

# Series LSA1 **Max**

OPT-LSA1-200-02

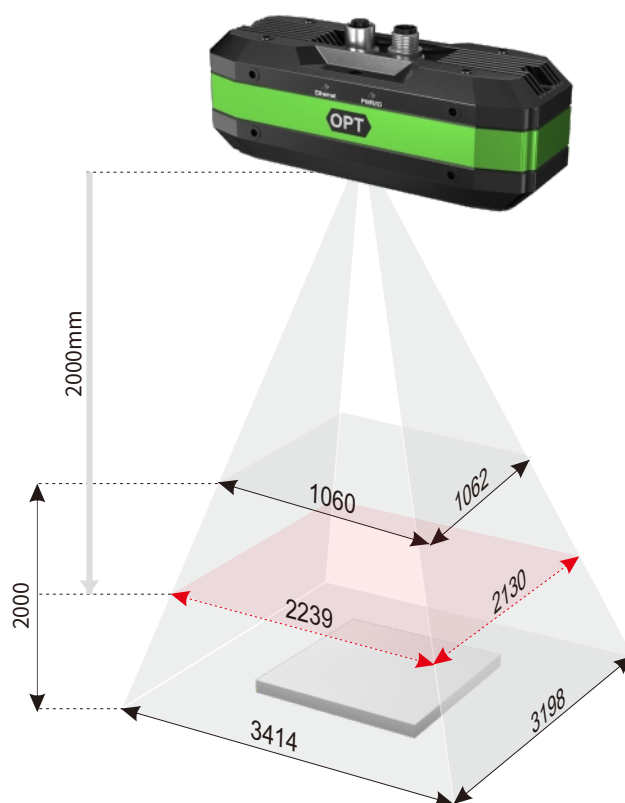


## Product Features

- High-speed, ultra-wide FOV, extended depth of field with excellent ambient light resistance.
- Compact industrial 3D camera designed for dynamic applications—single-shot imaging for instant results.
- Combines binocular imaging with RGB camera to capture both depth and color data in one shot, meeting diverse application requirements.
- Built-in processing chip with integrated FPGA edge computing - directly outputs high-precision 3D point clouds for faster imaging.
- With integrated hardware and software, the series is compatible with OPT Smart3 full-featured algorithm platform, enabling zero-code, visual graphical programming for rapid deployment of 3D project applications.
- Factory pre-calibrated for plug-and-play operation -minimizing setup time.

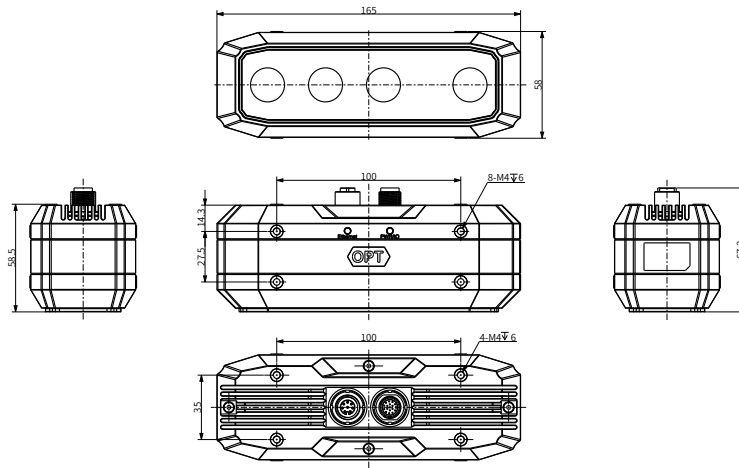
## Product Model and Parameters

|                                 |          |                                 |
|---------------------------------|----------|---------------------------------|
| Model                           |          | OPT-LSA1-200-02                 |
| Camera Name                     |          | Speckle Structured Light Camera |
| Color Image Resolution          |          | 2448 × 2048                     |
| Depth Image Resolution          |          | 1904 × 1728                     |
| Full-Cycle Frame Rate           |          | ≤15 FPS                         |
| Reference Distance              |          | 2000 mm                         |
| Field of View (FOV)             | Near-end | 1060 mm × 1062 mm               |
|                                 | Standard | 2239 mm × 2130 mm               |
|                                 | Far-end  | 3414 mm × 3198 mm               |
| Depth Measurement Range         |          | ±1000 mm                        |
| Z-axis Repeatability            |          | 1 mm @ 2000 mm                  |
| Communication Interface         |          | Gigabit Ethernet                |
| I/O Interface                   |          | 1 Optocoupler Input             |
| Operating Voltage               |          | 24V DC                          |
| Power Consumption               |          | 20W                             |
| SDK Operating System            |          | Linux/Windows                   |
| Supported Programming Languages |          | C/C++/C#/Python                 |
| Operating Temperature           |          | -10~45°C                        |
| Operating Humidity              |          | <80%RH (non-condensing)         |
| Dimensions                      |          | 165 mm × 58 mm × 57 mm          |
| Weight                          |          | 0.67 kg                         |

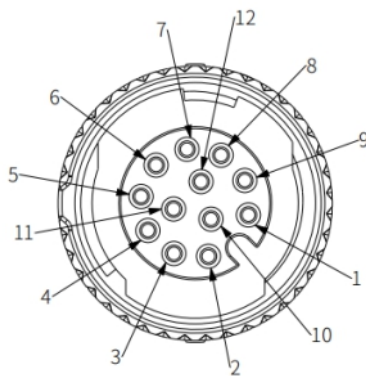


## Dimensions(mm)

OPT-LSA1-200-02



## I/O Interface Description



| NO. | Signal Definition    | Description                            | Factory-Matched Cable Color | Color |
|-----|----------------------|----------------------------------------|-----------------------------|-------|
| 1   | DC-PWR               | Power Supply Positive                  | RED                         |       |
| 3   | GND                  | Power Supply Negative                  | BLACK                       |       |
| 5   | DO_0                 | DO Isolated Output 0                   | ORANGE                      |       |
| 6   | DO_1                 | DO Isolated Output 1                   | GREEN                       |       |
| 8   | DO_COM               | DO Isolated Output Common              | WHITE                       |       |
| 9   | DI_0/T               | DI Isolated Input 0 / External Trigger | WHITE ORANGE                |       |
| 10  | DI_1                 | DI Isolated Input 1                    | WHITE GREEN                 |       |
| 12  | DI_COM               | DI Isolated Input Common               | GRAY                        |       |
| 18  | Shielding Wire       | For Protection and Shielding           | YELLOW GREEN                |       |
| 19  | 17-Pin M12 Interface | For 3D Structured Light Connection     | \                           | \     |
| 20  | RS232 Interface      | For Serial Communication               | \                           | \     |

