










-  Magnetic Integrated Connector Modules
-  Compliant with IEEE802.3 standard including 350μH OCL with 8mA DC Bias
-  1500Vrms isolation voltage per IEEE802.3
-  Enhanced performance on EMI suppression with metal shield
-  Support 4 pairs for Category 5 UTP cable with 1000Base-T full duplex applications
-  Gang 1x4 design for Hub and Switch Applications
-  Operating temperature 0°C to +70°C
-  UL 1863 listed
-  RoHS compliant versions are available



**GENERAL ELECTRICAL SPECIFICATION @ 25°C**

Insertion Loss (dB Max)		Return Loss <sup>1</sup> (dB Min)		CMRR (dB Min)	Crosstalk <sup>1</sup> (dB Min)	Hipot (Vrms)
0.1-100MHz	100-125MHz	0.5-40MHz	40-100MHz	0.1-100MHz	0.1-100MHz	
1.0	1.2	18.0	12-20Log(F/80)	32.0	33-20Log(F/50)	1500

**PART NUMBER TABLE**

Part Number <sup>2</sup>	RoHS Part Number	Turn Ratio (±3%) (Chip : Cable)	Configuration <sup>3</sup>	LED <sup>4</sup> (Left / Right)	Mechanical Package	Schematic
MJ-14U2GYA5-G114	MJR14U2GYA5-G114	1CT:1CT	TC	G / Y	MJ14U-04A	G114
MJ-14U2NNA0-G114	MJR14U2NNA0-G114	1CT:1CT	TC	—	MJ14U-04B	G114

**Notes:**

1. "F" represents the test frequency specified in MHz.
2. For different electrical and mechanical specifications, please contact E&E Magnetic Products Limited.
3. Core location are counted from PCB (Chip) side to Cable (Media) side, where:  
"T" = Isolation transformer ; "C" = Common-mode choke .
4. LEDs (Left / Right) : "G" = Green ; "Y" = Yellow ; "—" = None. For different LED color requirements, please contact E&E Magnetic Products Limited.
5. Panel tabs are optional.
6. All parts shown in this datasheet have gold plating thickness of 10 micro-inch (min.) over contact area. Advance options including 30 micro-inch (min.) and 50 micro-inch (min.) are also available.

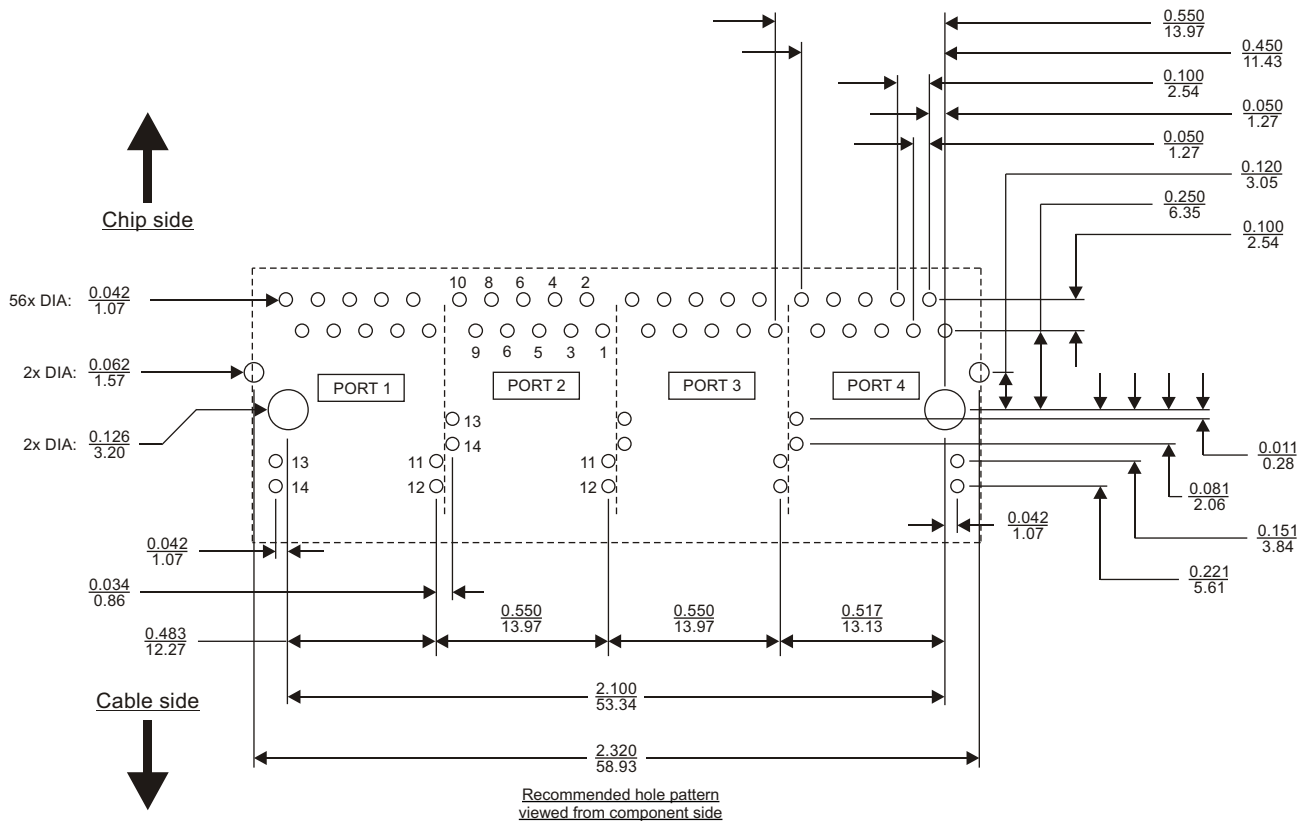
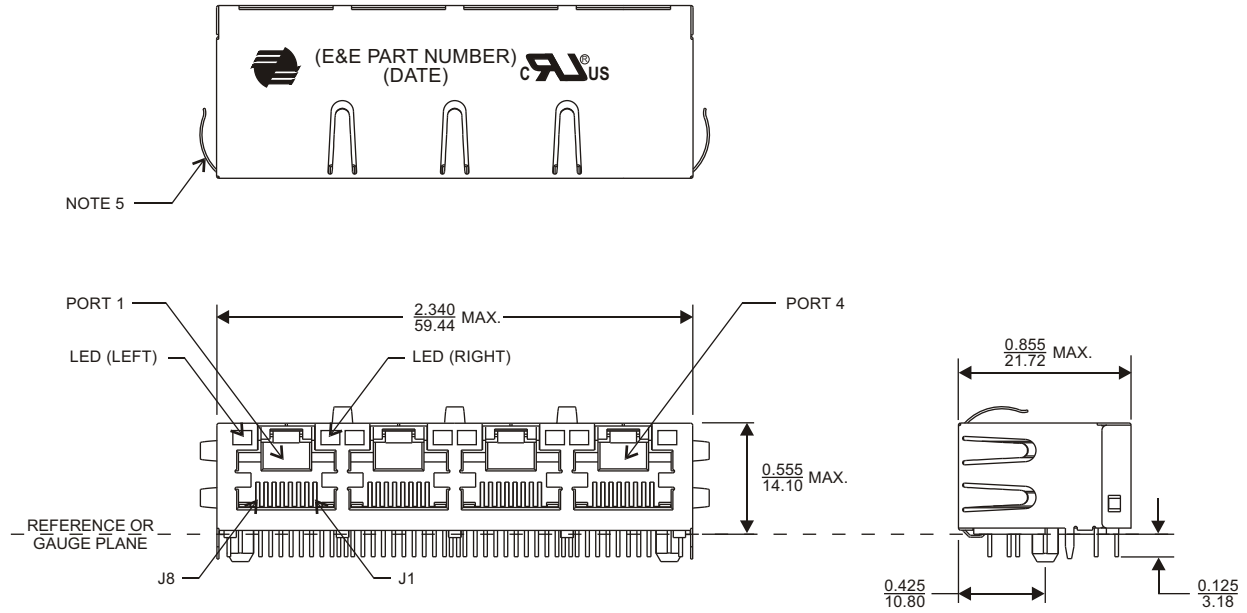
**MATERIALS**

Housing	Consist of thermoset & thermoplastic materials, all of them are UL 94-V0 rated.
Contact Pins <sup>6</sup>	Phosphor bronze, plated with nickel under-plating and hard gold over contact area.
PCB Pins	Copper wire which meets solderability requirements per MIL-STD-202, method 208.



MECHANICAL DIMENSIONS

MJ14U-04A



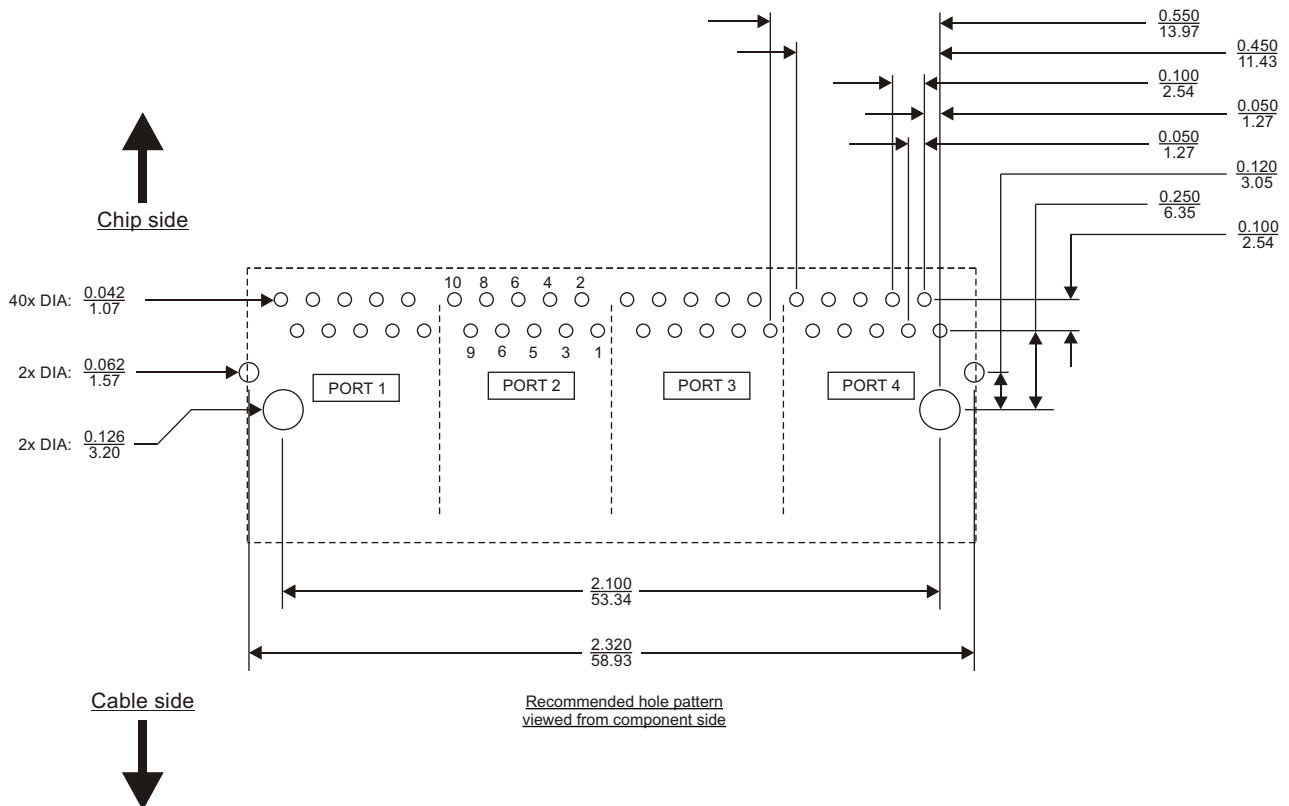
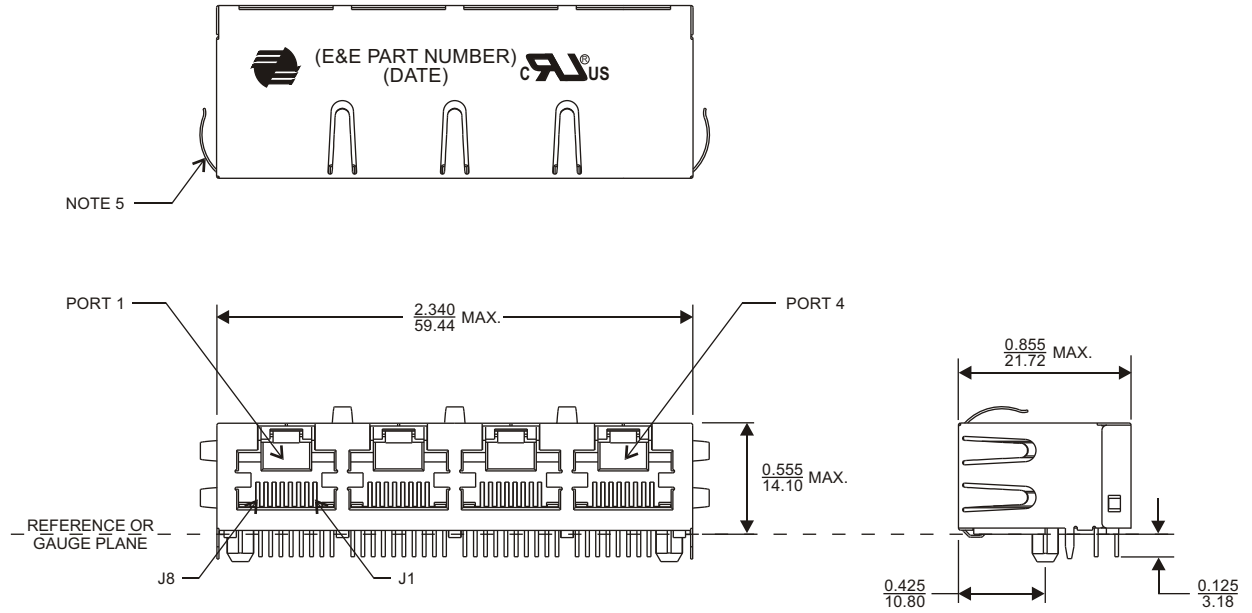
All dimensions are specified in  $\frac{\text{inch}}{\text{mm}}$  with higher precedence in inch.

Unless otherwise specified, all tolerances are  $\pm \frac{0.010}{0.25}$ .



MECHANICAL DIMENSIONS

MJ14U-04B



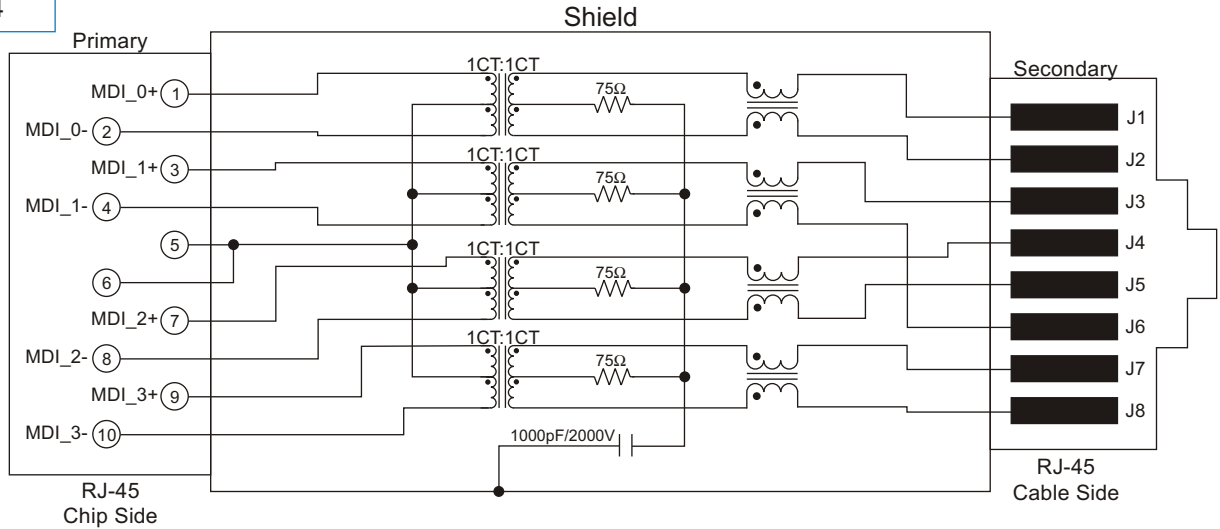
All dimensions are specified in  $\frac{\text{inch}}{\text{mm}}$  with higher precedence in inch.

Unless otherwise specified, all tolerances are  $\pm \frac{0.010}{0.25}$ .



**SCHEMATICS**

G114



**LEDs COLOR AND POLARITY**

MJ14U-04A	LED (LEFT)		LED (RIGHT)			
	COLOR	POLARITY		COLOR	POLARITY	
		PIN 13	PIN 14		PIN 11	PIN 12
 LED (RIGHT)	GREEN	+	-	YELLOW	+	-
 LED (LEFT)						

**LED SPECIFICATION @25°C, FORWARD CURRENT = 20mA**

Standard Color	Typical Wavelength (nm)	Forward Voltage (volt)	
		Typical	Maximum
Green	565	2.2	2.5
Yellow	590	2.1	2.5

**FOR MORE INFORMATION, PLEASE CONTACT**

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