

# Dual 1Gigabit Slimline Magnetic Modules

HX5020HL, HX6135HL, and HX6136HL



- Ⓟ Fully RoHS and Halogen Free
- Ⓟ Designed to exceed IEEE802.3au over Industrial temperature range -40 to +85°C
- Ⓟ Up to 35W PoE over 100m of UTP using 4pair connection
- Ⓟ Compatible with all Major PHYs
- Ⓟ 30% PCB saving compared to standard dual port devices

## 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)
HX5020HL	350uH @ 8mA	1.00 +/- 2%	1500Vrms / 60sec	350mA	35W (PSE)
HX6135HL	350uH @ 8mA	1.00 +/- 2%	1500Vrms / 60sec	350mA	35W (PSE)
HX6136HL	350uH @ 8mA	1.00 +/- 2%	1500Vrms / 60sec	350mA	35W (PSE)

Part Number	Insertion Loss			Return Loss			CMRR		
	100kHz	1-100MHz	125MHz	1-40MHz	60-80MHz	100MHz	2MHz	30-100MHz	200MHz
HX5020HL	-1.2dB	-1.5dB	-2.0dB	-16dB	-10dB	-8dB	-50dB	-20dB	-15dB
HX6135HL	-1.2dB	-0.5dB	-1.0dB	-18dB	-13dB	-11dB	-50dB	-35dB	-30dB
HX6136HL	-1.2dB	-0.5dB	-1.0dB	-18dB	-13dB	-11dB	-50dB	-20dB	-15dB

### 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 HL suffix part is supplied in tubes with 15pcs/tube. To order tape and reel packaging add a 'T' suffix to the part number (ie: HX6135HL becomes HX6135HLT).

Where quantity per 13" reel will be 250pcs - see page 3 for more details.

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

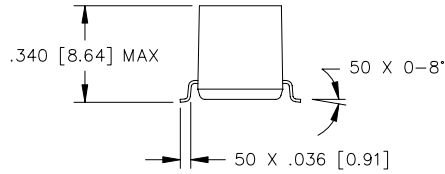
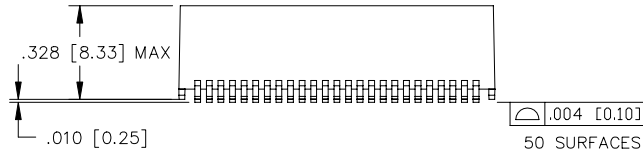
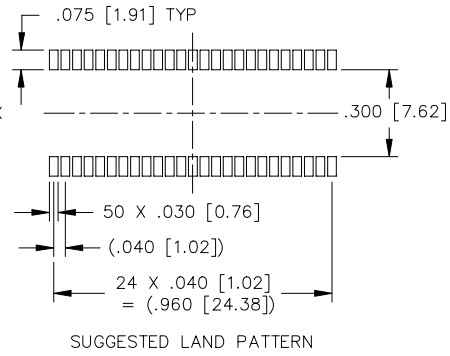
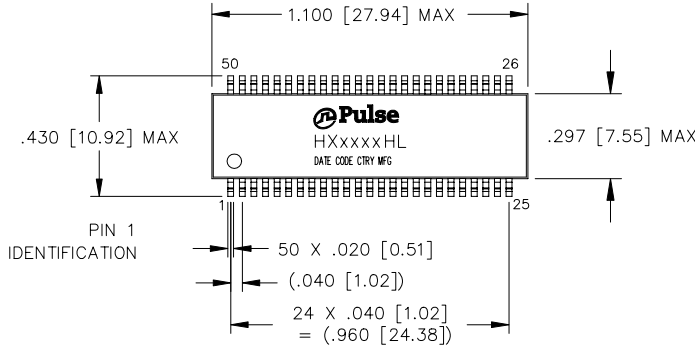
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## Mechanical

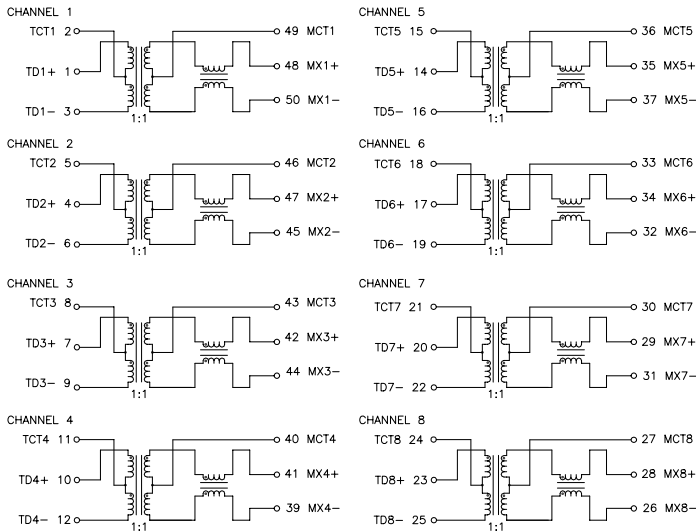
HXxxxxHL



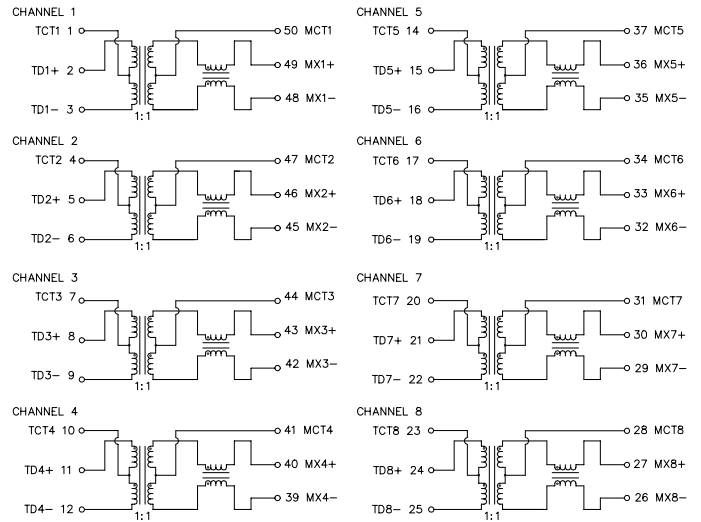
Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
 Unless otherwise specified,  
 all tolerances are  $\pm \frac{0.10}{0.25}$

## Schematics

HX5020HL



HX6136HL

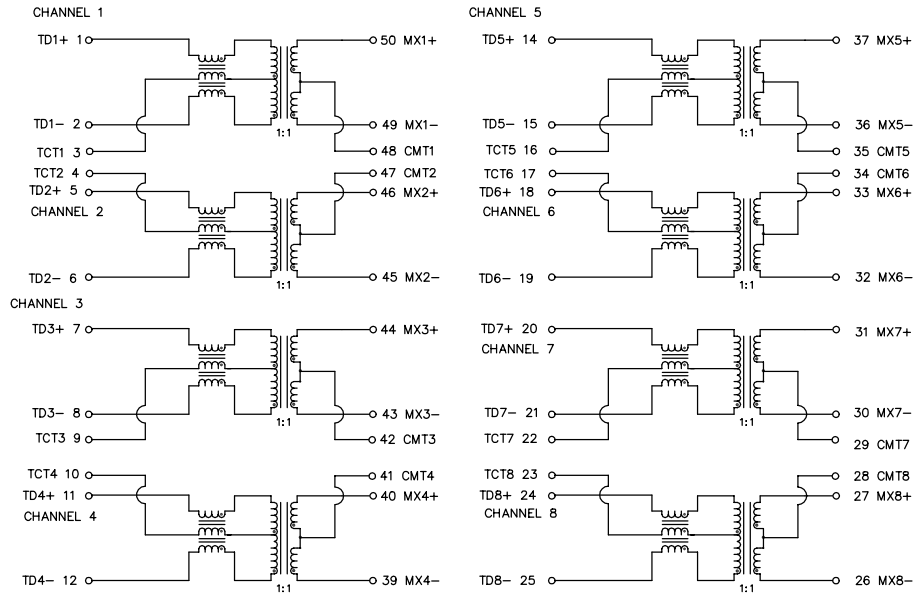


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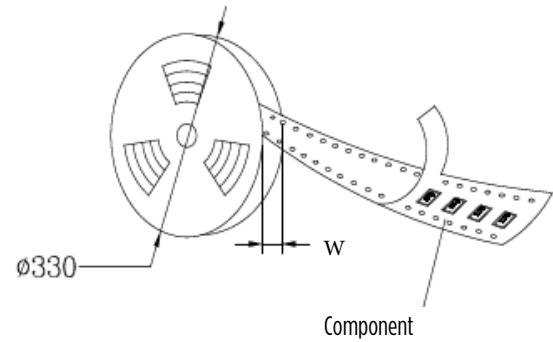
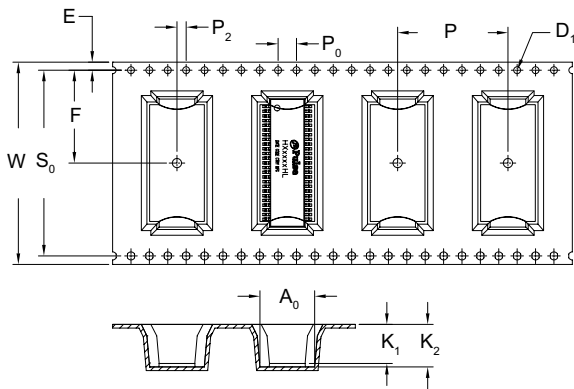
## Schematic

### HX6135HL



## Tape & Reel

### HX5020HL, HX6135HL and HX6136HL



W	44.00±0.30	P	24.00±0.10	A <sub>0</sub>	11.50±0.10	B <sub>0</sub>	27.85±0.10
S <sub>0</sub>	40.40±0.10	P <sub>0</sub>	4.00±0.10	A <sub>1</sub>	-----	B <sub>1</sub>	-----
E	1.75±0.10	P <sub>2</sub>	2.00±0.15	A <sub>2</sub>	-----	B <sub>2</sub>	-----
F	20.20±0.15	D <sub>0</sub>	-----	K <sub>0</sub>	9.25±0.10	K <sub>1</sub>	8.50±0.10
T	0.50±0.05	D <sub>1</sub>	1.50 <sup>+0.10</sup> <sub>-0.00</sub>				UNIT: mm

ALL Dimensions meet EIA-481-D requirements.

1. **Material:** Black Conductive Polystyrene
2. **Components per Reel:** 250 pcs
3. **Quantity per box:** 5x reels = 1250 pcs

## For More Information:

Americas - [prodinfinetworkamericas@yageo.com](mailto:prodinfinetworkamericas@yageo.com) | Europe - [prodinfinetworkemea@yageo.com](mailto:prodinfinetworkemea@yageo.com) | Asia - [prodinfinetworkapac@yageo.com](mailto:prodinfinetworkapac@yageo.com)

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