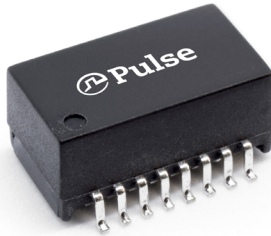


High Temperature Single 100Base-Tx Magnetic Modules

HX1188ENL and HX1198ENL



- Ⓟ High Temperature design for non-automotive applications
 - Ⓟ Meets or exceeds IEEE802.3u over extended Industrial temperature range -40 to +125°C
 - Ⓟ Support 15W PoE over 100m of UTP using 2pair connection
 - Ⓟ Compatible with all Major PHYs
 - Ⓟ Two design options available - left or right
- Drop in design for Pulse legacy parts H1102NL and HX1188NL

Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C

Part Number	Inductance	Turns Ratio	Isolation (Pri:Sec)	Power over Ethernet (PoE)	
				DC Current (@ 25°C)	Power Supported (2/4 pair UTP)
HX1188ENL	350uH @ 8mA	1.00 +/- 2%	1500Vrms / 60sec	320mA	15W (PSE)
HX1198ENL	350uH @ 8mA	1.00 +/- 2%	1500Vrms / 60sec	320mA	15W (PSE)

Part Number	Insertion Loss (MAX)		Return Loss (MIN)			Cross Talk (MIN)			CCMR (MIN)		
	1-100MHz	125MHz	5MHz	30-60MHz	80MHz	30MHz	60MHz	100MHz	2MHz	30-100MHz	200MHz
HX1188ENL	-1.0dB	-3.0dB	-18dB	13dB	-11dB	-45dB	-38dB	-34dB	-50dB	-20dB	-15dB
HX1198ENL	-1.0dB	-3.0dB	-18dB	-13dB	-11dB	-45dB	-38dB	-34dB	-50dB	-20dB	-15dB

Notes:

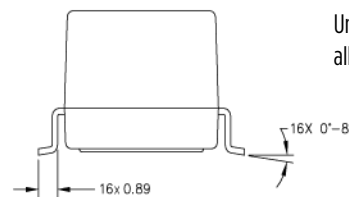
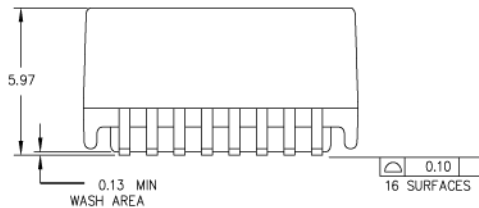
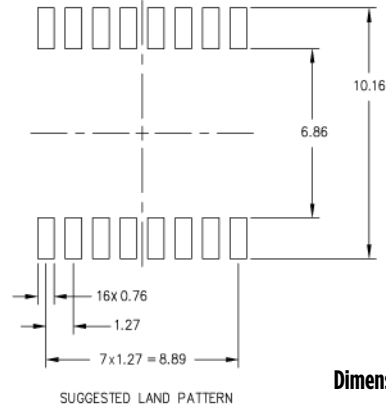
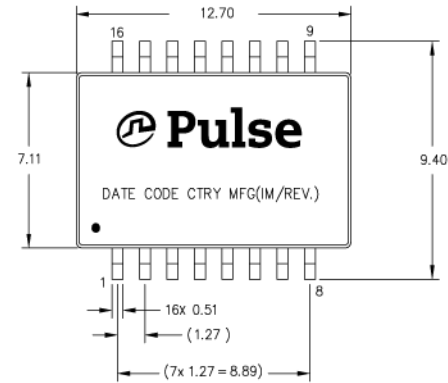
1. Storage Temperature: -50°C to 125°C Compliance to J-STD:
 - A. J-STD-002: Solderability at 245°C Reflow Profile
 - B. J-STD-020: Moisture Sensitive Level 1
 - C. J-STD-075: R7, 245°C Maximum Through Reflow Solder
2. The NL suffix part is supplied in tubes with 40pcs/tube. To order tape and reel packaging add a 'T' suffix to the part number (ie: HX1188ENL becomes HX1188ENLT). Where quantity per 13" reel will be 600pcs - 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

High Temperature Single 100Base-Tx Magnetic Modules

HX1188ENL and HX1198ENL

MECHANICAL

HX11xxNL

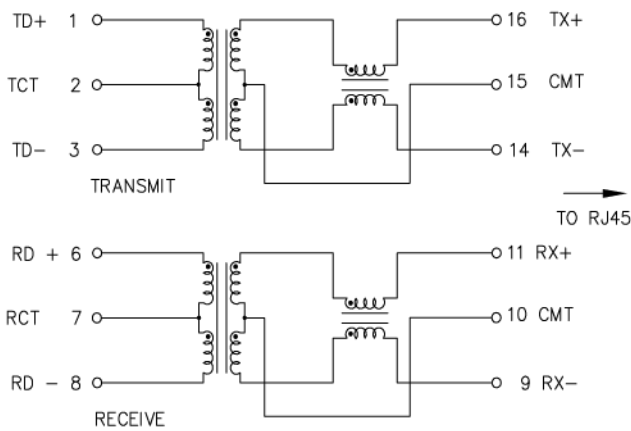


Dimensions: $\frac{\text{Inches}}{\text{mm}}$

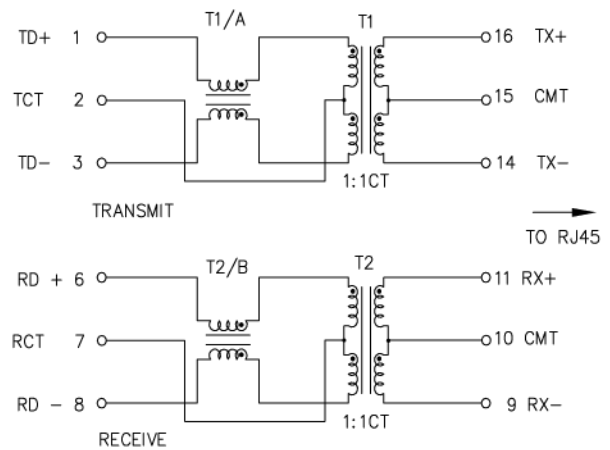
Unless otherwise specified,
all tolerances are $\pm \frac{.010}{0.25}$

SCHEMATICS

HX1188ENL



HX1198ENL



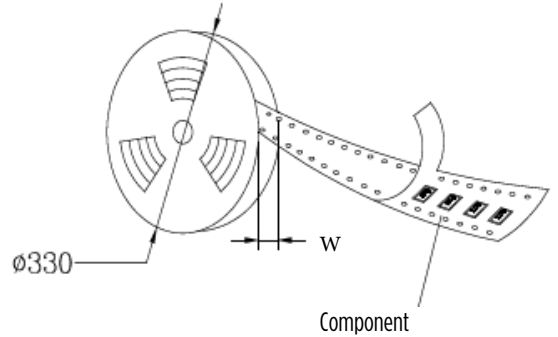
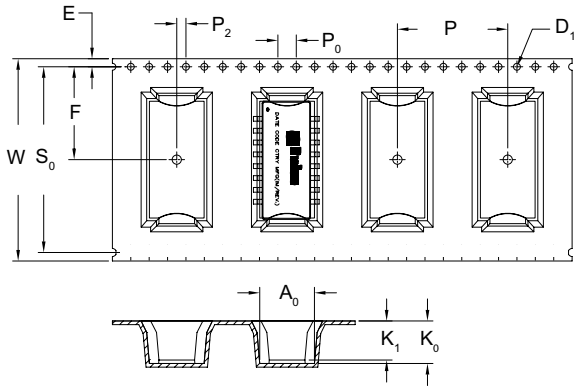
NOTATION ON SCHEMATICS ARE REFERENCE ONLY
THESE PART SUPPORT AUTOMDIX WHERE EACH COIL IS
THE SAME AND TX AND RX FUNCTIONS CAN BE SWAPPED

High Temperature Single 100Base-Tx Magnetic Modules

HX1188ENL and HX1198ENL

TAPE & REEL

HX11xxNL

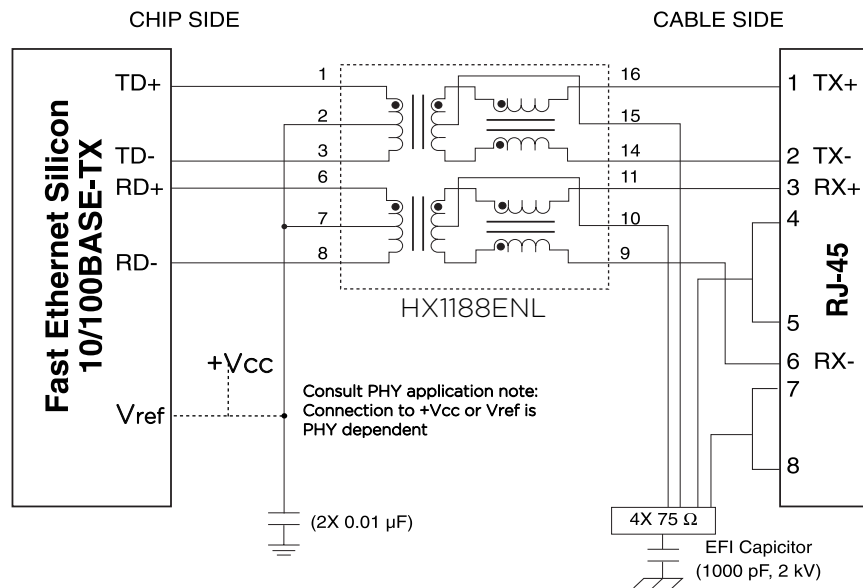


W	24.00±0.30	P	12.00±0.10	A ₀	9.90±0.10	B ₀	13.20±0.10
S ₀	N/A	P ₀	4.00±0.10	A ₁	-----	B ₁	-----
E	1.75±0.10	P ₂	2.00±0.15	A ₂	-----	B ₂	-----
F	11.50±0.15	D ₀	-----	K ₀	7.00±0.10	K ₁	6.4±0.10
T	0.50±0.05	D ₁	1.50 ^{+0.10} _{-0.00}				UNIT: mm

ALL Dimensions meet EIA-481-D requirements.

1. **Material:** Black Conductive Polystyrene
2. **Components per Reel:** 600 pcs
3. **Quantity per box:** 5x reels = 3000 pcs

TYPICAL FAST ETHERNET DISCRETE APPLICATION CIRCUIT



For More Information:

Americas - prodinfo_network_americas@yageo.com | Europe - prodinfo_network_emea@yageo.com | Asia - prodinfo_network_asia@yageo.com

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