



MICAPS TINYCMOS SERIES

CMOS eyepiece Cameras USB 2.0



Micaps Tincmos is a budget-friendly CMOS eyepiece camera designed with a simple, compact structure. It uses a USB 2.0 connection for easy data transfer. This microscope eyepiece camera has a 23.2 mm diameter, making it a perfect fit for most standard microscopes. Despite its small size, it delivers smooth, high-frame-rate video over USB 2.0, ensuring a seamless viewing experience without lag. It comes bundled with Micaps' powerful image and video processing software, giving you advanced tools for capturing and analyzing your observations. The Tincmos is ideal for turning traditional monocular or binocular student microscopes into digital microscopes. And with optional adapters (23.2 to 30 mm or 23.2 to 30.75 mm rings), it can also upgrade stereo microscopes into fully digital systems.

Features

- Microscope eyepiece camera with 23.2 diameter and compact size
- Easy to extend to C Mount camera with high quality lens (optional)
- High-quality camera with Aptina and Sony CMOS sensor
- High-speed USB2.0 interface and high frame rate video display keep the screen smooth without interruption
- Auto white balance and auto-exposure; Brightness, contrast, chroma, and saturation can be adjusted
- With advanced video & image processing application MICAPS MicroView
- Providing Windows/Linux/Mac OS multiple platforms SDK

Applications

- Scientific research, education (teaching, demonstration and academic exchanges)
- Digital laboratory, medical research
- Industrial visual (PCB examination, IC quality control)
- Medical treatment (pathological observation)
- Food (microbial colony observation and counting)
- Aerospace, military (high sophisticated weapons)

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
TINYCMOS12000CA	12M/IMX577(C) 1/2.3" (5.95x4.71)	1.55x1.55	250LSB 70dB 43dB	20@3840x3040 20@1920x1520 20@960x760	1x1 1x1 1x1	0.1-2000 ms
TINYCMOS00921CA	0.92M/OV9732(C) 1/4" (3.888x2.208)	3X3	2.066V/lux-sec 72dB@8x gain 39dB	30@1280x720 30@640x360	1x1 1x1	0.1ms~650ms
TINYCMOS08300CA	8.3M/IMX274(C) 1/2.5" (6.22x3.50)	1.62x1.62	236mV 70dB 43dB	30@3840x2160 30@1920x1080 30@1280x720 30@960x540	1x1 1x1 1x1	0.1-2000 ms
TINYCMOS05100CA	5.1M/AR0521(C) 1/2.5" (5.70x4.28)	2.2x2.2	18.8ke-/lus 73dB 40dB	30@2592x1944 30@1280x960 30@640x480	1x1 1x1 1x1	0.1-1000 ms
TINYCMOS05100CB	5.1M/IMX335(C) 1/2.8" (5.18x3.89)	2.0x2.0	505mV 70dB 43dB	26@2592x1944 26@1280x960 26@640x480	1x1 1x1 1x1	0.1-2000 ms
TINYCMOS03100CA	3.1M/Aptina(C) 1/2.5" (5.73x4.3)	2.8x2.8	18.8ke-/lus 73dB 40dB	30@2048x1536 30@1024x768	1x1 1x1	0.1-1000 ms
TINYCMOS02100CA	2.1M/IMX307(C) 1/2.8" (5.73x4.3)	2.9x2.9	1300mV 73dB 43dB	38@1920x1080 38@960x540	1x1 1x1	0.1-2000 ms
TINYCMOS08300CB	8.3M/IMX415(C) 1/2.8" (5.57x3.13)	1.45x1.45	300mV 70dB 44dB	30@3840x2160 30@1920x1080 30@1280x720 30@960x540	1x1 1x1 1x1 1x1	0.1-2000 ms
TINYCMOS1300CA	1.3M/Aptina(C) 1/3" (4.60x3.70)	3.6x3.6	NA	7.5@1280x1024 12.5@1024x768 12.5@800x60	N/A	Auto

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
TINYCMOS02100CB	2.1M/SC2332 (C) 1/3" (5.18x2.92)	2.7x2.7	4510mV/lux-s 74dB 38.5dB	30@1920x1080 30@960x540	1x1 1x1	0.1-2000 ms
TINYCMOS01301CA	1.3M/Special (C) 1/3" (5.18x2.92)	3.41x3.41	4510mV/lux-s 74dB 38.5dB	30@1520x856 30@760x428	1x1 1x1	0.1-2000 ms
TINYCMOS05000CA	5.0M/Aptina(C) 1/2.5" (5.70x4.28)	2.2x2.2	NA	2@2592x1944 3@2048x1536 5@1600x1200 7.5@1280x1024	N/A	Auto
TINYCMOS05000CB	5.0M/SC5033(C) 1/2.7" (5.18x3.89)	2.0x2.0	2.0V/lux-sec 64dB 35dB	20@2592x1944 20@2048x1536 20@1600x1200 30@800x600	N/A	Auto
TINYCMOS03000CA	3.0M/Aptina(C) 1/2.7" (4.51x3.38)	2.2x2.2	NA	3@2048x1536 5@1600x1200 7.5@1280x1024	N/A	Auto
TINYCMOS03000CB	3.0M/SmartSens(C) 1/3" (4.10x3.07)	2.0x2.0	2.0V/lux-sec 64dB 35dB	20@2048x1536 20@1600x1200 30@800x600	N/A	Auto
TINYCMOS02000CA	2.0M/Aptina(C) 1/3.2" (4.48x3.36)	2.8x2.8	NA	5@1600x1200 7.5@1280x1024 20@800x600 22@640x480	N/A	Auto
TINYCMOS02000CB	2.0M/OV2710(C) 1/2.7"(5.76x3.24)	3x3	3.3V/ Lux-sec 69dB 39dB	25@1920x1080 30@1280x1024 30@1280x720	N/A	Auto
TINYCMOS00920CA	0.92M/BG0703(C) 1/2.7" (5.80x3.28)	4.5x4.5	5.8V/ Lux-sec 65dB 43dB	25@1280x720 25@640x480	N/A	Auto
TINYCMOS00350CA	0.35M/Aptina(C) 1/4" (3.58x2.69)	5.6x5.6	NA	30@640x480	N/A	Auto

Software Environment Under Lan/wan/usb Video Output	
Spectral Range	380-650nm (with IR-cut Filter)
White Balance	Auto/ROI/Manual White Balance
Color Technique	Super Fine Color Engine
Capture/Control SDK	Windows/Linux/macOS/Android Multiple Platform SDK(Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, etc);
Recording System	Still Picture and Movie
Data Format	MJPEG
Cooling System*	Natural
Operating System	Microsoft® Windows® XP / Vista / 7 / 8 / 8.1 /10(32 & 64 bit), OSx(Mac OS X), LINUX
PC Requirements	CPU: Equal to Intel Core2 2.8GHz or Higher, Memory: 4GB or More, Ethernet Port: RJ45 Ethernet Port, Display:19" or Larger, CD-ROM

Operating Environment	
Operating Temperature (in Centidegree)	-10°~ 50°
Storage Temperature (in Centidegree)	-20°~ 60°
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	DC 5V over PC USB port