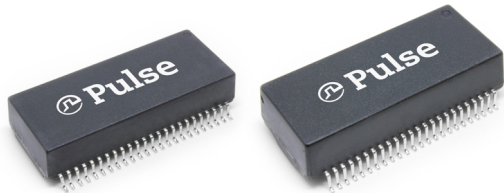


# Dual Port 1Gigabit SMD PoE Magnetic Modules

HB5013HLT, HB5014HLT, HB6010HLT, HB6011HLT, HB6012HLT, HXB6013HLT, HXB6014HLT, HXB6015HLT



- Ⓢ Fully RoHS and Halogen Free
- Ⓢ Dual Port with high Isolation and Surge options
- Ⓢ Supports up to 60Watt, 4pair Power over Ethernet
- Ⓢ Meet or exceed IEEE802.3 ab/af for 1000Base-T
- Ⓢ 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       |
| HB5013HLT   | 350  | -1.0                    | -16                  | -(10-20 log10(f/80)) |                           | -                          | 0° to 70°           | 3000Vrms | Surge CM 6KV          |
| HB5014HLT   | 350  | -1.0                    | -16                  | -(10-20 log10(f/80)) |                           | -                          | 0° to 70°           | 4000Vrms | Surge CM 6KV          |
| HB6010HLT   | 350  | -1.0                    | -16                  | -(10-20 log10(f/80)) |                           | 350                        | 0 to 70°            | 1500Vrms | 30W 4pair PoE+        |
| HB6011HLT   | 350  | -1.0                    | -16                  | -(10-20 log10(f/80)) |                           | 350                        | 0° to 70°           | 1500Vrms | 30W 4pair PoE+        |
| HB6012HLT   | 350  | -1.0                    | -16                  | -(10-20 log10(f/80)) |                           | 720                        | 0° to 70°           | 1500Vrms | 60W 4pair PoE+        |
| HXB6013HLT  | 350  | -1.0                    | -16                  | -(10-20 log10(f/80)) |                           | 720                        | -40° to 85°         | 3000Vrms | 60W PoE, Surge CM 6KV |
| HXB6014HLT  | 350  | -1.0                    | -16                  | -(10-20 log10(f/80)) |                           | 600                        | -40° to 85°         | 1500Vrms | 60W 4pair PoE+        |

Note: \* Specifications listed above refer to the base component part number that is printed on the product - ie HXB6014HLT will be HXB6014HL

## 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 |
| HXB6015HLT  | 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 HXB6015HLT will be HXB6015HL

## 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

# Dual Port 1Gigabit SMD PoE Magnetic Modules

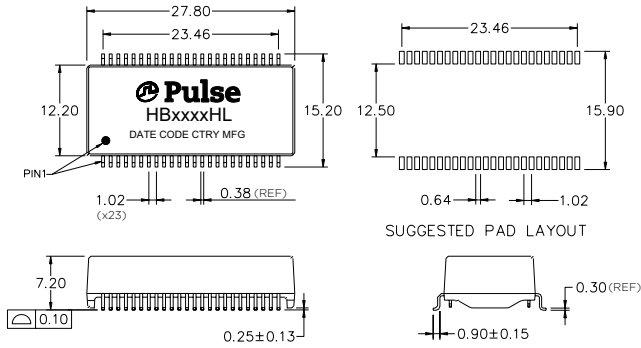
HB5013HLT, HB5014HLT, HB6010HLT, HB6011HLT, HB6012HLT, HXB6013HLT, HXB6014HLT, HXB6015HLT



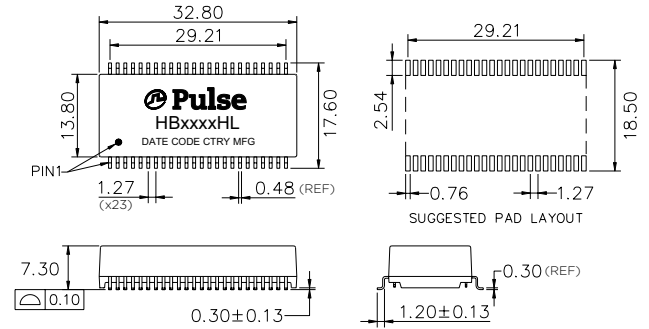
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## Mechanicals

### HB5/601xHLT, HXB601xHLT



### HXB6015HLT

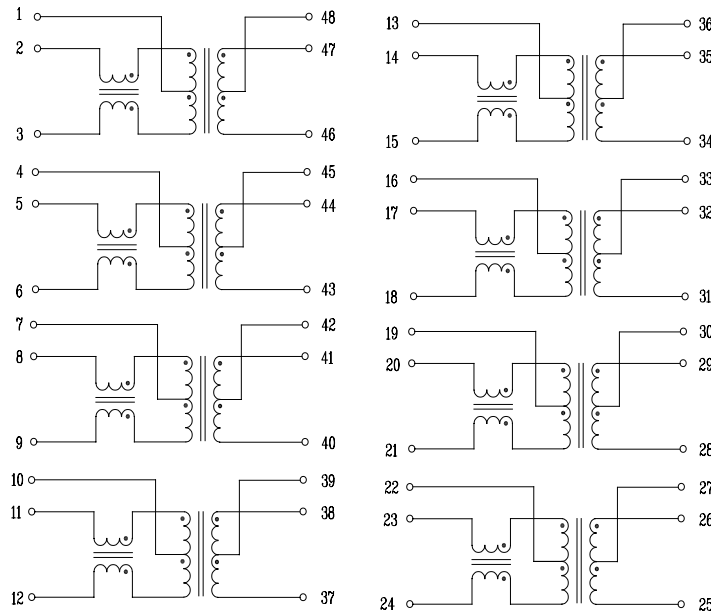


Dimensions: mm

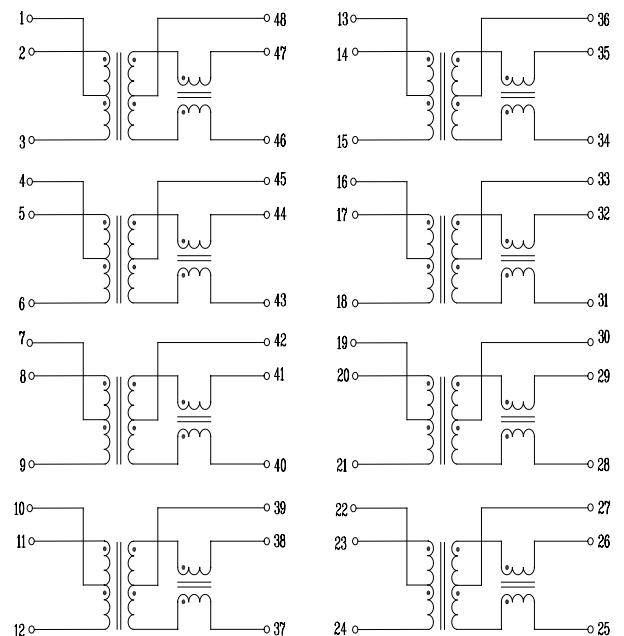
Unless otherwise specified,  
all tolerances are  $\pm 0,25$

## Schematics

### HB5014HLT, HB6010HLT, HXB6014HLT, HXB6015HLT



### HB5013HLT, HB6011HLT, HB6012HLT, HXB6013HLT





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