

**KES Co., Ltd.**

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Report No.:

KES-EM-22T0183-R1

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EMC TEST REPORT

Test Report No. : KES-EM-22T0183-R1
Date of Issue : Feb. 24, 2023
Product name : LED MONITOR
Model/Type No. : SMT-2431
Variant Model : -
Applicant : Hanwha Vision 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
Equipment authorization : **Supplier's Declaration of Conformity**
Date of Receipt : Jan. 25, 2022
Test date : Jan. 27, 2022 ~ Jan. 28, 2022
Test Results : ☒ **In Compliance** ☐ **Not in Compliance**

Tested by

Dae Hyun, 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.

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REPORT REVISION HISTORY

Date	Test Report No.	Revision History
Feb. 09, 2022	KES-EM-22T0183	Issued
Feb. 24, 2023	KES-EM-22T0183-R1	Change the Applicant at the request of the customer

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1.0 General Product Description

Main Specifications of EUT are:

DESIGN		SMT-2431	Remark
Screen Size		23.8"	
Max. Resolution		1920*1080	
Brightness		250cd/m2	
Contrast Ratio		4000:1 (Typical)	
Aspect Ratio		16:9	
Viewing Angle (H/V)		178°/178°	
Display Color		16.7M (6bit+FRC)	
Response Time		14ms(G to G) (TYP)	
Panel Life		30,000 hours	
Interface			
Video	Connector	VGA(1) HDMI (1)	
	Connector	VGA	
VGA	Available Format	640 × 480@60Hz/72Hz/75Hz;720 × 400@70Hz ; 800 × 600@60Hz/72Hz/75Hz;1024 × 768@60Hz/75Hz;1280 × 1024@60Hz/75Hz;1440 × 900@60Hz;1680 × 1050@60Hz ; 1920 × 1080@60Hz	
	Connector	HDMI	
HDMI	Available Format	640 × 480@60Hz/72Hz/75Hz;720 × 400@70Hz ; 800 × 600@60Hz/72Hz/75Hz;1024 × 768@60Hz/75Hz;1280 × 1024@60Hz/75Hz;1440 × 900@60Hz;1680 × 1050@60Hz ; 1920 × 1080@60Hz	
On Screen Display (OSD)			
Functions		VESA™ DPM Compatible	
Language		12 (English, French, German, Italian, Simplified Chinese, Traditional Chinese, Korean, Japanese, Espanola, Portuguese, Russian, Arabic)	
General			
Electrical	Input Voltage	AC 100 ~ 240V(50/60Hz)	
	Power Consumption	<30W	
Environmental	Operating Temperature	0 ~ +40°C (+32°F ~ +104°F)	
	Operating Humidity	10% ~ 80% (non-condensing)	
Mechanical	Product Dimension (Without Stand, W*H*D)	540*324*46mm	
	Product Dimension (With Stand, W*H*D)	540*420*224mm	
	Carton Dimension (W*H*D)	618*491*112mm	
	Bezel Size	3 Frameless Top:2.2mm Bottom:21mm Side : 2.2mm	
Weight	Net Weight	3.5kg	
	Gross Weight	4.7kg	

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1.1 Test Voltage & Frequency

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

☒ 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
LED MONITOR	SMT-2431	-	Weihai Daewoo Electronics Co., Ltd.	EUT

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
Notebook	HSN-Q07C	5CD8367KND	HP	-
Notebook Adapter	HSTNN-CA40	WFTKU0ERLB4QCH	HP	-

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1.6 External I/O Cabling

■ D-Sub / HDMI Mode

Start		END		Cable Spec.	
Description	I/O Port	Description	I/O Port	Length	Shield
LED MONITOR (EUT)	D-Sub	Notebook	D-Sub	1.8	S
	HDMI	Notebook	HDMI	1.5	S
Notebook	DC Jack	Notebook Adapter	DC Jack	1.8	U

* Unshielded = U, Shielded = S

1.7 EUT Operating Mode(s)

Test mode	operating
D-Sub, HDMI	Play the color bar video during the test.

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

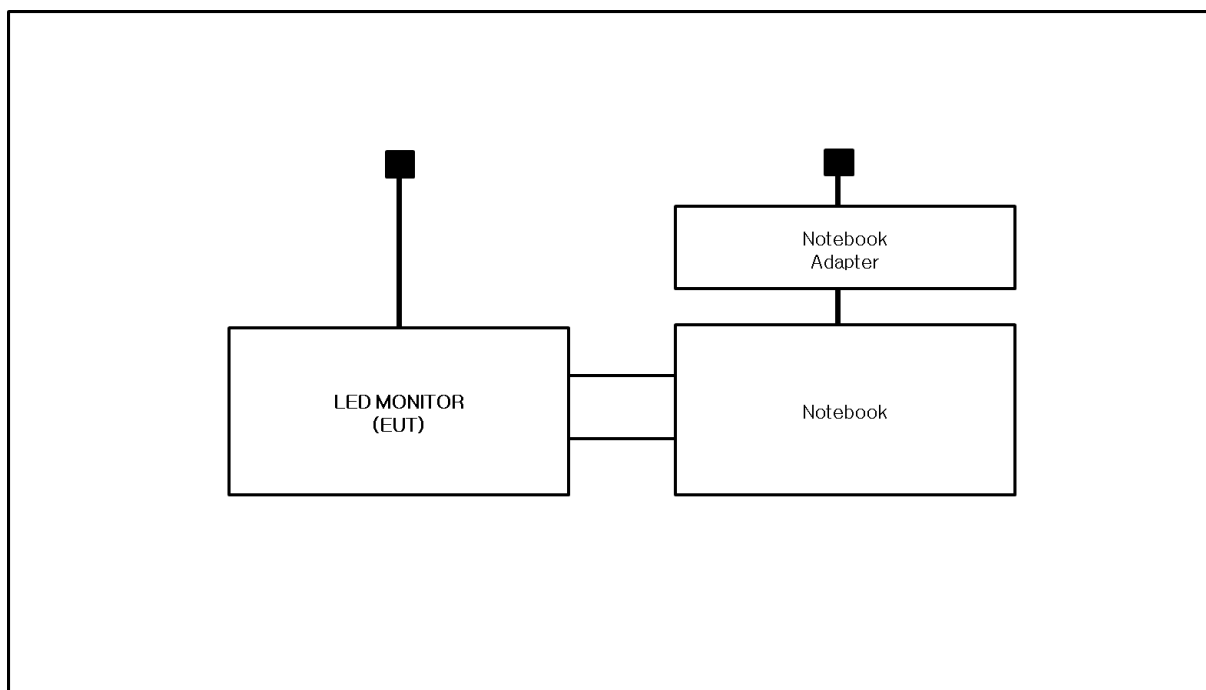
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1.8 Configuration

■ AC Main

□ DC Main

■ D-Sub / HDMI Mode



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, 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

Jan. 29, 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: (23,1 ± 0,2) °C

Relative Humidity: (43,3 ± 0,2) % 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

See Appendix A for test data.



2.2 Radiated Electric Field Emissions(Below 1 GHz)

Test Date

Jan. 28, 2022

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, 2022
☒	AMPLIFIER	SCU 01	R & S	100603	11, 24, 2022
☒	TRILOG-BROADBAND ANTENNA	VULB9163	Schwarzbeck	715	12, 08, 2022
☒	ATTENUATOR	8491A	HP	32173	03, 10, 2022

Test Conditions

Temperature: (23,2 ± 0,4) °C

Relative Humidity: (43,2 ± 0,5) % R.H.

Frequency Range of Measurement

30 MHz to 1 GHz

Instrument Settings

IF Band Width: 120 kHz

Test Results

The requirements are:

- ☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks

See Appendix A for test data.

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2.3 Radiated Electric Field Emissions(Above 1 GHz)

Test Date

Jan. 28, 2022

Test Location

SEMI ANECHOIC CHAMBER #5

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test S/W	EP5/RE	TOYO Corporation	6.0.120	-
☒	EMI TEST RECEIVER	ESU26	Rohde & Schwarz	100552	04, 01, 2022
☒	HORN ANTENNA	BBHA 9120D	SCHWARZBECK	9120D-1802	12, 16, 2022
☒	PREAMPLIFIER	8449B	HP	3008A00538	06, 21, 2022

Test Conditions

Temperature: (22,6 ± 0,4) °C

Relative Humidity: (42,8 ± 0,4) % R.H.

Frequency Range of Measurement

1 GHz to 5 GHz

Instrument Settings

IF Band Width: 1 MHz

Test Results

The requirements are:

☒ PASS☐ NOT PASS☐ NOT APPLICABLE**Remarks**See Appendix A for test data.

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APPENDIX A – TEST DATA

Conducted Emissions at Mains Power Ports

■ D-Sub Mode

HOT LINE

Common Information

Test Description:

Conducted Emission

Model No.:

SMT-2431

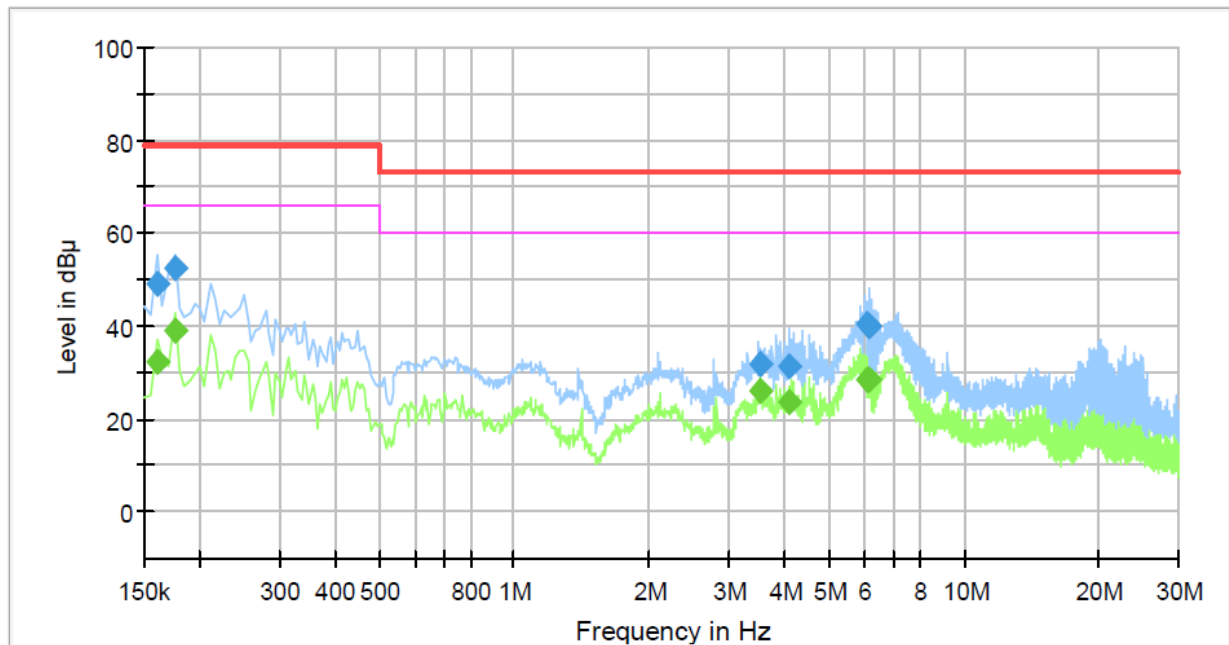
Phase:

Mode:

D-Sub / FCC

Operator Name:

KES



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.160000	---	32.17	66.00	33.83	1000.0	9.000	L1	19.5
0.160000	49.26	---	79.00	29.74	1000.0	9.000	L1	19.5
0.175000	---	39.01	66.00	26.99	1000.0	9.000	L1	19.5
0.175000	52.52	---	79.00	26.48	1000.0	9.000	L1	19.5
3.530000	---	25.81	60.00	34.19	1000.0	9.000	L1	20.0
3.530000	31.75	---	73.00	41.25	1000.0	9.000	L1	20.0
4.100000	---	23.63	60.00	36.37	1000.0	9.000	L1	19.9
4.100000	31.48	---	73.00	41.52	1000.0	9.000	L1	19.9
6.080000	---	28.50	60.00	31.50	1000.0	9.000	L1	19.5
6.080000	40.37	---	73.00	32.63	1000.0	9.000	L1	19.5
6.165000	---	28.19	60.00	31.81	1000.0	9.000	L1	19.5
6.165000	40.12	---	73.00	32.88	1000.0	9.000	L1	19.5

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NEUTRAL LINE

Common Information

Test Description:

Conducted Emission

Model No.:

SMT-2431

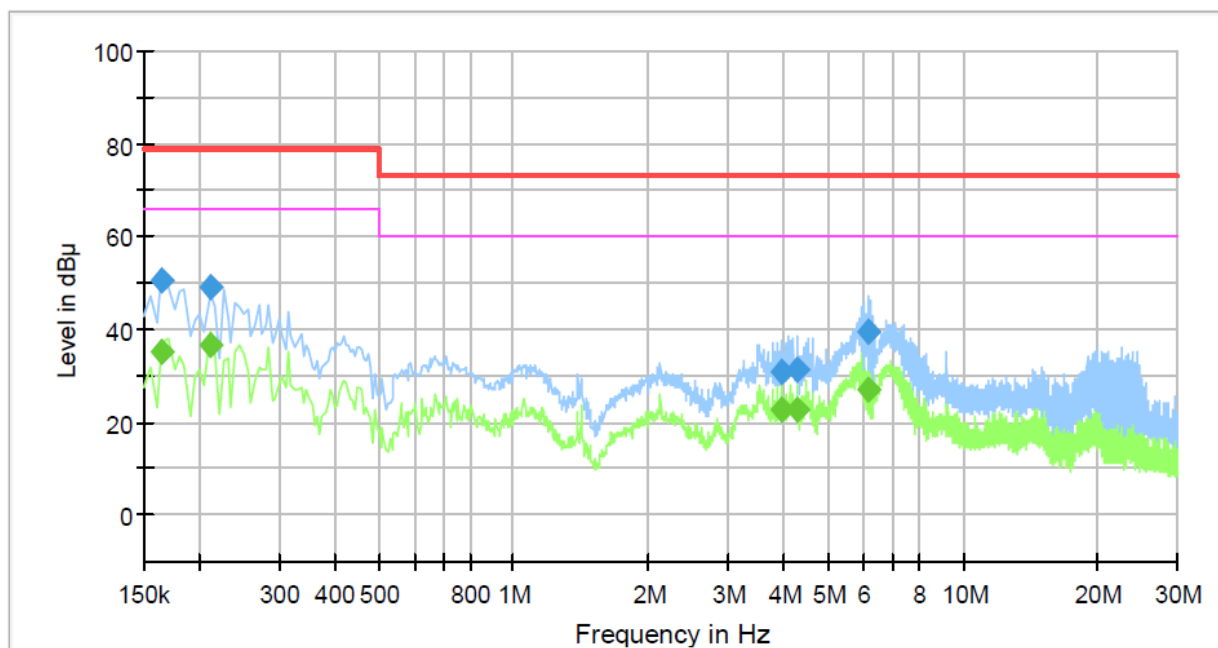
Phase:

Mode:

D-Sub / FCC

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	---	34.95	66.00	31.05	1000.0	9.000	N	19.4
0.165000	50.66	---	79.00	28.34	1000.0	9.000	N	19.4
0.210000	---	36.60	66.00	29.40	1000.0	9.000	N	19.5
0.210000	48.85	---	79.00	30.15	1000.0	9.000	N	19.5
3.930000	---	22.65	60.00	37.35	1000.0	9.000	N	19.9
3.930000	30.73	---	73.00	42.27	1000.0	9.000	N	19.9
4.280000	---	22.50	60.00	37.50	1000.0	9.000	N	19.9
4.280000	31.14	---	73.00	41.86	1000.0	9.000	N	19.9
6.135000	---	26.82	60.00	33.18	1000.0	9.000	N	19.5
6.135000	39.53	---	73.00	33.47	1000.0	9.000	N	19.5

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■ HDMI Mode

HOT LINE

Common Information

Test Description:

Model No.:

Phase:

Mode:

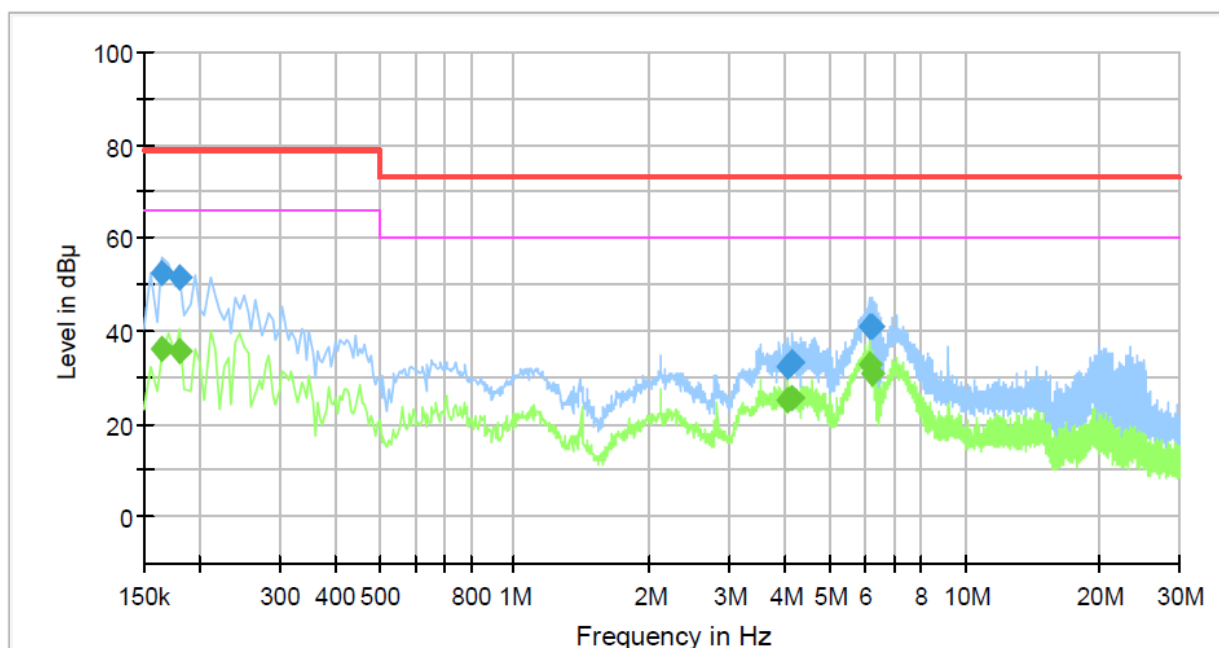
Operator Name:

Conducted Emission

SMT-2431

HDMI / FCC

KES



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.165000	---	36.08	66.00	29.92	1000.0	9.000	L1	19.5
0.165000	52.46	---	79.00	26.54	1000.0	9.000	L1	19.5
0.180000	---	35.52	66.00	30.48	1000.0	9.000	L1	19.5
0.180000	51.36	---	79.00	27.64	1000.0	9.000	L1	19.5
4.055000	---	25.24	60.00	34.76	1000.0	9.000	L1	19.9
4.055000	32.29	---	73.00	40.71	1000.0	9.000	L1	19.9
4.150000	---	25.67	60.00	34.33	1000.0	9.000	L1	19.9
4.150000	33.20	---	73.00	39.80	1000.0	9.000	L1	19.9
6.125000	---	32.72	60.00	27.28	1000.0	9.000	L1	19.5
6.125000	41.02	---	73.00	31.98	1000.0	9.000	L1	19.5
6.210000	---	31.05	60.00	28.95	1000.0	9.000	L1	19.5
6.210000	41.04	---	73.00	31.96	1000.0	9.000	L1	19.5

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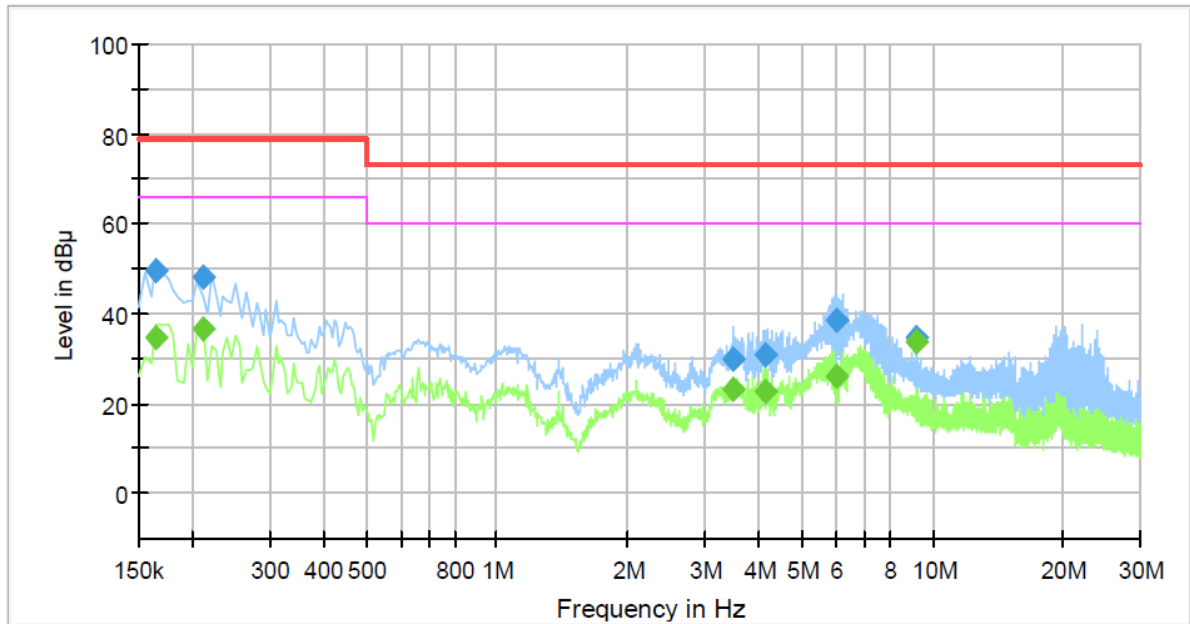
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NEUTRAL LINE

Common Information

Test Description:	Conducted Emission
Model No.:	SMT-2431
Phase:	
Mode:	HDMI / FCC
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	---	34.52	66.00	31.48	1000.0	9.000	N	19.4
0.165000	49.55	---	79.00	29.45	1000.0	9.000	N	19.4
0.210000	---	36.37	66.00	29.63	1000.0	9.000	N	19.5
0.210000	48.02	---	79.00	30.98	1000.0	9.000	N	19.5
3.485000	---	23.18	60.00	36.82	1000.0	9.000	N	20.1
3.485000	30.09	---	73.00	42.91	1000.0	9.000	N	20.1
4.110000	---	22.51	60.00	37.49	1000.0	9.000	N	19.9
4.110000	30.66	---	73.00	42.34	1000.0	9.000	N	19.9
6.040000	---	26.19	60.00	33.81	1000.0	9.000	N	19.5
6.040000	38.56	---	73.00	34.44	1000.0	9.000	N	19.5
9.215000	---	33.77	60.00	26.23	1000.0	9.000	N	19.8
9.215000	34.68	---	73.00	38.32	1000.0	9.000	N	19.8

◆ Calculation

$$\text{QuasiPeak [dBuV]} / \text{CAverage [dBuV]} = \text{Reading Value [dBuV]} + \text{Corr. [dB]}$$

QuasiPeak / CAverage : The Final Value

Reading Value : Not shown in the table.

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

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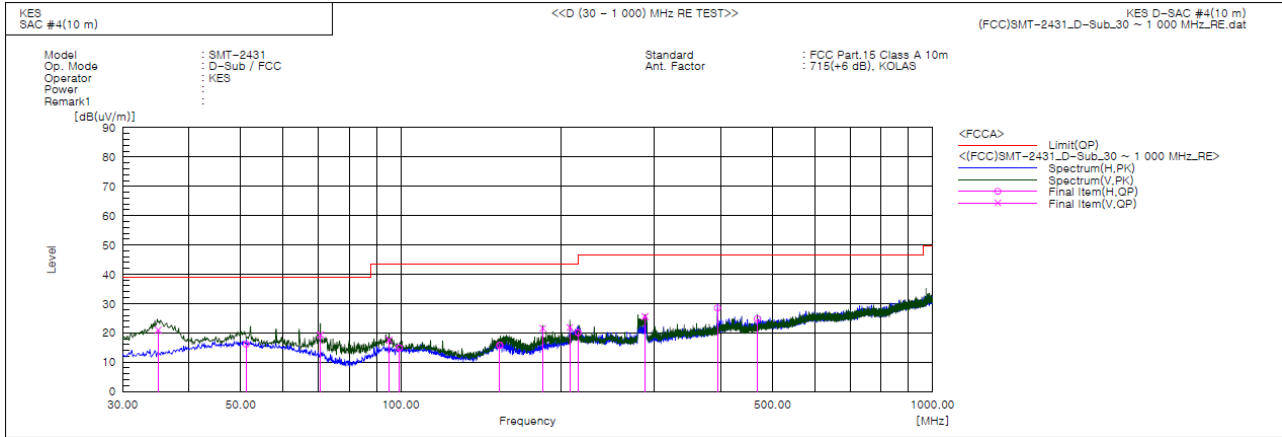
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Radiated Electric Field Emissions(Below 1 GHz)

- 47 CFR Part 15, Subpart B

■ D-Sub 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	34.992	V	45.5	-24.5	21.0	39.0	18.0	128.0	342.0	
2	51.219	H	37.0	-20.9	16.1	39.0	22.9	400.0	208.0	
3	70.619	V	44.3	-25.0	19.3	39.0	19.7	118.0	84.0	
4	95.111	V	40.9	-23.3	17.6	43.5	25.9	106.0	12.0	
5	99.355	H	37.3	-22.4	14.9	43.5	28.6	400.0	197.0	
6	153.433	H	40.8	-25.0	15.8	43.5	27.7	376.0	178.0	
7	184.958	V	44.4	-22.8	21.6	43.5	21.9	132.0	210.0	
8	207.995	V	42.4	-20.6	21.8	43.5	21.7	100.0	131.0	
9	215.513	H	40.5	-20.4	20.1	43.5	23.4	400.0	357.0	
10	287.778	V	43.9	-18.3	25.6	46.5	20.9	145.0	202.0	
11	393.980	H	42.7	-14.2	28.5	46.5	18.0	400.0	224.0	
12	467.955	H	37.1	-12.3	24.8	46.5	21.7	266.0	54.0	

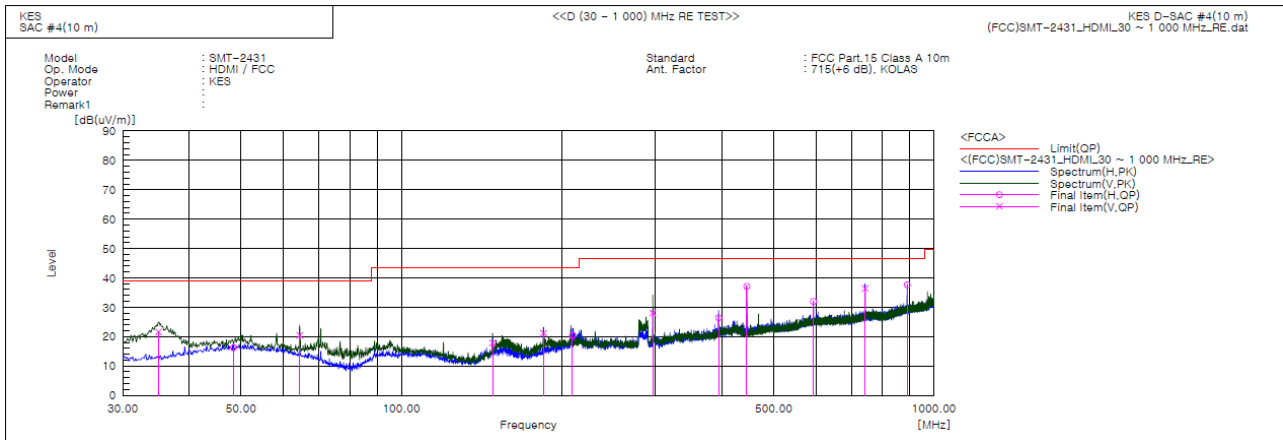
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HDMI Mode



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	35.006	V	46.1	-24.5	21.6	39.0	17.4	122.0	63.0	
2	48.430	H	37.2	-21.0	16.2	39.0	22.8	400.0	237.0	
3	64.435	V	43.4	-23.0	20.4	39.0	18.6	100.0	82.0	
4	148.340	V	43.1	-25.2	17.9	43.5	25.6	103.0	203.0	
5	184.836	V	44.0	-22.8	21.2	43.5	22.3	115.0	267.0	
6	209.450	H	41.0	-20.6	20.4	43.5	23.1	400.0	354.0	
7	296.638	V	46.1	-18.0	28.1	46.5	18.4	152.0	18.0	
8	393.993	H	40.6	-14.2	26.4	46.5	20.1	376.0	42.0	
9	445.024	H	50.1	-13.0	37.1	46.5	9.4	362.0	47.0	
10	593.449	H	40.4	-8.4	32.0	46.5	14.5	400.0	354.0	
11	741.850	V	42.8	-6.3	36.5	46.5	10.0	220.0	198.0	
12	890.148	H	41.7	-4.1	37.6	46.5	8.9	400.0	7.0	



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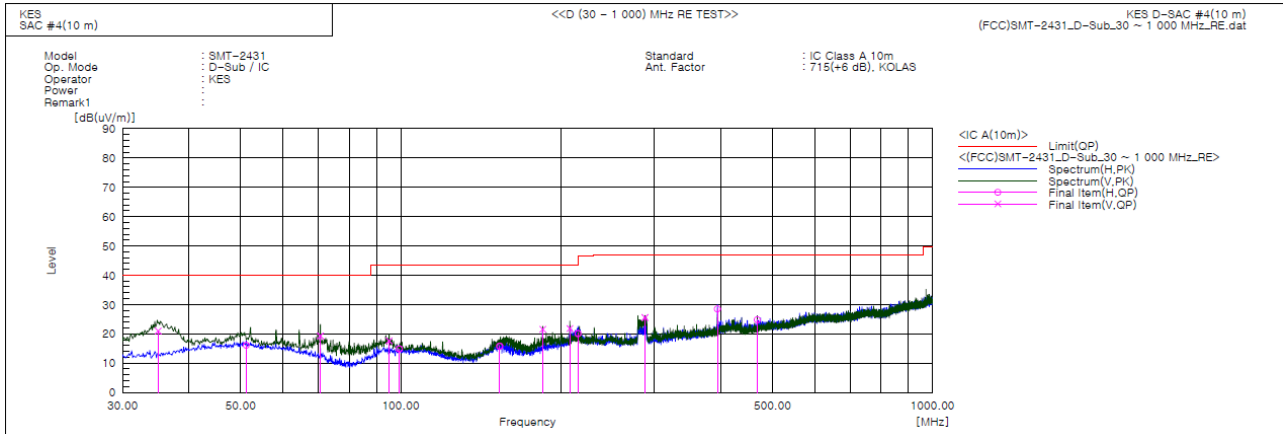
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- IC Regulation ICES-003 Issue 7

■ D-Sub 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	34.992	V	45.5	-24.5	21.0	40.0	19.0	128.0	342.0	
2	51.219	H	37.0	-20.9	16.1	40.0	23.9	400.0	208.0	
3	70.619	V	44.3	-25.0	19.3	40.0	20.7	118.0	84.0	
4	95.111	V	40.9	-23.3	17.6	43.5	25.9	106.0	12.0	
5	99.355	H	37.3	-22.4	14.9	43.5	28.6	400.0	197.0	
6	153.433	H	40.8	-25.0	15.8	43.5	27.7	376.0	178.0	
7	184.958	V	44.4	-22.8	21.6	43.5	21.9	132.0	210.0	
8	207.995	V	42.4	-20.6	21.8	43.5	21.7	100.0	131.0	
9	215.513	H	40.5	-20.4	20.1	43.5	23.4	400.0	357.0	
10	287.778	V	43.9	-18.3	25.6	47.0	21.4	145.0	202.0	
11	393.980	H	42.7	-14.2	28.5	47.0	18.5	400.0	224.0	
12	467.955	H	37.1	-12.3	24.8	47.0	22.2	266.0	54.0	

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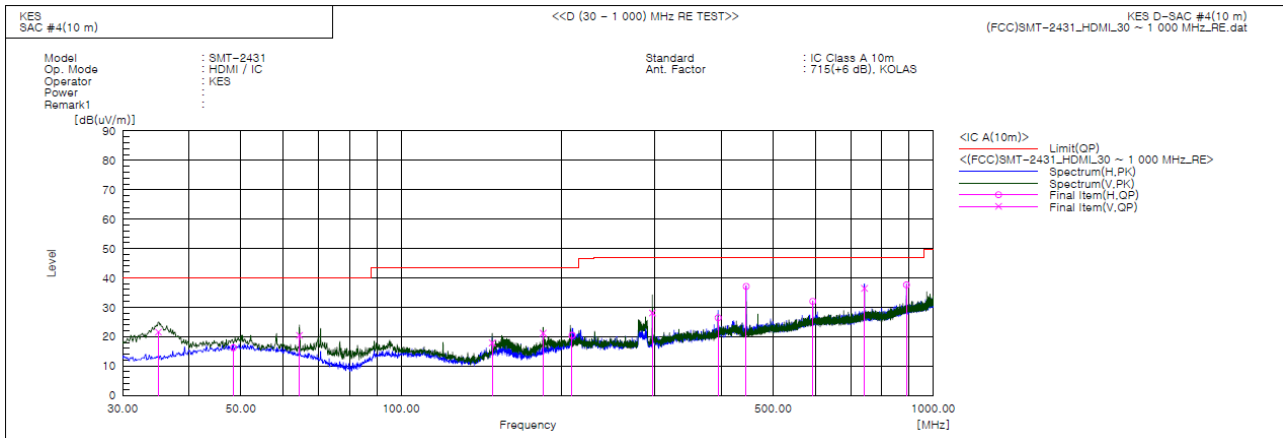
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HDMI Mode



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	35.006	V	46.1	-24.5	21.6	40.0	18.4	122.0	63.0	
2	48.430	H	37.2	-21.0	16.2	40.0	23.8	400.0	237.0	
3	64.435	V	43.4	-23.0	20.4	40.0	19.6	100.0	82.0	
4	148.340	V	43.1	-25.2	17.9	43.5	25.6	103.0	203.0	
5	184.836	V	44.0	-22.8	21.2	43.5	22.3	115.0	267.0	
6	209.450	H	41.0	-20.6	20.4	43.5	23.1	400.0	354.0	
7	296.638	V	46.1	-18.0	28.1	47.0	18.9	152.0	18.0	
8	393.993	H	40.6	-14.2	26.4	47.0	20.6	376.0	42.0	
9	445.024	H	50.1	-13.0	37.1	47.0	9.9	362.0	47.0	
10	593.449	H	40.4	-8.4	32.0	47.0	15.0	400.0	354.0	
11	741.850	V	42.8	-6.3	36.5	47.0	10.5	220.0	198.0	
12	890.148	H	41.7	-4.1	37.6	47.0	9.4	400.0	7.0	

◆ Calculation - SAC #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

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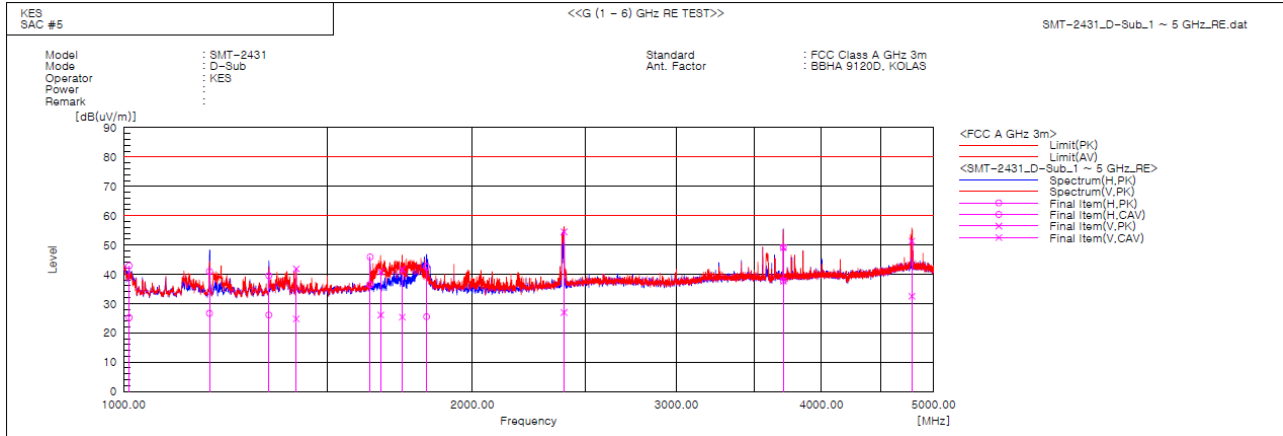
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Radiated Electric Field Emissions(Above 1 GHz)

D-Sub 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	1011.169	H	50.9	33.2	-8.0	42.9	25.2	80.0	60.0	37.1	34.8	391.0	73.1	
2	1186.069	H	48.0	33.7	-7.0	41.0	26.7	80.0	60.0	39.0	33.3	400.0	29.8	
3	1334.401	H	45.7	32.3	-6.2	39.5	26.1	80.0	60.0	40.5	33.9	399.0	16.9	
4	1409.384	V	47.7	30.6	-5.8	41.9	24.8	80.0	60.0	38.1	35.2	106.0	10.5	
5	1631.798	H	50.7	41.3	-4.8	45.9	36.5	80.0	60.0	34.1	23.5	400.0	229.4	
6	1666.779	V	45.5	30.8	-4.7	40.8	26.1	80.0	60.0	39.2	33.9	168.0	328.6	
7	1739.302	V	46.1	29.8	-4.4	41.7	25.4	80.0	60.0	38.3	34.6	100.0	321.2	
8	1825.649	H	46.6	29.5	-4.0	42.6	25.5	80.0	60.0	37.4	34.5	355.0	40.8	
9	2399.146	V	56.5	29.0	-2.0	54.5	27.0	80.0	60.0	25.5	33.0	100.0	172.8	
10	3708.750	H	48.0	36.5	1.2	49.2	37.7	80.0	60.0	30.8	22.3	268.0	207.2	
11	3708.822	V	47.9	36.5	1.2	49.1	37.7	80.0	60.0	30.9	22.3	109.0	133.8	
12	4788.765	V	46.1	27.3	5.2	51.3	32.5	80.0	60.0	28.7	27.5	140.0	21.2	

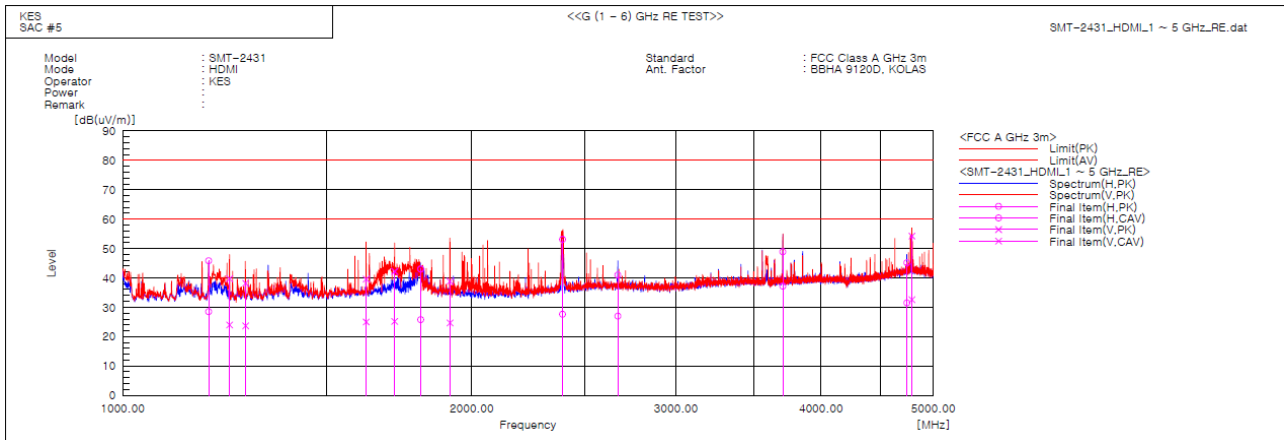
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HDMI Mode



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	1186.135	H	52.8	35.5	-7.0	45.8	28.5	80.0	60.0	34.2	31.5	335.0	149.4	
2	1236.099	V	46.4	30.7	-6.7	39.7	24.0	80.0	60.0	40.3	36.0	200.0	177.2	
3	1275.960	V	44.7	30.2	-6.5	38.2	23.7	80.0	60.0	41.8	36.3	184.0	210.6	
4	1621.241	V	44.5	29.9	-4.9	39.6	25.0	80.0	60.0	40.4	35.0	177.0	157.7	
5	1715.603	V	46.7	29.7	-4.5	42.2	25.2	80.0	60.0	37.8	34.8	100.0	196.5	
6	1806.792	H	47.1	29.9	-4.1	43.0	25.8	80.0	60.0	37.0	34.2	103.0	40.3	
7	1915.093	V	42.6	28.5	-3.8	38.8	24.7	80.0	60.0	41.2	35.3	100.0	136.6	
8	2394.633	H	55.1	29.6	-2.0	53.1	27.6	80.0	60.0	26.9	32.4	289.0	68.1	
9	2672.701	H	41.8	27.8	-0.8	41.0	27.0	80.0	60.0	39.0	33.0	315.0	5.1	
10	3708.596	H	47.7	36.0	1.2	48.9	37.2	80.0	60.0	31.1	22.8	400.0	206.7	
11	4743.944	H	40.1	26.5	5.0	45.1	31.5	80.0	60.0	34.9	28.5	400.0	286.6	
12	4792.115	V	49.0	27.4	5.2	54.2	32.6	80.0	60.0	25.8	27.4	106.0	155.2	

◆ Calculation

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

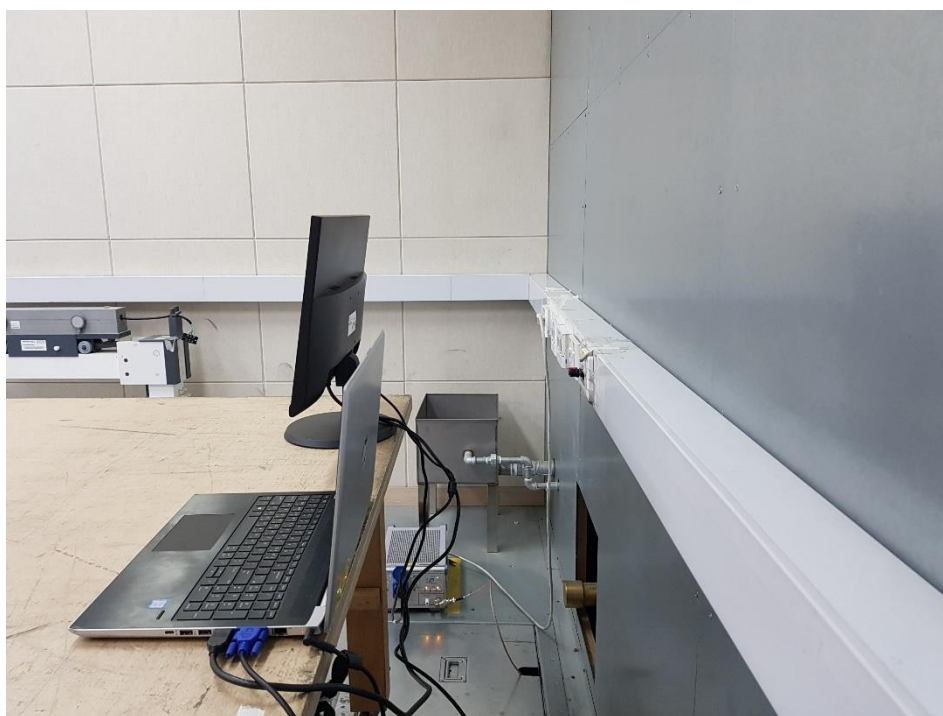
Margin(PK/CAV)[dB] = Limit[dB(μV/m)] - Result(PK/CAV) [dB(μV/m)]

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



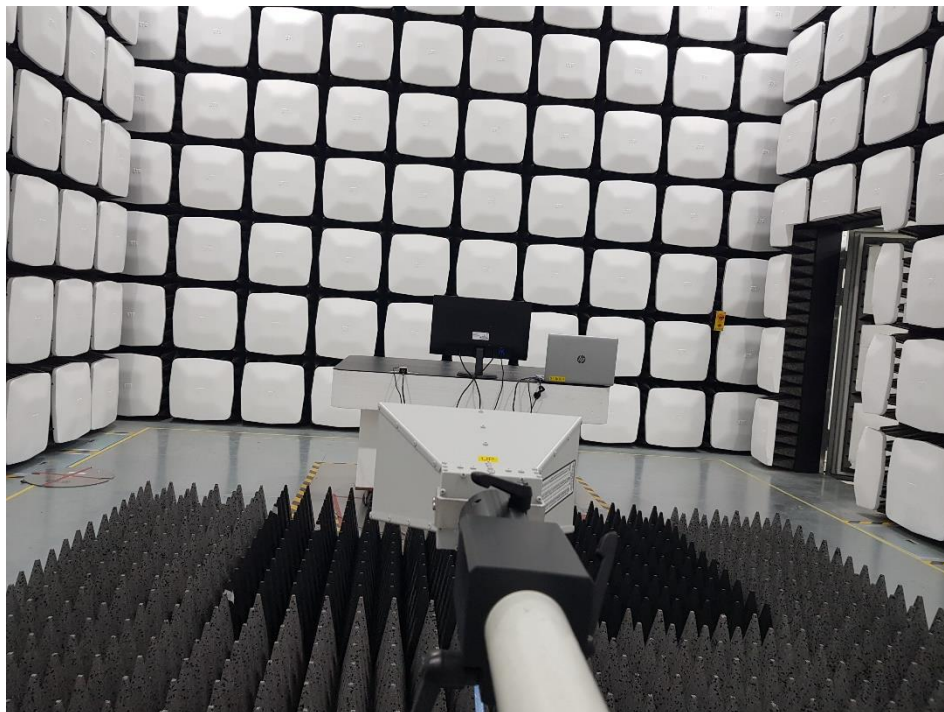
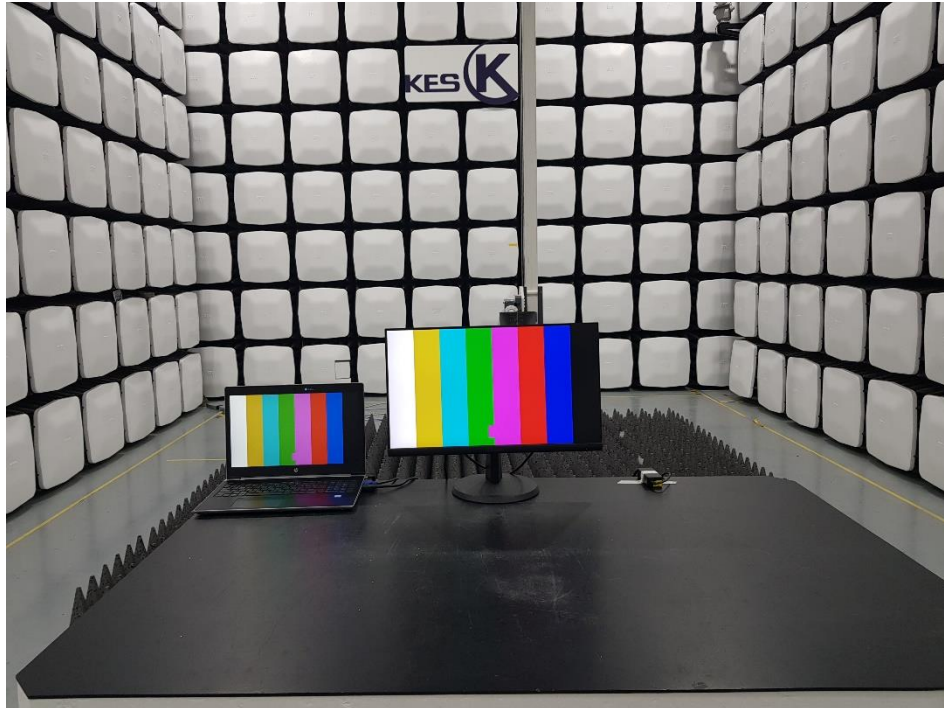
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Radiated Electric Field Emissions(Below 1 GHz)



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Radiated Electric Field Emissions(Above 1 GHz)



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EUT External Photographs

(Top)

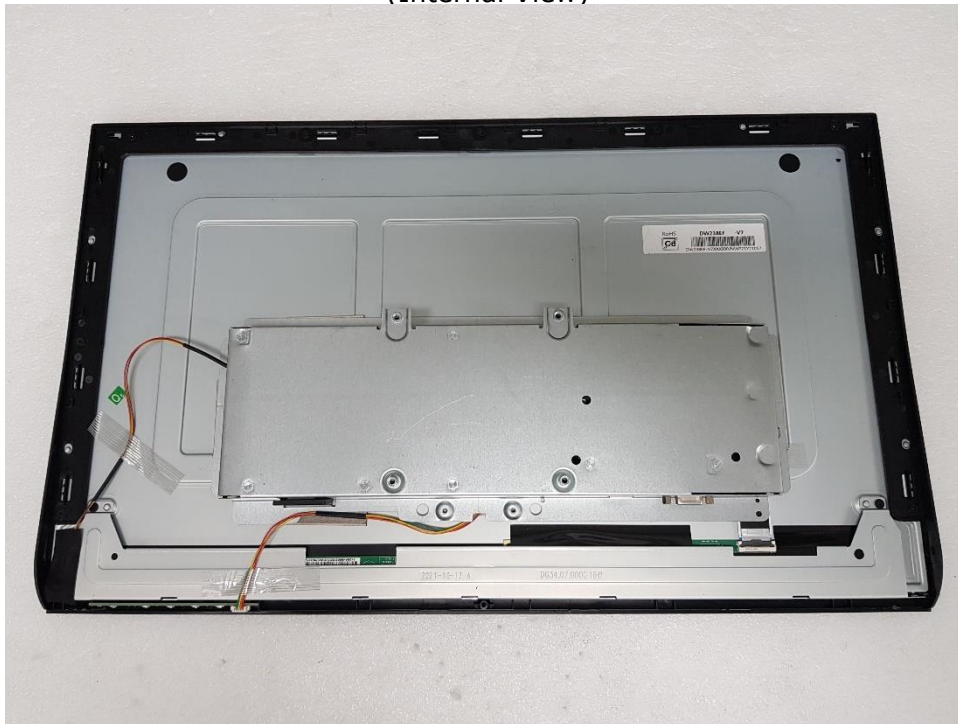


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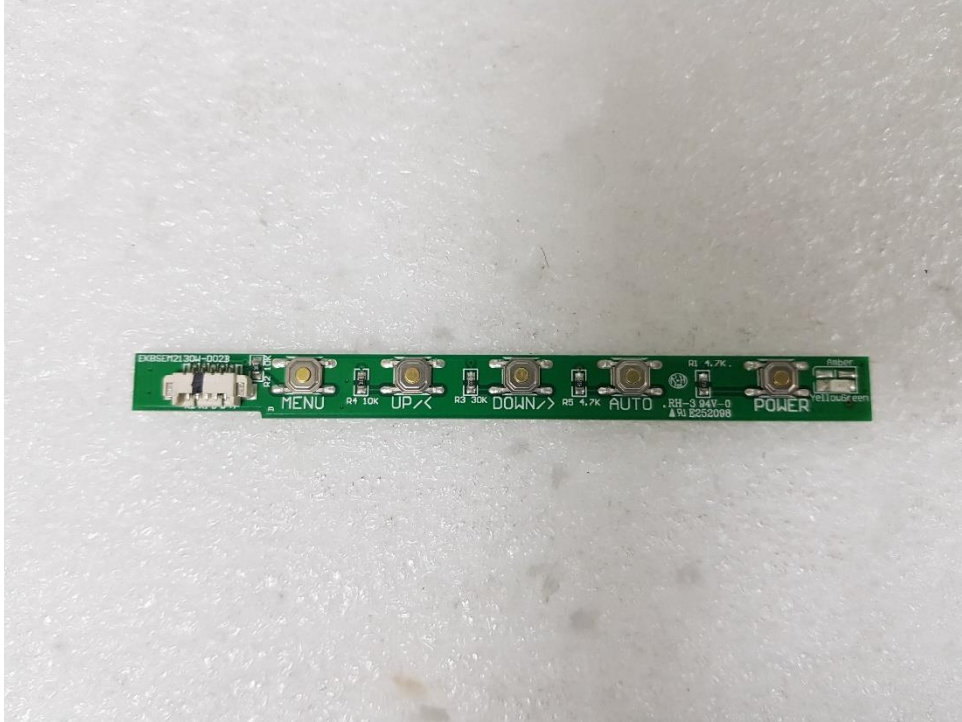
EUT Internal Photographs

(Internal View)



EUT Internal View – Board 1

(Top)



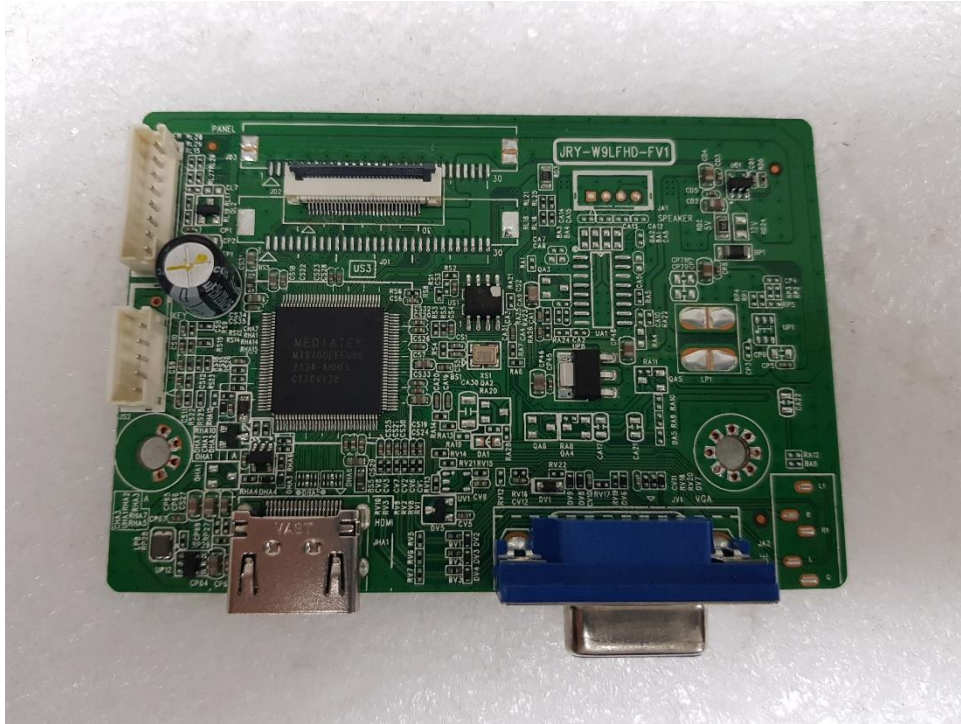
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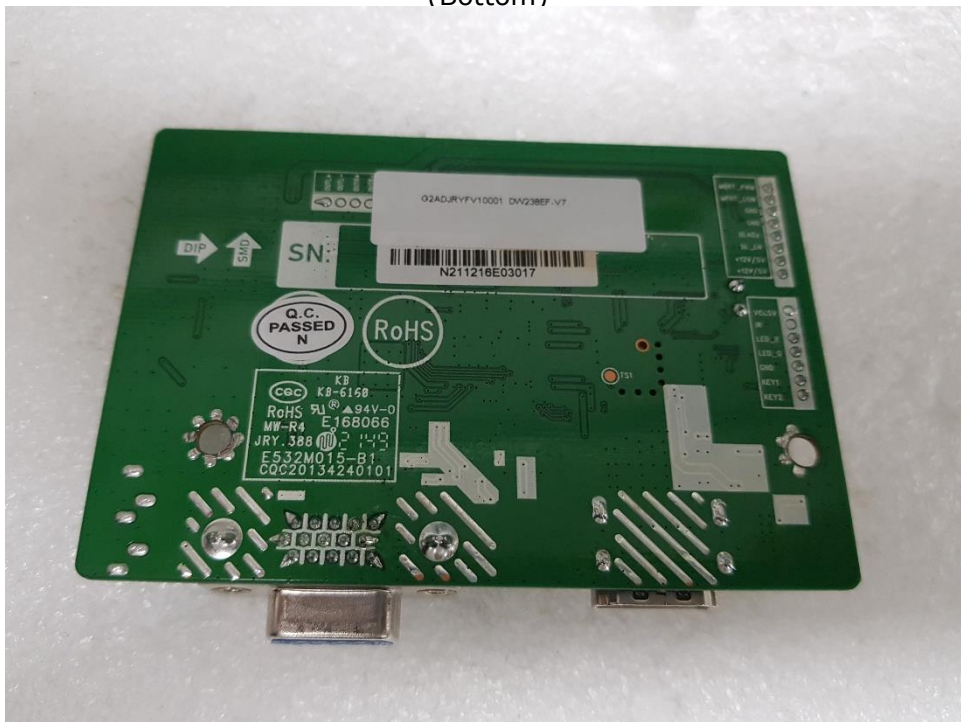
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EUT Internal View – Board 2

(Top)



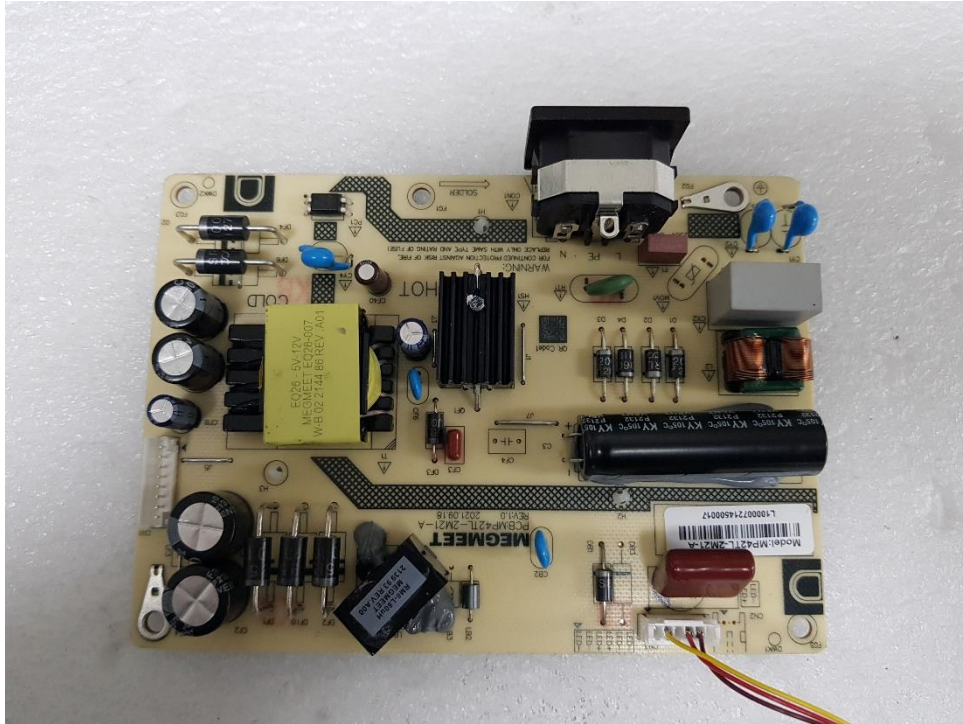
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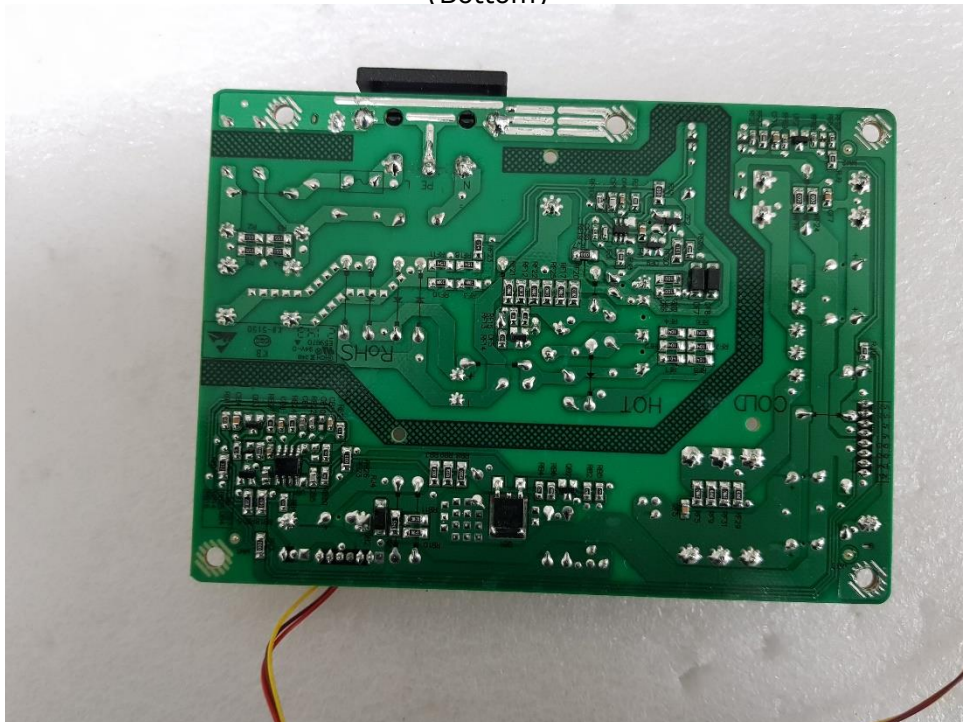
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EUT Internal View – Board 3

(Top)



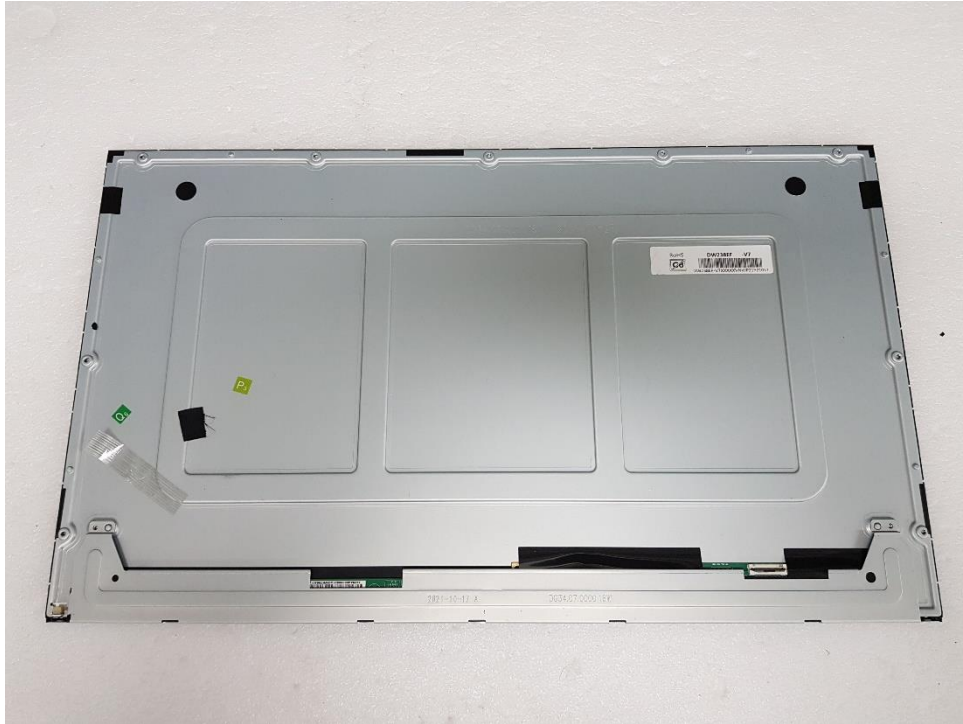
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EUT Internal View – Panel

(Top)



(Bottom)



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Label Photographs



CAN ICES-3(A) / NMB-3(A)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

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.