

Title (en)

Multi-resonant, high-impedance surfaces containing loaded-loop frequency selective surfaces

Title (de)

Multiresonante hochimpedanzige Oberflächen, die frequenzselektive Oberflächen mit belasteten Schleifen beinhalten

Title (fr)

Multi-résonante, surfaces à haute impédance contenant surfaces sélectives en fréquence avec boucles chargées

Publication

EP 1195847 A3 20020515 (EN)

Application

EP 01308496 A 20011004

Priority

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- US 70451000 A 20001101

Abstract (en)

[origin: EP1195847A2] An antenna system and an artificial magnetic conductor (300) include a frequency selective surface having a frequency dependent permeability μ 1z in a direction normal to the frequency dependent surface, a conductive ground plane (806), and a rodged media (808) disposed between the frequency selective surface and the conductive ground plane. <IMAGE> <IMAGE>

IPC 1-7

H01Q 9/04; **H01Q 15/00**

IPC 8 full level

H01Q 13/08 (2006.01); **H01Q 1/38** (2006.01); **H01Q 7/00** (2006.01); **H01Q 9/04** (2006.01); **H01Q 15/00** (2006.01)

CPC (source: EP KR)

H01Q 1/38 (2013.01 - KR); **H01Q 7/00** (2013.01 - EP); **H01Q 9/0442** (2013.01 - EP); **H01Q 15/0013** (2013.01 - EP); **H01Q 15/008** (2013.01 - EP)

Citation (search report)

- [Y] WO 0041270 A1 20000713 - MARCONI CASWELL LTD [GB], et al
- [Y] WO 9950929 A1 19991007 - UNIV CALIFORNIA [US], et al
- [Y] ABERLE J T ET AL: "Simulation of artificial magnetic materials using lattices of loaded molecules", TERAHERTZ AND GIGAHERTZ PHOTONICS, DENVER, CO, USA, 19-23 JULY 1999, vol. 3795, Proceedings of the SPIE - The International Society for Optical Engineering, 1999, SPIE-Int. Soc. Opt. Eng. USA, pages 188 - 196, XP001038444, ISSN: 0277-786X
- [A] SIEVENPIPER D ET AL: "HIGH-IMPEDANCE ELECTROMAGNETIC SURFACES WITH A FORBIDDEN FREQUENCY BAND", IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, IEEE INC. NEW YORK, US, vol. 47, no. 11, November 1999 (1999-11-01), pages 2059 - 2074, XP000865103, ISSN: 0018-9480
- [A] KYRIAZIDOU C A ET AL: "NOVEL MATERIAL WITH NARROW-BAND TRANSPARENCY WINDOW IN THE BULK", IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, IEEE INC. NEW YORK, US, vol. 48, no. 1, January 2000 (2000-01-01), pages 107 - 116, XP000908642, ISSN: 0018-926X

Cited by

CN108470973A; CN103326107A; CN113067162A; EP1722618A4; FR2859309A1; CN112216993A; CN110474163A; CN112640216A; CN117374604A; CN113316868A; CN115579619A; CN107706528A; CN110858271A; WO2004025783A1; WO2005024999A1; WO2015184867A1; WO2018209422A1; US9917341B2; US9954287B2; US10139820B2; US10916969B2; US9860075B1; US9948355B2; US10069535B2; US10148016B2; US10755542B2; WO2020124251A1; US9712350B2; US9847566B2; US9866276B2; US9876605B1; US10136434B2; US10312567B2; US10498044B2; US11032819B2; US9768833B2; US9794003B2; US9871282B2; US9876584B2; US9999038B2; US10009065B2; US10020587B2; US10291334B2; US9608740B2; US9699785B2; US9788326B2; US9836957B2; US9906269B2; US10063280B2; US10194437B2; US10291311B2; US10923808B2; US7903037B2; US9722318B2; US10090606B2; US10326689B2; US10341142B2; US10340600B2; US10389029B2; US10777873B2; US7486242B2; US9615269B2; US9866309B2; US9887447B2; US9935703B2; US9973416B2; US9973940B1; US9998932B2; US10050697B2; US10264586B2; US10326494B2; US10446936B2; US7804439B2; US9705610B2; US9820146B2; US9853342B2; US9876587B2; US9913139B2; US9947982B2; US10225025B2; US10355367B2; US8842055B2; US9627768B2; US9742462B2; US9831912B2; US9954286B2; US9997819B2; US10135145B2; US10168695B2; US10359749B2; US10411356B2; US9640850B2; US9653770B2; US9661505B2; US9674711B2; US9912033B2; US10009067B2; US10033107B2; US10069185B2; US10142086B2; US10320586B2; US10361489B2; US10784670B2; US9628116B2; US9762289B2; US9929755B2; US9930668B2; US10051630B2; US10091787B2; US10224634B2; US10340601B2; US10340603B2; US10547348B2; US10601494B2; US9893795B1; US9912027B2; US9948354B2; US10374316B2; US10530505B2; US10553953B2; US10665942B2; US10811779B2; US10819035B2; US9685992B2; US9742521B2; US9749083B2; US9871283B2; US9882277B2; US9912419B1; US9967173B2; US10074886B2; US10079661B2; US10135147B2; US10144036B2; US10535928B2; US10727599B2; US10938108B2; US7071876B2; US9729197B2; US9769020B2; US9793951B2; US9806818B2; US9871558B2; US9927517B1; US9948333B2; US9960808B2; US10033108B2; US10243270B2; US10637149B2; US10694379B2; US10811767B2; US9667317B2; US9735833B2; US9769128B2; US9780834B2; US9793955B2; US9800327B2; US9838078B2; US9911020B1; US10090594B2; US10103422B2; US10205655B2; US10224981B2; US10298293B2; US10340573B2; US10340983B2; US10382976B2; US10439675B2; US10797781B2; US10812174B2; US9608692B2; US9787412B2; US9838896B1; US9847850B2; US9865911B2; US9882657B2; US9904535B2; US9973299B2; US9991580B2; US9998870B1; US10009063B2; US10009901B2; US10027398B2; US10027397B2; US10044409B2; US10103801B2; US10142010B2; US10225842B2; US10305190B2; US10349418B2; US10389037B2; US7315289B2; US8994604B2; US9654173B2; US9692101B2; US9876570B2; US9876264B2; US9876571B2; US9882257B2; US9912381B2; US9912382B2; US9967002B2; US10020844B2; US10096881B2; US10135146B2; US10135138B2; US10178445B2; US10468770B2; US10650940B2; US10734723B2

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