

10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

Military / Aerospace Grade



-  Compliant with IEEE 802.3ab for 1000Base-T
-  350μH OCL with 8mA bias at extended temperatures
-  Storage temperature: -55°C to +125°C
-  Operating temperature:
 - 1000B-5001/5002/5003: -40°C to +85°C
 - 1000B-5001X/5002X/5003X: -55°C to +125°C
-  IC grade transfer-molded package withstands 235°C peak temperature profile RoHS version withstands 245°C
-  MSL: 3

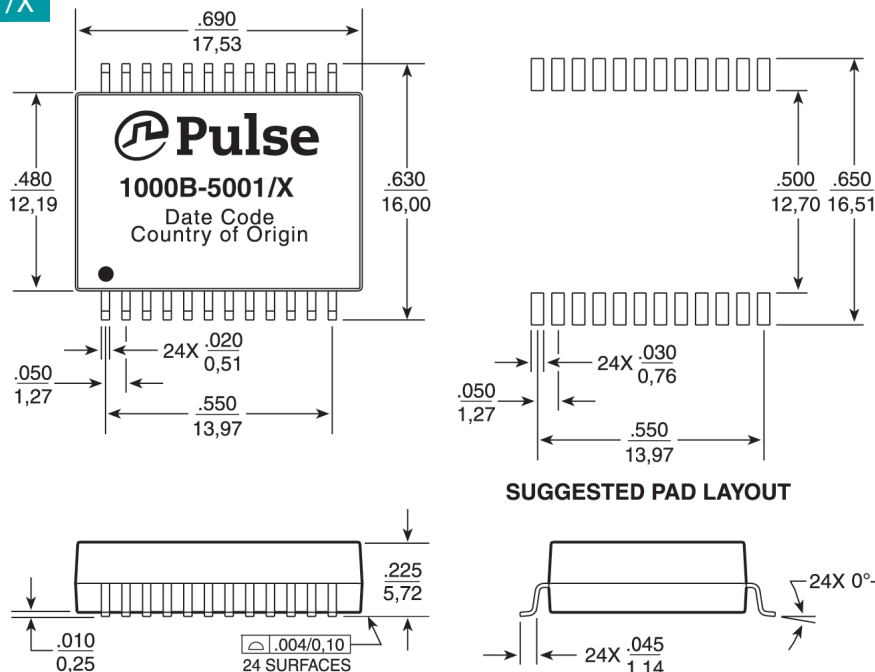
Electrical Specifications @ 25°C

Part Number ²	Insertion Loss (dB Min)	Return Loss (dB Max)				Crosstalk (dB Max)			CM to CM Rejection Ratio (dB Max)			DM to CM Rejection Ratio (dB Max)			HiPot (Vrms MIN)
	0.1-100 Mhz	30 Mhz	60 Mhz	80 Mhz	100 Mhz	30 Mhz	60 Mhz	100 Mhz	30 Mhz	60 Mhz	100 Mhz	30 Mhz	60 Mhz	100 Mhz	@60HZ (1MIN)
1000B-5001	-1.20	-18	-12	-10	-10	-43	-37	-33	-40	-35	-30	-43	-37	-33	1500
1000B-5001X	-1.40	-18	-12	-10	-8	-43	-37	-33	-40	-35	-30	-43	-37	-33	1500
1000B-5002	-1.20	-18	-14	-12	-10	-43	-37	-33	-40	-35	-30	-43	-37	-33	1500
1000B-5002X	-1.20	-18	-14	-12	-10	-43	-37	-33	-40	-35	-30	-43	-37	-33	1500
1000B-5003	-1.20	-18	-14	-11	-9	-43	-37	-33	-40	-35	-30	-43	-37	-33	1500

Note: 1. Add suffix NL for RoHS compliant part; i.e. 1000B-5001 becomes 1000B-5001NL. 2. For Tape and Reel Packaging, add "T" suffix at the end of the part number; i.e. 1000B-5001XT.

Mechanical

1000B-5001/X

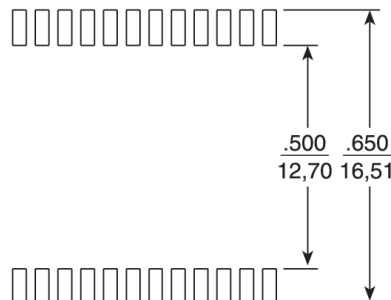
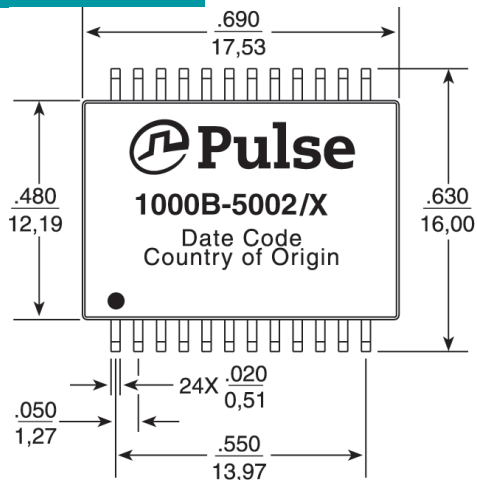


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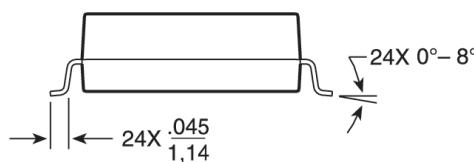
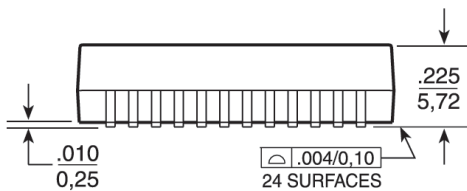
1000B-5002/X



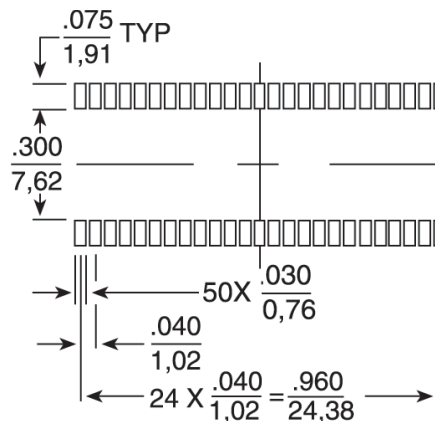
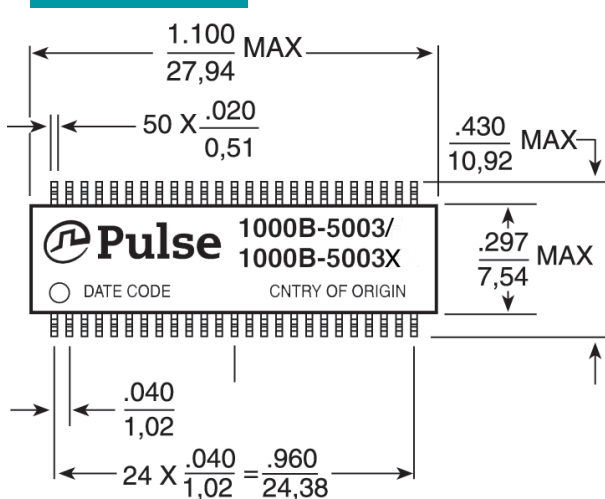
Weight 2.6 grams
Tape and Reel 300/reel
Tube 25/tube

Dimensions: $\frac{\text{Inches}}{\text{mm}}$
Unless otherwise specified,
all tolerances are $\pm \frac{.010}{0.25}$

SUGGESTED PAD LAYOUT



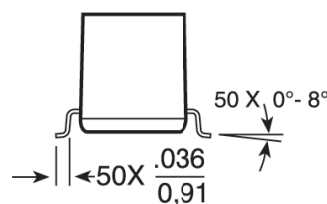
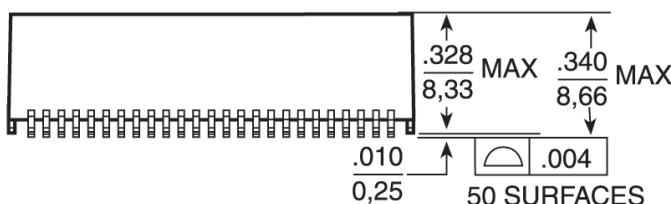
1000B-5003/X



Weight 3.5 grams
Tape and Reel 250/reel
Tube 15/tube

Dimensions: $\frac{\text{Inches}}{\text{mm}}$
Unless otherwise specified,
all tolerances are $\pm \frac{.010}{0.25}$

SUGGESTED PAD LAYOUT



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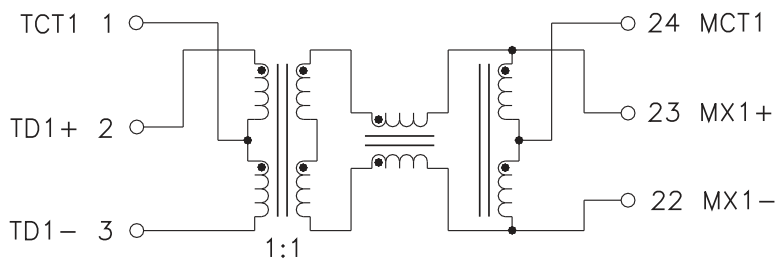
Military / Aerospace Grade



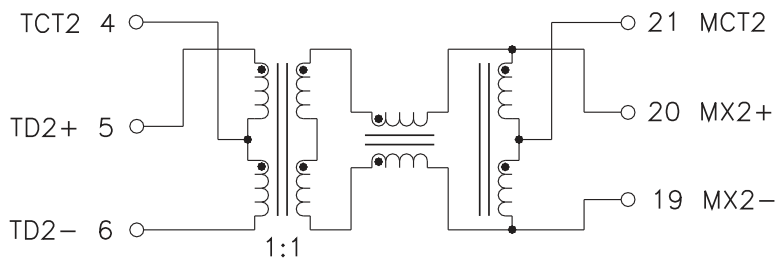
Electrical Schematic

1000B-5001/X

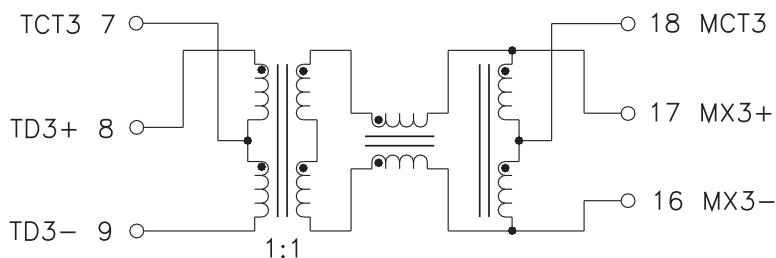
CHANNEL 1



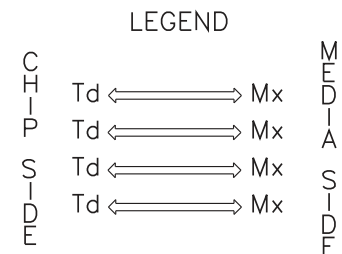
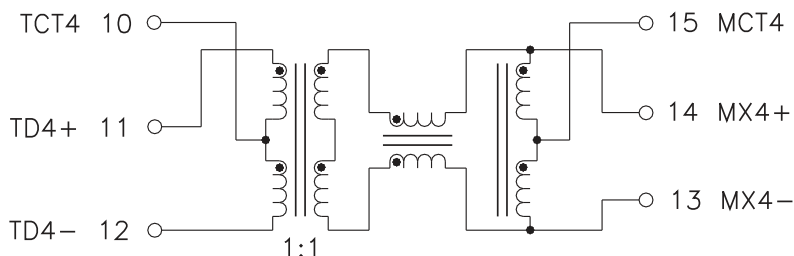
CHANNEL 2



CHANNEL 3



CHANNEL 4



ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

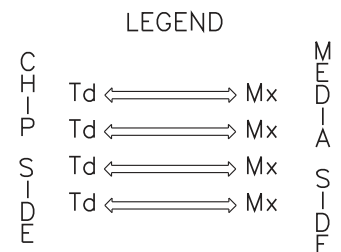
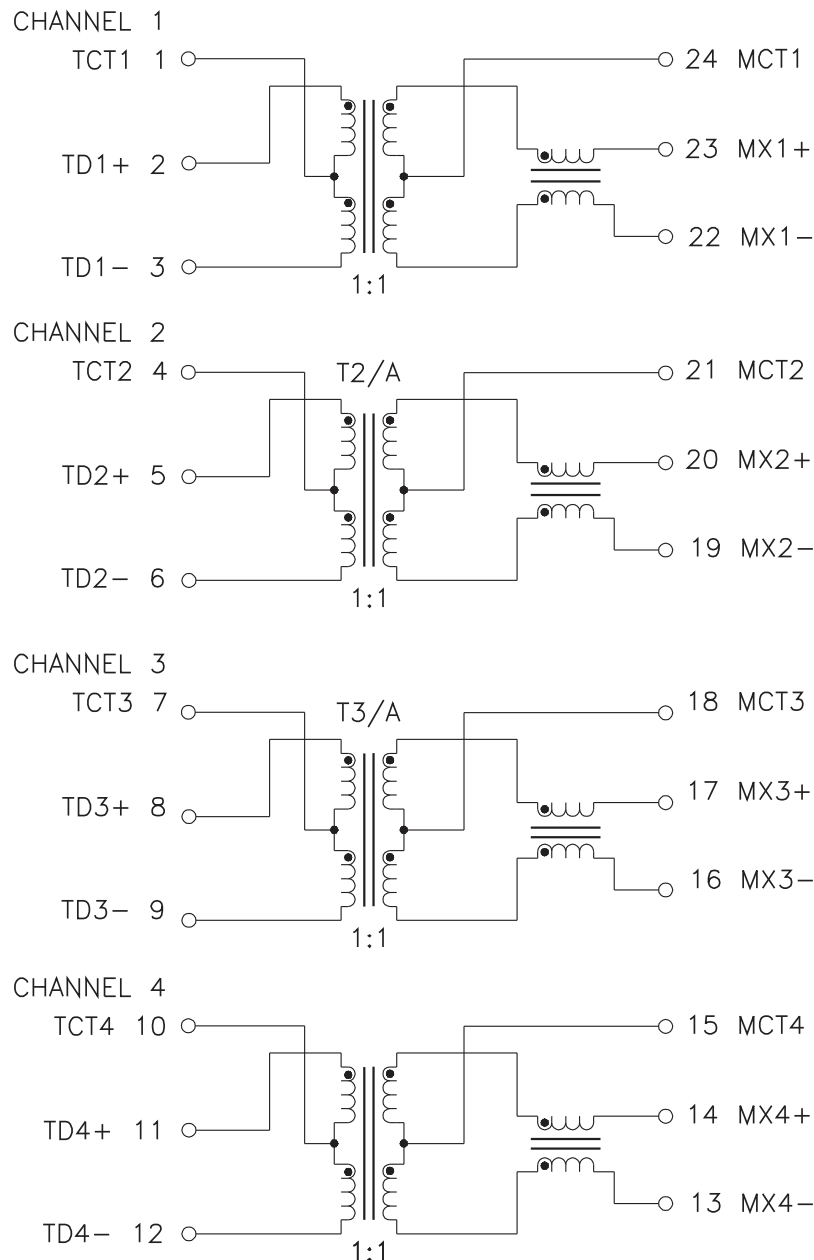
10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

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Electrical Schematic

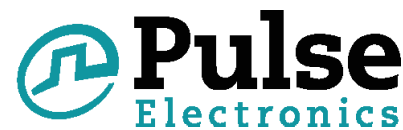
1000B-5002/X



ALL CHANNELS ARE
IN PHASE BETWEEN
INPUT AND OUTPUT

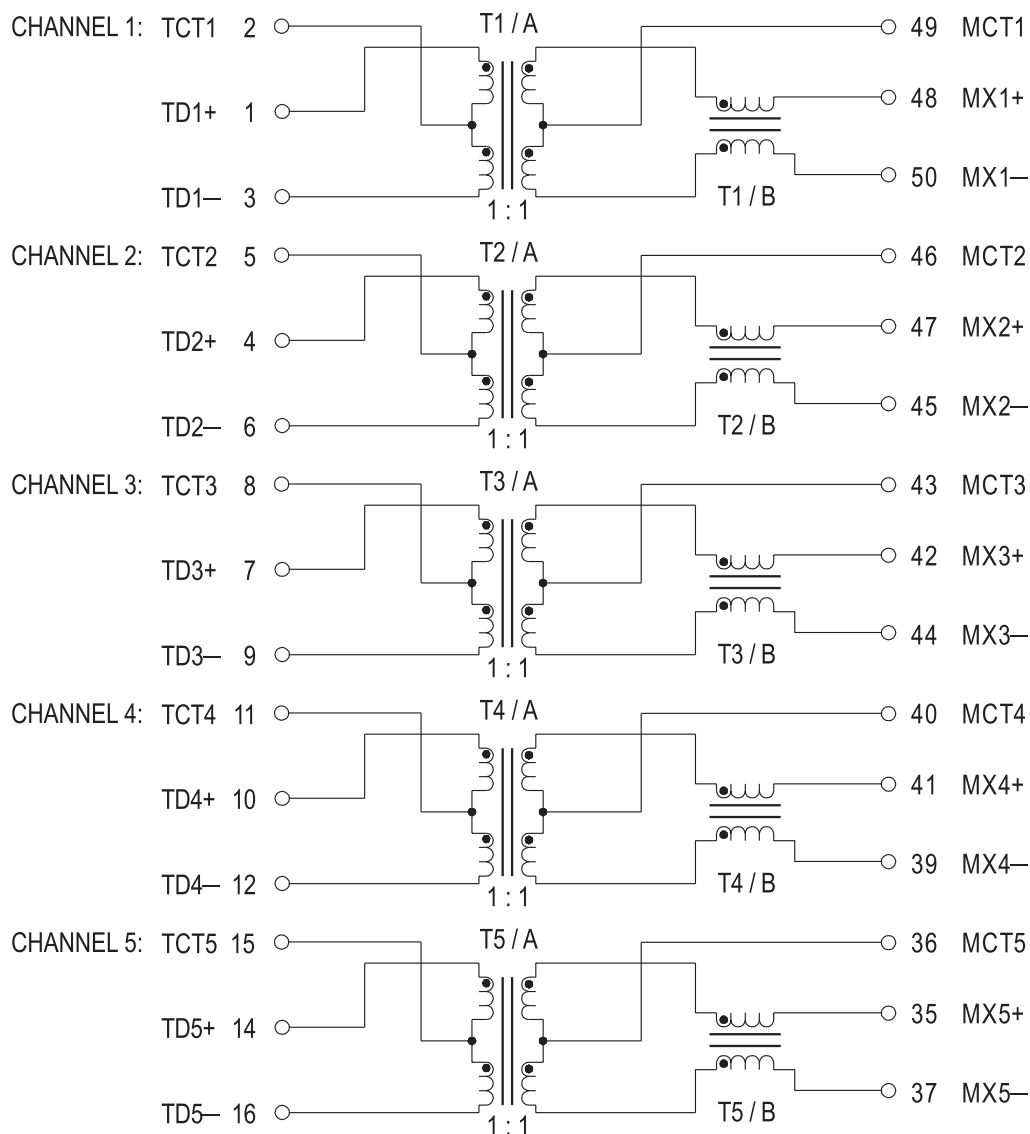
10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

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Electrical Schematic

1000B-5003/X



LEGEND

CHIP SIDE $T_d \longleftrightarrow M_x$ MEDIA SIDE

ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

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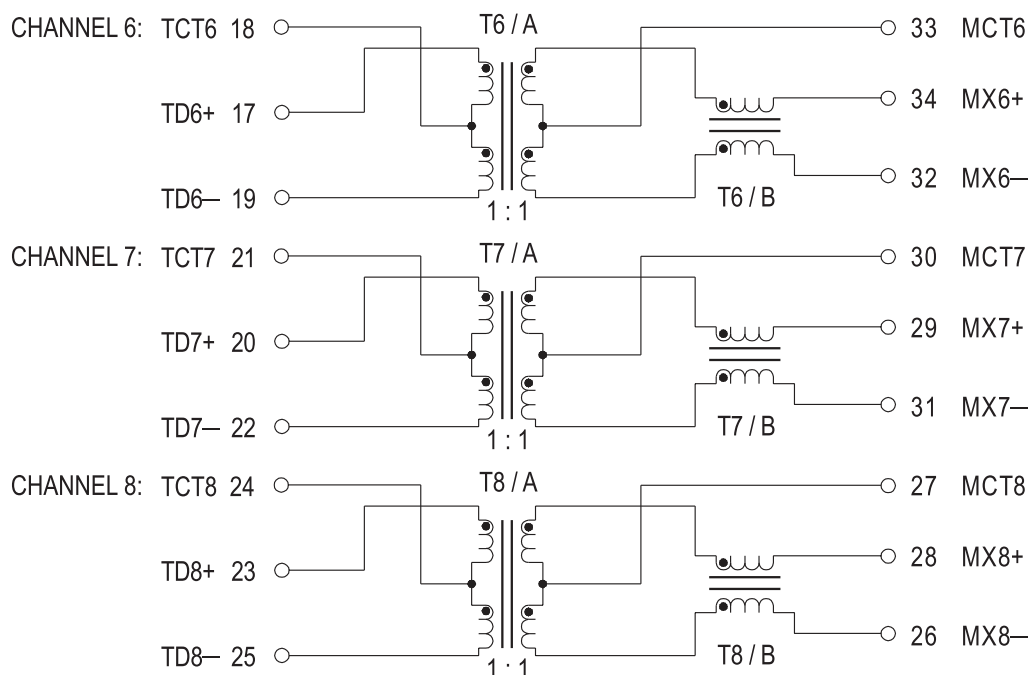
10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

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Electrical Schematic

1000B-5003/X (cont.)



LEGEND

CH
P
S
I
D
E

Td $\longleftrightarrow$ Mx

M
E
D
I
A
S
I
D
E

ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

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