



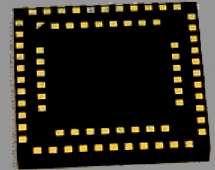
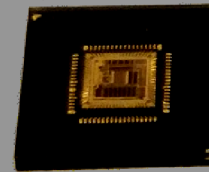
AISTORM



AIS-C100C

Cheetah

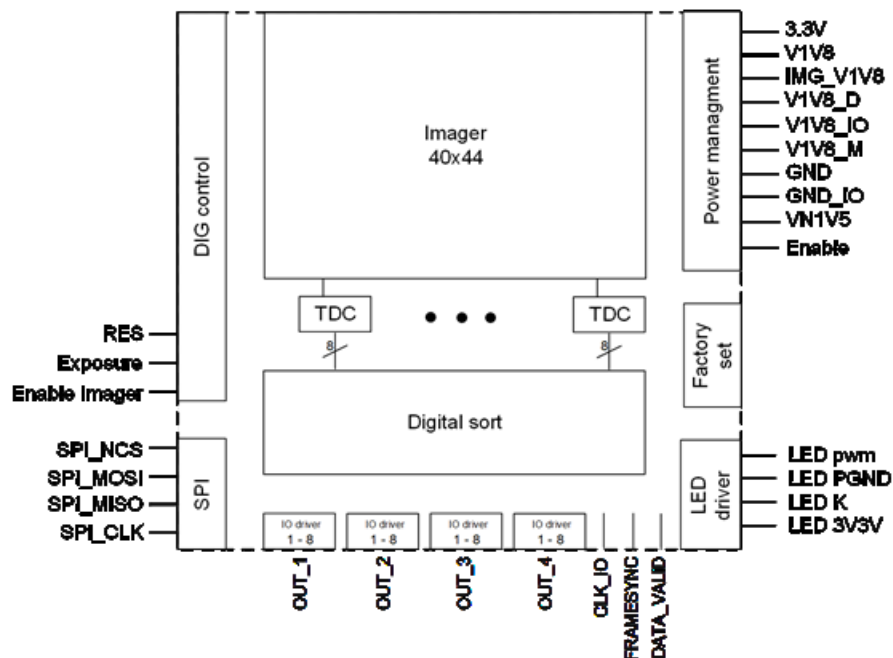
Ultra High-Speed Imager



PRODUCT BRIEF

AIStorm's Ultra High-Speed Cheetah is a 20x44 high speed imager capable of up to 10kFPS operation. Each pixel is converted to an 8-bit digital signal through a high-speed proprietary interface. An Integrated LED driver is provided which can support (up to) 40mA LED current with programmable linear and PWM dimming control. Cheetah is an excellent alternative to competitive high speed imagers due to its low cost and small form factor. Rather than a large apparatus, multiple Cheetah can be used to focus on the items of interest rather than wasting resources on areas where the system being monitored is not moving. Cheetah is available in a 4.6 x 5.5mm OLGA package. Cheetah contains all power management, exposure control, and a SPI digital interface for register based setup.

BLOCK DIAGRAM





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KEY FEATURES

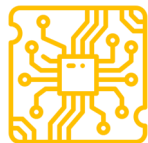
- ⊕ **On Board Camera**
 - 20x44 High Speed Imager
 - up to 10kFPS
- ⊕ **Charge-Sensor Pixel Imager**
 - direct pixel charge processing
 - charge to digital conversion
- ⊕ **4 High Speed 8-bit parallel digital I/Os for pixel data output (32 I/Os total)**
- ⊕ **SPI Interface**
 - registers configuration
 - setting LED driver
 - setting current limit
- ⊕ **On Board Power Management**
- ⊕ **On Board VCO and PLL**
- ⊕ **4.6x5.5mm OLGA Package**
- ⊕ **LED driver supporting internal and external PWM control (up to 40mA)**
- ⊕ **PWM driver for generating external negative bias voltage**
- ⊕ **Four configurable GPIO's**
- ⊕ **8 bit pixel resolution**
 - may be reduced to 4 or 2 bit to limit data throughput
- ⊕ **Minimal external components minimize footprint**

APPLICATIONS

The Cheetah AIS-C100C is a 20x44 high speed imager capable of up to 10kFPS operation. It contains on-board power management, timing and exposure control with 8-bit pixel accuracy. Cheetah AIS-C100C outputs data on a row by row basis using a 32 bit wide parallel bus. Resolution can be set by register to reduce the data output or change the frame rate. Cheetah AIS-C100C is available in a 4.6x5.5mm OLGA package.



Gamer Mouse



PCB Inspection



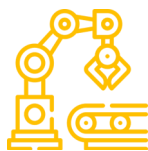
Barcode Readers



High Speed Inspection



High Speed Tracking



High Speed Assembly



Semiconductor Inspection