

Title (en)

MONOLITHIC MILLIMETER WAVE REFLECT ARRAY SYSTEM

Title (de)

MONOLITHISCHES MILLIMETERWELLEN-REFLEXIONS-ARRAY-SYSTEM

Title (fr)

SYSTEME DE RESEAU MONOLITHIQUE A REFLEXION D'ONDES MILLIMETRIQUES

Publication

EP 1629567 A1 20060301 (EN)

Application

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Priority

US 0317154 W 20030530

Abstract (en)

[origin: WO2004109851A1] A monolithic semiconductor power device. The device is designed to produce high energy density and high power level RF/Millimeter wave radiation using the quasi-optical spatial power of an array (100) of small amplifiers (200) on a solid state wafer (300). Each cell (200) of the array. (100) contains a reflection amplifier (206) that receives radiation and retransmits the signal back into the approximate same direction from which it was received. The radiation exiting from the array (100) is physically like a reflection that has been modified by the individual amplifier's characteristics. The exiting amplified radiation leaves the array (100) as a coherent wave front (110). The individual amplifier elements are fabricated on a monolithic solid state wafer (300). Rather than being diced into individual amplifiers, the elements are electrically connected together with proper biases and ground levels on the actual solid state wafer.

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IPC 8 full level

H01Q 3/46 (2006.01); **H01Q 21/00** (2006.01)

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