

Title (en)  
BIFOCAL PLANAR ANTENNA

Title (de)  
DOPPELFOKUS-PLANARANTENNE

Title (fr)  
ANTENNE PLANE A DOUBLE FOYER

Publication  
**EP 1145368 B1 20050112 (DE)**

Application  
**EP 99941473 A 19990728**

Priority  
• DE 19845868 A 19981005  
• EP 9905400 W 19990728

Abstract (en)  
[origin: US6580401B1] A microwave antenna is described, capable of simultaneous maximum gain communication with  $N \geq 2$  satellites in geo-stationary orbit. The orbiting satellites are positioned offset relative to each other at a specific azimuth angle(s)  $\phi$ . The microwave antenna has radiating elements that are divided into N groups (1a, 1b; 1a', 1b'; 1a'', 1b'' 1c'') of radiating elements. The antenna is characterized by the fact that each of the N groups of radiating elements is organized in a plane, with the planes arranged at specific angles relative to one another corresponding to the respective azimuth offset angle of the satellite to be communicated with, such that the surface normal (FN) of the planes, once the microwave antenna is oriented, point in the direction of the respective satellites.

IPC 1-7  
**H01Q 21/29**

IPC 8 full level  
**H01Q 21/06** (2006.01); **H01Q 21/20** (2006.01); **H01Q 21/28** (2006.01); **H01Q 21/29** (2006.01); **H01Q 23/00** (2006.01)

CPC (source: EP US)  
**H01Q 21/061** (2013.01 - EP US); **H01Q 21/20** (2013.01 - EP US); **H01Q 21/28** (2013.01 - EP US); **H01Q 23/00** (2013.01 - EP US)

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 6580401 B1 20030617**; AT E287129 T1 20050115; AU 5507599 A 20000426; DE 19845868 A1 20000406; DE 59911458 D1 20050217; EP 1145368 A2 20011017; EP 1145368 A3 20021113; EP 1145368 B1 20050112; WO 0021154 A2 20000413; WO 0021154 A3 20020926

DOCDB simple family (application)  
**US 80674001 A 20010525**; AT 99941473 T 19990728; AU 5507599 A 19990728; DE 19845868 A 19981005; DE 59911458 T 19990728; EP 9905400 W 19990728; EP 99941473 A 19990728