HIGH PERFORMANCE GTL TERMINATION NETWORK FOR SOCKET 370 PROCESSORS

Features

- 24 terminations in a single package
- 5 chip solution for all 119 GTL terminations
- High speed termination network
- Center ground pin placement reduces ground bounce and eases board layout
- Very low cross-talk
- Saves board space and reduces assembly cost

Applications

- High Performance Servers
- High Performance Desk Top Systems
- Intel Celeron™ and Pentium™ CPUs

Application Information

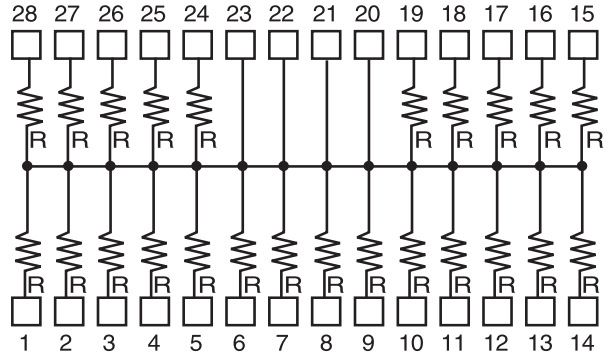
High speed microprocessors demand unique, high speed bus termination. The PACGTL Termination Network provides 24 terminations per package and meets the requirements for high speed terminations. The termination resistor values are 56 or 120 ohms each. Five devices provide the necessary terminations for the 32-bit address bus, 64-bit data bus, and the control of status signals. Potential board layout solutions are included in this datasheet.

This termination network provides high performance, high reliability, and low cost through manufacturing efficiency. The termination resistor elements are fabricated using state-of-the-art thin film manufacturing. This integrated solution is silicon-based and has the same reliability characteristics of today's microprocessor products. The thin film resistors have very high stability over temperature, over applied voltage, and over life. In addition, the QSOP (SSOP) industry standard packaging is easy to handle in manufacturing and yields high reliability similar to other semiconductor components.

STANDARD VALUES	
Resistor (R)	56 or 120 Ohms
Absolute Tolerance (R)	±5%
TCR	±150ppm
Operating Temperature Range	0°C to 70°C
Max Package Power Rating (70°C)	1.00W
Minimum Insulation Resistance	10,000Meg Ω
Cross-talk *	4%

R(Ω)	Code	Power Rating / Resistor
56	560	100 mW
120	121	40 mW

STANDARD CONFIGURATION



* PAC560GTL or PAC121GTL used as a terminator. Signal on a single victim line when all other lines are driven synchronously and simultaneously.

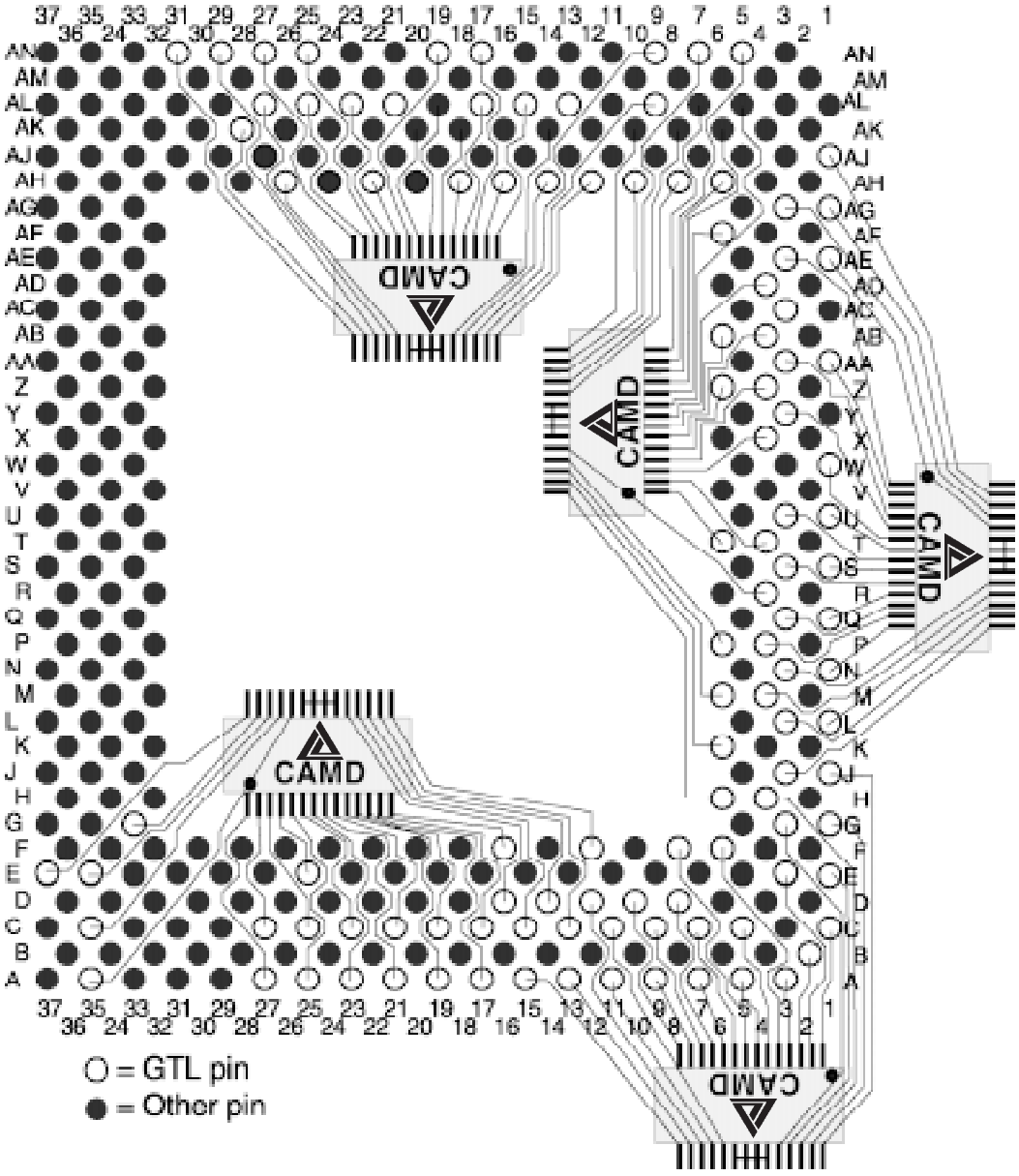
STANDARD PART ORDERING INFORMATION		
Package		Ordering Part Number
Pins	Style	Part Marking
28	QSOP	PAC560GTL
28	QSOP	PAC121GTL

When placing an order please specify desired shipping: Tubes or Tape & Reel.

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RECOMMENDED LAYOUT FOR SOCKET 370 (OPTION A) FOR CELERON™ AND MENDOCINO™ CPUs

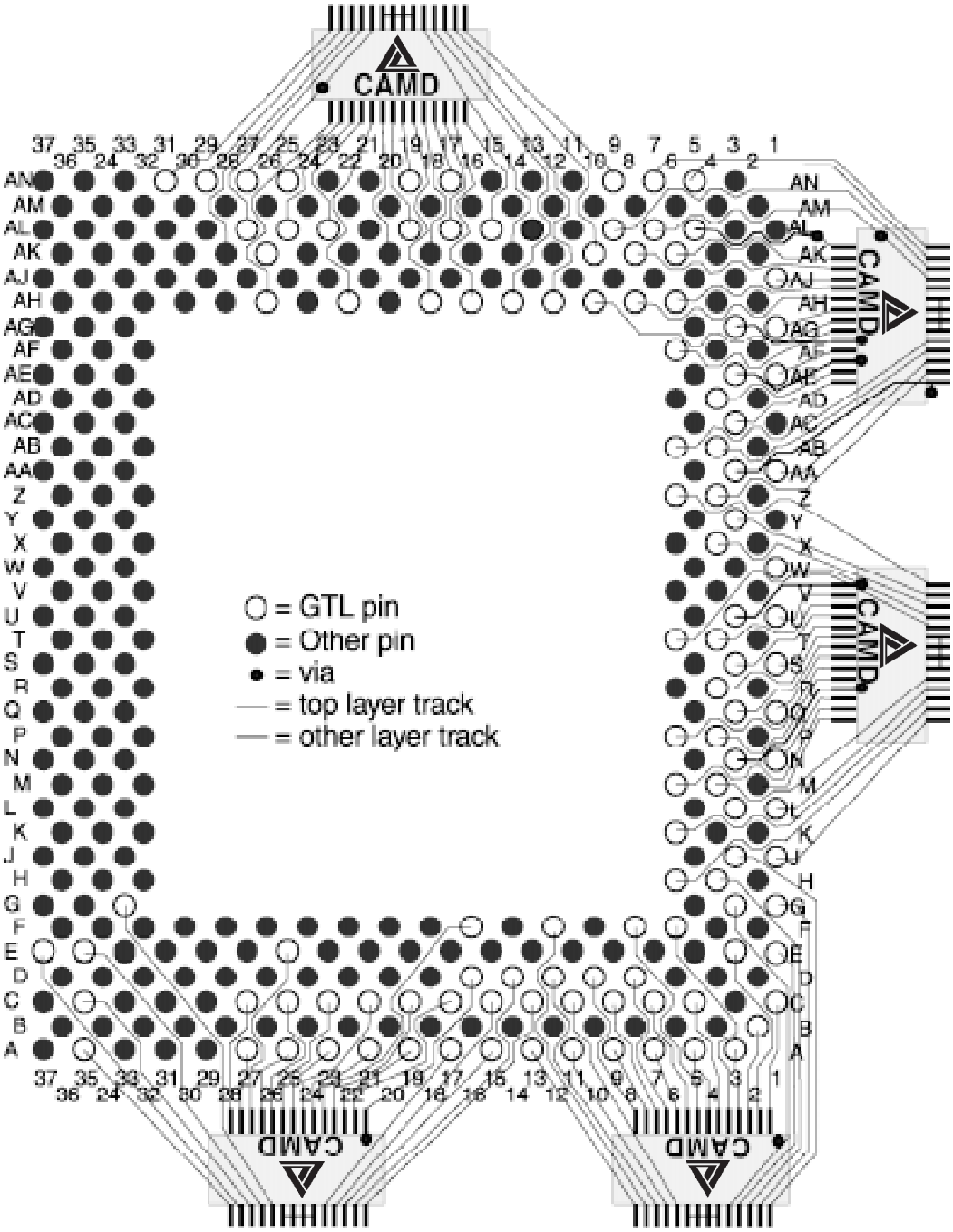
11-mil track pitch, single layer



Note: This option requires 1 metal layer in board routing for all 119 GTL termination lines.

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RECOMMENDED LAYOUT FOR SOCKET 370 (OPTION B) FOR CELERON™ AND MENDOCINO™ CPUs



Note: This option requires 2 metal layers in board routing for all 119 GTL termination lines. Please note that the second layer only uses 6 short traces, minimizing potencial interference with other traces, and also minimizing the number of vias.

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