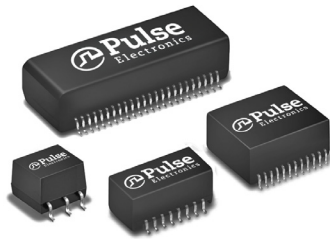


Power OVER Ethernet (PoE) Magnetics and (PoE+) Magnetics

100Base-TX VoIP Magnetics Modules



- RoHS peak reflow temperature rating 245C
- 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	No. of Ports	Insertion Loss (dB MAX)	Return Loss (dB MIN @ 100 Ω)				Differential to Common Mode Rejection (dB MIN @ 100 Ω)			CrossTalk (dB TYP)			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		
H1187NL ^{2a}	1	-1.2	-16	-14	-13	-12	-43	-37	-33	-45	-40	-35	1500	—
H1197NL ^{2a}	1	-1.2	-16	-14	-13	-12	-43	-37	-33	-45	-40	-35	1500	—
H2019NL ^{2a}	1	-1.2	-16	-14	-13	-12	-43	-37	-33	-45	-40	-35	1500	3.5
H2005ANL ^{2c}	2	-1.2	-16	-14	-13	-12	-50	-43	-35	-43	-37	-33	1500	3.5
H2006ANL ^{2c}	2	-1.2	-16	-14	-13	-12	-43	-37	-33	-43	-37	-31	1500	3.5
H2008NL ^{2c}	2	-1.2	-16	-14	-13	-12	-40	-35	-30	-43	-37	-33	1500	3.5
H2009NL ^{2a}	2	-1.1	-16	-14	-13	-12	-43	-37	-33	-43	-37	-33	1500	3.5
H2017NL ^{2c}	4	-1.2	-16	-14	-13	-12	-43	-37	-33	-45	-40	-35	1800	3.5
HX2019NL ^{1,2a}	1	-1.4	-16	-14	-13	-12	-43	-37	-33	-45	-40	-35	1500	3.5
HX2326NL ^{1,2a,3}	1	-1.0	-16	-14.4	-13	-12	-43	-37	-33	-45	-40	-35	1500	3.5

- Extended operating temperature (-40°C to +85°C)
- MSL (Moisture Sensitivity Level): a = 1, b = 2, c = 3, d = 4, e = 5
- PoE+ (IEEE 802.3at compliant)

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

Mechanicals

H1187NL

SUGGESTED PAD LAYOUT

Weight0.4 grams
Tape & Reel500/reel
Tube70/tube

H1197NL

SUGGESTED PAD LAYOUT

Weight0.6 grams
Tape & Reel600/reel
Tube40/tube

Unless otherwise specified, all tolerances are ± 0.010 / 0.25

USA 858 674 8100

Germany 49 7032 7806 0

Singapore 65 6287 8998

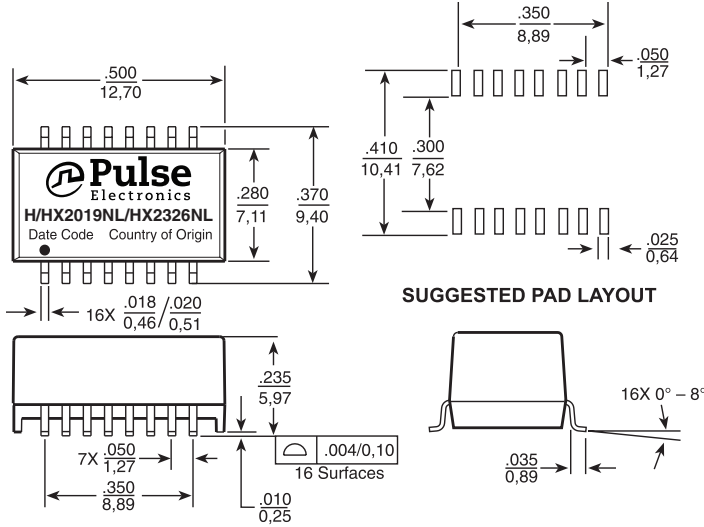
Shanghai 86 21 62787060

China 86 755 33966678

Taiwan 886 3 4356768

Mechanicals (continued)

H2019NL, HX2019NL, HX2326NL

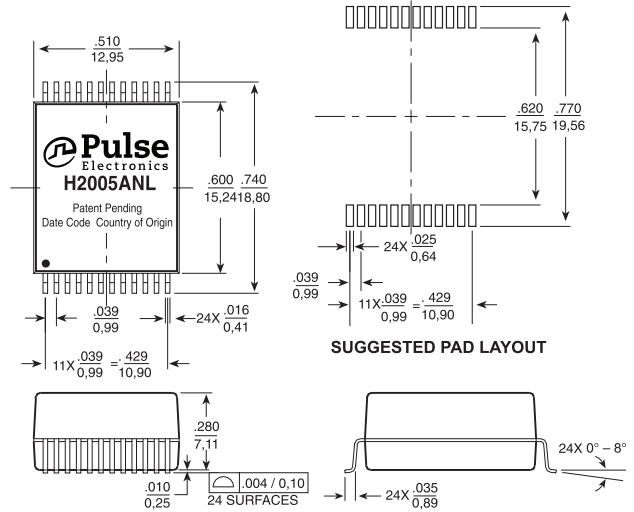


SUGGESTED PAD LAYOUT

Weight1.0 grams
Tape & Reel600/reel
Tube40/tube

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

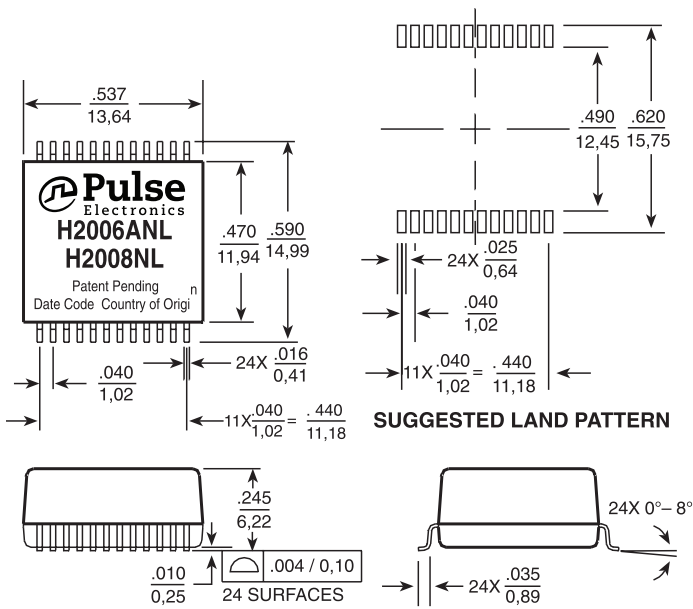
H2005ANL



SUGGESTED PAD LAYOUT

Weight2.7 grams
Tape & Reel250/reel
Tube25/tube

H2006ANL, H2008NL

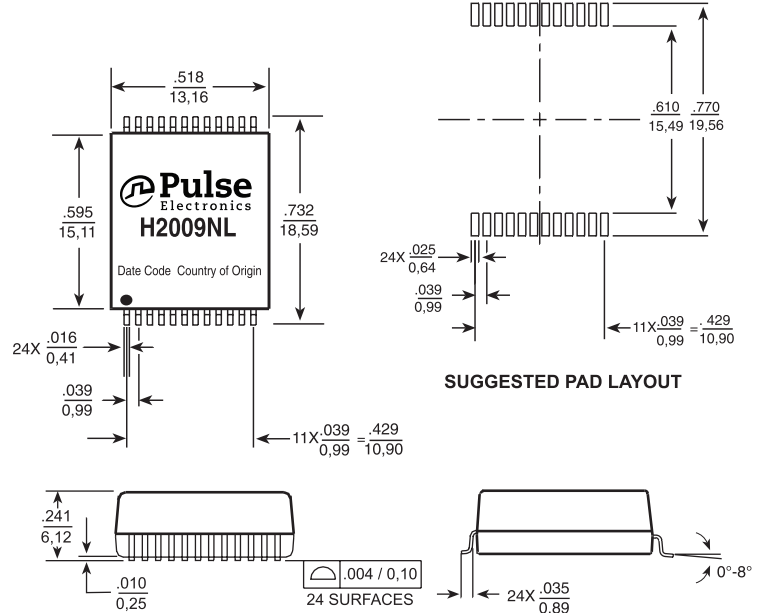


SUGGESTED LAND PATTERN

Weight2.4 grams
Tape & Reel350/reel
Tube35/tube

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

H2009NL

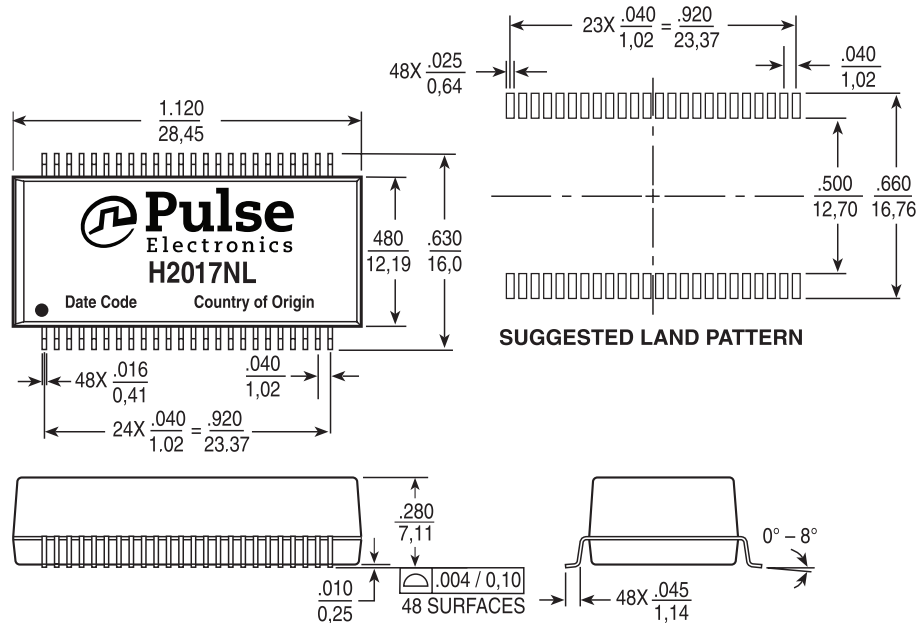


SUGGESTED PAD LAYOUT

Weight1.6 grams
Tape & Reel300/reel
Tube35/tube

Mechanicals (continued)

H2017NL

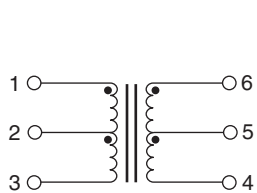


Weight5.0 grams
Tape & Reel250/reel
Tube15/tube

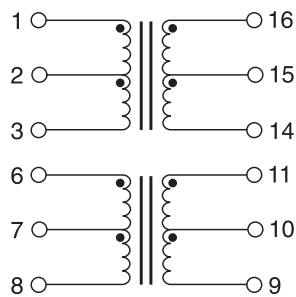
Dimensions: $\frac{\text{Inches}}{\text{mm}}$ Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

Schematics

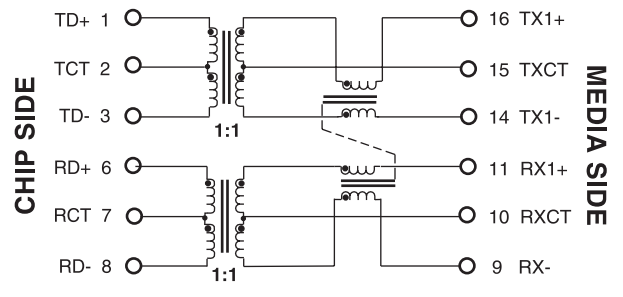
H1187NL



H1197NL

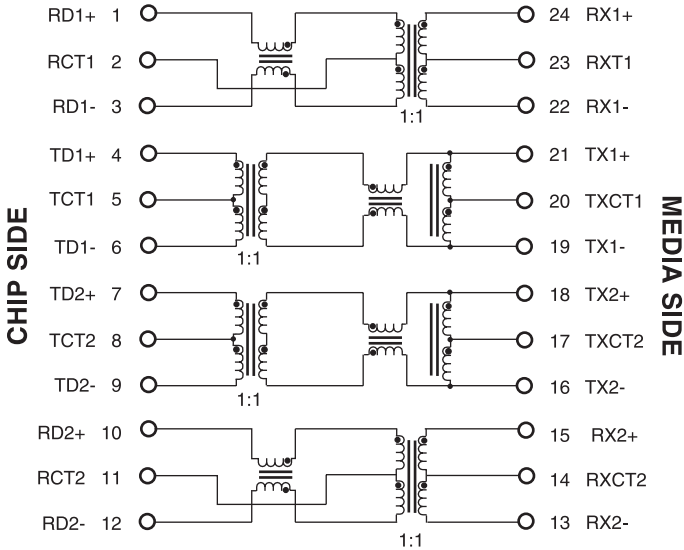


H2019NL, HX2019NL

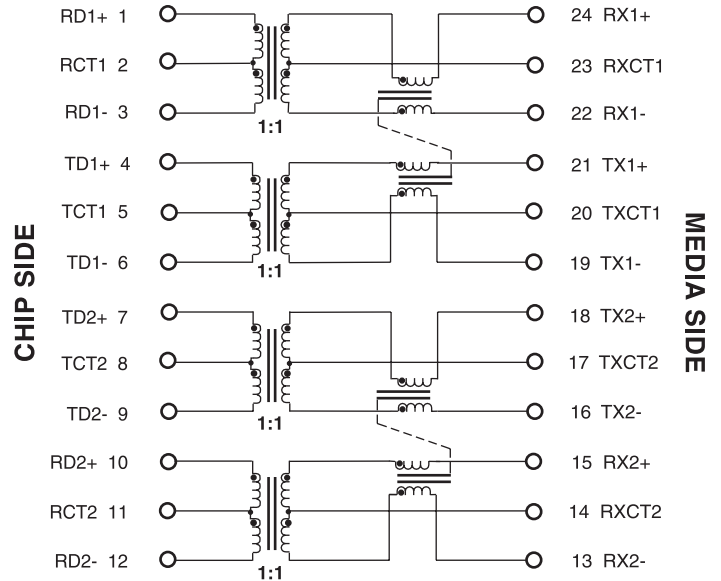


Schematics (continued)

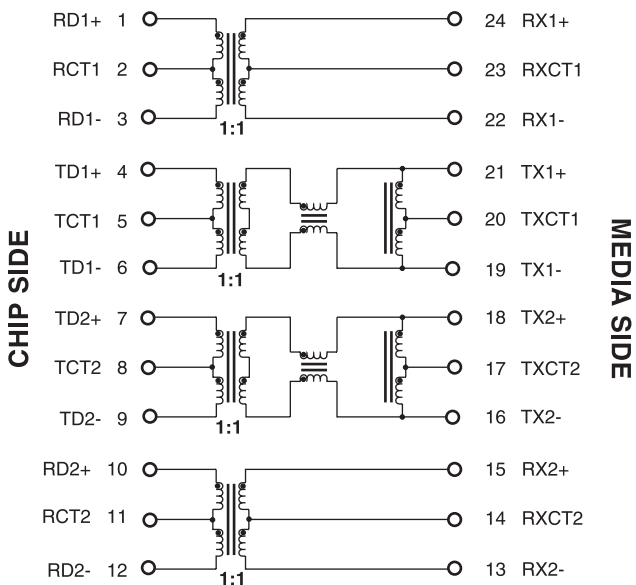
H2005ANL



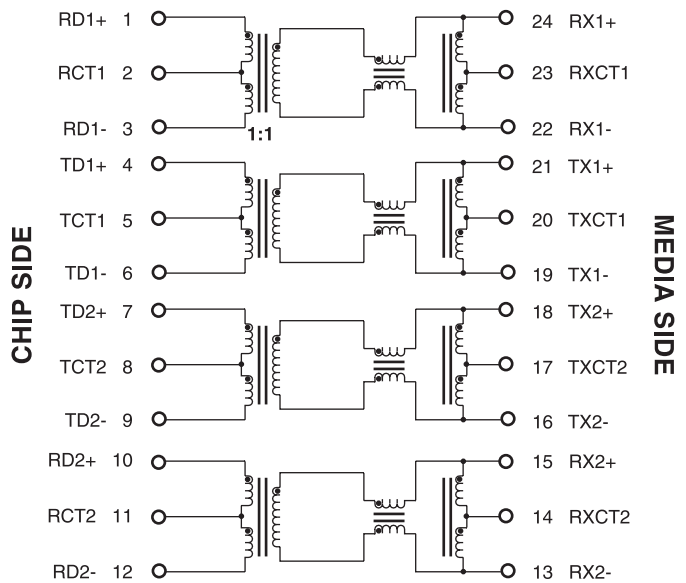
H2006ANL



H2008NL



H2009NL

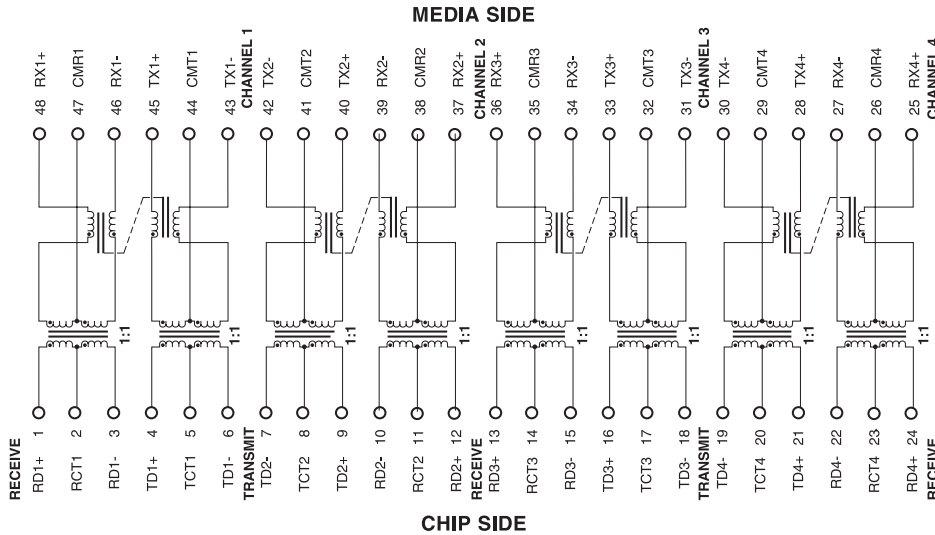


Power OVER Ethernet (PoE) Magnetics and (PoE+) Magnetics

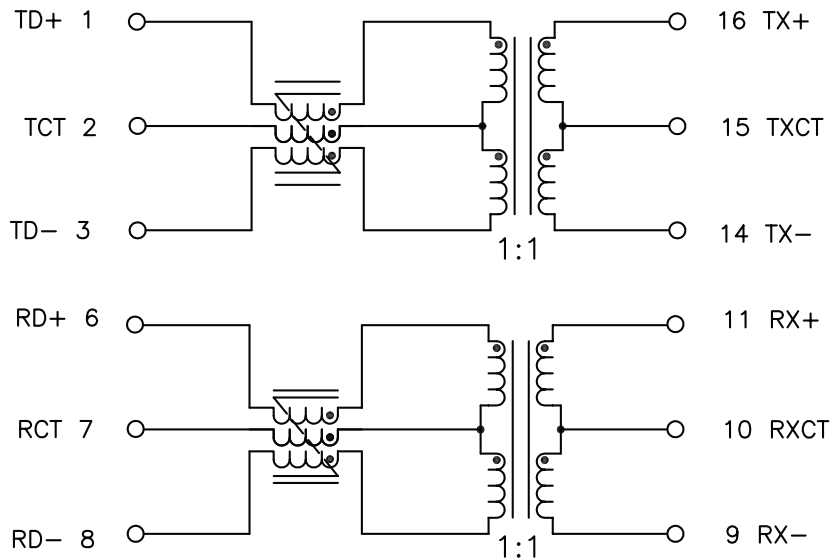
100Base-TX VoIP Magnetics Modules

Schematics (continued)

H2017NL



HX2326NL



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