

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

Military / Aerospace Grade



- Compliant with IEEE 802.ab for 1000Base-T
- 350µH OCL with 8mA bias at extended temperatures
- Operating and storage 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

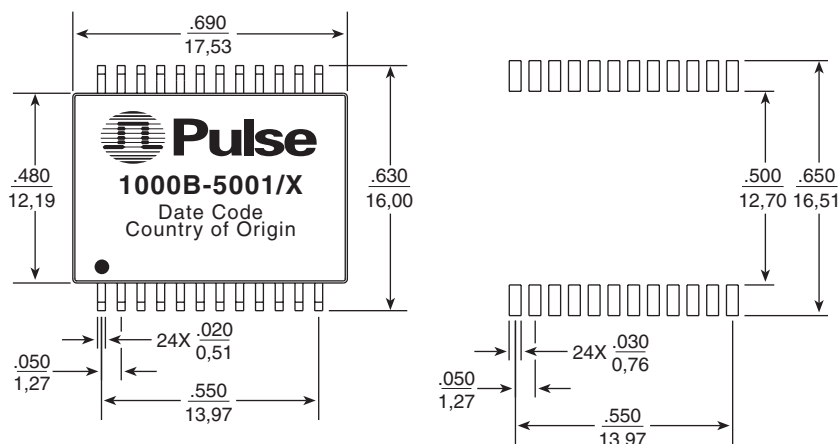
## Electrical Specifications @ 25°C

Part Number <sup>1</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)		
		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
1000B-5001X	-1.40	-18	-12	-10	-8	-43	-37	-33	-40	-35	-30	-43	-37	-33
1000B-5002	-1.20	-18	-14	-12	-10	-43	-37	-33	-40	-35	-30	-43	-37	-33
1000B-5002X	-1.20	-18	-14	-12	-10	-43	-37	-33	-40	-35	-30	-43	-37	-33
1000B-5003	-1.20	-18	-14	-11	-9	-43	-37	-33	-40	-35	-30	-43	-37	-33
1000B-5003X	-1.20	-18	-14	-11	-9	-43	-37	-33	-40	-35	-30	-43	-37	-33

Note: 1. Add suffix NL for RoHS compliant part; i.e. 1000B-5001 becomes 1000B-5001NL.

## Mechanical

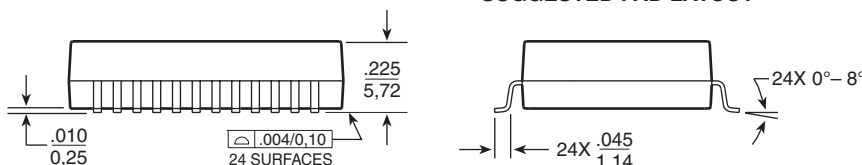
### 1000B-5001/X



Weight ..... 3.0 grams  
 Tape and Reel ..... 300/reel  
 Tube ..... .25/tube

Dimensions: Inches  
 mm  
 Unless otherwise specified,  
 all tolerances are ± .010  
 0,25

### SUGGESTED PAD LAYOUT



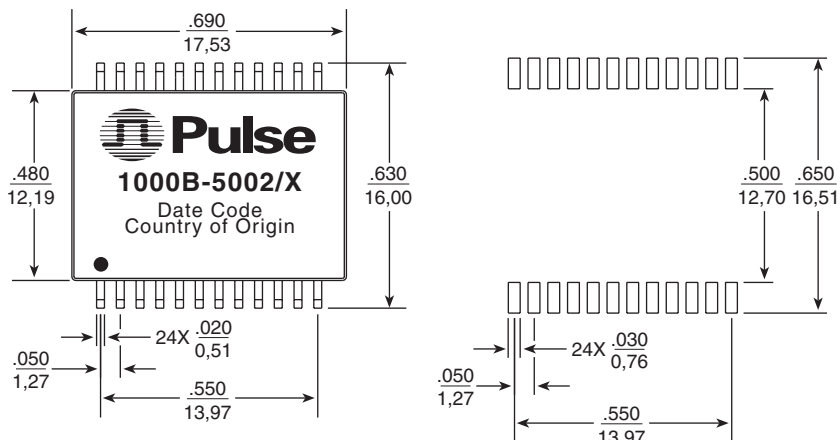
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## Mechanicals

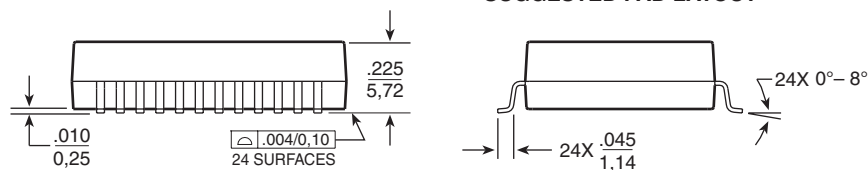
### 1000B-5002/X



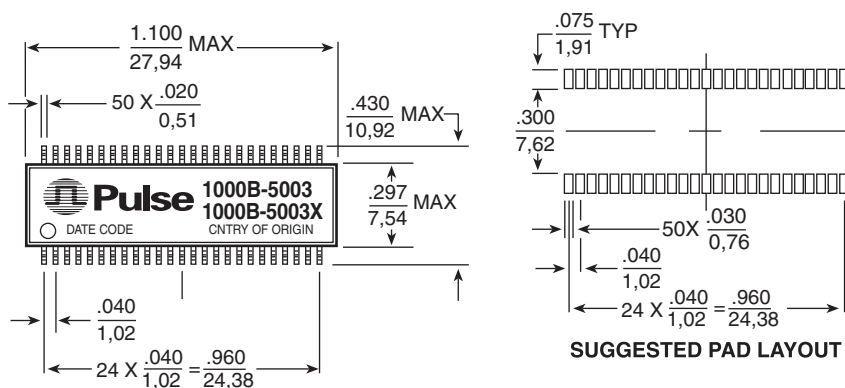
Weight .....2.6 grams  
Tape and Reel ..... 300/reel  
Tube ..... .25/tube

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

#### SUGGESTED PAD LAYOUT



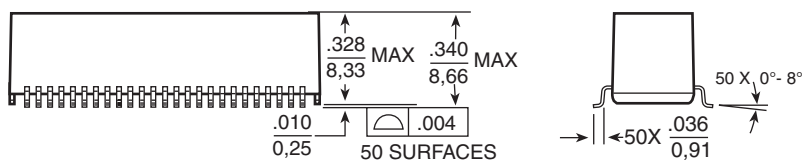
### 1000B-5003/X



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

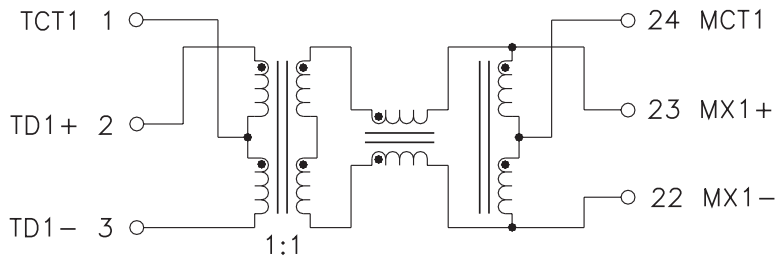
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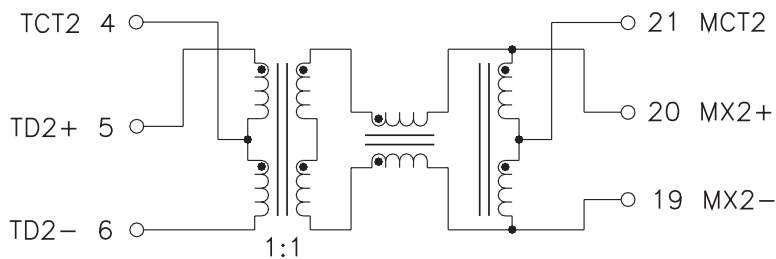
## Electrical Schematic

**1000B-5001/X**

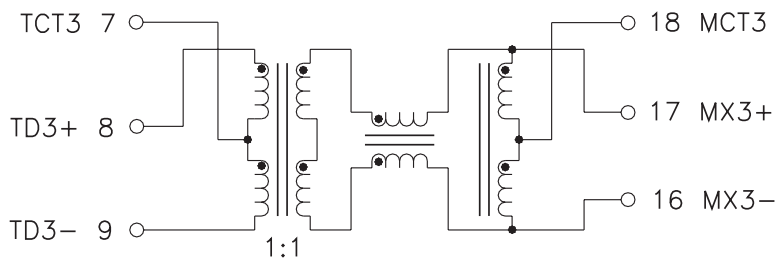
CHANNEL 1



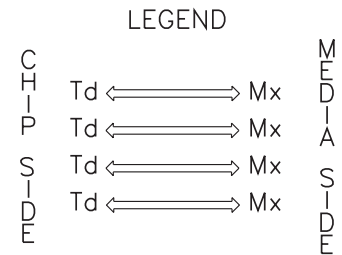
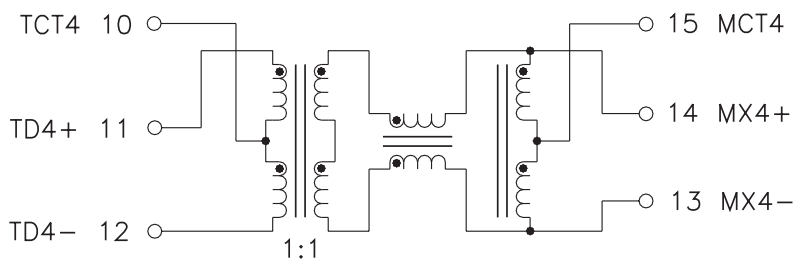
CHANNEL 2



CHANNEL 3



CHANNEL 4



ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

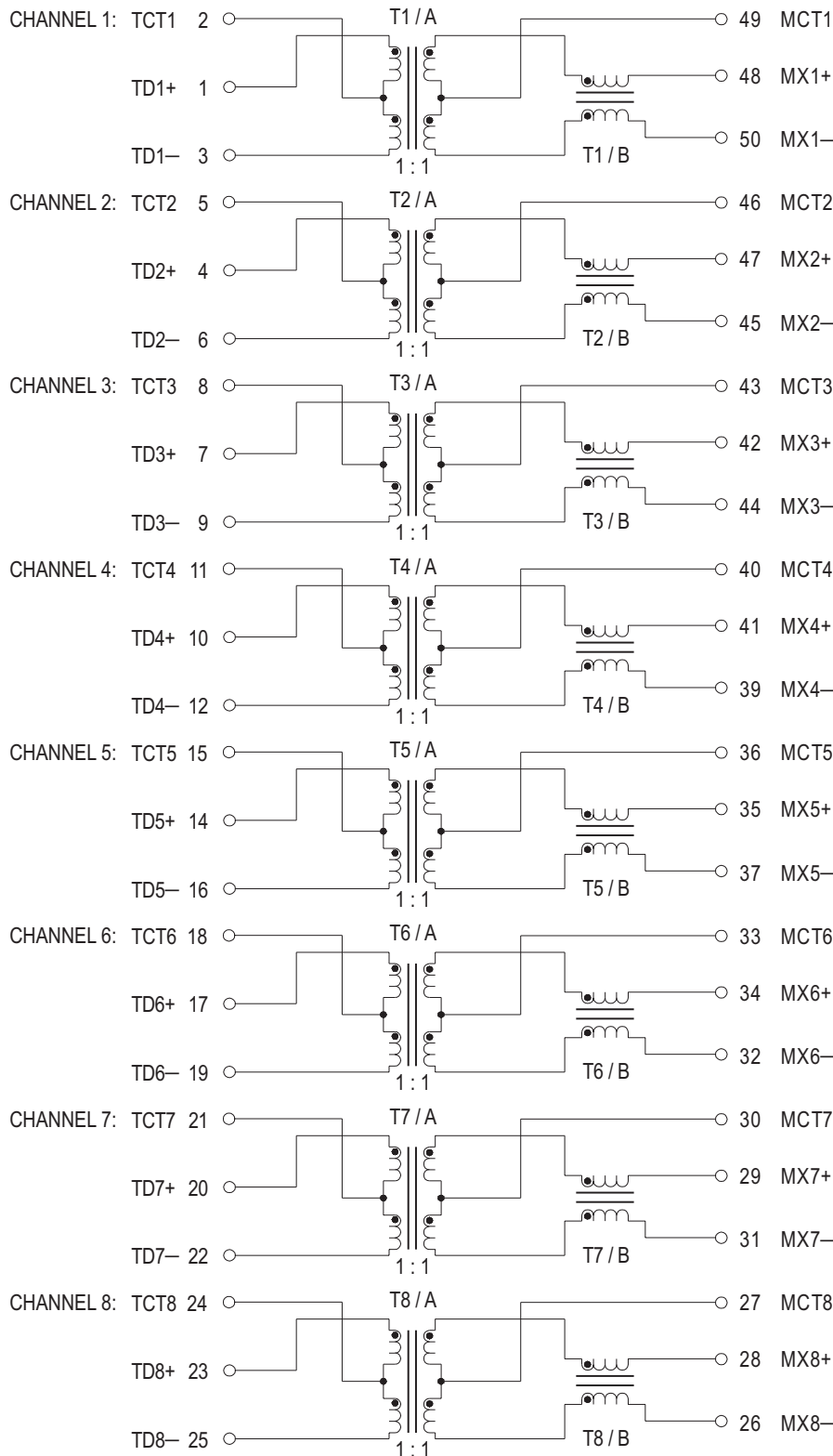
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## Electrical Schematic

**1000B-5003/X**



LEGEND

C I P
S I D E
T d

M x
M E D I A
S I D E

ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

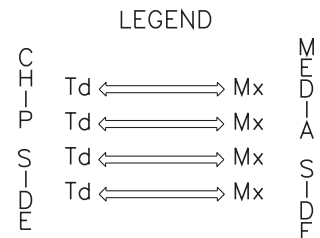
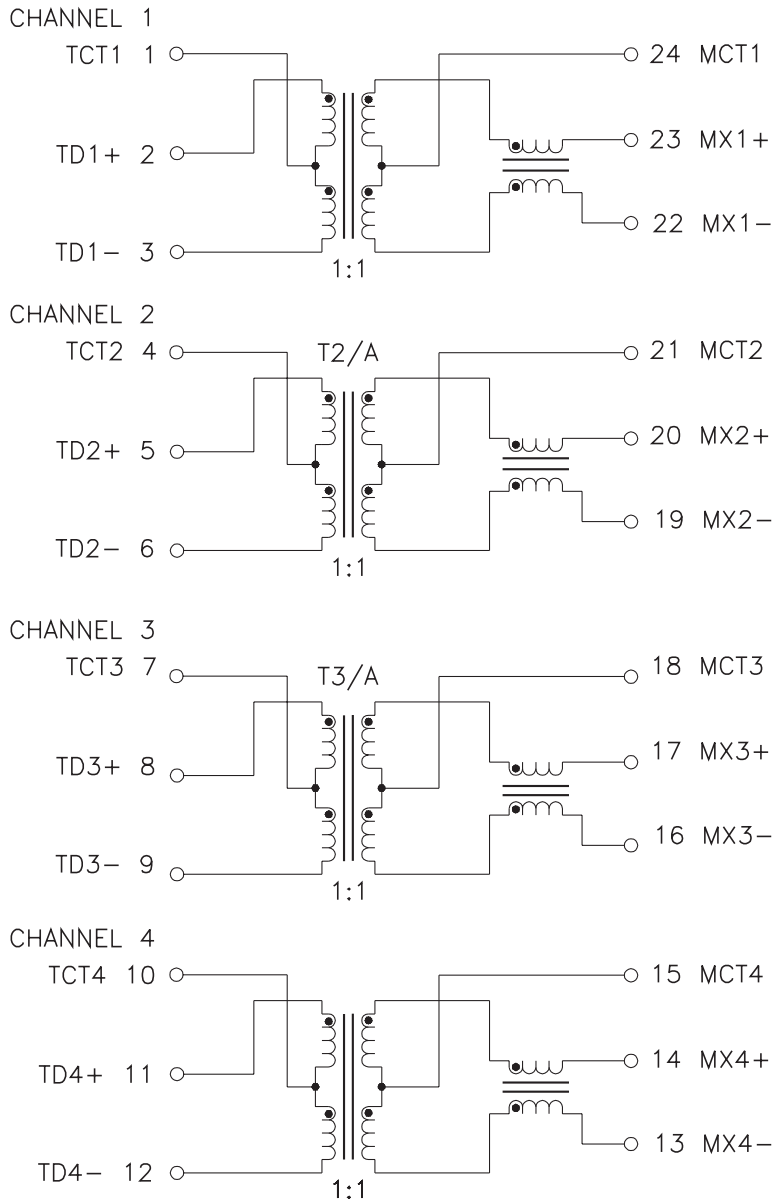
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### Electrical Schematic

**1000B-5002/X**



ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

### For More Information:

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