

Title (en)

WIDE-ANGLE SCANNING DUAL-POLARIZED DIPOLE ANTENNA

Title (de)

DOPPELPOLARISIERTE DIPOLANTENNE MIT WEITWINKELABTASTUNG

Title (fr)

ANTENNE DIPÔLE À DOUBLE POLARISATION À BALAYAGE GRAND ANGLE

Publication

EP 3819984 A1 20210512 (EN)

Application

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Priority

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Abstract (en)

The present invention discloses a wide-angle scanning dual-polarization dipole antenna, and belongs to the technical field of antennas, including first metal arms, an antenna support column, second metal arms and feed baluns. The first metal arms are located at the top of the antenna and used to improve impedance fluctuation of the antenna during large-angle scanning. The feed baluns are located at the bottom of the antenna and used to convert an unbalanced feed input by a coaxial wire into a balanced feed. The present invention greatly improves impedance matching during the large-angle scanning of the antenna and effectively improves wide-angle scanning performance of the antenna. Meanwhile, the antenna has good cross polarization performance. Finally, since both the metal dipole arms and the top metal arms adopt a longitudinal blade-shaped bending structure respectively, and the cross sectional area is extremely small, snow and rain are not prone to accumulate, thereby greatly reducing the influence of accumulated snow and rain on performance and service life of the antenna. The antenna is well applicable to severe weather conditions such as heavy rainfall, heavy snowfall and the like.

IPC 8 full level

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