



TEST REPORT



Report No. : KES-EM262103

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KES Co., Ltd.

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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 : TNO-A45090R
- Variant model : -
- 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 : 2026. 06. 16. ~ 2026. 06. 17.

4. Location of Test : Permanent Testing Lab

- Address : 473-21, Gayeo-ro, Yeosu-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.

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This laboratory is not accredited for the test results marked *.

This test report is not related to KOLAS accreditation.

Affirmation	Tested by	Technical Manager by
	Name : SeongMin Jang [장성민]2026/07/06	Name : DongHun Jang [장동훈]2026/07/06

2026. 07. 06.

KES Co., Ltd.

**REPORT REVISION HISTORY**

Date	Test Report No.	Revision History
2026. 07. 06.	KES-EM262103	Issued

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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)



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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, Republic of Korea. 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, PoE(AC 120 V, 60 Hz)

2.2 Summary of Test Results

Regulation			
47 CFR Part 15, Subpart B			
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	-
* N/A: Not Applicable			

2.3 Remarks when standards applied

- When the SFP port was connected during the Mode 1 test, the RJ-45 (Data) port did not operate, so the port was excluded during the test.

2.4 Variant Model Differences

N/A

2.5 Device Modifications

N/A



3 General Product Description

Division		Specificity
Internal maximum operating frequency		1 400 MHz
Video		
Analytics		
Classified Object Type		Person, Face, Vehicle, License plate
Attributes	Person	Gender, Clothing top/bottom color, Bag
	Vehicle	Type(car/bus/truck/motorcycle/bicycle), Color
	Face	Age, Gender, Mask, Glasses
Similarity Search		IP-based access control, MAC-based access control, Auto logout
Thumbnail		BestShot
Analysis Events	Based on AI Engine	Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/ Enter/Exit(Appear/Disappear)
	Normal	Defocus detection, Tampering, Shock detection, Virtual area(Appear/Disappear)
Business Intelligence		People/Vehicle/Crowd counting, Queue management, Heatmap
Network		
Ethernet		Metal shielded RJ-45(10/100/1000 BASE-T), SFP slot(100/1000Mbps)
Video Compression		H.265/H.264: Main/High, MJPEG
Audio Compression		G.711(PCM): 8KHz(64kbps)
		G.726(ADPCM): 8KHz(16/24/32/40kbps)
		AAC-LC: 16KHz(8kbps)
		OPUS: 16KHz(64kbps)
Smart Codec		Manual(See area), WiseStream(Based on AI engine)
Bitrate Control		H.264/H.265: CBR or VBR
Streaming	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 3 profiles
Protocol		IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTSP(TCP), RTSP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP/SFTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, SRTP(TCP, UDP Unicast), CoP, MQTT, Syslog
Application Programming Interface		S, G, T, M
Others		SUNAPI(HTTP API), Hanwha Vision Open Platform
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), 802.1AE(MACsec)
Secure Communication		HTTPS, SRTP, WSS(Websocket secure)
Access Control		IP-based access control, MAC-based access control, Auto logout
Data Protect		Authentication information encryption, ZIP compression encryption
Audit		User Access/System/Event log management
Device ID		Device Certificate/Hanwha vision Root CA
Secure Storage		Secure element, SDcard partition encrypt
Security Certificate		ETSI EN 300 645, Secure element(RP0 140-3 level3, CC EAL5+)
General		
Edge Storage		Micro SD/SDHC/SDXC
Memory	RAM	8GB
	FLASH	16GB
Environmental & Electrical		
Operating Condition	Temperature	-40°C~+55°C(-40°F~+131°F)
	Humidity	0~100%RH(Condensing)
	Others	Humidity control with AIR vent
Storage Condition	Temperature	-50°C~+50°C(-58°F~+140°F)
	Humidity	0~95% RH (non-condensing)
Input Voltage		PoE+ (IEEE802.3at, Class4) PoE++(IEEE802.3bt, Class6) 12VDC
Power Consumption	PoE++	Max. 39.6W, typical 18.0W
	12VDC	Max. 37.3W, typical 18.4W
WisePower		Support
Mechanical		
Color		White/Black
Material		Aluminum/Plastic
RAL Code		RAL9008
Product Dimensions		120mm * 120mm * 350mm
Product Weight		4.06Kg



4 EUT Setup and Operation Mode

4.1 EUT Configuration

Product Name	Model Number	Serial Number	Manufacturer	Remarks
NETWORK CAMERA	TNO-A45090R	-	HANWHA VISION VIETNAM COMPANY LIMITED	EUT
AC/DC Adapter	2ACB022F	-	Channel Well Technology (Guangzhou) Co., Ltd.	MSIP-REM-CWt- 2ACB022F
Fiber PoE Injector	PT-PSE109GBRO- AH-S	-	Dongguan PROCET Network Technology Co.,Ltd	R-R-LJ9- PSE109GBRO-A02
Laptop	P95G001	9JM8HT2	DELL INC.	-
Laptop Adapter	HA65NM130	-	Chicony Power Technology(Suzhou) Co.,Ltd.	-
Micro SD Card #1	-	-	SanDisk	-
Micro SD Card #2	-	-	SanDisk	-
SFP Module #1	-	-	Finisar	-
SFP Module #2	-	-	Finisar	-
Headset	-	-	Britz	-
Phone	LMQ510N	-	LG	-
Button Alarm	-	-	-	-
LED Alarm	-	-	-	-

4.2 System Configuration

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



4.3 External I/O Cabling

Mode 1

Stard		END		Cable Spec	
Description	I/O Port	Description	Description	I/O Port	Description
EUT	DC 12 V	AC/DC Adapter	DC Jack	0.8	U
	RJ-45(Data)	Laptop	RJ-45	5.0	U
	Micro SD Card Slot	Micro SD Card #1	Micro SD Card Slot	-	-
	Micro SD Card Slot	Micro SD Card #2	Micro SD Card Slot	-	-
	AUDIO/ALARM	Headset	3.5 mm	1.8	U
			3.5 mm	1.8	U
		Button Alarm	Line	3.2	U
		LED Alarm	Line	3.3	U
Laptop	DC Jack	Laptop Adapter	DC Jack	1.6	S
	3.5 mm	Phone	3.5 mm	0.8	U

Mode 2

Stard		END		Cable Spec	
Description	I/O Port	Description	Description	I/O Port	Description
EUT	RJ-45(PoE)	Fiber PoE Injector	RJ-45	5.0	U
	Micro SD Card Slot	Micro SD Card #1	Micro SD Card Slot	-	-
	Micro SD Card Slot	Micro SD Card #2	Micro SD Card Slot	-	-
	SFP	SFP Module #1	SFP	-	-
	AUDIO/ALARM	Headset	3.5 mm	1.8	U
			3.5 mm	1.8	U
		Button Alarm	Line	3.2	U
		LED Alarm	Line	3.3	U
SFP Module #1	SFP	SFP Module #2	SFP	0.3	U
SFP Module #2	SFP	Fiber PoE Injector	SFP	-	-
Fiber PoE Injector	RJ-45(Data)	Laptop	RJ-45	5.0	U
Laptop	DC Jack	Laptop Adapter	DC Jack	1.6	S
	3.5 mm	Phone	3.5 mm	0.8	U

* Unshielded=U, Shielded=S

**4.4 EUT Operating Mode(s)**

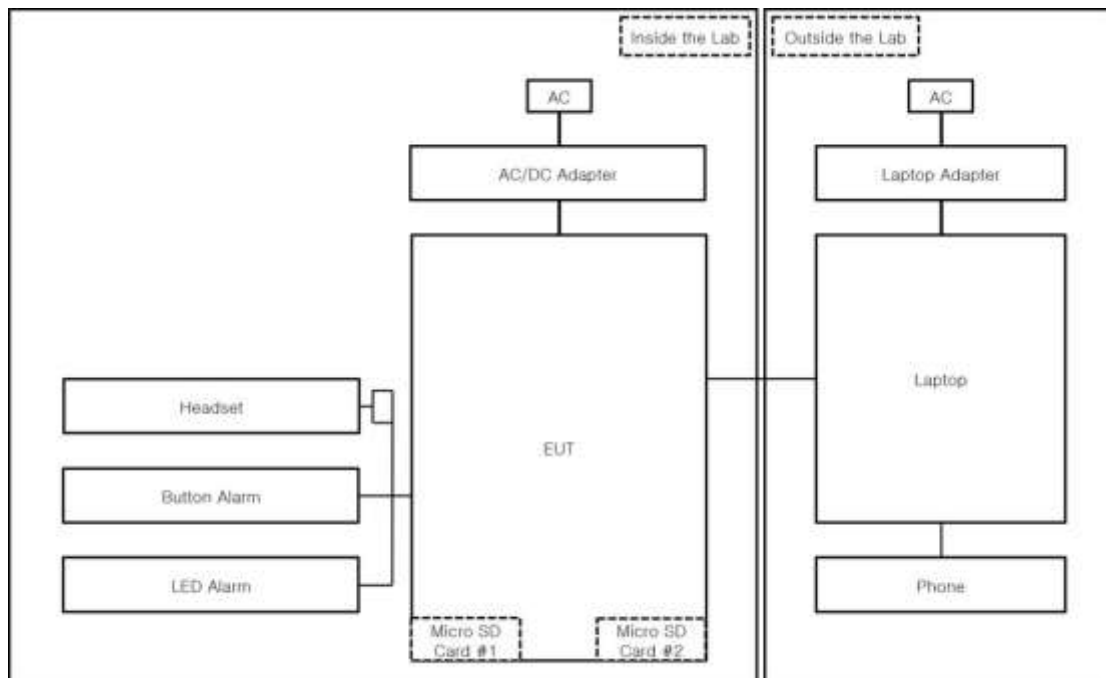
Category	Mode	Operating
Mode 1	AC/DC Adapter	- Monitoring EUT Using Web Viewer, Ping Test - After testing, checked the recorded video stored on the micro SD card. - The operation status of the SFP was checked through the LED of the Fiber PoE Injector.
Mode 2	Fiber PoE Injector	

4.5 Test operating S/W

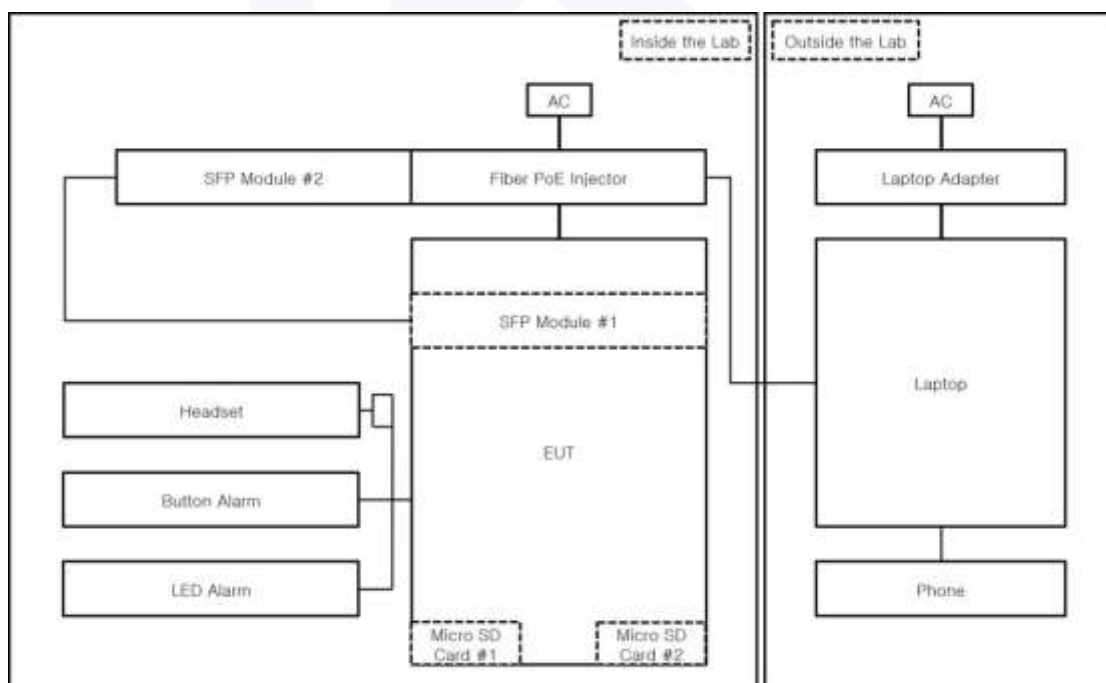
Name	Version	Manufacture Company
Web Page	-	HANWHA VISION VIETNAM COMPANY LIMITED



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)

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

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

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)

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

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

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

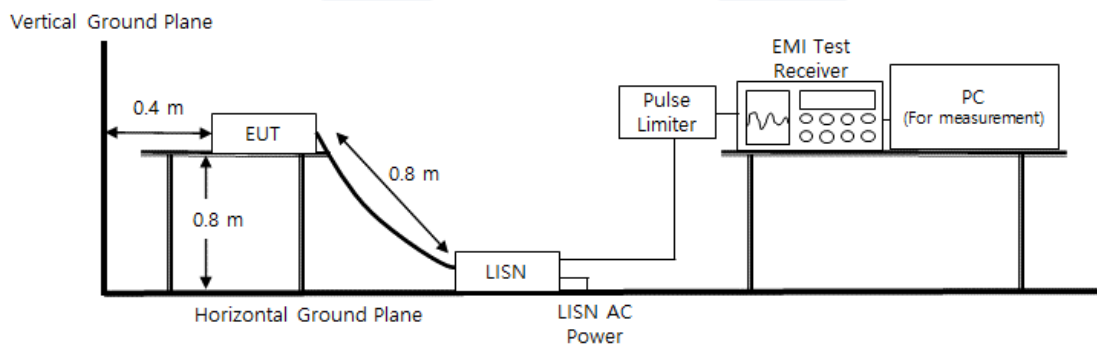
Equipment Name	Model Number	Manufacturer	Serial No.	Cal. Date	Next Cal. Date	Used
SHIELD ROOM #6	-	DYMSTEC	-	-	-	■
EMC32 Measurement Software	EMC32	R&S	9.12.00	-	-	■
EMI TEST RECEIVER	ESR3	Rohde & Schwarz	101783	2025-11-03	2026-11-03	■
LISN	ENV216	Rohde & Schwarz	101787	2025-09-04	2026-09-04	■
ARTIFICIAL MAINS NETWORK	ESH2-Z5	Rohde & Schwarz	100450	2025-11-03	2026-11-03	■
PULSE LIMITER	ESH3-Z2	Rohde & Schwarz	101915	2025-11-03	2026-11-03	■

6.1.2 Test Location : SHIELD ROOM #6

6.1.3 Test Conditions :

Temperature	Relative Humidity
(24.0 ~ 24.3) °C	(50.7 ~ 50.8) % R.H.

6.1.4 Diagram of test setup





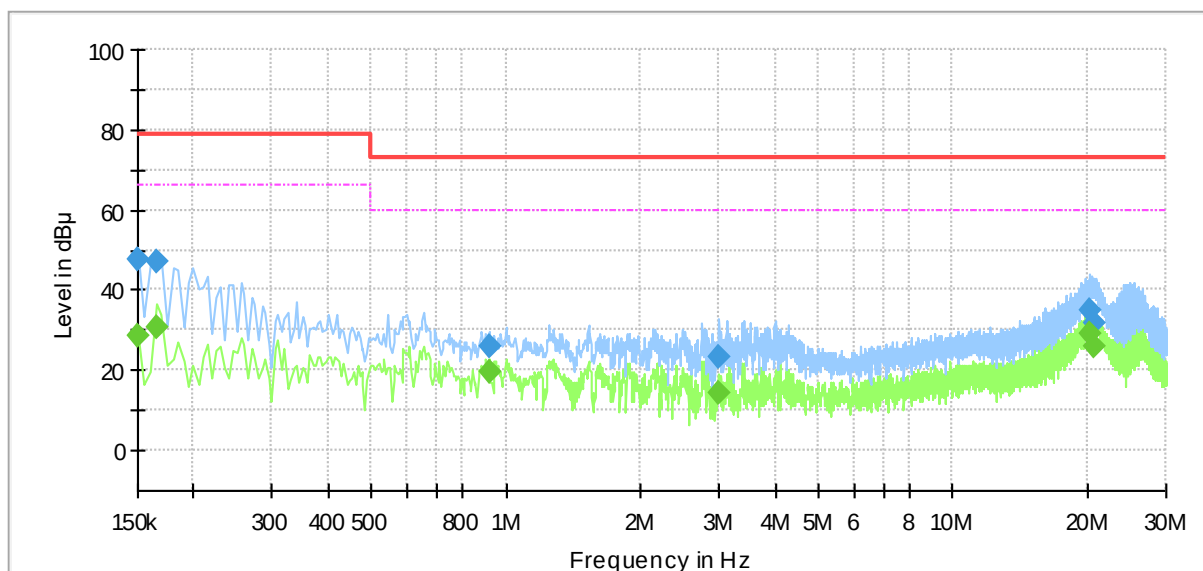
6.1.5 Test Result

- Test Date : 2026-06-16
- Test Mode : Mode 1

Test Report

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Test Description: Conducted Emission
Job No.: KES-EM262103
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)
0.150000	—	28.40	66.00	37.60	1000.0	9.000	L1	19.4
0.150000	47.82	—	79.00	31.18	1000.0	9.000	L1	19.4
0.165000	—	30.63	66.00	35.37	1000.0	9.000	L1	19.4
0.165000	47.24	—	79.00	31.76	1000.0	9.000	L1	19.4
0.915000	—	19.85	60.00	40.15	1000.0	9.000	L1	19.5
0.915000	25.90	—	73.00	47.10	1000.0	9.000	L1	19.5
3.005000	—	14.12	60.00	45.88	1000.0	9.000	L1	19.6
3.005000	23.57	—	73.00	49.43	1000.0	9.000	L1	19.6
20.165000	—	29.19	60.00	30.81	1000.0	9.000	L1	20.2
20.165000	34.86	—	73.00	38.14	1000.0	9.000	L1	20.2
20.645000	—	25.70	60.00	34.30	1000.0	9.000	L1	20.3
20.645000	31.68	—	73.00	41.32	1000.0	9.000	L1	20.3



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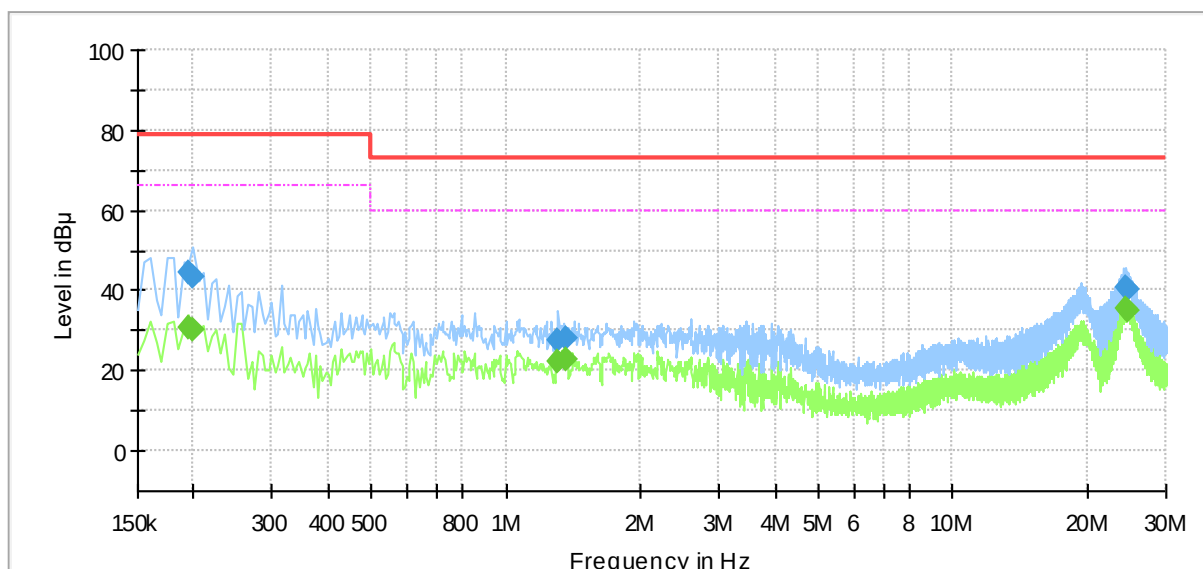
○ Test Date : 2026-06-16

● Test Mode : Mode 1

Test Report

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Test Description: Conducted Emission
Job No.: KES-EM262103
Phase: N
Mode: Mode 1
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)
0.195000	—	30.79	66.00	35.21	1000.0	9.000	N	19.4
0.195000	44.37	—	79.00	34.63	1000.0	9.000	N	19.4
0.200000	—	29.93	66.00	36.07	1000.0	9.000	N	19.4
0.200000	43.27	—	79.00	35.73	1000.0	9.000	N	19.4
1.310000	—	22.26	60.00	37.74	1000.0	9.000	N	19.5
1.310000	27.73	—	73.00	45.27	1000.0	9.000	N	19.5
1.365000	—	22.59	60.00	37.41	1000.0	9.000	N	19.5
1.365000	28.12	—	73.00	44.88	1000.0	9.000	N	19.5
24.375000	—	35.44	60.00	24.56	1000.0	9.000	N	20.5
24.375000	40.94	—	73.00	32.06	1000.0	9.000	N	20.5
24.740000	—	34.77	60.00	25.23	1000.0	9.000	N	20.5
24.740000	40.02	—	73.00	32.98	1000.0	9.000	N	20.5



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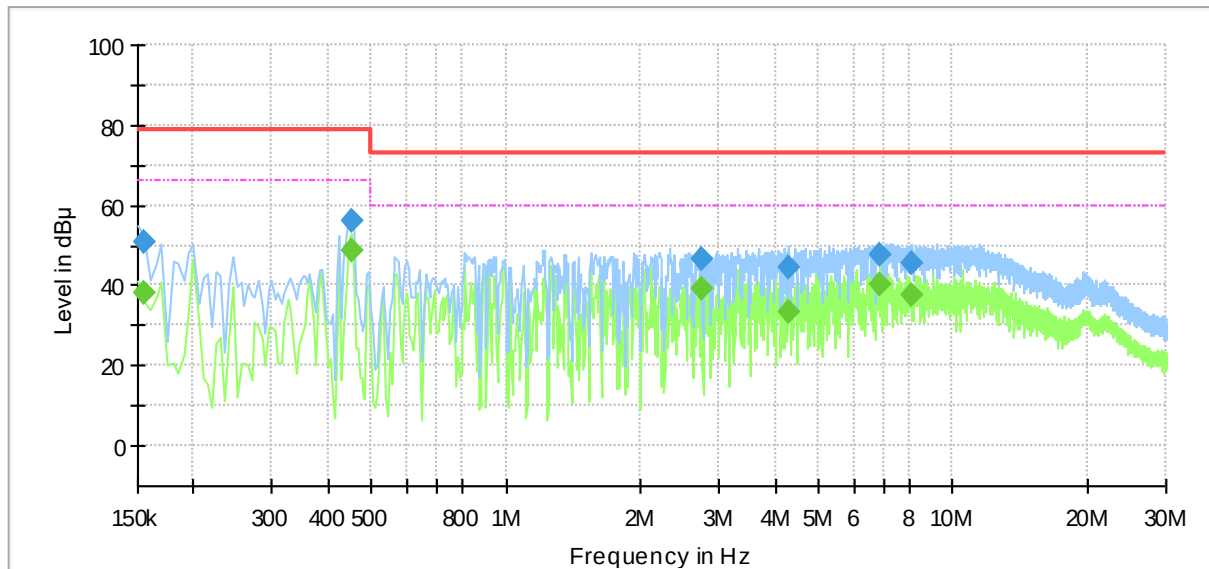
○ Test Date : 2026-06-16

● Test Mode : Mode 2

Test Report

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Test Description: Conducted Emission
Job No.: KES-EM262103
Phase: L
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)
0.155000	50.57	—	79.00	28.43	1000.0	9.000	L1	19.4
0.155000	—	38.13	66.00	27.87	1000.0	9.000	L1	19.4
0.450000	—	48.71	66.00	17.29	1000.0	9.000	L1	19.5
0.450000	56.10	—	79.00	22.90	1000.0	9.000	L1	19.5
2.735000	—	39.06	60.00	20.94	1000.0	9.000	L1	19.6
2.735000	46.78	—	73.00	26.22	1000.0	9.000	L1	19.6
4.305000	—	33.35	60.00	26.65	1000.0	9.000	L1	19.7
4.305000	44.57	—	73.00	28.43	1000.0	9.000	L1	19.7
6.845000	—	40.13	60.00	19.87	1000.0	9.000	L1	19.9
6.845000	47.41	—	73.00	25.59	1000.0	9.000	L1	19.9
8.130000	—	37.53	60.00	22.47	1000.0	9.000	L1	19.9
8.130000	45.43	—	73.00	27.57	1000.0	9.000	L1	19.9



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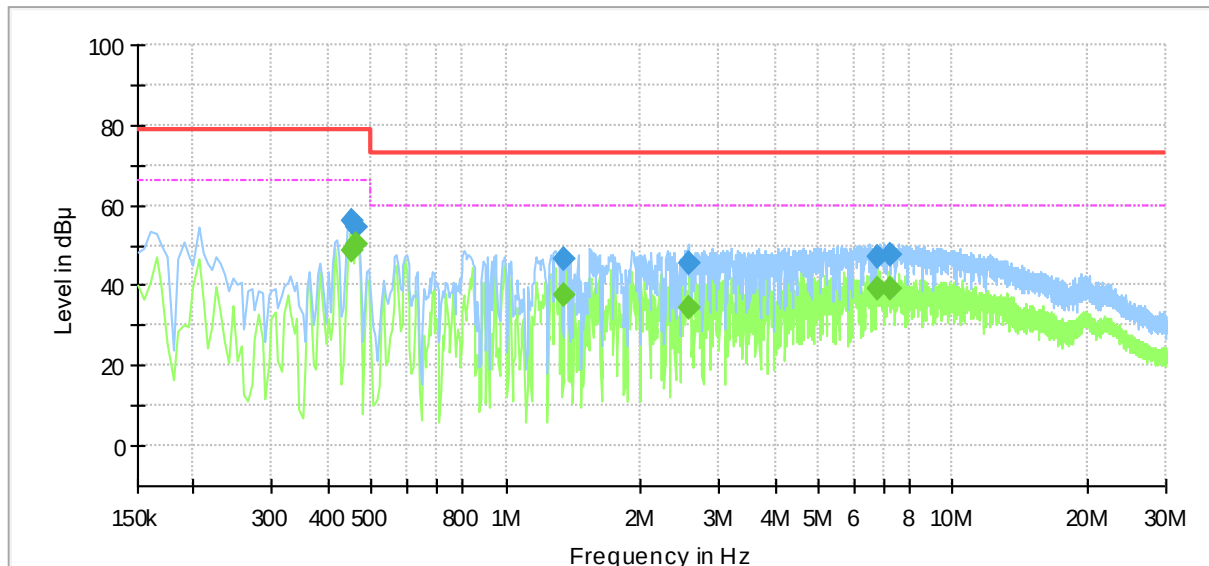
○ Test Date : 2026-06-16

● Test Mode : Mode 2

Test Report

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Test Description: Conducted Emission
Job No.: KES-EM262103
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)
0.450000	—	48.70	66.00	17.30	1000.0	9.000	N	19.5
0.450000	56.14	—	79.00	22.86	1000.0	9.000	N	19.5
0.460000	—	50.19	66.00	15.81	1000.0	9.000	N	19.5
0.460000	54.71	—	79.00	24.29	1000.0	9.000	N	19.5
1.355000	—	37.37	60.00	22.63	1000.0	9.000	N	19.5
1.355000	46.36	—	73.00	26.64	1000.0	9.000	N	19.5
2.555000	—	34.19	60.00	25.81	1000.0	9.000	N	19.6
2.555000	45.32	—	73.00	27.68	1000.0	9.000	N	19.6
6.770000	—	39.26	60.00	20.74	1000.0	9.000	N	19.9
6.770000	47.11	—	73.00	25.89	1000.0	9.000	N	19.9
7.240000	—	39.18	60.00	20.82	1000.0	9.000	N	19.9
7.240000	47.50	—	73.00	25.50	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

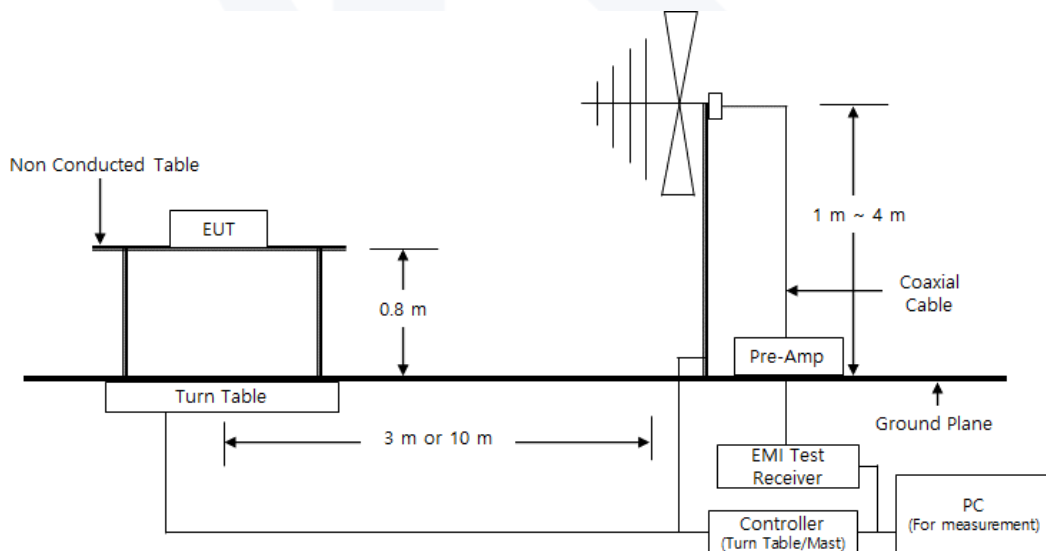
Equipment Name	Model Number	Manufacturer	Serial No.	Cal. Date	Next Cal. Date	Used
SEMI ANECHOIC CHAMBER #4(10 m)	-	DYMSTEC	-	-	-	■
EP5/RE Software	EP5/RE	TOYO	6.0.0	-	-	■
EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100551	2026-02-12	2027-02-12	■
AMPLIFIER	SCU 01	Rohde & Schwarz	100574	2026-04-24	2027-04-24	■
TRILOG-BROADBAND ANTENNA	VULB9163	Schwarzbeck	715	2024-11-08	2026-11-08	■

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
(24.3 ~ 24.8) °C	(57.7 ~ 58.0) % R.H.

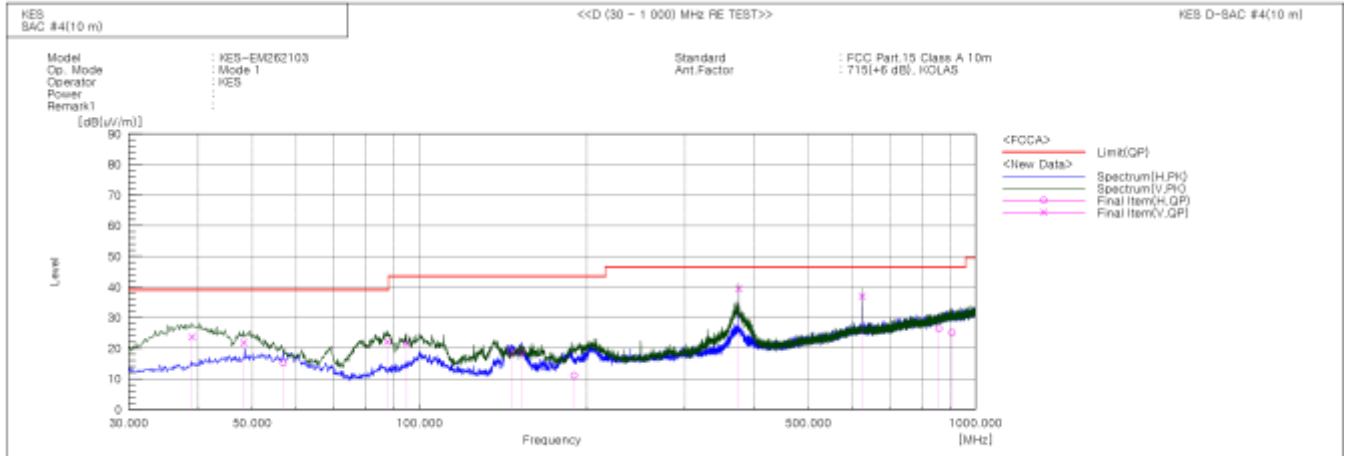
6.2.4 Diafram of test setup





6.2.5 Test Result

- Test Date : 2026-06-16
- Test Mode : Mode 1_FCC



Final Result

No.	Frequency [MHz]	(P)	Reading GP [dB(uV)]	c.f [dB(1/m)]	Result GP [dB(uV/m)]	Limit GP [dB(uV/m)]	Margin GP [dB]	Height [cm]	Angle [deg]	Remark
1	38.973	V	46.6	-22.9	23.7	39.0	15.3	110.0	318.0	
2	48.309	V	42.8	-21.0	21.8	39.0	17.2	105.0	263.0	
3	56.918	H	36.8	-21.6	15.2	39.0	23.8	356.0	281.0	
4	87.473	V	47.0	-24.9	22.1	39.0	16.9	106.0	286.0	
5	94.748	V	44.3	-22.7	21.6	43.5	21.9	116.0	232.0	
6	146.158	H	43.9	-25.1	18.8	43.5	24.7	357.0	128.0	
7	152.584	H	43.5	-25.0	18.5	43.5	25.0	347.0	162.0	
8	180.686	H	33.1	-22.0	11.1	43.5	32.4	326.0	277.0	
9	374.956	V	53.9	-14.5	39.4	46.5	7.1	101.0	348.0	
10	624.974	V	44.3	-7.4	36.9	46.5	9.6	101.0	348.0	
11	858.986	H	29.8	-3.4	26.4	46.5	20.1	399.0	121.0	
12	906.880	H	27.4	-2.3	25.1	46.5	21.4	400.0	338.0	

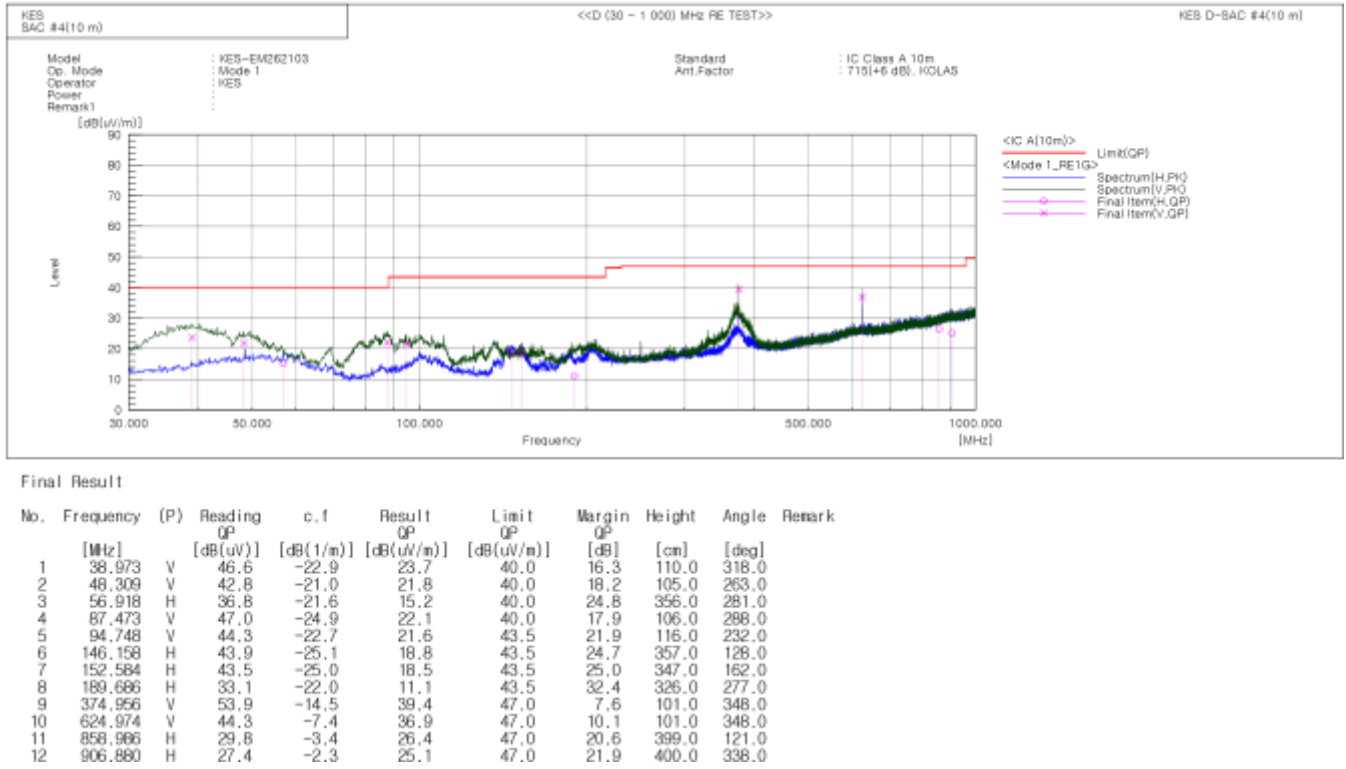
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM262103

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- Test Date : 2026-06-16
- Test Mode : Mode 1_IC



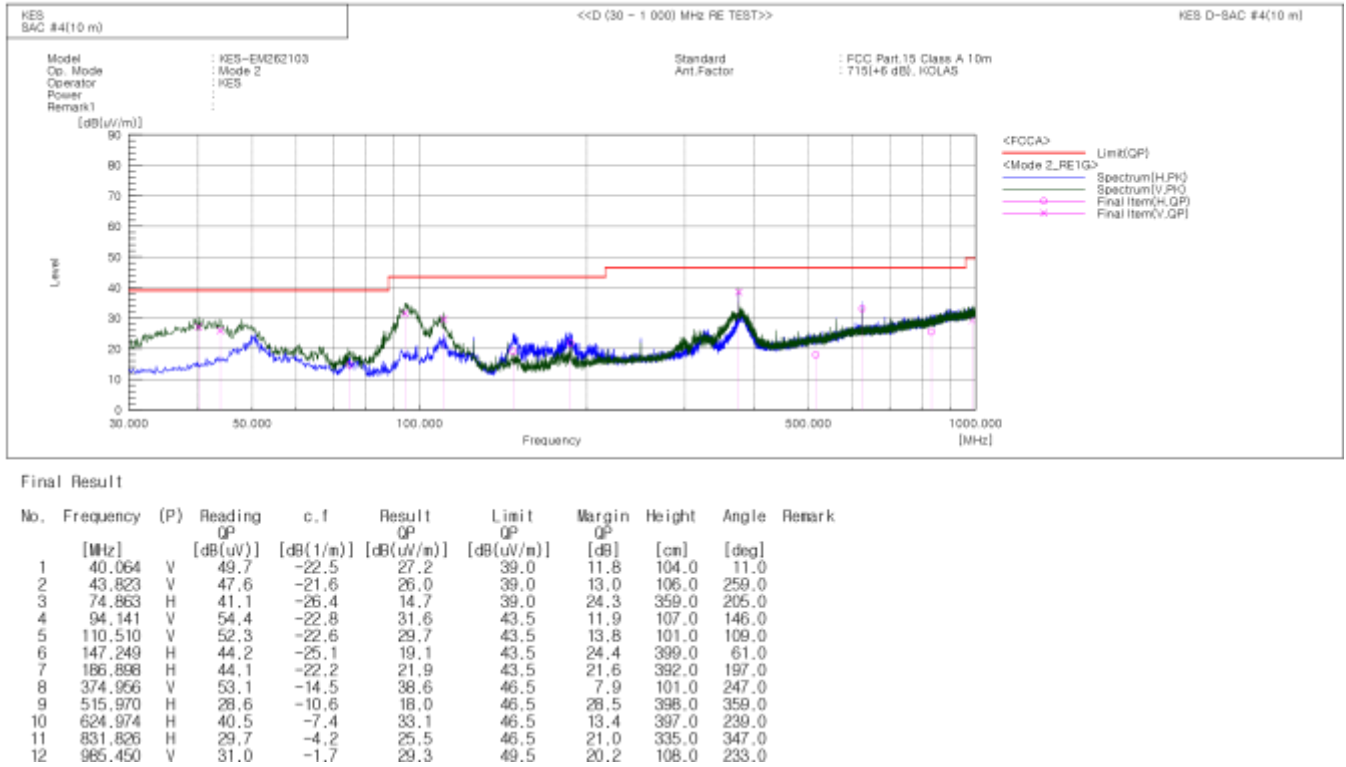
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM262103

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- Test Date : 2026-06-16
- Test Mode : Mode 2_FCC



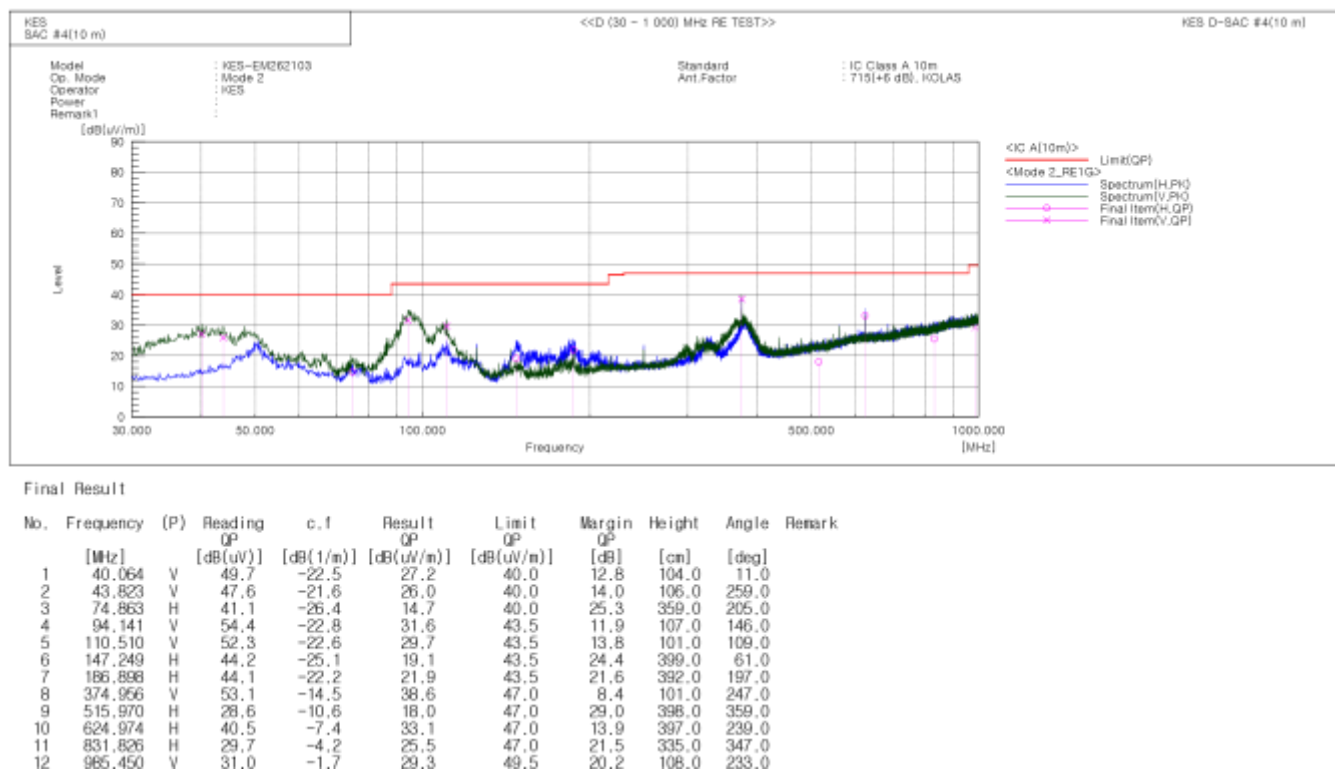
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM262103

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- Test Date : 2026-06-16
- Test Mode : Mode 2_IC



※ 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

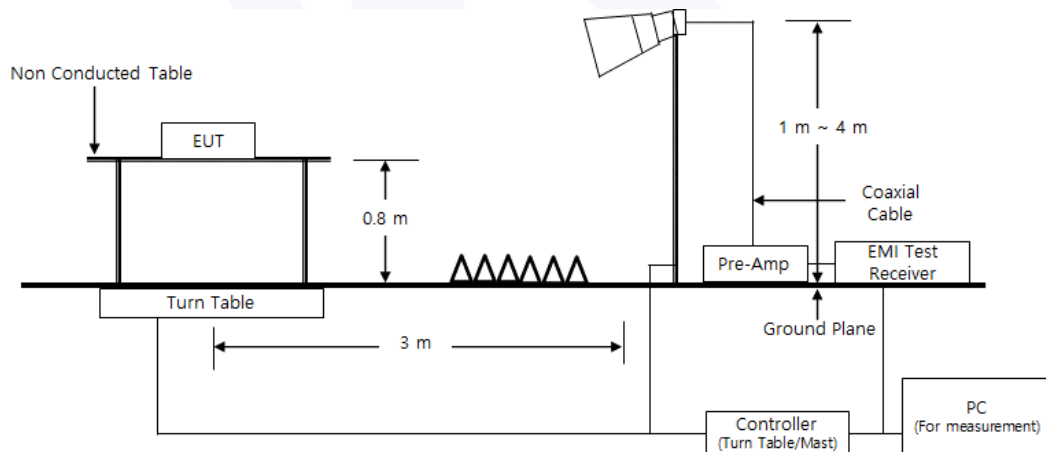
Equipment Name	Model Number	Manufacturer	Serial No.	Cal. Date	Next Cal. Date	Used
SEMI ANECHOIC CHAMBER #5	-	SY Corporation	-	-	-	■
ES10/RE Software	ES10/RE	TOYO	2022.01.000	-	-	■
EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100552	2026-02-12	2027-02-12	■
PREAMPLIFIER	8449B	HP	3008A00538	2026-04-29	2027-04-29	■
HORN ANTENNA	BBHA 9120D	SCHWARZBEC K	9120D-1802	2025-11-05	2026-11-05	■
ATTENUATOR	8491B	HP	23094	2026-02-12	2027-02-12	■

6.3.2 Test Location : SEMI ANECHOIC CHAMBER #5

6.3.3 Test Conditions :

Temperature	Relative Humidity
(22.2 ~ 22.5) °C	(40.7 ~ 40.9) % R.H.

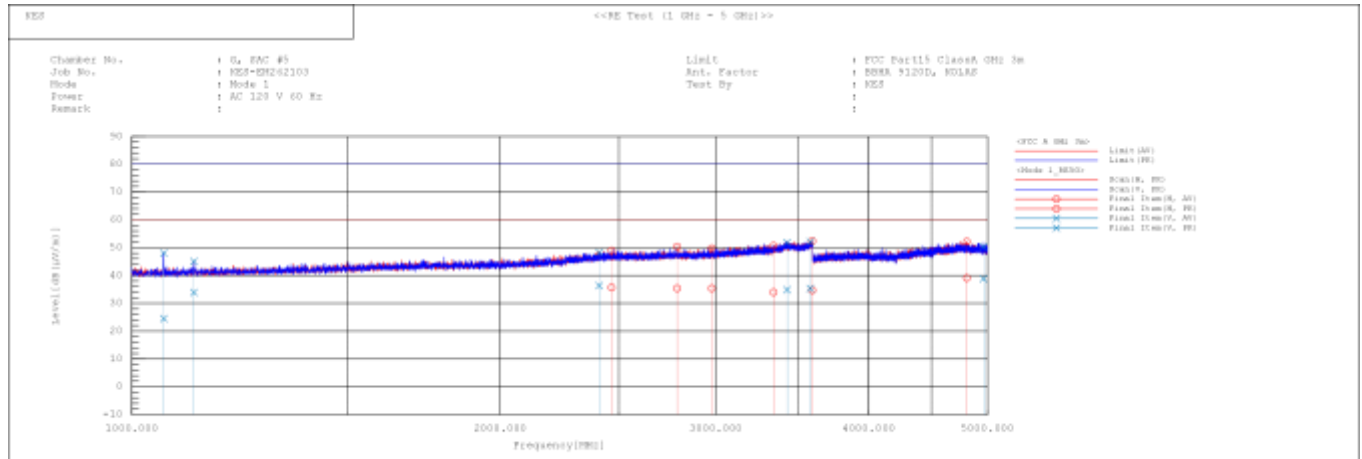
6.3.4 Diagram of test setup





6.3.5 Test Result

- Test Date : 2026-06-17
- Test Mode : Mode 1



- ✖ 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.



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○ Test Date : 2026-06-17

● Test Mode : Mode 1

(5 ~ 7) 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)
6 114.276	39.800	H	1.000	33.140	9.340	33.760	48.520	80.000	31.480
6 730.653	41.100	V	1.000	35.010	10.150	34.760	51.500	80.000	28.500

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)
6 114.276	27.000	H	1.000	33.140	9.340	33.760	35.720	60.000	24.280
6 730.653	27.000	V	1.000	35.010	10.150	34.760	37.400	60.000	22.600

※ No spurious emission were detected above 7 GHz

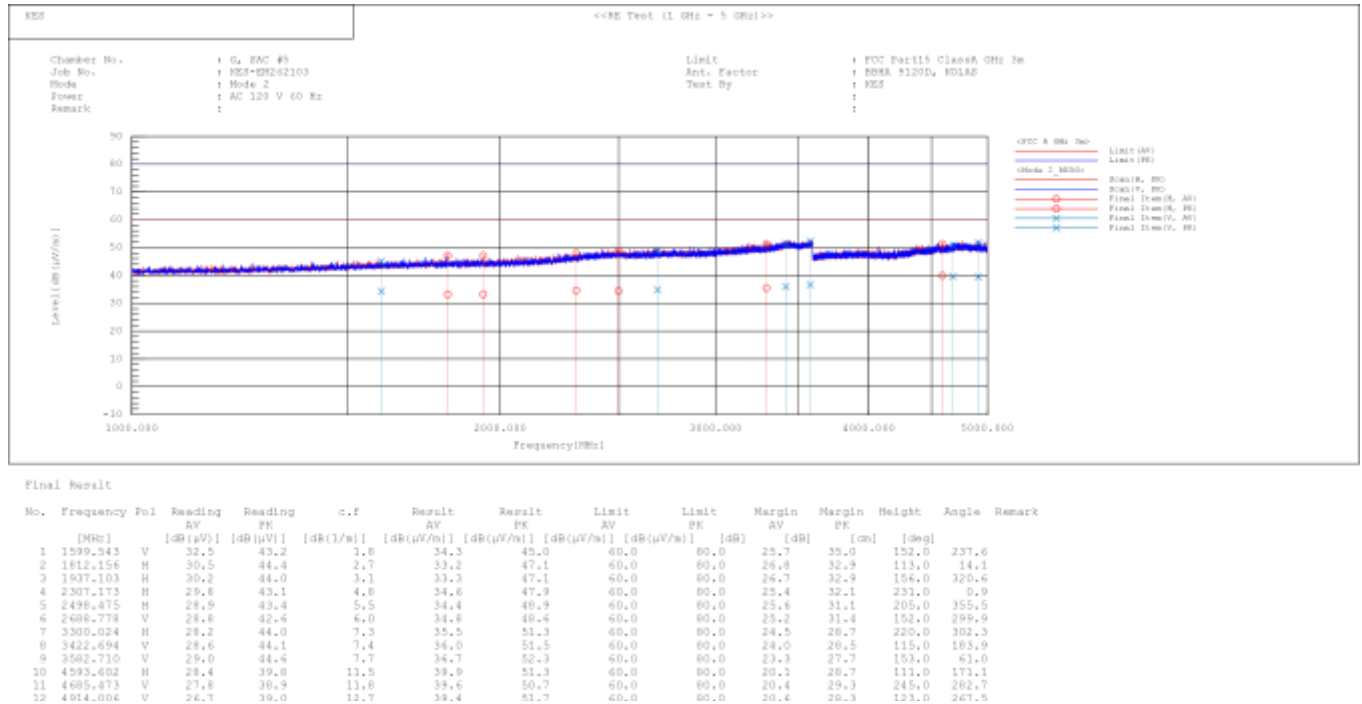


Report No. : KES-EM262103

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○ Test Date : 2026-06-17

● Test Mode : Mode 2



※ 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.



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○ Test Date : 2026-06-17

● Test Mode : Mode 2

(5 ~ 7) 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)
6 113.983	39.800	H	1.000	33.140	9.340	33.760	48.520	80.000	31.480
6 730.446	41.100	V	1.000	35.010	10.150	34.760	51.500	80.000	28.500

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)
6 113.983	27.000	H	1.000	33.140	9.340	33.760	35.720	60.000	24.280
6 730.446	27.000	V	1.000	35.010	10.150	34.760	37.400	60.000	22.600

※ No spurious emission were detected above 7 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



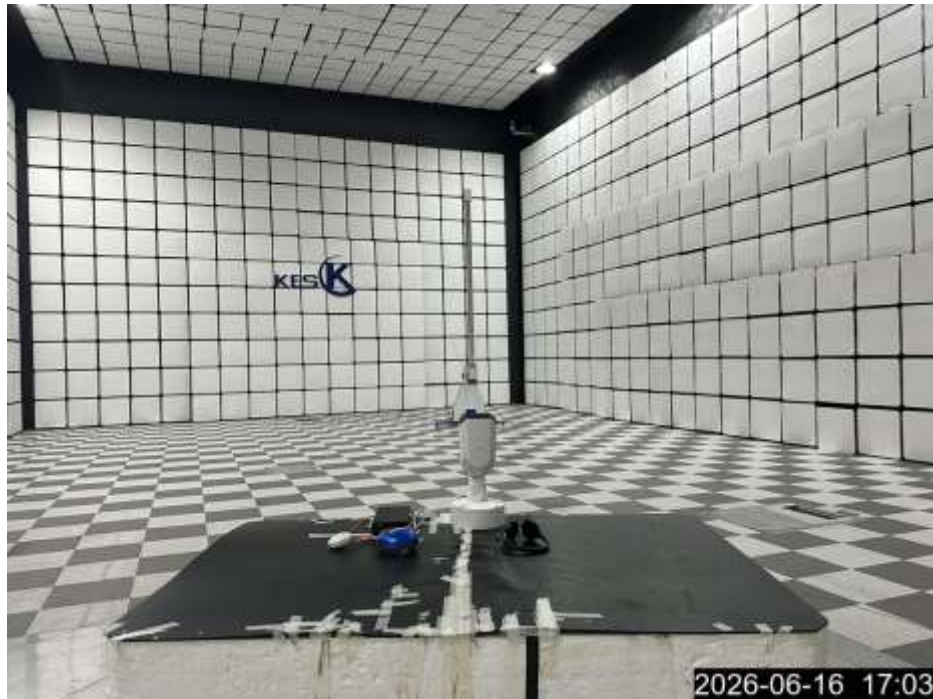
<Conducted Emissions at Mains Power Ports - Rear> Mode 2



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



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



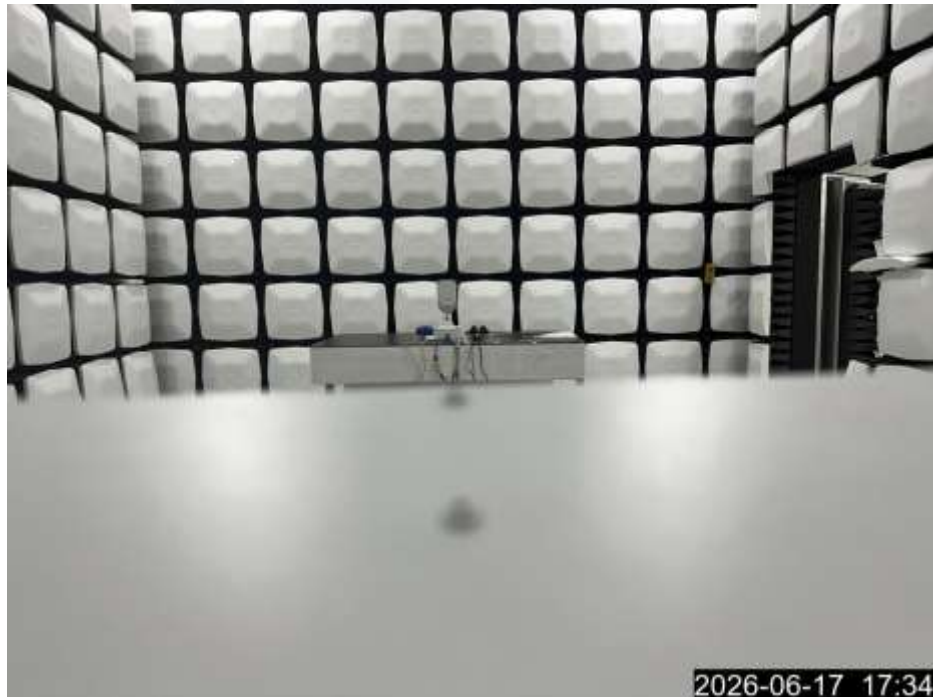
<Radiated Emissions(Below 1 GHz) - Front> Mode 2



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



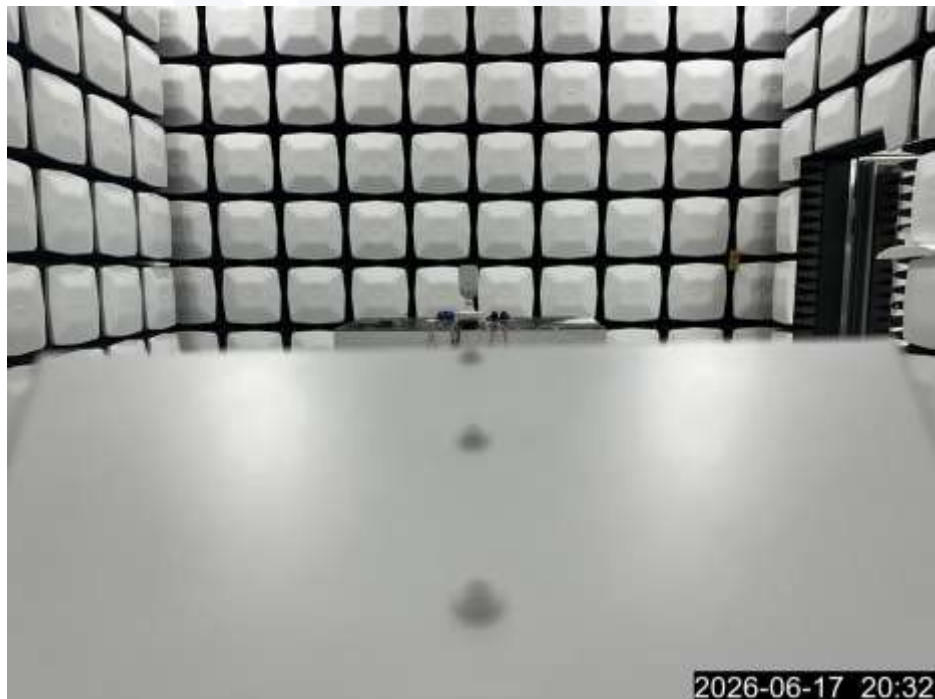
<Radiated Emissions(Above 1 GHz) - Front> Mode 1



<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>



<EUT Internal Photographs>



7.3 Label

	Name : Hanwha Vision Co., Ltd. Product item : NETWORK CAMERA Model name : TNO-A45090R
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.