2-BAY MT38999 WITH MT FERRULES TO EXAMAX CONNECTOR

Amphenol
MILITARY HIGH SPEED

PDS - 530

DESCRIPTION

This Amphenol connector will take your high-speed needs to a new level. We have taken two existing high-speed technologies and combined them into one media converter. Now you can transfer high-speed data seamlessly from copper to fiber and fiber to copper.

The following products utilize the proven technology of the MT38999 multi-channel circular connectors with MT ferrules and the high-bandwidth Centaur connector to create a media converter that is capable of two channels of 100GBASE-KR4 to 10GBASE-SR4 or eight channels of 1G, 10G, or 25G Ethernet fiber to copper conversion.

FEATURES

- Converts eight channels of 1G/10G/25GBASE-SR to 1G/10G/25GBASE-KR or two channels of 40G/100GBASE-SR4 to 40G/100GBASE-KR4
- Perfect for routing multiple fiber optic Ethernet connections into systems
- Compliant with IEEE 802.3an Ethernet standards and specifications
- Media conversion at the connector reduces system complexity and cost
- Amphenol epoxy staking protects delicate fiber components for environment and assembly process
- 40°F (-40°C) to 185°F (85°C) operating temperatures
- Full support for KR and KR4 link training and auto-negotiation

POWER SPECIFICATIONS

- 12V on copper Examax connector

INTERFACE

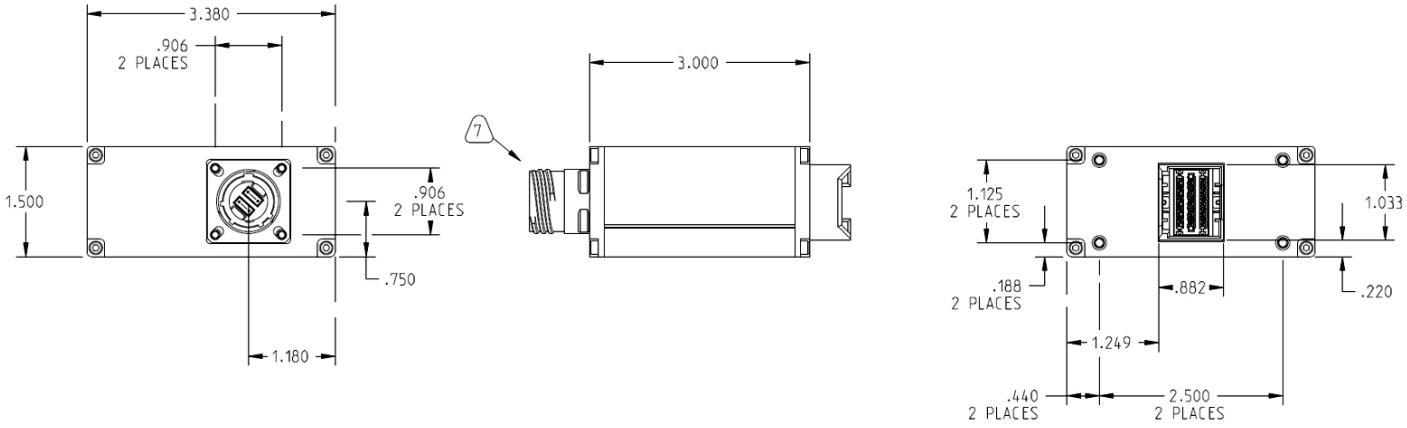
- D38999 style connectors with various keyings and rotations available
- Shell size 13 38999 with high-speed 12F MT ferrules
- Examax header with 4 differential pairs and 6 columns
- Samtec latching shroud for mechanical retention and alignment
- Interfaces for power, diagnostics, and others
- No need for internal subsystem fiber harnesses, interconnect, or transcievers

Jared Sibrava • +1 (607) 643-1845 • jsibrava@amphenol-aao.com
amphenol@amphenol-aao.com

Amphenol
MILITARY HIGH SPEED

MECHANICAL SPECIFICATIONS

CF-020400-62X



J1 I/O CHART (9)			
ID	SIGNAL	ID	SIGNAL
A1	100G-SR4_CH1_TX1	B1	100G-SR4_CH2_TX1
A2	100G-SR4_CH1_TX2	B2	100G-SR4_CH2_TX2
A3	100G-SR4_CH1_TX3	B3	100G-SR4_CH2_TX3
A4	100G-SR4_CH1_TX4	B4	100G-SR4_CH2_TX4
A5	N/C	B5	N/C
A6	N/C	B6	N/C
A7	N/C	B7	N/C
A8	N/C	B8	N/C
A9	100G-SR4_CH1_RX4	B9	100G-SR4_CH2_RX4
A10	100G-SR4_CH1_RX3	B10	100G-SR4_CH2_RX3
A11	100G-SR4_CH1_RX2	B11	100G-SR4_CH2_RX2
A12	100G-SR4_CH1_RX1	B12	100G-SR4_CH2_RX1

J2 I/O CHART (9)						
	1	2	3	4	5	6
A	GND	GND	GND	GND	GND	GND
B	GND	100G-KR4_CH1_TX3+	GND	100G-KR4_CH2_TX3+	GND	RESET
C	100G-KR4_CH1_TX1+	100G-KR4_CH1_TX3-	100G-KR4_CH2_TX1+	100G-KR4_CH2_TX3-	POWER 12V	RESET_RTN
D	100G-KR4_CH1_TX1-	GND	100G-KR4_CH2_TX1-	GND	POWER 12V	GND
E	GND	100G-KR4_CH1_TX4+	GND	100G-KR4_CH2_TX4+	GND	SDA
F	100G-KR4_CH1_TX2+	100G-KR4_CH1_TX4-	100G-KR4_CH2_TX2+	100G-KR4_CH2_TX4-	POWER 12V	SCL
G	100G-KR4_CH1_TX2-	GND	100G-KR4_CH2_TX2-	GND	POWER 12V	GND
H	GND	100G-KR4_CH1_RX4-	GND	100G-KR4_CH2_RX4-	GND	MDIO
I	100G-KR4_CH1_RX2-	100G-KR4_CH1_RX4+	100G-KR4_CH2_RX2-	100G-KR4_CH2_RX4+	POWER 12V	MDC
J	100G-KR4_CH1_RX2+	GND	100G-KR4_CH2_RX2+	GND	POWER 12V	GND
K	GND	100G-KR4_CH1_RX3-	GND	100G-KR4_CH2_RX3-	GND	N/C
L	100G-KR4_CH1_RX1-	100G-KR4_CH1_RX3+	100G-KR4_CH2_RX1-	100G-KR4_CH2_RX3+	POWER 12V	N/C
M	100G-KR4_CH1_RX1+	GND	100G-KR4_CH2_RX1+	GND	POWER 12V	GND
N	GND	GND	GND	GND	GND	GND

Jared Sibrava • +1 (607) 643-1845 • jsibrava@amphenol-aao.com
amphenol@amphenol-aao.com

Amphenol
MILITARY HIGH SPEED

ORDERING INFORMATION

PART NUMBER	J1 CONNECTOR	KEYWAY ROTATION	FINISH
CF-020400-62N	CF-5EZ013-02S	N	Black Zinc Nickel
CF-020400-62A	CF-5EZ013-02H	A	Black Zinc Nickel

Contact Amphenol for any additional key rotations, clocking, material, or finishes

ACCESSORIES

MATING ASSEMBLIES

PART NUMBER	DESRIPTION
ECBF Cable Assembly	Samtec Cable Assembly (Size: 4 DP X 6 Columns), Mates with J2
CF-5EZ613-02P	Normal Keying, Mates with J1
CF-5EZ613-02G	"A" Keying, Mates with J2

Contact Amphenol for any options not listed

Interested in this functionality on a VPX card instead? Try our CF-020400-584 3U VPX 25G Media Converter! Need more functionality? Try the CF-020400-096 3U VPX 25G 56 channel switch!

Jared Sibrava • +1 (607) 643-1845 • jsibrava@amphenol-aao.com
amphenol@amphenol-aao.com

Amphenol
MILITARY HIGH SPEED

AMPHENOL RUGGEDIZATION DESIGN

OVERVIEW:

Amphenol integrated electronic products are designed and manufactured to our ruggedization guidelines listed below. These guidelines ensure years of reliable operation in harsh environment applications where extreme operating temperatures, shock, vibration, and corrosive atmospheres are regularly experienced. Unless otherwise noted, the parts conform to the below specifications.

TEMPERAUTURE:

- Operating Temperature- Thermal Cycles between 40°F (-40°C) to 185°F (85°C) while device is operating
- Temperature is measured at chassis housing or card edge
- Storage Temperature- Thermal Cycles between -67°F (-55°C) to 257°F (125°C)

HUMIDITY:

- Operating Humidity- Humidity cycle between 0-100% non-condensing humidity while device operating
- Storage Humidity- Humidity cycle between 0-100% condensing humidity

SEALING:

- Sealing can be optionally provided at the MIL-DTL-38999 interface with up to 10-5cc/sec performance

SHOCK AND VIBRATION:

- Sine Vibration - 10g Peak, 5-2,000Hz
    - Based on a sine sweep duration of 10 minutes per axis in each of three mutually perpendicular axes. May be displacement limited from 5 to 44 Hz, depending on specific test.
- Random Vibration - 0.0005 @ 5Hz, 0.1 @ 15 Hz, 0.1 @ 2,000 Hz
    - 60 minutes per axis, in each of three mutually perpendicular axes
- 40 G peak Shock Cycle
    - Three hits in each axis, both directions, $^1/_2$ sine and terminal-peak saw tooth, Total 36 hits.

FLUID SUSPECTABILITY:

- MIL-DTL-38999 receptacle interface per EIA-364-10E

ALTITUDE:

- -1,500 to 60,000 ft Altitude Testing w/ Rapid Depressurization

ALTITUDE:

- Designed to comply with MIL-STD-461E

PRINTED CIRCUIT BOARD ASSEMBLIES:

- Conformal Coat
- Amphenol performs Conformal Coting to both sides of printed circuit board assemblies using HUSMISEAL IB31 in accordance with IPC-610, Class 3
- Printed Circuit Board Rigidity
- Amphenol printed circuit boards are fabricated in accordance with IPC-6012, Class 3
- Printed Circuit Board Fabrication
- Amphenol printed circuit boards acceptance criteria is in accordance with IPC-610, Class 3

RELIABILITY PREDICTIONS (MTBF):

Amphenol can perform Mean Time Between Failure (MTBF) reliability analysis in full compliance with MIL-HDBK-217F-1 Parts Count PRediction and MIL-HDBK-217F-1 Parts Stress Analysis Prediction. We can also perform reliability analyses in full compliance of ANSI/VITA 51.1 if it is required or preferred over the later method

Jared Sibrava • +1 (607) 643-1845 • jsibrava@amphenol-aao.com
amphenol@amphenol-aao.com

Amphenol
MILITARY HIGH SPEED
40-60 Delaware Avenue
Sidney, NY 13838
amphenol-aerospace.com | amphenolmao.com

Jared Sibrava • +1 (607) 643-1845 • jsibrava@amphenol-aao.com
amphenol@amphenol-aao.com