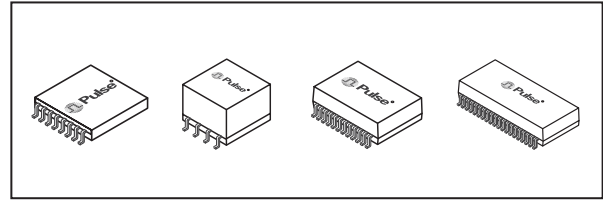




LAN Discrete Modules



Pulse offers the most comprehensive line of discrete LAN magnetics modules available to the OEM worldwide. With technological advancements such as patented InterLock Base construction. Modules for 10/100/1000BASE-TX (Gigabit), 10/100BASE-TX, 10BASE-T, and ATM applications are optimized for all major LAN transceivers. All modules provide electrical circuit isolation that meets applicable IEEE and ANSI standards, while maintaining signal integrity needed for the most demanding applications. 10BASE-T modules have various levels of filtering for use with each referenced IC. 10/100BASE-TX and Gigabit modules provide "tuned" common mode noise attenuation best matched to the transceiver being considered.

Operating Temperature: 0°C – 70°C (unless otherwise noted)

| No. of Ports | Turns Ratio | Configuration* | | Package | | Digi-Key Part No. | Price Each | | | Pulse Part No. | |
|---|-------------|----------------|-------|-------------|---|--|--------------|-------|-------|----------------|---------|
| | | | | Style** | L x W x H*** Inches (mm) - Maximum | | 1 | 10 | 50 | | |
| Gigabit Ethernet 10/100/1000BASE-T — RoHS Compliant | | | | | | | | | | | |
| 1 | 1CT:1CT | T,C | | 24-PIN SOIC | .690 x .630 x .225 (17.53 x 16 x 5.71) | 553-1430-ND | 8.28 | 6.06 | 5.36 | H5004NL | |
| | 1CT:1CT | T,C | | 24-PIN SOIC | .690 x .630 x .225 (17.53 x 16 x 5.71) | 553-1343-ND§ | 9.22 | 6.75 | 5.97 | HX5004NL | |
| | 1CT:1 | T,C,S | | 24-PIN SOIC | .690 x .630 x .225 (17.53 x 16 x 5.71) | 553-1334-ND | 7.26 | 4.97 | 4.19 | H5007NL | |
| | 1CT:1CT | T,C,S | | 24-PIN SMD | .537 x .740 x .225 (13.64 x 18.80 x 5.71) | 553-1335-ND | 9.67 | 7.08 | 6.26 | H5008NL | |
| | 1CT:1CT | T,C | | 24-PIN SOIC | .650 x .380 x .082 (16.51 x 9.65 x 2.08) | 553-1454-5-ND | 7.30 | 5.34 | 4.72 | H5120NL | |
| | 1CT:1 | T,C,S | | 24-PIN SMD | .537 x .740 x .225 (13.64 x 18.80 x 5.71) | 553-1344-ND§ | 10.05 | 7.36 | 6.50 | HX5008NL | |
| | 1CT:1CT | T,C | | 24-PIN SOIC | .542 x .750 x .230 (13.77 x 19.05 x 5.84) | 553-1462-5-ND§ | 9.22 | 6.75 | 5.97 | HX5009NL | |
| | 2 | 1CT:1CT | T,C,S | | 48-PIN SMD | 1.095 x .600 x .285 (27.81 x 15.24 x 7.24) | 553-1336-ND∅ | 13.69 | 10.48 | 9.28 | H5012NL |
| | | 1CT:1CT | T,C | | 48-PIN SMD | 1.095 x .600 x .285 (27.81 x 15.24 x 7.24) | 553-1337-ND∅ | 11.86 | 9.08 | 8.04 | H5014NL |
| | | 1CT:1CT | T,C | | 48-PIN BGA | .580 x .680 x .440 (14.73 x 17.27 x 11.18) | 553-1455-ND | 11.56 | 8.46 | 7.48 | H5200NL |
| 1CT:1CT | | C,T | | 48-PIN BGA | .580 x .680 x .440 (14.73 x 17.27 x 11.18) | 553-1456-ND‡ | 11.56 | 8.46 | 7.48 | H5201NL | |
| 1CT:1CT | | T,C | | 48-PIN SMD | 1.095 x .600 x .285 (27.81 x 15.24 x 7.24) | 553-1431-ND§∅ | 12.88 | 9.86 | 8.73 | HX5014NL | |
| 1CT:1CT | | T,C | | 50-PIN SMD | 1.100 x .430 x .340 (27.94 x 10.92 x 8.64) | 553-1338-ND∅ | 13.01 | 9.96 | 8.82 | H5020NL | |
| 4 | 1CT:1CT | T,C | | 96-PIN BGA | 1.120 x .680 x .440 (28.45 x 17.27 x 11.18) | 553-1457-ND | 19.61 | 15.01 | 13.29 | H5400NL | |
| | 1CT:1CT | C,T | | 96-PIN BGA | 1.120 x .680 x .440 (28.45 x 17.27 x 11.18) | 553-1458-ND‡ | 19.61 | 15.01 | 13.29 | H5401NL | |
| Gigabit POE (Power Over Ethernet) 10/100/1000BASE-T — RoHS Compliant | | | | | | | | | | | |
| 1 | 1:1 | T,C | | 24-PIN SOIC | .690 x .630 x .225 (17.53 x 16.00 x 5.71) | 553-1477-5-ND | 5.88 | 4.03 | 3.39 | H6062NL | |

E

| No. of Ports | Turns Ratio | Configuration* | | Package | | Digi-Key Part No. | Price Each | | | Pulse Part No. |
|---|-------------|----------------|-------|-------------|--|-------------------|------------|------|------|----------------|
| | | | | Style** | L x W x H*** Inches (mm) - Maximum | | 1 | 10 | 50 | |
| Fast Ethernet 10/100BASE-TX — RoHS Compliant | | | | | | | | | | |
| 1 | 1CT:1CT | T,C | C,T | 16-PIN SOIC | .560 x .670 x .082 (14.22 x 17.02 x 2.08) | 553-1314-ND | 5.94 | 4.07 | 3.43 | H0009NL |
| | 1CT:1CT | T,C | C,T | 16-PIN SOIC | .500 x .380 x .084 (12.7 x 9.65 x 2.13) | 553-1315-ND | 6.12 | 4.19 | 3.53 | H0019NL |
| | 1CT:1CT | T,C,S | C,T | 12-PIN SOIC | .465 x .450 x .085 (11.81 x 11.43 x 2.16) | 553-1316-ND | 6.75 | 4.62 | 3.90 | H0022NL |
| | 1CT:1CT | T,C,S | C,T | 16-PIN SMT | 1.00 x .505 x .245 (25.4 x 12.83 x 6.22) | 553-1317-ND | 4.77 | 3.27 | 2.75 | H1012NL |
| | 1CT:1CT | T,C | T,C | 16-PIN SOIC | .500 x .370 x .235 (12.7 x 9.4 x 5.97) | 553-1323-ND | 4.29 | 2.94 | 2.48 | H1102NL |
| | 1CT:1CT | T,C,S | C,T | 12-PIN SMD | .583 x .580 x .192 (14.81 x 14.73 x 4.88) | 553-1324-ND | 4.44 | 3.04 | 2.56 | H1112NL |
| | 1CT:1CT | T,C | T,C | 16-PIN SOIC | .500 x .380 x .236 (12.7 x 9.65 x 5.99) | 553-1328-ND | 3.72 | 2.55 | 2.15 | H1260NL |
| | 1CT:1CT | T,C,S | C,T | 24-PIN SOIC | .690 x .630 x .225 (17.53 x 16.00 x 5.71) | 553-1429-ND | 3.93 | 2.69 | 2.27 | H1267NL |
| | 1CT:1CT | T,C,S | C,T | 16-PIN SMT | 1.00 x .505 x .245 (25.4 x 12.83 x 6.22) | 553-1339-ND§ | 6.44 | 4.71 | 4.17 | HX1148NL |
| | 1CT:1CT | T,C | T,C | 16-PIN SOIC | .500 x .380 x .235 (12.7 x 9.65 x 5.97) | 553-1340-ND§ | 4.50 | 3.08 | 2.60 | HX1188NL |
| 2 | 1CT:1CT | T,C | C,T | 24-PIN SMD | .515 x .590 x .145 (13.08 x 14.99 x 3.68) | 553-1326-ND∅ | 6.57 | 4.81 | 4.25 | H1174NL |
| | 1CT:1CT | T,C | T,C | 24-PIN SMD | .515 x .590 x .145 (13.08 x 14.99 x 3.68) | 553-1329-ND∅ | 7.41 | 5.08 | 4.28 | H1270NL |
| | 1CT:1CT | T,C | C,T | 24-PIN SOIC | .743 x .538 x .231 (18.87 x 13.67 x 5.87) | 553-1460-5-ND | 6.57 | 4.50 | 3.79 | HX1294NL |
| 4 | 1CT:1CT | T,C | T,C | 40-PIN SOIC | 1.125 x .630 x .230 (28.58 x 16.00 x 5.84) | 553-1325-ND‡ | 10.00 | 7.32 | 6.47 | H1164NL |
| | 1CT:1CT | T,C | T,C | 40-PIN SOIC | 1.125 x .630 x .230 (28.58 x 16.00 x 5.84) | 553-1342-ND§‡ | 10.66 | 7.80 | 6.90 | HX1234NL |
| 10BASE-T Filter Modules | | | | | | | | | | |
| 1 | 1CT:1CT | F,T,C | F,T,C | 16-PIN SMT | .920 x .500 x .230 (23.37 x 12.7 x 5.84) | 553-1223-ND | 8.33 | 6.10 | 5.39 | PE-68026 |
| | 1CT:1CT | F,T,C | F,T | 16-PIN THT | 1.005 x .405 x .338 (25.53 x 10.29 x 8.59) | 553-1428-ND◆ | 8.36 | 6.12 | 5.41 | FL1012NL |
| | 1CT:1CT | F,T,C | F,TC | 10-PIN SIL | .900 x .210 x .450 (22.86 x 5.33 x 11.43) | 553-1444-ND◆ | 6.34 | 4.64 | 4.10 | PE-68017SNL |
| VoIP (Voice over Internet Protocol) Transformer Modules — RoHS Compliant | | | | | | | | | | |
| 1 | 1CT:1CT | T,C | T,C | 16-PIN SOIC | .500 x .370 x .235 (12.7 x 9.4 x 5.97) | 553-1333-ND | 6.36 | 4.36 | 3.67 | H2019NL |
| AUI Ethernet Transformer — RoHS Compliant | | | | | | | | | | |
| — | 1:1 | — | — | 16-PIN SOIC | .500 x .370 x .200 (12.7 x 9.4 x 5.08) | 553-1439-ND | 2.57 | 1.68 | 1.37 | PE-65728NL |

| No. of Lines | Inductance (µF) Minimum | DC Resistance (Ω) Maximum | Package | | Digi-Key Part No. | Price Each | | | Pulse Part No. |
|--|-------------------------|---------------------------|------------|---|-------------------|------------|------|------|----------------|
| | | | Style** | L x W x H*** Inches (mm) - Maximum | | 1 | 10 | 50 | |
| LAN Common Mode Chokes — RoHS Compliant | | | | | | | | | |
| 4 | 68 | 0.20 | 8-PIN SOIC | .230 x .360 x .215 (5.84 x 9.14 x 5.46) | 553-1427-ND | 2.44 | 1.59 | 1.30 | 23Z104SMNL |
| | 100 | 0.60 | 8-PIN SMT | .475 x .600 x .340 (12.06 x 15.24 x 8.64) | 553-1443-ND | 3.63 | 2.49 | 2.10 | PE-67540NL |

* F = Filter, T = Transformer, C = Chokes, S = Shunt Inductor

** SOIC = 50 mil pitch leads, SMT = 100 mil pitch leads (Surface Mount), THT = Through Hole, DIP = Dual In-Package (Through Hole), SIL = Single In-Line (Through Hole), SMD = Varying lead pitch (Surface Mount), BGA = Ball Grid Array

*** L x W x H = Width is measured on surface mount parts pin-to-pin (height includes wash area)

§ Suitable for industrial temperature applications, -40°C - 85°C

∅ .039" (0.99mm) pitch leads

‡ Each has a different pinout for optimization in layout with various IC Manufacturers

◆ RoHS Compliant

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