

Title (en)
DIELECTRIC OR MAGNETIC MEDIUM LOADED ANTENNA

Publication
EP 0280379 A3 19900425 (EN)

Application
EP 88200345 A 19880226

Priority
• JP 4644587 A 19870227
• JP 5982787 A 19870313

Abstract (en)
[origin: EP0280379A2] A loaded antenna (11) comprises a wave source (12) of an arbitrary polarized wave, a reflector (13) disposed near the wave source (12), with the surface opposite to the wave source (12) limited in area, and a dielectric (14) disposed on the opposite side of the reflector across the wave source (12), at least with the surface opposite to the reflector (13) formed parallel to the reflector (13). By properly selecting the mutual interval among the dielectric (14), wave source (12) and reflector(13), the dimension and the dielectric constant of the dielectric (14), the vibration component in the running direction of the wave within the dielectric (14), the vibration component in the direction vertical to the running direction, and the vibration component between the reflector and dielectric are superposed, so that the electromagnetic field distribution in the vicinity of the dielectric (14) is made uniform. Thereby, high gain and high efficiency are realized, and the structure may be notably reduced in size.

IPC 1-7
H01Q 19/09

IPC 8 full level
H01Q 19/09 (2006.01)

CPC (source: EP)
H01Q 19/09 (2013.01)

Citation (search report)
• [X] EP 0131328 A1 19850116 - RADIOTECHNIQUE COMPELEC [FR], et al
• [Y] DE 2204001 A1 19730809 - ROHDE & SCHWARZ
• [A] US 4636798 A 19870113 - SEAVEY JOHN M [US]
• [A] US 3518683 A 19700630 - JONES HOWARD S JR
• [Y] IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol. AP-30, no. 2, March 1982, pages 314-318, IEEE, New York, US; I.J. BAHL et al.: "Design of Microstrip Antennas Covered with a Dielectric Layer"
• [A] IEE PROCEEDINGS-H, part H, vol. 133, no. 6, December 1986, pages 474-482, Stevenage, Herts, GB; J.R. JAMES et al.: "Microstrip elements and arrays with spherical dielectric overlays"

Cited by
EP0310414A3; EP0376701A3; DE4035793A1; CN110518365A; CN112771728A; WO03050912A1; WO9300722A1; US9608740B2; US9699785B2; US9788326B2; US9836957B2; US9906269B2; US10063280B2; US10194437B2; US10291311B2; US9627768B2; US9742462B2; US9954286B2; US9997819B2; US10135145B2; US10168695B2; US10359749B2; US10411356B2; US9615269B2; US9866309B2; US9887447B2; US9935703B2; US9973416B2; US9973940B1; US9998932B2; US10050697B2; US10264586B2; US10326494B2; US10446936B2; US9680670B2; US9712350B2; US9766330B2; US9847566B2; US9866276B2; US9876605B1; US10136434B2; US10243784B2; US10312567B2; US10498044B2; US11032819B2; US9755697B2; US9768833B2; US9794003B2; US9871282B2; US9876584B2; US9999038B2; US10009065B2; US10020587B2; US10291334B2; US11837788B2; US9705610B2; US9820146B2; US9853342B2; US9876587B2; US9913139B2; US9947982B2; US10051629B2; US10225025B2; US10355367B2; US10790593B2; US9860075B1; US9948355B2; US10069535B2; US10129057B2; US10148016B2; US10587048B2; US10755542B2; US10819542B2; US9628854B2; US9917341B2; US9954287B2; US10139820B2; US10594039B2; US10679767B2; US10916969B2; US11189930B2; US11658422B2; US9893795B1; US9912027B2; US9948354B2; US10374316B2; US10511346B2; US10530505B2; US10665942B2; US10819035B2; US9722318B2; US10090606B2; US10305545B2; US10326689B2; US10341142B2; US10340600B2; US10389029B2; US10686496B2; US10777873B2; US11177981B2; US12052119B2; US9640850B2; US9653770B2; US9661505B2; US9674711B2; US9912033B2; US10009067B2; US10033107B2; US10069185B2; US10142086B2; US10320586B2; US10361489B2; US10741923B2; US10784670B2; US11212138B2; US9628116B2; US9762289B2; US9929755B2; US9930668B2; US10051483B2; US10051630B2; US10091787B2; US10224634B2; US10340601B2; US10340603B2; US10382072B2; US10439290B2; US10469107B2; US10547348B2; US10601494B2; US9685992B2; US9742521B2; US9749083B2; US9871283B2; US9882277B2; US9912419B1; US9967173B2; US10074886B2; US10079661B2; US10135147B2; US10144036B2; US10535928B2; US10727599B2; US10938108B2; US11721912B2; US9654173B2; US9692101B2; US9876570B2; US9876264B2; US9876571B2; US9882257B2; US9912381B2; US9912382B2; US9967002B2; US10020844B2; US10074890B2; US10096881B2; US10135146B2; US10154493B2; US10178445B2; US10650940B2; US9729197B2; US9769020B2; US9793951B2; US9806818B2; US9871558B2; US9927517B1; US9948333B2; US9960808B2; US10033108B2; US10243270B2; US10566696B2; US10637149B2; US10694379B2; US10811767B2; US11973279B2; US9608692B2; US9787412B2; US9838896B1; US9847850B2; US9865911B2; US9882657B2; US9904535B2; US9973299B2; US9991580B2; US9998870B1; US10009063B2; US10009901B2; US10027398B2; US10027397B2; US10044409B2; US10090601B2; US10103801B2; US10142010B2; US10225842B2; US10305190B2; US10348391B2; US10349418B2; US10389037B2; US9667317B2; US9705571B2; US9735833B2; US9769128B2; US9780834B2; US9793955B2; US9800327B2; US9838078B2; US9911020B1; US10090594B2; US10103422B2; US10205655B2; US10224981B2; US10298293B2; US10340573B2; US10340983B2; US10382976B2; US10396887B2; US10439675B2; US10594597B2; US10797781B2; US10812174B2

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0280379 A2 19880831; EP 0280379 A3 19900425

DOCDB simple family (application)
EP 88200345 A 19880226