

Title (en)

UNIFORMLY-PARTITIONED HIGH-PRECISION SUB-REFLECTOR DEVICE WITH TWO-STAGE POSE ADJUSTMENT FUNCTION

Title (de)

GLEICHFÖRMIG PARTITIONIERTE HOCHPRÄZISE UNTERREFLEKTORVORRICHTUNG MIT EINER ZWEISTUFIGEN LAGEEINSTELLFUNKTION

Title (fr)

DISPOSITIF DE SOUS-RÉFLECTEUR DE HAUTE PRÉCISION À PARTITIONNEMENT UNIFORME AVEC FONCTION DE RÉGLAGE DE POSE EN DEUX ÉTAPES

Publication

EP 4007071 A4 20231018 (EN)

Application

EP 19939758 A 20191216

Priority

- CN 201910682977 A 20190726
- CN 2019125478 W 20191216

Abstract (en)

[origin: EP4007071A1] The present invention discloses a uniformly-partitioned high-precision sub-reflector device with a two-stage position and pose adjustment function, relating to technical fields of communication, measurement and control, radio astronomy etc. The sub-reflector device of the present invention comprises an adjustment device, a sub-reflector, a single-layer space frame backup structure and a panel precise adjustment device. The adjustment device adopts movable and fixed platforms as a multi-rod six-degree-of-freedom sub-reflector adjustment mechanism for a plane truss to realize a primary pose adjustment of the sub-reflector; the sub-reflector is composed of a polygonal panel and several sectorial panels which are uniformly partitioned; the ratio of the number of inner and outer sides of the single-layer space frame backup structure is 1:2, so as to provide a structural support for the sub-reflector; and the panel precise adjustment device is used for achieving a secondary pose adjustment of the sub-reflector. This device not only realizes a two-stage position and pose adjustment of the sub-reflector, but also improves the integral stiffness and reduces the overall weight of the sub-reflector, while improving the installation and adjustment efficiency and the adjustment precision.

IPC 8 full level

H01Q 19/19 (2006.01); **H01Q 15/14** (2006.01); **H01Q 3/20** (2006.01); **H01Q 15/16** (2006.01)

CPC (source: CN EP)

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Citation (search report)

No further relevant documents disclosed

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