

Standard CCD Image Sensors



CCD Image Sensors

Custom products also available

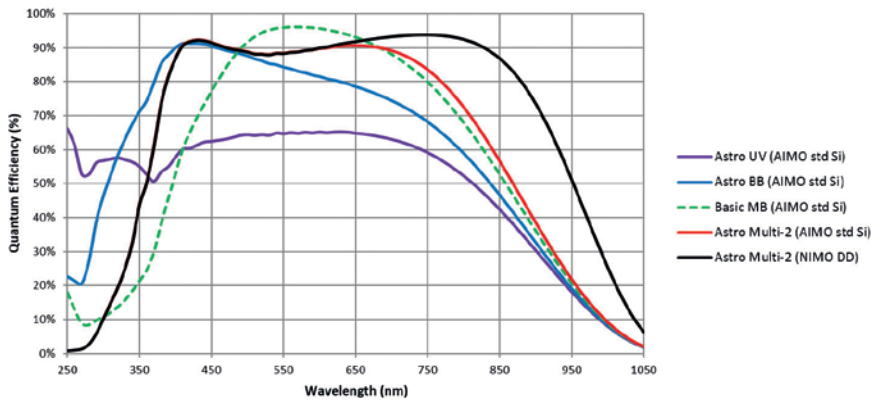
| | NUMBER OF ACTIVE PIXELS | | STORE SECTION TOTAL PIXELS | | PIXEL PITCH (µM) | | IMAGE SIZE (MM) | | OUTPUT AMPLIFIER TYPE | MAXIMUM READOUT RATE (MHZ) | READOUT NOISE (E-) | PRIMARY PACKAGE TYPE | ALTERNATIVE PACKAGE TYPES | BACK-THINNED | OPERATION MODES | ANTI-BLOOMING | COATINGS LUMOGEN | FIBRE OPTIC | HI-RES DEEP DEPLETION SILICON | OPEN ELECTRODE |
|--|-------------------------|------|----------------------------|------|------------------|------|-----------------|------|-----------------------|----------------------------|--------------------|---------------------------------|---|--------------|-----------------|---------------|------------------|-------------|-------------------------------|----------------|
| | V | H | V | H | V | H | V | H | | | | | | | | | | | | |
| Full-frame spectroscopic and scientific sensors | | | | | | | | | | | | | | | | | | | | |
| CCD30-11 | 256 | 1024 | | | 26 | 26 | 6.7 | 26.7 | LS | 5 | 4 (RNB) | 20-pin DIL ceramic | | (N)/(A) | | | | | | |
| CCD40-11 | 128 | 1024 | | | 26 | 26 | 3.3 | 26.6 | LS | 5 | 4 (RNB) | 20-pin DIL ceramic | | (N)/(A) | | | | | | |
| CCD42-10 | 512 | 2048 | | | 13.5 | 13.5 | 6.9 | 27.6 | 2 x VLN | 3 | 2 (RNB) | 20-pin DIL ceramic | | (N)/(A) | □ | | | | | |
| CCD42-40 | 2048 | 2048 | | | 13.5 | 13.5 | 27.6 | 27.6 | 2 x VLN | 3 | 2 (RNB) | 24-pin DIL ceramic | | (N)/(A) | □ | □ | | | | |
| CCD42-90 | 4608 | 2048 | | | 13.5 | 13.5 | 62.2 | 27.6 | 2 x VLN | 3 | 2 (RNB) | Invar 3-side buttable + PGA | | (N) | □ | | | | | |
| CCD44-82 | 4096 | 2048 | | | 15 | 15 | 61.4 | 30.7 | 2 x VLN | 3 | 2 (RNB) | Invar 3-side buttable + PGA | | (N) | | | | | | |
| CCD47-10 | 1024 | 1024 | | | 13 | 13 | 13.3 | 13.3 | 2 x VLN | 5 | 2 (RNB) | 24-pin DIL ceramic | | (N)/(A) | □ | | | | | |
| CCD55-20 | 1152 | 770 | | | 22.5 | 22.5 | 25.9 | 17.3 | 1 VLN + 1 LS | 7 | 3 (RNB) | 44-pin PGA ceramic | | (A) | □ | □ | | | | |
| CCD55-30 | 1152 | 1252 | | | 22.5 | 22.5 | 25.9 | 27.9 | 1 VLN + 1 LS | 7 | 3 (RNB) | 44-pin PGA ceramic | | (A) | □ | □ | | | | |
| CCD62-06 | 578 | 385 | | | 22 | 22 | 12.7 | 8.5 | HSA | 12 | 4 (RNB) | 20-pin DIL ceramic | | (A) | □ | | | | | |
| CCD77-00 | 512 | 512 | | | 24 | 24 | 12.3 | 12.3 | 2 x LS | 7 | 3 (RNB) | 24-pin DIL ceramic | | (N)/(I) | | | | | | |
| CCD230-42 | 2064 | 2048 | | | 15 | 15 | 30.7 | 30.7 | 4 x VLN | 5 | 3 (RNB) | 78-pin PGA ceramic | | (I) | | □ | | | | |
| CCD230-84 | 4112 | 4096 | | | 15 | 15 | 61.4 | 61.4 | 4 x VLN | 5 | 3 (RNB) | 80-pin PGA ceramic | | (I) | | | | | | |
| CCD231-84 | 4112 | 4096 | | | 15 | 15 | 61.4 | 61.4 | 4 x VLN | 3 | 2 (RNB) | SiC buttable + 2 flex cable | 80-pin PGA ceramic | | (N) | | | | | |
| CCD231-C6 | 6160 | 6144 | | | 15 | 15 | 92.4 | 92.2 | 4 x VLN | 3 | 2 (RNB) | SiC buttable + 2 flex cable | | (N) | | | | | | |
| CCD290-99 | 9232 | 9216 | | | 10 | 10 | 92.4 | 92.2 | 16 x VLN | 3 | 2 (RNB) | SiC buttable + 2 flex cable | | (N) | | | | | | |
| Frame transfer scientific sensors | | | | | | | | | | | | | | | | | | | | |
| CCD39-01 | 80 | 80 | 80 | 80 | 24 | 24 | 1.9 | 1.9 | 4 x VLN | 3 | 3 (RNB) | 24-pin DIL ceramic | TE cooled Peltier Package + window | | (N) | | □ | | | |
| CCD39-02 | 80 | 80 | 80 | 80 | 24 | 24 | 1.9 | 1.9 | 1 x VLN | 3 | 3 (RNB) | 24-pin DIL ceramic | TE cooled Peltier Package + window | | (N) | | □ | | | |
| CCD44-82 | 2048 | 2048 | 2052 | 2098 | 15 | 15 | 30.7 | 30.7 | 2 x VLN | 3 | 2 (RNB) | Invar 3-side buttable + PGA | | (N) | | | | | | |
| CCD47-20 | 1024 | 1024 | 1033 | 1056 | 13 | 13 | 13.3 | 13.3 | 2 x VLN | 5 | 2 (RNB) | 32-pin DIL ceramic | TE cooled Peltier Package + window | | (N)/(A) | ■ (N) | □ | □ | | |
| CCD55-20 | 576 | 770 | 576 | 804 | 22.5 | 22.5 | 13 | 17.3 | VLN + LS | 7 | 3 (RNB) | 44-pin PGA ceramic | | (A) | □ | □ | □ | □ | | |
| CCD55-30 | 576 | 1252 | 576 | 1276 | 22.5 | 22.5 | 13 | 27.9 | VLN + LS | 7 | 3 (RNB) | 44-pin PGA ceramic | | (A) | □ | □ | □ | □ | | |
| CCD57-10 | 512 | 512 | 528 | 536 | 13 | 13 | 6.7 | 6.7 | 2 x VLN | 3 | 3 (RNB) | 24-pin DIL ceramic | 32-pin DIL ceramic | | (N)/(A) | ■ (N) | ■ | □ | □ | □ |
| CCD62-06 | 288 | 385 | 290 | 395 | 22 | 22 | 6.3 | 8.5 | HSA | 12 | 4 (RNB) | 20-pin DIL ceramic | | (A) | □ | | | | | |
| CCD67 | 256 | 256 | 264 | 268 | 26 | 26 | 6.7 | 6.7 | 2 x VLN | 5 | 4 (RNB) | 24-pin DIL ceramic | | (N)/(A) | □ | | | | | |
| EMCCD image sensors – L3Vision™ | | | | | | | | | | | | | | | | | | | | |
| CCD60 | 128 | 128 | 130 | 130 | 24 | 24 | 3 | 3 | 1 x VLN | 18 | < 1 (RNA) | 24-pin DIL ceramic | TE cooled Peltier Package + window | | (I) | | | | | |
| CCD65 (525 line) | 244 | 576 | 250 | 591 | 35.5 | 20 | 8.6 | 11.5 | 1 x VLN | 16 | < 1 (RNA) | 36-pin PGA ceramic | TE cooled 32-pin Peltier Package + window | | (I) | | | | | |
| CCD65 (625 line) | 288 | 576 | 296 | 591 | 30 | 20 | 8.6 | 11.5 | 1 x VLN | 16 | < 1 (RNA) | 36-pin PGA ceramic | TE cooled 32-pin Peltier Package + window | | (I) | | | | | |
| CCD97 | 512 | 512 | 528 | 536 | 16 | 16 | 8.2 | 8.2 | 1 VLN + 1 LS | 13 | < 1 (RNA) | 30-pin DIL ceramic | TE cooled 32-pin Peltier Package + window | | (I) | | | | | |
| CCD201 | 1024 | 1024 | 1037 | 1056 | 13 | 13 | 13.3 | 13.3 | 1 VLN + 1 LS | 15 | < 1 (RNA) | 36-pin ceramic package | TE cooled Peltier Package + window | | (I) | | | | | |
| CCD220-00 | 240 | 240 | 240 | 244 | 24 | 24 | 5.8 | 5.8 | 8 x VLN | 14 | < 1 (RNA) | 64-pin Peltier package + window | | (I) | | | | | | |
| CCD351-00 | 1024 | 1024 | 1043 | 1056 | 10 | 10 | 10.2 | 10.2 | 1 x VLN | 37 | < 1 (RNA) | 30-pin DIL ceramic | | (I) | | | | | | |

Key
 ■ Available
 □ Subject to tooling and/or order quantity
 (A) Advanced IMO
 (N) Non-IMO
 (I) Inverted Mode Operation
 VLN Very Low Noise scientific amplifier
 LS Large Signal scientific amplifier
 S+H Sample & Hold integral to output
 HSA High Speed Output Amplifier
 DIL Dual In Line
 PGA Pin Grid Array
 V Vertical
 H Horizontal
 TE Thermo-Electric
 RNA At maximum readout rate, FI device
 RNB At 20kHz readout rate, FI device

Non-exhaustive list, limited to standard version of Teledyne e2v sensors. Other sensors are potentially available under restricted conditions. Note: Whilst Teledyne e2v has taken care to ensure the accuracy of the information contained herein, it accepts no responsibility for the consequences of any use thereof and also reserves the right to change specification of goods without notice. Teledyne e2v accepts no liability beyond that set out in its standard conditions of sale in respect of infringement of third party patents arising from the use of devices in accordance with the information contained herein. Not all combinations of variants are available for a single device. Users are advised to contact Teledyne e2v to confirm if their particular requirements are available with a standard device before designing their system.

Quantum Efficiency (QE) curves – BACK-THINNED

Back-illuminated CCD and EMCCD: Typical quantum efficiency at -20°C



Back-illuminated CCD and EMCCD: Typical quantum efficiency at -100°C

