

Title (en)  
Patch antenna

Title (de)  
Patchantenne

Title (fr)  
Antenne à éléments imprimés

Publication  
**EP 1339132 A1 20030827 (EN)**

Application  
**EP 03250910 A 20030214**

Priority  
JP 2002038867 A 20020215

Abstract (en)  
A patch antenna (11) includes a patch electrode (13) provided on one surface of a dielectric substrate (12) and a ground conductor (14) provided on the other surface of the dielectric substrate. The ground conductor has a planar shape substantially coinciding with that of the patch electrode. According to this arrangement, most radio waves radiated from the patch electrode toward the ground conductor are radiated forward from the ground conductor, allowing transmission and reception both in front and at the back of the patch electrode. <IMAGE>

IPC 1-7  
**H01Q 9/04**

IPC 8 full level  
**H01P 1/17** (2006.01); **H01Q 9/04** (2006.01); **H01Q 13/08** (2006.01); **H01Q 21/24** (2006.01)

CPC (source: EP)  
**H01Q 9/0407** (2013.01); **H01Q 9/0421** (2013.01); **H01Q 9/0428** (2013.01); **H01Q 9/0442** (2013.01)

Citation (search report)

- [X] EP 0688040 A2 19951220 - NIPPON TELEGRAPH & TELEPHONE [JP]
- [X] US 5552790 A 19960903 - GUNNARSSON STAFFAN [SE]
- [X] US 5041838 A 19910820 - LIIMATAINEN WILLIAM J [US], et al
- [X] EP 0924795 A1 19990623 - MURATA MANUFACTURING CO [JP]
- [A] US 5955995 A 19990921 - SILVERSTEIN BRUCE [IL]

Cited by  
JP5170109B2; EP2207238A1; SG133500A1; EP1622221A1; US7416135B2; US8125391B2

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**EP 1339132 A1 20030827**; JP 2003243926 A 20030829

DOCDB simple family (application)  
**EP 03250910 A 20030214**; JP 2002038867 A 20020215