

Micro-Nikkor AF 200mm f/4 D ED - Review / Test Report

Lens Reviews - Nikon / Nikkor (APS-C)
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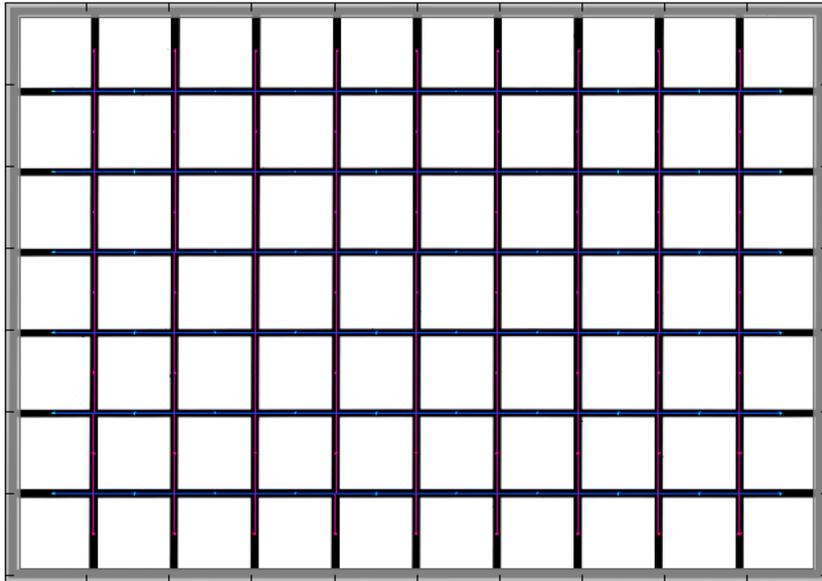
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Distortions

The Micro-Nikkor is basically free of distortions.

Distortion: 3rd order correction 17-Mar-2007 18:38:49
200mm



SMA TV Distortion = 0.0548%
 $k_1 = -0.000875$ ($r_u = r_d + k_1 r_d^2$)
 (r in center-corner units.)
 $h_1, h_2 = -0.00621, 0.00623$
 PW Pro Coeff. = -0.005063
 PW Pro Scale = 1.001
 Line calc: 3rd order

Selected EXIF data
 File: 2007:03:17 18:38:09
 Make: NIKON CORPORATION
 Model: NIKON D200
 Taken: 2007:03:17 13:23:03
 Res: 1000 x 709
 FL:
 Exp: 0.800 s

Aper: f/16.0
ISO: 200

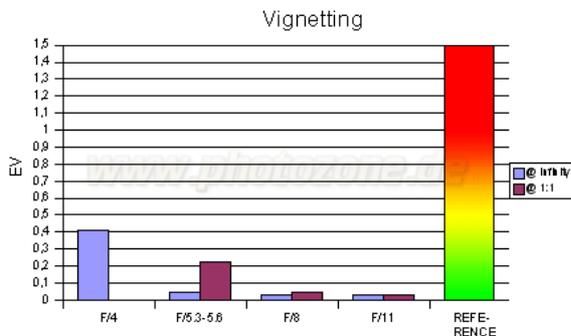


The chart above has a real-world size of about 120x80cm.

Vignetting

The AF 200mm f/4 is a full frame lens thus enjoying a sweet spot behavior on the D200. There 's a minor degree of vignetting at f/4 but this is hardly field relevant. From f/5.6 onwards the problem is negligible. Vignetting is no issue at very close focus distances.

Vignetting	F/4	F/5.3-5.6	F/8	F/11
@ infinity	0,41	0,05	0,03	0,03
@ 1:1		0,23	0,05	0,03



MTF (resolution)

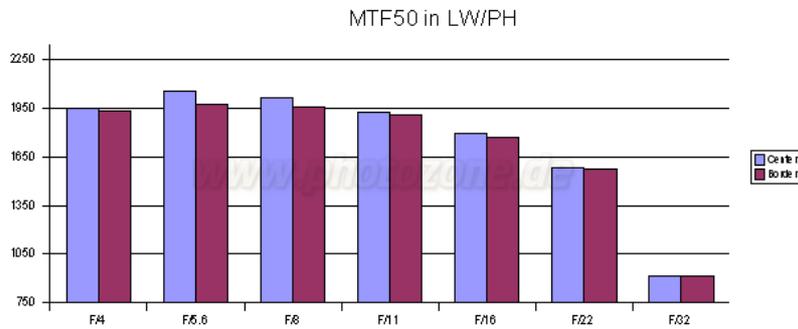
In the lab the lens performed excellent without being stellar. Please note the MTFs charts below represent the performance near infinity focus. For the time being dedicated macro performance tests are not possible.

At infinity focus it is already no problem to use the lens at f/4 where it achieves very good resolution figures from edge-to-edge. The sweet spot is reached at f/5.6 with excellent results. From f/8 diffraction takes its toll with a continuously decreasing quality. However, at f/16 the resolution is still very good and at f/22 it remains usable. You better avoid f/32 - there 's not much resolution left here (this is an absolutely normal behavior).

Below is a simplified summary of the formal findings. The chart shows in line widths per picture height (LW/PH) which can be taken as a quantity for sharpness. The chart is limited to the visually relevant LW/PH range of [750, 2250]. If you want to know more about the MTF50 figures you may check out the corresponding [Imatest Explanations](#).

Micro-Nikkor AF 200mm f/4D ED

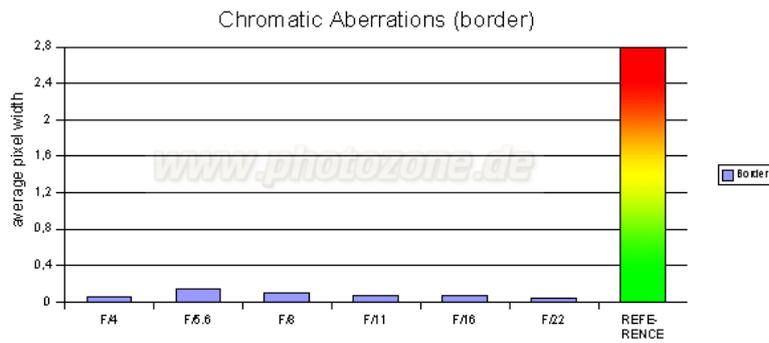
200mm	F/4	F/5.6	F/8	F/11	F/16	F/22	F/32
Center	1948,5	2055,5	2016	1928	1796,5	1583	912,5
Border	1932,5	1973,5	1960	1914	1770	1579	910,5



Chromatic Aberrations (CAs)

Lateral chromatic aberration (color shadows at harsh contrast transitions) are extremely well controlled and absolutely negligible. An exceptional but unfortunately also very rare characteristic.

CAs	F/4	F/5.6	F/8	F/11	F/16	F/22
Border	0,05	0,14	0,1	0,08	0,07	0,05



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