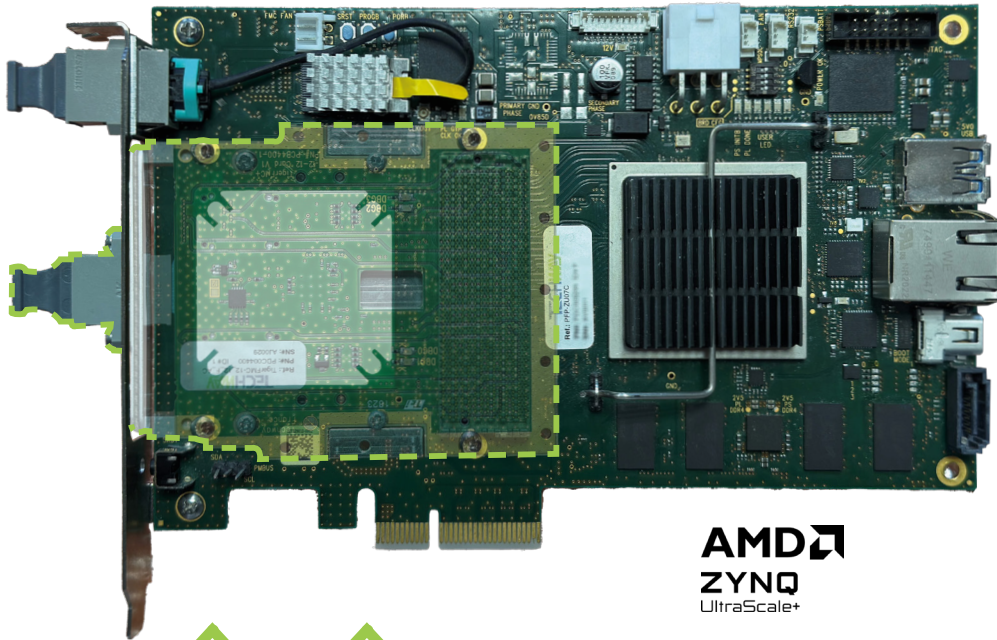


Zynq UltraScale+ MPSoC

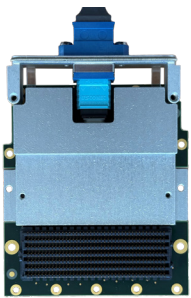
All-in-One CPU + FPGA

GPU Direct[®]
RDMA

P
F
P
Z
U
+

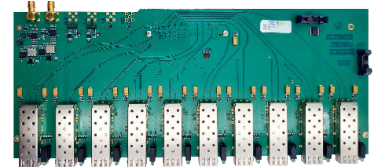
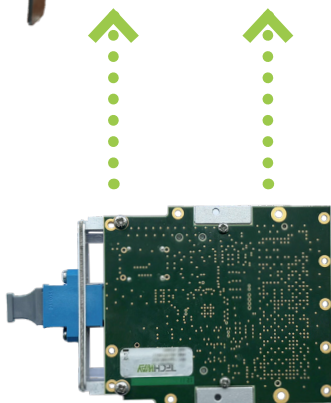


AMD
ZYNQ
UltraScale+



12 optical links
> 10Gbit/s

COTS FMC



10x SFP/SFP+
Custom design

IN HOUSE FMC

Development Kit included

Integrate your own application

100% in house design

Windows and Linux drivers



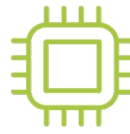
Full
Development
Kit

Software



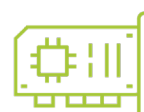
API C++
BSP
Examples
Designs

Firmware



Ready-to-use IPs
(PCIe, Memories, System
management)
Examples

Hardware



User manuals
Reliable 24/7
Long-life cycle



Certified Partner

Key advantages

Offloaded preprocessing stage

Embedded real-time OS

Transform and optimize your system architecture by replacing your computer with a **SINGLE** solution that integrates a CPU, FPGA board, GPU board, and high-speed interface: the **PFP-ZU+**.

Choose long-term reliability with a guaranteed lifecycle through 2045 and take control of your energy consumption.

Included Development kit – accelerate your design : drivers for Linux and Windows, memory controller, high-end PCIe IP and BSP for MPSoc solution provided

Open for development

Focus on your application

VIDEO

• Embedded image processing

Acquire video thanks to the FMC I/O interface.

Preprocess video with FPGA capability and add complex image processing on the ARM CPU.

• H.264/H.265 video compression

Choose the PFP-ZU+_7EV compression video with H.264/H.265 video codec embedded in the programmable logic part on Zynq UltraScale+ EV.

• Artificial Intelligence

Use the FPGA to accelerate your CNN with low power consumption.

Application examples

• High-speed network

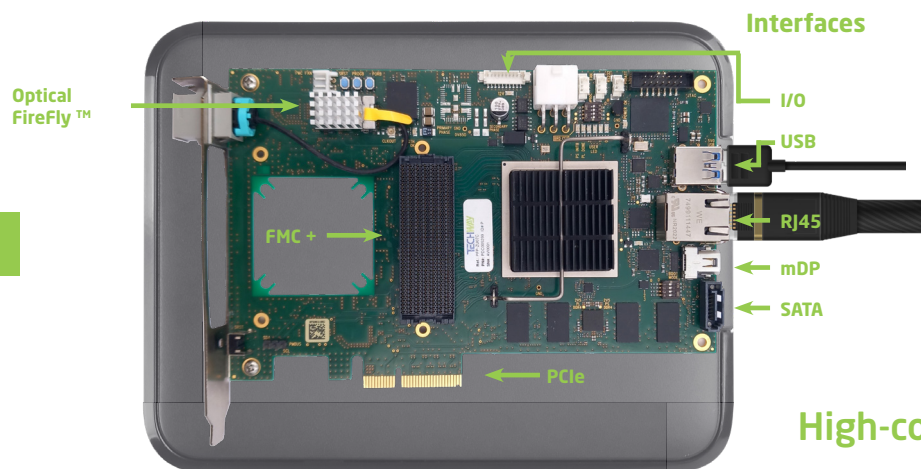
Use the programmable logic (PL) part of the Zynq UltraScale+ to accelerate your crypto processing or use the processing part to store data on Linux with 16 Gbit/s optical interface.

• ODI application

Combine the PFP-ZU+ and our TigerFMC with 12 optical links to build a ODI communication platform.

SIGNAL

Stand-alone



Optionnal capabilities

FireFly™ option

High-speed data transmission.

Is PCIe transfer rate sufficient?

The SAMTEC FireFly™ technology allows you to increase your capabilities of optical communication with 4 additional links up to 14,1Gbps.

This FireFly™ optical module option allows you to capture or send data through MTP interface without using PCIe and FMC.



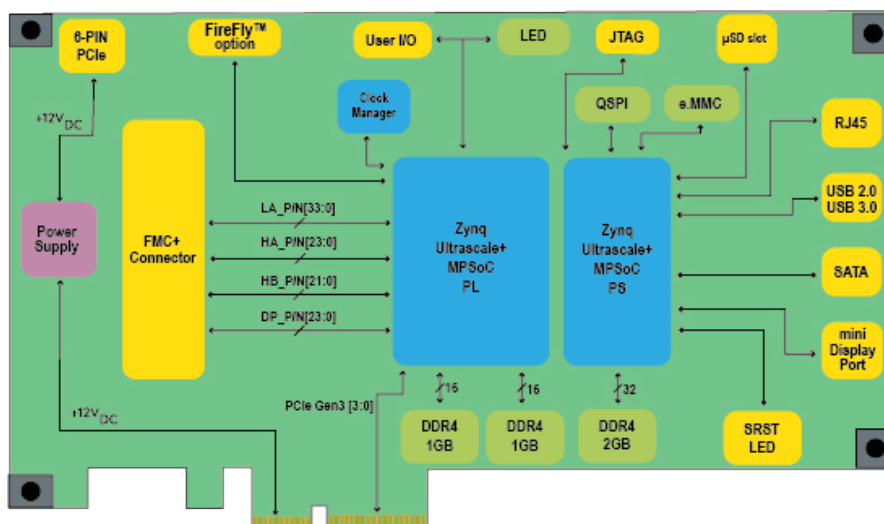
	PFP-ZU+_07	PFP-ZU+_07V	PFP-ZU+_11
FPGA	AMD Zynq™ UltraScale+™ 7CG XCZU7CG-FFVF1517	AMD Zynq™ UltraScale+™ 7EV XCZU7EV-FFVF1517	AMD Zynq™ UltraScale+™ 11EG XCZU11EG-FFVF1517
PCIe	PCIe x4 Gen 3		
Form factor	Half length		
Grade	Commercial		
Processing System (PS) features			
Application Processing Unit	Dual-core Arm Cortex-A53 MPCore™ up to 1.3 GHz	Quad-core Arm Cortex-A53 MPCore up to 1.5 GHz	Quad-core Arm Cortex-A53 MPCore™ up to 1.5 GHz
Real-Time Processing Unit	Dual-core Arm Cortex-R5F MPCore up to 533 MHz	Dual-core Arm Cortex-R5F MPCore up to 600 MHz	Dual-core Arm Cortex-R5F MPCore up to 600 MHz
Graphics Processing Unit	-	Arm Mali-400 MP2 up to 667 MHz	Arm Mali-400 MP2 up to 667 MHz
Video Codec Unit	-	Supports H.264 / H.265	-
Programmable Logic (PL) features			
Logic cell (k)	504	504	653
CLB Flip-Flop (K)	461	461	597
Total RAM (Mb)	44.2	44.2	52.7
UltraRAM (Mb)	27.0	27.0	22.5
DSP Slices	1,728	1,728	2,928
Video Codec Unit	No	Yes	No
Interfaces			
FMC	1x FMC+ connector (Full VITA 57.4 compliant)		
DP lanes speed	12,5 Gbit/s (16,3 Gbit/s with speed grade 2)		
FMC+ DP lanes	16	16	24
Memory banks	2x 1GB DDR4 (PL) & 1x 2GB DDR4 (PS)		
User interface	PL : 6x GPIO through an HD bank & 5x LVDS pairs through an HP bank PS MIO: 1x I2C interface +2x GPI + 2x GPO + 1x blue LED		
Cooling	Passive cooling system	Active cooling system	
Temperature ranges	<ul style="list-style-type: none"> Operating : 0°C to 70°C Storage : -50°C to 125°C 		
RoHS/REACH	Compliant		
Optional	Optical module (4RX/4TX), up to 14,1Gbps		

User manuals available on demand

Block diagram

In house design

Optional features



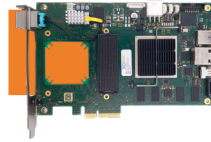
Need customization?
Consult us

Customer satisfaction is our DNA

Long-life cycle product lines



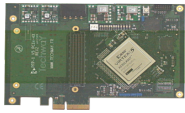
Kintex UltraScale+ FPGA



Zynq UltraScale+ MPSoC



Kintex-7 FPGA



Virtex-5 FPGA

2008 2012 2019 2021 2023 2045 +

Available stock
Fast delivery

Made for
industrialization

Reduce time
to market

Customization
on demand

COTS FMC

Optical FMC

High-speed / high density
up to @25Gbit/s

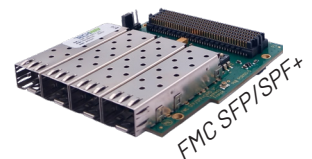
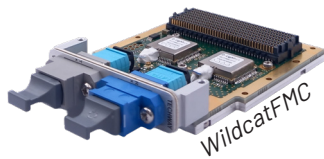
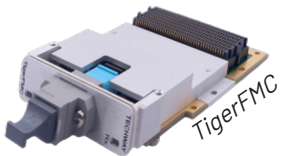
High-speed / high density
up to @10Gbit/s

Analog FMC

125 MSPS
4x channels

SFP/SPF+

3/4 cages / stackable



Ordering information

PFP-ZU+_##
or
PFP-ZU+_##_XXX

07CG = ZU7CG
07EV = ZU7EV
11EG = ZU11EG

Configuration subject to validation

For example:

PFP-ZU+_07CG
or
PFP-ZU+_11EG_Opt

XXX
Opt = optical option

Contact our expert team

