

Product Outline

Ideal for defense, video, and comms developments

Featuring

- Xilinx® Kintex® UltraScale™ XCKU115-2FFVA1517
- Xilinx® Zynq® XC7Z010-2CLG225I

FPGA Subsystem

- Four (4) FMC interfaces (see table)
- 16.375Gbps transceivers (see table)
- Memory
 - 4 GB DDR4 SDRAM on board
 - 2 controllers, 64-bit bus-width
 - Maximum theoretical throughput: 215 Gbps
- Clocking, onboard
 - Si5338 programmable clock generator
 - Si5347 quad PLL (jitter filter and re-transmission)
 - 156.25MHz SFP+ oscillator
 - 200MHz DDR4 clock
 - SMA's, including, CLKIn, CLKout, SyncIn, SyncOut
- SFP+ interface
- UART-over-USB support
- Miscellaneous, general purpose
 - 8 DIP Switches, 4 push-button switches
 - 8 User Selectable Header Inputs
 - 8 LEDs (4 red, 4 green)
- JTAG over USB, JTAG header, Dual Quad SPI Flash

Zynq ARM®-based Subsystem

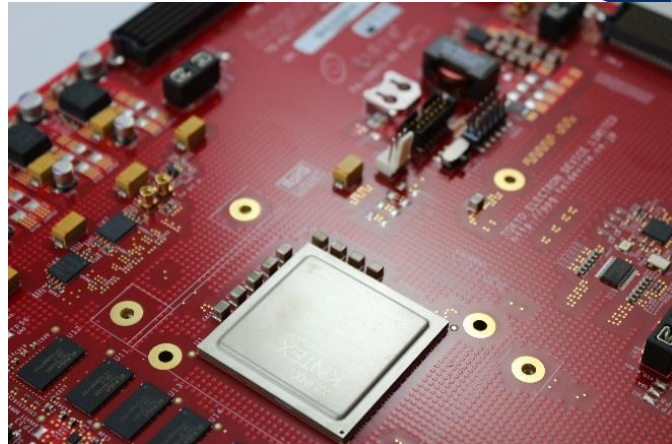
- CLI, Micro USB (UART-over-USB)
- JTAG, DAP 14-pin header
- uSD interface
- 8 general purpose LEDs (3 red, 5 green)
- 4 general purpose DIP switches

Power

- External 12VDC power supply (included)

Board Dimensions

- 280mm x 200mm (approx. 11" x 8")



Features

- Kintex UltraScale XCKU115-2FFVA1517
- Four (4) FMC Interfaces
- 4 GB DDR4 SDRAM
- Flexible clocking architecture, featuring
 - Multiple clocks
 - Programmable clock generator, Quad PLL
- Onboard Zynq for system management and processing
- SFP+ interface
- General purpose LEDs and switches
- Proven operation with inrevium HDMI4K, 12G-SDI, DP1.2, V-by-One®, MIPI, and Zynq FMCs
- Compatible with FMC Specification (VITA 57.1)

FMC Slot Capabilities

	IO ASSIGNMENTS			
	GTH	LA	HA	VADJ (V)
FMC0	DP[9:0]_M2C DP[9:0]_C2M	LA[33:0]	HA[4:0]	1.8,2.5,3.3
FMC1	DP[9:0]_M2C ¹ DP[9:0]_C2M ³	LA[33:0]	N/A	1.5, 1.8 (common VADJ)
FMC2	DP[9:0]_M2C DP[9:0]_C2M	LA[18:0] LA[23:19] ²	N/A	
FMC3	DP[9:0]_M2C DP[9:0]_C2M	LA[33:0]	N/A	

¹ Verify your target FMC with us prior to ordering

² Single ended support only

³ Due to the SLR split, 10 GTHs are available but only 8 can be grouped

Available References

Included IP

- DDR4 Memory Controller
- Chip2Chip Interface Block

Design Package (available under license)

• Schematics, PCB Layout, Artwork, Bill of Materials

FPGA Reference Designs

- Downloadable .bit file examples
- Licensable source (some blocks netlist encrypted)

Sales - Ordering Enquiries

For additional information, questions or request for quotation visit: www.fidus.com

Customize your TB-KU-115-QUATTRO

Speak with our Design Services Group on how to accelerate your custom design: design@fidus.com

About Fidus

Fidus Systems, founded in 2001, specializes in leading-edge electronic product development with offices in Ottawa and Waterloo Ontario, and San Jose, California. Our hardware, software, FPGA and signal integrity teams architect, design and deliver next-generation products for clients in emerging technology markets. We build long-term relationships by consistently exceeding expectations.

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Figure 1: Block Diagram

