

Title (en)

LISSAJOUS MICROSCANNER HAVING CENTRAL MIRROR MOUNT AND METHOD FOR PRODUCTION THEREOF

Title (de)

LISSAJOUS-MIKROSCANNER MIT ZENTRALER SPIEGELAUFHÄNGUNG UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

MICROSCANNER DE LISSAJOUS COMPORTANT UN SUPPORT DE MIROIR CENTRAL ET SON PROCÉDÉ DE PRODUCTION

Publication

EP 4359842 A1 20240501 (DE)

Application

EP 22734307 A 20220621

Priority

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- EP 2022066828 W 20220621

Abstract (en)

[origin: WO2022268778A1] A microscanner comprises: a deflecting element for deflecting an incident electromagnetic beam, a support structure, and a spring device having one or more springs, by means of which the deflecting element is mounted so as to be capable of swinging on the support structure such that it can simultaneously carry out a first rotational oscillation about a first swing axis and a second rotational oscillation about a second swing axis orthogonal to the first swing axis relative to the support structure, in order during the simultaneous oscillation to cause a Lissajous projection by deflecting an electromagnetic beam incident on the deflecting element. The support structure has a spring support structure and the spring device has a number N of first springs, where $N \geq 1$, and each of the N first springs contacts at least one associated contact point on the spring support, is coupled to at least one associated coupling point on the deflecting element and extends between this contact point and this coupling point. There are three points on the deflecting element which, in the rest position of said element, define a Euclidian auxiliary plane and therein span a surface portion or straight line portion which is enclosed by the connecting straight lines between the points and on which each of the contact points or the vertical projection thereof lies on the auxiliary plane.

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