

inspect  
award 2022  
winner  
**1.**  
Category  
Vision

inspect  
award 2022  
Best Product  
Award



VisionSystems  
2021  
**Innovators  
Awards**  
GOLD HONOREE

VisionSystems  
Innovators  
Awards  
2021  
Gold Award

Hyper Apo series

**ViSWIR**

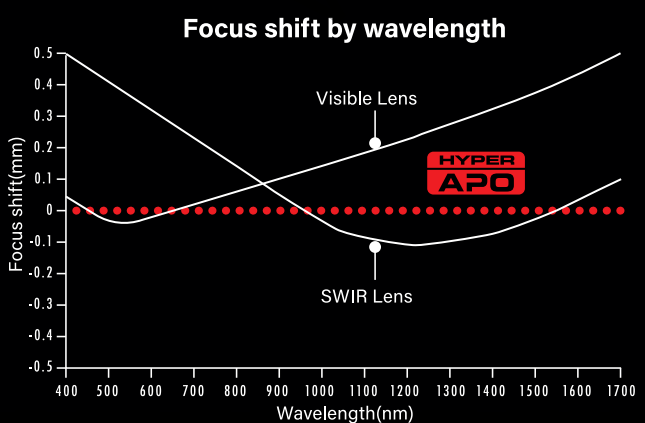
**HYPER  
APO**



Compatible with the latest InGaAs sensor cameras

Pixel size 3.45  $\mu$ m. Compatible with the new SWIR image sensors IMX992/IMX993.

- High resolution optics designed for IMX992/IMX993 (Sony Semiconductor Solutions).
- Chromatic aberration corrected at the wide wavelength range from 400nm to 1700nm.
- Ideal for hyperspectral and multispectral imaging.
- ViSWIR light-absorbing film prevents harmful light scattering and achieves clear image quality.



Ultra-high resolution from 400 nm visible light to 1700 nm near infrared with no focus shift.

**Lite series  
ViSWIR  
Lite**

- High transmittance from 400 nm visible light to 1700 nm near infrared.
- Cost-effective model available for customers using single wavelengths.
- Clear image by ViSWIR light-absorbing film.

**Wide variety of selection**

- 5mm/8mm
- 12mm/16mm
- 25mm/35mm
- 50mm

# ViSWIR Series

## Hyper-APO series

| M0818-APVSW 2          |                                |                        |                                |
|------------------------|--------------------------------|------------------------|--------------------------------|
| Focal Length           | 8mm                            |                        |                                |
| F-Number               | F1.8 - F16                     |                        |                                |
| Working Distance       | 0.1m - Inf                     |                        |                                |
| Angle of View (IMX992) | 56.6° x 46.7° (Diagonal 68.7°) | Angle of View (IMX990) | 42.7° x 34.7° (Diagonal 53.2°) |
| Angle of View (IMX993) | 46.7° x 35.8° (Diagonal 56.6°) | Angle of View (IMX991) | 22.1° x 17.7° (Diagonal 28.1°) |
| Wavelength Range       | 400-1700nm                     |                        |                                |
| Mount                  | C                              |                        |                                |
| Sensor Size            | 1/1.4"                         |                        |                                |
| Resolution             | 5MP                            |                        |                                |
| Filter Size            | M46 P=0.75mm                   |                        |                                |
| Dimensions             | φ 49mm x 54.7mm                |                        |                                |
| Weight                 | 171g                           |                        |                                |

| M1218-APVSW 2          |                                |                        |                                |
|------------------------|--------------------------------|------------------------|--------------------------------|
| Focal Length           | 12mm                           |                        |                                |
| F-Number               | F1.8 - F16                     |                        |                                |
| Working Distance       | 0.1m - Inf                     |                        |                                |
| Angle of View (IMX992) | 40.5° x 32.9° (Diagonal 50.4°) | Angle of View (IMX990) | 30.0° x 24.2° (Diagonal 37.9°) |
| Angle of View (IMX993) | 32.9° x 25.0° (Diagonal 40.5°) | Angle of View (IMX991) | 15.2° x 12.2° (Diagonal 19.5°) |
| Wavelength Range       | 400-1700nm                     |                        |                                |
| Mount                  | C                              |                        |                                |
| Sensor Size            | 1/1.4"                         |                        |                                |
| Resolution             | 5MP                            |                        |                                |
| Filter Size            | M37.5 P=0.5mm                  |                        |                                |
| Dimensions             | φ 39.5mm x 52.0mm              |                        |                                |
| Weight                 | 163g                           |                        |                                |

| M1618-APVSW 2          |                                |                        |                                |
|------------------------|--------------------------------|------------------------|--------------------------------|
| Focal Length           | 16mm                           |                        |                                |
| F-Number               | F1.8 - F16                     |                        |                                |
| Working Distance       | 0.1m - Inf                     |                        |                                |
| Angle of View (IMX992) | 31.0° x 25.0° (Diagonal 38.9°) | Angle of View (IMX990) | 22.7° x 18.2° (Diagonal 28.8°) |
| Angle of View (IMX993) | 25.0° x 18.9° (Diagonal 31.0°) | Angle of View (IMX991) | 11.4° x 9.2° (Diagonal 14.6°)  |
| Wavelength Range       | 400-1700nm                     |                        |                                |
| Mount                  | C                              |                        |                                |
| Sensor Size            | 1/1.4"                         |                        |                                |
| Resolution             | 5MP                            |                        |                                |
| Filter Size            | M37.5 P=0.5mm                  |                        |                                |
| Dimensions             | φ 39.5mm x 51.3mm              |                        |                                |
| Weight                 | 170g                           |                        |                                |

| M2518-APVSW 2          |                                |                        |                                |
|------------------------|--------------------------------|------------------------|--------------------------------|
| Focal Length           | 25mm                           |                        |                                |
| F-Number               | F1.8 - F16                     |                        |                                |
| Working Distance       | 0.1m - Inf                     |                        |                                |
| Angle of View (IMX992) | 20.0° x 16.1° (Diagonal 25.5°) | Angle of View (IMX990) | 14.6° x 11.7° (Diagonal 18.6°) |
| Angle of View (IMX993) | 16.1° x 12.1° (Diagonal 20.0°) | Angle of View (IMX991) | 7.3° x 5.9° (Diagonal 9.4°)    |
| Wavelength Range       | 400-1700nm                     |                        |                                |
| Mount                  | C                              |                        |                                |
| Sensor Size            | 1/1.4"                         |                        |                                |
| Resolution             | 5MP                            |                        |                                |
| Filter Size            | M37.5 P=0.5mm                  |                        |                                |
| Dimensions             | φ 39.5mm x 59.2mm              |                        |                                |
| Weight                 | 159g                           |                        |                                |

| M3518-APVSW            |                                |                        |                               |
|------------------------|--------------------------------|------------------------|-------------------------------|
| Focal Length           | 35mm                           |                        |                               |
| F-Number               | F1.8 - F16                     |                        |                               |
| Working Distance       | 0.15m - Inf                    |                        |                               |
| Angle of View (IMX992) | 14.4° x 11.6° (Diagonal 18.4°) | Angle of View (IMX990) | 10.5° x 8.4° (Diagonal 13.4°) |
| Angle of View (IMX993) | 11.6° x 8.7° (Diagonal 14.4°)  | Angle of View (IMX991) | 5.3° x 4.2° (Diagonal 6.8°)   |
| Wavelength Range       | 400-1700nm                     |                        |                               |
| Mount                  | C                              |                        |                               |
| Sensor Size            | 1/1.4"                         |                        |                               |
| Resolution             | 5MP                            |                        |                               |
| Filter Size            | M37.5 P=0.5mm                  |                        |                               |
| Dimensions             | φ 39.7mm x 74.3mm              |                        |                               |
| Weight                 | 199g                           |                        |                               |

| M5018-APVSW            |                               |                        |                             |
|------------------------|-------------------------------|------------------------|-----------------------------|
| Focal Length           | 50mm                          |                        |                             |
| F-Number               | F1.8 - F16                    |                        |                             |
| Working Distance       | 0.2m - Inf                    |                        |                             |
| Angle of View (IMX992) | 10.2° x 8.2° (Diagonal 12.8°) | Angle of View (IMX990) | 7.4° x 5.9° (Diagonal 9.5°) |
| Angle of View (IMX993) | 8.1° x 6.1° (Diagonal 10.1°)  | Angle of View (IMX991) | 3.7° x 3.0° (Diagonal 4.7°) |
| Wavelength Range       | 400-1700nm                    |                        |                             |
| Mount                  | C                             |                        |                             |
| Sensor Size            | 1/1.4"                        |                        |                             |
| Resolution             | 5MP                           |                        |                             |
| Filter Size            | M37.5 P=0.5mm                 |                        |                             |
| Dimensions             | φ 40.5mm x 72mm               |                        |                             |
| Weight                 | 174g                          |                        |                             |

## Lite series

| H0514-VSW                      |                                |  |  |
|--------------------------------|--------------------------------|--|--|
| Focal Length                   | 5mm                            |  |  |
| F-Number                       | F1.4 - F16C                    |  |  |
| Working Distance               | 0.1m - 0.9m                    |  |  |
| Angle of View (IMX990)         | 65.5° x 54.5° (Diagonal 77.8°) |  |  |
| Angle of View (IMX991)         | 35.3° x 28.5° (Diagonal 44.6°) |  |  |
| Transmittance Wavelength Range | 400-1700nm                     |  |  |
| Mount                          | C                              |  |  |
| Sensor Size                    | 1/2"                           |  |  |
| Resolution                     | 1.5MP                          |  |  |
| Filter Size                    | M43 P=0.75mm                   |  |  |
| Dimensions                     | φ 44.5mm x 45.5mm              |  |  |
| Weight                         | 102g                           |  |  |

| M0814-VSW                      |                                |  |  |
|--------------------------------|--------------------------------|--|--|
| Focal Length                   | 8mm                            |  |  |
| F-Number                       | F1.4 - F16C                    |  |  |
| Working Distance               | 0.1m - Inf                     |  |  |
| Angle of View (IMX990)         | 42.5° x 34.5° (Diagonal 53.0°) |  |  |
| Angle of View (IMX991)         | 21.9° x 17.6° (Diagonal 27.9°) |  |  |
| Transmittance Wavelength Range | 400-1700nm                     |  |  |
| Mount                          | C                              |  |  |
| Sensor Size                    | 2/3"                           |  |  |
| Resolution                     | 1.5MP                          |  |  |
| Filter Size                    | M30.5 P=0.5mm                  |  |  |
| Dimensions                     | φ 33.5mm x 28.2mm              |  |  |
| Weight                         | 63g                            |  |  |

| M1214-VSW                      |                                |  |  |
|--------------------------------|--------------------------------|--|--|
| Focal Length                   | 12mm                           |  |  |
| F-Number                       | F1.4 - F16C                    |  |  |
| Working Distance               | 0.15m - Inf                    |  |  |
| Angle of View (IMX990)         | 30.0° x 24.1° (Diagonal 37.8°) |  |  |
| Angle of View (IMX991)         | 15.2° x 12.2° (Diagonal 19.4°) |  |  |
| Transmittance Wavelength Range | 400-1700nm                     |  |  |
| Mount                          | C                              |  |  |
| Sensor Size                    | 2/3"                           |  |  |
| Resolution                     | 1.5MP                          |  |  |
| Filter Size                    | M30.5 P=0.5mm                  |  |  |
| Dimensions                     | φ 33.5mm x 28.2mm              |  |  |
| Weight                         | 62g                            |  |  |

| M1614-VSW                      |                                |  |  |
|--------------------------------|--------------------------------|--|--|
| Focal Length                   | 16mm                           |  |  |
| F-Number                       | F1.4 - F16C                    |  |  |
| Working Distance               | 0.3m - Inf                     |  |  |
| Angle of View (IMX990)         | 22.7° x 18.2° (Diagonal 28.8°) |  |  |
| Angle of View (IMX991)         | 11.4° x 9.2° (Diagonal 14.6°)  |  |  |
| Transmittance Wavelength Range | 400-1700nm                     |  |  |
| Mount                          | C                              |  |  |
| Sensor Size                    | 2/3"                           |  |  |
| Resolution                     | 1.5MP                          |  |  |
| Filter Size                    | M30.5 P=0.5mm                  |  |  |
| Dimensions                     | φ 33.5mm x 28.2mm              |  |  |
| Weight                         | 60g                            |  |  |

| M2514-VSW                      |                                |  |  |
|--------------------------------|--------------------------------|--|--|
| Focal Length                   | 25mm                           |  |  |
| F-Number                       | F1.4 - F16C                    |  |  |
| Working Distance               | 0.3m - Inf                     |  |  |
| Angle of View (IMX990)         | 14.6° x 11.7° (Diagonal 18.6°) |  |  |
| Angle of View (IMX991)         | 7.3° x 5.9° (Diagonal 9.4°)    |  |  |
| Transmittance Wavelength Range | 400-1700nm                     |  |  |
| Mount                          | C                              |  |  |
| Sensor Size                    | 2/3"                           |  |  |
| Resolution                     | 1.5MP                          |  |  |
| Filter Size                    | M30.5 P=0.5mm                  |  |  |
| Dimensions                     | φ 33.5mm x 36mm                |  |  |
| Weight                         | 72g                            |  |  |

| M3514-VSW                      |                               |  |  |
|--------------------------------|-------------------------------|--|--|
| Focal Length                   | 35mm                          |  |  |
| F-Number                       | F1.4 - F16C                   |  |  |
| Working Distance               | 0.3m - Inf                    |  |  |
| Angle of View (IMX990)         | 10.7° x 8.6° (Diagonal 13.7°) |  |  |
| Angle of View (IMX991)         | 5.4° x 4.3° (Diagonal 6.9°)   |  |  |
| Transmittance Wavelength Range | 400-1700nm                    |  |  |
| Mount                          | C                             |  |  |
| Sensor Size                    | 2/3"                          |  |  |
| Resolution                     | 1.5MP                         |  |  |
| Filter Size                    | M30.5 P=0.5mm                 |  |  |
| Dimensions                     | φ 33.5mm x 38.2mm             |  |  |
| Weight                         | 87g                           |  |  |

| M5018-VSW                      |                             |  |  |
|--------------------------------|-----------------------------|--|--|
| Focal Length                   | 50mm                        |  |  |
| F-Number                       | F1.8 - F16C                 |  |  |
| Working Distance               | 0.5m - Inf                  |  |  |
| Angle of View (IMX990)         | 7.6° x 6.1° (Diagonal 9.8°) |  |  |
| Angle of View (IMX991)         | 3.8° x 3.1° (Diagonal 4.9°) |  |  |
| Transmittance Wavelength Range | 400-1700nm                  |  |  |
| Mount                          | C                           |  |  |
| Sensor Size                    | 2/3"                        |  |  |
| Resolution                     | 1.5MP                       |  |  |
| Filter Size                    | M30.5 P=0.5mm               |  |  |
| Dimensions                     | φ 33.5mm x 38.2mm           |  |  |
| Weight                         | 85g                         |  |  |

This specification is subject to change without any notice.