

6U VPX Gen-3 Zynq RFSoc Board (CT0732-FP01)

PRODUCT DESCRIPTION

CT0732-FP01 is a COTS 6U VPX Gen-3 Zynq RFSoc Board with 16 Channel ADC/DAC **ZU49DR** RFSoc FPGA Board. This board offers 16 channel ADC with 2.5GSPS sampling rate and 16 channels DAC with 10GSPS. The board compliance with open VPX VITA 67.3 standard and available with both Air-cooled and Conduction Cooled versions. This board offers Linux BSP and Driver as part of software package and Interface and Test RTL for configuring the ADC/DAC and FPGA Peripherals as part of Board RTL package. Optional Vx-Works BSP and Driver are available.

KEY FEATURES

Zynq Ultrascale+ RFSoc

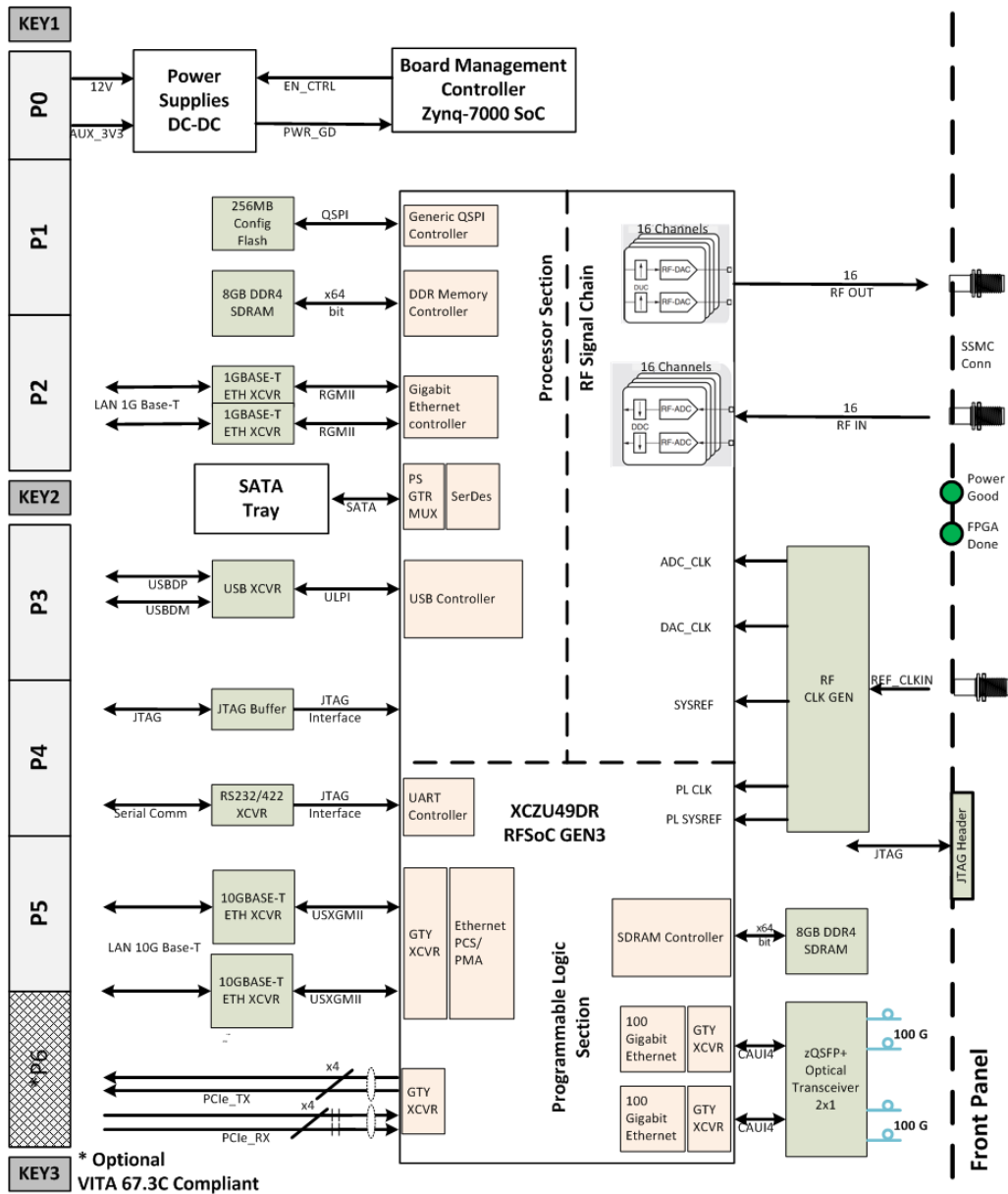
- Supported Devices: **ZU49DR** (Speed Grade - 1/2)
- Board works on a single 12V power supply
- Integrated direct RF-sampling moves RF to digital
 - 16x 2.5GSPS 14-bit RF-ADCs
 - 16x 10.0GSPS 14-bit RF-DACs
- Quad-core Arm Cortex®-A53 MPCore up to 1.33GHz
- Dual-core Arm Cortex-R5 MPCore up to 533MHz
- 256MB boot QSPI NOR Flash
- Two Nos of 8GB(64-bit) DDR4memory interfaced
- Two 10/100/1000 Ethernet terminated to Backplane
- Two **10G** BASE-T Ethernet terminated to Backplane
- 4lane PCIeGen3 is connected to Backplane
- **100G** Optical Interface
- 2TB SATA memory provision
- Two UART (RS422) ports for debug
- USB2.0 port
- Master Reset switch
- Board Management Controller
 - Based on Zynq-030 ARM Cortex-A9 CPUs
 - Real-Time Voltage, Temp Monitoring
 - Reset Mgmt, Power-Up, Down Sequence
 - Watchdogs
- Rear Transition Module (Optional) for Air-cooled Version.
- **Optional VITA 67.3C (P6)** slot for ADC input accessibility in Rear Side

Software/ IP

- DRX and WFG test SW will be a **Linux** based Test SW running on Zynq
- It will be used for control configuration, debug and health monitoring

RTL

- FPGA firmware subsystem: Generation on the Zynq Ultra scale+ RFSoc FPGA
- The RTL based DSP modules for the receiver and Waveform generator forms the Firmware Subsystem



6U VPX Board Black Diagram

MECHANICAL

- 6U VPX Air Cooled / Conduction Cooled
- Compliant to VITA 67.3 (Please contact us for other VITA compliance Options)

ENVIRONMENTAL

- Conduction Cooled : Operating temperature: -40°C to +71°C & Storage Temperature : -55°C to +85°C
- Air Cooled : Operating temperature -20°C to +60°C & Storage Temperature : -55°C to +85°C
- Compliant with MIL-STD-810G & MIL-STD-461G

PART NUMBER(S)

CT0732-FP01-01	6U VPX Gen-3 Zynq RFSoc Board - Conduction Cooled
CT0732-FP01-02	6U VPX Gen-3 Zynq RFSoc Board - Air Cooled

Note: The detailed P/N of the system will be arrived during ordering time based on the No. of ADC/DAC, RAM, Storage, FPGA Speed grade, Connector specifications and Ruggedisation Level. Contact factory for Part number Configurator. The Detailed Specification will be provided against the submission of NDA.

