

Sub-THz Imaging Camera



TeraSense

Product Description:

TeraSense has developed the world's first high speed sub-THz semiconductor imaging camera based on transformation of THz radiation into two-dimensional electron system (2DES) plasma oscillation. With sensitivity across a broad range of frequencies and operation at room temperature, this compact imaging sensor can be used for a variety of applications including beam characterization, optical alignment, and rapid non-destructive evaluation of materials.

Key features include:

- Operating range: 0.05-1.0 THz
- 256 pixels, 1024 pixels, or 4096 pixels models available
- 50 kV/W responsivity with NEP 1 nW/Hz^{1/2}

Product Image:



Product Specifications:

SPECIFICATIONS
Operational frequency range: 50 GHz - 1 THz
Responsivity up to 50 kV/W
Noise Equivalent Power (NEP) = 1 nW/Hz ^{1/2}
1.5 x 1.5 mm Pixel Size
Image acquisition rate up to 50 fps
USB feeding and programming
Terasense Viewer Software included

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Models



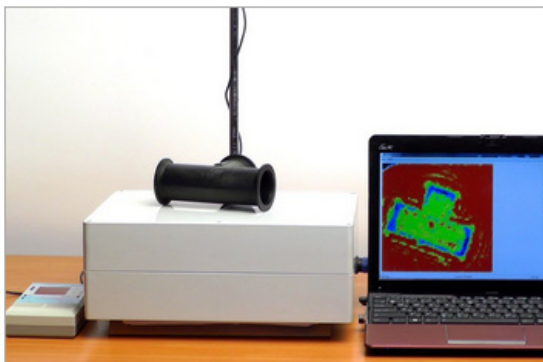
Tera-256 Model

- 256 pixels (16 x 16 array)
- 1.5 x 1.5 mm pixel size
- 50 kV/W responsivity with NEP=1 nW/Hz^{0.5}
- 10 cm x 10 cm x 5.5 cm device size



Tera-1024 Model

- 1024 pixels (32 x 32 array)
- 1.5 x 1.5 mm pixel size
- 50 kV/W responsivity with NEP=1 nW/Hz^{0.5}
- 10 cm x 10 cm x 5.5 cm device size



Tera-4096 Model

- 4096 pixels (64 x 64 array)
- 1.5 x 1.5 mm pixel size
- 50 kV/W responsivity with NEP=1 nW/Hz^{0.5}
- 20 cm x 20 cm x 10 cm device size