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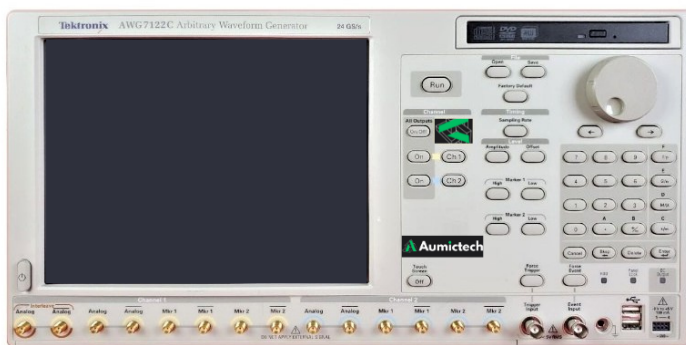
Data Sheet

August 3, 2026

TEKTRONIX

Tektronix AWG7122B Arbitrary Waveform Generator 12GS/s OPT 06

Tektronix AWG7122B Arbitrary Waveform Generator 12GS/s OPT 06 The AWG7122B provides a dual-channel arbitrary waveform generator with a standard 12 GS/s sample rate and Option 06 interleaved output enabling up to 24 GS/s, 10-bit vertical resolution class, and wideband RF/MW stimulus for complex waveform creation and replication. High-speed serial and wideband RF/MW signal generation; creation of ideal, distorted, or captured real-world waveforms; device characterization and compliance testing; modulation bandwidths to approximately 3.5 GHz (1 dB); complex sequencing with loops, jumps, and dynamic jump. The AWG7122B provides a dual-channel arbitrary waveform generator with a standard 12 GS/s sample rate and Option 06 interleaved output enabling up to 24 GS/s, 10-bit vertical resolution class, and wideband RF/MW stimulus for complex waveform creation and replication. High-speed serial and wideband RF/MW signal generation; creation of ideal, distorted, or captured real-world waveforms; device characterization and compliance testing; modulation bandwidths to approximately 3.5 GHz (1 dB); complex sequencing with loops, jumps, and dynamic jump.



MODEL

**Tektronix
AWG7122B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

AWG7122B

LISTING

<https://aumictechlabs.com/products/awg7122b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Tektronix AWG7122B is an arbitrary waveform generator delivering 12 GS/s sample rate, expandable to 24 GS/s with Option 06 interleave capability. It generates complex analog signals with exceptional fidelity for aerospace, defense, communications, and research applications. The instrument supports direct RF synthesis up to 9.6 GHz, multilevel signal generation, jitter injection (Rj, Pj, ISI, DCD), pre/de-emphasis, and real-world signal anomalies. Its 10-bit DAC (8-bit with marker outputs) delivers up to 3.5 GHz modulation bandwidth at 1 dB. Deep memory reaches 32 M points standard, expandable to 64 M points, enabling complex waveform sequences with real-time looping, jumps, and conditional branches across 16,000 sequence steps. Integrated timing control includes ± 100 ps interchannel skew (1 ps resolution), 300 ps delay range (1 ps resolution), and edge timing shifts down to 100 fs resolution. Total jitter measures 20 psp-p typical at 10^{-12} BER for 1–2 channels. Direct output rise/fall time is 35 ps. The instrument accepts waveform imports from MathCAD, MATLAB, Excel, and Tektronix oscilloscope formats. A Windows XP PC supports network connectivity via LAN and USB, with DVD and removable hard drive storage.

Technical Specifications

Sample Rate: 12 GS/s (standard); 24 GS/s (interleaved with Option 06) DAC Resolution: 10-bit (no marker outputs) or 8-bit (two marker outputs) Vertical Resolution: Up to 10 bits RF Output Frequency: Up to 9.6 GHz Modulation Bandwidth: Up to 3.5 GHz (1 dB) Total Jitter: 20 psp-p typical at 10^{-12} BER (1–2 channels) Rise/Fall Time (20%–80%): 35 ps typical (direct output) Interchannel Skew Control: ± 100 ps range, 1 ps resolution Delay Control: 300 ps range, 1 ps resolution Edge Timing Shift: Down to 100 fs resolution Memory: 32 M points standard; 64 M points with Option 01 Sequencing: 16,000 steps with looping, jumps, and conditional branches

Key Features

Direct RF/IF synthesis without I/Q degradation Multilevel signals, glitches, and real-life signal replication Jitter and wander element generation Real-time dynamic jump capability for adaptive waveforms Third-party waveform import (MathCAD, MATLAB, Excel)

Typical Applications

Aerospace and defense signal testing High-frequency communications validation Wideband RF component characterization Ultra-Wideband (UWB) IQ/IF signal generation

Compatibility & Integration

Windows XP operating system with integrated PC LAN and USB connectivity DVD and removable hard drive storage Tektronix oscilloscope data format support

Features & description

From manufacturer datasheet

Features

- Standard sample rate 12 GS/s; Option 06 interleaved up to 24 GS/s
- 2 analog channels (1 channel at interleaved 24 GS/s)
- Vertical resolution up to 10 bits
- Deep memory; long complex waveform sequences
- Waveform sequencing and subsequencing; dynamic jump
- Modulation bandwidth up to approximately 3.5 GHz (1 dB)
- Effective RF frequency coverage up to approximately 9.6 GHz class
- SFDR class up to 54 dBc for approximately 1 GHz-wide signals
- Option 06 includes wide-bandwidth output (Opt 02 class)

AWG7122B Characteristics / Specifications

PARAMETER	VALUE
Model	AWG7122B with Option 06
Manufacturer	Tektronix
Instrument Type	Arbitrary Waveform Generator
Standard Sample Rate	12 GS/s
Interleaved Sample Rate (Opt 06)	24 GS/s
Channels	2 (standard); 1 at full interleaved rate
Vertical Resolution	up to 10 bits
Modulation Bandwidth	up to approximately 3.5 GHz (1 dB)
Alias	AWG7122B, AWG7122B-06 Standard Operating Conditions Confirm Option 06 is installed before expecting 24 GS/s interleaved operation. Use appropriate output termination and bandwidth settings. Allow warm-up for high-fidelity wideband generation.
Bandwidth	up to approximately 3.5 GHz (1 dB) - Effective RF frequency coverage up to approximately 9.6 GHz class - SFDR class up to 54 dBc for approximately 1 GHz-wide signals - Option 06 includes wide- bandwidth output (Opt 02 class)

AWG7122B Specifications

PARAMETER	VALUE
Key Features	- Standard sample rate 12 GS/s; Option 06 interleaved up to 24 GS/s
Technical Specifications	Model: AWG7122B with Option 06
Operational Notes	Catalog "OPT 06" denotes interleaved 24 GS/s (with wide-bandwidth output)—verify option labels on the instrument. Alias AWG7122B.

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	AWG7122B with Option 06
Manufacturer	Tektronix
Instrument Type	Arbitrary Waveform Generator
Standard Sample Rate	12 GS/s
Interleaved Sample Rate (Opt 06)	24 GS/s
Channels	2 (standard); 1 at full interleaved rate
Vertical Resolution	up to 10 bits
Modulation Bandwidth	up to approximately 3.5 GHz (1 dB)
Alias	AWG7122B, AWG7122B-06

Standard Operating Conditions

Confirm Option 06 is installed before expecting 24 GS/s interleaved operation. Use appropriate output termination and bandwidth settings. Allow warm-up for high-fidelity wideband generation.

Operational Notes

Catalog “OPT 06” denotes interleaved 24 GS/s (with wide-bandwidth output)–verify option labels on the instrument. Alias AWG7122B.

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