

❖ AM-800 GE/AB-800 GE

8-megapixel Progressive Scan



- 8-megapixel 4/3-type progressive scan CCD
- 3296 (h) x 2472 (v) pixel resolution
- 5.5 μ m x 5.5 μ m square pixels
- 10 fps at full resolution (3 fps or 6.7 fps for interpolated output)
- 10 μ s (1/100,000) to 2 seconds exposure control in 1 μ s steps
- Manual or auto gain control from -3 dB to +24 dB (0 to +24 dB for color)
- User programmable partial scanning
- Vertical and horizontal binning (monochrome only)
- 512-point look-up table (LUT) for gamma control
- White blemish and flat-field compensation
- Auto level control (ALC) combines auto shutter, auto gain, and auto iris functions
- GigE Vision interface with 8, 10, or 12-bit monochrome/Bayer output or 8-bit RGB/YUV output
- Supports F-mount or C-mount lenses (F-mount pictured)

GigE[™]
VISION



Specifications for AM-800 GE/AB-800 GE

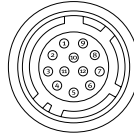
Specifications		AM-800GE/AB-800GE
Sensor		4/3" progressive scan CCD (KAI-o8050)
Pixel Clock		48 MHz
Frame rate, full frame		10 frames/sec.
Active area		18.13 mm (h) x 13.60 mm (v), 22.66 mm diagonal
Cell size		5.5 μm (h) x 5.5 μm (v)
Active pixels		3296 (h) x 2472 (v)
Horizontal output frequency		25,799 KHz (1H = 38.8 μs)
Read-out modes		Full monochrome/Bayer
In-camera YUV interpolation		3296 (h) x 2472 (v) 10.2 fps (8-bit)
In-camera RGB interpolation		3296 (h) x 2472 (v) 6.7 fps (AB-800GE)
Variable partial scan		3296 (h) x 2472 (v) 3.0 fps (AB-800GE)
Variable partial scan (RGB)		Any start line, any height, in 1L steps
Binning (HxV)		Any start line, any height, in 2L steps
		1 x 2, 2 x 1, 2 x 2 (monochrome only)
Sensitivity (AM-800GE)		0.02 Lux (On sensor, max. gain, 50% video)
Sensitivity (AB-800GE)		0.03 Lux (On sensor, max. gain, 50% green)
S/N ratio	AM-800GE AB-800GE	>57 dB. (0 dB gain) >55 dB. (0 dB gain)
Video signal output		GigE Vision 8-/10-/12-bit (monochrome, Bayer) GigE Vision 8-bit (RGB or YUV)
Auto-iris lens video		0.7Vp-p, with 0.3V horiz. sync
Gain	Monochrome Color	Manual/automatic -3 dB to +24 dB Manual/automatic 0 dB to +24 dB
GPIO Module		Includes counter, timer, event and action controls
White balance (AB-800GE)		Manual, one-push auto, or continuous (3200K to 9000K)
Gamma		Adjustable 0.45 to 1.0, or 512-point LUT
Synchronization		Internal
Acquisition modes		Continuous, single frame, multi-frame (1-255)
Trigger modes		Timed, Smearless, Trigger Width, PIV, Pre-Dump (RCT)
Electronic shutter		
Timed exposure		10 μs to 2 sec in 1 μs steps
Trigger width		80 μs minimum
Auto shutter		1/10 to 1/100,000 sec.
Auto level control (ALC)		Integrated auto shutter, auto gain, and auto-iris with tracking speeds, metering window, and min- max values adjustable
Pre-processing functions		Flat field compensation, pixel blemish compensa- tion, 3 x 3 color interpolation (AB-800GE only)
Control interface		Register based GigE Vision/GenICam compliant
GigE Vision streaming protocol		Packet size, delayed (frame) readout, inter-packet delay. Default package size: 1476 bytes. Max: 16020 bytes
Operating temperature		-5° C to +50° C
Humidity (operation)		20 - 80% non-condensing
Storage temp./humidity		-25° C to 60° C / 20% - 80 % non-condensing
Vibration		10G (20 Hz to 200 Hz XYZ)
Shock		70 G
Regulations		CE (EN 61000-6-2, EN 61000-6-3), FCC part 15 class B, RoHS/WEEE
Power		12V to 24V DC ± 10%. 8.16W typical (full frame @ 12V)
Lens mount		F-mount or C-mount
Dimensions (H x W x L)		
F-mount		55 mm x 55 mm x 98 mm
C-mount		55 mm x 55 mm x 69 mm
Weight		
F-mount		340 g
C-mount		320 g

Ordering Information

AM-800GE-F	Monochrome progressive scan camera with F-mount
AM-800GE-C	Monochrome progressive scan camera with C-mount
AB-800GE-F	Color progressive scan camera with F-mount
AB-800GE-C	Color progressive scan camera with C-mount

Connector pin-out

DC In / Trigger



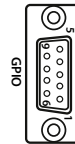
HIROSE HR10A-10R-12PB-01

Connector Pin-out

Pin 1	GND
Pin 2	+12V to +24V DC input
Pin 3	Opto in 2(-)* / GND
Pin 4	Opto in 2(+)* / Auto iris lens
Pin 5	Opto in 1(-)
Pin 6	Opto in 1(+)
Pin 7	Opto out 1(-)
Pin 8	Opto out 1(+)
Pin 9	Opto out 2(-)
Pin 10	Opto out 2(+)
Pin 11	+12V to +24V DC input
Pin 12	GND

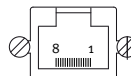
* Pins 3 and 4 can be configured by internal switch selection

GPIO Pinout



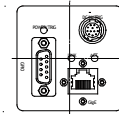
Pin	I/O	Pin	I/O
1	I	6	NC
2	I	7	NC
3	I	8	TTL Out 2
4	O	9	GND
5			

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)

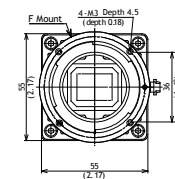
Rear view (both models)



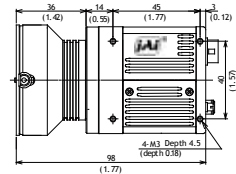
Dimensions

F-Mount

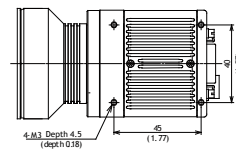
Front view



Side view

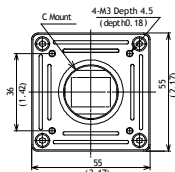


Bottom view

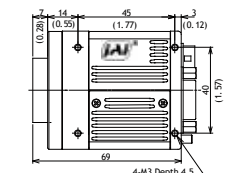


C-Mount

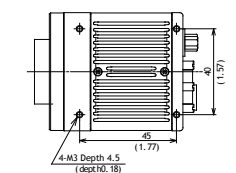
Front view



Side view

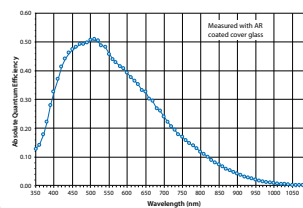


Bottom view

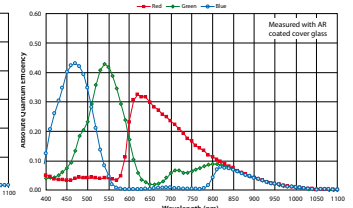


Spectral Response

AM-800GE



AB-800GE



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