

THZ-I-BNC

THz detectors with integrated analog module



OUTPUT OPTIONS

- **ANALOG OUTPUT**
Plug the device directly into your oscilloscope or lock-in amplifier with the BNC output

KEY FEATURES

- **COVERS THE ENTIRE THZ SPECTRUM**
Measure accurately from 0.25 to 15 μm and from 30 THz to 0.1 THz in relative terms
- **MEASURE POWER FROM nW TO μW**
Make low-level measurements with an NEP of 1.0 nW
- **MEASURE ENERGY FROM nJ TO μJ**
Can be used with low repetition rate pulsed THz sources to measure pulse energy up to 40 Hz
- **INTEGRATED ANALOG MODULE**
Plug the device directly into your oscilloscope or Lock-In Amplifier
- **BATTERY OR EXTERNAL POWER**
Includes 9V battery and an external power supply
- **CALIBRATED AT 0.63 μm**
All THz detectors are calibrated at a single wavelength (0.63 μm) and include typical wavelength correction data from 0.25 to 440 μm . They are used for relative measurements outside that range.
- **SDC-500 OPTICAL CHOPPER**
The THZ-I-BNC models require the use of an optical chopper, like our SDC-500, running at 5 Hz.

ACCESSORIES



Stand with delrin post



Removable IR Windows
(Various types available)



SDC-500 digital
optical chopper




Pelican carrying case

THZ-I-BNC

Specifications

CE NIST*
Traceable 
*Also traceable to NRC-CNRC



THZ5I-BL-BNC	
MAX AVERAGE POWER	62.5 μ W
EFFECTIVE APERTURE	5 mm \varnothing
INTEGRATED MODULE	Analog (BNC)
MEASUREMENT CAPABILITY	
Spectral range^a	
Frequency	0.1 - 30 THz
Wavelength	3000 - 10 μ m
Max measurable power	62.5 μ W
Noise equivalent power ^b	1.0 nW
Rise time (0-100%)	\leq 0.2s
Sensitivity (Typical)	140 kV/W
Chopping frequency	5 Hz (Required)
Calibration uncertainty	Contact us
Energy mode	
Maximum measurable energy	2 μ J
Noise equivalent energy	1.0 nJ
Minimum pulse width	1.0 μ s
Maximum repetition rate	40 Hz
DAMAGE THRESHOLDS	
Maximum average power density (1064 nm)	50 mW/cm ²
PHYSICAL CHARACTERISTICS	
Effective aperture	5 mm \varnothing
Sensor	Pyroelectric
Absorber	BL
Analog output	0-10 V
Dimensions	81.3 \varnothing X 99.3D mm
Weight	500 g
ORDERING INFORMATION	
Compatible stand	STAND-D-233
Product page	

- a. Projected spectral range.
From 10 to 440 μ m, spectrometer measurement.
From 440 to 3000 μ m, relative measurement only.
This spectral range is subject to change.
- b. At 632 nm and a chopping frequency of 5Hz.

Specifications are subject to change without notice