General Information

Order Number	2200000354
Manufacturer	Basler
Type	Frame grabber
Product Series	marathon Frame Grabber
Product Type	Acquisition
Warranty	36 Months

Device Features

Processor	Xilinx Kintex7 XC7K160T
On-Board Memory	1 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)	PoCXP (13W/24V per cable, Safe Power)

Camera Interface

Standard	CoaXPress 1.0/1.1

Interface	CoaXPress (CXP-6)
Configurations	CXP1-6; up to 4 cameras
Connectors	4 x DIN 1.0/2.3
Cable Length	11 - 40 meters
Power output	▪ 13W/24V per cable ▪ Power over CXP ▪ SafePower
Camera Support	▪ area scan camera ▪ line scan camera
Sensor Type	▪ CFA sensor (Bayer) ▪ Grayscale sensor ▪ RGB sensor
Sensor Resolution	8k (-65k)*65k (area scan sensor, depends on applet),65k (line scan sensors)
Bit Depth	▪ 8-16-bit (grayscale) ▪ 24-48-bit (color)
Data Bandwidth	4 × 6.25 Gbit/s (780 MB/s)
Data Bandwidth (p.port; Total)	6.25 Gbps; 25 Gbps
No. of Ports	4
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	12 in/10 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 ▪ 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	typ. 1.075 A @ 12V (actual values depend on image pre-processing), maximum load: 3.15 A (single supply over 4-pin power connector)
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)
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	▪ Cognex ▪ Halcon

Manufacturer

Basler

Conformity

CE (incl. RoHS) FCC UKCA

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Documentation	More specifications can be found in the Documentation