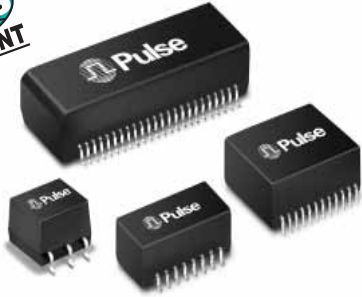


POWER OVER ETHERNET (PoE) MAGNETICS

10/100BASE-TX VoIP Magnetics Modules



- RoHS-5 peak reflow temperature rating 235°C
- RoHS-6 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

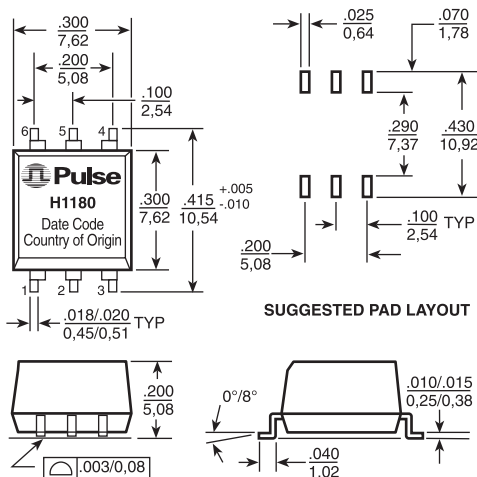
RoHS-6 ⁴ Compliant Part Number	RoHS-5 ³ Compliant Part Number	Ports	Insertion Loss (dB MAX)	Return Loss (dB MIN @ 100)				Differential to Common Mode Rejection (dB MIN)			Crosstalk (dB MIN)			Hipot (V _{RMS} MIN)	DC Resistance Balance ≤ (%)
				1-100MHz	1-30MHz	40MHz	50MHz	60-80MHz	30MHz	60MHz	100MHz	30MHz	60MHz		
H1180NL ^{2c}	—	1	-1.2	-16	-14	-13	-12	-43	-37	-33	-45	-40	-35	1500	—
H1187NL ^{2a}	H1187	1	-1.2	-16	-14	-13	-12	-43	-37	-33	-45	-40	-35	1500	—
H1197NL ^{2c}	H1197	1	-1.2	-16	-14	-13	-12	-43	-37	-33	-45	-40	-35	1500	—
H2019NL ^{2c}	H2019	1	-1.2	-16	-14	-13	-12	-43	-37	-33	-45	-40	-35	1500	3.5
H2005ANL ^{2c}	H2005A	2	-1.2	-16	-14	-13	-12	-50	-43	-35	-43	-37	-33	1500	3.5
H2006ANL ^{2d}	H2006A	2	-1.2	-16	-14	-13	-12	-43	-37	-33	-43	-37	-31	1500	3.5
H2008NL ^{2d}	H2008	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
H2014NL ^{2d}	H2014	4	-1.2	-16	-14	-13	-12	-43	-37	-33	-45	-40	-35	1500	3.5
H2017NL ^{2c}	H2017	4	-1.2	-16	-14	-13	-12	-43	-37	-33	-45	-40	-35	1800	3.5
HX2019NL ^{1, 2a}	HX2019	1	-1.4	-16	-14	-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
- RoHS-5:** Product does not contain 5 out of the 6 banned substances specified in the RoHS directive (product contains lead in applications considered solder).
- RoHS-6:** Product does not contain 5 out of the 6 banned substances specified in the RoHS directive. Some internal connections may contain lead in high-temperature solder (solder alloys containing more than 85% lead).

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

Mechanicals

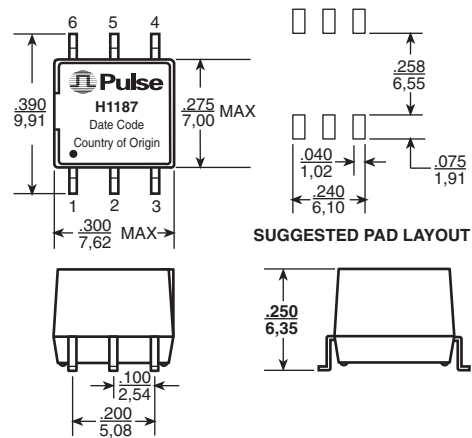
H1180



Weight 0.6 grams
Tape & Reel 500/reel
Tube 65/tube

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

H1187



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

USA 858 674 8100 • Germany 49 7032 78060 • Singapore 65 6287 8998 • Shanghai 86 21 32181071 • China 86 755 33966678 • Taiwan 886 3 4643715

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Mechanicals

H1197

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

H2019, HX2019

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

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

H2005A

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

H2006A, H2008

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

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

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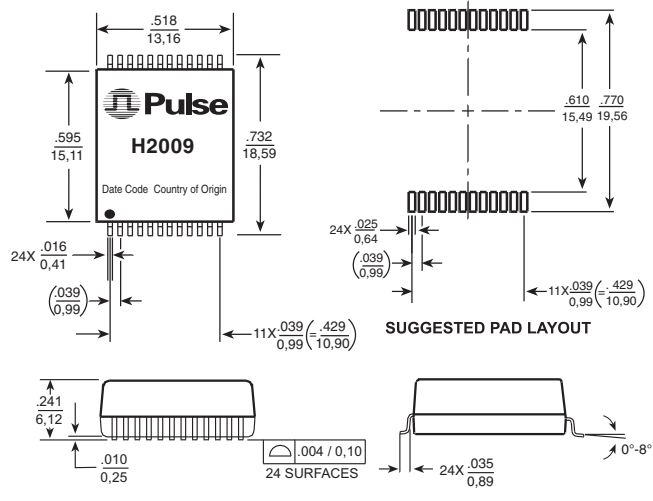
POWER OVER ETHERNET (PoE) MAGNETICS

10/100BASE-TX VoIP Magnetics Modules



Mechanicals (continued)

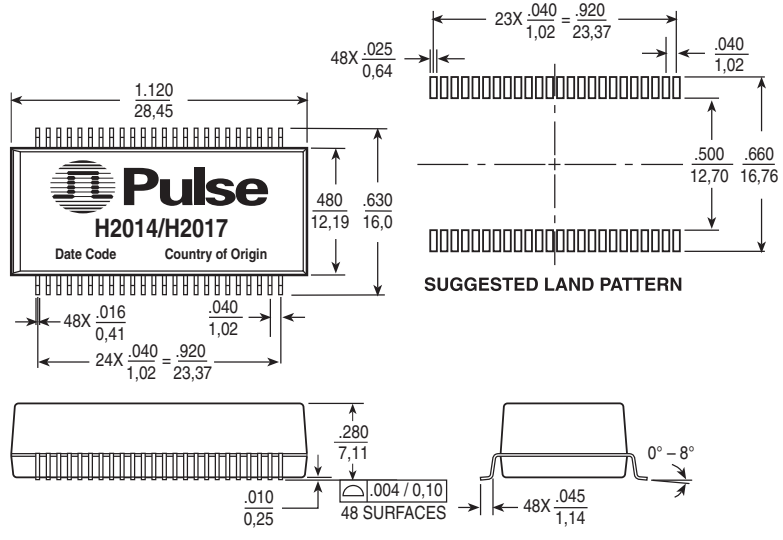
H2009



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

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

H2014, H2017

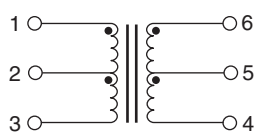


Dimensions: Inches
mm
Unless otherwise specified,
all tolerances are $\pm .010$
0,25

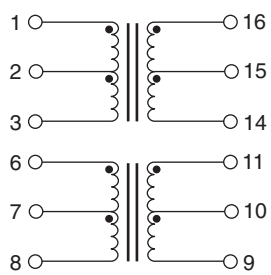
Weight 5.0 grams
Tape & Reel 250 /reel
Tube 15/tube

Schematics

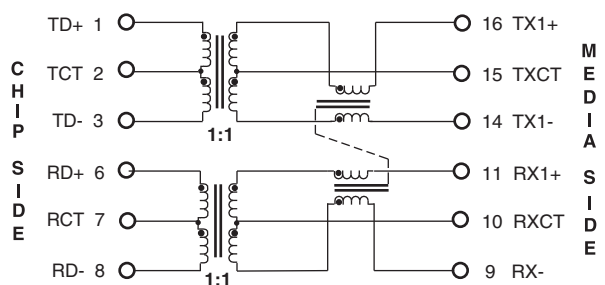
H1180, H1187



H1197



H2019, HX2019

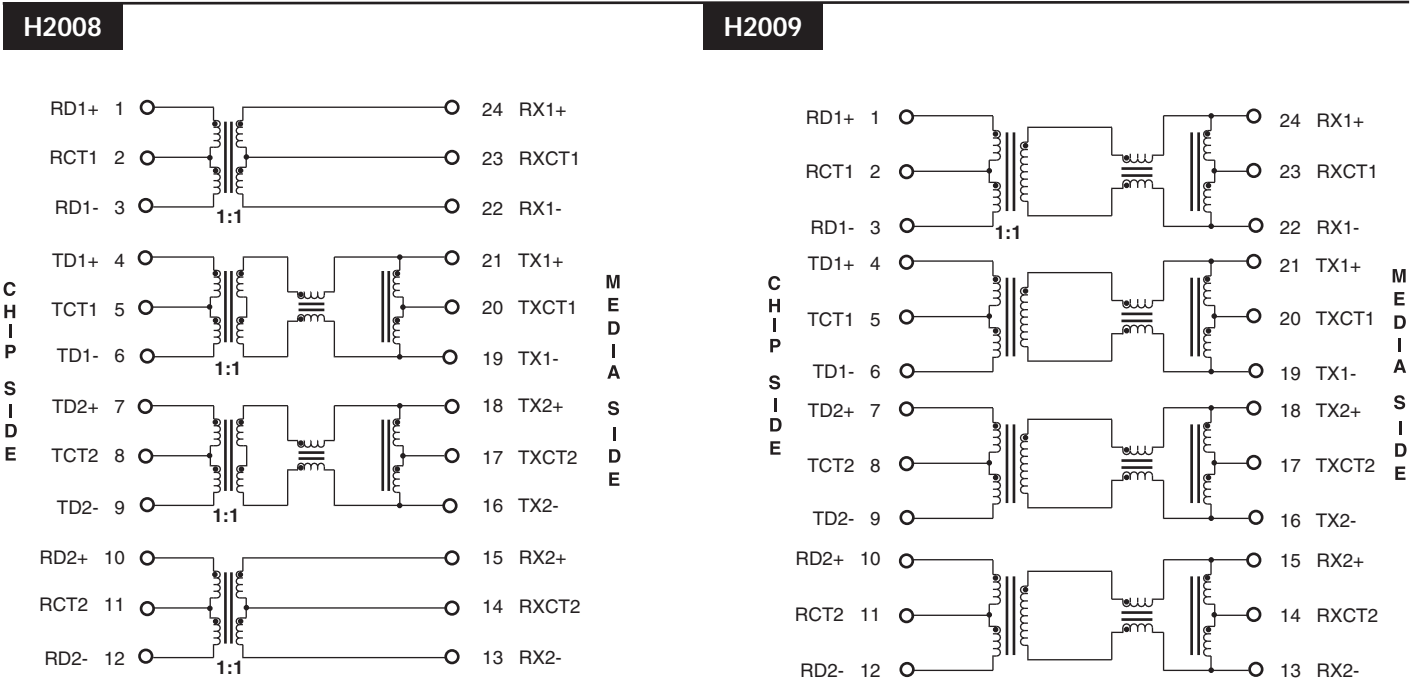
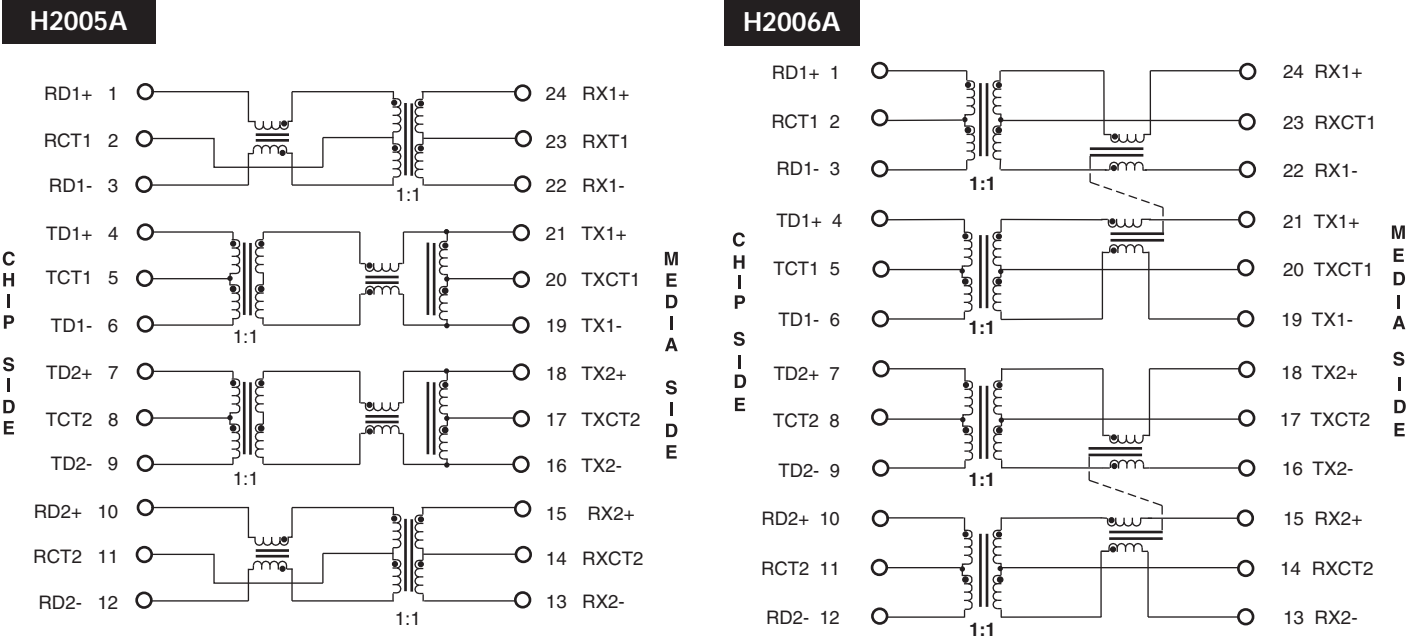


POWER OVER ETHERNET (PoE) MAGNETICS

10/100BASE-TX VoIP Magnetics Modules



Schematics (continued)



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POWER OVER ETHERNET (PoE) MAGNETICS

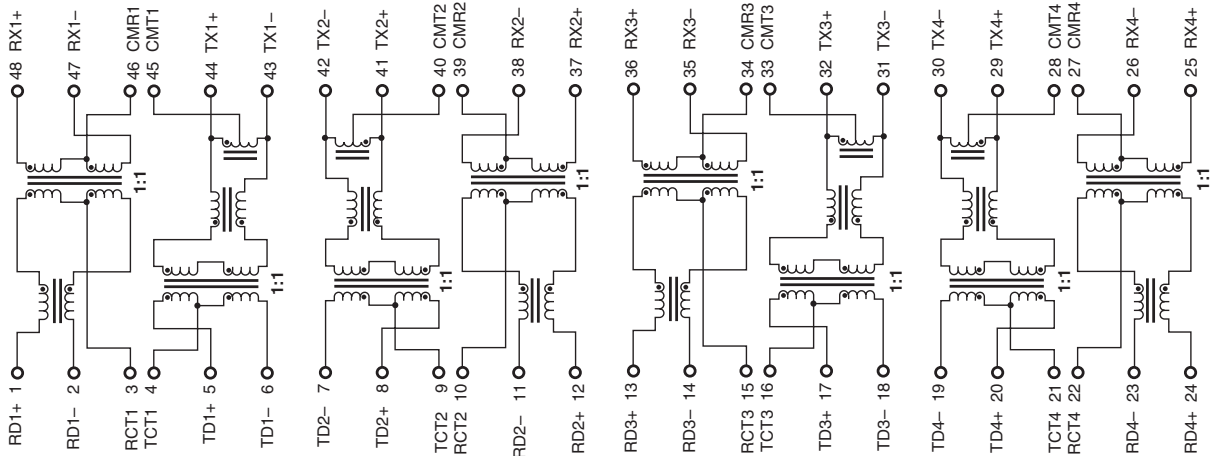
10/100BASE-TX VoIP Magnetics Modules



Schematics (continued)

H2014

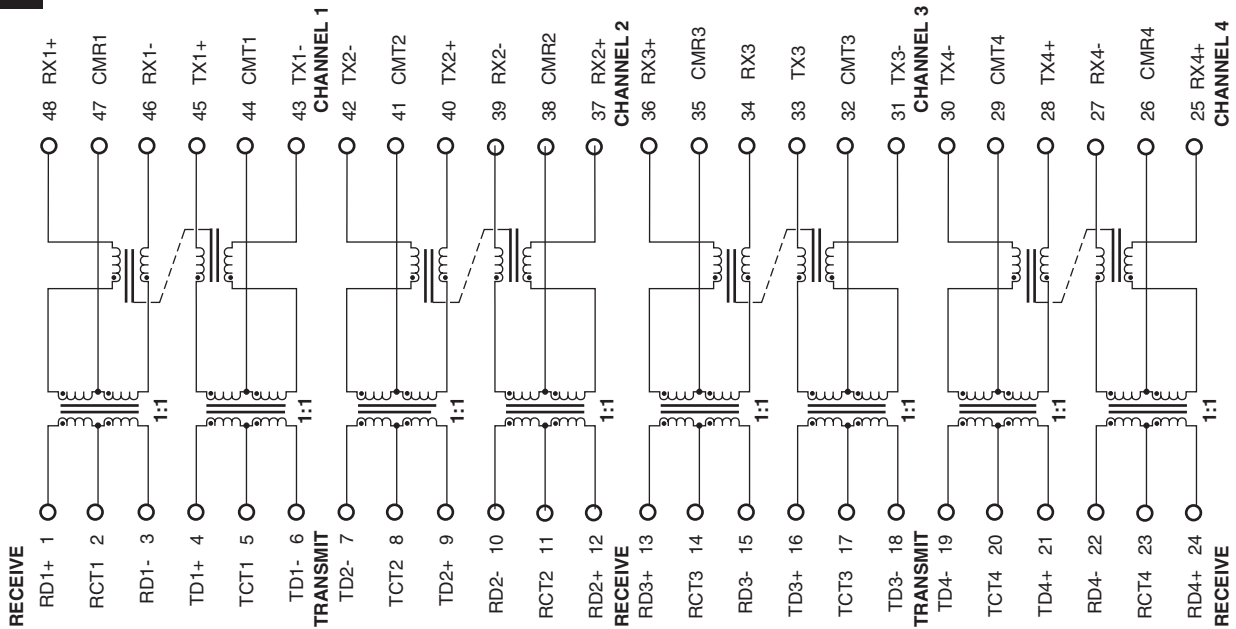
MEDIA SIDE



CHIP SIDE

H2017

MEDIA SIDE



CHIP SIDE

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