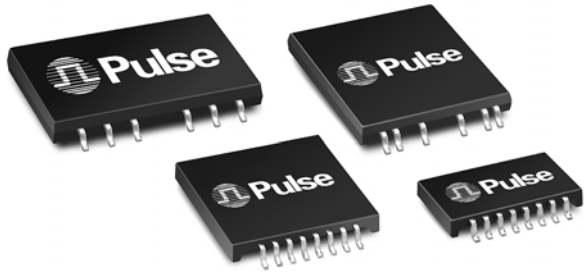


10/100 PC CARD LAN MAGNETICS SOLUTIONS



- ⊞ Half port and single port designs for maximum layout flexibility
- ⊞ Low profile packages from .094" (2,39 mm) to .078" (1,98 mm) for PC Card and Cardbus applications
- ⊞ Compatible with Intel, TDK, QSI, and ICS transceivers

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

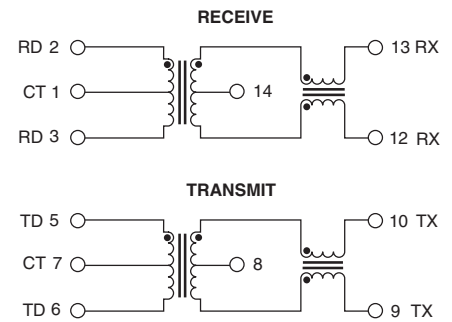
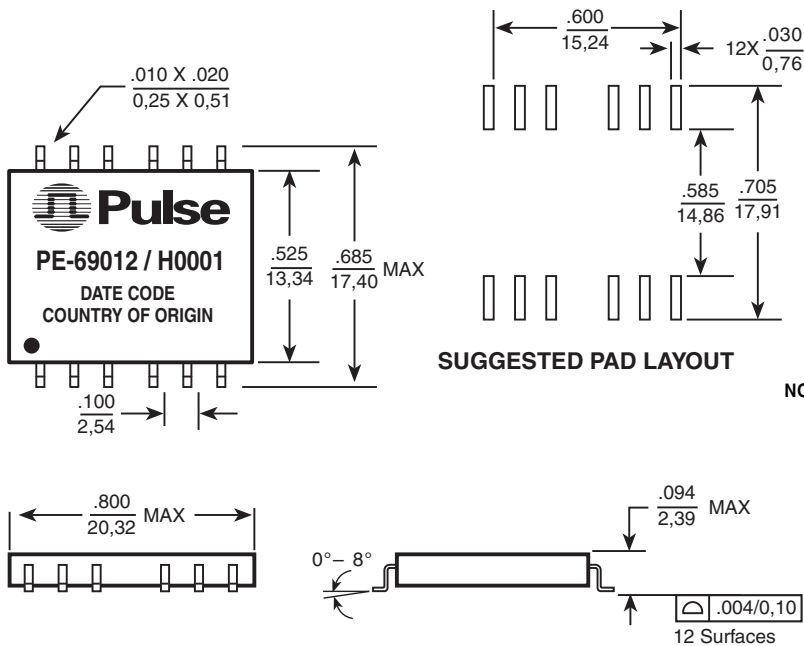
Part Number	Turns Ratio (±5%)		Insertion Loss 100 kHz-100 MHz (dB MAX)	Return Loss (dB MAX)			Differential to Common Mode Rejection (dB MAX)				Crosstalk (dB MAX)			Hipot (Vrms MIN)
	Transmit	Receive		30 MHz	60 MHz	80 MHz	30 MHz	50 MHz	100 MHz	150 MHz	30 MHz	62 MHz	100 MHz	
PE-69012	1:1	1:1	-1.3	-18	-13	-11	-40	-35	-30	-20	-40	-40	-35	1500
H0001	$\sqrt{2}:1$	1:1	-2.0	-18	-12	-10	-30	-30	-30	-20	-40	-40	-35	1500
H0002	1:1	1:1	-1.3	-18	-13	-11	-30	-30	-30	-20	-40	-35	-30	1500
H0005	1:1*		-1.1	-17	-12	-10	-30	-30	-30	-20	—	—	—	1500
H0006	1:25:1*		-1.1	-17	-12	-10	-30	-30	-30	-30	—	—	—	1500
H0008	1:25:1	1:1	-1.1	-17	-12	-10	-30	-30	-30	-20	-40	-35	-30	1500
H0009	1:1	1:1	-0.9	-16	-12	-11	-35	-33	-20	-20	-50	-45	-40	1500
H0010	$\sqrt{2}:1$	1:1	-1.1	-17	-12	-10	-30	-30	-30	-20	-40	-35	-30	1500
H0013	1:1	1:1	-0.9	-16	-12	-11	-35	-33	-20	-20	-50	-45	-40	1500
H0022	1:1	1:1	-2.0	-18	-14	-12	-40	-35	-30	-20	-50	-45	-40	1500

*H0005 and H0006 can be used for transmit or receive channels.

Mechanical

Schematic

PE-69012, H0001



NOTE: Transmit and receive channels are interchangeable on the PE-69012.

Weight 1.3 grams
Tape & Reel600/reel
Tube25/tube

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

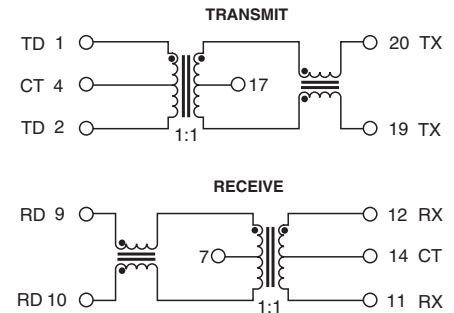
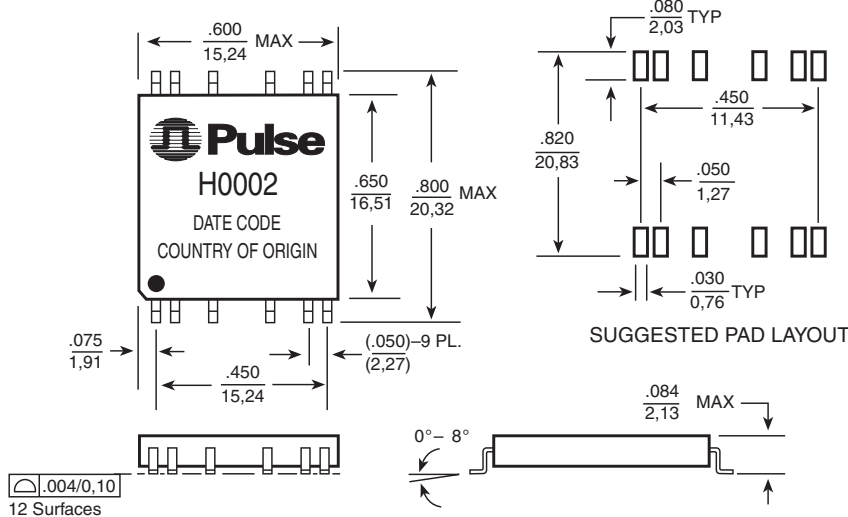
10/100 PC CARD LAN MAGNETICS SOLUTIONS



Mechanicals

Schematics

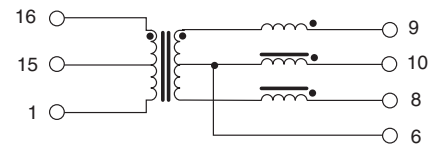
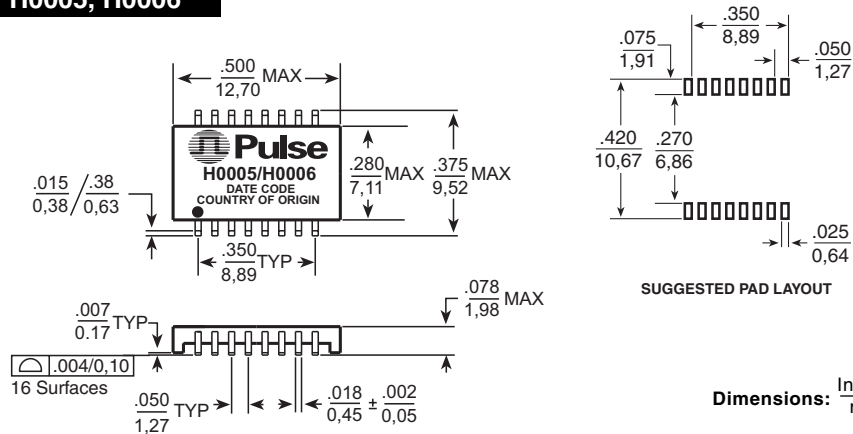
H0002



Weight1.2 grams
Tape & Reel900/reel
Tube35/tube

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

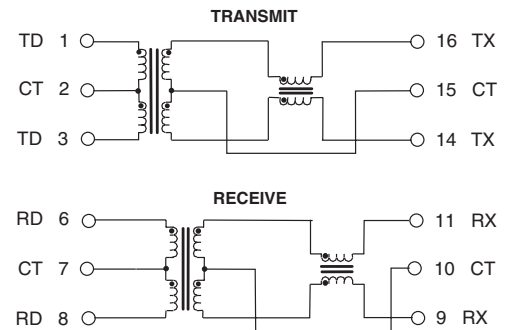
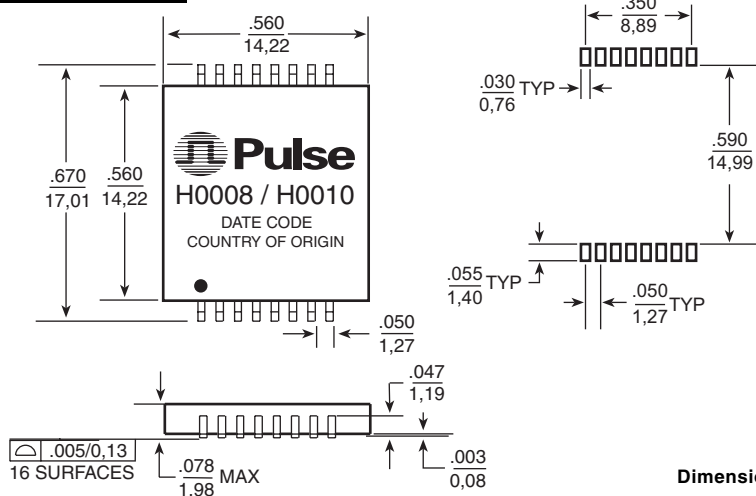
H0005, H0006



Weight3 grams
Tape & Reel600/reel
Tube25/tube

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

H0008, H0010



Weight1.3 grams
Tape & Reel600/reel
Tube35/tube

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

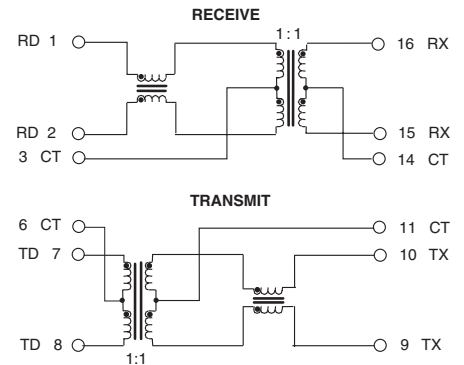
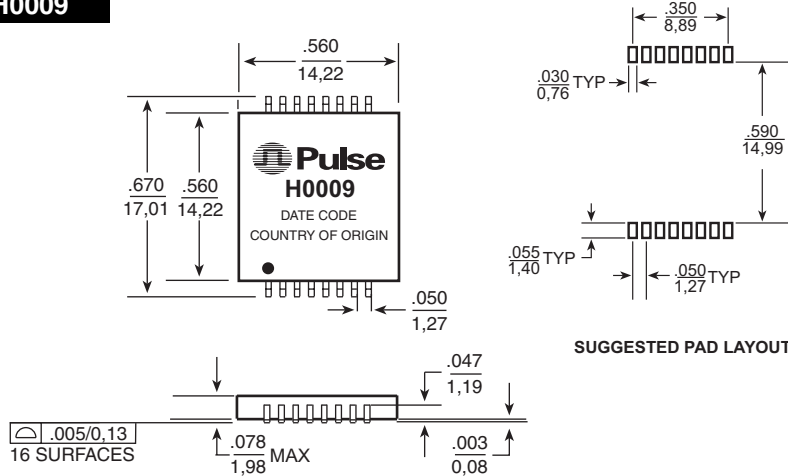
10/100 PC CARD LAN MAGNETICS SOLUTIONS



Mechanicals

Schematics

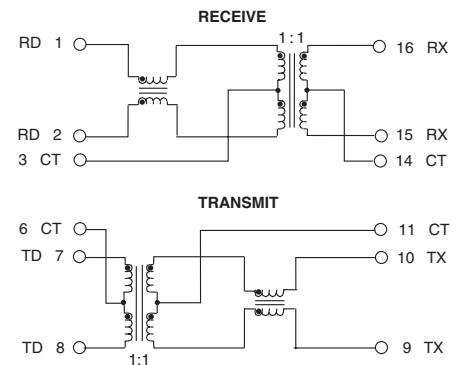
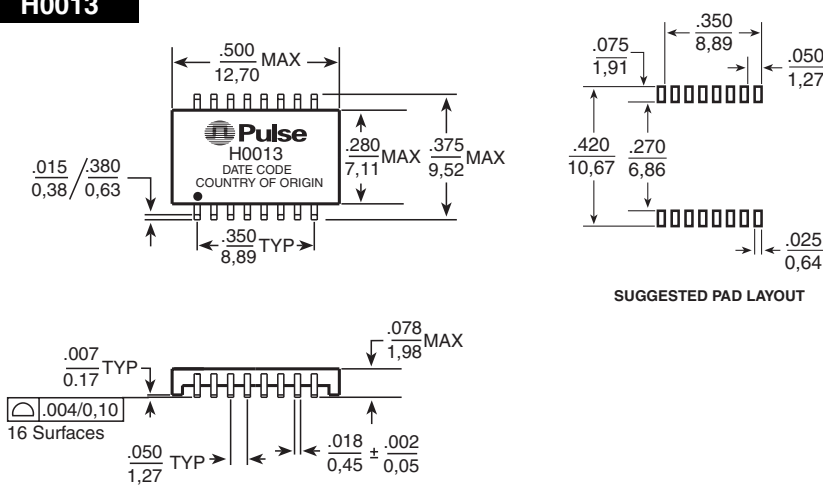
H0009



Weight1.3 grams
Tape & Reel600/reel
Tube35/tube

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

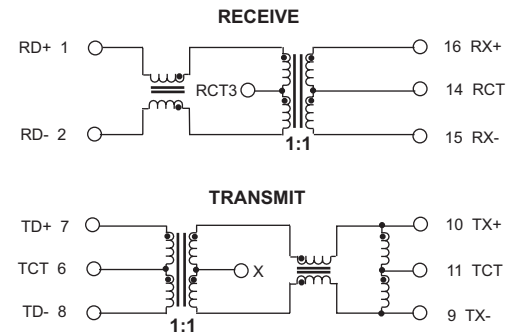
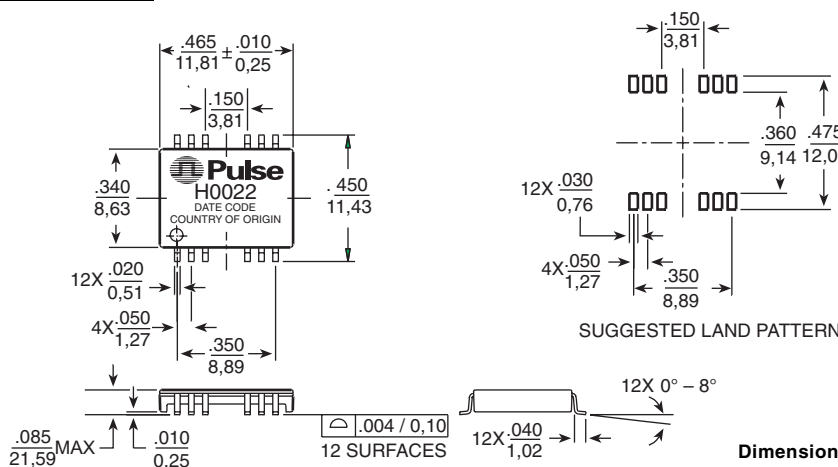
H0013



Weight1.3 grams
Tape & Reel600/reel
Tube35/tube

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

H0022



Weight355 grams
Tape & Reel1000/reel
Tube40/tube

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

10/100 PC CARD LAN MAGNETICS SOLUTIONS



Application Notes

The Pulse 10/100 PC Card modules provide isolation, impedance matching and noise attenuation in very low profile surface mount packages. This series provides various transmit turns ratios designed for use with the IC physical layer solutions offered by TDK, ICS, QSI and others.

Electrical Functions

Data integrity - The low profile magnetics modules are 100% tested to provide high reliable connectivity.

Equipment isolation - Each module is designed and 100% tested to provide 1500 Vrms minimum isolation per IEEE 802.3 requirements.

EMI suppression - High impedance common mode chokes attenuate signal harmonics which may contribute to radiated and conducted emissions. Transformer center-taps, when grounded, provide noise-shunting paths. The H0022 provides a shunt inductor on the transmit channel for additional noise suppression. Please note the recommended values and ratings of the bypass capacitors shown in the application circuit.

Mechanical Attributes

Design Flexibility - The H0005 and H0006 are 1/2 port designs offering additional flexibility in PCB layout. The H0008 through H0010 and H0013 are complete 10/100 single port solutions, offering the smallest overall board usage. Each device has a .078" maximum height package for use in the most height-restrictive applications. The H0022 maximum height is .085" to facilitate additional EMI performance with minimal sacrifice in footprint dimensions.

Process and Quality Standards

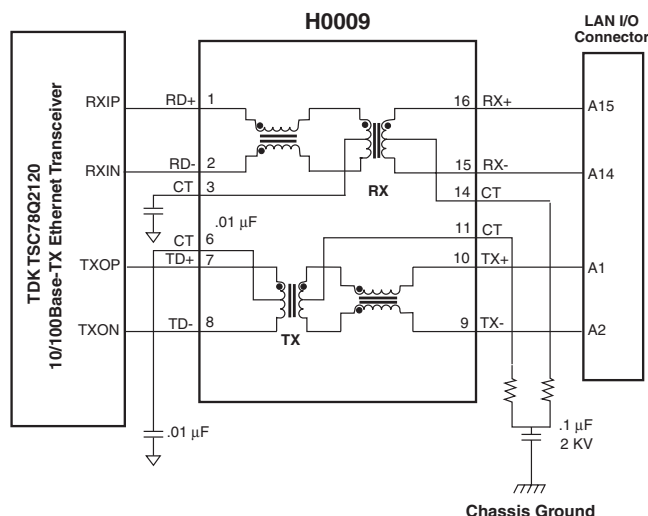
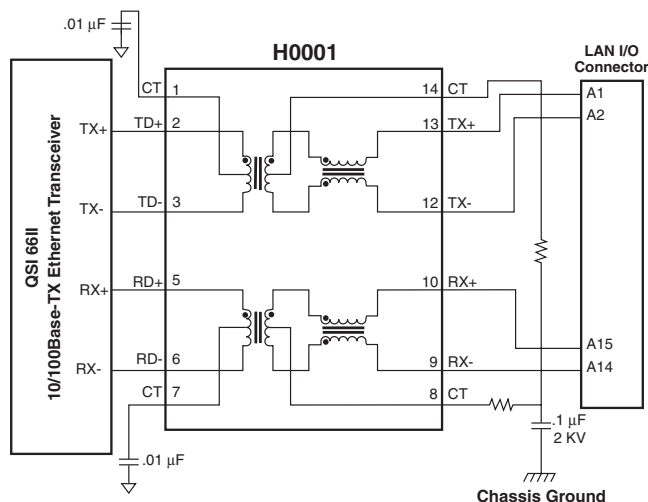
Process Integrity - The PE-69012, H0001 and H0002 offer IC-grade transfer molded packages and the H0005 through H0010 and H0013 offer a bottom fill, leaded header type design. Both designs are suitable for high temperature IR reflow operations with peak temperature profiles up to 235°C.

Reliable Solder Connections - Compliant lead design provides a flexible lead resulting in excellent solder-joint reliability with ±.002" (0,05 mm) coplanarity.

All leads are solder-plated after final assembly to adhere to MIL-STD-202 (method 208) for solderability.

Note: All modules are packaged in tubes, unless Tape & Reel is specified. Please add the suffix "T" such as H0009T for Tape & Reel orders.

Application Circuits



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PRELIMINARY H304.P (2/00)