T3AWG2K-series Fact Sheet

Affordable 16-bit Dual Channel Arbitrary Waveform Generator

TELEDYNE TEST TOOLS
Everywhereyoulook™

Key Specifications

Model	T3AWG2152	T3AWG2152-D
Frequency Range (sinewave waveform)	1 µH to 150 MHz	
Vertical Resolution	16 Bits	
Number of Analog Channels	2	2
Number of Digital Channels	n.a.	8
Output Voltage Range (50 Ω into 50 Ω)	6 V_{pp} @150 MHz	
Waveform Memory	128 Mpts/Ch.	
Sample Rate (not interpolated)	600 MS/s (1,2 GS/s mit 2x Interpolation)	
Output Source Impedance	Low Impedance (0 Ω) and 50 Ω	
Load Impedance @scaling output amplitude	1 Ω to 1 MΩ	
Output Voltage Load Protection	High Voltage and Low Voltage Limits setting	

High-performance Affordable Waveform Generation

● 16-bit vertical resolution	✓ Exceptional detailed waveform generation with high-performance fidelity
● Output voltage and spectral purity	✓ 6 V_{pp} at full frequency range and excellent Harmonic Distortion
● Mixed signal generation	✓ Combine two analog channels with 8 synchronized digital channels, ideal for debugging and validating digital design
● Waveform Memory 128 Mpts@Ch	✓ Deep memory for downloading and generating complex pseudo-random both analog and digital waveforms
● Advanced Arbitrary Waveform Generator	✓ 128 Mpts arbitrary waveform depth on each channel ✓ Up to 16.384 waveform sequencing entries and single point granularity with conditional/unconditional jump, loop, event also remotely programmable. ✓ Simple and intuitive waveform editor utility for complex analog and digital waveform creation
● Advanced Function Generator	✓ Built-in waveforms include sine, square, pulse, double pulse, ramp, noise, sin(x)/x, gaussian, Lorentz, exponential rise, exponential decay and others
● Specialized for key applications	✓ Transmitter Distortion Test for Automotive Ethernet 100Base-T1 and 1000-Base-T1 ✓ Power and semiconductor dynamic behavior test enabled by the flexible double pulse test capability

Standard warranty is one year.

For more information, please contact:

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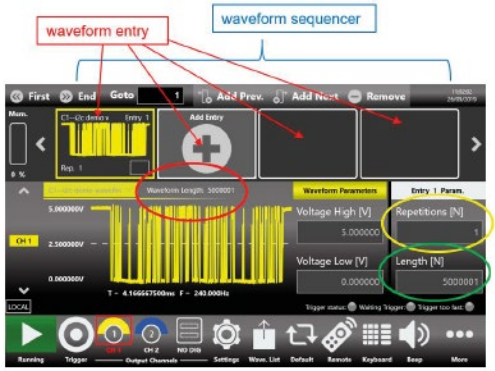
Arbitrary Waveform Generator – AWG Operating Mode

Generate complex and long signals with multiple waveforms in the sequencer. AWG operating mode uses variable and synchronized sample rate 'True-Arb' technology for applications requiring extremely high signal fidelity. The platform's deep memory enables the capability to store numerous long waveforms.

- 16-bit vertical resolution
- Up to 16,384 waveform entries in the sequencer with loop, conditional/unconditional jump and specified triggered events
- Up to 4G or infinite waveform repeat count
- 128 Mpts arbitrary waveform memory on each channel (standard)
- Waveform granularity is 1 for waveform length >384
- Output impedance 50 Ω and 0 Ω selectable
- Variable load impedance selectable



Arbitrary Function Generator – AFG Operating Mode

Generate a large variety of functions including the traditional ones and more. Change parameters and apply modulations on-the-fly for the output signal. AFG operating mode uses an improved Direct Digital Synthesis (DSS) technology. The Double Pulse function is a standard feature, simplifying the testing of dynamic behavior of power devices.

- 150 MHz sine waveform
- 16-bit vertical resolution
- Built-in waveforms include sine, square, pulse, double pulse, ramp, noise, DC, sin(x)/x, gaussian, lorentz, exponential rise, exponential decade, haversine and others
- Run modes includes continuous, modulation, sweep and burst
- Modulation modes include AM, FM, PM, PSK, FSK and PWM
- Output impedance 50 Ω and 0 Ω selectable
- Variable load impedance selectable

Ordering information

T3AWG2K Series Platforms	Product Code
Function/Arbitrary Waveform Generator, 2 Ch, 150 MHz, 128 Mpts/Ch, 6 V_{pp} output, Wave Sequencing	T3AWG2152
Function/Arbitrary Waveform Generator, 2 Ch, 8 Ch Digital, 150 MHz, 128 Mpts/Ch, 6 V_{pp} output, Wave Sequencing	T3AWG2152-D
T3AWG2K Series Accessories	**Product Code**
Mini-SAS HD to 16x SMA cable (8 LVDS output) only for T3AWG2152-D (Accessories to be order separately for the T3AWG2152-D, not included)	T3AWG3-8DIG-SMA

Standard warranty is one year.

Emulation of real-world signals

Quickly generate and replicate real-world waveforms captured with an oscilloscope.