

Specification

Characteristics

- ▶ 1 Xilinx Zynq Ultrascale Plus MPSoC
 - XCZU11
 - XCZU19
- ▶ 1x 72bit DDR4 memory for the PS
 - 1x 4GB
- ▶ 2x 32bit DDR4 memory for the PL
 - 2x 2GB
- ▶ 1x 18bit QDR-IV memory for the PL
 - Dual port, low latency
 - 144 Mbit
- ▶ 1 16GB eMMC memory
- ▶ 1 256MB NOR QSPI
- ▶ Dual PCIe data plane
- ▶ Front Panel QSFP
 - Air Cooled only
 - Connected to PL GTY
- ▶ Front Panel LVDS connector
 - Air Cooled Only
 - Buffered LVDS buffers

VPX Interfaces

- ▶ 1 PCIe Data Plane
 - To PL GTH
- ▶ 3 Expansion plane
 - Fat pipes
 - PCIe or other implemented using PL GTH
- ▶ 2 Additional Expansion plane
 - Thin Pipes
 - To PL GTH
- ▶ 1 10/100/1000 BASE-T Ethernet
- ▶ 2 1000 Base-X Ethernet (from PS GTR)
- ▶ PL I/O (powered at 3.3V)
- ▶ 1 PS UART (RS232)

Reference Clock

- ▶ A programmable on board AD9576 clock generator is used to feed reference clocks to GTs
 - Allows a wide range of protocols and lane rates to be supported

Environmental

- ▶ Commercial operating temperatures (N-grade): 0°C to +55°C, air cooled
- ▶ Extended operating temperatures rugged conduction cooled (RC-grade): -40°C to +85°C
- ▶ Humidity 0..80% non condensing

Firmware

- ▶ LHDL framework
 - DMA
 - Component enumerator
 - Interrupt
 - Example design
 - ...

Software

- ▶ LKSD Linux driver (PCIe and AXI)
- ▶ LUSD Linux user space library
- ▶ Buildroot based Embedded Linux toolchain



Ordering information

Variant	FPGA
LVPX-X104-ZU11	XCZU11EG-2FFVC1760E
LVPX-X104-ZU19	XCZU19EG-2FFVC1760I

Variant	Grade
LVPX-X104-ZUab-N	N-grade
LVPX-X104-ZUab-RC	RC-grade

Related products	
LVD-FDK/X104-xy	LVPX-X104 firmware development kit
LVD-SDK/X104-xy	LVPX-X104 software development kit

Please contact directly LVD Systems for any other information needed for this product

