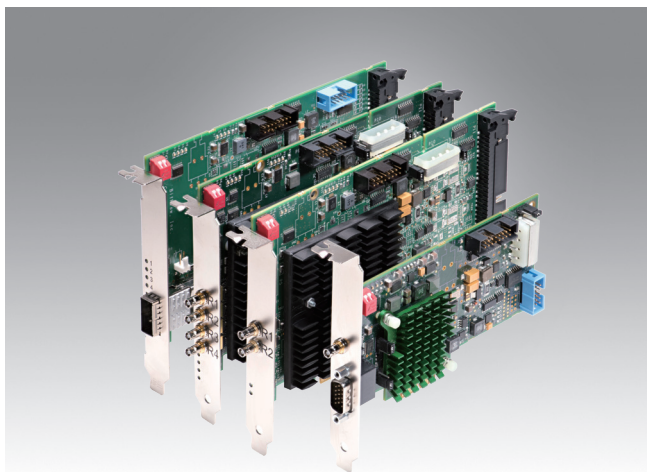# Claxon Series

Features

- CoaXPress Frame Grabber
- Models for coax and fiber CoaXPress cameras
- Supports up to 4 independent cameras on one grabber
- Support data rates up to 12 Gb/S (CXP-12)
- Camera power supplied on coax models (12 W per camera)
- CXP 2.x compliant
- Image sizes up to 268,435,456 x 16,777,216
- No frame rate or line rate limit
- Independent I/O (trigger, encoder, strobe, etc) for each camera
- Supports quadrature encoders
- On board timing sequencers
- Half-Size PCI Express Board
- Quadrature encoder support

Description

CoaXPress (CXP) is the latest Machine Vision industry designed camera-to-frame grabber interconnect standard. CXP supports a high speed downlink for video data, a low speed uplink for camera control, and power, all over standard coaxial cables. Multiple CXP connections can be aggregated to accommodate higher speed cameras. The latest CXP specification adds support for sending CXP packets over Fiber optic cables.

BitFlow's Claxon family supports both traditional CoaXPress running on coax as well as CoaXpress over Fiber (CoF). Both models can run up to speeds of 12.5 Gb/S. The biggest difference is that CXP over coax can provide power to the camera, while CXP over fiber supports cable lengths of many kilometers. The data rates and capabilities are the same for both modalities. Fiber optic assemblies are so affordable and carry such a small footprint that many customers are choosing CoF even for short cable runs.

All BitFlow Frame Grabbers come with sophisticating I/O functionality. They provide support for quadrature encoder controlled acquisition. Many different trigger configura- tions are supported for a wide range of industrial applications. Generic I/O is also included for controlling strobes, solenoids, etc.

Adding the Claxon to your application is simple with our SDK, which supports both Windows and Linux. Applications can be developed using C/C++/C# or Python and our sophisticated buffer management APIs. In addition, free drivers can be downloaded from BitFlow's web site for most 3rd-party machine vision software packages.

Specifications

Camera Interface	Compatibility	CXP 2.x
	Configuration	CoaXPress cameras running on coax or fiber optic cables
	Connectors	HD-BNC (coax), QFSP+ (fiber)
	Bus Interface	PCI Express x8 Gen 3 interface (also works in x16 slots and Gen 4 slots)
Processor and Software Support Package	Processor Architecture	x86, ARM64
	Operating System	Windows 10, 11 (x86 only), Linux (x86 and ARM)
	Supported APIs	C, C++, C#, Python
Power Requirements	Input Voltage	3.3 and 12 V_{DC} direct from PCIe slot, 12 V_{DC} if needed for PoCXP from auxiliary connector
	Overload Current Protection	Present
	PoCXP (Power over CXP)	13 W per connector (coax models only)
Environment	Operating Temperature	0 ~ 50°C (32 ~ 122°F)
	Storage Temperature	-20 ~ 80°C (-4 ~ 176°F)
	Operating Humidity	5 ~ 95% RH
Certification	Compliance	FCC CE Class A

Ordering Information

Part Number	Description
96PD-CLXPC2CXP1	1-port PCI Express CoaXPress, CXP12 Frame Grabber
96PD-CLXPC3CXP2	2-port PCI Express CoaXPress, CXP12 Frame Grabber
96PD-CLXPC3CXP4	4-port PCI Express CoaXPress, CXP12 Frame Grabber
96PD-CLXPC3FXP4	4-port PCI Express CoaXPress, CXP12 Fiber Frame Grabber
96PD-CLXPC3CXP4V	4-port PCI Express CoaXPress, CXP12 Frame Grabber with Ventilator