Title (en)

Built-in chip transponder with antenna circuit.

Title (de)

Eingebauter Chip-Transponder mit Antenne.

Title (fr)

Transpondeur monopuce incorporé avec antenne.

Publication

EP 0677887 A1 19951018 (EN)

Application

EP 94201013 A 19940413

Priority

EP 94201013 A 19940413

Abstract (en)

An antenna circuit to be used in conjunction with a chip transponder (2) to be built-in in a thick-walled surface (1) which may be of metal. The antenna circuit is insertable into a depression in the surface destined for the chip transponder and serves both for the reception and emission respectively of interrogative signals for - and response signals from - the transponder. The antenna circuit is formed by potcore means which has a radiation field extending in a direction away from the surface, and which is provided in the depression, except at the surface side, with a surrounding shield of a non-ferro metal. The shield consists of an open shielding jacket (5) with bottom and wall. The potcore means comprises at least an open half potcore of ferrite (3) having a winding package (4), and the wall of the shielding jacket, arranged around the potcore, extends to the surface side and is open at said side, or extends to just under the surface side, and at said side is covered with a cover plate of ferrite having at least a center hole. Said plate is aligned with the edge of the shielding jacket and the surface side. The hole in the cover plate may be implemented as a slot extending on both sides of the center. <IMAGE> <IMAGE>

IPC 1-7

H01Q 7/06

IPC 8 full level

H01Q 7/06 (2006.01)

CPC (source: EP) H01Q 7/06 (2013.01)

Citation (search report)

• [Y] EP 0590589 A1 19940406 - TEXAS INSTRUMENTS INC [US], et al

• [A] DE 1052592 C

- [A] DE 3527442 A1 19870212 PEPPERL & FUCHS [DE]
- [A] EP 0496611 A1 19920729 TEXAS INSTRUMENTS HOLLAND [NL]
- [A] EP 0549832 A1 19930707 TEXAS INSTRUMENTS INC [US], et al
- [Y] PATENT ABSTRACTS OF JAPAN vol. 9, no. 270 (E 353)<1993> 26 October 1985 (1985-10-26)

Cited by

DE102010006010A1; EP1114389A4; DE102010006010B4; EP0782214A1; US5864323A; EP1693924A4; US10977969B2; US10977965B2; US10282572B2; US10970496B2; US11126803B2; US7522117B2; EP2771845B1

Designated contracting state (EPC) DE FR GB IT NL

DOCDB simple family (publication) EP 0677887 A1 19951018

DOCDB simple family (application) EP 94201013 A 19940413