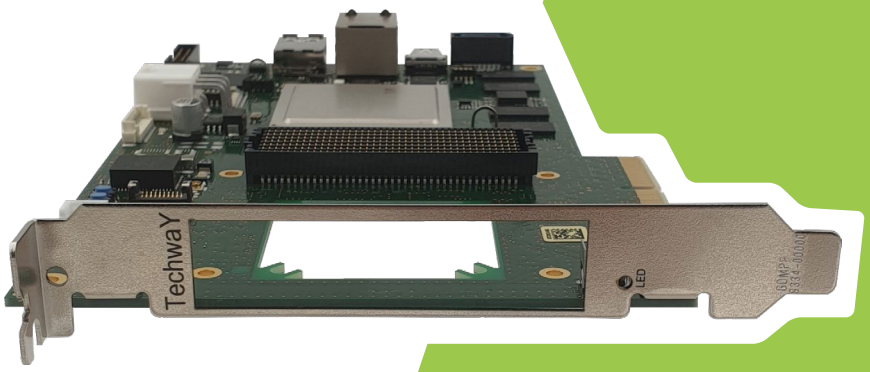
PFP-ZU+

Zynq UltraScale+ MPSoC PCIe PLATFORM

TECHWAY
SIGNAL VISION SYSTEM

Reduce cost of MPSoC technology integration



APPLICATIONS

- Co-processing
- Test bench
- Prototyping
- Data-acquisition
- Data-recording
- High-speed data-switching

BENEFITS

- PCIe format
- Embedded CPU processing
- Embedded FPGA processing
- Versatile interface with FMC+ connector
- Multiple standard interface
- Additionnal interface : User I/O, FireFly™ slot
- Cost-effective

KEY FEATURES

- PCIe Gen3 x4
- Stand-alone mode
- Zynq UltraScale+ MPSoC
- FMC+ connector
- High-speed protocol capable : Up to 16,3 Gbps
- Programmable oscillators
- Extended optical interface
- Windows or Linux support

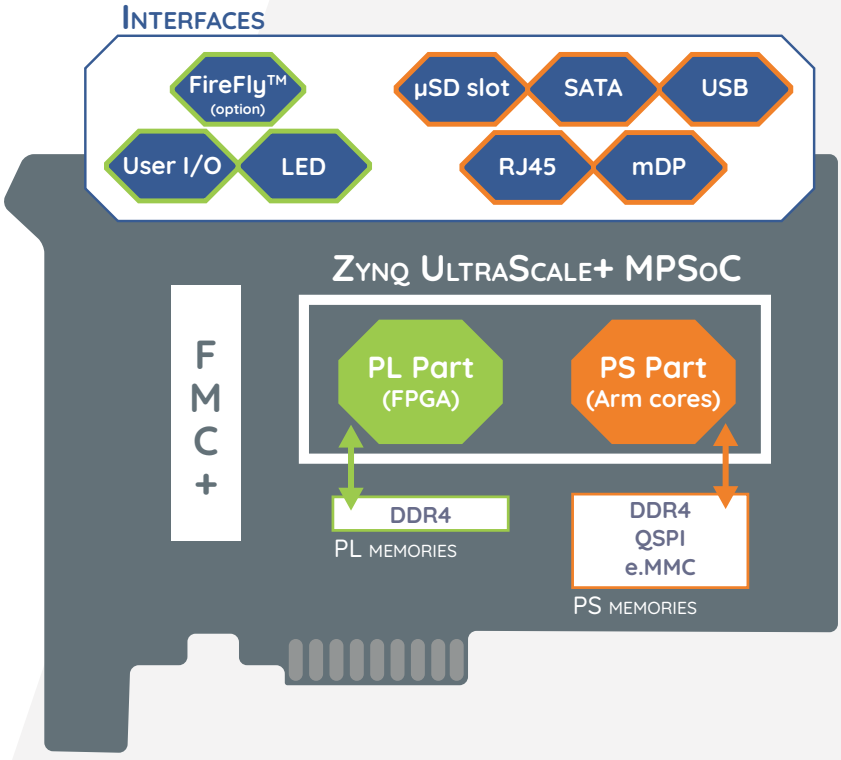
DEFENCE

INDUSTRY

The new PFP-ZU+ is a multi-purpose PCIe platform with **FMC+ site** based on the latest Xilinx's SoC called **Zynq UltraScale+**. SoC integrates the software programmability of ARM processor with the firmware programmability of FPGA in one unique component.

SoC offers an unrivalled levels of system performance, flexibility, and scalability. This component is the perfect solution to build stand-alone "SWaP" (Size, Weight and Power) optimized equipment.

TECHWAY has 20 years development experience in Xilinx FPGA PCIe platform with FMC interface. Thanks to our know-how, we offer cost-effective solutions to bring the SoC technology into industrial applications.



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HARDWARE

- **Zynq UltraScale+ MPSoC**
  - ZU7CG
  - ZU11EG
- **PL (FPGA) interfaces**
  - PCIe Gen3 x4
  - FMC+ connector (160 I/O + up to 24 HSS)
  - FireFly™ slot (option)
  - LED
  - User I/O
  - RAM DDR4 banks (2x 1GB @2400Mbps)
- **PS (CPU) interfaces**
  - Ethernet port (10/100/1000BaseT)
  - USB (2.0/3.0)
  - SATA III
  - Mini DisplayPort
  - RAM DDR4 bank (1x 1GB @2400Mbps 32 bits)
  - 1x eMMC (Flash NAND)
  - 1x QSPI
  - 1x µSD slot
- **Multiple boot options**
- **External power supply (stand-alone)**

FIRMWARE

- **VHDL PCIe core (Gen3 x4)**
- **Continuous & Scatter gather DMA**
- **VHDL DDR4 memory controller**
- **VHDL System monitoring**

SOFTWARE

- **Linux BSP for Arm (Peta Linux)**
- **Simplified & Open API**
- **Development Kit for Windows & Linux**
- **Design examples : C++ API**
- **Support & documentation**

ENVIRONMENTAL INFORMATION

- **Temperature ranges :**
  - Operating : 0°C to 50°C
  - Storage : -50°C to 125°C
  - Industrial : please contact us
- **Compliant with ROHS and REACH process**
- **ITAR free**

ADD-ON PRODUCTS

- **PFP-ZU+_FireFly_Option**
  - Optical FireFly™ module
- **PFP-ZU+_FPGA_Active_Heatsink**
  - Active heatsink (fan) for FPGA
- **PFP-ZU+_FPGA_Passive_Heatsink**
  - Passive heatsink for FPGA
- **PFP_FMC-FAN**
  - Fan kit for FMC slot
- **PFP-ZU+_Accessory_Lab_Set**
  - Set of accessories
- **DK_PFP-ZU+**
  - Development Kit for PFP-ZU+ series

PFP-ZU+ BOARDS

The PFP-ZU+'s **versatility** comes from useful features including a fully FMC+ site, DDR4 memories, a management system, etc. Thanks to Arm processor, you access to multiple interfaces which allow to design stand-alone equipment easily.

Built on a common real-time processor and programmable logic equipped platform, our PFP-ZU+ features **ZU7CG**, **ZU11EG** and **ZU7EV** SoCs to optimize performance/price ratio.

Zynq® UltraScale+™ MPSoC devices provide 64-bit processor scalability while combining real-time control with soft and hard engines for graphics, video, waveform, and packet processing.

PFP-ZU+ can be easily used in a standard PC environment (Development Kit available for both Windows and Linux) or in your own enclosure as a **stand-alone** equipment.

PFP-ZU+ offers a **FireFly™ slot option**. It gives an additionnal optical fast data-output. PFP-ZU+ is a perfect fit for system integrators who are looking for reducing development time thanks to ready-to-integrate boards.

XILINX
Certified Partner

MEMBER VITA
Open Standards, Open Markets

PCI SIG

ORDERING INFORMATION

Reference	SoC	FMC+	Video/Graphic processor	Video compression
PFP-ZU+_07	ZU7CG	16 SerDes Up to 16,3 Gbps		
PFP-ZU+_11	ZU11EG	24 SerDes Up to 16,3 Gbps	✓	
PFP-ZU+_07V	ZU7EV	16 SerDes Up to 16,3 Gbps	✓	✓

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