



The TM-6740GE is a miniature, VGA format monochrome progressive scan CCD camera with gigabit ethernet output. The imager resolution is 640 x 480 pixels at a frame rate of 200 frames per second. Applications for the TM-6740GE include machine vision, medical imaging, intelligent transportation systems, high-definition graphics, gauging, character recognition, robotics, and surveillance.

- Very high-speed 1/3" progressive scan 640(H) x 480(V) interline transfer, 7.4 μ m square pixel CCD imager
- Miniature 50.8 x 50.8 x 81.5 mm housing
- High speed point-to-point connection, up to 1Gbps
- Gigabit Ethernet output (8-bit/10-bit), 100 m with CAT 5E or CAT 6 cable
- 200 frames per second in full frame. partial scan mode up to 2315 frames per second
- No additional hubs or switches required
- 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
- Read-out-inhibit control for multiple camera applications
- Built-in pattern generator
- Color version (RGB Bayer CFA) available as TMC-6740GE‡
- Extensive software developer's kit (SDK)

PRELIMINARY

‡ For more information see the Color AccuPIXEL data sheet

TM-6740GE Specifications

| | |
|-------------------|--|
| Imager | 1/3" progressive scan interline transfer CCD |
| Active Area | 5.87mm x 4.71mm |
| Active Pixels | 640 (H) x 480 (V) |
| Cell Size | 7.4µm x 7.4µm |
| Display Mode: | A 640 (H) x 480 (V) @ 200 Hz (full image) |
| (Active Pixels) | B 640 (H) x 160 (V) @ 540 Hz (partial scan) |
| | C 228 (H) x 480 (V) @ 500 Hz (partial scan) |
| | D 228 (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 4.7 KΩ VD=frame rates ± 2%, non-interlace HD=100 kHz/250 kHz ± 2% |
| Data clock output | 40.00 MHz |
| Resolution | Digital: 640 (H) x 480(V) |
| S/N ratio | 50 dB min. |

| | |
|-------------------|--|
| Min. illumination | 1.0 lux, f=1.4 (no shutter) @ 200 fps Sensitivity: 32µ V/e- |
| Video output | GigE Vision standard |
| Gamma | Programmable LUT (1.0 std) |
| Lens mount | C-mount (use > 1/3" format lenses) |
| Power req | 12V DC ± 10%, 500 mA max at 12V DC, 23°C |
| Operating temp | -10° C to 50° C |
| Vibration | 7 Grms (10 Hz to 2000 Hz) Random |
| Shock | 70G |
| Size (W x H x L) | 50.8mm x 50.8mm x 81.5mm |
| Weight | 162 grams, 5.7 oz (without tripod mount) |

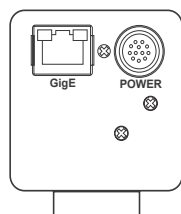
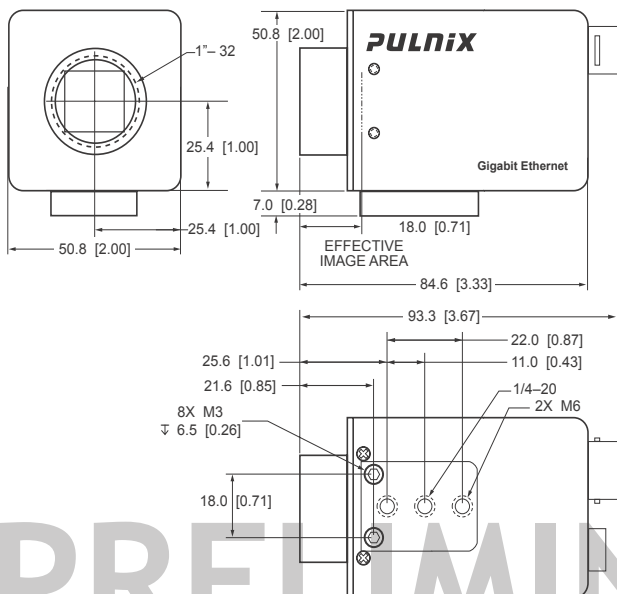
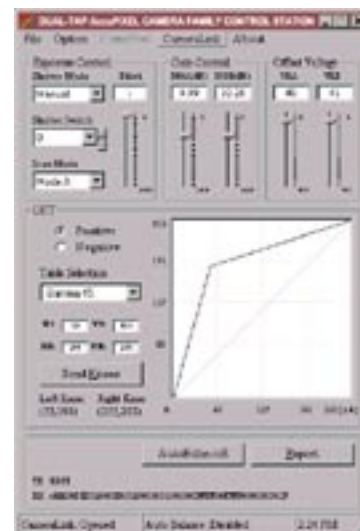
| MUST BE ORDERED SEPARATELY | |
|----------------------------|--|
| Opt. Functions | |
| Opt Accessories | |
| Power cable | 12P-025 |
| Power supply | PD-12UUP series (includes power connector) |

Graphical User Interface

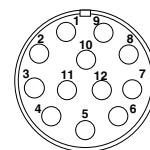
A user-friendly GUI (graphical user interface) is provided. This interface allows users to control the following functions of the TM-6740CL/GE camera:

- 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.



| 12-Pin Connector | |
|------------------|----------------|
| 1 GND (power) | 7 VD in |
| 2 +12V | 8 GND |
| 3 GND (analog) | 9 HD in |
| 4 Video out | 10 RXD(RS-232) |
| 5 GND (digital) | 11 INTEG/ROI |
| 6 VINIT in | 12 TXD(RS-232) |



PRELIMINARY

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