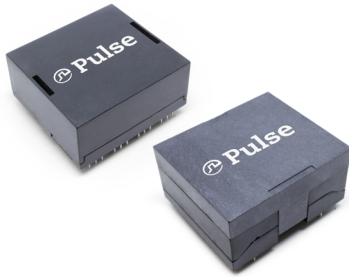


# THT Quad Port PoE 1G or 5G or 10G Magnetic Modules

HB6603NL, HB6604NL, HB6605NL, HB5G601NL, HXB5G602NL, HXB6606NL, HXB6607NL, HXB7601NL and HXB7602NL



- ④ THT 4 port high density package in 88 or 96 pin options
- ④ Meets or exceeds IEEE 802.3ab/af/at/bt/bz/an standards
- ④ Compatible with all leading PHYs
- ④ Modules support 4pair PoE for 60W and 90W
- ④ Fully RoHS compliant
- ④ THT Parts Hand or Wave Solder 260°C/5secs (max)

## Electrical Specification @ 25°C (For 1Gbps - OCL measured at 8mAdc)

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				
HB6603NL	350	-1.0	-16	-(10-20 log10(f/80))		600	0° to 70°	1500Vrms	4Pair PoE+ (60W)
HB6604NL	350	-1.0	-16	-(10-20 log10(f/80))		600	0° to 70°	1500Vrms	4Pair PoE+ (60W)
HB6605NL	350	-1.0	-16	-(10-20 log10(f/80))		600	0° to 70°	1500Vrms	4Pair PoE+ (60W)
HXB6607NL	260	-1.0	-16	-(10-20 log10(f/80))		600	-40° to 85°	1500Vrms	4Pair PoE+ (60W)
HXB6606NL	280*	-1.4	-16	-(10-20 log10(f/80))		1000	-40° to 85°	1500Vrms	4Pair PoE+ (90W)

Note: \* OCL measured at 15mAdc

## Electrical Specification @ 25°C (For 5Gbps)

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	100-250MHz	1-40MHz	40< f ≤ 250 MHz				
HB5G601NL	180	-1.0	-2.0	-16	-(16-10 log10(f /40))	600	0° to 70°	1500Vrms	4Pair PoE+ (60W)
HXB5G602NL	180	-1.0	-2.0	-16	-(16-10 log10(f /40))	1000	-40° to 85°	1500Vrms	4Pair PoE+ (90W)

## Electrical Specification @ 25°C (For 10Gbps)

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
		1-100MHz	100-400MHz	500MHz	1-40MHz	40 < f ≤ 400 MHz	400< f ≤ 500 MHz				
HXB7601NL	120	-1.0	-1.5	-2.0	-18	-(18-10 log10(f /40))	-(8-30 log10 ( f /400))	1000	-40° to 105°	1500Vrms	4Pair PoE+ (90W)
HXB7602NL	100	-1.0	-1.5	-2.0	-18	-(18-10 log10(f /40))	-(8-30 log10(f /400))	600	-40° to 90°	1500Vrms	4Pair PoE+ (60W)

## 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 4 for details
4. Header: Thermosetting plastics with flammability Rating UL 94V-0 or better
5. Lead Frame: Copper-clad Steel
6. Underplate / Overplate: Tin electro-deposited over Nickel
7. Finish: Matte finish Tin solder

# THT Quad Port PoE 1G or 5G or 10G Magnetic Modules

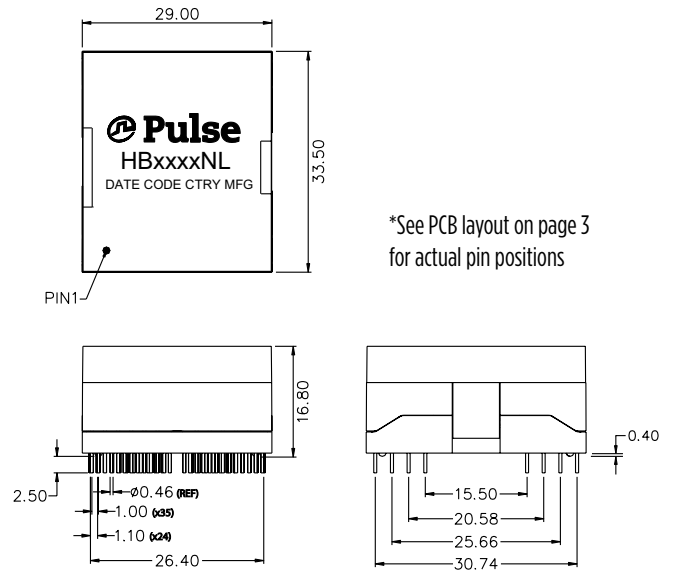
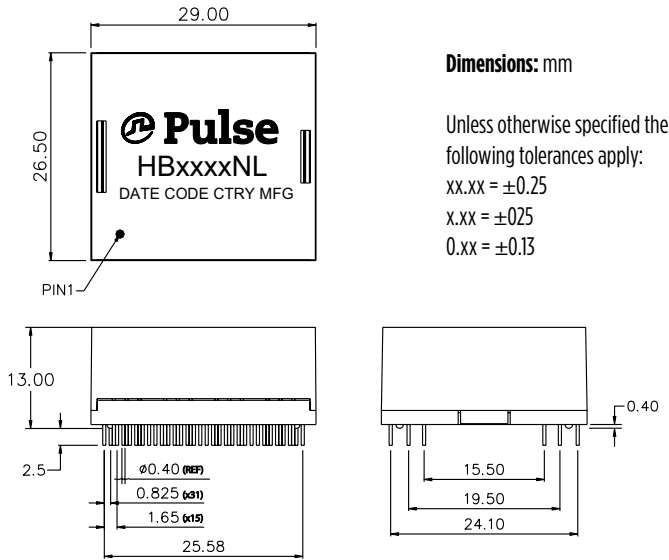
HB6603NL, HB6604NL, HB6605NL, HB5G601NL, HXB5G602NL, HXB6606NL, HXB6607NL, HXB7601NL and HXB7602NL



## Mechanicals

HB6603NL, HB6604NL, HB6605NL

HXB660xNL, HXB760xNL, HXB5G602NL, HB5G601NL

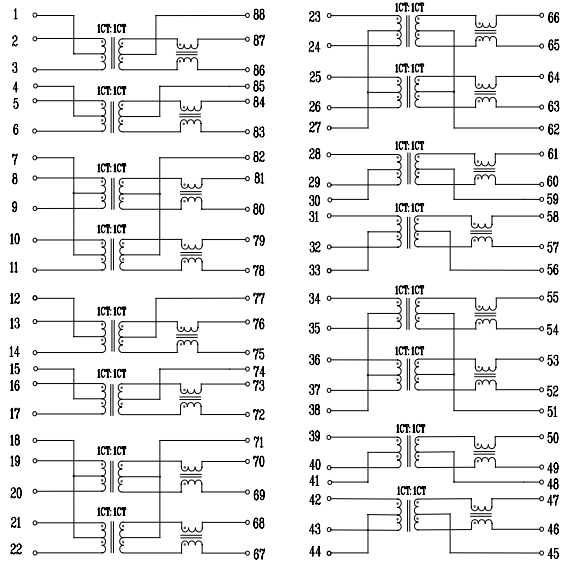
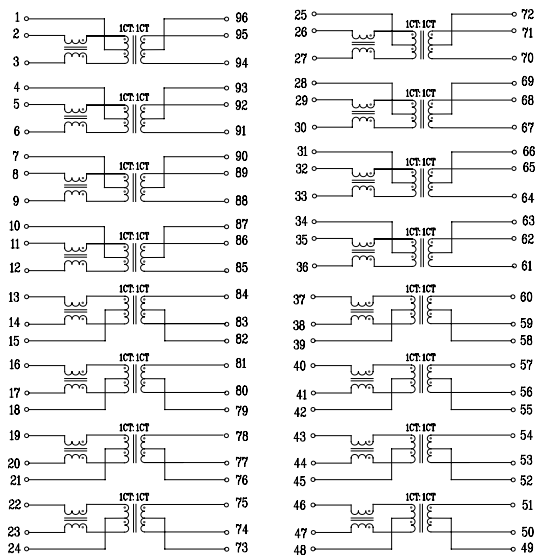


\*See PCB layout on page 3 for actual pin positions

## Schematics

HXB660xNL, HXB760xNL, HXB5G602NL, HB5G601NL

HB6603NL



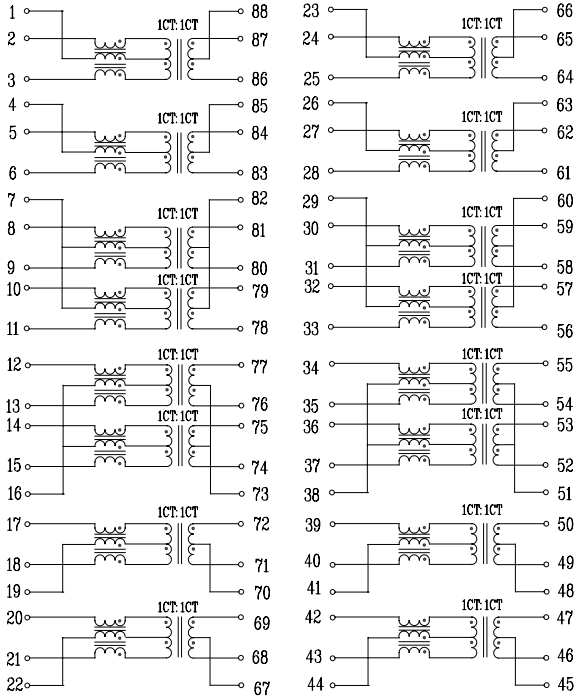
# THT Quad Port PoE 1G or 5G or 10G Magnetic Modules

HB6603NL, HB6604NL, HB6605NL, HB5G601NL, HXB5G602NL, HXB6606NL, HXB6607NL, HXB7601NL and HXB7602NL

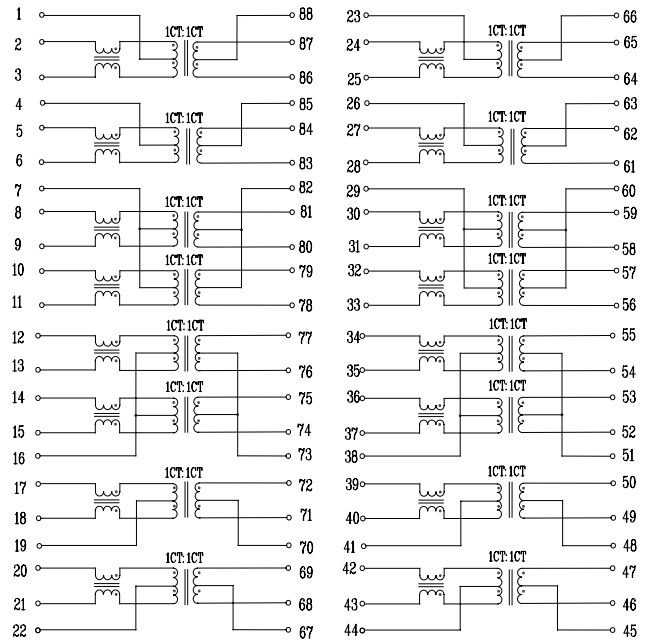


## Schematics

### HB6605NL

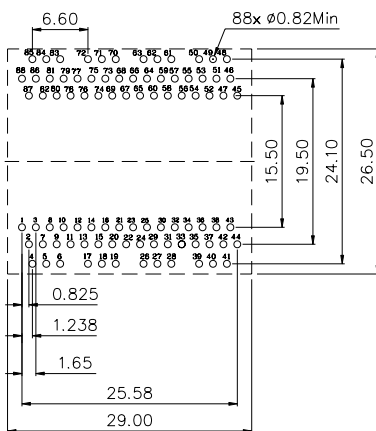


### HB6604NL



## PCB Layout mounting Hole (Top View)

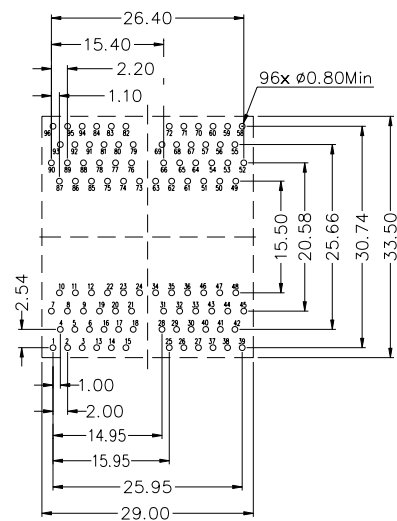
### HB6603NL, HB6604NL, HB6605NL



Dimensions: mm

Unless otherwise specified,  
all tolerances are  $\pm 0.08$

### HXB660xNL, HXB760xNL, HXB5G602NL, HB5G601NL

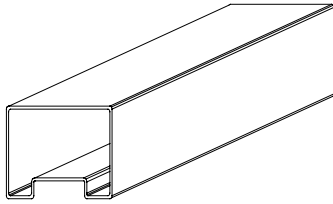


# THT Quad Port PoE 1G or 5G or 10G Magnetic Modules

HB6603NL, HB6604NL, HB6605NL, HB5G601NL, HXB5G602NL, HXB6606NL, HXB6607NL, HXB7601NL and HXB7602NL

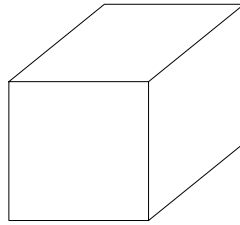
## Carton Package

HB6603NL, HB6604NL, HB6605NL

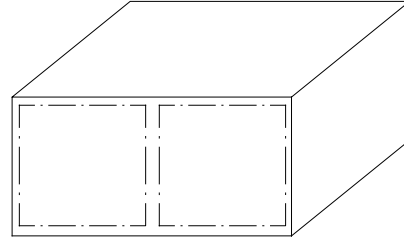


TUBE

1. 1 TUBE=17PCS
2. 1 INNER BOX=20 TUBES=340PCS
3. 1 OUTER CARTON=2 INNER BOXES=680PCS

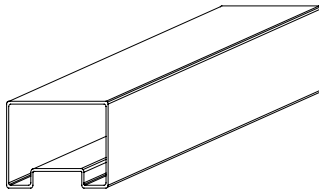


INNER BOX: 567x135x125



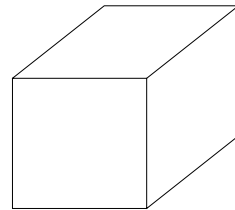
OUTER CARTON: 598x287x150

HXB660xNL, HXB760xNL, HXB5G602NL, HB5G601NL

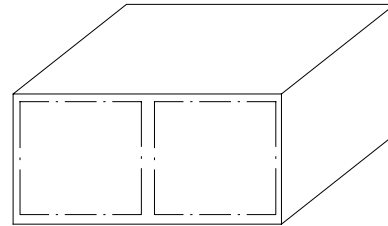


TUBE

1. 1 TUBE=17PCS
2. 1 INNER BOX=12 TUBES=204PCS
3. 1 OUTER CARTON=2 INNER BOXES=408PCS



INNER BOX: 567x135x125



OUTER CARTON: 598x287x150

## For More Information:

Americas - [prodinfo\\_network\\_americas@yageo.com](mailto:prodinfo_network_americas@yageo.com) | Europe - [prodinfo\\_network\\_emea@yageo.com](mailto:prodinfo_network_emea@yageo.com) | Asia - [prodinfo\\_network\\_asia@yageo.com](mailto:prodinfo_network_asia@yageo.com)

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