

Title (en)  
PHASE-CONTROLLED ANTENNA ARRAY

Title (de)  
PHASENGESTEUERTE GRUPPENANTENNE

Title (fr)  
ANTENNE RÉSEAU À COMMANDE DE PHASE

Publication  
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Application  
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Abstract (en)  
[origin: WO2018007210A1] The phase-controlled antenna array according to the invention comprises at least four phase-controlled antenna elements (1) which are connected via a feed network (12). Each antenna element comprises a waveguide emitter (2) with a signal output coupling or input coupling (8) and a phase actuator (3) which is rotatably attached in the waveguide emitter (1) and contains a mounting (4) and two polarizers (5), wherein each of the two polarizers (5) can convert a circularly polarized signal into a linearly polarized signal. The antenna elements additionally comprise a connection element (6) and a drive unit (7) which is attached to a support (9) and which is connected to the phase actuator (3) via the connection element (6) such that the drive unit (7) can rotate the phase actuator (3) about an axis (11) of the waveguide emitter (2). The antenna array additionally comprises a computing unit (13) which is connected to the drive unit(s) (7) of the phase-controlled antenna elements (1) via control lines (10) and which adjusts the rotation of each phase actuator (3).

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