

AWG7000 Series Arbitrary Waveform Generator Fact Sheet

Uncompromised performance with ultimate flexibility

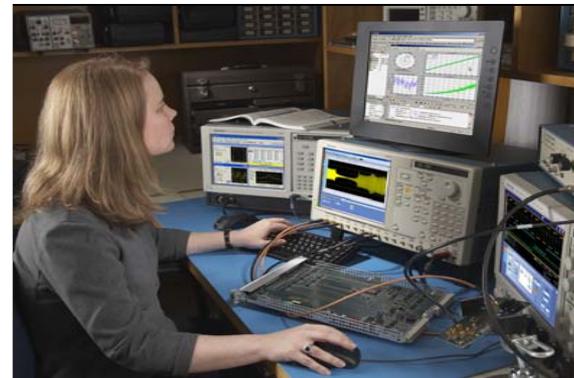


Features

Benefits

High speed interleaved sampling	Generate more accurate signals with lower jitter, utilizing higher oversampling with up to 24 GS/s on the AWG7122C
Wideband signal generation	Only commercial available AWG to generate signals wider than 1GHz
Waveform sequencing & sub-sequencing	Real-time sequencing creates infinite waveform loops, jumps, and conditional branches for longer pattern length generation suitable for replicating real world behavior of serial transmitters
Dynamic Jump	The dynamic jump capability enables the creation of complex waveform sequences that can respond to changing external environments
SerialXpress® software	SerialXpress software enables creation of exact waveforms required for thorough and repeatable design validation, margin/ characterization and conformance testing of high speed serial data receivers
RFXpress® software	Easily create and edit RF/IF/IQ signals.
Deep memory	Replicate low frequency events such as spread spectrum clocking on high speed serial signals which require long pattern lengths
Superior RF frequency output	9.6 GHz RF frequency output provides effective bandwidth for test of wide bandwidth RF technologies and support for 2 nd /3 rd generation serial standards

Greater insight with real-world signal generation



A powerful, comprehensive tool for design and debug

Featuring:

- Samples rates ranging from 8GS/s to 24GS/s
- 9.6 GHz effective RF frequency output
- 7.5GHz analog bandwidth
- Up to 64 M samples record length
- Down to 100 fs resolution edge timing control
- Vertical resolution up to 10 bits available: 10 bits (without marker output) or 8 bits (with two marker outputs)
- 35 ps rise/fall time (20% to 80%)
- 9.6 GHz effective RF frequency output
- Advanced jitter generation software tool
 - Support for major serial data standards
 - Complex jitter creation such as ISI, random, periodic, SSC impairments
 - S-Parameter channel emulation
- Generation of complex digital communications, radar and WiMedia waveforms with RFXpress® software tools
- Automated pattern calibration with a Tektronix oscilloscope

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Key specifications and ordering information

Models	Channels	Sample Rate	Waveform Length	Resolution
AWG7122C	2 + 4 markers	12/24 GS/s	64/128 M	8/10 bits
AWG7082C	2 + 4 markers	8/16 GS/s	64/128 M	8/10 bits

Key Product Options

AWG7000C Series

Option 01	Waveform record length expansion
Option 06	Interleaved & Wideband output - AWG7122C: 24 GS/s and 7.5GHz - AWG7082C: 16 GS/s and 3.2 GHz
Option 08	Fast sequence switching (requires export control license) ECCN:3A002
Opt. 09	Dynamic Jump & Sub-sequencing

Recommended Service Options

Opt R3/R5	3 or 5 year repair service plan
Opt C3/C5	3 or 5 year calibration service plan
Opt. CA1	A single calibration event
Opt D1/D3/D5	1, 3 or 5 year calibration service

Recommended Software and Accessories

RF Application Software

RFX100	General-purpose IQ, IF and RF signal creation software package.
Opt. RDR	Radar signal creation
Opt. OFDM	Generic OFDM signal creation
Opt. SPARA	S-Parameter emulation and DUT Characterization
Opt. UWBCF	UWB-WiMedia IQ, IF and RF conformance signal creation
Opt. UWBCT	UWB-WiMedia IQ, IF and RF custom and conformance signal creation (requires UWBCF).

Serial Data Application Software

SDX100	Jitter generation software package.
Opt. ISI	S-parameter and ISI creation.
Opt. SSC	Spread spectrum clock addition option.



Key Applications	Benefits
<ul style="list-style-type: none"> Serial data validation and compliance testing 	<ul style="list-style-type: none"> Easily stress test receiver designs with a wide array of signal impairments
<ul style="list-style-type: none"> Radar signal generation 	<ul style="list-style-type: none"> Radar signal creation tools provide the ultimate in flexibility for creating complex radar waveforms
<ul style="list-style-type: none"> Disk drive validation and test 	<ul style="list-style-type: none"> Up to 6 Gb/s Data Rate
<ul style="list-style-type: none"> WiMedia conformance and margin testing 	<ul style="list-style-type: none"> Comprehensive WiMedia signal generation support for MAC and PHY layers, plus the ability to add impairments