WAL-1001-GE

High performance SWIR line scan camera

GiGE VISION

Preliminary Version

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- *High-performance SWIR line scan camera with GigE Vision interface*
- *1024 x 1 pixel output up to 29kHz*
- *12.8mm wide sensor with 12.5 µm square pixels*
- *Supports horizontal image flip*
- *Video output: Mono8/10/12/14-bit*
- *Gain control includes digital gain and analog gain*
- *Supports FFC (Flat Field Correction), DPC (Defective Pixel Correction), Sharpness, Destripe, black level control and LUT*
- *Lens mount: C-Mount*

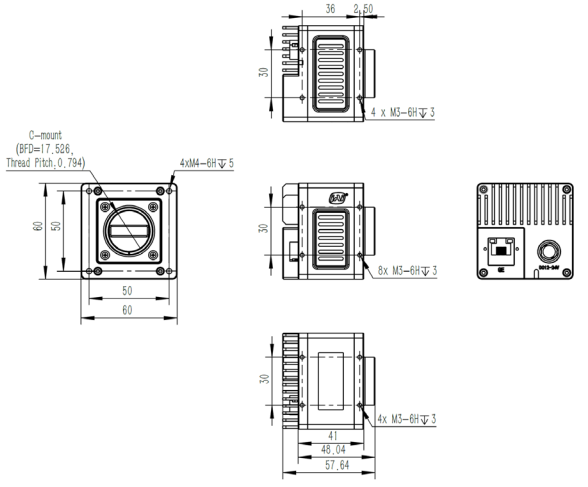
Specifications for WAL-1001-GE

Specifications	WAL-1001-GE
Sensor	InGaAs global shutter
Spectral range	900nm to 1700nm
Effective Pixels	1024 x 1
Line rate	up to 29kHz
Sensor width	12.8mm
Pixel size	12.5 µm x 12.5 µm
Quantum Efficiency	83.25% @1435nm (typical peak value)
Dynamic Range	65dB (TBD)
Signal-to-Noise Ratio	54dB (TBD)
Interface	GigE Vision
Video output	Mono8, Mono10, Mono12, Mono14
Gain	Digital Gain (1 to 32) Analog Gain (Level_High / Level_Low)
Trigger source	Software, Opto, Multiplexed I/O, RS422 Differential trigger
Frame Trigger Divider	1 to 8
Exposure Mode	Timed
Exposure Time	2 µs ~ 9992 µs
ISP	FFC (Flat Field Correction), DPC (Defective Pixel Correction), Sharpness, Destripe, black level control and LUT
LUT	3 preset options
Lens mount	C-Mount (BFD: 17.526mm)
Operating temp. (ambient)	-20°C to +55°C (20 to 80% non-condensing)
Storage temp. (ambient)	-40°C to +60°C (20 to 80% non-condensing)
Vibration	10G (20 Hz to 200 Hz, XYZ directions)
Shock	80G
Regulations	CE (EN 55032:2015+A1+A11, EN 55035:2017+A11, EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019), FCC Part 15 Subpart A, RoHS, KC (TBD)
Power supply	12-pin: 12 to 24V DC +/-15% PoE: not supported
Power consumption	4.3W Typ @ 12V DC (TBD)
Dimensions (H x W x D)	60.0 mm x 60.0 mm x 57.6 mm
Weight	309g (TBD)

Ordering Information

WAL-1001-GE	1K High performance SWIR line scan camera

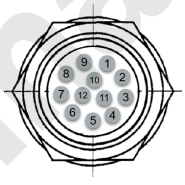
Dimensions



Dimensional Tolerance: ± 0.2mm
Unit: mm

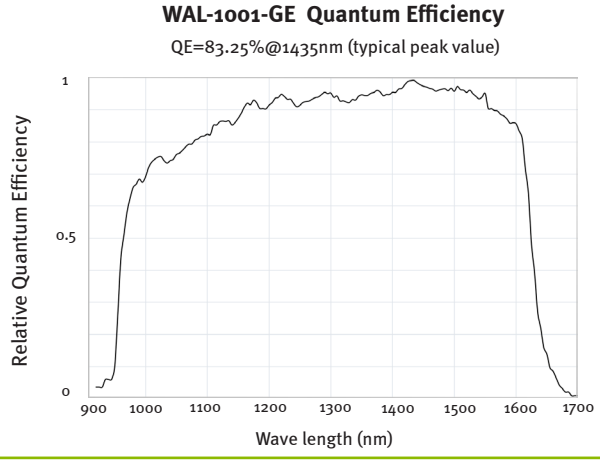
Connector pin-out

12-pin Connector (Power)
HR10A-10R-12PB (71)



Pin		
	1	GND
	2	DC_PWR
	3	RS422_0_RX_A
	4	RS422_0_RX_B
	5	RS422_1_RX_A
	6	RS422_1_RX_B
	7	OPT_IN
	8	OPT_IN_GND
	9	OPT_OUT
	10	OPT_OUT_GND
	11	GPIO1_A
	12	GPIO1_B

Spectral Response



Preliminary

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