

Rugged Display

Model Number: THRSLDIS1001

Overview

The **Rugged Display** is a military-grade monitor designed to meet the demanding requirements of defense, aviation, and naval applications. Built with a **conduction-cooled machined aluminum and stainless steel IP-6x enclosure**, it delivers robust durability and high reliability in extreme environments.

With features such as **7-layer optical bonding, EMI mesh with >90% transparency, zero dead pixels, and backlit bezel keys**, the display ensures mission-critical performance. The system has been **successfully supplied to DRDO Hyderabad, the Indian Air Force, and BrahMos programs**, proving its reliability in operational defense environments.

Technical Specifications

Parameter	Specifications
Panel Size	19"
Panel Resolution	1280 × 1024 (SXGA)
Color Depth	16.7M colours
Weight	10 kg (22.05 lbs)
Dimensions	375.62 × 300.86 × 72 mm (W × H × D)
Brightness	250 cd/m² (72.5 fL), LED backlight
Dimming Ratio	500:1
Contrast Ratio	1000:1 (typical)
Viewing Angle	Horizontal: ±89°, Vertical: ±89°
Video I/O	2 × DVI, VGA, HD-SDI, RS-232 or RS-422, USB, Ethernet
Power Supply	28V DC (MIL-STD-1275D) or 115–220V AC (MIL-STD-704E)
Power Consumption	45W typical

Operating Temperature	-20°C to +70°C (rugged option: -40°C to +55°C)
Storage Temperature	-40°C to +70°C
Relative Humidity	Max. 95% @ 40°C
Protection Standard	IPx5 (front & unit level with MIL connectors)

Key Features

- Over **75% Make in India** product
- Competitive **price/performance value**
- **7-layer optical bonding** (LOCA/SOCA solution)
- **Zero dead pixel** guarantee
- EMI mesh with **>90% transparency**
- Uniform backlight and brightness with LED technology
- Backlit bezel function keys for ease of operation
- MIL-grade circular connectors for rugged reliability

Applications

- Ground defense vehicle operator stations
- Naval bridge and CIC (Combat Information Center) displays
- Avionics mission consoles
- Border surveillance and command centers
- Supplied to **DRDO Hyderabad, Indian Air Force, and BrahMos programs**

Compliance

Environmental Qualification

Parameter	Standard / Method	Details
Vibration (Ships)	MIL-STD-167-1 Type I	Shipboard vibration compliance
Vibration (Airborne)	MIL-E-5400T Fig.2	Curve IIa & IIIa, 2g
Shock	MIL-STD-810F, Method 516.5	30g, 12.5 ms (6 shocks/axis)
Drip Proof	MIL-STD-810F, Method 506.4 Proc III	Drip water protection
Altitude (Low Pressure)	MIL-STD-810F	30,000 ft (187 mbar)
Rapid Decompression	MIL-STD-810F, Method 500.4 Proc III	8,000 ft → 40,000 ft in 15s

EMI/EMC Compliance

Parameter	Standard
General	MIL-STD-461F
Applications	Navy & Air Force certified
FCC	FCC-A compliance



Note

The **Rugged Display** is part of **THRSL's standard technology suite**, designed for **plug-and-play deployment** across industries. It has been **successfully supplied to DRDO Hyderabad, Indian Air Force, and BrahMos programs**, demonstrating its reliability in mission-critical defense environments.

Custom options such as **PCAP touch screens, LCD flicker compensation, or alternate input configurations** are available upon request.