

Table 7: ZWO Astronomy Cameras - Complete Specifications and Recommendations

ZWO Camera Model	Color / Mono- chrome	Sensor	Sensor Diagonal Size (mm)	Sensor Dimensions (mm)	Sensor Resolution (MB)	Sensor Dimensions (pixels)	Pixel Size (microns)	ADC Data Resolution (bits) *	Max Download Rate@Max Resolution (fps)	USB Data Interface	TEC Cooling	Diameter (mm / in)	Weight (g / oz)	1/4"-20 Mounting Thread	All-Sky Lens Included	Best Applications	Planetary	Solar/Lunar	Deep-Sky	All-Sky
CURRENT MODELS																				
ASI071MC-Pro	Color	Sony IMX071	28.3	23.6x15.6	16.0	4944x3284	4.78	14/10	10	3.0	Yes	86 / 3.4	640 / 22.6	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI120MC-S	Color	ONS AR0130CS	6.09	4.8x3.6	1.2	1280x960	3.75	12/10	60	3.0	No	62 / 2.4	100 / 3.5	Yes	Yes	Planetary imaging	★★★★★	★★★★	★★★	★★★
ASI120MM-S	Monochrome	ON MT9M034	6.1	4.8x3.6	1.2	1280x960	3.75	12/10	60	3.0	No	62 / 2.4	100 / 3.5	Yes	Yes	Planetary imaging	★★★★★	★★★★	★★★	★★★
ASI174MM	Monochrome	Sony IMX174	13.4	11.3x7.1	2.3	1936x1216	5.86	12/10	128	3.0	No	62 / 2.4	140 / 4.9	Yes	No	Solar and lunar imaging	★★★★	★★★★★	★★★	★★★
ASI174MM-Mini	Monochrome	Sony IMX174	13.4	11.3x7.1	2.3	1936x1216	5.86	12/10	18.4	2.0	No	36 / 1.42	60 / 2.1	No	No	Autoguiding; solar system	★★★★	★★★★★	★★★★	★★★
ASI178MC	Color	Sony IMX178	8.92	7.4 x 5.0	6.4	3096x2080	2.40	14/10	60	3.0	No	62 / 2.4	120 / 4.2	Yes	Yes	Planetary imaging;solar/lunar	★★★★★	★★★★	★★★	★★★★
ASI178MM	Monochrome	Sony IMX178	8.92	7.4 x 5.0	6.4	3096x2080	2.40	14/10	60	3.0	No	62 / 2.4	120 / 4.2	Yes	Yes	Planetary imaging;solar/lunar	★★★★★	★★★★	★★★	★★★★
ASI183MC	Color	Sony IMX183	15.9	13.2x8.8	20.1	5496x3672	2.40	12/10	19	3.0	No	62 / 2.4	120 / 4.2	Yes	No	Deep sky	★★★	★★★★	★★★★	★★★★★
ASI183MC-Pro	Color	Sony IMX183	15.9	13.2x8.8	20.1	5496x3672	2.4	12/10	19	3	Yes	78 / 3.1	410 / 14.5	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI183MM	Monochrome	Sony IMX183	15.9	13.2x8.8	20.1	5496x3672	2.40	12/10	19	3.0	No	62 / 2.4	120 / 4.2	Yes	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI183MM-Pro	Monochrome	Sony IMX183	15.9	13.2x8.8	20.1	5496x3672	2.40	12/10	19	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI183GT	Monochrome	Sony IMX183	15.9	13.2x8.8	20.1	5496x3672	2.40	12/10	19	3.0	Yes	110x110mm	800/28.2	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI224MC	Color	Sony IMX224	6.1	4.8x3.6	1.2	1304x976	3.75	12/10	150	3.0	No	62 / 2.4	120 / 4.2	Yes	Yes	Planetary imaging	★★★★★	★★★★	★★★★	★★★★
ASI290MC	Color	Sony IMX290	6.46	5.6x3.2	2.1	1936x1096	2.90	12/10	170	3.0	No	62 / 2.4	120 / 4.2	Yes	Yes	Planetary imaging	★★★★★	★★★★	★★★★	★★★★
ASI290MM	Monochrome	Sony IMX290	6.5	5.6x3.2	2.1	1936x1096	2.90	12/10	170	3.0	No	62 / 2.4	120 / 4.2	Yes	Yes	Planetary imaging	★★★★★	★★★★	★★★★	★★★★
ASI290MM-Mini	Monochrome	Sony IMX290	6.46	5.6x3.2	2.1	1936x1096	2.90	12/10	20.4	2.0	No	36 / 1.42	60 / 2.1	No	No	Autoguiding; solar system	★★★★	★★★★★	★★★★	★★★
ASI294MC	Color	Sony IMX294	23.2	19.1x13.0	11.7	4144x2822	4.63	14/10	19	3.0	No	62 / 2.4	120 / 4.2	Yes	No	Deep sky	★★★	★★★★	★★★★	★★★★★
ASI294MC-Pro	Color	Sony IMX294	23.2	19.1x13.0	11.7	4144x2822	4.63	14/10	19	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI385MC	Color	Sony IMX385	8.35	7.3x4.1	2.1	1936x1096	3.75	12/10	120	3.0	No	62 / 2.4	120 / 4.2	Yes	No	Solar and lunar imaging	★★★★★	★★★★	★★★	★★★★★
ASI533MC-Pro	Color	Sony IMX533	16	11.3x11.3	9.0	3008x3008	3.76	14/10	20	3.0	Yes	78/3.1	470/16.6	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI1600MC	Color	4/3" CMOS	21.9	17.7x13.3	16.0	4656x3520	3.80	12/10	23	3.0	No	62 / 2.4	140 / 4.9	Yes	No	Deep sky	★★★	★★★★	★★★★	★★★★★
ASI1600MC-Pro	Color	4/3" CMOS	21.9	17.7x13.3	16.0	4656x3520	3.80	12/10	23	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI1600MM	Monochrome	4/3" CMOS	21.9	17.7x13.3	16.0	4656x3520	3.80	12/10	23	3.0	No	62 / 2.4	140 / 4.9	Yes	No	Deep sky	★★★	★★★★	★★★★	★★★★★
ASI1600MM-Pro	Monochrome	4/3" CMOS	21.9	17.7x13.3	16.0	4656x3520	3.80	12/10	23	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI1600GT	Monochrome	4/3" CMOS	21.9	17.7x13.3	16.0	4656x3520	3.80	12/10	23	3.0	Yes	110x110mm	800/28.2	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI2600MC-Pro	Color	Sony IMX571	28	23.5x15.7	26.0	6248x4176	3.76	16-Jan	3.51	3.0	Yes	90/3.5	700/24.7	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI6200MM-Pro	Monochrome	Sony IMX455	43.3	36.0x24.0	62.0	9576x6388	3.76	16	2	3.0	Yes	90/3.5	700/24.7	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI6200MC-Pro	Monochrome	Sony IMX455	43.3	36.0x24.0	62.0	9576x6388	3.76	16	2	3.0	Yes	90/3.5	700/24.7	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
DISCONTINUED MODELS																				
ASI034MC	Color	ONS ASX340CS	5	4.1x2.9	0.3	728x512	5.60	8	95	2.0	No	62 / 2.4	100 / 3.5	Yes	No	Planetary imaging	★★★	★★	★	★
ASI071MC-COOL	Color	Sony IMX071	28.4	23.6 x 15.7	16.2	4928x3264	4.80	14-Jan	10	3.0	Yes	78 / 3.1	500 / 17.8	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI094MC-Pro	Color	Sony IMX094	43.3	36.0x24.0	36.0	7376x4928	4.88	14/10	5	3.0	Yes	86 / 3.4	640 / 22.6	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI120MC	Color	ONS AR0130CS	6.09	4.8x3.6	1.2	1280x960	3.75	12/10	35	2.0	No	62 / 2.4	100 / 3.5	Yes	Yes	Planetary imaging	★★★★★	★★★★	★★★	★★★
ASI120MM	Monochrome	ONS MT9M034	6.09	4.8x3.6	1.2	1280x960	3.75	12/10	35	2.0	No	62 / 2.4	100 / 3.5	Yes	Yes	Planetary imaging	★★★★★	★★★★	★★★	★★★
ASI128MC-Pro	Color	Sony IMX128	43.3	36.0x24.0	24.0	6032x4032	5.97	14/10	7	3.0	Yes	86 / 3.4	640 / 22.6	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI174MC	Color	Sony IMX174	13.4	11.3x7.1	2.3	1936x1216	5.86	12/10	164	3.0	No	62 / 2.4	140 / 4.9	Yes	No	Solar and lunar imaging	★★★★	★★★★★	★★★	★★★
ASI174MC-Cool	Color	Sony IMX174	13.4	11.3x7.1	2.3	1936x1216	5.86	12/10	164	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Solar and lunar imaging	★★★★	★★★★★	★★★★	★★★
ASI174MM-Cool	Monochrome	Sony IMX174	13.4	11.3x7.1	2.3	1936x1216	5.86	12/10	128	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Solar and lunar imaging	★★★★	★★★★★	★★★★	★★★
ASI178MC-Cool	Color	Sony IMX178	8.92	7.4 x 5.0	6.4	3096x2080	2.40	14/10	60	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Planetary imaging;solar/lunar	★★★★★	★★★★	★★★★★	★★★★★
ASI178MM-Cool	Monochrome	Sony IMX178	8.92	7.4 x 5.0	6.4	3096x2080	2.40	14/10	60	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Planetary imaging;solar/lunar	★★★★★	★★★★	★★★★★	★★★★★
ASI185MC	Color	Sony IMX185	8.58	7.3x4.6	2.3	1944x1224	3.75	12/10	108	3.0	No	62 / 2.4	120 / 4.2	Yes	Yes	Planetary imaging;solar/lunar	★★★★★	★★★★★	★★★★	★★★★
ASI185MC-Cool	Color	Sony IMX185	8.58	7.3x4.6	2.3	1944x1224	3.75	12/10	108	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Planetary imaging;solar/lunar	★★★★★	★★★★★	★★★★★	★★★★★
ASI224MC-Cool	Color	Sony IMX224	6.09	4.8x3.6	1.2	1304x976	3.75	12/10	150	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Planetary imaging	★★★★★	★★★★	★★★★★	★★★★★
ASI290MC-Cool	Color	Sony IMX290	6.46	5.6x3.2	2.1	1936x1096	2.90	12/10	170	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Planetary imaging	★★★★★	★★★★	★★★★★	★★★★★
ASI290MM-Cool	Monochrome	Sony IMX290	6.46	5.6x3.2	2.1	1936x1096	2.90	12/10	170	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Planetary imaging	★★★★★	★★★★	★★★★★	★★★★★
ASI385MC-Cool	Color	Sony IMX385	8.35	7.3x4.1	2.1	1936x1096	3.75	12/10	120	3.0	Yes	78 / 3.1	420 / 14.8	No	No	Solar and lunar imaging	★★★★★	★★★★	★★★★	★★★★★
ASI1600MC-Cool	Color	4/3" CMOS	21.9	17.7x13.3	16.0	4656x3520	3.80	12/10	23	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★
ASI1600MM-Cool	Monochrome	4/3" CMOS	21.9	17.7x13.3	16.0	4656x3520	3.80	12/10	23	3.0	Yes	78 / 3.1	410 / 14.5	No	No	Deep sky	★★★	★★★★	★★★★★	★★★★★

* User selectable except for ASI034MC