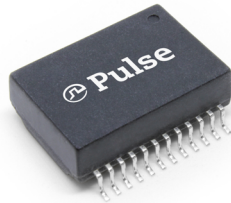
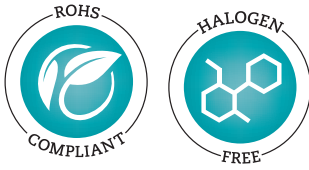


# Single Port 1Gigabit PoE SMD Magnetic Modules

HB5012HLT, HXB5012HLT, HB6002HLT, HB6003HLT, HB6006HLT, HB6007HLT, HXB6004HLT, HXB6005HLT, HXB6009HLT, HXB6008HLT



- Ⓢ Fully RoHS and Halogen Free
- Ⓢ Multiple options within a single footprint
- Ⓢ Supports 4 pair Power over Ethernet (PoE) up to 90W
- Ⓢ Meet or exceed IEEE802.3ab/af/at/bt
- Ⓢ Compatible with all 1:1 turns ration PHYs
- Ⓢ Commercial and Industrial Temperature
- Ⓢ Reliable SMD packages support 245°C pk reflow
- Ⓢ All components supplied in Tape and Reel

## Electrical Specification @ 25°C (OCL@ 8mA 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	1-40MHz	40 < f ≤ 100 MHz				
HB5012HLT	350	-1.0	-16	-(10-20 log10(f/80))		-	0 to 70°	1500Vrms	-
HXB5012HLT	350	-1.0	-16	-(10-20 log10(f/80))		-	-40° to 85°	1500Vrms	-
HB6002HLT	350	-1.0	-16	-(10-20 log10(f/80))		720	0° to 70°	1500Vrms	60W 4pair PoE
HB6006HLT	350	-1.0	-16	-(10-20 log10(f/80))		350	0° to 70°	5000Vrms	30W 4pair PoE
HB6007HLT	350	-1.0	-16	-(10-20 log10(f/80))		720	0° to 70°	5000Vrms	60W PoE+, Surge CM 6KV
HB6003HLT	350	-1.0	-16	-(10-20 log10(f/80))		720	0 to 70°	1500Vrms	60W 4pair PoE
HXB6004HLT	350	-1.0	-16	-(10-20 log10(f/80))		720	-40° to 85°	1500Vrms	60W 4pair PoE
HXB6005HLT	350	-1.0	-16	-(10-20 log10(f/80))		720	-40° to 85°	1500Vrms	60W 4pair PoE
HXB6009HLT	350	-1.0	-16	-(10-20 log10(f/80))		720	-40° to 85°	1500Vrms	60W PoE+, Surge DM 7KV

Note: \* Specifications listed above refer to the base component part number that is printed on the product - ie HXB6009HLT will be HXB6009HL

## Electrical Specification @ 25°C (OCL@ 15mA 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	1-40MHz	40 < f ≤ 100 MHz				
HXB6008HLT	350	-1.4	-16	-(10-20 log10(f/80))		1000	-40° to 85°	1500Vrms	90W 4pair PoE+

Note: \* Specifications listed above refer to the base component part number that is printed on the product - ie HXB6008HLT will be HXB6008HL

## 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

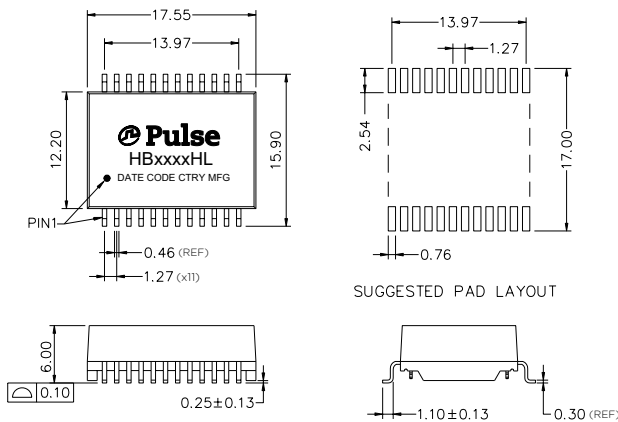
# Single Port 1Gigabit PoE SMD Magnetic Modules

HB5012HLT, HXB5012HLT, HB6002HLT, HB6003HLT, HB6006HLT, HB6007HLT, HXB6004HLT, HXB6005HLT, HXB6009HLT, HXB6008HLT



## Mechanicals

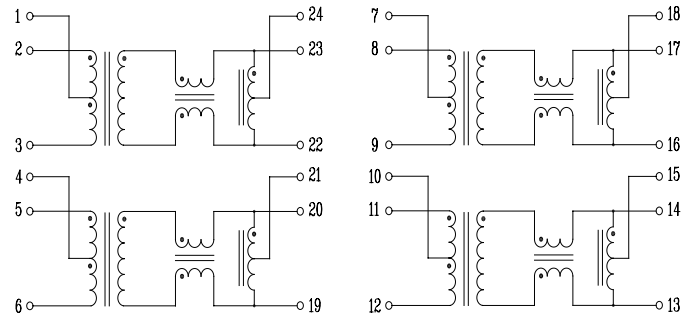
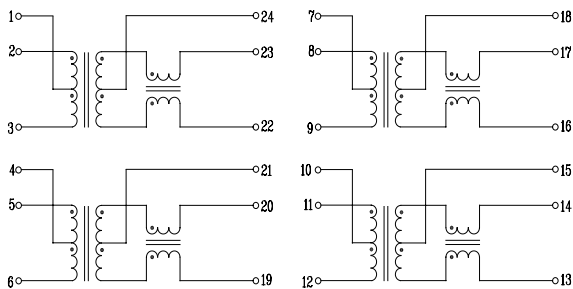
HB5/HB6xxxHLT/HXB6xxxHLT



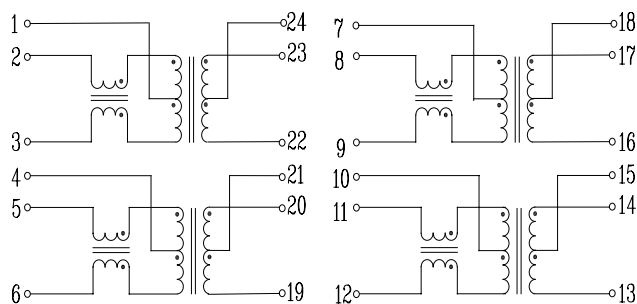
## Schematics

HB/HXB5012HLT, HB6xxxHLT, HXB6004HLT

HB6002HLT



HXB6005HLT, HXB6008HLT, HXB6009HLT

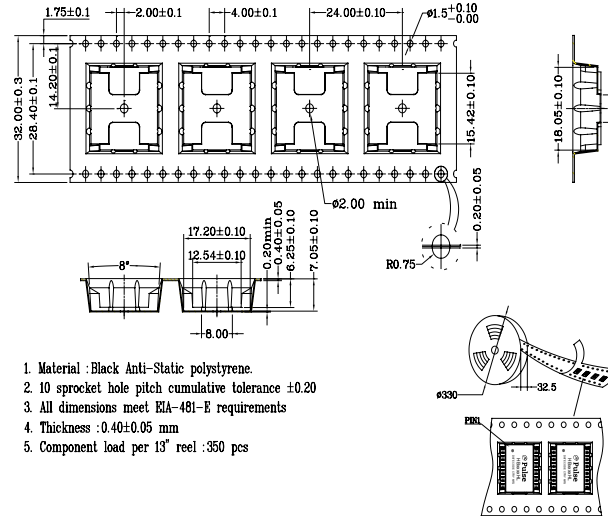


# Single Port 1Gigabit PoE SMD Magnetic Modules

HB5012HLT, HXB5012HLT, HB6002HLT, HB6003HLT, HB6006HLT, HB6007HLT, HXB6004HLT, HXB6005HLT, HXB6009HLT, HXB6008HLT

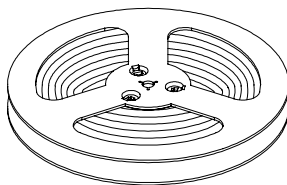
## Tape & Reel

HB/HXB5012HLT, HB600xHLT, HXB600xHLT

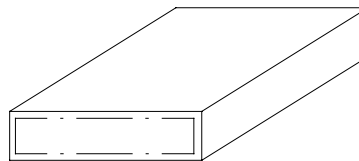


## Carton Package

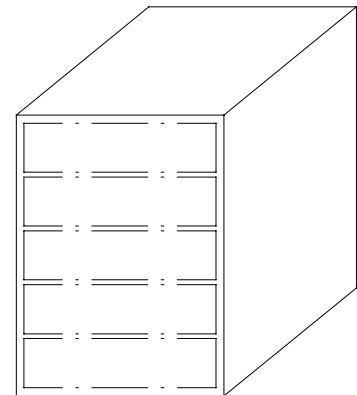
HB/HXB5012HLT, HB600xHLT, HXB600xHLT



REEL



INNER BOX: 347x347x82



OUTER CARTON: 375x375x470

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

## 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](#)