TM-6740GE/TMC-6740GE

Progressive Scan CCD

- *1/3" progressive scan IT CCD (Kodak KAI-0340)*
- *640(H) x 480(V) @ 200 fps*
- *7.4 µm 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)*
- *Monorchrome or color*

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 B C D	640 (H) x 480 (V) @ 200 Hz 640 (H) x 160 (V) @ 540 Hz (partial scan) 224 (H) x 480 (V) @ 500 Hz (partial scan) 224 (H) x 160 (V) @ 1250 Hz (partial scan) 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 Color	1.4 lux f=1.4 (no shutter) @ 200 fps, 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:

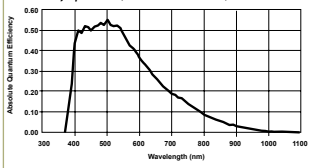
- Shutter control for manual async. and pulse width control
- Gain control
- A/D reference voltage control
- Save settings
- Load settings
- Report settings
- LUT setting and graphic display
- Scanning mode selection and Option selections

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.

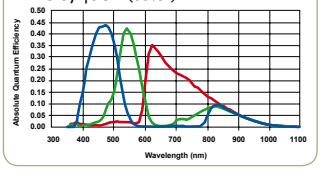
Software available for download at www.jai.com

Spectral Response

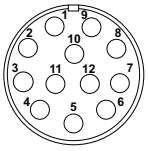
TM-6740GE (monochrome)



TMC-6740GE (color)



Connector Pin-out



12-Pin Connector

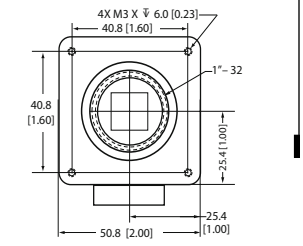
1	GND (power)	7	VD in
2	+12V	8	Strobe out
3	GND (analog)	9	HD in
4	Video out	10	Reserved
5	GND (digital)	11	INTEG/ROI
6	VINIT in	12	Reserved

Shutter Speed

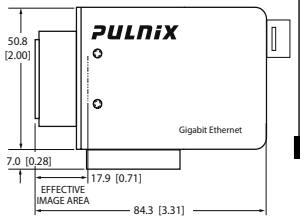
	Manual	Async
0	1/frame rate	no shutter
1	1/250	1/64,000
2	1/500	1/32,000
3	1/1,000	1/16,000
4	1/2,000	1/8,000
5	1/4,000	1/4,000
6	1/8,000	1/2,000
7	1/16,000	1/1,000
8	1/32,000	1/500
9	1/64,000	Ext. pulse width control

Dimensions

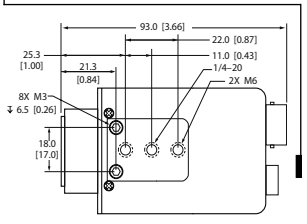
Front view



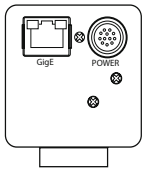
Side view



Bottom view



Rear view



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)

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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

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