# Real Time Wideband Microwave Measurement Feedback and Control

Physics – as you scale your quantum experiment and need to quickly optimize the control waveform – An AWT provides the ability to measure process and redefine the control waveform when dealing with very short time intervals.

Communications – If you are designing amplifiers for next generation wireless communication such as WiFi-6, 5G, and UWB (Ultrawide Bandwidth) the ability to stimulate measure, process and re-stimulate in real-time means you can achieve faster and more cost-effective characterization of devices.

Automotive Sensors – With 9GHz of bandwidth the Proteus AWT allows creation of Linear Frequency Modulated Chirps in-excess of 4GHz for mmWave RADAR. For LIDAR high resolution target emulation is possible with the industry's lowest trigger jitter performance.

Electronic Warfare – The high-fidelity signal creation ability of the Proteus AWG means you can recreate the finest details of a threat signal. With the added AWT the ability to receive, process and adapt the signal based on the environment or countermeasure means that test and evaluation can be based on more realistic scenarios.

Automotive Sensing   Wideband Communications   Quantum Physics
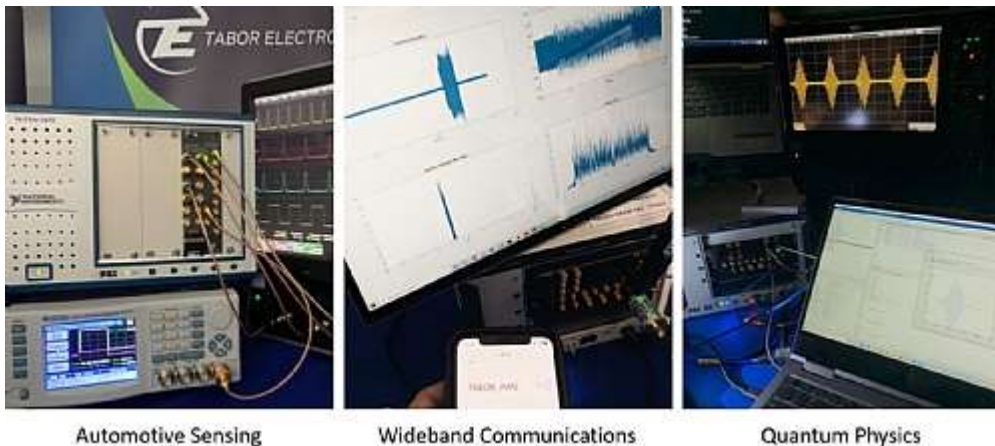
What makes an Arbitrary Waveform Generator (AWG) an Arbitrary Waveform Transceiver (AWT)? Fundamentally the Tabor Proteus AWG is a state-of-the-art complex signal generator enabled by the latest generation of RF DAC technology. When you add a direct RF Analog to Digital Converter to the system, with a user programable FPGA, multiple Nyquist Zone operation and 9GHz of analog bandwidth - you turn a performance AWG into the new standard of measurement instrumentation.
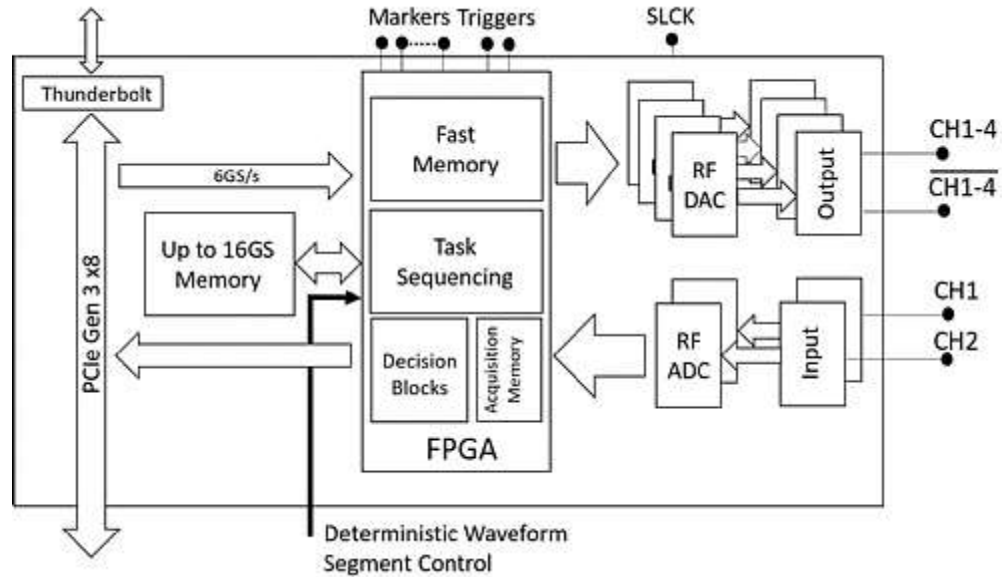
Block Diagram Overview

- At the heart of the AWT is a performance FPGA. This facilitates all the operational modes of the instrument:

- Sequencing waveforms stored in its memory.

- Controlling the powerful RF Digital to Analog Converters (DAC's) with built in IQ modulators.

- Acquiring wideband signals with RF Analog to Digital (ADC) converters.

- Performing high speed measurement processing using a decision block system.

- High speed waveform streaming from an external computer or disk system.

Learn more about the Proteus Family of AWG's and AWT's:

https://proteus.taborelec.com/
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Simulate, Stimulate, Test...

For more information or to schedule a demo contact info@tabor.co.il I www.taborelec.com