PIM-581 ·

All-in-One Pentium MiniBoard Computer
with Flat Panel VGA, Ethernet, Sound, 4 Serial Ports and GPS socket
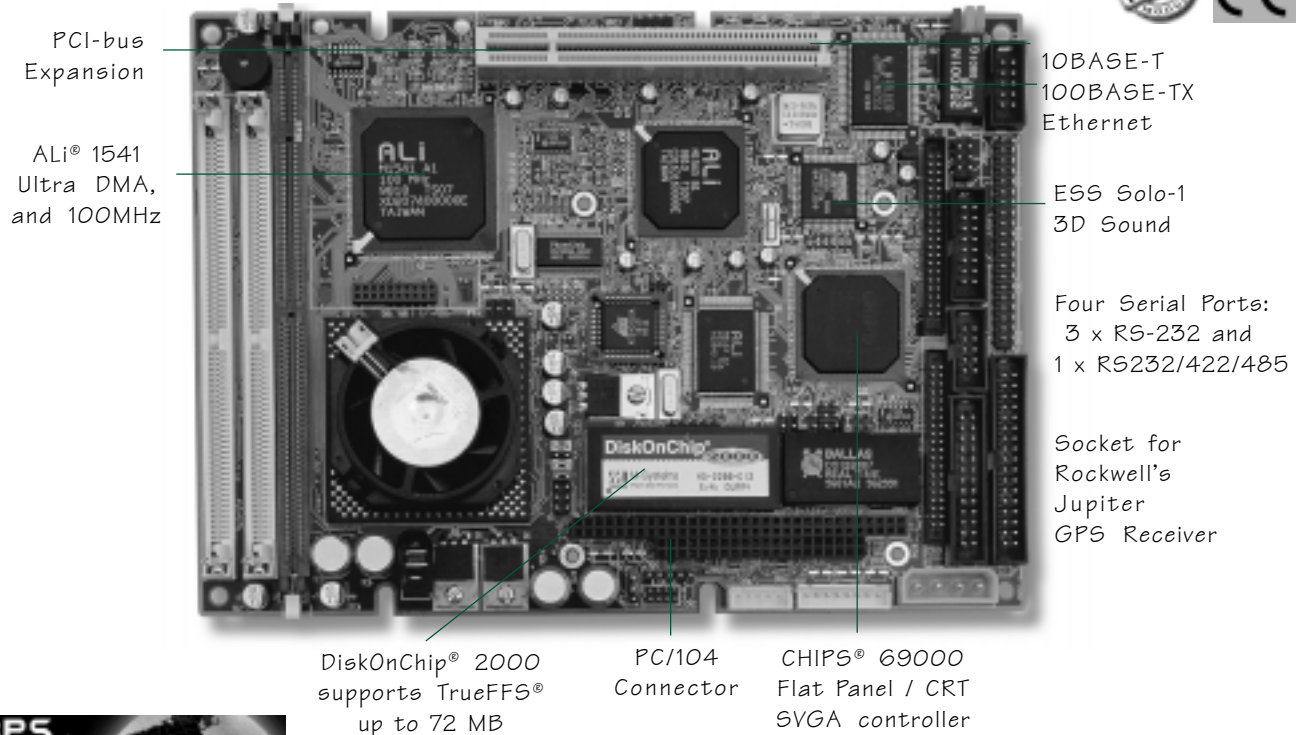
PCI-bus
Expansion

ALi® 1541
Ultra DMA,
and 100MHz

10BASE-T
100BASE-TX
Ethernet

ESS Solo-1
3D Sound

Four Serial Ports:
3 x RS-232 and
1 x RS232/422/485

Socket for
Rockwell's
Jupiter
GPS Receiver

DiskOnChip® 2000
supports TrueFFS®
up to 72 MB

PC/104
Connector

CHIPS® 69000
Flat Panel / CRT
SVGA controller

GPS

The PIM-581 is an all-in-one single board Pentium computer with onboard PCI Flat Panel / CRT SVGA controller, PCI 10BASE-T/100BASE-TX Ethernet, GPS and DiskOnChip® 2000 sockets, Audio interface and 4 serial ports.

GPS SOCKET

For GPS applications you can mount a Rockwell Jupiter GPS Receiver on a 20-pin internal header.

MULTI I/O (4 X SERIAL)

Also included are four serial ports (3x RS-232 and 1x RS-232/422/485), a parallel port, an enhanced IDE interface (for up to two drives), a floppy-drive controller and a keyboard/PS/2 mouse interface.

10/100 MBPS NETWORKING

A PCI 10BASE-T/100BASE-TX LAN interface is included for high speed networking.

FLAT PANEL/CRT SVGA

The PIM-581 includes a PCI-based C&T69000 controller that supports simultaneous use of CRT and Flat Panel

AUDIO INTERFACE

The Solo-1™ ES1938 PCI AudioDrive solution implements a single-chip PCI audio solution, providing high-quality audio processing while maintaining fulllegacy DOS compatibility

DISKONCHIP®2000

The PIM-581's SSD socket accommodates a DiskOnChip® 2000, a new generation of high performance single-chip Solid State Disks, that supports Flash Disks up to 72 MB.

WATCHDOG TIMER

The Watchdog Timer can invoke an interrupt or reset the CPU when your application loses control over the system.

Single Board Computers

Arbor®
Industrial PC-based Automation

Specifications

- **CPU**: AMD K5, K6, Cyrix/IBM/SGS 6x68 100~166, M2 Intel Pentium 75~233 MHz and Intel MMX

- **Chipset**: ALi M1541, M1543 (internal bus 100 MHz)

- **BIOS**: AMI Flash

- **Green Function** : power saving options supported in BIOS. DOZE / STANDBY / SUSPEND modes

- **Secondary Cache** : 512 KB pipeline burst

- **DRAM Memory** : up to 384 MB of SDRAM, BEDO, EDO or FP DRAM in two 72-pin SIMM sockets, one DIMM socket

- **Bus Interface** : PCI and PC/104

- **Data Bus** : 32-bit

- **Bus Speeds** : PCI - 33,3 MHz, PC/104 - 8,3 MHz

- **DMA Controllers** : 8237 x 2

- **DMA Channels** : 7

- **Interrupt Controllers** : 8259 x 2

- **Interrupt Levels** : 15

- **PCI Enhanced IDE with Ultra DMA** : supports two ports and up to four hard drives or Enhanced IDE devices. Supports PIO mode 3/4 and Bus-Master. Ultra DMA supports transfer rates of 33 MB/sec

- **RTC and Battery backup** : DS12B887 with internal lithium battery backup, or equivalent.

- **Watchdog Timer** : generates a system reset or interrupt when your application loses control over the system. Time interval : 1, 2, 10, 20, 110 and 220 sec.

- **Keyboard and Mouse Connectors** : onboard 5-pin header for PC/AT keyboard onboard 8-pin header for PS/2 keyboard or PS/2 mouse

HIGH SPEED MULTI I/O

- **Chipset** : Winbond 83977TF

- **Floppy Disk Drive Interface** : supports up to two floppy drives, 5¼" (360 KB or 1.2 MB) and 3½" (720 KB, 1.44 MB or 2.88 MB). BIOS enabled/disabled

- **Serial Ports** : 3 serial RS-232 port and 1 serial RS-232/422/485 port. All with 16C550 UARTs and 16-byte FIFO.

- **Bi-directional Parallel Port** : supports SPP, EPP and ECP mode. BIOS enabled/disabled

PCI AUDIO INTERFACE

- **Chipset**: ESS Solo-1 ES-19385, 3D Sound onboard

- **Connectors**: AUXA, AUXB, Mic/Speaker

GPS (GLOBAL POSITIONING SYSTEM)

- **Socket for** : Rockwell Jupiter GPS Receiver

- **Software Support :** LabMon demo kit

10BASE-T/100BASE-TX PCI ETHERNET

- **Chipset**: Realtek RTL8139

- **Bus** : 32-bit

- **Type** : 10BASE-T / 100BASE-TX

- **Connector** : 10-pin header for RJ-45

PCI FLAT PANEL / CRT VGA

- **Chipset** : C&T 69000

- **Memory :** 2 MB

- **Display** : CRT and Flat Panel Mono/TFT/DSTN/EL

- **Connectors** : 16-pin header for CRT monitor and 50-pin header for Flat Panel

FLASH DISK "DISKONCHIP®"

- **Package** : Single Chip FlashDisk in 32-pin DIP JEDEC

- **Capacity** : 1-72 MByte capacity (future capacities: 144 MByte and up)

- **Data Reliability** : ECC/EDC error correction

- **Memory Window** : 8 KByte

- **Software Support** :

  Built-in TrueFFS® which provides full hard disk read/write compatibility.

  Operates with FLite™ (FAT-FTL/Lite) in O/S-less environments

  DiskOnChip O/S support DOS, Windows, Windows95, Windows CE, Windows NT. Additional support : pSOS+, QNX , VxWorks

EXPANSION SLOTS

- **PC/104**: 104-pin connector for a 16-bit bus

- **PCI**: one standard 32-bit PCI bus expansion connector

ENVIRONMENTAL AND POWER

- **Power Requirements**: + 5V @ 6A , ±12 V @ 20 mA

- **Board Dimensions** : 203 mm x 146 mm

- **Board Weight** : 0.40 Kg

- **Operating Temperature**: 0 to 55°C

- **Humidity**: 5~95%, non-condensing

Ordering

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