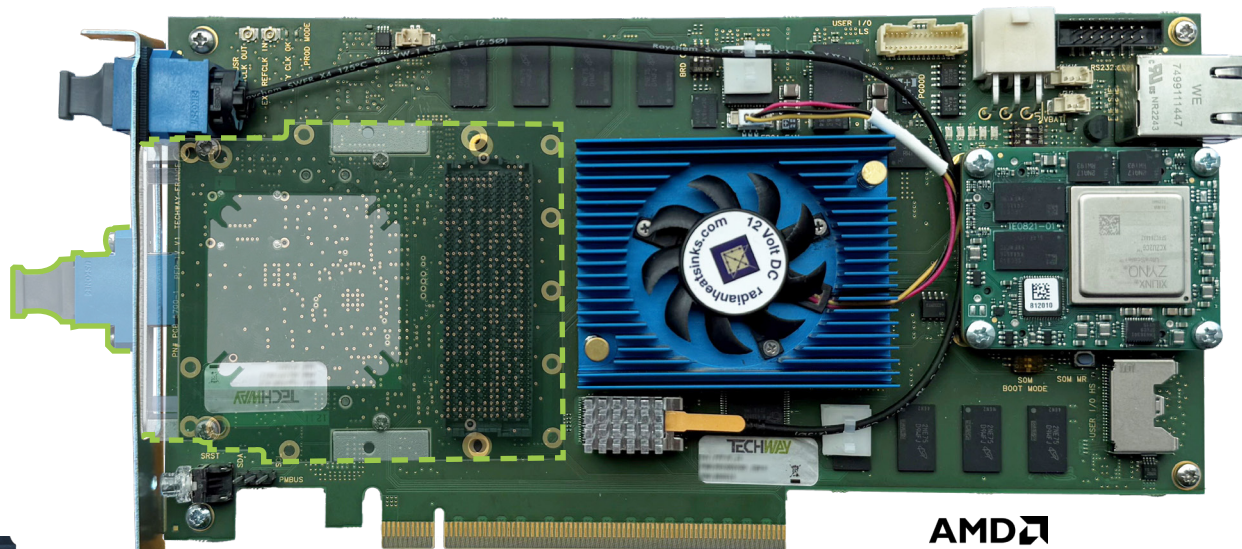


Kintex UltraScale+ FPGA

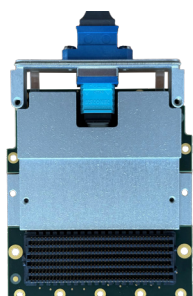
Up to 25 Gbps application

**GPU
Direct®
RDMA**

Choose your I/O, reuse your IP

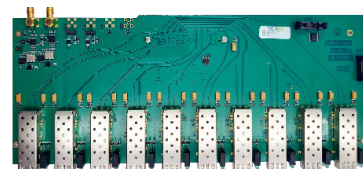
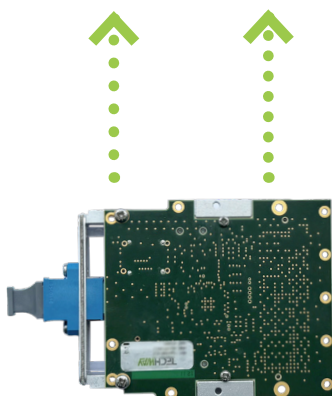


AMD
KINTEX
UltraScale+



4 optical links
up to 25Gbps

COTS FMC



10x SFP/SFP+
Custom design

IN HOUSE FMC

Development Kit included

100% in house design

Integrate your own application

Windows and Linux drivers

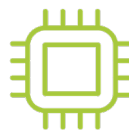


Software



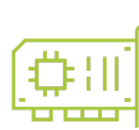
API C++
Examples
Design

Firmware



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

Hardware



User manuals
Reliable 24/7
Long-life cycle

AMD
XILINX
Certified Partner

Choose your I/O – Our versatile solutions design to your project, compatible with all I/O thanks to FMC+ site.

Manage your IP and reuse your design – Integrate your own firmware and software into our «open for development» solutions.

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

Long-time products – Our long-lasting solutions ensure optimized production and lower obsolescence costs throughout the lifecycle.

Open for development

Focus on your application

VIDEO

12G-SDI

CXP-12 fiber

10GigeVision

CLHS

...

Application examples



SIGNAL

Ethernet

RF on fiber

sFPDP

ODI

...

■ Examples of image processing applications:

- **360° surveillance** – capture and process multiple video protocols and formats, up to 12 cameras, through one board using COTS or in-house FMC+. Thanks to this solution, your application can features any video protocols: 3G-SDI, HDMI CoaX Press, Camera Link, 10Gige and more.
- **GPU Direct® RDMA** – Mix high-end FPGA and GPU processing to accelerate video data application and reduce your firmware development.
- **Video filtering** – process video data on the Kintex Ultrascale+ FPGA for high-performance, low-latency computation such as Sobel filter.

■ Examples of RADAR, EW or Ground applications:

- **Electronic Warfare** – acquire and preprocess analog data through ADC/DAC 4/6GHZ interface and using a combination of high-end FMC+ card and our PFP-IV, Kintex UltraScale+ FPGA board to have the finest analog processing.
- **Inside PC/Outside PC** – Inside PC : to develop high-performance server including the latest CPU, GPU and maximize storage capabilities / Outside PC : to use our platform in a stand-alone mode which allows to separate preprocessing from computer or be closer of the sensors.
- **Multi-protocoles** – capture data via optical link to easy-integrate up to 4 different protocols on one unique platform. The best way to have a compact design for your embedded application.

Optionnal capabilities

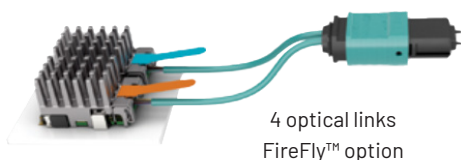
FireFly™ option

High-speed data transmission.

Is PCIe transfer rate sufficient?

The SAMTEC Firefly™ technology allows you to increase your capabilities of optical communication with 4 additionnal links up to 25Gbps = **100Gbps**.

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



4 optical links
FireFly™ option

SoM option

Use it outside a PC.

How this SoM option can turn the board into a stand-alone module?

The SoM option adds CPU capability with interface like storage, video output, USB and RJ45 interface directly connected to the board.

The SoM option allows you to use FPGA board in standalone mode like in a box or a module.



Zynq™ Ultrascale+™
SoM option

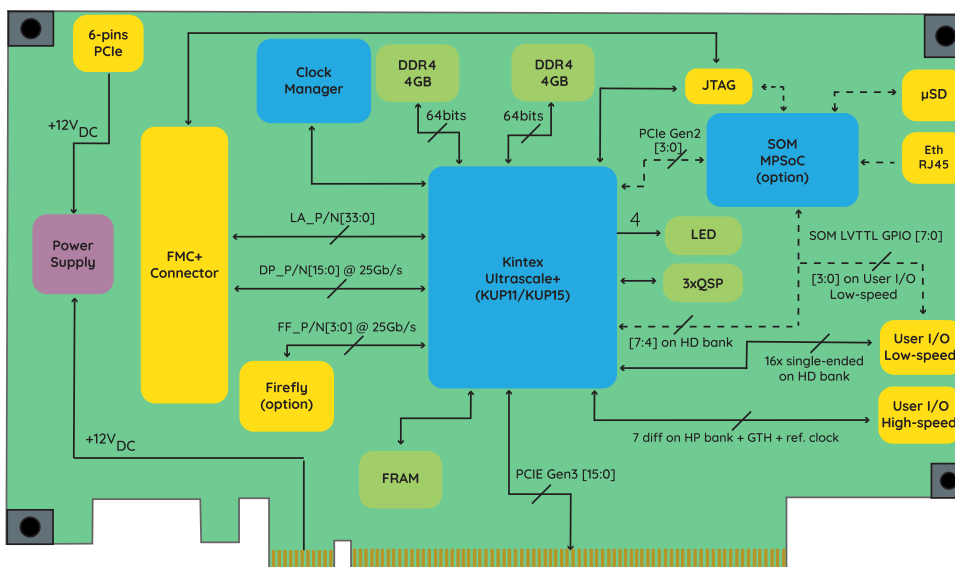
	PFP-IV_11	PFP-IV_15
FPGA	AMD Kintex™ UltraScale+™ KUP11 XCKU11P-FFVE1517	AMD Kintex™ UltraScale+™ KUP15 XCKU15P-FFVE1517
PCIe	PCIe x16 Gen 3	
PCIe communication	Full duplex : FPGA to CPU and CPU to FPGA DMA	
FMC	1x FMC+ slot (VITA 57.4)	
Speed link	25.78 Gbit/s	
FMC+ DP lanes	16	20
Multichannel	Up to 8 DMA channels (in each direction)	
Memory banks	2x DDR4 4GB	
Logic cell (K)	653	1.143
DSP Slice	2.928	1.968
CLB Flip-Flop (K)	597	1.045
Memory ultraRAM (Mbits)	22,5	36
User GPIO connectors	16x low-speed 17x high-speed 2x HSS	
User LED	4	
Cooling	Active cooling system	
Temperature ranges	<ul style="list-style-type: none"> ■ Operating : 0°C to 70°C ■ Storage : -55°C to 125°C 	
RoHS/REACH	Compliant	
Optional	Optical module (4RX/4TX), @25Gbps, Zynq UltraScale+ SoM	

Usermanuals available on demand

Block diagram

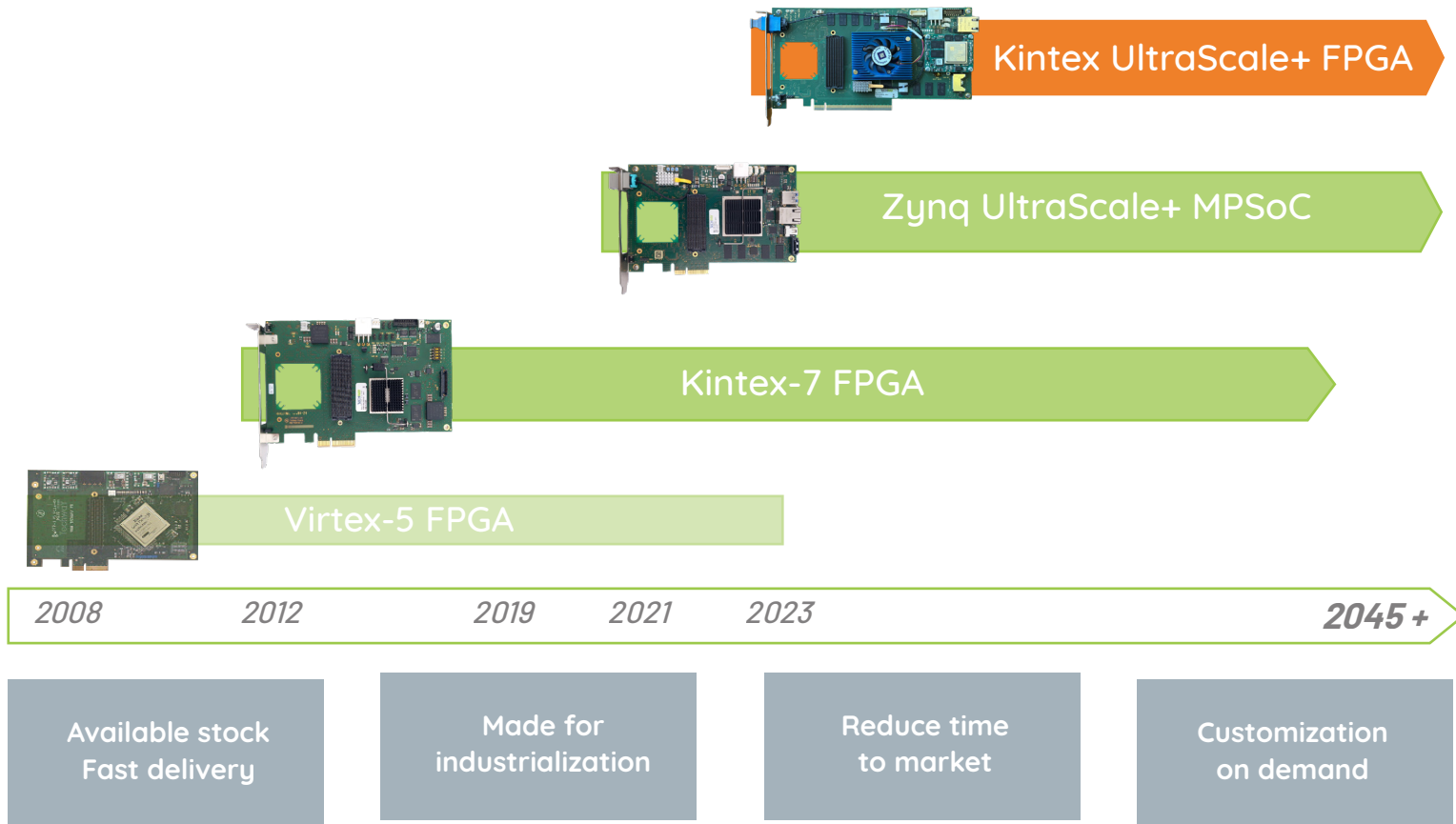
In house design

Optional features



**Need customization?
Consult us**

LONG-LIFE CYCLE PRODUCT LINES



COTS FMC

Optical FMC

High-speed / high density
up to @25Gbps



High-speed / high density
up to @10 Gbps



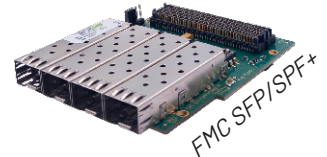
Analog FMC

125 MSPS 4x channels



SFP/SPF+

3/4 cages / stackable



ORDERING INFORMATION

PFP-IV_##_XXX
or
PFP-IV_##_XXX_XXX

##

11 = KUP 11
15 = KUP 15

For example :
PFP-IV_11_SoM
PFP-IV_15_SoM_Opt

XXX

Opt = optical option
SoM = System on Module option

Contact our expert team



Configuration subject to validation

