

Title (en)
Multiple beam antenna and beamforming network

Title (de)
Mehrkeulenantenne und Strahlformungsnetzwerk

Title (fr)
Antenne à faisceaux multiples et un réseau de formation de faisceaux

Publication
EP 0905815 A1 19990331 (EN)

Application
EP 97307249 A 19970918

Priority
EP 97307249 A 19970918

Abstract (en)
An antenna element and beamforming network (10) preferably comprises a plurality of radiators (12), a plurality of band pass filters (14) and a plurality of test couplers (16). Each radiator (12) is coupled to a dedicated MMIC (18). The output of MMICs (18) are coupled to a power stripline combiner (20) to provide a single output. Each of MMICs (18) is independently controllable to shape the antenna beams as desired for producing nulls in pattern coverage. The output of stripline combiner (20) may also be coupled through an output test coupler (46) to a jammer detector and correlator (24). In one embodiment, radiators (12) are horns that include filters (14). The output of each horn is coupled to the input of its dedicated MMIC (18). In another embodiment, radiators (12) are a patch array coupled together by a stripline combiner. The output of the stripline combiner is coupled by band pass filter (14) to the input of the respective MMICs (18). The present invention integrates these components into a single package with reduced size and weight. <IMAGE>

IPC 1-7
H01Q 3/26

IPC 8 full level
H01Q 3/26 (2006.01); **H01Q 13/02** (2006.01); **H01Q 19/17** (2006.01); **H01Q 21/00** (2006.01); **H01Q 25/00** (2006.01)

CPC (source: EP)
H01Q 3/2605 (2013.01); **H01Q 13/02** (2013.01); **H01Q 19/17** (2013.01); **H01Q 21/0025** (2013.01); **H01Q 25/00** (2013.01)

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Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0905815 A1 19990331

DOCDB simple family (application)
EP 97307249 A 19970918