



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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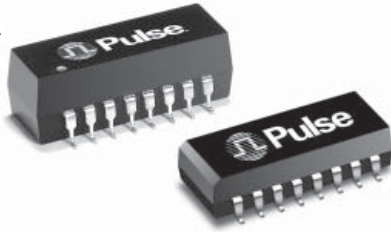
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10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

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

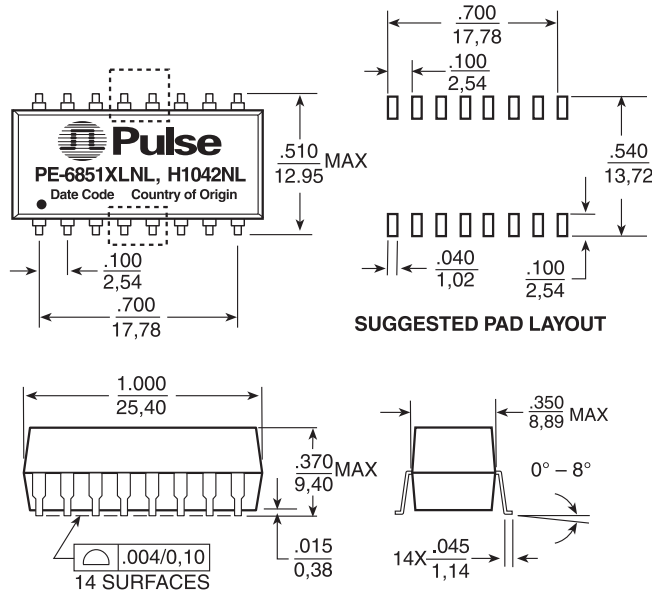
Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

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 ^{4d}	-1.0	-20	-20	-18	-14	-42	-36	-33	-50	-40	-40	1500
H1019NL ^{4c}	-1.0	-20	-18	-18	-14	-45	-40	-35	-45	-40	-35	1500
H1042NL ^{4c}	-1.0	-16	-13.5	-11.5	-10	-45	-40	-35	-40	-38	-35	1500
H1086NL ^{4c}	-1.0	-22	-20	-18	-12	-45	-40	-35	-50	-40	-40	1500
H1089NL ^{4c}	-1.0	-22	-20	-18	-12	-42	-38	-32	-50	-40	-40	1500
H1138NL ^{4a}	-0.8	-18	-16	-14	-12	-42	-37	-33	-50	-40	-40	1500
HX1148NL ^{2,4d}	-1.5	-18	-13.5	-11.5	-10	-42	-37	-33	-50	-40	-40	1500
HX1178NL ^{2,4d}	-1.5	-18	-13.5	-11.5	-10	-42	-37	-33	-50	-40	-40	1500
PE-68515LNL ^{4d}	-1.0	-18	-18	-16	-12	-50	-45	-40	-55	-50	-50	1500
PE-68517LNL ^{4d}	-1.0	-18	-16	-15	-12	-45	-40	-35	-50	-40	-40	1500
H1338NL ^{4a}	-1.1	-18	-16	-14	-12	-42	-37	-35	-40	-40	-35	1500

1. Rise time optimized for National's DP83843.
2. Operating temperature: -40°+ 85°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

PE-68515LNL, PE-68517LNL, H1042NL



Weight 3.5 grams
 Tube 20/tube
 Tape & Reel 160/reel

10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

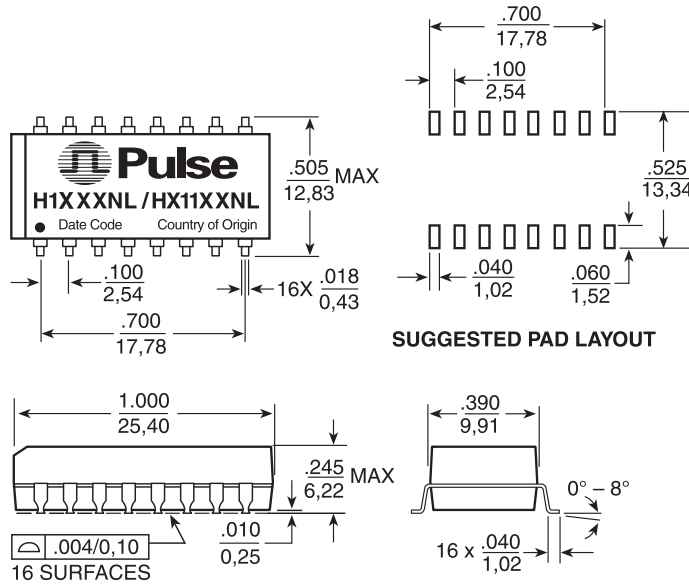
With 1:1 Transmit Turns Ratios



Mechanicals (continued)

H1012NL, H1019NL, H1086NL, H1089NL, H1138NL

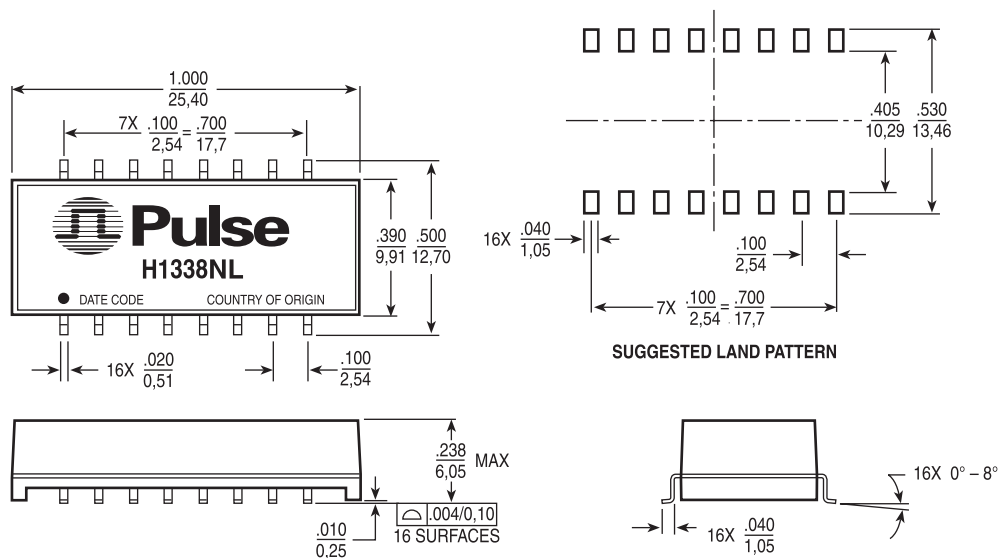
HX1148NL, HX1178NL



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

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

H1338NL



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

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

10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

With 1:1 Transmit Turns Ratios

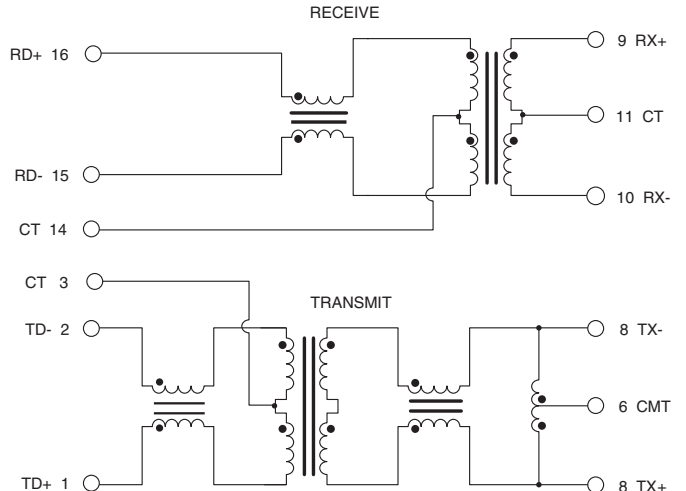
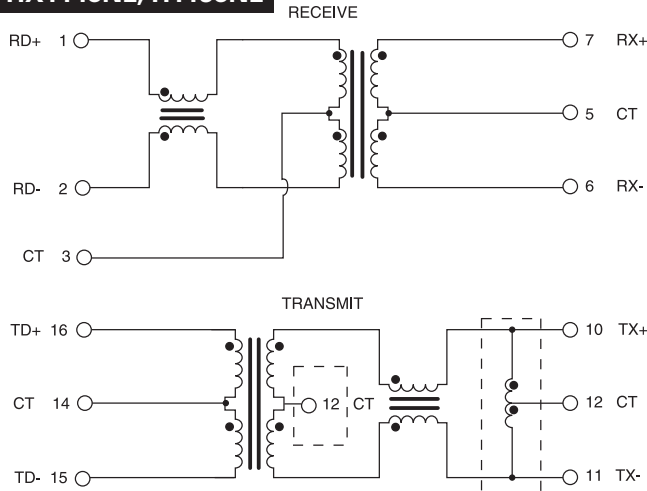


Schematics

PE-68515LNL, H1012NL, H1086NL, H1089NL

PE-68517LNL, H1019NL

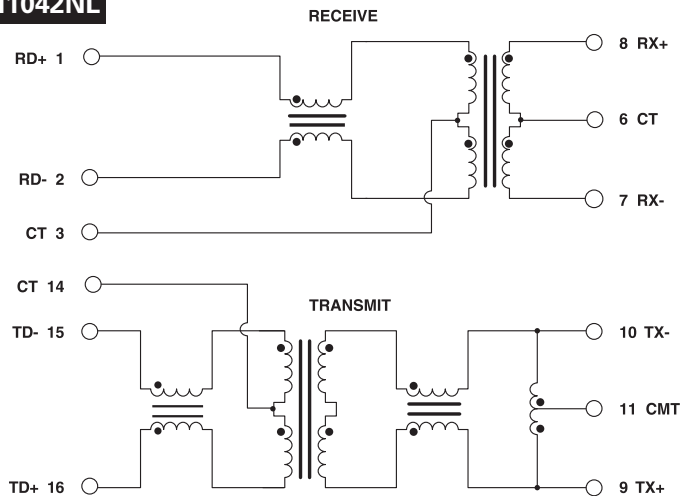
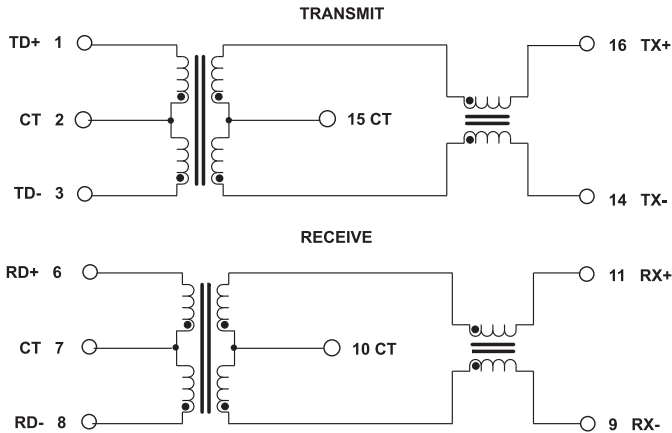
HX1148NL, H1138NL



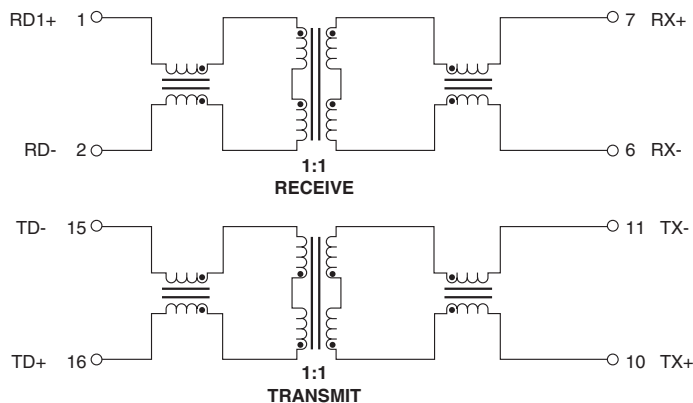
Center-tapped inductor not included in H1089. So, pin 12 connects to the transformer center tap.

HX1178NL

H1042NL



H1338NL



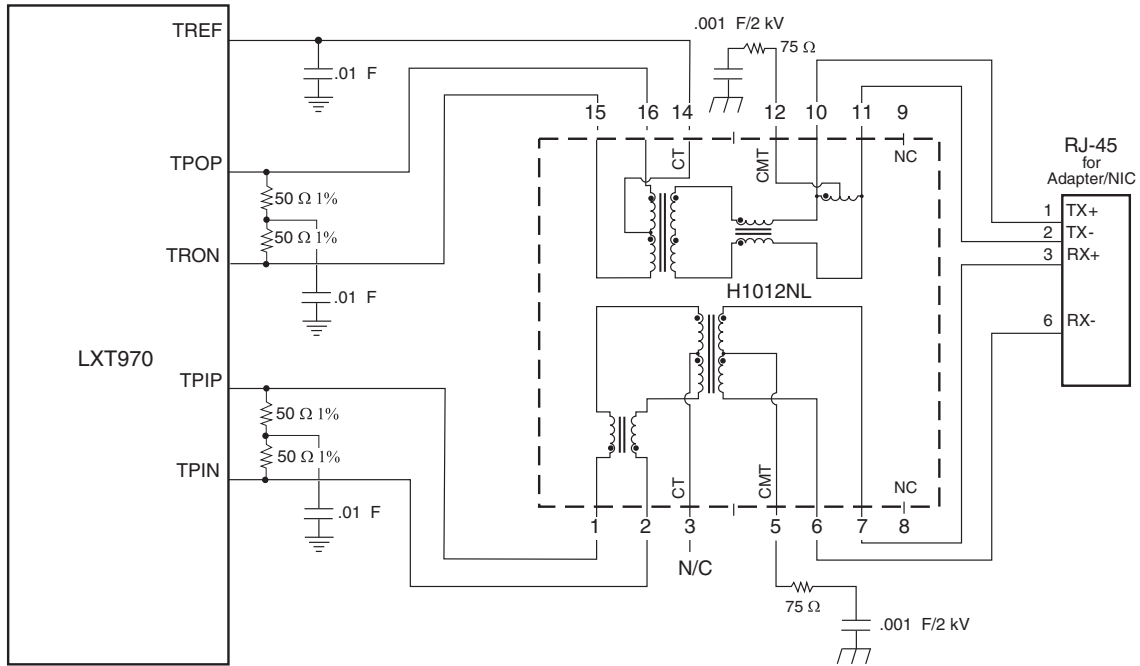
10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

With 1:1 Transmit Turns Ratios

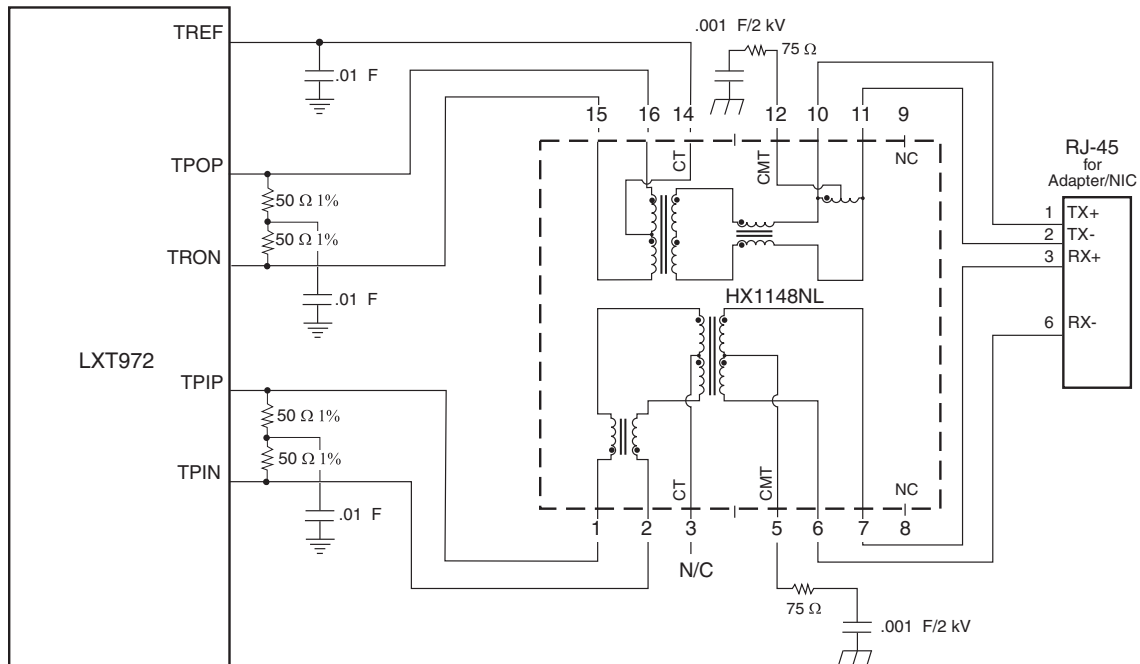


Typical Application Circuits

H1012NL, H1138NL



HX1148NL



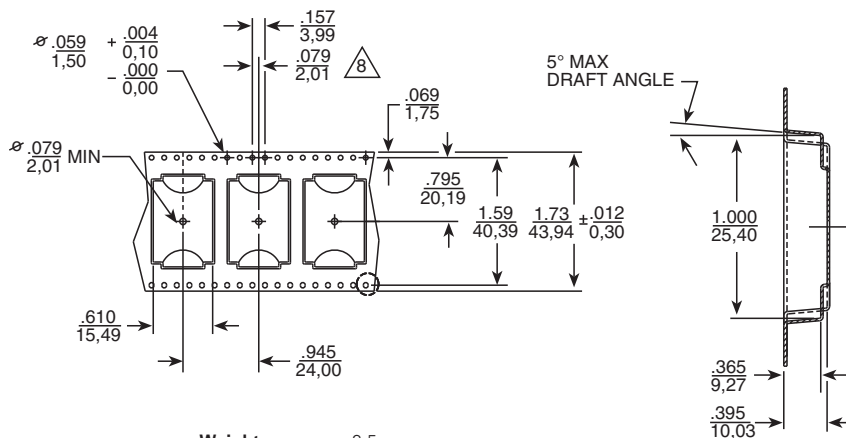
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Tape & Reel Specifications

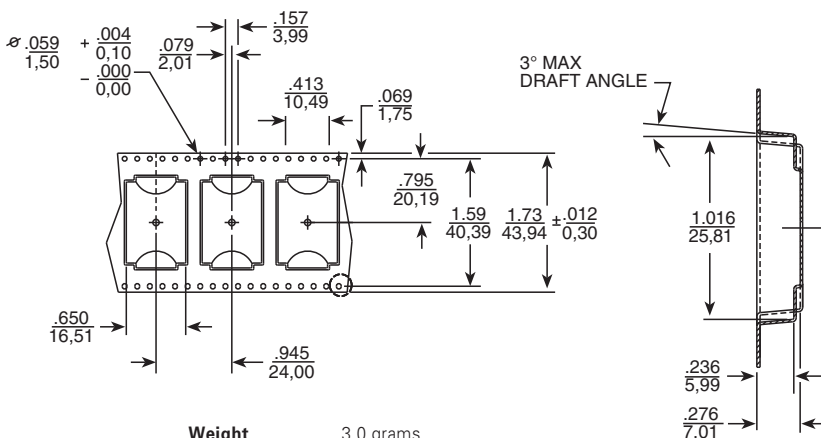
PE-68515LNL, PE-68517LNL, H1042NL



Weight 3.5 grams
 Tube 20/tube
 Tape & Reel 160/reel

H1012NL, H1019NL, H1086NL, H1089NL, H1138NL,

H1338NL, HX1148NL, HX1178NL



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

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