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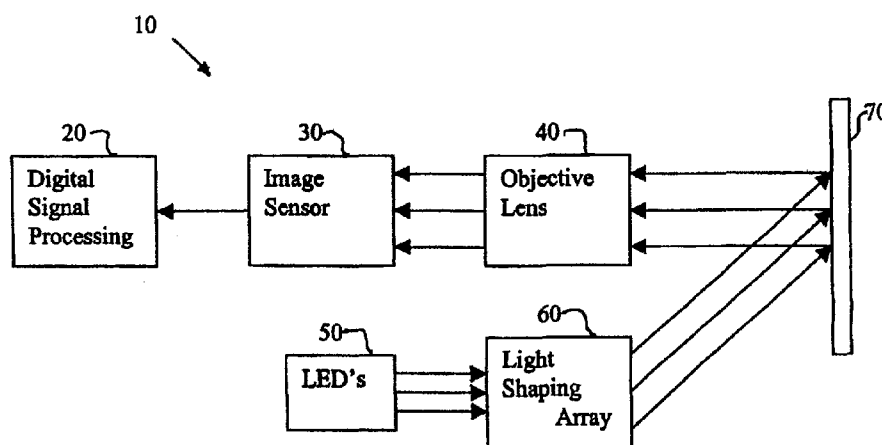
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[Continued on next page]

(54) Title: OPTICAL IMAGE READER



(57) Abstract: The optical image reader is versatile since it can be assembled for use in a variety of reader applications, such as an ultra high definition reader, a high definition reader, a standard reader and an ultra long range reader. In addition to a housing enclosing an image sensor, an adjustable objective lens assembly for focusing an image of a target on the image sensor and a light source for illuminating and/or targeting the target, the reader includes a light shaping optical element array comprising optical elements assembled together as an integral unit and adapted to be fixed to the housing for shaping and directing light on the target. The optical elements are mounted on a panel, which is adapted to be fixed to the reader housing either permanently, or releasably to permit replacement of the panel on the housing. The method of assembling the image reader comprises the steps of selecting a light shaping optical element array from the variety of optical element arrays for the specific application, adjusting the objective lens assembly for optimum focal length for the specific application, and fixing the light shaping optical element array panel to the image reader housing. The present invention is further directed to a kit for an imaging system. The kit for an imaging system comprises an image reader mounted in a housing and one or more light shaping optical element array panels, each adapted to be releasably attached to the image reader housing.



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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 database(s) consulted during the international search (name of database(s) and, where practicable, search terms used) USPTO WEST, Delphion, Canadian Patent Database (keywords image, reader, scanner, lens, array, illumination, targeting)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 669 093 Dec. 30, 2003 G06K-7/10 Meyerson et al.(col. 16, lines 24-67, figures 8, 19-23)	1, 2, 4, 6-11, 13, 25
A		3, 5, 12, 14-24
X	US 6 431 452 Aug. 13, 2002 G06K-7/10 Feng (col. 14 lines 20-55, figures 8 and 9)	1, 2, 4, 6-11, 13, 25
A		3, 5, 12, 14-24
X	US 5 920 061 July 6, 1999 G06K-7/10 Feng (col. 14 line 51-col. 16 line 35, figures 19-23)	1, 2, 4, 6-11, 13, 25
A		3, 5, 12, 14-24
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "B" earlier application or patent but published on or after the international filing date "I" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "Z" document member of the same patent family		
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Information on patent family members

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