



The image shows a green PCB camera module with a lens in the center. To its left is a thermal image showing four red, crescent-shaped objects on a dark background. A blue circle with the text 'CAM' is overlaid on the thermal image. The PCB has 'PHYTEC 1477.0' printed on it.

VM-050
Thermal Imaging Camera
32 x 32 Pixel

- Off-shelf, calibrated thermography module
- Multiple focal lengths
- For all SOMs with phyCAM-P interface

Object temperatures can provide interesting information to a large variety of applications. The thermal imaging camera VM-050 with a resolution of 32 x 32 pixels is designed for cost-critical applications. It integrates into the application via the digital camera interface of an embedded microprocessor.

The thermal camera sensor's raw data are processed on the camera module so that the application software can read corrected, real temperature values.

The data output can be configured and adjusted to the respective camera interface. Additional functionalities such as range mapping (adjustable temperature window) can also be activated.

The camera module comes already with a fix focus lens installed. Focal lengths can be selected. VM-050 can connect directly to all PHYTEC System-on-Modules (SOMs) with parallel phyCAM-P interface. A Video-4-Linux-driver is available for all matching SOMs.

Highlights

- Off-shelf, calibrated thermography module
- 32 x 32 pixels resolution
- Various focal lengths available
- Integrated processing
- Data format, temperature window and various other parameters adjustable
- phyCAM-P interface for parallel SOM camera input
- Video-4-Linux driver for matching SOMs available

Technical Details

Model	VM-050-021-0	VM-050-050-0
Image Resolution / Pixel	32 x 32	32 x 32
Interface Type	phyCAM-P	phyCAM-P
Image Sensor	HTPA32x32d	HTPA32x32d
Sensor Type	Thermopile Array	Thermopile Array
Therm. Pixel Time Const.	< 4 ms	< 4 ms
Frame Rate (cal.)	8,9 Hz	8,9 Hz
Object Temperature	-20... >1000 °C	-20... >1000 °C
Temperature Resolution	0,3 K	0,3 K
Accuracy (min.)	±2 K ± 2%	±2 K ± 2%
Operating Temperature	-20...+85°C	-20...+85°C
Control Interface	I ² C	I ² C
Video Interface	8 / 10 Bit parallel	8 / 10 Bit parallel
Data Format	8 / 10 / 16 Bit	8 / 10 / 16 Bit
Operating Voltage	3,3 V	3,3 V
Power consumption approx.	400 mW	400 mW
Focal Length / Field of View	f=2,1 / 90°	f=5,0 / 33°
Aperture (F-No.)	0,8	0,8
Lens Type	Silicon	Germanium
PCB dimensions	34 x 34 mm	34 x 34 mm