

PFP-IV

KINTEX ULTRASCALE+ FPGA AND MPSoC SoM PCIe PLATFORM

TECHWAY
SIGNAL VISION SYSTEM

High-speed 25 Gbps | Analog or Digital applications

APPLICATIONS

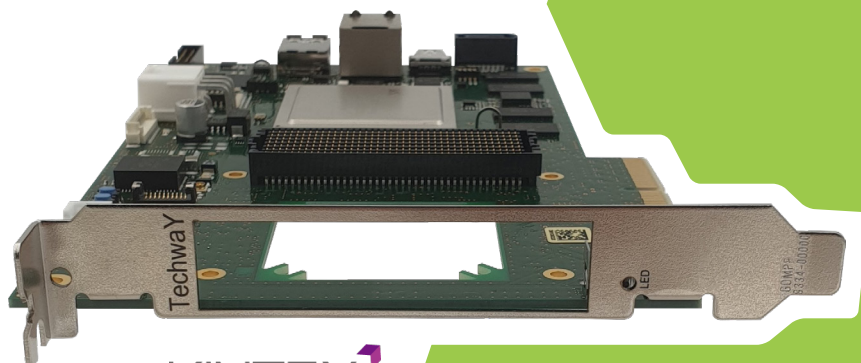
- RADAR
- Telecom
- Electronic Warfare
- Embedded tool
- Co-processing
- Test bench

BENEFITS

- High-speed communication
- High capacity processing
- SoM : FPGA + Processing capability
- Cost-effective
- PCIe or Stand-alone mode
- VITA 57.4 FMC+ compliance
- Advanced kit (Windows & Linux)

KEY FEATURES

- Kintex UltraScale+ FPGA
- Zynq UltraScale+ MPSoC SoM (option)
- AXI4 interface
- FPGA interfaces :
 - PCIe Gen3 x16
 - FMC+ site
 - x16 HSS up to 28 Gbps with KUP11
 - x20 HSS up to 28 Gbps with KUP15
 - FireFly™ site (x4 HSS up to 28 Gbps)
 - User I/O (x16 low-speed, x7 high-speed, x2 HSS)
- MPSoC SoM interfaces :
 - microSD
 - Ethernet
 - USB3.0
- x2 DDR4 4GB memory banks
- MPSoC SoM boot options :
 - microSD
 - e.MMC
 - QSPI

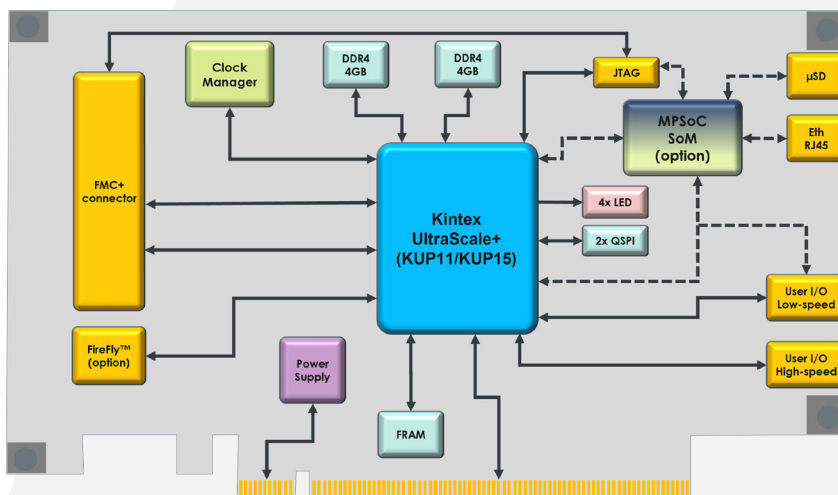


KINTEX.
UltraSCALE+

The new PFP-IV is a multi-purpose PCIe platform with FMC+ site based on the powerful Xilinx Kintex UltraScale+ FPGA. This board is dedicated for **extreme high-speed applications** such as 100 GbE communications, 4/6 GHz ADC/DAC, ARINC 818, AURORA, JESD, sFPDP, etc.

Kintex UltraScale+ devices provide the best price/performance/watt balance, delivering a cost-effective solution for applications that require high-end capabilities.

PFP-IV are highly versatile thanks to their perfect technology mix: **Kintex UltraScale+ FPGA, FMC+ site, DDR4 memories, SoM based on Zynq UltraScale+ MPSoC, management system, 28 Gbps optical links**, etc. The optional SoM offers powerful CPU capabilities, allowing offloading of complete application (processing + management).



DEFENCE

INDUSTRY



Information and photos subject to change without notice

PFP-IV

KINTEX ULTRASCALE+ FPGA AND MPSOC SoM PCIe PLATFORM



FIRMWARE

- AXI4 interface
- VHDL PCIe Gen3 core
- VHDL DDR4 controller
- VHDL Flash controller
- VHDL system monitor
- VHDL clock monitor

SOFTWARE

- Full C++ API (Windows & Linux)
- Multiboard driver
- SoM BSP
- Reference design
- Support & documentation

ENVIRONMENTAL INFORMATION

- Temperature ranges :
 - Operating : 0°C to 50°C
 - Storage : -55°C to 125°C
- Maximum shock/vibration ranges :
 - Shock : 10g during 20ms
 - Vibration : 0.03 g2/Hz
- Compliant with ROHS process

ADD-ON PRODUCTS

- PFP_FPGA_Active_Heatsink
 - Active heatsink (fan) for FPGA
- PFP_SETLAB
 - Set of accessories
- DK_PFP-IV
 - Development Kit for PFP-IV series

PFP-IV BOARDS

TECHWAY provides a full software package (drivers, Board Support Package, firmware development kit) for both Windows and Linux. This package allows an easy hands-one and saves development costs and time.

Fully compliant with common standards (VITA 57.4, PCIe, AXI4, etc.), PFP-IV boards were designed to easily fit into existing system or brand-new architecture. PFP-IV can be integrated in standard PCs environment or in stand-alone mode in your own enclosure.

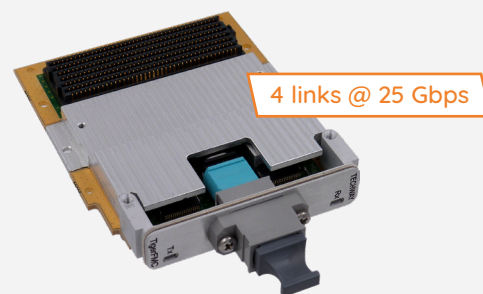
PFP-IV are deployable platforms in use by several OEM with field proven 24/7 operations.

FMC INTERFACES

TECHWAY has 20+ years development experience in Xilinx FPGA PCIe platforms with FMC interfaces. Thanks to our know-how, we offer cost-effective solutions to bring the latest FPGA technologies into industrial applications.

TECHWAY offers VITA 57.4 FMCs based on optical fiber and copper technologies like our TigerFMC.

The PFP-IV is compliant with third-party FMCs on the market. TECHWAY can support its customers in the integration of these FMCs on PFP-IV.



ORDERING INFORMATION

Reference	FPGA
PFP-IV_11	KUP11
PFP-IV_15	KUP15

Options	
ACC005700-1	FireFly option
ACC005701-1	SoM option



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