1 GS/sec Arbitrary Waveform Generator

AWG 2041

**Features**

AWG 2041
- 1.024 GS/sec Clock Rate Provides up to 500 MHz Waveforms
- 1 MB Record Length (4 MB with Opt. 01)
- Region Shift Function Provides 10 ps Edge Placement
- 8-Bit (1/256) Vertical Resolution
- Direct DSO Waveform Transfers
- Optional 8-Bit 1 GHz Digital Data Generator
- Built-in 1.4 MB 3.5 in. Floppy Disk
- FFT Editor (Option 09)
  - Frequency Domain Editing
- Real Time Waveform Sequencer Creates Automatic Test Sequences or Extremely Long Patterns Almost Infinitely
- Formula Entry of Waveforms
- Fully Programmable from Front Panel, RS-232, or GPIB (IEEE 488.2)
- CE Certified

**Applications**

- Video
- Network
- Physical Layer Test
- Navigation
- Radar
- Computer Peripherals
- Data Storage
- Electronic Warfare Simulation
- Converter Testing
- Filter Design
- Semiconductor/Logic (ASIC/DAC/FPGA)
- CCD
- LCD (STN/TFT/MIM)

**AWG 2041 Series Arbitrary Waveform Generator**

The AWG 2041 is the world's fastest and deepest memory Arbitrary Generator with its 1 GS/s sample rate and 1 MB execution memory (4 MB, Option 01). As with the entire 2000 Series family, the graphical user interface allows on-screen viewing of waveform editing and simplifies "what-if" test scenarios by easily allowing the creation of composite signals.

The standard AWG 2041 configuration provides up to 2 V output or 4 V with the complementary output, each with 8-Bits vertical resolution. Option 03 adds a 8-Bit-wide ECL digital data port which can be used in conjunction with the marker outputs for data generation up to 10-Bits wide at up to 1 GHz. The AWG 2041 supports true Real Time Sequencing capability similar to the AWG 2021.

The Real Time waveform sequencer extends the effective record length output to over a billion points! The built-in frequency domain (FFT) editor (Option 09) is a perfect addition for customers performing modulation simulations, filter design or testing physical layer jitter tolerance, or for pulse mask testing.

The AWG 2041 easily simulates signals where fine point definition and long records are required for simulating very complex waveform conditions. Direct waveform transfer capability makes the AWG 2041 the perfect accessory for Tektronix DSOs.

**Characteristics**

**STANDARD WAVESHAPES**

- Sine, square, triangle, ramp, pulse, arbitrary, linked sequence, and DC.

**ARBITRARY WAVEFORMS**

- **Execution Memory** - Waveform: 1 Mwords (4 Mwords with Option 01). Marker: (2) 1 Mwords (4 Mwords x 2-Bits with Option D1). Waveform size: 32 points to 1 M (4 M with Option 01) in multiples of 32.

- **Real Time Sequencer Memory** - 8 K individual waveforms.

- **Loop Counter** - Waveform: 1 to 64 K Sequence: 1 to 64 K repeats.

**CATALOG MEMORY CLOCK**

- **Frequency Range** - 1.000000 kHz to 1.024000 GHz.
- **Resolution** - 7 digits.
- **Stability** - 1 ppm/year (+15°C to ±25°C).

**OPERATING MODES**

- **Continuous** - Output waveform/sequence continuous at programmed waveshape, frequency, amplitude, and offset.
- **Triggered** - Output quiescent until triggered by an external, GPIB, or manual trigger; generates a waveform/sequence only one time.
- **Burst** - Output quiescent until triggered by an external, GPIB, or manual trigger, then generates a waveform/sequence up to 65,536 times.
- **Gated** - Same as continuous mode except period is executed only for the duration of the gated signal until the sequence started is completed.

**Waveform Advance** - Output quiescent until triggered by an external, GPIB, or manual trigger; then generates the waveform/sequence in the Sequence file. When the scan count reaches value, output stops and waits for next trigger.

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For your local Tektronix representative see the list in the back of this catalog or outside the U.S. call: 1-800-462-1083, inside the U.S. call: 1-800-462-2200.


See Tektronix on the World Wide Web: http://www.tek.com
1 GS/sec Arbitrary Waveform Generator

**AWG 2041**

1 GS/s Arbitrary Waveform Generator.

Includes: User/Programmer’s Manual


**Opt. R3** — Repair warranty extended to cover three years.

**Opt. R5** — Repair warranty extended to cover five years.

**INTERNATIONAL POWER PLUG OPTIONS**


**ACCESSORIES**

Accessory Pouch — Order 015-1169-00.

Frog Cover — Order 090-3232-01.


Service Manual — Order 070-8863-00.

GPIB Cable — Order 012-0981-00.

GPIB to BNC Cable — Order 012-1459-00.

GPIB to BNC Adapter — Order 015-0554-00.

**MEASUREMENT SERVICE OPTIONS**


**ORDERING INFORMATION**

For price information: Outside the U.S. contact your local Tektronix representative, inside the U.S. see the price list in the back of this catalog.

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