AFG3000 Series Arbitrary/Function Generators Fact Sheet

The next generation of signal generation



Features **Benefits Dual-channel models** Save cost and bench space by replacing two signal generators with one that offers two tightly synchronized or two completely independent signals. Up to 2 GS/s sample rate Generate waveforms with fine timing resolution. Up to 20 V_{p-p} amplitude into 50 Ω load Save cost and set-up time by creating high amplitude (AFG3011) signals without using an external power amplifier 25 shortcut keys Reduce set up and evaluation time with direct access to frequently used functions and parameters. Large 5.6" (142 mm) color display Full confidence in your signal since all relevant settings and waveform graphs can be seen at a single glance. (Monochrome on AFG3021B) Only 6.6" (168 mm) deep Free up valuable bench-top space. ArbExpress[™] software Create and modify waveforms with ease - import waveforms seamlessly from your Tektronix oscilloscope or create them via the equation editor, free hand, point draw or waveform math.

What you see is what you generate



Large display shows your waveform settings at a glance

Featuring:

- Up to 240 MHz sine waves, 120 MHz pulse waves
- Up to 2 GS/s arbitrary waveforms
- Up to 20 V_{p-p} amplitude into 50 Ω load
- One or two channel models
- Floating outputs isolated from ground
- USB port on the front panel for convenient storage of waveforms and instrument settings
- Modulation, sweep and burst modes
- Noise generator to add variable noise in each channel
- Pulse generator with independently variable leading and trailing edge times as short as 2.5 ns
- Sum-input to add external signal to output
- 8 selectable user interface languages



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Key specifications and ordering information

Model	Channels	Sample Rate	Memory Depth	Output Bandwidth	Amplitude (into 50 Ω)	Pricing
AFG3011	1	250 MS/s	128 K	10 MHz	20 mV $_{\rm p-p}$ to 20 V $_{\rm p-p}$	\$XXXX
AFG3021B	1	250 MS/s	128 K	25 MHz	10 mV $_{\rm p-p}$ to 10 V $_{\rm p-p}$	\$XXXX
AFG3022B	2	250 MS/s	128 K	25 MHz	10 mV $_{\rm p-p}$ to 10 V $_{\rm p-p}$	\$XXXX
AFG3101	1	1 GS/s (≤ 16K) 250 MS/s (>16K)	128 K	100 MHz	20 mV $_{\rm p-p}$ to 10 V $_{\rm p-p}$	\$XXXX
AFG3102	2	1 GS/s (≤ 16K) 250 MS/s (>16K)	128 K	100 MHz	20 mV $_{\rm p-p}$ to 10 V $_{\rm p-p}$	\$XXXX
AFG3251	1	2 GS/s (≤ 16K) 250 MS/s (>16K)	128 K	240 MHz	50 mV _{p-p} to 5 V _{p-p}	\$XXXX
AFG3252	2	2 GS/s (≤ 16K) 250 MS/s (>16K)	128 K	240 MHz	50 mV _{p-p} to 5 V _{p-p}	\$XXXX

RM3100

013-0345-00

159-0454-00

012-0482-00

012-1256-00

Recommended Accessories

Rackmount kit

Fuse adapter, BNC-P to BNC-R

Fuse set, 3pcs, 0.125A

BNC cable shielded, 3 ft

BNC cable shielded, 9 ft



Key Applications	Benefits			
 Replicate sensor signals or other missing system inputs 	 Simulate the signal you need with flexible arbitrary/function generation. Easily create and modify custom waveforms with ArbExpress ™ software. 			
 Device stress testing 	 Test the boundaries of your device- under-test by adding noise, jitter and other anomalies to your signal. 			
 Electronic design optimization 	 Simulate phase-synchronized data and clock signals with a single two- channel instrument. 			
 Power semiconductor device test 	 Generate the high amplitude signal you need (up to 20 V_{p-p}) for test. 			
 I/Q modulator test 	Generate both I and Q signals with a single instrument.			



Recommended Service Options

plan

Opt. R3/R5

Opt. C3/C5

3 or 5 year repair service plan

3 or 5 year calibration service



