

# AVS-5000

# COHERENT uW Signal Generator

## 3U VPX 10MHz - 24GHz Module

### Applications:

- EW Suite
- Extremely Fast Scanning
- Spectrum Monitoring
- RADAR
- Frequency Hopping Transmitter
- High Volume Testing

### Description:

This 3U VPX module offers phase coherent LO and complex signal generation from 10MHz to 24GHz. The core DDS synthesizer couples the latest RF DAC technology with the performance the UltraScale+ FPGA for a very high-performance platform. Avid Systems fast switching phase coherent DDS, spectral optimization, and signal modulation cores provide best in class microwave signal generation capability. These combine for best in class switching speed and spectral purity. Three DAC reference clock options are available. The system can run directly from an externally provided a direct DAC clock up to 6GHz. The other two options rely on an external 100MHz or 1GHz reference or internal 100 MHz ultra-low phase noise OCXO. The high-performance clock generation circuit produces an ultra-low phase noise 6GHz DAC clock from the reference. An onboard Fractional-N synthesizer allows the system to be clocked at virtually any frequency up to 6GHz.

### Features:

- Phase Coherent
- Tuning Range 10MHz to 24 GHz
- RF Bandwidths up to 3GHz
- Frequency Hopping Controller
- Multi-LO Synchronization
- GPIO for System Integration and Frontend control
- Spectral Optimization Algorithm for Spurious Reduction
- Sub 200ns switching speed
- Coherent Multi-Modulus DDS FPGA Core
- Wideband Modulator FPGA Core
- Sweep Generator FPGA Core
- UltraScale+ FPGA
- 12Gbps 16-bit DAC
- 4GB X64 DDR4 2666Mbps Memory
- QSPI Flash
- Open FDK and SDK/Driver Provided

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Signal Processing & Communications Systems

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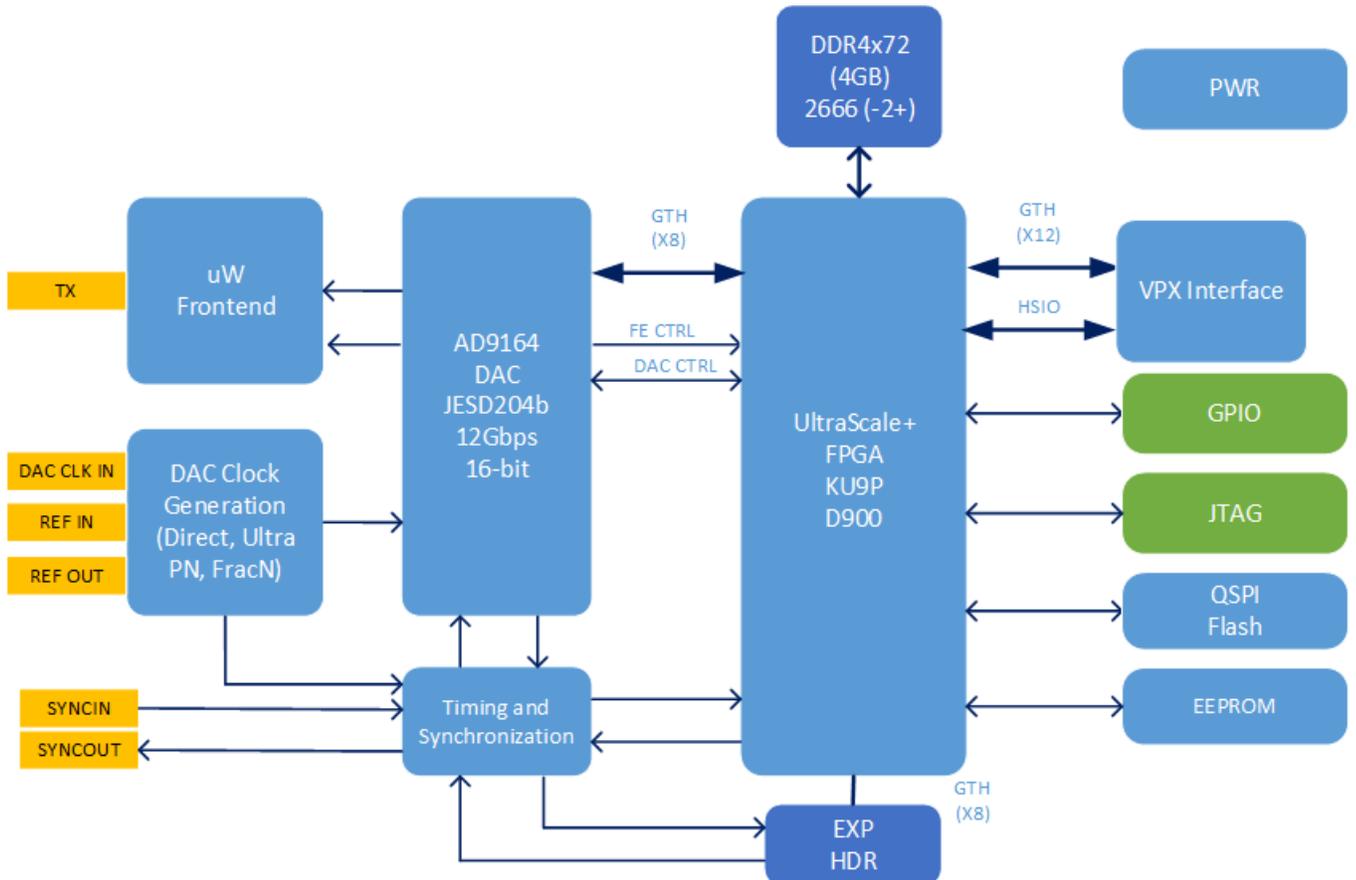
Signal Processing & Communications Systems

Power By:



## Block Diagram

3U VPX Coherent uW Generator



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