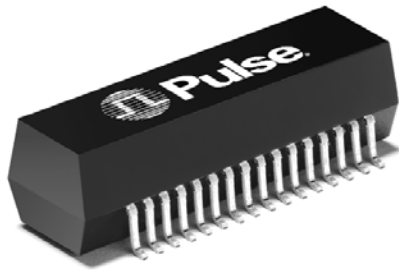


# T1/E1/CEPT/ISDN-PRI QUAD TRANSFORMERS Surface Mount Package



- ⊕ 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

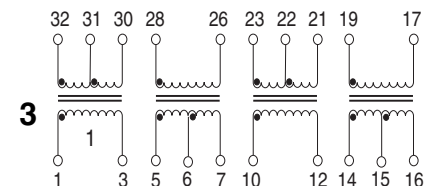
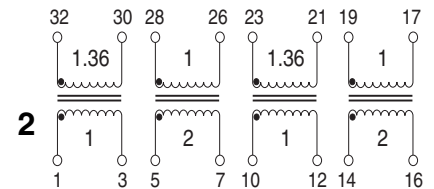
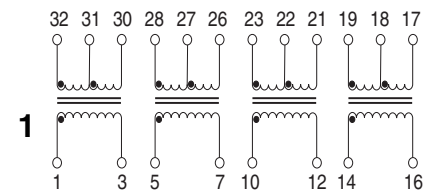
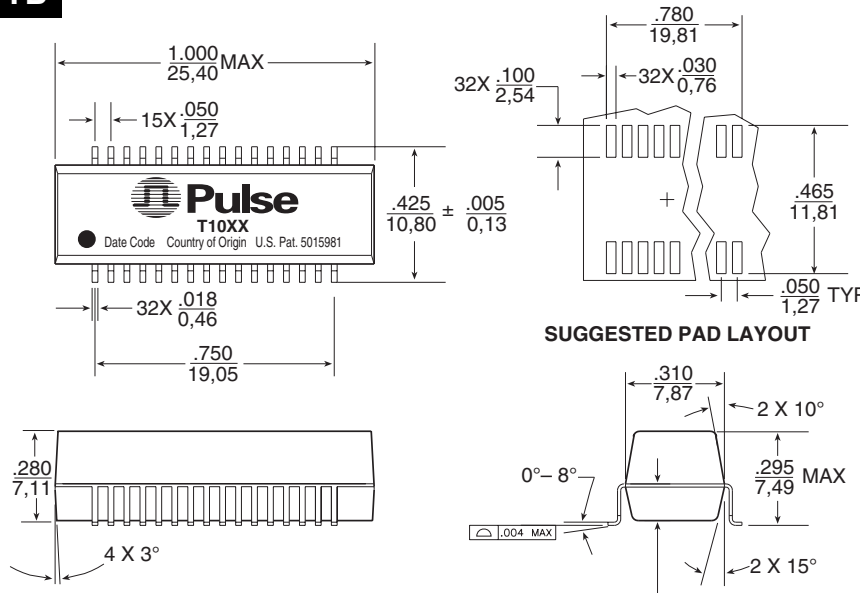
## Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

Part Number	Turns Ratio <sup>A,B</sup> (Pri:Sec ±2%)	OCL @ 25°C (mH MIN)	L <sub>L</sub> (μH MAX)	C <sub>w/w</sub> (pF MAX)	DCR Pri (MAX)	DCR Sec (MAX)	Package/ Schematic <sup>D</sup>	Primary Pins
T1001 <sup>C</sup>	1:1.36 / 1	1.2	0.40	30	0.7	1.0	YB/1	1-3, 5-7, 10-12, 14-16
T1005 <sup>C</sup>	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 <sup>C</sup>	1:1.36CT	1.2	0.50	30	0.6	0.8	YB/1	1-3, 5-7, 10-12, 14-16
T1016 <sup>C</sup>	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	<b>T1017</b>	1:2.3	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
			Receive	<b>T1006</b>	1:2CT	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
		E1/CEPT	Transmit	<b>T1006</b>	1:2	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
			Receive	<b>T1006</b>	1:2CT	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
VLSI	VP14Q575	T1	Transmit	<b>T1007</b>	1:1.15	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
			Receive	<b>T1006</b>	1:2CT	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
		75Ω/E1	Transmit	<b>T1005</b>	1:1.266	(1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18)
		120Ω/CEPT	Transmit	<b>T1005</b>	1:1.58	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
		E1/CEPT	Receive	<b>T1006</b>	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	<b>T1007</b>	1:1.15	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
			Receive	<b>T1007</b>	1:1.15CT	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
		E1/CEPT	Transmit	<b>T1010</b>	1:1.36	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
			Receive	<b>T1010</b>	1:1.36CT	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
PMC-SIERRA	PM4314QDSX	T1	Transmit	<b>T1008</b>	1:1.36	(1-3) : (32-30), (10-12) : (23-21)
			Receive	<b>T1008</b>	1:2	(28-26) : (5-7), (19-17) : (14-16)
		E1/CEPT	Transmit	<b>T1008</b>	1:1.36	(1-3) : (32-30), (10-12) : (23-21)
			Receive	<b>T1008</b>	1:2	(28-26) : (5-7), (19-17) : (14-16)
EXAR	XR-5793/5795	T1	Transmit	<b>T1009</b>	1:1.265	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
			Receive	<b>T1009</b>	1:1	(1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18)
		75Ω/E1	Transmit	<b>T1009</b>	1:1	(1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18)
		120Ω/CEPT	Transmit	<b>T1009</b>	1:1.265	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
		E1/CEPT	Receive	<b>T1009</b>	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	<b>T1016</b>	1:2	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
			Receive	<b>T1016</b>	1:1.15	(1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18)
		E1/CEPT	Transmit	<b>T1016</b>	1:2	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
			Receive	<b>T1016</b>	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	<b>T1016</b>	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
<b>HIGH FREQUENCY COMMON MODE CHOKES, 4-LINES</b>							
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.

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