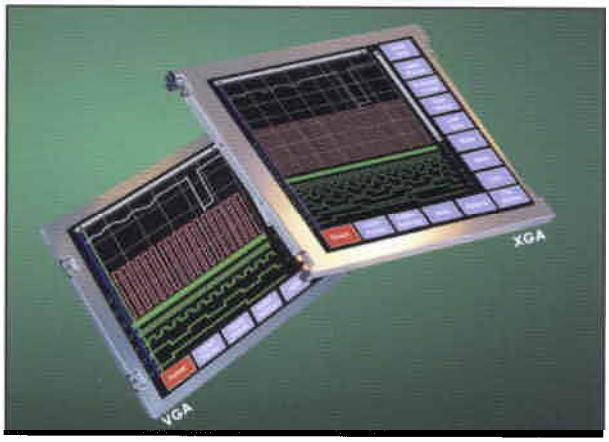
Optrex 8.4-inch VGA and XGA TFT Color LCD Modules

Two Resolutions: 640 x 480 and 1024 x 768

Optrex's new rugged TFT color LCDs with 8.4-inch diagonal displays are available in standard VGA and extra high resolution XGA formats for non-PC applications requiring outstanding front-of-screen performance. Optrex has introduced both VGA and XGA displays in an 8.4-inch size to facilitate the migration of display designs to web-enabled platforms.



Both LCDs provide highly saturated color and high contrast ratios while maintaining high luminance and fast response times. They offer wide viewing angles, reverse scan capability, resistance to shock and vibration, and wide operating temperature ranges. Both modules feature an LCD panel with anti-glare surface treatment, driver ICs, control circuit and two replaceable CCFLs.

The VGA version (P/N T-51638D084-FW-A-AA) provides 640 x 480 dot pixel resolution, 260K colors, luminance of 450 nits (cd/m^2), a 450:1 contrast ratio, and 35 ms response time. It can handle shock to 150 Gs and vibration to 1 G. Optimum viewing angle is 6 o'clock.

The XGA version (P/N T-51639D084U-FW-A-AA) provides 1024 x 768 dot pixel resolution, 260K colors, luminance of 300 nits (cd/m^2) and a 350:1 contrast ratio, with 25 ms response time and shock and vibration resistance to 100 Gs and 1 G, respectively. Optimum viewing angle is 12 o'clock. The XGA version can display >2.5x the amount of information that the VGA can (152 ppi vs. 95 ppi), making it ideal for resolution-intensive applications.

Applications

Optrex's 8.4-inch digital VGA and XGA TFT LCD modules are ideally suited to the requirements of the industrial, medical, instrumentation and navigation markets. Applications include test and measurement, industrial automation, process control and medical imaging and diagnostic equipment.

Features

- Best-in-class front of screen performance
- Exceptional durability
- Wide viewing angles
- Reverse scan capability
- 260K colors
- Anti-glare and hard coating 3H
- 450:1 contrast ratio (VGA); 350:1 contrast ratio (XGA)
- Shock resistance to 150 Gs (VGA); 100 Gs (XGA)
- Vibration resistance to 1 G
- Narrow bezel

Backlight

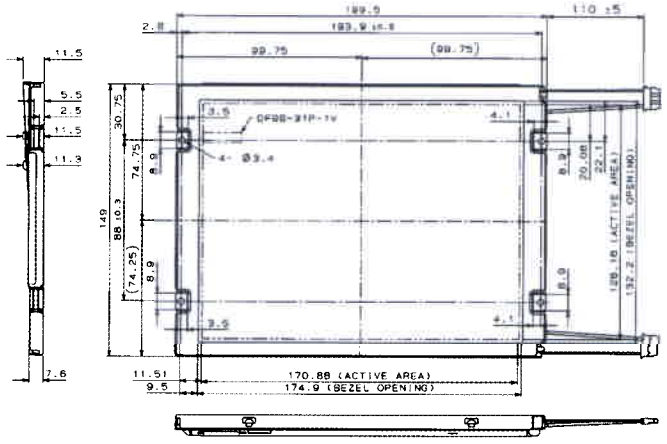
- Luminance of 450 nits (VGA); 300 nits (XGA) typical
- Two cold cathode fluorescent lamps with typical 50,000 hour life, field replaceable
- 6.5 W power consumption (w/o loss of inverter)

Optrex is a world leader in the design and manufacture of OEM liquid crystal displays (LCDs) for an expanding line of products that includes displays for telecommunications and non-PC Internet devices, test, measurement and diagnostic instruments, handheld data management equipment, and automotive and avionics displays. Founded in 1976, Optrex has followed an aggressive policy of growth and expansion and now serves customers through an extensive in-field network of applications engineers and more than 100 sales and distribution offices throughout the world. The Optrex technology palette includes Active-MLA (multi-line addressing), TFT (thin film transistor), VHC (very high contrast), STN (super twisted nematic), HPC (high performance color) for car audio applications, TFCC (trim fine crystal color) for color mobile products, and OLED (organic light emitting diode).

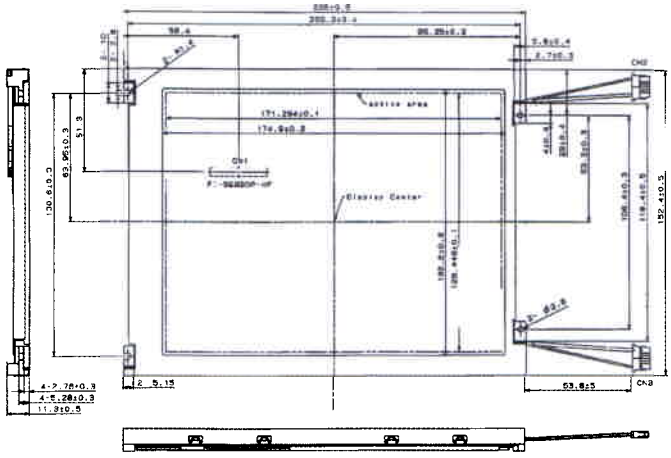
Model Number	T-51638D084-FW-A-AA	T-51639D084U-FW-A-AA
Display Operating Mode	Transmissive, Normally white	Transmissive, Normally white
Screen Size (inch)	8.4-inch diagonal	8.4-inch diagonal
Display Format (dot)	640 x 480	1024 x 768
Dot Pitch (H x V mm)	0.267 x 0.267	0.1625 x 0.1625
Active Area (HxV mm)	170.88 x 128.16	171.264 x 128.448
Pixel Configuration	RGB vertical stripe	RGB vertical stripe
Data Transfer	6-bit Digital RGB, CMOS interface	6-bit Digital RGB, LVDS interface
Outline Dimensions (WxHxD mm)	199.5 x 149.0 x 11.5	205.0 x 152.4 x 11.3
Supply Voltage (VDC)	3.3/5.0 CMOS	3.3 CMOS
Response Time (ms)	35	25
Backlight	CCFL, 2-tubes, replaceable	CCFL, 2-tubes, replaceable
Lamp Lifetime (hours)	50,000	50,000
Luminance (cd/m^2)**	450	300
Contrast Ratio	450:1	350:1
Display Colors	262,144	262,144
Viewing Direction	6 o'clock	12 o'clock
Viewing Angle *	H: -65°, +65°; V: -60°, +50°	H: -60°, +60°; V: -40°, +50°
Power Consumption (W)	6.5 (w/o loss of inverter)	6.5 (w/o loss of inverter)
Module Mass (g)	380	430
Scan Reversal	Available	Available
Shock Resistance	1470 m/s^2 (150G)	980 m/s^2 (100G)
Operating Temperature Range	0°C to +60°C	0°C to +50°C
Storage Temperature Range	-20°C to +65°C	-20°C to +60°C

Notes:
* - Viewing Angle based on CR>=10
** - Typical value.

VGA



XGA



Ask about the Optrex Value-Added Program

Unlimited custom design capabilities for anything from simple connector attachments to sophisticated LCD module integration with plastic housing, buttons, custom circuitry and firmware design.

For complete technical specifications call 734-416-8500 or visit our website at

www.optrex.com

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