

BERTScope® DPP Series Digital Pre-emphasis Processor Fact Sheet



Features

Benefits

1 to 12.5 Gb/s range of operation, with std. 3 tap configuration	High data rate support of hardware based equalization enables compliance testing for today's 2 nd and 3 rd Generation Serial Standards
3-Tap equalization evaluation on 8b/10b signaling greater than 5 Gb/sec (4-tap optional)	Supports compliance tests for 802.3ap, Serial Attached SCSI, 10GBASE-KR backplanes, DisplayPort™, USB 3.0 PCI Express® Gen 3.
Flexible cursor position	Pre-cursor or post-cursor adjustment for optimized compensation of ISI and loss
Simple interface control	Adjust tap weights directly or in a step response mapping view. Additionally a frequency domain Bode plot is provided to show effect of changes
Flexible control and integration	DPP can operate as a standalone instrument controlled by a remote PC, or with a BERTScope for complete software integration. It can be precisely controlled for Backplane ISI, etc.
Small form factor	Small size is ideal for benchtop placement in the lab or on top of another instrument.

Performance, productivity, & insight for challenging design tasks



DPP125 – Performing 4-tap equalization on 12.5 GB/sec signals

Featuring

- Optional 4-tap non-linear signal conditioner
- Pre-cursor or post-cursor adjustment
- Standards compliant for PCI Express, etc.
- Exceptionally easy setup
- Concurrent multiple domain views, including a frequency domain Bode plot
- Precise correction control for backplane ISI, optical effects, etc.
- Adjustable through tap weights or step response
- Differential output is amplitude and offset adjustable

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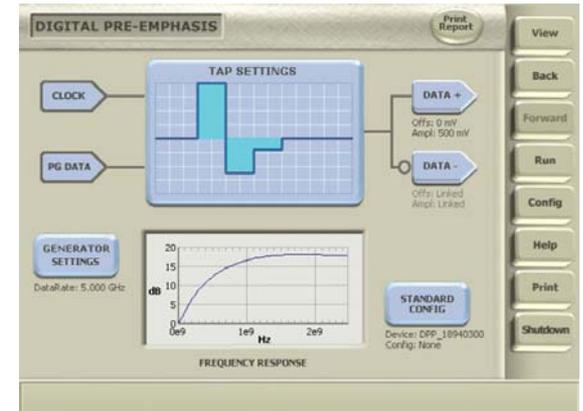
Key Specs and Ordering Information

Model	Data Rate	Description
DPP125	1 – 12.5 Gb/s	Digital Pre-Emphasis Processor

Recommended Software Options	
4T	Add 4-Tap capability

Standard	Required # of Taps	Notes
802.3ap, 10GBASE-KR, 10GbE	3	
PCI Express 2.5 GT/s Receiver	2	0.7 dB for RX Testing
PCI Express 5 GT/s Transmitter	2	Selectable 3.5 & 5 dB on Transmitter
PCI Express 8 GT/s Transmitter	3	Proposed Tap Count
SAS 6 Gb/s Transmitter	2	2 dB for Reference 2 - 4 dB for Devices
DisplayPort Transmitter (1.62 & 2.7 Gb/s)	2	Selectable 3.5, 6 or 9.5 dB on Transmitter
USB 3.0 Transmitter (5 GT/s)	2	3.5 dB nominal +/- 0.5 dB

Service Options	Description
CA1	Provides a single calibration event or coverage
C3	Calibration service 3 years
R3	Repair service 3 years (including warranty)
R3DW	Repair service coverage 3-years post warranty



Key Applications

- Silicon Verification & Debug
- High Speed Serial Standards Compliance Test

Benefits

- Enables quick signal conditioning for accurate design validation of equalization DSP.
- Complete evaluation of link performance 2nd / 3rd Gen Serial Standards like PCI Express, USB.