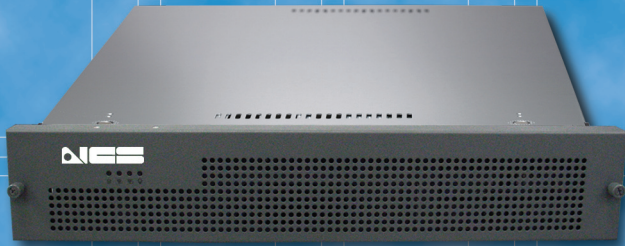


# RELIANCE



## Key Features

- 2U Rackmount Chassis
- Intel® 5000P Chipset
- One or Two Processors Ready
- Dual-Core Intel® Xeon® Processor 5000 Sequence
- Dual-Core Intel® Xeon® Processor 5100 Sequence
- 2.67 GHz to 3.73 GHz CPUs
- 16 GB/32 GB ECC DDR2 Fully Buffered SDRAM
- Intel® x4 Single Device Data Correction (x4 SDDC)
- Six Channel Serial ATA 3 GB/s and Integrated RAID
- Two Intel® PRO 1000 Gigabit Server Controllers
- Six Independent PCI Bus Segments
- ATI® ES1000 16 MB Video Controller
- Intel® Server Management
- Adaptec 2230SLP Dual Channel Ultra320 SCSI (Optional)
- Dual Redundant 500W PFC 1 + 1, Hot Swap, Hot Plug VAC Power

## Reliance APR Series Server

Encased in sleek heavy-duty cold-rolled steel, the Reliance APR Series enterprise server, in a 2U rackmount chassis, delivers unsurpassed reliability, efficiency, and performance. Specifically built to function in any back-end departmental multithreading or front line command server environment, the Reliance Series will effortlessly facilitate superior productivity and optimized virtualization, no matter what the demand load may be. Whether hosting specific purpose mission-critical applications or deploying Internet infrastructure programs, the dual processing power of the Reliance APR Series, utilizing the latest Dual-Core Intel® Xeon® Processors 5100 Sequence, coupled with a 1333 MHz system bus, will instill an immeasurable level of confidence for operational throughput. Topmost bandwidth expansiveness features include six independent PCI bus segments, six independent Serial ATA 3 GB/s channels, and optional dual channel Ultra320 SCSI RAID. Other features of the Reliance APR includes: dual Gigabit LAN, 32 GB ECC Fully Buffered DDR2 SDRAM usage, improved graphics, and Intel® Server Management. For depend-to-market solution or back-end productivity workhorse, the next generation Reliance APR Series is the ideal platform solution to suit every need.



# Model AR7-I310

# Reliance APR Series Server

## Chipset

Intel® 5000 Chipset  
Intel® 5000P Memory Controller Hub (MCH)  
Intel® 80332 I/O Processor with Intel® XScale Technology (IOP332)  
Intel® 6321 ESB I/O Controller Hub (ESB2-E)  
Intel® 6700 PXH PCI-X 64-bit Controller Hub (PXH)  
Intel® 82802AB Firmware Hub (FWH)  
PCI Local Bus Specification Revision 2.3 and PCI-X 2.2 Compliant

## Processor

Dual Core Intel® Xeon® Processor 5000 Sequence, One or Two Processor Ready  
Dual Core Intel® Xeon® Processor 5100 Sequence, One or Two Processor Ready  
Intel® Netburst® Micro-architecture  
Intel® Hyper Threading Technology  
Demand Based Switching (DBS) w/ Enhanced Intel® Speedstep® Technology  
LGA771-Land Socket for FC-LGA6 (Flip Chip Land Grid Array) Package CPUs  
667 MHz, 1066 MHz, or 1333 MHz Front Side Bus (FSB)  
2.67 GHz to 3.73 GHz CPUs

## BIOS

8 Mbit Flash EEPROM w/ Phoenix® BIOS  
Multi Boot BBS (BIOS Boot Specification) 1.4 Compliant  
IDE Drive Autoconfigure, SIMBIOS 2.3, PnP  
Built-in Password and Hardware BIOS Virus Protection  
Supports IDE CD-ROM or SCSI Bootup  
Enhanced Advanced Configuration and Power Interface (ACPI)

## Cache

Dual-Core Intel® Xeon® Processor 5000 Sequence  
2 x 12k µop Trace Execution & 2 x 16 KB Data, Level 1 Cache  
2 x 2 MB Advanced Transfer Cache (On-die, Full Speed Level 2 Cache) w/ 8-way Associativity & Error Correcting Code (ECC)  
Dual-Core Intel® Xeon® Processor 5100 Sequence  
32 KB Instruction & 32 KB Data, Level 1 Cache (Shared)  
4 MB Advanced Smart Cache (On-die, Full Speed Level 2 Cache) w/ 8-way Associativity & Error Correcting Code (ECC) (Shared)

## System Memory

Intel® x4 Single Device Data Correction (x4 SDDC) for Memory Fault Tolerance  
Four Fully Buffered (FBD) Channels  
Eight 240-pin (Two-way Interleaved) DIMM Sockets Supporting  
Fully Buffered ECC DDR2 533 MHz (Stacked or Unstacked) SDRAM FBDIMMs  
Fully Buffered ECC DDR2 667 MHz (Stacked or Unstacked) SDRAM FBDIMMs  
256 MB, 512 MB, 1 GB, 2 GB, and 4 GB FBDIMMs  
Maximum Memory Capacity of 16 GB (x8 Single Rank Non-Mirrored Mode)  
Maximum Memory Capacity of 32 GB (x4 Dual Rank Non-Mirrored Mode)

## Server Management

Intel® Server Manager  
Out-of-Band Management (NIC TCO Port)  
Power Management Instrumentation (PSMI)  
IPMI (Intelligent Platform Management Interface 2.0)  
Intel® Remote Management Module (Intel® RMM) (Optional)  
Intel® System Management Software

## Integrated Super I/O

Two PS/2 Ports: Keyboard and Mouse  
Six USB 2.0 Ports: One Dual Stacked, Two via Internal Header, and Two (Optional)  
Two Serial Ports: One RJ45 Serial B Port and One DH10 Serial A Header

## Integrated PCI IDE/Serial ATA/RAID

One Enhanced IDE Channel Supporting One Slim-line Optical Device  
Supports Bus Master UDMA Mode 5, PIO Mode 4 & ATA/100 (100 MB/sec maximum)  
Intel® 6321ESB I/O Controller Hub (ESB2-E) SATA Controller w/ Integrated RAID  
Six Independent Channels Supporting Six Serial ATA 3 GB/s Devices  
Intel® Embedded Server RAID Technology II  
Supporting SW RAID 0, 1, 10  
Supporting SW RAID 5 w/ Activation Key (Optional)

## Integrated Gigabit LAN Interface

Dual Port Intel® Gigabit Server Connection  
Two Intel® 82563EG PHY Controllers Supporting Intel® I/O Acceleration Technology for 10/100/1000 Ethernet LAN Supporting Full and Half Duplex Operation

## Integrated Graphics Adapter

ATI® Rage® ES1000 SVGA PCI Video Controller with 16 MB DDR SDRAM Video Memory  
Supporting up to 1600 x 1200 in 8/16/32 bpp Mode under 2D

## SCSI (Optional)

Adaptec® 2230SLP Dual Channel PCI-X-to-Ultra320 SCSI Single-Chip Host Adapter  
Two 68-pin High-Density Internal Connectors  
Two 68-pin VHDCI External Connectors  
Maximum Data Transfer 320 MB/sec on each Ultra320/LVD Channel  
Supporting RAID 0, 1, 10, 5, 50, JBOD  
Adaptec® ABM-400 Li-Ion Battery Backup Module (Optional)

## Expansion Slots

One PCI Express (Low Profile) Riser Slot  
One Intel® Adaptive (Full Height) Riser Slot  
PCI Sub-system Supporting Six Independent PCI Bus Segments  
Segment One: 32-bit, 33 MHz PCI Bus  
Supporting Embedded Device  
Segment Two: 64-bit, 133 MHz PCI-X  
Supporting Up to Three Add-in Cards via Full Height Riser Slot  
Segment Three: One x4 PCI Express  
Supporting Active SAS Midplane IOP  
Segment Four: One x4 PCI Express  
Supporting Proprietary Intel® I/O Expansion Module  
Segment Five: Two x4 PCI Express  
Supporting One x8 PCI Express or Two x4 PCI Express to Low Profile Riser Slot  
Segment Six: Two x4 PCI Express  
Supporting One x8 PCI Express or Two x4 PCI Express to Full Height Riser Slot  
Infiniband I/O Expansion Module (Optional)  
External Serial Attached SCSI (SAS) 4-Port Intel® Expansion Module (Optional)  
Dual Gigabit Intel® I/O Expansion Module (Optional)  
Three PCI-X Slots Intel® I/O Full Height Expansion Riser Card Module (Optional)

## Bus Architecture

32-bit PCI, 64-bit PCI-X, PCI Express x4, & PCI Express x8

## Housing Configuration

2U Rackmount Chassis

## Dimensions (d) x (w) x (h) mm/inch

429.3 x 558.8 x 88.9 / 16.9" X 22" X 3.5"

## Power and Drive Bays

Drive Bays: Three 3.5" External Hot Swap  
One Slim-line Optical

## Power Supply Features

Dual Redundant 500W 1 + 1 Dual VAC Power Supply:

Input Voltage: 100~240 VAC Full Range

Output Characteristics:

Output Voltage	Output Current		Regulation		Output Ripple & Noise Max. [P-P]
	Min.	Max.	Load	Line	
+5V	3.5A	30A	±5%	±1%	70mV
-5V	0.05A	0.7A	±5/-10%	±1%	120mV
+12V	2A	32A	+6%	±1%	120mV
-12V	0.05A	0.7A	+5/-10%	±1%	120mV
+3.3V <sup>3</sup>	1A	24A	±5%	±1%	70mV
+5VSB	0.1A	2A	+5/-6%	±1%	70mV

## Environmental

Operating Temperature: 0° to +50° C / 32° to 122° F  
Storage Temperature: -40° to +70° C / -42° to +158° F  
Relative Humidity: 90% RH @ +35° C / +95° F

**NCS Technologies, Inc.**

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