

# Osiris M Module

## Product brief



### Product Specification:

<b>Sensor Spec:</b>	
<b>Camera Dimensions:</b>	~ 1.0 mm x ~ 1.0 mm x ~ 2 mm
<b>Pixel Array Size:</b>	320 x 320
<b>Pixel Size / Pitch:</b>	2.4 um x 2.4 um
<b>Data Interface:</b>	1-lane LVDS
<b>ADC Resolution:</b>	10 Bit
<b>Pin Count:</b>	4
<b>Shutter Mode:</b>	Rolling Shutter
<b>Supply:</b>	3.3 V (operating condition: 3.2 V – 3.6 V)
<b>Power consumption:</b>	15 mW (LVDS mode)
	43 mW (30 MHz, Single Ended Interface Mode / SEIM)
	2.5 mW (idle mode)
<b>Output FPC footprint:</b>	6 pin, 0.5 mm pitch, 0.35 mm conductor width, JST 06FLT-SM2-TB compatible
<b>Image Output Format:</b>	12 Bit RGB raw
<b>Framerate:</b>	9 - 50 Hz
<b>Temperature range:</b>	0 – 45 °C (operating)

<b>Lens Spec:</b>	
<b>Diagonal FOV in air:</b>	90 deg.
<b>Horizontal FOC in air:</b>	68 deg.
<b>F-Number:</b>	F4.0 (can be modified on demand, e.g. 2.4)
<b>Integrated Filter:</b>	near-infrared cut (cutoff wavelength is 650 nm)
<b>Best Focus:</b>	15 mm
<b>DOF:</b>	5 – 50 mm

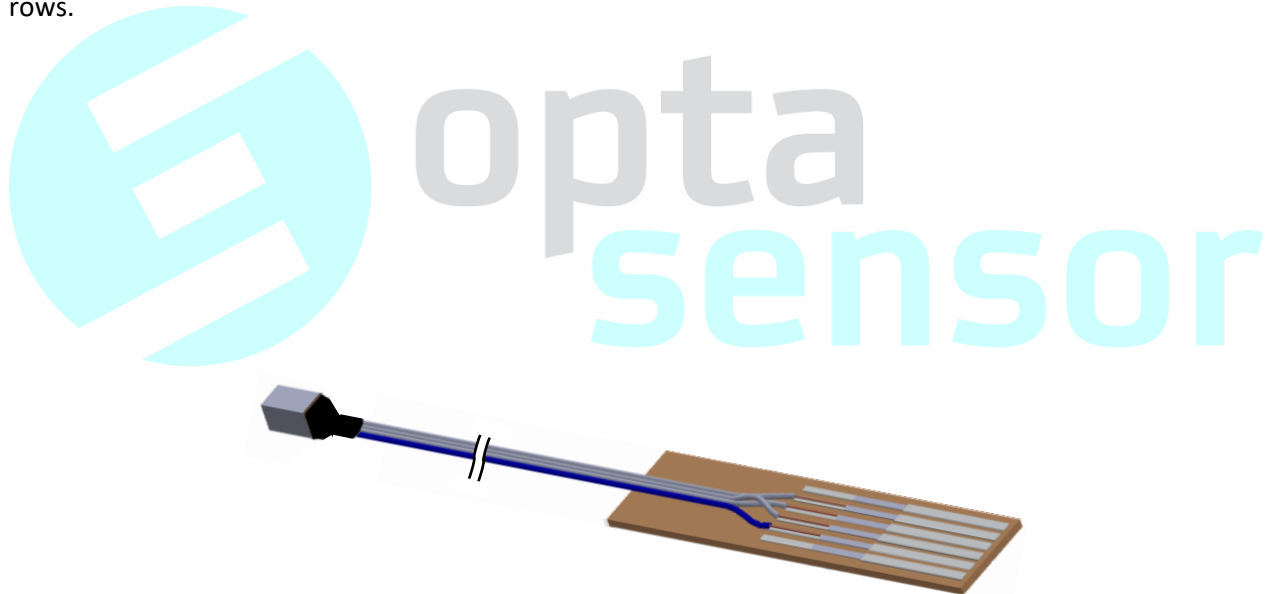
<b>Assembly Spec:</b>	
<b>Cable:</b>	4 wire flat ribbon AWG 41, 2 m length (can be modified on demand, e.g. 3 m)

**Product Features:**                      Low Power idle mode  
   Tunable framerate

For coarse framerate adjustment an additional frequency divider of main clock can be configured. Supplementary there is a register for high speed mode. This combination allows for framerates of 50, 38, 24, 19, 12 and 9 fps (@3.3 V supply).

LVDS mode permits cable lengths of up to 3 m. In SEIM mode the sensor operates the LVDS data lines as single ended LVTTTL interface, therefore readout circuitry must be close to the sensor to operate in this mode. In SEIM mode the sensor is in slave configuration, which allows for easy synchronization of multiple sensors.

Exposure time and analogue gain can be programmed via serial configuration interface. The integration time can be adjusted by defining the number of rows in reset and the delay mode time. The additional register for delay allows for longer exposure times and decreases minimum strobe time to expose all rows.



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