Industrial Fast Ethernet 2xN PulseJack™

RJ45 Connectors

Pulse
a YAGEO company

Description:

100 Base-TX (Fast Ethernet) RJ45 2xN Integrated Connector Module (ICM) with or without LEDs - Designed to support Switch and Gateway applications.



- *Suitable for CAT 5 & 6 Fast Ethernet Cable or better UTP*
- *Magnetics are 100% electrically tested for HI-POT and functionality*
- *IEEE802.3u compliant 350µH min OCL with 8mA bias current*
- *High performance for maximum EMI suppression*
- *RoHS peak wave solder temperature rating 260°C*
- *Other Internal magnetics options available*

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

Part Number	No. of Ports	LEDs [1] Top Row Only	Insertion Loss TX/RX (dB)		Return Loss (dB MIN) 100Ω (±15Ω)			Cross Talk [3] (dB TYP)			Common Mode Rejection (dB TYP)		Isolation Pri:Sec
		L/R	1-100 MHz	100-125 MHz	1-30 MHz	30-60 MHz	60-80 MHz	1 MHz	10-30 MHz	100 MHz	30-60 MHz	80-200 MHz	Vdc /60sec
JX20-0237NL	4	G/Y, G/Y	-1.5	-2.0	-16	-10	-10	-50	-45	-33	-30	-20	2250VDC
JX20-0252NL*	4	G/O, G/O	-1.5	-2.0	-16	-10	-10	-50	-45	-33	-30	-20	2250VDC
JX20-0114NL	8	G/Y, G/Y	-1.5	-2.0	-14	-10	-10	-45	-40	-30	-30	-16	2250VDC
J2X0-0206NL	8	N/A	-1.5	-2.0	-16	-10	-10	-50	-45	-33	-30	-20	2250VDC
JX20-0254NL*	8	G/O, G/O	-1.5	-2.0	-16	-10	-10	-50	-45	-33	-30	-20	2250VDC

Notes:

1. Bi-color LEDs: G = green; Y = yellow, O = orange for each port

2. * denotes 50uinches Gold plating on FCC contact leads, 30uinches is standard

3. Calculation for Crosstalk = -55+22xLOG10(f/10)

RJ45 Durability Testing Rating

Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability
JX20-Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	750 Insertions

RJ45 Material Specification

Part Number	Shield		Contact			Housing	
	Material	Finish	Material	Plating Area	Solder Area	Material	Specification
JX20-Series	Copper Alloy	10-20µ inches Nickel over 10-20µ inches Copper Alloy	Phosphor Bronze	Nickel underplating, selective gold plating 30 or 50µ inches	Tin matte finish	Thermoplastic (Black)	UL 94 V-0

Notes:

1. All connector part numbers starting with the series prefix JX20 comply to the above limits.

2. Connector dimensions comply with FCC Part 68 dimension requirement.

3. Storage Temperature : -50°C to +150°C

4. Compliance to J-STD:

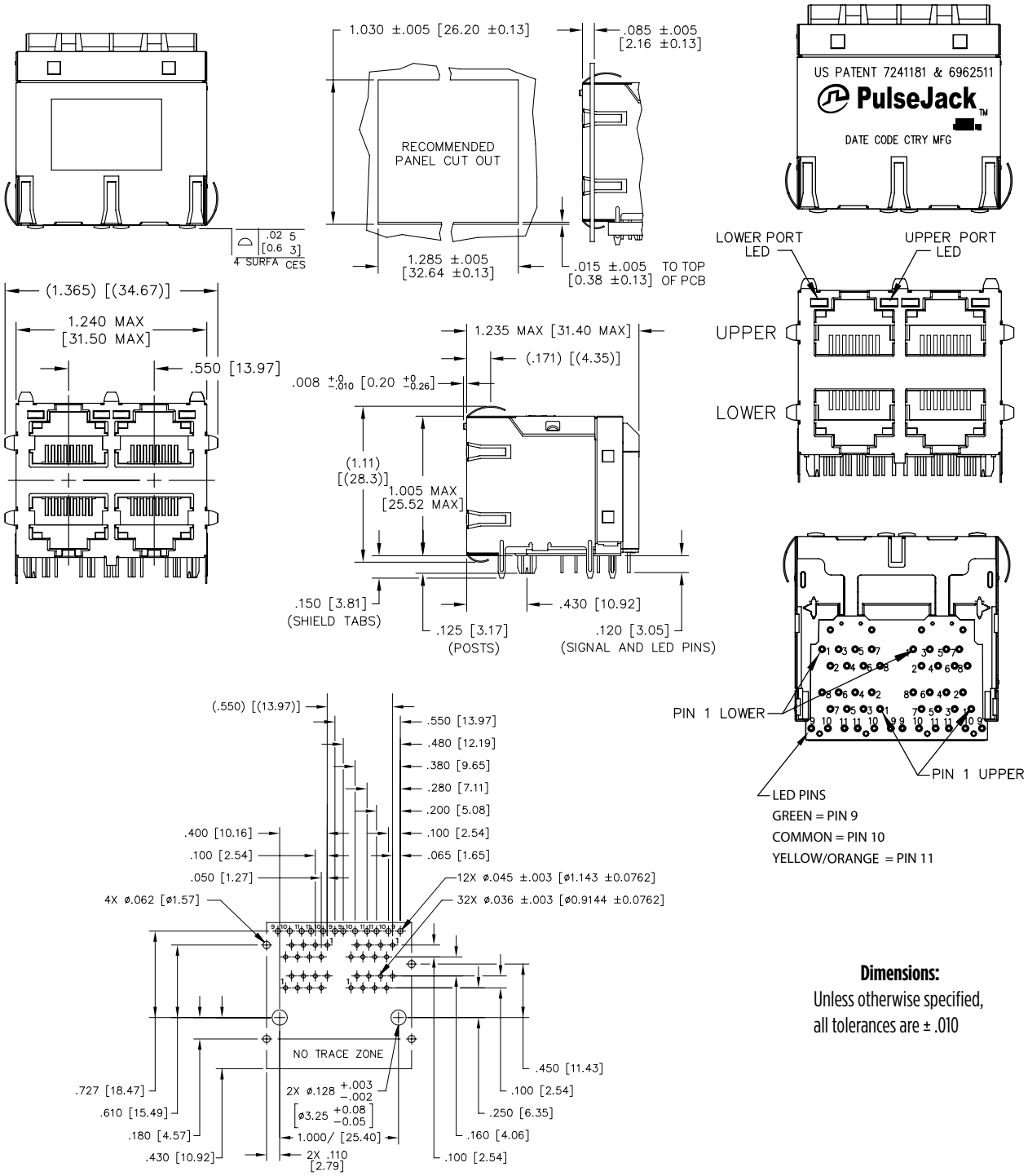
a) J-STD-002: Solderability at 245°C DIP and LOOK Test

b) J-STD-020: Level 1 No Moisture Sensitive

c) J-STD-075: W2 270oC Max through WAVE solder

2X2 SERIES MECHANICALS

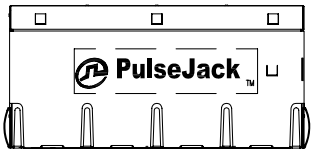
JX20-0237NL, JX20-0252NL

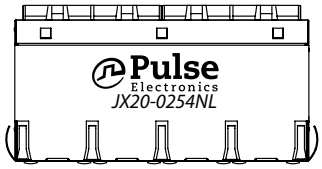


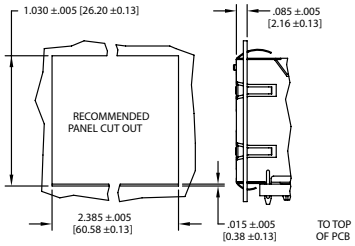
Dimensions:
Unless otherwise specified, all tolerances are ± .010

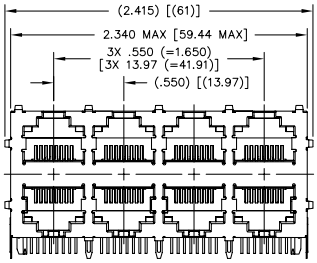
2X4 SERIES MECHANICALS

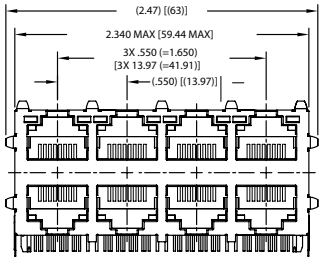
JX20-0114NL, JX20-0206NL, JX20-0254NL

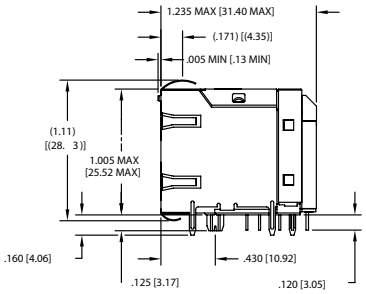




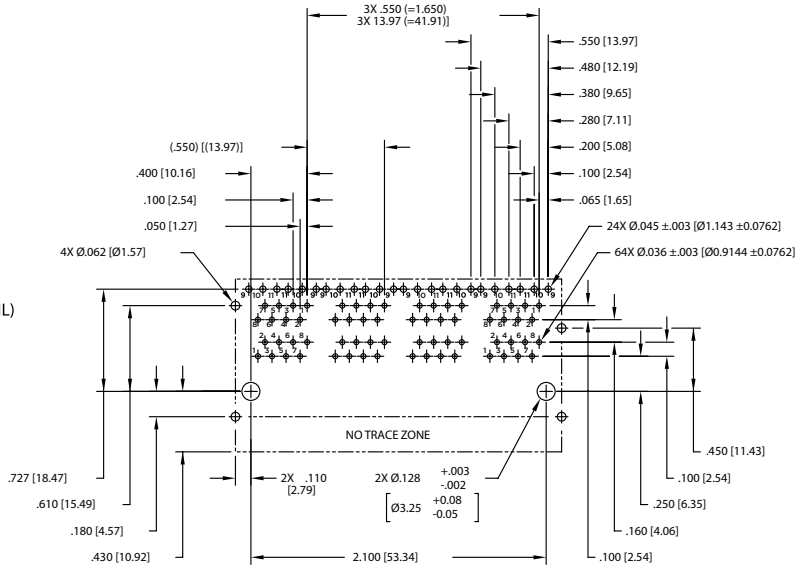








LED PIN NUMBERING
(NOT REQUIRED ON JX20-0206NL)
GREEN = PIN 9
COMMON = PIN 10
YELLOW/ORANGE = PIN 11

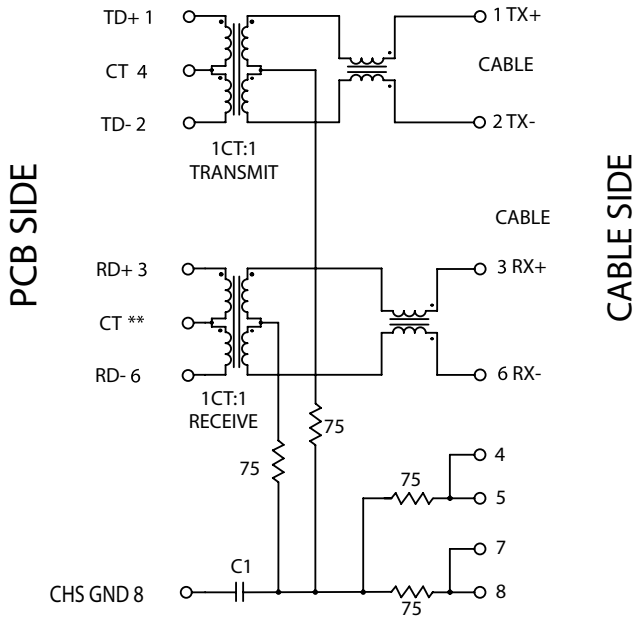


SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
UNLESS OTHERWISE SPECIFIED DIMENSIONAL TOLERANCE IS ±.002

Dimensions:
Unless otherwise specified,
all tolerances are ± .010

JX2 SERIES ELECTRICAL SCHEMATICS

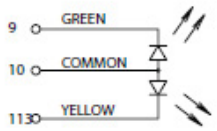
JX20-0114NL, JX20-0206NL, JX20-0237NL



** NOTE: ON JX20-0114NL AND JX20-0237NL CT IS CONNECTED TO PIN#7 AND PIN #5 IS NOT POPULATED
ON JX20-0206NL - CT IS CONNECTED TO PIN#5 AND PIN#7 IS NOT POPULATED

LED Configuration

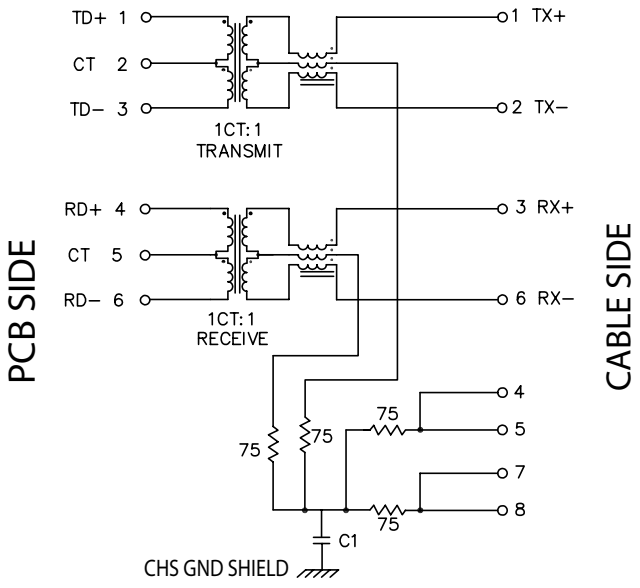
JX20-0114NL and JX20-0237NL



EMMITTED COLOR	GREEN	YELLOW
WAVE LENGTH (If = 20 mA)	570 nm	590 nm
BRIGHTNESS - MIN TO MAX (mcd) If (mA) = 20	5 TO 12	3.5 TO 8.5
VIEWING ANGLE	120°	120°
POWER DISSIPATION (Pd)	85 mW MAXIMUM	85 mW MAXIMUM
FORWARD CURRENT (0.1 mS PULSE)	160 mA MAXIMUM	160 mA MAXIMUM
FORWARD VOLTAGE (Vf) (If = 20 mA)	2.8 V MAXIMUM	2.8 V MAXIMUM

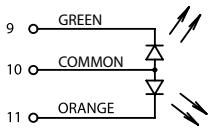
NOTE: PER VENDOR'S SPECIFICATION

JX20-0252NL , JX20-0254NL



NOTE: ON JX20-0252NLAND JX20-0254NL - PIN#7 AND PIN#8 ARE NOT POPULATED

LED Configuration



EMMITTED COLOR	GREEN	ORANGE
WAVE LENGTH (If = 20 mA)	570 nm	605 nm
BRIGHTNESS - MIN TO MAX (mcd) If = 20mA	6 Typical	8 Typical
VIEWING ANGLE	100°	100°
POWER DISSIPATION (Pd)	70 mW MAXIMUM	60 mW MAXIMUM
FORWARD VOLTAGE (Vf) (If = 20 mA)	2.2V Typical	2.1V Typical
	2.8 V MAXIMUM	2.8 V MAXIMUM

NOTE: PER VENDOR'S SPECIFICATION

For More Information:

Americas - prodinfonetworkamericas@yageo.com | **Europe -** prodinfonetworkemea@yageo.com | **Asia -** prodinfonetworkapac@yageo.com

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2022. Pulse Electronics, Inc. All rights reserved.

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

Pulse Electronics:

AWCS0012070736NJ00 DPX1608LKF3R2460A JXD2-0Z10NL PA0369NL PA4320.104NLT PA4341.221NLT PA4343.451NLT BBUP00201209121Y00 BSPQ000603041N4B00 PA4341.301NLT PA4343.361NLT W1093 W3078 ANT1204F007R0870A PA4320.334NLT PE-67100NL W1902 PA2744NL PG2290.151HLT BDHE002520122R2MQ1 BSPQ000603043N0B00 JXD0-2015NL PD380-4000S1NF PD617-6000M243 W3334B0150 E5J88-032-02-L P0585NL PAT6261.003NLT PE-68386NLT PGL6395.121HLT