ARB RIDER AWG-5000 ARBITRARY WAVEFORM GENERATOR

World's Fastest 16 Bit Arbitrary Waveform Generator

The ARB Rider AWG-5000 is the **world's fastest 16 bit** Arbitrary Waveform Generator: **6.16 GS/s** real time update rate (**12.32 GS**/s in RF mode) and **16 bit** vertical resolution. Available in 2, 4 or 8 channel models, Arb Rider AWG-5000 is the **fastest AFG** (Arbitrary Function Generator) in the world, reaching up to 2 GHz sine wave. Thanks to Simple Rider software, AWG-5000 offers best in class performances and extremely easy to use interface.

2 GHz bandwidth, up to **5Vpp output** range and up to **4 Gsample** memory depth, makes the AWG-5000 is the ideal choice for Physics Experiments, Quantum computers, and Aerospace & Defense applications.

Thanks to the integrated up conversion functionality (**RF MODE**) it's possible generate signals up to **6 GHz**

No Compromise on analog performances: **the fast rise time of 110ps can be achieved at maximum amplitude of 5Vpp**

Up to 32 digital channel option, combined with 2, 4 or 8 analog channels make the AWG-5000 a full featured mix signal generator. It's now possible generate up to 8 analog signals fully synchronized with 32 digital lines (LVTTL or LVDS standards)

A dedicated intra-chassis synchronization bus, allow multi-instrument synchronization up to 4 units: **32 analog channels** and **128 digital channels** for the most powerful mixed signal generator in the world.

| MODEL	ANALOG CH	DIGITAL CH	SAMPLE RATE	RECORD LENGTH	VERTICAL RES.	MAX FREQ.	MAXIMUM OUTPUT VOLTAGE	OUTPUT VOLTAGE WINDOW
AWG5062	2	8 (opt.)	1 Sa/s to 6.16 GSa/s	2 or 4 Gpts	16 bits	2 GHz to 6 GHz	5Vpp on 50 Ohm	10Vpp
AWG5062 D	2	8 (opt.)	1 Sa/s to 6.16 GSa/s	2 or 4 Gpts	16 bits	2 GHz to 6 GHz	1.5Vpp on 50 Ohm	5.5Vpp
AWG5064	4	16 (opt.)	1 Sa/s to 6.16 GSa/s	2 or 4 Gpts	16 bits	2 GHz to 6 GHz	5Vpp on 50 Ohm	10Vpp
AWG5064 D	4	16 (opt.)	1 Sa/s to 6.16 GSa/s	2 or 4 Gpts	16 bits	2 GHz to 6 GHz	1.5Vpp on 50 Ohm	5.5Vpp
AWG5068	8	32 (opt.)	1 Sa/s to 6.16 GSa/s	2 or 4 Gpts	16 bits	2 GHz to 6 GHz	5Vpp on 50 Ohm	10Vpp
AWG5068 D	8	32 (opt.)	1 Sa/s to 6.16 GSa/s	2 or 4 Gpts	16 bits	2 GHz to 6 GHz	1.5Vpp on 50 Ohm	5.5Vpp

Pulses for All Your Needs

Whether it is generating a complex pulse train, a series of radar pulses, pulsed RF signals with impairments, Gaussian pulses, multi-level pulses, double pulses for IGBT/Mosfet experiments, pulses for Advanced Research and Quantum computing, the AWG-5000 is the ideal partner for all your most complex tests and cutting-edge applications.
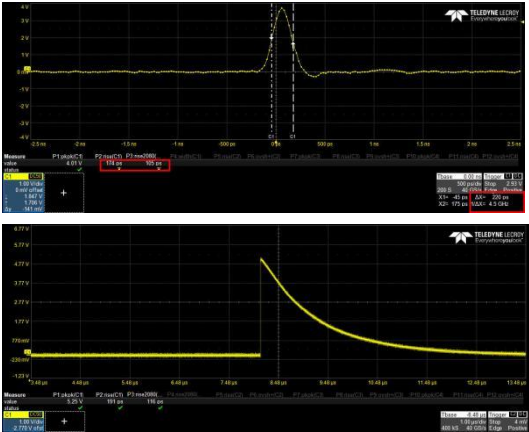
Highlights

- Up to 5Vpp into 50 Ohm Pulse Amplitude with ± 2.5V hardware offset
- 110 ps Rise and Fall Time
- Minimum Pulse Width: 230 ps
- Shape easily your Pulse Transitions
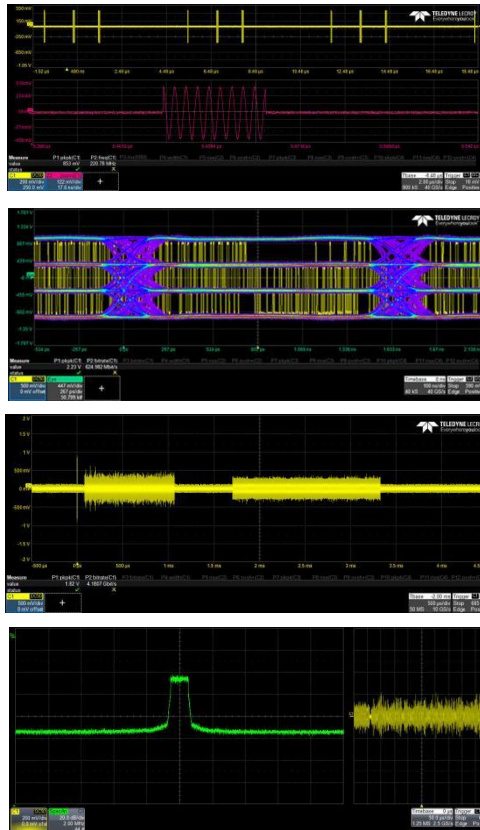
Quantum Computing and RF Wireless

The AWG-5000 is the right choice for the frontier of science and technology experiments and cutting-edge challenges like Quantum, High Energy Physics, Optical and RF Wireless Communication.

The AWG-5000 Series instrument can create virtually any signal – analog or digital, ideal or distorted, standard or custom. You can easily build complex RF/IF/IQ waveform or generate serial data streams on your PC and transfer it to the AWG.

Highlights

- Minimum delay between Trigger In and Analog Out
- Up to 32 analog channels and 128 digital channels fully synchronized
- Built-in sequencer with conditional/unconditional/dynamic jump features, two independent Trigger Inputs, up to 4 Marker outputs

Radar, LiDAR Design and EW

Wideband radar and electronic warfare systems need high fidelity signals to replicate real-world situations and complex environment scenarios. Moreover, nowadays automotive solutions need to create accurate and reliable tests to prove safety under a variety of test conditions is key: LiDAR is one of the strategic components for these kinds of solutions.

Key Features

- Generate Radar test signals with excellent spurious performance
- Create Electronic Warfare complex scenarios with up to 16384 sequencer entries and Advanced Sequencer conditional/unconditional jumps.
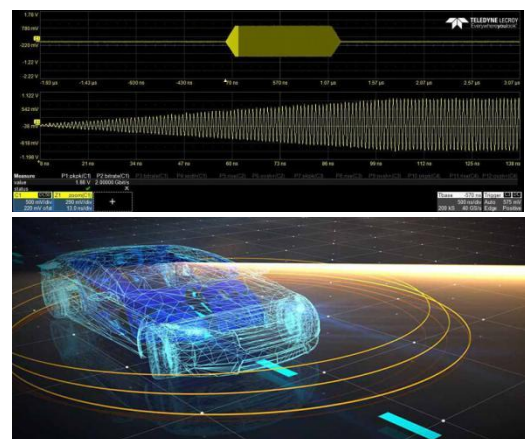
- Build up LiDAR signal testing for aerospace & defense, automotive and mobile devices solutions
- Create test waveforms using the Waveform Editor software or import them using third-party applications like MatLab, Labview, .NET languages, etc.

Waveform Editor: Powerful and Easy

The Waveform Editor allows you to create easily the most complex shapes for your radar pulses, physical research pulses, real-world signals, and complex environment signals. It is included in the standard software package.

Key Features

- Generate easily the most complex analog and digital signals
- Create your waveforms remotely on your PC
- Full integration with the True-Arb software

Multi-Instrument Synchronization

You can synchronize up to 4 units to build a system made of 32 analog channels and 128 digital channels fully synchronized and integrated with the True-Arb software.

Main Features

- Synchronize up to 4 units: 32 Analog channels and 128 Digital channels
- Affordable price per channel
- Easy to use Multi-Instrument control through True-Arb software