

BETTER TESTING. FASTER.

AFG31000 Series
Arbitrary/Function Generator



Are you a researcher or engineer generating increasingly complex tests to debug, troubleshoot, validate, and/or characterize your designs? Tektronix has redefined the arbitrary/function generator with the new AFG31000 Series – a powerful, affordable, and easy-to-use AFG. It offers real-time waveform monitoring, optional programmable waveform sequencing, and the industry's first AFG touchscreen to significantly boost productivity and efficiency.



The large capacitive touchscreen and built-in ArbBuilder tool enables users to create and edit arbitrary waveforms right on the instrument.

APPLICATIONS

- Analog circuit characterization
- Replication of real world signals
- Function verification and performance characterization
- Clock and system synchronization
- Pulses to drive power devices
- Advanced research and education
- Embedded circuit design and test
- General purpose signal generation

SAVE TIME AND EFFORT WITH THE NINE-INCH TOUCHSCREEN

The AFG31000 Series features the industry's largest AFG touchscreen; pinch, zoom, and scroll just like a smart device to easily locate settings and parameters on the simple menu or shortcuts to frequently-used settings.

VERIFY YOUR WAVEFORM AT THE DEVICE UNDER TEST

Patented InstaView™ technology lets you see the actual waveform at the device under test (DUT) in real time – without an oscilloscope or probe – eliminating any uncertainty typically caused by mismatched impedance.

GENERATE MULTIPLE WAVEFORMS WITH COMPLEX TIMING

Advanced waveform generation and programming capabilities make it easy to compose a list or a sequence of 1 to 256 waveforms with total waveform length up to 16 Mpts/ch (128 Mpts/ch optional) and define the output sequence of these waveforms.

CREATE AND EDIT ARBITRARY WAVEFORMS ON THE AFG

The built-in ArbBuilder editing tool includes everything you need to create, edit, and transfer an ARB waveform without the need to connect to a PC.

AFG31000 Series Arbitrary/Function Generator

Model	Analog Channels	Output Frequency	Output Amplitude into 50 Ω	Waveform Memory Size	Sample Rate
AFG31021	1	25 MHz	1 mVpp to 10 Vpp	16 MSa/ch	250 MS/s
AFG31022	2	25 MHz	1 mVpp to 10 Vpp	16 MSa/ch	250 MS/s
AFG31051	1	50 MHz	1 mVpp to 10 Vpp	16 MSa/ch	500 MS/s
AFG31052	2	50 MHz	1 mVpp to 10 Vpp	16 MSa/ch	500 MS/s
AFG31101	1	100 MHz	1 mVpp to 10 Vpp	16 MSa/ch	1 GS/s
AFG31102	2	100 MHz	1 mVpp to 10 Vpp	16 MSa/ch	1 GS/s
AFG31151	1	150 MHz	1 mVpp to 5 Vpp	16 MSa/ch	2 GS/s
AFG31152	2	150 MHz	1 mVpp to 5 Vpp	16 MSa/ch	2 GS/s
AFG31251	1	250 MHz	1 mVpp to 5 Vpp	16 MSa/ch	2 GS/s
AFG31252	2	250 MHz	1 mVpp to 5 Vpp	16 MSa/ch	2 GS/s

Instrument Options

-SEQ	License; Enables sequence mode; Node locked
-MEM	License; Extends arb memory to 128 Mpts; Node locked

Post-Purchase Upgrade Options*

AUP-AFG3SEQ	License; Enables sequence mode; Node locked
AUP-AFG3MEM	License; Extends arb memory to 128 Mpts; Node locked
AUP-AFG3BW25T50	License; Bandwidth extension from 25 MHz to 50 MHz; Node locked
AUP-AFG3BW25T100	License; Bandwidth extension from 25 MHz to 100 MHz; Node locked
AUP-AFG3BW50T100	License; Bandwidth extension from 50 MHz to 100 MHz; Node locked
AUP-AFG3BW150T250	License; Bandwidth extension from 150 MHz to 250 MHz; Node locked

*Use suffix for all options:
 -1 for one-channel models
 -2 for two-channel models

Standard Accessories

AFG31000 Series Generators Compliance and Safety Instructions
 Power cord
 USB cable
 BNC cables
 NIST-traceable calibration certificate
 Three-year warranty on parts and labor

Recommended Accessories

012-1732-xx BNC cable shielded, 3 ft.
012-0991-xx GPIB cable, double shielded
011-0049-02 50 Ω BNC terminator
ACD4000B Soft transit case
HCTEK54 Hard transit case (requires ACD4000B)

Service Options

Opt. C3 Calibration Service 3 Years
Opt. C5 Calibration Service 5 Years
Opt. D1 Calibration Data Report
Opt. D3 Calibration Data Report 3 Years (with Opt. C3)
Opt. D5 Calibration Data Report 5 Years (with Opt. C5)
Opt. R5 Repair Service 5 Years (including warranty)
Opt. T3 3 Year Total Protection Plan
Opt. T5 5 Year Total Protection Plan

