

## PRODUCT FAMILY FEATURES

### High-Performance

- Intel® 1.73 GHz LC5518 Quad Core Xeon Processor (2.133 GHz Max Turbo Frequency)
- Three independent memory channels
- Up to 24 GBytes of DDR III memory
- ECC Error Detection/Correction on main memory
- On-board expansion
  - Two XMC/PMC sites
  - CompactFlash™ socket
  - Support for on-board SATA disk drive

### Software Support

- Linux®
- Microsoft Windows®

### VME Interface

- Tundra Tsi-148
- Injectors/Ejectors: VME64 and traditional VME available

## XV2

### Quad Core 6U VMEbus Computer

#### OVERVIEW

The Themis XV2™ Computer is a second generation high-performance 6U VMEbus computer based on the Intel® LC5518 Quad-Core Xeon® processor and the Intel 3420 chipset. Ideal for compute-intensive embedded, storage and communications applications and a wide range of commercial and military applications, the XV2 is designed to meet the requirements of customers who require quad-core performance for demanding applications.

The XV2 base configuration includes a minimum of three Gigabytes of DDR III memory, four Gigabit Ethernet ports, five SATA II ports, four SAS ports, eight USB 2.0 ports, one serial port, and two XMC/PMC slots. An onboard ATI ES1000 video controller is provided with either front or rear panel I/O. Operating system support includes Windows® and Linux®. The XV2 also includes one audio port and one VGA port.

The XV2 two slot configuration enables Xeon server levels of performance in a VME form-factor. An on-board XMC/PMC slot allows expansion with a wide range of PMC and XMC cards. Offered in many configurations, the XV2 computer meets the requirements of a wide variety of applications.

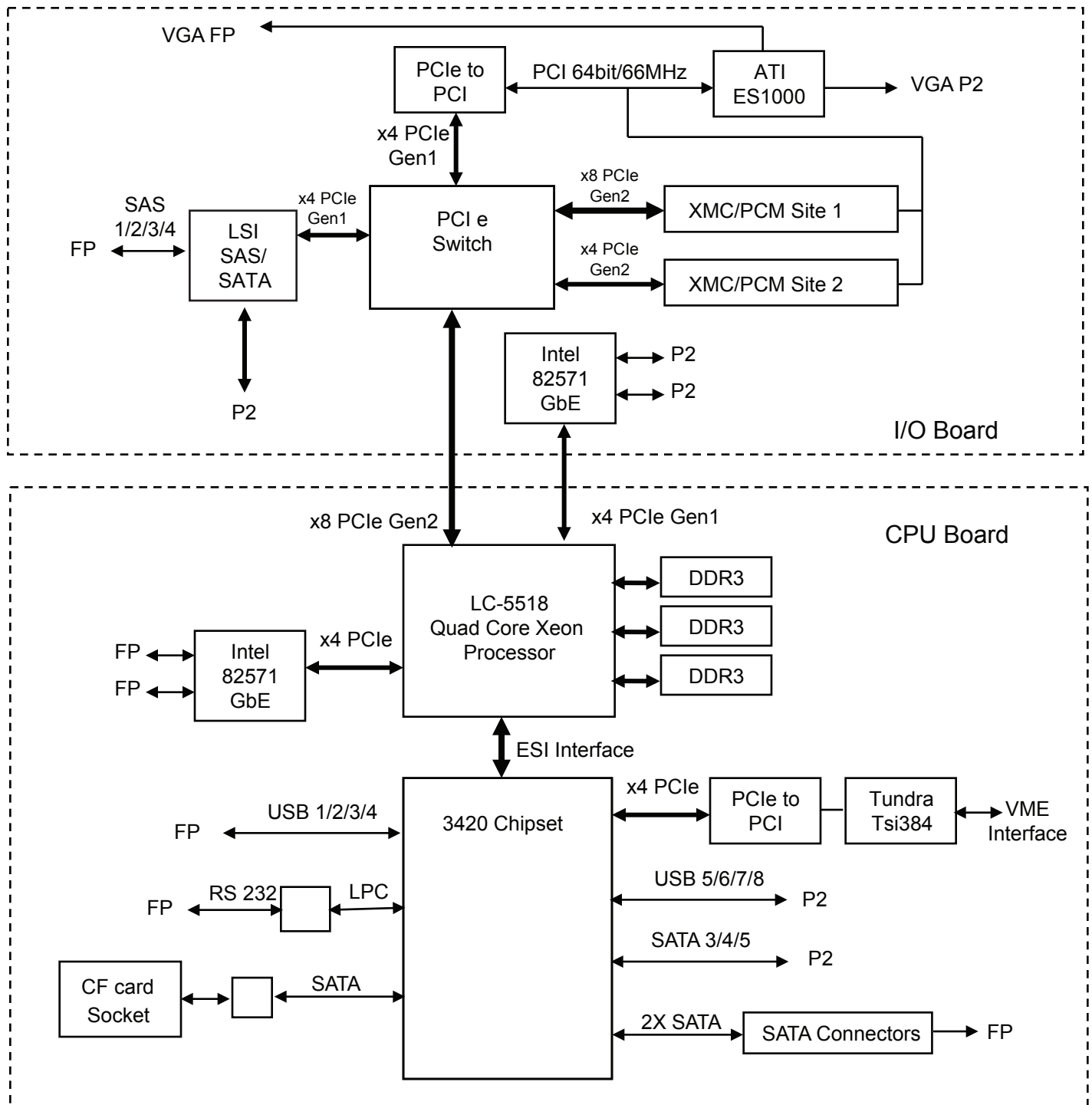


Figure 1: XV2 Block Diagram

## TECHNICAL SPECIFICATIONS

### General

PARAMETER	DESCRIPTION
Processor	Intel 1.77 GHz Quad Core Xeon (2.133 GHz MaxTurbo Frequency)
Memory	Up to 24 GBytes DDRII ECC SDRAM

### Front Panel (FP) and VME P2 (P2) Connector I/O

I/O	QUANTITY	ACCESS
Gb Ethernet	4	Two on front panel, two on P2
USB 2.0	8	Four on front panel, four on P2
Serial Ports	1	COM1: front panel
SATA II	5	Two front panel, Three on P2
SAS/SATA	5	Four on front panel, 1 on P2
Keyboard and Mouse		USB: front panel and P2
VGA Graphics	1	Front panel P2 and P2

### On-Board Expansion

PARAMETER	DESCRIPTION
PMC/XMC Site 1	PCI 64 bit/56 MHz, x8 PCIe, second generation
PMC/XMC Site 2	PCI 64 bit/66 MHz, x4 PCIe, second generation

### Environmental

PARAMETER	OPERATING	NON-OPERATING
Temperature Range	-5 to +55°C	-40 to 95°C
Humidity (non-condensing)	0 to 95%	0 to 95%
Shock	30G @ 40mS	30G@ 40mS
Vibration (10-2000Hz)	0.90G (rms)	2.97G (rms)

### Mechanical

PARAMETER	NON-OPERATING
Cooling Requirments	Two slot configuration: 19CFM/Slot
Dimensions (HxD)	6U 6.299" (160mm) x 9.173" (233mm)

### General

PARAMETER	NON-OPERATING
CompactFlash	On-board type II socket
VME Interface	<ul style="list-style-type: none"> <li>Tundra Tsi148 VME64 interface</li> <li>Injectors/Ejectors: VME64 and traditional VME available</li> </ul>

## THEMIS SBC SOLUTIONS

Themis Board Level Computers are designed to provide the highest levels of configuration flexibility, performance and reliability. Themis engineers use their expertise in the design of embedded systems solutions to reduce the risk, and costs, of failure caused by demanding environmental conditions that include extreme temperature or vibration. From rugged to unique processor module/heat sink designs, Themis provides the high level of system integrity that demanding applications require. Themis BLCs provide increased resiliency to all environmental extremes - including shock, vibration, and temperatures, that cause many other embedded systems to fail.

## THEMIS VALUE

Themis provides systems manufacturers and end-users with the most modern, best of breed computing resources available. Package and performance scale from small form factor embedded servers to bladed servers. We listen, understand, and work closely with our customers to optimize computing solutions that are easy to integrate, inexpensive to own and operate, and that achieve the right balance between standard commercial technology, rugged environments, and optimize space, weight, and performance.

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