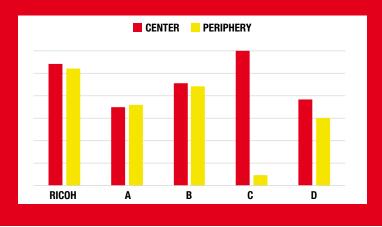


# **5 MEGAPIXEL LENSES** for Machine Vision Systems up to 2/3" Format

- Focal Length 12 mm, 16 mm, 25 mm & 35 mm
- Pixel Pitch 3.45 µm
- Ø 33mm compact design, robust and durable with locking screws
- JIIA S-Rank<sup>1</sup> Performance, 147 lp/mm from center to corners
- Even light distribution, bright and clear to the periphery
- Floating Focusing Mechanism produces high resolution images at all working distances

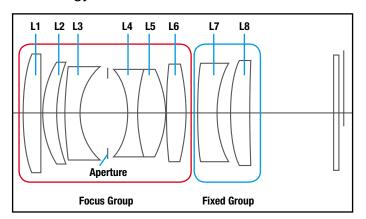


Distortion less than 0.1%



This series of 5 megapixel lenses are developed to be used with 2/3" format cameras and are not only optimised for high image quality, but also for use in harsh environments and durable industrial systems.

The lens's focusing uses a floating mechanism design, reducing aberrations from an infinite to close working distance. Therefore, the lenses can also be used at distance in intelligent traffic technology.



A floating focusing mechanism focuses whilst changing the spacing of some of its optical systems in order to minimize changes in aberrations due to object distance. The lens's construction is divided into a focus group that moves when focusing and a fixed group that remains stationary.

### FL-CC1218-5MX f12 MTF Comparison

- [A] Competitors 5 MP Lens: Large distorion caused lower MTF result
- [B] Competitors 12 MP Lens
- [C] Competitors 5 MP Lens: High central MTF, very low peripheral MTF
- [D] Competitors 10 MP Lens

#### **Extremely low distortion**

The optical distortion of this series is < 0.1%. The resulting extremely low distortion images are excellent for use in the image measurement field.



#### **Compact design**

These lenses have a 33 mm compact design, ideal for installation with high performance equipment.



#### Bright and clear to the periphery

Despite the small diameter of 33 mm, the vignetting has been reduced to the minimum. Combined with the 5 megapixel resolution, bright, high contrast images are achieved all the way to the edges.

#### 5 MP High resolution and high contrast

Supports 2/3" format, 3.45µm pixel pitch cameras, producing sharp 147 lp/mm high resolution, high contrast images from the center to the periphery.

## 

Locking Screws

The lenses are equipped with locking screws to prevent movement of focus and iris.

| Part No.  | Format<br>size | Mount | Focal length (mm) | lris<br>range | Min. Pixel<br>Pitch (µm) <sup>2</sup> | M. O. D.<br>(m) | Horizontal<br>angle of view | Filter size<br>(mm) | Dimensions<br>(mm)           |
|---|----------------|-------|-------------------|---------------|---------------------------------------|-----------------|-----------------------------|---------------------|------------------------------|
| HIGH-RESOLUTION, FOR STANDARD, IP AND MEGAPIXEL CAMERAS |                |       |                   |               |                                       |                 |                             |                     |                              |
| FL-CC1218-5MX   | 2/3"           | С     | 12                | 1.8 - 16      | 3.45                                  | 0.1             | 40.5°                       | 30.5                | Ø33.0 × 47.0                 |
| FL-CC1618-5MX   | 2/3"           | С     | 16                | 1.8 - 16      | 3.45                                  | 0.1             | 30.9°                       | 30.5                | Ø33.0 × 47.0                 |
| FL-CC2518-5MX   | 2/3"           | С     | 25                | 1.8 - 16      | 3.45                                  | 0.1             | 20.0°                       | 30.5                | Ø33.0 × 50.0                 |
| FL-CC3524-5MX   | 2/3"           | С     | 35                | 2.4 - 16      | 3.45                                  | 0.1             | 14.3°                       | 30.5                | $\emptyset 33.0 \times 65.5$ |

<sup>1</sup> S-Rank standards by JIIA (Japan Industrial Imaging Association | <sup>2</sup> Min. Pixel Pitch at 30% contrast (measuring on the edge of the Optic)



www.ricoh-iosd.eu

RICOH International B. V. German Branch

Industrial Optical Systems Division Oberrather Strasse 6 40472 Düsseldorf, Germany Tel.: +49 (0)211 6546 4500 Fax: +49 (0)211 6546 4501 Email: iosd@ricoh-europe.com

