

Doc ID:	DPLS_DS003	File:	DPLS_PB0003_SC80_ProductBrief.odt
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SmartCam80

Quick Overview

SmartCam80 is an integrated vision sensor targeting surveillance and monitoring applications. Building upon the expertise of DIAPLOUS in industrial vision SmartCam80 provides a new level of scene analysis that would require costly high-end server-side VCA to implement otherwise.

Target Applications

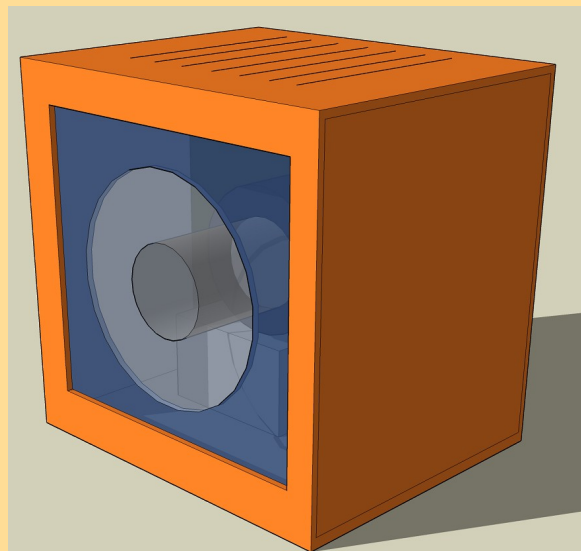
- Surveillance
- Pool-safety Monitoring
- Non-intrusive monitoring of Elderly & Disabled persons at home

Major Features

- Small Integrated Vision System
- Image resolution up to 3Mpixels
- Configurable via any http browser
- No-video stream (blind mode) support

Technology

- Custom ASIC with dual-core processing and dedicated hardware accelerators
- Special architecture to minimise need for memory transfers



Interfaces

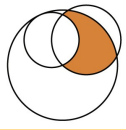
- User interface through gesture recognition
- Embedded HTTP server for configuration
- VGA output (option)
- Ethernet with PoE
- Optional RF connection (ZigBee/DECT)
- Additional digital I/O for connection to control infrastructure

Scene & Event Analysis Capabilities

- Virtual Fence /virtual door
- Detection of Presence
- Face & Gesture Recognition for Control
- Movement detection and tracking
- Abandoned Objects
- Non-moving Person detection
- Alignment to reference points
- Automatic image stabilisation
- Panic-mode (transmits image when moved from position)
- HW-only Wake-on-Event (for low power)
- Regions-of-Interest and Blind-zones
- Handover (for multi-sensor installations)
- Friendly API to create custom VCA tasks



For more information contact: Diaplous Machine Vision, www.diaplous.com, email: info@diaplous.com



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Specification Description Tables

Application Templates Available for SmartCam80

eyeGRID/Safe	Surveillance
eyeGRID/Pool	Pool-safety Monitoring
eyeGRID/Help	Non-intrusive monitoring of Elderly & Disabled persons at home

Features

Supported Frame Rates	90fps reduced resolution, 15fps full resolution
Image resolution	From 320x240 up to 2048x1536
Configuration	Through Embedded HTTP Server
Blind mode support	In cases where personal-data-protection rules do not allow recording but we still need to capture events.
Power Supply	Through Wallmount PSU or via Power-over-Ethernet
Software	Embedded OS with full TCP/IP stack
API	Two layer API for novice and experienced users.
Dedicated Processing	Custom ASIC with dual-core processing and dedicated HW accelerators
Optimised Memory Access	Special DMA structures to minimise need of transfers outside the ASIC

Interfaces

User interface	Through gesture recognition
Image output (option)	VGA Resolution
LAN	Ethernet 10/100
Low-speed RF (option)	ZigBee or DECT
Digital I/O	Up to 8 configurable I/O ports for connection to control infrastructure

Scene & Event Analysis Functions

Virtual Fence /virtual door	Define fences/doors and detect persons passing buy
Detection of Presence	Detect if there is a person in a defined region
Face & Gesture Rec.	For User Interface, Control, Person Tracking etc.
Movement detection	When an object or person moves, keep track of the movement path
Abandoned Objects	Detect if an object has been moved in and left there unattended
Non-moving Person detect	When there is a person who does not move, can generate an alarm event
Align to reference points	Automatically adapted ROIs and Virtual Fences
Auto image stabilisation	To minimise effect of shaking camera
Panic-mode	Transmits image when someone tries to move the camera out of view.
HW-only Wake-on-Event	Simple events can be detected in HW with the rest of the system in sleep mode to achieve low power operation
Rol & Blind-Zone	User can define any shape and number of ROI or set Blind zones.
Handover	Tracking of moving persons can continue from one camera to the next so that the whole path of motion is recorded in multi-sensor installations.