

# MBU1101



## MDU Backbox

The MBU1101 offers video input and connectivity for an MDU display.

### Modular display units

The MilDef MDU range is designed with modularity and low life-cycle cost in mind.

Featuring a rugged range of displays and backboxes, a solution may be tailored for any scenario. The modular concept enables cost effective future upgrades utilizing the latest hardware.

### Standardized mounting and compatibility

The MDU range features a standardized docking interface for full interoperability between displays and backboxes. Displays feature side mounting holes, with VESA mounting available on the backboxes.

### 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.

### Guaranteed performance

MilDef products are designed for the long lifecycles of military programs and come with a lifetime support program to ensure your equipment maintains peak performance for many missions to come.

We also guarantee the availability of spare parts for an additional 5 years after product end-of-life.

### Features

- Compatible with MilDef MDU Displays
- Plug and play upgrades within the MDU range
- VGA and DVI video input
- USB input for keyboards and peripherals
- USB output for peripherals, buttons and touch interface

## Connector Interfaces

(back)	<ul style="list-style-type: none"> <li>1x MDU interface</li> </ul>
SERVICE (right side)	<ul style="list-style-type: none"> <li>1x RS232 Service</li> </ul>
X4 (back)	<ul style="list-style-type: none"> <li>1x USB2.0</li> </ul>
X2 (back)	<ul style="list-style-type: none"> <li>1x VGA</li> <li>1x USB2.0</li> </ul>
X3 (back)	<ul style="list-style-type: none"> <li>1x DVI</li> <li>1x USB2.0</li> <li>1x RS</li> <li>1x F6</li> <li>1x F12</li> </ul>
X1 DC IN (back)	<ul style="list-style-type: none"> <li>1x Power</li> </ul>

## Other Interfaces

1x MilDef Backbox Interface (back)

## Technical Specification

CE	Compliant
Docking compatibility	MDU Display (sold separately)
MIL-STD-1275D	5.3.2.2 5.3.2.3 5.3.2.4
Polarity protection	Protected against polarization failure on the power input in the voltage range of normal operation
Power consumption	120 W
Power input	12-36 VDC
Chassis material	Aluminum
Coating and color	Dupont AE0305-1101320 (RAL 1013)
Cooling	Passively cooled
Earth point	M6 12 mm
Surface treatment chassis	Chromit-Al
Weight	1.8 kg (4 lbs)
RoHS2	European Restriction of the use of certain Hazardous substance (EU RoHS2)

## Environmental Specification

High temperature - Operating	MIL-STD-810G, Method 501.5, Procedure II - Operation 55 °C (131 °F)
High temperature - Storage	MIL-STD-810G, Method 501.5, Procedure I - Storage 71 °C (160 °F)
IP Class (Solid Particle Protection)	IP Class 6X
IP Class (Water)	IP Class X5

## Low air pressure - Rapid decompression

MIL-STD-810G, Method 500.5, Procedure III - Rapid decompression  
75.2 kPa, corresponding to 2,438 m (8,000 ft)  
17 kPa, corresponding to 12,192 m (40,000 ft)

## Low air pressure - Operating

MIL-STD-810G, method 500.5, Procedure II - Operation/Air Carriage  
4,572 m (15,000 ft)

## Low temperature - Operating

MIL-STD-810G, method 502.5, Procedure II - Operation  
-40 °C (-40 °F)

## Low temperature - Storage

MIL-STD-810G, method 502.5, 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-810G Method: 509.5  
5 % ± 1 % (by weight)  
Two cycles, 24 h wet + 24 h dry / cycle

## Transit drop, in shipping package

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

## Vibration - Helicopter

MIL-STD-810G, Method 514.6, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter

## Vibration - Loose Cargo

MIL-STD-810G, Method 514.6, Procedure II - Loose cargo transportation, Category 5 - Truck/ trailer - loose cargo

## Vibration - Tracked Vehicles

MIL-STD-810G, Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, tracked vehicles

## Vibration - Wheeled Vehicle

MIL-STD-810G, Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, wheeled vehicles

## EMC Specification

EMI conducted CE102	MIL-STD-461F, Method CE102 BASIS CURVE 10 kHz to 10 MHz
EMI radiated RE102	MIL-STD-461F Navy Mobile & Army 2 MHz - 18 GHz

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<b>EMS conducted CS101</b>	MIL-STD-461F, Method CS101, conducted susceptibility, power leads. CURVE #1 30 Hz to 150 kHz
<b>EMS conducted CS114</b>	MIL-STD-461F Army, Ground 10 kHz - 200 MHz
<b>EMS conducted CS115</b>	MIL-STD-461F Conducted susceptibility, bulk cable injection, impulse excitation
<b>EMS conducted CS116</b>	MIL-STD-461F 10 kHz - 100 MHz
<b>EMS radiated RS103</b>	MIL-STD-461F Army 2 MHz - 1 GHz
<b>ESD</b>	EN61000-4-2 15 kV air, 8 kV contact