

# 10/100BASE-TX DUAL PORT TRANSFORMER MODULES

## For Use with Transceivers Requiring 1:1 Transmit and Receive Turns Ratios



-  RoHS-5 peak reflow temperature rating 235°C
-  RoHS-6 peak reflow temperature rating 245°C
-  Meets IEEE 802.3 specification
-  Some models offer AutoMDIX capability

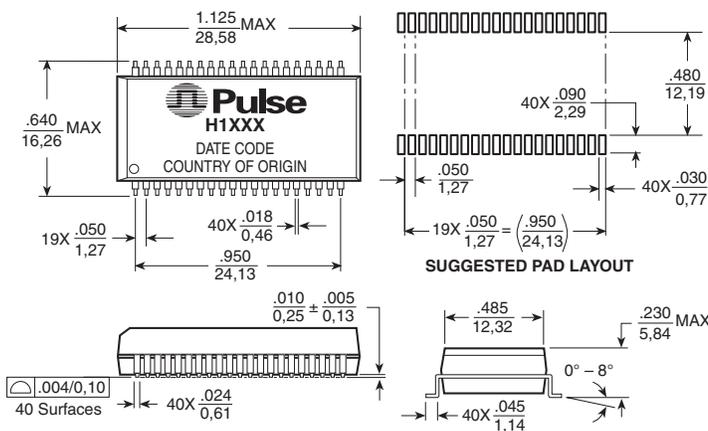
### Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

RoHS-6 <sup>5</sup> Compliant Part Number	RoHS-5 <sup>4</sup> Compliant Part Number	Insertion Loss (dB TYP)	Return Loss (dB MIN)				Crosstalk (dB TYP)				Differential to Common Mode Rejection (dB TYP)	
			0.1-100MHz	2-30MHz	40MHz	50MHz	60-80MHz	1MHz	30MHz	60MHz	100MHz	1-60MHz
H1026NL	H1026	-0.5	-21	-17	-14.5	-12	-65	-55	-45	-35	-40	-30
H1027NL <sup>6d</sup>	H1027	-0.5	-21	-17	-14.5	-12	-65	-55	-45	-35	-53	-40
H1028NL <sup>6d</sup>	H1028	-0.5	-21	-17	-14.5	-12	-65	-55	-45	-35	-45	-35
H1049 NL <sup>6d</sup>	—	-0.5	-21	-17	-14.5	-12	-65	-55	-45	-35	-45	-35
H1114 NL <sup>6d</sup>	H1114	-1.2	-16	-14	-13	-12	-50	-45	-40	-35	-37	-33
H1200NL <sup>6d</sup>	—	-1.0	-16	-14.4	-13	-12	-50	-45	-40	-35	-37	-33
H1174 NL <sup>6a</sup>	H1174	-1.2	-18	-16	-14	-12	-60	-45	-40	-35	-45	-35
H1270NL <sup>2, 6a</sup>	H1270 <sup>2, 6a</sup>	-1.2	-18	-16	-14	-12	-60	-45	-40	-35	-45	-35
HX1294NL <sup>2, 3, 6a</sup>	HX1294 <sup>2, 3, 6c</sup>	-1.2	-16	-14	-13.5	-10	-55	-45	-40	-35	-30	-20

- All models** meet input/output breakdown (Hipot) of 1500 Vrms.
- Suitable** for AutoMDIX applications.
- Operating Temperature** -40°C to +85°C.
- 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).
- MSL** = Moisture Sensitivity Level **a=1 b=2 c=3 d=4.**

## Mechanicals

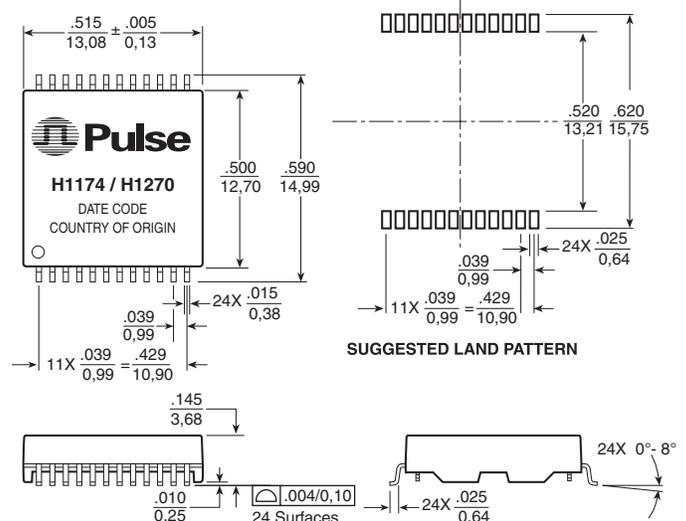
### H1XXX



Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are  $\pm \frac{.010}{.25}$

### H1174/H1270



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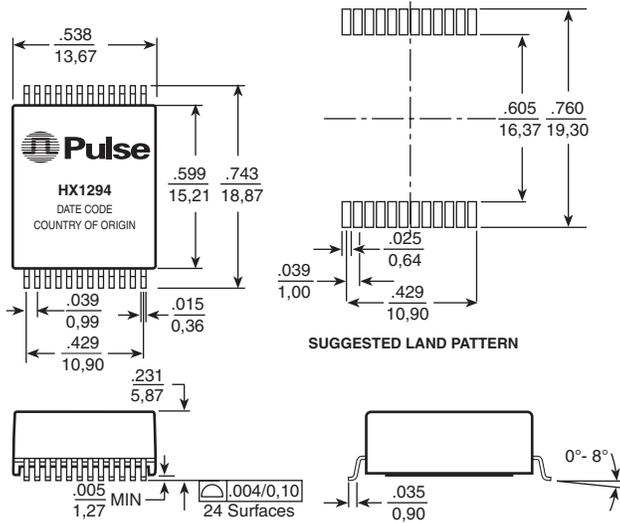
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### Mechanicals (continued)

### Schematics

#### HX1294



**Dimensions:**  $\frac{\text{Inches}}{\text{mm}}$

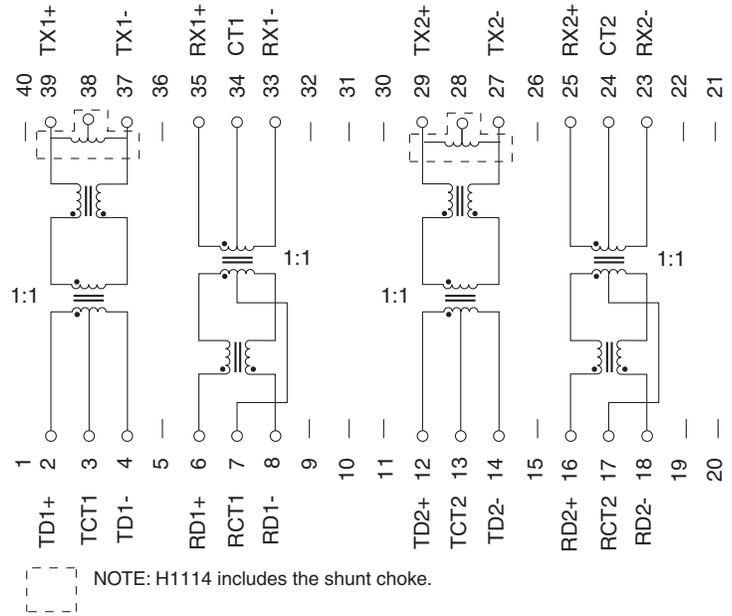
Unless otherwise specified,  
all tolerances are  $\pm \frac{.010}{0,25}$

**Weight** .....1.6 grams

**Tape & Reel** .....300/reel

**Tube** .....35/tube

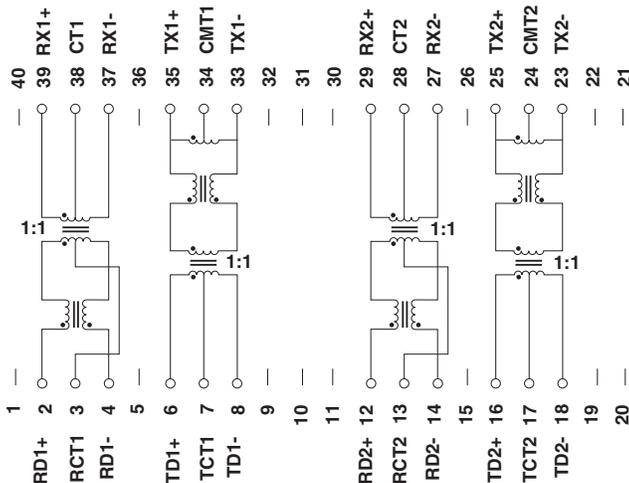
#### H1026, H1114



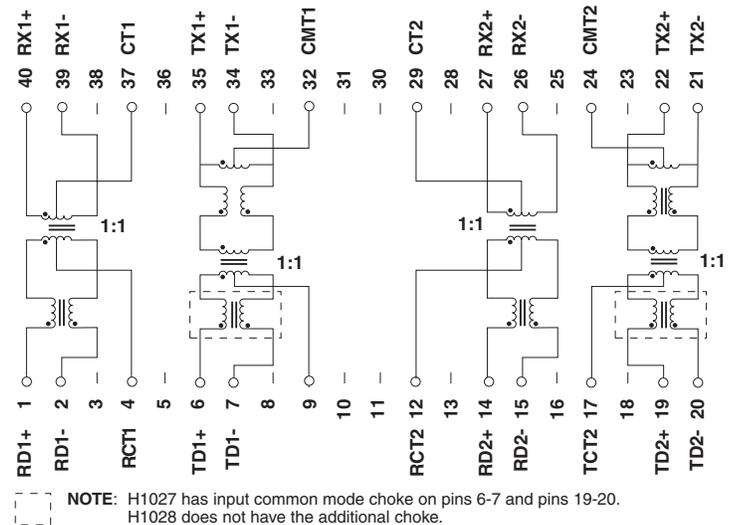
NOTE: H1114 includes the shunt choke.

### Schematics (continued)

#### H1049



#### H1027, H1028



NOTE: H1027 has input common mode choke on pins 6-7 and pins 19-20.  
H1028 does not have the additional choke.

**Dual Port Solutions:** The H1027, H1028, H1049, and H1026 are designed to support two RJ-45 connectors. The H1027 and the H1028 have the same pinout. The H1027 has an additional common mode choke on both transmit channels. The H1049 and the H1026 offer different pinouts for design flexibility.

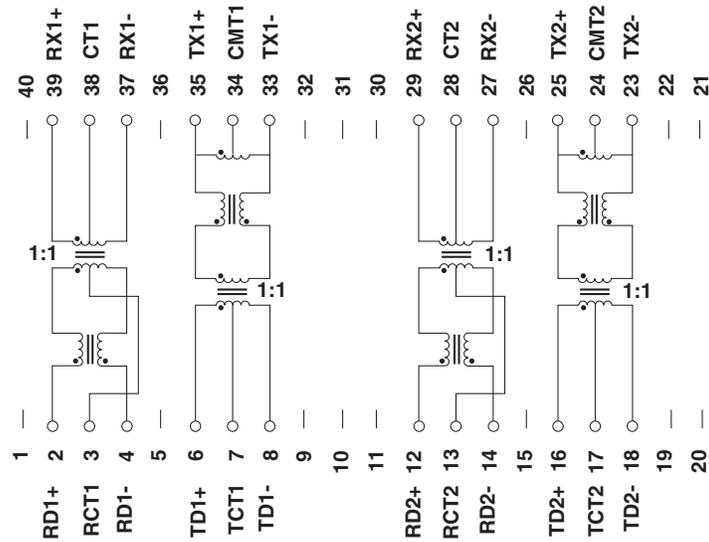
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1:1 Transmit and Receive Turns Ratios

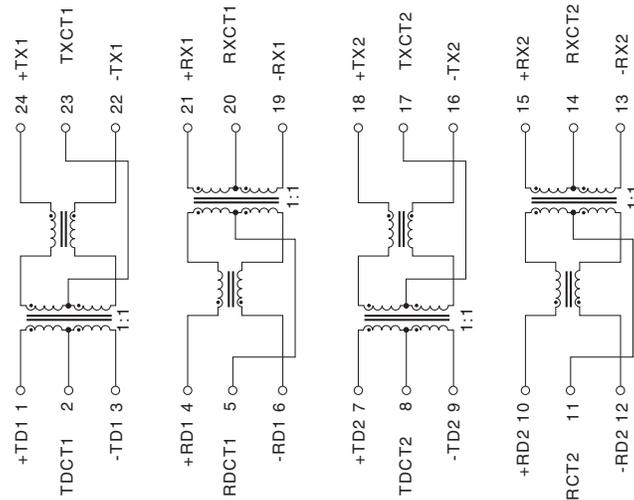


## Schematics (continued)

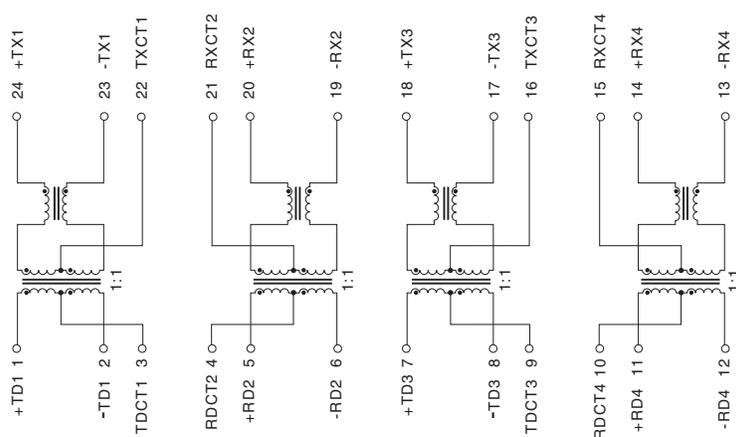
### H1200



### H1174



### H1270, HX1294



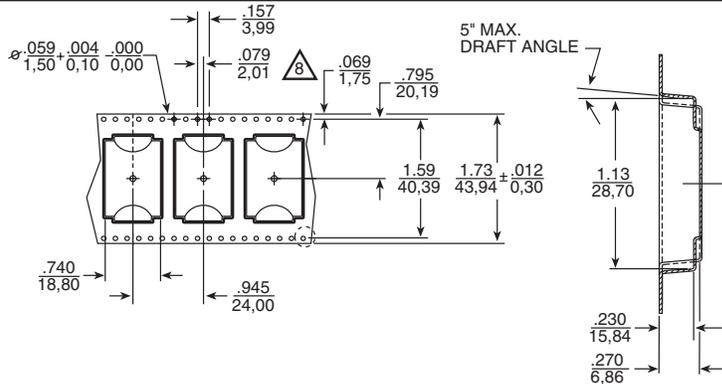
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## For Use with Transceivers Requiring 1:1 Transmit and Receive Turns Ratios



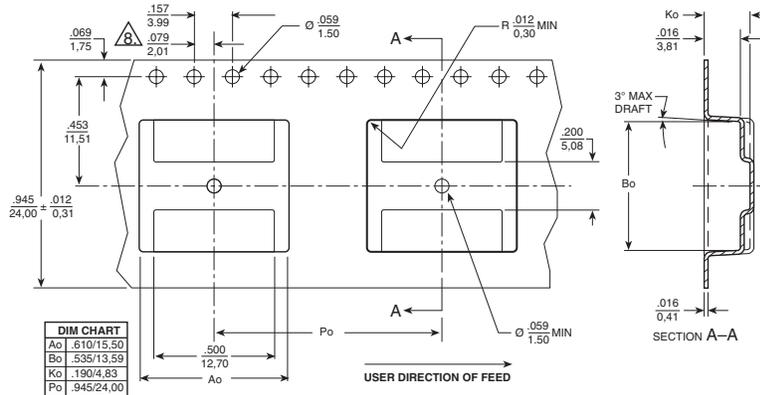
### Tape & Reel Specifications

#### H1XXX



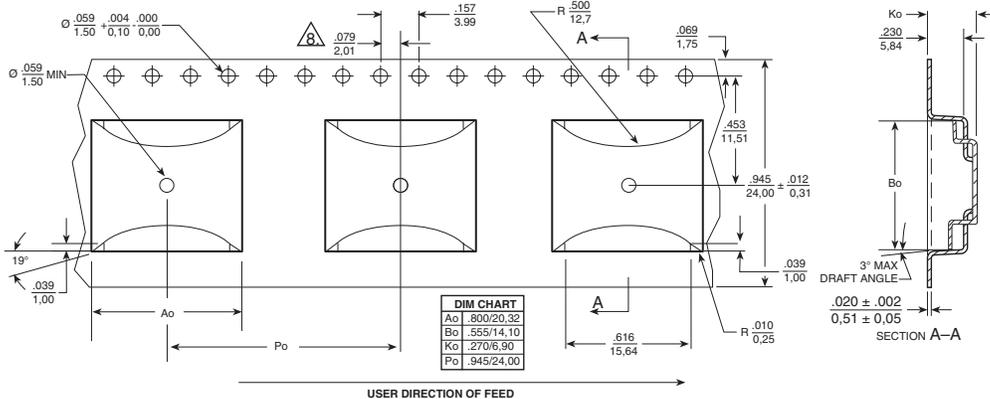
Weight ..... 4.0 grams TYP  
 Tube ..... .15/tube  
 Tape & Reel ..... .250/reel

#### H1174/H1270



Weight ..... 1.5 grams TYP  
 Tube ..... .35/tube  
 Tape & Reel ..... .500/reel

#### HX1294



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