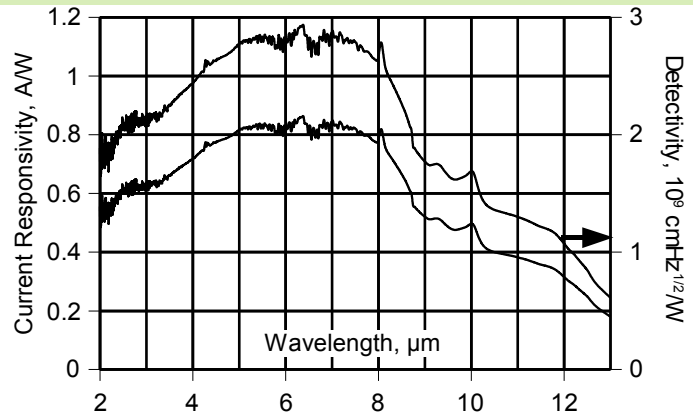
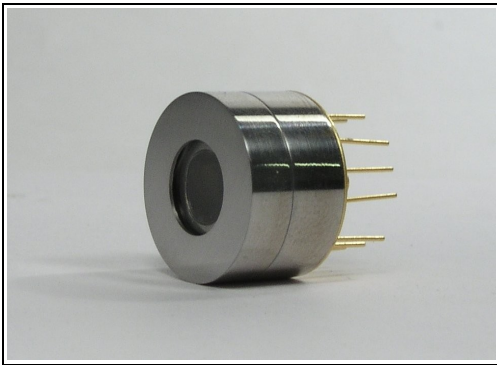


PCI-2TE-13

FTIR DEDICATED 2-13 μm IR PHOTOCONDUCTOR THERMOELECTRICALLY COOLED OPTICALLY IMMERSED



DESCRIPTION

PCI-2TE-13 is a wide spectral band FTIR dedicated photodetector. The device operates within the 1-13 μm range, with performance boosted at short wavelength. The responsivity is stabilized with built-in two-stage Peltier cooler, keeping sensitive element at temperature 220-240 K. Performance of the devices has been improved with heterostructure design, optical resonance and hyperhemispherical immersion. Constant voltage bias and current readout should be used for the best performance and linearity.

The spectral response can be tuned according to requirements; better performance can be achieved for short cutoff wavelength devices. Standard detectors are available in modified TO-8 packages with BaF_2 windows. Other packages, windows and connectors are available upon request.

SPECIFICATION*

@ 20°C

Wavelength	μm	2	4	6	8	10	12	13
Detectivity, 20kHz	$\text{cmHz}^{1/2}/\text{W}$	>1.8E9	>2.4E9	>2.9E9	>2.6E9	>1.6E9	>1E9	>0.6e9
Current responsivity	A/W	>0.5	>0.7	>0.8	>0.8	>0.45	>0.3	>0.15

Other parameters: response time <10 ns, 1/f noise knee frequency 1+20 kHz, active area 0.25x0.25; 0.5x0.5; 1x1; 2x2 mm, bias field 5-10 V/cm, sheet resistivity 50-100 ohm, acceptance angle 35 deg, minimum f/# 1.6

* Data sheet states minimum D* values for each detector model. Higher performance detectors can be provided upon request.

* Detector size 1x1mm²

See application notes for more details.

ACCESSORIES



Stand Alone
Preamp/Supply



Integrated Preamp/Supply/Peltier
Controller



Thermoelectric Cooler Controller



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