# CT-31 Series

## **Rugged Conduction Cooled 3U CompactPCI®** Intel<sup>®</sup> Atom<sup>™</sup> Processor Blade

**3U cPCI Blades** 



### **Features**

- Supports Intel<sup>®</sup> Atom<sup>™</sup> N450, D510
- Up to 2GB DDR2-800 soldered memory
- -40°C to +85°C operating, conduction cooled with conformal coating
- Onboard CompactFlash socket
- 2x GbE, VGA, USB, 2x COM, 2x SATA to rear



## **Specifications**

#### Processor & System

|                 | -,  |  |
|-----------------|---|--|
| CPU             | µFC-BGA Intel® Atom™ Processor N450 1.66GHz,<br>512KB L2 cache, TDP 5.5W                    |  |
|                 | µFC-BGA dual-core Intel <sup>®</sup> Atom™ Processor D510 1.66GHz,<br>1MB L2 cache, TDP 13W |  |
| Chipset         | Intel <sup>®</sup> ICH8M I/O Controller Hub   |  |
| Memory          | Single channel DDR2-667/800 SDRAM soldered onboard, up to 2GB capacity                      |  |
| BIOS            | AMIBIOS <sup>®</sup> 8, 16Mbit SPI flash memory   |  |
| CompactPCI Bus  | PCI 32-bit/33 MHz, 3.3V or 5V universal V (I/O)   |  |
|                 | Host only   |  |
| PICMG Standards | PICMG <sup>®</sup> 2.0 CompactPCI <sup>®</sup> R3.0   |  |
|                 | PICMG <sup>®</sup> 2.1 Hot Swap R2.0  |  |

#### Connectivity

| Ethernet    | Two PCI-Express Intel® 82574L Gigabit Ethernet controllers                  |
|-------------|---|
|             | Two 10/100/1000BASE-T ports to J2   |
| Graphics    | Integrated in Intel <sup>®</sup> Atom <sup>™</sup> processor                |
|             | Analog monitor support to rear up to QXGA 2048x1536<br>pixels @60Hz, 32-bit |
| USB         | One to J2   |
| Serial Port | Two full duplex serial ports to J2  |
| PCI-Express | One PCI-Express lane to J2  |
| GPIO        | Four GPIO pins to J2  |

#### Storage

SBC RTM

#### Two 7-pin SATA signal connectors

#### Operating System OS

| <br>Microsoft Windows® XP Professional, x64 Edition |
|---|
| Microsoft Windows® 7                                |
| Fedora <sup>™</sup> 12                              |
| Red Hat Enterprise Linux 5.3                        |
| Wind River VxWorks 6.8, 6.7, 5.5.1                  |
| (Please contact ADLINK for other OS support)        |
|   |

CompactFlash socket

#### Miscellaneous

| LED              | Power (green), WDT (red)   |  |
|------------------|--|--|
| Battery          | Rechargeable Gold Cap for RTC CMOS RAM                                       |  |
| Watchdog Timer   | System Reset and NMI, with programmable interval, 1-65535 seconds or minutes |  |
| Hardware Monitor | Monitors CPU temperature, system temperature and DC voltages                 |  |

#### Mechanical & Environmental

| Form Factor           | 3U 4HP CompactPCI®  |                                   |  |  |
|-----------------------|---|-----------------------------------|--|--|
|                       | 100mm x 160mm (LxW)   |                                   |  |  |
| Operating Temperature | -40°C to +85°C  |                                   |  |  |
| Storage Temperature   | -40°C to +85°   | C                                 |  |  |
| Rel. Humidity         | 95% non-cor   | ndensing                          |  |  |
| Shock                 | 40G half sine, 11ms duration in operating   |                                   |  |  |
| Vibration             | 22~2000Hz, 5g (sine), operating   |                                   |  |  |
| Power Consumption     | Atom™ N450 1.60GHz, 512MB soldered DDR2-667 under Windows® XP with 100% CPU loading |                                   |  |  |
|                       |   | Current (A)                       | Power (W)                                |  |
|                       | 5V  | 3.04                              | 15.2                                     |  |
|                       | Total   |                                   | 15.2                                     |  |
|                       |   | 0 1.66GHz, 512M<br>P with 100% CP | /IB soldered DDR2-667 under<br>U loading |  |
|                       |   | Current (A)                       | Power (W)                                |  |
|                       | 5V  | 3.87                              | 19.35                                    |  |
|                       | Total   |                                   | 19.35                                    |  |
| Weight                | Net weight 4  | 66g with heatsin                  | k  |  |

#### Safety & EMI

Certifications

CE/ FCC

## Ordering Information

| Model Number         | Description/Configuration  |  |  |
|----------------------|--|--|--|
| Processor Blades     |  |  |  |
| CT-31/D51/M1G        | Conduction Cooled 3U CompactPCI <sup>®</sup> blade with Intel <sup>®</sup><br>Atom™ processor D510 and 1GB DDR2-667/800 soldered<br>memory |  |  |
| Rear Transition Mode | ules   |  |  |
| cPCI-R3610           | 8 HP Rear I/O module for cPCI-3610 with GbE x2, COM x2, USB x1, SATA x2, VGA, 50mm depth   |  |  |
| cPCI-R3610T          | 8HP Rear I/O module for cPCI-3610 with GbE x2, COM x2,<br>USB x1, SATA x2, VGA, 80mm depth   |  |  |
| -                    |  |  |  |

Contact your ADLINK representative for different CPU, memory combinations.