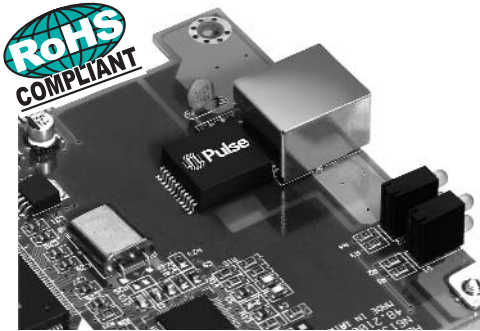








1000BASE-T MAGNETICS MODULES



Designed to Support 1:1 Turns Ratio Transceivers



-  For RoHS part add suffix **NL**⁷
-  RoHS “NL” peak solder rating 260°C, non-RoHS peak solder rating 235°C
-  Designed for long haul Gigabit Ethernet (10/100/1000BASE-T) applications
-  H5008/9 designed to fit behind 1x1 RJ45 connector
-  Cable interface for isolation and low common mode emissions
-  Meets IEEE 802.3 specification

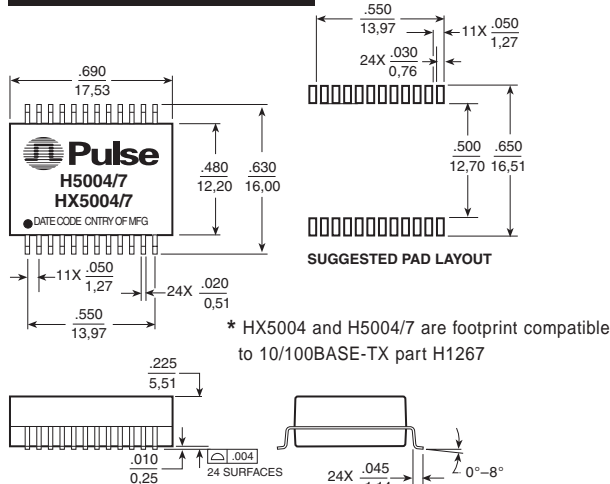
Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

| Part # Number | RoHS ⁷ | Number of Ports | Insertion Loss (dB MAX) | Return Loss (dB MIN) | | | | | Differential to Common Mode Rejection (dB MIN) | | | Crosstalk (dB MIN) | | | Hipot (Vrms MIN) |
|-----------------------|-------------------|-----------------------|-------------------------------|-------------------------|-------------|-----------|-----------|--------------|--|-----------|-----------|-----------------------|-----------|-----------|------------------------|
| | | | | 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 | |
| H5004 ¹ | 5, 6c | 1 | 1 | -18 | -18 | -16 | -12 | -10 | -43 | -37 | -33 | -45 | -40 | -35 | 1500 |
| HX5004 ^{1,2} | 5, 6c | 1 | 1 | -18 | -18 | -16 | -12 | -10 | -43 | -37 | -33 | -45 | -40 | -35 | 1500 |
| H5007 ^{1,3} | NL ^{6d} | 1 | 1 | -18 | -18 | -16 | -12 | -10 | -43 | -37 | -33 | -45 | -40 | -35 | 1500 |
| H5008 | 5, 6c | 1 | 1 | -18 | -18 | -16 | -12 | -10 | -43 | -37 | -33 | -45 | -40 | -35 | 1500 |
| HX5008 ² | 5, 6a | 1 | 1 | -18 | -18 | -16 | -12 | -10 | -43 | -37 | -33 | -45 | -40 | -35 | 1500 |
| H5009 | 5, 6a | 1 | 1 | -18 | -18 | -16 | -12 | -10 | -43 | -37 | -33 | -45 | -40 | -35 | 1500 |
| H5012 ³ | NL ^{6a} | 2 | 1.4 | -16 | -14.4 | -13.1 | -12 | -10 | -45 | -40 | -35 | -43.5 | -37.5 | -33 | 1500 |
| H5014 | 5, 6a | 2 | 1.4 | -16 | -14.4 | -13.1 | -12 | -10 | -45 | -40 | -35 | -43.5 | -37.5 | -33 | 1500 |
| HX5014 ² | 5, 6a | 2 | 1.4 | -16 | -14.4 | -13.1 | -12 | -10 | -45 | -40 | -35 | -43.5 | -37.5 | -33 | 1500 |
| H5015 | 5, 6a | 1 | 1 | -18 | -18 | -16 | -12 | -10 | -43 | -37 | -33 | -45 | -40 | -35 | 1500 |
| H5020 | NL ^{6c} | 2 | 1 | -18 | -14.4 | -13.1 | -12 | -10 | -40 | -35 | -30 | -40 | -35 | -30 | 1500 |
| HX5020 ² | 5, 6c | 2 | 1 | -18 | -14.4 | -13.1 | -12 | -10 | -40 | -35 | -30 | -40 | -35 | -30 | 1500 |

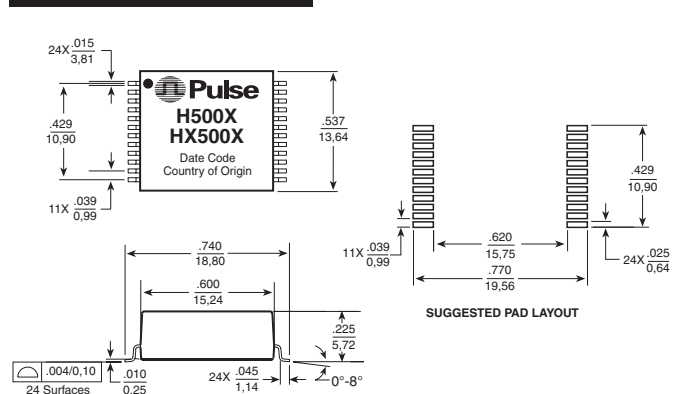
1. Footprint compatible product to H1267
2. HX: Extended temperature version -40°C to +85°C
3. Extended temperature part not available, select HX5004 or HX5014
4. For Tape & Reel packaging, add a “T” suffix at the end of the part number when ordering. e.g. H5007T
5. Contact Pulse for RoHS compliant part availability
6. MSL=Moisture Sensitivity Level a=1 b=2 c=3 d=4
7. Add suffix **NL** for RoHS compliant parts, e.g. H5007 changes to H5007NL or H5007NLT (for Tape and Reel)

Mechanicals

H5004, HX5004, H5007*



H5008, HX5008, H5009



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

Weight 1.6 grams
Tape & Reel300
Tube35

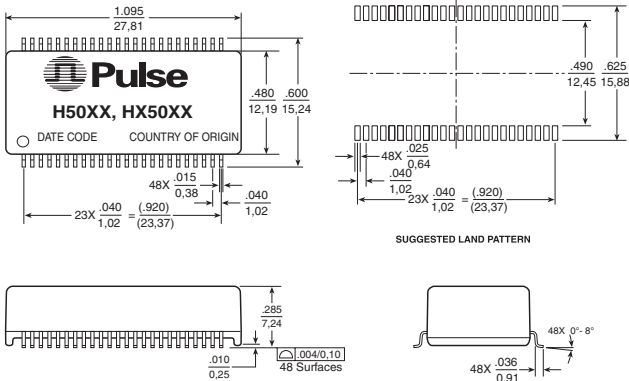
1000BASE-T MAGNETICS MODULES

Designed to Support 1:1 Turns Ratio Transceivers



Mechanicals (continued)

H5012, H5014, HX5014

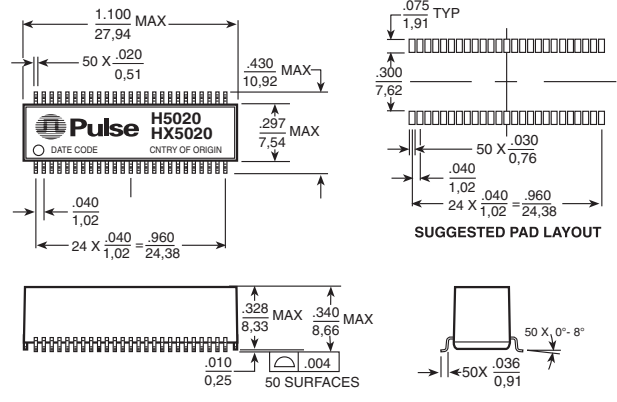


Weight 4.0 grams
Tape & Reel250/reel
Tube15/tube

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

Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

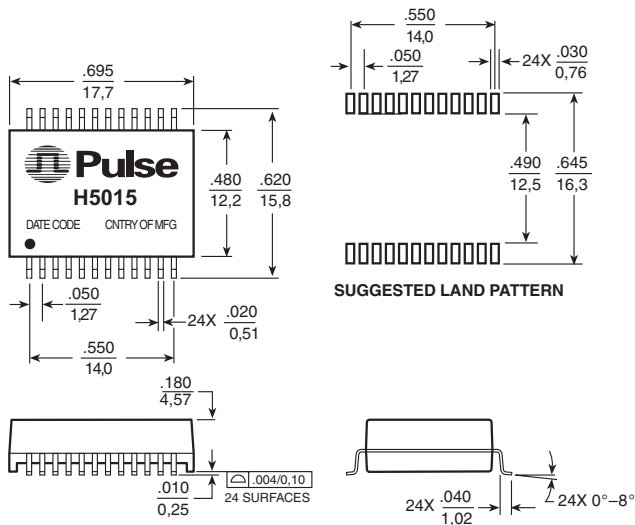
H5020, HX5020



Weight 1.6 grams
Tape & Reel250/reel
Tube15/tube

Mechanicals (continued)

H5015



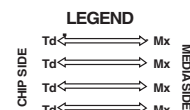
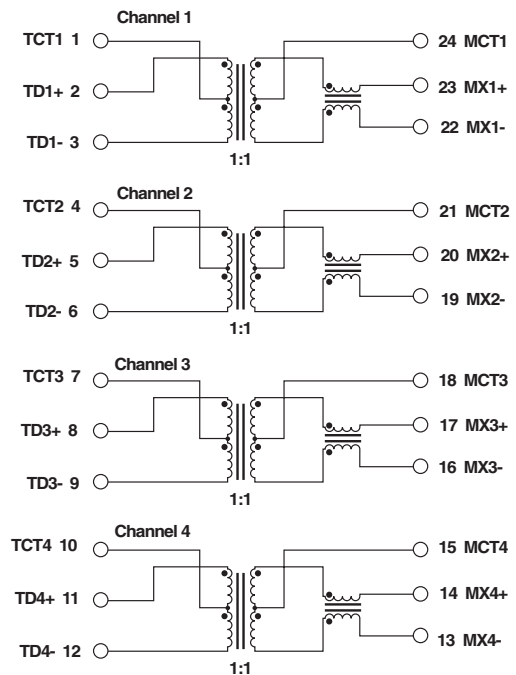
Weight 1.5 grams
Tape & Reel400/reel

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

Unless otherwise specified, all tolerances are $\pm \frac{.005}{0,13}$

Schematics

H5004, HX5004, H5009



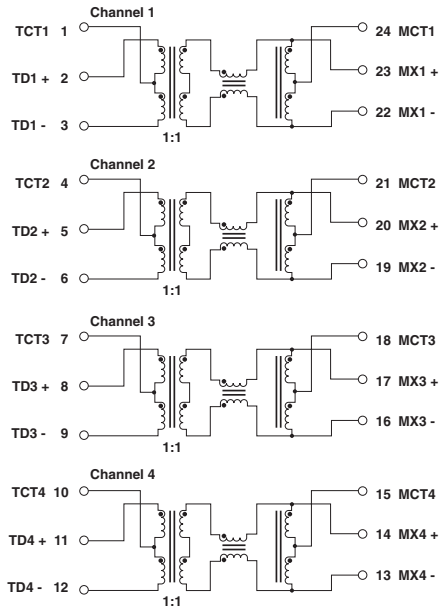
1000BASE-T MAGNETICS MODULES

Designed to Support 1:1 Turns Ratio Transceivers



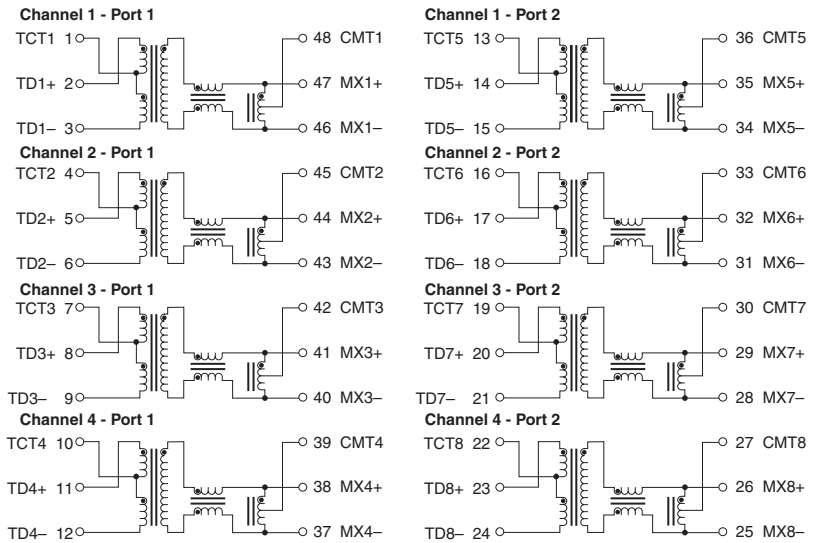
Schematics (continued)

H5007*, H5008, HX5008, H5015



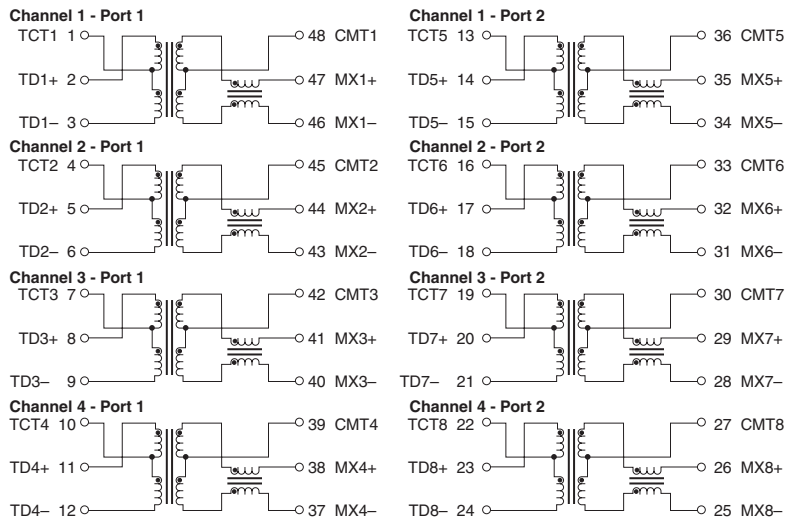
* Extended temperature part for H5007 (HX5007) is not available. Select HX5004.

H5012 *



* Extended temperature part for H5012 is not available. Select HX5014.

H5014, HX5014



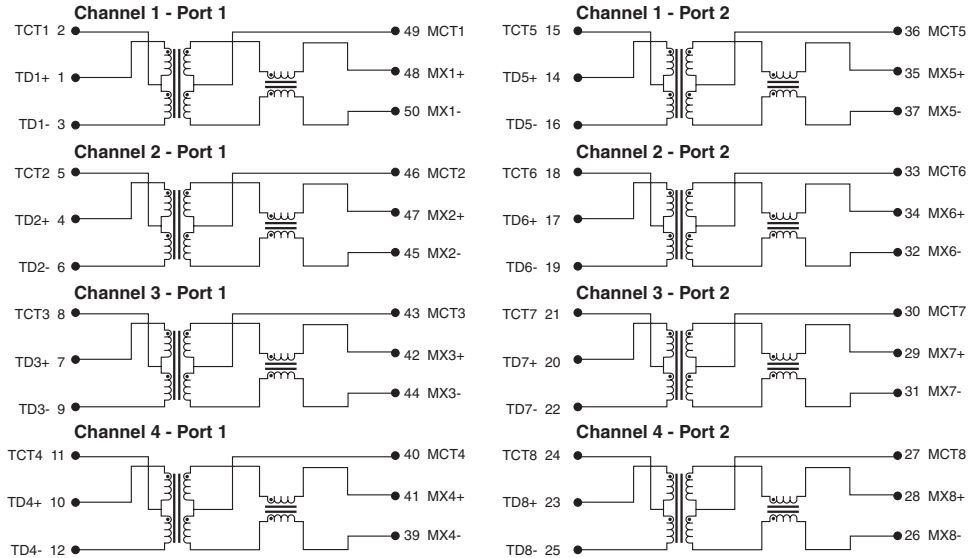
1000BASE-T MAGNETICS MODULES

Designed to Support 1:1 Turns
Ratio Transceivers



Schematics (continued)

H5020, HX5020



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