

# Lens Catalogue



[www.tamroneurope.com](http://www.tamroneurope.com)

# Better Lenses Mean Better Photography!

The power to select the right lens can make a world of difference in your photography.

Get the perfect angle of view, or control light with a fast lens.

Tamron offers a variety of interchangeable lenses to give you maximum flexibility.

You deserve a choice when it comes to expressing your vision of the world.







Designed for exclusive use on  
APS-C size digital SLR cameras

- Model A18:** AF18-250mm F/3.5-6.3 Di II LD Aspherical [IF] Macro
- Model A16:** SP AF17-50mm F/2.8 XR Di II LD Aspherical [IF]
- Model A14:** AF18-200mm F/3.5-6.3 XR Di II LD Aspherical [IF] Macro
- Model A13:** SP AF11-18mm F/4.5-5.6 Di II LD Aspherical [IF]
- Model A15:** AF55-200mm F/4-5.6 Di II LD Macro

**Di II Series**

# Lens Technology



## Technological Edge Hidden Inside High Performance Zoom Lenses

Tamron's original lens technologies hidden inside compact packages - Tamron has always been at the forefront of developing and introducing compact and high performance zoom lenses one after another that boast unique features made possible through the application of original lens technologies. Compact size that enables the user to carry his lens anywhere, outstanding depictive performance, designs deliberated for ease of use, MFDs (Minimum Focus Distances) that are practical, easy to use and even allowing the user to take macro shots, to name just a few - all these features are the product of a number of advanced technologies based on Tamron's original design concepts.

### **Di** **Di** New Standard of Lenses for Digital Cameras

Di (Digitally Integrated Design) is a designation Tamron puts on lenses featuring optical systems designed to meet the performance characteristics of digital SLR cameras as well as film cameras.

### **Di II** **Di II** Designed for Exclusive Use on Digital SLR Cameras\*

\* With APS-C size imagers.

Di-II is the designation Tamron puts on lenses designed for exclusive use on digital SLR cameras with APS-C size imagers\* and which feature optical systems optimized to meet the performance characteristics of digital SLR cameras. Di-II lenses incorporate countermeasures against ghosting and flare through such advances as special coatings, and minimize peripheral light fall-off, which is noticeable in digital images.

Furthermore, Di-II lenses provide ideal focal lengths to cover the range desired by D-SLR shooters. \*Image sensors smaller than 24mmx16mm.

### **SP** **SP** Super Performance Series

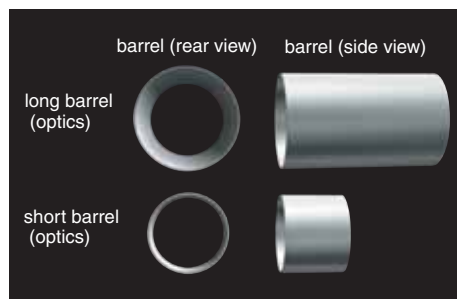
Tamron's SP (Super Performance) series is a line of high performance lenses featuring high design specifications. In designing the SP series lenses, the first and foremost priority is put on superior specifications and outstanding performance free from cost restraints. Therefore, SP lenses featuring impressive and innovative designs are concept models among Tamron lenses.

### **XR** **XR** Toward Ever Greater Compactness Featuring Key XR Technology

By reducing the total length of the optical configuration, we succeeded in developing optics that allow for a smaller lens diameter while maintaining the same aperture values as previous lenses for overall compactness. Optical power distribution was enhanced in a compact package through the innovative use of XR (Extra Refractive Index) glass, resulting in minimum aberration.

#### ■ Achieving the same aperture value with a smaller size

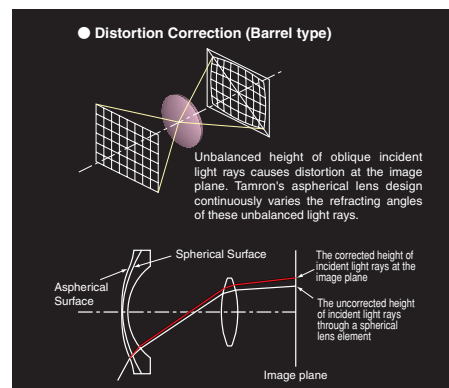
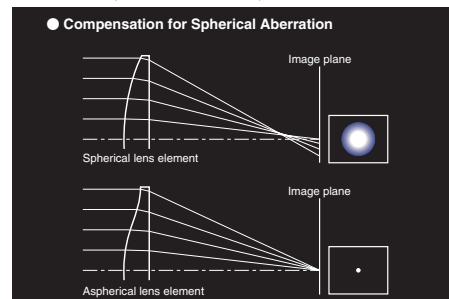
With a short barrel, it is possible to obtain the same visibility (aperture value) as with a long barrel even with a smaller lens diameter. By using this principle, we were able to shorten the optic system length for a more compact overall lens design while maintaining aperture values.



### **ASL** Hybrid Aspherical Elements Provide the Ultimate in Compactness and Image Quality

To achieve the ultimate in image quality and compactness, Tamron uses several hybrid aspherical elements for the 18-250mm, 17-50mm, 28-75mm, and 28-300mm lenses. By using the latest advances in technology, spherical aberration and image distortion have been eliminated in Tamron's high-power zoom lens series. Through the application of Hybrid Aspherical technology (which can take the place of multiple optical elements), a high level of image quality and compactness have been attained.

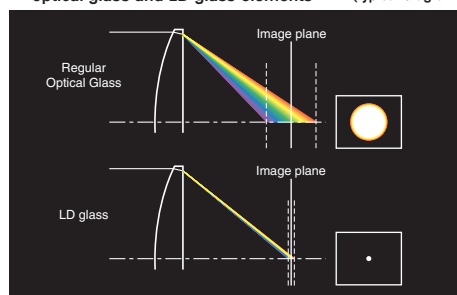
#### ■ Compensation effect with an aspherical lens element (Schematic Illustration)



## LD About LD(Low Dispersion)Lens Elements

Chromatic aberration is a form of optical noise that reduces the sharpness of an image. LD elements are made from special glass materials with extremely low dispersion indices (characteristics that separate or refract a ray of light into rainbow colors) that effectively compensate for on-axis chromatic aberration that is particularly a problem at the telephoto end and lateral chromatic aberration at the wide-angle end.

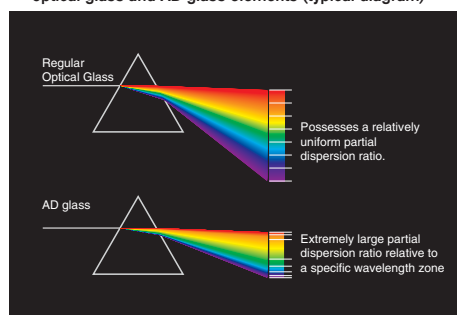
■ The difference in chromatic aberration between normal optical glass and LD glass elements (typical diagram)



## AD About AD (Anomalous Dispersion) Lens Elements

Anomalous Dispersion glass is a special optical glass that delivers an abnormally large partial dispersion ratio (amount of dispersion at a given wavelength range within visible light) relative to a specific wavelength zone. By combining AD glass elements with elements made of normal glass with different dispersion characteristics, dispersion factors of a specific wavelength can be controlled, resulting in effective compensation of on-axis chromatic aberration on telephoto lenses, or lateral chromatic aberration often associated with wideangle lenses of conventional optical configuration.

■ The difference in partial dispersion factors between normal optical glass and AD glass elements (typical diagram)



## HID HID (High Index High Dispersion) Glass Element

HID glass element minimizes on-axis and lateral chromatic aberrations that are the greatest hindrance to high optical quality.

## Technologies to Attain the Highest Level of Image Quality—BBAR Coating

To suppress reflections and dispersion on the lens element surface that result in reduced light transmission or cause flare and ghost images, Tamron developed a proprietary BBAR (Broad-Band, Anti-Reflection) multiple-layer coating technique that also renders the best possible color balance. It is applied to a majority of Tamron lenses. A new BBAR coating, which successfully increases transmission of both longer and shorter wavelength ranges, has been developed and is applied to latest lenses.

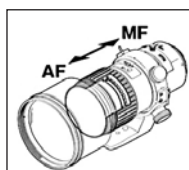
## IF Internal Focusing System and Zoom Lock Feature

Aside from enhancing lens maneuverability, Tamron's Internal Focusing System provides additional benefits to users. Chief among them is a reduced Minimum Focus Distance (MFD) throughout its entire focal length range. Additionally, it improves optical characteristics by minimizing illumination loss at image corners and suppresses aberrations that are caused by focusing positions. Tamron's other original mechanism, the Zoom Lock, is a convenient addition that prevents undesired barrel extension while carrying the camera/lens outfit around, thus protecting your lens.



## AF/MF Switch-over Mechanism on the Focus Ring

Switching between AF and MF is easily accomplished by sliding the focus ring back and forth. Manually focusing is smooth and precise with the wide focusing ring.



## Multiple-Cam Mechanism Provides Exceptional Stability and Precise Focusing Throughout Entire Focal Length Range

A compact, high quality high power zoom lens became a reality only when Tamron designed a lens chassis that permitted solid and smooth extension of the lens barrel. "Multiple-Cam Zoom Mechanism" is Tamron's original technology that enables lens barrels to be extended and retracted effortlessly achieving compactness at wide-angle, while holding precise extension at telephoto.

## Integrated Focus Cam Design Brings Practical Benefit in Zoom Lens Operation

Tamron's Integrated Focus Cam precisely optimizes movement of the Internal Focusing System with the Multiple-Cam Zoom Mechanism. This ingenious Focus Cam design ensures seamless performance by the highly sophisticated internal lens elements and the advanced external components.

## SHM Light and Strong—Super Hybrid Mount

Tamron originated the Super Hybrid Mount through our proprietary and innovative injection molding technology to create an entirely new hybrid material made of stainless steel and engineering plastic.



About 70% lighter than a conventional brass mount  
Brass mount=27g (1 oz.)  
S.H.M.=7.5g (0.3 oz.)



## Designed to Fit AF Cameras from Major Camera Makers

Tamron's AF lenses fit AF models by four major camera makers. Please be sure to select the appropriate mount for your camera.

■ For Canon AF



■ For Nikon AF



■ For Pentax AF



■ For Sony AF



\*Some models are not available for all mounts. Please check the specifications on the page 23 for mount availability.

\*Di-II Lens Series do not have aperture rings.

\*Nikon and Pentax mount in Di and Conventional Lenses have aperture ring.

## Engineering Plastic Technology

To ensure high performance without adding weight, Tamron's high-power zoom lenses make extensive use of engineering plastic materials in the critical mechanical components of the lens. The polycarbonate material used in the Tamron High-Power Zoom Lens can be precisely manufactured and offers superb durability. In fact, polycarbonate is the material of choice whenever producing high-precision components that require the strength to withstand heavy use.

## Sophisticated Production Technology

Tamron is certified with ISO 9001 standards, an internationally recognized proof of thorough quality control. Tamron's high-power zoom lens series comes out of a factory that offers world-class capabilities, and is able to deliver excellent quality products to meet the satisfaction of our users.



# ***Di II*** Lens Series

**Expanding the possibilities for digital SLRs, Di-II**

**Digitally dedicated Di-II Lens Series are designed for exclusive use with digital SLR cameras with APS-C size imagers,\* and they come in a range of ideal focal lengths. Di-II Lens Series suppress ghosting and flare, delivering high-definition, high-contrast digital photography.**

\*Di-II lenses are not designed for use with full-size cameras or digital SLR cameras with image sensors larger than 24mm x 16mm.



Lens: AF18-250mm F/3.5-6.3 Model A18 Focal length: 18mm (Equivalent to 28mm) Exposure: F/11 Auto ISO100 RAW

Travel Light. The world's first 13.9X for digital.

## AF18-250mm F/3.5-6.3 Di II LD Aspherical [IF] Macro

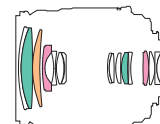
With a zoom range of 18-250mm (equivalent to 28-388mm in full-size format), this one remarkable lens gives you everything you need for stunning wide angle to ultra-zoom shots. The perfect travel partner, the A18 means no more wasting time and missing shots while you switch lenses! Packed with special glass materials such as LD(Low Dispersion) glass and Hybrid Aspherical Elements, it achieve three goals in at once: increased magnification, compact size, and improved image quality. It also rivals specialty macro lenses with a minimum focus distance of 0.45m (17.7") and a maximum magnification ratio of 1:3.5. At last, a high-powered, multi-purpose lens that really makes the most of the world of digital SLR photography.



Di II LD AD ASL IF ZL

### Model A18

- Flower-shaped hood
- Filter diameter /  $\phi$  62mm
- Minimum focus distance / 0.45m (17.7")
- Mount compatible / Canon  
Nikon  
Pentax  
Sony



Lens construction with 16 elements in 13 groups

\*Nikon and Pentax mounts do not have aperture rings.

new



Lens: AF18-250mm F/3.5-6.3 Model A18  
Focal length: 250mm (Equivalent to 388mm) Exposure: F/8 Auto ISO200 RAW

Lens: AF18-250mm F/3.5-6.3 Model A18  
Focal length: 250mm (Equivalent to 388mm) Exposure: F/11(+1.7) Auto ISO200 RAW

**Di II** Lens designed for exclusive use on digital SLR cameras with APS-C size imagers.

**LD** Lens with this mark uses LD element (s)

**AD** Lens with this mark uses AD element (s)

**ASL** Lens with this mark uses aspherical element (s)

**IF** Lens with this mark uses internal focusing system

**ZL** Lens with this mark uses zoom-lock mechanism

\*Lenses in Lens Construction: Hybrid Aspherical Lens LD element AD element



# Di II Lens Series



Lens: SP AF17-50mm F/2.8 Model A16 Focal length: 35mm (Equivalent to 54mm) Exposure: Aperture fully opened Auto ISO200 RAW

## F/2.8 fast standard zoom for optimum image rendering SP AF17-50mm F/2.8 XR Di II LD Aspherical [IF]

This fast standard zoom lens features a lightweight, compact design for exclusive use with digital SLR cameras. With a fast F/2.8 maximum aperture throughout the zoom range, this lens is the best in its class when it comes to delivering the richest, deepest information about the photo subject to the camera's image sensor. This easy-to-use standard zoom has an exceptionally wide-angle range, equivalent to 26-78mm on a full-size format camera.

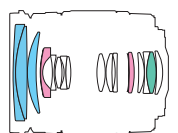
Moreover, its high-quality optic system utilizes LD, XR, hybrid aspherical, and other kinds of extraordinary elements, as well as special coating technology, to realize the excellent image rendering performance of the SP series.



Di II XR SP LD ASL IF ZL

### Model A16

- Flower-shaped hood
- Filter diameter /  $\phi$  67mm
- Minimum focus distance / 27cm (10.6") (The entire zoom range)
- Mount compatible / Canon Nikon Sony



Lens construction with 16 elements in 13 groups

\*Nikon mount does not have an aperture ring.

**Di II** Lens designed for exclusive use on digital SLR cameras with APS-C size imagers. **XR** Lens with this mark uses XR element (s) **SP** Tamron Super Performance series features high-performance specs **LD** Lens with this mark uses LD element (s) **ASL** Lens with this mark uses aspherical element (s) **IF** Lens with this mark uses internal focusing system **ZL** Lens with this mark uses zoom-lock mechanism **SHM** Lens with this mark uses Super Hybrid Mount

\*Lenses in Lens Construction: ■ XR (Extra Refractive index) glass ■ Aspherical Lens ■ LD element



## The powerful zoom range exclusively for digital cameras AF18-200mm F/3.5-6.3 XR Di II LD Aspherical [IF] Macro

The AF18-200mm F/3.5-6.3 XR Di-II is a high power zoom lens made for exclusive use with digital SLR cameras. The lens inherits the qualities and concepts of the existing AF28-300mm F/3.5-6.3 XR Di. It covers a powerful zoom range equivalent to 28-300mm\*<sup>1</sup> on a digital SLR camera with a APS-C size imager. The lens provides the convenience of handling many photographic scenes and the capability of shooting ultra wide-angle to ultra telephoto shots without changing lenses. Tamron uses three hybrid aspherical lens elements and two LD (Low Dispersion) glass elements to achieve effective compensation of on-axis and lateral chromatic aberrations, a critical factor that enhances the optical quality of digital photography. Systematic countermeasures against ghosting and flare, annoying factors in digital photography, are also adopted with new technologies such as "Internal Surface Coatings"\*<sup>2</sup> and new multiple-layered coating technology for ordinary elements. In addition, the Minimum Focus Distance is 45cm (17.7") so you will be able to enjoy close-up (macro) photography of 1:3.7 at a 200mm setting.

\*<sup>1</sup> When converted to full-size format.

\*<sup>2</sup> Multiple-layered coatings on cemented surfaces of plural elements.

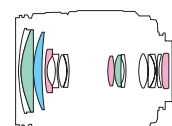


Di II XR LD ASL IF ZL SHM

Model A14

- Flower-shaped hood
- Filter diameter /  $\phi$  62mm
- Minimum focus distance / 45cm (17.7")
- Mount compatible / Canon  
Nikon  
Pentax  
Sony

\*Pentax mount is made of brass.



Lens construction with 15 elements in 13 groups

\*Nikon and Pentax mounts do not have aperture rings.



Best Consumer Lens  
of the Year 2005



The 2005 American PHOTO  
Editor's Choice Awards



Good Design Award,  
by JIDPO, Japan



Lens: AF18-200mm F/3.5-6.3 Model A14 Focal length: 18mm (Equivalent to 28mm) Exposure: F/8 Auto ISO200 RAW



# Di II Lens Series



Lens: SP AF11-18mm F/4.5-5.6 Model A13 Focal length: 11mm (Equivalent to 17mm) Exposure: F/11 Auto ISO100 RAW

## Digitally dedicated ultra wide zoom from a 17mm\* perspective SP AF11-18mm F/4.5-5.6 Di II LD Aspherical [IF]

This super wide-angle zoom lens is designed for exclusive use with digital SLR cameras using a sensor smaller than full-size format. The lens provides an extended focal length of 17mm (when converted to full-size format), the desired length for today's most advanced, professional photographers using digital SLRs. The lens features a completely new optical system designed for optimal performance with digital SLR cameras.

An element of both HID (High Index High Dispersion) and LD (Low Dispersion) glass are used to minimize on-axis and lateral chromatic aberrations. In addition, one high precision, large clear aperture, glass-molded aspherical element and two hybrid aspherical elements are used to compensate for spherical and chromatic aberrations and distortion, to achieve outstanding optical quality.

\*When converted to full-size format.

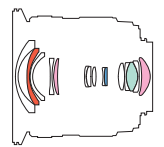


Di II SP LD ASL IF HID

### Model A13

- Flower-shaped hood
- Filter diameter /  $\phi$  77mm
- Minimum focus distance / 25cm (9.8")  
(The entire zoom range)
- Mount compatible / Canon  
Nikon  
Sony

\*Nikon mount does not have an aperture ring.



Lens construction with  
15 elements in 12 groups



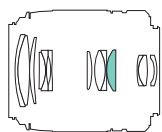


Di II LD SHM

Model A15

- Hood
- Filter diameter /  $\phi$  52mm
- Minimum focus distance / 95cm (37.4")  
(The entire zoom range)
- Mount compatible / Canon  
Nikon  
Sony

\*Nikon mount does not have an aperture ring.



Lens construction with 13 elements in 9 groups



©Takehiko Nakafuji

Lens: SP AF55-200mm F/4-5.6 Model A15 Focal length: 55mm (Equivalent to 85mm) Exposure: F/11(+0.7) Auto ISO200 RAW

## A second lens for your digital camera

### AF55-200mm F/4-5.6 Di II LD Macro

This telephoto zoom from Tamron is ideal for anyone who wants to capture truly dynamic telephoto images. It goes far beyond the capabilities of the standard zoom that comes with a digital SLR camera. Lightweight and compact, this zoom lens provides 300mm equivalent telephoto power\*<sup>1</sup> that is ideal for photos of family fun, sport events, scenery and portraiture. Designed exclusively for digital SLRs, it features Tamron's latest advanced technologies, such as Internal Surface Coatings\*<sup>2</sup>, to suppress flare and ghosting and reduce the loss of peripheral light that often occurs with digital imagers. With an LD (Low Dispersion) glass element that minimizes on-axis and lateral chromatic aberrations, this lens provides outstanding optical performance over the entire zoom range in digital photography.

\*<sup>1</sup> 85-310mm range when converted to the full-size format.\*<sup>2</sup> Multiple-layer coatings between lens elements attached to each other.

Di II Lens designed for exclusive use on digital SLR cameras with APS-C size imagers. SP Tamron Super Performance series features high-performance specs LD Lens with this mark uses LD element (s)

SHM Lens with this mark uses Super Hybrid Mount ASL Lens with this mark uses aspherical element (s) IF Lens with this mark uses internal focusing system

HID Lens with this mark uses High Index High Dispersion glass element \*Lenses in Lens Construction: LD element Hybrid Aspherical Lens Glass Molded Aspherical Lens HID glass

# Di Lens Series

The ultimate in quality for SLR cameras

Looking for outstanding image quality?

Tamron Di Lens series feature optical systems designed for superior performance with digital SLR cameras. Free up your photography with this highly efficient series of lenses.



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Lens: AF28-300mm F/3.5-6.3 Model A061 Focal length: 300mm (Equivalent to 465mm) Exposure: F/8(+0.7) ISO400 RAW

## All-in-one high-power zoom AF28-300mm F/3.5-6.3 XR Di LD Aspherical [IF] Macro

Tamron's 28-300mm zoom lens features our "Di" design, making it the ideal lens for use with both film and digital cameras. The lens features XR technology that contributes to its weight of only 420g (14.8oz.) and its compact length of just 83.7mm (3.3"). It provides ultimate color, contrast and distortion correction due to its complex optical design that includes LD, AD and Aspherical elements. The MFD of only 49cm (19.3") throughout the entire range provides an outstanding 1:2.9 maximum macro magnification for true macro photography (at 300mm).



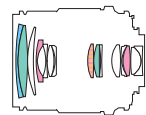
Di XR LD ASL AD IF ZL SHM \*Pentax mount is made of brass.

### Model A061

- Flower-shaped hood
- Filter diameter /  $\phi$  62mm
- Minimum focus distance / 49cm (19.3")  
(The entire zoom range)
- Mount compatible / Canon  
Nikon  
Pentax  
Sony



Good Design Award,  
by JIDPO, Japan



Lens construction with 15  
elements in 13 groups  
Note: The 8th element is an AD  
element featuring aspherical  
processing.





Lens: SP AF28-75mm F/2.8 Model A09 Focal length: 28mm (Equivalent to 43mm) Exposure: F/8 Auto ISO100 RAW

## Fast & compact standard zoom

### SP AF28-75mm F/2.8 XR Di LD Aspherical [IF] Macro

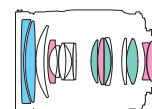
Now realized thanks to XR technology, Tamron brings you this light and small fast zoom. Unlike typical fast zooms, it weighs only 510g (18oz.), with filter size of 67mm and overall length of 92mm (3.6"). The optical performance is of course outstanding with the employment of an optical system using two XR elements, three LD elements, and four aspherical elements. In addition, the lens features "Di" (Digitally Integrated Design) optical system to meet the performance characteristics of digital SLR cameras as well as film cameras.



Di SP XR LD ASL IF ZL

#### Model A09

- Flower-shaped hood
- Filter diameter /  $\phi$  67mm
- Minimum focus distance / 33cm (13.0")  
(The entire zoom range)
- Mount compatible / Canon  
Nikon  
Pentax  
Sony



Lens construction with 16 elements in 14 groups



Good Design Award,  
by JIDPO, Japan

## The Allure of a Fast Aperture Lens

One of the most appealing features of a lens is its "speed". The so-called "fast" lens (e.g., F/2.8) allows approximately twice the amount of light into the lens compared to a lens with an ordinary maximum aperture (e.g., F/4). Therefore, a fast lens offers such picture-taking advantages as:

### (1) Use of higher shutter speeds

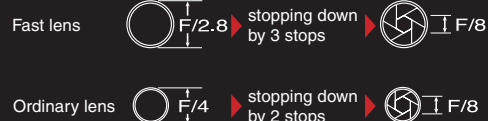
Sharp images without camera shake

### (2) A beautifully blurred effect

Out-of-focus foreground and background that highlights the main subject

### (3) Better image capturing performance

\*Generally speaking, the characteristic of a lens is such that image quality is improved as its diaphragm is stopped down to a certain value: approx. F/11.



**Di** Lens with this mark features optical systems designed to meet the performance characteristics of digital SLR cameras **SP** Tamron Super Performance series features high-performance specs **XR** Lens with this mark uses XR element (s)  
**LD** Lens with this mark uses LD element (s) **SHM** Lens with this mark uses Super Hybrid Mount **ASL** Lens with this mark uses aspherical element (s) **IF** Lens with this mark uses internal focusing system  
**ZL** Lens with this mark uses zoom-lock mechanism **AD** Lens with this mark uses AD element (s) \*Lenses in Lens Construction: ■ XR (Extra Refractive index) glass ■ LD element ■ Hybrid Aspherical Lens ■ AD element



## Casual and fun-a lightweight, high-magnification zoom AF28-200mm F/3.8-5.6 XR Di Aspherical [IF] Macro

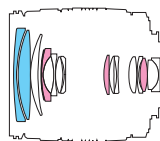
Casual and fun, and useful for any scene you want to shoot, this convenient high-magnification zoom is super light, at just 354g (12.5oz) (for CanonAF). This new product is the digitally integrated version of Tamron's original high-magnification 28-200mm zoom. Tamron's "Internal Surface Coatings" and new multiple-layer coating technology on ordinary elements reduce ghosting and flare that can happen due to reflections that sometimes occur when light enters the lens as well as reflections caused by the imager itself. The lens also offers a minimum focus distance of 0.49m over the entire zoom range, and achieves a maximum magnification ratio of 1:4.



Di XR ASL IF ZL

Model A031

- Flower-shaped hood
- Filter diameter /  $\phi$  62mm
- Minimum focus distance / 49cm (19.3") (The entire zoom range)
- Mount compatible / Canon Nikon Pentax Sony



Lens construction with 15 elements in 14 groups

new



Lens: AF28-200mm F/3.8-5.6 Model A031  
Focal length: 35mm (Equivalent to 54mm) Exposure: F/11 Auto ISO200 RAW

## Fast ultra wide-angle zoom SP AF17-35mm F/2.8-4 Di LD Aspherical [IF]

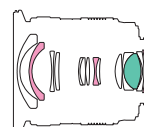
Ultra wide-angle zoom lens featuring "Di" (Digitally Integrated Design) optical system to meet the performance characteristics of digital SLR cameras as well as film cameras. When mounted on a digital SLR camera with a smaller size imager, it provides a focal length coverage equivalent to a 26-54mm, covering the desirable wide-angle to standard range. With its MFD of 30cm (11.8") over the entire range, the lens offers you creative image composition by emphasizing a main subject exaggerated against the background. The use of three Hybrid Aspherical lens elements minimizes various aberrations and provides excellent image quality.



Di SP LD ASL IF

Model A05

- Flower-shaped hood
- Filter diameter /  $\phi$  77mm
- Minimum focus distance / 30cm (11.8") (The entire zoom range)
- Mount compatible / Canon Nikon Pentax Sony



Lens construction with 14 elements in 11 groups

Lens: AF17-35mm F/2.8-4 Model A05 Focal length: 17mm (Equivalent to 26mm) Exposure: F/8 ISO100





new

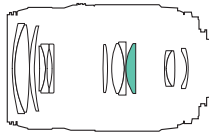
## Digitally integrated telephoto macro zoom AF70-300mm F/4-5.6 Di LD Macro 1:2

This new product is the digitally integrated version of Tamron's well-known telephoto macro zoom. Just flip the macro switch between the focal lengths of 180mm and 300mm, and you can enjoy true macro photography with a telephoto effect, at a maximum magnification ratio of 1:2. Tamron's "Internal Surface Coatings" and new multiple-layer coating technology on ordinary elements reduce ghosting and flare. Strict quality control standards were also applied to increase resolution performance and prevent flare due to aberrations, resulting in a telephoto zoom lens ideal for photography with D-SLR cameras.

Di LD

### Model A17

- Hood
- Filter diameter /  $\phi$  62mm
- Minimum focus distance / 150cm (59.0") (Macro) 95cm (37.4")
- Mount compatible / Canon Nikon Pentax Sony



Lens construction with  
13 elements in 9 groups

Lens: AF70-300mm F/4-5.6 Model A17 Focal length: 300mm (Equivalent to 465 mm)  
Exposure: F/9.5 Auto ISO100 WB:Auto  
MFD: 0.95m (Max Mag. Ratio: 1:2) \* Switching to macro mode.



Lens: AF70-300mm F/4-5.6 Model A17 Focal length: 300mm (Equivalent to 465mm) Exposure: F/8 ISO200 RAW



Lens: AF200-500mm F/5-6.3 Model A08 Focal length: 500mm (Equivalent to 775mm) Exposure: F/8 Auto ISO200 RAW

## High quality ultra telephoto zoom SP AF200-500mm F/5-6.3 Di LD [IF]

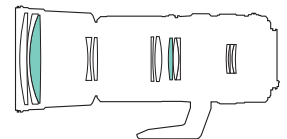
A true ultra-telephoto zoom lens that covers up to 500mm. The lens uses two LD elements in order to minimize on-axis chromatic aberrations that are likely to become a problem in conventional telephoto zoom lenses, thus providing clear images with vivid color rendition. When used with an APS-C size digital SLR camera, the lens provides an angle of view equivalent to 310-775mm. Another great feature is the detachable Filter Effect Control (FEC) adapter designed to allow convenient rotation of a PL filter even when the hood is attached.



Di SP LD IF ZL

### Model A08

- Hood / Lens case /
- Filter Effect Control / Detachable tripod mount
- Filter diameter /  $\phi$  86mm
- Minimum focus distance / 2.5m (98.4")
- Mount compatible / Canon Nikon Sony



Lens construction with  
13 elements in 10 groups

### The Detachable Filter Effect Control

The Filter Effect Control is designed to rotate the filter to the desired position with the hood attached, enabling you to simultaneously perform minute adjustments to PL filter compensation. You can confirm the Polarizing effect through the viewfinder, all while using the hood to prevent harmful light from entering the lens.



**Di** Lens with this mark features optical systems designed to meet the performance characteristics of digital SLR cameras

**XR** Lens with this mark uses XR element (s)

**LD** Lens with this mark uses LD element (s)

**ASL** Lens with this mark uses aspherical element (s)

**IF** Lens with this mark uses internal focusing system

**ZL** Lens with this mark uses zoom-lock mechanism

\*Lenses in Lens Construction: ■ XR (Extra Refractive index) glass ■ LD element ■ Hybrid Aspherical Lens

**SP** Tamron Super Performance series features high-performance specs

## World-renowned medium telephoto macro SP AF90mm F/2.8 Di Macro 1:1

Tamron's world renowned 90mm Macro has evolved even further by incorporating Tamron's "Di" (Digitally Integrated) optical design, making it ideal for use with both digital and film cameras. While inheriting the same optical configuration of the previous model, the "Di" version features a new optical design applied to its coated surfaces. The lens is recommended as an easy to use portrait macro lens for use with a film camera, and as a convenient telephoto macro on APS-C size digital cameras since it provides a full-size equivalent angle of view of 140mm.

\*The one-touch switchover function is available on Nikon and Canon mounts only.  
The Sony and the Pentax mounts require switchover in two steps.



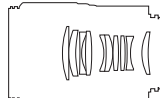
Di SP AF/MF switch-over mechanism on the focus ring

Model 272E

- Hood / Lense case
- Filter diameter /  $\phi$  55mm
- Minimum focus distance / 29cm (11.4")
- Mount compatible / Canon  
Nikon  
Pentax  
Sony



Good Design Award,  
by JIDPO, Japan



Lens construction with  
10 elements in 9 groups

## Superb telephoto macro for more distant subjects SP AF180mm F/3.5 Di LD [IF] Macro 1:1

With soft out-of-focus backgrounds and superior optical performance, this 180mm macro lens exhibits its great power when taking macro shots where you may otherwise not have been able to get close enough to the subject. The lens features the new Filter Effect Control ring that allows rotation of a PL filter when the hood is attached, and an AF/MF one-touch switchover mechanism for easy handling. In addition, the lens features "Di" (Digitally Integrated Design) optical system to meet the performance characteristics of digital SLR cameras as well as film cameras.

\*The one-touch switchover function is available on Nikon and Canon mounts only.  
The Sony mount requires switchover in two steps.

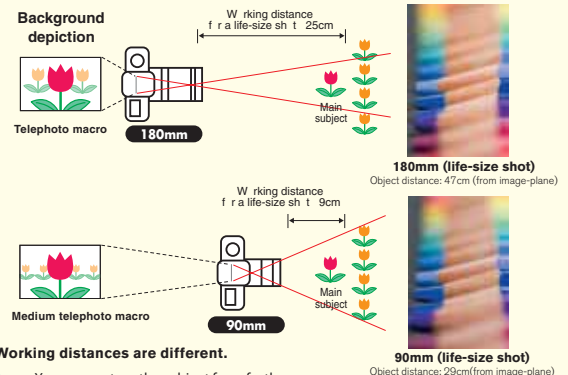


Lens: SP AF180mm F/3.5 Model B01 Focal length: 180mm (Equivalent to 279mm) Exposure: F/8 Auto ISO100 RAW



Lens: SP AF90mm F/2.8 Model 272E Focal length: 90mm (Equivalent to 140mm) Exposure: F/4 1/500sec ISO100 WB: Daylight

### Differences in Pictures taken with 90mm and 180mm - the same main subject taken at the same size



#### (1) Working distances are different.

**180mm:** You can capture the subject from further away.

**90mm:** You can shoot subjects that are closer to you with a little more ease.

The 180mm is ideal for shooting subjects that are further away, like creatures afar or blossoms on a sprig, while shooting subjects on a table or an insect/flower at a closer working distance is a little easier with the 90mm.

#### (2) Background depiction is different.

**180mm:** Pulls objects behind the main subject closer. The scope taken within a frame is smaller than with the 90mm and the background blur is greater, making the distinction from the background easier.

**90mm:** The scope is wider, but natural perspective can be obtained. The depth of field is deeper than that of the 180mm, so focusing is relatively easier.



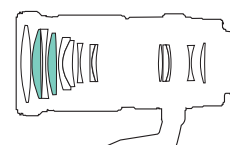
Di SP LD IF AF/MF switch-over mechanism on the focus ring

Model B01

- Hood / Lense case / Detachable tripod mount
- Filter diameter /  $\phi$  72mm
- Minimum focus distance / 47cm (18.5")
- Mount compatible / Canon  
Nikon  
Sony



Good Design Award,  
by JIDPO, Japan



Lens construction with  
14 elements in 11 groups



# Conventional Lenses

## High power zoom lens with the outstanding optical performance

### SP AF24-135mm F/3.5-5.6 AD Aspherical [IF] Macro

Covering everything from 24mm real wideangle through 135mm telephoto, this lightweight, compact lens represents the high power zoom lens concept, with outstanding optical performance characteristics of the SP series. The optical system incorporates a new AD (Anomalous Dispersion) glass element, and four hybrid aspherical elements, resulting in ideal compensation of chromatic aberration and astigmatism. The MFD (Minimum Focus Distance) of the lens is 40cm over the entire zoom range. The 135mm telephoto achieves a maximum magnification ratio of 1:3.3, making macro photography possible. A zoom lock feature is included for enhanced portability.

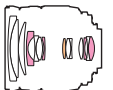


Awards 2002 "Lens of the Year"  
selected by Amateur Photographer,  
UK.

**SP ASL AD IF ZL**

**Model 190D**

- Flower-shaped hood / Lens case
- Filter diameter /  $\phi$  72mm
- Minimum focus distance / 40cm (15.7")  
(The entire zoom range)
- Mount compatible / Canon  
Nikon  
Pentax  
Konica Minolta



Lens construction  
with 14 elements  
in 10 groups

## Standard zoom lens

### AF28-80mm F/3.5-5.6 Aspherical

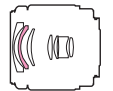
This standard zoom lens provides a range from a wide 28mm to a medium telephoto 80mm. The use of aspherical elements in the front group reduces the number of elements required, and the use of strong engineering plastic in the barrel makes the body a light 230g (8.1oz.) (for Nikon).



**ASL**

**Model 177D**

- Hood
- Filter diameter /  $\phi$  58mm
- Minimum focus distance / 70cm (27.5")
- Mount compatible / Canon  
Nikon  
Pentax  
Konica Minolta



Lens construction  
with 7 elements  
in 7 groups

## F/2.8 ultra wide-angle lens

### SP AF14mm F/2.8 Aspherical [IF]

SP AF14mm F/2.8 Aspherical [IF] is an ultra wideangle lens that creates a perspective far beyond the conventional ultra-wide. With its larger 2.8 aperture, the main subject practically jumps out of the image. By using two Hybrid Aspherical lens elements, this lens delivers high quality images with minimal light fall off at the image corners. To optimize handling, the lens incorporates a push/pull AF/MF switchover mechanism on the focus ring.



**SP ASL IF**

**Model 69E**

- Lens front cover / Lens case
- Filter / Gelatin filter holder at the rear of lens
- Minimum focus distance / 20cm (7.9")
- Mount compatible / Canon  
Nikon



Lens construction  
with 14 elements  
in 12 groups

AF/MF switch-over mechanism on the focus ring

## F/2.8 fast fixed telephoto lens

### SP AF300mm F/2.8 LD [IF]

Tamron's fast fixed telephoto delivers remarkable and exacting performance demanded by professionals. Two large LD (Low Dispersion) glass elements in the front group provide high contrast and crystal-clear image quality at F/2.8. Our Floating Focusing system improves optical performance especially at close shooting distances. Nine specially-shaped aperture blades form a nearly perfect circle to create excellent background blur for portraits. The true value of the lens is apparent when photographing sports, low-light theatre performances, and wildlife.



For Nikon



For Canon

**SP LD IF**

**Model 360E**

- Filter diameter /  $\phi$  112mm (rear: 43mm)
- Minimum focus distance / 2.5m (98.4")
- Mount compatible / Canon  
Nikon
- For Nikon / Hood, case, rear normal filter, hold grip.
- For Canon / Hood, case, exclusive tripod stand, rear normal filter, exclusive C-PL rear filter.



Lens construction  
with 10 elements  
in 7 groups

AF/MF switch-over mechanism on the focus ring : For Canon only

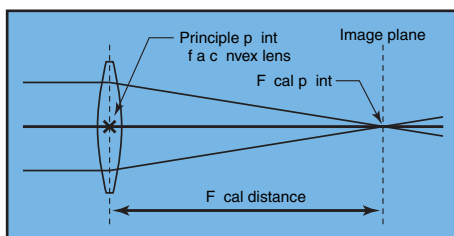
# Fundamentals

## Differences between Wideangle and Telephoto

### What is focal length?

While a photographic lens comprises multiple lens elements, it can be regarded as a single convex element. The focal length is defined as a distance from the center of such a convex element (principle point) to the focal point (image plane) and it is one of the most decisive factors that determines the characteristics of a lens.

\*The focal length of a photographic lens is established with the subject positioned at the infinity point.



### Angle of View (Telephoto & Wideangle Lens)

The area size captured by a photographic lens can be expressed as a diagonal angular field called Angle of View. Generally speaking, a focal length range that provides a similar perspective to the human eye is considered to be somewhere between 40-60mm. With this established as a standard focal length, those with shorter focal lengths are called "wide-angle" and those with longer focal lengths are called "telephoto". The shorter the focal length becomes, the wider the angle of view (wide-angle), while the longer it becomes, the narrower the angle of view (telephoto).

\*The relationship between focal length and angle of view is generally consistent regardless of the lens' focal length. However, there are cases where different angles of view are observed depending on the difference in the focusing system of a lens and shooting distance.

### Perspective (Sense of distance)

A photographic lens provides a visual effect, making closely located subjects larger while remotely located subjects smaller. As the focal length becomes shorter in a wideangle lens, this perspective difference

expands making closely located subjects even bigger and remotely located ones even smaller (exaggerated perspective).

In contrast, in a telephoto lens, as focal lengths become longer, less difference is observed between close and distant subjects, making it appear as if they are closer regardless of the distance between them (compressed perspective).

### Depth of Field

When focused on a subject, there are areas in front of and behind the main subject where details are sharp. This area is referred to as depth of field. When the sharp image area is narrow, it is expressed as "shallow depth of field". When it is wide, it is expressed as "deep depth of field". The depth of field becomes shallower as the lens aperture goes toward a full open position (or the faster the lens' maximum aperture becomes). It becomes deeper when the aperture gets closer to the fully stopped down position (or the slower the lens' maximum aperture becomes). Also, a wide-angle lens delivers deeper depth of field compared with a telephoto lens.

## Zoom Lens vs. Fixed Focal Lens

### Zoom lenses offer versatility

A zoom lens allows continuous shift of focal length without shifting the focus point. Because it delivers various angles of view, one lens can serve as multiples of fixed focal length lenses. Tamron offers a wide array of zoom lenses covering virtually all of the focal lengths required for normal shooting conditions, including those with fast apertures.

Standard range zoom	Standard zoom (28-80mm)
Advanced range zoom	Ultra wide-angle zoom (11-18mm, 17-35mm) High-image-quality telephoto zoom (55-200mm, 70-300mm) Ultra telephoto zoom (200-500mm)
High-power zoom	Wide-angle high-power zoom (24-135mm) Ultra-high-power zoom (18-250mm, 28-200mm, 28-300mm)
High-speed zoom	Standard zoom (17-50mm F/2.8, 28-75mm F/2.8)

## High image quality and compact fixed focal lens

A fixed focal length lens can deliver outstanding image quality and dimensional compactness because it can be designed with specific photographic needs and applications in mind. Tamron offers a line of fixed focal lens models applying the sophisticated technologies developed for making zoom lenses of various kinds.

- Ultra wide-angle lens (14mm)
- Macro lens (90mm F/2.8 1:1, 180mm F/3.5 1:1)
- Fast-aperture telephoto lens (300mm F/2.8)

## Macro Photography (Close-up photography)

### Features of macro lens

A macro lens is designed to capture a tiny subject as a bigger image, while suppressing the aberrations that tend to be more noticeable in closer focusing distances.

### Macro ratio (Magnification ratio)

A macro magnification is expressed in 1:x, which is a ratio of the actual size of a subject, "1", to the size of the subject image reproduced on the film plane, "1/x". Therefore, the larger the x value becomes, the smaller the reproduced image on the film plane becomes. For example, an image of a coin reproduced on film as the same size as the actual coin is 1:1 macro, while the same image reproduced at 1/2 of the original size is 1:2 macro. The macro ratio is also referred to as magnification ratio, and the maximum ratio of a lens' reproduction capability is designated as "maximum magnification ratio".





# FAQ Frequently Asked Questions

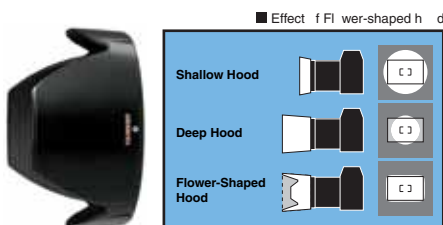
## Macro photography with a zoom lens

As mentioned above, macro photography is a specific type of shooting that magnifies the size of a subject by a certain factor (magnification ratio) of its actual size (e.g, 1:1, 1:2, 1:4). The same effect can be achieved with a zoom lens or a telephoto lens as long as the lens offers a sufficient magnification ratio. Tamron puts the designation "MACRO" on a lens that provides a magnification ratio of 1:4 or greater, indicating that the lens is capable of providing macro results.

## Accessories to Attain High Image Quality

### Hood

Every Tamron lenses, excluding tele-converters, are supplied with a lens hood as a standard accessory. The Tamron lens hood is designed as an integral part of the optics to provide the maximum shading for each lens. This is the case even for those made for a zoom lens, where the wide-end of the focal length range inevitably becomes the benchmark for the optical design. For lenses with an Internal Focusing system that cover wideangle ranges, a flower-shaped lens hood is employed. This type of hood delivers the best possible shading effect even when shooting at telephoto because the edge of the hood is extended to the maximum length in the areas corresponding to the top and bottom of the image, while being cut back in the areas that correspond to both sides of the image in order to avoid vignetting at any of the four corners.



## Q Are Tamron lenses compatible with digital SLRs?

**A** Tamron's Di-II lenses are designed exclusively for digital SLR cameras with APS-C size imagers (24x16mm or smaller).

The optical systems of our Di lenses are matched to the performance characteristics of digital SLR cameras as well as film cameras.

## Q High power zoom lenses such as 18-250 or 28-300 seem to cover angles of view wider than those covered by equivalent telephoto lenses. I suspect the focal lengths at the telephoto ends might actually be shorter than designated.

**A** High power zoom lenses use Internal Focus (IF) systems to shorten the Minimum Focus Distance. When an IF system is used in the optical system of a lens with a wide to tele range, the magnification ratio at telephoto is shortened when you shoot closer to the MFD. When pictures are taken at a close focusing distance with a zoom lens at its telephoto end, the zoom lens covers a wider angle of view than would a fixed telephoto lens. However, since the focal length of any lens is based on the focusing distance at the infinity setting (and Tamron's high power zoom lenses provide the same angles of view as other telephoto lenses at the infinity setting), this phenomenon is not a defect or flaw in a zoom lens.

## Q When I use Tamron's 90mm macro lens as well as some other lenses, the open aperture value displayed on the camera is smaller than designated on the lens. Is my lens defective?

**A** The 90mm macro lens is designed to extend its front group largely toward the subject in close-up macro photography. In that situation, the amount of light reaching the film decreases. The aperture displayed stays the same in most cameras,

but some SLR cameras are equipped with a feature that shows the effective f-values, and smaller open aperture values are displayed when the lens barrel is extended for close-up photography. This phenomenon is not a lens defect or flaw, but is a camera characteristic.

## Q Is there a difference between the designation MACRO on a 90mm macro lens and a zoom lens?

**A** Tamron puts the MACRO designation on all lenses that have a maximum close-up capability of 1:4 (0.25x) or larger, regardless of the lens type. However, there is a difference between a macro lens and a zoom lens in the image quality for close-up photography. In designing a macro lens, the emphasis is put on image quality and performance to provide a high image quality and an attractive out-of-focus background effect in close-up photography, while maintaining sufficient performance in general photography for portraiture or scenery. On the other hand, in designing a zoom lens with a macro feature, emphasis is put on high image quality in general photography while equipping the lens with a convenient close-up capability.

## Q Other than Di-II Lens Series, all Tamron's AF lenses for Nikon and Pentax are equipped with an aperture control ring, but Di-II lenses do not have the ring. Why is that?

**A** Di-II Lens Series are for exclusive use with digital SLR cameras. All Nikon and Pentax digital SLRs are designed to control apertures with a dial on the camera, not with a control ring on the lens. An aperture control ring is unnecessary for AF lenses designed for exclusive use on digital SLR cameras.

# Lens Lineup

## Di II Lens Series

For APS-C Digital Exclusive use on digital SLR cameras with APS-C size imagers.



**SP AF11-18mm**  
F/4.5-5.6 Di II  
LD Aspherical [IF]

Model A13

Canon Nikon Sony

\*The lens for Nikon /  
Sony is "D" Compatible.



**SP AF17-50mm**  
F/2.8 XR Di II  
LD Aspherical [IF]

Model A16

Canon Nikon Sony

\*The lens for Nikon /  
Sony is "D" Compatible.



**AF18-200mm**  
F/3.5-6.3 XR Di II  
LD Aspherical [IF] Macro

Model A14

Canon Nikon Pentax Sony

\*The lens for Nikon /  
Sony is "D" Compatible.



**AF18-250mm**  
F/3.5-6.3 Di II  
LD Aspherical [IF] Macro

Model A18

Canon Nikon Pentax Sony

\*The lens for Nikon /  
Sony is "D" Compatible.



**AF55-200mm**  
F/4-5.6 Di II  
LD Macro

Model A15

Canon Nikon Sony

\*The lens for Nikon /  
Sony is "D" Compatible.

## Di Lens Series



**SP AF17-35mm**  
F/2.8-4 Di  
LD Aspherical [IF]

Model A05

Canon Nikon Pentax Sony

\*The lens for Nikon /  
Sony is "D" Compatible.



**SP AF28-75mm F/2.8**  
XR Di  
LD Aspherical [IF] Macro

Model A09

Canon Nikon Pentax Sony

\*The lens for Nikon /  
Sony is "D" Compatible.



**AF28-200mm F/3.8-5.6**  
XR Di  
Aspherical [IF] Macro

Model A031

Canon Nikon Pentax Sony

\*The lens for Nikon /  
Sony is "D" Compatible.



**AF28-300mm F/3.5-6.3**  
XR Di  
LD Aspherical [IF] Macro

Model A061

Canon Nikon Pentax Sony

\*The lens for Nikon /  
Sony is "D" Compatible.



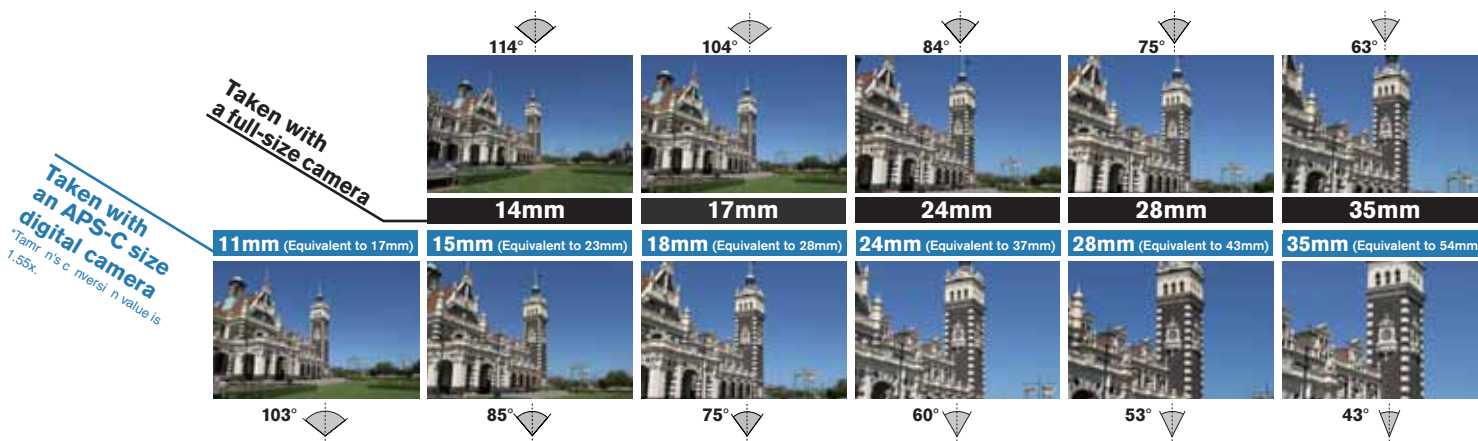
**AF70-300mm F/4-5.6 Di**  
LD Macro 1:2

Model A17

Canon Nikon Pentax Sony

\*The lens for Nikon /  
Sony is "D" Compatible.

## Different Angles of View with Different Focal Lengths





## Conventional Lenses



**SP AF24-135mm**  
F/3.5-5.6  
AD Aspherical [IF] Macro  
Model 190D  
Canon Nikon Pentax KonicaMinolta  
\*The lens for Nikon is "D" Compatible.



**AF28-80mm F/3.5-5.6**  
Aspherical  
Model 177D  
Canon Nikon Pentax KonicaMinolta  
\*The lens for Nikon is "D" Compatible.



**SP AF14mm**  
F/2.8 Aspherical [IF]  
Model 69E  
Canon Nikon  
\*The lens for Nikon is "D" Compatible.



For Nikon  
**SP AF300mm F/2.8 LD [IF]**  
Model 360E  
Canon Nikon



For Canon



**SP AF200-500mm F/5-6.3 Di**  
LD [IF]  
Model A08  
Canon Nikon Sony  
\*The lens for Nikon / Sony is "D" Compatible.



**SP AF90mm F/2.8 Di**  
Macro 1:1  
Model 272E  
Canon Nikon Pentax Sony  
\*The lens for Nikon / Sony is "D" Compatible.



**SP AF180mm F/3.5 Di**  
LD [IF] Macro 1:1  
Model B01  
Canon Nikon Sony  
\*The lens for Nikon / Sony is "D" Compatible.

## Tele-Converters



**AF1.4X**



**AF2X**  
F-System



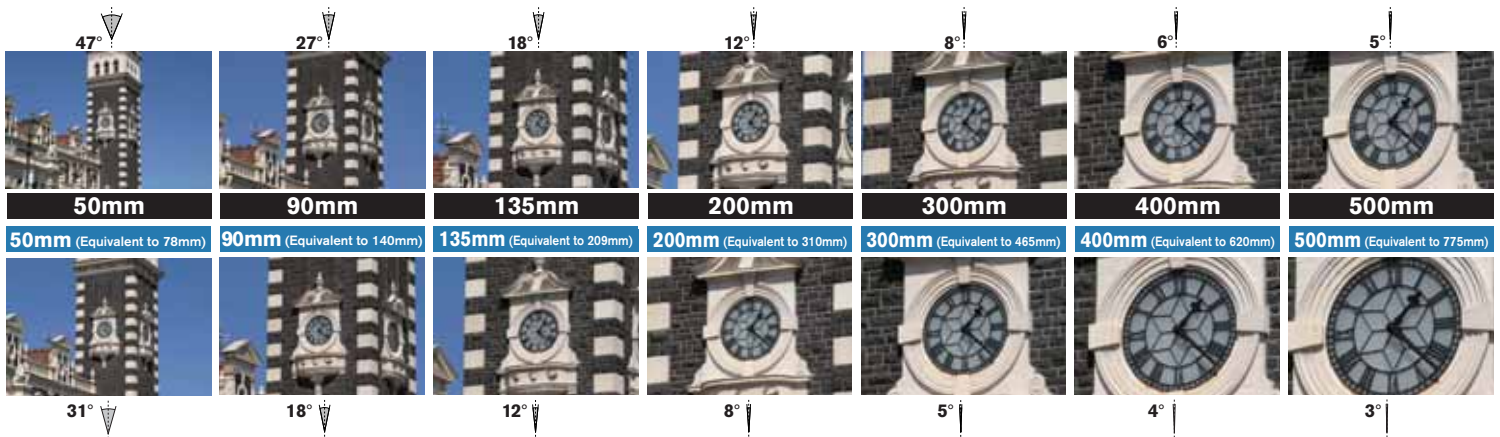
**SP AF1.4X**  
Pro Series



**SP AF2X**  
Pro Series

\* To attach a lens where the maximum aperture is F/3.5 or slower (e.g., High power zoom lenses) is not recommended.

\* Please read the instruction manual of the lens for information about the compatibility of the tele-converters with each lens.





# Lens Specifications

## DiII Lens Series

Model	Lenses		Focal length (mm)	Maximum Aperture (F)	Lens Construc- tion (Groups/ Elements)	Angle of View			Type of Zooming	Diaphragm Blades	Minimum Aperture (F)
						Diagonal	Horizontal	Vertical			
Zoom	A13	SP AF11-18mm F/4.5-5.6 Di II LD Aspherical [IF]	11-18mm	F/4.5-5.6	12-15	103°29'-75°33'	93°3'-65°36'	70°12'-46°21'	Rotation	7	22
	A16	SP AF17-50mm F/2.8 XR Di II LD Aspherical [IF] <span>new</span>	17-50mm	F/2.8	13-16	78°45'-31°11'68°37'-26°7'	49°1'-17°22'	Rotation	7	32	
	A14	AF18-200mm F/3.5-6.3 XR Di II LD Aspherical [IF] Macro	18-200mm	F/3.5-6.3	13-15	75°33'-7°59'	65°36'-6°38'	46°21'-4°15'	Rotation	7	22
	A18	AF18-250mm F/3.5-6.3 Di II LD Aspherical [IF] Macro <span>new</span>	18-250mm	F/3.5-6.3	13-16	75°33'-6°23'	65°36'-5°19'	46°21'-3°19'	Rotation	7	22
	A15	AF55-200mm F/4-5.6 Di II LD Macro	55-200mm	F/4-5.6	9-13	28°28'-7°59'	23°49'-6°38'	16°1'-4°15'	Rotation	9	32

## Di Lens Series

Model		Lenses	Focal length (mm)	Maximum Aperture (F)	Lens Construc- tion (Groups/ Elements)	Angle of View* ( ) = the figures when used on APS-C sized digital camera.			Type of Zooming	Diaphragm Blades	Minimum Aperture (F)
						Diagonal	Horizontal	Vertical			
Zoom	A05	SP AF17-35mm F/2.8-4 Di LD Aspherical [IF]	17-35mm	F/2.8-4	11-14	103°41'-63°26' (78°45'-43°28')	93°16'-54°26' (68°37'-36°40')	70°15'-37°31' (49°1'-24°34')	Rotation	7	22
	A09	SP AF28-75mm F/2.8 XR Di LD Aspherical [IF] Macro	28-75mm	F/2.8	14-16	75°23'-32°11' (52°58'-21°4')	65°28'-26°59' (45°0'-17°35')	46°15'-18°7' (30°34'-11°29')	Rotation	7	32
	A031	AF28-200mm F/3.8-5.6 XR Di Aspherical [IF] Macro 	28-200mm	F/3.8-5.6	14-15	75°23'-12°21' (52°58'-7°59')	65°28'-10°17' (45°0'-6°38')	46°15'-6°31' (30°34'-4°15')	Rotation	7	22
	A061	AF28-300mm F/3.5-6.3 XR Di LD Aspherical [IF] Macro	28-300mm	F/3.5-6.3	13-15	75°23'-8°15' (52°58'-5°20')	65°28'-6°52' (45°0'-4°26')	46°15'-4°21' (30°34'-2°35')	Rotation	9	22
	A17	AF70-300mm F/4-5.6 Di LD Macro 1:2 	70-300mm	F/4-5.6	9-13	34°21'-8°15' (22°33'-5°20')	28°51'-6°52' (18°49'-4°26')	19°16'-4°21' (12°22'-2°35')	Rotation	9	32
	A08	SP AF200-500mm F/5-6.3 Di LD [IF]	200-500mm	F/5-6.3	10-13	12°21'-4°57' (7°59'-3°12')	10°17'-4°7' (6°38'-2°39')	6°31'-2°27' (4°15'-1°28')	Rotation	9	32
Single-Focal Length Lens	272E	SP AF90mm F/2.8 Di Macro1:1 90mm	F/2.8	9-10		27°2' (17°37')	22°37' (14°41')	15°6' (9°31')	—		32
	B01	SP AF180mm F/3.5 Di LD [IF] Macro1:1	180mm	F/3.5	11-14	13°42' (8°52')	11°25' (7°22')	7°23' (4°34')	—	7	32

## Conventional Lenses

Model	Lenses	Focal length (mm)	Maximum Aperture (F)	Lens Construc- tion (Groups/ Elements)	Angle of View			Type of Zooming	Diaphragm Blades	Minimum Aperture (F)	
					Diagonal	Horizontal	Vertical				
Zoom	190D	SP AF24-135mm F/3.5-5.6 AD Aspherical [IF] Macro	24-135mm	F/3.5-5.6	10-14	84°4'-18°12'	73°44'-15°11'	53°5'-10°6'	Rotation	7	22
	177D	AF28-80mm F/3.5-5.6 Aspherical28-80mm	F/3.5-5.6	7-7	75°23'-30°16'	65°28'-25°22'	46°15'-17°3'	Rotation	6	22	
Single-Focal Length Lens	69E	SP AF14mm F/2.8 Aspherical [IF] 14mm	F/2.8	12-14	114°11'	104°15'	81°7'		5		22
	360E	SP AF300mm F/2.8 LD [IF]	300mm	F/2.8	7-10	8°15'	6°52'	4°21'	—	9	32

## Tele-Converters

Model	Lenses	Focal length (mm)	Maximum Aperture (F)	Lens Construc- tion (Groups/ Elements)	Angle of View			Type of Zooming	Diaphragm Blades	Minimum Aperture (F)
					Diagonal	Horizontal	Vertical			
020F	AF1.4X	—	—	4-4	1/1.4 the angle of view of original lens			—	—	Original lens X1.4
140F	SP AF1.4X Pro Series	—	—	4-5				—	—	
123/230series	AF2X F-System	—	—	5-7	1/2 the angle of view of original lens			—	—	Original lens X2
300F	SP AF2X Pro Series	—	—	4-7				—	—	



Minimum Focus in. (m)	Max Mag. Ratio	Filter size (ømm)	Weight oz. (g)	Diameter x Length in. (mm)	Accessory		Mount				Remarks
					Lens Hood	Case	for Canon	for Nikon	for Pentax	for Sony	
9.8 (0.25)	1:8	77	12.2 (345)	ø3.3×3.1 (ø83.2×78.6)	DA13		○	○ "D"compatible		○ "D"compatible	
10.6 (0.27)	1:4.5	67	15.2 (430)	ø2.9×3.3 (ø73.8×83.2)	DA09		○	○ "D"compatible		○ "D"compatible	
17.7 (0.45)	1:3.7	62	14 (398)	ø2.9×3.3 (ø73.8×83.7)	AD06		○	○ "D"compatible	○	○ "D"compatible	
17.7 (0.45)	1:3.5	62	15.2 (430)	ø2.9×3.3 (ø74.4×84.3)	DA18		○	○ "D"compatible	○	○ "D"compatible	
37.4 (0.95)	1:3.5	52	10.4 (295)	ø2.8×3.3 (ø71.6×83.0)	DA15		○	○ "D"compatible		○ "D"compatible	

⊙ Stands for a flower shaped hood.

When Tamron's Nikon mount lenses are attached to the Nikon D40, the lenses function only in the manual focus mode.

Minimum Focus in. (m)	Max Mag. Ratio	Filter size (ømm)	Weight oz. (g)	Diameter x Length in. (mm)	Accessory		Mount				Remarks
					Lens Hood	Case	for Canon	for Nikon	for Pentax	for Sony	
11.8 (0.3)	1:5.4	77	15.5 (440)	ø3.3×3.4 (ø83.2×86.5)	AD05		○	○ "D"compatible	○	○ "D"compatible	
13.0 (0.33)	1:3.9	67	18.0 (510)	ø2.9×3.6 (ø73×92)	DA09		○	○ "D"compatible	○	○ "D"compatible	Do not attach 2X tele-converters
19.3 (0.49)	1:4	62	12.5 (354)	ø2.8×3.0 (ø71×75.2)	AD06		○	○ "D"compatible	○	○ "D"compatible	
19.3 (0.49)	1:2.9	62	14.8 (420)	ø2.9×3.3 (ø73×83.7)	AD06		○	○ "D"compatible	○	○ "D"compatible	
59.0 (1.5) 37.4 (0.95) / MACRO	1:2 MACRO	62	15.3 (435)	ø3.0×4.6 (ø76.6×116.5)	DA17		○	○ "D"compatible	○	○ "D"compatible	
98.4 (2.5)	1:5	86	43.2 (1,226)	ø3.7×8.8 (ø93.5×224.5)	DA08	○	○	○ "D"compatible		○ "D"compatible	Detachable tripod mount / Filter Effect Control

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Minimum Focus in.(m)	Max Mag. Ratio	Filter size (ømm)	Weight oz. (g)	Diameter x Length in. (mm)	Accessory		Mount				Remarks
					Lens Hood	Case	for Canon	for Nikon	for Pentax	for Konica Minolta	
15.7 (0.4)	1:3.3	72	18.7 (530)	ø3.1×3.2 (ø78.5×80.6)	D6FH	○	○	○ "D"compatible	○	○	
27.5 (0.7)	1:8	58	8.1 (230)	ø2.8×2.8 (ø71.5×70.4)	1C2FH		○	○ "D"compatible	○	○	
7.9 (0.2)	1:6.5	—	23.8 (675)	ø3.4×3.4 (ø87×86.5)	Built-in	○	○	○ "D"compatible			
98.4 (2.5)	1:7.1	43 (front 112)	98.8 (2,800)	ø4.7×8.5 (ø120×214.9)	B3FH	○	○				Tripod mount, rear normal filter and C-PL rear filter
			79.4 (2,250)	ø4.7×8.4 (ø120×212.5)	B3FH	○		○			Hold grip and rear normal filter

⊙ Stands for a flower shaped hood.

When Tamron's Nikon mount lenses are attached to the Nikon D40, the lenses function only in the manual focus mode.

Minimum Focus in.(m)	Max Mag. Ratio	Filter size (ømm)	Weight oz. (g)	Diameter x Length in. (mm)	Accessory		Mount				Remarks
					Lens Hood	Case	for Canon	for Nikon	for Pentax	for Konica Minolta	
Retains the min. focus of original lens	1.4x the mag. Ratio of original lens	—	4.0 (114)	ø2.6×0.7 (ø66.5×18.8)	—	○	○	○	○	○	
		—	4.7 (133)	ø2.7×0.8 (ø68×19.4)	—	○	○	○		○	
Retains the min. focus of original lens	2x the mag. Ratio of original lens	—	6.0 (170)	ø2.6×1.4 (ø66.7×35.7)	—	○	○	○	○	○	
		—	6.9 (195)	ø2.7×1.7 (ø68.8×43.5)	—	○	○	○		○	

# New Eyes for Industry

Every field requires new eyes for industry. As a manufacturer of precise, sophisticated optical products for a broad range of industries, Tamron contributes to society with innovative, optical solutions.



OEM Products



Cellular Phone Camera Lenses



Optical Devices



CCTV [Surveillance] Cameras and Lenses

## OEM Products

Tamron has contributed to the growth of the digital camera market and the digital image revolution by supplying optical lens units designed to meet the needs of the era's mega-pixel CCDs. Our optical know-how, therefore, plays a key role in the OEM customers' attempts to attain higher market share. Also for supply to OEM customers, Tamron makes high performance, high definition, lightweight and compact lens units for home video cameras by making the most of our technologies and expertise accumulated over the years.

## CCTV [Surveillance] Cameras and Lenses

As a pioneer in this field as well, Tamron has always held the leading position in the industry since introducing "vari-focal lenses": epoch-making surveillance camera lenses that meet the needs of installers requiring high performance, compact and versatile lenses. Tamron also makes a wide array of CCTV cameras and lenses including ultra high performance lenses for image processing required for FA (Factory Automation) applications, integrated lens/camera ZoomCam and more.

## Cellular Phone Camera Lenses

Cellular phone camera market is growing globally and is anticipated to enter the mega-pixel era equipping optical glass lenses. Tamron's glass molded aspherical lens is compatible with miniaturization trends, complemented with precision optical technology, mechanical technology, and precision automated assembly technology enabling readiness for high-resolution demands. Tamron's cutting edge technology is attracting worldwide attention.

## Optical Devices

As a comprehensive manufacturer of quality optics, Tamron has produced a variety of optical devices requiring high accuracy and advanced technologies by utilizing our technological edge in designing, processing and measuring. The optical devices that Tamron manufactures for sophisticated industrial applications include various aspherical lens elements, special prisms such as cross-prisms for LCD projectors, devices for laser optical systems, dichroic filter mirrors for color separation, polarizing beam splitters, thin-film layer coated products featuring very special multi-layer coatings and ultra precision standard gauge glass required for prompt and accurate evaluation of lens surfaces.

## Tamron's quality assurance and environmental protection activities

### ISO Standards

ISO stands for the International Organization for Standardization. These international standards include the ISO 9000 family of standards relating to quality system management, and the ISO 14000 series for certification of environmental management systems. Certification of environment and quality control are also being applied to all Tamron.

### Environment

Tamron has been assertively addressing concerns about the earth's environment through the reduction of environmental load in business operations based on the ISO 14001. Specifically, Tamron has promoted the "Green Procurement" policy for abrogating harmful substances from the beginning and reinforcing positive environmental programs. At Tamron, we have addressed such issues as energy savings and waste reduction

and recycling for reducing environmental loads generated from the manufacture of products. Such activities promote the development of high quality, compact and environmentally friendly products to satisfy customers. In addition, from 2004, Tamron issued Environmental Reports to introduce its socially responsible philosophy and practices for environmental preservation. For further details, please visit Tamron's website at <http://www.tamron.co.jp/en/envi/top/index.html>

### ISO 9001 Quality Control Policy

Provide customer satisfaction by delivering high quality products.

### ISO 14001 Environmental Management Philosophy

In accordance with its corporate management philosophy, Tamron's goal is to create and deliver superior quality products and services to meet customer needs. Furthermore, each Tamron employee is

fully committed to the preservation of the global environment at every level and for each facet of company activities. At Tamron, we recognize the significance of our social responsibilities.

### ISO 14001 the Fundamentals of the Environmental Conservation Policy

1. Compliance with legislation relevant to environmental conservation
2. Conservation and protection of natural resources
3. Prevention of environmental contamination
4. Continued promotion of an environmental conservation program
5. Promote design philosophy and development of environmentally friendly products to contribute to environmental protection.
6. Promote environmental education
7. Disclosure of environmental-related information to the public

**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.



**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 and availability in this catalogue are subject to change without notice.

05.2007

TLG-EG-711-M-0701-0300