FEATURES

- 2-channel wideband digital tuner
- 20 MHz to 6 GHz frequency coverage
- 125 MHz BW
- 50 microsecond tuning speed
- 16-bit internal ADC, 368 Msps
- Full bandwidth Digital IF Output over 10 GigE
- Internal FPGA-based signal processing with variable rate DDCs
- Gigabit Ethernet command and control
- Time-tagged Digital IF output (based on 1PPS input)

APPLICATIONS

- Low SWaP Ground or Airborne Sensor
- Wideband signal recording
- Unattended Sensor

NDR362
20 MHz to 6 GHz
Wideband Digital Tuner

DESCRIPTION

The NDR362 digital tuner is a 2-channel, super-heterodyne downconverter that covers RF signals from 20 MHz to 6 GHz. Integrated high dynamic range 16-bit Analog-to-Digital converters (ADC's) are utilized to digitize an 125 MHz wide IF at 368 Msps sample rate. Command and control of the digital tuner are via a Gigabit Ethernet interface and power is derived from a DC external power supply input. Total power consumption is approximately 28 Watts. A on-board Kintex UltraScale series FPGA is used for the channelizer, several selectable decimation stages, the VITA-49 formatter, data multiplexer and the 10 Gigabit Ethernet Digital IF data interfaces.

The two 10 Gigabit Ethernet Digital IF output interfaces provide full bandwidth Digital IF data from both channels. For lower data rate requirements, the NDR362 can (as an option) be delivered with two Gigabit Ethernet data interfaces (in place of the two 10 Gigabit Ethernet Data interfaces). An ARM A8 microprocessor running embedded LINUX is used for command/control of the unit. The unit is packaged in a 5.7"W x 8.4"D x 1.2"H rugged aluminum chassis that provides RF shielding, thermal management, and protection suitable for harsh environments.

CyberRadio
SOLUTIONS