

## Compared to...

This review forms part of a series in which we'll be looking at the performance of several 70-200mm F2.8 zooms, using both 35mm full-frame and APS-C format cameras. Specifically, we'll be investigating how the two well-established 70-200mm F2.8 professional workhorse lenses from Canon and Nikon compare to the latest third party competition, with both Sigma and Tamron releasing new models in the opening months of 2008.

Of course there are some major differences between these lenses. The Canon and Nikon models are built to the very highest standards (including dust and moisture sealing), utilize super-fast and silent ultrasonic motors for focusing, and perhaps most importantly incorporate optical image stabilization systems. The Sigma and Tamron do not include the same level of environmental sealing (although both are extremely well built), and whilst the Sigma features ultrasonic focusing, the Tamron uses a simple micro motor system, which also precludes the option of full-time manual focus. However one potential advantage of the newer Sigma and Tamron designs is that both have usefully improved close focus distances of approximately 1m vs. 1.5m; both are also much cheaper than either the Nikon or Canon.

## Side by side

Below you can see four fast telezooms side by side; from left to right, the [Canon EF 70-200mm F2.8 IS USM](#), [Nikon AF-S VR 70-200mm F2.8 G](#), [Tamron 70-200mm 1:2.8 Di LD \(IF\) Macro](#), and [Sigma 70-200mm 1:2.8 EX DG Apo Macro HSM II](#). All are well built and finished lenses which are (not surprisingly) pretty similar in size and weight, and share broadly the same design features, including internal zoom and focus mechanisms, and a rotating and removable tripod mount. The Nikon is noticeably longer and slimmer in design than the others (indeed unexpectedly slim for a 35mm-format F2.8 telezoom with image stabilization), and the Sigma is the shortest and most compact. They also all come as standard with deep, petal-style lens hoods, and (for what it's worth) soft carry cases.



## Specifications compared

	 <b>Canon 70-200mm F2.8 L IS USM</b>	 <b>Nikon AF-S VR 70-200mm F2.8 G</b>	 <b>Sigma 70-200mm 1:2.8 EX DG Apo Macro HSM II</b>	 <b>Tamron 70-200mm 1:2.8 Di LD (IF) Macro</b>
Street price	\$1700	\$1625	\$800	\$700
Date introduced	August 2001	April 2003	December 2007	February 2008
Maximum format size	35mm full frame	35mm full frame	35mm full frame	35mm full frame
Focal length	70-200mm	70-200mm	70-200mm	70-200mm
35mm equivalent focal length (APS-C)	112-320mm	105-300mm	105-300mm (1.5x) 112-320mm (1.6x)	105-300mm (1.5x) 112-320mm (1.6x)

Diagonal Angle of view (FF)	34° - 12°	34° - 12°	34° - 12°	34° - 12°
Diagonal Angle of view (APS-C)	23° - 8°	23° - 8°	23° - 8°	23° - 8°
Maximum aperture	F2.8	F2.8	F2.8	F2.8
Minimum aperture	F32	F22	F22	F32
Lens Construction	<ul style="list-style-type: none"> <li>• 23 elements/ 18 groups</li> <li>• 4 UD elements</li> </ul>	<ul style="list-style-type: none"> <li>• 21 elements/15 groups</li> <li>• 5 ED elements</li> </ul>	<ul style="list-style-type: none"> <li>• 18 elements/15 groups</li> <li>• 2 ELD elements</li> <li>• 2 SLD elements</li> </ul>	<ul style="list-style-type: none"> <li>• 19 elements/16 groups</li> <li>• 3LD elements</li> </ul>
Number of diaphragm blades	8, rounded	9, rounded	9	9, rounded
Minimum focus	1.4m	1.5m	1m	0.9m
Maximum magnification	0.17x at 200mm	0.16x at 200mm	0.28x at 200mm	0.32x at 200mm
AF motor type	<ul style="list-style-type: none"> <li>• Ring-type ultrasonic</li> <li>• Full-time manual focus</li> </ul>	<ul style="list-style-type: none"> <li>• Ring-type ultrasonic</li> <li>• Full-time manual focus</li> </ul>	<ul style="list-style-type: none"> <li>• Ring-type ultrasonic</li> <li>• Full-time manual focus</li> </ul>	<ul style="list-style-type: none"> <li>• Micro motor</li> <li>• Manual focus clutch</li> </ul>
Focus method	Internal	Internal	Internal	Internal
Zoom method	Internal	Internal	Internal	Internal
Image stabilization	<ul style="list-style-type: none"> <li>• 3 stops</li> <li>• Dual mode - Normal and panning</li> </ul>	<ul style="list-style-type: none"> <li>• 3 stops</li> <li>• Auto panning detection</li> <li>• Active mode</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>
Filter thread	<ul style="list-style-type: none"> <li>• 77mm</li> <li>• Does not rotate on focus</li> </ul>	<ul style="list-style-type: none"> <li>• 77mm</li> <li>• Does not rotate on focus</li> </ul>	<ul style="list-style-type: none"> <li>• 77mm</li> <li>• Does not rotate on focus</li> </ul>	<ul style="list-style-type: none"> <li>• 77mm</li> <li>• Does not rotate on focus</li> </ul>
Supplied accessories	<ul style="list-style-type: none"> <li>• Front and rear caps</li> <li>• ET-86 Hood</li> <li>• LZ1324 Soft Case</li> </ul>	<ul style="list-style-type: none"> <li>• Front and rear caps</li> <li>• HB-29 Hood</li> <li>• CL-L2 Soft Case</li> </ul>	<ul style="list-style-type: none"> <li>• Front and rear caps</li> <li>• Lens Hood</li> <li>• Soft Case</li> </ul>	<ul style="list-style-type: none"> <li>• Front and rear caps</li> <li>• Lens Hood</li> <li>• Soft Case</li> </ul>
Weight	1570 g (55.4 oz)	1470g (51.8 oz)	1390g (49.0 oz)	1330g (46.9 oz)
Dimensions	86.2 mm diameter x 197 mm length (3.4 x 7.8 in)	87mm diameter x 215mm length (3.4 x 8.5 in)	86.6mm diameter x 184mm length (3.4 x 7.2 in)	89.5mm diameter x 194.3mm length (3.5 x 7.6 in)
Lens Mount	Canon EF only	Nikon F only	Canon, Nikon, Olympus, Pentax, Sony, Sigma	Canon, Nikon, Pentax, Sony
Other	<ul style="list-style-type: none"> <li>• Dust and moisture sealing</li> <li>• Supplies distance information for E-TTL II flash metering</li> </ul>	<ul style="list-style-type: none"> <li>• Dust and moisture sealing</li> <li>• Reports focus distance information to camera body</li> <li>• Three AF stop buttons</li> </ul>		