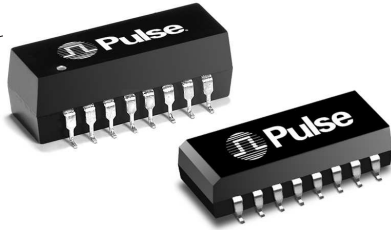
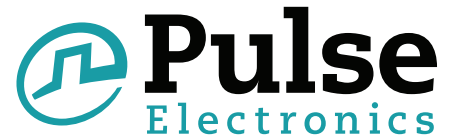


# 10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

With 1:1 Transmit Turns Ratios



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

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

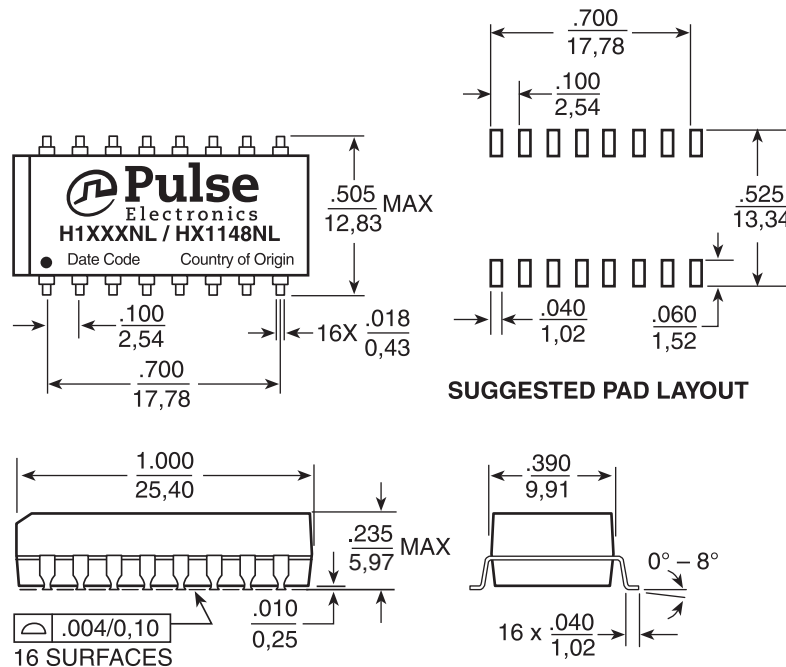
RoHS Compliant Part Number	Insertion Loss (dB MAX)	Return Loss (dB MIN @ 100 Ω)				Differential to Common Mode Rejection (dB MIN)			Crosstalk (dB TYP)			Hipot (Vrms MIN)
		0.1-100 MHz	1-30 MHz	40 MHz	50 MHz	60-80 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	
H1012NL <sup>4d</sup>	-1.0	-20	-20	-18	-14	-42	-36	-33	-50	-40	-40	1500
H1086NL <sup>4c</sup>	-1.0	-22	-20	-18	-12	-45	-40	-35	-50	-40	-40	1500
H1138NL <sup>4a</sup>	-0.8	-18	-16	-14	-12	42	-37	-33	-50	-40	-40	1500
HX1148NL <sup>1,4d</sup>	-1.5	-18	-13.5	-11.5	-10	-42	-37	-33	-50	-40	-40	1500

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.

## Mechanicals

### H1012NL, H1086NL, H1138NL, HX1148NL



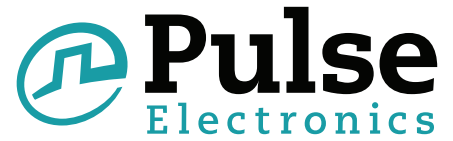
Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

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

Weight . . . . . 3.0 grams

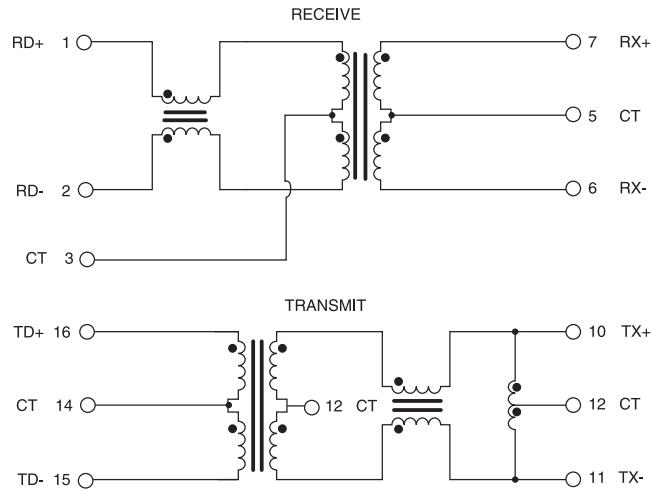
# 10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

With 1:1 Transmit Turns Ratios



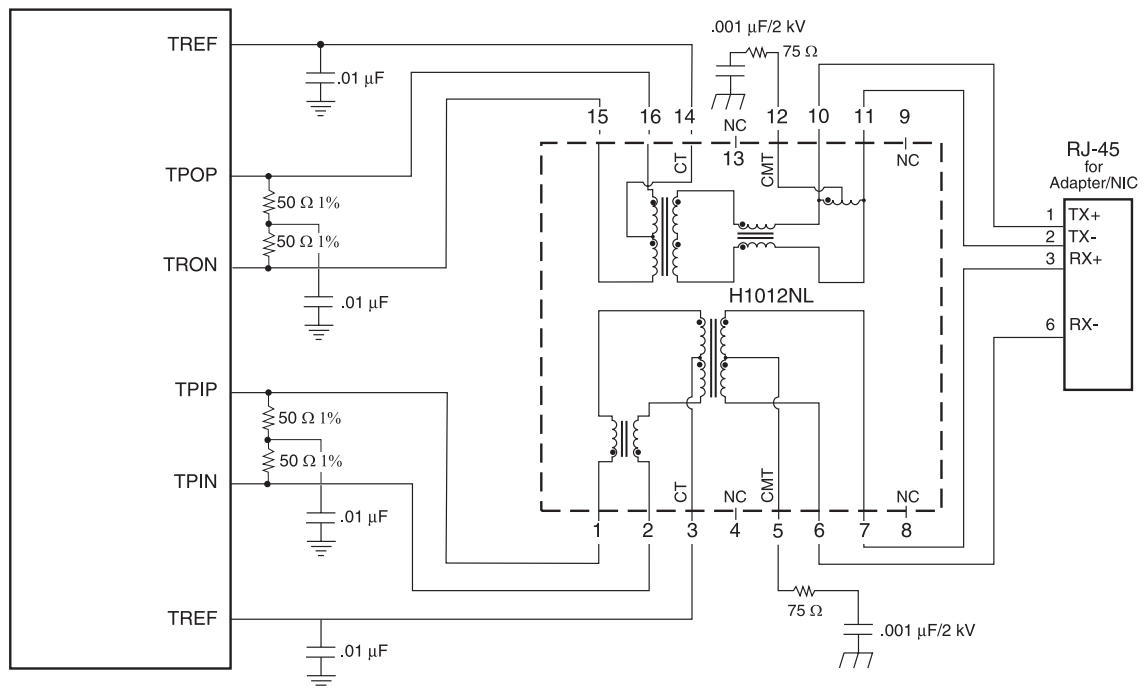
## Schematics

### H1012NL, H1086NL, HX1148NL, H1138NL



## Typical Application Circuits

### H1012NL, H1138NL, HX1148NL, H1138NL

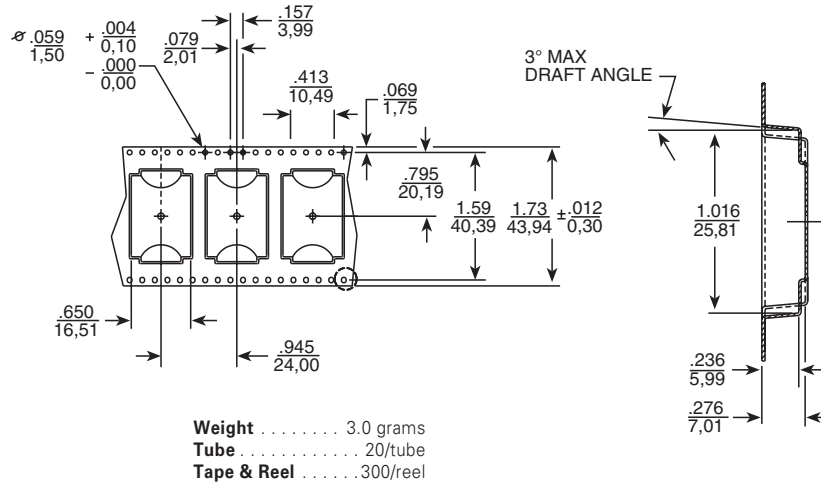


# 10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

With 1:1 Transmit Turns Ratios

## Tape & Reel Specifications

**HX1148NL, H1086NL, H1138NL, HX1148NL**



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