

# RAVEN

sFPDP PCIe PLATFORM



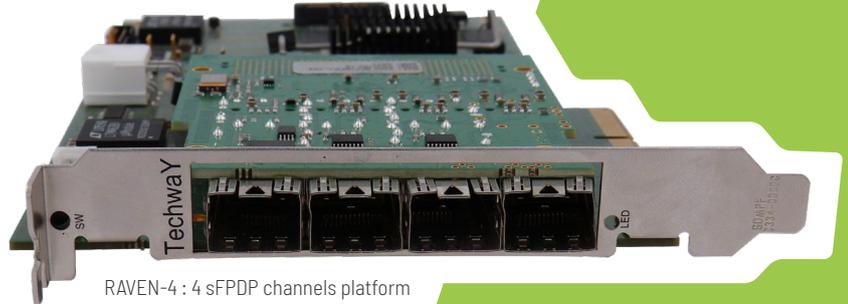
Ready-to-use & cost-effective platform

## APPLICATIONS

- RADAR
- SONAR
- Medical imaging
- Infrared imaging system
- Range & Telemetry system
- Geological & Seismic survey
- Physics research
- Video production

## BENEFITS

- Cost-effective solution
- COTS sFPDP board
- VITA 17.3 compliant
- Optical or/and copper SFP modules
- Multi-board application support
- Trigger inputs
- Low power
- Windows and Linux compliant SDK
- SDK includes :
  - Drivers
  - C++ class API
  - Example designs



RAVEN-4 : 4 sFPDP channels platform

RAVEN boards are flexible platforms implementing 4 sFPDP channels with receive and transmit engine for high-performance data-processing.

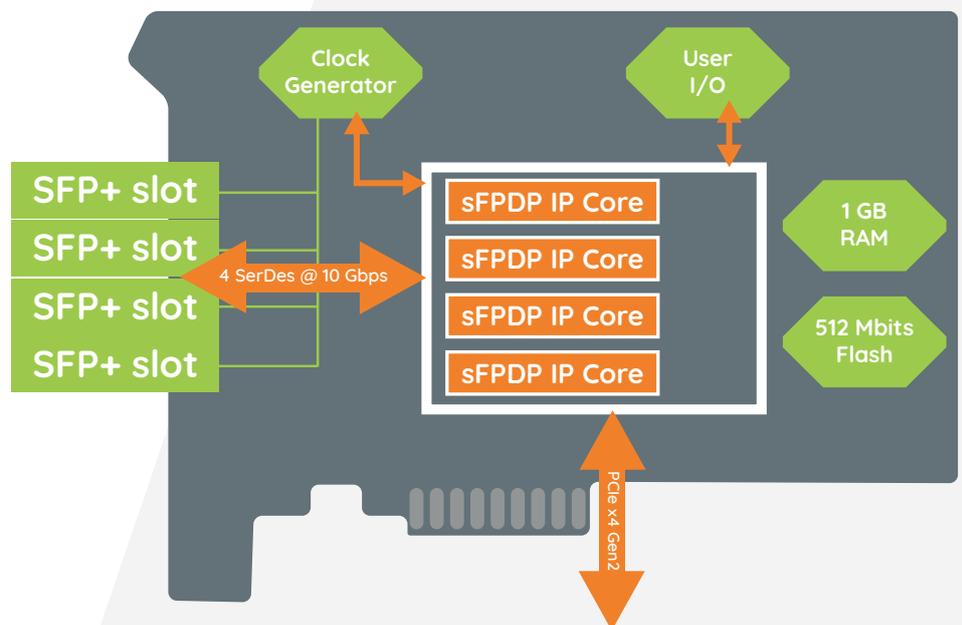
Based on a Xilinx's Kintex-7 FPGA, this sFPDP platform supports up to 10 Gbps data link. RAVEN is fully dimensioned to implement the VITA 17.3 sFPDP standard (Flow Control, CRC, Framed/Unframed, Copy/Loop Mode), offering up to 10 Gbps data rate per link.

The user-friendly software Application Programming Interface (C++ API) allows to get/send data, monitoring, configure, upgrade, etc.

The board, thanks to its SFP+ cages, is compliant with copper and fiber.

 DEFENCE

 INDUSTRY



Information and photos subject to change without notice

# RAVEN

sFPDP PCIe PLATFORM

## KEY FEATURES

- 4 sFPDP channels
- Up to 10 Gbps per link
- PCIe x4 Gen2
- Low Profile PCIe form factor
- Xilinx Kintex-7 FPGA
- 1Gb on-board DDR3 RAM
- 8 User I/Os connector
- Independent clock per channel

## ENVIRONMENTAL INFORMATION

- Operating temperature range : 0°C to 50°C
- Storage temperature range : -55°C to 125°C
- Maximum shock range : 10g during 20ms
- Maximum vibration range : 0.03 g2/Hz
- Compliant with ROHS process

## SOFTWARE

- Linux (64 bits) supported
- Windows 10 (64 bits) supported
- Easy-to-use API
- Multi-board management
- Concurrent access supported
- Example designs
- Advanced DMA engine

## ABOUT VITA 17.3 sFPDP PROTOCOL

Serial Front Panel Data Port is a high-speed low-latency serial communications protocol for use in high-speed data transfer applications.

sFPDP is ideal for use in applications such as high-speed communication system backplanes, high-bandwidth remote sensor systems, signal processing, data recording, and high-bandwidth video systems.

The simple and lightweight nature of the protocol makes it an attractive choice for replacement of parallel bus interconnects using serial transceiver technology.

sFPDP can be used in point-to-point or loop topologies, uni-directional or bidirectional links, and easily supports different types of data with efficient and flexible data framing options.

VITA 17.3 sFPDP protocol describes the third generation "Serial FPDP" standard. This standard supports multi-lane channel bonding and advanced 64B/67B encoding to increase the bandwidth capabilities of the link.

The VITA 17.3 sFPDP allows Serial FPDP to continue filling the needs of high-bandwidth (up to 10 Gbps per link), low-latency remote sensor data connections and flexible system interconnect solutions that are scalables.

## ORDERING INFORMATION

RAVEN product line is delivered as a ready-to-use board. Its FPGA design is open to customization for specific projects (on demand).

### ■ RAVEN-4

sFPDP platform, VITA 17.3, 4 channels, PCIe x4 Gen2