

OPGX280

28 Gbps Compact Data Pattern Generator



Overview

The OPTELLENT OptoBERT™ OPBX280 is a cost-effective easy-to-use 28 Gbps data pattern generator (PPG) for testing components, cables, and systems in R&D and manufacturing environments at data rates up to 28 Gb/s. The OPGX280 incorporates an internal reference clock, and a pattern generator in an extremely compact module. The OPGX280 is offered with USB interface and a standard 2-year warranty.

An intuitive Graphical User Interface enables easy point-and-click operation. Software drivers are available for incorporating the OptoBERT into test automation suites using programs like LabVIEW, VisualBASIC, HP VEE.

Applications

- ▶ Testing of optical transceiver modules, transponders, linecards, and subsystems
- ▶ Testing of opto-electronic components and devices (TOSA, ROSA, lasers, etc...)
- ▶ Testing of Gb/s ICs, PCBs, electronic modules, subsystems, and systems
- ▶ Serial bus and high-speed backplane design
- ▶ Production and compliance testing

Key Features

- ▶ Compact data pattern generator
- ▶ Internal Reference Frequency
- ▶ Differential Data Interfaces
- ▶ Multiple Patterns: PRBS and User-defined
- ▶ Intuitive GUI
- ▶ Easy-to-Use, and Cost-Efficient
- ▶ 2-year Warranty

Preset Data Rates

25 Gbps	
100 GbE	25.78125 Gbps
OTU4	27.95 Gbps
32GFC	28.05 Gbps
ETHERNET	
10G BASE-T	10 Gbps
10G BASE-R (LAN/PHY)	10.3125 Gbps
10G BASE-R OUT 2 FEC	11.096 Gbps
FIBRE CHANNEL	
10 x FC (10G FC)	10.519 Gbps
10 x FC with FEC	11.317 Gbps
16G FC	14.025 Gbps
INFINIBAND & HDMI	
4 x Infini Band	10 Gbps
HDMI 1.3	10.2 Gbps

10 G Preset Data Rates available as custom data rate option

Pattern Generator

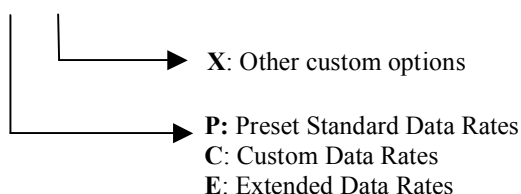
Parameter	Min	Typ	Max	Units
Data Output Type	NRZ Differential			
Termination	AC-Coupled			
Data Patterns	<ul style="list-style-type: none"> • PRBS: 2^7-1, 2^9-1, $2^{11}-1$, $2^{15}-1$, $2^{23}-1$, $2^{31}-1$; 101010...pattern • User-defined: 64 bits 			
Data Rate Range	25		28.05	Gbps
Extended Data Rate Range	9.9		14.025	Gbps
Frequency Accuracy			± 50	ppm
Output Amplitude (peak-to-peak)	300		800	mV _{pp}
Data Rise Time, (20 – 80%)		15		ps
Data Fall Time, (20 – 80%)		15		ps
Data Output RMS Jitter		1.2		ps
Error Injection	~2.0E-10, ~2.0E-9, ~2.0E-8, ~2.0E-7, ~2.0E-6			
Data Connector	2.92 mm or 2.4 mm Female			
Trigger Output Amplitude	300			mV _{pp}
Trigger division ratio		1/64		
Trigger output type	Single-ended, AC-coupled, 50Ω SMA female			

System & General Specifications

PARAMETER	MIN	MAX	UNIT
Chassis Electrical Voltage	5.0	5.5	V (DC)
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)	160 x 106 x 56		mm ³
	6.4 x 4.25 x 2.25		inch ³
PC Interface	USB (B)		
Standard Warranty	2 years		

Ordering Information

OPGX280-X-X



Accessories Included

- User Software
- User Manual
- Power cord
- PC Interface cable

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2