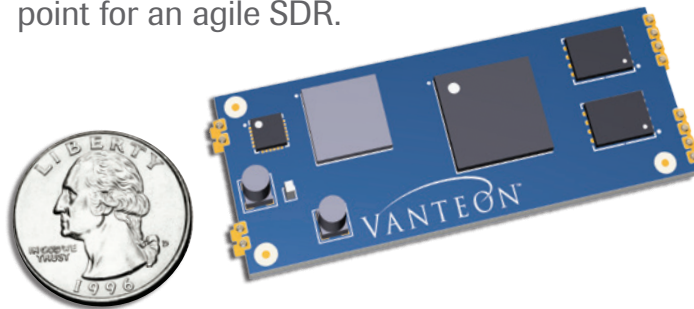




+ vCHAMELEON™

Low Cost Software-Defined Radio (SDR)

The vChameleon™ SDR can be configured for a wide variety of characteristics and behaviors required by the situation, providing a highly integrated, small but ultra-flexible radio platform. vChameleon™ is perfect for high performance RF signal processing applications, at a uniquely low cost point for an agile SDR.



Electronic Systems

The vChameleon™ design can be leveraged into a wide variety of applications such as:

- Smart meter collectors and endpoints
- SCADA, oil and gas
- Security products
- Test equipment

Performance Specifications

- Support for bandwidths up to 10 MHz
- Broad RF frequency range up to 2.36 GHz with minimal to no hardware modification
- Capable of supporting thousands of endpoint radios
- Excellent sensitivity (function of selected waveform) through <2 dB Noise Figure
- Transmit power up to 30 dBm
- Three-band receiver



Celebrating over 30 years of service, innovation, and collaboration.

Platform Features

The vChameleon™ platform offers the following key features:

- Xilinx Zynq Family FPGA for high performance signal processing
- Embedded ARM Cortex – A9 processor in the Zynq core
- Highly integrated, wide frequency range RF transceiver (AD936X)
- Performance enhancing RF Front End (RFFE) to improve on the AD936X FE
- Dual RF inputs and outputs allow for multiple antenna systems like MIMO and switched diversity operation
- Library of target-agnostic C/C++ software, VHDL firmware, and Synplify® DSP modules providing core functions for radio operations:
 - Modulation/demodulation (ASK/AM, FSK/FM, PSK/PM, QAM, OFDM)
 - Digital down/up conversion
 - Symbol timing recovery/tracking
 - Carrier recovery/tracking
 - Filters (FIR, IIR, multi-rate, adaptive)
 - Automatic gain control
 - Channel coding
 - Multichannel TX/RX capabilities
 - FEC (e.g., convolutional, Reed-Solomon)
 - Spread spectrum coding
 - Customizable MAC

Accelerate Your Design

Let Vanteon's engineering team help you get your products to market faster with a proven scalable SDR design.

Call us at 888.506.5677