

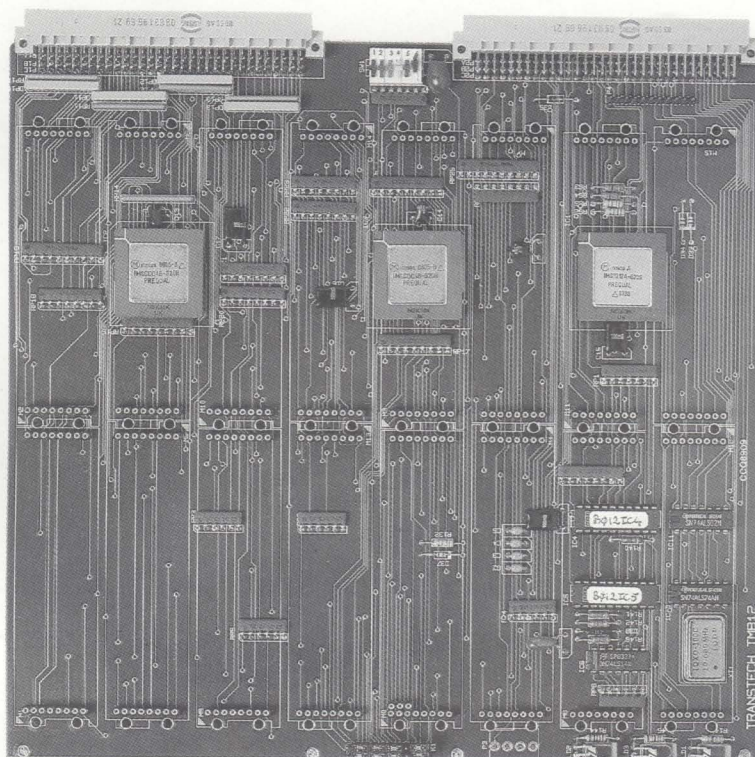
TMB

Transtech TMB12

A DOUBLE EXTENDED EUROCARD TRANSPUTER MODULE MOTHERBOARD

TMB

- Features**
- ◆ Sixteen standard TRAM (TRANsputer Module) slots
 - ◆ IMST800, IMST425 or IMST414 transputer options
 - ◆ Includes two IMSC004 link crossbar switches
 - ◆ Software reconfigurable link topology
 - ◆ Plugs directly into Transtech TRANSRACK10/12 and Inmos ITEM
 - ◆ Compatible with the Transtech range of TRAMs
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Introduction The Transtech TMB12 is a double extended eurocard with 16 TRAM (TRANsputer Module) slots. It incorporates 2 IMSC004 link crossbar switches controlled by a 16 bit IMST222 transputer, for software programming of the link topology of the transputer network.

Flexibility Flexibility is provided by the TRAM slots, which allow up to sixteen standard TRAMs to be added to the board. The TMB12 accepts the whole range of TRAMs from Transtech and is compatible with those of other manufacturers, giving customers the freedom to choose many different processor and memory combinations or application specific TRAMs. Further information on the Transtech range of TRAMs is available from Transtech or your local distributor, while details on the TRAM standard and TRAM motherboard architecture are published by Prentice Hall in 'Transputer Technical Notes' ISBN 0-130929126-1.

**Link
Configuration**

The 16 TRAM slots are arranged in a hardwired pipeline with their links 2 to 1 connected together. The ends of the pipeline are taken to the P2 connector for connection to other transputer boards or external devices.

All the slots link 0 outputs and link 3 inputs are connected to one IMSC004 with the remaining link input and outputs of the IMSC004 connected to the P1 connector. The other IMSC004 is connected similarly to all the link 0 inputs and link 3 outputs from the 16 slots and to the P1 connector.

This connection scheme allows a link 0 from any slot to be connected to a link 3 from any slot but not to another slots link 0. Slot 0 Link 0 is not however directly connected to the IMSC004's but to the P2 connector and can be connected to the IMSC004's by use of a jumper. This allows two links from slot 0 to be connected via P2 to external boards or devices which may be required in some applications where the use of the IMSC004's is not required.

**Programming
the
IMSC004's**

The IMSC004's each have a configuration link into which the link configuration information is passed by the IMST222 16 bit transputer. The IMST222 is connected by its link 0 and link 3 to the IMSC004's, while its other links 1 and 2 are taken to the P2 connector and are called 'ConfigUp' and 'ConfigDown' respectively. These two links allow the IMSC004's to be programmed from an external development system and for the TMB12 to pass on configuration information to other boards from the development system. The board is also supplied with a software system for programming the 16-bit IMST222 transputer which in turn programs the two IMSC004 crossbar switches to set up the desired link configurations.

**System
Control**

The reset, error and analyse system control of the transputer is user definable, by selecting one of a variety of reset configurations. Slot 0 can be reset from the external world via the P2 connector, while the remaining TRAM slots can be reset from either the same source as slot 0 or from a sub-system generated by the TRAM in slot 0.

Software

The TMB12 can be programmed with software development packages to run Occam, C, FORTRAN, Pascal and other transputer language compilers as well as Helios, TransIDRIS, Express and other transputer operating systems. It can also be used as the processing hardware for a number of application specific software packages that are available for the transputer.

**Ordering
Information**

PART NUMBER	DESCRIPTION
TMB12	DOUBLE EXTENDED EUROCARD MOTHERBOARD WITH 16 TRAM SLOTS



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