

### Highland Technology, Inc.

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[www.highlandtechnology.com/DSS/V346DS.html](http://www.highlandtechnology.com/DSS/V346DS.html)



### V346 Arbitrary Waveform Generator

The V346 provides eight independent digitally synthesized waveform outputs, each programmable for frequency, amplitude, and phase.

Channel-channel modulation, summing, synchronization, and noise generation allow complex coordinated waveform generation within one module or across multiple modules. Hundreds or thousands of channels may be exactly synchronized through local electrical or remote fiberoptic links. Any output may be switched to a front-panel test connector, allowing in-crate calibration check without removing field cables.

The signal-processing capability of the V346 is sufficiently general that a wide range of complex functions can be easily programmed from the "first principles" of signal/systems theory. This includes quadrature signal generation, DSB/SSB of arbitrary waveforms, sweeps and chirps, QAM/constellation generation, frequency hopping, FSK generation, multichannel frequency tracking, and quantitative control of noise and jitter.

One or more V346 modules may also be used to simulate complex, high-channel-count processes, such as radar and sonar arrays, complex rotating machinery and structural systems, diesel/jet engine simulation, stationary and aircraft AC power systems, thyristor/IGBT phase control, and many others.



### FEATURES

- › 8 channels of independently programmable sine, sawtooth, triangle, and square/PWM/pulse, Gaussian noise, and arbitrary waveform generation.
- › Channel-channel modulation: AM, FM, PM, PWM, and channel summing.
- › Output range 0 to 32 MHz with 0.015 Hz resolution.
- › DC coupled 50-ohm outputs to 10.24 volts peak-to-peak.
- › Channel/board sync provisions allow generation of polyphase or synchronized waveforms across unlimited channels.
- › Bandlimited Gaussian noise generation allows direct noise output, modulation, noise floor summing, and calibrated jitter.
- › PWM facility generates precision digital outputs for motion control or optical encoder simulation.
- › Clearly labeled DIPswitches set VME address; no jumpers, headers, or trim pots.
- › Includes Built-In Self-Test (BIST) and channel test connector.
- › Clean, easy-to-program architecture.