

10GBASE-T MAGNETICS MODULES

Designed to Support 10GBASE-T Transceivers



-  Compliant with IEEE 802.3 standard
-  Qualified with top 10Gig PHY Manufacturers
-  RoHS peak reflow temperature rating 245°C
-  Low profile package for PCI Express
-  Fine-tuned magnetics to specific PHY vendors

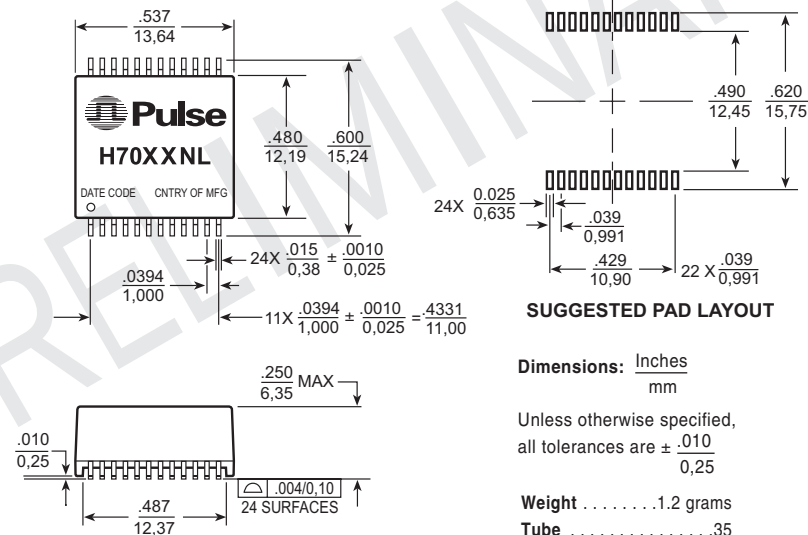
Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

RoHS ² Compliant Part Number	Insertion Loss (dB or better)		Return Loss (dB or better)		Common to Differential Mode Rejection (dB or better)		Crosstalk (dB or better)		Hipot (VRMS MIN)
	100 KHz	1-500 MHz	1-40 MHz	40-500 MHz	1-250 MHz	250-500 MHz	1-100 MHz	100-500 MHz	
H7001NL	-3.0	-1.0 (-0.6 dB TYP)	-18	-17+ 10*LOG(f/40)	-30	-22	-40	-30	1500
H7008NL	-3.0	-1.0 (-0.6 dB TYP)	-18	-17+ 10*LOG(f/40)	-30	-22	-40	-30	1500
H7019NL	-3.0	-1.0 (-0.6 dB TYP)	-18	-17+ 10*LOG(f/40)	-30	-22	-40	-30	1500
H7500NL	-3.0	-1.0 (-0.6 dB TYP)	-18	-17+ 10*LOG(f/40)	-30	-22	-40	-30	1500
H7800NL	-3.0	-1.0 (-0.6 dB TYP)	-18	-17+ 10*LOG(f/40)	-30	-22	-40	-30	1500

1. For Tape & Reel packaging, add a "T" suffix at the end of the part number, e.g. H7001NLT.
2. RoHS: 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).

Mechanicals

H7001NL, H7008NL, H7019NL



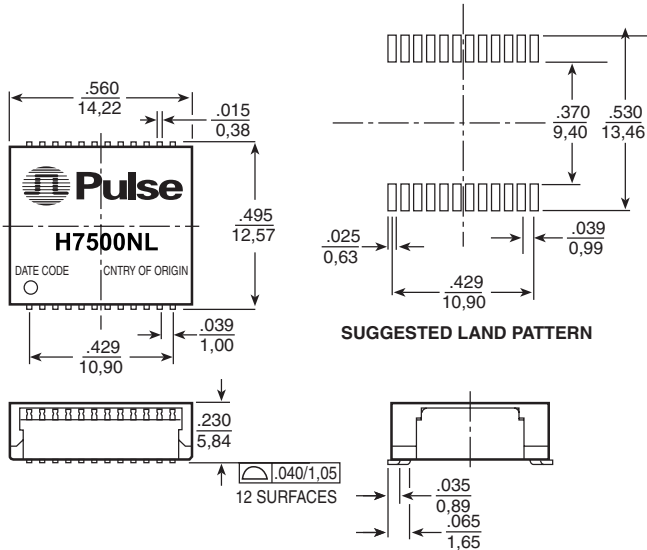
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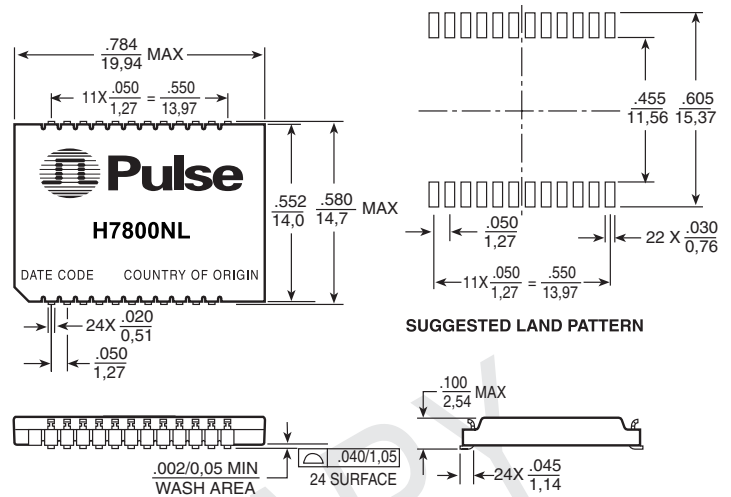


Mechanicals (continued)

H7500NL



H7800NL



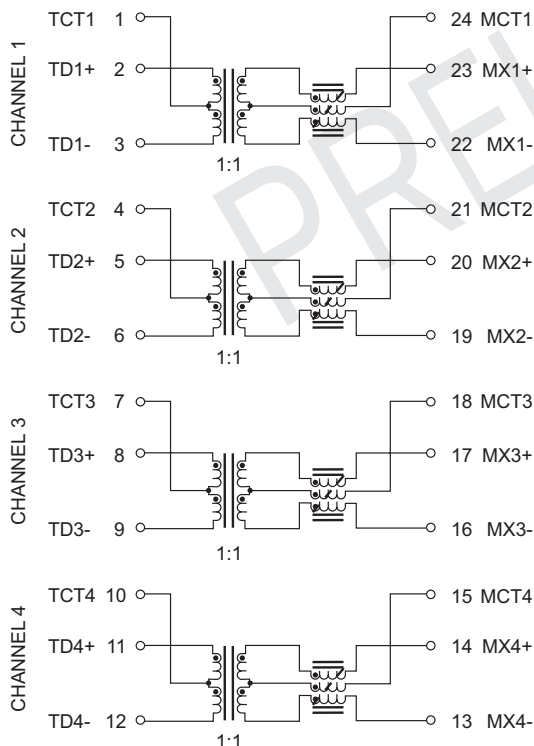
Weight1.2 grams
 Tape & Reel400
 Tube30

Dimensions: $\frac{\text{Inches}}{\text{mm}}$ Unless otherwise specified, all tolerances are $\pm \frac{.010}{.025}$

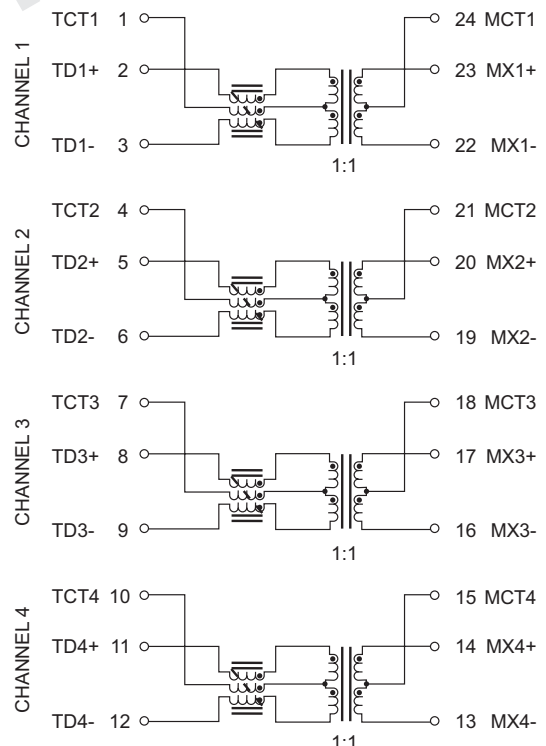
Schematic

Weight1.0 grams
 Tape & Reel700
 Tube20

H7008NL



H7019NL



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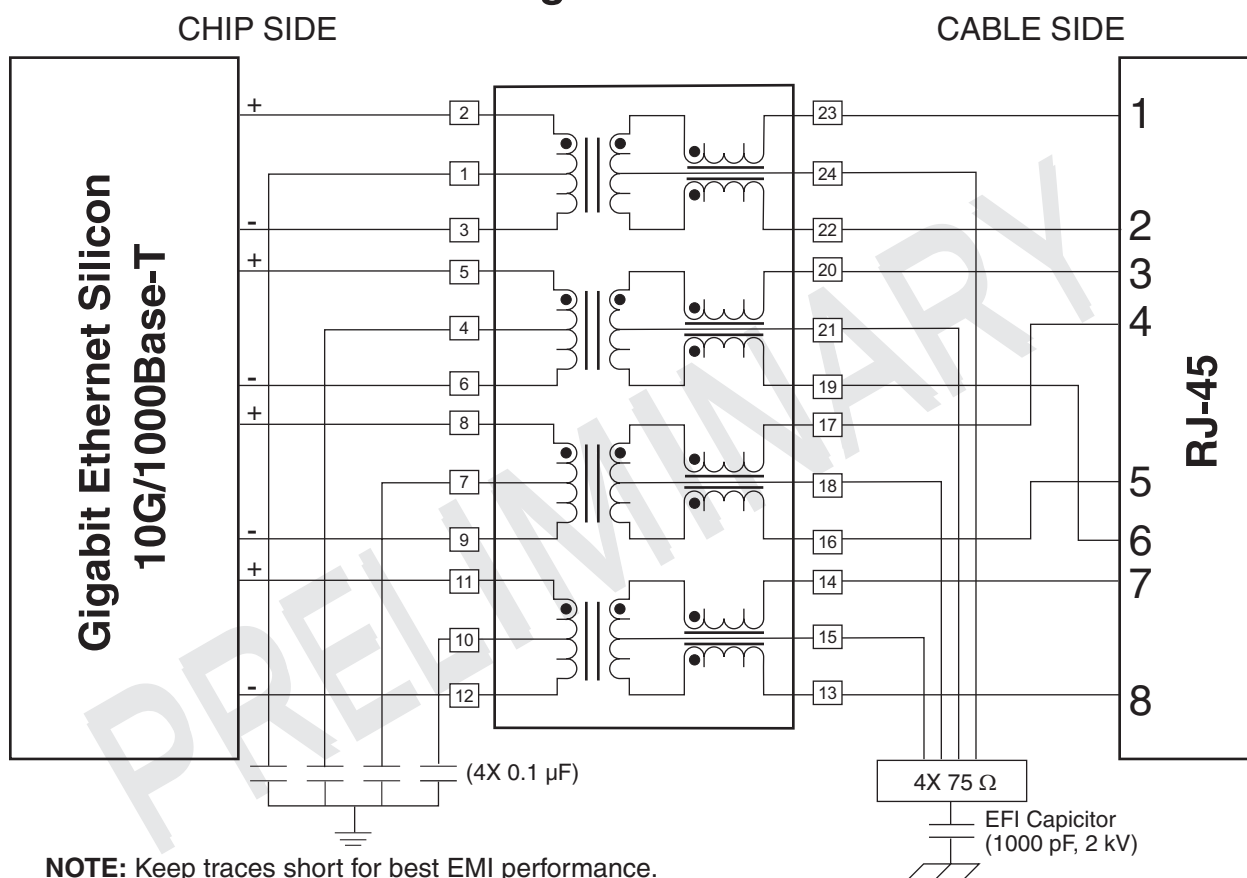
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Application Circuit

H7001NL, H7500NL, H7800NL

Gigabit Circuit



The above circuit is a simple interface for a gigabit transformer connection between the silicon and connector. It is highly recommended that the cable side center taps of each transformer be terminated to 75 Ω resistors and that the four center taps be terminated to an EFI capacitor prior to ground termination.

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