

HD809 Spec Chart with High Power Objectives

Lens Objective	Working Distance (mm)	Working Distance (inch)		L009-R0.5x	L009-R0.67x	L009-R1x	L009-R1.33x	L009-R2x	L009-R3.3x
L009-4x	20	0.79	Optical Mag.			2.9 - 13.35	2.61 - 17.75	2.19 - 26.69	3.61 - 44
			DFOV (mm)			2.21 - 0.48	2.45 - 0.36	2.92 - 0.24	1.77 - 0.15
			DFOV (inch)			0.087 - 0.019	0.097 - 0.014	0.115 - 0.009	0.07 - 0.006
			HFOV (mm)			1.9 - 0.41	2.11 - 0.31	2.51 - 0.21	1.52 - 0.13
			HFOV (inch)			0.075 - 0.016	0.083 - 0.012	0.099 - 0.008	0.06 - 0.005
			Video Mag. on 24 inch Monitor			276x - 1272x	249x - 1691x	209x - 2542x	344x - 4191x
L009-5x	34	1.34	Optical Mag.			3.57 - 16.66	3.26 - 22.16	2.77 - 33.31	4.52 - 55.05
			DFOV (mm)			1.79 - 0.38	1.96 - 0.29	2.31 - 0.19	1.42 - 0.12
			DFOV (inch)			0.071 - 0.015	0.077 - 0.011	0.091 - 0.008	0.056 - 0.005
			HFOV (mm)			1.54 - 0.33	1.69 - 0.25	1.99 - 0.17	1.22 - 0.1
			HFOV (inch)			0.061 - 0.013	0.066 - 0.01	0.078 - 0.007	0.048 - 0.004
			Video Mag. on 24 inch Monitor			340x - 1587x	311x - 2111x	264x - 3173x	431x - 5244x
L009-10x	33	1.3	Optical Mag.			7.14 - 33.31	6.5 - 44.3	5.54 - 66.63	9.03 - 110.1
			DFOV (mm)			0.9 - 0.19	0.98 - 0.14	1.16 - 0.1	0.71 - 0.06
			DFOV (inch)			0.035 - 0.008	0.039 - 0.006	0.045 - 0.004	0.028 - 0.002
			HFOV (mm)			0.77 - 0.17	0.85 - 0.12	0.99 - 0.08	0.61 - 0.05
			HFOV (inch)			0.03 - 0.007	0.033 - 0.005	0.039 - 0.003	0.024 - 0.002
			Video Mag. on 24 inch Monitor			680x - 3173x	619x - 4220x	528x - 6347x	860x - 10487x
L009-20x	20	0.79	Optical Mag.			14.28 - 64.63	13.1 - 85.96	11.08 - 133.25	18.07 - 220.21
			DFOV (mm)			0.45 - 0.1	0.49 - 0.07	0.58 - 0.05	0.35 - 0.03
			DFOV (inch)			0.018 - 0.004	0.019 - 0.003	0.023 - 0.002	0.014 - 0.001
			HFOV (mm)			0.39 - 0.09	0.42 - 0.06	0.5 - 0.04	0.3 - 0.02
			HFOV (inch)			0.015 - 0.003	0.017 - 0.003	0.02 - 0.002	0.012 - 0.001
			Video Mag. on 24 inch Monitor			1360x - 6156x	1248x - 8188x	1055x - 12692x	1721x - 20975x
L009-50x	13	0.51	Optical Mag.			35.69 - 166.57	40 - 221.54	27.5 - 333.13	45.17 - 550.52
			DFOV (mm)			0.179 - 0.038	0.16 - 0.029	0.233 - 0.019	0.142 - 0.012
			DFOV (inch)			0.0071 - 0.0015	0.0063 - 0.0011	0.0092 - 0.0008	0.0056 - 0.0005
			HFOV (mm)			0.154 - 0.033	0.138 - 0.025	0.2 - 0.017	0.122 - 0.01
			HFOV (inch)			0.0061 - 0.0013	0.0054 - 0.001	0.0079 - 0.0007	0.0048 - 0.0004
			Video Mag. on 24 inch Monitor			3399x - 15866x	3810x - 21102x	2619x - 31731x	4302x - 52437x

\* Data are estimated by calculation. Optional rear couplers available (0.5x, 0.67x, 1x, 1.33x, 2x, 3.3x) for lowering or increasing magnification without changing working distance. Video magnification will be increased by the same factor. Field of view will be changed by inverse factor.  
DFOV (Diagonal Field of View) HFOV (Horizontal Field of View)