

Title (en)

Magic microwave source and its application in an antenna with electronic scanning.

Title (de)

Magische Mikrowellenquelle und ihre Anwendung bei einer Antenne mit elektronischem Absuchen.

Title (fr)

Source de rayonnement micro-onde magique et son application à une antenne à balayage électronique.

Publication

EP 0435739 B1 19950510 (FR)

Application

EP 90403654 A 19901218

Priority

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Abstract (en)

[origin: EP0435739A1] The subject of the invention is a microwave radiating source dubbed magic, that is to say ensuring the absorption of multiple reflections, for illuminating a lens so as to form an antenna for electronic scanning. <??>The source according to the invention includes a stack of elementary illuminators (li) in a direction (OY) substantially parallel to the electric field (E) of the emitted microwave energy. In one embodiment, each elementary illuminator includes in succession, in the direction of propagation of energy (OZ): - a plane (1) forming a short-circuit; - a plane (2) forming an incidence filter, parallel to the previous plane, situated a distance of the order of half a wavelength away, including two mutually parallel tracks (21, 22) perpendicular to the electric field, between which resistive elements (R) are connected; - a plane (3) carrying a radiating element (31) of the snaking line type extending in a direction (OX) substantially normal to the electric field. <??>The illuminator and the filter are such that the filter is at least partially absorbing in respect of the microwave energy received with a non-zero incidence. <IMAGE>

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