

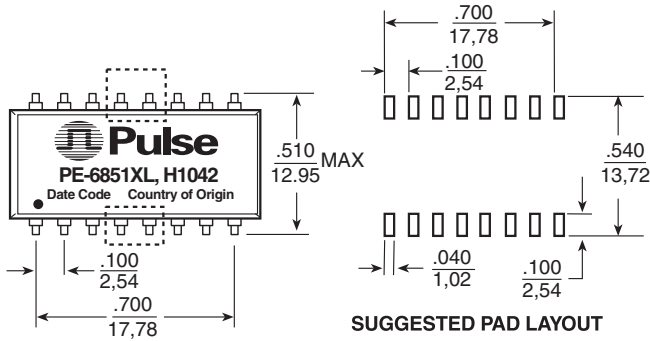
10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

With 1:1 Transmit Turns Ratios



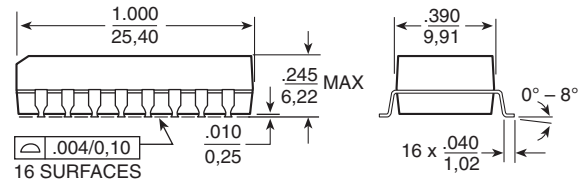
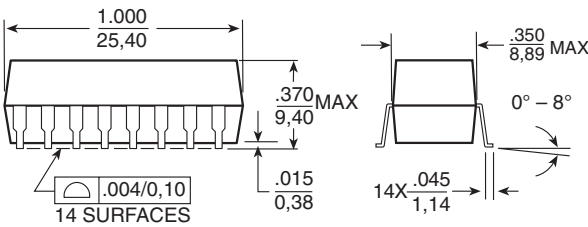
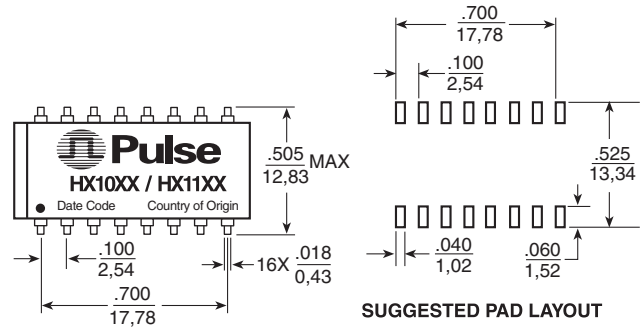
Mechanicals

PE-68515L, PE-68517L, H1042



H1012, H1019, H1086, H1089, H1117,

H1138, HX1148, HX1178



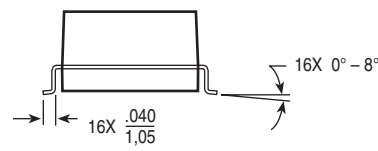
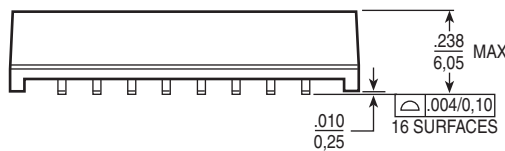
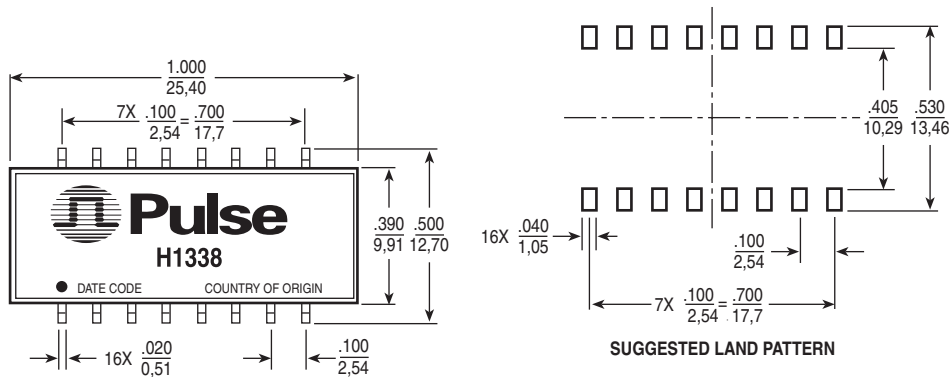
NOTE: The PE-68515L pins 4 and 13 are removed.
The PE-68517L pins 5 and 12 are removed.

Weight 3.5 grams
Tube20/tube
Tape & Reel160/reel

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

Weight 3.0 grams
Tube20/tube
Tape & Reel300/reel

H1338



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

Weight 3.0 grams
Tube20/tube
Tape & Reel300/reel

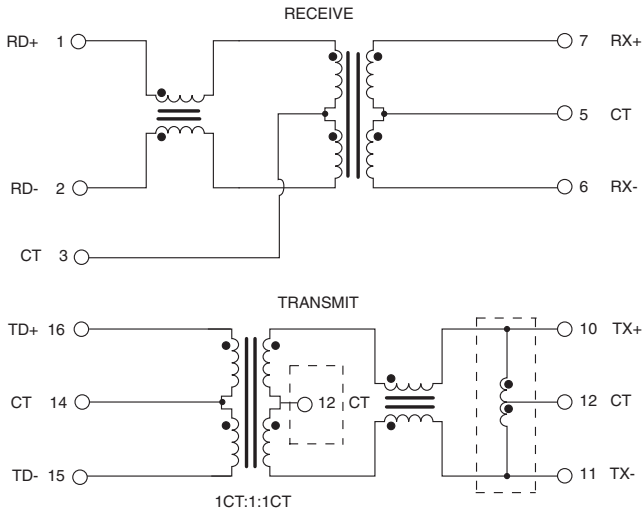
10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

With 1:1 Transmit Turns Ratios



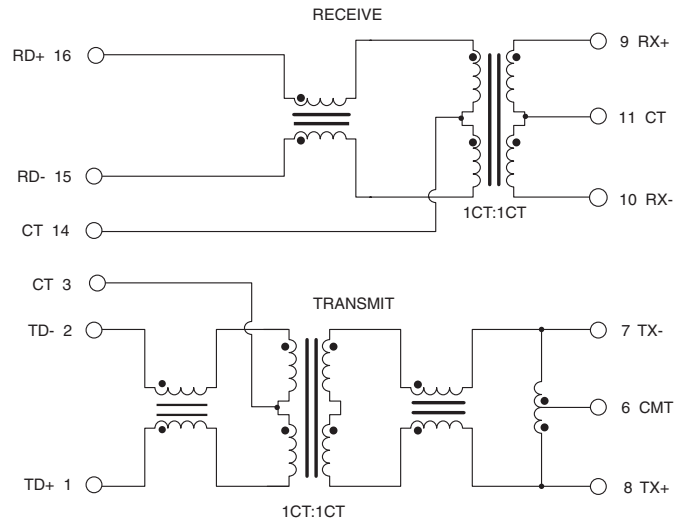
Schematics

PE-68515L, H1012, H1086, H1089, HX1148, H1138

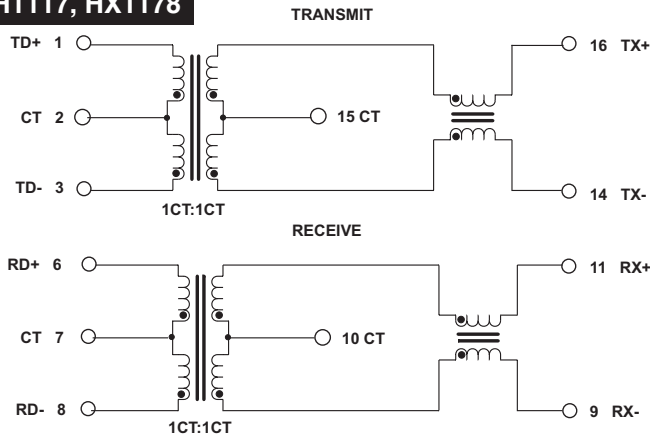


Center-tapped inductor not included in H1089. So, pin 12 connects to the transformer center tap.

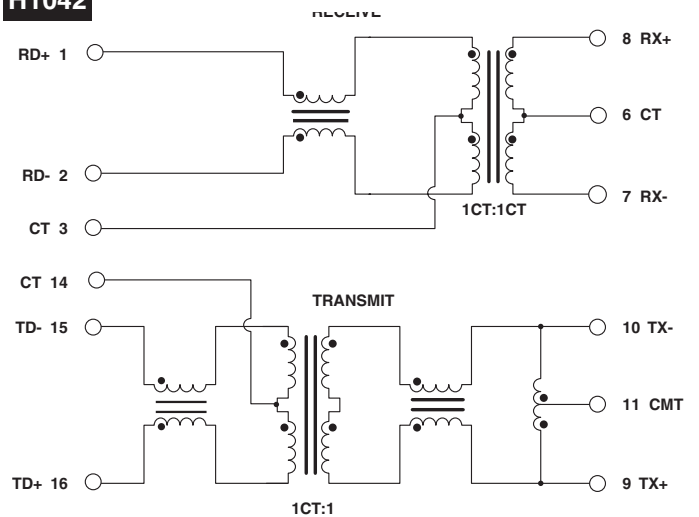
PE-68517L, H1019



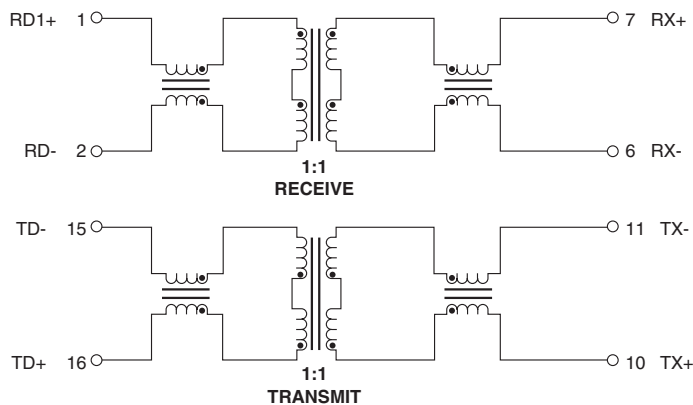
H1117, HX1178



H1042



H1338



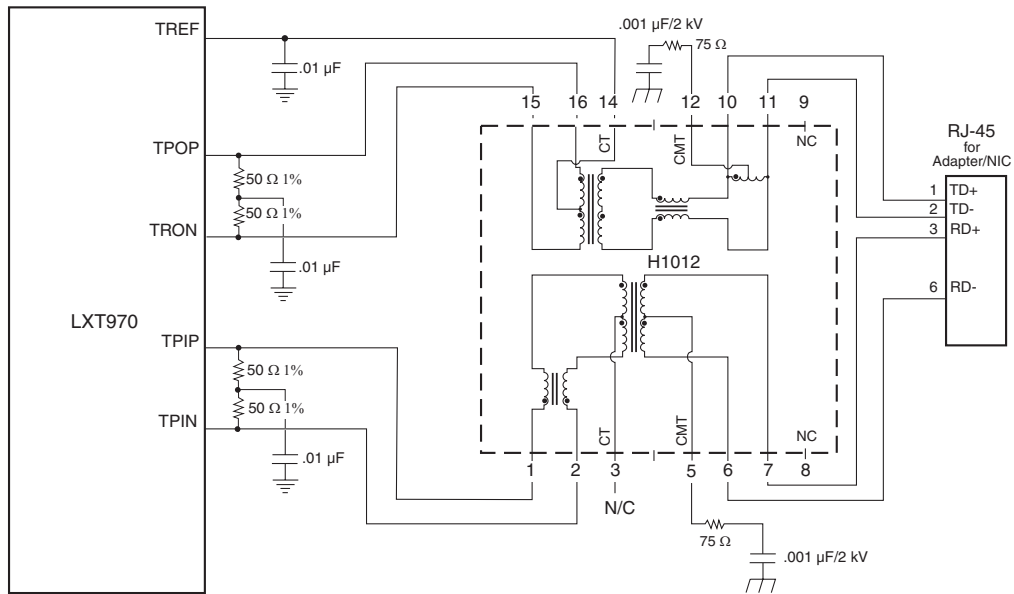
10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

With 1:1 Transmit Turns Ratios

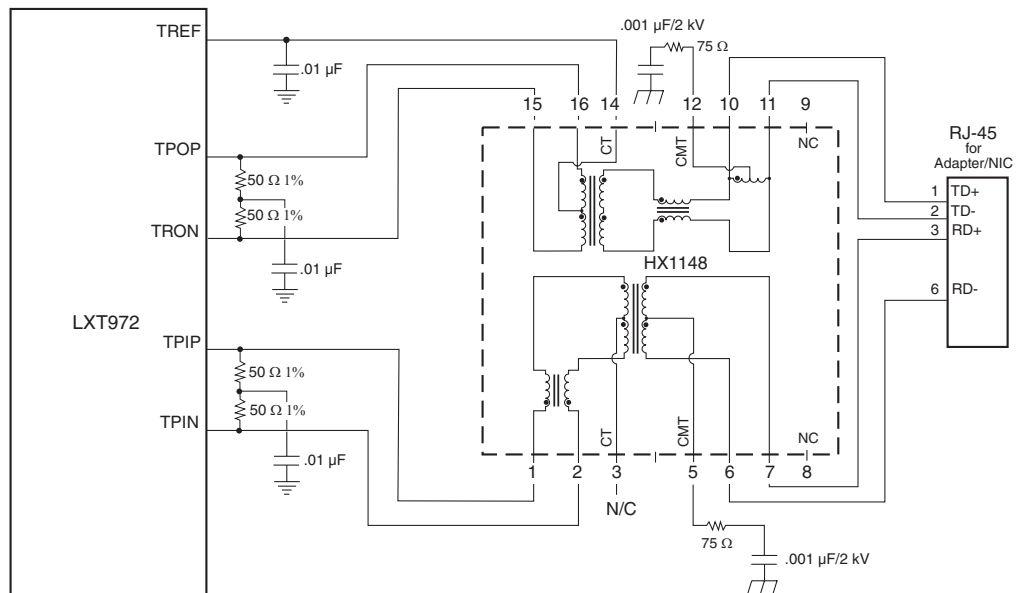


Typical Application Circuits

H1012, H1138



HX1148



10/100 BASE-T SINGLE PORT TRANSFORMER MODULES

With 1:1 Transmit Turns Ratios



Application Notes

This line of 10/100Base-TX magnetics modules has been specifically designed for the implementation of a 10Base-T and 100Base-TX transmission over data grade unshielded twisted pair cable (UTP-5). The modules provide excellent EMI filtering and are suitable for adapter card and multipoint applications.

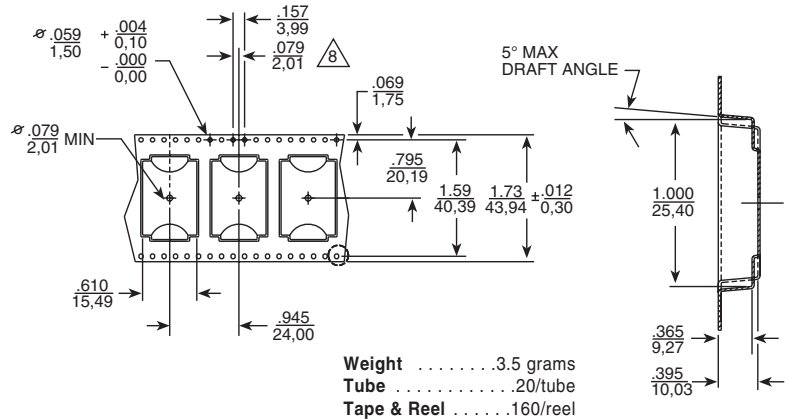
Pulse has worked closely with the leading IC manufacturers in providing these 10/100 solutions, thereby assuring compatibility with each transceiver. Additionally, each solution meets the stringent open circuit inductance requirements imposed by IEEE. When an 8 mA DC current is applied across the transformer windings, the transformer will provide at least 350 μ H. The transformers used in each module also provide 1500 Vrms minimum isolation, wide band width with minimal attenuation and fast rise times to minimize system level jitter. The H1086 provides a slower rise time for use with National's DP83843. The H1117 pin out is optimized for Kendin's KS8731 and KS8732. The HX1148 and HX1178 provide an extended temperature operating range (-40° to +85°C).

Surface mount devices manufactured by Pulse are designed to meet all published specifications after exposure to surface mount soldering temperatures. The SMT modules in this data sheet are transfer-molded in IC style packaging, making them robust enough to withstand convection and infrared reflow solder temperatures of up to 235°C. Additionally, compliant leads provide excellent solder-joint reliability with a coplanarity of ± 0.002 " (0,05 mm).

NOTE: Modules are packaged in tubes, unless Tape & Reel is specified. Please add the suffix "T" (such as H1012T) for Tape & Reel orders.

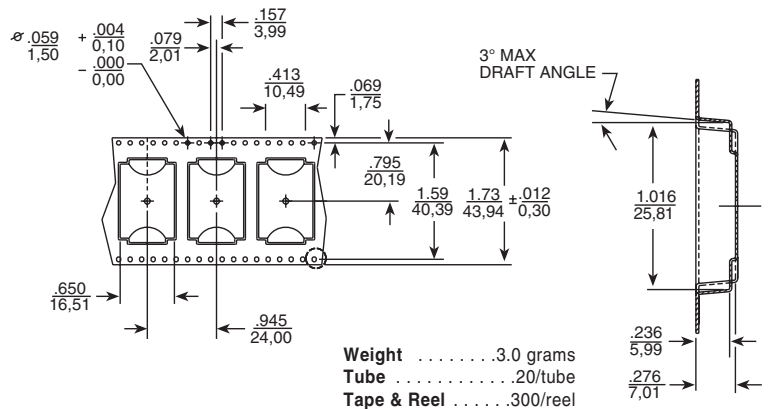
Tape & Reel Specifications

PE-68515L, PE-68517L, H1042



H1012, H1019, H1086, H1089, H1117,

H1138, H1338, HX1148, HX1178



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