

Title (en)  
Ferroelectric slot antenna

Title (de)  
Ferroelektrische Schlitzantenne

Title (fr)  
Antenne à fentes ferroélectrique

Publication  
**EP 1753084 B1 20110824 (EN)**

Application  
**EP 06123190 A 20020404**

Priority

- EP 02718438 A 20020404
- US 28309301 P 20010411
- US 90463101 A 20010713
- US 91275301 A 20010724
- US 92773201 A 20010808
- US 92713601 A 20010810

Abstract (en)  
[origin: EP1753084A2] A family of FE dielectric-tuned slot antennas and a method for frequency tuning a wireless communications antenna are provided. The method comprises: forming a radiator (504); forming a dielectric with ferroelectric material proximate to the radiator (506) forming a counterpoise (502); forming a slot (508); applying a voltage to the ferroelectric material; in response to applying the voltage, generating a dielectric constant; and, in response to the dielectric constant, communicating electromagnetic fields at a resonant frequency. Some aspects of the method further comprise: varying the applied voltage; and, modifying the resonant frequency in response to changes in the applied voltage. Modifying the resonant frequency includes forming an antenna with a variable operating frequency responsive to the applied voltage. Alternately stated, forming an antenna with a variable operating frequency includes forming an antenna with a predetermined fixed characteristic impedance, independent of the resonant frequency.

IPC 8 full level  
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CPC (source: EP)  
**H01Q 13/10** (2013.01); **H01Q 13/106** (2013.01); **H01Q 13/12** (2013.01)

Citation (examination)

- US 2756421 A 19560724 - HARVEY GEORGE G, et al
- FR 2381399 A1 19780915 - AEG TELEFUNKEN KABELWERKE [DE]

Cited by  
FR3072832A1; US9437921B2; US9407976B2; US9639001B2; US9728668B2; US9985166B2

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DE ES FR GB IE IT

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