

Product Selector

Compare Development Boards

Development Boards

All Development Kits

All Daughter Cards

Boards By Device

Stratix

Arria

Cyclone

MAX

Boards By Technology

ASIC Prototyping

DSP

Embedded Processors

Transceivers

General Purpose

Board Partners

List of Board Partners

Programming Hardware

Download Cables

Programming Adapters

DSP Development Kit, Stratix V Edition

Home > Design Tools & Services > Development Kits/Cables > DSP Development Kit, Stratix V Edition

from **Altera**

- [Ordering Information](#)
- [Development Kit Contents](#)
- [Available Documentation](#)
- [Related Links](#)

The DSP Development Kit, Stratix® V Edition provides a complete design environment that includes all the hardware and software you need to begin developing **DSP-intensive** FPGA designs immediately. The development kit is RoHS compliant. You can use this development kit to do the following:

- Develop and test PCI Express® (PCIe®) designs at data rates up to Gen3([1](#)) using the PCIe short card form factor-compliant development board
- Develop and test memory subsystems for DDR3 or QDR II memories
- Use the high-speed mezzanine card (HSMC) connectors to interface to one of over 35 different HSMCs provided by Altera partners([2](#)), supporting protocols such as Serial RapidIO®, 10-Gbps Ethernet, SONET, CPRI, OBSAI, and others

Ordering Information

Table 1. DSP Development Kit, Stratix V Edition ([1](#))

Ordering Code	Price	Ordering Information
DK-DEV-5SGSMD5N		The DSP Development Kit, Stratix V Edition features a 5SGSMD5N device and a 1-year license for the Quartus® II design software.
		Contact your local Altera distributor to place your order.

Note:

1. You can purchase optional HSMC connector interface-compatible [daughter cards](#), adapters, or cables to use with your development kit.

[Go to Top](#)

Development Kit Contents

The DSP Development Kit, Stratix V Edition features the following:

- Stratix V GS FPGA development board (see Figure 1)
 - Featured device:
 - Stratix V GS FPGA: 5SGSMD5K2F40C2N
 - Configuration, status, and setup elements
 - JTAG
 - On-board USB-Blaster™ II cable
 - Fast passive parallel (FPP) configuration via MAX® V device and flash memory
 - One reset config push button
 - One CPU reset push button
 - Two configuration push buttons
 - Clocks
 - 50-MHz and 125-MHz programmable oscillators
 - SMA input (LVPECL)
 - General user input and output
 - 10/100/1000Mbps Ethernet PHY (SGMII) with RJ-45 (copper) connector
 - 16x2 character LCD
 - One 8-position dual in-line package (DIP) switch
 - Sixteen user LEDs
 - Three user push buttons
 - Memory devices
 - DDR3 SDRAM (1,152 MB, x72-bit wide)
 - QDR II+ SRAM (4.5 MB, 2-Mb x18-bit wide)
 - Footprint compatible to QDR II 4-Mb x18-bit wide
 - RLDRAM II (72-Mbyte CIO RLDram II with an 18-bit data bus)
 - Component and interfaces
 - PCIe x8 edge connector
 - Two HSMC connectors
 - SMB for serial digital interface (SDI) input and output
 - QSFP optical cage
 - 10/100/1000Mbps Ethernet PHY (SGMII) with RJ-45 (copper) connector
 - Power
 - Laptop DC input
 - PCIe edge connector
 - Nios® II processor web server and remote system update
 - Loopback and debug HSMC cards
 - Power adapter and cables
 - Stratix V GS FPGA Development Kit software content
 - Complete documentation
 - User guide
 - Reference manual
 - Board schematics and layout design files
 - GUI-based Board Test System
 - Includes complete Quartus II projects with open source RTL
 - Board Update Portal
 - Includes complete Quartus II projects with open source RTL
 - Quartus II design software, Development Kit Edition (DKE)
 - License to use full version of Quartus II software for one year

[Go to Top](#)

Figure 1. Stratix V GS FPGA Development Board

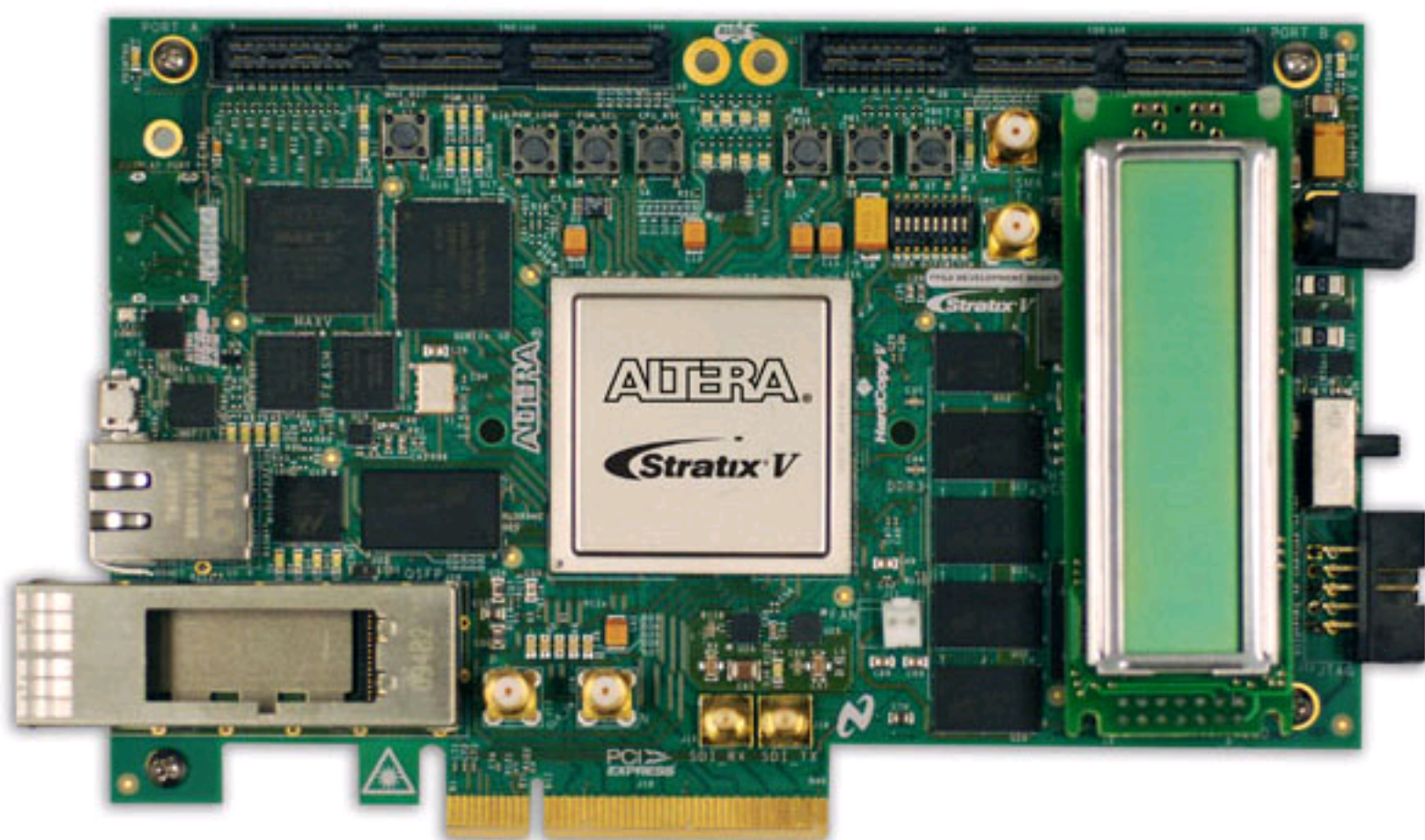
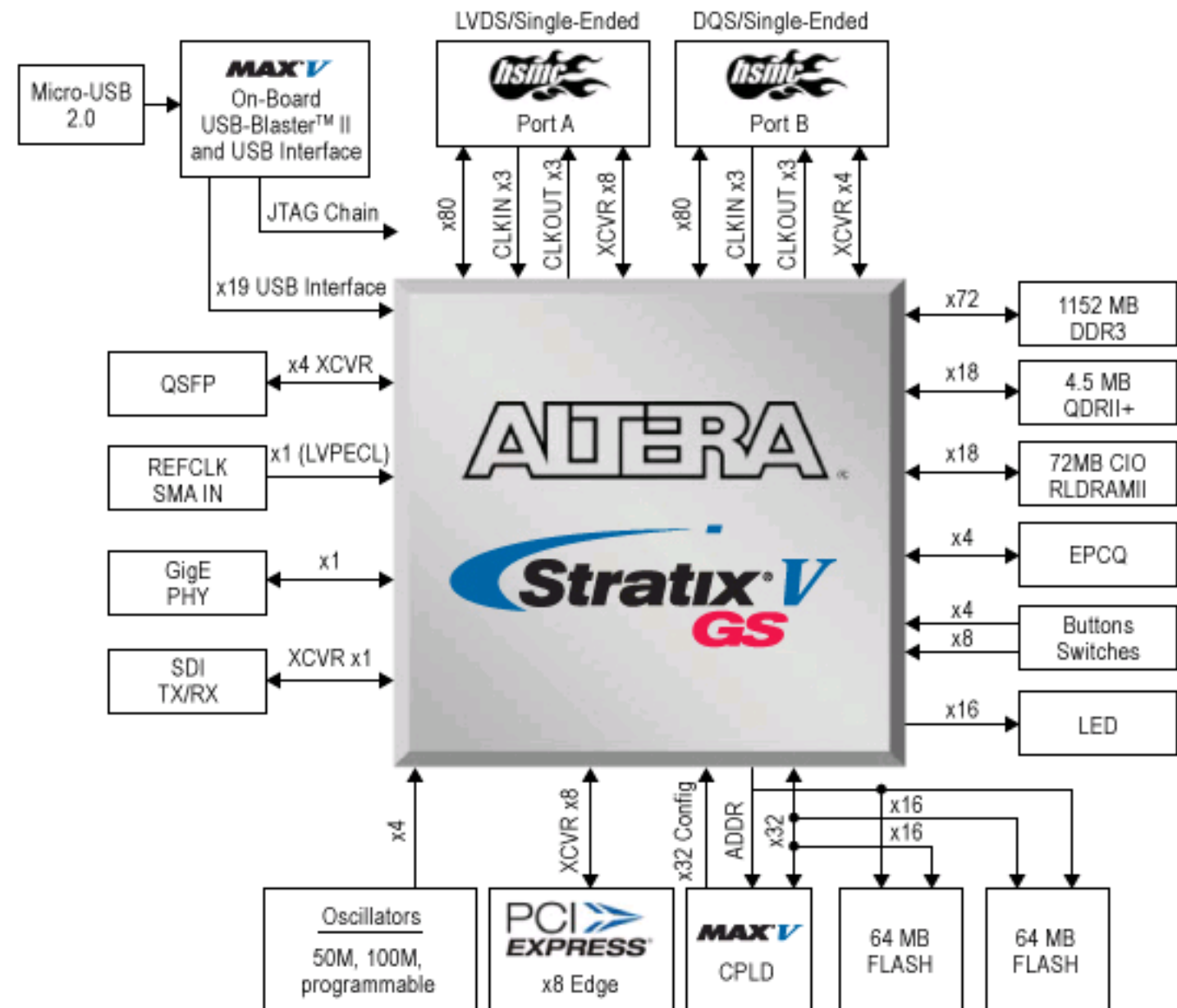


Figure 2. DSP Development Kit, Stratix V Edition Board Block Diagram



Available Documentation

Kit Name (Ordering Code)	Document	Description	Version
DSP Development Kit, Stratix V Edition (DK-DEV-5SGSMD5N)	DSP Development Kit, Stratix V Edition FPGA Development Board Reference Manual (PDF)	Detailed information about board components and interfaces.	12.0
	DSP Development Kit, Stratix V Edition User Guide (PDF)	Information about setting up the Stratix V GS FPGA development board and using the included software.	12.0
	Kit installation	Full installation of all files including: reference manual, user guide, quick-start guide, BOM, layout, PCB, schematics, Board Update Portal example file, Board Test System example file, and others	12.0

[Go to Top](#)

Related Links

- [Documentation for Stratix V Devices](#)
- [Errata Sheet and Guidelines for Stratix V Devices \(PDF\)](#)
- [Altera and partner daughter cards](#)
- [Other Stratix V FPGA-based development kits](#)
- [Junqo PCI Express WinDriver \(30-day evaluation\)](#)

☒ Rate This Page

Please give us feedback