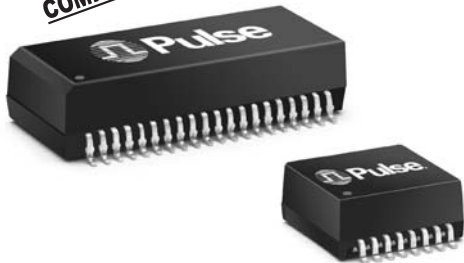


# 10/100BASE-TX TRANSFORMER MODULES

## For Auto MDI/MDIX Applications



- For RoHS part add suffix **NL<sup>5</sup>**
- Peak solder temperature rating per Table 5-2 in IPC/JEDEC J-STD-020C
- Symmetrical TX and RX channels for Auto MDI/MDIX capability
- Approved for use with the Broadcom BCM5226 and Level One LXT9784
- Meets IEEE 802.3 specification

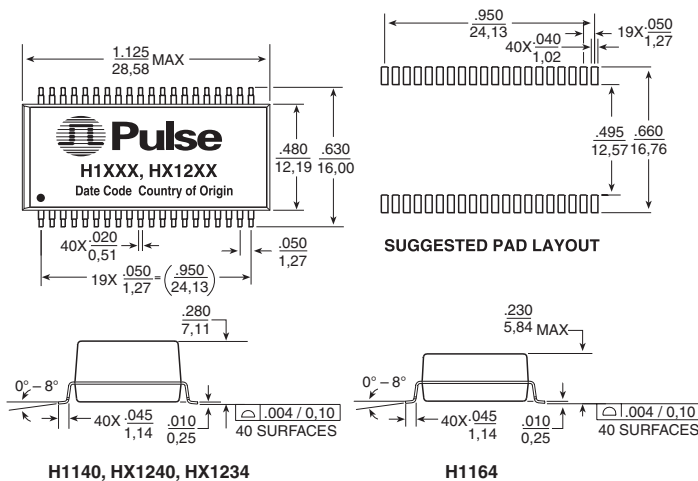
### Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

Part <sup>2</sup> Number	RoHS <sup>5</sup>	Insertion Loss (MAX)	Return Loss (dB MIN)					Crosstalk (dB MIN)				Differential to Common Mode Rejection (dB MIN)		Hipot (Vrms MIN)
			0.1-100MHz	2-30MHz	40MHz	50MHz	60-80MHz	1kHz	30MHz	60MHz	100MHz	1-60MHz	60-200MHz	
H1140	3, 4c	-1.0	-18	-14.4	-13.1	-12	-65	-50	-40	-35	-40	-35	1500	
H1141	3, 4c	-1.0	-18	-14.4	-13.1	-12	-65	-50	-40	-35	-40	-35	1500	
H1164	NL <sup>4d</sup>	-1.0	-18	-14.4	-13.1	-12	-55	-45	-40	-33	-37	-25	1500	
HX1234 <sup>1</sup>	NL <sup>4c</sup>	-1.4	-18	-14.4	-13.1	-12	-55	-45	-40	-33	-37	-25	1500	
HX1240 <sup>1</sup>	3, 4c	-1.0	-16.5	-16	-15.5	-12	-60	-43	-38	-33	-43	-27	1500	

1. Operating Temperature -40°C to +85°C
2. For Tape & Reel packaging, add a "T" suffix at the end of the part number when ordering, e.g. H1164T
3. Contact Pulse for RoHS compliant part availability
4. MSL=Moisture Sensitivity Level a=1 b=2 c=3 d=4
5. Add suffix **NL** for RoHS compliant parts, e.g. H1164 changes to H1164NL or H1164NLT (for Tape and Reel)

## Mechanicals

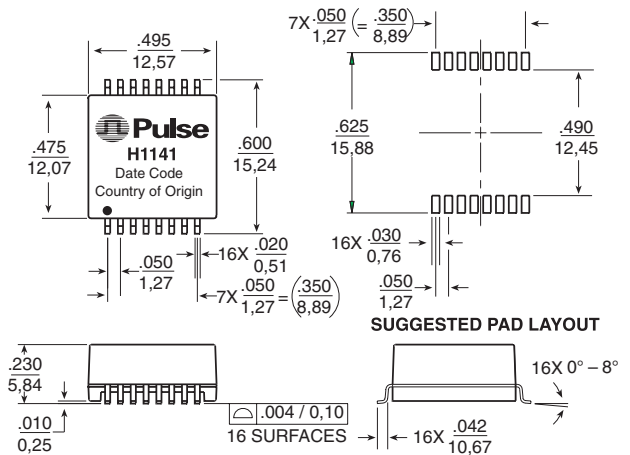
### H1140, H1164, HX1234, HX1240



H1140, HX1240, HX1234

H1164

### H1141



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

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

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

Weight ..... 1 gram  
Tape & Reel ..... .350/reel  
Tube ..... .35/tube

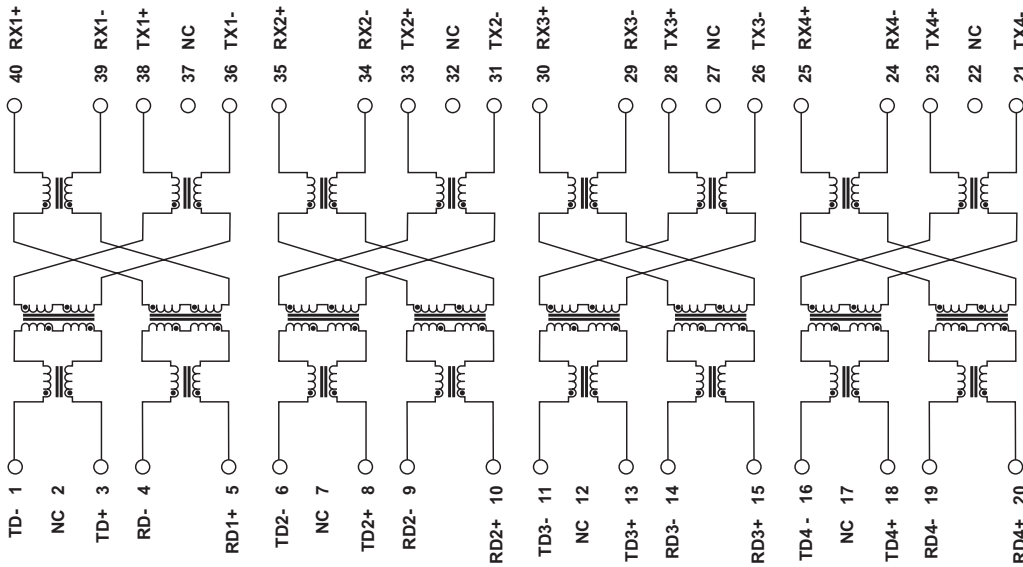
# 10/100BASE-TX TRANSFORMER MODULES

## For Auto MDI/MDIX Applications

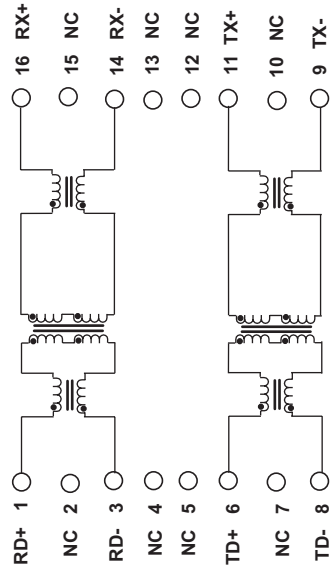


### Schematics

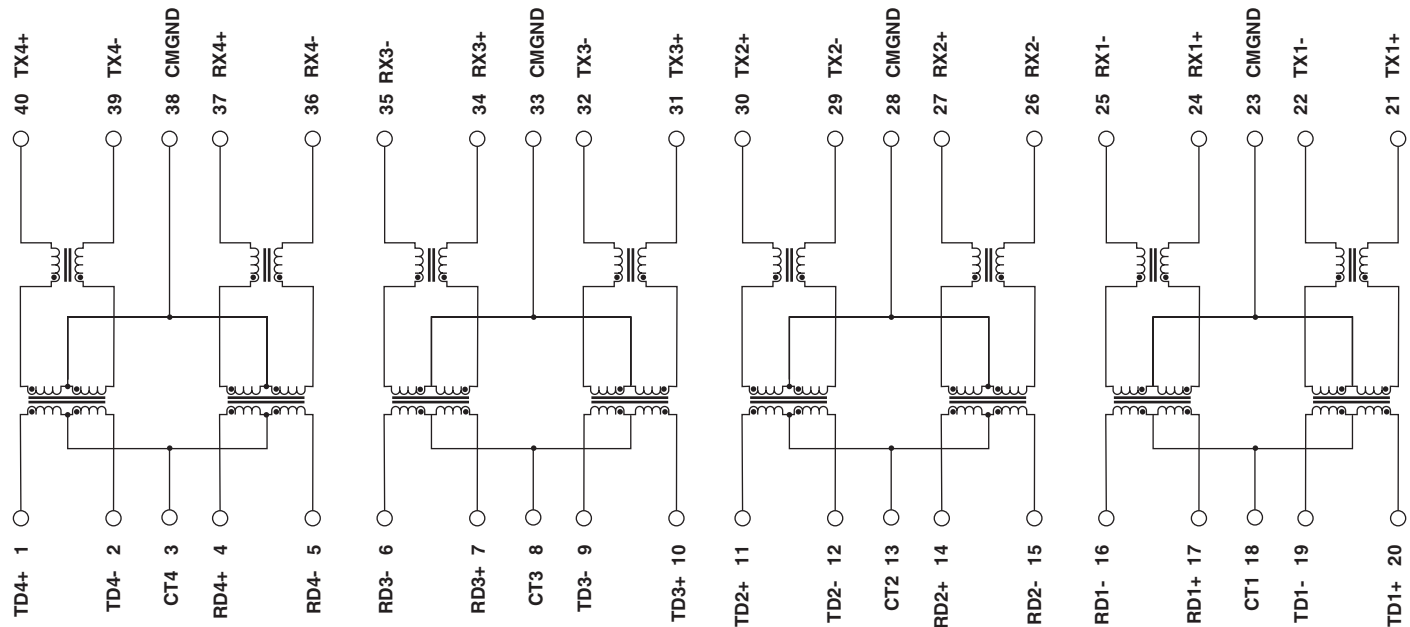
**H1140, HX1240**



**H1141**



**H1164, HX1234**



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