

# Eye-BERT Micro LR 100357A



Bit Error Rate Tester and Pulse Generator

4.25Gb

BERT

SFP

CDR

Low Cost



## Features:

- 6.312Mbps to 125Mbps
- Variable Data Rate
- PRBS Patterns
- Programmable Pulse Generator
- Electrical or Optical
- Compact Package
- Rate Measurement
- Decode of SFP Registers
- Internal CDR

## Applications:

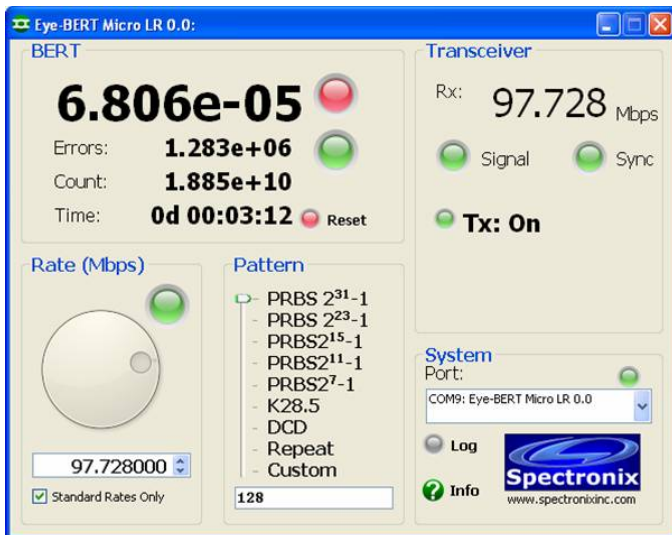
- Bit Error Rate Testing
- Rate Measurement
- Pulse Generator
- Automated Test Sets
- Dedicated Link Verification

## Overview

The Eye-BERT Micro LR is a low cost, easy to use, continuous rate test solution offering high performance bit error rate testing at a fraction of the cost while providing a rich set of features not found in other bit error rate testers. Features include: continuously variable bit rate, user programmable pulse generator, internal CDR with retimer mode, bit rate measurement, and recovered clock output. The Unit is supplied with anti-skid bumpers for bench use, and is small enough to be integrated into larger systems for dedicated link verification.

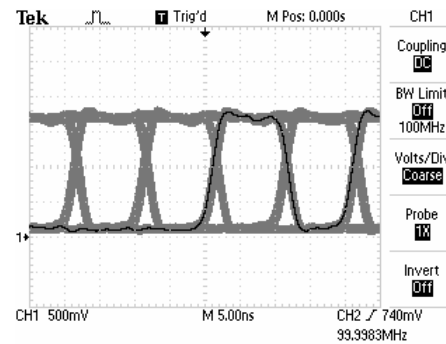
## Operation

The Eye-BERT Micro LR is supplied with a USB driver and Window software, shown below. The interface allows the user to choose a standard data rate or select any rate between 6.312Mbps and 125Mbps. Seven standard test patterns are provided in addition to a loop-back mode which provides retiming and repeating of the input signal.



## Pulse Generator Mode

Since the Tx output of the Eye-BERT Micro LR is DC coupled, unbalanced and very low rate signals can be generated. By using the “Custom” pattern selection, the user can generate any signal between 2KHz and 1.5MHz with a variable duty cycle between 1 and 99% in 1% steps.



## Custom Programming

The Eye-BERT Micro LR uses USB / serial port emulation along with a straight forward communication protocol making custom user application development straight forward.

## System Requirements

All products in the Eye-BERT Micro family now use a common application so there’s only one program to install.

Windows XP, Vista, and Windows 7.

## Ordering Information

Part Number	Description
100357A-SMA	Eye-BERT Micro LR, with electrical SMA interfaces
100357A-1310S	Eye-BERT Micro LR, with 1310nm single mode interfaces
100357A-1550S	Eye-BERT Micro LR, with 1550nm single mode interfaces

## Specifications

Parameter	Units	Typical Specifications
Data Rates Supported	Mbps	6.312 to 125
Pulse Mode	MHz	0.2 to 1.5 (1-99% Duty Cycle)
Rate / Frequency Resolution	Hz	1, (+/- 20ppm)
Data Patterns		$2^7-1$ , $2^{11}-1$ , $2^{15}-1$ , $2^{23}-1$ , $2^{31}-1$ , DCD, K28.5, Repeat/Loop-back
Data / Clock Outputs	V	SMA, DC coupled, 0–1.5V (into 50Ω)
Electrical Input Sensitivity (SMA version)	mVpp	15 to 1500 SMA, AC coupled (into 50Ω)
Optical Output Power (SMF)	dBm	-15 (typical)
Optical Input Sensitivity (Optical versions)	dBm	-30
Computer Interface		USB-2, (Mini B), USB powered
Unit Dimension	inchs	3.5 x 2.5 x 1.2