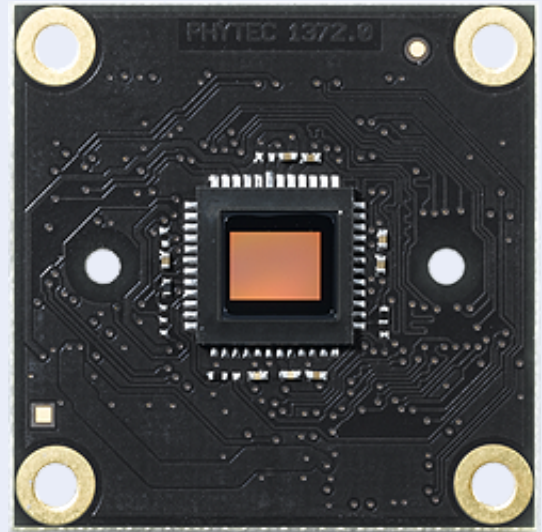


CAM



## Overview

Digital Camera Module with 5 Megapixel resolution for direct connection with LVDS SOM interface (color).

VM-011-COL-LVDS is equipped with the Aptina MT9P006 color CMOS sensor. Aptina's DigitalClarity technology offers outstanding image quality. The 5 megapixel resolution (2592H x 1944V) is designed for applications that require high-resolution images.

The integrated „windowing“ function allows for the resolution to be reduced and adjusted depending on the task. This feature offers the implementation of pan-and-scan without moving parts. In addition, complicated adjustments of the camera board during the implementation phase are no longer necessary.

Due to the reduced resolution, the readout speed can be increased. Therefore frame rate and enable the camera to capture HDTV (720p) video at 60 fps..

As for all phyCAM Modules, all parameters such as exposure time, gain and more can be adjusted via software.

VM-011-BW-LVDS is equipped with the serial phyCAM-S+ interface. It can connect directly to the SOM LVDS camera interface. All PHYTEC phyCARD and phyFLEX SOMs offer this interface, which is implemented on the PCB.

All camera drivers and demo programs are already implemented in the Board Support Package for the respective SOM.

This camera board is equipped with a color Aptina CMOS sensor MT9P006. The image data format is Bayer Pattern. Optional Y12 is available by jumper configuration. The camera is designed for an extended temperature range of -25°C to +70°C.

The camera module is available with three housing options: PCB-version (sensor only), with M12 or with C/CS-mount lens holder.

## Technical Details

### VM-011-COLOR

#### Camera Characteristics

<b>Resolution</b>	5 Mpixel
<b>Image Resolution (H x V)</b>	2592 x 1944
<b>Sensor Size</b>	1/2.5" 5.7 x 4.28 mm
<b>Pixel Size</b>	2.2 x 2.2 µm
<b>Color / Monochrome</b>	monochrome
<b>Sensor Technology</b>	CMOS
<b>Sensor Chip</b>	Aptina MT9P006
<b>Scanning System</b>	progressive
<b>Shutter Type</b>	rolling
<b>Frame Rate, max (fps)</b>	up to 7.8 fps
<b>Video Resolution</b>	n/a
<b>Sensitivity</b>	1.4 V/lux-sec
<b>Dynamic Range</b>	67.74 dB

<b>Exposure Time</b>	programmable
<b>Gain</b>	x1...x32
<b>AEC</b>	n/a
<b>AGC</b>	n/a
<b>White Balance/AWB</b>	n/a
<b>Ext. Trigger / Sync.</b>	Trigger / Strobe
<b>ROI</b>	yes
<b>Binning</b>	2x2 / 4x4
<b>Mirror</b>	programmable
<b>Electrical Interface</b>	
<b>Interface Type</b>	digital
<b>Connection</b>	phyCAM-S+
<b>Data Format</b>	8 seriell
<b>Interface Mode</b>	Y8
<b>Dataline Shifting</b>	-
<b>Parameter Settings</b>	I <sup>2</sup> C
<b>Supply Voltage</b>	3.3 V
<b>Power Consumption</b>	700 mW
<b>Standby Power</b>	60 mW
<b>Mechanical Specifications</b>	
<b>Lens Mount</b>	none / M12 / C-CS
<b>Dimensions (mm)</b>	34 x 34
<b>Mounting</b>	4 x M2.5
<b>Weight</b>	5g
<b>Operating Temperature</b>	-25 to 70°C
<b>Connections</b>	
<b>Signal Output</b>	Hirose 8 pol.

**Trigger / Sync.** JST 3 pol.  
Crimp

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**Part number** VM-011-BW

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## Pricing plus VAT

**VM-011-COL-LVDS**

Quote

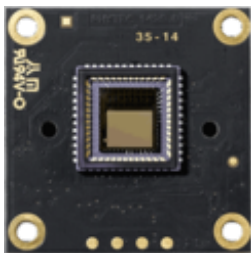
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## Download

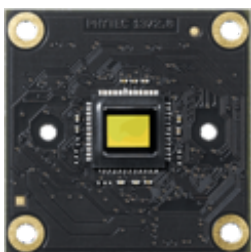
See here for the VM-012 phyCAM-S+ Color Download section.

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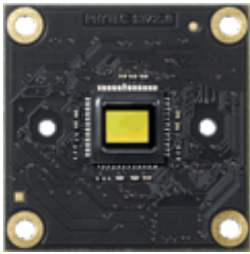
## Related Products



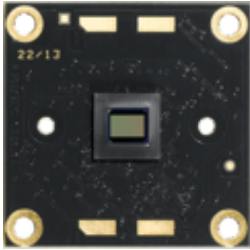
VM-012: phyCAM-P - monochrome



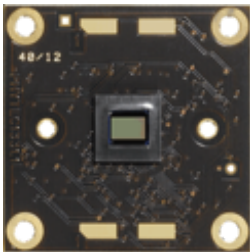
VM-011: phyCAM-P - monochrome



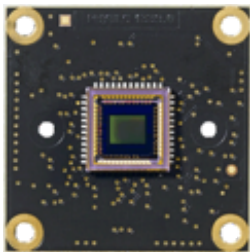
VM-011: phyCAM-P - color



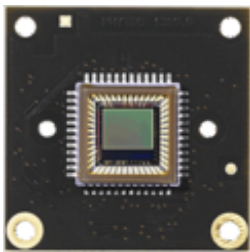
VM-010: phyCAM-P - monochrome



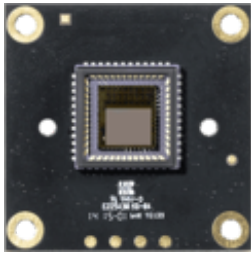
VM-010: phyCAM-P - color



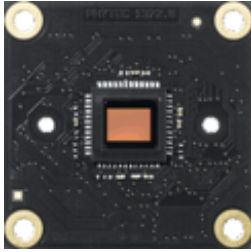
VM-009: phyCAM-P - color



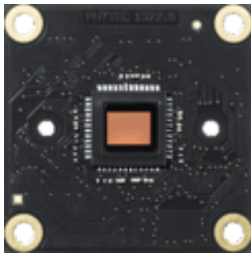
VM-006: phyCAM-P monochrome



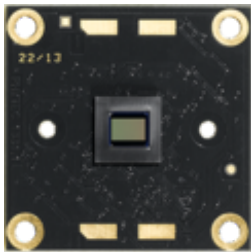
VM-012: phyCAM-S+ - monochrome



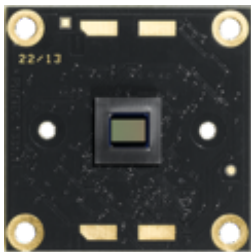
VM-011: phyCAM-S+ - monochrome



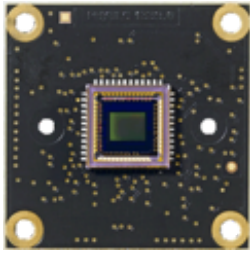
VM-011: phyCAM-S+ - color



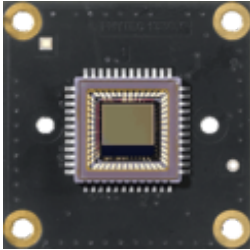
VM-010: phyCAM-S+ - monochrome



VM-010: phyCAM-S+ - color



VM-009: phyCAM-S+ - color



VM-006: phyCAM-S+ monochrome



VM-008 Video Converter



VM-050: Thermal Imaging Camera



VM-051: Thermal Imaging Camera

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