

Product Specification



- Tentative Specification release
- Preliminary Specification
- Final Specification

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New Optics Model No. : 550FXF2R-JN.

APPROVED BY	DATE
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Product Specification

1. General

Display	
Active Screen Size	54.64 inches (1387.8mm) diagonal
Panel Type	LG Display Panel
Resolution	1920 × 1080(FHD) 60Hz, RGBW stripe arrangement
Luminance ,white	2500 nit (Center 1point, Typical) (Min 2250nit)
Color Gamut	NTSC 68%(Min.) / 72%(Typ.)
Color Depth	8-bit, 16.7M colors
Contrast Ratio	2000:1(Typical)
Response time	6ms(G to G _o), 9ms(Gray to Gray(BW))
Back Light	Edge LED Backlight Unit
Surface Treatment	Anti-Reflection treatment of the front glass QWP Pol / OCR Type Direct Bonding

Physical	
Outline Dimension	1271.60(H) x 743.1(V) x 47.1(D) mm
Bezel	U/D : 30mm, L/R : 29.75 mm,
Weight	42.0kg(Without Adopter)

Packing	
Outline Dimension	1405.0(H) x 872.0(V) x 212.0(D) mm
Weight	47.0kg (Typ.)

Power		
Power Consumption	Normal Operation	195W (Typ.)
Power Supply	AC Voltage (AC Inlet Type)	100~240V , 50/60Hz

Environmental Requirements	
Operating Temperature	-30℃ ~ 50℃ (W/Fan)
Operating Humidity	10 – 90%

**If used below 0 degrees, afterimage may occur due to LCD characteristics.

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Features

Main Board	ChipSet	MSD3683		
	OSD Language	English (French, Spanish, Deutsch, Italiano, русский)		
	Video Input	DP	480i, 480p, 720p, 1080i, 1080p	
		HDMI	480i, 480p, 720p, 1080i, 1080p	
		Component(mini)	480i, 480p, 720p, 1080i, 1080p	
		CVBS(mini)	480i, 576i	
	Audio Output	SPDIF, Earphone		
	Panel Resolutions	V by one UHD(3840x2160) Panel interface		
	Ambient Light Sensor	Yes		
	Input Terminal	DP	DP	
		HDMI	2 HDMI (Ver2.0), HDCP 2.2, CEC, ARC(HDMI2)	
USB		S/W Update, Multimedia play		
ALS		External Ambient Light Sensor		
Output Terminal	SPDIF	Optical fiber		
	Earphone	3.5mm jack		
Monitoring Board	I/O Port	IR In	3.5mm jack	
		IR Out	3.5mm jack	
		LAN	RJ45 Ethernet Port (Control Monitoring Board)	
		RS232	3.5mm jack (Control Monitoring Board)	
		DC Out	5V/3.5A(USB), 12V/2A(DC jack)	
	Function	Temp Sensor	3EA	
		Humi Sensor	1EA	
		Current Check	Back Light 4channel	
		Gyro Sensor	Orientation / Impact	

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I/O Port

Port	Bottom	Rear Box			Remarks
		Top	Left	Right	
DP		O			Main Board Use
HDMI		x2			
Mini Component		O			
Mini CVBS		O			
SPDIF (Optical out)		O			
Audio Out (Earphone)		O			
External ALS In		O			
USB		O			
Ethernet (100Mbps)		O			Monitoring Use
Serial (RS-232C)		O			
IR In / Out		O			
DC Output (5V/12V)		O			
AC Power (AC Inlet)				O	Set Power Use

Certification & Approvals

UL	T.B.D	USA
FCC	T.B.D	USA
IP65	T.B.D	
CE	T.B.D	EU

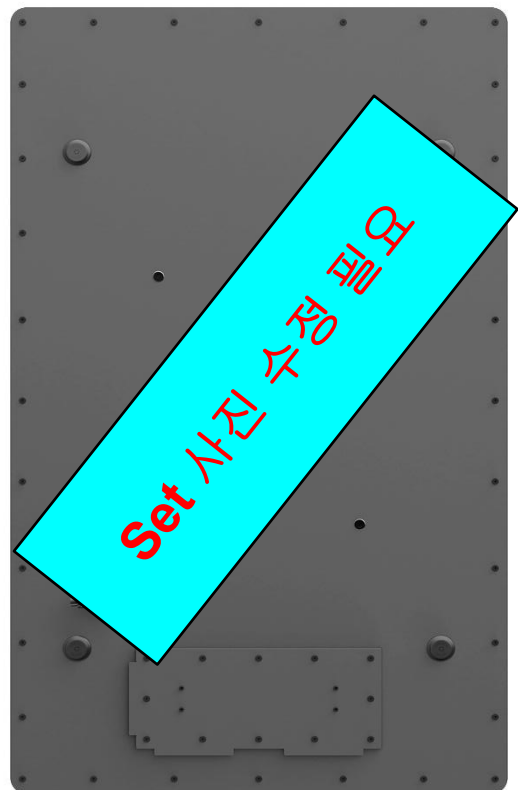
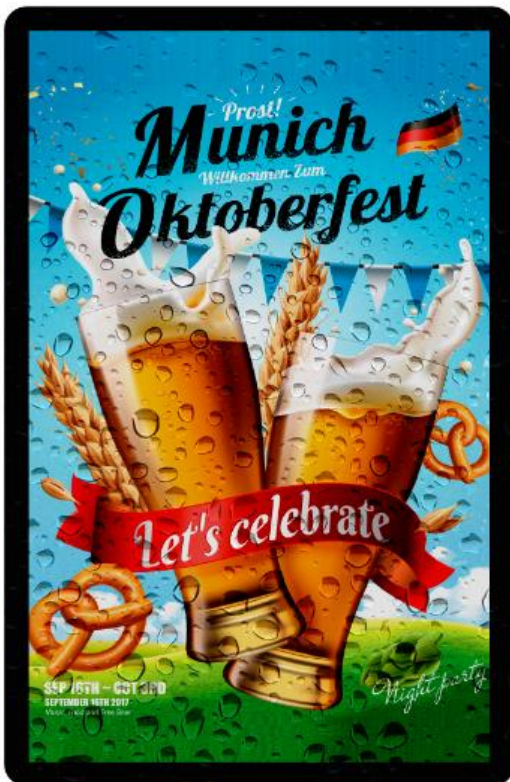
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2. Mechanical Characteristics

The contents provide general mechanical characteristics. In addition the figures in the next page are detailed mechanical drawing of the LCD.

Outline Dimension	Horizontal	1271.6 mm
	Vertical	743.1 mm
	Depth	47.1 mm
Active Display Area	Horizontal	1209.6 mm
	Vertical	680.4mm
VESA Size	400(H) x 300(V), VESA SCREW - M8	
Weight	42Kg	
Surface Treatment	Anti-Reflection treatment of the front glass With QWP / OCR Type Direct Bonding	

<Product View>



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3. Reliability

Table. ENVIRONMENT TEST CONDITION

No.	Test Item	Test Condition
1	Operating Temperature	Typ. 25 °C (-20 °C ~ 50 °C) -20 ~ 40 °C (Direct Sunlight), -20 ~ 50 °C (W/O Direct Sunlight)
2	Operating Humidity	Max 80%
3	Storage Temperature	Min -20 °C / MAX 60 °C
4	Storage Humidity	Max 85%

**If used below 0 degrees, afterimage may occur due to LCD characteristics.

**WARNING: If the temperature of the installation site exceeds 40°C under direct sunlight conditions, damage to the product may occur.

4. International Standards

4-1. Environment

a) RoHS, Directive 2011/65/EC of the European Parliament and of the council of 8 June 2011

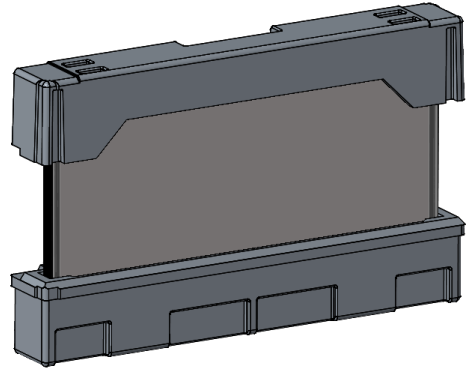
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5. Packing

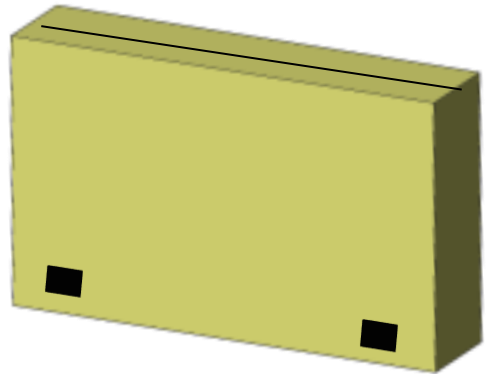
SET



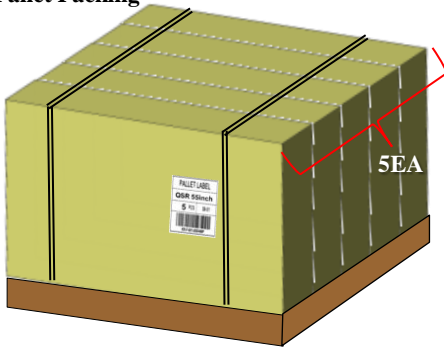
Side Packing



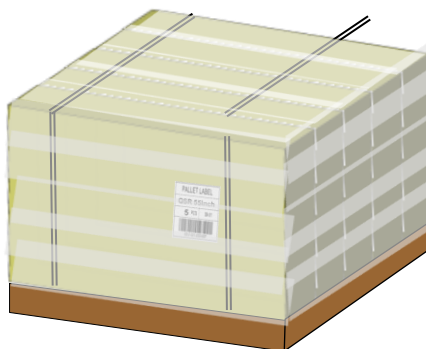
Box Packing



Pallet Packing



Rapping



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6. Precautions

Please pay attention to the followings when you use this TFT LCD module.

6.1 ASSEMBLY AND HANDLING PRECAUTIONS

- (1) Please attach the surface transparent protective film to the surface in order to protect the polarizer. Transparent protective plate should have sufficient strength in order to resist external force.
- (2) Acetic acid type and chlorine type materials for the cover case are not desirable because the former generates corrosive gas of attacking the polarizer at high temperature and the latter causes circuit break by electro-chemical reaction.
- (3) Do not touch, push or rub the exposed polarizers with glass, tweezers or anything harder than HB pencil lead. And please do not rub with dust clothes with chemical treatment. Do not touch the surface of polarizer for bare hand or greasy cloth. (Some cosmetics are detrimental to the polarizer.)
- (4) After removing the protective film, when the surface becomes dusty, please wipe gently with absorbent cotton or other soft materials like chamois soaked with petroleum benzene. Do not use acetone, toluene and alcohol because they cause chemical damage to the polarizer.
- (5) Wipe off saliva or water drops as soon as possible. Their long time contact with polarizer causes deformations and color fading.
- (6) Since a module is composed of electronic circuits, it is not strong to electrostatic discharge. Make certain that treatment persons are connected to ground through wrist band etc. And don't touch interface pin directly. Panel ground path should be connected to metal ground.
- (7) Please make sure to avoid external forces applied to the Source PCB and D-IC during the process of handling or assembling the TV set. If not, it causes panel damage or malfunction.
- (8) Panel and BLU should be protected from the static electricity. If not, it causes IC damage.
- (9) Do not pull or fold the source D-IC which connect the source PCB and the panel.
- (10) Panel (board ass'y) should be put on the BLU structure precisely to avoid mechanical impact.
- (11) FFC Cable should be connected between System board and Source PCB correctly.
- (12) Mechanical structure for backlight system should be designed for sustaining board ass'y safely.
- (13) Surface temperature of the Source D-IC should be controlled under 100°C with TV Set status. If not, problems such as IC damage or decrease of lifetime could occur.

6.2. Operating Precautions

- (1) Response time depends on the temperature. (In lower temperature, it becomes longer.)
- (2) Brightness depends on the temperature. (In lower temperature, it becomes lower.)
And in lower temperature, Stable time (required time that brightness is stable after turned on) becomes longer
- (3) Be careful for condensation at sudden temperature change. Condensation makes damage to polarizer or electrical contacted parts. And after fading condensation, smear or spot will occur.
- (4) When fixed patterns are displayed for a long time, remnant image is likely to occur.
- (5) Module has high frequency circuits. Sufficient suppression to the electromagnetic interference shall be done by system manufacturers. Grounding and shielding methods may be important to minimize the interference.