

Title (en)  
DUAL BAND ANTENNA FOR SATELLITE NAVIGATION USE

Title (de)  
DUAL-BAND-ANTENNE FÜR SATELLITENNAVIGATIONSANWENDUNGEN

Title (fr)  
ANTENNE DOUBLE BANDE POUR USAGE À NAVIGATION SATELLITE

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Application  
**EP 10701376 A 20100128**

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Abstract (en)  
[origin: WO2010086383A2] The invention relates to a dual band antenna, in particular for satellite navigation applications, comprising a multilayer structure that is provided with an upper first antenna element (12) for receiving electromagnetic waves having a frequency in a first frequency band, a lower second antenna element (16) arranged below the first antenna element (12) for receiving electromagnetic waves having a frequency in a second frequency band, a first and a second electrically conductive ground layer (20,28) that are arranged one above the other and that are arranged in turn below the lower second antenna element (16), and a conducting-track layer (24) having at least one first conducting track (30,32) for electromagnetically coupling with the first antenna element (12) and having at least one second conducting track (34,36) for electromagnetically coupling with the second antenna element (16). The first ground layer (20) facing the lower second antenna element (16) comprises a hole (40,42), below which the at least one second conducting track (34,36) extends. The at least one first conducting track (30,32) is connected to the upper first antenna element (12) by means of an electrical conductor (46,48) that extends through the first ground layer (20) and the lower second antenna element (16) in such a way that the electrical conductor is electrically insulated from the first ground layer and the lower second antenna element. Furthermore, the multilayer structure is provided with a first line adjustment element (58,60,62,64) coupled with the at least one first conducting track (30,32) for suppressing the coupling into the first conducting track (30,32) of electromagnetic waves having a frequency in the second frequency band that are received by means of the lower second antenna element (16) and coupled into the electrical conductor (46,48), a second line adjustment element (44) coupled with the at least one second conducting track (34,36) for suppressing the coupling into the second conducting track (34,36) of electromagnetic waves in the first frequency band that are received by means of the upper first antenna element (12), and several dielectric layers (14,18,22,26) that are arranged between the antenna elements (12,16), ground layers (20,28), and conducting-track layer (24) that lie one above the other.

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