

Monochrome Display Platform For Automobile Applications



CFG's **E-LOOK** monitor is a monochrome flat panel display with swivel stand designed for automobile telematics and other applications. Available as a standard or OEM unit, **E-LOOK** has a wide range of functions and options for user friendly operation. At the same time, its elegant design meets the tough environmental requirements of the automobile industry. Developers of navigation, telematics and other car systems will save costly development time and effort with this module.

Features include:

- A rotating stand with a wide range of positions allowing the display to be oriented for optimum viewing.
- Easy one-hand mounting or removal of the monitor from the stand.
- Variable backlight color selectable by user software
- Integrated microcontroller with temperature and light sensors to manage display contrast and brightness in an automatic and transparent manner thus ensuring optimum viewing at all times.
- RS-232 or RS-485 (optional) bus for communication with the central processor unit.
- Infra-red remote control for user interactivity. (Remote control unit separate)

Display Specifications

Type: LCD, FSTN, transflective

available in positive or negative contrast

Resolution: 120 x 64 dots plus 2 pixel wide frame border

 View area :
 84.5 mm x 46.3 mm

 Active area :
 83.05 mm x 45.53 mm

 Dot size :
 0.64 mm x 0.64 mm

 Pixel pitch :
 0.67 mm x 0.67 mm

View angle: 12 O'Clock

Operating temperature: -20° to +75° C operational

-20° to +60° C at full specification

Storage temperature: -40° to +85° C

to +90° C for 1 hour

Backlight: $10 \pm 2 \text{ cd/m}^2$ at PWM = 100%

Red (632 nm) and green (565 nm) LED backlight controlled by microcontroller. A continuous range of colors may be generated by mixing the two LED colors.

Four predefined intensities controlled by light sensor for *night*, *tunnel* or *garage*, *cloudy* and *sunlight* ambient light conditions

Contrast: typically 10; Temperature compensated



Electrical Specifications

Microcontroller: Philips 80C51 family

Data Bus: RS232 ; RS485 (optional)

Connection: Two meter twisted 4-pole cable with DB9 connector (extension to 10 m length

max.) Other connectors on request.

Protection : Module protected against short power supply outages of 100 μsec durations due to

vibrations and shocks.

Sensors: Temperature sensor for LCD contrast compensation, photosensor for ambient light

measurement (LUMSEN), infra-red receptor

Mechanical Specifications

Module dimensions: 105 mm (W) x 78 mm (H) x 21.6 mm (T) max. (without stand)

105 mm (W) x 120 mm (H) x 28 mm (T) max. (with stand)

Positioning Range: \pm 180° about vertical z-axis

 $+40^{\circ}$; - 90° y-axis $\pm 40^{\circ}$ x-axis

Specifications may be changed without prior notice



Designed for automobile applications, **E-LOOK** can be mounted on the dashboard or upside down as a ceiling mounted display. A software command permits easy inversion of the screen image.



A remote control unit for interactive applications is also available as a separate unit.

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