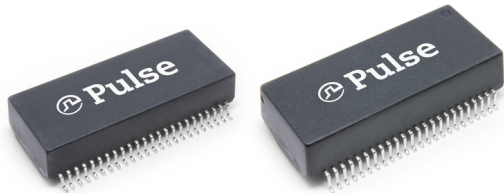


# Dual Port 1Gigabit SMD PoE Magnetic Modules

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

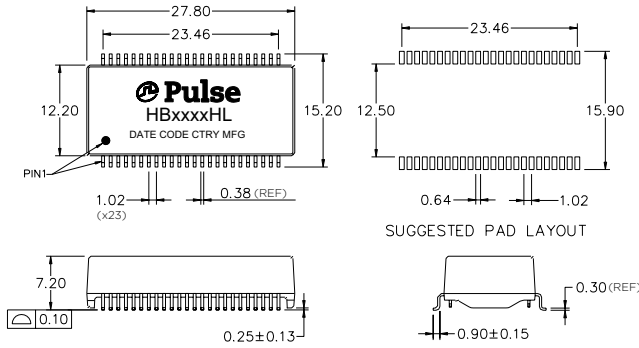


# Pulse

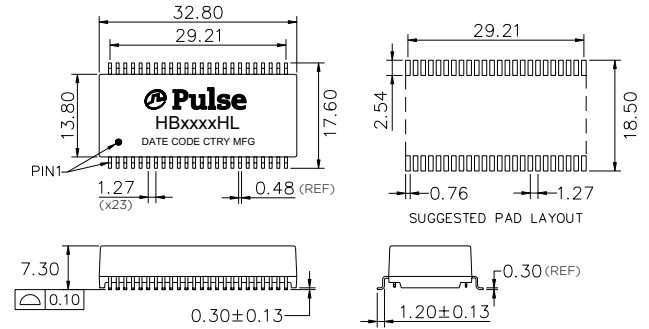
a YAGEO company

## Mechanicals

### HB5/601xHLT, HXB601xHLT



### HXB6015HLT

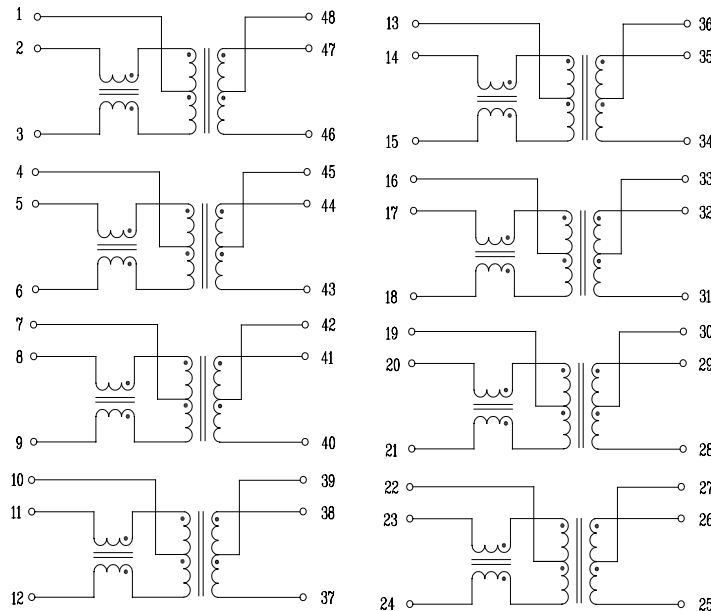


Dimensions: mm

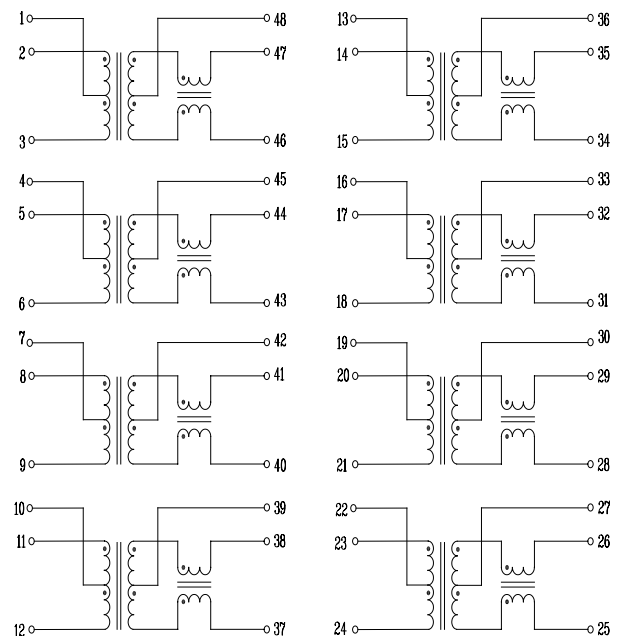
Unless otherwise specified,  
all tolerances are ± 0,25

## Schematics

### HB5014HLT, HB6010HLT, HXB6014HLT, HXB6015HLT



### HB5013HLT, HB6011HLT, HB6012HLT, HXB6013HLT

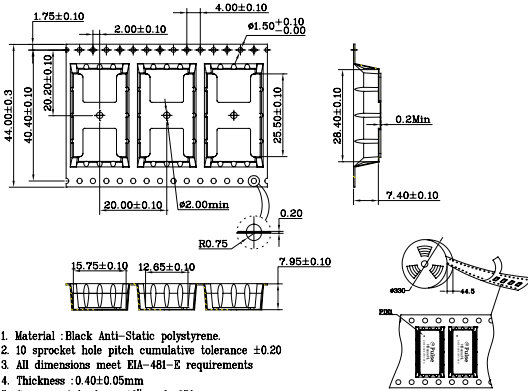


# Dual Port 1Gigabit SMD PoE Magnetic Modules

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

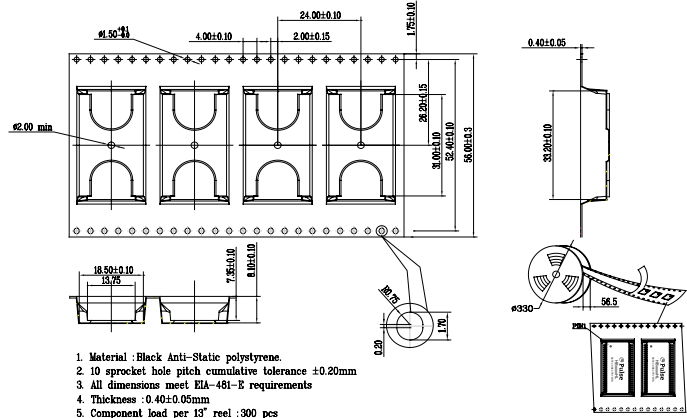
## Tape & Reel

### HB501xHLT, HB601xHLT, HXB601xHLT



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

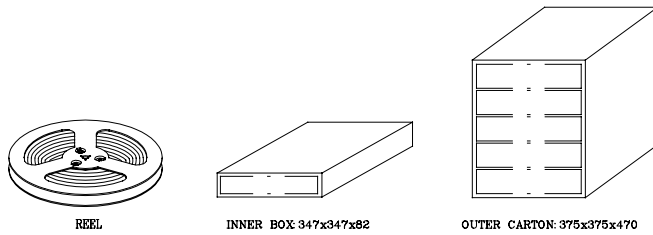
### HXB6015HLT



1. Material : Black Anti-Static polystyrene.
2. 10 sprocket hole pitch cumulative tolerance  $\pm 0.20$ mm
3. All dimensions meet EIA-481-E requirements
4. Thickness :  $0.40 \pm 0.05$ mm
5. Component load per 13" reel : 300 pcs

## Carton Package

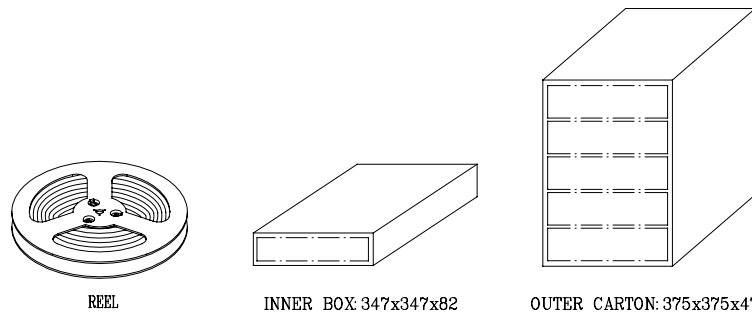
### HB501xHLT, HB601xHLT, HXB601xHLT



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

OUTER CARTON: 375x375x470

### HXB6015HLT



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

OUTER CARTON: 375x375x470

## For More Information:

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