

➤ TM-6740 GE / TMC-6740 GE Progressive Scan CCD



**adept
electronic solutions**

The Machine Vision and
Imaging Specialists

Perth: +61 (08) 9242 5411
Sydney: +61 (02) 9979 2599
Melbourne: +61 (03) 9555 5621
Email: adept@adept.net.au
Web: <http://www.adept.net.au>

a.e.s



- 1/3" progressive scan IT CCD (Kodak KAI-0340)
- 640(H) x 480(V) @ 200 fps
- 7.4 μ m square pixels
- Compact 51 x 51 x 84 mm housing
- High speed point-to-point connection, up to 1Gbps
- Gigabit Ethernet output (8-bit/10-bit selectable)
- Partial scan & binning modes up to 3205 frames per second
- Maximum dynamic range control through built-in look-up table (8-bit only)
- Full-frame shutter to 1/64,000 sec.
- Asynchronous reset, no-delay shutter
- Built-in pattern generator
- Extensive software developer's kit (SDK)
- Monochrome or color

GigE[™]
VISION

Specifications for TM-6740GE/TMC-6740GE

Specifications	TM-6740GE/TMC-6740GE
Sensor	1/3" progressive scan interline transfer CCD
Active area	4.74mm x 3.55mm
Active pixels	640 (H) x 480 (V)
Cell size	7.4 μm x 7.4 μm
Readout modes	A 640 (H) x 480 (V) @ 200 Hz B 640 (H) x 160 (V) @ 540 Hz (partial scan) C 224 (H) x 480 (V) @ 500 Hz (partial scan) D 224 (H) x 160 (V) @ 1250 Hz (partial scan)
Synchronization	Horizontal and vertical 2x and 4x binning independently selectable
Synchronization	Internal/External auto switch HD/VD, 4.0 Vp-p impedance 4.7K Ω VD= frame rates ± 2%, non-interlace HD=100 kHz ± 2%
Pixel clock	40.00 MHz
S/N ratio	>50 dB
Sensitivity	Mono 1.4 lux f=1.4 (no shutter) @ 200 fps, Color 11.0 lux f=1.4 (no shutter) @ 200 fps, Pixel sensitivity: 30 μV/e-
Video output	Gigabit Ethernet, Analog 714 mV 75 Ω
Color (RMC/TMC-6740 only)	Raw Bayer output for host-based interpolation
Gamma	Programmable LUT (Gamma 1.0 std)
Lens mount	C-mount (use 1/3" format lenses)
Power	12V DC ± 10%, 440 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)	51 mm x 51 mm x 84 mm
Weight	194 g (without tripod)

GUI Interface

A user-friendly graphical user interface (GUI), provided as part of the camera's extensive software development kit (SDK), allows users to control various camera functions, including:

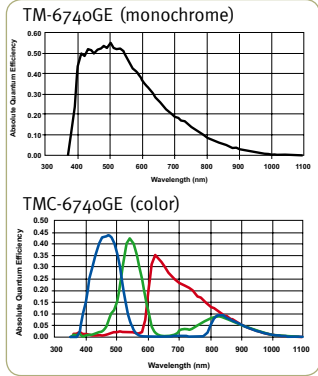
- Shutter control for manual async. and pulse width control
- Gain control
- A/D reference voltage control
- Save settings
- Load settings
- Report settings
- LUT setting and graphic display
- Scanning mode selection and Option selections



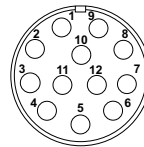
The SDK also provides functions for controlling the grabbing of images, and configuring local I/Os, by means of an integrated API and a set of powerful C++ classes. Changes in the camera's acquisition modes automatically update the API for easy image acquisition. CPU usage is only a few percent, thanks to the TCP/IP offload engine.

Software available for download at www.jai.com

Spectral Response



Connector Pin-out



12-Pin Connector

1 GND (power)	7 VD in
2 +12V	8 Strobe out
3 GND (analog)	9 HD in
4 Video out	10 Reserved
5 GND (digital)	11 INTEG/ROI
6 VINIT in	12 Reserved

Shutter Speed

	Manual	Async
0	1/frame rate	no shutter
1	1/250	1/64,000
2	1/500	1/32,000
3	1/1,000	1/16,000
4	1/2,000	1/8,000
5	1/4,000	1/4,000
6	1/8,000	1/2,000
7	1/16,000	1/1,000
8	1/32,000	1/500
9	1/64,000	Ext. pulse width control

Ordering Information

Camera	
Lead Processing	TM-6740GE (mono), TMC-6740GE (color)
RoHS Compliant	RM-6740GE (mono), RMC-6740GE (color)
Optional Functions	
Internal IR Cut Filter Added	OP3-1
Optical Filter Removal	OP3-2 (color only)
Ultraviolet Imager (quartz window)	OP21-QUV (monochrome only)
Optional Accessories (must be ordered separately)	
Power Cable	12P-02S
Power Supply	PD-12UUP series (includes power connector)

Dimensions

