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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com







Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



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

Ruggedized



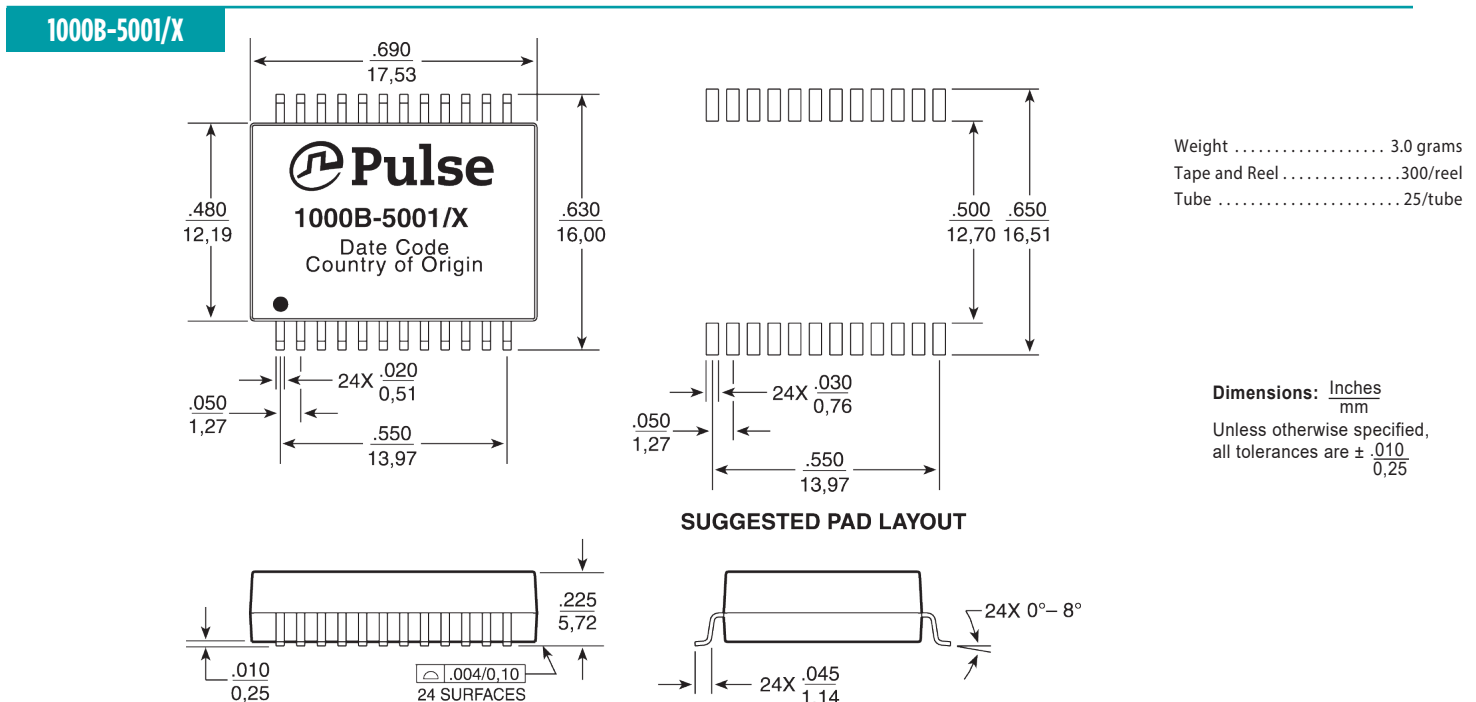
-  Compliant with IEEE 802.3ab for 1000Base-T
-  350µH OCL with 8mA bias at extended temperatures
-  Storage temperature: -55°C to +125°C
-  Operating temperature:
  - 1000B-5001/5002/5003: -40°C to +85°C
  - 1000B-5001X/5002X/5003X: -55°C to +125°C
-  IC grade transfer-molded package withstands 235°C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

## Electrical Specifications @ 25°C

Part Number <sup>2</sup>	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	
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

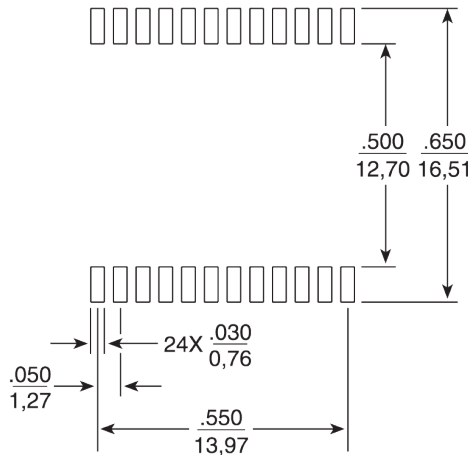
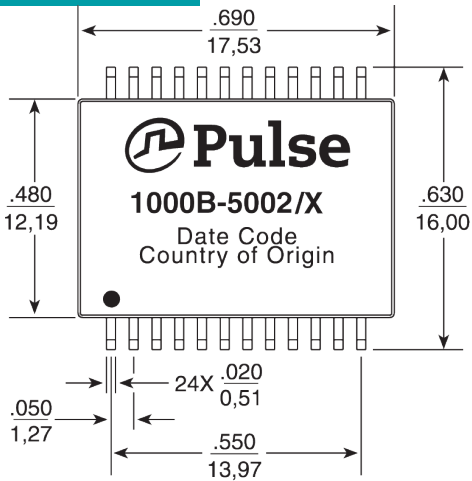


# 10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

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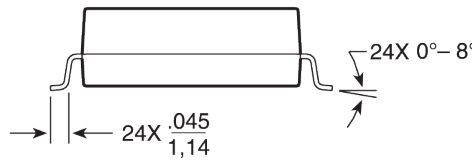
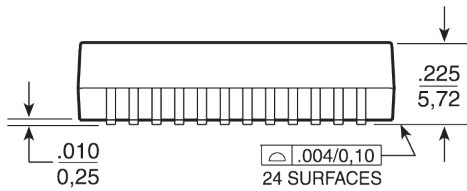
## 1000B-5002/X



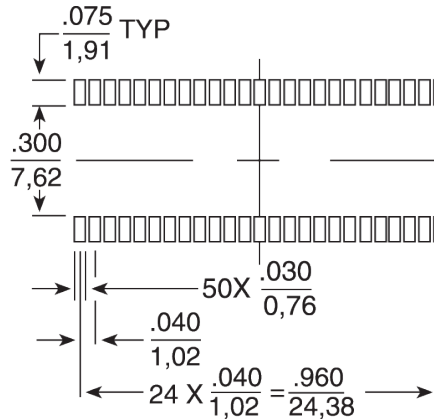
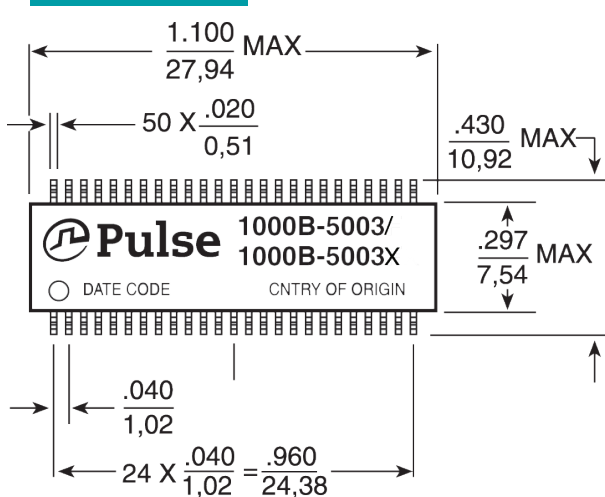
Weight ..... 2.6 grams  
Tape and Reel ..... 300/reel  
Tube ..... 25/tube

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
Unless otherwise specified,  
all tolerances are  $\pm \frac{.010}{0,25}$

### SUGGESTED PAD LAYOUT



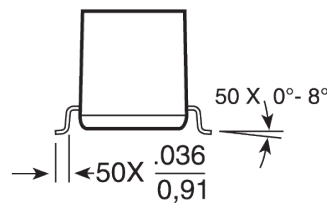
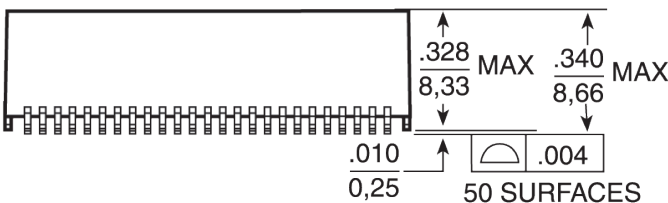
## 1000B-5003/X



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





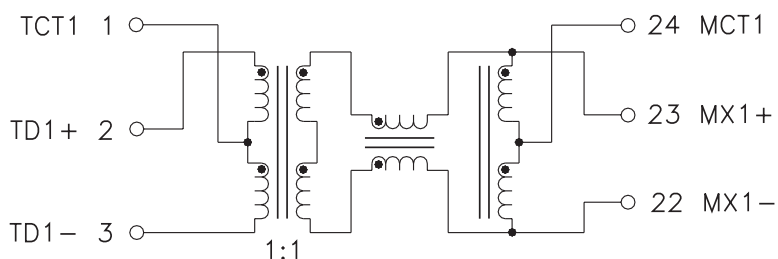
# 10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

Ruggedized

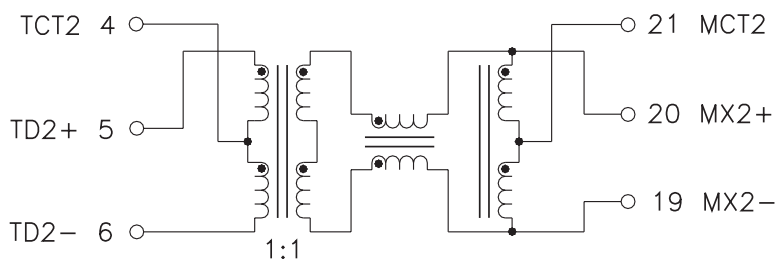
## Electrical Schematic

1000B-5001/X

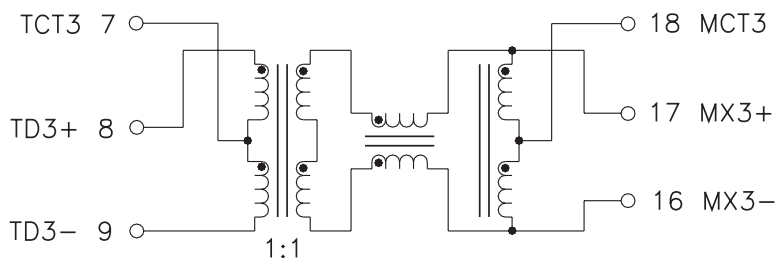
CHANNEL 1



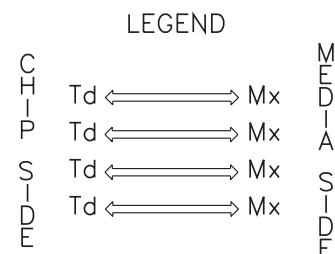
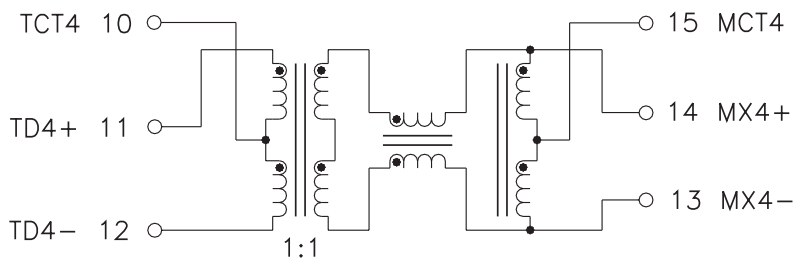
CHANNEL 2



CHANNEL 3



CHANNEL 4



ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

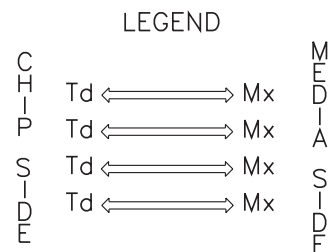
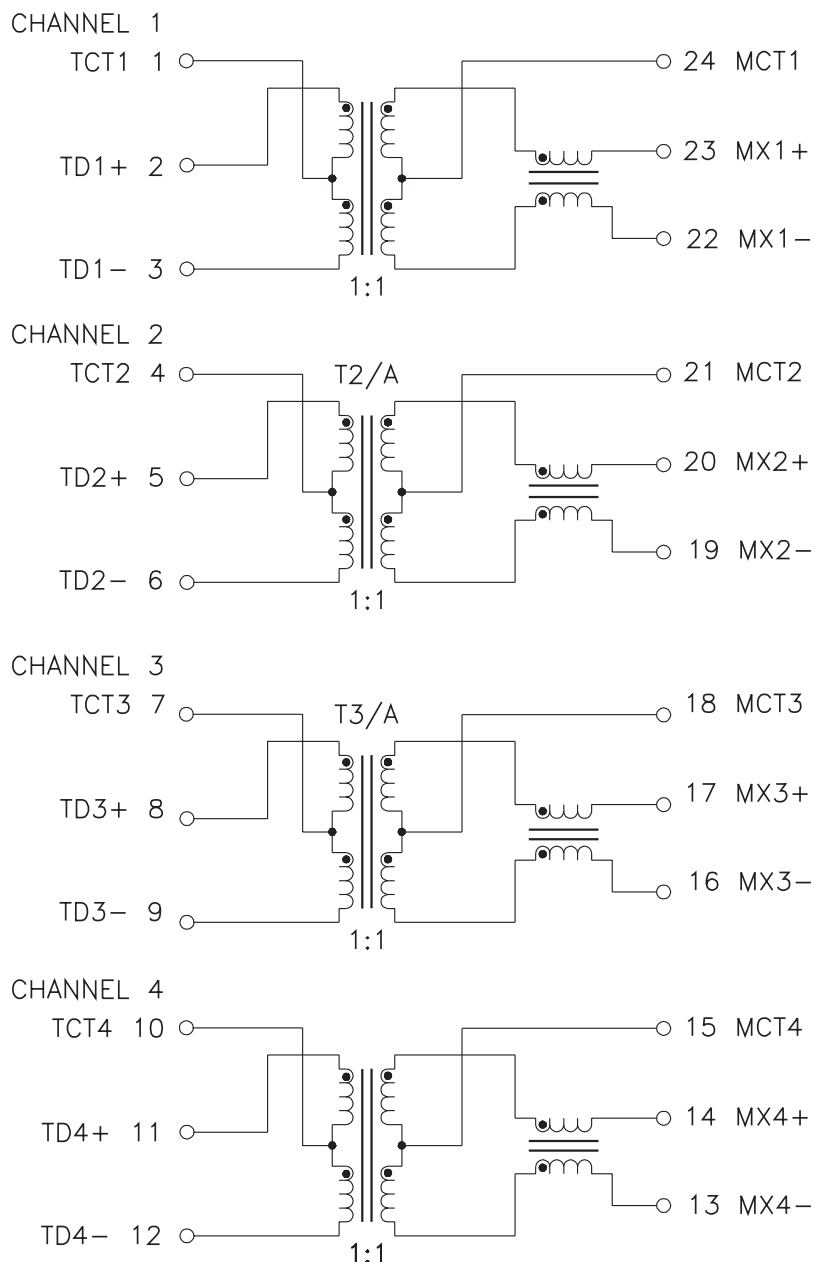
# 10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

Ruggedized



## Electrical Schematic

1000B-5002/X



ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

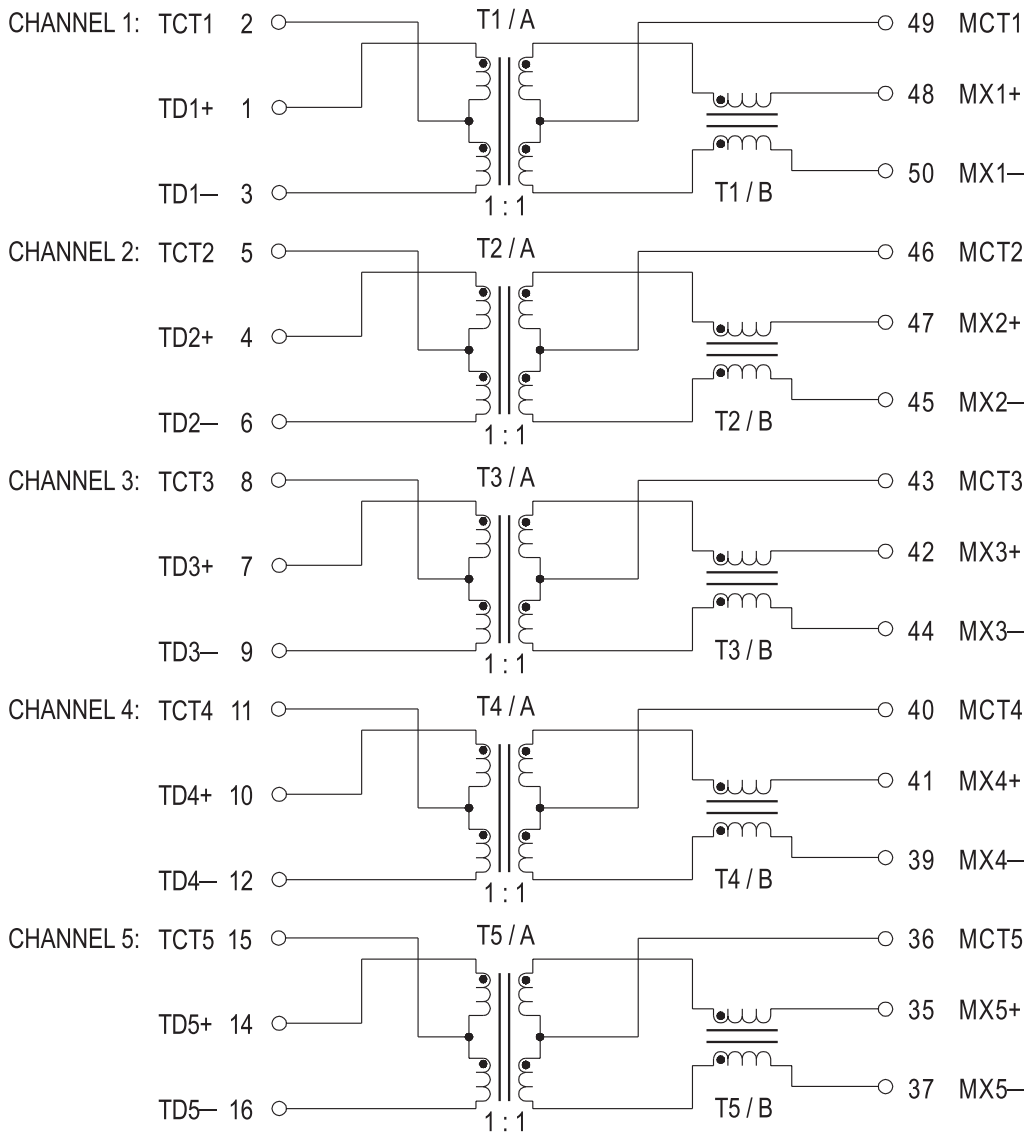
# 10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

Ruggedized



## Electrical Schematic

1000B-5003/X



LEGEND

CHIP SIDE ← Td ↔ Mx MEDIAN SIDE

ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

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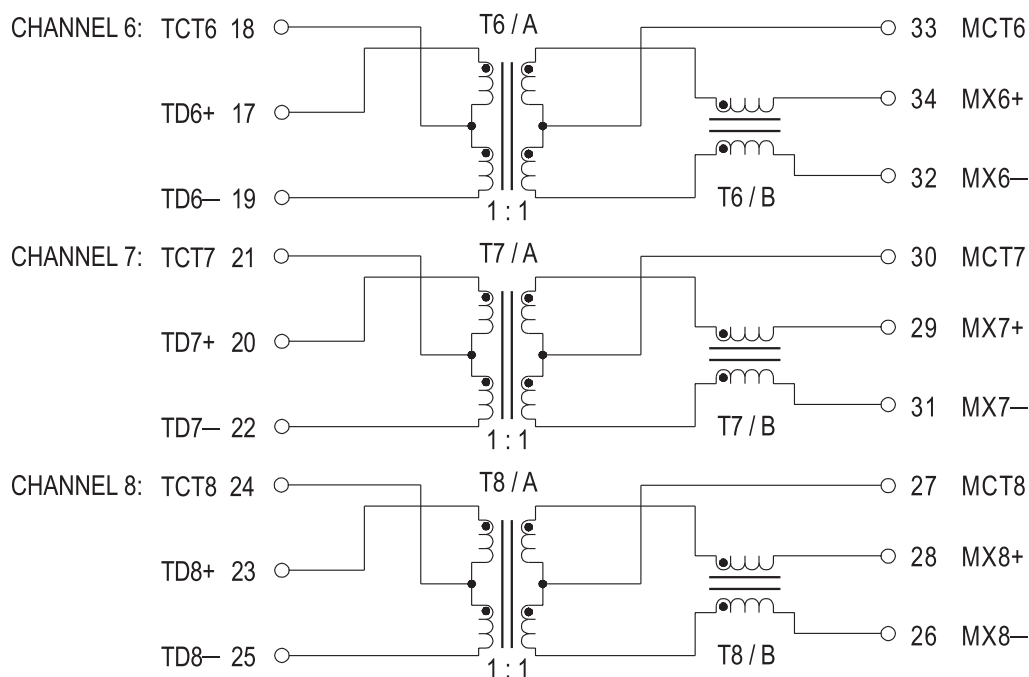
# 10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

Ruggedized



## Electrical Schematic

1000B-5003/X (cont.)



LEGEND

C H I P
S I D E
T<sub>d</sub> ↔ M<sub>x</sub>
M E D I A
S I D E

ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

### For More Information

Pulse Worldwide  
Headquarters  
Two Pearl Buck  
Court  
Bristol, PA 19007  
U.S.A.

Tel: 215 781 6400  
Fax: 215 781 6403

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