



PS7101

2-lane Redriver IC

Phison PS7101 is a linear, high performance Redriver IC solution designed to unleash the full potential of high speed signal transmissions in the PCIe 5.0 era. The integrated, paired multiplexer-demultiplexer (mux/de-mux) design enables a 2-lane signal relay point that offers programmable equalization with flexible output swing and flat gain over a variety physical mediums. In addition, the PS7101 is able to perform the duty of high frequency boosting with minimal channel-to-channel cross-talks, additive jitters, and return losses comparable to those of a passive component in real-world action, making it a dependable choice of a redriver IC across diverse applications.

Application

Client / Gaming Motherboards /
NAS / Servers



PRODUCT FEATURES

High Range of EQ Boosting and Linearity

The PS7101 offers up to 19dB of EQ boosting range with an excellent maximum linear output range of up to 1200mV in terms of peak-to-peak voltage measurements (Vpp). With flexible output swinging, the PS7101 transmits and receives signals with outstanding accuracy and minimal disturbances.

Embedded Mux/De-mux Design

Phison's PS7101 features a multiplexer (mux) that combines multiple input signals into a single output and demultiplexer (de-mux) which splits a single input into multiple outputs, reducing interconnects and simplifying system design.

PCI-SIG Compliant PCIe Redrivers

Having gone through extensive, rigorous root complex and endpoint interoperability testing at the PCI-SIG Compliance Workshop, the PS7101 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.

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Specifications	
Interface	<ul style="list-style-type: none">- PCIe 5.0- Backward compatible with existing PCIe generation transfer rates- Also compatible with DP, SAS, SATA, and XFI
# of Channels	<ul style="list-style-type: none">- 2-lanes
Function	<ul style="list-style-type: none">- Mux/De-mux Redriver
Package	<ul style="list-style-type: none">- FCCSP 77
Body Size	<ul style="list-style-type: none">- 5.0 mm x 8.0 mm
Supply Voltage	<ul style="list-style-type: none">- 3.3V
Max EQ boosting Range	<ul style="list-style-type: none">- 3 ~ 19dB @ 16GHz
Max Output Linear Range	<ul style="list-style-type: none">- 1200mVppd
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
Embedded AC Capacitors	<ul style="list-style-type: none">- N/A
"PHiTUNE" Auto EQ Tuning	<ul style="list-style-type: none">- Support