

Title (en)

SYSTEM FOR DEFLECTING AND POINTING A MICROWAVE BEAM

Title (de)

SYSTEM ZUR ABLENKUNG UND AUSRICHTUNG EINES MIKROWELLENSTRAHLS

Title (fr)

SYSTEME DE DEFLEXION ET DE POINTAGE D'UN FAISCEAU HYPERFREQUENCE

Publication

**EP 3446362 A1 20190227 (FR)**

Application

**EP 17720058 A 20170421**

Priority

- FR 1600670 A 20160422
- EP 2017059481 W 20170421

Abstract (en)

[origin: WO2017182612A1] The invention relates to a controllable deflection system which comprises: - a device for forming an incident microwave beam, having a wavelength of between 1 mm and 1 m, configured to collimate said beam in transmitting mode or to focus said beam in receiving mode, - a first device for deflecting the microwave beam comprising a first diffractive dielectric component (C1) with sub-wavelength microstructures, the first diffractive dielectric component being associated with a first rotation mechanism (R1) about a first controllable axis ( $\Omega_1$ ). The system comprises, upstream of the first deflection device in transmitting mode, or downstream of the first deflection device in receiving mode: - a second deflection device configured to deflect an incident microwave beam towards the first deflection device, in transmitting mode, or from the first deflection device in receiving mode, said second deflection device being associated with a second rotation mechanism (R2) about a second controllable axis ( $\Omega_2$ ), and the angle ( $\Omega_1$ ,  $\Omega_2$ ) formed by the first and second axes of rotation is greater than 0° and less than or equal to 90°, and the first rotation mechanism (R1) is rigidly connected to the second rotation mechanism (R2) in such a way that a rotation of the second rotation mechanism about the controllable axis thereof ( $\Omega_2$ ) causes a rotation of the first rotation mechanism about said same axis.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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