General Information

Order Number	2200000358
Manufacturer	Basler
Type	Frame grabber
Product Series	marathon Frame Grabber
Product Type	Acquisition
Warranty	36 Months

Device Features

Processor	Xilinx Kintex7 XC7K70T
On-Board Memory	512 MByte 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)

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	16k*64k (area scan sensor), 32k (line scan sensor),16k (-65k) (line scan sensor, depends on applet)
Bit Depth	▪ 8-16-bit (grayscale) ▪ 24-48-bit (color)
Data Bandwidth	1 × 6.8 Gbit/s (850 MB/s)
Data Bandwidth (p.port; Total)	6.8 Gbps; 6.8 Gbps (850 MB/s)
No. of Ports	2

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	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 Voltage, typ. current (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
Storage Temperature	-50 - 80 °C (-58 °F - 176 °F)

Storage Temperature	-30 - 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	not programmable
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