

7-Inch Rugged Capacitive Touch Display module

The Keetronics 7-Inch FHD Optically Bonded Display Module is a compact, high-resolution display solution designed for demanding industrial, defence, and mission-critical HMI applications. The module combines a 7-inch TFT LCD, Full HD 1920 × 1080 resolution, optical bonding, EMI protection, and strengthened tempered glass in a rugged display assembly.

The display provides 1000 cd/m^2 brightness after optical bonding, a 1300:1 contrast ratio, and 16.7 million true 8-bit colours for clear and detailed visual output. Its 16:9 aspect ratio and 85° viewing angle in all directions provide consistent visibility across a wide viewing range.

The module incorporates optical bonding and a 1.8 mm tempered glass cover with ≥5H surface hardness. An EMI protective mesh with provision for 360° electrical grounding and 90% visibility is provided to support electromagnetic compatibility requirements. The design is specified to meet MIL-STD-461E/F and environmental testing as per JSS 55555-2012 or later.

With an operating temperature range of -30°C to +80°C, storage temperature range of -40°C to +90°C, and 10% to 90% non-condensing humidity tolerance, the display is designed for demanding environmental conditions.

The deliverable includes the 7-inch FHD display module, display cable assembly, and AD-board, providing an integrated solution for system-level display applications.

Key Features :

- 7-inch Full HD TFT LCD with 1920 × 1080 resolution and 1000 cd/m^2 brightness after optical bonding
- Optically bonded display with 1.8 mm tempered glass and ≥5H surface hardness
- EMI protective mesh with 360° electrical grounding provision and 90% visibility
- Rugged environmental design with -30°C to +80°C operation and MIL-STD-461E/F design compliance

Technical Specifications :

Product Code	KIPL 26-6519
Display Type	7-Inch TFT LCD
Resolution	1920 × 1080 pixels, Full HD
Backlight	LED
Luminance	1000 cd/m², brightness after optical bonding
Contrast Ratio	1300.1
Aspect Ratio	16.9
Response Time	23 ms
Display Colours	16.7M, True 8-bit
Viewing Angle	85° / 85° / 85° / 85°
Viewing Area	158.5 (H) × 90.5 (V) mm
Pixel Pitch	0.081 (H) × 0.081 (V) mm
Interface	LVDS
LED Life Time	70,000 Hrs
Optical Bonding	YES
EMI Mesh	EMI protective mesh with provision for 360° electrical grounding and 90% visibility
Tempered Glass	1.8 mm thickness, ≥5H hardness
Overall Dimensions (H × V × D)	170.0 × 105.0 × 12.80 mm (±0.5 mm)
Weight	Approx. 210 g
Operating Temperature	-30°C to +80°C
Storage Temperature	-40°C to +90°C
Humidity	10% to 90%, non-condensing
EMI/EMC	Designed to meet MIL-STD-461E/F
Environmental Testing	As per JSS 55555-2012 or later
Deliverables	7-Inch FHD Display Module, Display Cable Assembly, AD-Board