



**R.J. Wilson, Inc.**  
Imaging Components for Industry & Science

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**TAMRON**  
New eyes for industry

# Mega-Pixel Machine Vision Lens Series

## Fixed-Focal Machine Vision Lens Series



These Ultra-High-Resolution Lenses deliver outstanding optical quality with enhanced performance from center to periphery of the image. The best choice for Machine Vision and FA (Factory Automation) applications.

/// High-Performance    /// Minimized Distortion

/// Enhanced Performance in the Close-Focus Range

Machine vision lenses featuring with superior optical technology

Tamron's Mega-Pixel Machine Vision Lens Series provide outstanding optical quality and enhanced performance in close-focus situations and meet the needs of diverse image processing applications

## 1.1" Ultra-High-Performance Machine Vision Fixed-Focal Lenses

Compatible with MP camera

3.1μm pixel pitch

1.1" cameras

1" cameras

1/1.2" cameras

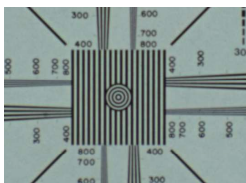
2/3" cameras

1/1.8" cameras

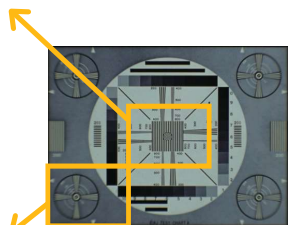
3.1μm

### Industry-Leading High Contrast and Resolution

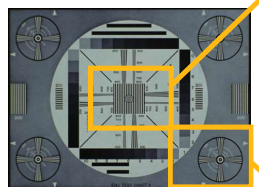
The lenses, optimized for 3.1-μm-pixel-pitch images, equivalent to 1.1" 12 mega-pixels. Use of state-of-the-art optical technology enables high-contrast and high-resolution from the corner to the periphery of images despite the large aperture size. Tamron's machine vision fixed-focal lens line-up also opens gates to other area of applications including traffic monitoring, notably for ITS (Intelligent Transport Systems).



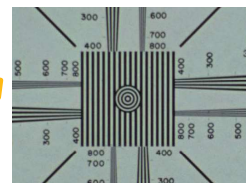
5MP Camera + SD Lens  
= Not Enough Resolution



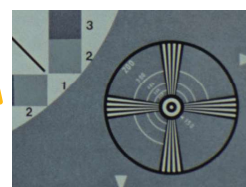
SD (50mm Lens)



3.1μm-Pixel-Pitch Sensor  
(50mm Lens)



12MP Camera + Ultra High Resolution Lens  
= Resolution is Clear to the Corner



### Combination of Advanced Coating Technology and Use of Diverse Types of Lenses

Tamron's proprietary coating technology is employed to enhance the lens light transmittance, and combinations of diverse types of lens elements are optimized to bring the resolution to the maximum height. An aspherical lens is deployed on a wide-angle model for the first time in Tamron's machine vision lenses.



### Uncompromised Image Quality at Close Distances

High image-fidelity is maintained at frequently-used close distance.

### Enhanced Functionality and Utility

Well-tuned rotation torque of both focus and iris control rings facilitates smooth adjustments of focusing and aperture. For ease of installation, the rings are also equipped with a lock mechanism, similar to Tamron's other current machine vision fixed-focal lens models; the rings can be locked at a choice of three lock screw positions (two positions for the Model: M111FM08).

### Designed for Rugged Lens Appearance

Metal barrels are adopted for durability and vibration-resiliency, giving a rugged appearance to the lenses.



M111FM08



M111FM16



M111FM25



M111FM50

Model		M111FM08	M111FM16	M111FM25	M111FM50
Imager Size		1.1			
Mount		C			
Focal Length		8mm	16mm	25mm	50mm
Aperture Range		F/1.8 - 22			
Field of View Angle (Horizontal x Vertical)	1.1	(1:1)	76.0°x76.0°	42.6°x42.6°	27.6°x27.6°
		(4:3)	83.5°x66.7°	47.7°x36.5°	31.1°x23.6°
	1	(1:1)	71.2°x71.2°	39.4°x39.4°	25.5°x25.5°
		(4:3)	78.4°x62.2°	44.2°x33.7°	28.7°x21.7°
	2/3	57.8°x44.9°	31.0°x23.4°	20.0°x15.0°	
TV Distortion		Less than -1.9%	Less than -0.7%	Less than -0.7%	Less than -0.3%
Focus Range		0.3m - ∞			0.4m - ∞
Operation	Focus	Manual w/Lock			
	Iris	Manual w/Lock			
Filter Size		M77 P=0.75mm	M55 P=0.75mm	M49 P=0.75mm	
Weight		490g	385g	415g	415g
Operating Temperature		-20°C - +60°C			