



# NDR318

## 8 Receive Channel High Performance SDR

The NDR318 is an affordable standalone 8-Channel wideband high performance SDR that converts the HF/VHF/UHF spectrum to digital IF (I/Q or Real) data over 10 Gigabit Ethernet interfaces. The NDR318 includes 8 independent tuners that cover RF signals from 2 MHz to 6 GHz with a 40 MHz instantaneous bandwidth. Each channel can tune independently or the tuners can operate phase coherently for applications such as beam forming or direction finding (the unit supports both 4-channel and 8-channel phase coherent operation). To enable Geolocation applications, the NDR318 includes an on-board GPS receiver, an external 1PPS input, precision time-tagged digital IF data (formatted based on the VITA-49 standard) and a tunable calibration signal that covers 25 MHz to 6 GHz.

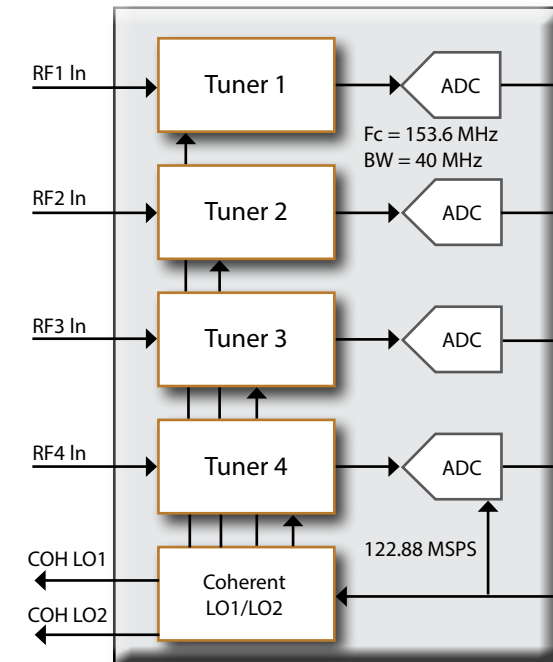
The NDR318 is packaged in an 8"W x 1.9"H x 12"D rugged aluminum chassis that provides RF shielding, thermal management, and protection suitable for harsh environments. The unit includes an FPGA-based digital processor board that receives 8 channels of wideband ADC data, performs narrowband filter and decimation, forms time-stamped digital IF data packets, and transmits streaming data over the two 10 Gigabit Ethernet output ports. The dual 10 Gigabit Ethernet output ports support full bandwidth (8 x 40 MHz) data streaming. The unit is powered via an external +12 VDC power supply and controlled via a 10/100 Ethernet interface. Multiple lower Digital IF bandwidths are also supported for applications that don't require the full 40 MHz.

### KEY HIGHLIGHTS

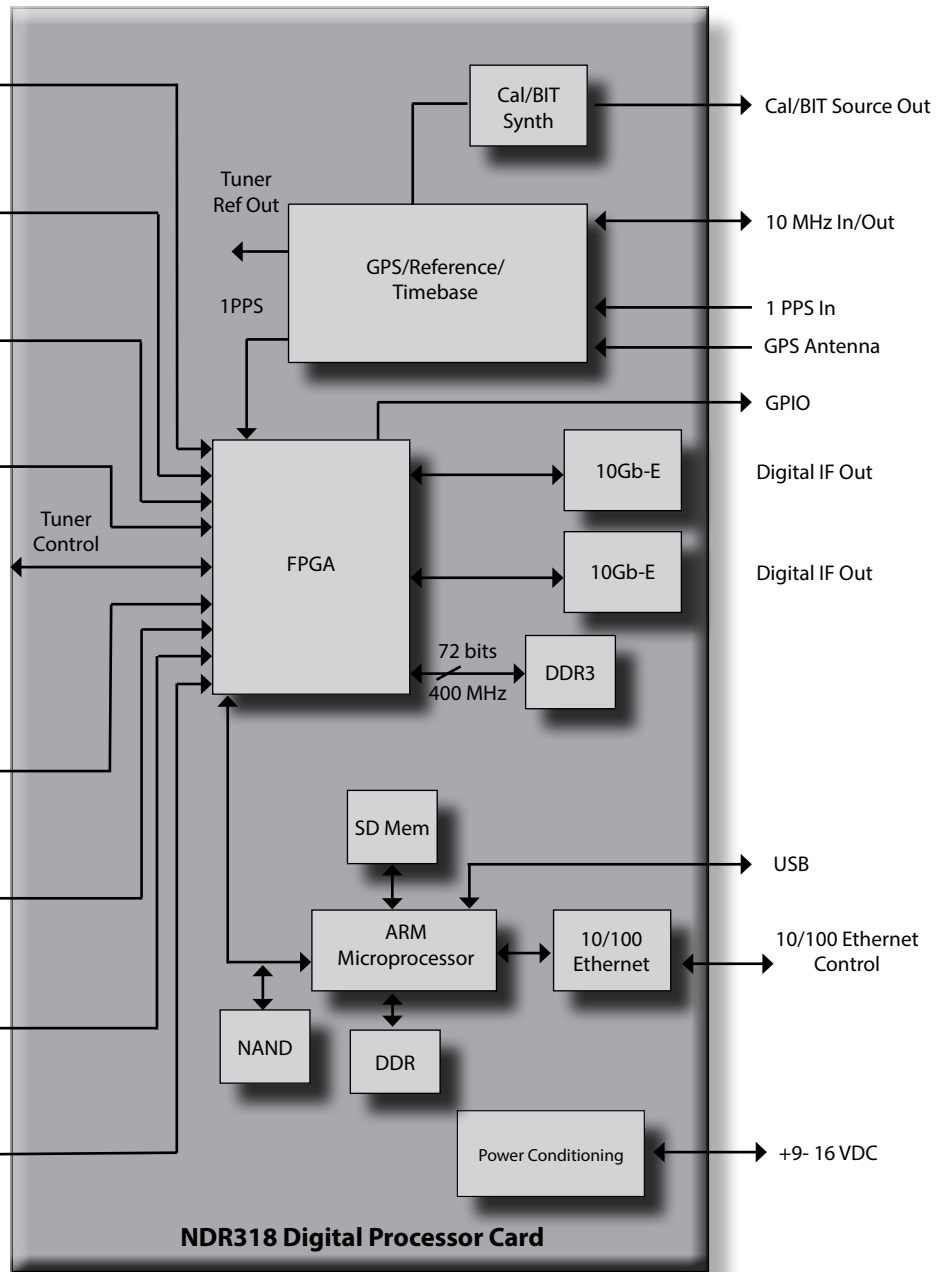
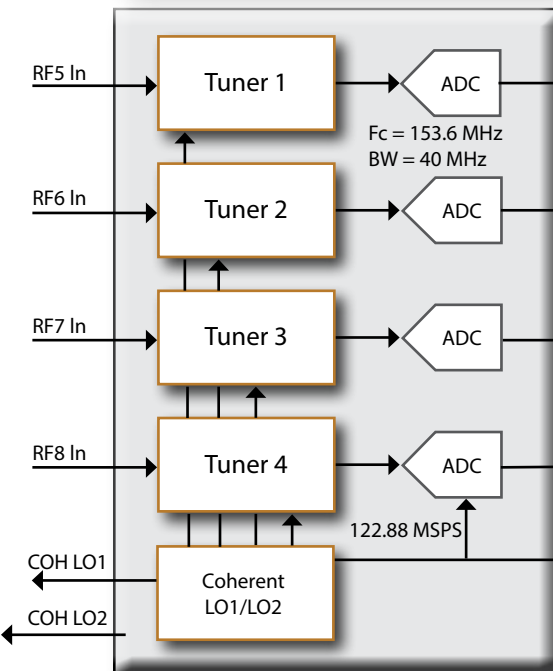
- 8 Channel High Performance RF SDR
- 2 MHz to 6 GHz Frequency Coverage
- 40 MHz Bandwidth
- Independent and Phase Coherent Tuning
- 2x 10GBE for Digital IF Data
- Integrated FPGA with Selectable DDCs
- Geolocation enabled with an Embedded GPS receiver
- 10/100 Ethernet for Command & Control
- VITA49 Formatting
- Software tools and API for easy integration
- 47W Power Consumption

# BLOCK DIAGRAM

## NDR318 Quad Tuner Card #1



## NDR318 Quad Tuner Card #2



Specifications subject to change without notice.

Epiq Solutions is a business dedicated to advancing RF technology through products designed and manufactured in the U.S.A.

Epiq Solutions exports its products strictly in accordance with all US Export Control laws and regulations which shall apply to any purchase or order.



v(1) 1.0