

# Jitter Analysis Software MX210001A

## Simultaneous Jitter, Eye Pattern and Eye Mask Measurements

BERTWave MP2100B



To cope with rapid increases in data volumes, data centers are introducing high-speed interconnects, such as active optical cable (AOC), with transmission speeds faster than 10 Gbit/s between servers. However, in conflict with these speed increases, there is rising demand for lower power consumption as well as cost reductions. Furthermore, higher jitter levels and degraded waveforms caused by wavelength dispersion at shorter wavelengths are becoming a problem. Therefore, this software has been developed to support high-speed jitter measurement while cutting investment costs and improving measurement efficiency.

### Features

#### • Jitter measurements

- Bathtub jitter measurements
- TJ, DJ, RJ, J2, J9, DDJ, DDPWS, DCD, ISI, PJ analyses
- Supports any data signals including PRBS31

#### • Simultaneous measurements

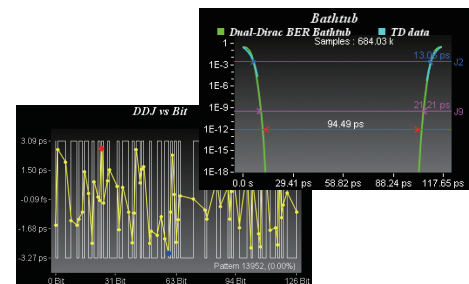
- 2ch measurements
- Jitter, Eye Pattern, Eye Mask and BER

#### • Quick measurements

- Quick estimation for Bathtub BER 1e-18
- Fast sampling speed
- Patent-pending quick triggering method

#### • WDP measurements

- WDP/TWDP/dWDP/TWDPc/WDPC/dWDPc measurements



### Target Applications

- Fibre Channel, InfiniBand, USB, SAS/SATA, 10GbE, 40GbE, 100GbE
- Active Optical Cable (AOC), Direct Attach Cable (DAC), SFP+, QSFP+, CFP/2, CXP
- General-purpose DVT

# Measurement Functions

## Jitter Measurement

### Histogram Mode

This mode supports basic jitter analysis for any signal (including PRBS31). Results are displayed as either bathtub jitter or a histogram calculated by the Dual Dirac model from the Eye pattern. In addition, tact times are cut by simultaneous 2-channel jitter analysis, Eye pattern, and Eye mask test measurements.

### Pattern Search Mode

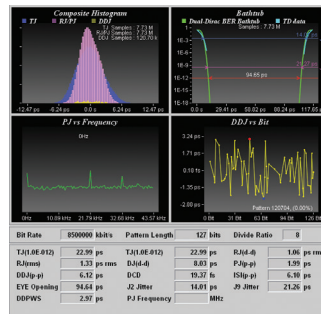
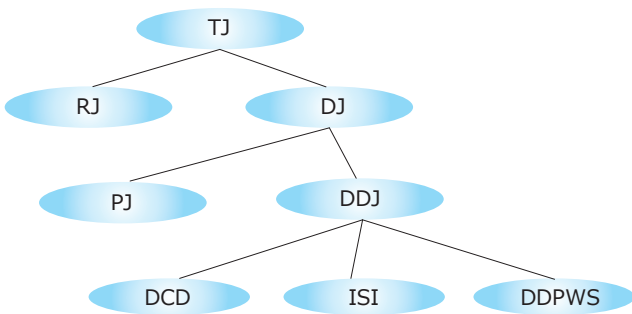
In addition to basic jitter components, this mode isolates more detailed jitter components for specific signals (up to PRBS15). Anritsu's unique triggering method supports faster DDJ measurements than conventional analyzers.

### Analyses at both of Histogram and Pattern Search Mode

- 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

### Analyses at Pattern Search Mode

- DDJ : Data Dependent Jitter vs. Bit
- DDPWS : Data Dependent Pulse Width Shrinking
- PJ : Periodic Jitter (support PJ frequency estimation)
- DCD : Duty Cycle Distortion
- ISI : Inter Symbol Interference



## WDP Measurement

This software provides WDP results for specific data signals when combined with MATLAB® software.

- WDP : Waveform distortion penalty
- TWDP : Transmitter Waveform Distortion Penalty
- dWDP : Difference of the waveform distortion penalty

• MATLAB® is a registered trademark of The MathWorks, Inc.

## Ordering Information

The product name and listed name may be different sometimes; contact your sales representative for more details.

Model/Order No.	Name
MX210001A	Jitter Analysis Software