

# PULSEJACK™

## RJ45/Dual USB Combo



### Description:

RJ45/Dual USB Combo is a Through Hole (THT) Integrated Connector Module (ICM) with a single RJ45 Tab-UP in combination with two USB connector ports (refer to illustration below). The RJ45 connector internal magnetics are designed to support 10/100Base-TX applications such as LAN-on-Motherboard (LOM) and PC applications.



### Features and Benefits:

- LAN interface available in 6, 8 and 10 pin configurations for 10/100Base-TX applications
- RJ45/USB stacked design saves on PCB real estate
- USB module complies with USB 2.0 standards and meets CAT5 Fast Ethernet industry performance standard
- Magnetics are 100% electrically tested for HI-POT and continuity

### Electrical Performance Summary:

- Many magnetics and LED options available
- Meets or exceeds IEEE 802.3 and ANSI X3.263 standards including 350  $\mu$ H minimum OCL with 8 mA bias
- High performance for maximum EMI suppression
- Minimum 1500 Vrms isolation per IEEE 802.3 requirement

### Electrical Specifications @ 25°C — Operating Temperature 0°C to +70°C

Part Number	Turns <sup>1,2</sup> Ratios		LEDs <sup>3</sup>	Insertion Loss TX/RX (dB MAX)	Return Loss (dB MIN) 100 Ω ± 15 Ω			Crosstalk (dB MIN)			Common Mode Rejection (dB TYP)		Hipot (Vrms MIN)
	TX	RX			L/R	1-65 MHz	1-10 MHz	30 MHz	60-80 MHz	1-10 MHz	32-60 MHz	60-100 MHz	
JU054P01R	1CT:1	1CT:1CT	G/Y <sup>5</sup>	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500
J6026M51U	1CT:1CT	1CT:1CT	G-O/Y	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500

#### Notes:

1. Both transmit and receive channels meet IEEE 802.3 specifications.
2. Different electrical and mechanical specifications can be accommodated. For more information, contact Pulse Applications Engineering at (858) 674-8100.
3. LEDs Left/Right: G = green; Y = yellow.
4. Option for IC grade transfer-molded package withstands 235°C IR reflow.
5. G = Green with 250  $\Omega$  internal resistor; Y = Yellow with 250  $\Omega$  internal resistor.

### RJ45 Durability Testing Rating

Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
JU/J6 Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	750 Insertions	20 lbs./9.072 kgs.

### RJ45 Material Specification

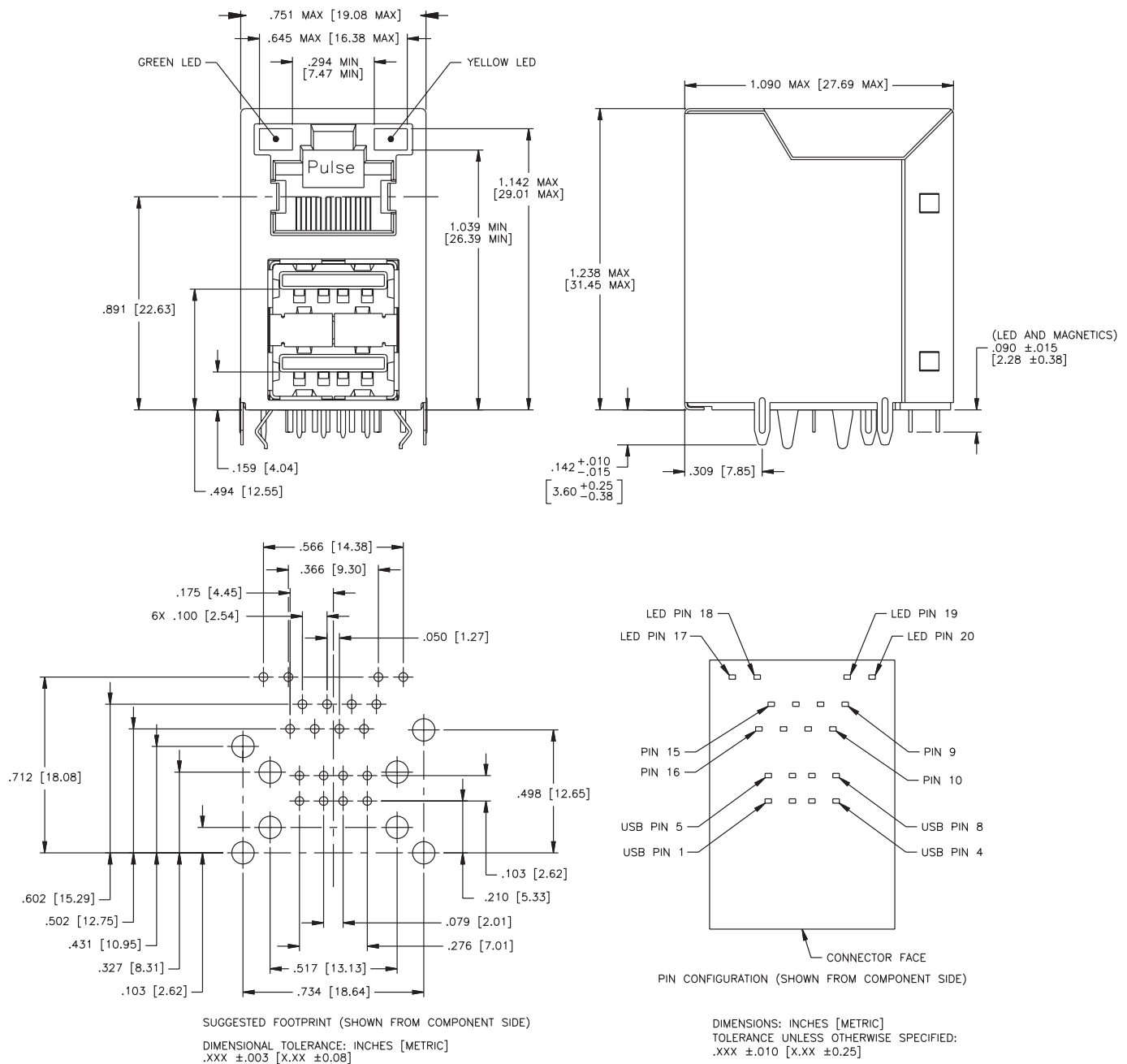
Part Number	Shield		Contact			Housing	
	Material	Finish	Material	Plating Area	Solder Area	Material	Specification
JU/J6 Series	Brass	10-20 $\mu$ inches thick nickel over 10-20 $\mu$ inches thick nickel	Phosphor Bronze	30 $\mu$ inches gold over 30-80 $\mu$ inches nickel	75-300 $\mu$ inches tin-lead over 75-300 $\mu$ inches bright nickel	Thermoplastic	UL 94 V-0

#### Notes:

1. All connector part numbers starting with the series prefix JU or J6 comply to the above limits.
2. Connector dimensions comply with FCC dimension requirements.

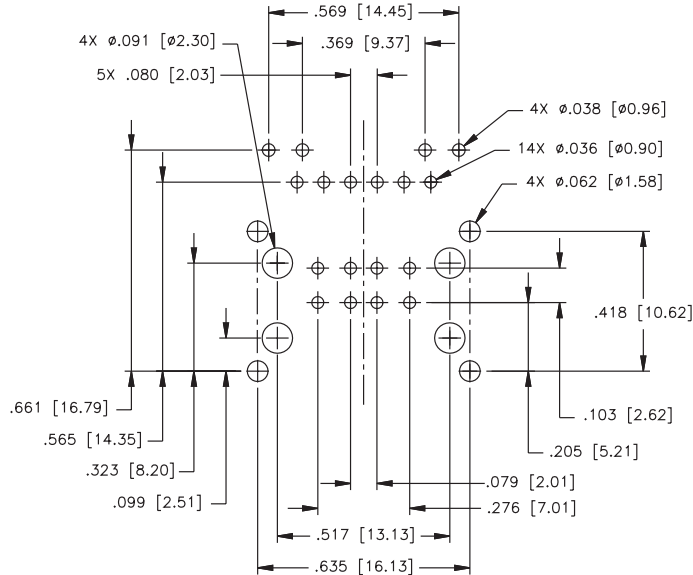
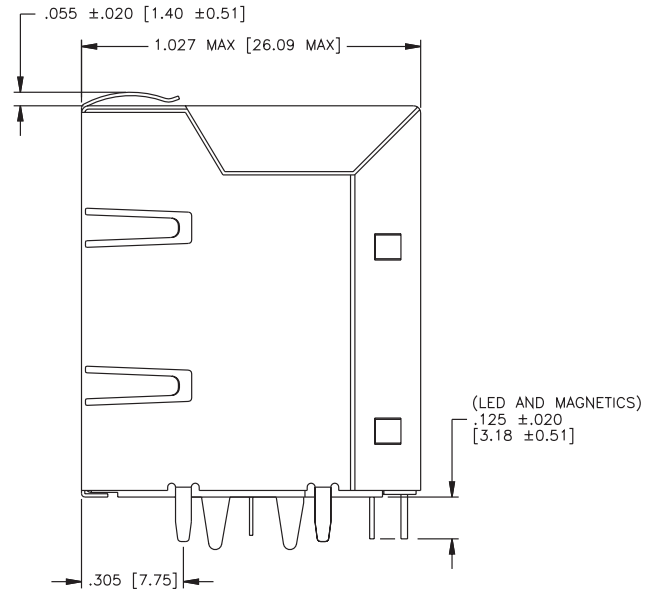
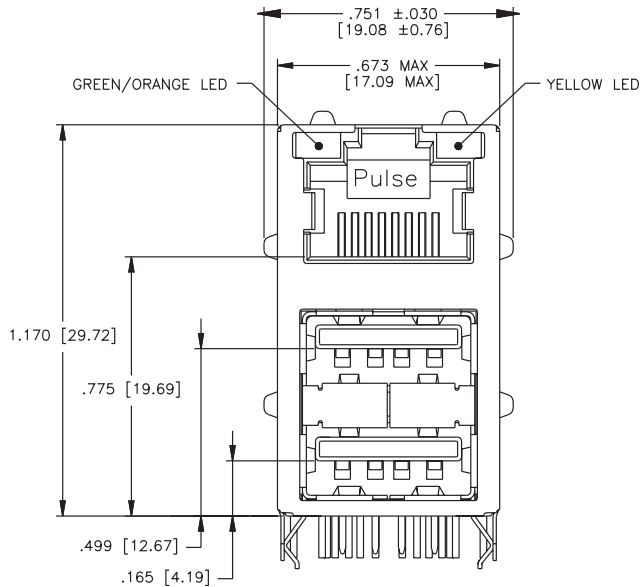
### Mechanical

JU054P01R

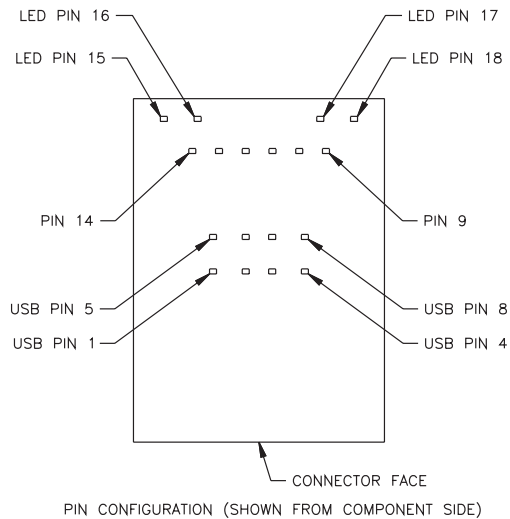


### Mechanical

#### J6026M51U



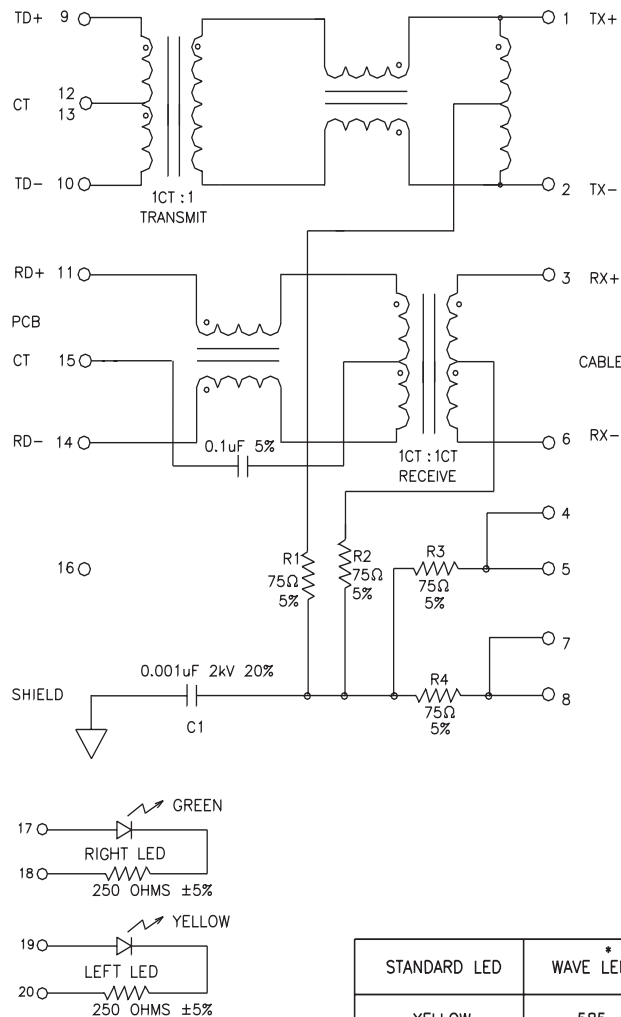
SUGGESTED FOOTPRINT (SHOWN FROM COMPONENT SIDE)  
DIMENSIONAL TOLERANCE: INCHES [METRIC]  
.XXX  $\pm$  .003 [X.XX  $\pm$  0.08]



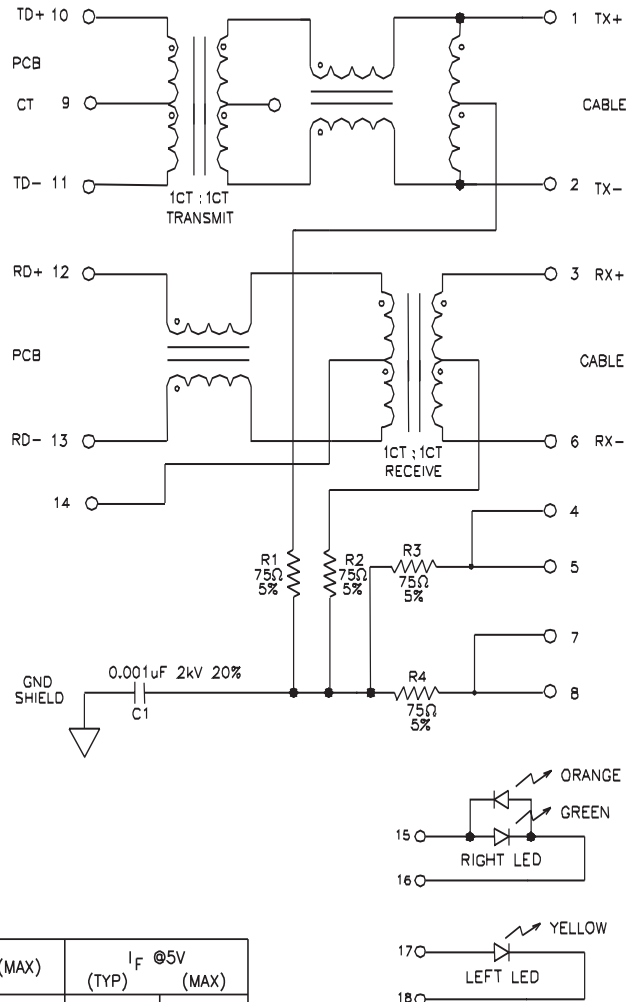
DIMENSIONS: INCHES [METRIC]  
TOLERANCE UNLESS OTHERWISE SPECIFIED:  
.XXX  $\pm$  .010 [X.XX  $\pm$  0.25]

### Schematics

#### JU054P01R



#### J6026M51U



STANDARD LED	WAVE * LENGTH	V(MAX)	I <sub>F</sub> @5V (TYP) (MAX)	
YELLOW	585 nm	5 V	10 mA	15 mA
GREEN	565 nm	5 V	10 mA	15 mA
GREEN/ORANGE	568/610 nm	5 V	10 mA	15 mA
GREEN/YELLOW	568/590 nm	5 V	10 mA	15 mA

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