



- **6U CompactPCI® CPU Board**
- **Intel® Atom™, Quad Core**
- **ECC Memory**
- **USB 3.0**
- **Low Power and Fanless**
- **PICMG® 2.0 Compliant**
- **Customizable**

## Features

**6U CompactPCI** - The A6pci8077 is a single-slot 6U CompactPCI board, powered by Intel Atom processors and fully PICMG 2.0 compliant

**Atom Powered** - Comes with Intel Atom E3800 CPU: up to four core configurations and 1.91GHz clock speed

**Reliable** - Offers memory configurations up to 4GB with Error Correcting Code (ECC)

**Low Power and Fanless** - Enables fanless designs with a CPU TDP up to 10W

**Customizable** - Personalization and full customization options are available, ranging from custom SW image pre-installation to deep HW/SW configurations

## Description

The A6pci8077 is a single-slot 6U CompactPCI designed to meet the requirements of industrial and rugged fanless applications. Fully compliant with the PICMG 2.0 CompactPCI standard, the A6pci8077 is based on the Intel Atom E3800 processor family, with 1 to 4 cores, and up to 4GB ECC RAM on a SO-DIMM socket.

Other features include high speed interfaces on the front panel: two Gigabit Ethernet, one USB 3.0 and two USB 2.0, two RS-232 serial ports on DB9 connectors, and one VGA. In addition to these interfaces, the A6pci8077 supports one CFast slot for on-board storage, and an internal SATA 2.0 connector.

Supported operating systems include VxWorks, and Windows 10 IoT Enterprise.

Professional Services are available for the A6pci8077, starting from BIOS personalization and including full system development and production. Deep board customization, such as feature changes, are also available.

## Specifications

|                       |                |  |
|-----------------------|----------------|--|
| <b>PROCESSOR</b>      | CPU            | Atom E3800 CPU Family Options - up to 4 Cores  |
|                       | Chipset        | Integrated Intel PCH Chipset   |
| <b>BIOS</b>           | Type           | AMI UEFI   |
|                       | Size           | 128Mbit SPI Flash  |
| <b>MEMORY</b>         | RAM            | 1x DDR3L-1333 ECC SODIMM up to 4GB   |
| <b>STORAGE</b>        | SATA           | 1x SATA 2.0 Internal Connector   |
|                       | CFast          | 1x CFast Type 2 Slot   |
| <b>I/O INTERFACES</b> | Ethernet       | 2x 10/100/1000Mbps (Intel I210-IT Controller) - RJ45   |
|                       | USB            | 1x USB 3.0 (Type A), 2x USB 2.0 (Type A)   |
|                       | Serial         | 2x RS-232 - DB9  |
|                       | Video          | Integrated 3D Graphic Controller: 1x VGA - D-Sub 15pins  |
|                       | cPCI           | 1x TI XIO2001Z (PCIe to PCI Bridge) + 1x Lattice LCMXO2-640HC-4TG100C (CPLD): PCI 32-bit/33MHz PCI Bus, IRQ Management (IRQ Selection of INT #A, #B, #C, #D) |
| <b>OTHER</b>          | RTC            | Built-in RTC with on-board lithium battery (BR2032)  |
|                       | Sensors        | Hardware Monitor: Temperature Inputs, Voltage Monitor Inputs   |
|                       | LEDs           | 1x Power Status (Green), 1x HDD Status (Red)   |
|                       | Buttons        | 1x Reset (Front Panel)   |
| <b>POWER</b>          | Input          | 5VDC (cPCI Backplane)  |
|                       | Consumption    | Up to 10W (CPU TDP)  |
| <b>ENVIRONMENT</b>    | Operating Temp | 0 to +60°C   |
|                       | Storage Temp   | - 40 to +85°C  |
|                       | Humidity       | 10 to 90% (Non-condensing)   |
| <b>CERTIFICATIONS</b> | Environmental  | RoHS2  |
|                       | Compliance     | PICMG 2.0 CompactPCI Rev 3.0   |
| <b>MECHANICAL</b>     | Dimensions     | 233x160mm (LxH), Single-slot 4HP (20.32mm Width), 1.6mm PCB Thickness  |
| <b>SOFTWARE</b>       | OS             | Support for VxWorks, Windows 10 IoT Enterprise   |

## Block Diagram

