

# High Resolution Lens Series

Tamron's New High Resolution Vari-Focal Lenses



High Resolution Lenses for Higher Image Quality Monitoring Cameras

Uses Tamron's Advanced Integrated Optical Production Technology

Rich Lineup of Ultra-Wide Angle, Telephoto, and Large Aperture Lenses  
for Greater Selection by Use or Purpose

# Advanced Technology for Digital and Higher Image Quality Monitoring Systems

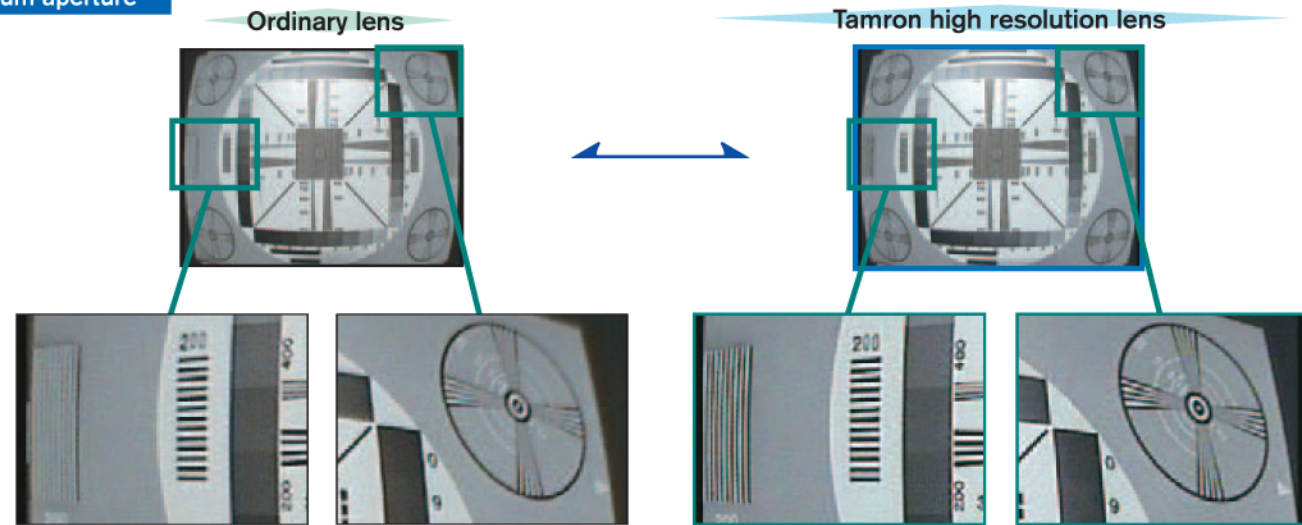
## Tamron's High Resolution Vari-Focal Lens Series Provides High Image Quality in a Wide Range of Monitoring Situations

With the development of higher image quality monitoring cameras and the rapid digitalization of recording systems, demand is strong for CCTV camera lenses that can be used in video systems to provide high-resolution images from the center to the edge of the screen. As a leading integrated optics manufacturer, Tamron now offers a lineup of high resolution Vari-Focal lenses that meet today's installation needs, and boasts the best of its proprietary technology.

### High Quality from Maximum to Minimum Aperture

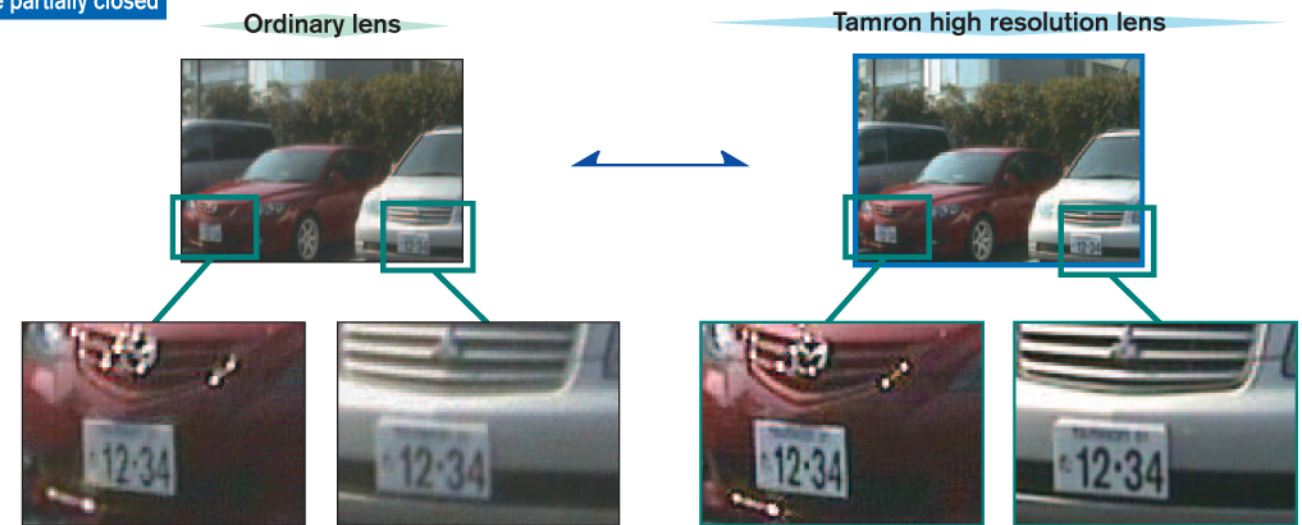
— Video Images Prove How Serious Tamron is About Image Quality

#### Image quality comparison at maximum aperture



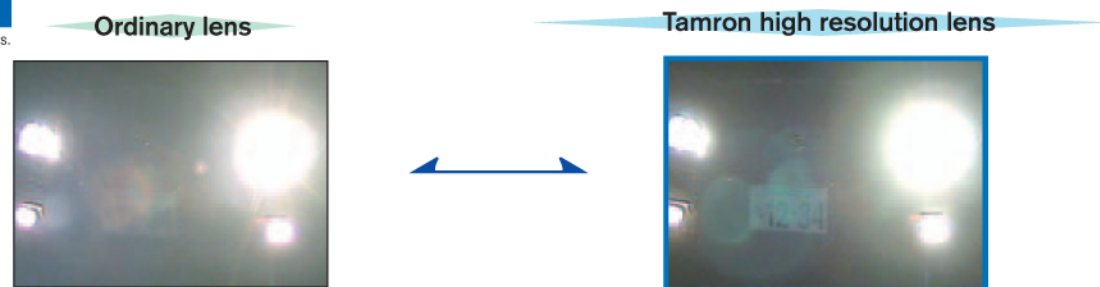
Note: Use ITE Resolution Chart (EIAJ Test Chart-A) by Dai Nippon Printing Co., Ltd

#### Image quality comparison with aperture partially closed



#### Image quality comparison in a backlit situation

Note: Cars captured on video in the nighttime hours.



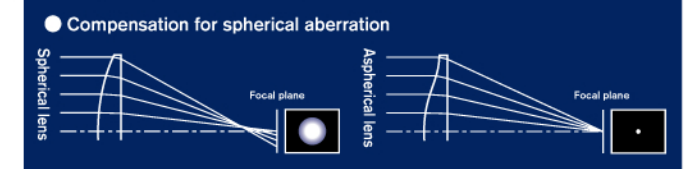
Note: Video images shown on this page were all shot using actual monitoring cameras (430,000 pixels 540TV) and CCTV lenses.

### Tamron's Key Technology Supports High Image Quality and Delivers Ease of Use

#### Aspherical Lens Improves Image Quality

All three models use aspherical lenses in their optical system to achieve high resolution and optimum contrast throughout the whole focal range. Particular attention has been paid to peripheral image quality, thus improving corner resolution by up to 50% (compared to conventional models). The effect is more prominent when the lenses are used with digital recording systems, which are free from image quality deterioration.

#### Concept diagram showing compensation for aberration by an aspherical lens



#### Multicoated Lenses

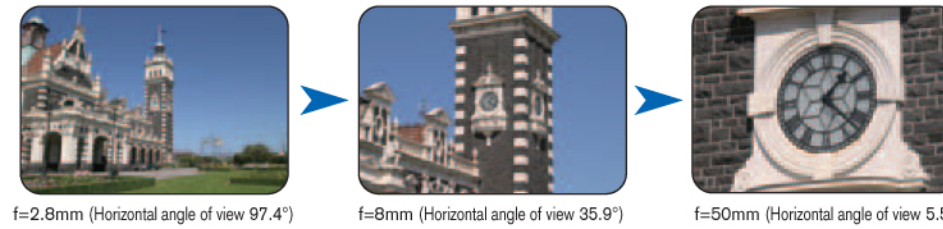
Multicoating is applied to lens surfaces to minimize the phenomena of ghosting and flare in backlit situations. The result is consistent high contrast and excellent image quality even in such conditions.



#### Higher Image Quality from Maximum to Minimum Aperture

An improved proprietary ND filter ensures high resolution from maximum aperture to minimum aperture.

#### Covers a Wide Range of Angles, From f=2.8mm Ultra-Wide to f=50mm Ultra Telephoto



This high resolution Vari-Focal lens series offers a wide array of angles in three ideal lenses ranging from that of an ultra-wide angle 2.8mm lens, to the standard angle of 8mm, and on to the narrow field of view provided by an ultra telephoto 50mm. Moreover, all models are lightweight and compact in design that take up as little space as possible, and will therefore work well in virtually any kind of monitoring situation.

Note: Images are for illustrative purposes only.

#### Lock Mechanism Mounted on Each Ring

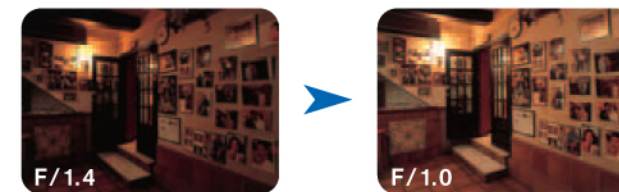
A lock mechanism is mounted on each of the operating rings for the zoom, focus, and iris (for manual iris mechanism only). The locks fix the rings in place to prevent the settings from shifting after installation.

#### Slip Mount Mechanism

The lens can be rotated to adjust its position after being attached to the camera, allowing its auto iris meter to be repositioned to the correct point (bottom side of lens).

#### Environmentally Friendly Design

Environmental considerations are integrated into the design through the use of materials that do not harm the environment, from the glass and plastic materials to the sealing and packaging materials. In addition, environmental inspections are performed at the production plant on receipt of raw materials and components to ensure that they are free of environmentally harmful materials.



● When the F/1.4 lens, giving the camera a minimum working brightness of 1.0 Lux, was replaced by the F/1.0 lens, the minimum working brightness improved to 0.5 Lux, doubling the camera's sensitivity.

#### Wide Dynamic Range [13VG308AS]

13VG308AS is a large aperture lens that achieves a brightness of F/1.0. This increases the sensitivity of monitoring cameras, allowing the capture of bright and clear color images even in dim rooms, passageways, or other environments with deficient lighting, or during early morning or evening time frames.

Note: Images are for illustrative purposes only.

### Advanced High Resolution Vari-Focal Lens Lineup

With an improved proprietary ND filter, the series achieves high resolution from maximum aperture to partial and minimum aperture.

Covers from an ultra wide angle of 97° to the medium telephoto range  
**f=2.8-12mm F/1.4**



Vari-Focal range from standard 5mm up to 50mm ultra telephoto range  
**f=5-50mm F/1.4**



Large-aperture F/1.0 brightness  
**f=3.0-8mm F/1.0**



Note: All Vari-Focal lenses manufactured by Tamron offer a high resolution design, including lenses not shown above. For details, see the general catalog.



# Twenty Years of Vari-Focal Lenses

Ever since 1986, when Tamron first introduced Vari-Focal lenses to the monitoring camera lens sector with its development of the 2/3-type 8-16mm F/1.6 lens, the company has continued to offer revolutionary Vari-Focal lenses for the security market.

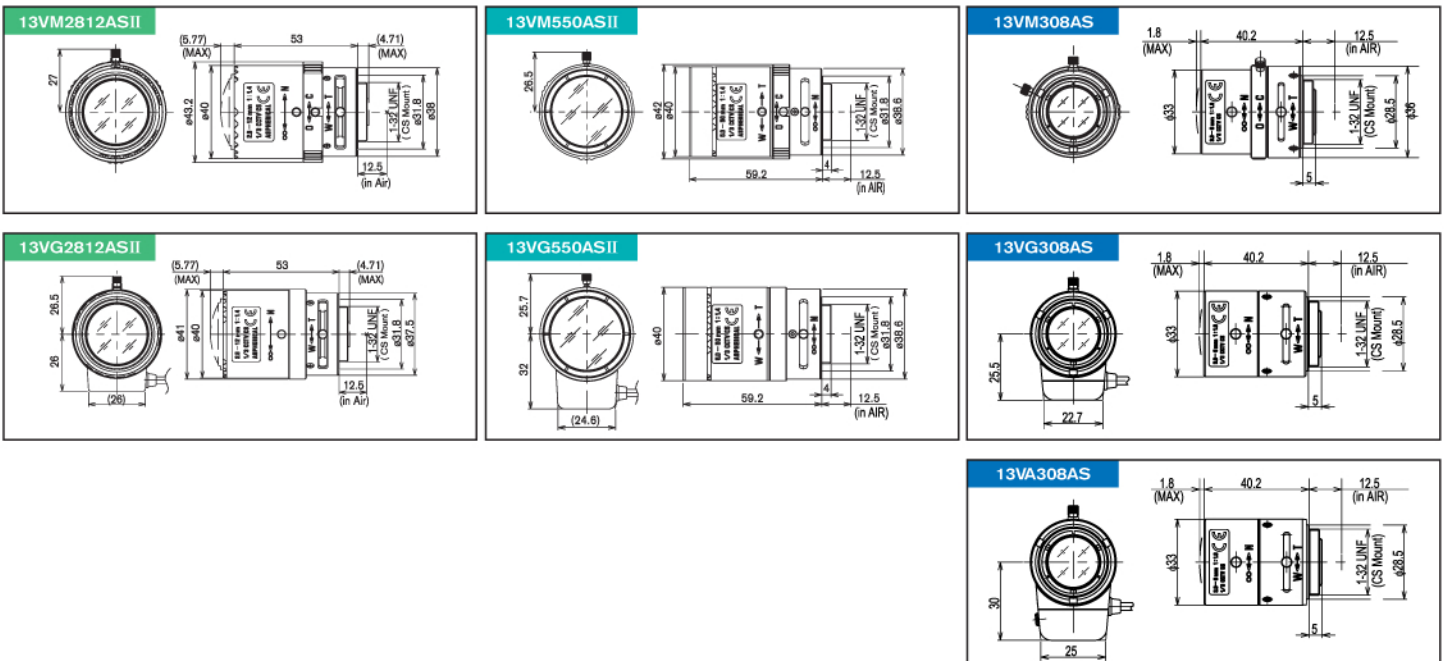
Now, Tamron has released a high-resolution Vari-Focal lens series suitable for today's higher image quality cameras and digital recorders.

Tamron will continue to apply the advanced technology it has acquired through the development of high-precision optics in various market segments to provide higher performance, higher quality CCTV lenses that meet the ever-changing and demanding security needs.

## SPECIFICATIONS

Model	13VM2812AS II	13VG2812AS II	13VM550AS II	13VG550AS II	13VM308AS	13VG308AS	13VA308AS	
Imager Size	1/3	1/3	1/3	1/3	1/3	1/3	1/3	
Focal Length	2.8-12mm	2.8-12mm	5-50mm	5-50mm	3.0-8mm	3.0-8mm	3.0-8mm	
Aperture Range	1.4-Close	1.4-360	1.4-Close	1.4-360	1.0-Close	1.0-360	1.0-360	
Mount Type	CS	CS	CS	CS	CS	CS	CS	
Angle of View (Horizontal X Vertical)	Wide	97.4° x 72.5°	97.4° x 72.5°	53.6° x 40.3°	53.6° x 40.3°	91.0° x 66.6°	91.0° x 66.6°	91.0° x 66.6°
	Tele	24.1° x 18.1°	24.1° x 18.1°	5.6° x 4.2°	5.6° x 4.2°	35.9° x 26.9°	35.9° x 26.9°	35.9° x 26.9°
Operation	Focus	Manual w/Lock	Manual w/Lock	Manual w/Lock	Manual w/Lock	Manual w/Lock	Manual w/Lock	Manual w/Lock
	Zoom	Manual w/Lock	Manual w/Lock	Manual w/Lock	Manual w/Lock	Manual w/Lock	Manual w/Lock	Manual w/Lock
	Iris	Manual w/Lock	Auto Iris (DC)	Manual w/Lock	Auto Iris (DC)	Manual w/Lock	Auto Iris (DC)	Auto Iris (Video)
Weight	67g	71g	75g	84g	39g	47g	50g	

## DIMENSIONS



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



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



**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.

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Specifications subject to change without notice 2006.9  
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