



- ✓ Frequency range 0.05 - 0.7 THz
- ✓ High responsivity
- ✓ Room temperature
- ✓ Video regime (24Hz)
- ✓ Compact and low-cost
- ✓ 1.5 year warranty
- ✓ Customer-focused solutions

TeraSense has developed an original patent-protected technology for making a new type of semiconductor detector arrays for terahertz imaging. The detectors operate at room temperature and arrays are scalable in the number of pixels. The company is developing flexible terahertz imaging solution for science and industry.

The detectors proposed by TeraSense have good responsivity comparable with other available detectors working in terahertz range (50 GHz – 0.7 THz). But in contrast they are low-cost, has uniform pixel-to-pixel sensitivity (pixel-to-pixel deviation of the responsivity is less than 20%) and they can be easily produced in large quantities in the form of 2D array thanks to compatibility of the TeraSense technology with mass semiconductor manufacturing lines. Therefore, the detectors are suitable for use in the terahertz camera without any moving parts.

Tera-256 Model	Tera-1024 Model	Tera-4096 Model
256 pixels (16 x 16 array)	1024 pixels (32 x 32 array)	4096 pixels (64 x 64 array)
1.5 x 1.5 mm pixel size	1.5 x 1.5 mm pixel size	1.5 x 1.5 mm pixel size
50 kV/W responsivity with NEP=1 nW/Hz ^{0.5}	50 kV/W responsivity with NEP=1 nW/Hz ^{0.5}	50 kV/W responsivity with NEP=1 nW/Hz ^{0.5}
10 x 10 x 5.5 cm device size	10 x 10 x 5.5 cm device size	20 x 20 x 10 cm device size

TeraSense is a manufacturer of low-cost portable sub-terahertz imaging cameras, generators and ultra-fast detectors. Our products balance on the cutting edge of scientific and technological breakthroughs. Revolutionary patent protected Terasense® technology allows producing a new type of semiconductor detectors of T-rays, which can operate at room temperatures. These detectors can be combined into a compact matrix (like CCD in photo camera) and are quite inexpensive. In addition to detectors, the Company has a technology for creation of T-rays "flashes" and also possesses the technology for substances detection using their individual terahertz spectral "fingerprints".

