POP PHOTO FULL TEST

Tamron

Can you really squeeze a good 28–300mm lens into this amazingly tiny package?

Hands on: "That's a 28–300mm lens? You're kidding!", sums up the comments of passersby while we were doing our lens field tests. Despite having been amazed at the continuing progression of smaller, lighter 28–200mm Tamrons of the past 10 years, we must admit the new 28–300mm takes the cake in audaciously shrinking optical size and weight. Comparing it with the current 28–300mm Tamron, the new XR Ultra Zoom is 3/8-inch shorter, 5/16-inch smaller in diameter (accepting 67mm filters instead of 72mm), and weighs five ounces less. While new and older lenses both have 15 elements, new aspherics and low-density glasses have contributed to the miniaturization, while the use of a hybrid metal-plastic lensmount has helped lower the weight.

In its most compact position—nested at 28mm—the lens provides a neat appearance with excellent, overly large white focal-length markings, good-sized footage and meter distance scales, generous and heavily ribbed zooming and manual-focusing rings. Too bad the lens' clever design made the addition of a tripod mounting ring impossible.

A well-placed, easy-to-set lock prevents zoom creep when the lens is pointed up or down. However, we found no creep even when the lens is extended to maximum focal length. Zooming remains very smooth at all focal lengths with just the right amount of damping to make zoom changes smooth and pleasant. The AF-M shift switch is convenient, while the gold-colored identification ring adds the proper cosmetic finishing touch.

Although the extending zoom barrels certainly indicate ample use of plastics, the lens is rigid and solidly constructed.

In the lab: SQF data reveal excellent performance at 28mm and 70mm, very good performance at 200mm, and good performance at 300mm.

At 28mm, there was noticeable barrel distortion (1.4 percent), considerable pincushion at 70mm (2.73 percent), and noticeable pincushion at both 200mm and 300mm (1.7 percent and 1.5 percent, respectively).

At 28mm, exposure at the film plane was very accurate with 2/3-stop underexposure at maximum aperture due to light falloff, and 1/5-stop underexposure from f/5.6 to f/22. At 300mm, exposure at film plane was about average; underexposure was 1/2 stop at maximum aperture due to light falloff. Exposure was 2/5-stop under from f/8 to f/22 and 1/2 stop under at f/38.

At 28mm, at the closest focusing distance of 18 inches (1:12.9X), center and corner sharpness were excellent throughout all apertures. Optimum performance was at f/5.6.

At 70mm, at the closest focusing distance of 18 inches (1:5.8), center sharpness was excellent from f/4.5 to f/16, very good at f/22, and good at f/32. Corner sharpness was good at f/4.5, very good at f/8, excellent from f/11 to f/16, and good from f/22 to f/32. Optimum performance was at f/11.

At 200mm, at the closest focusing distance of 18 inches (1:4.0X), center sharpness was excellent at f/5.6, good at

Tamron 28–300mm f/3.5–6.3 XR LD AF

SPECIFICATIONS

28–300mm (28.62–292.77mm tested), f/3.5–6.3 (f/3.67–6.63 tested), 15 elements in 13 groups. Focusing turns 70 degrees clockwise. Zoom ring turns 90 degrees counterclockwise. Focal lengths marked at 28–, 35–, 50–, 70–, 100–, 135–, 200–, and 300mm. Diagonal View Angle: 75–8 degrees Weight: 14 3/8 oz Filter size: 62mm. Mounts: Canon AF, Minolta AF, Nikon AF, and Pentax AF Lenshood: Included List price: $798 Street price: N/A

SUBJECTIVE QUALITY FACTOR

KEY	A+	A	B+	B	C+	C	D	F

28mm

MAG	5	6	8	12	17	22
Size	4x6	5x7	8x10	11x14	16x20	20x24
3.5	96.3	95.9	94.7	91.7	85.7	78.4
5.6	96.6	96.2	95.0	92.3	86.9	80.4
8.0	96.9	96.5	95.5	93.0	88.2	82.5
11.0	96.9	96.5	95.4	92.9	88.2	82.6
16.0	96.4	96.0	94.8	91.9	86.4	79.8
22.0	95.9	95.4	94.0	90.7	84.1	76.1

70mm

MAG	5	6	8	12	17	22
Size	4x6	5x7	8x10	11x14	16x20	20x24
4.5	97.2	96.8	95.4	91.8	86.6	82.3
8.0	97.3	97.0	95.7	92.4	87.5	82.7
11.0	97.1	96.7	95.3	91.4	85.7	80.8
16.0	96.9	96.5	95.0	90.9	84.6	78.9
22.0	95.8	95.1	92.9	86.5	75.9	66.2
32.0	95.2	94.5	91.9	84.3	71.8	60.5

200mm

MAG	5	6	8	12	17	22
Size	4x6	5x7	8x10	11x14	16x20	20x24
5.6	94.8	94.0	91.0	81.9	68.3	58.5
8.0	95.5	94.9	92.3	85.1	74.1	65.8
11.0	95.3	94.6	92.0	84.3	72.5	63.4
16.0	95.5	94.8	92.3	85.0	73.9	65.1
22.0	95.4	94.7	92.1	84.7	73.1	63.6
38.0	93.9	92.9	89.3	78.3	60.9	47.3

300mm

MAG	5	6	8	12	17	22
Size	4x6	5x7	8x10	11x14	16x20	20x24
6.3	95.7	94.9	91.6	81.4	66.8	56.0
8.0	95.7	94.9	91.7	81.8	67.1	55.6
11.0	95.6	94.8	91.7	81.8	66.7	54.8
16.0	95.9	95.1	92.2	82.9	69.2	58.6
22.0	96.0	95.3	92.5	83.8	70.7	60.5
38.0	94.9	94.0	90.4	78.9	60.6	46.7

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f/8, acceptable at f/11, good at f/16, excellent at f/22, and good at f/38. Corner sharpness was poor from f/5.6 to f/8, acceptable from f/11 to f/16, good at f/22, and acceptable at f/38. Optimum performance was at f/22.

At 300mm, at the closest focusing distance of 17½ inches (1:2.7X), center sharpness was good at f/6.3, acceptable at f/8, poor at f/11, acceptable at f/16, and good from f/22 to f/38. Corner sharpness was poor from f/6.3 to f/16, but acceptable from f/22 to f/38. Optimum performance was at f/22.

The lens' remarkable close-focusing distances are a vast improvement over the older 28–300mm Tamron's abilities, which provided only 47-inch close focusing at 28mm, 32 inches at 300mm, and 24 inches at 100mm and 200mm.

In the field: Test slides were very sharp and contrasty from center to corners at every aperture in every focal length, but slightly soft in the corners from f/22 to f/38 at 200mm and at f/38 and 300mm. Flare was very well controlled at every aperture in every focal length.

Conclusion: Who could have imagined a 28–300mm close-focusing zoom no bigger or heavier than 35–105mm lenses marketed just a few years ago? By judicious choice of focal lengths and apertures, you can get remarkably sharp closeups and satisfying results at all distances from 28- to 300mm. Optical performance is similar to that of the older lens, but with a bit more linear distortion, not of major importance for scenics, action, or people. But what a convenient, fun-to-use lens!