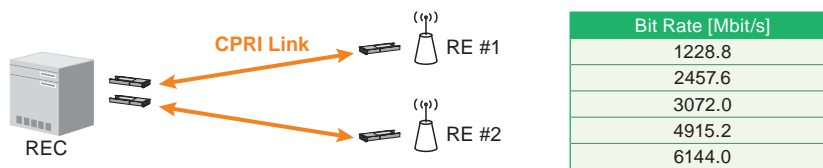


Ideal for LTE CPRI v4.1 Optical Module Evaluation

MP2100A series
BERTWave

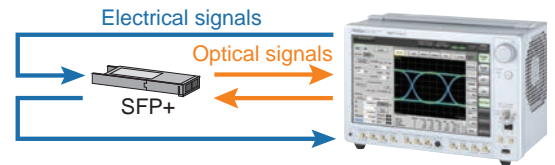


Simultaneous BER measurements, Eye/Pulse analysis and Jitter analysis using BERTWave increase efficiency and cut measurement time by eliminating time consuming setup. Fully supported LTE CPRI v4.1 bit rates (6.14G, 4.92G, 3.07G, 2.46G, 1.23 Gbit/s) make the BERTWave ideal for LTE CPRI optical transceiver mobile evaluation.

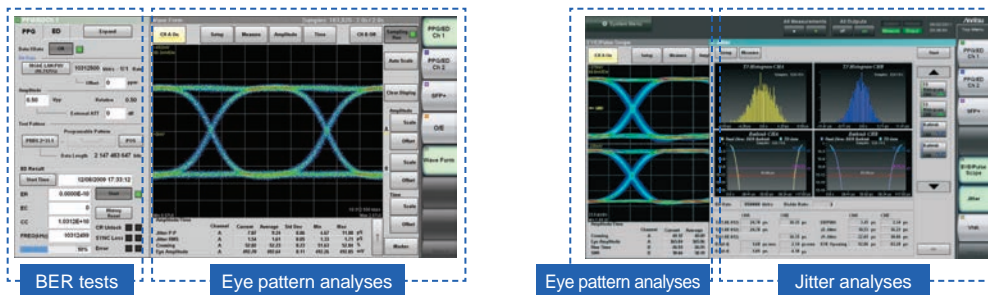


Evaluating LTE CPRI v4.1 Optical Modules

The CPRI v4.1 specification standardizes the Eye Pattern Tr/Tf, Eye Mask, Total Jitter (TJ), and Deterministic Jitter (DJ) using the CJPAT Pattern. A BERT, Sampling oscilloscope, and Jitter analysis function are required to measure these standardized items.



The All-in-one BERTWave Supports BER, Eye Pattern and Jitter Analyses



■ Simultaneous BER Measurements, and Eye Pattern and Jitter Analyses

With installed PPG, ED, and Sampling oscilloscope, the all-in-one unit supports simultaneous BER and Tr/Tf measurements as well as Eye Mask tests using CJPAT and PRBS patterns.

Simultaneous Total Jitter (TJ) and Deterministic Jitter (DJ) analyses are supported by the sampling oscilloscope.

■ Five Times Faster Measurements than Conventional Models

Simultaneous Eye Pattern and Jitter analyses make measurements twice as fast as conventional models.

High-speed sampling (100 ksamples) supports 2.5 times faster measurements.

Total Jitter (1.0e-12) analysis using Bathtub BER analysis is faster.

■ Jitter Measurement of Arbitrary Signals

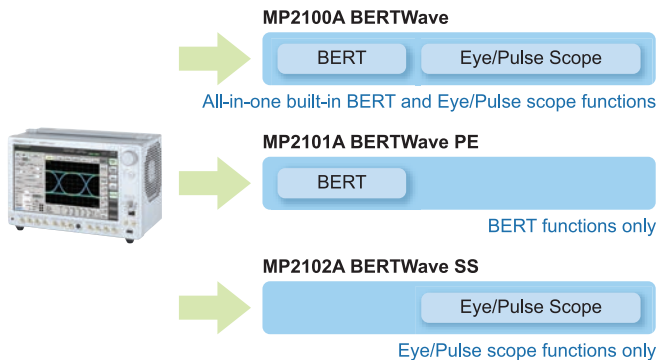
Live signal output from devices as well as arbitrary signals, including PRBS31, can be measured.

Jitter Analysis with Simultaneous Eye Pattern Measurement

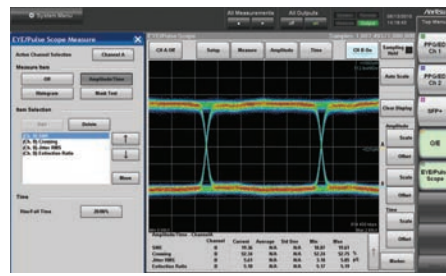
- TJ BER : Total Jitter at 1.0e-12
- DJdd : Deterministic Jitter (Dual Dirac model)
- RJdd : Random Jitter (Dual Dirac model)
- TJ at sBER : Total Jitter at specified BER
- Eye Opening : Horizontal Eye opening at specified BER
- J2 BER : Total Jitter at 2.5e-3
- J9 BER : Total Jitter at 2.5e-10

MP2100A series BERTWave

Lineup



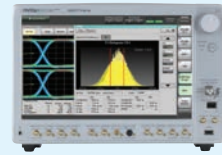
Typical Waveform



Bit rate: 6.14 Gbit/s, PRBS15
Amplitude: 0.5 Vp-p, 10⁶ samples

Features

- Simultaneous BER and Eye pattern analysis
- 4x faster remote control
- 10x higher resolution, 10-ms BER testing
- Simultaneous and independent 2-channel PPG/ED
- High-speed Eye pattern analysis sampling
- Automatic mask margin testing
- High repeatability and low unit-to-unit variation for extinction ratio and mask margin measurement



Ordering Information

Please specify the model/order number, name and quantity when ordering.
The names listed in the chart below are Order Names. The actual name of the item may differ from the Order Name.

■ MP2100A BERTWave

Model/Order No.	Name
MP2100A	-Main frame- BERTWave
	-Option-
MP2100A-001	Dual Electrical Receiver
MP2100A-003	Optical/Single-ended Electrical Receiver
MP2100A-005	Extended PPG/ED Channel
MP2100A-061	1 High Bit Rate Filter
MP2100A-062	2 High Bit Rate Filter Bank
MP2100A-063	3 to 4 High Bit Rate Filter Bank
MP2100A-064	1 to 2 Low Bit Rate Filter Bank
MP2100A-065	3 to 4 Low Bit Rate Filter Bank
MP2100A-066	1 High Bit Rate/1 to 2 Low Bit Rate Filter Bank
MP2100A-067	1 to 2 High Bit Rate/3 to 4 Low Bit Rate Filter Bank
MP2100A-068	2 to 3 High Bit Rate/1 to 2 Low Bit Rate Filter Bank
MP2100A-069	3 High Bit Rate/3 Low Bit Rate Filter Bank
MP2100A-070	LPF for 156M (L)
MP2100A-071	LPF for 622M (L)
MP2100A-072	LPF for 1.0G (L)
MP2100A-073	LPF for 1.2G (L)
MP2100A-076	LPF for 2.1G (H)
MP2100A-077	LPF for 2.5G (H)
MP2100A-078	LPF for 2.6G (H)
MP2100A-079	LPF for 3.1G (H)
MP2100A-080	LPF for 4.2G (H)
MP2100A-081	LPF for 5.0G (H)
MP2100A-082	LPF for 6.2G (H)
MP2100A-084	LPF for 9.9G to 10.3G (H)
MP2100A-085	LPF for 10.5G to 11.3G (H)
MP2100A-090	Bit Rate Extension for PPG/ED
MX210001A	Jitter Analysis Software
MX210002A	Transmission Analysis Software

■ MP2101A BERTWave PE

Model/Order No.	Name
MP2101A	-Main frame- BERTWave PE
	-Option-
MP2101A-011	1CH PPG/ED
MP2101A-012	2CH PPG/ED
MP2101A-090	Bit Rate Extension for PPG/ED

■ MP2102A BERTWave SS

Model/Order No.	Name
MP2102A	-Main frame- BERTWave SS
	-Option-
MP2102A-021	Dual Electrical Receiver
MP2102A-023	Optical/Single-ended Electrical Receiver
MP2102A-061	1 High Bit Rate Filter
MP2102A-062	2 High Bit Rate Filter Bank
MP2102A-063	3 to 4 High Bit Rate Filter Bank
MP2102A-064	1 to 2 Low Bit Rate Filter Bank
MP2102A-065	3 to 4 Low Bit Rate Filter Bank
MP2102A-066	1 High Bit Rate/1 to 2 Low Bit Rate Filter Bank
MP2102A-067	1 to 2 High Bit Rate/3 to 4 Low Bit Rate Filter Bank
MP2102A-068	2 to 3 High Bit Rate/1 to 2 Low Bit Rate Filter Bank
MP2102A-069	3 High Bit Rate/3 Low Bit Rate Filter Bank
MP2102A-070	LPF for 156M (L)
MP2102A-071	LPF for 622M (L)
MP2102A-072	LPF for 1.0G (L)
MP2102A-073	LPF for 1.2G (L)
MP2102A-076	LPF for 2.1G (H)
MP2102A-077	LPF for 2.5G (H)
MP2102A-078	LPF for 2.6G (H)
MP2102A-079	LPF for 3.1G (H)
MP2102A-080	LPF for 4.2G (H)
MP2102A-081	LPF for 5.0G (H)
MP2102A-082	LPF for 6.2G (H)
MP2102A-084	LPF for 9.9G to 10.3G (H)
MP2102A-085	LPF for 10.5G to 11.3G (H)
MX210001A	Jitter Analysis Software

LPF Support Table

LPF	Supported Specifications	LPF	Supported Specifications
622M	CPRI x 1 (614.4 Mbit/s)	3.1G	CPRI x 5 (3.072 Gbit/s)
1.2G	CPRI x 2 (1.2288 Gbit/s)	5.0G	CPRI x 8 (4.9515 Gbit/s)
2.5G	CPRI x 4 (2.4576 Gbit/s)	6.2G	CPRI x 10 (6.144 Gbit/s)