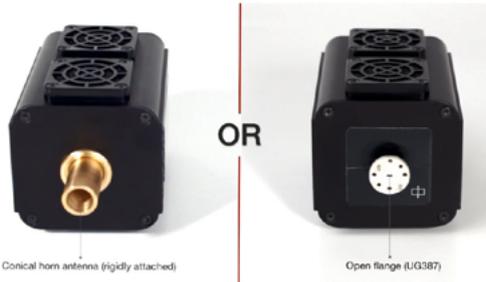


SUB-TERAHERTZ SOURCES



- ✓ IMPATT technology
- ✓ 100 GHz, 140 GHz, 200 GHz and 300 GHz available frequencies
- ✓ Protective isolator for enhanced stability
- ✓ TTL Modulation
- ✓ High-frequency modulation option (100 MHz, 1.5 ns rise/fall time)
- ✓ Detachable horn antenna
- ✓ Low cost and compact size
- ✓ 1 year warranty

Description

TeraSense series of terahertz sources (IMPATT diodes) are silicon double drift diodes with a 0.6 μm transit region, mounted on copper heat sink. The layers in double-drift diodes are: a heavily doped (p⁺)-region, a moderately doped p-region, a moderately doped n-region, and a heavily doped (n⁺)-region. The (p⁺) — and (n⁺) — regions allow ohmic electrical contacts to be made to the external circuit. The device relies on negative resistance to generate and sustain an oscillation.

Terasense is now offering its upgraded version of terahertz source. The upgraded IMPATT diode is outfitted with a protective isolator, which significantly improves output power stability. From now on you can order IMPATT diode with either rigidly fixed horn antenna or WR- flange of your choice. Typical output rfpower of THz source with optimized frequency @ 100 GHz can reach up to 100 mW.

THz source	THz source	THz source	THz source
100 GHz	140 GHz	200 GHz	300 GHz
~ 80 / 180 / 400 mW / 0.8 W output power	~ 30 / 90 mW output power	~ 50 / 100 / 200 mW output power	290 GHz ~ 10 mW 280 GHz > 20 / 40 mW output power
Conical horn antenna / Flange type output	Conical horn antenna / Flange type output	Diagonal horn antenna / Flange type output	Diagonal horn antenna / Flange type output
Protective Isolator TTL Modulation	Protective Isolator TTL Modulation	TTL Modulation	TTL Modulation

About TeraSense

TeraSense is a manufacturer of low-cost portable sub-terahertz imaging cameras, generators and ultrafast detectors. Our products balance at the cutting edge of scientific and technological breakthroughs. The company is a very strong team of 20 highly skilled scientists and engineers bringing a wealth of experience in the field. TeraSense has a steady growing global outreach supported by a very wide network of authorized distributors available in more than 30 countries of the world.