FEATURES

- Dual channel wideband tuner
- 20 to 3000 MHz frequency coverage
- 6" x 4" x 1.1", 1.5lbs
- 75 MHz digitized bandwidth
- Dual 14-bit, 245.76 Msps ADC
- FPGA-based channelizers
- 1 Gigabit Ethernet Data Output
- 10 Gigabit Ethernet Data Output (Optional)
- 10/100 Ethernet control interface

APPLICATIONS

- SDR via GNU built-in radio module
- Radio Signal Processing (FM radio, GNSS Navigation, Cellular)
- Wireless Drive Test Platform
- Low-SWaP airborne sensor
- Wideband signal recording
- Unattended sensors
    - Ethernet control for remote RF monitoring
- Communication system testing
- Navigation Radar system testing
- Spectrum Monitoring

NDR301
Dual Channel Wideband Digital Tuner

DESCRIPTION

The NDR301 is a dual channel wideband digital tuner that covers commercial wireless bands between 20 to 3000 MHz. Each tuner channel supports an instantaneous digitized bandwidth of up to 75 MHz. The digital processor includes FPGA-based channelizer filters to reduce the data rate and lower processing overhead of external signal processing equipment. FPGA loads are available for either raw wideband I&Q data, or signal-specific channelizers such as GSM. The digital IF output is transmitted over a 1 Gigabit Ethernet interface, using a non-proprietary VITA-49 data format.

The RF front-end includes a sub-octave preselector in a traditional superheterodyne RF conversion architecture. The unit is packaged in a light-weight aluminum chassis that provides RF shielding, thermal management, and protection suitable for uninhabited airborne environments.

The unit can be powered via an external +12 VDC power supply and controlled via a 10/100 Ethernet network interface with command set similar to other NDR30x tuner products. The flexible, FPGA-based backend processing allows the NDR301 hardware platform to support a diverse set of applications such as commercial radio, GNSS Navigation and cellular intercept. The unit's low-SWaP and network interfaces enable it to be applied to a wide range of airborne platforms as well as remote, unattended ground sensor applications. SDR applications are enabled via the built-in GNU Radio module. The optional 10 Gigabit Ethernet Digital IF output makes the NDR301 an excellent front-end for wideband recording applications.

CyberRadio
SOLUTIONS