

Title (en)  
ANTENNA WITH BROADBAND TRANSMITTER NETWORK

Title (de)  
ANTENNE MIT BREITBANDÜBERTRAGUNGSNETZ

Title (fr)  
ANTENNE À RÉSEAU TRANSMETTEUR LARGE BANDE

Publication  
**EP 3540853 A1 20190918 (FR)**

Application  
**EP 19162018 A 20190311**

Priority  
FR 1852200 A 20180314

Abstract (en)  
[origin: US2019288403A1] The invention concerns a transmit array (203) including a plurality of cells, each cell being capable of transmitting a radio signal by introducing into this signal a phase shift, said plurality of cells including cells of a first type (205-I) and cells of a second type (205-II), wherein: the array comprises a stack of first (M1), second (M2), and third (M3) conductive layers separated two by two by dielectric layers (D1, D2); each cell includes a first antenna element (205a) formed in the first conductive layer (M1) and a second antenna element (205b) formed in the third conductive layer (M3); in each cell of the first type, the first antenna element is connected to the second antenna element by a via (211) crossing the second conductive layer; and in each cell of the second type, the first antenna element is not connected to the second antenna element.

Abstract (fr)  
L'invention concerne un réseau transmetteur (203) comprenant une pluralité de cellules, chaque cellule étant adaptée à transmettre un signal radio en introduisant dans ce signal un déphasage, ladite pluralité de cellules comportant des cellules d'un premier type (205-I) et des cellules d'un deuxième type (205-II), dans lequel :le réseau comprend un empilement de première (M1), deuxième (M2) et troisième (M3) couches conductrices séparées deux à deux par des couche diélectriques (D1, D2) ;chaque cellule comprend un premier élément d'antenne (205a) formé dans la première couche conductrice (M1) et un deuxième élément d'antenne (205b) formé dans la troisième couche conductrice (M3) ;dans chaque cellule du premier type, le premier élément d'antenne est connecté au deuxième élément d'antenne par un via (211) traversant la deuxième couche conductrice ; etdans chaque cellule du deuxième type, le premier élément d'antenne n'est pas connecté au deuxième élément d'antenne.

IPC 8 full level  
**H01Q 3/46** (2006.01); **H01Q 21/06** (2006.01)

CPC (source: EP US)  
**H01Q 3/46** (2013.01 - EP US); **H01Q 21/061** (2013.01 - US); **H01Q 21/22** (2013.01 - US); **H01Q 21/065** (2013.01 - EP US)

Citation (search report)  
• [A] SAEED I LATIF ET AL: "Study of the microtrip patch or ring as a cell element for a transmit-array with slotted ground plane", ANTENNAS AND PROPAGATION SOCIETY INTERNATIONAL SYMPOSIUM (APSURSI), 2010 IEEE, IEEE, PISCATAWAY, NJ, USA, 11 July 2010 (2010-07-11), pages 1 - 4, XP032145346, ISBN: 978-1-4244-4967-5, DOI: 10.1109/APS.2010.5560959  
• [A] JONATHAN Y LAU ET AL: "Design and characterization of a 6 \* 6 planar reconfigurable transmitarray", ANTENNAS AND PROPAGATION (EUCAP), 2010 PROCEEDINGS OF THE FOURTH EUROPEAN CONFERENCE ON, IEEE, PISCATAWAY, NJ, USA, 12 April 2010 (2010-04-12), pages 1 - 5, XP031705795, ISBN: 978-1-4244-6431-9  
• [A] KAOUACH H ET AL: "X-band transmit-arrays with linear and circular polarization", ANTENNAS AND PROPAGATION (EUCAP), 2010 PROCEEDINGS OF THE FOURTH EUROPEAN CONFERENCE ON, IEEE, PISCATAWAY, NJ, USA, 12 April 2010 (2010-04-12), pages 1 - 5, XP031706079, ISBN: 978-1-4244-6431-9  
• [A] ANTONIO CLEMENTE ET AL: "Design of a reconfigurable transmit-array at X-band frequencies", ANTENNA TECHNOLOGY AND APPLIED ELECTROMAGNETICS (ANTEM), 2012 15TH INTERNATIONAL SYMPOSIUM ON, IEEE, 25 June 2012 (2012-06-25), pages 1 - 4, XP032219584, ISBN: 978-1-4673-0290-6, DOI: 10.1109/ANTEM.2012.6262295

Cited by  
CN110739548A

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3540853 A1 20190918; EP 3540853 B1 20211020**; FR 3079075 A1 20190920; FR 3079075 B1 20200306; US 10720716 B2 20200721; US 2019288403 A1 20190919

DOCDB simple family (application)  
**EP 19162018 A 20190311**; FR 1852200 A 20180314; US 201916351414 A 20190312