



TELEDYNE IMAGING
Everywhereyoulook™



Science and Ground Astronomy

BSI CCD DETECTOR CATALOGUE

PRODUCT FAMILY	PIXEL PITCH	IMAGE FORMAT	RESOLUTION	DEVICE TYPE	ELECTRON MULTIPLICATION	OPERATION	MAX FRAME RATE	MIN READ NOISE ¹	IMAGE FWC	OUTPUT AMPLIFIERS ²	PACKAGE TYPE	UV ENHANCED ³	NIR ENHANCED DD SILICON	NIR ENHANCED HIRHO SILICON	FRINGE SUPPRESSION	LUMOGEN	
	µm	H x V	MP				fps	e-rms	ke-								
CCD290-99	10	9216 x 9232	85.1	F		N	0.6	4	90 (N)	16	SiC (B)	•	•		•		
CCD290-66	10	6144 x 6160	37.8	F		N	0.6	4	90 (N)	8	Ceramic	•	•		•		
CCD231-C6	15	6144 x 6160	37.8	F		N	0.3	2	350 (N)	4	SiC (B)	•	•		•		
CCD270-00	18	4510 x 4510	20.3	F		N	0.3	<28	900 (N)	2	SiC (B)	•	•		•		
CCD282-00	12	4096 x 4112	16.8	T	•	E	7.1	<<1	20 (E)	8	Ceramic					•	
CCD230-84	15	4096 x 4112	16.8	F		I	1.2	4	150 (I)	4	Ceramic	•				•	
CCD231-84	15	4096 x 4112	16.8	F		N	0.7	2	350 (N)	4	Ceramic or SiC (B)	•	•			•	
CCD272-84	12	4096 x 4096	16.8	F		N	0.7	2.5	220 (N)	4	SiC (B)	•	•			•	
CCD44-82	15	4096 x 4096	16.8	F		N	0.1	2.5	200 (N)	2	Invar (B)	•	•			•	
CCD250-82	10	4004 x 4096	16.4	F		N	1.0	<5	135 (N)	16	Ceramic	•	•	•		•	
CCD270-00	18	4510 x 2255	10.2	T		N	0.6	<28	900 (N)	2	SiC (B)	•	•			•	
CCD42-90	13.5	2048 x 4608	9.4	F		N	0.6	3	150 (N)	2	Invar (B)	•	•			•	
CCD261-84	15	2048 x 4104	8.4	F		N	0.2	2.8	200 (N)	2	Invar (B)	•	•	•		•	
CCD44-82	15	4096 x 2048	8.4	T		N	0.2	2.5	200 (N)	2	Invar (B)	•	•			•	
CCD230-42	15	2048 x 2064	4.2	F		I	4.7	4	150 (I)	4	Ceramic	•				•	
CCD231-42	15	2048 x 2064	4.2	F		N	2.8	2	350 (N)	4	Ceramic	•	•			•	
CCD42-40	13.5	2048 x 2048	4.2	F		N / A	1.4	3	150 (N) / 100 (A)	2	Ceramic	•	•			•	
CCD207-40	16	1608 x 1632	2.6	F	•	E	7.6	<<1	450 (E)	1	Ceramic		•			•	
CCD42-20	13.5	2048 x 1024	2.1	F		N / A	2.9	3	150 (N) / 100 (A)	2	Ceramic	•	•			•	
CCD55-30	22.5	1252 x 1152	1.4	F		N / A	4.2	3	450 (N) / 400 (A)	1	Ceramic	•	•			•	•
CCD252-00	8	1024 x 1280	1.3	T	•	E	28.2	<<1	15 (E)	1	Peltier	•				•	
CCD351-00	10	1024 x 1024	1.0	T	•	E	35.3	<<1	35 (E)	1	Ceramic	•				•	
CCD47-10	13	1024 x 1024	1.0	F		N / A	9.5	2	120 (N) / 100 (A)	2	Ceramic	•	•			•	•
CCD47-20	13	1024 x 1024	1.0	T		N / A	9.5	2	120 (N) / 100 (A)	2	Ceramic or Peltier	•	•			•	
CCD201-20	13	1024 x 1024	1.0	T	•	E	19.1	<<1	80 (E)	1	Ceramic	•	•			•	
CCD42-10	13.5	2048 x 512	1.0	F		N / A	2.9	3	150 (N) / 100 (A)	1	Ceramic	•	•			•	
CCD275-42	26	1022 x 954	1.0	T		N	12.3	35	700 (N)	4	Ceramic	•	•			•	
CCD55-20	22.5	770 x 1152	0.9	F		N / A	6.8	3	450 (N) / 400 (A)	1	Ceramic	•	•			•	•
CCD55-30	22.5	1252 x 576	0.7	T		N / A	8.3	3	450 (N) / 400 (A)	1	Ceramic	•	•			•	
CCD207-10	16	1608 x 408	0.7	F	•	E	30.5	<<1	130 (E)	1	Ceramic		•			•	•
CCD261-04	15	2048 x 264	0.5	F		A	1.8	4	75 (A)	1	Ceramic	•	•	•		•	
CCD262-50	50	512 x 1024	0.5	F		N	79.3	100	4000 (N)	8	Invar (B)	•	•			•	

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	µm	H x V	MP				fps	e-rms	ke-							
CCD292-50	50	512 x 1024	0.5	F		N	79.3	<200	3000 (N)	8	Invar (B)	•	•	•	•	
CCD293-50	50	512 x 1024	0.5	F		N	79.3	<67	1600 (N)	8	Invar (B)	•	•	•	•	
CCD55-20	22.5	770 x 576	0.4	T		N / A	13.5	3	450 (N) / 400 (A)	1	Ceramic	•	•		•	
CCD207-00	16	1608 x 208	0.3	F	•	E	59.8	<<1	130 (E)	1	Ceramic		•		•	•
CCD97-00	16	512 x 512	0.3	T	•	E	57.2	<<1	130 (E)	1	Ceramic or Peltier	•	•		•	
CCD77-00	24	512 x 512	0.3	F		I	53.4	3	350 (I)	2	Ceramic	•	•		•	
CCD30-11	26	1024 x 256	0.3	F		N / A	19.1	5	700 (N) / 500 (A)	1	Ceramic	•	•		•	•
CCD40-11	26	1024 x 128	0.1	F		N / A	38.1	5	700 (N) / 500 (A)	1	Ceramic	•	•		•	•
CCD220-00	24	240 x 240	0.1	T	•	E	2083	<<1	300 (E)	8	Peltier		•		•	
CCD60-00	24	128 x 128	0.0	T	•	E	1099	<<1	240 (E)	1	Ceramic or Peltier	•	•		•	

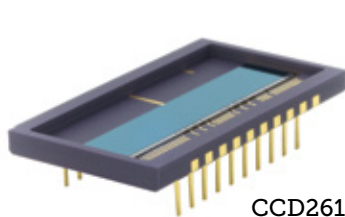
Key

- Available variant
- Subject to tooling and/or order quantity
- F Full Frame CCD
- T Frame Transfer CCD
- N NIMO (Non-inverted Mode Operation)
- I IMO (Inverted Mode Operation)
- A AIMO (Advanced Inverted Mode Operation)
- E EMCCD (Combination of IMO image area and NIMO readout operation)
- DD Deep Depletion
- B Buttable package

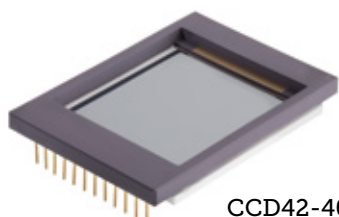
Notes

- 1: Read noise is specified at different readout rates
- 2: Some devices also include additional amplifiers for alternative readout modes
- 3: Enhanced Backthinning process significantly increasing UV and Soft X-ray QE
- 4: Not all specifications and combinations are achievable together
- 5: More detailed specifications are available in the associated datasheets

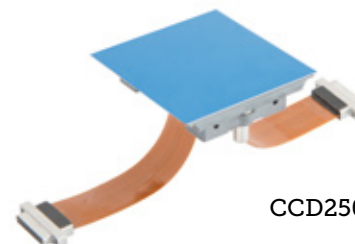
* Custom products are also available.



CCD261-04



CCD42-40

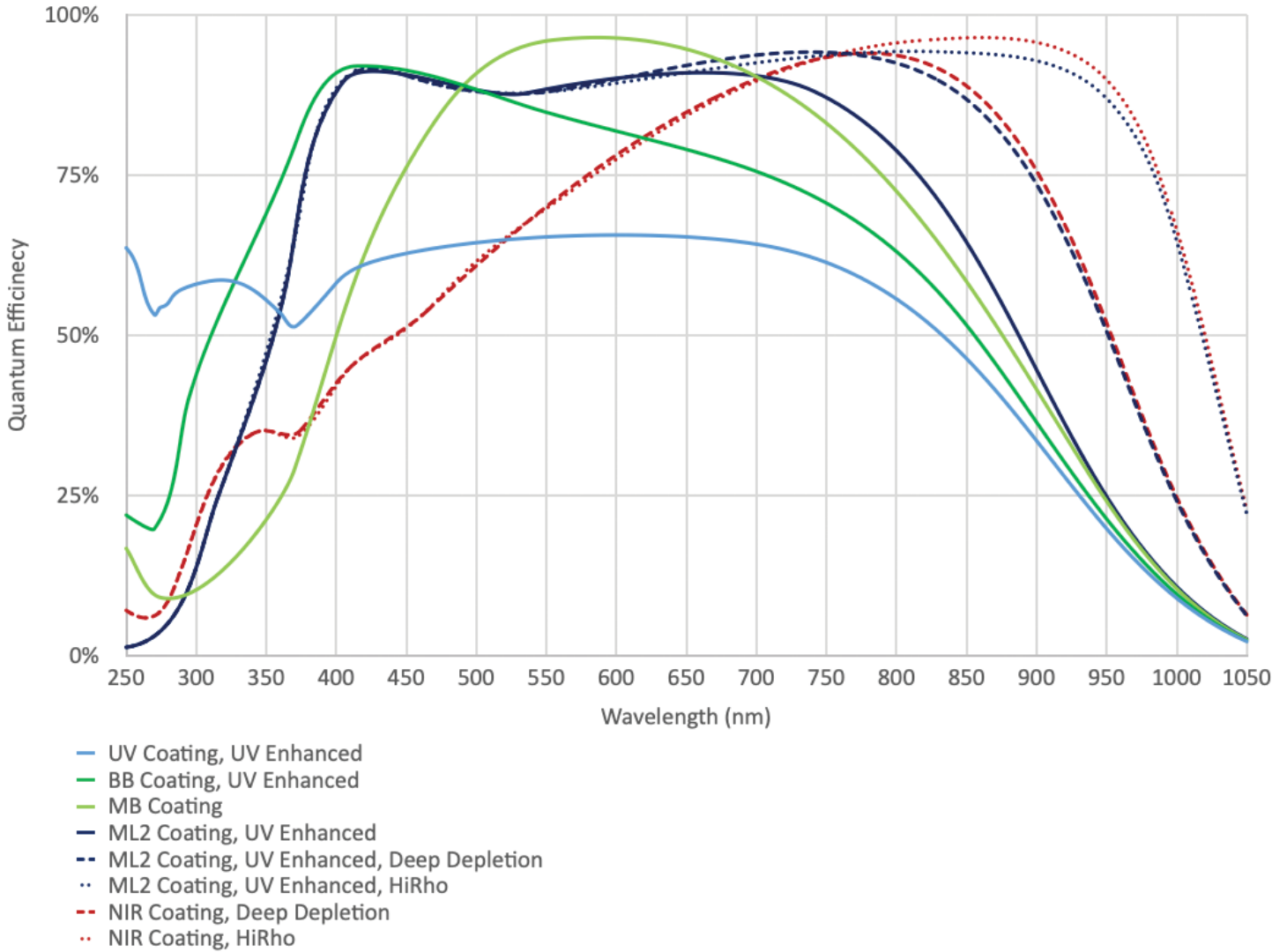


CCD250-82

Quantum Efficiency

A wide range of product variants are available in each product family. The graph below shows many commonly used variants. Additional specialised anti-reflective coatings and processing are available; please contact Teledyne Imaging for more information.

BSI CCD at -20° C



* Information subject to change – values typical unless otherwise stated.

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