OptoBERT™ OPG6250
6.25 Gbps Data Pattern Generator

Overview

The OPTELLENT OPG6250 is a cost-effective easy-to-use 6.25G data pattern generator (PPG) for testing components and systems in R&D and manufacturing environments as well as field installations. The OPG6250 is offered with electrical and an optional optical port. The OPG6250 generates multiple PRBS patterns, popular stress patterns, and user-defined patterns using an internal clock source. The OPG6250 comes with a standard 2-year warranty.

An intuitive Graphical User Interface enables easy point-and-click operation. The Optellent OPG6250 software runs on Windows 98/2000/NT/XP and VISTA over USB or RS-232 serial interface via an RJ-45 Connector provided on the front panel.
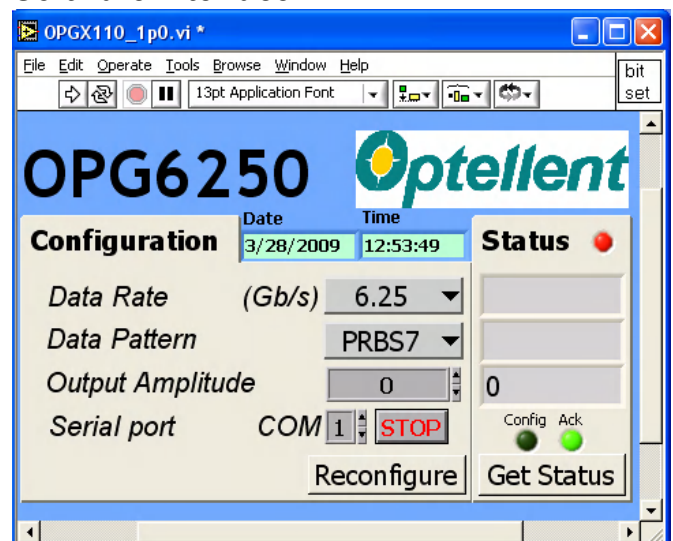
Applications

- Testing of optical transceivers, transponders, linecards, and subsystems

- Testing of opto-electronic components and devices (TOSA, ROSA, lasers, etc…)

- Testing of Gb/s ICs, electronic modules, subsystems, and systems

- Serial bus design and high-speed backplane design

- Compliance testing (EMI, EMC)

- Installation testing and troubleshooting in optical transport networks

Key Features

- **Differential Data and Clock Outputs**

- **Multiple PRBS Patterns: 2^7-1, 2^{23}-1, 2^{31}-1**

- **Stress Patterns: K28.5, CJPAT, CRPAT**

- **User-defined Patterns**

- **Low frequency trigger output**

- **Intuitive GUI**

Software Interface

Specifications

Parameter	Min	Typ	Max	Units
Data Output				
Output Type	AC-coupled, Differential			
Output Format	NRZ			
Data Patterns	• **PRBS:** 2^7-1, 2^{23}-1, 2^{31}-1; 101010…pattern • **Pre-defined:** K28.5, CJPAT, CRPAT (Optional) • **User-defined:** 128 bits to 2000 bits (Optional)			
Output Amplitude (Single-ended)		300	500	mV
Data Rise/Fall Time, (20 – 80%) [1]		25		ps
Data Output RMS Jitter [1]		2		ps
Error Injection	Single error; 10^{-7}, 10^{-8}, 10^{-9}			
Clock Output				
Output Type	AC-coupled, Differential			
Output Amplitude (peak-to-peak, S.E.)		200		mV$_{p-p}$
Frequency	5		6.25	GHz
Trigger Output				
Output Amplitude	300			mV$_{p-p}$
Output Type	AC-coupled, Single-ended			
Electrical connectors	50Ω SMA Female			

(1) Measurements based on PRBS2^{23}-1 data at 6.25 Gbps

Specifications are subject to change without notice.   OptoBERT™ is a registered trademark of Optellent, Inc.© 2012 OPTELLENT Inc.

System & General Specifications

PARAMETER	MIN	MAX	UNIT
Chassis Electrical Voltage	100	240	VAC
Current Drain at Normal Voltage		2.5	A
Operating Temperature Range	5	45	°C
Storage Temperature Range	-40	70	°C
Dimensions (L x W x H)	300 x 240 x 64		mm^3
	12 x 9.5 x 2.5		inch^3
Optical Interface (optional)	Standard SFP+ housing		
PC Interface	RS232		
Standard Warranty	2 years		

Ordering Information

OPG6250-X-X- X

X: other Custom Options

0: No Optical Transceiver;
1: Optical Transceiver (SFP+) 850nm
2: Optical Transceiver (SFP+) 1310nm
3: Optical Transceiver (SFP+) 1550nm

P: Preset Standard Data Rates
C: Custom Data Rates
V: Variable Data Rate

Accessories Included
• User Software
• User Manual
• Power cord
• PC Interface cable