

General Information

Order Number	2200000359
Manufacturer	Basler
Type	Frame grabber
Product Series	marathon Frame Grabber
Product Type	Processing
Warranty	36 Months

Device Features

Processor	Xilinx Kintex7 XC7K160T
On-Board Memory	2 GByte DDR3-RAM
I/O Module Interfaces (Trigger and Sync)	onboard: 8in/8out (max.), TTL or opto-coupled, Front GPIO: up to 3 differential signals in, up to 4 single-ended signals in (depends on configuration), 2 TTL outputs
Power via Interface (p. port)	PoCL (4W/12V per cable, Safe Power)
Acquisition Card Features	VisualApplets compatible

Camera Interface

Standard	Camera Link 2.0
Interface	Camera Link
Configurations	■ CL-base ■ CL-deca (80bit) ■ CL-dual base ■ CL-full ■ CL-medium
Connectors	2 x SDR/HDR26 (miniCL)
Cable Length	0 - 10 meters
Power output	PoCL SafePower, 4W/12V per cable
Camera Support	■ area scan camera ■ line scan camera
Sensor Type	■ CFA sensor (Bayer) ■ Grayscale sensor ■ RGB sensor
Sensor Resolution	64k*64k (area scan sensor, VisualApplets), 64k (line scan sensor, VisualApplets)
Bit Depth	■ 8-16-bit (grayscale) ■ 24-48-bit (color)
Data Bandwidth	1 × 6.8 Gbit/s (850 MB/s)
Data Bandwidth (per port: Total)	6.8 Gbps; 6.8 Gbps (850 MB/s)

Data Bandwidth (p.port, total)	0.6 Gbps, 0.6 Gbps (600 MB/s)
No. of Ports	2
Test Environment	Camera Simulator

Host PC Interface

PC Bus Interface	PCIe 2.1 ×4, DMA1800
PC Bus Interface Performance	up to 1800 MB/s (sustainable)

Controls and General-Purpose I/Os

Trigger Board GPIO Interfaces	Box connector (34-pin)
On-board GPIO interface	One 34-pin flat cable connector onboard: 8 input signals and 8 output signals with open-drain optionally as 4 opto-coupled inputs (4,5V - 28V), optional 2 opto-coupled differential inputs (RS422); 4 opto-coupled outputs (4,5V - 28V)
On-board Front GPIO Interface	■ 2 TTL outputs, up to 20 MHz frequency ■ One 15-pin D-Sub socket: 2 opto-coupled differential inputs (RS422) and 1 opto-coupled differential / single ended input
GPIO Synchronisation and Control	Configurable Trigger System supporting several trigger modes (grabber controlled, external trigger, gated, software trigger) and shaft encoder functionality with backward compensation, Multi-Camera-Synchronization

GPIO Interface Summary

- 4 in/2 out (max.), TTL or opto-coupled; differential or single-ended signals (configuration dependent)
- 8 in/8 out (max.), TTL or opto-coupled; differential or single-ended signals (configuration dependent)

Processing Features

Basic Features

- Image Selector
- Invert
- LUT
- Mirroring
- Offset/Gain/Gamma correction
- ROI
- Tap Sorting (Sensor Readout Correction)
- White Balance

Physical and Environmental Information

Dimensions

PCIe Standard height, half length card: 167.64 mm
length x 111.15 mm height

Weight

200 g

Power Consumption / Power
Source

12 V, 1 A (actual values depend on processing)

Operating Temperature

50° (0 LFM*), 60° (100 LFM*) FPGA operating
temperature: 0°C to 85°C, * LFM = Linear Feet per
Minute, unit for measuring airflow velocity

minute, unit for measuring air flow velocity

Storage Temperature	-50 - 80 °C (-58 °F - 176 °F)
Relative Humidity (operating, storage)	5 - 90 % non-condensing (operating), 0 - 95 % (storage)
MTBF	pending

Software

Software Drivers	■ Linux 64-Bit ■ Windows 11 / 10 (64-Bit) ■ Windows 11 / 10 (32-Bit)
Software Tools	■ Device Drivers ■ Documentation ■ microDiagnostics (Analysis and service tool) ■ microDisplay (Acquisition control and viewer) ■ SDK
Software API	■ .net interface ■ Framegrabber SDK
FPGA Programming	VisualApplets
MV Software Compatibility	■ Halcon ■ others on request ■ VisionPro

Manufacturer

Basler

Conformity

CE (incl. RoHS)

FCC

UKCA

Documentation

[More specifications can be found in the Documentation](#)