19"/6 Mediaconverter MC709

19"/6 Media Converter

The MC709 is a gigabit Ethernet-E1 media converter in a compact and rugged design. It is designed to withstand the most extreme environments over the long haul. The MC709 is powered by 10-32V for increased versatility.

Built to take a beating

The mediaconverter 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 -40 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

- Convert between E1 and 1000BASE-T
- 10-32 VDC
- USB 5 VDC
- Passively cooled

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Connector Interfaces

5V VDC USB (back)	• 1x USB 2.0
DC IN (front)	• 1x Power
E1 (front)	• 1x ETH E1
ETH (front)	• 1x ETH 1000BASE-T

Other Interfaces

1x Status indicator (front)

Technical Specification

Blanking	Enable/disable all externally visible indicators from emitting light via the "blanking command"
LAN 1000BASE-T	1000BASE-T standard
LAN E1	E1 standard
Media converter functionality	Convert between E1 and 1000BASE-T
MIL-STD-1275D	5.3.2.2 5.3.2.3 5.3.2.4
Power consumption	6W
Power input	10-32 VDC
Power input USB	USB 5 VDC
Coating and color	Dupont AE0305-6603120 (RAL6031)
Cooling	Passively cooled
Dimensions	73x44 mm (2,9x1,8 inch) (WxH)
Earth point	M6 12mm
Surface treatment chassis	Chromit-Al
Weight	1 kg (2,2 lbs)
MTBF	Greater than 905512h

Environmental Specification

Functional Shock - Operating	MIL-STD-810G. Method 516.6, Procedure I - Functional Shock. Table 516.6-II, Terminal peak sawtooth pulse, Ground equipment 40g 11 ms
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)
Humidity	MIL-STD-810G, Method 507.5, Procedure II - Aggravated 95 ± 4 %rh Ten 24-hour cycles
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 -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 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	MIL-STD 810G, method 503.5 procedures I - C, - Multi-cycle shocks from constant extreme temperature 55 °C (131 °F) - 40 °C (-40 °F)
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

CE EMI	EN61000-6-3:2007
CE EMS	EN55032:2015

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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 suceptibility, 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
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