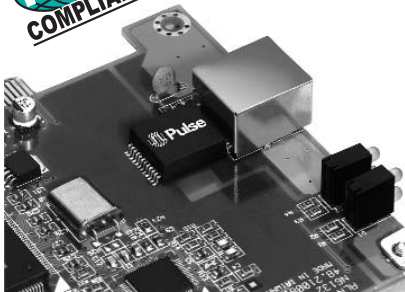


1000BASE-T MAGNETICS MODULES

Designed to Support 1:1 Turns Ratio Transceivers



- Ⓜ For RoHS part add suffix **NL³**
- Ⓜ Peak solder temperature rating per Table 5-2 in IPC/JEDEC J-STD-020C
- Ⓜ Meets IEEE 802.3 specification

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

Part ² Number	RoHS ³	Number of Ports	Insertion Loss (dB MAX)	Return Loss (dB MIN)					Differential to Common Mode Rejection (dB MIN)			Crosstalk (dB MIN)			Hipot (V _{RMS} MIN)
				1-100MHz	1-30MHz	40MHz	50MHz	60-80MHz	100MHz	30MHz	60MHz	100MHz	30MHz	60MHz	
H5004	4, 5c	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
HX5004 ¹	NL ^{5c}	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5007	NL ^{5c}	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5008	NL ^{5c}	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
HX5008 ¹	NL ^{5a}	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5009	NL ^{5a}	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5012	NL ^{5a}	2	1.4	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500
H5014	NL ^{5a}	2	1.4	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500
HX5014 ¹	4, 5a	2	1.4	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-43.5	-37.5	-33	1500
H5015	NL ^{5a}	1	1	-18	-18	-16	-12	-10	-43	-37	-33	-43	-37	-33	1500
H5020	NL ^{5c}	2	1	-18	-14.4	-13.1	-12	-10	-40	-35	-30	-40	-33	-28	1500
HX5020 ¹	4, 5c	2	1	-18	-14.4	-13.1	-12	-10	-40	-35	-30	-40	-33	-28	1500

- HX: Extended temperature version -40°C to +85°C
- For Tape & Reel packaging, add a "T" suffix at the end of the part number, e.g. H5007T.
- When ordering RoHS compliant parts, add the suffix NL, e.g. H5007 changes to H5007NL or H5007NLT (for Tape and Reel).
- Contact Pulse for RoHS compliant part availability.
- MSL=Moisture Sensitivity Level: a=1 b=2 c=3 d=4

Mechanicals

H5004, HX5004, H5007*

SUGGESTED PAD LAYOUT

* HX5004 and H5004/7 are footprint compatible to 10/100BASE-TX part H1267.

H5008, HX5008, H5009

SUGGESTED PAD LAYOUT

Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are $\pm \frac{.005}{0.13}$

Weight 1.6 grams

Tape & Reel300

Tube35

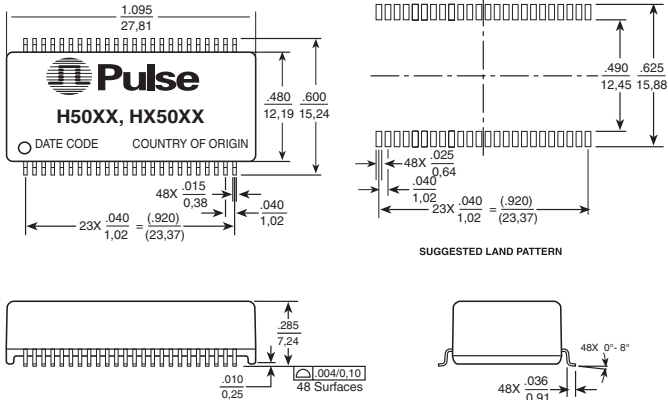
1000BASE-T MAGNETICS MODULES

Designed to Support 1:1 Turns Ratio Transceivers



Mechanicals (continued)

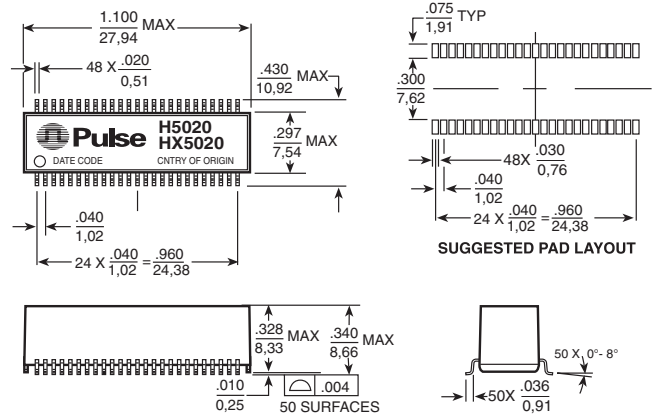
H5012, H5014, HX5014



Weight 4.0 grams
Tape & Reel250/reel
Tube15/tube

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

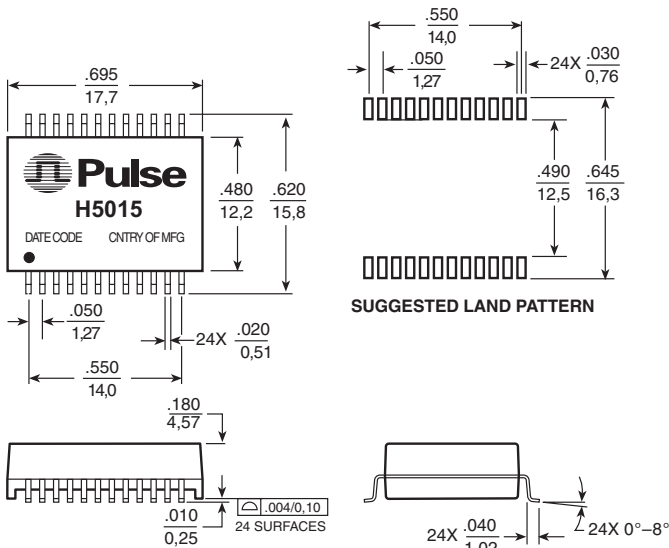
H5020, HX5020



Weight 1.6 grams
Tape & Reel250/reel
Tube15/tube

Mechanicals (continued)

H5015

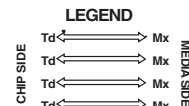
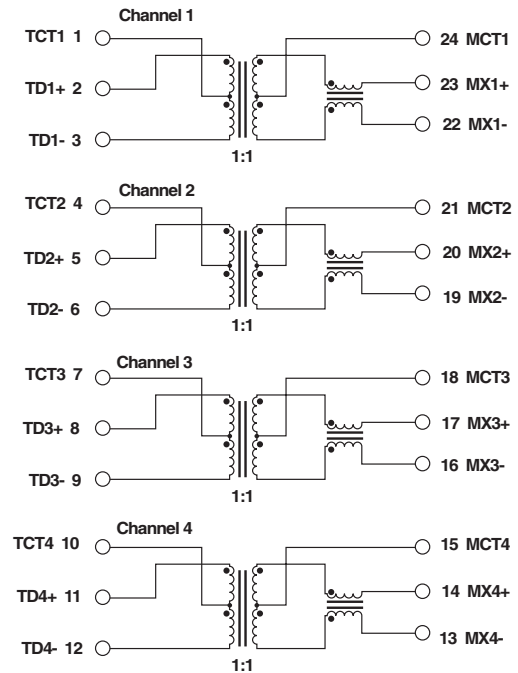


Weight 1.5 grams
Tape & Reel400/reel

Dimensions: $\frac{\text{Inches}}{\text{mm}}$
Unless otherwise specified, all tolerances are $\pm \frac{.005}{0,13}$

Schematics

H5004, HX5004, H5009



1000BASE-T MAGNETICS MODULES

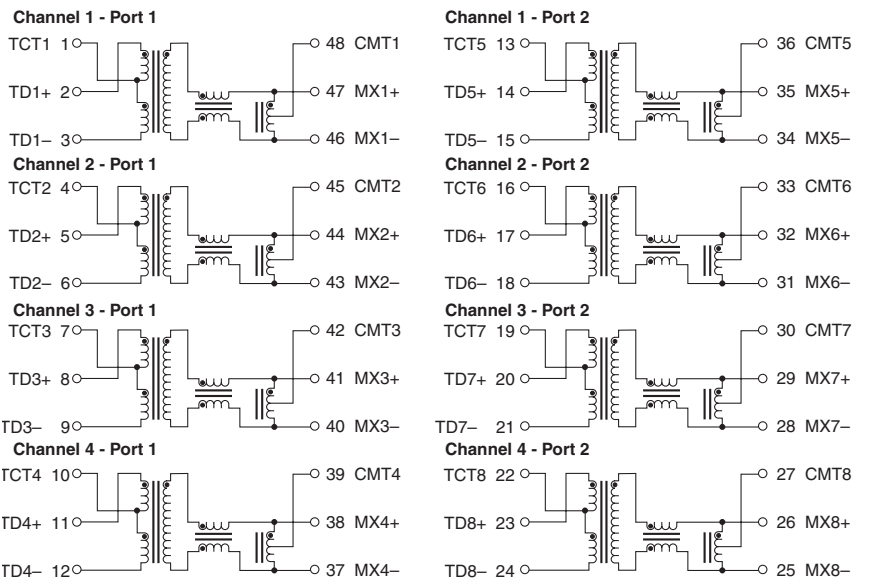
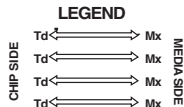
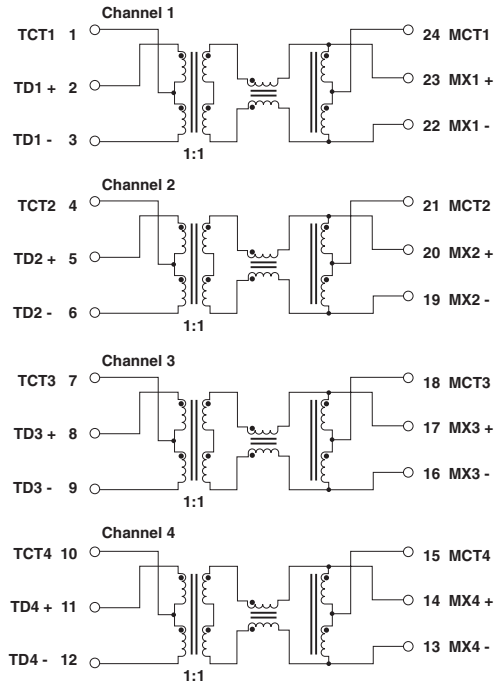
Designed to Support 1:1
Turns Ratio Transceivers



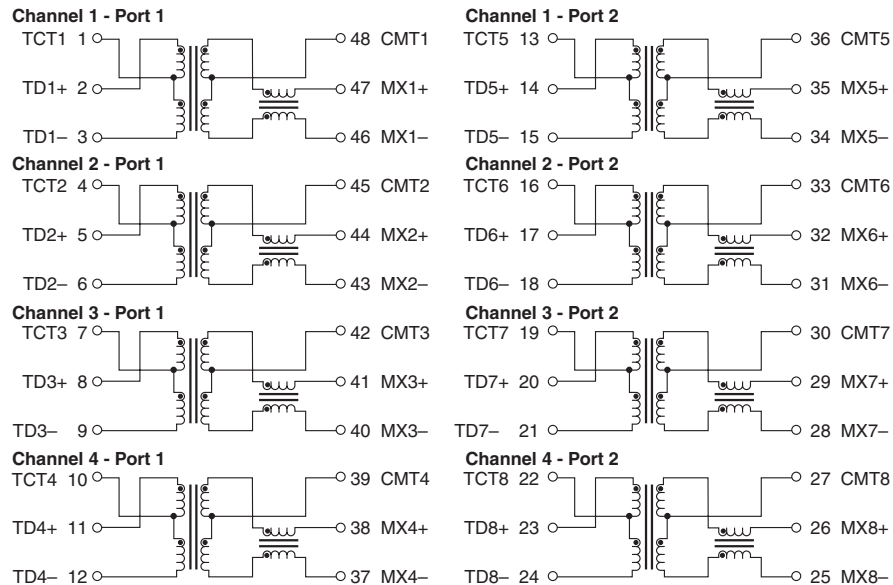
Schematics (continued)

H5007*, H5008, HX5008, H5015

H5012 *



H5014, HX5014



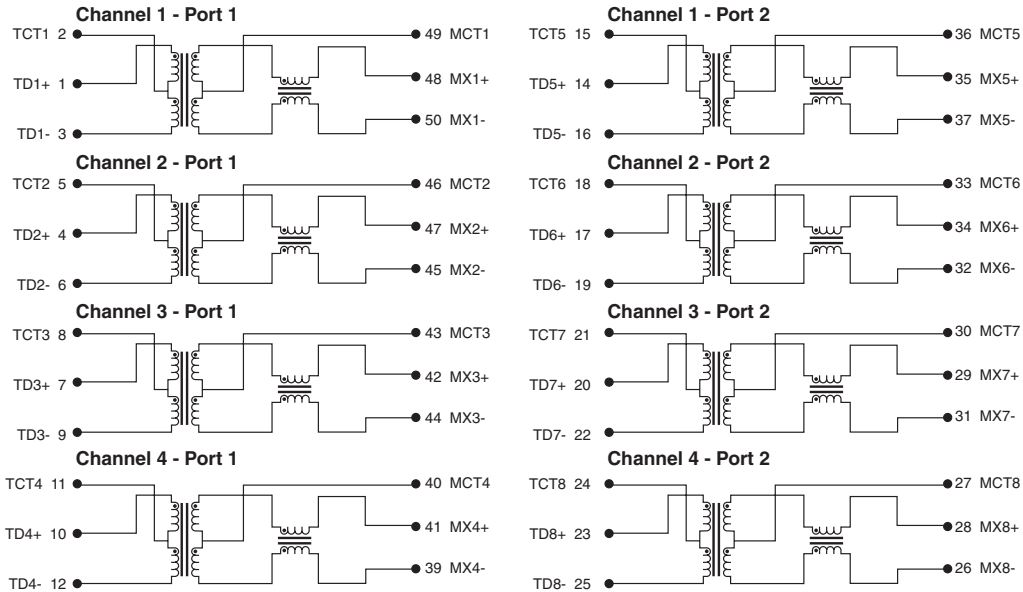
1000BASE-T MAGNETICS MODULES

Designed to Support 1:1
Turns Ratio Transceivers



Schematics (continued)

H5020, HX5020



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 European Headquarters

Einsteinstrasse 1
71083 Herrenberg
Germany

TEL: 49 7032 7806 0

FAX: 49 7032 7806 12

Pulse China Headquarters

No. 1
Industrial District
Changan, Dongguan
China

TEL: 86 769 85538070

FAX: 86 769 85538870

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

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, 2006. Pulse Engineering, Inc. All rights reserved.

www.pulseeng.com