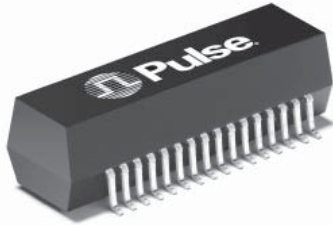








# T3/DS3/E3/STS -1 TRANSFORMERS

## Surface Mount Package



-  RoHS peak reflow temperature rating: 245°C
-  Quad transformers in SMT package supports two T1/E1 ports
-  Available in transmit and/or receive configurations
-  Models matched to leading quad, dual T1/E1/ CEPT transceivers
-  UL recognized
-  Isolation voltage: 1500 Vrms

### 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
T1001NL <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
T1006NL	1:2CT	1.2	0.35	30	0.6	1.0	YB/1	1-3, 5-7, 10-12, 14-16
T1007NL	1:1.15CT	1.2	0.70	23	0.6	0.8	YB/1	1-3, 5-7, 10-12, 14-16
T1009NL	1:1.265 / 1	1.2	0.80	35	0.6	0.8	YB/1	1-3, 5-7, 10-12, 14-16

- A. OCL (primary inductance) and L<sub>L</sub> (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:

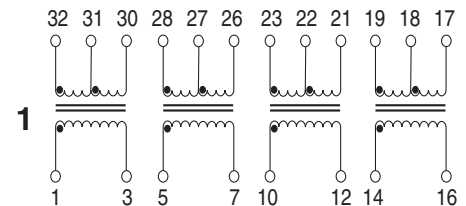
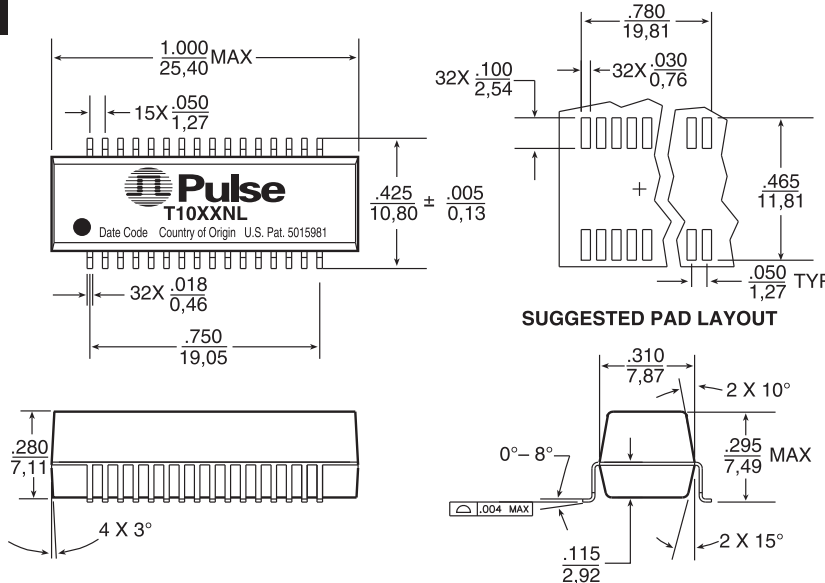
Part Number	Turns Ratio 1	Secondary Pins	Turns Ratio 2	Secondary Pins
T1001NL	1:1	31-32, 27-28, 22-23, 18-19	1:1.36	30-32, 26-28, 21-23, 17-19

- 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. T006NLT).

## Mechanical

## Schematic

YB



Weight . . . . . 2.7 grams  
Tape & Reel . . . . . 200/reel  
Tube . . . . . 20/tube

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0.25}$

USA 858 674 8100 • Germany 49 7032 7806 0 • Singapore 65 6287 8998 • Shanghai 86 21 32181071 • China 86 755 33966678 • Taiwan 886 3 4643715

# T3/DS3/E3/STS -1 TRANSFORMERS

## Surface Mount Package



IC Manufacturer	IC Part Number	Application	Transmit/Receive	Pulse Part Number	Ratio	Pins
LEVEL ONE	LXT3LXT32	T1	Receive	<b>T1006NL</b>	1:2CT	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
		E1/CEPT	Transmit	<b>T1006NL</b>	1:2	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
			Receive	<b>T1006NL</b>	1:2CT	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
VLSI	VP14Q575	T1	Transmit	<b>T1007NL</b>	1:1.15	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
			Receive	<b>T1006NL</b>	1:2CT	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
		E1/CEPT	Receive	<b>T1006NL</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>T1007NL</b>	1:1.15	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
			Receive	<b>T1007NL</b>	1:1.15CT	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
EXAR	XR-5793/5795	T1	Transmit	<b>T1009NL</b>	1:1.265	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
			Receive	<b>T1009NL</b>	1:1	(1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18)
		75Ω/E1	Transmit	<b>T1009NL</b>	1:1	(1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18)
		120Ω/CEPT	Transmit	<b>T1009NL</b>	1:1.265	(1-3) : (32-30), (5-7) : (28-26), (10-12) : (23-21), (14-16) : (19-17)
		E1/CEPT	Receive	<b>T1009NL</b>	1:1	(1-3) : (32-31), (5-7) : (28-27), (10-12) : (23-22), (14-16) : (19-18)

## 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)	C <sub>w/w</sub> (pF MAX)	LL (μH MAX)	DCR (Ω MAX)	Isolation (Vrms MIN)	Package
<b>HIGH FREQUENCY COMMON MODE CHOKES, 4-LINES</b>							
<b>PE-65554NL</b>	1:1:1:1	24.0	15	.20	0.30	500	Through Hole
<b>PE-65555NL</b>	1:1:1:1	8.0	10	.20	0.25	500	Through Hole
<b>PE-65854NL</b>	1:1:1:1	47.0	16	.20	0.30	500	Surface Mount
<b>PE-65857NL</b>	1:1:1:1	24.0	15	.23	0.30	500	Surface Mount

NOTE: See the "G002" (Common Mode Choke Catalog) for mechanicals and schematics.

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