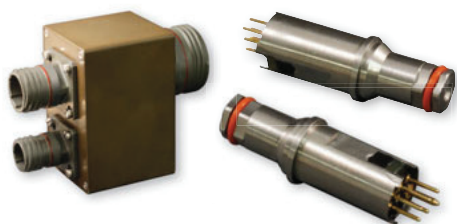




## Copper-to-Fiber Media Converters/ Active Components



**Small form-factor copper to fiber media converters reduce weight and complexity in fiber optic interconnect systems**

### Size #8 Optoelectronic Insert Transmitter and Receiver



- ARINC 664, 801, 803, 804, and 818 standard Compliant
- Data rates from 125Mbps to 3.8 Gbps for Transmitter, 125Mbps to 4.25Gbps for Receiver
- Supports Fast and Gigabit Ethernet, AFDX, 1x/2x Fibre Channel, DVI, HDMI, SFPDP, Serial Rapid I/O (sRIO).
- Designed for harsh environment applications.
- Operating temperature range of -40°C to +85°C
- Transmitter: 100 ohms differential CML inputs with TX Fault and TX Disable
- Receiver: 100 ohms differential CML Outputs with Loss Of Signal indicator (LOS)
- Works with Multimode 50/125uM or 62.5/125 uM fiber
- Link distance of up to 550 Meters with Multimode 50/125uM fiber
- Single 3.3v power supply
- ARINC 801 1.25mm/2.5mm ceramic fiber ferrule, or expanded beam

Product Series

050 - 301

#8 Optoelectronic  
Insert

Absolute Maximum Rating					
Parameter	Symbol	Minimum	Typical	Maximum	Unit
Storage Temperature	T <sub>s</sub>	-55		+100	°C
Operating Voltage	V <sub>cc</sub>	-0.4		+4	V

Operating Conditions					
Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating Temperature	T <sub>op</sub>	-40		+85	°C
Supply Voltages	V <sub>cc</sub>	3.14	3.3	3.46	V
Power Supply Noise	V <sub>cc</sub> ripple			0.15	V

Power Supply Current V <sub>cc</sub> = 3.14 to 3.46V					
Parameter	Symbol	Minimum	Typical	Maximum	Unit
Supply Current	I <sub>cc</sub>			70	mA



## Copper-to-Fiber Media Converters/ Active Components



### Series 050-201 DVI Copper to Fiber Media Converter



- -40°C to +85°C operating temperature range
- Meets MIL-STD-810 shock and vibration, and MIL-STD-1344 immersion
- Fiber link distance of up to 320 meters with 50/125 um multimode fiber (500 MHz km fiber)
- Fiber connector interface compatible with MIL-T-29504
- D38999 circular connector with quadrx electrical interface for RGB and Clock
- TMD5 compatible electrical interface
- MIL-STD-1560 standard layouts for electrical and fiber optic connectors
- Available options for fiber receptacle compatible with: 1.25mm, 1.57mm, 2mm, and 2.5mm ferrules sizes.
- Made-to-order packaging and connector options available

Military Specification Compliance			
Feature	Standard	Condition	Notes
ESD	MIL-STD-883	Class II	2200V
Shock	MIL-STD-810	40g	6-9mS
Vibration	MIL-STD-810	40g RMS	

Power Supply 18V to 36 V			
Parameter	Symbol	Maximum	Unit
Power Supply Current	ICC	200	mA

Optical Transmitters					
Parameter	Symbol	Minimum	Typical	Maximum	Unit
Optical Output Power	P <sub>O</sub>	-6.0	-4	-1	dBm
Optical Output Wavelength	λ <sub>OUT</sub>	830	850	860	nM
Spectral Width(RMS)	Δλ			.85	nM
Extinction Ratio	ER	9.0			dB

Optical Receivers					
Parameter	Symbol	Minimum	Typical	Maximum	Unit
Optical Input Power	P <sub>I</sub>	-19.0		0	dBm
Optical Input Wavelength	λ <sub>IN</sub>	830	850	860	nM

### Series 050-101 100BASE-T to 100BASE-SX/LX Media Converter



- IEEE 802.3-2005 Gigabit Ethernet standard compliant
- -40°C to +85°C operating temperature range
- Ideal for military and other harsh environment applications.
- Meets MIL-STD-810 Mechanical Shock and Vibration
- Meets Mil-STD-1344 immersion resistance
- MIL-STD-1560 standard layouts for both electrical and fiber optic connectors
- Available options for fiber receptacle compatible with: 1.25mm, 1.57mm, 2mm, and 2.5mm ferrules sizes.
- Single power supply operation from 5V to 36V, with optional 3.3V version.
- Made-to-order packaging and connector options available

Optical Link Distances		
Protocol	Fiber Type	Distance
1000BASE-SX, 850nm VCSEL	62.5/125µm, 200MHZ*Km	275 Meters
1000BASE-LX, 1310nm FP	50/125µm, 500MHZ*Km	550 Meters
	9/125 µm	10 Kilometers

Military Specification Compliance			
Feature	Standard	Condition	Notes
Shock	MIL-STD-810	40g	6-9ms
Vibration	MIL-STD-810	30g RMS	18ms
ESD	MIL-STD-883	Class II	2200v
Durability	MIL-STD-38999/20	500 Cycles	<0.5 db change