

Category Award IC & Components

PCIe to Multi-IO Bridge Controller



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Winning Reason

Unlike generic solutions that pursue all-encompassing specifications, the RTL9151AS is engineered to precisely align with core customer requirements. By breaking away from the rigid constraints of traditional Southbridge (PCH) options, it eliminates unnecessary cost burdens and achieves the perfect balance between functionality and cost-efficiency. As the market's only multi-interface integrated solution, this single chip replaces multiple bridge ICs (such as PCIe-to-USB and PCIe-to-SATA) and integrates Ethernet. It optimizes bandwidth utilization to satisfy USB and SATA expansion needs while effectively solving the challenge of limited PCIe lanes.

Product Feature

The RTL9151AS is an avant-garde configurable multi-interface bridge controller for motherboards and compact systems especially. It integrates Ethernet, USB, and SATA in a single chip to simplify system architecture. It supports up to one Ethernet port, seven USB ports, and four SATA ports, enabling flexible I/O expansion. It supports up to 2.5GbE Ethernet over a PCIe Gen4 x1 interface. It is compatible with IEEE 802.3u/ab/bz, 802.3az, and features built-in traffic prioritization & hardware offload acceleration, effectively enhancing throughput and stability. It also integrates EEE, ACPI, and remote wake-up to reduce standby power. It also supports USB up to 10 Gbps, suitable for UAC/UVC/HID and storage devices. The SATA supports up to 6 Gb/s, with Link Power Management and SMART monitoring.