

Title (en)

Microwave antenna with optoelectronic controlled scanning.

Title (de)

Mikrowellenantenne mit optoelektronisch gesteuertem Absuchen.

Title (fr)

Antenne hyperfréquence à balayage optoélectronique.

Publication

EP 0519772 B1 19950621 (FR)

Application

EP 92401383 A 19920521

Priority

FR 9107422 A 19910618

Abstract (en)

[origin: EP0519772A1] This antenna is provided with an array (2) of elementary reflectors with optically controlled phase shifters. The array of elementary reflectors includes a substrate (20) in a dielectric material with low microwave frequency losses, and which is transparent to light and is coated, on the side exposed to the microwave frequencies, with a layer (21) of photoconductor elements distributed as an array and, on the opposite side, with a conducting electrode (22) which is transparent to light. Means of selective illumination (3, 4, 5) of the photoconductor elements enable the latter to be made to pass from an electrically insulating state to a conducting state and vice versa in order to modify the path of the microwave amid the reflectors and enable the beam to be formed. The array of photoconductor elements has a grid which oversamples the grid of the array of elementary reflectors. Thus, each elementary reflector groups together several photoconductor elements, a larger or smaller proportion of which can be illuminated, thus endowing it with the various possible states. <IMAGE>

IPC 1-7

H01Q 3/26; **H01Q 3/46**

IPC 8 full level

H01Q 3/26 (2006.01); **H01Q 3/46** (2006.01)

CPC (source: EP US)

H01Q 3/2676 (2013.01 - EP US); **H01Q 3/46** (2013.01 - EP US)

Cited by

US2015180122A1; US9595757B2; EP0680111A1; NL9400863A; US5585812A

Designated contracting state (EPC)

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EP 0519772 A1 19921223; **EP 0519772 B1 19950621**; DE 69203044 D1 19950727; DE 69203044 T2 19951102; FR 2678112 A1 19921224; FR 2678112 B1 19931203; US 5262796 A 19931116

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EP 92401383 A 19920521; DE 69203044 T 19920521; FR 9107422 A 19910618; US 89777692 A 19920612