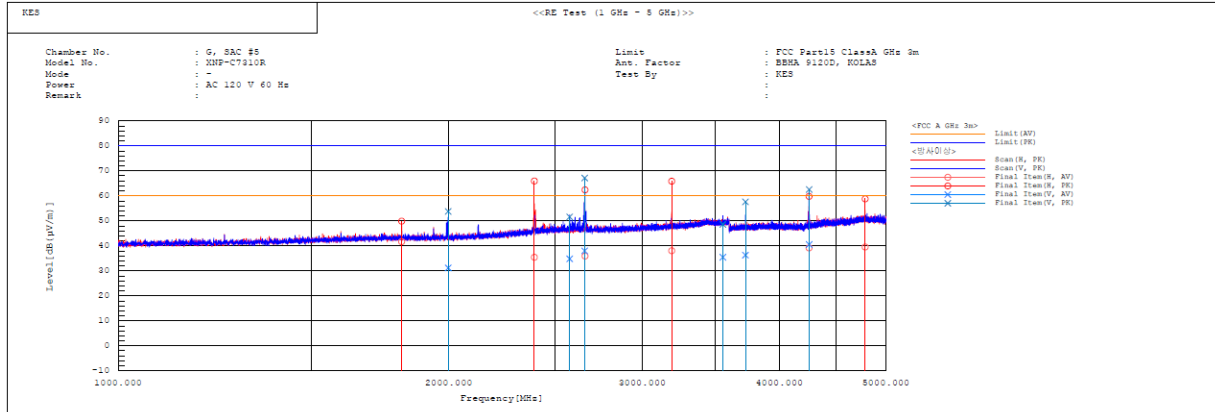
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Report No. : KES-EM-23T0911

Page 20 / 39

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

No.	Frequency	Pol	Reading	Reading	c.f	Result	Result	Limit	Limit	Margin	Margin	Height	Angle	Remark
	[MHz]		AV	PK		AV	PK	AV	PK	AV	PK	[cm]	[deg]	
			[dB(μV)]	[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[dB]			
1	1812.022	H	39.7	47.9	2.0	41.7	49.9	60.0	80.0	18.3	30.1	387.0	45.9	
2	1997.753	V	28.6	51.2	2.6	31.2	53.8	60.0	80.0	28.8	26.2	105.0	199.3	
3	2393.427	H	31.2	61.7	4.3	35.5	66.0	60.0	80.0	24.5	14.0	346.0	246.4	
4	2576.582	V	29.9	46.7	4.9	34.8	51.6	60.0	80.0	25.2	28.4	107.0	275.9	
5	2659.083	V	32.8	62.0	5.2	38.0	67.2	60.0	80.0	22.0	12.8	100.0	291.7	
6	2660.958	H	30.8	57.2	5.2	36.0	62.4	60.0	80.0	24.0	17.6	286.0	189.7	
7	3191.314	H	31.6	59.4	6.5	38.1	65.9	60.0	80.0	21.9	14.1	324.0	156.7	
8	3552.641	V	28.6	41.7	6.9	35.5	48.6	60.0	80.0	24.5	31.4	106.0	163.6	
9	3725.105	V	28.9	50.2	7.4	36.3	57.6	60.0	80.0	23.7	22.4	101.0	274.8	
10	4256.736	V	31.4	53.4	9.2	40.6	62.6	60.0	80.0	19.4	17.4	104.0	261.9	
11	4256.509	H	30.0	50.6	9.2	39.2	59.8	60.0	80.0	20.8	20.2	357.0	233.9	
12	4787.902	H	28.2	47.4	11.4	39.6	58.8	60.0	80.0	20.4	21.2	289.0	106.9	

◆ Calculation

$$\text{Result(PK/CAV)} [\text{dB}(\mu\text{V/m})] = (\text{Reading(PK/CAV)}[\text{dB}(\mu\text{V})] + \text{c.f}[\text{dB}(1/\text{m})])$$

$$\text{Margin(PK/CAV)}[\text{dB}] = \text{Limit}[\text{dB}(\mu\text{V/m})] - \text{Result(PK/CAV)} [\text{dB}(\mu\text{V/m})]$$

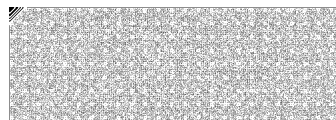
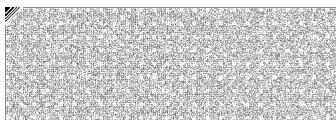
Reading(PK/CAV) : Reading value, Result(PK/CAV) : Reading value + Factor value

Limit(QP) : Limit value, c.f : (ANT Factor + Cable Loss - Preamp Factor), Margin: Margin value

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Report No. : KES-EM-23T0911

Page 21 / 39

Test Setup Photos and Configuration

Conducted Emissions at Mains Power Ports



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

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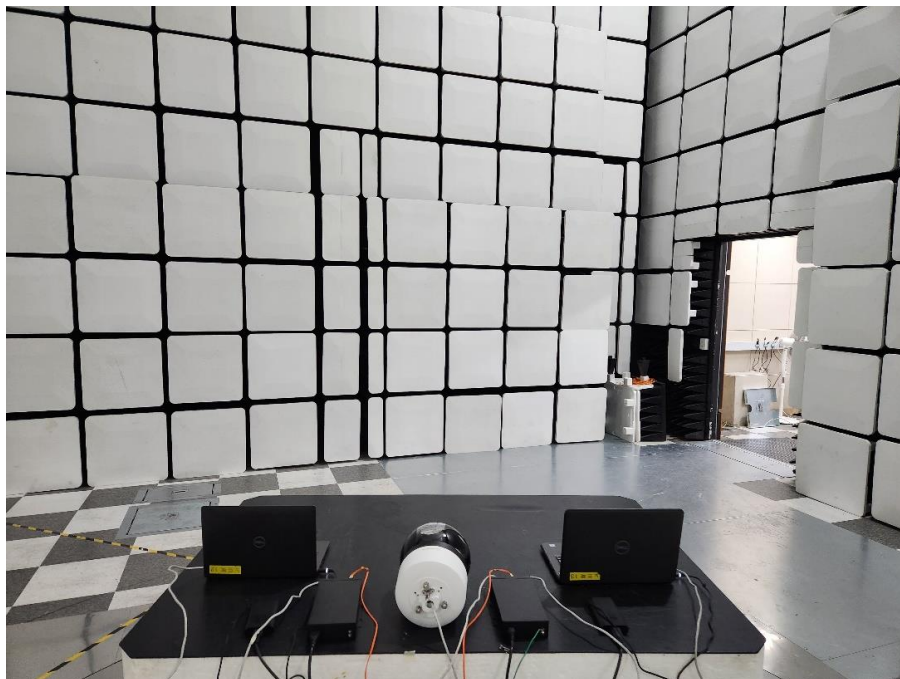
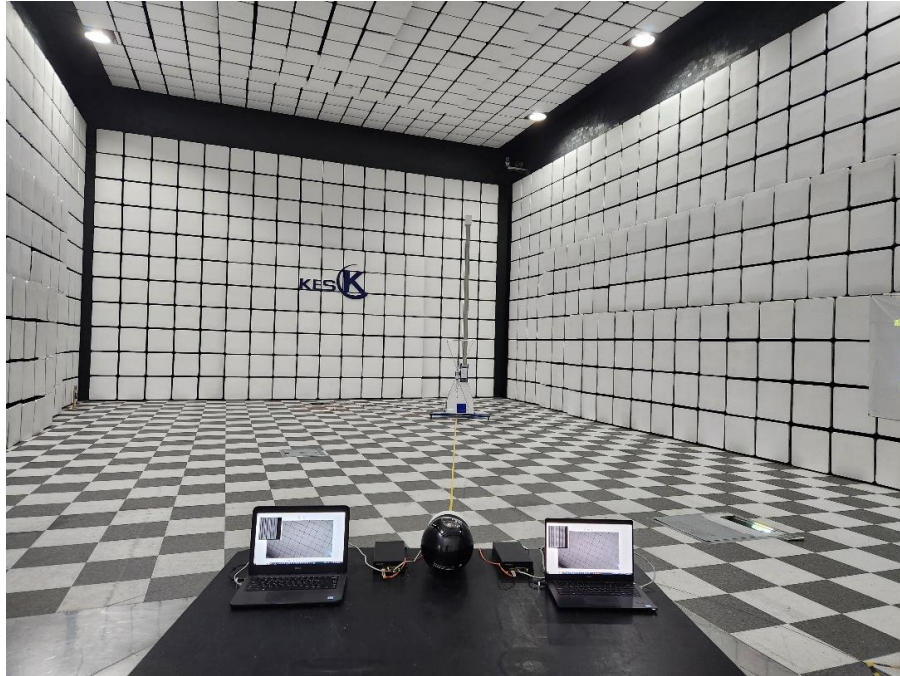
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Report No. : KES-EM-23T0911

Page 22 / 39

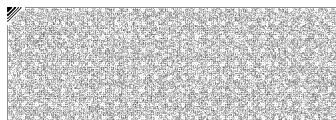
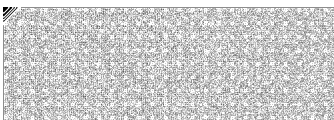
Radiated Electric Field Emissions(Below 1 GHz)



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

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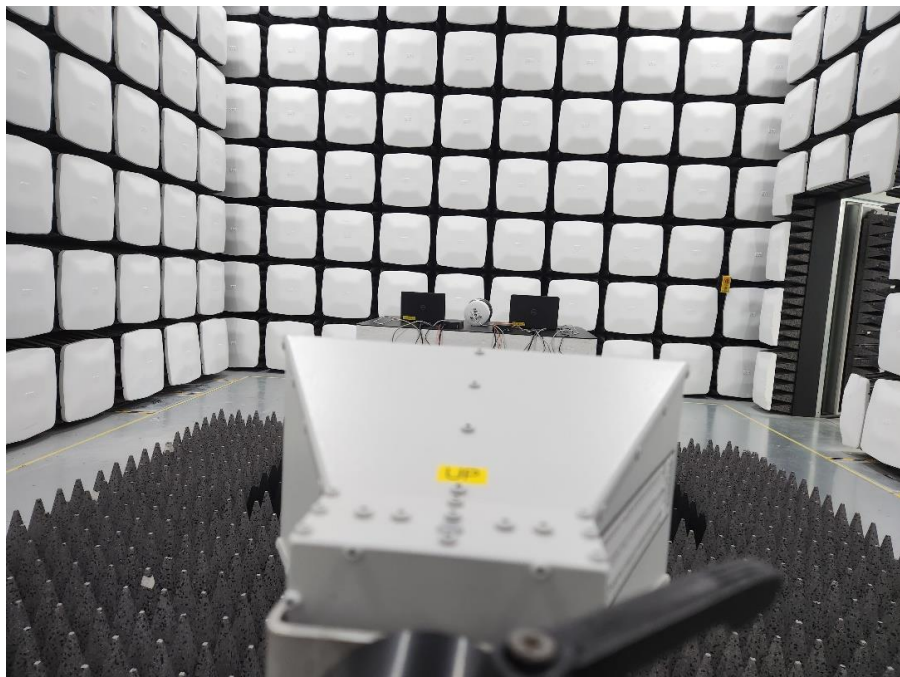
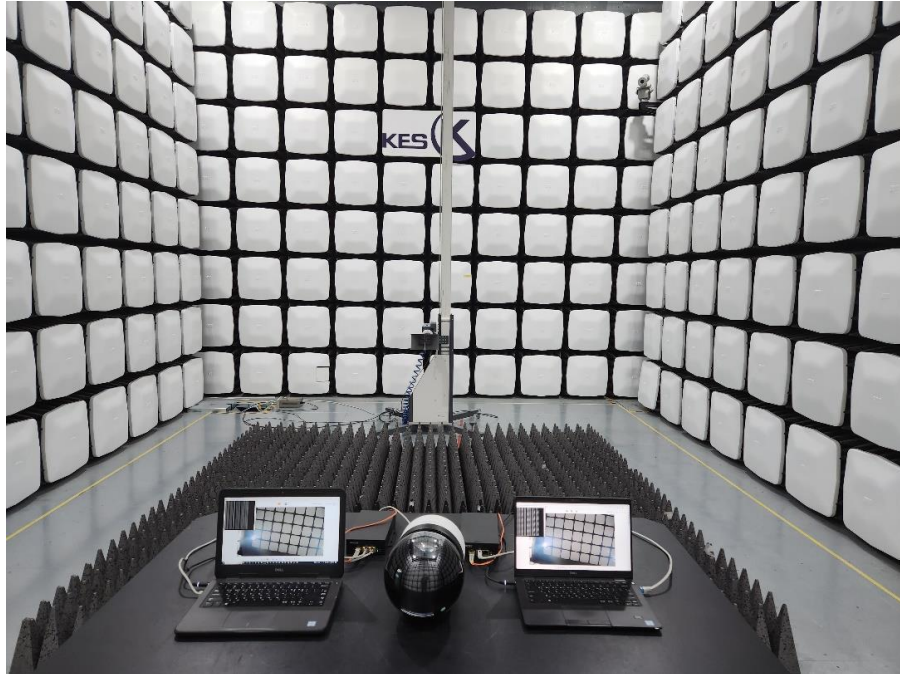
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Report No. : KES-EM-23T0911

Page 23 / 39

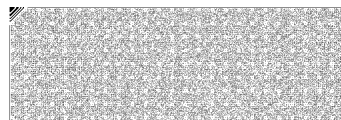
Radiated Electric Field Emissions(Above 1 GHz)



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

KES Co., Ltd.

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EUT External Photographs

(Top)

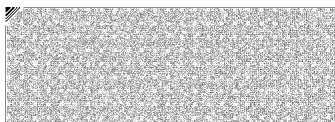
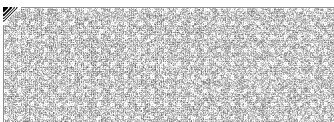


(Bottom)



EUT Internal Photographs

(Internal View)



EUT Internal View – Board 1

(Top)

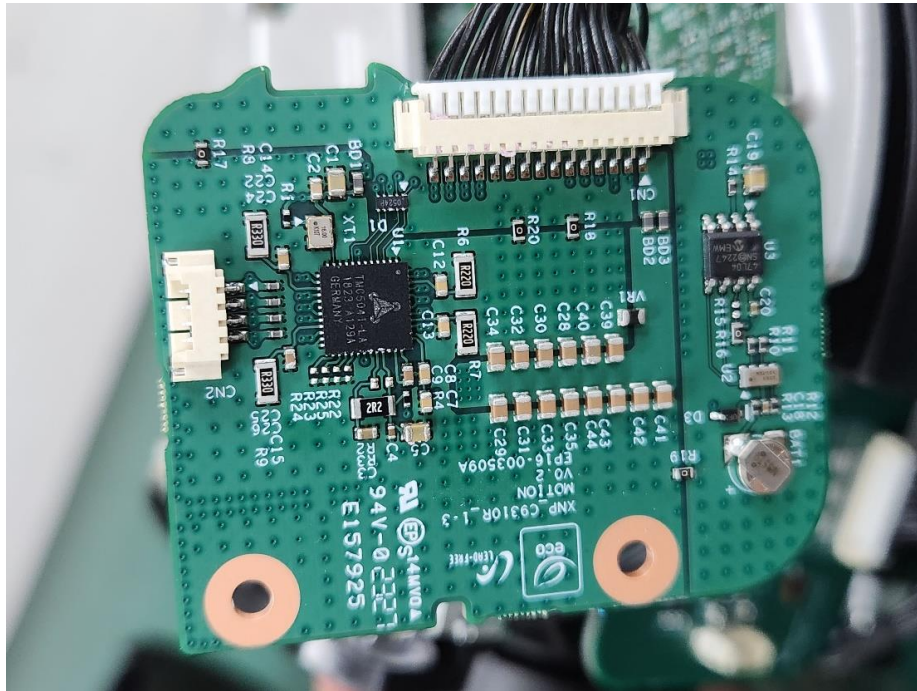


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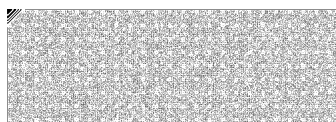
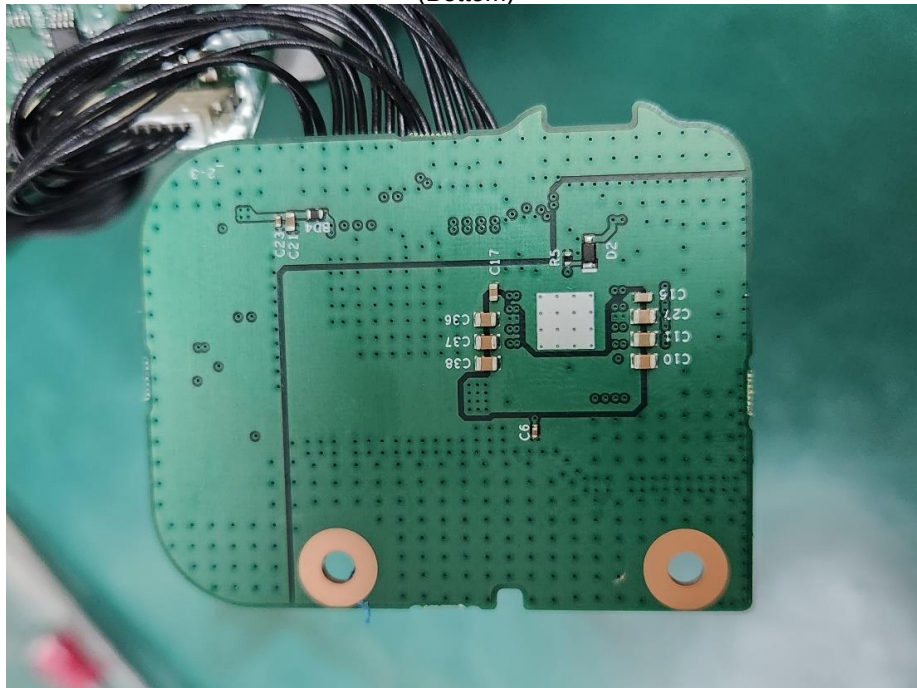


EUT Internal View – Board 2

(Top)



(Bottom)

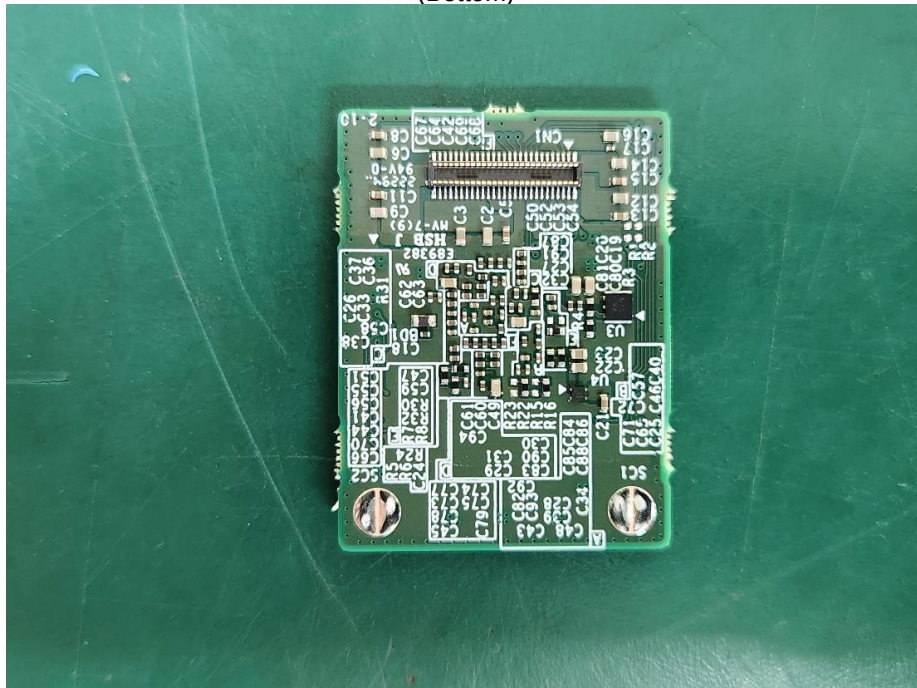


EUT Internal View – Board 3

(Top)

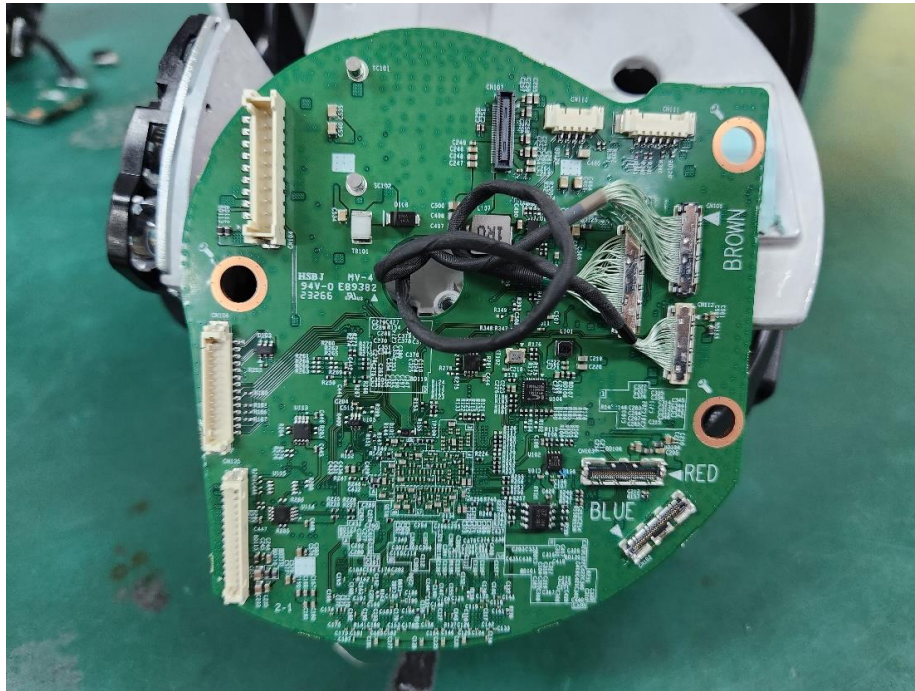


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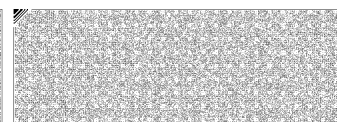
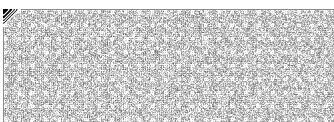
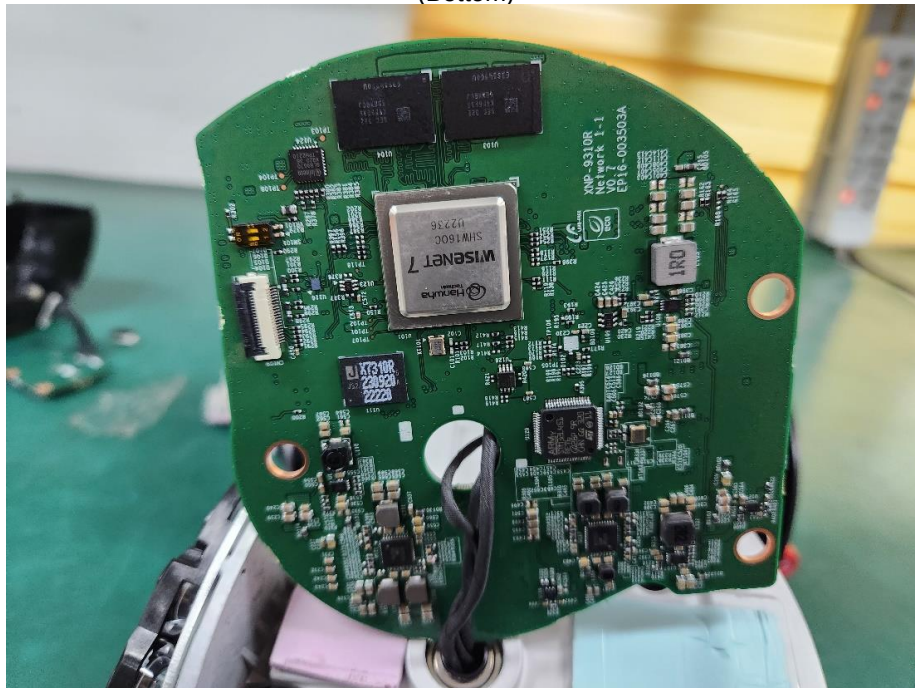


EUT Internal View – Board 4

(Top)

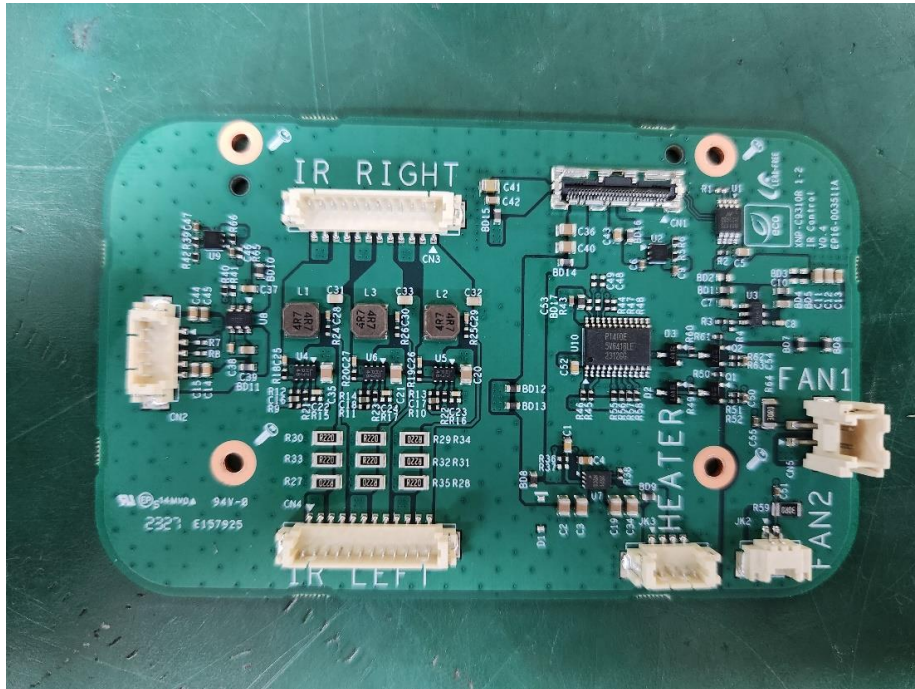


(Bottom)

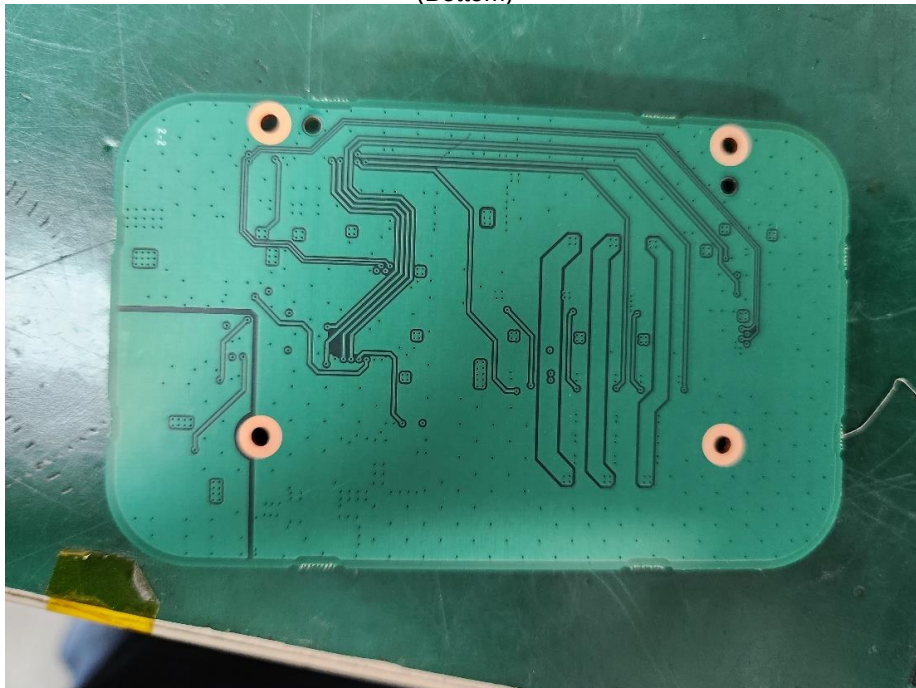


EUT Internal View – Board 5

(Top)

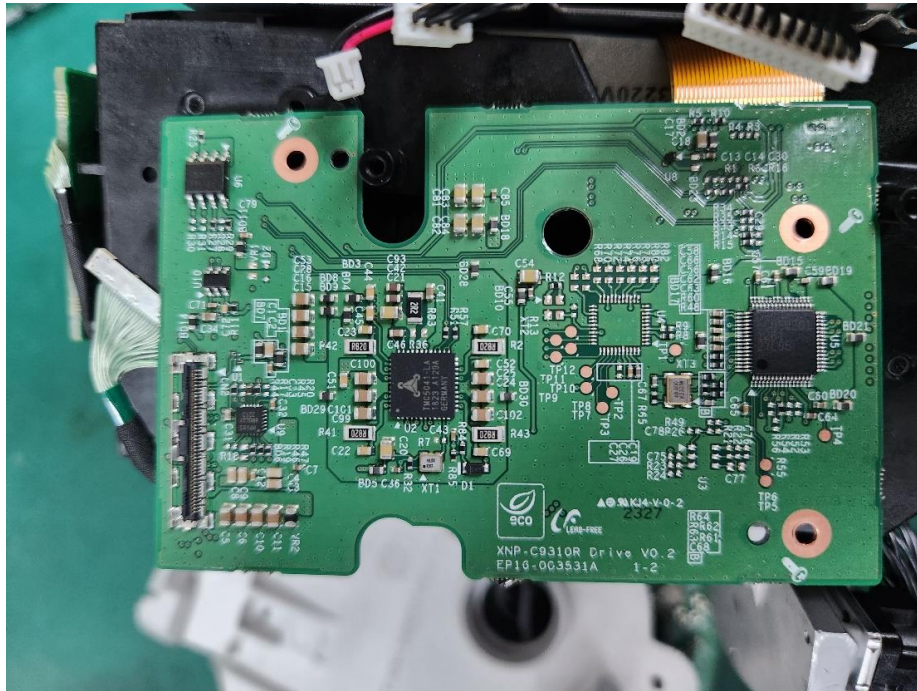


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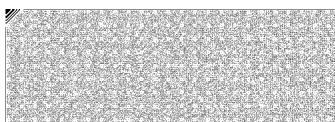
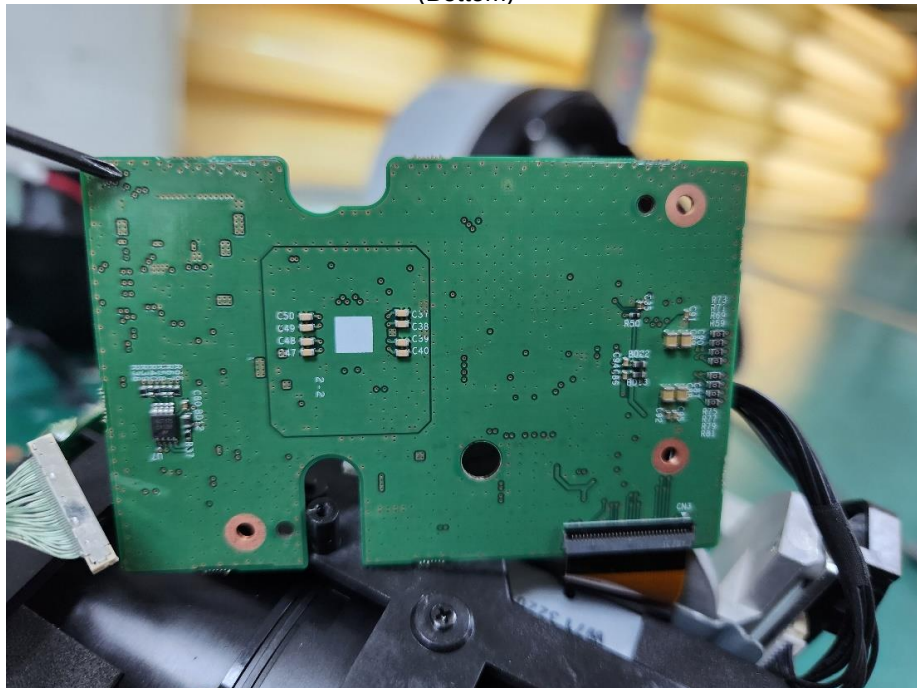


EUT Internal View – Board 6

(Top)

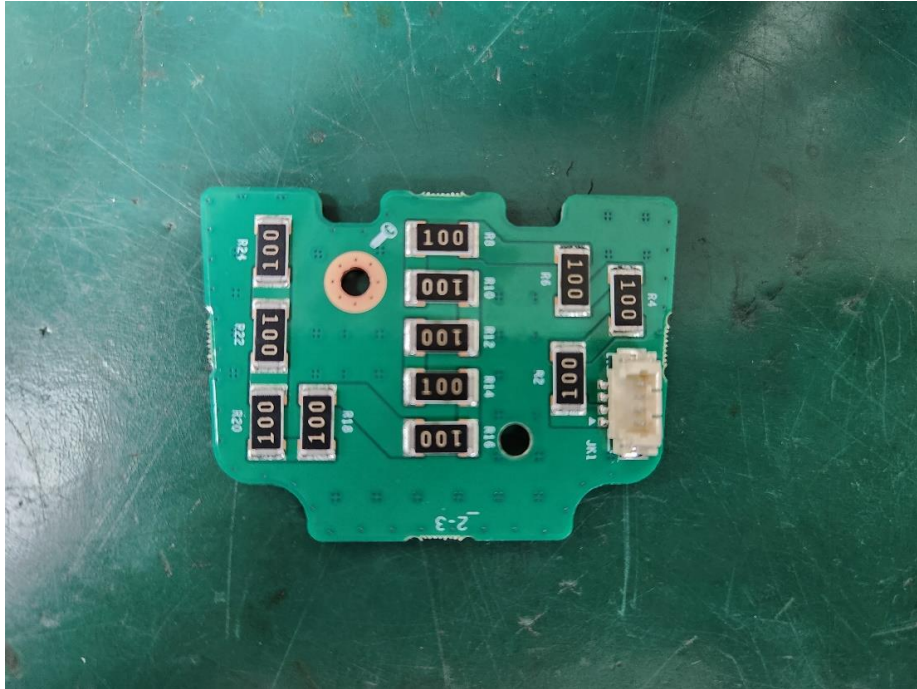


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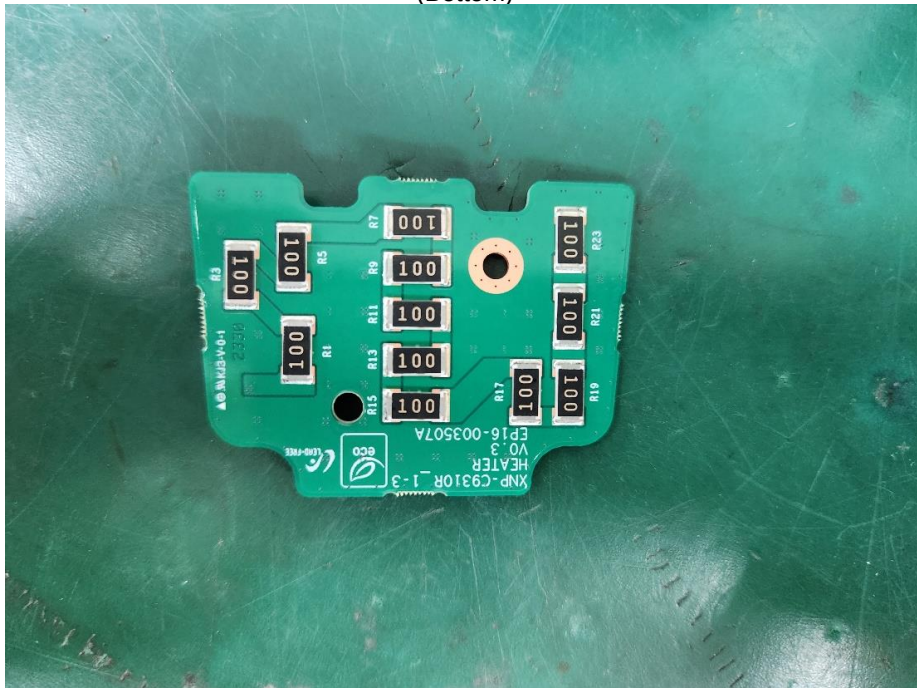


EUT Internal View – Board 7

(Top)

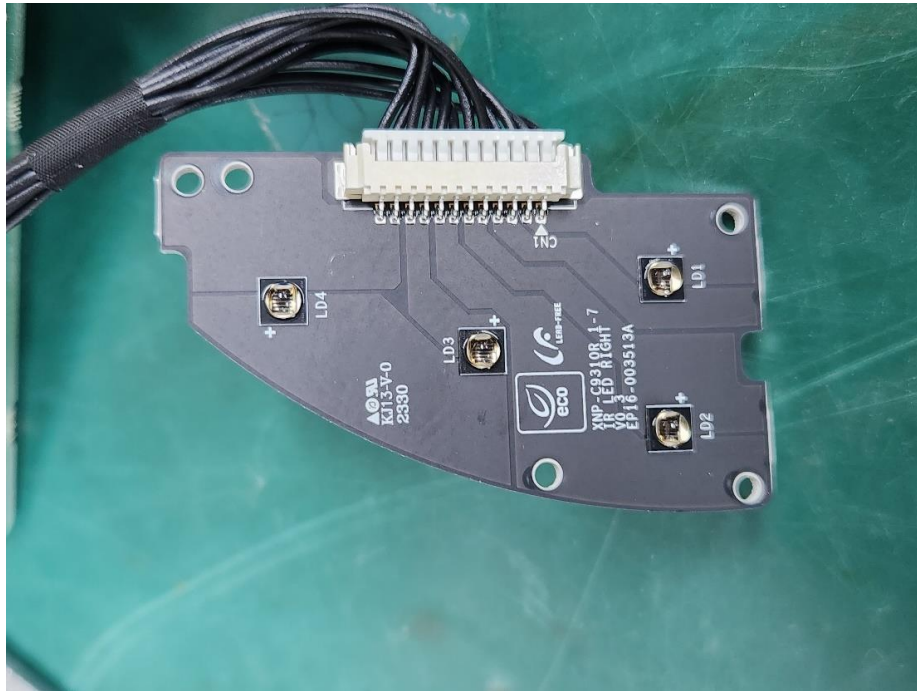


(Bottom)



EUT Internal View – Board 8

(Top)



(Bottom)

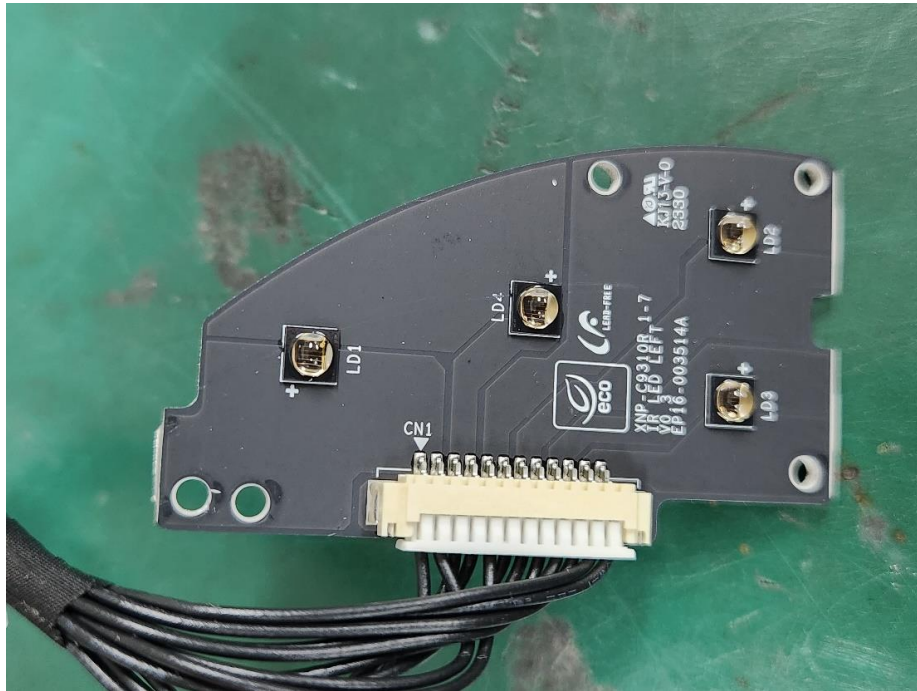


Report No. : KES-EM-23T0911

Page 34 / 39

EUT Internal View – Board 9

(Top)



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

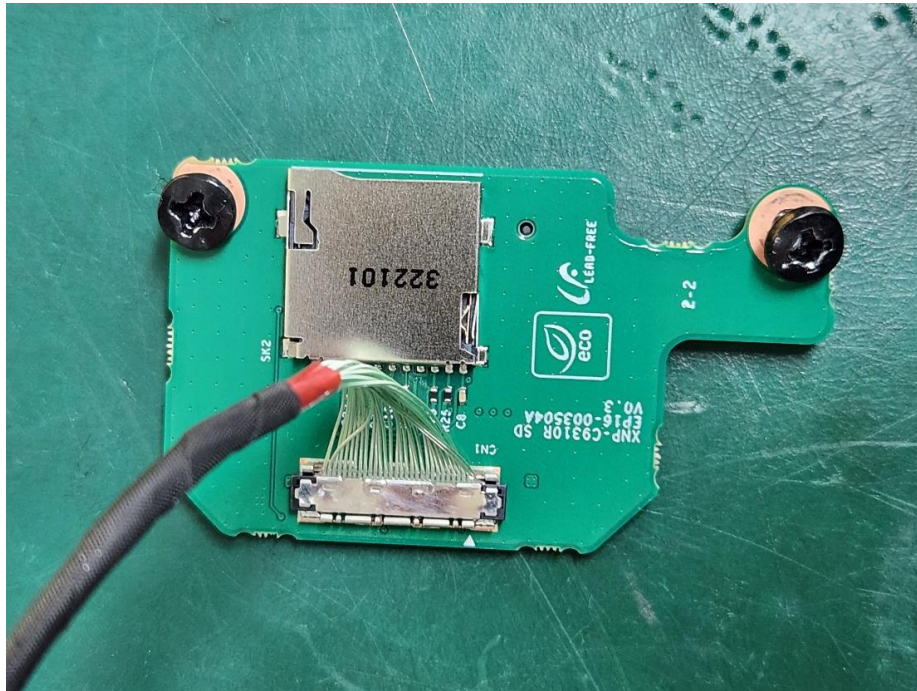
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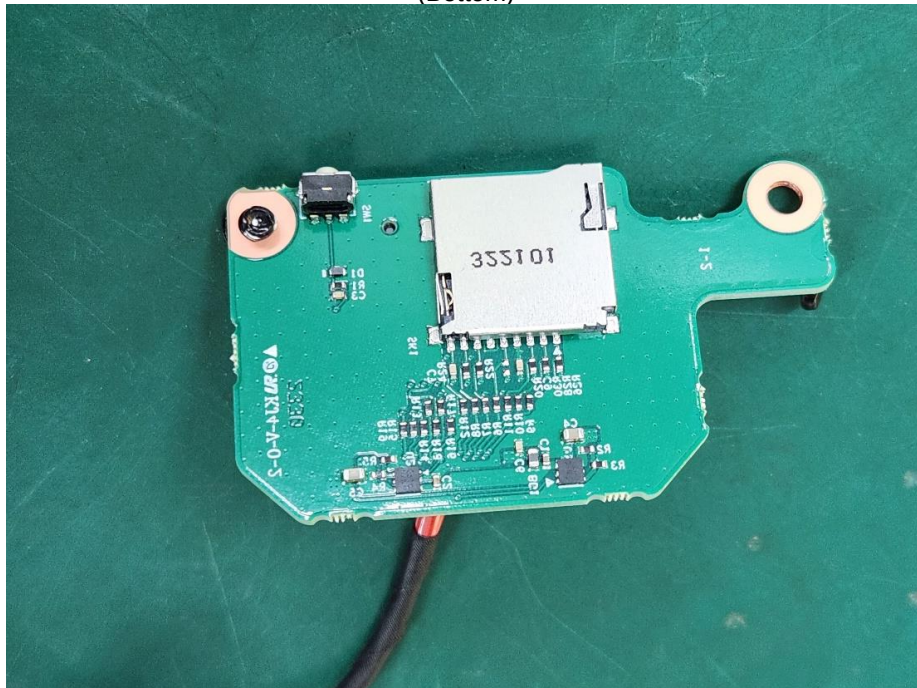


EUT Internal View – Board 10

(Top)

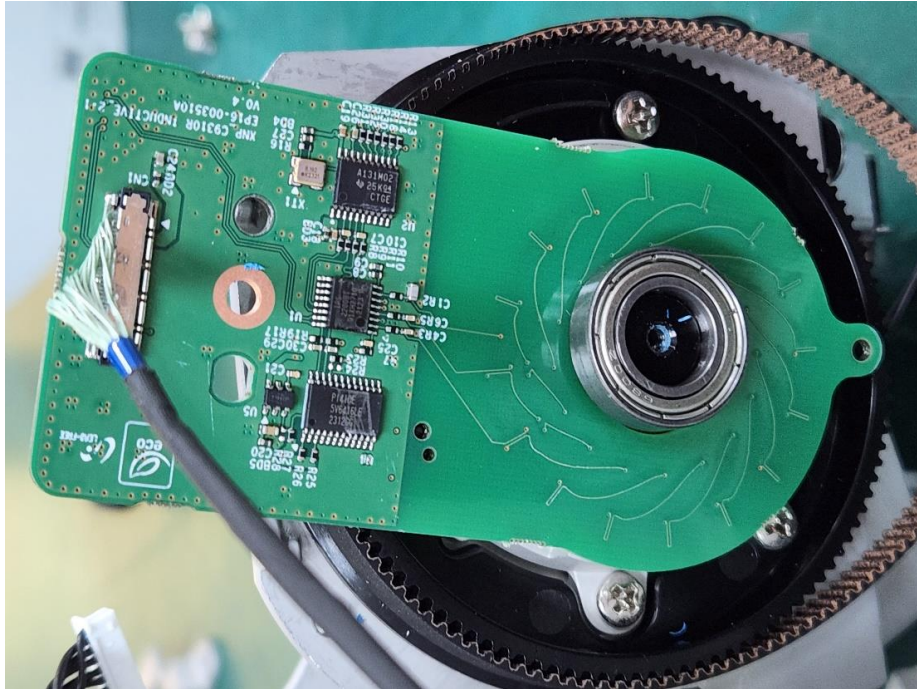


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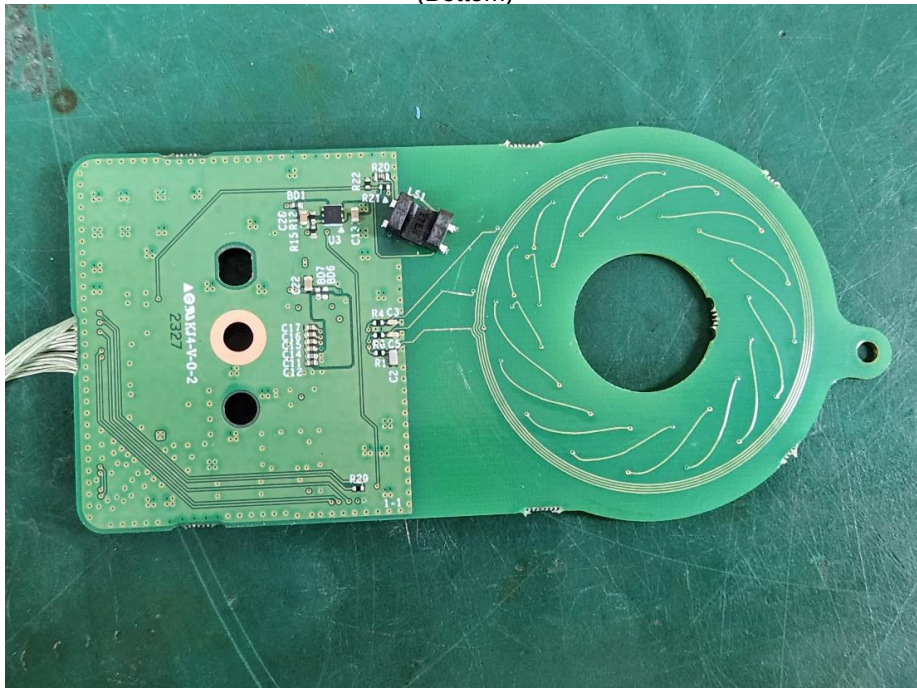


EUT Internal View – Board 11

(Top)

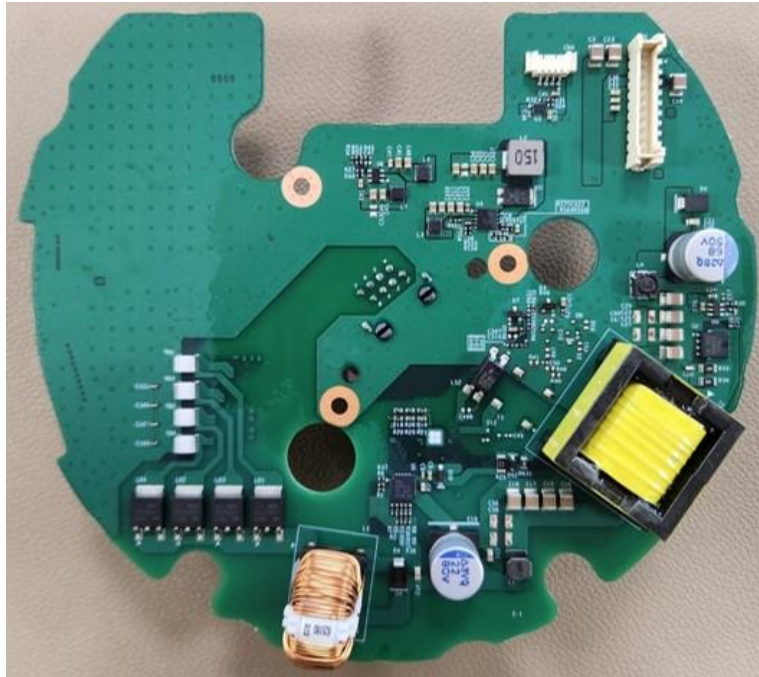


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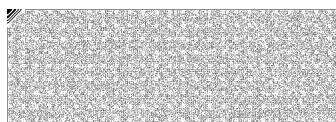
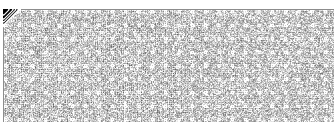


EUT Internal View – Board 12

(Top)

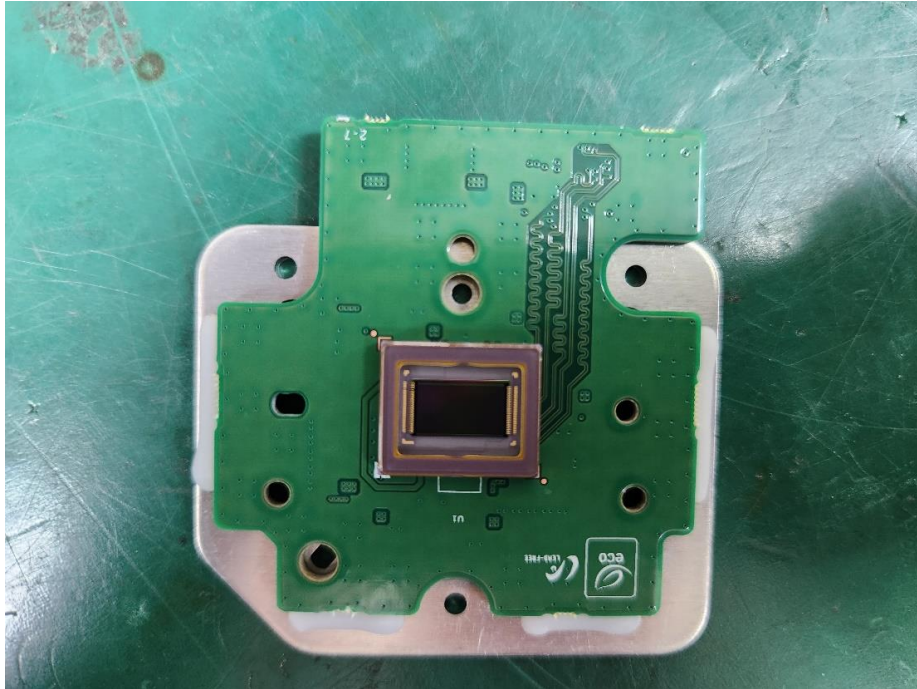


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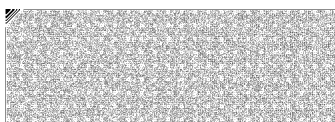
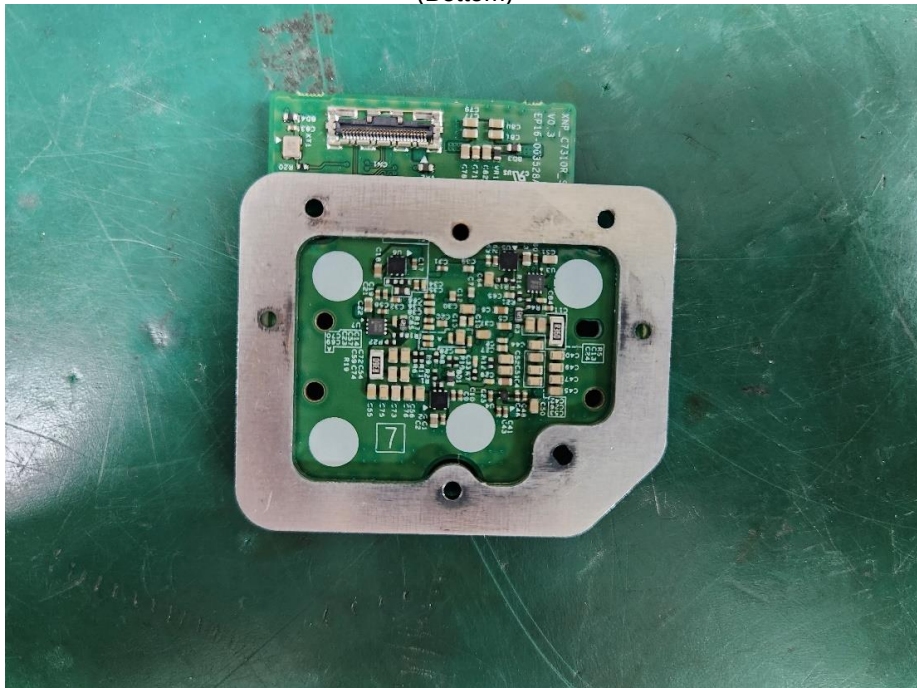


EUT Internal View – CAMERA Board

(Top)



(Bottom)



Label Photographs

FCC Label



NETWORK CAMERA

XNP-C7310R

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.

