

Title (en)

WIDE-BAND FLEXIBLE RADOME FOR MICROWAVE ANTENNA

Title (de)

BREITBANDIGES FLEXIBLES RADOM FÜR MIKROWELLENANTENNE

Title (fr)

RADÔME SOUPLE À LARGE BANDE POUR ANTENNE À MICRO-ONDES

Publication

EP 3754785 C0 20230726 (EN)

Application

EP 18906409 A 20180330

Priority

- CN 201810149166 A 20180213
- CN 2018081240 W 20180330

Abstract (en)

[origin: EP3754785A1] Provided is a broadband flexible radome for a microwave antenna, a periphery of which is fixed to a fence arranged around the antenna and is opposite to a reflecting surface of the antenna, wherein the radome is compounded by a high molecular polymer outer layer and a composite fiber textile structural layer mixed with a shielding wave absorbing wire, a tensioning element for connecting a traction mechanism is arranged on a side of the radome facing the reflecting surface of the antenna, the traction mechanism is connected to an inner wall of the fence, and a traction force capable of causing the radome to deform into a concave surface acts on the radome by the tensioning element. The radome of this structure has good wave transmission performance, and the thickness selection of the radome does not depend on the working wavelength of the antenna. By using the radome of a uniform thickness, low antenna insertion loss can be achieved in multiple frequency bands, the use of a multi-band microwave antenna can be met, the versatility of the radome is realized within a wide frequency range, and the defect of difference of the conventional radome made of ABS and the like in different frequency bands is overcome.

IPC 8 full level

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CPC (source: CN EP)

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Participating member state (EPC – UP)

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