

Ultra Compact Data Bus Coupler

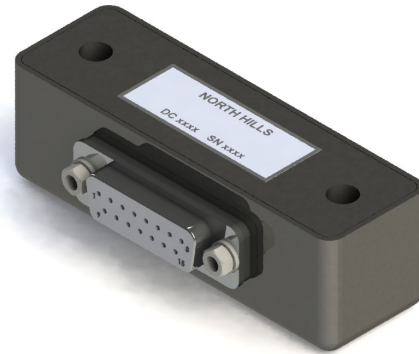


Data Sheet

North Hills has developed a series of ultra compact/ultra light box-type data bus couplers for programs that are weight sensitive and have limited space and volume for installation. The sub-miniature data bus coupler is specifically designed for applications where the couplers must be firmly attached to the aircraft surface.

The couplers meet all MIL-STD-1553 electrical requirements and are manufactured using North Hills transformers and MIL-R-39007 Level R resistors. The parts can be purchased with internal termination to further reduce installation complexity and parts count.

The couplers can also be provided as a fully tested harness assembly ready for installation.



North Hills Ultra Compact Data Bus Box Coupler.

Features:

- Ultra compact and robust construction
- Internal terminating resistor
- Through hole for mounting and case grounding

Benefits:

- Easy to install -- reduces part count
- Ideal for programs that are weight sensitive and have limited space

Specifications

Electrical (All parameters are in accordance with IAW MIL-STD-1553B, Notice 1)	
Parameter	Value
Input Impedance of Transformer ¹	3000 ohms minimum (75 kHz to 1.0 MHz)
Input Open Circuit	$Z_o = 3000/\text{Number of Stubs}$ CABLE LENGTHS WILL AFFECT THE IMPEDANCE VALUE MEASURED
Droop	20% Maximum (250 kHz)
Overshoot and Ringing	$\pm 1.0V$ Peak (250 kHz square wave input with 100 ns maximum rise and fall time)
Common Mode Rejection (CMR)	45.0 dB (Max) @ 1.0 MHz
Termination Resistor (Models -2 , -4 and -6)	$76.8\Omega \pm 1\%$ (2W Min Per MIL-R-39007)
Isolation Resistors (0.75Z _o)	$59\Omega \pm 1\%$ resistor in series with each bus winding connection
Stub Voltage	1.0V to 14.0V _{pp} line-to-line, signal voltage (transformer coupled)
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +150°C

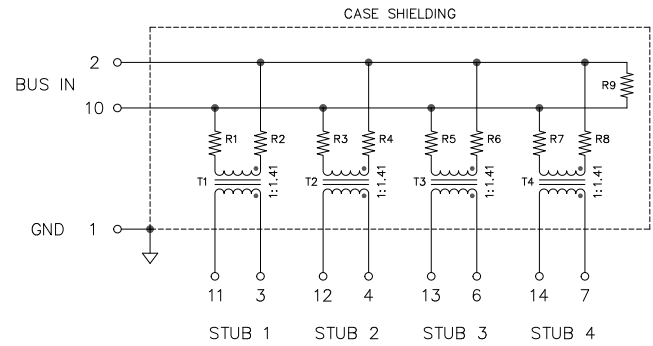
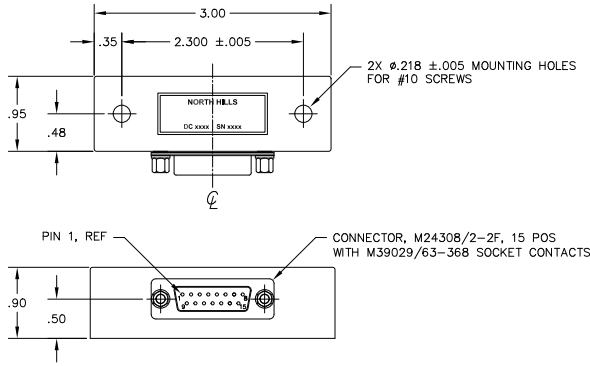
¹ Individual input open-circuit

Specifications subject to change without notice.

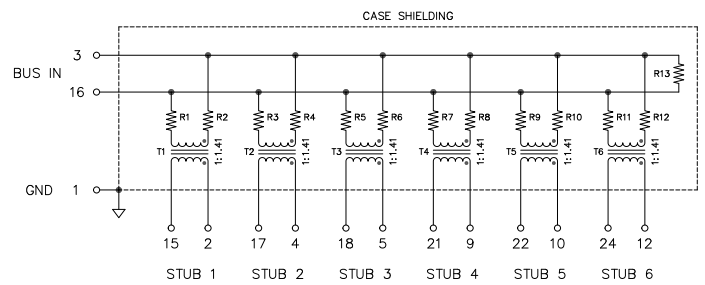
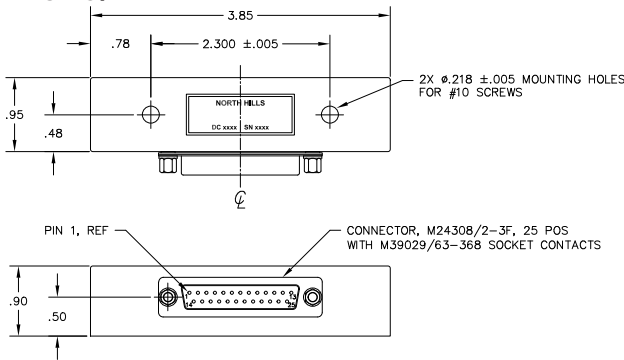


For more information: www.BTTC-Beta.com/

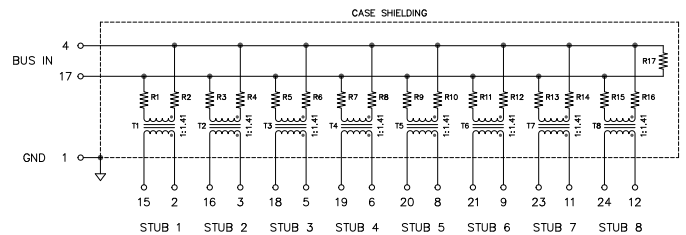
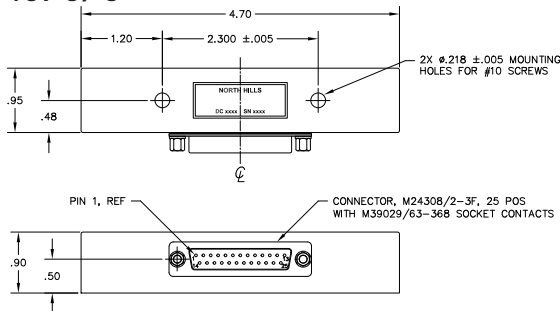
NH17109-1/-2



NH17109-3/-4



NH17109-5/-6



Ordering Information

Model #	Description	Weight	Connector	Contacts
NH1709-1	4 Stub Coupler	74 gm Max	M24308/2-2F	M39029/63-368
NH1709-2	4 Stub Coupler with Termination	74 gm Max	M24308/2-2F	M39029/63-368
NH1709-3	6 Stub Coupler	95 gm Max	M24308/2-3F	M39029/63-368
NH1709-4	6 Stub Coupler with Termination	95 gm Max	M24308/2-3F	M39029/63-368
NH1709-5	8 Stub Coupler	120 gm Max	M24308/2-3F	M39029/63-368
NH1709-6	8 Stub Coupler with Termination	120 gm Max	M24308/2-3F	M39029/63-368



The information in this Brochure is believed to be accurate; however, no responsibility is assumed by Beta Transformer Technology Corporation for its use, and no license or rights are granted by implication or otherwise in connection therewith. Specifications are subject to change without notice.

For ordering assistance and technical support,

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