PHISON

PS7103
16-lane Redriver IC

Phison PS7103 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 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, the PS7103 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

Servers / HPC Devices / Hardware Accelerators

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PCIe 5.0 Redriver

PRODUCT FEATURES

High Range of EQ Boosting and Linearity
The PS7101 offers up to 28.5dB 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.

Independent Multi-Band Compensation
The PS7103 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, 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	- PCIe 5.0 - Backward compatible with existing PCIe generation transfer rates - Also compatible with DP, SAS, SATA, and XFI
# of Channels	- 16-lanes - *1 lane = 1 pair of Tx/Rx
Function	- Pure Redriver
Package	- FCCSP 354
Body Size	- 8.9 mm x 22.8 mm
Supply Voltage	- 3.3V
Max EQ boosting Range	- 0 ~ 28.5dB @ 16GHz
Max Output Linear Range	- 1200mVppd
Operating Junction Temperature	- Operating range: -40 ~ 125 °C - Storage range: -40 ~ 125 °C
PCIe Protocol Participation	- Protocol unaware
Embedded AC Capacitors	- Support
"PHiTUNE" Auto EQ Tuning	- Support

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