

Title (en)  
Antenna device and electromagnetic detection device comprising such antenna device

Title (de)  
Antenne und diese enthaltende elektromagnetische Detektionsvorrichtung

Title (fr)  
Antenne et dispositif de détection électromagnétique incluant une telle antenne

Publication  
**EP 0762355 B1 20020320 (EN)**

Application  
**EP 96202459 A 19960904**

Priority  
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Abstract (en)  
[origin: EP0762355A1] Antenna device for use in an electromagnetic detection system, comprising two loop antenna coils for generating a detection field for detecting responders provided with a loop antenna coil in a detection zone, the loop antenna coils in operation forming part of an antenna circuit connected to an excitation circuit, which antenna circuit comprises a series resonance circuit and a parallel resonance circuit with the same resonance frequency as the series resonance circuit. The antenna circuit comprises a single damping resistance (R); one of the loop antenna coils (L) is constructed as a transformer (T) with two very strongly coupled windings (T1, T2) and a central branch, which loop antenna coil (L3) is connected in parallel with a first tuning capacitor (C3); and the damping resistance (R) is connected in series with the first tuning capacitor (C3) and is connected in parallel with a series connection of a second tuning capacitor (C4) and a second loop antenna coil (L4), while the end of the second loop antenna coil (L4) that is not connected with the second tuning capacitor (C4) is connected with the central branch of the loop antenna coil (L3) constructed as a transformer. <IMAGE>

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