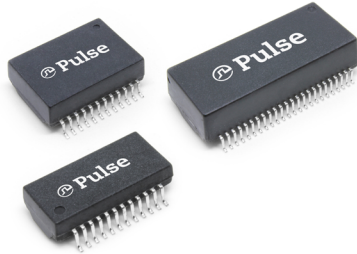


# Single and Dual 2.5Gigabit SMD Modules

HXB4009HLT, HB4009HLT, HB4010HLT, HB4011HLT and HB4012HLT



- Ⓢ Fully RoHS and Halogen Free
- Ⓢ Compact, Low Profile (4.0mm) options
- Ⓢ High Isolation and Surge option
- Ⓢ Meet or exceed IEEE802.3bz
- Ⓢ Compatible with all major PHYs
- Ⓢ Commercial and Industrial Temperature
- Ⓢ Reliable SMD packages support 245°C pk reflow
- Ⓢ All components supplied in Tape and Reel

## 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	125 MHz	1-40MHz	40< f ≤ 125 MHz				
HB4010HLT	180	-1.0	-1.5	-16	$-(16-10 \log_{10}(f / 40))$	-	0 to +70°	1500Vrms	-
HB4011HLT	180	-1.0	-1.5	-16	$-(16-10 \log_{10}(f / 40))$	-	0 to +70°	3000Vrms	Surge CM 4KV
HB4012HLT	180	-1.0	-1.5	-16	$-(16-10 \log_{10}(f / 40))$	-	0 to +70°	1500Vrms	Dual Port
HB4009HLT	180	-1.0	-1.5	-16	$-(16-10 \log_{10}(f / 40))$	-	0 to +70°	1500Vrms	-
HXB4009HLT	180	-1.0	-1.5	-16	$-(16-10 \log_{10}(f / 40))$	-	-40 to +85°	1500Vrms	-

Note: \* Specifications listed above refer to the base component part number that is printed on the product - ie HXB4009HLT will be HXB4009HL

## Process and Materials

### Notes:

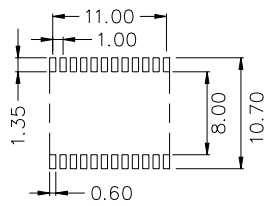
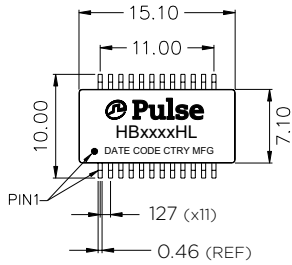
1. Storage Temperature:
  - HBxxxxHL = -20 to +125°C
  - HXBxxxxHL = -50 to +125°C
2. Compliance to JEDEC-J-STD 020:
  - i. Moisture Sensitive Level 1
  - ii. Maximum peak Reflow Solder temperature 245°C
3. All parts come in 13" (330mm) Diameter Tape and reel - see page 3-4 for details
4. Header: Black 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 2.5Gigabit SMD Modules

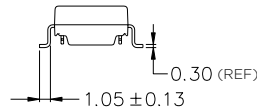
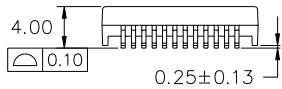
HXB4009HLT, HB4009HLT, HB4010HLT, HB4011HLT and HB4012HLT

## Mechanical

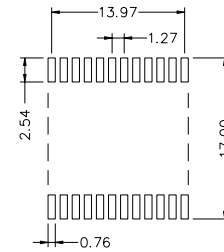
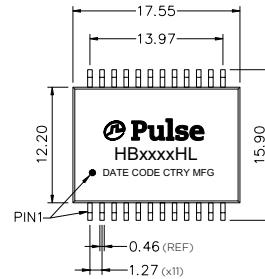
### HB/HXB4009HLT



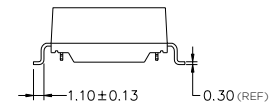
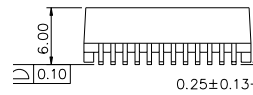
SUGGESTED PAD LAYOUT



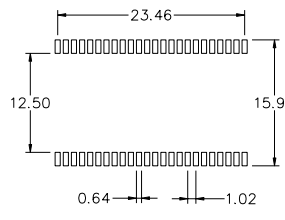
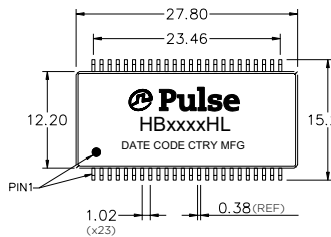
### HB4010/11HLT



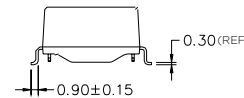
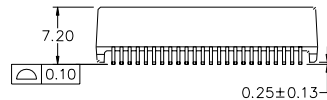
SUGGESTED PAD LAYOUT



### HB4012HLT



SUGGESTED PAD LAYOUT

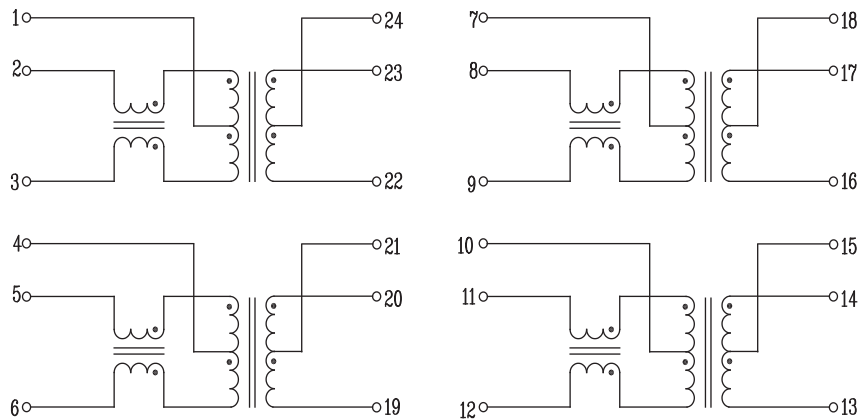


Dimensions: mm

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

## Schematic

### HXB4009HLT, HB4009HLT, HB4010HLT, HB4011HLT

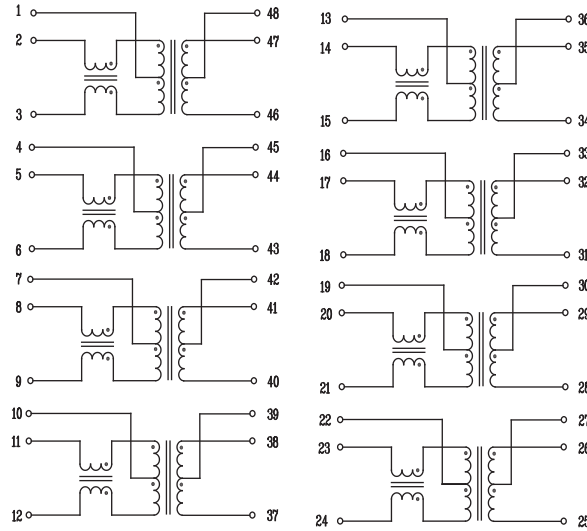


# Single and Dual 2.5Gigabit SMD Modules

HB4009HLT, HB4009HLT, HB4010HLT, HB4011HLT and HB4012HLT

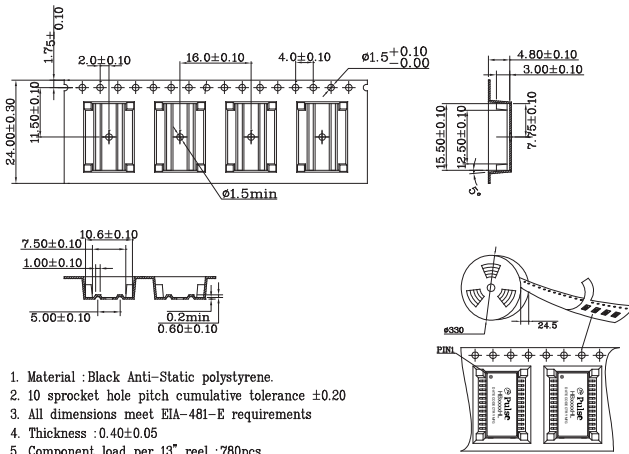
## Schematic

### HB4012HLT



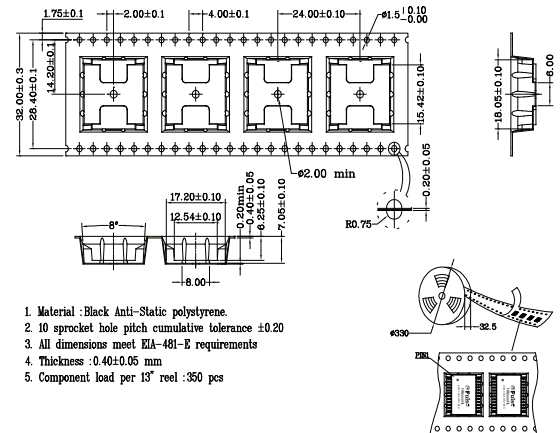
## Tape & Reel

### HB4009HLT, HXB4009HLT



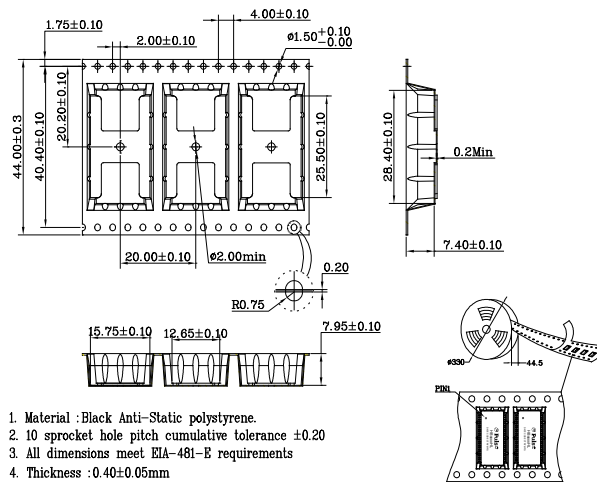
1. Material : Black Anti-Static polystyrene.
2. 10 sprocket hole pitch cumulative tolerance  $\pm 0.20$
3. All dimensions meet EIA-481-E requirements
4. Thickness :  $0.40 \pm 0.05$
5. Component load per 13" reel : 780pcs

### HB4010HLT, HB4011HLT



1. Material : Black Anti-Static polystyrene.
2. 10 sprocket hole pitch cumulative tolerance  $\pm 0.20$
3. All dimensions meet EIA-481-E requirements
4. Thickness :  $0.40 \pm 0.05$  mm
5. Component load per 13" reel : 350 pcs

### HB4012HLT



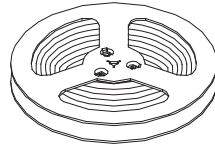
1. Material : Black Anti-Static polystyrene.
2. 10 sprocket hole pitch cumulative tolerance  $\pm 0.20$
3. All dimensions meet EIA-481-E requirements
4. Thickness :  $0.40 \pm 0.05$ mm
5. Component load per 13" reel : 350pcs

# Single and Dual 2.5Gigabit SMD Modules

HB4009HLT, HB4009HLT, HB4010HLT, HB4011HLT and HB4012HLT

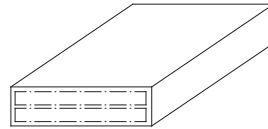
## Carton Package

### HB4009HLT, HXB4009HLT

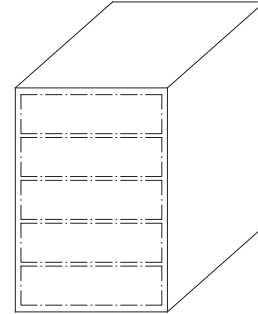


REEL

1. 1 REEL=780PCS
2. 1 INNER BOX=2 REELS=1560PCS
3. 1 OUTER CARTON=5 INNER BOXES=7800PCS

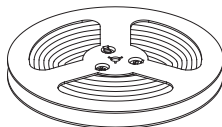


INNER BOX: 347x347x82



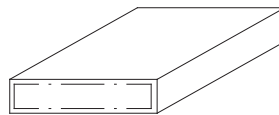
OUTER CARTON: 375x375x470

### HB4012HLT, HB4011HLT, HB4010HLT

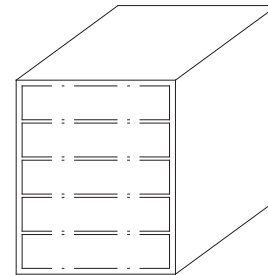


REEL

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



INNER BOX: 347x347x82



OUTER CARTON: 375x375x470

## For More Information:

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