

# INTEGRATED CONNECTOR MODULES

## 10/100Base-TX belStick™ with LEDs

BM01812

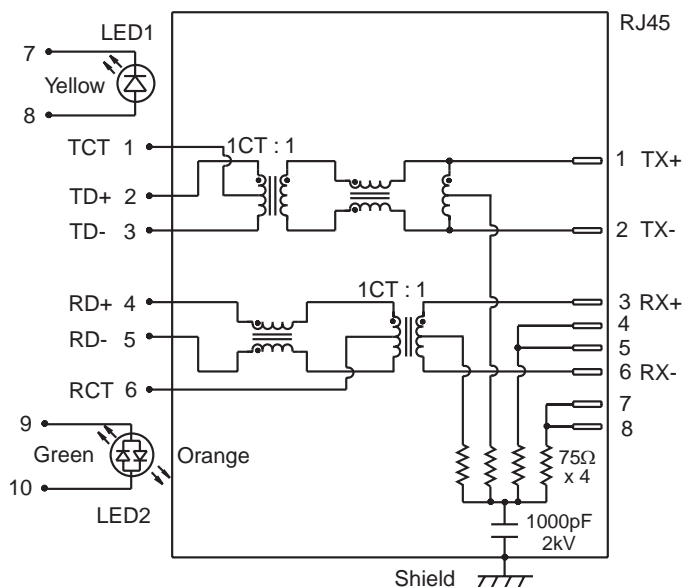
- Quad port shielded RJ-45 connector with integrated 10/100 magnetics
- Compatible with a variety of 10/100 transceiver ICs
- Operating temperature 0° to +70° C
- Storage temperature -40° to +85° C
- 0810-1X4T-06 design supports AutoMDIX applications
- Complies with IEEE standards and all 10/100 Ethernet specifications including 350µH with 8mA DC bias
- Integrated design conserves valuable board space
- Minimum interwinding breakdown voltage of 1500 Vrms
- Adaptable, modular design provides higher reliability
- Reduced pin count for improved crosstalk and optimum PCB trace routing

### ELECTRICAL SPECIFICATIONS AT 25° C

| Part Number  | 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 |      |       |       |
|--------------|-----------------------|--------------------|-----------------------|----------------|----------------|--|--|------------------|------|-------|-------|
|              |                       | 1MHz to 100MHz     | 1MHz to 30MHz         | 30MHz to 60MHz | 60MHz to 80MHz |  |  | 100kHz to 100MHz | 1MHz | 30MHz | 50MHz |
| 0810-1X4T-03 | -1.0                  | -18                | 18 - 20 log (f/30MHz) | -12            | -40            | -30  | -70                                    | -45              | -40  | -35   |       |
| 0810-1X4T-04 | -1.0                  | -18                | 18 - 20 log (f/30MHz) | -12            | -40            | -30  | -70                                    | -45              | -40  | -35   |       |
| 0810-1X4T-06 | -1.0                  | -18                | 18 - 20 log (f/30MHz) | -12            | -40            | -30  | -70                                    | -45              | -40  | -35   |       |

### SCHEMATIC

0810-1X4T-03



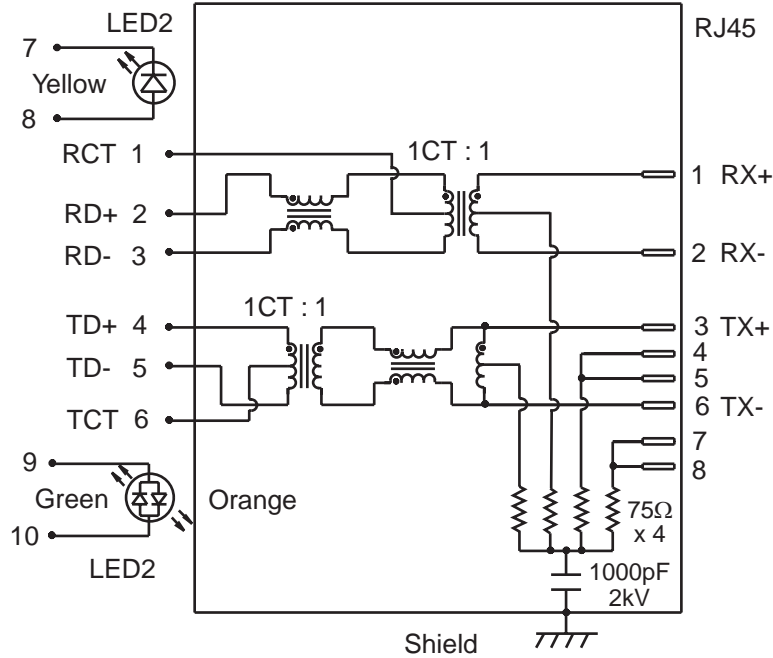
#### Available Options

- Various transformer turns ratios
- Various high voltage capacitor values
- Various LED color combinations

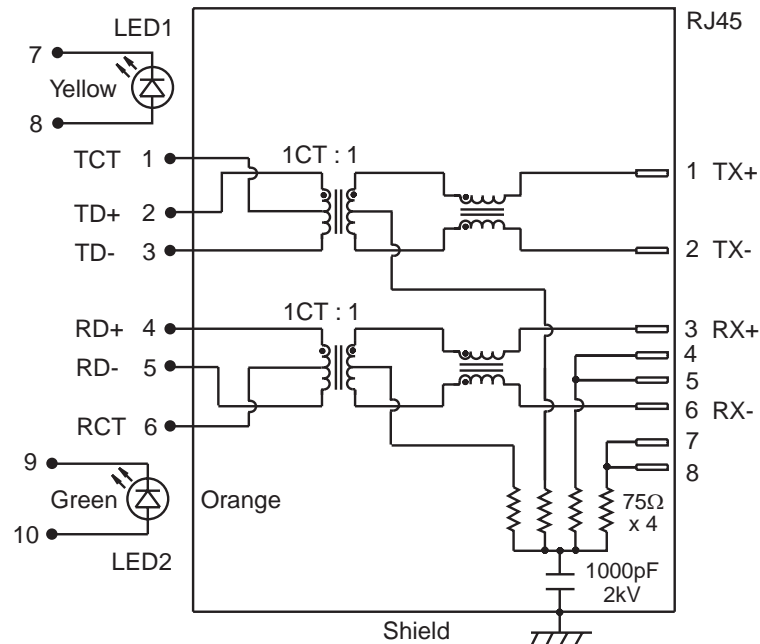
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### SCHEMATIC

0810-1X4T-04



0810-1X4T-06



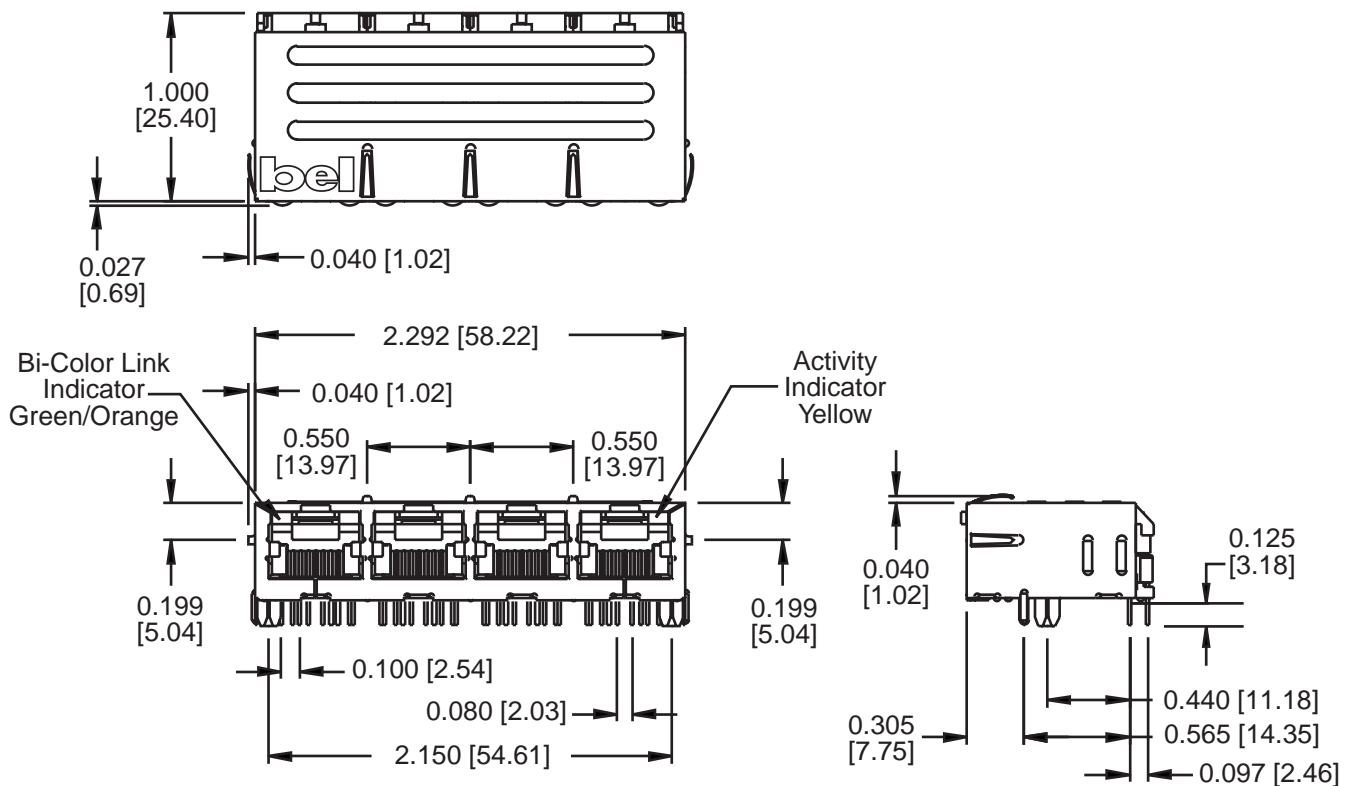
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### MECHANICAL

0810-1X4T-03  
0810-1X4T-04  
0810-1X4T-06



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

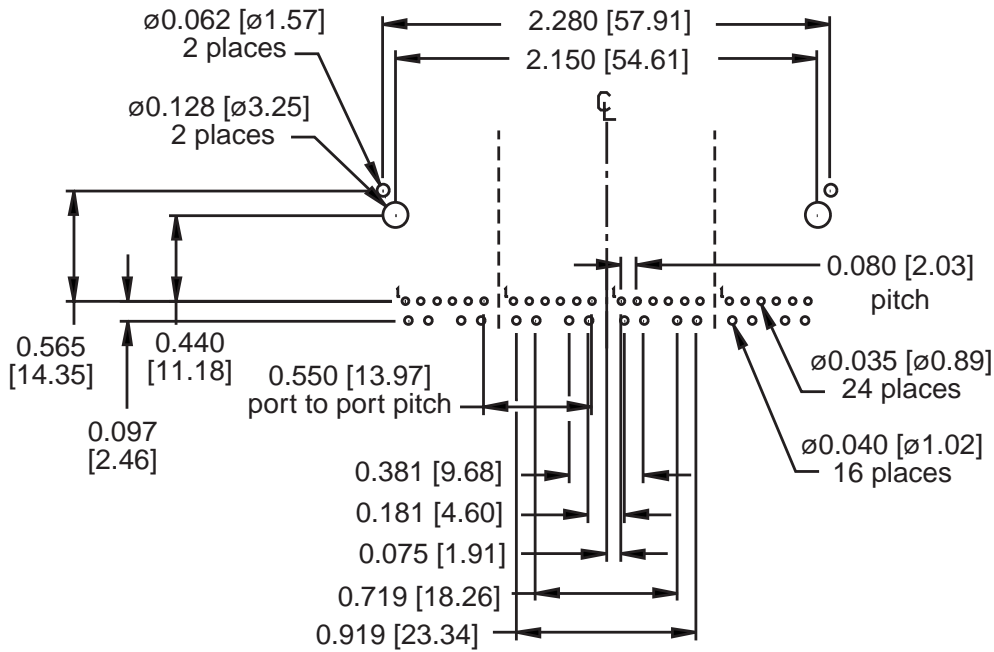
#### Notes

|                 |   |
|-----------------|---|
| 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    | Nickel plated copper alloy                  |

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### PAD LAYOUT

0810-1X4T-03  
0810-1X4T-04  
0810-1X4T-06



Suggested PCB Pad Layout  
Component Side View

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