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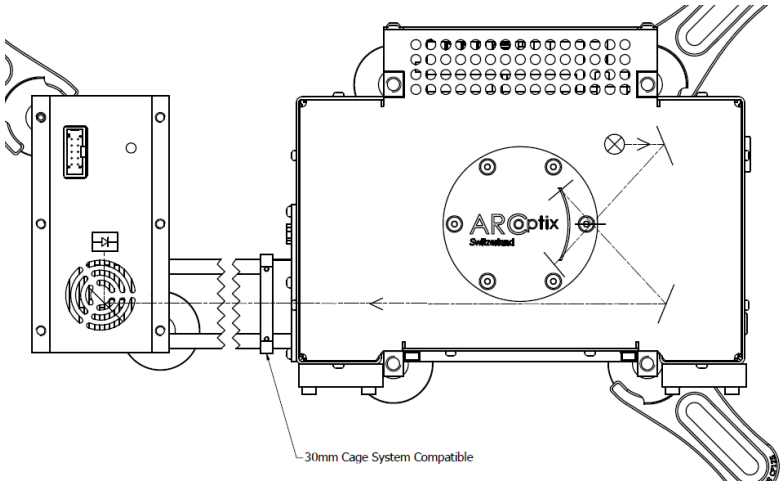
ARCOPTIX OEM011



The ARCoptix OEM011 is a flexible alternative to our OEM010 series. The main module features a built-in light source (SiC globar) regulated in temperature as well as our permanently aligned interferometer system. The TE-MCT detector has been moved to an external module which is ideal for configurations requiring a sampling system (short path gas cell, purged volume, etc.). Both modules are easily fixed on optical breadboards and can accommodate 30 mm cage system rods for rapid prototyping.



Optical routing in the ARCOPTIX OEM011

Features

- **Internal light source**
- **Compact, rugged unit**
- **External detector module**
- **Robust to ambient light perturbation**
- **Dynamically adjustable resolution:**
  - **16cm^{-1}**
  - **8cm^{-1}**
  - **4cm^{-1}**
  - **2cm^{-1}**
  - **0.5 cm^{-1} (on request)**
- **Wear free moving parts for extended lifetime**
- **Compatible with 30 mm cage system rods**
- **Temperature controlled reference laser**

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Specifications

Product code	FTIR-OEM011-060-4TE	FTIR-OEM011-085-4TE	FTIR-OEM011-120-4TE
Beam-splitter material	CaF_2		ZnSe
Spectral Range [cm^{-1}]	1’660-5’000	1’200-6’600	830-5’000
Spectral Range [µm]	2-6	1.5-8.5	2-12
Detector Type	MCT (2-TE cooled)	MCT (4-TE cooled)	
Detector Peak D* [cm $Hz^{1/2}W^{-1}$]	>1x10^{11}	>8x10^{9}	>4x10^{9}
Signal-to-noise ratio (SNR)	> 80'000:1[i]	>40’000:1[i]	
Output beam characteristics	Ø 12.7 mm collimated (max ~30mrad half angle)		
Detector module FOV [mrad]	28 (half-angle, Ø 12.7 mm input aperture diameter)		
Interferometer type	Permanently aligned, double retro-reflector design		
Resolution (unapodized) [cm^{-1}]	*0.5*[ii], 2, 4, 8 (user selectable)		
Wavenumber repeatability	<10 PPM		
Scan frequency	>4 hz @ 4cm^{-1}		
Internal reference laser	Temperature-stabilized solid-state laser @850nm		
A/D Converter	24 bit		
Amplifier	4 gain levels low noise trans-impedance amplifier		
Operating temperature	10°C-40°C		
Power requirement	12V / 30W (interferometer), 12V / 10W (detector module)		
Communication Interface	USB 2.0		
Software Interface	Windows 7/10/11, Linux API for controlling the instrument via our DLL Single board computer available on request		
Dimensions [mm]	165x145x82 (interferometer), 93x75x66 (detector module)		
Weight [g]	2100 (interferometer), 400 (detector module)		

[i] Input to output direct light routing, 60s measurement, around peak sensitivity wavelength, 4cm-1, Norton-Beer weak apodization.
[ii] Available on request only, please contact us at info@arcoptix.com for details
SPECIFICATIONS ARE SUBJECT TO CHANGES WITHOUT NOTICE.

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