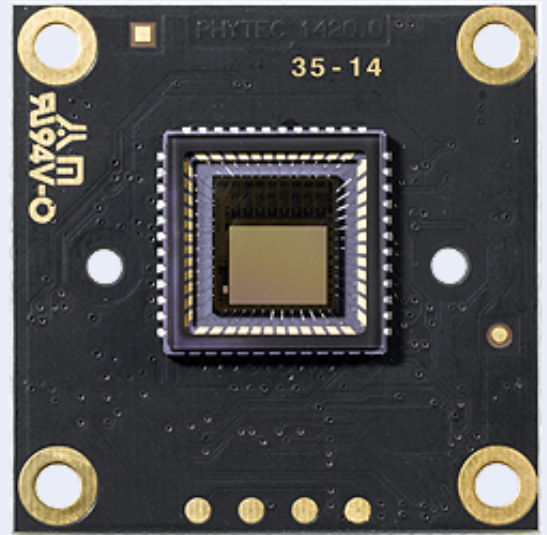


CAM



Overview

Digital Camera Module with 1.3 Megapixel resolution for direct connection with SOM interface (monochrome).

VM-012-BW is equipped with the ON Semiconductor monochrome CMOS Sensor VITA 1300. This sensor features a global as well as a rolling shutter (adjustable).

The sensor is highly sensitive up to 4,6 V/lux-s, even in the near-infra-red range (NIR).

Due to the reduced resolution, the readout speed can be increased. Therefore frame rates of up to 150 fps at VGA resolution are possible. Customers can define up to 8 regions of interest (ROI) and only transmit the required pixels for those regions.

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

VM-012-BW 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 monochrome VITA 1300 (NOIV2SN1300A-QDC). Image data format is Y8 / Y10. The camera is designed for an extended temperature range of -25°C to +85°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-012- Monochrome

Camera Characteristics

Resolution	1.3 Mpixel
Image Resolution (H x V)	1280 x 1024
Sensor Size	1/2" 6.18 x 4.95 mm
Pixel Size	4,8 x 4,8 µm
Color / Monochrome	monochrome
Sensor Technology	CMOS
Sensor Chip	ON Semi VITA 1300
Scanning System	progressive
Shutter Type	global and rolling
Programming via	I2C Bus
Operational Mode	Master
Frame Rate, max (fps)	37 fps (1.3 MPixel) 130 fps (VGA)
Video Resolution	n/a

Sensitivity	4.6 V/lux-s
Dynamic Range	60 dB
High Dynamic Range	90 dB
Exposure Time	programmable
Gain	x1 ... x8
AEC	yes, can be switched off
AGC	yes, can be switched off
White Balance/AWB	n/a
Ext. Trigger / Sync.	Trigger / Strobe
ROI	yes, 8
Binning	2x1
Mirror	-
Additional Functions	high NIR response
Electrical Interface	'
Interface Type	digital
Connection	phyCAM-P
Data Format	8 / 10 Bit parallel
Interface Mode	Y8 / Y10
Dataline Shifting	-
Parameter Settings	I ² C
Supply Voltage	3.3 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
Operating Temperature	-25 to 85°C
Connections	'
Signal Output	FFC 33 pol.
Trigger / Sync.	FFC + JST 3 pol.
Part Number	VM-012

Pricing plus VAT

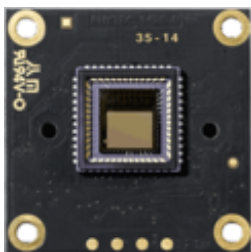
VM-012-BW

Quote

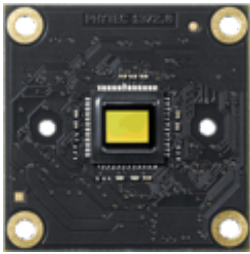
Download

See here for the VM-012 phyCAM-P Monochrome Download section.

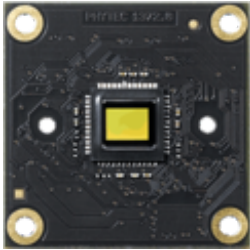
Related Products



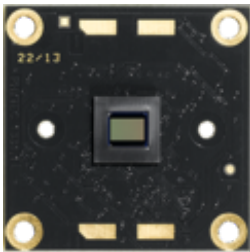
VM-012: phyCAM-P - monochrome



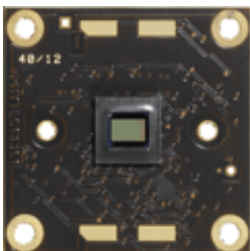
VM-011: phyCAM-P - monochrome



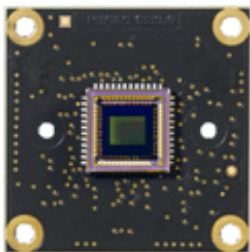
VM-011: phyCAM-P - color



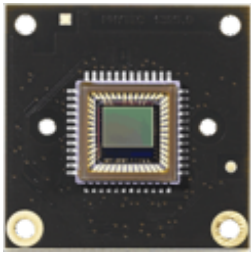
VM-010: phyCAM-P - monochrome



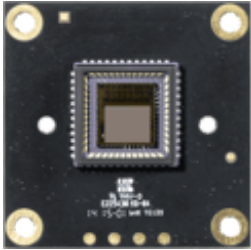
VM-010: phyCAM-P - color



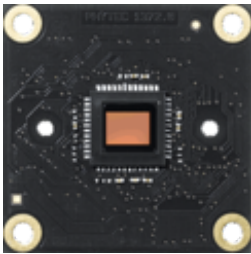
VM-009: phyCAM-P - color



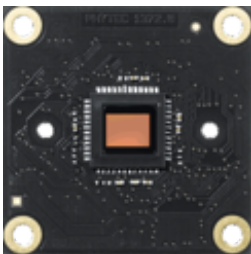
VM-006: phyCAM-P monochrome



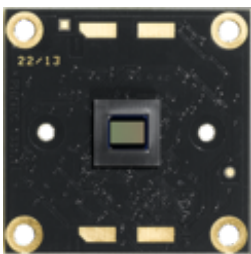
VM-012: phyCAM-S+ - monochrome



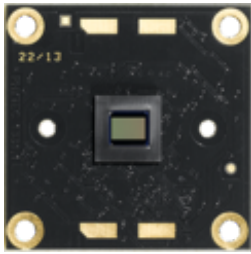
VM-011: phyCAM-S+ - monochrome



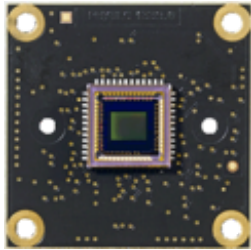
VM-011: phyCAM-S+ - color



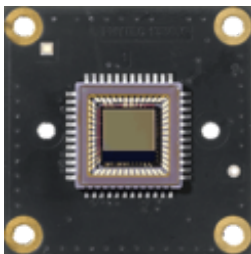
VM-010: phyCAM-S+ - monochrome



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

Featured Products

phyCORE-i.MX 8
phyCORE-i.MX 7
phyCORE-i.MX 6UL/ULL
phyCORE-i.MX 6
phyCORE-AM57x
phyCORE-AM335x
phyBOARD-Segin
phyBOARD-Zeta
phyBOARD-Mira
phyBOARD-Wega

Custom Solutions

Custom SOMs
Custom SBC+
Housing Design


Company

About PHYTEC
Production in Germany
Jobs
Imprint
EU-GDPR
Contact

Support

Events
Knowledge Database
RMA



 Deutschland
deutsch
english
polski
русский

 France

 America

 India

 中国