

Title (en)

Slot-coupled patch antenna and phased-array antenna arrangement incorporating such an antenna.

Title (de)

Schlitzgekoppelte Streifenleiterantenne und phasengesteuerte Gruppenantenne, bestehend aus solchen Antennen.

Title (fr)

Antenne microbande couplée par une fente et réseau d'antennes à commande de phase comportant de telles antennes.

Publication

EP 0378905 A1 19900725 (EN)

Application

EP 89312573 A 19891201

Priority

GB 8829446 A 19881216

Abstract (en)

An antenna having the basic structure of a resonant slot antenna, but with a patch element (6) connected along one edge of the slot (2), and inclined at an angle relative to the ground plane (4). Coupling between a stripline feed (3) and the patch element (6) is achieved by means of the resonant slot (2), the feed element (3)/resonant slot (2)/patch element (6) transitions being impedance matched at the operative frequency. The antenna has a radiation characteristic consistent with conventional flat patch antennas, but provides a higher gain and greater bandwidth. In phased array applications, the inclination of the patch element (6) allows a smaller separation between adjacent antenna elements than is possible with conventional designs. The antenna is suitable for use in a missile-approach radar.

IPC 1-7

H01Q 9/04; **H01Q 21/06**

IPC 8 full level

H01Q 9/04 (2006.01); **H01Q 21/06** (2006.01)

CPC (source: EP)

H01Q 9/0457 (2013.01); **H01Q 21/065** (2013.01)

Citation (search report)

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