

Scope

This reference expands on the UP2000 User's Manual with register-level and platform detail for OEMs, system integrators and driver/BIOS developers.

Processor Subsystem

- One or two Alpha 21264 (EV6) Slot B modules, 667 or 750MHz
- 2/4/8MB L2 cache per processor, 3.2GB/s sustained L2 bandwidth each
- Independent thermal management per processor socket

Chipset Architecture

- 256-bit memory controller, up to 2.65GB/s sustained memory bandwidth
- Dual independent peer PCI buses for parallel I/O, 400MB/s aggregate
- ECC-protected memory subsystem for high-availability deployments

Memory Map & Expansion

- Up to 8 PC100 168-pin registered/buffered ECC DIMMs, 256MB–2GB
- Six PCI slots (two 64-bit/66MHz, four 32-bit/33MHz), one shared ISA slot

I/O & Firmware

- Floppy controller, two 16550-compatible UARTs, one parallel port, dual USB 1.1
- 2MB flash ROM firmware

Rack Deployment

With the API PowerRAC Chassis 320 (3U, custom-designed for UP2000-series boards), up to 28 systems rack into a single 3U-per-node cluster — 42+ aggregate gigaflops in a standard rack footprint.

Operating System Support

Linux for Alpha (all major distributions, booted directly from SRM) and Windows NT 4.0 (Alpha edition, via AlphaBIOS).