

Continuous Rate Clock Recovery

For accurate and repeatable measurements when access to a bit clock is not available

The addition of a Continuous Rate Clock Recovery option to an SIA solution enables signal integrity analysis and diagnostics measurements when access to a bit clock is not available. This option is especially useful for applications with non-standard data rates. The Continuous Rate Clock Recovery option removes the need for awkward setups; simply plug in your test signal and you can obtain accurate and repeatable measurements. Eye diagrams and detailed jitter analysis can be performed on any type of data signal - random or repeating.

Clock Recovery Setup

The Continuous Rate Clock Recovery option is used as follows:

Data from the DUT is sent into the Continuous Rate Clock Recovery option via the "Data In" channel on the front of the SIA solution. The supplied Hard-line SMAs are used to connect from the Continuous Rate Clock Recovery "Data Out" to the IN1 (Channel 1 input). The recovered clock is used internally for all signal integrity measurements.



Specifications

Data Rates	30 Mb/s tp 3 Gb/s
PLL Loop Bandwidth	Databaud /1244 Typical
Clock Jitter*	
Databaud < 500 Mb/s	< 5.0ps RMS
Databaud > 500 Mb/s	< 3.0ps RMS
Insertion Loss Through Path	8 dB Typical
Operating Input Signal Level	
Single Ended	0.250 to 2.5 Volts (pk-pk)
Differential	0.125 to 1.25 Volts (pk-pk)

*Measured using PRBS 2²³-1 test pattern

Benefits:

Enables measurement of any data signal - random or repeating

Supports multiple data rates and applications:

PCI Express Gen I and Gen II
Fibre Channel: 1X, 2X, 3X, 4X
SAS & SATA: 1.5, 3.0
Gigabit Ethernet
Infiniband
SONET
OC-3,12,48
XAUI
10GFC
Serial RapidIO
DVI
1394b: 800 Mb/s, 1.6 Gb/s
Fast Ethernet
HDMI
Custom: 30 to 3000 Mb/s

Easy setup - simply plug in test signal



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