

**KES Co., Ltd.**

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0062

Page (1) of (47)

EMC TEST REPORT For RCM

Test Report No. : KES-EM-21T0062
Date of Issue : Jan. 28, 2021
Product name : MONITOR
Model/Type No. : SMT-3233
Variant Model : -
Applicant : Hanwha Techwin Co., Ltd.
Applicant Address : 6, Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si,
Gyeonggi-do, Republic of Korea
Manufacturer : Weihai Daewoo Electronics Co., Ltd.
Manufacturer Address : No.26, Hongkong Road, Economic & Technical Development
Zone, 264205 Weihai City, Shandong Province, China
Date of Receipt : Jan. 11, 2021
Test date : Jan. 27, 2021 ~ Jan. 20, 2021
Test Results : ☒ **In Compliance** ☐ **Not in Compliance**

Tested by

Dae Soo, Kim
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.

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

**KES Co., Ltd.**

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0062

Page (2) of (47)

REPORT REVISION HISTORY

Date	Test Report No.	Revision History
Jan. 28, 2021	KES-EM-21T0062	Issued

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd. This document may be altered or revised by KES Co., Ltd. personnel only, and shall be noted in the revision section of the document. Any alteration of this document not carried out by KES Co., Ltd. will constitute fraud and shall nullify the document.

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0062
Page (3) of (47)

TABLE OF CONTENTS

1.0	General Product Description.....	4
1.1	Test Voltage & Frequency	5
1.2	Variant Model Differences	5
1.3	Device Modifications	5
1.4	Equipment Under Test.....	5
1.5	Support Equipments	5
1.6	External I/O Cabling	6
1.7	EUT Operating Mode(s)	6
1.8	Configuration.....	7
1.9	Remarks when standards applied	8
1.10	Calibration Details of Equipment Used for Measurement.....	8
1.11	Test Facility	8
1.12	Laboratory Accreditations and Listings	8
2.0	Test Regulations.....	9
2.1	Conducted Emissions at Mains Power Ports	11
2.2	Conducted Emissions at Telecommunication Ports.....	12
2.3	Radiated Electric Field Emissions(Below 1 GHz)	13
2.4	Radiated Electric Field Emissions(Above 1 GHz)	14
APPENDIX A – TEST DATA.....		15
Conducted Emissions at Mains Power Ports.....		15
Conducted Emissions at Telecommunication Ports		23
Radiated Electric Field Emissions(Below 1 GHz)		24
Radiated Electric Field Emissions(Above 1 GHz)		28
Test Setup Photos and Configuration		32
Conducted Emissions at Mains Power Ports.....		32
Conducted Emissions at Telecommunication Ports		33
Radiated Electric Field Emissions(Below 1 GHz)		34
Radiated Electric Field Emissions(Above 1 GHz)		35
EUT External Photographs		36
EUT Internal Photographs		37

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



1.0 General Product Description

Main Specifications of EUT are:

Screen Size		31.5"
Max. Resolution		1,920 x 1,080
Brightness		350cd/m ²
Contrast Ratio		1200:1
Aspect Ratio		16:9
Viewing Angle (H/V)		178°/178°
Display Color		16.7 million
Response Time		8ms(G to G)
Video System		NTSC/PAL
Panel Life		30,000 hours
Filter Type		3D combfilter
Interface		
Video	Connector	VGA, DVI, HDMI, BNC
	Connector	Analog D-sub(15 pin), DVI-D
RGB/DVI	Input Signal	0.7Vp-p±5%
	Available Format	640 x 480@60Hz/66Hz/72Hz/75Hz (VGA), 720 x 400@70Hz, 800 x 600@56Hz/60Hz/72Hz/75Hz (SVGA), 832 x 624@75Hz, 1,024 x 768@60Hz/70Hz/75Hz (XGA), 1,152 x 864@75Hz, 1,280 x 720@60Hz, 1,280 x 800@60Hz, 1,280 x 1,024@60Hz/75Hz (SXGA), 1,360 x 768@60Hz, 1,440 x 900@60Hz, 1,600 x 900@60Hz, 1,680 x 1,050@60Hz, 1,920 x 1,080@60Hz
HDMI	Connector	HDMI
	Available Format	640 x 480p@60Hz, 720 x 480p@60Hz, 720 x 576p@50Hz, 1,280 x 720p@50Hz/60Hz, 1,920 x 1,080i@60Hz, 1,920 x 1,080p@60Hz
Audio	Connector	3.5mm Mini Phone Jack
	Output Signal	Loop-through line level(PC only), Speakers : 2x2W
Application Support		Remote Controller
On Screen Display (OSD)		
Functions		VESA™ DPM Compatible
Language		Chinese(Simplified), English, French, German, Spanish,Dutch,Russian,Arabic
General		
Electrical	Input Voltage	AC 100 ~ 240V(50/60Hz)
	Power Consumption	<50W
Environmental	Operating Temperature	0 ~ +40°C (+32°F ~ +104°F)
	Operating Humidity	10% ~ 80% (non-condensing)
Mechanical	Dimensions with Stand	TBD
	Dimensions without Stand	727.7 x 433.2 x 48.8mm
	Bezel Size	14.5/25mm(Top/Bottom)
	Weight	TBD
	Cabinet Color	Black
	Rack Mount	N/A
	VESA Mounts Interface	100 x 100mm
Accessory		STAND

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



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

Not applicable

1.3 Device Modifications

Not applicable

1.4 Equipment Under Test

Description	Model Number	Serial Number	Manufacturer	Remarks
MONITOR	SMT-3233	-	Weihai Daewoo Electronics Co.,Ltd.	EUT

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
CAMERA	SCB-5000N/EX	-	SAMSUNG	-
CAMERA AC/DC ADAPTER	DAD12050DKA	-	Dream Electronics Co., Ltd.	-
PC	DM500T62	-	SMASUMG	-
MOUSE	1113	-	Microsoft	-
SPEAKER	BR1000A Cuve Black 2	-	DONGGUAN EDIFIER TECHNOLOGY Co., Ltd	-
MONITOR	SMT-2233	ZC6U67VH500194D	Weihai Daewoo Electronics Co., Ltd.	-
USB MEMORY	-	-	Transcend	32 GB

**KES Co., Ltd.**

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0062

Page (6) of (47)

1.6 External I/O Cabling

■ HDMI / DVI / VGA / BNC MODE

Start		END		Cable Spec.	
Description	I/O Port	Description	I/O Port	Length	Shield
MONITOR (EUT)	HDMI	PC	HDMI	1.5	S
	DVI		DVI	1.8	S
	VGA		VGA	1.4	S
	3.5 mm	SPEAKER	3.5 mm	1.6	U
	BNC IN	CAMERA	BNC	2.0	S
	BNC OUT	MONITOR	BNC	1.8	S
	USB	USB MEMORY	USB	-	-
PC	USB	MOUSE	USB	1.6	U

* Unshielded=U, Shielded=S

1.7 EUT Operating Mode(s)

Test Mode	operating
Operation mode	Normal operation was confirmed by executing the color bar and 1 kHz tone.

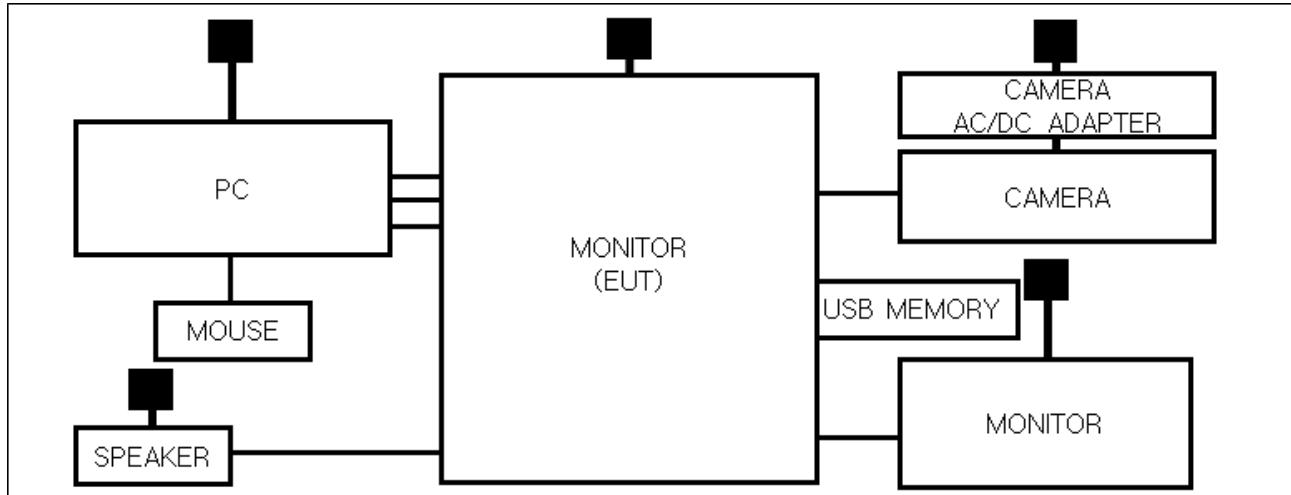
EUT Test operating S/W		
Name	Version	Manufacture Company
-	-	-

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

1.8 Configuration

■ AC Main
 □ DC Main

■ HDMI / DVI / VGA / BNC MODE



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
 The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
 The authenticity of the test report, contact shchoi@kes.co.kr

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, Yeosu-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) 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, 10 m Open Area and Conducted test site to perform FCC Part 15/18 measurements.	 KR0100
Canada	ISED	3 m & 10 m Semi-Anechoic Chamber and Conducted test site	 23298-1
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	 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) 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 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



KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0062

Page (10) of (47)

-
- | | | |
|--|---|----------------------------------|
| ☐ VCCI-CISPR 32:2016 | ☐ Class A | ☐ Class B |
| ☒ AS/NZS CISPR32:2015 | ☒ 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 | | |

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

**KES Co., Ltd.**

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0062

Page (11) of (47)

2.1 Conducted Emissions at Mains Power Ports

Test Date

Jan. 18, 2021

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	01, 15, 2022
☒	LISN	ENV216	R & S	101787	12, 29, 2021
☒	LISN	ESH2-Z5	R & S	100450	12, 29, 2021
☒	PULSE LIMITER	ESH3-Z2	R & S	101915	12, 29, 2021

Test Conditions

Temperature: 23,3 °C
Relative Humidity: 45,9 % 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

RemarksSee Appendix A for test data.

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

**KES Co., Ltd.**

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0062

Page (12) of (47)

2.2 Conducted Emissions at Telecommunication Ports

Test Date

N/A

Test Location

Electro wave Shieldroom

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	01, 15, 2022
☐	LISN	ENV216	R & S	101787	12, 29, 2021
☐	LISN	ESH2-Z5	R & S	100450	12, 29, 2021
☐	PULSE LIMITER	ESH3-Z2	R & S	101915	12, 29, 2021
☐	8-WIRE ISN CAT3,5	ENY81	R & S	100174	12, 30, 2021
☐	8-WIRE ISN CAT6	ENY81-CAT6	R & S	101665	12, 30, 2021
☐	ISN	ISN S8	SCHWARZBECK	ISN-S8-0019	03, 10, 2021
☐	CDN	CDNS502A	TESEQ	40431	12, 29, 2021

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

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

**KES Co., Ltd.**

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0062

Page (13) of (47)

2.3 Radiated Electric Field Emissions(Below 1 GHz)

Test Date

Jan. 19, 2021

Test Location☐ OPEN AREA TEST SITE #2☒ SEMI ANECHOIC CHAMBER #4(10 m)**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	04, 01, 2021
☒	AMPLIFIER	SCU 01	R & S	100603	11, 25, 2021
☒	TRILOG-BROADBAND ANTENNA	VULB9163	Schwarzbeck	715	12, 08, 2022
☒	ATTENUATOR	8491A	HP	32173	03, 10, 2021

Test Conditions

Temperature: 23,2 °C

Relative Humidity: 46,4 % 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

RemarksSee Appendix A for test data.

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

**KES Co., Ltd.**

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0062

Page (14) of (47)

2.4 Radiated Electric Field Emissions(Above 1 GHz)

Test Date

Jan. 20, 2021

Test Location

SEMI ANECHOIC CHAMBER #3

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	ESR7	R & S	101190	08, 05, 2021
☒	PREAMPLIFIER	8449B	AGILENT	3008A01967	04, 20, 2021
☒	DOUBLE RIDGED HORN ANTENNA	SAS-571	A.H.SYSTEM,INC	781	03, 11, 2021

Test Conditions

Temperature: 22,7 °C
Relative Humidity: 47,1 % 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

RemarksSee Appendix A for test data.

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

APPENDIX A – TEST DATA

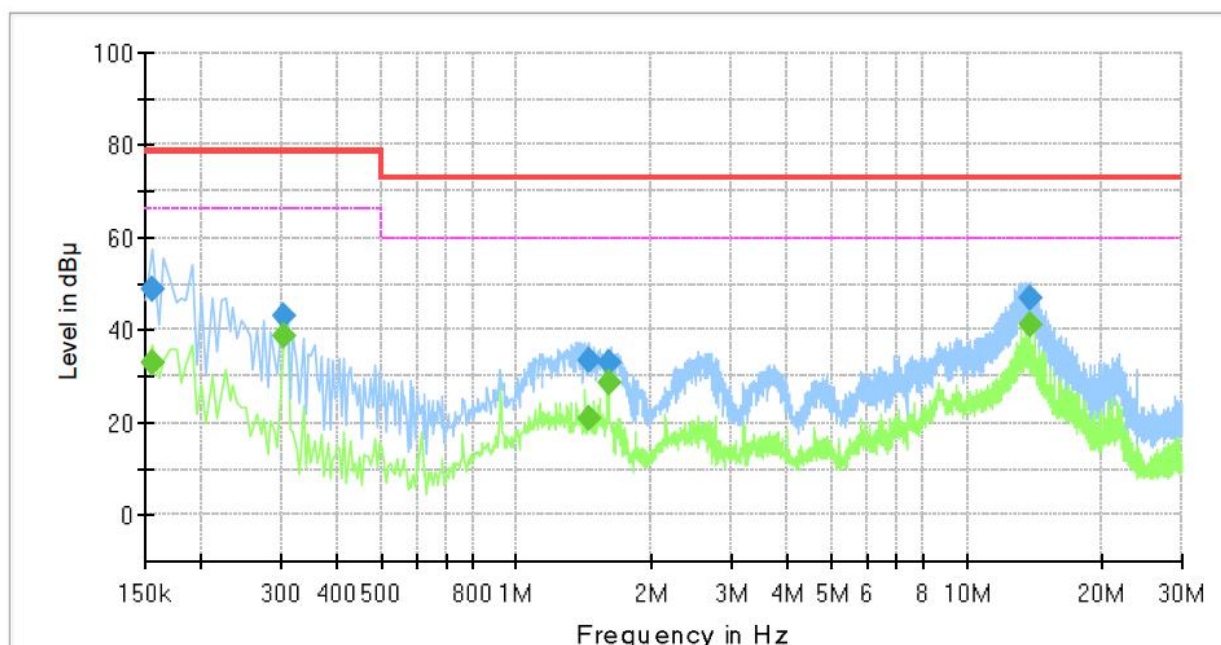
Conducted Emissions at Mains Power Ports

■ HDMI MODE

HOT LINE

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-3233
Phase:	H
Mode:	240 V 50 Hz_HDMI
Operator Name:	KES



Final Result

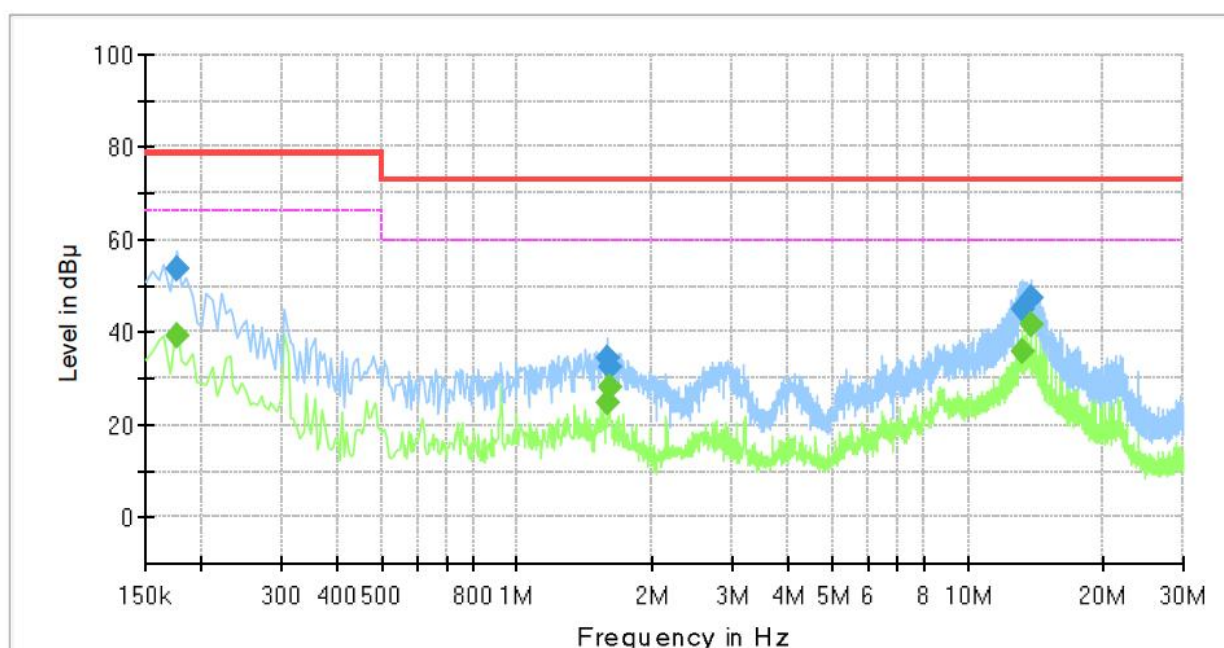
Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.155000	---	32.88	66.00	33.12	1000.0	9.000	L1	19.4
0.155000	49.06	---	79.00	29.94	1000.0	9.000	L1	19.4
0.305000	---	38.61	66.00	27.39	1000.0	9.000	L1	19.5
0.305000	43.00	---	79.00	36.00	1000.0	9.000	L1	19.5
1.440000	---	20.91	60.00	39.09	1000.0	9.000	L1	20.1
1.440000	33.43	---	73.00	39.57	1000.0	9.000	L1	20.1
1.600000	---	28.72	60.00	31.28	1000.0	9.000	L1	20.1
1.600000	33.02	---	73.00	39.98	1000.0	9.000	L1	20.1
13.800000	---	40.92	60.00	19.08	1000.0	9.000	L1	19.9
13.800000	46.77	---	73.00	26.23	1000.0	9.000	L1	19.9

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
 The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
 The authenticity of the test report, contact shchoi@kes.co.kr

NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-3233
Phase:	N
Mode:	240 V 50 Hz_HDMI
Operator Name:	KES



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.175000	---	39.29	66.00	26.71	1000.0	9.000	N	19.4
0.175000	53.58	---	79.00	25.42	1000.0	9.000	N	19.4
1.585000	---	24.54	60.00	35.46	1000.0	9.000	N	20.1
1.585000	34.27	---	73.00	38.73	1000.0	9.000	N	20.1
1.600000	---	28.15	60.00	31.85	1000.0	9.000	N	20.1
1.600000	32.69	---	73.00	40.31	1000.0	9.000	N	20.1
13.255000	---	35.67	60.00	24.33	1000.0	9.000	N	19.9
13.255000	45.13	---	73.00	27.87	1000.0	9.000	N	19.9
13.800000	---	41.82	60.00	18.18	1000.0	9.000	N	19.9
13.800000	47.37	---	73.00	25.63	1000.0	9.000	N	19.9

■ DVI MODE
HOT LINE
Common Information

Test Description:

Model No.:

Phase:

Mode:

Operator Name:

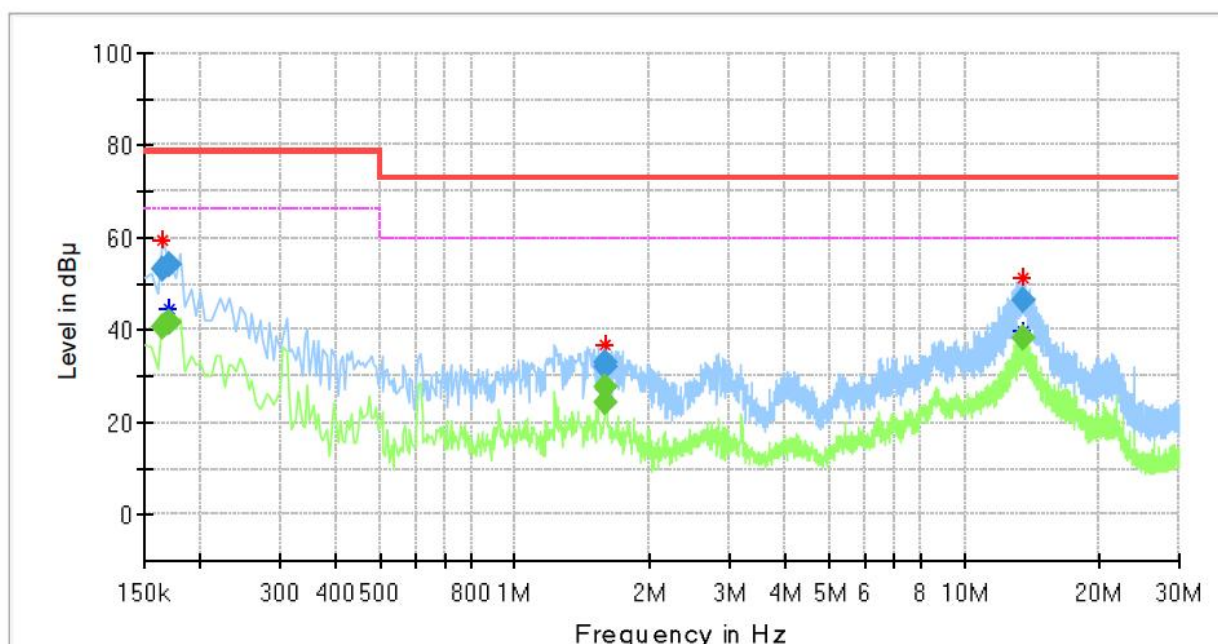
Conducted Emission

SMT-3233

N

240 V 50 Hz_DVI

KES


Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.165000	---	40.44	66.00	25.56	1000.0	9.000	N	19.4
0.165000	53.44	---	79.00	25.56	1000.0	9.000	N	19.4
0.170000	---	41.57	66.00	24.43	1000.0	9.000	N	19.4
0.170000	54.00	---	79.00	25.00	1000.0	9.000	N	19.4
1.590000	---	24.38	60.00	35.62	1000.0	9.000	N	20.1
1.590000	32.92	---	73.00	40.08	1000.0	9.000	N	20.1
1.595000	---	27.58	60.00	32.42	1000.0	9.000	N	20.1
1.595000	32.15	---	73.00	40.85	1000.0	9.000	N	20.1
13.465000	---	38.33	60.00	21.67	1000.0	9.000	N	19.9
13.465000	46.50	---	73.00	26.50	1000.0	9.000	N	19.9

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.

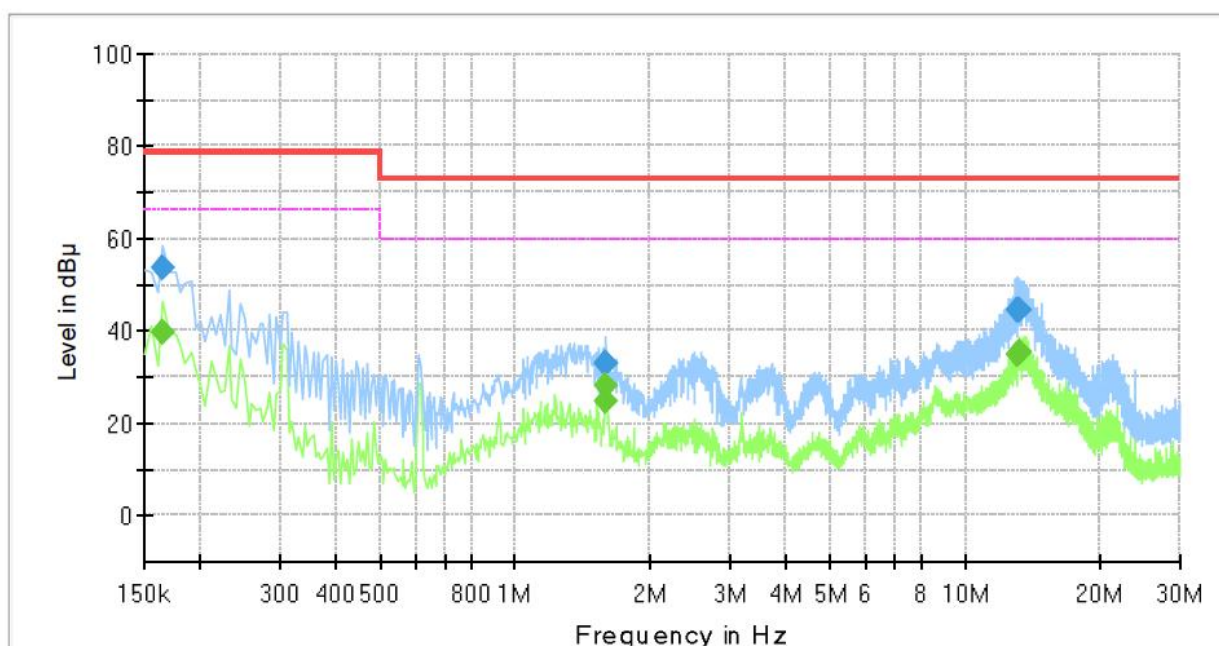
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.

The authenticity of the test report, contact shchoi@kes.co.kr

NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-3233
Phase:	H
Mode:	240 V 50 Hz_DVI
Operator Name:	KES



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.165000	---	39.91	66.00	26.09	1000.0	9.000	L1	19.4
0.165000	53.92	---	79.00	25.08	1000.0	9.000	L1	19.4
1.590000	---	24.85	60.00	35.15	1000.0	9.000	L1	20.1
1.590000	33.17	---	73.00	39.83	1000.0	9.000	L1	20.1
1.595000	---	28.28	60.00	31.72	1000.0	9.000	L1	20.1
1.595000	32.73	---	73.00	40.27	1000.0	9.000	L1	20.1
13.130000	---	34.71	60.00	25.29	1000.0	9.000	L1	19.9
13.130000	44.63	---	73.00	28.37	1000.0	9.000	L1	19.9
13.200000	---	35.32	60.00	24.68	1000.0	9.000	L1	19.9
13.200000	44.63	---	73.00	28.37	1000.0	9.000	L1	19.9



KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0062

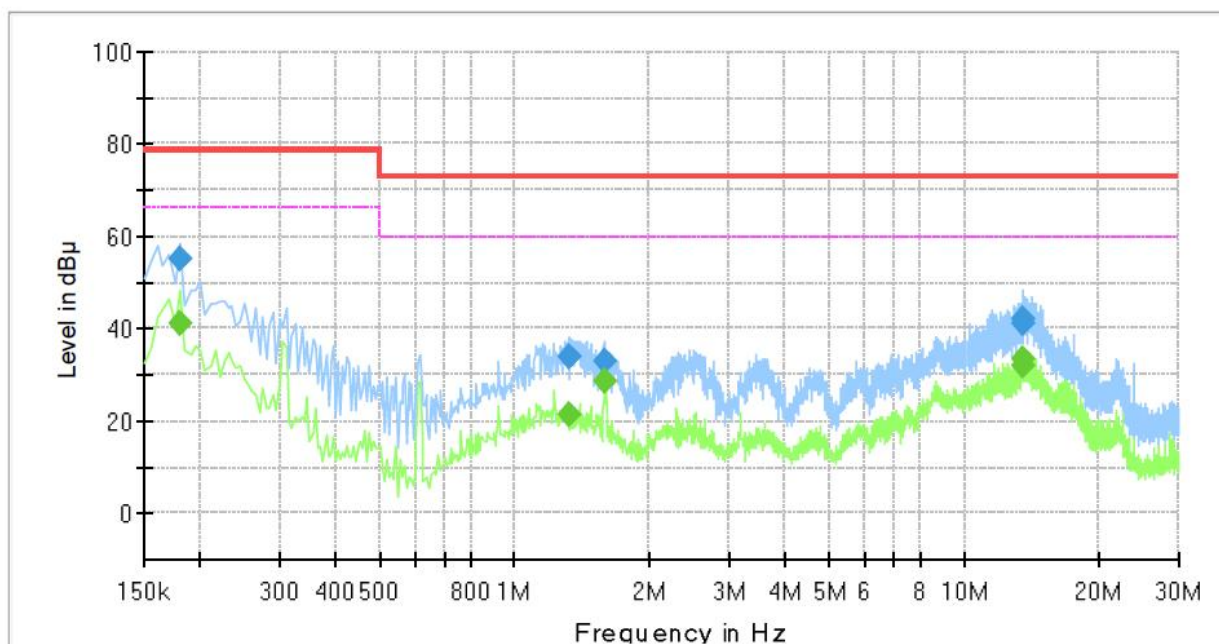
Page (19) of (47)

■ VGA MODE

HOT LINE

Common Information

Test Description: Conducted Emission
Model No.: SMT-3233
Phase: H
Mode: 240 V 50 Hz_VGA
Operator Name: KES



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.180000	---	41.00	66.00	25.00	1000.0	9.000	L1	19.4
0.180000	54.96	---	79.00	24.04	1000.0	9.000	L1	19.4
1.315000	---	21.18	60.00	38.82	1000.0	9.000	L1	20.1
1.315000	34.12	---	73.00	38.88	1000.0	9.000	L1	20.1
1.595000	---	28.67	60.00	31.33	1000.0	9.000	L1	20.1
1.595000	33.05	---	73.00	39.95	1000.0	9.000	L1	20.1
13.455000	---	33.54	60.00	26.46	1000.0	9.000	L1	19.9
13.455000	42.14	---	73.00	30.86	1000.0	9.000	L1	19.9
13.515000	---	32.06	60.00	27.94	1000.0	9.000	L1	19.9
13.515000	40.97	---	73.00	32.03	1000.0	9.000	L1	19.9

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



KES Co., Ltd.

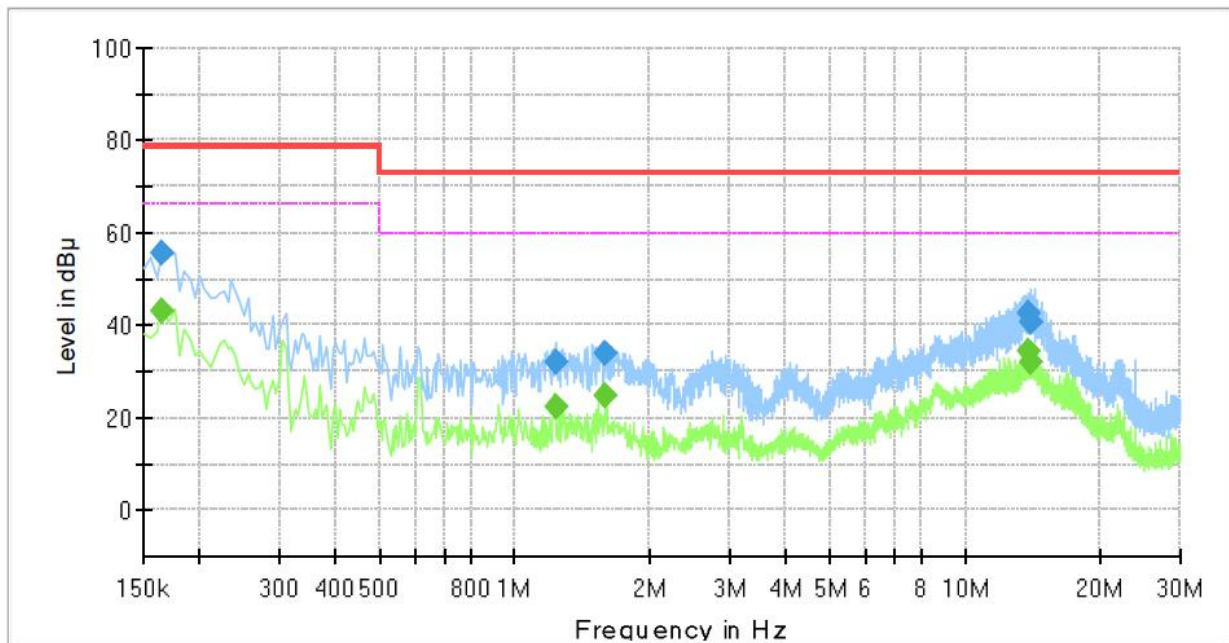
3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0062
Page (20) of (47)

NEUTRAL LINE

Common Information

Test Description: Conducted Emission
Model No.: SMT-3233
Phase: N
Mode: 240 V 50 Hz_VGA
Operator Name: KES



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.165000	---	43.26	66.00	22.74	1000.0	9.000	N	19.4
0.165000	55.63	---	79.00	23.37	1000.0	9.000	N	19.4
1.230000	---	22.42	60.00	37.58	1000.0	9.000	N	20.0
1.230000	32.08	---	73.00	40.92	1000.0	9.000	N	20.0
1.585000	---	24.71	60.00	35.29	1000.0	9.000	N	20.1
1.585000	33.86	---	73.00	39.14	1000.0	9.000	N	20.1
13.790000	---	34.43	60.00	25.57	1000.0	9.000	N	19.9
13.790000	42.42	---	73.00	30.58	1000.0	9.000	N	19.9
13.980000	---	32.18	60.00	27.82	1000.0	9.000	N	19.9
13.980000	40.85	---	73.00	32.15	1000.0	9.000	N	19.9

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0062

Page (21) of (47)

■ BNC MODE

HOT LINE

Common Information

Test Description:

Model No.:

Phase:

Mode:

Operator Name:

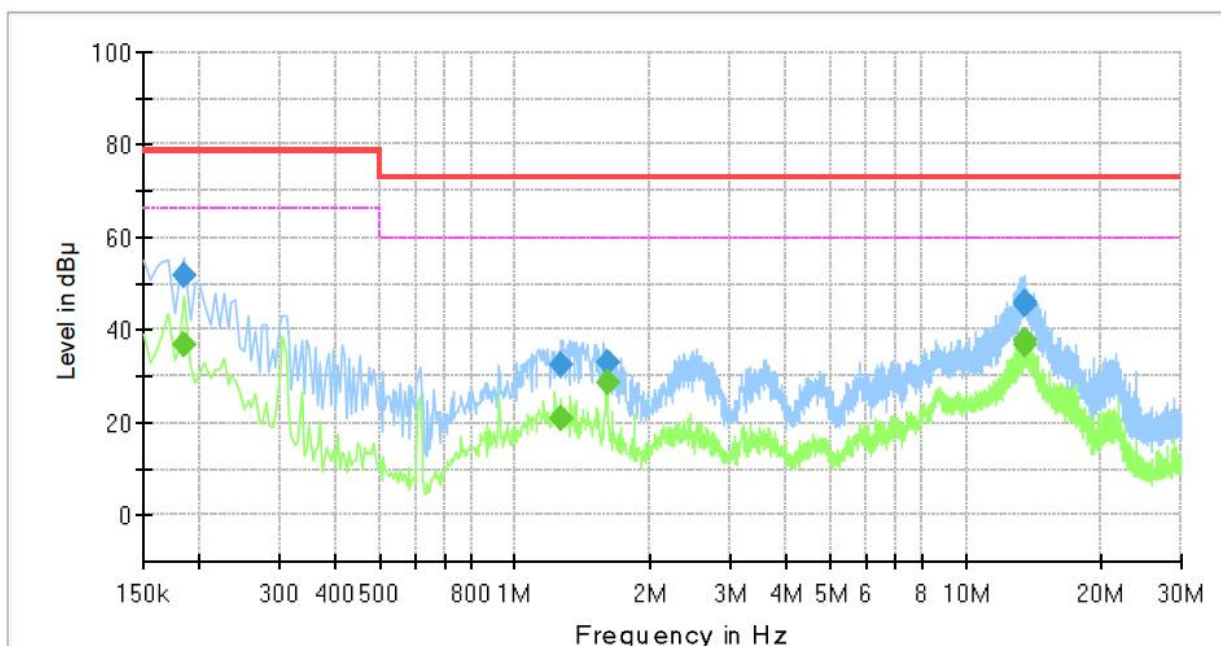
Conducted Emission

SMT-3233

H

240 V 50 Hz_BNC

KES



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.185000	---	36.91	66.00	29.09	1000.0	9.000	L1	19.4
0.185000	51.93	---	79.00	27.07	1000.0	9.000	L1	19.4
1.265000	---	20.96	60.00	39.04	1000.0	9.000	L1	20.0
1.265000	32.47	---	73.00	40.53	1000.0	9.000	L1	20.0
1.600000	---	28.43	60.00	31.57	1000.0	9.000	L1	20.1
1.600000	32.98	---	73.00	40.02	1000.0	9.000	L1	20.1
13.475000	---	37.97	60.00	22.03	1000.0	9.000	L1	19.9
13.475000	45.67	---	73.00	27.33	1000.0	9.000	L1	19.9
13.530000	---	36.93	60.00	23.07	1000.0	9.000	L1	19.9
13.530000	46.02	---	73.00	26.98	1000.0	9.000	L1	19.9

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.

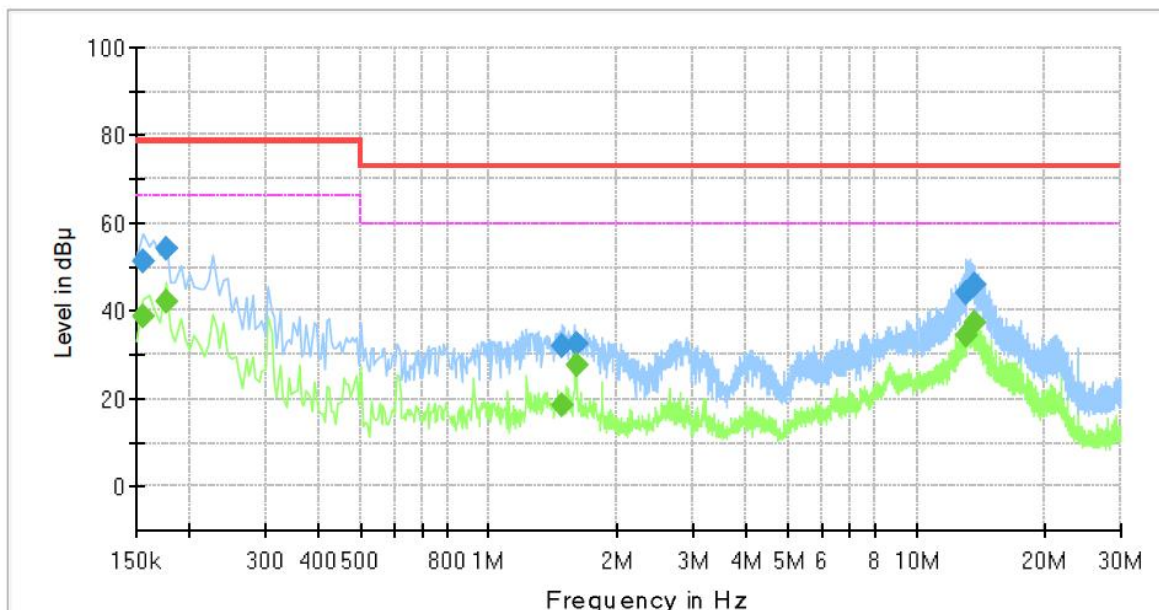
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.

The authenticity of the test report, contact shchoi@kes.co.kr

NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-3233
Phase:	N
Mode:	240 V 50 Hz_BNC
Operator Name:	KES



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.155000	---	38.80	66.00	27.20	1000.0	9.000	N	19.4
0.155000	51.14	---	79.00	27.86	1000.0	9.000	N	19.4
0.175000	---	42.00	66.00	24.00	1000.0	9.000	N	19.4
0.175000	54.17	---	79.00	24.83	1000.0	9.000	N	19.4
1.480000	---	18.54	60.00	41.46	1000.0	9.000	N	20.1
1.480000	31.94	---	73.00	41.06	1000.0	9.000	N	20.1
1.600000	---	27.70	60.00	32.30	1000.0	9.000	N	20.1
1.600000	32.36	---	73.00	40.64	1000.0	9.000	N	20.1
13.055000	---	34.62	60.00	25.38	1000.0	9.000	N	19.9
13.055000	44.18	---	73.00	28.82	1000.0	9.000	N	19.9
13.660000	---	37.30	60.00	22.70	1000.0	9.000	N	19.9
13.660000	45.87	---	73.00	27.13	1000.0	9.000	N	19.9

◆ 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))

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.

The authenticity of the test report, contact shchoi@kes.co.kr



KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0062

Page (23) of (47)

**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.

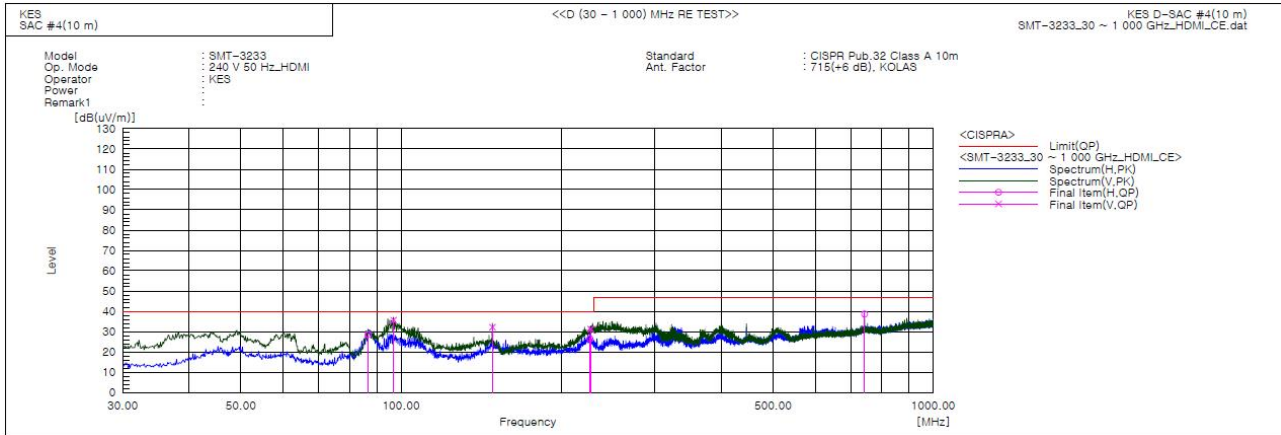
Corr. : Correction values (ISN FACTOR + (Cable Loss + Pulse Limiter FACTOR))

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



Radiated Electric Field Emissions(Below 1 GHz)

■ HDMI MODE

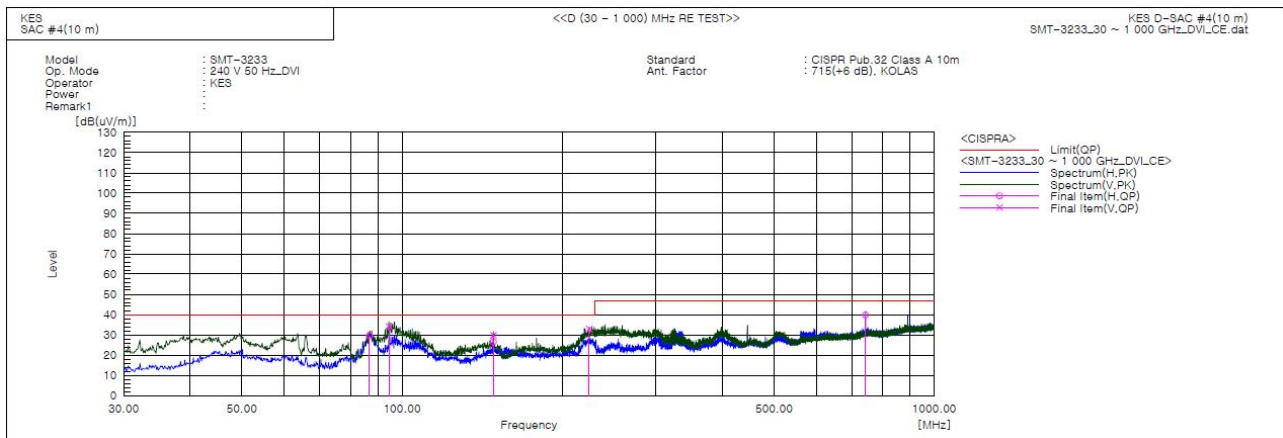


Final Result

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	86.745	H	53.9	-25.4	28.5	40.0	11.5	400.0	104.0	
2	96.809	V	58.8	-23.1	35.7	40.0	4.3	100.0	70.0	
3	148.461	V	57.3	-25.1	32.2	40.0	7.8	198.0	326.0	
4	226.304	H	46.5	-19.9	26.6	40.0	13.4	304.0	325.0	
5	227.153	V	51.2	-19.9	31.3	40.0	8.7	106.0	187.0	
6	742.465	H	44.5	-5.9	38.6	47.0	8.4	391.0	123.0	



■ DVI MODE

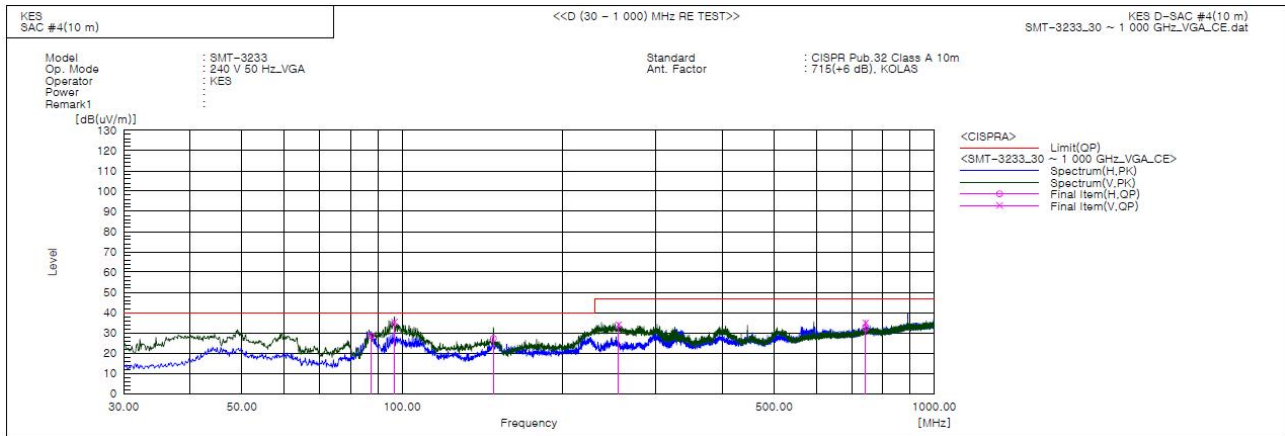


Final Result

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	86.866	H	54.9	-25.3	29.6	40.0	10.4	400.0	108.0	
2	94.505	V	57.8	-23.6	34.2	40.0	5.8	100.0	76.0	
3	148.461	V	54.9	-25.1	29.8	40.0	10.2	103.0	191.0	
4	148.461	H	51.7	-25.1	26.6	40.0	13.4	388.0	119.0	
5	224.728	V	52.9	-20.0	32.9	40.0	7.1	108.0	134.0	
6	742.465	H	45.7	-5.9	39.8	47.0	7.2	307.0	24.0	



VGA MODE



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	87.473	H	53.8	-25.1	28.7	40.0	11.3	400.0	106.0	
2	96.809	V	58.5	-23.1	35.4	40.0	4.6	103.0	53.0	
3	148.461	H	52.3	-25.1	27.2	40.0	12.8	379.0	160.0	
4	255.283	V	53.0	-18.9	34.1	47.0	12.9	100.0	185.0	
5	742.465	V	40.8	-5.9	34.9	47.0	12.1	198.0	332.0	
6	742.586	H	38.4	-5.9	32.5	47.0	14.5	305.0	193.0	

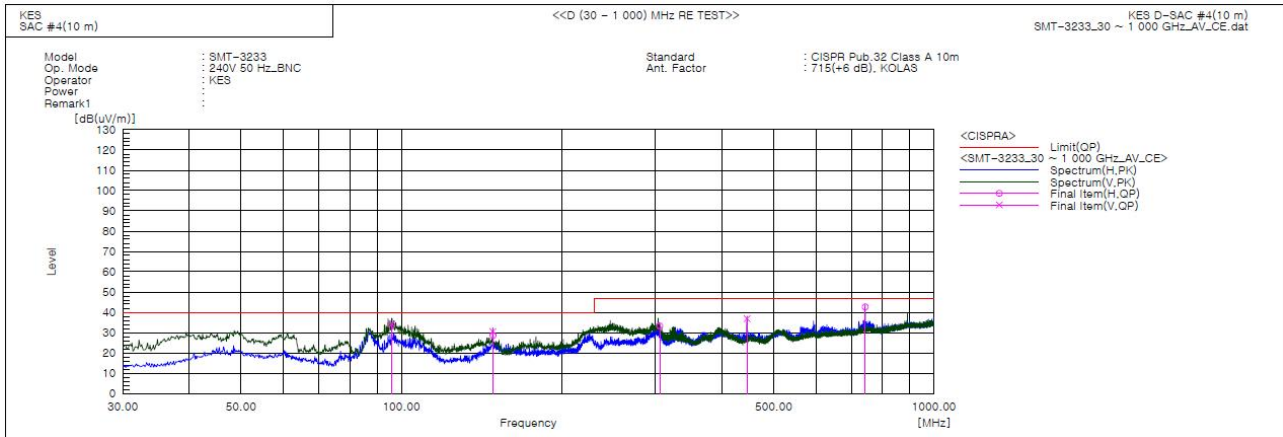


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0062
Page (27) of (47)

BNC MODE



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	95.960	V	57.6	-23.3	34.3	40.0	5.7	179.0	86.0	
2	148.461	V	55.7	-25.1	30.6	40.0	9.4	103.0	342.0	
3	148.587	H	53.7	-25.1	28.6	40.0	11.4	389.0	174.0	
4	305.480	H	50.9	-17.6	33.3	47.0	13.7	304.0	337.0	
5	445.524	V	50.2	-13.3	36.9	47.0	10.1	100.0	33.0	
6	742.586	H	48.6	-5.9	42.7	47.0	4.3	400.0	357.0	

◆ Calculation – SEMI ANECHOIC CHAMBER #4(10 m)

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

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



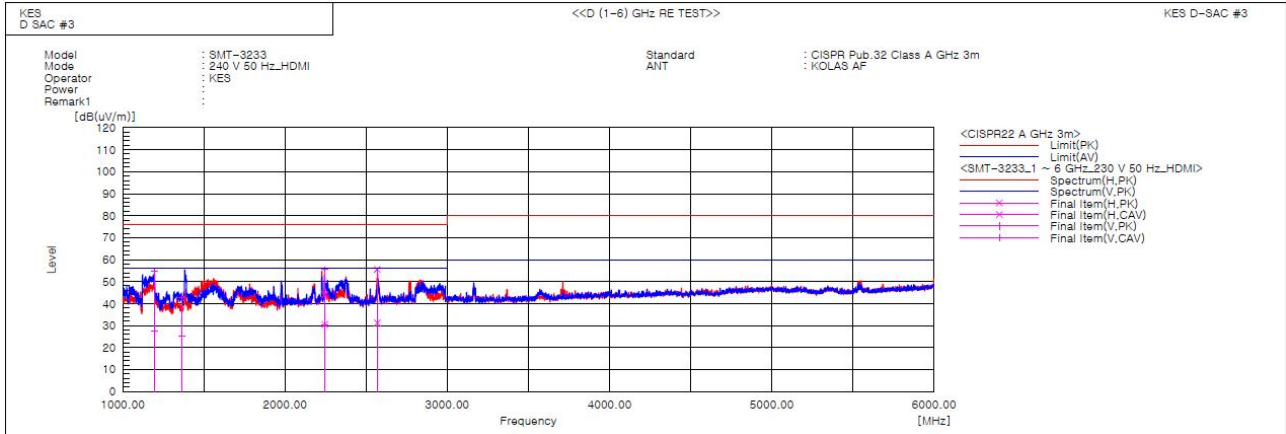
KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0062
Page (28) of (47)

Radiated Electric Field Emissions(Above 1 GHz)

HDMI MODE



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1195.460	V	63.1	35.9	-8.5	54.6	27.4	76.0	56.0	21.4	28.6	100.0	335.2	
2	1365.433	V	50.2	32.6	-7.5	42.7	25.1	76.0	56.0	33.3	30.9	100.0	5.6	
3	2245.347	H	45.3	31.8	-1.2	44.1	30.6	76.0	56.0	31.9	25.4	100.0	43.6	
4	2242.780	V	56.6	31.5	-1.2	55.4	30.3	76.0	56.0	20.6	25.7	100.0	321.7	
5	2567.670	H	55.6	31.2	0.0	55.6	31.2	76.0	56.0	20.4	24.8	100.0	352.0	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

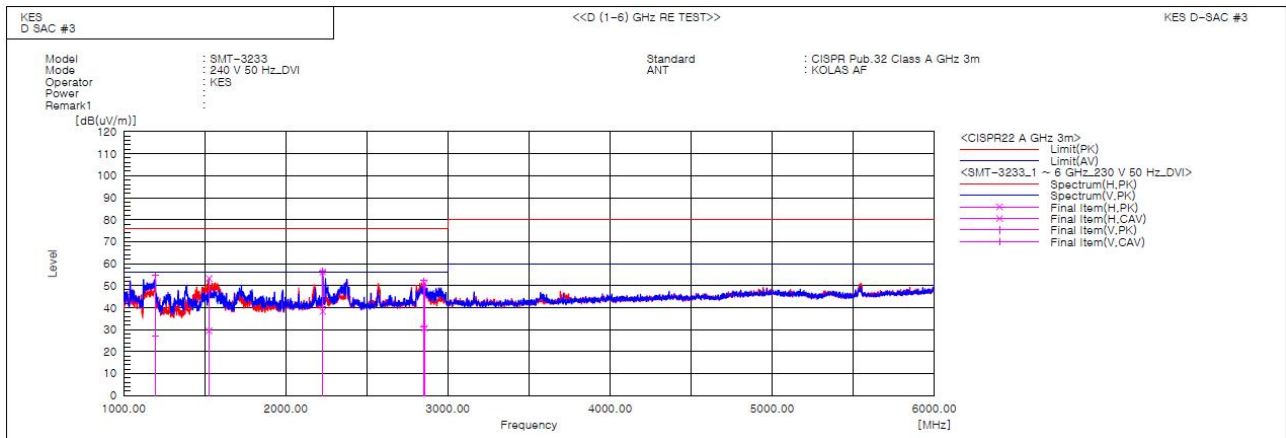


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0062
Page (29) of (47)

DVI MODE



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1195.350	V	63.1	35.7	-8.5	54.6	27.2	76.0	56.0	21.4	28.8	100.0	332.3	
2	1525.969	H	59.7	35.8	-6.4	53.3	29.4	76.0	56.0	22.7	26.6	100.0	300.6	
3	2227.280	H	57.4	39.5	-1.2	56.2	38.3	76.0	56.0	19.8	17.7	100.0	319.5	
4	2227.810	V	57.8	41.7	-1.2	56.6	40.5	76.0	56.0	19.4	15.5	100.0	329.6	
5	2847.902	V	51.2	30.3	1.0	52.2	31.3	76.0	56.0	23.8	24.7	100.0	308.8	
6	2855.517	H	50.0	29.5	1.1	51.1	30.6	76.0	56.0	24.9	25.4	100.0	307.3	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

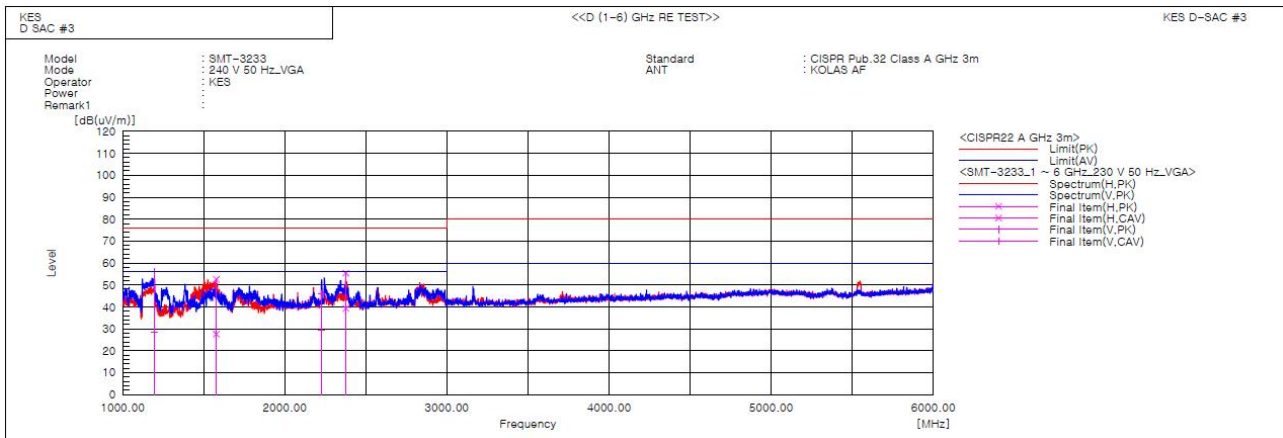


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0062
Page (30) of (47)

VGA MODE



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1194.577	V	64.4	37.1	-8.5	55.9	28.6	76.0	56.0	20.1	27.4	100.0	334.8	
2	1577.560	H	58.5	33.6	-6.0	52.5	27.6	76.0	56.0	23.5	28.4	100.0	302.3	
3	2227.023	V	47.4	30.8	-1.2	46.2	29.6	76.0	56.0	29.8	26.4	100.0	317.2	
4	2375.950	H	56.1	40.0	-0.7	55.4	39.3	76.0	56.0	20.6	16.7	100.0	51.8	

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

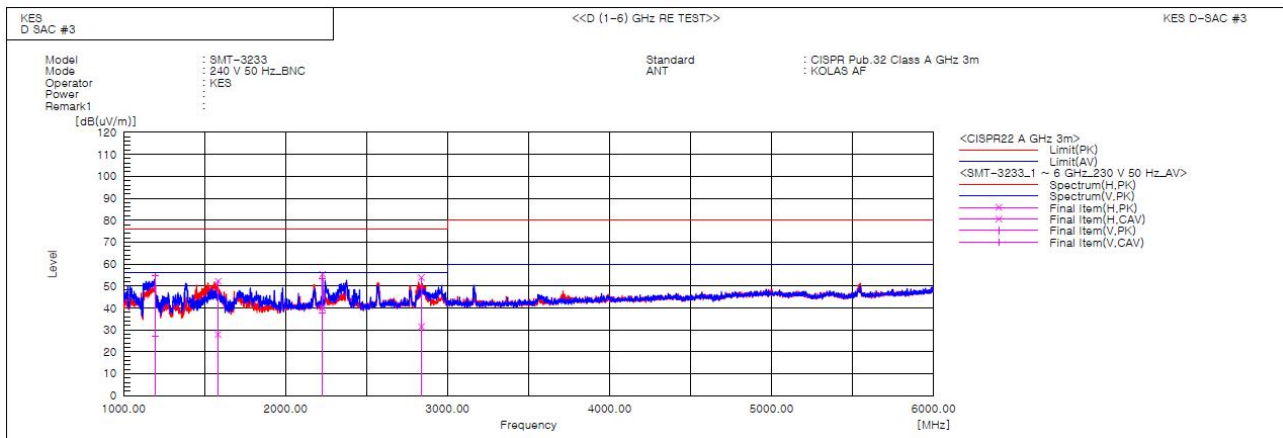


KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:
KES-EM-21T0062
Page (31) of (47)

BNC MODE



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]	Remark
1	1195.579	V	63.0	35.5	-8.5	54.5	27.0	76.0	56.0	21.5	29.0	100.0	332.5	
2	1582.786	H	58.1	33.8	-5.9	52.2	27.9	76.0	56.0	23.8	28.1	100.0	297.9	
3	2227.360	H	56.5	41.1	-1.2	55.3	39.9	76.0	56.0	20.7	16.1	100.0	40.0	
4	2227.550	V	54.7	38.9	-1.2	53.5	37.7	76.0	56.0	22.5	18.3	100.0	327.3	
5	2837.627	H	52.9	30.5	1.0	53.9	31.5	76.0	56.0	22.1	24.5	100.0	309.6	

◆ Calculation

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

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

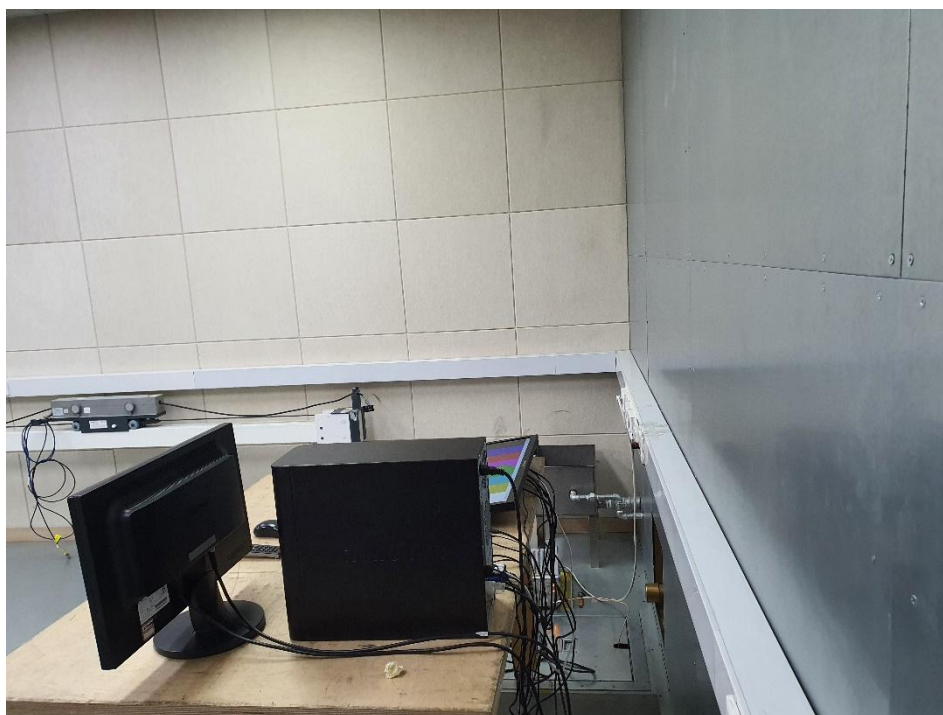
Reading(PK/CAV) : Reading value, Result(PK/CAV) : Reading value + Factor value

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

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

Test Setup Photos and Configuration

Conducted Emissions at Mains Power Ports



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr



KES Co., Ltd.

3701, 40, Simin-daero 365beon-gil,
Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450
www.kes.co.kr

Report No.:

KES-EM-21T0062

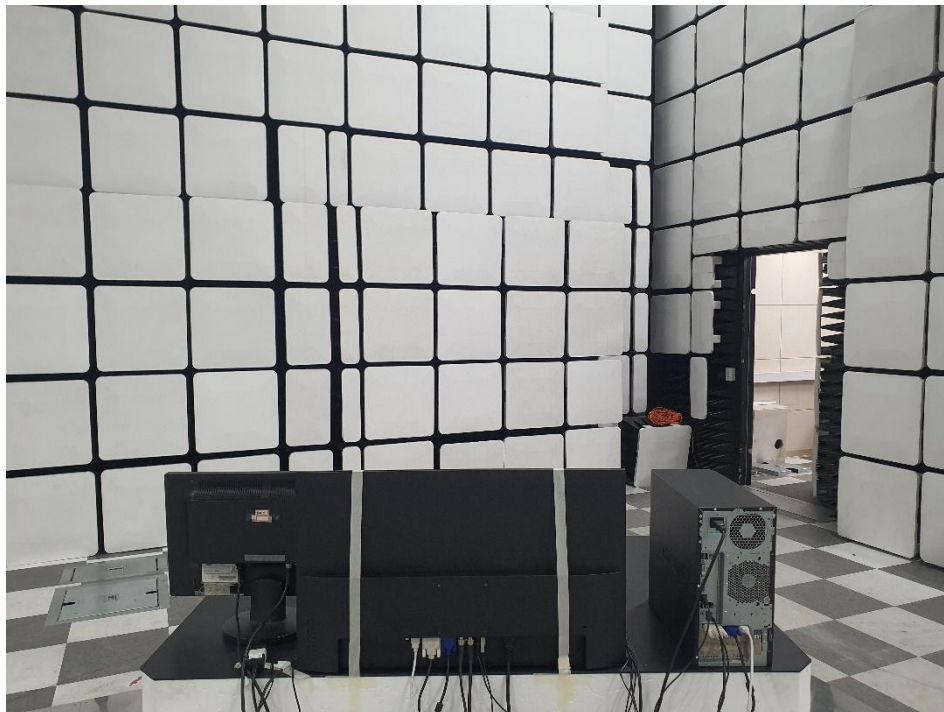
Page (33) of (47)

Conducted Emissions at Telecommunication Ports

N/A

This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

Radiated Electric Field Emissions(Below 1 GHz)



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

Radiated Electric Field Emissions(Above 1 GHz)



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

EUT External Photographs

(Top)



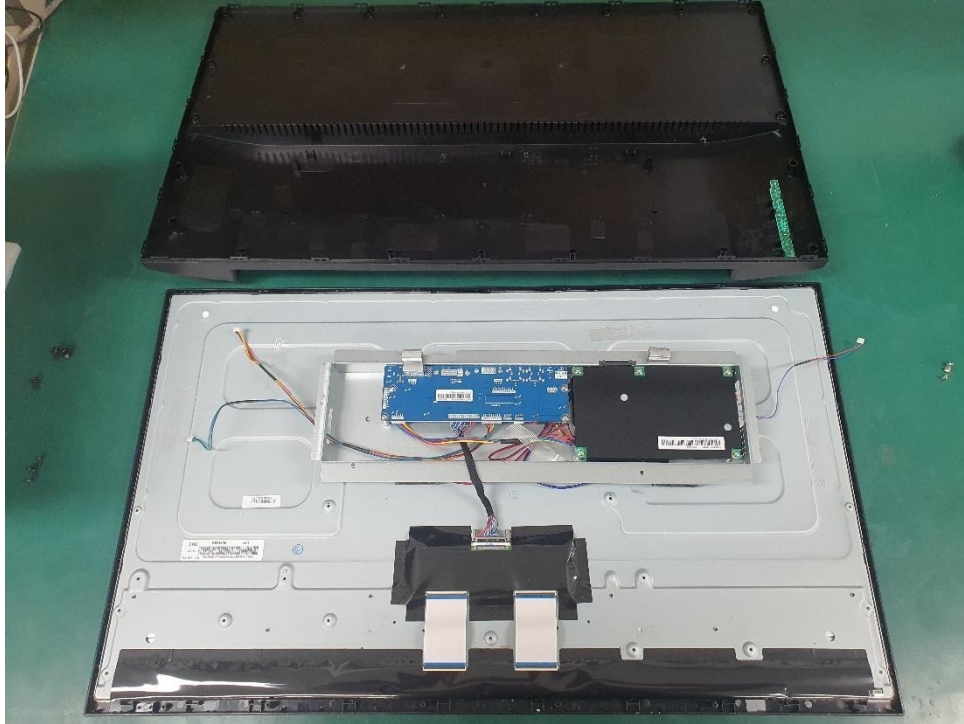
(Bottom)



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

EUT Internal Photographs

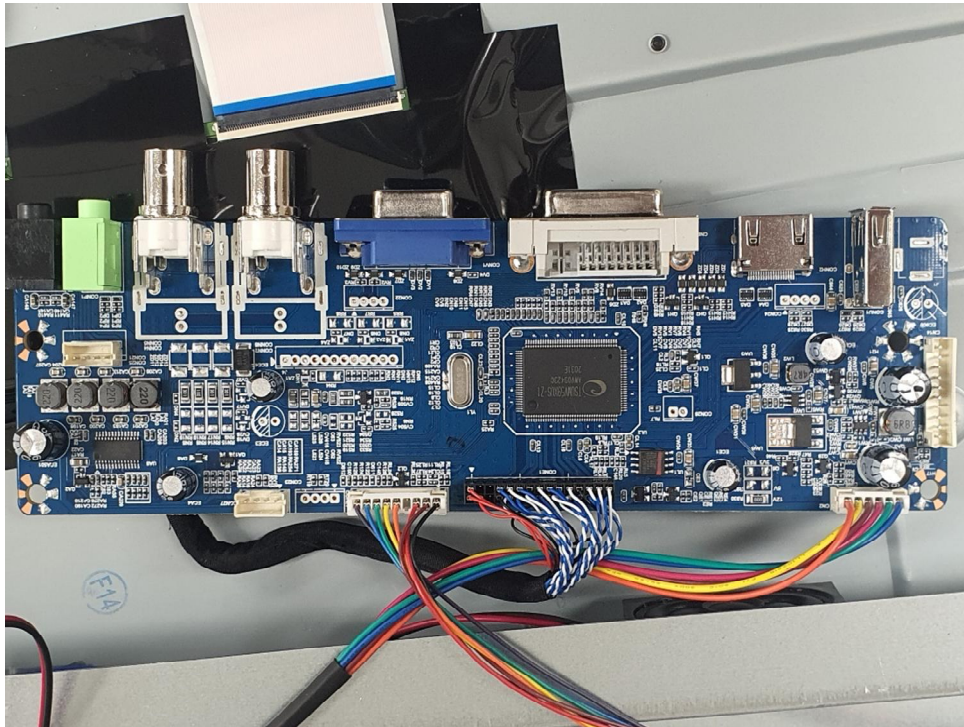
(Internal View)



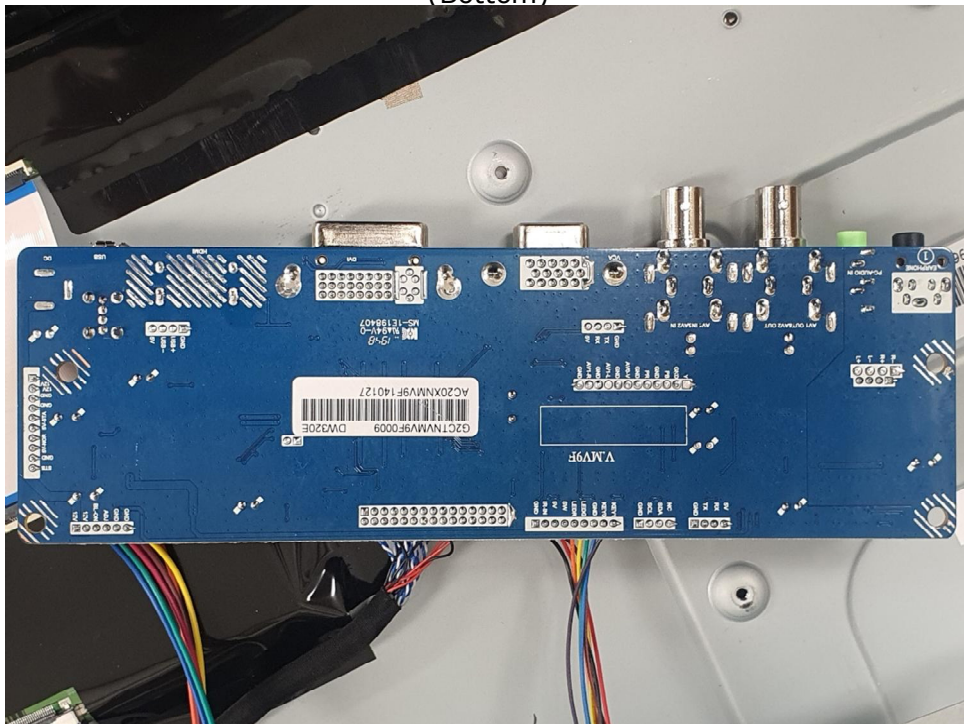
This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

EUT Internal View – Board 1

(Top)



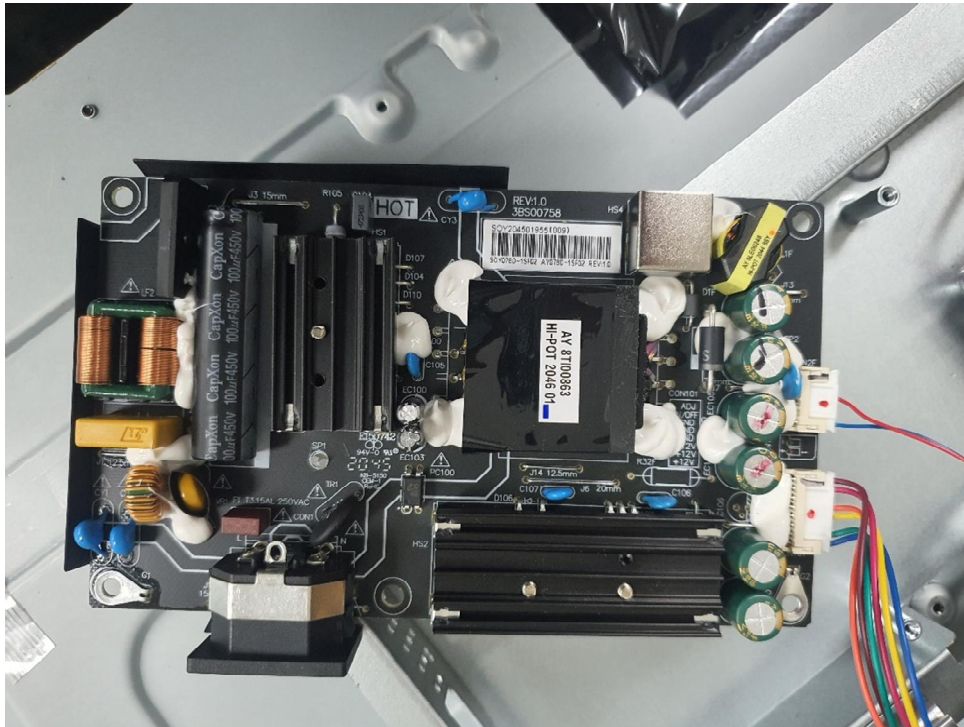
(Bottom)



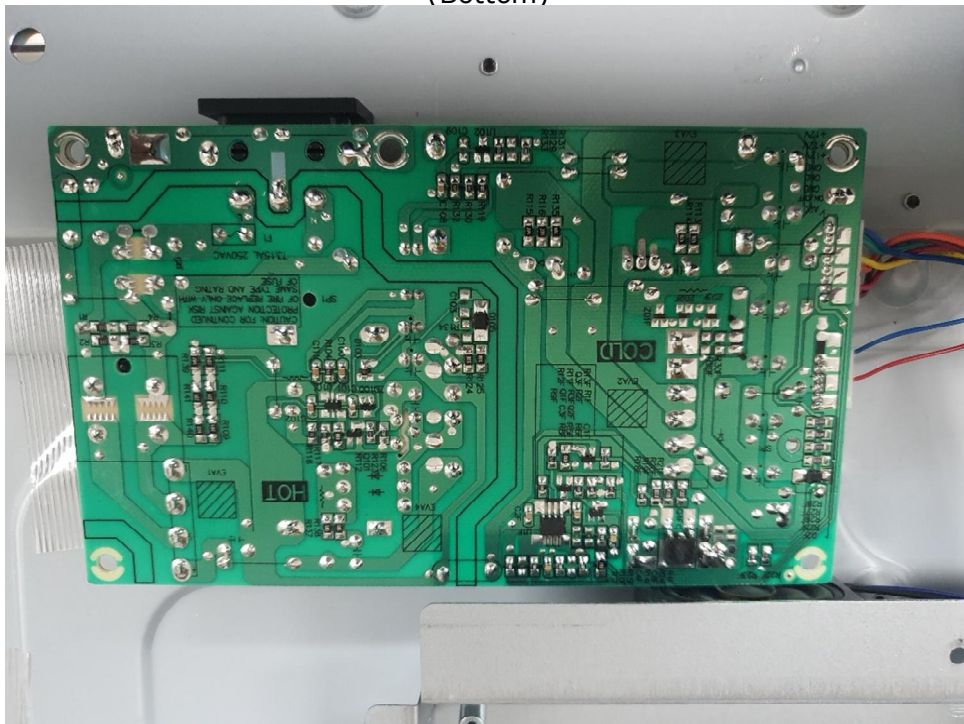
This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

EUT Internal View – Board 2

(Top)



(Bottom)



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
 The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
 The authenticity of the test report, contact shchoi@kes.co.kr

EUT Internal View – Board 3

(Top)



(Bottom)



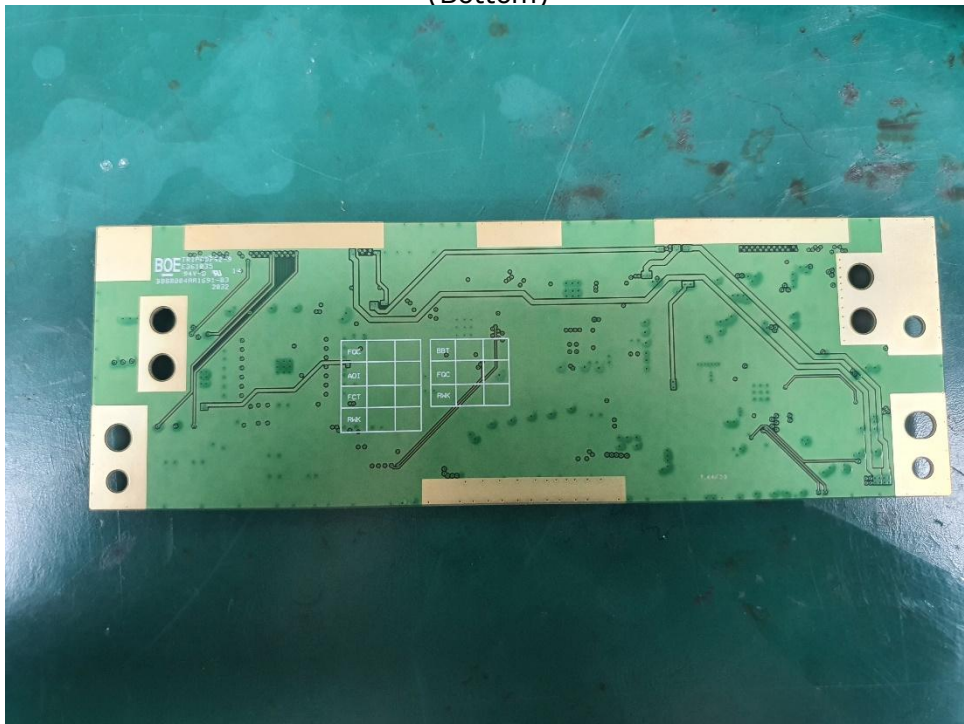
This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

EUT Internal View – Board 4

(Top)



(Bottom)



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

EUT Internal View – Board 5

(Top) - 1



(Top) - 2



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

EUT Internal View – Board 5

(Bottom) - 1



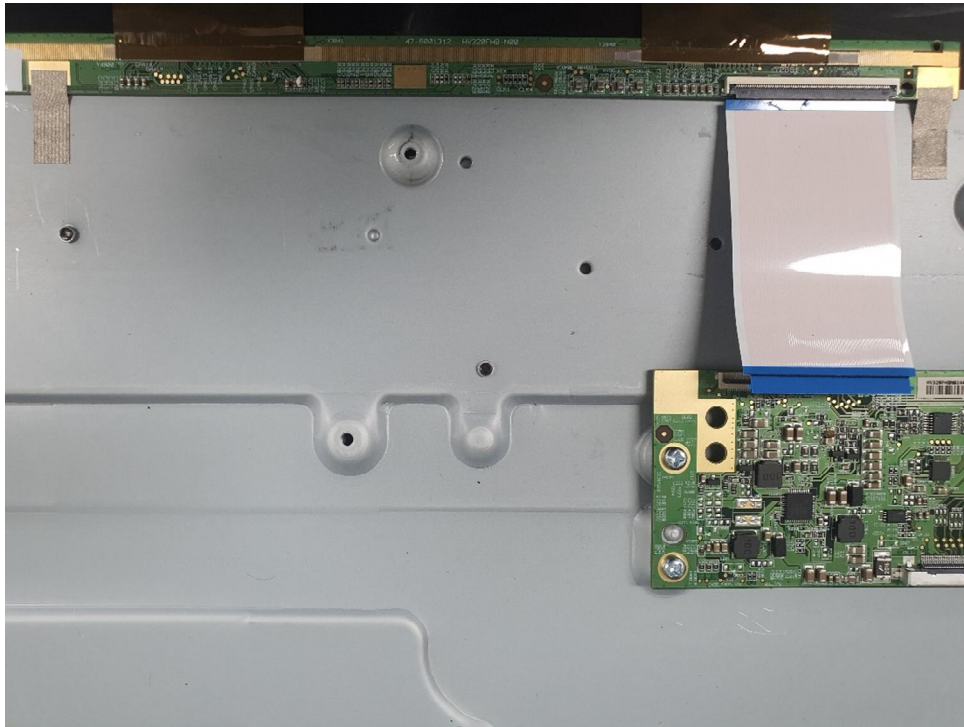
(Bottom) - 2



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

EUT Internal View – Board 6

(Top) - 1



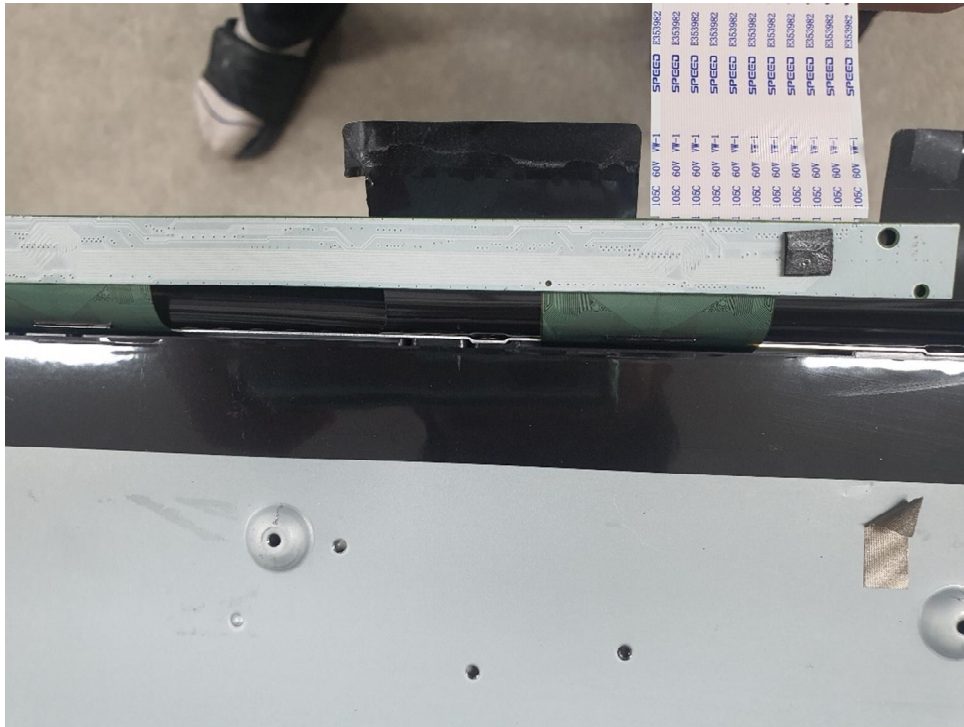
(Top) - 2



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

EUT Internal View – Board 6

(Bottom) - 1



(Bottom) - 2



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr

EUT Internal View – Board 7

(Top)



(Bottom)



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
 The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
 The authenticity of the test report, contact shchoi@kes.co.kr

EUT Internal View – DISPLAY



This report shall not be reproduced except in full, without the written approval of KES Co., Ltd.
The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
The authenticity of the test report, contact shchoi@kes.co.kr