

Title (en)

CIRCUIT SYSTEM WITH A PRINTED BOARD COMPRISING A PROGRAMMABLE MEMORY ELEMENT

Title (de)

SCHALTUNGSANORDNUNG MIT EINER MIT EINEM PROGRAMMIERBAREN SPEICHERELEMENT BESTÜCKTEN LEITERPLATTE

Title (fr)

CIRCUIT COMPRENANT UNE PLAQUETTE EQUIPEE D'UN ELEMENT DE MEMOIRE PROGRAMMABLE

Publication

EP 1472699 A2 20041103 (DE)

Application

EP 03704211 A 20030116

Priority

- DE 0300100 W 20030116
- DE 10205208 A 20020208

Abstract (en)

[origin: US2003151138A1] A circuit arrangement includes a programmable memory element mounted on a circuit board, with programming contacts of the memory element connected to conductor paths of the circuit board. Data and/or programming codes stored in the memory element determine the functions of the circuit arrangement. To prevent unauthorized reprogramming of the memory element, at least one programming contact of the memory element and each conductor path connected thereto are covered or enclosed, so it is impossible to electrically contact this programming contact or the associated conductor paths without destroying the circuit arrangement. The circuit board is adhesively bonded to a board carrier, with the memory element and conductor paths sandwiched or encased therebetween. The circuit arrangement may be an engine controller for a motor vehicle, with security against unauthorized reprogramming for altering the performance of the engine.

IPC 1-7

G11C 16/22

IPC 8 full level

H01L 23/58 (2006.01); **H05K 3/28** (2006.01)

CPC (source: EP US)

H01L 23/57 (2013.01 - EP US); **H05K 3/284** (2013.01 - EP US); **H01L 2924/0002** (2013.01 - EP US)

C-Set (source: EP US)

H01L 2924/0002 + **H01L 2924/00**

Citation (search report)

See references of WO 03067604A2

Citation (examination)

WO 0193275 A1 20011206 - HITACHI LTD [JP], et al

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)

US 2003151138 A1 20030814; **US 7218529 B2 20070515**; DE 10205208 A1 20030918; EP 1472699 A2 20041103; WO 03067604 A2 20030814; WO 03067604 A3 20031211

DOCDB simple family (application)

US 35981903 A 20030207; DE 0300100 W 20030116; DE 10205208 A 20020208; EP 03704211 A 20030116