

# PulseJack™

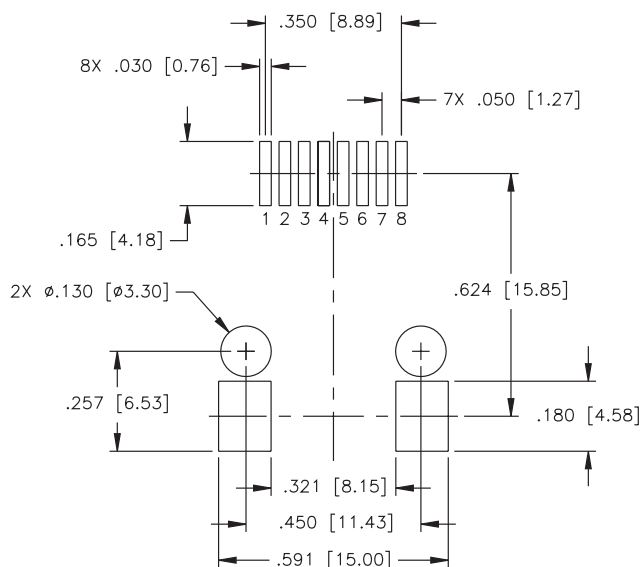
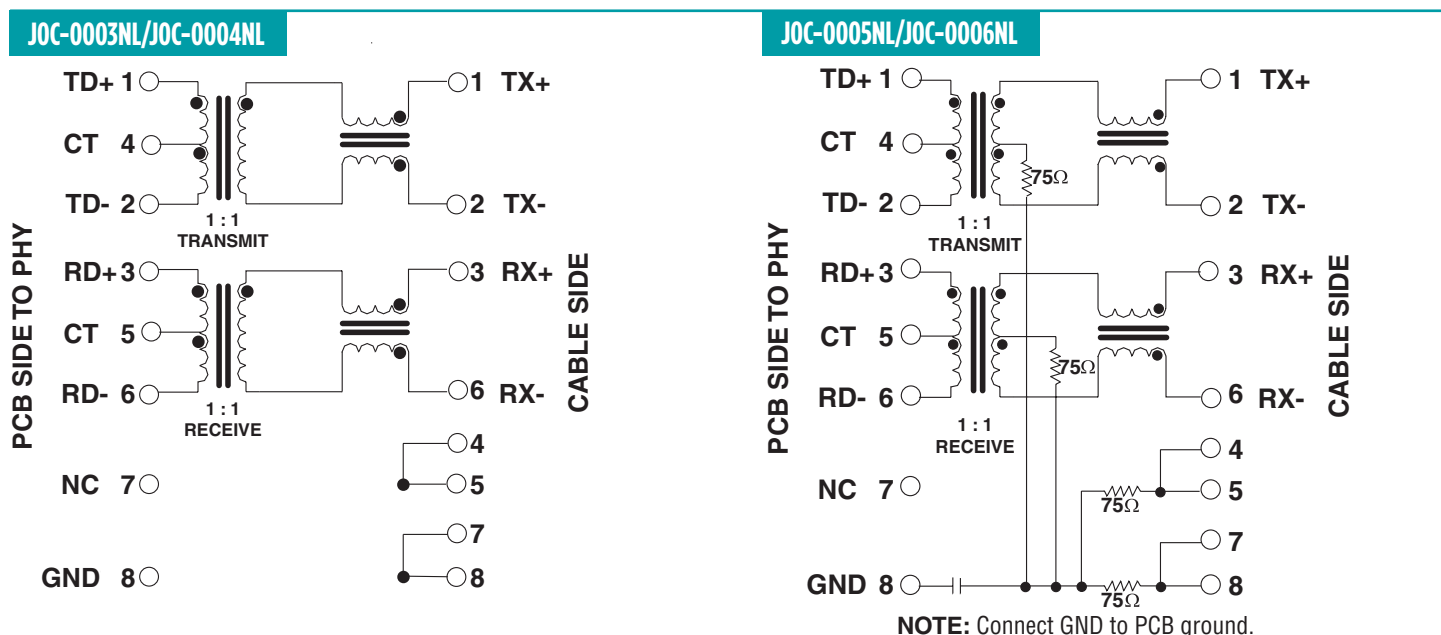
## Surface Mount 1x1

RJ45 Material Specification								
Part Number	Shield		Contact			Housing		MSL <sup>2</sup> Rating
	Material	Finish	Material	Plating Area <sup>3</sup>	Solder Area <sup>4</sup>	Material	Specification	
JOC/JV/J3 Series	Brass	20-40μ inches thick nickel over Brass	Phosphor Bronze	(X)μ inches gold over 30-80μ inches nickel	Tin matte finish	High Temp. Thermoplastic	UL 94 V-0	1

### Notes:

1. Connector dimensions comply with FCC part 68 dimension requirements.
2. MSL = Moisture Sensitivity Level rating: 1-5 (highest rating = 1, lowest rating = 5)
3. (X) = 30 inches gold for JV and J30 platforms and 15 inches gold for JOC platform.
4. NL parts are tin matte finish over nickel.

## JOC Platform Schematics



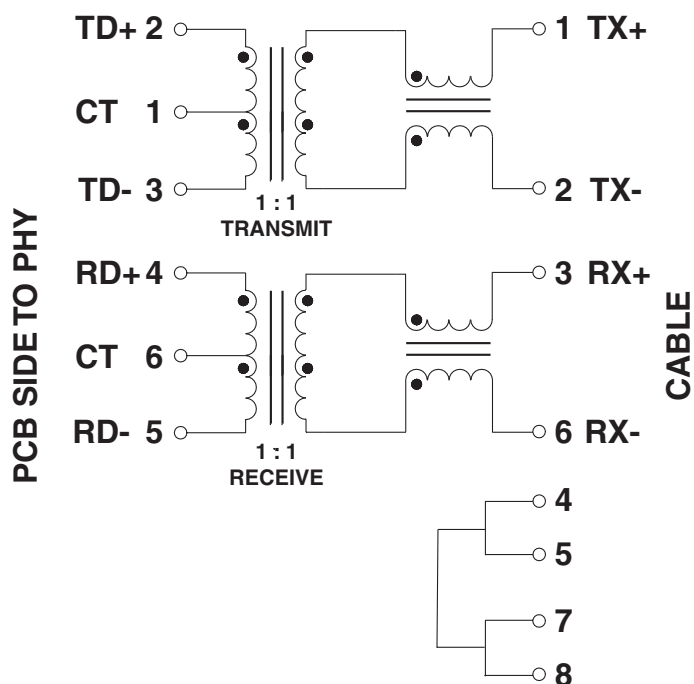
SUGGESTED FOOTPRINT (COMPONENT SIDE SHOWN)  
DIMENSIONAL TOLERANCE: (UNLESS OTHERWISE SPECIFIED)  
.XXX ±.003 [X.XX ±0.08]

# PulseJack™

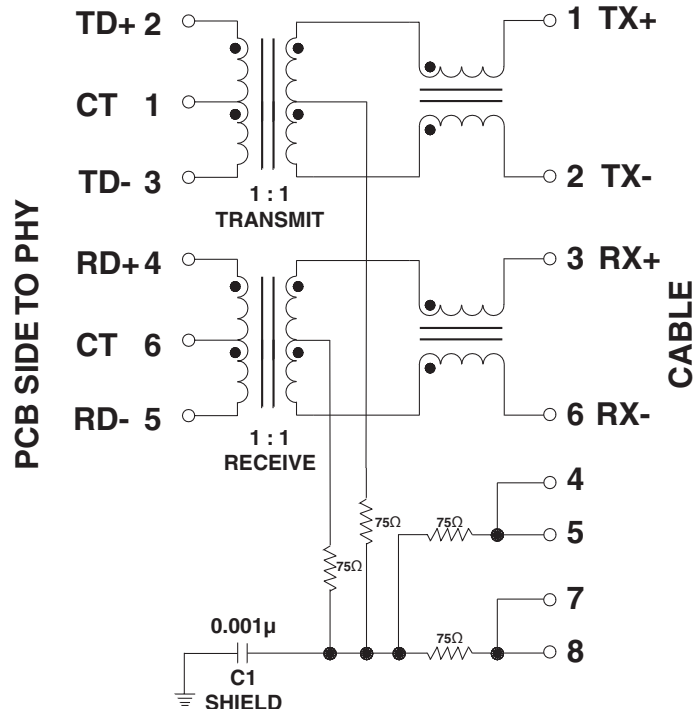
## Surface Mount 1x1

### JV Platform Schematics

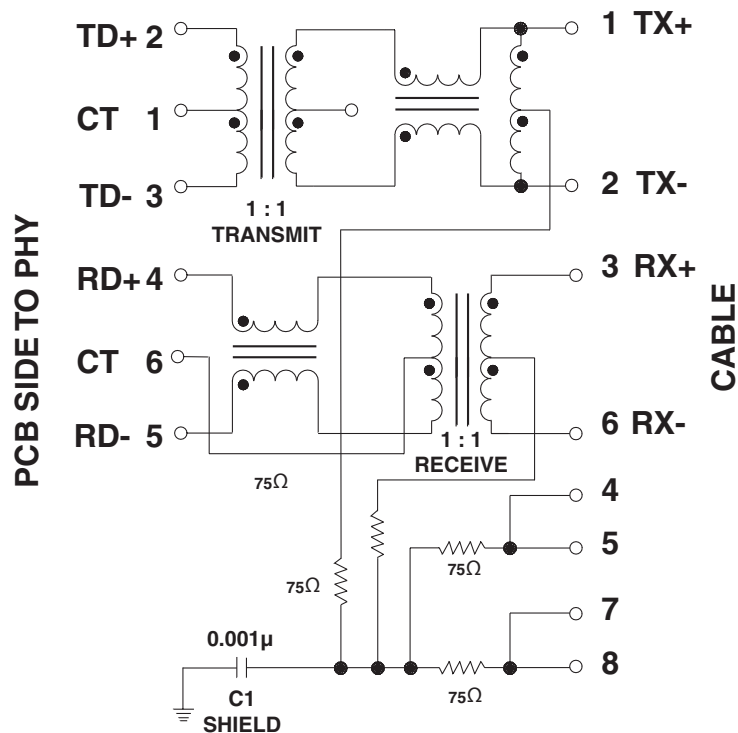
J0C006



JV011



JV026



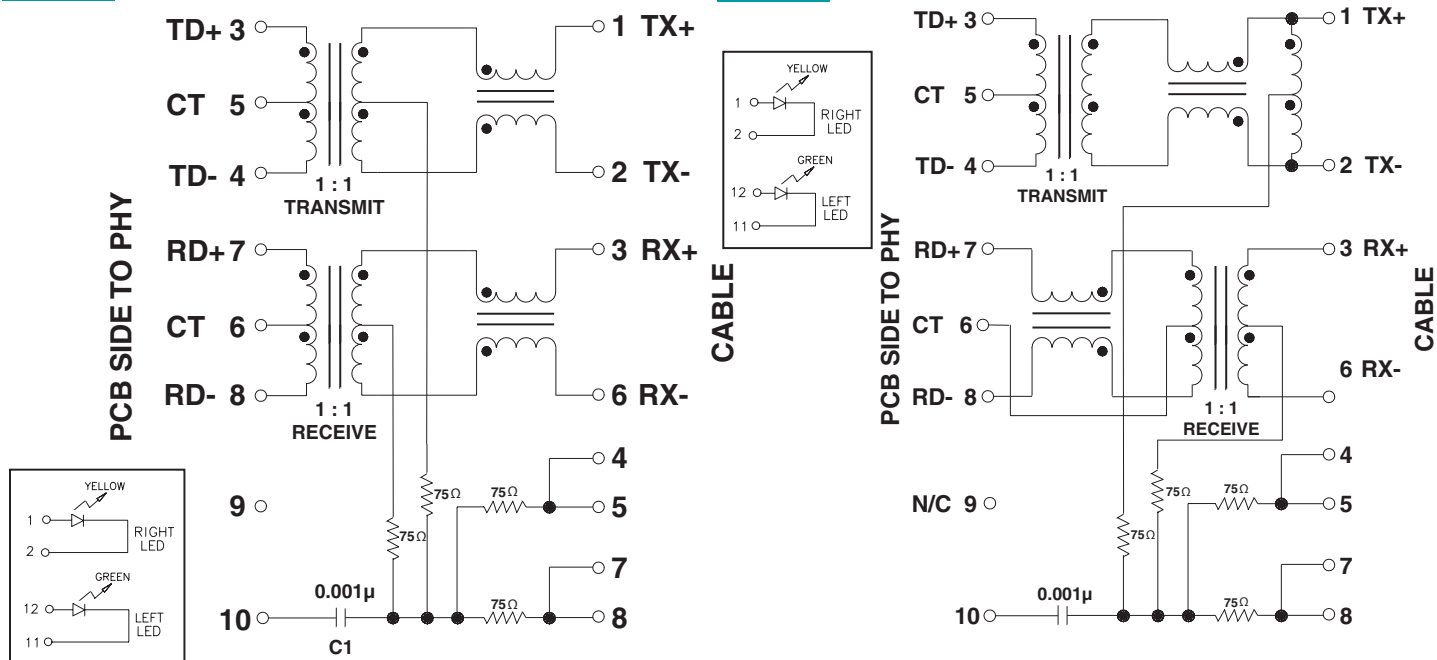
# PulseJack™

## Surface Mount 1x1

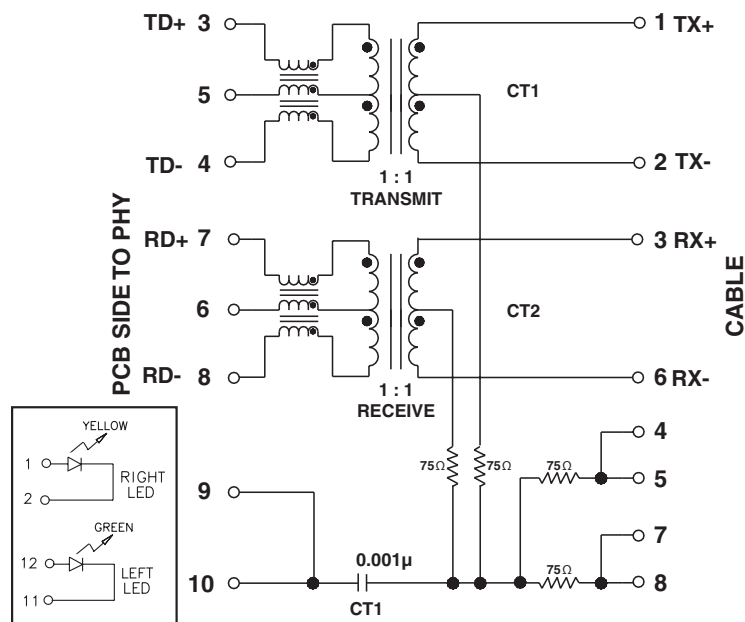
### J3 Platform Schematics

J3011

J3026



JX30-0005NL

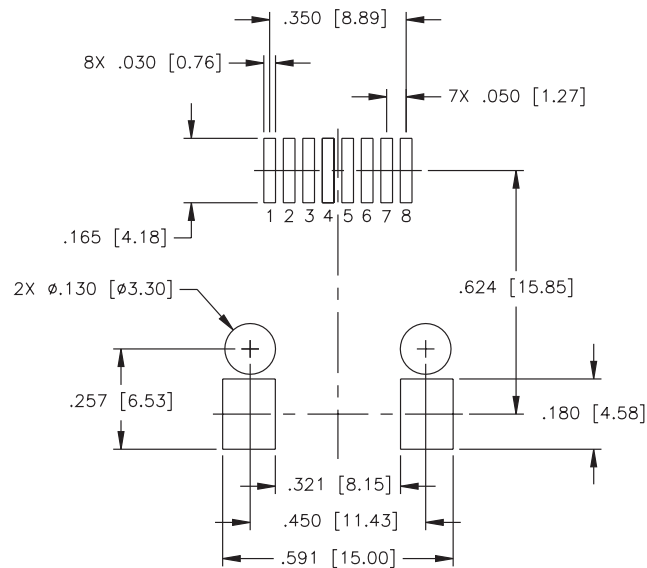
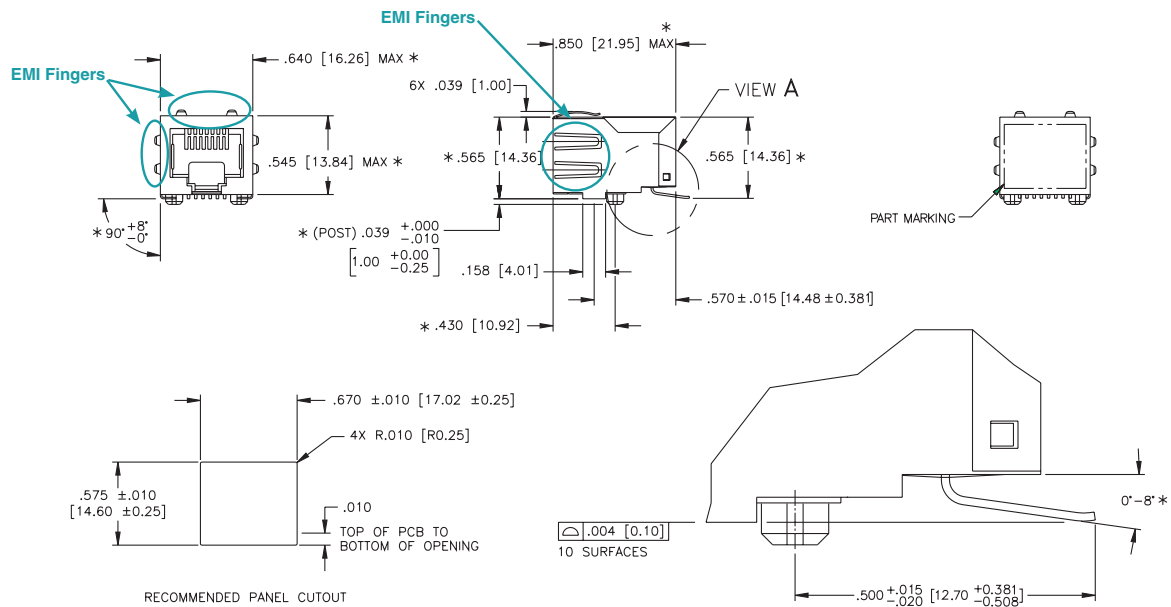


# PulseJack™

## Surface Mount 1x1

### JOC Platform Mechanicals

JOC-0004NL/06NL



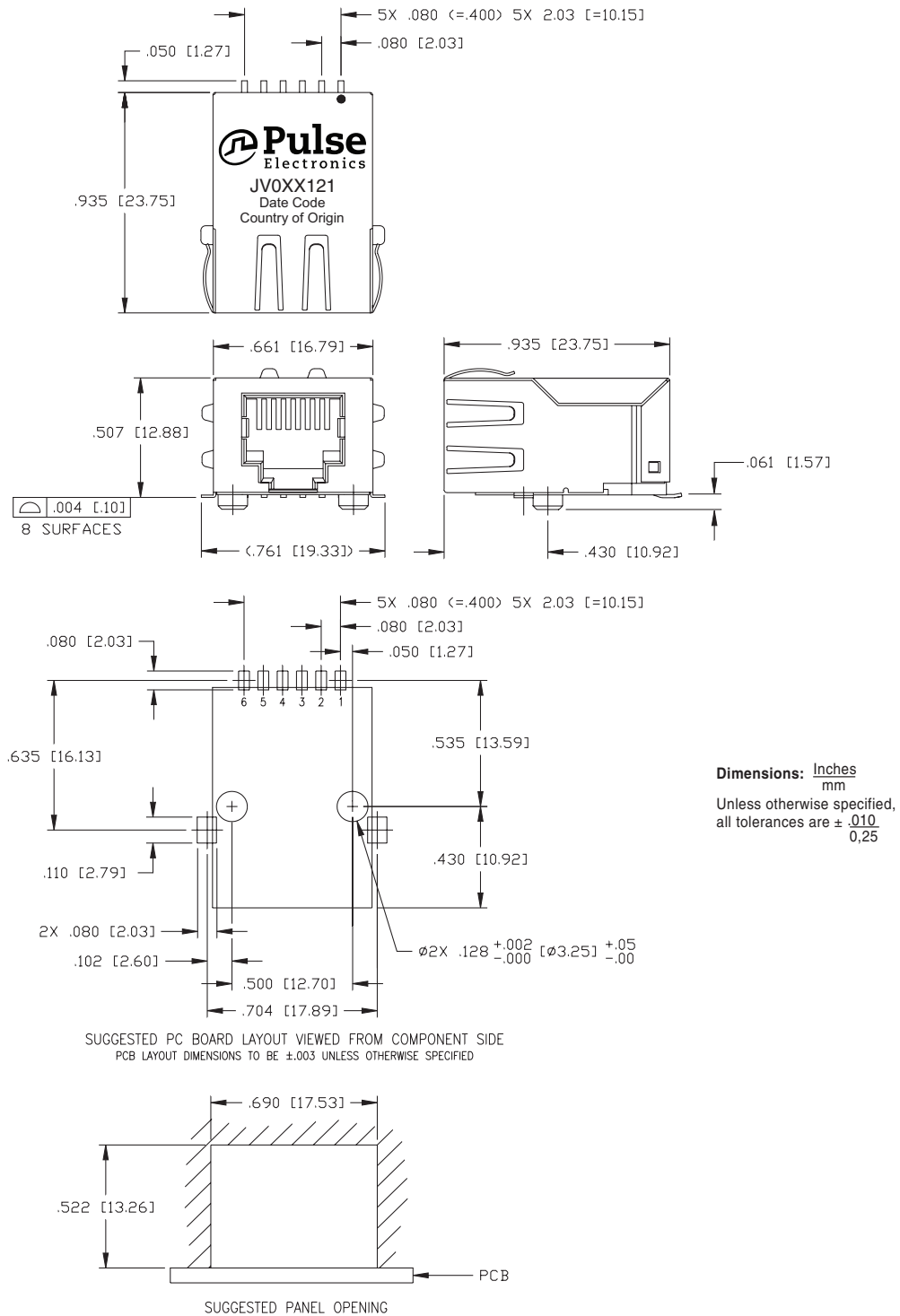
SUGGESTED FOOTPRINT (COMPONENT SIDE SHOWN)  
 DIMENSIONAL TOLERANCE: (UNLESS OTHERWISE SPECIFIED)  
 .XXX  $\pm .003$  [X.XX  $\pm 0.08$ ]

# PulseJack™

## Surface Mount 1x1

### JV Platform Mechanicals

#### JV Series

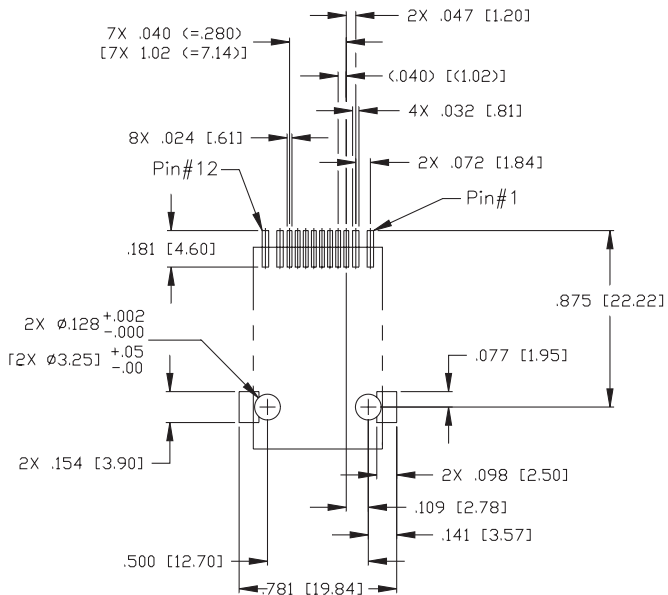
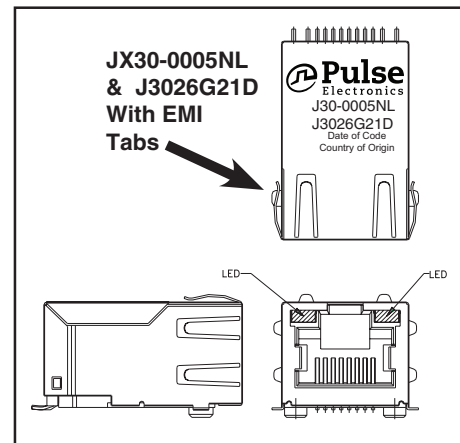
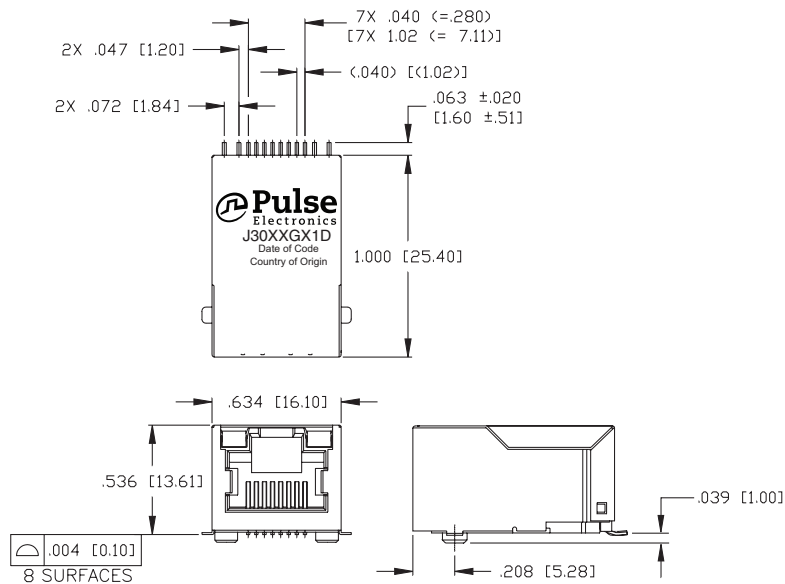


# PulseJack™

## Surface Mount 1x1

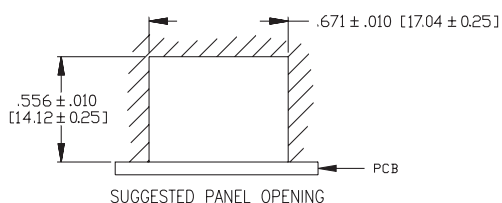
### J3 Platform Mechanical

#### J3 Series



Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
 Unless otherwise specified,  
 all tolerances are  $\pm \frac{.010}{0,25}$

SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE  
 PCB LAYOUT DIMENSIONS TO BE  $\pm .003$  [ $\pm 0.08$ ] UNLESS OTHERWISE SPECIFIED



# PulseJack™

## Surface Mount 1x1

### JOC Application Note

This line of 10/100Base-TX SMT RJ45 1X1 Connector Magnetics Modules has been specifically designed for the implementation of a 10Base-T and 100Base-TX transmission over data-grade unshielded twisted pair cable (UTP-3, 5e and 6).

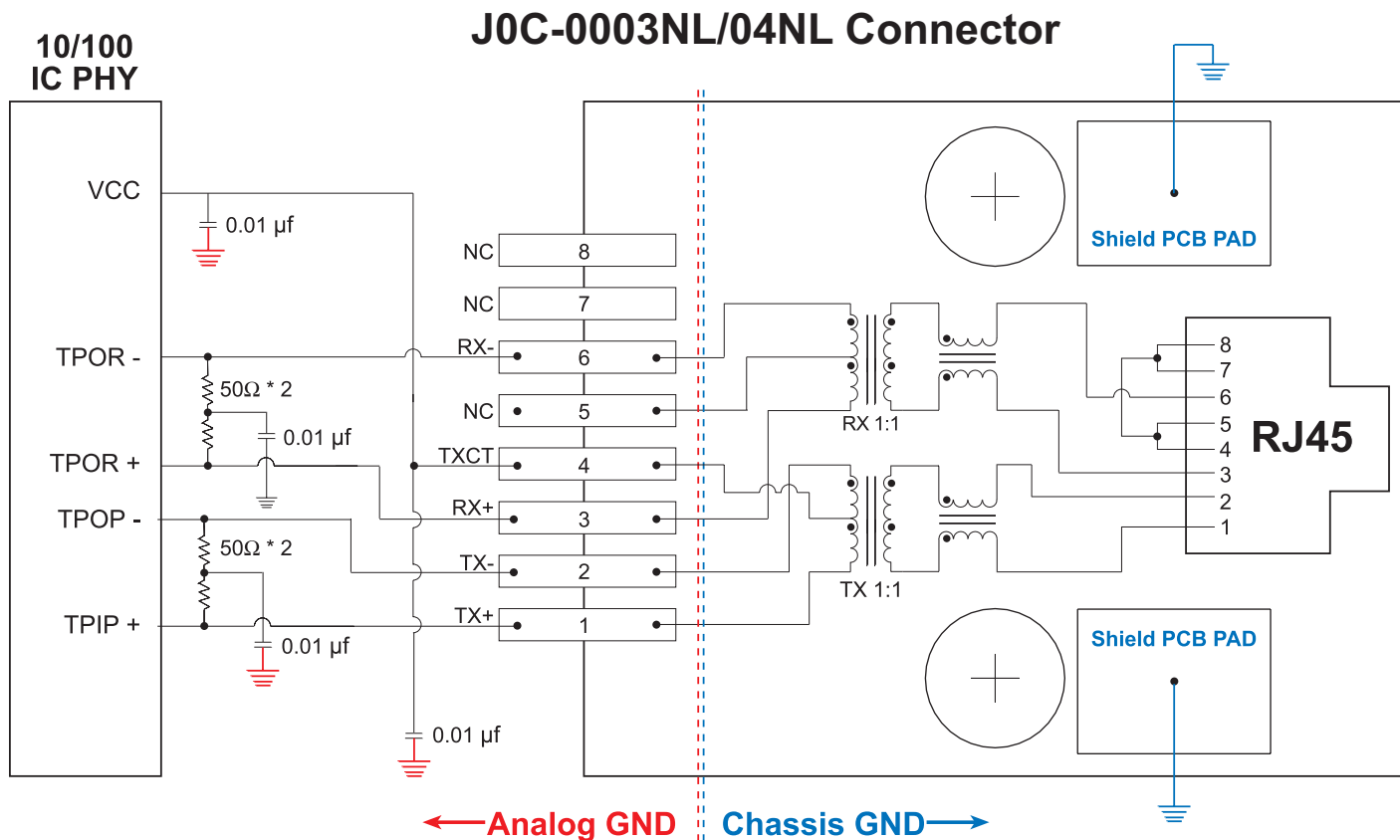
The connectors provide excellent EMI filtering and are suitable for adapter card and multiport applications. Pulse has worked closely with the leading IC manufacturers in providing these 10/100 solutions, thereby assuring compatibility with each transceiver.

The JOC series meets the stringent open circuit inductance requirements imposed by IEEE. When an 8mA DC current is applied across the transformer windings, the transformer will provide at least 350µH. The transformers

used in each module also provide 1500Vrms minimum isolation, wide bandwidth with minimal attenuation and fast rise times to minimize system level jitter.

The 1X1 SMT RJ45 connectors manufactured by Pulse are designed to meet all published specifications after exposure to surface mount soldering temperatures. The SMT are robust enough to withstand convection and infrared reflow solder temperatures. Additionally, compliant leads provide excellent solder-joint reliability with a coplanarity of 0.10 (0.004").

**Note:** Modules are packaged in trays, unless Tape & Reel is specified (ex: JOC-0003NL for Trays and JOC-0003NLT for Tape & Reel).



NOTE: Connector design not to scale

### PCB Layout Recommendations:

1. For maximum EMI suppression (electromagnetic interference) place the decoupling capacitors adjacent to VCC and 50Ω connections.
2. Connections to ground should be as short as possible.
3. Connections between the 10/100 IC and the SMT connector should be direct (ideally no change in direction) and of minimum length.

# PulseJack™

## Surface Mount 1x1

### JV Application Note

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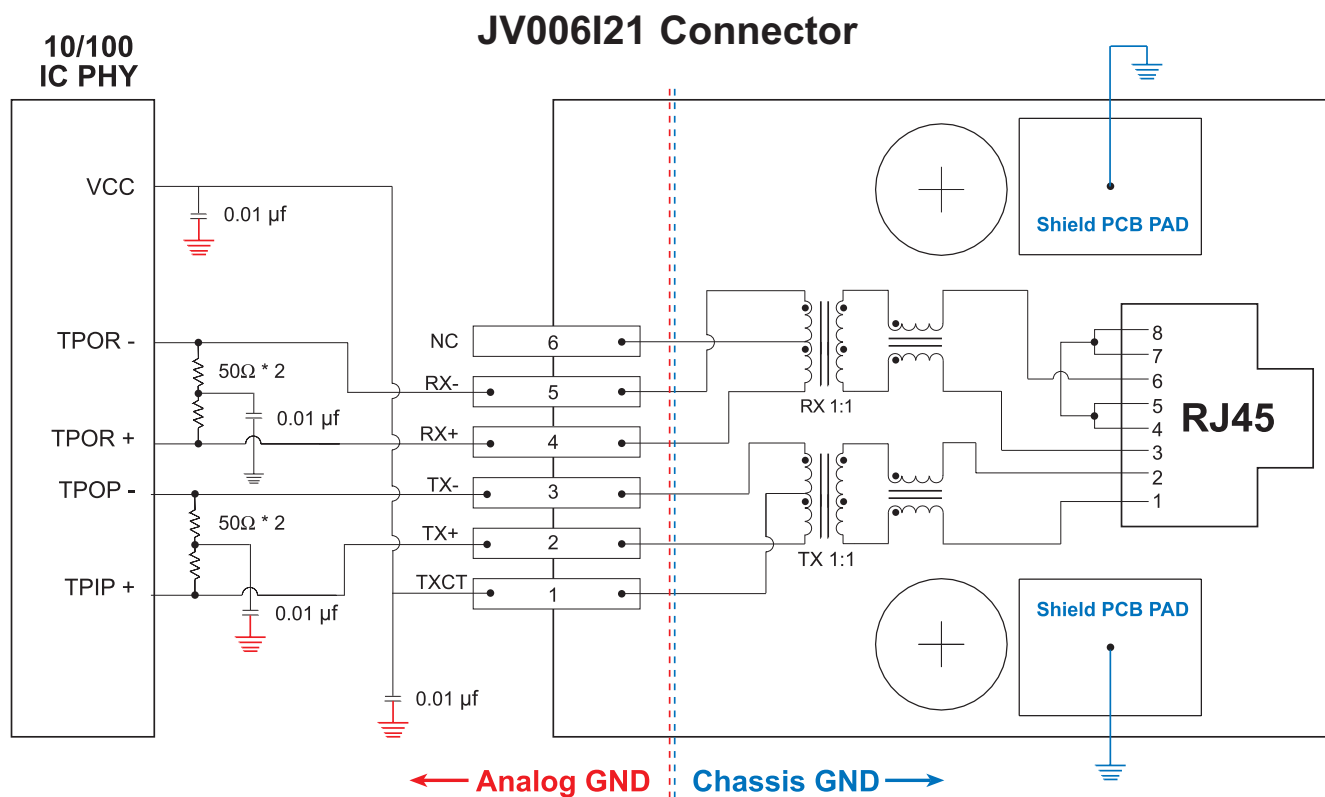
The connectors provide excellent EMI filtering and are suitable for adapter card and multiport applications. Pulse has worked closely with the leading IC manufacturers in providing these 10/100 solutions, thereby assuring compatibility with each transceiver.

The JCO series meets the stringent open circuit inductance requirements imposed by IEEE. When an 8mA DC current is applied across the transformer windings, the transformer will provide at least 350 $\mu$ H. The transformers used in each module also provide 1500Vrms minimum

isolation, wide bandwidth with minimal attenuation and fast rise times to minimize system level jitter.

The 1X1 SMT RJ45 connectors manufactured by Pulse are designed to meet all published specifications after exposure to surface mount soldering temperatures. The SMT are robust enough to withstand convection and infrared reflow solder temperatures. Additionally, compliant leads provide excellent solder-joint reliability with a coplanarity of 0.10 (0.004").

**Note:** Modules are packaged in trays, unless Tape & Reel is specified. Please add the suffix "T" for Tape & Reel orders (ex: JVO006121T). Add the suffix "NL" for RoHS compliant parts (ex: JVO06121NLT for Trays and JVO06121NLT for Tape & Reel).



### PCB Layout Recommendations:

1. For maximum EMI suppression (electromagnetic interference) place the decoupling capacitors adjacent to VCC and 50  $\Omega$  connections.
2. Connections to ground should be as short as possible.
3. Connections between the 10/100 IC and the SMT connector should be direct (ideally no change in direction) and of minimum length.

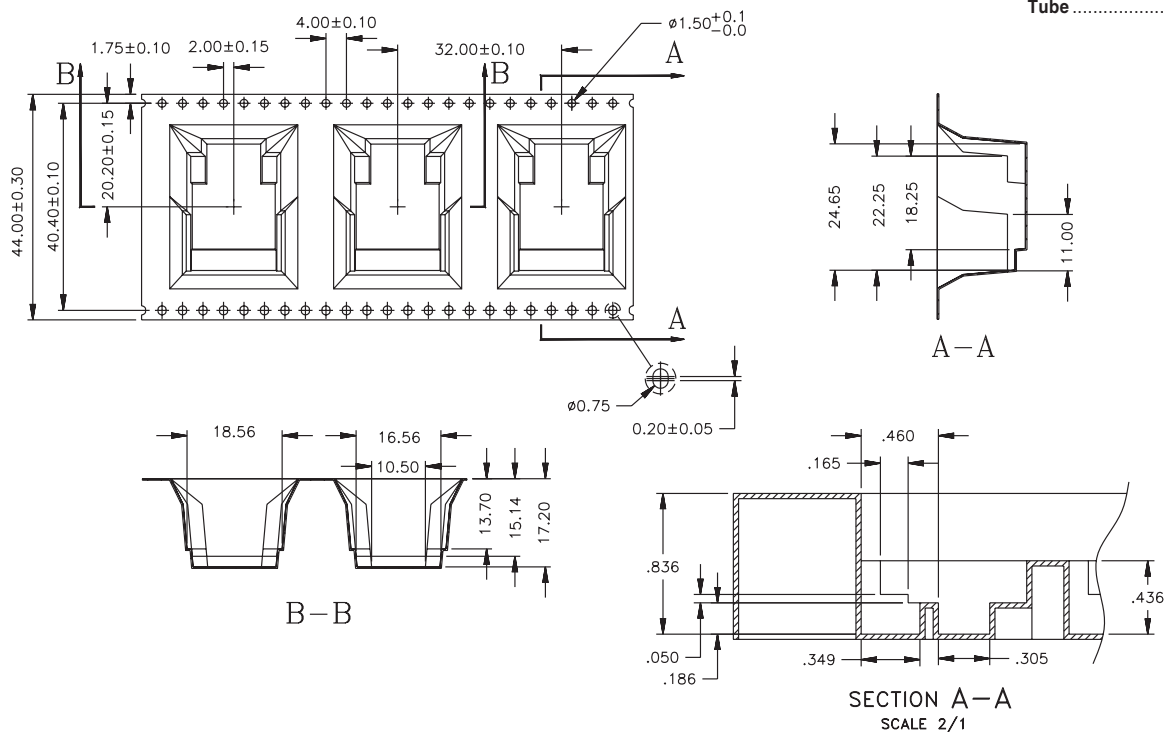


## Surface Mount 1x1

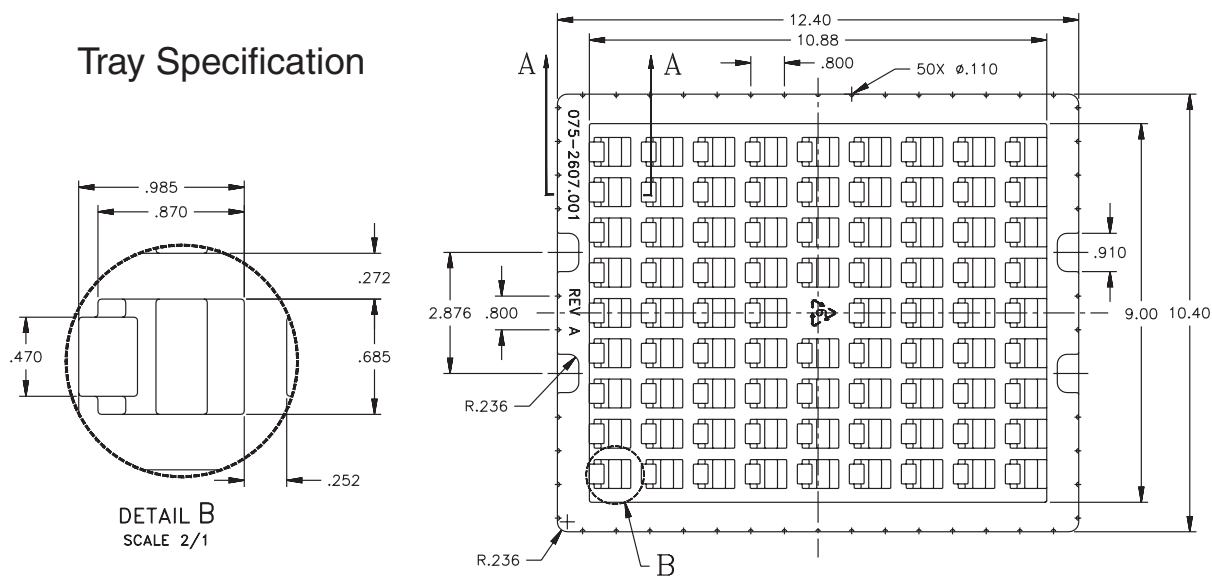
## JOC Packaging Specifications

## JOC Series

## Tape and Reel Specification



## Tray Specification

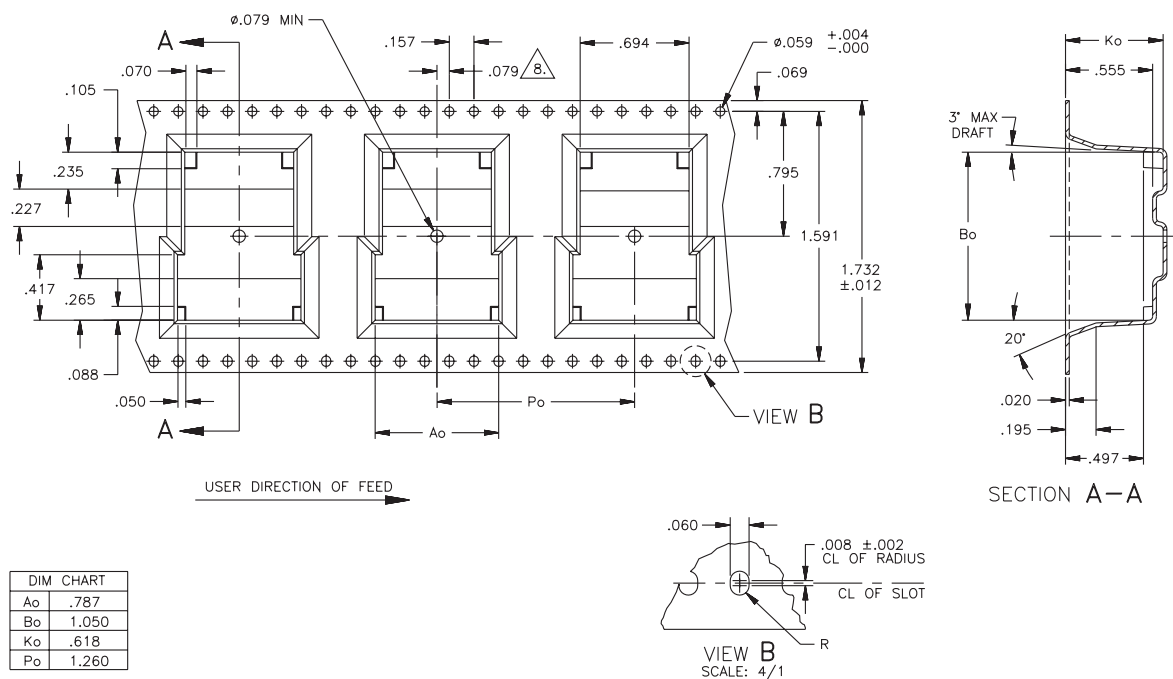


## JV Packaging Specifications

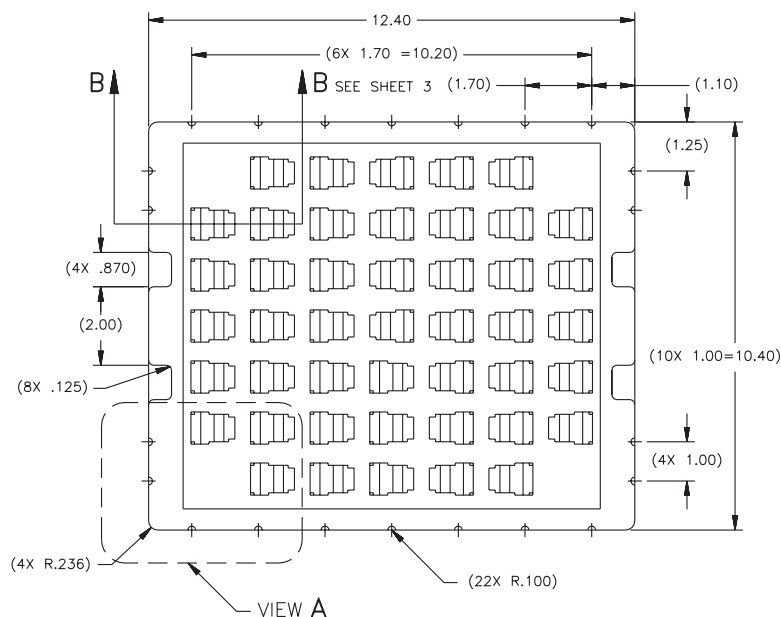
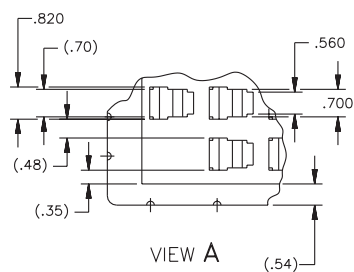
## JV Series

**Weight**.....6.6 grams  
**Tape & Reel**..... 150/reel  
**Tray** ..... 45/tray  
**Tape** ..... 44x32mm

## Tape and Reel Specification



## Tray Specification



# PulseJack™

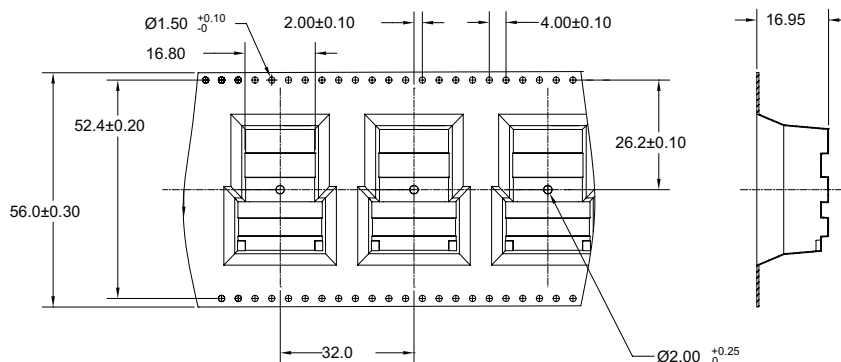
## Surface Mount 1x1

### J3 Packaging Specifications

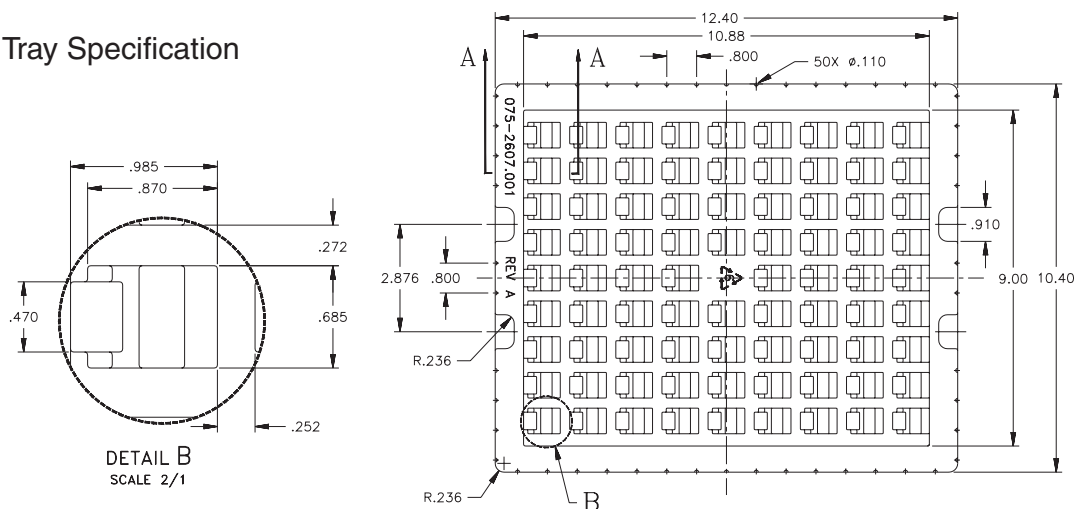
#### J3 Series

#### Tape and Reel Specification

Weight.....8.1 grams  
Tape & Reel.....75/reel  
Tray.....45/tray  
Tape.....56x32mm



#### Tray Specification



#### For More Information:

Americas - [prodinfonetworkamericas@pulseelectronics.com](mailto:prodinfonetworkamericas@pulseelectronics.com) | Europe - [comms-Apps-Europe@pulseelectronics.com](mailto:comms-Apps-Europe@pulseelectronics.com) | Asia - [prodinfonetworkapac@pulseelectronics.com](mailto:prodinfonetworkapac@pulseelectronics.com)

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