



# FA and Machine Vision Lenses News from TAMRON

**NEW RELEASE** 

# Four Compact $\phi$ 43mm Machine-Vision Lenses Compatible with 1.1" Imagers and Full 24-Mega Pixel Resolution

■1.1" 16mm F/2.8 (Model: MA111F16VIR)

■1.1" 25mm F/2.8 (Model: MA111F25VIR)

■1.1" 35mm F/2.8 (Model: MA111F35VIR)

■ 1.1" 50mm F/2.8 (Model: MA111F50VIR)



#### Main Features

## High Resolution and Contrast Unrivaled in the Industry

- O Compatible with 1.1" imagers, supporting 2.5µm pixel-pitch and 24-mega\* (max) pixel resolution.
- Offer resolution and contrast outperforming other 24-mega pixel lenses. (\*resolution at the center)

# Industry-Leading Low Distortion (TV Distortion)

Significantly reduce TV Distortion compared with previous models.
 (\* MA111F16VIR: 0.2%, MA111F25VIR: -0.3%, MA111F35VIR: 0.3%, MA111F50VIR: 0.1%)

## High-Quality Performance from Close-up to Infinity

A new comprehensive lens design covering both close-up and infinity shooting distances assures high contrast and resolution throughout the whole focal length range.

# New Robust Mechanism for Anti-Vibration and Anti-Shock

- A newly designed mechanism improves anti-vibration and anti-shock performance compared with previous models, limiting the optical (image) deflection to less than 10μm even for the severe impact of vibrations and shocks of max 10G of magnitude.
  - \*Vibration frequency 10-150Hz (acceleration 50m/s²), and the number of cycles: 20 cycles.

# Reduction of Focus-Shift in between the Visible-Light and the NIR Bands

Focus-shift associated with the wide spectrum of 400nm to 850nm is reduced to an absolute minimum, which makes the new lenses an optimum choice for cameras compatible with the visible-light and the NIR band.



#### **■**Specifications

| Model  |       | MA111F16VIR   | MA111F25VIR           | MA111F35VIR           | MA111F50VIR        |
|--|-------|---|-----------------------|-----------------------|--------------------|
|  |       | Is a separate to the separate | 11 25mm F/2.8 C 0:405 | 11 35mm F/2.8 C 040.5 | 1 Som F/2.8 C 0405 |
| Imager Size                                    |       | 1.1"  |                       |                       |                    |
| Mount Type                                     |       | С   |                       |                       |                    |
| Focal Length                                   |       | 16mm  | 25mm                  | 35mm                  | 50mm               |
| Aperture Range                                 |       | F/2.8 ~ F/16  |                       |                       |                    |
| Field of View Angle<br>(Horizontal × Vertical) | 1.1"  | 47.7°×36.8°   | 31.7°×23.9°           | 22.8°×17.2°           | 16.0°×12.0°        |
|  | 2/3"  | 30.8°×23.3°   | 20.0°×15.0°           | 14.4°×10.8°           | 10.1°×7.5°         |
| Focusing Range                                 |       |   | 0.1m ~ ∞ 0.2m ~ ∞     |                       |                    |
| Operation                                      | Focus | Manual w/lock   |                       |                       |                    |
|  | Iris  | Manual w/lock   |                       |                       |                    |
| Filter Size                                    |       | M40.5 P=0.5mm   |                       |                       |                    |
| Wave Length                                    |       | Visible Light∼NIR   |                       |                       |                    |
| TV Distortion                                  |       | 0.2% *  | -0.3%*                | 0.3%*                 | 0.1%*              |
| Weight   |       | 178g  | 196g                  | 179g                  | 181g               |
| Operating Temperature                          |       | −20°C ~ +60°C   |                       |                       |                    |

<sup>\*</sup> Design Value

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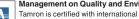
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