DESCRIPTION

The NDR651 is a wideband digital transceiver that includes two receiver (Rx) channels and two transmit (Tx) channels. The NDR651 provides independent frequency coverage from 2 MHz to 6000 MHz, with a 40 MHz bandwidth. Each Rx channel is digitized and can be processed using an on-board FPGA digital processor. Wideband Rx data is decimated using software selectable decimation stages and transmitted via a 10 Gigabit Ethernet interface. On-board memory can be used to load and store waveforms for Tx transmission or the 10GigE data port can be used to stream waveforms to be transmitted. A baseband I/Q DAC is used to drive an I/Q modulator for direct frequency conversion to RF that allows the ability to generate up to 8 simultaneous waveforms and transmit all when they are within the transmit BW.

APPLICATIONS

• Agile and Surgical Jamming
• Spoofing and Interrogation
• DRFM
• Record and Playback

FEATURES

• 2 Rx and 2 Tx channels
• 2 MHz to 6000 MHz frequency coverage
• Independent and Phase Coherent tuning
• 40 MHz Bandwidth per Rx/Tx channel
• 16 bit A/D and D/A converters
• 8”W x 1.2”H x 11.8”D, 5 lbs., 40 W

• FPGA-based signal processing
• Kintex 7 Series FPGA
• Geolocation Enabled
• External 1PPS input for time tagging
• Optional VRT (VITA-49) formatted Digital IF data with timestamp

The NDR651 supports independent or phase coherent tuning for both Rx and Tx. The NDR651 features an internal transmit combiner that allows both transmit signals to be combined into a single RF output signal. The unit can also combine the two internal Tx channels with an external signal onto a single RF output. Wider TX bandwidth and multi-unit phase coherent applications available for more information contact sales@cyberradiosolutions.com.