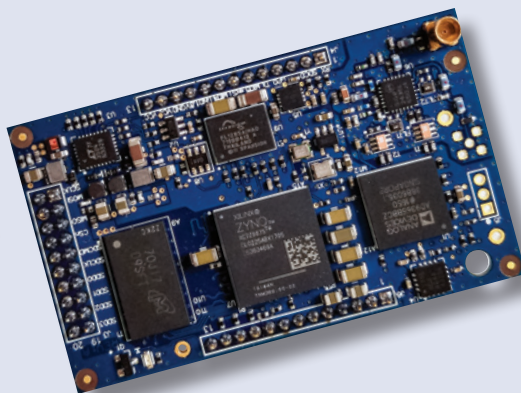




# vCHAMELEON™

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.



## PRODUCTS

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

### 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

### 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
- 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