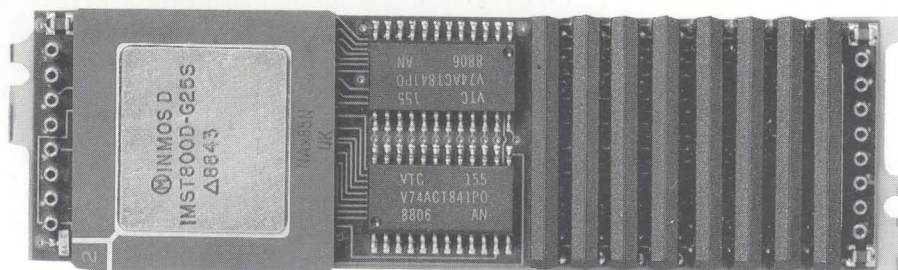


**TTM**

# Transtech TRAMs TTM3

**TTM**

- Features**
- ◆ IMST800, IMST425 or IMST414 transputer options
  - ◆ 1 MByte of dynamic RAM
  - ◆ Zero wait state memory option
  - ◆ 20, 25 or 30 MHz transputer speed option
  - ◆ Four serial transputer links
  - ◆ Only 16 active pins
  - ◆ Industry standard size 1 TRAM
  - ◆ Compatible with Transtech range of TRAM motherboards
- 



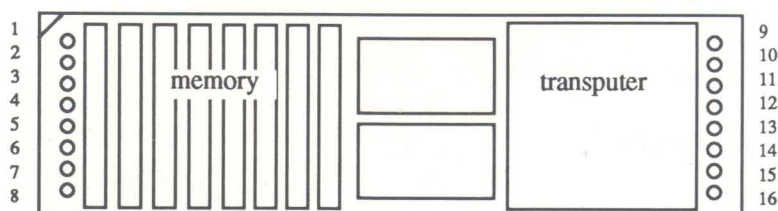
**Introduction** The Transtech TTM3 TRAM (TRANsputer Module) is a small industry standard daughterboard for the Transtech range of TRAM motherboards. It has 1 MByte of dynamic RAM and is capable of supporting the IMST800, IMST425 and IMST414 transputers.

## **TRAM Standard**

Measuring only 1.05" by 3.66" (2.67mm by 9.30mm) the TTM3 conforms to the published TRAM standard, allowing them to be plugged easily onto a wide range of motherboards for many different host machines. Up to 10 TRAMs can be accommodated on a Transtech TMB08 board for IBM PC XT or AT's and compatibles, 4 on the Transtech TMB04 and TMB05, 16 on a TMB12 double extended eurocard and 32 on the MCP1000 Multi Computing Platform for Sun workstations, allowing rapid prototyping of transputer systems. Transtech TRAMs are also compatible with motherboards from other manufacturers. Further details on the TRAM standard and TRAM Module Motherboard Architecture are published by Prentice Hall in 'Transputer Technical Notes' ISBN 0-130929126-1.

### Functional Description

TRAMs use 16 pins for communication with the motherboard and for obtaining power. However, TRAMs that are larger than size 1 have more than 16 pins, with the extra pins providing more power and ground connections. The extra pins also propagate the signals from the motherboard below to allow stacking of modules. The link speed of the TRAMs is selected by two pins. When both are held low the links operate at 10 Mbits/sec and when high at 20 Mbits/sec. This is implemented by jumpers or switches on the motherboards. The allocation of the pins are shown in the following diagram.



1 Link2Out	9 Link3In
2 Link2In	10 Link3Out
3 VCC	11 GND
4 Link1Out	12 Link0In
5 Link1In	13 Link0Out
6 LinkSpeedA	14 notError
7 LinkSpeedB	15 Reset
8 ClockIn(5MHz)	16 Analyse

### Ordering Information

Part Number	Processor Type	Processor Cycle Time (ns)	Memory (MBytes)	Memory CycleTime (ns)
TTM3-4	IMST414-20	50	1	200
TTM3-42	IMST425-20	50	1	200
TTM3-8	IMST800-20	50	1	200
TTM3-8-F	IMST800-20	50	1	150
TTM3-85	IMST800-25	40	1	160
TTM3-85-F	IMST800-25	40	1	120
TTM3-830	IMST800-30	33	1	132



TRANSTECH DEVICES LIMITED  
Unit 17, Wye Industrial Estate  
London Road  
High Wycombe  
Buckinghamshire  
HP11 1LH  
England  
Telephone: [+44] 0494 464303  
Facsimile: [+44] 0494 463686

©Copyright Transtech Devices Limited 1989

Transtech has a policy of continuous development and reserves the right to change these specifications without prior warning. Transtech cannot accept responsibility to any third party for loss or damage arising from the use of this information. Transtech acknowledges all registered trademarks

Document Reference: TTM3FLY0789