



TEST REPORT



Report No. : KES-EM253470

Page 1 / 42

KES Co., Ltd.

#3002, #3503, #3701, 40, Simin-daero365beon-gil, Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Republic of Korea
Tel : +82-31-425-6200, Fax : +82-31-341-3838

1. Client

- Name : Hanwha Vision Co., Ltd.
- Address : 6, Pangyo-ro 319beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea

2. Sample Description

- Product item : NETWORK CAMERA
- Model name : XNF-A9014R
- Variant model : XNF-A8014R
- Manufacturer etc. : HANWHA VISION VIETNAM COMPANY LIMITED
- Manufacturer address : Lot O-2, Que Vo Industrial Zone Extended Area, Nam Son Ward, Bac Ninh Province, Vietnam
- Manufacturer etc. : D-TECH CO.,LTD.
- Manufacturer address : 173-25, Saneop-ro, Gwonseon-gu, Suwon-si, Gyeonggi-do, Korea (Suwon Industrial Complex)

3. Date of test : 2025. 10. 05. ~ 2025. 10. 06.

4. Location of Test : Permanent Testing Lab

- Address : 473-21, Gayeo-ro, Yeuju-si, Gyeonggi-do, 12658, Republic of Korea

5. Test method used : FCC 47 CFR Part 15, Subpart B (ANSI C63.4a-2017),
IC ICES-003 Issue 7 (ANSI C63.4a-2017)

6. Test result : PASS

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.

This test report cannot be reproduced and copied without permission without the written consent of KES Co., Ltd.

This test report is not related to KOLAS accreditation.

Affirmation	Tested by	Technical Manager by
	Name : SeHeon Kim	Name : SeongMin Choi

2025. 11. 11.

KES Co., Ltd.

**REPORT REVISION HISTORY**

Date	Test Report No.	Revision History
2025. 11. 11.	KES-EM253470	Issued

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd. This document may be altered or revised by KES Co., Ltd. personnel only, and shall be noted in the revision section of the document. Any alteration of this document not carried out by KES Co., Ltd. will constitute fraud and shall nullify the document.

Use of uncertainty of measurement for decisions on conformity (decision rule):

- ☒ No decision rule is specified by the standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").
- ☐ Other (to be specified, for example when required by the standard or client)



TABLE OF CONTENTS

1	Laboratory Information	4
1.1	Test Location	4
1.2	Laboratory Accreditations and Listings	4
2	Test Summary	5
2.1	Class and Voltage	5
2.2	Summary of Test Results	5
2.3	Remarks when standards applied	5
2.4	Variant Model Differences	5
2.5	Device Modifications	5
3	General Product Description	6
4	EUT Setup and Operation Mode	11
4.1	EUT Configuration	11
4.2	System Configuration	11
4.3	External I/O Cabling	12
4.4	EUT Operating Mode(s)	13
4.5	Test operating S/W	13
4.6	Configuration	14
5	Measurement Procedure	15
6	Test Item	16
6.1	Conducted Emissions at Mains Power Ports	16
6.2	Radiated Emissions(Below 1 GHz).....	21
6.3	Radiated Emissions(Above 1 GHz)	26
7	Test Setup Photos and EUT Photographs.....	31
7.1	Test Setup Photos	31
7.2	EUT Photographs.....	37
7.3	Label.....	42



1 Laboratory Information

1.1 Test Location

Category	Details
Address	473-21, Gayeo-ro, Yeosu-si, Gyeonggi-do, 12658, Republic of Korea
Telephone Number	031-883-5092
Facsimile Number	031-883-5169

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

1.2 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 Test Summary

2.1 Class and Voltage

Test Class	Test Voltage
Class A	AC 120 V, 60 Hz

2.2 Summary of Test Results

Regulation			
47 CFR Part 15, Subpart B, ICES-003 Issue 7			
Test Item	Test Standard	Test Result	Remark
Conducted Emissions at Mains Power Ports	ANSI C63.4a-2017	PASS	-
Radiated Emissions(Below 1 GHz)		PASS	-
Radiated Emissions(Above 1 GHz)		PASS	NOTE 1
* N/A: Not Applicable			
(NOTE 1) Since the maximum operating frequency exceeds 1 000 MHz, the measurement is conducted up to the 5th harmonic.			

2.3 Remarks when standards applied

N/A

2.4 Variant Model Differences

Add derivative model due to SW difference.

2.5 Device Modifications

N/A



3 General Product Description

Division		Specificity
Internal maximum operating frequency		1 600 MHz
Power	Rated power supply	DC 12 V(AC/DC Adapter), PoE
	Test Power	AC 230 V, 50 Hz
I/O Ports	User port	DC IN 1 EA, RJ-45 1 EA, 7 Pin 1 EA, Micro SD Slot 1 EA
	Unused/Administrator Port	N/A
function	Product features	NETWORK CAMERA
	Wireless function	N/A
Components		Main body 1 EA, Cable 2 EA
LAN Speed		10 /100 Mbps
Others		Please refer to the specifications listed below.

	XNF-A9014R
Video	
Imaging Device	1/1.6" CMOS
Resolution	Original view: 3536x3536, 3008x3008, 2560x2560, 1600x1600, 1280x1280, 800x800, 640x640, 480x480, 160x160 Double panorama: 3584x1792, 2560x1280, 1920x960, 1280x640, 1024x512, 640x320 Single panorama: 3584x896, 2560x640, 1920x480, 1280x320, 1024x256, 640x160 Quad view: 3584x2688, 2560x1920, 1792x1344, 1280x960, 1024x768, 800x600, 640x480 Q1/Q2/Q3/Q4: 1792x1344, 1280x960, 1024x768, 800x600, 640x480, 320x240
Max. Framerate	Original view: Max.30fps@3536x3536 Double panorama: Max.30fps@3584x1792 Single panorama: Max.30fps@3584x896 Quad view: Max.30fps@3584x2688 Q1/Q2/Q3/Q4(4:3): Max.30fps@1792x1344 MJPEG: Max.5fps
NETD	None
Pixel Size	None
Min. Illumination	Color: 0.02Lux (F1.8, 1/30sec) (TBD) BW: 0.001Lux (F1.8, 1/30sec) (TBD)
Video Out	None
Video Transmission Distance	None
Lens	
Focal Length (Zoom Ratio)	1.76mm fixed focal
Optical Zoom	None
Max. Aperture Ratio	F1.8
Angular Field of View	H: 185° / V: 185° / D: 185°
Min. Object Distance	0.5m(1.64ft)
Focus Control	None
Lens Type	None
Mount Type	None
Optional Lens	None
Pan / Tilt / Rotate	
Pan / Tilt / Rotate	Digital Rotation



Operational	
Camera Title	Displayed up to 85 characters
Direction Indicator	None
Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SDR
Wide Dynamic Range	120dB
Digital Noise Reduction	SSNRV, WiseNR2(Based on AI engine/AI-ISP)
Digital Image Stabilization	Support
Defog	Support
Motion Detection	8ea, 8point polygonal zones
Privacy Masking	32ea, 8point polygonal zones - Color: gray/green/red/blue/black/white - Mosaic
Gain Control	Off / Max Gain / Manual
White Balance	ATW / NarrowATW / AWC / Manual / Indoor / Outdoor
LDC	None
Electronic Shutter Speed	Minimum / Maximum / Anti flicker(2~1/30,000sec) Prefer shutter control(Based on AI engine)
Digital PTZ	Support
Video Rotation	Flip, mirror
Analytics	Classified object type: Person/Vehicle Attributes: Person(Upper/lower clothes color), Vehicle(Color) Support BestShot Analytics events based on AI engine - Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit/Appears/Disappear), Sound classification(To be released) Analytics events - Defocus detection, Tampering, Shock detection, Audio detection



Business Intelligence	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap
Serial Interface	None
Alarm I/O	2 configurable I/O ports *Support extra alarm I/O via optional I/O box
Alarm Triggers	Analytics, Network disconnection, Alarm input, App event, Time schedule, MQTT subscription, Day/Night change, SD/NAS disruption, Case open tempering
Alarm Events	When alarm trigger occurred - File upload(image): e-mail/FTP/SFTP - File upload(video clip): FTP/SFTP - 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(WAV, MP3) - MQTT: publication - SIP(TBD)
Audio Streaming	None
Audio In	Selectable(mic in/line in). Built-in 3 mic with noise reduction
Audio Out	Line out
Light Type	IR LED
Light Viewable Length	WiseIR up to 15m(49.21ft)
IR Viewable Length	None
IR Illuminator (Optional)	None
IR Radiation angle	None
IR LED	None
IR Wavelength	850nm
IR Operation	None
Water Removal	None
Auto Tracking	None
Coaxial Protocol	None
Color Palettes	None



Network	
Ethernet	RJ-45(10/100BASE-T)
Video Compression	H.265/H.264: Main/Baseline/High MJPEG
Audio Compression	G.711(PCM): 8kHz(64Kbps) G.726(ADPCM): 8kHz(16/24/32/40Kbps) AAC-LC: 16/32/44.1/48kHz(48Kbps) OPUS: 8/16/48kHz
Smart Codec	WiseStream(Based on AI engine)
Video Quality Adjustment	None
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 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/SFTP, SMTP(StartTLS), ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, SRTP(TCP, UDP Unicast), CDP, MQTT, Syslog, SIP(TBD)
SIP support (VoIP, Peer-to-peer)	Support(TBD)
Security	None
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Hanwha Vision Open Platform - WiseAI application included - Cloud connector application included - Sound classification(Based on AI engine) application (To be released)
Security	
OS / Firmware Protect	Encrypted Firmware, Secure boot, Signed Firmware
User authentication	Digest Authentication, Prevent brute-force attack
Network authentication	802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2), 802.1AE(MACsec)
Secure Communication	HTTPS, SRTP, WSS(Websocket secure)
Access Control	IP-based access control, MAC-based access control, Auto logout
Data Protect	Encryption Credentials, Encrypt compress for live recording file export
Audit	Access / System / Event Log management
Device ID	Device Certificate(Hanwha vision Root CA)
Secure Storage	Secure element, SDcard partition encrypt
Security Certificate	ETSI EN 303 645, Secure element(FIPS 140-3 level3, CC EAL6+)



General	
Webpage Language	English, Korean, Simplified Chinese, Traditional Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Web Viewer	None
Edge Storage	Micro SD/SDHC/SDXC 1slot Max. 1TB
Edge Storage(OnCloud)	Micro SD/SDHC/SDXC 1slot Max. 1TB * Hanwha Vision branded microSD cards have been certified and recommended for OnCloud edge recording.
Memory	4GB RAM, 8GB eMMC
Environmental & Electrical	
Operating Temperature / Humidity	-10°C~+55°C (+14°F ~ +131°F) / Less than 95% RH In PoE+ mode, IR illuminator will turn off if the temperature is higher than 50°C
Storage Temperature / Humidity	-50°C~+60°C(-58°F~+140°F) / 0~95% RH
Wind Load	None
EPA(Effective Projected Area)	0.008m ²
Certification	IP42
Input Voltage	WisePower(PoE(IEEE802.3af, class3)/PoE+(IEEE802.3at type2, Class4)), 12VDC
Power Consumption	PoE+: Max. 19.8W, typical 10.5W for 15m IR LED distance 12VDC: Max 20.0W, typical 10.9W PoE: Max. 11.2W, typical 7.7W for 10m IR LED distance 12VDC: Max 11.3W, typical 7.9W Support Wisepower - Power monitoring(Max./Current/Avg.) - Power logging
Mechanical	
RAL Code	RAL9003
Product Dimensions / Weight	Ø160x60.4mm(6.23x2.38") / 1000g
Compatible Conduit hole / Gang	single, double, 4" octagon, 4" square



4 EUT Setup and Operation Mode

4.1 EUT Configuration

Product Name	Model Number	Serial Number	Manufacturer	Remarks
NETWORK CAMERA	XNF-A9014R	-	HANWHA VISION VIETNAM COMPANY LIMITED	EUT
AC/DC Adapter	ATS065T-P120	-	Adapter Technology Co., Ltd.	-
PoE Injector	PT-PSE109GBRO-AH	-	Dongguan PROCET Network Technology Co.,Ltd	-
Laptop	NT550XDZ	-	Samsung Electronics	-
Laptop AC/DC Adapter	AD-4019A	-	Chicony	-
Alarm	PRO-SL	-	SENSOR PRO	-
Button Alarm	-	-	-	-
Headset	K550	-	Britz®	-
Micro SD Card	-	-	SanDisk	-

4.2 System Configuration

Product Name	Model Number	Serial Number	Manufacturer	Remarks
-	-	-	-	-



4.3 External I/O Cabling

Mode 1

Start		End		Cable Spec.	
Product Name	I/O Port	Product Name	I/O Port	Length(m)	Shield
NETWORK CAMERA (EUT)	DC IN	AC/DC Adapter	DC OUT	1.5	U
	RJ-45 (LAN)	Laptop	RJ-45 (LAN)	3.1	U
	7 Pin (Audio OUT)	Headset	3.5 mm	1.8	U
	7 Pin (Audio IN)		3.5 mm	1.8	U
	7 Pin (Alarm OUT)	Alarm	Alarm IN	3.5	U
	7 Pin (Alarm IN)	Button Alarm	Alarm OUT	3.5	U
	Micro SD Slot	Micro SD Card	Micro SD Slot	-	-
Laptop	DC Jack	Laptop AC/DC Adapter	DC Jack	1.5	U

Mode 2

Start		End		Cable Spec.	
Product Name	I/O Port	Product Name	I/O Port	Length(m)	Shield
NETWORK CAMERA (EUT)	RJ-45 (PoE)	PoE Injector	RJ-45 (PoE)	3.1	U
	7 Pin (Audio OUT)	Headset	3.5 mm	1.8	U
	7 Pin (Audio IN)		3.5 mm	1.8	U
	7 Pin (Alarm OUT)	Alarm	Alarm IN	3.5	U
	7 Pin (Alarm IN)	Button Alarm	Alarm OUT	3.5	U
	Micro SD Slot	Micro SD Card	Micro SD Slot	-	-
Laptop	DC Jack	Laptop AC/DC Adapter	DC Jack	1.5	U
PoE Injector	RJ-45 (LAN)	Laptop	RJ-45 (LAN)	2.0	U

* Unshielded=U, Shielded=S

**4.4 EUT Operating Mode(s)**

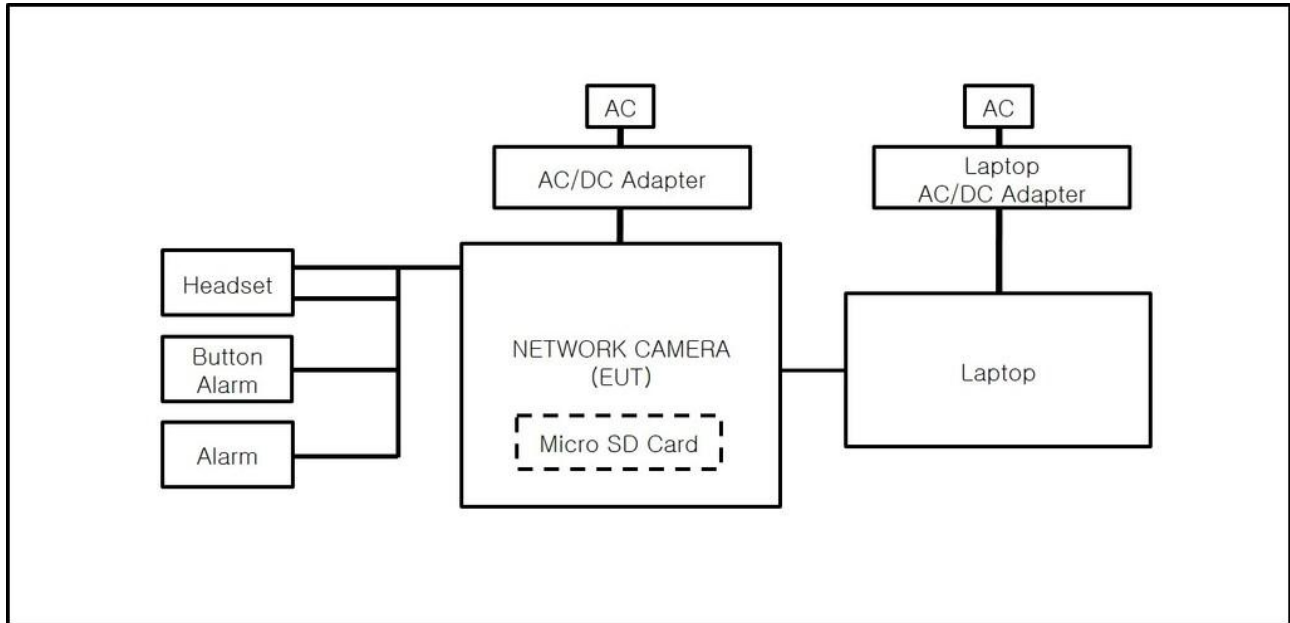
Category	Mode	Operating
Mode 1	DC Power	- Monitoring EUT Using Web Viewer, Ping Test - When the Button Alarm is pressed, make sure the Alarm is working - Uploaded the 1 kHz tone sound to the Web Viewer and checked if the sound is output to the headset. - After the test, the recorded video stored on the Micro SD Card was checked and the microphone motion was also confirmed.
Mode 2	PoE Power	

4.5 Test operating S/W

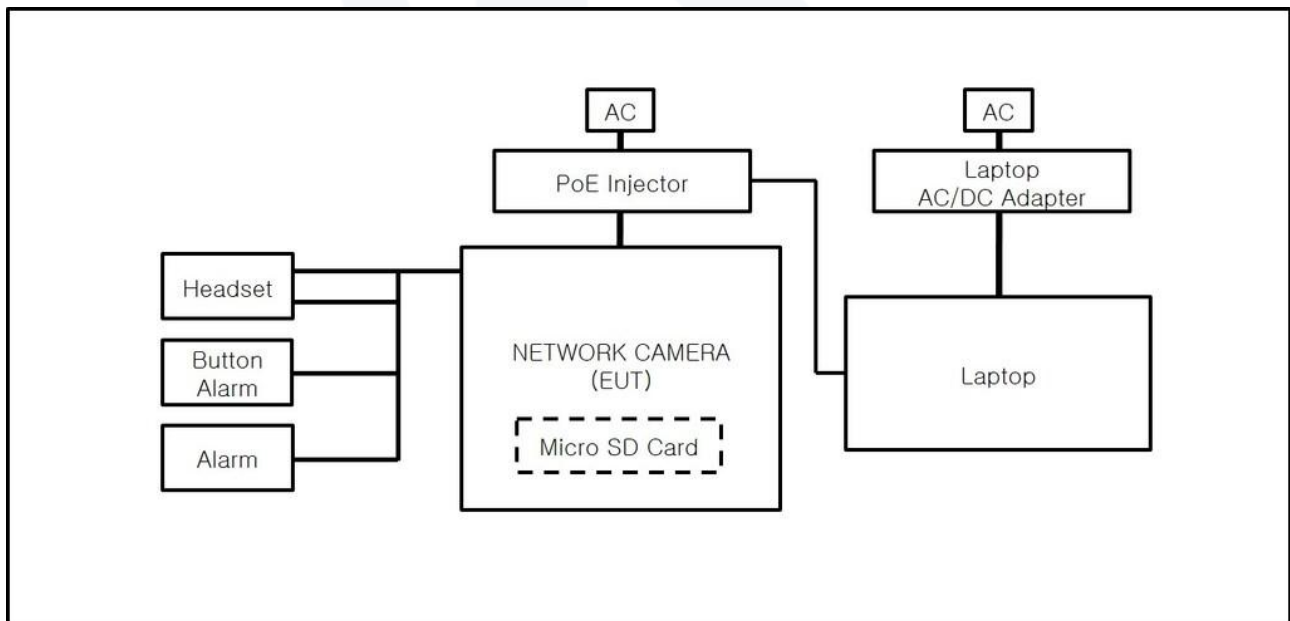
Name	Version	Manufacture Company
Web Viewer	-	Hanwha Vision Co., Ltd.



4.6 Configuration



Mode 1



Mode 2



5 Measurement Procedure

- Conducted Emissions

The conducted emission levels were measured on each current-carrying line with the spectrum analyzer operating in the CISPR quasi-peak mode (or peak mode if applicable). The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. If the conducted emission exceed the average limit with the instrument set to the quasi-peak mode, the measurements are made in the average mode. The emission spectrum was scanned from 150 kHz to 30 MHz. The highest emission amplitudes relative to the appropriate limits were measured and have been recorded. Quasi-peak readings are distinguished with a "QP".

- Radiated Electric Field Emissions

The test was done at a SEMI ANECHOIC CHAMBER with quasi-peak detector. The final test data was measured using a Quasi-Peak detector below 1 GHz at 10 m or 3 m distance and a Peak and Average detector above 1 GHz at 3 m distance. Test was proceeded worst case test mode and cable configuration. Measurements were made with the antenna positioned in both the horizontal and vertical planes of polarization. The antenna height was varied from 1 m to 4 m and the EUT was rotated 360° to find the maximum emitting point for each frequency.

Measurement procedures was In accordance with ANSI C63.4 or CISPR 32.

◆ Calculation

- Conducted Emissions

$\text{QuasiPeak[dBuV]} / \text{CAverage[dBuV]} = \text{Reading Value[dBuV]} + \text{Corr. [dB]}$

QuasiPeak / CAverage : The Final Value

Reading Value : Not shown in the table.

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

- Radiated Emissions(Below 1 GHz)

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

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

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

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

- Radiated Emissions(Above 1 GHz)

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

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

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

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



6 Test Item

6.1 Conducted Emissions at Mains Power Ports

6.1.1 Test Equipment

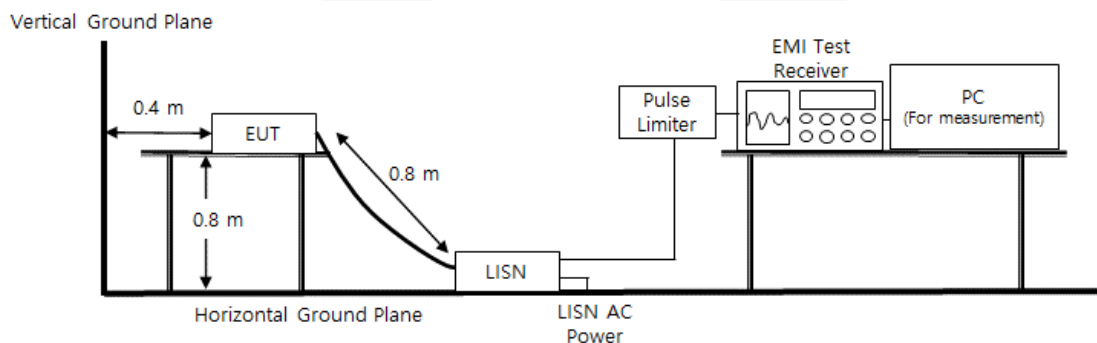
Equipment Name	Model Number	Manufacturer	Serial No.	Cal. Date	Next Cal. Date	Used
SHIELD ROOM #6	-	DYMSTEC	-	-	-	■
EMC32 Measurement Software	EMC32	R&S	9.12.00	-	-	■
EMI TEST RECEIVER	ESR3	Rohde & Schwarz	101783	2024-11-06	2025-11-06	■
LISN	ENV216	Rohde & Schwarz	101786	2025-01-09	2026-01-09	■
ARTIFICIAL MAINS NETWORK	ESH2-Z5	Rohde & Schwarz	100450	2024-11-06	2025-11-06	■
PULSE LIMITER	ESH3-Z2	Rohde & Schwarz	101915	2024-11-06	2025-11-06	■

6.1.2 Test Location : SHIELD ROOM #6

6.1.3 Test Conditions :

Temperature	Relative Humidity
(25.4 ~ 25.4) °C	(57.2 ~ 57.2) % R.H.

6.1.4 Diagram of test setup



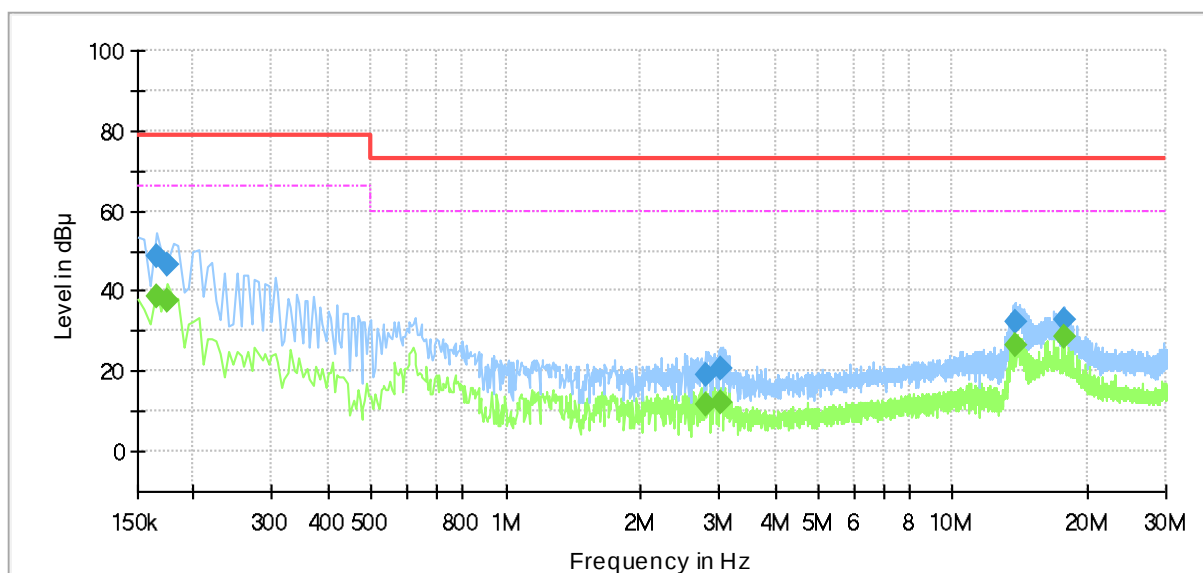


6.1.5 Test Result

- Test Date : 2025-10-05
- Test Mode : Mode 1

Test Report

Test Description: Conducted Emission
Job No.: KES-EM253470
Phase: L
Mode: Mode 1
Operator Name: KES



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.165000	—	38.67	66.00	27.33	1000.0	9.000	L1	19.5
0.165000	48.46	—	79.00	30.54	1000.0	9.000	L1	19.5
0.175000	—	37.70	66.00	28.30	1000.0	9.000	L1	19.5
0.175000	46.45	—	79.00	32.55	1000.0	9.000	L1	19.5
2.790000	—	11.51	60.00	48.49	1000.0	9.000	L1	19.7
2.790000	18.94	—	73.00	54.06	1000.0	9.000	L1	19.7
3.010000	—	12.24	60.00	47.76	1000.0	9.000	L1	19.7
3.010000	20.60	—	73.00	52.40	1000.0	9.000	L1	19.7
13.850000	—	26.43	60.00	33.57	1000.0	9.000	L1	20.2
13.850000	32.26	—	73.00	40.74	1000.0	9.000	L1	20.2
17.695000	—	28.65	60.00	31.35	1000.0	9.000	L1	20.3
17.695000	32.71	—	73.00	40.29	1000.0	9.000	L1	20.3



Report No. : KES-EM253470

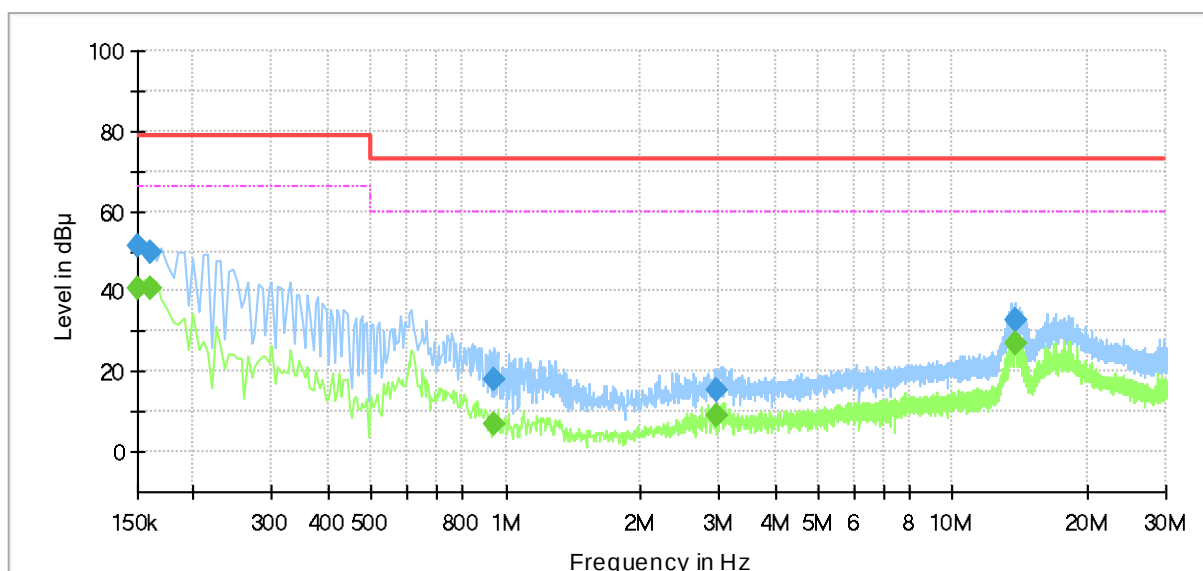
Page 18 / 42

○ Test Date : 2025-10-05

● Test Mode : Mode 1

Test Report

Test Description: Conducted Emission
Job No.: KES-EM253470
Phase: N
Mode: Mode 1
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	—	40.57	66.00	25.43	1000.0	9.000	N	19.5
0.150000	51.52	—	79.00	27.48	1000.0	9.000	N	19.5
0.160000	—	40.70	66.00	25.30	1000.0	9.000	N	19.5
0.160000	49.88	—	79.00	29.12	1000.0	9.000	N	19.5
0.945000	—	7.11	60.00	52.89	1000.0	9.000	N	19.6
0.945000	17.93	—	73.00	55.07	1000.0	9.000	N	19.6
2.955000	—	9.00	60.00	51.00	1000.0	9.000	N	19.7
2.955000	15.28	—	73.00	57.72	1000.0	9.000	N	19.7
13.780000	—	26.99	60.00	33.01	1000.0	9.000	N	20.2
13.780000	32.75	—	73.00	40.25	1000.0	9.000	N	20.2
13.855000	—	26.87	60.00	33.13	1000.0	9.000	N	20.2
13.855000	33.03	—	73.00	39.97	1000.0	9.000	N	20.2



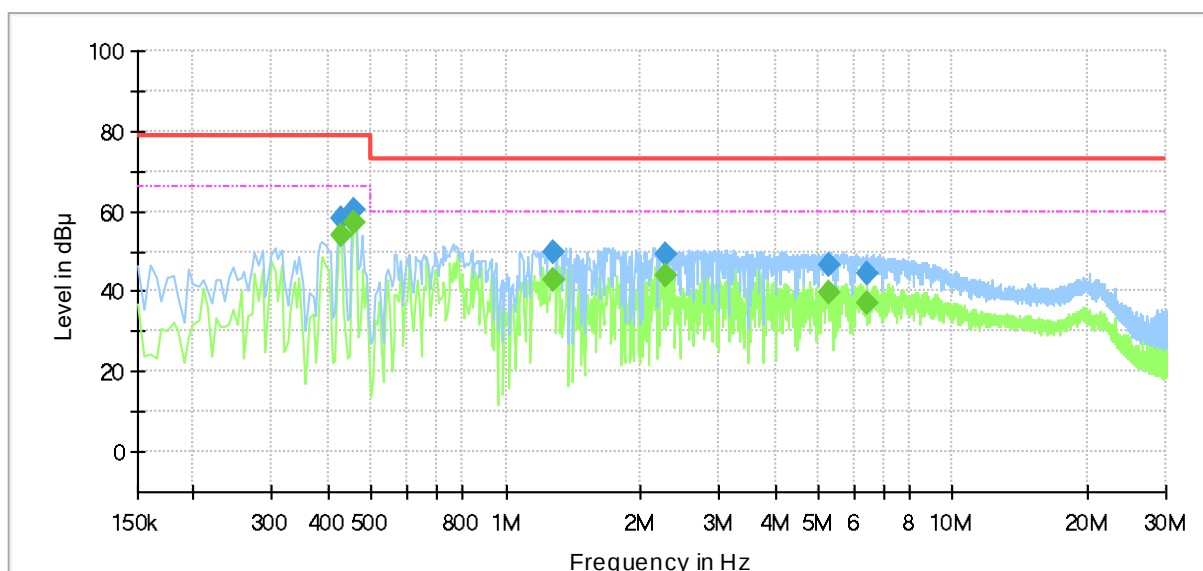
Report No. : KES-EM253470

Page 19 / 42

- Test Date : 2025-10-05
- Test Mode : Mode 2

Test Report

Test Description: Conducted Emission
Job No.: KES-EM253470
Phase: L
Mode: Mode 2
Operator Name: KES



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.430000	—	54.01	66.00	11.99	1000.0	9.000	L1	19.6
0.430000	58.32	—	79.00	20.68	1000.0	9.000	L1	19.6
0.455000	—	57.21	66.00	8.79	1000.0	9.000	L1	19.6
0.455000	60.27	—	79.00	18.73	1000.0	9.000	L1	19.6
1.280000	—	42.99	60.00	17.01	1000.0	9.000	L1	19.6
1.280000	49.78	—	73.00	23.22	1000.0	9.000	L1	19.6
2.285000	—	44.01	60.00	15.99	1000.0	9.000	L1	19.7
2.285000	49.35	—	73.00	23.65	1000.0	9.000	L1	19.7
5.265000	—	39.93	60.00	20.07	1000.0	9.000	L1	19.9
5.265000	46.81	—	73.00	26.19	1000.0	9.000	L1	19.9
6.395000	—	37.05	60.00	22.95	1000.0	9.000	L1	20.0
6.395000	44.69	—	73.00	28.31	1000.0	9.000	L1	20.0



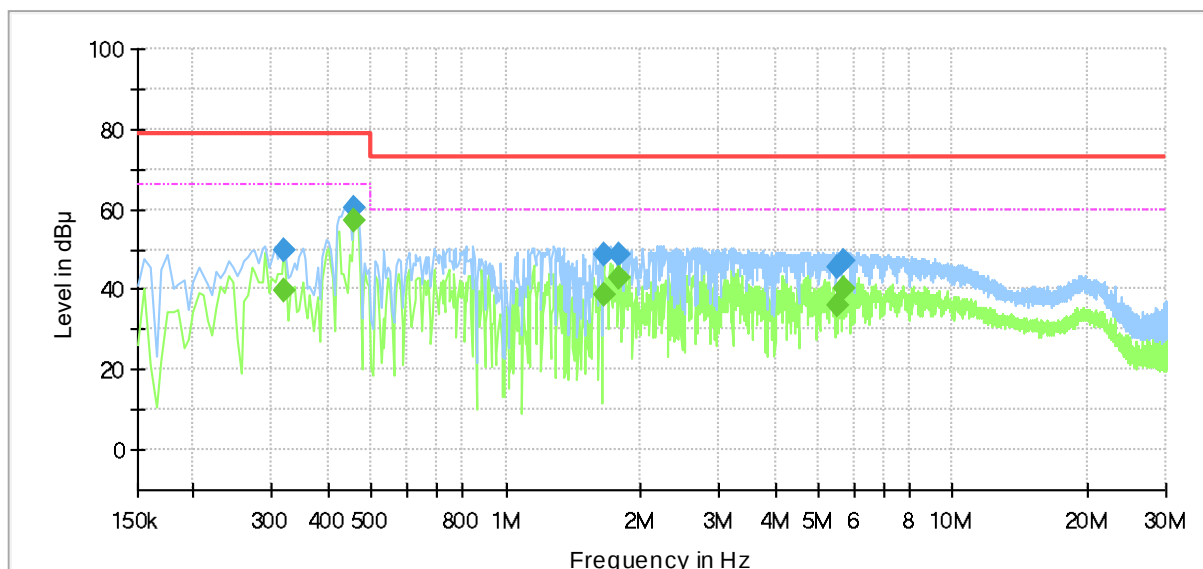
Report No. : KES-EM253470

Page 20 / 42

- Test Date : 2025-10-05
- Test Mode : Mode 2

Test Report

Test Description: Conducted Emission
Job No.: KES-EM253470
Phase: N
Mode: Mode 2
Operator Name: KES



Final_Result

Frequency (MHz)	QuasiPeak (dB μV)	CAverage (dB μV)	Limit (dB μV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.320000	—	39.70	66.00	26.30	1000.0	9.000	N	19.5
0.320000	49.82	—	79.00	29.18	1000.0	9.000	N	19.5
0.455000	—	57.29	66.00	8.71	1000.0	9.000	N	19.5
0.455000	60.30	—	79.00	18.70	1000.0	9.000	N	19.5
1.665000	—	38.44	60.00	21.56	1000.0	9.000	N	19.6
1.665000	48.52	—	73.00	24.48	1000.0	9.000	N	19.6
1.800000	—	42.95	60.00	17.05	1000.0	9.000	N	19.6
1.800000	48.50	—	73.00	24.50	1000.0	9.000	N	19.6
5.495000	—	36.12	60.00	23.88	1000.0	9.000	N	19.9
5.495000	45.42	—	73.00	27.58	1000.0	9.000	N	19.9
5.690000	—	40.43	60.00	19.57	1000.0	9.000	N	19.9
5.690000	46.88	—	73.00	26.12	1000.0	9.000	N	19.9

6.1.6 Remark

Complies with the test requirements.



6.2 Radiated Emissions(Below 1 GHz)

6.2.1 Test Equipment

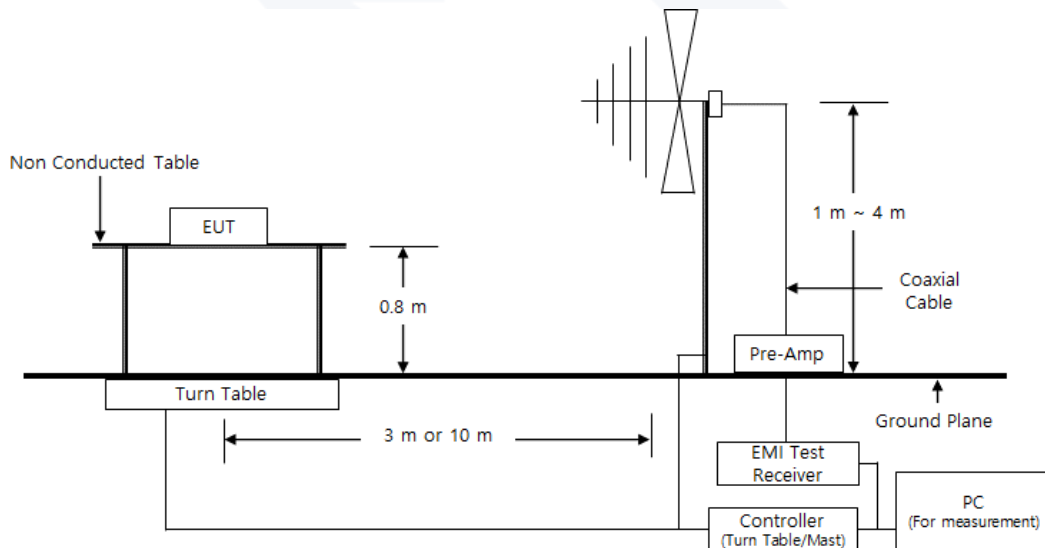
Equipment Name	Model Number	Manufacturer	Serial No.	Cal. Date	Next Cal. Date	Used
SEMI ANECHOIC CHAMBER #4(10 m)	-	DYMSTEC	-	-	-	■
EP5/RE Software	EP5/RE	TOYO	6.0.0	-	-	■
EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100551	2025-02-13	2026-02-13	■
AMPLIFIER	SCU 01	Rohde & Schwarz	100603	2024-11-06	2025-11-06	■
BILOG ANTENNA	VULB 9168	SCHWARZBEC K	9168-461	2024-05-09	2026-05-09	■
ATTENUATOR	6806.17.A	HUBER+SUHNER	-	2025-02-13	2026-02-13	■

6.2.2 Test Location : SEMI ANECHOIC CHAMBER #4(10 m) Measurement Distance : □ 3 m, ■ 10 m

6.2.3 Test Conditions :

Temperature	Relative Humidity
(23.0 ~ 23.2) °C	(57.0 ~ 57.1) % R.H.

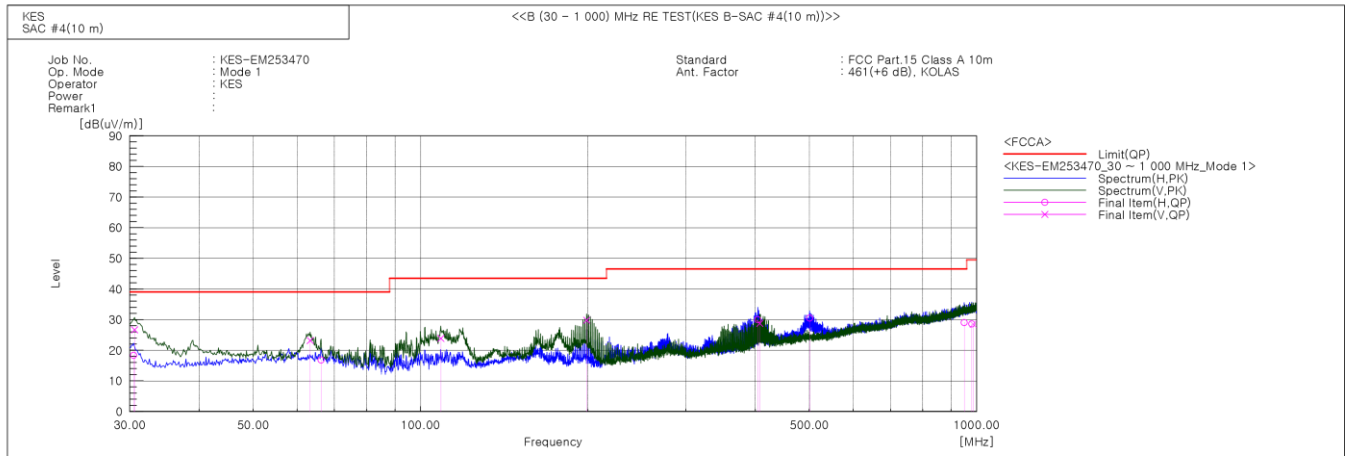
6.2.4 Diagram of test setup





6.2.5 Test Result

- Test Date : 2025-10-05
- Test Mode : Mode 1_FCC



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	30.485	H	41.1	-22.8	18.3	39.0	20.7	400.0	113.0	
2	30.606	V	49.4	-22.7	26.7	39.0	12.3	167.0	70.0	
3	63.344	V	44.9	-21.7	23.2	39.0	15.8	100.0	88.0	
4	66.254	H	38.9	-22.1	16.8	39.0	22.2	397.0	197.0	
5	108.813	V	47.6	-23.7	23.9	43.5	19.6	149.0	273.0	
6	199.023	V	51.8	-22.0	29.8	43.5	13.7	112.0	198.0	
7	404.178	H	43.5	-13.5	30.0	46.5	16.5	353.0	348.0	
8	407.330	V	42.2	-13.4	28.8	46.5	17.7	143.0	84.0	
9	500.571	H	40.7	-10.2	30.5	46.5	16.0	388.0	137.0	
10	949.803	H	29.6	-0.6	29.0	46.5	17.5	384.0	344.0	
11	980.358	H	28.7	-0.1	28.6	49.5	20.9	365.0	218.0	
12	985.571	V	28.5	0.0	28.5	49.5	21.0	159.0	179.0	

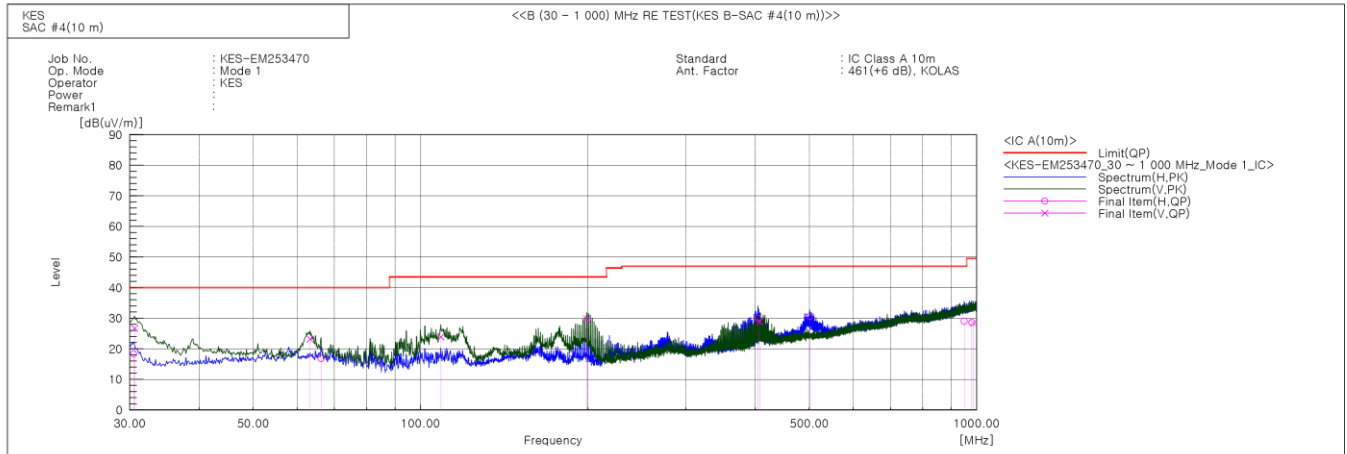
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM253470

Page 23 / 42

- Test Date : 2025-10-05
- Test Mode : Mode 1_IC



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	30.485	H	41.1	-22.8	18.3	40.0	21.7	400.0	113.0	
2	30.606	V	49.4	-22.7	26.7	40.0	13.3	167.0	70.0	
3	63.344	V	44.9	-21.7	23.2	40.0	16.8	100.0	88.0	
4	66.254	H	38.9	-22.1	16.8	40.0	23.2	397.0	197.0	
5	108.813	V	47.6	-23.7	23.9	43.5	19.6	149.0	273.0	
6	199.023	V	51.8	-22.0	29.8	43.5	13.7	112.0	198.0	
7	404.178	H	43.5	-13.5	30.0	47.0	17.0	353.0	348.0	
8	407.330	V	42.2	-13.4	28.8	47.0	18.2	143.0	84.0	
9	500.571	H	40.7	-10.2	30.5	47.0	16.5	388.0	137.0	
10	949.803	H	29.6	-0.6	29.0	47.0	18.0	384.0	344.0	
11	980.358	H	28.7	-0.1	28.6	49.5	20.9	365.0	218.0	
12	985.571	V	28.5	0.0	28.5	49.5	21.0	159.0	179.0	

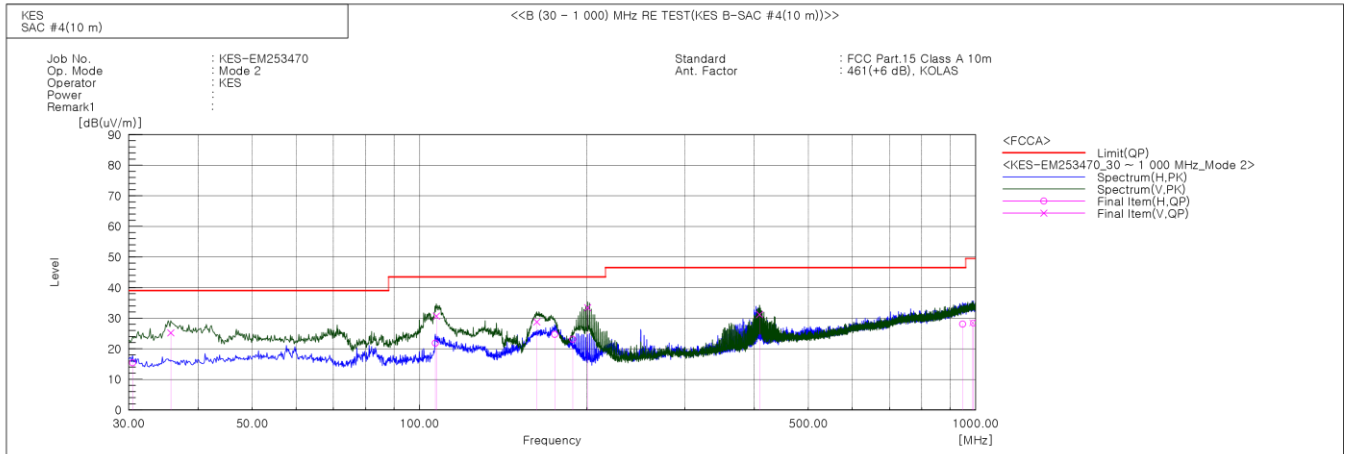
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM253470

Page 24 / 42

- Test Date : 2025-10-05
- Test Mode : Mode 2_FCC



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	30.485	H	38.2	-22.8	15.4	39.0	23.6	380.0	159.0	
2	35.699	V	47.5	-22.3	25.2	39.0	13.8	163.0	345.0	
3	106.751	H	45.7	-23.9	21.8	43.5	21.7	343.0	341.0	
4	107.236	V	54.6	-23.9	30.7	43.5	12.8	152.0	209.0	
5	162.526	V	48.4	-19.6	28.8	43.5	14.7	119.0	19.0	
6	175.015	H	45.2	-20.5	24.7	43.5	18.8	375.0	211.0	
7	188.474	H	44.7	-21.6	23.1	43.5	20.4	396.0	215.0	
8	200.599	V	55.4	-22.0	33.4	43.5	10.1	100.0	159.0	
9	408.785	V	44.5	-13.3	31.2	46.5	15.3	140.0	177.0	
10	947.135	H	28.7	-0.6	28.1	46.5	18.4	361.0	137.0	
11	986.905	V	28.5	0.0	28.5	49.5	21.0	118.0	80.0	
12	990.906	H	28.3	0.1	28.4	49.5	21.1	327.0	81.0	

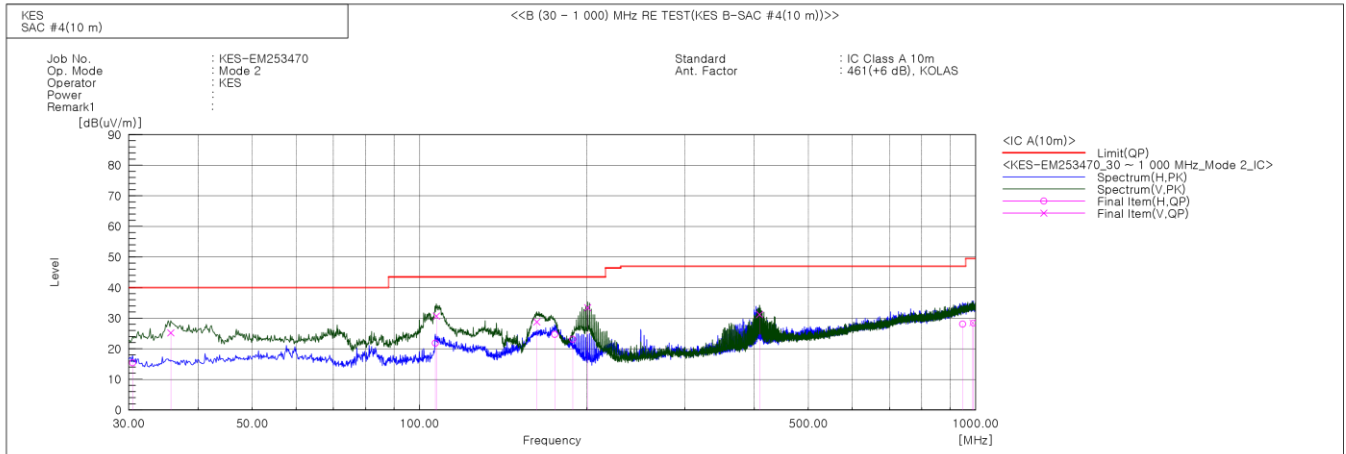
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM253470

Page 25 / 42

- Test Date : 2025-10-05
- Test Mode : Mode 2_IC



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	30.485	H	38.2	-22.8	15.4	40.0	24.6	380.0	159.0	
2	35.699	V	47.5	-22.3	25.2	40.0	14.8	163.0	345.0	
3	106.751	H	45.7	-23.9	21.8	43.5	21.7	343.0	341.0	
4	107.236	V	54.6	-23.9	30.7	43.5	12.8	152.0	209.0	
5	162.526	V	48.4	-19.6	28.8	43.5	14.7	119.0	19.0	
6	175.015	H	45.2	-20.5	24.7	43.5	18.8	375.0	211.0	
7	188.474	H	44.7	-21.6	23.1	43.5	20.4	396.0	215.0	
8	200.599	V	55.4	-22.0	33.4	43.5	10.1	100.0	159.0	
9	408.785	V	44.5	-13.3	31.2	47.0	15.8	140.0	177.0	
10	947.135	H	28.7	-0.6	28.1	47.0	18.9	361.0	137.0	
11	986.905	V	28.5	0.0	28.5	49.5	21.0	118.0	80.0	
12	990.906	H	28.3	0.1	28.4	49.5	21.1	327.0	81.0	

※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.

6.2.6 Remark

Complies with the test requirements.



6.3 Radiated Emissions(Above 1 GHz)

6.3.1 Test Equipment

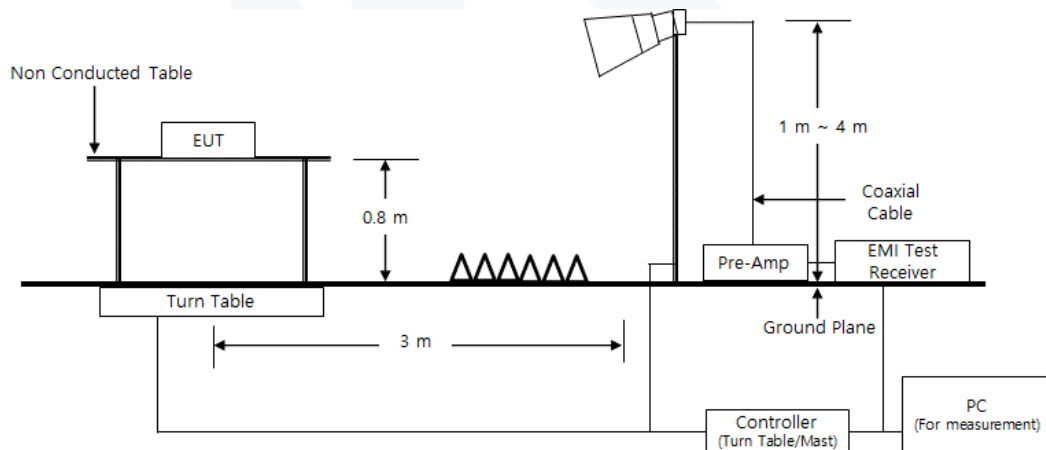
Equipment Name	Model Number	Manufacturer	Serial No.	Cal. Date	Next Cal. Date	Used
SEMI ANECHOIC CHAMBER #5	-	SY Corporation	-	-	-	■
ES10/RE Software	ES10/RE	TOYO	2022.01.000	-	-	■
EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100552	2025-02-13	2026-02-13	■
PREAMPLIFIER	8449B	HP	3008A00538	2025-04-30	2026-04-30	■
ATTENUATOR	8491B	HP	23094	2025-02-13	2026-02-13	■
HORN ANTENNA	BBHA 9120D	SCHWARZBEC K	9120D-1802	2024-11-04	2025-11-04	■

6.3.2 Test Location : SEMI ANECHOIC CHAMBER #5

6.3.3 Test Conditions :

Temperature	Relative Humidity
(23.4 ~ 23.6) °C	(56.2 ~ 56.3) % R.H.

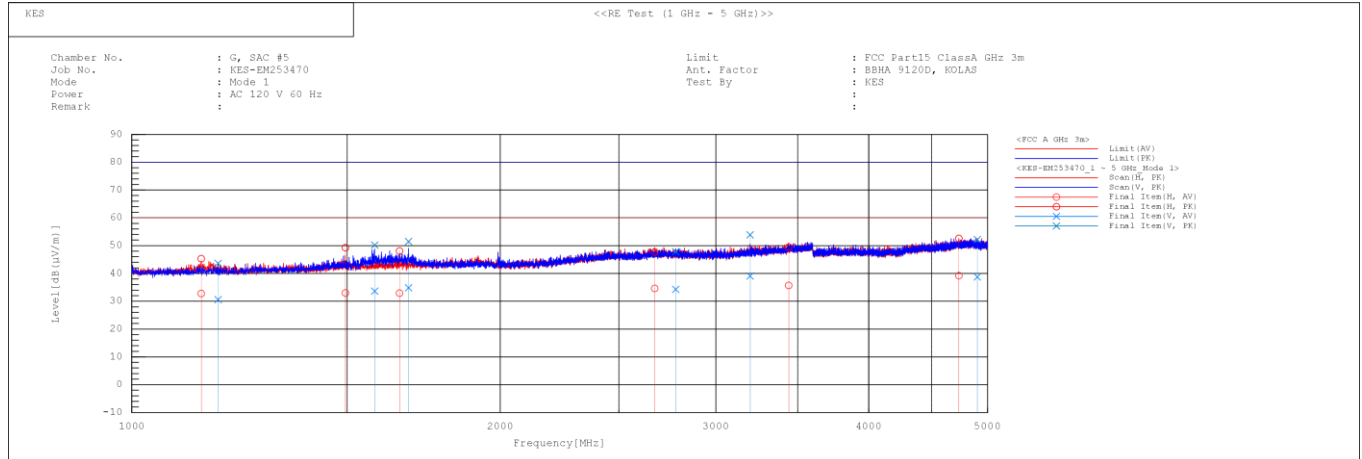
6.3.4 Diagram of test setup





6.3.5 Test Result

- Test Date : 2025-10-06
- Test Mode : Mode 1



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]
1	1139.600	H	33.6	46.1	-0.8	32.8	45.3	60.0	80.0	27.2	34.7	276.9	200.4
2	1176.400	V	31.2	44.2	-0.6	30.6	43.6	60.0	80.0	29.4	36.4	140.1	137.5
3	1494.659	H	31.9	48.2	1.1	33.0	49.3	60.0	80.0	27.0	30.7	322.7	140.9
4	1579.225	V	32.2	48.8	1.4	33.6	50.2	60.0	80.0	26.4	29.8	109.4	243.5
5	1654.938	H	31.2	46.4	1.7	32.9	48.1	60.0	80.0	27.1	31.9	383.5	145.2
6	1683.196	V	32.9	49.6	1.9	34.8	51.5	60.0	80.0	25.2	28.5	130.3	257.1
7	2674.264	H	28.9	42.0	5.7	34.6	47.7	60.0	80.0	25.4	32.3	361.5	111.4
8	2781.719	V	28.2	41.7	6.1	34.3	47.8	60.0	80.0	25.7	32.2	150.2	173.2
9	3199.237	V	32.2	47.0	6.9	39.1	53.9	60.0	80.0	20.9	26.1	135.7	217.9
10	3440.920	H	28.3	42.1	7.4	35.7	49.5	60.0	80.0	24.3	30.5	273.1	359.0
11	4739.734	H	27.8	41.2	11.4	39.2	52.6	60.0	80.0	20.8	27.4	303.8	196.1
12	4905.782	V	26.6	40.1	12.1	38.7	52.2	60.0	80.0	21.3	27.8	132.4	322.6

- ※ The data is the result of measured by the detector in PK and CISPR Average on the Peak graph.
- ※ The Average of the test data is the cispr average result.



Report No. : KES-EM253470

Page 28 / 42

○ Test Date : 2025-10-06

● Test Mode : Mode 1

(5 ~ 8) GHz

PK

Frequency (MHz)	Reading PK (dBuV)	Polarization	Height (m)	ANT Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
5 686.300	40.500	H	1.000	32.580	9.200	33.800	48.480	80.000	31.520
6 934.400	40.600	V	1.000	35.990	9.810	34.680	51.720	80.000	28.280

Cispr-AV

Frequency (MHz)	Reading CISPR AV (dBuV)	Polarization	Height (m)	ANT Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
5 686.300	26.500	H	1.000	32.580	9.200	33.800	34.480	60.000	25.520
6 934.400	27.200	V	1.000	35.990	9.810	34.680	38.320	60.000	21.680

※ No spurious emission were detected above 8 GHz

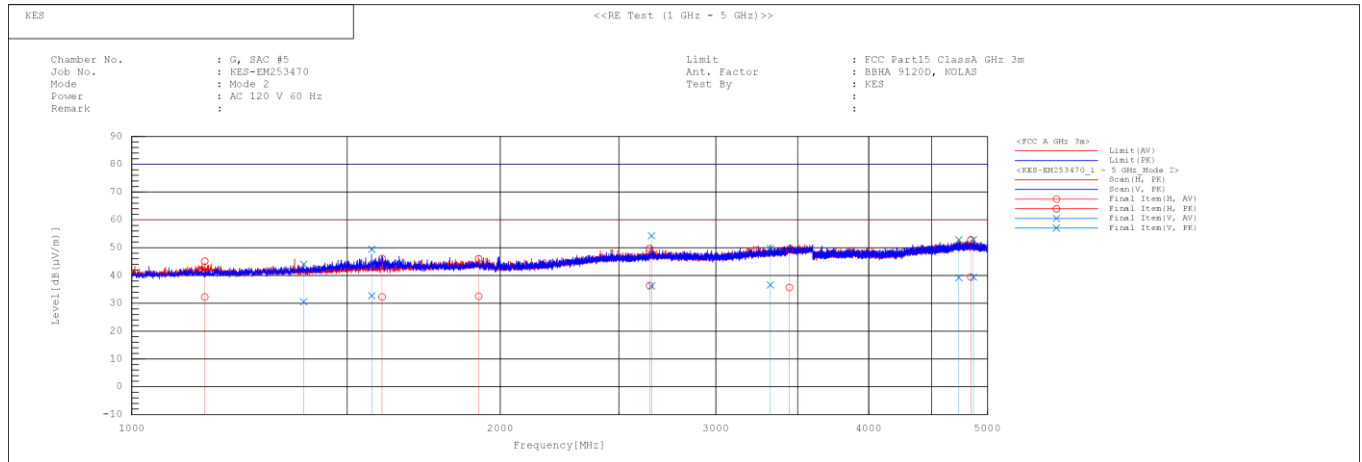


Report No. : KES-EM253470

Page 29 / 42

○ Test Date : 2025-10-06

● Test Mode : Mode 2



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]
1	1147.291	H	33.1	46.0	-0.8	32.3	45.2	60.0	80.0	27.7	34.8	380.3	219.5
2	1382.099	V	29.9	43.4	0.6	30.5	44.0	60.0	80.0	29.5	36.0	111.5	354.3
3	1570.859	V	31.3	48.0	1.4	32.7	49.4	60.0	80.0	27.3	30.6	122.6	235.9
4	1601.172	H	30.8	44.6	1.5	32.3	46.1	60.0	80.0	27.7	33.9	312.0	8.5
5	1919.976	H	29.8	43.3	2.7	32.5	46.0	60.0	80.0	27.5	34.0	333.9	359.2
6	2648.900	H	30.8	44.1	5.6	36.4	49.7	60.0	80.0	23.6	30.3	388.4	224.4
7	2658.724	V	30.6	48.7	5.6	36.2	54.3	60.0	80.0	23.8	25.7	145.5	278.3
8	3323.560	V	29.4	42.4	7.2	36.6	49.6	60.0	80.0	23.4	30.4	164.3	319.4
9	3443.854	H	28.3	41.9	7.4	35.7	49.3	60.0	80.0	24.3	30.7	321.2	86.3
10	4738.404	V	27.8	41.4	11.4	39.2	52.8	60.0	80.0	20.8	27.2	142.0	188.2
11	4846.478	H	27.5	40.9	11.9	39.4	52.8	60.0	80.0	20.6	27.2	330.6	359.2
12	4869.739	V	27.4	40.9	12.0	39.4	52.9	60.0	80.0	20.6	27.1	123.1	52.7

✘ The data is the result of measured by the detector in PK and CISPR Average on the Peak graph.

✘ The Average of the test data is the cispr average result.



Report No. : KES-EM253470

Page 30 / 42

○ Test Date : 2025-10-06

● Test Mode : Mode 2

(5 ~ 8) GHz

PK

Frequency (MHz)	Reading PK (dBuV)	Polarization	Height (m)	ANT Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
6 796.600	40.100	H	1.000	35.320	10.260	34.740	50.940	80.000	29.060
6 939.600	41.000	V	1.000	36.010	9.810	34.680	52.140	80.000	27.860

Cispr-AV

Frequency (MHz)	Reading CISPR AV (dBuV)	Polarization	Height (m)	ANT Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
6 796.600	27.300	H	1.000	35.320	10.260	34.740	38.140	60.000	21.860
6 939.600	27.200	V	1.000	36.010	9.810	34.680	38.340	60.000	21.660

※ No spurious emission were detected above 8 GHz

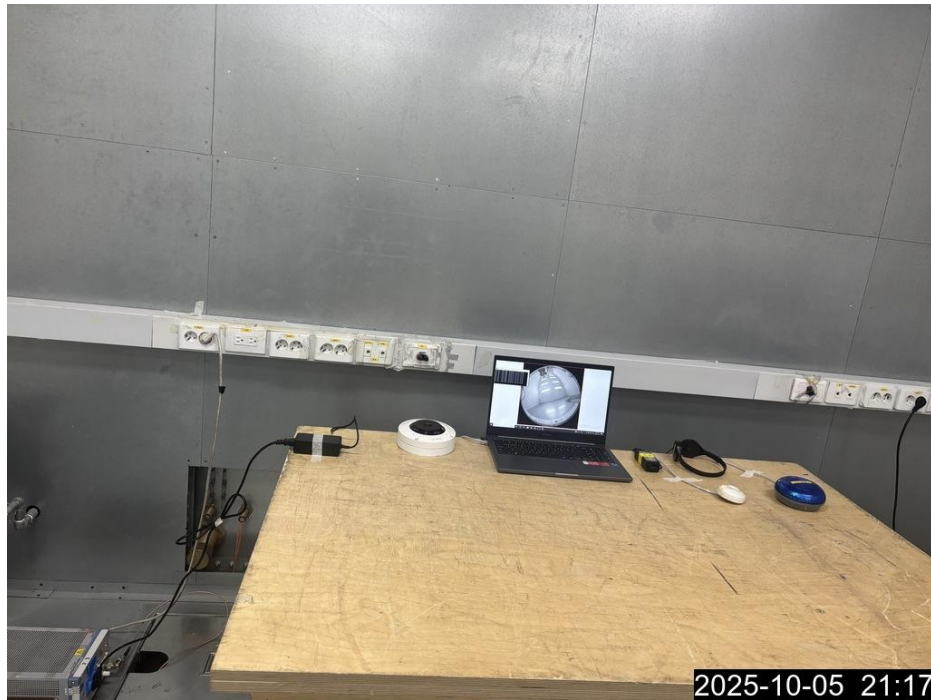
6.3.6 Remark

Complies with the test requirements.



7 Test Setup Photos and EUT Photographs

7.1 Test Setup Photos



<Conducted Emissions at Mains Power Ports - Front> Mode 1



<Conducted Emissions at Mains Power Ports - Rear> Mode 1



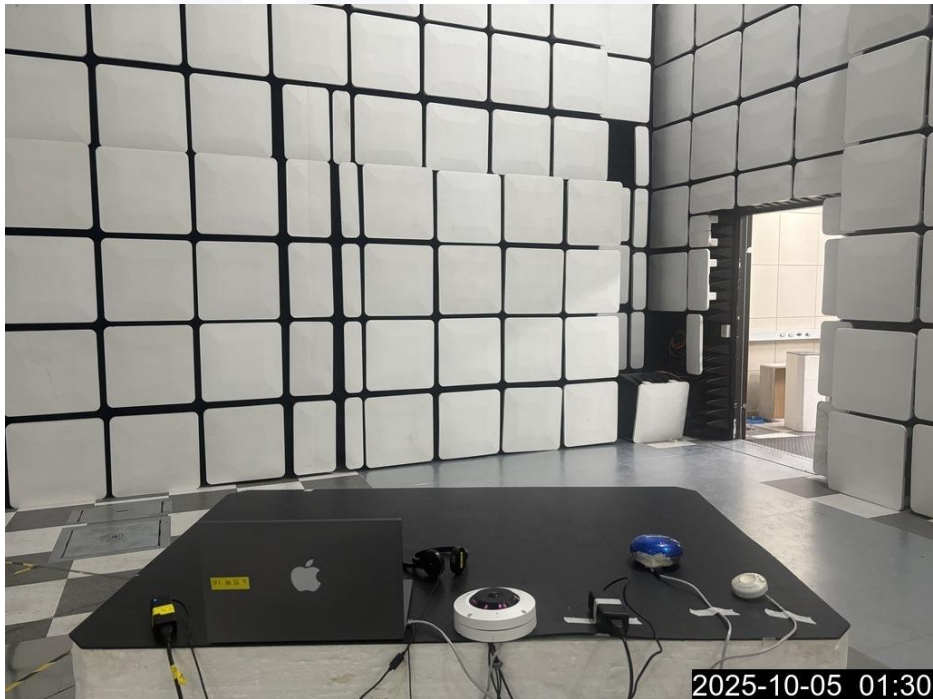
<Conducted Emissions at Mains Power Ports - Front> Mode 2



<Conducted Emissions at Mains Power Ports - Rear> Mode 2



<Radiated Emissions(Below 1 GHz) - Front> Mode 1



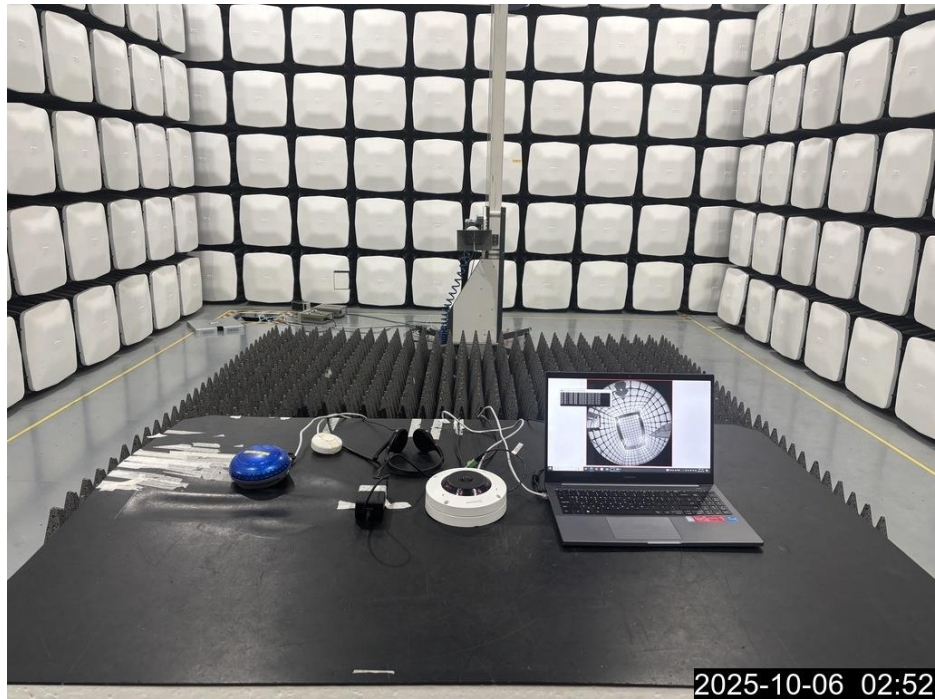
<Radiated Emissions(Below 1 GHz) - Rear> Mode 1



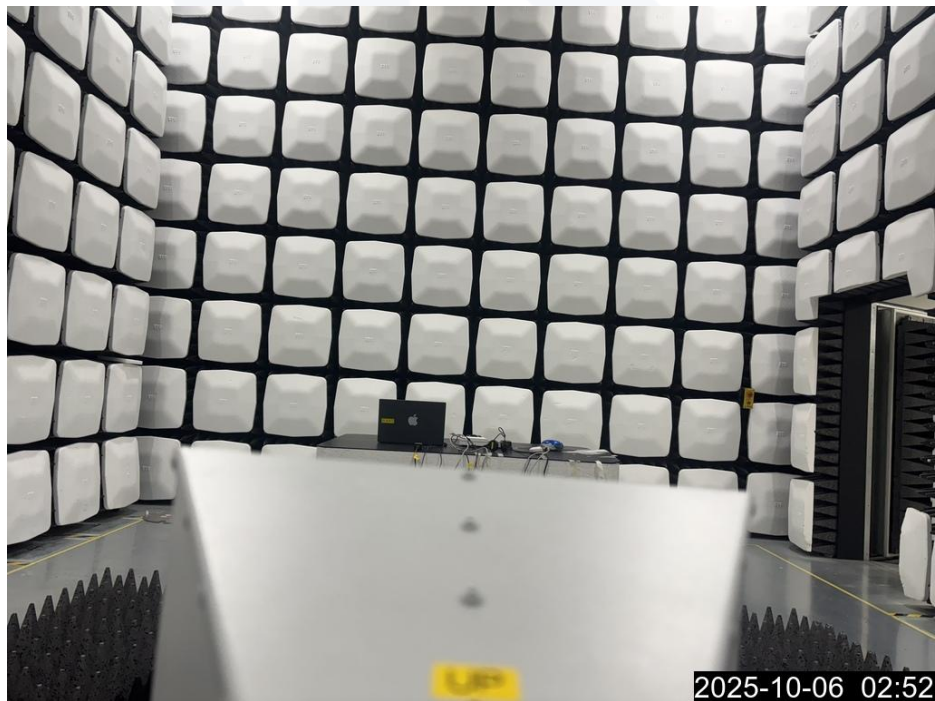
<Radiated Emissions(Below 1 GHz) - Front> Mode 2



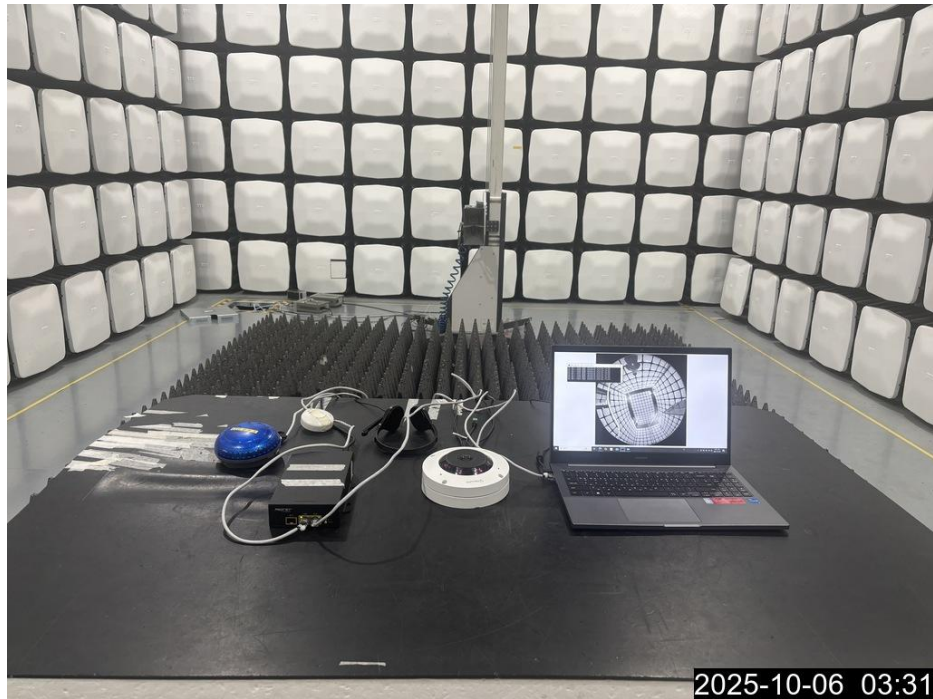
<Radiated Emissions(Below 1 GHz) - Rear> Mode 2



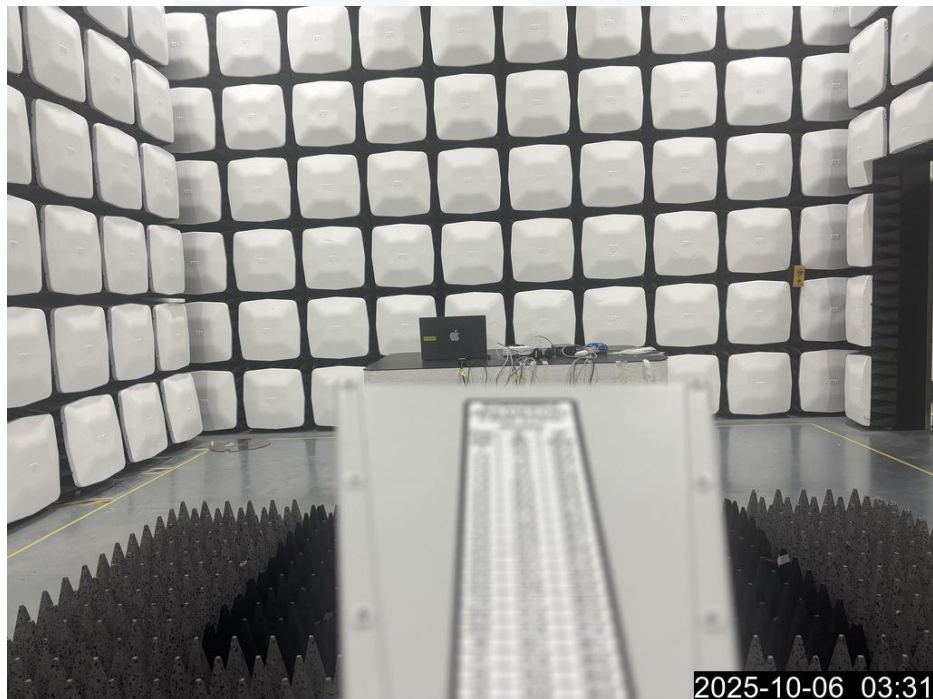
<Radiated Emissions(Above 1 GHz) - Front> Mode 1



<Radiated Emissions(Above 1 GHz) - Rear> Mode 1



<Radiated Emissions(Above 1 GHz) - Front> Mode 2



<Radiated Emissions(Above 1 GHz) - Rear> Mode 2



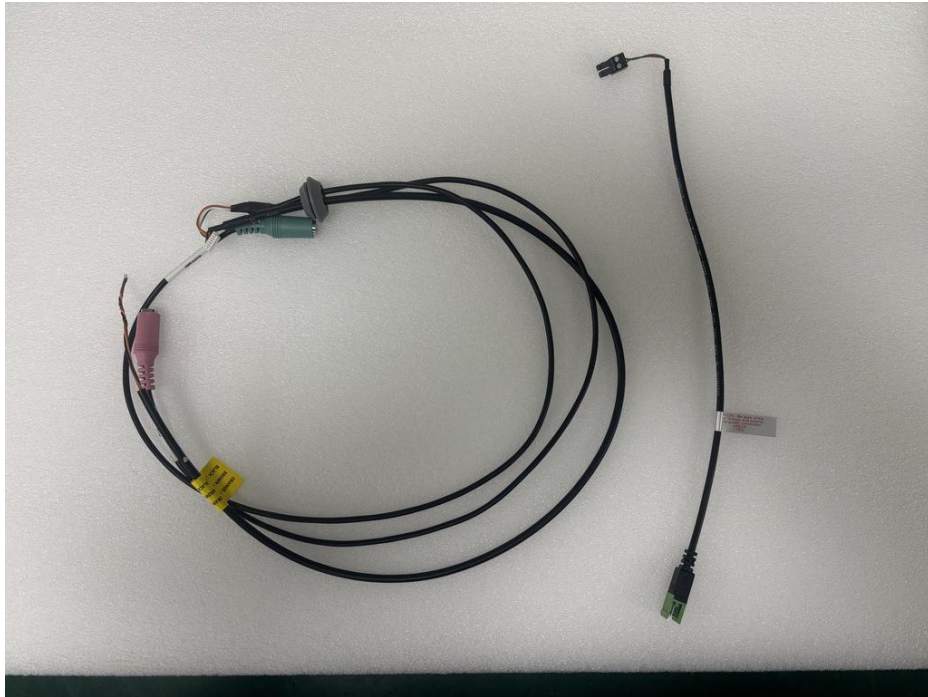
7.2 EUT Photographs



<EUT External Photographs - Top>



<EUT External Photographs - Bottom>



<Components>



<Port-1>



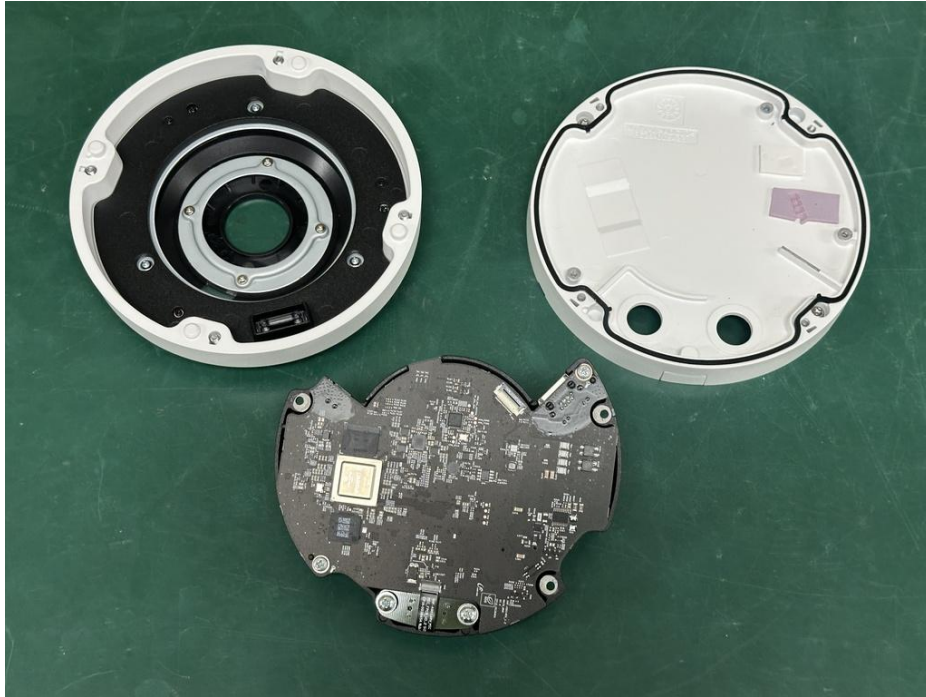
<Port-2>



<Port-3>



<Port-4>



<EUT Internal Photographs>



7.3 Label

	Name : Hanwha Vision Co., Ltd. Product item : NETWORK CAMERA Model name : XNF-A9014R
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.	
The above label is only an example. The specific format is left to the manufacturer to decide, as long as the label includes the required information, in accordance with ICES-Gen. The requirements specified in ICES-Gen shall apply. An example ISED compliance label, to be placed on each unit of an equipment model (or in the user manual, if allowed), is given below:	
CAN ICES-003(A) / NMB-003(A)	

The End.