XStream

Model XS-1440p PCIe 3.0

The IDT X-Stream 1440p PCIe 3.0 offers continuous frame streaming with a PCI Express 3.0 x4 interface that achieves a sustained transfer speed of 3.87 GB/s; surpassing the transfer rate of its PCIe 2.0 counterpart. Its flexible design has been implemented around our CMOS sensor with Global Shutter delivering up to 670 fps at full resolution (2560 x 1440 pixels). Advanced features include Frame to frame Auto-exposure, Motion Trigger and Double-exposure for PIV users. The especially tuned Motion Monitor application operates the camera in the Windows®, Linux® or Mac OS® X environments with features that include always-on live, record while saving and on-demand playback from disk. The X-Stream 1440p PCIe 3.0 camera is especially suited for a variety of uses ranging from industrial and packaging inspection, microscopy, media/cine including special effects, traffic control and surveillance.

- Streaming camera
- High-resolution and frame rate
- High sensitivity, low noise
- PCIe 3.0 x4 interface

APPLICATIONS

Research & Development, Instructional Labs, Media

KEY FEATURES

Maximum Resolution	2560 x 1440
Maximum FPS @ Maximum Res	670 fps
Maximum FPS	109,644 @ 2560 x 8
Operating Temperature	-40+40 °C / -40+104 °F

FRAME PROPERTIES

Sensor Type	CMOS – Proprietary
Sensor Size	17.9 x 10.1 mm
Sensor Format	1.3 inch
Pixel Size (micron)	7.00 x 7.00 um
Pixel Depth	11 bit mono 30 bit color
Sensitivity	6,000 ISO Mono 2,000 ISO Color
Min. Exposure Time	1μs
Array	3.7 megapixel
Quantum Efficiency	1

MECHANICAL

Weight	0.24 kg or 0.53 lbs
Dimensions	65 x 120 x 36.5 mm (W x H x L)
Shock & Vibration	Shock: 100G /Vibration: 40G – All axes
Mount	Manual Micro Four Thirds Mount (Standard), C-Mount or C/F-Mount optional

TRIGGERING AND SYNCHRONIZATION

Sync In	LVCMOS
Sync Out	Frame sync / Strobe
Trigger	TTL & Switch/Circular buffer with on-camera or software trigger

POWER

Input Voltage	6 VDC

EMBEDDED LOGIC

User defined ROI's and LUT's	Standard
Frame to frame Auto-Exposure and Motion Trigger	Standard

SOFTWARE

Plug-ins/SDK	SDK, LabVIEW™ or MatLab®
File Formats	Proprietary RAW
On-the-fly Conversion	TIF, BMP, JPG, PNG, AVI, MPG, TP2, MOV, MRF, MCF