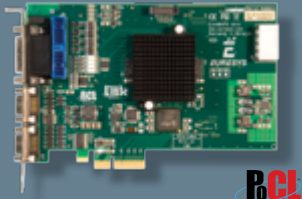


GRABLINK™

CAMERA Link
REGISTERED PRODUCT
New Version 2.0

Full XR™ - Full™ - DualBase™ - Base™

GRABLINK FULL XR, GRABLINK FULL, GRABLINK DUALBASE AND GRABLINK BASE ARE STATE-OF-THE-ART CAMERA LINK FRAME GRABBERS REPRESENTING A COMPLETE AND COMPETITIVE OFFER FOR MACHINE VISION SYSTEMS. THESE NEW GRABLINK BOARDS ARE PARTICULARLY WELL-BALANCED IN TERM OF FEATURES OFFERING ON-BOARD PRE-PROCESSING, SUCH AS LUTS AND A BAYER CFA DECODER. MOREOVER, THE INNOVATIVE ECCO FEATURE ALLOWS THE GRABLINK BOARDS TO OPERATE FAR BEYOND THE CAMERA LINK SPECIFICATIONS IN TERMS OF CABLE LENGTH OR IN TERMS OF SPEED. IN ADDITION THESE FRAME GRABBERS FEATURE A NEW RICH SET OF I/O LINES PARTICULARLY COMPATIBLE WITH A WIDE RANGE OF SENSORS AND ENCODERS.



GRABLINK Full XR

For one 80-bit, Full, Medium or Base configuration camera | **ECCO+** | PoCL SafePower compliant | Rich set of 10 digital IO lines | PCI Express x4



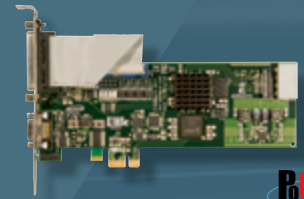
GRABLINK Full

For one 80-bit, Full, Medium or Base configuration camera | **ECCO** | Rich set of 10 digital IO lines | PCI Express x4



GRABLINK DualBase

Two Base or Lite configuration cameras | **ECCO** | PoCL SafePower compliant | Compatible with PoCL Lite cameras | Rich set of 20 digital IO lines | PCI Express x4 | Cabling accessory available



GRABLINK Base

One Base or Lite configuration camera | **ECCO** | PoCL SafePower compliant | Compatible with PoCL Lite cameras | Rich set of 10 digital IO lines | PCI Express x1, low profile

CAMERA LINK FRAME GRABBERS SUPPORTING:

- 80-bit, Full, Medium, Base and Lite configuration cameras
- Monochrome, Bayer CFA, and color RGB progressive-scan cameras
- Various acquisition modes and precise control of the cameras:
These Grablink boards support flexible and reliable area-scan acquisition modes as well as high-performance line-scan acquisition modes including quadrature motion encoder support and a unique rate converter.
The **rate converter** works along with the motion encoder and allows the camera to acquire lines at any programmable resolution lower or higher than the resolution of the motion encoder. This gives the designer incredible freedom and flexibility during the development of the application.

ON-BOARD PRE-PROCESSING

- 3 Look-up table (LUT) operators:
Monochrome operation (up to 16 bits per pixel)
RGB and Bayer color operation (up to 3x16 bits per pixel)
- Bayer CFA decoder
- Pixel formatting in numerous formats
- High-performance DMA transfers into user allocated memory with 64-bit addressing capability and image cropping capability

DIGITAL I/O LINES COMPATIBLE WITH A WIDE RANGE OF SENSORS AND ENCODERS

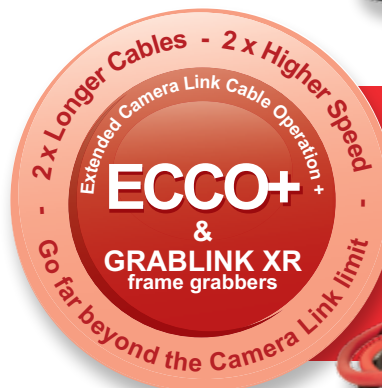
- They form a rich set of I/O lines with, per camera:
- 4 isolated current-sense inputs for a wide voltage input range up to 30V
 - 4 isolated contact outputs
 - 2 high-speed differential inputs

Moreover, +5V and +12V power outputs with electronic fuse protection are provided. The Grablink Full XR, Full, DualBase and Base I/O lines can be used as general-purpose I/O lines. They also have specific usages as trigger, strobe or quadrature motion encoder input lines.



NO ADDITIONAL COST!

Operate with 30% longer cables,
Or, achieve 30% higher speed
Or, use less costly cables.



DOUBLE LENGTH OR SPEED!

Double your Camera Link cable length,
Or, achieve twice the speed,
Or, use less costly cables



	GRABLINK Full XR	GRABLINK Full	GRABLINK DualBase	GRABLINK Base
Form factor	x4 PCI Express Full height, half length	x4 PCI Express Full height, half length	x4 PCI Express Full height, half length	x1 PCI Express Low profile, half length
Camera Link configurations	80-bit, Full, Medium or Base	80-bit, Full, Medium or Base	Base or Lite	Base or Lite
Number of cameras	1	1	2	1
PoCL SafePower compliant	✓	✓	✓	✓
Mini Camera Link SDR connector	2	2	2	1
Extended Camera Link Cable Operation	ECCO+	ECCO	ECCO	ECCO
Tap de-multiplexing incl. tap reversal	✓	✓	✓	✓
Max. pixel-clock frequency	Up to 24/48/64/80 bits@85MHz	Up to 24/48/64/80 bits@85MHz	Up to 2x10/24 bits@85MHz	Up to 10/24 bits@85MHz
Gray scale camera support	✓	✓	✓	✓
Color camera support	RGB and Bayer	RGB and Bayer	RGB and Bayer	RGB and Bayer
Area scan camera support	✓	✓	✓	✓
Compatible with PoCL Lite cameras	-	-	✓	✓
Line scan camera support	✓	✓	✓	✓
Effective delivery bandwidth	Up to 850 MB/s*	Up to 850 MB/s*	Up to 850 MB/s*	Up to 200 MB/s*
On-board memory	128 MB	128 MB	128 MB	64 MB
On-board pre-processing				
Input images	8-bit, 10-bit or 12-bit	8-bit, 10-bit or 12-bit	8-bit, 10-bit or 12-bit	8-bit, 10-bit or 12-bit
Pre-processing functions:				
- LUT operators	✓	✓	✓	✓
<i>monochrome</i>	Up to 1000 MPixel/s	Up to 1000 MPixel/s	Up to 500 MPixel/s per camera	Up to 500 MPixel/s
<i>RGB</i>	Up to 250 MPixel/s	Up to 250 MPixel/s	Up to 125 MPixel/s per camera	Up to 125 MPixel/s
- Bayer CFA decoder	Up to 225 MPixel/s	Up to 225 MPixel/s	Up to 125 MPixel/s per camera	Up to 125 MPixel/s
- Pixel formatting	✓	✓	✓	✓
- Image reconstruction	✓	✓	✓	✓
I/O electrical style	10 available on the internal as well as on the on-bracket connectors	10 available on the internal as well as on the on-bracket connectors	2x5 available on the bracket connector 2x10 available on the two internal connectors	10 available on the internal connector and possibly externally when using the standard-profile bracket
Isolated current-sense inputs for a wide voltage input range up to 30V -trigger and general purpose-	4	4	2x4 (2x2 on the bracket)	4
Isolated contact output -strobe and general purpose-	4	4	2x4 (2x1 on the bracket)	4
High-speed differential inputs -quadrature encoder and general purpose-	2	2	2x2	2
+5V and +12V power output with electronic fuse protection	✓	✓	Available on-bracket and internally	✓
Accessory	-	-	I/O Cable for Grablink DualBase	-

*Application and motherboard dependent

INTERFACED CAMERAS

The Grablink frame grabbers interface an impressive choice of different cameras including the most up-to-date models. A complete list is available on the Interfacing Cameras page of www.euresys.com.

MULTICAM DRIVER FOR WINDOWS® AND LINUX (32- and 64-bit)

SUPPORTED DEVELOPMENT TOOLS

- The 32-bit and 64-bit binary libraries are designed to be used with ISO-compliant C/C++ compilers for the development of respectively 32-bit (x86) and 64-bit (x86-64) applications.
- The ActiveX controls library is designed to be used with ActiveX-compatible development tools for the development of 32-bit (x86) applications.

ACCESSORY:

I/O CABLE FOR GRABLINK DUALBASE

This accessory exposes on a bracket one of the two sets of IO lines available from one of the two internal I/O connectors of Grablink DualBase. The I/O Cable for Grablink DualBase is an accessory delivered separately. Up to two I/O Cables can equip a Grablink DualBase to expose on two different additional brackets the two sets of I/O lines (one per camera) available from the Grablink DualBase.

ORDERING INFORMATION

	Product Code
Frame Grabbers	
Grablink Full XR	1626
Grablink Full	1622
Grablink DualBase	1623
Grablink Base	1624
Accessory	
I/O Cable for Grablink DualBase	1625