

March 1, 2010 For Immediate Release

ISO 9001:2008

Rockleigh, New Jersey – Elcom Technologies, Inc. announces their **Ultra Fast Synthesizer, UFS-18, is now available with an "Enhanced" IF Link.**

With the new optional **Enhanced IF Link** feature, the UFS direct analog synthesizer's architecture includes a special design feature allowing for a low cost, high precision means of delivering IQ modulation, as well as more general vector modulation, directly at the synthesizer output port.

For normal unmodulated operation the UFS, a 3 GHz +6 dBm **IF signal is brought out to a rear panel SMA connector and** is looped back with a short length of coaxial cable into the instrument through a second SMA connector also located on the rear panel. This unmodulated, fixed frequency 3.0 GHz IF signal is then processed within the UFS synthesizer through several stages of up-conversion and down-conversion, ultimately developing the desired synthesized low phase noise, fast switching speed output frequency.

For operation with IQ modulation or vector modulation, the coaxial cable IF link is removed and the user-supplied 3 GHz fixed frequency IQ or vector modulator is connected between the two SMA connectors on the rear panel. The capability allows +/- 100 MHz modulation bandwidth to be available on any set frequency over the 0.3 MHz to 18 GHz output range of the synthesizer. Any type of modulation applied to the +6 dBm, 3 GHz IQ will be reproduced at the RF output frequency of the UFS. Also, any phase noise degradation imparted by the external modulator is translated to the RF output of the synthesizer.

This solution for IQ modulation has major advantages over an approach where the IQ modulator must be capable of operating over the full 0.3 MHz to 18 GHz output frequency range of the synthesizer. Most IQ modulators operate over a limited frequency range thus requiring multiple modulators and switching networks to cover 0.3 MHz to 18 GHz.

With the addition of a fixed frequency 3 GHz IQ modulator network, the UFS becomes a low phase noise, fast switching speed IQ or vector signal generator.



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Elcom Technologies designs and manufactures a wide range of RF and Microwave synthesizers used in military and commercial applications. Recent additions to our product portfolio include receivers and converters used in SIGINT and SATCOM environments.

For additional information, please visit our website www.elcom-tech.com or contact Elcom Technologies Sales Department at 201-767-8030 x 286; sales@elcom-tech.com