



When generating waveforms, a BNC Model 645 50MHz Function/Arbitrary Waveform Generator delivers many features and modes found previously found only in the Agilent 33250A and Tektronix AFG3000 Series. New DDS+ technology embraces advancements in the semiconductor industry and leveraging state-of-the-art components for both standard and complex functions.

The speed, sample rates, and memory are expanded giving you, the demanding customer, a better product representing an excellent value. Start your 30 day trial today.

Pulse Generation

The Model 645 can generate variable-edge-time pulses up to 10MHz. With variable period, pulse width and amplitude the Model 645 is perfectly suited to applications requiring a flexible pulse signal.

Custom Waveform Generation

The Model 645 can generate complex custom waveforms. With 14-bit resolution, and 125 MSa/s sampling rate, the Model 645 offers users the flexibility to create waveforms. It also allows users to store up to 5 waveforms, 4 (4 x 256K Points) in nonvolatile memory and 1 in volatile memory.

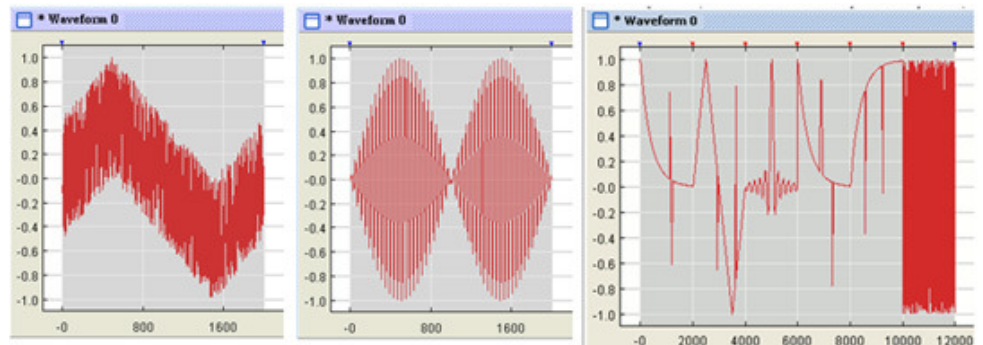
Graph mode

In graph mode, user can easily visual verify the signal settings. Also, user can always see the selected function on the upper left corner of display.



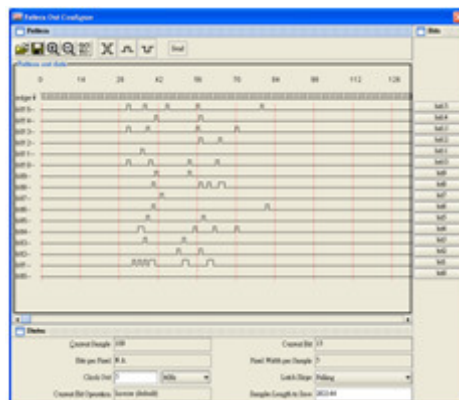
BNC Waveform Editing Software: Wave Crafter

BNC WaveCrafter allows users to create, edit and download complex waveforms into their Model 645 quickly and efficiently. Storage of complex waveforms can be done on the PC, or emailed among colleagues. In addition, users can retrieve waveforms from a number of Digital and Mixed-Signal Oscilloscope (such as the Agilent MSO 8104) using WaveCrafter in capture mode.



Data Transmission via Pattern Out

The Model 645 offers users the ability to create and store 16-bit data for later retrieval. The data can be transmitted via a "Pattern Out" from the Model 645 rear panel as a source of control signals for your experiment.



User Friendly Operation

The front-panel operation of the Model 645 is simple and user friendly. Users can enter setup parameters and access all functions with no more than two button presses. The knob and convenient numeric keypad allow fast setting of frequency, amplitude, offset and other parameters. You may enter voltage values in Vpp, Vrms, dBm or high & low levels. Timing parameters can be entered in Hertz (Hz) or seconds.



Easy-to-use Functions

Users can easily use the following functions.

- Internal modulations of AM, FM, PM (PSK), FSK & PWM for waveform adjustment.
- Built-in linear and logarithmic sweeps from 1ms to 500 s.
- The burst mode has a selectable number of cycles per period of time.
- Using remote control via USB, LAN or Opt. GPIB interface.
- The programmability by SCPI commands under the remote control connection.
- Precise phase adjustments and calibrations can be done from the front panel or via a PC.



Support External Frequency Output

The the Model 645 external frequency reference allows users synchronizing to an external 10 MHz clock, to another the Model 645, or any other unit which can support 10-MHz-frequency-input function.



Specification

Model	645
Waveforms / Built in arbitrary waveform	Sine, square, ramp triangle pulse, noise, DC / Exponential rise and fall, negative ramp, Sine (x) /x, Cardiac
Output impedance	110 Ω
Frequency	1uHz – 50MHz
Amplitude Accuracy @1KHz	±1% of setting, ± 1% mVpp
Data Formats	Floating Point, Decimal, Hexadecimal, Integer, Binary, .CSV and .PRN formats
Display	Graph mode for visual verification of signal setting
Power Source	CAT II, 110-240volts AC ± 10%, 50Hz – 60Hz