

❖ **SW-2005TL-5GE**  
❖ **SW-2005M-5GE**  
Compact CMOS line scan camera

■ 3 x 2048 pixels  
■ 1 x 2048 pixels

■ 44 kHz  
■ 172 kHz

Sweep Series 

**GigE**<sup>®</sup>  
VISION



- **Compact and light weight line scan camera**
- **High performance 5GBASE-T interface (5 gigabits per second)**
- **SW-2005TL-5GE: 3 x 2048 pixel output up to 44 kHz**
- **SW-2005M-5GE: 1 x 2048 pixel output up to 172 kHz**
- **14.336mm wide sensor with 7  $\mu$ m x 7  $\mu$ m pixels**
- **Supports direct encoder connection to camera, with the ImageOutputDelay function**
- **Large variety of trigger options**
- **PRNU, DSNU, Master and Individual Gain mode\*, Common and Individual Exposure Mode\*, White Balance\*, Shading**
- **LUT, Color Space Conversion\*, Spatial Compensations\*, Horizontal Binning**
- **GigE Vision functions: Action Control, Event Control, Chunk Data**
- **8/10/12-bit output**
- **Excellent shock and vibration resistance**
- **Accepts power over GigE Vision interface or via separate 12-pin connector**
- **C-mount lens mount**

*\*Supported only on SW-2005TL-5GE.*



# Specifications for SW-2005TL-5GE / SW-2005M-5GE

# Sweep Series

## Specifications | SW-2005TL-5GE/ SW-2005M-5GE

Scanning system	SW-2005TL-5GE: Trilinear CMOS line scan SW-2005M-5GE: Monochrome CMOS line scan
Active pixels	SW-2005TL-5GE: 2048 x 3 pixels (R, G, B) SW-2005M-5GE: 2048 x 1 pixels
Line rate (when Width = 2048)	SW-2005TL-5GE: Up to 44 kHz, variable SW-2005M-5GE: Up to 172 kHz, variable
Sensor width	14.336 mm
Pixel size	7.0 μm x 7.0 μm
Video output	SW-2005TL-5GE: RGB8, RGB10V1Packed, RGB10p32, RGB12V1Packed SW-2005M-5GE: Mono8, Mono10, Mono10Packed, Mono12, Mono12Packed
Trigger Inputs	2 TTL In, 1 Opto In, Software, 4 Pulse Generators, 4 Logic Blocks, 1 Encoder Trigger, 4 Actions
Outputs	2 TTL Out
Gain SW-2005TL-5GE	Master Mode: DigitalAll odB + 30dB, Digital RB -7.9dB + 12dB Individual Mode: DigitalGBR odB + 36dB
Gain SW-2005M-5GE	DigitalAll odB + 36dB
Gamma	0.45 to 1.0 (9 steps) or 256-point LUT
Image processing	PRNU/DSNU, black level, white balance*, shading, chromatic aberration*, spatial compensation*
Color space conversion*	RGB to XYZ (CIE) or User Custom RGB
Exposure modes	Off, Timed, and TriggerWidth
Exposure time (ExposureMode = Timed)	SW-2005TL-5GE: 3.22 μs~ 15.148 ms SW-2005M-5GE: 1.65 μs ~ 15.148 ms step: 0.01 μs; Exposure time can be longer at slower line rates.
Trigger width control	1.65 μs ~ 1 sec
Lens mount	C-mount (back flange distance: 17.526 mm)
Operating temp. (ambient)	0°C to +45°C (20 to 80% non-condensing)
Storage temp. (ambient)	-25°C to +60°C (20 to 80% non condensing)
Vibration	10G (20 Hz to 200 Hz, XYZ directions)
Shock	80G
Regulations	CE (EN55032, EN55035) FCC Part15 Subpart B, RoHS/WEEE, KC
Power SW-2005TL-5GE	12-pin: 10.8V to 26.4V, 6.3W typical @ +12V, 7.7W Max PoE**: 37V to 57V, 7.1W typical, 8.7W Max
Power SW-2005M-5GE	12-pin: 10.8V to 26.4V, 6.0W typical @ +12V, 7.7W Max PoE**: 37V to 57V, 6.8W typical, 8.7W Max
Dimensions (H x W x L)	44 mm x 44 mm x 64 mm (without lens mount protrusions and connectors)
Weight	SW-2005TL-5GE: 186g; SW-2005M-5GE: 185g

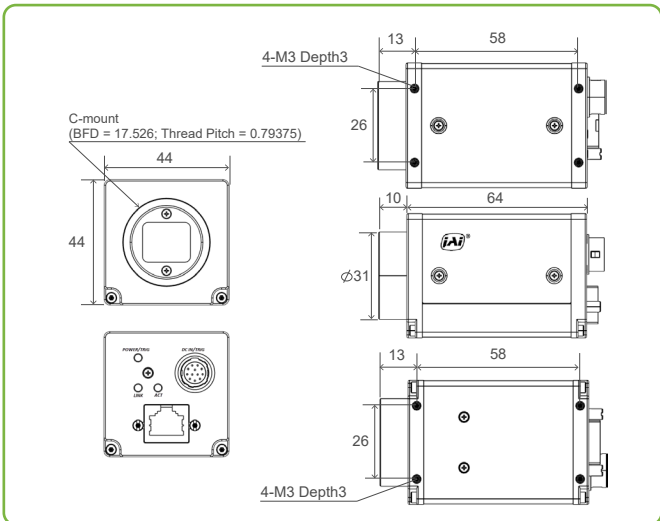
\*Supported only on SW-2005TL-5GE.

\*\*When using the PoE function, use a UTP Ethernet cable.

## Ordering Information

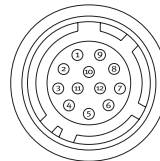
SW-2005TL-5GE	CMOS trilinear RGB camera
SW-2005M-5GE	CMOS monochrome line scan camera

## Dimensions



## Connector pin-out

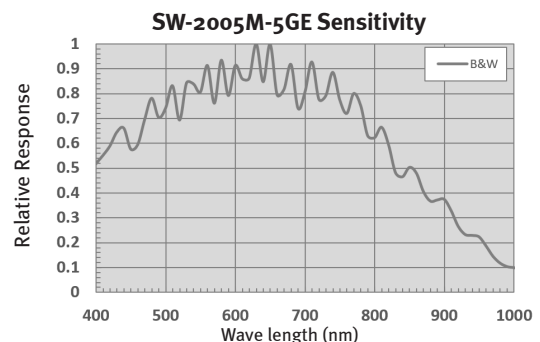
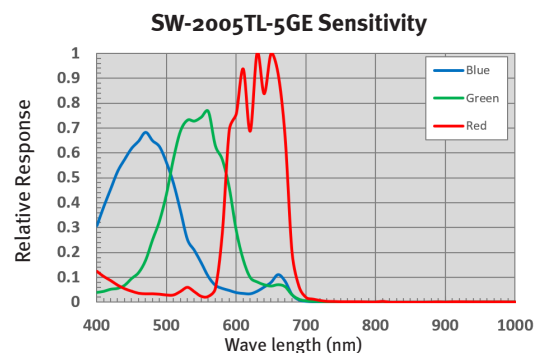
### DC In / Trigger (12-pin)



HR10A-10R-12PB(71)

Pin	Description
1	Ground
2	DC in +12V to +24V
3	Ground
4	TTL in 4
5	Opto in 1-
6	Opto in 1+
7	TTL out 4
8	NC
9	TTL out 1
10	TTL in 1
11	DC in +12V to +24V
12	Ground

## Spectral response



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