

IR ADAPTOR

Wavelength management



Typically, a CMOS silicon sensor is operating at its full potential when imaging lasers with wavelengths between 350 nm and 1150 nm. If you want to extend the performance range of your Beamage beam profiling camera to the near-IR telecom wavelengths band, you can use the IR Adaptor. This ideal solution takes advantage of a multi-photon absorption process to extend the sensitivity range of the camera sensor to a portion of the near-IR spectrum (1495 nm - 1595 nm).

MAIN CHARACTERISTICS

- Converts wavelengths between 1495 nm and 1595 nm to shorter wavelengths between 950 nm and 1075 nm.
- Images larger beams due to the convergent properties of the optics (3.29X).
- Built with a high quality coated anti-reflection input window that allows wavelength conversion with low distortion and maximum image resolution.
- Removable and easily C-mounted onto the entrance port of the camera.
- Ready to use within minutes.

SPECIFICATIONS

IR ADAPTOR	
Active area	27.5 mm \varnothing
IR spectral range	1495 nm - 1595 nm
Peak IR sensitivity	1510 nm and 1540 nm
Converted wavelengths	950 nm - 1075 nm
Pixel Multiplication Factor	3.29
Minimum beam size	230 μ m
Maximum beam size	19 mm
Maximum resolution	12 lp/mm over active area 40 lp/mm at sensor focal plane
Distortion	-1.0% barrel distortion (inverted image)
Linearity	Non-Linear, IR converted output \sim IR input intensity $^{\wedge}1.41$
Spectral transmission	360 nm - 2000 nm at F30.8
Damage threshold	1 W/cm 2
Dimensions	46 mm \varnothing x 97 mm L
Operating temperature	-10°C to +40°C
Weight	210 g
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EXCITATION SPECTRUM

