

❖ AD-o8o GE

2 CCD Multi-spectral camera

C3 Camera Suite
 Unlimited
 Digital
 Switchability



- *Multi-spectral 2-channel CCD camera*
- *Advanced series 2 x 1/3" progressive scan camera*
- *Simultaneously captures Visible and Near-IR through the same optical path*
- *1024 (h) x 768 (v) active pixels per channel*
- *4.65 μm square pixels*
- *30 frames/second with full resolution*
- *Increased frame rate with partial scan*
- *Programmable exposure from 20 μs to 33ms*
- *Pre-select and Pulse width trigger modes*
- *LVAL Synchronous/-asynchronous operation (auto-detect)*
- *LUT (Look-up Table)*
- *AGC (Automatic Gain Control)*
- *Auto-iris lens video output allows a wider range of light*
- *RGB 24-bit/30-bit or Raw Bayer 10 or 8-bit output for visible*
- *12, 10 or 8-bit output for Near-IR*
- *Sequence trigger mode and Frame delay trigger mode*
- *SDK for Windows XP/Vista*

GiGETM
 VISION



Specifications for AD-o8o GE

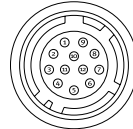
Specifications		AD-o8o GE
Sensor	Visible Near-IR	1/3" color Bayer mosaic IT CCD 1/3" Monochrome interline transfer CCD
Pixel Clock		33.75 MHz
Frame rate full frame		30 frames/sec.
Active area		4.76 (h) x 3.57 (v) mm
Cell size		4.65 (h) x 4.65 (v) μm
Active pixels		1024 (h) x 768 (v)
Color visible		Raw Bayer output, or RGB 24-bit, 30-bit
Read-out modes	Full 1/2 partial scan	1024 (h) x 768 (v) 30 fps Scan height 8~768L Start line 1~760L (Bayer color 2 lines step)
Sensitivity	Visible	0.5 Lux (On sensor, max. gain, shutter off, 50% video)
Sensitivity	Near-IR	1.0 μW/cm ² at 800nm (On sensor, max. gain, shutter off, 50% video)
S/N ratio		>54dB (Gain 0 dB, shutter off)
Video output	Visible Near-IR	30/24-bits RGB or raw Bayer output 8, 10, or 12-bit
Auto-iris lens video		0.7 Vp-p
Gain		-3dB to +21dB
Synchronization		Int. X-tal
Inputs		Hirose 12-pin: OPT x 2 Hirose 6-pin: TTL x 2, LVDS x 1
Outputs		Hirose 12-pin: OPT x 2 Hirose 6-pin: TTL x 1
Trigger modes		Edge Pre-select, Pulse Width control, RCT, Frame delay, Sequence
Electronic shutter	Auto shutter Programmable exposure Exposure Time (Abs) Pulse Width Control	1/30 to 1/10000 sec 20 μs to 792L (33.3ms) in 1L step μsec - user definable. Same range as PE Max. 2 sec (fine setting with GPIO and pulse width control)
White balance		Only RGB 24-bit and 30-bit output Gain range: -3dB to +6dB Manual: 3000K to 6500K One-push: 3000K to 6500K Continuous: 3000K to 6500K
Knee function		For 24-bit/30-bit output (visible) Near-IR 8, 10 or 12-bit Knee point, Knee slope
LUT/Gamma		1.0/0.6/0.45/LUT
Control interface		Register based, GigE Vision
Functions controlled via GigE Vision interface		Gain, shutter, trigger modes, read-out modes, bit depth, black level, GPIO, ROI
Indicators on rear panel		LED for power/trigger input GigE link, GigE activity
Operating Temperature		-5°C to +45°C
Humidity (operation)		20 - 80% non-condensing
Storage temp./humidity		-25°C to +60°C / 20 to 80%
Vibration		3 G (20Hz to 200 Hz XYZ)
Shock		50G
Regulations		CE (EN 61000-6-2, EN-61000-6-3), FCC part 15 class B, RoHS/WEEE
Power		12-24V DC ± 10%. 7 W
Lens mount		C-mount (use 3CCD type with no IR filter, Max 4.0 mm thread)
Dimensions (H x W x L)		55(H) x 55(W) x 98.3(D) mm
Weight		320 g

Ordering Information

AD-o8oGE Digital 2CCD Progressive Scan Multi-Spectral Camera

Connector pin-out

DC In / GPIO

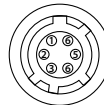


HIROSE HR10A-10R-12PB-01

- Pin 1 Ground
2 +12V DC input
3 OPT In 2 (-)/GND (*)
4 OPT In 2 (+)
5 Auto Iris video out (+)
6 OPT In 1 (-)
7 OPT In 1 (+)
8 OPT Out 1 (-)
9 OPT Out 1 (+)
10 OPT Out 2 (-)
11 OPT Out 2 (+)
12 +12V DC input
Ground

* Select by SW700

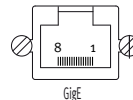
GPIO



HIROSE 6-pin

- Pin 1 LVDS In 1 (-)
2 LVDS In 1 (+)
3 TTL In 1
4 TTL Out 1
5 TTL In 2
6 GND

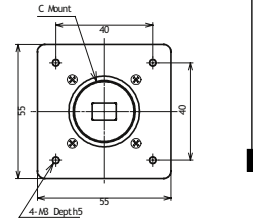
GigE Vision Interface RJ-45 with locking screws



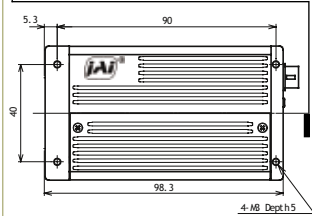
- | Pin | Pin |
|-----------|-----------|
| 1 TRD+(0) | 5 TRD-(2) |
| 2 TRD-(0) | 6 TRD-(1) |
| 3 TRD+(1) | 7 TRD+(3) |
| 4 TRD+(2) | 8 TRD-(3) |

Dimensions

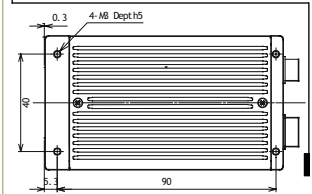
Front view



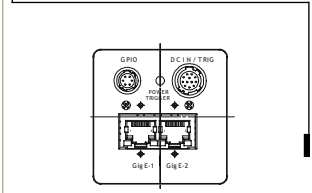
Side view



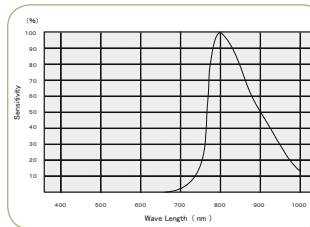
Bottom view



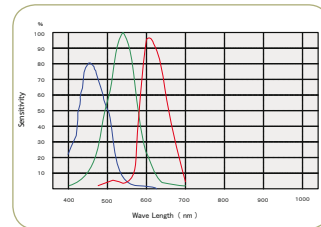
Rear view



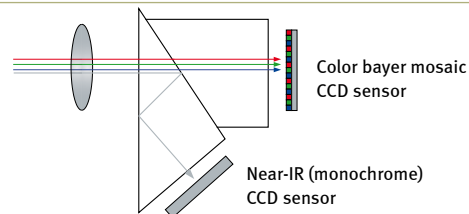
Near-IR Response AD-o8o GE



Visible Response AD-o8o GE



2CCD Prism



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