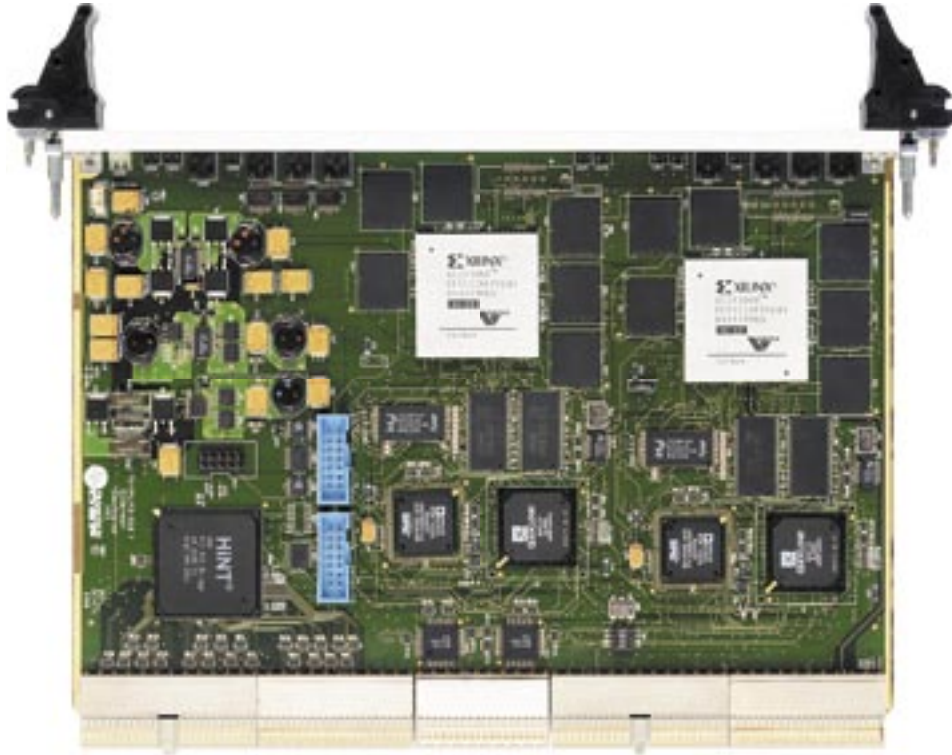


# TS-CP1

## Dual TigerSHARC® + Virtex-II™ CompactPCI Processing card



### Features

2x Xilinx Virtex-II™ FPGA (XC2V8000)

2x Analog Devices TigerSHARC® DSPs

Backplane user I/O routing

Full 'HotSwap' support

64-bit/33MHz secondary PCI bus interface  
between processing tiles

128Mbytes SDRAM per processing tile

6x banks of 2Mx18bit QDR-II SRAM per tile

4Mbyte Flash Memory per tile

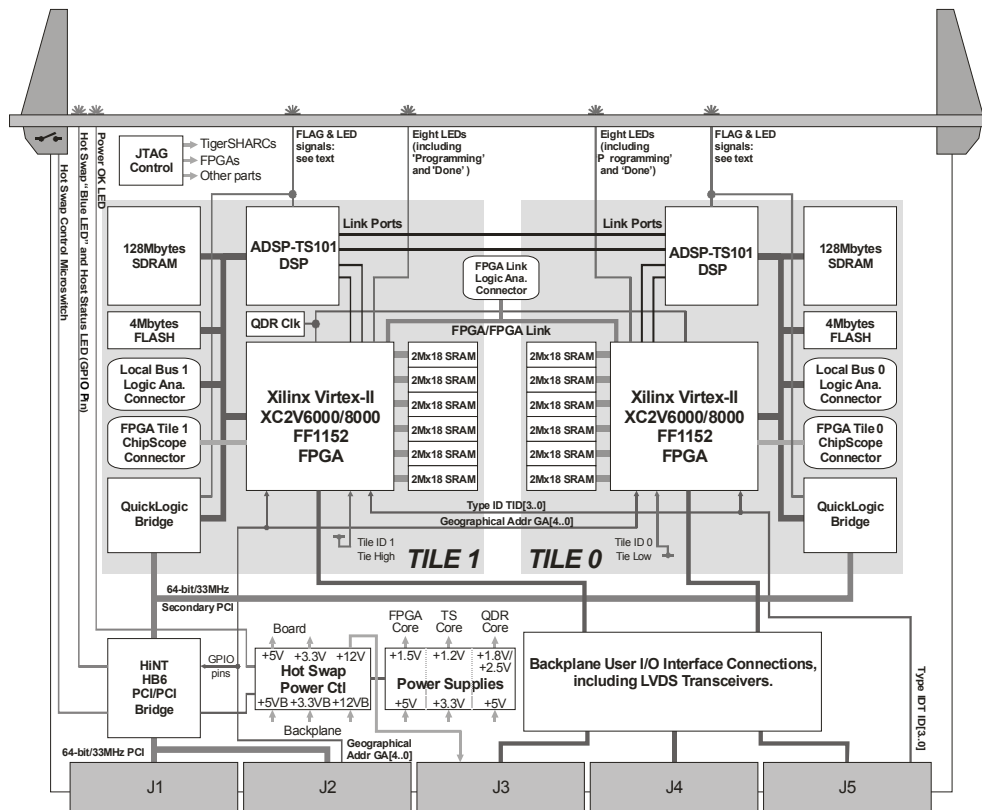
The TS-CP1 is a 6U CompactPCI card featuring two processing "tiles", each consisting of a large Xilinx Virtex-II FPGA and an Analog Devices TigerSHARC DSP.

The board is a reconfigurable computing platform designed for the most demanding of high data-throughput signal processing applications, with special pertinence in areas such as software radio, electronic surveillance, imaging, radar, sonar, telecommunications, and medical & scientific research.



[www.transtech-dsp.com](http://www.transtech-dsp.com)

# Block Diagram



## Technical Specification

### General

Number of Processor Tiles 2  
 Each Tile: DSP + FPGA + Memory + Inter-tile communications + PCI fabric

### Inter-Tile Communications

Secondary PCI bus 64-bit/33MHz  
 FPGA - FPGA 40-bit bus between FPGA  
 DSP - DSP 2 x TigerSHARC links

### FPGA

Number 1 per tile  
 Device Xilinx Virtex-II XC2V8000 (contact for other device sizes)

Speed Grade '-5'  
 Package FF1152

### DSPs

Number 1 per tile  
 Device Analog Devices ADSP-101 (TigerSHARC DSP)

### Memory

SDRAM 128Mbytes per tile  
 SRAM 6x 2Mbytes (QDR-II) per tile  
 FLASH 4Mbytes  
 FPGA boot/configuration Programmable via PCI interface

### PCI

Device HINT HB6 transparent PCI-PCI bridge  
 Compliance 32/64-bit PCI 2.2  
 33MHz  
 3.3/5V tolerant  
 Master/slave/DMA  
 Full Hot Swap, DMA, interrupt support  
 >250Mbytes/sec

### User I/O

Backplane routed 238 user FPGA I/O lines

### Power

TBA

### Environmental

TBA

### Mechanical

Board Format 6U CompactPCI (single slot)

### Software Support

Host Operating System VxWorks, Windows NT/2000  
 Utilities Transtech toolset incl. Flash and FPGA programming, board viewer etc.

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