

PFP-ZU+

ZYNQ ULTRASCALE+ MPSOC PCIe PLATFORM



Reduce cost of MPSoC technology integration

APPLICATIONS

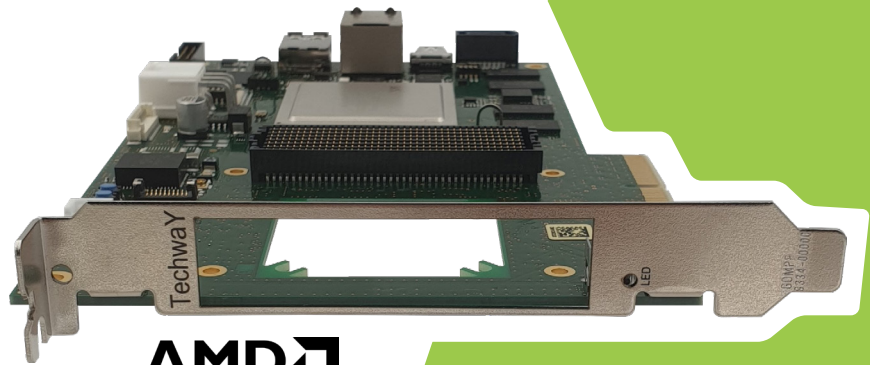
- Co-processing
- Test bench
- Prototyping
- Data-acquisition
- Data-recording
- High-speed data-switching

BENEFITS

- PCIe format
- Embedded CPU processing
- Embedded FPGA processing
- Versatile interface with FMC+ connector
- Multiple standard interface
- Additional 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
- ITAR free



AMD
ZYNQ
UltraScale+

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

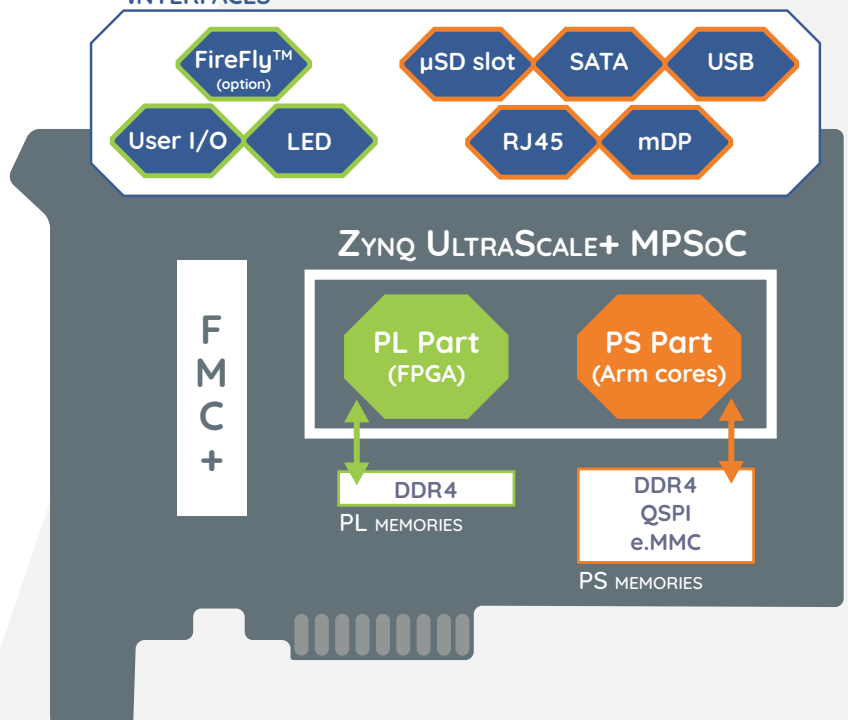
SoC offers an unrivalled levels of system performance, flexibility, and scalability. This component is the perfect solution to build stand-alone "SWaP" (Size, Weight and Power) optimized equipment.

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

- DEFENCE
- INDUSTRY



INTERFACES



Information and photos subject to change without notice



HARDWARE

- Zynq UltraScale+ MPSoC
 - ZU7CG
 - ZU7EV
 - 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 70°C
 - Storage : -50°C to 125°C
 - Industrial : please contact us
- Compliant with ROHS and REACH process



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.

ORDERING INFORMATION

# (P/N)	Reference	Description
PDC005200	PFP-ZU+_07	PCIe FPGA Platform with Zynq UltraScale+ 7CG-1 MPSoC
PDC005220	PFP-ZU+_07V	PCIe FPGA Platform with Zynq UltraScale+ 7EV-1 MPSoC (video comp.)
PDC005210	PFP-ZU+_11	PCIe FPGA Platform with Zynq UltraScale+ 11EG-1 MPSoC (speed grade 1)
PDC005211	PFP-ZU+_11-2	PCIe FPGA Platform with Zynq UltraScale+ 11EG-2 MPSoC (speed grade 2)
CONF005200	PFP-ZU+_07_Opt	PFP-ZU+07 (PDC005200) with optical FireFly™ module 4 links @ 12G
CONF005220	PFP-ZU+_07V_Opt	PFP-ZU+07V (PDC005220) with optical FireFly™ module 4 links @ 12G
CONF005210	PFP-ZU+_11_Opt	PFP-ZU+11 (PDC005210) with optical FireFly™ module 4 links @ 14G
CONF005211	PFP-ZU+_11-2_Opt	PFP-ZU+11-2 (PDC005211) with optical FireFly™ module 4 links @ 14G
<i>Accessories</i>		
ACC005201	PFP-ZU+_Lab_Set	Set of lab accessories for PFP-ZU+ serie
ACC00007	PFP_FMC-FAN	Fan kit (FMC slot) for PFP platforms (KX7, KX7+, ZU+, IV)

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