

RICOH

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FL-CC2518-5MX: New RICOH FL Series FA Lens with 25mm focal length

Stronger line-up with the addition of another S-Rank (Best Performance Class) High Performance Lens for 5 Megapixel Cameras

As well as the previous 12 and 16mm lenses, the new 25mm model uses JIIA (Japan Industrial Imaging Association) lens standards, that satisfy S Rank* (Best Performance Class) criteria, allowing the lenses to take high resolution, high contrast, sharp images over the entire sensor at all working distances.

The new lens features a 33mm compact design, despite its 5 Megapixel high resolution. Its 25mm focal length providing the field of view required by most standard integrated devices, and its size allowing a high degree of freedom with lighting and equipment positions.

The lens provides a high resolution image right up to the periphery and has low distortion, making it ideal for visually inspecting high density printed circuit boards, confirming hairline cracks and other surface defects on sheet metals, checking for missing pixels on LCD monitors, inspecting multiple aspects simultaneously such as the shape, color and surface of food and pharmaceuticals for errors and in making detailed inspections of a wide range of objects. Furthermore, this new high-resolution lens can also be used as a visual sensor in any machine's vision system making it perfect for robot vision applications.

Lenses up to 2 megapixels are currently dominant in the FA camera market. However, the market is transitioning to higher resolution lenses. By extending our line-up of high-performance 5 megapixel lenses, we are now able to respond further to the diverse market requirements. Our goal is to continue developing new products and further expand our business in the FA lens market. Ricoh's area scan lenses currently range from VGA to 12 megapixel resolution, supporting sensors from 1/3" to 1.1".

* JIIA Technical Report LER-007: Recommended specifications for high definition camera lenses;
Applications (S-Rank): For applications requiring higher resolution over the entire image;
Evaluation Criteria (S-Rank): Resolving spatial frequency corresponding to the Nyquist frequency over the entire image.



FL-CC2518-5MX

Key Features of the New RICOH FL-CC2518-5MX

- 1. Provides high resolution and high contrast images**

Right from the center to the periphery, these lenses have a high resolution of over 147 lp/mm. Due to a minimal degradation of resolution right up to the periphery they produce sharp, high contrast images. Therefore, even images on the periphery can be suitable for measurement and inspection. These lenses use JIA (Japan Industrial Imaging Association) high performance class/evaluation standards for high definition camera lenses, and satisfy S-Rank (Best Performance Class) criteria. As entire field 5 Megapixel camera lenses, they capture high resolution, low distortion images not just from the center to the periphery but over the entire image measurement field.
- 2. Achieves low distortion**

Optically designed to reduce distortion, which poses a problem in image measuring and recognition, these lenses keep TV distortion to less than 0.1%, making them ideal for capturing low distortion images over the entire image measurement field.
- 3. Floating focusing mechanism**

The use of a floating mechanism in their focusing systems allows them to capture low-distortion, high resolution images at all distances, from infinity right down to their minimum object distance, demonstrating maximum performance at any magnification.
- 4.**

ø33mm compact design

The lens has a ø33mm compact design ideal for installation with high performance equipment, enhancing production line working efficiency.

Specification of the New RICOH FL-CC2518-5MX

Model	FL-CC2518-5MX
Resolution	over 5 Mega-Pixel
Format Size	2/3" format
Focal length	25mm
Maximum aperture ratio	1:1.8
Iris range	1.8~16
Mount	C
Horizontal angle of view (1/3" format)	11.0°
Horizontal angle of view (1/2" format)	14.6°
Horizontal angle of view (1/1.8" format)	16.4°
Horizontal angle of view (2/3" format)	20.0°
Minimum object distance	0.1m
Back focal length	13.7mm
Filter size	30.5 P=0.5mm
Dimensions	ø 33 x 50mm
Weight	68g
Remarks	Focus & Iris lock skew

RICOH will continue to evolve its RICOH FA lenses to meet the diverse needs of its customers.