



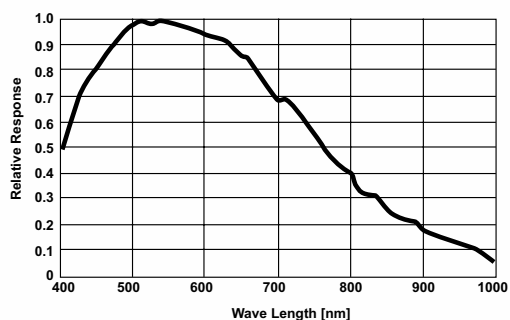
BM-141 GE, OP22-5-1 **BB-141 GE, OP22-5-1**



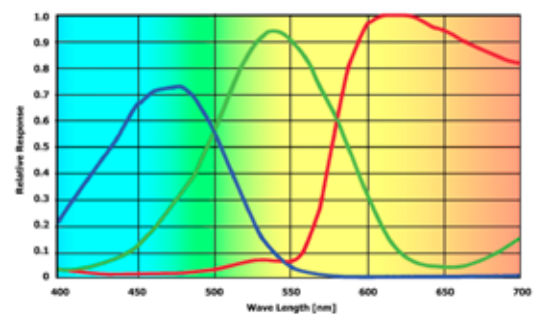
- 1.4-megapixel CCD camera certified for extended temperature operation (-40°C to +65°C)
- 2/3" progressive scan CCD
- 6.45 μm square pixels with high sensitivity and NIR response
- 1392 (h) x 1040 (v) @ 30 fps
- Monochrome or Bayer color models
- Increased frame rate with partial scanning modes
- 2X vertical binning available on monochrome model
- Draft mode (1/4 decimated) color readout at 101.17 fps
- GigE Vision interface with 12-, 10-, or 8-bit output
- Pre-set, programmable or auto-shutter control
- Manual or automatic gain control (-6 to +24 dB)
- Built-in Bayer white balance and blemish compensation
- Programmable look-up table for dynamic range control
- Full auto exposure mode links auto-gain, auto-shutter, and auto-iris
- Comprehensive SDK and control tool software provided

* Standard temperature range is -5°C to +45°C

BM-141 GE Spectral Response



BB-141 GE Spectral Response



Specifications

Sensor	2/3" progressive scan interline transfer CCD (ICX285 series)
Active area	8.98mm x 6.7mm
Active pixels	1392 (H) x 1040 (V)
Cell size	6.45 μ m x 6.45 μ m
Frame rate - full frame	30 fps
Readout modes	Full 1392 (H) x 1040 (V) 30.12 fps 2/3 partial scan 1392 (H) x 694 (V) 41.05 fps 1/2 partial scan 1392 (H) x 520 (V) 50.06 fps 1/4 partial scan 1392 (H) x 260 (V) 74.57 fps 1/8 partial scan 1392 (H) x 130 (V) 98.73 fps Draft mode 1392 (H) x 260 (V) 101.17 fps† Variable partial scan Start line from 1 to 1025, height from 8 to 1032 Vertical binning 1392 (H) x 520 (V) 50.18 fps* Region of interest (ROI) User definable memory readout †Note: BB-141GE only *Note: BM-141GE only
Synchronization	Internal/external hardware trigger via GPIO Software trigger via GigE Vision
Pixel clock	58.00 MHz
S/N ratio	>58 dB. (0 dB gain, standard temp)
Sensitivity	Mono 0.03 lux (on sensor, max gain, shutter off, 50% video) Color 0.2 lux (on sensor, max gain, shutter off, 50% video)
Video output	GigE Vision selectable (8-bit/10-bit/12-bit)
Auto-iris lens video output	0.7 Vp-p, 75 Ω
Color (BB-141GE only)	Raw Bayer output for host-based interpolation
GPIO Module	Input/output switch Configurable 16-in / 12-out switch Clock generator (1) 12-bit counter based on pixel clock Pulse generators (2) 19-bit counter programmable for length, start point, stop point, reset
Electronic shutter	Pre-set shutter 1/30 (off) to 1/10,000 sec in 10 steps Programmable exposure 2L (63 μ s) to 1052L (33.19 ms) in 1L steps Pulse-width 63 μ s to 2 sec.
Pre-processing functions	Programmable LUT, Bayer white balance, blemish compensation
Lens mount	C-mount
Power	12V DC $\pm$ 10%. 425 mA / 5.1W (typical at 25°C)
Operating temperature	-40°C to +65°C (Some reduced performance may occur when operating outside the -5°C to +45°C range)
Storage temperature	-50°C to +70°C
Vibration	10G rms (20Hz to 200Hz XYZ)
Shock	70G, 11 ms half sine
Dimensions (HxWxL)	55 mm x 55 mm x 55 mm
Weight	230 g (without tripod mount)

Ordering Information

Camera	
RoHS Compliant	BM-141 GE, OP22-5-1 (mono)
RoHS Compliant	BB-141 GE, OP22-5-1 (color)
Optional Accessories (must be ordered separately)	
Power Supply	PD-12UUP (includes power connector)
Tripod Mounting Plate	MP-41

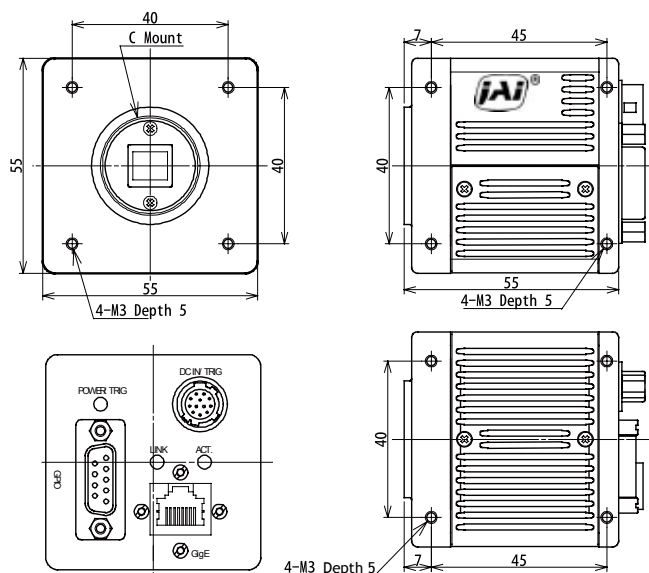
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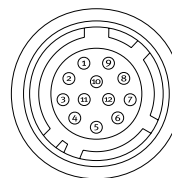
JAI Inc.
625 River Oaks Pkwy
San Jose
CA 95134
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(toll-free) 1 800 445 5444
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Dimensions



Connector Pin-out

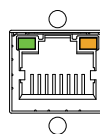


HIROSE HR10A-10R-12PB-01

- | | |
|---------------------------------|------------------|
| 1 GND | 7 Opt OUT 1(-) |
| 2 +12V DC input | 8 Opt OUT 1(+) |
| 3 Opt IN 2(-) / GND* | 9 Opt OUT 2(-) |
| 4 Opt IN 2(+) / Iris Video out* | 10 Opt OUT 2(+) |
| 5 Opt IN 1(-) | 11 +12V DC input |
| 6 Opt IN 1(+) | 12 GND |

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

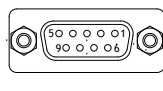
GigE Vision interface



Accepts RJ-45 with thumbscrews

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

D-sub 9-pin



No	I/O	Name	No	I/O	Name
1	I	LVDS In1-	6		NC
2	I	LVDS In1+	7		NC
3†	I	TTL IN 1	8	O	TTL Out 2
4	O	TTL Out 1	9		GND
5		GND			

† Can be changed to 75ohm Terminator by internal DIP switch

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See the possibilities

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