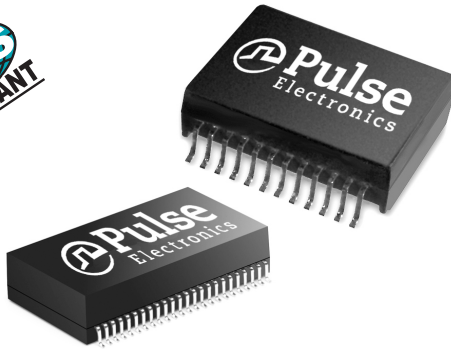
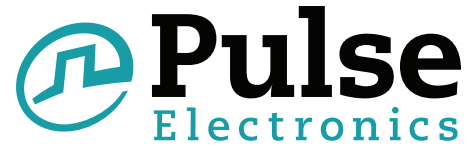


1000BASE-T MAGNETICS MODULE

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

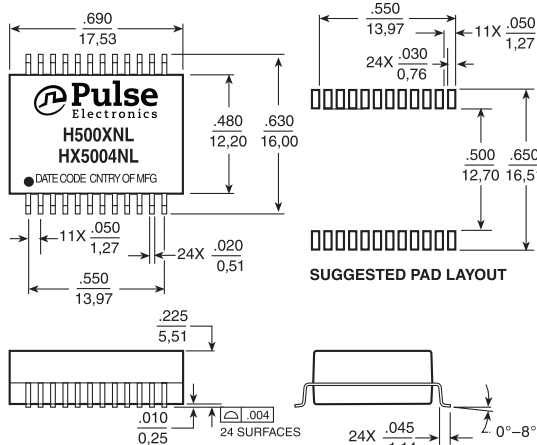
RoHS Compliant Part Number	Number of Ports	Insertion Loss (dB MAX)	Return Loss (dB MIN)					Differential to Common Mode Rejection (dB MIN)			Crosstalk (dB MIN)			Hipot (Vrms)
		1-100 MHz	1-30 MHz	40 MHz	50 MHz	60-80 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz	
H5004NL 3d	1	1	-18	-18	-16	-12	-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, 4	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
HX5008NL 1, 3a, 4	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5009NL 3a, 4	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5012NL 3a, 4	2	1.4	-18	-16	-14.4	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500
H5014NL 3a, 4	2	1.4	-18	-16	-14.4	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500
HX5014NL 1, 3a, 4	2	1.4	-18	-16	-14.4	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500
H5015NL 3a, 4	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5020NL 3a, 4	2	1	-18	-16	-14.4	-12	-10	-40	-35	-30	-40	-33	-28	1500
HX5020NL 1, 3a, 4	2	1.4	-18	-16	-14.4	-12	-10	-40	-35	-30	-40	-33	-28	1500
H5089NL 3a, 4	2	1.4	-18	-16	-14.4	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500

- HX = extended temperature version -40°C to +85°C
- For Tape & Reel packaging, add a "T" suffix at the end of the part number, e.g. H5007NLT.
- MSL = Moisture Sensitivity Level: a = 1, b = 2, c = 3, d = 4
- Not for sale in the U.S.

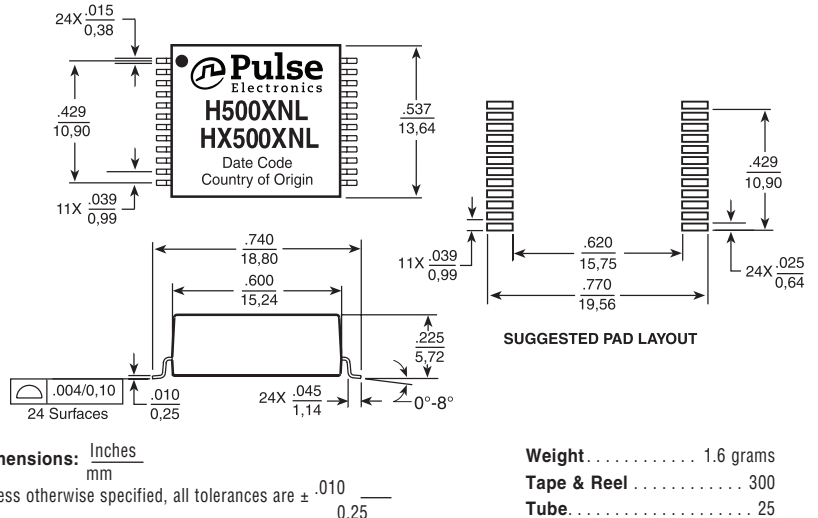
Mechanicals

H5004NL, HX5004NL*, H5007NL*

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

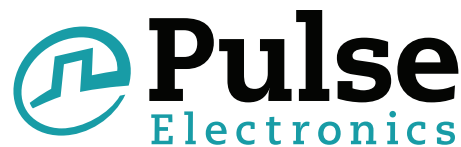


H5008NL, H5009NL, HX5008NL, H5089NL



1000BASE-T MAGNETICS MODULE

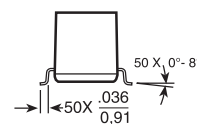
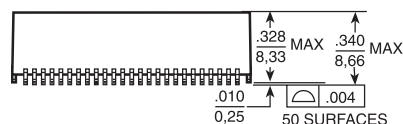
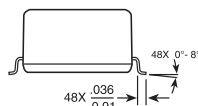
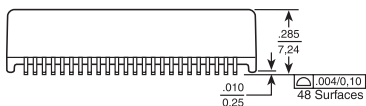
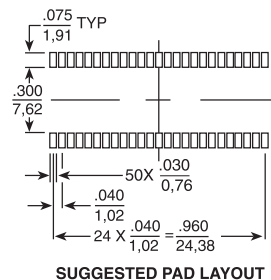
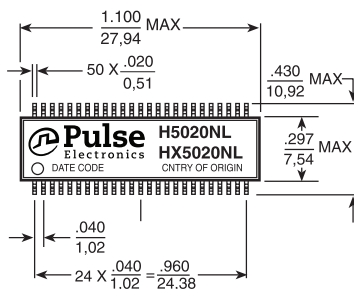
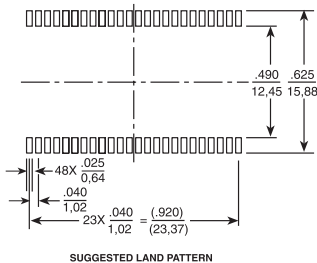
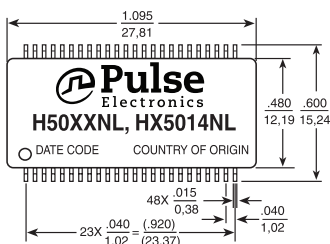
Designed to Support 1:1 Turns Ratio Transceivers



Mechanicals (continued)

H5012NL, H5014NL, HX5014NL, H5089NL

H5020NL, HX5020NL

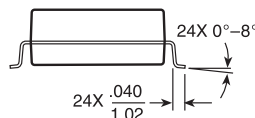
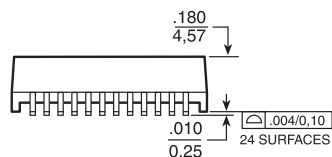
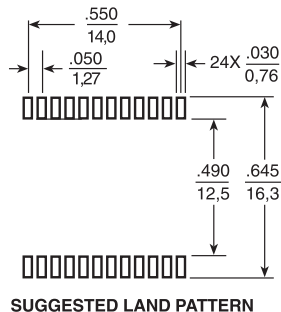
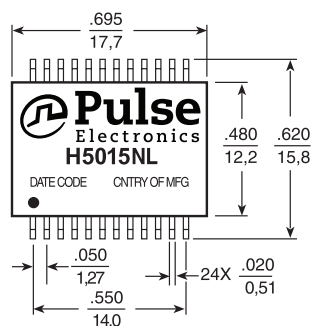


Weight..... 4.0 grams
Tape & Reel 250/reel
Tube..... 15/tube

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

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

H5015NL

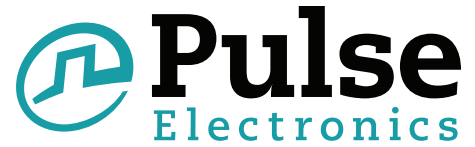


Weight..... 1.5 grams
Tape & Reel 400/reel

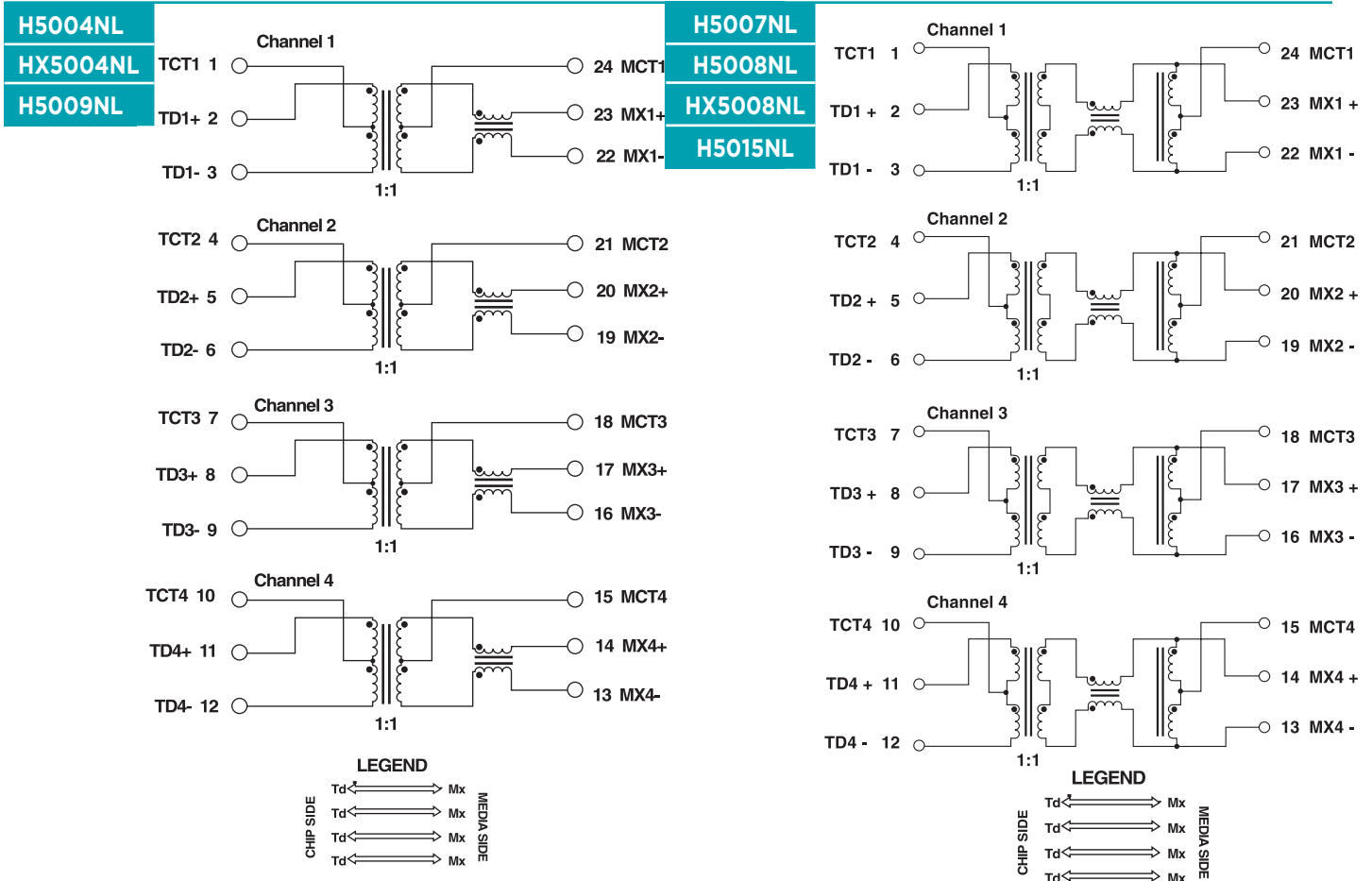
Dimensions: Inches _____
mm _____
Unless otherwise specified, all tolerances are $\pm \frac{.005}{0.13}$

1000BASE-T MAGNETICS MODULE

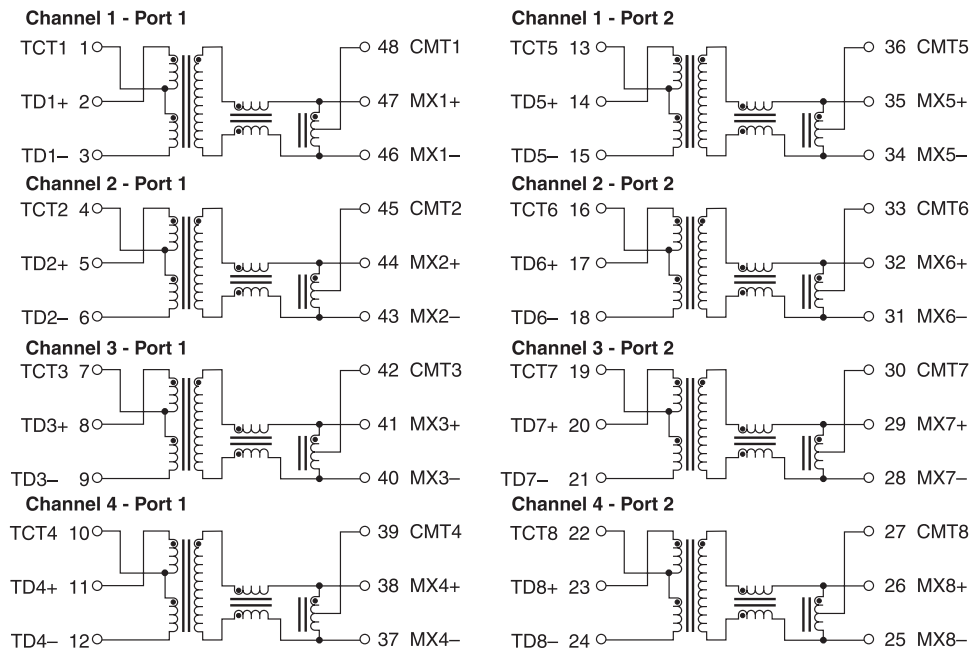
Designed to Support 1:1 Turns Ratio Transceivers



Schematics

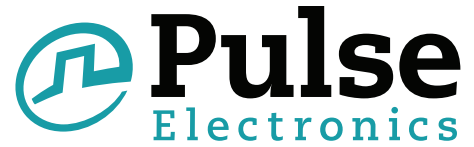


H5012NL, H5089NL



1000BASE-T MAGNETICS MODULE

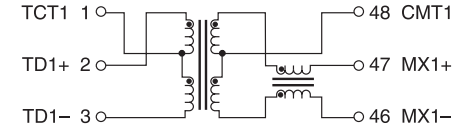
Designed to Support 1:1 Turns Ratio Transceivers



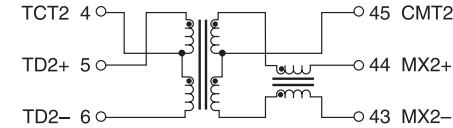
Schematics (continued)

H5014NL, HX5014NL

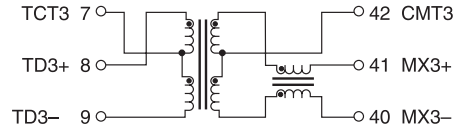
Channel 1 - Port 1



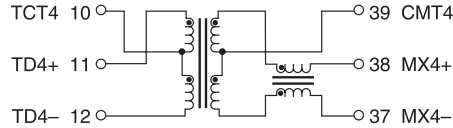
Channel 2 - Port 1



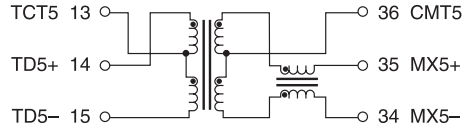
Channel 3 - Port 1



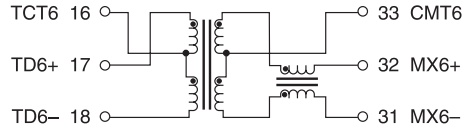
Channel 4 - Port 1



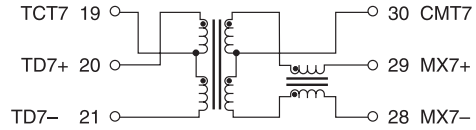
Channel 1 - Port 2



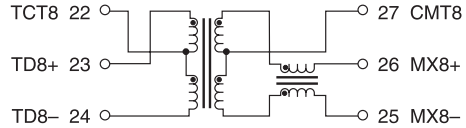
Channel 2 - Port 2



Channel 3 - Port 2

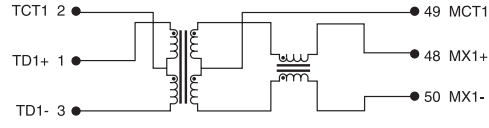


Channel 4 - Port 2

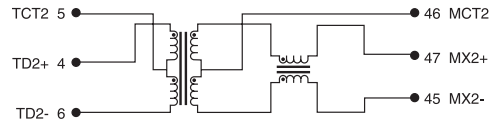


H5020NL, HX5020NL

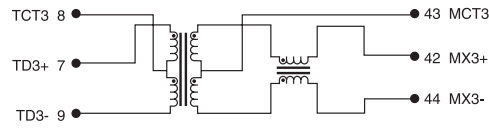
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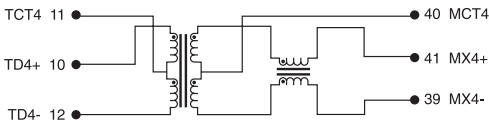
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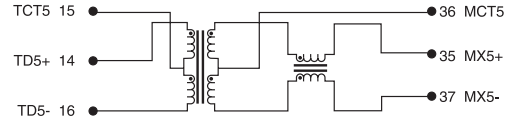
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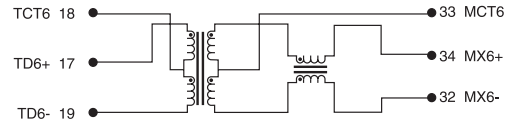
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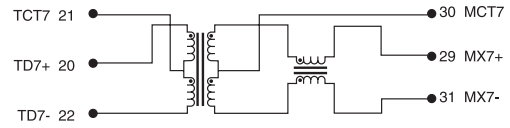
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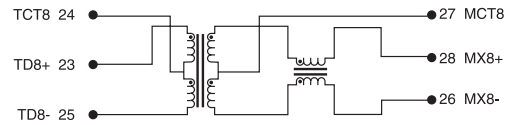
Channel 2 - Port 2



Channel 3 - Port 2



Channel 4 - Port 2



For More Information:

Pulse North America Headquarters

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

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe Headquarter

Zeppelinstrasse 15
71083 Herrenberg
Germany

Tel: 49 7032 7806 0
Fax: 49 7032 7806 12

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 2704/2705
Super Ocean Finance Ctr.
No. 2067 Yan An Rd. West
Shanghai 200336
China

Tel: 8621 6278 7060
Fax: 8621 6278 6973

Pulse South Asia

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

Tel: 65 6287 8998
Fax: 65 6287 8998

Pulse North Asia

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

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

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