Paramax

PS-1
1 MByte ParaSIMM™ Transputer Module

Description:

The ParaSIMM™ family consists of a selection of mechanically reliable transputer modules. These products allow the system architect to design-in one, or many, powerful transputer subsystems without the difficulties of integrating processor, memory and control circuitry. The PS-1 is a 1MByte IMS T800-20 ParaSIMM and, like the entire ParaSIMM family, connects to a system motherboard through an industry-standard 30-pin SIMM memory module socket. This orientation causes the ParaSIMM to stand up away from the mothercard utilizing the volume above the board and packing the most processing power into the smallest space.

The PS-1 mimics INMOS' *TRAM* products with a superset of *TRAM* signals, providing maximum control and information at the module connector and four uncommitted signal lines are available for even more configurability in future ParaSIMMs. And, at 3.5 x 1.95 x .225", the PS-1 can fit more processing power and memory into an application than any other subsystem available.

The PS-1 provides an Error indicator and an External Memory indicator. It also features Schottky diode overvoltage protection on all input pins. It it compatible mechanically with industry-standard 30–pin SIMM sockets, such as the high-reliability AMP Micro-Edge series.

Power dissipation is low due to a tightly integrated subsystem design. At 3W the PS-1 competes favorably with other similar transputer-based systems on a per-processor basis. The PS-1s orientation and part placement facilitates heat dissipation in any mounting orientation.

The PS-1 is designed to provide maximum reliabilty, efficiency and density. For more information, consult Paramax Technical Note #1 - The ParaSIMM Family Specification.

Features:

- Modular format - Allows design of expandable servicable transputer system

- PS-1 features T800-20 and 1MByte RAM (4 cycle) 3-cycle version designated FPS-1

- Electrically and functionally INMOS *TRAM* compatible - Additional signals include SEPNOTERROR and all three LinkSpeed pins (allowing 5Mbit and future linkspeeds)

- Very compact - 3.5 x 1.95 x .225"

- Fits into industry-standard 30-pin SIMM memory module mechanical format, either perpendicular to mothercard or at 25° angle

- Double power and ground pins for low noise

- Four uncommitted connector pins for future family expansion and custom modules

- Overvoltage protection with dual Schottky diodes on all input signal pins

- Full ParaSIMM family specification available

- Future ParaSIMMs include 4MByte module in 3 and 4-cycle versions, T800-30 and T801 modules, and a 16MByte T800-20 module

- Evaluation kit available, includes unpopulated demo card, high-force SIMM socket and PS-1. Board supports INMOS standard link cables, holds eight PS-1 modules and features a built–in 1A power supply
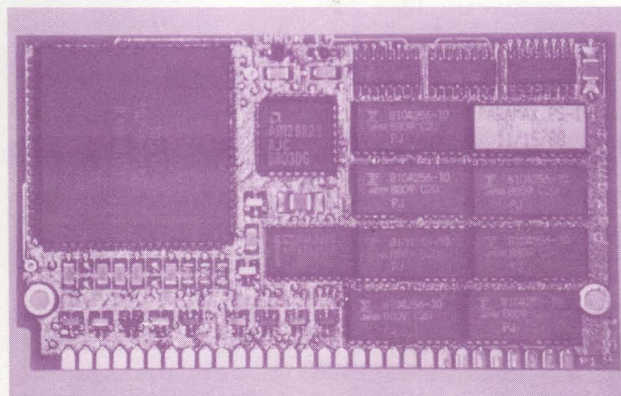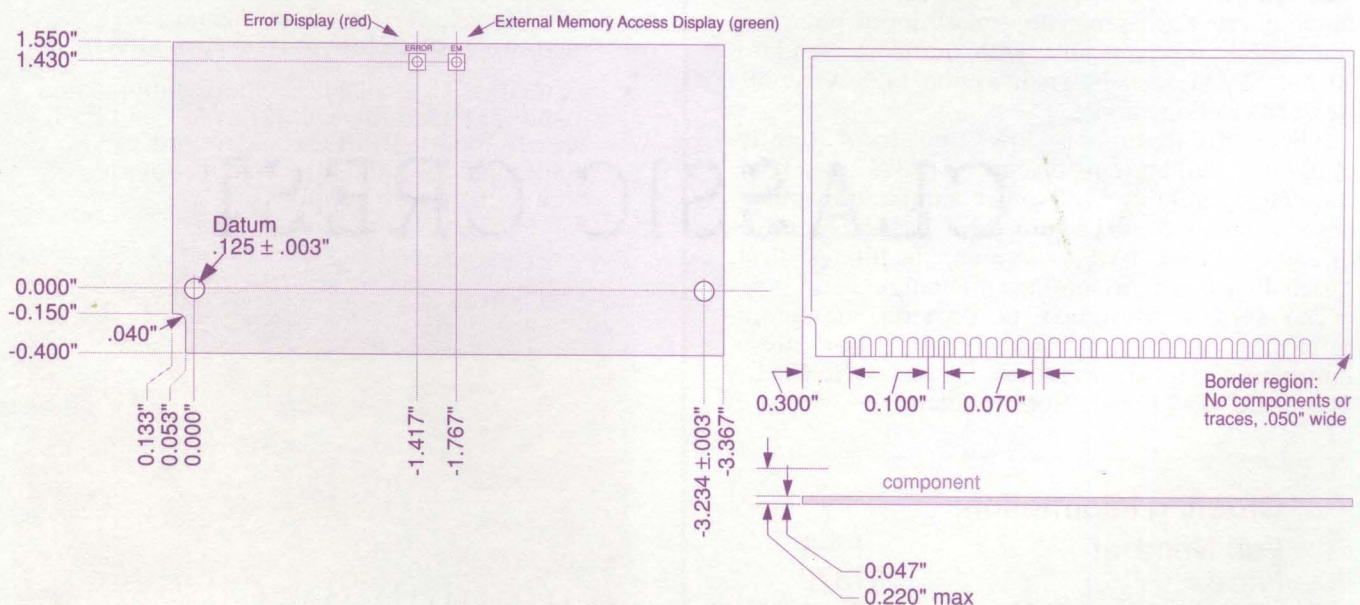

Ordering Information:

Part Number	PS-1
Price	$1370

Quantity pricing available, call for details

Paramax Corporation • **101B Halmar Cove** • **Georgetown, TX 78628** • **(512) 863-7971**

Specifications:

Size:	3.5 x 1.95 x .225" for PS-1
	5.5 x 1.95 x .345" maximum for future modules

Power: Voltage _____ 5V ± 10%   Dissipation ___ 3W @ 0° C

Temperature: Operation ____ 0 to 55° C   Storage _____ -50 to +125° C

Interface: 30-pin gold-plated socket with 200 oz force per pin

Recommended socket: AMP type 821829-2 vertical type and 821877-2 for 25° mounting angle

Processor: INMOS IMS T800-20

Memory: 1,048,576 Bytes in 256K x4 100-ns DRAMs (4 processor cycles - 200ns.)

Indicators: Two, ERROR status (red), and External Memory Access (green)

Signal description: Similar to *TRAM* standard, but additional signals include all three speed select pins and SEPNOTERROR

Signal List:

1	Gnd	2	Gnd	3	RESET
4	Vcc	5	Vcc	6	ANALYZE
7	NOTERROR	8	SEPNOTERROR	9	Shield Gnd
10	5MHz clock	11	Shield Gnd	12	LINKSPECIAL
13	LINK0SPECIAL	14	LINK123SPECIAL	15	L0in
16	L0out	17	L1in	18	L1out
19	L2in	20	L2out	21	L3in
22	L3out	23	Vcc	24	Vcc
25	RESERVED	26	RESERVED	27	RESERVED
28	RESERVED	29	Gnd	30	Gnd

PS-1 Assembly Dimensions