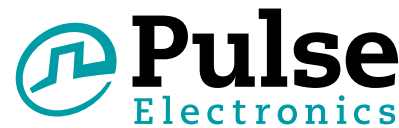


# 10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

Military / Aerospace Grade



- Compliant with IEEE 802.ab for 1000Base-T
- 350μH OCL with 8mA bias at extended temperatures
- Two Operating and Storage Temperature Versions Available:
  - Standard: -40°C to +85°C
  - Extended: -55°C to +125°C
- IC grade transfer molded package 235°C peak reflow temperature for non-RoHS versions (MSL 3)
- 245°C peak reflow temperature for RoHS versions (MSL 4)
- Lead finish: Sn63/Pb37 (RoHS compliant version available with 100% pure tin)

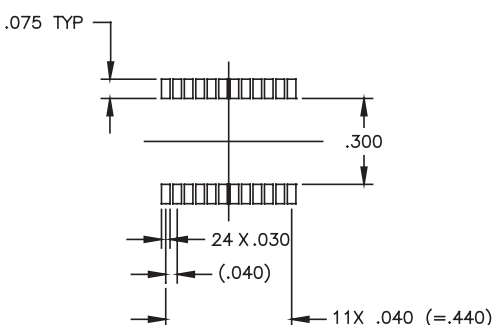
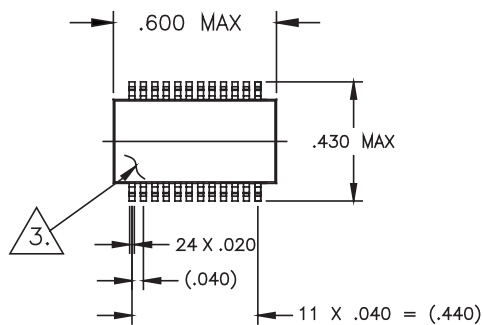
## Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

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)
		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	
1000B-5009F	-1.2	-18	-12	-12	-10	-43	-37	-31	-30	-25	-18	-40	-35	-30	1500	
1000B-5012F	-1	-18	-12	-12	-10	-43	-37	-33	-43	-37	-33	-43	-37	-33	1500	
1000B-5014F	-1.4	-16	-12	-12	-10	-43	-37	-33	-45	-40	-35	-43	-37	-33	1500	
1000B-5016F	-1.2	-18	-12	-12	-10	-43	-37	-31	-30	-23	-17	-40	-35	-30	1500	

Note: 1. Add suffix X for extended temperature version; i.e. 1000B-5009F becomes 1000B-5009FX. 2. Add suffix NL for RoHS compliant part; i.e. 1000B-5012F becomes 1000B-5012FNL. 3. For Tape & Reel Packaging, add "T" suffix at the end of the part number; i.e. 1000B-5014FT

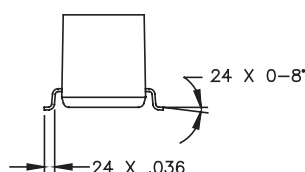
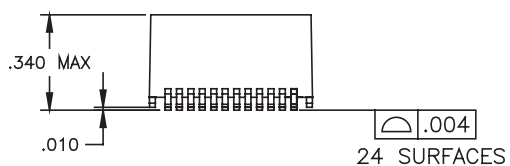
## Mechanicals

### 1000B-5009F/X



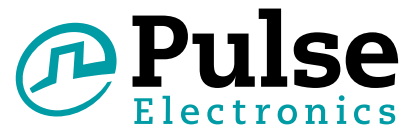
Weight ..... 0.75 grams  
Tape and Reel ..... 250/reel  
Tube ..... 15/tube

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

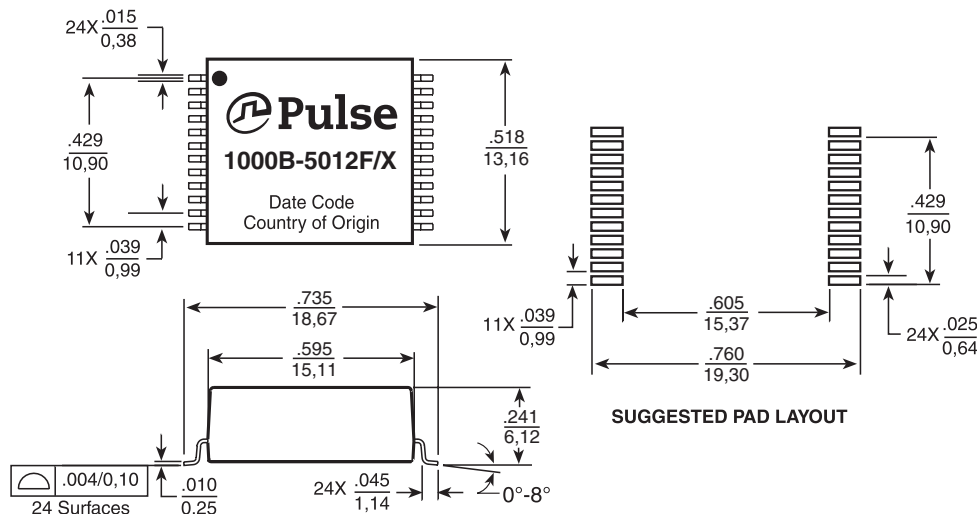


# 10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

Military / Aerospace Grade



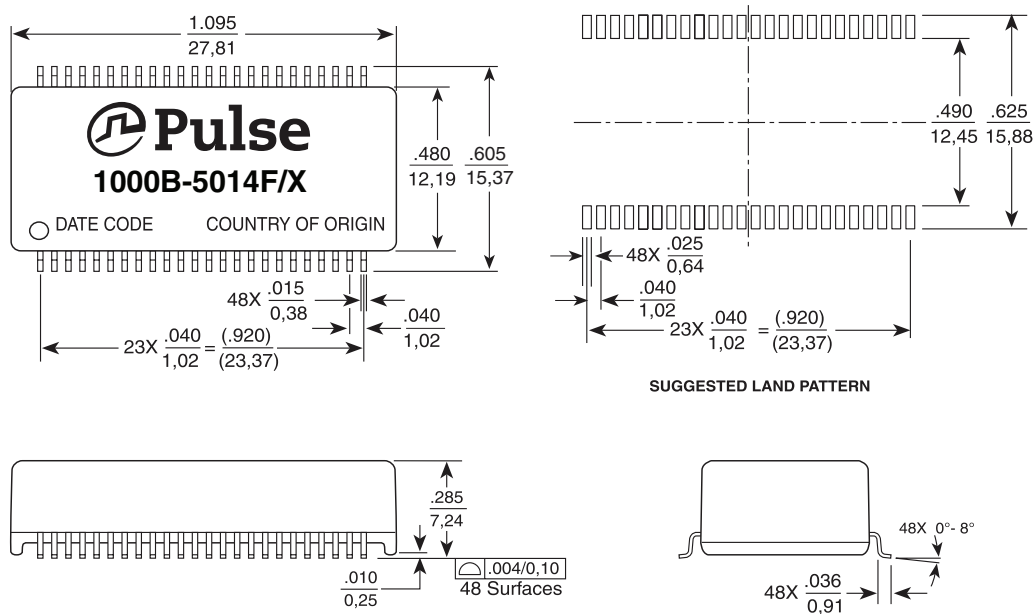
## 1000B-5012F/X



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

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

## 1000B-5014F/X

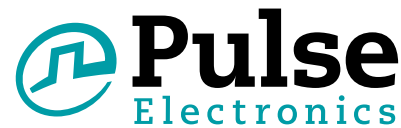


Weight ..... 3.0 grams  
Tape and Reel ..... 300/reel  
Tube ..... .25/tube

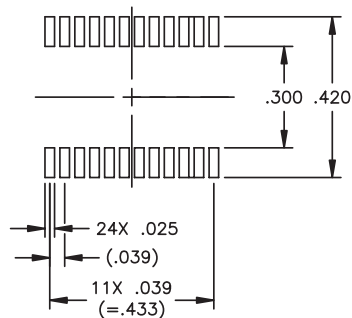
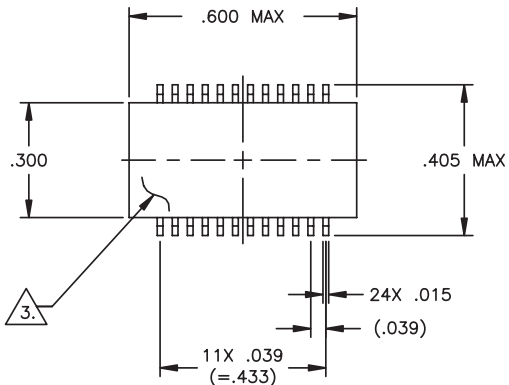
Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
Unless otherwise specified,  
all tolerances are  $\pm \frac{.010}{0,25}$

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

Military / Aerospace Grade



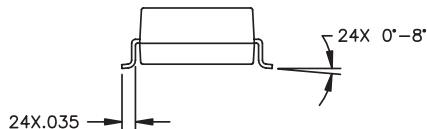
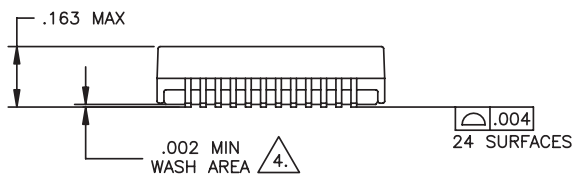
## 1000B-5016F/X



SUGGESTED LAND PATTERN

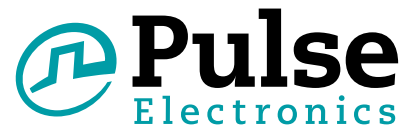
Weight ..... 0.75 grams  
 Tape and Reel ..... 700/reel  
 Tube ..... .30/tube

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



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

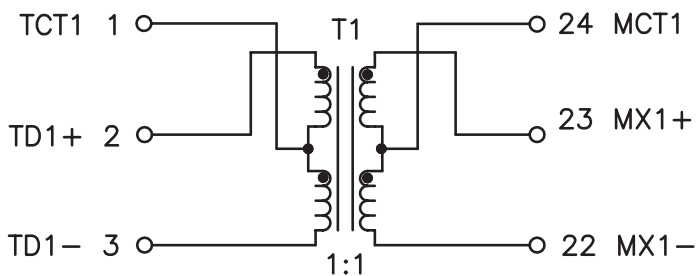
Military / Aerospace Grade



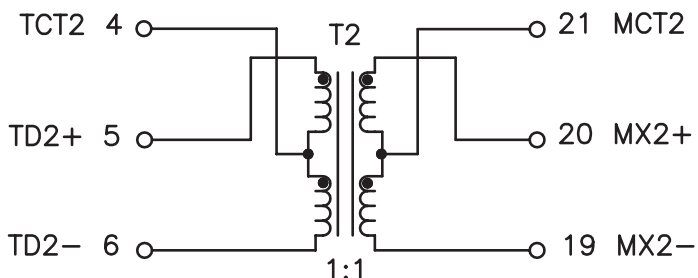
## Electrical Schematics

1000B-5009F/X

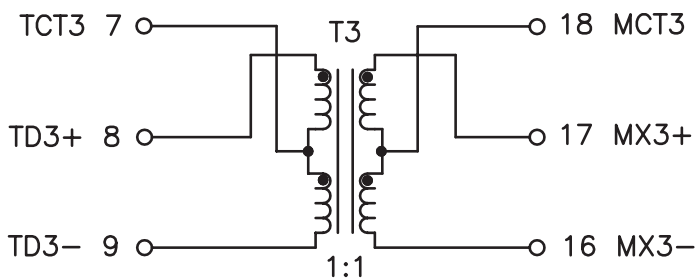
### CHANNEL 1



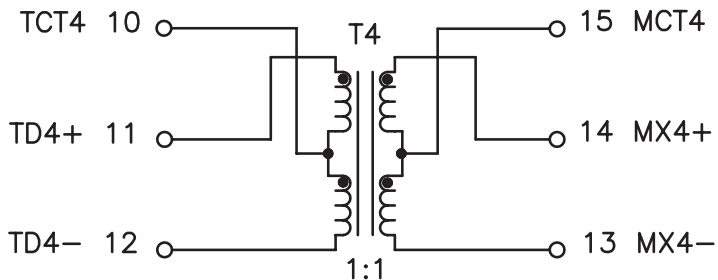
### CHANNEL 2



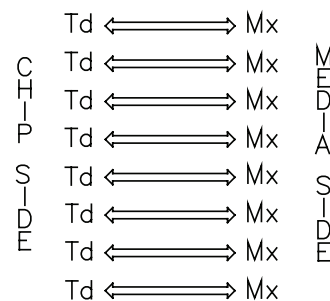
### CHANNEL 3



### CHANNEL 4



### LEGEND



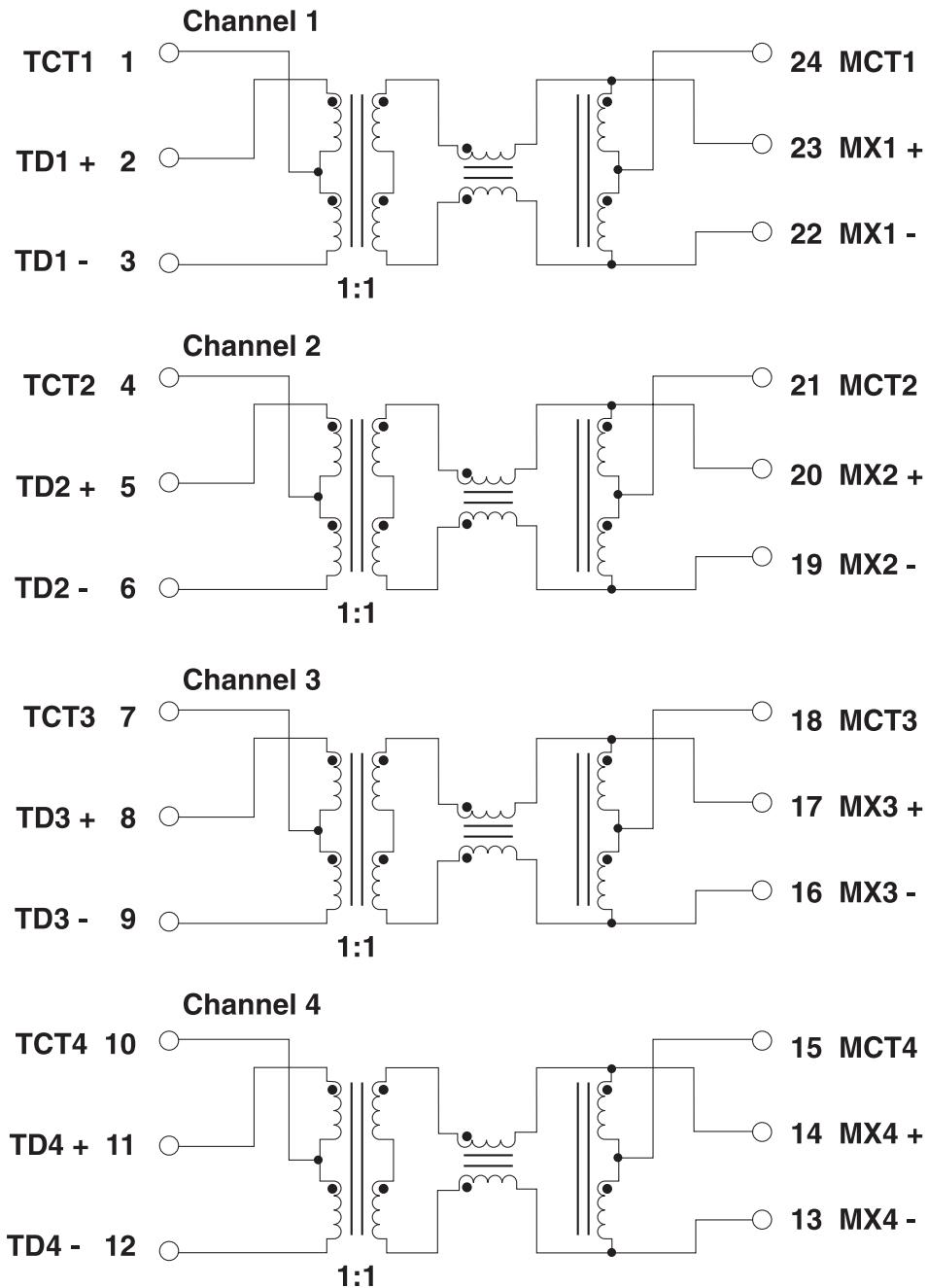
ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

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

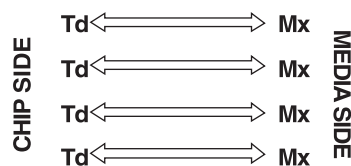
Military / Aerospace Grade



1000B-5012F/X

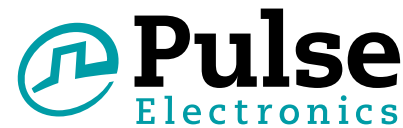


### LEGEND

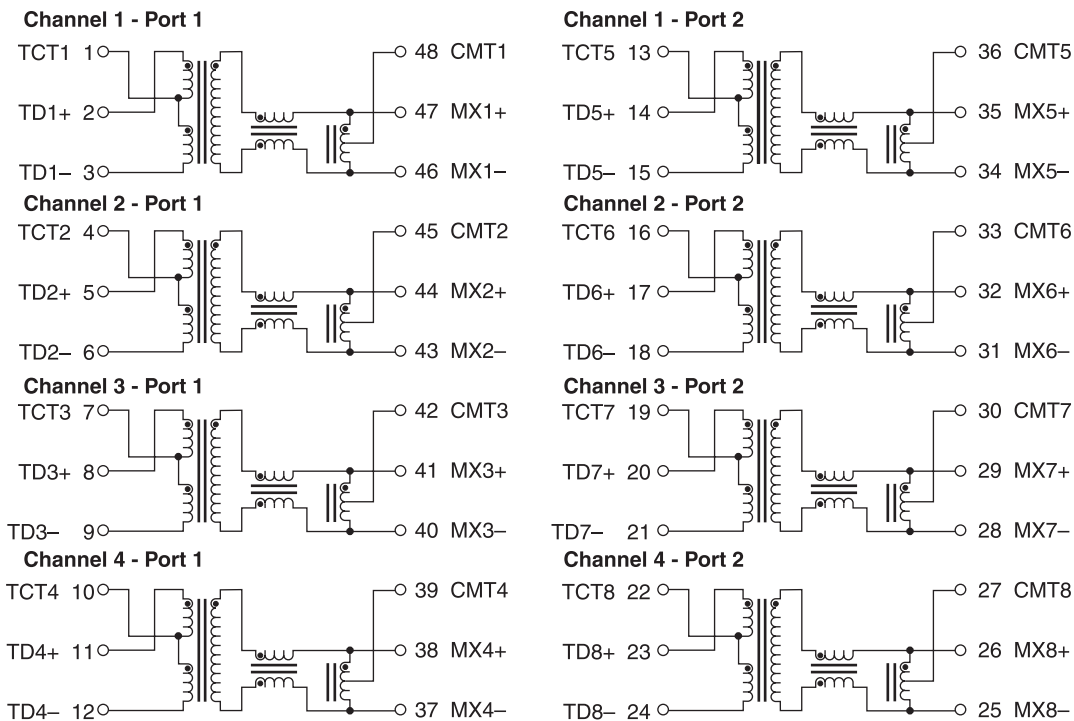


# 10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

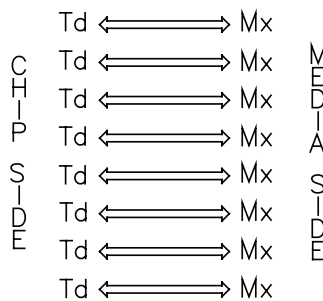
Military / Aerospace Grade



1000B-5014F/X



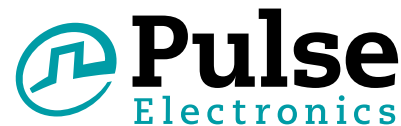
## LEGEND



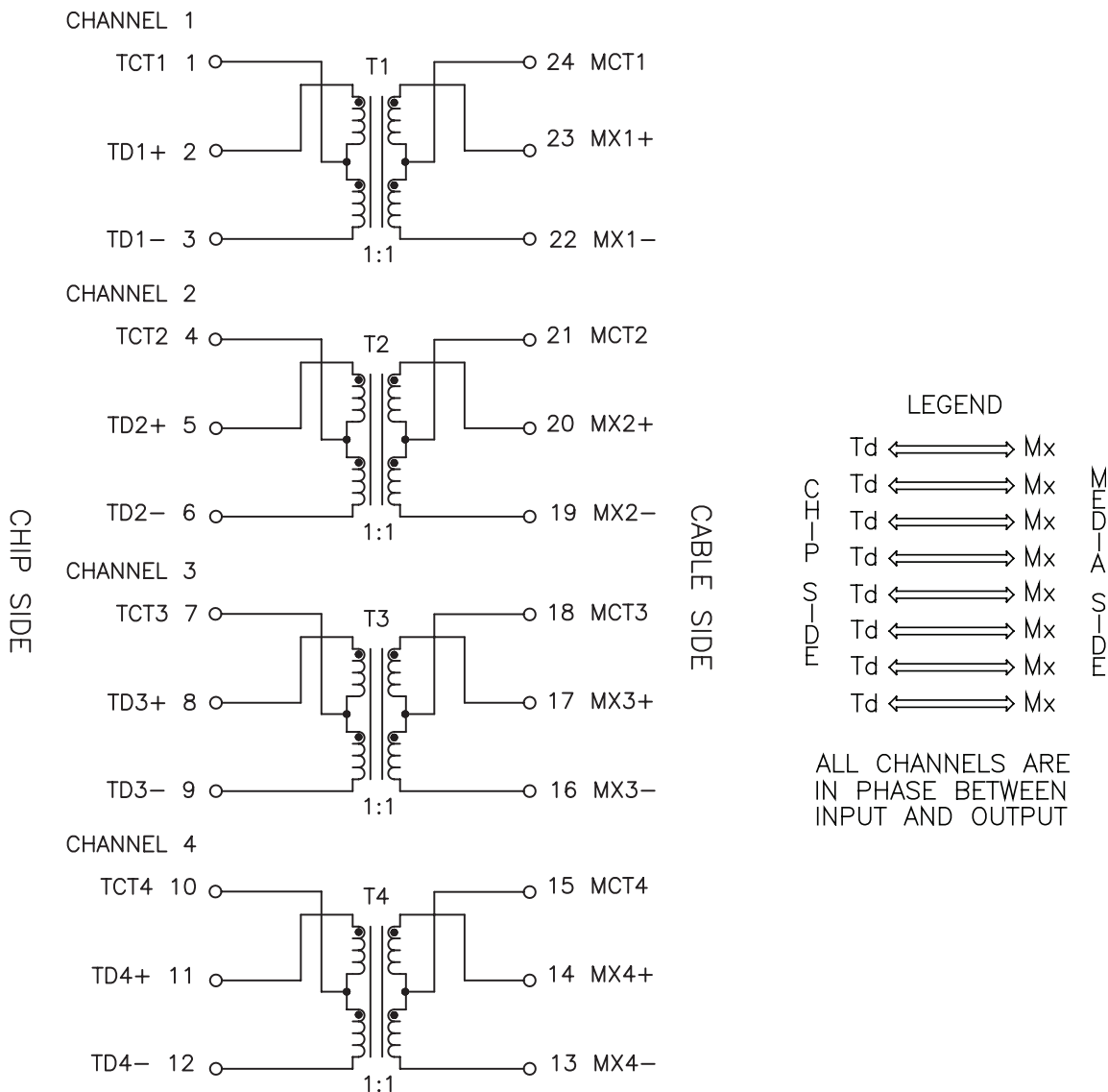
ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

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

Military / Aerospace Grade



## 1000B-5016F/X



### For More Information

#### Pulse Worldwide Headquarters

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

Tel: 215 781 6400  
Fax: 215 781 6403

#### Pulse Europe

Einsteinstrasse 1  
D-71083 Herrenberg  
Germany

Tel: 49 7032 7806 0  
Fax: 49 7032 7806 135

#### Pulse China Headquarters

B402, Shenzhen Academy of  
Aerospace Technology Bldg.  
10th Kejinan Road  
High-Tech Zone  
Nanshan District  
Shenzhen, PR China 518057

Tel: 86 755 33966678  
Fax: 86 755 33966700

#### Pulse North China

Room 2704/2705  
Super Ocean Finance Ctr.  
2067 Yan An Road West  
Shanghai 200336  
China

Tel: 86 21 62787060  
Fax: 86 2162786973

#### Pulse South Asia

135 Joo Seng Road  
#03-02  
PM Industrial Bldg.  
Singapore 368363

Tel: 65 6287 8998  
Fax: 65 6287 8998

#### Pulse North Asia

3F, No. 198  
Zhongyuan Road  
Zhongli City  
Taoyuan County 320  
Taiwan R. O. C.

Tel: 886 3 4356768  
Fax: 886 3 4356823 (Pulse)  
Fax: 886 3 4356820 (FRE)

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### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

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