

## ABSTRACT

An automatic test system using a DDS signal generator to create a signal with high spectral purity or a low jitter digital clock. The low jitter clock has variable frequency and is programmed to control other test functions, such as the generation of arbitrary waveforms. The DDS uses a high resolution, high sampling rate DAC to generate a sine wave that is converted to a digital clock. The architecture of the DDS signal generator allows low cost CMOS circuitry to be used to generate the data stream that feeds the high sample rate DAC.