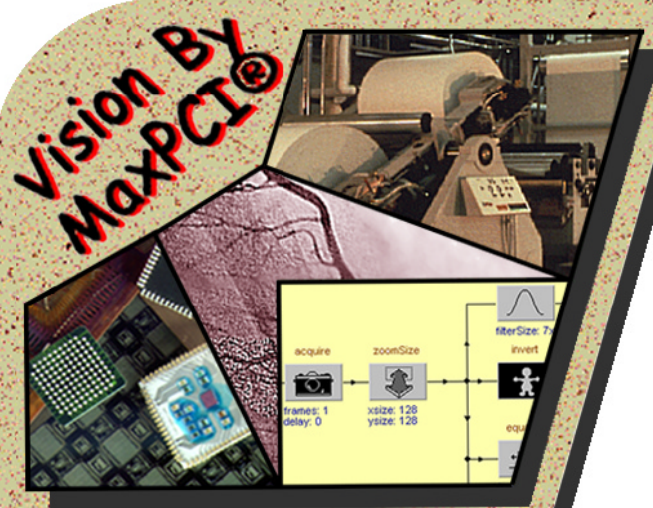




# Family of PCI Industrial Workstations



## Heavy Duty PCI Industrial Workstations

- Two types available: 4U ATX and 6U PICMG
- Shipped turn-key: Can be ordered with MaxPCI and Datacube software factory installed
- Single and dual CPU versions - from low cost Pentium to high performance Pentium II
- Extra heavy duty power supplies
- Lambda power supply option
- WindowsNT pre-installed
- Multiple VGA display options
- Extra cooling

### PCI Industrial Workstations

Datacube has teamed with a well-known US manufacturer of high quality industrial workstations to produce a specialized family of qualified heavy duty PCs for use with your single- or multi-board MaxPCI family configurations.

Traditionally, PCs are manufactured to a loosely defined specification, and are generally intended for desktop office or home use. A multiboard configuration demands additional power and cooling above and beyond what a desktop PC can offer. In addition to the extra power and cooling, all of Datacube's PCI Industrial Workstations provide 19" rackmount capability, board hold-down mechanism, a 10/100 ethernet adapter, multiple VGA options, and full UL and CE labeling.

There are two types of PCI Industrial Workstations available. For desktop development and deployment, we offer a 4U high, 19" wide ATX formfactor desktop or rackmount system based on a high end dual Pentium II active motherboard as well as a heavy duty 6U high, 19" wide PICMG passive backplane PCI system.

### IWS, IWT, IWU 6U PICMG Heavy Duty Industrial PC

These systems are based on the family of well-known, quality-proven Trenton Processor PICMG single board computers and passive backplanes. The IWS, IWT and IWU systems provide different backplane slot configurations (12, 16, and 6 PCI slots), and all three are available with any of four dif-



ferent CPU cards, depending on performance needs. These single board computers range from a low cost Pentium to a high performance Pentium II CPU. All systems include a 10/100 ethernet configuration, either onboard the CPU or as an add-in card, and provide an onboard 2 MB VGA display controller. Optional high performance VGA cards are available as well as the MaxVGA for most configurations. All systems provide a hard disk drive mounted in a removable drive shuttle, plus floppy and CD-ROM drives. One full 5 1/4" bay is available for user peripherals.

Two power supply options are available including a parallel 400 W supply system providing a total of 550 W and a high quality 750 W single Lambda power supply giving you the power you require for the largest of configurations.

### IWD 4U ATX Desktop / Development Industrial PC

This desktop or rackmount ATX formfactor system is based on the high end Supermicro dual Pentium II BX chipset motherboard. The system can be factory configured with one or two CPUs as your performance needs dictate. This motherboard supports system memory configurations up to an incredible 1 GB, and include onboard EIDE controllers as well as Wake on LAN support. The motherboard provides a total of five PCI and two ISA slots. Datacube recommends the use of a maximum of four of these slots at a time. The system is based on a 400 W power supply, and provides hard disk, floppy and CD-ROM drives. One full 5 1/4" bay is available for user peripherals.

### All Systems

All systems include Windows NT workstation fully pre-installed with license, media, and user manual. The hard disk is NTFS formatted. You can factory order the systems with a number of memory configurations from 64 MB to 1 GB (depending on CPU type). Datacube's family of PCI Industrial Workstations come with a one year warranty and are fully CE and UL labelled.

## Datacube Software Options

All systems can be purchased with optional Datacube pipeline image processor control software pre-installed and ready to use. Choose PC ImageFlow for optimal performance and/or the DatacubeWiT graphical programming tool for easy-to-use point-and-click programming.

## Specifications

### Image Processor

- Choose any MaxPCI configuration

### Chassis

IWS, IWT, IWU PICMG Passive

Backplane System:

- 19" rackmount, 6U (10.5") height, 18.5" depth (17.5" chassis + 1" for rear PSU handles), 58 lbs. weight, four ultra high speed 65 CFM 92 mm cooling fans, four 5 1/4" external drive bays

IWD ATX Active Motherboard System:

- 19" rackmount, 4U (7") height, 17.5" depth, 27 lbs. weight, one ultra high speed 115 CFM 120 mm cooling fan, three 5 1/4" external drive bays

### Power Supply

IWS, IWU PICMG:

- Parallel 400 W PSU: Dual power supplies configured in parallel for load sharing providing 550 W total power (+5V@50A, +12V@24A, -5V@1A, -12V@1A, no +3.3V power), 95V-264V auto-switching, 47-63 Hz. Unit can operate with any one of the two power supplies, but +5V power will be limited to 36A, and total power cannot exceed 400W.

IWT PICMG:

- Lambda 750W PSU: Single power supply providing 750W total power (+5V@98A, +12V@18A, +3.3V@30A, -5V@6.5A, -12V@18A), 85V-265V auto-switching, 47-63 Hz.

IWD ATX

- Single 400W power supply (+5V@28A [36A total, but limited to 28A by motherboard], +12V@24A, +3.3V @ 3.0A, -5V@1A, -12V@1A, ), 95V-264V auto-switching, 47-63Hz.

## Backplane or Motherboard

IWS, IWT, IWU PICMG Passive

Backplane:

- 14 +5V power supply connections allow for up to 98A of +5V power depending on supply option.

IWS: 7 ISA, 1 PICMG CPU, 12 PCI slots

IWT: 2 ISA, 1 PICMG CPU, 16 PCI slots

IWU: 12 ISA, 1 PICMG CPU, 6 PCI slots

IWD ATX Formfactor Active

Backplane:

- 1 ISA, 5 PCI (max 4 in use), 1 AGP slots with 4 +5V power supply connections (+5V@28A Max)

## CPU and System Power Requirements

IWS, IWT, IWU PICMG:

Single board computer with CPU and chipset options noted below with onboard 2MB VGA video, Adaptec ultra wide SCSI, EIDE, 10/100 Ethernet. Pentium MMX uses EDO DRAM. Pentium II uses SDRAM. Note: Some CPU options provide 10/100 Ethernet onboard, in cases where it is not onboard, a separate PCIbus 10/100 Ethernet card is provided.

- PII/333/BX CPU: +5V@9.4A, +12V@3.5A, -12V@0.1A
- PII/400/BX CPU: +5V@9.4A, +12V@3.5A, -12V@0.1A
- Dual PII/350/BX CPU: +5V@11.15A, +12V@3.5A, -12V@0.1A

System power requirements include CPU, backplane/motherboard, drives, and fans. They do not include MaxPCI configurations or any user installed cards.

IWD ATX Active:

Single or Dual 400 MHz Pentium II CPU, BX chipset with 100MHz SDRAM memory, EIDE, Wake on LAN support, and PCIbus 10/100 Ethernet card.

Single CPU: +5V@5.5A, +12V@3A, +3.3V@1.8A, -12V@50mA

Dual CPU: +5V@8.1A, +12V@3A, +3.3V@2.2A, -12V@50mA

Hard Disk

IWS, IWT, IWU PICMG:

Enhanced IDE UDMA/33, 8 GB or larger, installed in a Kingston DataExpress DE100I-A, AT/IDE carrier and frame

IWD ATX:

Enhanced IDE UDMA/33, 8 GB or larger.

CD-ROM (all configurations)

Enhanced IDE (ATAPI) 16X or faster, DMA capable

Floppy Drive (all configurations)

3 1/2" 1.44MB

Keyboard and Mouse (all configurations)

PS/2 keyboard and mouse

Compliance (all configurations)

Full CE and UL

VGA Options

IWS, IWT, PICMG:

- Onboard 2MB
- 4+MB PCI

IWU PICMG:

- Onboard 2MB
- 4+MB PCI
- MaxVGA (only with single CPU option)

IWD ATX:

- 4+MB PCI
- 4+MB AGP
- MaxVGA (only with single CPU option)

Software (all configurations)

- Windows NT Workstation pre-installed with license, media, and user manual. NTFS formatted
- Datacube software as specified, installed ready for use

## Additional Information

For more information about the products mentioned in this document, please refer to the following Datacube literature:

[MaxPCI Data Sheet](#)  
[MaxVGA Data Sheet](#)  
[MaxACQ Data Sheets](#)  
[PSMOD Data Sheets](#)  
[DatacubeWiT Data Sheet](#)  
[PC ImageFlow Data Sheet](#)

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