

Title (en)

Carbon-fiber based device for heating antennas, preferably for use in space.

Title (de)

Vorrichtung zum Heizen von Antennen auf der Basis von Kohlefasern, insbesondere zur Verwendung im Weltraum.

Title (fr)

Dispositif pour le chauffage d'antennes à base de fibres de carbone, notamment pour usage spatial.

Publication

EP 0496388 A2 19920729 (EN)

Application

EP 92101035 A 19920123

Priority

IT RM910047 A 19910123

Abstract (en)

Heating device for reflecting surfaces of antennas based on carbon fiber, which besides performing a structural function and reflecting electromagnetic waves also provides the heating of the same surfaces in order to melt ice or snow, and is also capable of controlling thermal deformations. This consists essentially of one or more layers of carbon fiber (5), immersed in a resin wherein the electrodes (A), (B) are located, which connected to a generator (G) allow the current to pass into the fabric of carbon fibers providing the heating to a desired temperature depending on the applied voltage, the characteristics of the fiber layer and the shape and arrangement of the electrodes (A), (B). The invention relates to the technical field of reflectors for microwave antennas and finds its preferred application in the field of satellite communications. <IMAGE>

IPC 1-7

H01Q 1/02

IPC 8 full level

H01Q 1/02 (2006.01)

CPC (source: EP)

H01Q 1/02 (2013.01)

Cited by

US5942140A; US6018141A; US5966501A; US5954977A; FR3041104A1; US6145787A; US5981911A; WO9740646A1

Designated contracting state (EPC)

AT DE FR GB NL SE

DOCDB simple family (publication)

EP 0496388 A2 19920729; EP 0496388 A3 19921209; IT 1244904 B 19940913; IT RM910047 A0 19910123; IT RM910047 A1 19920723

DOCDB simple family (application)

EP 92101035 A 19920123; IT RM910047 A 19910123