





# 10/100BASE-TX TRANSFORMER MODULES

## For Auto MDI/MDIX Applications



-  RoHS peak reflow temperature rating 245°C
-  Symmetrical transmit and receive channels for Auto MDI/MDIX capability
-  Approved for use with the Broadcom BCM5226 and Level One LXT9784
-  Meets IEEE 802.3 specification

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

RoHS Compliant Part Number <sup>2</sup>	Insertion Loss (MAX)	Return Loss (dB MIN)				Crosstalk (dB MIN)				Differential to Common Mode Rejection (dBMIN)		Hipot (Vrms MIN)
		0.1-100 MHz	2-30 MHz	40 MHz	50 MHz	60-80 MHz	1 kHz	30 MHz	60 MHz	100 MHz	1-60 MHz	
H1140NL <sup>3c</sup>	-1.0	-18	-14.4	-13.1	-12	-65	-50	-40	-35	-40	-35	1500
H1141NL <sup>3c</sup>	-1.0	-18	-14.4	-13.1	-12	-65	-50	-40	-35	-40	-35	1500
H1164NL <sup>3d</sup>	-1.0	-18	-14.4	-13.1	-12	-55	-45	-40	-33	-37	-25	1500
HX1234NL <sup>1,3c</sup>	-1.4	-18	-14.4	-13.1	-12	-55	-45	-40	-33	-37	-25	1500

- Operating Temperature -40°C to +85°C C<sub>ww</sub>
- For Tape & Reel packaging, add a "T" suffix to the end of the part number when ordering, (Ex: H1164NLT)
- MSL = Moisture Sensitivity Level a=1 b=2 c=3 d=4

## Mechanicals

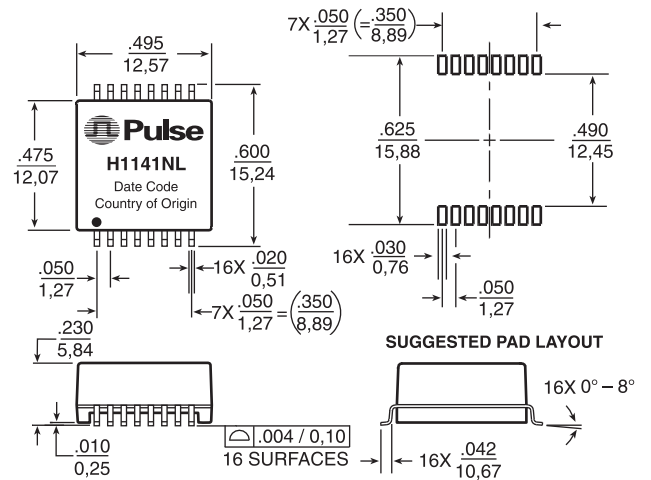
### H1140NL, H1164NL, HX1234NL



Weight . . . . . 4.8 grams  
Tape & Reel . . . . . 250/reel  
Tube . . . . . 15/tube

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

### H1141NL



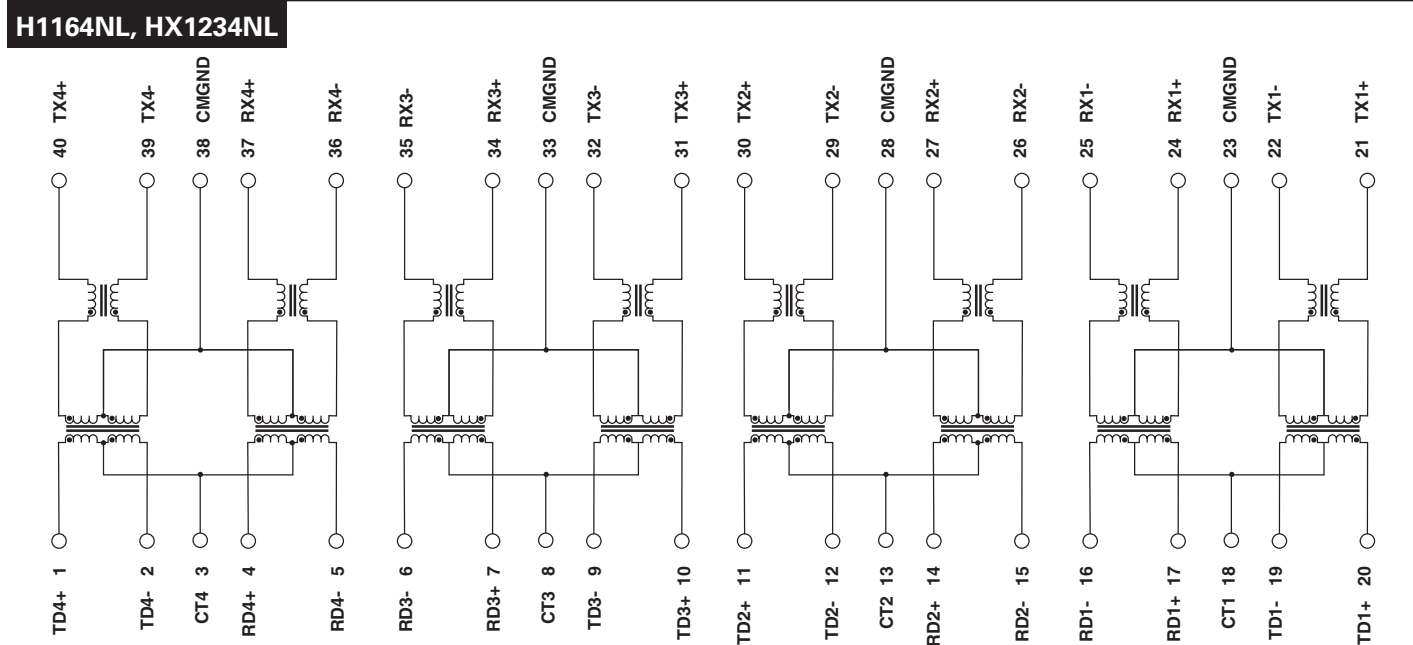
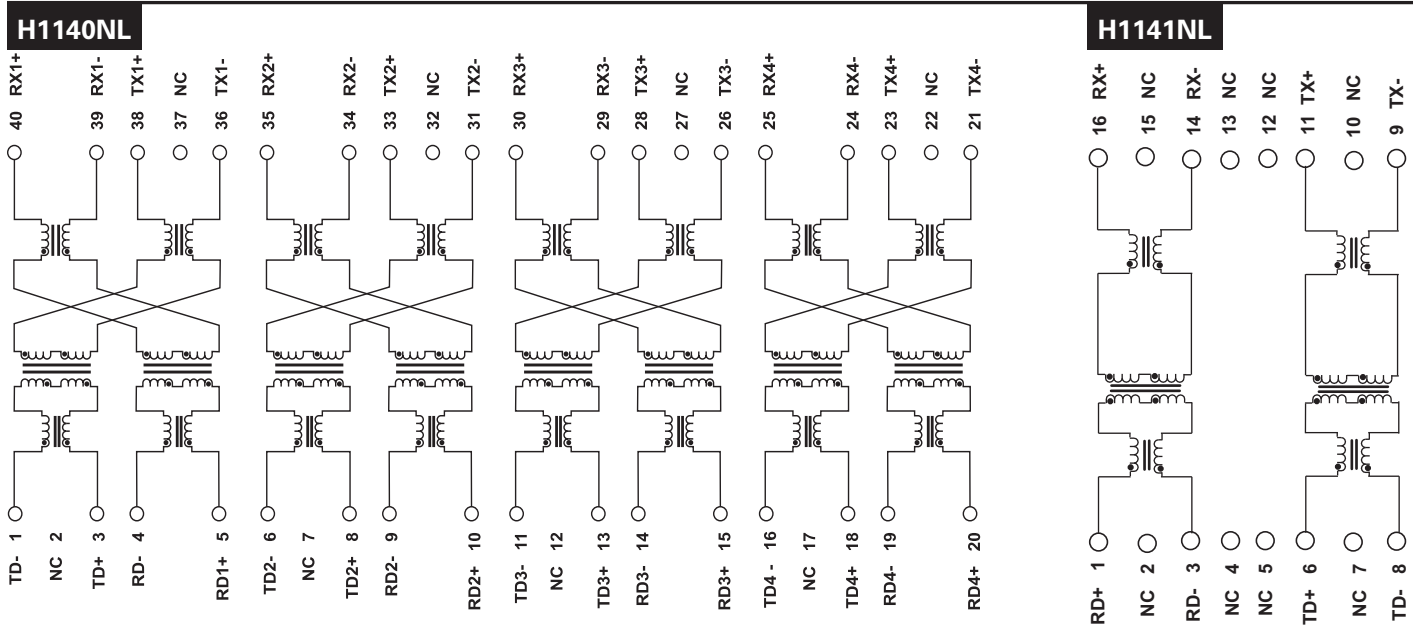
Weight . . . . . 1 gram  
Tape & Reel . . . . . 350/reel  
Tube . . . . . 35/tube

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### Schematics



### 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.  
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

[www.pulseeng.com](http://www.pulseeng.com)  
Tel: 858 674 8100  
Fax: 858 674 8262

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