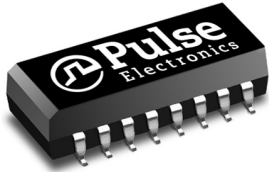


# 10/100 Base-T Single Port Transformer Modules

With 1:1 Transmit Turns Ratios



- RoHS peak reflow temperature rating: 245°C
- Compatible with Broadcom, Intel, Microtel, National Semiconductor, ICS, and TDK Transceivers
- Meets IEEE 802.3 specification

## Electrical Specifications @ 25°C - Operating Temperature 0°C to 70°C

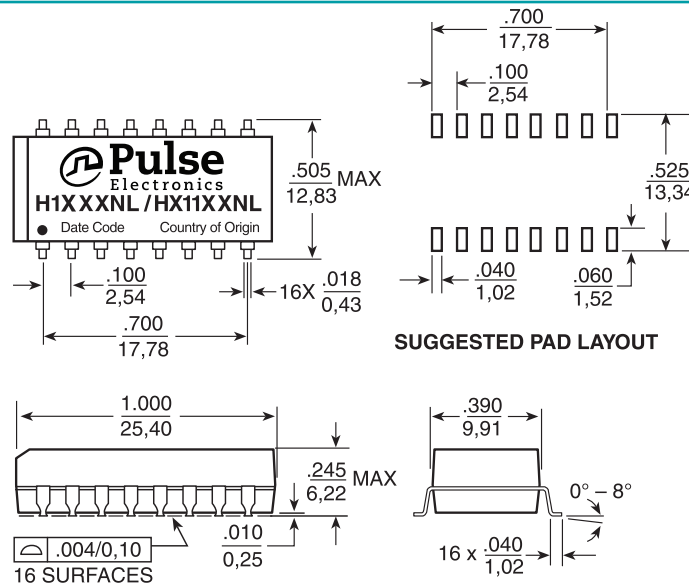
RoHS Compliant Part Number <sup>3</sup>	Insertion Loss (dB MAX)	Return Loss (dB MIN @ 100 Ω)				Differential to Common Mode Rejection (dB MIN)			Crosstalk (dB TYP)			Hipot (Vrms MIN)
		0.1-100 MHz	1-30 MHz	40 MHz	50 MHz	60-80 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	
H1012NL <sup>4d</sup>	-1.0	-20	-20	-18	-14	-42	-36	-33	-50	-40	-40	1500
H1086NL <sup>4c</sup>	-1.0	-22	-20	-18	-12	-45	-40	-35	-50	-40	-40	1500
HX1148NL <sup>1,4d</sup>	-1.5	-18	-13.5	-11.5	-10	-42	-37	-33	-50	-40	-40	1500

### Notes:

1. HX = Operating temperature: -40 + 85 C.
2. Unless specified, operating temperature is 0° to 70° C.
3. When ordering Tape & Reel packaging, add a "T" suffix to the end of the part number, e.g. H1012NLT.
4. MSL = Moisture Sensitivity Level: a= 1, b= 2, C= 3, d= 4

## Mechanical

H1012NL, H1086NL, HX1148NL



Weight .....3.0 grams

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

USA 858 674 8100

Germany 49 7032 7806 0

Singapore 65 6287 8998

Shanghai 86 21 62787060

China 86 755 33966678

Taiwan 886 3 4356768

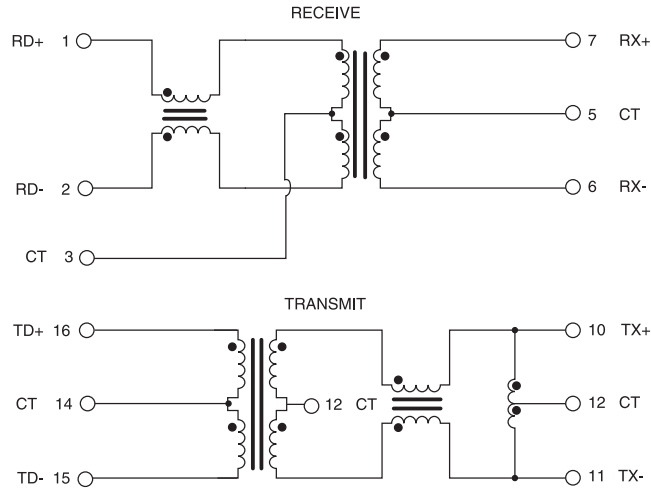
# 10/100 Base-T Single Port Transformer Modules

With 1:1 Transmit Turns Ratios



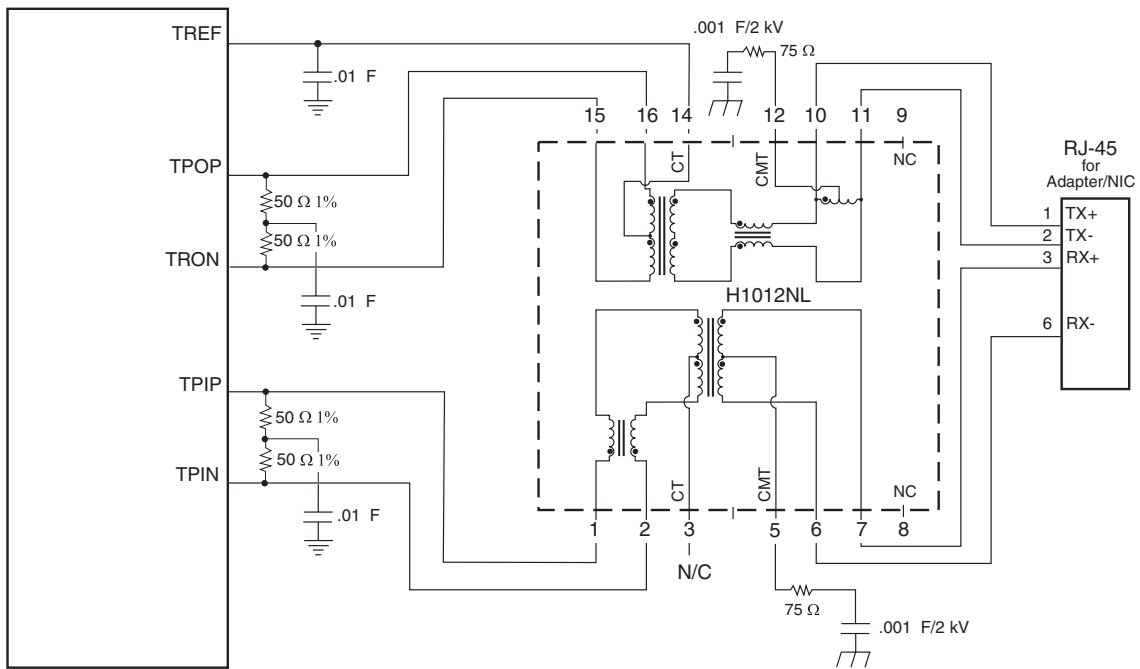
## Schematic

H1012NL, H1086NL, HX1148NL



## Typical Application Circuits

H1012NL, H1086NL, HX1148NL

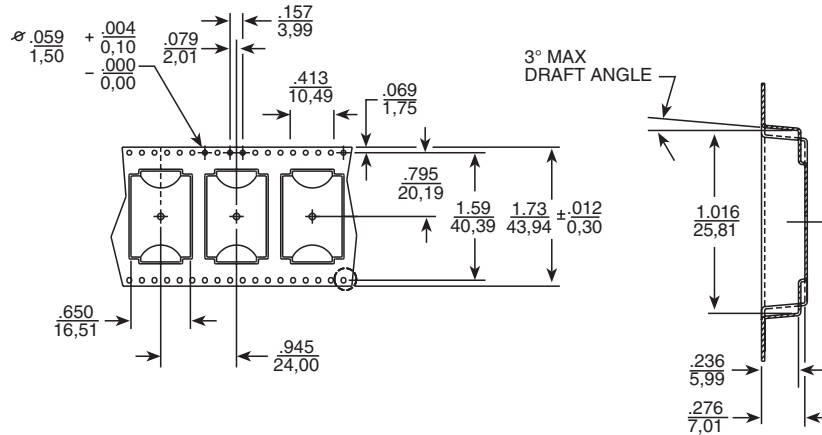


# 10/100 Base-T Single Port Transformer Modules

With 1:1 Transmit Turns Ratios

## Tape & Reel Specifications

H1012NL, H1086NL, HX1148NL



Weight .....3.0 grams  
 Tube .....20/tube  
 Tape & Reel .....300/reel

## For More Information

**Pulse Worldwide Headquarters**  
 12220 World Trade Drive  
 San Diego, CA  
 92128  
 U.S.A.

Tel: 858 674 8100  
 Fax: 858 674 8262

**Pulse Europe**  
 Einsteinstrasse 1  
 D-71083 Herrenberg  
 Germany

Tel: 49 7032 78060  
 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)

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, 2013. Pulse Electronics, Inc. All rights reserved.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Pulse:

[HX1148T](#) [HX1148NL](#) [H1012](#) [H1012NL](#) [H1012NLT](#) [HX1148NLT](#)