EMC TEST REPORT

Test Report No.	:	KES-EM-22T0534-R1
Date of Issue	:	Feb. 24, 2023
Product name	:	NVR
Model/Type No.	:	XRN-6410B4
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)
Equipment authorization	:	**Supplier's Declaration of Conformity**
Date of Receipt	:	Jun. 22, 2022
Test date	:	Jun. 22, 2022 ~ Jun. 23, 2022
Test Results	:	☒ **In Compliance** ☐ **Not in Compliance**

Tested by

Dong-Yun, Lee
EMC Test Engineer

Reviewed by

Dong-Hun, Jang
EMC Technical Manager

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

REPORT REVISION HISTORY

Date	Test Report No.	Revision History
Jun. 30, 2022	KES-EM-22T0534	Issued
Feb. 24, 2023	KES-EM-22T0534-R1	Change the Applicant and manufacturer at the request of the customer

TABLE OF CONTENTS

1.0 General Product Description

Main Specifications of EUT are:

Display		
Network camera	Inputs	Max. 64CH
	Resolution	32MP ~ CIF
	Protocols	SUNAPI, ONVIF
Decoding	Local Display	[Dual Display] HDMI 1: 3840 x 2160 (30Hz) HDMI 2: 1920x1080 (60Hz)
	Multi Screen Display	[Local Monitor] - Dynamic layout, Virtual channel view - Clone Mode : Up to 64 Division - Expand Mode : HDMI1 up to 36 Div. HDMI2 up to 16 Div. [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9
	Resolution	32M(15fps, H.265 Only), 12M(30fps, H.265 Only), 8.3M(120fps), 1080p(480fps), 720P(960fps), D1(1920fps)
Performance		
Operating System	Embedded	Linux
Record	Compression	H.265, H.264, MJPEG
	Recording Bandwidth	Distributed mode : Up to 400 Mbps Normal mode : Up to 150 Mbps {RAID mode} Normal : Up to 400 Mbps Degrade/ Rebuild : Up to 320 Mbps
	Resolution	32MP ~ CIF
	Mode	Normal, Dual Stream, Schedule(Continuous/Event), Event (Pre/Post), Bookmark
	Event Trigger	Alarm Input, Video Loss, Camera Event(Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event
	Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shotdown
Search & Play	Playback Bandwidth	RAID Mode : Max. 64Mbps(64CH simultaneously) Non-RAID Mode : Max. 32Mbps
	User	Max. 4 Users (Local 1, Remote 3)
	Simultaneous playback	Max. 112CH(Local 64CH, Remote 16CH per user)
	Fisheye Dewarping	Support (Local 1CH), CMS
	Mode	Date & Time(Calendar), Event list, Text Search, Smart Search
	Resolution	CIF ~ 32MP (Up to H.264 9MP, H.265 32MP)
	Playback Control	Fast/Slow Forward / Backward, Move one step Up / Down
Storage	Supported HDD	Up to 10TB
	HDD Slot	SATA 16ea(Max. 160TB, Non-RAID mode)
	External	iSCSI storage
	RAID	RAID-5/6(Array Size : 8 HDDs x 2 Array)
Backup	File backup	BU/Exe/AVI(GUI), JPG/AVI(Network)
	Function	Multi channel(Up to 16CH) Play, Date-Time/Title display
Network		
Protocol		IPv4, IPv6, TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, DHCP (Server, Client), SMTP, ICMP, IGMP, ARP, DNS, DDNS, uPnP, HTTPS, SNMP, ONVIF (Profile-S), SUNAPI(Server, Client)
DDNS		Hanwha DDNS
Transmission Bandwidth		Max. 400Mbps
Audio	Input/Output	64 CH(network)

	Compression	G.711, G.726, AAC(16/48KHz)
	Audio Communication	2-Way
Max Remote Users		Search(3), Live Unicast(10), Multicast(20)
Security		IP address filtering, User access Log, 802.1x, Encryption Device certificate(Hanwha Techwin Root CA), Signed firmware
Web viewer	Supported OS	Windows 10, macOS 10.13
	Supported browser	Google Chrome, Microsoft Edge, Mac Safari
Viewer Software		SSM, Webviewer, Smart Viewer, Wisenet mobile Support CGI(SUNAPI) for integration to 3'rd party VMS

Functions

Camera Setup	Register	Auto, Manual
	Item	IP address, Add profile edit, Bitrate, Compression, GOP, Quality, Camera MD setup (4, 8 point polygon) Camera video setup (Simple focus, Brightness/Contrast, Flip/Mirror, IRIS, WDR, D&N, SSNR, Shutter, SSDR, DIS), Fisheye Dewarping Mode, Hallway View Setup, Camera Webpage
PTZ	Control	Via GUI, Webviewer, SPC-2000
	Preset	300 Presets
Smart phone	Support Model	iOS, Android
	Protocol Support	RTP, RTSP, HTTP, CGI(SUNAPI)
	Control	Live 16CH(Multi-Profile Support), Playback 4CH
	Max. Remote Users	Search(3), Live Unicast(10)
Redundancy	Failover	N+1
	ARB	Support
Easy configuration		P2P(QR code)

Interface

Front	Indicator	HDD, Alarm, Power, Record, Backup, Network, RAID
Storage		OK
Reset		Power button
HDD Key Lock		OK
HDMI		2EA (Playback/Setup → HDMI1) HDMI1 : 3840x2160 30Hz HDMI2 : 1920x1080 60Hz
Audio		Out 1EA (3.5mm Audio Jack)
Ethernet		RJ-45 3EA (LAN/WAN, 1Gbps)
Alarm		In 8EA, Out 4EA
USB		4EA(Front 2 x USB 2.0, Rear 2 x USB 3.0)
Power inlet		AC 1EA

System		
Log	**Log List**	Max. 100,000 (System Log, Event Log each)
System Control		Mouse, Keyboard, Web, Controller (SPC-2000)
Language		English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese, Japanese, Thai, Vietnamese
Environmental		
Operating Temperature		0°C to +40°C(32°F to 104°F)
Operating Humidity		20% ~ 85% RH
Electrical		
Power Input		100 ~ 240 VAC ±10%; 50/60 Hz, 2.7A (Single SMPS)
Power Consumption		Max. 265W (904.2 BTU with HDD 16ea)
Mechanical		
Color / Material		Black / Metal
Dimension (WxHxD)		440.0 x 132.0 x 571.1mm
Weight		Approx. 13.4Kg(29.6 lb, HDD not included)
Intelligent Analysis		
AI Search	**Object Attribute**	Compatible for Wisenet AI Camera

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.

☒ AC 120 V, 60 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
NVR	XRN-6410B4	-	HANWHA VISION VIETNAM COMPANY LIMITED	EUT
Mouse	MOKJUO	-	Primax Electronics Ltd.	-
SWITCHING POWER SUPPLY	DPS-500AB-33 C	-	Delta Electronics Power (Dongguan)Co., Ltd.	-
Main Board	EP16-002995C	-	-	-
CPU	INTEL PENTIUM G5400T SR3XB 3.10GHz	-	INTEL	-
RAM	8GB 1Rx8 PC4-3200AA-UA2-11	-	SAMSUNG	8 GB x 2 EA
SSD	TS32GMTS800	-	Transcend	32 GB

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
Camera	XNV-6020R	-	HANWHA VISION VIETNAM COMPANY LIMITED	-
PoE Adapter	PT-PSE109GBRO-AH	-	Dongguan PROCET Network Technology Co.,Ltd	-
Laptop1	LG15N54	503NZWY038929	LG Electronics	-
Laptop1 Adapter	PA-1900-14	OF2R263348701 7764	LITE-ON TECHNOLOGY COPORATION	-
Laptop2	HSN-Q07C	5CD8367KND	HP	-
Laptop2 Adapter	HSTNN-CA40	WFTKU0ERLB4Q CH	HP	-
Monitor1	QTM-OR24.9WB	-	Topsync	-
Monitor2	SMT-2232	C95V67VF90003 8B	Weihai Daewoo Electronics Co., Ltd.	-
Keyboard	ST-600	-	CAN TECHNOLOGY CO., LTD	-
Earphone	-	-	-	-
Alarm1	-	-	-	-
Alarm2	-	-	-	-
Button alarm1	-	-	-	-
Button alarm2	-	-	-	-
Button alarm3	-	-	-	-
Button alarm4	-	-	-	-
HDD	WD40PURX-64N96Y0	-	WD	4 TB
Smart phone	-	-	LG Electronics	-
USB Memory1	-	-	Sandisk	32 GB
USB Memory2	-	-	Sandisk	32 GB

1.6 External I/O Cabling

Start		END		Cable Spec.	
Description	**I/O Port**	**Description**	**I/O Port**	**Length**	**Shield**
NVR (EUT)	RJ-45 (LAN1)	PoE Adapter	RJ-45 (LAN1)	3.0	U
	RJ-45 (LAN2)	Laptop1	RJ-45 (LAN2)	3.0	U
	RJ-45 (LAN3)	Laptop2	RJ-45 (LAN3)	3.0	U
	USB	Mouse (EUT)	USB	1.4	U
	USB	USB Memory1	USB	-	-
	USB	USB Memory2	USB	-	-
	HDMI	Monitor1	HDMI	1.6	S
	HDMI	Monitor2	HDMI	1.6	S
	USB	Keyboard	USB	1.5	U
	3.5mm	Earphone	3.5mm	1.6	U
	Alarm out	Alarm1	Alarm in	3.0	U
	Alarm out		Alarm in	3.0	U
	Alarm out	Alarm2	Alarm in	3.0	U
	Alarm out		Alarm in	3.0	U
	Alarm in	Button alarm1	Alarm out	3.0	U
	Alarm in		Alarm out	3.0	U
	Alarm in	Button alarm2	Alarm out	3.0	U
	Alarm in		Alarm out	3.0	U
	Alarm in	Button alarm3	Alarm out	3.0	U
	Alarm in		Alarm out	3.0	U
	Alarm in	Button alarm4	Alarm out	3.0	U
	Alarm in		Alarm out	3.0	U
	SATA	HDD	SATA	0.2	U
PoE Adapter	RJ-45 (PoE)	Camera	RJ-45 (PoE)	3.0	U
Laptop1	DC Jack	Laptop1 Adapter	DC Jack	1.7	U
	3.5 mm	Smart phone	3.5 mm	1.4	U
Laptop2	DC Jack	Laptop2 Adapter	DC Jack	1.6	U

* Unshielded=U, Shielded=S

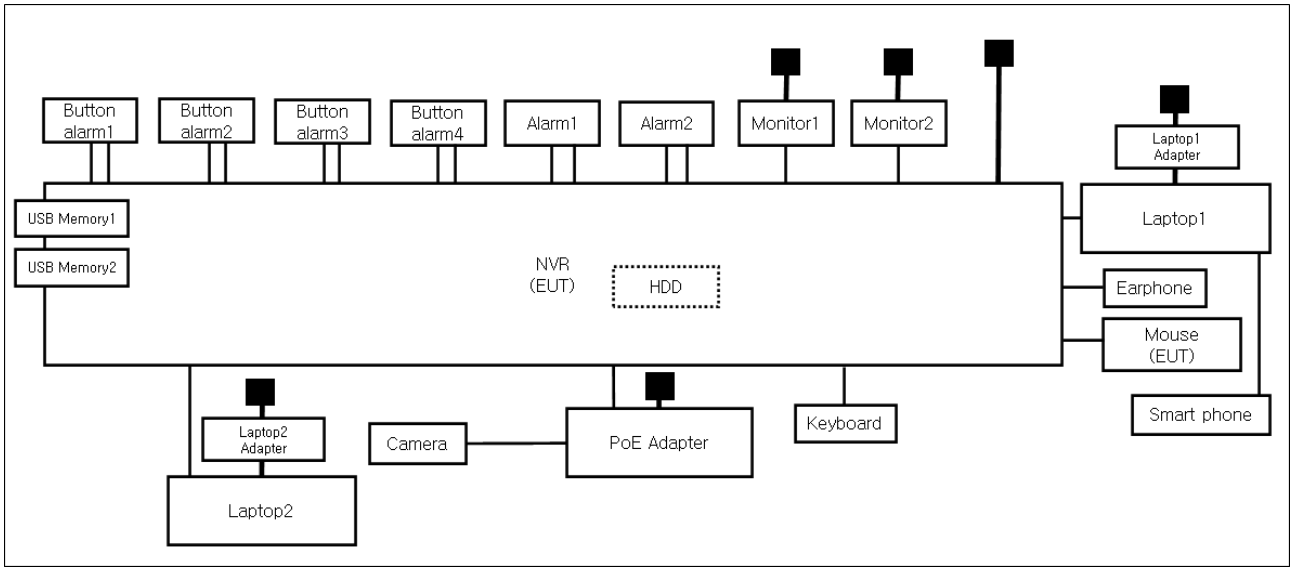
1.7 EUT Operating Mode(s)

Test Mode	operating
Operation Mode	EUT Monitoring, Ping Test after testing, check if the recording is normally done on the HDD and USB Memory

EUT Test operating S/W		
Name	**Version**	**Manufacture Company**
Web Viewer	-	Hanwha Vision Co., Ltd

1.8 Configuration

■ AC Main
□ DC Main



1.9 Remarks when standards applied

N/A

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, Republic of. The sites are constructed in conformance with the requirements of ANSI C63.4a-2017 and CISPR 16-1-4:2019

1.12 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:

☒ **47 CFR Part 15, Subpart B**

☐ CISPR 22:2009 +A1:2010	☐ Class A	☐ Class B
☒ ANSI C63.4a-2017	☒ Class A	☐ Class B

☒ **IC Regulation ICES-003 Issue 7**

☐ CAN/CSA-CISPR 32:17	☐ Class A	☐ Class B
☒ ANSI C63.4a-2017	☒ Class A	☐ Class B

2.1 Conducted Emissions at Mains Power Ports

Test Date
Jun. 22, 2022

Test Location
Electro wave Shieldroom #6

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	EMC32	R & S	9.12.00	-
☒	EMI TEST RECEIVER	ESR3	R & S	101783	12, 28, 2022
☒	LISN	ENV216	R & S	101787	12, 27, 2022
☒	LISN	ESH2-Z5	R & S	100450	12, 27, 2022
☒	PULSE LIMITER	ESH3-Z2	R & S	101915	12, 27, 2022

Test Conditions
Temperature: (24,3 ± 0,2) ℃
Relative Humidity: (44,5 ± 0,2) % R.H.

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 Radiated Electric Field Emissions(Below 1 ㎓)

Test Date
Jun. 22, 2022

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

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	EP5/RE	TOYO Corporation	6.0.0	-
☒	EMI TEST RECEIVER	ESU26	R & S	100551	03, 31, 2023
☒	AMPLIFIER	SCU 01	R & S	100603	11, 24, 2022
☒	TRILOG-BROADBAND ANTENNA	VULB9163	Schwarzbeck	715	12, 08, 2022
☒	ATTENUATOR	8491A	HP	32173	03, 08, 2023

Test Conditions
Temperature: (24,5 ± 0,3) ℃
Relative Humidity: (44,3 ± 0,2) % R.H.

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.

2.3 Radiated Electric Field Emissions(Above 1 ㎓)

Test Date
Jun. 23, 2022

Test Location
SEMI ANECHOIC CHAMBER #5

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	ES10/RE	TOYO Corporation	2022.01.000	-
☒	EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100552	03, 31, 2023
☒	HORN ANTENNA	BBHA 9120D	SCHWARZBECK	9120D-1802	12, 16, 2022
☒	PREAMPLIFIER	8449B	HP	3008A00538	06, 02, 2023

Test Conditions
Temperature: (24,5 ± 0,2) ℃
Relative Humidity: (44,6 ± 0,1) % R.H.

Frequency Range of Measurement
1 ㎓ to 5 ㎓

Instrument Settings
IF Band Width: 1 ㎒

Test Results
The requirements are:
☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks
See Appendix A for test data.

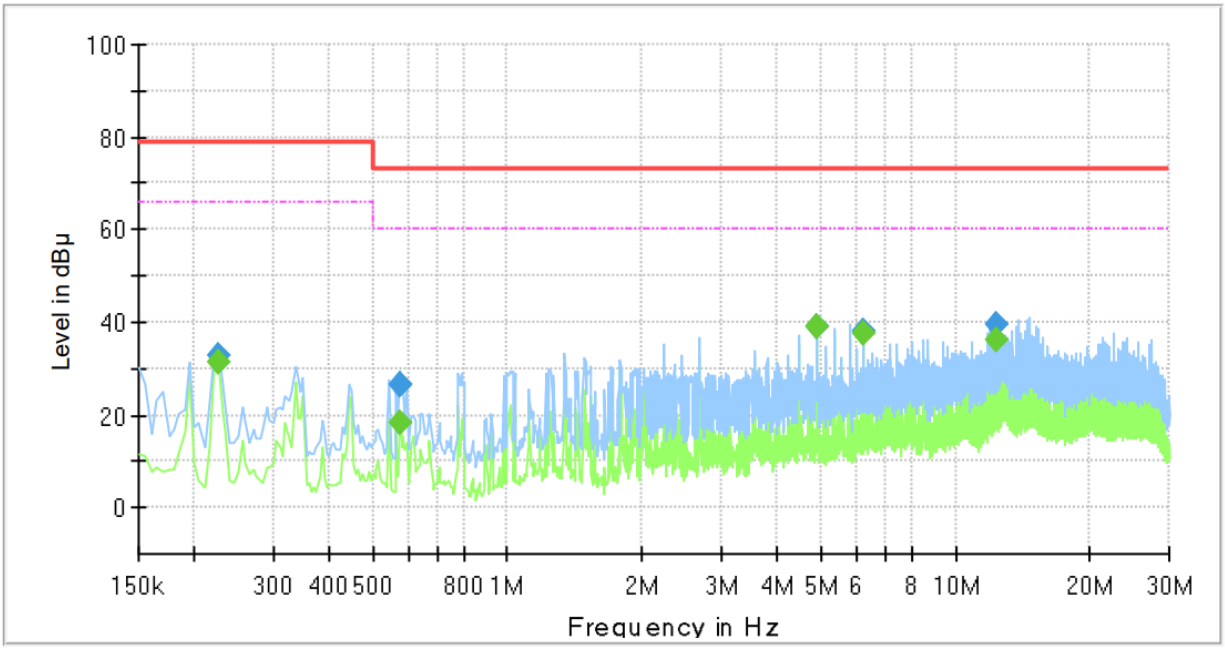
APPENDIX A – TEST DATA

Conducted Emissions at Mains Power Ports

HOT LINE

Common Information

Test Description:	Conducted Emission
Model No.:	XRN-6410B4
Phase:	L1
Mode:	
Operator Name:	KES



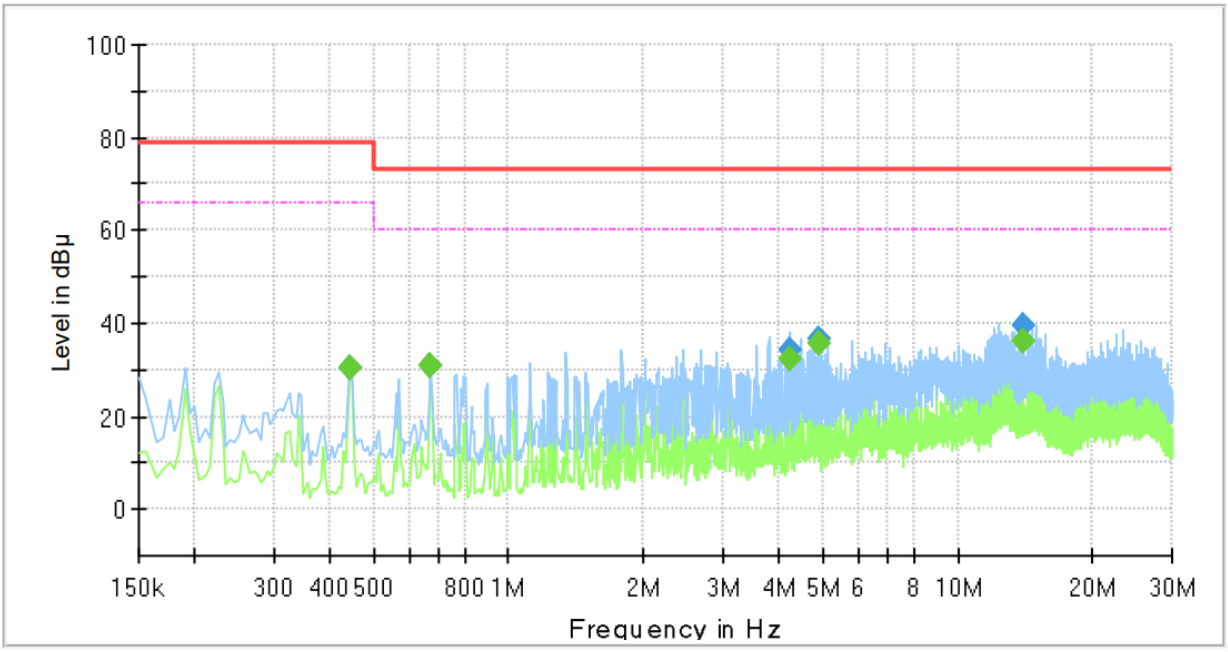
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.225000	---	31.53	66.00	34.47	1000.0	9.000	L1	19.4
0.225000	32.95	---	79.00	46.05	1000.0	9.000	L1	19.4
0.575000	---	18.42	60.00	41.58	1000.0	9.000	L1	19.8
0.575000	26.73	---	73.00	46.27	1000.0	9.000	L1	19.8
4.910000	---	38.89	60.00	21.11	1000.0	9.000	L1	19.6
4.910000	39.12	---	73.00	33.88	1000.0	9.000	L1	19.6
6.250000	---	37.46	60.00	22.54	1000.0	9.000	L1	19.5
6.250000	37.95	---	73.00	35.05	1000.0	9.000	L1	19.5
12.340000	---	36.14	60.00	23.86	1000.0	9.000	L1	20.0
12.340000	39.38	---	73.00	33.62	1000.0	9.000	L1	20.0

NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	XRN-6410B4
Phase:	N
Mode:	
Operator Name:	KES



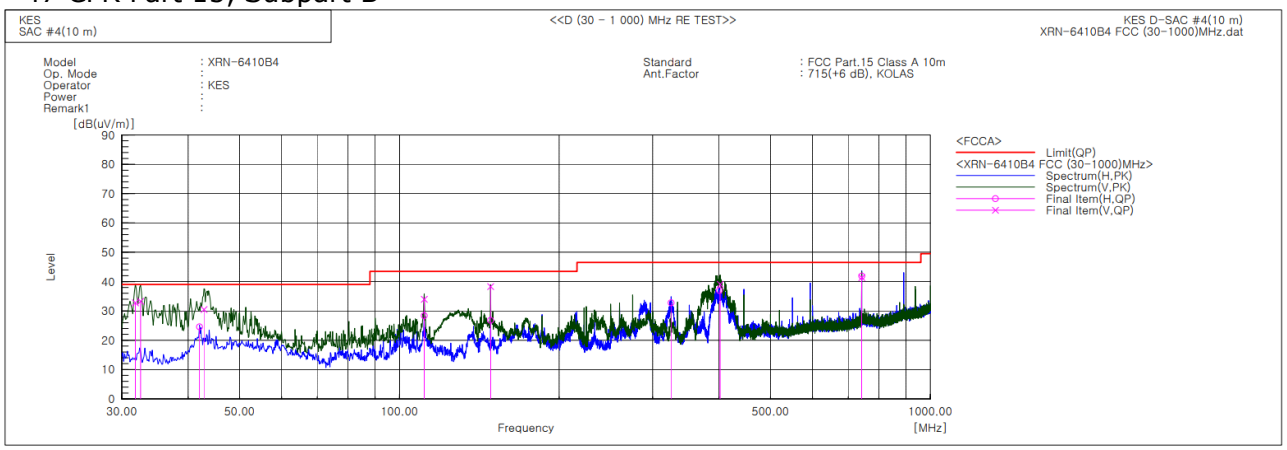
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.445000	30.54	---	79.00	48.46	1000.0	9.000	N	19.7
0.445000	---	30.27	66.00	35.73	1000.0	9.000	N	19.7
0.670000	---	30.88	60.00	29.12	1000.0	9.000	N	19.9
0.670000	31.00	---	73.00	42.00	1000.0	9.000	N	19.9
4.240000	---	32.18	60.00	27.82	1000.0	9.000	N	19.8
4.240000	34.43	---	73.00	38.57	1000.0	9.000	N	19.8
4.910000	36.54	---	73.00	36.46	1000.0	9.000	N	19.6
4.910000	---	35.45	60.00	24.55	1000.0	9.000	N	19.6
14.040000	---	36.05	60.00	23.95	1000.0	9.000	N	19.9
14.040000	39.27	---	73.00	33.73	1000.0	9.000	N	19.9

◆ Calculation
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 Electric Field Emissions(Below 1 ㎓)

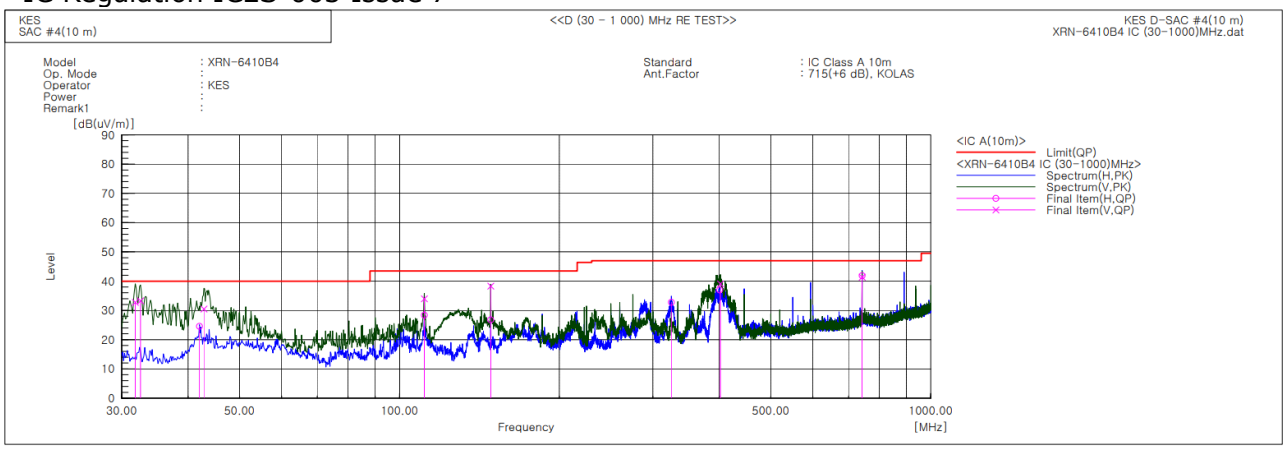
- 47 CFR Part 15, Subpart B



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	31.819	V	57.8	-25.0	32.8	39.0	6.2	107.0	300.4	
2	32.546	V	58.3	-25.0	33.3	39.0	5.7	162.0	71.5	
3	42.004	H	46.5	-21.9	24.6	39.0	14.4	386.0	34.6	
4	42.853	V	52.2	-21.7	30.5	39.0	8.5	398.0	352.0	
5	111.359	V	56.4	-22.4	34.0	43.5	9.5	105.0	319.3	
6	111.366	H	50.8	-22.4	28.4	43.5	15.1	390.0	286.9	
7	148.444	V	63.6	-25.3	38.3	43.5	5.2	102.0	88.6	
8	148.461	H	52.1	-25.3	26.8	43.5	16.7	380.0	214.0	
9	324.880	H	49.3	-16.5	32.8	46.5	13.7	387.0	34.6	
10	400.419	H	51.2	-14.2	37.0	46.5	9.5	391.0	250.8	
11	401.753	V	53.3	-14.2	39.1	46.5	7.4	105.0	142.2	
12	742.500	H	48.3	-6.4	41.9	46.5	4.6	399.0	195.8	
13	742.586	V	47.8	-6.4	41.4	46.5	5.1	110.0	159.3	

- IC Regulation ICES-003 Issue 7

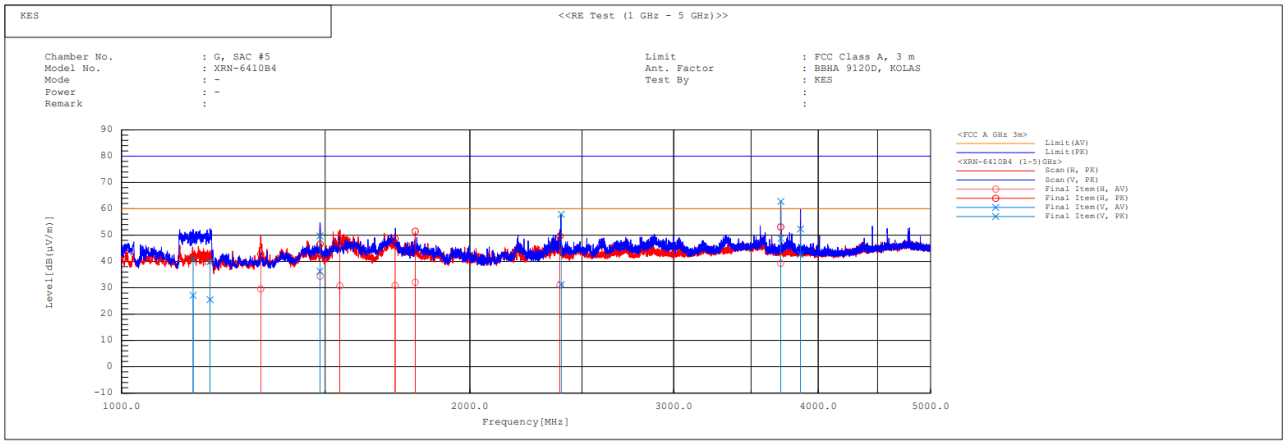


Final Result

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	31.819	V	57.8	-25.0	32.8	40.0	7.2	107.0	300.4	
2	32.546	V	58.3	-25.0	33.3	40.0	6.7	162.0	71.5	
3	42.004	H	46.5	-21.9	24.6	40.0	15.4	386.0	34.6	
4	42.853	V	52.2	-21.7	30.5	40.0	9.5	398.0	352.0	
5	111.359	V	56.4	-22.4	34.0	43.5	9.5	105.0	319.3	
6	111.366	H	50.8	-22.4	28.4	43.5	15.1	390.0	286.9	
7	148.444	V	63.6	-25.3	38.3	43.5	5.2	102.0	88.6	
8	148.461	H	52.1	-25.3	26.8	43.5	16.7	380.0	214.0	
9	324.880	H	49.3	-16.5	32.8	47.0	14.2	387.0	34.6	
10	400.419	H	51.2	-14.2	37.0	47.0	10.0	391.0	250.8	
11	401.753	V	53.3	-14.2	39.1	47.0	7.9	105.0	142.2	
12	742.500	H	48.3	-6.4	41.9	47.0	5.1	399.0	195.8	
13	742.586	V	47.8	-6.4	41.4	47.0	5.6	110.0	159.3	

♦ Calculation – SAC #4(10 m)
Result(QP) [dB(㎶/m)] = (Reading(QP)[dB(㎶)] + c.f[dB(1/m)]
Margin(QP)[dB] = Limit[dB(㎶/m)] - Result(QP) [dB(㎶/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 Electric Field Emissions(Above 1 ㎓)



Final Result

No.	Range	Frequency [MHz]	Pol	Reading AV [dB(μV)]	Reading PK [dB(μV)]	c.f [dB(1/m)]	Result AV [dB(μV/m)]	Result PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]	Rema
1	Range1	1153.150	V	34.0	47.8	-6.9	27.1	40.9	60.0	80.0	32.9	39.1	152.0	224.9	
2	Range1	1192.678	V	32.2	46.6	-6.7	25.5	39.9	60.0	80.0	34.5	40.1	139.0	224.9	
3	Range1	1319.247	H	35.5	48.7	-5.9	29.6	42.8	60.0	80.0	30.4	37.2	109.0	338.1	
4	Range1	1484.400	V	41.4	54.8	-5.1	36.3	49.7	60.0	80.0	23.7	30.3	101.0	316.0	
5	Range1	1484.800	H	39.5	51.7	-5.1	34.4	46.6	60.0	80.0	25.6	33.4	192.0	317.0	
6	Range1	1544.170	H	35.6	51.5	-4.9	30.7	46.6	60.0	80.0	29.3	33.4	103.0	293.5	
7	Range1	1723.600	H	34.9	52.6	-4.0	30.9	48.6	60.0	80.0	29.1	31.4	197.0	188.3	
8	Range1	1794.150	H	35.8	55.2	-3.7	32.1	51.5	60.0	80.0	27.9	28.5	187.0	55.8	
9	Range1	2392.262	H	32.5	51.1	-1.5	31.0	49.6	60.0	80.0	29.0	30.4	195.0	284.2	
10	Range1	2398.300	V	32.6	59.3	-1.4	31.2	57.9	60.0	80.0	28.8	22.1	106.0	293.8	
11	Range1	3712.000	H	36.9	50.7	2.4	39.3	53.1	60.0	80.0	20.7	26.9	111.0	338.1	
12	Range1	3712.400	V	46.3	60.4	2.4	48.7	62.8	60.0	80.0	11.3	17.2	161.0	4.7	
13	Range1	3860.929	V	39.9	49.5	2.8	42.7	52.3	60.0	80.0	17.3	27.7	114.0	324.6	

♦ Calculation

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

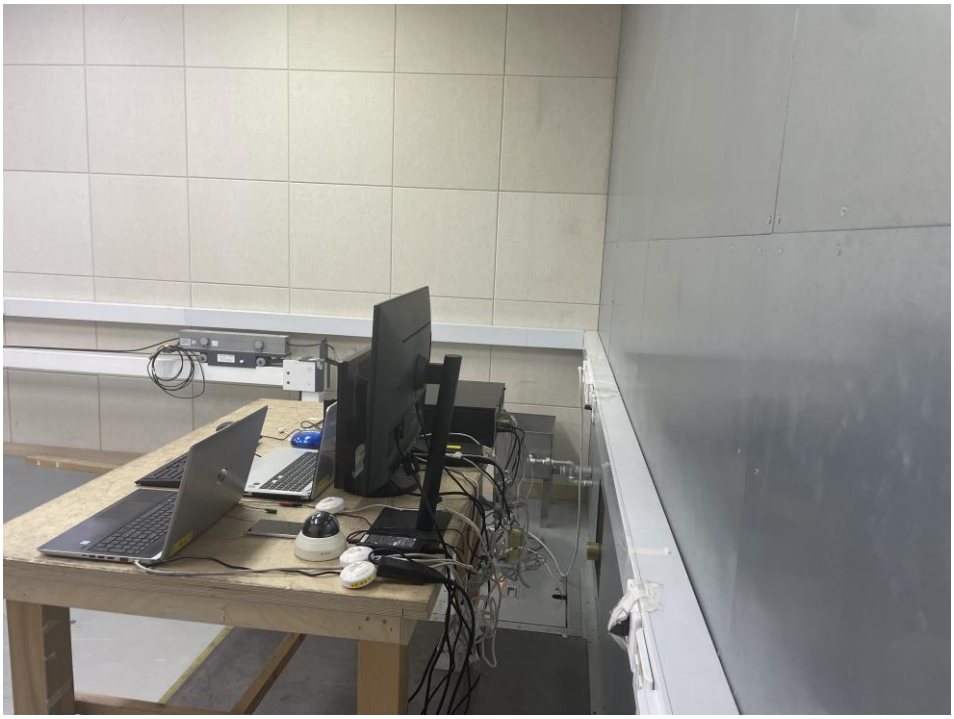
Margin(PK/CAV)[dB] = Limit[dB(μV/m)] - Result(PK/CAV) [dB(μV/m)]

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

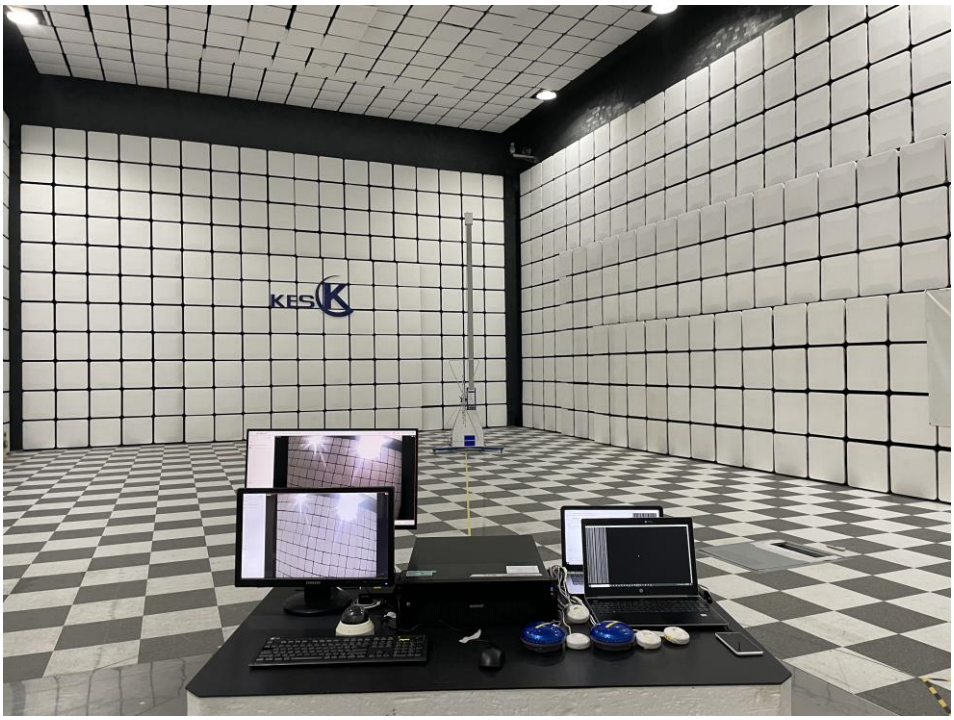
Limit(QP) : Limit value, c.f : (ANT Factor + Cable Loss - Preamp Factor), Margin: Margin value

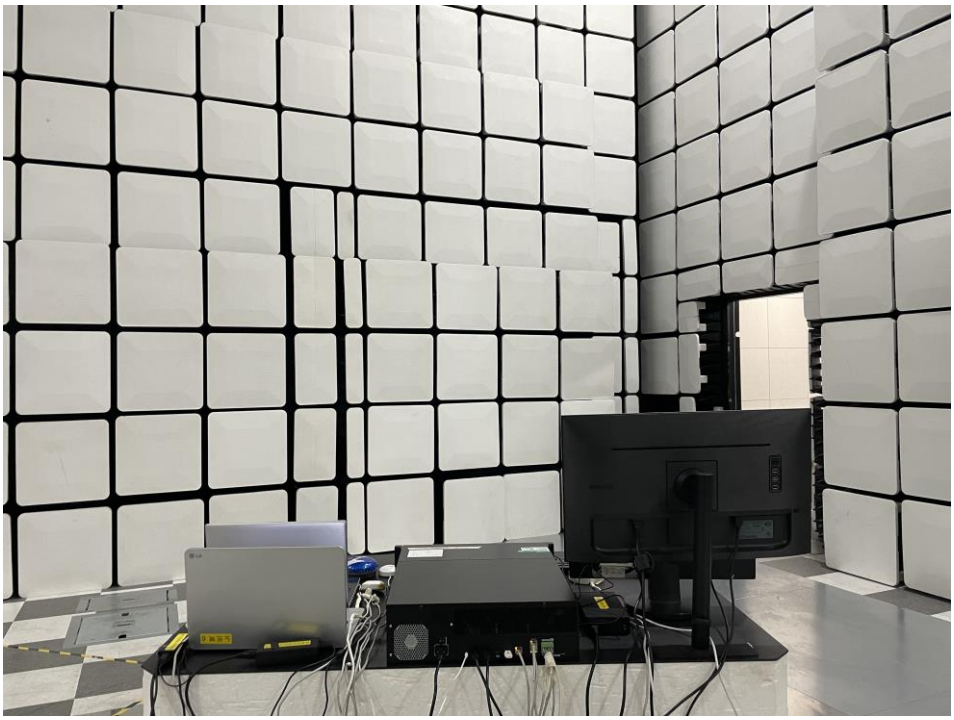
Test Setup Photos and Configuration

Conducted Emissions at Mains Power Ports

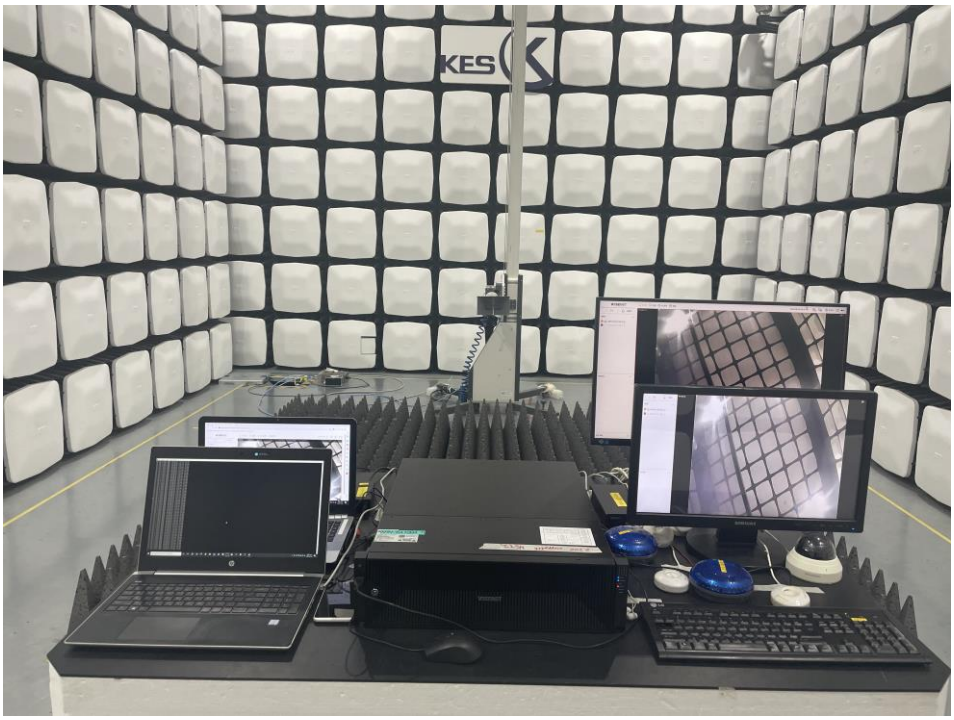


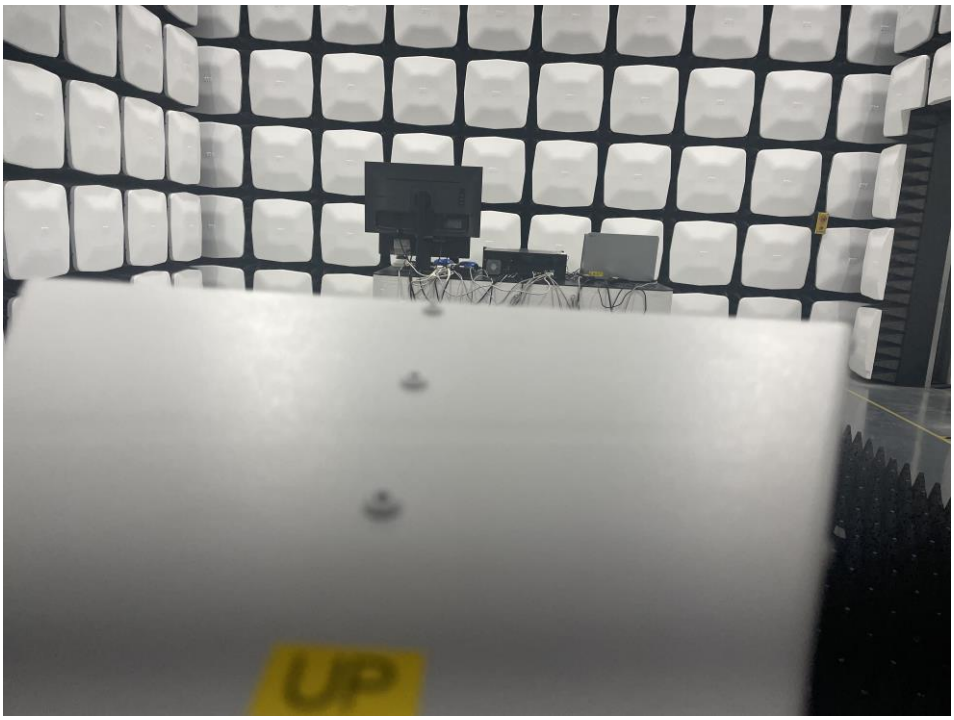
Radiated Electric Field Emissions(Below 1 ㎓)





Radiated Electric Field Emissions(Above 1 ㎓)





EUT External Photographs

(Top)

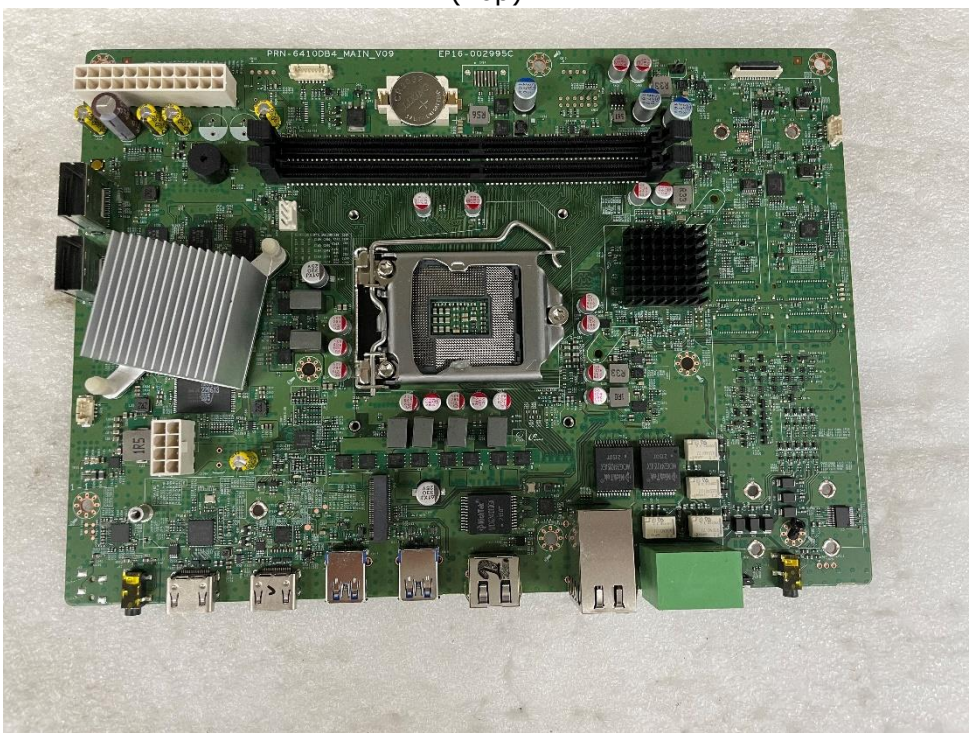
(Bottom)

EUT Internal Photographs

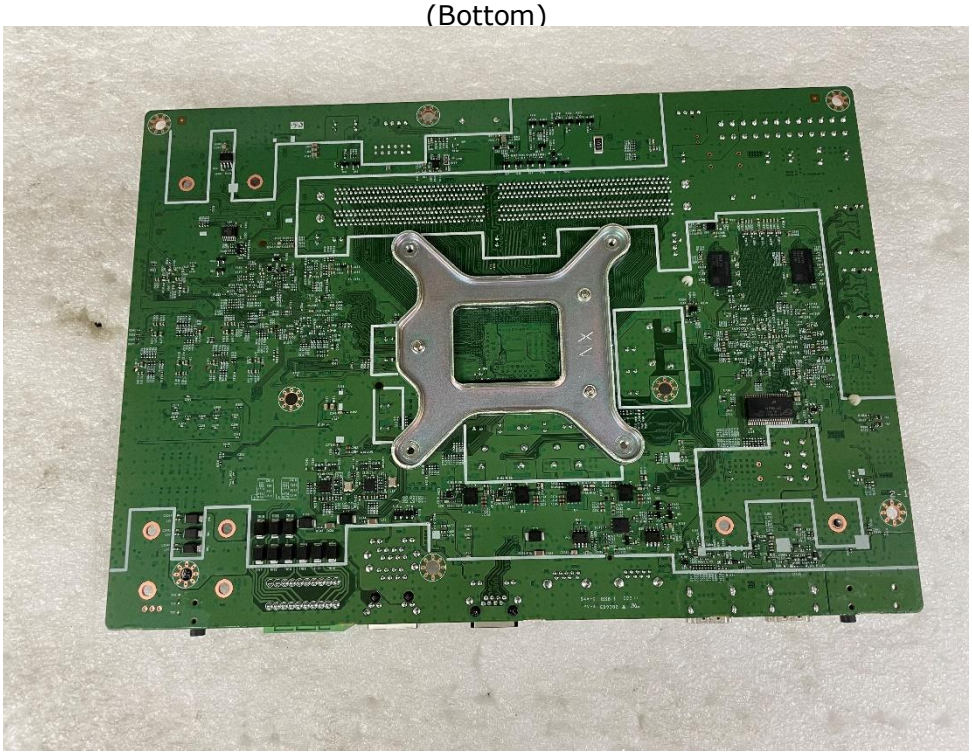
(Internal View)

EUT Internal View – Main Board

(Top)

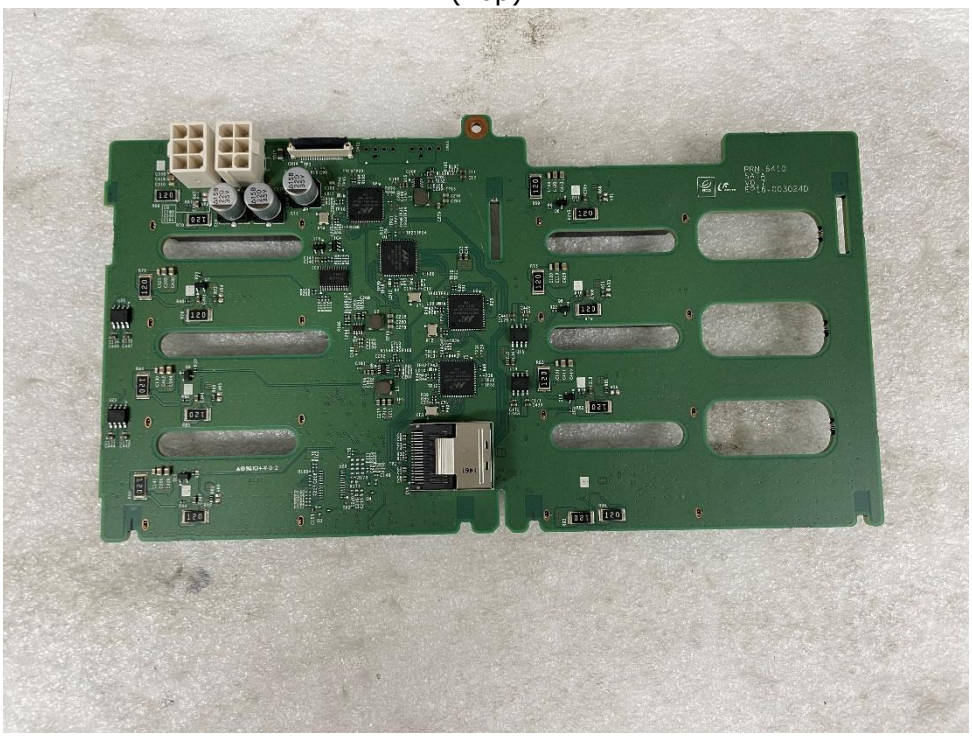


(Bottom)

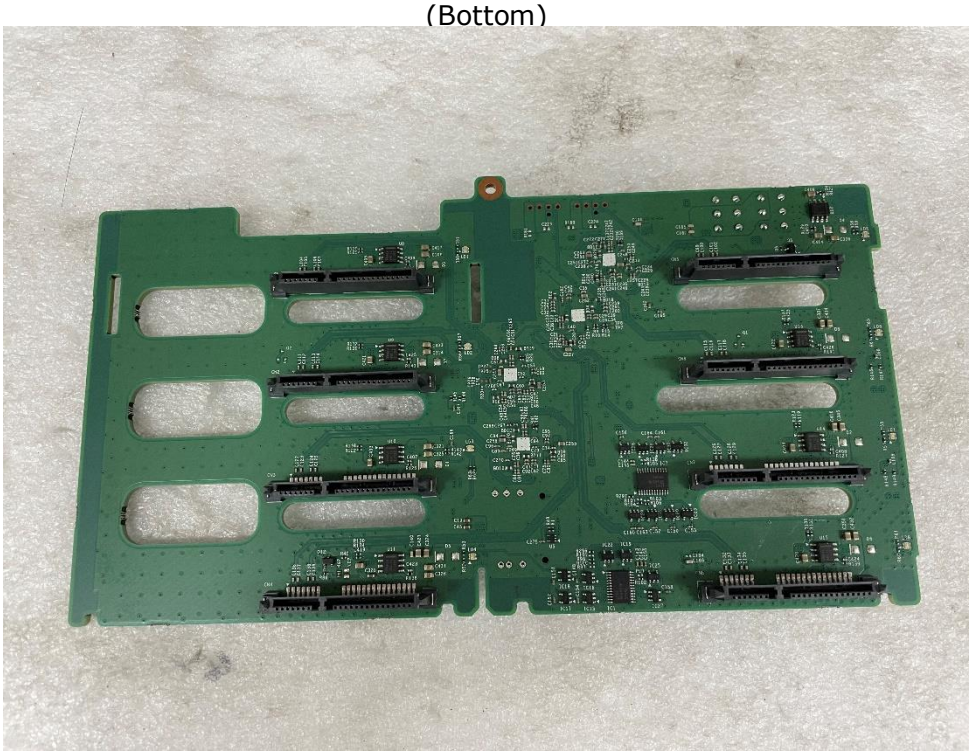


EUT Internal View – Sub Board 1

(Top)

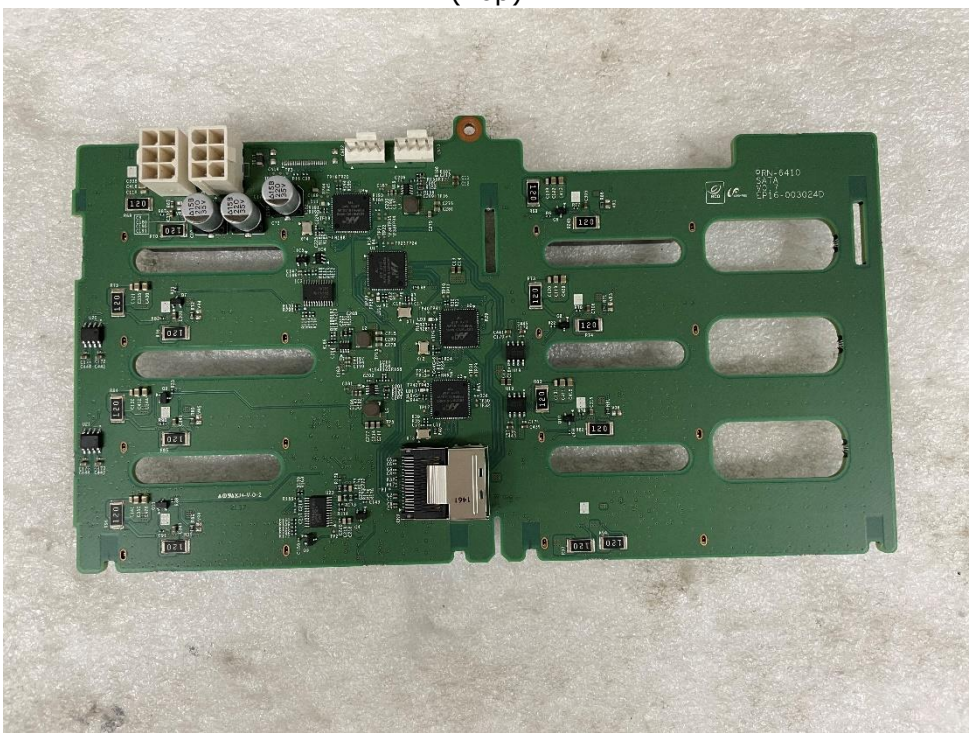


(Bottom)

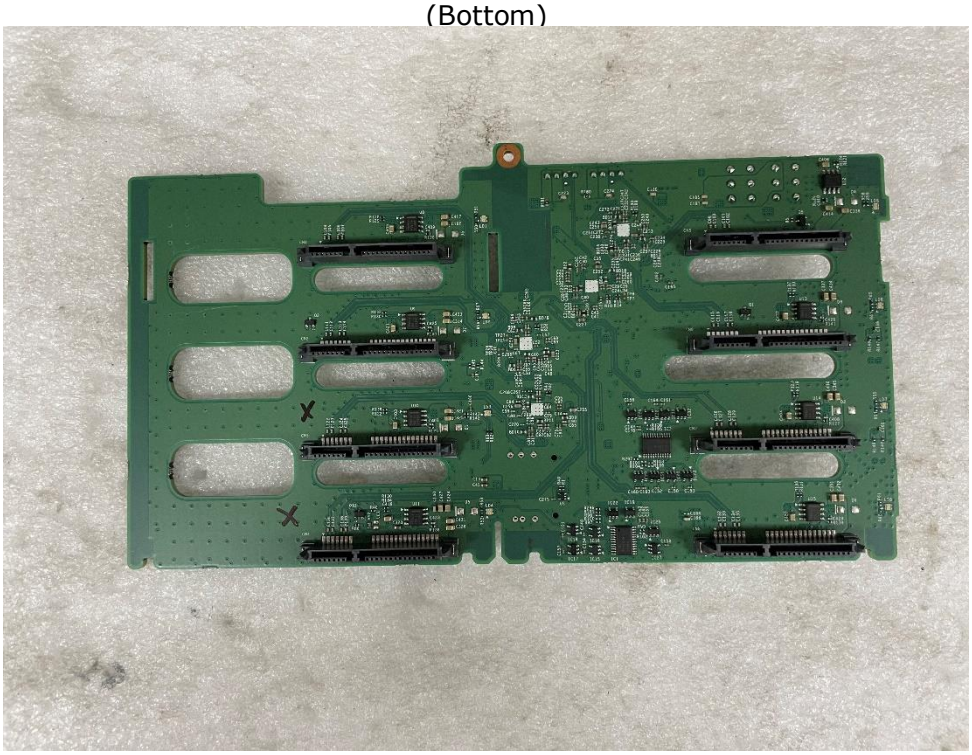


EUT Internal View – Sub Board 2

(Top)



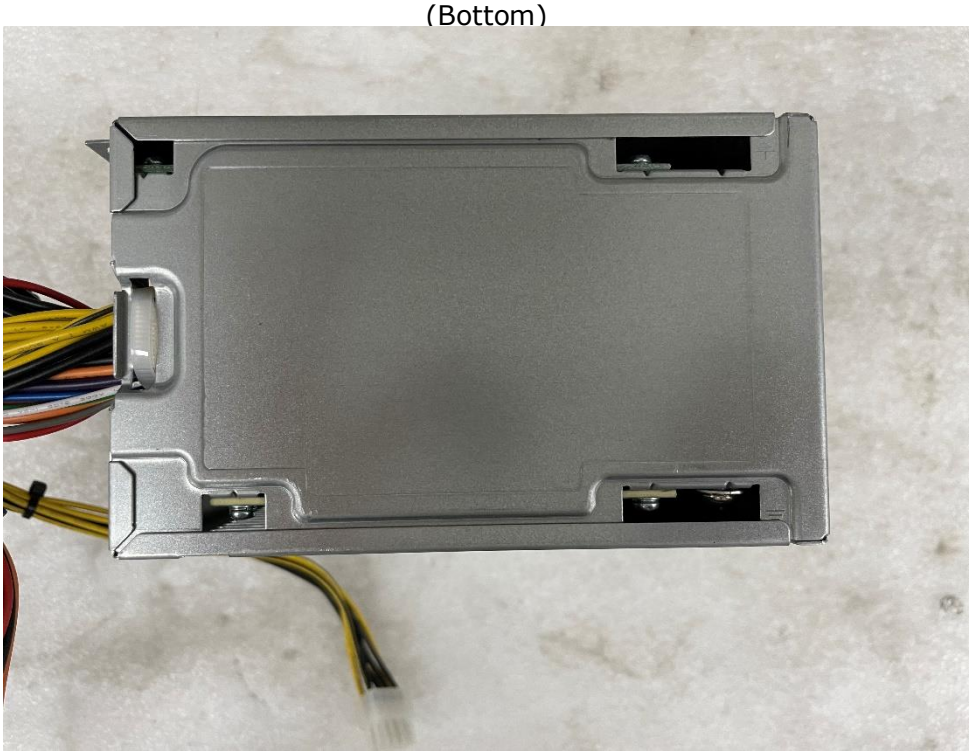
(Bottom)



EUT Internal View – Power

(Top)

(Bottom)



(Label)

EUT Internal View – CPU

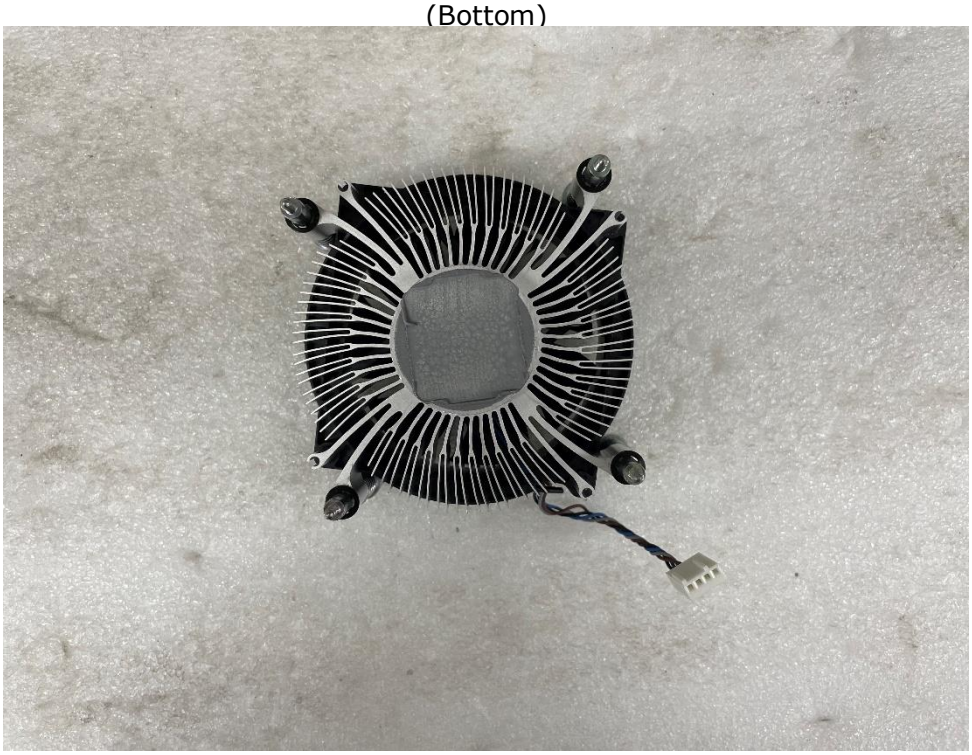
(Top)

(Bottom)

EUT Internal View – CPU Cooler

(Top)

(Bottom)



EUT Internal View – RAM 1

(Top)

(Bottom)

EUT Internal View – RAM 2

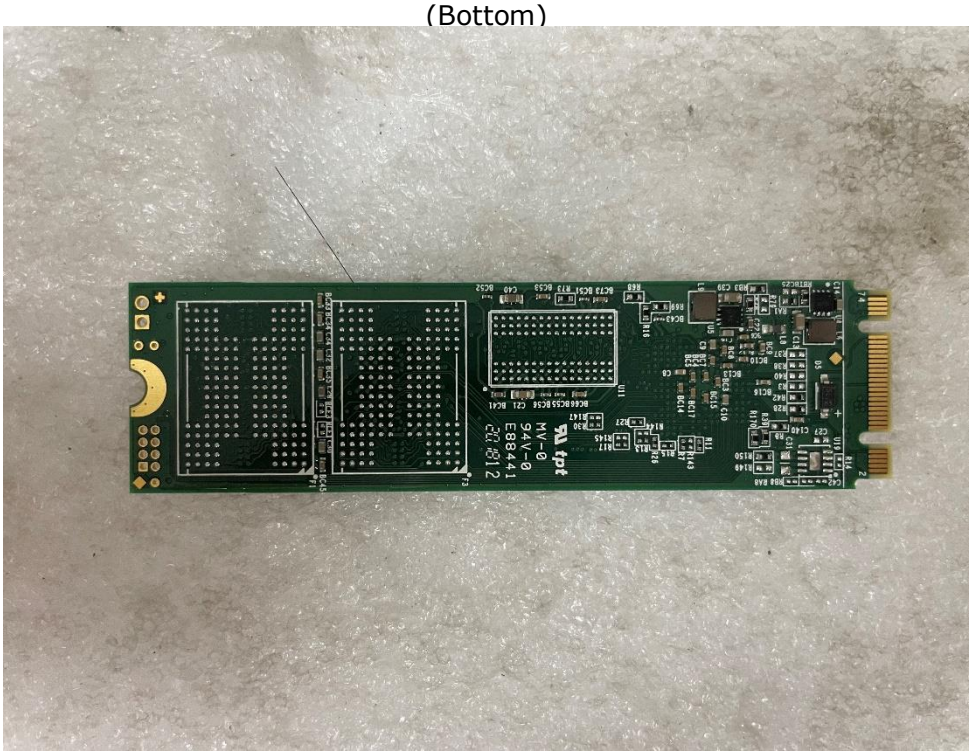
(Top)

(Bottom)

EUT Internal View – SSD

(Top)

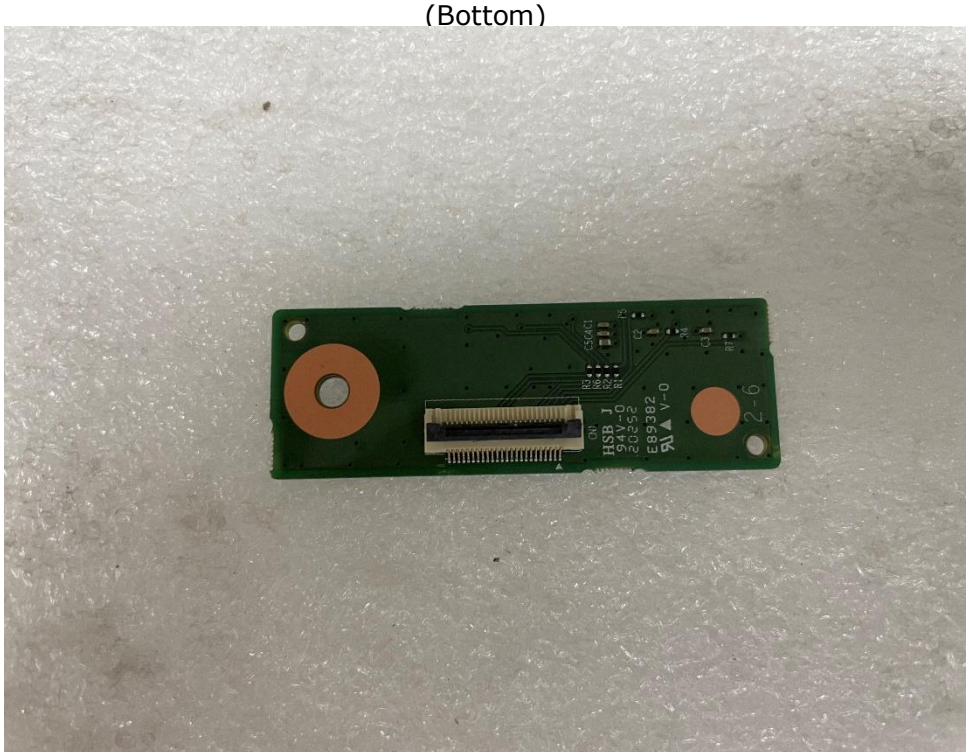
(Bottom)



EUT Internal View – LED Board

(Top)

(Bottom)



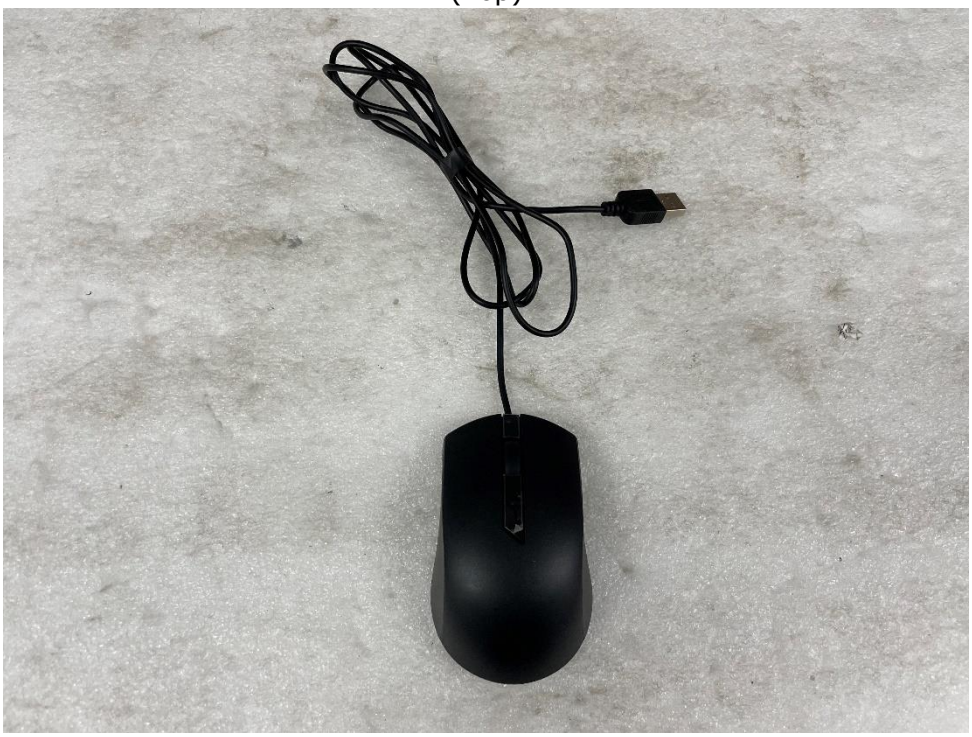
EUT Internal View – USB Board

(Top)

(Bottom)

EUT Internal View – MOUSE

(Top)



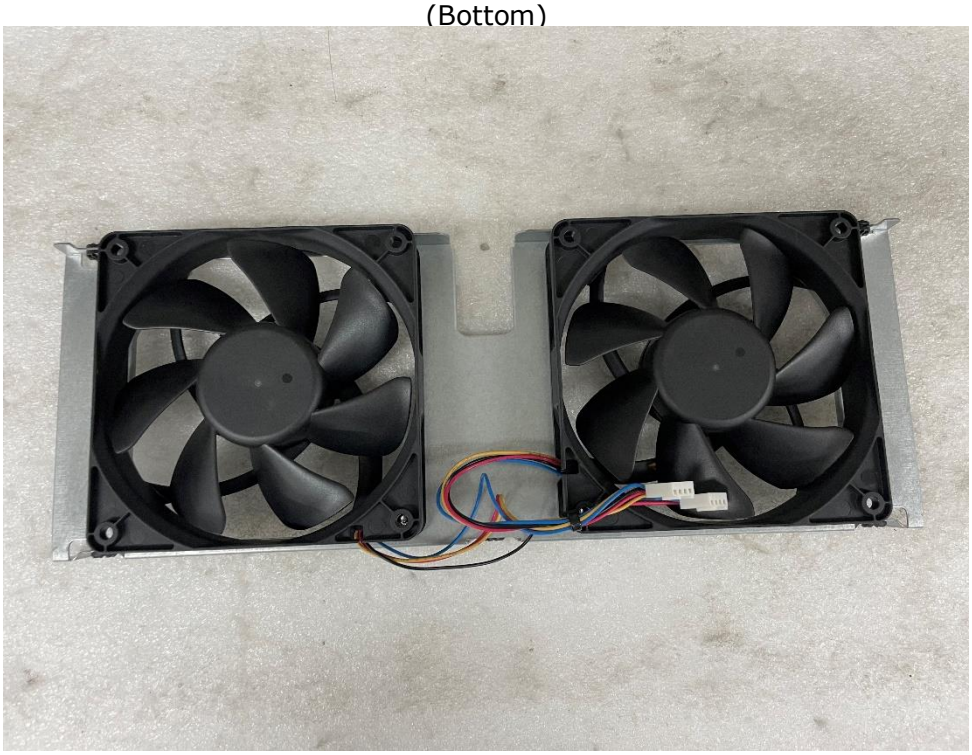
(Bottom)

(Label)

EUT Internal View – COOLER

(Top)

(Bottom)



(Label)

Label Photographs

FCC Label

Hanwha Vision Co., Ltd

XRN-6410B4

IC Label

CAN ICES-003(A) / NMB-003(A)

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.