

15.6" Display MD1501



Rugged Multi-Purpose Display

The MD series offers ultra rugged displays for extreme environments. It is designed from the ground up for tactical use, with optically bonded displays for sunlight-readability, MIL connectors and MIL-standard compliance including shock and vibration.

The MD1501 offers a 15.6" display with multi-touch and full HD resolution. The unit has 12 bezel buttons, including power, brightness and software defined function keys.

Military-relevant rugged design

MilDef products are designed to operate in extreme environmental conditions and challenging electromagnetic operational scenarios. Operationally proven, MilDef products are actively employed in military operations in over 60 countries.

Customizable

Are you looking for additional features and functions? MilDef specializes in customized solutions, to include change of connectors, chassis modifications, mounting solutions, etc. Contact your nearest MilDef

Sales Office and we will help you tailor a solution to meet your exact requirements.

Features

- 15.6" display
- Multi-touch
- Full HD
- Hardened glass 6H
- MIL-STD-461/810/1275
- IP67

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Connector Interfaces

DVI (back)	• 1x DVI-D
SERVICE (back)	• 1x RS232 Service
USB (back)	• 1x USB 2.0
X1 DC IN (back)	• 1x Power

Other Interfaces

12x buttons with backlight (front)

Technical Specification

Blanking	Enable/disable all externally visible indicators from emitting light via the "blanking command"
Brightness control	Two buttons to control brightness
Contrast ratio	800
Display color	16.7M colors
Display luminance	350 nits luminance
Display resolution	1920 x 1080 resolution
Display size	15.6 inch
Display surface	Hardened glass 6H
Human interface	Buttons and touchscreen available via USB HID
Response time	35 ms
Touch display	Multi touch
Electronics ground to chassis	Isolated
MIL-STD-1275D	5.3.2.2 5.3.2.3 5.3.2.4
Polarity protection	Protected against incorrect polarity connection on the power input within the normal operating voltage range
Power consumption	30 W (operating) 130 W (operating with heater)
Power input	12-36 VDC
Power to chassis	Isolated
Power to electronics ground	Isolated
Chassis material	Aluminum
Coating and color	AE0305-6603120 Axalta (RAL 6031)
Cooling	Passively cooled
Dimensions	392 x 267 x 88 mm (15.5 x 10.6 x 3.5 in) (WxHxD)
Earth point	M6 12 mm
Mounting	4x M6 helicoil
Surface treatment chassis	Chromit-Al

Weight 5.2 kg (11.5 lbs)

MTBF > 100,000 h

CE Compliant

Environmental Specification

Functional shock - Operating MIL-STD-810H, Method 516.8, Procedure I - Functional shock. Table 516.8-IV, Terminal peak sawtooth pulse, Ground materiel
40 g
11 ms

High temperature - Operating MIL-STD-810H, Method 501.7, Procedure II - Operation
60 °C (140 °F)

High temperature - Storage MIL-STD-810H, Method 501.7, Procedure I - Storage
71 °C (160 °F)

Humidity MIL-STD-810H, Method 507.6, Procedure II - Aggravated
95 ± 4% RH
Ten 24-hour cycles

IP Class (Solid Particle Protection) IP Class 6X

IP Class (Water) IP Class X7

Low air pressure - Rapid decompression MIL-STD-810H, Method 500.6, Procedure III - Rapid decompression
2,438 m (8,000 ft)
12,192 m (40,000 ft)

Low air pressure - Operating MIL-STD-810H, Method 500.6, Procedure II - Operation/air carriage
4,572 m (15,000 ft)

Low temperature - Operating MIL-STD-810H, Method 502.7, Procedure II - Operation
-40 °C (-40 °F)

Low temperature - Storage MIL-STD-810H, Method 502.7, Procedure I - Storage
-40 °C (-40 °F)

Noise level Maximum noise level of 40 dB SPL A-weighting at 1 m (3.3 ft) distance

Salt fog MIL-STD-810H, Method 509.7
5 ± 1% (by weight)
Two cycles, 24 h wet + 24 h dry / cycle

Temperature shock - Operating MIL-STD 810H, Method 503.7, Procedure I-C, - Multi-cycle shocks from constant extreme temperature
55 °C (131 °F)
-40 °C (-40 °F)

Vibration - Helicopter	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter
Vibration - Loose cargo	MIL-STD-810H, Method 514.8, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo
Vibration - Tracked vehicle	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Tracked vehicle
Vibration - Wheeled vehicle	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Wheeled vehicle

EMC Specification

EMI conducted CE102	MIL-STD-461F, Method CE102, Conducted emissions, power leads BASIC CURVE 10 kHz - 10 MHz
EMI radiated RE102	MIL-STD-461F, Method RE102, Radiated emissions, electric field Navy Mobile & Army 2 MHz - 18 GHz
EMS conducted CS101	MIL-STD-461F, Method CS101, Conducted susceptibility, power leads CURVE #1 30 Hz - 150 kHz
EMS conducted CS114	MIL-STD-461F, Method CS114, Conducted bulk susceptibility Army, Ground 10 kHz - 200 MHz
EMS conducted CS115	MIL-STD-461F, Method CS115, Conducted susceptibility, bulk cable injection, impulse excitation
EMS conducted CS116	MIL-STD-461F, Method CS116, Conducted susceptibility, damped sinusoidal transients, cables and power leads 10 kHz - 100 MHz
EMS radiated RS103	MIL-STD-461F, Method RS103, Radiated susceptibility, electric field Army 2 MHz - 1 GHz