# **Anritsu** envision : ensure

# Simultaneous Jitter Analysis and Eye Mask Tests

Jitter Analysis Software MP2110A-096 BERTWave MP2110A

BERTWave

The MP2110A-096 software options adds Jitter analysis functions to the sampling oscilloscope. It supports Total Jitter measurements, such as J2 and J9 required for line inspections, to help separate-out Jitter components and troubleshoot Jitter causes.

#### Features

Multigraph displays assist Jitter analysis.

#### **Eye Mode**

Measurements, such as J2 and J9 required for line inspections, are fast and easy. Measurement times are cut by simultaneous Jitter analysis and Eye Mask tests.

| System Menu  | Ch Tracking All BER Results All   | Measurements   | All Outputs   | Remote  | 12/14/2017                                   | ∕inritsu       |
|--|---|----------------|---|---|--|----------------|
|  | off on open   |                | off on  | Measure Output                                    | 09:17:09                                     | 06.00.37       |
| Scope  | Samples: 5,005  | ,312/5,000,000 | Scope Result  |   | 12   | 20             |
| Ch A On<br>(Electrical) Setup Measure  | Amplitude Time Ch B Off<br>O/E CRU (SMF)  | Sampling Hold  | Screen Copy   |   |  | Ch 1           |
|  | Bathtab CILA<br>Dual-Orac B2R Bethab 10 Data<br>Sampler : 140,24 k                    | Auto Scale     | Amplitude/Time  | Ch Current Ave                                    | rage   | PPG/ED<br>Ch 2 |
|  | II 4  |                | IJ(1.00E-012)<br>DJ(d-d)<br>RJ(d-d)<br>J2 Jitter      | A 320.31 3<br>A 150.08 1<br>A 12.10<br>A 217.94 2 | 142.80 mUI<br>14.40 mUI rms<br>223.62 mUI    | PPG/ED         |
|  | 1E-4  | Clear Display  | J9 Jitter<br>EYE Opening<br>One Level                 | A 300.57 3<br>A 679.69 0<br>A 143.29 1            | 321.95 mUI<br>654.56 mUI<br>143.30 mV        | Ch 3           |
| And  | 16-15-  | Factoriothere  | Zero Level<br>Eye Amplitude<br>Eye Height<br>Crossing | A .144.15 .1<br>A 287.44 2<br>A 94.86<br>A 49.91  | 44.14 mV<br>287.44 mV<br>94.91 mV<br>49.94 % | PPG/ED<br>Ch 4 |
| 11 peresested in the second se | 0.00UT 0.25UI 0.5UI 0.7UI 1.0UI<br>Bathends CHB<br>• Dad-Orec BER Bathends • TD Data  | Scale/Offset   | SNR<br>Average Power (dBm)<br>Average Power (mW)      | A 4.48<br>A N/A<br>A N/A                          | 4.48<br>N/A dBm<br>N/Δ mW                    |                |
| Sangle (20.34)   | 1   | Graph          | Extinction Ratio<br>Jitter P-P<br>Jitter RMS          | A N/A<br>A 9.22<br>A 1.87                         | N/A dB<br>9.13 ps<br>1.87 ps                 | _              |
|  | II 4<br>II 4<br>  |                | Fall Time<br>Eye Width<br>DCD                         | A 22.32<br>A 21.88<br>A 27.65<br>A 6.32           | 21.83 ps<br>27.64 ps<br>5.48 %               | No.            |
|  | 18-12 A PERCU   |                | OMA (mW)<br>OMA (dBm)<br>OMA at Crossing              | A N/A<br>A N/A<br>A N/A                           | N/A mW<br>N/A dBm<br>N/A uW                  | Scope          |
| -151.00mUT -55.50mUE 0.00mUE -55.50mUE 151.00mU<br>Mask Test - Channel A   | 12 - 19 -<br>6.00UT 0.25UT 0.50UT 0.75UT 1.00UT                                       |                | VECP  | A N/A   | N/A dB                                       |                |
| Total Samples 5005312<br>Total Waveforms 2444 wfms<br>Mask Margin 22.0 %   | Total Failed Samples 51<br>Top Mask Failed Samples 0<br>Center Mask Failed Samples 51 | A Histogram    |   |   |  |                |
| Current Mask 100GbE CLR4 Mask (25.781)   | 25 Gbps)  | Marker         |   |   |  |                |

### **Advanced Jitter Mode**



## **Specifications**

| NRZ Jitter Measurement<br>Items | TJ (j2, J9, User-Defined BER), Eye Opening<br>RJ (d-d), RJ (rms)*<br>DJ (d-d)<br>PJ (p-p)*, PJ Frequency*<br>DDJ (p-p)*, DDPWS*<br>DCD*, ISI (p-p)* |
|---------------------------------|---|
| Graphs                          | TJ/RJ/PJ/DDJ Histogram<br>DDJ vs. BIT<br>Bathtub<br>PJ vs. Frequency  |
| Intrinsic Jitter                | 200 rms (typ.)  |

\*: Enabled only in Advanced Jitter Mode

# **Ordering Information**

Please specify the model, 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.

| Model       | Name                              |  |
|-------------|-----------------------------------|--|
| MP2110A-096 | Jitter Analysis Software          |  |
| MP2110A-396 | Jitter Analysis Software Retrofit |  |

\* This can only be installed in the MP2110A-x21/x22/x23/x25/x26/x32/x33/x35/x36 sampling oscilloscopes.

The customer can perform the retrofit without returning the instrument to Anritsu.