

1000BASE-T MAGNETICSMODULES

Designed to Support 1:1 Turns Ratio Transceivers



- RoHS peak reflow temperature rating 245°C
- Meets IEEE 802.3 specification

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

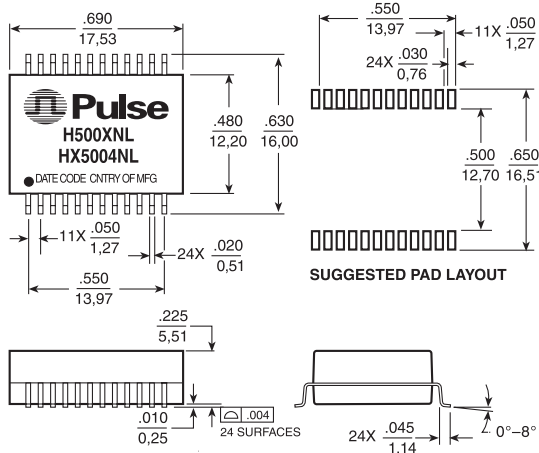
RoHS Compliant Part Number	Number of Ports	Insertion Loss (dB MAX)	Return Loss (dB MIN)					Differential to Common Mode Rejection (dB MIN)			Crosstalk (dB MIN)			Hipot (Vrms)
			1-100 MHz	1-30 MHz	40 MHz	50 MHz	60-80 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	
H5004NL 3d	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
HX5004NL 1,3d	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5007NL 3d	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5008NL 3a	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
HX5008NL 1,3a	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5009NL 3a	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5012NL 3a	2	1.4	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500
H5014NL 3a	2	1.4	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500
HX5014NL 1,3a	2	1.4	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500
H5015NL 3a	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5020NL 3a	2	1	-18	-14.4	-13.1	-12	-10	-40	-35	-30	-40	-33	-28	1500
HX5020NL 1,3a	2	1	-18	-14.4	-13.1	-12	-10	-40	-35	-30	-40	-33	-28	1500
H5089NL 3a	2	1.4	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500

1. HX = extended temperature version -40°C to +85°C
2. For Tape & Reel packaging, add a "T" suffix at the end of the part number, e.g. H5007NLT.
3. MSL = Moisture Sensitivity Level: a = 1, b = 2, c = 3, d = 4

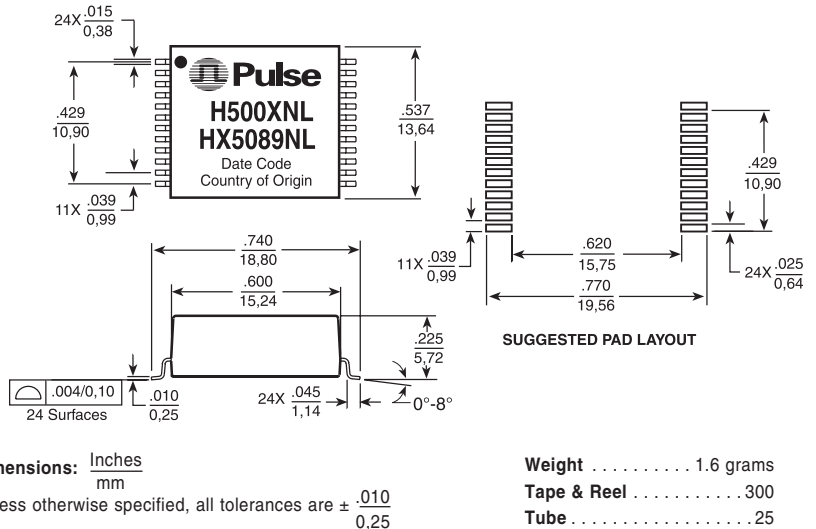
Mechanicals

H5004NL, HX5004NL*, H5007NL*

H5004NL, H5007NL, and HX5004NL are footprint-compatible to 10/100BASE-TX part H1267.



H5008NL, H5009NL, HX5008NL



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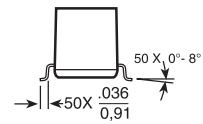
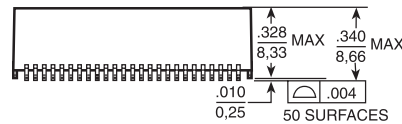
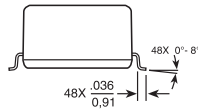
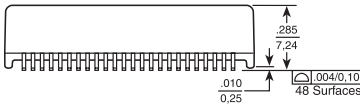
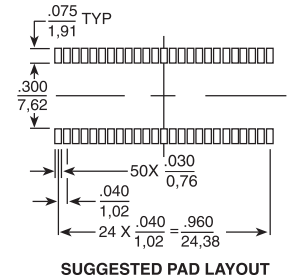
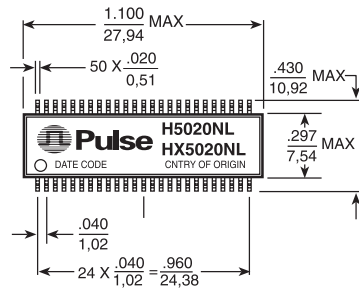
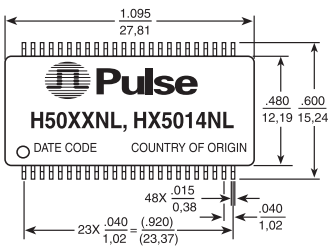
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Mechanicals (continued)

H5012NL, H5014NL, HX5014NL, H5089NL

H5020NL, HX5020NL

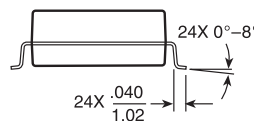
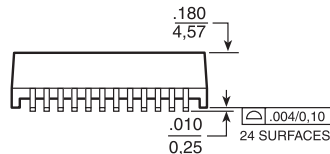
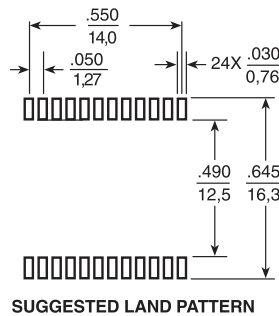
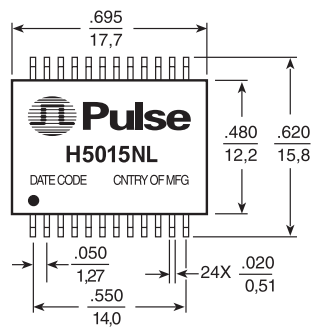


Weight 4.0 grams
Tape & Reel 250/reel
Tube 15/tube

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

Weight 1.6 grams
Tape & Reel 250/reel
Tube 15/tube

H5015NL



Weight 1.5 grams
Tape & Reel 400/reel

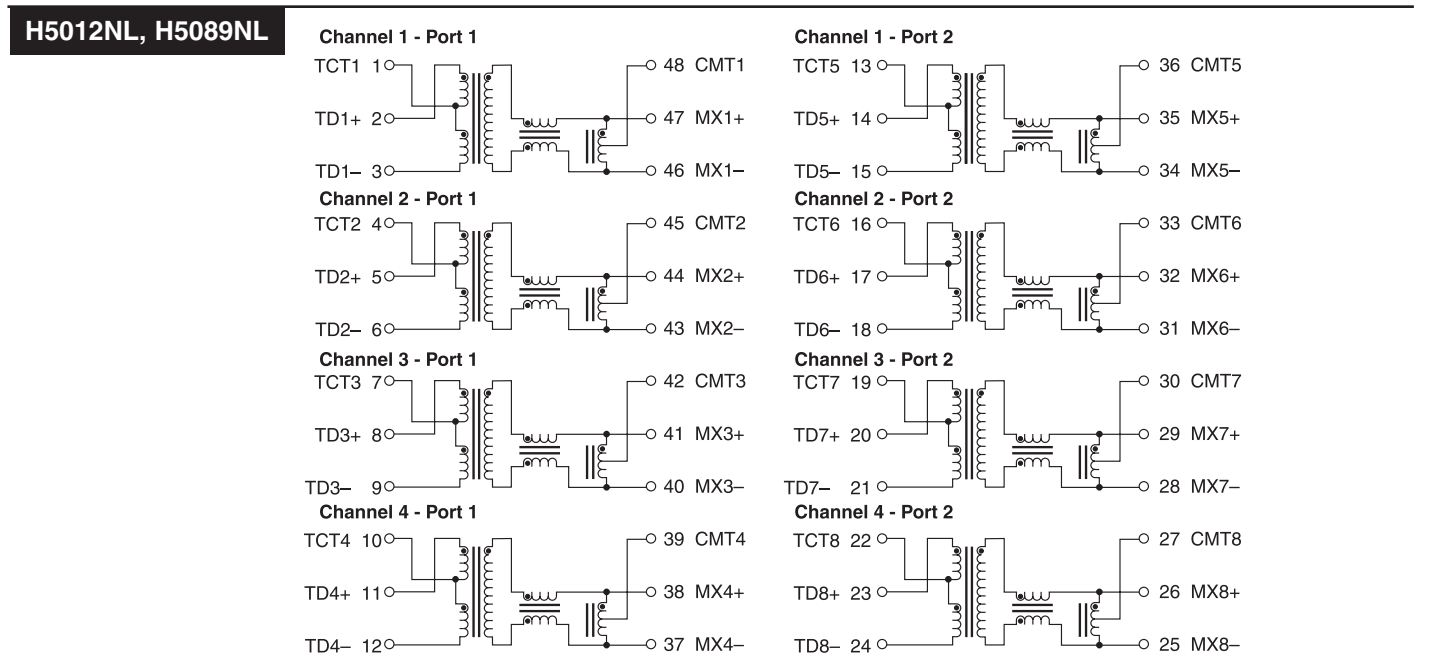
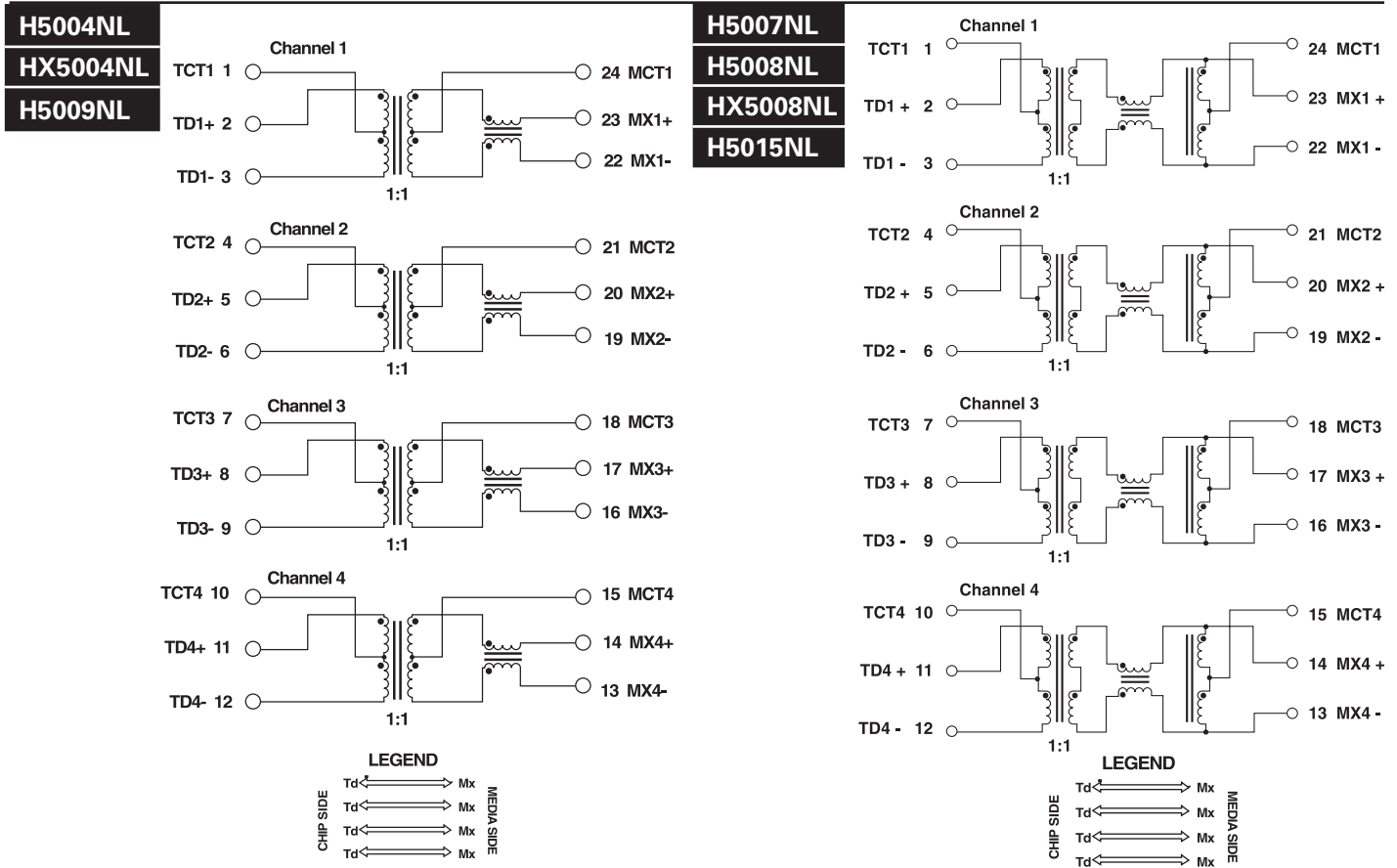
Dimensions: $\frac{\text{Inches}}{\text{mm}}$
Unless otherwise specified, all tolerances are $\pm \frac{.005}{0.13}$

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Schematics



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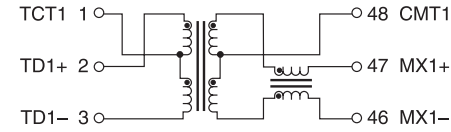
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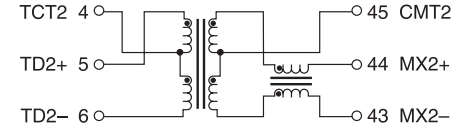
Schematics (continued)

H5014NL, HX5014NL

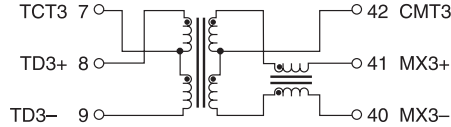
Channel 1 - Port 1



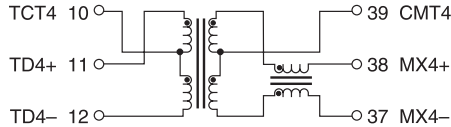
Channel 2 - Port 1



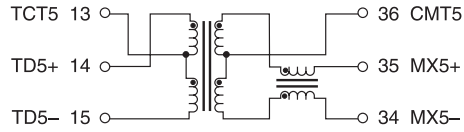
Channel 3 - Port 1



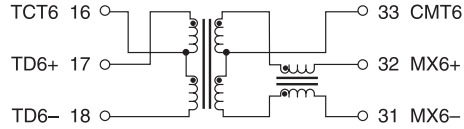
Channel 4 - Port 1



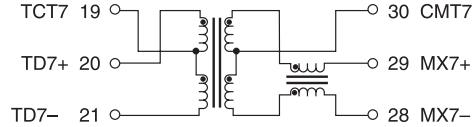
Channel 1 - Port 2



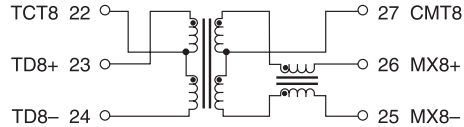
Channel 2 - Port 2



Channel 3 - Port 2

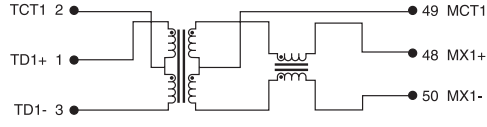


Channel 4 - Port 2

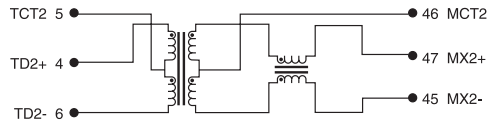


H5020NL, HX5020NL

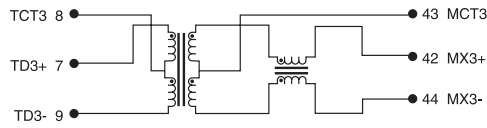
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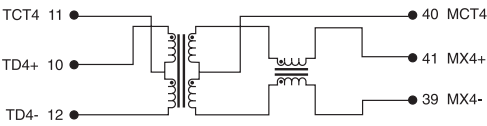
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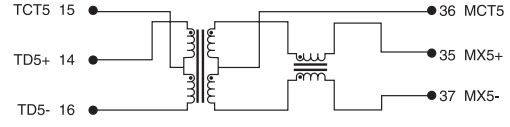
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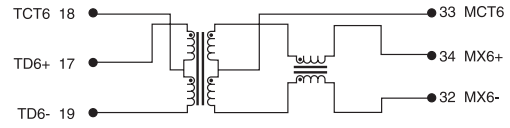
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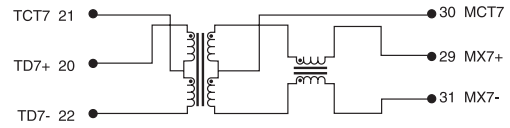
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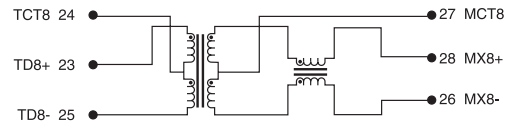
Channel 2 - Port 2



Channel 3 - Port 2



Channel 4 - Port 2



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

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
3F, No. 198
Zhongyuan Rd.
Zhongli City
Taoyuan County 320
Taiwan R. O. C.

www.pulseeng.com

Tel: 858 674 8100
Fax: 858 674 8262

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

Tel: 86 755 33966678
Fax: 86 755 33966700

Tel: 86 21 62787060
Fax: 86 2162786973

Tel: 65 6287 8998
Fax: 65 6287 8998

Tel: 886 3 4356768
Fax: FRE 886 3 4356820
Pulse: 886 3 4356823

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