Title (en)

OPTICAL PICKUP DEVICE

Title (de)

OPTISCHE ABTASTVORRICHTUNG

Title (fr)

SYSTEME OPTIQUE DE SAISIE

Publication

EP 1062663 A1 20001227 (EN)

Application

EP 99907875 A 19990305

Priority

- JP 9901090 W 19990305
- JP 7644098 A 19980311

Abstract (en)

[origin: WO9946767A1] Data can be read at high speed from an optical disk (20) by using a plurality of light spots, and data can be written in the optical disk (20) by using a single light spot without any practical problem. In reading data from the optical disk (20), a diffraction grating (13) is inserted between a semiconductor laser (12) and an objective lens (15). A laser beam from the semiconductor laser (12) is diffracted by the diffraction grating (13) to generate diffracted light beams (16b, 16c) and form a plurality of light spots (32a, 32b, 32c) on a plurality of tracks (3) of the optical disk (20). In writing data in the optical disk (20), the diffraction grating (13) is exited from between the semiconductor laser (12) and objective lens (20). Only a non-diffracted light beam (16a) is incident upon the objective lens (15) to form a single light spot (32a) on the optical disk (20).

IPC 1-7

G11B 7/125; G11B 7/135; G11B 7/14; G11B 7/00

IPC 8 full level

G11B 7/125 (2006.01); **G11B 7/135** (2006.01); G11B 7/0045 (2006.01); G11B 7/14 (2012.01)

CPC (source: EP KR)

G11B 7/085 (2013.01 - KR); **G11B 7/127** (2013.01 - KR); **G11B 7/1353** (2013.01 - EP KR); **G11B 7/1365** (2013.01 - EP); **G11B 7/1369** (2013.01 - EP KR); **G11B 7/1381** (2013.01 - EP); G03H 2222/31 (2013.01 - KR); G11B 7/0045 (2013.01 - EP); G11B 7/14 (2013.01 - EP); G11B 2220/2537 (2013.01 - KR)

Citation (search report)

See references of WO 9946767A1

Designated contracting state (EPC)

DE FR GB IT NL

DOCDB simple family (publication)

WO 9946767 A1 19990916; CN 1292917 A 20010425; DE 1062663 T1 20010705; EP 1062663 A1 20001227; KR 20010041682 A 20010525; TW 548643 B 20030821

DOCDB simple family (application)

JP 9901090 W 19990305; CN 99803714 A 19990305; DE 99907875 T 19990305; EP 99907875 A 19990305; KR 20007009899 A 20000907; TW 88102191 A 19990211