

Title (en)  
Hazard warning device using radio communication

Title (de)  
Funkgestützter Gefahrenmelder

Title (fr)  
Dispositif d'alerte de dangers par liaison radio.

Publication  
**EP 2677507 B1 20180117 (DE)**

Application  
**EP 12172444 A 20120618**

Priority  
EP 12172444 A 20120618

Abstract (en)  
[origin: EP2677507A1] The hazardous warning unit (6) has disc-shaped main portion such as housing chamber whose outer side is mounted to carrier. A measuring unit (8) is placed inside the housing chamber, and an antenna (11) transmitting a signal is located at significant distance in assembled state. A hazardous detector is mounted on circular detector support (7) that is attached to main portion, for detecting hazardous pollutant from surrounding air.

IPC 8 full level  
**G08B 17/107** (2006.01); **G08B 17/113** (2006.01)

CPC (source: EP)  
**G08B 17/107** (2013.01); **G08B 17/113** (2013.01)

Citation (opposition)  
Opponent : Hekatron Vertriebs GmbH

- EP 1612754 A1 20060104 - JOB LIZENZ GMBH & CO KG [DE]
- DE 29503059 U1 19950518 - GODDARD PETER JOHN [DE]
- EP 1669960 A1 20060614 - SIEMENS SCHWEIZ AG [CH], et al
- DE 20003592 U1 20000518 - ME MICRO ELECTRIC VERTRIEB VON [DE]
- WO 0143098 A2 20010614 - BRK BRANDS INC [US]
- WO 2010111783 A1 20101007 - TYCO SAFETY PROD CANADA LTD [CA], et al
- WO 2010111782 A1 20101007 - TYCO SAFETY PROD CANADA LTD [CA], et al
- US 2009051551 A1 20090226 - PHAM HAI D [US], et al
- JP 2011248546 A 20111208 - HOCHIKI CO
- EP 2437226 A2 20120404 - DIETSCH MATTHIAS [DE]
- WO 2010000336 A1 20100107 - SIEMENS AG [DE], et al
- WO 2011114204 A1 20110922 - PANASONIC ELEC WORKS CO LTD [JP], et al
- US 2010097287 A1 20100422 - PAKOSZ DANIEL [US], et al
- US 2008129536 A1 20080605 - RANDALL BRUCE E [US], et al
- JIAN-WU ZHANG ET AL.: "A Novel Dual-frequency Planar Inverted-F Antenna", PIERS PROCEEDINGS, 18 August 2009 (2009-08-18), pages 662 - 665, XP055524964
- RASHID AHMAD BHATTI ET AL.: "Design of a Novel Multiband Planar Inverted-F Antenna for Mobile Terminals", PROCEEDINGS OF IWAT2008, 2008, pages 530 - 533, XP031248647
- YA-CHUNG YU: "The Miniaturization of Multi-Band Planar Inverted-F Antenna", A THESIS SUBMITTED TO DEPARTMENT OF COMMUNICATION ENGINEERING COLLEGE OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE, June 2008 (2008-06-01), Taiwan, pages 1 - 46, XP055524975
- "PIF-Antenne", WIKIPEDIA, 30 December 2011 (2011-12-30), XP055525004

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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