

TUFF VIEW MLC-810 20cm (8") Sunlight Readable Touch LCD

Rugged Wide Temp, Wide View & Anti-Vibration for Vehicle Display

- 800x600 native resolution.
- High quality image with wide viewing angle.
- Truly sunlight readable (with touch screen).
- Real backlight control (no night-blindness).
- Completely water and dust proof (IP65/NEMA4).
- 5-wire resistive touch screen with USB and RS232.
- -20°C to +65°C operating temperature range.
- Designed for continuous vibration environments.
- Rugged, automotive grade connector.
- Wide input voltage range with transient protection.
- Standard 75mm VESA mount.
- Low power consumption. 8W max at full brightness.



The MLC-810 is water and dust proof (to IP65/NEMA-4), and has been designed for operation in continuous vibration environments, and to cope with shock.

A 75mm VESA mount allows industry standard in-vehicle mounting hardware to be used.

The touch screen interface supports both USB and RS232 (allowing operation with long cable runs). An internal speaker allows PC audio and warning tones to be easily heard.

The MLC-810 operates from 9V to 34V DC and has a load-dump and transient protected power input, allowing direct connection to vehicle power. Typical operating power is less than 8 watts, extremely low for a monitor with this performance.

An operating temperature range of -20°C to +65°C allows the MLC-810 to be used in a wide variety of conditions

* On standard LCD monitors, when the brightness is adjusted, what actually happens is the colours are changed, but the light level leaving the monitor is the same. The MLC-810 changes the light level and leaves the colours the same. (An optional automatic backlight brightness control, using an in-built light sensor is available.)



Key Markets

- In-vehicle Display
- Cars
- Trucks
- Mining equipment
- Buses
- Marine
- Trains
- Aircraft
- Industrial Automation

TUFF VIEW MLC-810 RUGGED SUNLIGHT READABLE 20CM (8") LCD MONITOR

SPECIFICATIONS

Display Characteristics	
Viewable area	4:3 aspect ratio. 162mm wide x 121.5mm high. 20.32cm (8-inch) diagonal.
Native Resolution	800 x 600. Dot pitch: 0.2055mm x 0.2055mm.
Contrast ratio	500:1 typical. 400:1 minimum.
Colours	24-bit (16,777,216).
Response time	Ton: 10ms typ. Toff: 15ms typ.
Brightness	700 nits typical. Note this value only applies to indoor performance. The effective outdoor performance is greater than 1,000 nits. (1 nit = 1 Cd/m ² .)
Viewing angle	Horizontal: 140° typ, 120° minimum. Vertical: 120° typ, 100° minimum.
LCD Controller	
Video input interface	VGA: Analog RGB, 0.7Vp-p. (DVI is available for OEM orders.)
Input resolutions	640x480, 800x600, 1,024x768. The monitor automatically scales the input signal.
Input vertical frequency	60Hz and 70Hz. 60Hz is recommended
Configuration	On-Screen Display (OSD) includes: Contrast Ratio, Brightness, H-position, V-position, Clock Phase and Colour Balance.
User interface	
Monitor controls	Front panel buttons are: Power On/Off, Backlight Brightness Up and Down, OSD Menu.
OSD menu controls	OSD menu control buttons are: Menu / Select, Left and Right.
Audio	
Speaker	Two front panel mounted speaker, with an internal fixed-gain amplifier. The speaker is intended for connection to a PC, for operator feedback and warning tones. This is a good quality speaker, not a low-cost piezo.
Touch Screen	
Touch type	5-wire resistive.
Glass thickness	1.8mm.
Operation force	< 1N with a stylus of 0.8mm radius.
Linearity	< 1.5% for both X-axis and Y-axis.
Contact bounce	< 10ms.
Impact	No damage with a 9g steel ball dropped into the centre of the panel from a height of 30cm. Static Load: 5kg load over a 10mm area for 10 seconds.
Hardness	3H pencil pressure 1N @ 45 degrees.
Durability write test	10,000,000 times, with a force of 250g and a silicon rubber stylus of 0.8mm radius.
Durability knock test	1,000,000 times, with a force of 250g, 3Hz R8/HS60.
Touch Screen controller	
Resolution	2,048 x 2,048.
Report rate	250 points/second maximum with USB interface. 160 points/second maximum with RS232 interface.
Response time	20ms.
Accuracy tolerance	Maximum +/-0.5% tolerance.
Interface	USB1.1 or RS232 (EIA/TIA-232-F compatible). Both interfaces are transient protected.
Data rate	RS-232 Data rate is 9,600 bps 8N1.
Physical Characteristics	
Dimensions	215mm Wide x 183mm High x 37mm Deep (plus 18mm for connector body; plus 54mm when connector is mated).
Weight	1.00kg.
Ambient Temperature	Operating: -20°C to +65°C. Storage: -20°C to +80°C.
Humidity	10% to 90% RH, non condensing.
Certification	C-tick. Other certifications available upon request.
Power	
Power supply	Input voltage range 9V to 34V DC
Power consumption	8W maximum.
Digital input	The monitor has a digital input for power on and off control. This input is different to the Power On/Off button. Using this input results in zero off-state power consumption.
Transient protection	Load dump and other transients specified in ISO-7367.

Specifications are subject to change without notice.

Full specifications can be found on Motium's web site at www.motium.com



ORDERING OPTIONS

The MLC-810 is available in standard models and can be customised for OEM applications with a variety of options.

The cable assembly must be ordered separately. Standard and custom options are available. Refer to Motium's web site for specific information and order codes.