

Meritec's Hercules HS-D, High Speed D-Sub, embedded in the rugged rectangular MIL-DTL-24308 shell provides both durable and high-bandwidth interconnect schemes suitable for Military, Aerospace and ruggedized commercial high-bandwidth applications not previously accommodated by Industry standard connectors.

## Features & Benefits

- Rugged lightweight MIL-DTL-24308 Shells
- Available as Plug-Cable Assemblies and Panel Mount, Board Mount Receptacles with SMT tails.
- Available in Shell Sizes DE, DA, DB, DC and DD.
- Available in positions 19, 31, 51, 75, and 108.
- Supports data rates in excess of 10 Gbs and differential-pair signaling with low-skew pairs and shielding for EMI/RFI protection.
- Available in IP-67 Rating
- Matched impedance design of 100 Ohm
- Cable types available in 26, 28, 30 AWG
- Jacket types available: LSZH, PVC, FEP and Halar Expando
- Custom length cable assemblies available
- Fully electrically tested
- Utilizes standard MIL-DTL-24308 hardware

## Specifications

### Electrical

- Impedance: 100  $\pm$ 5 Ohms differential at 100ps rise time
- Cross talk (NEXT): <-40 dB up to 7 GHz from multiple aggressors
- Insertion loss: < -1 dB up to 10 GHz
- Return loss: < -20 dB up to 10 GHz
- Power per contact: 3 amp
- DWV: No defect for 1 min at 300 VDC

### Mechanical

- Contact material: Copper Alloy
- Standard contact finish: 50  $\mu$  inch AU over 100  $\mu$  inch min Ni
- Contact durability: 10,000 cycles
- Shell Material - Aluminum Alloy/Zinc Alloy
- Shell Plating - Chromate over Cadmium, Electroless Nickel

### Environmental

- -40 °C to +125 °C

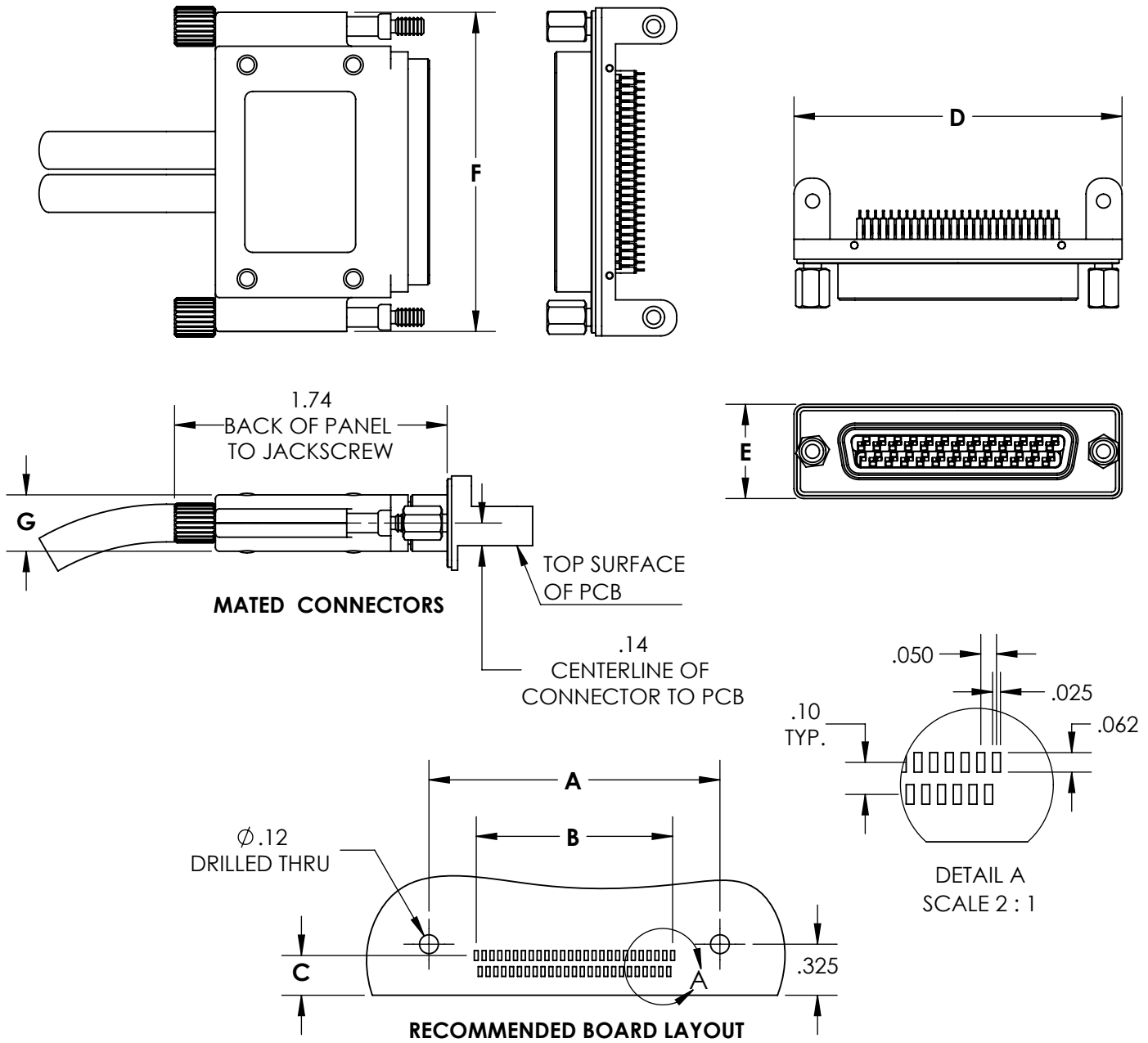
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Meritec's Hercules 38999 is now approved as a VITA 76 (High-Performance Cable) Standard



Shell Size	Number of Contacts	Number of Differential Pairs	A	B	C	D	E	F	G
DE (Ref. 9)	19	5 + 2 Spare	.980	.400	.250	1.21	.60	1.16	.36
DA (Ref. 15)	31	9 + 3 Spare	1.310	.750	.250	1.54	.60	1.49	.36
DB (Ref. 25)	51	16 + 1 Spare	1.850	1.250	.250	2.09	.60	2.03	.36
DC (Ref. 37)	75	24 + 1 Spare	2.500	1.850	.250	2.73	.60	2.68	.36
*DD (Ref. 50)	108	34 + 3 Spare	2.410	1.800	.350	2.64	.70	2.59	.46

\* THIS SIZE CONTAINS 3 ROWS OF CONTACTS.  
 ALL OTHER SIZES CONTAIN 2 ROWS OF CONTACTS.

ALL DIMENSIONS ARE IN INCHES

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