

❖ TM-6760 CL / TMC-6760 CL

Progressive Scan CCD



- *High-speed 1/2" progressive scan IT CCD imager (KAI-0330)*
- *648(H) x 484(V) @ 60 fps*
- *9.0 μ m square pixels*
- *Compact 44 x 44 x 63 mm housing with high-rel connector*
- *LVDS versions: order TM-6760 and TMC-6760*
- *Digital output and analog output*
- *60/30 frames per second selectable*
- *Full frame integration, two-row binning (648 x 242 pixels) at 120 fps*
- *Partial scan (200 lines, 120 fps)*
- *Full-frame shutter to 1/32,000 sec.*
- *Asynchronous reset, no-delay shutter*
- *Maximum dynamic range control with built-in look-up table*
- *Read-out-inhibit control for multiple-camera applications*
- *RS-232 external control*
- *Monochrome or color*



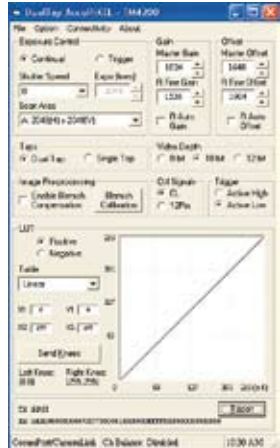
Specifications for TM-676oCL/TMC-676oCL

| Specifications | | TM-676oCL/TMC-676oCL |
|---------------------------|-------------------|--|
| Sensor | | 1/2" progressive scan interline transfer CCD |
| Active area | | 5.83mm x 4.36mm |
| Active pixels | | 648 (H) x 484 (V) |
| Cell size | | 9.0 μm x 9.0 μm |
| Readout mode | | 648 (H) x 484 (V) @ 60/30 Hz (VGA output) 648 (H) x 200 (V) @ 120 Hz (partial scan) 648 (H) x 242 (V) @ 120 Hz (2-row binning) |
| Synchronization | | Internal/External auto switch HD/VD, 4.0 Vp-p impedance 4.7K Ω VD=60/30 Hz ± 2%, non-interlace HD=31.48/15.74 kHz ± 2% |
| Pixel clock | | 25.00/12.5 MHz |
| S/N ratio | | >50 dB |
| Sensitivity | Mono Color | 0.88 lux f=1.4 (no shutter) @ 60 fps, 7.0 lux f=1.4 (no shutter) @ 60 fps, Pixel sensitivity: 11.5 μV/e- |
| Video output | Analog Digital | 1.0 Vp-p, 75 Ω Camera Link (base configuration) |
| Color (RMC/TMC-676o only) | | Raw Bayer output for host-based interpolation |
| Gamma | | Programmable LUT (1.0 std) |
| Lens mount | | C-mount (use 1/2" format lenses) |
| Power | | 12V DC ± 10%, 390 mA (typical at 25° C) |
| Operating temperature | | -10° C to 50° C |
| Vibration | | 7 Grms (10 Hz to 2000 Hz) Random |
| Shock | | 70 G, 11 ms, half-sine |
| Dimensions (H x W x L) | | 44.5 mm x 44.5 mm x 63 mm |
| Weight | | 133 g (without tripod) |

GUI Interface

A user-friendly GUI (graphical user interface) is provided. This interface allows users to control the following functions of the TM-676oCL camera:

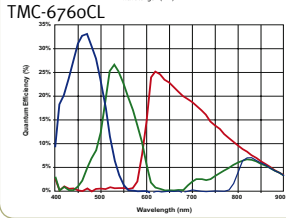
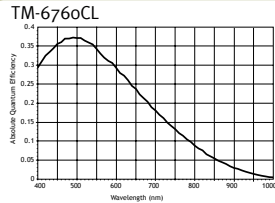
- Shutter control for manual async. and pulse-width control
- Gain control
- Offset control
- Save settings
- Load settings
- Report settings
- LUT setting and graphic display
- Scanning mode selection and option selections
- Channel auto balancing



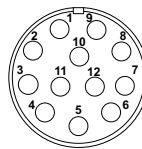
Camera parameters can be uploaded from the PC to the camera. Once these parameters are stored in EEPROMs, an instantaneous change from one setting to another can be done with a delay of few frames in between.

Software available for download at www.jai.com

Spectral Response



Connector Pin-out



12-Pin Connector

| | | | |
|---|-----------|----|-----------|
| 1 | GND | 7 | VD in |
| 2 | +12V DC | 8 | GND |
| 3 | GND | 9 | HD in |
| 4 | Video out | 10 | NC |
| 5 | GND | 11 | INTEG/ROI |
| 6 | NC | 12 | NC |

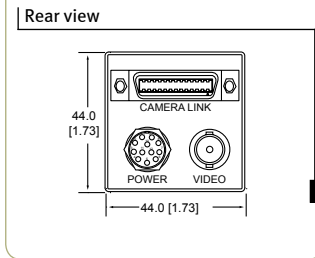
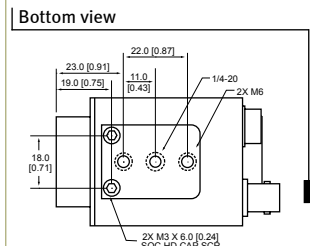
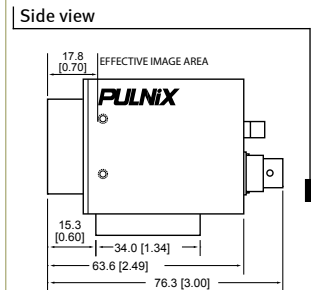
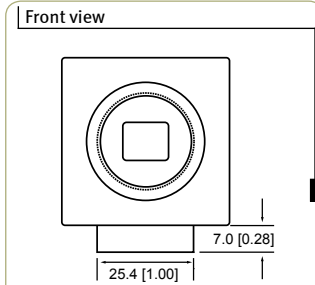
Shutter Speed

| | Manual | Async |
|---|-------------------|--------------------------|
| 0 | no shutter (1/60) | no shutter (1/60) |
| 1 | 1/125 | 1/32,000 |
| 2 | 1/250 | 1/16,000 |
| 3 | 1/500 | 1/8,000 |
| 4 | 1/1,000 | 1/4,000 |
| 5 | 1/2,000 | 1/2,000 |
| 6 | 1/4,000 | 1/1,000 |
| 7 | 1/8,000 | 1/500 |
| 8 | 1/16,000 | 1/250 |
| 9 | 1/32,000 | Ext. pulse width control |

Ordering Information

| Camera | |
|---|--|
| Lead Processing | TM-676oCL (mono), TMC-676oCL (color) |
| RoHS Compliant | RM-676oCL (mono), RMC-676oCL (color) |
| Optional Functions | |
| Internal IR Filter Added | OP3-1 |
| Optical Filter Removal | OP3-2 |
| Glassless CCD Imager | OP21 |
| Ultraviolet Imager | OP21-UV (monochrome only) |
| Strobe Output | OP8o |
| 10-Bit Output | OP93-1 |
| Optional Accessories (must be ordered separately) | |
| I/O | 26CL-02-26 |
| Power Supply | PD-12UUP series (includes power connector) |
| Power Cable | 12P-02S |

Dimensions



Europe, Middle East & Africa
Phone +45 4457 8888
Fax +45 4491 8880

Asia Pacific
Phone +81 45 440 0154
Fax +81 45 440 0166

Americas
Phone (Toll-Free) 1 800 445 5444
Phone +1 408 383 0300

Visit our web site on www.jai.com

See the possibilities

