

# INTEGRATED CONNECTOR MODULES

## Gigabit belCombo™ with LEDs

BM02835

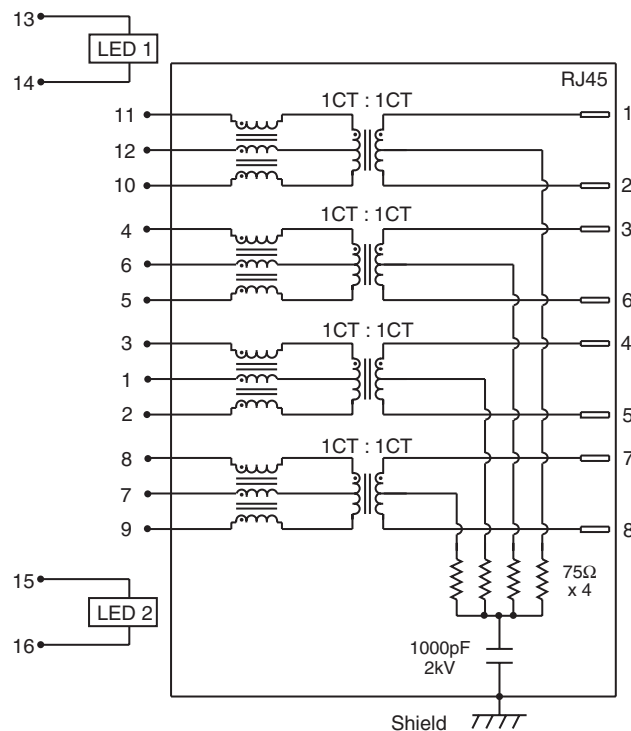
- Single port shielded RJ-45 connector with integrated Gigabit Ethernet magnetics and either dual or single USBs
- Compatible with a variety of Gigabit Ethernet transceiver ICs and 10/100Base-TX transceiver ICs
- Operating temperature 0° to +70° C
- Storage temperature -40° to +85° C
- Complies with IEEE 802.3ab standards and all Gigabit Ethernet specifications
- Integrated design conserves valuable board space
- Minimum interwinding breakdown voltage of 1500 Vrms
- Adaptable, modular design provides higher reliability

### ELECTRICAL SPECIFICATIONS AT 25° C

Insertion Loss dB max		Return Loss dB min		Common to Differential Mode Rejection dB min	Common to Common Mode Rejection dB min	Crosstalk dB min	Hipot Vrms min
0.1MHz to 100MHz	100MHz to 125MHz	0.5MHz to 40MHz	40MHz to 100MHz	100KHz to 100MHz	100KHz to 100MHz		
-0.8	-1.2	-18	$-12 + 20 \log(f/80 \text{ MHz})$	-35	-30	$-33 + 20 \log(f/100\text{MHz})$	1500

### SCHEMATIC

- 0821-1A1T-43
- 0821-1B1T-43
- 0821-1C1T-43
- 0821-1D1T-43
- ~~0821-1E1T-43~~
- 0821-1G1T-43
- 0821-1K1T-43
- 0821-1L1T-43
- 0821-1X1T-43
- ~~0821-1Y1T-43~~



See chart on page 2 for LED colors and polarity.



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### LED COLORS AND POLARITY

Part Number	LED 1				LED 2			
	Color		Polarity		Color		Polarity	
			Pin 13	Pin 14			Pin 15	Pin 16
0821-1A1T-43		Yellow	-	+		Green	-	+
0821-1B1T-43	Bi-color	Green	-	+	Bi-color	Green	-	+
		Orange	+	-		Orange	+	-
0821-1C1T-43	Bi-color	Green	-	+	Bi-color	Green	-	+
		Yellow	+	-		Yellow	+	-
0821-1D1T-43		Green	-	+		Yellow	-	+
<del>0821-1E1T-43</del>		Green	-	+	Bi-color	Green	-	+
						Orange	+	-
0821-1G1T-43		Green	-	+		Green	-	+
0821-1K1T-43		Green	-	+	Bi-color	Green	-	+
						Yellow	+	-
0821-1L1T-43	Bi-color	Green	-	+		Green	-	+
		Yellow	+	-				
0821-1X1T-43		Yellow	-	+	Bi-color	Green	-	+
						Orange	+	-
<del>0821-1Y1T-43</del>		Yellow	-	+		Yellow	-	+

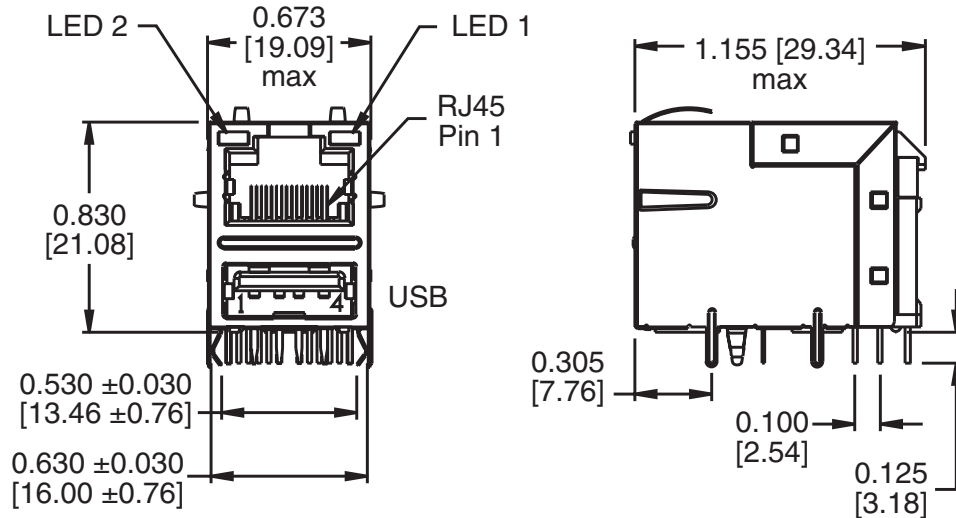
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### MECHANICAL

- 0821-1A1T-43
- 0821-1B1T-43
- 0821-1C1T-43
- 0821-1D1T-43
- ~~0821-1E1T-43~~
- 0821-1G1T-43
- 0821-1K1T-43
- 0821-1L1T-43
- 0821-1X1T-43
- ~~0821-1Y1T-43~~



Dimensions are in inches [millimeters].  
Standard dimension tolerance is  $\pm 0.010$  [0.25] unless otherwise noted.

### Notes

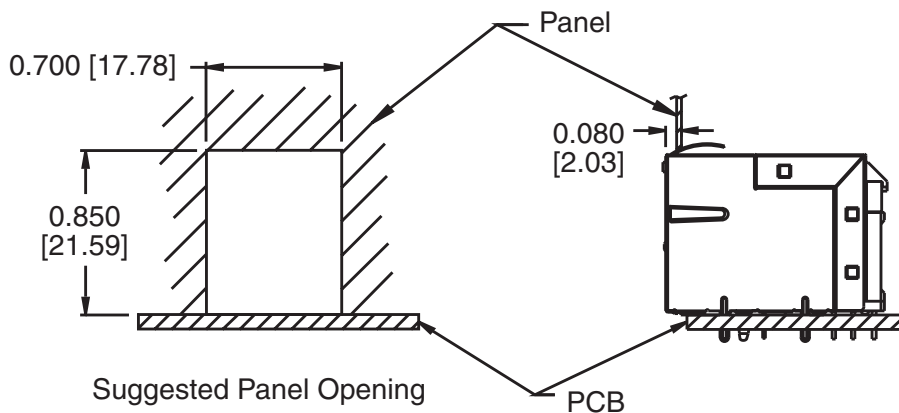
Plastic Housing	Thermoplastic, flammability rating UL 94V-0
Contacts	50 micro-inch hard gold plating
Pins	Tin-coated copper wire, DIA 0.018" [0.46]
Solderability	Per MIL Std. 202, Method 208
Metal Shield	Tin lead plated copper alloy

### USB

Mating Force	35 newtons maximum
Unmating Force	10 newtons minimum
Contacts	Phosphor bronze gold plating on contact area and tin on solder tail

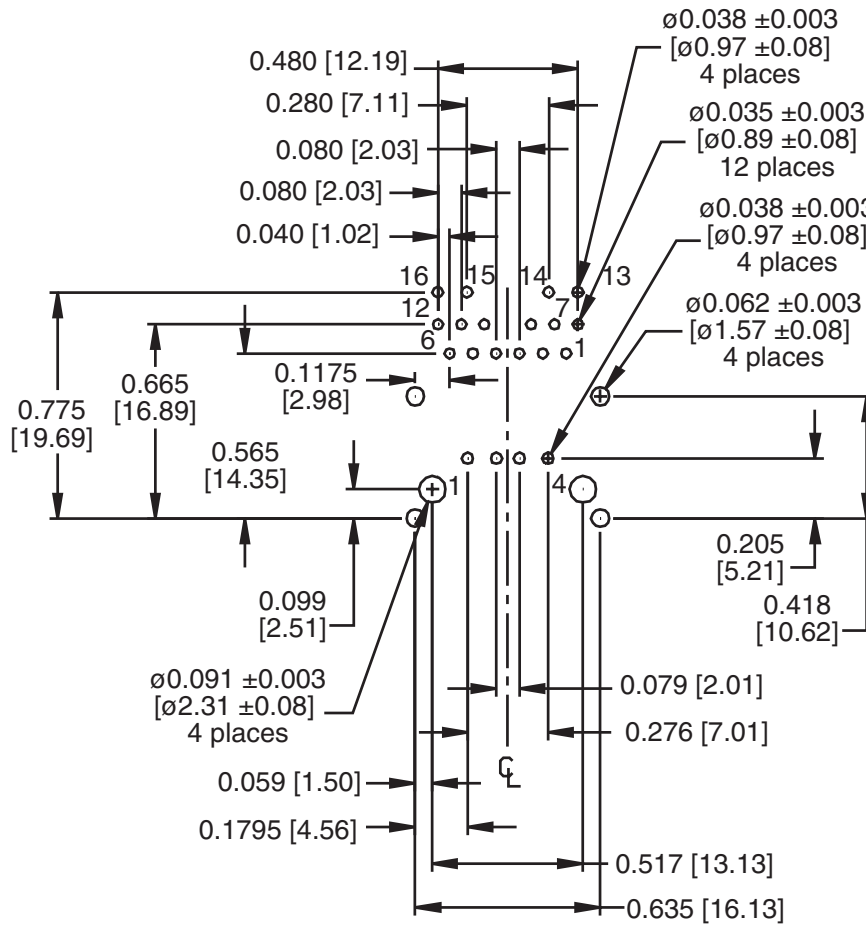
### Packing Quantity

60 pieces finished goods per tray  
8 trays per carton box for a total of 480 pieces of finished goods



#### PAD LAYOUT

- 0821-1A1T-43
- 0821-1B1T-43
- 0821-1C1T-43
- 0821-1D1T-43
- ~~0821-1E1T-43~~
- 0821-1G1T-43
- 0821-1K1T-43
- 0821-1L1T-43
- 0821-1X1T-43
- ~~0821-1Y1T-43~~



Suggested PCB Pad Layout  
Component Side View

#### CORPORATE

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