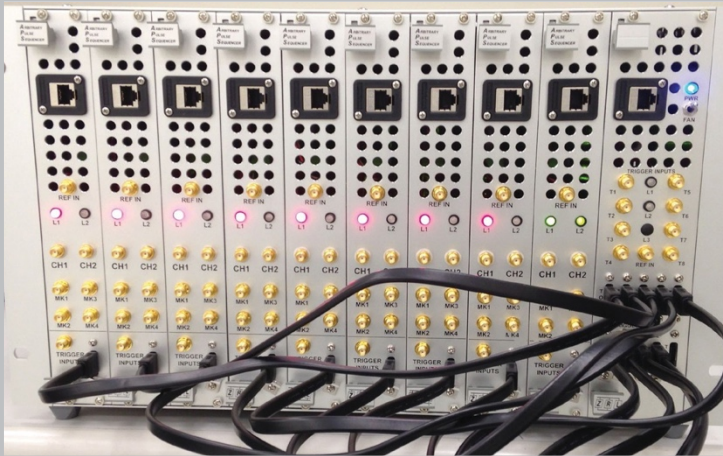




# BBN Technologies Arbitrary Pulse Sequencer

## Advanced Sequencing Capability



APS2 is the only commercially available arbitrary waveform generator with a controlled flow of sequencing instructions enabling low-latency feedback experiments.

### Features

- Up to 18 DC-coupled analog output channels driven by 14-bit, 1.2 GS/s DACs with 400 MHz small-signal bandwidth
- Two single-ended digital outputs per analog channel (up to 40) for triggering other devices
- 1 GBs of DDR3 SDRAM for waveform and sequence data storage. A low-latency cache stores 64,000 waveform samples, and sequence data is streamed from deep memory, allowing execution of sequences with more than 10 million entries
- Advanced trigger module with 8 SMA and 2 SATA inputs for distributing steering data across the system
- Ultra-low noise performance: noise power spectrum is ~40 decibels lower than competing technology
- Gigabit Ethernet interface for high-speed data upload

The BBN APS2 is a multichannel, 14-bit, 1.2 GS/s arbitrary waveform generator tailored for quantum information applications. A Trigger Distribution Module (TDM) enables real-time signal distribution for measurement-based control flow.

The APS2 solution provides an advanced sequencing capability. The sequencer allowing for specific individual operations or gates to be defined as units in a waveform library. This capability allows an algorithm or experiment to be defined by stringing together sequences of gates and delays. The result is a compact descriptor for efficient memory use.

### Arbitrary Pulse Sequencer

<b>8 channels</b>	<b>\$110,140.</b>
<b>18 channels</b>	<b>\$148,620.</b>

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