TM-6740CL/TMC-6740CL
Progressive Scan CCD

- 1/3” progressive scan IT CCD imager (KAI-0340)
- 640(H) x 480(V) @ 200 fps
- 7.4 μm square pixels
- Digital Camera Link dual-tap output (8-bit/10-bit selectable) plus analog output
- Partial scan and binning modes up to 3205 frames per second
- Full-frame shutter to 1/64,000 sec.
- Asynchronous reset, no-delay shutter
- GUI interface or serial commands for camera control
- Built-in pattern generator
- Read-out-inhibit control for multiple camera applications
- Monochrome or color
Specifications for TM-6740CL/TMC-6740CL

<table>
<thead>
<tr>
<th>Specifications</th>
<th>TM-6740CL/TMC-6740CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor</td>
<td>1/3&quot; progressive scan interline transfer CCD</td>
</tr>
<tr>
<td>Active area</td>
<td>4.74 mm x 3.55 mm</td>
</tr>
<tr>
<td>Active pixels</td>
<td>640 (H) x 480 (V)</td>
</tr>
<tr>
<td>Cell size</td>
<td>7.4 μm x 7.4 μm</td>
</tr>
</tbody>
</table>
| Readout modes  | A: 640 (H) x 480 (V) @ 200 Hz (full image)  
              | B: 640 (H) x 160 (V) @ 50 Hz (partial scan)  
              | C: 224 (H) x 480 (V) @ 500 Hz (partial scan)  
              | D: 224 (H) x 160 (V) @ 1250 Hz (partial scan) |
| Synchronization| Internal/External auto switch |
| Pixel clock    | 40.00 MHz |
| S/N ratio      | 350 dB |
| Sensitivity    | Mono: 1.4 lux (1/4, no shutter) @ 200 fps,  
              | Color: 1.1 lux (1/4, no shutter) @ 200 fps, |
| Video output   | Analog: 714 mV, 75 Ω (650 mV white clip)  
              | Digital: software selectable  
              | 8-bit x 2-tap Base Camera Link |
| Color          | (RMC/TMC-6740 only) Raw Bayer output for host-based interpolation |
| Gamma          | Programmable LUT (1.0 std) |
| Lens mount     | C-mount (use <1/3" format lenses) |
| Power          | 12V DC ± 10%, 270 mA (typical at 25°C) |
| Operating temp | -10°C to 50°C |
| Vibration      | 7 g rms (10 Hz to 2000 Hz) Random |
| Shock          | 20 G, 11 ms, half-sine |
| Dimensions     | 51 mm x 51 mm x 74 mm |
| Weight         | 162 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-6740CL 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**

<table>
<thead>
<tr>
<th>Spectral Response</th>
<th>TM-6740CL (monochrome)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TM-6740CL (color)</td>
</tr>
</tbody>
</table>

**Dimensions**

- **Front view**
- **Side view**
- **Bottom view**
- **Rear view**

**Connector Pin-out**

12-Pin Connector

- **Pinout**
  - 1: GND
  - 2: +12 V DC
  - 3: GND (analogue)
  - 4: Video out
  - 5: GND (digital)
  - 6: NC/VIN/IN
  - 7: NC/VD in
  - 8: Stroke out
  - 9: NC
  - 10: NC
  - 11: NC/INTEG
  - 12: NC
  - *Option 25-2 TTL inputs on 12-pin

**Ordering Information**

**Camera**

- Lead Processing: TM-6740CL (mono), TMC-6740CL (color)
- RoHS Compliant: RM-6740CL (mono), RMC-6740CL (color)

**Optional Functions**

- Internal IR Cut Filter Added: OP3-1
- Optical Filter Removal: OP3-2 (color only)
- Glassless CCD Imager: OP21
- Ultraviolet Imager (quartz window): OP21A (monochrome only)
- TTL Inputs on 12-pin: OP25-2

**Optional Accessories (must be ordered separately)**

- 1/0: 26CL-02-26
- Power Cable: 12P-02S
- Power Supply: PD-12UUP (includes power connector)