

## Title (en)

Electromagnetic wave reflector and associated manufacturing method

## Title (de)

Reflektor elektromagnetischer Wellen und Verfahren zu seiner Herstellung

## Title (fr)

Réfecteur d'ondes électromagnétiques et son procédé de fabrication

## Publication

**EP 1143561 A1 20011010 (FR)**

## Application

**EP 01201226 A 19991012**

## Priority

- EP 99947544 A 19991012
- FR 9813007 A 19981016

## Abstract (en)

The embedded wires are arranged parallel or in the form of a grid, and are embedded in thermoplastic material. The structure acts as the reflector for a microwave antenna and focuses received signals onto a feed element. The aerial is constructed from electrically conducting wires (1) situated at a distance from each other, and embedded in the surface of a sheet of thermoplastic material. The wires may be parallel, or may form a grid, and the sheet of material forming the aerial may be concave. The wires lie nearer to one surface of the plastic than the other and have a separation between 0.003 mm and 1.5 cm, whilst the diameter of the wires lies in the range 0.005 - 5mm. The thickness of the plastic is between 0.5 mm and 1 cm and may be coloured or transparent.

## Abstract (fr)

Dans cette antenne en un élément en un matériau conducteur de l'électricité, l'élément comprend une toile (1) enrobée au moins en partie d'une nappe (2) de matière thermoplastique. <IMAGE>

## IPC 1-7

**H01Q 15/14**; **H01Q 15/16**; **H01Q 15/22**; **B29C 45/14**

## IPC 8 full level

**B29C 45/14** (2006.01); **H01Q 15/14** (2006.01); **H01Q 15/16** (2006.01); **H01Q 15/22** (2006.01); **B29L 31/00** (2006.01)

## CPC (source: EP US)

**H01Q 15/141** (2013.01 - EP US); **H01Q 15/142** (2013.01 - EP US); **H01Q 15/22** (2013.01 - EP US)

## Citation (search report)

- [X] US 4030953 A 19770621 - RUTSCHOW JOSEPH FREDRICK, et al
- [A] FR 2244618 A1 19750418 - ASEA AB [SE]
- [A] DE 9001255 U1 19900405
- [DA] EP 0595418 A1 19940504 - W S PLASTIC S R L DI [IT]
- [A] US 5473111 A 19951205 - HATTORI YOSHIYUKI [JP], et al
- [X] PATENT ABSTRACTS OF JAPAN vol. 015, no. 414 (M - 1171) 22 October 1991 (1991-10-22)
- [X] PATENT ABSTRACTS OF JAPAN vol. 013, no. 548 (E - 856) 7 December 1989 (1989-12-07)
- [A] PATENT ABSTRACTS OF JAPAN vol. 016, no. 217 (M - 1252) 21 May 1992 (1992-05-21)

## Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

## DOCDB simple family (publication)

**US 6486854 B1 20021126**; AT E286309 T1 20050115; AU 6095299 A 20000508; BR 9912233 A 20010410; CA 2337810 A1 20000427; DE 69923001 D1 20050203; DE 69923001 T2 20050721; EP 1119884 A1 20010801; EP 1143561 A1 20011010; EP 1143561 B1 20041229; FR 2784804 A1 20000421; FR 2784804 B1 20010629; JP 2002528937 A 20020903; WO 0024086 A1 20000427

## DOCDB simple family (application)

**US 80608301 A 20010322**; AT 01201226 T 19991012; AU 6095299 A 19991012; BR 9912233 A 19991012; CA 2337810 A 19991012; DE 69923001 T 19991012; EP 01201226 A 19991012; EP 99947544 A 19991012; FR 9813007 A 19981016; FR 9902450 W 19991012; JP 2000577736 A 19991012