

PULNiX TMC-6740GE

Gigabit Ethernet Series



The TMC-6740GE is a miniature, VGA-format color progressive scan interline transfer (IT) CCD camera with Gigabit Ethernet output. The imager resolution is 640 x 480 pixels at a frame rate of 200 fps. Applications for the TMC-6740GE include machine vision, medical imaging, intelligent transportation systems, high-definition graphics, gauging, character recognition, robotics, and surveillance.

- 1/3" progressive scan IT CCD imager (KAI-0340)
- 640(H) x 480(V) @ 200 fps
- 7.4 μm square pixels
- Miniature 51 x 51 x 84 mm housing
- Monochrome version available as TM-6740GE
- High speed point-to-point connection, up to 1Gbps
- Gigabit Ethernet output (8-bit/10-bit selectable), 100 m with CAT 5E or CAT 6 cable
- 200 frames per second in full frame. Partial scan & binning modes up to 3205 frames per second
- Maximum dynamic range control with PULNiX-exclusive, patent-pending 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)

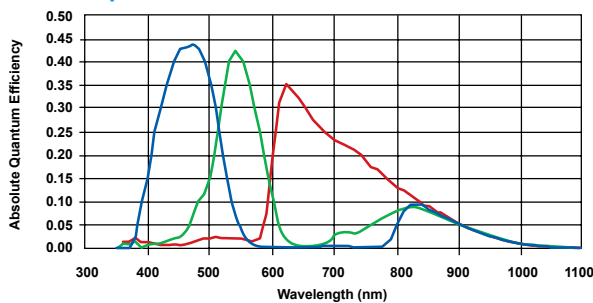
TMC-6740GE Specifications

Imager	1/3" progressive scan interline transfer CCD
Active Area	4.74mm x 3.55mm
Active Pixels	640 (H) x 480 (V)
Cell Size	7.4µm x 7.4µm
Display Mode:	A 640 (H) x 480 (V) @ 200 Hz
(Active Pixels)	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)
	Horizontal and vertical 2x and 4x binning independently selectable
Sync	Internal/external auto switch HD/VD, 4.0 Vp-p impedance 4.7k Ω VD=frame rates ± 2%, non-interlace HD=100 kHz ± 2%
Data Clock Output	40.00 MHz
Resolution	Digital: 640 (H) x 480(V)
S/N Ratio*	50 dB min.
Min. Illumination	9.0 lux f=1.4 (no shutter) @ 200 fps Sensitivity: 30µ V/e-
Video Output	Gigabit Ethernet, Analog 714 mV 75Ω
Gamma	Programmable LUT (Gamma 1.0 std)
Lens mount	C-mount (use ≥ 1/3" format lenses)
Power Requirement	12V DC ± 10%, 440 mA (typical at 23°C)
Operating Temp.	-10° C to 50° C
Vibration	7 Grms (10 Hz to 2000 Hz) Random
Shock	70G, 11 ms, half-sine
Size (W x H x L)	51mm x 51mm x 85mm
Weight	194 grams, 6.8 oz (without tripod mount)

MUST BE ORDERED SEPARATELY	
Optional Functions	Optical Filter Removal (OP3-2)
Optional Accessories P/N	
Power cable	12P-025
Power supply	PD-12UUP series (includes power connector)

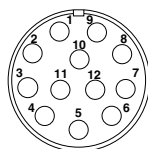
* Image quality will degrade with increasing temperature.

Spectral Response



12-Pin Connector

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

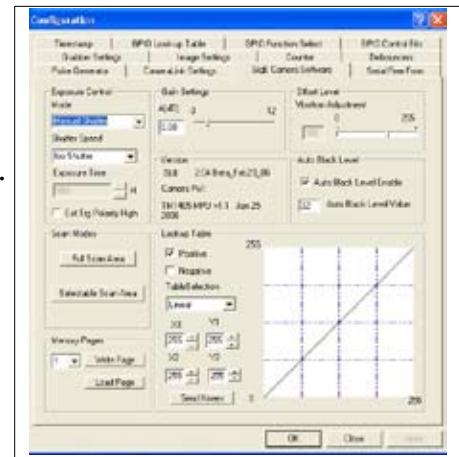


Graphical User Interface

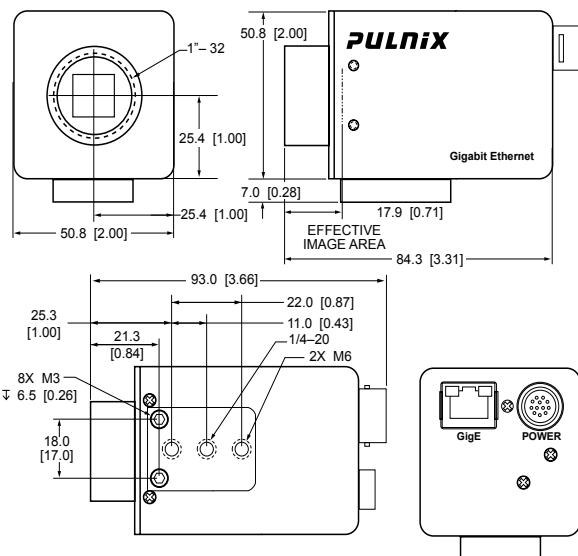
A user-friendly GUI (graphical user interface) is provided. This interface allows users to control the following functions of the TMC-6740GE camera:

- Shutter control for manual, async. and pulse-width control
- Gain control
- Offset Control
- Save settings
- Load settings
- Report settings
- LUT setting
- Scanning mode selection
- 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



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