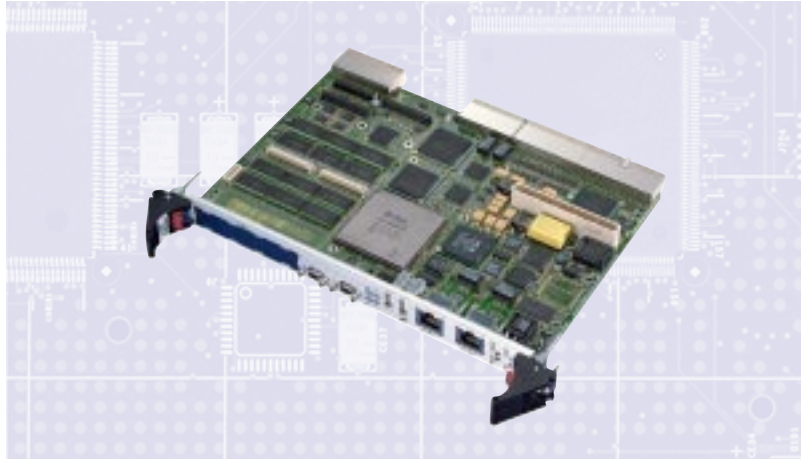


## CPCI-550 UltraSPARC-IIi-based 'Universal Mode' Single Board Computer



CPCI-550  
High-Performance  
Ultra SPARC-IIi  
CompactPCI SBC.

### ■ Telecommunications

### ■ Datacommunications

### ■ Industrial Control

### ■ Defense & Aerospace

### Features

- UltraSPARC platform, ideal to run Solaris applications
- Force's award-winning Sentinel™ PCI-to-PCI bridge (PPB) technology—for implementing a single board computer (SBC) in either the system or peripheral slot of a host CompactPCI platform ("universal-mode" capability)
- UltraSPARC-IIi 650MHz processor—low-power consumption processor on Sun Microsystems embedded roadmap
- Supports PICMG 2.16 specification for CompactPCI Packet-Switching Backplane (cPSB) applications
- PICMG 2.9-compliant IPMI controller
- 1GByte SDRAM (option to 2GBytes)
- Four 10/100 Ethernet interfaces
- Four RS-232 interfaces with hardware handshake capability
- Four USB and two Wide Ultra2 SCSI (LVD) interfaces
- Single PCI mezzanine card (PMC) interface
- Full Hot Swap specification compliance (PICMG 2.1, R2.0)

### Highlights

The CPCI-550 is a "universal-mode" UltraSPARC-IIi® processor-based CompactPCI SBC and is the second in Force's new CompactPCI server blade family for CompactPCI Packet-Switching Backplane (cPSB) systems. The CPCI-550 is ideal for emerging switch-fabric applications and for building-block solutions such as Force's Centellis CO 21000-12U series platform. Force's award-winning Sentinel™ PPB technology enables system or peripheral slot functionality on one platform—a capability not available on any other UltraSPARC-IIi 650MHz processor-based SBC. The CPCI-550 provides an ideal solution for third-generation (3G) wireless, voice over Internet protocol (VoIP) and other demanding telecom/data com applications. The CPCI-550 offers a low-power consumption processor on Sun Microsystems' embedded roadmap, ensuring a clear upgrade path in the future.



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## **Enabling power of Force's award-winning Sentinel universal PPB technology**

The Force UltraSPARC-IIe/III processor-based CPCI-550 is a powerful and versatile CompactPCI single board computer based on Force's revolutionary Sentinel "universal-mode" PCI-to-PCI bridge (PPB) technology. Intelligent Sentinel technology enables the CPCI-550 to function as either a system controller (in a CompactPCI system slot) or as an intelligent peripheral card (in a CompactPCI peripheral slot). The Sentinel universal PPB completely eliminates the need for either hardware or software reconfigurations when the CPCI-550 switches operating modes.

The use of Force Sentinel technology simplifies and speeds the design of multiple-processor systems based on cost-effective, industry-standard components.

## **Powerful Solaris 8 operating system**

The CPCI-550 brings maximum Solaris® 8 operating system performance in a single slot to both system controller and intelligent peripheral functions. The CPCI-550 is built around the UltraSPARC-III processor with its

high-speed 650MHz performance and low-power consumption characteristics. The use of the UltraSPARC-IIe/III processor with a powerful set of I/O interfaces and Sentinel on-chip buffers for elevated system performance enables the CPCI-550 to address the most demanding applications. And with support for the PICMG 2.16 specification for CompactPCI Packet-Switching Backplane (cPSB) requirements, it's an ideal solution for third-generation (3G) wireless, IP telephony, high-density embedded servers for Internet data centers and other demanding telecom/data com applications in need of advanced switch-fabric technologies. The CPCI-550 is a direct upgrade to the CPCI-540, providing backward compatibility for existing systems.

Sun workstation compatibility makes the CPCI-550 a best-of-breed platform for Solaris 8 applications in an embedded CompactPCI environment. A variety of SCSI and Ethernet interfaces and Sentinel's unique feature to combine several CPCI-550 SBCs in a single rack and enabling them to communicate with each other make the CPCI-550 a perfect building block for creating highly reliable, scaleable and small-footprint systems.

# UltraSPARC-IIi Processor-Based CPCI-550

S P E C I F I C A T I O N S

## Processor/memory

- UltraSPARC-IIi 650MHz processor
- 64-bit core
- 239SPECint2000, 260SPECfp2000 (650MHz)
- 512KBytes (650MHz) integrated (on-die) L2 Cache memory
- Up to 1GByte onboard SDRAM (option to 2GBytes via memory module)

## User Flash memory

- Up to 8MBytes User Flash capacity

## Chipset

- Rio (PCI-to-EBUS), Sentinel (PCI-to-CompactPCI)

## SBC I/O capabilities

- PCI Rev 2.2 (32-bit, 33MHz)
- Four 10/100 Ethernet interfaces
- Four RS-232 interfaces with hardware handshake capability
- Four USB interfaces
- Two Wide Ultra2 SCSI (LVD) interfaces
- Single PCI mezzanine card (PMC) interface or one additional memory module
- 1GByte SDRAM (option to 2GBytes)
- PICMG 2.9-compliant IPMI controller

## Operating system

- Solaris 8 and later revisions

## Environmentals

- Operating temperature: 0° to +55°C
- Storage requirements: -40° to 85°C, 5% to 95% (non-condensing) relative humidity

## Physical dimensions

- 6U Eurocard (160mm x 233.5mm)
- One slot configuration

## Power consumption

- 21W (single-slot variant)

## Accessories

- RTB-504
  - Rear-transition board for CPCI-550
- MEM-550
  - Memory module with 1GByte SDRAM



Universal  
PCI-to-PCI Bridge



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**Force Computers is the leading designer and worldwide supplier of standard and custom systems, board-level computer platforms and services for the embedded market.**

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