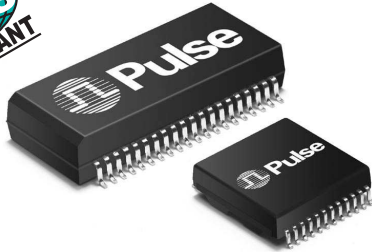


10/100BASE-TX DUAL PORT TRANSFORMER MODULES

For Use with Transceivers Requiring 1:1 Transmit and Receive Turns Ratios



- RoHS reflow temperature rating 245°C
- Meets IEEE 802.3 specification
- Some models offer AutoMDIX capability

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

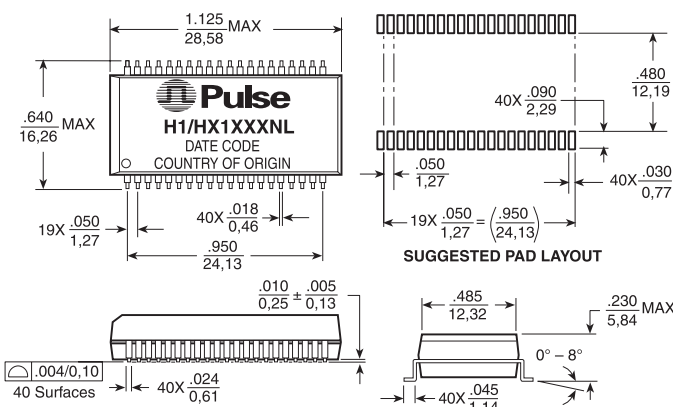
| Part Number ¹ | Insertion Loss (dB TYP) | Return Loss (dB TYP) | | | | | Crosstalk (dB TYP) | | | | Differential to Common Mode Rejection (dB MIN) | |
|------------------------------|-------------------------|----------------------|----------|--------|--------|-----------|--------------------|--------|--------|---------|------------------------------------------------|------------|
| | | 0.1-100 MHz | 2-30 MHz | 40 MHz | 50 MHz | 60-80 MHz | 1 MHz | 30 MHz | 60 MHz | 100 MHz | 1-60 MHz | 60-200 MHz |
| H1028NL ^{2d} | -0.5 | -21 | -17 | -14.5 | -12 | -65 | -55 | -45 | -35 | -45 | -35 | |
| H1049NL ^{2d} | -0.5 | -21 | -17 | -14.5 | -12 | -65 | -55 | -45 | -35 | -45 | -35 | |
| H1200NL ^{2d} | -1.0 | -16 | -14.4 | -13 | -12 | -50 | -45 | -40 | -35 | -37 | -33 | |
| H1174NL ^{2a} | -1.2 | -18 | -16 | -14 | -12 | -60 | -45 | -40 | -35 | -45 | -35 | |
| H1244NL ^{2a, 4} | -1.2 | -18 | -16 | -14 | -12 | -60 | -45 | -40 | -35 | -45 | -35 | |
| H1270NL ^{2a, 4} | -1.2 | -18 | -16 | -14 | -12 | -60 | -45 | -40 | -35 | -45 | -35 | |
| HX1294NL ^{2a, 3, 4} | -1.2 | -16 | -14 | -13.5 | -10 | -55 | -45 | -40 | -35 | -30 | -20 | |

- All products meet input/output breakdown (HiPot) of 1500 Vrms.
- MSL = Moisture Sensitivity Level a=1, b=2, c=3, d=4

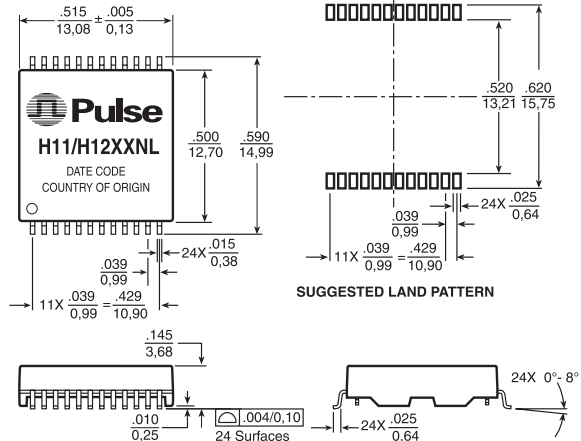
- Operating Temperature -40°C to +85°C
- Suitable for AutoMDIX applications

Mechanicals

H1XXXNL



H1174NL, H1244NL, H1270NL



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

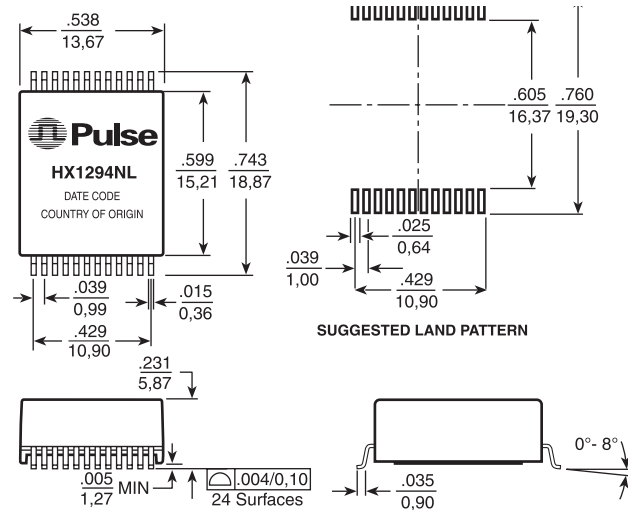
10/100BASE-TX DUAL PORT TRANSFORMER MODULES



For Use with Transceivers Requiring
1:1 Transmit and Receive Turns Ratios

Mechanicals (continued)

HX1294NL



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

Unless otherwise specified,
all tolerances are $\pm \frac{.010}{0.25}$

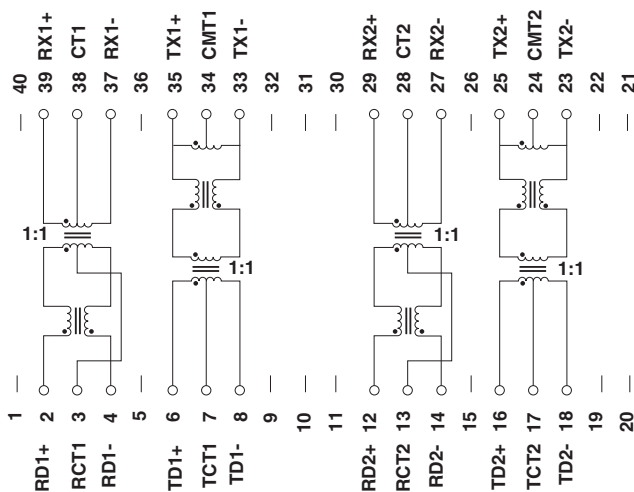
Weight 1.6 grams

Tape & Reel 300/reel

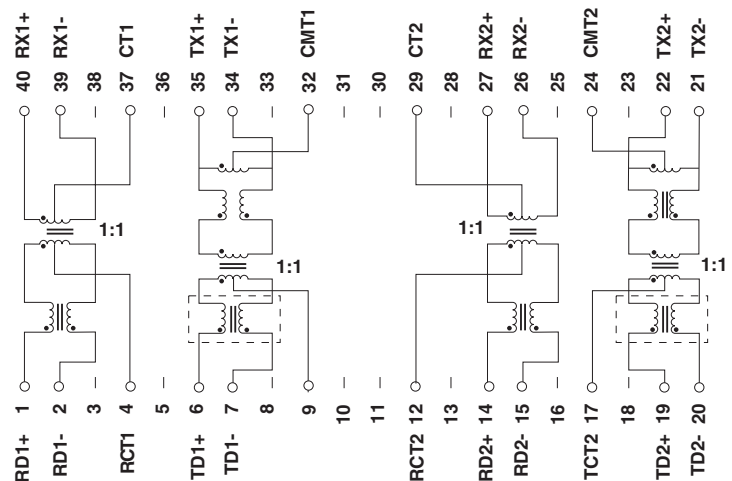
Tube 35/tube

Schematics

H1049NL



H1028NL



NOTE: H1027 has input common mode choke on pins 6-7 and pins 19-20.
H1028 does not have the additional choke.

Dual Port Solutions: The H1027NL, H1028NL, and H1049NL, are designed to support two RJ-45 connectors. The H1027NL and the H1028NL have the same pinout. The H1027NL has an additional common mode choke on both transmit channels. The H1049NL offers a different pinout for design flexibility.

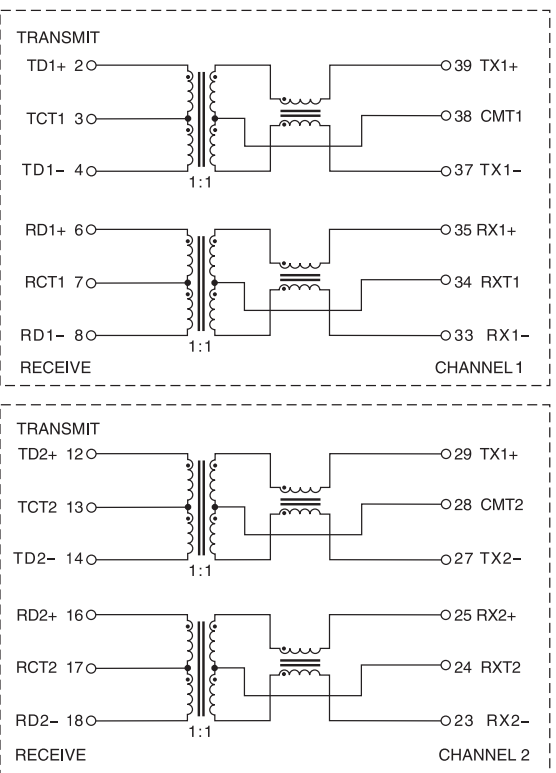


10/100BASE-TX DUAL PORT TRANSFORMER MODULES

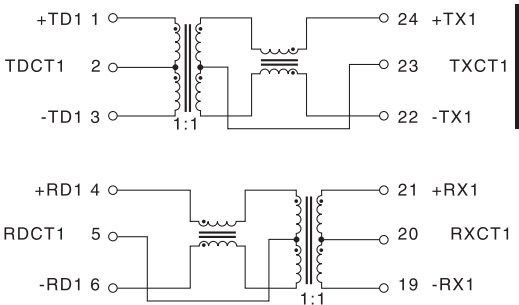
For Use with Transceivers Requiring
1:1 Transmit and Receive Turns Ratios

Schematics (continued)

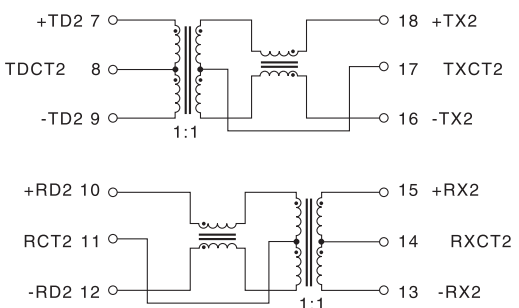
H11200NL



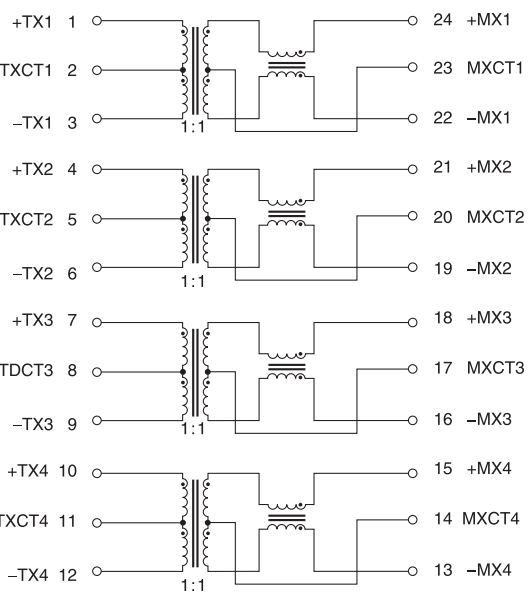
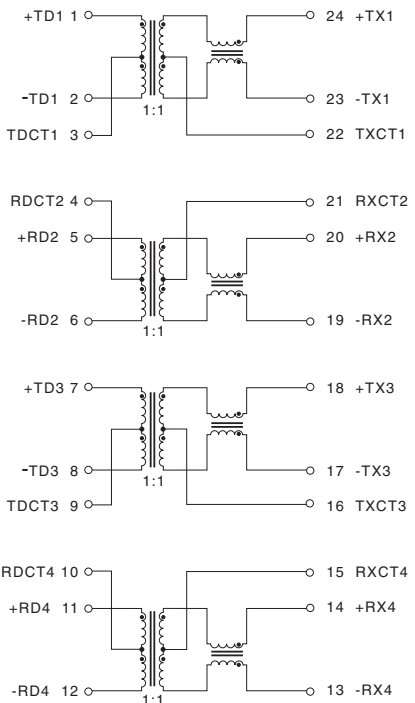
H1174NL



H1124NL



H11270NL, HX1294NL



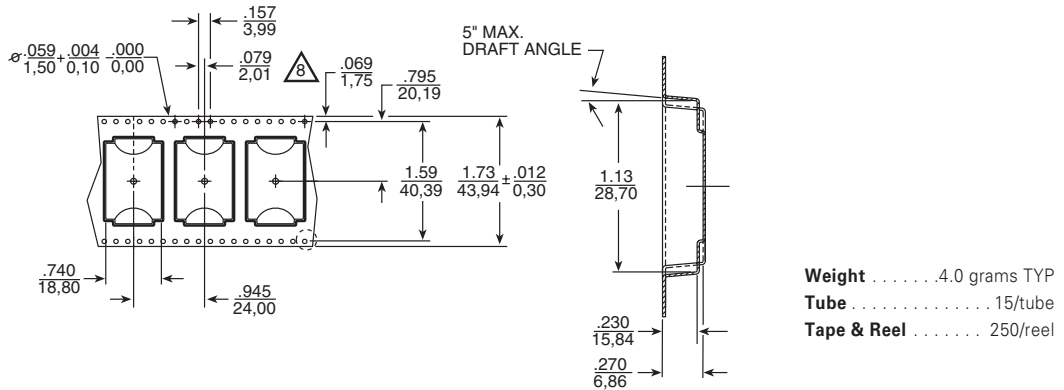
10/100BASE-TX DUAL PORT TRANSFORMER MODULES

For Use with Transceivers Requiring
1:1 Transmit and Receive Turns Ratios

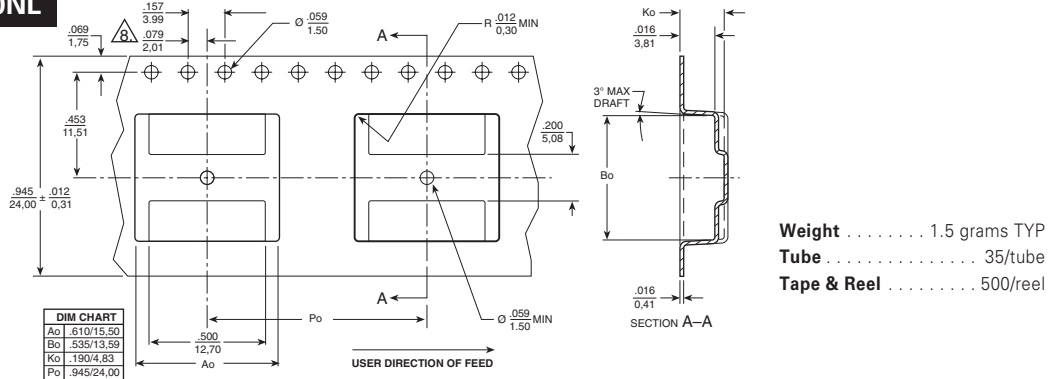


Tape & Reel Specifications

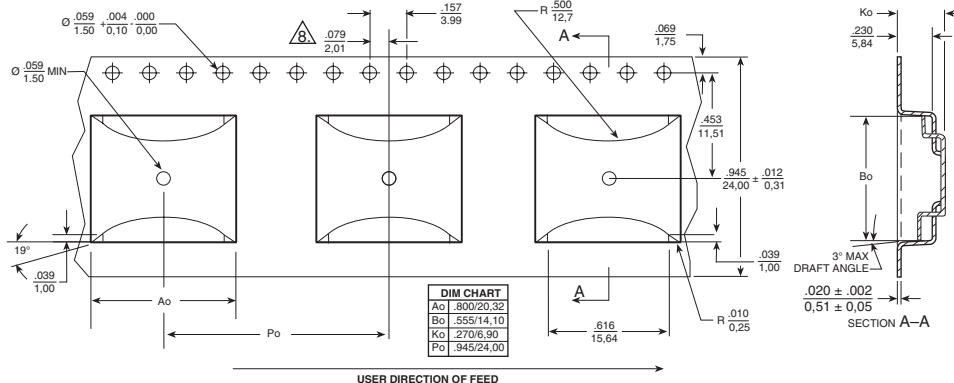
H1XXXNL



H1174NL, H1244NL, H1270NL



HX1294NL



For More Information:

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

Pulse Europe
Einsteinstrasse 1
D-71083 Herrenberg
Germany

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

Pulse North China
Room 2704/2705
Super Ocean Finance Ctr.
2067 Yan An Rd. West
Shanghai 200336
China

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

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

www.pulseeng.com Tel: 49 7032 7806 0
Tel: 858 674 8100 Fax: 49 7032 7806 135
Fax: 858 674 8262

TEL: 86 755 33966678
FAX: 86 755 33966700

Tel: 86 21 62787060
Fax: 86 2162786973

TEL: 65 6287 8998
FAX: 65 6280 0080

Tel: 886 3 4643715
Fax: 886 3 4641911

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