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Patent Number(s): US2012108004-A1

Title: Method manufacturing photoconductive device for integrated type terahertz (THz) wave sensing module involves removing upper substrate arranged on lower substrate, while leaving photoconductive film and antenna on lower substrate

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Abstract: NOVELTY - The method involves forming a photoconductive film on upper substrate (130). A dipole antenna (138) is on the photoconductive film. The substrate having the photoconductive film and the antenna formed are arranged on the lower substrate. The photoconductive film and the antenna are located between the upper substrate and the lower substrate. The upper substrate arranged on the lower substrate is removed while leaving the photoconductive film and the antenna on the lower substrate.

USE - Method manufacturing photoconductive device for integrated type THz wave sensing module.

ADVANTAGE - The efficiency for the generation and detection the pulses at low cost is improved. The contact resistance is reduced. The fresnel reflection is reduced such that the radiation efficiency is improved. The leakage current supply lines is reduced.

DESCRIPTION DRAWING(S) - The drawing shows a sectional view the photoconductive element.

Upper substrate (130)

Gap (133)

Current amplifier (134)

Substrate lens (136)

Dipole antenna (138)

Drawing:

Derwent Class Code(s): U11 (Semiconductor Materials and Processes); U12 (Discrete Devices, e.g. LEDs, photovoltaic cells)

Derwent Manual Code(s): U11-C18B4; U12-A02B1

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