

Ge-CAL
Spectral Responsivity Standard 800-1800nm

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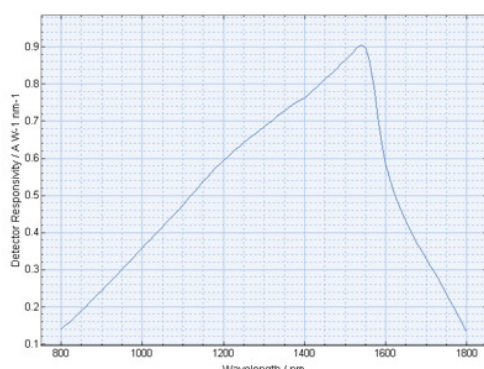
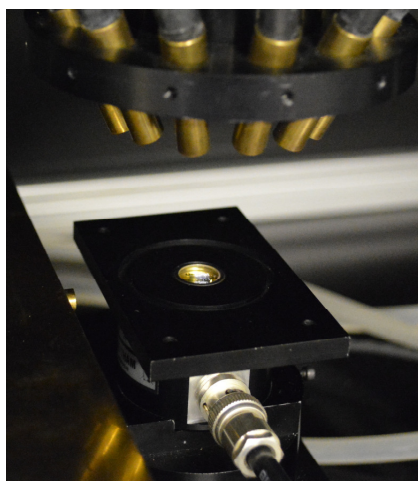
The Ge-CAL is a germanium photodiode spectral responsivity standard, supplied with an NMI traceable calibration.

The Ge-CAL houses a 5mm diameter active area Germanium photodiode, which may either be mounted to the exit slit of any Bentham monochromator or spectroradiometer, or used free-standing.

The calibration of this device was performed under short circuit

conditions. Generated photocurrent should be measured with a trans-impedance amplifier such as the Bentham 487 or 477, or a transformer, such as the Bentham 474.

The spectral responsivity calibration is performed with respect to the Physikalisch-Technische Bundesanstalt (PTB), providing traceability to a National Measurement Institute (NMI). Direct PTB calibration can be provided.



Mechanical

Material	Germanium
Active area	5mm diameter
Max. Operating Temperature	-20 to +60°C
Connector	BNC
Compatibility	Four M3 clearance holes (Bentham slit pattern)
Dimensions, LxWxH	550 x 250 x 18 mm

Electro-optical

Spectral response range	800-1800nm
Operating mode	Photovoltaic
Dark Current (typ.)	<1pA
Shunt Resistance (typ.)	15kΩ
Peak Wavelength (typ.)	1500nm
Peak Responsivity (typ.)	0.90 A.W ⁻¹
NEP	1.5 x 10 ⁻¹² W.H ^{-1/2}

Calibration

Measurement Type	Short-circuit spectral responsivity
Wavelength Range	800-1800nm
Wavelength Interval	5nm
Temperature at Calibration	20°C
Traceability	Physikalisch Technische Bundesanstalt (PTB, Germany)
Recommended Calibration Frequency	Three year recommended