Product Data Sheet

PDS-248

Amphenol EP-QUAD-10G Quad 10G Base-T to XAUI Converter

Amphenol Aerospace adds 10G Base-T to XAUI Converter to the Electronics Product Family. This product line is rugged, flexible, and affordable with many options available.

The 10G Base-T to XAUI Converter couples SerDes technology, protocol conversion, and transformer coupling with a new level of ruggedization. This product can take a high speed signal in an electrical backplane and convert it to a protocol that allows for signal transmission over 100 meters between devices.

Features & Benefits:

- 10G Ethernet Channels
- Conversion between 10G Base-T and XAUI
- Perfect for routing multiple 10 Gigabit Ethernet connections into systems and to and from electrical backplanes
- Compliant with IEEE 802.3 Ethernet Standards and Specifications
- Hermetic option available with a helium leak rate of 10^{-4} cc/sec

10G Base-T Copper Interface:

- D389999 Shell Size 25 with standard rotations available
- 8 High speed split-pair quadrax contacts capable of 6.25Gbps

XAUI Interface:

- Samtec EQDP Series for high speed XAUI, power, and MDC/MDIO control

Power Specifications:

- 5V power connection in Samtec connector flexible ribbon cable
- Low power consumption

Ruggedization:

- Natural convection cooled (no fan or cold plate required)
- Operational temperature -40°C to +85°C
- Storage temperature -50°C to +125°C
- Shock, vibration, immersion resistant per MIL-STD-810
- EMI/EMC compatible

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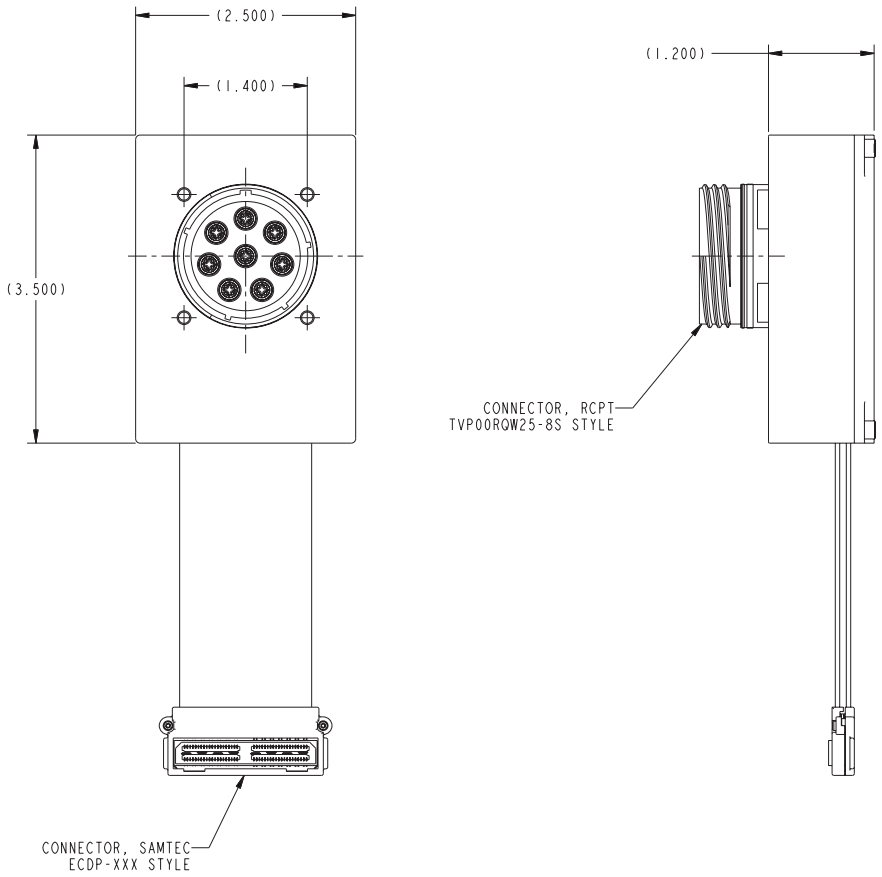
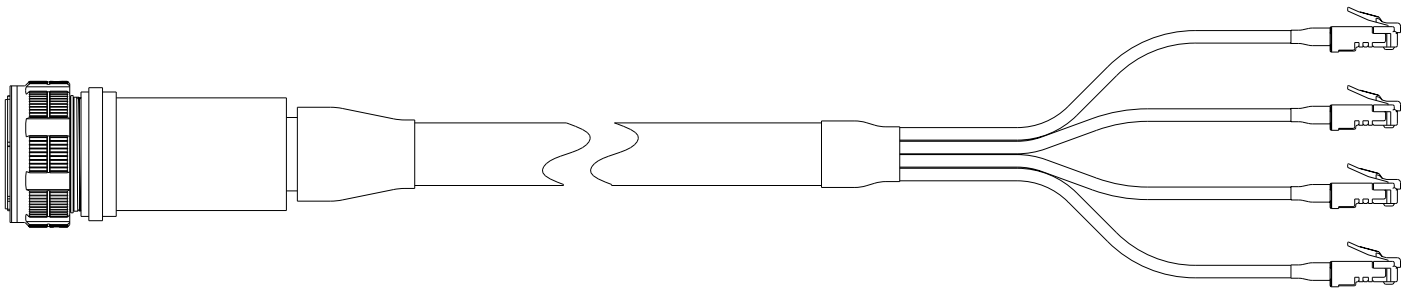
Amphenol EP-QUAD-10G

Drawing for both Hermetic & Non-Hermetic Configurations



Drawing for Test Cable CA-628485-A3( )



Amphenol EP-QUAD-10G

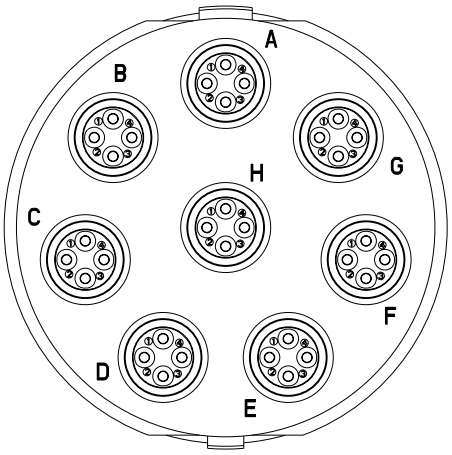
Pin outs

MIL-DTL-38999 Shell Size 25-8 Split Quadrax

Quad	Pin	Description	Quad	Pin	Description
A	1	CH 1 A+	E	1	CH 3 A+
	4	CH 1 A-		4	CH 3 A-
	2	CH 1 B+		2	CH 3 B+
	3	CH 1 B-		3	CH 3 B-
B	1	CH 1 C+	F	1	CH 3 C+
	4	CH 1 C-		4	CH 3 C-
	2	CH 1 D+		2	CH 3 D+
	3	CH 1 D-		3	CH 3 D-
C	1	CH 2 A+	G	1	CH 4 A+
	4	CH 2 A-		4	CH 4 A-
	2	CH 2 B+		2	CH 4 B+
	3	CH 2 B-		3	CH 4 B-
D	1	CH 2 C+	H	1	CH 4 C+
	4	CH 2 C-		4	CH 4 C-
	2	CH 2 D+		2	CH 4 D+
	3	CH 2 D-		3	CH 4 D-

Samtec ECDP - 98 pins

Pin	Description	Pin	Description	Pin	Description	Pin	Description	Pin	Description
1	CH1 XAUI 1 Tx+	21	CH2 XAUI 1 Tx+	41	CH3 XAUI 1 Tx+	61	CH4 XAUI 1 Tx+	81	5V Power
2	CH1 XAUI 1 Tx-	22	CH2 XAUI 1 Tx-	42	CH3 XAUI 1 Tx-	62	CH4 XAUI 1 Tx-	82	Ground
3	Ground	23	Ground	43	Ground	63	Ground	83	MDIO
4	CH1 XAUI 1 Rx+	24	CH2 XAUI 1 Rx+	44	CH3 XAUI 1 Rx+	64	CH4 XAUI 1 Rx+	84	MDC
5	CH1 XAUI 1 Tx-	25	CH2 XAUI 1 Rx-	45	CH3 XAUI 1 Rx-	65	CH4 XAUI 1 Rx-	85	Spare
6	CH1 XAUI 1 Tx+	26	CH2 XAUI 2 Tx+	46	CH3 XAUI 2 Tx+	66	CH4 XAUI 2 Tx+	86	Spare
7	CH1 XAUI 1 Tx-	27	CH2 XAUI 2 Tx-	47	CH3 XAUI 2 Tx-	67	CH4 XAUI 2 Tx-	87	Spare
8	Ground	28	Ground	48	Ground	68	Ground	88	Spare
9	CH1 XAUI 1 Rx+	29	CH2 XAUI 2 Rx+	49	CH3 XAUI 2 Rx+	69	CH4 XAUI 2 Rx+	89	Spare
10	CH1 XAUI 1 Rx-	30	CH2 XAUI 2 Rx-	50	CH3 XAUI 2 Rx-	70	CH4 XAUI 2 Rx-	90	Spare
11	CH1 XAUI 1 Tx+	31	CH2 XAUI 3 Tx+	51	CH3 XAUI 3 Tx+	71	CH4 XAUI 3 Tx+	91	Spare
12	CH1 XAUI 1 Tx-	32	CH2 XAUI 3 Tx-	52	CH3 XAUI 3 Tx-	72	CH4 XAUI 3 Tx-	92	Spare
13	Ground	33	Ground	53	Ground	73	Ground	93	Spare
14	CH1 XAUI 1 Rx+	34	CH2 XAUI 3 Rx+	54	CH3 XAUI 3 Rx+	74	CH4 XAUI 3 Rx+	94	Spare
15	CH1 XAUI 1 Tx-	35	CH2 XAUI 3 Rx-	55	CH3 XAUI 3 Rx-	75	CH4 XAUI 3 Rx-	95	Spare
16	CH1 XAUI 1 Tx+	36	CH2 XAUI 4 Tx+	56	CH3 XAUI 4 Tx+	76	CH4 XAUI 4 Tx+	96	Spare
17	CH1 XAUI 1 Tx-	37	CH2 XAUI 4 Tx-	57	CH3 XAUI 4 Tx-	77	CH4 XAUI 4 Tx-	97	Spare
18	Ground	38	Ground	58	Ground	78	Ground	98	Spare
19	CH1 XAUI 1 Rx+	39	CH2 XAUI 4 Rx+	59	CH3 XAUI 4 Rx+	79	CH4 XAUI 4 Rx+		
20	CH1 XAUI 1 Rx-	40	CH2 XAUI 4 Rx-	60	CH3 XAUI 4 Rx-	80	CH4 XAUI 4 Rx-		



Amphenol EP-QUAD-10G

How to Order

Ordering procedure is shown below using part number EP-

1. Connector Type	2. Material	3. XAUI Interface	4. Finish	5. Shell Style	6. Option (Hermetic or Non-Hermetic)	7. D38999 Connector Rotation	8. Main Keyway Rotation
EP							

Step 1. Connector Type

	Designates
EP	Electronics Product Family

Step 2. Select a Material

	Designates
-5	Aluminum Shell
-6	Composite Shell
-8	Stainless Steel Shell

Step 3. Select a XAUI Interface

	Designates
-5	Samtec EQDP Series Connector

Step 4. Select a Finish

	Designates
T	Aluminum Durmalon
Z	Aluminum Black Zinc Nickel
F	Aluminum Electroless Nickel
M	Composite Electroless Nickel
W	Aluminum OD Cad
J	Composite OD Cad
L	Stainless Steel Electrodeposited Nickel
Y	Stainless Steel Passivated

Step 5. Select a Shell Style

	Designates
0	Wall Mount

Step 6. Select an Option

	Designates
05	Non-Hermetic
06	Hermetic

Step 7. Select a Rotation for D38999 Connector
(IAW MIL-DTL-38999)

	Designates
N	N
A	A
B	B
C	C
D	D

Step 8. Select a Rotation for Main Keyway
(IAW MIL-DTL-38999)

	Designates
W	0°
X	90°
Y	180°
Z	270°

Available Test Equipment

	Part Number	Description
Test Cable	**CA-628485-A20**	**RJ45 Test Cable for D38999 Connector, 5'**
	CA-62848-A21	**RJ45 Test Cable for D38999 Connector, 10'**
	CA-62848-A22	**RJ45 Test Cable for D38999 Connector, 15'**
	CA-62848-A23	**RJ45 Test Cable for D38999 Connector, 20'**
Test Board	**CF-020005-013**	**SMA Test Board for Samtec Connector**