XStream

Model 1440p PCIe 2.0

The IDT X-Stream 1440p PCIe 2.0 offers continuous frame streaming with a PCI Express 2.0 x4 interface that achieves a sustained transfer speed of 1.75 GB/sec. This flexible design has been implemented around our CMOS sensor with Global Shutter delivering over 400 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 2.0 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

APPLICATIONS

Research & Development, Instructional Labs

KEY FEATURES

Maximum Resolution	2560 x 1440
Maximum FPS @ Maximum Res	420 fps
Maximum FPS	75,600 fps @ 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	10 bit mono 30 bit color
Sensitivity	6,000 ISO Mono 2,000 ISO Color
Min. Exposure Time	1µs
Array	3.7 megapixel
Quantum Efficiency	60%

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