

NDR374

4 Channel SOSA Aligned 3U VPX SDR

4 CHANNEL SUPERHETERODYNE 3U VPX SDR

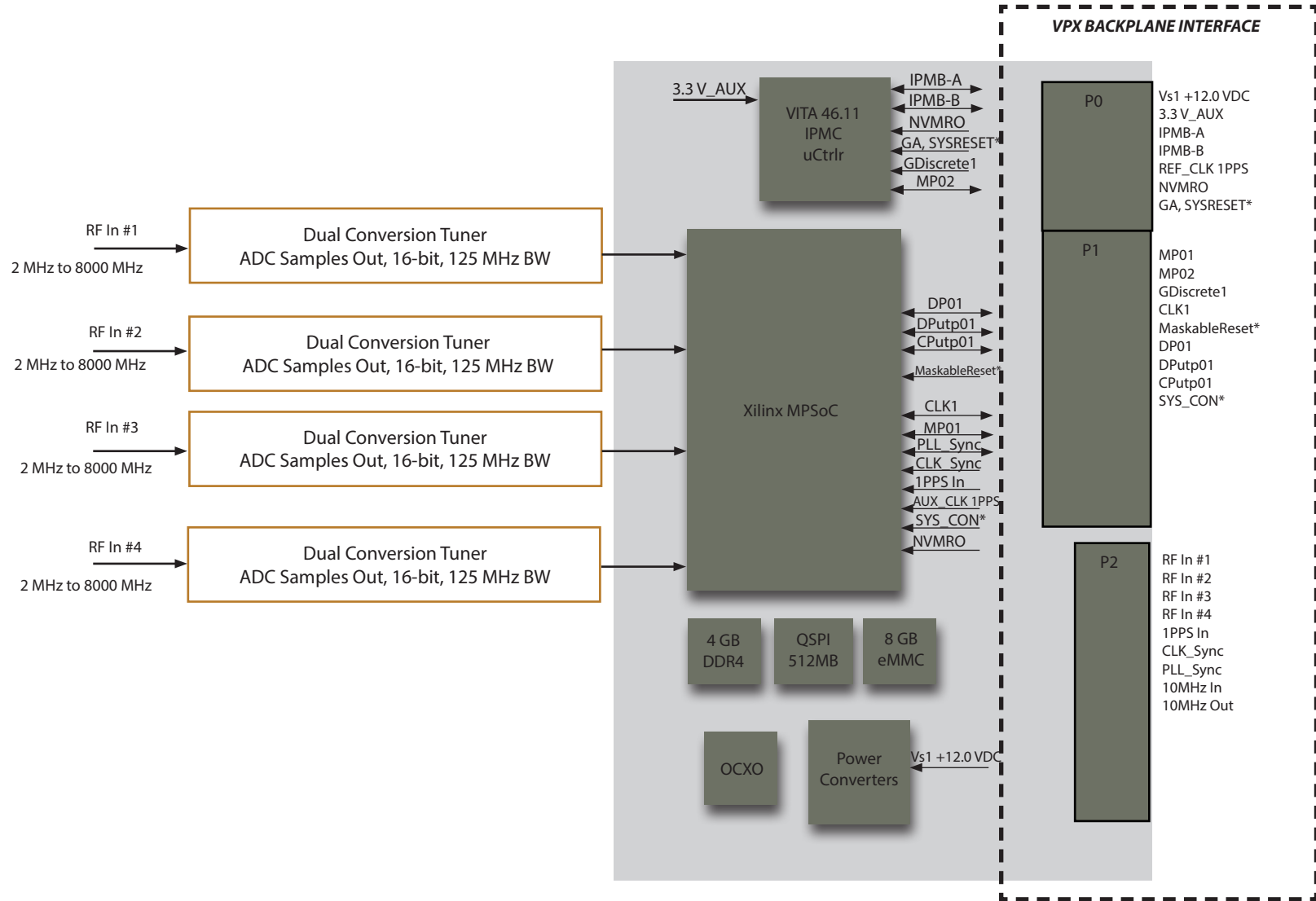
The NDR374 is a 4 channel SOSA Aligned 3U VPX SDR that covers RF signals from 2 MHz to 8 GHz. It is a rugged conduction cooled 3U VPX module, per VITA 46/48/65/67. The NDR374 is designed as a 3U open architecture version of the existing NDR358 RF SDR to include RF performance, command set and multiple DSP-based modes of operation (the NDR374 enables efficient system integration for existing NDR358 users). The VPX module supports both independent and phase coherent tuning and two units can support 8 Channel coherent operation. 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 1G/10G Ethernet interface and power is derived from the PO 12V power supply input (60W power consumption). An on-board Xilinx MPSoC UltraScale FPGA is used for the channelizer, VITA-49 formatter, data multiplexer and the Digital IF data interface. The Data Plane Digital IF output simultaneously provides both full bandwidth Digital IF data along with multiple narrow bandwidth DDC outputs.

KEY HIGHLIGHTS

- 4 Channel SOSA Aligned 3U VPX SDR
- 2 MHz to 8 GHz RF Coverage
- 125 MHz BW Per Channel
- Independent and Phase Coherent Tuning
- 16-bit internal ADC, 368 Msps
- Full bandwidth Digital IF Output over PI data plane
- Internal FPGA-based signal processing with variable rate DDCs
- 1G/10G Ethernet command and control
- Time-tagged Digital IF output (based on 1PPS input)
- Command set based on existing NDR358 command set
- Fast Scan Control Interface
- Four DSP modes of operation
- 60W Power Consumption

BLOCK DIAGRAM



Specifications subject to change without notice.

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