Intel® Server Board STL2
for Intel® Pentium® III Processors

Powerful, Dual-Processing Server Board for General-Purpose e-Business Applications and Front-End Server Workloads

Product Brief

- Dual Processing for Scalability and Performance
- Greater I/O Throughput
- Dual-Peer PCI Buses

Server Performance for Small and Medium-Size Businesses. The Intel® Server Board STL2 is a powerful dual-processor server board for serious workgroup and e-Business server applications. Designed for environments with up to 100 users, the STL2 can be configured to meet a variety of server needs ranging from single-function to multi-function server applications.

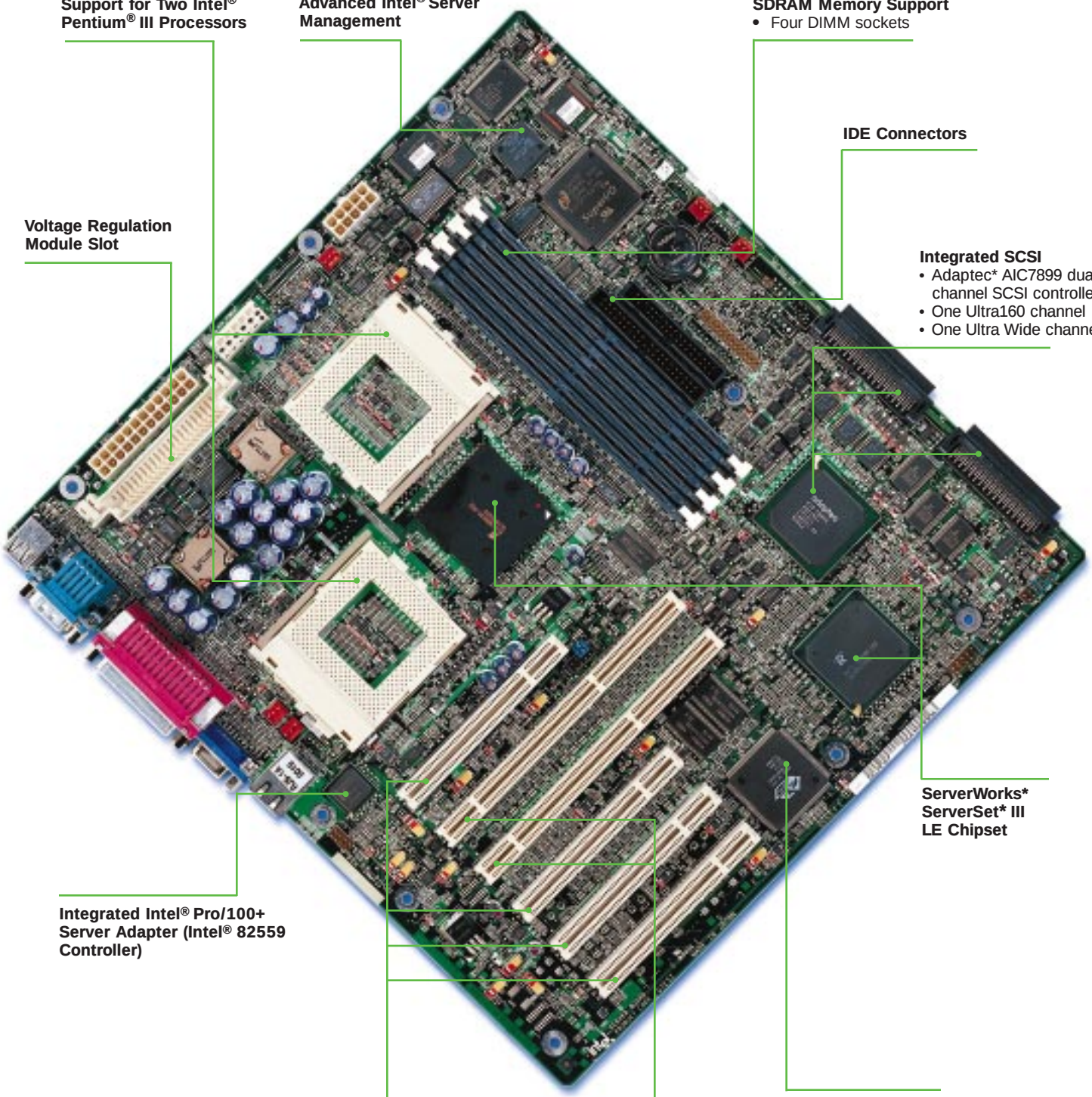
Internet-Equipped Using Intel® Server Technology. The STL2 server board's scalability provides the performance needed for today's unpredictable e-Business economy. It supports up to two Intel® Pentium® III processors with 133 MHz system bus and six PCI slots. Two of the PCI slots are on an independent, 64-bit/66 MHz PCI bus, which provides added I/O throughput. Additional server technologies include the Intel® PRO/100+ Fast Ethernet Controller, Ultra160 SCSI storage, 4 GB of PC133 ECC SDRAM memory capacity, Intel server management, and a three-year limited warranty.

Service, Support, and Three-Year Limited Warranty. Intel provides service options to system integrators and dealers on all Intel server building blocks[1], including a three-year, limited warranty and next-business-day replacement of in-warranty Intel server products and optional server spares kits to enable same-day service. In addition, Intel provides access to support personnel for assistance with technical questions, and dedicated Web sites such as support.intel.com and www.intel.com/go/serverbuilder.

Features	Benefits
Supports one to two Intel® Pentium® III processors operating on a 133 MHz system bus only. For additional details, see: http://support.intel.com/support/motherboards/server	Performance for demanding server applications
Supports up to 4 GB of PC133 ECC Registered SDRAM memory, four DIMM sockets	State-of-the-art memory technology and increased capacity to support a wide range of server tasks
Six available PCI slots: two 64-bit/66 MHz, and four 32-bit/33 MHz	Investment protection; room to grow with support for high-performance PCI cards; 64/66 PCI provides high performance I/O
Dual-Peer PCI Buses	Separate PCI buses reduce data bottlenecks and increase bandwidth for intensive I/O needs
Integrated Adaptec* (AIC*7899) dual-channel SCSI controller: one Ultra160 channel and one Ultra Wide channel	Maximum data throughput due to independent SCSI channels
Integrated ATI Rage* IIC PCI graphics controller with 4 MB of memory	High-quality integrated video eliminates the need for PCI video card
Integrated Intel® PRO/100+ Fast Ethernet Controller (Intel® 82559)	Scalable network bandwidth and redundant links when combined with Intel's complete line of server adapters
Server management capabilities: • **Easy-to-use Intel® Server Control Software for server management**	Intel Server Control provides the data protection, physical security, remote access, and quick problem resolution capabilities that used to be available only on high-end server systems
Three-year limited warranty	Peace of mind with Intel technology

[1] Some restrictions apply. Not available in all countries.

Intel® Server Board STL2 for Intel® Pentium® III Processor



Support for Two Intel® Pentium® III Processors

Advanced Intel® Server Management

4 GB PC133 ECC Registered SDRAM Memory Support
- Four DIMM sockets

IDE Connectors

Voltage Regulation Module Slot

Integrated SCSI
- Adaptec* AIC7899 dual-channel SCSI controller
- One Ultra160 channel
- One Ultra Wide channel

ServerWorks* ServerSet* III LE Chipset

Integrated Intel® Pro/100+ Server Adapter (Intel® 82559 Controller)

Dual-Peer PCI, Six Available PCI Slots
- Bus A—four 32-bit/33MHz PCI slots
- Bus B—two 64-bit/66MHz PCI slots

Integrated Graphics
- ATI Rage* IIC PCI graphics controller with 4 MB of memory

The Boxed Intel® Server Board STL2 Includes:

1. One STL2 server board
2. One terminator for uni-processor configurations
3. One Voltage Regulation Module, (VRM)
4. One I/O shield, ATX 2.03-compliant
5. SCSI (Ultra160 with four connectors) cable with termination
6. IDE cable
7. Floppy cable
8. Quick-Start Guide
9. Sticker with board layout and I/O configurations
10. CD-ROM with Intel Server Control software, configuration tools, software drivers and technical product information

Flexibility to Meet Your Customers' Internet Computing Needs

Take Advantage of Intel Server Chassis. Combine all the features of the STL2 with a tested and validated Intel® server chassis. Intel carries a variety of server chassis ranging from pedestal to rack-mountable configurations, designed to help you quickly and confidently meet the demands of the growing e-Business market. For complete details on chassis support, see www.intel.com/go/serverbuilder

STL2 as a Dedicated-Function Server. ISPs, ASPs, and "dot.com" companies demand dedicated-function appliance servers. The STL2, when configured with an Intel server rack chassis, provides a reliable and scalable solution that is optimized for space-constrained environments. The STL2's high I/0 throughput and onboard network capabilities ensure that commonly deployed server workloads are always available to end customers. The STL2 is an ideal solution for dedicated-function servers handling Web serving, proxy/caching/security (PCS), collaboration (email/workgroup), Network Attached Storage (NAS), and file/print.

STL2 as a Multi-Function General-Purpose Server. In its bulletin discussing the worldwide server marketplace, the International Data Corporation indicates that 16 percent of organizations with fewer than 100 employees currently have a server-based network[2]. There is a huge opportunity for you to sell servers into these small office/home office (SoHo) and small and medium business (SMB) markets with limited or no IT expertise. The STL2 can perform a variety of basic server functions such as file/print, email, and Internet access, that are essential for SoHo/SMB customers. The STL2's integrated system board, packaged in an economical base-level Intel® server chassis, gives you the flexibility to create a robust multi-function appliance or a general-purpose server.

Complementary Server Building Blocks. To find more information on exciting server building blocks, including processors, chassis, RAID controllers, network adapters, and server management, go to: www.intel.com/go/serverbuilder

[2] "Solutions in a Box: Appliance Servers Shake Up the Server Community," Bulletin #W21941, April 2000

Intel® Server Board STL2 Specifications

Processor/Cache

Processors Supported	Intel® Pentium® III processors operating on the 133 MHz system bus only For the latest processor support, go to: **http://support.intel.com/support/motherboards/server/**
Chipset	ServerWorks* ServerSet* III LE

System Memory

Memory Capacity	Four DIMM sockets for up to 4 GB of SDRAM (64 MB to 1 GB DIMMs supported)
Memory Type	PC/133 Registered SDRAM 72-bit ECC, 168-pin gold-plated DIMMs
DIMM Sizes	64 MB, 128 MB, 256 MB, 512 MB, 1GB
Memory Voltage	3.3V only
Error Detection	Corrects single-bit errors, detects double-bit errors (using ECC memory)

Expansion Slots

Description	Six dedicated PCI slots (bus mastering)

Integrated Adaptec* SCSI Controller

Controller	Adaptec* AIC7899 Dual Channel—one Ultra160/LVD channel, one Ultra Wide channel. Two 68-pin "wide" SCSI connectors. Max data transfer: 160 MB/sec on Ultra160/LVD channel

Integrated Intel® Network Adapter

Controller	One Intel® PRO/100+ Fast Ethernet Controller (Intel® 82559) Supports 10BASE-T and 100BASE-TX, RJ45 output

Integrated Input/Output Controller Hub (ICH)

PCI	Six total: two 64-bit/66MHz, four 32-bit/33MHz
IDE	One EIDE channel for a total of two IDE devices backward-compatible to provide CD-ROM
USB	Two stacked USB connectors

Graphics

ATI Rage* IIC SVGA PCI video controller with 4 MB of video memory

Integrated Super I/O

Controller	National* PC97317
Serial ports	Two asynch, RS-232C, 9-pin and 10-pin
Parallel port	IEEE 1284, 25-pin bi-directional
Floppy Controller	1.44 MB, 2.88 MB, 3-mode support
Keyboard/mouse	PS/2, 8240A-compatible

System BIOS

BIOS Type	8 Mb Flash EEPROM with Phoenix* BIOS, Multi-boot BBS (BIOS Boot Specification) 1.4-compliant
Special Features	Plug and Play, IDE drive auto-configure, SMBios 2.3, ECC/Parity support, multilingual support
Configuration Utilities	System Set-up Utility (SSU) enables easy system setup of BIOS and utilities, Plug and Play

Jumpers and Front Panel Connectors

Front Panel Connectors	Power LED, power on/off switch, reset
Jumpers	CMOS clear, password clear, processor frequency setting

Mechanical

Server Board Style	SSI, fits in many ATX 2.x-compliant tower chassis
Server Board Size	12" x 11.5"

Server Board Power Requirements

+5V	21.73A maximum continuous current
+5V standby	.78A minimum continuous current
+12V	4.06A maximum continuous current
+3.3V	14.18A maximum continuous current
-5V	0 maximum continuous current
-12V	.02A maximum continuous current

Server Management Instrumentation[3]

Failure Detection	Voltage, thermal, operating-system, watchdog fan failure, hard disk drive failure, power supply failure, processor status, ECC memory, heat-sink fan check
Platform Event Paging	Paging on hardware events (external modem required)
Event Logging	Non-volatile storage to prevent loss of logs in the event of system or power failure
Security	Chassis intrusion detection, video blanking, password protection

Intel® Server Control (ISC), Version 2.x

Managed Server	Operating systems supported: Microsoft Windows* 2000, Microsoft Windows* NT* Server 4.0, Novell NetWare* 4.2, 5.0, SCO UnixWare* 7.1, Red Hat Linux* 6.2
Management Consoles Supported	ISC integrates into the leading management consoles: Intel® LANDesk® Server Manager 6.04, HP OpenView* Network Node Manager 5.02 for Microsoft Windows* NT, CA TNG* Framework 2.02 for Microsoft Windows* NT
Alert Notification	Methods of notification are available: Network broadcast, SNMP trap, writing into server OS log, writing into system event log (non-volatile storage), message box
Critical Event Actions	In response to user-configurable event thresholds, graceful operating system shutdown, with reboot or power-off, at administrator's discretion: Immediate power-off or reset

Environment

Ambient Temperature[4]	
Operating (system)	10°C to +35°C
Non-operating/ storage (system)	-40°C to +70°C ambient
Relative Humidity	
Non-operating	95%, non-condensing @ +30°C

Product Regulations

Safety Compliance:	
U.S. & Canada	UL/CUL 950-CSA 950 (UL Recognition Mark)
Europe	EN60950, CE Mark-EU Directive 73/23/EEC
Russia	EN60950 (GOST-R Mark)
International	IEC60950

EMI Verification—configured in a compatible[5] Intel host system

U.S.	Verified to FCC, Class A
Canada	Verified to ICES-003, Class A
Europe	Verified to EN55022 (Class A) and EN55024 (CE Mark—EU Directive 89/336/EEC)
Russia	Verified to EN55022, EN55024 (GOST-R Mark)
International/Japan	Verified to CISPR-22/VCCI, Class A
Australia/New Zealand	Verified to AS/NZS 3548, Class A (C-tick Mark)

Intel Product Ordering Code

Server Board STL2	STL2

For the most current product information on all of Intel's server building blocks, visit Intel's web site at:

www.intel.com/go/serverbuilder

[3] Full utilization of some server management features is dependent on the use of an Intel® server chassis.
[4] Environment ambient temperature measurements are system measurements with an Intel® STL2 board installed in an Intel® SC5000 chassis.
[5] Compatible host system denotes the system(s) Intel tested the board in and found it compliant. Regulatory certifications were obtained under the reference: STL2 and/or 133-xxxxxxx.

0900/TC-CM/DMW/MD/PP/23K

Intel Literature Center: 1-800-548-4725
ORDER NUMBER 283941-001