

TGR-X110

11 Gbps Broadband Trigger Recovery System



Overview

The OPTELLENT TGR-X110 is a compact, cost-effective trigger recovery system for testing components and systems in R&D and manufacturing environments. The TGR-X110 enables the recovery of a low frequency trigger from the single-ended input data. This enables viewing the complementary data signal on an oscilloscope for eye-diagram analysis and eye-mask testing. It operates between 8.9 and 11.7 Gb/s and submultiples of this frequency range.

Key Features

- ▶ **Broadband operation**
- ▶ **Electrical and/or Optical Interfaces**
- ▶ **Clock recovery option**
- ▶ **Ideal for eye-diagram/eye-mask analysis**

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 high-speed backplane and board design

Protocol Applications

SONET / SDH	
0C-192: STS-192 / STM-64	9.95328 Gbps
G.709	10.709 Gbps
ETHERNET	
10GBASE-T	10 Gbps
10GBASE-R (LAN/PHY)	10.3125 Gbps
10GBASE-R OTU2 FEC	11.096 Gbps
FIBRE CHANNEL	
10 x FC (10GFC)	10.519 Gbps
10GFC with FEC	11.317 Gbps
INFINIBAND & HDMI	
4 x Infiniband	10 Gbps
HDMI 1.3	10.2 Gbps

Specifications

Parameter	Min	Typ	Max	Units
Data rates	8.9		11.7	Gb/s
	4.45		5.95	Gb/s
	2.25		2.95	Gb/s
Output Amplitude (single-ended)		300		mV
Electrical data input	100		800	mV
Trigger Output Amplitude	300			mV _{p-p}
Trigger frequency	Clock frequency/64 (8.9 to 11.7 Gb/s) Clock frequency/32 (4.45 to 5.95 Gb/s) Clock frequency/16 (2.25 to 2.45 Gb/s)			
Electrical terminations/connectors	AC-coupled 50Ω SMA Female			
Optical connectors	MSA compliant SFP+ port (LC connectors)			

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
Standard Warranty	2 years		

Ordering information

TGRX110-X-X-X

