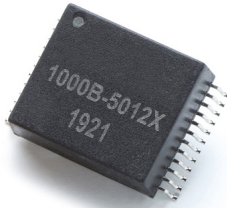


10/100/1000BASE-T SINGLE & DUAL PORT TRANSFORMER MODULES

Ruggedized



- Compliant with IEEE 802.3 standards
- 350µH OCL with 8mA bias at extended temperatures
- Storage Temperature: -55°C to +125°C
- Two Operating Temperature versions available:
 - Standard: -40°C to +85°C
 - Extended: -55°C to +125°C
- Moisture Sensitivity Level: 3
- Lead finish: Sn63/Pb37

Electrical Specifications @ 25°C

Part Number	Insertion Loss (dB MAX)				Return Loss (dB MIN)				Crosstalk (dB MIN)			DM to CM Rejection Ratio (dB MIN)			HiPot (Vrms)
	0.10 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	80 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz	
1000B-5009	1.4	1.4	1.4	1.4	18	12	10	8	43	37	31	40	35	30	1500
1000B-5009X	1.4	1.4	1.4	1.4	18	12	10	8	43	37	31	40	35	30	1500
1000B-5012	1.2	1.2	1.2	1.2	18	12	10	8	43	37	31	43	37	30	1500
1000B-5012X	1.4	1.4	1.4	1.4	18	12	10	8	43	37	31	43	37	30	1500
1000B-5014	1.4	1.4	1.4	1.4	18	12	10	8	43	37	31	43	37	30	1500
1000B-5014X	1.4	1.4	1.4	1.4	18	12	10	8	43	37	31	43	37	30	1500
1000B-5016	1.2	1.2	1.2	1.2	18	12	12	10	43	37	31	43	35	30	1500
1000B-5016X	1.2	1.2	1.2	1.2	18	12	12	10	43	37	31	43	35	30	1500

NOTES:

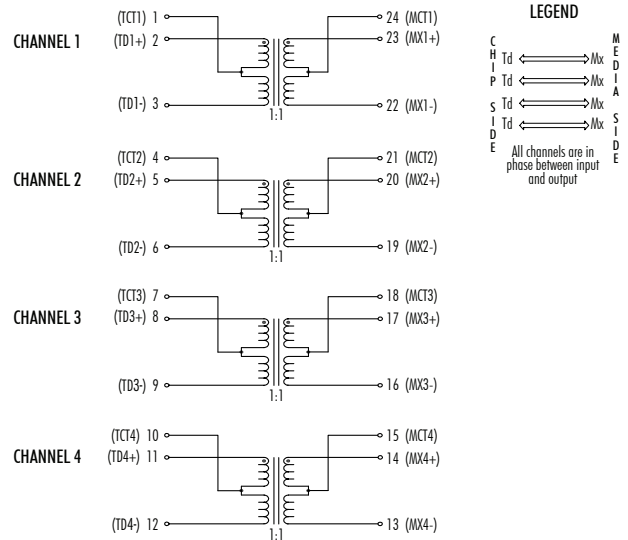
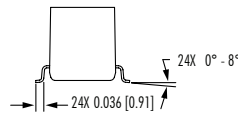
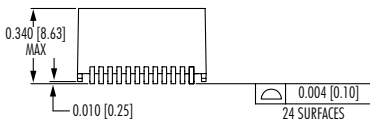
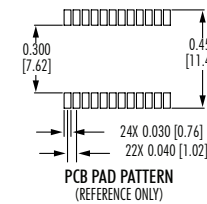
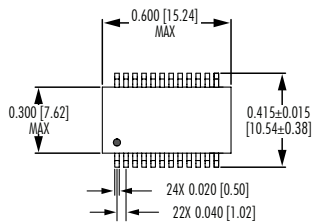
- Add suffix "NL" for RoHS compliant version; i.e. 1000B-5009 becomes 1000B-5009NL. NL parts have 100% SN Lead Finish.
- For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. 1000B-5009NLT.
- Add suffix "X" for extended temperature version; i.e. 1000B-5009 becomes 1000B-5009X.

Mechanicals

Electrical Schematics

1000B-5009/X

Dimensions: inch [mm]
Tolerance (unless otherwise specified): ±0.010 [0.25]



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

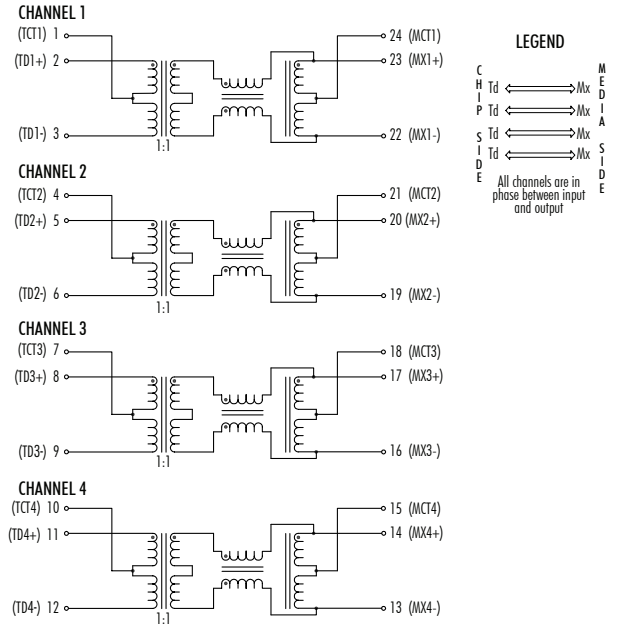
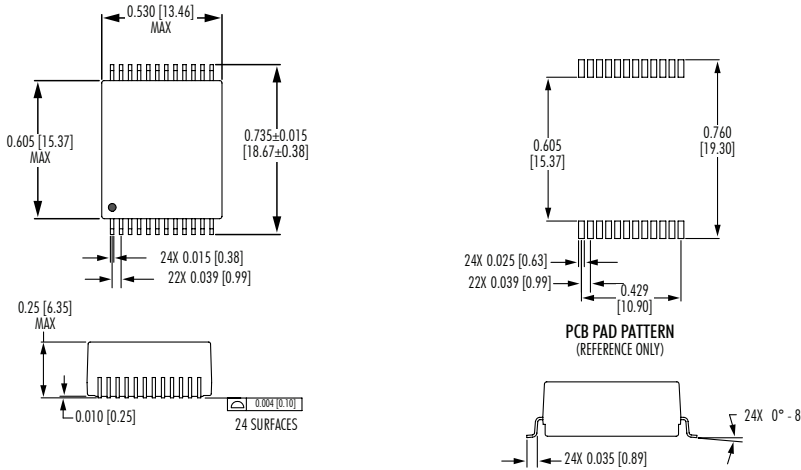
Ruggedized

Mechanicals

Electrical Schematics

1000B-5012/X

Dimensions: inch [mm]
Tolerance (unless otherwise specified): ± 0.010 [0.25]

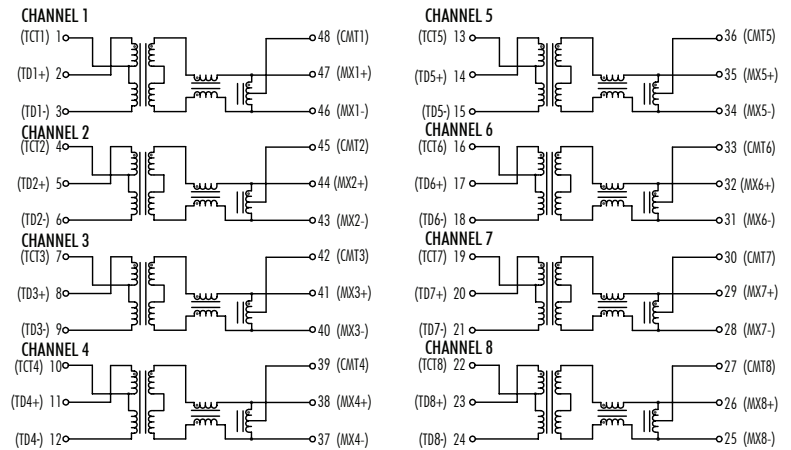
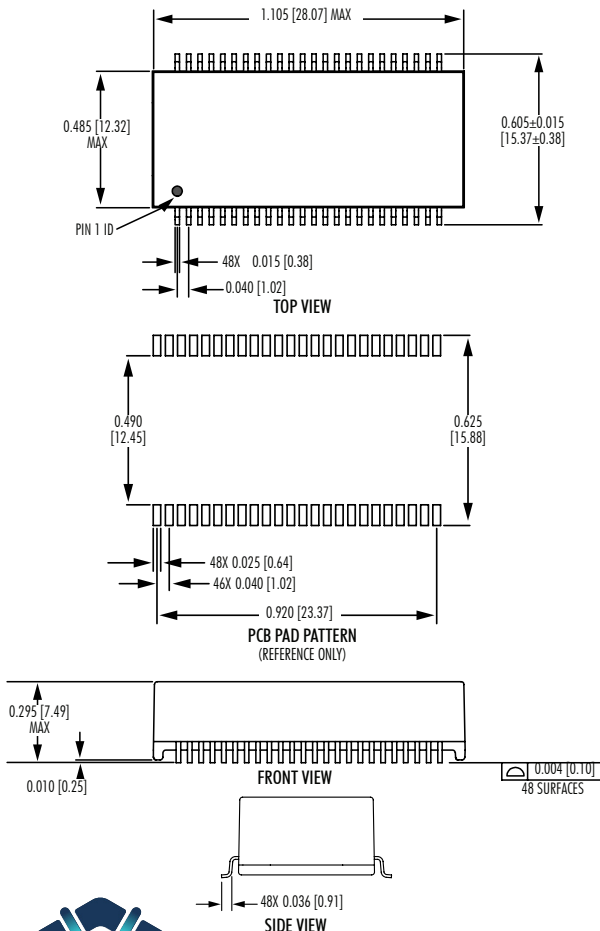


Mechanicals

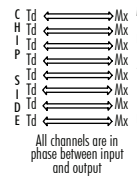
Electrical Schematics

1000B-5014/X

Dimensions: inch [mm]
Tolerance (unless otherwise specified): ± 0.010 [0.25]



LEGEND



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

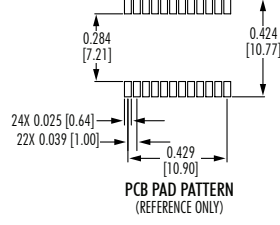
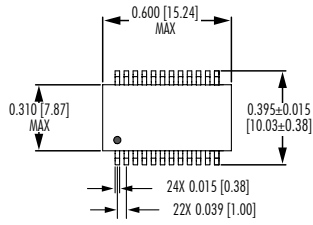
Ruggedized

Mechanicals

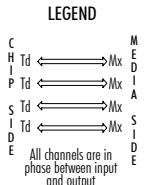
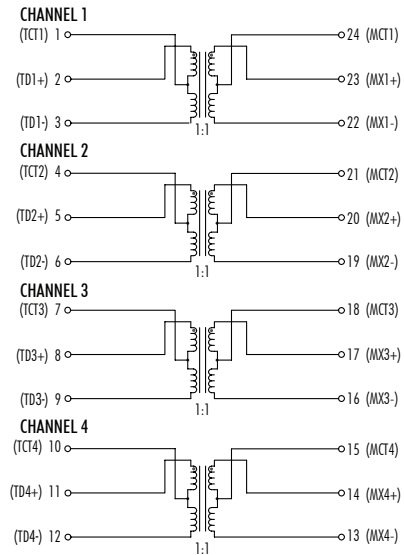
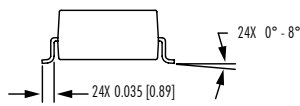
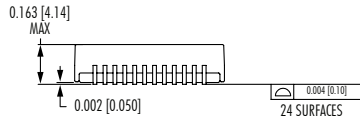
Electrical Schematics

1000B-5016/X

Dimensions: inch [mm]
Tolerance (unless otherwise specified): ±0.010 [0.25]



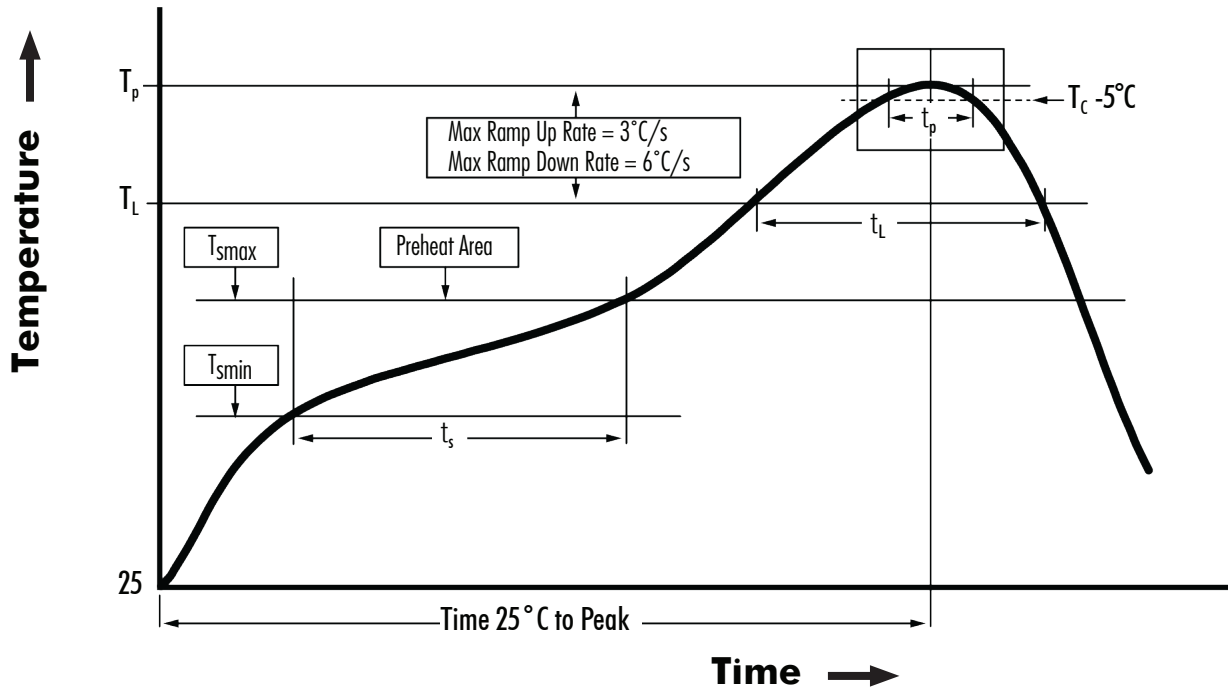
PCB PAD PATTERN
(REFERENCE ONLY)



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

Ruggedized

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)
Tin/Lead Profile									
100	150	183	235	60 - 120	60 - 150	20	3°C/s MAX	6°C/s MAX	360
Non-Lead Profile									
150	200	217	245	60 - 120	60 - 150	30	3°C/s MAX	6°C/s MAX	480
1000B-5016 - Tin/Lead Profile									
100	150	183	225	60 - 120	60 - 150	20	3°C/s MAX	6°C/s MAX	360
1000B-5016 - Non-Lead Profile									
150	200	217	240	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.
3. Reflow cycle applies only to surface mount parts.



iNRCORE, LLC
 311 Sinclair Road, Bristol, PA 19007-6812 USA
 Tel: +1.215.781.6400 Fax: +1.215.781.6430

www.iNRCORE.com

M557.D (21AUG23)

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