

# MDU DISPLAY 21.5" MDU2101



## 21.5" MDU DISPLAY

The 21.5" MDU Display is a rugged display customized for its demanding environment.

### Built to take a beating

The Display is built to withstand the harshest conditions over the long haul. It features aluminium casing, rugged MIL connectors for easy integration and will operate down to -20 C.

### Guaranteed performance

Our products always come with a lifetime support to ensure your equipment maintains peak performance for many missions to come. We also serve units and stock spare parts for 5 years end-of-life.

### Concept

A MilDef concept describes a possible implementation of customer specific requirements. Realization might involve NRE cost.

### Features

- 16.7M colors
- 1920x1080 resolution
- Resistive single touch
- 150 (H) / 150 (V) degree viewing angle
- 700 nits luminance
- Passively cooled

### Options

- MIL-connectors or Industrial
- Touch technology: Resistive multi touch, PCAP and IR
- NVIS
- AG or AR
- Programmable Bezel buttons, e.g. GVA-std
- IK0X

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## Connector Interfaces

**USB1, USB2 (front)** 2 connectors which each has:

- 1x USB 3.0

## Other Interfaces

1x Button Panel (front)  
1x Status indicator (front)

## Technical Specification

<b>Response time</b>	18 ms
<b>Display color</b>	16.7M colors
<b>Display resolution</b>	1920x1080 resolution
<b>Display touch</b>	Resistive single touch
<b>Display viewing angle</b>	150 (H) / 150 (V) degree viewing angle
<b>White luminance</b>	700 nits luminance
<b>Power consumption</b>	100W w heater
<b>Power input</b>	W/o heater:Through MDU-interface W heater:Extra DC-IN connector
<b>Coating and color</b>	Dupont AE0305-6603120 (RAL6031)
<b>Cooling</b>	Passively cooled
<b>Dimensions</b>	550x365x62 mm (WxHxD)
<b>Earth point</b>	M6 12mm
<b>Surface treatment chassis</b>	Chromit-Al

## Environmental Specification (\*designed to meet)

<b>High temperature - Operating*</b>	MIL-STD-810G, Method 501.5, Procedure II - Operation 55 °C (131 °F)
<b>High temperature - Storage*</b>	MIL-STD-810G, method 501.5, Procedure I - Storage 60 °C (140 °F)
<b>IP Class (Solid Particle Protection)*</b>	IP Class 6X
<b>IP Class (Water)*</b>	IP Class X5
<b>Low air pressure - Rapid Decompression*</b>	MIL-STD-810G, Method 500.5, Procedure III - Rapid Decompression 75.2kPa, corresponding to 2,438m (8.000 ft) 17kPa, corresponding to 12192m (40.000 ft)
<b>Low air pressure - Operating*</b>	MIL-STD-810G, method 500.5, Procedure II - Operation/Air Carriage 4572m (15.000 ft)
<b>Low temperature - Operating*</b>	MIL-STD-810G, method 502.5, Procedure II - Operation -20 °C (-4 °F)

<b>Low temperature - Storage*</b>	MIL-STD-810G, method 502.5, Procedure I - Storage -20 °C (-4 °F)
<b>Noise level*</b>	Maximum noise level of 40dB SPL A-weighting @ 1m (3,3 ft) distance
<b>Salt fog*</b>	MIL-STD-810G Method: 509.5 5% +- 1% (by weight) Two cycles, 24h wet + 24h dry /cycle
<b>Temperature Shock - Operating*</b>	The unit shall pass MIL-STD 810G, method 503.5 procedures I - C, - Multi-cycle shocks from constant extreme temperature. 55 °C - 20 °C
<b>Transit drop, in shipping package*</b>	MIL-STD-810G, method 516.6, Procedure IV - Transit Drop. Table 516.6-VI, Transit drop test, < 45.4 kg (100 lbs), < 91 cm (36 inch), Manpacked or man-portable
<b>Vibration - Helicopter*</b>	MIL-STD-810G, Method 514.6, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter
<b>Vibration - Loose Cargo*</b>	MIL-STD-810G, Method 514.6, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo
<b>Vibration - Tracked Vehicles*</b>	MIL-STD-810G, Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, tracked vehicles
<b>Vibration - Wheeled Vehicle*</b>	MIL-STD-810G, Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, wheeled vehicles

## EMC Specification (\*designed to meet)

<b>CE EMC*</b>	EMC Directive 2014/30/EU.
<b>EMI conducted CE102*</b>	MIL-STD-461F, Method CE102 BASIC CURVE 10kHz to 10MHz
<b>EMI radiated RE102*</b>	MIL-STD-461F 2MHz - 18Ghz Navy Mobile & Army
<b>EMS conducted CS101*</b>	MIL-STD-461F, Method CS101, conducted susceptibility, power leads CURVE #1 30Hz to 150kHz
<b>EMS conducted CS114*</b>	MIL-STD-461F 10kHz - 200MHz Army, Ground
<b>EMS conducted CS115*</b>	MIL-STD-461F
<b>EMS conducted CS116*</b>	MIL-STD-461F 10 kHz to 100 MHz

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**EMS radiated RS103\***

MIL-STD-461G, Air Force ground  
2MHz to 1GHz  
Army

**ESD\***

EN61000-4-2:2009 Level 3  
EN50024:1998 Performance criteria  
B + A1:2001 + A2:2003