Arria 10 GX FPGA Development Kit

Introduction

Altera's Arria® 10 GX FPGA Development Kit delivers a complete design environment that includes all hardware and software you need to start taking advantage of the performance and capabilities available in Arria 10 GX FPGAs for your design needs.

Figure 1. Arria 10 GX FPGA Development Kit

You can use this development kit to:

- Develop and test PCI Express® (PCIe®) 3.0 designs using the PCI-SIG®-compliant development board.
- Develop and test memory subsystems consisting of DDR4, DDR3, QDR IV, and RLDRAM III memories.
- Develop modular and scalable designs by using the FPGA mezzanine card (FMC) connectors to interface to a FMC mezzanine card provided by Altera partners and supporting protocols, such as JESD204B, Hybrid Memory Cube, Bandwidth Engine 2, Serial RapidIO®, 10 Gbps Ethernet (10GbE), SONET, Common Public Radio Interface (CPRI),OBSAI, and many others.

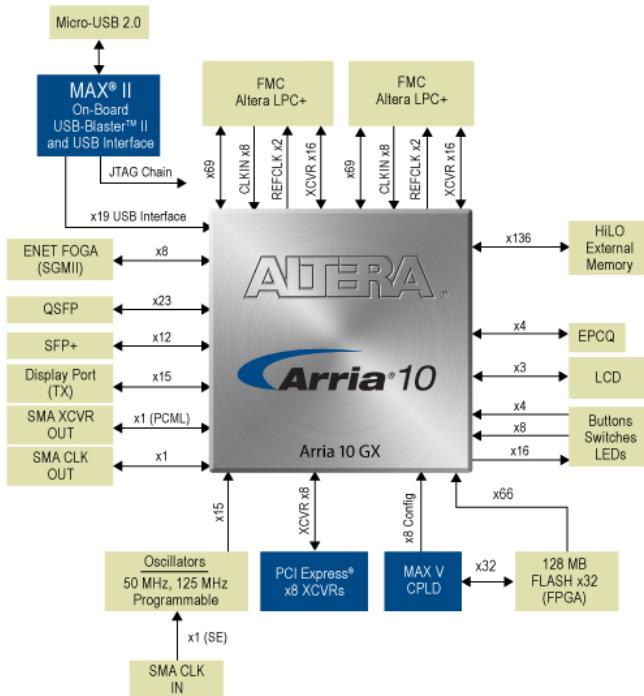Figure 2. Arria 10 GX FPGA Development Kit Block Diagram

Table 1. Ordering Information

Ordering Code	Ordering Information
DK-DEV-10AX115S-A	This development kit features a 10AX115S2F45I1SG device and a one-year license for the Quartus II design software.

Notes:

1. Please contact Altera for shipping availability.

Table 2. Development Kit Contents

Hardware

- Arria 10 GX FPGA development board running on Arria 10 GX 10AX115S2F45I1SG[2] FPGA
- DDR4 SDRAM, DDR3 SDRAM, and RLDRAM3 daughtercards
- Two FMC loopback cards supporting transceiver, LVDS and single-ended I/Os
- One quad small-form-factor pluggable (QSFP) and one SFP+ port
- Two FMC low-pin count (LPC + 15 transceivers) connector
- PCIe x8 edge connector
- Serial digital interface (SDI) channel
- Character LCD
- AC adapter power cables
- Ethernet and USB cables

Software[1]

- Design examples
- Board Update Portal design
- Board Test System (BTS) design
- Documentation
- Arria 10 GX FPGA Development Kit User Guide
- Board design files
- Design software[3]
- Quartus II software (required)
- Nios® II processor (optional)
- MegaCore® intellectual property (IP) library (optional)
- Mentor Graphics® ModelSim®-Altera software (optional)

Notes:

1. Download and install Arria 10 GX FPGA Development Kit installer first.

2. A one-year license for Quartus® II development software ships with the development kit.

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