

# PS7201

## 16-lane Retimer IC

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 a variety of physical mediums, ranging from motherboards and interconnect cables to more complex multi-connector topologies. In addition, the PS7201 supports diagnostic features like lane margining, eye opening, thermal monitoring, and error indication to get users absolutely dialed in on enterprise and server deployment scenarios.

### Application

Servers / HPC Devices /  
Hardware Accelerators



## PRODUCT FEATURES

### High Range of EQ Boosting with Low Latency

The 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

The 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 FW 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, the 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.

## PS7201

Specifications		
Product	PS7201-65	PS7201-65-CXL
Interface	<ul style="list-style-type: none"> <li>- PCIe 5.0</li> <li>- Backward compatible with existing PCIe generation transfer rates</li> </ul>	
CXL 2.0	- N/A	- Support
# of Channels	- 16-lane	
Function	- Retimer	
Package	- FCCSP 354	
Body Size	<ul style="list-style-type: none"> <li>- 8.9 mm x 22.8 mm</li> <li>*Compatible with Intel supplemental Retimer footprint</li> </ul>	
Supply Voltage	- 0.9V, 1.2V, 1.8V	
Max EQ boosting Range	- 42B @ 16GHz	
Operating Junction Temperature	<ul style="list-style-type: none"> <li>- Operating range: -40 ~ 125 °C</li> <li>- Storage range: -40 ~ 125 °C</li> </ul>	
PCIe Protocol Participation	- Protocol aware	
Embedded AC Capacitors	- Support	
BMC SDK	- Support Standard C-SDK	
Diagnostic Tool	- Support LTSSM State and History, Lane margin	