



FPGA Prototyping Board

Standard Height Xilinx® Kintex®-7 Board featuring
HPC FMC and DDR3 SODIMM connector

XpressK7



- ▶ Designed for ease of use
- ▶ Optimized for both prototyping and field deployment
- ▶ Great flexibility in term of features
- ▶ PCIe powered, requires no external power source (can be used in stand alone mode with external 12V supply)
- ▶ PCI 2.0 x4 supports x2, x1 lanes and is backward compatible to PCIe 1.1
- ▶ PCI 3.0 x4 support with PLDA soft IP
- ▶ ISO9001 Production Facility



BENEFITS

- ▶ Standard profile Xilinx Kintex-7 based board
- ▶ Features partial HPC FMC and DDR3 SODIMM connector
- ▶ Optimized for prototyping, development and integration
- ▶ PCIe powered, requires no external power source

FULL SPECIFICATIONS

Form Factor:

- ▶ Standard profile card

Power:

- ▶ PCI Express powered (12V); no external power source required in PCIe configuration.
- ▶ Can be used in stand alone mode (Jack 12V)

Host Interface:

- ▶ PCIe 2.0 x4 supports x2, x1 lanes and backward compatible to PCIe 1.1
- ▶ PCIe 3.0 x4 supported with PLDA Soft IP with XC7K160-2FPG676 device (or 325/410)

Clock Sources (MHz):

- ▶ 50 MHz / 100 MHz / 200 MHz

HPC FMC Interface (partial)

- ▶ 4 Transceivers (Rx/Tx) from the FPGA
- ▶ 1 Transceiver clock input
- ▶ 80 LVDS pairs (available as 160 LVCMOS 18/25/33 single ended signals, by default 2,5)
- ▶ 4 LVDS clock signals
- ▶ JTAG configuration signals
- ▶ +12V/ +3.3V / Vadj (1.8V/2.5V/3.3V) power

FPGA processing:

- ▶ Based on Xilinx Kintex-7
 - XC7K160T-2FBG676C, XC7K325T-2FBG676C, XC7K410T-2FBG676C

FPGA Configuration:

- ▶ BPI Synchronous

On-board memory:

- ▶ 1Gb FlashPROM for configuration (Fast BPI)
- ▶ Up to 4GB SODIMM modules (Optionnal)
- ▶ DDR3 Clock rate: 533MHz

General purpose I/Os:

- ▶ 4 on board CMS LEDs
- ▶ 2 tricolor dual LEDs (on bracket)
- ▶ 4 user switches
- ▶ 1 reset push button
- ▶ 1 CPLD (protocore)

Quality and Compliance:

- ▶ REACH/ROHS
- ▶ ISO9001 Production Facility
- ▶ CE

DELIVERABLES

- ▶ Standard height XpressK7 PCIe Board
- ▶ Permanent QuickPCIe Lite IP license
- ▶ IPI reference design
- ▶ Optional:
 - FMC daughter card

ORDERING

Part number

- ▶ XpressK7-160
- ▶ XpressK7-325

Description

- ▶ Xilinx Kintex-7, XC7K160T-2FBG676C
- ▶ Xilinx Kintex-7, XC7K325T-2FBG676C

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