PFP-ZU+

ZYNQ ULTRASCALE+ PCIe FPGA PROCESSOR



Reduce cost of MPSoC technology integration

APPLICATIONS

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

BENEFITS

- PCle format
- Embedded processing
- Stand-alone mode
- Versatile solution with FMC+ connector
- Multiple standard interface
- Cost-effective
- Modularity : FMC+ site, User I/O, FireFly[™] slot
- Free SDK

KEY FEATURES

- PCIe 4x Gen3
- MPSoC processor : FPGA Zynq UltraScale+
- FMC+ connector
- High-speed protocol capable : Up to 16,3 Gb/s
- Programmable oscillators
- Extended optical interface
- Windows or Linux support



DEFENCE



INDUSTRY





Have you heard about SoC ? Xilinx's System on Chip (SoC) is the new disruptive technology for high-end Embedded systems. 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 10+ 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.

The new PFP-ZU+ is a multi-purpose PCle platform with FMC+ site based on the latest Xilinx's SoC called Zyng UltraScale+.

PFP-ZU+ is a perfect fit for system integrators who are looking for reducing development time thanks to ready-to-integrate boards.



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HARDWARE

- PCIe 4x Gen3
- MPSoC processor : FPGA Zynq UltraScale+
- FMC+ connector (160 I/O + up to 24 HSS)
- Memories for FPGA :
 - 2x 1GB @2400Mb/s DDR4 banks for PL
- Memories for Processors :
- 4x 1GB @2400Mb/s DDR4 bank for PS
- 1x eMMC (Flash NAND)
- 1x QSPI
- 1x SD slot

FIRMWARE

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

SOFTWARE

- Free software
- Linux BSP for Arm
- Simplified & Open API
- SDK for Linux & Windows
- Design examples
- Support

ENVIRONMENTAL INFORMATION

- Operating temperature range : 0°C to 50°C
- Storage temperature range : -55°C to 125°C
- Compliant with ROHS and REACH process
- **ECCN: EAR 99**

PFP-ZU+ BOARDS

The PFP-ZU+'s versatility comes from useful features including a fully FMC+ site, DDR4 and RLDRAM2 memories, a management system, etc. Thanks to ARM processor, you access to multiples 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 SoC to optimize performance/price ratio.

Zyng® 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 (drivers available for both Linux and Windows) or in your own enclosure as a stand-alone equipment.







ORDERING INFORMATION

Reference	SoC	FMC+	FireFly TM slot (option)
PFP-ZU-07	ZU7CG FFVF1517	16 SerDes @ 16,3 Gb/s	
PFP-ZU-011	ZU11EG FFVF1517	24 SerDes @ 16,3 Gb/s	

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