

## IT-Alkeria-CELERA Series



Alkeria, a company insisting on quality and innovation, holds strong expertise in high-performance digital image acquisition and motion control.

CELERA dual-USB3 cameras provides unrivaled speed, extreme flexibility and quick system integration. Its double USB3 interface, ultra-fast acquisition rate, extremely reduced dimensions and rugged design make CELERA cameras suitable for the most demanding applications: automated optical inspection, high performance sorting systems, industrial metrology, microscopy, medical diagnostics and machine vision.

- **Dual-USB3 interface:** twice the bandwidth with double USB3 interface, supporting the maximum frame rate of both CMV4000 and CMV2000 image sensors.
- **Powered directly by the USB3 bus, eliminating the need for external power adapters**
- **User-controlled image processing:** Independent LUTs, gamma correction, white balance, brightness, contrast, sharpness, saturation and hue
- **Control sequencing mechanism allows up to 64 different video settings to be applied to a sequence of subsequent frames.**
- **Tiny rugged design; Maximum sensor size: 1"**
- **Comprehensive I/O, Shielded I/O cable:** with 2 inputs, 2 outputs and 1 I/O, CELERA series offers unprecedented flexibility for interfacing to outer world signals: direct encoder readout and strobed lightening have never been so easy.
- **F mount adapter; C mount adapter is always supplied but can be removed easily.**
- **Max. resolution: 5M pixels; Frame rate up to 340fps at the max. resolution**
- **Fast global-shutter CMOS technology; A / D conversion: up to 12 bit; Advanced triggering**
- **Triple programmable LUTs:** Independent LUTs (one for each color) allow easy color thresholding, filtering and calibration for color-critical applications.
- **Smart data:** Embedded timestamp, trigger counters, encoder position, latched input status and input change detection allow perfect image-to- real world pairing.
- **API:** An easy-to-use set of software API is available which allows developers to quickly produce fast and well readable code on Windows (VC++/C#/VB.Net) and Linux (C++).

Model	Pixel Class	Resolution	Pixel Size $\mu\text{m} \times \mu\text{m}$	Sensor Type	Sensor Size	Max. Frame Rate (fps)	Shutter	Exposure Time	Interface	Lens Mount	Dimensions $\text{mm} \times \text{mm} \times \text{mm}$
C2K-M/C	2.2M	2048*1088	5.5 $\mu\text{m}$ *5.5 $\mu\text{m}$	CMOS(AMS CMV2000)	2/3"	337(Mono)/174(Color)	Global	15 $\mu\text{s}$ -5s	2*USB3.1 Gen1	C Mount, optional F Mount	56*56*30.85 (with C Mount Adapter)
C4K-M/C	4.2M	2048*2048	5.5 $\mu\text{m}$ *5.5 $\mu\text{m}$	CMOS(AMS CMV4000)	1"	179(Mono)/92(Color)		26 $\mu\text{s}$ -5s			
C3S-M/C	3.1M	2048*1536	3.45 $\mu\text{m}$ *3.45 $\mu\text{m}$	CMOS(SONY Pregius® IMX252)	1/1.8"	216(Mono)/120(Color)		17 $\mu\text{s}$ -5s			
C5S-M/C	5M	2448*2048	3.45 $\mu\text{m}$ *3.45 $\mu\text{m}$	CMOS(SONY Pregius® IMX250)	2/3"	152(Mono)/76(Color)		17 $\mu\text{s}$ -5s			
C12S-M/C	12.4M	4112*3004	3.45 $\mu\text{m}$ *3.45 $\mu\text{m}$	CMOS(SONY Pregius® IMX304)	1.1"	23(Mono/Color)		29 $\mu\text{s}$ -5s			
C12SX-M/C	12.4M	4112*3004	3.45 $\mu\text{m}$ *3.45 $\mu\text{m}$	CMOS(SONY Pregius® IMX253)	1.1"	62(Mono)/31(Color)		25 $\mu\text{s}$ -5s			