

Description:

RJ45/Dual USB Combo is a Through Hole (THT) Integrated Connector Module with a single RJ45 in combination with 2xUSB ports. The internal magnetics are designed to support 10/100 and 1000Base-TX applications such as LAN-on-Motherboard (LOM) and PC applications.



Features and Benefits:

- Ⓜ RJ45 connection meets CAT 6 standards
- Ⓜ USB module complies with USB 2.0/3.0 standards
- Ⓜ RoHS peak wave solder temperature rating 260°C

Electrical Performance Summary:

- Ⓜ Meets IEEE 802.3u/ab.af specification
- Ⓜ High performance for maximum EMI suppression
- Ⓜ Minimum 1500Vrms isolation per IEEE 802.3 requirement

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

RoHS Compliant Part Number	Data Rate	Turn Ratio	USB Style	LEDs	Insertion Loss TX/RX (dB MAX)	Return Loss @ 100Ω ±15Ω (dB TYP)			Cross talk (dB MIN)			Common Mode Rejection (dB TYP)		Hipot (Vrms) (MIN)
				L/R ¹	1-65 MHz	1-10 MHz	30 MHz	60-80 MHz	1-10 MHz	32-60 MHz	60-100 MHz	1-50 MHz	50-130 MHz	@60Hz 1 MIN
JXD4-4001NL ³	10/100 (PoE)	1CT:1	USB2.0	G/Y	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500
JD4-4003NL	10/100 (AutoMDIX)	1CT:1	USB2.0	G-O/Y	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500
JW0-0009NL	10/100 (5 core)	1CT:1	USB2.0	G/Y ²	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500
JW0-0006NL	10/100/1000	1CT:1	USB2.0	G/G-Y ²	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500
JW0-0013NL	10/100/1000	1CT:1	USB2.0	G-O/Y	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500
JD4-0012NL	10/100/1000	1CT:1	USB3.0	Y/G-O	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500

Notes:

- LEDs Left/Right: G = green; Y = yellow; O = Orange
- G = Green with 250Ω internal resistor; Y = Yellow with 250Ω internal
- Operating Temperature = 40°C to +85°C

RJ45 Durability Testing Rating

Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
JW0/JD4/JXD4 Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	500 Insertions	20 lbs./9.072 kgs.

RJ45 Material Specification

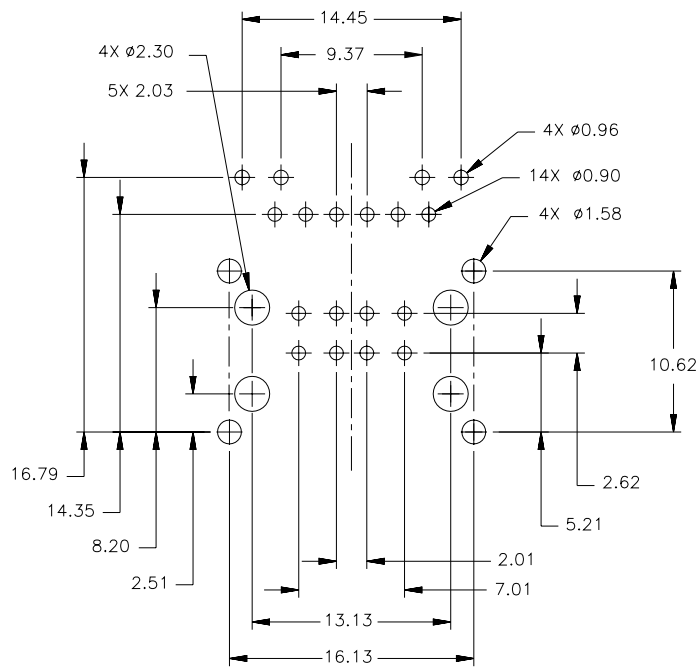
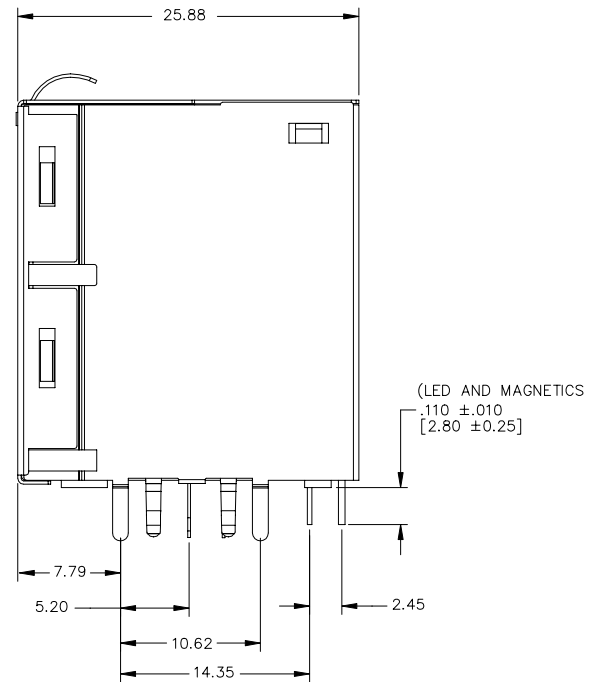
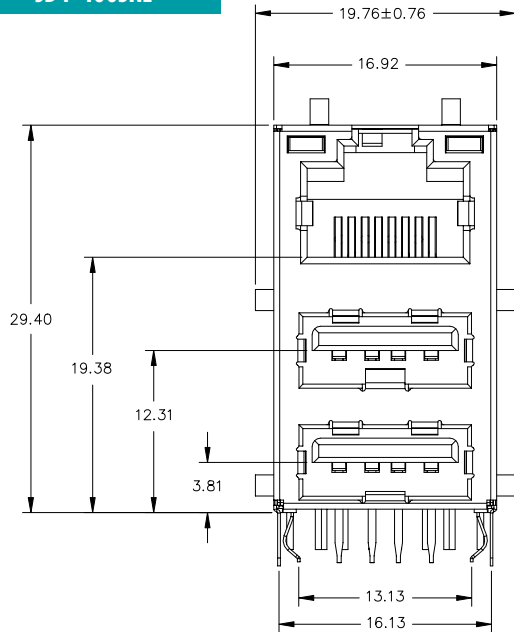
Part Number	Shield		Contact			Housing		MSL ² Rating
	Material	Finish	Material	Plating Area	Solder Area ³	Material	Specification	
JW0/JD4/JXD4 Series	Brass	20-40μ inches thick Nickel over brass	Phosphor Bronze	15μ inches gold over 30-80μ inches nickel	75-300μ inches tin-lead over 75-300μ inches bright nickel	Thermoplastic	UL 94 V-0	1

Notes:

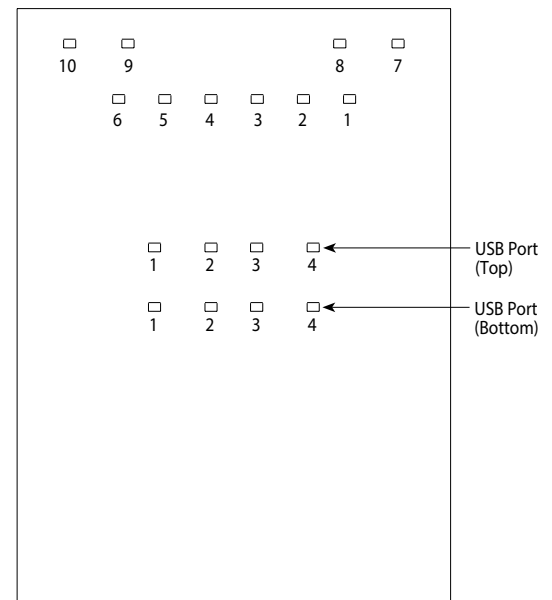
- Connector dimensions comply with FCC dimension requirements
- MSL = Moisture Sensitivity Level
- NL parts are tin matte finish over nickel

Mechanical

JD4-4003NL



SUGGESTED FOOTPRINT (SHOWN FROM COMPONENT SIDE)
DIMENSIONAL TOLERANCE: [METRIC]
[X.XX ± 0.08]



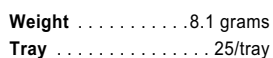
PIN CONFIGURATION (SHOWN FROM COMPONENT SIDE)

Weight 8.1 grams
Tray 25/tray

Dimensions: mm

Unless otherwise specified,
all tolerances are ± 0.25

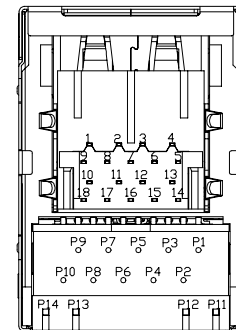
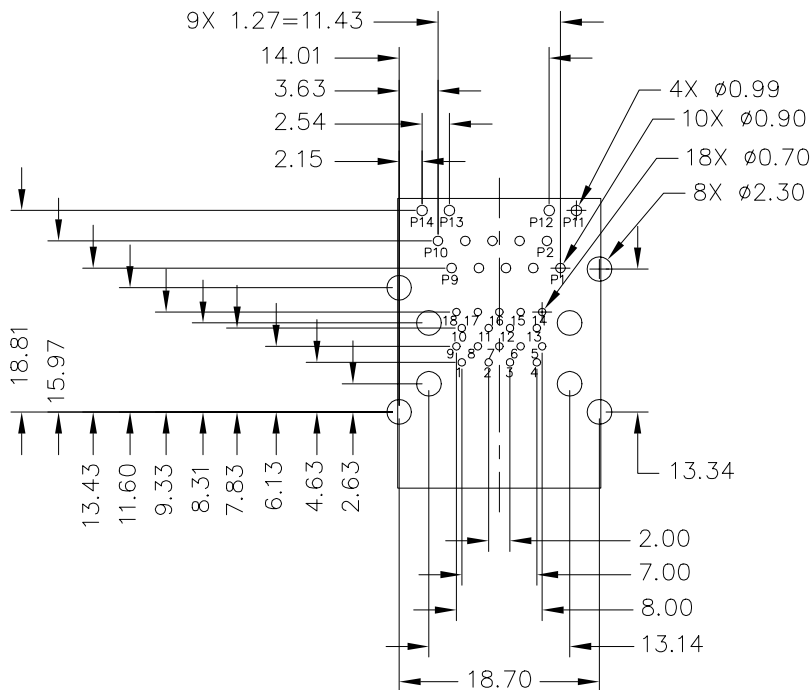
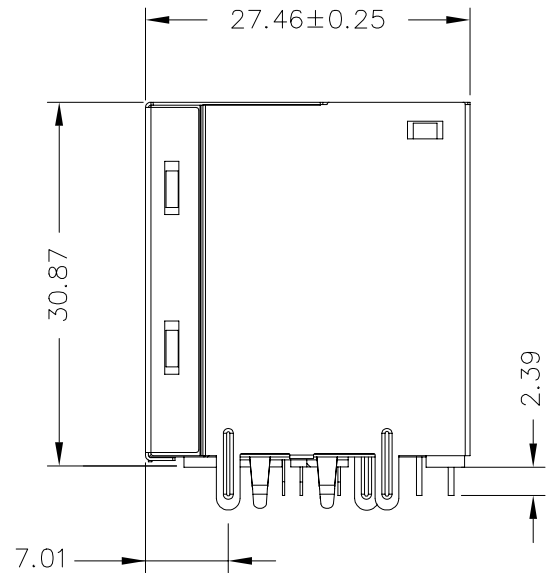
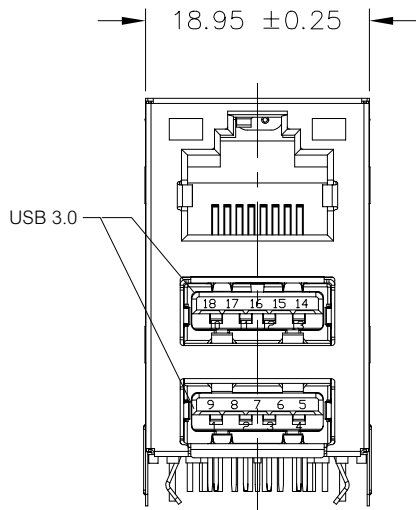
JXD4-4001NL



Unless otherwise specified,
all tolerances are $\pm 0,25$

Mechanical

JXD4-4012NL



RECOMMENDED PCB LAYOUT
(COMPONENT SIDE VIEW)

Weight 8.1 grams
Tray 25/tray

Dimensions: mm

Unless otherwise specified,
all tolerances are ± 0,25

JW0-0006NL, JW0-0009NL, JW0-0013NL

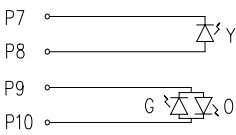
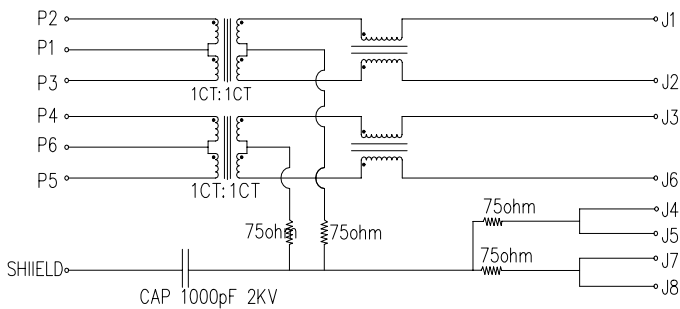


Dimensions: mm

Unless otherwise specified,
all tolerances are $\pm 0,25$

Schematic

JD4-4003NL

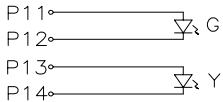
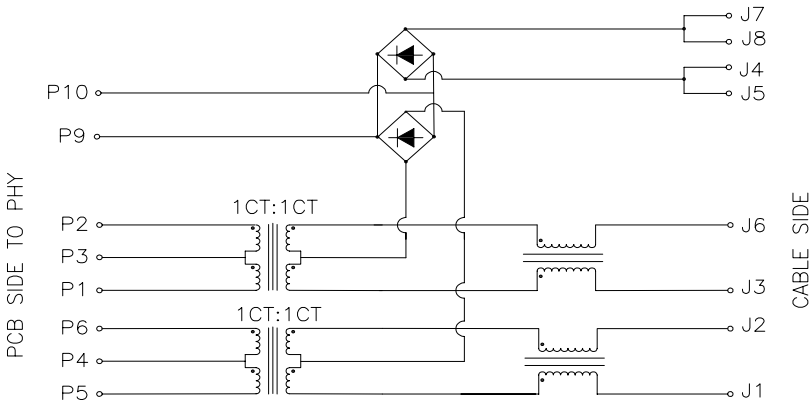


LED SPECIFICATION:

LED SPECIFICATION			
STANDARD LED	WAVELENGTH	FORWARD V(MAX)	TYP
GREEN	565nm	2.4V	2.2V
YELLOW	590nm	2.5V	2.1V
ORANGE	605nm	2.5V	2.0V

*WITH A FORWARD CURRENT OF 20mA

JXD4-4001NL



LED SPECIFICATION:

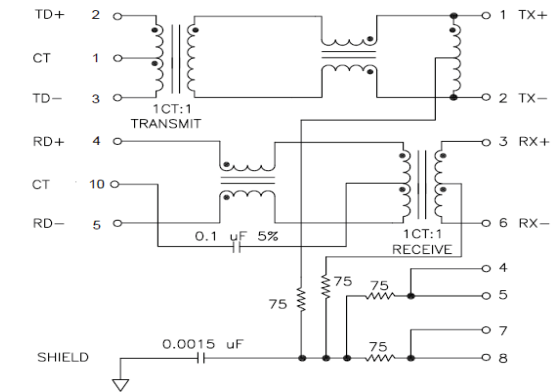
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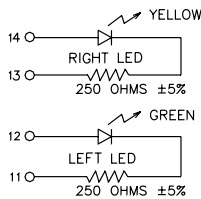
Schematic

JW0-0009NL

PCB
PHY
SIDE

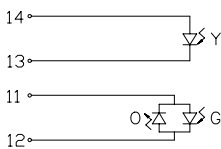
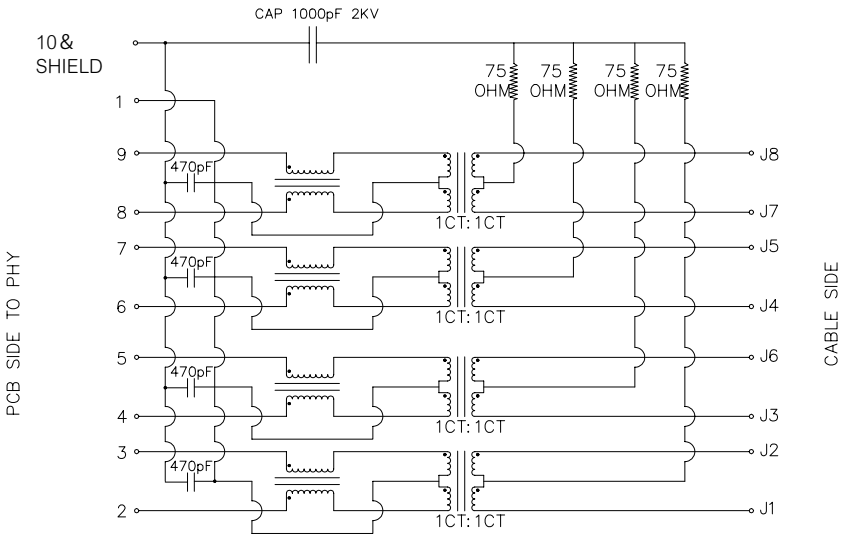


CABLE
SIDE



EMMITTED COLOR	GREEN	YELLOW
WAVELENGTH (nm)	568 nm	585 nm
BRIGHTNESS (mCD)	12 TYP. AT 20 mA	10 TYP. AT 20 mA
VIEWING ANGLE	100°	100°
POWER DISSIPATION (Pd)	68 mW MAX	68 mW MAX
DC FORWARD CURRENT	150 mA MAX	150 mA MAX
REVERSE VOLTAGE (Vr)	5.0 V MAX	5.0 V MAX
FORWARD VOLTAGE (Vf)	2.2 TO 2.7 VOLTS	2.1 TO 2.7 VOLTS

JXD4-4012NL



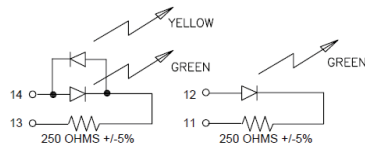
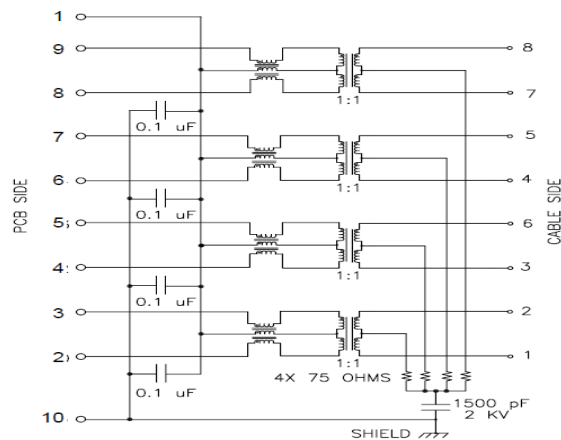
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*WITH A FORWARD CURRENT OF 20mA

Schematic

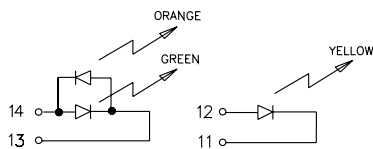
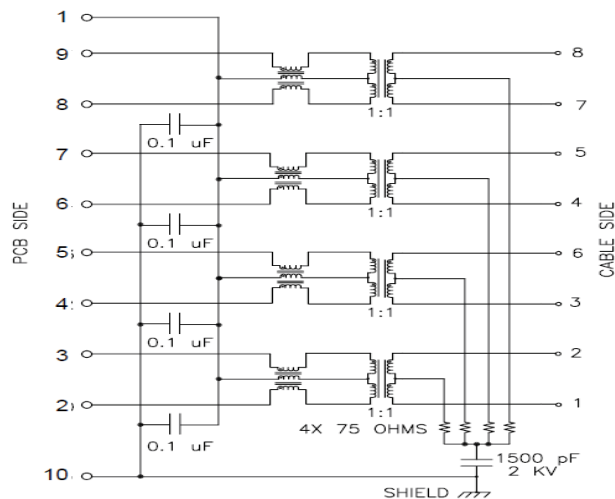
JW0-0006NL



EMMITTED COLOR	GREEN	YELLOW	GREEN
WAVELENGTH (nm)	568 nm	585 nm	568 nm
BRIGHTNESS (mCD)	8.5 TYP. AT 20 mA	6 TYP. AT 20 mA	8 TO 12 TYP. AT 20 mA
VIEWING ANGLE	100°	100°	100°
POWER DISSIPATION (Pd)	100 mW MAX	100 mW MAX	68 mW MAX
DC FORWARD CURRENT	150 mA MAX	150 mA MAX	150 mA MAX
REVERSE VOLTAGE (Vr)	5.0 V MAX	5.0 V MAX	5.0 V MAX
FORWARD VOLTAGE (Vf)	2.2 TO 2.6 VOLTS	2.1 TO 2.6 VOLTS	2.2 TO 2.7 VOLTS

BI-COLOR

JW0-0013NL



EMMITTED COLOR	GREEN	ORANGE	YELLOW
WAVELENGTH (nm)	568 nm	610 nm	585 nm
BRIGHTNESS (mCD)	8.5 TYP. AT 20 mA	6 TYP. AT 20 mA	10 TYP. AT 20 mA
VIEWING ANGLE	100°	100°	100°
POWER DISSIPATION (Pd)	100 mW MAX	80 mW MAX	68 mW MAX
DC FORWARD CURRENT	150 mA MAX	150 mA MAX	150 mA MAX
REVERSE VOLTAGE (Vr)	5.0 V MAX	5.0 V MAX	5.0 V MAX
FORWARD VOLTAGE (Vf)	2.2 TO 2.6 VOLTS	2.2 TO 2.6 VOLTS	2.1 TO 2.7 VOLTS

BI-COLOR

