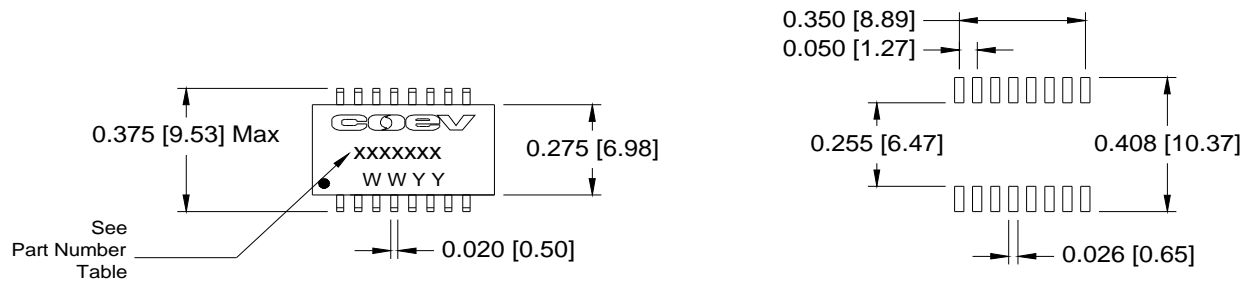


<b>MGH7F</b> <b>(HB7xx-VLP)</b> <b>Series</b>	<b>REV</b>	
	<b>P</b>	

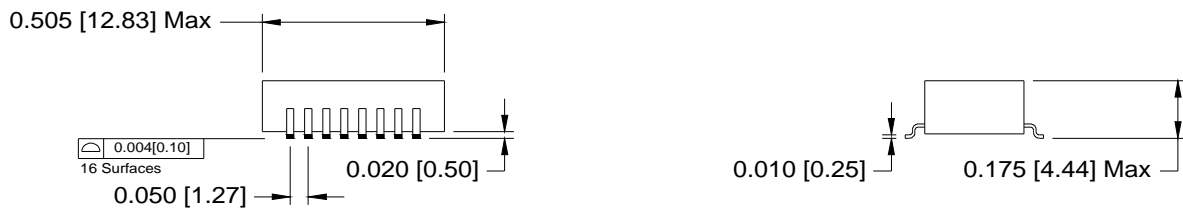
<b>Product Description</b>	<b>10/100BASE-T Ethernet Magnetics Module</b>
	<b>Single Port, Surface Mount</b>

### Standard Features

- Single channel interface for 10/100Mbps Ethernet application
- 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)
- Dielectric Isolation is 1500Vrms minimum
- Tape & Reel Packaging standard
- Package molded using UL94-V0 rated material



### Suggested Pad Layout



All dimensions are in inches [millimeters].  
 All dimensions are  $\pm 0.005$  [0.127] unless otherwise noted.

### 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)

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 =  $18 - 20\text{Log}_{10}(f/30)$  dB where  $f$  is in MHz  
 60Mhz - 80MHz = 12dB  
 80.1Mhz - 100MHz = 10dB

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**MGH7F**  
**(HB7xx-VLP)**  
**Series**

**REV**

**P**



**Product**  
**Description**

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

**Part Number Table**

<b>Part Number</b>	<b>TX Turns Ratio (Chip:Cable)</b>	<b>RX Turns Ratio (Chip:Cable)</b>	<b>Schematic</b>
HB710-VLP	1:1	1:1	C
HB721-VLP	2:1	1:1	A
HB721-1-VLP	2:1	1:1	B
HB723-VLP	1:1.41	1:1	D
HB723-1-VLP	1:1.41	1:1	E
HB726-VLP	1:1	1:1	A
HB726-1-VLP	1:1	1:1	B
HB726-4-VLP	1:1	1:1	F
HB726-5-VLP	1:1	1:1	G
HB726-6-VLP	1:1	1:1	H
HB733-VLP	1.25:1	1:1	A
HB733-1-VLP	1.25:1	1:1	B
HB739-VLP	1.41:1	1:1	A
HB739-1-VLP	1.41:1	1:1	B
HB781-VLP	1.41:1	1.41:1	A

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**MGH7F  
(HB7xx-VLP)  
Series**

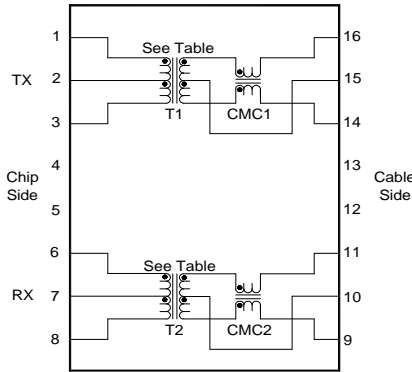
**REV  
P**



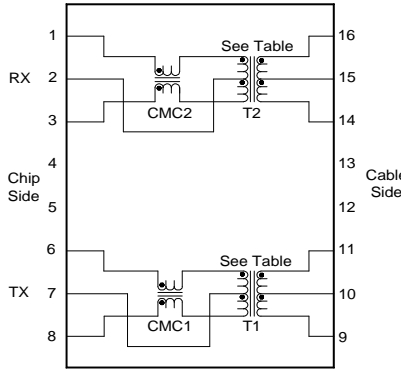
**Product  
Description**

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

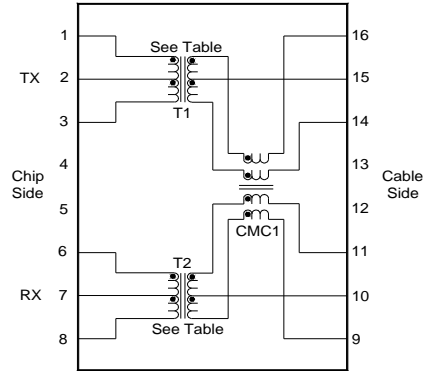
**Schematic A**



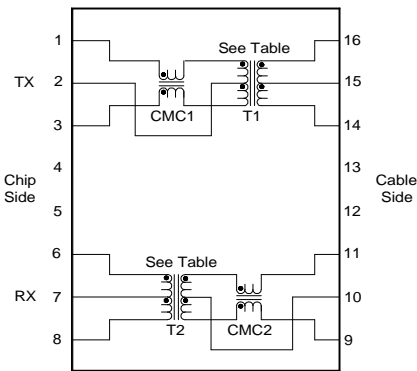
**Schematic B**



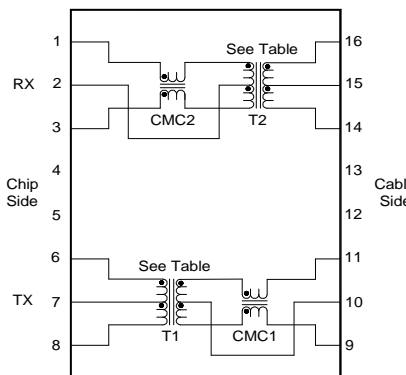
**Schematic C**



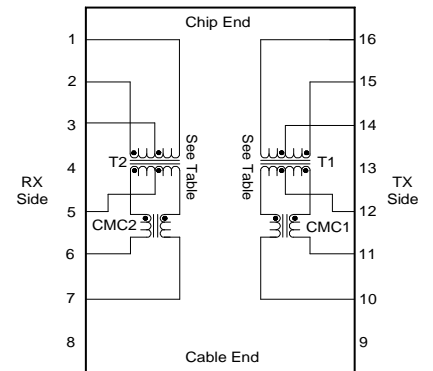
**Schematic D**



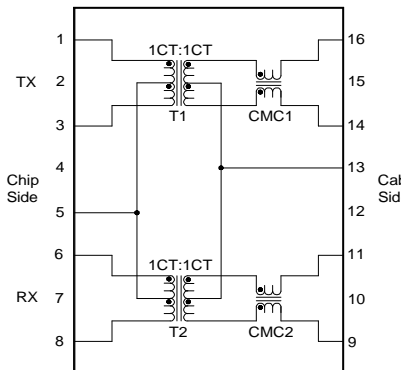
**Schematic E**



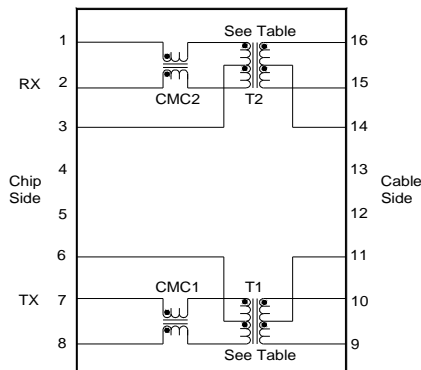
**Schematic F**



**Schematic G**



**Schematic H**



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