

MGHAS
(HBAXx)
Series

REV
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TRANSPower
TECHNOLOGIES, INC.

COEV
MAGNETICS

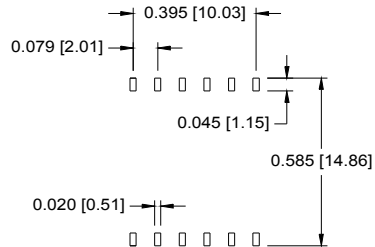
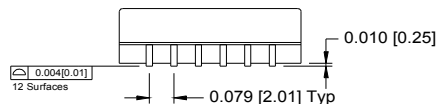
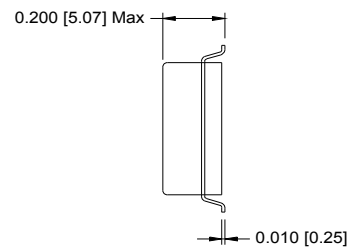
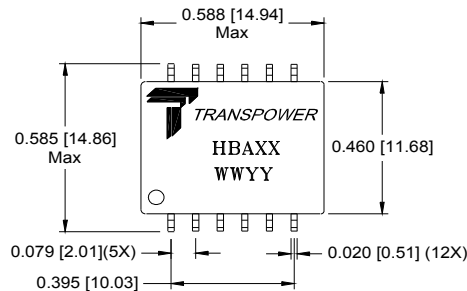
tyco/Electronics

Product
Description

10/100BASE-T Magnetics
Single Port, Surface Mount, Ethernet Module

Standard Features

- Single channel interface for 10/100BASE-T applications
- Compliant with IEEE 802.3 and ANSI X3.263 Standards
- Surface mount package designed for reflow process (240°C peak)
- Tape & Reel Packaging standard
- Package molded using UL94-V0 rated material



All dimensions are in inches and [millimeters].
All dimensions are ± 0.005 [0.127] unless otherwise noted.

Actual terminal dimensions.
Customer to determine PCB pad dimensions.

10/100BASE-T Electrical Characteristics @ 25°C

Inductance: 350uH Min with 8mADC Bias, 0°C to +70°C
(each transformer measured on the cable side)

Rise time (10% - 90%): 2.5nSec typical

Dielectric Isolation: 1500Vrms Minimum

Frequency	Insertion Loss (dB Max)	Return Loss (dB Min) (Note 1)	Crosstalk Attenuation (dB Min)	Transmit CMRR (dB Min)	Receive CMRR (dB Min)
0.1MHz - 1MHz	1.0	18.0	43.0	42.0	42.0
1.1MHz - 15MHz	0.5	18.0	43.0	42.0	42.0
15.1MHz - 30MHz	0.8	18.0	43.0	42.0	42.0
30.1MHz - 60MHz	0.8	12.0 @ 60MHz	43.0	42.0	42.0
60.1MHz - 80MHz	1.1	12.0 @ 80MHz	38.0	38.0	38.0
80.1MHz - 100MHz	1.2	10.0 @ 100MHz	38.0	35.0	35.0

Notes:

- Minimum return loss is as follows with a circuit impedance of 100 Ohms +/- 15%:
 0.1MHz - 29.9MHz = 18dB
 30MHz - 60MHz = 18 - 20Log₁₀(f/30) dB where f is in MHz
 60MHz - 80MHz = 12dB
 80.1MHz - 100MHz = 10dB

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Sheet 1 of 2

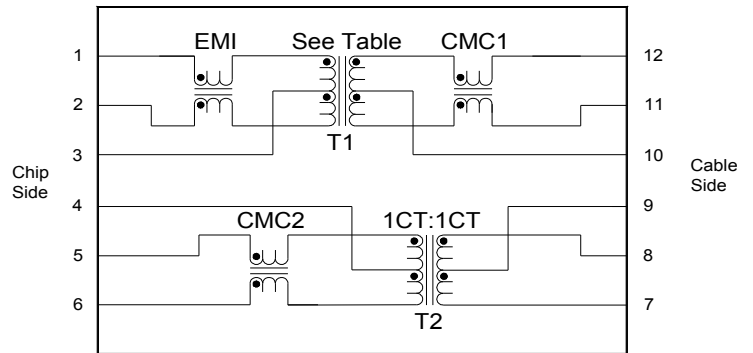
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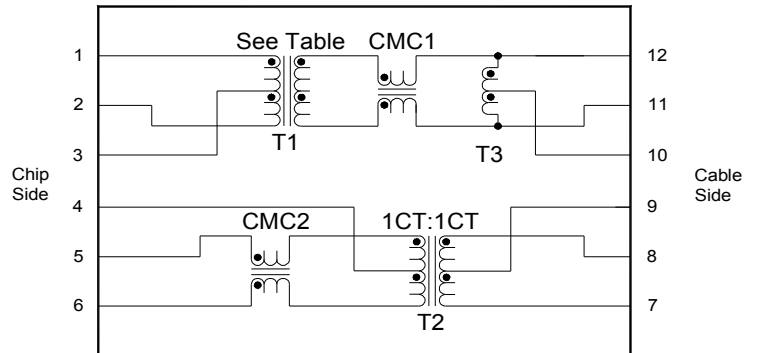
HBAxx Part Number Table

Part Number	Turns Ratio (Chip:Cable)	Schematic	AutoMDIX Compatible
HBA08	1:1	A	No
HBA14	1:1	B	No
HBA18	2:1	B	No
HBA21	2:1	C	No
HBA22	1:1.41	B	No
HBA23	1:1.41	C	No
HBA26	1:1	C	Yes
HBA33	1.25:1	C	No
HBA37	1.25:1	B	No
HBA38	1.41:1	B	No
HBA39	1.41:1	C	No

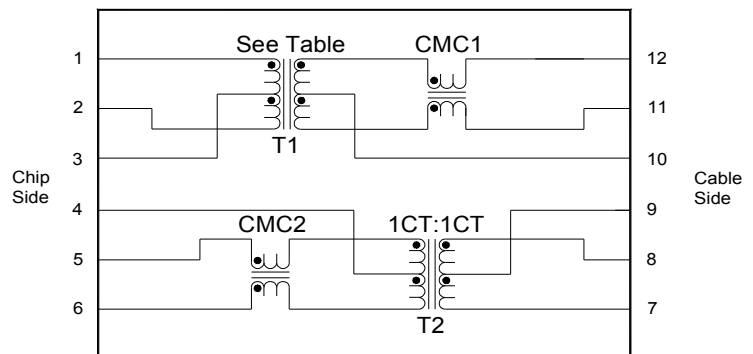
Schematic A



Schematic B



Schematic C



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