AstroNova® Aerospace

RUGGEDIZED ETHERNET SWITCH

ToughSwitch® 3

Designed for Commercial & Military Vehicles

The **ToughSwitch® 3** is a dedicated, ruggedized Ethernet switch designed to meet stringent environmental and electromagnetic requirements. It operates from 24 VDC vehicle power, making it ideal for use in commercial and military vehicles.

- Meets stringent Environmental and Electromagnetic Requirements
- Nine Real-time, Auto Detecting 10/100BaseT Ethernet Ports
- Ideally Suited for Use in Commercial & Military Vehicles

ToughSwitch® 3 Designed for Commercial & Military Vehicles

CHARACTERISTIC	SPECIFICATION
ETHERNET INTERFACE	
Ports	Nine 10BaseT/100BaseT ports
Auto-negotiation	Supports 802.3X auto-negotiation between 10BaseT and 100BaseT on each port
Fast Ethernet	Fully compliant with IEEE 802.3 (10BaseT) and 802.3u (100BaseT) operation
Prioritization	Supports 802.1p layer 2
Duplex	Supports auto-sensing of full or half duplex on each port
Expansion	Supports one uplink port for network expansion
Indicators	Provides port activity indicator for each port plus power indicator
Connectors	Power: PT07SE-10-6P Ethernet Ports 1-9: PT07SE-20-41P
PHYSICAL	
Weight	3.7 lbs
Height (Length)	6.75 in
Width	6.69 in
Depth	2.89 in
ENVIRONMENTAL	
Altitude (operating)	10,000 ft, Ref: MIL-STD-810E
Altitude (non-operating)	40,000 ft, Ref: MIL-STD-810E
Temperature (operating)	-31.7 to 49 deg C, Ref: MIL-STD-810E
Temperature (non-operating)	-51.1 to 71.1 deg C, Ref: MIL-STD-810E
Humidity	5 to 95% RH
Moisture and Fungus Resistance	Resistance to moisture and fungus, operating and non-operating; Ref: MIL-STD-810
Steamjet	105 +/- 5 psig at a distance of less than or equal to one foot; Ref: MIL-STD-108
Waterjet	50+/- 5 applied to produce at least one inch spray diameter; Ref: MIL-STD-108
Salt Atmosphere	Operates after exposure to a condensing 5% aqueous sodium chloride solution at 35° C for a period of 48 hours; Ref: MIL-STD-810E
Solar Loading	Operates with the effects of solar radiation (solar loading to 1120 W/m2 max); Ref: MIL-STD-810E

CHARACTERISTIC	SPECIFICATION
MECHANICAL	
Shock (operating)	30 g peak terminal half sine pulse shock pulses of 11 +/- 1 millisecond duration; Ref: MIL-STD-810E, Method 516.4, Procedure I
Shock (airdrop)	Maintain functionality after exposure to a 10g,100ms, half sine pulse applied in the vertical direction while mounted in the vehicle, Ref: MILSTD-810E, Method 516.4, Procedure I
Random Vibration	MIL-STD-810E, Method 514.4, Category 8 (Ground Mobile Equipment) (operating)
EMC	
Conducted Emissions	MIL-STD-461E CE102
Radiated Emissions	MIL-STD-461E RE102
Conducted Susceptibility	MIL-STD-461E CS101, CS114, CS115, CS116
Radiated Susceptibility	MIL-STD-461E RS103
ELECTRICAL	
Input Voltage	10-30 VDC; Ref: MIL-STD-1275B
Power Consumption (typical)	4 watts
Maximum Power	6 watts
OTHER	
MTBF	150,000 hours

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