



(11) Publication number : **0 618 078 A3**

(12) **EUROPEAN PATENT APPLICATION**

(21) Application number : **94400656.8**

(51) Int. Cl.⁵ : **B41J 2/45, B41J 2/435**

(22) Date of filing : **28.03.94**

(30) Priority : **29.03.93 JP 69521/93**

(43) Date of publication of application :
05.10.94 Bulletin 94/40

(84) Designated Contracting States :
DE FR GB IT

(88) Date of deferred publication of search report :
04.01.95 Bulletin 95/01

(71) Applicant : **MINNESOTA MINING AND
MANUFACTURING COMPANY**
3M Center,
P.O. Box 33427
St. Paul, Minnesota 55133-3427 (US)

(72) Inventor : **Nagashima, Masashi, c/o Sumitomo
3M Limited**
33-1, Tamagawadai 2-Chome,
Setagaya-ku
Tokyo 158 (JP)
Inventor : **Chiba, Hiroyuki, c/o Sumitomo 3M
Limited**
33-1, Tamagawadai 2-Chome,
Setagaya-ku
Tokyo 158 (JP)

(74) Representative : **Martin, Jean-Jacques et al**
Cabinet REGIMBEAU
26, Avenue Kléber
F-75116 Paris (FR)

(54) **An optical scanning device.**

(57) An optical scanning device characterized in that a light emitting element array (2) and an auto focussing light source element (3) for adjusting a distance between said light emitting element array (2) and an object (5) to be scanned be said light emitting element array (2) are integrated on a single chip (1) of a semiconductor substrate.

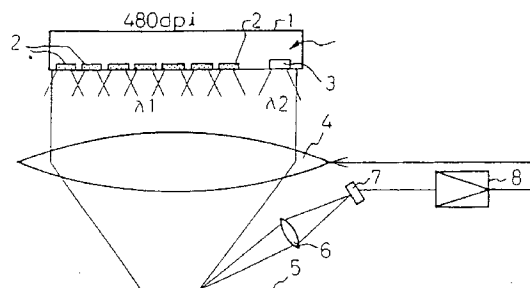


FIG. 1



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 94 40 0656

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
A	US-A-5 016 027 (J.J. UEBBING) * abstract; figures 1-3 * ---	1,5,9	B41J2/45 B41J2/435
A	PATENT ABSTRACTS OF JAPAN vol. 14, no. 575 (M-1062) 20 December 1990 & JP-A-02 249 667 (HITACHI KOKI CO. LTD.) 5 October 1990 * abstract *	1,5,9	
A	PATENT ABSTRACTS OF JAPAN vol. 14, no. 420 (M-1023) 11 September 1990 & JP-A-02 164 561 (MINOLTA CAMER A CO. LTD.) 25 June 1990 * abstract *	1,5,9	
P,A	PATENT ABSTRACTS OF JAPAN vol. 18, no. 126 (P-1702) 2 March 1994 & JP-A-53 013 092 (OKI ELECTRIC IND. CO. LTD.) 25 November 1993 * abstract * -----	1,5,9	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.5)
			B41J
Place of search		Date of completion of the search	Examiner
THE HAGUE		17 October 1994	Zopf, K
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 01.92 (P04C01)