

# USB3.0 MACHINE VISION CAMERA PPMVM-AP-1(Mono), PPMVR-AP-1(Colour)

## Specifications

- UVC Compliant Plug and Play
- USB3.0 interface
- Output format supported by monochrome camera (PPMVM-AP-1)- Bayer Raw
- Output format supported by color camera (PPMVR-AP-1)- Bayer Raw
- PPMV Player is a host application on PC with RAW to YUV conversion algorithm
- AR0134 CMOS monochrome and colour sensor.
- 1/3 Inch optical format
- Shutter Type : Global Shutter
- 3.75  $\mu$ m pixel size
- Resolution supported is maximum 1.2MP (1280X960) @54fps
- Operating Voltage: 5V $\pm$ 250mV
- Operating Power Consumption: 5V@200mA
- Module Size (without Lens): 45mm x 40mm x 30mm
- Temperature Range: -20° C to +70° C
- Stable Image: 0° C to +50° C
- Still Image Capture supported at full resolution
- USB Bus powered device
- 2 General Purpose IO are available
- Tamron CS-Mount Lens M13VM550
- Operating System: Windows

## Description

PathPartner's USB3.0 machine vision camera is a plug and play device available in Color (PPMVR-AP-1) and Monochrome (PPMVM-AP-1) variants. The camera is based on AR0134 1/3-inch 1.2MP CMOS Digital Image Sensor. It is designed for low light performance and features a Global shutter from Aptina for accurate capture of moving scenes. This camera works on windows with any DirectShow application software. PathPartner provides "PPMV Player", a UVC compatible host application on Windows PC.



Figure 1: Machine Vision Camera module

## Block Diagram

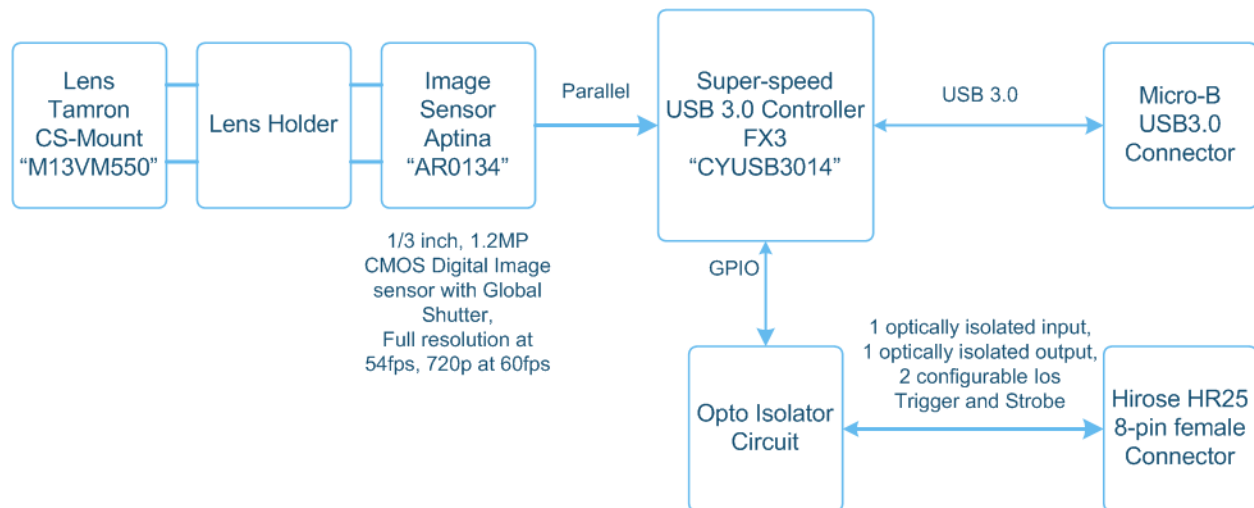


Figure 2 USB3.0 Machine Vision Camera block diagram

## Product Features

- Manual Exposure Control
- Hardware Trigger mode operation
- Manual Gain Control
- Frame Rates supported in USB3.0 mode
  - VGA (640X480) - 30, 60 & 90fps
  - 720p (1280X720) - 30 & 60 fps
  - 1.2MP (1280X960) - 45 & 54 fps

## Performance

Camera Model	Version	Supports	Windows Host application	Chroma	Player Streaming Format
MVM-AP-1	1.0	Full Resolution (1.2MP) @54 fps	PPMVPlayer	Monochrome	YUV2
MVR-AP-1	1.0	Full Resolution (1.2MP) @54 fps	PPMVPlayer	Color	YUV2

## About PathPartner

Founded in 2006, PathPartner is headquartered at Bangalore with an offshore research facility based out of California, U.S.A. PathPartner offers design, development and integration services in advanced embedded technology to solve complex challenges for clients around the world. Licensable multimedia software products and proprietary IPs for vision and connectivity applications to run intelligent systems such as autonomous cars, action cameras, wearable devices, smartphones etc. are our forte.

PathPartner is dedicated towards creating next generation multimedia experience through technology-driven execution and quality delivery for leading corporations across industries including automotive, semiconductor, broadcast, healthcare, cameras and surveillance.

**[www.pathpartnertech.com](http://www.pathpartnertech.com)**

**[sales@pathpartnertech.com](mailto:sales@pathpartnertech.com)**

**[sales.usa@pathpartnertech.com](mailto:sales.usa@pathpartnertech.com)**

***Copyright** © PathPartner Technology Pvt. Ltd. This material, including documentation and any related computer programs, is protected by copyright controlled by PathPartner Technology Pvt. Ltd. All rights are reserved. Copying, including reproducing, storing, adapting or translating, any or all of this material requires the prior written consent of PathPartner Technology Pvt. Ltd.*