

# Programmable Error Detector

## PED3200 Series Datasheet



PED3202 Programmable Error Detector

### Features & Benefits

- Available with 1 or 2 input channels (independent data on each channel)
- PRBS and user defined patterns
- DC coupled differential data inputs (may also be used single ended or AC Coupled)
- Full rate AC coupled clock input (may also be used single ended)
- Auto adjustment or manual adjustment of data to clock phase
- Auto synchronization to input pattern
- Front panel touch screen GUI or USB TMC computer control

### Applications

- 25 Gb/s testing for 100G Ethernet
- 32 Gb/s DPQPSK testing
- Semiconductor and component testing
- Design validation and production testing

### Product Description

The Tektronix PED line of high-performance error detectors offer single and two-channel standalone configurations capable of BER measurement at data rates up to 32 Gb/s. The PED products support either PRBS or user-defined data patterns, with simple to use automatic or manual alignment of input clock and data, and pattern synchronization. The PED product makes an ideal companion for the Tektronix PPG pattern generator product family.

### Characteristics

Characteristic	Description
Data Input	Ground-referenced, CML-like input
Differential Use Amplitude	100 mV to 1.0 V
Single-Ended Use Amplitude	100 mV to 0.75 V
Input Window Voltage	-0.6 V to +0.2 V
Termination Voltage	0 V
Clock Input	AC Coupled. Full rate
Differential Amplitude	300 mV to 1.0 V
Single-Ended Amplitude	300 mV to 1.0 V
Clock to Data Phase Adjustment	100 ps (-50 ps to +50 ps)
Built-in PRBS Patterns	$2^n - 1$ n = 7, 9, 11, 15, 23, 31
User-Defined Pattern Depth	2 Mbit, Single bit pattern resolution

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## Ordering Information

### Models

Item	Description
PED3201	32 Gb/s Programmable Error Detector, 1-channel
PED3202	32 Gb/s Programmable Error Detector, 2-channel

### Options

#### Power Plug Options

Item	Description
Opt. A0	US plug, 115V,60 Hz
Opt. A1	Euro plug, 220V, 50 Hz
Opt. A2	UK plug, 240V, 50 Hz
Opt. A6	Japanese plug, 100V, 110/120V, 60 Hz
Opt. A10	China plug, 50 Hz
Opt. A11	India plug, 50 Hz
Opt. A99	No power cord

#### User Manual Options

Option	Description
Opt. L0	English Manual



Tektronix is registered to ISO 9001 and ISO 14001 by SRI Quality System Registrar.



Product(s) complies with IEEE Standard 488.1-1987, RS-232-C, and with Tektronix Standard Codes and Formats.

**For Further Information.** Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology. Please visit [www.tektronix.com](http://www.tektronix.com)



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