

AT-AWG4000

4 CH 1GS/s 16Bit Arbitrary Waveform Generator

World Best Cost/Performance Trade-off Arbitrary Waveforms

The AT-AWG4000 is the world fastest PC-based 4 Channels 16 Bits Arbitrary Waveform Generator.

The AT-AWG4000 combines a true variable clock arbitrary generator with a high performance DDS function generator. Arbitrary waveforms are generated by a sequence generator with up to 349k programmable segments and with 2MegSamples of memory behind each channel.

The AT-AWG4000 has four synchronized channels that can generate identical or completely different signals; two contiguous channels can also be summed, subtracted and multiplied. Each channel pair can be optionally configured as a powerful 18 Bit Digital Pattern Generator-Sampler to have 2 Arbitrary channels and 18 Bit Digital Pattern or 36 Bit Digital Pattern.

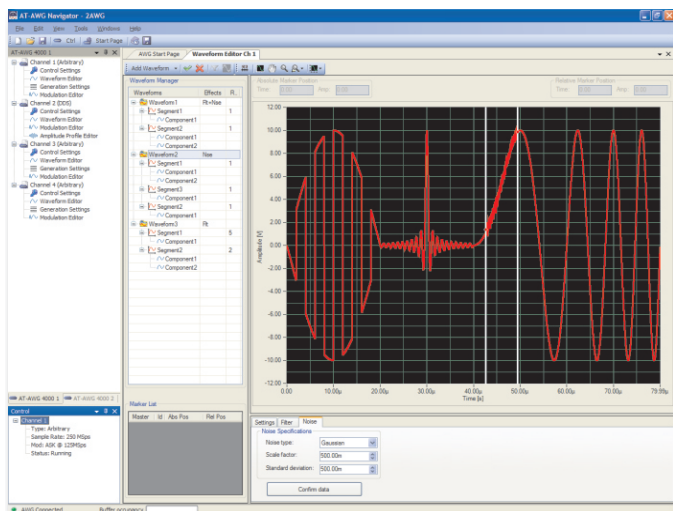
AT-AWG4000 has the AT-XSS (Extended Synchronous System) expansion system that provides the extendibility at up to 32 synchronous output without loss of performance: 32 channels @ 1GS/s.

Applications

- Electronic Test and Design
- Functional Test
- Education and Training
- Sensor Simulation
- Semiconductor Test

AT-AWG Navigator Software

The AT-AWG Navigator provides full support for all AT-AWG4000 features in a workspace based environment with multiple display windows and advanced editing tools.



From
€ 2990



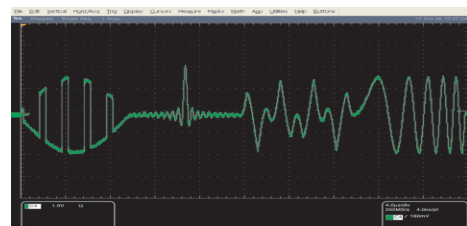
- 1 GS/s
- 16 Bits Resolution
- 4 Channels
- 2 Million samples/CH

Features & Benefits

- 4 Channels, 16 Bits, 1 GS/s Arbitrary Waveforms
- 2 MSamples/Ch (ARB Mode), 1 MSamples/Ch (DDS Mode)
- Per Channel Sequence Generator
- 100 MHz Sine Waveforms
- Triangular, Square, Pulse, Ramp, Noise, DC Waveforms
- 16 Bits (n)ASK, (n) FSK, PWM, (n)PSK, (n)QAM
- Inter-Channel Operations: Sum, Difference, Multiply
- Triggering Modes: Single, Continuous, Stepped, Burst
- True ARB with < 0.4ps Clock Resolution & 36 Bits DDS
- 24 Vpp into Open, 10 Vpp into 50 Ohm
- Digital Pattern Out
- Multi-instrument Synchronization
- Digital Pattern Generator - Sampler (optional):
 - 36 Channels @ 125 MHz with Per Bit Direction
 - 36 Channels @ 250 MHz with Fixed Direction
 - 2Million Vectors in Generation and Acquisition
 - Digital Waveform Sequencer
 - Parallel or 1, 2 or 4 wire Serial Operating Modes
 - 31 Levels Programmable Event Detector
 - 2 Bank Programmable I/O Levels

Software

- Project navigator with multiple display windows
- Complex waveform and modulation editors
- Waveform sequence editor
- Noise editor and waveform filtering editor
- LabVIEW and C/C++ SDK (Software Development Kit)



Tektronix® TDS7154B print screen *

Tech Specs:

Generation mode:	True Arbitrary or 36Bit DDS (Direct Digital Synthesis)
Sampling frequency:	1GS/s (x4, x8 interpolation), 500MS/s (x2 interpolation) 250MS/s Real Time
Channels:	4
Clock Period Resolution:	< 0.4ps
Sampling frequency prescaler:	1 to 32,768 in multiples of 2
Memory Depth:	2 MSamples for each channel
DAC resolution:	16 Bits
Waveforms Length:	6 to 2,097,152 points
Number of Waveforms:	1 to 349,524
Sequence Length:	1 to 512 or infinite
Trigger mode:	Single, continuous, stepped, burst
Modulation type:	M-ASK, M-FSK, M-PSK, QAM, PWM
Minimum frequency resolution:	M-FSK: 0.00182 Hz M-PSK: 2.14E-5° (2 /2 ²⁴ rad)
Programmable amplitude vs frequency figure:	256 steps with programmable delta frequency and amplitude
Programmable markers:	1,000,000 in ARB mode 1 horizontal marker in DDS mode
Output Impedance:	Single ended 50Ohm or Low Impedance or Open
Output Voltage Swing:	24 Vpp into open, 10 Vpp into 50 Ohm
Digital Pattern:	36 Digital I/O in 2 Banks with Programmable Voh from 1,2V to 3,8V
Harmonic distortion (1Vpp):	< 63dBc @ 5MHz, < 51dBc @ 10MHz, < 48dBc @ 20MHz
Overshoot:	< 10%
Digital filters effect (HP, LP, BS, BP):	Butterworth, Chebyshev, Inverse Chebyshev, Elliptic, Bessel
Digital noise effect:	Uniform, Gaussian, White, Poisson, Periodic random, Bernoulli, Gamma, Binomial
Sine, Cosine:	Freq.Range: 3.645 mHz to 100 MHz Freq.Resolution: < 0.05%
Square, Pulse:	Freq.Range: 3.645 mHz to 62.5 MHz Freq.Resolution: < 0.05%
Triangle, Ramp:	Freq.Range: 3.645 mHz to 31.125 MHz Freq.Resolution: < 0.05%
Sin(x)/x:	Freq.Range: 3.645 mHz to 15.5 MHz Freq.Resolution: < 0.05%
External I/O :	External Global Trigger input and output. Connector type: SMA 4 External Channel Trigger input. Connector type: SCSI 4 External Channel Trigger output. Connector type: SCSI 1 External clock input. Connector type: SMA 36 Bits Digital Pattern. Connector type: SCSI 4 Bits Digital Trigger. Connector type: SCSI AT-XSS expansion bus. Connector type: SCSI
Dimensions (WxLxH):	17.3 x 27.3 x 6.7 cm
Weight:	700g
Interface:	USB 2.0 (compatible with USB 1.1)
Power Supply:	12 VDC

AT-AWG4000 is a test equipment instrument designed and made in Italy by Active Technologies. The company was founded in 2002 by a staff of engineers expert in semiconductor test equipment and instrumentation design.

Active Technologies is a supplier of innovative and avant-garde Automated Test Equipment and electronic instrumentation to world wide semiconductor company leaders.

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