

MBU BACKBOX DISPLAY

MBU1121



MDU Backbox Display

The MDU Backbox Display is a rugged backbox customized for its demanding environment. This unit is made for different video signals. It does not have a computing processor as the MCU1100-series. Instead the main focus is to deliver alternative solutions for different hardware video form factors. You will need an external computer to utilize the full potential of the MBU1100-serie

Built to take a beating

The Backbox is built to withstand the harshest conditions over the long haul. It features aluminium casing, rugged MIL connectors or industrial 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.

Features

- 12-36 VDC
- Passively cooled
- 3G-SDI
- DVI - Single lane
- DisplayPort

Options

- MIL-connectors or Industrial, or both
- Operational and Storage: Low temperature -40C

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Connector Interfaces

3G-SDI (front)	• 1x 3G-SDI Input
DVI (bottom)	• 1x DVI-D
DC IN (back)	• 1x Power
DP (bottom)	• 1x DisplayPort
SERVICE (bottom)	• 1x RS232 Service
USB3/4 (left side)	2 connectors which each has: <ul style="list-style-type: none"> • 1x USB 3.0
USB5 (bottom)	• 1x USB3
VGA (bottom)	• 1x VGA

Technical Specification

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 input	12-36 VDC
Coating and color	Dupont AE0305-6603120 (RAL6031)
Cooling	Passively cooled
Dimensions	225x160x44 mm (WxHxD)
Earth point	M6 12mm
Surface treatment chassis	Chromit-Al

Environmental Specification (*designed to meet)

Fungus*	MIL-STD-810G, Method 508.6, Fungus 90 days
High temperature - Operating*	MIL-STD-810G, Method 501.5, Procedure II - Operation 55 °C (131 °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 75.2kPa, corresponding to 2,438m (8.000 ft) 17kPa, corresponding to 12192m (40.000 ft)
Low air pressure - Operating*	MIL-STD-810G, method 500.5, Procedure II - Operation/Air Carriage 4572m (15.000 ft)
Low temperature - Operating*	MIL-STD-810G, method 502.5, Procedure II - Operation -20 °C (-4 °F)

Low temperature - Storage*	MIL-STD-810G, method 502.5, Procedure I - Storage -20 °C (-4 °F)
Noise level*	Maximum noise level of 40dB SPL A-weighting @ 1m (3,3 ft) distance
Salt fog*	MIL-STD-810G Method: 509.5 5% +/- 1% (by weight) Two cycles, 24h wet + 24h dry /cycle
Temperature Shock - Operating*	The unit shall pass MIL-STD 810G, method 503.5 procedures I - C, - Multi-cycle shocks from constant extreme temperature. 55 °C - 20 °C
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 (*designed to meet)

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

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EMS conducted CS116*

MIL-STD-461F
10 kHz to 100 MHz

EMS radiated RS103*

MIL-STD-461F
2MHz to 1GHz
Army

ESD*

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