

CoolCube 4

Ultra
High-Resolution
CMOS Camera

USB-Cameras for Monochrome or Color Imaging

Excellent image quality at high speed

The CoolCube 4 camera models are ultra high-resolution digital CMOS cameras supported by MetaSystems imaging products. Using a 1.1" CMOS chip with a pixel size of only $3.45\ \mu\text{m} \times 3.45\ \mu\text{m}$, all CoolCube 4 camera models capture images with a size of $4,096 \times 3,000$ pixels. This outstanding image size means that you need to take far fewer captures to cover a given slide area compared to previous camera models.

Due to the finer pixel size, objectives with much lower magnifications can additionally be used to capture excellent images with exceptionally high resolution from the microscope. Therefore, the CoolCube 4 camera models significantly accelerate slide scanning and image acquisition during the automated slide scanning with Metafer. This is particularly advantageous for digitizing larger slide areas or specimens.

Configurations

All CoolCube 4 models are available in two different variants: a monochrome version (m) and a Bayer-mask color version (c).

The standard models, CoolCube 4 and CoolCube 4P, are without active cooling. The CoolCube 4 TEC is thermoelectrically cooled, which is favorable for applications with low-light level and long integration times.



Technical Specifications

<i>Resolution/Pixel Size</i>	4,096 x 3,000 pixels; 3.45 µm x 3.45 µm
<i>Sensor</i>	1.1" CMOS, quadratic pixels, monochrome or color (BAYER pattern)
<i>Order Numbers</i>	CoolCube 4m (monochrome): H-0310-031-MS CoolCube 4c (color): H-0310-032-MS CoolCube 4m TEC (monochr.): H-0310-033-MS CoolCube 4c TEC (color): H-0310-034-MS CoolCube 4Pm (monochrome): H-0310-037-MS CoolCube 4Pc (color): H-0310-039-MS
<i>Readout Speed</i>	CC4 & CC4 TEC: 31 fps CC4 P: 23 fps
<i>Full Well Capacity</i>	10.8 ke ⁻
<i>Digitization Depth</i>	12 Bit
<i>Shutter</i>	Global Shutter
<i>Exposure Time</i>	20 µs to 300 s
<i>Gain</i>	1 - 16
<i>Data Interface</i>	USB 3.1 Gen. 1
<i>Power Supply / Power Consumption</i>	USB bus powered Max. 3.5 W (CC4 TEC: max. 10 W)
<i>Mechanical Interface</i>	C-Mount
<i>Dimensions and Weight</i>	CC4 & CC4 P: 91.0 x 91.3 x 69.3 mm; 637 g CC4 TEC: 103.0 x 103.0 x 65.4 mm; 935 g

The described functions refer to the following software versions: **Ikaros 6.3** | **Metafer 4.3**

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MetaSystems products are used in many countries worldwide. Depending on the regulations of the respective country or region, some products may not be used for clinical diagnostics.

Some hardware components supplied by other manufacturers are not included in MetaSystems IVD products and are therefore not IVD medical devices.

The CoolCube 4 and CoolCube 4 TEC cameras are manufactured by ABS GmbH Jena, Germany. The CoolCube 4P camera is manufactured by Daheng New Epoch Technology, Inc., China.

WORLDWIDE OFFICES

EUROPE

Germany, Altlussheim
info@metasystems-international.com

Italy, Milan
info@metasystems-italy.com

AMERICAS

USA, Medford
info@metasystems.org

Argentina, Buenos Aires
info@metasystems-latam.com

ASIA

China, Hong Kong
info@metasystems-asia.com

China, Taizhou
info@metasystems-china.com

India, Bangalore
info@metasystems-india.com

CONTACT US

OR YOUR LOCAL
MetaSystems
REPRESENTATIVE



[metasystems-international.com](https://www.metasystems-international.com)

MetaSystems Hard & Software GmbH
Robert-Bosch-Str. 6
68804 Altlussheim | Germany

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