



TEST REPORT



Report No. : KES-EM252720

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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 : IP Controller
- Model name : NHP-P400
- 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 : 2025. 08. 09. ~ 2025. 08. 25.

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.
This test report is not related to KOLAS accreditation.

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

2025.08.28

KES Co., Ltd.

**REPORT REVISION HISTORY**

Date	Test Report No.	Revision History
2025.08.28	KES-EM252720	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	070-4910-6200
Facsimile Number	031-341-3838

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	-
* N/A: Not Applicable			

2.3 Remarks when standards applied

- The USB Type-C port on the EUT is an administrator port and was therefore excluded from testing.

2.4 Variant Model Differences

N/A

2.5 Device Modifications

N/A



3 General Product Description

Model Name : NHP-P400 (IP Controller)	
Hardware	
Readers	4 Readers Port (capable of supporting 8 OSDP Readers or 4 Wiegand Readers)
Reader Port Specs	OSDP Protocol (v2.2), Legacy Wiegand Support 350mA @ 12VDC per port
General Purpose Inputs	18ea (4ea Door Position, 4ea REX, 2ea Aux In + 8 additional input if OSDP is used) 0.025W (5mA sink, 5V nominal) 0 to +5VDC Ref 10 supervised input ports (Door Position Switch 4ea, REX 4ea, Aux Input 2ea)
General Purpose Outputs	4ea (Door Locks) Dry/12VDC/24VDC Field selectable power (per door) 30VDC @ Max 2A DRY, 12VDC @ Max 500mA WET, 24VDC @ Max 250mA WET * Door 3 and Door 4 only support Dry Contact when PoE++ power is used.
Dedicated Inputs	Housing tamper (built-in; removal of housing cover; removal from wall) 1 FAI for Power Drop
Auxiliary Outputs	1ea Relay Out, Dry: rated to handle 2A (at up to 30V)
REX Power Port (DC)	12VDC 50mA per Port (for PIR Power)
Diagnostic Lights	* Totally 23 Lights - Host, Status, FAI, Network - (Output, Reader, REX, DPS) X 4 - Aux In1, Aux In2, Aux Out * 2 Color Lights (G, R) - Host, Reader, Output, Aux Out
Access	
Doors	4 Doors
Credentials	Server/Cloud Based: 250,000 EntryGuard: 400
Cardholders	Server/Cloud Based: 250,000 EntryGuard: 200
Event History	250,000 (offline cache event)
Operational	
Operation Mode	Server/Cloud Controlled, Online Mode, Offline Mode, Standalone Mode
Network	
Ethernet	RJ-45(10/100BASE-T)
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, NTP, HTTP, HTTPS, SSL/TLS, SMTP, ICMP, IGMP, SNMP V3(MIB-2), ARP, DNS, DNS, UPnP, Bonjour, LLDP
Network Security	HTTPS/SSL login authentication, Digest login authentication, IP address filtering, User access log, 802.1X authentication(EAP-TLS, EAP-LEAP), SNMP v3, TLS 1.2/1.3 Device certificate(Hanwha Techwin Root CA)
Data Security	Database partition encrypt, Secure Boot, Firmware verification, TPM with RIPS 140-3 Level 3
System Integration	
Supported Accessories	Surface Mount Backbox, DIN Rail Mount
Application Programming Interface	ONVIF Profile A/C, SUNAPI (HTTP API), Wisenet OpenPlatform
Environmental & Electrical	
Operating Temperature / Humidity	-20°C~+60°C / 20-85% RH (non-condensing)
Storage Temperature / Humidity	-50°C~+60°C / Less than 95% RH
Input Voltage	PoE++ , 12VDC / 24VDC
Power Consumption	PoE++ : 55V @ Max 0.93A, 12VDC @ Max 5.08A / 24VDC IN @ Max 2.58A
Mechanical	
Color / Material	White / Aluminum
Product dimensions / weight	240 x 194 x 65(mm), 2.2Kg
Conduit hole	None (cable entry through base of panel)
Diagnostic lights	Host connection, Internet connection, Board health, Input active, Output active
General	
Webpage Language	English, Korean
Included Accessories	Installation guide(Printed Quick Guide), terminal blocks, Wiring Guide (Printed), Wire for FAI Connection
Memory	8GB eMMC
Warranty	5 years
Certifications	FCC, IC, CE, UKCA, UL 62368-1, KC, IK10, IP52 * In progress : UL 294, UL2043, California Prop 65, SIA * IK10 : Excluding front Window * IP52 rating is based on the controller being properly installed and affixed to the wall.



4 EUT Setup and Operation Mode

4.1 EUT Configuration

Product Name	Model Number	Serial Number	Manufacturer	Remarks
IP Controller	NHP-P400	-	HANWHA VISION VIETNAM COMPANY LIMITED	EUT
AC/DC Adaptor 1	KPL-048F-VI	-	Channel Well Technology (guangzhou) Co.,Ltd.	-
AC/DC Adapter 2	KPL-060M-VI	-	Channel Well Technology (guangzhou) Co.,Ltd.	-
PoE Injector	POE 29U-1AT	-	PHIHONG	-
Laptop	NT500R5W	-	Samsung Electronics	-
Laptop Adapter	A13-040N2A	-	Chicony Power Technology Co., Ltd.	-
Switch 1	-	-	-	-
Switch 2	-	-	-	-
Card	-	-	-	-
LED Alarm	PRO-SL	-	SENSOR PRO	-
Lock	-	-	Super Lock Co., Ltd.	4 EA
Button	-	-	-	4 EA
Card Reader	20K	-	ANATEL	4 EA

4.2 System Configuration

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



4.3 External I/O Cabling

Mode 1, Mode 2

Start		End		Cable Spec.	
Product Name	I/O Port	Product Name	I/O Port	Length(m)	Shield
IP Controller (EUT)	DC Input (2 Pin)	AC /DC Adapter 1	Line-Out (DC Jack)	1.5	U
	RJ-45 (DATA)	Laptop	RJ-45	3.1	U
	FAI	Switch 1	2 Pin	3.2	U
	AUX IN	Switch 2	2 Pin	3.2	U
	AUX OUT	LED Alarm	3 Pin	3.5	U
	DPS+OUT (4 Pin) 1 EA	Lock 1	4 Pin	3.5	U
	DPS+OUT (4 Pin) 3 EA	Lock 2 ~ 4	4 Pin	0.2	U
	REX (4 Pin) 1 EA	Button 1	4 Pin	3.5	U
	REX (4 Pin) 3 EA	Button 2 ~ 4	4 Pin	0.2	U
	READER (6 Pin) 1 EA	Card Reader 1	6 Pin	3.5	U
	READER (6 Pin) 3 EA	Card Reader 2 ~ 4	6 Pin	0.3	U
Laptop	DC Jack	Laptop Adapter	Line-Out (DC Jack)	1.3	U
Card Reader	RFID	Card	RFID	-	-



Mode 3, Mode 4

Start		End		Cable Spec.	
Product Name	I/O Port	Product Name	I/O Port	Length(m)	Shield
IP Controller (EUT)	DC Input (2 Pin)	AC /DC Adapter 2	Line-Out (DC Jack)	1.5	U
	RJ-45 (DATA)	Laptop	RJ-45	3.1	U
	FAI	Switch 1	2 Pin	3.2	U
	AUX IN	Switch 2	2 Pin	3.2	U
	AUX OUT	LED Alarm	3 Pin	3.5	U
	DPS+OUT (4 Pin) 1 EA	Lock 1	4 Pin	3.5	U
	DPS+OUT (4 Pin) 3 EA	Lock 2 ~ 4	4 Pin	0.2	U
	REX (4 Pin) 1 EA	Button 1	4 Pin	3.5	U
	REX (4 Pin) 3 EA	Button 2 ~ 4	4 Pin	0.2	U
	READER (6 Pin) 1 EA	Card Reader 1	6 Pin	3.5	U
	READER (6 Pin) 3 EA	Card Reader 2 ~ 4	6 Pin	0.3	U
Laptop	DC Jack	Laptop Adapter	Line-Out (DC Jack)	1.3	U
Card Reader	RFID	Card	RFID	-	-



Mode 5, Mode 6

Start		End		Cable Spec.	
Product Name	I/O Port	Product Name	I/O Port	Length(m)	Shield
IP Controller (EUT)	RJ-45 (PoE)	PoE Injector	RJ-45 (DATA)	3.1	U
	FAI	Switch 1	2 Pin	3.2	U
	AUX IN	Switch 2	2 Pin	3.2	U
	AUX OUT	LED Alarm	3 Pin	3.5	U
	DPS+OUT (4 Pin) 1 EA	Lock 1	4 Pin	3.5	U
	DPS+OUT (4 Pin) 3 EA	Lock 2 ~ 4	4 Pin	0.2	U
	REX (4 Pin) 1 EA	Button 1	4 Pin	3.5	U
	REX (4 Pin) 3 EA	Button 2 ~ 4	4 Pin	0.2	U
	READER (6 Pin) 1 EA	Card Reader 1	6 Pin	3.5	U
	READER (6 Pin) 3 EA	Card Reader 2 ~ 4	6 Pin	0.3	U
PoE Adaptor	RJ-45 (DATA)	Laptop	RJ-45	1.5	U
Laptop	DC Jack	Laptop Adapter	Line-Out (DC Jack)	1.3	U
Card Reader	RFID	Card	RFID	-	-

* Unshielded=U, Shielded=S



4.4 EUT Operating Mode(s)

Category	Mode	Operating
Mode 1	DC 12 V_REX	1. I ran Web Viewer on my laptop and confirmed that it was working properly. 2. I checked the network status by performing a PingTest on my laptop. 3. I pressed the button connected to the REX port and confirmed that the Web Viewer was operating normally and that the lock was operating normally. 4. The card was recognized by the card reader and normal operation and lock operation were confirmed in the Web Viewer. 5. I pressed the switch connected to the FAI port and confirmed normal operation and lock operation in the Web Viewer.
Mode 2	DC 12 V_AUX	1. I ran Web Viewer on my laptop and confirmed that it was working properly. 2. I checked the network status by performing a PingTest on my laptop. 3. I pressed the switch connected to the AUX port and confirmed normal operation and lock operation in the Web Viewer. 4. The card was recognized by the card reader and normal operation and lock operation were confirmed in the Web Viewer. 5. I pressed the switch connected to the FAI port and confirmed normal operation and lock operation in the Web Viewer.
Mode 3	DC 24 V_REX	1. I ran Web Viewer on my laptop and confirmed that it was working properly. 2. I checked the network status by performing a PingTest on my laptop. 3. I pressed the button connected to the REX port and confirmed that the Web Viewer was operating normally and that the lock was operating normally. 4. The card was recognized by the card reader and normal operation and lock operation were confirmed in the Web Viewer. 5. I pressed the switch connected to the FAI port and confirmed normal operation and lock operation in the Web Viewer.
Mode 4	DC 24 V_AUX	1. I ran Web Viewer on my laptop and confirmed that it was working properly. 2. I checked the network status by performing a PingTest on my laptop. 3. I pressed the switch connected to the AUX port and confirmed normal operation and lock operation in the Web Viewer. 4. The card was recognized by the card reader and normal operation and lock operation were confirmed in the Web Viewer. 5. I pressed the switch connected to the FAI port and confirmed normal operation and lock operation in the Web Viewer.



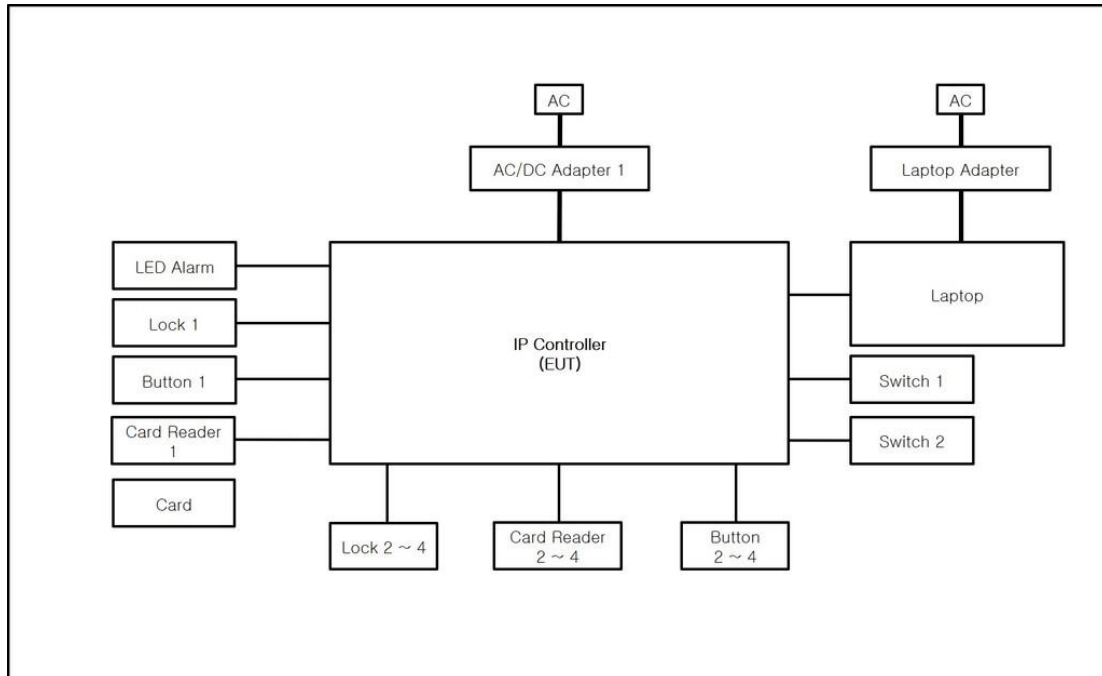
Mode 5	PoE_REX	1. I ran Web Viewer on my laptop and confirmed that it was working properly. 2. I checked the network status by performing a PingTest on my laptop. 3. I pressed the button connected to the REX port and confirmed that the Web Viewer was operating normally and that the lock was operating normally. 4. The card was recognized by the card reader and normal operation and lock operation were confirmed in the Web Viewer. 5. I pressed the switch connected to the FAI port and confirmed normal operation and lock operation in the Web Viewer.
Mode 6	PoE_AUX	1. I ran Web Viewer on my laptop and confirmed that it was working properly. 2. I checked the network status by performing a PingTest on my laptop. 3. I pressed the switch connected to the AUX port and confirmed normal operation and lock operation in the Web Viewer. 4. The card was recognized by the card reader and normal operation and lock operation were confirmed in the Web Viewer. 5. I pressed the switch connected to the FAI port and confirmed normal operation and lock operation in the Web Viewer.

4.5 Test operating S/W

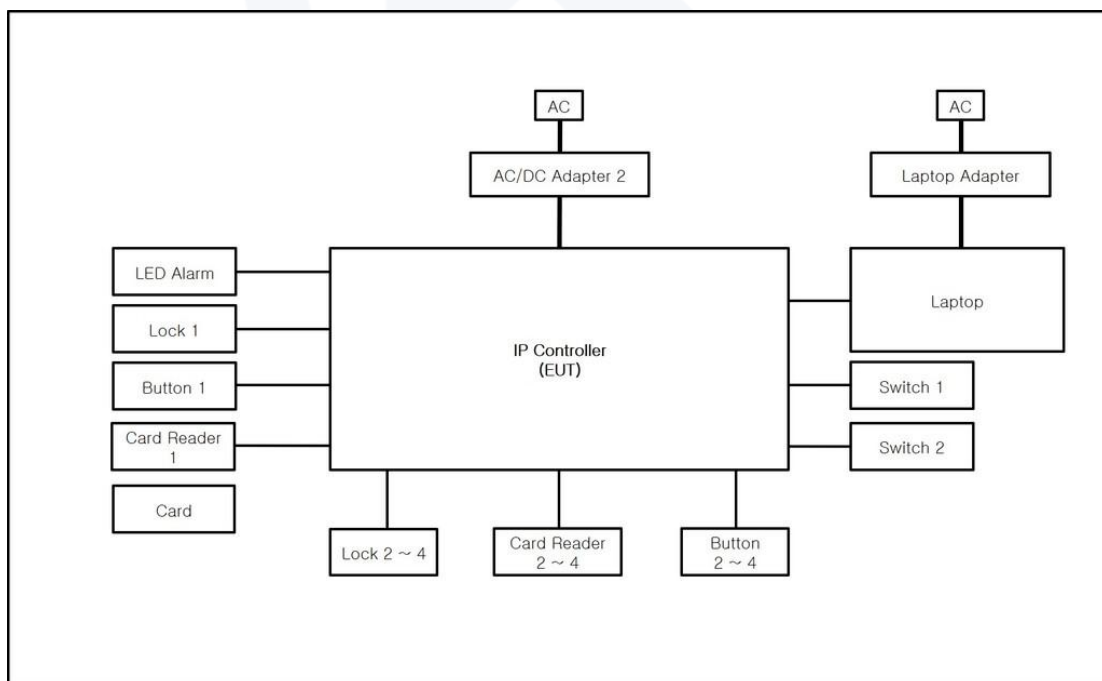
Name	Version	Manufacture Company
Web Viewer	-	Hanwha Vision Co., Ltd.



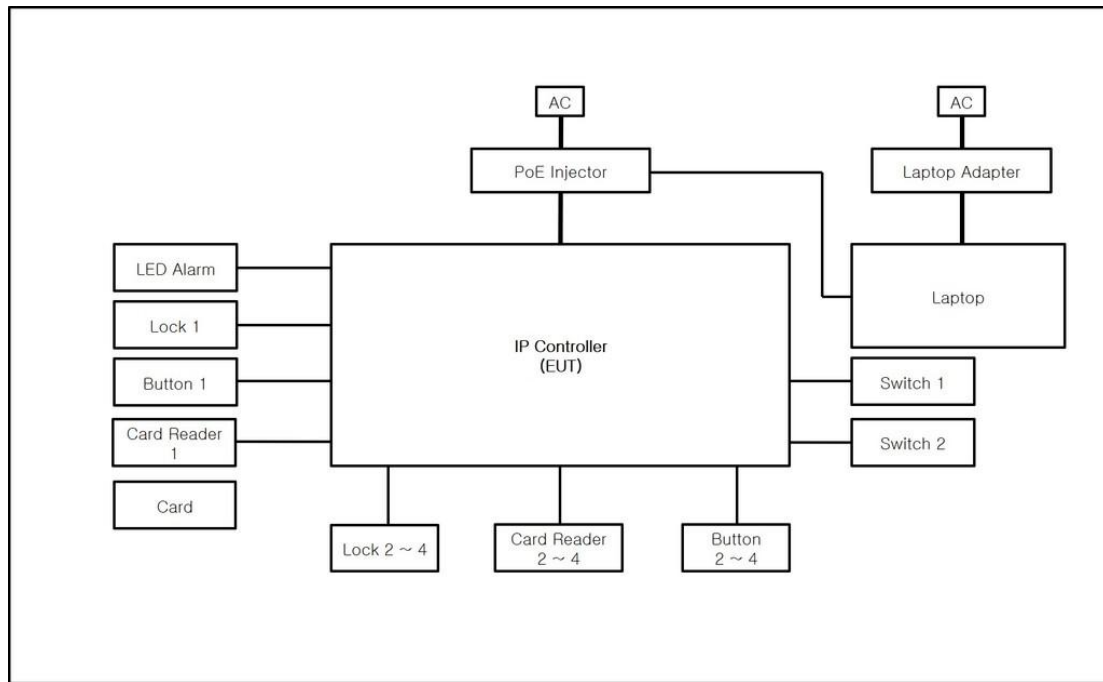
4.6 Configuration



Mode 1, Mode 2



Mode 3, Mode 4



Mode 5, Mode 6



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.



6 Test Item

6.1 Conducted Emissions at Mains Power Ports

6.1.1 Test Equipment

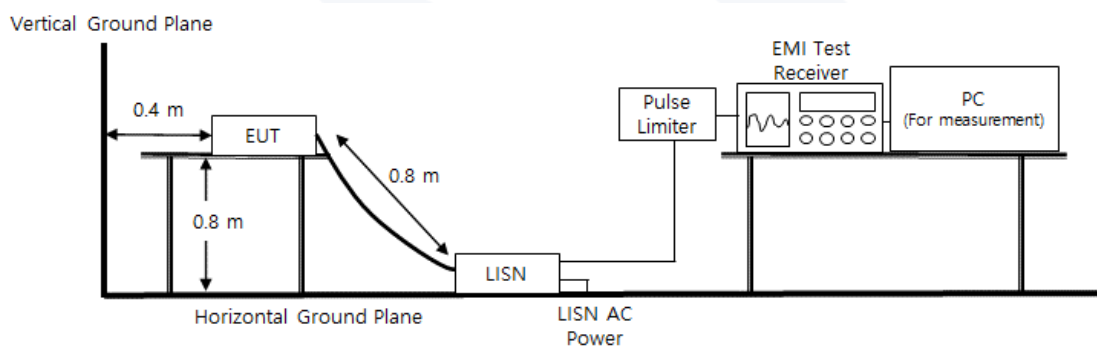
Equipment Name	Model Number	Manufacturer	Serial No.	Cal. Date	Next Cal. Date	Used
SHIELD ROOM #6	-	DYMSTEC	-	-	-	■
EMC32 Measurement Software	EMC32	R&S	9.12.00	-	-	■
EMI TEST RECEIVER	ESR3	Rohde & Schwarz	101783	2024-11-06	2025-11-06	■
LISN	ENV216	Rohde & Schwarz	101786	2025-01-09	2026-01-09	■
ARTIFICIAL 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 ~ 25.8) °C	(55.0 ~ 58.1) % R.H.

6.1.4 Diagram of test setup





6.1.5 Test Result

○ Test Date : 2025-08-11

● Test Mode : Mode 1

Test Report

Test Description:

Job No.:

Phase:

Mode:

Operator Name:

Conducted Emission

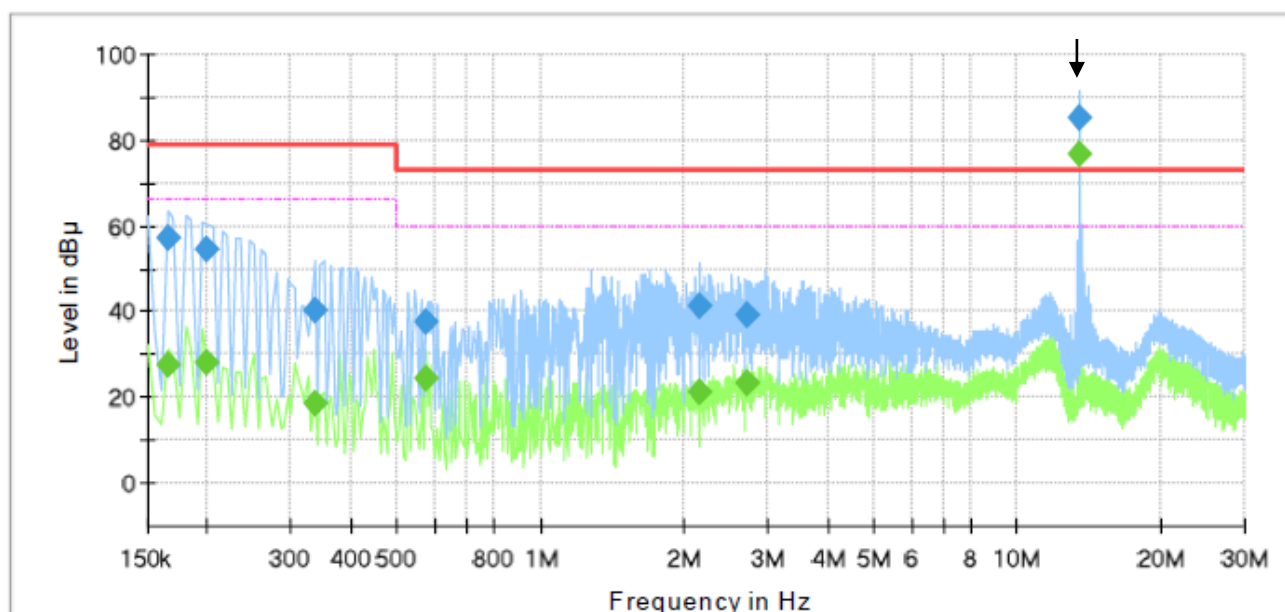
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Mode 1

KES

↓ : Associated equipment wireless frequency



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.165000	---	27.47	66.00	38.53	1000.0	9.000	L1	19.5
0.165000	57.07	---	79.00	21.93	1000.0	9.000	L1	19.5
0.200000	---	28.13	66.00	37.87	1000.0	9.000	L1	19.5
0.200000	54.55	---	79.00	24.45	1000.0	9.000	L1	19.5
0.335000	---	18.77	66.00	47.23	1000.0	9.000	L1	19.6
0.335000	40.14	---	79.00	38.86	1000.0	9.000	L1	19.6
0.575000	---	24.14	60.00	35.86	1000.0	9.000	L1	19.6
0.575000	37.45	---	73.00	35.55	1000.0	9.000	L1	19.6
2.160000	---	21.04	60.00	38.96	1000.0	9.000	L1	19.7
2.160000	41.30	---	73.00	31.70	1000.0	9.000	L1	19.7
2.710000	---	23.11	60.00	36.89	1000.0	9.000	L1	19.7
2.710000	39.18	---	73.00	33.82	1000.0	9.000	L1	19.7
13.560000	---	76.98	60.00	-16.98	1000.0	9.000	L1	20.2
13.560000	85.12	---	73.00	-12.12	1000.0	9.000	L1	20.2



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○ Test Date : 2025-08-11

● Test Mode : Mode 1

Test Report

Test Description:

Conducted Emission

Job No.:

KES-EM252720

Phase:

N

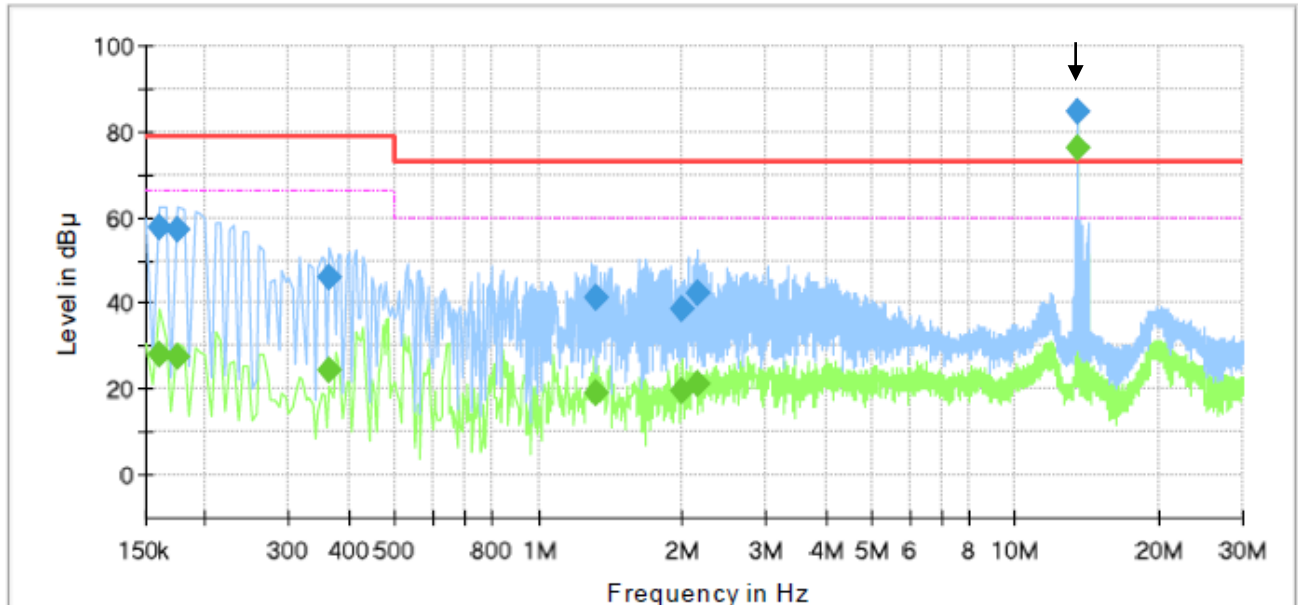
Mode:

Mode 1

Operator Name:

KES

↓ : Associated equipment wireless frequency



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.160000	---	28.03	66.00	37.97	1000.0	9.000	N	19.5
0.160000	57.74	---	79.00	21.26	1000.0	9.000	N	19.5
0.175000	---	27.44	66.00	38.56	1000.0	9.000	N	19.5
0.175000	56.90	---	79.00	22.10	1000.0	9.000	N	19.5
0.365000	---	24.13	66.00	41.87	1000.0	9.000	N	19.5
0.365000	45.92	---	79.00	33.08	1000.0	9.000	N	19.5
1.320000	---	19.26	60.00	40.74	1000.0	9.000	N	19.6
1.320000	41.17	---	73.00	31.83	1000.0	9.000	N	19.6
2.005000	---	19.72	60.00	40.28	1000.0	9.000	N	19.6
2.005000	38.76	---	73.00	34.24	1000.0	9.000	N	19.6
2.150000	---	21.40	60.00	38.60	1000.0	9.000	N	19.6
2.150000	42.27	---	73.00	30.73	1000.0	9.000	N	19.6
13.560000	---	76.25	60.00	-16.25	1000.0	9.000	N	20.2
13.560000	84.83	---	73.00	-11.83	1000.0	9.000	N	20.2



○ Test Date : 2025-08-11

● Test Mode : Mode 2

Test Report

Test Description:

Job No.:

Phase:

Mode:

Operator Name:

Conducted Emission

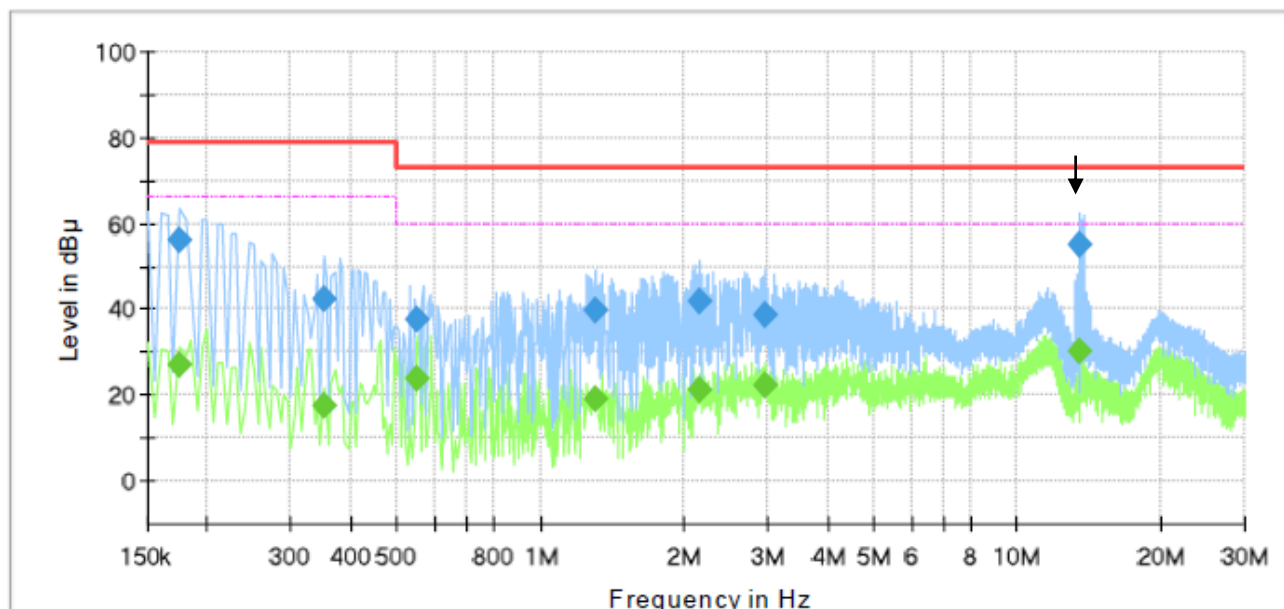
KES-EM252720

L

Mode 2

KES

↓ : Associated equipment wireless frequency



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.175000	---	27.06	66.00	38.94	1000.0	9.000	L1	19.5
0.175000	56.37	---	79.00	22.63	1000.0	9.000	L1	19.5
0.350000	---	17.54	66.00	48.46	1000.0	9.000	L1	19.6
0.350000	42.62	---	79.00	36.38	1000.0	9.000	L1	19.6
0.550000	---	23.64	60.00	36.36	1000.0	9.000	L1	19.6
0.550000	37.40	---	73.00	35.60	1000.0	9.000	L1	19.6
1.300000	---	18.97	60.00	41.03	1000.0	9.000	L1	19.6
1.300000	39.97	---	73.00	33.03	1000.0	9.000	L1	19.6
2.160000	---	21.09	60.00	38.91	1000.0	9.000	L1	19.7
2.160000	41.73	---	73.00	31.27	1000.0	9.000	L1	19.7
2.945000	---	22.25	60.00	37.75	1000.0	9.000	L1	19.7
2.945000	38.89	---	73.00	34.11	1000.0	9.000	L1	19.7
13.560000	---	30.17	60.00	29.83	1000.0	9.000	L1	20.2
13.560000	55.01	---	73.00	17.99	1000.0	9.000	L1	20.2



○ Test Date : 2025-08-11

● Test Mode : Mode 2

Test Report

Test Description:

Job No.:

Phase:

Mode:

Operator Name:

Conducted Emission

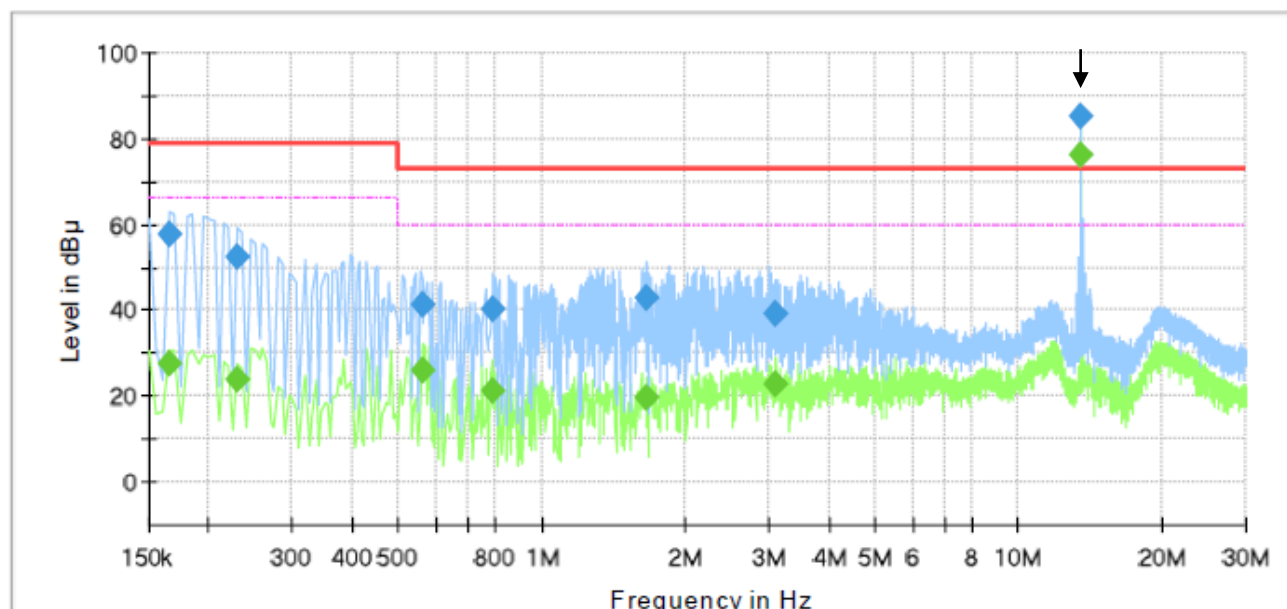
KES-EM252720

N

Mode 2

KES

↓ : Associated equipment wireless frequency



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.165000	---	27.78	66.00	38.22	1000.0	9.000	N	19.5
0.165000	57.51	---	79.00	21.49	1000.0	9.000	N	19.5
0.230000	---	23.63	66.00	42.37	1000.0	9.000	N	19.5
0.230000	52.46	---	79.00	26.54	1000.0	9.000	N	19.5
0.560000	---	25.83	60.00	34.17	1000.0	9.000	N	19.5
0.560000	41.55	---	73.00	31.45	1000.0	9.000	N	19.5
0.790000	---	21.36	60.00	38.64	1000.0	9.000	N	19.6
0.790000	40.17	---	73.00	32.83	1000.0	9.000	N	19.6
1.665000	---	19.46	60.00	40.54	1000.0	9.000	N	19.6
1.665000	42.74	---	73.00	30.26	1000.0	9.000	N	19.6
3.105000	---	23.00	60.00	37.00	1000.0	9.000	N	19.7
3.105000	39.34	---	73.00	33.66	1000.0	9.000	N	19.7
13.560000	---	76.37	60.00	-16.37	1000.0	9.000	N	20.2
13.560000	84.93	---	73.00	-11.93	1000.0	9.000	N	20.2



○ Test Date : 2025-08-11

● Test Mode : Mode 3

Test Report

Test Description:

Job No.:

Phase:

Mode:

Operator Name:

Conducted Emission

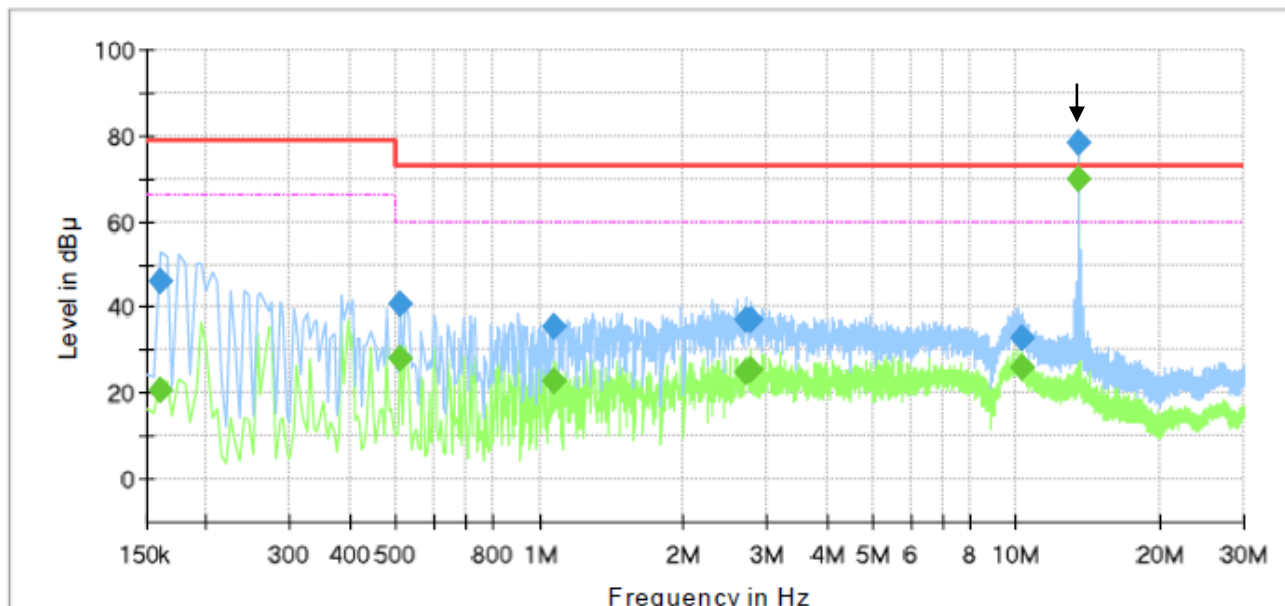
KES-EM252720

L

Mode 3

KES

↓ : Associated equipment wireless frequency



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.160000	---	20.85	66.00	45.15	1000.0	9.000	L1	19.5
0.160000	46.03	---	79.00	32.97	1000.0	9.000	L1	19.5
0.510000	---	28.19	60.00	31.81	1000.0	9.000	L1	19.6
0.510000	40.87	---	73.00	32.13	1000.0	9.000	L1	19.6
1.075000	---	23.00	60.00	37.00	1000.0	9.000	L1	19.6
1.075000	35.41	---	73.00	37.59	1000.0	9.000	L1	19.6
2.720000	---	24.64	60.00	35.36	1000.0	9.000	L1	19.7
2.720000	37.04	---	73.00	35.96	1000.0	9.000	L1	19.7
2.765000	---	25.51	60.00	34.49	1000.0	9.000	L1	19.7
2.765000	36.98	---	73.00	36.02	1000.0	9.000	L1	19.7
10.250000	---	26.00	60.00	34.00	1000.0	9.000	L1	20.1
10.250000	32.81	---	73.00	40.19	1000.0	9.000	L1	20.1
13.560000	---	69.85	60.00	-9.85	1000.0	9.000	L1	20.2
13.560000	78.11	---	73.00	-5.11	1000.0	9.000	L1	20.2



○ Test Date : 2025-08-11

● Test Mode : Mode 3

Test Report

Test Description:

Job No.:

Phase:

Mode:

Operator Name:

Conducted Emission

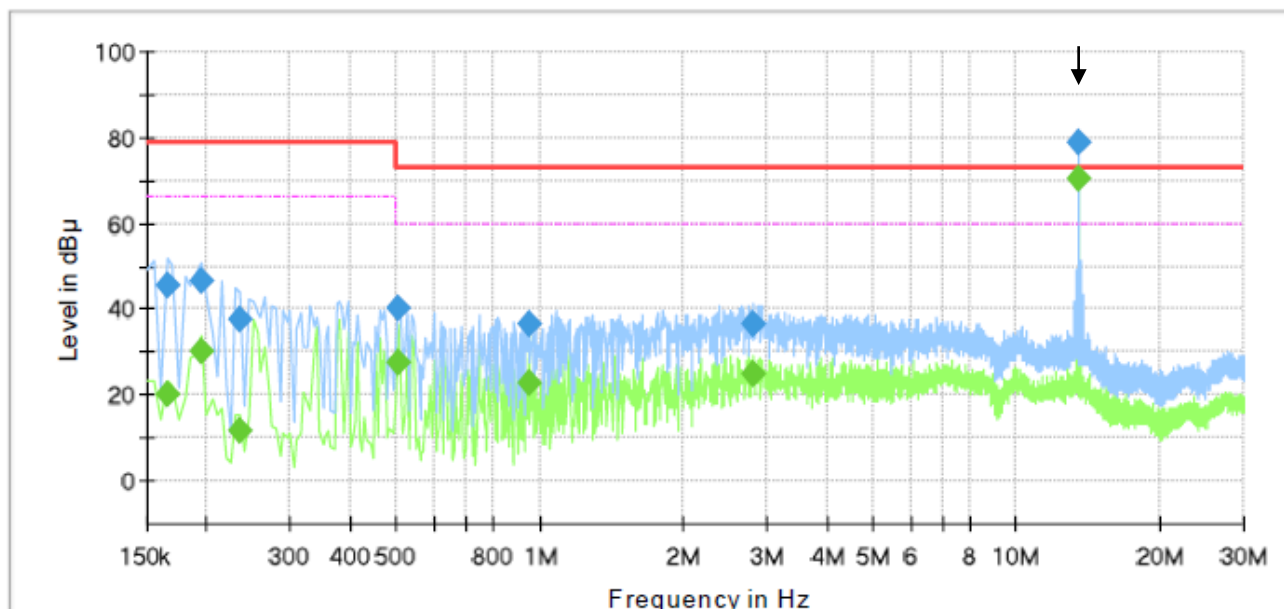
KES-EM252720

N

Mode 3

KES

↓ : Associated equipment wireless frequency



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.165000	---	20.17	66.00	45.83	1000.0	9.000	N	19.5
0.165000	45.31	---	79.00	33.69	1000.0	9.000	N	19.5
0.195000	---	30.23	66.00	35.77	1000.0	9.000	N	19.5
0.195000	46.36	---	79.00	32.64	1000.0	9.000	N	19.5
0.235000	---	11.74	66.00	54.26	1000.0	9.000	N	19.5
0.235000	37.83	---	79.00	41.17	1000.0	9.000	N	19.5
0.505000	---	27.60	60.00	32.40	1000.0	9.000	N	19.5
0.505000	40.46	---	73.00	32.54	1000.0	9.000	N	19.5
0.950000	---	23.00	60.00	37.00	1000.0	9.000	N	19.6
0.950000	36.56	---	73.00	36.44	1000.0	9.000	N	19.6
2.805000	---	24.66	60.00	35.34	1000.0	9.000	N	19.7
2.805000	36.75	---	73.00	36.25	1000.0	9.000	N	19.7
13.560000	---	70.14	60.00	-10.14	1000.0	9.000	N	20.2
13.560000	78.69	---	73.00	-5.69	1000.0	9.000	N	20.2



Report No. : KES-EM252720

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○ Test Date : 2025-08-11

● Test Mode : Mode 4

Test Report

Test Description:

Conducted Emission

Job No.:

KES-EM252720

Phase:

L

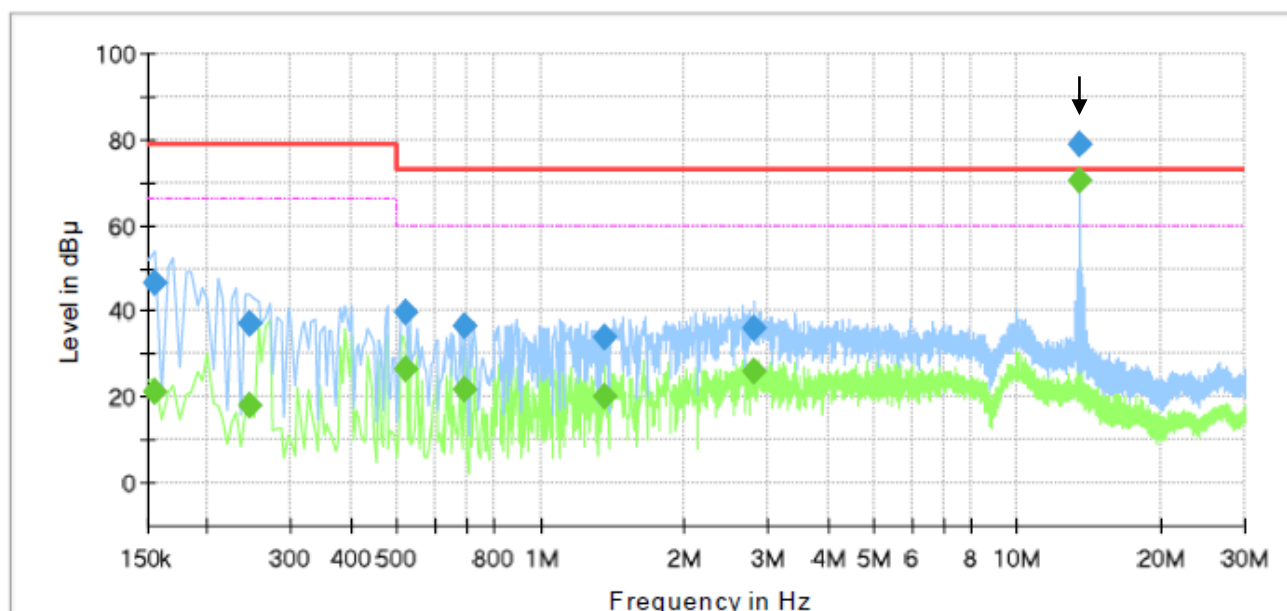
Mode:

Mode 4

Operator Name:

KES

↓ : Associated equipment wireless frequency



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.155000	---	21.22	66.00	44.78	1000.0	9.000	L1	19.5
0.155000	46.37	---	79.00	32.63	1000.0	9.000	L1	19.5
0.245000	---	18.12	66.00	47.88	1000.0	9.000	L1	19.5
0.245000	37.02	---	79.00	41.98	1000.0	9.000	L1	19.5
0.520000	---	26.70	60.00	33.30	1000.0	9.000	L1	19.6
0.520000	39.77	---	73.00	33.23	1000.0	9.000	L1	19.6
0.690000	---	21.99	60.00	38.01	1000.0	9.000	L1	19.6
0.690000	36.56	---	73.00	36.44	1000.0	9.000	L1	19.6
1.365000	---	20.36	60.00	39.64	1000.0	9.000	L1	19.6
1.365000	33.83	---	73.00	39.17	1000.0	9.000	L1	19.6
2.810000	---	25.86	60.00	34.14	1000.0	9.000	L1	19.7
2.810000	36.21	---	73.00	36.79	1000.0	9.000	L1	19.7
13.560000	---	70.31	60.00	-10.31	1000.0	9.000	L1	20.2
13.560000	79.00	---	73.00	-6.00	1000.0	9.000	L1	20.2



Report No. : KES-EM252720

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○ Test Date : 2025-08-11

● Test Mode : Mode 4

Test Report

Test Description:

Conducted Emission

Job No.:

KES-EM252720

Phase:

N

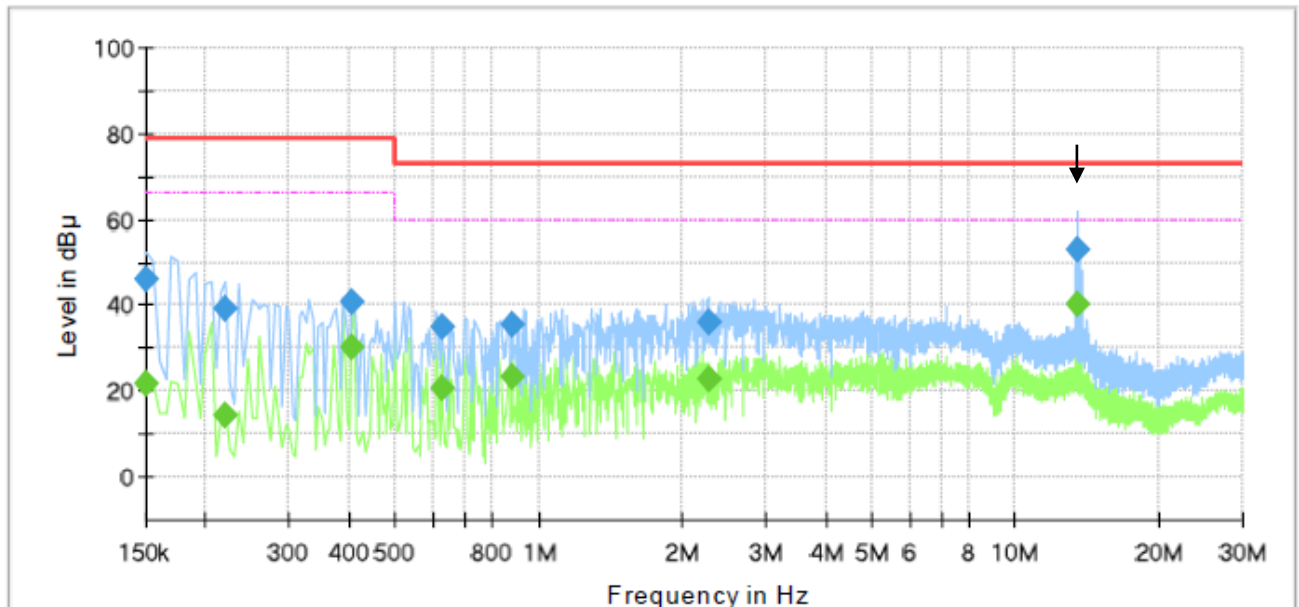
Mode:

Mode 4

Operator Name:

KES

↓ : Associated equipment wireless frequency



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	---	21.53	66.00	44.47	1000.0	9.000	N	19.5
0.150000	46.18	---	79.00	32.82	1000.0	9.000	N	19.5
0.220000	---	14.36	66.00	51.64	1000.0	9.000	N	19.5
0.220000	39.21	---	79.00	39.79	1000.0	9.000	N	19.5
0.405000	---	30.23	66.00	35.77	1000.0	9.000	N	19.5
0.405000	41.01	---	79.00	37.99	1000.0	9.000	N	19.5
0.625000	---	20.56	60.00	39.44	1000.0	9.000	N	19.6
0.625000	34.97	---	73.00	38.03	1000.0	9.000	N	19.6
0.880000	---	23.49	60.00	36.51	1000.0	9.000	N	19.6
0.880000	35.49	---	73.00	37.51	1000.0	9.000	N	19.6
2.275000	---	22.66	60.00	37.34	1000.0	9.000	N	19.6
2.275000	35.77	---	73.00	37.23	1000.0	9.000	N	19.6
13.560000	---	40.04	60.00	19.96	1000.0	9.000	N	20.2
13.560000	52.91	---	73.00	20.09	1000.0	9.000	N	20.2



Report No. : KES-EM252720

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○ Test Date : 2025-08-12

● Test Mode : Mode 5

Test Report

Test Description:

Job No.:

Phase:

Mode:

Operator Name:

Conducted Emission

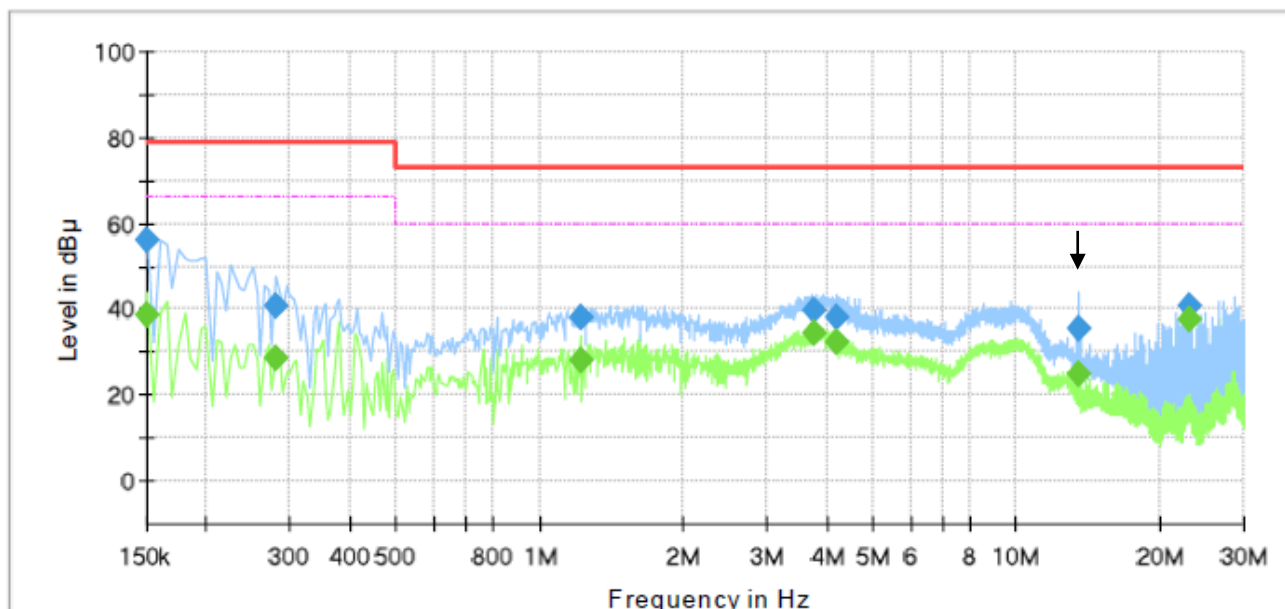
KES-EM252720

L

Mode 5

KES

↓ : Associated equipment wireless frequency



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	---	38.57	66.00	27.43	1000.0	9.000	L1	19.5
0.150000	56.27	---	79.00	22.73	1000.0	9.000	L1	19.5
0.280000	---	28.46	66.00	37.54	1000.0	9.000	L1	19.5
0.280000	40.83	---	79.00	38.17	1000.0	9.000	L1	19.5
1.220000	---	27.83	60.00	32.17	1000.0	9.000	L1	19.6
1.220000	38.10	---	73.00	34.90	1000.0	9.000	L1	19.6
3.755000	---	34.18	60.00	25.82	1000.0	9.000	L1	19.8
3.755000	39.58	---	73.00	33.42	1000.0	9.000	L1	19.8
4.200000	---	32.27	60.00	27.73	1000.0	9.000	L1	19.8
4.200000	38.38	---	73.00	34.62	1000.0	9.000	L1	19.8
13.560000	---	24.98	60.00	35.02	1000.0	9.000	L1	20.2
13.560000	35.33	---	73.00	37.67	1000.0	9.000	L1	20.2
23.130000	---	37.81	60.00	22.19	1000.0	9.000	L1	20.5
23.130000	40.99	---	73.00	32.01	1000.0	9.000	L1	20.5



Report No. : KES-EM252720

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○ Test Date : 2025-08-12

● Test Mode : Mode 5

Test Report

Test Description:

Conducted Emission

Job No.:

KES-EM252720

Phase:

N

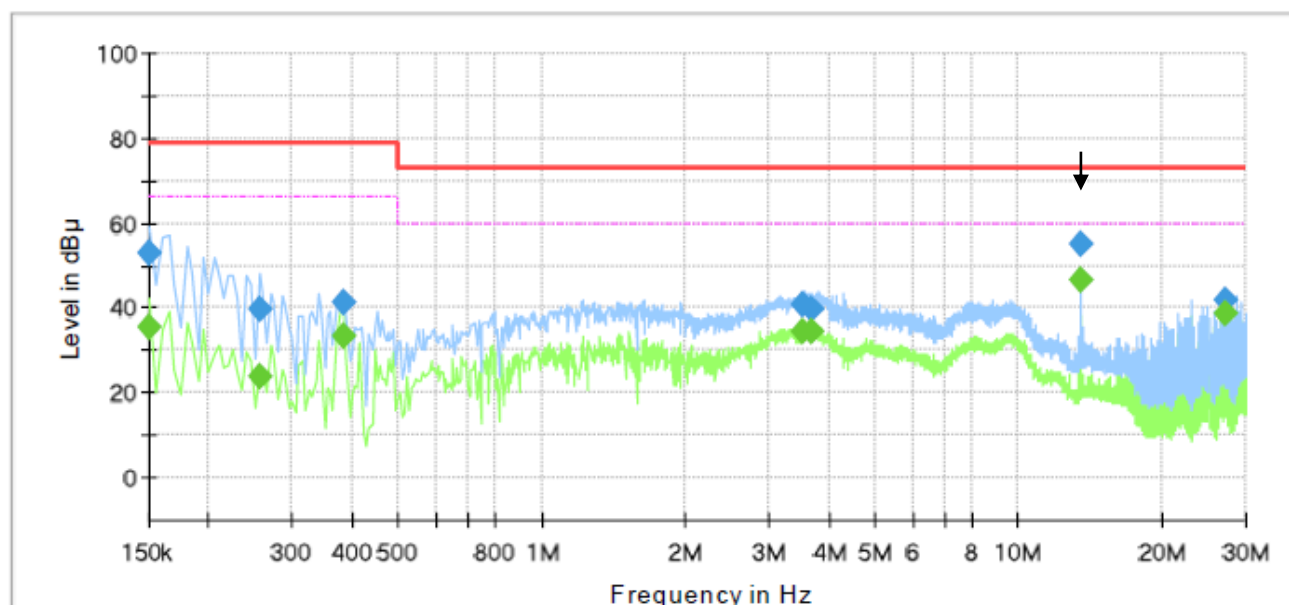
Mode:

Mode 5

Operator Name:

KES

↓ : Associated equipment wireless frequency



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	---	35.56	66.00	30.44	1000.0	9.000	N	19.5
0.150000	52.69	---	79.00	26.31	1000.0	9.000	N	19.5
0.255000	---	24.00	66.00	42.00	1000.0	9.000	N	19.5
0.255000	39.50	---	79.00	39.50	1000.0	9.000	N	19.5
0.385000	---	33.27	66.00	32.73	1000.0	9.000	N	19.5
0.385000	41.42	---	79.00	37.58	1000.0	9.000	N	19.5
3.520000	---	34.33	60.00	25.67	1000.0	9.000	N	19.8
3.520000	40.78	---	73.00	32.22	1000.0	9.000	N	19.8
3.670000	---	34.29	60.00	25.71	1000.0	9.000	N	19.8
3.670000	39.78	---	73.00	33.22	1000.0	9.000	N	19.8
13.560000	---	46.77	60.00	13.23	1000.0	9.000	N	20.2
13.560000	54.91	---	73.00	18.09	1000.0	9.000	N	20.2
27.160000	---	38.47	60.00	21.53	1000.0	9.000	N	20.5
27.160000	41.66	---	73.00	31.34	1000.0	9.000	N	20.5



Report No. : KES-EM252720

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○ Test Date : 2025-08-12

● Test Mode : Mode 6

Test Report

Test Description:

Conducted Emission

Job No.:

KES-EM252720

Phase:

L

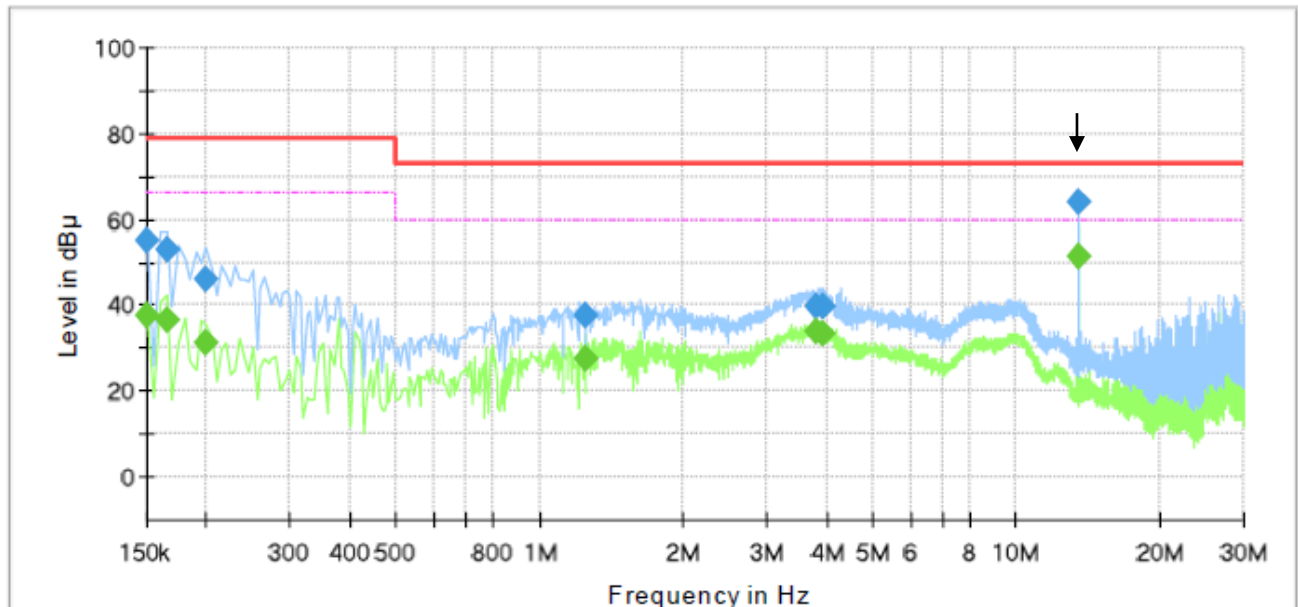
Mode:

Mode 6

Operator Name:

KES

↓ : Associated equipment wireless frequency



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	---	37.78	66.00	28.22	1000.0	9.000	L1	19.5
0.150000	55.06	---	79.00	23.94	1000.0	9.000	L1	19.5
0.165000	---	36.78	66.00	29.22	1000.0	9.000	L1	19.5
0.165000	52.82	---	79.00	26.18	1000.0	9.000	L1	19.5
0.200000	---	31.44	66.00	34.56	1000.0	9.000	L1	19.5
0.200000	46.00	---	79.00	33.00	1000.0	9.000	L1	19.5
1.245000	---	27.76	60.00	32.24	1000.0	9.000	L1	19.6
1.245000	37.84	---	73.00	35.16	1000.0	9.000	L1	19.6
3.810000	---	34.03	60.00	25.97	1000.0	9.000	L1	19.8
3.810000	39.79	---	73.00	33.21	1000.0	9.000	L1	19.8
3.940000	---	33.25	60.00	26.75	1000.0	9.000	L1	19.8
3.940000	39.58	---	73.00	33.42	1000.0	9.000	L1	19.8
13.560000	---	51.53	60.00	8.47	1000.0	9.000	L1	20.2
13.560000	63.96	---	73.00	9.04	1000.0	9.000	L1	20.2



○ Test Date : 2025-08-12

● Test Mode : Mode 6

Test Report

Test Description:

Job No.:

Phase:

Mode:

Operator Name:

Conducted Emission

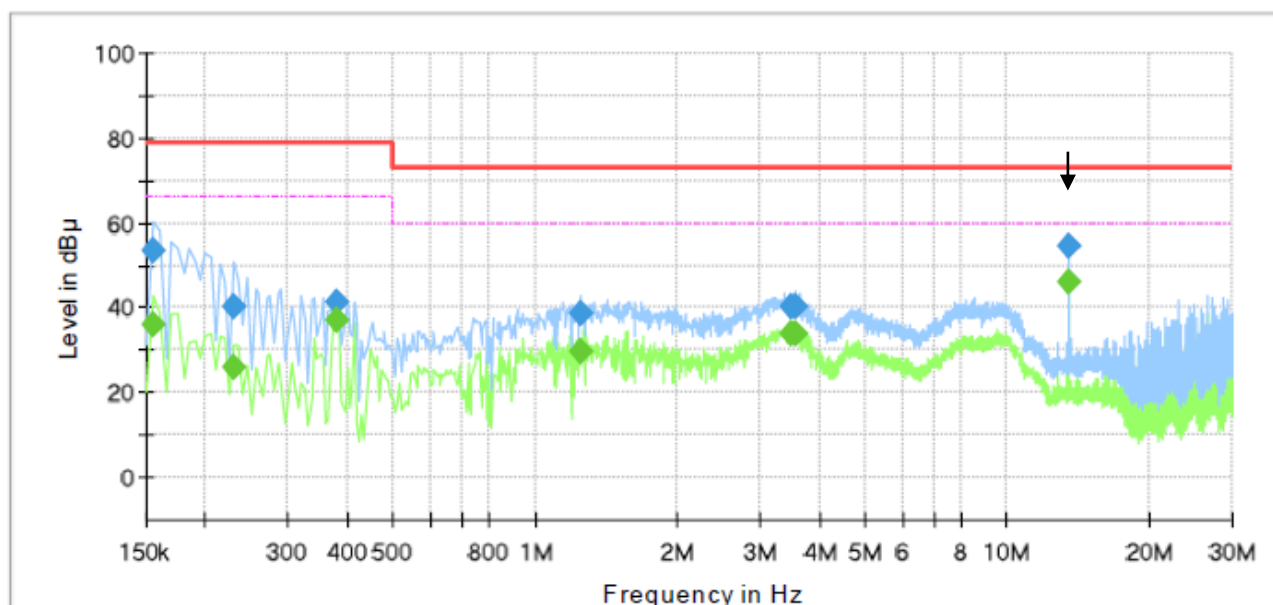
KES-EM252720

N

Mode 6

KES

↓ : Associated equipment wireless frequency



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.155000	---	35.87	66.00	30.13	1000.0	9.000	N	19.5
0.155000	53.30	---	79.00	25.70	1000.0	9.000	N	19.5
0.230000	---	25.87	66.00	40.13	1000.0	9.000	N	19.5
0.230000	40.30	---	79.00	38.70	1000.0	9.000	N	19.5
0.380000	---	37.17	66.00	28.83	1000.0	9.000	N	19.5
0.380000	41.43	---	79.00	37.57	1000.0	9.000	N	19.5
1.250000	---	29.83	60.00	30.17	1000.0	9.000	N	19.6
1.250000	38.91	---	73.00	34.09	1000.0	9.000	N	19.6
3.495000	---	33.94	60.00	26.06	1000.0	9.000	N	19.8
3.495000	40.24	---	73.00	32.76	1000.0	9.000	N	19.8
3.545000	---	33.81	60.00	26.19	1000.0	9.000	N	19.8
3.545000	40.13	---	73.00	32.87	1000.0	9.000	N	19.8
13.560000	---	45.93	60.00	14.07	1000.0	9.000	N	20.2
13.560000	54.39	---	73.00	18.61	1000.0	9.000	N	20.2

6.1.6 Remark

Complies with the test requirements.

Mode 1 ~ 6 : Associated equipment wireless frequency 13.56 MHz (Exclusion band)

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).



6.2 Radiated Emissions(Below 1 GHz)

6.2.1 Test Equipment

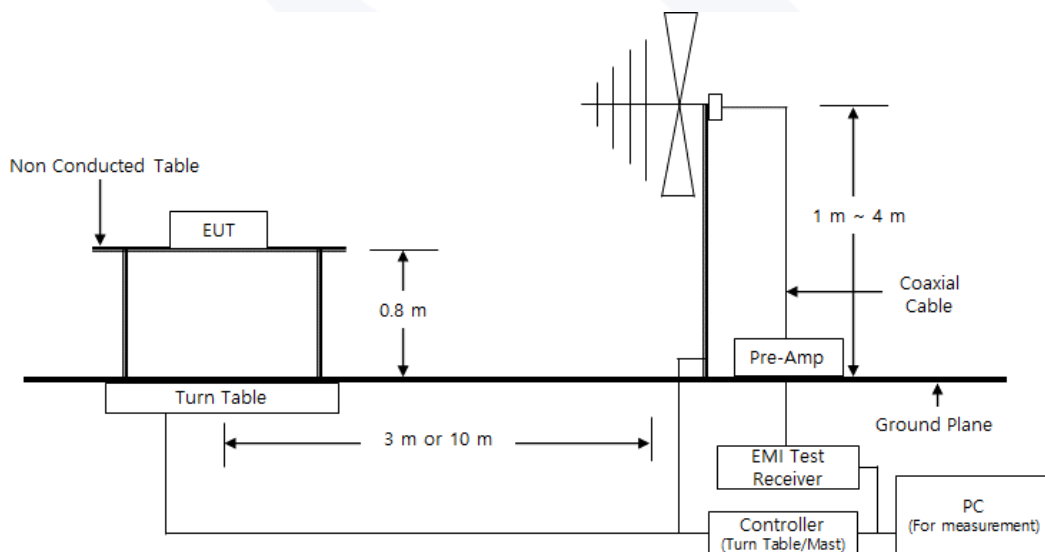
Equipment Name	Model Number	Manufacturer	Serial No.	Cal. Date	Next Cal. Date	Used
SEMI ANECHOIC CHAMBER #4(10 m)	-	DYMSTEC	-	-	-	■
EP5/RE Software	EP5/RE	TOYO	6.0.0	-	-	■
EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100551	2025-02-13	2026-02-13	■
AMPLIFIER	SCU 01	Rohde & Schwarz	100603	2024-11-06	2025-11-06	■
BILOG ANTENNA	VULB 9168	SCHWARZBECK	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
(26.3 ~ 26.6) °C	(56.3 ~ 57.5) % R.H.

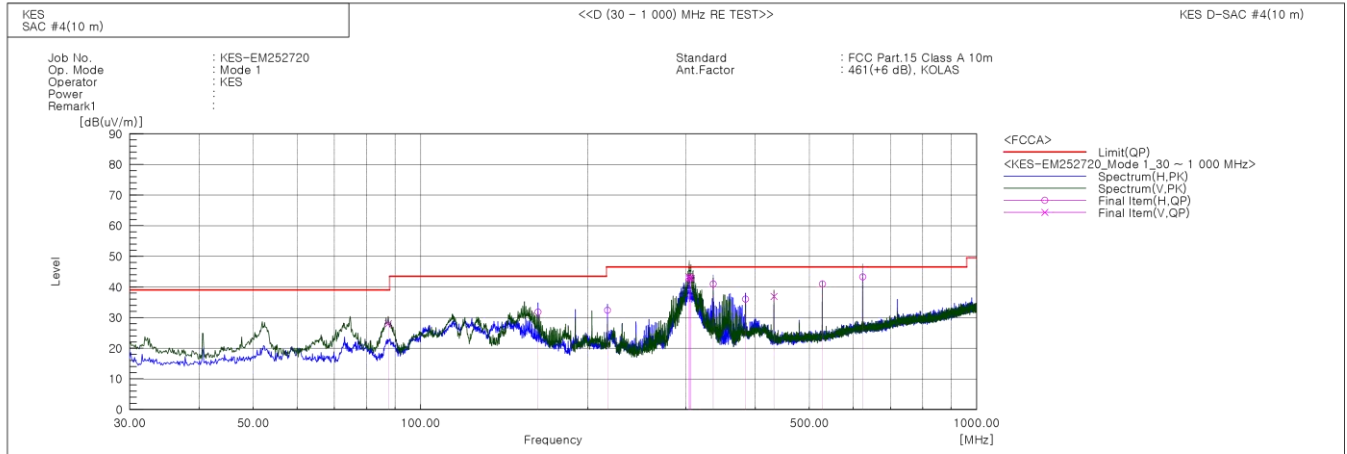
6.2.4 Diagram of test setup





6.2.5 Test Result

- Test Date : 2025-08-09
- Test Mode : Mode 1_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	87.473	V	54.2	-26.2	28.0	39.0	11.0	120.0	213.0	
2	162.648	H	51.4	-19.6	31.8	43.5	11.7	252.0	284.0	
3	216.968	H	53.8	-21.4	32.4	46.5	14.1	347.0	157.0	
4	303.540	V	60.3	-16.9	43.4	46.5	3.1	106.0	348.0	
5	304.268	V	59.5	-16.8	42.7	46.5	3.8	100.0	1.0	
6	305.238	V	59.8	-16.8	43.0	46.5	3.5	110.0	325.0	
7	306.450	V	59.6	-16.8	42.8	46.5	3.7	100.0	5.0	
8	336.035	H	56.9	-15.9	41.0	46.5	5.5	400.0	42.0	
9	384.050	H	50.3	-14.3	36.0	46.5	10.5	280.0	187.0	
10	431.944	V	49.1	-12.2	36.9	46.5	9.6	100.0	340.0	
11	527.974	H	50.5	-9.5	41.0	46.5	5.5	386.0	187.0	
12	624.004	H	49.9	-6.6	43.3	46.5	3.2	391.0	273.0	

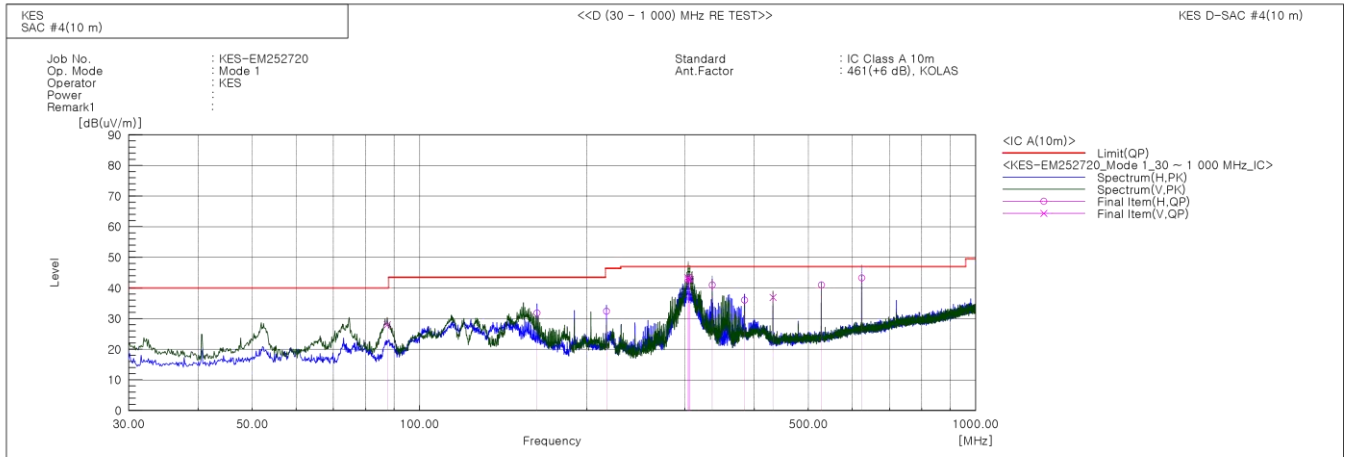
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM252720

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- Test Date : 2025-08-09
- Test Mode : Mode 1_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	87.473	V	54.2	-26.2	28.0	40.0	12.0	120.0	213.0	
2	162.648	H	51.4	-19.6	31.8	43.5	11.7	252.0	284.0	
3	216.968	H	53.8	-21.4	32.4	46.4	14.0	347.0	157.0	
4	303.540	V	60.3	-16.9	43.4	47.0	3.6	106.0	348.0	
5	304.268	V	59.5	-16.8	42.7	47.0	4.3	100.0	1.0	
6	305.238	V	59.8	-16.8	43.0	47.0	4.0	110.0	325.0	
7	306.450	V	59.6	-16.8	42.8	47.0	4.2	100.0	5.0	
8	336.035	H	56.9	-15.9	41.0	47.0	6.0	400.0	42.0	
9	384.050	H	50.3	-14.3	36.0	47.0	11.0	280.0	187.0	
10	431.944	V	49.1	-12.2	36.9	47.0	10.1	100.0	340.0	
11	527.974	H	50.5	-9.5	41.0	47.0	6.0	386.0	187.0	
12	624.004	H	49.9	-6.6	43.3	47.0	3.7	391.0	273.0	

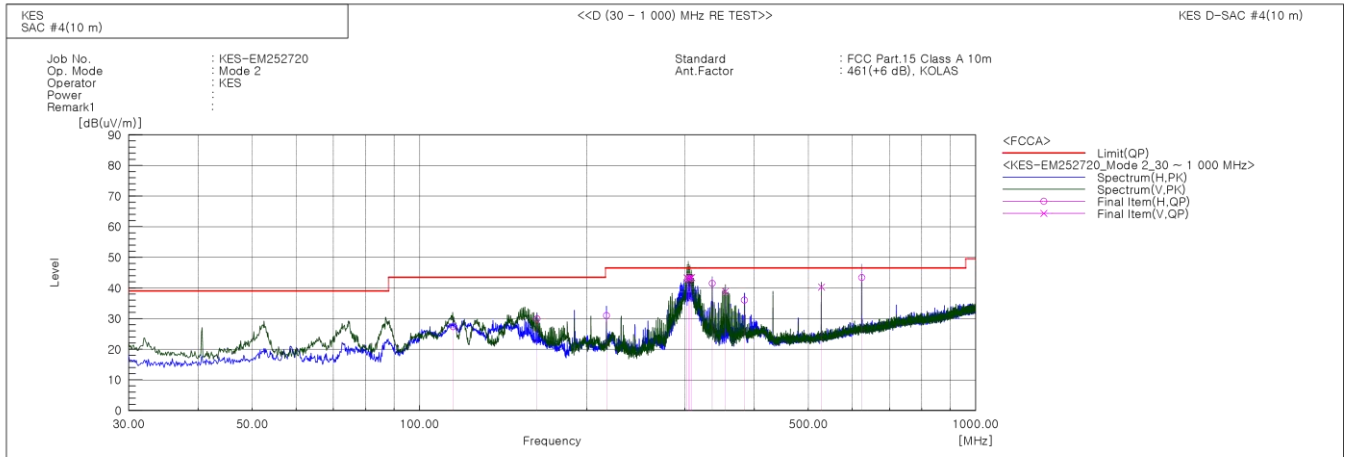
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM252720

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- Test Date : 2025-08-09
- Test Mode : Mode 2_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	114.875	H	50.3	-22.9	27.4	43.5	16.1	195.0	12.0	
2	162.648	H	49.5	-19.6	29.9	43.5	13.6	236.0	316.0	
3	216.968	H	52.4	-21.4	31.0	46.5	15.5	400.0	177.0	
4	302.449	V	60.2	-16.9	43.3	46.5	3.2	100.0	292.0	
5	304.389	V	59.8	-16.8	43.0	46.5	3.5	108.0	6.0	
6	306.450	V	60.1	-16.8	43.3	46.5	3.2	100.0	4.0	
7	308.390	V	60.1	-16.7	43.4	46.5	3.1	105.0	303.0	
8	336.035	H	57.4	-15.9	41.5	46.5	5.0	384.0	46.0	
9	354.829	V	54.2	-15.3	38.9	46.5	7.6	150.0	262.0	
10	383.929	H	50.3	-14.3	36.0	46.5	10.5	395.0	199.0	
11	527.974	V	49.8	-9.5	40.3	46.5	6.2	114.0	322.0	
12	624.004	H	50.0	-6.6	43.4	46.5	3.1	400.0	267.0	

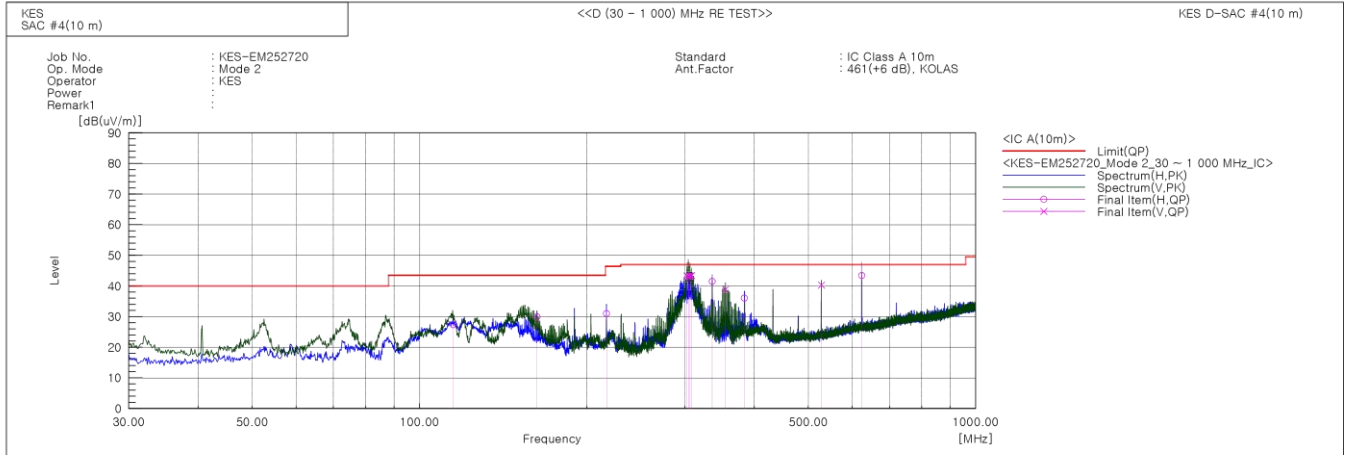
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM252720

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- Test Date : 2025-08-09
- Test Mode : Mode 2_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	114.875	H	50.3	-22.9	27.4	43.5	16.1	195.0	12.0	
2	162.648	H	49.5	-19.6	29.9	43.5	13.6	236.0	316.0	
3	216.968	H	52.4	-21.4	31.0	46.4	15.4	400.0	177.0	
4	302.449	V	60.2	-16.9	43.3	47.0	3.7	100.0	292.0	
5	304.389	V	59.8	-16.8	43.0	47.0	4.0	108.0	6.0	
6	306.450	V	60.1	-16.8	43.3	47.0	3.7	100.0	4.0	
7	308.390	V	60.1	-16.7	43.4	47.0	3.6	105.0	303.0	
8	336.035	H	57.4	-15.9	41.5	47.0	5.5	384.0	46.0	
9	354.829	V	54.2	-15.3	38.9	47.0	8.1	150.0	262.0	
10	383.929	H	50.3	-14.3	36.0	47.0	11.0	395.0	199.0	
11	527.974	V	49.8	-9.5	40.3	47.0	6.7	114.0	322.0	
12	624.004	H	50.0	-6.6	43.4	47.0	3.6	400.0	267.0	

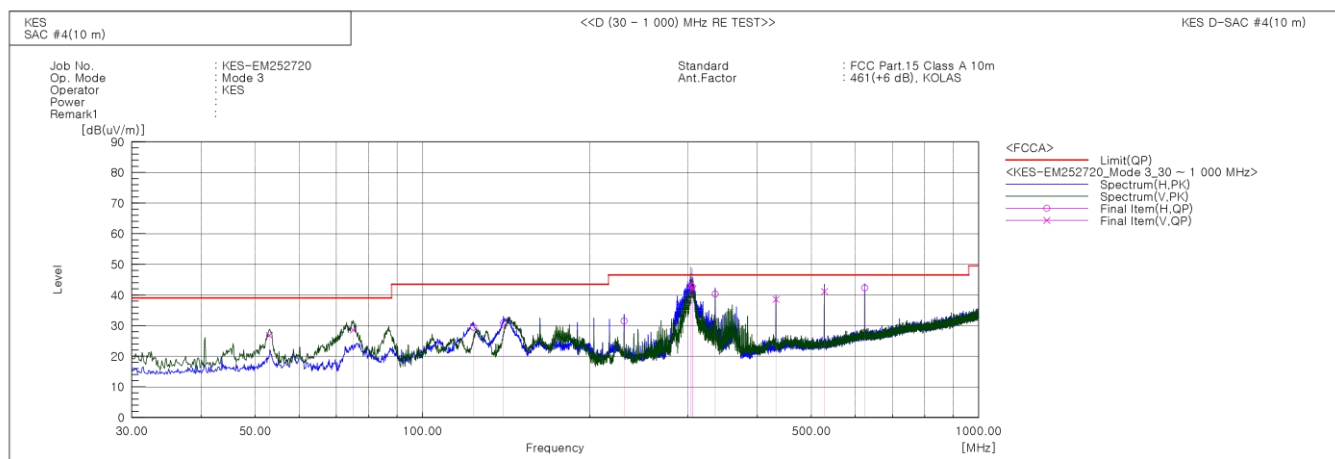
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM252720

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- Test Date : 2025-08-09
- Test Mode : Mode 3_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	53.038	V	47.7	-20.9	26.8	39.0	12.2	100.0	288.0	
2	75.105	V	52.8	-24.2	28.6	39.0	10.4	156.0	78.0	
3	123.605	H	51.4	-21.9	29.5	43.5	14.0	214.0	214.0	
4	139.731	H	51.0	-20.1	30.9	43.5	12.6	268.0	131.0	
5	230.426	H	52.1	-20.6	31.5	46.5	15.0	386.0	304.0	
6	303.298	V	60.2	-16.9	43.3	46.5	3.2	148.0	160.0	
7	305.238	H	59.5	-16.8	42.7	46.5	3.8	400.0	218.0	
8	306.329	V	58.8	-16.8	42.0	46.5	4.5	100.0	10.0	
9	336.035	H	56.2	-15.9	40.3	46.5	6.2	400.0	30.0	
10	432.065	V	50.8	-12.2	38.6	46.5	7.9	116.0	318.0	
11	527.974	V	50.6	-9.5	41.1	46.5	5.4	105.0	26.0	
12	624.004	H	48.9	-6.6	42.3	46.5	4.2	390.0	300.0	

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

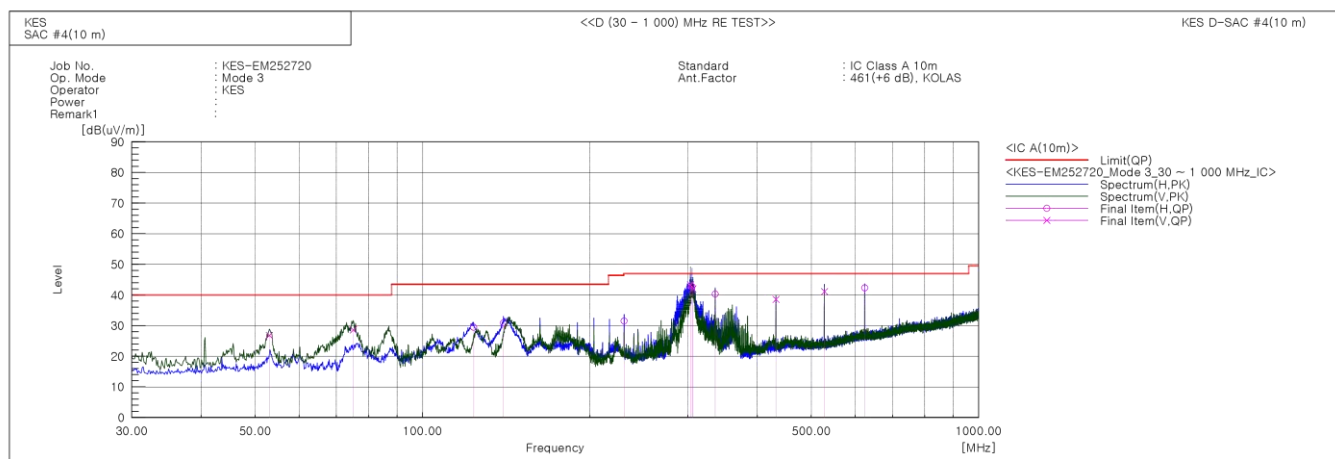


Report No. : KES-EM252720

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○ Test Date : 2025-08-09

● Test Mode : Mode 3_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	53.038	V	47.7	-20.9	26.8	40.0	13.2	100.0	288.0	
2	75.105	V	52.8	-24.2	28.6	40.0	11.4	156.0	78.0	
3	123.605	H	51.4	-21.9	29.5	43.5	14.0	214.0	214.0	
4	139.731	H	51.0	-20.1	30.9	43.5	12.6	268.0	131.0	
5	230.426	H	52.1	-20.6	31.5	47.0	15.5	386.0	304.0	
6	303.298	V	60.2	-16.9	43.3	47.0	3.7	148.0	160.0	
7	305.238	H	59.5	-16.8	42.7	47.0	4.3	400.0	218.0	
8	306.329	V	58.8	-16.8	42.0	47.0	5.0	100.0	10.0	
9	336.035	H	56.2	-15.9	40.3	47.0	6.7	400.0	30.0	
10	432.065	V	50.8	-12.2	38.6	47.0	8.4	116.0	318.0	
11	527.974	V	50.6	-9.5	41.1	47.0	5.9	105.0	26.0	
12	624.004	H	48.9	-6.6	42.3	47.0	4.7	390.0	300.0	

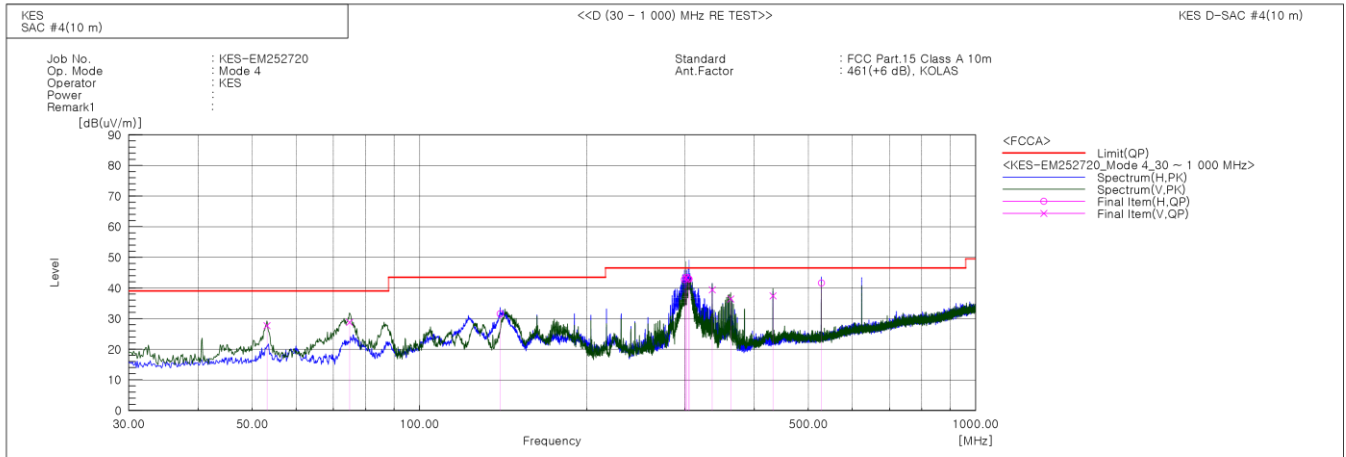
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM252720

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- Test Date : 2025-08-09
- Test Mode : Mode 4_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	53.159	V	48.6	-20.9	27.7	39.0	11.3	117.0	221.0	
2	74.863	V	52.9	-24.1	28.8	39.0	10.2	138.0	96.0	
3	139.610	H	51.7	-20.1	31.6	43.5	11.9	230.0	128.0	
4	299.296	H	59.8	-17.0	42.8	46.5	3.7	400.0	280.0	
5	301.358	V	60.4	-17.0	43.4	46.5	3.1	150.0	262.0	
6	302.328	H	60.3	-16.9	43.4	46.5	3.1	380.0	161.0	
7	304.389	H	59.8	-16.8	43.0	46.5	3.5	400.0	202.0	
8	305.359	H	59.7	-16.8	42.9	46.5	3.6	372.0	202.0	
9	336.035	V	55.3	-15.9	39.4	46.5	7.1	125.0	348.0	
10	362.831	V	51.4	-15.0	36.4	46.5	10.1	160.0	251.0	
11	431.944	V	49.6	-12.2	37.4	46.5	9.1	144.0	315.0	
12	527.974	H	51.1	-9.5	41.6	46.5	4.9	100.0	173.0	

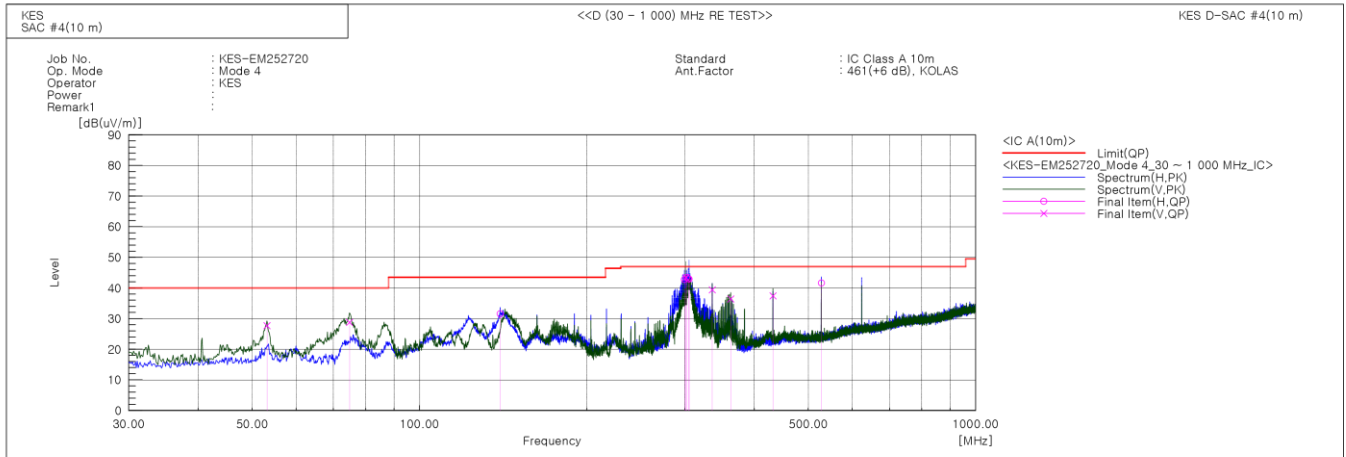
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM252720

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- Test Date : 2025-08-09
- Test Mode : Mode 4_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	53.159	V	48.6	-20.9	27.7	40.0	12.3	117.0	221.0	
2	74.863	V	52.9	-24.1	28.8	40.0	11.2	138.0	96.0	
3	139.610	H	51.7	-20.1	31.6	43.5	11.9	230.0	128.0	
4	299.296	H	59.8	-17.0	42.8	47.0	4.2	400.0	280.0	
5	301.358	V	60.4	-17.0	43.4	47.0	3.6	150.0	262.0	
6	302.328	H	60.3	-16.9	43.4	47.0	3.6	380.0	161.0	
7	304.389	H	59.8	-16.8	43.0	47.0	4.0	400.0	202.0	
8	305.359	H	59.7	-16.8	42.9	47.0	4.1	372.0	202.0	
9	336.035	V	55.3	-15.9	39.4	47.0	7.6	125.0	348.0	
10	362.831	V	51.4	-15.0	36.4	47.0	10.6	160.0	251.0	
11	431.944	V	49.6	-12.2	37.4	47.0	9.6	144.0	315.0	
12	527.974	H	51.1	-9.5	41.6	47.0	5.4	100.0	173.0	

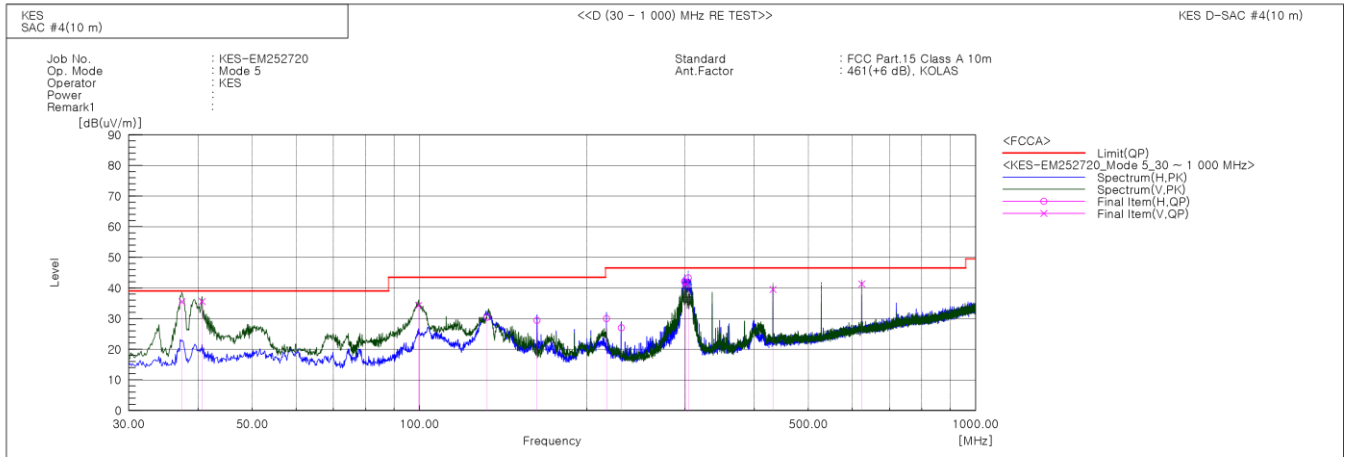
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM252720

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- Test Date : 2025-08-11
- Test Mode : Mode 5_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	37.396	V	57.5	-22.0	35.5	39.0	3.5	108.0	12.0	
2	40.670	V	57.4	-21.8	35.6	39.0	3.4	126.0	350.0	
3	99.598	V	59.2	-24.9	34.3	43.5	9.2	100.0	95.0	
4	132.335	H	51.3	-20.9	30.4	43.5	13.1	265.0	74.0	
5	162.648	H	49.0	-19.6	29.4	43.5	14.1	200.0	37.0	
6	216.968	H	51.4	-21.4	30.0	46.5	16.5	100.0	108.0	
7	230.548	H	47.6	-20.6	27.0	46.5	19.5	320.0	108.0	
8	299.539	H	59.1	-17.0	42.1	46.5	4.4	400.0	33.0	
9	301.115	V	58.3	-17.0	41.3	46.5	5.2	114.0	356.0	
10	304.389	H	60.1	-16.8	43.3	46.5	3.2	386.0	205.0	
11	432.065	V	51.7	-12.2	39.5	46.5	7.0	150.0	293.0	
12	624.004	V	47.9	-6.6	41.3	46.5	5.2	100.0	46.0	

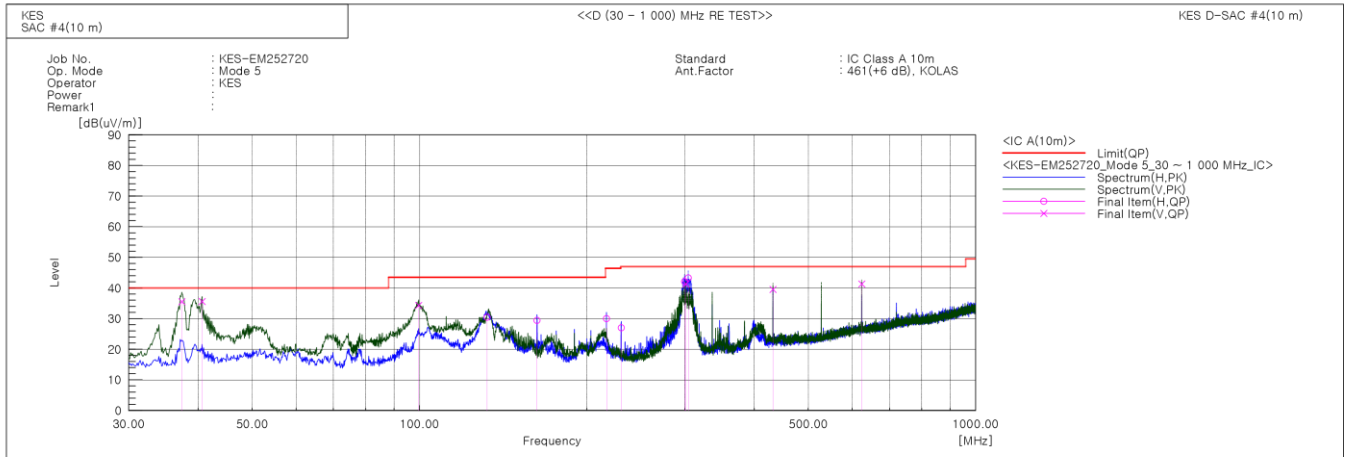
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM252720

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- Test Date : 2025-08-11
- Test Mode : Mode 5_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	37.396	V	57.5	-22.0	35.5	40.0	4.5	108.0	12.0	
2	40.670	V	57.4	-21.8	35.6	40.0	4.4	126.0	350.0	
3	99.598	V	59.2	-24.9	34.3	43.5	9.2	100.0	95.0	
4	132.335	H	51.3	-20.9	30.4	43.5	13.1	265.0	74.0	
5	162.648	H	49.0	-19.6	29.4	43.5	14.1	200.0	37.0	
6	216.968	H	51.4	-21.4	30.0	46.4	16.4	100.0	108.0	
7	230.548	H	47.6	-20.6	27.0	47.0	20.0	320.0	108.0	
8	299.539	H	59.1	-17.0	42.1	47.0	4.9	400.0	33.0	
9	301.115	V	58.3	-17.0	41.3	47.0	5.7	114.0	356.0	
10	304.389	H	60.1	-16.8	43.3	47.0	3.7	386.0	205.0	
11	432.065	V	51.7	-12.2	39.5	47.0	7.5	150.0	293.0	
12	624.004	V	47.9	-6.6	41.3	47.0	5.7	100.0	46.0	

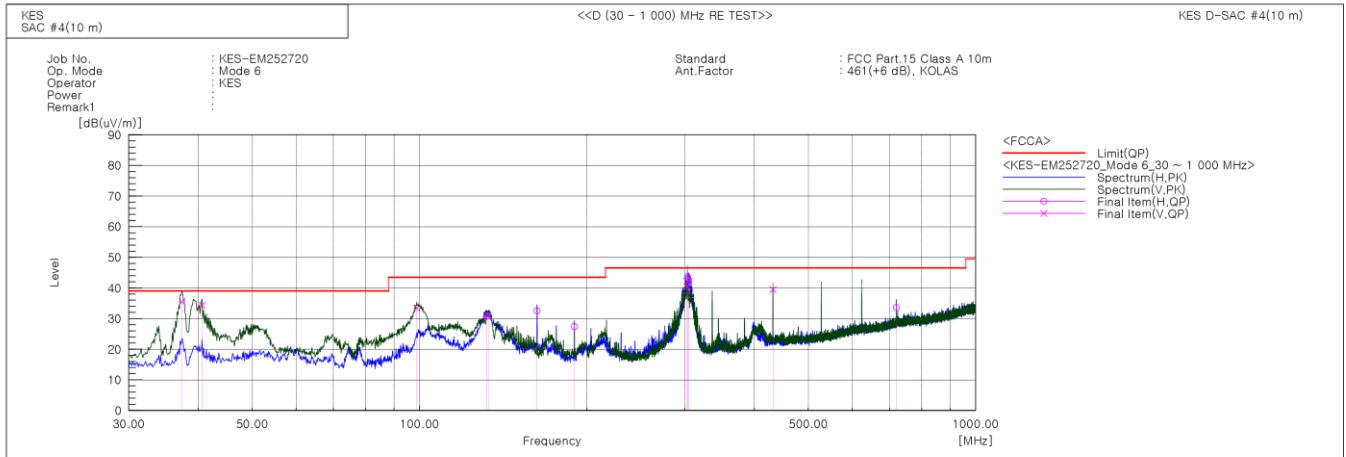
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM252720

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- Test Date : 2025-08-11
- Test Mode : Mode 6_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	37.396	V	57.6	-22.0	35.6	39.0	3.4	150.0	24.0	
2	40.670	V	56.2	-21.8	34.4	39.0	4.6	147.0	50.0	
3	98.870	V	58.4	-25.0	33.4	43.5	10.1	132.0	238.0	
4	131.971	H	51.6	-20.9	30.7	43.5	12.8	196.0	68.0	
5	132.941	V	51.7	-20.8	30.9	43.5	12.6	115.0	242.0	
6	162.648	H	52.1	-19.6	32.5	43.5	11.0	200.0	42.0	
7	189.808	H	49.0	-21.6	27.4	43.5	16.1	400.0	31.0	
8	302.328	V	57.3	-16.9	40.4	46.5	6.1	168.0	46.0	
9	303.298	H	60.1	-16.9	43.2	46.5	3.3	390.0	38.0	
10	305.116	H	59.4	-16.8	42.6	46.5	3.9	400.0	35.0	
11	431.944	V	51.7	-12.2	39.5	46.5	7.0	126.0	290.0	
12	720.034	H	38.0	-4.4	33.6	46.5	12.9	400.0	200.0	

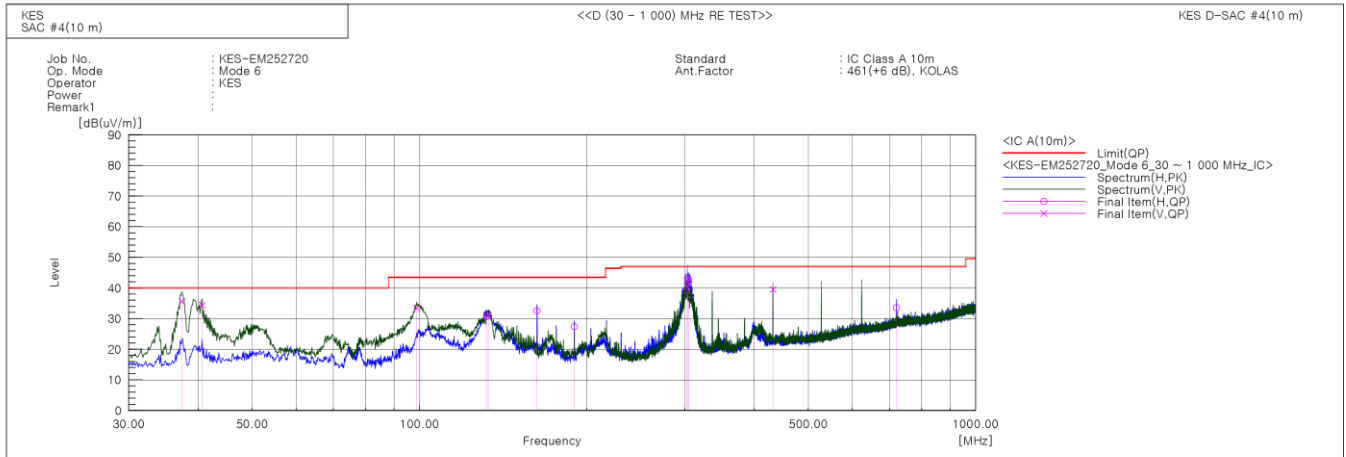
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



Report No. : KES-EM252720

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- Test Date : 2025-08-11
- Test Mode : Mode 6_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	37.396	V	57.6	-22.0	35.6	40.0	4.4	150.0	24.0	
2	40.670	V	56.2	-21.8	34.4	40.0	5.6	147.0	50.0	
3	98.870	V	58.4	-25.0	33.4	43.5	10.1	132.0	238.0	
4	131.971	H	51.6	-20.9	30.7	43.5	12.8	196.0	68.0	
5	132.941	V	51.7	-20.8	30.9	43.5	12.6	115.0	242.0	
6	162.648	H	52.1	-19.6	32.5	43.5	11.0	200.0	42.0	
7	189.808	H	49.0	-21.6	27.4	43.5	16.1	400.0	31.0	
8	302.328	V	57.3	-16.9	40.4	47.0	6.6	168.0	46.0	
9	303.298	H	60.1	-16.9	43.2	47.0	3.8	390.0	38.0	
10	305.116	H	59.4	-16.8	42.6	47.0	4.4	400.0	35.0	
11	431.944	V	51.7	-12.2	39.5	47.0	7.5	126.0	290.0	
12	720.034	H	38.0	-4.4	33.6	47.0	13.4	400.0	200.0	

※ 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

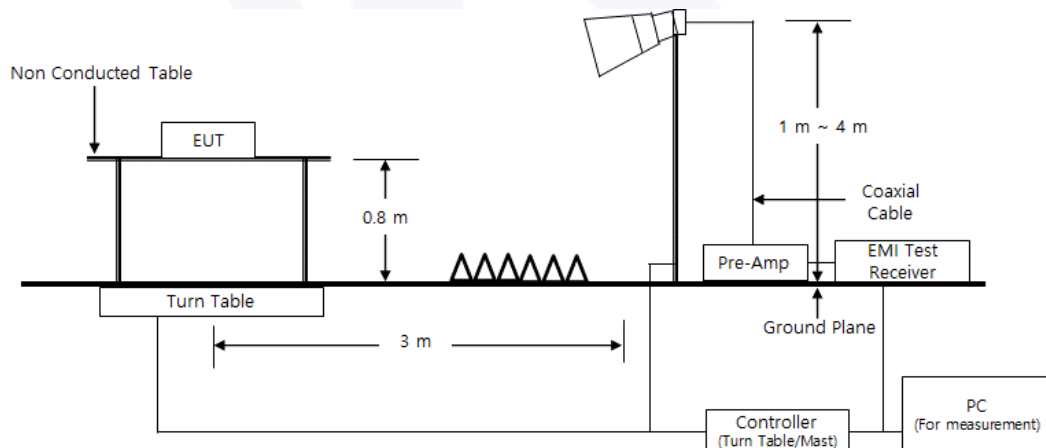
Equipment Name	Model Number	Manufacturer	Serial No.	Cal. Date	Next Cal. Date	Used
SEMI ANECHOIC CHAMBER #5	-	SY Corporation	-	-	-	■
ES10/RE Software	ES10/RE	TOYO	2022.01.000	-	-	■
EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100552	2025-02-13	2026-02-13	■
PREAMPLIFIER	8449B	HP	3008A00538	2025-04-30	2026-04-30	■
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
(26.8 ~ 27.1) °C	(53.8 ~ 54.4) % R.H.

6.3.4 Diagram of test setup



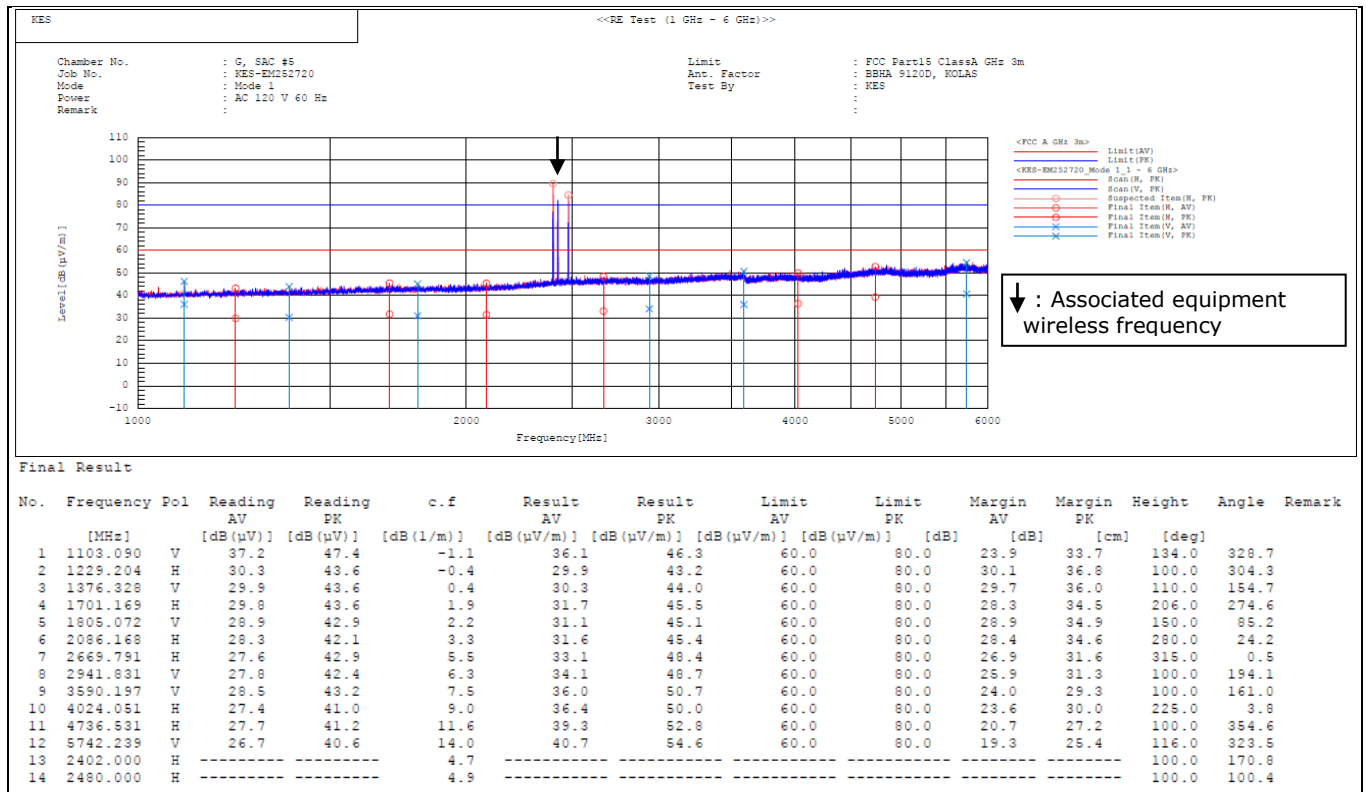


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6.3.5 Test Result

- Test Date : 2025-08-25
- Test Mode : Mode 1



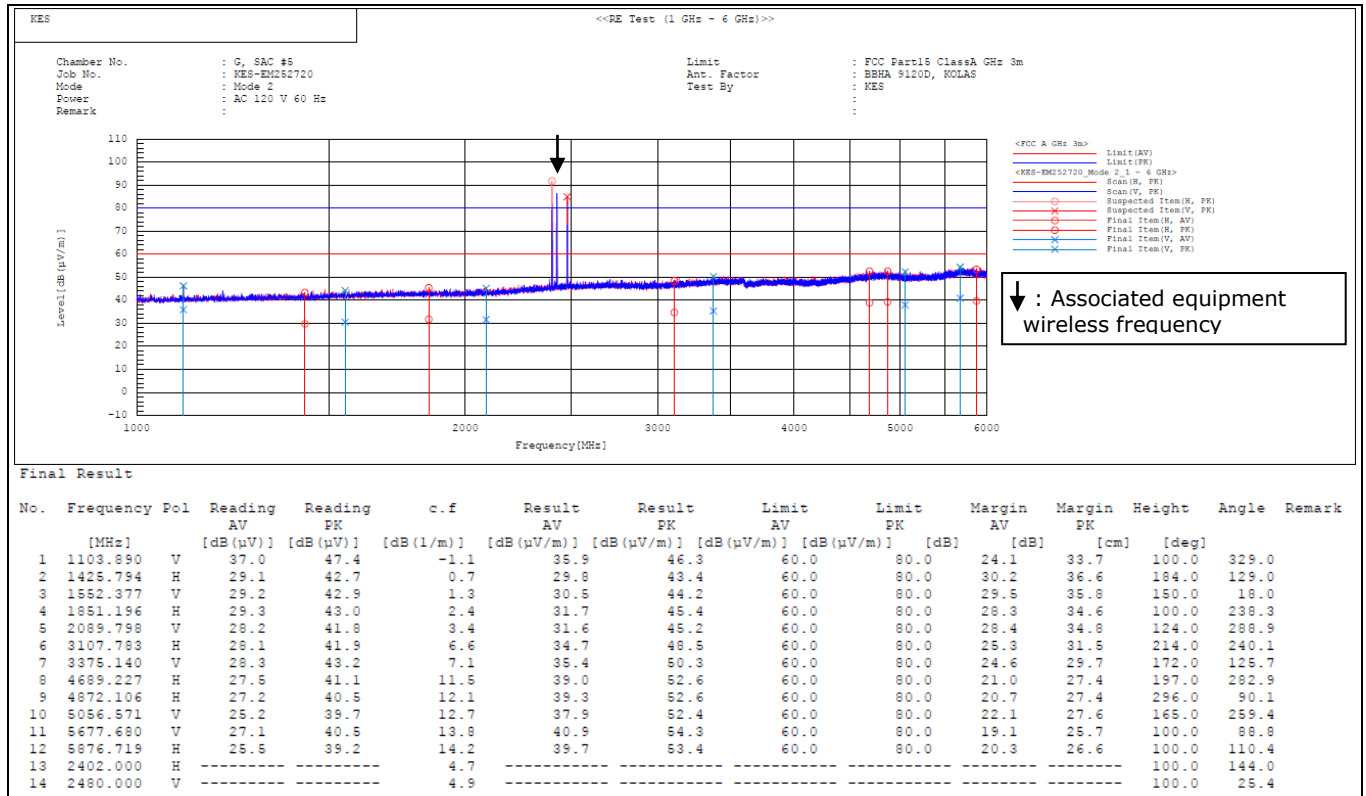
- ※ The data is the result of measured by the detector in PK and CISPR Average on the Peak graph.
- ※ The Average of the test data is the cispr average result.



Report No. : KES-EM252720

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- Test Date : 2025-08-25
- Test Mode : Mode 2



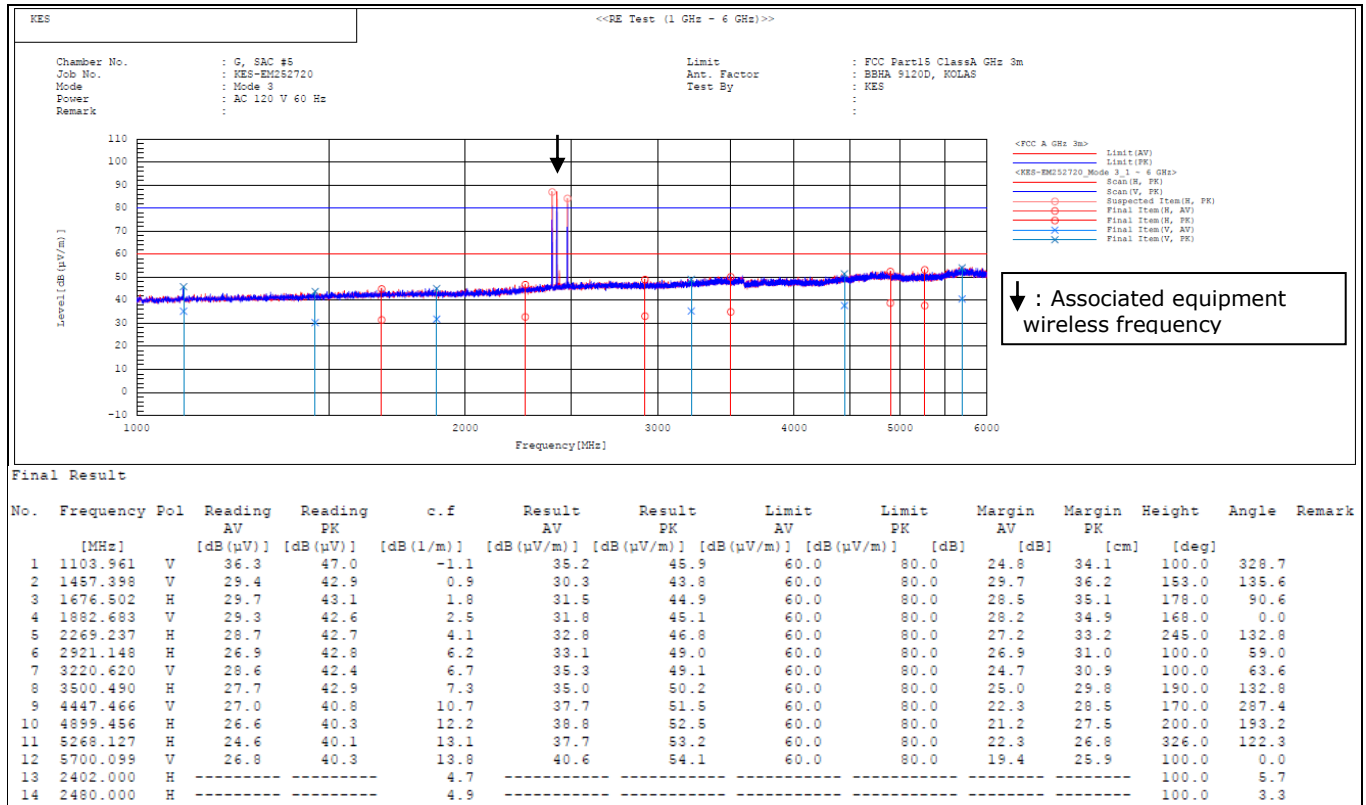
- ※ The data is the result of measured by the detector in PK and CISPR Average on the Peak graph.
- ※ The Average of the test data is the cispr average result.



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- Test Date : 2025-08-25
- Test Mode : Mode 3



- ※ 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.

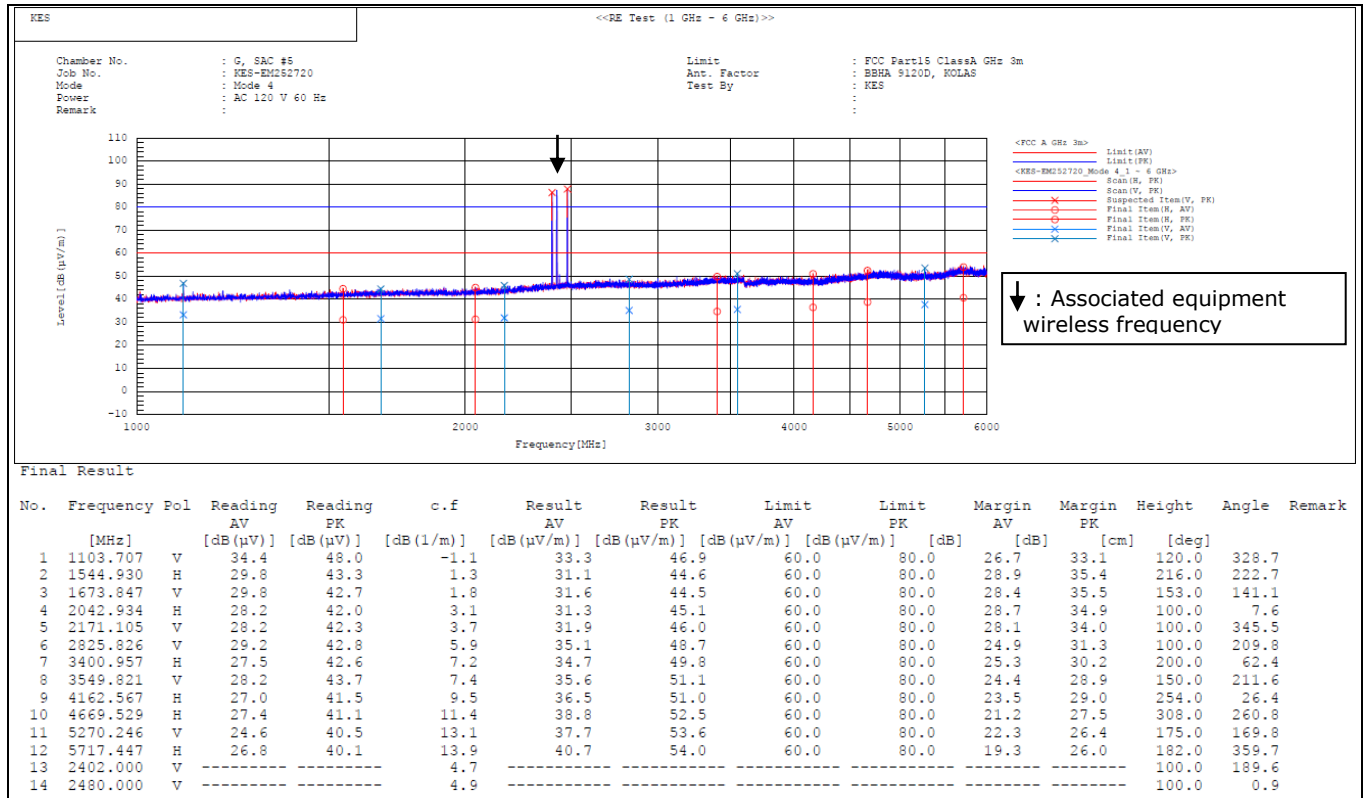


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○ Test Date : 2025-08-25

● Test Mode : Mode 4



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

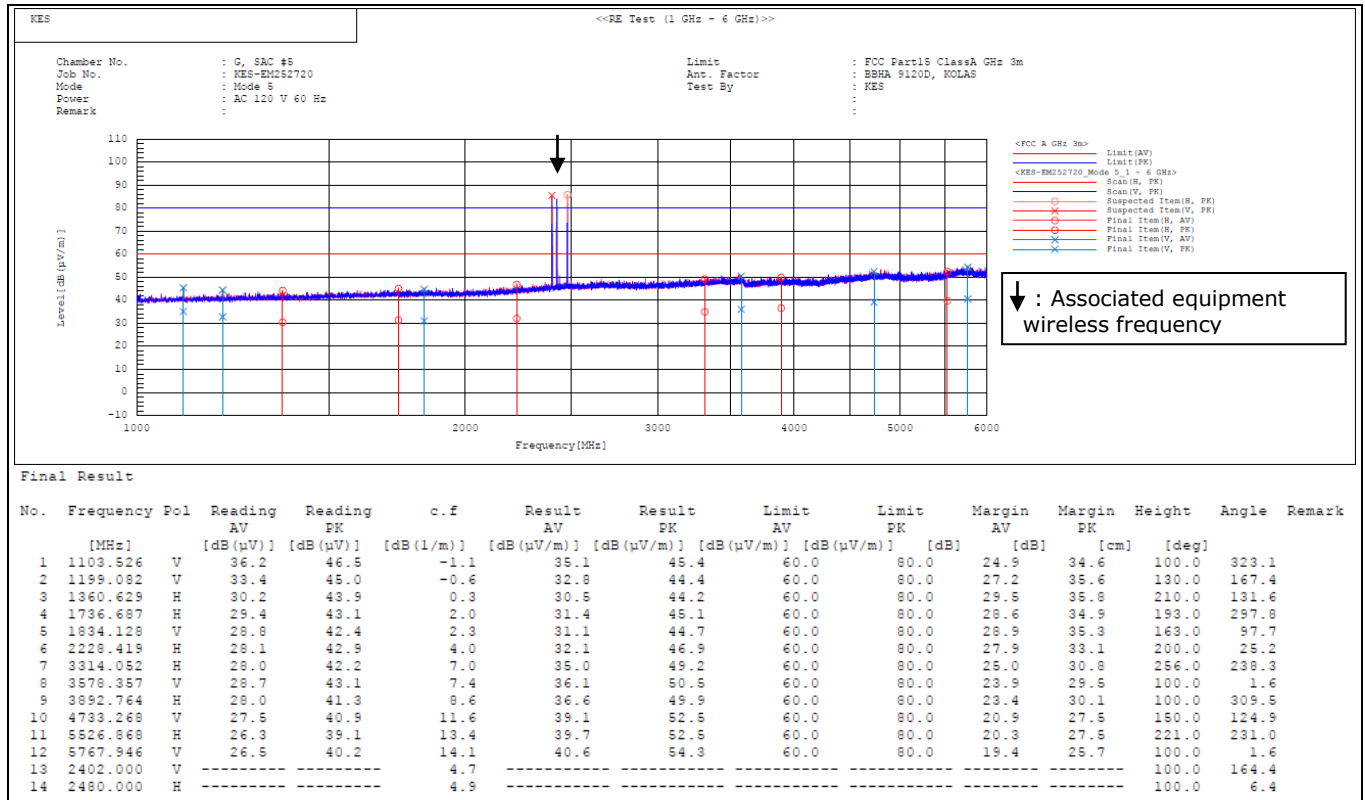
※ The Average of the test data is the cispr average result.



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- Test Date : 2025-08-25
- Test Mode : Mode 5



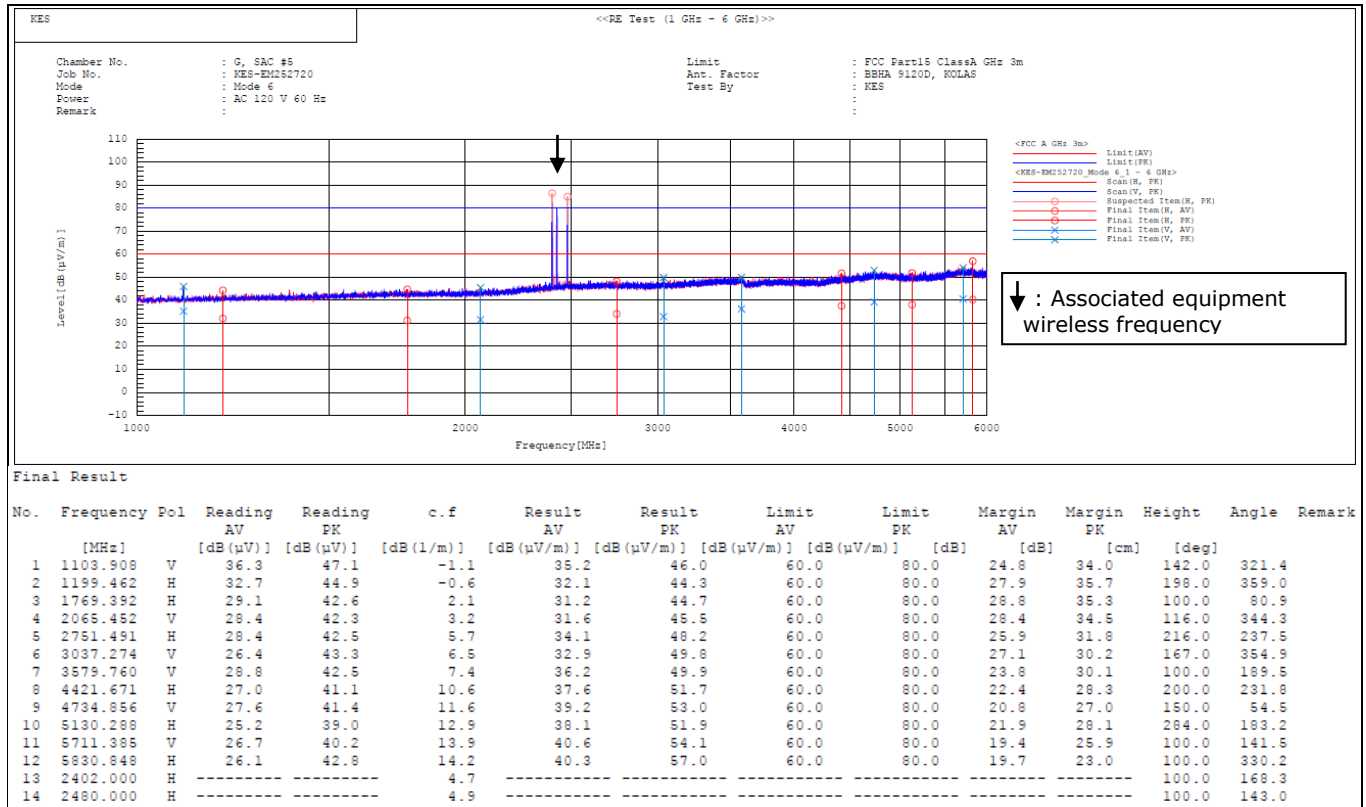
- ※ The data is the result of measured by the detector in PK and CISPR Average on the Peak graph.
- ※ The Average of the test data is the cispr average result.



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- Test Date : 2025-08-25
- Test Mode : Mode 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.

6.3.6 Remark

Complies with the test requirements.

Mode 1 ~ 6 : Associated equipment wireless frequency (2 402 ~ 2 480) MHz (Exclusion band)



7 Test Setup Photos and EUT Photographs

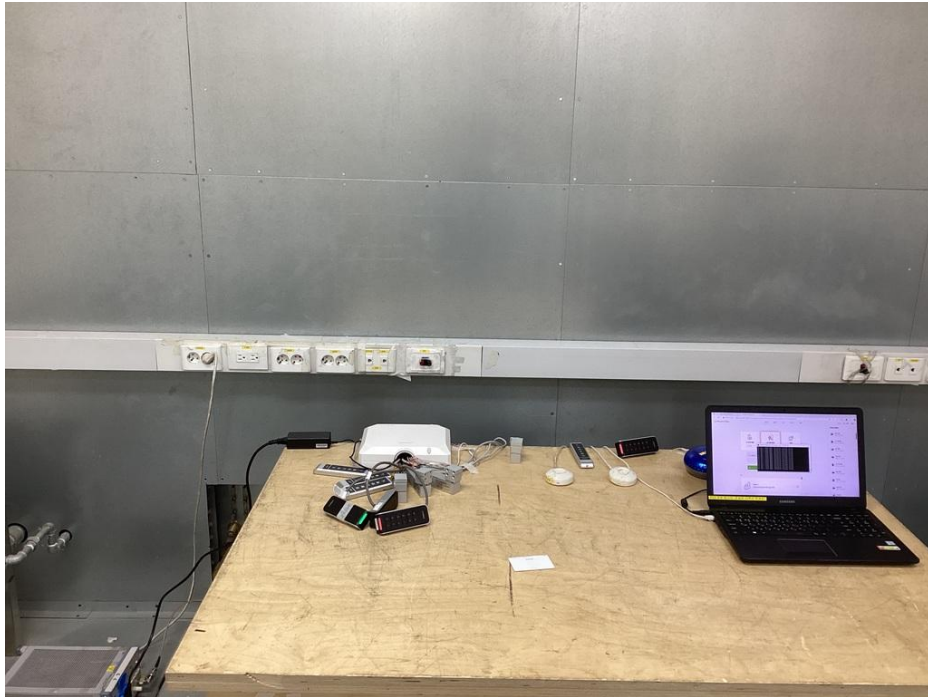
7.1 Test Setup Photos



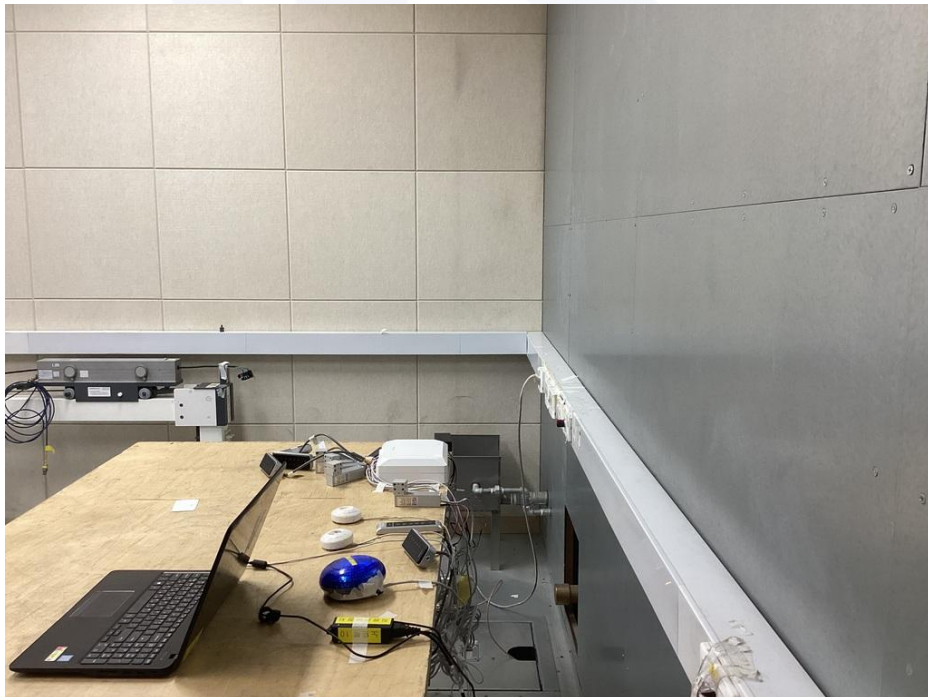
<Conducted Emissions at Mains Power Ports - Front> Mode 1, Mode 2



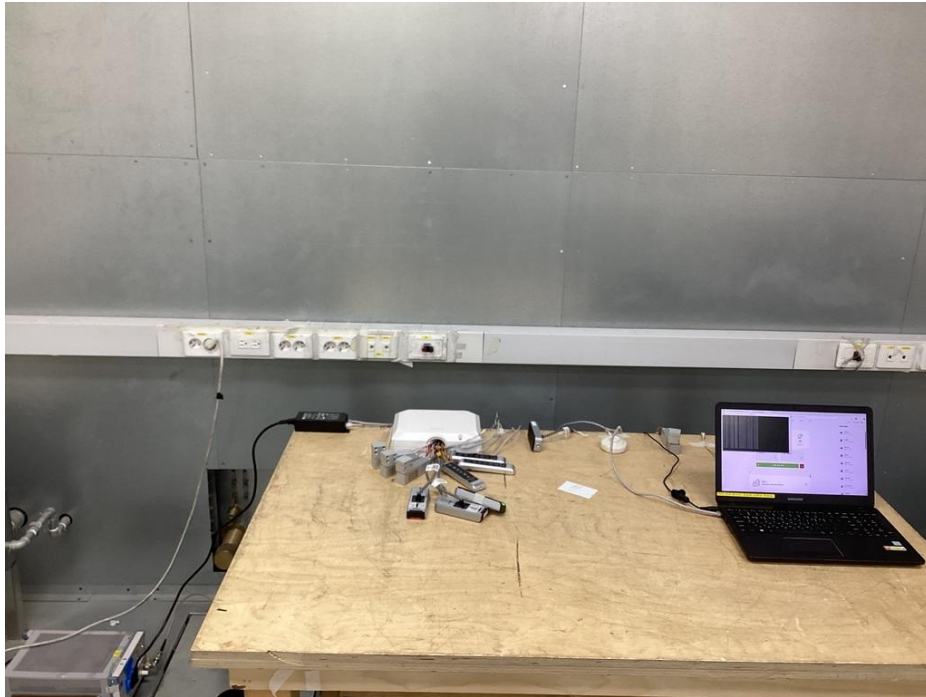
<Conducted Emissions at Mains Power Ports - Rear> Mode 1, Mode 2



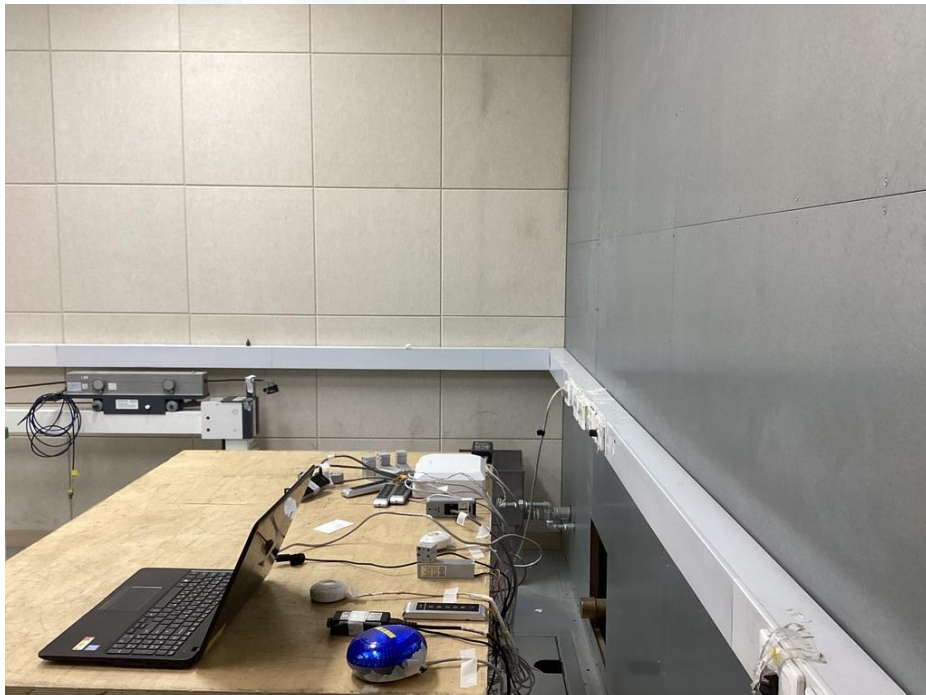
<Conducted Emissions at Mains Power Ports - Front> Mode 3, Mode 4



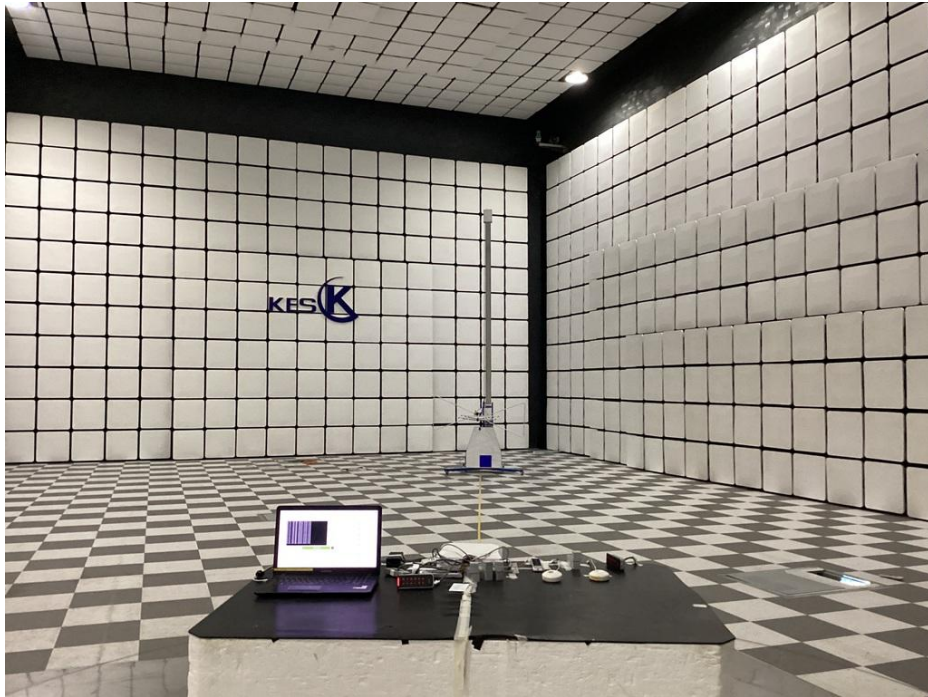
<Conducted Emissions at Mains Power Ports - Rear> Mode 3, Mode 4



<Conducted Emissions at Mains Power Ports - Front> Mode 5, Mode 6



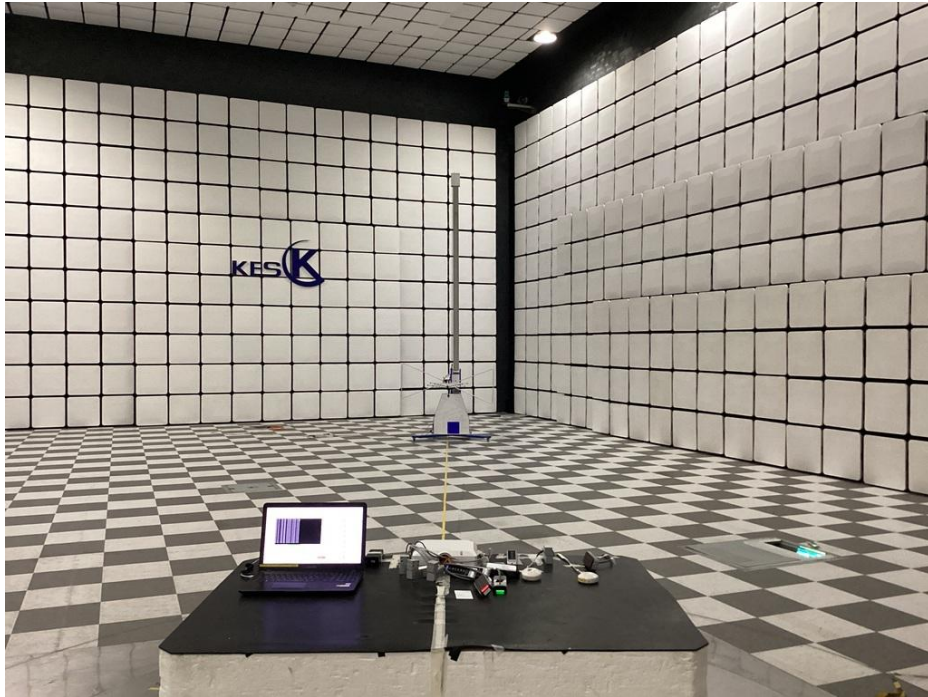
<Conducted Emissions at Mains Power Ports - Rear> Mode 5, Mode 6



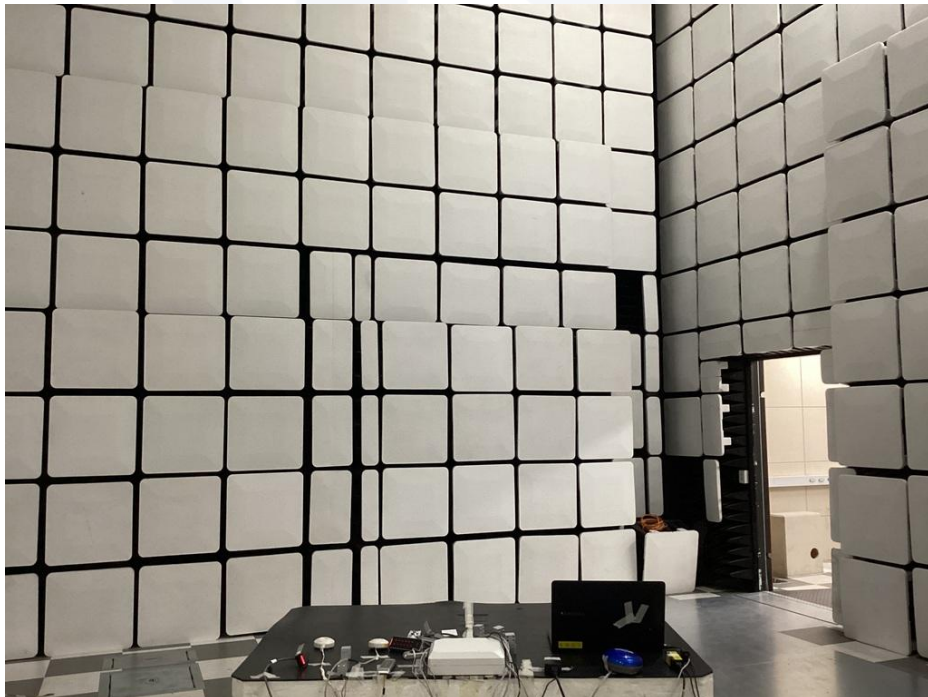
<Radiated Emissions(Below 1 GHz) - Front> Mode 1, Mode 2



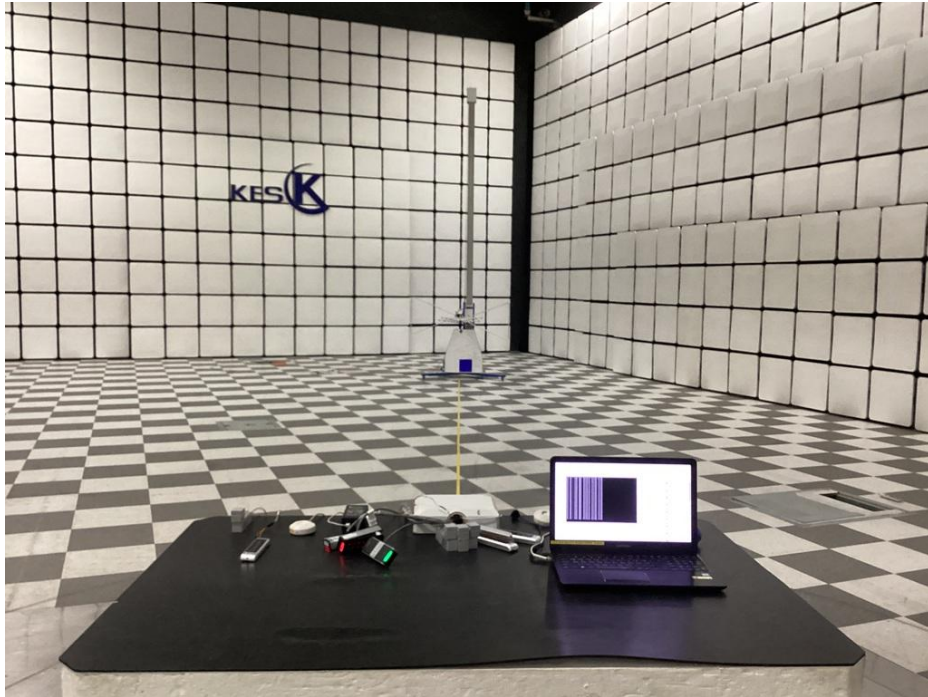
<Radiated Emissions(Below 1 GHz) - Rear> Mode 1, Mode 2



<Radiated Emissions(Below 1 GHz) - Front> Mode 3, Mode 4



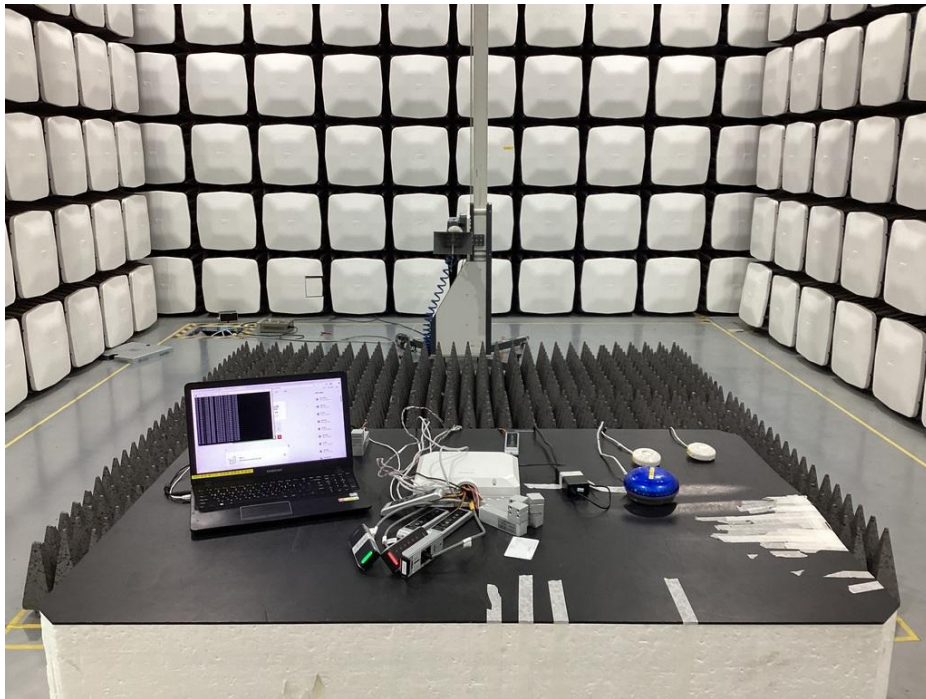
<Radiated Emissions(Below 1 GHz) - Rear> Mode 3, Mode 4



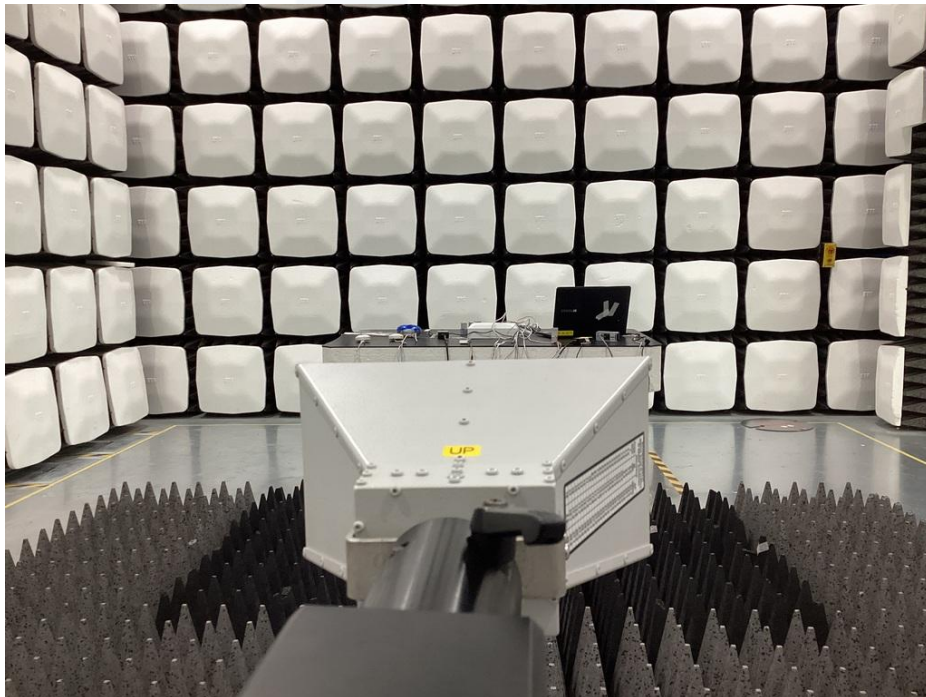
<Radiated Emissions(Below 1 GHz) - Front> Mode 5, Mode 6



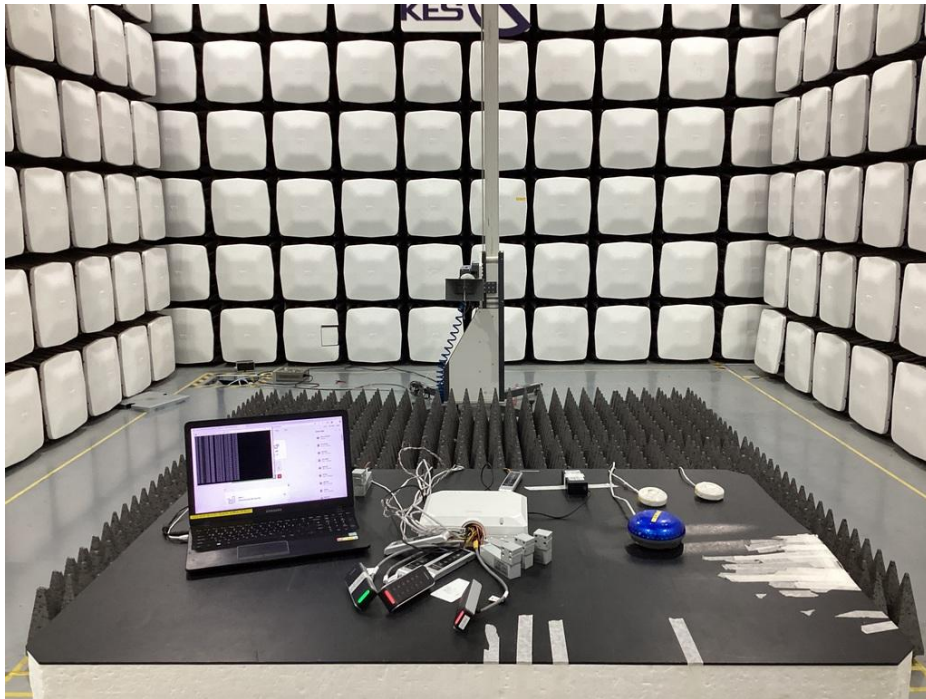
<Radiated Emissions(Below 1 GHz) - Rear> Mode 5, Mode 6



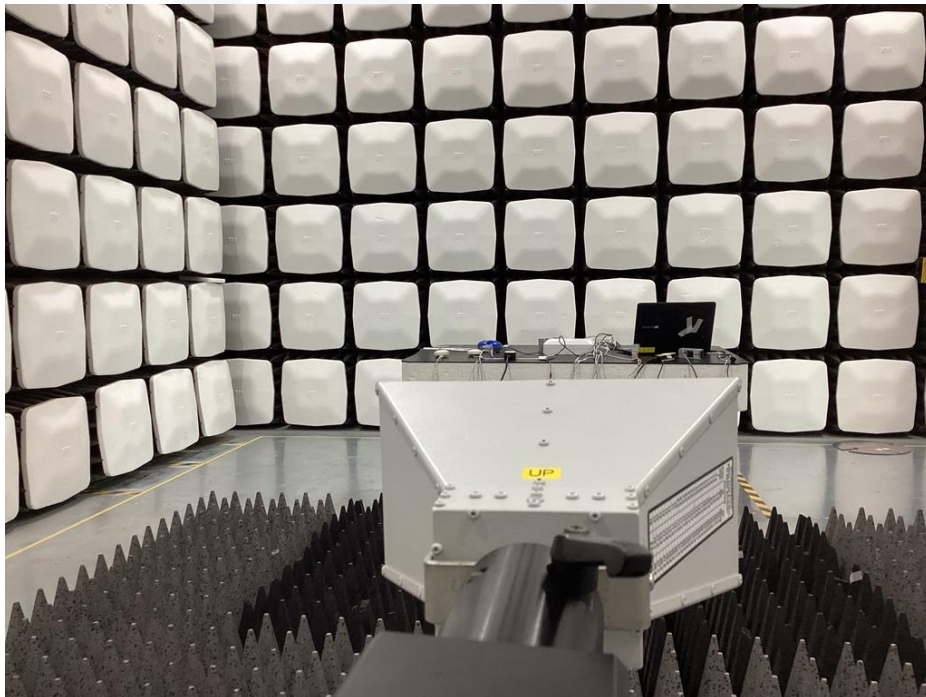
<Radiated Emissions(Above 1 GHz) - Front> Mode 1, Mode 2



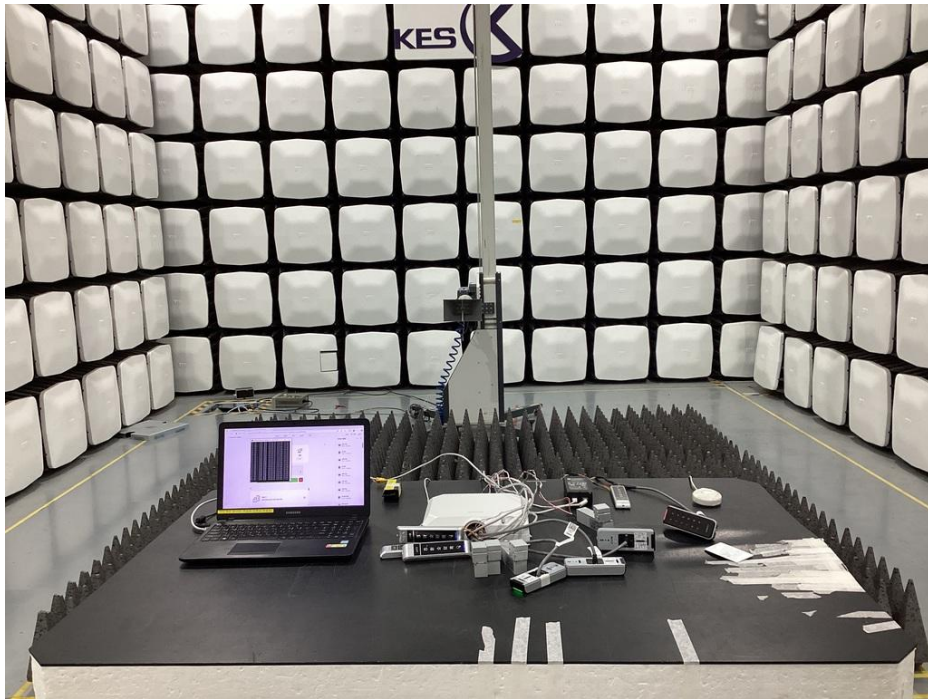
<Radiated Emissions(Above 1 GHz) - Rear> Mode 1, Mode 2



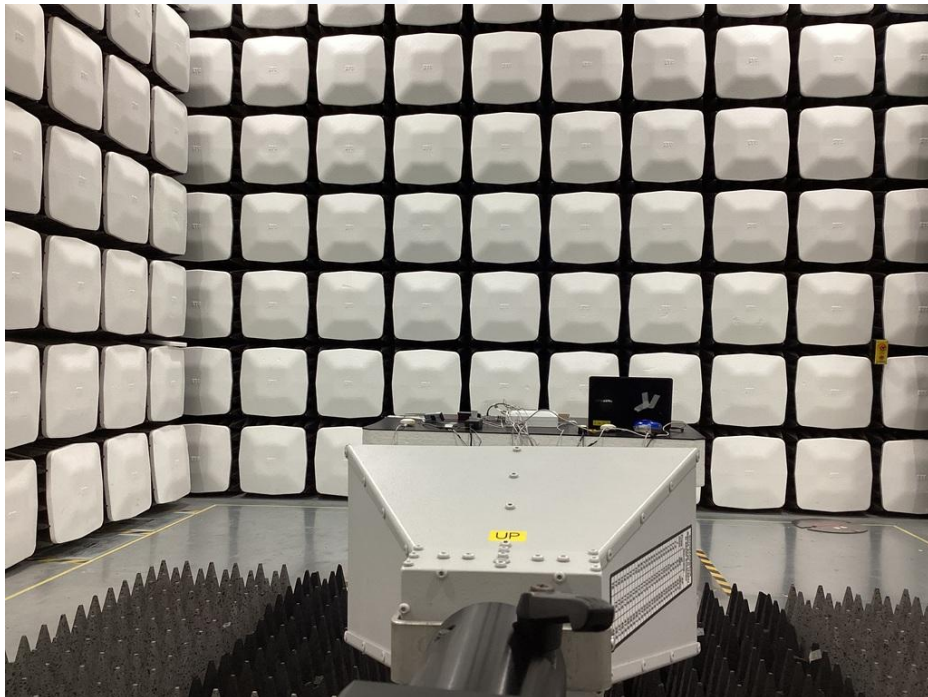
<Radiated Emissions(Above 1 GHz) - Front> Mode 3, Mode 4



<Radiated Emissions(Above 1 GHz) - Rear> Mode 3, Mode 4



<Radiated Emissions(Above 1 GHz) - Front> Mode 5, Mode 6



<Radiated Emissions(Above 1 GHz) - Rear> Mode 5, Mode 6



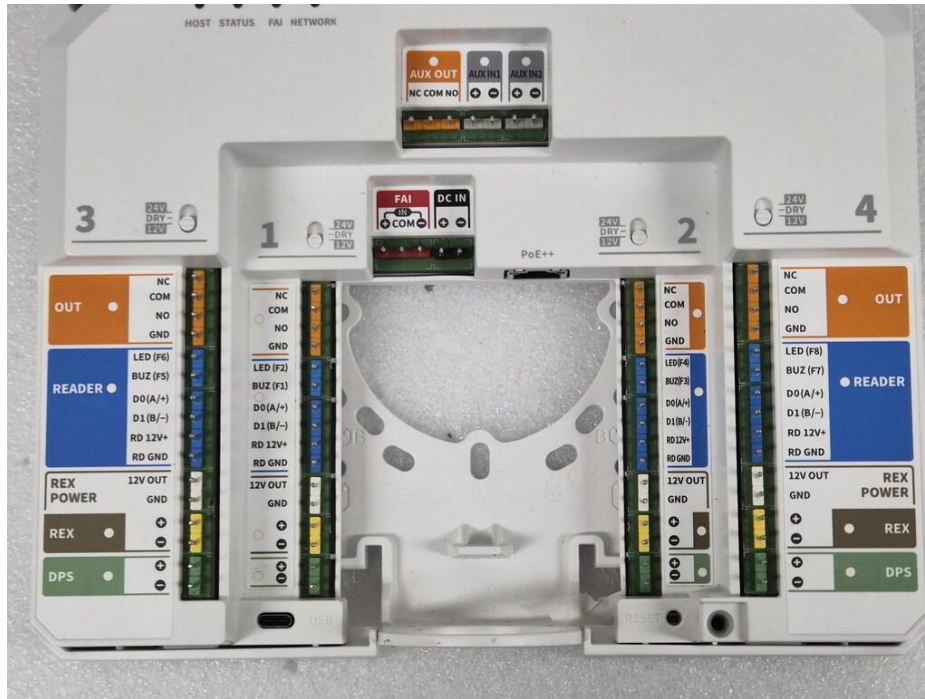
7.2 EUT Photographs



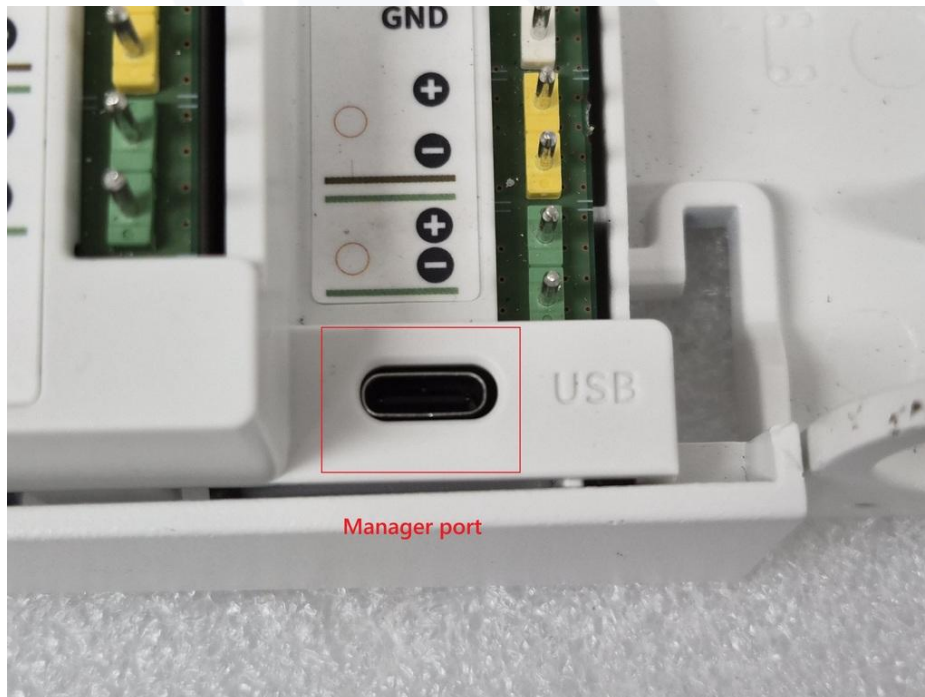
<EUT External Photographs - Top>



<EUT External Photographs - Bottom>



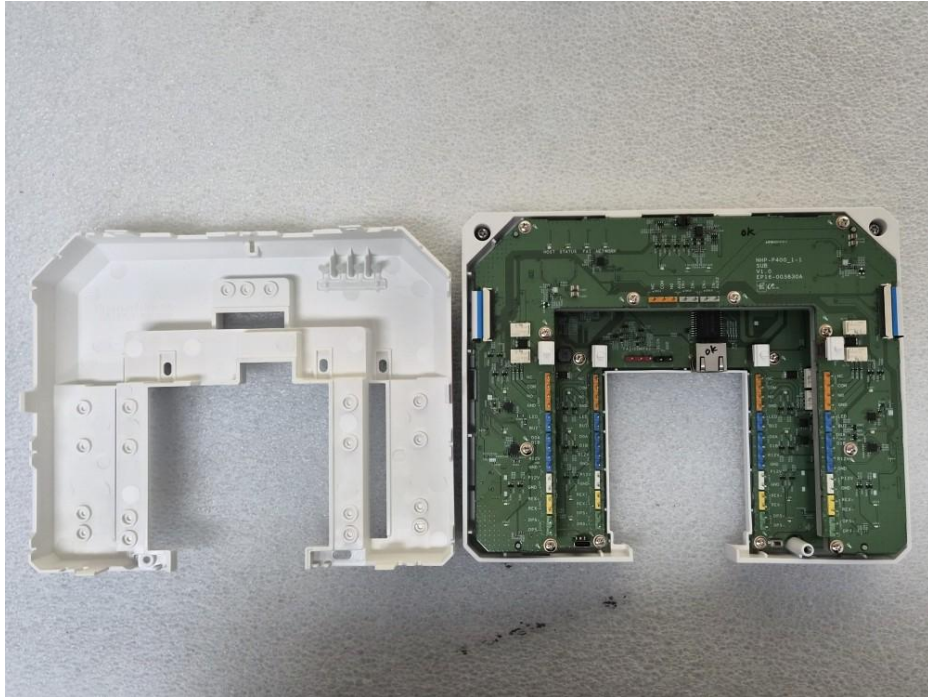
<Port-1>



<Port-2>



<Port-3>



<EUT Internal Photographs>



7.3 Label

	Name : Hanwha Vision Co., Ltd. Product item : IP Controller Model name : NHP-P400
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.