



Cutting-edge PCIe 6.0 Redriver IC

Phison PS7163 is a linear, high performance redriver IC solution designed to unleash the full potential of high speed signal transmissions in the PCIe 6.0 era. The design enables an 16-lane signal relay point that offers programmable equalization with flexible output swing and flat gain over a variety physical mediums. In addition, PS7163 performs high frequency boosting with minimal channel-to-channel cross-talks, additive jitters, and return losses comparable to a passive component in real-world action, making it a dependable across diverse applications.



Application

Server / NAS / HPC

PC Motherboard / Gaming Console

Hardware Accelerator

Product Features

High Range of EQ Boosting and Linearity

PS7163 offers up to 20dB of EQ boosting range with an excellent maximum linear output range of up to 1500mV in terms of peak-to-peak voltage (Vpp) measurements. With flexible output swinging, PS7163 transmits and receives signals with outstanding accuracy and minimal disturbances.

Independent Multi-Band Compensation

PS7163 supports a unique I2C mode for multi-band independent compensation adjustments. This allows system engineers to independently tune parameters for cables or PCB traces to achieve the best compensation for signal attenuation.

PCI-SIG Compliant PCIe Redrivers

Having gone through extensive, rigorous root complex and endpoint interoperability testing at the PCI-SIG Compliance Workshop, PS7163 is fully compliant with PCI-SIG standards and regulations with inclusion on the PCI-SIG Integrators List.

“PHITUNE” Automatic EQ Tuning Tool

Phison’s patented software tool automatically configures the initial gain parameters suited for the targeted development environment before signal results get collected for continued search of optimized settings with AI technology.

Redriver

PS7163

Features	Specifications
Interface	<ul style="list-style-type: none">- PCIe 6.0- Backward compatible with existing PCIe generation transfer rates- Also compatible with DP, SAS, SATA, and XFI
Lane Count	<ul style="list-style-type: none">- 16 lanes
Function	<ul style="list-style-type: none">- Pure Redriver
Package	<ul style="list-style-type: none">- FCCSP 354
Body Size	<ul style="list-style-type: none">- 8.9 mm x 22.8 mm
Supply Voltage	<ul style="list-style-type: none">- 3.3V
Max EQ Boosting Range	<ul style="list-style-type: none">- 2 ~ 20dB @ 12GHz
Max Output Linear Range	<ul style="list-style-type: none">- 1500mVppd
Operating Junction Temperature	<ul style="list-style-type: none">- Operating range: -40 ~ 125 °C- Storage range: -40 ~ 125 °C
PCIe Protocol Participation	<ul style="list-style-type: none">- Protocol unaware
"PHiTUNE" Auto EQ Tuning	<ul style="list-style-type: none">- Support



THE DATA WITHIN THIS SPECIFICATION IS SUBJECT TO CHANGE BY PHISON WITHOUT NOTICE. PERFORMANCE NUMBERS MAY VARY BASED ON SYSTEM CONFIGURATION AND TESTING CONDITIONS.

COPYRIGHT © 2025 PHISON ELECTRONICS, ALL RIGHTS RESERVED.

Find more information and resources at: phisonblog.com and phison.com