

Title (en)

Planar antenna with helical antenna array and strip line feeder pattern coupled thereto.

Title (de)

Ebene Gruppenantenne mit Wendelantennen und einer Streifenspeisungsanordnung.

Title (fr)

Antenne plane comprenant un réseau d'antennes en hélice et un dispositif d'alimentation à microbandes.

Publication

EP 0637096 A1 19950201 (EN)

Application

EP 94111998 A 19940801

Priority

KR 930014906 A 19930731

Abstract (en)

A planar antenna, intended for reception of the Direct Satellite Communication television signals, having a novel structure and improved performance, comprises an array of M x N helical antenna elements, each of the helical antenna elements including a helical antenna and a straight stem end portion attached thereto; a first dielectric layer (20) provided with M x N array of through holes, each through hole extending from the top thereof to the bottom thereof; a second dielectric layer (40) provided with a strip line feeder pattern on top thereof; an output probe (70) coupled to the strip line feeder pattern to thereby output the combined output signals; and a protective cover (80). Each of the helical antennas is coupled to the strip line feeder pattern through the straight stem end portion attached thereto and passes through the through hole to thereby support thereof. <IMAGE>

IPC 1-7

H01Q 21/00

IPC 8 full level

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CPC (source: EP KR)

H01Q 1/14 (2013.01 - KR); **H01Q 9/0407** (2013.01 - KR); **H01Q 21/0075** (2013.01 - EP); **H01Q 21/067** (2013.01 - EP)

Citation (search report)

- [A] GB 2227369 A 19900725 - TDK CORP [JP]
- [AD] EP 0132945 A1 19850213 - EMI LTD [GB]
- [A] GB 2128416 A 19840426 - ROGERS CORP
- [A] KITAO ET AL.: "KU-BAND PLANAR ARRAY USING RING SHAPED PATCH ANTENNA", IEEE ANTENNAS & PROPAGATION SOCIETY INTERNATIONAL SYMPOSIUM 1993, vol. 2, 28 June 1993 (1993-06-28), MICHIGAN, U.S.A, pages 972 - 975, XP000420012

Cited by

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