

DFK 27AUJ003 Color Camera

The Imaging Source "27" Series USB 3.0 Camera



Only 36×36×25 mm

Lens not included

The Imaging Source DFK 27AUJ003 color camera has a USB 3.0 interface and is the perfect solution for many industrial automation, quality assurance, security, surveillance and medical applications. The color camera ships with the very sensitive 1/2.3 inch Aptina CMOS MT9J003 sensor. With up to 7 images per second, the DFK 27AUJ003 is a low cost, yet highly versatile imaging solution. The camera includes a C to CS mount adapter, making it compatible to C and CS mount lenses. Using the optional CS to M12 board lens adapter, the camera is also compatible to M12 board lenses.

The Imaging Source authors and supports drivers, SDKs, extensions and end-user software for Microsoft Windows, which can be freely downloaded from our web site. Extensions for Microsoft Windows enable the DFK 27AUJ003 to be integrated in to common machine vision software libraries, such as LabView and OpenCV. Furthermore, we author and support open source Linux drivers and software (Apache License 2.0) to integrate the camera into popular distributions. Download the Linux source code at GitHub.

Features

- USB 3.0 interface
- 1/2.3 inch Aptina CMOS sensor (MT9J003)
- 3,856×2,764 (10.7 MP)
- Up to 7 images per second
- Rolling shutter
- Only 36×36×25 mm
- Compatible to C and CS mount lenses
- Manufactured by The Imaging Source
- Ships with Windows and Linux software

Accessories

- CS to C mount adapter (shipped as standard)
- C and CS mount lenses
- CS to M12 board lens adapters
- M12 board lenses
- Standard USB 3.0 cable in various lengths
- 3 m USB 3.0 cable with fixing screws

Device Drivers for Microsoft Windows

Device Driver for USB Cameras

Software Development Kits (SDKs) for Microsoft Windows

IC Imaging Control .NET Component for C#, VB.NET, C++ Class Library for C++ projects, IC Imaging Control C Library, IC Imaging Control ActiveX, IC Imaging Control ActiveX Runtime Setup

Extensions for Microsoft Windows

TWAIN Source for IC Imaging Control, Cognex VisionPro AIK Plugin for IC Imaging Control, LabVIEW Extension for IC Imaging Control, IC Matlab Plugin for Matlab 10.0 R2010, IC Matlab Plugin for Matlab R2013b and higher versions, IC NeuroCheck Driver for NeuroCheck 6.0, IC NeuroCheck Driver for NeuroCheck 6.1

End User Software for Microsoft Windows

IC Capture - image acquisition, IC Measure - manual on-screen image measurement and image acquisition, IC Fullscreen Presenter, IC Line Profiler, Footswitch software for IC Capture, Scan2Docx, Scan2Docx OCR, Scan2Voice

DFK 27AUJ003 Specification

GENERAL BEHAVIOR

| | |
|--------------------------------------|--|
| Dynamic range | 8/12 bit |
| Video formats @ frame rate (maximum) | 3,856×2,764 (10.7 MP) Y800 @ 7 fps 3,856×2,764 (10.7 MP) Y16 @ 4 fps 3,856×2,764 (10.7 MP) RGB32 @ 7 fps |

INTERFACE (OPTICAL)

| | |
|----------------------|--|
| IR cut filter | ✘ |
| Sensor type | CMOS |
| Sensor specification | On Semiconductor MT9J003 |
| Shutter | rolling |
| Format | 1/2.3 inch |
| Resolution (maximum) | H: 3,856 px, V: 2,764 px |
| Frame rate (maximum) | 7 fps |
| Pixel size | H: 1.67 μm, V: 1.67 μm |
| Lens mount | C/CS |

INTERFACE (ELECTRICAL)

| | |
|---------------------|-----------------------|
| Interface | USB 3.0 |
| Supply voltage | 4.5 VDC to 5.5 VDC |
| Current consumption | approx 250 mA @ 5 VDC |
| Auto iris control | ✘ |
| Trigger | ✘ |
| I/Os | ✘ |

INTERFACE (MECHANICAL)

| | |
|------------|------------------------------|
| Dimensions | H: 36 mm, W: 36 mm, L: 25 mm |
| Mass | 70 g |

ADJUSTMENTS

| | |
|---------------|---------------------|
| Shutter | 1/20,000 s to 1/4 s |
| Gain | 0 dB to 12 dB |
| White balance | -2 dB to 6 dB |

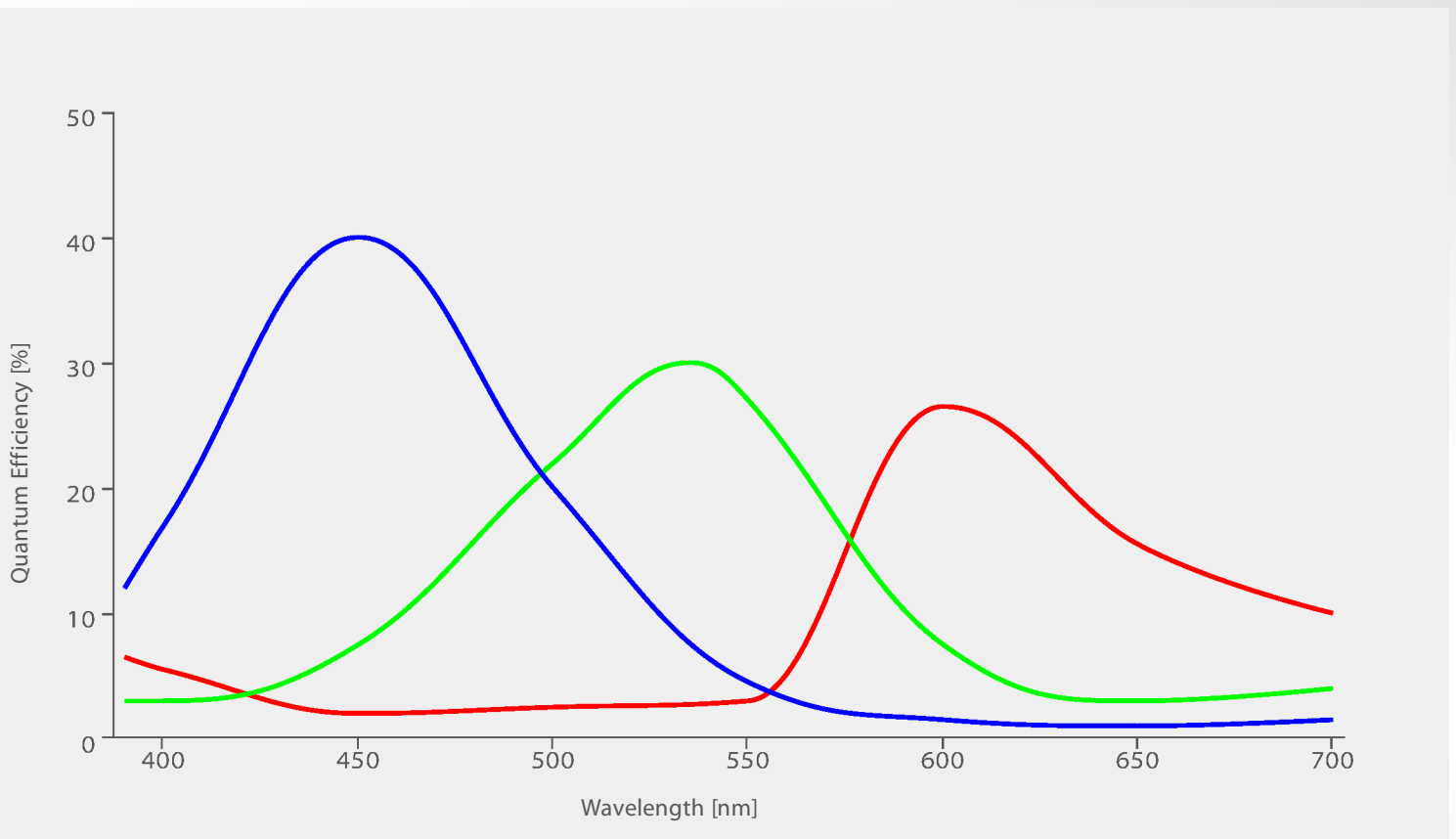
ENVIRONMENTAL

| | |
|-------------------------|-------------------------------|
| Temperature (operating) | -5 °C to 45 °C |
| Temperature (storage) | -20 °C to 60 °C |
| Humidity (operating) | 20 % to 80 % (non-condensing) |
| Humidity (storage) | 20 % to 95 % (non-condensing) |

Subject to change

Aptina MT9J003 Spectral Response Curve

CMOS Sensor in DFK27AUJ003



DFK 27AUJ003 Dimensional Diagram

