IMS B201 Transputer Evaluation Module

User Manual

INMOS Limited

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Contents

Electromagnetic interference

A previous design of this product, when fully populated with transputer evaluation boards, has been (informally) tested for compliance with FCC regulations for noise emissions, and failed to meet the requirements for Class A computing devices. Substantial modifications have been incorporated in the existing design, but the design has not been tested for compliance. Consequently the equipment may cause interference, in which case the user must take whatever measures are required to correct the interference.

1 Preface

The IMS B201 INMOS transputer evaluation module (ITEM) is a small modular cabinet that has been designed to accommodate up to ten INMOS transputer evaluation boards.

The ITEM can take any of the evaluation boards in double extended Eurocard format, such as the B001, B002, B003, B006, and B007. It will also take a variety of further evaluation boards also using the same format.

Power supply is provided for up to 60A at 5V, and 2.5A at 12V to allow for future boards with disks.

The hinged rear panel includes two sets of BNC connectors for colour monitors., and four 25 way D connectors for RS 232 connection to computer, terminal, or mouse. The rear panel has a slot through which link and reset cables may be taken. These may connect to another ITEM or to a development system hosted on a transputer, such as on the IMS B004 inside an IBM personal computer.

2 Mains lead and voltage

2.1 Mains lead

A mains lead is supplied with the ITEM. If the plug is not appropriate, replace it with a suitable plug, ensuring that the wire coloured green and yellow is taken to Earth (Ground), the wire coloured brown is taken to Line (Live), and the wire coloured blue is taken to Neutral.

2.2 240V/110V

The power supply can be set to work from either 240V or 110V. Check that the setting is as you require. (The switch which sets the mains input voltage is above the mains ON/OFF switch on the fixed part of the rear panel.) To change the setting, unscrew the safety bar change the switch setting, and replace the safety bar.

2.3 Earth to logic 0V

The Mains Earth wire is connected to logic 0V. If you are using a number of ITEMs connected together and need a single system connection between Mains Earth and logic 0V, ensure first of all that there is a solid connection

between the 0V of all the ITEMs. The Black 4 mm socket provides a screw terminal for such connections. The Earth connection to logic 0V is made inside the hinged rear panel.

3 Opening the front and rear panels

The front panel is opened with a key, and hinges open.

Inside the front panel you will find the power supply on the left and the card cage on the right. At the top of the card cage, you will find a transit bar which needs to be removed before any board can be plugged in.

The rear panel is also hinged and can be opened by unscrewing the bolt on the left of the hinged panel.

3.1 Earth connection

A terminal block is fixed to the wall between the power supply and the card cage, close to the hinge of the rear panel. On the left of this terminal block is the connection between logic 0V and Mains Earth.

3.2 Fan speed

The fan can be driven at two speeds. When run from 12V, it is considerably quieter than when run at 24V. At the lower voltage and speed, there is substantial airflow. The higher speed is designed to cool the ITEM when the full 60A from the power supply is being used.

To change the fan speed, remove the fan leads from the 12V contacts on the terminal block, and plug them into the 24V contacts to the right of the terminal block.

4 Edge connectors

4.1 Standard connectors

The evaluation boards are supplied with a set of link cables, reset cables, and a DIN 41612 socket which the board plugs into. This DIN socket then acts as a plug for the link cables etc.

The DIN socket is used in a similar way in the ITEM, but instead of mating

directly with the board, the DIN socket is plugged into the back of a fixed DIN connector, into which the board plugs.

The DIN socket which is supplied with the board is then used to take the link and reset cables.

4.2 Extra connectors

The B007 and B006 (and future boards) use an extra edge connector. This extra connector must be bolted into the card cage.

In the case of the B007 the connector has three coax SMB leads which are terminated in BNC sockets. The BNC sockets can plug directly into the back-to-back BNC plugs in the hinged rear panel.

In the case of the B006 and other boards, the extra connector carries up to 32 links.

5 RS232 connections

The RS232 cables are packaged together with their fixings in the rear of the ITEM. If a cable is needed to connect to a board, the cable should be routed along the side of the card cage, to be plugged into the front of the board.