

## A New Model of Industrial Lenses Covering a Wide Spectral Band from Visible-Light to SWIR Band

- 1" 12mm F/1.6 (Model: SMA11F12)
- 1" 16mm F/1.6 (Model: SMA11F16)
- 1" 25mm F/1.6 (Model: SMA11F25)



Model: SMA11F12

Model: SMA11F16

Model: SMA11F25

For

IMX990  
IMX991

For

5  $\mu$ m

### Main Features

#### > Significant Reduction of Focus-Shift in between the Visible-Light and the SWIR Bands

- Focus-shift occurring in between different bands is effectively reduced over the whole spectrum corresponding to the wavelength of 400 nm to 1700 nm.
- The new lens offers an optimum optical component for machine-vision cameras operating in the visible light band, industrial-use cameras operating in the SWIR band, and industrial-use cameras operating in both bands.

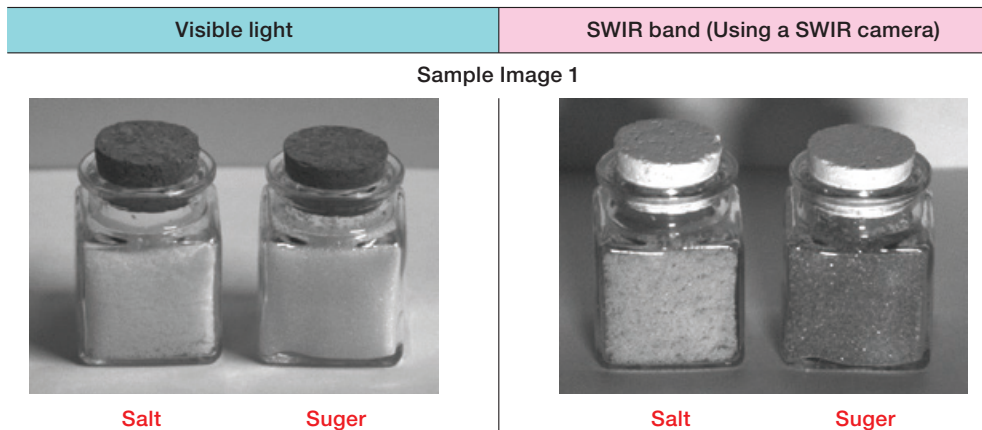
#### > Industry-Leading Spectrum Transmittance

- Tamron's new proprietary lens coating technology assures an approx. 80% constant spectrum transmittance over the whole spectrum from the visible-light to the SWIR\* band.
- \* Band corresponding to the wavelength of 400 – 1700nm




#### > Enhanced Imaging Performance at Close-Up Distances

- The image contrast is substantially enhanced at commonly used close-up distances.
  - The new lens is compatible with imagers with a pixel-pitch 5 $\mu$ m. The lens is also compatible with IMX990/IMX991\*.
- \* Products of Sony Semiconductor Solutions Corporation

## ■ Shooting image sample



## ■ Specifications

| Model  |              | SMA11F12   | SMA11F16  | SMA11F25   |
|--|--------------|--|---|--|
|  |              |  |  |  |
| <b>Imager Size</b>                                     |              | 1"   |   |  |
| <b>Mount Type</b>                                      |              | C  |   |  |
| <b>Focal Length</b>                                    |              | 12mm   | 16mm  | 25mm   |
| <b>Aperture Range</b>                                  |              | F/1.6 ~ F/22   |   |  |
| <b>Field of View Angle<br/>(Horizontal × Vertical)</b> | 1"           | 57.9°× 44.6°   | 44.1°× 33.7°  | 29.1°× 21.9°   |
|  | 1/2"         | 30.2°× 24.3°   | 22.7°× 18.1°  | 14.7°× 11.7°   |
| <b>Focusing Range</b>                                  |              | 0.2m ~ ∞   |   |  |
| <b>Operation</b>                                       | <b>Focus</b> | Manual w/lock  |   |  |
|  | <b>Iris</b>  | Manual w/lock  |   |  |
| <b>Filter Size</b>                                     |              | M52 P=0.75mm   | M49 P=0.75mm  | M46 P=0.75mm   |
| <b>Wave Length</b>                                     |              | Visible Light~SWIR   |   |  |
| <b>TV Distortion</b>                                   |              | - 1.2% *   | - 1% *  | - 1% *   |
| <b>Weight</b>  |              | 260g   |   |  |
| <b>Operating Temperature</b>                           |              | -20°C ~ +60°C  |   |  |

\* Design Value

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### Management on Quality and Environment :

Tamron is certified with international standards: ISO 9001 for quality and ISO 14001 for environmental management at its Head Office, domestic sales offices, China plant as well as production facilities in Aomori Factory, Japan, and is fully committed to striving for continued and sustainable improvement at all levels and facets of its business operations.

● Specifications subject to change without notice