

# Tokina

## LENS CATALOG



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

# Digital Eyes



Floating Element Assembly



Aluminum Alloy Die-Cast Model

## VISIONARY TECHNOLOGY MAKES A DIFFERENCE YOU CAN SEE.

**Tokina's proprietary AT-X technology has been evolving toward optical perfection for more than 30 years.**

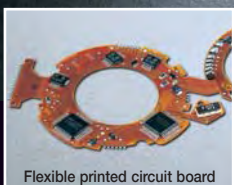
Since our mission began in 1981 we have made continuous advances. Each new model is a further refinement in a continuing legacy of excellence in design and materials. The current AT-X PRO series continues this evolution of excellence by using the most state-of-the-art technology anywhere.

### **More Quality Than Meets The Eye.**

The Tokina difference comes from special material selection and assembly technology that employs micron-unit quality control. This ensures optimum consistency while maintaining the highest quality for every lens. Worldwide, both professionals and knowledgeable photography enthusiasts rely on Tokina lenses.

### **AT-X Technology**

AT-X comes from our original concept of "Advanced Technology Extra." This vision encompasses a special group of lenses that are manufactured without compromise, using the most advanced design and fabrication technologies available. The use of unique and unprecedented optical systems independently pioneered by Tokina, has made advanced features, high performance, lightweight, and compact designs a reality. Of course, we have also given full attention to ergonomics and handling. To any user, AT-X means excellent performance through superior technology.



Flexible printed circuit board



SD (Super Low Dispersion) Glass

### Mechanisms

1. All metallic moving parts are coated with a special lubricant to improve durability.
2. Tokina's independently developed technology maintains the high precision of mechanical fittings, accurately measured in microns.
3. Micron tolerances also give smooth operation and durability to operating rollers and internal focus cams.
4. Brass is used in the lens mount to maintain high precision. Other mechanisms are plated with hard chrome for optimum durability.

### Exterior Finish

1. PRO models have a hardened Alumite (Armalite) finish to increase durability and give a top-quality feel and finish.
2. Ergonomic designs emphasize control, grip and ease of operation with textured rubber used on zoom and focus barrels. These are original Tokina materials, designed to give many years of faithful service without deterioration.

### Operation

1. Use of our special alloy Duralumin for metal parts provides excellent durability, stabilizes torque and provides better handling. It also maintains smoother operation under all conditions.
2. Our special lubricant is used on moving parts, formulated to perform even under extremes of temperature.

### Lens Coatings

Resistance to flare and ghosting, plus faithful color reproduction are all achieved by a unique coating technique – yet another reason for Tokina's reputation for incredibly sharp and clean images.



FISHEYE 10-17 F3.5-4.5 DX

Tokina ∞ 2 M AT-X

15 14 13 12 10

### AF10-17mm f/3.5-4.5

#### AT-X 107 DX Fisheye

TO FIT CANON • NIKON-D  
APS-C Sized Sensor Model Only

#### AT-X 107 DX NH Fisheye

TO FIT CANON • NIKON-D

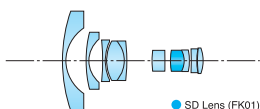


Capture it all or create images with more impact. The Tokina AT-X 107 DX is Fisheye zoom lens that gives the photographer a 180° field of view with dramatic curvature of field or “fisheye” effect. That’s wider than the human eye can see!

The AT-X 107 DX creates an entirely new view on everything from street scenes to nature’s beautiful vistas. This lens will open a new dimension to your photography.

The front element of the AT-X 107 DX has a newly formulated WR or “Water Repellent” optical coating on the glass. This new coating makes marks such as spots left by water or finger-prints much easier to clean than standard multi-coating.

The rear optical group of the lens contains 1 SD (Super-Low Dispersion) glass element to reduce the number of elements (pieces of glass) in the optical design in order to make the lens more compact, light-weight and faster focusing.



- 10 Elements in 8 Groups
- Minimum Focus Distance: 14 cm
- Angle of view: 180° ~ 100°
- Lens Hood: Built-in ( APS-C Sized Sensor Model Only)

**SD**  
Super Low Dispersion

**IF**  
Internal Focus

**WR**  
Optical Coating

\* Please note, the Tokina AT-X 107 DX lens itself is not waterproof or water resistant.

\*\* Will not AF when used on Nikon D40 SLR camera body.

Photograph by: *Michael Burnham*  
Lens: AT-X 107 DX NH Fisheye





Picture Comparison A - Tokina AT-X 107 DX Fisheye



Picture Comparison A - Standard Wide angle (10mm)



Picture Comparison B - Tokina AT-X 107 DX Fisheye



Picture Comparison B - Standard Wide angle (10mm)



# AT-X PRO Series Full Frame Wide Zoom

for APS & 35mm Full  
Format Digital SLR

## AF16-28mm f/2.8

## AT-X 16-28 PRO FX

TO FIT CANON • NIKON-D



This new Tokina lens is the first in a new generation of full frame (FX) lenses designed for professional digital SLR cameras like the Canon EOS 5D Mark II and the Nikon D700 and D3x. The 16-28 zoom range gives the professional photographer a super-wide angle of view to get close to subject for dramatic effect or to take in entire scenes.

### NEW Silent DC Motor with GMR sensor

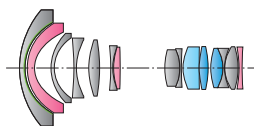
The 16-28 f/2.8 uses a newly developed silent DC motor that allows the lens to focus faster and more quietly than previous generations. The DC motor coupled with a new GMR magnetic AF sensor work together to increase AF Speed.

### Ashperical and Super-low Dispersion glass elements

A new, 56mm in diameter, large sizes aspherical glass element is incorporated into the front lens group, while there are 2 more aspherical elements in the rear group. 3 SD super-low dispersion glass elements are also incorporated through-out the optical design to reduce chromatic aberration, give maximum resolution, more even brightness and distortion correction.

### One-Touch Focus Clutch

Tokina's exclusive One-touch Focus Clutch Mechanism allows the photographer to switch between AF and MF simply by snapping the focus ring forward for AF and back toward the camera to focus manually. There is no need to change the AF/MF switch on Nikon camera bodies\* and there is no second AF/MF switch on the lens for Canon, everything is accomplished by the focus ring.



- 15 Elements in 13 Groups
- Minimum Focus Distance: 0.28m
- Angle of view: 107.11°-76.87°
- Reproduction Ratio: 1:5.26
- Focusing Mode: Internal Focusing
- Zoom Mode : Rotary Zoom
- Aperture Blades: 8

**As**  
Aspherical

**SD**  
Super Low Dispersion

**IF**  
Internal Focus

**One Touch**  
Focus Clutch

\*\*\* Will not AF when used on Nikon D40 SLR camera body.

Photograph by: *Ryosuke Takahashi*  
Lens: AT-X 17-35 F4 PRO FX



# AT-X PRO Series Spectacular FX Wide Zoom

for APS & 35mm Full  
Format Digital SLR

## AF17-35mm f/4 AT-X 17-35 F4 PRO FX

TO FIT CANON • NIKON-D



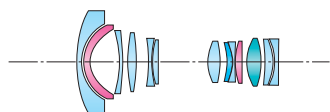
Designed for Full-Frame cameras, the Tokina AT-X 17-35 F/4 give photographers a new wide-angle option. With a focal length of 17MM at the wide-side the lens yields a spectacular 103.9 degree field of view which is great for shooting in tight situations or for taking in wide expanses of space.

This compact wide-angle zoom has a bright constant F/4 aperture make viewing and auto focus possible in lower light situations but still maintaining a reasonable size and weight.

Two Super-Low Dispersion glass elements and one aspheric glass allow the proprietary optical design to achieve excellent contrast and sharpness.

Tokina's exclusive One-touch Focus Clutch Mechanism allows the photographer to switch between AF and MF simply by snapping the focus ring forward for AF and back toward the lens mount for manual focusing. Additionally the mechanics have been designed for better seals around moving parts making the lens more water-resistant\* than lenses of the past. The lens is also designed to stand up to the rigours of daily use by photographers in a wide variety of shooting conditions and environments.

\* The AT-X 17-35 is only water-resistant, not water-proof and is not designed to be submerged or used unprotected in heavy rain.



● SD Lens (FK01) ● SD Lens (FK03) ● P-MO Aspherical Lens

- 12 Elements in 13 Groups
- Minimum Focus Distance: 0.28m
- Angle of view: 103.96°-64.74°
- Reproduction Ratio: 1:4.82
- Focusing Mode: Internal Focusing
- Zoom Mode : Rotary Zoom
- Aperture Blades: 9
- Filter size: ø82mm

\*\*\* Will not AF when used on Nikon D40 SLR camera body.



**Lens Hood BH-82**  
The large BH-82 wide-angle hood with "click-lock" to stay in place.



AF  
MF

Tokina

∞

FT

ATX

PRO

M

M

SD 11-16 F2.8 (IF) DX

16 15 14 13 12 11

# AT-X PRO Series

## Ultra-Wide, Ultra-Speed

for APS-C Format  
Digital SLR

### AF11-16mm f/2.8

### AT-X 116 PRO DX

TO FIT CANON • NIKON-D • SONY APS-C Sized Sensor Model Only



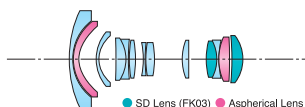
The Tokina AT-X 116 PRO DX is an ultra-wide angle lens with a fast f/2.8 aperture for better photography in low-light situations. Many photojournalists consider having an f/2.8 aperture a must for any lens in their camera bag.

Based on the award-winning optical design of the AT-X 124 PRO DX (12-24mm f/4) lens, the AT-X 116 PRO DX has a slightly shorter zoom range to maintain optical quality at wide apertures.

Tokina's exclusive One-touch Focus Clutch Mechanism allows the photographer to switch between AF and MF simply by snapping the focus ring forward for AF and back toward the camera to focus manually. There is no need to change the AF-MF switch on Nikon cameras\*\*\* and there is no second AF/MF switch on the lens for Canon, everything is accomplished by the focus ring.



Photograph by: Brett Kennedy



- 13 Elements in 11 Groups
- Minimum Focus Distance: 30cm
- Angle of view: 104°~82°
- Filter size:  $\varnothing$ 77mm

\* The lens is designed for Digital cameras with APS-C sized CMOS and CCD sensors, not designed for cameras with Full Frame sensors.

\*\* Please note, the Tokina AT-X 116 PRO DX lens itself is not waterproof or water resistant.

\*\*\* Will not AF when used on Nikon D40 SLR camera body.

**As**  
Aspherical

**SD**  
Super Low Dispersion

**IF**  
Internal Focus

**One Touch**  
**FO**  
Focus Clutch

**WR**  
Optical Coating



**Lens Hood BH-77A**  
The large BH-77A wide-angle hood with "click-lock" to stay in place.



# AT-X PRO Series Super Wide-Angle Zoom

for APS-C Format  
Digital SLR

## AF12-24mm f/4

## AT-X 124 PRO DX II

TO FIT CANON • NIKON-D APS-C Sized Sensor Model Only



The AT-X 124 PRO DX II 12-24mm f/4 AF lens gives the Digital photographer an ultra wide-angle zoom lens that has the equivalent angle of view to an 18-36mm in full frame (FX) format.

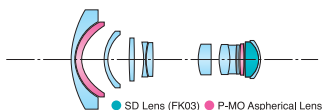
The Nikon mount of the AT-X 124 PRO DX II has a new built-in AF motor drive, which the original 12-24 does not have. The AF operates smoothly and quietly due to a DC motor that uses a newly designed AF control gear assembly. This lens can auto focus with the Nikon D60 and D40 and other silent wave bodies.

The optical system of original AT-X 124 PRO DX won awards for its sharpness world-wide. This design was maintained in the AT-X 124 PRO DX II but with new improved optical multi-coating. The new multi-coating helps reduce reflections that can cause flare and ghosting even more than in the AT-X 124 PRO DX.

The Canon version of the lens already has a built-in AF motor and will benefit from the improved multi-coating.



Photograph by: Michael Burnham



- 13 Elements in 11 Groups
- Minimum Focus Distance: 30cm
- Angle of view: 99° ~ 61°
- Filter size:  $\phi$ 77mm

\* The lens is designed for Digital cameras with APS-C sized CMOS and CCD sensors, not designed for cameras with Full Frame sensors.



### Lens Hood BH-777

The large BH-777 wide-angle hood with "click-lock" to stay in place.



AF-S  
Micro-NIKKOR  
105  
f/2.8  
D  
AF-S PRO

# AT-X PRO Series

## 100mm F2.8 Macro

for APS & 35mm Full  
Format Digital SLR

### AF100mm f/2.8

### AT-X 100 AF PRO D

TO FIT CANON • NIKON-D

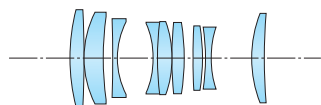
A new Macro lens to bridge the gap between film and digital, the Tokina AT-X 100 PRO D has full coverage on 35mm while also possessing the latest optical multi-coating technology engineered to match the silicon based CCD or CMOS sensors.

The AT-X 100 PRO D macro closest focusing distance is an incredible 11.8 inches (0.3m) that yields an incredible 1:1 reproduction ratio. Imagine filling the picture frame with a single quarter, key or insect! This lens opens up a new world of photography while maintaining the highest possible image quality.

Other features include Tokina's One-Touch Focus Clutch Mechanism, Focus Limiter Switch, and convenient bayonet mounted lens hood.



Photograph by: Michael Burnham



- 9 Elements in 8 Groups
- Minimum Focus Distance: 30cm
- Angle of view: 24°30'
- Filter size: ø55mm

\*\*\* Will not AF when used on Nikon D40 SLR camera body.

One Touch  
**FC**  
Focus Clutch



#### Lens Hood BH-551

The large BH-551 Macro hood with "click-lock" to stay in place.

# TECHNOLOGY - MECHANICAL



## Focus Clutch Mechanism

The ability of the focus ring to be pushed forward and disengaged allows maximum autofocus speed and efficiency. The ring can be pulled back and re-engaged for manual focusing with just the right amount of resistance.



## One-Touch Focus Clutch Mechanism

The newly improved one-touch focus clutch allows the focus to be moved quickly and easily from the AF position back into the MF position. In Nikon and Canon mounts, the lens can be set for manual focusing without an AF/MF switch or setting the body to the AF position.



Auto Focus



Manual Focus

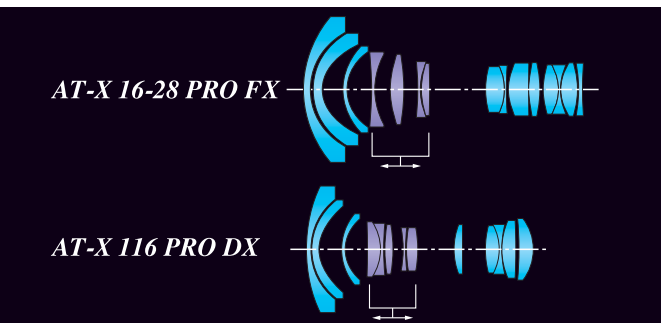


## Internal Focus System

The two main methods of lens focusing are either the complete straight forward movement of elements (used mainly with single focal length lenses), or the rotation of the entire front lens barrel group (used mainly with zoom lenses). The internal focusing system used by Tokina moves each lens group, but does not change the overall length of the lens - this is especially useful with telephoto designs.

The internal focusing system has a number of advantages, including:

1. Faster focusing
2. Improved handling due to fewer movements near the center of gravity
3. More compact lens designs
4. Superior use of filters as the front filter thread does not rotate

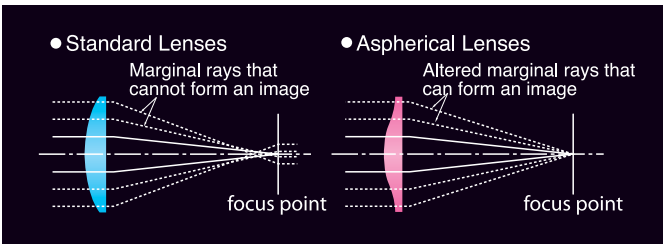




## Aspherical Optics

Standard lenses are made from a combination of spherical lens elements. However, there can be problems with such lenses when light entering at the edges of the lens may not be perfectly focused at the same point as light entering at the center. That presents limits to performance in wide aperture and super wide-angle lenses.

Tokina uses aspherical glass elements in many of its lenses. In addition to correcting spherical aberration, these lenses fully correct light quantity and distortion at the edge of the image and provide excellent results when used in combination with floating elements. Through technical cooperation with Hoya, Tokina has succeeded in producing high quality molded glass elements with a greater aspherical shape than any other lens so far. This technique is unparalleled in its technological sophistication and excellence.



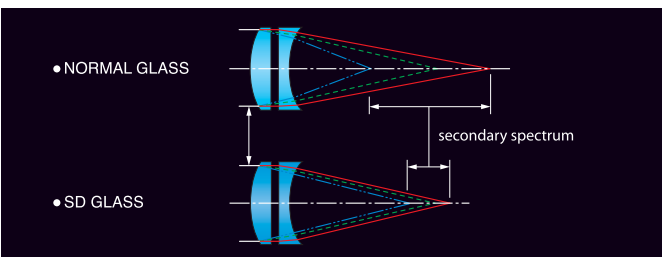
## F&R Aspherical

This lens encompasses Tokina's new large diameter F&R Aspherical molded glass elements of 50mm diameter at the front and 20mm at the rear. These give outstanding performance with even illumination in the corners and correction of distortion and aberration.



## SD (Super Low Dispersion) Glass

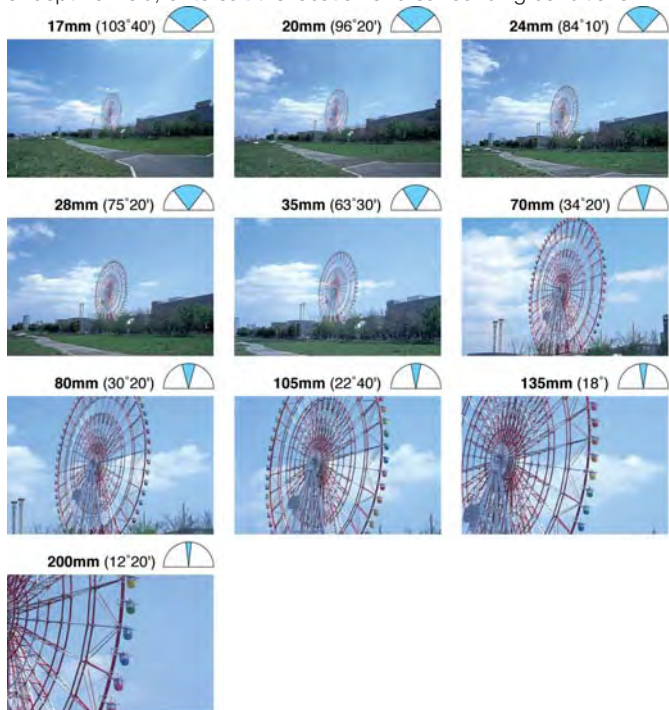
Lenses with the SD mark use Super-low Dispersion glass which minimizes the secondary spectrum caused by chromatic aberration. Basically, these lenses use FK01 and FK02 optical materials which gives them SD (APO) qualities. This provides excellent image quality in telephoto lenses of 200mm or more by correcting color aberration across the entire picture and bringing all colors into focus accurately at the film plane.



# TOKINA'S LENS TECHNOLOGY

## Angle of View

The range across the film surface onto which the subject is exposed is expressed as an angle, called the angle of view. Wide-angle lenses with their short focal lengths have a wide angle of view, which means the exposure range is wide. Conversely, telephoto lenses, which have long focal lengths, have a narrow angle of view, making the exposure range narrow. So a wide-angle lens is used to take a wide area of a subject nearby whereas a telephoto lens is used to take only part of a subject located further away. A single zoom lens, meanwhile, can function as a number of lenses with different focal lengths, enabling you to smoothly alter the angle of view and quickly frame the shot. You can select your lens to create the effect of distance or depth of field, or to suit the location and surrounding conditions.



## Effective Focal Length in Relation to Sensor Size



**Full Frame Sensor**  
 Canon EOS 1Ds, 1Ds Mark II  
 1Ds Mark III, 5D, 5D Mark II  
 Nikon D3, D700 (FX format)



**APS-H size sensor**  
 (1.3x= Full Frame Sensor)  
 EOS 1D Mark II,  
 1D Mark II n, 1D Mark III



**APS-C size sensor**  
 (1.5x= Full Frame Sensor)  
 Nikon D40, D40X, D50  
 D60, D70, D70s, D80,  
 D100, D200, D300,  
 D2H, D2X, D2HS, D2XS,  
 Fujifilm FinePix S3 Pro, S5 Pro  
 Pentax K20D, K200D, K10D  
 SONY a700, a350, a200, a100



**APS-C size sensor**  
 (1.6x= Full Frame Sensor)  
 Canon EOS 20D, 30D, 40D, 50D  
 Rebel XT, Rebel XTi, Rebel XSi  
 300D, 350D, 400D, 450D



**Four Thirds size sensor**  
 (2x= Full Frame Sensor)  
 Olympus E1, E300, E330, E500  
 E400, E410, E420, E510, E-3,  
 Panasonic DMC-L1, DMC-L10

## Depth of Field

When you focus on a subject, there is part of the subject that is in focus and parts in front and behind which are not in focus. This range in which the object is seen to be sharply in focus is called the depth of field. If the focal length is kept the same, the depth of field gets deeper (the range in which the subject is sharp gets wider) as the aperture is stopped down, and it gets shallower (the range in which the subject is sharp gets narrower) as the aperture is opened. Even when the aperture stop is the same, the depth of field gets shallower as the subject distance gets shorter, and deeper as the subject gets further away. Furthermore the depth of field is deeper with a short focal length wide angle lens, and shallower with a long focal length telephoto lens.



**80mm F2.8**



**80mm F22**

## Perspective

Perspective is the visual effect of moving a subject which is in the foreground closer to or further from the background. If you take photographs with lenses of different focal length while keeping the size of the subject in the foreground constant, the background appears to be further away and the sense of perspective is exaggerated with a short focal length wide angle lens. With a long focal length telephoto lens, the background appears to be closer to the subject and the sense of perspective is lessened. You can greatly change the feeling of presence even with the same subject by using this sense of perspective.



**20mm**



**40mm**



**100mm**



**200mm**

## TECHNICAL SPECIFICATIONS

LENS	Mount	Optical Construction Elements / Groups	Diagonal Angle of View
AT-X 107 AF DX 10~17mm f/3.5~4.5	C, N/D	10/8	180° ~ 100°
AT-X 107 AF DX NH 10~17mm f/3.5~4.5	C, N/D	10/8	180° ~ 100°
AT-X 16-28 PRO FX 16~28mm f/2.8	C, N/D	15/13	107.11° ~ 76.87°
AT-X 17-35 F4 PRO FX 17~35mm f/4	C, N/D	12/13	103.96° ~ 64.74°
AT-X 116 PRO DX 11~16mm f/2.8	C, N/D, S	13/11	104° ~ 82°
AT-X 124 PRO DX II 12~24mm f/4	C, N/D	13/11	99°~61°
AT-X 100 AF PRO D 100mm f/2.8	C, N/D	9/8	24°30'

■ The external appearance and specifications shown in this catalog may be changed without any advance notice.



Closest Focus Distance from Film Plane (in Macro Mode)	Magnification Ratio in Macro Mode	Aperture Range	Filter Size (mm)	Dimensions (mm) Diameter	Dimensions (mm) Length	Weight (gram)	Lens Hood
5.5 in.	1:2.56	f/3.5~f/22	N/A	70	71	350	Built-in
5.5 in.	1:2.56	f/3.5~f/22	N/A	70	71	350	
11 in.	1:5.26	f/2.8~f/22	N/A	90	133.3	950	Built-in
11 in.	1:4.82	f/4~f/22	82	89	94.4	600	BH-82
11.8 in.	1:11.6	f/2.8~f/22	77	84	89.2	560	BH-77A
11.8 in.	1:8	f/4~f/22	77	84	89.5	540	BH-777
11.8 in.	1:1	f/2.8~f/32	55	73	95.1	540	BH-551

■ Auto Focus Lenses C: CANON AF N/D: NIKON AF-D S: SONY

■ 1g = 0.03527 oz ■ 10mm = 0.39370 inch ■ 1m = 3.28084 feet



Photograph by: *Ryosuke Takahashi*

Lens: AT-X 17-35 F4 PRO FX

# Tokina

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Sample Photographs by:

*Brett Kennedy*

*Michael Burnham*

*Ryosuke Takahashi*

*Yasumi Suga*