

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 | T3AWG3258 | T3AWG3354 | 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

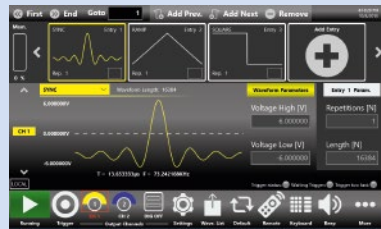
- Improved Direct Digital Synthesis (DDS) based technology
- Fixed sampling clock



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



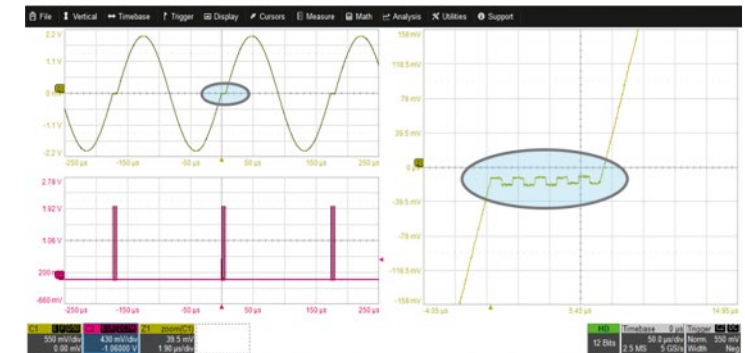
Arbitrary Waveform Generation
(AWG functionality)



Digital Pattern Generation
(DPG functionality)

A multifunctional generator with an innovative architecture

Exceptional Signal Fidelity with 16-bit Vertical Resolution

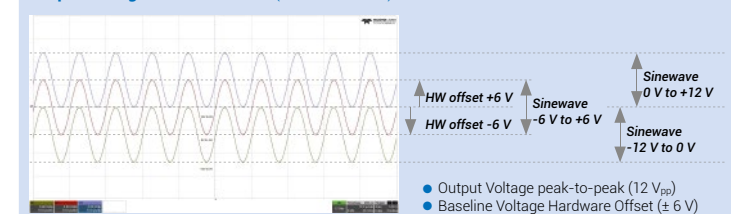


4V_{pp} Sine Wave and 5 x 10 mV_{pp} Square Wave Sequencing

Ordering information (complete info available on T3AWG datasheet)

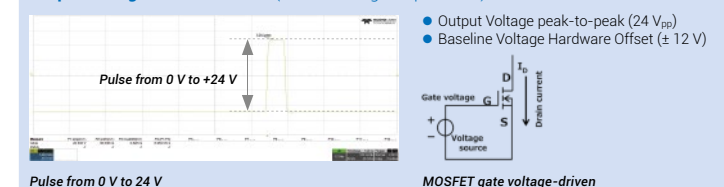
| T3AWG3252 and T3AWG3352 Product Description (2 Channels) | Product Code |
|---|-------------------|
| Arbitrary Waveform Generator, 2 Ch, 250 MHz, 16 bit, 128 Mpts/Ch, 6 V _{pp} , AFG/AWG | T3AWG3252 |
| Arbitrary Waveform Generator, 2 Ch, 350 MHz, 16 bit, 128 Mpts/Ch, 6 V _{pp} , AFG/AWG | T3AWG3352 |
| 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