

19"/4 KSW4102



DVI and USB fiber extender - local side

The fiber extender provides a high-performance DVI and USB extender, all in a custom form factor. The KSW4101 local extender is designed to work with the KSW4102 or KSW4103 on the remote side. It is optimized for low size, weight and power (SWaP) to meet industry requirements without sacrificing reliability, ruggedness or performance.

Small form factor

The MilDef 19"/4 form factor is optimized for reduced size, weight, and power (SWaP) to meet industry and military requirements without sacrificing reliability, ruggedness or performance.

Flexible mounting

The 19"/4 standard enables flexible mounting options for a wide array of integration scenarios. The unit can be mounted in a standard 19" rack, half racks, or directly on to a surface and at any angle.

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.

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

- USB and DVI signals over fiber
- LED indicators
- Rugged connectors
- Passively cooled

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Connector Interfaces

X1 DC IN (front)	<ul style="list-style-type: none"> 1x Power
SERVICE (front)	<ul style="list-style-type: none"> 1x RS232 Service
X2 (front)	<ul style="list-style-type: none"> 1x Fiber Video 1x Fiber AVR 1x Fiber USB 2.0
X3 (front)	<ul style="list-style-type: none"> 1x DVI
X4 (front)	<ul style="list-style-type: none"> 1x USB 2.0
X5 (front)	<ul style="list-style-type: none"> 1x Remote kvm

Other Interfaces

1x System button (front)

Technical Specification

Graphics resolution	Max 1920 x 1200 @ 60Hz on all video interfaces
Main function of unit	Convert DVI and USB 2.0 to fiber link
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	10 W
Power input	12-32 VDC
Chassis material	Aluminum
Coating and color	Dupont AE0305-6603120 (RAL6031)
Dimensions width and height	110 x 43.4 mm (4.34 x 1.71 in) (WxH)
Earth point	M6 12 mm
Surface treatment chassis	Chromit-Al
Unit depth	200 mm (7.9 in)
Weight	1 kg (2.2 lbs)
MTBF	192,482 h
CE	Compliant

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 40 g 11 ms
High temperature - Operating	MIL-STD-810G, Method 501.5, Procedure II - Operation 55 °C (131 °F)

Humidity	MIL-STD-810G, Method 507.5, Procedure II - Aggravated 95 ± 4 % RH Ten 24 h cycles
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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)
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Low temperature - Operating	MIL-STD-810G, method 502.5, Procedure II - Operation -40 °C (-40 °F)
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Low temperature - Storage	MIL-STD-810G, method 502.5, Procedure I - Storage -40 °C (-40 °F)
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Noise level	Maximum noise level of 40 dB SPL A-weighting at 1 m (3.3 ft) distance
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Salt fog	MIL-STD-810G Method: 509.5 5 % ± 1 % (by weight) Two cycles, 24 h wet + 24 h dry / cycle
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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)
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Vibration - Helicopter	MIL-STD-810G, Method 514.6, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter
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Vibration - Loose cargo	MIL-STD-810G, Method 514.6, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo
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Vibration - Tracked vehicles	MIL-STD-810G, Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, tracked vehicles
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Vibration - Wheeled vehicles	MIL-STD-810G, Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, wheeled vehicles
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EMC Specification

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