

Table 17. Characteristics of catadioptric and medial systems.

Catadioptrics and Medials		Aperture (mm)	Focal Length (mm)	f/#	CCD Diagonal (mm)	FOV (deg)	Limiting Magnitude Staring	Limiting Magnitude Tracking	Optical System Cost (\$)
Manufacturer	Model								
ISON	GAS-250	250	740	3.0	52	4.02	16.5	15.2	\$20,000
ISON	ORI-25	250	625	2.5	52	4.76	16.6	15.4	\$20,000
ISON	ORI-40	400	915	2.3	52	3.26	17.3	16.2	\$20,000
Sankovich	Santel-400	400	1000	2.5	52	2.98	17.2	15.9	\$20,000
Sankovich	Santel-500	500	1250	2.5	52	2.38	17.7	16.5	\$20,000
Officina Stellare	Veloce RH 200AT	200	600	3.0	43	4.10	15.3	14.0	\$7,795
Officina Stellare	Veloce RH 300	300	900	3.0	61	3.88	16.2	14.9	\$24,395
Officina Stellare	Veloce RH 350	350	980	2.8	61	3.57	16.4	15.1	\$40,695
ISON	VT-78a	192	300	1.6	52	9.91	16.0	15.0	\$20,000
Borisov	Genon Max (VT-99c)	300	450	1.5	52	6.61	16.7	15.7	\$20,000
ISON	RST-220 (Terebizh)	220	507	2.3	52	5.87	16.3	15.3	\$20,000
ISON	VT-52c	180	294	1.6	52	10.11	15.9	14.8	\$20,000
Russia	Sova-25 (VT-51d)	250	410	1.6	72	10.04	16.3	15.4	\$20,000
China	CStar (sCMOS)	145	174	1.2	21	6.91	15.5	14.6	\$20,000
Celestron	C-11 with HyperStar	279.4	560	2.0	28	2.86	16.1	14.9	\$2,794
Celestron	RASA-11	279.4	620	2.2	43	3.97	16.4	15.2	\$3,499
Celestron	C-14 with HyperStar	355.6	684	1.9	43	3.60	16.6	15.4	\$5,598
Celestron	RASA-14	355.6	790	2.2	61	4.42	16.8	15.5	\$9,995
China	AST3	500	1866	3.7	106	3.25	18.1	16.7	\$20,000

Table 18. Performance VS cost for catadioptric and medial array sites.

Catadioptrics and Medials		Staring			Tracking		
		Number Required	Sensitivity	Total Site Cost (k\$)	Number Required	Sensitivity	Total Site Cost (k\$)
Manufacturer	Model						
ISON	GAS-250	462	16.5	\$18,480	8	15.2	\$400
ISON	ORI-25	324	16.6	\$12,960	5	15.4	\$250
ISON	ORI-40	676	17.3	\$27,040	15	16.2	\$750
Sankovich	Santel-400	798	17.2	\$31,920	19	15.9	\$950
Sankovich	Santel-500	1278	17.7	\$51,120	38	16.5	\$1,900
Officina Stellare	Veloce RH 200AT	455	15.3	\$10,372	9	14.0	\$295
Officina Stellare	Veloce RH 300	484	16.2	\$23,907	9	14.9	\$535
Officina Stellare	Veloce RH 350	576	16.4	\$37,840	12	15.1	\$908
ISON	VT-78a	68	16.0	\$2,720	1	15.0	\$50
Borisov	Genon Max (VT-99c)	156	16.7	\$6,240	2	15.7	\$100
ISON	RST-220 (Terebizh)	203	16.3	\$8,120	3	15.3	\$150
ISON	VT-52c	68	15.9	\$2,720	1	14.8	\$50
Russia	Sova-25 (VT-51d)	68	16.3	\$3,060	1	15.4	\$55
China	CStar (sCMOS)	150	15.5	\$7,500	2	14.6	\$120
Celestron	C-11 with HyperStar	885	16.1	\$15,748	26	14.9	\$723
Celestron	RASA-11	486	16.4	\$8,991	9	15.2	\$256
Celestron	C-14 with HyperStar	600	16.6	\$12,359	13	15.4	\$398
Celestron	RASA-14	380	16.8	\$13,298	6	15.5	\$270
China	AST3	861	18.1	\$193,725	20	16.7	\$4,700