TAMRON

SP 70-200mm F/2.8 Di VC USD G2 (Model A025)

All features overhauled to create an accomplished, top-grade high-speed telephoto zoom lens

new

Three Key Selling Points

TAMRON

Every aspect of performance and functions now enhanced with state-of-the-art design

1. All-new optical design

- Any aberrations thoroughly compensated for resolving power enhanced across the entire zoom range
- Minimum Object Distance (MOD) reduced from 1.3m (A009) to 0.95m (A025)
- Fully compatible with dedicated tele converters
- Excellent backlit performance through the application of eBAND Coating

2. Improvements of individual functions

- The VC system now achieves an image stabilization performance of 5 stops according to the CIPA standard (when using VC MODE 3) and three situation-specific VC modes
- Dramatic improvements in AF speed and responsiveness
- Moisture-Proof and Dust-Resistant Construction adopted
- Fluorine Coating applied to the front surface of the lens element

3. External design fully overhauled

- Uncompromising craftsmanship with careful attention to minute details based on the rigorous quality standards for the SP series
- Functional beauty achieved by smoothly combining engineering and design aspects. Exquisite and high-grade design featuring a metal-based barrel

Comparison of A025 and A009

TAMRON

◎= Outstanding　○ = Unchanged　△ = Fair

	Tamron SP 70-200mm F/2.8 Di VC USD (Model A009)	Tamron SP 70-200mm F/2.8 Di VC USD G2 (Model A025)
Resolution /MTF	○	◎ New standard
eBAND Coating	–	◎ eBAND
VC	○	◎ 5 stops/Exclusive switch for panning
AF Speed/ Accuracy	○	◎
Full-time Manual Focus override	○ Auto	○ Auto
MOD	○ 1.3m	◎ **0.95m**
Filter size	○ φ77mm	○ φ77mm

Comparison of A025 and A009

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◎= Outstanding ○ = Unchanged △ = Fair

	Tamron SP 70-200mm F/2.8 Di VC USD (Model A009)	Tamron SP 70-200mm F/2.8 Di VC USD G2 (Model A025)
Max. Diameter /Length	○ Φ85.8mm 188.3mm	△ φ88mm 191.3mm
Weight	○ 1,470g	○ 1,485g
Moisture-Proof and Dust-Resistance Construction	○ Moisture-resistant Construction	◎ Moisture-Proof and Dust-Resistance Construction
Fluorine Coating	–	◎
Year Released	December, 2012	February, 2017
[Accessory] Tele converter	–	◎
[Accessory] TAP-in Console™	–	◎

New SP 70-200mm F/2.8 Di VC USD G2

All-new optical design achieving the highest-level performance…

Improvements achieved for a more stable optical performance across the entire zoom range

TAMRON

The optical design has been completely overhauled in comparison with the previous model (A009), and superior performance and resolution is now ensured across the entire zoom range. Outstanding optical performance that is uniform and well-balanced is maintained, not only in the 70mm wideangle range but also in the middle focal ranges and the 200mm telephoto range. Using the A025 in combination with a dedicated tele converter attached makes it possible to fully enjoy ultra-telephoto photography while maintaining excellent optical performance.

- **Improved depictive quality in the wide-angle focal range**
  With transverse chromatic aberrations minimized, improvements have been made in the periphery of the image plane on the wide-angle side. Its deliver the sharpness and high resolution in the periphery.

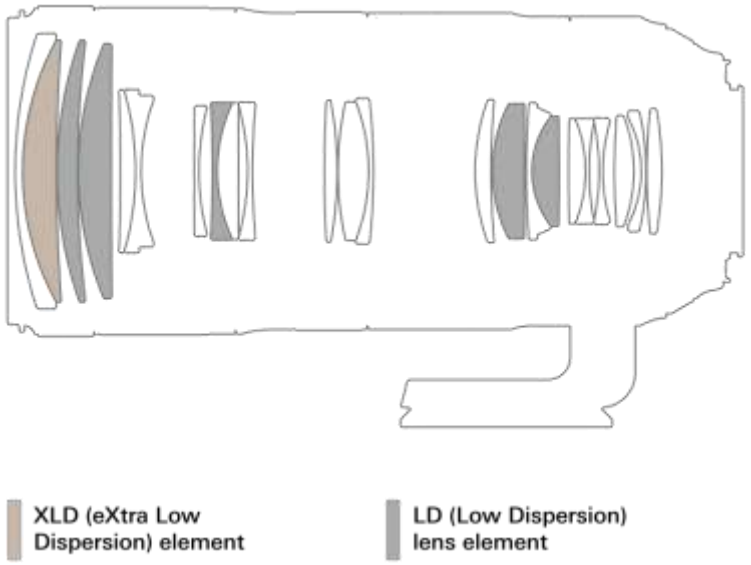
- **Improved depictive quality in the telephoto focal range**
  Deploying the LD lens element has minimized axial chromatic aberrations occurring on the telephoto side.

Optical construction

TAMRON

The optical design of the new A025 consists of 23 elements in 17 groups.
1 XLD (eXtra Low Dispersion) and 5 LD (Low Dispersion) lens elements are used.
The optimum deployment of both of these elements completely eliminates chromatic aberrations, which tend to become particularly prominent in high-speed telephoto zoom lenses.

<A025 optical construction>

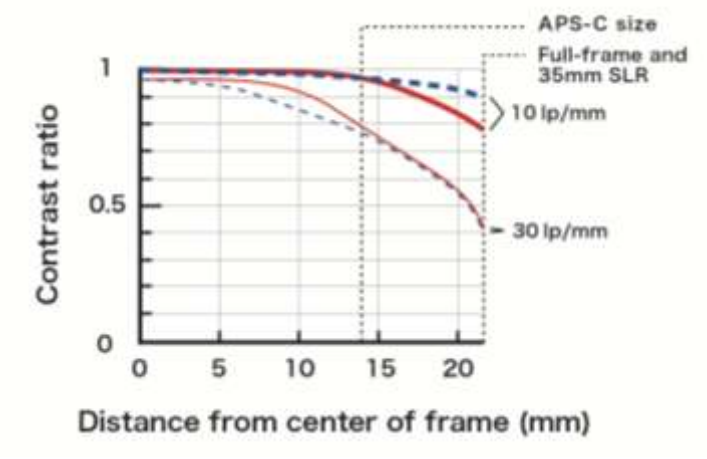


MTF Comparison of A025 and A009

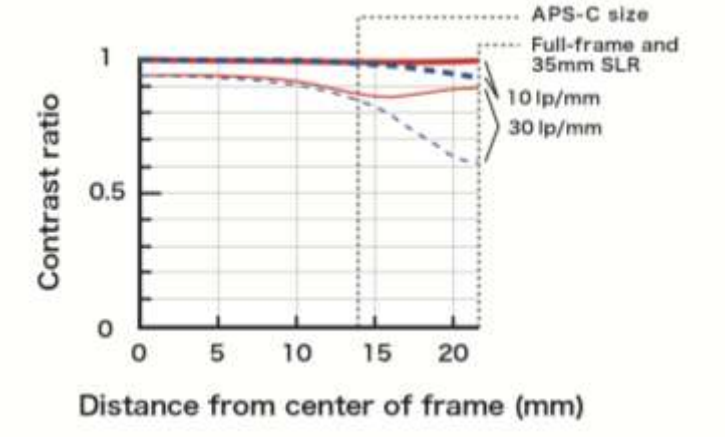
TAMRON

A009

70mm (Wide) F/2.8



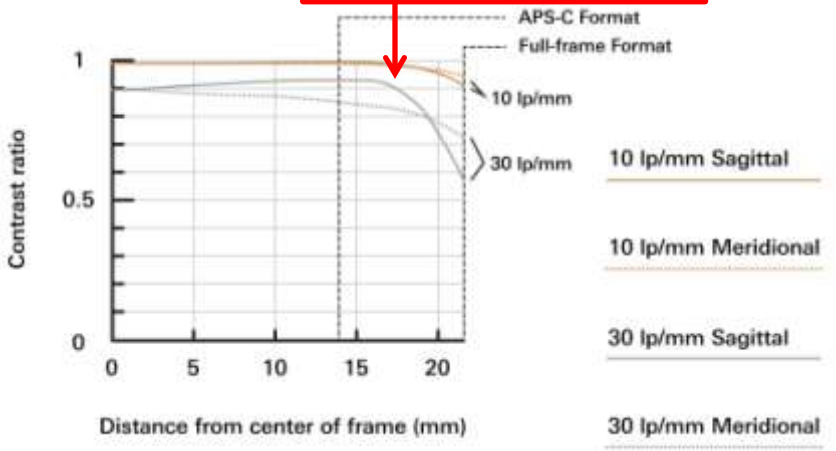
200mm (Tele) F/2.8



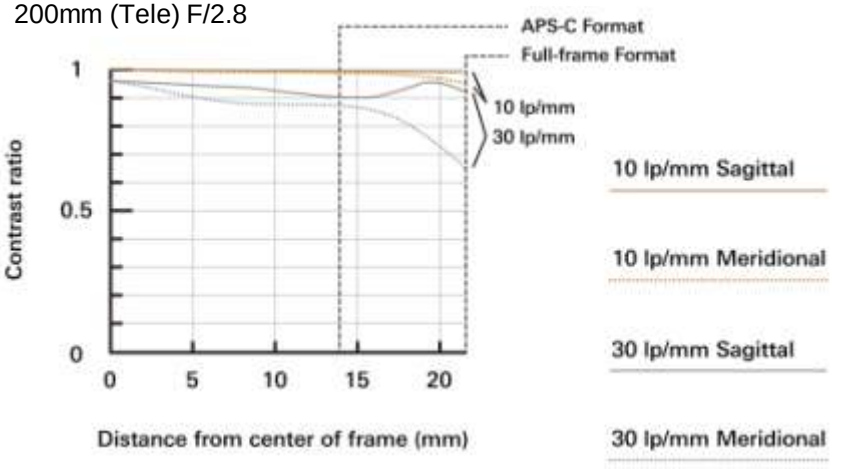
A025

It is high-level image quality even on the periphery of the image plane.

70mm (Wide) F/2.8



200mm (Tele) F/2.8



Better resolution on every single pixel
Comparison of A025 and A009

TAMRON

70mm

A009

A025

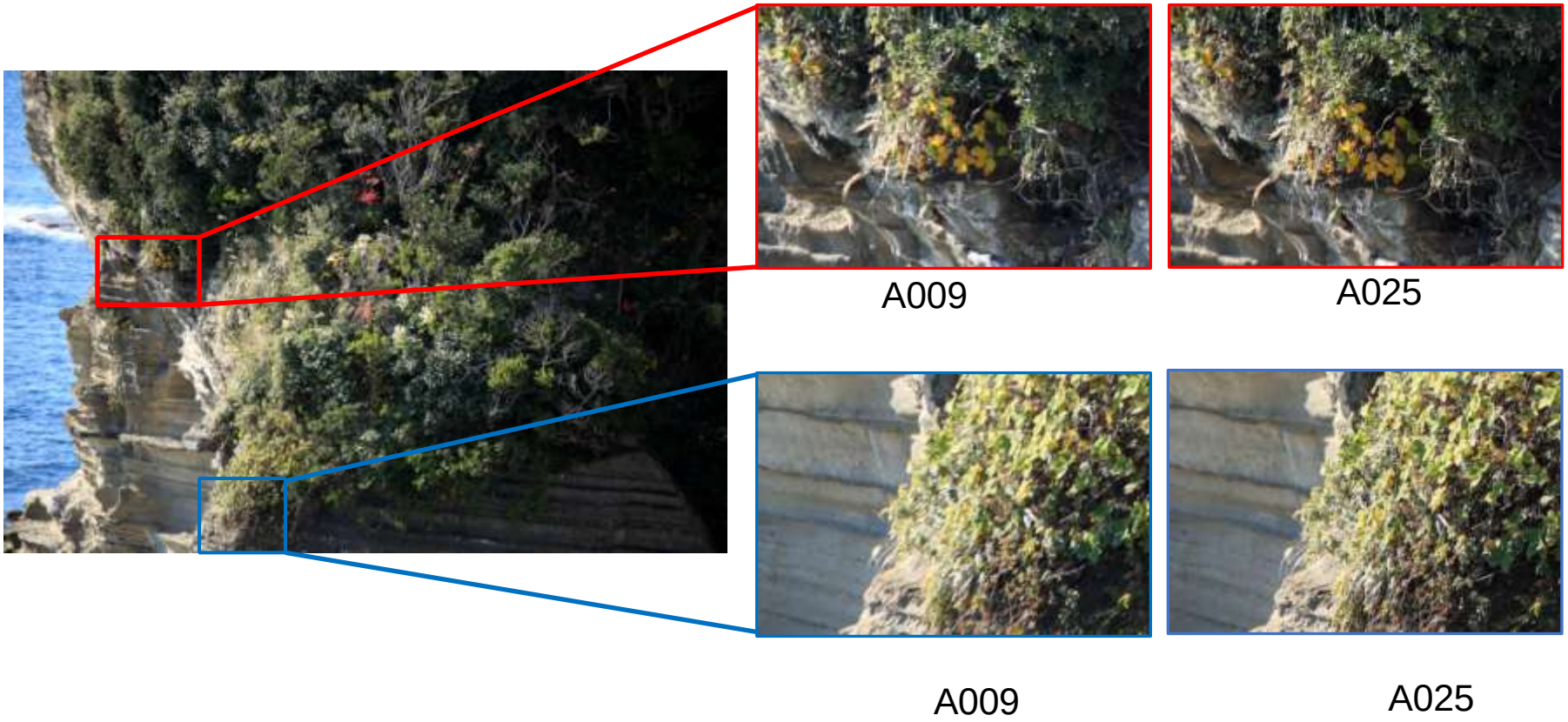
A009

A025

Better resolution on every single pixel
Comparison of A025 and A009

TAMRON

200mm



Outstanding resolving power

TAMRON

The optical design was completely reworked to better accommodate the higher pixel-density digital cameras of the new era. Considering the need to also maintain excellent image quality when using a tele converter, creative ideas have been incorporated to the utmost to consistently ensure high-level performance. As a result, outstanding resolution and contrast reproduction performance is achieved across the entire zoom range.

200mm F/2.8 1/1600sec ISO 100

Outstanding resolving power

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70mm F/2.8 1/50sec ISO 400

Beautiful background blur effects

TAMRON

For the new A025, the designers placed importance on its spectacular background blur effects, a significant factor comprising the depictive quality of a high-speed telephoto lens. Soft, beautifully-tuned background blur effects *(bokeh)* worthy of a high-speed lens have been achieved as a result. Both the sharp, clear images in the area in focus and the impressively smooth and soft transition to the background accentuate the main subject in an attractive manner in portrait photography, etc.

149mm F/2.8 1/200sec ISO 200

Beautiful background blur effects

TAMRON

200mm F/2.8 1/80sec ISO 200

Minimum Object Distance of 37.4” achieved

TAMRON

In response to the strong requests of customers using the A009, the predecessor model of the new A025, innovative ideas have been incorporated into the cutting-edge optical design to reduce the Minimum Object Distance (MOD) from 50.7” to 37.4” for the A025. With a shorter working distance possible, it is easier to determine the composition in a location where there is no more space for the photographer to back up with the camera, enabling close-up photography using a telephoto lens with much greater flexibility. Shooting at and around the minimum focus distance allows for close-up photographic expressions, just like macro photography.

182mm F/2.8 1/20sec ISO 100

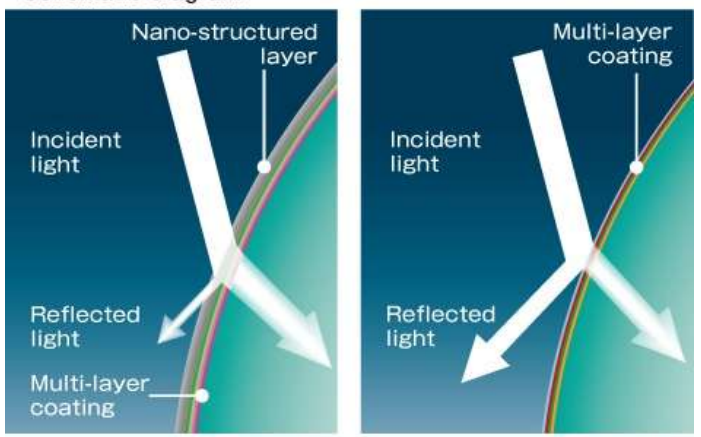
Reduction in occurrence of flare and ghosting

TAMRON

eBAND (Extended Bandwidth & Angular-Dependency) Coating is a nano-structured layer applied to the lens element surface. In addition to regular anti-reflection coatings, eBAND Coating offers higher light transmission and significant improvements in anti-reflection characteristics, particularly against angulated incident rays.

Combined with BBAR (Broad-Band Anti-Reflection) coatings, flare and ghosting are reduced to imperceptible levels.

<Schematic diagram>



eBAND Coating　　Conventional Coating

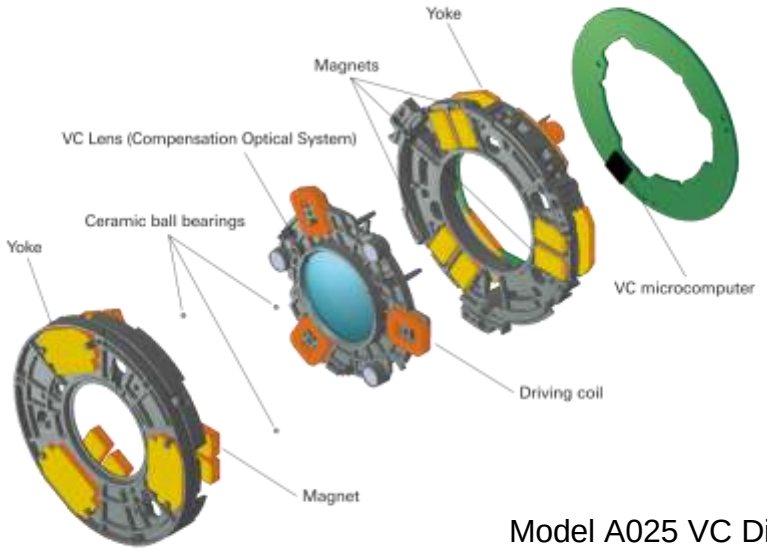
70mm　F/4　1/640sec　ISO 800

New SP 70-200mm F/2.8 Di VC USD G2
Improved VC Performance, Function and Usability…

Highest VC level in class[1] with image stabilization performance of 5 stops[2]

TAMRON

The incorporation of two micro computers has reinforced the control performance of Tamron's unique VC system, which now achieves an image stability performance of 5 stops according to the Camera & Imaging Products Association (CIPA) standard for the A025 (when using VC Mode 3). Even for telephoto shooting in low light, which often tends to be affected by camera shake, the photographer can now enjoy handheld shooting with a much greater degree of freedom.



Model A025 VC Diagram

[1]Among 70-200mm F/2.8 interchangeable lenses for full-frame DSLR cameras (as of January :Tamron)
[2]For Canon: EOS-5D MKIII is used / For Nikon: D810 is used

Offering three situation-specific VC modes

TAMRON

Model A025 now has three types of VC modes, and it is possible to choose the optimum VC mode according to the situation for taking a photograph, such as when wishing to pan the camera.

VC Mode 1 is the standard mode that strikes an excellent balance between the stability of the viewfinder image and the stabilization effects.
VC Mode 2 is used exclusively for panning.
VC Mode 3 prioritizes the stabilization of the captured images and forgoes the stabilization of the viewfinder image.

With the optional TAMRON TAP-in Console™ accessory, the configuration of VC Mode 1 can be customized. Choose the viewfinder view with either standard or viewfinder image priority.

VC Sample image (Under the low light condition)

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70mm F/2.8 1/4sec ISO 400

Faster AF and better response

TAMRON

The Model A025 is equipped with an USD (Ultrasonic Silent Drive) ring-type motor that delivers excellent responsiveness and control. AF speed is significantly improved from the current model, and it enables accurate high-speed focus even when capturing moving subjects.

When shooting with AF, the Full-time Manual Focus override allows you to instantly make fine focusing adjustments manually, without having to switch between modes.

Faster AF and better response

TAMRON

200mm F/2.8 1/2000sec ISO 800

Faster AF and better response

TAMRON

100mm F/3.5 1/1250sec ISO 500

Faster AF and better response

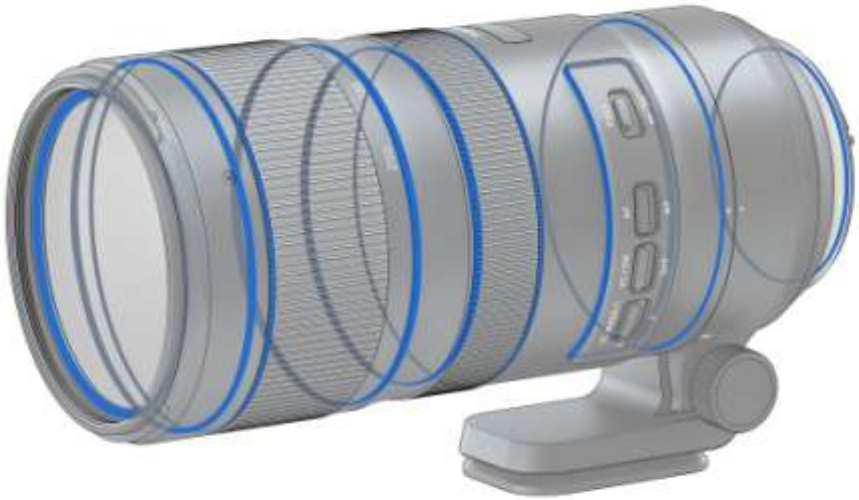
TAMRON

280mm F/4 1/2500sec ISO 250
(200mm +2.0x tele converter)

Moisture-Proof and Dust-Resistance Construction

TAMRON

Ideal for use in outdoor photography, Model A025 offers Moisture-Proof and Dust-Resistant Construction, thanks to special moisture-proof and dust-resistant sealants used at every joint and seam. The sealant material helps to prevent the intrusion of any dirt, dust or water droplets compared to conventional moisture-resistant construction.

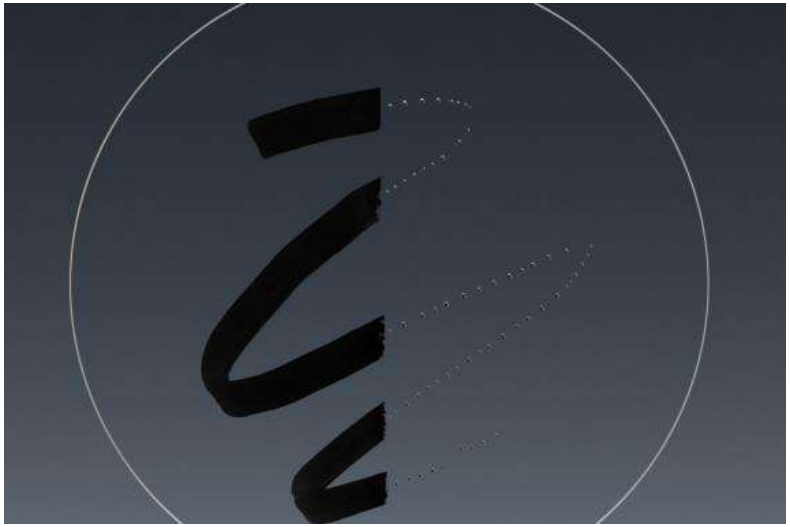


Fluorine Coating

TAMRON

The front surface of the lens element is coated with a protective fluorine compound that is water- and oil-repellant. The lens surface is easier to wipe clean and less vulnerable to the damaging effects of dirt, dust, moisture and fingerprints.

Image illustrates resistance to grime (oil-based felt marker)



Left side:
Without Fluorine Coating

Right side:
With Fluorine Coating

Electromagnetic diaphragm system for Nikon-mount lenses

TAMRON

An electromagnetic diaphragm system, which is a standard feature for Canon-mount lenses, is now utilized in Nikon-mount lenses*. More precise diaphragm and aperture control is possible because the diaphragm blades are driven and controlled by a motor through electronic pulse signals.

*Available only with cameras compatible with the electromagnetic diaphragm (D3100, D3200, D3300, D3400, D5000, D5100, D5200, D5300, D5500, D5600, D7000, D7100, D7200, D300, D300s, D600, D610, D700, D750, D800, D800E, D810, D810A, D3x, D4, D4s, Df, D500, D5). (As of January 1; Tamron)

New Arca-Swiss style tripod

TAMRON

The Arca-Swiss style quick release plates can be easily attached and detached and are well known for their stability. A new tripod mount that is compatible with them has now been developed, with particular attention paid to the height of the tripod mount to enhance its integrated feel with the lens barrel in this design, with an increase in rigidity when using a tripod. The use of lightweight magnesium alloy as the material has further eased the burden of carrying the tripod mount for each photographer.

Teleconverters exclusively for the Tamron lens

TAMRON

Two exclusive teleconverters, which perfectly match the optics of the new SP 70-200mm G2 (Model A025), offer 1.4x and 2.0x magnification, and provide a maximum zoom range of up to 400mm. These new teleconverters extend the focal length of the master lens, making it possible to take pictures in farther ultra-telephoto ranges. Autofocus and VC features are retained with this Model. Furthermore, they are ideal for use in outdoor photography when matched with any lens that has a Moisture-Resistant Construction. The teleconverters have special seals that are dust-resistant and moisture-proof used at every joint and seam.

Teleconverters exclusively for the Tamron lens

TAMRON

Superior optical performance worthy of the master lens when a teleconverter is attached

A025 200mm

A025 200mm + 2.0x teleconverter

Compatible with TAMRON TAP-in Console™, an optional accessory product

TAMRON

The optional TAP-in Console provides a USB connection to your personal computer, enabling you to easily update your lens's firmware as well as customize features including fine adjustments to the AF and VC.

Design Concept

TAMRON

The new design adopted for the five SP series lenses already on the market is essentially the fusion of engineering and style, the pursuit of functional beauty and craftsmanship achieved by giving meticulous attention to minute details. The use of metal as the exterior material creates a high-grade design based on a concept that emphasizes “Human Touch” characteristics and significantly improves user-friendliness. The SP models feature a novel design for the switches, easy-to-read characters, an enlarged window over the distance scale and the adoption of organic forms that are easy for the photographer’s fingers to hold onto.

This design philosophy—the pursuit of functional beauty with a “human touch”—is applied even to the most minute details of the new SP 70-200mm G2 (Model A025) high-speed telephoto zoom lens. By using metal for the exterior material, the Model A025 achieves a size and weight that makes comfortable handheld shooting possible, with a slim and stylish appearance design to top it all off.

The new lens is manufactured with thorough attention to detail based on the rigorous quality standards worthy of the SP series

TAMRON

For the SP series products in particular, Tamron has established rigorous design and quality standards. These standards apply to the optical design, mechanical design and cosmetic appearance, as well as to such wide-ranging areas as the product's robustness and improvements of various individual functions. Tamron thoroughly reviews all the design and manufacturing processes in order to offer products to customers with ever-higher precision and quality levels.

For the SP 70-200mm G2 (Model A025), the optical design was refreshed, the mechanical parts were improved and a new exterior design was adopted. To maximize the optical performance intrinsic to this product, Tamron improved the accuracy of the component parts and increased the precision of the overall zooming mechanism.

Comparison with other lenses

TAMRON

Manufacture Model	A025	A009	A001	SIGMA	Nikon		Canon	
Product name	SP 70-200mm F/2.8 Di VC USD	SP 70-200mm F/2.8 Di VC USD	SP AF70-200mm F/2.8 Di LD [IF] MACRO	APO 70-200mm F2.8 EX DG OS HSM	AF-S NIKKOR 70-200mm F2.8E FL ED VR	AF-S NIKKOR 70-200mm F2.8G ED VR II	EF70-200mm F2.8L IS II USM	EF70-200mm F2.8L USM
Focal length	70-200mm	70-200mm	70-200mm	70-200mm	70-200mm	70-200mm	70-200mm	70-200mm
35mm equivalent	109-310mm	109-310mm	109-310mm	105-300mm	105-300mm	105-300mm	112-320mm	112-320mm
F number	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Angle of view	34.21°- 12.21°	34.21°- 12.21°	34.21°- 12.21°	34.3°-12.3°	34.2°-12.2°	34.2°-12.2°	34°-12°	34°-12°
Optical Construction	17-23	17-23	13-18	17-22	18-22	16-21	19-23	15-18
Glass elements	XLD 1 LD 5	XLD 1 LD 4	LD 3	FLD 2 SLD 3	ED6	ED 7	UD 5 FL1	UD 4
Coating	eBAND/Fluorine coating	-	-	Super Multi-Layer Coated	Nanocrystal coat	Nanocrystal coat	-	-
MOD	0.95m	1.3m	0.95m	1.4m	1.1m	1.4m	1.2m	1.5m
Max. Magnification Ratio	1:6.1	1:8	1:3.1	1:8	0.21x	-	1:4.8	1:6.3
Aperture blades	9 (circular diaphragm)	9 (circular diaphragm)	9	9 (circular diaphragm)	9 (circular diaphragm)	9 (circular diaphragm)	8 (circular diaphragm)	9
Filter size	Ø77mm	Ø77mm	Ø77mm	Ø77mm	Ø77mm	Ø77mm	Ø77mm	Ø77mm
Maximum Diameter	Ø88mm	Ø85.8mm	Ø89.5mm	Ø86.4mm	Ø88.5mm	Ø87mm	Ø88.8mm	Ø84.6mm
Length	191.3mm	196.7mm	194.3mm	197.6mm	202.5mm	209mm	199mm	193.6mm
Weight	1,485g	1470g	1150g	1430g	1430g	1,540g	1490g	1310g
Focus method	IF	IF	IF	IF	IF	IF	IF	IF
Image Stabilization	VC (CIPA 5-stops)	VC	-	OS (4-stops)	VR (4-stops)	VR II (4-stops)	IS (4-stops)	-
AF Drive	USD	USD	DC	HSM	SWM	SWM	USM	USM
Compatible Mount	N/C	N/C/S	N/C/S/P	N/C/S/P	N	N	C	C
Hood	Flower-shaped	Flower-shaped	Flower-shaped	Flower-shaped	Flower -shaped	Flower-shaped	Flower-shaped	Flower-shaped