PFP-KX7+

Versatile Kintex-7 FPGA platform

TECHWAY
SIGNAL VISION SYSTEM

Easy-access to FPGA technology

APPLICATIONS

- RADAR
- Co-processing
- Prototyping
- Medical imaging
- Data-recording
- High-speed data-switching

BENEFITS

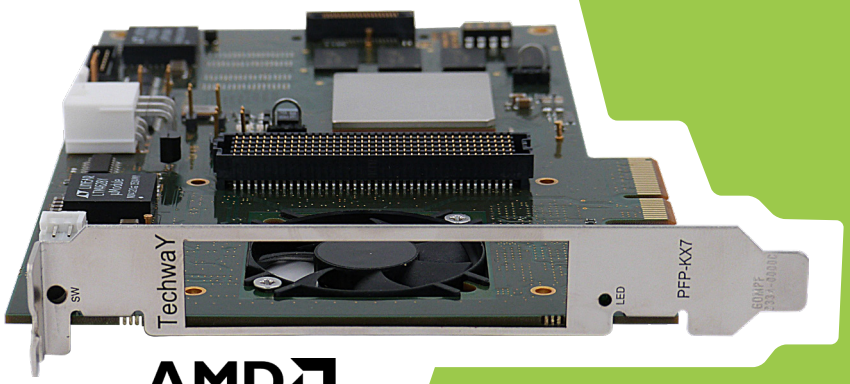
- PCIe Gen2 compliant
- Based on AXI4 interface
- Stand-alone use
- Cost-effective
- Modularity : FMC+ site, User I/Os
- High-speed protocol capable : Up to 12 HSS @ 10 Gb/s

KEY FEATURES

- PCIe x4 Gen2 (16 Gb/s)
- HPC FMC or HSPC FMC+ connector
- User I/Os connector
- FPGA Kintex-7 (KX 325 or KX 410)
- Two 512MB DDR3 memory banks
- 1600 Mb/s rate for DDR3
- Up to 10 Gb/s rate per HSS link
- Low power (<15W without FMC board)
- Programmable oscillators or clock generator
- Power supply, temperature, fan monitoring

DEFENCE

INDUSTRY



AMD
KINTEX 7

Since 15+ years, TECHWAY offers cost-effective solutions to simplify FPGA technology integration onto the Industrial market.

In 2012, TECHWAY pioneered the PFP-KX7 boards: **AMD (Xilinx) Kintex-7 FPGA platforms including FMC site** for modularity. Five years later, PFP-KX7 series are widely adopted by Industry key players.

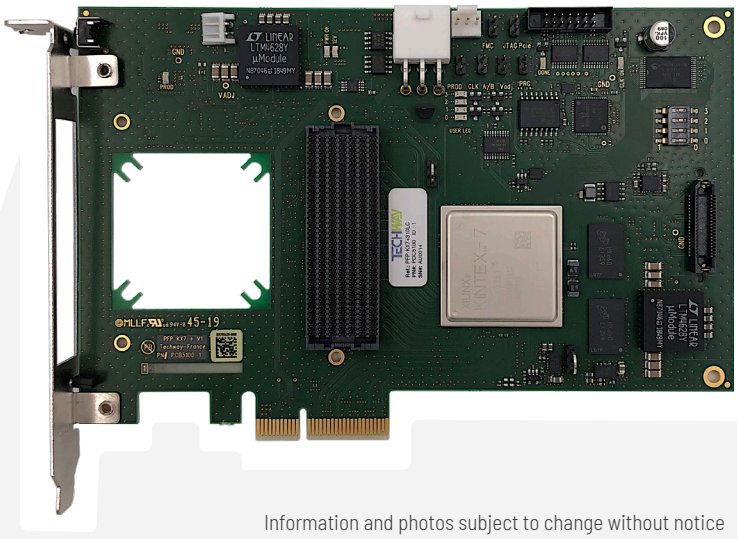
Capitalizing on this success, TECHWAY goes beyond the state-of-the-art FMC+ technology with the PFP-KX7+ series.

PFP-KX7+ are highly-versatile thanks to their perfect technology mix: Kintex-7 FPGA, FMC+ site, DDR3 memories, management system, 12 HSS on FMC+, programmable clock generator, etc.

Fully compliant with VITA 57.4 standard, PFP-KX7+ boards were designed to easily fit into existing system or brand-new architecture.

Not only development boards, the PFPs are deployable platforms in use by several OEM with field proven 24/7 operations.

The PFP boards can be integrated in standard PCs environment (drivers available for both Windows and Linux) or in stand-alone mode in your own enclosure.



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PFP-KX7+

VERSATILE KINTEX-7 FPGA PLATFORM

TECHWAY
SIGNAL VISION SYSTEM

SOFTWARE

- Linux supported (up to 4.19.1)
- Windows supported (7 & 10)
- Simplified & Open API
- Multi-board management
- Concurrent access supported
- Design examples
- Binary download manager :
  - Download to Flash
  - Download directly to FPGA

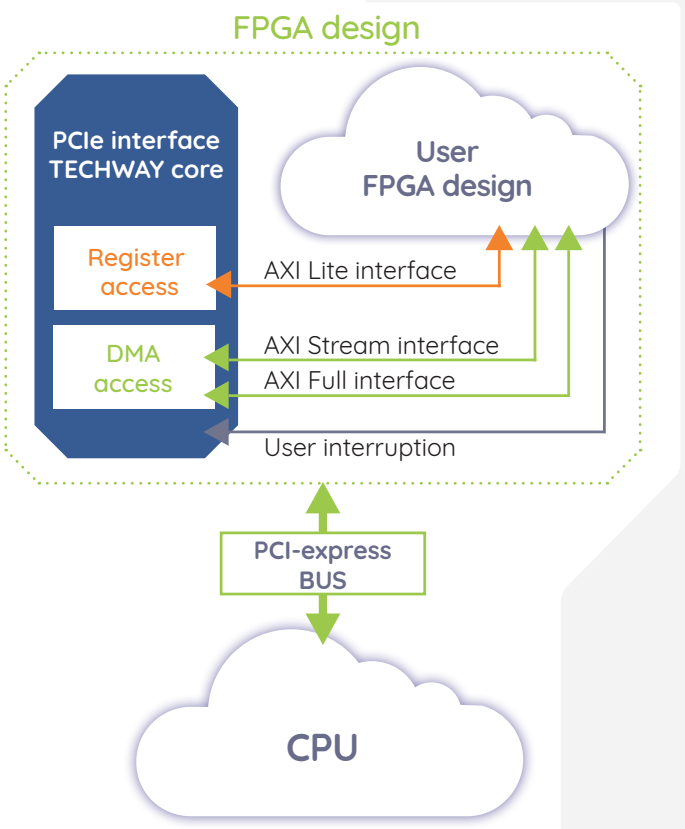
FIRMWARE

- VHDL PCIe core (x4 Gen2)
- VHDL DDR3 memory controller
- VHDL Flash controller
- VHDL System monitoring
- VHDL Clock programmer or generator
- AXI4 Lite and AXI4 Full interfaces
- Continuous DMA

ENVIRONMENTAL INFORMATION

- Operating temperature range : 0°C to 70°C
- Storage temperature range : -55°C to 125°C
- Maximum shock range : 10g during 20ms
- Maximum vibration range : 0.03 g2/Hz
- Compliant with ROHS process

APPLICATION DESIGN ARCHITECTURE



ORDERING INFORMATION

# (P/N)	Reference	Description
PDC000403	PFP-KX7-310LC*	PCIe FPGA Platform (PFP) with Kintex-7 FPGA (325T, FFG, -2) PCIe x4 Gen2, FMC site
PDC000406	PFP-KX7-410LC*	PCIe FPGA Platform (PFP) with Kintex-7 FPGA (410T, FFG, -2), PCIe 4x Gen2, FMC site
PDC005100	PFP-KX7_Plus-310LC	PCIe FPGA Platform (PFP) with Kintex-7 FPGA (325T, FFG, -2) PCIe x4 Gen2, FMC+ site
PDC005110	PFP-KX7_Plus-410LC	PCIe FPGA Platform (PFP) with Kintex-7 FPGA (410T, FFG, -2) PCIe x4 Gen2, FMC+ site
Accessories		
ACC00006	PFP_FPGA_Active_Heatsink	Active heatsink (FPGA) for PFP platforms (KX7, KX7+)
ACC00049	PFP_Passive_Heatsink_25	Passive heatsink (h:25mm) for PFP platforms (KX7, KX7+) with lock system 27x27x25 mmm
ACC00007	PFP_FMC-FAN	Fan kit (FMC slot) for PFP platforms (KX7, KX7+, ZU+, IV)

*Not recommended for new designs

MEMBER VITA Open Standards, Open Markets

PCI SIG

AMD Adaptive Computing Partner ELITE CERTIFIED

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