

Title (en)

Electromagnetic detection system provided with an antenna element having one winding.

Title (de)

Elektromagnetisches Detektierungssystem mit einem aus einer Windung bestehenden Antennenelement.

Title (fr)

Système de détection électromagnétique avec un élément d'antenne à une spire.

Publication

EP 0646984 A1 19950405 (EN)

Application

EP 94202552 A 19940906

Priority

NL 9301541 A 19930906

Abstract (en)

An electromagnetic detection system comprising a transmitter and receiver device, a transformer having a primary side which is connected with the transmitter and receiver device, at least one antenna element which is connected with a secondary side of the transformer for generating an electromagnetic interrogation field in a detection zone and at least one responder adapted to radiate a detection signal under the influence of the interrogation field, the antenna element consisting of a current loop having only one winding. The system further comprises a tuning element which is connected with the secondary side of the transformer and with the antenna element, so that on the secondary side of the transformer a resonance circuit is formed having a resonance frequency which corresponds with the operating frequency of the transmitter and receiver device. <IMAGE>

IPC 1-7

H01Q 7/00

IPC 8 full level

H01Q 7/00 (2006.01)

CPC (source: EP)

H01Q 7/005 (2013.01)

Citation (search report)

- [Y] CH 667955 A5 19881115 - SVAETOPLUK RADAKOVIC
- [DY] EP 0331269 A1 19890906 - NEDAP NV [NL]
- [A] DE 3112033 A1 19821014 - SIEMENS AG [DE]
- [A] US 5225847 A 19930706 - ROBERTS DAVID A [US], et al
- [A] BARR ET AL.: "ELF,VLF and LF radiation from a very large loop antenna with a mountain core", IEE PROCEEDINGS H. MICROWAVES, ANTENNAS & PROPAGATION, vol. 140, no. 2, April 1993 (1993-04-01), STEVENAGE GB, pages 129 - 134, XP000367577

Cited by

WO2014081383A1; GB2414083A; EP2230721A1; NL2002596C2; US9088065B2; US7498952B2; WO2015171058A1; WO2006133153A1; US7592967B2; US7834817B2; US9418261B2

Designated contracting state (EPC)

DE FR GB NL

DOCDB simple family (publication)

EP 0646984 A1 19950405; NL 9301541 A 19950403

DOCDB simple family (application)

EP 94202552 A 19940906; NL 9301541 A 19930906