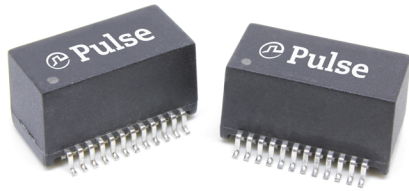


# 1Gigabit Magnetic Modules

HX5164NL, HX6164NL



- Ⓢ Full IEEE802.3at/bt compliance for PoE
- Ⓢ Designed to exceed IEEE802.3au
- Ⓢ Compatible with all Major PHYs
- Ⓢ Up to 70W PoE over 100m of UTP
- Ⓢ Ideal for Wireless Access Points, Building Control, HVAC, Lighting, Remote Sensing, Digital Video and CCTV Cameras

## Electrical Specifications @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Inductance	Turns Ratio	Isolation (Pri:Sec)	Power over Ethernet (PoE)	
				DC Current (@ 70°C)	Power Supported (4 pair UTP)
HX5164NL	350uH @ 8mA	1.00 +/- 2%	1500Vrms / 60sec	350mA	40W (PSE)
HX6164NL	120uH @ 18.3mA	1.00 +/- 2%	1500Vrms / 60sec	600mA	70W (PSE)

Part Number	Insertion Loss			Return Loss			CMRR		
	100kHz	1-100MHz	125MHz	1-40MHz	60-80MHz	100MHz	2MHz	10-60MHz	100MHz
HX5164NL	-1.2dB	-1.5dB	-2.0dB	-18dB	-12dB	-10dB	-50dB	-44dB	-40dB
HX6164NL	-1.2dB	-1.5dB	-2.0dB	-18dB	-12dB	-10dB	-50dB	-44dB	-40dB

### Notes:

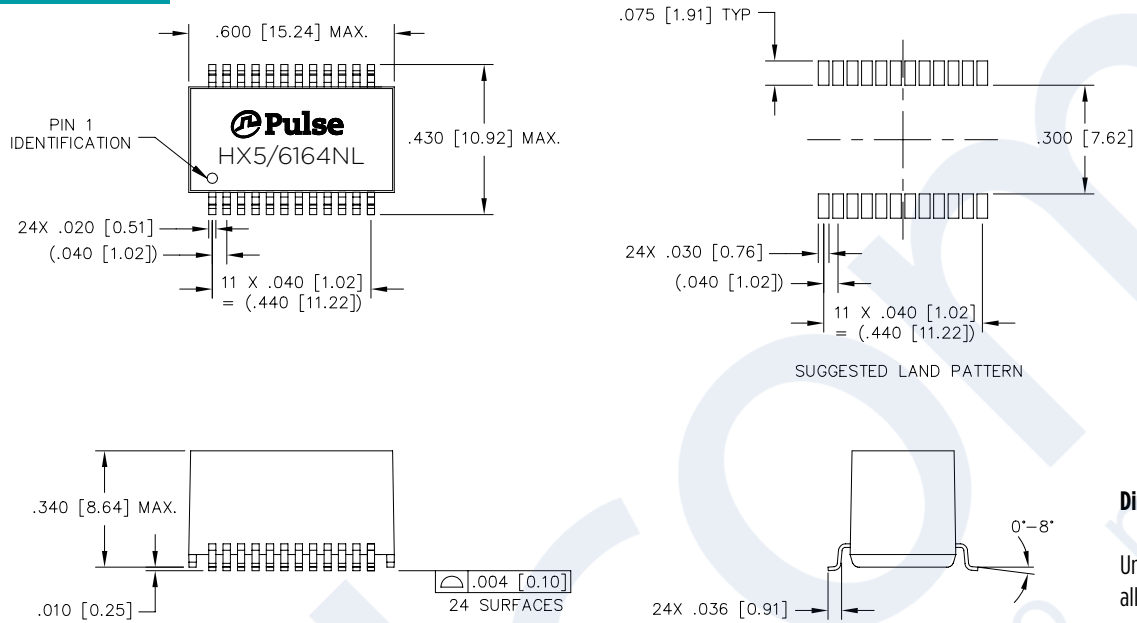
1. Storage Temperature: -50°C to 125°C  
Compliance to J-STD:
  - A. J-STD-002: Solderability at 245°C Reflow Profile
  - B. J-STD-020: Moisture Sensitive Level 1
  - C. J-STD-075: R7, 245°C Maximum Through Reflow Solder
2. The NL suffix part comes in trays with 35pcs/tray. To order tape and reel packaging add a 'T' suffix to the part number (ie: HX5164NL becomes HX5164NLT). Quantity per reel is 250pcs/reel.
3. Header: DAP (Diallyl Phthalate) with flammability Rating UL 94V-0 or better
4. Lead Frame: Cooper Alloy
  - Under plated: Half Hard Ductile Nickel 50-100" (1.3-2.5um)
  - Over plated : 100% Tin electro-deposited per ASTM B545 300 - 50u"(8-13um)
  - Finish : Matte finish 100% Tin solder

# 1Gigabit Magnetic Modules

HX5164NL, HX6164NL

## Mechanical

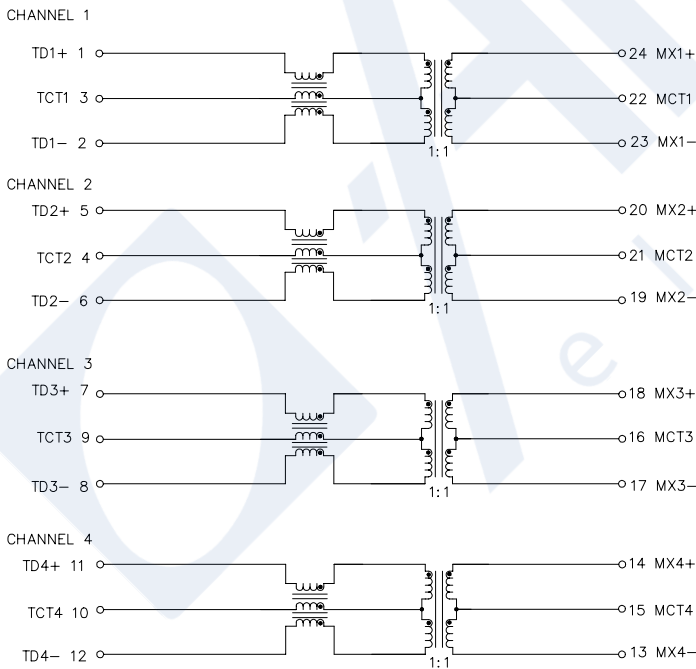
### HX5164NL/HX6164NL



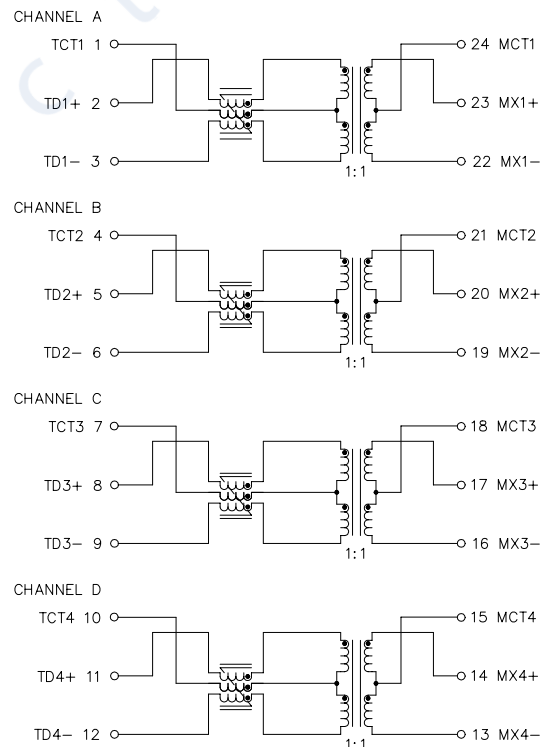
**Dimensions:**  $\frac{\text{Inches}}{\text{mm}}$   
 Unless otherwise specified,  
 all tolerances are  $\pm \frac{0.10}{0.25}$

## Schematics

### HX5164NL



### HX6164NL

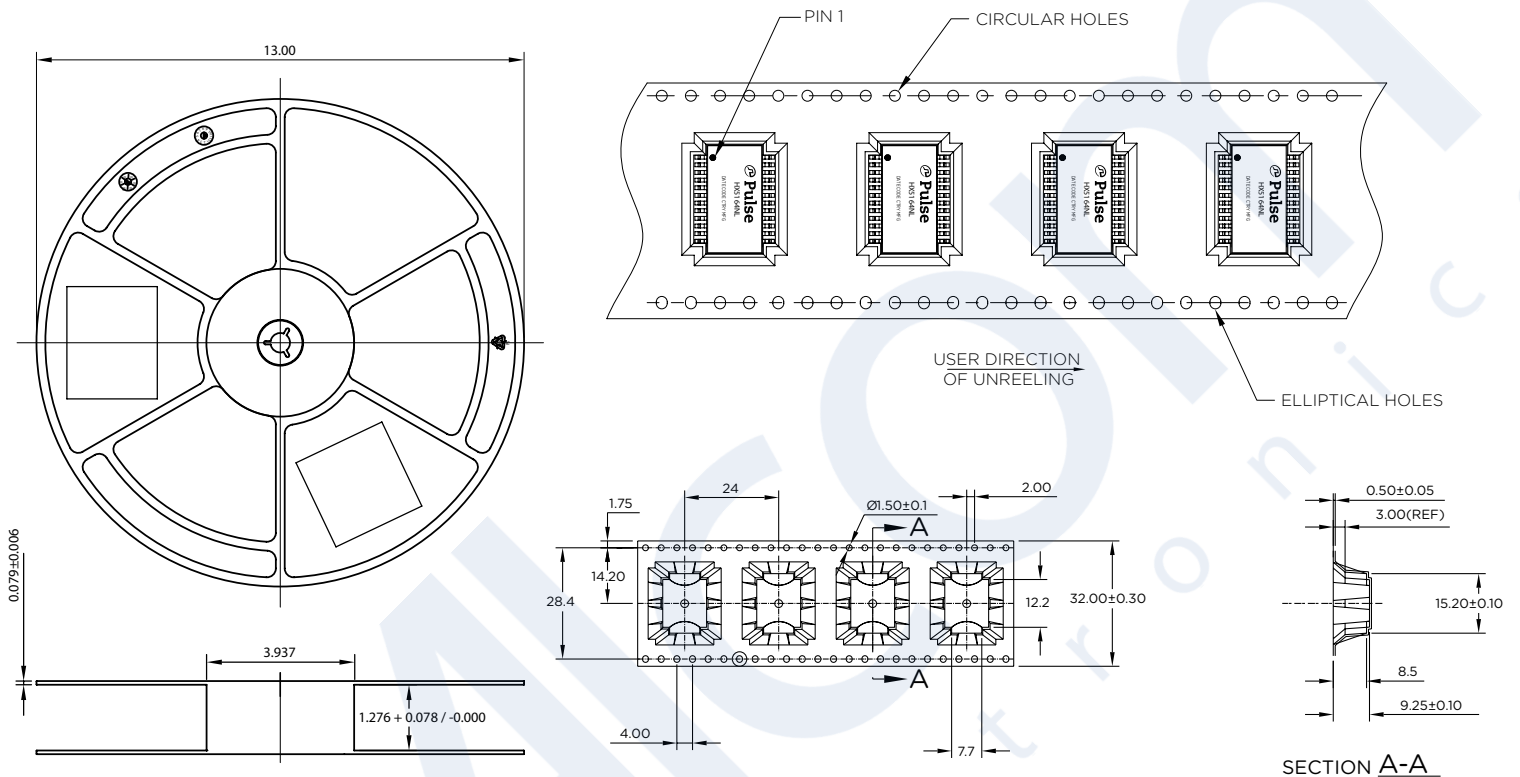


# 1Gigabit Magnetic Modules

HX5164NL, HX6164NL

## Tape & Reel

HX5164NL/HX6164NL



### For More Information:

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