Product Validation Report

Product Name	**: MCD27102**
Model Name	**: RUH2773AMII-P**
Product Stage	**: MP**
Product No.	**: 1A1A27245300800**
Revision	**: 1**

Prepared By : Joe Lin **Date : 2026/05/28**

Approved By : RongChi Lin **Date : 2026/05/28**

Index & Content			
Part	**Test Item**	**Descriptions**	**Result**
F/W	Image Quality Test	Supplier Requirements Specification	PASS
F/W	Characteristic Test	All optical characteristic must be within engineering and product spec.	PASS
F/W	Source Test	Test and verify input source and output source are working properly and according to spec.	PASS

Product Front View



Product Rear View



Available Connections



Characteristic Test

Test Engineer	Joe Lin	Date	2026/5/28	Stage	Result
				MP	PASS

Test Propose

All optical characteristic must be within engineering and product spec.

Evaluation Environment

Temperature	24±2°C
Relative Humidity	50%±10%(RH)

Evaluation Equipment

Computer	Intel ® Core™ i5-4440 CPU @ 3.10GHz		
Graphics Card	NVIDIA Quadro K2000D- Driver 392.00		
O.S.	Windows 7 Professional 32 bit		
Test Equipment	EXTECH AC POWER SOURCE CFW-105	Display Color Analyzer : KONICA MINOLTA CA-310	N/A

Evaluation Unit Level

LCD Type	AUO G270ZAN01.5
Power Adapter	24V, 3ZAD24V3740
F/W Version	MCD27102_251209R0V01
Main Board	RTD2795
Controller Board	N/A
Speaker	10Wx2
Interface Option	HDMI X2、DP、Audio
Touch Panel Type	N/A
Serial Number	OLA21180049

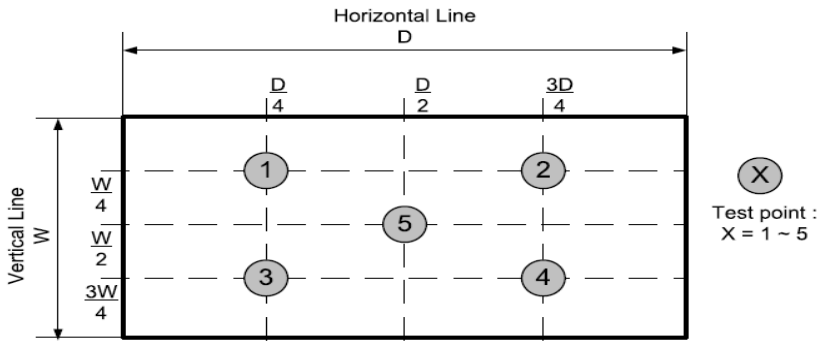
Test Standard

Characteristic Test Specification

Criteria

1. Brightness value must be greater than the minimum panel specification.
2. Contrast value must be greater than the min panel spec.
3. RGB value must be within≦±0.03
4. Color Temperature(x, y)≦±0.03
5. Follow Panel Spec / Engineering Spec/Product Spec.

Optical Characteristic Test



Test Procedure	Result	Note
1. Burn in more than 30 min.	Pass	
2. Confirm adjust OSD settings :Brightness→100 , Contrast→90, Color Temperature→User ,Gamma→Neutral	Pass	
3. Open white pattern,use the X-RiteiOne or Color Analyzer CA-310 to measure the screen five points.	Pass	
4. Record the x, y, and Y values of five points.	Pass	
5. Check that the characteristic meet the specifications.	Pass	

Test Condition

Measure Sensor	i-One	**Measure Tool**	DisplayMate for Windows(DMW)	**Resolution**	1920x1080 60Hz/DVI
Brightness	100	**Gamma**	N/A	**Color Temperature**	User
Measure Pattern	White Pattern/Black Pattern			**Contrast**	90

Test Spec

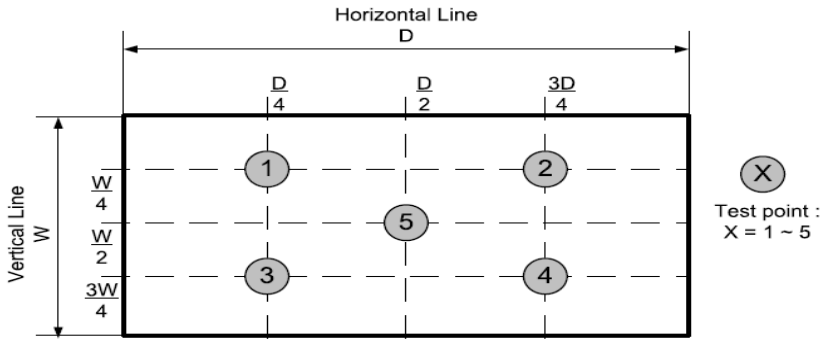
White Luminance (Center of screen)	400cd/m² (Min),500cd/m² (Typ)
Contrast Ratio (Center of screen)	700 (Min),1000 (Typ)

Measurement Record

Condition	Position	Measure value			Result	Note
		x	y	Y		
White Pattern BrightnessI =100 Contrast= 90 Color Mode= User	Up-Left Corner	0.3193	0.3236	379.32	Pass	Unit: cd/m²
	Up-Right Corner	0.3231	0.3237	401.41	Pass	Unit: cd/m²
	Center	0.3183	0.3201	407.77	Pass	Unit: cd/m²
	Down-Left Corner	0.3169	0.3218	395.20	Pass	Unit: cd/m²
	Down-Right Corner	0.3214	0.3194	422.16	Pass	Unit: cd/m²
Black Pattern	Center	0.2734	0.2606	0.42	Pass	Unit: cd/m²

Measurement Conclusion	Measure value	Result	Note
Contrast Ratio	974.8	Pass	
White Luminance (Center Position)	407.77	Pass	Unit: cd/m²

Color Chromaticity Test



Test Procedure	Result	Note
1. Burn in more than 30 minutes.	Pass	
2. Confirm adjust OSD settings : Brightness→90 , Contrast→90, Color Temperature→User ,Gamma→Neutral	Pass	
3. Execute Red/Green/Blue/White pattern,and use the X-RiteiOne or CA-310 to measure the screen five points.	Pass	
4. Record the x, y, and Y values of five points.	Pass	
5. Check that the x and y values match the panel spec range.	Pass	

Test Condition

Measure Sensor	CA-310	Measure Tool	DisplayMate for Windows(DMW)	Resolution	1280x1024 60Hz/DVI
Color Temperature	User	Brightness	90	Gamma	Neutral
Measure Pattern	Red/Green/Blue/White screen				

Test Spec

Color/Chromaticity Coordinates	x , y	Spec (-0.03)	x	Spec (+0.03)	Spec (-0.03)	y	Spec (+0.03)
Red x , Red y	Rx , Ry	0.644	0.674	0.704	0.281	0.311	0.341
Green x , Green y	Gx , Gy	0.237	0.267	0.297	0.635	0.665	0.695
Blue x , Blue y	Bx ,By	0.123	0.153	0.183	0.02	0.05	0.08
White x , White y	Wx , Wy	0.283	0.313	0.343	0.299	0.329	0.359

Measurement Record

Condition	Position		Measure Data			Result	Note
			x	y	Y		
Red x:0.674±0.03 Red y:0.311±0.03	Red	Up-Left Corner	0.6763	0.3139	91.22	Pass	
		Up-Right Corner	0.6762	0.3139	99.09	Pass	
		Center	0.6762	0.3137	99.73	Pass	
		Down-Left Corner	0.6760	0.3138	94.02	Pass	
		Down-Right Corner	0.6767	0.3138	104.71	Pass	
Condition	**Position**		**Measure Data**			**Result**	**Note**
			x	**y**	**Y**		
Green x:0.267±0.03 Green y:0.665±0.03	Green	Up-Left Corner	0.2664	0.6474	266.09	Pass	
		Up-Right Corner	0.2687	0.6449	281.22	Pass	
		Center	0.2665	0.6465	284.02	Pass	
		Down-Left Corner	0.2654	0.6495	277.03	Pass	
		Down-Right Corner	0.2679	0.6454	291.66	Pass	
Condition	**Position**		**Measure Data**			**Result**	**Note**
			x	**y**	**Y**		
Blue x:0.153±0.03 Blue y:0.05±0.03	Blue	Up-Left Corner	0.1475	0.0506	24.05	Pass	
		Up-Right Corner	0.1475	0.0510	25.42	Pass	
		Center	0.1476	0.0496	25.97	Pass	
		Down-Left Corner	0.1476	0.0496	24.96	Pass	
		Down-Right Corner	0.1473	0.0498	26.68	Pass	
Condition	**Position**		**Measure Data**			**Result**	**Note**
			x	**y**	**Y**		
White x:0.313±0.03 White y:0.329±0.03	White	Up-Left Corner	0.3193	0.3236	379.32	Pass	
		Up-Right Corner	0.3231	0.3237	401.41	Pass	
		Center	0.3183	0.3201	407.77	Pass	
		Down-Left Corner	0.3169	0.3218	395.20	Pass	
		Down-Right Corner	0.3214	0.3194	422.16	Pass	

Color Temperature Test

Test Procedure	Result	Note
1. Burn in more than 30 minutes.	Pass	
2. Confirm adjust OSD settings : Brightness→90 , Contrast→90, Gamma→2.2 , Color Temperature→All	Pass	
3. Confirm open white pattern and use the X-RiteiOne or Color Analyzer CA-310 to measure the center position.	Pass	
4. Record x, y and Y values for different color temperatures.	Pass	
5. Check that the x and y values match the spec range.	Pass	

Test Condition

Measure Sensor	CA-310	Measure Tool	DisplayMate for Windows(DMW)	Resolution	1280x1024 60Hz/DVI
Gamma	2.2	Brightness	90	Color Temperature	Cool/Neutral/Warm/User

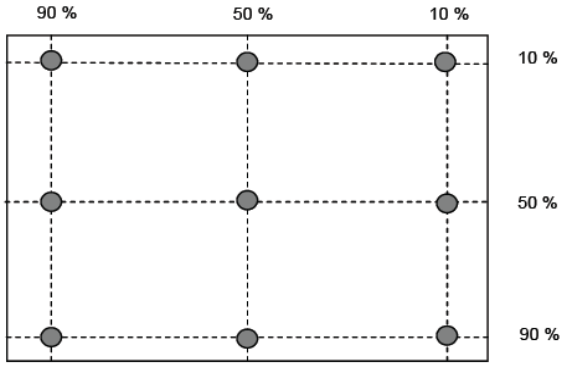
Test Spec

Color Temperature	x , y	Spec (-0.03)	x	Spec (+0.03)	Spec (-0.03)	y	Spec (+0.03)
Cool	x , y	0.264	0.294	0.324	0.279	0.309	0.339
Neutral	x , y	0.283	0.313	0.343	0.299	0.329	0.359
Warm	x , y	0.304	0.334	0.364	0.313	0.343	0.373
User	x , y	0.283	0.313	0.343	0.299	0.329	0.359

Measurement Record

Color Temperature	Position	Measure Data			Result	Note
		x	y	Y		
Cool	Center Position	0.2987	0.3108	178.5714	Pass	
Neutral	Center Position	0.3129	0.3374	219.8022	Pass	
Warm	Center Position	0.3325	0.349	186.3784	Pass	
User	Center Position	0.3135	0.3438	238.7759	Pass	

Luminance Uniformity Test



Test Procedure	Result	Note
1. Burn in more than 30 min.	Pass	
2. Confirm adjust OSD settings : Brightness→90 , Contrast→90, Gamma→Neutral , Color Temperature→User	Pass	
3. Confirm open X-RiteiOne measure Tool Uniformity Din 6868-157 Function to measure 9 points.	Pass	
4. Check that the uniformity matches the spec range.	Pass	

Test Condition

Measure Sensor	CA-310	Measure Tool	DisplayMate for Windows(DMW)	Resolution	1280x1024 60Hz/DVI
Brightness	90	Contrast	90	Color Temperature	User
GAMMA	Neutral	Measure Pattern	Full White Pattern		

Test Spec

Luminance Uniformity (9 points)	75%(Min),80%(typ)

Measurement Record

Condition	Position	Measure Data			Result	Note
		x	y	Y		
White Pattern (9 points)	Upper Left Corner	0.3194	0.3233	381.37	Pass	Unit: cd/m²
	Upper Middle Corner	0.3214	0.3234	420.06	Pass	Unit: cd/m²
	Upper Right Corner	0.3231	0.3235	398.95	Pass	Unit: cd/m²
	Center Left Corner	0.3172	0.3216	367.92	Pass	Unit: cd/m²
	Center	0.3187	0.3195	405.35	Pass	Unit: cd/m²
	Center Right Corner	0.3219	0.321	399.71	Pass	Unit: cd/m²
	Bottom Left Corner	0.3174	0.3223	393.20	Pass	Unit: cd/m²
	Bottom Middle Corner	0.3195	0.3209	388.90	Pass	Unit: cd/m²
	Bottom Right Corner	0.3223	0.3201	418.80	Pass	Unit: cd/m²

Measurement Conclusion	Luminance Uniformity (9 points) Calculation	Result	Note
White Variation (9 points)	87.59%	Pass	(Minimum Brightness of 9 points)/ (Maximum Brightness of 9 points) x100%

Gamma Test

Test Procedure	Result	Note
1. Burn in more than 1 hours or more.	Pass	
2. Confirm adjust OSD settings (Gamma Neutral/2.2).	Pass	
3. Confirm open DIVA Measure Tool and use x-rite1 to measure Gamma curve 16bits.	Pass	
4. Record the Y value of Gamma 2.2 16bits.	Pass	
5. Check that the Gamma matches the spec range.	Pass	

Test Condition

Sensor	x-rite1	Test Tool	DIVA Measure Tool v2.0.4.0	Input Timing	1920x1080 60Hz/DP
Brightness	50	Contrast	90	Color Temperature	Cool/Neutral/Warm/User
Gamma	1.8、2.0、2.2、2.4	Measure Pattern	DIVA Measure Tool -> Gamma Measurement Pattern		

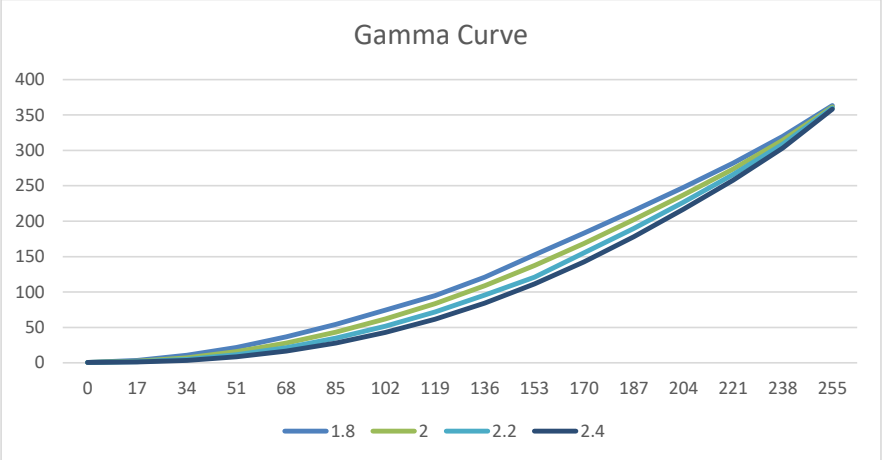
Test Spec

Item	Spec(-0.1)	Gamma	Spec(+0.1)
Gamma 1.8	1.7	1.8	1.9
Gamma 2.0	1.9	2.0	2.1
Gamma 2.2	2.1	2.2	2.3
Gamma 2.4	2.3	2.4	2.5

Gamma Data

Level	1.8	2	2.2	2.4
0	0.48	0.48	0.48	0.48
17	3.32	2.09	1.42	1.03
34	10.60	7.15	4.91	3.38
51	21.79	15.76	11.36	8.31
68	36.51	27.94	21.37	16.38
85	54.10	43.36	34.83	27.89
102	74.45	61.92	51.67	42.90
119	94.99	83.61	71.78	61.58
136	121.02	108.80	95.52	84.25
153	152.47	137.33	120.87	111.29
170	182.98	168.45	155.33	142.63
187	214.90	202.07	189.73	178.16
204	247.72	236.84	226.75	216.80
221	282.17	273.53	265.82	258.04
238	319.91	314.11	308.71	303.44
255	363.38	361.38	359.85	358.23
Measure Gamma	1.77	1.97	2.17	2.38
Result	Pass	Pass	Pass	Pass

Gamma Curve


Gamma Curve
400
350
300
250
200
150
100
50
0
0
17
34
51
68
85
102
119
136
153
170
187
204
221
238
255
1.8
2
2.2
2.4

DICOM Test

Test procedure	Result	Note
1. Burn in more than 30 min.	Pass	
2. Adjust OSD settings (DICOM).	Pass	
3. Open I1 Measure Tool DICOM to measure.	Pass	
4. Record the DICOM value and put it into the standard TUV analysis.	Pass	
5. Check that the DICOM matches the Spec range.	Pass	

Test Condition

Sensor	X-ritei1	Test Tool	DIVA Measure Tool	Input Timing	1920x1080 60Hz/DP
Color Temperature	DICOM	Brightness	Not Available	Contrast	Not Available
Measure Pattern	Full white				

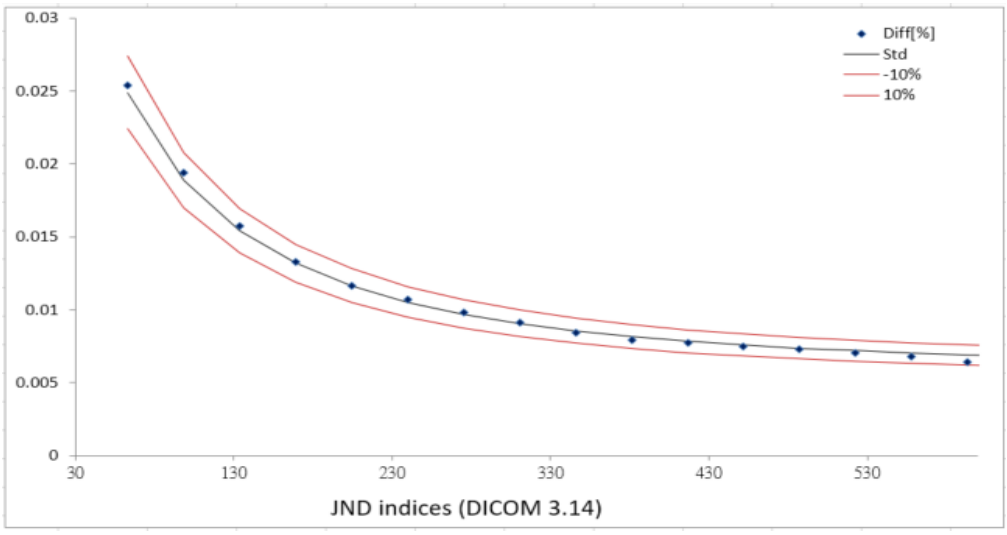
Test Spec

DICOM	GSDF Deviations < ±10%

Gamma Data

Item	Level	L (cd/m²)	dL/L	Std(dL/L)	diff[%]	JND	Note
DICOM	0	0.4814	0.02537	0.02492	1.82226	63.05916	
	15	1.2643	0.01938	0.01890	2.49709	98.41306	
	30	2.5816	0.01574	0.01542	2.09244	133.76696	
	45	4.5727	0.01327	0.01318	0.67089	169.12086	
	60	7.376	0.01165	0.01164	0.01272	204.47476	
	75	11.2003	0.01070	0.01053	1.55562	239.82865	
	90	16.4245	0.00980	0.00970	0.93978	275.18255	
	105	23.3038	0.00912	0.00907	0.57737	310.53645	
	120	32.2616	0.00845	0.00857	-1.35474	345.89035	
	135	43.5955	0.00796	0.00817	-2.58728	381.24425	
	150	57.872	0.00772	0.00785	-1.61027	416.59814	
	165	76.1743	0.00748	0.00759	-1.47933	451.95204	
	180	99.3777	0.00731	0.00738	-0.94042	487.30594	
	195	128.8534	0.00706	0.00720	-1.90352	522.65984	
	210	165.6121	0.00679	0.00705	-3.68705	558.01374	
	225	210.8115	0.00641	0.00693	-7.45985	593.36764	
	240	264.735	0.00657	0.00683	-3.78419	628.72153	
	255	334.343					
	Result	Pass					

Gamma Curve (DICOM)



Source Test

Test Engineer	Joe Lin	Date	2026/5/27	Stage	Result
				MP	PASS

Test Propose

Test and verify input source are working properly and according to spec.

Evaluation Unit Level

Temperature	25°C±2°C
Reltative Humidity	50%±10%(RH)

Evaluation Equipment

Computer	Intel ® Core™ i5-4440 CPU @ 3.10GHz		
Graphics Card	NVIDIA Quadro K2000D- Driver 392.00		
O.S.	Windows 7 Professional 32 bit		
Test Equipment	AC POWER SOURCE CFW-105	ASTRO VIDEO GENERATOR VG-859C	QUNANTUMDATA VIDEO TEST GENERATOR 882

Evaluation Unit Level

LCD Type	AUO G270ZAN01.5
Power Adapter	24V, 3ZAD24V3740
F/W Version	MCD27102_251209R0V01
Main Board	RTD2795
Controller Board	N/A
Speaker	10W x2
Interface Option	HDMI X2、DP、Audio
Touch Panel Type	N/A
Serial Number	OLA21180049

Test Standard

Source Test Specification

Criteria

1. All supported signal must display properly.
2. When there's no signal, No signal is displayed.
3. When Off Mode is turn on, make sure monitor will go to sleep.
4. Make sure when switching signal or plug/unplug signal LCD display properly.
5. Follow Engineering Spec/Product spec.

Source Test

Test Condition

Timming	1920x1080 60Hz DP	Test Pattern	General Pattern	Source	All Support Source

Function Check

Test Item	Description	Result	Note
DP	1. Confirm connect DP connector of the LCD monitor and an DP output device with the attached DP cable.	Pass	
	2. Confirm DP signal LED indicator show green and the screen display normal.	Pass	
	3. Confirm unplug DP signal , make sure OSD Message shows " No Signal " and go to power saving mode.	Pass	
	4. Check AC power on/off and the screen display normal.	Pass	
	5. Check DC power on/off and the screen display normal.	Pass	
	6. Check plug and unplug DP signal connection and the screen display normal.	Pass	
HDMI	1. Confirm connect HDMI connector of the LCD monitor and an HDMI output device with the attached HDMI cable.	Pass	
	2. Confirm HDMI signal LED indicator show green and the screen display normal.	Pass	
	3. Confirm unplug HDMI signal , make sure OSD Message shows " No Signal " and go to power saving mode.	Pass	
	4. Check AC power on/off and the screen display normal.	Pass	
	5. Check DC power on/off and the screen display normal.	Pass	
	6. Check plug and unplug HDMI signal connection and the screen display normal.	Pass	
HDMI	1. Confirm connect HDMI connector of the LCD monitor and an HDMI output device with the attached HDMI cable.	Pass	
	2. Confirm HDMI signal LED indicator show green and the screen display normal.	Pass	
	3. Confirm unplug HDMI signal , make sure OSD Message shows " No Signal " and go to power saving mode.	Pass	
	4. Check AC power on/off and the screen display normal.	Pass	
	5. Check DC power on/off and the screen display normal.	Pass	
	6. Check plug and unplug HDMI signal connection and the screen display normal.	Pass	

Image Quality Test

Test Engineer	Joe Lin	Date	2026/5/27	Stage	Result
				MP	PASS

Test Propose

Check display image quality

Evaluation Unit Level

Temperature	25ºC±2ºC
Reltative Humidity	50%±10%(RH)

Evaluation Equipment

Processor	Gen Intel® Core™ i5-13400F 2.50GHz	Gen Intel® Core™ i5-13400F 2.50GHz	
Graphics Card	NVIDIA GeForce RTX 3070-Driver 471.41	NVIDIA Quadro 2000D - Driver 377.83	
O.S.	Windows 11 Pro - 64bit	Windows 11 Pro - 64bit	
Test Equipment	DP/DVI-DL Converter	N/A	N/A

Evaluation Unit Level

LCD Type	AUO G270ZAN01.5
Power Adapter	24V, 3ZAD24V3740
F/W Version	MCD27102_251209R0V01
Main Board	RTD2795
Controller Board	N/A
Speaker	10Wx2
Interface Option	HDMI X2、DP、Audio
Touch Panel Type	N/A
Serial Number	OLA21180049

Test Standard

Supplier Requirements Specification

Criteria

1. After monitor coming off suspend or screen saver, it must display normally.
2. Perform tests using graphic card and make sure no blank, blinking or other abnormal displays.
3. Follow Supplier Requirements Specification.
4. Cross talk, Mura, Reflection Mirror must be check.

Image Quality Test					
Test Procedure				**Result**	**Note**
1. Confirm connection display with PC Graphics and switch source DP..				**Pass**	
2. Check whether the various Patterns screens are normal, and there should be no distortion or breakage.				**Pass**	
3. Verify against different resolutions.				**Pass**	
4. Check test pattern can not have discoloration, shaking, over saturated line, dots.				**Pass**	
Test Condition					
Input Source	DP	**Test Pattern Software**	TOSHIBA Test Pattern		
Resolution	**Test Pattern Software**	**Input Source**	**Test Pattern**	**Result**	**Note**
800x600/60Hz	TOSHIBA Test Pattern	DP	SMPTE Test Pattern	**Pass**	
			Grayscale Test Pattern	**Pass**	
			ColorBar Test Pattern	**Pass**	
			Raster Test Pattern	**Pass**	
1920x1080/60Hz	TOSHIBA Test Pattern	DP	SMPTE Test Pattern	**Pass**	
			Grayscale Test Pattern	**Pass**	
			ColorBar Test Pattern	**Pass**	
			Raster Test Pattern	**Pass**	
2560x1440/60Hz	TOSHIBA Test Pattern	DP	SMPTE Test Pattern	**Pass**	
			Grayscale Test Pattern	**Pass**	
			ColorBar Test Pattern	**Pass**	
			Raster Test Pattern	**Pass**	
3840x2160/60Hz	TOSHIBA Test Pattern	DP	SMPTE Test Pattern	**Pass**	
			Grayscale Test Pattern	**Pass**	
			ColorBar Test Pattern	**Pass**	
			Raster Test Pattern	**Pass**	
			Monitor Test Image	**Pass**	

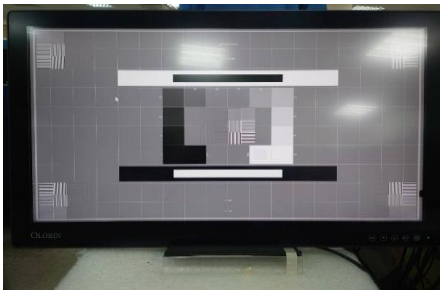
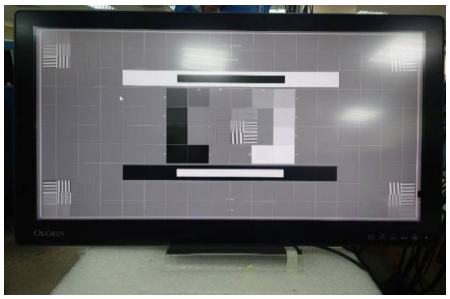
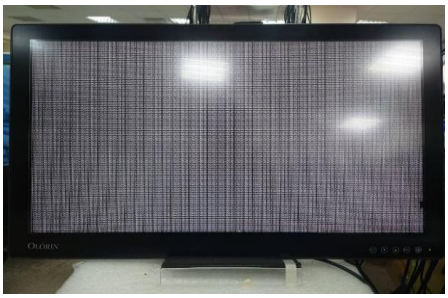
PHOTO OF TEST		
Test image	Test image	Note
		
Test image	Test image	Note
		
Test image	Test image	Note
		

Image Quality Test					
Test Procedure				**Result**	**Note**
1. Confirm connection display with PC Graphics and switch source HDMI.				**Pass**	
2. Check whether the various Patterns screens are normal, and there should be no distortion or breakage.				**Pass**	
3. Verify against different resolutions.				**Pass**	
4. Check test pattern can not have discoloration, shaking, over saturated line, dots.				**Pass**	
Test Condition					
Input Source	HDMI	**Test Pattern Software**	TOSHIBA Test Pattern		
Resolution	**Test Pattern Software**	**Input Source**	**Test Pattern**	**Result**	**Note**
800x600/60Hz	TOSHIBA Test Pattern	HDMI	SMPTE Test Pattern	**Pass**	
			Grayscale Test Pattern	**Pass**	
			ColorBar Test Pattern	**Pass**	
			Raster Test Pattern	**Pass**	
1920x1080/60Hz	TOSHIBA Test Pattern	HDMI	SMPTE Test Pattern	**Pass**	
			Grayscale Test Pattern	**Pass**	
			ColorBar Test Pattern	**Pass**	
			Raster Test Pattern	**Pass**	
2560x1440/60Hz	TOSHIBA Test Pattern	HDMI	SMPTE Test Pattern	**Pass**	
			Grayscale Test Pattern	**Pass**	
			ColorBar Test Pattern	**Pass**	
			Raster Test Pattern	**Pass**	
3840x2160/60Hz	TOSHIBA Test Pattern	HDMI	SMPTE Test Pattern	**Pass**	
			Grayscale Test Pattern	**Pass**	
			ColorBar Test Pattern	**Pass**	
			Raster Test Pattern	**Pass**	
			Monitor Test Image	**Pass**	

PHOTO OF TEST		
Test image	Test image	Note
		
Test image	Test image	Note
		
Test image	Test image	Note
		