



World's First CXL 2.0 Certified Retimer

Phison PS7201 is a 16-lane bidirectional retimer IC designed for PCIe 5.0 and CXL applications supporting up to 32 Gbps data rate. The solution extends the reach and robustness of PCIe serial links over motherboards, interconnect cables, and more complex multi-connector topologies. In addition, PS7201 supports diagnostic features like lane margining, eye opening, thermal monitoring, and error indication to get users dialed in on enterprise and server deployment scenarios.



Application

Server / NAS / HPC

PC Motherboard / Gaming Console

Hardware Accelerator

Product Features

High Range of EQ Boosting with Low Latency

PS7201 offers an ultra-high range of EQ boosting up to 42dB, 6dBs above the PCI-SIG the compliance standards. In addition to the EQ boosting capability is the <5ns low latency that enables uninterrupted signal transmissions at all times.

Diagnostic Tool and BMC SDK

PS7201 comes with diagnostic tools that support per-link diagnostic information such as link history and other electrical statistics through SMBus access. In addition, the support of standard C BMC SDK enables a wide range for functions like firmware updating and link status monitoring.

Flexible Bifurcation and Hot Plug Support

Link bifurcation is supported in 1x16, 2x8, 4x4, 8x2, and other configurations. With the hot-plug-supported independent links, PS7201 enables worry-free, flexible deployments with the freedom of device removal during system uptimes.

PCI-SIG-compliant PCIe Retimers

The PCI-SIG compliance workshop provides extensive interoperability testing with diverse root complexes and endpoints for the verification of PCIe signal conditioning solutions. Passing the PCI-SIG compliance test demonstrates both the quality and excellence in design of Phison's most advanced solution, PS7201.

Redriver

PS7201

Features	Specifications
Interface	<ul style="list-style-type: none">- PCIe 5.0- Backward compatible with existing PCIe generation transfer rates- CXL 2.0 support
Lane Count	<ul style="list-style-type: none">- 16 lanes
Function	<ul style="list-style-type: none">- Retimer
Package	<ul style="list-style-type: none">- FCCSP 354
Body Size	<ul style="list-style-type: none">- 8.9 mm x 22.8 mm(Compatible with Intel supplemental Retimer footprint)
Supply Voltage	<ul style="list-style-type: none">- 0.9V, 1.2V, 1.8V or 0.9V, 1.8V
Max EQ Boosting Range	<ul style="list-style-type: none">- 42dB @ 16GHz
Operating Junction Temperature	<ul style="list-style-type: none">- Operating range: -10 ~ 110 °C- Storage range: -10 ~ 110 °C
PCIe Protocol Participation	<ul style="list-style-type: none">- Protocol aware
Embedded AC Capacitors	<ul style="list-style-type: none">- Support
BMC SDK	<ul style="list-style-type: none">- Support standard C-SDK
Diagnostic Tool	<ul style="list-style-type: none">- Support LTSSM state and history, lane margin



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