

FEATURES:

- 6 - 18 GHz FREQUENCY RANGE
- COMPLEMENTARY MATCHED Rx & Tx MODULE
- RF PROCESSOR & DRFM DIRECT INTERFACE
- HIGH SENSITIVITY
- HIGH DYNAMIC RANGE
- FOR MILITARY TACTICAL ENVIRONMENT



GENERAL:

AKON's model **A20-MH251** is a critical part of our line of products which include matching receiver/tuners, fast stepping LO synthesizers, and transmit up converters for use in modern highly integrated EW/ECM systems. These subsystems are designed so that the customer can supply his own DRFM and receiver/signal processor subsystems, leveraging the customer's internal digital processor, software and DSP capability, and allowing the simple purchase of the required microwave components to complete the ECM system.

It has been AKON's observation that the majority of receiver/processors and DRFMs operate with RF inputs in the range of 750 MHz to 1250 MHz, 500 MHz instantaneous bandwidth. AKON has designed a line of complementary microwave subsystems to directly interface with these customer designed items.

INTEGRATED ECM CONVERTER SUBSYSTEM

The Tuner (down converter), Fast Stepping LO and Up Converter work as an integrated subsystem to accept the broadband RF inputs, down convert to a 1 GHz IF for use by the RF Processor and DRFM, and then re-convert the DRFM output back up to the original RF frequency. This is done synchronously by using the same LO source for both up and down conversion processes, and the same IF frequencies in both converters. Both converters incorporate digitally controlled attenuators to compress the input RF dynamic range down to 40 dB for use by the DRFM, and then to proportionally re-expand that range back in the up-converter. Both converters also incorporate high speed SDLAs so the customer has real time information on instantaneous Rx and Tx levels. The up-converter has sufficient output power to drive most HPAs be either solid state or TWT. See sections below

AKON Integrated ECM Converter Subsystem with Synchronous Up/Down Frequency Conversion



