

# CGR-X150

## 14 GHz Clock Generator



### Overview

The OPTELLENT CGR-X150 is a cost-effective, easy-to-use clock generator system for R&D and manufacturing environments. It generates differential line rate clock, and a low frequency trigger in a compact module. The CGR-X150 produces a variable clock output between 7.5 and 14.1 GHz with a resolution of 2 kHz.

An intuitive Graphical User Interface enables easy point-and-click operation. The Optellent CGR-X150 software runs on Windows platforms over USB or RS-232 serial interface via an RJ-45 Connector provided on the front panel.

### Applications

- ▶ Reference source for PPG/BERT/RZ converters
- ▶ Testing of optical transceivers, transponders, linecards, and subsystems
- ▶ Testing of Gb/s ICs, electronic modules, subsystems, and systems
- ▶ Serial high-speed backplane and board design

### Key Features

- ▶ Differential Clock Outputs
- ▶ Supports datacom and telecom protocols
- ▶ 2 kHz resolution
- ▶ Trigger output for synchronizing other equipment

### Protocol Applications

<b>SONET / SDH</b>	
OC-192: STS-192 / STM-64	9.95328 Gbps
G.709	10.709 Gbps
<b>ETHERNET</b>	
10GBASE-T	10 Gbps
10GBASE-R (LAN/PHY)	10.3125 Gbps
10GBASE-R OTU2 FEC	11.096 Gbps
<b>FIBRE CHANNEL</b>	
8GFC	8.5 Gbps
10GFC	10.519 Gbps
10GFC with FEC	11.317 Gbps
16GFC	14.025 Gbps
<b>INFINIBAND &amp; HDMI</b>	
4 x Infiniband	10 Gbps

## Specifications

Parameter	Min	Typ	Max	Units
High frequency Output Format	Differential			
Clock frequency	7.5		14.1	GHz
Low frequency clock (optional)	5		7	GHz
Output Amplitude (single-ended)		250	500	mV
RMS Jitter		1.8		ps
Trigger Output Amplitude	300			mV <sub>p-p</sub>
Trigger frequency	Clock frequency/16			
Electrical terminations/connectors	AC-coupled 50Ω SMA Female			

## 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
PC Interface (optional)	RS-232		
Standard Warranty	2 years		

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