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Data Sheet

August 14, 2026

ANRITSU

Anritsu MP2110 BERTWave Analyzer

Anritsu MP2110A BERTWave Analyzer Sampling Oscilloscope and BERT The Anritsu MP2110A BERTWave combines a multichannel sampling oscilloscope and 25G class BERT for 10G to 1.6T optical module manufacturing. OEM brochure lists PPG/ED 24.3 to 28.2 Gbit/s standard with optional 9.5 to 14.2 Gbit/s, electrical 40 GHz typical bandwidth, optical 35 GHz SMF / 25 GHz MMF, and 250 ksamples/s eye sampling. Applications RandD and production Eye Mask TDECQ BER and jitter tests on SFP QSFP OSFP QSFP DD transceivers, AOC/DAC, TOSA/ROSA, and CPO engines. The Anritsu MP2110A BERTWave combines a multichannel sampling oscilloscope and 25G class BERT for 10G to 1.6T optical module manufacturing. OEM brochure lists PPG/ED 24.3 to 28.2 Gbit/s standard with optional 9.5 to 14.2 Gbit/s, electrical 40 GHz typical bandwidth, optical 35 GHz SMF / 25 GHz MMF, and 250 ksamples/s eye sampling. Applications RandD and production Eye Mask TDECQ BER and jitter tests on SFP QSFP OSFP QSFP DD transceivers, AOC/DAC, TOSA/ROSA, and CPO engines. All in one 4 channel BERT plus sampling oscilloscope



MODEL

Anritsu MP2110

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

MP2110

LISTING

<https://aumictechlabs.com/products/mp2110-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Anritsu MP2110A BERTWave™ is a, all-in-one test instrument designed for the evaluation of physical-layer performance in optical modules and devices. It integrates a Bit Error Rate Tester (BERT) and a multi-channel sampling oscilloscope, making it a versatile solution for research and

development and manufacturing inspection across a wide range of data rates, from 10 Gbps up to 1.6 Tbps. This integrated approach is engineered to enhance productivity, reduce test times, and lower capital equipment costs for high-speed digital and optical communication systems. The Anritsu MP2110A is particularly well-suited for applications in data centers, core/metro networks, and mobile backhaul/fronthaul, supporting transmission paths such as Ethernet, InfiniBand, Fibre Channel, and various CPRI/RoE standards.

Technical Specifications

Sampling Oscilloscope Capabilities:

- Bandwidth:** * Optical: 35 GHz (Single-Mode Fiber SMF), 25 GHz (Multi-Mode Fiber MMF) * Electrical: 40 GHz
- Sampling Speed:** Up to 250 ksamples/s for 2 channels simultaneously
- Sensitivity:** -15 dBm (typical, SMF) O/E Noise: 3.4 μ W (typical, SMF)
- Intrinsic Jitter:** 200 fs rms (typical) (with high-accuracy trigger option)
- Signal Analysis:** Supports both NRZ and PAM4 signal analysis. Capable of 53-Gbaud analysis with PAM4.
- Bessel Filter:** Built-in 100-Gbit/s band Bessel filter for measuring optical signals.
- Clock Recovery Unit (CRU):** Built-in 26/53 Gbaud CRU for both NRZ and PAM4 signals.
- Measurement Functions:** Includes Jitter analysis (TJ, DJ, RJ), Eye pattern analysis, Mask Margin tests, TDECQ measurement (up to 53 Gbaud for PAM4), NRZ jitter component analysis, Histogram measurement, OMA, SNR, Extinction Ratio, rising/falling edge time, and Duty cycle distortion.

Bit Error Rate Tester (BERT) Capabilities:

- Bit Rates:** * Standard Configuration: 24.3 Gbit/s to 28.2 Gbit/s * Optional Configuration (e.g., Option 093): 9.5 Gbit/s to 14.2 Gbit/s (enabling support for 10 GbE and 100 GbE applications)
- Pattern Generator (PPG):** * Low Data Jitter: 600 fs rms (typical)
- Error Detector (ED):** * High Sensitivity: 25 mV (typical) * Supports BER measurement of low-amplitude signals.

General System Features:

- Channels:** Up to 4-channel BERT and up to 4-channel sampling oscilloscope integrated into a single unit.
- Internal PC:** Built-in PC for stable, high-speed measurement processing, eliminating the need for external controllers.
- Measurement Speed:** Significantly reduced test times, with up to 65% reduction in Eye pattern analysis time due to high sampling speed and automatic Mask Margin tests. A 1 million sample capture can be completed in approximately 5 seconds.
- Applications:**
 - * Evaluation of physical-layer performance for 10G/25G/50G/100G/200G/400G/800G/1.6T optical transport modules, optical cables, and associated components.
 - * Manufacturing inspection of optical modules.
 - * Tx/Rx Signal Mask Margin Test, Rx Signal Eye Pattern Analysis (Jitter, Tr/Tf), Tx Signal Eye Pattern Analysis (Jitter, Tr/Tf, Extinction Ratio).
 - * Co-Packaged Optics (CPO) and Optical Engine PAM4/NRZ signal evaluation.
- Transmission Paths Supported:** Ethernet, eCPRI/RoE, CPRI, SDH/SONET, OTN, InfiniBand, Fibre Channel.
- Optical Transceiver Modules Supported:** SFP, QSFP, CFP, OSFP, QSFP-DD, SFP28, QSFP28, CFP2/4/8, SFP56, QSFP56.
- Cables Supported:** Active Optical Cables (AOC), Direct Attach Cables (DAC).
- Devices Supported:** TOSA, ROSA, High-Speed Optical Engine, PHY, Driver ICs, CPO.

Interfaces

- Electrical:** 40 GHz bandwidth
- Optical:**
 - * SMF: 35 GHz bandwidth
 - * MMF: 25 GHz bandwidth
- Data Rates:** From 9.5 Gbit/s to 28.2 Gbit/s standard, with optional extensions for higher and lower rates up to 1.6 Tbps.

Built-in PC: Integrates an internal computer for control and data processing.

Physical

- Power:** Designed for standard industrial power input, adhering to Overvoltage Category II as defined by IEC 61010. Requires a grounded 3-pin power cord.
- Ventilation:** Requires at least 10 cm clearance from walls and objects for proper operation of internal c

MP2110 Characteristics / Specifications

PARAMETER	VALUE
Model	MP2110A
Instrument Type	BERTWave sampling oscilloscope plus BERT
Standard BERT Bit Rate	24.3 Gbit/s to 28.2 Gbit/s
BERT Channel Count	1 2 or 4 by option x11 ×12 ×14
Electrical Scope Bandwidth Typical	40 GHz
Electrical RMS Noise	1.5 mV typical 2.5 mV maximum
Electrical Dynamic Range	plus or minus 400 mV relative to amplitude offset
Electrical Connector	K female 50 ohm DC coupled
Optical SMF Bandwidth Typical No Filter	35 GHz
Optical MMF Bandwidth Typical No Filter	25 GHz
Optical SMF Wavelength Range	1260 nm to 1650 nm
Optical MMF Wavelength Range	850 nm to 1650 nm or 800 nm to 860 nm by option
Sampling Speed Eye Mode	250 ksamples/s Fast Pattern Lock 25.78125 Gbaud 1/4 clock 2 UI
Trigger Clock Optical Path Frequency	0.1 to 15.0 GHz SMA female 50 ohm AC coupled
Reference Frequency	10 MHz plus or minus 10 ppm 1 hour after power on design guaranteed
Bit Rate Offset	plus or minus 100 ppm common to all channels
Line Power	100 VAC to 240 VAC 50/60 Hz auto switching
Power Consumption	less than or equal to 300 VA
Operating Temperature	plus 5 C to plus 40 C
Storage Temperature	minus 20 C to plus 60 C
Dimensions	422 W x 142.5 H x 389.4 D mm excluding projections
Mass	less than 11 kg
Clock Recovery Optical NRZ Band	25.5 Gbaud to 28.2 Gbaud 28.9 Gbaud with option x59
Wavelength range	1260 nm to 1650 nm
Bandwidth	Typical: 40 GHz

MP2110 Specifications

PARAMETER	VALUE
Key Features	All in one 4 channel BERT plus sampling oscilloscope
Built in clock recovery options	Fast sampling 250 ksamples/s eye mode
Technical Specifications	Model: MP2110A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 20 C to plus 60 C
Operating temperature	plus 5 C to plus 40 C
Operating Temperature	plus 5 C to plus 40 C
Dimensions	422 W x 142.5 H x 389.4 D mm excluding projections
Mass	less than 11 kg
Clock Recovery Optical NRZ Band	25.5 Gbaud to 28.2 Gbaud 28.9 Gbaud with option x59 Notes From Anritsu BERTWave MP2110A brochure specification tables. Queue listing title MP2110 maps to MP2110A BERTWave. Channel count and optical/electrical mix depend on installed options.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	MP2110A
Instrument Type	BERTWave sampling oscilloscope plus BERT
Standard BERT Bit Rate	24.3 Gbit/s to 28.2 Gbit/s
Option 093 BERT Bit Rate Extension: 9.5 Gbit/s to 14.2 Gbit/s	
Specifications	
PARAMETER	VALUE
BERT Channel Count	1 2 or 4 by option x11 x12 x14
Electrical Scope Bandwidth Typical	40 GHz
Electrical RMS Noise	1.5 mV typical 2.5 mV maximum
Electrical Dynamic Range	plus or minus 400 mV relative to amplitude offset
Electrical Connector	K female 50 ohm DC coupled
Optical SMF Bandwidth Typical No Filter	35 GHz
Optical MMF Bandwidth Typical No Filter	25 GHz
Optical SMF Wavelength Range	1260 nm to 1650 nm
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Sampling Speed Eye Mode	250 ksamples/s Fast Pattern Lock 25.78125 Gbaud 1/4 clock 2 UI
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PARAMETER	VALUE
Clock Recovery Optical NRZ Band	25.5 Gbaud to 28.2 Gbaud 28.9 Gbaud with option x59
Notes From Anritsu BERTWave MP2110A brochure specification tables. Queue listing title MP2110 maps to MP2110A BERTWave. Channel count and optical/electrical mix depend on installed options.	

Ordering Information

OPTION	DESCRIPTION
Option 093	BERT Bit Rate Extension: 9.5 Gbit/s to 14.2 Gbit/s

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.