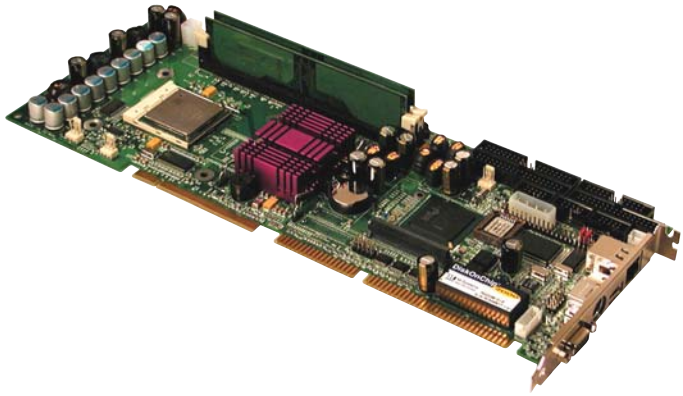
# VTC5611

## PCI/ISA Single Board Computer



Our VTC5611 Intel® Pentium® 4 processor-based PICMG® PCI/ISA compliant passive backplane single board computer addresses wide ranging, high performance, long-life applied computing applications.

Low cost by design, the VTC5611 features an Intel® Pentium® 4 processor or socket-478 Intel® Celeron® processor with 512 or 128KB full core speed L2 cache, Intel® 845GV chipset with 400/533MHz front side bus, and up to 2GB DDR200/266 DIMMs on two sockets. Onboard are an integrated high performance graphics controller, a 10Base-T/100Base-TX Ethernet auto-negotiating controller, dual channel PCI Ultra ATA/100 IDE interface, as well as Universal Serial Bus (USB 2.0) ports, serial/parallel ports, floppy drive interface, IrDA interface, and AC'97 audio. An Ultra160 SCSI or second 10/100-TX Ethernet daughter card is optional. The ENET daughter card may be a single 10/100/1000 Base-T or dual 10/100/1000 Base-T.

The VTC5611 is compliant with PCI local bus specification V2.1 (supports 4 master PCI slots) and PICMG® 1.0 Rev 2.0 (32-bit/33MHz PCI and 16-bit ISA). A PCI to ISA bridge supports ISA bus mastering, up to 20-slot drive capability and a DiskOnChip solid state disk.

The Award BIOS, in field upgradeable Flash ROM, supports software video/Ethernet enable/disable, serial/parallel port re-mapping/disable, keyboard disable, and PnP compliant onboard ISA interrupts. Other features include a hardware monitor (voltages, temperature, and fan), programmable watchdog timer, general purpose I/O, and a 2 year limited warranty.

Scalable CPU/memory processing performance. Extensible I/O. Our VTC5611 PCI/ISA industrial PC is the power choice for application developers addressing high performance broadcast/media, wireline and wireless datacom/telecom, messaging, IVR/CTI, industrial control & automation, instrumentation, medical/imaging, and COTS defense/aerospace markets.

## Product Features

**Form Factor**
PCI/ISA Single Board Computer based on the Intel® Pentium® 4 processor

**CPU/Cache**
- Intel® Pentium® 4 processor with speeds up to 3.06GHz and 512KB L2 cache
- Intel 845GV chipset

**Bus Interface**
- 400/533MHz Front Side Bus; 33MHz PCI Busses; 8.33MHz ISA Bus
- Supports four 32-bit/33MHz slots

**Memory**
Up to 2GB using 64/128/256/512 x 64 with non-ECC DDR200/266 (2.5V)

**I/O**
- 3 USB Ports
- PS/2 mouse and keyboard
- 2 Serial Ports and 1 Parallel Port
- Floppy Disk support
- PCI Ultra ATA/100
- 10Base-T/100Base-TX Ethernet
- SSD: DiskOnChip (32-pin DIP socket)
- IrDA port
- PCI Expansion (68-pin socket): opt. Ultra160 SCSI or 10/100Base-TX card

**BIOS**
PCI 2.1 compliant field upgradeable Award BIOS with PC98 support

**Physical Dimensions:**
13.30” x 4.80” x 2.38” at CPU/fan

**OS Support**
Windows 98, ME, NT, 2000, XP; UnixWare; Red Hat Linux; Hard Hat Linux

**Warranty**
Parts and labor covered for 2 years

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# VTC5611 PCI/ISA Single Board Computer

## CPU / Cache
- Intel Pentium 4 processor at 2.4 to 3.06GHz with 512KB on-die L2 Advanced Transfer cache
- Intel socket-478 Celeron processor at 2.0GHz with 128KB on-die L2 Advanced Transfer cache
- Both processors include a 12KB level one Execution Trace Cache & 8KB L1 data cache
- Intel 845GV chipset

## Bus Interface
- 400/533MHz Front Side Bus; 33MHz PCI Busses; 8.33MHz ISA Bus
- Supports four 32-bit/33MHz slots
- High drive ISA buffers, up to 20 slots

## Memory
- Two 184-pin latching DIMM sockets
- Up to 2GB using 64/128/256/512 x 64 with non-ECC DDR200/266 (2.5V)

## Data Path
- 32-bit / 400/533MHz on CPU and memory bus
- 32-bit/33MHz on off-board PCI bus; 32-bit/33MHz on onboard PCI bus
- 16-bit on ISA bus

## Flash Memory
- 4Mb (512KB) Flash ROM for BIOS field upgrade

## I/O
- USB Ports: three, 2.0 compliant (two via 10-pin header, one Type A on face plate)
- PS/2 mouse and keyboard (6-pin mini-DIN on faceplate)
- External keyboard (5-pin header)
- Serial Ports: one RS-232 and one configurable RS-232/422/485 (16C550) with 16 byte FIFO as COM1-2 with BIOS selectable IRQs and addressing, (two male 10-pin shrouded headers)
- Parallel Port: one bi-directional with all IEEE 1284 protocols supported and BIOS selectable IRQs and addressing, (male 26-pin shrouded header)
- Floppy Disk: support for two drives (360 KB to 2.88 MB), (male 34-pin shrouded header)
- EIDE: PCI Ultra ATA/100, support for four drives (master/slave configuration); PIO Mode 4, Bus Master IDE or DMA mode transfers up to 100MB/s, (two male 40-pin shrouded headers)
- Ethernet: 10Base-T/100Base-TX (Intel 82562), (shielded RJ-45 on face plate with link and activity LEDs)
- SSD: DiskOnChip (32-pin DIP socket)
- IrDA port (6-pin header shared with one serial port)
- PCI Expansion (68-pin socket) : opt. Ultra160 SCSI or 10/100Base-TX card

## Video/Audio
- Integrated AGP 4X CRT controller, (female DB-15 on face plate)
- Supports CRTs with resolution up to 2048 x 1536 @ 60Hz refresh

## Video/Audio (cont'd)
- AC '97 with MIC/Line In/Line Out (9-pin)
- Audio CD-in (4-pin header)

## Clock / Calendar
- Real-time clock with 256 byte battery backup CMOS RAM

## Misc.
- Speaker (4-pin), reset (2-pin), HD activity LED (2-pin), Power LED & keyboard lock (5-pin)
- Wake-on-LAN (3-pin header)
- GPIO (10-pin header)
- ATX power control (4-pin) with Modem Ring-On and Wake-On-Land, ATX power button interface (2-pin), 12V CPU Power (4-pin), stand-alone power (4-pin)
- CPU/Power/System fans (three 3-pin)

## BIOS
- PCI 2.1 compliant field upgradeable Award BIOS with PC98 support
- Boot from LAN (PXE 2.0)
- Support DMI, PnP, SMBus communication
- Software enable/disable onboard video, Ethernet
- Diskless, keyboardless, and videoless operation extensions
- APM, ACPI (full-on Stop Grant Suspend to RAM, Suspend to Disk, soft-off)

## Supervisory
- Programmable watchdog timer drives NMI or system reset
- Hardware system monitor (voltages, CPU temperature, fan speed)

## OS/Driver Compatibility
Windows 98, ME, NT, 2000, XP; UnixWare; Red Hat Linux; Hard Hat Linux

## Mechanical
- 13.30 in. x 4.80 in. x 2.38* in. at CPU / fan (338 mm x 122 mm x 60 mm)
  *1.65 in. with optional low profile fan for 1U chassis
- Conforms to IEEE P996 PC/AT bus, PCI Rev. 2.2, and PICMG 1.0 Rev. 2.0 standards

## Power Requirements

| | | |
|---|---|---|
| Max Power Dissipation | | 80W |
| ICC typ.* | +5V | 1.7A |
| | +12V | 1.6A |
| | -5V | 0mA |
| | -12V | 0mA |

*Measured with 3.06GHz CPU, 256MB SDRAM

## Environmental
**Operating**
- Min Temperature: 0°C / 32°F
- Max Temperature:

| | |
|---|---|
| 3.06GHz | 35°C / 95°F |
| 2.4 & 2.8GHz | 40°C / 104°F |
| 2.0GHz | 50°C / 122°F |

- Humidity (RNC): 5 to 95% @ 40°C / 104°F
- Altitude: 3048m / 10,000ft @ 28°C / 82°F
- Vibration: 1G 5-500Hz

## Environmental (cont'd)
**Storage and Transit**
- Temperature: -40° to 70°C / -40° to 158°F
- Humidity (RNC): 5 to 95% @ 40°C / 104°F
- Altitude: 15,240m / 50,000ft
- Shock: 30" free fall
- Vibration: 0.5G 5-50Hz, 3G 50-500Hz

## Reliability
- MTBF: >100,000 hours @ 20°C / 68°F (Telecordia)
- 2 year limited warranty
- USB and keyboard/mouse voltage protected by self-resetting fuses

## Regulatory Compliance
- Safety: UL/cUL 60950-1:2003; EN/IEC 60950-1:2001;
- EMC Class A: FCC 47 CFR part 15-B, CISPR22:1997/EN55022:1998, EN55024:1998

## Ordering Information
**VTC34822**
PCI/ISA SBC with 2.0GHz/400MHz Celeron processor with 128KB L2 cache

**VTC34823**
PCI/ISA SBC with 2.4GHz/533MHz Pentium 4 processor with 512KB L2 cache

**VTC34824**
PCI/ISA SBC with 2.8GHz/533MHz Pentium 4 processor with 512KB L2 cache

**VTC10336**
PCI/ISA SBC with 3.06GHz/533MHz Pentium 4 processor with 512KB L2 cache

All cables included

**Options**
- DDR200/266 DIMMs
- SDC-160 SCSI Daughter card
- EDC-10/100 Ethernet daughter card
- Multimedia kit with MIC, Line In, Line Out and single-port USB connectors
- EDC-1000-1 Ethernet Daughter Card Single 10 Base-T/100 Base-TX/1000 Base-T
- EDC-1000-2 Ethernet Daughter Card Dual 10 Base-T/100 Base-TX/1000 Base-T



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**1(888) 568-6224**

**301 S. Sherman St. Suite # 117 • Richardson, TX 75081**