



TEST REPORT



Report No. : KES-EM244285-R1

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KES Co., Ltd.

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Tel : +82-31-425-6200, Fax : +82-31-341-3838

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 THERMAL CAMERA

Model/Type No. : TNM-C2822TDR

Variant Model : TNM-C2812TDR, TNM-C2712TDR, TNM-C2722TDR

Manufacturer : 1. HANWHA VISION VIETNAM COMPANY LIMITED
2. D-TECH CO.,LTD.

Manufacturer Address : 1. Lot O-2, Que Vo Industrial Zone extended Area, Nam Son Ward, Bac Ninh City, Bac Ninh Province, Vietnam
2. 173-25, Saneop-ro, Gwonseon-gu, Suwon-si, Gyeonggi- do, Korea (Suwon Industrial Complex)

3. Equipment authorization : Supplier's Declaration of Conformity

4. Date of Receipt : Mar. 25, 2025

5. Test date : Dec. 05, 2024

6. Date of Issue : Mar. 25, 2025

7. Test Results : In Compliance

Tested by

Reviewed by

Dong Yun, Lee
EMC Test Engineer
Tested by Jae Won, Lee
(Retired person)
Proxy signature : Dong Yun, Lee

Dae Jung, Choi
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 this test report can be found on the verification page of our website (www.kes.co.kr)



REPORT REVISION HISTORY

Date	Test Report No.	Revision History
Dec. 18, 2024	KES-EM244285	Issued
Mar. 25, 2025	KES-EM244285-R1	Reissuance due to the addition of a derivative

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1.0 General Product Description

Main Specifications of EUT are:

Internal highest operating frequency : 1 008 Mhz

Spec Display Name	Thermal	Visible
Video		
Imaging Device	Uncooled micro bolometer	1/2.8" CMOS (5MP)
Resolution	640x480, 320x240 (Original sensor resolution: 160x120)	2592x1944, 2560x1440, 1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264: Max. 8fps	H.265/H.264: Max. 30fps/25fps
NETD	< 50mK	None
Pixel Size	12μm	None
Lens		
Focal Length (Zoom Ratio)	1.77mm fixed focal	4.46mm fixed focal
Max. Aperture Ratio	F1.1	F1.65
Angular Field of View	H: 57° / V: 44° / D: 71°	H: 69° / V: 50.9° / D: 88.8°
Focus Control	Fixed	Fixed
Pan / Tilt / Rotate		
Pan / Tilt / Rotate Range	0°~360° / 0°~70° / 0°~360°	
Operational		
Camera Title	Displayed up to 85 characters	
Direction Indicator	None	None
Day & Night	None	Auto
Backlight Compensation	None	BLC, WDR, SDR
Wide Dynamic Range	None	WDR
Digital Noise Reduction	None	SSNR V
Digital Image Stabilization	None	Support
Defog	None	None
Motion Detection	8ea, polygonal zones	
Privacy Masking	6ea, rectangle zones	
Gain Control	None	Low / Middle / High
White Balance	None	ATW / AWC / Manual / Indoor / Outdoor
LDC	None	Support
Electronic Shutter Speed	None	Minimum / Maximum / Anti flicker(1/5~1/20,000sec)
Digital PTZ	None	None
Video Rotation	Flip, Mirror	
Analytics	Temperature detection, Temperature difference detection	Analytics events based on AI engine - Early fire detection
	Analytics events - Motion detection, Tampering	Analytics events - Defocus detection, Tampering, Audio detection, Motion detection
Business Intelligence	None	None
Serial Interface	None	None
Alarm I/O	Input 1ea / Output 1ea	
Alarm Triggers	Analytics, Network disconnect, Alarm input, MQTT subscription	
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 - MQTT: publication	
Audio In	Selectable(mic in/line in)	
Audio Out	Line out	
Light Type	White light	
Color Palettes	Whitehot, Sepia, Red, Custom	None
Radiometry		
Temperature detect range	Narrow: -10°C~140°C Wide: -10°C~450°C	None
Temperature accuracy	Narrow: Greater of ±5°C or 5% Wide: Greater of ±10°C or 10%	None



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Temperature detection	2 Rectangle ROI zones	None
Additional	Spot temperature reading	None
Network		
Ethernet	Metal shielded RJ45 (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	
Smart Codec	AAC-LC: 48Kbps at 16KHz	
	WiseStreamII	Manual(Sea 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	
Streaming	MJPEG: VBR	
	Unicast(6 users) / Multicast	
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP (TCP, UDP Unicast), MQTT	
Application Programming Interface	ONVIF Profile S/T 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 CA3)	
Secure Storage	Sdcard pration encrypt	
Security Certificate	None	
General		
Webpage Language	English, French, German, Spanish, Italian, Simplified Chinese, Traditional Chinese, Korean, Russian, Japanese, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek	
Web Viewer	None	
Edge Storage	Micro SD/SDHC/SDXC 1slots 512GB	
Memory	2GB RAM, 512MB Flash	
Environmental & Electrical		
Operating Temperature / Humidity	-30°C~+55°C(-22°F~+131°F) / 0~95% RH(non-condensing) * Start up should be done at above -10°C	
Storage Temperature / Humidity	-40°C~+60°C(-40°F to +140°F) / Less than 95% RH	
Certification	IP67	
Input Voltage	PoE(IEEE802.3af, Class3)	
Power Consumption	PoE: Max 10.8W, typical 6.2W	
Mechanical		
Color / Material	White / Aluminum	
RAL Code	RAL9003	
Product Dimensions / Weight	Ø110x97mm, 650g	
Compatible Conduit hole / (Conduit hole : None		
Hanging Mount (Dome)	SBP-120HWW	
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	
Safety	VCCI CISPR 32 Class A	
	RCM AS/NZS CISPR 32 Class A	
	UL 62368-1, CAN/CSA C22.2 NO. 62368-1	
Environment	IEC/EN 62471	
Video	IEC/EN 63000	
	IEC/EN 60529 IP67	
	None	



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

Addition of derivatives due to the difference in fixed lens and the rest of the same.
(Same as the base model, no changes in circuitry, appearance, or hardware.)

1.3 Device Modifications

Not applicable

1.4 Equipment Under Test

Description	Model Number	Serial Number	Manufacturer	Remarks
NETWORK THERMAL CAMERA	TNM-C2822TDR	-	HANWHA VISION VIETNAM COMPANY LIMITED	EUT

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
Laptop	P95G001	9JM8HT2	DELL INC.	-
Laptop Adapter	HA65NM130	-	Chicony Power Technology(Suzhou)Co.,Ltd.	-
PoE Injector	PT-PSE109GBRO-AH	-	Dongguan PROCET Network Technology Co.,Ltd	-
Headset	K550	-	Britz®	-
Smartphone	-	-	SAMSUNG	-
Micro SD Card	-	-	SanDisk	16 GB
Alarm	-	-	-	-
Button Alarm	-	-	-	-



1.6 External I/O Cabling

Start		END		Cable Spec.	
Description	I/O Port	Description	I/O Port	Length	Shield
NETWORK THERMAL CAMERA (EUT)	RJ-45(PoE)	PoE Injector	RJ-45(PoE)	3.5	U
	Audio IN	Headset	Audio OUT	1.5	U
	Audio OUT		Audio IN	1.5	U
	Micro SD Card Slot	Micro SD Card	Micro SD Card Slot	-	-
	Alarm OUT	Alarm	Alarm IN	3.5	U
	Alarm IN	Button Alarm	Alarm OUT	3.5	U
PoE Injector	RJ-45(LAN)	Laptop	RJ-45(LAN)	2.0	U
Laptop	DC Jack	Laptop Adapter	DC Jack	1.6	U
Laptop	3.5 mm	Smartphone	3.5 mm	1.0	U

* Unshielded=U, Shielded=S

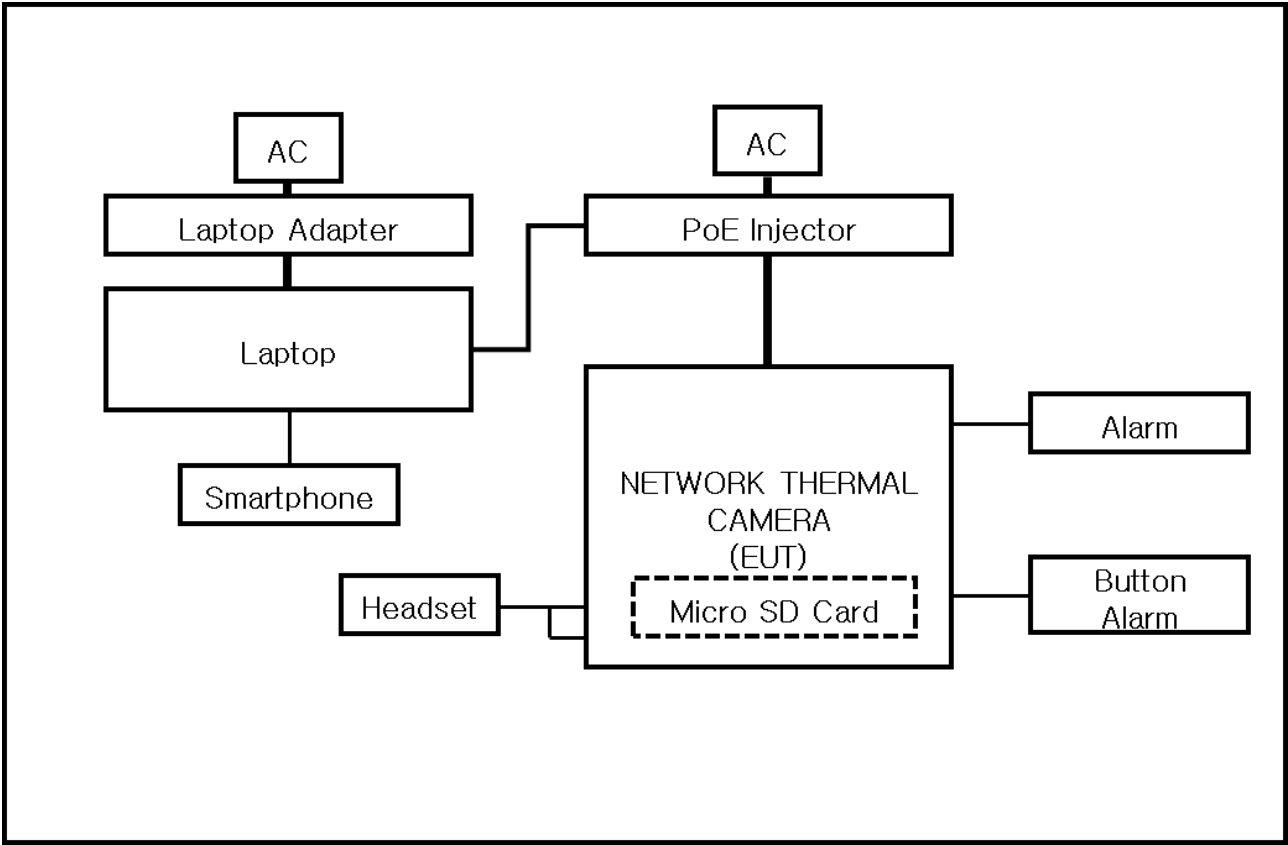
1.7 EUT Operating Mode(s)

Test mode	Normal operating
Operating	1. Connect to the web viewer and test while checking the video output of the test equipment. 2. Run the Ping Test to check whether the network of the test equipment is operating normally. 3. Confirm normal output from the headset by outputting 1 kHz Tone. 4. Activate the microphone in the web viewer to check if the microphone is in normal condition. 5. Check whether the recording file is saved on the Micro SD Card before/after the test. 6. Press the alarm button to confirm normal operation of the alarm.

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 0008



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

Dec. 05, 2024

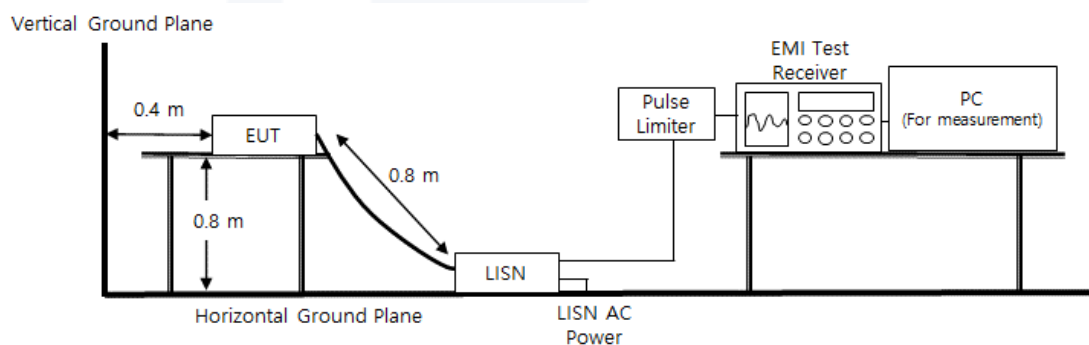
Test Location

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, 06, 2025
☒	LISN	ENV216	R & S	101787	01, 10, 2025
☒	LISN	ESH2-Z5	R & S	100450	11, 06, 2025
☒	PULSE LIMITER	ESH3-Z2	R & S	101915	11, 06, 2025

Diagram of test setup





Test Conditions

Temperature: (22,3 ± 0,1) °C
Relative Humidity: (45,9 ± 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)

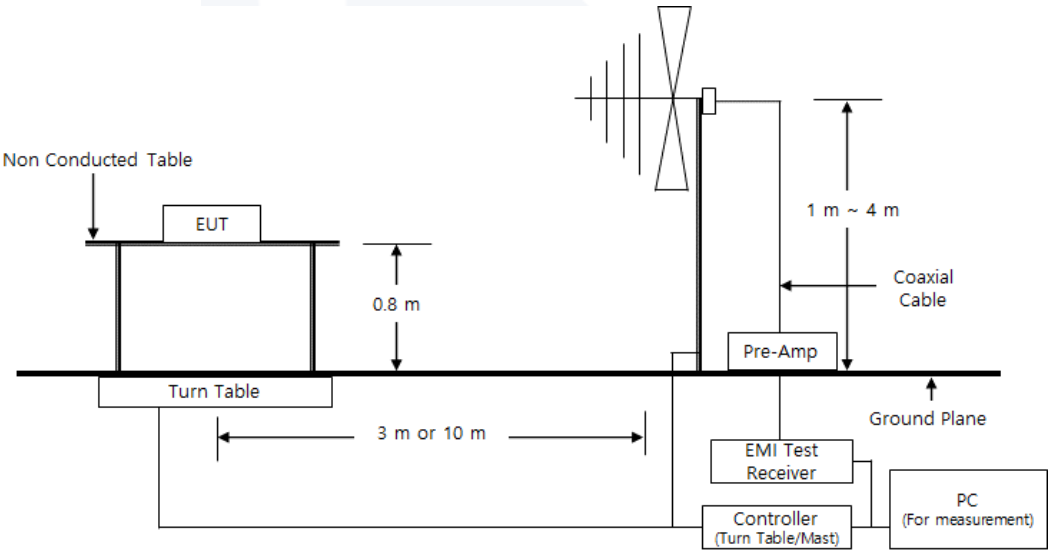
Test Date
Dec. 05, 2024

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	02, 13, 2025
☒	AMPLIFIER	SCU 01	R & S	100603	11, 06, 2025
☒	BILOG ANTENNA	VULB 9168	SCHWARZBECK	9168-461	05, 09, 2026
☒	ATTENUATOR	6806.17.A	HUBER+SUHNER	-	02, 13, 2025

Diagram of test setup





Test Conditions

Temperature: (22,2 ± 0,1) °C
Relative Humidity: (45,9 ± 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

Dec. 05, 2024

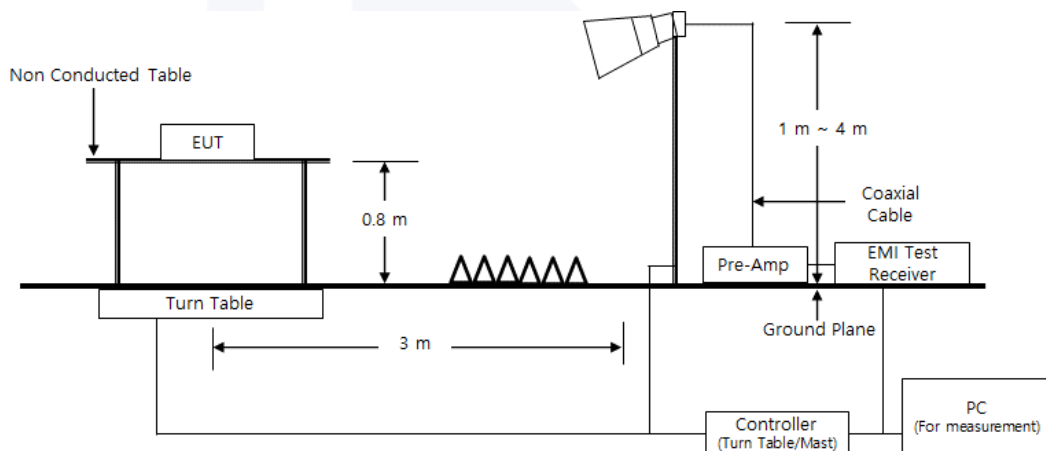
Test Location

SEMI ANECHOIC CHAMBER #5

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test SW	ES10/RE	TOYO Corporation	2022.01.000	-
☒	EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100552	02, 13, 2025
☒	HORN ANTENNA	BBHA 9120D	SCHWARZBECK	9120D-1802	11, 04, 2025
☒	PREAMPLIFIER	8449B	HP	3008A00538	04, 30, 2025
☒	ATTENUATOR	8491B	HP	23094	02, 13, 2025

Diagram of test setup





Test Conditions

Temperature: (22,6 ± 0,1)°C
Relative Humidity: (46,3 ± 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.



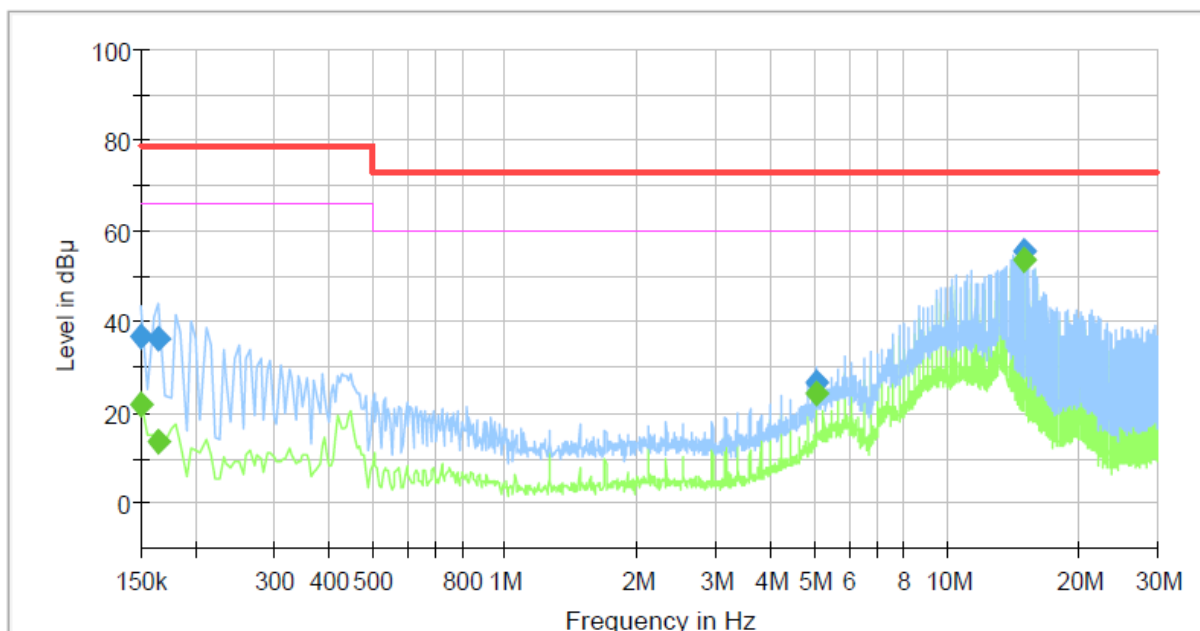
APPENDIX A – TEST DATA

Conducted Emissions at Mains Power Ports

HOT LINE

Common Information

Test Description: Conducted Emission
Job No.: KES-EM244285
Phase: L
Mode:
Operator Name: KES



Final Result

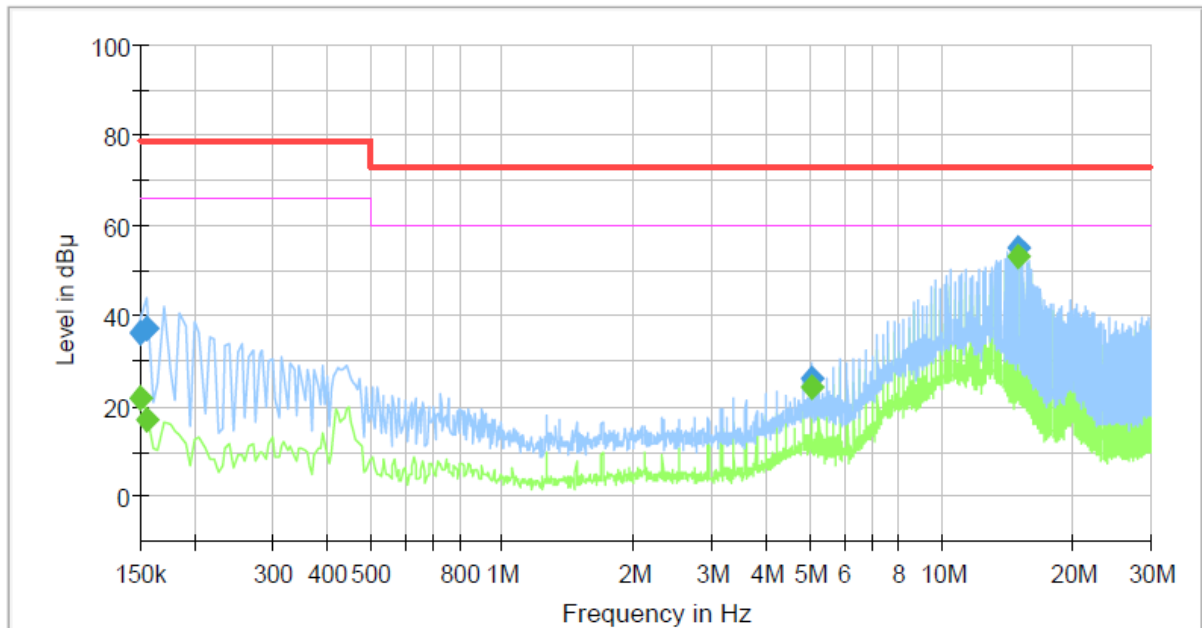
Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	---	22.02	66.00	43.98	1000.0	9.000	L1	19.6
0.150000	36.94	---	79.00	42.06	1000.0	9.000	L1	19.6
0.165000	---	13.78	66.00	52.22	1000.0	9.000	L1	19.6
0.165000	36.15	---	79.00	42.85	1000.0	9.000	L1	19.6
5.060000	---	24.36	60.00	35.64	1000.0	9.000	L1	19.9
5.060000	26.72	---	73.00	46.28	1000.0	9.000	L1	19.9
14.970000	---	53.66	60.00	6.34	1000.0	9.000	L1	20.3
14.970000	55.54	---	73.00	17.46	1000.0	9.000	L1	20.3



NEUTRAL LINE

Common Information

Test Description: Conducted Emission
Job No.: KES-EM244285
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	---	21.91	66.00	44.09	1000.0	9.000	N	19.5
0.150000	36.39	---	79.00	42.61	1000.0	9.000	N	19.5
0.155000	---	17.19	66.00	48.81	1000.0	9.000	N	19.5
0.155000	37.11	---	79.00	41.89	1000.0	9.000	N	19.5
5.060000	---	24.05	60.00	35.95	1000.0	9.000	N	19.9
5.060000	26.02	---	73.00	46.98	1000.0	9.000	N	19.9
14.970000	---	53.19	60.00	6.81	1000.0	9.000	N	20.3
14.970000	55.18	---	73.00	17.82	1000.0	9.000	N	20.3

◆ Calculation

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

QuasiPeak / CAverage : The Final Value

Reading Value : Not shown in the table.

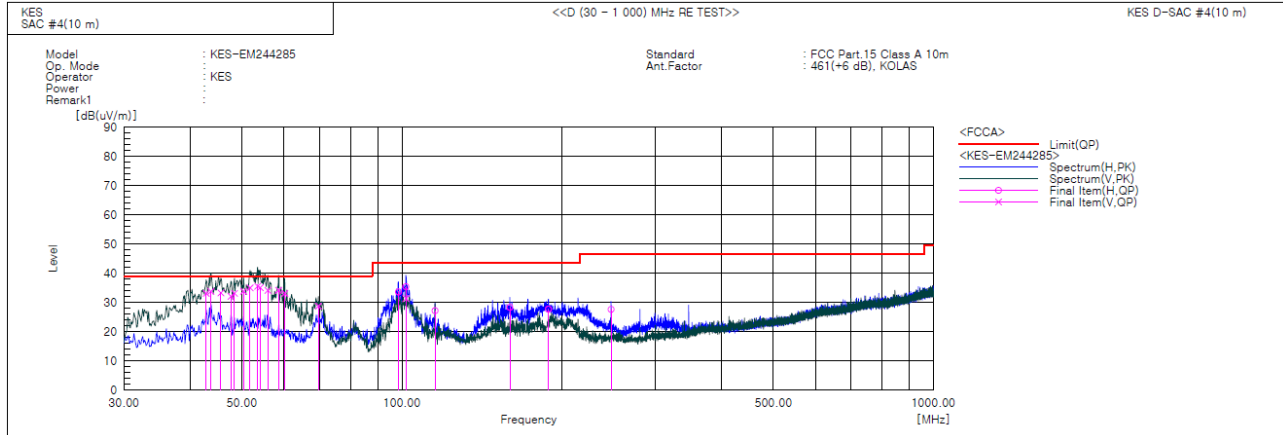
Corr. : Correction values (LISN FACTOR + (Cable Loss + Pulse Limiter FACTOR))



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Radiated Electric Field Emissions(Below 1 GHz)

- 47 CFR Part 15, Subpart B

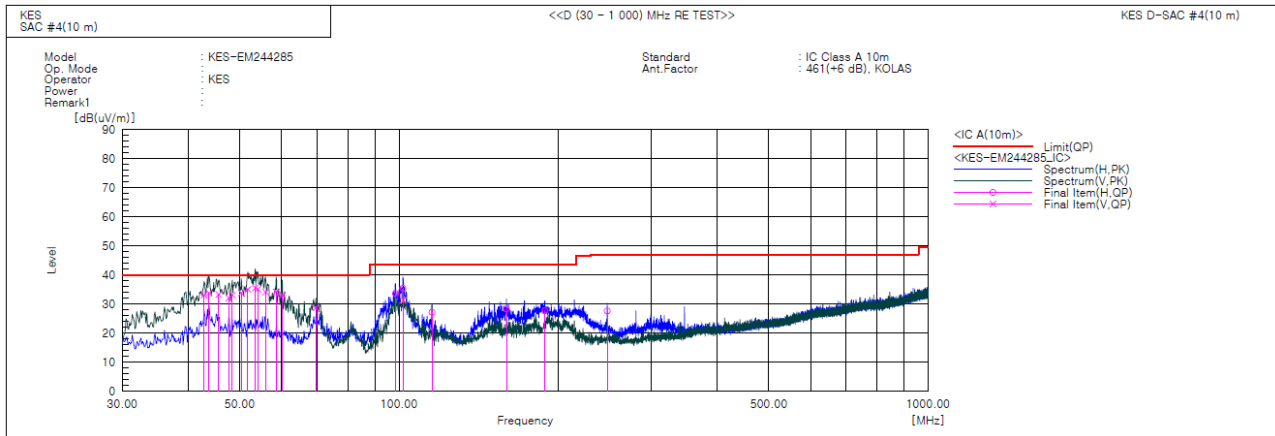
**Final Result**

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	42.853	V	54.8	-21.7	33.1	39.0	5.9	106.0	84.0	
2	43.701	V	55.4	-21.6	33.8	39.0	5.2	109.0	223.0	
3	45.641	V	54.7	-21.4	33.3	39.0	5.7	112.0	205.0	
4	47.703	V	53.3	-21.2	32.1	39.0	6.9	142.0	99.0	
5	48.430	V	54.2	-21.1	33.1	39.0	5.9	144.0	69.0	
6	50.370	V	54.9	-21.1	33.8	39.0	5.2	141.0	167.0	
7	51.825	V	56.0	-21.0	35.0	39.0	4.0	108.0	80.0	
8	53.523	V	56.6	-21.1	35.5	39.0	3.5	112.0	62.0	
9	54.129	V	56.2	-21.1	35.1	39.0	3.9	147.0	58.0	
10	55.948	V	55.3	-21.2	34.1	39.0	4.9	108.0	107.0	
11	58.615	V	55.6	-21.4	34.2	39.0	4.8	397.0	121.0	
12	60.191	V	54.6	-21.5	33.1	39.0	5.9	141.0	107.0	
13	69.649	V	51.6	-22.8	28.8	39.0	10.2	146.0	88.0	
14	98.506	H	58.8	-25.2	33.6	43.5	9.9	196.0	91.0	
15	101.780	V	56.1	-24.7	31.4	43.5	12.1	112.0	336.0	
16	101.780	H	60.1	-24.7	35.4	43.5	8.1	199.0	310.0	
17	115.481	H	50.2	-23.0	27.2	43.5	16.3	398.0	193.0	
18	159.616	H	47.9	-19.6	28.3	43.5	15.2	199.0	295.0	
19	188.595	H	49.4	-21.7	27.7	43.5	15.8	196.0	280.0	
20	247.523	H	47.4	-19.8	27.6	46.5	18.9	399.0	227.0	



Report No. : KES-EM244285-R1

- IC Regulation ICES-003 Issue 7



Final Result

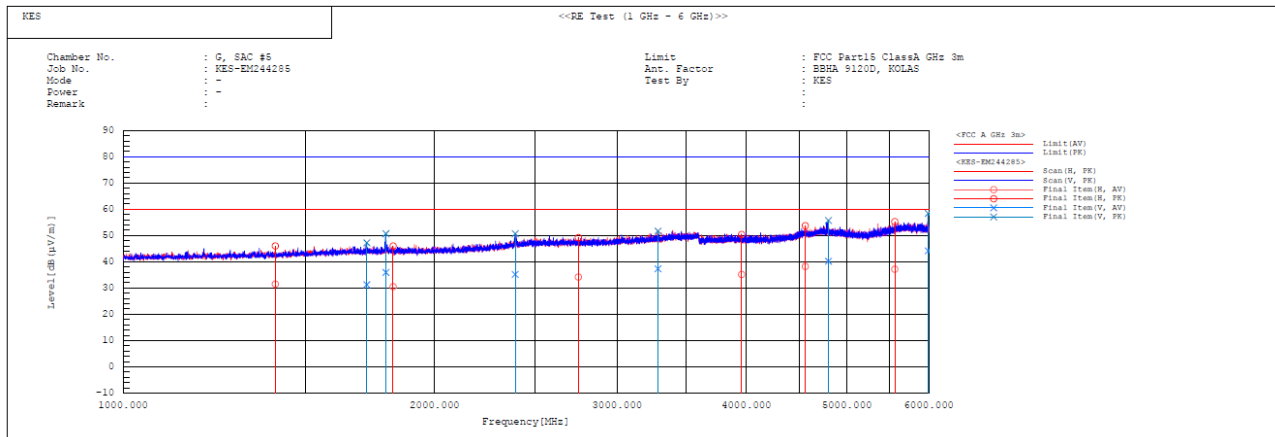
No.	Frequency [MHz]	(P)	Reading QP [dB(μV)]	c.f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	42.853	V	54.8	-21.7	33.1	40.0	6.9	106.0	84.0	
2	43.701	V	55.4	-21.6	33.8	40.0	6.2	109.0	223.0	
3	45.641	V	54.7	-21.4	33.3	40.0	6.7	112.0	205.0	
4	47.703	V	53.3	-21.2	32.1	40.0	7.9	142.0	99.0	
5	48.430	V	54.2	-21.1	33.1	40.0	6.9	144.0	69.0	
6	50.370	V	54.9	-21.1	33.8	40.0	6.2	141.0	167.0	
7	51.825	V	56.0	-21.0	35.0	40.0	5.0	108.0	80.0	
8	53.523	V	56.6	-21.1	35.5	40.0	4.5	112.0	62.0	
9	54.129	V	56.2	-21.1	35.1	40.0	4.9	147.0	58.0	
10	55.948	V	55.3	-21.2	34.1	40.0	5.9	108.0	107.0	
11	58.615	V	55.6	-21.4	34.2	40.0	5.8	397.0	121.0	
12	60.191	V	54.6	-21.5	33.1	40.0	6.9	141.0	107.0	
13	69.649	V	51.6	-22.8	28.8	40.0	11.2	146.0	88.0	
14	98.506	H	58.8	-25.2	33.6	43.5	9.9	196.0	91.0	
15	101.780	V	56.1	-24.7	31.4	43.5	12.1	112.0	336.0	
16	101.780	H	60.1	-24.7	35.4	43.5	8.1	199.0	310.0	
17	115.481	H	50.2	-23.0	27.2	43.5	16.3	398.0	193.0	
18	159.616	H	47.9	-19.6	28.3	43.5	15.2	199.0	295.0	
19	188.595	H	49.4	-21.7	27.7	43.5	15.8	196.0	280.0	
20	247.523	H	47.4	-19.8	27.6	47.0	19.4	399.0	227.0	

◆ Calculation

$$\text{Result(QP)} [\text{dB}(\mu\text{V/m})] = (\text{Reading(QP)} [\text{dB}(\mu\text{V})] + \text{c.f} [\text{dB}(1/\text{m})])$$
$$\text{Margin(QP)} [\text{dB}] = \text{Limit} [\text{dB}(\mu\text{V/m})] - \text{Result(QP)} [\text{dB}(\mu\text{V/m})]$$

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

Limit(PK/CAV) : 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	1403.125	H	31.0	45.5	0.5	31.5	46.0	60.0	80.0	28.5	34.0	198.0	224.4	
2	1719.587	V	29.5	45.4	1.8	31.3	47.2	60.0	80.0	28.7	32.8	147.0	153.7	
3	1794.571	V	33.9	48.6	2.1	36.0	50.7	60.0	80.0	24.0	29.3	398.0	181.7	
4	1823.257	H	28.3	43.8	2.2	30.5	46.0	60.0	80.0	29.5	34.0	398.0	119.1	
5	2392.112	V	30.8	46.3	4.4	35.2	50.7	60.0	80.0	24.8	29.3	198.0	20.9	
6	2752.509	H	28.6	43.6	5.6	34.2	49.2	60.0	80.0	25.8	30.8	397.0	358.9	
7	3286.589	V	30.7	45.1	6.6	37.3	51.7	60.0	80.0	22.7	28.3	149.0	202.0	
8	3957.452	H	27.1	42.3	8.1	35.2	50.4	60.0	80.0	24.8	29.6	196.0	220.9	
9	4559.421	H	27.7	43.2	10.5	38.2	53.7	60.0	80.0	21.8	26.3	105.0	146.4	
10	4800.139	V	28.8	44.3	11.4	40.2	55.7	60.0	80.0	19.8	24.3	102.0	165.0	
11	5563.458	H	24.0	42.1	13.2	37.2	55.3	60.0	80.0	22.8	24.7	397.0	146.4	
12	5992.108	V	30.0	44.2	14.2	44.2	58.4	60.0	80.0	15.8	21.6	105.0	228.8	

◆ Calculation

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



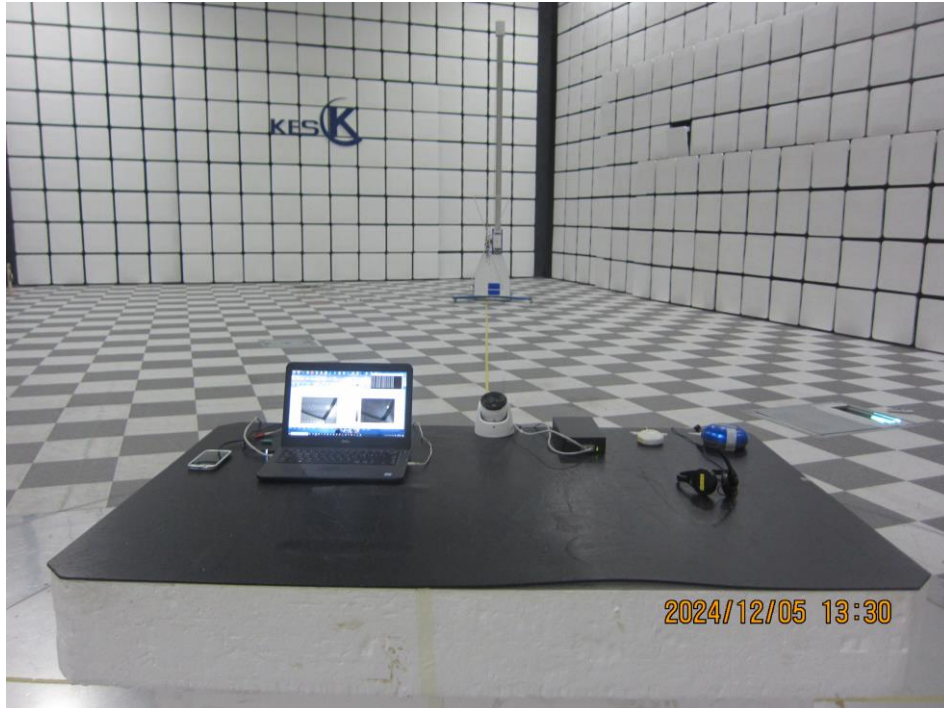
Test Setup Photos and Configuration

Conducted Emissions at Mains Power Ports





Radiated Electric Field Emissions(Below 1 GHz)





Radiated Electric Field Emissions(Above 1 GHz)





EUT External Photographs

(Top)



(Bottom)





EUT Internal Photographs

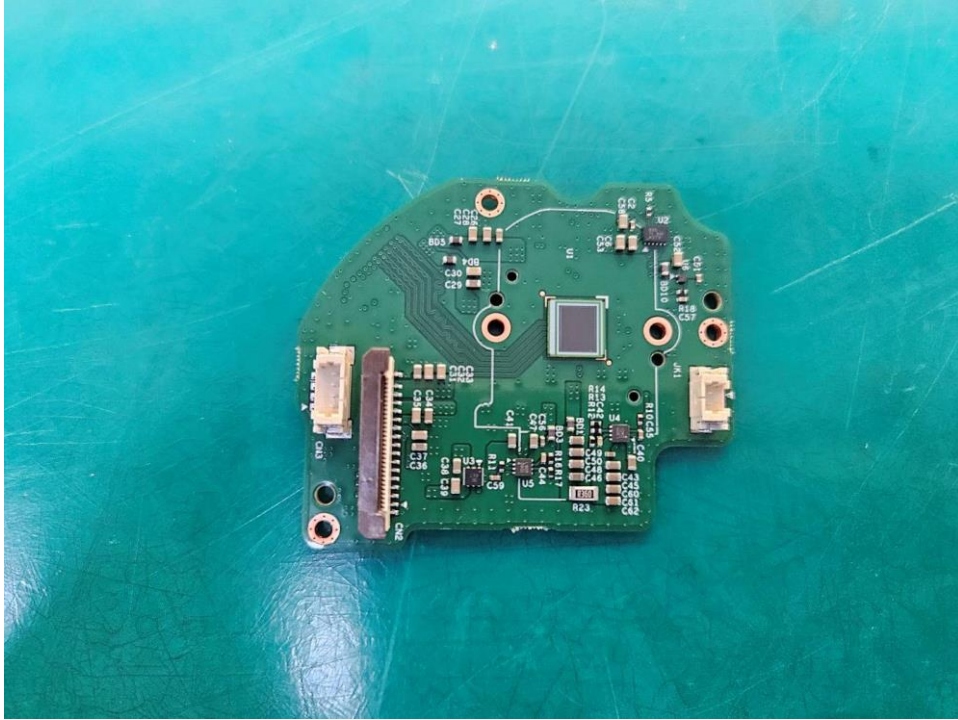
(Internal View)





EUT Internal View – Board 1

(Top)



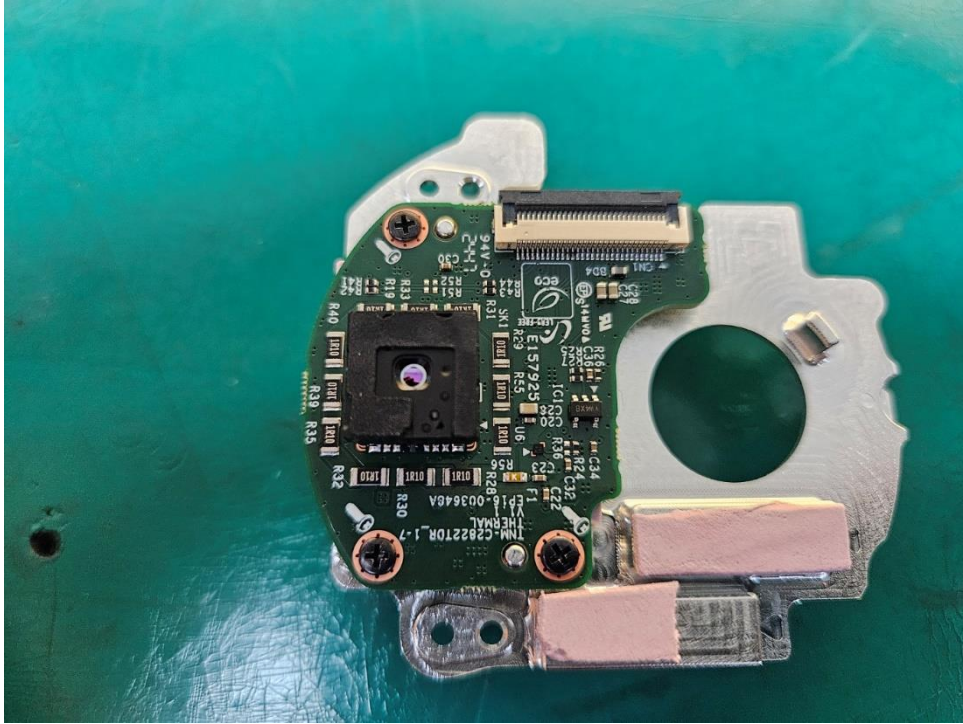
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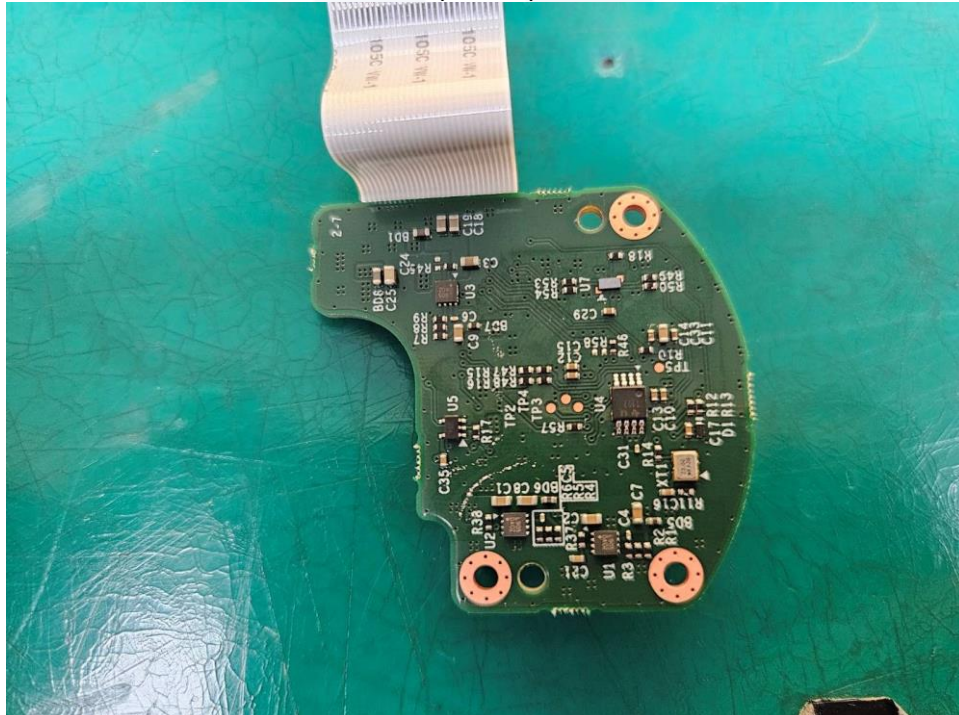


EUT Internal View – Board 2

(Top)



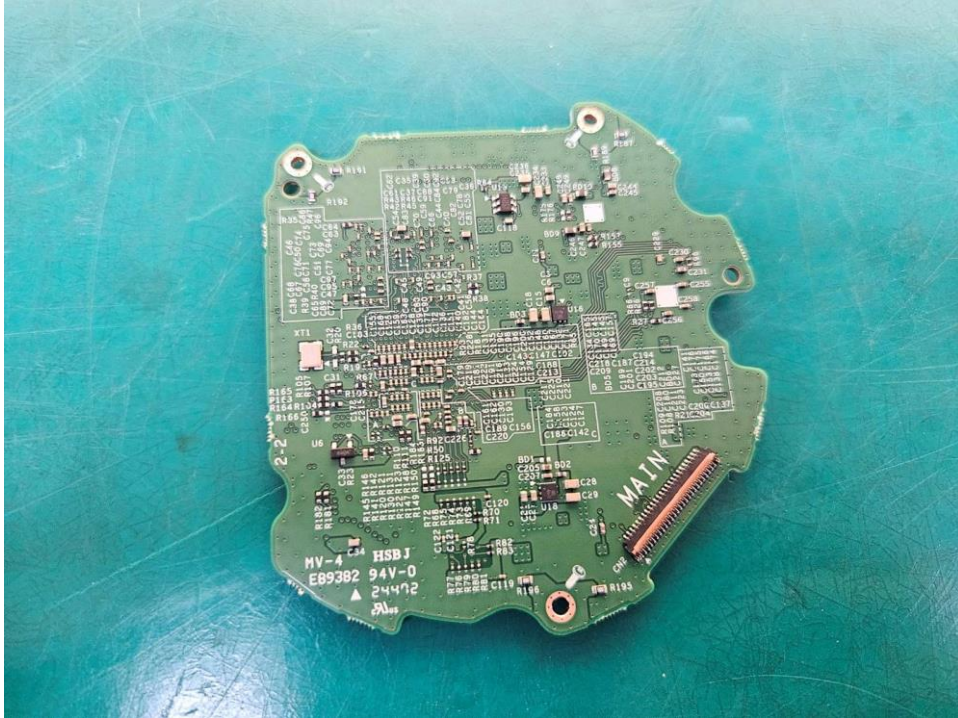
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EUT Internal View – Board 3

(Top)



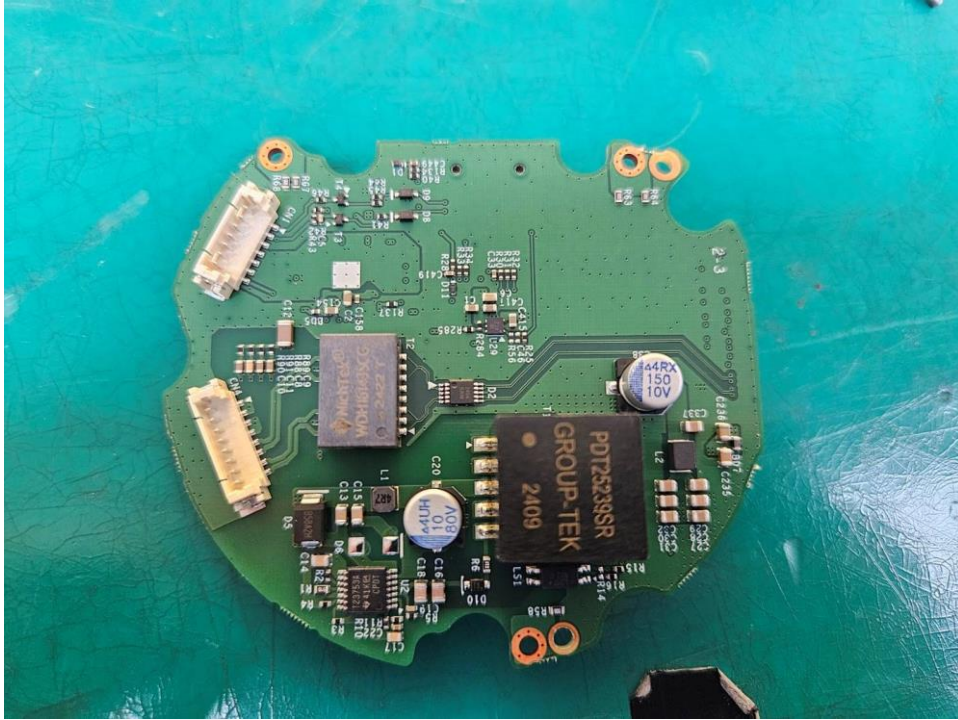
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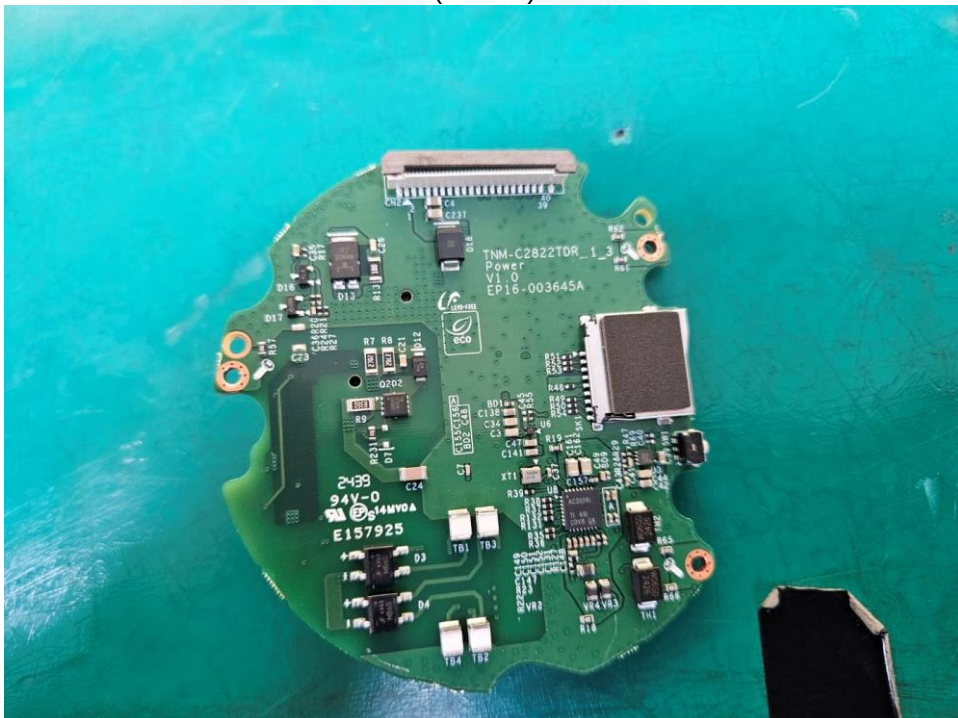


EUT Internal View – Board 4

(Top)



(Bottom)



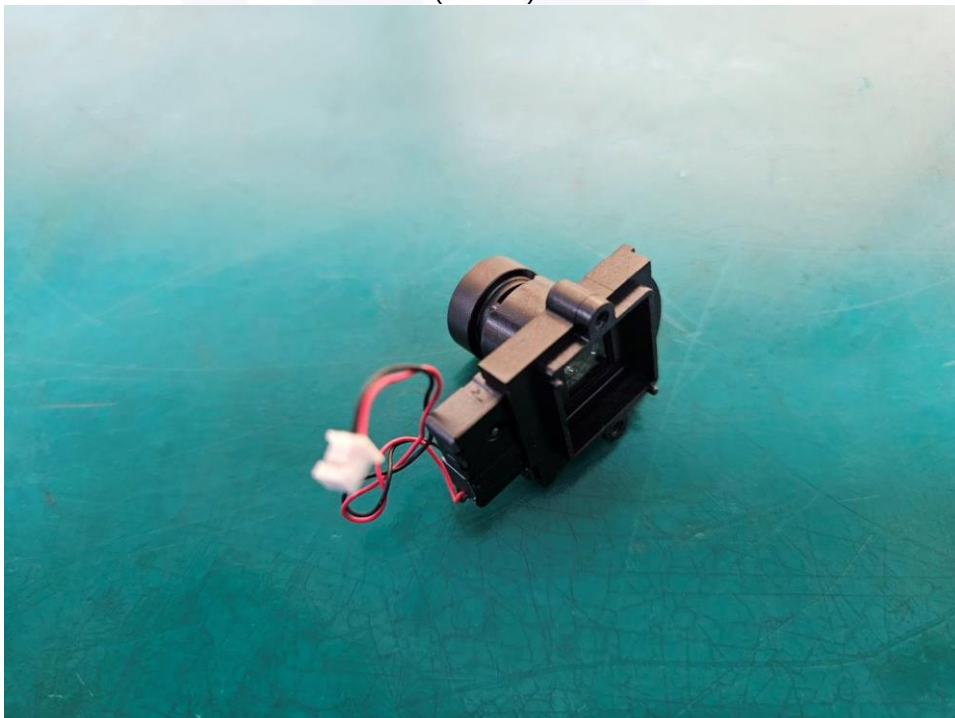


EUT Internal View – Camera Lens

(Top)



(Bottom)





Label Photographs

FCC Label



NETWORK THERMAL CAMERA

TNM-C2822TDR

IC Label

CAN ICES-003(A) / NMB-003(A)

This device complies with ICES-003 Canada Rules 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.

The End.