

Title (en)

An active antenna with variable polarisation synthesis

Title (de)

Aktive Antenne mit variabler Polarisations-Synthese

Title (fr)

Antenne active à synthèse de polarisation variable

Publication

EP 0600799 B1 19981014 (FR)

Application

EP 93402925 A 19931202

Priority

FR 9214661 A 19921204

Abstract (en)

[origin: EP0600799A1] The invention relates to a UHF transmission/reception (T/R) circuit for an array antenna with polarisation synthesis, especially for a radar antenna. According to the invention, the required polarisation is obtained by applying two signals to a radiating element of the antenna, on two orthogonal access channels, having a controllable phase shift between the two channels, and the two channels operating simultaneously. In a preferred embodiment, the two transmission channels are equipped with two power amplifiers which each amplify a signal originating from an in-phase power divider or from a hybrid coupler, with a phase shift controllable by one or two bits, which adds a phase shift of 0, 90 or 180°, allowing the synthesis of orthogonal, linear or circular polarisations. According to one preferred embodiment, the circuit according to the invention is produced wholly or partly in monolithic (MMIC) technology. The invention relates also to an antenna including a T/R circuit having the above characteristics. <IMAGE>

IPC 1-7

H01Q 21/24

IPC 8 full level

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CPC (source: EP US)

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Cited by

CN106877002A; US6043790A; EP2165387A4; EP1488478A4; CN113093117A; WO9963623A1; WO2010022784A1

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