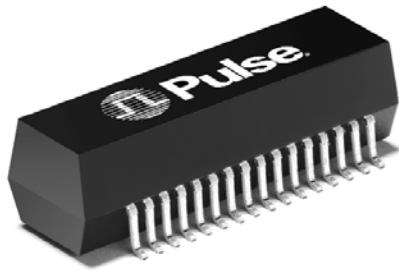


T1/E1/CEPT/ISDN-PRI QUAD TRANSFORMERS Surface Mount Package



- Ⓢ Quad transformers in a surface mount package supports two T1/E1 ports
- Ⓢ Available in transmit and/or receive configurations
- Ⓢ Models matched to leading quad and dual T1/E1/CEPT transceivers
- Ⓢ UL recognized
- Ⓢ Isolation voltage: 1500Vrms

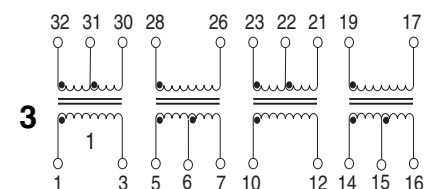
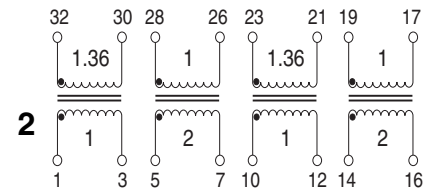
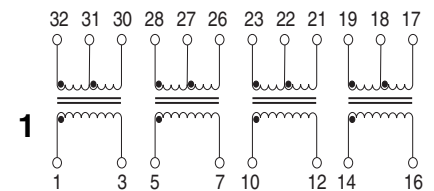
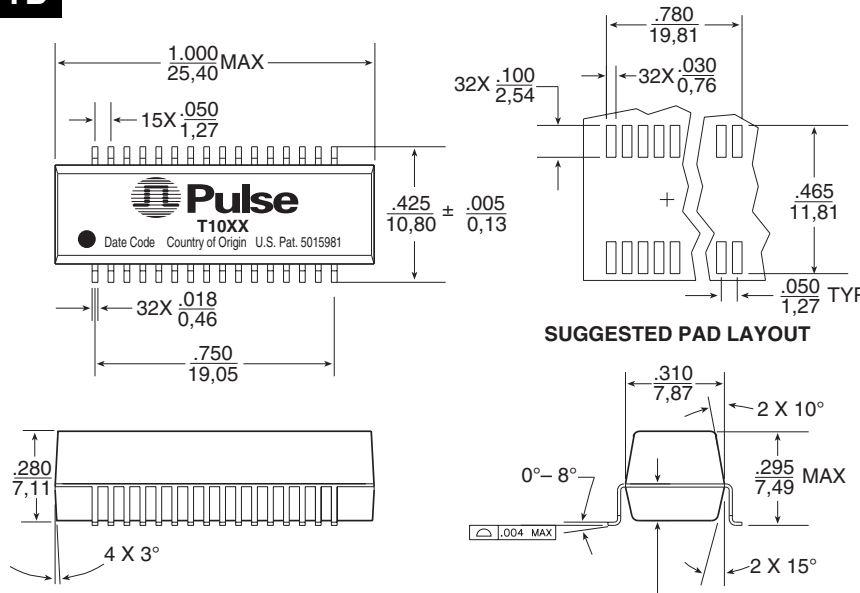
Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

| Part Number | Turns Ratio ^{A,B} (Pri:Sec ±2%) | OCL @ 25°C (mH MIN) | L _L (μH MAX) | C _{w/w} (pF MAX) | DCR Pri (MAX) | DCR Sec (MAX) | Package/ Schematic ^D | Primary Pins |
|--------------------|---------------------------------------------|------------------------|----------------------------|------------------------------|------------------|------------------|------------------------------------|--------------------------|
| T1001 ^C | 1:1.36 / 1 | 1.2 | 0.40 | 30 | 0.7 | 1.0 | YB/1 | 1-3, 5-7, 10-12, 14-16 |
| T1005 ^C | 1:1.58 / 1.266 | 1.2 | 0.50 | 24 | 0.6 | 0.8 | YB/1 | 1-3, 5-7, 10-12, 14-16 |
| T1006 | 1:2CT | 1.2 | 0.35 | 30 | 0.6 | 1.0 | YB/1 | 1-3, 5-7, 10-12, 14-16 |
| T1007 | 1:1.15CT | 1.2 | 0.70 | 23 | 0.6 | 0.8 | YB/1 | 1-3, 5-7, 10-12, 14-16 |
| T1008 | 1:1.36 and 1:2 | 1.2 | 0.80 | 35 | 0.6 | 1.0 | YB/2 | 1-3, 10-12, 19-17, 28-26 |
| T1009 | 1:1.265 / 1 | 1.2 | 0.80 | 35 | 0.6 | 0.8 | YB/1 | 1-3, 5-7, 10-12, 14-16 |
| T1010 ^C | 1:1.36CT | 1.2 | 0.50 | 30 | 0.6 | 0.8 | YB/1 | 1-3, 5-7, 10-12, 14-16 |
| T1016 ^C | 1:2 / 1.15 | 1.2 | 0.40 | 30 | 0.6 | 1.0 | YB/1 | 1-3, 5-7, 10-12, 14-16 |
| T1017 | 1:2.3 / 2 | 1.2 | 0.80 | 35 | 0.6 | 1.1 | YB/3 | 1-3, 28-26, 10-12, 19-17 |

Mechanical

Schematics

YB



T1/E1/CEPT/ISDN-PRI QUAD TRANSFORMERS Surface Mount Package



| IC Manufacturer | IC Part Number | Application | T/R | Pulse Part No. | Ratio | Pins |
|-----------------|------------------|-------------|-----------|----------------|----------|------------------------------------------------------------------------|
| LEVEL ONE | LXT332 | T1 | Transmit | T1017 | 1:2.3 | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | | Receive | T1006 | 1:2CT | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | E1/CEPT | Transmit | T1006 | 1:2 | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | | Receive | T1006 | 1:2CT | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| VLSI | VP14Q575 | T1 | Transmit | T1007 | 1:1.15 | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | | Receive | T1006 | 1:2CT | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | 75Ω/E1 | Transmit | T1005 | 1:1.266 | (1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18) |
| | | 120Ω/CEPT | Transmit | T1005 | 1:1.58 | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | E1/CEPT | Receive | T1006 | 1:2CT | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| AT&T/LUCENT | T7690 (5V) | T1 | Transmit | T1007 | 1:1.15 | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | | Receive | T1007 | 1:1.15CT | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | E1/CEPT | Transmit | T1010 | 1:1.36 | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | | Receive | T1010 | 1:1.36CT | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| PMC-SIERRA | PM4314QDSX | T1 | Transmit | T1008 | 1:1.36 | (1-3) : (32-30), (10-12) : (23-21) |
| | | | Receive | T1008 | 1:2 | (28-26) : (5-7), (19-17) : (14-16) |
| | | E1/CEPT | Transmit | T1008 | 1:1.36 | (1-3) : (32-30), (10-12) : (23-21) |
| | | | Receive | T1008 | 1:2 | (28-26) : (5-7), (19-17) : (14-16) |
| EXAR | XR-5793/5795 | T1 | Transmit | T1009 | 1:1.265 | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | | Receive | T1009 | 1:1 | (1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18) |
| | | 75Ω/E1 | Transmit | T1009 | 1:1 | (1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18) |
| | | 120Ω/CEPT | Transmit | T1009 | 1:1.265 | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | E1/CEPT | Receive | T1009 | 1:1 | (1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18) |
| CRYSTAL | CS61582/3/4 (5V) | T1 | Transmit | T1016 | 1:2 | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | | Receive | T1016 | 1:1.15 | (1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18) |
| | | E1/CEPT | Transmit | T1016 | 1:2 | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |
| | | | Receive | T1016 | 1:1.15 | (1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18) |
| | CS61584 (3V) | T1/E1/CEPT | Trans/Rec | T1016 | 1:2 | (1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17) |

NOTES FROM TABLES

A. OCL (primary inductance) and L_L (leakage inductance) are measured at the primary winding. Turns ratio is specified primary: secondary. (CT = Center Tap).

B. To make a 1:1 ratio from a 1:2CT ratio, use one-half of the secondary (2CT) winding.

C. Dual Ratio Transformers — These transformers have tapped secondary windings to provide two turns ratios (T/R). Use entire primary winding and connect secondary pins listed below to obtain desired turns ratio:

| Part # | Turns Ratio 1 | Secondary Pins | Turns Ratio 2 | Secondary Pins |
|--------|---------------|----------------------------|---------------|----------------------------|
| T1001 | 1:1 | 31-32, 27-28, 22-23, 18-19 | 1:1.36 | 30-32, 26-28, 21-23, 17-19 |
| T1005 | 1:1.266 | 31-32, 27-28, 22-23, 18-19 | 1:1.58 | 30-32, 26-28, 21-23, 17-19 |
| T1016 | 1:1.15 | 31-32, 27-28, 22-23, 18-19 | 1:2 | 30-32, 26-28, 21-23, 17-19 |
| T1017 | 1:2 | 31-32, 5-6, 22-23, 14-15 | 1:2.3 | 30-32, 5-7, 21-23, 14-16 |

D. Standard packaging is anti-static tubes. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number, (i.e. T001T).

Common Mode Chokes for Telecom Applications

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

| Pulse Part Number | Turns Ratio (±5%) | OCL (μH MIN) | Cw/w (pF MAX) | LL (μH MAX) | DCR (Ω MAX) | Isolation (Vrms MIN) | Package |
|---------------------------------------------------|-------------------|--------------|---------------|-------------|-------------|----------------------|---------------|
| HIGH FREQUENCY COMMON MODE CHOKES, 4-LINES | | | | | | | |
| PE-65554 | 1:1:1:1 | 24.0 | 15 | .20 | 0.30 | 500 | Through Hole |
| PE-65555 | 1:1:1:1 | 8.0 | 10 | .20 | 0.25 | 500 | Through Hole |
| PE-65854 | 1:1:1:1 | 47.0 | 16 | .20 | 0.30 | 500 | Surface Mount |
| PE-65857 | 1:1:1:1 | 24.0 | 15 | .23 | 0.30 | 500 | Surface Mount |

Note: See G002 for Mechanicals and Schematics of Common Mode Chokes.

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 Europe

Einsteinstrasse 1
D-71083 Herrenberg
Germany

Tel: 49 7032 7806 0
Fax: 49 7032 7806 12

Pulse China Headquarters

B402, Shenzhen
Tech-Innovation International
Tenth Kejinan Rd.
High-Tech Industrial Park
Nanshan District, Shenzhen
China

Tel: 86 755 33966678
Fax: 86 755 33966700

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

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