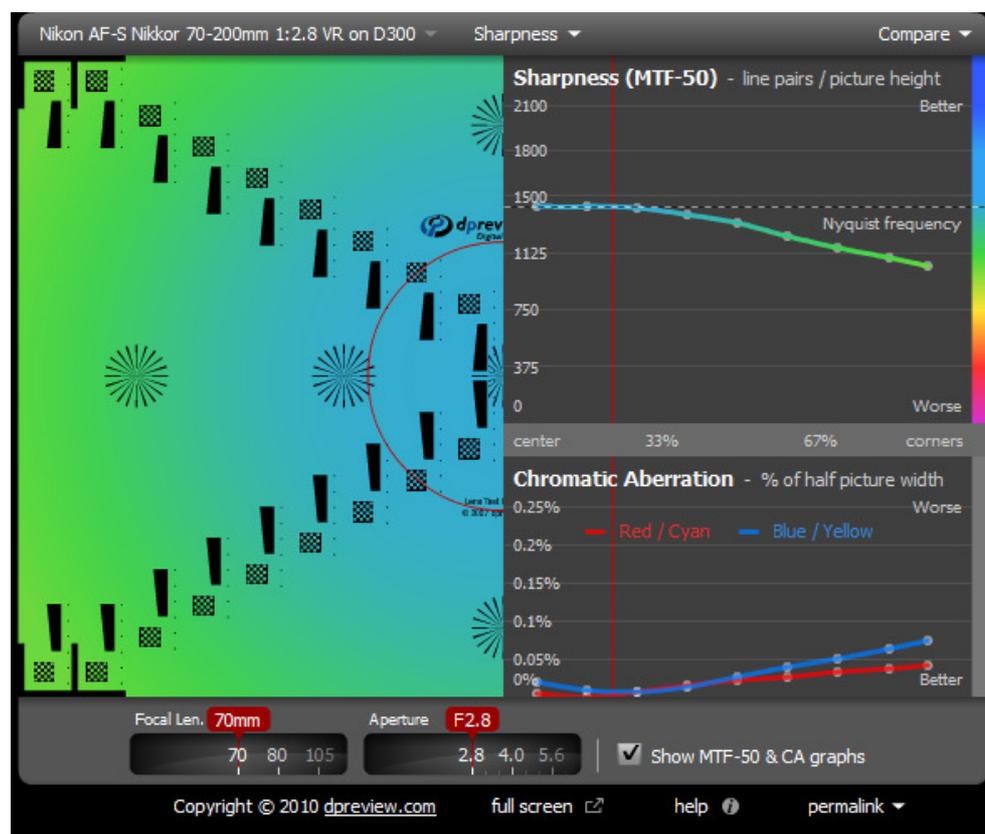


Studio Tests - DX format

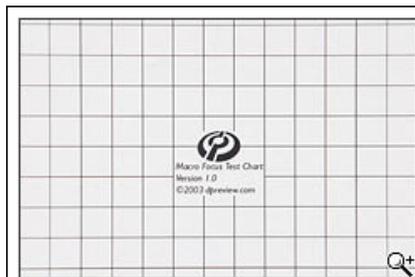


NOTE the line marked 'Nyquist Frequency' indicates the maximum theoretical resolution of the camera body used for testing. Whenever the measured numbers exceed this value, this simply indicates that the lens out-resolves the sensor at this point - the calculated MTF values themselves become meaningless.

The AF-S VR 70-200mm F2.8 puts in a highly impressive performance on the DX format, with very little to complain about at all. Performance is truly stunning at 100mm, but weakest at 200mm; however even here it's really very good.

Resolution	The lens performs well even wide open, and at optimum apertures (F5.6-F8) out-resolves the D300's sensor across the frame at all focal lengths except for 200mm. Diffraction starts to soften the image on stopping down to F11, with F22 for use only when extreme depth of field is essential.
Chromatic Aberration	Chromatic aberration is overall very low; a little green/magenta fringing is visible towards the wide end of the zoom range, but it disappears almost completely on zooming to 135mm. At 200mm, there is measurable blue/yellow CA, but this will rarely be visible in actual images.
Falloff	We consider falloff to become perceptible when the corner illumination falls to more than 1 stop less than the centre. As might be expected for a full frame lens used on DX, falloff is simply not an issue; there's just a small amount wide open at 200mm, but you're unlikely ever to see it in real photos.
Distortion	Distortion levels are overall very low on DX, ranging from modest barrel distortion at 70mm (0.6%), through neutral at about 100mm, to slight pincushion at 200mm (-0.8%). Nothing to worry about at all here.

Macro Focus



Macro - 130 x 86 mm coverage
Distortion: Slight pincushion
Corner softness: Strong
Focal length: 200mm (300 mm equiv)

The 70-200mm isn't intended to be a macro lens, and results bear this out. Maximum magnification is 0.18x, which is achieved at a measured closest focus distance of 1.4m, equating to a working distance of about 1.14m from the lens to the subject.

The test chart image shows slight pincushion distortion, soft corners and red/cyan chromatic aberration. Central resolution is rather low wide open but becomes pretty good on stopping down to F5.6, however corners only sharpen up at F22, suggesting significant curvature of field at close focus distances. All in all, not the best lens for closeups.