



## Description

These integrated termination networks provide high performance line termination designs for both 2.5V & 3.3V LVPECL busses.

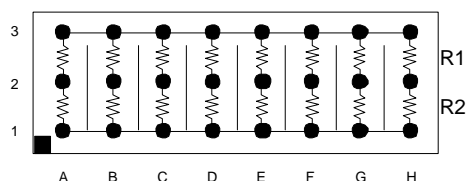
Specifically designed shielding inside the package combined with a ceramic substrate virtually eliminates cross talk between channels that is common in other termination networks and resistor arrays.

The BGA packaging has been proven to reduce rework and improve reliability.

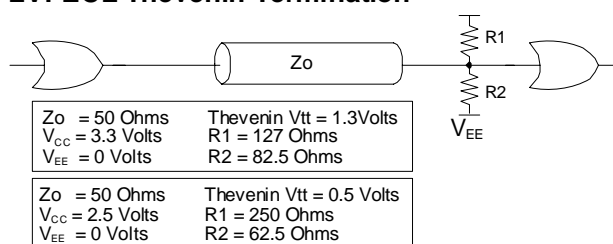
## Features

- 8 Bit Thevenin Termination Set
- Compliant for LVPECL Termination
- Excellent High Frequency Performance
- Slim BGA Package
- 1% Resistor Tolerance
- Low Channel to Channel Cross Talk
- RoHS Compliant Designs Available
  - Compatible with both lead and lead-free processes

### Style G



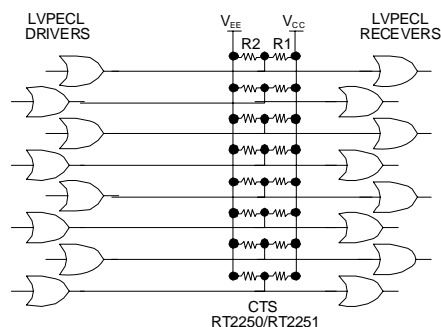
### LVPECL Thevenin Termination



## Electrical Specifications

Resistor Tolerance:			± 1.0%			
TCR			± 200 ppm/°C			
Operating Temperature Range			-55°C to +125°C			
Maximum Resistor Power:			B6-1.27mm Pitch		B7-1.00mm Pitch	
			RT1250 R1		96mW	60mW
			RT1250 R2		96mW	66mW
			RT1251 R1		143mW	91mW
			RT1251 R2		164mW	105mW
Maximum Package Power:			1.0 Watt at 70°C			
Process Requirements:						
Maximum Re-flow Temperature			Per IPC/JEDEC J-STD-020C			

### Typical Application



## Ordering Information

Standard Part No.	R1 $\Omega$	R2 $\Omega$	Bits	Pitch (mm)	RoHS Part No.
RT1250B6*	127	82.5	8	1.27	RT2250B6*
RT1250B7	127	82.5	8	1.00	RT2250B7
RT1251B6	250	62.5	8	1.27	RT2251B6
RT1251B7	250	62.5	8	1.00	RT2251B7

\*Indicates available Top Probe-able part numbers.

Refer to the following link for detailed Top Side Probe-able information:

[www.ctscorp.com/components/clearone/TopProbeClearOne.pdf](http://www.ctscorp.com/components/clearone/TopProbeClearOne.pdf)

## Packaging Information

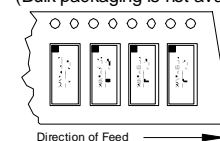
Suffix	TR7	TR13
Tape Width	24 mm	24mm
Carrier Pitch	8 mm	8 mm
Reel Diameter	7 inch	13 inch
Parts/Reel	1,000	4,000

### Part Number Coding

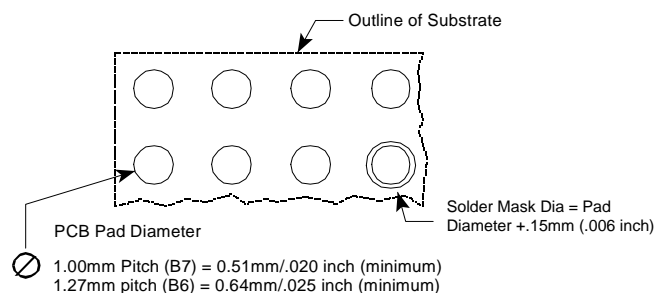
7 inch reel, Add TR7 to part number, example RT2250B7TR7

13 inch reel, Add TR13 to part number, example RT2250B7TR13

(Bulk packaging is not available)



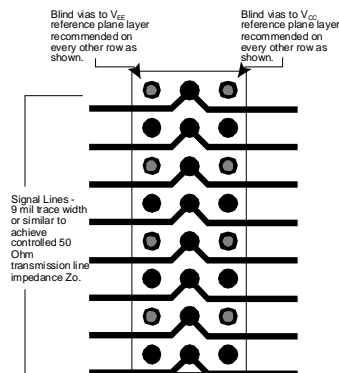
## Recommended Land Pattern



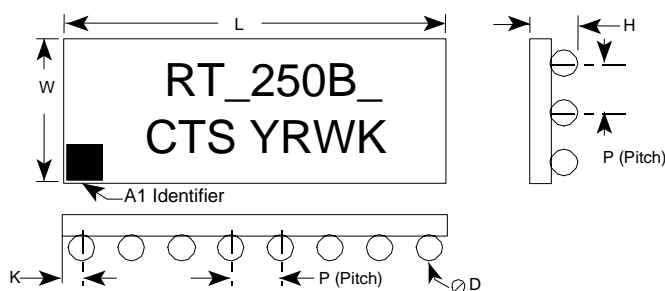
For .006" Thick Solder Paste Stencil, Aperture Opening Should be Equal to the PCB Pad Diameter.

Refer to [www.ctscorp.com/components/clearone.asp](http://www.ctscorp.com/components/clearone.asp) for additional PCB design information

## BGA Routing Scheme



## Mechanical Diagram



1.00mm Pitch		L	W	H	P	D	K
RT1250B7 RT2250B7 RT1251B7 RT2251B7	mm	8.00±0.15	3.00±0.15	1.19±0.15	1.00±0.25	0.64±0.05	0.50±0.25
	inch	.315±.006	.118±.006	.047±.006	.039±.010	.025±.002	.020±.010
1.27mm Pitch		L	W	H	P	D	K
RT1250B6 RT2250B6 RT1251B6 RT2251B6	mm	10.16±0.15	3.81±0.15	1.32±0.15	1.27±0.25	0.76±0.05	0.64±0.25
	inch	.400±.006	.150±.006	.052±.006	.050±.010	.030±.002	.025±.010

Complete ClearONE Product, Processing, and Application Information can be found at the following link:

<http://www.ctscorp.com/components/clearone.asp>

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CTS:

[RT2250B7TR7](#) [RT1250B7TR7](#)