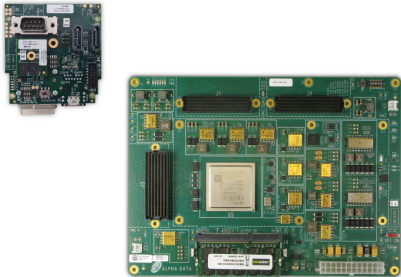


AD01448-1



Prime Application

Lab. based prototyping of XQRKU060 space applications

Board Features

- ADM-SDEV-BASE - FPGA Board
- ADM-SDEV-CFG2 - XRTC Config FMC
- Space-Grade Power and Temperature Sensing solutions from Texas Instruments
- FMC+ HPC Interface
- FMC LPC Interface
- XRTC Compatible Config FMC Interface
- SODIMM Memory Socket (8GB Fitted)

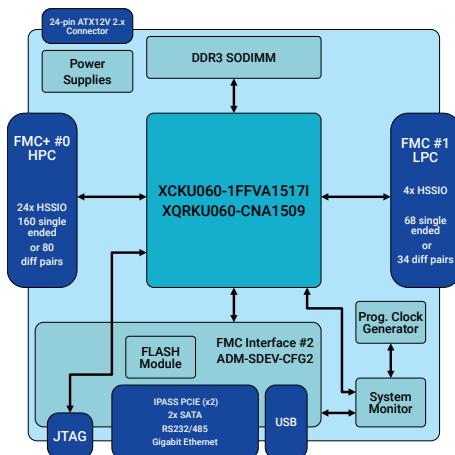
Summary

The ADA-SDEV-KIT3 is a Development Kit for the Xilinx Radiation Tolerant Kintex UltraScale XQRKU060 Space-Grade FPGA.

Modular design with Industrial XCKU060 in -1 speed grade, One user HPC FMC+ and one user LPC FMC site for user use of 3rd party FMC cards, XRTC compatible Configuration FMC Module, DDR3 DRAM in a SODIMM, System Monitoring and reference Space-Grade Power and Temperature Sensing solutions from Texas Instruments, using electro mechanically compatible parts. See <http://www.ti.com/tool/ALPHA-XILINX-KU060-SPACE> for further details.

The ADA-SDEV-KIT3 is a minor enhancement to the previous version, allowing improved FMC compatibility between 3rd party FMC cards on the user slots and introducing the next generation Configuration FMC module for the XRTC Config-FMC site: the ADM-SDEV-CFG2.

This enhanced configuration module, allows easier access for third party microcontroller boards to access the SelectMap for scrubbing solution implementation, with a 60 way SAMTEC QSH connector holding the QSPI devices on a daughter module, allowing them to be easily replaced by a cable. A Gigabit Ethernet PHY with RJ45 connector and RS232/485 serial connections allow far better support for microblaze based applications.



Target Devices

Xilinx Kintex UltraScale
XCKU060-1-I, XQRKU060-(CA1509)
(1FFVA1517)

LUTs = 221k FFs = 663k DSPs = 2760
BRAM = 38.0Mb(38.0Mb)

Application Data Memory

1x 1G x 72 (8GiB) DDR3-1600

Configuration Memory

QSPI 2x256MB Flash Memory

Configuration Modes

configured by XRTC compatible Configuration FMC or through JTAG socket on the Configuration FMC

Deliverables

ADA-SDEV-KIT3
One Year Warranty
One Year Technical Support

Input/Output Interfaces

FMC+ HPC Interface

High-speed Serial IO
Single Ended/Differential Pair I/O

FMC LPC Interface

High-speed Serial IO
Single Ended/Differential Pair I/O

XRTC Compatible Configuration FMC Interface

PCI Express x1 Interface
USB Interface
SATA Interfaces
QSPI Flash Interface

Deliverables

ADM-SDEV-BASE - XCKU060-1I FPGA board
 ADM-SDEV-CFG2 - XRTC Compatible FMC configuration board
 ADM-SDEV-BASE User Manual
 ADM-SDEV-CFG2 User Manual
 ADA-SDEV-KIT Programming Guide
 ADM-SDEV-BASE Schematics (PDF)
 ADM-SDEV-CFG2 Schematics (PDF)
 ADM-SDEV-BASE Bill of Materials (EXCEL format)
 ADM-SDEV-BASE PCB Layout files (Cadence Allegro format)
 AVR2UTIL.EXE - remote access FPGA board status monitoring utility
 Xilinx Constraints Files
 Example DDR3 Memory SDK project
 Example GPIO, IBERT and Clock Test projects

Board Format

Development Platform
 WxHxD = 165mm x 65mm x 225mm
 Weight = Including Heatsink/Fan ~ 900g

Environmental Specification

Cooling Option	Operating Temperatures		Storage Temperatures	
	Min	Max	Min	Max
AC0	0°C	+55°C	-40°C	+85°C

Operating Humidity : Up to 95% (non-condensing)

EMC Standards

FCC 47CFR Part 2
 EN55022:2010 Equipment ClassB

Ordering Information

Order Code: ADA-SDEV-KIT3/C

Note

Note This is the Rev3 assembly (rev 2 base PCB, ADM-SDEV-CFG2 Config-FMC), contact sales for other configuration options.
For rev2 (ADA-SDEV-KIT2/C) and rev1 (ADA-SDEV-KIT) pricing and availability contact sales.