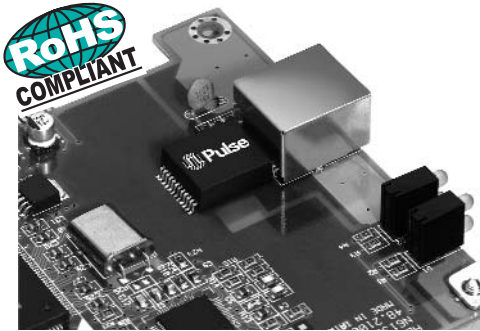








# 1000BASE-T MAGNETICS MODULES



## Designed to Support 1:1 Turns Ratio Transceivers



-  For RoHS part add suffix **NL**<sup>7</sup>
-  RoHS “NL” peak solder rating 260°C, non-RoHS peak solder rating 235°C
-  Designed for long haul Gigabit Ethernet (10/100/1000BASE-T) applications
-  H5008/9 designed to fit behind 1x1 RJ45 connector
-  Cable interface for isolation and low common mode emissions
-  Meets IEEE 802.3 specification

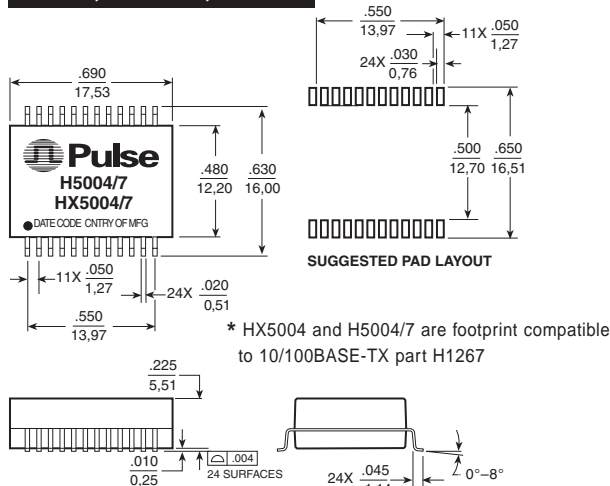
### Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

Part # Number	RoHS <sup>7</sup>	Number of Ports	Insertion Loss (dB MAX)	Return Loss (dB MIN)					Differential to Common Mode Rejection (dB MIN)			Crosstalk (dB MIN)			Hipot (Vrms MIN)
				1-100 MHz	1-30 MHz	40 MHz	50 MHz	60-80 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	
H5004 <sup>1</sup>	5, 6c	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-45	-40	-35	1500
HX5004 <sup>1,2</sup>	5, 6c	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-45	-40	-35	1500
H5007 <sup>1,3</sup>	NL <sup>6d</sup>	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-45	-40	-35	1500
H5008	5, 6c	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-45	-40	-35	1500
HX5008 <sup>2</sup>	5, 6a	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-45	-40	-35	1500
H5009	5, 6a	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-45	-40	-35	1500
H5012 <sup>3</sup>	NL <sup>6a</sup>	2	1.4	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500
H5014	5, 6a	2	1.4	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500
HX5014 <sup>2</sup>	5, 6a	2	1.4	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500
H5015	5, 6a	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-45	-40	-35	1500
H5020	NL <sup>6c</sup>	2	1	-18	-14.4	-13.1	-12	-10	-40	-35	-30	-40	-35	-30	1500
HX5020 <sup>2</sup>	5, 6c	2	1	-18	-14.4	-13.1	-12	-10	-40	-35	-30	-40	-35	-30	1500

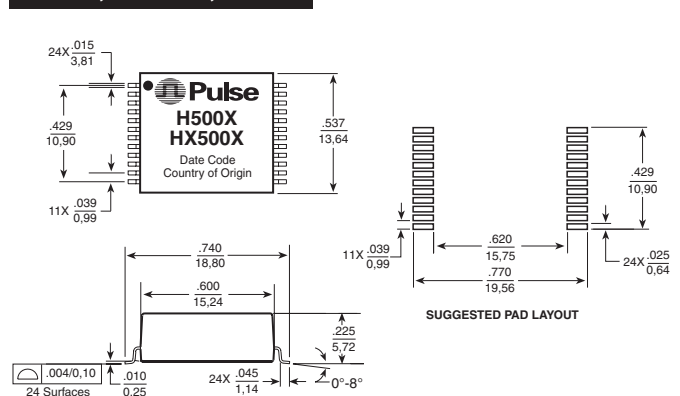
1. Footprint compatible product to H1267
2. HX: Extended temperature version -40°C to +85°C
3. Extended temperature part not available, select HX5004 or HX5014
4. For Tape & Reel packaging, add a “T” suffix at the end of the part number when ordering. e.g. H5007T
5. Contact Pulse for RoHS compliant part availability
6. MSL=Moisture Sensitivity Level a=1 b=2 c=3 d=4
7. Add suffix **NL** for RoHS compliant parts, e.g. H5007 changes to H5007NL or H5007NLT (for Tape and Reel)

## Mechanicals

### H5004, HX5004, H5007\*



### H5008, HX5008, H5009



Dimensions:  Inches  
 mm

Unless otherwise specified, all tolerances are ± .010  
0.25

Weight .....1.6 grams  
Tape & Reel .....300  
Tube .....35

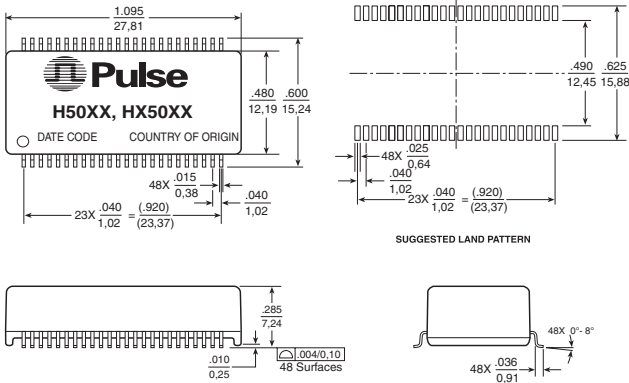
# 1000BASE-T MAGNETICS MODULES

## Designed to Support 1:1 Turns Ratio Transceivers



### Mechanicals (continued)

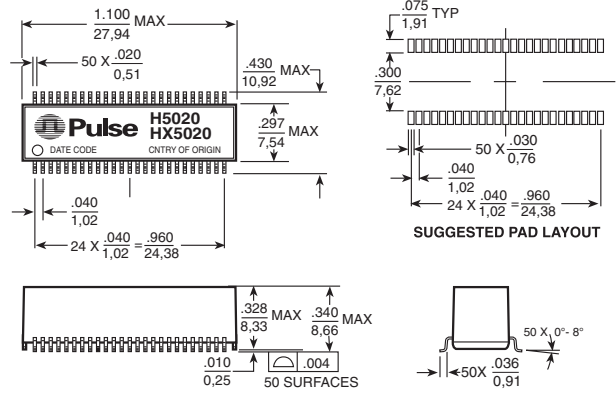
#### H5012, H5014, HX5014



Weight ..... 4.0 grams  
Tape & Reel ..... .250/reel  
Tube ..... .15/tube

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

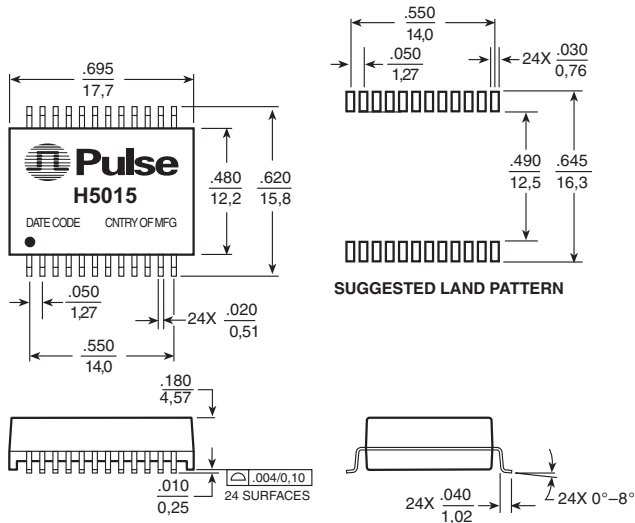
#### H5020, HX5020



Weight ..... 1.6 grams  
Tape & Reel ..... .250/reel  
Tube ..... .15/tube

### Mechanicals (continued)

#### H5015

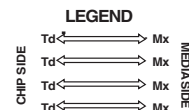
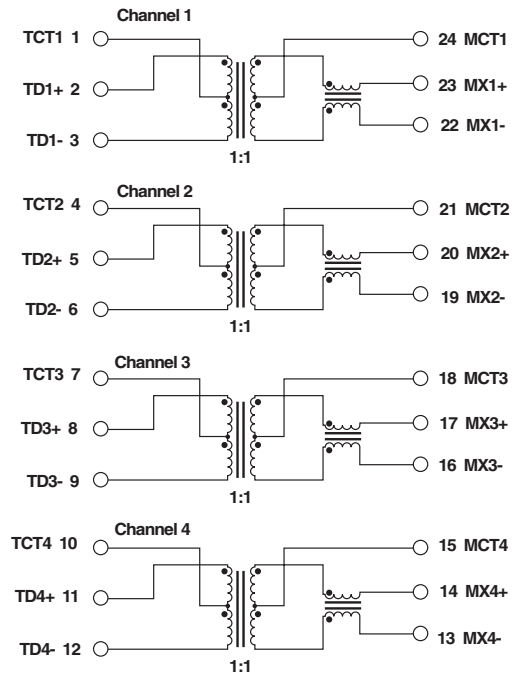


Weight ..... 1.5 grams  
Tape & Reel ..... .400/reel

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
Unless otherwise specified, all tolerances are  $\pm \frac{.005}{0,13}$

### Schematics

#### H5004, HX5004, H5009



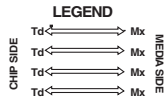
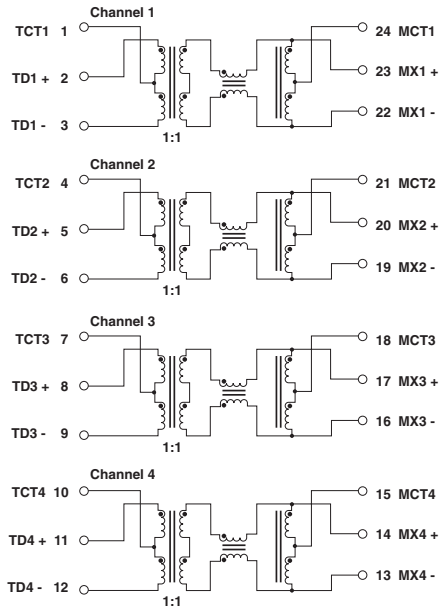
# 1000BASE-T MAGNETICS MODULES

## Designed to Support 1:1 Turns Ratio Transceivers

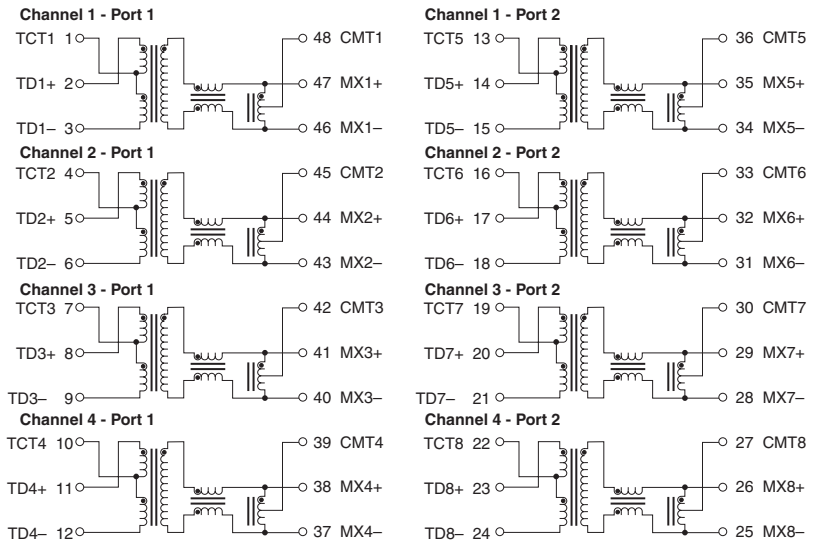


### Schematics (continued)

#### H5007\*, H5008, HX5008, H5015



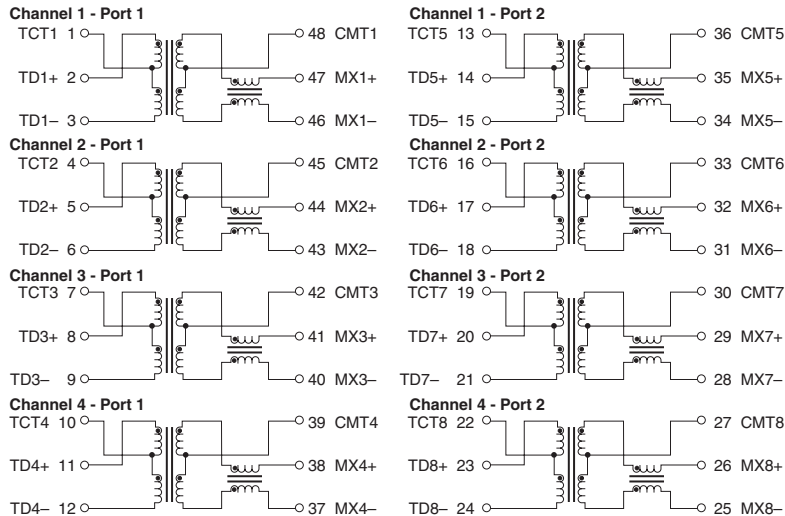
#### H5012 \*



\* Extended temperature part for H5012 is not available. Select HX5014.

\* Extended temperature part for H5007 (HX5007) is not available. Select HX5004.

#### H5014, HX5014



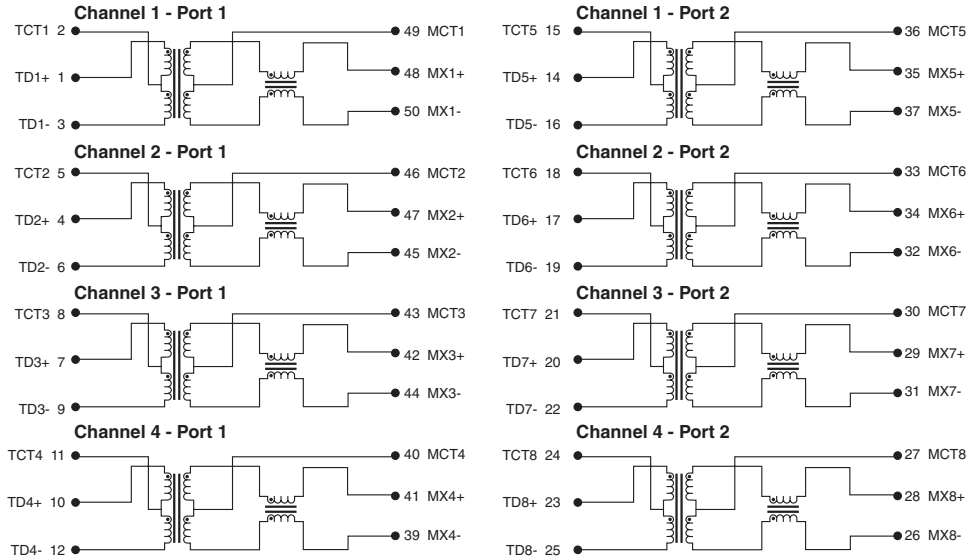
# 1000BASE-T MAGNETICS MODULES

Designed to Support 1:1 Turns  
Ratio Transceivers



## Schematics (continued)

### H5020, HX5020



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