

# EXO GigE

## exo250CGE



### 一般

|      |           |
|------|-----------|
| 型號   | exo250CGE |
| 產品編號 | F002183   |
| 產品系列 | EXO GigE  |
| 狀態   | Available |

### 感測器

|            |                                     |
|------------|-------------------------------------|
| 感測器類型      | Area scan                           |
| 色度         | Color                               |
| 光譜         | Visible                             |
| 光譜範圍       | 400 nm to 1000 nm                   |
| 解析度        | 2,448 × 2,048 (5.00 MP)             |
| 感測器型號      | Sony IMX250                         |
| 感測器架構 (材料) | cmos                                |
| 快門類型       | Global shutter (GS)                 |
| 感測器尺寸      | 8.45 × 7.07 mm (11.01 mm, Type 2/3) |
| 像素大小       | 3.45 μm × 3.45 μm                   |

### 像素格式

|          |                       |
|----------|-----------------------|
| 感測器位深    | 8-bit, 12-bit         |
| RGB 像素格式 | bayer8, bayer12packed |

### 影像性能

|      |       |
|------|-------|
| 動態範圍 | 72 dB |
| 訊噪比  | 40 dB |

## 時序與增益

|               |                    |
|---------------|--------------------|
| 最大影格率         | 24.5 fps           |
| 最大影格率 (Burst) | 42.7 fps           |
| 曝光時間          | 20 $\mu$ s to 60 s |
| 增益            | 0.0 dB to 48.0 dB  |

## I/O 與電源

|         |                                                                                                       |
|---------|-------------------------------------------------------------------------------------------------------|
| 非隔離線    | 0 x LVDS input, 0 x LVDS output, 0 x TTL input, 0 x TTL output, 2 x 24V input, 4 x Open drain output, |
| 特定非隔離線  | 1 x RS232 input, 1 x RS232 output, 0 x RS422 input, 0 x RS422 output,                                 |
| 光隔離線    | 1 x Optical isolated input, 0 x Optical isolated input,                                               |
| I/O 連接器 | 12-pin Hirose HR10A-10P-12S                                                                           |
| 電源供應    | 10 to 25VDC, Power over Ethernet                                                                      |
| 功耗      | External: 4.5 W (typical)                                                                             |

## 操作條件

|           |                 |
|-----------|-----------------|
| 操作溫度 (機殼) | -10 °C to 60 °C |
|-----------|-----------------|

## 機械特性

|                     |                |
|---------------------|----------------|
| 機殼尺寸 (長 x 寬 x 高 mm) | 43 × 50 × 50   |
| 濾光片/保護玻璃            | IR-Cut - 680nm |
| 防護等級                | IP40           |
| 鏡頭接口                | C-Mount        |
| 重量                  | 138 g          |

## 板載記憶體與 FPGA

|                 |           |
|-----------------|-----------|
| 影像緩衝區 (RAM)     | 192 MByte |
| 非揮發性記憶體 (Flash) | 32 MByte  |

## 介面

|       |             |
|-------|-------------|
| 數位介面  | gige        |
| 介面連接器 | (RJ-45)     |
| 視覺標準  | GigE Vision |

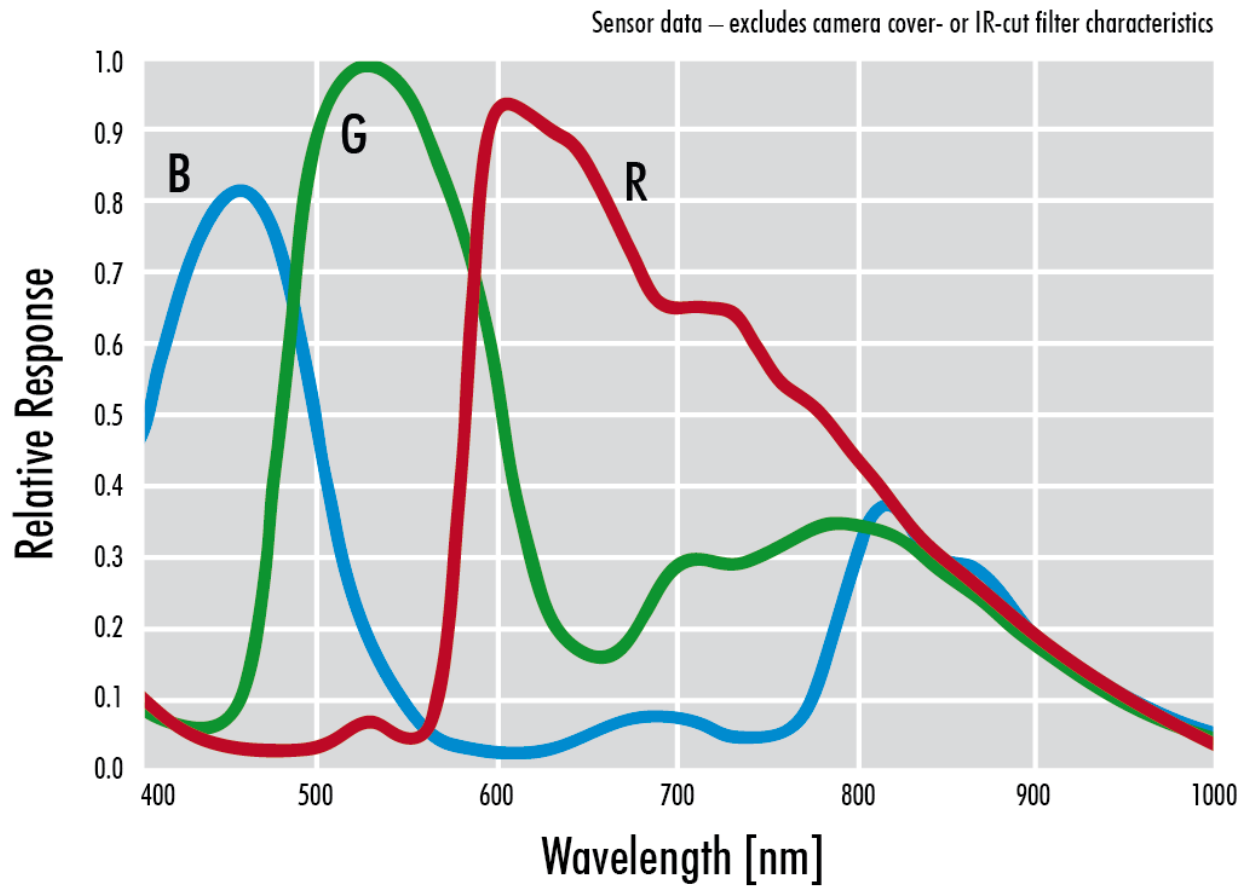
## FW 功能 – 影像控制

|        |                                                                            |
|--------|----------------------------------------------------------------------------|
| 曝光模式   | manual, auto, external                                                     |
| 增益模式   | auto, manual                                                               |
| 白平衡模式  | auto, manual                                                               |
| 影像控制功能 | roi, lut, color-transformation, mirror-image, dpc, shading-correction, ffc |

## FW 功能 – 相機控制

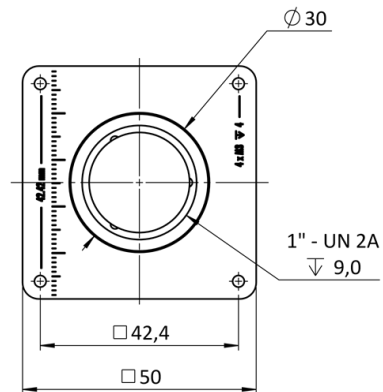
|         |                                                    |
|---------|----------------------------------------------------|
| 觸發模式/同步 | internal, software, external                       |
| 相機控制功能  | PTP, BurstMode, User Sets, POE, PWM(4), Sequencer, |

量子效率

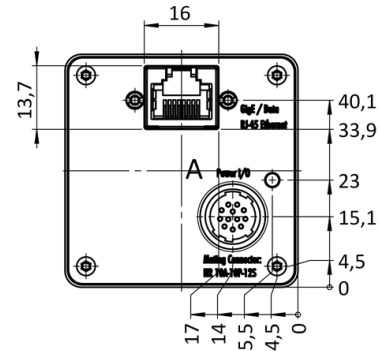


技術圖紙

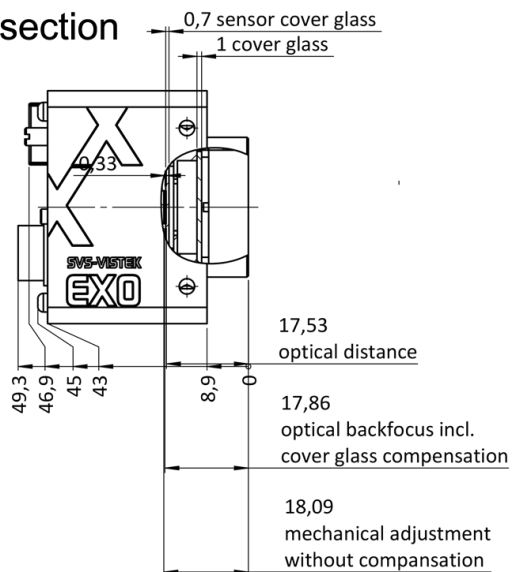
front



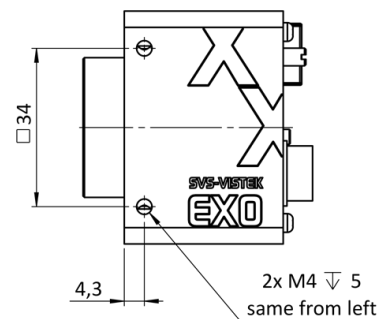
back



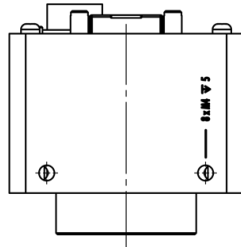
cross section



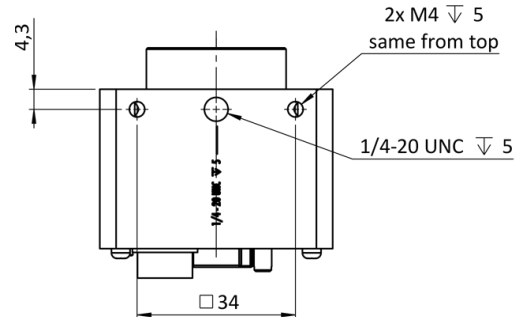
right side



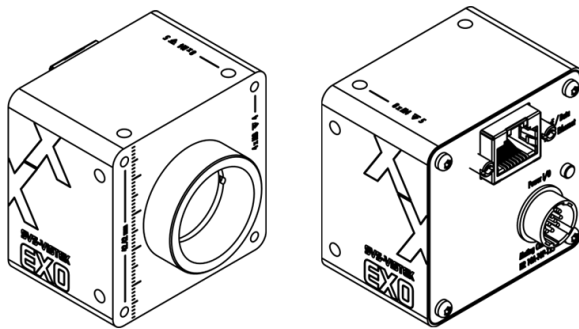
top



bottom



3D



## I/O 引腳分配



|   |       |                   |    |        |              |
|---|-------|-------------------|----|--------|--------------|
| 1 | VIN - | (GND)             | 7  | OUT 1  | (open drain) |
| 2 | VIN + | (10 V to 25 V DC) | 8  | OUT 2  | (open drain) |
| 3 | IN 4  | (RXD RS232)       | 9  | IN 3 + | (opto In +)  |
| 4 | OUT 4 | (TXD RS232)       | 10 | IN 3 - | (opto In -)  |
| 5 | IN 1  | (0-24V)           | 11 | OUT 3  | (open drain) |
| 6 | IN 2  | (0-24V)           | 12 | OUT 0  | (open drain) |