

# Specifications

## Double Vari-Focal

Full HD 3MP IR

Image			
Dimensions			
Model	<b>M13VM288IR</b>	<b>M13VG288IR</b>	<b>M13VP288IR</b>
Imager Size	1/2.7"	1/3"	1/4"
Mount	CS		
Focal Length	2.8-8mm		
Aperture Range	1.2-Close	1.2-360	1.2-Close
Zoom Ratio	x2.8		
Angle of View (Horizontal X Vertical)	1/2.7 Wide	124.3°x 65.2°	1/2.7 Wide
	1/2.7 Tele	43.0°x 24.2°	1/2.7 Tele
	1/3 Wide	100.1°x 72.9°	1/3 Wide
	1/3 Tele	35.8°x 26.8°	1/3 Tele
Focus	Manual w/Lock		
	Manual w/Lock		
Zoom	Manual w/Lock		
	Manual w/Lock		
Iris	Manual w/Lock	DC Auto Iris	P-Iris*
	DC Auto Iris		
Focusing Range	0.3m-∞		
Operating Temperature	-20+60°C		

\*Connecting the lens to a camera that does not support the P-Iris technology may cause malfunction. The lens cannot be connected to cameras that use DC auto iris or video auto iris lenses.

## Environmental policy

### Environmentally Friendly Design

Tamron employs an environmentally-friendly design approach that requires all lens components, as well as packing materials and all peripheral elements to be free from any substances that could have an adverse impact on our environment. All of Tamron's manufacturing plants implement thorough environmental assessments when procuring materials and components to ensure that no such harmful substances are used.

### Strict Chemical Substances Management System

Tamron has established a strict internal regime to monitor all chemical substances used to manufacture our lenses, and is fully compliant with RoHS, REACH and WEEE. We will continue our efforts to develop safe products that bring our customers peace of mind in addition to our high standard of quality.

**Caution:** Please read the instruction manual carefully before using the lens.

**TAMRON**® *Manufacturer of precise and sophisticated optical products for a broad range of industries.*

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**Quality Assurance Activities:** At Tamron, quality management activities are performed in compliance with ISO9001:2000 not only to assure product quality but to enhance customer satisfaction.

**Environmental Protection:** We recognize the significance of our social responsibilities. Tamron promotes corporate activities that protect the earth's environment through the establishment of a quality assurance system that is compliant with ISO14001.



# The Simple Choice for Better Security Imaging. Tamron's Double Vari-Focal Solution.



New

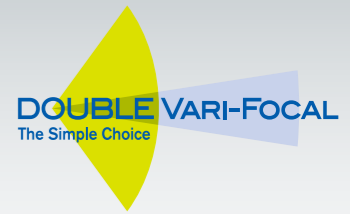
1/2.7" 2.8-8mm F/1.2

1/2.7" 8-50mm F/1.6

Cover focal lengths from wide to tele with  
3-Mega-Pixel resolution using just 2 lenses.

# Double Vari-Focal - The Simple Choice

## New Concept from Tamron for Mega-Pixel Lenses



Newly developed high performance lens to maximize customer satisfaction and meet high-demand requirements

Most of the conventional Mega-Pixel lenses could not maintain Mega-Pixel resolution in the infrared wavelength range. Also, they were not able to achieve Mega-Pixel resolution in the corner areas.

Tamron's 'Double Vari-Focal Lens' series can realize Mega-Pixel resolution throughout the whole image, whether it is day or night.

Conventional lens line-ups were numerous and complicated, resulting in difficulties in selecting the appropriate lens suited to the application.

For Tamron's 'Double Vari-Focal Lens' series, it is only necessary to make a simple selection from these 2 lenses.



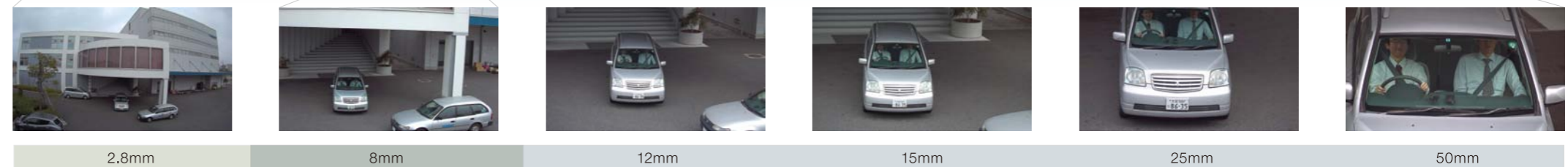
M13VG288IR 2.8-8mm F/1.2



M13VG850IR 8-50mm F/1.6

The lenses cover wide angle 2.8mm to telephoto 50mm, which means that most applications can be covered by these two lenses. High-precision surveillance can be possible from small areas such as entrances, elevator halls, and long distance surveillance such as traffic control and large retail shops. At a focal length 50mm, it is possible to achieve precise surveillance for number plate recognition, etc.

Horizontal angle of view from 124.3° to 6.7° can be achieved by these two lenses when used on a 1/2.7" camera.



### High Resolution from Day to Night

By the help of using aspherical elements, LD (Low Dispersion) glass and adopting highly advanced optical design, the lenses achieve 3 Mega-Pixel / Full HD 1080p resolution. In conventional lenses, the performance under near-IR (B/W mode) showed degradation compared to visible light (color mode). Tamron's Double Vari-Focal lens series achieve 3 Mega-Pixel not only in visible light but also in near-IR light, so that it is possible to capture the scene 24/7 without picture degradation.

#### Visible Light (Color Mode)



#### Near Infrared Light (B/W Mode)



### Flat-Field Mega-Pixel Lens Series - High Resolution from Corner to Corner

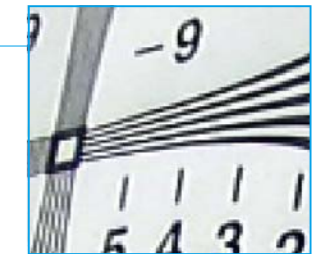
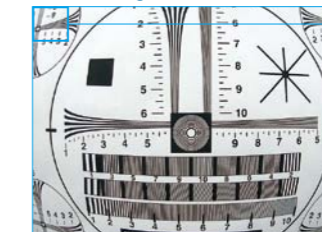
The Tamron Flat-Field Mega-Pixel lens series delivers Mega-Pixel image quality not only in the center but also in the corners of the image field, providing Mega-Pixel resolution quality needed for image cropping and enlarging of the image, irrespective of the location of the subject on the screen.

#### Wide Angle

##### Normal Lens

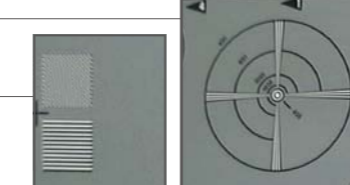
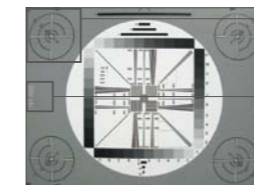


##### Tamron Mega-Pixel Lens

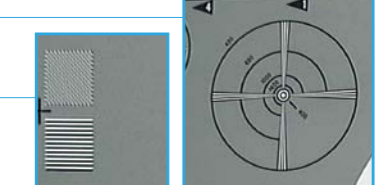
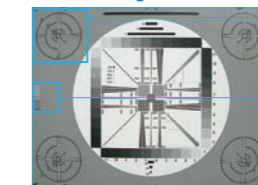


#### Tele Angle

##### Normal Lens

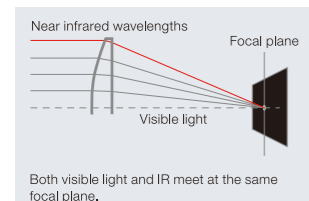


##### Tamron Mega-Pixel Lens

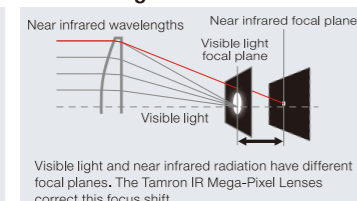


### Advanced Design Technology

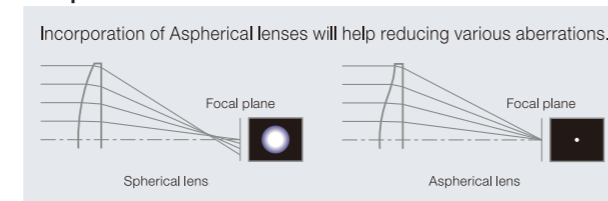
#### IR Lens



#### Visible Light Lens



#### Aspherical Lens



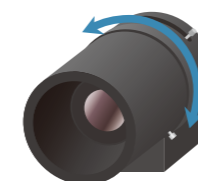
Tamron's advanced optical design combined with the use of LD (Low Dispersion) glass supports the lens to correct the focus shift between visible light and near-infrared.

Positioning the aspherical elements properly in lens design will realize high resolution and high contrast throughout the image from center to corner.

### Large Focus Rotation Angle

The rotation angle of the focus ring has been increased to achieve easier and more precise focus adjustment for Mega-Pixel cameras.

- The rotation angle of the focus ring
- 2.8-8mm [240°]
- 8-50mm [220°]



### High-Precision Mechanical Technology

Each component in our Flat-Field Mega-Pixel lenses is produced and assembled using the most advanced precision manufacturing techniques to prevent image degradation due to local blur and focus shift.

### Supporting up to 1/2.7" Sensors

The large image circle makes it possible to match with 1/2.7", as well as 1/2.8" and 1/3" sensor sizes. Due to variance in such sensor sizes, it was essential to incorporate such design.

