

TAMRON

**Industry-
First*
Embedded
VC**

Ultra-Compact Camera Module With Unrivalled Optical Vibration- Compensation Performance



MP1010M-VC

Image Shows the Actual Module Size.

- **Embedded with Industry-First* Optical Vibration-Compensation**
- **Miniature size and light-weight (a total length of 58.4 mm and a weight of 77g) Supporting 10x Optical Zoom**
- **Compatible with 1080/60 Full HD**

Versatile Miniature-Size Camera Module with Optical Vibration-Compensation

*In mass-production miniature-size camera modules (survey by Tamron, effective as of January, 2016)

Embedded with Industry-First* Optical Vibration-Compensation

Tamron's proprietary optical vibration-compensation employed in MP1010M-VC suppresses the effect of vibration and assures unrivaled crisp and clear image quality; an advantage that particularly stands out in the telephoto range.

*In mass-production miniature-size camera modules (survey by Tamron, effective as of January, 2016)

[Optical Vibration-Compensation (VC) feature: Comparison of VC ON/OFF image qualities]



*Part of image enlarged.

Optical Vibration-Compensation (VC) feature: Comparison of VC ON/OFF video qualities (sample video)

URL <http://www.tamron.biz/vcsample/>



Miniature size and light-weight

Ultimate small size and weight (a total length of 58.4 mm and a weight of 77g) with integrated powerful 10x optical zoom; distinctive advantage for re-using current housings or for installation in limited spaces.

Compatible with Full HD

High image-quality camera module with video outputs compatible with 1080/60 Full HD and other video formats; powerful solution for myriad applications.

MP1010M-VC SPEC

■ Camera

Image sensor	1/3-type CMOS (Progressive Scan)
Effective number of pixels	Approx. 4,080,000 pixels
Signal system (HD)	1080p/60, 1080p/50, 1080p/30, 1080p/25, 1080i/60, 1080i/50, 720p/60, 720p/50
Minimum illumination	0.5lx (1/30sec, F1.8, 50%)
Recommended illumination	100 lx to 100,000 lx
S/N ratio	More than 50dB
Gain	Auto / Manual
Shutter speed	1/1 to 1/10,000 sec
Sync system	Internal
Exposure compensation	-12dB to +12dB (Total 13 steps)
Backlight compensation	ON/OFF
Gamma	Standard/Straight
Aperture control	16 steps
White balance	ATW1 (Narrow), ATW2 (Wide), One push, Manual (B, R)
AE (Auto exposure mode)	Auto, Manual, Priority mode (shutter/iris)
Lens	10x optical zoom f=3.3 mm (wide) to 33.0 mm (tele) F1.8 to F3.4
Zoom mode	Standard /Variable/Direct
Zoom movement speed	1.4 sec
Focusing system	Auto, Manual, One push, AF sensitivity
Horizontal viewing angle (wide) to (tele)	58.2 degrees to 6.9 degrees
Minimum object distance (wide) to (tele)	10mm to 800mm
Horizontal resolution	800 TV lines

■ General

Power requirement	8 V to 12 V DC
Power consumption	Approx. 3W
Operating temperature	-5°C to +60°C
Storage temperature	-40°C to +60°C
Operating humidity	20% to 80% (no condensation)
Storage humidity	20% to 90% (no condensation)
Dimensions (W x H x D)	31.9 x 41.5 x 58.4 mm
Weight	Approx. 77g

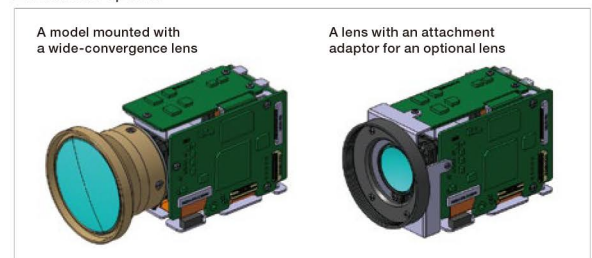
■ Interface

Video output	Digital: Y/Pb/Pr 4:2:2 (LVDS)
Camera control interface	VISCA protocol *VISCA is a trademark of Sony Corporation.

■ Features

VC (Vibration Compensation)	Standard features
Wide-D	
Defog	
Noise reduction (3D+2D)	
Digital output	
Privacy zone masking	
Slow shutter	
Picture effects (Black White)	
Picture freeze	
Electronic-Flip (E-Flip)	
Mirror image	
Temperature readout	
Title display	

■ Available options



Please contact us for detailed specification on these two options.

Compact Camera Module with Vibration-Compensation MP1010M-VC

Overview

- A proprietary optical vibration-compensation function prevents image blurring in vibrating environments and at the telephoto end, ensuring clear and crisp images.
- Compact size with a total length of 58.4mm and light of approx. 77g
- High-Quality Camera Compliant with 1920 x 1080 Full HD

Specifications

■ Camera

Image sensor	1/3-type CMOS (Progressive Scan)
Effective number of pixels	Approx. 4,080,000 pixels
Signal system(HD)	1080p/60, 1080p/50, 1080p/30, 1080p/25, 1080i/60, 1080i/50, 720p/60, 720p/50
Minimum illumination	0.5 lx (1/30sec, F1.8, 50%)
Recommended illumination	100 lx to 100,000 lx
S/N ratio	More than 50dB
Gain	Auto / Manual
Shutter speed	1/1 to 1/10,000 sec
Sync system	Internal
Exposure compensation	-12dB to +12dB (Total 13 steps)
Backlight compensation	ON/OFF
Gamma	Standard/Straight
Aperture control	16 steps
White balance	ATW1(Narrow), ATW2(Wide), One push, Manual (B, R)
AE (Auto exposure mode)	Auto, Manual, Priority mode (shutter/iris)
Lens (wide to tele)	10x optical zoom f=3.3 to 33.0 mm F1.8 to 3.4
Zoom mode	Standard /Variable/Direct
Zoom movement speed (wide to tele)	1.4 sec (Focus Tracking ON)
Focusing system	Auto, Manual, One push, AF sensitivity
Horizontal viewing angle (wide to tele)	58.2° to 6.9°
Minimum object distance (wide to tele)	10mm to 800mm
Horizontal resolution	800 TV lines

■ Functions

VC (Vibration Compensation)	Available
Wide-D	Available
Defog	Available
Noise reduction (3D + 2D)	Available
Digital output	Available
Privacy zone masking	Available
Slow shutter	Available
Picture effects (Black White)	Available
Picture freeze	Available
Electronic-Flip (E-Flip)	Available
Mirror image	Available
Temperature readout	Available
Title display	Available

■ General

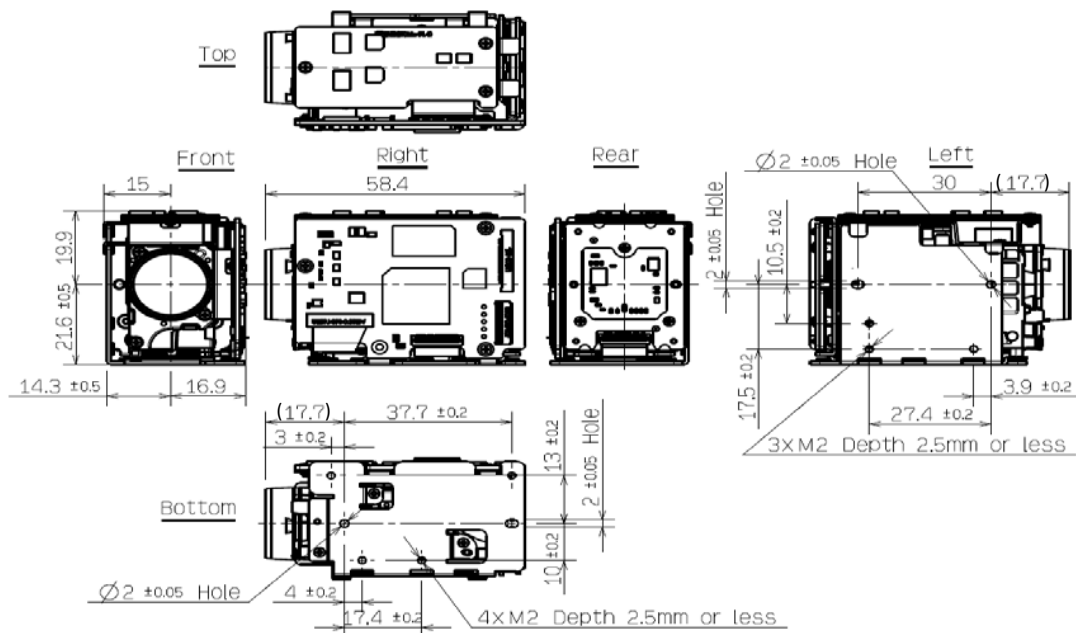
Power requirement	8 V to 12 V DC
Power consumption	Approx. 3W
Operating temperature	-5 °C to +60°C
Storage temperature	-40 °C to +60°C
Operating humidity	20% to 80% (no condensation)
Storage humidity	20% to 90% (no condensation)
Dimensions (W x H x D)	31.9 x 41.5 x 58.4 mm
Weight	Approx. 77g

■ Interface

Video output	Digital: Y/Pb/Pr 4:2:2 (LVDS)
Camera control interface	VISCA protocol * VISCA is a trademark of Sony Corporation.

Dimensions

unit: mm



Model name	Tamron co.Ltd	Category	Issue	Page
MP1010M-VC		Camera Module	Jan-16	1/1