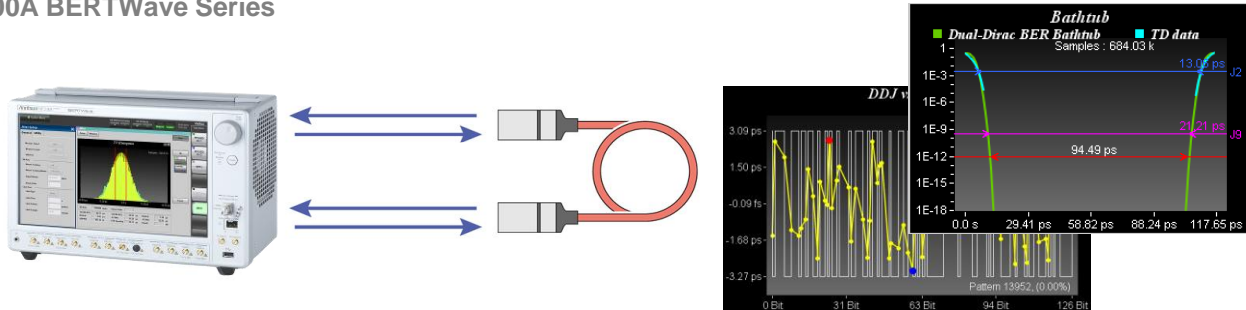


MX210001A Jitter Analysis Software

Simultaneous Jitter, EYE Pattern and EYE Mask Measurements

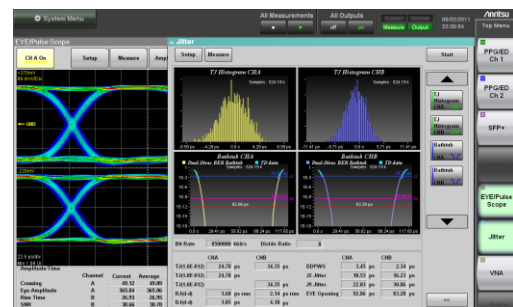
MP2100A BERTWave Series



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 provides basic jitter measurements for any data signals (including PRBS31). Capturing the EYE pattern provides Bathtub jitter plots and jitter histograms based on the Dual Dirac model. Simultaneous 2ch measurement for jitter, EYE Pattern, and EYE Mask reduce tact times at testing.

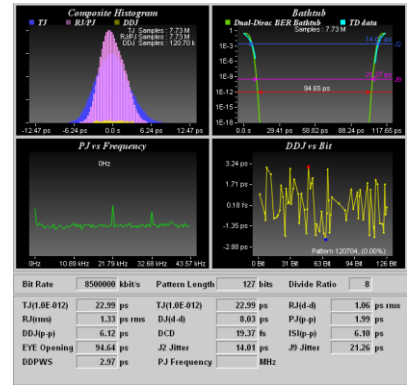
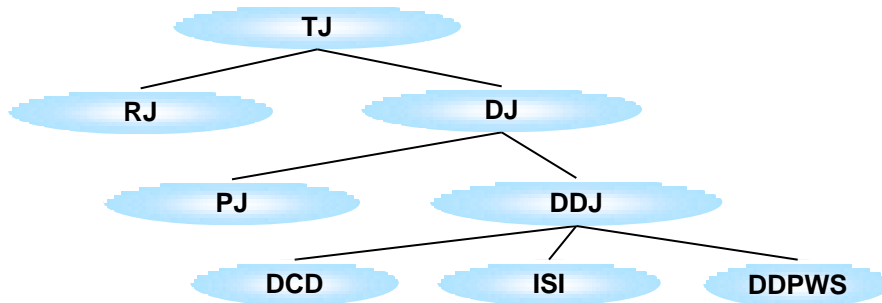
✓ **PATTERN SEARCH MODE** This provides detailed analyses of jitter components for specific data signals (data length up to PRBS15 or equivalent) along with basic jitter components. The Anritsu patent-pending triggering method enables much faster DDJ measurement than existing instruments now on the market.

Analyses at both of Histogram and Pattern Search Mode

- TJ BER : Total Jitter at 1.0^{-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 2.5^{-3}
- J9 BER : Total Jitter at 2.5^{-10}

Analyses at Pattern Search Mode

- DDJ : Data Dependent Jitter vs. Bit
- DDPWS : Data Dependent Pulse Width Shrinking
- PJ : Periodic Jitter (supports 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 Waveform Distortion Penalty

Ordering Information

Model Number	Model Name
MX210001A	Jitter Analysis Software

Model Number	Model Name
MP2100A	BERTWave
MP2100A-001	Dual Electrical Receiver
MP2100A-003	Optical/Single-ended Electrical Receiver
MP2102A	BERTWave SS
MP2102A-021	Dual Electrical Receiver
MP2102A-023	Optical, Single-ended Electrical Receiver

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