

INTRODUCTION

A compact and powerful Arbitrary Waveform Generator + High Precision Frequency Counter at the surprising lowest price!

You can choose the regular waveforms and set the parameters. The Arbitrary Waveform can be edited point by point or just by draw the curve arbitrarily on the screen by the mouse like drawing a picture!

It also has the advanced and unique 8 bits digital input and output, synchronized signal outputs and external trigger input for digital electronics research.

Two channels of Counter and Frequency measurement inputs.

The data format is completely compatible with that of Tektronix oscilloscope and waveform generator. The DDS technology enables high frequency accuracy, high waveform resolution, high reliability and wide software support.

It is widely used in electronic labs and for auto-test!



MODEL SELECTION

Product	Freq. Range	Counter Range	Digital Input/Output	Record Length	Resolution
DDS-3005	5MHz	DC~2.7GHz	8 bits	256KSa	14 bits

FEATURES

USB2.0 PC Interface

The true USB2.0 interface allows fast data transfer rate that ensures a quick screen update rate, even when collecting large amounts of data.

The plug & play character is very convenient for user to set up and connect the instrument to PC.

The device is powered directly from the USB bus that reduces the traditional power transformer.

The USB2.0 driver is compatible with USB1.1.

And the two channel of the frequency counter input: CH1 DC-25MHz and CH2 25MHz ~ 2.7GHz
8 Bits digital input and output, Synchronized signal, External Trigger

Digital Output Port Definition

Pin1	Bit 7
Pin 2	Bit 6
Pin 3	Bit 5
Pin 4	Bit 4
Pin 5	Bit 3
Pin 6	Bit 2
Pin 7	Bit 1
Pin 8	Bit 0
Pin 9	Synchronized Signal Output
Pin 10	Digital Ground

Digital Input Port Definition

Pin1	Bit 7
Pin 2	Bit 6
Pin 3	Bit 5
Pin 4	Bit 4
Pin 5	Bit 3
Pin 6	Bit 2
Pin 7	Bit 1
Pin 8	Bit 0
Pin 9	External Trigger Input
Pin 10	Digital Ground

A full function waveform generator of the range 0~5MHz, with all regular waveforms selectable, such as Sine, Square, Tri-angle, Saw-tooth, TTL, White Noise, Gauss Noise, Trapezia, Exponent, AM and FM and the parameters settable, such as frequency, amplitude, offset, modulation depth.

The arbitrary waveform edited just by drawing with the mouse and edit can be done just by mouse or by value-setting point by point.

The 14 bits high D/A resolution make less distortion rate

Auto zero calibration to adjust the zero floating because of environmental reasons.

The data format is "CSV". Its format is compatible with CSV file produced by the Tektronix ARB Express software. User can edit or set up required CSV waveform and also use Excel to open and edit the CSV wave files.

DDS technology, High accuracy and resolution, wide software supporting. It can be widely used in the various kinds of electronics labs and it offers complete interface for second time development to be jointly inserted into other auto-measuring systems.

*Technical Specifications & Appearance are subject to change without prior notice

GENERAL SPECIFICATION**Features:**

- Signal Frequency Range : 0-5MHz; Frequency Counter range : 0~2.7GHz
- Outputs : One channel of Arbitrary Waveform; 8 Bits signal : Synchronized signal
- Inputs : Two channels of Frequency counter; 8 Bits signal : External Trigger
- Arbitrary Waveform edited by mouse
- General waveforms : Sine, Square, Triangle, Saw-tooth, TTL, White Noise, Gauss noise, Exponent, AM, FM
- Settable Parameters : Amplitude, Frequency, Offset
- The data file's format is completed compatible with Tektronix's products and software. It can read directly the data files from and be edited by Tektronix's software.
- DDS technology, High accuracy and resolution, wide software supporting

TECHNICAL SPECIFICATION

Frequency Range	: 0.1 Hz (DC) ~ 5MHz
Frequency Resolution	: 0.01Hz
DAC Clock	: 0 ~ 50MHz continuously adjustable in 0.2Hz setup
Channels	: 1 CH waveform output
Waveform Depth	: 256 KSa
Vertical Resolution	: 14 Bits
Frequency Stability	: < 30 ppm
Frequency Amplitude	: 0 ~ ± 10V
Output Impedance	: 50Ω
Output Current	: 50mA Vpeak = 100mA
Low Pass Filter	: 5MHz, 1MHz, 100KHz, 10KHz, 1KHz, Programmable
DC Accuracy	: ± 0.1% FS
AC Accuracy	: ± 0.2%
Harmonic Distortion	: -65 dBc (1KHz), -53dBc (100KHz)

Frequency Counter CH1

Range	: DC ~ 25 MHz
Input Amplitude	: ± 200mVpp ± 25Vpp
Coupling Mode	: AC DC Programmable
Accuracy	: ± 1Hz
Input Impedance	: > 500KΩ

Frequency Counter CH2

Range	: 25MHz ~ 2.7GHz
Input Power	: ± 20 dbm
Coupling Mode	: AC
Accuracy	: ± 256 Hz
Input Impedance	: 50Ω

Digital Input and Output

Digits	: 8 Bits + Synchronized, 1 Bit + External Trigger 1 Bit
Level	: 3/5V TTL/CMOS

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