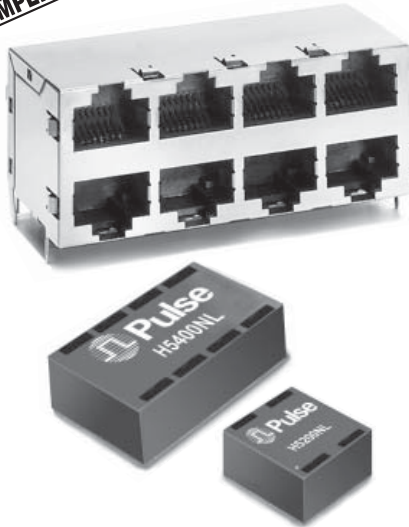


GIGABIT (10/100/1000 BASE-T QUAD- & DUAL-TRANSFORMER MODULES AND UNFILTERED CONNECTORS

Designed to Support PoE, Auto MDIX



- World's smallest Gigabit Quad- and Dual-isolation transformer modules
- All pairs are symmetrical and balanced
- Reliable surface mount ball grid array
- Compact footprint, reduced board space
- Designed to fit behind 2x2 connectors
- RoHS-6 peak reflow temperature rating 245°C

Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

RoHS-6 Compliant Part Numaber	Number of Ports	Insertion Loss (dB MAX)	Return Loss (dB MIN)					Differential to Common Mode Rejection (dB MIN)			Crosstalk (dB MIN)			Hipot (Vrms)
		1-100 MHz	1-30 MHz	40 MHz	50 MHz	60-80 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz	
H5200NL	2	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5201NL	2	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5400NL	4	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5401NL	4	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
HX5200NL	2	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
HX5201NL	2	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
HX5400NL	4	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
HX5401NL	4	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500

- MSL = Moisture Sensitivity Level: 1
- Second level mechanical shock test, mounted to 4 layer FR-4 PCB (passed 500g in 5-axis)
- HX = operating temperature: -40°C to +85°C (extended temperature)

Connector Mechanical Specifications--Operating Temperature -40°C to 85°C

RoHS-6	Mounting, Tab Position	Number of Ports	Package Dimensions L/W/H (mm)	Solder Temperature (35 seconds)	LED Option	Plating
E6588-22A225-L	THT, Tab Down	1x2	31.24 / 21.35 / 13.6	230°C - 250°C	No LED's	Gold Plating Over Nickel
E6588-22C244-L	THT, Tab Down	1x4	59.18 / 21.35 / 13.6	230°C - 250°C	No LED's	Gold Plating Over Nickel
E6588-A5N125-L	THT, Tab Up/Down	2x2	25.35 / 31.24 / 25.3	230°C - 250°C	No LED's	Gold Plating Over Nickel
E6588-A59125-L	THT, Tab Up/Down	2x4	59.18 / 28.35 / 25.3	230°C - 250°C	No LED's	Gold Plating Over Nickel

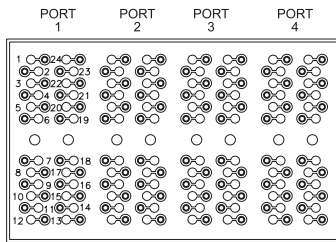
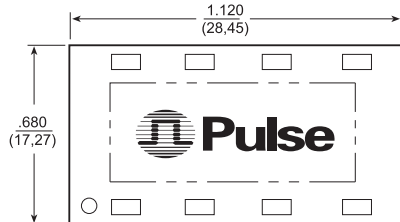
GIGABIT (10/100/1000 BASE-T QUAD- & DUAL-TRANSFORMER MODULES AND UNFILTERED CONNECTORS

Designed to Support PoE, Auto MDIX



Mechanicals

H5400NL, H5401NL, HX5400NL, HX5401NL

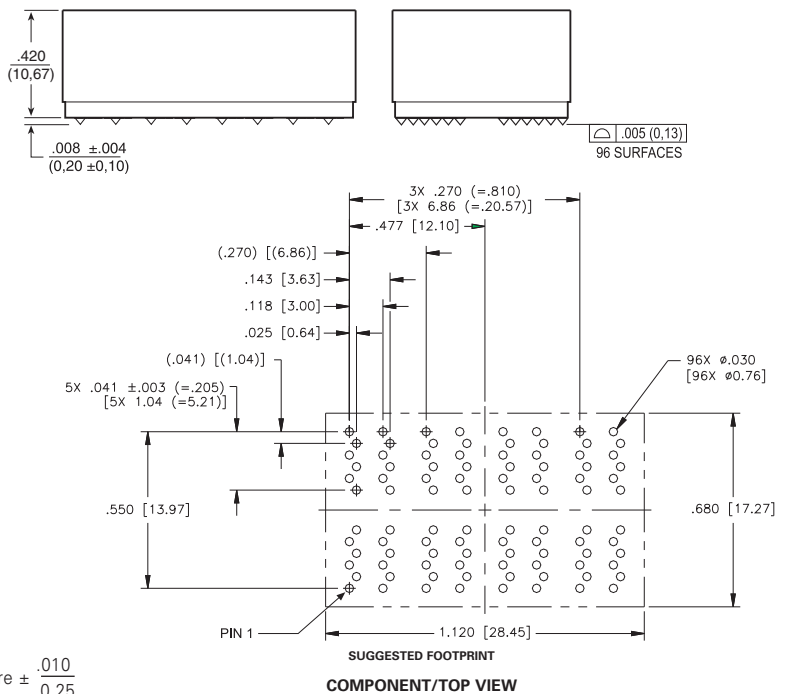


PIN NUMBERING
BOTTOM VIEW

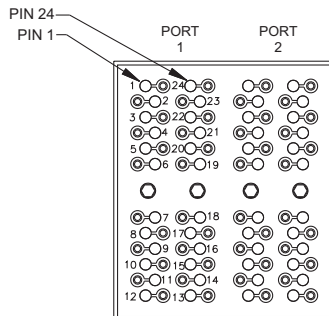
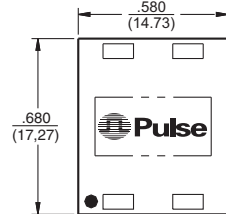
Weight 10 grams

Tray 300

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



H5200NL, H5201NL, HX5200NL, HX5201NL

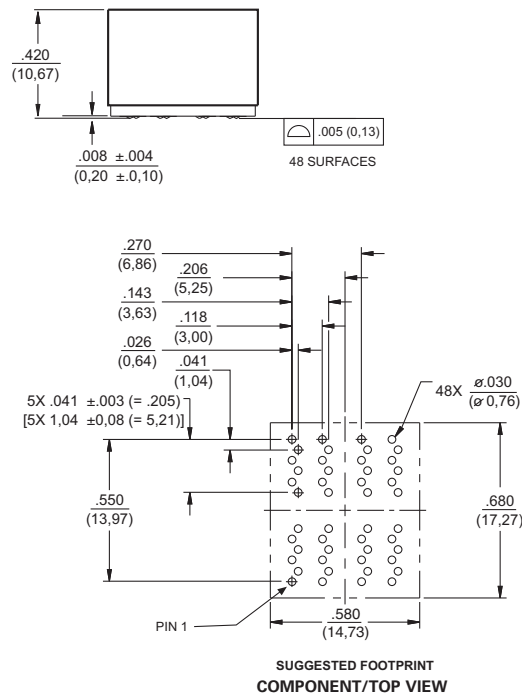


PIN NUMBERING
BOTTOM VIEW

Weight 5 grams

Tray 600

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



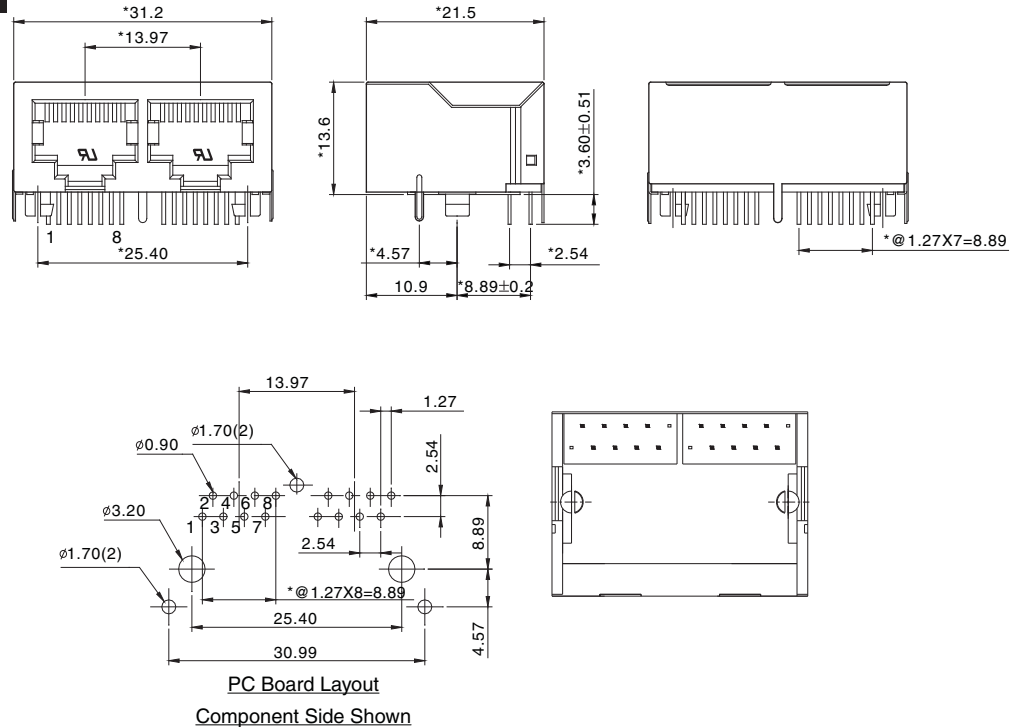
SUGGESTED FOOTPRINT
COMPONENT/TOP VIEW

GIGABIT (10/100/1000 BASE-T QUAD- & DUAL-TRANSFORMER MODULES AND UNFILTERED CONNECTORS Designed to Support PoE, Auto MDIX

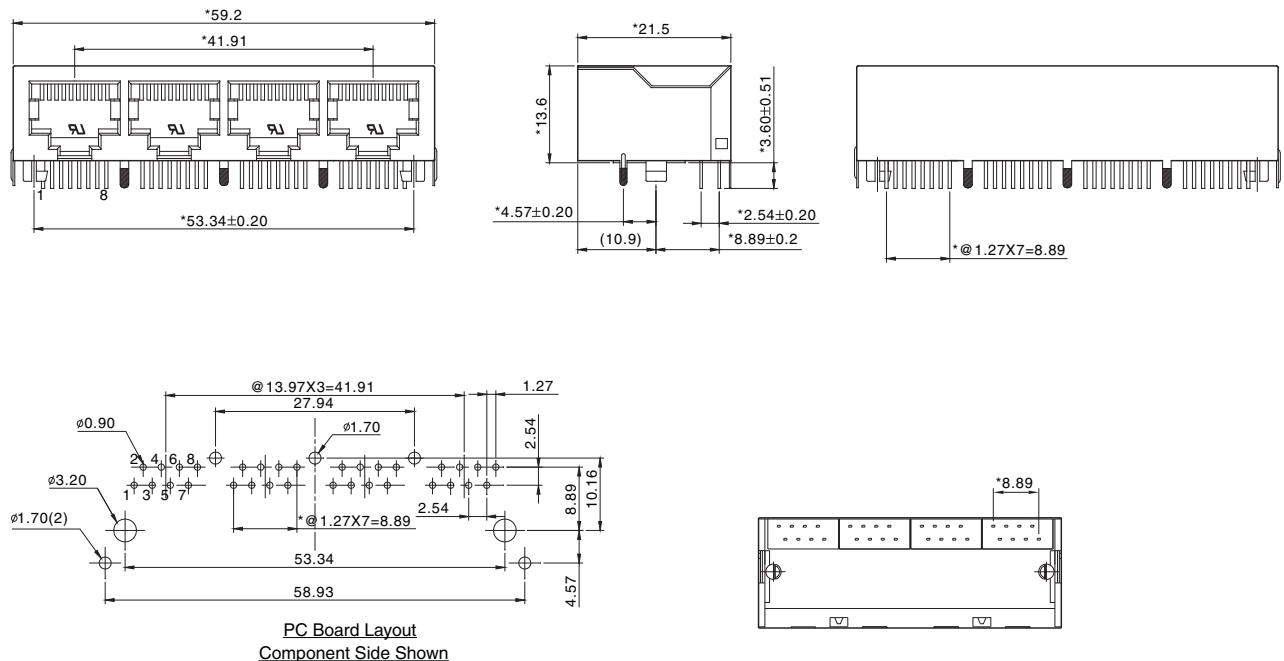


Mechanicals (continued)

E6588-22A225-L



E6588-22C244-L

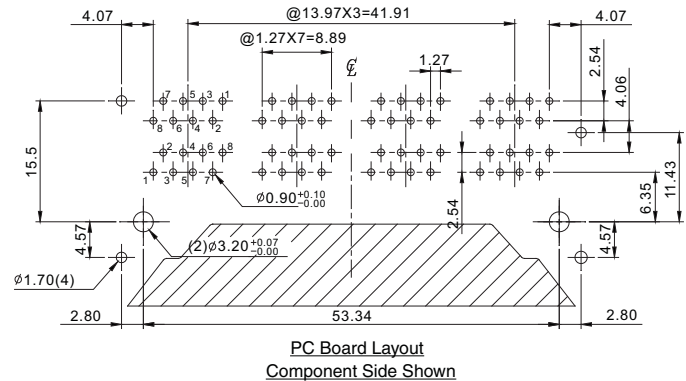
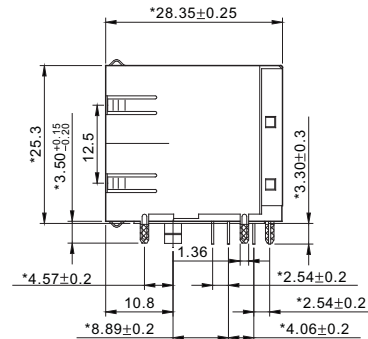
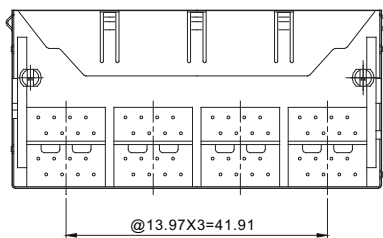
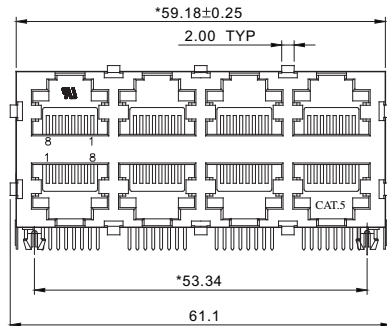


GIGABIT (10/100/1000 BASE-T QUAD- & DUAL-TRANSFORMER MODULES AND UNFILTERED CONNECTORS Designed to Support PoE, Auto MDIX

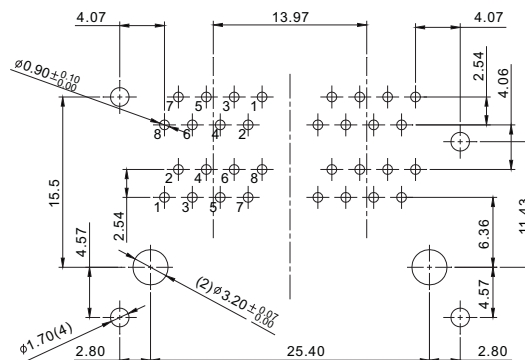
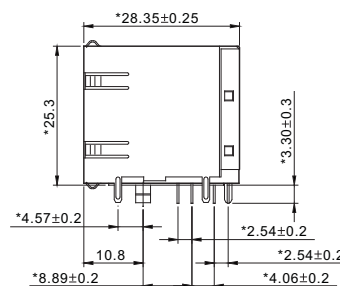
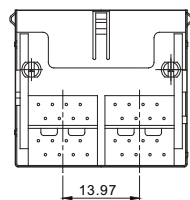
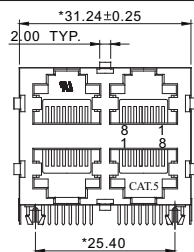


Mechanicals (continued)

E6588-A59125-L



E6588-G5N125-L



PC Board Layout
Component Side Shown

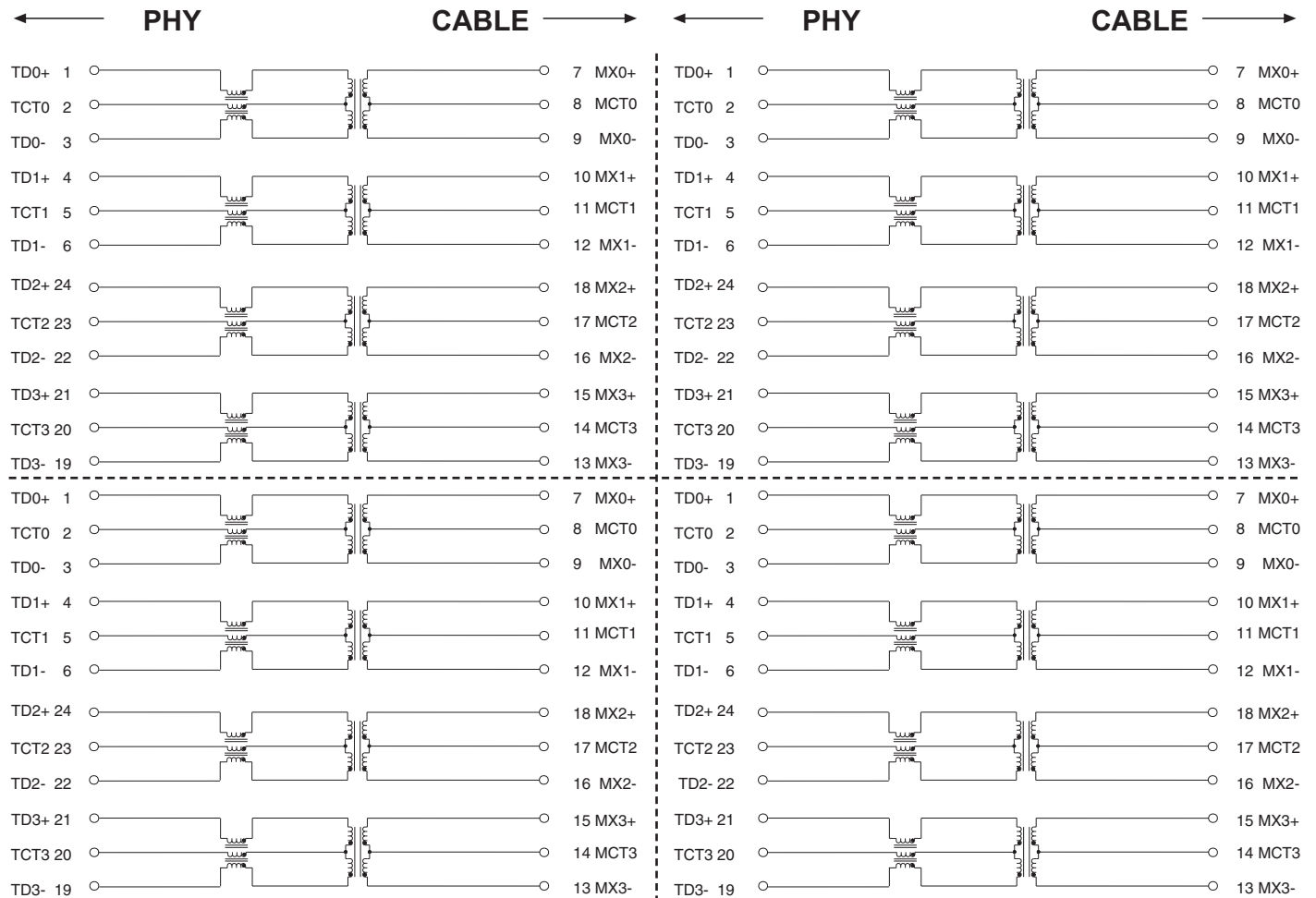
GIGABIT (10/100/1000 BASE-T QUAD- & DUAL-TRANSFORMER MODULES AND UNFILTERED CONNECTORS

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Schematics

H5400NL, HX5400NL



Schematics for quad ports

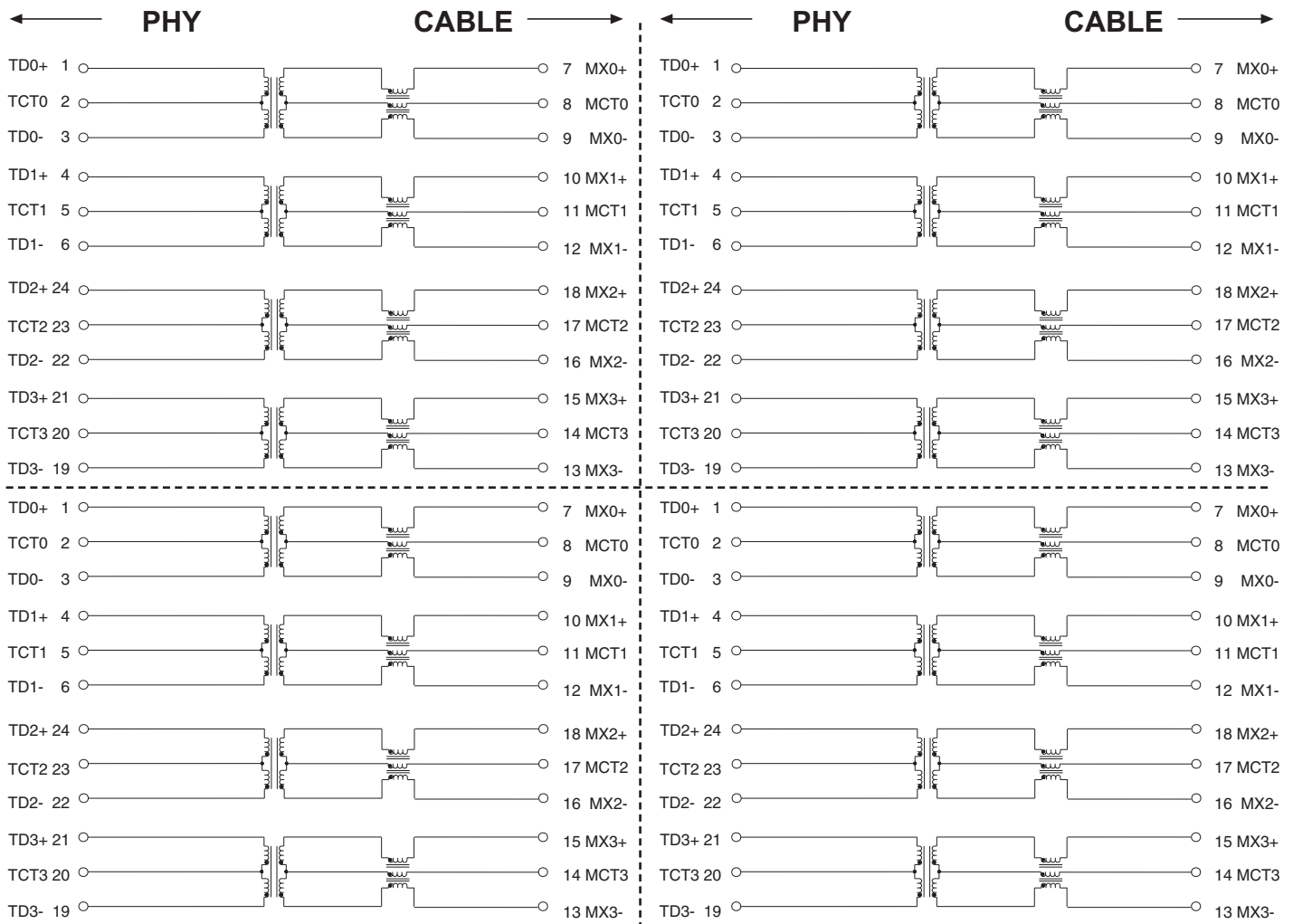
GIGABIT (10/100/1000 BASE-T QUAD- & DUAL-TRANSFORMER MODULES AND UNFILTERED CONNECTORS

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Schematics (continued)

H5401NL, HX5401NL



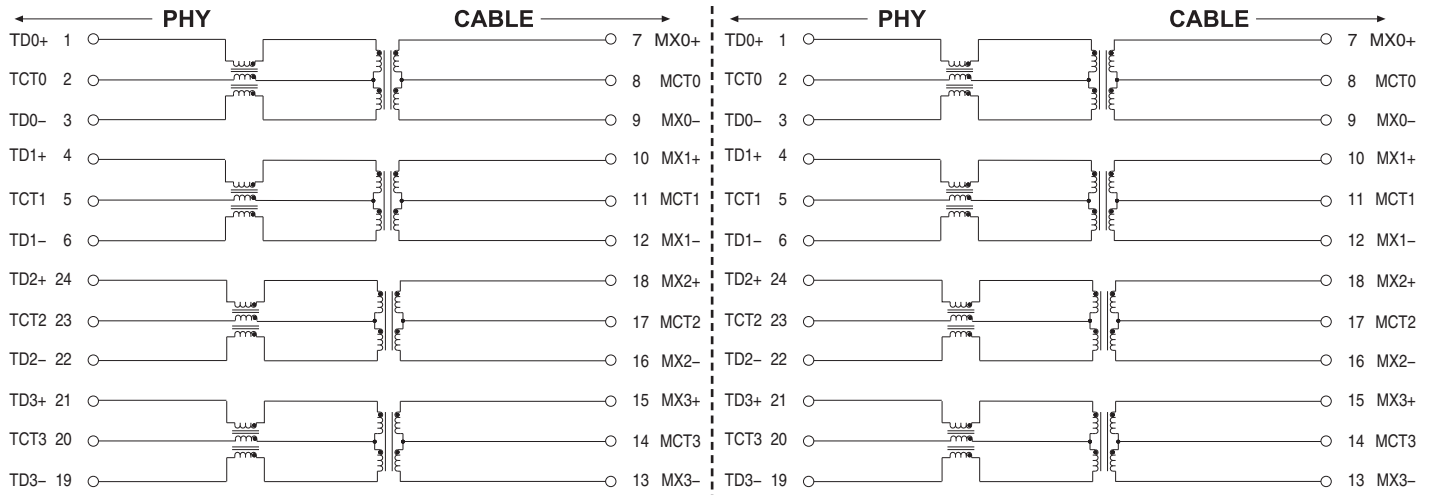
Schematics for quad ports

GIGABIT (10/100/1000 BASE-T QUAD- & DUAL-TRANSFORMER MODULES AND UNFILTERED CONNECTORS Designed to Support PoE, Auto MDIX



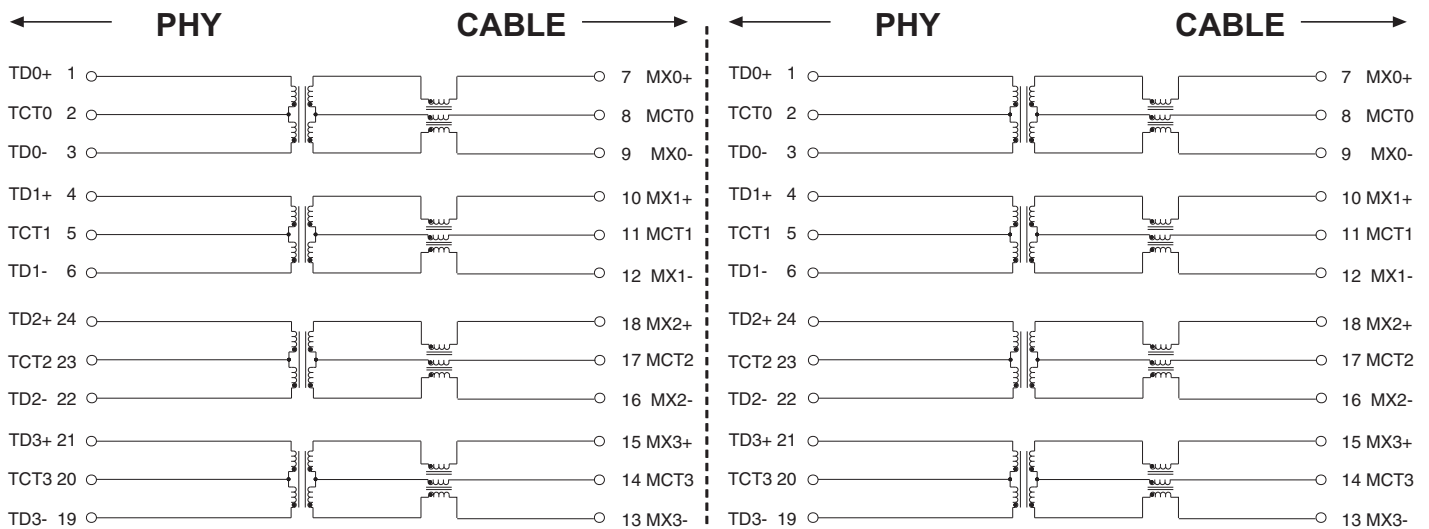
Schematics (continued)

H5200NL, HX5200NL



Schematics for dual ports

H5201NL, HX5201NL

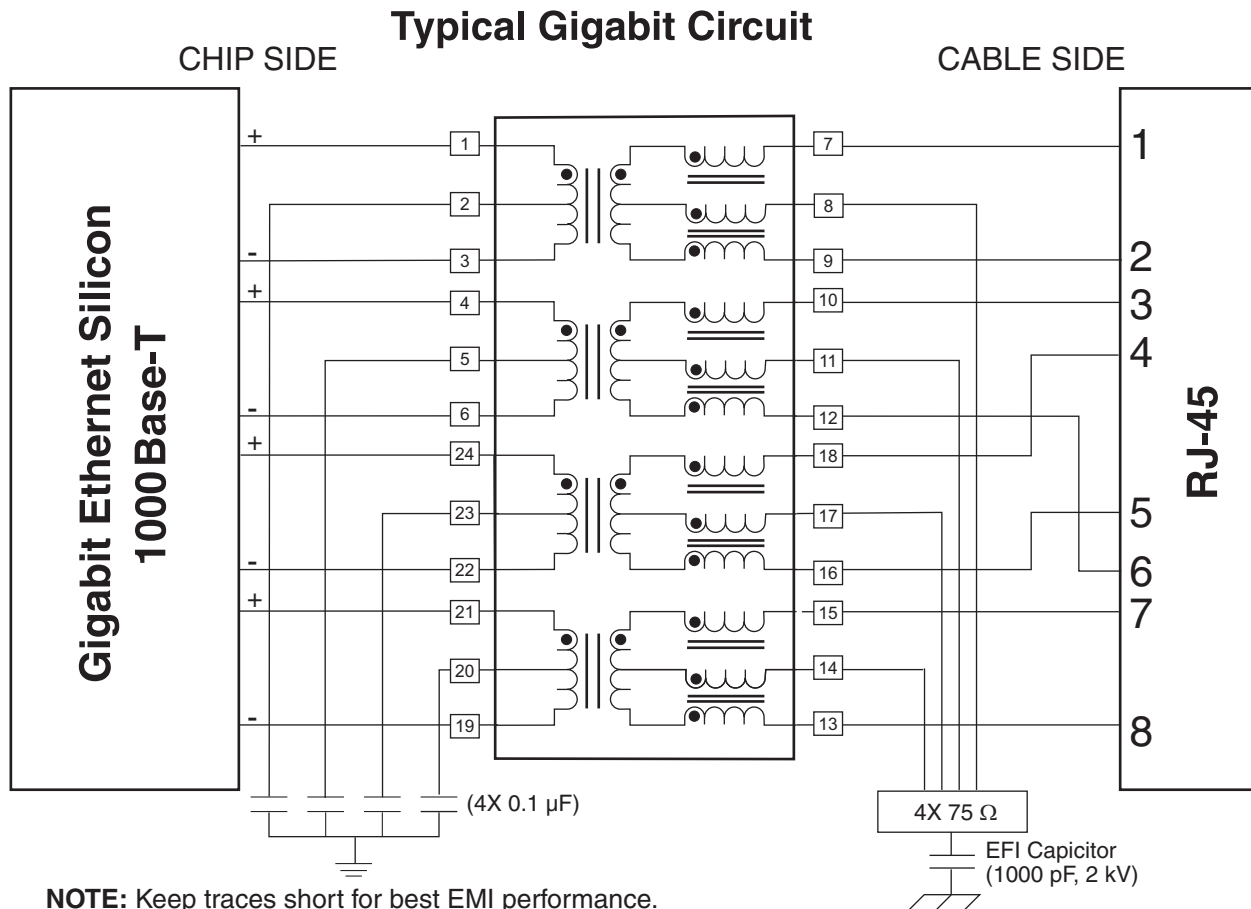


Schematics for dual ports

GIGABIT (10/100/1000 BASE-T QUAD- & DUAL-TRANSFORMER MODULES AND UNFILTERED CONNECTORS Designed to Support PoE, Auto MDIX



Application Circuit



For More Information:

Pulse Worldwide Headquarters

12220 World Trade Dr.
San Diego, CA 92128
U.S.A.

www.pulseeng.com

Tel: 858 674 8100

Fax: 858 674 8262

Pulse Europe

Einsteinstrasse 1
D-71083 Herrenberg
Germany

Tel: 49 7032 7806 0

Fax: 49 7032 7806 135

Pulse China Headquarters

B402, Shenzhen Academy of
Aerospace Technology Bldg.
10th Kejinan Rd.
High-Tech Zone
Nanshan District
Shenzhen, R. O. China 518057

TEL: 86 755 33966678

FAX: 86 755 33966700

Pulse North China

Room 1503
XinYin Building
No. 888 YiShan Rd.
Shanghai 200233
China

Tel: 86 21 54643211/2

Fax: 86 21 54643210

Pulse South Asia

135 Joo Seng Rd.
#03-02
PM Industrial Bldg.
Singapore 368363

TEL: 65 6287 8998

FAX: 65 6280 0080

Pulse North Asia

No. 26, Kao Ching Rd.
Yang Mei Chen
Taoyuan Hsien
Taiwan
R. O. C.

Tel: 886 3 4643715

Fax: 886 3 4641911

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