eCAM-i.MX

The embedded camera platform

The upcoming eCAM 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 i.MX53 SOM called CM-i.MX53. This powerful ARM® Cortex™-A8 (1GHz) based module with a large number of peripheral interfaces and a huge memory capacity of 1GByte DDR2-SDRAM and 2GByte NAND flash, are the perfect basis for your high end image processing applications.

The eCAM comes with a complete software application framework that can be tailored to your requirements. In addition to this the Advanced Development and Analysis Framework (ADAF) developed by NISYS can be used to build stand alone object recognition systems e.g. traffic sign recognition, license plate detection etc.

Highlights

- » **Powerful i.MX53 based hardware**
- » **High resolution camera**
- » **Plug & Play camera kit**
- » **Mountable smart housing**
- » **Stand alone intelligent camera**
- » **Free software and lots of demos available**
- » **Optional ADAF pre-installed on SD-card**

Applications

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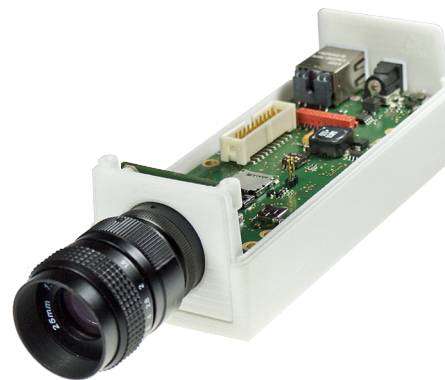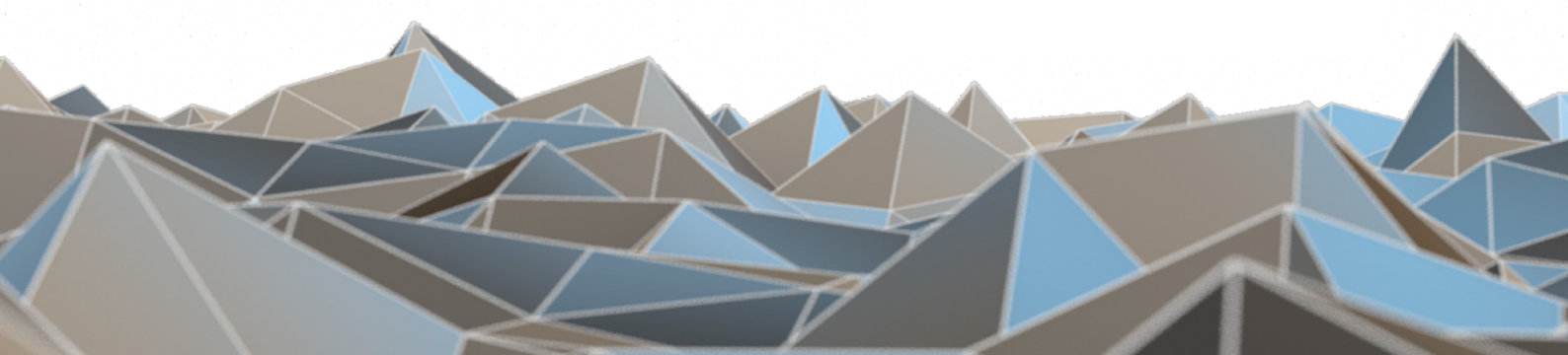- » **Automation and Control**

eCAM-i.MX connector view

eCAM-i.MX

The embedded camera platform

Feature Overview

SoC	Freescale i.MX535 (ARM® Cortex™-A8)
CLOCK	1GHz
RAM	1GByte DDR2-SDRAM
FLASH	4MByte NOR / 2GByte NAND
IMAGER	Aptina MT9M131 - up to 15 fps @ 1280H x 1024V - 30 fps @ 640H x 480V
INTERFACES HDMI	1
INTERFACES ETHERNET	1x10/100MBit Ethernet PHY
INTERFACES USB 2.0	1 x OTG
INTERFACES LENS MOUNT	M12 or CS mount lenses
POWER SUPPLY	12V$_{DC}$
TEMPERATURE RANGE	Commercial 0 to +70 °C
TRIPOD MOUNT	1 x 1/4"
DIMENSIONS	143 x 55 mm (without lense)

NISYS ADAF
Advanced Development and Analysis Framework

ADAF by NISYS consists of an operating system independent middleware and a GUI. The middleware provides the following functionalities:
» Integration of arbitrary sensor devices (Camera, CAN, GPS...)
» Data recording and replay featuring a microsecond timestamp resolution
» Synchronization of different sensors during recording and replaying
» Framework for development and integration of processing plugins
  • C / C++
  • Scripting language Lua
» User defined input / output structures
» Coupling of plugins via processing graph

Due to the strict separation of core and GUI functionalities, you are able to design the user interface matching your requirements.
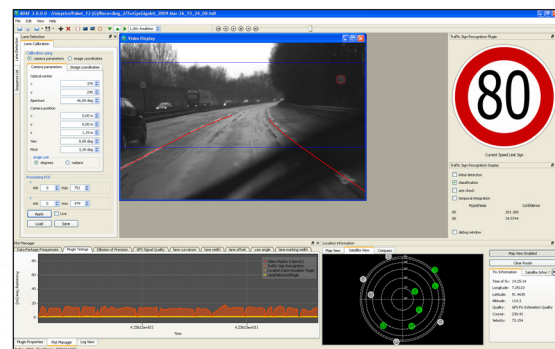
Further information on **www.nisys.de**

ADAF lane detection, traffic sign recognition

Software

» **Linux Board Support Package (v2.6.35)**
» **NISYS ADAF for Linux**
Further information on
www.bluetechnix.com/goto/ecam-i.mx

Ordering Information

Order No.	Info
150-1001-1	eCAM-i.MX based on i.MX53 and MT9M131 CS mount