

# 10/100BASE-T SINGLE PORT TRANSFORMER MODULES

Industrial grade



- ⊗ Compliant with IEEE 802.3 standards
- ⊗ 350µH OCL with 8mA DC bias at 100KHz 100mV
- ⊗ Lead finish: Pure tin
- ⊗ Moisture Sensitivity Level: 1

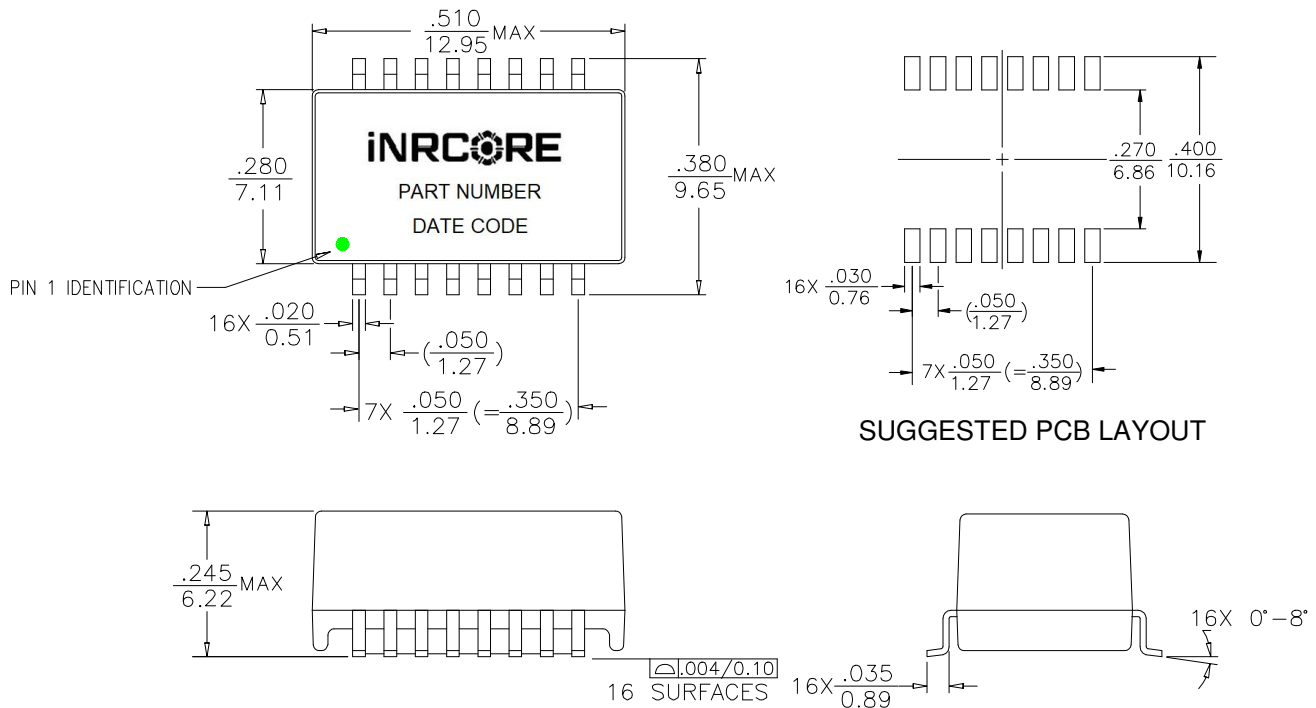
## Electrical Specifications @ 25 °C – Operating Temperature – 40 °C to +85 °C

Part Number	Insertion Loss (dB MAX)	Return Loss (dB MIN)					Crosstalk (dB MIN)				Differential to Common Mode Rejection (dB MIN)			Dielectric Withstanding Voltage @60s (Vrms MIN)
	0.1-100 MHz	5 MHz	30 MHz	50 MHz	60 MHz	80 MHz	1 MHz	30 MHz	60 MHz	80 MHz	30 MHz	60 MHz	100 MHz	
R1003NL	-1.0	-18	-16	-12	-11	-10	-62	-45	-40	-35	-42	-37	-32	1500

Notes: For Tape & Reel Packaging, add "T" suffix at the end of the part number; i.e. R1003NLT.

## Mechanical

R1003NL



Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

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



# 10/100BASE-T SINGLE PORT TRANSFORMER MODULES

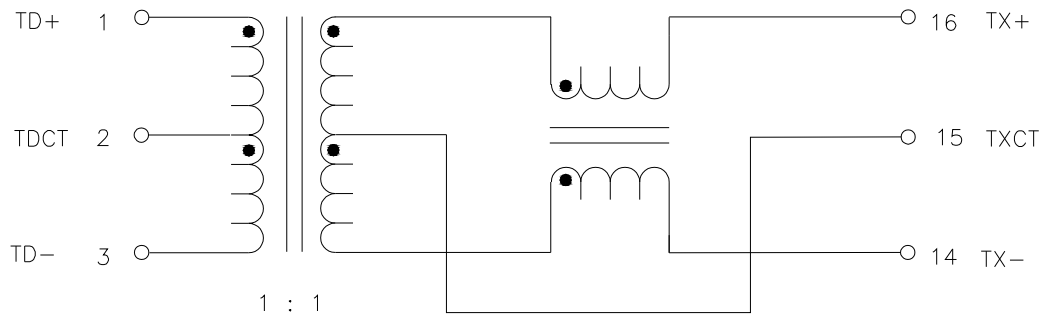
Industrial grade



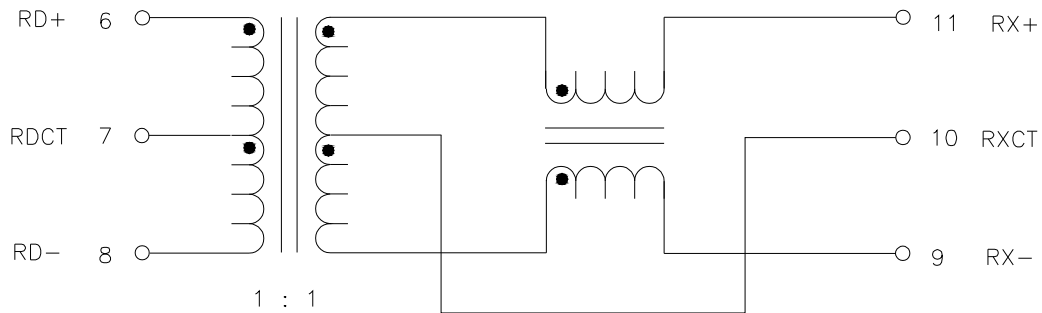
## Electrical Schematic

R1003NL

TRANSMIT



RECEIVE



SCHEMATIC

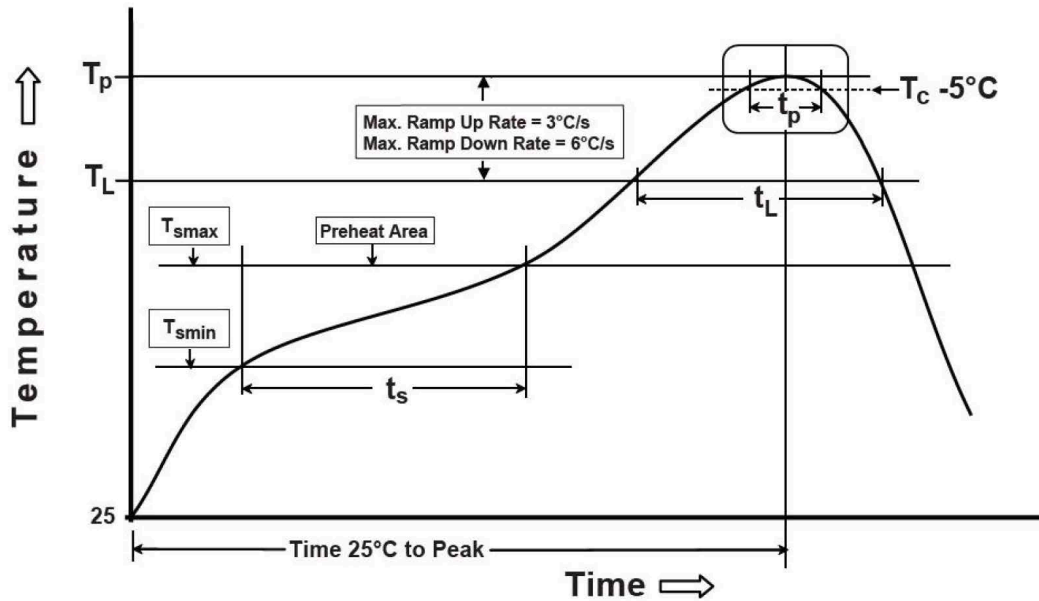


# 10/100BASE-T SINGLE PORT TRANSFORMER MODULES

Industrial grade



## Non-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)
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 times of reflow cycle: 2.

### For More Information

**iNRCORE, LLC**  
311 Sinclair Road Bristol,  
PA 19007-6812 U.S.A  
Tel: + 1.215.781.6400  
Fax: +1.215.7816430

**Dongguan iNRCORE Co. Ltd**  
No.7, An Li Road, Changan Town,  
Dongguan City, China  
Tel: +0769 8165 9962

**Global Sales Representatives and Locations:**  
<http://www.incore.com>

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2020. iNRCORE, LLC. All rights reserved.

