CrashCamMini™

Model CCM-5K05

The CrashCam™ mini 5K05 is a special order camera designed with rugged, high-G and vibration-ratings to withstand harsh, space-limited testing environments. With its ultra-compact design, this camera has become the industry standard for on-board vehicular testing and instrumentation of test dummies, but its versatility can be leveraged in any industry. The Model 5K05 supports 5120 x 2880 resolution with up to 500 fps and comes standard with 8GB DDR RAM, USB-C interface and C-mount lens mount. Additional configuration options include an alternative LEMO interface, replacing the USB-C and HDSDI interface with a 16-pin LEMO connector and a motorized Micro Four Thirds lens mount for non-high-G applications. IDT's optional airborne feature includes special nano coating to protect against condensation due to rapid changes in ambient conditions, and supports GiGE Vision and Chapter 10 IRIG standards.

- 5K Resolution
- Ultra-compact form factor
- HDSDI output
- MicroSD compatible

APPLICATIONS

Automotive, Research

KEY FEATURES

Maximum Resolution	5120 x 2880
Maximum FPS @ Maximum Res	500 fps
Maximum FPS	56,000 @ 5120 x 16
Operating Temperature	-40+50°C / -40+122°F

FRAME PROPERTIES

Sensor Type	CMOS – Proprietary
Sensor Size	18.4 x 10.4 mm
Sensor Format	1.3 inch
Pixel Size (micron)	3.51 x 3.51 µm
Pixel Depth	12 bit mono 36 bit color
Sensitivity	6000 ISO Mono 2000 ISO Color
Min. Exposure Time	1µs (*Shorter Integration optional)
Array	12 megapixel
Quantum Efficiency	1

MECHANICAL

Weight	0.27 kg or 0.59 lbs
Dimensions	44 x 44 x 70 mm (W x H x L)
Shock & Vibration	Shock: 200G / Vibration: 40G – All axes
Mount	C-Mount (Standard), Motorized MFT

TRIGGERING AND SYNCHRONIZATION

Sync In	Phase-lock TTL, IEEE1588, 1PPS
Sync Out	Frame sync / Strobe
Trigger	TTL & Switch/Circular buffer with on-camera or software trigger
HDSDI	Standard

POWER

Input Voltage	7.5-14VDC

COMMUNICATION INTERFACE

Ethernet	2.5 Gbps

EMBEDDED LOGIC

Debayering	Color Cameras Only
Temporal Noise Reduction	Standard
Dynamic Noise Reduction	Standard
User defined ROI's and LUT's	Standard
Frame to frame Auto-Exposure and Motion Trigger	Standard

IMAGE CAPACITY

DDR	8GB
MicroSD	Up to 400GB (Tested)

SOFTWARE

Motion Studio	Windows 32/64
Motion Inspector	Windows 32/64 – MAC OS X – Apple iOS
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