▪ 1024 x 768 ▪ 30 FPS ▪ GE

AD-080 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 20µs 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*

GigE VISION™

www.jai.com

See the possibilities

Specifications for AD-080 GE

Specifications	AD-080 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/cm2 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)
Dimensions (H x W x L)	55(H) x 55(W) x 98.3(D) mm
Weight	320 g

Ordering Information

AD-080GE 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 (+)/ Auto Iris video out (+)
	5	OPT In 1 (–)
	6	OPT In 1 (+)
	7	OPT Out 1 (–)
	8	OPT Out 1 (+)
	9	OPT Out 2 (–)
	10	OPT Out 1 (+)
	11	+12V DC input
	12	Ground

* Select by SW700

GPIO

HIROSE 6-pin

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

GigE Vision Interface RJ-45 with locking screws

GigE

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-080 GE

Visible Response AD-080 GE

2CCD Prism

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