ENH150XL1-600 15″ XGA AMLCD Display

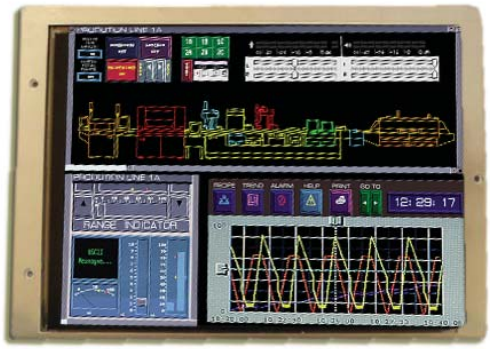
Enhanced Performance for Outdoor Viewability

Overview

The ENH150XL1-600 color TFT LCD provides improved optical performance based on enhancement of a standard Sharp LQ150X1LGB1 color active matrix LCD module. The incorporation of an index matching (IM) film provides for improved contrast in high ambient lighting conditions. The ENH150XL1-600 is available in two surface treatments – IM/Clear (glossy) or IM/110 (a 10% diffusion).

This module is composed of a color TFT-LCD panel, driver ICs, control circuit, power supply circuit and a backlight unit. Graphics and text can be displayed on a 1024 x RGB x 768 dot panel with up to 16 million colors by supplying appropriate data and timing signals, using LVDS and 3.3V DC supply voltage for TFT-LCD panel driving and supply voltage for backlight.

ENH150XL1-600 meets the environmental specification of the Sharp LQ150X1LGB1 on which it is based. WEDC provides a full one year warranty to the enhanced performance product.



Performance Features

- XGA 1024(H) x 768(V) Resolution
- 4 CCFLs
- LVDS Interface
- High Contrast Ratio/ High Aperture Ratio
- Low Power Consumption

Applications

- Industrial Automation
- Kiosk Systems
- Medical Instrumentation
- Marine Navigation System

Surface Treatments

- Diffuse front surface, IM 110
- Glossy, IM Clear

Display Characteristics

Display Format:	1024 Pixels (H) x 768 Pixels (V))
Active Viewing Area:	304.1mm (H) x 228.1mm (V)
Pixel Configuration:	RGB Vertical Stripe
Pixel Pitch:	0.297mm(H) x 0.297mm(V)
Display Mode:	Normally White

Viewing Angle

Typical:	55/80/80/80	CR > 5

Luminance

Typical:	600 cd/m^2

Response Time

Typical:	30ms

Operating Temperature

T_{OPa}	-30 °C to +60 °C (Ambient))

Storage Temperature

Tstg	-30°C to +70°C

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For more information, visit our website at **www.whiteedc.com** or call 503.690.2460.

Backlight Specification

The backlight system is an edge-lighting type with 1 CCFLs (Cold Cathode Fluorescent Lamp).
The characteristics of the lamp are shown in the following table. The values below are for one CCFL.

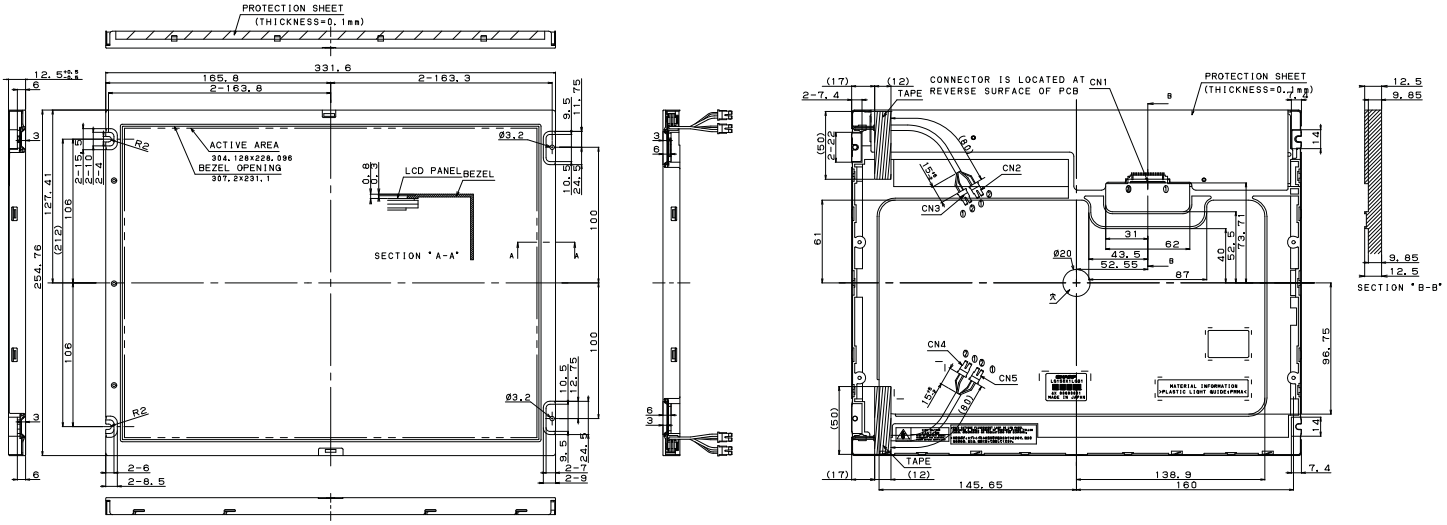
Parameter	Symbol	Min.	Typ.	Max	Unit	Remark
Lamp Voltage	V_L		650	720	mArms	
Lamp Current	I_L	3.5	6.0	7.5	Vrms	I_L = 6.5mArms,
Lamp Power Consumption	P_L	-	3.75	4.32	W	T_A = 25, 60kHz
Lamp Frequency	F_L	40	60	70	kHz	
Kick-off Voltage	V_S	-	-	1480	Vrms	T_A = 0°C, 60kHz
Lamp Life Time	L_L	50,000	-	-	Hour	

Absolute Maximum Ratings

Parameter	Symbol	Condition	Ratings		Unit	Note
Supply voltage	V_{cc}	T_A = 25 °C	0	+4.0	V_{DC}	
Lamp input voltage	V_{HIGH}		0	+2000	Vrms	
Storage temperature	T_{STG}		-30	+70	°C	1
Operating temperature (Ambient)	T_{OPA}		0	+60	°C	

Note 1: Humidity 95% RH Max. (TA > 40)
Maximum wet-bulb temperature at 39°C or less. (TA > 40)
No condensation.

Mechanical Drawing



Ordering Information

Part Number	Model	Description
100-0017-00	ENH150XL1-600	600 nit – Glossy front surface, IM/Clear
100-0017-01		600 nit – Diffused front surface, IM 110
100-0017-02		600 nit – No front surface treatment

For ordering or additional information on this or any other display product or service, contact White Electronic Designs at:

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