

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)

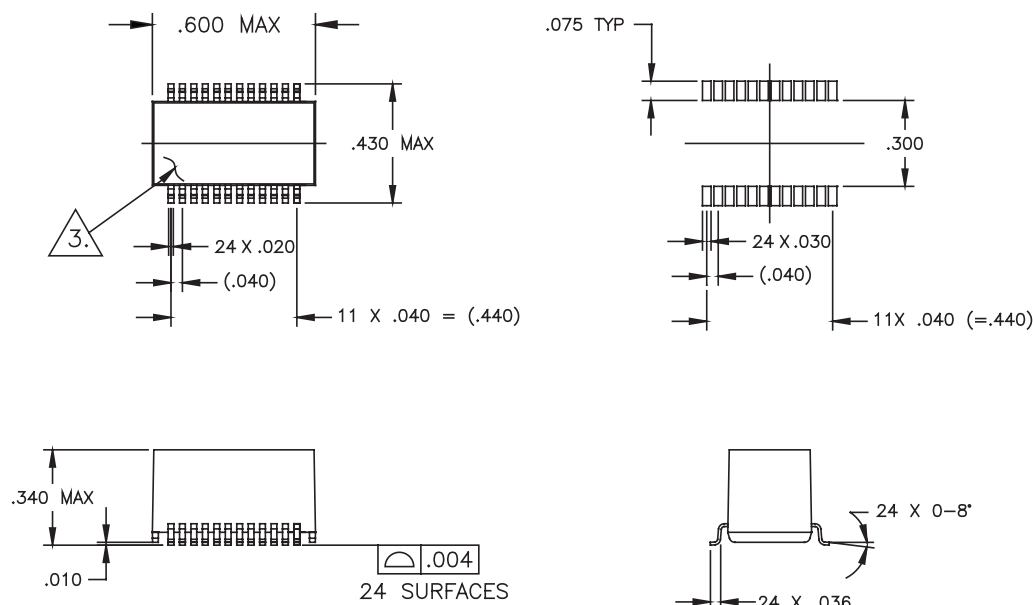
Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

Part Number 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)
	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. 3. For Tape & Reel Packaging, add "T" suffix at the end of the part number; i.e. 1000B-5014FT
2. Add suffix NL for RoHS compliant part; i.e. 1000B-5012F becomes 1000B-5012FNL.

Mechanicals

1000B-5009F/X

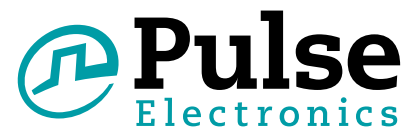


Weight 0.75 grams
 Tape and Reel 250/reel
 Tube 15/tube

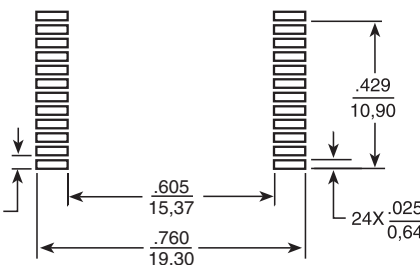
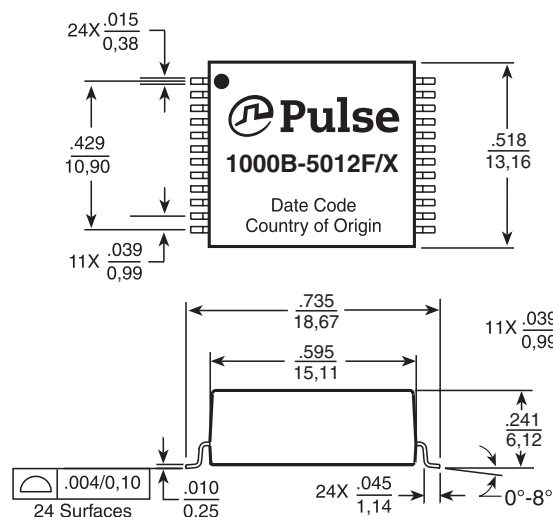
Dimensions: $\frac{\text{Inches}}{\text{mm}}$
 Unless otherwise specified,
 all tolerances are $\pm \frac{.010}{0.25}$

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1000B-5012F/X

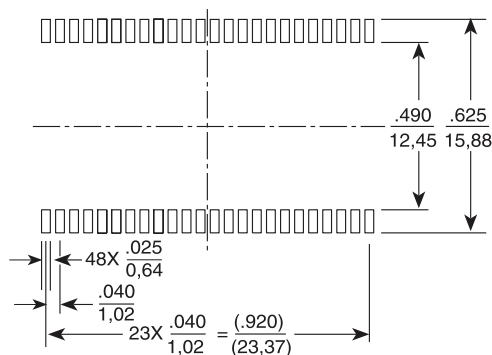
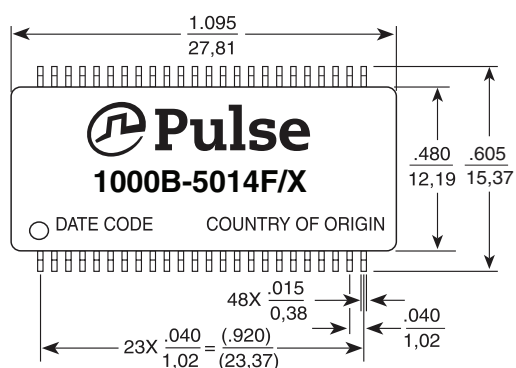


SUGGESTED PAD LAYOUT

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

Dimensions: $\frac{\text{Inches}}{\text{mm}}$
Unless otherwise specified,
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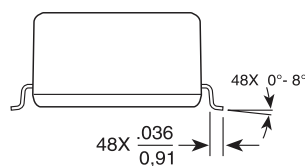
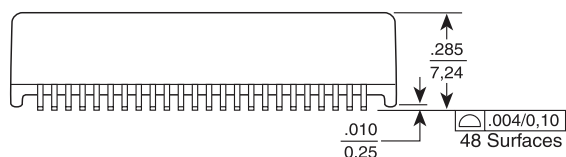
1000B-5014F/X



SUGGESTED LAND PATTERN

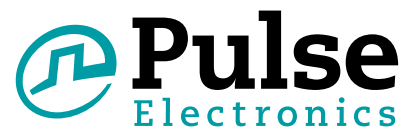
Weight 3.0 grams
Tape and Reel 300/reel
Tube25/tube

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

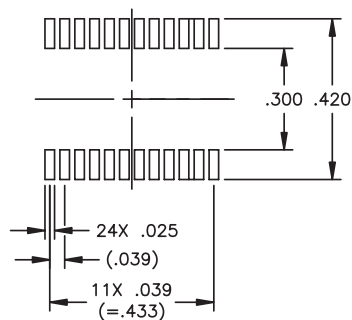
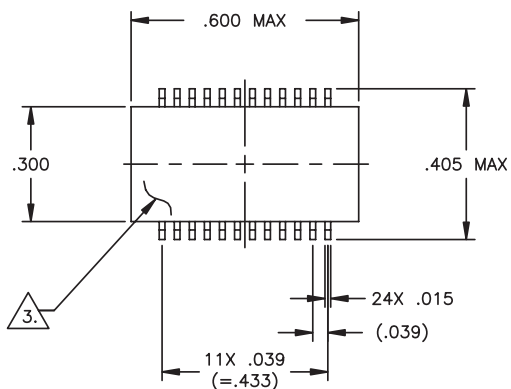


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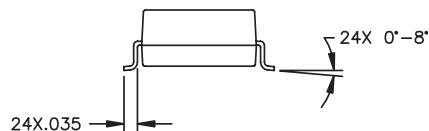
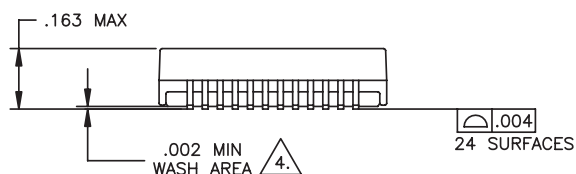
1000B-5016F/X



SUGGESTED LAND PATTERN

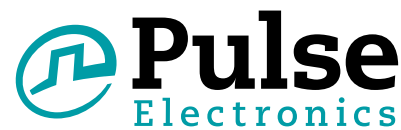
Weight 0.75 grams
Tape and Reel 700/reel
Tube30/tube

Dimensions: $\frac{\text{Inches}}{\text{mm}}$
Unless otherwise specified,
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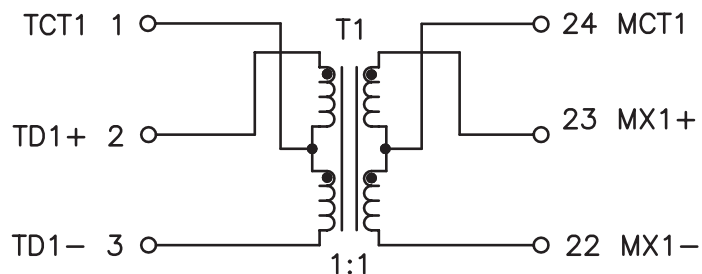
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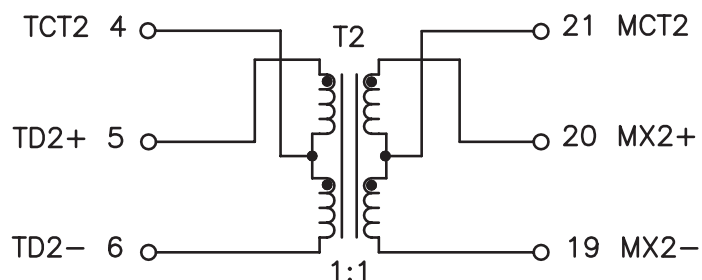
Electrical Schematics

1000B-5009F/X

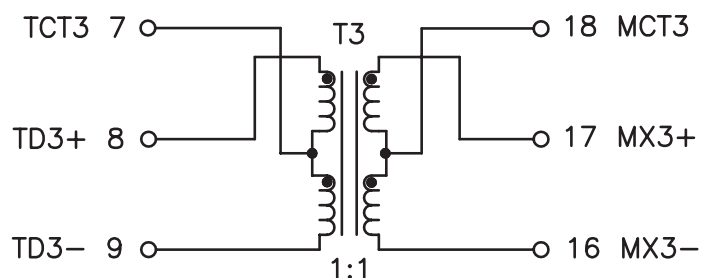
CHANNEL 1



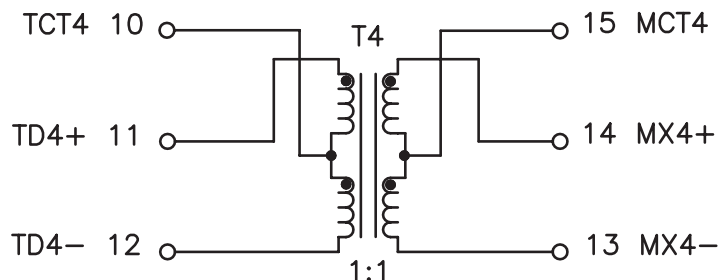
CHANNEL 2



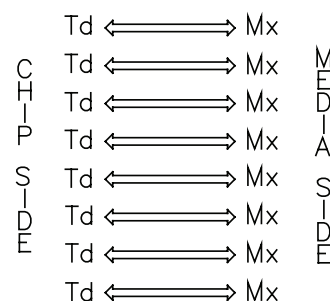
CHANNEL 3



CHANNEL 4



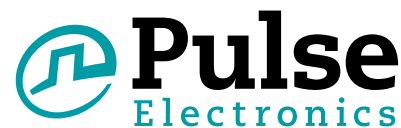
LEGEND



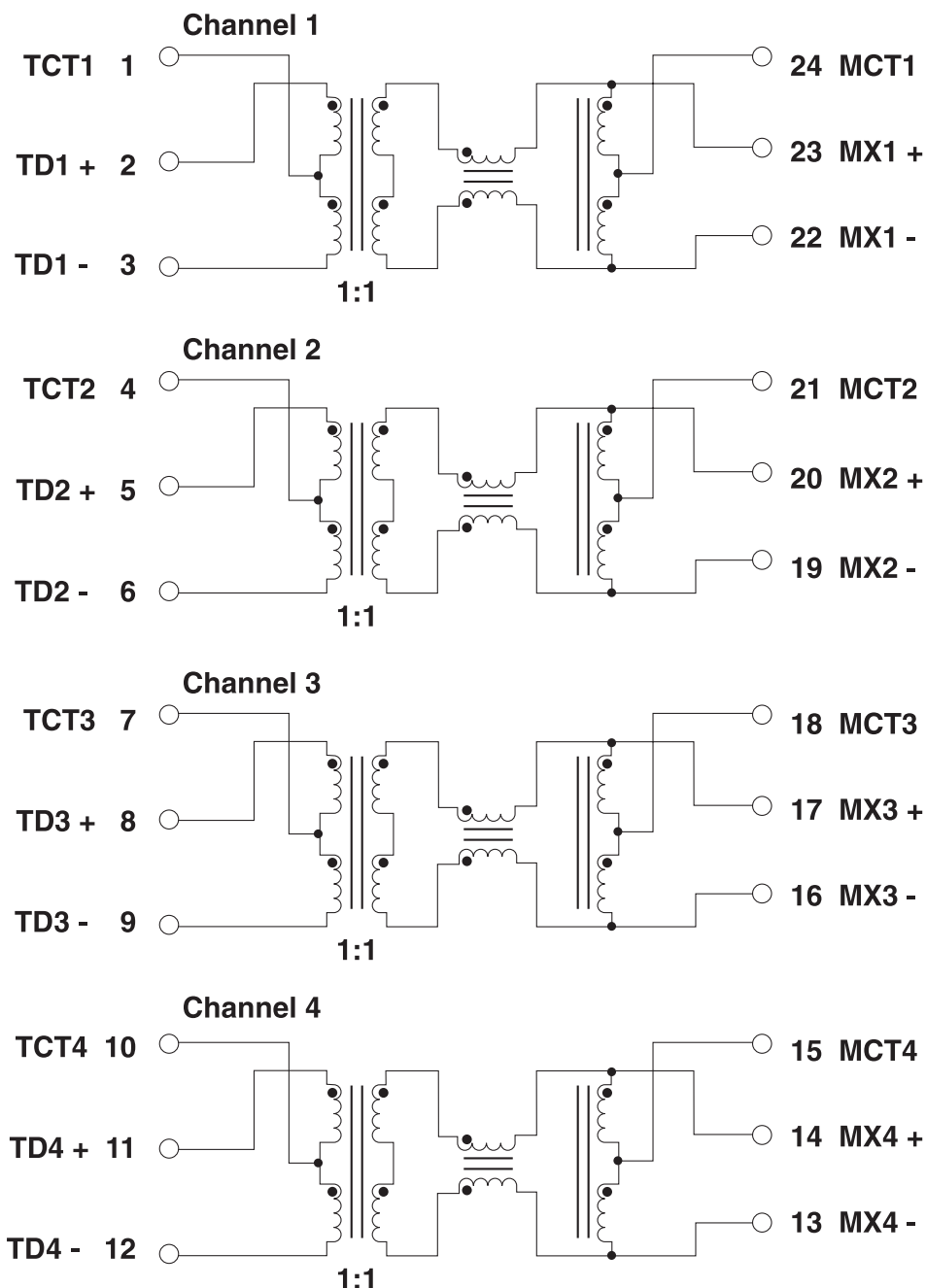
ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

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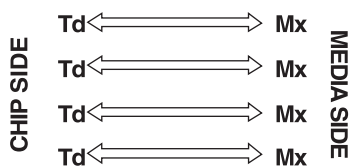
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1000B-5012F/X

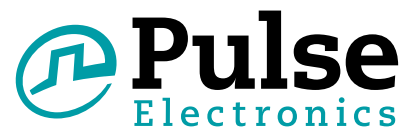


LEGEND



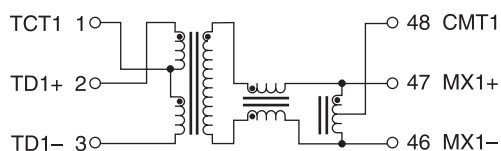
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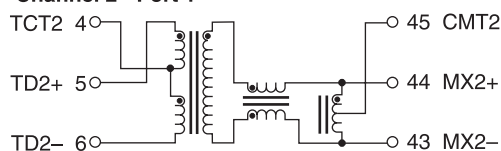


1000B-5014F/X

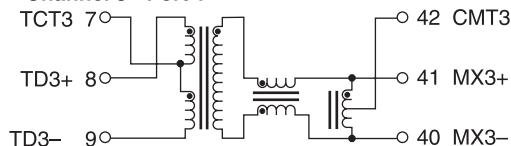
Channel 1 - Port 1



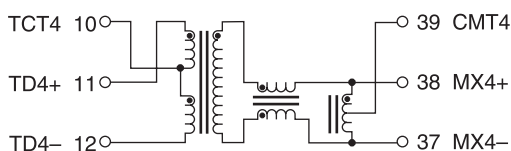
Channel 2 - Port 1



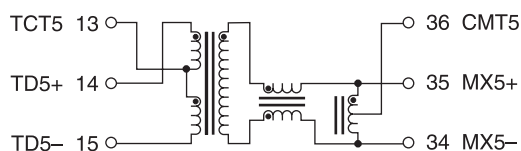
Channel 3 - Port 1



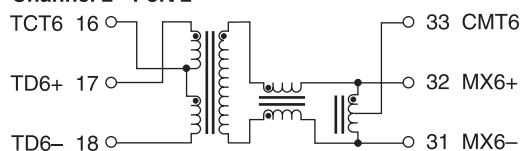
Channel 4 - Port 1



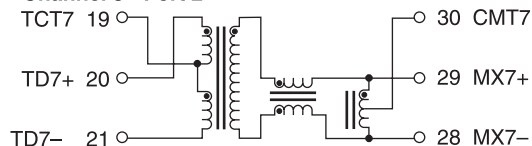
Channel 1 - Port 2



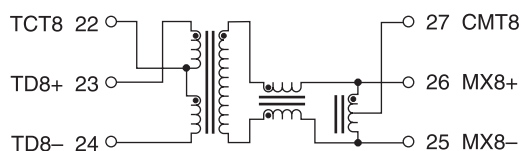
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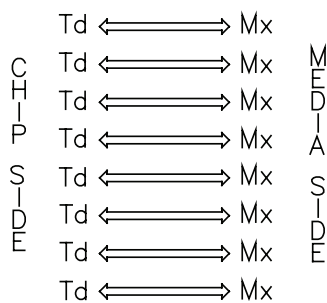
Channel 3 - Port 2



Channel 4 - Port 2



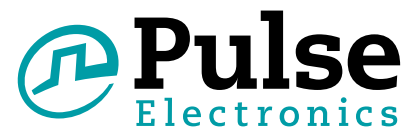
LEGEND



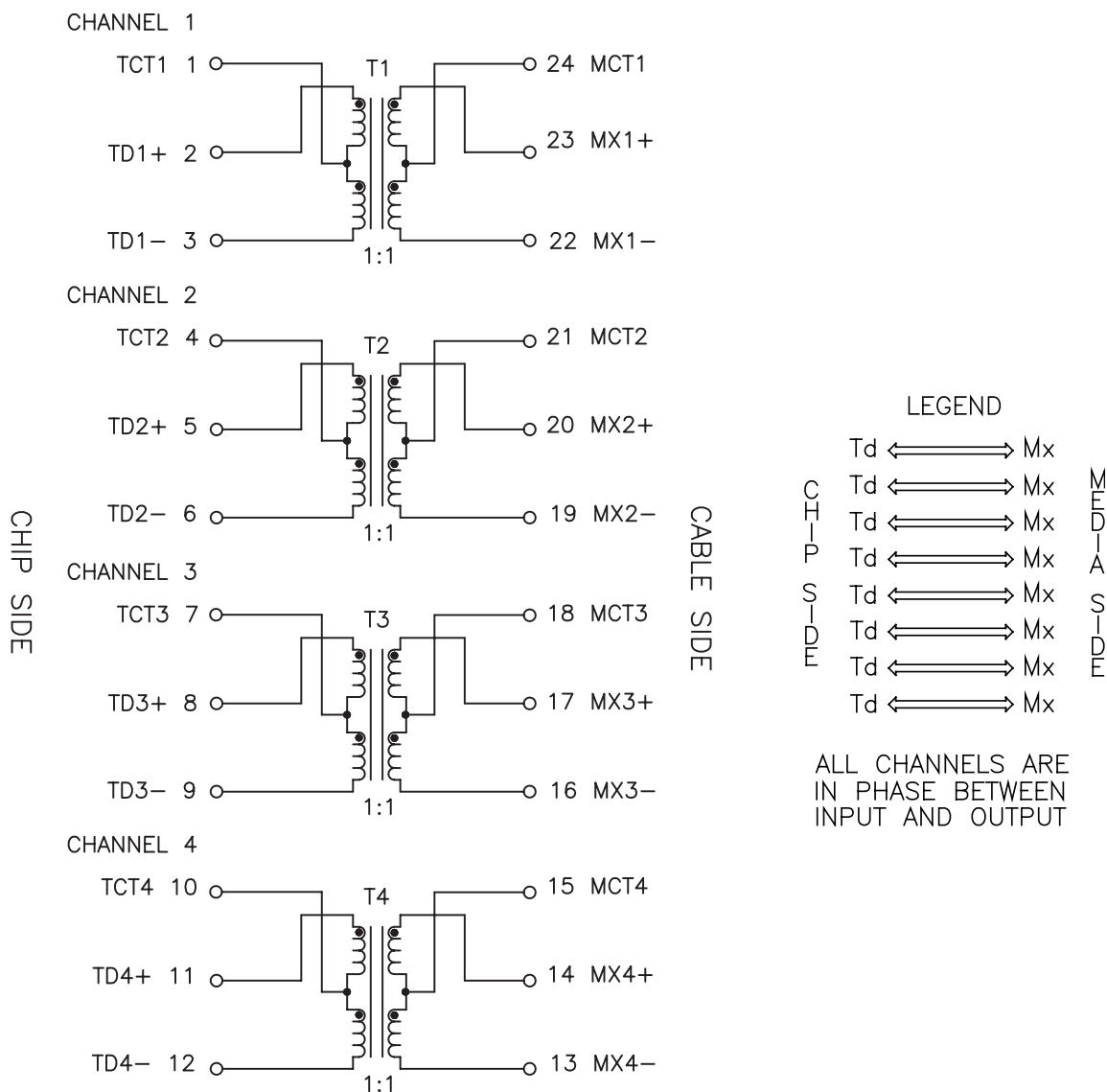
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