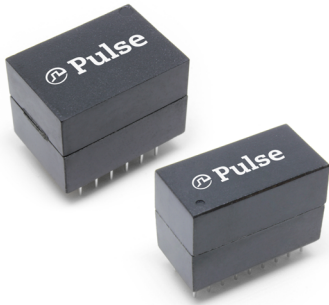


# THT Single Port 1Gigabit DIP Magnetic Modules

HB5601NL, HB5602NL, HB5604NL and HXB5603NL



- Ⓟ THT single port DIP packages in 18 or 24 pin options for PCB Space saving compared to SMD
- Ⓟ Meets or exceeds IEEE 802.3ab standard
- Ⓟ Industrial Temperature range, <7KV surge
- Ⓟ Compatible with all leading PHYs
- Ⓟ Fully RoHS compliant
- Ⓟ THT Parts Hand or Wave Solder 260°C/5secs (max)

## Electrical Specification @ 25°C (OCL@DC8mA for 100/1000bps)

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
HB5601NL	350	-1.0	-16	-(10-20 log <sub>10</sub> (f/80))		-	0° to 70°	1500Vrms	-
HB5602NL	350	-1.1	-16	-(10-20 log <sub>10</sub> (f/80))		-	0° to 70°	4000Vrms	Surge DM2.5KV/CM 6KV
HB5604NL	350	-1.1	-16	-(10-20 log <sub>10</sub> (f/80))		-	0° to 70°	1500Vrms	-

## 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	1-40MHz					40< f ≤ 100 MHz
HXB5603NL	350	-1.1	-16	-(10-20 log <sub>10</sub> (f/80))		-	-40° to 85°	1500Vrms	Surge DM 7KV

## Process and Materials

### Notes:

1. Storage Temperature:  
HBxxxxNL = -20 to +125°C  
HXBxxxxNL = -50 to +125°C
2. Compliance to JEDEC-J-STD 020:  
i. Moisture Sensitive Level 1
3. All parts are packaged in tubes - see page 3 for details
4. Header: Black Thermoset Plastic - Material flammability rating UL 94V-0
5. Lead Frame: Copper-clad Steel
6. Underplate / Overplate: Tin electro-deposited over Nickel
7. Finish: Matte finish Tin solder

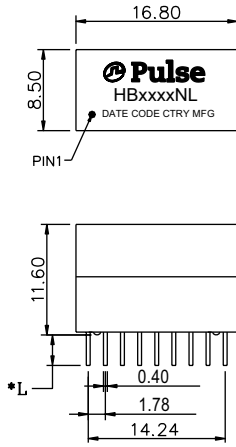
# THT Single Port 1Gigabit DIP Magnetic Modules

HB5601NL, HB5602NL, HB5604NL and HXB5603NL



## Mechanicals

### HB5604NL, HXB5603NL

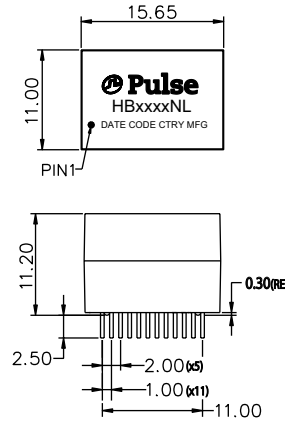


Dimensions: mm

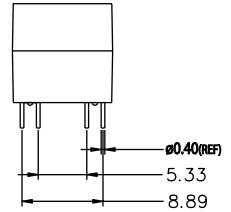
Unless otherwise specified the following tolerances apply:  
 xx.xx = ±0.25  
 x.xx = ±0.25  
 0.xx = ±0.13

NOTE:  
 \*L=2.50 FOR HXB5603NL  
 \*L=3.20 FOR HB5604NL

### HB5601NL, HB5602NL

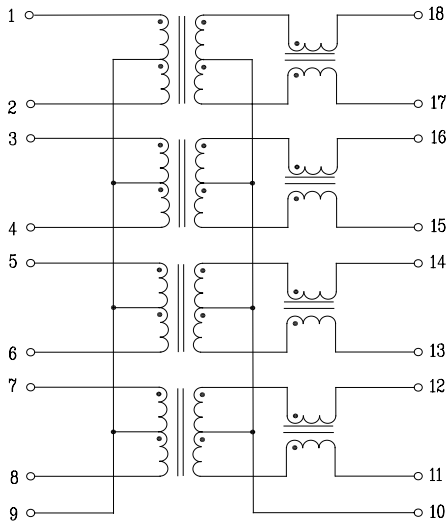


\*See PCB layout on page 2 for actual pin positions

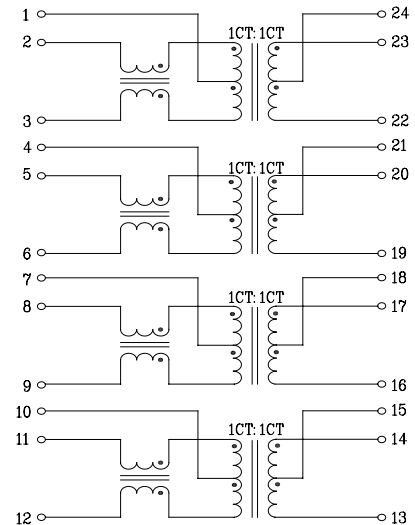


## Schematics

### HB5604NL, HXB5603NL

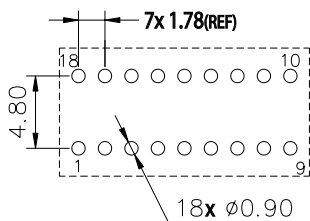


### HB5601NL, HB5602NL



## PCB Layout mounting Hole (Top View)

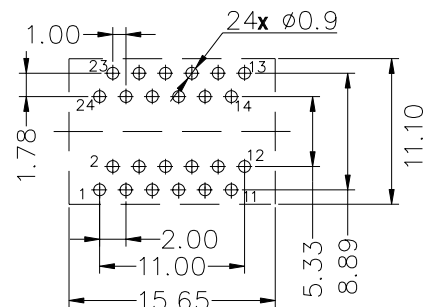
### HB5604NL, HXB5603NL



Dimensions: mm

Unless otherwise specified, all tolerances are ±0.08

### HB5601NL, HB5602NL

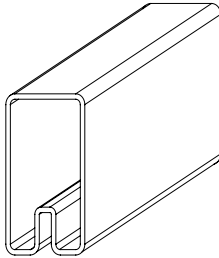


# THT Single Port 1Gigabit DIP Magnetic Modules

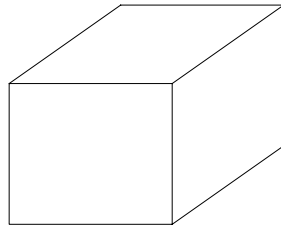
HB5601NL, HB5602NL, HB5604NL and HXB5603NL

## Carton Package

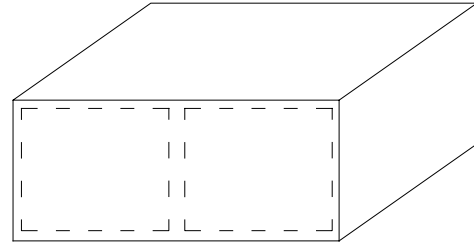
### HB5604NL, HXB5603NL



TUBE



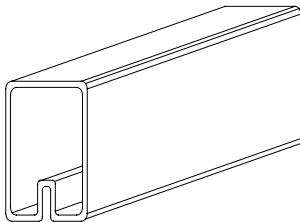
INNER BOX: 567x135x125



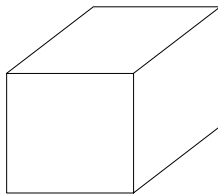
OUTER CARTON: 598x287x150

1. 1 TUBE=31PCS
2. 1 INNER BOX=70 TUBES=2170PCS
3. 1 OUTER CARTON=2 INNER BOXES=4340PCS

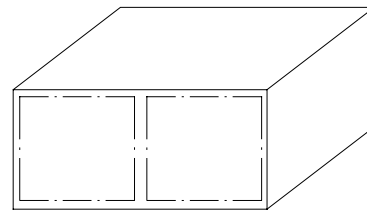
### HB5601NL, HB5602NL



TUBE



INNER BOX: 567x135x125



OUTER CARTON: 598x287x150

1. TUBE=32PCS
2. INNER BOX=54 TUBES=1728PCS
3. OUTER CARTON=2 INNER BOXES=3456PCS

## For More Information:

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