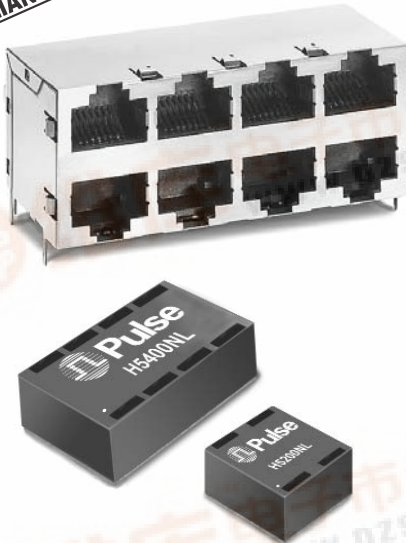


GIGABIT (10/100/1000 BASE-T) QUAD/DUAL TRANSFORMER MODULES & UNFILTERED CONNECTORS Designed to Support PoE, Auto MDIX



- World's smallest Gigabit Quad/Dual isolation transformer module
- 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 Number	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	1-30MHz	40MHz	50MHz	60-80MHz	100MHz	30MHz	60MHz	100MHz	30MHz	60MHz	100MHz	
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

- MSL = Moisture Sensitivity Level: 1
- Second level mechanical shock test, mounted to 4 layer FR-4 PCB (passed 500g in 5-axis)
- RoHS-6: Product does not contain 5 out of the 6 banned substances specified in the RoHS directive. Some internal connections may contain lead in high-temperature solder (solder alloys containing more than 85% lead).
- Parts come with/without lead.

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
E5908-25A1J5-L	THT, Tab Down	1x2	31.24 / 21.35 / 13.6	230°C - 250°C	No LED's	Gold Plating Over Nickel
E5908-25C345-L	THT, Tab Down	1x4	59.18 / 21.35 / 13.6	230°C - 250°C	No LED's	Gold Plating Over Nickel
E5908-57A132-L	THT, Tab Up/Down	2x2	25.35 / 31.24 / 25.3	230°C - 250°C	No LED's	Gold Plating Over Nickel
E5908-5VC144-L	THT, Tab Up/Down	2x4	59.18 / 28.35 / 25.3	230°C - 250°C	No LED's	Gold Plating Over Nickel

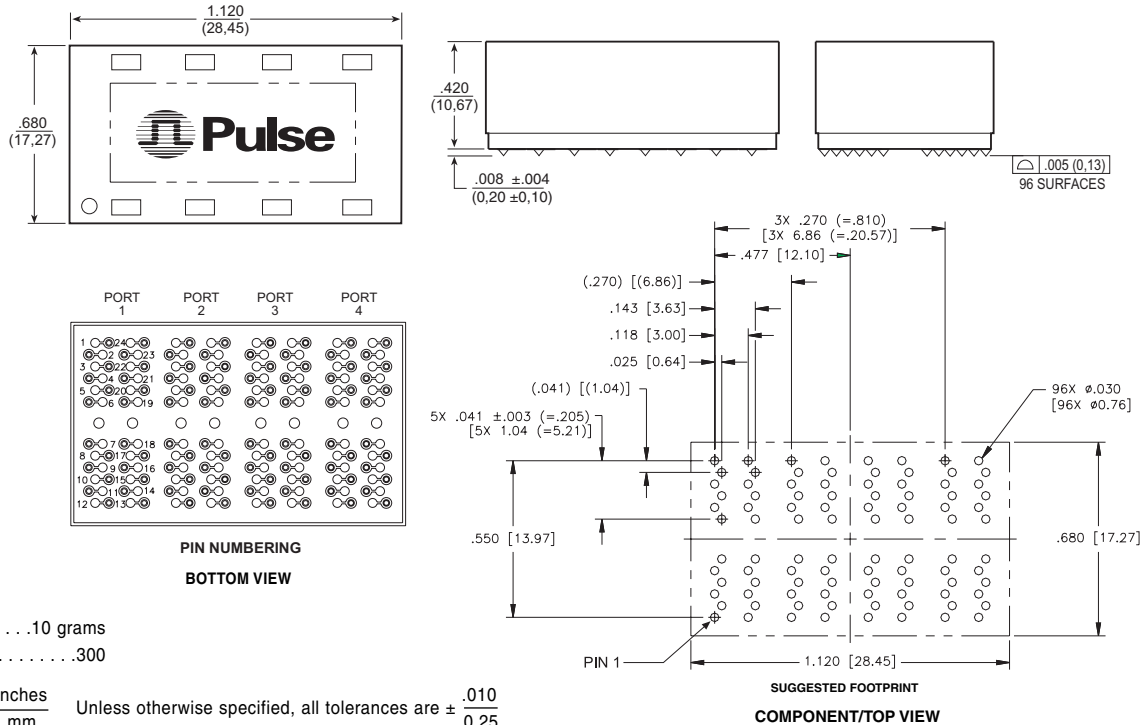


GIGABIT (10/100/1000 BASE-T) QUAD/DUAL TRANSFORMER MODULES & UNFILTERED CONNECTORS Designed to Support PoE, Auto MDIX



Mechanicals

H5400NL, H5401NL

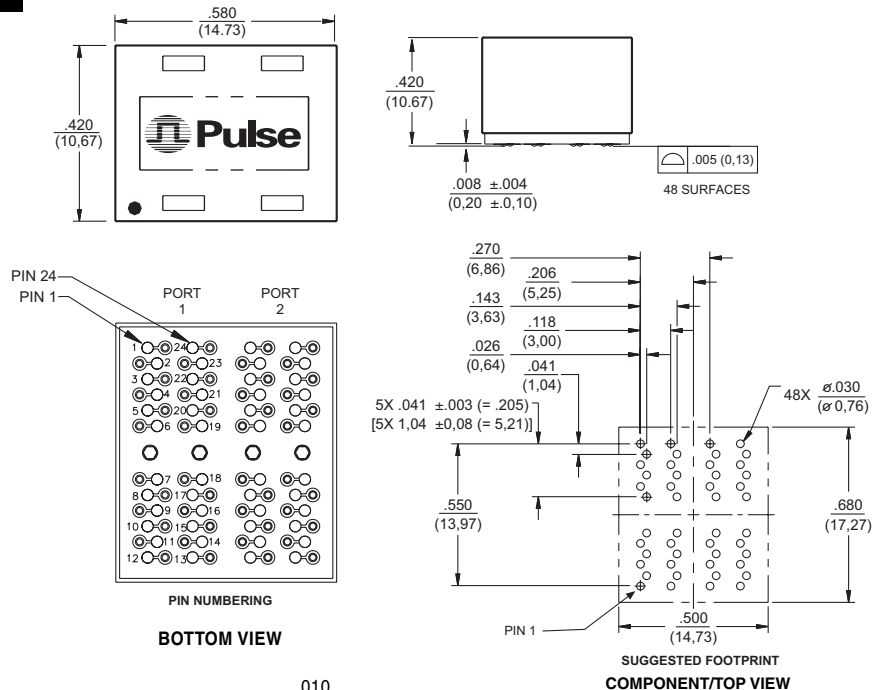


Weight10 grams

Tray300

Dimensions: $\frac{\text{Inches}}{\text{mm}}$ Unless otherwise specified, all tolerances are $\pm \frac{.010}{0.25}$

H5200NL, H5201NL



Weight5 grams

Tray600

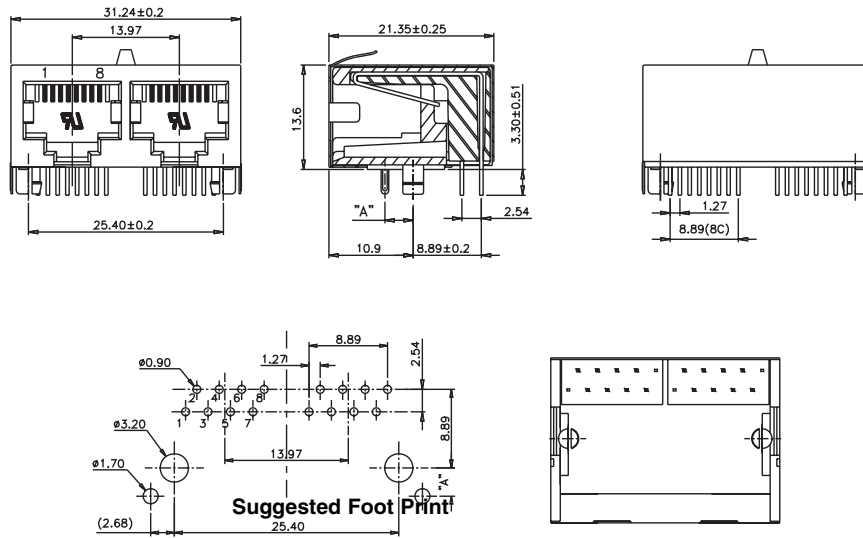
Dimensions: $\frac{\text{Inches}}{\text{mm}}$ Unless otherwise specified, all tolerances are $\pm \frac{.010}{0.25}$

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

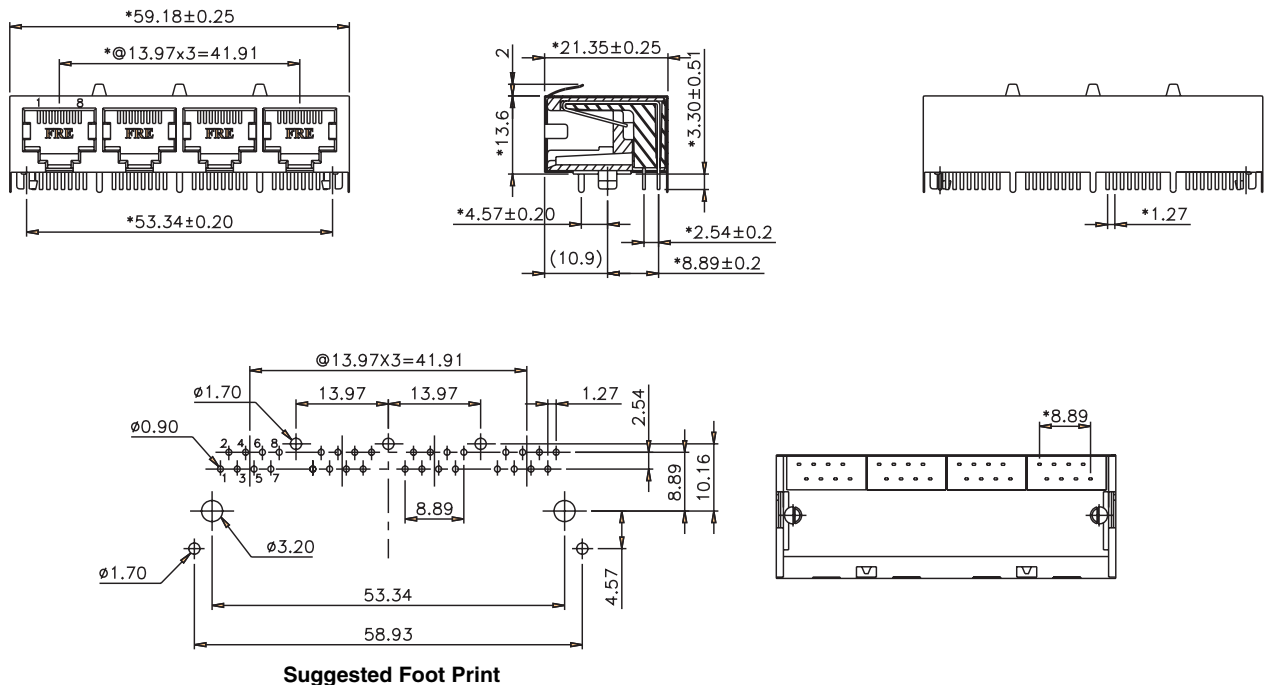


Mechanicals (continued)

E5908-25A1J45-LNL



E5908-25C345-LNL



E5908-5VC144-LNL



ES908-57A132-LNL



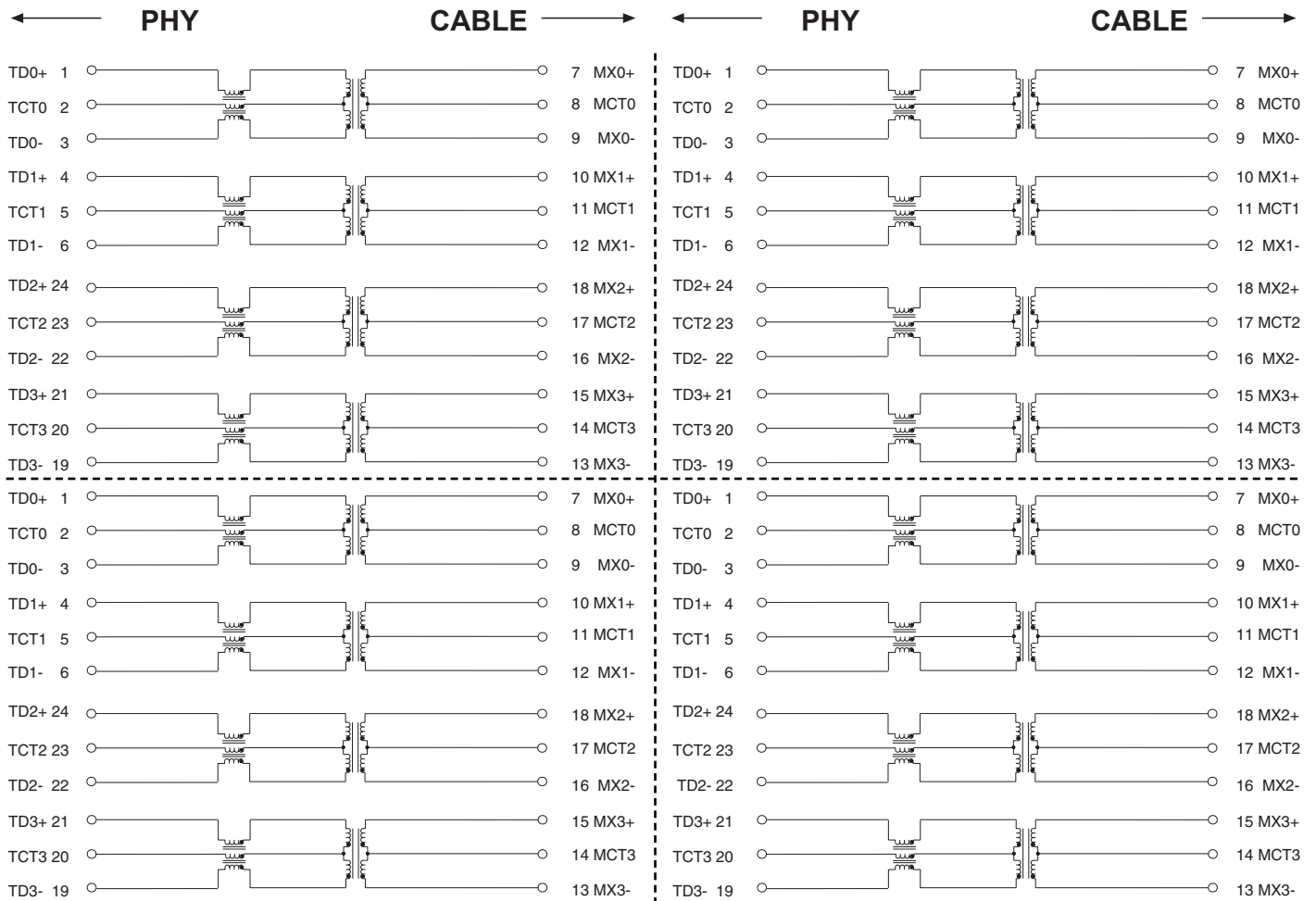
GIGABIT (10/100/1000 BASE-T) QUAD/DUAL TRANSFORMER MODULES & UNFILTERED CONNECTORS

Designed to Support PoE, Auto MDIX



Schematics

H5400NL



Schematics for quad ports

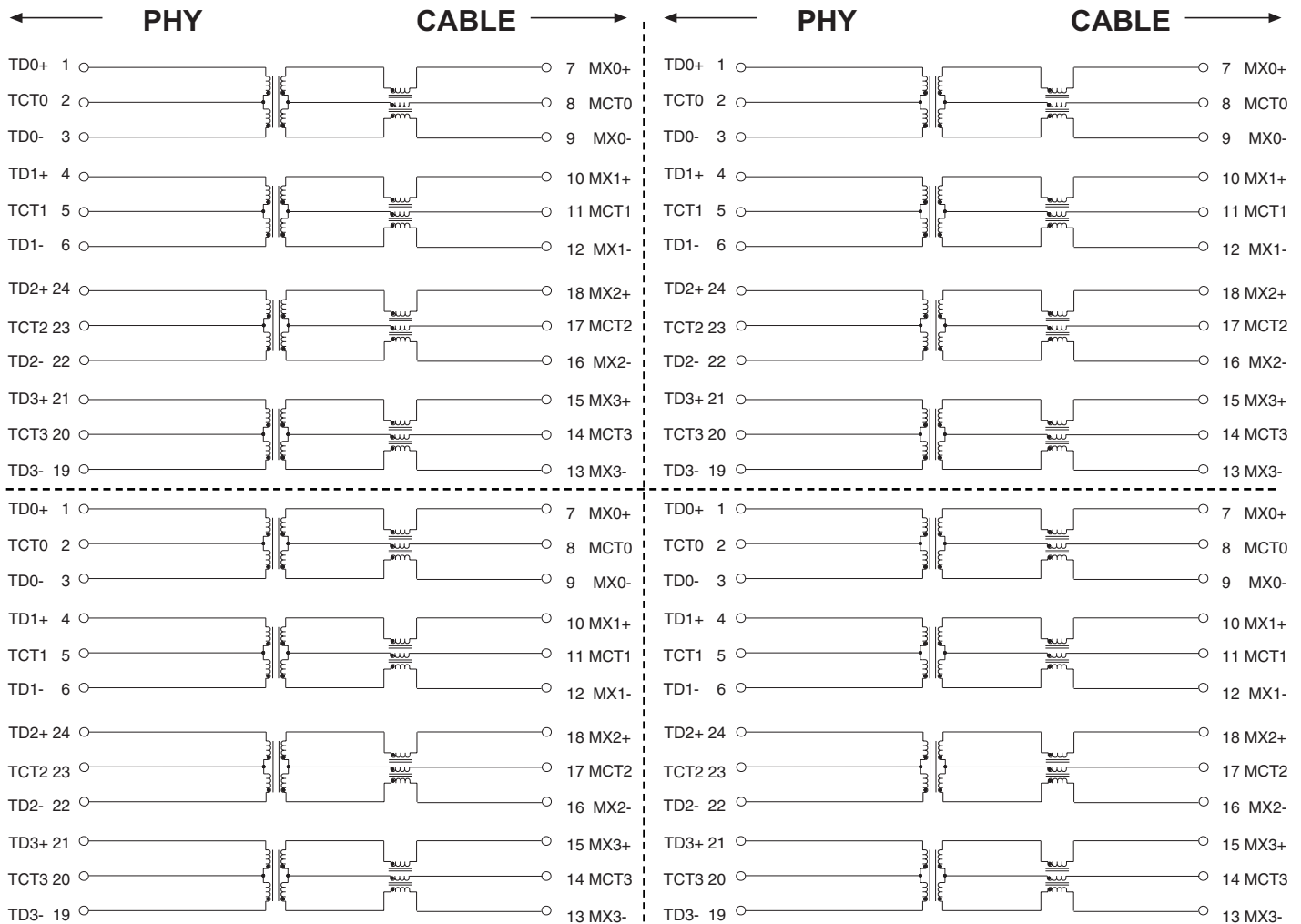
GIGABIT (10/100/1000 BASE-T) QUAD/DUAL TRANSFORMER MODULES & UNFILTERED CONNECTORS

Designed to Support PoE, Auto MDIX



Schematics (continued)

H5401NL



Schematics for quad ports

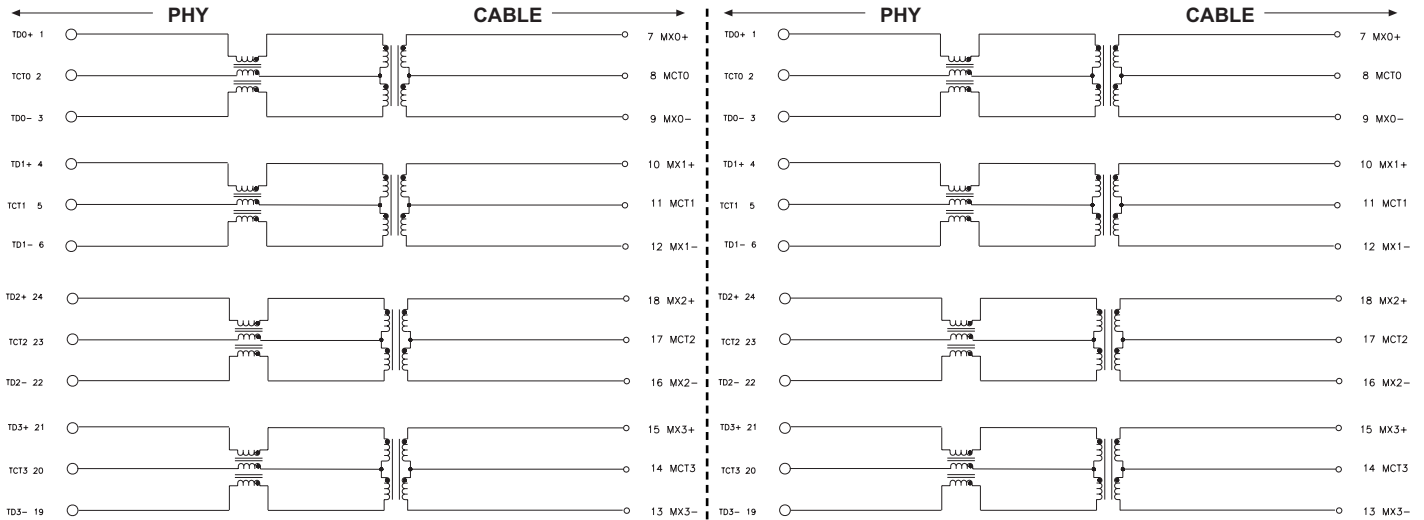
GIGABIT (10/100/1000 BASE-T) QUAD/DUAL TRANSFORMER MODULES & UNFILTERED CONNECTORS

Designed to Support PoE, Auto MDIX



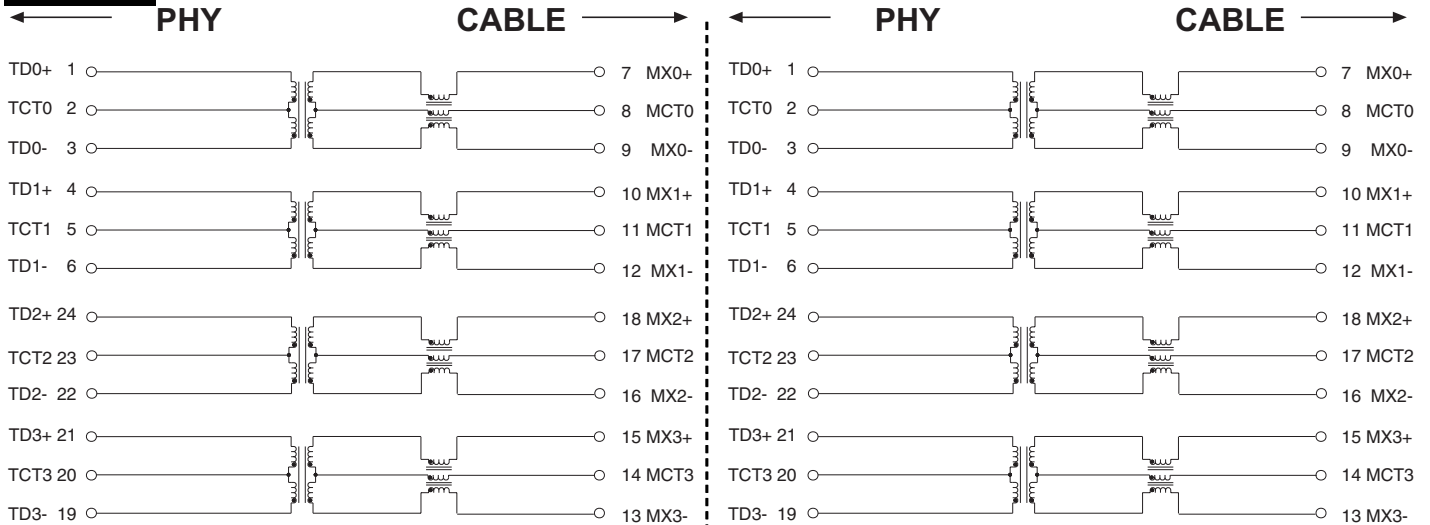
Schematics (*continued*)

H5200NL



Schematics for dual ports

H5201NL



Schematics for dual ports

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

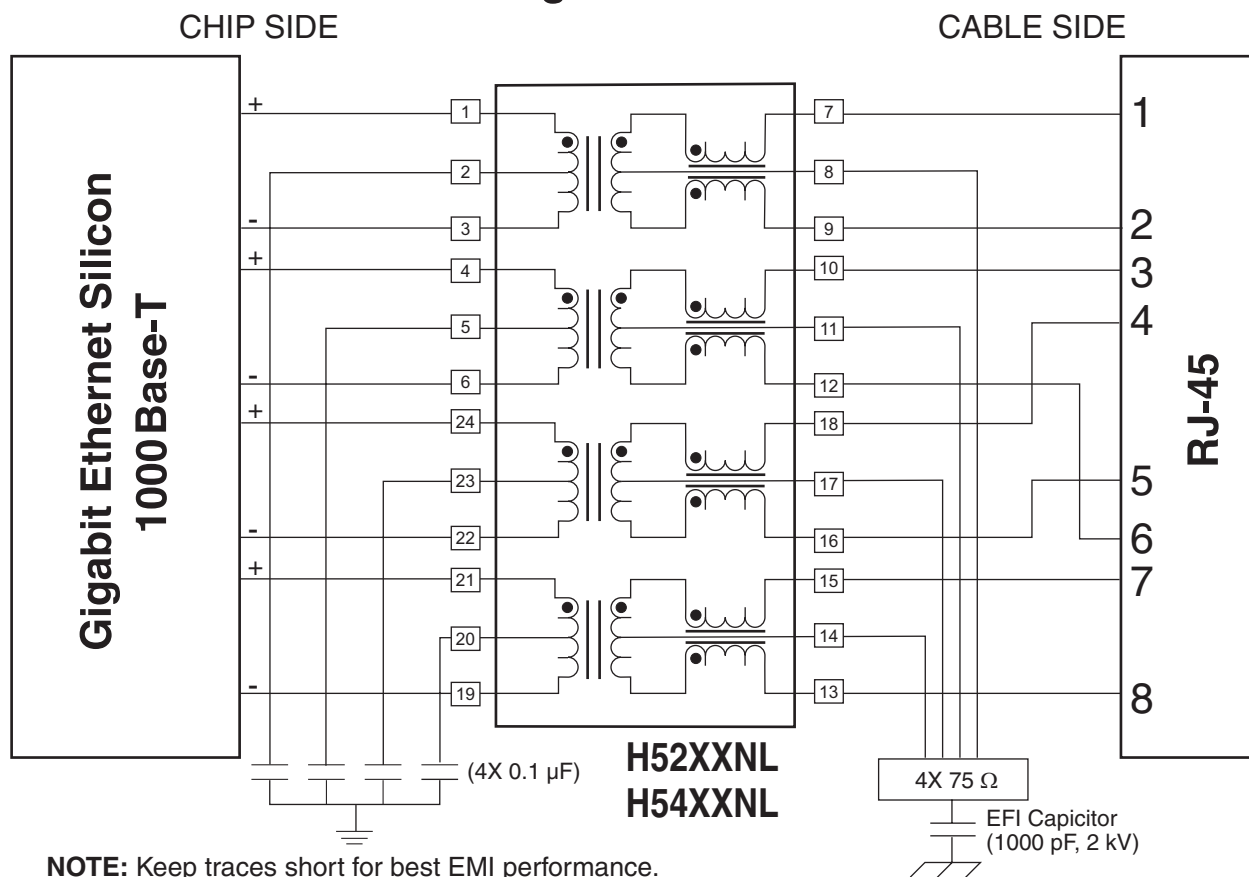
Designed to Support PoE, Auto MDIX



Application Notes

H5200NL, H5201NL, H5400NL, H5401NL

Gigabit 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
Fax: 49 7032 7806 135

Pulse China Headquarters

B402, Shenzhen
Tech-Innovation International
Tenth Kejinan Rd.
High-Tech Industrial Park
Nanshan District, Shenzhen
China

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

150 Kampong Ampat
#07-01/02
KA Centre
Singapore 368324

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 4641811
Fax: 886 3 4641911