



Optrex 12.1-inch SVGA and XGA TFT Color LCD Modules

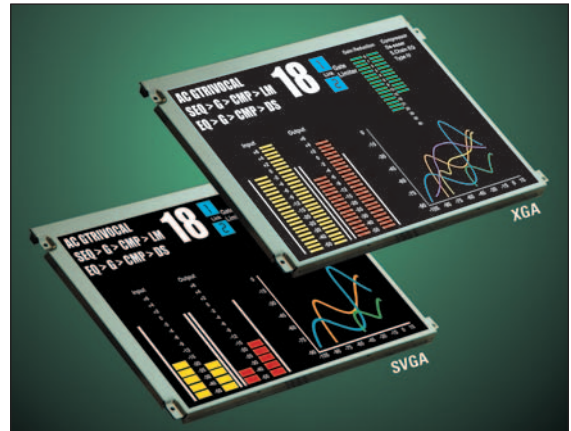
Mechanically Compatible for Easy Upgrade from SVGA to Higher-Resolution XGA

Optrex's new 12.1-inch high-performance color TFT modules are ideal for non-PC applications requiring high resolution, wide viewing angles, high color saturation, ruggedness, and outstanding front-of-screen performance. And, since the 800 x 600 dot pixel SVGA version is mechanically compatible with the higher-resolution (1024 x 768 dot pixels) XGA version, the designer has the option of a quick, easy upgrade path from one module to the other.

Both modules are ruggedly built, with shock resistance to 150 Gs and vibration resistance to 1 G, and feature anti-glare and hard coating 3H surface treatment. Each module is supplied with LCD panel, driver ICs, control circuit, and two field-replaceable CCFL backlights with a typical lifetime of 50,000 hours.

The 12.1-inch SVGA module (P/N T-51512D121J-FW-A-AB) features a CMOS/TTL digital interface and displays 262,144 colors with a resolution of 800 x 600 dot pixels. It provides a high contrast ratio of 500:1, with 350 nits (cd/m²) luminance, 40 ms response time, and an operating temperature range of 0-60 deg. C. It offers reverse scan capability and is fully backward-compatible with the existing Optrex 12.1-inch SVGA TFT module (P/N T-51512D121-FW-A-AA).

The 12.1-inch XGA module (P/N T-51756D121J-FW-A-AA) features an LVDS interface and displays 262,144 colors with a resolution of 1024 x 768 dot pixels. It provides a 300:1 contrast ratio, 300 nits luminance, 50 ms response time and an operating temperature range of 0-50 deg. C.



Applications

Applications for the 12.1-inch SVGA module include diagnostic instrumentation, industrial control equipment, POS displays, kiosks, ATMs, and entertainment systems. The XGA module can be used in the same applications as the SVGA version, and is especially well suited for applications that require exceptionally high resolution with a greater amount of on-screen information, such as internet-enabled measurement and instrumentation devices.

Features

- Best-in-class front-of-screen performance
- Exceptional durability
- 260K colors
- Anti-glare and hard coating 3H surface treatment
- Reverse scan capability (SVGA)
- Contrast ratio: 500:1 (SVGA); 300:1 (XGA)
- Shock resistance to 150 Gs
- Vibration resistance to 1 G
- Operating temperature range of 0-60 deg. C (SVGA) and 0-50 deg. C (XGA)

Backlight

- Brightness: 350 nits (SVGA); 300 nits (XGA)
- Two CCFLs with typical 50,000-hour life
- CCFLs are field-replaceable

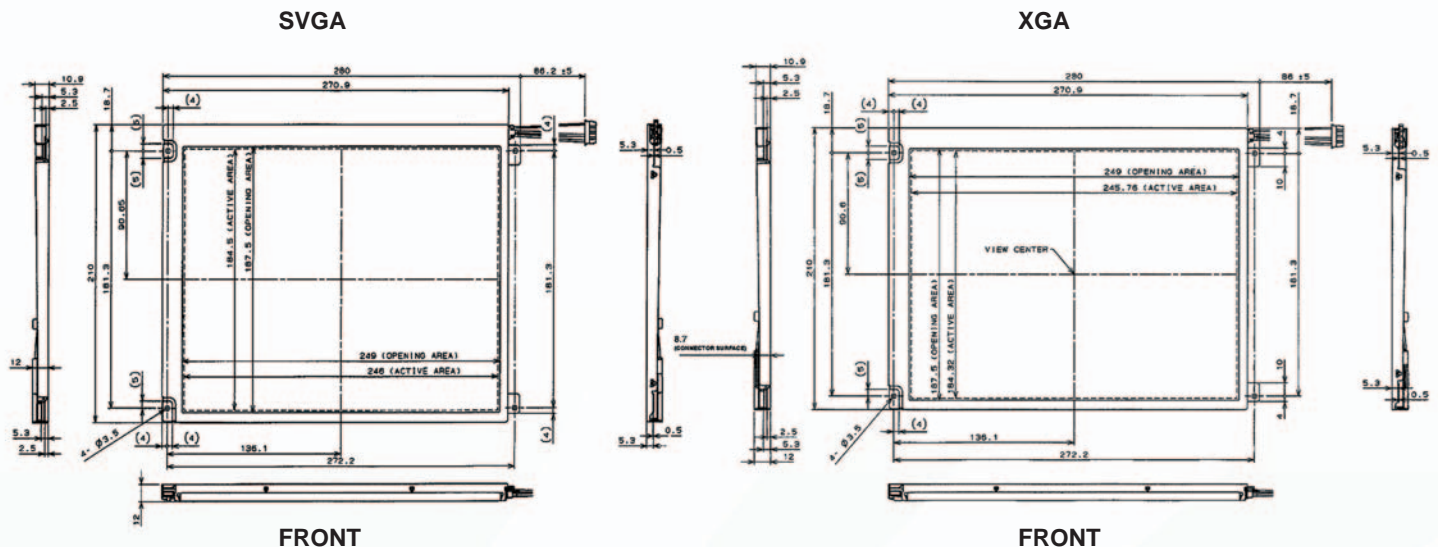
Optrex is a world leader in the design and manufacture of OEM liquid crystal displays (LCDs) for an expanding line of products that includes displays for telecommunications and non-PC Internet devices, test, measurement and diagnostic instruments, handheld data management equipment, and automotive and 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 Name	T-51512D121J-FW-A-AB (SVGA)	T-51756D121J-FW-A-AA (XGA)
Module Type	Color TFT Digital LCD	Color TFT Digital LCD
Display Operating Mode	Transmissive, Normally white	Transmissive, Normally white
Screen Size (inch)	12.1-inch diagonal	12.1-inch diagonal
Display Format (dot)	800 x 600	1024 x 768
Dot Pitch (H x V mm)	0.3075 x 0.3075	0.240 x 0.240
Active Area (HxV mm)	246.0 x 184.5	245.76 x 184.32
Pixel Configuration	RGB vertical stripe	RGB vertical stripe
Outline Dimensions (WxHxD mm)	280.0 x 210.0 x 12.0	280.0 x 210.0 x 12.0
Supply Voltage (VDC)	3.3/5.0 CMOS	3.3 LVDS
Response Time (ms)	40 ms	50 ms
Backlight	CCFL, 2-tubes, replaceable	CCFL, 2-tubes, replaceable
Lamp Lifetime (hours)	50,000	50,000
Luminance (cd/m ²)**	350	300
Contrast Ratio	500:1	300:1
Display Colors	262,144	262,144
Viewing Direction	6 o'clock	6 o'clock
Viewing Angle*	H: -60°, +60°; V: -50°, +40°	H: -60°, +60°; V: -50°, +40°
Module Mass (g)	720	740
Shock Resistance	1470 m/s ² (150G)	1470 m/s ² (150G)
Operating Temperature Range	0°C to +60°C	0°C to +60°C
Storage Temperature Range	-20°C to +70°C	-20°C to +70°C
Surface Treatment	Anti-glare and hard coating 3H	Anti-glare and hard coating 3H

Note:

*: Viewing Angle based on CR>=10

** : Typical Value



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