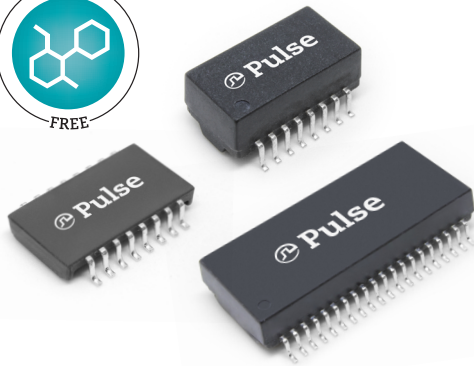


Single and Quad 100BASE-TX SMD Modules

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

YAGEO
PULSE GROUP



- Ⓢ 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/0.1V _e) 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/0.1V _e) 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

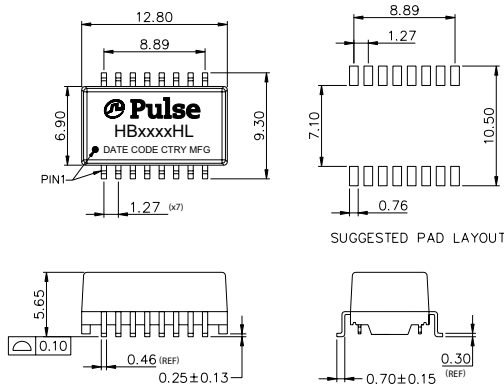
Single and Quad 100BASE-TX SMD Modules

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



Mechanicals

HB2003HLT, HB3004/5HLT, HXB2001/2HLT



Dimensions: mm

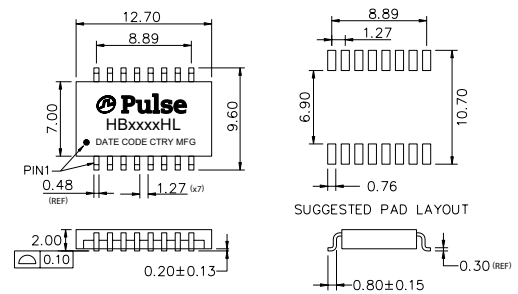
Unless otherwise specified the following tolerances apply:

xx.xx = ± 0.25

x.xx = ± 0.25

0.xx = ± 0.13

HB3002HLT, HB3003HLT



Dimensions: mm

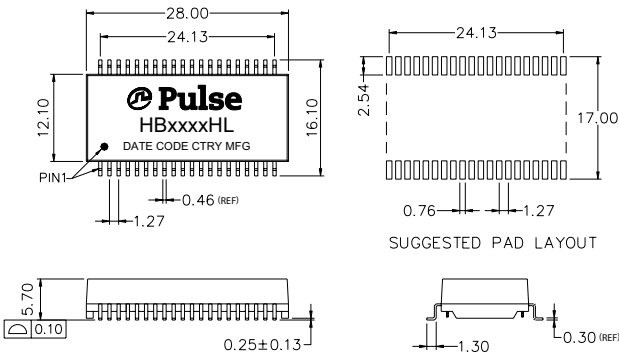
Unless otherwise specified the following tolerances apply:

xx.xx = ± 0.25

x.xx = ± 0.25

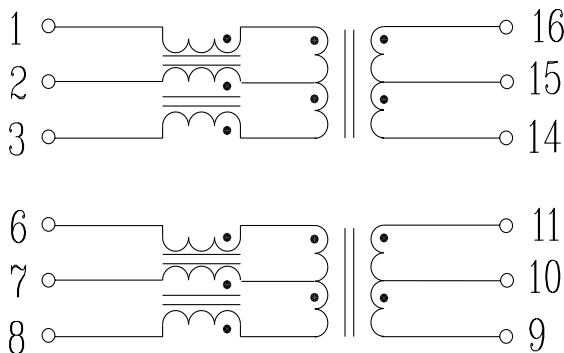
0.xx = ± 0.13

HB3006HLT

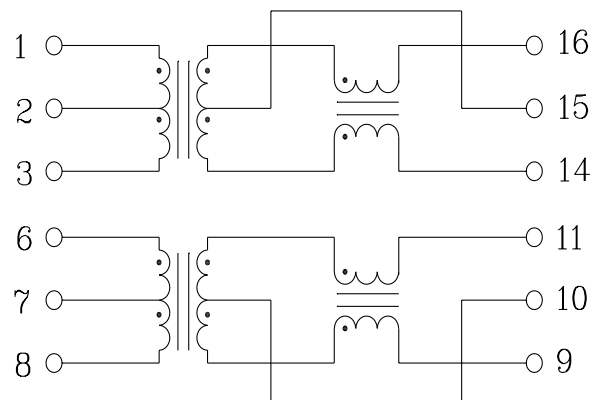


Schematics

HB2003HLT



HB3004HLT, HXB2002HLT



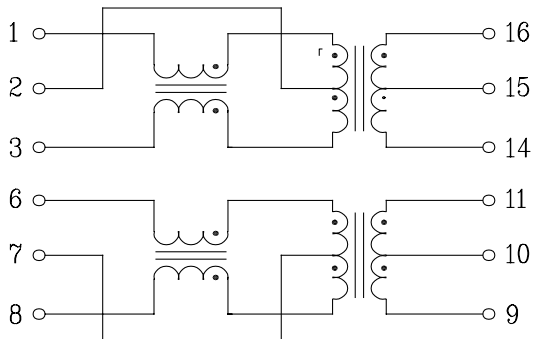
Single and Quad 100BASE-TX SMD Modules

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

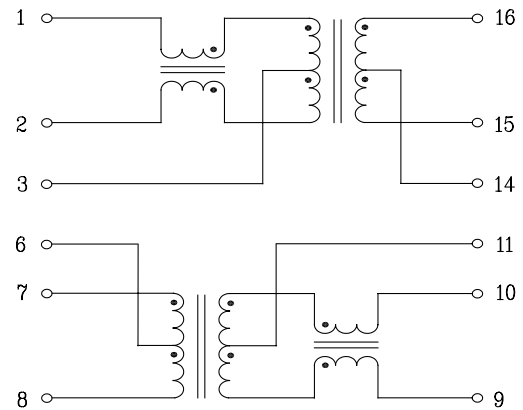
YAGEO GROUP
PULSE

Schematics

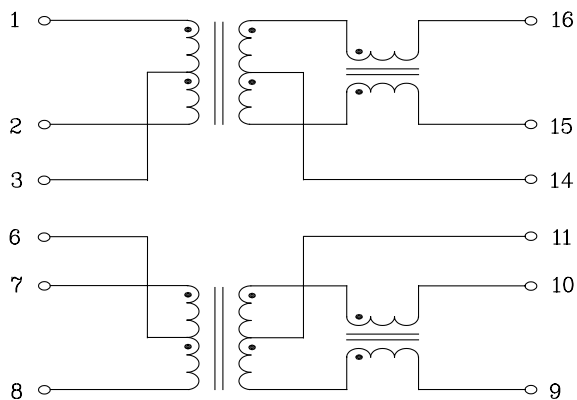
HB3005HLT, HXB2001HLT



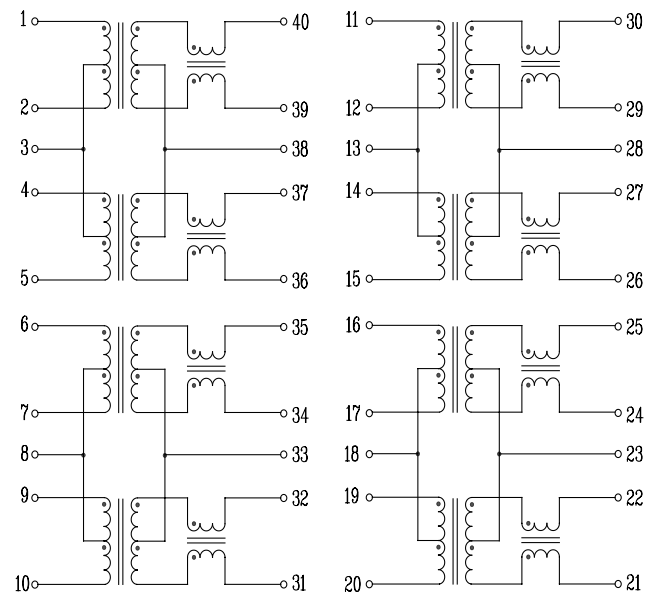
HB3003HLT



HB3002HLT



HB3006HLT



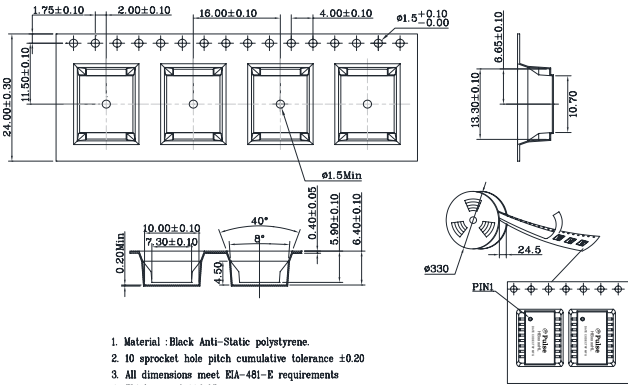
Single and Quad 100BASE-TX SMD Modules

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

YAGEO GROUP
PULSE

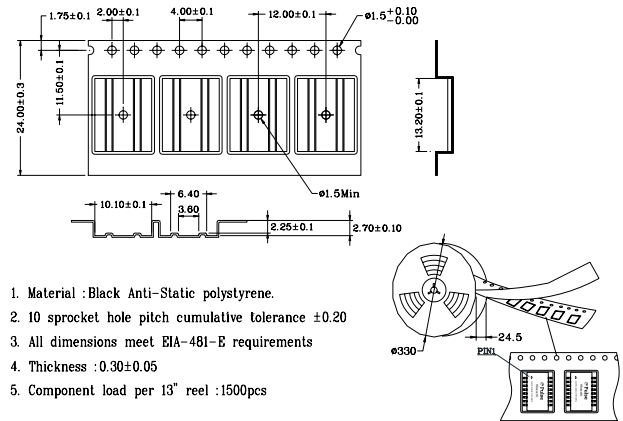
Tape & Reel

HB2003HLT, HB3004/5HLT, HXB2001/2HLT



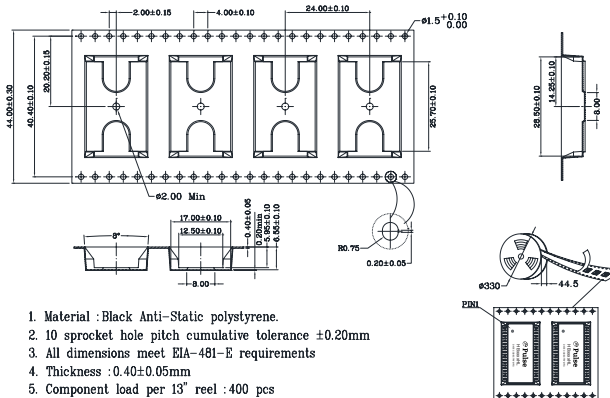
1. Material : Black Anti-Static polystyrene.
2. 10 sprocket hole pitch cumulative tolerance ± 0.20
3. All dimensions meet EIA-481-E requirements
4. Thickness : 0.4 ± 0.05 mm
5. Component load per 13" reel : 600 pcs

HB3002/3HLT



1. Material : Black Anti-Static polystyrene.
2. 10 sprocket hole pitch cumulative tolerance ± 0.20
3. All dimensions meet EIA-481-E requirements
4. Thickness : 0.30 ± 0.05
5. Component load per 13" reel : 1500pcs

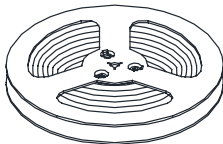
HB3006HLT



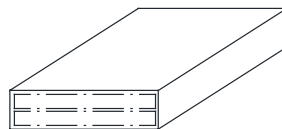
1. Material : Black Anti-Static polystyrene.
2. 10 sprocket hole pitch cumulative tolerance ± 0.20 mm
3. All dimensions meet EIA-481-E requirements
4. Thickness : 0.40 ± 0.05 mm
5. Component load per 13" reel : 400 pcs

Carton Package

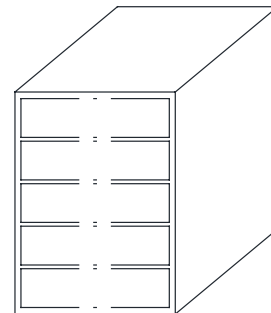
HB2003HLT, HB3004/5HLT, HXB2001/2HLT



REEL



INNER BOX: 347x347x82



OUTER CARTON: 375x375x470

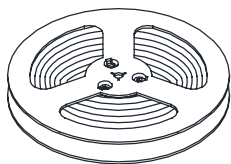
1. 1 REEL=600PCS
2. 1 INNER BOX=2 REELS=1200PCS
3. 1 OUTER CARTON=5 INNER BOXES=6000PCS

Single and Quad 100BASE-TX SMD Modules

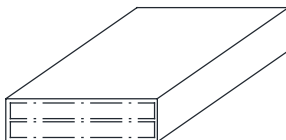
HB3005HLT, HXB2001HLT, HXB2002HLT, HB3004HLT, HB2003HLT,
HB3006HLT, HB3002HLT, HB3003HLT

Carton Package

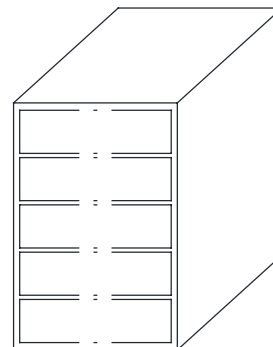
HB3002/3HLT



REEL



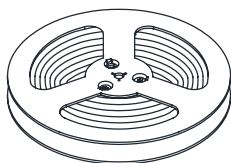
INNER BOX: 347x347x82



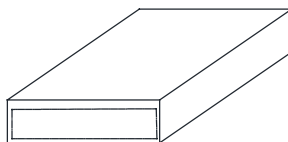
OUTER CARTON: 375x375x470

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

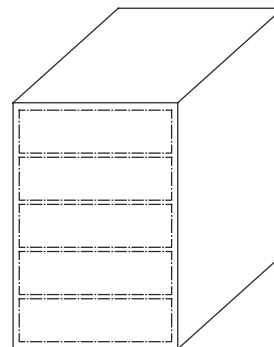
HB3006HLT



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:

Americas - prodinfo_network_americas@yageo.com | Europe - prodinfo_network_emea@yageo.com | Asia - 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, 2024. Pulse Electronics, Inc. All rights reserved.

YAGEO Corporation and its affiliates do not recommend the use of commercial or automotive grade products for high reliability applications or manned space flight.