

T3AWG3K-series Fact Sheet

High Definition 2, 4 and 8 Channel Arbitrary Waveform Generator

Accurate and Versatile Waveforms Generation

- ✔ **16 Bit Vertical Resolution**
✔ **Exceptional signal fidelity for developing quality products with a reduced design cycle.**
- ✔ **up to 24 V_{pp} Output Voltage and ±12 V HW Baseline Offset for a total output voltage window ±24 V or 48 V (50 Ohm into High Impedance)**
✔ **Unmatched wide output voltage window enables generating challenging in amplitude large-signal waveforms.**
- ✔ **Waveform memory up to 1 Gpoint @Ch**
✔ **Unmatched deep memory depth allows to store and reproduce complex pseudo-random waveforms for long play time testing.**
- ✔ **Mixed Signal Generation**
✔ **Combining the 2, 4 or 8 analog channels with 8, 16 or 32 synchronized Digital Channels for debugging and validating digital design.**
- ✔ **Multifunctional solution instrument (AFG/AWG/DPG)**
✔ **Arbitrary Function Generator, Arbitrary Waveform Generation and Digital Pattern Generation functionalities combined into one instrument.**



For more information, please contact:



Standard warranty is one year (3 year optional)

Key Specifications

Model	T3AWG3252	T3AWG3352	T3AWG3254	T3AWG3354	T3AWG3258	T3AWG3358
# Analog Channels	2		4		8	
# Digital Pattern Channels	0-8		0-16		0-16-32	
Frequency Range (Sinewave, AFG mode)	1 μH to 250 MHz	1 μH to 350 MHz	1 μH to 250 MHz	1 μH to 350 MHz	1 μH to 250 MHz	1 μH to 350 MHz
Sample Rate (AWG mode, not interpolated)	1.0 GS/s	1.2 GS/s	1.0 GS/s	1.2 GS/s	1.0 GS/s	1.2 GS/s
Vertical Resolution	16 Bits					
Memory	Up to 1 Gpoint/Ch					
Output Voltage V _{pp} (peak to peak)	12 V _{pp} (50 Ohm into 50 Ohm), 24 V _{pp} (50 Ohm into High-Impedance)					

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AFG Operational Mode

- Improved Direct Digital Synthesis (DDS) based technology
- Fixed sampling clock



Arbitrary Function Generation
(AFG functionality)

AWG Operational Mode

- Variable Clock True-Arbitrary Technology
- Variable Sampling Clock
- Mixed Signal Generation: 2 Analog Channels and 8 Digital Channels



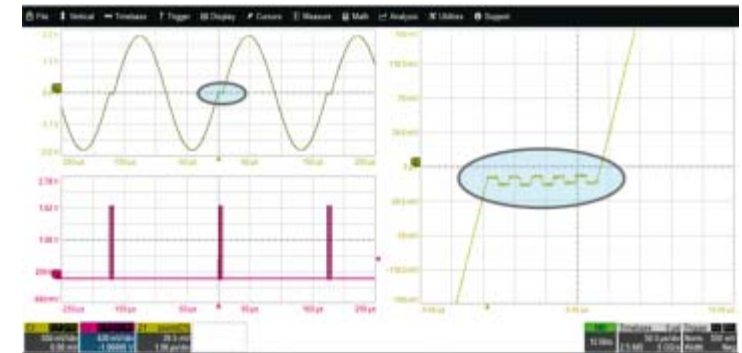
Arbitrary Waveform Generation
(AWG functionality)



Digital Pattern Generation
(DPG functionality)

A multifunctional generator with an innovative architecture

Exceptional Signal Fidelity with 16-bit Vertical Resolution

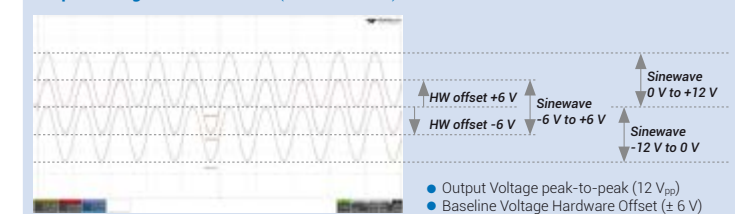


4V_{pp} Sine Wave and 5 x 10 mV_{pp} Square Wave Sequencing

Ordering information (complete info available on T3AWG datasheet)

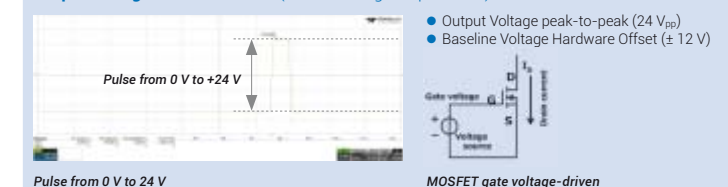
T3AWG3252 and T3AWG3352 Product Description (2 Channels)	Product Code
Arbitrary Waveform Generator, 2 Ch, 250 MHz, 16 bit, 128 Mpts/Ch, 6 V _{pp} , AFG/AWG	T3AWG3252
Arbitrary Waveform Generator, 2 Ch, 350 MHz, 16 bit, 128 Mpts/Ch, 6 V _{pp} , AFG/AWG	T3AWG3352
256 Mpts/Ch Memory option for 2 Ch mainframe	T3AWG3-M
512 Mpts/Ch Memory option for 2 Ch mainframe	T3AWG3-X
1024 Mpts/Ch Memory option for 2 Ch mainframe	T3AWG3-XL
High Voltage (12 V _{pp} on 50 Ohm) for 2 Ch mainframe	T3AWG3-HV
Digital 8 Ch. Output (require 1 x Mini-SAS cable)	T3AWG-8 DIG
T3AWG3254 and T3AWG3354 Product Description (4 Channels)	Product Code
Arbitrary Waveform Generator, 4 Ch, 250 MHz, 16 bit, 128 Mpts/Ch, 6 V _{pp} , AFG/AWG	T3AWG3254
Arbitrary Waveform Generator, 4 Ch, 350 MHz, 16 bit, 128 Mpts/Ch, 6 V _{pp} , AFG/AWG	T3AWG3354
1024 Mpts/Ch Memory Option for 4 Ch mainframe	T3AWG3-XL-4CH
High Voltage (12 V _{pp} on 50 Ohm) for 4 Ch mainframe	T3AWG3-HV-4CH
Digital 16 Ch. Output (require 2 x Mini-SAS cables)	T3AWG3-16DIG-4CH
T3AWG3258 and T3AWG3358 Product Description (8 Channels)	Product Code
Arbitrary Waveform Generator, 8 Ch, 250 MHz, 16 bit, 128 Mpts/Ch, 6 V _{pp} , AFG/AWG	T3AWG3258
Arbitrary Waveform Generator, 8 Ch, 350 MHz, 16 bit, 128 Mpts/Ch, 6 V _{pp} , AFG/AWG	T3AWG3358
1024 Mpts/Ch Memory Option for 8 Ch mainframe	T3AWG3-XL-8CH
High Voltage (12 V _{pp} on 50 Ohm) for 8 Ch mainframe	T3AWG3-HV-8CH
Digital 16 Ch. Output (require 2 x Mini-SAS cables)	T3AWG3-16DIG-8CH
Digital 32 Ch. Output (require 4 x Mini-SAS cables)	T3AWG3-32DIG-8CH
Accessories	Product Code
Cable Mini SAS HD 1m for 8 DIG (require T3AWG3-8DIG)	T3AWG3-8DIG-MSCAB
LVDS to LVTTTL adapter (require T3AWG3-8DIG and T3AWG3-8DIG-MSCAB)	T3AWG3-8DIG-TTL
Mini-SAS HD to x16 SMA cable (require T3AWG3-8DIG)	T3AWG3-8DIG-SMA

Output Voltage Window: ± 12 V (50 Ω into 50 Ω)



12 V_{pp} waveform can be shifted of ±6 V from -12 V to 0 V to 0 V to +12 V

Output Voltage Window: ± 24 V (50 Ω into High Impedance)



Pulse from 0 V to +24 V