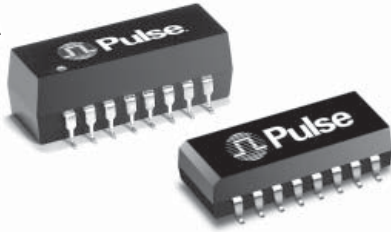


10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

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

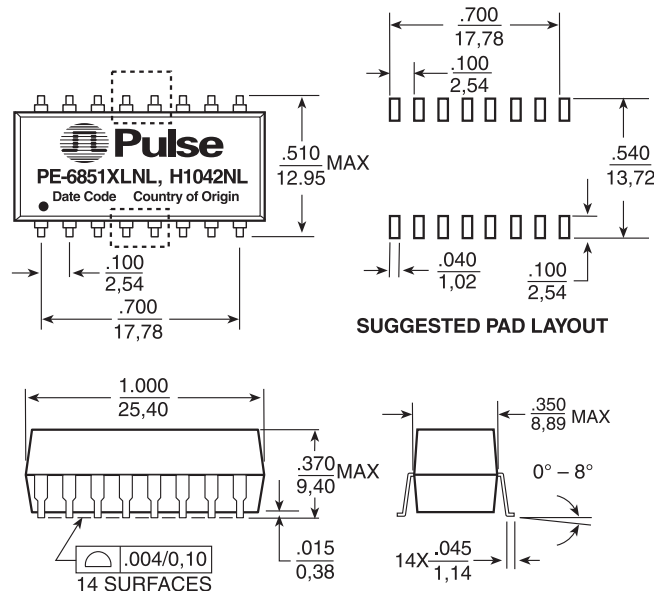
Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

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	100 MHz	
H1012NL ^{4d}	-1.0	-20	-20	-18	-14	-42	-36	-33	-50	-40	-40	-40	1500
H1019NL ^{4c}	-1.0	-20	-18	-18	-14	-45	-40	-35	-45	-40	-35	-35	1500
H1042NL ^{4c}	-1.0	-16	-13.5	-11.5	-10	-45	-40	-35	-40	-38	-35	-35	1500
H1086NL ^{4c}	-1.0	-22	-20	-18	-12	-45	-40	-35	-50	-40	-40	-40	1500
H1089NL ^{4c}	-1.0	-22	-20	-18	-12	-42	-38	-32	-50	-40	-40	-40	1500
H1138NL ^{4a}	-0.8	-18	-16	-14	-12	42	-37	-33	-50	-40	-40	-40	1500
HX1148NL ^{2, 4d}	-1.5	-18	-13.5	-11.5	-10	-42	-37	-33	-50	-40	-40	-40	1500
HX1178NL ^{2, 4d}	-1.5	-18	-13.5	-11.5	-10	-42	-37	-33	-50	-40	-40	-40	1500
PE-68515LNL ^{4d}	-1.0	-18	-18	-16	-12	-50	-45	-40	-55	-50	-50	-50	1500
PE-68517LNL ^{4d}	-1.0	-18	-16	-15	-12	-45	-40	-35	-50	-40	-40	-40	1500
H1338NL ^{4a}	-1.1	-18	-16	-14	-12	-42	-37	-35	-40	-40	-35	-35	1500

- Rise** time optimized for National's DP83843.
- Operating** temperature: -40°+ 85°C.
- When** ordering Tape & Reel packaging, add a "T" suffix to the end of the part number, e.g. H1012NLT
- 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

Pulse
A TECHNITROL COMPANY

HX1148NL, HX1178NL



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

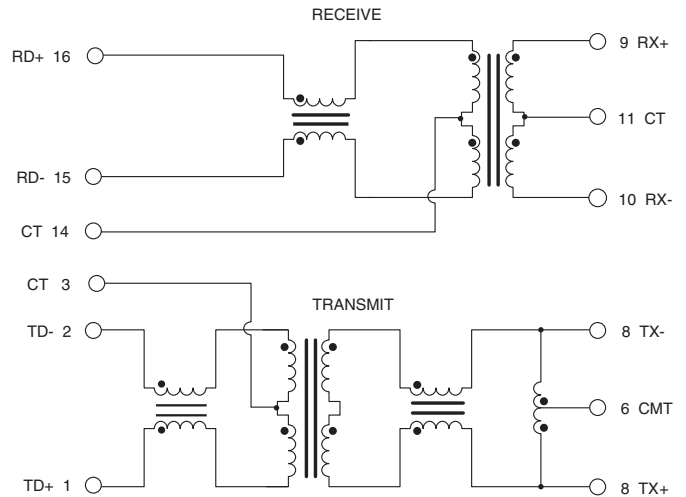
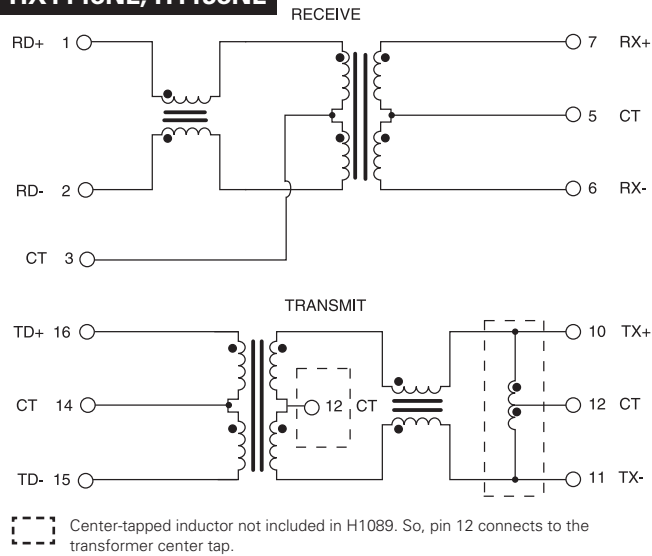


Schematics

PE-68515LNL, H1012NL, H1086NL, H1089NL

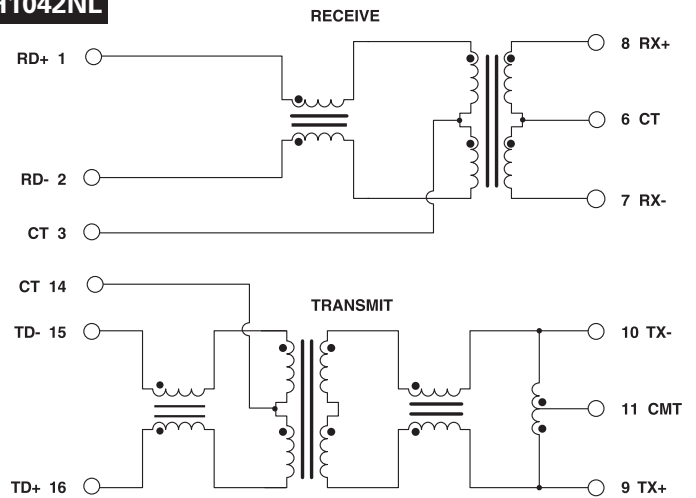
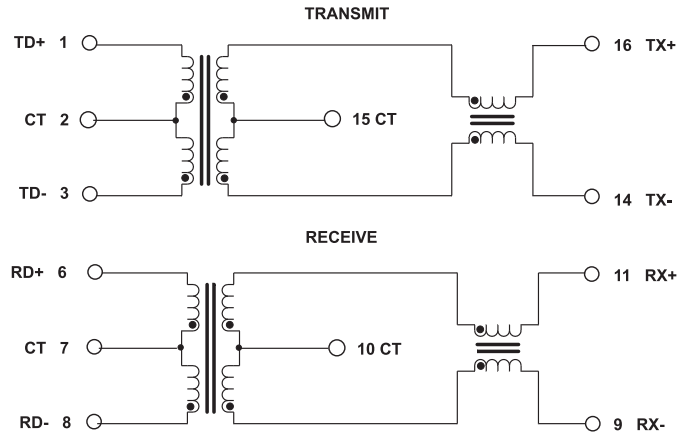
PE-68517LNL, H1019NL

HX1148NL, H1138NL

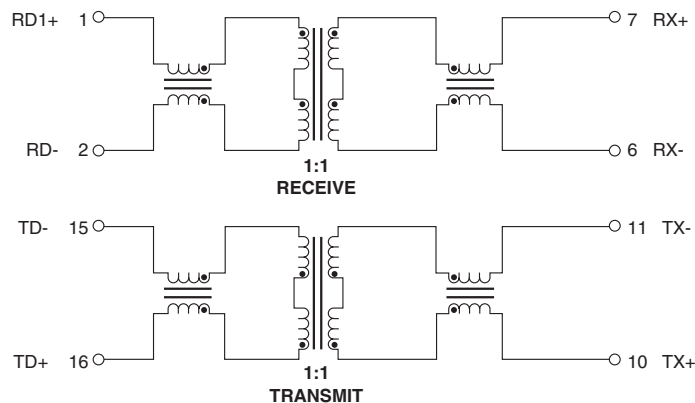


HX1178NL

H1042NL



H1338NL



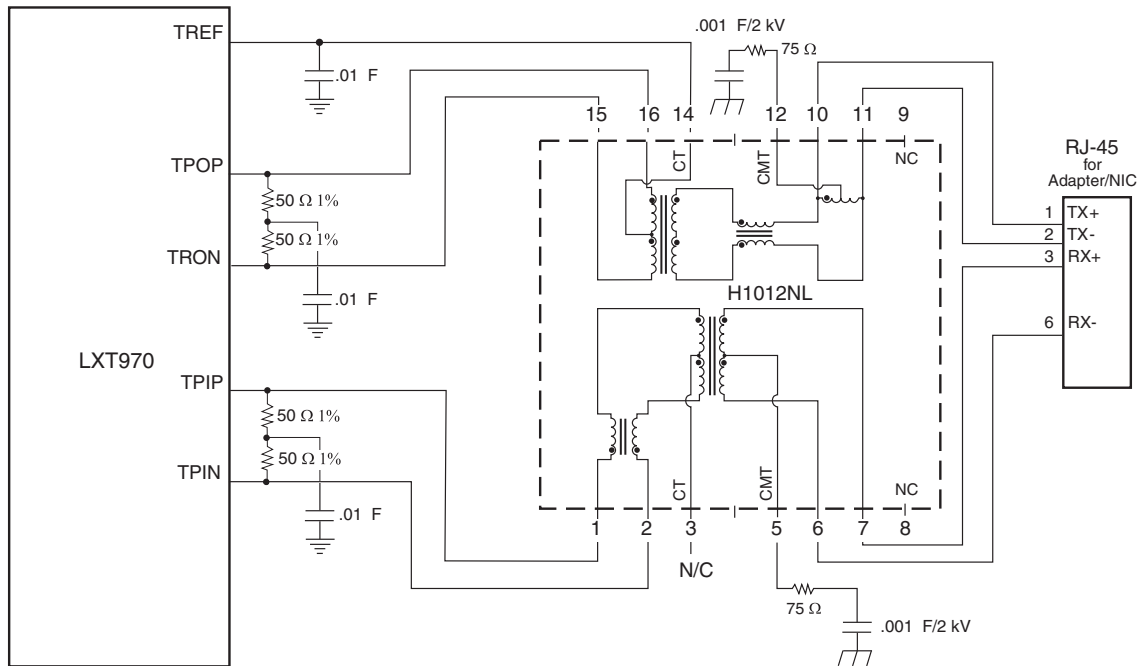
10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

With 1:1 Transmit Turns Ratios

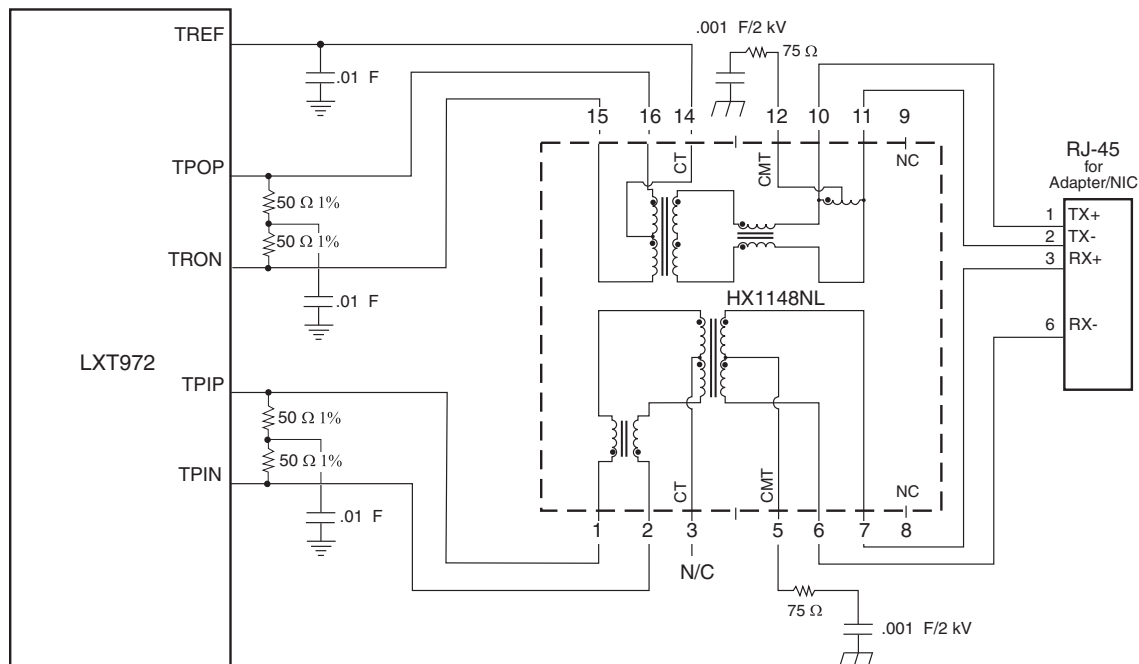


Typical Application Circuits

H1012NL, H1138NL



HX1148NL



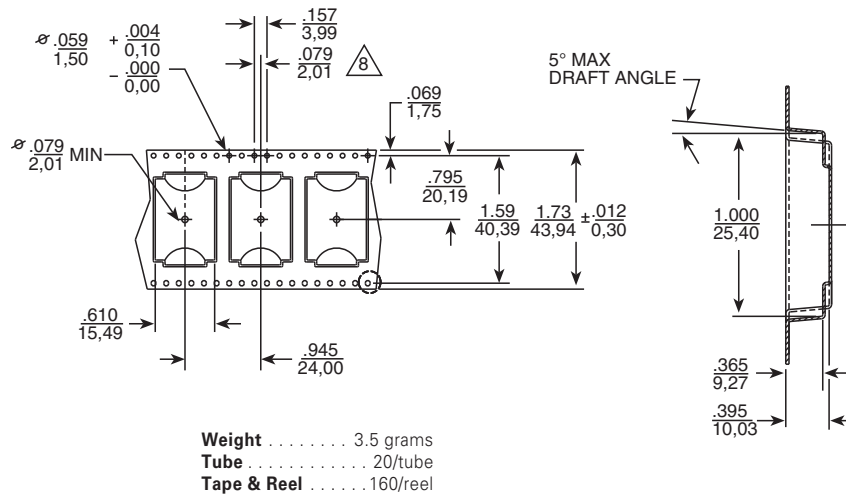
10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

With 1:1 Transmit Turns Ratios

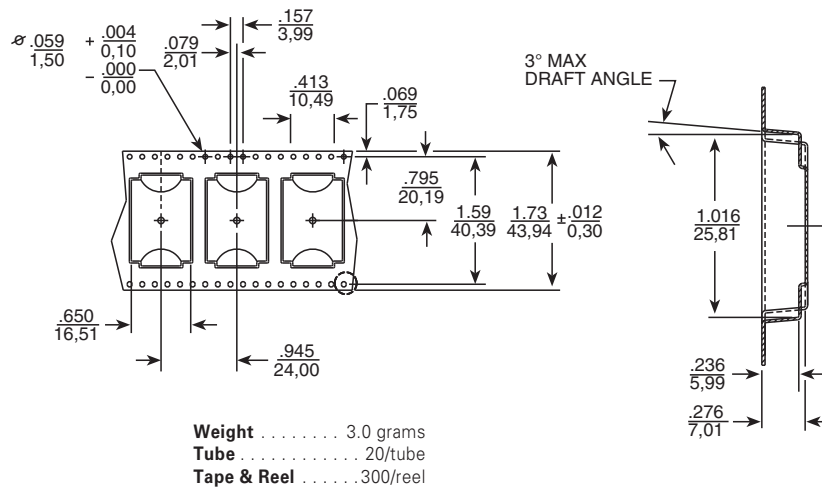


Tape & Reel Specifications

PE-68515LNL, PE-68517LNL, H1042NL



**H1012NL, H1019NL, H1086NL, H1089NL, H1138NL,
H1338NL, HX1148NL, HX1178NL**



For More Information:

Pulse Worldwide Headquarters

12220 World Trade Dr.
San Diego, CA 92128
U.S.A.

www.pulseeng.com

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe

Einsteinstrasse 1
D-71083 Herrenberg
Germany

Tel: 49 7032 7806 0
Fax: 49 7032 7806 135

Pulse China Headquarters

B402, Shenzhen Academy of
Aerospace Technology Bldg.
10th Kejinan Rd.
High-Tech Zone
Nanshan District
Shenzhen, PR China 518057

TEL: 86 755 33966678
FAX: 86 755 33966700

Pulse North China

Room 1503
XinYin Building
No. 888 YiShan Rd.
Shanghai 200233
China

Tel: 86 21 54643211/2
Fax: 86 21 54643210

Pulse South Asia

135 Joo Seng Rd.
#03-02
PM Industrial Bldg.
Singapore 368363

TEL: 65 6287 8998
FAX: 65 6280 0080

Pulse North Asia

No. 26, Kao Ching Rd.
Yang Mei Chen
Taoyuan Hsien
Taiwan
R. O. C.

Tel: 886 3 4643715
Fax: 886 3 4641911

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