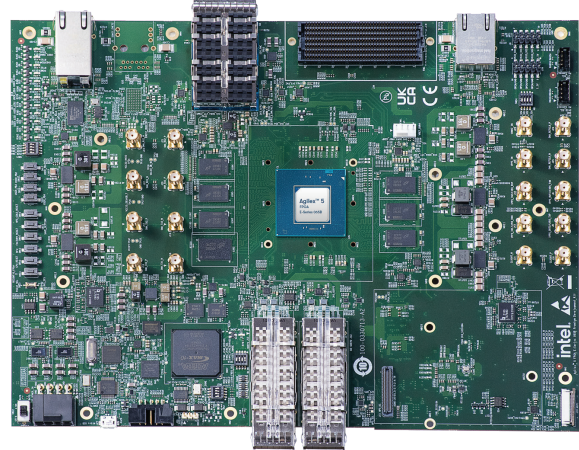# Product Brief

altera
An Intel Company

Agilex™ 5 FPGA E-Series 065B Premium Development Kit

Description

The Agilex™ 5 FPGA E-Series 065B Premium Development Kit is one of Altera's latest additions to their development kit portfolio. The development kit delivers the perfect balance of power-efficiency and performance required for a variety of markets – from embedded and edge to communications, and many more. It is powered by the Agilex 5 FPGA and SoC. The development kit comes in a tabletop form factor packed with a robust set of features and connectors interfacing with extensive transceivers, DDR4 memory, PCI Express 4.0 x4 connectivity through our FMC+ connector, Nios® Flash memory and 2Gb QSPI Flash memory. It includes a Hard Processor System (HPS) expansion board. All these features are made available to ensure you have everything you need to get started with your designs.

Figure 1. Premium Development Kit

Features

FPGA: A5ED065BB32AE6SR0

• Quad Hard Processor System (HPS), 17Gbps Transceivers, 656K Logic Elements, B32A (32mm x 32mm) package, 6x10 Gb Ethernet, PCI Express 4.0

Interfaces

• FMC+ Connector supporting (8 TX/RX)

• 2 channels to QSFP and SFP+, TX/RX SMAs, SGMII (RJ45 Ethernet)

Memory Interfaces

• LPDDR4[1], DDR4, HPS DDR4 up to 2667 Mbps (component soldered)

PCIe 4.0 x 4 support through FMC+ connector
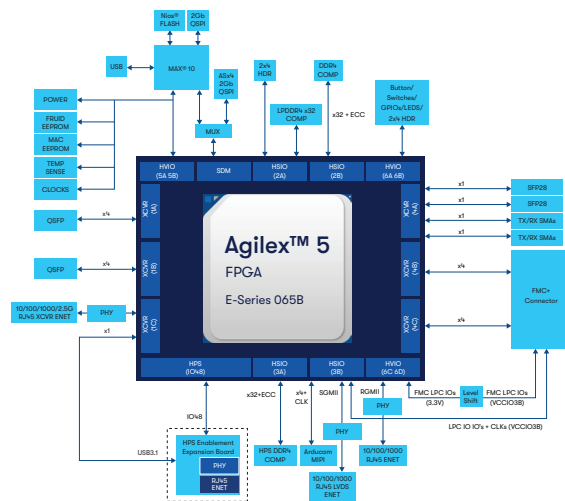
Nios Flash Memory and 2Gb QSPI Flash Memory

HPS Enablement Expansion Board

• Micro SD Card, RJ45, USB Type- C (USB2/3.2Gen1)

Software

• A one-year license for the Quartus® Prime Pro Edition design software is included with the purchase of the kit. Refer to Altera® FPGA Software Installation and Licensing for more information.

Tabletop Form Factor

Figure 2. Block Diagram

Customers can use this board for prototyping, then move to their own production board or leverage a production-qualified board from our vast ecosystem of development kit partners.

For More Information

• Contact an Altera sales representative for inquiries.

• Orderable Part Number: DK- A5E065BB32AES1

• For more information about Altera® FPGA design example, contact Altera.

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[1] LPDDR4 - board support 4, device supports 5.