



## EMC TEST REPORT For RCM

Test Report No. : KES-E1-19T0685

Date of Issue : Oct. 25, 2019

Product name : ANALOG CAMERA

Model/Type No. : HCD-7010RA

Variant Model : HCD-7020RA, HCD-7030RA

Applicant : Hanwha Techwin Co., Ltd.

Applicant Address : 6, Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si,  
Gyeonggi-do, Republic of Korea

Manufacturer : 1. HANWHA TECHWIN(TIANJIN) CO., LTD.  
2. HANWHA TECHWIN SECURITY VIETNAM CO.,LTD.  
3. D-TECH CO.,LTD.

Manufacturer Address : 1. No.11 Weiliu Rd, Micro-Electronic Industrial Park, TEDA, Tianjin,  
300385, People's Republic of China  
2. Lot O-2, Que Vo Industrial Zone extended area,  
Nam Son commune, Bac Ninh city, Bac Ninh province, Vietnam  
3. 173-25, Saneop-ro, Gwonseon-gu, Suwon-si, Gyeonggi- do,  
Korea (Suwon Industrial Complex)

Date of Receipt : Oct. 16, 2019

Test date : Oct. 17, 2019

Test Results : ☒ **In Compliance** ☐ **Not in Compliance**

Tested by

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EMC Test Engineer

Reviewed by

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**REPORT REVISION HISTORY**

| Date          | Test Report No. | Revision History |
|---------------|-----------------|------------------|
| Oct. 25, 2019 | KES-E1-19T0685  | Issued           |
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## 1.0 General Product Description

### Main Specifications of EUT are:

| Video                            |                                                                                                                                                             |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Imaging Device                   | 1/3" 4M CMOS                                                                                                                                                |
| Total Pixels                     | 2720(H) x 1538(V)                                                                                                                                           |
| Effective Pixels                 | 2688(H) x 1520(V)                                                                                                                                           |
| Scanning System                  | Progressive Scan                                                                                                                                            |
| Min. Illumination                | Color : 0.26Lux (F1.8, 1/30sec)<br>B/W : 0Lux(IR LED on)                                                                                                    |
| S / N Ratio                      | 52dB (AGC off, Weight on)                                                                                                                                   |
| Video Output                     | BNC(AHD), additional CVBS for installation(2Pin connector type)                                                                                             |
| Resolution                       | 2560x1440                                                                                                                                                   |
| Max. Framerate                   | 30fps @ 4M                                                                                                                                                  |
| Pan / Tilt / Rotate              |                                                                                                                                                             |
| Pan / Tilt / Rotate Range        | 0°~350° / 0°~67° / 0°~355°                                                                                                                                  |
| Lens Type                        |                                                                                                                                                             |
| Focal Length (Zoom Ratio)        | 2.8mm fixed                                                                                                                                                 |
| Max. Aperture Ratio              | F1.8                                                                                                                                                        |
| Angular Field of View            | H : 107.48° / V : 59.67° / D : 122.01°                                                                                                                      |
| Min. Object Distance             | 0.5m (1.64ft)                                                                                                                                               |
| Focus Control                    | -                                                                                                                                                           |
| Lens Type                        | Fixed Lens                                                                                                                                                  |
| Mount Type                       | Board-in type                                                                                                                                               |
| Operational                      |                                                                                                                                                             |
| Viewable length                  | 20m (65.62ft)                                                                                                                                               |
| On Screen Display                | Multi-language Support(14)<br>English, Spanish, French, Portuguese, German, Italian, Russian, Polish,<br>Czech, Romanian, Serbian, Swedish, Danish, Turkish |
| Camera Title                     | -                                                                                                                                                           |
| Day & Night                      | Auto (ICR) / Color / B/W                                                                                                                                    |
| Backlight Compensation           | Off / User BLC / HLC                                                                                                                                        |
| Wide Dynamic Range               | D-WDR (Off/On)                                                                                                                                              |
| Contrast Enhancement             | -                                                                                                                                                           |
| Digital Noise Reduction          | 2D DNR                                                                                                                                                      |
| Defog                            | -                                                                                                                                                           |
| Digital Image Stabilization      | -                                                                                                                                                           |
| Motion Detection                 | Off / On(4 zones)                                                                                                                                           |
| Privacy Masking                  | Off / On(2 zones rectangle)                                                                                                                                 |
| Gain Control                     | Off / Low / Middle / High / Very High                                                                                                                       |
| White Balance                    | ATW / Outdoor / Indoor / Manual / AWC (1,800K ~ 10,500K)                                                                                                    |
| LDC (Lens Distortion Correction) | -                                                                                                                                                           |
| Electronic Shutter Speed         | 1/30sec~ 1/12,000sec                                                                                                                                        |
| Digital Zoom                     | -                                                                                                                                                           |
| Reverse                          | Off / H-Rev / V-Rev                                                                                                                                         |
| Profile                          | -                                                                                                                                                           |
| Alarm                            | -                                                                                                                                                           |
| Remote control interface         | Cosial                                                                                                                                                      |
| Protocol                         | AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)                                                                                                   |
| Video Transmission Distance      | 500m(5C2V Coaxial Cable)                                                                                                                                    |
| Environmental                    |                                                                                                                                                             |
| Operating Temperature / Humidity | -10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH                                                                                                           |
| Ingress Protection               | -                                                                                                                                                           |
| Vandal Resistance                | -                                                                                                                                                           |
| Electrical                       |                                                                                                                                                             |
| Input Voltage/Current            | 12V DC ±10%/410mA                                                                                                                                           |
| Power Consumption                | MAX.5W                                                                                                                                                      |
| Mechanical                       |                                                                                                                                                             |
| Color / Material                 | Ivory / Plastic                                                                                                                                             |
| Dimension (WxHxD)                | Ø110.1 x 86.1mm                                                                                                                                             |
| Weight                           | 240g                                                                                                                                                        |

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## 1.1 Test Voltage & Frequency

Unless indicated otherwise on the individual data sheet or test results, the test voltage and frequency was as indicated below.

Voltage ☐ 240 Vac ☐ 100 Vac ☐ 24 Vac ☒ 12 Vdc ☐ PoE

Frequency ☐ 50 Hz ☐ 60 Hz ☐ Hz

## 1.2 Variant Model Differences

Added simple derivative model based on management purpose by company

## 1.3 Device Modifications

Not applicable

## 1.4 Equipment Under Test

| Description   | Model Number | Serial Number | Manufacturer                      | Remarks |
|---------------|--------------|---------------|-----------------------------------|---------|
| ANALOG CAMERA | HCD-7010RA   | -             | HANWHA TECHWIN (TIANJIN) CO., LTD | EUT     |

## 1.5 Support Equipments

| Description            | Model Number | Serial Number   | Manufacturer                              | Remarks |
|------------------------|--------------|-----------------|-------------------------------------------|---------|
| DIGITAL VIDEO RECORDER | SDH-C84085BF | -               | Zhuhai RaySharp Technology Co., Ltd.      | -       |
| AC/DC Adaptor          | FSP040-RHAN2 | -               | Zhonghan Electronics (Shenzhen) Co., Ltd. | -       |
| Monitor                | EM23TS       | NC26HIKZ401026J | Samsung Electronics Co., Ltd.             | -       |
| Mouse                  | 1113         | -               | Microsoft                                 | -       |



## 1.6 External I/O Cabling

| Start                  |          | END                    |          | Cable Spec. |        |
|------------------------|----------|------------------------|----------|-------------|--------|
| Description            | I/O Port | Description            | I/O Port | Length      | Shield |
| ANALOG CAMERA (EUT)    | BNC      | DIGITAL VIDEO RECORDER | BNC      | 3.0         | S      |
| DIGITAL VIDEO RECORDER | D-SUB    | Monitor                | D-SUB    | 1.5         | S      |
| DIGITAL VIDEO RECORDER | USB      | Mouse                  | USB      | 1.2         | U      |

\* Unshielded=U, Shielded=S

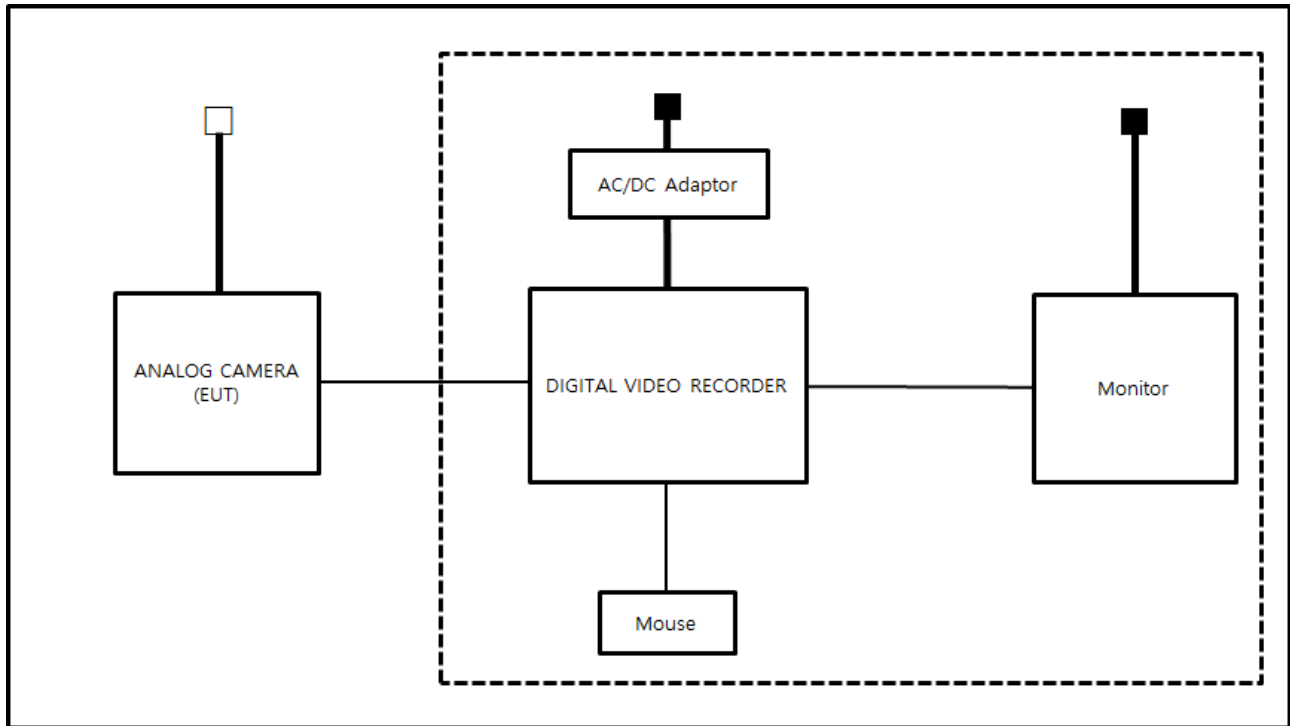
## 1.7 EUT Operating Mode(s)

| Test mode | operating      |
|-----------|----------------|
| DC 12 V   | EUT Monitoring |

| EUT Test operating S/W |         |                     |
|------------------------|---------|---------------------|
| Name                   | Version | Manufacture Company |
|                        | -       | -                   |

## 1.8 Configuration

■ AC Main  
 □ DC Main



## 1.9 Remarks when standards applied

In the radiated Electric Field Emissions (Below 1 GHz), the radiated Electric Field Emissions(Above 1 GHz), peripheral devices were tested outside the test site.

## 1.10 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less.

## 1.11 Test Facility

The measurement facility is located at 473-21 Gayeo-ro, Yeoju-si, Gyeonggi-do, 12658, Korea. The sites are constructed in conformance with the requirements of ANSI C63.4:2014 and CISPR 16-1-4:2012

## 1.12 Laboratory Accreditations and Listings

| Country       | Agency  | Scope of Accreditation                                                                                                                                                                         | Logo                                                                                                                        |
|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| KOREA         | RRA     | EMI (3 m & 10 m Semi-Anechoic Chamber , 10 m Open Area and conducted test site)<br>EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)                                       | <br>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)                                                      | <br>KT489                              |
| USA           | FCC     | 3 m & 10 m Semi-Anechoic Chamber, 10 m Open Area and Conducted test site to perform FCC Part 15/18 measurements.                                                                               | <br>KR0100                             |
| Canada        | ISED    | 3 m & 10 m Semi-Anechoic Chamber and Conducted test site                                                                                                                                       | <br>23298-1                            |
| JAPAN         | VCCI    | Mains Ports Conducted Interference Measurement, Telecommunication Ports Conducted Disturbance Measurement and Radiation 10 meter site, Facility for measuring radiated disturbance above 1 GHz | <br>R-20056, C-20036, T-20040, G-20057 |
| Europe        | TÜV SÜD | EMI (3 m & 10 m Semi-Anechoic Chamber , 10 m Open Area and conducted test site)<br>EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)                                       | <br>CARAT 001633 0003                  |



## 2.0 Test Regulations

The emissions tests were performed according to following regulations:

☐ **EMC – Directive 2014/30/EU**

☐ EN 61000-6-3:2011

☐ EN 61000-6-1:2007

☐ EN 61000-6-4:2007 +A1:2011

☐ EN 61000-6-2:2005

☐ EN 55011:2007 +A1:2010

☐ Group 1  
☐ Class A

☐ Group 2  
☐ Class B

☐ EN 55014-1:2006 +A2:2011

☐ EN 55014-2:1997 +A2:2008

☐ EN 55015:2013

☐ EN 55032:2015

☐ Class A

☐ Class B

☐ EN 55024:2010

☐ EN 50130-4:2011 +A1:2014

☐ EN 61000-3-2:2014

☐ EN 61000-3-3:2013

☐ EN 61326-1:2013



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- |                                                                |                                             |                                  |
|----------------------------------------------------------------|---------------------------------------------|----------------------------------|
| <input type="checkbox"/> <b>VCCI-CISPR 32:2016</b>             | <input type="checkbox"/> Class A            | <input type="checkbox"/> Class B |
| <input checked="" type="checkbox"/> <b>AS/NZS CISPR32:2015</b> | <input checked="" type="checkbox"/> Class A | <input type="checkbox"/> Class B |
| <br>                                                           |                                             |                                  |
| <input type="checkbox"/> <b>47 CFR Part 15, Subpart B</b>      |                                             |                                  |
| <input type="checkbox"/> CISPR 22:2009 +A1:2010                | <input type="checkbox"/> Class A            | <input type="checkbox"/> Class B |
| <input type="checkbox"/> ANSI C63.4-2009                       |                                             |                                  |
| <br>                                                           |                                             |                                  |
| <input type="checkbox"/> <b>IC Regulation ICES-003 : 2016</b>  |                                             |                                  |
| <input type="checkbox"/> CAN/CSA CISPR 22-10                   | <input type="checkbox"/> Class A            | <input type="checkbox"/> Class B |
| <input type="checkbox"/> ANSI C63.4-2014                       |                                             |                                  |
| <br>                                                           |                                             |                                  |
| <input type="checkbox"/> <b>RE- Directive 2014/53/EU</b>       |                                             |                                  |
| <br>                                                           |                                             |                                  |
| <input type="checkbox"/> EN 301 489-1 V1.9.2                   |                                             |                                  |
| <input type="checkbox"/> Equipment for fixed use               |                                             |                                  |
| <input type="checkbox"/> Equipment for vehicular use           |                                             |                                  |
| <input type="checkbox"/> Equipment for portable use            |                                             |                                  |
| <br>                                                           |                                             |                                  |
| <input type="checkbox"/> EN 301 489-3 V1.6.1                   |                                             |                                  |
| <input type="checkbox"/> EN 301 489-17 V2.2.1                  |                                             |                                  |
| <input type="checkbox"/> EN 60945:2002                         |                                             |                                  |

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## 2.1 Conducted Emissions at Mains Power Ports

### Test Date

N/A

### Test Location

Electro wave Shieldroom #6

### Test Equipment

| Used                     | Description       | Model Number | Manufacturer | Serial Number | Cal. Due     |
|--------------------------|-------------------|--------------|--------------|---------------|--------------|
| <input type="checkbox"/> | EMI Test S/W      | EMC32        | R & S        | 9.12.00       | -            |
| <input type="checkbox"/> | EMI TEST RECEIVER | ESR3         | R & S        | 101781        | 04, 22, 2020 |
| <input type="checkbox"/> | LISN              | ENV216       | R & S        | 101787        | 01, 04, 2020 |
| <input type="checkbox"/> | LISN              | ESH2-Z5      | R & S        | 100450        | 04, 22, 2020 |
| <input type="checkbox"/> | PULSE LIMITER     | ESH3-Z2      | R & S        | 101915        | 11, 26, 2019 |

### Test Conditions

Temperature:

°C

Relative Humidity:

% R.H.

### Frequency Range of Measurement

150 kHz to 30 MHz

### Instrument Settings

IF Band Width: 9 kHz

### Test Results

The requirements are:

- ☐ PASS  
☐ NOT PASS  
☒ NOT APPLICABLE

### Remarks

It is not tested apply because it is powered by DC.



## 2.2 Conducted Emissions at Telecommunication Ports

### Test Date

N/A

### Test Location

Electro wave Shieldroom #6

### Test Equipment

| Used                     | Description       | Model Number | Manufacturer | Serial Number | Cal. Due     |
|--------------------------|-------------------|--------------|--------------|---------------|--------------|
| <input type="checkbox"/> | EMI Test S/W      | EMC32        | R & S        | 9.12.00       | -            |
| <input type="checkbox"/> | EMI TEST RECEIVER | ESR3         | R & S        | 101781        | 04, 22, 2020 |
| <input type="checkbox"/> | LISN              | ENV216       | R & S        | 101787        | 01, 04, 2020 |
| <input type="checkbox"/> | LISN              | ESH2-Z5      | R & S        | 100450        | 04, 22, 2020 |
| <input type="checkbox"/> | PULSE LIMITER     | ESH3-Z2      | R & S        | 101915        | 11, 26, 2019 |
| <input type="checkbox"/> | 8-WIRE ISN CAT3,5 | ENY81        | R & S        | 100174        | 01, 07, 2020 |
| <input type="checkbox"/> | 8-WIRE ISN CAT6   | ENY81-CAT6   | R & S        | 101665        | 01, 07, 2020 |

### Test Conditions

Temperature:

°C

Relative Humidity:

% R.H.

### Frequency Range of Measurement

150 kHz to 30 MHz

### Instrument Settings

IF Band Width: 9 kHz

### Test Results

The requirements are:

- ☐ PASS  
☐ NOT PASS  
☒ NOT APPLICABLE

### Remarks

N/A

## 2.3 Radiated Electric Field Emissions(Below 1 GHz)

### Test Date

Oct. 17, 2019

### Test Location

☐ OPEN AREA TEST SITE #2 ☒ SEMI ANECHOIC CHAMBER #4(10 m)

### Test Equipment

| Used                                | Description              | Model Number | Manufacturer     | Serial Number | Cal. Due     |
|-------------------------------------|--------------------------|--------------|------------------|---------------|--------------|
| <input checked="" type="checkbox"/> | EMI Test S/W             | EP5/RE       | TOYO Corporation | 6.0.0         | -            |
| <input checked="" type="checkbox"/> | EMI TEST RECEIVER        | ESU26        | R & S            | 100551        | 04, 09, 2020 |
| <input checked="" type="checkbox"/> | AMPLIFIER                | SCU 01       | R & S            | 100603        | 11, 26, 2019 |
| <input checked="" type="checkbox"/> | TRILOG-BROADBAND ANTENNA | VULB9163     | Schwarzbeck      | 715           | 11, 29, 2020 |
| <input checked="" type="checkbox"/> | ATTENUATOR               | 8491A        | HP               | 32173         | 03, 11, 2020 |

### Test Conditions

Temperature: 24,9 °C  
Relative Humidity: 53,8 % R.H.

### Frequency Range of Measurement

30 MHz to 1 GHz

### Instrument Settings

IF Band Width: 120 kHz

### Test Results

The requirements are:

- ☒ PASS  
☐ NOT PASS  
☐ NOT APPLICABLE

### Remarks

See Appendix A for test data.

## 2.4 Radiated Electric Field Emissions(Above 1 GHz)

### Test Date

Oct. 17, 2019

### Test Location

SEMI ANECHOIC CHAMBER #3

### Test Equipment

| Used                                | Description                | Model Number | Manufacturer     | Serial Number | Cal. Due     |
|-------------------------------------|----------------------------|--------------|------------------|---------------|--------------|
| <input checked="" type="checkbox"/> | EMI Test S/W               | EP5/RE       | TOYO Corporation | 6.0.0         | -            |
| <input checked="" type="checkbox"/> | EMI TEST RECEIVER          | ESR7         | R & S            | 101190        | 08, 06, 2020 |
| <input checked="" type="checkbox"/> | PREAMPLIFIER               | 8449B        | AGILENT          | 3008A01967    | 05, 27, 2020 |
| <input type="checkbox"/>            | ATTENUATOR                 | 8491A        | HP               | 35496         | 03, 11, 2020 |
| <input checked="" type="checkbox"/> | DOUBLE RIDGED HORN ANTENNA | SAS-571      | A.H.SYSTEM, INC  | 781           | 03, 12, 2021 |

### Test Conditions

Temperature: 24,7 °C  
Relative Humidity: 53,5 % R.H.

### Frequency Range of Measurement

1 GHz to 6 GHz

### Instrument Settings

IF Band Width: 1 MHz

### Test Results

The requirements are:

- ☒ PASS  
☐ NOT PASS  
☐ NOT APPLICABLE

### Remarks

See Appendix A for test data.



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## **APPENDIX A – TEST DATA**

### **Conducted Emissions at Mains Power Ports**

HOT LINE

N/A



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### NEUTRAL LINE

N/A

#### ◆ Calculation

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

QuasiPeak / CAverage : The Final Value

Reading Value : Not shown in the table.

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

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## Conducted Emissions at Telecommunication Ports

[1 000 Mbps]

N/A

### ◆ Calculation

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

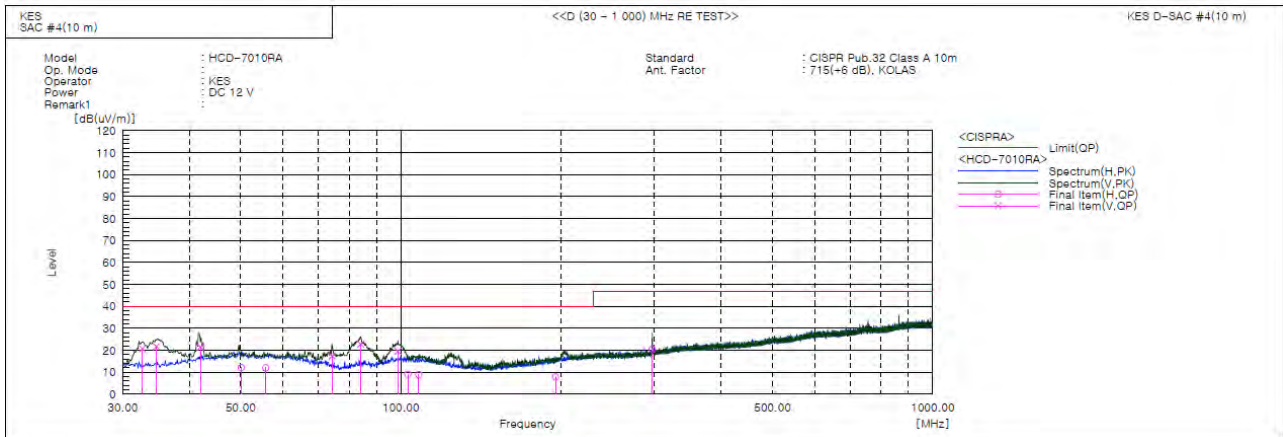
QuasiPeak / CAverage : The Final Value

Reading Value : Not shown in the table.

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



## Radiated Electric Field Emissions(Below 1 GHz)



### 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   | 32.668          | V   | 45.7                | -25.0         | 20.7                 | 40.0                | 19.3           | 100.0       | 334.0       |        |
| 2   | 34.701          | V   | 46.7                | -24.9         | 21.8                 | 40.0                | 18.2           | 100.0       | 199.0       |        |
| 3   | 42.012          | V   | 43.8                | -22.3         | 21.5                 | 40.0                | 18.5           | 142.0       | 125.0       |        |
| 4   | 50.128          | H   | 33.4                | -21.3         | 12.1                 | 40.0                | 27.9           | 186.0       | 95.0        |        |
| 5   | 55.705          | H   | 33.8                | -21.8         | 12.0                 | 40.0                | 28.0           | 198.0       | 330.0       |        |
| 6   | 74.256          | V   | 43.9                | -26.5         | 17.4                 | 40.0                | 22.6           | 167.0       | 158.0       |        |
| 7   | 84.078          | V   | 49.4                | -26.6         | 22.8                 | 40.0                | 17.2           | 146.0       | 249.0       |        |
| 8   | 98.749          | V   | 42.2                | -22.6         | 19.6                 | 40.0                | 20.4           | 100.0       | 175.0       |        |
| 9   | 103.114         | H   | 31.5                | -22.4         | 9.1                  | 40.0                | 30.9           | 400.0       | 177.0       |        |
| 10  | 108.085         | H   | 31.4                | -22.5         | 8.9                  | 40.0                | 31.1           | 397.0       | 38.0        |        |
| 11  | 195.385         | H   | 30.1                | -22.2         | 7.9                  | 40.0                | 32.1           | 400.0       | 98.0        |        |
| 12  | 296.993         | H   | 39.2                | -18.7         | 20.5                 | 47.0                | 26.5           | 325.0       | 304.0       |        |

### ◆ Calculation

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

Margin(QP)[dB] = Limit[dB(μV/m)] - Result(QP) [dB(μV/m)]

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

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

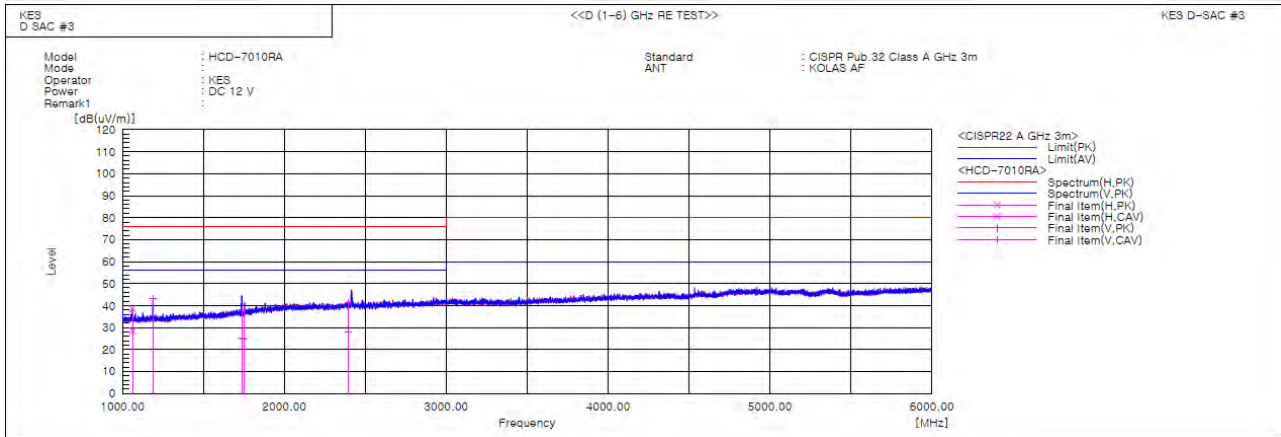


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KES-E1-19T0685  
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### Radiated Electric Field Emissions(Above 1 GHz)



#### Final Result

| No. | Frequency<br>[MHz] | (P) | Reading<br>PK<br>[dB(uV)] | Reading<br>CAV<br>[dB(uV)] | c.f<br>[dB(1/m)] | Result<br>PK<br>[dB(uV/m)] | Result<br>CAV<br>[dB(uV/m)] | Limit<br>PK<br>[dB(uV/m)] | Limit<br>AV<br>[dB(uV/m)] | Margin<br>PK<br>[dB] | Margin<br>CAV<br>[dB] | Height<br>[cm] | Angle<br>[deg] | Remark |
|-----|--------------------|-----|---------------------------|----------------------------|------------------|----------------------------|-----------------------------|---------------------------|---------------------------|----------------------|-----------------------|----------------|----------------|--------|
| 1   | 1062.560           | H   | 47.8                      | 37.7                       | -9.2             | 38.6                       | 28.5                        | 76.0                      | 56.0                      | 37.4                 | 27.5                  | 100.0          | 281.1          |        |
| 2   | 1187.790           | V   | 51.7                      | 43.9                       | -8.6             | 43.1                       | 35.3                        | 76.0                      | 56.0                      | 32.9                 | 20.7                  | 100.0          | 349.6          |        |
| 3   | 1736.943           | V   | 42.5                      | 29.3                       | -4.2             | 38.3                       | 25.1                        | 76.0                      | 56.0                      | 37.7                 | 30.9                  | 100.0          | 298.9          |        |
| 4   | 1752.967           | V   | 42.1                      | 28.8                       | -4.0             | 38.1                       | 24.8                        | 76.0                      | 56.0                      | 37.9                 | 31.2                  | 100.0          | 52.6           |        |
| 5   | 2393.304           | V   | 41.9                      | 28.6                       | -0.6             | 41.3                       | 28.0                        | 76.0                      | 56.0                      | 34.7                 | 28.0                  | 100.0          | 253.8          |        |

#### ◆ Calculation

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

Margin(PK/CAV)[dB] = Limit[dB(μV/m)] - Result(PK/CAV) [dB(μV/m)]

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

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

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## **Test Setup Photos and Configuration**

### **Conducted Voltage Emissions**

N/A

N/A



---

## Conducted Telecommunication Emissions

N/A

N/A

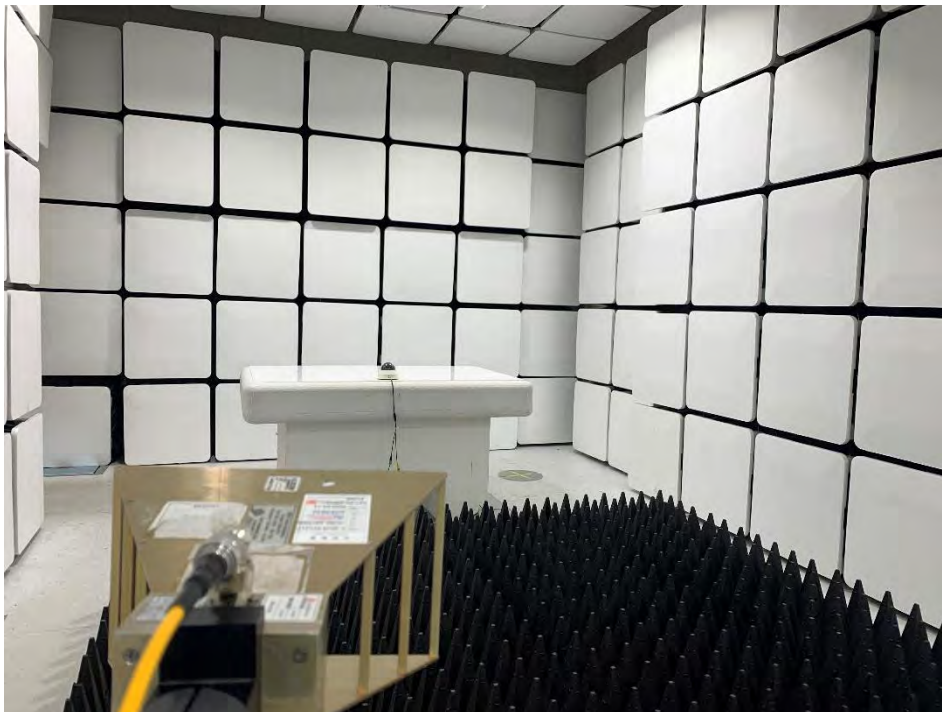
## Radiated Electric Field Emissions(Below 1 GHz)



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## Radiated Electric Field Emissions(Above 1 GHz)



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## EUT External Photographs

(Top)



(Bottom)



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## EUT Internal Photographs

(Internal View)

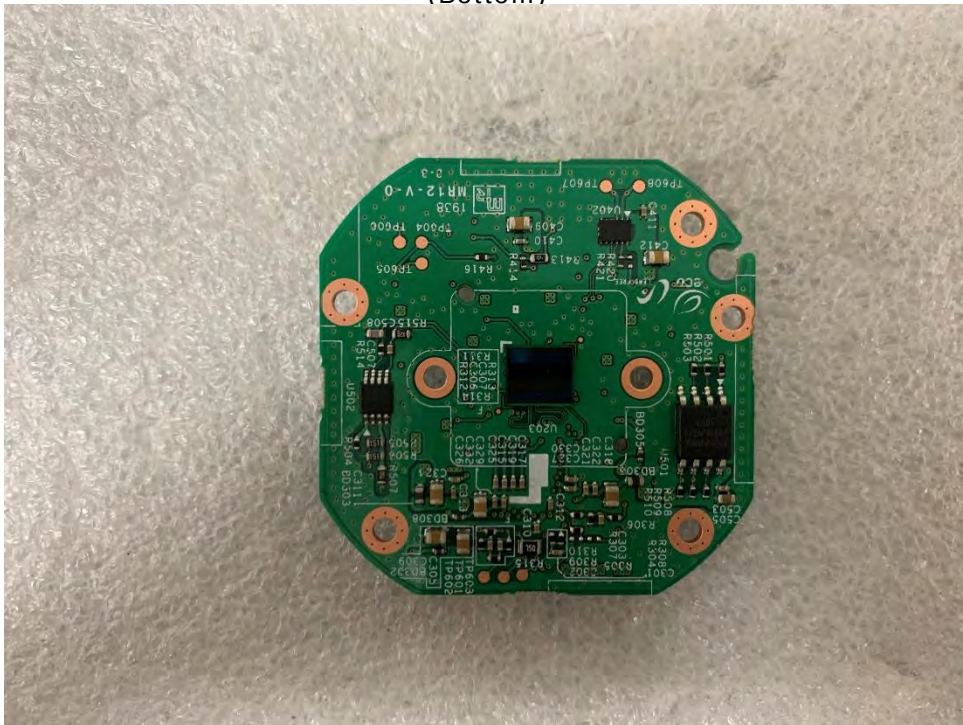


## EUT Internal View – Main Board

(Top)



(Bottom)



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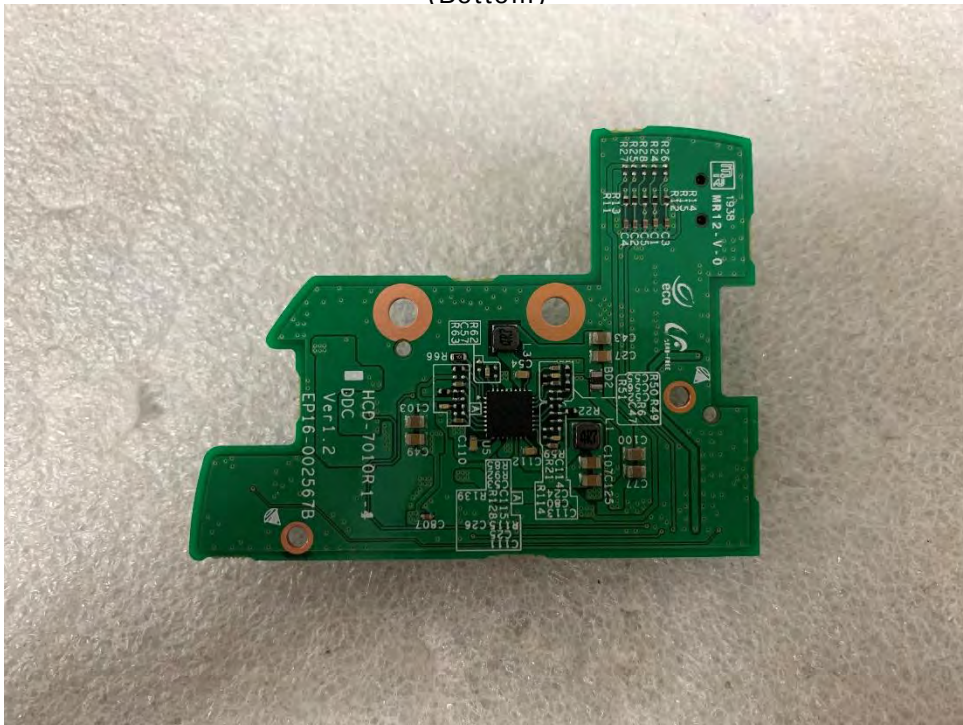


## EUT Internal View – Sub Board

(Top)



(Bottom)



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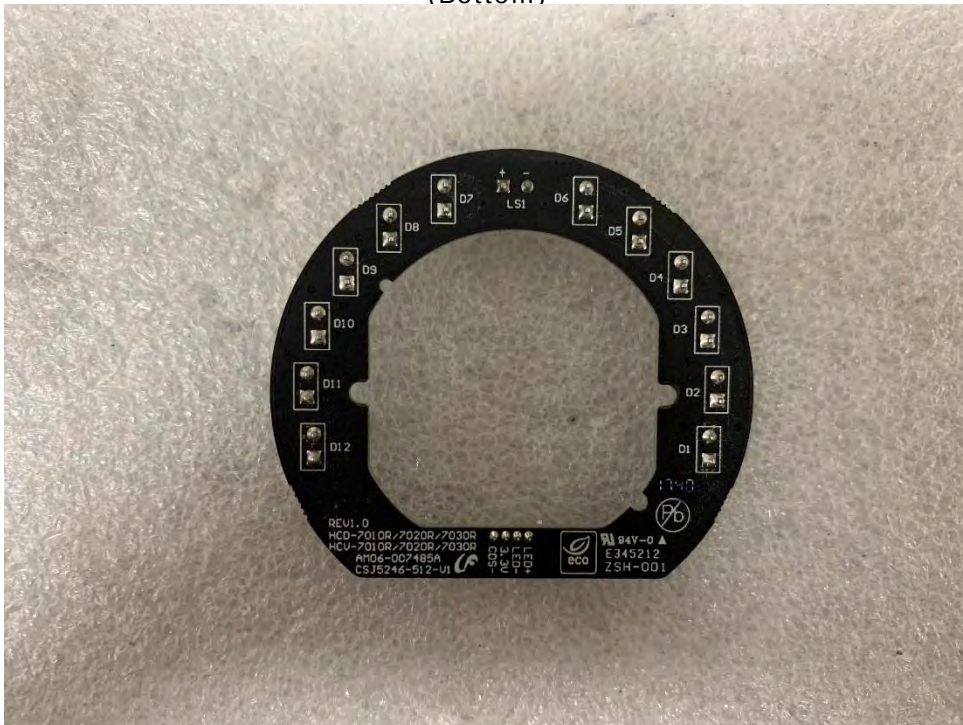


## EUT Internal View – IR Board

(Top)



(Bottom)



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## EUT Internal View – Lens

(Top)



(Bottom)



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