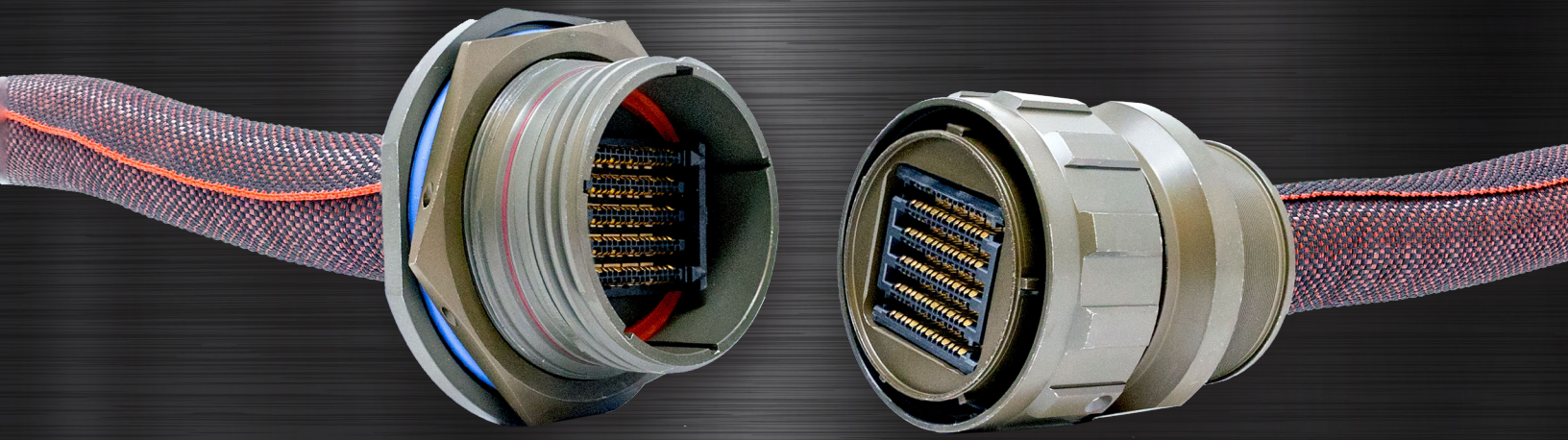
Amphenol
Aerospace

CENTAUR

High Speed Circular and Rectangular Solutions



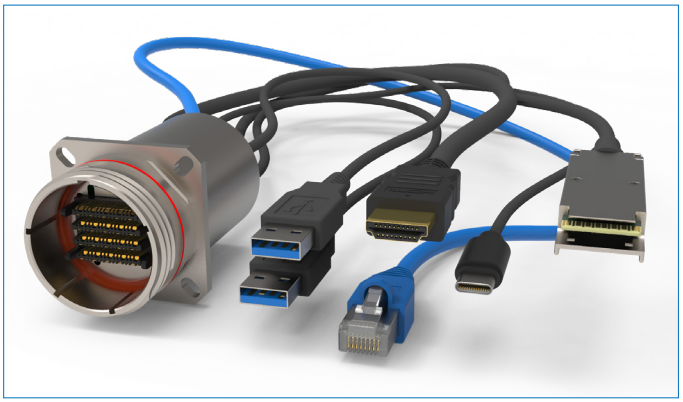
- High Speed
- High Density
- Ruggedized Cable Assembly

AN AMPHENOL AND SAMTEC COLLABORATION

www.amphenol-aerospace.com

CENTAUR





Centaur is a high-speed, high density, ruggedized cable assembly

The Centaur, a Greek mythological creature, utilized the advantages of a human upper body and equestrian lower body to flourish. Like the mythological creature, Amphenol's Centaur interconnect utilizes the advantages of our extensive legacy of Mil-Spec connectors and the latest in high-speed contact and connector technology. The Centaur interconnect provides both a durable and high-bandwidth system perfect for military, aerospace, and other ruggedized, high-bandwidth applications. It supports data rates up to 10 Gbps in a ruggedized, lightweight aluminum MIL-DTL-38999 shell.

FEATURES & BENEFITS:

- Ruggedized light-weight aluminum MIL-DTL-38999 series III size 17, 23, and 25
- Available in 40 or 32 100 ohm differential pairs depending on shell size
  - o Shell size 25 – 40 DP plus 10 single ended
  - o Shell size 23 – 32 DP plus 8 single ended
  - o Shell size 17 – 12 DP plus 6 single ended
- Keying: “N” (Standard) “A”, “B”, “C”, “D”, “E”
- Backshell Options in Straight, 45 degrees, 90 degrees, and other types
- Wide variety of high bandwidth AWG wires
- Supports data rates up to 10 Gbps PAM4
- Connectos to a wide range of commercial of the shelf connectors e.g. HDMI, USB, QSFP, RJ45, etc.
- Fully electrically tested
- Impedance: 100Ω
- Mating Cycles: 500

MECHANICAL:

- Contact material: Copper Alloy
- Shell material: Aluminum with standard plating options
- Contact plating: Au over 50u Ni

ENVIRONMENTAL:

- -40° C to 85° C operating
- VITA 47 Shock and Vibration
- IP67 Configuration Available

Custom Options Available





Centaur Sample Boxes:
Available Upon Request
Centaur – Size 25 Mated Cable Set

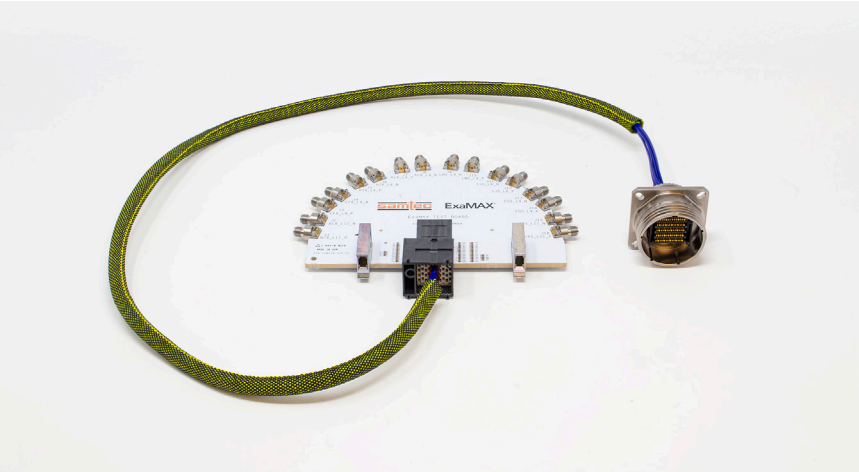
John Tucci • Phone: (607) 563-5388 • Cell: (607) 376-2778 • Email: jtucci@amphenol-aao.com

CENTAUR APPLICATION NOTES

Protocols Supported	Shell Size	
	23	25
USB 2.0 / Std A & B	X	X
USB 3.0 / Std A & B	X	X
10/100/1000 Ethernet	X	X
10G Ethernet	X	X
25G Ethernet	X	X
40G Ethernet	X	X
100G Ethernet	X	X
SATA	X	X
eSATA	X	X
Micro-SATA	X	X
Mini-SAS	X	X
PCIe 1.0/2.0/3.0/4.0	X	X
4X IB (CX4)	X	X
QSFP IB	X	X
12X IB	X	X
DVI	X	X
Display Port	X	X
HDMI	X	X
SFP+	X	X
Fibre Channel	X	X

*Contact us for more options

	Amphenol CENTAUR	Meritec HERCULES
Legacy of QPL circular connectors	X	
Multi-decade lineage of high-speed contact and connector technology	X	
Fortune 500 company	X	
Difficult & proprietary laser weld cable process		X
Flexible and simple cable assembly process	X	
Partnership with COTS Samtec ExaMAX® product	X	
Quick turn prototypes	X	
Support for aluminum shell materials	X	
Support for all shell plating finishes	X	



CENTAUR SERVICE CLASS

Connector Material	Service Class	Material / Description
Aluminum	OD Cadmium	500 hour salt spray, EMI Shielding -50 db @10GHz specification min.
	Electroless Nickel	48 hour salt spray, EMI Shielding -50 db @10GHz specification min.
	Durmalon	Nickel-PTFE alternative to Cadmium, 500 hour salt spray, EMI -50dB
	Black Zinc	Zinc-Nickel alternative to Cadmium, 500 hour salt spray, EMI Shielding





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CENTAUR CONFIGURATION OPTIONS

1. Connector Cable End 1	2. Connector Cable End 2	3. Service Class	4. Shell Size	5. Cable	6. Length
1SN	2SN	A1	25	TS	25

1. Cable End 1

38999 Shell Type and Insert		Backshell		Keying
1	Straight Plug (ExaMAX® Based insert - Female)	S	Straight	N
2	Wall Mount Receptacle (ExaMAX® Based insert - Male)	N	None	A
5	Jam Nut Receptacle (ExaMAX® Based insert - Male)	R	Right Angle	D
				B
				C
				E

Other Shell Type and Insert		Options	
7	Pigtail		Leave Blank
8	Samtec ExaMAX® EBCF Female (Mates with EBTM Male)*	R	Right Angle
9	Samtec ExaMAX® EBCM Male (Mates with EBTF Femaie)*	N	None

2. Cable End 2

38999 Shell Type and Insert		Backshell		Keying
1	Straight Plug (ExaMAX® Based insert - Female)	S	Straight	N
2	Wall Mount Receptacle (ExaMAX® Based insert - Male)	N	None	A
5	Jam Nut Receptacle (ExaMAX® Based insert - Male)	R	Right Angle	D
6	COTS Connector Configurations			B
				C
				E

Other Shell Type and Insert		Options	
7	Pigtail		Leave Blank
8	Samtec ExaMAX® EBCF Female (Mates with EBTM Male)*	R	Right Angle
9	Samtec ExaMAX® EBCM Male (Mates with EBTF Femaie)*	N	None

If you need other options which are not listed, please contact Stephen Fernandez at (607)-563-5339 or (607)-437-7753

3. Service Class

Material		Finish	
A	Aluminum	1	OD Cadmium
		2	Electroless Nickel
		3	Durmalon
		4	Black Zinc

Other options available upon request

4. Shell Size / Insert Arrangement

25	40 DP / 10 Single Ended with Samtec ExaMAX®
23	32 DP / 8 Single Ended with Samtec ExaMAX®
17	12 DP / 6 Single Ended with Samtec ExaMAX®

5. Cable

Samtec Cable Jacket Materials		Braiding / Shielding*	
T	THV-30 AWG	P	PET Braiding
H	THV-34 AWG	N	Nylon Braiding
		T	Tin Shielding
		S	Silver Plated Shielding
		X	None
		E	Environmental Heat Shrink
		F	Foil Wrap
		Z	Low Smoke Low Halogen

*Multiple options are permissible. Variable order defines order of application over wires.

6. Complete Assembly Length

0 - 999 inches

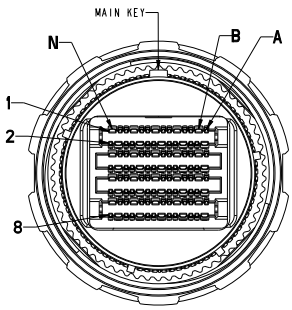
Retention Feature Mating Chart

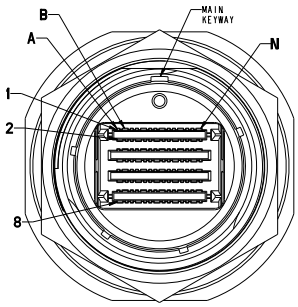
Centaur	Board Mount	Latches/Brackets
Samtec ExaMAX® EBCF Female	Samtec ExaMAX® EBTM Male	EBCL-Vertical Latching Shroud
Samtec ExaMAX® EBCM Male	Samtec ExaMAX® EBTF Female	EBCB-Panel Retention Bracket

Contact Samtec to order Board Mount Connectors and Latches/ Brackets at HSBP@samtec.com

CENTAUR MIL-DTL-38999 SIZES / PIN MAPS

Shell Size 23 - 32 Pairs / 8 Single Ended
1 to 1 single map





Wiring Table Size 23 and 25 Tx: Rx Signal Map

P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2
A1	SIG	A1	A2	GND	M2	A3	SIG	A3	A4	GND	M4	A5	SIG	A5	A6	GND	M6	A7	SIG	A7	A8	GND	M8
B1	GND	N1	B2	DP+	L2	B3	GND	N3	B4	DP+	L4	B5	GND	B5	B6	DP+	L6	B7	GND	N7	B8	DP+	L8
C1	DP+	M1	C2	DP-	K2	C3	DP+	M3	C4	DP-	K4	C5	DP+	C5	C6	DP-	K6	C7	DP+	M7	C8	DP-	K8
D1	DP-	L1	D2	GND	J2	D3	DP-	L3	D4	GND	J4	D5	DP-	D5	D6	GND	J6	C7	DP-	L7	C8	GND	J8
E1	GND	K1	E2	DP+	I2	E3	GND	K3	E4	DP+	I4	E5	GND	E5	E6	DP+	I6	E8	GND	K7	E8	DP+	I8
F1	DP+	J1	F2	DP-	H2	F3	DP+	J3	F4	DP-	H4	F5	DP+	F5	F6	DP-	H6	F7	DP+	J7	F8	DP-	H8
G1	DP-	I1	G2	GND	G2	G3	DP-	I3	G4	GND	G4	G5	DP-	G5	G6	GND	G6	G7	DP-	I7	G8	GND	G8
H1	GND	H1	H2	DP+	F2	H3	GND	H3	H4	DP+	F4	H5	GND	H5	H6	DP+	F6	H7	GND	H7	H8	DP+	F8
I1	DP+	G1	I2	DP-	E2	I3	DP+	G3	I4	DP-	E4	I5	DP+	I5	I6	DP-	E6	I7	DP+	G7	I8	DP-	E8
J1	DP-	F1	J2	GND	D2	J3	DP-	F3	J4	GND	D4	J5	DP-	J5	J6	GND	D6	J7	DP-	F7	J8	GND	D8
K1	GND	E1	K2	DP+	C2	K3	GND	E3	K4	DP+	C4	K5	GND	K5	K6	DP+	C6	K7	GND	E7	K8	DP+	C8
L1	DP+	D1	L2	DP-	B2	L3	DP+	D3	L4	DP-	B4	L5	DP+	L5	L6	DP-	B6	L7	DP+	D7	L8	DP-	B8
M1	DP-	C2	M2	GND	A2	M3	DP-	C3	M4	GND	A4	M5	DP-	M5	M6	GND	A6	M7	DP-	C7	M8	GND	A8
N1	GND	B1	N2	SIG	N2	N3	GND	B3	N4	SIG	N4	N5	GND	N5	N6	SIG	N6	N7	GND	B7	N8	SIG	N8

All Ground Common and Tied to Cable Shields

Connector Shell Isolated from Cable Ground

Wiring Table Size 23 1:1 Signal Map

P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2	P1/ J1	TYPE	P2/ J2
A1	SIG	A1	A2	GND	A2	A3	SIG	A3	A4	GND	A4	A5	SIG	A5	A6	GND	A6	A7	SIG	A7	A8	GND	A8
B1	GND	B1	B2	DP+	B2	B3	GND	B3	B4	DP+	B4	B5	GND	B5	B6	DP+	B6	B7	GND	B7	B8	DP+	A8
C1	DP+	C1	C2	DP-	C2	C3	DP+	C3	C4	DP-	C4	C5	DP+	C5	C6	DP-	C6	C7	DP+	C7	C8	DP-	C8
D1	DP-	D1	D2	GND	D2	D3	DP-	D3	D4	GND	D4	D5	DP-	D5	D6	GND	C6	C7	DP-	C7	C8	GND	C8
E1	GND	E1	E2	DP+	E2	E3	GND	E3	E4	DP+	E4	E5	GND	E5	E6	DP+	E6	E8	GND	E7	E8	DP+	E8
F1	DP+	F1	F2	DP-	F2	F3	DP+	F3	F4	DP-	F4	F5	DP+	F5	F6	DP-	F6	F7	DP+	F7	F8	DP-	F8
G1	DP-	G1	G2	GND	G2	G3	DP-	G3	G4	GND	G4	G5	DP-	G5	G6	GND	G6	G7	DP-	G7	G8	GND	G8
H1	GND	H1	H2	DP+	H2	H3	GND	H3	H4	DP+	H4	H5	GND	H5	H6	DP+	H6	H7	GND	H7	H8	DP+	H8
I1	DP+	I1	I2	DP-	I2	I3	DP+	I3	I4	DP-	I4	I5	DP+	I5	I6	DP-	I6	I7	DP+	I7	I8	DP-	I8
J1	DP-	J1	J2	GND	J2	J3	DP-	J3	J4	GND	J4	J5	DP-	J5	J6	GND	J6	J7	DP-	J7	J8	GND	J8
K1	GND	K1	K2	DP+	K2	K3	GND	K3	K4	DP+	K4	K5	GND	K5	K6	DP+	K6	K7	GND	K7	K8	DP+	K8
L1	DP+	L1	L2	DP-	L2	L3	DP+	L3	L4	DP-	L4	L5	DP+	L5	L6	DP-	L6	L7	DP+	L7	L8	DP-	L8
M1	DP-	M2	M2	GND	M2	M3	DP-	M3	M4	GND	M4	M5	DP-	M5	M6	GND	M6	M7	DP-	M7	M8	GND	M8
N1	GND	N1	N2	SIG	N2	N3	GND	N3	N4	SIG	N4	N5	GND	N5	N6	SIG	N6	N7	GND	N7	N8	SIG	N8

All Ground Common and Tied to Cable Shields

Connector Shell Isolated From Cable Ground

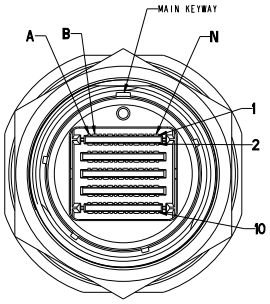
Custom Pinouts Available please contact Amphenol

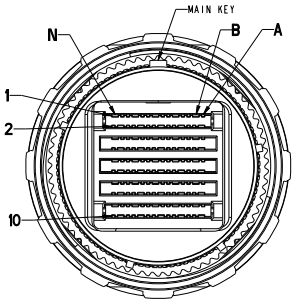
See following page for additional Size 25

John Tucci • Phone: (607) 563-5388 • Cell: (607) 376-2778 • Email: jtucci@amphenol-aao.com

CENTAUR MIL-DTL-38999 SIZES / PIN MAPS

Shell Size 25 - 40 Pairs / 10 Single Ended

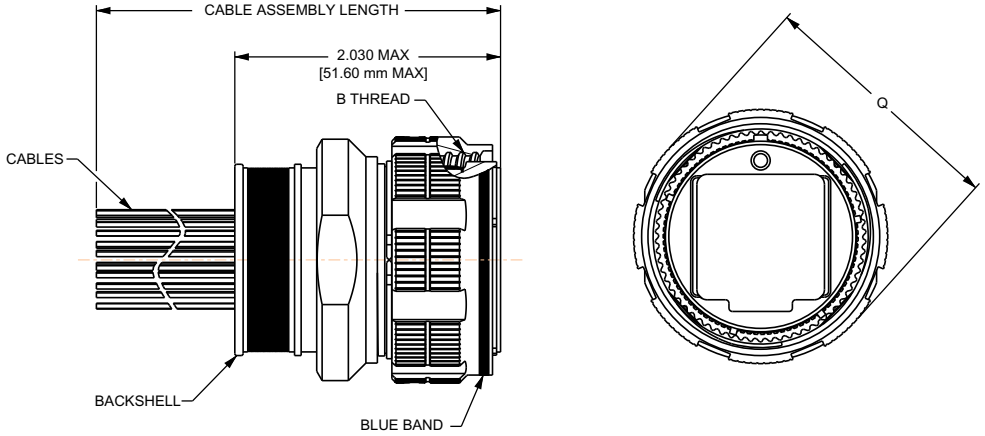




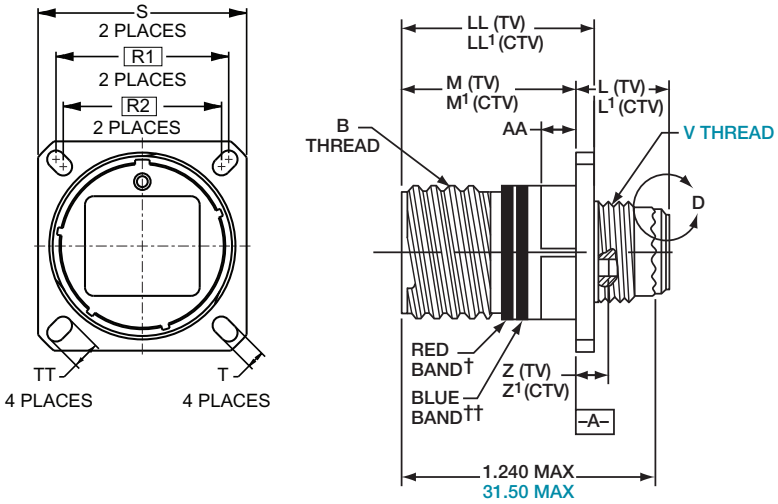
Wiring Table Size 25 Tx: Rx Signal Map					
P1/ J1	TYPE	J2	P1/ J1	TYPE	J2
A9	SIG	A9	A10	GND	M10
B9	GND	N9	B2	DP+	L10
C9	DP+	M9	C2	DP-	K10
D9	DP-	L9	D2	GND	J10
E9	GND	K9	E2	DP+	I10
F9	DP+	J9	F2	DP-	H10
G9	DP-	I9	G2	GND	G10
H9	GND	H9	H2	DP+	F10
I9	DP+	G9	I2	DP-	E10
J9	DP-	F9	J2	GND	D10
K9	GND	E9	K2	DP+	C10
L9	DP+	D9	L2	DP-	B10
M9	DP-	C9	M2	GND	A10
N9	GND	B9	N2	SIG	N10
All Ground Common and Tied to Cable Shields					
Connector Shell Isolated From Cable Ground					

CENTAUR MIL-DTL-38999 STRAIGHT PLUG

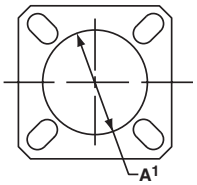
ALUMINUM / STAINLESS STEEL



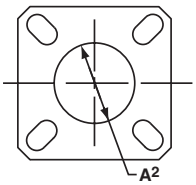
CENTAUR MIL-DTL-38999 WALL MOUNTING RECEPTACLE



PANEL HOLE DIMENSIONS



BACK PANEL MOUNTING

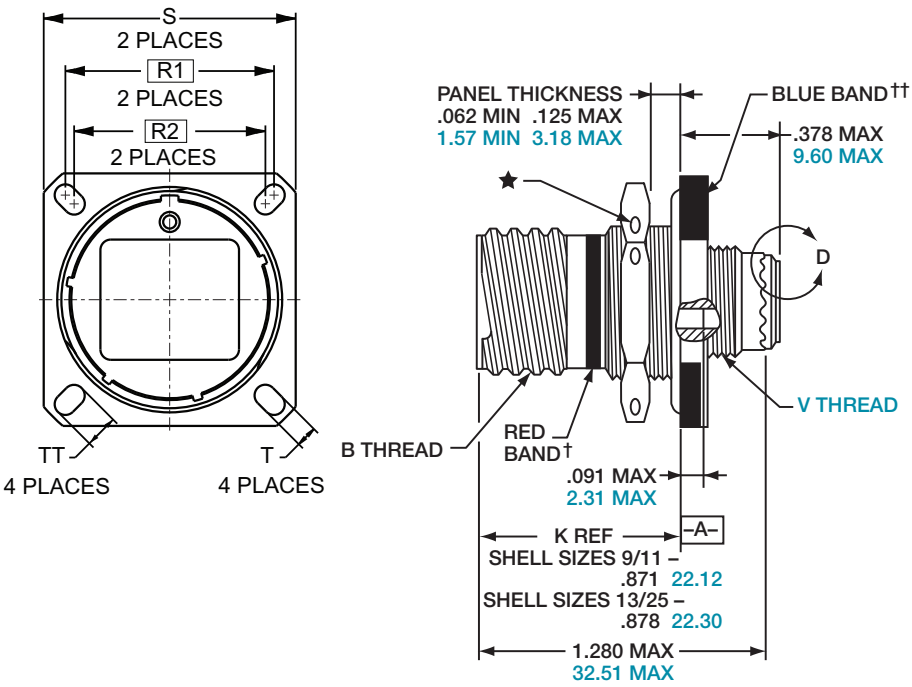


FRONT PANEL MOUNTING

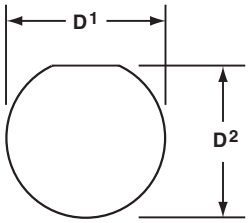
† Red band indicates fully mated
†† Blue band indicates rear release contact retention system

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CENTAUR MIL-DTL-38999 JAM NUT RECEPTACLE



PANEL HOLE DIMENSIONS



JAM NUT
D-HOLE
MOUNTING

† Red band indicates fully mated
†† Blue band indicates rear release contact retention system
★ .059 dia min.

CENTAUR *SAGITTARIUS*

High-Speed, High-Density Solutions for Space



Made for Space

- Electroless nickel plating
- Low outgassing
- Tin free

Reliable as Ever

- Dense: 40, 32, & 12 differential pairs
- Fast: up to 56 Gbps PAM 4
- Circular & rectangular shells
- Cable assemblies
- Press fit, or solder tail PCB

Like the mythological centaur combined man and horse, Centaur combines the best of both worlds in high speed and high density. Now, experience the best in the galaxy with Centaur's space series: Sagittarius. With a ruggedized D38999 connector and high-speed cable package coupled with an integrated ExaMAX high-bandwidth backplane system, Centaur: Sagittarius is optimized for ultra high-speed applications in the punishing environments of space.

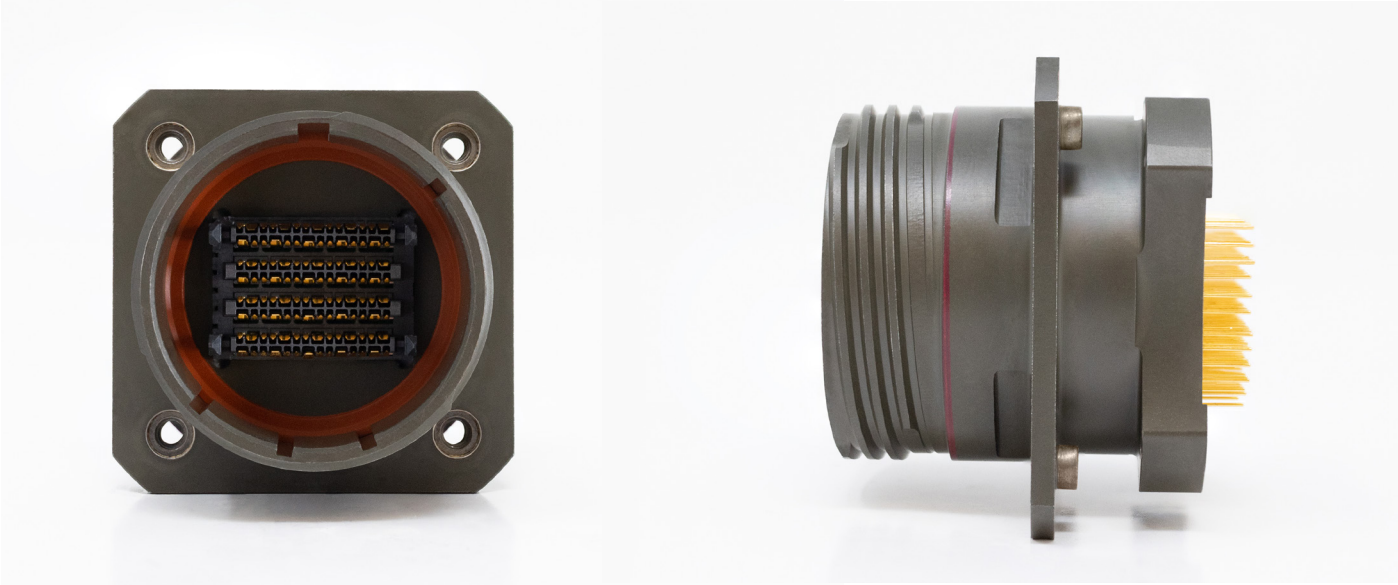




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CENTAUR PCB SOLDER TAIL



CENTAUR PCB

The Centaur, a Greek mythological creature, utilized the advantages of a human upper body and equestrian lower body to flourish. Like the mythological creature, Amphenol's Centaur interconnect utilizes the advantages of our extensive legacy of Mil-Spec connectors and the latest in high-speed contact and connector technology. The Centaur interconnect provides both a durable and high-bandwidth system perfect for military, aerospace, and other ruggedized, high-bandwidth applications. It supports data rates up to 10 Gbps in a ruggedized, lightweight aluminum MIL-DTL-38999 style shell.

FEATURES & BENEFITS

- Solder tails with lengths of .100, .150, .200, .250, .300, & .350
- Compatible with Standard Vertical Header ExaMAX
- Ruggedized light-weight aluminum MIL-DTL-38999 series III style shells
- Available in 40, 32, & 12 100 ohm differential pairs (DP) depending on shell size
    - o Shell size 25 – 40 DP plus 10 single ended
    - o Shell size 23 – 32 DP plus 8 single ended
    - o Shell size 17 – 12 DP plus 6 single ended
- Keying: “N” (Standard) “A”, “B”, “C”, “D”, “E”
- Supports data rates up to 10 Gbps PAM4
- Fully electrically tested
- Impedance: 100Ω
- Mating Cycles: 500

MECHANICAL

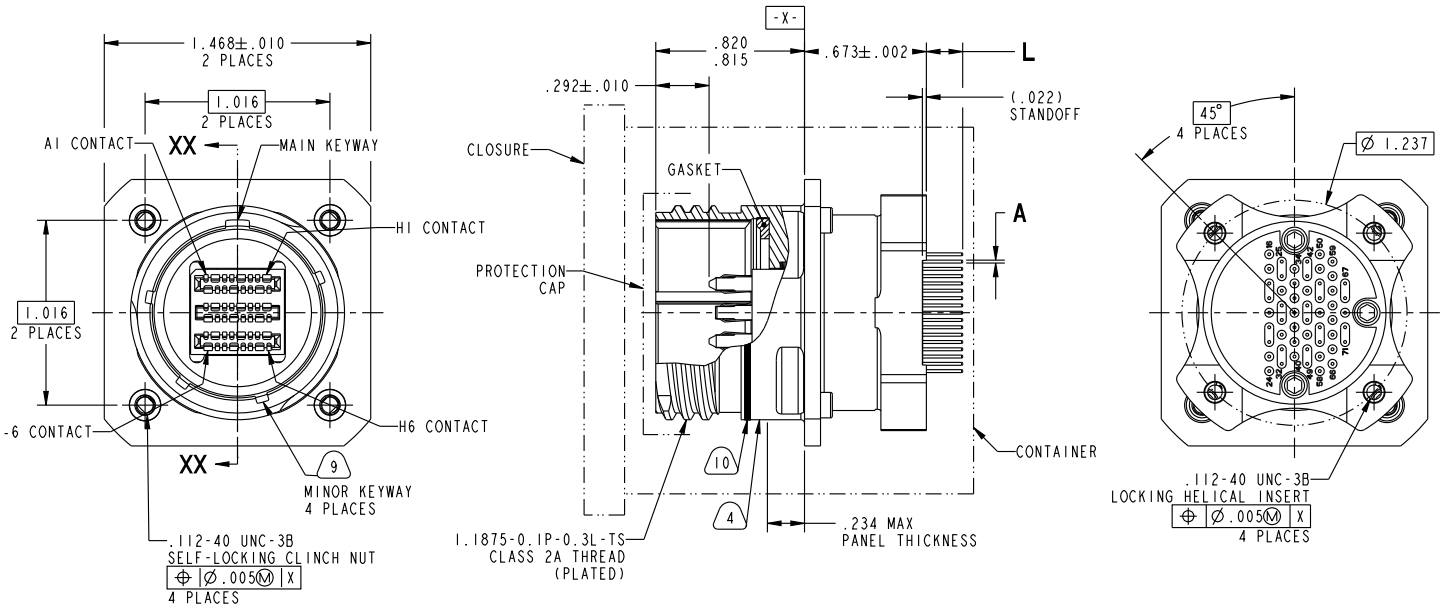
- Contact material: Gold plated beryllium copper
- Shell material: Aluminum with standard MIL-DTL-38999 plating options

ENVIRONMENTAL

- -40° C to 85° C operating
- VITA 47 Shock and Vibration

CENTAUR PCB SOLDER TAIL 71498

WALL MOUNT, TV40
12 DIFFERENTIAL PAIRS



John Tucci • Phone: (607) 563-5388 • Cell: (607) 376-2778 • Email: jtucci@amphenol-aao.com

CENTAUR PCB SOLDER TAIL: HOW TO ORDER

1. Connector Type	2. Connector Number	3. Shell Size	4. Differential Pairs	5. Shell Keying Rotation	6. Contact Tail Stickout	7. (TV47 only) O-Ring Option
88-	71498	5	-12	P	1	

1. Connector Type (Aluminum Base Material)

Connector Prefix	Finish	Commercial Reference
88-	Olive Drab Cadium	RW
91-	Electroless Nickel	RF
F2-	Black Zinc Nickel	DZ
F7-	Durmalon (Nickel PTFE)	DT
F9-	Heavy Olive Drab Cadmium	DW
FH-	Heavy Electroless Nickel	DF
FS-	AP-93 (Tri-Nickel Alloy)	DS

2. Connector Number

71498	Wall Mount TV40, solder tail standoff
71499	Jam Nut TV47, solder tail standoff
7149B	Jam Nut TV47 Pretinned, solder tail standoff

3. Shell Size

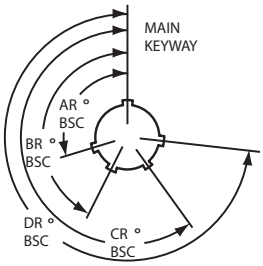
5	Shell Size 17
8	Shell Size 23
9	Shell Size 25

4. Differential Pairs

-12	Shell Size 17 only
-32	Shell Size 23 only
-40	Shell Size 25 only

5. Shell Keying rotation

Key Suffix	Key Type	AR° BSC	BR° BSC	CR° BSC	DR° BSC
P	Normal	80	142	196	293
G	A	135	170	200	310
I	B	49	169	200	244
K	C	66	140	200	257
M	D	62	145	180	280
R	E	79	153	197	272



RECEPTACLE (FRONT FACE SHOWN)

6. Contact Tail Length

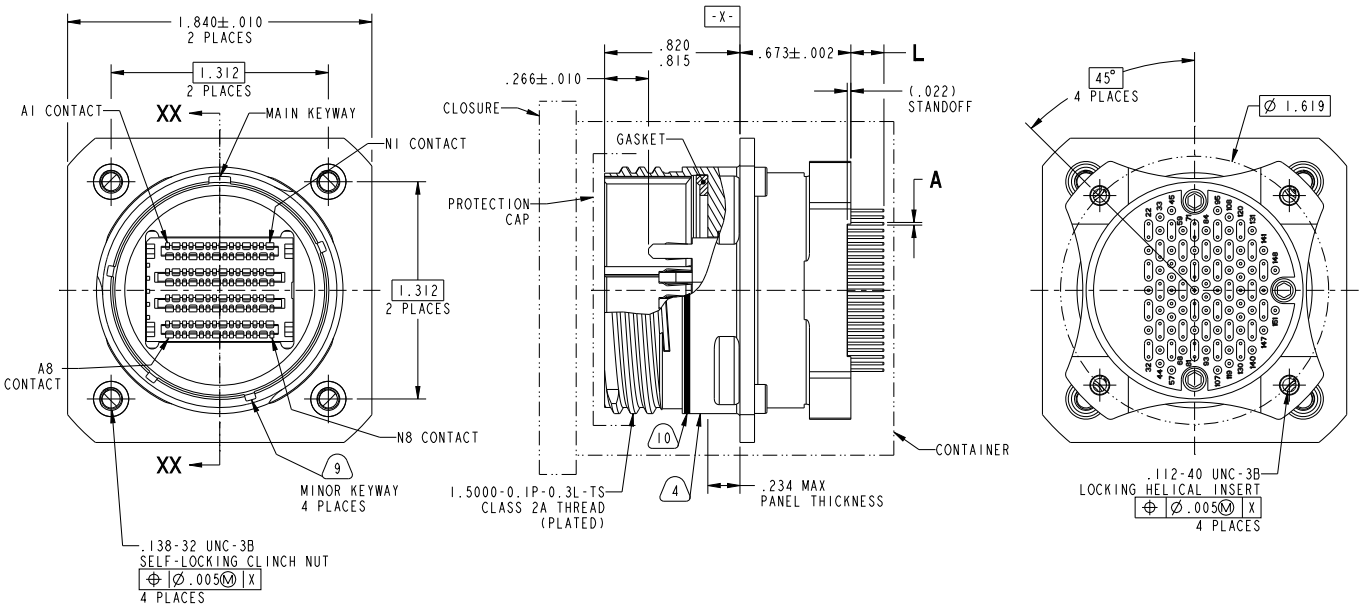
Suffix	(L) Length	(A)
1	.100± .025	Ø.016± .001
2	.200± .025	
3	.300± .025	
A	.150± .025	
B	.250± .025	
C	.350± .025	

7. O-Ring Material for TV47 only

Connector Suffix	Description	O-Ring Material	Added EMI Protection
None	Fluorosilicone	Standard MIL-DTL-38999	No
2	EPDM Rubber	EPDM	No
3	Silver plated, copper filled silicone	MIL-DTL-83528 Type A (Choseal 1215)	Yes
4	Silver plated Aluminum filled fluorosilicone	MIL-DTL-83528 Type D (Choseal 1287)	Yes
5	Conductive EPDM	Choseal 6435	Yes

CENTAUR PCB SOLDER TAIL 71498

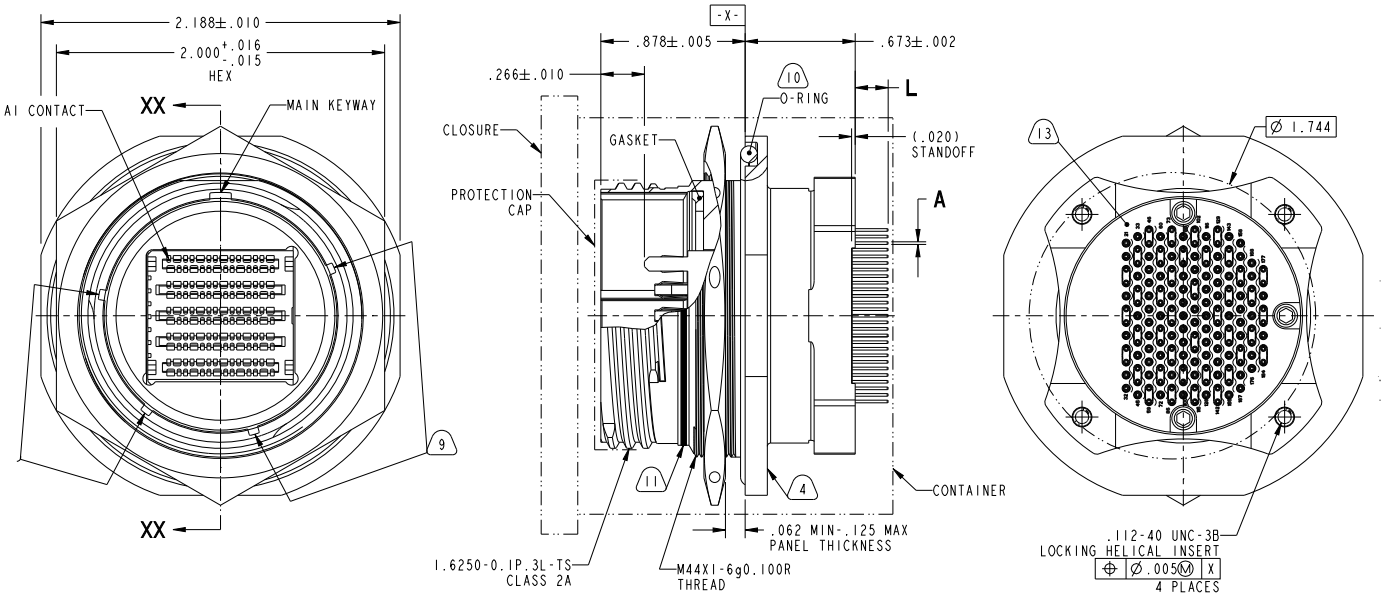
WALL MOUNT, TV40
32 DIFFERENTIAL PAIRS



John Tucci • Phone: (607) 563-5388 • Cell: (607) 376-2778 • Email: jtucci@amphenol-aao.com

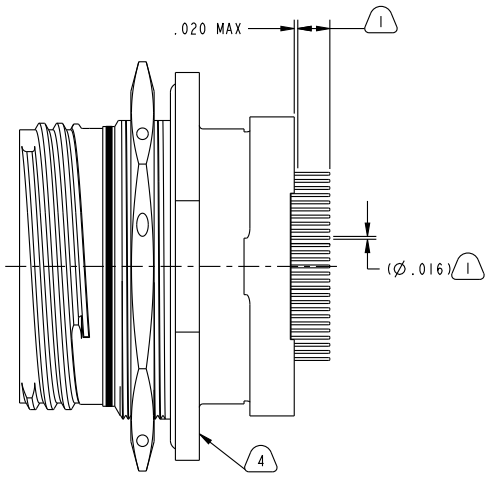
CENTAUR PCB SOLDER TAIL 71499

JAM NUT, TV47
40 DIFFERENTIAL PAIRS



CENTAUR PCB PRETINNED TAIL 7149B

JAM NUT, TV47
40 DIFFERENTIAL PAIRS



CENTAUR PCB CONFIGURATION OPTIONS

1.	2.	3.	4.
Connector Type	Service Class	Shell Size	Compliant Eye Tail Plating
7N	A1	23	T

1. Connector Type		
Insert Type		Keying
7	ExaMAX Vertical Header (Male)	N
8	ExaMAX Right Angle Header (Male)	A
		B
		C
		D
		E

3. Shell Size / Insert Arrangement	
25	40 DP / 10 Single Ended with Samtec ExaMAX®
23	32 DP / 8 Single Ended with Samtec ExaMAX®
17	12 DP / 6 Single Ended with Samtec ExaMAX®

2. Service Class*			
A	Aluminum	1	OD Cadmium
		2	Electroless Nickel
		3	Durmalon
		4	Black Zinc

* Other options available upon request

4. Compliant Eye Tail Plating*	
T	High purity tin plating/lead-free processing

* Other options available upon request

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CENTAUR WITH COMPLIANT EYE PRESS FIT TAILS



CENTAUR PCB

Our Centaur interconnect product is now available in a compliant eye press-fit tail option. Supporting data rates up to 10 Gbps with options of 32 to 40 differential pairs – this configuration can now connect straight to your board for a rugged 38999 integrated system.

FEATURES & BENEFITS

- Compliant Eye Press Fit Tails
- Compatible with Standard Right Angle ExaMAX or Vertical Header Options
- Ruggedized light-weight aluminum MIL-DTL-38999 series III size 23 and 25
- Available in 40 or 32 100 ohm differential pairs depending on shell size
  - o Shell size 25 – 40 DP plus 10 single ended
  - o Shell size 23 – 32 DP plus 8 single ended
  - o Shell size 17 – 12 DP plus 6 single ended
- Keying: “N” (Standard) “A”, “B”, “C”, “D”, “E”
- Supports data rates up to 10 Gbps PAM4
- Fully electrically tested
- Impedance: 100Ω
- Mating Cycles: 500

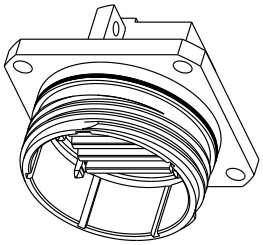
MECHANICAL

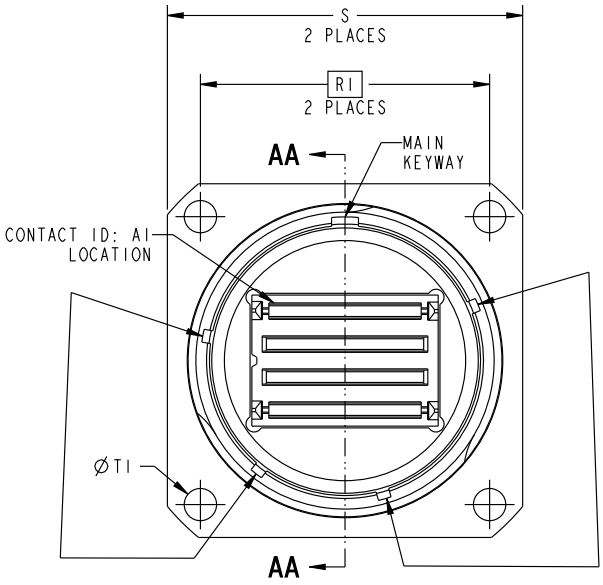
- Contact material: Copper Alloy
- Shell material: Aluminum and stainless steel with standard plating options
- Contact plating: Selective gold alloy and pure tin over 50u Ni

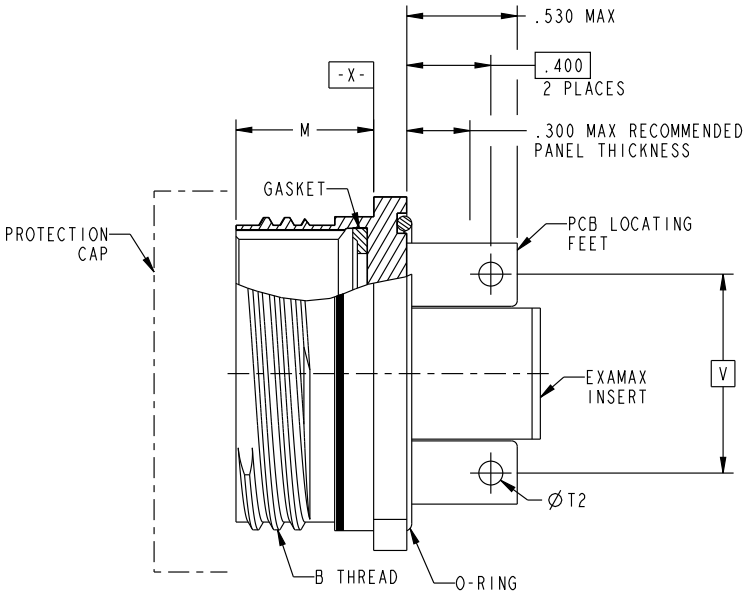
ENVIRONMENTAL

- -40° C to 85° C operating
- VITA 47 Shock and Vibration

RIGHT ANGLE HEADER DRAWING

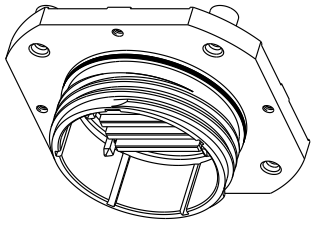


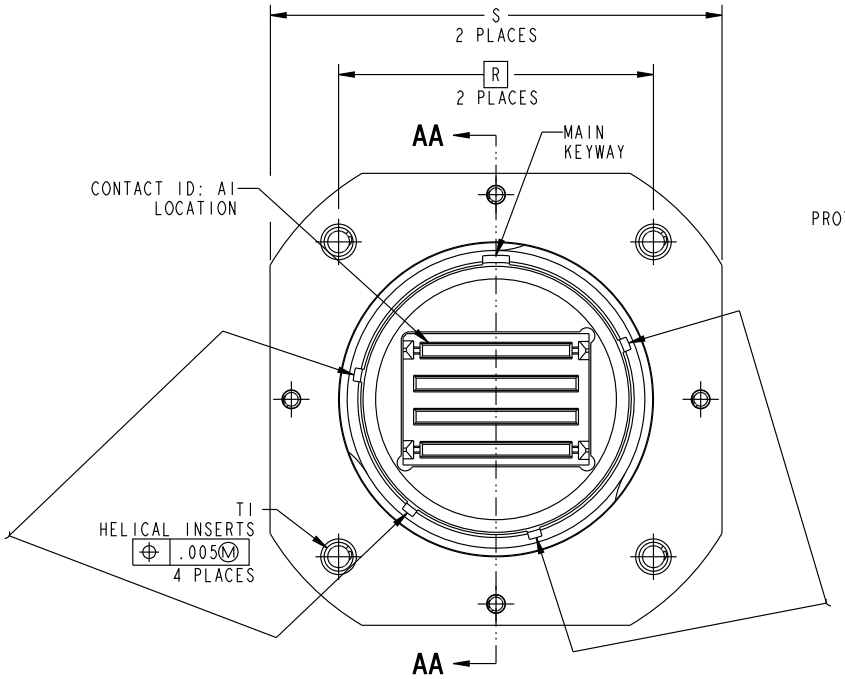


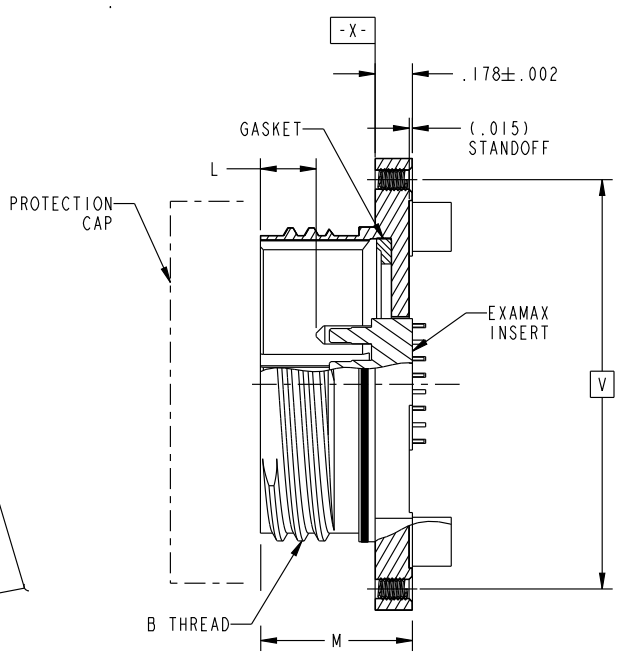


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VERTICAL PCB DRAWING





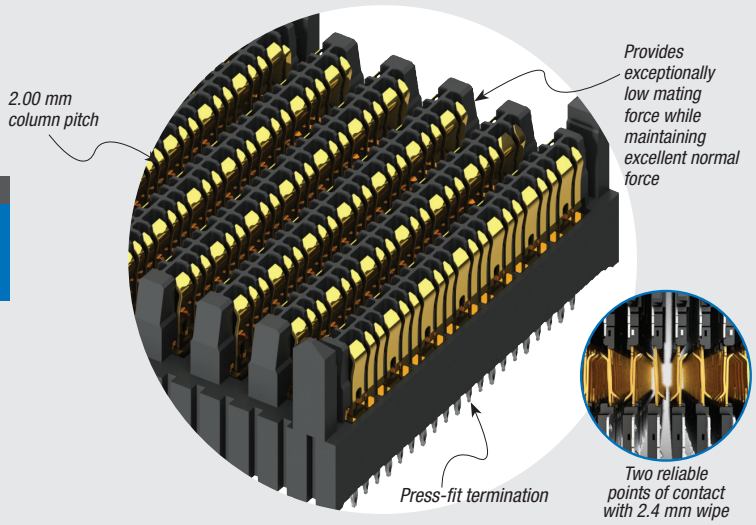


BOARD MOUNTING OPTIONS
EXAMAX® BACKPLANE SYSTEM

(2.00 mm) .0787"

Mates with:
EBCF-VT

PAM4
56
Gbps



SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?EBTM-VT or www.samtec.com?EBTM-RA

Insulator Material:
Liquid Crystal Polymer
Contact Material:
Copper Alloy
Plating:
Sn or Au over
50 µ" (1.27 µm) Ni
Operating Temp Range:
-55°C to +105°C
Current Rating:
4.2 A per pin
(1 pin powered)
Contact Wipe:
2.4 mm
RoHS Compliant: Yes

RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality

FILE NO. E111594

ALSO AVAILABLE
(MOQ Required)

- Staging

TOOLING

- For press-fit extraction and insertion tool options, visit www.samtec.com/tooling

Notes: Some lengths, styles and options are non-standard, non-returnable. ExaMAX® is a registered trademark of AFCI.

1. CONNECTOR TYPE	2. NO. OF PAIRS PER COLUMN		3. COLUMNS	4. COLUMN PITCH
EBTM	–4	4 Pairs	–08	–2.0 = (2.0 mm) .0787"
			–10	

5. PLATING	6. ORIENTATION		7. -1
–S = 30 µ" (0.76 µm) Gold on contact area, Matte Tin on tail	–VT	Vertical	–1

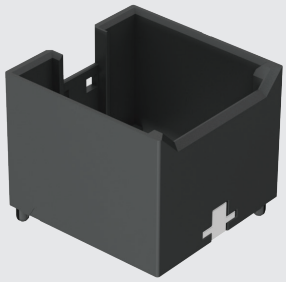
NO. OF PAIRS PER COLUMN	D	E
–4	(22.50) .886	(15.60) .614

COLUMNS	A	B	C
–08	(15.90) .626	(14.00) .551	(22.35) .880
–10	(19.90) .783	(18.00) .709	(26.35) 1.037

Contact Samtec for Board Connectors and Latches/Brackets at HSBP@samtec.com

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BOARD MOUNTING OPTIONS
VERTICAL LATCHING SHROUD



EBCL–4–10

CENTAUR

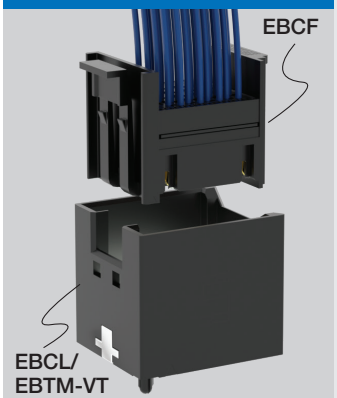
samtec

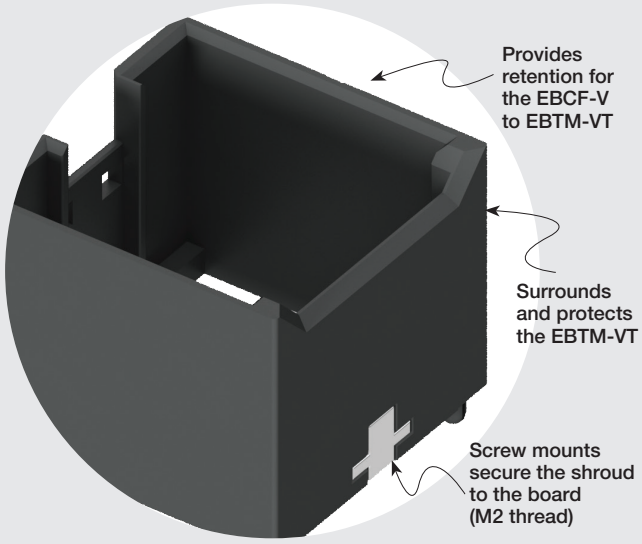
SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?EBCL

Insulator Material: Nylon
RoHS Compliant: Yes

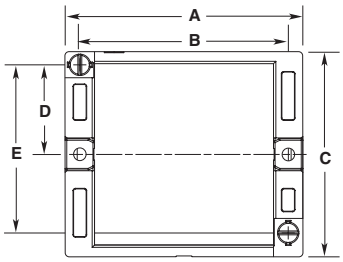
APPLICATION



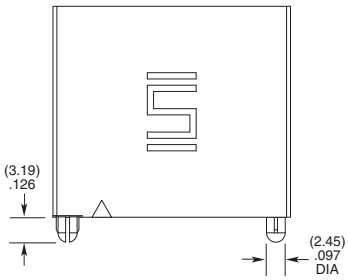


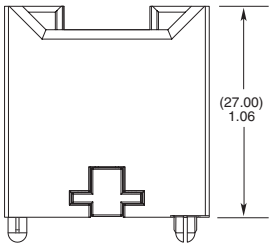
1. CONNECTOR TYPE	2. NO. OF PAIRS		3. NO. OF COLUMNS
EBCL	–4	4 Pairs	–8
			–10

NO. OF COLUMNS	A	B
–08	(26.40) 1.039	(22.66) .892
–10	(30.40) 1.197	(26.66) 1.050



NO. OF PAIRS	C	D	E
–4	(26.20) 1.031	(11.45) .451	(21.50) .846





Notes:
ExaMAX® is a registered Trademark of AFCI.

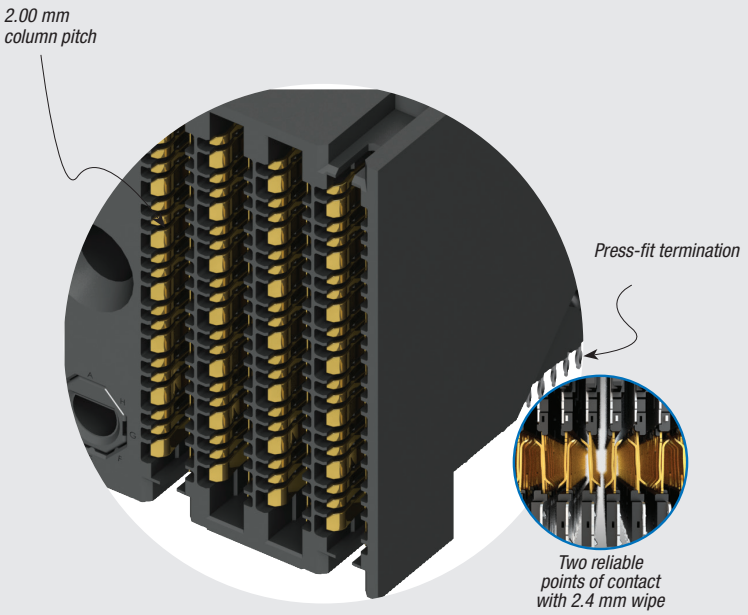
Some lengths, styles and options are non-standard, non-returnable.

	1.	2.	3.
PART # SHOWN	EBCL	–4	–10

Contact Samtec for Board Connectors and Latches/Brackets at HSBP@samtec.com

BOARD MOUNTING OPTIONS
EXAMAX® BACKPLANE SYSTEM

(2.00 mm) .0787"



SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?EBTF-RA

Insulator Material:
Liquid Crystal Polymer
Contact Material:
Copper Alloy
Plating:
Sn or Au over
50 µ" (1.27 µm) Ni
Operating Temp Range:
-55°C to +105°C
Current Rating:
4.2 A per pin
(1 pin powered)
Contact Wipe:
2.4 mm
RoHS Compliant: Yes

Mates with:
EBCM

PAM4
56
Gbps

RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality

FILE NO. E111594

ALSO AVAILABLE
(MOQ Required)

- Staging

TOOLING

- For press-fit extraction and insertion tool options, visit www.samtec.com/tooling

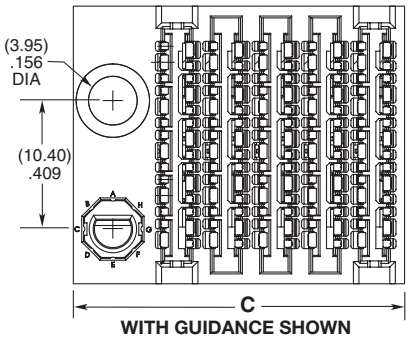
Notes:
Some lengths, styles and options are non-standard, non-returnable.

ExaMAX® is a registered trademark of AFCI.

1. CONNECTOR TYPE	2. NO. OF PAIRS PER COLUMN		3. COLUMNS	4. COLUMN PITCH
EBTF	–4	4 Pairs	–08	–2.0 = (2.0 mm) .0787"
			–10	

NO. OF PAIRS PER COLUMN	D	E	F
–4	(28.40) 1.118	(17.90) .705	(15.60) .614

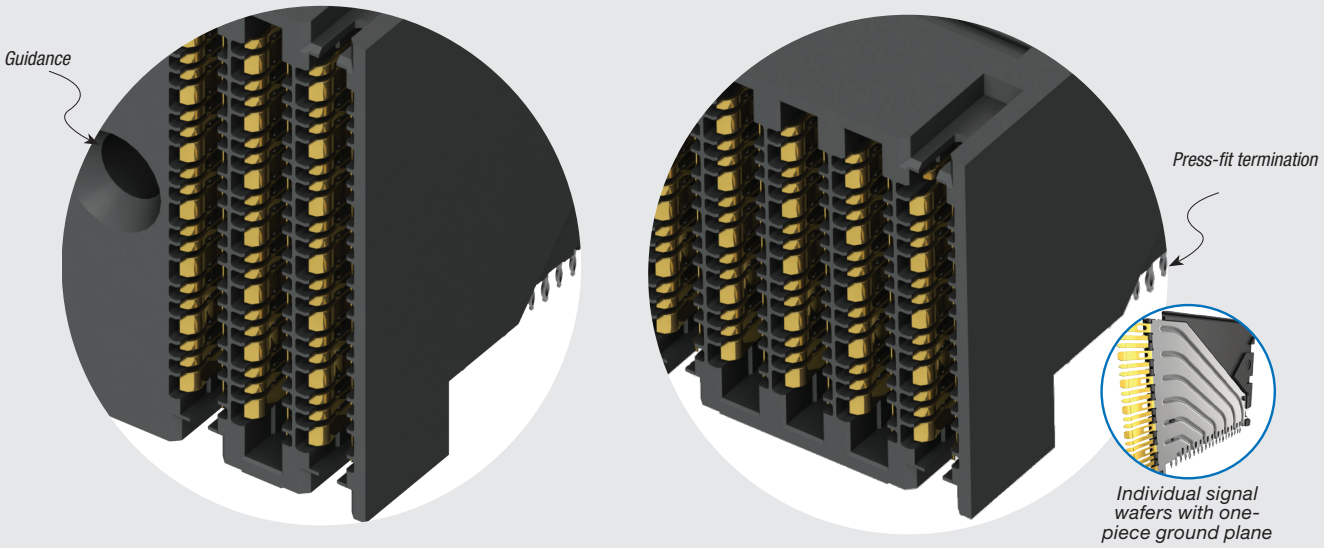
COLUMNS	A	C
–08	(16.90) .665	(22.85) .900
–10	(20.90) .823	(26.85) 1.057



WITH GUIDANCE SHOWN

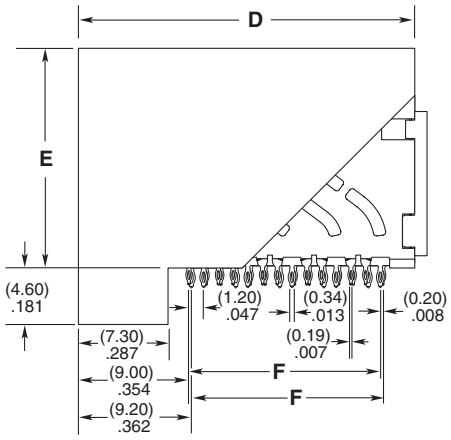
Contact Samtec for Board Connectors and Latches/Brackets at HSBP@samtec.com

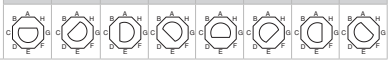
John Tucci • Phone: (607) 563-5388 • Cell: (607) 376-2778 • Email: jtucci@amphenol-aao.com



5. PLATING	6. ORIENTATION		7. -1	8. GUIDANCE		9. KEYING
–S = 30 µ" (0.76 µm) Gold on contact area, Matte Tin on tail	**–RA**	Right Angle	**–1**	Leave Blank for no Guidance		(Only available with -L or -R guidance) Leave Blank for no keying **–A thru –H** Position of flat on key (See table for Keying)
				–L	Left Guidance	
				–R	Right Guidance	

NO. OF PAIRS PER COLUMN	B
–4	(22.50) .886



GUIDANCE	KEYING FOR ORIENTATION-RA							
	–A	–B	–C	–D	–E	–F	–G	–H
–R /–L								

	1.	2.	3.	4.	5.	6.	7.	8.	9.
PART # SHOWN	**EBTF**	**–4**	**–10**	**–2.0**	**–S**	**–RA**	**–1**	**–L**	**–A**

Contact Samtec for Board Connectors and Latches/Brackets at HSBP@samtec.com

BOARD MOUNTING OPTIONS
PANEL RETENTION BRACKET



EBCB–4–10–1

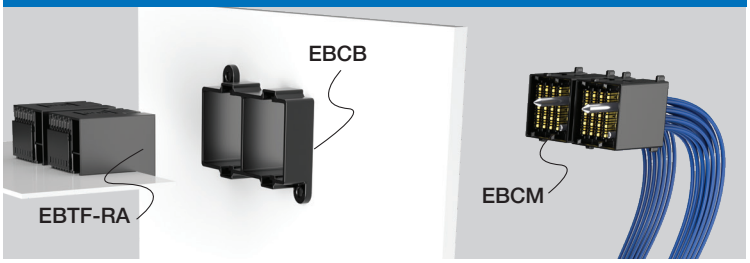
SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?EBCB

Insulator Material:
Xyron 340Z, Black
RoHS Compliant:
Yes

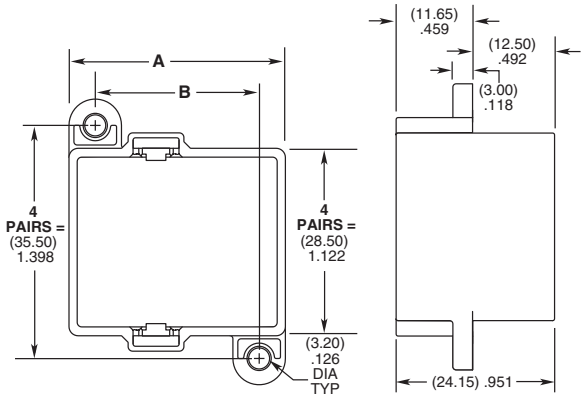
1. CONNECTOR TYPE	2. NO. OF PAIRS		3. NO. OF COLUMNS	4. NO. OF BANKS
EBCB	–4	4 Pairs	–8	–1
			–10	–2
				–4

APPLICATION

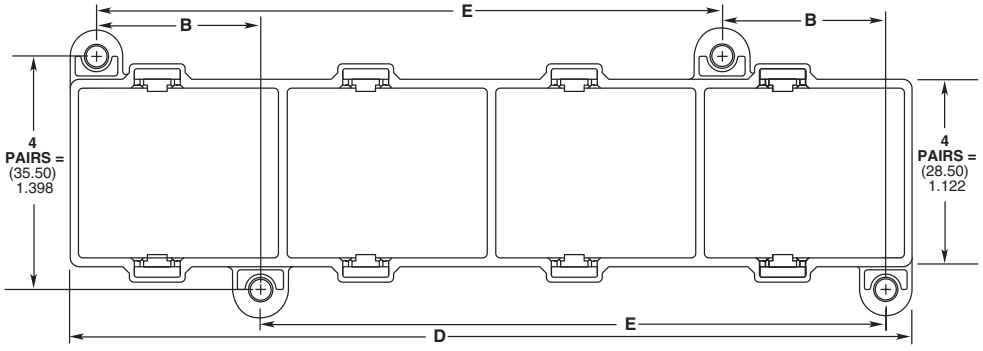


(EBCM cable assembly locks into EBCB)

NO. OF COLUMNS	A		B		C	D	E
	1 Bank	2 Bank	1 or 4 Bank	2 Bank		4 Bank	4 Bank
–08	(28.95) 1.140	(56.65) 2.230	(20.95) .825	(48.65) 1.915	(35.95) 1.415	(112.05) 4.411	(83.10) 3.271
–10	(32.95) 1.297	(64.65) 2.545	(24.95) .982	(56.65) 2.230	(39.95) 1.573	(128.05) 5.043	(95.10) 3.744



	1.	2.	3.	4.
PART # SHOWN	EBCB	–X	–XX	–1



	1.	2.	3.	4.
PART # SHOWN	EBCB	–X	–XX	–4

Notes:
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COMPANY PROFILE

ABOUT AMPHENOL AEROSPACE :

Amphenol Aerospace, a Division of Amphenol Corporation, is one of the largest manufacturers of interconnect products in the world for the Military, Commercial Aerospace and Industrial markets. Amphenol designs, manufactures and markets circular and rectangular, electronic, fiber optic, EMI/EMP filter, and a variety of special applications connectors and interconnect systems.

Our state-of-the-art facility is nestled at the foothills of the Catskill Mountains in Sidney, NY. The Amphenol complex houses many technologies including CNC machining, die-casting, molding, impact and extruding, plating, screw machining and process controls. Our fully equipped material evaluation lab and engineering organization utilize the latest in computer aided design software and analysis tools, allowing us to design, test, and qualify advanced interconnect systems. Amphenol's interconnect products are supplied to thousands of OEMs worldwide and are supported by our worldwide sales and engineering force, including the largest global network of electronic distributors.

The High Speed Solutions group is one of the fastest growing and most technologically advanced groups within Amphenol Aerospace. Every day, the High Speed Solutions team is developing custom connector and cable solutions for High Speed Copper, Fiber Optic, and Integrated applications. As a basic business philosophy, the team is dedicated to concentrating on those advanced and challenging market segments that demand an extraordinary level of supplier support and reaction. Our approach to implement this strategy is based on the following key principles:

CARE

Customer-Centric:
Our #1 priority is our customers who deserve quality product on time.

Accountable:
Clear owners, clear actions, clear results.

Reliable:
What we build matters and quality is imperative.

Enthusiastic:
Challenges create rewarding opportunities. Enthusiasm is contagious and we will spread it.

Quality Assurance:
Amphenol Aerospace has been awarded both AS9100 - Revision C and ISO9001:2008 Quality Assurance Certifications.

samtec

Samtec, the service leader in the electronic interconnect industry, was founded in 1976 and is headquartered in New Albany, Indiana. We are privately held with more than 6,000 employees in over 40 countries and customers in approximately 125 countries. At Samtec, we believe people matter, and taking care of our customers and our employees is paramount in how we approach our business.
We are committed to globally interconnecting service and technology to take the industry further faster.

For more information about Samtec email HSBP@samtec.com

NOTES:

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Amphenol
Aerospace

CENTAUR

High Speed Solutions

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