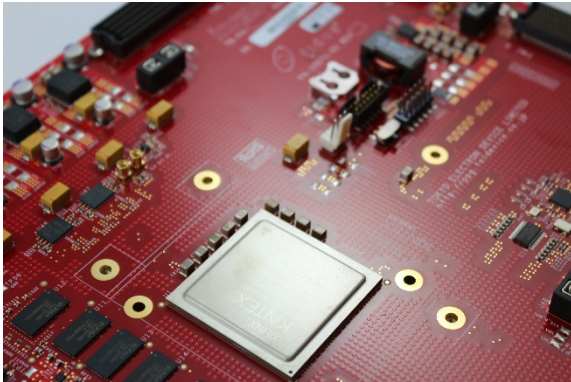


# Kintex® UltraScale® “Quattro” Development Platform

August, 2016 PN: TB-KU-115-QUATTRO

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Ideal for defense, video, and comms developments



## 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 HDM14K, 12G-SDI, DP1.2, V-by-One®, MIPI, and Zynq FMCs
- Compatible with FMC Specification (VITA 57.1)<sup>1</sup>

## FMC Slot Capabilities

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

<sup>1</sup> Verify your target FMC with us prior to ordering

<sup>2</sup> Single ended support only

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

## Product Outline

### 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 filtering 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")

## Available References

### Included IP

- DDR4 Memory Controller
- Chip2Chip Interface Block

### Design Package *(available under license)*

- Schematics, PCB Layout, Artwork, Bill of Materials

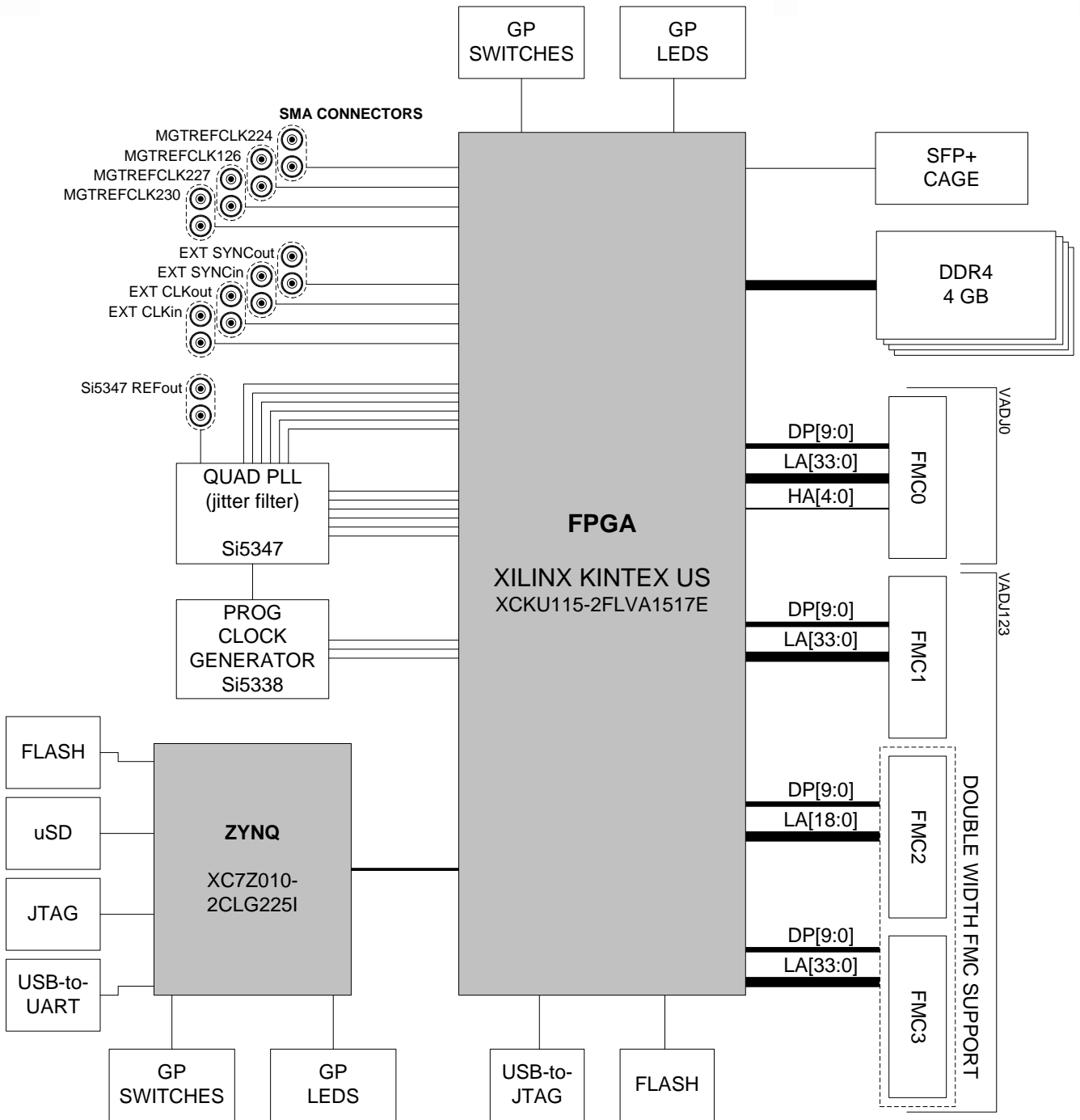
### FPGA Reference Designs

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

For inquiries/orders: [products@us.inrevium.com](mailto:products@us.inrevium.com) or contact your local distributor

Distributor:  
Contact:  
Phone:  
Email:

### Figure 1: Block Diagram



For Inquiries or Orders: Email – [products@us.inrevium.com](mailto:products@us.inrevium.com)

Part Numbers : TB-KU-115-QUATTRO

