

# Intelligent occupancy sensor

## High-performance motion detection solution

### Overview

The Intelligent occupancy sensor (IOS) is a motion detection solution that captures and processes analog video from external NTSC/PAL sources or from the onboard image sensor using ObjectVideo's Event Counting Suite (included).

The IOS is a generic design that can be configured as a prototyping environment or as a reference design. Used as a prototyping environment, the IOS is useful in developing code and applications based on ObjectVideo's digital video processing libraries. The hardware supplied with this configuration includes several components that can be removed as necessary. The prototyping configuration can also be used in demonstration units.

When used as a reference design, the IOS is the perfect tool in evaluating ObjectVideo technology. The reference design hardware is a cost-effective version of the prototyping configuration—the perfect starting point in developing OEM-specific products.

The system can be wired to a network through Ethernet or it can function through its wireless capabilities (ZigBee or Wi-Fi, optional).



Representation of an Integrated IOS

### AT A GLANCE

- TMS320DM643x DSP from TI
- Actel Fusion FPGA
- ObjectVideo's Event Counting Suite
- Composite video input/output
- Wi-Fi, ZigBee enabled

### Event Counting Suite

The ObjectVideo Event Counting Suite is the most robust counting application available on the market. It offers a comprehensive set of functions and flexible camera placements to address vital people and vehicle counting applications, including occupancy and dwell-time detection features, unavailable until now.

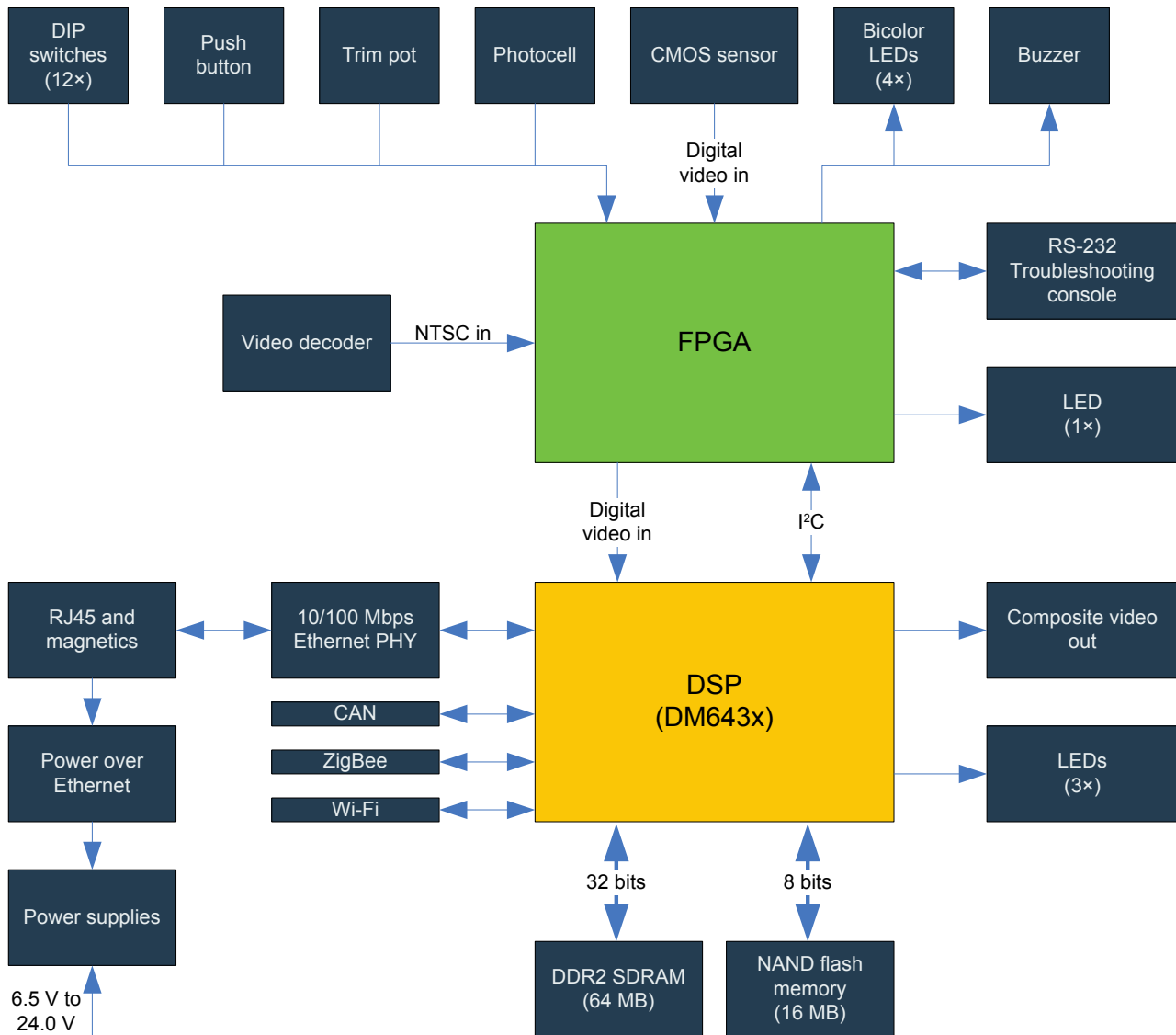


Multicamera and multirule functions allow users to aggregate data from across the enterprise, while Web-based monitoring and reporting interfaces allow them to access desired data outputs from anywhere, at any time.

## Specifications

Texas Instruments TMS320DM64x DSP	<ul style="list-style-type: none"> <li>• Up to 600 MHz</li> <li>• 4800 MIPS</li> </ul>
Actel AFS090 Fusion FPGA	<ul style="list-style-type: none"> <li>• 90,000 system gates</li> <li>• 2 megabits of flash memory</li> </ul>
Composite video input	<ul style="list-style-type: none"> <li>• NTSC</li> <li>• PAL</li> </ul>
Composite video output	<ul style="list-style-type: none"> <li>• NTSC</li> <li>• PAL</li> </ul>
DDR2 SDRAM	<ul style="list-style-type: none"> <li>• 64 MB</li> <li>• 166 MHz</li> </ul>
NAND flash memory	16 MB
Power input	6.5 V DC to 24.0 V DC or power over Ethernet (PoE)
Micron MT9V111 CMOS sensor (or similar)	<ul style="list-style-type: none"> <li>• 0.25-inch, SoC CMOS active-pixel digital image sensor</li> <li>• VGA (640x480 pixels)</li> </ul>

# Block diagram



## FOR MORE INFORMATION

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