



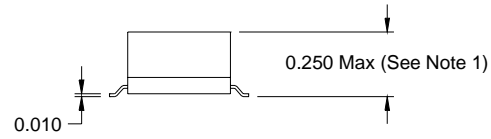
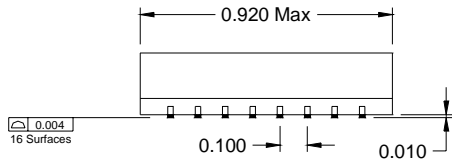
10/100 Single Port Ethernet Magnetics Module

HB6xx-Schematic #3, Rev. G

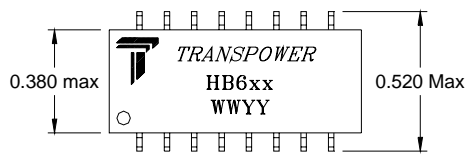
02 Aug 01

("xx" equals one of the circuit numbers in the table below the schematic.)

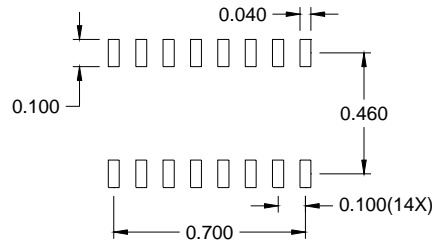
Other circuit schematics are available. Please contact us at (800) 511-7308 or visit our web site at www.trans-power.com.



Note 1: Low profile package (-LP) max height is 0.215.



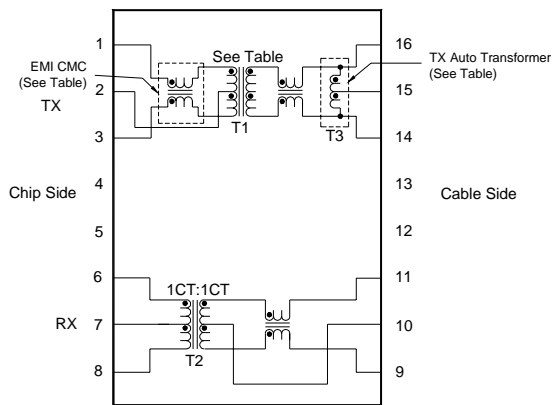
All dimensions are ± 0.005 unless otherwise noted.



Suggested Pad Layout

1601

HB6xx SCHEMATIC #3



Standard Features:

- Single channel interface
- Compliant with IEEE 802.3 and ANSI X3.263 Standards
- OCL of 350uH min. when biased at 8mA from 0° C to 70° C
- Surface mount package designed for reflow process (240°C peak)
- Low profile package also available by adding "-LP" to the part number. For example, HB607-1 in the low profile would be part number HB607-1-LP.

For alternate signal routing and other available schematics, see "HB6xx-Schematics #1, #2, #4, #5, #8, and #9".

10/100 Part Number Table

Part Number	TX Turns Ratio (Chip:Cable)	EMI CMC	TX Auto Transformer
HB607-1	2:1	Yes	Yes
HB612-1	1.41:1	No	Note 1
HB614-1	1:1	No	Yes
HB617-1	1:1	Yes	Yes
HB618-1	2:1	No	Yes
HB621	2:1	No	Note 1
HB626-1	1:1	No	Note 1
HB633-1	1.25:1	No	Note 1
HB637-1	1.25:1	No	Yes
HB638-1	1.41:1	No	Yes

Notes:
1. The cable side of T1 and T2 are center tapped and terminated when there is no auto transformer.

10/100 ETHERNET ELECTRICAL CHARACTERISTICS @ 25°C

Inductance: 350uH Min with 8mA DC Bias, 0°C - 70°C
Rise time (10 - 90%): 2.5 nSec typical
Dielectric Isolation: 1500 Vrms minimum

Frequency	Insertion Loss (dB MAX) *	Return Loss (dB MIN)	Crosstalk Attenuation (dB MIN)	TX CMRR (dB MIN)	RX CMRR (dB MIN)
.100 MHz - .999 MHz	1.0	18.0	43.0	46.0	35.0
1.0 MHz - 15.0 MHz	0.3	18.0	43.0	46.0	35.0
15.1 MHz - 60.0 MHz	0.6	18.0	43.0	46.0	35.0
60.1 MHz - 80.0 MHz	1.1	15.0	38.0	42.0	33.0
80.1 MHz - 100.0 MHz	1.1	12.0	38.0	42.0	33.0

* Indicated Insertion Loss refers to magnetic circuitry only.

2300