



Optrex C-51505 Improved Performance Monochrome LCDs

20 character x 2 line transmissive and transreflective LCDs

The Optrex C-51505 Series of 20 character x 2 line dot matrix LCDs offers improved performance in an industry standard configuration and a striking appearance that allows design engineers to differentiate their products, all at a cost similar to standard LCDs.

Performance improvements provided by the C-51505 Series include better legibility via a negative mode panel using Optrex's proprietary High Performance Color (HPC) technology, wider operating temperature range (-20° to +70°C), higher contrast ratio (up to 80:1), lower operating current when compared to industry standard character displays (to which the C-51505 is backward compatible – such as Optrex's DMC-20261 Series).

C-51505 modules present the design engineer with a range of colors from which to choose. The negative mode (transmissive) versions (C-51505NFQJ-LW-AD, C-51505NFQJ-LW-AG, C-51505NFQJ-LG-AF and C-51505NFQJ-LB-AE) offer white, red, green or blue characters on a black background. The positive mode (transreflective) versions (C-51505NFJ-SLW-AA, C-51505NFJ-SLG-AB and C-51505NFJ-SLW-AC) offer black characters on white or green backgrounds.



Applications

Optrex's C-51505 Series character displays are ideal for informational applications where exceptional readability is required, such as gas pumps, POS displays, instruments and indicators, servers, musical instruments and medical diagnostic applications (such as thermometers and blood pressure monitors).

Features

- -20° to +70°C operating and storage temperature range
- 80:1 contrast ratio
- More luminance per watt for lower power consumption
- 5V operation over entire temperature range with no temperature compensation circuit
- Range of display color / background combinations available
- Industry standard configuration

Backlight

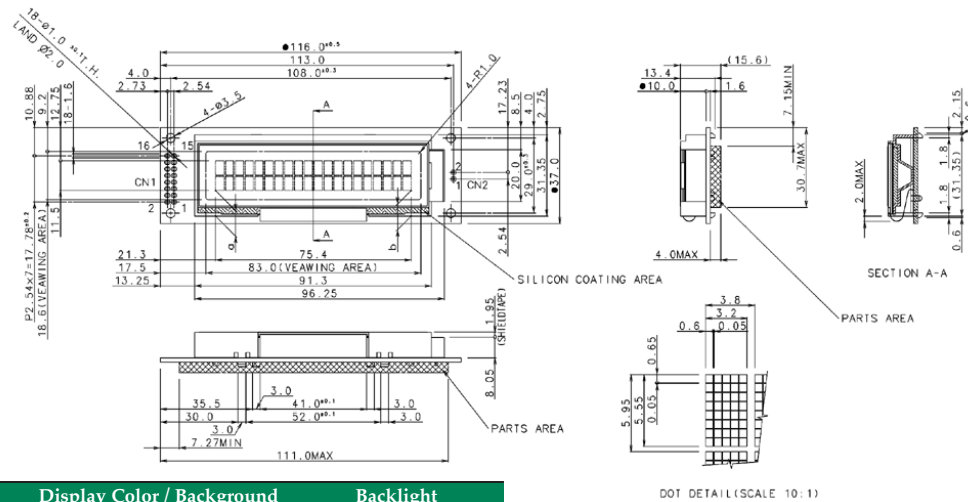
- Uses high-efficiency LED backlighting
- Available in assorted colors

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, hand-held 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).

C-51505 Specifications	C-51505NFQJ-LW-AD	C-51505NFQJ-LR-AG	C-51505NFQJ-LG-AF	C-51505NFQJ-LB-AE	C-51505NFJ-SLW-AA	C-51505NFJ-SLG-AB	C-51505NFJ-SLW-AC
LCD Type	Transmissive				Transflective		
Luminance (cd/m ²)*	125	24	160	38	125	160	125
Contrast Ratio	80:1				5:1		
Power Consumption (mW) **	85.6	65.6	85.6	85.6	85.6	85.6	85.6
Supply Voltage (VDC)	4.5 ~ 5.5 V						
Response Time (ms) ***	245				190		
Duty Cycle	1/16 Duty						
Viewing Angle ****	H: -40°, +40°; V: +45°, -30°				H: -50°, +50°; V: +45°, -38°		
Viewing Direction	6 o'clock						
Data Transfer	8-bit parallel data transfer						
Screen Size (inch)	3.0-inch diagonal						
Display Format	20 characters x 2 lines						
Active Area (WxH mm)	83.0 x 18.6						
Outline Dimensions (WxHxD mm)	116.0 x 37.0 x 15.6						
Module Mass (g)	42.9						
Operating Temperature Range	-20°C to +70°C						
Storage Temperature Range	-20°C to +70°C						

Notes:

- * - Min. value, the luminance of Backlight Surface
- ** - Typical value, Power consumption = Power of the panel + Power of the LED
- *** - Typical value, Response Time = Trise + Tdecay
- **** - Viewing Angle is based on CR> = 2 case



Model Number	Display Color / Background	Backlight
C-51505NFQJ-LW-AD	White / Black	LED: White
C-51505NFQJ-LR-AG	Red / Black	LED: Red
C-51505NFQJ-LG-AF	Green / Black	LED: Green
C-51505NFQJ-LB-AE	Blue / Black	LED: Blue
C-51505NFJ-SLW-AA	Black / White	LED: White
C-51505NFJ-SLG-AB	Black / Green	LED: Green
C-51505NFJ-SLW-AC (high reflectance)	Black / White	LED: White

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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KYOCERA:

[F-51851GNFQJ-LB-ABN](#) [C-51505NFQJ-LB-AJN](#) [C-51505NFQJ-LG-AKN](#) [C-51505NFQJ-LW-ALN](#) [C-51505NFJ-SLW-APN](#)