

# Single and Dual 10GBase-T Magnetic Modules

HXB7008HLT, HXB7009HLT, HXB7010HLT, HXB7011HLT, HXB7012HLT,  
HXB7013HLT, HXB7014HLT, HXB7015HLT and HXB7016HLT



- Ⓜ Fully RoHS and Halogen Free
- Ⓜ Standard and High Isolation options
- Ⓜ Supports 4 pair Power over Ethernet (PoE) up to 90W
- Ⓜ Meet or exceed IEEE802.3an/at/bt
- Ⓜ Backward compatible with 1G, 2.5G and 5G PHYs
- Ⓜ Ideal for Industrial gateways and switches
- Ⓜ Reliable SMD packages support 245°C pk reflow
- Ⓜ All components supplied in Tape and Reel

## Electrical Specification @ 25°C (OCL@ 11mA DC)

Part Number*	Media side Inductance (@100KHz/0.1Ve) uH min	Insertion Loss (dB max)			Return Loss (dB min)			PoE (Current Per Pair mA)	Operating Temperature (°C)	Isolation (Pri:Sec)	Note
		1-100 MHz	100-400 MHz	500 MHz	1-40 MHz	40 < f ≤ 400 MHz	400 < f ≤ 500 MHz				
HXB7011HLT	120	-1.0	-1.5	-2.0	-18	-(18-10 log10(f /40))	-(8-30 log10(f /400))	720	-40° to 90°	1500Vrms	60W 4 pair PoE+
HXB7016HLT	100	-1.0	-1.5	-2.0	-18	-(18-10 log10(f /40))	-(8-30 log10(f /400))	600	-40° to 90°	1500Vrms	Dual Port, 60W 4 pair PoE+

## Electrical Specification @ 25°C (OCL@ 16mA DC)

Part Number*	Media side Inductance (@100KHz/0.1Ve) uH min	Insertion Loss (dB max)			Return Loss (dB min)			PoE (Current Per Pair mA)	Operating Temperature (°C)	Isolation (Pri:Sec)	Note
		1-100 MHz	100-400 MHz	500 MHz	1-40 MHz	40 < f ≤ 500 MHz	400 < f ≤ 500 MHz				
HXB7012HLT	120	-1.0	-1.5	-2.0	-18	-(18-10 log10(f /40))	-(8-30 log10(f /400))	1000	-40° to 90°	1500Vrms	90W 4 pair PoE+
HXB7015HLT	120	-1.0	-1.5	-2.0	-18	-(18-10 log10(f /40))	-(8-30 log10(f /400))	1000	-40° to 90°	1500Vrms	Dual Port, 90W 4 pair PoE+

## Electrical Specification @ 25°C

Part Number*	Media side Inductance (@100KHz/0.1Ve) uH min	Insertion Loss (dB max)			Return Loss (dB min)			PoE (Current Per Pair mA)	Operating Temperature (°C)	Isolation (Pri:Sec)	Note
		1-100 MHz	100-400 MHz	500 MHz	1-40 MHz	40 < f ≤ 400 MHz	400 < f ≤ 500 MHz				
HXB7008HLT	100	-1.0	-1.5	-2.0	-18	-(18-10 log10(f /40))	-(8-30 log10(f /400))	-	-40° to 90°	1500Vrms	Surge DM/CM 2KV
HXB7009HLT	100	-1.0	-1.5	-2.0	-18	-(18-10 log10(f /40))	-(8-30 log10(f /400))	-	-40° to 90°	1500Vrms	-
HXB7010HLT	100	-1.0	-1.5	-2.0	-18	-(18-10 log10(f /40))	-(8-30 log10(f /400))	-	-40° to 90°	4000Vrms	Surge DM/CM 6KV
HXB7013HLT	100	-1.0	-1.5	-2.0	-18	-(18-10 log10(f /40))	-(8-30 log10(f /400))	-	-40° to 90°	1500Vrms	Dual Port
HXB7014HLT	100	-1.0	-1.5	-2.0	-18	-(18-10 log10(f /40))	-(8-30 log10(f /400))	-	-40° to 90°	4000Vrms	Dual Port, Surge 6KV

Note: \* Specifications listed above refer to the base component part number that is printed on the product - ie HXB7013HLT will be HXB7013HL

## Process and Materials

### Notes:

1. Storage Temperature:  
HBxxxxHL = -20 to +125°C  
HXBxxxxHL = -50 to +125°C
2. Compliance to JEDEC-J-STD 020:  
i. Moisture Sensitive Level 1  
ii. Maximum peak Reflow Solder temperature 245°C
3. All parts come in 13" (330mm) Diameter Tape and reel - see page 3 for details
4. Header: Black Thermoset Plastic - Material flammability rating UL 94V-0
5. Lead Frame: Cooper Alloy
6. Underplate / Overplate: Tin electro-deposited over Nickel
7. Finish: Matte finish Tin solder

# Single and Dual 10GBase-T Magnetic Modules

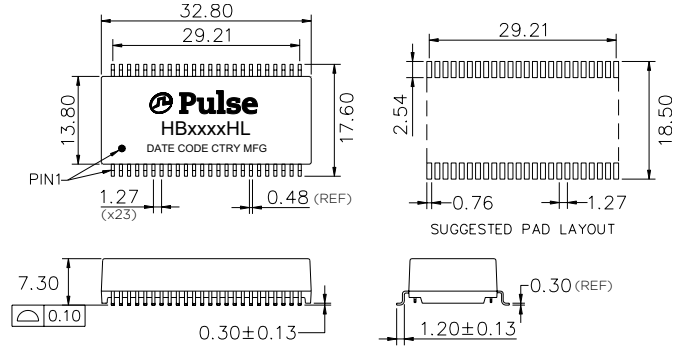
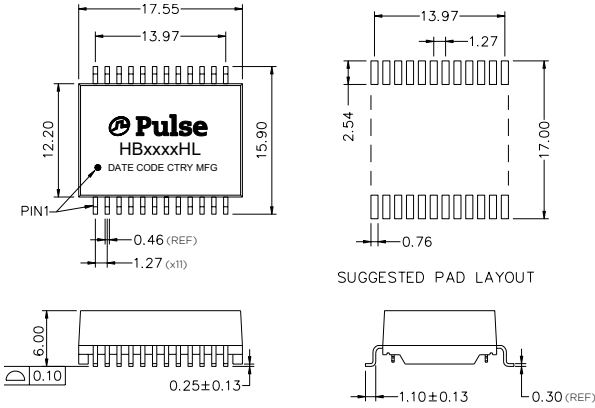
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HXB7013HLT, HXB7014HLT, HXB7015HLT and HXB7016HLT



## Mechanicals

### HXB7008/9/10/11/12HLT,

### HXB7013/14/15/16HLT



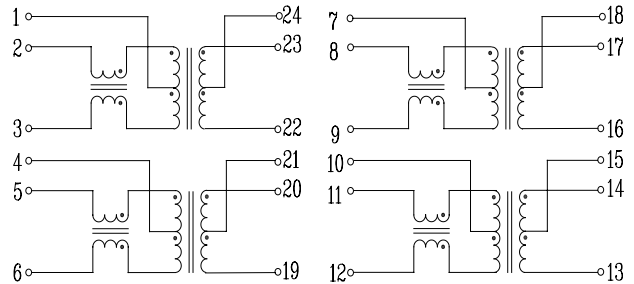
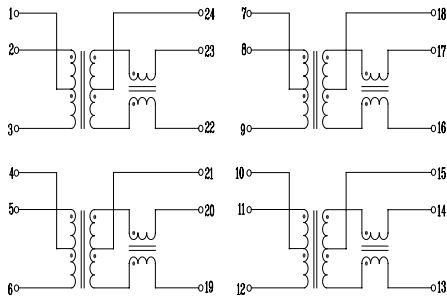
Dimensions: mm

Unless otherwise specified,  
all tolerances are  $\pm 0,25$

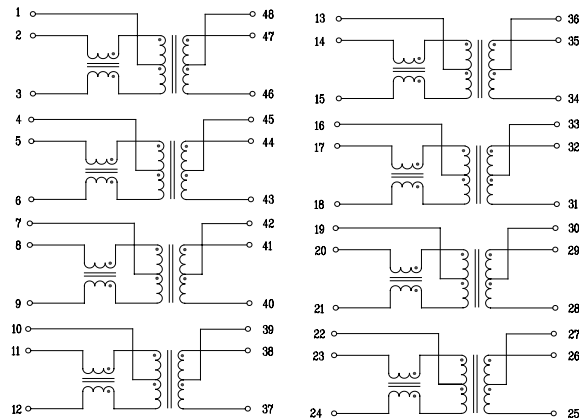
## Schematic

### HXB7009HLT

### HXB7008HLT, HXB7010HLT, HXB7011HLT, HXB7012HLT



### HXB7013HLT, HXB7014HLT, HXB7015HLT, HXB7016HLT

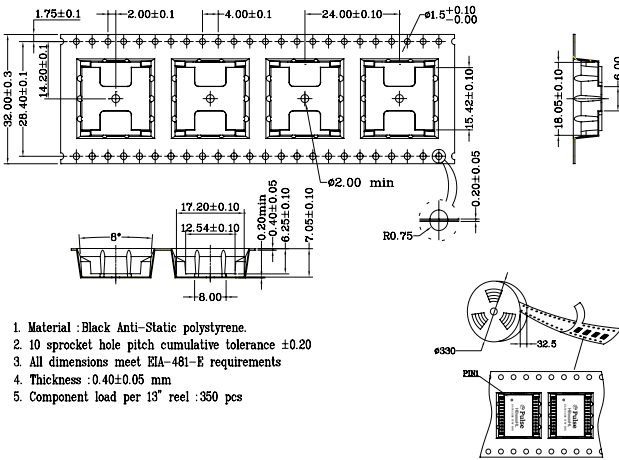


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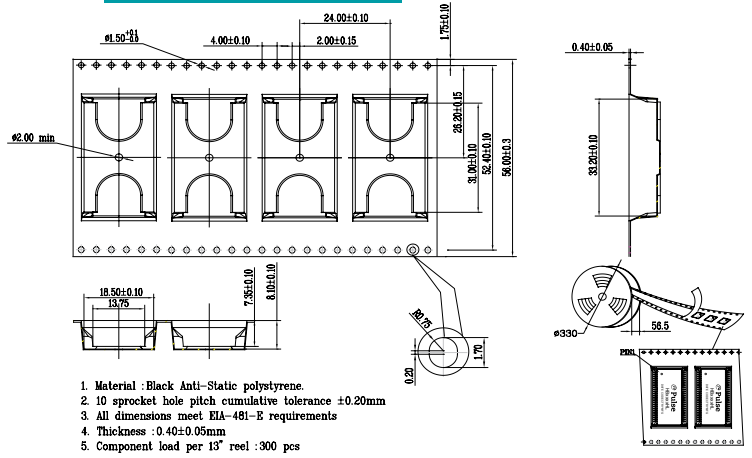
HXB7008HLT, HXB7009HLT, HXB7010HLT, HXB7011HLT, HXB7012HLT,  
HXB7013HLT, HXB7014HLT, HXB7015HLT and HXB7016HLT

## Tape & Reel

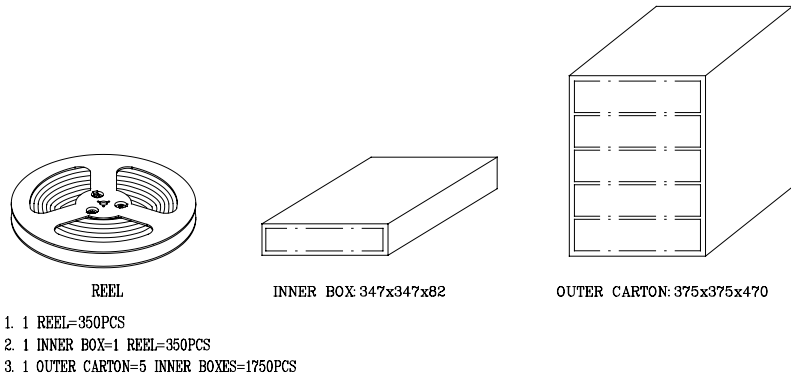
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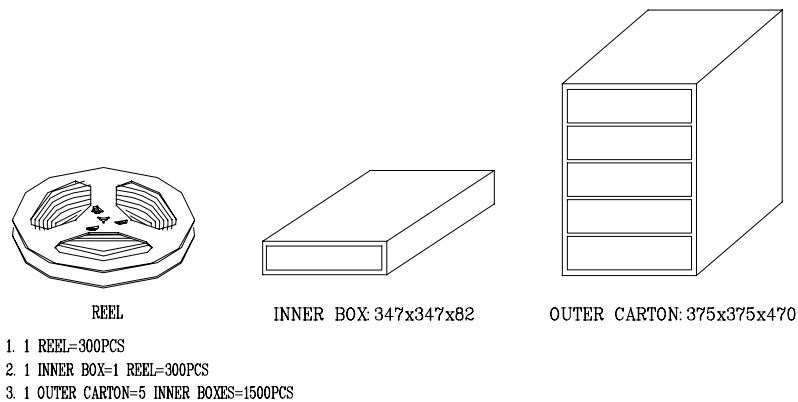
### HXB7013/14/15/16HLT



### HXB7008/9/10/11/12HLT



### HXB7013/14/15/16HLT



## For More Information:

Americas - [prodinfo\\_network\\_americas@yageo.com](mailto:prodinfo_network_americas@yageo.com) | Europe - [prodinfo\\_network\\_emea@yageo.com](mailto:prodinfo_network_emea@yageo.com) | Asia - [prodinfo\\_network\\_asia@yageo.com](mailto:prodinfo_network_asia@yageo.com)

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