




**MPC7440**  
**MPC7445**

**intelligence**  **everywhere™**

**digital dna™** 

|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
|---|--|---|------------------|-------------------------|--------------------------|---------|----------------|------------------------|----------------------------------|--|----------|
|   | 1  | 2   | 3                | 4                       | 5                        | 6       | 7              | 8                      |                                  |  |          |
| A | Schematic Notes  |   |                  |                         |                          |         |                | Page                   | Contents                         |  |          |
|   | 1.   | Unless otherwise specified:<br>All resistors are SMD0603, in ohms, 0.08W, +/-5%<br>All capacitors are SMD0603, in microfarads (uF), +/-20%.<br>All inductances are in microhenries (uH).<br>All ferrites are Z=50 ohms at 100 MHz.<br>All fuses are self-resetting polyswitch (PTC) devices.<br>Board impedance is 55 +/- 5 ohms. |                  |                         |                          |         |                | 01                     | Cover Page                       |  |          |
|   | 2.   | Integrated circuits have default connections to power and ground unless explicitly shown otherwise. Global power connections are:<br>GND            VCACHE            VCACHE_IO<br>VCC_3.3        VCC_2.5            OVDD<br>VCC_5           VCORE            VCC_12  |                  |                         |                          |         |                | 02                     | General Information              |  |          |
|   | 3.   | Part numbers used are for reference only; compatible parts may be used; refer to the bill of materials.   |                  |                         |                          |         |                | 03                     | Block Diagram                    |  |          |
|   | 4.   | Motorola and the Motorola logo are registered trademarks of Motorola. PowerPC is a trademark of IBM. Other trademarks are the respective property of their respective copyright holders. The widening gyre. All rights reserved. No warranty is made, express or implied.   |                  |                         |                          |         |                | 04                     | Routing and Layout Information   |  |          |
|   | 5.   | The sheet-to-sheet cross reference format is:<br>Sheet "-" VertZoneLetter HorizZoneNumber   |                  |                         |                          |         |                | 05                     | Power Supply                     |  |          |
|   | 6.   | Components with the visible property "NO STUFF" are not to be installed by default; they are for test or manufacturing purposes only.<br>  |                  |                         |                          |         |                | 06                     | MPC744X System Logic             |  |          |
| B | 7.   | All buses follow big-endian bit numbering order (bit 0 is the most-significant bit), except where industry standards apply (i.e. PCI). Little-endian numbering is noted at the source component.  |                  |                         |                          |         |                | 07                     | MPC744X Power/Options            |  |          |
|   |  |   |                  |                         |                          |         |                | 08                     | MPC107: System Logic             |  |          |
|   |  |   |                  |                         |                          |         |                | 09                     | MPC107: Processor Interface      |  |          |
|   |  |   |                  |                         |                          |         |                | 10                     | MPC107: PCI Interface            |  |          |
|   |  |   |                  |                         |                          |         |                | 11                     | MPC107: Memory Interface         |  |          |
|   |  |   |                  |                         |                          |         |                | 12                     | SDRAM SODIMM Socket              |  |          |
|   |  |   |                  |                         |                          |         |                | 13                     | Local Boot ROM                   |  |          |
| C |  |   |                  |                         |                          |         |                | 14                     | Configuration Logic / LEDs       |  |          |
|   |  |   |                  |                         |                          |         |                | 15                     | PMC Connectors.                  |  |          |
|   |  |   |                  |                         |                          |         |                | 16                     | PMC Connector                    |  |          |
|   |  |   |                  |                         |                          |         |                | 17                     | Analyzer Headers                 |  |          |
|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
| D |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
| E | Team Gyrus<br>Cindy Callis    Layout<br>Ivan Erickson   Program Mgr.<br>Gary Milliorn   Designer<br>Tony Saucedo   Components<br>Margarito Trevino Technician<br>Gary Wojcik    Ref. Plat. Mgr |   |                  |                         |                          |         |                | REV    DATE    CHANGES |                                  |  |          |
|   |  |   |                  |                         |                          |         |                | X1                     | 01MAY25    Initial version       |  |          |
|   |  |   |                  |                         |                          |         |                | X2                     | 01NOV01    Fix for DQM scramble. |  |          |
|   | Date Changed: 11/2/2001  |   | Time: 3:20:51 pm | Engineer: Gary Milliorn | Drawing Number: M01GYRUS | REV: X2 | Project: Gyrus |                        | TITLE: Information, please       |  | Page: 02 |
|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
|   |  |   |                  |                         |                          |         |                |                        |                                  |  |          |
|   | 1  | 2   | 3                | 4                       | 5                        | 6       | 7              | 8                      |                                  |  |          |

*Gyrus\**

