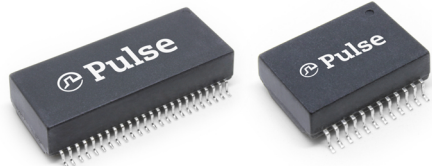


# Single and Dual 10GBase-T Magnetic Modules

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

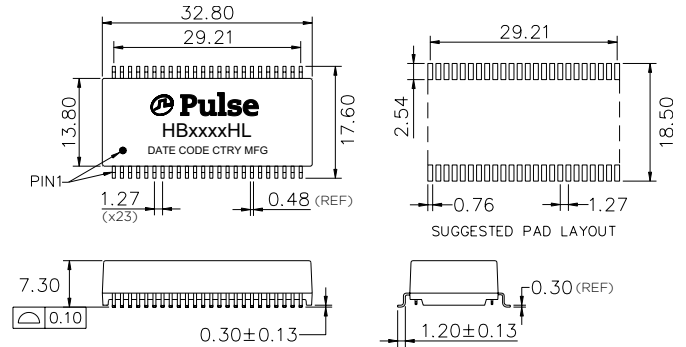
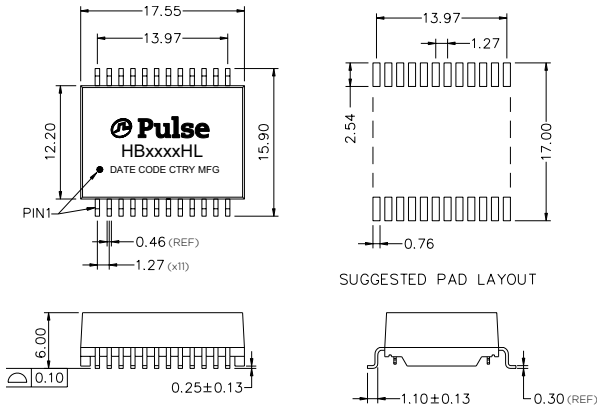
HXB7008HLT, HXB7009HLT, HXB7010HLT, HXB7011HLT, HXB7012HLT,  
HXB7013HLT, HXB7014HLT, HXB7015HLT and HXB7016HLT



## Mechanicals

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

### HXB7013/14/15/16HLT



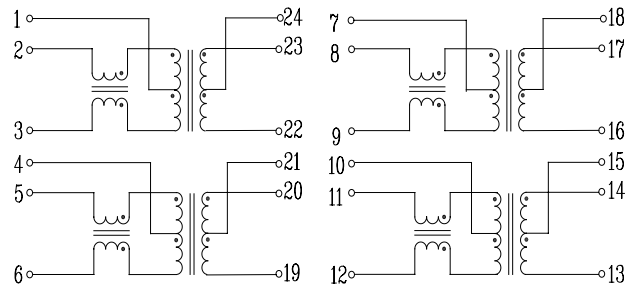
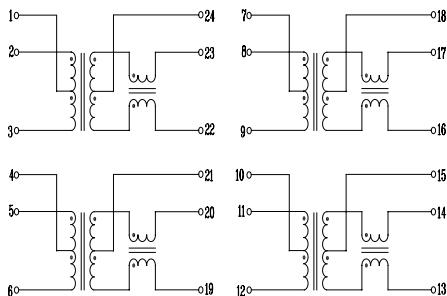
Dimensions: mm

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

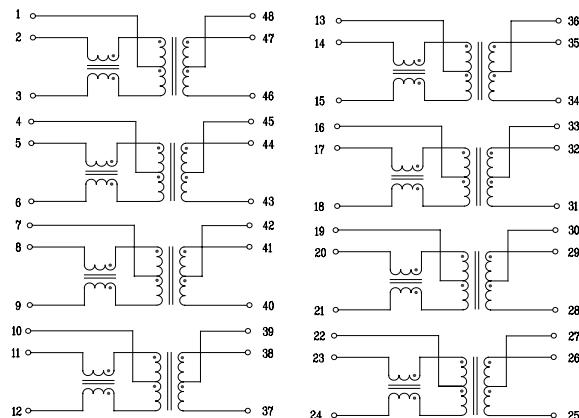
## Schematic

### HXB7009HLT

### HXB7008HLT, HXB7010HLT, HXB7011HLT, HXB7012HLT



### HXB7013HLT, HXB7014HLT, HXB7015HLT, HXB7016HLT

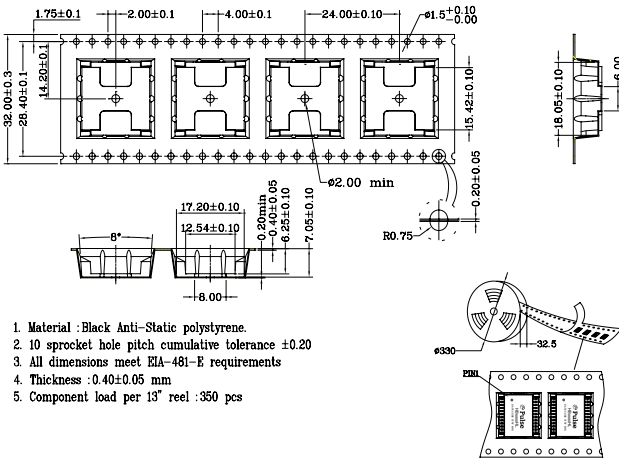


# Single and Dual 10GBase-T Magnetic Modules

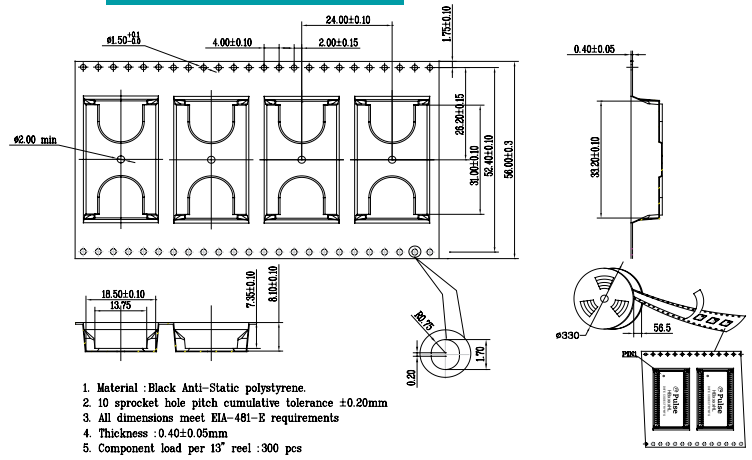
HXB7008HLT, HXB7009HLT, HXB7010HLT, HXB7011HLT, HXB7012HLT,  
HXB7013HLT, HXB7014HLT, HXB7015HLT and HXB7016HLT

## Tape & Reel

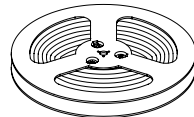
### HXB7008/9/10/11/12HLT



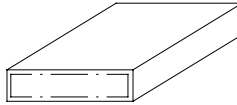
### HXB7013/14/15/16HLT



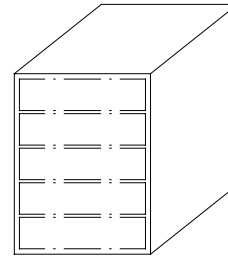
### HXB7008/9/10/11/12HLT



REEL



INNER BOX: 347x347x82



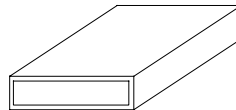
OUTER CARTON: 375x375x470

- 1 REEL=350PCS
- 2 1 INNER BOX=1 REEL=350PCS
- 3 1 OUTER CARTON=5 INNER BOXES=1750PCS

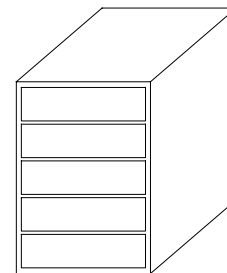
### HXB7013/14/15/16HLT



REEL



INNER BOX: 347x347x82



OUTER CARTON: 375x375x470

- 1 REEL=300PCS
- 2 1 INNER BOX=1 REEL=300PCS
- 3 1 OUTER CARTON=5 INNER BOXES=1500PCS

## 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)

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2023. Pulse Electronics, Inc. All rights reserved.

YAGEO Corporation and its affiliates do not recommend the use of commercial, automotive, and/or COTS grade products for high reliability applications or manned space flight.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Audio Transformers](#) / [Signal Transformers](#) category:*

*Click to view products by [Pulse manufacturer](#):*

Other Similar products are found below :

[CU4S0506AT-2655-H1](#) [MGPWT-00449-P](#) [PE-64961](#) [1812WBT2-4](#) [BX1194WNL](#) [1879479-1](#) [PA1528ANL](#) [T1137NLT](#) [PE-65848FNLT](#)  
[H5019EFNL](#) [CX2045ALNLT](#) [TG1G-E201NV6LF](#) [MGPWT-00059-P](#) [MGPWT-00266-P](#) [MGPWT-00278-P](#) [MGPWT-00431-P](#) [TTC-100](#)  
[TTC-143-H](#) [TTC-5032-1](#) [4-1879391-0](#) [100213](#) [T1142NL](#) [TG1G-S001NZLF](#) [T1124NL](#) [1879732-1](#) [2-1879391-5](#) [MABA-010321-CT1A42](#)  
[TX1341NL](#) [H0013FNL](#) [H5020FNL](#) [H2009FNLT](#) [H5004NLT](#) [S553-5999-52-F](#) [SCMS7D43AY100PT1](#) [T5008NLT](#) [PE-68517T](#) [MGPWT-](#)  
[00339-P](#) [H5014FNLT](#) [TX1473NLT](#) [PE-69011NLT](#) [CX2043LNLT](#) [H7137FNLT](#) [H1259NLT](#) [TX1344NLT](#) [LM-LP-1005L](#) [H0013NLT](#)  
[S558-5500-JV](#) [TX1193NLT](#) [T7015NL](#) [T1124NLT](#)