

Title (en)

OPTICAL CODE SCANNER WITH AUTOMATIC FOCUSING

Title (de)

OPTISCHER CODESCANNER MIT AUTOMATISCHER FOKUSSIERUNG

Title (fr)

LECTEUR DE CODE OPTIQUE À MISE AU POINT AUTOMATIQUE

Publication

EP 2218033 A4 20101229 (EN)

Application

EP 07844971 A 20071108

Priority

US 2007084043 W 20071108

Abstract (en)

[origin: WO2009061317A1] A code scanner, which illuminates a scanned code from a distance, includes a liquid lens which focuses the reflected image of the code on an image sensor. The scanner includes a range detector, preferably laser-based, which determines the distance to the scanned code, and the liquid lens is controlled to focus at the detected distance. A source of illumination is uncontrolled to maintain its intensity substantially constant, regardless of the distance of the scanned code. This can be achieved by controlling the intensity of illumination (directly), or the dispersal angle of illumination in relationship to the distance.

IPC 8 full level

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CPC (source: EP)

G02B 3/14 (2013.01); **G06K 7/10732** (2013.01); **G06K 7/10811** (2013.01); **G06K 2207/1013** (2013.01)

Citation (search report)

- [X] US 5864128 A 19990126 - PLESKO GEORGE A [US]
- [X] US 2005218231 A1 20051006 - MASSIEU JEAN-LOUIS [FR]
- [X] US 2007153644 A1 20070705 - CORRRAIN GABRIELE [IT]
- [X] US 2007063048 A1 20070322 - HAVENS WILLIAM H [US], et al
- [E] EP 1921565 A1 20080514 - LEUZE ELECTRONIC GMBH & CO KG [DE]
- [E] WO 2009038959 A1 20090326 - METROLOGIC INSTR INC [US], et al
- See references of WO 2009061317A1

Designated contracting state (EPC)

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DOCDB simple family (application)

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