

TinyARM

PCI/104 ARM Computer with miniPCI /miniPCle



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS

The TinyARM PCI/104 computer is a low power and high performance AMP host platform. The TinyARM is powered by a 32-bit ARM core running at 525MHz with 512MBytes of DDR2 DRAM and 64MBytes persistent flash storage. The TinyARM is a highly integrated board and features Gigabit Ethernet, USB2.0, serial UART, and an integrated LVDS/VGA display interface capable of driving up to WXGA resolutions.



The board is an industry standard PCI/104 form factor and in addition to the 32-bit PCI/104 bus offers both miniPCI and miniPCI-Express expansion. The miniPCI and miniPCI-Express expansion are ideal for adding WiFi/3G/4G communications or AMP's range of miniPCI MPEG-4/H.264 codecs and frame grabbers.

The TinyARM is currently supported by embedded Linux (please contact our sales team for further information).

PRELIMINARY INFORMATION (Rev 1.00)

Subject to change without notification

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Low power,

reliable

and

rugged

passively cooled

design

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PCI/104

miniPCI

and

miniPCI-E

expansion

Applications

Industrial Automation

Portable Test Equipment

Medical Instrumentation

Mobile Entertainment Systems

Point-of-sale and Kiosk applications

Security, Transportation, Telematics

Embedded Internet/Intranet Appliance

Rugged Harsh Environment Applications

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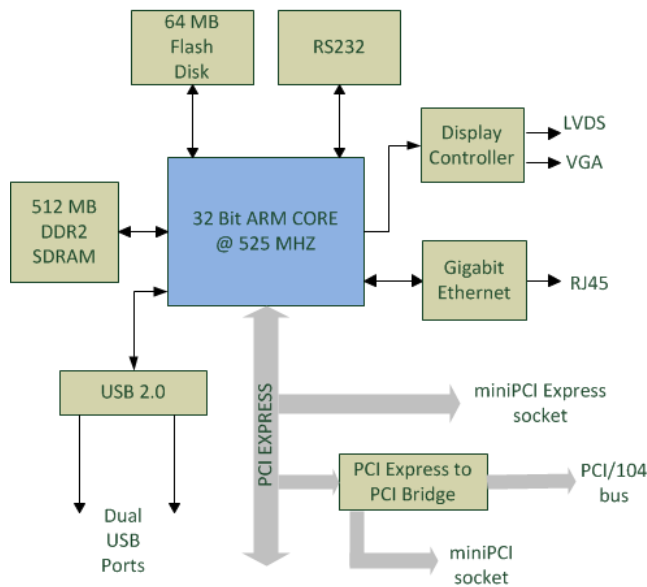
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TinyARM Block Diagram

Features

- Fan-less, conduction cooled operation
- 525MHz 32-bit ARM Core (V5TE instruction set compatible)
- 512MBytes high speed DDR2 memory
- 64MBytes Flash Memory
- Gigabit Ethernet
- USB 2.0
- LVDS port for flat panel display
- 32-bit PCI/104 stackable bus
- 32-bit miniPCI bus
- miniPCI-Express socket
- Standard PCI/104 form factor

High Resolution

VGA,

and

LVDS Flat Panel

Display

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Processor

525MHz 32-bit RISC processor with MMU
ARM V5TE instruction set compatible
32KB instruction cache / 16KB data cache
Supports standard ARM tool chain

Memory

512 DDR2 SDRAM

Storage

64MByte Flash Memory

Graphics

High performance Graphics Controller
Up to WXGA (1366x768) resolution
LVDS and VGA output

USB

2 on-board USB 2.0 ports
Fully compliant to EHCI and OHCI specifications

Networking

GigaBit Ethernet Controller full compliant with IEEE 802.3-2002
Supports 10/100/1000Mbps data transfer

Expansion

Stackable embedded 32-bit PC/104 PCI bus
3.3V PCI signalling (on PC/104-Plus)
1x miniPCI Type III slot
1x miniPCI-Express socket
miniPCI and miniPCIExpress sockets provide combined 2A on 3.3V.

Peripherals

RS232 serial port supporting speeds up to 115200bps

Physical

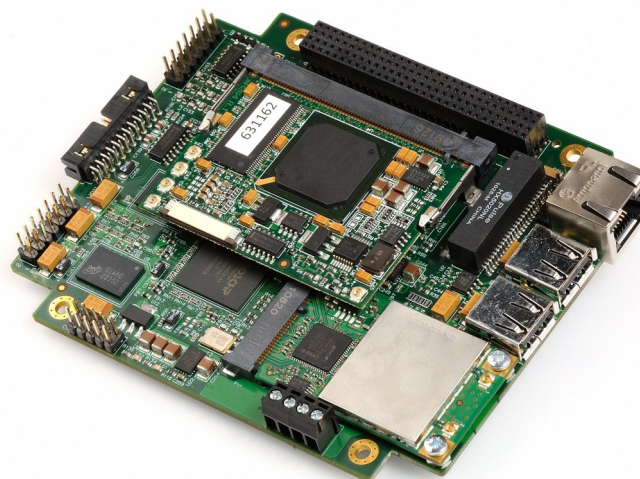
3.7in x 4.0in PCI/104 form factor with I/O extensions
Passive cooling
Temperature 0 to 70°C
Rel. humidity 5% to 95% non-condensing
Single +5V DC regulated power supply

Ordering Information

TinyARM TinyARM PCI/104 ARM computer

Related Products

Cable-TARM—Cable set for attaching peripherals to the TinyARM



TinyARM (with miniPCI and miniPCI expansion cards)

