# Argos®<sup>2D</sup> - D100

The smart CDK - Camera Dev. Kit



The Argos camera platform stands for state of the art processor technology combined with outstanding image processing software to build a modular, intelligent embedded camera system integrated into a smart housing with high quality optics. This platform grows with the market demands due to its System-on-Module (SOM) based hardware design. The housing stays the same whereas the processing hardware can be exchanged.

The first hardware release is based on Bluetechnix' latest ADSP-BF561 SOM called CM-BF561. This powerful Blackfin® based dual core (2 x 600MHz) module with a large number of peripheral interfaces and a huge memory capacity of 128MByte SDRAM and 32MByte NOR flash, are the perfect basis for your high end image processing applications. The Argos<sup>2D</sup> - D100 can be bought with a complete board support package that can be tailored to your requirements.

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#### Highlights

- » Powerful Blackfin® based hardware
- » High resolution camera
- » Plug & Play camera kit
- » Mountable smart housing
- » Stand alone intelligent camera
- » Rich BSP & free software available

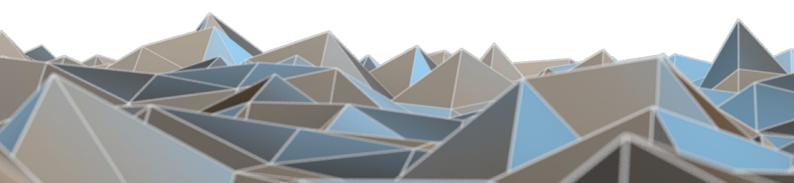
### Applications

based on

- » Object Recognition Systems
- » Industrial Vision
- » Security & Surveillance
- » Advanced Driver Assistance Systems
- » Automation and Control

## Ordering Information

| Order No.  | Info                                                       |
|------------|------------------------------------------------------------|
| 150-0001-1 | $\operatorname{Argos} \mathbb{R}^{2D}$ - D100 CDK based on |
|            | BF561 and MT9M131 CS mount                                 |
| 106-2203   | BLACKSheep® OS                                             |



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## BLUETECHNIX Embedding Ideas

### Software Overview

The Argos<sup>2D</sup> - D100 can be bought with a complete board support package that can be tailored to your requirements. In addition to this the "Video Analytics Toolbox" a C-callable API for the Blackfin processor, can be used. This video analytics tool can be used in video surveillance for detection of events such as intrusion detection, left/removed object detection, foreground objects/blob detection etc.

- » BLACKSheep® OS full BSP
- » Video Analytics Toolbox from Analog Devices
- » uClinux

#### BLACKSheep® OS BSP Features

- » RTOS based on VDK from ADI
- » Embedded webserver
- » JPEG encoder
- » Ethernet drivers
- » Streaming support
- » Frame grabber
- » Peripheral drivers (SD-Card, flash, SPI, etc.)
- » Multithreaded environment

#### Video Analytics Toolbox Features

- » Detection of foreground objects
- » Output Status: Detected Objects
- » ROI : Region of Interest specified to enable detection only in regions of specific interest
- » Configurable: Three versions of the algorithm for scalability. Algorithms are configurable by user
- » Decimation: Input can be scaled by half both horizontally and vertically for reduced resolution support
- » Primitives : VAT Primitives'API library

### Feature Overview

| PROC                                 | ESSOR         | Analog Devices ADSPBF561                                                      |
|--------------------------------------|---------------|-------------------------------------------------------------------------------|
| CLOC                                 | К             | 2 x 600MHz                                                                    |
| RAM                                  |               | 128 MByte SDRAM                                                               |
| FLAS                                 | H             | 32MByte NOR                                                                   |
| IMAG                                 | ER            | Aptina MT9M131<br>- up to 15 fps @ 1280H x<br>1024V<br>- 30 fps @ 640H x 480V |
|                                      | COMPOSITE     | 1                                                                             |
| INTERFACES                           | ETHERNET      | 1x10/100MBit Ethernet PHY                                                     |
| ERF                                  | USB 2.0       | 1 x Device                                                                    |
| ILNI                                 | LENS<br>Mount | M12 or CS mount lenses                                                        |
| POWER SUPPLY<br>TEMPERATURE<br>RANGE |               | 12V <sub>DC</sub>                                                             |
|                                      |               | Commercial 0 to +70 °C                                                        |
| TRIP                                 | OD MOUNT      | 1 x 1/4"                                                                      |
| DIMENSIONS                           |               | 143 x 55 mm (without lense)                                                   |



Argos<sup>2D</sup> - D100 connector view

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