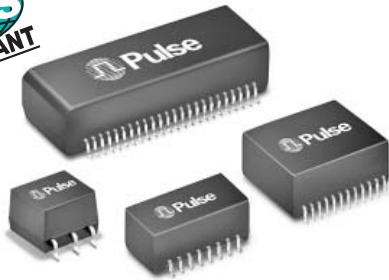


POWER OVER ETHERNET (PoE) MAGNETICS

10/100BASE-TX VoIP Magnetics Modules



- RoHS peak reflow temperature rating 245°C
- IEEE 802.3af/ANSI X3.263 compliant performance
- Designed for IP phone or switch applications

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

Part Number	Ports	Insertion Loss (dB MAX)	Return Loss (dB MIN @ 100 Ω)					Differential to Common Mode Rejection (dB MIN)			Cross Talk (dB MIN)			Hipot (Vrms MIN))	DC Resistance Balance ≤ (%)
			1-100 MHz	1-30 MHz	40 MHz	50 MHz	60-80 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz		
H1187NL ^{2a}	1	-1.2	-16	-14	-13	-13	-12	-43	-37	-33	-45	-40	-35	1500	—
H1197NL ^{2a}	1	-1.2	-16	-14	-13	-13	-12	-43	-37	-33	-45	-40	-35	1500	—
H2019NL ^{2a}	1	-1.2	-16	-14	-13	-13	-12	-43	-37	-33	-45	-40	-35	1500	3.5
H2005ANL ^{2c}	2	-1.2	-16	-14	-13	-13	-12	-50	-43	-35	-43	-37	-33	1500	3.5
H2006ANL ^{2c}	2	-1.2	-16	-14	-13	-13	-12	-43	-37	-33	-43	-37	-31	1500	3.5
H2008NL ^{2c}	2	-1.2	-16	-14	-13	-13	-12	-40	-35	-30	-43	-37	-33	1500	3.5
H2009NL ^{2a}	2	-1.1	-16	-14	-13	-13	-12	-43	-37	-33	-43	-37	-33	1500	3.5
H2014NL ^{2d}	4	-1.2	-16	-14	-13	-13	-12	-43	-37	-33	-45	-40	-35	1500	3.5
H2017NL ^{2c}	4	-1.2	-16	-14	-13	-13	-12	-43	-37	-33	-45	-40	-35	1800	3.5
HX2019NL ^{1, 2a}	1	-1.4	-16	-14	-13	-13	-12	-43	-37	-33	-45	-40	-35	1500	3.5

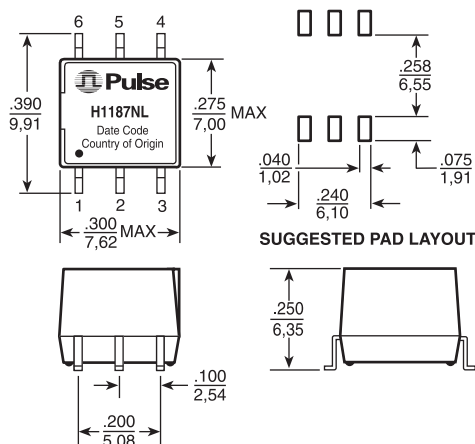
1. Extended operating temperature (-40°C to +85°C)

2. MSL (Moisture Sensitivity Level): a = 1, b = 2, c = 3, d = 4, e = 5

NOTE: When ordering Tape & Reel packaging, add the suffix "T" to the end of the part number. For example: H2008NLT.

Mechanicals

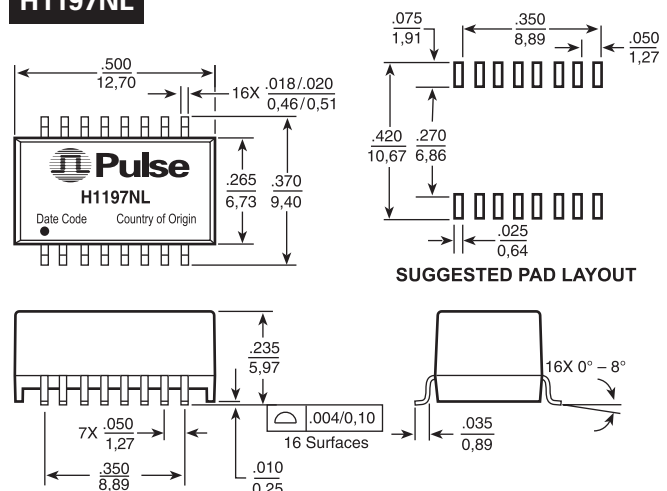
H1187NL



Weight 0.6 grams
Tape & Reel 500/reel
Tube 70/tube

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

H1197NL



Weight 2.8 grams
Tape & Reel 600/reel
Tube 45/tube

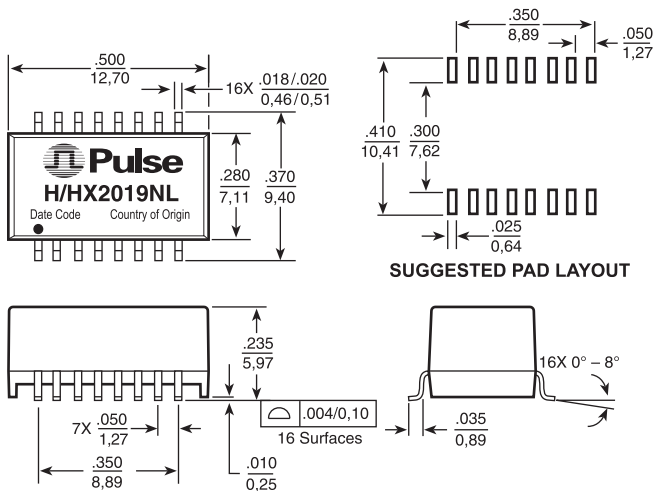
POWER OVER ETHERNET (PoE) MAGNETICS

10/100BASE-TX VoIP Magnetics Modules

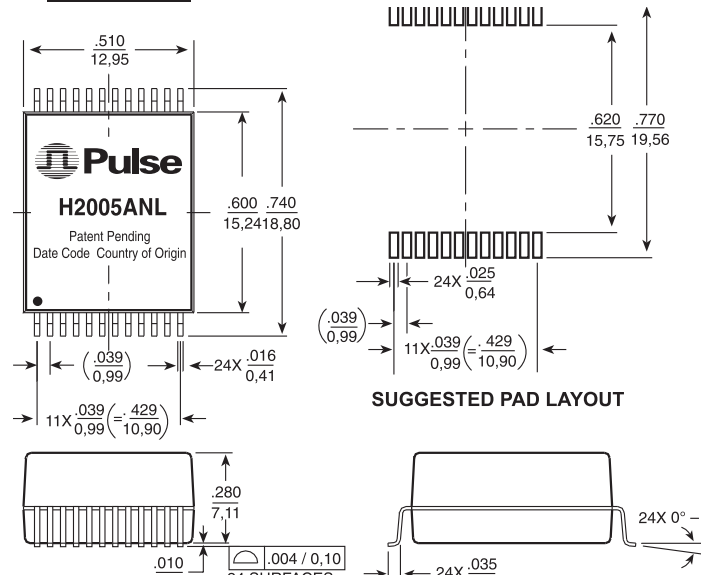


Mechanicals

H2019NL, HX2019NL



H2005ANL

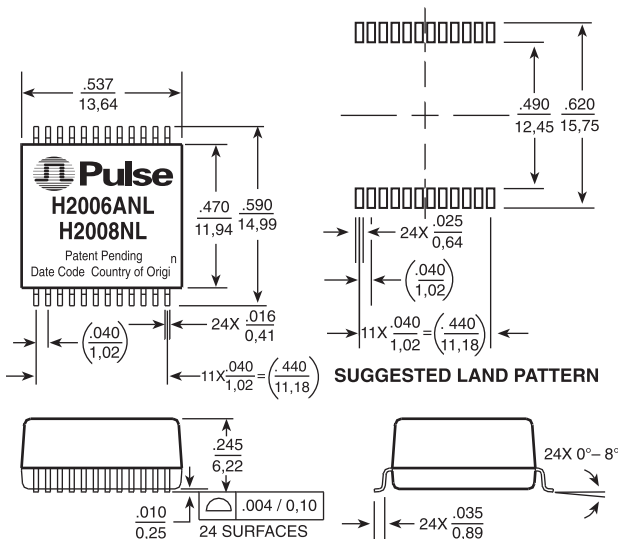


Weight 1.0 grams
Tape & Reel 600/reel
Tube 45/tube

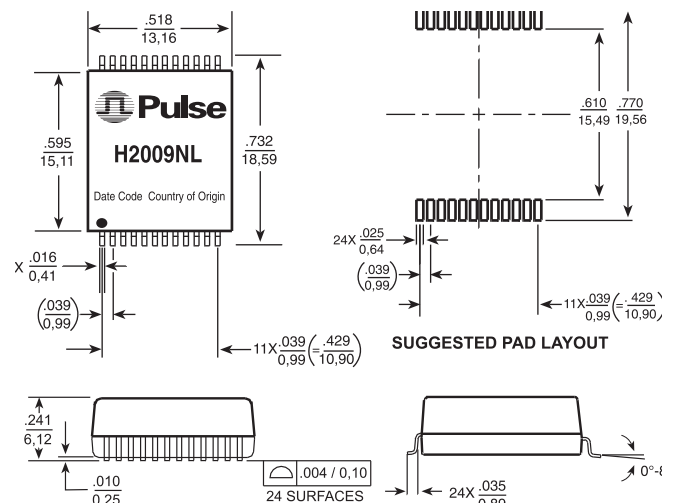
Dimensions: $\frac{\text{Inches}}{\text{mm}}$ Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

Weight 2.7 grams
Tape & Reel 300/reel
Tube 25/tube

H2006ANL, H2008NL



H2009NL



Weight 2.4 grams
Tape & Reel 350/reel
Tube 35/tube

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

Weight 1.6 grams
Tape & Reel 300/reel
Tube 35/tube

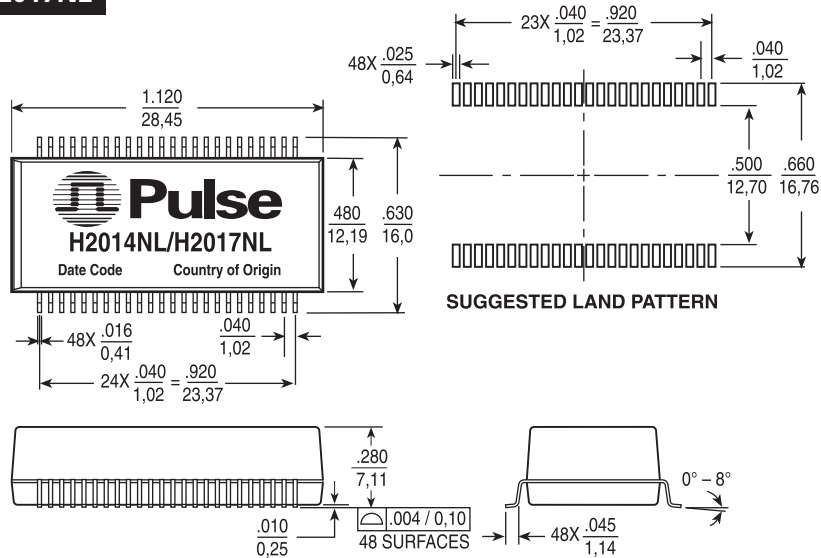
POWER OVER ETHERNET (PoE) MAGNETICS

10/100BASE-TX VoIP Magnetics Modules



Mechanicals (continued)

H2014NL, H2017NL

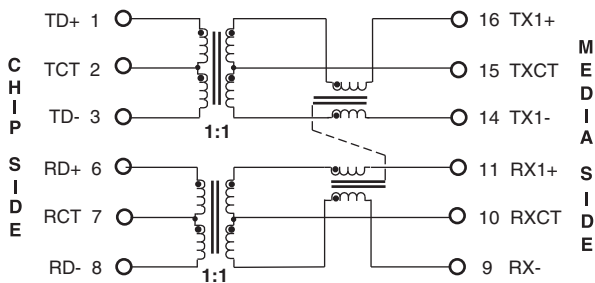


Dimensions: $\frac{\text{Inches}}{\text{mm}}$ Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

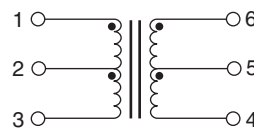
Weight 5.0 grams
Tape & Reel 250 /reel
Tube 15/tube

Schematics

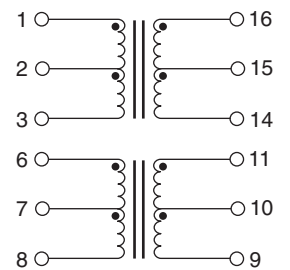
H2019NL, HX2019NL



H1187NL



H1197NL



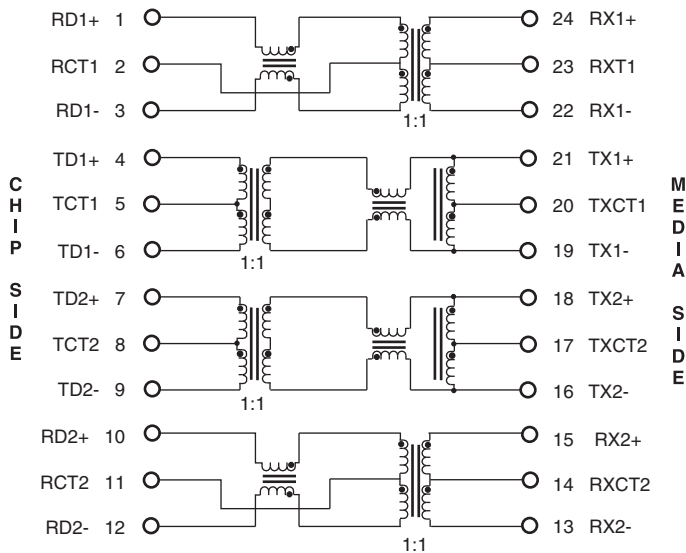
POWER OVER ETHERNET (PoE) MAGNETICS

10/100BASE-TX VoIP Magnetics Modules

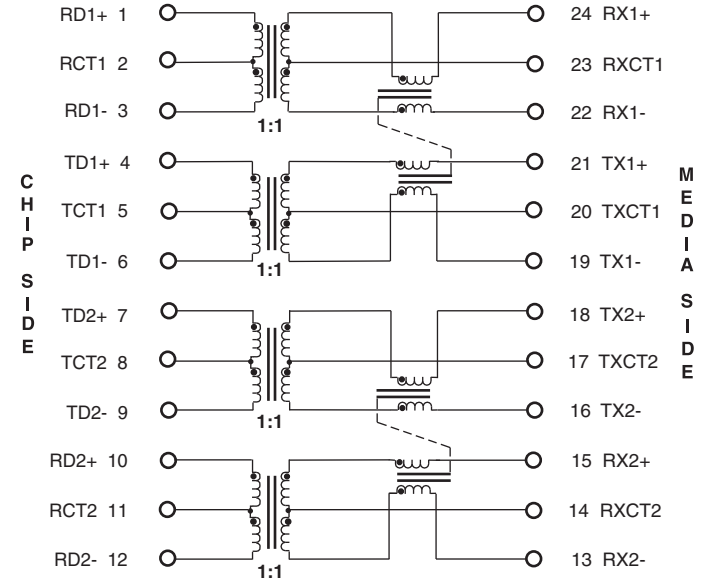


Schematics (*continued*)

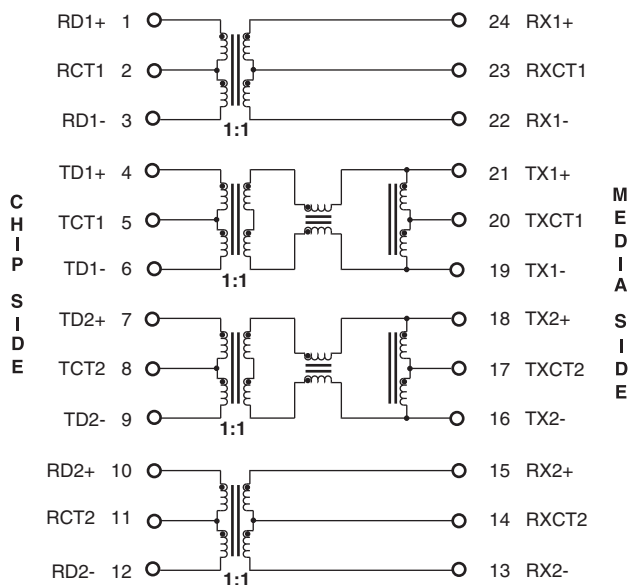
H2005ANL



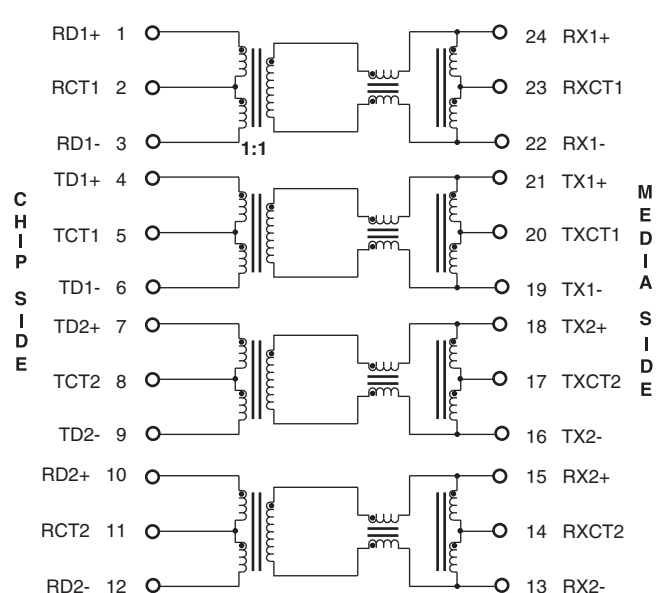
H2006ANL



H2008NL



H2009NL



POWER OVER ETHERNET (PoE) MAGNETICS

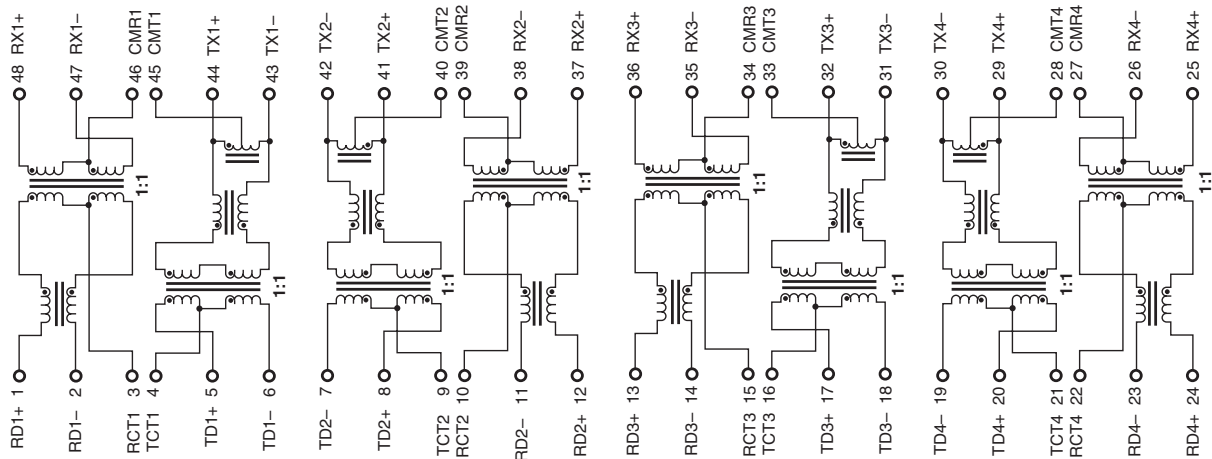
10/100BASE-TX VoIP Magnetics Modules



Schematics (continued)

H2014NL

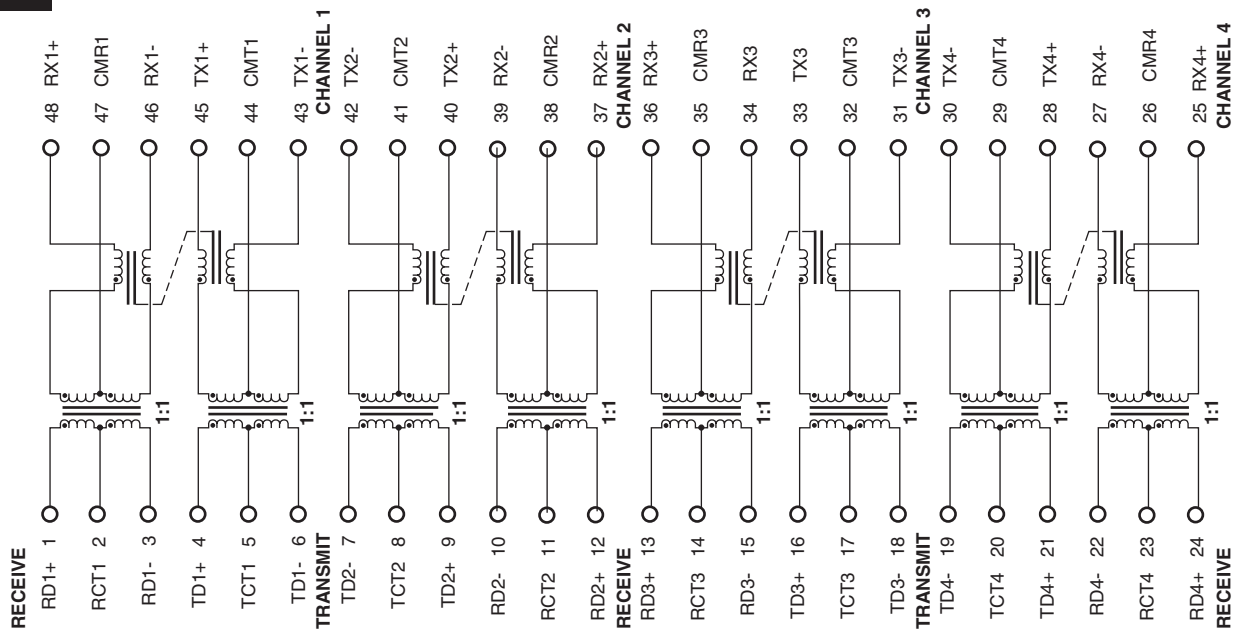
MEDIA SIDE



CHIP SIDE

H2017NL

MEDIA SIDE



CHIP SIDE

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