# **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)			<b>Hipot</b> (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	(11113)
H5004NL3d	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

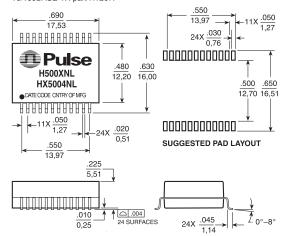
<sup>1.</sup> HX = extended temperature version -40°C to +85° C

**3.** MSL = Moisture Sensitivity Level: a = 1, b = 2, c = 3, d = 4

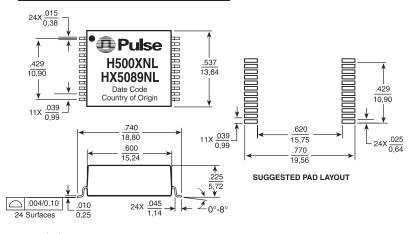
### **Mechanicals**

### H5004NL, HX5004NL\*, H5007NL\*

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



### H5008NL, H5009NL, HX5008NL



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

USA 858 674 8100 • Germany 49 7032 7806 0 • Singapore 65 6287 8998 • Shanghai 86 21 32181071 • China 86 755 33966678 • Taiwan 886 3 4643715

For Tape & Reel packaging, add a "T" suffix at the end of the part number, e.g. H5007NLT.

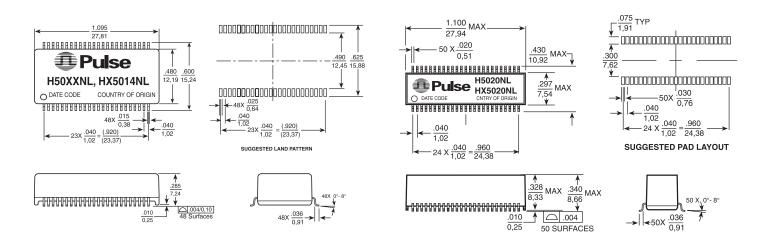
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## **Mechanicals** (continued)

## H5012NL, H5014NL, HX5014NL, H5089NL

### H5020NL, HX5020NL



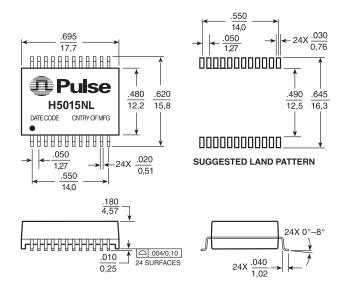
 Weight
 4.0 grams

 Tape & Reel
 250/reel

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

Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0.05}$ 

### H5015NL



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

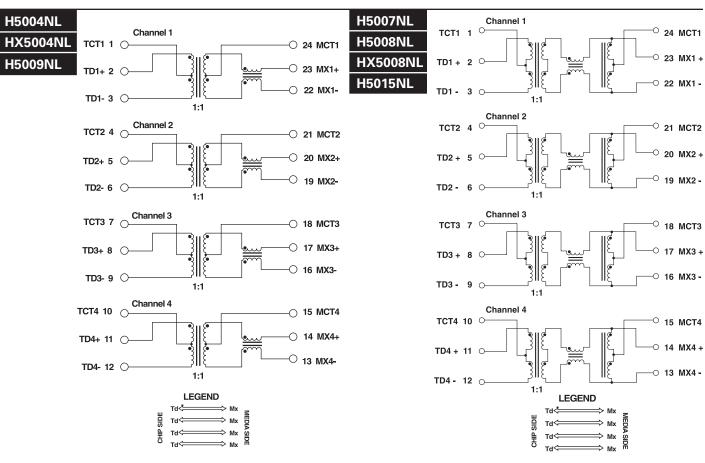
Dimensions:  $\frac{Inches}{mm}$ 

Unless otherwise specified, all tolerances are  $\pm \frac{.005}{0.13}$ 

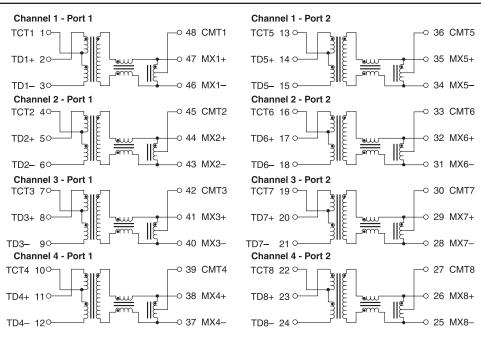
# **Designed to Support 1:1 Turns Ratio Transceivers**



## **Schematics**



### H5012NL, H5089NL

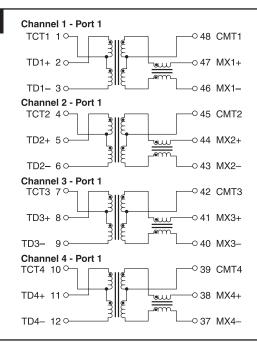


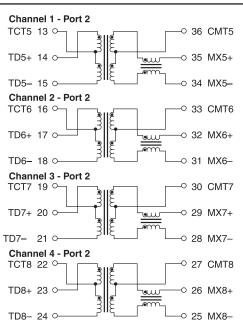
# **Designed to Support 1:1 Turns Ratio Transceivers**



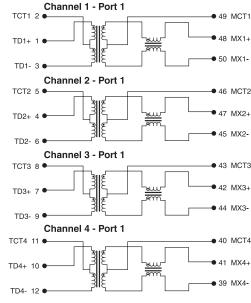
## **Schematics** (continued)

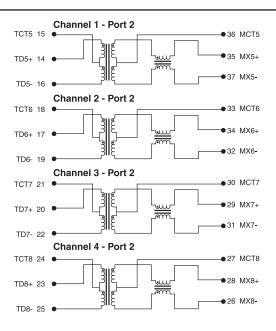
### H5014NL, HX5014NL





### H5020NL, HX5020NL





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