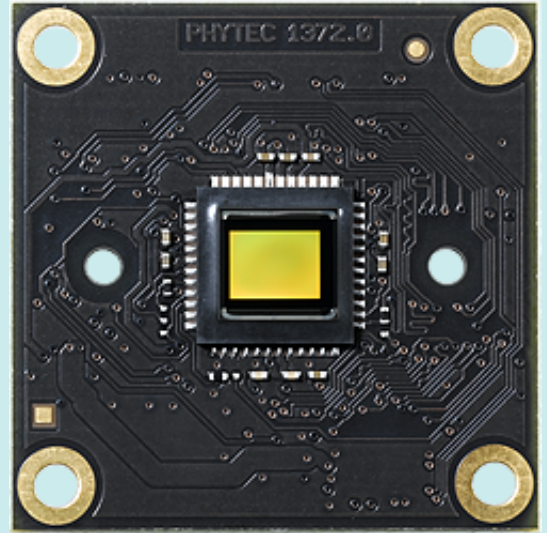


CAM



Overview

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

VM-011-COL 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-COL can connect directly to the parallel processor camera interface. All PHYTEC PCBs with phyCAM-P connection (e.g. all SOMs with OMAP and i.MX processor) can directly connect the sensor board with a cable. 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 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

Resolution	5 Mpixel
Image Resolution (H x V)	2592 x 1944
Sensor Size	1/2.5" 5.7 x 4.28 mm
Pixel Size	2.2 x 2.2 µm
Color / Monochrome	Color
Sensor Technology	CMOS
Sensor Chip	Aptina MT9P006
Scanning System	progressive
Shutter Type	rolling
Frame Rate, max (fps)	up to 15 fps (Vollbild), up to 60 fps (720p)
Video Resolution	n/a
Sensitivity	1.76 V/lux-

sec

Dynamic Range	67.74 dB
Exposure Time	programmable
Gain	x1...x32
AEC	n/a
AGC	n/a
White Balance/AWB	manual
Ext. Trigger / Sync.	Trigger / Strobe
ROI	yes
Binning	2x2 / 4x4
Mirror	programmable
Interface Type	digital
Connection	phyCAM-P
Data Format	8 / 10 Bit parallel
Interface Mode	8/10 Bit RGGB (Bayer)
Dataline Shifting	-
Parameter Settings	I ² C
Supply Voltage	2.8 V
Power Consumption	450 mW
Standby Power	2 mW
Mechanical Specifications	
Lens Mount	none / M12 / C-CS
Dimensions (mm)	34 x 34
Mounting	4 x M2.5
Weight	5g
Operating Temperature	-25 to 70°C

Connections

Signal Output	FFC 33 pol.
Trigger / Sync.	FFC + JST 3 pol.
Part number	VM-011-COL

Pricing plus VAT

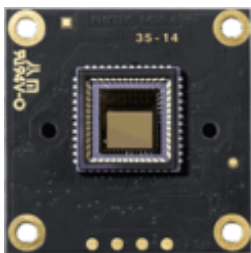
VM-011-COL

Quote

Download

See here for VM-011 phyCAM-P Color Download section.

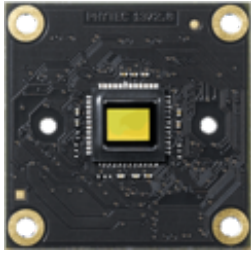
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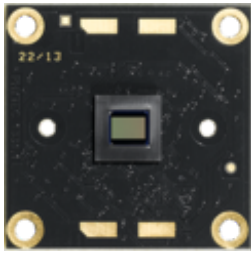
VM-012: phyCAM-P - monochrome



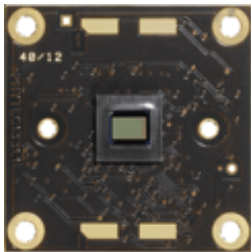
VM-011: phyCAM-P - monochrome



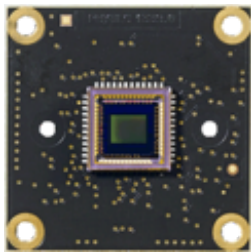
VM-011: phyCAM-P - color



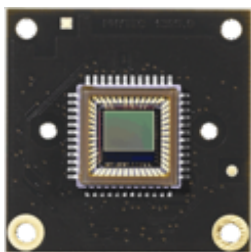
VM-010: phyCAM-P - monochrome



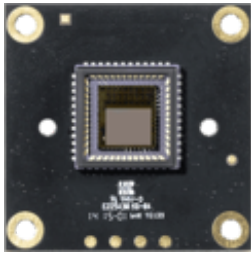
VM-010: phyCAM-P - color



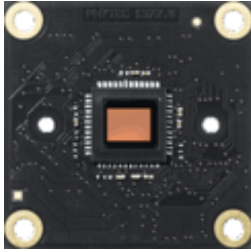
VM-009: phyCAM-P - color



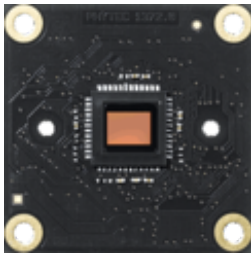
VM-006: phyCAM-P monochrome



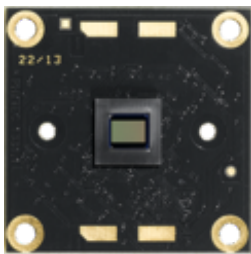
VM-012: phyCAM-S+ - monochrome



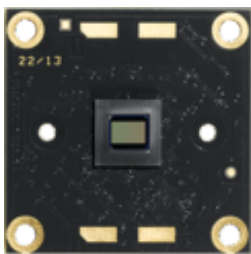
VM-011: phyCAM-S+ - monochrome



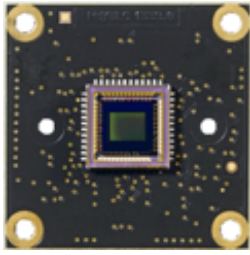
VM-011: phyCAM-S+ - color



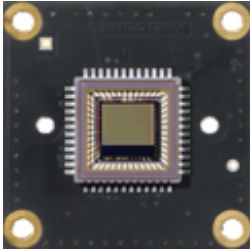
VM-010: phyCAM-S+ - monochrome



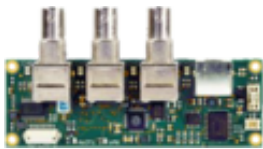
VM-010: phyCAM-S+ - color



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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