

## ➤ WAA-1300-GE

High performance SWIR area scan camera



# Tentative Version



- *High-performance Visible+SWIR wide waveband area scan camera with GigE Vision interface*
- *1280 x 1024 pixel output up to 90fps*
- *5  $\mu$ m square pixels*
- *1/2" Sony IMX990 InGaAs image sensor*
- *Supports polar select, ROI, Binning and image flip*
- *Video output: Mono8/10/12-bit*
- *Gain control from 0dB to 42dB*
- *IPS: FFC (Flat Field Correction), DPC (Defective Pixel Correction), brightness control, contrast control, spatial noise reduction control, black level control, gamma and LUT*
- *Supports TEC cooling*
- *Lens mount: C-Mount*

# Specifications for WAA-1300-GE

# WAVE Series

| Specifications                  | WAA-1300-GE   |
|---------------------------------|---|
| Sensor                          | 1/2" InGaAs global shutter (IMX990)   |
| Spectral range                  | 400nm to 1700nm   |
| Effective Pixels                | 1280 x 1024   |
| Frame rate                      | up to 90fps   |
| Active area                     | 6.4mm(H) x 5.12mm(V), 8.2mm(diagonal)   |
| Pixel size                      | 5 μm x 5 μm   |
| Quantum Efficiency              | 77%@1200nm (typical peak value)   |
| Dynamic Range                   | 56dB  |
| Signal-to-Noise Ratio           | 50dB  |
| Temperature Control             | Single-stage thermo-electric cooling and heating (TEC1)   |
| Interface                       | GigE Vision   |
| Video output                    | Mono8, Mono10, Mono12   |
| Gain                            | 0dB to 42dB   |
| Trigger source                  | Single-ended & RS422 Differential trigger   |
| Exposure Mode                   | Timed   |
| Exposure Time                   | 14 μs ~ 1 s<br>Exposure time can be longer at slower frame rates.   |
| IPS (Image processing settings) | FFC (Flat Field Correction), DPC (Defective pixel correction), brightness control, contrast control, spatial noise reduction control, Black level, Gamma, LUT (Look Up Table) |
| Gamma                           | 0.1 ~ 5   |
| LUT                             | 1 user-defined, 3 preset options  |
| Lens mount                      | C-Mount (BFD: 17.526mm)   |
| Operating temp. (ambient)       | -10°C to +50°C (20 to 80% non-condensing)   |
| Storage temp. (ambient)         | -30°C to +70°C (20 to 80% non-condensing)   |
| Vibration                       | 5G (55 Hz to 500 Hz, XYZ directions)  |
| Shock                           | 15G   |
| Regulations                     | CE (EN IEC 61326-1:2021)<br>FCC Part 15 Subpart B, RoHS, KC   |
| Power supply                    | 12-pin: DC 12 V to 24V +/-10%<br>PoE: not supported   |
| Power consumption               | 6.24W Max @ 12V DC  |
| Dimensions (H x W x D)          | 52mm x 52 mm x 56.7 mm<br>(without connector and lens mount protrusions)  |
| Weight                          | 251g  |

| Ordering Information |   |
|----------------------|---|
| WAA-1300-GE          | 1.3M High performance Visible+SWIR wide waveband area scan camera |

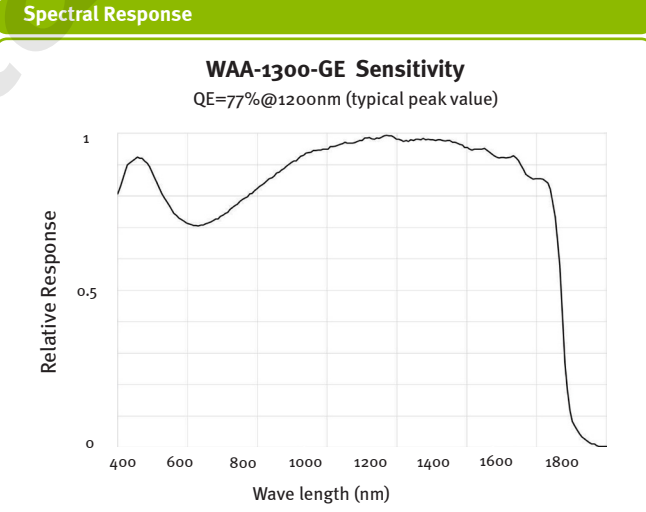
### Dimensions

Dimensional Tolerance: ± 0.2mm  
Unit: mm

### Connector pin-out

**12-pin Connector (Power)**  
HR-10A-10R-12PB (71)

|    |                    |
|----|--------------------|
| 1  | GND                |
| 2  | DC IN +12V to +24V |
| 3  | SHUTTER_GND        |
| 4  | TRIGGER_IN         |
| 5  | SHUTTER_OUT        |
| 6  | RS422_TX+          |
| 7  | RS422_TX-          |
| 8  | RS422_RX-          |
| 9  | RS422_RX+          |
| 10 | Disable            |
| 11 | TRIGGER_GND        |
| 12 | RS422_GND          |



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Mar 10, 2026