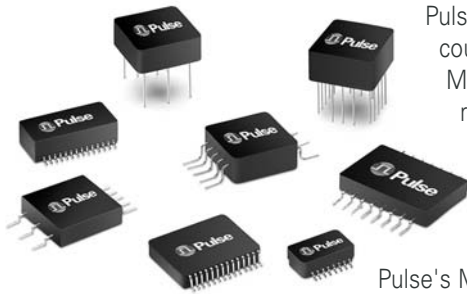


MILITARY/AEROSPACE PRODUCTS



Pulse is one of the leading manufacturers of magnetic interface transformers, data bus couplers, delay lines, Ethernet transformers, and custom electronic components for Military/Aerospace applications. Both catalog and custom designs include a comprehensive range of high-performance solutions and packaging for QPL and non-QPL MIL-STD-1553 interface transformers, various MIL-STD-1553 Data Bus Couplers and QPL and non-QPL active and passive delay lines. In addition, Copperhead transformers and transceivers support a variety of high-speed applications that includes Fibre Channel, Gigabit Ethernet, SONET, HDTV, IEEE1394B, SMTPE, Ethernet and AFDX buses.

Pulse's Military/Aerospace products are designed to meet the most demanding requirements for military, aerospace and industrial applications. For catalog and/or custom designed products, contact Pulse's Military/Aerospace Division at 215-781-6400 or find an authorized distributor or representative on the Pulse website. See back cover.

HIGH SPEED DATA BUS

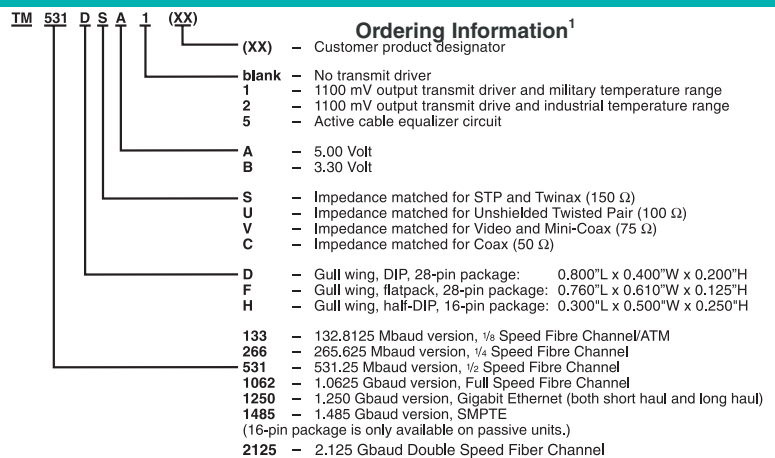
Copperhead™ Series Transceiver Line Interface Modules

High Speed Data and Communications over 100+ Meters of Copper:

- Withstands infrared and vapor phase soldering
- Military temperature range -55°C to +125°C
- Low transmit/receive jitter
- Low power dissipation; 450 mW typical
- ECL logic interface
- Surface mount – pick and place compatible

Applications:

Fibre Channel, Gigabit Ethernet, SONET, HDTV, IEEE 1394B, SMTPE



1. Web: <http://www.pulseeng.com/products/datasheets/fibre.pdf>

Copperhead™ Series^{1, 2}

| Part Number | Turns Ratio (±5%) | Primary Inductance (μH MIN) | Rise Time (ps MAX @ 20-80%) | DC Resistance (Ω MAX) | Hipot (Vrms MIN) | Insertion Loss (dB MAX) | Application Nominal Bit Rate (Mbaud) |
|-------------|-------------------|-----------------------------|-----------------------------|-----------------------|------------------|-------------------------|--------------------------------------|
| T-330SCT | 1CT:1CT | 26.0 (@ 1.0 Vrms, 100 kHz) | 350 | 0.2 | 1500 | -1.5 (15-165 MHz) | 265.625 (quarter speed) |
| T-1062SCT | 1CT:1CT | 3.75 (@ 1.0 Vrms, 100 kHz) | 280 | 0.2 | 1500 | -2.0 (100-625 MHz) | 1062.50 (full speed) |
| T-1250SCT | 1CT:1CT | 3.75 | 280 | 0.2 | 1500 | -2.0 | 1250 |
| T-1485SCT | 1CT:1CT | 3.75 | 280 | 0.2 | 1500 | -2.0 | 1485 (SMTPE) |
| T-3200SCT | 1:1 | 0.70 | 200 | 0.2 | 1500 | -4.50 | 3200 |

1. Web: <http://www.pulseeng.com/products/datasheets/M105.pdf>

2. **Dual Transformers** designed specifically for Point-to-Point Coupling to 150 Ω Twinax Cable; **Withstands** infrared and vapor phase soldering; **Military Temp Range** = -55°C to +125°C; **Weight** = 1.0 grams; **Surface Mount** = pick-and-place compatible. **Applications:** Fibre Channel, Gigabit Ethernet, SONET, HDTV, IEEE 1394B, SMTPE.

Application Notes: These isolation transformers protect the station from static charges that may develop on the cable and prevent ground loop currents from being transferred between stations. They have also been designed to provide common mode rejection within the transmission band, reducing EMI.

MILITARY/AEROSPACE ETHERNET/AFDX

10/100

| Number of Ports | Part Number | Turns Ratio | Configuration ² | | Style | Package Size L/W/H (in.) | Data Sheet ¹ |
|-----------------|-------------|-------------|----------------------------|------|-------------|--------------------------|-------------------------|
| | | | RX | TX | | | |
| Single | 100B-1001 | 1CT:1CT | T, C, S | T, C | 12-pin SMT | .630 / .470 / .185 | M101 |
| | 100B-1001X | 1CT:1CT | T, C, S | T, C | 12-pin SMT | .630 / .470 / .185 | M101 |
| | 100B-1003 | 1CT:1CT | T, C | T, C | 16-pin SOIC | .500 / .265 / .235 | M101 |
| | 100B-1003X | 1CT:1CT | T, C | T, C | 16-pin SOIC | .500 / .265 / .235 | M101 |
| Dual | 100B-2002 | 1CT:1CT | T, C | T, C | 24-pin SMT | .518 / .595 / .241 | M110 |
| | 100B-2002X | 1CT:1CT | T, C | T, C | 24-pin SMT | .518 / .595 / .241 | M110 |
| Quad | 100B-4005 | 1CT:1CT | T, C | T, C | 40-pin SOIC | 1.120 / .480 / .280 | M102 |
| | 100B-4005X | 1CT:1CT | T, C | T, C | 40-pin SOIC | 1.120 / .480 / .280 | M102 |

1. Web: <http://www.pulseeng.com/products/datasheets/M101.pdf> or [M102.pdf](http://www.pulseeng.com/products/datasheets/M102.pdf)

2. T = Transformer, C = Choke, S = Shunt inductor, SMT = 50 mil pitch leads, SOIC = 100 mil pitch leads

SM = Surface Mount

MILITARY/AEROSPACE PRODUCTS



MILITARY/AEROSPACE ETHERNET/AFDX (continued)

Gigabit

| Number of Ports | Part Number | Turns Ratio | Configuration ³ | | Style | Package Size L/W/H (in.) | Data Sheet ¹ |
|-----------------|-------------|-------------|----------------------------|---------|--------------------------|--------------------------|-------------------------|
| | | | RX | TX | | | |
| Single | 1000B-5001 | 1CT:1CT | T, C, S | T, C, S | 24-pin SOIC | .695 / .635 / .230 | M106 |
| | 1000B-5001X | 1CT:1CT | T, C, S | T, C, S | 24-pin SOIC | .695 / .635 / .230 | M106 |
| | 1000B-5002 | 1CT:1CT | T, C, S | T, C, S | 24-pin SOIC | .695 / .635 / .230 | M106 |
| | 1000B-5002X | 1CT:1CT | T, C, S | T, C, S | 24-pin SOIC | .695 / .635 / .230 | M106 |
| Dual | 1000B-5003 | 1CT:1CT | T, C | T, C | 50-pin SOIC ² | 1.095 / .430 / .340 | M106 |
| | 1000B-5003X | 1CT:1CT | T, C | T, C | 50-pin SOIC ² | 1.095 / .430 / .340 | M106 |

1. Web: <http://www.pulseeng.com/products/datasheets/M106.pdf>
2. 0.99mm (.039") pitch leads
3. T = Transformer, C = Choke, S = Shunt inductor, SMT = 50 mil pitch leads, SOIC = 100 mil pitch leads

MIL-STD-1553

Non-QPL, Low Profile and Stacked¹

| Part ² Number | Turns Ratio (±3%) | Impedance (Ω MIN) | Package* L/W/H (in.) | Data Sheet | Part ² Number | Turns Ratio (±3%) | Impedance (Ω MIN) | Package* L/W/H (in.) | Data Sheet |
|--------------------------|-----------------------|-------------------|----------------------|-----------------------|--------------------------|-----------------------|-------------------|----------------------|-----------------------|
| FL1553-1 | 1CT:1CT/1CT:707CT | 4,000 | .630 / .630 / .155 | NOPLC2 ^{2,3} | STQ1553-5 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .630 / .630 / .340 | NOPLC2 ^{2,3} |
| GL1553-1 | 1CT:1CT/1CT:707CT | 4,000 | .630 / .630 / .155 | NOPLC2 ^{2,3} | STQ1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .630 / .630 / .340 | NOPLC2 ^{2,3} |
| TL1553-1 | 1CT:1CT/1CT:707CT | 4,000 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SFQ1553-1 | 1CT:1CT/1CT:707CT | 4,000 | .630 / .630 / .340 | NOPLC2 ^{2,3} |
| FL1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SGQ1553-1 | 1CT:1CT/1CT:707CT | 4,000 | .630 / .630 / .340 | NOPLC2 ^{2,3} |
| GL1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SFQ1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .630 / .630 / .340 | NOPLC2 ^{2,3} |
| TL1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SGQ1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .630 / .630 / .340 | NOPLC2 ^{2,3} |
| FL1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SFQ1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .630 / .630 / .340 | NOPLC2 ^{2,3} |
| GL1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SGQ1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .630 / .630 / .340 | NOPLC2 ^{2,3} |
| TL1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SFQ1553-5 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .630 / .630 / .340 | NOPLC2 ^{2,3} |
| FL1553-5 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SGQ1553-5 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .630 / .630 / .340 | NOPLC2 ^{2,3} |
| GL1553-5 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SFQ1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .630 / .630 / .340 | NOPLC2 ^{2,3} |
| TL1553-5 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SGQ1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .630 / .630 / .340 | NOPLC2 ^{2,3} |
| FL1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SLQ1553-1 | 1CT:1CT/1.4CT:1CT | 4,000 | .630 / .630 / .280 | M104 ² |
| GL1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SLQ1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .630 / .630 / .280 | M104 ² |
| TL1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .630 / .630 / .155 | NOPLC2 ^{2,3} | SLQ1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .630 / .630 / .280 | M104 ² |
| DFL1553-1 | 1CT:1CT/1CT:707CT | 4,000 | .930 / .630 / .155 | NOPLC2 ^{2,3} | SLQ1553-5 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .630 / .630 / .280 | M104 ² |
| DGL1553-1 | 1CT:1CT/1CT:707CT | 4,000 | .930 / .630 / .155 | NOPLC2 ^{2,3} | SLQ1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .630 / .630 / .280 | M104 ² |
| DTL1553-1 | 1CT:1CT/1CT:707CT | 4,000 | .930 / .630 / .155 | NOPLC2 ^{2,3} | SLQ1553-1 | 1CT:1CT/1.4CT:1CT | 4,000 | .630 / .630 / .280 | M104 ² |
| DFL1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .930 / .630 / .155 | NOPLC2 ^{2,3} | SLQ1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .630 / .630 / .280 | M104 ² |
| DGL1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .930 / .630 / .155 | NOPLC2 ^{2,3} | SLQ1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .630 / .630 / .280 | M104 ² |
| DTL1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .930 / .630 / .155 | NOPLC2 ^{2,3} | SLQ1553-5 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .630 / .630 / .280 | M104 ² |
| DFL1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .930 / .630 / .155 | NOPLC2 ^{2,3} | SLQ1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .630 / .630 / .280 | M104 ² |
| DGL1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .930 / .630 / .155 | NOPLC2 ^{2,3} | SLQF1553-1 | 1CT:1CT/1.4CT:1CT | 4,000 | .630 / .630 / .280 | M104 ² |
| DTL1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .930 / .630 / .155 | NOPLC2 ^{2,3} | SLQF1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .630 / .630 / .280 | M104 ² |
| DFL1553-5 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .930 / .630 / .155 | NOPLC2 ^{2,3} | SLQF1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .630 / .630 / .280 | M104 ² |
| DGL1553-5 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .930 / .630 / .155 | NOPLC2 ^{2,3} | SLQF1553-5 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .630 / .630 / .280 | M104 ² |
| DTL1553-5 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .930 / .630 / .155 | NOPLC2 ^{2,3} | SLQF1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .630 / .630 / .280 | M104 ² |
| DFL1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .930 / .630 / .155 | NOPLC2 ^{2,3} | | | | | |
| DGL1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .930 / .630 / .155 | NOPLC2 ^{2,3} | | | | | |
| DTL1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .930 / .630 / .155 | NOPLC2 ^{2,3} | | | | | |
| STQ1553-1 | 1CT:1CT/1CT:707CT | 4,000 | .630 / .630 / .340 | NOPLC2 ^{2,3} | | | | | |
| STQ1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .630 / .630 / .340 | NOPLC2 ^{2,3} | | | | | |
| STQ1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .630 / .630 / .340 | NOPLC2 ^{2,3} | | | | | |

1. Designed and built to conform to MIL-PRF-21038/27
2. Web: http://www.pulseeng.com/products/datasheets/N_QPL_Cat2_links.pdf or M104.pdf
3. Prefix / Operating Temperature : xxxC1553-xx / 0°C to +70°C ; xxxN1553-xx / -40°C to +85°C ; xxx1553-xx / -55°C to +125°C

Interface Transformers: COTS Series¹

| Part ² Number | Turns Ratio (±3%) | Impedance (W MIN) | Package* (L/W/H) in. | Data ³ Sheet |
|--------------------------|-----------------------|-------------------|----------------------|-------------------------|
| x1553-1 | 1CT:1CT/1CT:707CT | 4,000 | .625 / .625 / .250 | NOPLC2 |
| x1553-2 | 1.4CT:1CT/2CT:1CT | 7,200 | .625 / .625 / .250 | NOPLC2 |
| x1553-3 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .625 / .625 / .250 | NOPLC2 |
| x1553-5 | 1CT:2.12CT/1.5CT:1CT | 4,000 | .625 / .625 / .250 | NOPLC2 |
| x1553-45 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .625 / .625 / .250 | NOPLC2 |

1. Designed and built to conform to MIL-PRF-21038/27
2. Prefix / Operating Temperature: C / 0°C to +70°C; N / -40°C to +85°C; TQ / -55°C to +125°C
3. Web: http://www.pulseeng.com/pdf/N_QPL_Cat2_links.pdf

Interface Transformers - Low Profile Miniature Series

| Part Number | Turns Ratio (±3%) | Impedance (Ω MIN) | Package* (L/W/H) in. | Data Sheet |
|-------------|-------------------|-------------------|----------------------|------------|
| SMG1553-60 | 1.25CT:1CT | 4,000 | .400 / .400 / .185 | M112 |
| SMG1553-61 | 1.66CT:1CT | 4,000 | .400 / .400 / .185 | M112 |
| SMG1553-62 | 1.41CT:1CT | 7,200 | .400 / .400 / .185 | M112 |
| SMG1553-63 | 2CT:1CT | 7,200 | .400 / .400 / .185 | M112 |
| SMG1553-65 | 1CT:1.79CT | 4,000 | .400 / .400 / .185 | M112 |
| SMG1553-66 | 1CT:2.7CT | 4,000 | .400 / .400 / .185 | M112 |

*Mounting: FP = Flat Pack TH = Through Hole SM = Surface Mount

MILITARY/AEROSPACE PRODUCTS



MIL-STD-1553 (continued)

QPL Series — Qualified to MIL-PRF-21038/27

| Part Number | Military Designation Number | Turns Ratio (±3%) | Impedance (Ω MIN) | Package* L/W/H (in.) | Data Sheet | Part Number | Military Designation Number | Turns Ratio (±3%) | Impedance (Ω MIN) | Package* L/W/H (in.) | Data Sheet |
|-------------|-----------------------------|-----------------------|-------------------|----------------------|------------|-------------|-----------------------------|-----------------------|-------------------|----------------------|------------|
| Q1553-20 | M21038/27-05 | 1:1.41 | 3,000 | .500 / .350 / .250 | QPL6 | FPQ1553-6 | M21038/27-16 | 1CT:1CT/1CT:707CT | 4,000 | .625 / .625 / .250 | QPL6 |
| Q1553-21 | M21038/27-06 | 1CT:1CT | 3,000 | .500 / .350 / .250 | QPL6 | SMQ1553-6 | M21038/27-11 | 1CT:1CT/1CT:707CT | 4,000 | .625 / .625 / .250 | QPL6 |
| Q1553-22 | M21038/27-07 | 1CT:1.41CT | 3,000 | .500 / .350 / .250 | QPL6 | FPQ1553-7 | M21038/27-17 | 1.4CT:1CT/2CT:1CT | 7,200 | .625 / .625 / .250 | QPL6 |
| Q1553-23 | M21038/27-08 | 1CT:1.66CT | 3,000 | .500 / .350 / .250 | QPL6 | SMQ1553-7 | M21038/27-12 | 1.4CT:1CT/2CT:1CT | 7,200 | .625 / .625 / .250 | QPL6 |
| Q1553-24 | M21038/27-09 | 1CT:2CT | 3,000 | .500 / .350 / .250 | QPL6 | FPQ1553-8 | M21038/27-18 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .625 / .625 / .250 | QPL6 |
| Q1553-25 | M21038/27-28 | 1CT:1.5CT | 3,000 | .500 / .350 / .250 | QPL6 | SMQ1553-8 | M21038/27-13 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .625 / .625 / .250 | QPL6 |
| Q1553-51 | M21038/27-29 | 1CT:1.79CT | 3,000 | .500 / .350 / .250 | QPL6 | FPQ1553-10 | M21038/27-20 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .625 / .625 / .250 | QPL6 |
| Q1553-52 | M21038/27-30 | 1CT:2.5CT | 3,000 | .500 / .350 / .250 | QPL6 | SMQ1553-10 | M21038/27-15 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .625 / .625 / .250 | QPL6 |
| Q1553-1 | M21038/27-01 | 1CT:1CT/1CT:707CT | 4,000 | .625 / .625 / .250 | QPL6 | FPQ1553-45 | M21038/27-31 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .625 / .625 / .250 | QPL6 |
| Q1553-2 | M21038/27-02 | 1.4CT:1CT/2CT:1CT | 7,200 | .625 / .625 / .250 | QPL6 | SMQ1553-45 | M21038/27-27 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .625 / .625 / .250 | QPL6 |
| Q1553-3 | M21038/27-03 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .625 / .625 / .250 | QPL6 | | | | | | |
| Q1553-5 | M21038/27-10 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .625 / .625 / .250 | QPL6 | | | | | | |
| Q1553-45 | M21038/27-26 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .625 / .625 / .275 | QPL6 | | | | | | |
| Q1553-81 | M21038/27-21 | 1CT:1CT/1CT:707CT | 4,000 | .625 / .625 / .275 | QPL6 | | | | | | |
| Q1553-82 | M21038/27-22 | 1.4CT:1CT/2CT:1CT | 7,200 | .625 / .625 / .275 | QPL6 | | | | | | |
| Q1553-83 | M21038/27-23 | 1.25CT:1CT/1.66CT:1CT | 4,000 | .625 / .625 / .275 | QPL6 | | | | | | |
| Q1553-84 | M21038/27-24 | 1CT:2.12CT/1CT:1.5CT | 4,000 | .625 / .625 / .275 | QPL6 | | | | | | |
| Q1553-85 | M21038/27-25 | 1CT:2.5CT/1CT:1.79CT | 4,000 | .625 / .625 / .275 | QPL6 | | | | | | |

1. Part number options: C and T level QPL testing (xxQC1553-xx, xxQT1553-xx, M21038/27-xxC, M21038/27-xxT).
2. Web: <http://www.pulseeng.com/products/datasheets/QPL6.pdf>
3. Summary Performance Specifications: Droop = 20%; Overshoot = ±1 VMAX; Common Mode Rejection = 45 dB; Frequency Range (no load) = 75 kHz to 1 MHz; Operating Temperature Range = -55°C to +130°C; Weight = 5 grams; Insulation Resistance = 10 kMΩ @ 250 Vdc; Dielectric Withstanding Voltage = 100 Vrms

Pulse offers off-the-shelf inductors and transformers for modern military and aerospace power applications—the SLED™, the SLIC, and the POGO™ series. The SLED series consists of rail-mount inductors with a ruggedized header for durable board connections, utilizing two rails for board mounting and cores bonded to high temperature headers for durability and mechanical strength. The SLIC series, self-leaded transformers and inductors, have ruggedized construction. The structural header is bonded to the cores and lead wires, increasing mechanical durability. The POGO series are pad-mounted inductors with open construction for robust board mounting with rugged pins used for both surface board-mounting and electrical connection.



To locate the current data sheets for these products, go to the Pulse website at the following URL: <http://www.pulseeng.com> and click the "Military / Aerospace" tile on the Pulse home page.

OFF-THE-SHELF POWER INDUCTORS & TRANSFORMERS

Toroid Power Inductors - SLED Series

| Part Number | @ IRATED (μH) | IRATED (A) | DCR (mΩ MAX) | Inductance @0A _{DC} (μH) | Package* L/W/H (in.) | Data Sheet |
|----------------|---------------|------------|--------------|-----------------------------------|----------------------|------------|
| SLED 20 | | | | | | |
| PL8100 | 1.01 | 3.40 | 11 | 1.1 | .400 / .345 / .250 | M107 |
| PL8101 | 6.2 | 1.40 | 70 | 7 | .400 / .345 / .250 | M107 |
| PL8102 | 176 | 1.00 | 125 | 22.7 | .400 / .345 / .250 | M107 |
| SLED 30 | | | | | | |
| PL8110 | 3.8 | 4.80 | 17.3 | 5.2 | .625 / .525 / .400 | M107 |
| PL8111 | 9.4 | 2.80 | 43.4 | 12.3 | .625 / .525 / .400 | M107 |
| PL8112 | 29.7 | 1.40 | 166 | 35.3 | .625 / .525 / .400 | M107 |
| PL8113 | 114 | 0.94 | 380 | 167 | .625 / .525 / .400 | M107 |
| SLED 40 | | | | | | |
| PL8120 | 2.5 | 8.00 | 8.3 | 3.8 | .725 / .575 / .410 | M107 |
| PL8121 | 5.1 | 5.40 | 17.7 | 7.5 | .725 / .575 / .410 | M107 |
| PL8122 | 16.2 | 2.70 | 72 | 21.9 | .725 / .575 / .410 | M107 |
| PL8123 | 58.1 | 1.30 | 290 | 73 | .725 / .575 / .410 | M107 |
| PL8124 | 192 | 0.90 | 560 | 292 | .725 / .575 / .410 | M107 |
| PL8125 | 383 | 0.72 | 862 | 672 | .725 / .575 / .410 | M107 |
| PL8130 | 4.9 | 7.80 | 12.4 | 7.9 | .725 / .575 / .410 | M107 |
| PL8131 | 9 | 5.50 | 28 | 14 | .725 / .575 / .410 | M107 |
| PL8132 | 29.1 | 2.70 | 100 | 40.5 | .725 / .575 / .410 | M107 |
| PL8133 | 645 | 0.74 | 1250 | 1134 | .725 / .575 / .410 | M107 |
| PL8150 | 0.81 | 14.30 | 2.5 | 1.25 | .725 / .575 / .410 | M107 |
| PL8151 | 1.32 | 11.50 | 4.0 | 2.1 | .725 / .575 / .410 | M107 |

Toroid Power Inductors - SLED Series (continued)

| Part Number | @ IRATED (μH) | IRATED (A) | DCR (mΩ MAX) | Inductance @0A _{DC} (μH) | Package* L/W/H (in.) | Data Sheet |
|----------------|---------------|------------|--------------|-----------------------------------|----------------------|------------|
| SLED 50 | | | | | | |
| PL8140 | 9.3 | 7.20 | 18.7 | 16 | .900 / .690 / .520 | M107 |
| PL8141 | 16.1 | 5.10 | 32.0 | 25.9 | .900 / .690 / .520 | M107 |
| PL8142 | 50 | 2.60 | 133 | 72.9 | .900 / .690 / .520 | M107 |
| PL8143 | x1070 | 0.71 | 1700 | 1950 | .900 / .690 / .520 | M107 |
| PL8160 | 1.68 | 13.90 | 3.6 | 2.8 | .900 / .690 / .520 | M107 |
| PL8161 | 2.5 | 11.40 | 5.4 | 4.2 | .900 / .690 / .520 | M107 |
| PL8170 | 3.5 | 12.40 | 6.6 | 6.5 | .900 / .690 / .520 | M107 |
| PL8171 | 4.7 | 10.40 | 8.3 | 8.4 | .900 / .690 / .520 | M107 |

SMT Common Mode Chokes: SLIC Series

| Part Number | Inductance (mH ±35%) | IRATED (A) | DCR (mΩ MAX) | Package* L/W/H (in.) | Data Sheet |
|-------------|----------------------|------------|--------------|----------------------|------------|
| PL8200 | 0.47 | 14.0 | 8 | 1.220 / 1.000 / .500 | M108 |
| PL8201 | 0.63 | 11.6 | 10 | 1.220 / 1.000 / .500 | M108 |
| PL8202 | 0.81 | 9.70 | 14 | 1.220 / 1.000 / .500 | M108 |
| PL8203 | 0.53 | 7.20 | 15 | 1.110 / 1.00 / .395 | M108 |
| PL8204 | 0.59 | 5.60 | 21 | .770 / .670 / .395 | M108 |
| PL8205 | 0.77 | 4.70 | 40 | .770 / .670 / .395 | M108 |
| PL8206 | 0.22 | 3.30 | 60 | .770 / .670 / .390 | M108 |
| PL8207 | 1.32 | 3.30 | 60 | .770 / .670 / .395 | M108 |
| PL8208 | 1.47 | 2.80 | 80 | .770 / .670 / .395 | M108 |
| PL8209 | 0.88 | 1.63 | 110 | .500 / .500 / .215 | M108 |
| PL8210 | 1.17 | 1.22 | 200 | .500 / .500 / .215 | M108 |

*Mounting: FP = Flat Pack TH = Through Hole SM = Surface Mount

MILITARY/AEROSPACE PRODUCTS



OFF-THE-SHELF POWER INDUCTORS & TRANSFORMERS (continued)

SMT Power Inductors: SLIC (HCCL-80) Series

| Part Number ¹ | @ I _{RATED} (μH) | I _{RATED} (A) | DCR (mΩ) MAX | Inductance @0A _{DC} (μH) | Package* L/W/H (in.) | Data Sheet |
|--------------------------|---------------------------|------------------------|--------------|-----------------------------------|----------------------|------------|
| PL8304 P | 1.1 | 38 | 1.3 | 2.1 | 1.220 / 1.000 / .500 | M109 |
| PL8303 P | 1.6 | 34 | 1.6 | 3.5 | 1.220 / 1.000 / .500 | M109 |
| PL8302 P | 2.45 | 27 | 2.5 | 5.1 | 1.220 / 1.000 / .500 | M109 |
| PL8301 P | 3.2 | 24 | 3.5 | 7.2 | 1.220 / 1.000 / .500 | M109 |
| PL8304 S | 4.3 | 19 | 5.1 | 8.4 | 1.220 / 1.000 / .500 | M109 |
| PL8300 P | 4.52 | 19 | 4.8 | 9.5 | 1.220 / 1.000 / .500 | M109 |
| PL8303 S | 6.4 | 17 | 6.4 | 13.8 | 1.220 / 1.000 / .500 | M109 |
| PL8302 S | 9.8 | 13.5 | 10.1 | 20.4 | 1.220 / 1.000 / .500 | M109 |
| PL8301 S | 12.8 | 12 | 13.8 | 28.7 | 1.220 / 1.000 / .500 | M109 |
| PL8300 S | 18.1 | 9.5 | 19.3 | 38.0 | 1.220 / 1.000 / .500 | M109 |

1. Connection: P = Parallel, S = Series

SMT Power Inductors: Toroid, POGO Series

| Part Number | I _{RATED} (A) | DCR (mΩ) MAX | Inductance @0A _{DC} (μH) | Package* L/W/H (in.) | Data Sheet |
|----------------|------------------------|--------------|-----------------------------------|----------------------|------------|
| POGO 40 | | | | | |
| PL8400 S | 43.6 | 1.1 | 309 | .725 / .575 / .380 | M111 |
| POGO 50 | | | | | |
| PL8401 S | 21.9 | 2.7 | 90.5 | .910 / .700 / .510 | M111 |
| PL8402 S | 4.025 | 6.4 | 23 | .910 / .700 / .510 | M111 |
| PL8403 P | 0.53 | 23.8 | 3 | .910 / .700 / .510 | M111 |
| PL8404 P | 1.1 | 21 | 2.5 | .910 / .700 / .510 | M111 |
| POGO 60 | | | | | |
| PL8405 P | 2.1 | 22.4 | 3.4 | 1.280 / 1.070 / .510 | M111 |

1. Connection: P = Parallel, S = Series

SMT Power Inductors: Toroid, SLED Series

| Part Number | I _{RATED} (A) | DCR (mΩ) MAX | Inductance @0A _{DC} (μH) | Package* L/W/H (in.) | Data Sheet |
|----------------|------------------------|--------------|-----------------------------------|----------------------|------------|
| SLED 25 | | | | | |
| PL8500 | 9.4 | 3.8 | 32 | .625 / .525 / .310 | M113 |
| PL8501 | 13.3 | 3.2 | 46 | .625 / .525 / .310 | M113 |
| PL8502 | 23 | 2.4 | 74 | .625 / .525 / .310 | M113 |
| PL8503 | 50 | 1.6 | 135 | .625 / .525 / .310 | M113 |
| PL8504 | 75 | 1.3 | 220 | .625 / .525 / .310 | M113 |
| PL8505 | 90 | 1.2 | 285 | .625 / .525 / .310 | M113 |
| PL8506 | 137 | 1 | 425 | .625 / .525 / .310 | M113 |
| PL8507 | 200 | .82 | 673 | .625 / .525 / .310 | M113 |
| PL8508 | 305 | .66 | 972 | .625 / .525 / .310 | M113 |
| PL8509 | 439 | .56 | 1520 | .625 / .525 / .310 | M113 |

SMT Power Inductors: Toroid, POGO Series

| Part Number | I _{RATED} (A) | DCR (mΩ) MAX | Inductance @0A _{DC} (μH) | Package* L/W/H (in.) | Data Sheet |
|----------------|------------------------|--------------|-----------------------------------|----------------------|------------|
| POGO 25 | | | | | |
| PL8600 P | 2.0 | 8.30 | 76 | .625 / .525 / .310 | M114 |
| PL8601 P | 2.4 | 7.20 | 10.9 | .625 / .525 / .310 | M114 |
| PL8602 P | 5.0 | 5.20 | 19.0 | .625 / .525 / .310 | M114 |
| PL8600 S | 7.0 | 4.16 | 16.0 | .625 / .525 / .310 | M114 |
| PL8603 P | 9.3 | 3.80 | 29.8 | .625 / .525 / .310 | M114 |
| PL8601 S | 8.4 | 3.78 | 21.8 | .625 / .525 / .310 | M114 |
| PL8604 P | 14.1 | 3.10 | 45.3 | .625 / .525 / .310 | M114 |
| PL8605 P | 19.8 | 2.6 | 66.3 | .625 / .525 / .310 | M114 |
| PL8602 S | 17.9 | 2.6 | 38.0 | .625 / .525 / .310 | M114 |
| PL8606 P | 29.3 | 2.20 | 106 | .625 / .525 / .310 | M114 |
| PL8603 S | 33.8 | 1.89 | 60 | .625 / .525 / .310 | M114 |
| PL8607 P | 42.6 | 1.80 | 151 | .625 / .525 / .310 | M114 |
| PL8604 S | 50.9 | 1.54 | 91 | .625 / .525 / .310 | M114 |
| PL8608 P | 61.3 | 1.50 | 224 | .625 / .525 / .310 | M114 |
| PL8605 S | 71.5 | 1.30 | 133 | .625 / .525 / .310 | M114 |
| PL8609 P | 84.2 | 1.20 | 324 | .625 / .525 / .310 | M114 |
| PL8606 S | 106.1 | 1.07 | 202 | .625 / .525 / .310 | M114 |
| PL8607 S | 154.2 | 0.89 | 302 | .625 / .525 / .310 | M114 |
| PL8608 S | 218.9 | 0.74 | 444 | .625 / .525 / .310 | M114 |
| PL8609 S | 295.0 | 0.64 | 636 | .625 / .525 / .310 | M114 |
| POGO 40 | | | | | |
| PL8700 P | 1.5 | 14.40 | 4.41 | .725 / .600 / .380 | M115 |
| PL8701 P | 2.4 | 11.20 | 6.54 | .725 / .600 / .380 | M115 |
| PL8702 P | 4.2 | 8.20 | 10.47 | .725 / .600 / .380 | M115 |
| PL8703 P | 5.8 | 6.80 | 14.94 | .725 / .600 / .380 | M115 |
| PL8700 S | 6.1 | 7.20 | 17.60 | .725 / .600 / .380 | M115 |
| PL8704 P | 7.6 | 5.70 | 20.99 | .725 / .600 / .380 | M115 |

SMT Power Inductors: Toroid, POGO Series (continued)

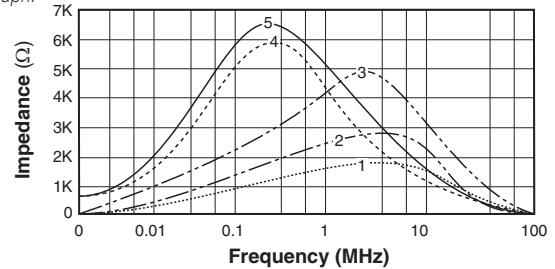
| Part Number ¹ | @ I _{RATED} (μH) | I _{RATED} (A) | DCR (mΩ) MAX | Inductance @0A _{DC} (μH) | Package* L/W/H (in.) | Data Sheet |
|----------------------------|---------------------------|------------------------|--------------|-----------------------------------|----------------------|------------|
| POGO 40 (continued) | | | | | | |
| PL8701 S | 9.7 | 5.60 | 26.20 | 14.0 | .725 / .600 / .380 | M115 |
| PL8705 P | 12.1 | 5.40 | 23.24 | 18.5 | .725 / .600 / .380 | M115 |
| PL8702 S | 17.0 | 4.10 | 41.90 | 23.7 | .725 / .600 / .380 | M115 |
| PL8706 P | 18.0 | 4.40 | 38.15 | 27.4 | .725 / .600 / .380 | M115 |
| PL8703 S | 23.1 | 3.40 | 59.70 | 31.5 | .725 / .600 / .380 | M115 |
| PL8707 P | 27.0 | 3.54 | 53.21 | 40.5 | .725 / .600 / .380 | M115 |
| PL8704 S | 30.6 | 2.85 | 84.00 | 40.5 | .725 / .600 / .380 | M115 |
| PL8708 P | 34.8 | 3.00 | 73.89 | 50.5 | .725 / .600 / .380 | M115 |
| PL8705 S | 48.5 | 2.70 | 93.00 | 74.1 | .725 / .600 / .380 | M115 |
| PL8706 S | 72.0 | 2.20 | 152.60 | 109.8 | .725 / .600 / .380 | M115 |
| PL8708 S | 139.1 | 1.50 | 295.60 | 202.2 | .725 / .600 / .380 | M115 |
| PL8707 S | 108.0 | 1.77 | 212.80 | 161.8 | .725 / .600 / .380 | M115 |

1. Connection: P = Parallel, S = Series

SMT Common Mode Inductors: Toroid, POGO Series

| Part Number | Inductance (mH ±30%) | I _{RATED} (A) | DCR (mΩ) MAX | SRF (MHz) | Impedance Curve ¹ | Package L/W/H (in.) | Data Sheet |
|----------------|----------------------|------------------------|--------------|-----------|------------------------------|---------------------|------------|
| POGO 40 | | | | | | | |
| PL8801 | 1.5 | 1.50 | 60 | 2 | 2 | .725 / .575 / .380 | M116 |
| PL8803 | 10.0 | 1.00 | 450 | 0.5 | 4 | .725 / .575 / .380 | M116 |
| PL8804 | 22.0 | 0.50 | 850 | 0.3 | 5 | .725 / .575 / .380 | M116 |
| POGO 50 | | | | | | | |
| PL8800 | 1.0 | 3.60 | 50 | 4 | 1 | .910 / .700 / .510 | M116 |
| PL8802 | 3.0 | 2.50 | 80 | 2.2 | 3 | .910 / .700 / .510 | M116 |

1. See graph:



SMT Power Inductors: Shielded Drum Core

| Part Number | Inductance @I _{RATED} (μH TYP) | I _{RATED} ¹ (A) | DCR (mΩ) MAX | Inductance @0ADC ² (μH) | Saturation Current @25°C | Package L/W/H (in.) | Data Sheet |
|-------------|---|-------------------------------------|--------------|------------------------------------|--------------------------|---------------------|------------|
| PL8901 | 0.80 | 11 | 4.0 | 1.0 ² | 14 | .413 / .413 / .280 | M117 |
| PL8902 | 1.20 | 10 | 6.0 | 1.5 ² | 13 | .413 / .413 / .280 | M117 |
| PL8903 | 2.1 | 9.0 | 7.3 | 2.7 ² | 11 | .413 / .413 / .280 | M117 |
| PL8904 | 2.9 | 8.0 | 8.5 | 3.7 ² | 9.2 | .413 / .413 / .280 | M117 |
| PL8905 | 3.7 | 7.3 | 9.5 | 4.7 ² | 8.2 | .413 / .413 / .280 | M117 |
| PL8906 | 4.8 | 6.0 | 16.5 | 6.0 ² | 6.9 | .413 / .413 / .280 | M117 |
| PL8907 | 6 | 5.5 | 18.5 | 7.6 ² | 6.2 | .413 / .413 / .280 | M117 |
| PL8908 | 8 | 5.0 | 21.8 | 10 | 5.5 | .413 / .413 / .280 | M117 |
| PL8909 | 9.6 | 4.5 | 29.0 | 12 | 5.1 | .413 / .413 / .280 | M117 |
| PL8910 | 12 | 4.1 | 35.4 | 15 | 4.4 | .413 / .413 / .280 | M117 |
| PL8911 | 14.4 | 4.0 | 37.0 | 18 | 4.3 | .413 / .413 / .280 | M117 |
| PL8912 | 17.6 | 3.8 | 42.0 | 22 | 3.8 | .413 / .413 / .280 | M117 |
| PL8913 | 21.6 | 3.4 | 45.9 | 27 | 3.4 | .413 / .413 / .280 | M117 |
| PL8914 | 26.4 | 3.0 | 64.8 | 33 | 3.0 | .413 / .413 / .280 | M117 |
| PL8915 | 31.2 | 2.7 | 81.5 | 39 | 2.8 | .413 / .413 / .280 | M117 |
| PL8916 | 37.6 | 2.6 | 89.0 | 47 | 2.6 | .413 / .413 / .280 | M117 |
| PL8917 | 54.4 | 2.1 | 135.0 | 68 | 2.1 | .413 / .413 / .280 | M117 |

- The rated current as listed is either the saturation current or the heating current depending on which value is lower.
- Inductance at 0ADC tolerance is ±30%. The tolerance is ±20% on all other parts.

Optional Tape and Reel packaging can be ordered by adding a "T" suffix to the end of the part number.

SM = Surface Mount