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Patent Number(s): US2012097978-A1

Title: Photoconductive device has antenna that is provided on photoconductive film for radiating or coupling with terahertz wave

Inventor Name(s): OUCHI T

Patent Assignee(s): CANON KK (CANO)

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Abstract: NOVELTY - The device has substrate (50) and photoconductive film that are made respective materials. The photoconductive film is provided on substrate, and an antenna is provided for radiating or coupling with terahertz wave. The antenna is provided on photoconductive film, and the materials used for making substrate and photoconductive film are different from each other. The substrate is made material such as silicon, aluminum nitride, and silicon carbide.

USE - Photoconductive device.

ADVANTAGE - The device can improve the efficiency for generating/detecting tetrahertz electromagnetic waves at low cost, and provide optical interconnections having high speed switching feature.

DESCRIPTION DRAWING(S) - The drawing shows a schematic perspective view the photoconductive device.

Substrate (50)

Coplanar strip lines (52a,52b)

Optical waveguides (55,56,62)

Optical divider/coupler (57,58)

Capacitor (60)

Drawing:

Derwent Class Code(s): L03 (Electro-(in)organic, chemical features electrical devices); A85 (Electrical applications); V07 (Fibre-optics and Light Control)

Derwent Manual Code(s): L03-H03; L04-A01A; L04-A01B; L04-A02A1C; A12-E07C; A12-E11; V07-F02

IPC: H01L-031/0224; H01L-031/0304; H01L-031/0312

Patent Details:

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