EMC TEST REPORT For C-TICK

Test Report No.	:	KES-E1-16T0616-R1
Date of Issue	:	Feb. 24, 2023
Product name	:	NETWORK CAMERA
Model/Type No.	:	XNO-6080R
Variant Model	:	-
Applicant	:	Hanwha Vision Co., Ltd
Applicant Address	:	6, Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea
Manufacturer	:	1. HANWHA VISION VIETNAM COMPANY LIMITED 2. D-TECH CO.,LTD.
Manufacturer Address	:	1. Lot O-2, Que Vo Industrial Zone extended area, Nam Son commune, Bac Ninh city, Bac Ninh province, Vietnam 2. 173-25, Saneop-ro, Gwonseon-gu, Suwon-si, Gyeonggi- do, Korea (Suwon Industrial Complex)
Date of Receipt	:	Nov, 23, 2016
Test date	:	Dec, 02, 2016 ~ Dec, 03, 2016
Test Results	:	☒ **In Compliance** ☐ **Not in Compliance**

Tested by

Dae Hyun, Kim
EMC Test Engineer

Reviewed by

Dong-Hun, Jang
EMC Technical Manager

Tested by Jin Bae, Lee
(Retired person)
Proxy signature : Dae Hyun, Kim

This test report is not related to KS Q ISO/IEC 17025 and KOLAS.

REPORT REVISION HISTORY

Date	Test Report No.	Revision History
Dec. 06, 2016	KES-E1-16T0616	Issued
Feb. 24, 2023	KES-E1-16T0616-R1	Change the Model No, Applicant, Applicant address and manufacturer, manufacturer address at the request of the customer

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1.0 General Product Description

Main Specifications of EUT are:

Video	
Imaging Device	1/2.8" 2M CMOS (IMX291)
Total Pixels	1945(H) x 1109(V) 2.16M
Effective Pixels	1945(H) x 1097(V) 2.13M
Scanning System	Progressive Scan
Min. Illumination	Color : 0.03 lux (TBD) B/W : 0 Lux (IR LED On)
S / N Ratio	50dB
Video Out	CVBS : 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P), for installation USB : Micro USB type B, 1920 x 1080(TBD), for installation
Lens	
Focal Length (Zoom Ratio)	2.8~12mm(4.3x) motorized varifocal
Max. Aperture Ratio	1.4(Wide) ~ 3.6(Tele)
Angular Field of View	H: 119.5˚, V: 62.8˚, D: 142.1˚ H: 27.9˚, V: 15.7˚, D: 32.0˚
Min. Object Distance	0.5m (1.64ft)
Focus Control	Simple focus(Motorized V/F) / Manual, Remote control via network (Manual, Simple focus)
Lens Type	DC Auto Iris, P-iris
Mount Type	Board-in type
Pan / Tilt / Rotate	
Pan / Tilt / Rotate range	
Operational	
IR LED	4EA
Viewable Length	50m(164.04ft)
Camera Title	Off / On (Displayed up to 55 characters) - W/W : English/Numeric/Special Characters - China : English/Numeric/Special/Chinese Characters - Common : Multi-line (Max 6), Color (Grey/Green/Red/Blue/Black/White), Transparency, Auto Scale by Resolution
Day & Night	Auto (ICR) / Color / B/W / External / Schedule
Backlight Compensation	Off / BLC / HLC(Masking/Dimming), WDR(Seamless transition TBD)
Wide Dynamic Range	150dB(TBD)
Contrast Enhancement	SSDR (Off / On)
Digital Noise Reduction	SSNR5 (2D+3D Noise Filter) (Off / On)
Digital Image Stabilization	Off / On
Defog	Auto(input from fog detection) / Manual / Off
Motion Detection	Yes(8ea, 4point Polygonal zones)
Privacy Masking	Off / On (32ea, polygonal zones) - Color : Grey/Green/Red/Blue/Black/White - Mosaic ※ Zoom ratio option for mask mode (TBD)
Gain Control	Off / Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor((included Mercury & Sodium)
Contrast	level adjustment
LDC	On/Off (5 levels with Min/Max)
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2 ~ 1/12,000sec →TBD)
Digital PTZ	24X, 'Digital PTZ(Preset, Group)

Flip / Mirror	Flip : On/Off Mirror : On/Off Hallway view : 90°/270°
Intelligent Video & Audio Analytics	Tampering, Loitering, Directional Detection, Defocus Detection, Fog&Dust Detection, Virtual Line, Enter/Exit, Appear / Disappear, Audio Detection, Motion Detection, Digital Auto Tracking, Sound Classification
Alarm I/O	Input 1ea / Output 1ea
Remote Control Interface	-
RS-485 Protocol	-
Alarm Triggers	Alarm Input, Motion Detection, Intelligent Video Analytics, Network Disconnect
Alarm events	File upload via FTP, E-Mail Notification via E-Mail local storage(SD/SDHC/SDXC) or NAS recording at Event Triggers External output DPTZ preset
Audio In	Selectable (Mic IN/Line IN), Supply voltage: 2.5VDC(4mA), Input impedance: approx. 2K Ohm
Audio out	Line out, Max output level: 1 Vrms
Fan / Heater	-
Pixel Counter	Support
Network	
Ethernet	RJ-45 (10/100BASE-T)
Video Compression Format	H.265/H.264 (MPEG-4 Part 10/AVC) : Main/Baseline/High , Motion JPEG
Resolution	1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x450, 720x576, 640x480, 640x360, 320x240, 320x180
Max. Framerate	H.265/H.264 : Max. 60fps at all resolutions Motion JPEG : Max. 30fps
Smart Codec	Manual Mode (area-based : 5EA)
Video Quality Adjustment	H.264/H.265 : Target Bitrate Level Control MJPEG : Target Bitrate Level Control
Bitrate Control Method	H.264/H.265 : CBR or VBR, ※ WiseStream 별도항목으로 분리 MJPEG : VBR
Streaming Capability	Multiple Streaming (Up to 10 Profiles)
Audio Compression Format	G.711 u-law /G.726 Selectable G.726 (ADPCM) 8KHz, G.711 8KHz G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps AAC-LC : 48Kbps at 8/16/32/48KHz
Audio Communication	Bi-dierctional (2-Way)
IP	IPv4, IPv6
Protocol	TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour
Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access Log 802.1X Authentication (EAP-TLS, EAP-LEAP) - Streaming Encryption 기능구현
Streaming Method	Streaming Method

Max. User Access	20 users at Unicast Mode(TBD)
Edge Storage	SD/SDHC/SDXC 2slot (up to 512 GB) - Continuous recording(1'st slot to 2'nd slot) - (TBD) Redundant recording - Motion Images recorded in the SD/SDHC/SDXC memory card can be downloaded. NAS(Network Attached Storage) Local PC for Instant Recording
Application Programming Interface	ONVIF Profile S/G SUNAPI(HTTP API) Open Platform ※ SVNP 1.2 삭제 (구 기종 NVR 변경점 대응)
Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Swedish, Denish, Portuguese, Czech, Polish, Turkish, Rumanian, Serbian, Dutch, Croatia, Hungary, Greek, Norsk, Finnish
Web Viewer	Supported OS: Windows 7, 8, 10, Mac OS X 10.8. 10.9. 10.10. 10.11 **Non-plugin Webviewer** Supported Browser: Google Chrome 47, MS Edge 20 Support Codec : Video : H.264, MJPEG (MAX 1M 15FPS) Audio : G.711 **Plug-in Webviewer** Supported Browser : MS Explore 11 , Mozilla Firefox 43 , Apple Safari 9 * Mac OS X only
Central Management Software	SmartViewer, SSM
Environmental	
Operating Temperature / Humidity	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH
Storage Temperature / Humidity	-50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH
Ingress Protection	**IP67**, IP66, NEMA 4X
Vandal Resistance	IK10
Electrical	
Input Voltage / Current	24VAC ± 10%, 12VDC ± 10%, PoE(IEEE802.3af)
Power Consumption	TBD
Mechanical	
Color / Material	Dark gray / Aluminum
Dimension (WxHxD)	TBD
Weight	TBD

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 ☐ 100 Vac ☐ 110 Vac ☒ 24ac ☒ 12 Vdc ☒ PoE

Frequency ☐ 50 Hz ☐ 60 Hz ☐ Hz

1.2 Variant Model Differences

Not applicable

1.3 Device Modifications

Not applicable

1.4 Equipment Under Test

Description	Model Number	Serial Number	Manufacturer	Remarks
NETWORK CAMERA	XNO-6080R	-	HANWHA VISION VIETNAM COMPANY LIMITED	E.U.T

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
POE Adapter	PD-3001GC/AC	RD9356082016964200	Power Dsine	-
Notebook	X56K	HN11N5151FJ0045W	HANSUNG	-
Notebook Adapter	A12-120P1A	F180271552011758	CHICONY POWER TECHNOLOGY CO.,LTD.	-
Phone	A1530	-	APPLE	-
MIC	CMK-303	-	CAMAC	1.7 m
Speaker	BR10000A CUVE	-	BEIJING EDIFIER HI-TECH GROUP.	1.6 m
Alarm	-	-	-	-
SD card	-	-	SanDisk	16 GB

1.6 External I/O Cabling

- AC 24 V Mode

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
NETWORK CAMERA (E.U.T)	RJ-45	Notebook	RJ-45	3.0	U
	7 Pin	MIC	3.5 ㎜	1.7	U
		Speaker	3.5 ㎜	1.6	U
		Alarm	2 pin	3.0	U
	Slot	SD card	Slot	-	-
Notebook	Audio in	Phone	Audio out	1.7	U

- DC 12 V Mode

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
NETWORK CAMERA (E.U.T)	RJ-45	Notebook	RJ-45	3.0	U
	7 Pin	MIC	3.5 ㎜	1.7	U
		Speaker	3.5 ㎜	1.6	U
		Alarm	2 pin	3.0	U
	Slot	SD card	Slot	-	-
Notebook	Audio in	Phone	Audio out	1.7	U

- PoE Mode

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
NETWORK CAMERA (E.U.T)	RJ-45 (POE)	POE Adapter	RJ-45 (POE)	3.0	U
	7 Pin	MIC	3.5 ㎜	1.7	U
		Speaker	3.5 ㎜	1.6	U
		Alarm	2 pin	3.0	U
	Slot	SD card	Slot	-	-
Notebook	Audio in	Phone	Audio out	1.7	U
	RJ-45 (DATA)	POE Adapter	RJ-45 (DATA)	3.0	U

* Unshielded=U, Shielded=S

1.7 EUT Operating Mode(s)

Equipment under test was operated during the measurement under the following conditions:

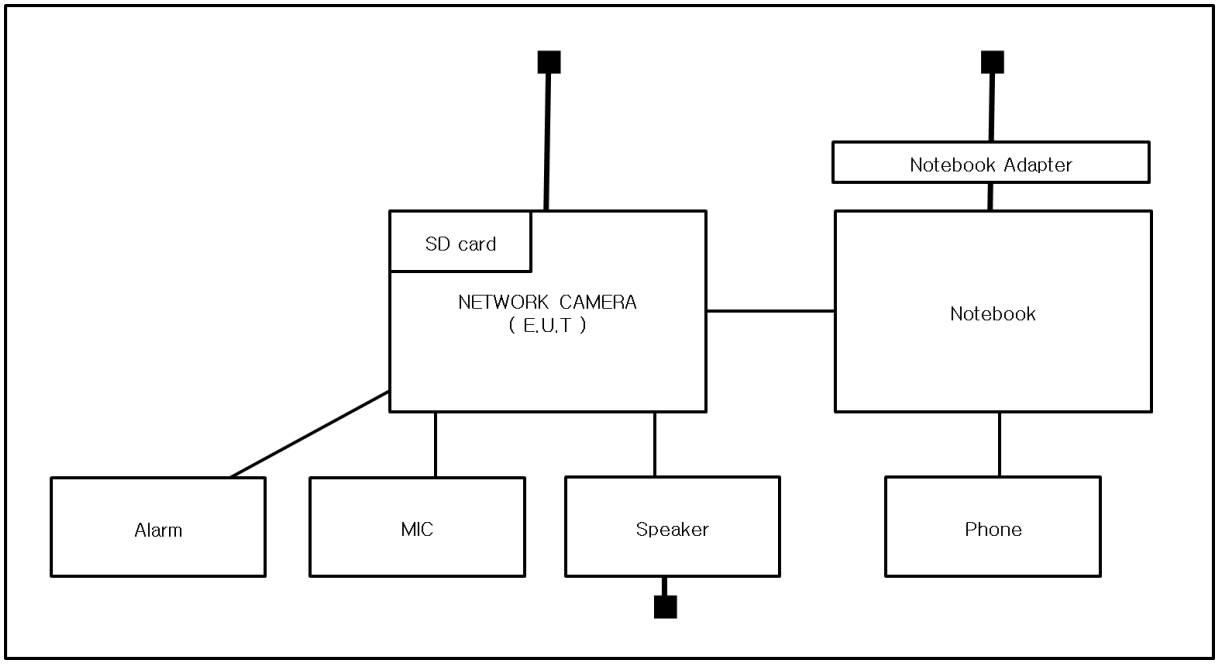
Test mode	Normal operating
E.U.T Monitoring , Ping test, 1 ㎑	

E.U.T Test operating S/W		
Name	Version	Manufacture Company
SmartViewer	-	Hanwha Vision Co., Ltd

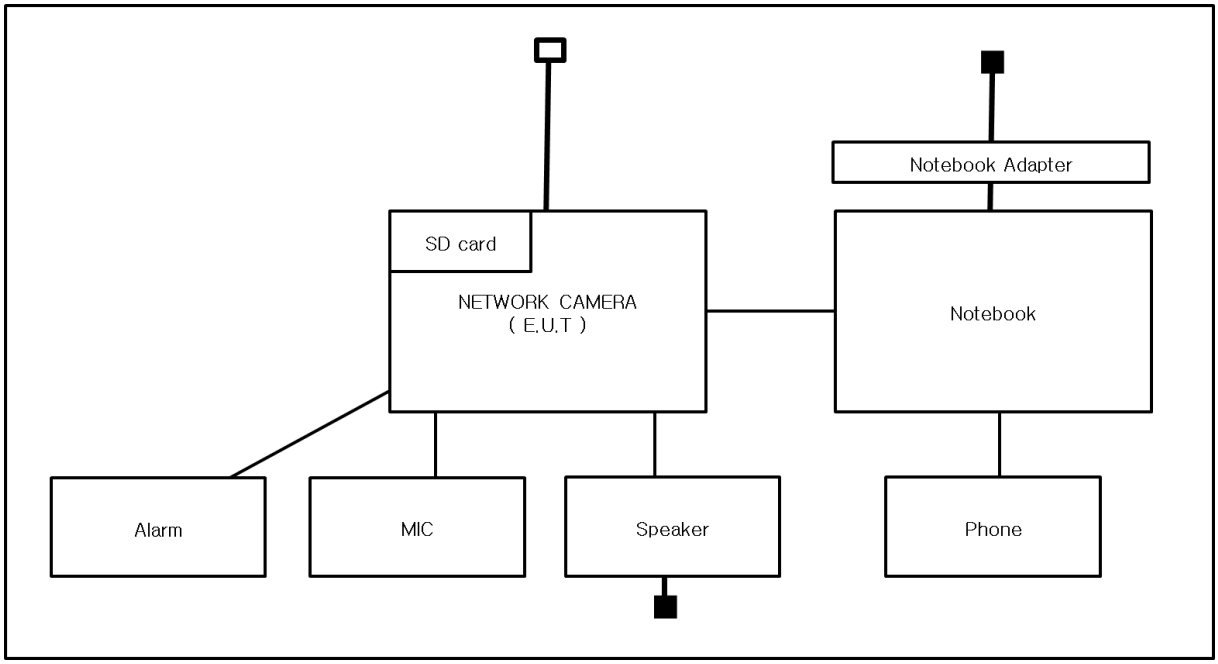
1.8 Configuration

■ AC Main
□ DC Main

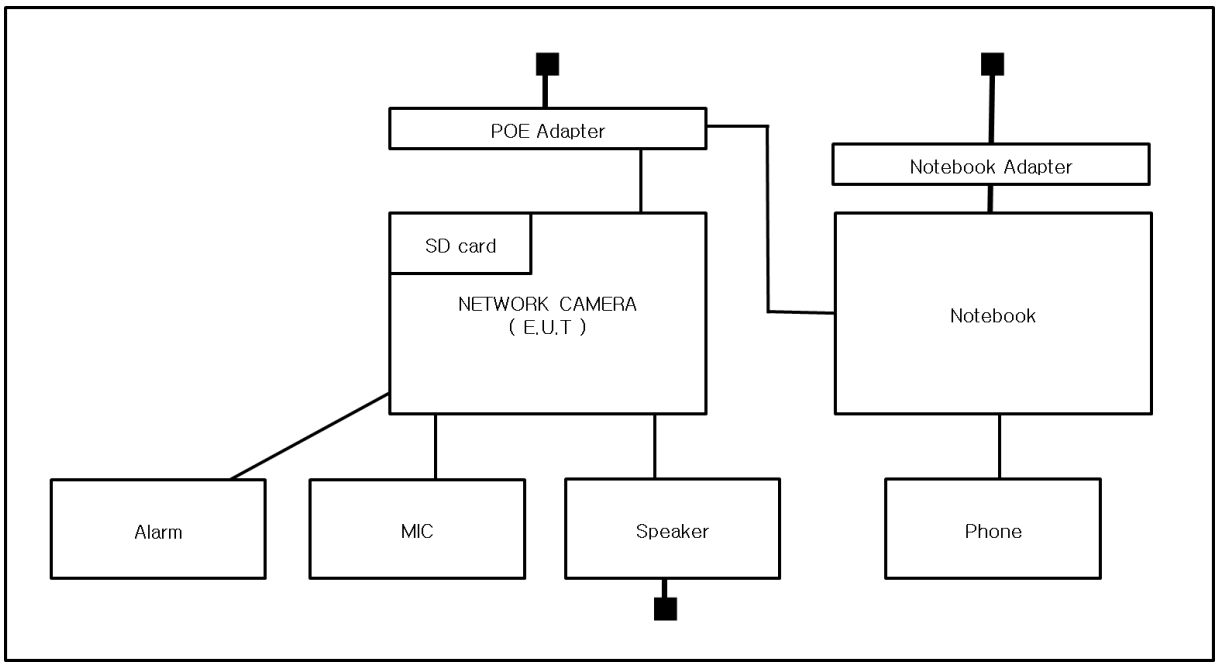
- AC 24V Mode



- DC 12V Mode



- PoE Mode



1.9 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.

1.10 Test Facility

The measurement facility is located at 473-21, Gayeo-ro, Yeoju-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

1.11 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 0004

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 55022:2010 ☐ 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

☐ **VCCI V-3 / 2015.04**	☐ Class A	☐ Class B
☒ **AS/NZS CISPR22:2009 +A1:2010**	☒ Class A	☐ Class B
☐ **47 CFR Part 15, Subpart B**		
☐ CISPR 22:2009 +A1:2010	☐ Class A	☐ Class B
☐ ANSI C63.4-2009		
☐ **IC Regulation ICES-003 : 2016**		
☐ CAN/CSA CISPR 22-10	☐ Class A	☐ Class B
☐ ANSI C63.4-2014		

☐ **RE– Directive 2014/53/EU**

☐ EN 301 489-1 V1.9.2

- ☐ Equipment for fixed use
- ☐ Equipment for vehicular use
- ☐ Equipment for portable use

☐ EN 301 489-3 V1.6.1

☐ EN 301 489-17 V2.2.1

☐ EN 60945:2002

2.1 Conducted Emissions at Mains Power Ports

Test Date
Dec, 02, 2016

Test Location
Electro wave Shieldroom

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test Receiver	ESR3	R & S	101783	05, 03, 2017
☒	LISN	ENV216	R & S	101137	02, 04, 2017
☒	LISN	ENV216	R & S	101786	05, 02, 2017
☒	Electro wave Shieldroom	-	SEMITEC	-	-
☒	EMI Test S/W	EMC32	R & S	9.12.00	-

Test Conditions
Temperature: 16,5 ℃
Relative Humidity: 39,8 %

Frequency Range of Measurement
150 ㎑ to 30 ㎒

Instrument Settings
IF Band Width: 9 ㎑

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
See Appendix A for test data.

2.2 Conducted Emissions at Telecommunication Ports

Test Date
Dec, 02, 2016

Test Location
Electro wave Shieldroom

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test Receiver	ESR3	R & S	101783	05, 03, 2017
☒	LISN	ENV216	R & S	101137	02, 04, 2017
☒	LISN	ENV216	R & S	101786	05, 02, 2017
☒	8-Wire ISN CAT3	CAT3 8158	Schwarzbeck Mess	8158-0019	04, 01, 2017
☒	8-Wire ISN CAT5	CAT5 8158	Schwarzbeck Mess	8158-0030	04, 01, 2017
☐	8-Wire ISN CAT6	NTFM 8158	Schwarzbeck Mess	8158-0029	08, 11, 2017
☒	Electro wave Shieldroom	-	SEMITEC	-	-
☒	EMI Test S/W	EMC32	R & S	9,12,00	-

Test Conditions
Temperature: 16,5 ℃
Relative Humidity: 39,8 %

Frequency Range of Measurement
150 ㎑ to 30 ㎒

Instrument Settings
IF Band Width: 9 ㎑

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
See Appendix A for test data.

2.3 Radiated Electric Field Emissions(Below 1 ㎓)

Test Date
Dec, 03, 2016

Test Location
☐ Open Area Test Site #1 ☒ Open Area Test Site #2

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI TEST Receiver	ESR3	R&S	101781	05, 03, 2017
☒	Trilog-Broadband ANT	VULB 9163	Schwarzbeck	9163-713	05, 15, 2017
☒	OATS	-	KES	-	-
☒	Antenna Mast	-	DAEIL EMC	-	-
☒	Turn Table	-	DAEIL EMC	-	-
☒	EMI Test S/W	-	-	-	-

Test Conditions
Temperature: 9,8 ℃
Relative Humidity: 35,0 %

Frequency Range of Measurement
30 ㎒ to 1 ㎓

Instrument Settings
IF Band Width: 120 ㎑

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 ㎓)

Test Date
Dec, 03, 2016

Test Location
Semi Anechoic Chamber #2

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test Receiver	ESU26	R&S	100552	04, 24, 2017
☒	Broadband Coaxial Preamplifier	BBV 9718	Schwarzbeck Mess - Elektronik	9718-246	10, 24, 2017
☒	DOUBLE RIDGED HORN ANTENNA	SAS-571	A.H.SYSTEM,INC	781	05, 07, 2017
☒	Semi Anechoic Chamber #2	-	SEMITEC	-	-
☒	Antenna Mast	-	AUDIX	-	-
☒	Turn Table	-	AUDIX	-	-
☒	EMI Test S/W	e3	AUDIX	8.083b	-

Test Conditions
Temperature: 17,8 ℃
Relative Humidity: 47,2 %

Frequency Range of Measurement
1 ㎓ to 6 ㎓

Instrument Settings
IF Band Width: 1 ㎒

Test Results
The requirements are:

☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
See Appendix A for test data.

APPENDIX A – TEST DATA

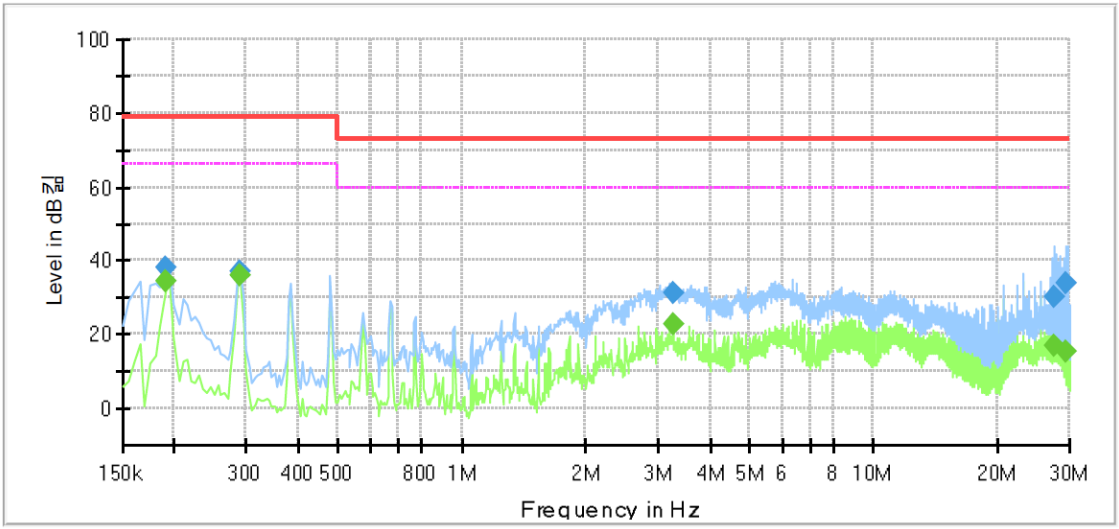
Conducted Emissions at Mains Power Ports

- AC 24V Mode

[HOT]

Common Information

Test Description:	Conducted Emission
Model No.:	XNO-6080RP
Mode	AC 24 V H
Operator Name:	KES



Final_Result

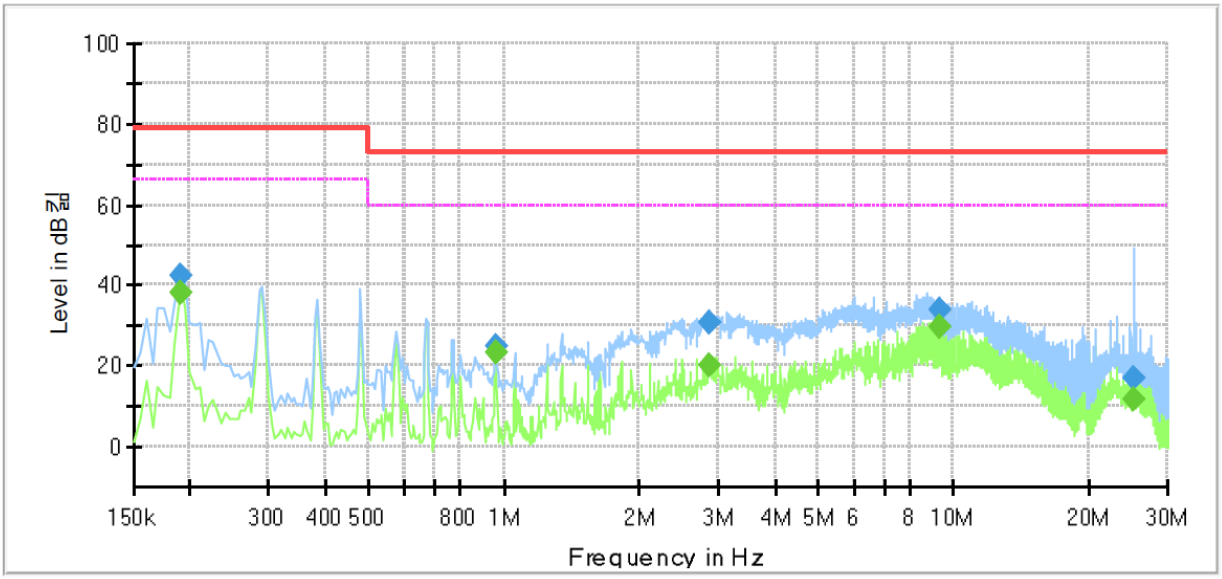
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.190000	---	34.49	66.00	31.51	1000.0	9.000	L1	9.7
0.190000	38.27	---	79.00	40.73	1000.0	9.000	L1	9.7
0.290000	---	35.98	66.00	30.02	1000.0	9.000	L1	9.7
0.290000	36.99	---	79.00	42.01	1000.0	9.000	L1	9.7
3.265000	---	22.91	60.00	37.09	1000.0	9.000	L1	10.2
3.265000	31.09	---	73.00	41.91	1000.0	9.000	L1	10.2
27.485000	---	16.77	60.00	43.23	1000.0	9.000	L1	10.3
27.485000	30.34	---	73.00	42.66	1000.0	9.000	L1	10.3
29.305000	---	15.61	60.00	44.39	1000.0	9.000	L1	10.4
29.305000	33.93	---	73.00	39.07	1000.0	9.000	L1	10.4

♦ 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)

[NEUTRAL]

Common Information

Test Description:	Conducted Emission
Model No.:	XNO-6080RP
Mode	AC 24 V N
Operator Name:	KES



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.190000	---	38.37	66.00	27.63	1000.0	9.000	N	9.7
0.190000	42.57	---	79.00	36.43	1000.0	9.000	N	9.7
0.960000	---	23.51	60.00	36.49	1000.0	9.000	N	10.0
0.960000	25.02	---	73.00	47.98	1000.0	9.000	N	10.0
2.870000	---	20.39	60.00	39.61	1000.0	9.000	N	10.2
2.870000	30.57	---	73.00	42.43	1000.0	9.000	N	10.2
9.310000	---	29.79	60.00	30.21	1000.0	9.000	N	9.8
9.310000	34.01	---	73.00	38.99	1000.0	9.000	N	9.8
25.270000	---	11.83	60.00	48.17	1000.0	9.000	N	10.3
25.270000	16.72	---	73.00	56.28	1000.0	9.000	N	10.3

♦ 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)

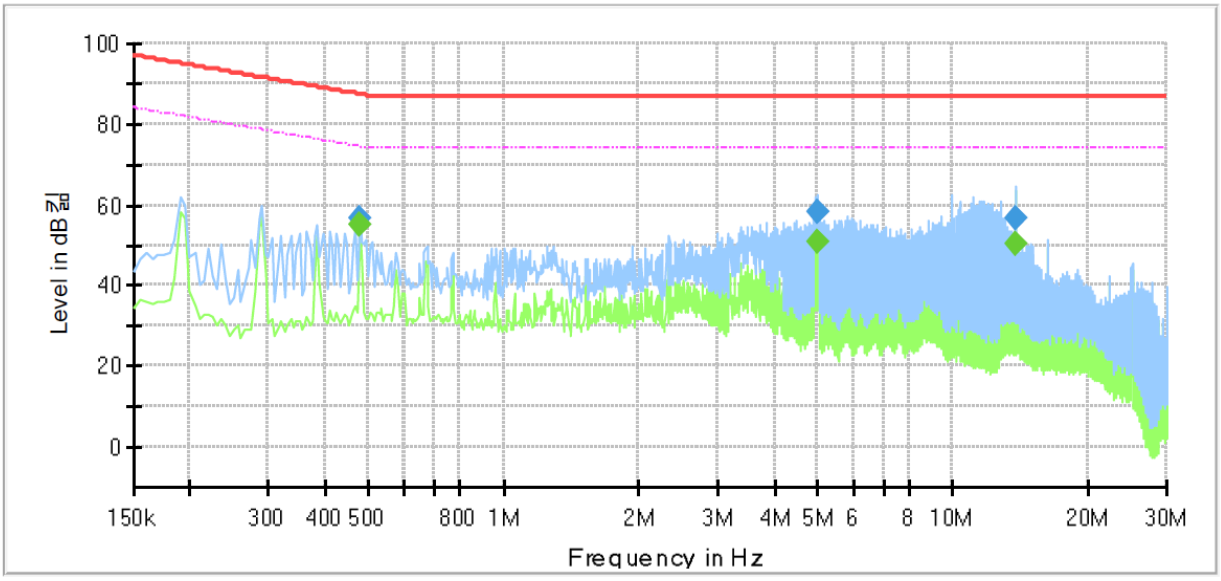
Conducted Emissions at Telecommunication Ports

- AC 24V Mode

[10 Mbps]

Common Information

Test Description:	Telecommunication Emission
Model No.:	XNO-6080RP
Mode	AC 24 V 10 Mbps
Operator Name:	KES



Final_Result

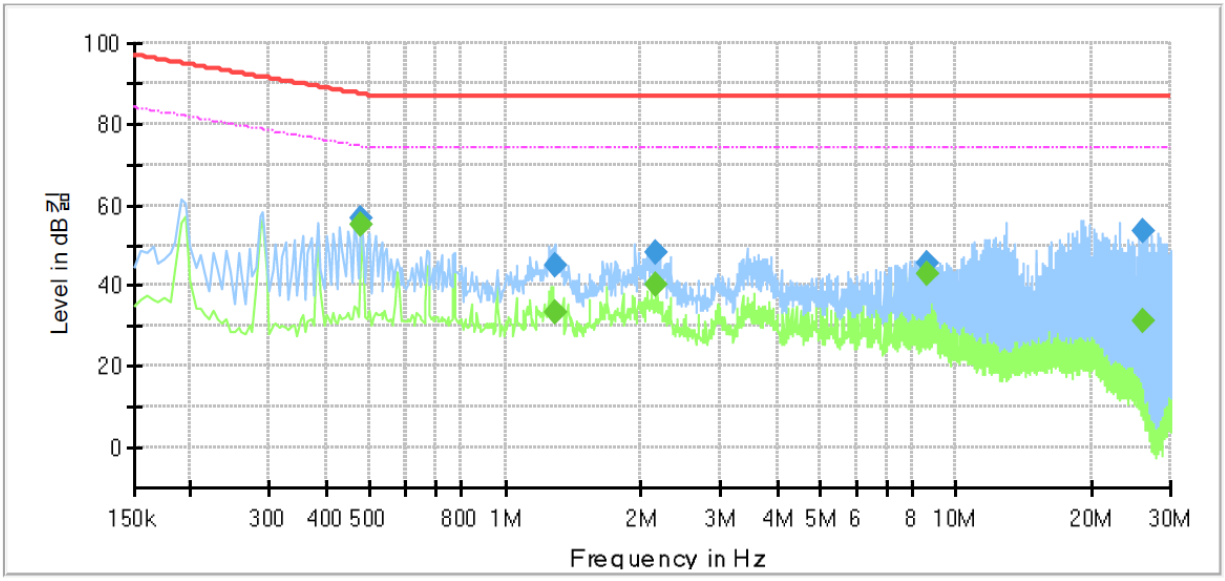
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.480000	---	55.20	74.34	19.14	1000.0	9.000	Single Line	10.1
0.480000	56.59	---	87.34	30.75	1000.0	9.000	Single Line	10.1
5.000000	---	50.58	74.00	23.42	1000.0	9.000	Single Line	10.1
5.000000	57.99	---	87.00	29.01	1000.0	9.000	Single Line	10.1
13.750000	---	50.51	74.00	23.49	1000.0	9.000	Single Line	10.1
13.750000	56.43	---	87.00	30.57	1000.0	9.000	Single Line	10.1

♦ 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)

[100 Mbps]

Common Information

Test Description:	Telecommunication Emission
Model No.:	XNO-6080RP
Mode	AC 24 V 100 Mbps
Operator Name:	KES



Final_Result

Frequency (MHz)	QuasiPeak (dB㎶)	CAverage (dB㎶)	Limit (dB㎶)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.480000	---	55.01	74.34	19.33	1000.0	9.000	Single Line	9.6
0.480000	56.64	---	87.34	30.70	1000.0	9.000	Single Line	9.6
1.285000	---	33.35	74.00	40.65	1000.0	9.000	Single Line	9.7
1.285000	44.77	---	87.00	42.23	1000.0	9.000	Single Line	9.7
2.165000	---	40.01	74.00	33.99	1000.0	9.000	Single Line	9.7
2.165000	48.29	---	87.00	38.71	1000.0	9.000	Single Line	9.7
8.640000	---	43.12	74.00	30.88	1000.0	9.000	Single Line	9.5
8.640000	45.61	---	87.00	41.39	1000.0	9.000	Single Line	9.5
26.015000	---	31.19	74.00	42.81	1000.0	9.000	Single Line	9.5
26.015000	53.52	---	87.00	33.48	1000.0	9.000	Single Line	9.5

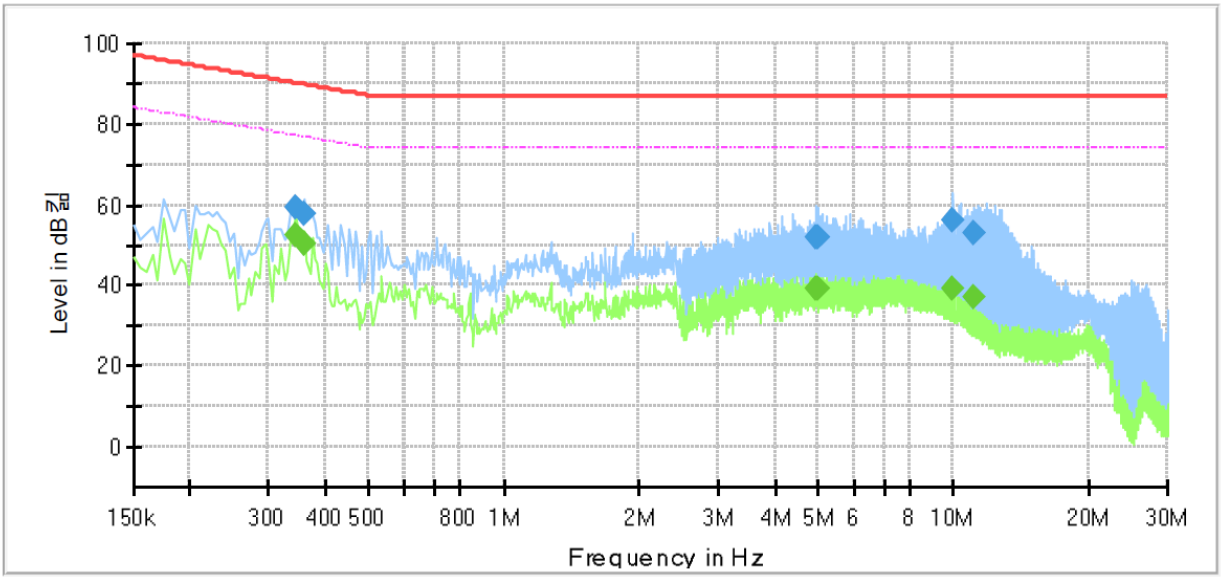
♦ Calculation
QuasiPeak[㏈uV] / CAverage [㏈uV] = Reading Value[㏈uV] + Corr. [㏈]
QuasiPeak / CAverage : The Final Value
Reading Value : Not shown in the table.
Corr. : Correction values (ISN FACTOR+ Cable Loss)

- DC 12V Mode

[10 Mbps]

Common Information

Test Description:	Telecommunication Emission
Model No.:	XNO-6080RP
Mode	DC 12 V 10 Mbps
Operator Name:	KES



Final_Result

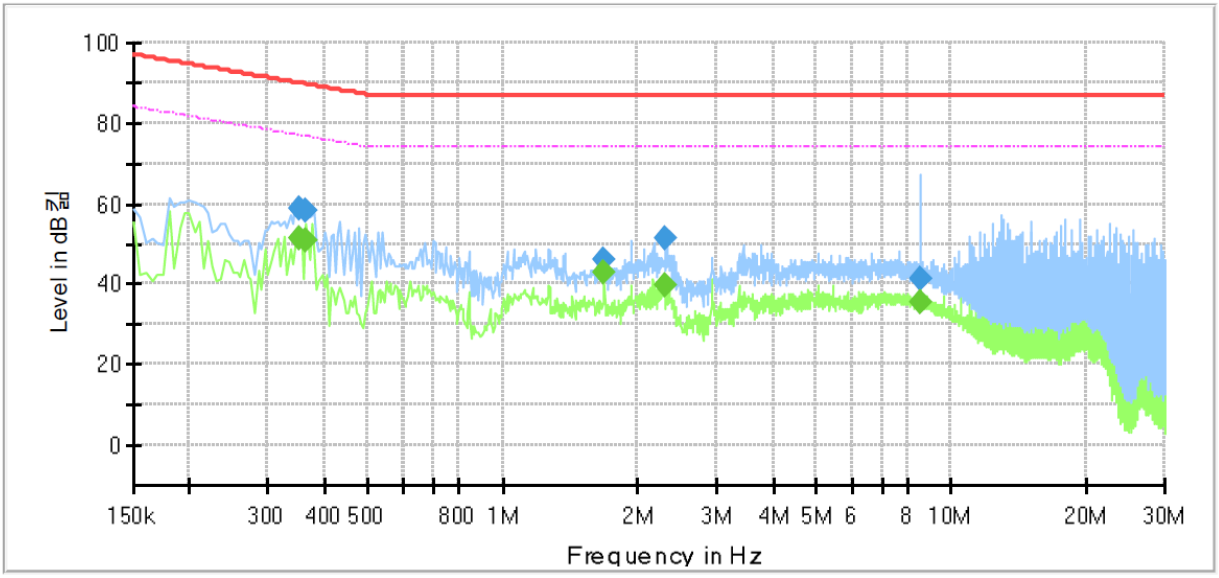
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.345000	---	52.52	77.08	24.56	1000.0	9.000	Single Line	10.1
0.345000	59.06	---	90.08	31.02	1000.0	9.000	Single Line	10.1
0.360000	---	50.10	76.73	26.63	1000.0	9.000	Single Line	10.1
0.360000	57.62	---	89.73	32.11	1000.0	9.000	Single Line	10.1
4.970000	---	39.17	74.00	34.83	1000.0	9.000	Single Line	10.1
4.970000	51.98	---	87.00	35.02	1000.0	9.000	Single Line	10.1
5.020000	---	39.06	74.00	34.94	1000.0	9.000	Single Line	10.1
5.020000	51.90	---	87.00	35.10	1000.0	9.000	Single Line	10.1
10.005000	---	39.12	74.00	34.88	1000.0	9.000	Single Line	10.0
10.005000	56.12	---	87.00	30.88	1000.0	9.000	Single Line	10.0
11.100000	---	37.09	74.00	36.91	1000.0	9.000	Single Line	10.0
11.100000	52.87	---	87.00	34.13	1000.0	9.000	Single Line	10.0

♦ 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)

[100 Mbps]

Common Information

Test Description:	Telecommunication Emission
Model No.:	XNO-6080RP
Mode	DC 12 V 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)
0.350000	---	51.38	76.96	25.58	1000.0	9.000	Single Line	9.6
0.350000	58.49	---	89.96	31.47	1000.0	9.000	Single Line	9.6
0.365000	---	50.81	76.61	25.80	1000.0	9.000	Single Line	9.6
0.365000	57.98	---	89.61	31.63	1000.0	9.000	Single Line	9.6
1.680000	---	42.98	74.00	31.02	1000.0	9.000	Single Line	9.7
1.680000	46.11	---	87.00	40.89	1000.0	9.000	Single Line	9.7
2.300000	---	39.69	74.00	34.31	1000.0	9.000	Single Line	9.7
2.300000	51.11	---	87.00	35.89	1000.0	9.000	Single Line	9.7
8.530000	---	35.52	74.00	38.48	1000.0	9.000	Single Line	9.5
8.530000	41.33	---	87.00	45.67	1000.0	9.000	Single Line	9.5

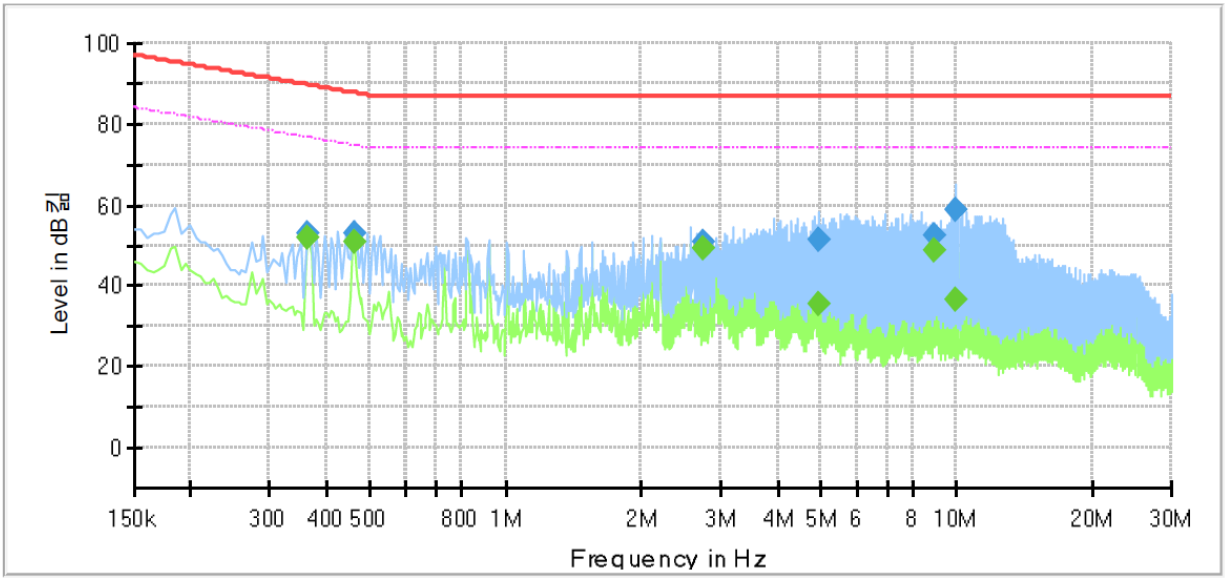
♦ Calculation
QuasiPeak[dBuV] / CAverage [dBuV] = Reading Value[dBuV] + Corr. [dB]
QuasiPeak / CAverage : The Final Value
Reading Value : Not shown in the table.
Corr. : Correction values (ISN FACTOR+ Cable Loss)

- PoE Mode

[10 Mbps]

Common Information

Test Description:	Telecommunication Emission
Model No.:	XNO-6080RP
Mode	POE 10 Mbps
Operator Name:	KES



Final_Result

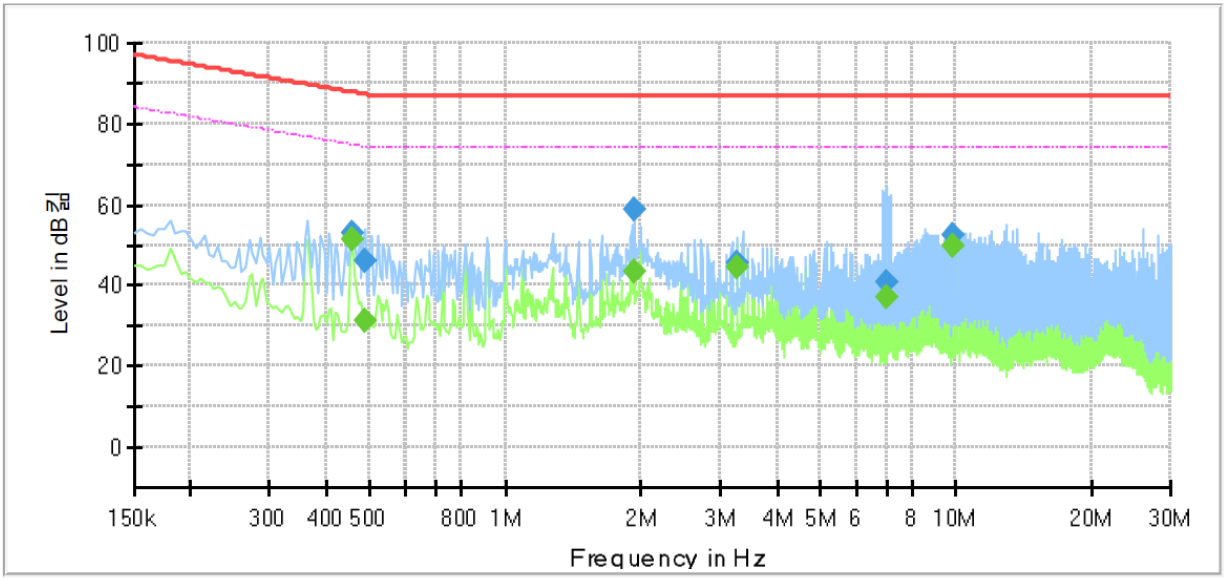
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.365000	---	51.89	76.61	24.72	1000.0	9.000	Single Line	10.1
0.365000	52.76	---	89.61	36.85	1000.0	9.000	Single Line	10.1
0.460000	---	50.91	74.69	23.78	1000.0	9.000	Single Line	10.1
0.460000	53.03	---	87.69	34.66	1000.0	9.000	Single Line	10.1
2.745000	---	49.20	74.00	24.80	1000.0	9.000	Single Line	10.2
2.745000	50.76	---	87.00	36.24	1000.0	9.000	Single Line	10.2
4.935000	---	35.22	74.00	38.78	1000.0	9.000	Single Line	10.1
4.935000	51.12	---	87.00	35.88	1000.0	9.000	Single Line	10.1
8.920000	---	48.57	74.00	25.43	1000.0	9.000	Single Line	10.0
8.920000	52.61	---	87.00	34.39	1000.0	9.000	Single Line	10.0
10.000000	---	36.44	74.00	37.56	1000.0	9.000	Single Line	10.0
10.000000	58.93	---	87.00	28.07	1000.0	9.000	Single Line	10.0

♦ 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)

[100 Mbps]

Common Information

Test Description:	Telecommunication Emission
Model No.:	XNO-6080RP
Mode	POE 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)
0.455000	---	51.52	74.78	23.26	1000.0	9.000	Single Line	9.6
0.455000	52.97	---	87.78	34.81	1000.0	9.000	Single Line	9.6
0.490000	---	31.03	74.17	43.14	1000.0	9.000	Single Line	9.6
0.490000	45.85	---	87.17	41.32	1000.0	9.000	Single Line	9.6
1.935000	---	43.61	74.00	30.39	1000.0	9.000	Single Line	9.7
1.935000	58.86	---	87.00	28.14	1000.0	9.000	Single Line	9.7
3.270000	---	44.43	74.00	29.57	1000.0	9.000	Single Line	9.7
3.270000	45.47	---	87.00	41.53	1000.0	9.000	Single Line	9.7
7.010000	---	37.03	74.00	36.97	1000.0	9.000	Single Line	9.5
7.010000	40.64	---	87.00	46.36	1000.0	9.000	Single Line	9.5
9.880000	---	49.89	74.00	24.11	1000.0	9.000	Single Line	9.5
9.880000	52.59	---	87.00	34.41	1000.0	9.000	Single Line	9.5

♦ 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)

Radiated Electric Field Emissions(Below 1 ㎓)

- AC 24V Mode

Frequency	Amplitude	ANT Polar. (H/V)	ANT. Height	Correction Factor		Corrected Amplitude	Applicable Limit	Margin [dB]
[㎒]	[dB㎶]		[m]	ANT. [dB/m]	Cable [dB]	[dB㎶/m]	[dB㎶/m]	
64.11	8.14	V	1.23	11.45	2.30	21.89	40.00	18.11
221.17	20.64	H	3.78	11.77	4.37	36.78	40.00	3.22
270.53	22.78	V	1.30	12.81	4.90	40.49	47.00	6.51
344.01	19.16	V	1.18	14.40	5.58	39.14	47.00	7.86
344.53	18.23	H	3.78	14.41	5.59	38.23	47.00	8.77
491.79	10.13	H	3.13	16.99	6.97	34.09	47.00	12.91

* H : Horizontal, V : Vertical

♦ Calculation
Corrected Amplitude [㏈uV] = Amplitude[㏈uV] + Correction Factor [㏈]
Corrected Amplitude : The Final Value, Amplitude : Reading Value,
Correction Factor : ANT FACTOR + Cable loss

- DC 12V Mode

Frequency	Amplitude	ANT Polar. (H/V)	ANT. Height	Correction Factor		Corrected Amplitude	Applicable Limit	Margin
[㎒]	[dBμV]		[m]	ANT. [dB/m]	Cable [dB]	[dBμV/m]	[dBμV/m]	[dB]
50.12	8.89	V	1.24	13.93	2.10	24.92	40.00	15.08
221.19	20.73	H	3.78	11.77	4.37	36.87	40.00	3.13
270.53	22.77	V	1.30	12.81	4.90	40.48	47.00	6.52
295.76	23.10	H	3.72	13.30	5.11	41.51	47.00	5.49
320.51	21.58	H	3.94	13.86	5.35	40.79	47.00	6.21
491.88	11.04	V	2.18	16.99	6.97	35.00	47.00	12.00

* H : Horizontal, V : Vertical

♦ Calculation
Corrected Amplitude [㏈uV] = Amplitude[㏈uV] + Correction Factor [㏈]
Corrected Amplitude : The Final Value, Amplitude : Reading Value,
Correction Factor : ANT FACTOR + Cable loss

- PoE Mode

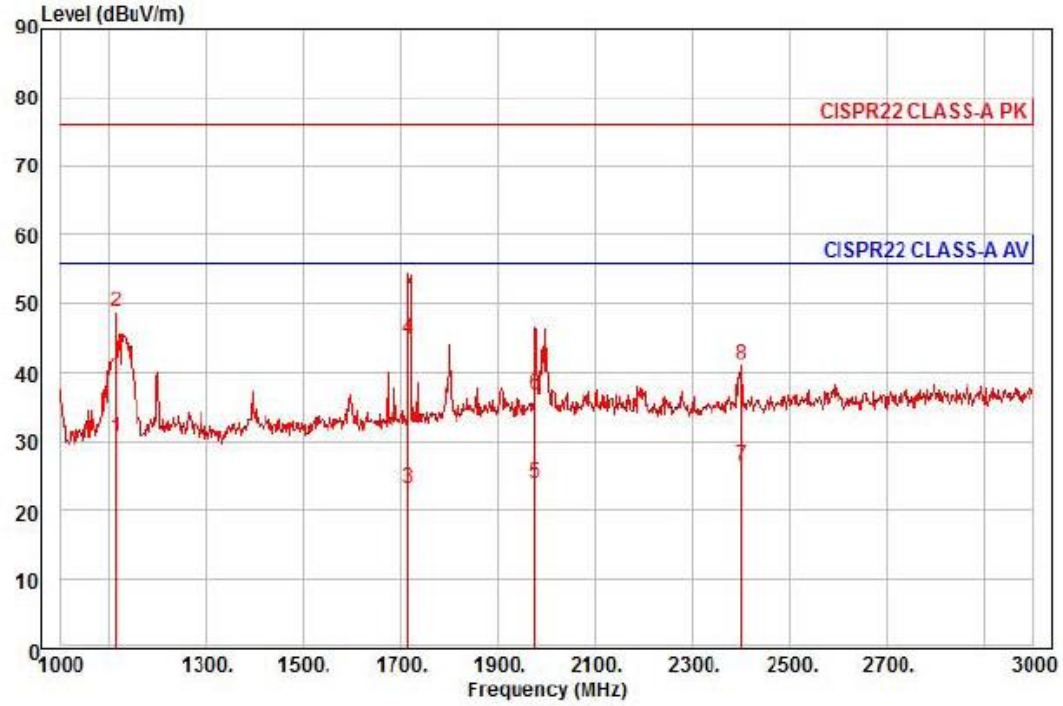
Frequency	Amplitude	ANT Polar. (H/V)	ANT. Height	Correction Factor		Corrected Amplitude	Applicable Limit	Margin
[㎒]	[dBμV]		[m]	ANT. [dB/m]	Cable [dB]	[dBμV/m]	[dBμV/m]	[dB]
50.11	8.83	V	1.27	13.94	2.10	24.87	40.00	15.13
221.12	19.64	H	3.58	11.77	4.37	35.78	40.00	4.22
295.67	23.30	H	3.86	13.30	5.11	41.71	47.00	5.29
320.05	18.61	V	1.28	13.85	5.35	37.81	47.00	9.19
320.51	20.97	H	3.86	13.86	5.35	40.18	47.00	6.82
344.53	18.18	H	3.72	14.41	5.59	38.18	47.00	8.82
491.15	9.33	V	1.30	16.98	6.97	33.28	47.00	13.72

* H : Horizontal, V : Vertical

♦ Calculation
Corrected Amplitude [㏈uV] = Amplitude[㏈uV] + Correction Factor [㏈]
Corrected Amplitude : The Final Value, Amplitude : Reading Value,
Correction Factor : ANT FACTOR + Cable loss

Radiated Electric Field Emissions(Above 1 ㎓)

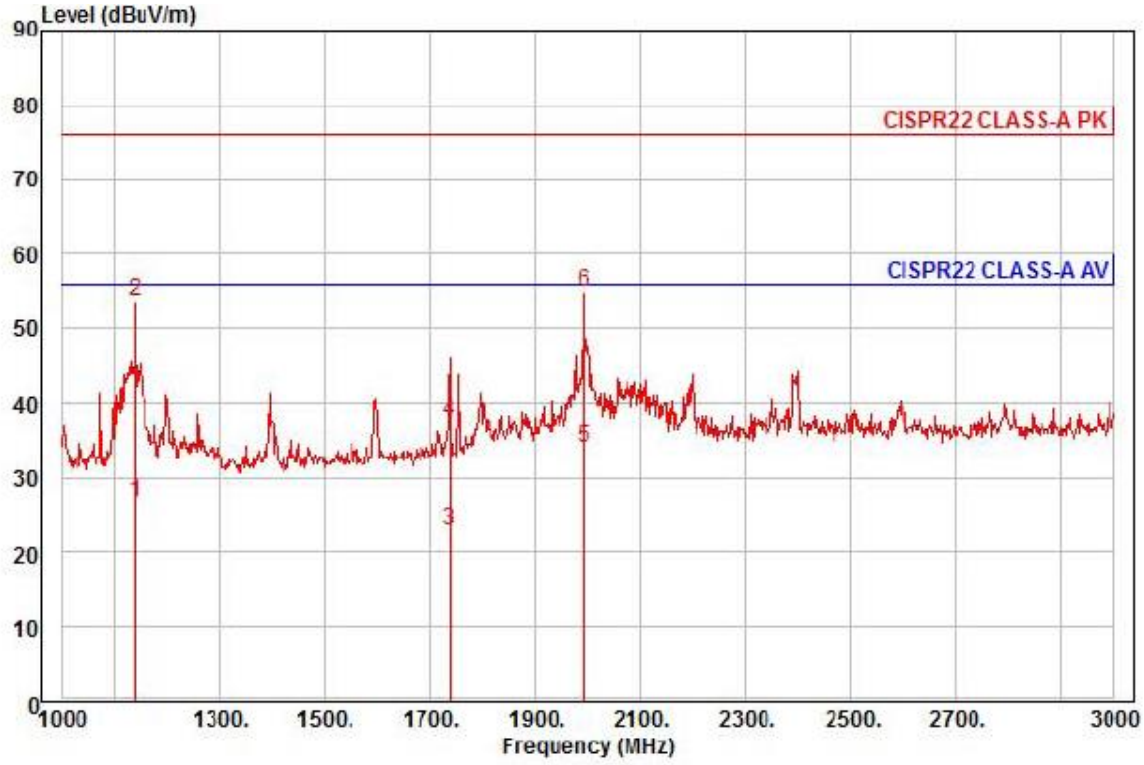
- AC 24V Mode



Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN781(2015.05.07) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : XNO-6080RP
Mode : AC 24 V
Memo : (1 ~ 3) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1 pp	1114.00	39.25	24.36	6.86	39.82	24	56.00	-25.35	horizontal	Average
2 pk	1114.00	57.31	24.36	6.86	39.82	24	76.00	-27.29	horizontal	Peak
3	1716.00	27.11	26.75	8.61	39.28	217	56.00	-32.81	horizontal	Average
4	1716.00	48.74	26.75	8.61	39.28	217	76.00	-31.18	horizontal	Peak
5	1976.00	26.50	27.78	9.27	39.40	306	56.00	-31.85	horizontal	Average
6	1976.00	39.02	27.78	9.27	39.40	306	76.00	-39.33	horizontal	Peak
7	2400.00	26.66	28.86	10.32	39.42	32	56.00	-29.58	horizontal	Average
8	2400.00	41.32	28.86	10.32	39.42	32	76.00	-34.92	horizontal	Peak

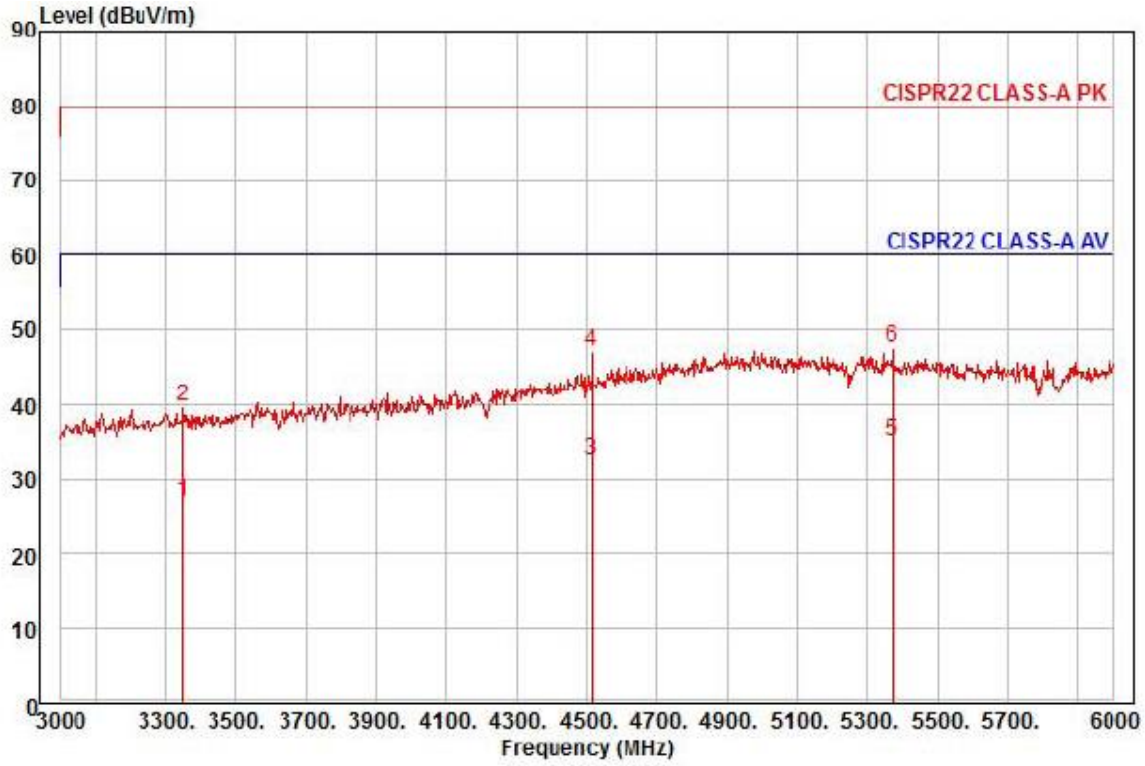
♦ Calculation
Over Limit [㏈] = (Read Level[㏈uV] + Ant Factor[㏈/m] + Cable Loss [㏈] – Preamp Factor [㏈]) – Limit Line[㏈uV]
Over Limit : Margin Value, Read Level : Reading Value, Ant Factor : Ant Factor,
Cable Loss : Cable loss, Preamp Factor : Preamp Factor



Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN781(2015.05.07) vertical
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : XNO-6080RP
Mode : AC 24 V
Memo : (1 ~ 3) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	1138.00	35.15	24.46	6.93	39.76	24	56.00	-29.22	vertical	Average
2	1138.00	61.97	24.46	6.93	39.76	24	76.00	-22.40	vertical	Peak
3	1738.00	26.95	26.84	8.67	39.29	10	56.00	-32.83	vertical	Average
4	1738.00	41.33	26.84	8.67	39.29	10	76.00	-38.45	vertical	Peak
5 av	1994.00	36.26	27.86	9.32	39.41	182	56.00	-21.97	vertical	Average
6 pp	1994.00	57.12	27.86	9.32	39.41	182	76.00	-21.11	vertical	Peak

♦ Calculation
Over Limit [㏈] = (Read Level[㏈uV] + Ant Factor[㏈/m] + Cable Loss [㏈] – Preamp Factor [㏈]) – Limit Line[㏈uV]
Over Limit : Margin Value, Read Level : Reading Value, Ant Factor : Ant Factor,
Cable Loss : Cable loss, Preamp Factor : Preamp Factor



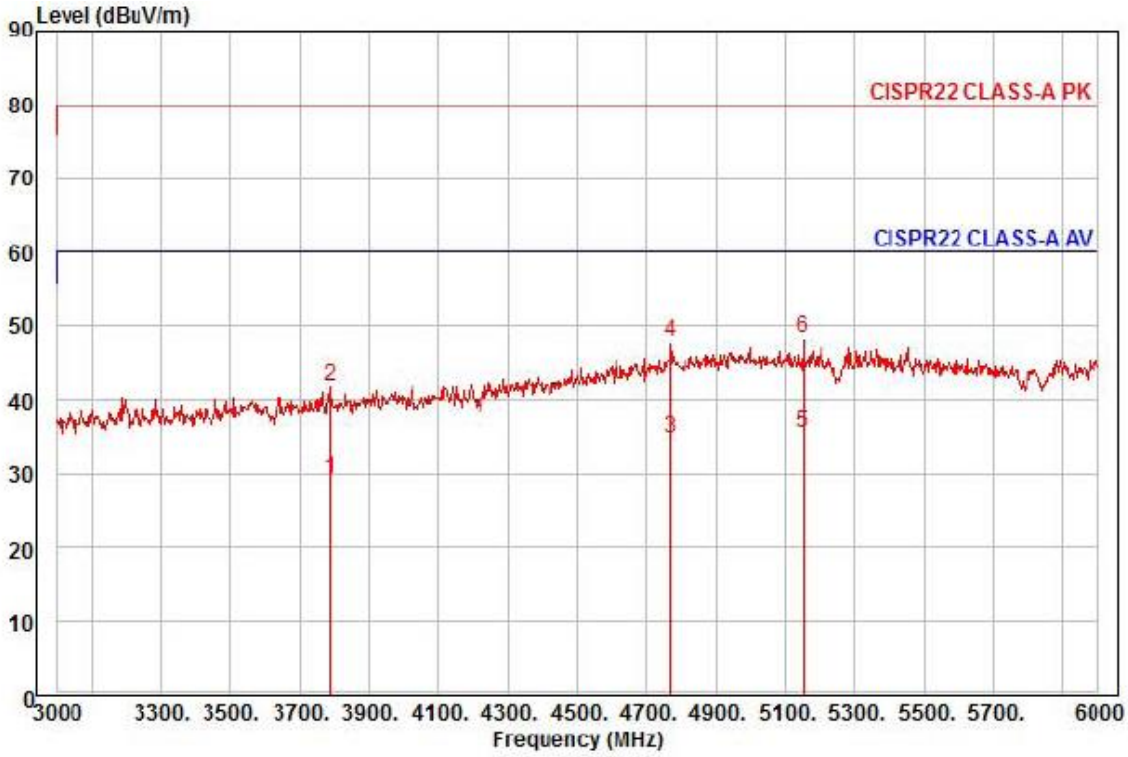

```
Site      : chamber
Condition: CISPR22 CLASS-A PK 3m HORN781(2015.05.07) horizontal
         : RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project   :
Model     : XNO-6080RP
Mode      : AC 24 V
Memo      : (3 ~ 6) GHz
```

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	3348.00	24.46	30.91	12.35	40.65	256	60.00	-32.93	horizontal	Average
2	3348.00	37.11	30.91	12.35	40.65	256	80.00	-40.28	horizontal	Peak
3	4515.00	24.00	34.95	14.49	40.76	268	60.00	-27.32	horizontal	Average
4	4515.00	38.31	34.95	14.49	40.76	268	80.00	-33.01	horizontal	Peak
5 pp	5370.00	22.95	36.97	15.99	40.88	325	60.00	-24.97	horizontal	Average
6 pk	5370.00	35.60	36.97	15.99	40.88	325	80.00	-32.32	horizontal	Peak

♦ Calculation

Over Limit [㏈] = (Read Level[㏈uV] + Ant Factor[㏈/m] + Cable Loss [㏈] − Preamp Factor [㏈]) − Limit Line[㏈uV]

Over Limit : Margin Value, Read Level : Reading Value, Ant Factor : Ant Factor, Cable Loss : Cable loss, Preamp Factor : Preamp Factor

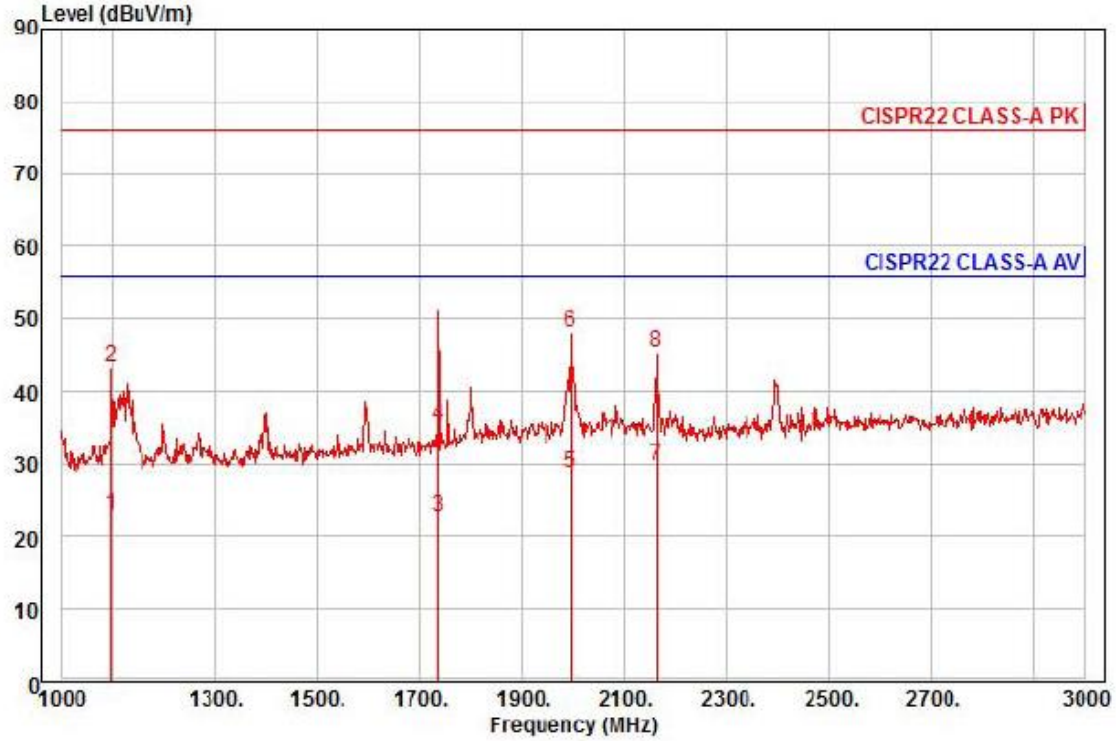


Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN781(2015.05.07) vertical
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : XNO-6080RP
Mode : AC 24 V
Memo : (3 ~ 6) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	3786.00	25.10	31.65	13.15	40.78	4	60.00	-30.88	vertical	Average
2	3786.00	37.94	31.65	13.15	40.78	4	80.00	-38.04	vertical	Peak
3	4767.00	23.87	36.39	15.03	40.50	254	60.00	-25.21	vertical	Average
4	4767.00	36.94	36.39	15.03	40.50	254	80.00	-32.14	vertical	Peak
5 pp	5151.00	23.06	37.41	15.61	40.52	40	60.00	-24.44	vertical	Average
6 pk	5151.00	35.79	37.41	15.61	40.52	40	80.00	-31.71	vertical	Peak

♦ Calculation
Over Limit [dB] = (Read Level[dBuV] + Ant Factor[dB/m] + Cable Loss [dB] – Preamp Factor [dB]) – Limit Line[dBuV]
Over Limit : Margin Value, Read Level : Reading Value, Ant Factor : Ant Factor,
Cable Loss : Cable loss, Preamp Factor : Preamp Factor

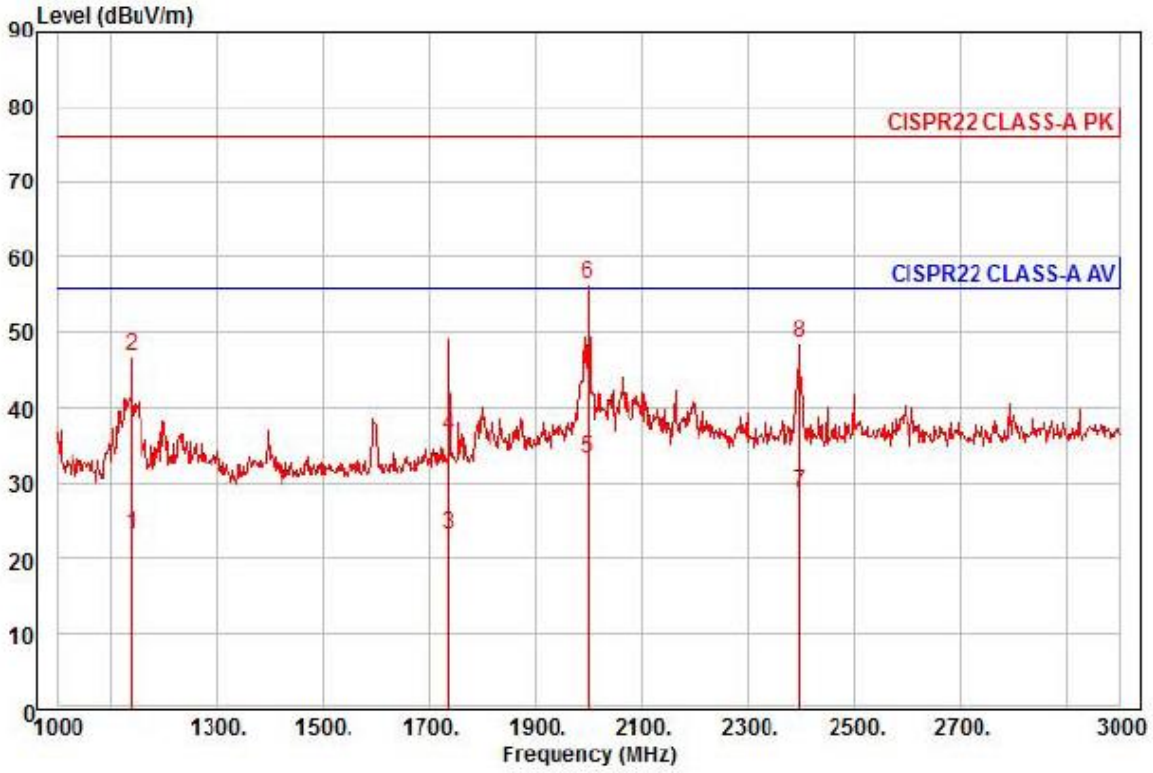
- DC 12V Mode



Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN781(2015.05.07) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : XNO-6080RP
Mode : DC 12 V
Memo : (1 ~ 3) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	1096.00	31.81	24.29	6.80	39.86	338	56.00	-32.96	horizontal	Average
2	1096.00	52.26	24.29	6.80	39.86	338	76.00	-32.51	horizontal	Peak
3	1736.00	26.67	26.83	8.66	39.29	40	56.00	-33.13	horizontal	Average
4	1736.00	39.19	26.83	8.66	39.29	40	76.00	-40.61	horizontal	Peak
5	1996.00	31.02	27.86	9.33	39.41	270	56.00	-27.20	horizontal	Average
6 pk	1996.00	50.29	27.86	9.33	39.41	270	76.00	-27.93	horizontal	Peak
7 pp	2162.00	31.09	28.28	9.71	39.41	101	56.00	-26.33	horizontal	Average
8	2162.00	46.80	28.28	9.71	39.41	101	76.00	-30.62	horizontal	Peak

♦ Calculation
Over Limit [㏈] = (Read Level[㏈uV] + Ant Factor[㏈/m] + Cable Loss [㏈] – Preamp Factor [㏈]) – Limit Line[㏈uV]
Over Limit : Margin Value, Read Level : Reading Value, Ant Factor : Ant Factor, Cable Loss : Cable loss, Preamp Factor : Preamp Factor



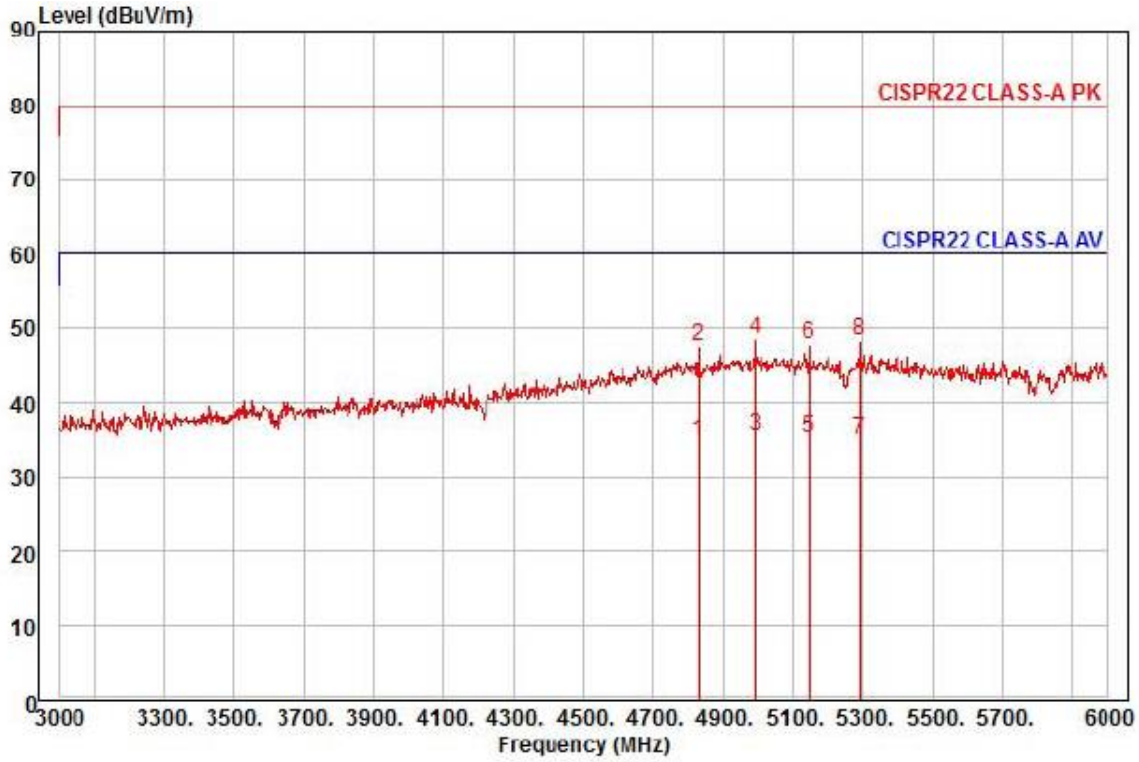
Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN781(2015.05.07) vertical
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : XNO-6080RP
Mode : DC 12 V
Memo : (1 ~ 3) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	1138.00	31.68	24.46	6.93	39.76	284	56.00	-32.69	vertical	Average
2	1138.00	55.33	24.46	6.93	39.76	284	76.00	-29.04	vertical	Peak
3	1736.00	27.20	26.83	8.66	39.29	45	56.00	-32.60	vertical	Average
4	1736.00	40.14	26.83	8.66	39.29	45	76.00	-39.66	vertical	Peak
5 av	2000.00	35.65	27.88	9.34	39.41	339	56.00	-22.54	vertical	Average
6 pp	2000.00	58.61	27.88	9.34	39.41	339	76.00	-19.58	vertical	Peak
7	2398.00	29.04	28.86	10.32	39.42	331	56.00	-27.20	vertical	Average
8	2398.00	48.89	28.86	10.32	39.42	331	76.00	-27.35	vertical	Peak

♦ Calculation

Over Limit [㏈] = (Read Level[㏈uV] + Ant Factor[㏈/m] + Cable Loss [㏈] − Preamp Factor [㏈]) − Limit Line[㏈uV]

Over Limit : Margin Value, Read Level : Reading Value, Ant Factor : Ant Factor, Cable Loss : Cable loss, Preamp Factor : Preamp Factor



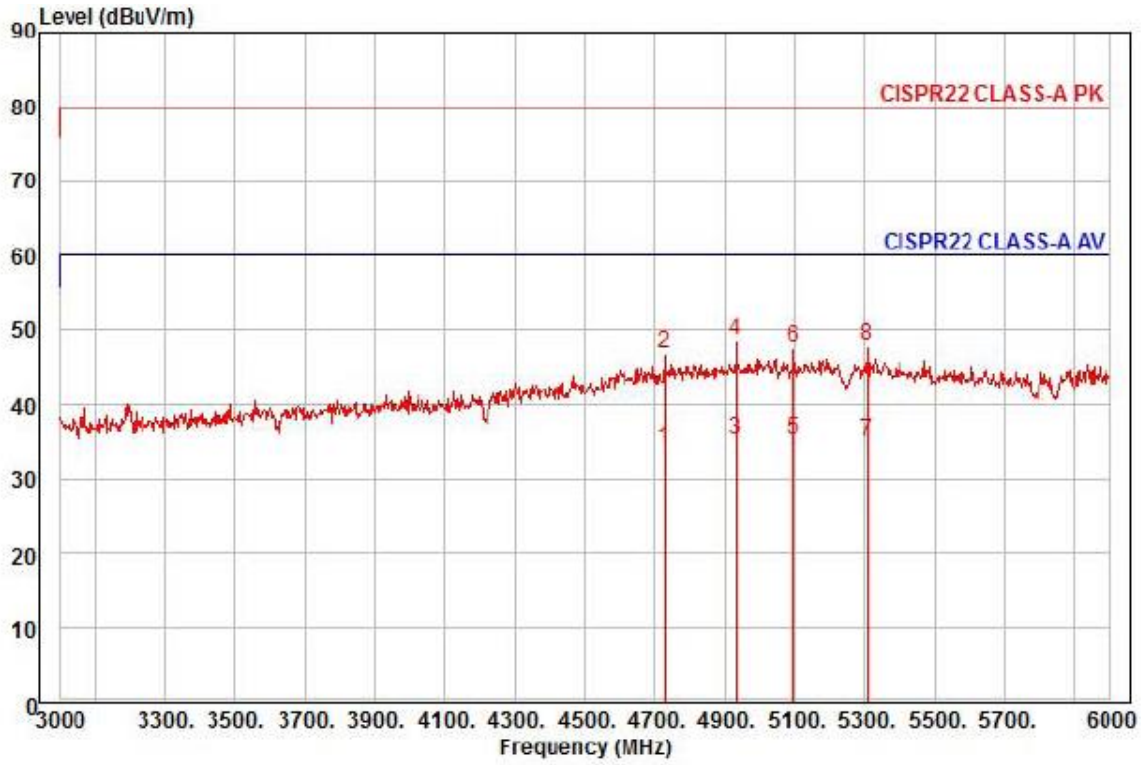
Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN781(2015.05.07) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : XNO-6080RP
Mode : DC 12 V
Memo : (3 ~ 6) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	4833.00	23.32	36.77	15.13	40.44	284	60.00	-25.22	horizontal	Average
2	4833.00	36.14	36.77	15.13	40.44	284	80.00	-32.40	horizontal	Peak
3 pp	4992.00	22.89	37.67	15.31	40.28	123	60.00	-24.41	horizontal	Average
4 pk	4992.00	35.78	37.67	15.31	40.28	123	80.00	-31.52	horizontal	Peak
5	5145.00	22.80	37.43	15.60	40.51	71	60.00	-24.68	horizontal	Average
6	5145.00	35.24	37.43	15.60	40.51	71	80.00	-32.24	horizontal	Peak
7	5292.00	22.75	37.13	15.86	40.75	264	60.00	-25.01	horizontal	Average
8	5292.00	35.98	37.13	15.86	40.75	264	80.00	-31.78	horizontal	Peak

♦ Calculation

Over Limit [㏈] = (Read Level[㏈uV] + Ant Factor[㏈/m] + Cable Loss [㏈] − Preamp Factor [㏈]) − Limit Line[㏈uV]

Over Limit : Margin Value, Read Level : Reading Value, Ant Factor : Ant Factor, Cable Loss : Cable loss, Preamp Factor : Preamp Factor




```
Site      : chamber
Condition: CISPR22 CLASS-A PK 3m HORN781(2015.05.07) vertical
         : RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project   :
Model     : XNO-6080RP
Mode      : DC 12 V
Memo      : (3 ~ 6) GHz
```

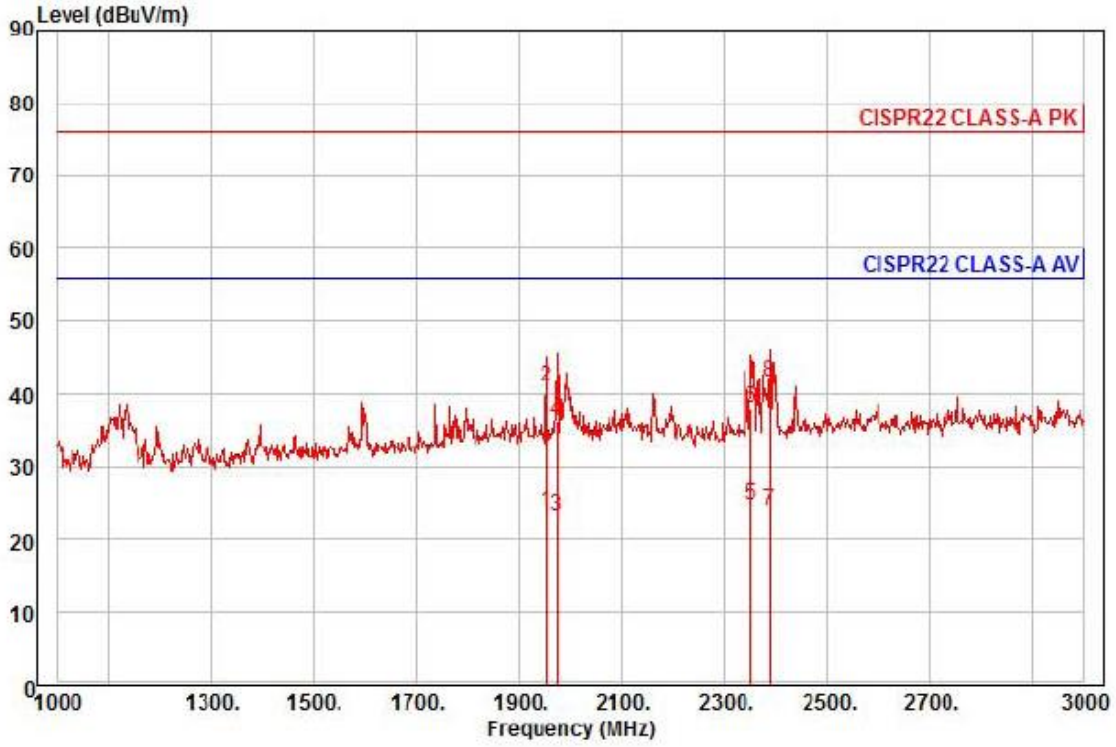
	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	4728.00	23.46	36.17	14.94	40.54	258	60.00	-25.97	vertical	Average
2	4728.00	36.37	36.17	14.94	40.54	258	80.00	-33.06	vertical	Peak
3	4932.00	23.01	37.33	15.24	40.34	116	60.00	-24.76	vertical	Average
4 pk	4932.00	36.28	37.33	15.24	40.34	116	80.00	-31.49	vertical	Peak
5 pp	5097.00	22.68	37.52	15.51	40.43	222	60.00	-24.72	vertical	Average
6	5097.00	35.08	37.52	15.51	40.43	222	80.00	-32.32	vertical	Peak
7	5307.00	22.92	37.10	15.88	40.78	141	60.00	-24.88	vertical	Average
8	5307.00	35.62	37.10	15.88	40.78	141	80.00	-32.18	vertical	Peak

♦ Calculation

Over Limit [㏈] = (Read Level[㏈uV] + Ant Factor[㏈/m] + Cable Loss [㏈] – Preamp Factor [㏈]) – Limit Line[㏈uV]

Over Limit : Margin Value, Read Level : Reading Value, Ant Factor : Ant Factor, Cable Loss : Cable loss, Preamp Factor : Preamp Factor

- PoE Mode



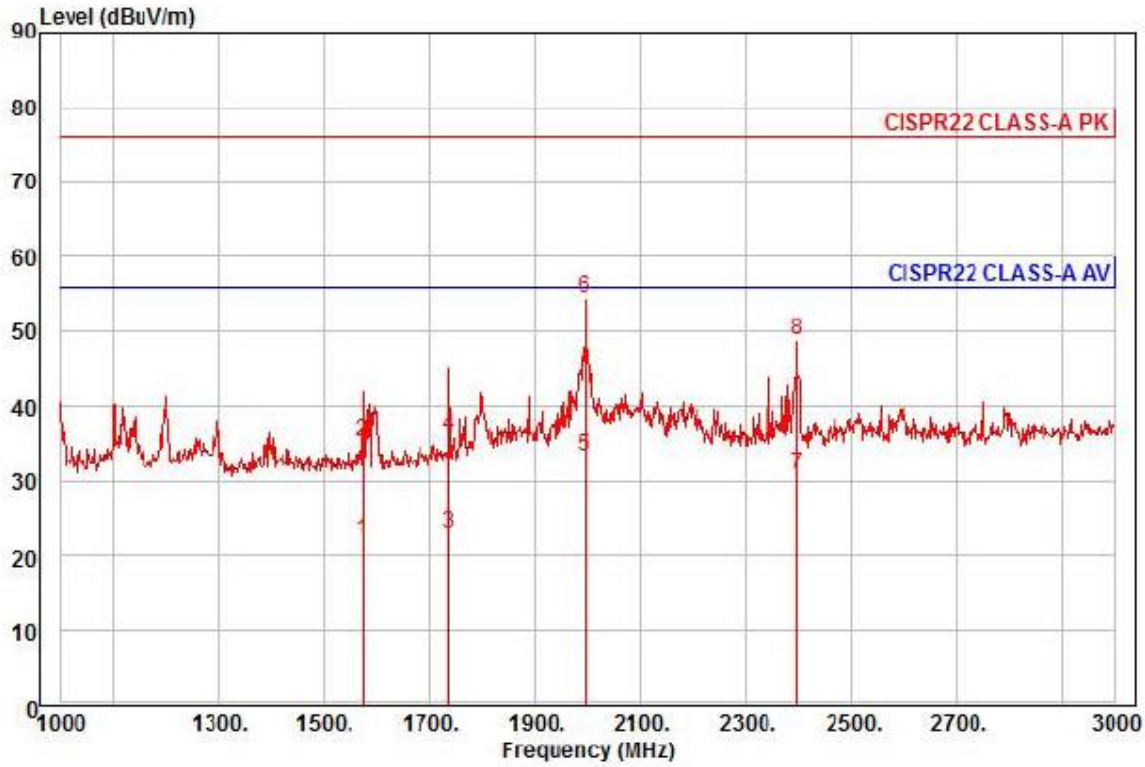
Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN781(2015.05.07) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : XNO-6080RP
Mode : PoE
Memo : (1 ~ 3) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	1954.00	26.20	27.70	9.22	39.39	118	56.00	-32.27	horizontal	Average
2	1954.00	43.34	27.70	9.22	39.39	118	76.00	-35.13	horizontal	Peak
3	1974.00	25.71	27.78	9.27	39.40	116	56.00	-32.64	horizontal	Average
4	1974.00	38.70	27.78	9.27	39.40	116	76.00	-39.65	horizontal	Peak
5 pp	2352.00	25.19	28.74	10.20	39.42	116	56.00	-31.29	horizontal	Average
6	2352.00	38.39	28.74	10.20	39.42	116	76.00	-38.09	horizontal	Peak
7	2388.00	24.42	28.83	10.29	39.42	121	56.00	-31.88	horizontal	Average
8 pk	2388.00	42.02	28.83	10.29	39.42	121	76.00	-34.28	horizontal	Peak

♦ Calculation

Over Limit [㏈] = (Read Level[㏈uV] + Ant Factor[㏈/m] + Cable Loss [㏈] − Preamp Factor [㏈]) − Limit Line[㏈uV]

Over Limit : Margin Value, Read Level : Reading Value, Ant Factor : Ant Factor, Cable Loss : Cable loss, Preamp Factor : Preamp Factor



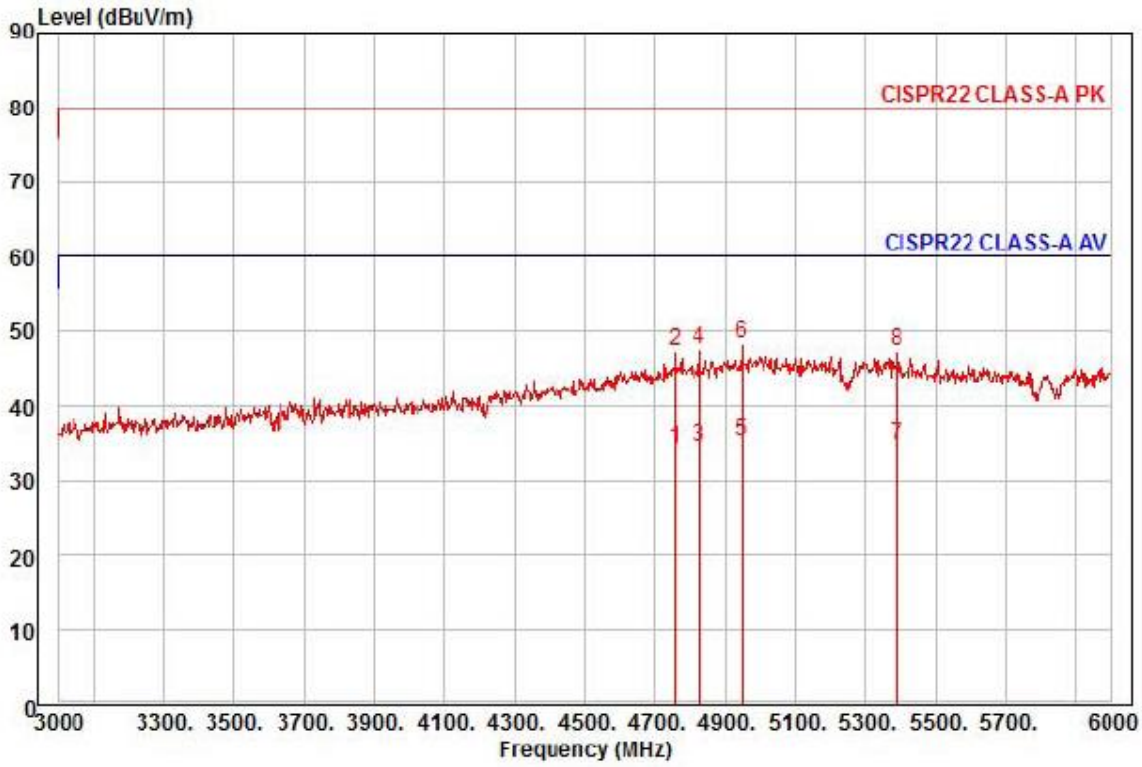
Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN781(2015.05.07) vertical
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : XNO-6080RP
Mode : PoE
Memo : (1 ~ 3) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	1574.00	26.81	26.19	8.23	39.21	275	56.00	-33.98	vertical	Average
2	1574.00	40.06	26.19	8.23	39.21	275	76.00	-40.73	vertical	Peak
3	1736.00	26.79	26.83	8.66	39.29	17	56.00	-33.01	vertical	Average
4	1736.00	39.73	26.83	8.66	39.29	17	76.00	-40.07	vertical	Peak
5 av	1996.00	35.52	27.86	9.33	39.41	348	56.00	-22.70	vertical	Average
6 pp	1996.00	56.68	27.86	9.33	39.41	348	76.00	-21.54	vertical	Peak
7	2398.00	31.04	28.86	10.32	39.42	149	56.00	-25.20	vertical	Average
8	2398.00	48.94	28.86	10.32	39.42	149	76.00	-27.30	vertical	Peak

♦ Calculation

Over Limit [㏈] = (Read Level[㏈uV] + Ant Factor[㏈/m] + Cable Loss [㏈] − Preamp Factor [㏈]) − Limit Line[㏈uV]

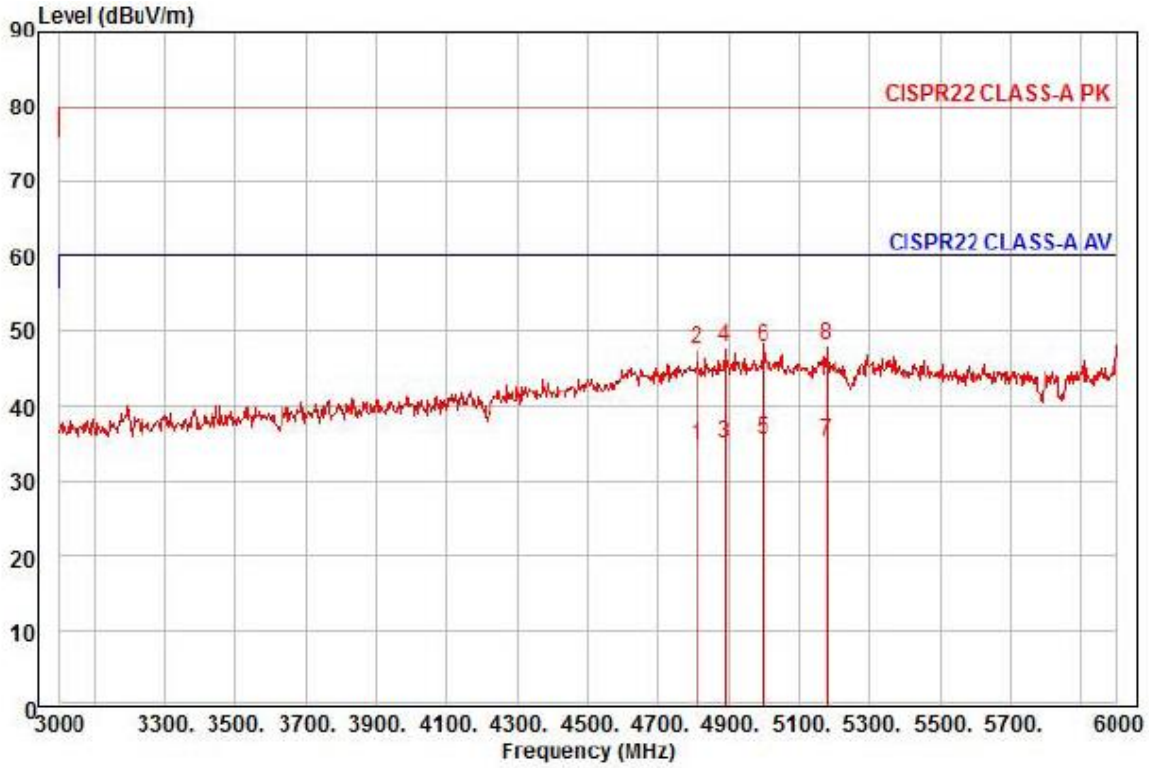
Over Limit : Margin Value, Read Level : Reading Value, Ant Factor : Ant Factor, Cable Loss : Cable loss, Preamp Factor : Preamp Factor



Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN781(2015.05.07) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : XNO-6080RP
Mode : PoE
Memo : (3 ~ 6) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	4758.00	23.58	36.34	15.01	40.51	23	60.00	-25.58	horizontal	Average
2	4758.00	36.47	36.34	15.01	40.51	23	80.00	-32.69	horizontal	Peak
3	4827.00	23.24	36.73	15.13	40.44	299	60.00	-25.34	horizontal	Average
4	4827.00	36.14	36.73	15.13	40.44	299	80.00	-32.44	horizontal	Peak
5 pp	4947.00	22.96	37.42	15.26	40.32	320	60.00	-24.68	horizontal	Average
6 pk	4947.00	35.91	37.42	15.26	40.32	320	80.00	-31.73	horizontal	Peak
7	5388.00	22.72	36.94	16.02	40.91	239	60.00	-25.23	horizontal	Average
8	5388.00	35.30	36.94	16.02	40.91	239	80.00	-32.65	horizontal	Peak

♦ Calculation
Over Limit [㏈] = (Read Level[㏈uV] + Ant Factor[㏈/m] + Cable Loss [㏈] – Preamp Factor [㏈]) – Limit Line[㏈uV]
Over Limit : Margin Value, Read Level : Reading Value, Ant Factor : Ant Factor,
Cable Loss : Cable loss, Preamp Factor : Preamp Factor




```
Site      : chamber
Condition: CISPR22 CLASS-A PK 3m HORN781(2015.05.07) vertical
         : RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project   :
Model     : XNO-6080RP
Mode      : PoE
Memo      : (3 ~ 6) GHz
```

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	4809.00	23.54	36.63	15.11	40.46	295	60.00	-25.18	vertical	Average
2	4809.00	36.41	36.63	15.11	40.46	295	80.00	-32.31	vertical	Peak
3	4890.00	23.22	37.09	15.20	40.38	12	60.00	-24.87	vertical	Average
4	4890.00	35.92	37.09	15.20	40.38	12	80.00	-32.17	vertical	Peak
5 pp	4998.00	22.92	37.71	15.31	40.27	258	60.00	-24.33	vertical	Average
6	4998.00	35.09	37.71	15.31	40.27	258	80.00	-32.16	vertical	Peak
7	5178.00	22.80	37.36	15.67	40.57	278	60.00	-24.74	vertical	Average
8 pk	5178.00	35.58	37.36	15.67	40.57	278	80.00	-31.96	vertical	Peak

♦ Calculation

Over Limit [㏈] = (Read Level[㏈uV] + Ant Factor[㏈/m] + Cable Loss [㏈] − Preamp Factor [㏈]) − Limit Line[㏈uV]

Over Limit : Margin Value, Read Level : Reading Value, Ant Factor : Ant Factor, Cable Loss : Cable loss, Preamp Factor : Preamp Factor

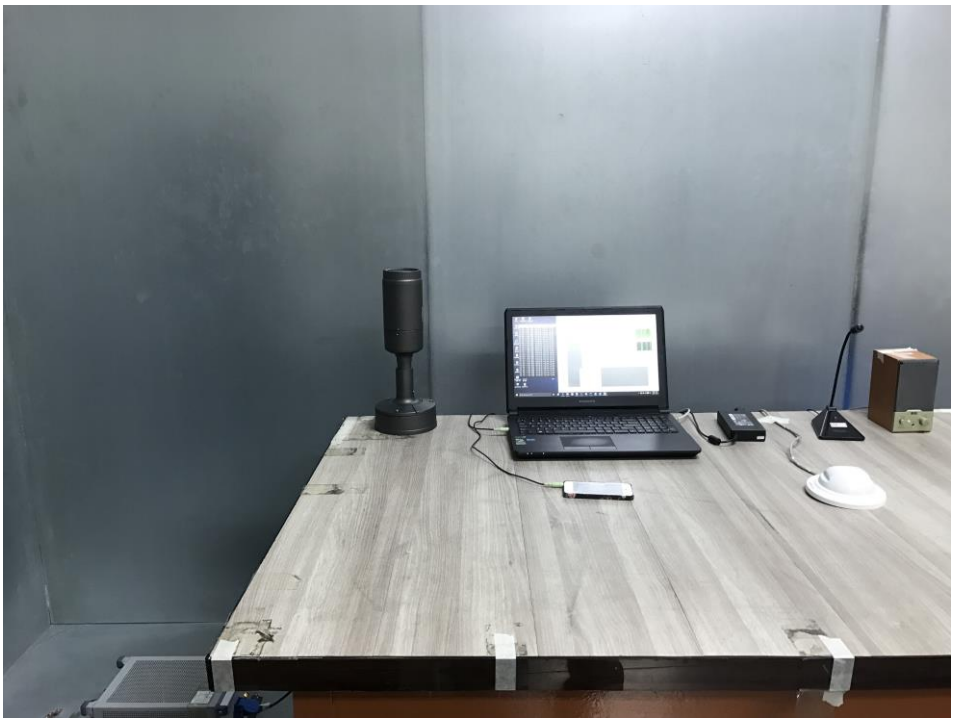
Test Setup Photos and Configuration

Conducted Voltage Emissions

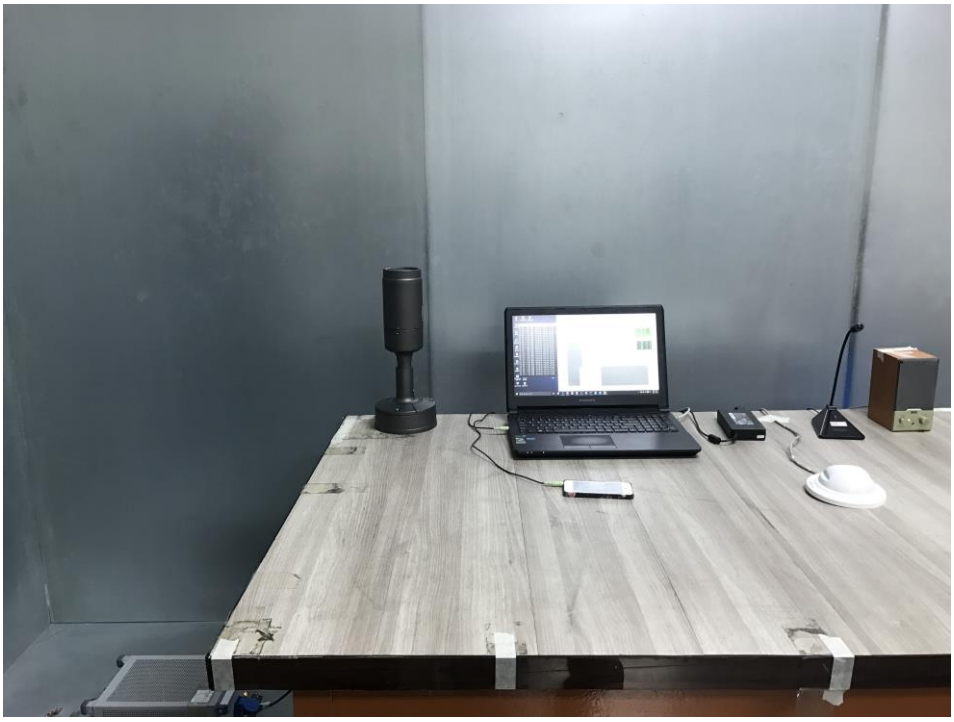
- AC 24V Mode

Conducted Telecommunication Emissions

- AC 24V Mode



- DC 12V Mode



- PoE Mode

Radiated Electric Field Emissions(Below 1 ㎓)

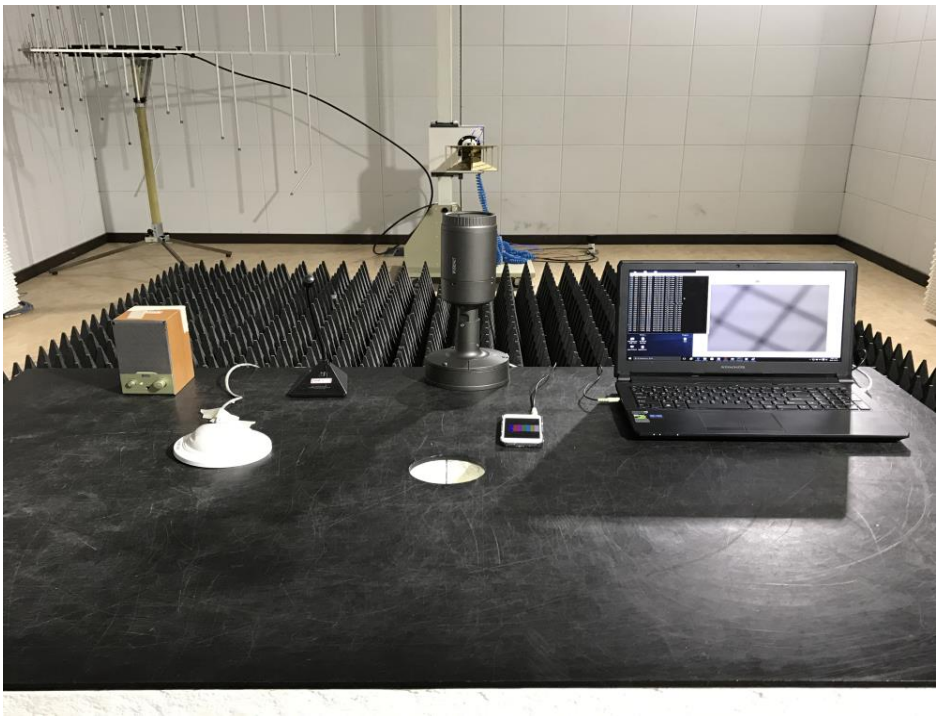
- AC 24V Mode

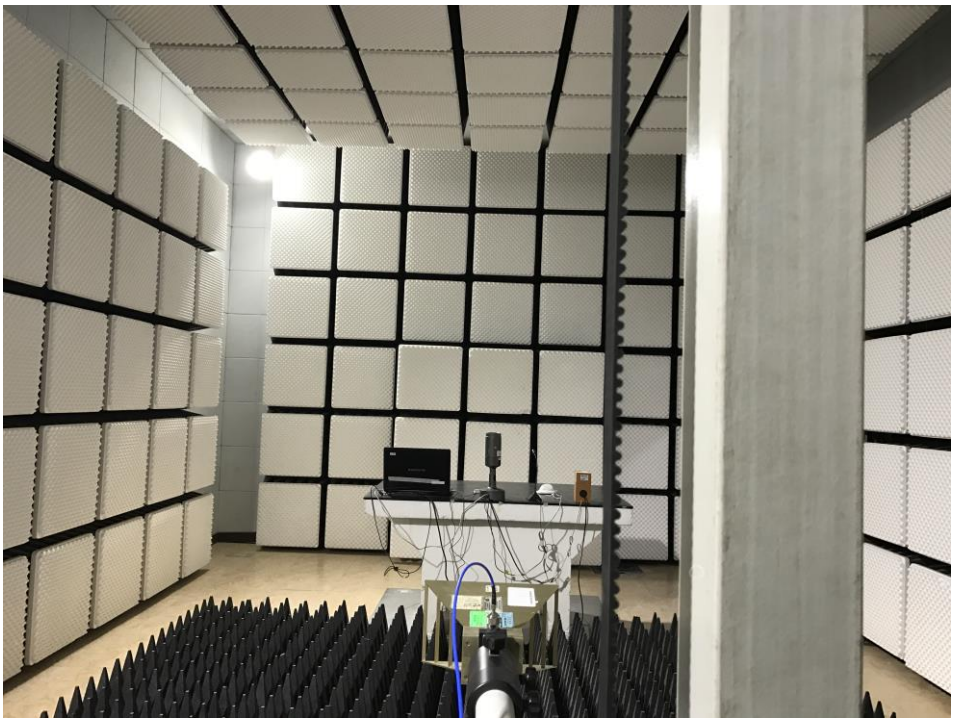
- DC 12V Mode

- PoE Mode

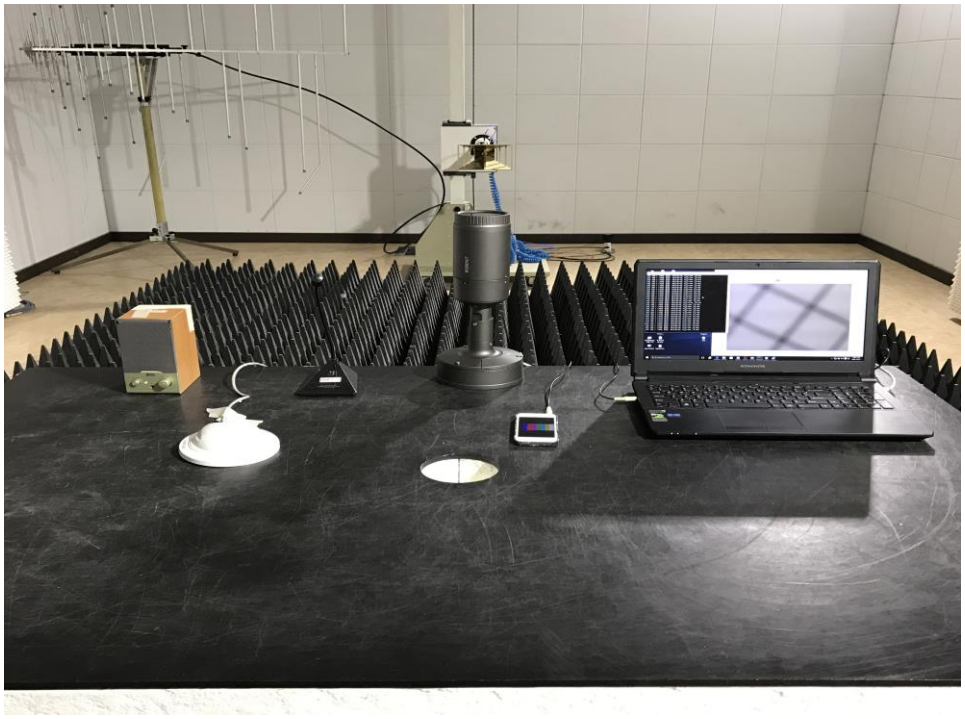
Radiated Electric Field Emissions(Above 1 ㎓)

- AC 24V Mode

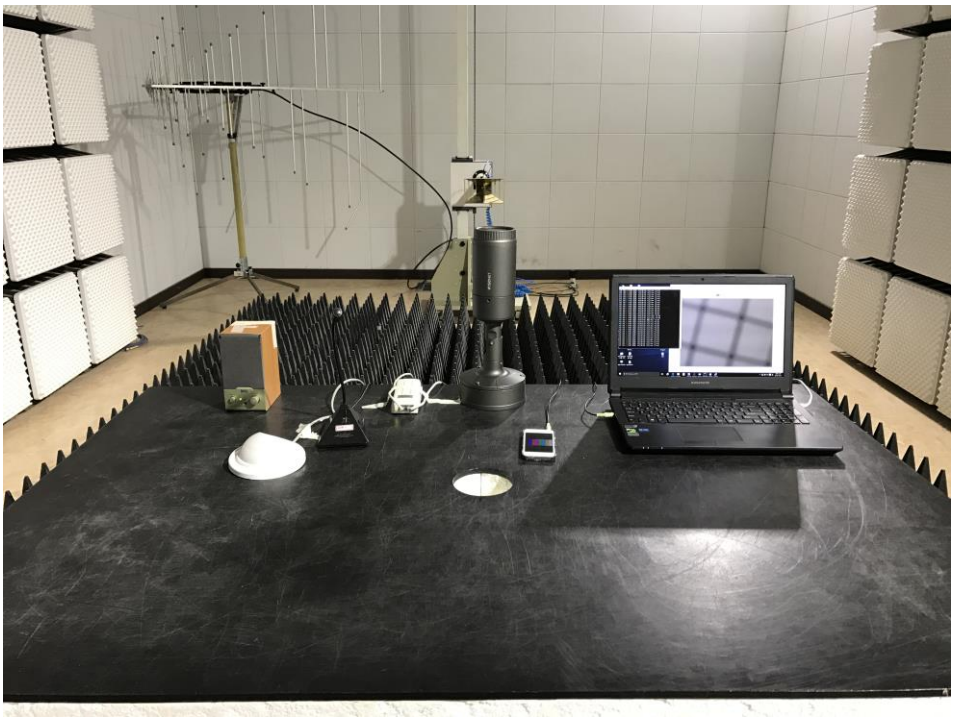




- DC 12V Mode



- PoE Mode



EUT External Photographs

(Top)

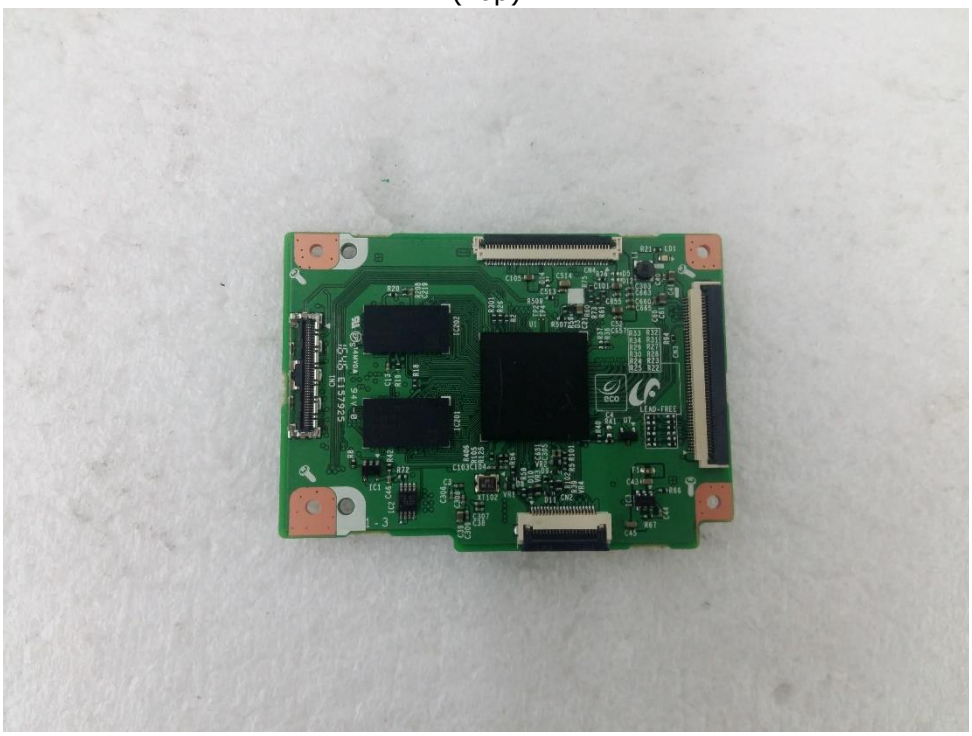
(Bottom)

EUT Internal Photographs

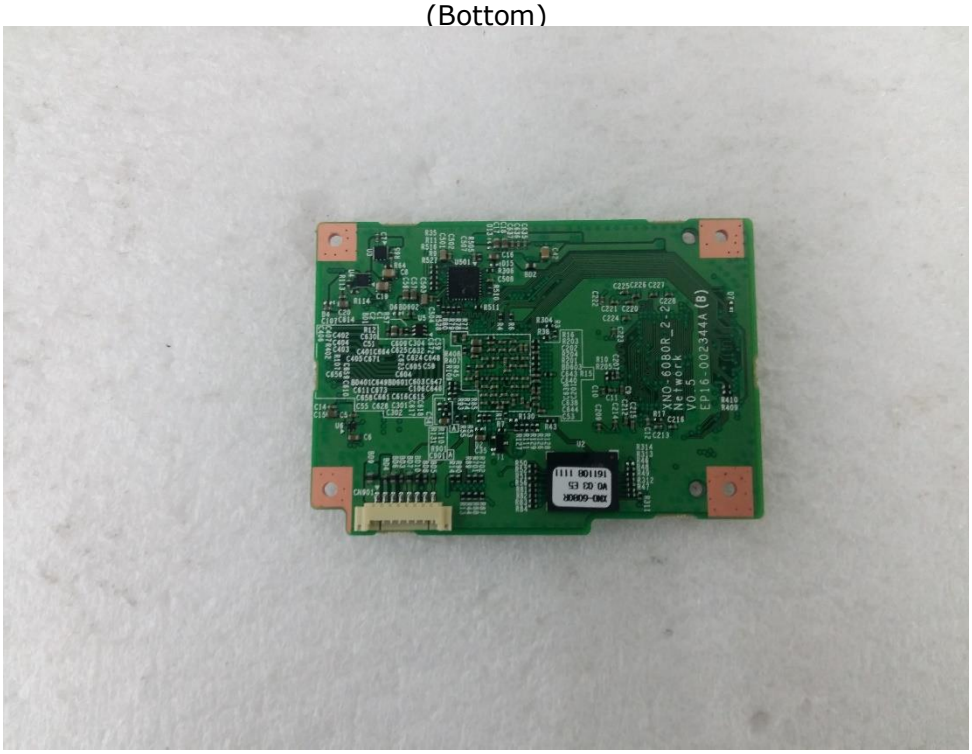
(Internal View)

EUT Internal View – Main board

(Top)

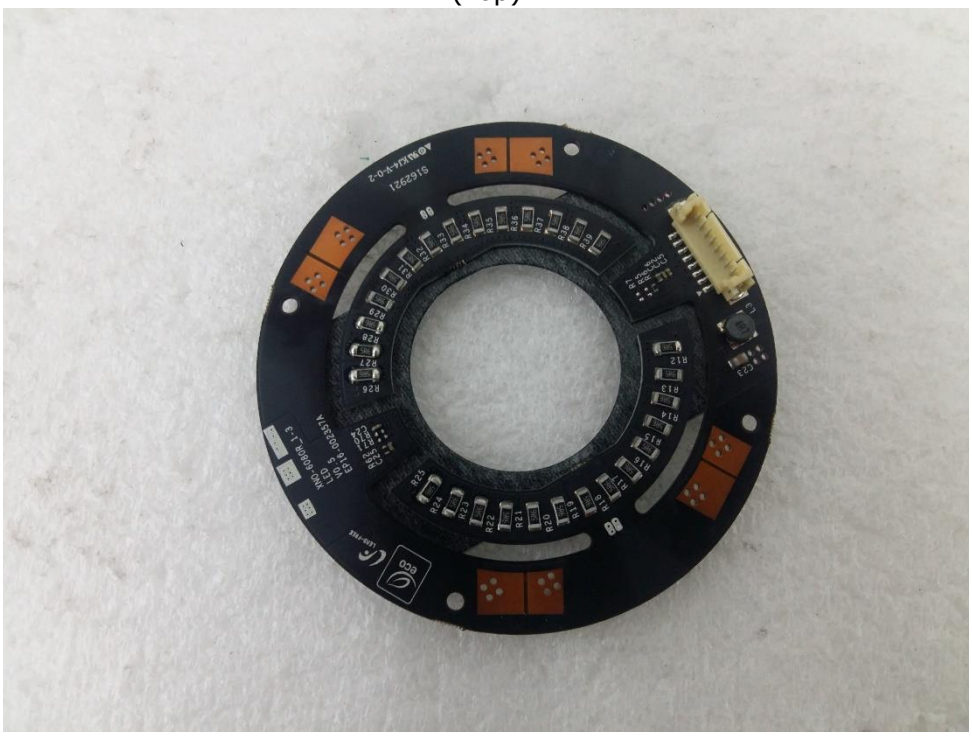


(Bottom)



EUT Internal View – Sub board

(Top)



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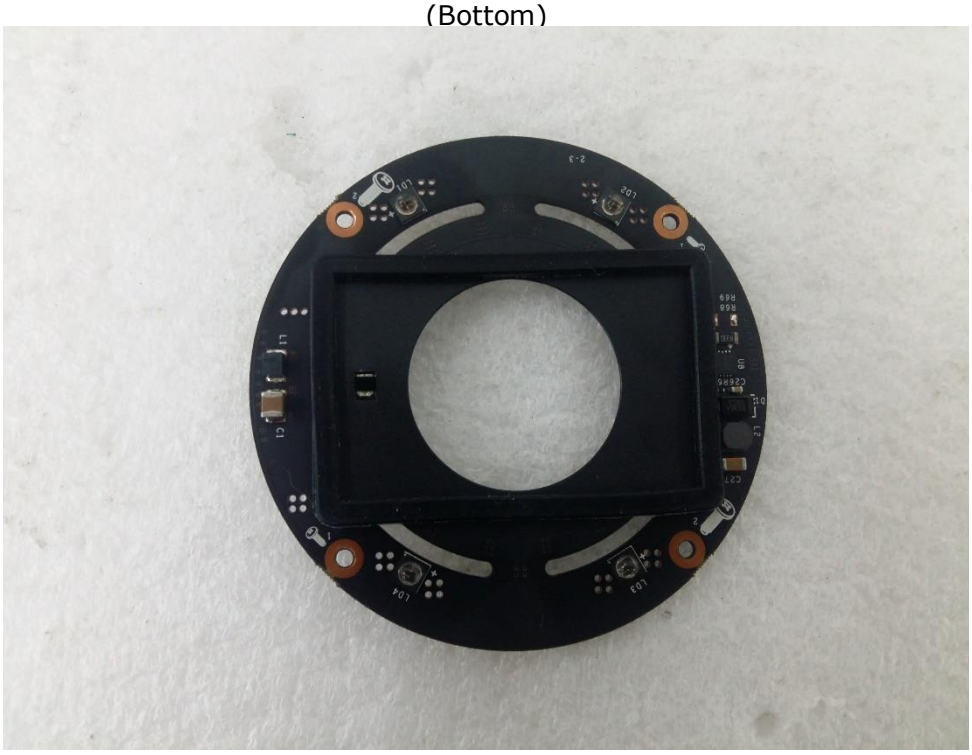
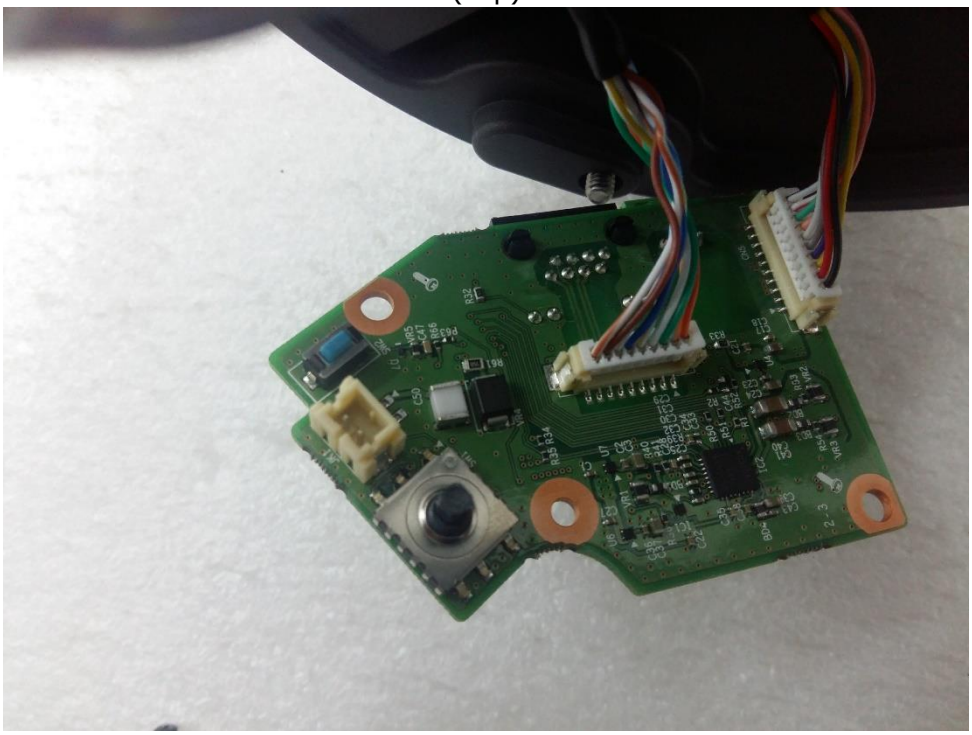


EUT Internal View – Switch Board

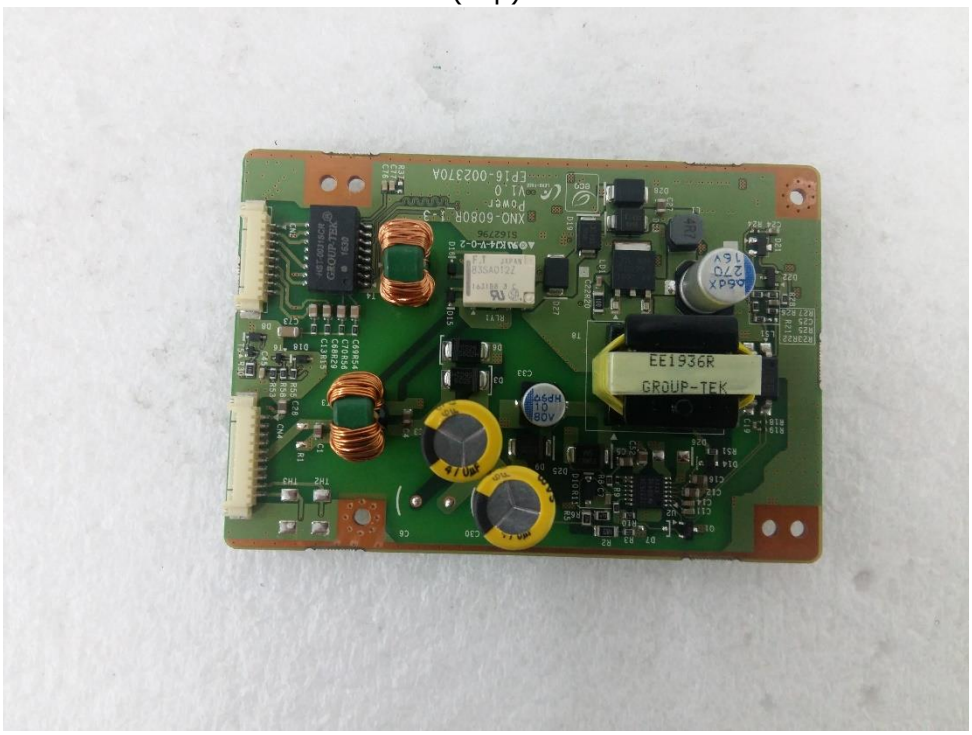
(Top)



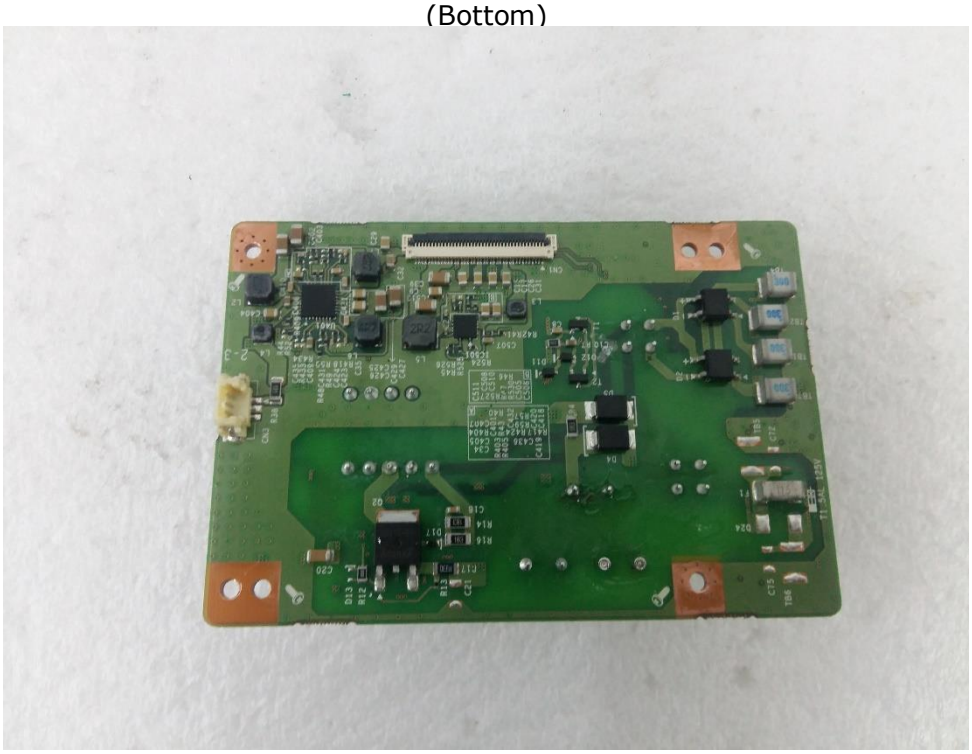
(Bottom)

EUT Internal View – Power Board

(Top)

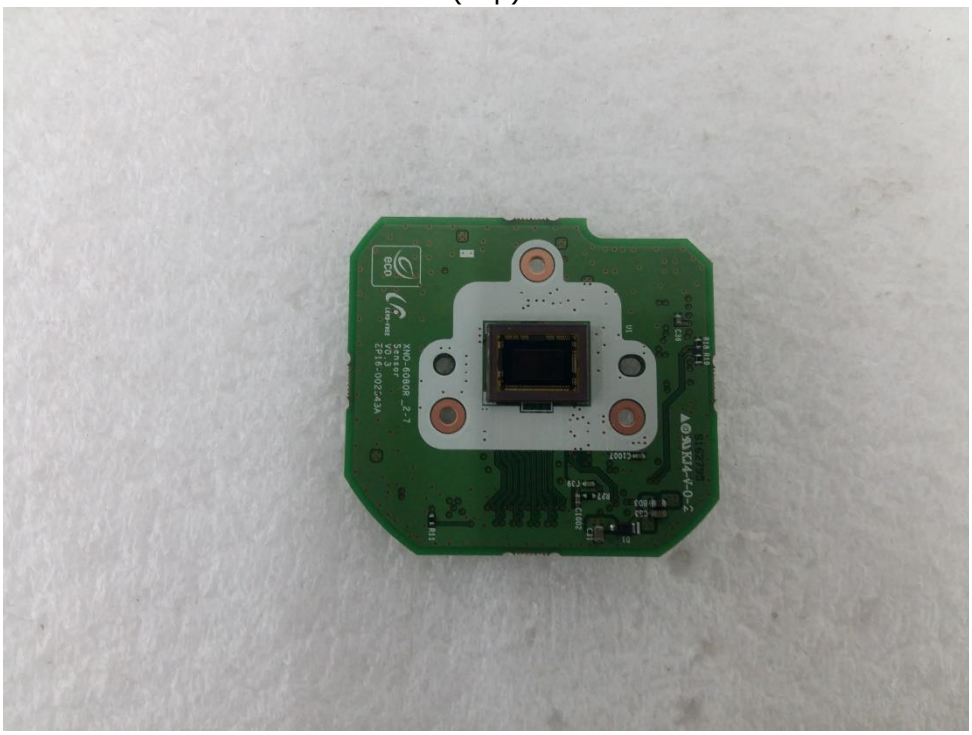


(Bottom)



EUT Internal View – Lens Board

(Top)



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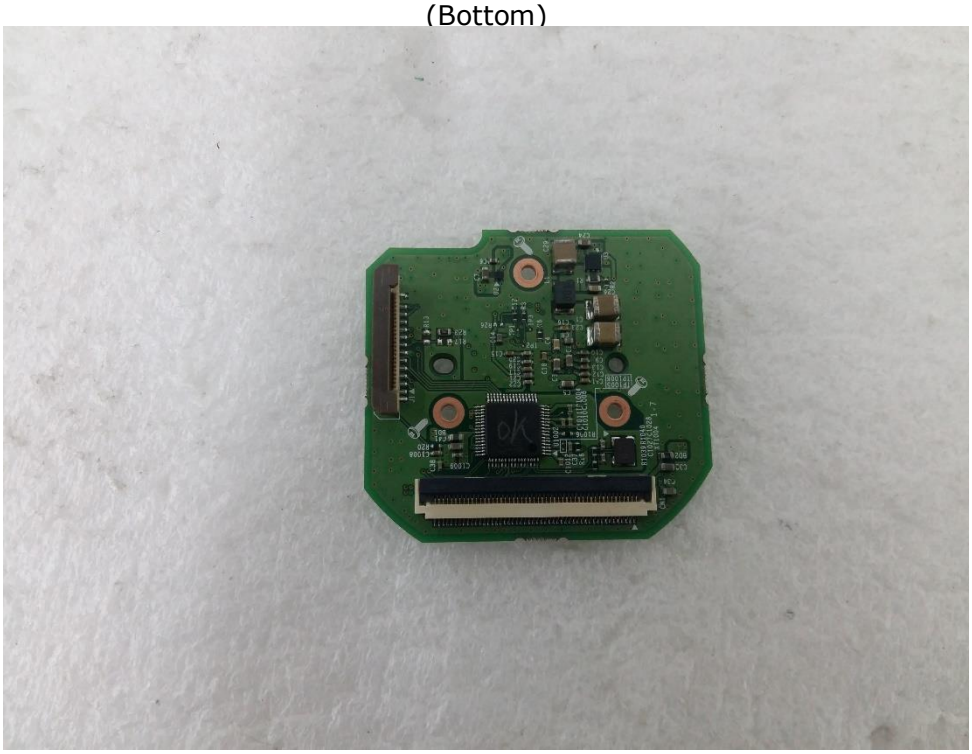
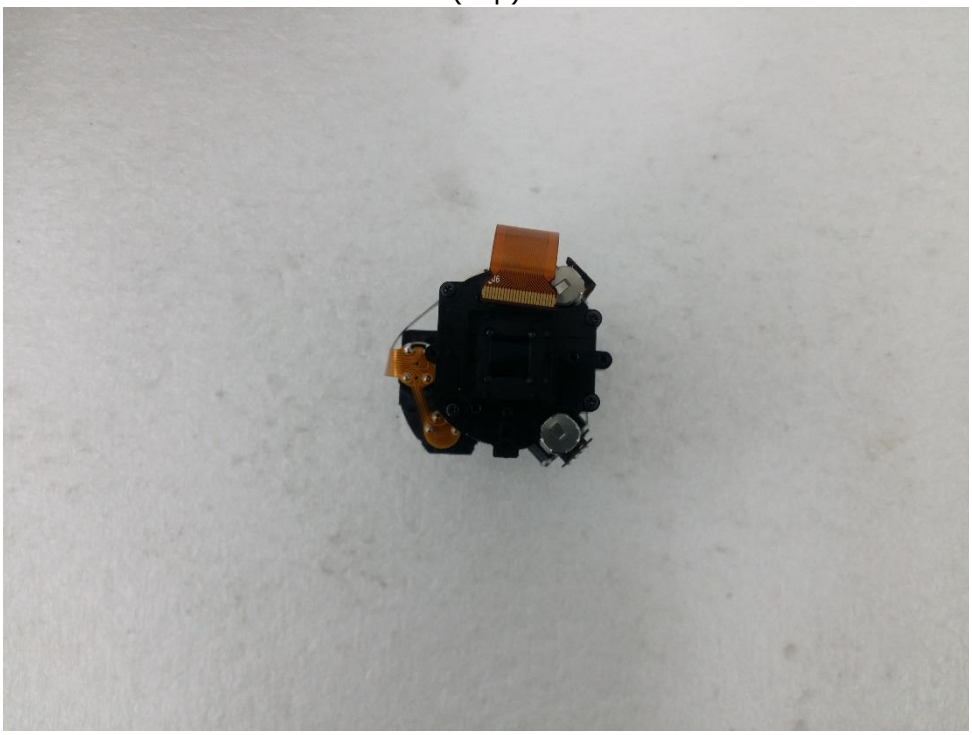


EUT Internal View Camera Lens

(Top)



(Bottom)