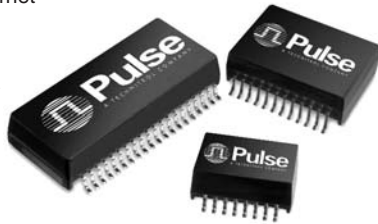






# Star Magnetics™ 10/100BASE-T Transformer Modules with PoE\* Option and 1:1 Turns Ratios

\*Power over Ethernet



-  RoHS-5 peak reflow temperature rating 235°C
-  RoHS-6 peak reflow temperature rating 245°C
-  Meets IEEE 802.3 specification
-  Compact footprint

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

RoHS-5 <sup>6</sup> Compliant Part Number	RoHS-6 <sup>7</sup> Compliant Part Number	PoE	Number of Ports	Insertion Loss (dB MAX)			Return Loss (Z out = 100 Ω ±15%)			Crosstalk (adjacent channels, dB MIN)			Hipot (VRMSMIN)
				0.1 MHz	1 MHz	100 MHz	30 MHz	60 MHz	80 MHz	30 MHz	60 MHz	100 MHz	
H0055 <sup>1</sup>	H0055NL <sup>1,8a</sup>	No	1	-2.5	—	-1.0	-16	-10	-10	-45	-40	-33	1500
—	H0056NL <sup>2,8a</sup>	No	1	—	-0.8	-0.9	-16	-10	-10	-45	-40	-33	1500
H1259	H1259NL <sup>8a</sup>	No	4	-1.2	—	-1.4	-16	-10	-10	-45	-40	-33	1500
HX1259 <sup>3</sup>	HX1259NL <sup>8a</sup>	No	4	-1.2	—	-1.4	-16	-10	-10	-45	-40	-33	1500
H1260	H1260NL <sup>8a</sup>	No	1	-1.1	—	-1.1	-16	-10	-10	-35	-30	-30	1500
HX1260 <sup>3</sup>	HX1260NL <sup>8a</sup>	No	1	-1.1	—	-1.1	-16	-10	-10	-35	-30	-30	1500
H1265	H1265NL <sup>7,8a</sup>	No	1	-1.3	—	-1.0	-16	-10	-10	-40	-38	-33	1500
H1266	H1266NL <sup>7,8a</sup>	No	4	-1.2	—	-1.0	-16	-10	-10	-45	-40	-30	1500
H1278	H1278NL <sup>7,8a</sup>	No	1	-1.1	—	-1.0	-16	-10	-10	-45	-40	-33	1500
H1305	H1305NL <sup>8a</sup>	No	2	-1.2	—	-1.4	-16	-10	-10	-45	-40	-33	1500
HX1305 <sup>3</sup>	HX1305NL <sup>8a</sup>	No	2	-1.2	—	-1.4	-16	-10	-10	-45	-40	-33	1500
H2260	H2260NL <sup>8a</sup>	Yes <sup>4</sup>	1	-1.1	—	-1.1	-16	-10	-10	-35	-30	-30	1500
HX2260 <sup>3</sup>	HX2260NL <sup>7,8a</sup>	Yes <sup>4</sup>	1	-1.1	—	-1.1	-16	-10	-10	-35	-30	-30	1500
H2305	H2305NL <sup>8a</sup>	Yes <sup>4</sup>	2	-1.2	—	-1.4	-16	-10	-10	-45	-40	-33	1500
HX2305 <sup>3</sup>	HX2305NL <sup>8a</sup>	Yes <sup>4</sup>	2	-1.2	—	-1.4	-16	-10	-10	-45	-40	-33	1500

- H0055 is designed to meet 200 μH nom.
- H0056NL is designed to meet 300 μH nom.
- Parts offer extended temperature of operation -40 to +85°C
- These parts are compliant to IEEE802.3af Power over Ethernet (PoE) standard.
- For **Tape & Reel packaging** add a "T" suffix to the end of the part number when ordering, e.g. H0056NLT
- 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, e=5

## Mechanicals

### H0055/NL

**SUGGESTED LAND PATTERN**

### H0056NL

**SUGGESTED LAND PATTERN**

Weight . . . . .355 grams  
Tape & Reel . . .1000/reel  
Tube . . . . .40/tube

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

Weight . . . . .3 grams  
Tape & Reel . . .2000/reel  
Tube . . . . .40/tube

# Star Magnetics™

## 10/100BASE-T Transformer Modules

### with PoE\* Option and 1:1 Turns Ratios



\*Power over Ethernet

### Mechanicals (continued)

#### H1259/NL, HX1259/NL, H1266/NL

**Weight** . . . . . 4.8 grams  
**Tape & Reel** . . . . . 250/reel  
**Tube** . . . . . 15/tube

#### H1260//NL, HX1260//NL, H2260/NL, HX2260/NL

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

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

#### H1265/NL

**Weight** . . . . . 3.0 grams  
**Tube** . . . . . 20/tube  
**Tape & Reel** . . . . . 300/reel

#### H1278/NL

**Weight** . . . . . 1.7 grams  
**Tape & Reel** . . . . . 350/reel  
**Tube** . . . . . 30/tube

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

#### H1305/NL, HX1305/NL, H2305/NL, HX2305/NL

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

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

# Star Magnetics™

## 10/100BASE-T Transformer Modules

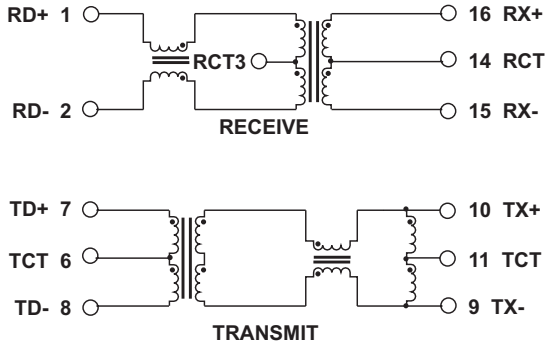
### with PoE\* Option and 1:1 Turns Ratios

\*Power over Ethernet

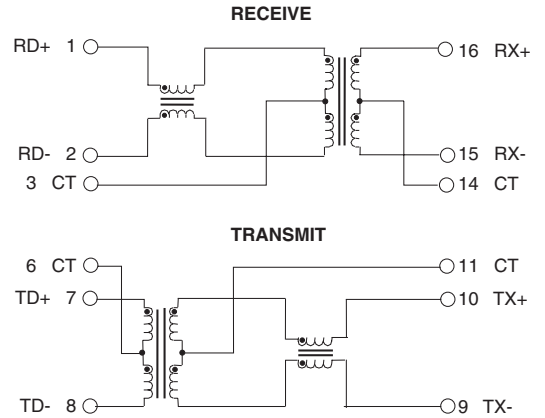


### Schematics

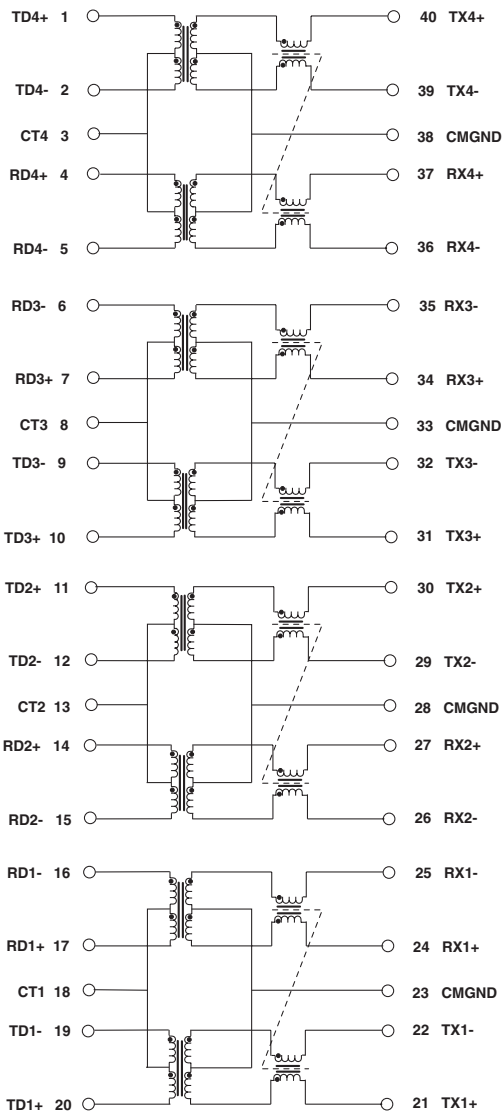
#### H0055/NL



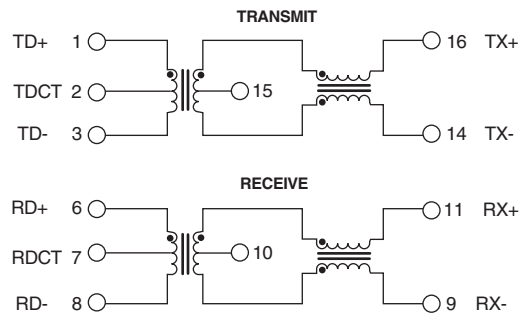
#### H0056NL



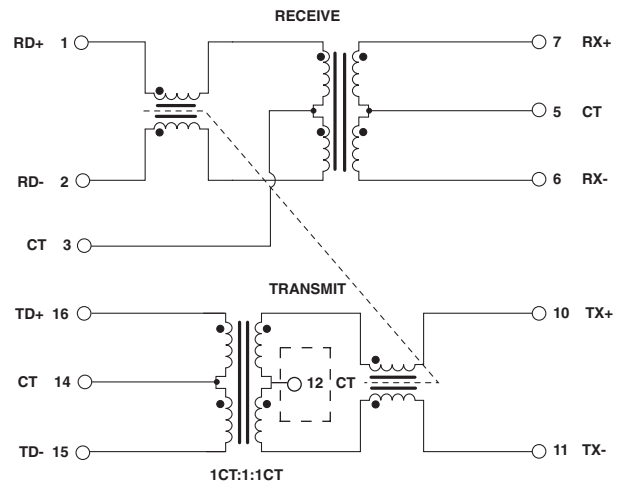
#### H1259/NL, HX1259/NL



#### H1260/NL, HX1260/NL



#### H1265/NL



H1265: 3-core design (T3 same toroid core)

# Star Magnetics™

## 10/100BASE-T Transformer Modules

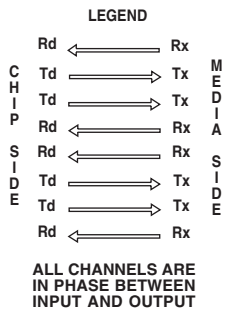
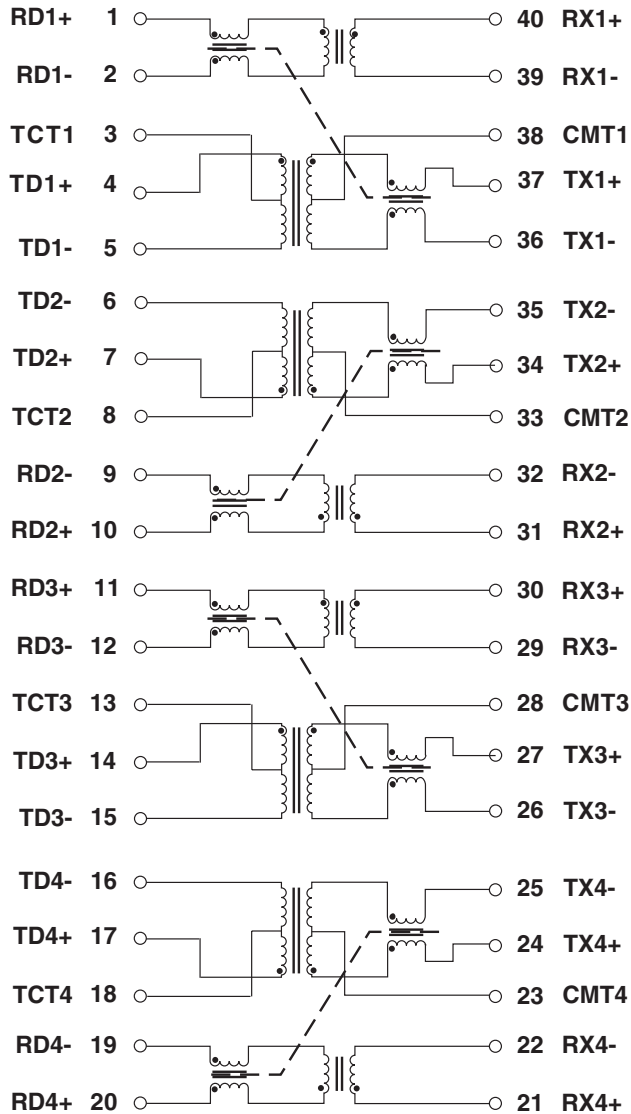
### with PoE\* Option and 1:1 Turns Ratios



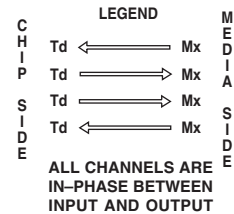
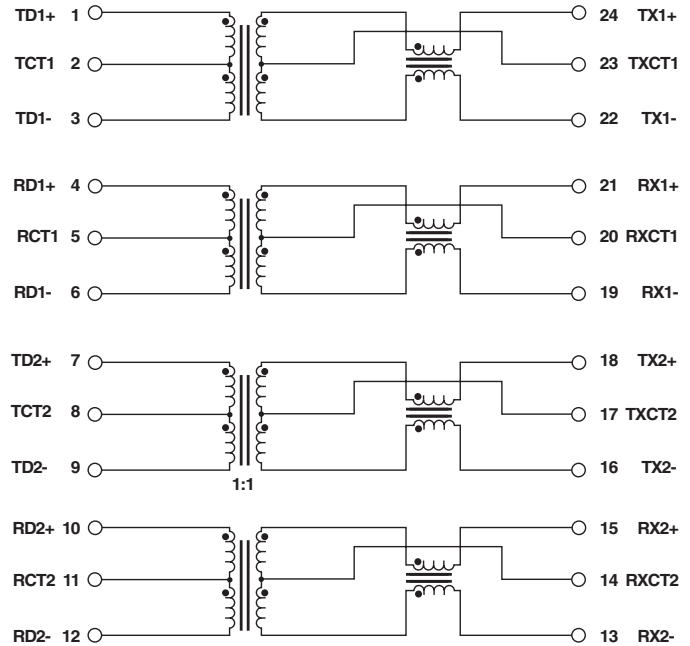
\*Power over Ethernet

### Schematics (continued)

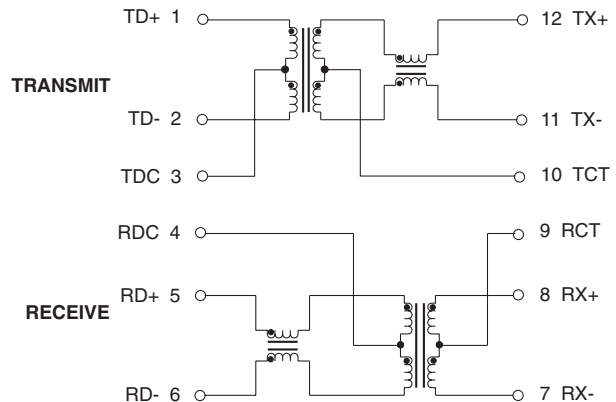
#### H1266/NL



#### H1305/NL, HX1305/NL



#### H1278/NL



# Star Magnetics™

## 10/100BASE-T Transformer Modules

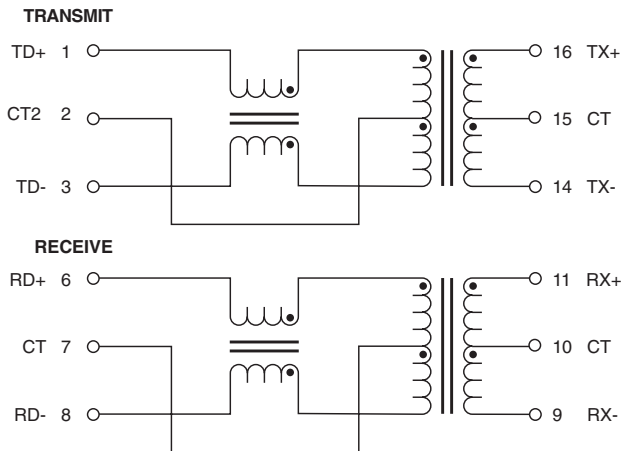
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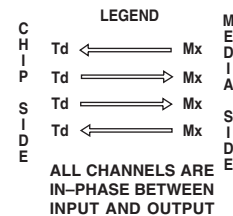
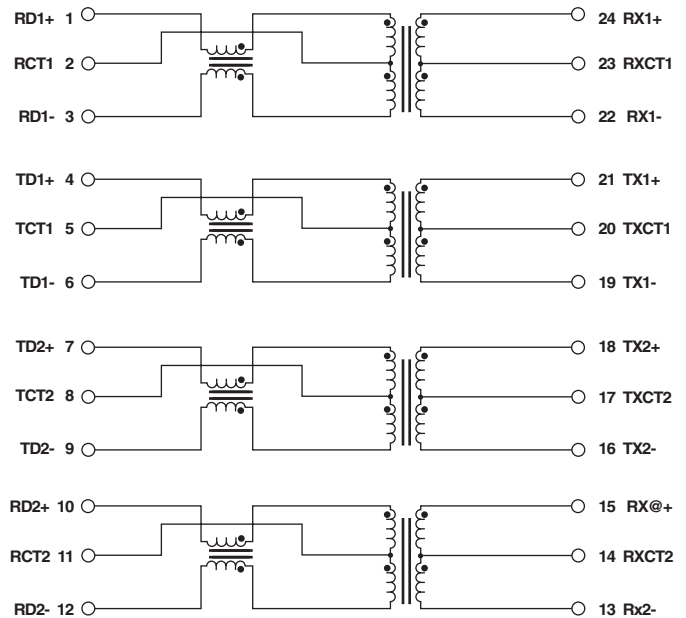


### Schematics (continued)

#### H2260/NL, HX2260/NL



#### H2305/NL, HX2305/NL



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