

Title (en)  
PLANAR EMITTER

Title (de)  
PLANARER STRAHLER

Title (fr)  
EMETTEUR PLANAIRE

Publication  
**EP 0886887 A1 19981230 (DE)**

Application  
**EP 97914238 A 19970313**

Priority  
• DE 19615497 A 19960316  
• EP 9701275 W 19970313

Abstract (en)  
[origin: US6204814B1] A planar emitter equipped with planar resonators that is simple, small in construction and consists of few, easily manufactural components, while at the same time having high frequency dependent system quality with the widest possible spectral range, has a plurality of sandwich-like layers (4, 5, 6, 7, 8) that are planned parallel to each other with the layer (5) being made of two different dielectric materials (14) and (15). The thickness (L1) of layer (14) is greater than the thickness (L2) of layer (15) with layer (4) having a plurality of spaced, thin layer, electrically conductive planar resonators (4) in contact with one side of layer (15). One side of layer (14) is in contact with an electrically conductive thin layer (6) that defines a common earthing member that has its opposite side in contact with layer (17) made of a dielectric material. A coupling network (3) is included in layer (8) and comprises microstrip circuits (3a-3f) in contact with layer (7). Means in the form of pins (9) extends through the layers (5, 6, 7) from said coupling network (3) to said planar resonators (4) to couple said planar resonators (4) electrically in phase.

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

IPC 8 full level  
**H01Q 21/06** (2006.01); **H01Q 9/04** (2006.01); **H01Q 13/08** (2006.01); **H01Q 21/00** (2006.01)

CPC (source: EP US)  
**H01Q 9/0407** (2013.01 - EP US); **H01Q 21/0075** (2013.01 - EP US)

Citation (search report)  
See references of WO 9735355A1

Designated contracting state (EPC)  
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**US 6204814 B1 20010320**; AT E185023 T1 19991015; CA 2250928 A1 19970925; CA 2250928 C 20031223; CN 1214152 A 19990414; DE 19615497 A1 19970918; DE 59700474 D1 19991028; EP 0886887 A1 19981230; EP 0886887 B1 19990922; GR 3031727 T3 20000229; IL 126131 A0 19990509; IL 126131 A 20020210; JP 2000507055 A 20000606; KR 20000064587 A 20001106; TW 355854 B 19990411; WO 9735355 A1 19970925

DOCDB simple family (application)  
**US 14267998 A 19981127**; AT 97914238 T 19970313; CA 2250928 A 19970313; CN 97193108 A 19970313; DE 19615497 A 19960316; DE 59700474 T 19970313; EP 9701275 W 19970313; EP 97914238 A 19970313; GR 990402821 T 19991103; IL 12613197 A 19970313; JP 53312597 A 19970313; KR 19980707236 A 19980914; TW 86103233 A 19970315