

# 10/100BASE-T SINGLE PORT SURFACE MOUNT MAGNETICS With Various Turns Ratios



- RoHS peak reflow temperature rating: 245°C
- Meets IEEE 802.3 specification
- Compact footprint for use in the most space-restrictive applications

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

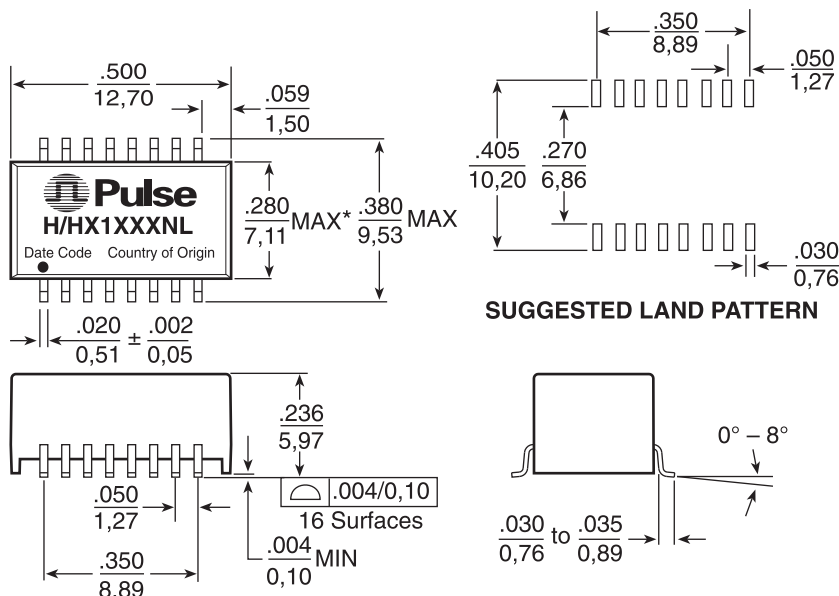
| RoHS<br>Compliant<br>Part Number | Turns Ratio |     | Insertion Loss<br>100 kHz-100 MHz<br>(dB MAX) | Return Loss<br>(dB TYP) |        |        | Differential to Common<br>Mode Rejection<br>(dB TYP) |        |         | Crosstalk<br>(dB TYP) |        |         | Hipot<br>(Vrms MIN) |
|----------------------------------|-------------|-----|-----------------------------------------------|-------------------------|--------|--------|------------------------------------------------------|--------|---------|-----------------------|--------|---------|---------------------|
|                                  | TX          | RX  |                                               | 30 MHz                  | 60 MHz | 80 MHz | 30 MHz                                               | 50 MHz | 100 MHz | 30 MHz                | 60 MHz | 100 MHz |                     |
| H1100NL <sup>3a</sup>            | 2:1         | 1:1 | -1.1                                          | -20                     | -14    | -11.5  | -42                                                  | -37    | -33     | -45                   | -40    | -35     | 1500                |
| H1101NL <sup>3a</sup>            | 1.25:1      | 1:1 | -1.1                                          | -20                     | -14    | -11.5  | -42                                                  | -37    | -33     | -45                   | -40    | -35     | 1500                |
| H1102NL <sup>3a</sup>            | 1:1         | 1:1 | -1.1                                          | -20                     | -14    | -11.5  | -42                                                  | -37    | -33     | -45                   | -40    | -35     | 1500                |
| H1121NL <sup>3c</sup>            | 1:1.414     | 1:1 | -1.1                                          | -18                     | -12    | -11.5  | -42                                                  | -37    | -30     | -45                   | -40    | -35     | 1500                |
| H1183NL <sup>3a</sup>            | 1:1         | 1:1 | -1.0                                          | -18                     | -14    | -12    | -40                                                  | -40    | -40     | -35                   | -35    | -35     | 1500                |
| H1199NL <sup>3a</sup>            | 1:1         | 1:1 | -0.9                                          | -18                     | -12    | -11    | -40                                                  | -35    | -30     | -45                   | -45    | -37     | 1500                |
| HX1188NL <sup>1, 3a</sup>        | 1:1         | 1:1 | -1.0                                          | -20                     | -14    | -12    | -42                                                  | -37    | -32     | -45                   | -40    | -35     | 1500                |
| HX1198 NL <sup>1, 3a</sup>       | 1:1         | 1:1 | -1.0                                          | -20                     | -14    | -12    | -42                                                  | -37    | -32     | -45                   | -40    | -35     | 1500                |
| H1302NL <sup>3a</sup>            | 1:1         | 1:1 | -1.1                                          | -16                     | -10    | -10    | -42                                                  | -37    | -32     | -35                   | -30    | -30     | 1500                |

- Operating temperature -40°C to +85°C
- For Tape & Reel packaging, add a "T" suffix at the end of the part number when ordering, e.g. H1102NLT.
- MSL = Moisture Sensitivity Level a=1 b=2 c=3 d=4

## Mechanical

### H11XXNL, H1121NL, \*H1183NL, H1199NL, HX1188NL, HX1198NL, H1302NL

\* For part number H1183NL, all dimensions are the same, except the height is .220" (5,59 mm).



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

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

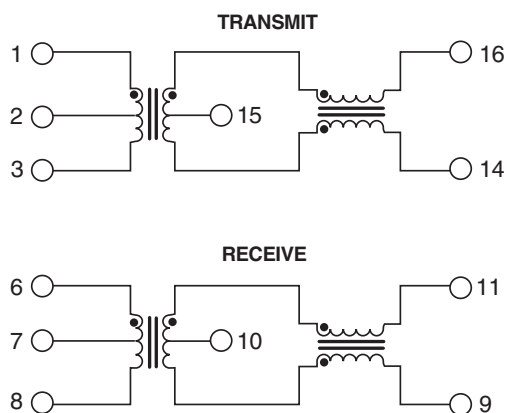
Weight . . . . . 0.9 grams  
Tube . . . . . 40/tube  
Tape & Reel . . . . 600/reel

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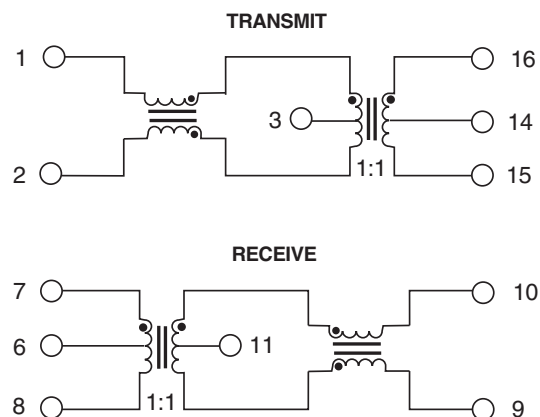


## Schematics

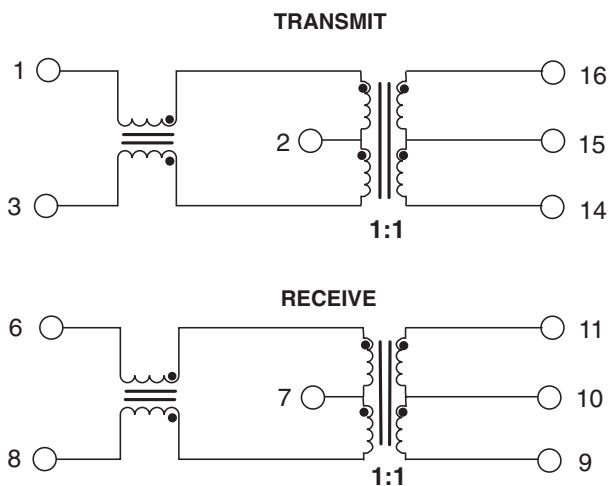
### H110XNL, H1121NL, HX1188NL



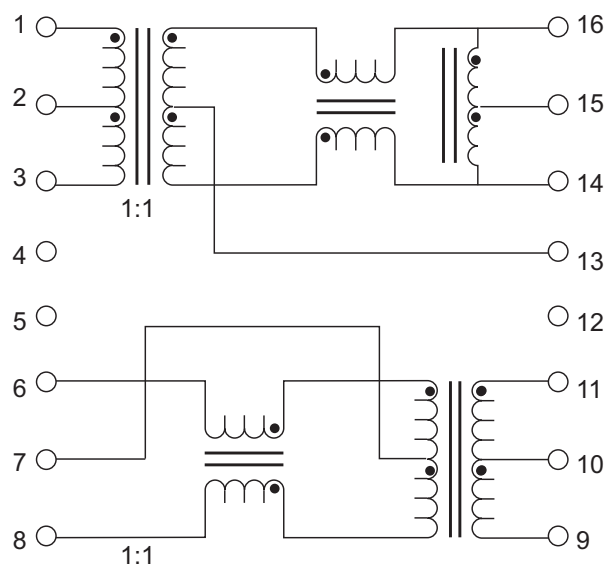
### H1199NL



### HX1198NL, H1183NL



### H1302NL

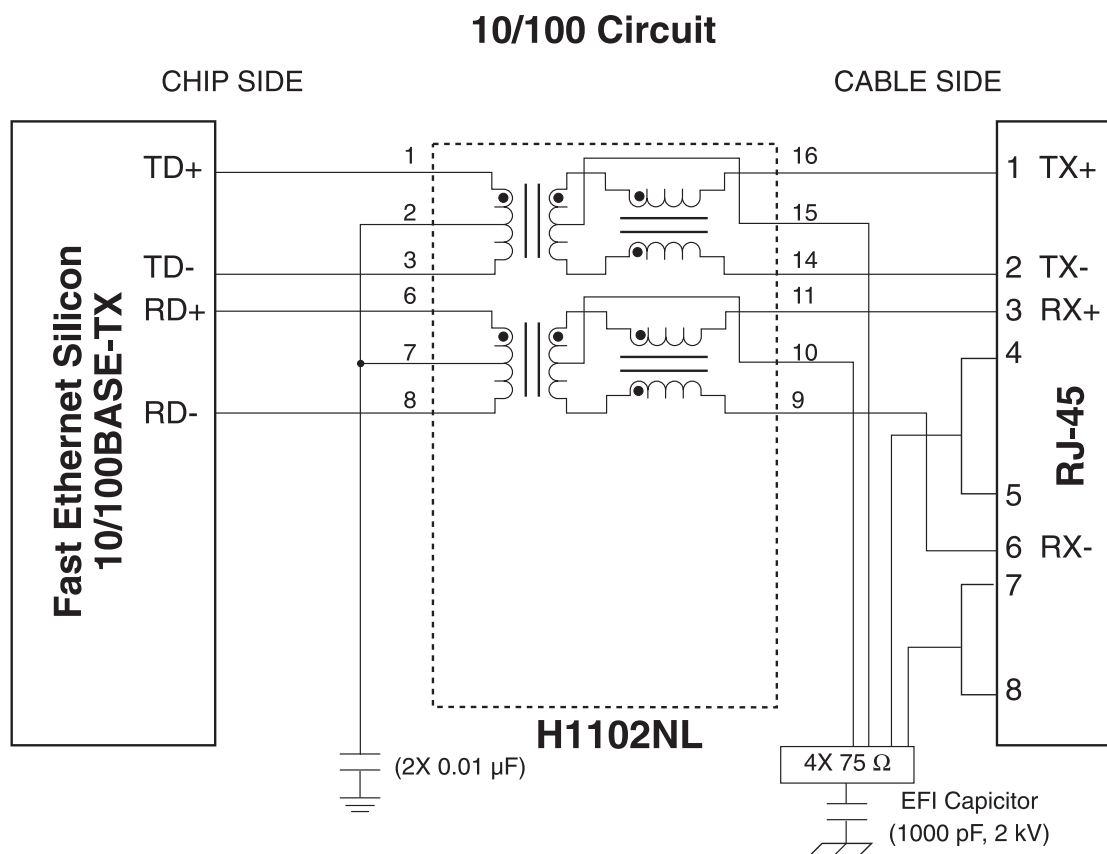


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## Typical Application Circuit

H1102NL



## 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  
Shenzhen, 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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