



Agilent N2100B Digital Communication Analyzer

Industries and Applications

- Test of Optical and Electrical Transceivers
- Telecommunication Equipment Test
- Fibre Channel, Ethernet, PON, Parallel Optics
- Multi-port system testing
- High port count burn-in test

Product Description

The N2100B PXI DCA combines the benefits and measurement capabilities of a real time scope with the bandwidth of a sampling scope, using a coherent patented vector undersampling technique. The N2100B performs accurate eye diagram analysis to characterize the quality of transmitters from 155 Mb/s to 10.3125 Gb/s.

Models	
N2100B	PXI Digital Communication Analyzer Module
N2100B-300	155 Mb/s to 10.3125 Gb/s

Main Features and Benefits

Product features	Your benefit
PON and 10 GigE filters available	Extended test capabilities
Smart Post Processing	Allows optical transceiver manufacturers increase throughput
ER Correction Factor	Enables even tighter correlation with other instruments
Eye diagram, mask and jitter testing in a single instrument	Allowing DUT's quality assessment, control and binning
Wide optical bandwidth coverage from 750 nm to 1650 nm	Cover test of optical transmitters for telecommunication and data communication use

Connector compatibility: cPCI, PXI-H, PXI-1



*Challenge the Boundaries of Test
Agilent Modular Products*

Specifications and Characteristics

Hardware	
Size	4-slot module
Electrical input	1 channel, single ended AC coupled, 1 v pp (max)
BW of electrical input	9.5 GHz (characteristic)
Optical input	62.5/125 μ m fiber, 750—1650 nm
BW of optical input	10.3125 Gb/s (option 210)
Sample rate	160 Ms/s
Waveform acquisition	1024 points per acquisition, max. 1024 acquisitions
Pattern acquisition mode	Max. 2047 bits pattern length, 128 points per bit, fixed
Clock recovery	<2.7 Gb/s
Clock input frequency range	10 MHz to 11.318 GHz (char.)
Clock input voltage range	0.5 to 1 V pp

Anticipate — Accelerate — Achieve



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Software Information

Software operating systems	Microsoft Windows XP (32-bit) Windows 7 (32-bit, 64-bit)
Standard compliant drivers	IVI-COM, IVI-C, LabVIEW, MATLAB
Supported application development environments (ADE)	Visual Studio (VB.NET, C#, C/C++), VEE, LabVIEW, LabWindows/CVI, MATLAB
Agilent IO Libraries	Includes: VISA Libraries, Agilent Connection Expert, IO Monitor

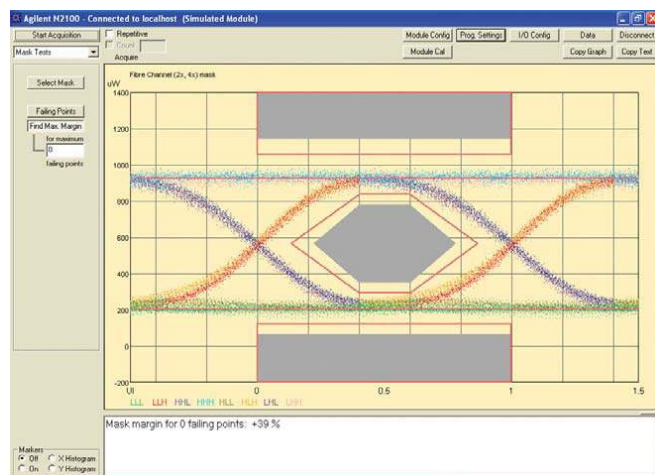


Figure 1. Automatic Mask Test Measurement including a call to determine the margin that x number of points fail the "Mask Margin Test"

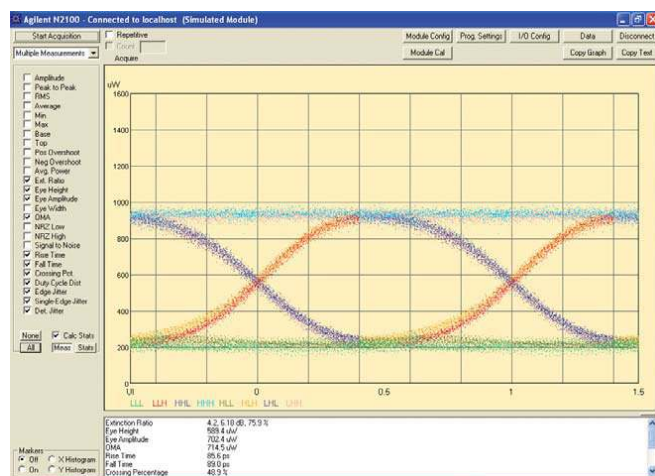


Figure 2. Multiple measurements can be made at the same time.

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Ordering Information

Typical Product Configuration

Model	Description
N2100B	PXI Digital Communication Analyzer Must choose any 4 different filter rates:
N2100B-300	PXI DCA 155 Mb/s to 10.3125 Gb/s
Option 110	155 Mb/s
Option 120	622 Mb/s
Option 130	1.063 Gb/s
Option 140	1.25 Gb/s
Option 150	2.125 Gb/s
Option 160	2.488/2.5 Gb/s
Option 180	3.125 Gb/s
Option 190	4.25 Gb/s
Option 193	5.0 Gb/s
Option 195	6.25 Gb/s
Option 197	8.5 Gb/s
Option 210	9.95/10.3125 Gb/s

Related products

N2101B	PXI Bit Error Ratio Tester
N2102B	PXI Pattern Generator
N2099A	PXI Synthesizer



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Agilent Modular Products

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