## **FEATURES**

- 8-channel wideband digital tuner
- 20 MHz to 6 GHz frequency coverage
- 80 MHz BW
- 100 microsecond tuning speed
- 16-bit internal ADC, 256 Msps
- Full bandwidth Digital IF Output over 10 GigE
- Internal FPGA-based signal processing with variable rate DDCs
- Ethernet command and control
- Time-tagged Digital IF output (based on 1PPS input)

## **NDR358** 20 MHz to 6 GHz Wideband Digital Tuner

## DESCRIPTION

The NDR358 digital tuner is a 8-channel, superheterodyne downconverter that covers RF signals from 20 MHz to 6 GHz. It is housed in a 1U, 19 inch equipment frame with 19" x 18" x 1.75" overall dimensions. Integrated high dynamic range 16-bit Analog-to-Digital converters (ADC's) are utilized to digitize an 80 MHz wide IF at 256 Msps sample rate. Command and control of the digital tuner are via an Ethernet interface and power is derived from a 115 VAC external power supply input. Total power consumption is approximately 150 Watts. An on-board Virtex 7 series FPGA is used for the channelizer, the VITA-49 formatter, data multiplexer and the 10 Gigabit Ethernet Digital IF data interface. The 10 Gigabit Ethernet Digital IF output simultaneously provides both full bandwidth Digital IF data along with multiple narrow bandwidth DDC outputs. An ARM A8 microprocessor running embedded LINUX is used for command/control of the unit. The unit is packaged in a rugged aluminum chassis that provides RF shielding, thermal management, and protection suitable for harsh environments.

