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(54) Title: METHOD OF STORING RLL ENCODED INFORMATION TO AN OPTICAL DISC WITH CONTROL OF THE FREQUENCY OF THE INFORMATION WITH RESPECT TO THE CUT-OFF FREQUENCY OF THE OPTICAL SYSTEM

(57) Abstract: A method of storing/retrieving information to/from an optical disc by means of an optical system with a cut-off frequency $\nu_{\text{cut-off}}$, above which frequencies cannot be detected, is disclosed. The invention relates to Run Length Limited encoded information. According to the invention, some frequencies of the encoded information can be higher than cut-off frequency of the optical system, such that the equation $4 \cdot (d+1) \cdot L_{\text{cd}} \cdot NA / \lambda_{\text{laser}} < 1$ is satisfied, where $d+1$ is the minimum run length of the coding, L_{cd} is the length of a channel bit, NA is the numerical aperture and λ_{laser} is the wavelength of the optical system. Hereby, the capacity of the optical disc is increased, while the prevailing coding technique is used. Moreover, the invention relates to a disc for storing of data, a drive capable of storing data and an apparatus for manufacturing optical discs.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 339 574 B1 (KASHIHARA YUTAKA) 15 January 2002 (2002-01-15)	1-4, 6-9
Y	column 2, line 26 - column 4, line 14 column 4, line 52 - column 5, line 2 column 5, line 41 - line 47 column 6, line 19 - line 42 column 9, line 33 - column 10, line 8 column 10, line 52 - column 11, line 15 ----- -/--	5, 10-14



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MENYENNETT C ET AL: "INTEGER MULTIPLE MARK MODULATION (IMMM) USING BINARY ASYMMETRICAL RUNLENGTH LIMITED SEQUENCES" COMMUNICATIONS - GATEWAY TO GLOBALIZATION. PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON COMMUNICATIONS. SEATTLE, JUNE 18 - 22, 1995, PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON COMMUNICATIONS (ICC), NEW YORK, IEEE, US, vol. VOL. 1, 18 June 1995 (1995-06-18), pages 628-632, XP000533051 ISBN: 0-7803-2487-0 the whole document -----	5,10-14
A	EP 0 249 106 A (IBM) 16 December 1987 (1987-12-16) page 3, line 27 - line 36 -----	5,10-14
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