# TEST REPORT



**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 INTERCOM |
| ◯ Model name | : | TID-A800 |
| ◯ 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. 05. 19. ~ 2026. 05. 20.

**4. Location of Test** : Permanent Testing Lab

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

**5. Test method used** : VCCI-CISPR 32:2016

**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 : SeHeon Kim 김세헌 [김세헌]2026/05/28 | Name : DongHun Jang [장동훈]2026/05/28 |

**2026. 05. 28.**

**KES Co., Ltd.**



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# REPORT REVISION HISTORY

| Date | Test Report No. | Revision History |
|---|---|---|
| 2026. 05. 28. | KES-EM261243 | 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 |
|---|---|
| Addres | 473-21, Gayeo-ro, Yeoju-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, Yeoju-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)<br>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)<br>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)<br>EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions) | CARAT 001633 0008 |



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# 2 Test Summary

## 2.1 Class and Voltage

| Test Class | Test Voltage |
|---|---|
| Class A | AC 100 V, 60 Hz, PoE |

## 2.2 Summary of Test Results

| Test Item | Test Standard | Test Result | Remark |
|---|---|---|---|
| Conducted Emissions at Mains Power Ports | VCCI CISPR 32:2016 | PASS | NOTE 1 |
| Conducted Emissions at Telecommunication Ports | | PASS | - |
| Radiated Emissions(Below 1 ㎓) | | PASS | - |
| Radiated Emissions(Above 1 ㎓) | | PASS | - |

* N/A: Not Applicable

(NOTE 1) PoE Power Mode is powered by the PoE port, PoE port is considered to be wired network port, so power-related test items are excluded.

## 2.3 Remarks when standards applied

N/A

## 2.4 Variant Model Differences

N/A

## 2.5 Device Modifications

N/A



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# 3 General Product Description

| | TID-A800 |
|---|---|
| **Video** | |
| Imaging Device | 1/2.8" CMOS |
| Resolution | 2592x1944, 2560x1440, 1920x1080, 1600x1200, 1280x960, 1280x720, 1024x768, 800x600, 640x480, 640x360, 320x240, 320x180 |
| Max. Framerate | H.265/H.264: Max. 30fps/25fps(60Hz/50Hz)<br>MJPEG: Max. 30fps(@5MP Max. 5fps) |
| **Lens** | |
| Focal Length (Zoom Ratio) | 1.93mm fixed focal |
| Optical Zoom | None |
| Max. Aperture Ratio | F2.2 |
| Angular Field of View | H: 166° / V: 117° / D: 180° |
| Min. Object Distance | 0.3m(0.98ft) |
| Focus Control | Fixed |
| **Operational** | |
| Camera Title | Displayed up to 85 characters |
| Direction Indicator | None |
| Day & Night | Auto (Electric) |
| Backlight Compensation | BLC, HLC, WDR, SSDR |
| Wide Dynamic Range | 120dB |
| Digital Noise Reduction | SSNRV, WiseNRII(Based on AI engine) |
| Digital Image Stabilization | None |
| Defog | None |
| Motion Detection | 8ea, 8point polygonal zones |
| Privacy Masking | 32ea, 8point polygonal zones<br>- Color: gray/green/red/blue/black/white<br>- Mosaic<br><br>Dynamic Privacy Mask (Based on AI engine)<br>- Color: gray/green/red/blue/black/white<br>- Mosaic |
| Gain Control | Off / Max Gain / Manual |
| White Balance | ATW / NarrowATW / AWC / Manual / Indoor / Outdoor |
| LDC | None |
| Electronic Shutter Speed | Minimum / Maximum / Anti flicker(1/5~1/30,000sec)<br>Prefer shutter control(Based on AI engine) |
| Digital PTZ | Face zoom |
| Video Rotation | None |
| Analytics | Classified object type: Person/Vehicle(Type: car/bus/truck/motorcycle/bicycle)/Face/License Plate<br><br>Attributes: Person(Clothing top/bottom color), Vehicle(Type: car/bus/truck/motorcycle/bicycle, Color), Face(Age, Gender, Face mask, Glasses)<br><br>Support BestShot<br>Support Similarity search<br><br>**Analytics events based on AI engine**<br>Object detection, Virtual line(Crossing/Direction), Motion detection, Face mask detection, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear)<br><br>**Analytics events**<br>Defocus detection, Tampering, Audio detection, Shock detection |
| Business Intelligence | Based on AI engine: People counting, Vehicle counting, Crowd counting |
| Serial Interface | None |
| Alarm I/O | Input 2ea / Output 1ea , Relay out 1ea (12VDC Max. 550mA with 2A adapter)<br>*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, Storage disruption, Case open tempering, **DTMF** |
| Alarm Events | When alarm trigger occurred<br>- File upload(image): e-mail/FTP/SFTP<br>- File upload(video clip): FTP/SFTP<br>- Notification: e-mail<br>- Recording: SD/SDHC/SDXC or NAS recording at event triggers<br>- Alarm output<br>- Handover: PTZ preset, send message by HTTP/HTTPS/TCP<br>- Audio clip playback(WAV, MP3)<br>- MQTT: publication<br>- SIP |



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| | |
|---|---|
| Audio Streaming | Two-way/one-way selectable, Full duplex, Echo cancellation and noise reduction |
| Audio In | Built-in MIC |
| Audio Out | DC12V: Max. 84dB at 1kHz/1m<br>PoE: Max. 81dB at 1kHz/1m |
| Light Type | White light |
| **Network** | |
| Ethernet | RJ-45(10/100BASE-T) |
| Video Compression | H.265/H.264: Main/Baseline/High, MJPEG |
| Smart Codec | WiseStream(Based on AI engine) |
| Video Quality Adjustment | H.264/H.265: Target bitrate level control<br>MJPEG: Quality Level control |
| Bitrate Control | H.264/H.265: CBR or VBR<br>MJPEG: VBR |
| Streaming | Unicast(20 users) / Multicast<br>Multiple streaming(Up to 5 profiles, 1 virtual channel support) |
| 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 |
| Security | None |
| Application Programming Interface | ONVIF Profile S/G/T/M<br>SUNAPI (HTTP API)<br>Hanwha Vision Open Platform |
| Direct Cloud Connection | Support |
| **Security** | |
| OS / Firmware Protect | Secure boot, Signed firmware, Firmware encryption |
| User authentication | Digest Authentication, Prevent brute-force attack |
| 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 |
| Supply Chain Security | SBOM |
| 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 |
| Memory | 4GB RAM, 8GB eMMC |
| **Environmental & Electrical** | |
| Operating Temperature / Humidity | -40°C~+55°C(-40°F~+131°F)<br>* Start up should be done at above -30°C<br>0~100%RH (condensing) |
| Storage Temperature / Humidity | -50°C~+60°C(-58°F ~ +140°F) / 0~95% RH |
| Wind Load | None |
| EPA(Effective Projected Area) | None |
| Certification | IP65, IK08 |
| Input Voltage | PoE(IEEE802.3af, Class3), 12VDC |
| Power Consumption | PoE: Max 12.95W, typical 6.8W<br>12VDC: Max 21.3W, typical 6.9W<br>* 12VDC power consumption includes 12VDC/550mA relay out. |
| **Mechanical** | |
| Color / Material | Dark gray / Aluminium<br>Bubble : Hard-coated dome |
| RAL Code | RAL7022 |
| Product Dimensions / Weight | 49(W)x199(H)x47.5(D)mm (BODY)<br>49(W)x199(H)x60.1(D)mm (with BUBBLE) |
| Compatible Conduit hole / Gangbox | None |



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# 4 EUT Setup and Operation Mode

## 4.1 EUT Configuration

| Product Name | Model Number | Serial Number | Manufacturer | Remarks |
|---|---|---|---|---|
| NETWORK INTERCOM | TID-A800 | - | HANWHA VISION VIETNAM COMPANY LIMITED | EUT |
| AC/DC Adpater | 2ACB022F | - | Chnnel Well Technology | - |
| PoE Injector | PT-PSE109GBRO-AH-S | - | Dongguan PROCET Network Technology Co.,Ltd | - |
| Laptop | NT550XDZ | - | Samsung Electronics | - |
| Laptop AC/DC Adapter | AD-4019A | - | Chicony | - |
| Alarm | PRO-SL | - | SENSOR PRO | - |
| Button Alarm | - | - | - | - |
| Door Lock Jig | - | - | - | - |
| Micro SD Card | - | - | SanDisk | - |

## 4.2 System Configuration

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



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## 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** |
| EUT | DC IN | AC/DC Adpater | DC OUT | 1.5 | U |
| | RJ-45 (LAN) | Laptop | RJ-45 (LAN) | 3.1 | U |
| | 7 Pin (Alarm OUT) | Alarm | Alarm IN | 3.5 | U |
| | 7 Pin (Alarm IN) | Button Alarm | Alarm OUT | 3.5 | U |
| | 7 Pin (+12V OUT) | Door Lock Jig | DC IN | 0.5 | U |
| | 7 Pin (COM) | | COM | 0.5 | U |
| | 7 Pin (NO/NC) | | NO/NC | 0.5 | 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** |
| EUT | RJ-45 (PoE) | PoE Injector | RJ-45 (PoE) | 3.1 | U |
| | 7 Pin (Alarm OUT) | Alarm | Alarm IN | 3.5 | U |
| | 7 Pin (Alarm IN) | Button Alarm | Alarm OUT | 3.5 | U |
| | 7 Pin (+12V OUT) | Door Lock Jig | DC IN | 0.5 | U |
| | 7 Pin (COM) | | COM | 0.5 | U |
| | 7 Pin (NO/NC) | | NO/NC | 0.5 | U |
| | Micro SD Slot | Micro SD Card | Micro SD Slot | - | - |
| PoE Injector | RJ-45 (LAN) | Laptop | RJ-45 (LAN) | 1.0 | U |
| Laptop | DC Jack | Laptop AC/DC Adapter | DC Jack | 1.5 | U |

* Unshielded=U, Shielded=S



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## 4.4 EUT Operating Mode(s)

| Category | Mode | Operating |
|---|---|---|
| Mode 1 | DC Power | - Monitoring EUT Using Web Viewer, Ping Test<br>- When the Button Alarm is pressed, make sure the Alarm is working<br>- Uploaded the 1 ㎑ tone sound to the Web Viewer and checked if the sound is output to the headset.<br>- 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 | |

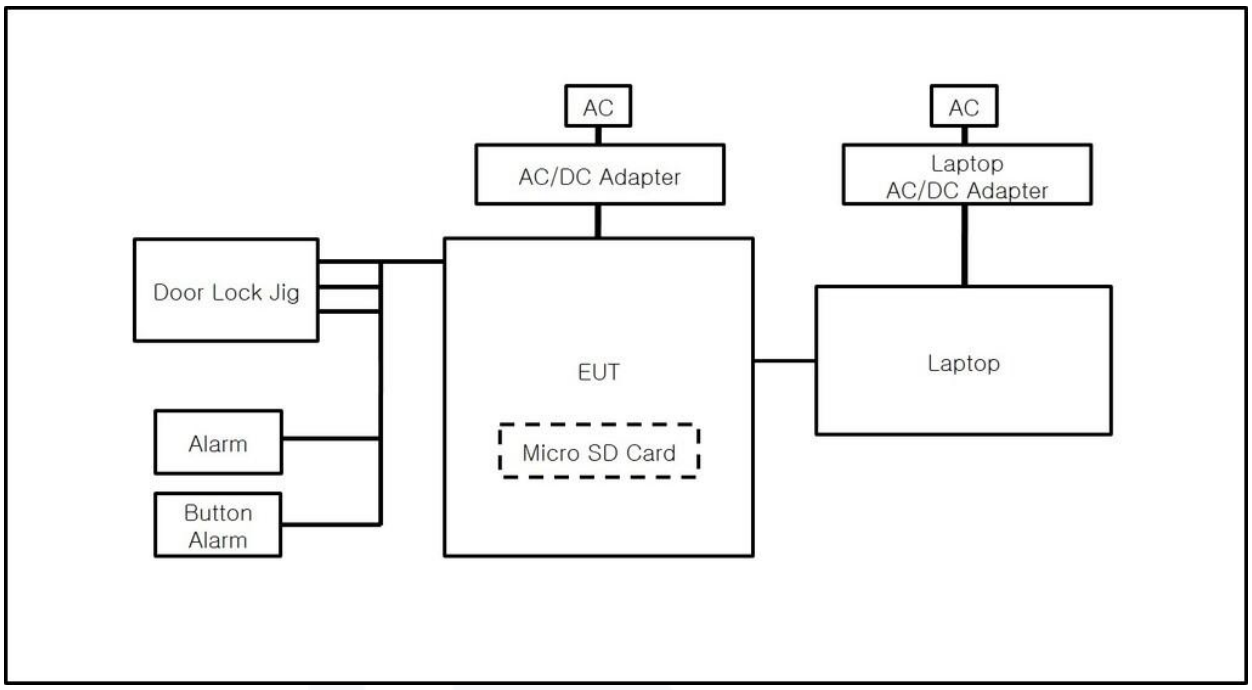
## 4.5 Test operating S/W

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

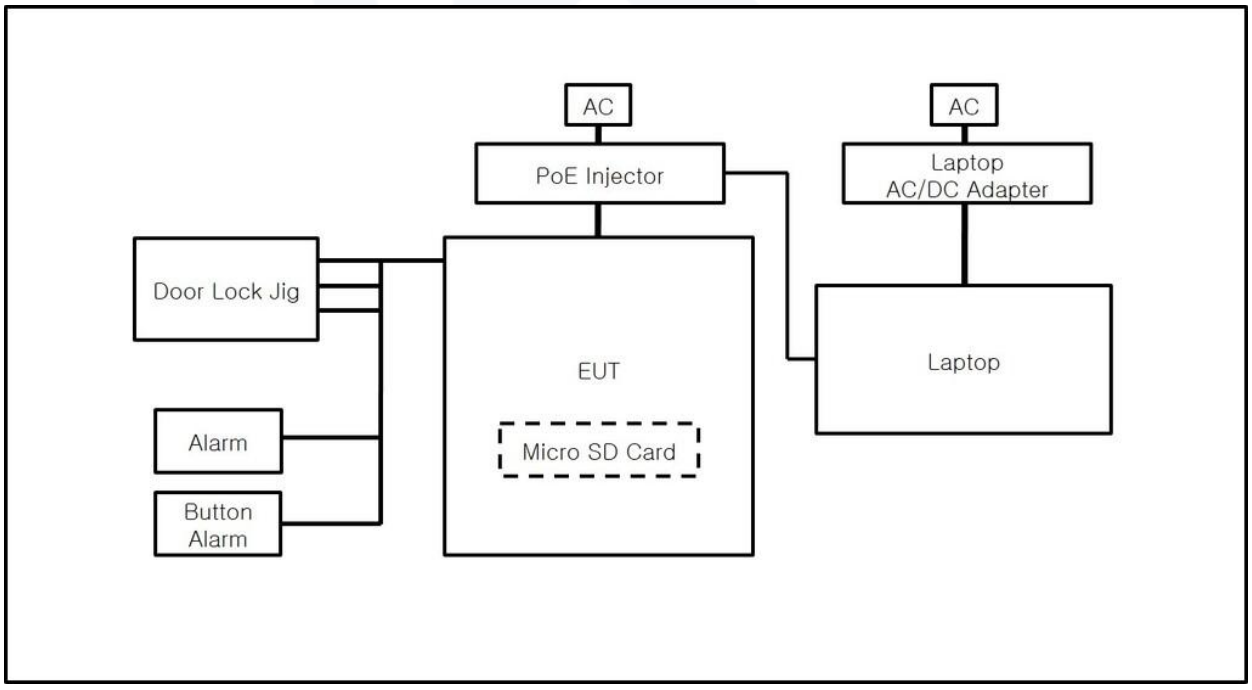


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## 4.6 Configuration




Mode 1




Mode 2



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# 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 ㎑ to 30 ㎒. 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 ㎓ at 10 m or 3 m distance and a Peak and Average detector above 1 ㎓ 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 (Radiated Emissions(Below 1 ㎓)) and 1 m (Radiated Emissions(Above 1 ㎓)) 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

QuasiPeak[㏈uV] / CAverage [㏈uV] = Reading Value[㏈uV] + Corr. [㏈]
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 ㎓)

Result(QP) [㏈(㎶/m)] = (Reading(QP)[㏈(㎶)] + c.f[㏈(1/m)]
Margin(QP)[㏈] = Limit[㏈(㎶/m)] - Result(QP) [㏈(㎶/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 ㎓)

Result(PK/CAV) [㏈(㎶/m)] = (Reading(PK/CAV)[㏈(㎶)] + c.f[㏈(1/m)]
Margin(PK/CAV)[㏈] = Limit[㏈(㎶/m)] - Result(PK/CAV) [㏈(㎶/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



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# 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 |
|---|---|
| (24.8 ~ 24.8) °C | (40.9 ~ 40.9) % R.H. |



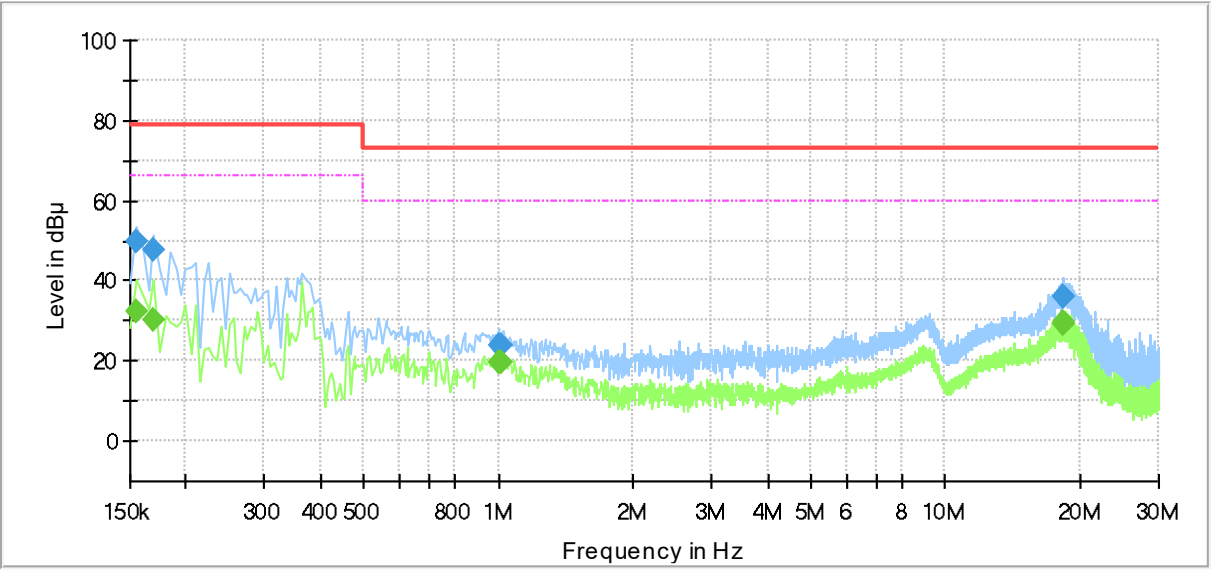
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### 6.1.4 Test Result

○ Test Date : 2026-05-20
● Test Mode : Mode 1

# Test Report

| | |
|---|---|
| Test Description: | Conducted Emission |
| Job No.: | KES-EM261243 |
| Phase: | L |
| Mode: | Mode 1 |
| Operator Name: | KES |




## Final_Result

| Frequency (MHz) | QuasiPeak (dBµV) | CAverage (dBµV) | Limit (dBµV) | Margin (dB) | Meas. Time | Bandwidth (kHz) | Line | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|
| 0.155000 | --- | 32.29 | 66.00 | 33.71 | 1000.0 | 9.000 | L1 | 19.4 |
| 0.155000 | 49.84 | --- | 79.00 | 29.16 | 1000.0 | 9.000 | L1 | 19.4 |
| 0.170000 | --- | 29.94 | 66.00 | 36.06 | 1000.0 | 9.000 | L1 | 19.4 |
| 0.170000 | 47.57 | --- | 79.00 | 31.43 | 1000.0 | 9.000 | L1 | 19.4 |
| 1.000000 | --- | 19.77 | 60.00 | 40.23 | 1000.0 | 9.000 | L1 | 19.5 |
| 1.000000 | 24.01 | --- | 73.00 | 48.99 | 1000.0 | 9.000 | L1 | 19.5 |
| 1.010000 | --- | 19.79 | 60.00 | 40.21 | 1000.0 | 9.000 | L1 | 19.5 |
| 1.010000 | 24.05 | --- | 73.00 | 48.95 | 1000.0 | 9.000 | L1 | 19.5 |
| 18.370000 | --- | 29.44 | 60.00 | 30.56 | 1000.0 | 9.000 | L1 | 20.2 |
| 18.370000 | 35.88 | --- | 73.00 | 37.12 | 1000.0 | 9.000 | L1 | 20.2 |
| 18.375000 | --- | 29.30 | 60.00 | 30.70 | 1000.0 | 9.000 | L1 | 20.2 |
| 18.375000 | 35.76 | --- | 73.00 | 37.24 | 1000.0 | 9.000 | L1 | 20.2 |

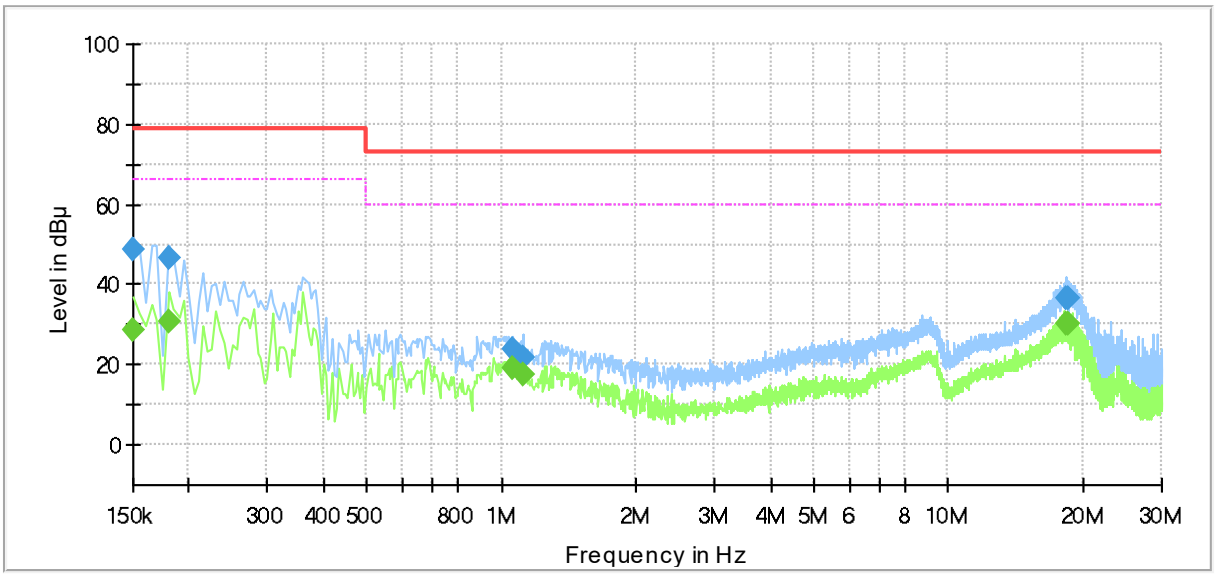


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○ Test Date : 2026-05-20
● Test Mode : Mode 1

# Test Report

| | |
|---|---|
| Test Description: | Conducted Emission |
| Job No.: | KES-EM261243 |
| Phase: | N |
| Mode: | Mode 1 |
| Operator Name: | KES |




## Final_Result

| Frequency (MHz) | QuasiPeak (dBµV) | CAverage (dBµV) | Limit (dBµV) | Margin (dB) | Meas. Time | Bandwidth (kHz) | Line | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|
| 0.150000 | --- | 28.75 | 66.00 | 37.25 | 1000.0 | 9.000 | N | 19.4 |
| 0.150000 | 48.68 | --- | 79.00 | 30.32 | 1000.0 | 9.000 | N | 19.4 |
| 0.180000 | --- | 30.85 | 66.00 | 35.15 | 1000.0 | 9.000 | N | 19.4 |
| 0.180000 | 46.73 | --- | 79.00 | 32.27 | 1000.0 | 9.000 | N | 19.4 |
| 1.065000 | --- | 19.30 | 60.00 | 40.70 | 1000.0 | 9.000 | N | 19.5 |
| 1.065000 | 23.69 | --- | 73.00 | 49.31 | 1000.0 | 9.000 | N | 19.5 |
| 1.120000 | --- | 17.54 | 60.00 | 42.46 | 1000.0 | 9.000 | N | 19.5 |
| 1.120000 | 21.98 | --- | 73.00 | 51.02 | 1000.0 | 9.000 | N | 19.5 |
| 18.400000 | --- | 30.32 | 60.00 | 29.68 | 1000.0 | 9.000 | N | 20.3 |
| 18.400000 | 36.77 | --- | 73.00 | 36.23 | 1000.0 | 9.000 | N | 20.3 |
| 18.470000 | --- | 30.26 | 60.00 | 29.74 | 1000.0 | 9.000 | N | 20.3 |
| 18.470000 | 36.69 | --- | 73.00 | 36.31 | 1000.0 | 9.000 | N | 20.3 |

### 6.1.5 Remark

Complies with the test requirements.



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*

## 6.2 Conducted Emissions at Telecommunication Ports

### 6.2.1 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 | ■ |
| 8-WIRE ISN CAT6 | ENY81-CAT6 | Rohde & Schwarz | 101666 | 2026-02-24 | 2027-02-24 | ■ |

### 6.2.2 Test Location : SHIELD ROOM #6

### 6.2.3 Test Conditions :

| Temperature | Relative Humidity |
|---|---|
| (24.8 ~ 24.8) °C | (40.9 ~ 40.9) % R.H. |



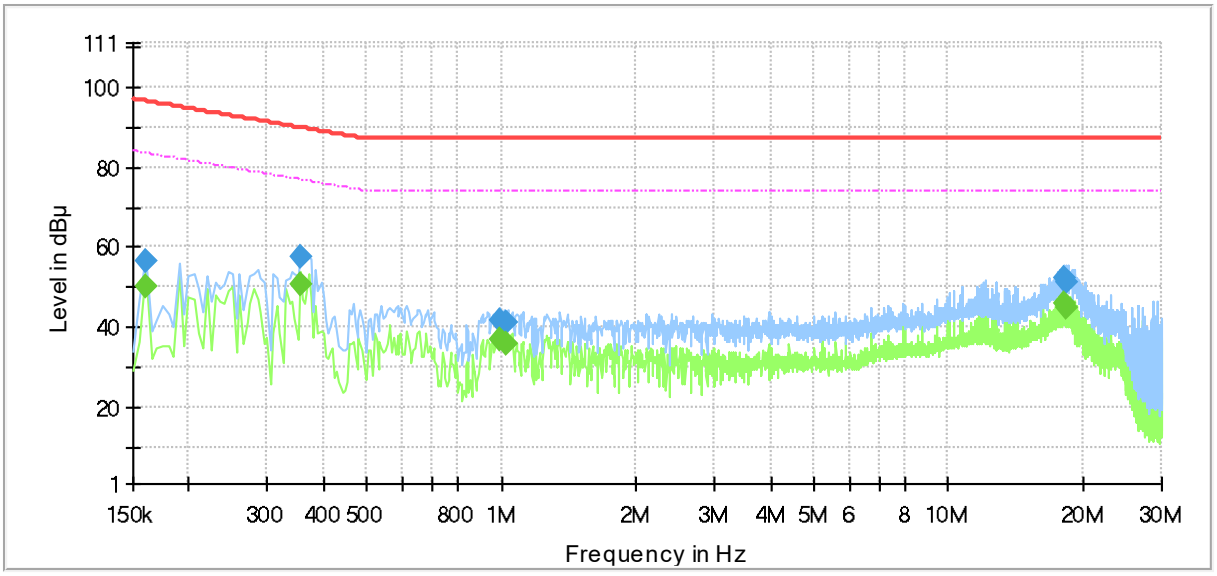
*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*

### 6.2.4 Test Result

○ Test Date : 2026-05-20
● Test Mode : Mode 1

# Test Report

| | |
|---|---|
| Test Description: | Telecommunication Emission |
| Job No.: | KES-EM261243 |
| Mode : | Mode 1 |
| Speed : | 100 Mbps |
| Operator Name: | KES |




## Final_Result

| Frequency (MHz) | QuasiPeak (dBµV) | CAverage (dBµV) | Limit (dBµV) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|
| 0.160000 | --- | 50.17 | 83.46 | 33.29 | 1000.0 | 9.000 | Single Line | 19.7 |
| 0.160000 | 56.63 | --- | 96.46 | 39.83 | 1000.0 | 9.000 | Single Line | 19.7 |
| 0.355000 | --- | 50.72 | 76.84 | 26.12 | 1000.0 | 9.000 | Single Line | 19.4 |
| 0.355000 | 57.58 | --- | 89.84 | 32.26 | 1000.0 | 9.000 | Single Line | 19.4 |
| 0.990000 | --- | 37.07 | 74.00 | 36.93 | 1000.0 | 9.000 | Single Line | 19.3 |
| 0.990000 | 41.84 | --- | 87.00 | 45.16 | 1000.0 | 9.000 | Single Line | 19.3 |
| 1.030000 | --- | 35.94 | 74.00 | 38.06 | 1000.0 | 9.000 | Single Line | 19.3 |
| 1.030000 | 41.32 | --- | 87.00 | 45.68 | 1000.0 | 9.000 | Single Line | 19.3 |
| 18.240000 | --- | 45.98 | 74.00 | 28.02 | 1000.0 | 9.000 | Single Line | 19.8 |
| 18.240000 | 52.32 | --- | 87.00 | 34.68 | 1000.0 | 9.000 | Single Line | 19.8 |
| 18.430000 | --- | 44.75 | 74.00 | 29.25 | 1000.0 | 9.000 | Single Line | 19.8 |
| 18.430000 | 51.38 | --- | 87.00 | 35.62 | 1000.0 | 9.000 | Single Line | 19.8 |

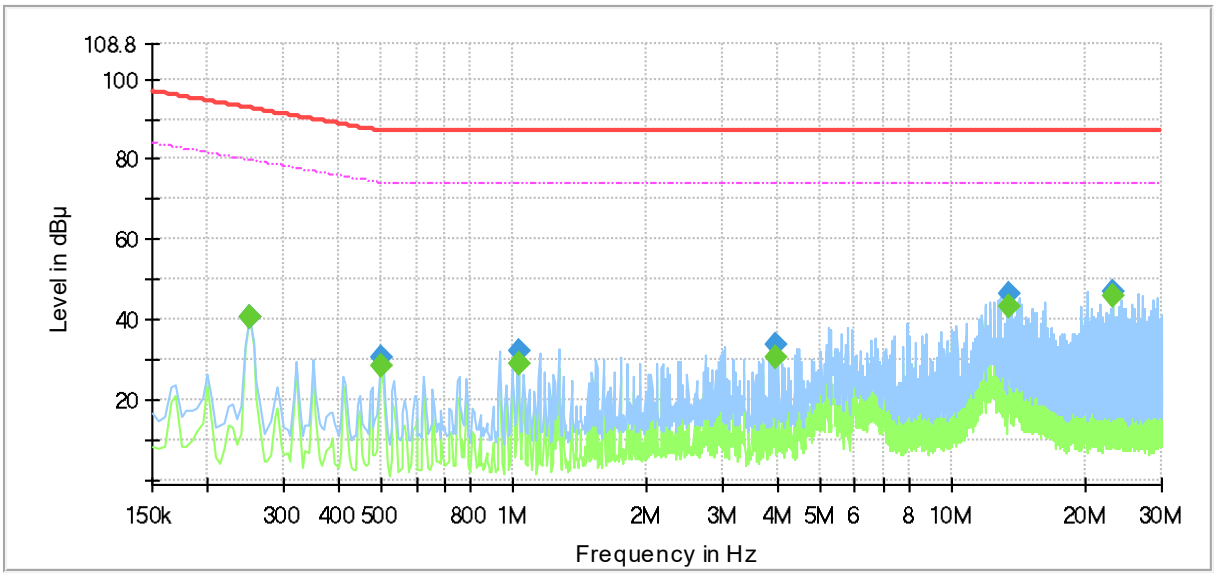


*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*

○ Test Date : 2026-05-20
● Test Mode : Mode 2

# Test Report

| | |
|---|---|
| Test Description: | Telecommunication Emission |
| Job No.: | KES-EM261243 |
| Mode : | Mode 2 |
| Speed : | 100 Mbps |
| Operator Name: | KES |




## Final_Result

| Frequency (MHz) | QuasiPeak (dBµV) | CAverage (dBµV) | Limit (dBµV) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|
| 0.250000 | --- | 40.42 | 79.76 | 39.34 | 1000.0 | 9.000 | Single Line | 19.5 |
| 0.250000 | 40.36 | --- | 92.76 | 52.40 | 1000.0 | 9.000 | Single Line | 19.5 |
| 0.500000 | --- | 28.26 | 74.00 | 45.74 | 1000.0 | 9.000 | Single Line | 19.4 |
| 0.500000 | 30.33 | --- | 87.00 | 56.67 | 1000.0 | 9.000 | Single Line | 19.4 |
| 1.025000 | --- | 28.69 | 74.00 | 45.31 | 1000.0 | 9.000 | Single Line | 19.3 |
| 1.025000 | 31.95 | --- | 87.00 | 55.05 | 1000.0 | 9.000 | Single Line | 19.3 |
| 3.955000 | --- | 30.64 | 74.00 | 43.36 | 1000.0 | 9.000 | Single Line | 19.4 |
| 3.955000 | 33.80 | --- | 87.00 | 53.20 | 1000.0 | 9.000 | Single Line | 19.4 |
| 13.420000 | --- | 43.23 | 74.00 | 30.77 | 1000.0 | 9.000 | Single Line | 19.6 |
| 13.420000 | 46.55 | --- | 87.00 | 40.45 | 1000.0 | 9.000 | Single Line | 19.6 |
| 23.130000 | --- | 46.13 | 74.00 | 27.87 | 1000.0 | 9.000 | Single Line | 19.9 |
| 23.130000 | 46.91 | --- | 87.00 | 40.09 | 1000.0 | 9.000 | Single Line | 19.9 |

### 6.2.5 Remark

Complies with the test requirements.



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*

## 6.3 Radiated Emissions(Below 1 ㎓)

### 6.3.1 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 | ■ |

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

### 6.3.3 Test Conditions :

| Temperature | Relative Humidity |
|---|---|
| (22.6 ~ 22.6) °C | (36.8 ~ 36.8) % R.H. |

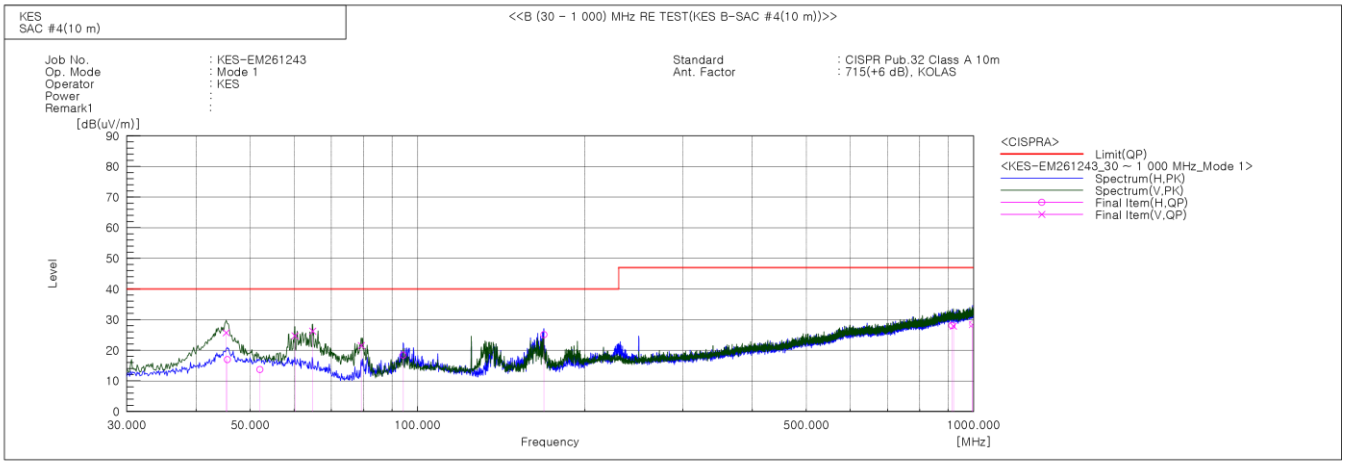


*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*

### 6.3.4 Test Result

○ Test Date : 2026-05-19

● Test Mode : Mode 1




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 | 45.278 | V | 47.0 | -21.3 | 25.7 | 40.0 | 14.3 | 123.0 | 132.0 | |
| 2 | 45.520 | H | 38.2 | -21.3 | 16.9 | 40.0 | 23.1 | 382.0 | 91.0 | |
| 3 | 52.068 | H | 34.7 | -21.0 | 13.7 | 40.0 | 26.3 | 374.0 | 76.0 | |
| 4 | 60.191 | V | 47.0 | -22.3 | 24.7 | 40.0 | 15.3 | 100.0 | 149.0 | |
| 5 | 64.799 | V | 49.5 | -23.3 | 26.2 | 40.0 | 13.8 | 108.0 | 160.0 | |
| 6 | 79.228 | V | 48.8 | -27.3 | 21.5 | 40.0 | 18.5 | 155.0 | 53.0 | |
| 7 | 94.263 | H | 41.2 | -22.8 | 18.4 | 40.0 | 21.6 | 343.0 | 304.0 | |
| 8 | 168.831 | H | 49.1 | -24.0 | 25.1 | 40.0 | 14.9 | 369.0 | 162.0 | |
| 9 | 913.306 | H | 30.4 | -2.3 | 28.1 | 47.0 | 18.9 | 358.0 | 72.0 | |
| 10 | 919.854 | V | 30.2 | -2.3 | 27.9 | 47.0 | 19.1 | 117.0 | 285.0 | |
| 11 | 994.059 | V | 29.9 | -1.5 | 28.4 | 47.0 | 18.6 | 156.0 | 149.0 | |
| 12 | 995.878 | H | 30.0 | -1.4 | 28.6 | 47.0 | 18.4 | 400.0 | 50.0 | |

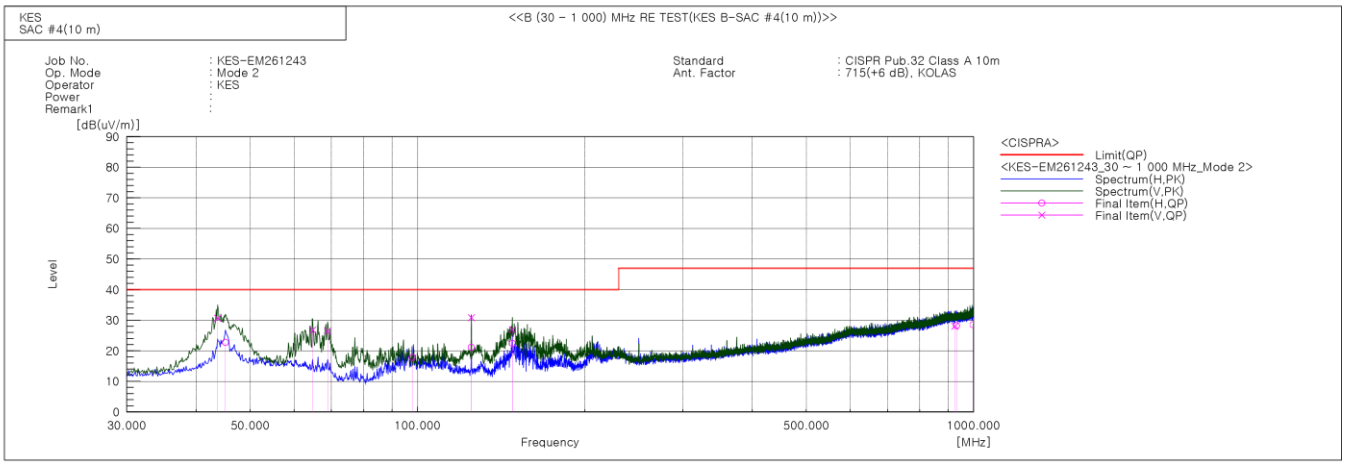
※ The data is the result measured by the detector in Quasi-Peak mode on the Peak graph.



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*

○ Test Date : 2026-05-19

● Test Mode : Mode 2




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 | 43.701 | V | 52.2 | -21.6 | 30.6 | 40.0 | 9.4 | 131.0 | 293.0 | |
| 2 | 45.156 | H | 44.1 | -21.4 | 22.7 | 40.0 | 17.3 | 374.0 | 132.0 | |
| 3 | 64.799 | V | 50.1 | -23.3 | 26.8 | 40.0 | 13.2 | 150.0 | 225.0 | |
| 4 | 68.921 | V | 50.8 | -24.4 | 26.4 | 40.0 | 13.6 | 108.0 | 225.0 | |
| 5 | 97.779 | H | 40.3 | -22.5 | 17.8 | 40.0 | 22.2 | 385.0 | 349.0 | |
| 6 | 124.939 | V | 54.9 | -24.1 | 30.8 | 40.0 | 9.2 | 127.0 | 218.0 | |
| 7 | 124.939 | H | 45.2 | -24.1 | 21.1 | 40.0 | 18.9 | 367.0 | 46.0 | |
| 8 | 148.098 | H | 47.5 | -25.1 | 22.4 | 40.0 | 17.6 | 358.0 | 136.0 | |
| 9 | 148.098 | V | 52.0 | -25.1 | 26.9 | 40.0 | 13.1 | 163.0 | 222.0 | |
| 10 | 925.068 | V | 30.3 | -2.3 | 28.0 | 47.0 | 19.0 | 129.0 | 58.0 | |
| 11 | 931.494 | H | 30.5 | -2.3 | 28.2 | 47.0 | 18.8 | 352.0 | 124.0 | |
| 12 | 996.726 | H | 29.9 | -1.4 | 28.5 | 47.0 | 18.5 | 400.0 | 98.0 | |

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

### 6.3.5 Remark

Complies with the test requirements.



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*

## 6.4 Radiated Emissions(Above 1 ㎓)

### 6.4.1 Test Equipment

| Equipment Name | Model Number | Manufacturer | Serial No. | Cal. Date | Next Cal. Date | Used |
|---|---|---|---|---|---|---|
| SEMI ANECHOIC CHAMBER #3 | - | DYMSTEC | - | - | - | ■ |
| EP5/RE Software | EP5/RE | TOYO | 6.0.0 | - | - | ■ |
| EMI TEST RECEIVER | ESU26 | Rohde & Schwarz | 100517 | 2025-07-08 | 2026-07-08 | ■ |
| PREAMPLIFIER | 8449B | AGILENT | 3008A01967 | 2026-03-04 | 2027-03-04 | ■ |
| ATTENUATOR | 8491A | HP | 35496 | 2026-02-12 | 2027-02-12 | ■ |
| DOUBLE RIDGED HORN ANTENNA | SAS-571 | A.H. SYSTEM,INC | 781 | 2026-03-06 | 2027-03-06 | ■ |

### 6.4.2 Test Location : SEMI ANECHOIC CHAMBER #3

### 6.4.3 Test Conditions :

| Temperature | Relative Humidity |
|---|---|
| (22.7 ~ 22.7) °C | (35.9 ~ 35.9) % R.H. |

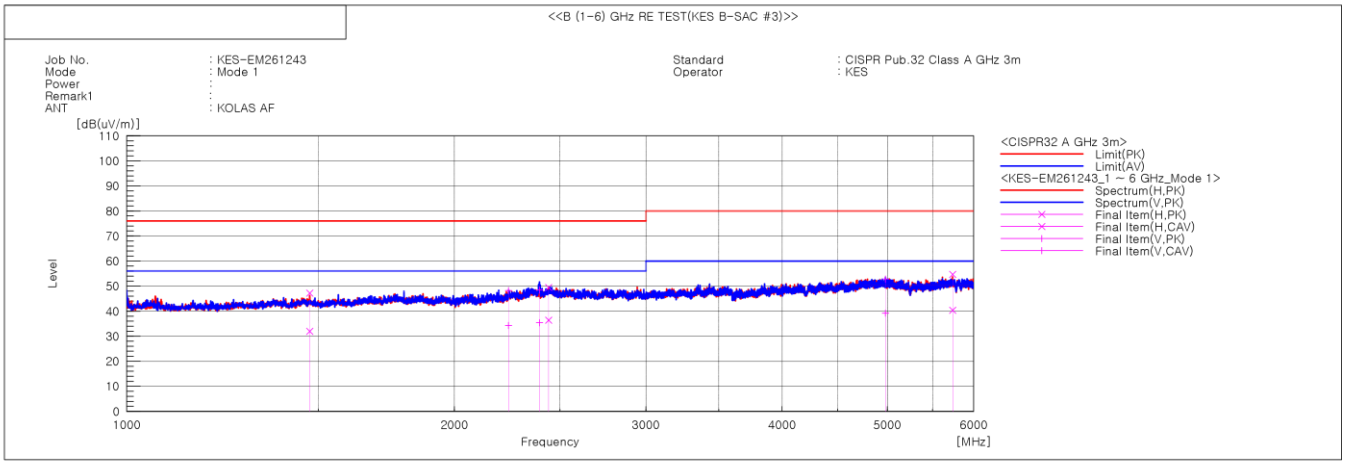


*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*

### 6.4.4 Test Result

○ Test Date : 2026-05-19

● Test Mode : Mode 1




Final Result

| No. | Frequency [MHz] | (P) | Reading PK [dB(uV)] | Reading CAV [dB(uV)] | c.f [dB(1/m)] | Result PK [dB(uV/m)] | Result CAV [dB(uV/m)] | Limit PK [dB(uV/m)] | Limit AV [dB(uV/m)] | Margin PK [dB] | Margin CAV [dB] | Angle [deg] | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1473.125 | H | 46.3 | 31.1 | 0.9 | 47.2 | 32.0 | 76.0 | 56.0 | 28.8 | 24.0 | 195.0 | |
| 2 | 2243.125 | V | 43.8 | 29.9 | 4.4 | 48.2 | 34.3 | 76.0 | 56.0 | 27.8 | 21.7 | 183.9 | |
| 3 | 2395.000 | V | 42.5 | 29.4 | 6.0 | 48.5 | 35.4 | 76.0 | 56.0 | 27.5 | 20.6 | 172.3 | |
| 4 | 2441.875 | H | 43.4 | 30.3 | 6.1 | 49.5 | 36.4 | 76.0 | 56.0 | 26.5 | 19.6 | 41.0 | |
| 5 | 4979.375 | V | 38.9 | 25.3 | 13.9 | 52.8 | 39.2 | 80.0 | 60.0 | 27.2 | 20.8 | 183.9 | |
| 6 | 5740.000 | H | 39.7 | 25.4 | 15.0 | 54.7 | 40.4 | 80.0 | 60.0 | 25.3 | 19.6 | 338.2 | |

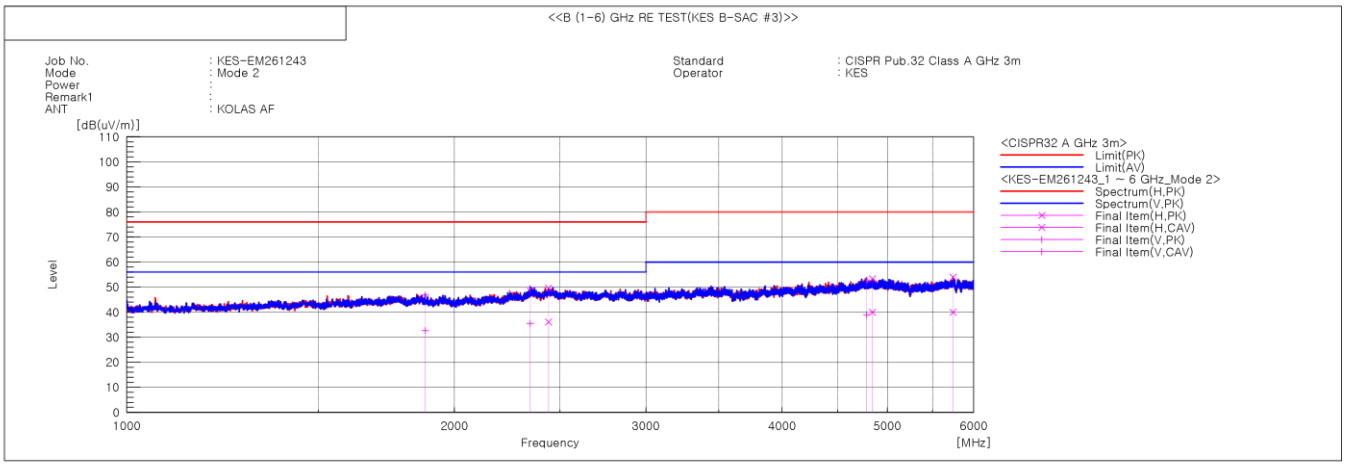
※ The data is the result of measured by the detector in PK and CISPR Average on the Peak graph.



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*

○ Test Date : 2026-05-19

● Test Mode : Mode 2




Final Result

| No. | Frequency [MHz] | (P) | Reading PK [dB(uV)] | Reading CAV [dB(uV)] | c.f [dB(1/m)] | Result PK [dB(uV/m)] | Result CAV [dB(uV/m)] | Limit PK [dB(uV/m)] | Limit AV [dB(uV/m)] | Margin PK [dB] | Margin CAV [dB] | Angle [deg] | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1880.000 | V | 43.6 | 29.5 | 3.2 | 46.8 | 32.7 | 76.0 | 56.0 | 29.2 | 23.3 | 355.5 | |
| 2 | 2348.125 | V | 43.8 | 29.9 | 5.6 | 49.4 | 35.5 | 76.0 | 56.0 | 26.6 | 20.5 | 157.1 | |
| 3 | 2440.625 | H | 43.5 | 30.0 | 6.1 | 49.6 | 36.1 | 76.0 | 56.0 | 26.4 | 19.9 | 9.0 | |
| 4 | 4783.125 | V | 39.4 | 25.6 | 13.4 | 52.8 | 39.0 | 80.0 | 60.0 | 27.2 | 21.0 | 61.4 | |
| 5 | 4842.500 | H | 39.8 | 26.4 | 13.6 | 53.4 | 40.0 | 80.0 | 60.0 | 26.6 | 20.0 | 170.5 | |
| 6 | 5743.750 | H | 39.0 | 25.0 | 15.0 | 54.0 | 40.0 | 80.0 | 60.0 | 26.0 | 20.0 | 147.2 | |

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

### 6.4.5 Remark

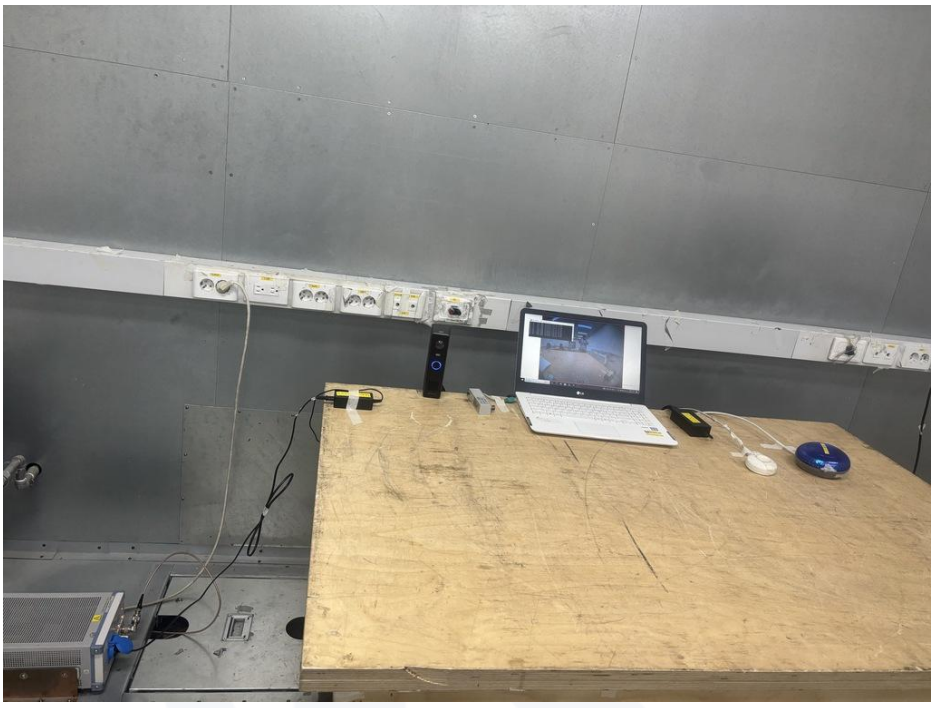
Complies with the test requirements.



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*

# 7 Test Setup Photos and EUT Photographs

## 7.1 Test Setup Photos



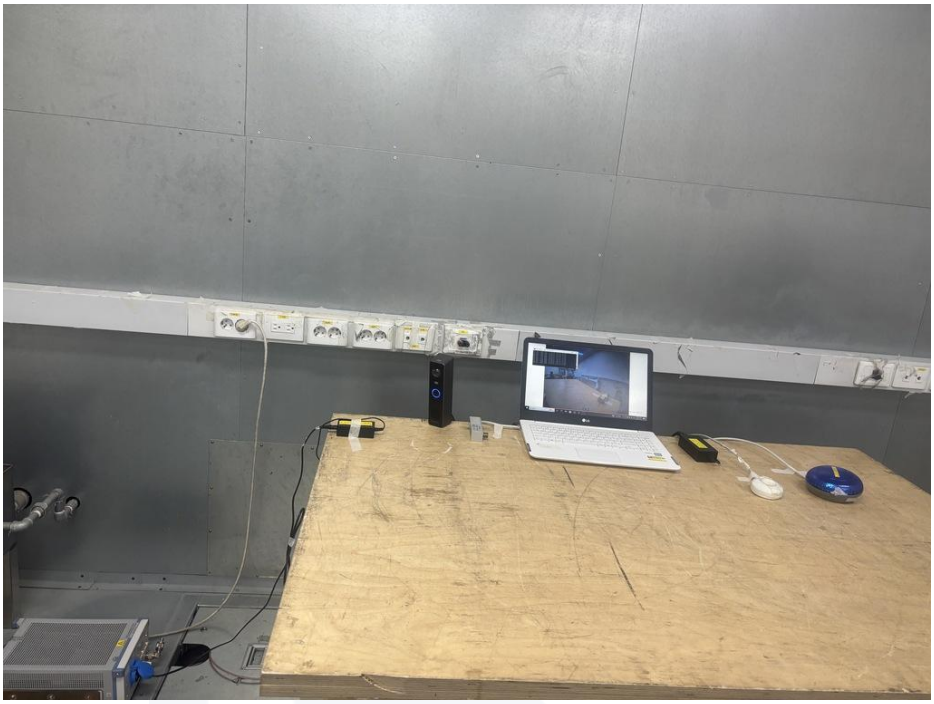
<Conducted Emissions at Mains Power Ports - Front> Mode 1



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



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*



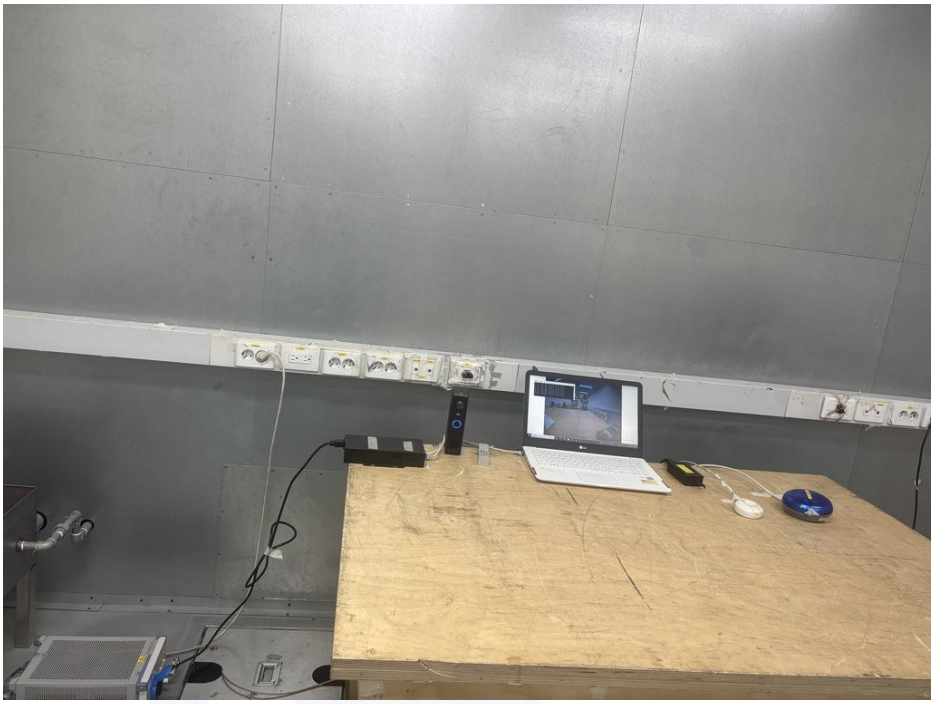
<Conducted Emissions at Telecommunication Ports - Front> Mode 1



<Conducted Emissions at Telecommunication Ports - Rear> Mode 1



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*



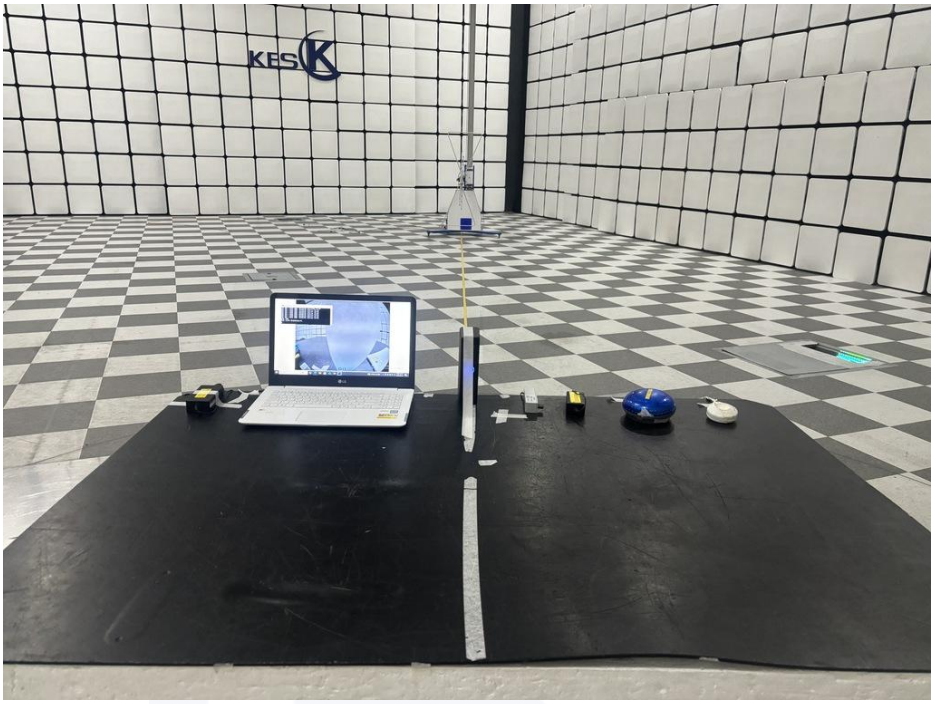
<Conducted Emissions at Telecommunication Ports - Front> Mode 2



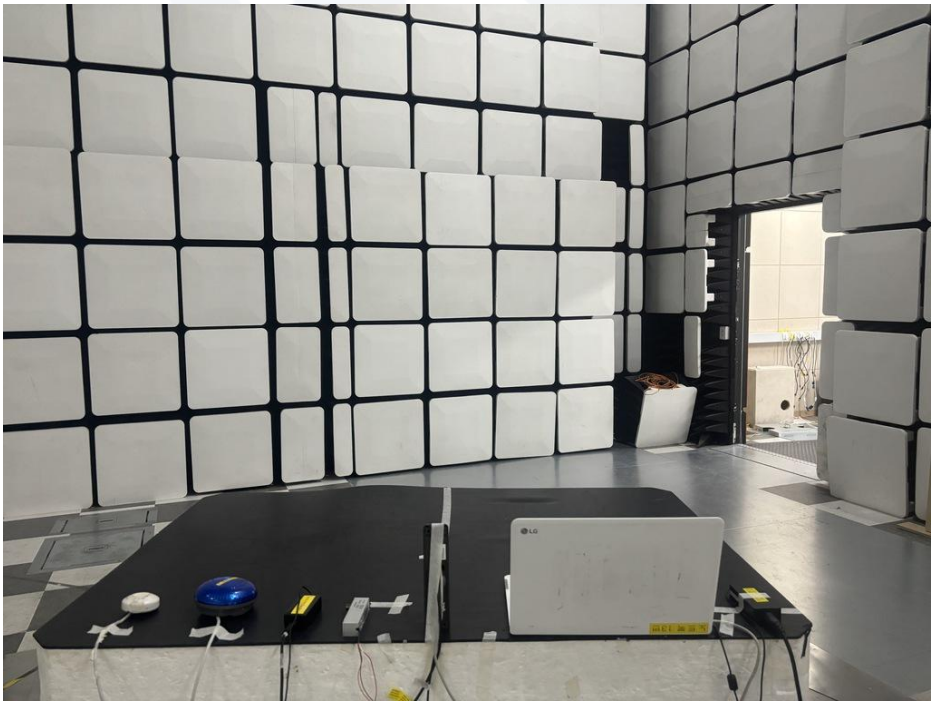
<Conducted Emissions at Telecommunication Ports - Rear> Mode 2



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*



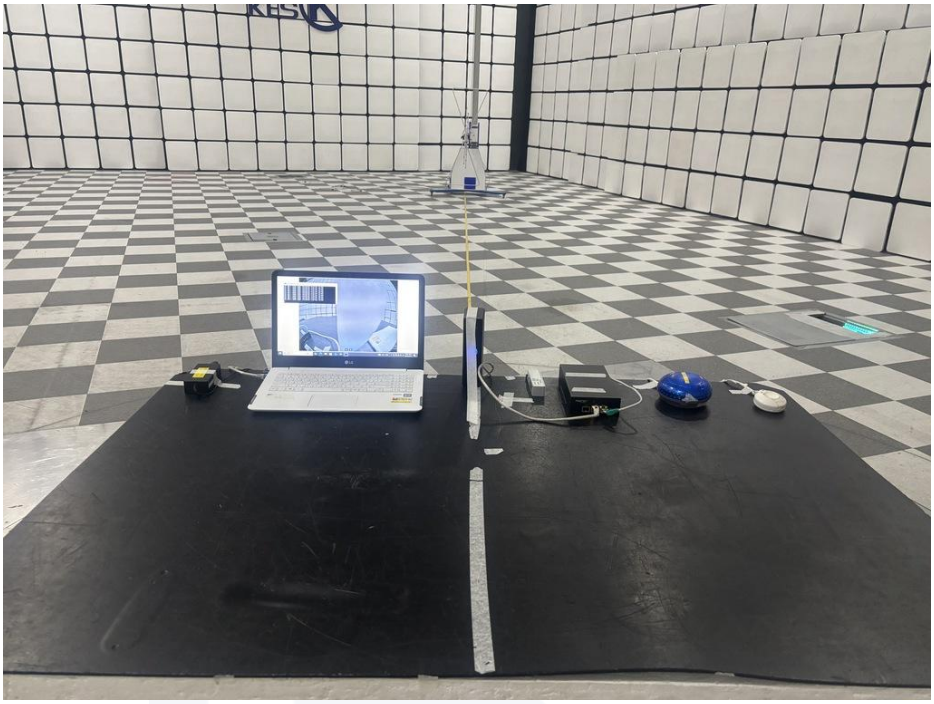
<Radiated Emissions(Below 1 ㎓) - Front> Mode 1



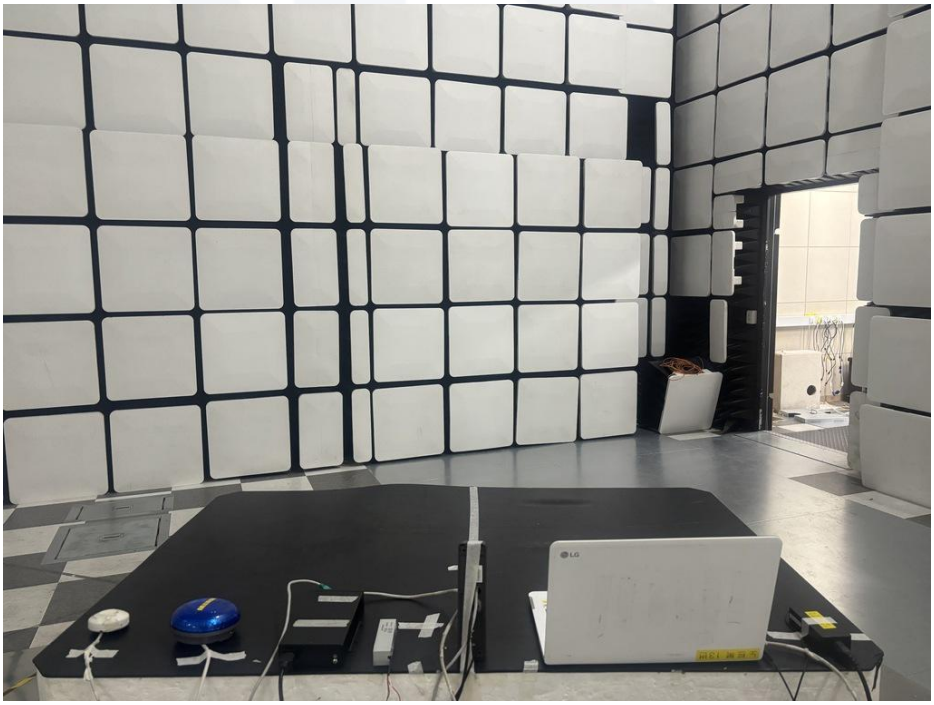
<Radiated Emissions(Below 1 ㎓) - Rear> Mode 1



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*



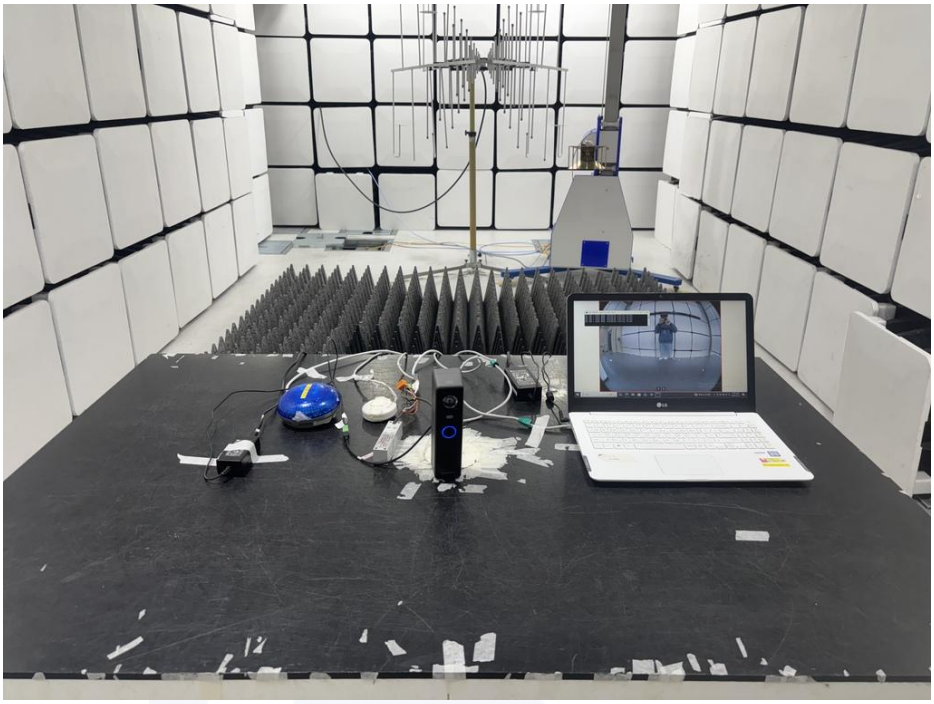
<Radiated Emissions(Below 1 ㎓) - Front> Mode 2



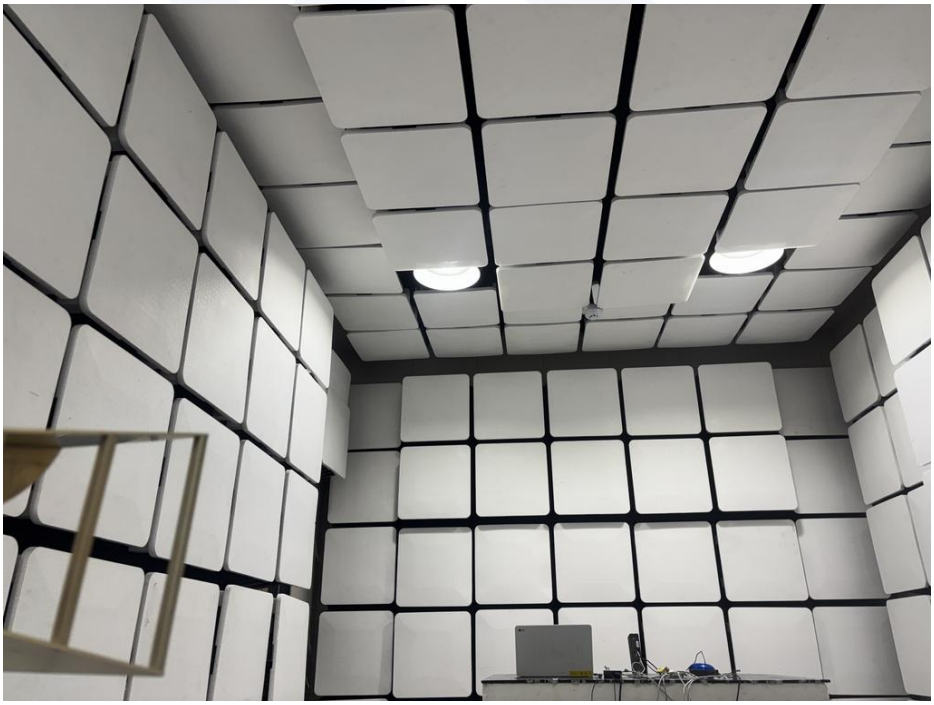
<Radiated Emissions(Below 1 ㎓) - Rear> Mode 2



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*



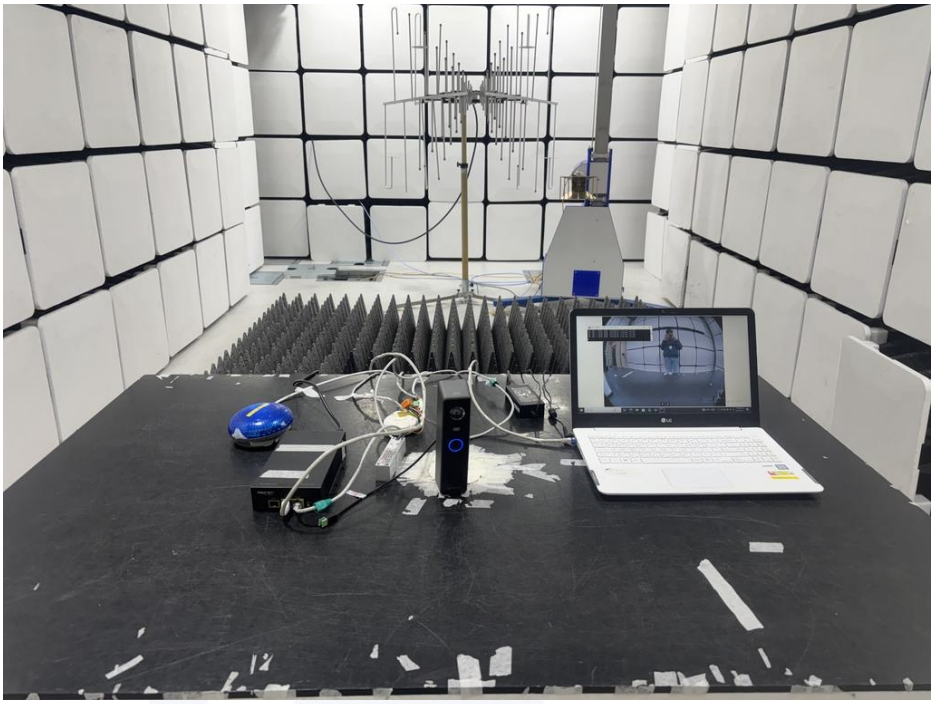
<Radiated Emissions(Above 1 ㎓) - Front> Mode 1



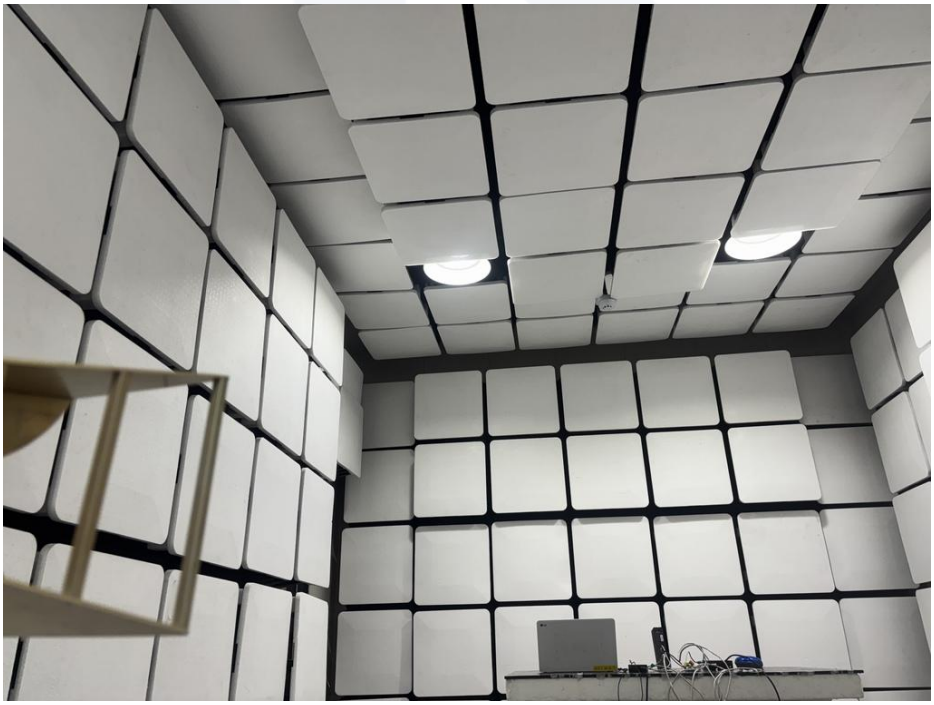
<Radiated Emissions(Above 1 ㎓) - Rear> Mode 1



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*



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



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



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*

## 7.2 EUT Photographs



<EUT External Photographs - Top>



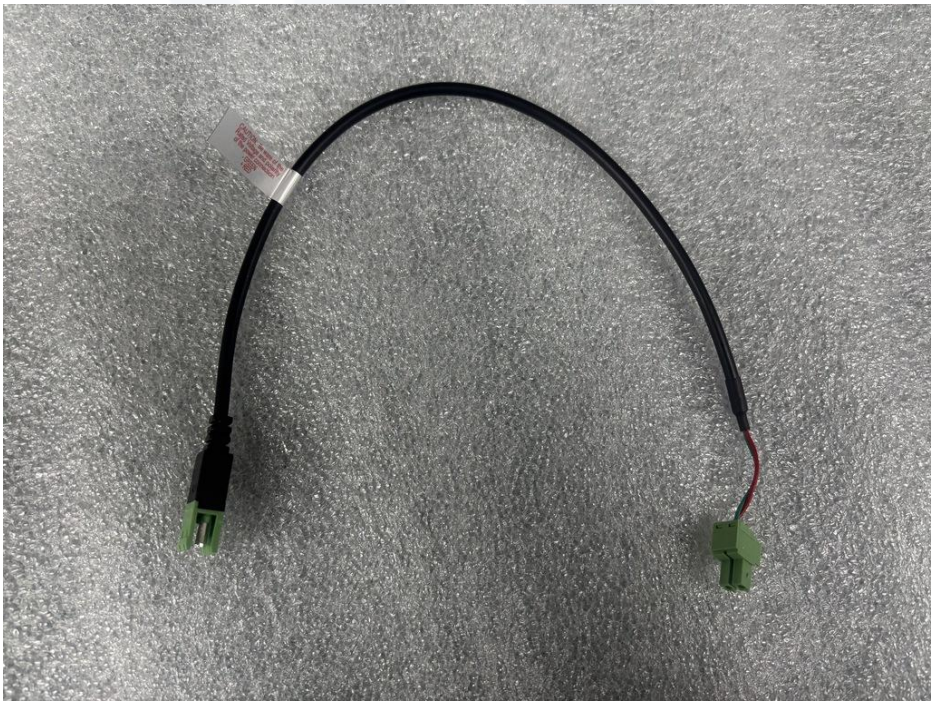
<EUT External Photographs - Bottom>



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*




<Components-1>



<Components-2>



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*



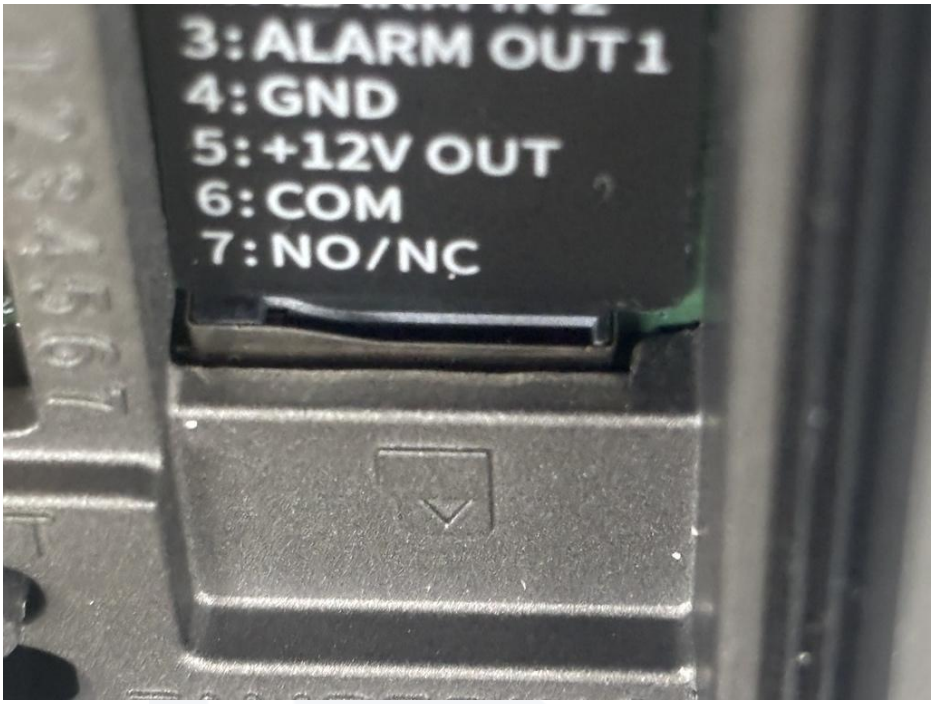

<Port-1>




<Port-2>



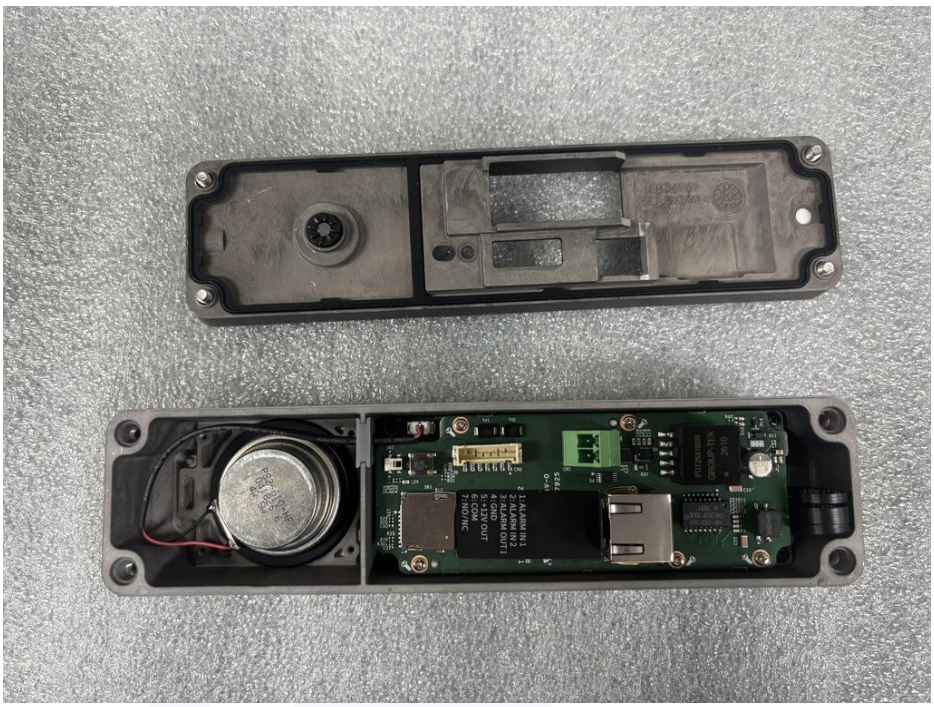
*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*




<Port-3>



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*




<EUT Internal Photographs>



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*

## 7.3 Label

| | |
|---|---|
| | Name : Hanwha Vision Co., Ltd.<br>Product item : NETWORK INTERCOM<br>Model name : TID-A800 |
| この装置は、クラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。 ＶＣＣＩ－Ａ | |

**The End.**



*You can check the authenticity of this test report on the authenticity verification page on our website (www.kes.co.kr).*