1000BASE–T PoE/PoE+/PoE++ SINGLE&DUAL TRANSFORMER

Ruggedized

- Compliant with IEEE 802.3 standards
- Inductance (OCL):
  - 1000B-5009: 350uH with 18mA DC bias
  - 1000B-5060: 250uH with 36mA DC bias
  - 1000B-5061: 250uH with 27mA DC bias
  - 1000B-5062: 250uH with 36mA DC bias
- Operating temperature:
  - Normal: -40°C to +85°C
  - "X" Suffix: -55°C to +125°C
- Dielectric Withstanding Voltage (DWV):1500Vrms MAX
- Lead finish: Sn63Pb37 for leaded version
- Moisture Sensitivity Level: 3

Design Specifications

Part Number	Power (W Max)	Port	Current Rating Per pair (mA Max)	Package	Max Height (inch Max)
1000B-5059(X)	30	Single	600mA	24Pin	0.265
1000B-5060(X)	60	Single	1200mA	24Pin	0.410
1000B-5061(X)	90 (4-Pair)	Single	900mA	24Pin	0.410
1000B-5062(X)	60	Dual	1200mA	48Pin	0.295

Electrical Specifications @ 25° C

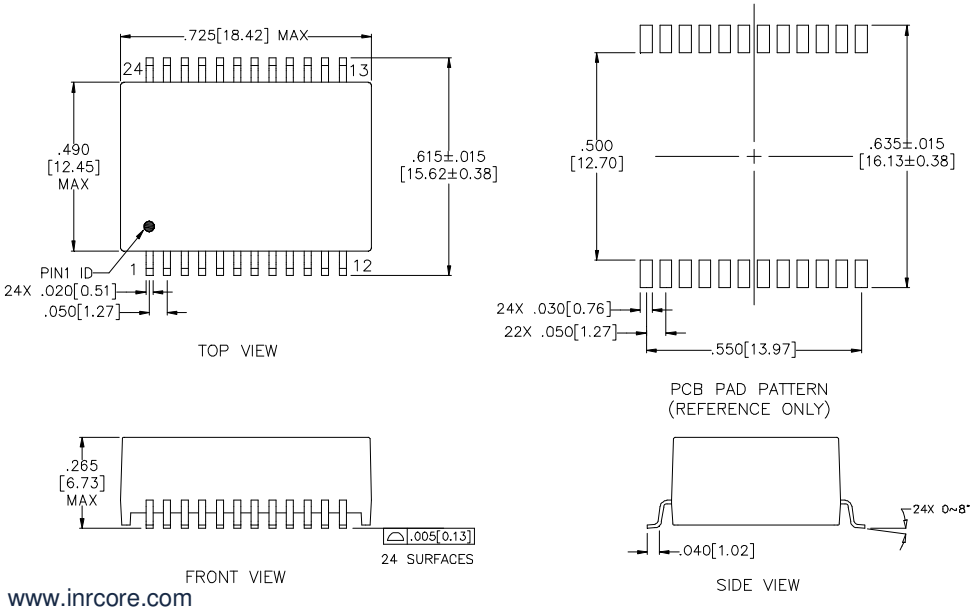
Part Number	Insertion Loss (dB Max)				Return Loss (dB Min)			Crosstalk (dB Min)				DM to CM Rejection Ratio (dB Min)		
	0.1 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	80 MHz	1 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz
1000B-5059	1.2	1.2	1.2	1.2	18	14	12	50	43	37	33	43	37	33
1000B-5059X	1.2	1.2	1.2	1.2	18	14	12	50	43	37	33	43	37	33
1000B-5060	1.2	1.2	1.2	1.2	18	12	10	50	43	37	33	43	37	33
1000B-5060X	1.2	1.2	1.2	1.2	18	12	10	50	43	37	33	43	37	33
1000B-5061	1.2	1.2	1.2	1.2	18	12	10	50	43	37	33	43	37	33
1000B-5061X	1.2	1.2	1.2	1.2	18	12	10	50	43	37	33	43	37	33
1000B-5062	1.2	1.2	1.2	1.2	18	12	10	50	43	37	33	43	37	33
1000B-5062X	1.2	1.2	1.2	1.2	18	12	10	50	43	37	33	43	37	33

Notes: 1. Add suffix "**NL**" for RoHS compliant version; i.e. 1000B-5059 becomes **1000B-5059NL**. NL parts have 100% SN Lead Finish.
2. For Tape & Reel packaging, add "**T**" suffix at the end of the part number for: i.e. **1000B-5059XNLT**).

Mechanical

1000B-5059(X)/60(X)

Dimensions: inches[mm]
Tolerances (unless otherwise specified): ±0.010[0.25]

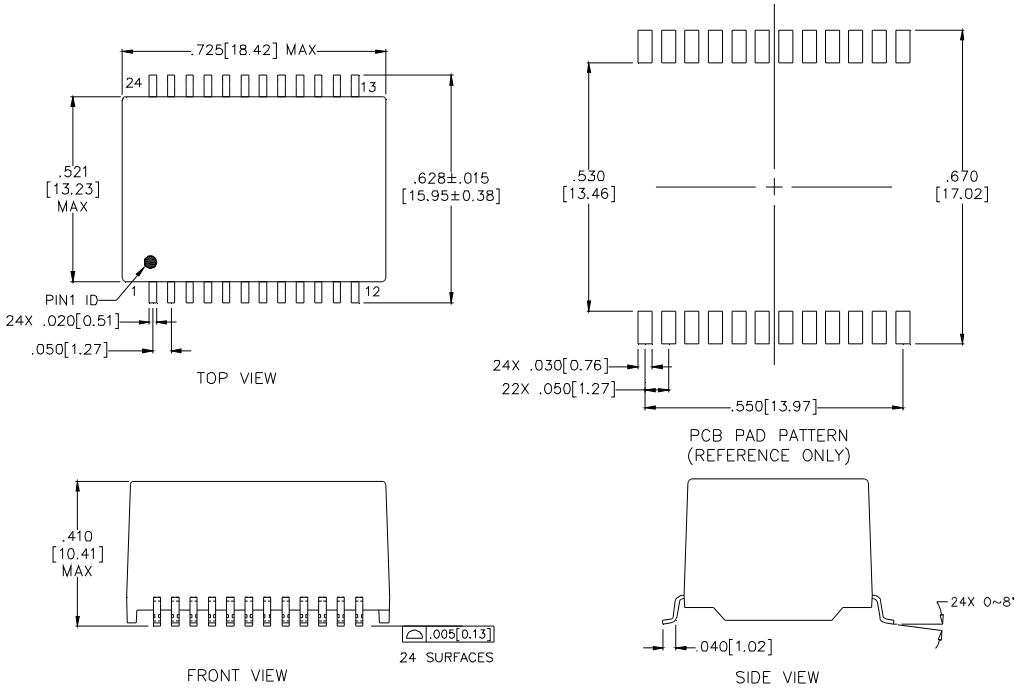


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Mechanical

1000B-5061

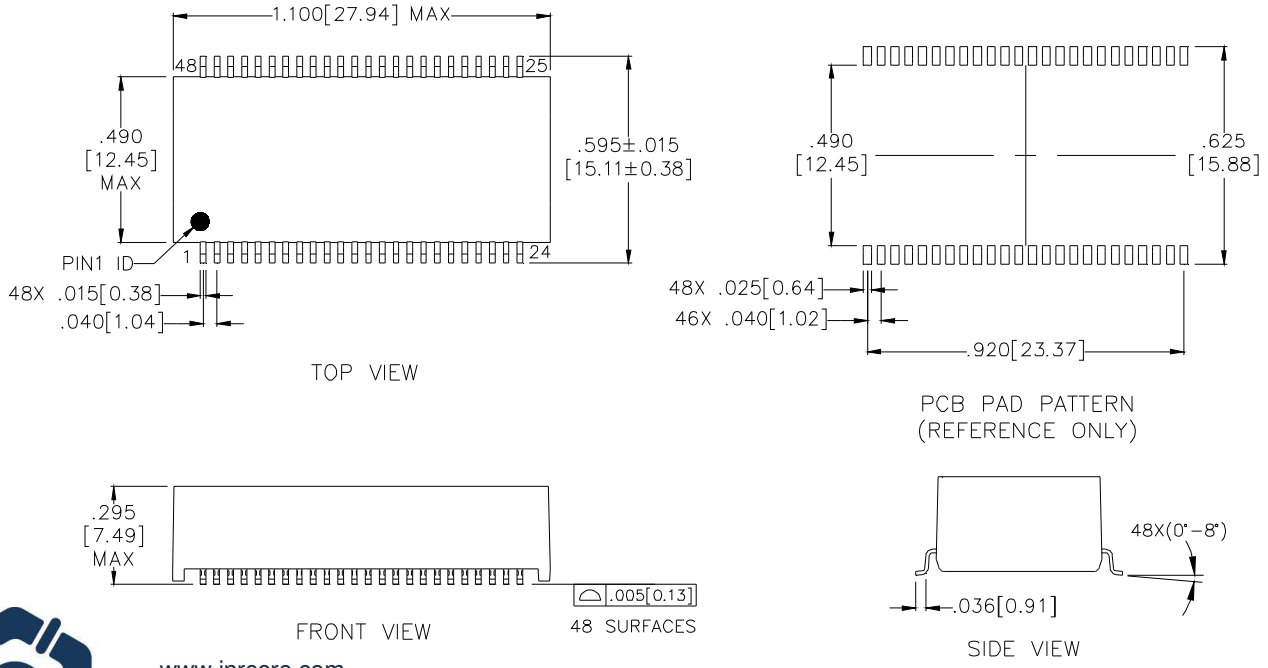
Dimensions: inches[mm]
Tolerances (unless otherwise specified): ±0.010[0.25]



Mechanical

1000B-5062

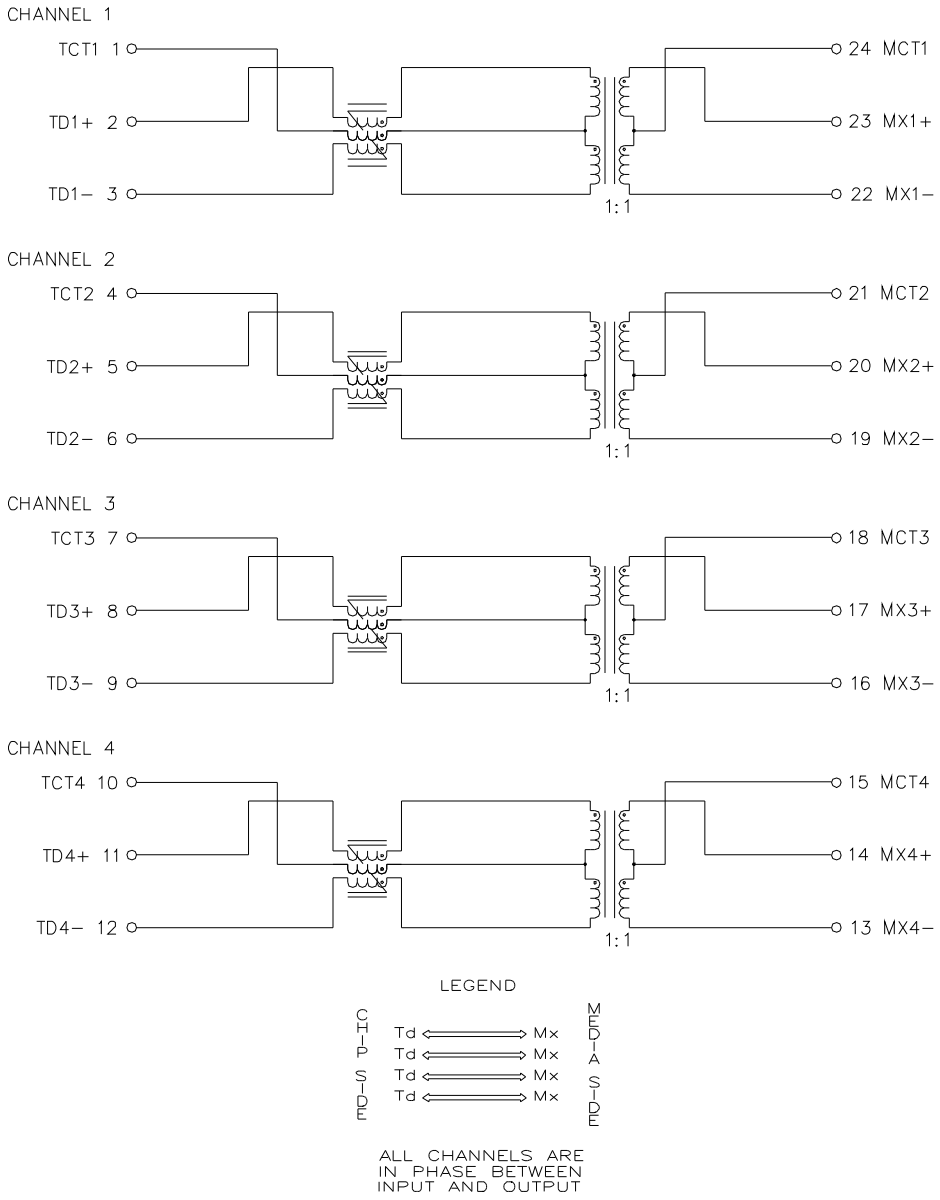
Dimensions: inches[mm]
Tolerances (unless otherwise specified): ±0.010[0.25]



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Electrical Schematic

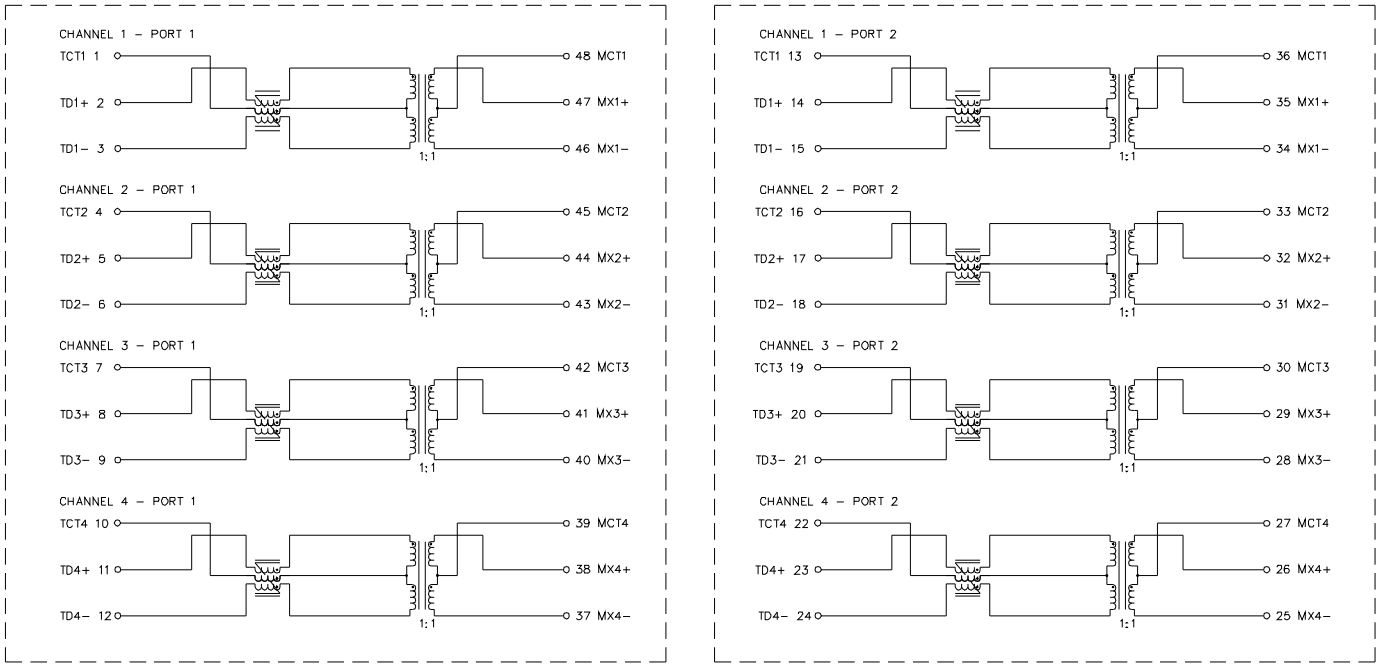
1000B-5059/60/61

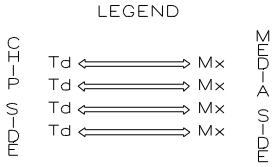


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Electrical Schematic

1000B-5062

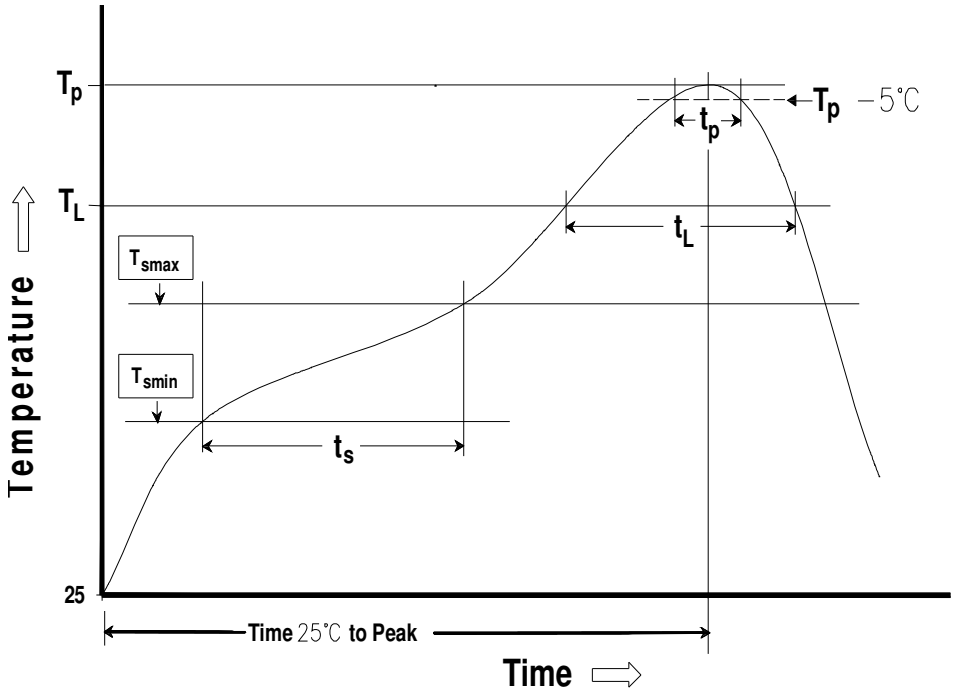




ALL CHANNELS ARE
IN PHASE BETWEEN
INPUT AND OUTPUT

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Tin/Lead Recommended Reflow Profile (Based on J−STD−020D)

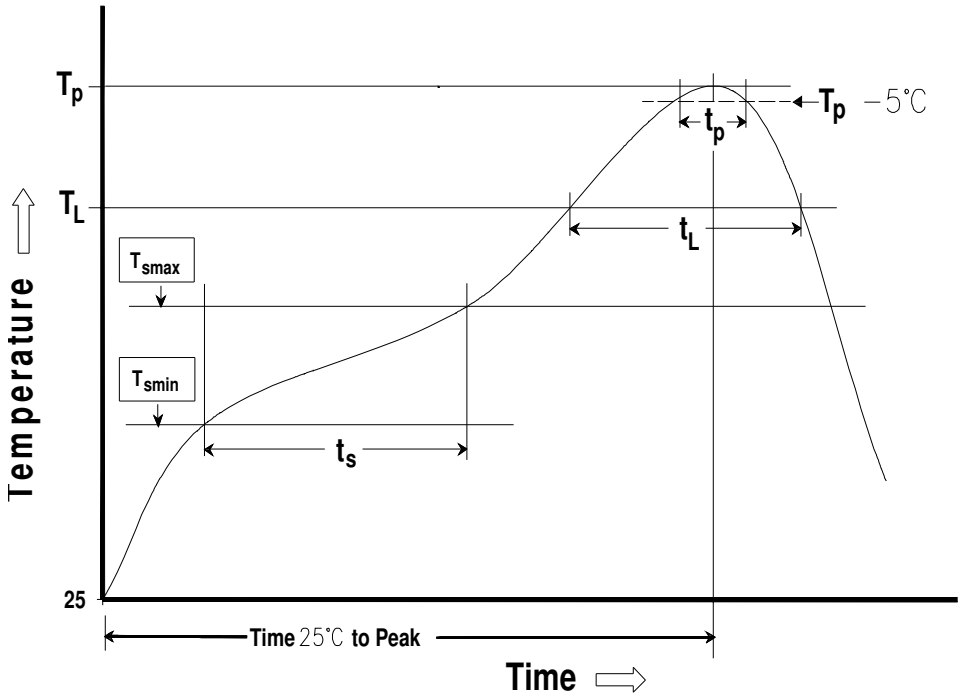


T_{SMIN} (°C)	T_{SMAX} (°C)	T_L (°C)	T_P (°C MAX)	t_S (s)	t_L (s)	t_P (s MAX)	Ramp-up rate (T_L to T_P)	Ramp-down rate (T_P to T_L)	Time 25°C to peak temperature (s MAX)
100	150	183	220	60-120	60-150	20	3°C/s MAX	6°C/s MAX	360

Notes:
1. All temperatures measured on the package leads.
2. Maximum number of reflow cycles not to exceed 2.

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Lead−Free Recommended Reflow Profile (Based on J−STD−020D)



T_{SMIN} (°C)	T_{SMAX} (°C)	T_L (°C)	T_P (°C MAX)	t_S (s)	t_L (s)	t_P (s MAX)	Ramp-up rate (T_L to T_P)	Ramp-down rate (T_P to T_L)	Time 25°C to peak temperature (s MAX)
150	200	217	245	60-120	60-150	30	3°C/s MAX	6°C/s MAX	480

Notes:
1. All temperatures measured on the package leads.
2. Maximum number of reflow cycles not to exceed 2.

For More Information

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