

250MS/s Single-Channel Arbitrary Waveform / Function Generator

TABOR'S NEW
WW
WONDER WAVE
SERIES

MODEL WW2571A



- Single-channel 250 MS/s waveform generator
- Sine and Square waves generated to 100MHz
- 16 Bit amplitude resolution
- 1M waveform memory, 2M/4M waveform memory, optional
- 16 Vpp into 50Ω, double into open circuit
- Multiple run modes including trigger, re-trigger and trigger delay
- AM, FM, Arbitrary FM, FSK, ASK, PSK, Frequency Hop and sweep modulation
- Powerful sequence generator links and loops segments in user-defined fashion. Stores up to 10 different sequence tables
- 16 Bit LVDS parallel output
- High resolution 3.8" LCD, color display
- Ethernet 10/100, USB 2.0 and GPIB interfaces
- Multi-Instrument synchronization
- ArbConnection software for easy waveform creation&control

Model 2571A, is a single-channel frequency agile waveform synthesizer that combines industry leading performance, frequency agility and modulation capability in a stand-alone, bench-type product. Signal source in the range of 1Hz to 250MHz and 16-bit vertical DAC resolution provide the test stimuli required for the decades to come. It can be used as an arbitrary waveform generator, modulating generator, as well as function and pulse generator.

250MS/s Performance

Higher performance test equipment and systems are needed as products which use increasing signal bandwidths are developed. The sample rate generator can be programmed from frequencies as low as 1Hz to 250MS/s with superior waveform quality and purity. For example, phase noise is typically below 120dB/Hz at 10kHz offset for a 10MHz sine wave.

High Speed Function Generator

Interested in standard functions? There are 10 built-in functions that cover most routine requirements. These are sine, triangle, square, pulse, ramp, sinc, Gaussian, exponential, noise, as well as DC. Sine and square waves can be generated from frequencies as low as 700μHz to frequencies as high as 100MHz. All functions and their respective parameters are accessible via the front panel.

Waveform Memory

Longer waveform memory minimizes test duration by allowing multiple waveforms to be loaded simultaneously and retrieved as needed for the specific test. It comes with 1M points of memory as standard. Optional 2M or 4M memory is available for applications requiring longer memory.

Digital Outputs

16-bits are available as digital patterns from a rear-panel VHDC connector. Output level is LVDS which is efficient and sufficient for high speed digital data transmissions.

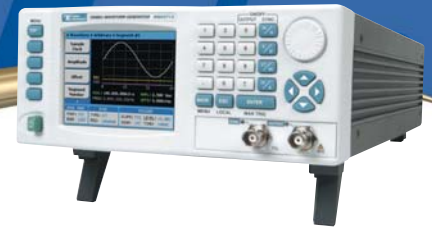
Digital patterns are built the same way as arbitrary waveforms; thus the immense power of the waveform generator with all its functions and features is harnessed behind this output turning the 2571A into the most powerful pattern generator in its class.

Frequency Agility

Decrypting radio transmission often employs frequency hopping. The 2571A provides breakthrough technology that allows simulation of 12-bit decrypted code as easy as writing a simple hop table. The frequency hop mode is fast, coherent and provides a great tool for simulating code transmission without losing speed and integrity.

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Memory Segmentation and Sequencing

Solving almost every complex application, powerful segmentation and sequencing produce an endless variety of complex waveforms. The waveform memory can be divided into multiple waveform segments and sequenced in user-selectable fashion to create complex waveforms that have repeatable segments and thus saving precious memory space. Five different advance modes are available for the 2571A series to step through the sequence table, including stepped and mixed advance modes and thus increasing efficiency of the test system. To solve even the toughest application, the products allow generation of up to 100 different sequences, each capable of linking 16k waveform fragments and looping each waveform up to 1M times.

Accurate Output

As standard, the instrument is equipped with an internal frequency reference that has 1ppm accuracy and stability over a period of 1 year. An external frequency reference is provided on the rear panel for applications requiring greater accuracy or stability, supported by the instrument's 14 digits resolution.

Modulation Capability

Agility and modulation capabilities open the door to diverse applications. In addition to the capability of generating any shape and style of waveform with the arbitrary waveform generation power, the products can also do standard modulation schemes such as FM, AM, FSK, PSK, and frequency hops without sacrificing the power of the instrument control and output run modes.

Automated External Self-Calibration

Normal calibration cycles in the industry range from one to three years where instruments are sent to a service center, opened to allow access to trimmers, calibrated and certified for repeated usage. Leading-edge technology was implemented to allow calibration from any interface, USB, GPIB or LAN. Calibration factors are stored in a flash memory thus eliminating the need to open instrument covers.

Easy to use

Large and user-friendly 3.8" back-lit color LCD display facilitates browsing through menus, updating parameters and displaying detailed and critical information for your waveform output. Combined with numeric keypad, cursor position control and a dial, the front panel controls simplifies the often complex operation of an arbitrary waveform generator.

High Speed Access

Access speed is an increasingly important requirement for test systems. Included with the instrument is a variety of interfaces: Ethernet 10/100, USB 2.0 and GPIB so one may select the interface most compatible to individual requirements. Using any of the external interfaces, controlling instrument functions and features as well as downloading waveforms and sequences is fast, time saving and easily tailored to every system regardless if it is just a laptop to instrument or full-featured ATE system. IVI drivers and factory support will speed up system integration thus minimizing time-to-market and reduce system development costs significantly.

Multiple Environments to Write Your Code

Model 2571A comes with a complete set of drivers, allowing you to write your application in various environments such as: Labview, CVI, C++, VB, MATLAB. You may also link the supplied dll to other Windows based API's or, use low level SCPI commands (Standard Commands for Programmable Instruments) to program the instrument, regardless if your application is written for Windows, Linux or Macintosh operating systems.

MODULAR

Tabor's MODULAR software package supplies wireless design and manufacturing engineers with virtually all their test stimulus needs at baseband or IF/RF levels, whether required signals are analog or digital. With none of the limitations of traditional generators, Tabor's Wonder Wave Series allow any signal, simple or composed, clean or noisy, ideal or impaired, to be downloaded and played back.

ArbConnection

The ArbConnection software provides you with full control of instrument functions, modes and features. ArbConnection is a powerful editorial tool that allows you to easily design any type of waveform. Whether it is the built in wave, pulse or Serial data composers, or the built in equation editor with which you can create your own exotic functions, with ArbConnection virtually any application is possible.

Multi-Instrument Synchronization

Multiple 2571As can be synchronized using a Master-Slave arrangement allowing users to benefit from the same high quality performance in their multi-channels needs.

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Service and Support

Beyond providing precision Test & Measurement instruments, Tabor Electronics provides unparalleled service and support, and is continuously finding new ways to bring added value to its customers.

Our after-sales services are comprehensive. They include all types of repair and calibration, and a single point of contact that you can turn to whenever you need assistance. As part of our extensive support, we offer individualized, personal attention Help Desk, both online and offline, via e-mail, phone or fax.

Tabor Electronics maintains a complete repair and calibration lab as well as a standards laboratory in Israel and USA. Service is also available at regional authorized repair/calibration facilities.

Contact Tabor Electronics for the address of service facilities nearest you.

Applications

For expert technical assistance with your specific needs and objectives, contact your local sales representative or our in-house applications engineers.

Manuals, Drivers, and Software Support

Every instrument comes equipped with a dedicated manual, developer libraries, I/O drivers, and software. However, if your specific manual is lost or outdated, Tabor Electronics makes it possible to log-on to its Download Center and get the latest data "in a click".

Product Demonstrations

If your application requires that you evaluate an instrument before you purchase it, a hands-on demonstration can be arranged by contacting your local Tabor Electronics representative or the Sales Department at our Corporate Headquarters.

Five-year Warranty

Every instrument from the Wonder Wave series comes with a five-year warranty. Each one has full test results, calibration certificate, and CD containing product's manual and complete software package. Our obligation under this warranty is to repair or replace any instrument or part thereof which, within five years after shipment, proves defective upon examination. To exercise this warranty, write or call your local Tabor representative, or contact Tabor Headquarters and you will be given prompt assistance and shipping instructions.

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STANDARD WAVEFORMS

Waveforms: Sine, Triangle, Square, Pulse, Ramp, Sinc (Sine(x)/x), Gaussian, Exponential, Repetitive Noise, DC, Half-Cycle.

Frequency Range: Waveform dependent

Source: Internal synthesizer

SINE

Frequency Range: 700 μ Hz to 100MHz

Start Phase Range: 0-360 $^{\circ}$

Start Phase Resolution: 0.01 $^{\circ}$

Harmonics Distortion:

| | < 3Vpp | < 5Vpp | < 10Vpp |
|--------------|--------|--------|---------|
| DC to 1MHz | -55dBc | -48dBc | -37dBc |
| 1 to 10MHz | -50dBc | -43dBc | -35dBc |
| 10 to 50MHz | -35dBc | -30dBc | -28dBc |
| 50 to 100MHz | -28dBc | -25dBc | -23dBc |

Non-Harmonic Distortion:

| | |
|--------------|--------|
| DC to 50MHz | -65dBc |
| 50 to 100MHz | -60dBc |

Total Harmonic Distortion:

| | |
|-------------|------|
| DC to 20MHz | 0.1% |
|-------------|------|

Flatness (1kHz):

| | |
|-----------------|-----|
| DC to 1MHz | 1% |
| 1MHz to 10MHz | 3% |
| 10MHz to 25MHz | 5% |
| 25MHz to 80MHz | 10% |
| 80MHz to 100MHz | 15% |

Phase Noise - Internal SCLK

| | |
|---------------|------------|
| 100Hz Offset | -70dBc/Hz |
| 1kHz Offset | -85dBc/Hz |
| 10kHz Offset | -92dBc/Hz |
| 100kHz Offset | -112dBc/Hz |
| 1MHz Offset | -140dBc/Hz |

TRIANGLE

Frequency Range: 700 μ Hz to 32MHz

Start Phase Range: 0-360 $^{\circ}$

Start Phase Resolution: 0.01 $^{\circ}$

SQUARE

Frequency Range: 700 μ Hz to 100MHz

Duty Cycle Range: 0% to 99.9%

Rise/Fall Time:

| | |
|----------------|------|
| DC to 10Vpp | <4ns |
| 10Vpp to 16Vpp | <5ns |

Aberration:

| | |
|----------------|----------|
| DC to 10Vpp | <5%+10mV |
| 10Vpp to 16Vpp | <7% |

PULSE

Frequency Range: 700 μ Hz to 32MHz

Delay, Rise/Fall Time, High Time Ranges: 0%-99.9% of period (each independently)

Rise/Fall Time:

| | |
|----------------|------|
| DC to 10Vpp | <4ns |
| 10Vpp to 16Vpp | <5ns |

Aberration:

| | |
|----------------|----------|
| DC to 10Vpp | <5%+10mV |
| 10Vpp to 16Vpp | <7% |

RAMP

Frequency Range: 700 μ Hz to 32MHz

Delay, Rise/Fall Time Ranges: 0%-99.9% of period (each independently)

SINC (Sine(x)/x)

Frequency Range: 700 μ Hz to 32MHz

"0 Crossings": 4-100

GAUSSIAN

Frequency Range: 700 μ Hz to 32MHz

Time Constant: 10-200

EXPONENTIAL PULSE

Frequency Range: 700 μ Hz to 32MHz

Time Constant: -100 to 100

REPETITIVE NOISE

Bandwidth: 50MHz

DC

Range: -8V to 8V

HALF-CYCLE WAVEFORMS

Function Shape: Sine, Triangle, Square

Frequency Range: 0.01Hz to 1MHz

Phase Resolution: 0.01 $^{\circ}$

Duty Cycle Range: 0% to 99.9%

Run Modes: Continuous, Triggered

Delay Between Half Cycles (Continuous only): 200ns to 20s

Delay Resolution 20ns

ARBITRARY WAVEFORMS

Sample Rate:

| | |
|-----------------|---------------------------------------|
| Continuous Mode | 1.5S/s to 250MS/s (typically 300MS/s) |
| All Other Modes | 1.5S/s to 225MS/s (typically 250MS/s) |

Vertical Resolution: 16 bits

Waveform Memory: 1M points (2M or 4M optional)

MEMORY SEGMENTATION

No. of Segments: 1 to 10k

Min. Segment Size: 16 points

Resolution: 4 points size increments from 16 to 1M points (2M/4M optional)

SEQUENCED WAVEFORMS

Operation: Segments may be linked and repeated in a user-selectable order to generate extremely long waveforms. Segments are advanced using either a command or a trigger

ADVANCE MODES

Automatic Sequence

Advance: No trigger required to step from one segment to the next. Sequence is repeated continuously per a pre-programmed sequence table.

Stepped Sequence

Advance: Current segment is sampled continuously until a trigger advances the sequence to the next programmed segment and sample clock rate.

Single Sequence

Advance: Current segment is sampled the specified number of repetitions and then idles at the end of the segment. Next trigger samples the next segment the specified repeat count, and so on.

Mixed Sequence

Advance: Each step of a sequence can be programmed to advance either a) automatically (Automatic Sequence Advance), or b) with a trigger (Stepped Sequence Advance).

Sequencer Steps: 1 to 4096

Segment Loops: 1 to 1M

Minimum Segment Duration: 600ns

Multi Sequence: 1 to 10, Selectable

DIGITAL PULSE GENERATOR

Channel Dependency: Both channels share pulse parameters except level, polarity, delay and state

Pulse State: On/Off

Pulse Mode: Single or double, programmable

Polarity: Normal, inverted or complemented

Period: 80 ns minimum, programmed with 4 ns increments

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| | |
|----------------------------|----------------------------|
| Pulse Width: | 4 ns minimum, 1e3 Sec max. |
| Rise/Fall Time: | |
| DC to 10Vpp | <4ns |
| 10Vpp to 16Vpp | <5ns |
| High Time: | 0 ns minimum, 1e3 Sec max. |
| Delay: | 0 ns minimum, 1e3 Sec max. |
| Double Pulse Delay: | 0 ns minimum, 1e3 Sec max. |
| Amplitude Window: | 16mVp-p to 16Vp-p |
| Low Level | -8V to +7.990V |
| High Level | -7.990V to +8V |

NOTES:

- All pulse parameters, except rise and fall times, may be freely programmed within the selected pulse period provided that the ratio between the period and the smallest incremental unit does not exceed the ratio of 1,000,000 to 1. With the 2M/4M option, the ratio is extended to 2,000,000 (4,000,000) to 1, hence the specifications below do not show maximum limit as each must be computed from the above relationship.
- Rise and fall times, may be freely programmed provided that the ratio between the rise/fall time and the smallest incremental unit does not exceed the ratio of 100,000 to 1.
- The sum of all pulse parameters must not exceed the pulse period setting

DIGITAL PATTERN OUTPUT

| | |
|--------------------------|------------------------------|
| Pattern Width: | 16-bits, differential |
| Output Level: | LVDS |
| Pattern Length: | |
| Dedicated Memory | 1 to 128k |
| Arbitrary Memory | 16 to 1M (2M or 4M optional) |
| Update Frequency: | 100μpps to 250Mpps |

COMMON CHARACTERISTICS

FREQUENCY

| | |
|----------------------------------|-----------------------------|
| Resolution: | |
| Front Panel | 11 digits (limited by 1μHz) |
| Remote | 14 digits (limited by 1μHz) |
| Accuracy & Stability: | Same as reference |

10MHz REFERENCE CLOCK

| | |
|----------|---|
| Internal | 0.0001% (1 ppm TCXO) initial tolerance over a 19°C to 29°C temperature range; 1ppm/°C below 19°C and above 29°C; 1ppm/year aging rate |
| External | 10MHz TTL, 50% ±2% duty cycle or 50Ω ±5% 0dBm |

AMPLITUDE

| | |
|---------------------------|--|
| Range: | 16mV to 16Vp-p into 50Ω; Double into open circuit |
| Impedance Display: | Programmable from 50Ω to 1MΩ |
| Resolution: | 4 digits |
| Accuracy (1kHz): | |
| 16mV to 159.9mVp-p | ±(1% + 5mV) |
| 160mV to 1.599Vp-p | ±(1% + 10mV) |
| 1.6V to 11.99Vp-p | ±(1% + 70mV) |
| 12V to 16Vp-p | ±2% |

OFFSET

| | |
|--------------------|----------------------------|
| Range: | 0 to ±7.992V, into 50Ω |
| Resolution: | 1mV |
| Accuracy: | ±(1%+1% of Amplitude +5mV) |

FILTERS

| | |
|--------------|---|
| Type: | 25MHz Bessel 50MHz Bessel 60MHz Elliptic 120MHz Elliptic |
|--------------|---|

OUTPUTS

MAIN OUTPUT

| | |
|--------------------|---|
| Connector: | Front panel BNC |
| Impedance: | 50Ω ±1% |
| Protection: | Short Circuit to Case Ground, 10s max |
| Standby: | Output On or Off (Output Disconnected) |

SYNC OUTPUT

| | |
|--------------------|---|
| Connector: | Front panel BNC |
| Level: | TTL |
| Sync Type: | Pulse with Arbitrary and Standard Waves; LCOM in Sequence and Burst Modes (including Burst Modulation); Marker with Modulation Mode only, programmable position 0 to 1M (2M or 4M optional) |
| Position: | |
| Resolution: | 4 points |

DIGITAL PATTERN OUTPUTS

| | |
|-----------------------|--------------------------------|
| Connector: | Rear panel SCSI-2, 68-pin VHDC |
| Pattern Width: | 16 bit differential outputs |
| Source: | Channel 1 only |
| Level: | LVDS |

SAMPLE CLOCK OUTPUT

| | |
|-------------------|----------------|
| Connector: | Rear panel SMB |
| Level: | 400mVp-p |
| Impedance: | 50Ω |

COUPLE OUTPUT

| | |
|-------------------|--------------------------|
| Connector: | Rear panel SMB |
| Level: | LVPECL |
| Impedance: | 50Ω, terminated to +1.3V |

INPUTS

TRIGGER INPUT

| | |
|----------------------------|-----------------------------------|
| Connector: | Rear panel BNC |
| Impedance: | 10kΩ |
| Slope: | Positive or Negative (selectable) |
| Programmable Level: | ±5V |
| Sensitivity: | 100mV |
| Damage Level: | ±12V |
| Pulse Width: | >10ns minimum |

EXTERNAL REFERENCE INPUT

| | |
|-----------------------------|------------------------|
| Connector: | Rear panel SMB |
| Frequency: | 10MHz |
| Impedance&Level: | |
| Default | 10kΩ ±5%, TTL, 50% ±2% |
| Option | 50Ω ±5%, 0dBm Sinewave |

SAMPLE CLOCK INPUT

| | |
|--------------------------|-------------------|
| Connector: | Rear panel SMB |
| Input Level: | 300mVp-p to 1Vp-p |
| Impedance: | 50kΩ |
| Min. Pulse Width: | 4 ns |

COUPLE INPUT

| | |
|--------------------------|--------------------------|
| Connector: | Rear panel SMB |
| Input Level: | LVPECL |
| Impedance: | 50Ω, terminated to +1.3V |
| Min. Pulse Width: | 4 ns |

MODULATION

| | |
|---------------------------|---|
| Carrier Waveform: | Sinewave |
| Modulation Source: | Internal |
| Run Modes: | Off (Outputs CW), Continuous, Triggered, Delayed Trigger, Burst, Re-trigger and Gated |
| Advance Source: | Front panel button, Software commands, Rear panel TRIG IN |
| Carrier Idle Mode: | On or Off, programmable |
| Marker Position: | TTL, Programmable at selectable frequency |

FM

| | |
|------------------------------|------------------------------|
| Carrier Waveform: | Sine wave |
| Carrier Frequency: | 10Hz to 100MHz |
| Modulating Waveforms: | Sine, square, triangle, ramp |
| Modulating Frequency: | 10mHz to 100kHz |
| Peak Deviation: | Up to 50MHz |

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ARBITRARY FM

Carrier Waveform: Sine wave
Carrier Frequency: 10Hz to 100MHz
Modulating Waveform: Arbitrary waveform
Modulating Waveform
Sample Clock: 1S/s to 2.5MS/s
Frequency Array Size: 4 to 10,000 frequencies

AM

Carrier Waveform: Sine wave
Carrier Frequency: 10Hz to 100MHz
Envelop Waveform: Sine, square, triangle, ramp
Envelop Frequency: 10mHz to 100kHz
Modulation Depth: 0% to 100%

FSK

Carrier Waveform: Sine wave
Carrier Frequency: 10Hz to 100MHz
Baud Rate Range: 1bits/sec to 10Mbits/sec
FSK Data Bits Length: 2 to 4,000

PSK

Carrier Waveform: Sine wave
Carrier Frequency: 10Hz to 100MHz
Carrier phase: 0 to 360°
Baud Rate Range: 1bits/sec to 10Mbits/sec
FSK Data Bits Length: 2 to 4,000

FREQUENCY HOPPING

Carrier Waveform: Sine wave
Carrier Frequency: 10Hz to 100MHz
Hop Table Size: 2 to 1,000
Dwell Time Mode: Fixed or Programmable for each step
Dwell Time: 200 ns to 20 s
Dwell Time Resolution: 20 ns

ASK

Carrier Waveform: Sine wave
Carrier Frequency: 10Hz to 100MHz
Start/Shift Amplitude: 16mVpp to 16Vpp into 50Ω
Resolution: Maximum amplitude/4096
Baud Rate Range: 1Bits/s to 10Mbits/s
ASK Data Bits Length: 2 to 4,000

AMPLITUDE HOPPING

Carrier Waveform: Sine wave
Carrier Frequency: 10Hz to 100MHz
Range: 16mVpp to 16Vpp into 50Ω
Dwell Time Mode: Fixed or Programmable for each step
Dwell Time: 200 ns to 21 s
Dwell Time Resolution: 20 ns
Resolution: Maximum amplitude/4096

ARBITRARY 3D

Carrier Waveform: Sine wave
Carrier Frequency: 10Hz to 100MHz
Modulating Waveform: Arbitrary waveform
Modulating Type: Amplitude CH1, Amplitude CH2, Frequency and Phase
Modulating Waveform
Sample Clock: 1S/s to 2.5MS/s
Memory Size: 4 to 30,000

SWEEP

Carrier Waveform: Sine wave
Sweep Step: Linear or log
Sweep Direction: Up or Down
Sweep Range: 10Hz to 100MHz
Sweep Time: 1.4s to 40s

WIRELESS SIGNAL GENERATION

EVM (Error Vector Magnitude)

| | 0.1 MS/s | 1 MS/s | 5 MS/s |
|--------|----------------------|----------------------|----------------------|
| 10 MHz | 0.15% ⁽¹⁾ | 0.30% ⁽¹⁾ | 1.40% ⁽¹⁾ |
| 80 MHz | 0.25% ⁽²⁾ | 0.50% ⁽²⁾ | 1.20% ⁽²⁾ |

Test conditions:

Sample Clock Frequency = as specified
 Sample Clock = External
 Modulation = QPSK
 Baseband Filter = Raised Cosine
 Alfa = 0.35

ACLR (Adjacent Channel Leakage Power Ratio)

| | 0.1 MS/s | 1 MS/s | 5 MS/s |
|--------|----------------------|----------------------|----------------------|
| 10 MHz | 73 dB ⁽¹⁾ | 73 dB ⁽¹⁾ | 65 dB ⁽¹⁾ |
| 80 MHz | 64 dB ⁽²⁾ | 64 dB ⁽²⁾ | 60 dB ⁽²⁾ |

Test conditions:

Sample Clock Frequency = as specified
 Sample Clock = External
 BW = Symbol Rate;
 Offset = 1.35 x Symbol Rate

⁽¹⁾ Sample Clock Frequency = 100 MS/s

⁽²⁾ Sample Clock Frequency = 200 MS/s

TRIGGER CHARACTERISTICS

RUN MODES

Continuous: Free-run output of a waveform.
Triggered: Upon trigger, outputs one waveform cycle. Last cycle always completed.
Gated: External signal transition enables or disables generator output. Last cycle always completed

Burst:

Upon trigger, outputs a Dual or multiple pre-programmed number of waveform cycles from 1 through 1M.

Mixed:

First output cycle is initiated by a software trigger. Consequent output requires external triggers through the rear panel TRIG IN

TRIGGER SOURCE

EXTERNAL

Source: Rear panel BNC
Trigger Level: ±5V
Resolution: 1mV
Input Frequency: DC to 2.5MHz
Min. Pulse Width: >10ns
Slope: Positive/Negative transitions, selectable
Trigger Jitter: ±1 sample clock period

DELAYS (Trigger input to waveform output)

System Delay: 6 sample clock cycles+150ns
Trigger Delay: [(0; 200ns to 20s) + system delay]
Trigger Resolution: 20ns
Trigger Delay Error: 6 sample clock cycles+150ns

INTERNAL / RETRIGGER (BUS)

Range: 200ns to 20s
Resolution: 20ns
Error: 3 sample clock cycles+20ns

MANUAL

Source: Soft trigger command through the front panel or external interface

FREQUENCY COUNTER / TIMER

Measurements: Frequency, Period, Avaraged Period, Pulse Width and Totalize

Source: Trigger Input
Range: 10Hz to 100MHz (typically 120MHz)
Sensitivity: 500mVpp
Accurcay: 1ppm
Slope: Positive/Negative transitions
Gate Time: 100µSec to 1 Sec
Input Range: ±5V
Trigger Modes: Continious, Hold and Gated
Period Avaraged

Range 10ns to 50ms
 Resolution 7 digits / Sec

Period and Pulse Width

Range 500ns to 50ms
 Resolution 100ns

Totalize

Range 10¹²-1
 Overflow Led indication

Specification

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MULTI-INSTRUMENT SYNCHRONIZATION

| | |
|------------------------|---|
| Description: | Multiple instruments can be daisy-chained together and synchronized to provide multi-channel synchronization. |
| Initial Skew: | <25 ns + 1 sample clock cycle, depending on cable length and quality, typically with 1m cables |
| Waveform Types: | Standard, Arbitrary and Sequenced using the automatic sequence advance mode only |
| Run Modes: | Continuous, Triggered, Gated and Counted Burst |

LEADING EDGE OFFSET

| | |
|---------------------------------|---|
| Description: | Leading edge offset is programmable for master and slave units. |
| Run Mode: | Continuous run mode only |
| Offset Range: | 200 ns to 20 s |
| Resolution&Accuracy: | 20 ns |

GENERAL

| | |
|-----------------------------------|--|
| Power Supply: | 85 to 265Vac, 48-63 Hz |
| Power Consumption: | 60W |
| Front Panel Display: | Color LCD, 3.8" reflective, 320 x 240 pixels, back-lit |
| Operating temperature: | 0°C - 50°C |
| Humidity (non-condensing): | 11°C - 30°C 85% 31°C - 40°C 75% 41°C - 50°C 45% |
| Storage temperature: | -40°C to + 70°C. |
| Interface: | Ethernet 10/100, USB 2.0 and GPIB standard |
| Language: | IEEE-488.2 - SCPI – 1993.0 |
| Dimensions: | 212 x 88 x 415 mm (WxHxD) |
| Weight: | Approximately 7 lb |
| Safety: | EN61010-1, 2nd revision |
| EMC: | CE marked. Designed to meet VDE 0411/03.81 and UL 1244 |
| Reliability: | MTBF per MIL-HDBK-217E, 25°C, Ground Benign |
| Workmanship Std: | Conform to IPC-A-610D |
| Supplied Accessories: | Power Cord, USB cable, CD containing Operating Manual, ArbConnection software and developer libraries. |
| Warranty: | 5 years standard |

ORDERING INFORMATION

| | |
|---|------------------------------|
| MODEL | WW2571A |
| 250MS/s Single-Channel Arbitrary Waveform Generator | |
| OPTIONS | |
| Option 1: | 2 M Memory |
| Option 2: | 4 M Memory |
| ACCESSORIES | |
| S-Rack mount: | 19" Single Rack Mounting Kit |
| D-Rack mount: | 19" Dual Rack Mounting Kit |
| Case Kit: | Professional Carrying Bag |

Note: Options and Accessories must be specified at the time of your purchase.