

# Pin-in-Paste PulseJack™ Integrated Connector modules for Industrial Ethernet

Reflow compatible designs for fast Ethernet and 1Gigabit connectivity



## Features and Benefits:

- ④ Complete THR Connector and magnetics in one package
- ④ IEEE802.3 compliant with 350uH at 8mA DC bias for 10/100Base-Tx and 1000Base-T
- ④ Compatible with market leading Ethernet PHYs
- ④ Rugged design for outdoor and industrial use
- ④ Fully RoHS and Lead Free compliant
- ④ IR Reflow and Wave solder compatible

### Electrical Specifications @ 25°C - Operating Temperature -40°C to +85°C

Part Number	Data Rate	Style	LED Configuration (L/R)	EMI Fingers Configuration	Design Style	Isolation (Pri:Sec)	THR replacement to Standard THD Product
JXD0-9006NL	100Base-TX	Latch-Down	Yellow /Green	YES	AutoMDIX	2250VDC / 60sec	JXD0-0006NL
JXD0-9007NL	100Base-TX	Latch-Down	Yellow /Green	None	AutoMDIX	2250VDC / 60sec	None
JXD0-9010NL	1000Base-T	Latch -Down	Green-Yellow /Green-Yellow	YES	Matches Idr PHY	2250VDC / 60sec	None
JXD0-9011NL	1000Base-T	Latch-Down	Green-Yellow /Green-Yellow	None	Matches Idr PHY	2250VDC / 60sec	JXD0-0001NL
JXD0-9015NL	1000Base-T	Latch-Down	Yellow /Green	YES	Matches Vdr PHY	2250VDC / 60sec	JXD0-0015NL
JXD1-9019NL	1000Base-T	Latch-Down	Yellow /Green	None	Matches Vdr PHY	2250VDC / 60sec	JXD0-0019NL
JXD1-9008NL	100Base-TX	Latch -Up	Yellow /Green	YES	AutoMDIX	2250VDC / 60sec	JXD0-0008NL
JXD1-9007NL	100Base-TX	Latch-Up	Yellow /Green	None	AutoMDIX	2250VDC / 60sec	None
JXD1-9010NL	1000Base-T	Latch -Up	Green-Yellow /Green-Yellow	YES	Matches Idr PHY	2250VDC / 60sec	None
JXD1-9011NL	1000Base-T	Latch-Up	Green-Yellow /Green-Yellow	None	Matches Idr PHY	2250VDC / 60sec	JXD0-0001NL
JXD1-9015NL	1000Base-T	Latch-Up	Yellow /Green	YES	Matches Vdr PHY	2250VDC / 60sec	JXD0-0015NL
JXD1-9019NL	1000Base-T	Latch-Up	Yellow /Green	None	Matches Vdr PHY	2250VDC / 60sec	JXD0-0019NL

### 100Base-TX

### Electrical Specifications @ 25°C - Operating Temperature -40°C to +85°C

Part Number	Insertion Loss (MAX)	Return Loss (MIN)			Crosstalk (MIN)			CMRR (MIN)	DCR (J1-J2) (J3-J6)
		1 - 30MHz	30 - 60MHz	60 - 80MHz	1MHz	30 - 60MHz	100MHz		
JXD0/JXD1-900xNL	-1.2dB	-16dB	-12dB	-10dB	-35dB	-30dB	-30dB	-30dB	1.2 OHM max

### 1000Base-T

### Electrical Specifications @ 25°C - Operating Temperature -40°C to +85°C

Part Number	Insertion Loss (MAX)	Return Loss (MIN)			Crosstalk (MIN)			CMRR (MIN)	DCR (J1-J2), (J3-J6) (J4-J5), (J7-J8)
		1 - 30MHz	30 - 80MHz	80 - 100MHz	1MHz	30 - 60MHz	100MHz		
JXD0/JXD1-901xNL	-1.2dB	-18dB	-12dB	-10dB	-38dB	-33dB	-30dB	-30dB	1.2 OHM max

#### Notes:

1. ROHS Compliant:
2. Plastic housing: LCP material with flammability rating UL94V-0
3. Contacts plating: 30 micro-inch gold plating
4. Contacts base material: Phosphor bronze
5. Under plating: 50u inches min nickel
6. Solder Tail Plating: 100 min u inches 100% tin, matte finish
7. Metal shield - nickel plating on Brass
8. Jack cavity conforms to FCC part 68 subpart
9. PCB plating: HASL
10. Storage temperature: -40°C to 85°C
11. All parts are shipped in trays with 50pcs/tray - see page4 for details
12. Compliance to J-STD:
  - A. J-STD-002: solderability at 245°C DIP and LOOK test
  - B. J-STD-020: level 1, no moisture sensitive
  - C. J-STD-075: W2, 270°C maximum through wave solder
  - D. J-STD-075: R7, 245°C maximum through reflow solder process

#### RJ45 Connector performance:

- Insulation Resistance : 500M Ohms Min
- Insertion force with the latch depressed : 22N Max
- Removal force with the latch depressed : 44N Max
- Durability : 750 Cycles

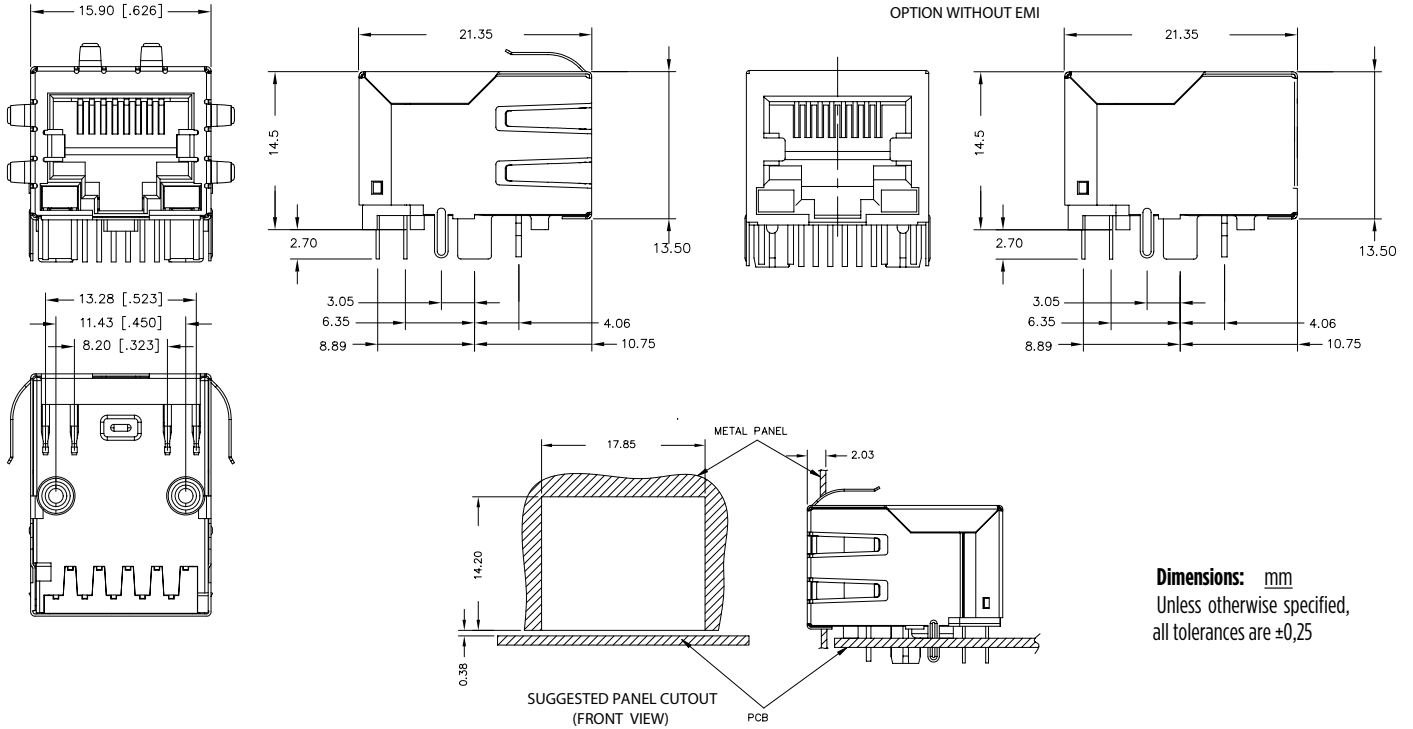
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Reflow compatible designs for fast Ethernet and 1Gigabit connectivity

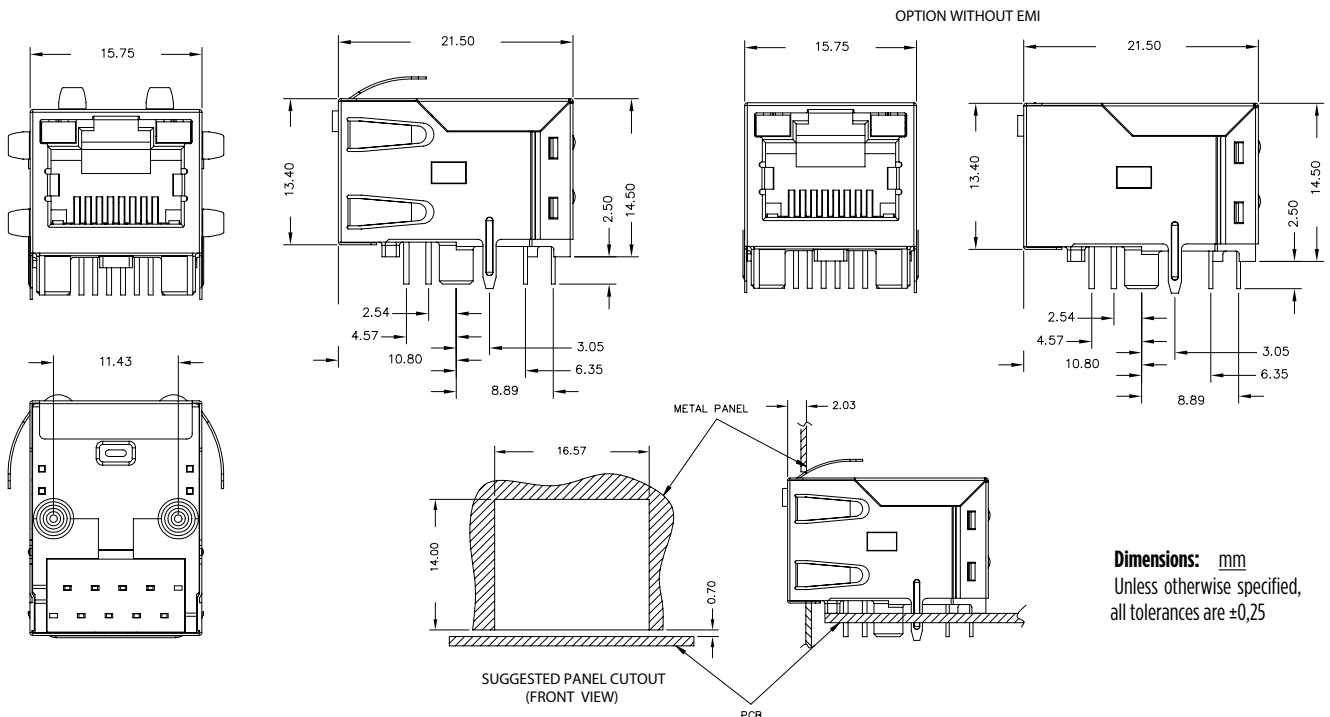


## MECHANICALS

### JXD0-90xxNL



### JXD1-90xxNL



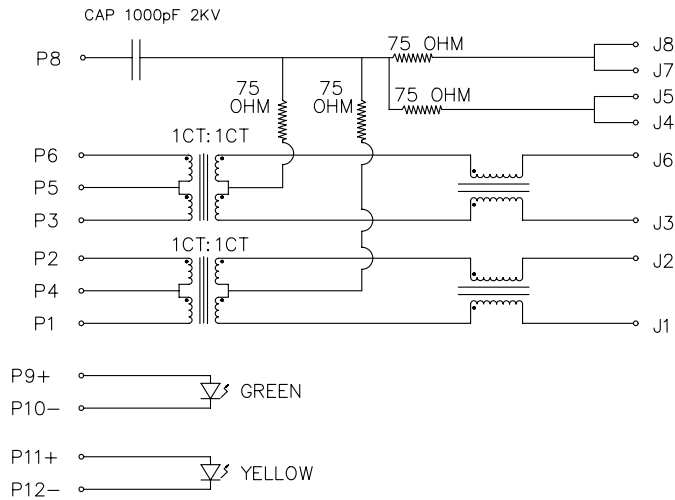
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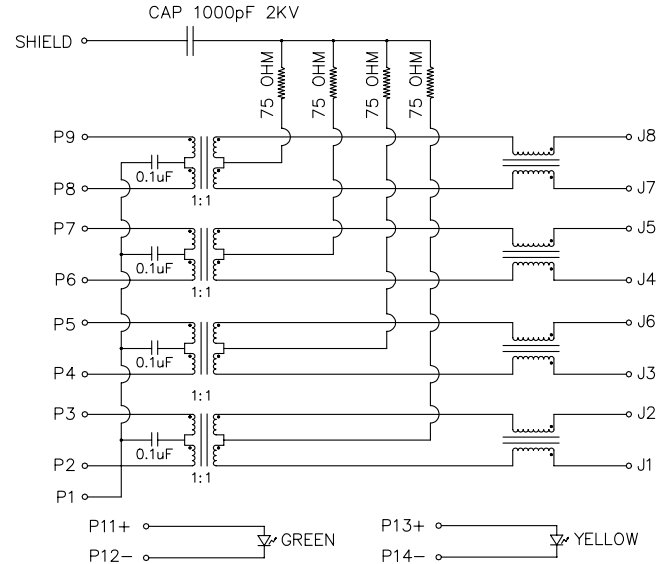


## SCHEMATICS

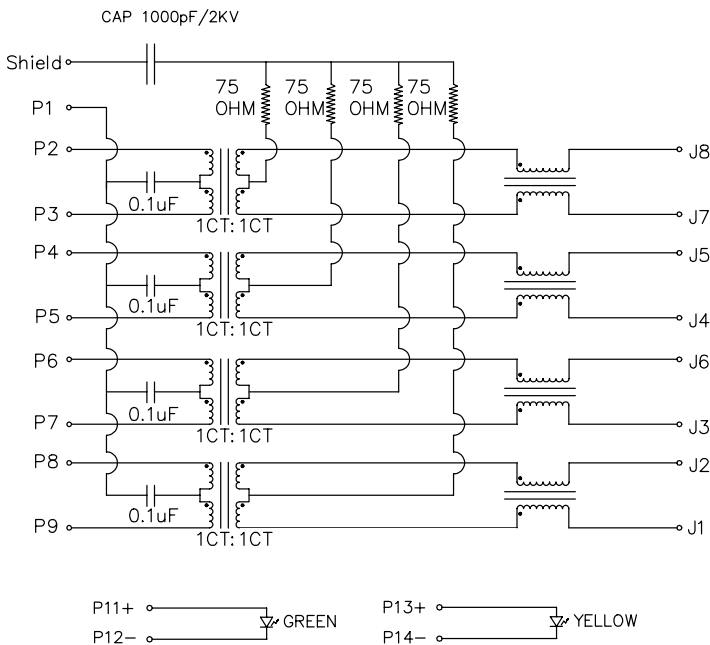
**JXD0-9006/7NL, JXD1-9007/8NL**



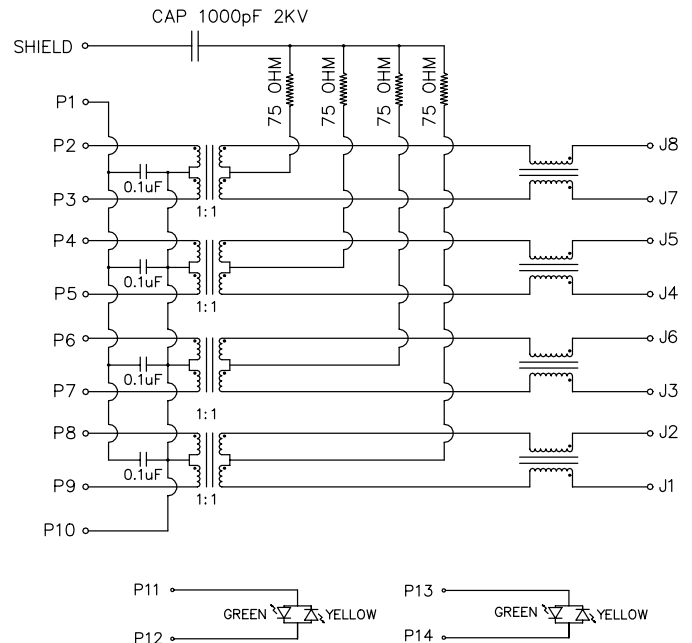
**JXD0-9015/19NL**



**JXD1-9015/19NL**



**JXD1-9010/11NL**



## LED SPECIFICATIONS

EMITTING COLOR	p (nm)	Vf@If=20mA	Ir @Vr=5V
GREEN	570	1.7V~2.6V	10µA max.
YELLOW	590	1.7V~2.6V	10µA max.

# Pin-in-Paste PulseJack™ Integrated Connector modules for Industrial Ethernet

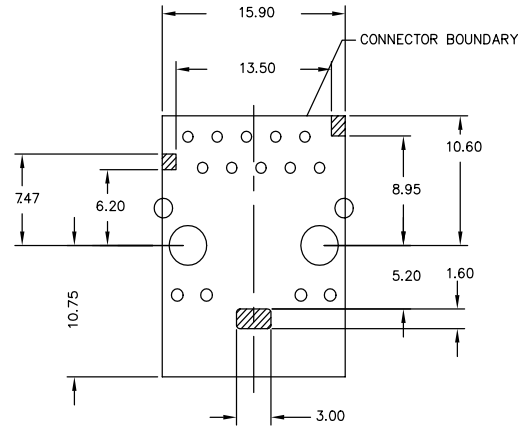
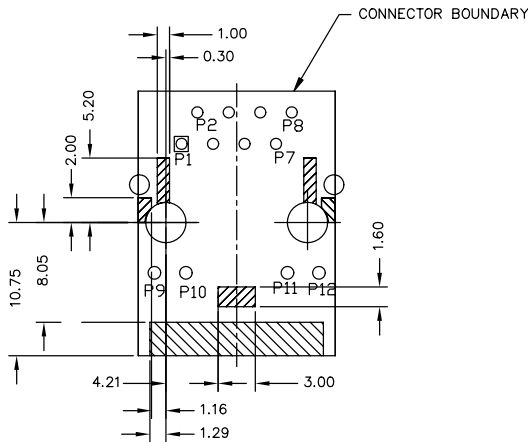
Reflow compatible designs for fast Ethernet and 1Gigabit connectivity



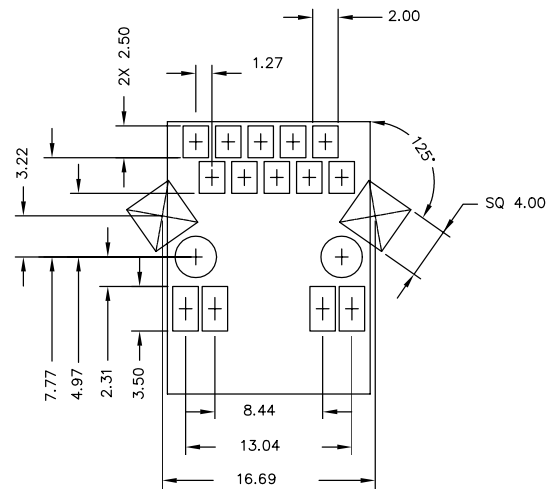
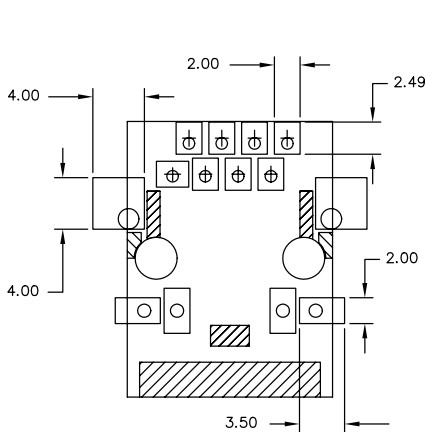
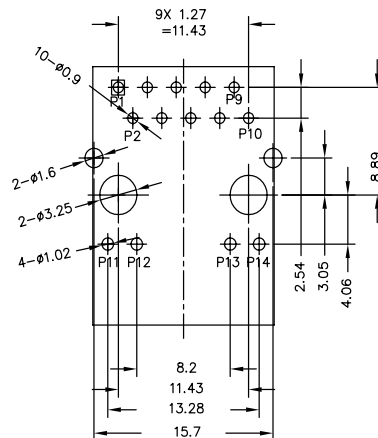
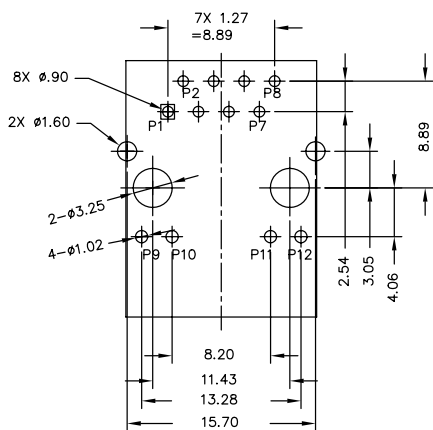
## PCB LAYOUT

JXD0-9006/7NL

JXD0-9010/11NL, JXD0-9015/19NL



STANDOFF AREA  
(COMPONENT SIDE SHOWN)



RECOMMENDED STENCIL DESIGN WITH THICKNESS 0.2MM  
RECOMMENDED PCB WITH THICKNESS 1.6MM  
(COMPONENT SIDE SHOWN)

RECOMMENDED STENCIL DESIGN WITH THICKNESS 0.2MM  
BASE ON 1.60MM THICKNESS PCB  
(COMPONENT SIDE SHOWN)

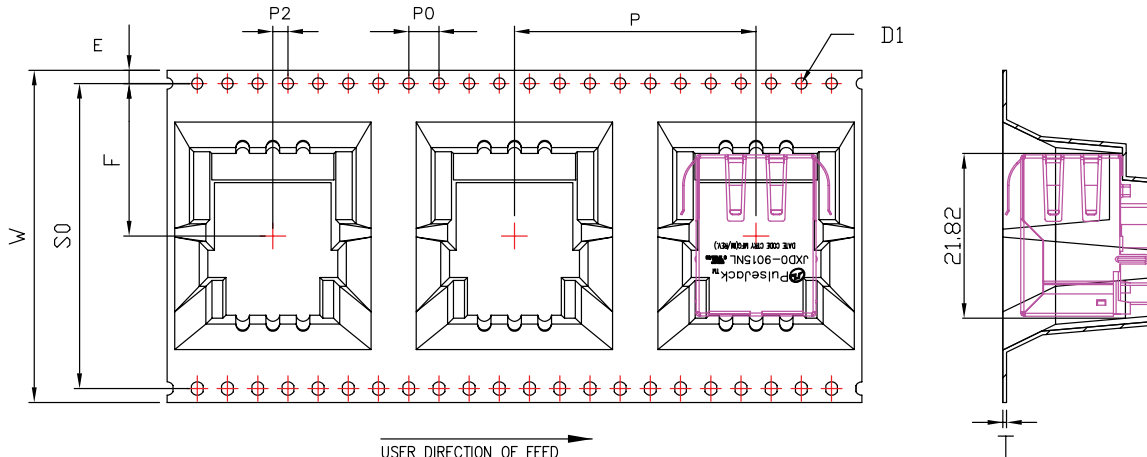


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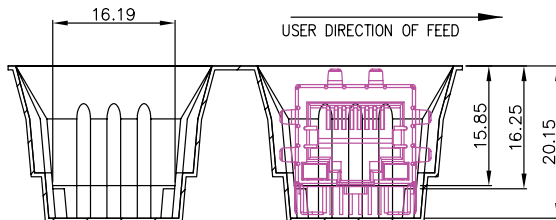
## TAPE AND REEL PACKING DETAILS

### JXD0-90xxNLT and JXD1-90xxNLT



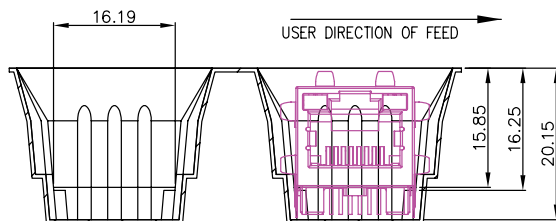
W	44.00 ±0.30	P	32.00 ±0.10	A0	16.19±0.15	B0	21.82±0.15
S0	40.40 ±0.10	P0	4.00 ±0.10	A1		B1	
E	1.75 ±0.10	P2	2.00 ±0.15	A2		B2	
F	20.20 ±0.15	D0	1.50 <sup>+0.10</sup> <sub>-0.00</sub>	K0	20.15±0.20	K1	15.85±0.15
T	0.50 ±0.05	D1		SCALE:		UNIT:	mm

### JX01-900xxNL



1. Material: Black Conductive Polystyrene Alloy.
2. Packing length per 13" reel: 2.2 Meters.
3. Component load per 13" reel: 60 pcs.  
5 Reel in one box  
300pcs in one box
4. All dimension meet EIA-481-D requirements.

### JXD1-90xxNL



1. Material: Black Conductive Polystyrene Alloy.
2. Packing length per 13" reel: 2.2 Meters.
3. Component load per 13" reel: 60 pcs.  
5 Reel in one box  
300pcs in one box
4. All dimension meet EIA-481-D requirements.

### For More Information:

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