FEATURES

- 20 MHz to 18 GHz frequency coverage
- 80 MHz BW
- 100 microsecond tuning speed
- 16-bit internal ADC, 256 Msps
- Full bandwidth Digital IF Output over 10 Gigabit Ethernet
- Internal FPGA-based signal processing with variable rate DDCs
- Gigabit Ethernet command and control

APPLICATIONS

- Microwave Backhaul
- Microwave Communications
- Extension of V/UHF Applications

NDR551

20 MHz to 18 GHz Microwave Digital Tuner

DESCRIPTION

The NDR551 digital tuner is a 4-Channel, super-heterodyne downconverter that covers RF and Microwave signals from 20 MHz to 18 GHz. It is housed in a 1U, 19 inch equipment frame with 19"x18"x1.75" 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 160 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 interfaces. Four 10 Gigabit Ethernet Digital IF output interfaces simultaneously provide both full bandwidth Digital IF data and multiple narrowband DDC outputs. An internal 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.

CyberRadio SOLUTIONS