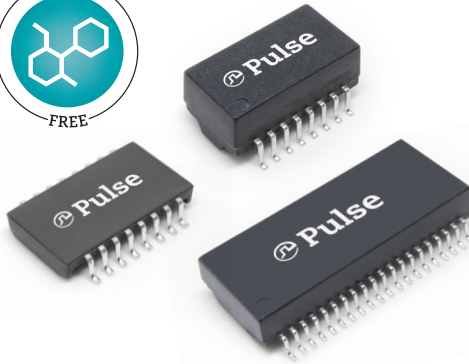


# Single and Quad 100BASE-TX SMD Modules

HB3005HLT, HXB2001HLT, HXB2002HLT, HB3004HLT, HB2003HLT,  
HB3006HLT, HB3002HLT, HB3003HLT



- Fully RoHS and Halogen Free
- Single, Quad and Power over Ethernet options
- Meet or exceed IEEE802.3u/af/at for 10/100Base-TX
- Compatible with all 1:1 turns ratio PHYs
- Supports AutoMDIX functionality
- Commercial and Industrial Temperature
- Reliable SMD packages support 245°C pk Reflow
- All components Supplied in Tape and Reel

Electrical Specification @ 25°C (OCL@DC8mA)

| 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 |
|-------------|----------------------------------------------|-------------------------|----------------------|---------------------|----------|----------|---------------------------|----------------------------|---------------------|------|
|             |                                              |                         | 0.3-100 MHz          | 2-30MHz             | 30-60MHz | 60-80MHz |                           |                            |                     |      |
| HB3005HLT   | 350                                          | -1.15                   | -16                  | -(16-20log10(f/30)) | -10      | -        | 0 to +70                  | 1500Vrms                   | -                   |      |
| HXB2001HLT  | 350                                          | -1.15                   | -16                  | -(16-20log10(f/30)) | -10      | 720      | -40 to +85                | 1500Vrms                   | PoE+                |      |
| HXB2002HLT  | 350                                          | -1.15                   | -16                  | -(16-20log10(f/30)) | -10      | 350      | -40 to +85                | 1500Vrms                   | PoE                 |      |
| HB3004HLT   | 350                                          | -1.15                   | -16                  | -(16-20log10(f/30)) | -10      | -        | 0 to +70                  | 1500Vrms                   | -                   |      |
| HB2003HLT   | 350                                          | -1.15                   | -16                  | -(16-20log10(f/30)) | -10      | 720      | 0 to +70                  | 1500Vrms                   | PoE+                |      |
| HB3006HLT   | 350                                          | -1.15                   | -16                  | -(16-20log10(f/30)) | -10      | -        | 0 to +70                  | 1500Vrms                   | QUAD PORT           |      |

Note: \* Specifications listed above refer to the base component part number that is printed on the product - ie HXB2002HLT will be HXB2002HL

Electrical Specification @ 25°C

| Part Number | Media side Inductance (@100KHz/0.1Ve)<br>uH min | Insertion Loss (dB max) | Return Loss (dB min) |                     |          |          | PoE (Current Per Pair mA) | Operating Temperature (°C) | Isolation (Pri:Sec) | Note |
|-------------|-------------------------------------------------|-------------------------|----------------------|---------------------|----------|----------|---------------------------|----------------------------|---------------------|------|
|             |                                                 |                         | 0.3-100 MHz          | 2-30MHz             | 30-60MHz | 60-80MHz |                           |                            |                     |      |
| HB3002HLT   | 350                                             | -1.15                   | -16                  | -(16-20log10(f/30)) | -10      | -        | 0 to +70                  | 1500Vrms                   | PCMCIA              |      |
| HB3003HLT   | 350                                             | -1.15                   | -16                  | -(16-20log10(f/30)) | -10      | -        | 0 to +70                  | 1500Vrms                   | PCMCIA              |      |

Note: \* Specifications listed above refer to the base component part number that is printed on the product - ie HB3002HLT will be HB3002HL

## Process and Materials

### Notes:

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

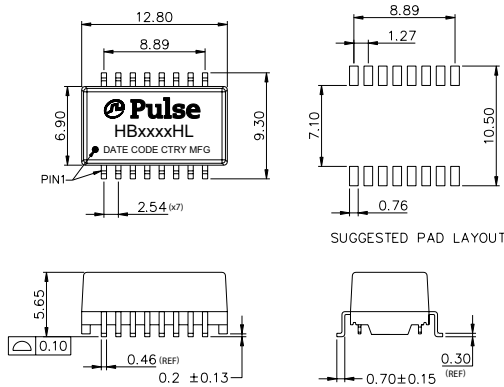
# Single and Quad 100BASE-TX SMD Modules

HB3005HLT, HXB2001HLT, HXB2002HLT, HB3004HLT, HB2003HLT,  
HB3006HLT, HB3002HLT, HB3003HLT



## Mechanicals

### HB2003HLT, HB3004/5HLT, HXB2001/2HLT



Dimensions: mm

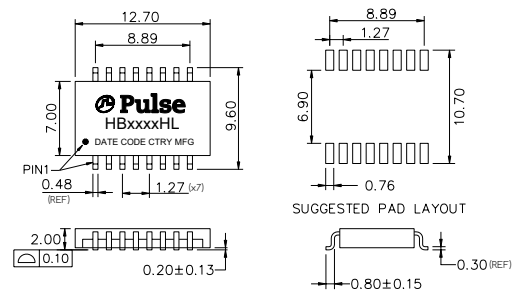
Unless otherwise specified the following tolerances apply:

xx.xx =  $\pm 0.25$

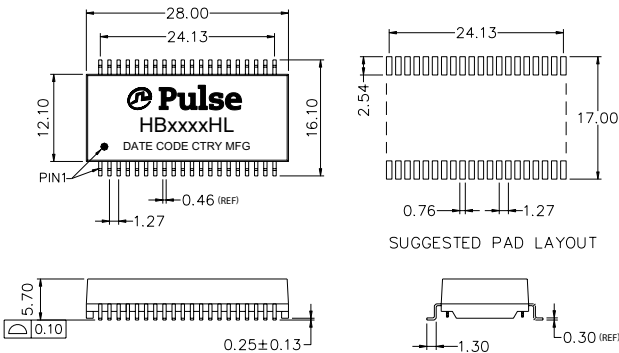
x.xx =  $\pm 0.25$

0.xx =  $\pm 0.13$

### HB3002HLT, HB3003HLT



### HB3006HLT



Dimensions: mm

Unless otherwise specified the following tolerances apply:

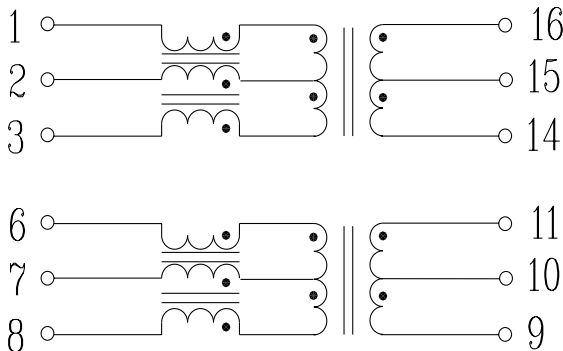
xx.xx =  $\pm 0.25$

x.xx =  $\pm 0.25$

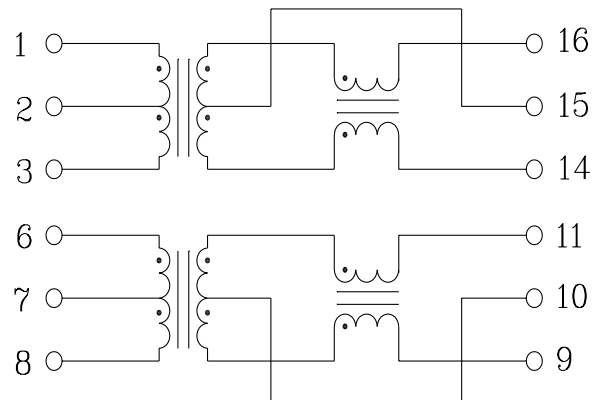
0.xx =  $\pm 0.13$

## Schematics

### HB2003HLT



### HB3004HLT, HXB2002HLT



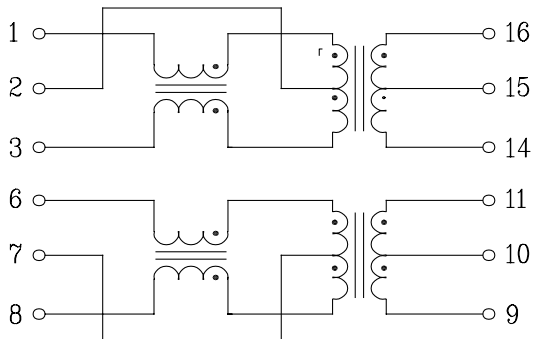
# Single and Quad 100BASE-TX SMD Modules

HB3005HLT, HXB2001HLT, HXB2002HLT, HB3004HLT, HB2003HLT,  
HB3006HLT, HB3002HLT, HB3003HLT

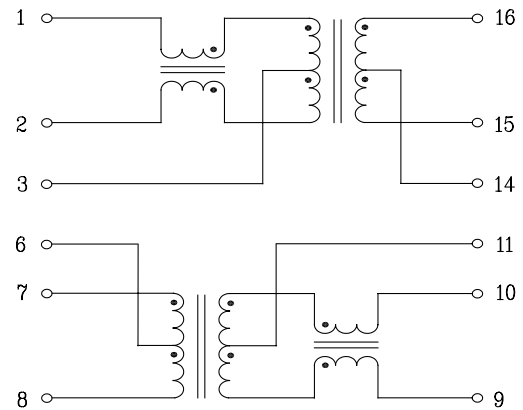


## Schematics

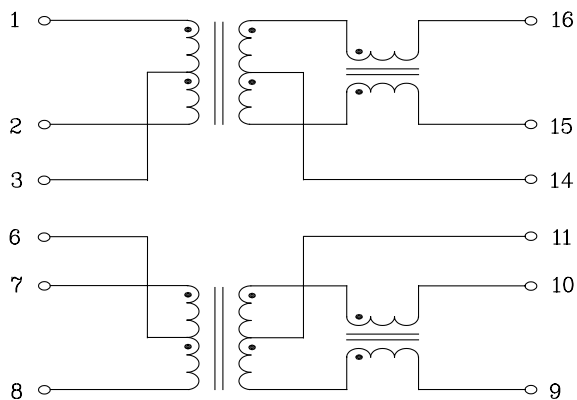
HB3005HLT, HXB2001HLT



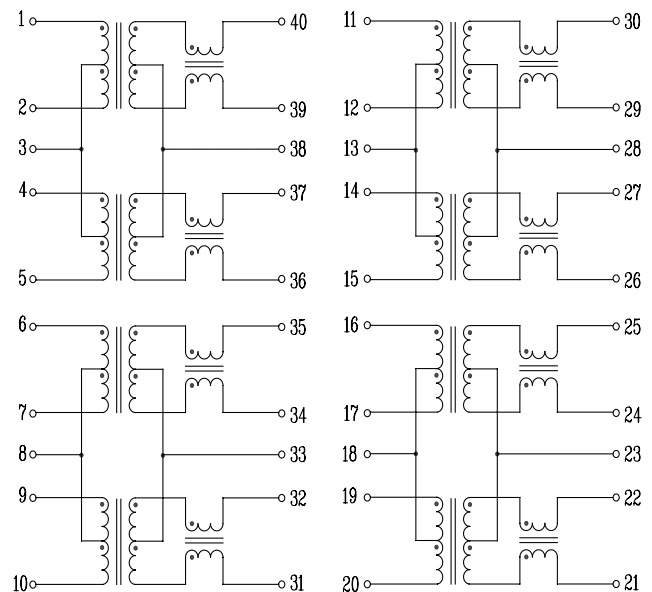
HB3003HLT



HB3002HLT



HB3006HLT

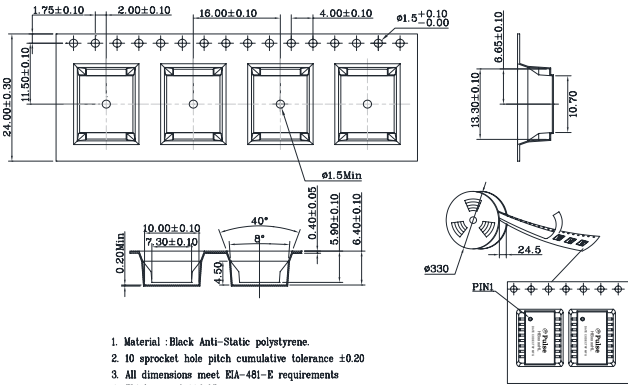


# Single and Quad 100BASE-TX SMD Modules

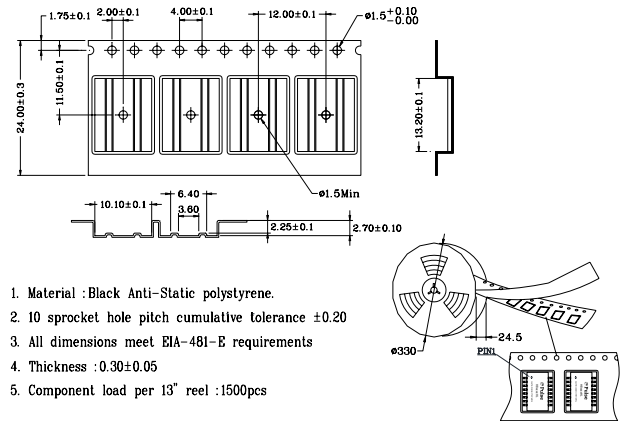
HB3005HLT, HXB2001HLT, HXB2002HLT, HB3004HLT, HB2003HLT,  
HB3006HLT, HB3002HLT, HB3003HLT

## Tape & Reel

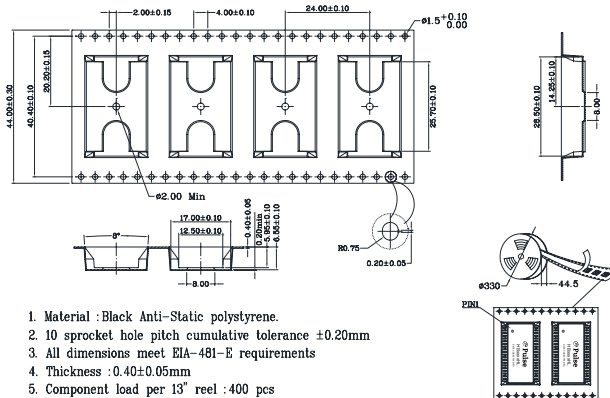
### HB2003HLT, HB3004/5HLT, HXB2001/2HLT



### HB3002/3HLT

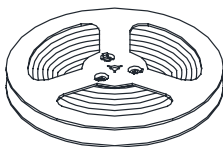


### HB3006HLT

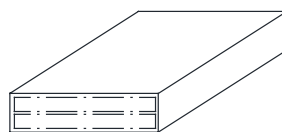


## Carton Package

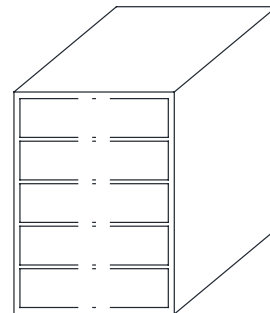
### HB2003HLT, HB3004/5HLT, HXB2001/2HLT



REEL



INNER BOX: 347x347x82



OUTER CARTON: 375x375x470

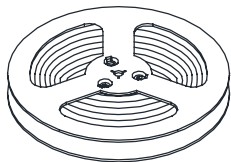
- 1 REEL=600PCS
- 1 INNER BOX=2 REELS=1200PCS
- 1 OUTER CARTON=5 INNER BOXES=6000PCS

# Single and Quad 100BASE-TX SMD Modules

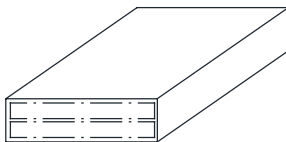
HB3005HLT, HXB2001HLT, HXB2002HLT, HB3004HLT, HB2003HLT,  
HB3006HLT, HB3002HLT, HB3003HLT

## Carton Package

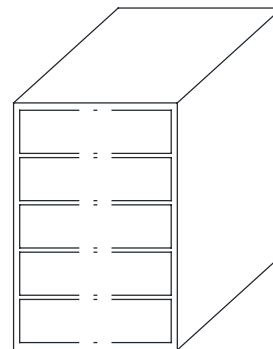
### HB3002/3HLT



REEL



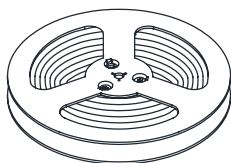
INNER BOX: 347x347x82



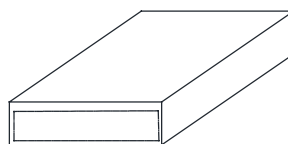
OUTER CARTON: 375x375x470

1. 1 REEL=1500PCS
2. 1 INNER BOX=2 REELS=3000PCS
3. 1 OUTER CARTON=5 INNER BOXES=15000PCS

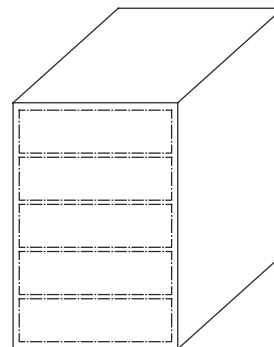
### HB3006HLT



REEL



INNER BOX: 347x347x82



OUTER CARTON: 375x375x470

1. 1 REEL=400PCS
2. 1 INNER BOX=1 REEL=400PCS
3. 1 OUTER CARTON=5 INNER BOXES=2000PCS

## For More Information:

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