

PULSEJACK™

RJ45/Dual USB Combo

Description:

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



Features and Benefits:

- ⌚ RoHS peak wave solder temperature rating 260°C
- ⌚ USB module complies with USB 2.0 standards
- ⌚ RJ45 connection meets CAT3, 5e & 6 Fast Ethernet performance standard

Electrical Performance Summary:

- ⌚ Meets IEEE 802.3 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	Turns Ratios		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)
		TX	RX	L/R	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	
JW0-0009NL	10/100	1CT:1	1CT:1	G/Y ²	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500	
JY0-0016NL	10/100	1CT:1	1CT:1	G-O/Y	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500	
JW0-0006NL	10/100/1000	1CT:1	1CT:1	G/G-Y	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500	
JW0-0013NL	10/100/1000	1CT:1	1CT:1	G-O/Y	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500	

NOTES:

1. LEDs Left/Right: G = green; Y = yellow; O = Orange.
2. G = Green with 250Ω internal resistor; Y = Yellow with 250Ω internal resistor.

RJ45 Durability Testing Rating

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

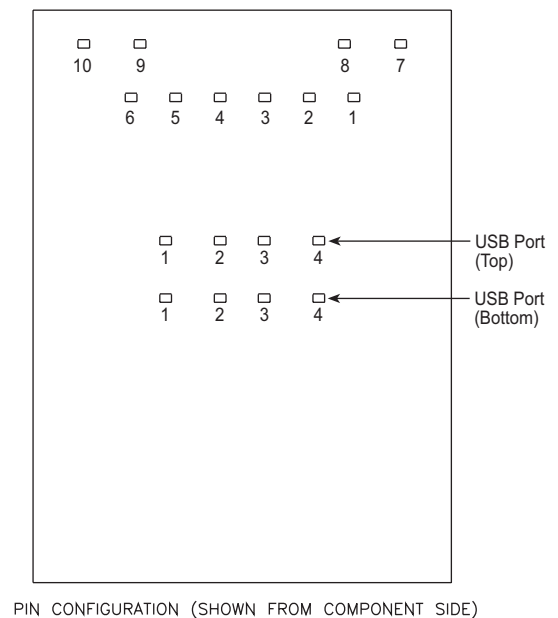
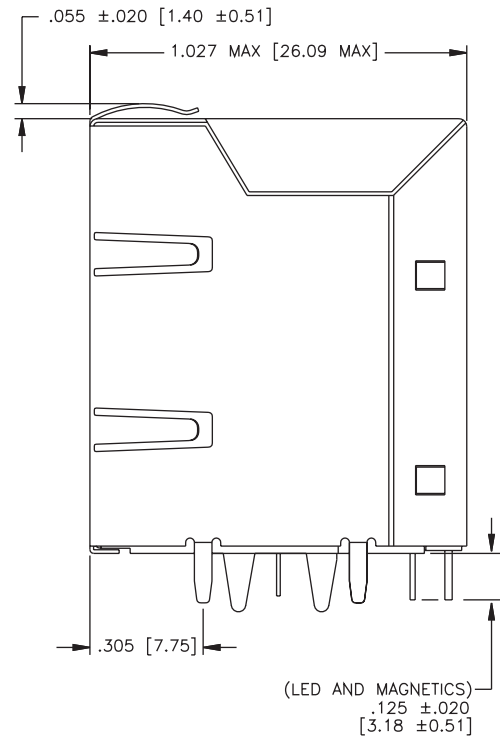
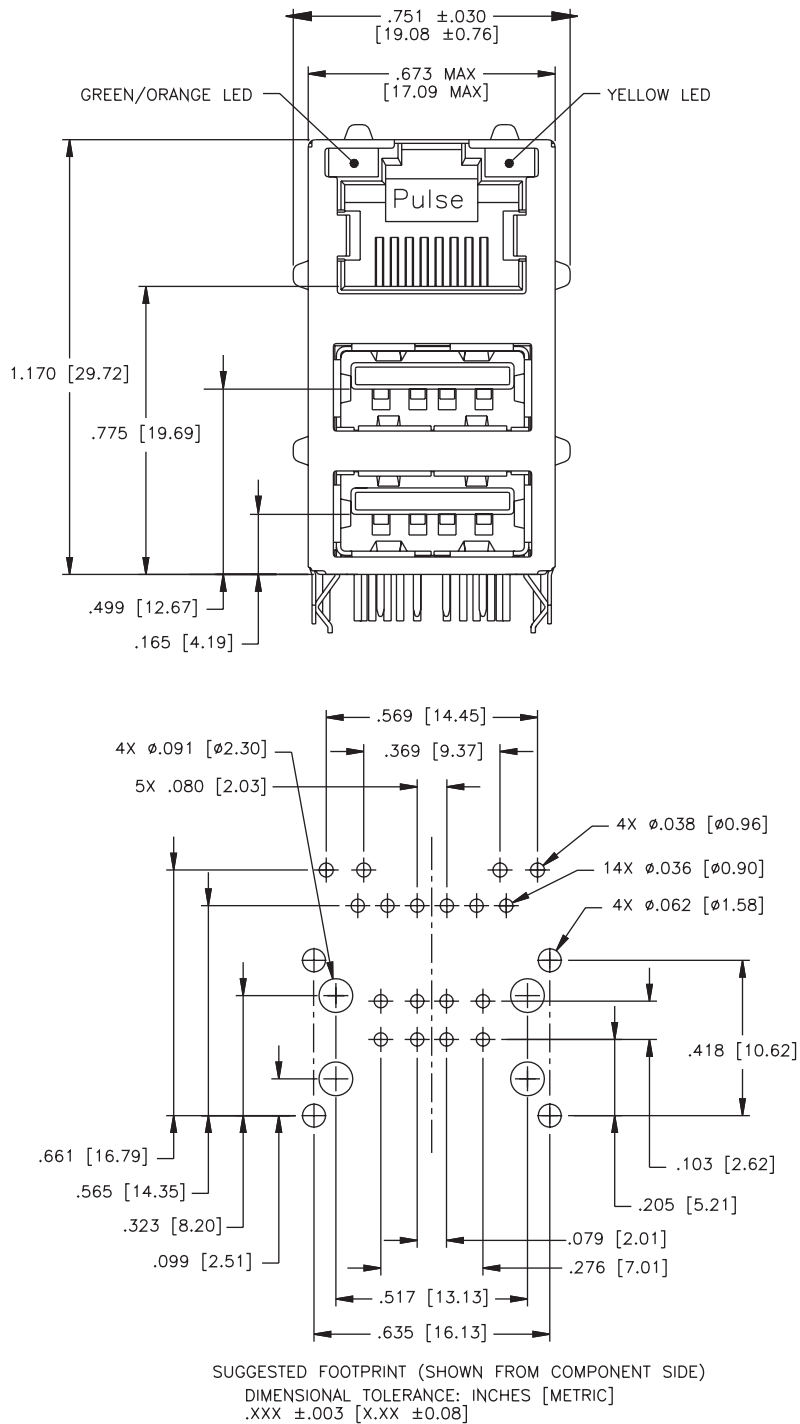
RJ45 Material Specification

Part Number	Shield		Contact			Housing		MSL ² Rating
	Material	Finish	Material	Plating Area	Solder Area	Material	Specification	
JW/JY Series	Brass	20-40μ inches thick nickel over brass	Phosphor Bronze	15μ inches gold over 30-80μ inches nickel	Tin matte finish	Thermoplastic	UL 94 V-0	1

NOTES: 1. Connector dimensions comply with FCC dimension requirements. 2. MSL = Moisture Sensitivity Level

Mechanical

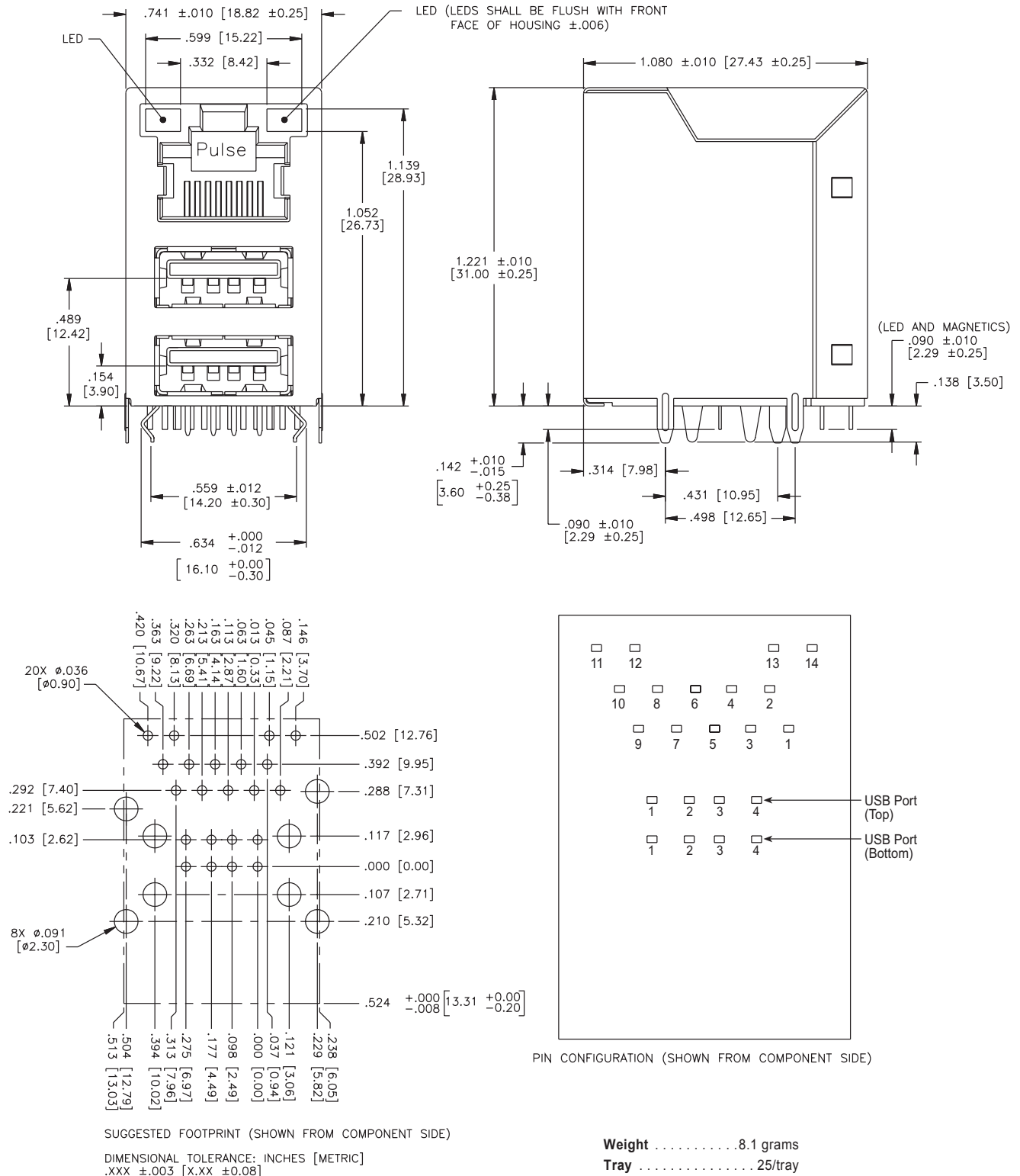
JY0-0016NL



Weight8.1 grams
Tray25/tray

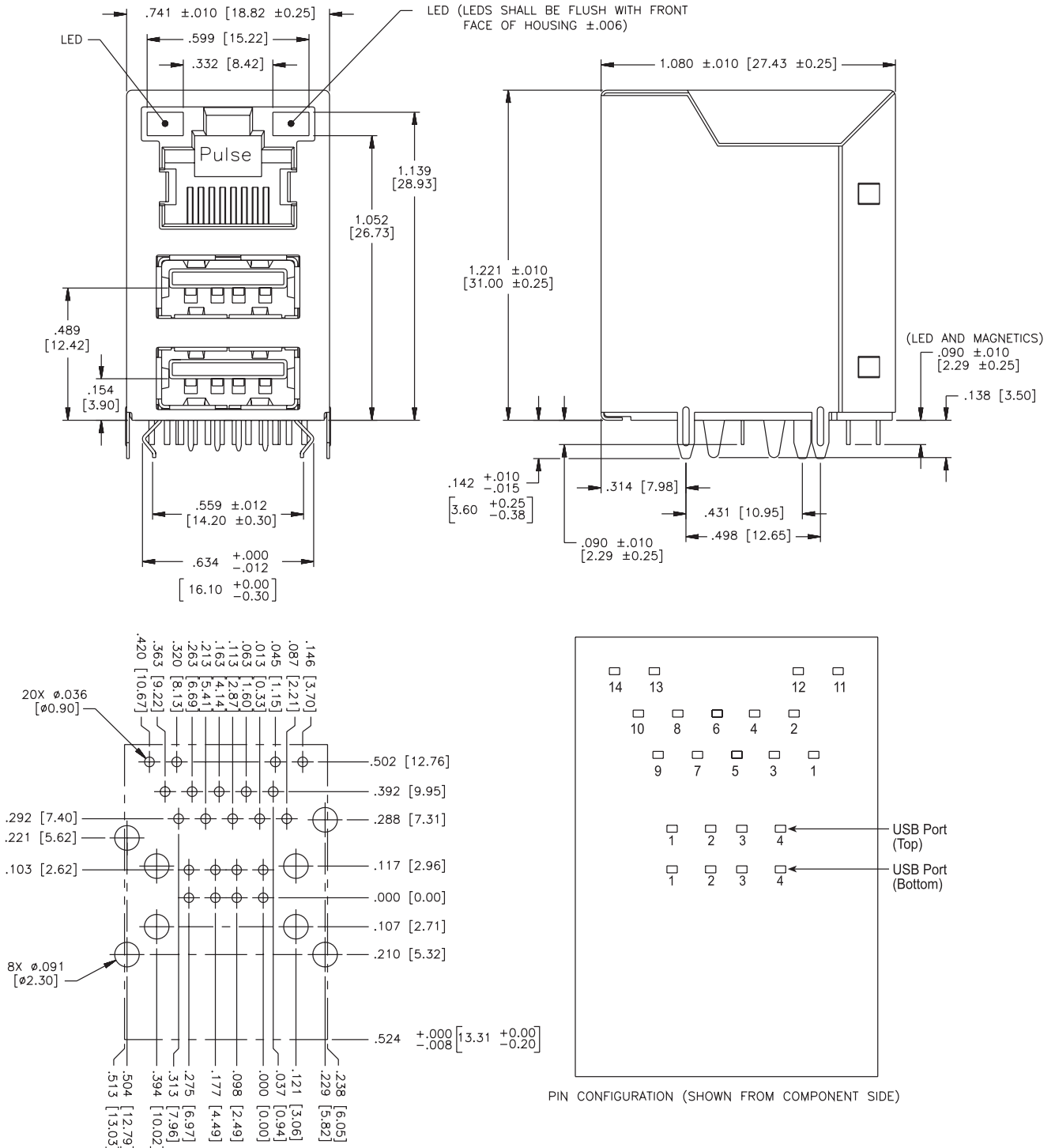
Mechanical

JW0-0006NL, JW0-0009NL



Mechanical

JW0-0013NL



SUGGESTED FOOTPRINT (SHOWN FROM COMPONENT SIDE)

DIMENSIONAL TOLERANCE: INCHES [METRIC]
.XXX ±.003 [X.XX ±0.08]

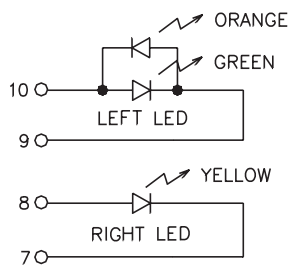
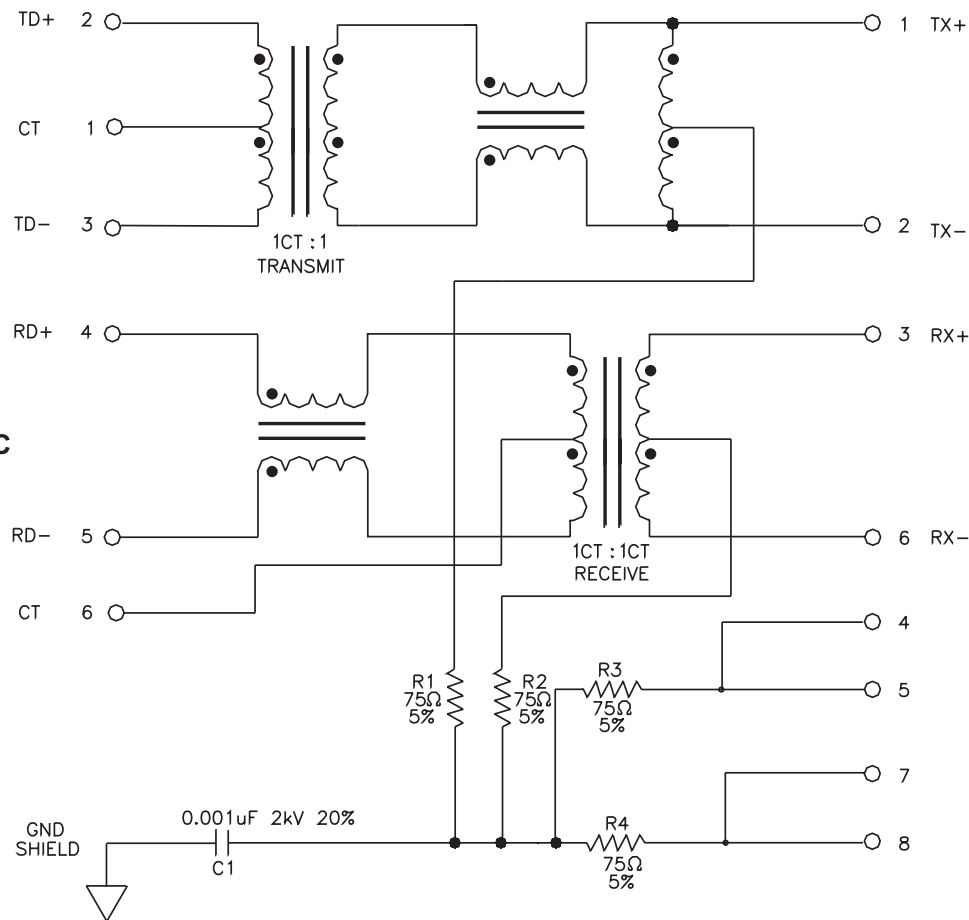
Weight 8.1 grams
Tray 25/tray

Schematic

JY0-0016NL

PCB connections to
the Physical Layer IC

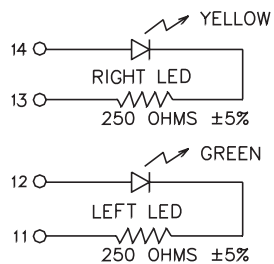
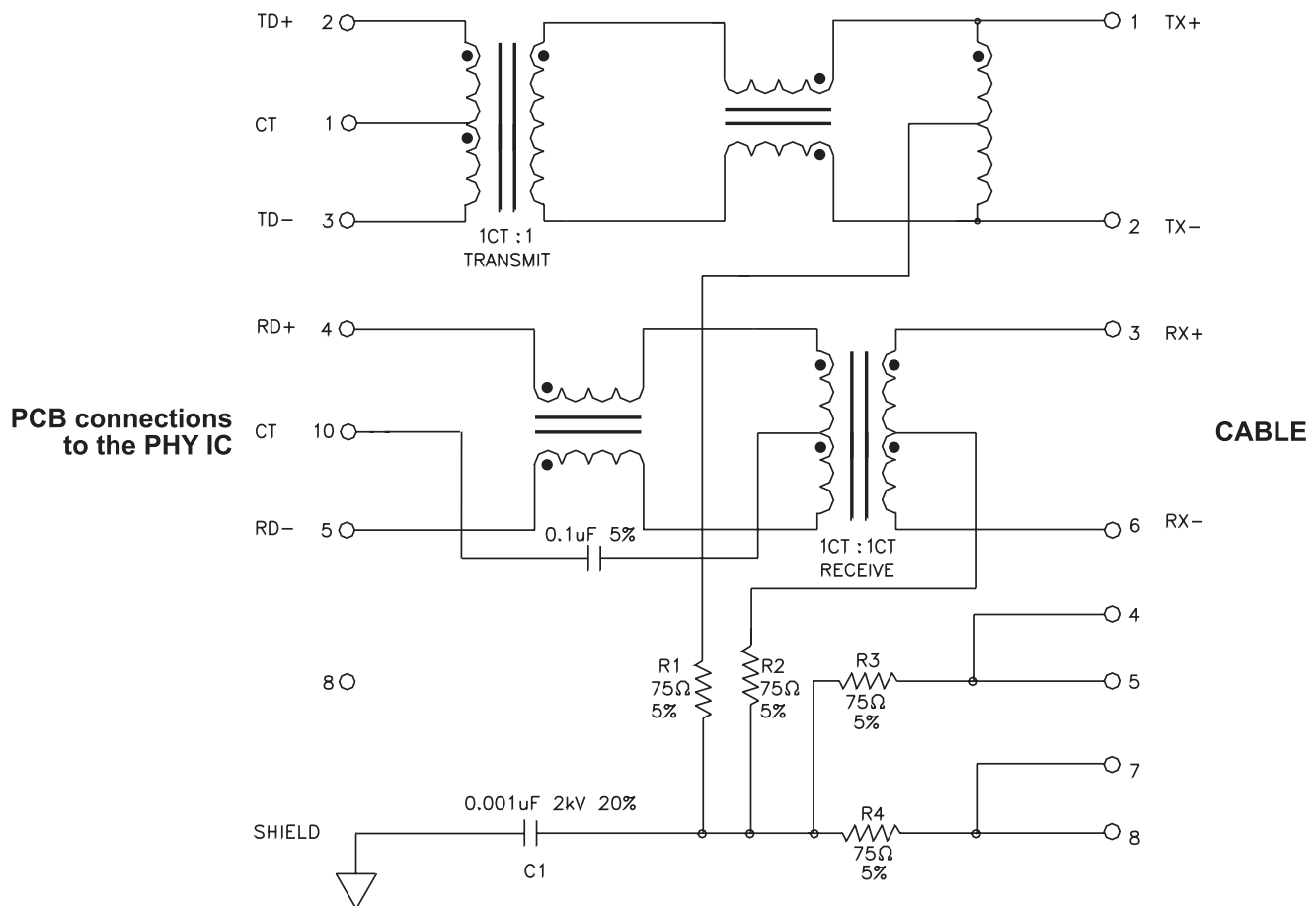
CABLE



STANDARD LED	WAVE * LENGTH	V(MAX)	I _F @5V	
			(TYP)	(MAX)
YELLOW	585 nm	5 V	10 mA	15 mA
GREEN/ORANGE	568/610 nm	5 V	10 mA	15 mA

Schematic

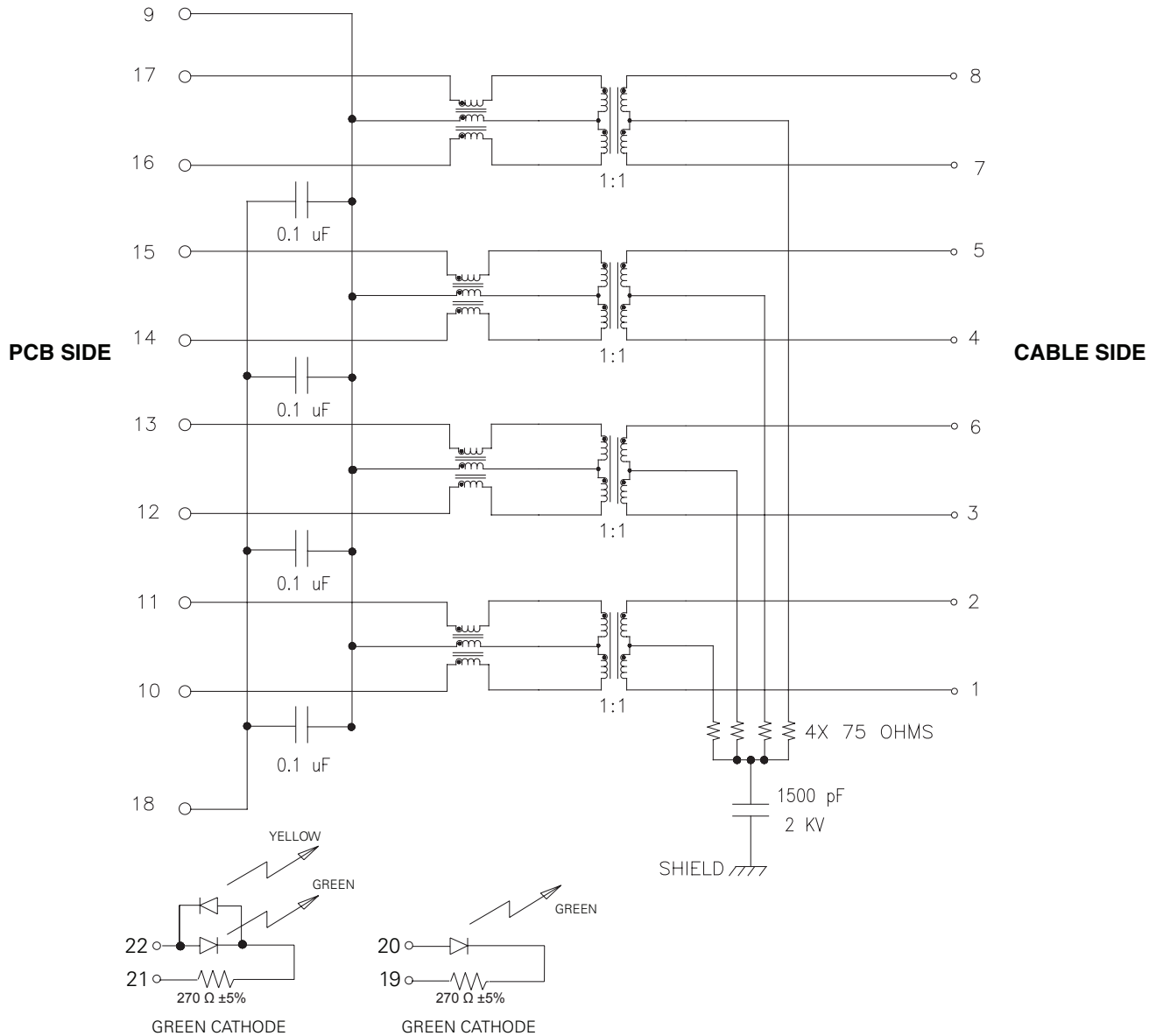
JW0-0009NL



STANDARD LED	WAVE * LENGTH	V(MAX)	I_F @5V (TYP) (MAX)	
YELLOW	585 nm	5 V	10 mA	15 mA
GREEN	565 nm	5 V	10 mA	15 mA

Schematic

JW0-0006NL

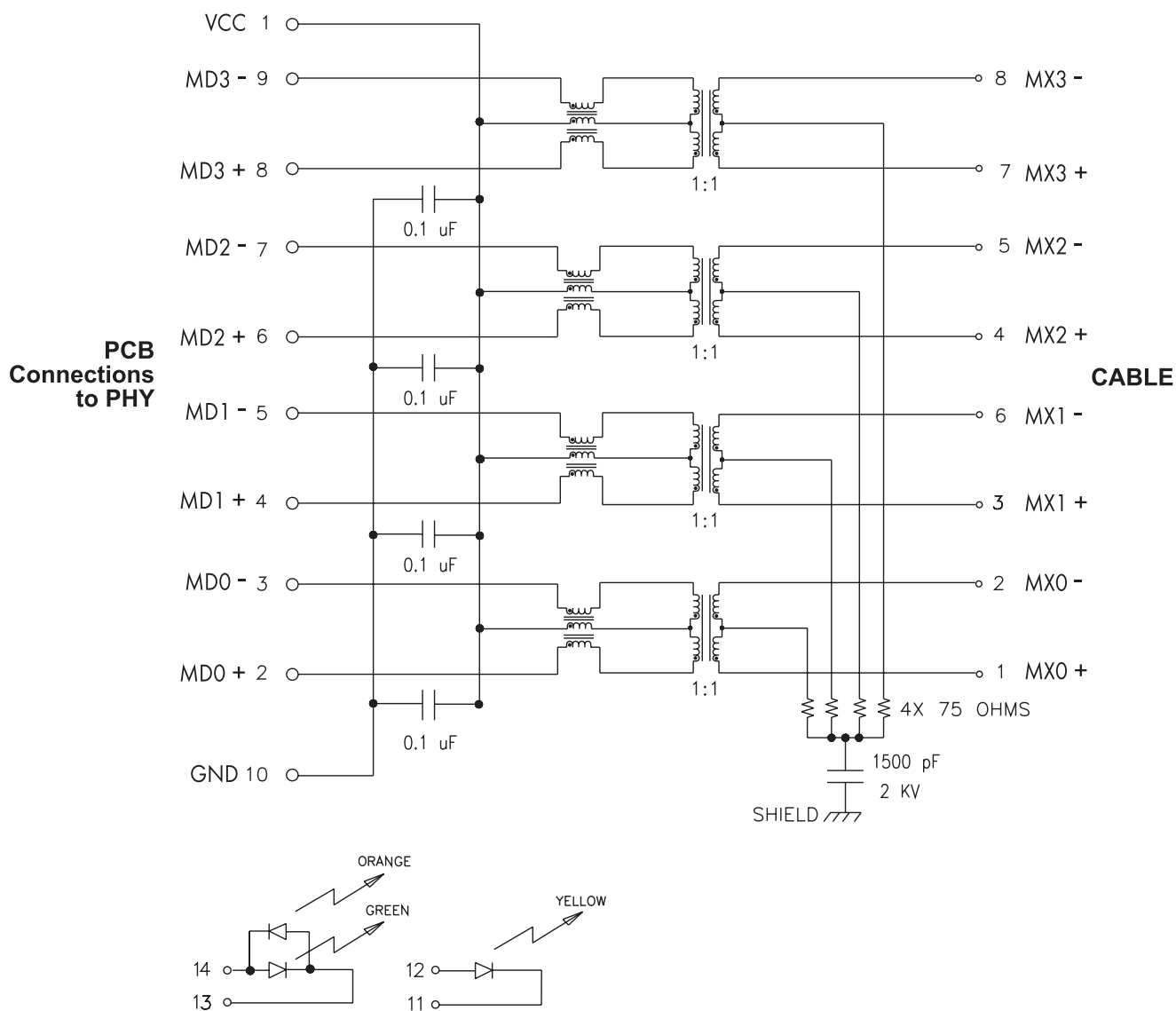


JW0-0006 NL LEDs

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

Schematic

JW0-0013NL



JW0-0013NL LEDs

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

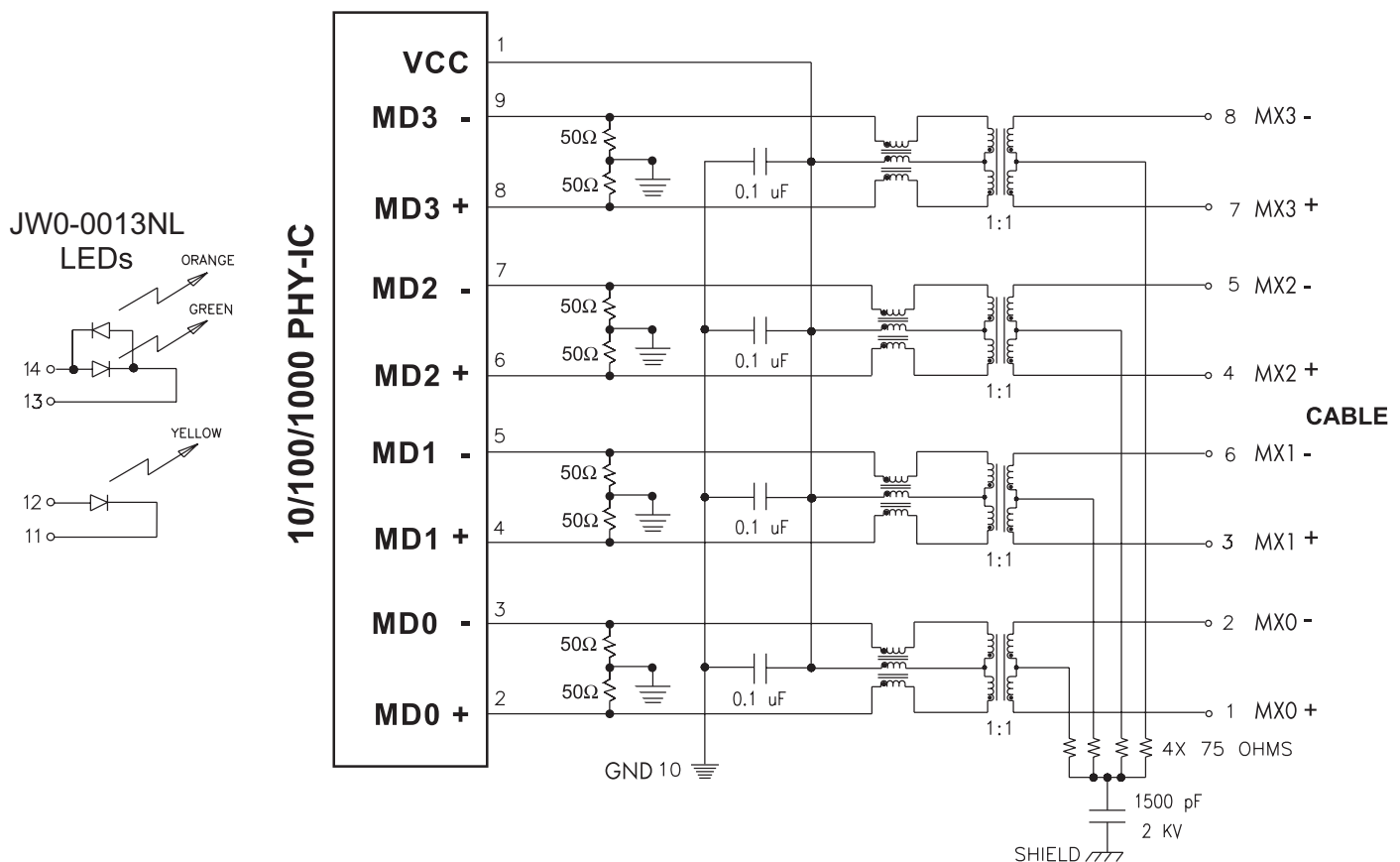
USB/RJ45 Application Note

This line of Integrated Connector Modules are specifically designed for the implementation of a 10Base-T, 100Base-TX and 1000Base-TX transmission over data-grade unshielded twisted pair cable (UTP-3, 5/5e).

The connectors provide excellent EMI filtering and are suitable for Desktop PC, Embedded Systems and Multiport Applications. Pulse has worked closely with the leading IC manufacturers in

providing these 10/100/1000 solutions, thereby assuring compatibility with each transceiver.

JW0 and JY0 series meet the stringent open circuit inductance requirements of 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.



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 10/100/1000 IC and the connector should be direct (ideally no change in direction) and of minimum length.

For More Information:

Pulse Worldwide Headquarters	Pulse Europe	Pulse China Headquarters	Pulse North China	Pulse South Asia	Pulse North Asia
12220 World Trade Dr. San Diego, CA 92128 U.S.A.	Einsteinstrasse 1 D-71083 Herrenberg Germany	B402, Shenzhen Academy of Aerospace Technology Bldg. 10th Kejinan Rd. High-Tech Zone Nanshan District Shenzhen, PR China 518057	Room 2704/2705 Super Ocean Finance Ctr. 2067 Yan An Rd. West Shanghai 200336 China	135 Joo Seng Rd. #03-02 PM Industrial Bldg. Singapore 368363	No. 26, Kao Ching Rd. Yang Mei Chen Taoyuan Hsien Taiwan R. O. C.
www.pulseeng.com Tel: 858 674 8100 Fax: 858 674 8262	Tel: 49 7032 7806 0 Fax: 49 7032 7806 135	Tel: 86 755 33966678 Fax: 86 755 33966700	Tel: 86 21 62787060 Fax: 86 2162786973	Tel: 65 6287 8998 Fax: 65 6280 0080	Tel: 886 3 4643715 Fax: 886 3 4641911

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- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.