



P350 8-channel waveform playback/ARB

Features

- Eight channels of independent or synchronized 16-bit waveform generation
- Two auxiliary ADC analog inputs for summing or modulation
- File playback and repetitive arbitrary wave generation modes
- 32 Gbytes of internal waveform file storage
- Realtime programmable sample rates, amplitudes, phase, time shift
- Two bandwidth-programmable Gaussian noise generators
- Includes modulation, filtering, channel summing, noise generation
- Multi-box phase locking and waveform synchronizations
- Embedded Linux with Gbit Ethernet and USB interfaces
- Includes built-in self-test, signal monitor connectors, and LEDs



The P350 is a standalone 8-channel waveform generator intended for aerospace signal simulation. Channels can operate in Playback mode, streaming customer-furnished pre-recorded files. They can also operate in Wavetable mode, playing standard or custom repetitive waveforms. The signal processing supports several filtering options, and high-resolution time shifting and phase rotation, allowing high precision generation of both classic analog waveforms and dynamically complex pulse trains, as might be found in simulation of complex rotating machines, vibration transducers, and pulse-type torque sensors.

Channel waveforms and ADC inputs can be arbitrarily summed or modulated. Gaussian noise generators are also provided for summing or modulation. Sample frequency, amplitude, time shift, phase, and DC offsets can be changed in real time, and can be applied coherently across multiple channels.



Specifications : P350 8-channel waveform playback/ARB

FUNCTION	Analog waveform playback box
WAVE GENERATORS	8 internal waveform generators, 16 bits 32K sample FIFO / Wavetable memory per channel File Playback/FIFO mode, 2 channels up to 1M samples/sec per channel 4 channels up to 500 K samples/sec per channel 8 channels up to 350 K samples/sec per channel Wavetable mode, up to 50 MHz sample rate Programmable filtering: off, short, advanced, sinc ³
ANALOG OUTPUTS	8 DAC channels, 16 bit resolution, DC coupled ± 10.24 volts range, 50 ohm source impedance 500 KHz analog bandwidth, risetime 700 ns nom
ANALOG INPUTS	2 channels, DC coupled, 14 bits ± 10.24 volts, 2 MHz sample rate, 100 KHz bandwidth
ACCURACY	Analog outputs, ± 1% Frequency, ± 20 PPM
DIGITAL I/O	One programmable digital monitor output One multibox SYS sync connector One AUX logic i/o
WAVEFORM MEMORY	32 Gbytes, FAT32, fast class 10 SD card 4 Gbytes maximum file size
OS	embedded Linux
COMMUNICATIONS	Gigabit Ethernet, USB
COMPUTE PLATFORM	MicroZed board with Xilinx ZYNQ 7020 SoC FPGA with dual-core 600 MHz ARM processors
POWER	15 volts DC, 22 watts max, external supply included
TEMPERATURE	0 to 60°C operating range

