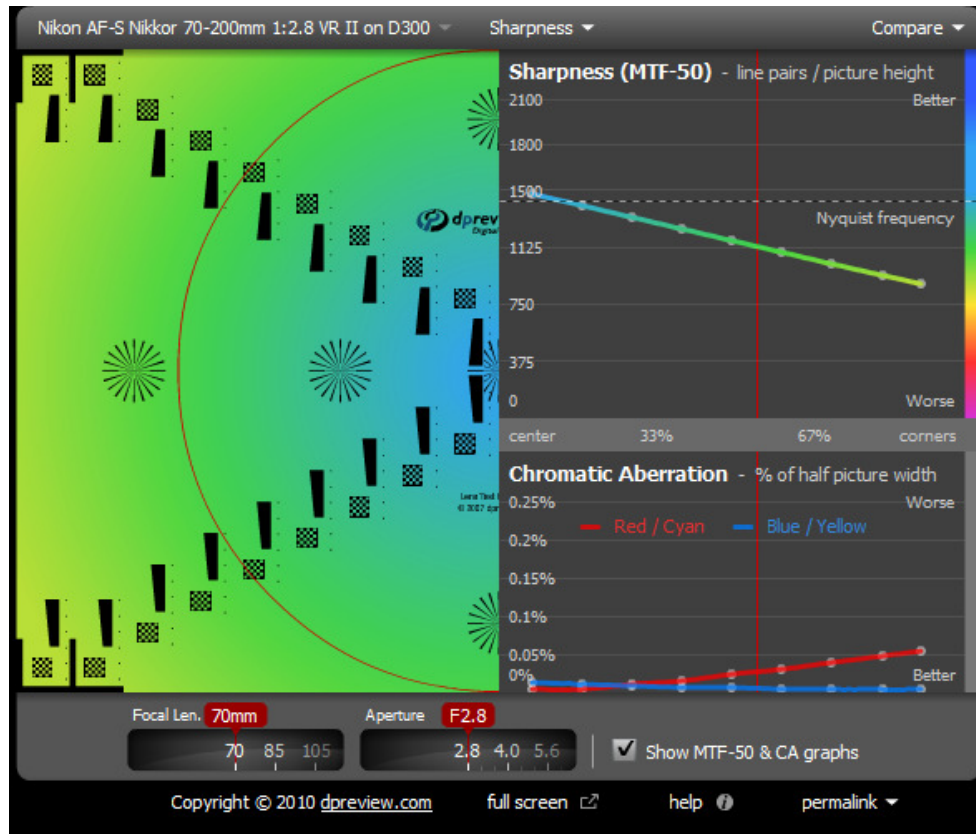


Studio Tests - DX format

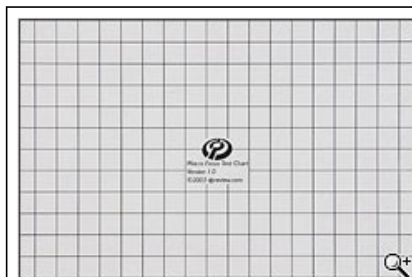


NOTE the line marked 'Nyquist Frequency' indicates the maximum theoretical resolution of the camera body used for testing. Whenever the measured numbers exceed this value, this simply indicates that the lens out-resolves the sensor at this point - the calculated MTF values themselves become meaningless.

The AF-S 70-200mm F2.8 VR II does extremely well on the DX format, with very little to complain about at all. The lens is quite exceptional at 200mm, and merely very good indeed at shorter focal lengths (our results therefore suggest it to be differently optimized to its predecessor, the AF-S 70-200mm F2.8 VR, which we found to be sharpest wide open in the middle of the zoom range).

Sharpness	With the lens wide open at F2.8, sharpness is very high in the center at 70mm, but drops off a little towards the corners. It drops to merely very good in the middle of the zoom range, before climbing again to become excellent right across the frame at 200mm. Stop down to F4 and the lens gives a uniformly superb showing at all focal lengths. Diffraction progressively softens the image on stopping down further - as usual we'd normally recommend avoiding F22 on DX.
Chromatic Aberration	Chromatic aberration is very low indeed. There's a tiny level of red/cyan fringing wide open at 70mm, and blue/yellow fringing at 200mm (which tends to be less visually disturbing); both diminishes progressively on stopping down. Overall this is unlikely to be visible in normal use.
Falloff	We consider falloff to become perceptible when the corner illumination falls to more than 1 stop less than the center. As might be expected for a full frame lens used on DX, falloff is negligible at all focal lengths and apertures.
Distortion	Distortion levels are extremely low on DX, ranging from neutral at 70mm to slight pincushion at 200mm (-0.7%); overall absolutely nothing to worry about.

Macro Focus



Macro - 186 x 123 mm coverage
Distortion: Very slight pincushion
Corner softness: Low
Focal length: 200mm (300 mm equiv)

The VR II's reduced magnification is very evident in our macro test. Measured magnification is just 0.13x (vs 0.18x), which is achieved at a closest (manual) focus distance of 127cm, with a working distance of 102cm from the lens to subject.

Magnification may be lower than the previous version, but on the plus side, image quality is strikingly improved. Central sharpness is high even at F2.8, and flatness of field is much better, with the corners sharpening up nicely by F5.6. The image is impressively sharp across the frame at F8, with minimal distortion and essentially no visible chromatic aberration - pretty well good enough for copy work.