

# MAKATEA Camera

## Wavefront Microscopy

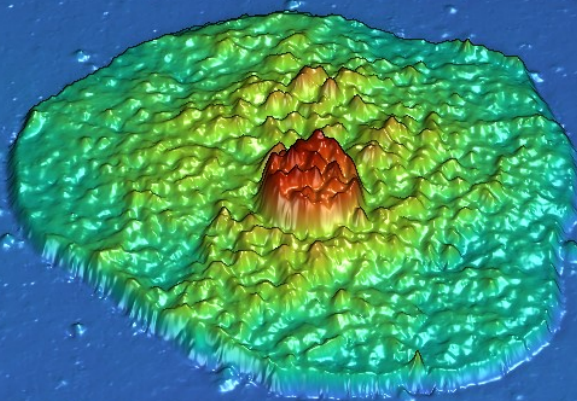
SILIOS Technologies' MAKATEA Sensors and Cameras are based on the *COLOR-SHADES*® technology (hybridization of micro-optical chips onto image sensors).

The MAKATEA Snapshot Wavefront Cameras capture 4.2Mpx raw images to provide 680x680 pixels wavefront images.



**Snapshot Camera**  
**Wavefront Image**  
**400-900 nm Spectral Range**  
**2048 x 2048 Viewing Resolution**  
**680 x 680 Wavefront Resolution**  
**10 Bits**  
**USB3.0**  
**External Trigger Input**

**Extract Volume and Mass**  
**from your biological**  
**observations.**



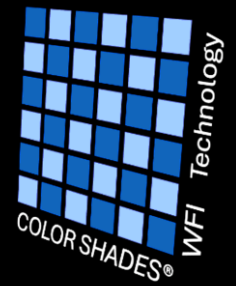
SILIOS Technologies  
ZI Peynier-Rousset  
Rue Gaston Imbert prolongée  
13790 Peynier (France)

Tel : +33 (0)4 42 53 89 60  
Fax : +33 (0)4 42 53 89 59  
Email : [contact@silios.fr](mailto:contact@silios.fr)  
[www.silios.com](http://www.silios.com)



# MAKATEA Camera

## Wavefront Microscopy

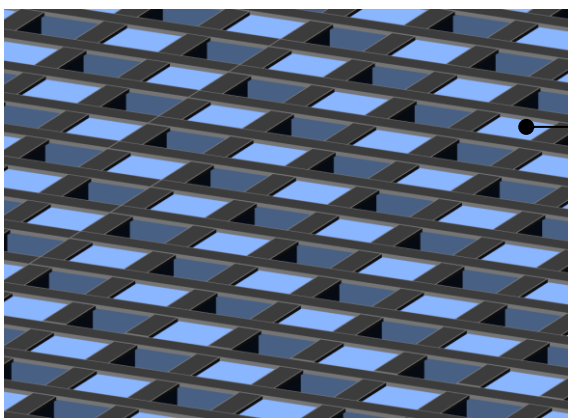


FEATURES	
<b>General</b>	
Wavelength Range	400-900 nm
Microscope Compatibility	Any microscope equipped with a standard camera input port.
<b>CMOS Sensor</b>	
CMOS Sensor Native Resolution	2048 x 2048 (4.2MP)
CMOS Sensor Pixel Pitch	5.5 $\mu\text{m}$
CMOS Sensor Area	11.26 x 11.26 $\text{mm}^2$
<b>Wavefront Image</b>	
Wavefront Image Definition	680 x 680 (*)
Spatial Resolution	16.5 $\mu\text{m}$ (**)
Sensitivity	< 1 nm RMS
<b>Wavefront Camera</b>	
Camera Max Frame Rate	90 fps
Wavefront Live Frame Rate	~10-15 fps (***)
Bit Depth	10 bits
Digital Output/Power Supply	USB3.0
External Trigger Input	Yes
Lens Mount	C-type or CS-type
Dimensions	60 x 40 x 26 $\text{mm}^3$
Weight	< 120 g

(\*) possible 2048x2048 resolution for viewing

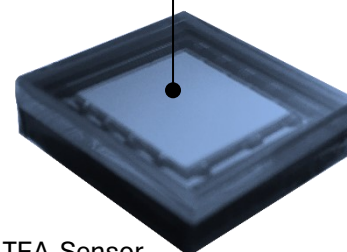
(\*\*) spatial resolution at sample level with a x100 magnification: 165 nm

(\*\*\*) depends on the PC configuration



Pixelated Diffractive Filter

Hybrid assembly



MAKATEA-Sensor



SILIOS Technologies  
 ZI Peynier-Rousset  
 Rue Gaston Imbert prolongée  
 13790 Peynier (France)

Tel : +33 (0)4 42 53 89 60  
 Fax : +33 (0)4 42 53 89 59  
 Email : contact@silios.fr  
 www.silios.com