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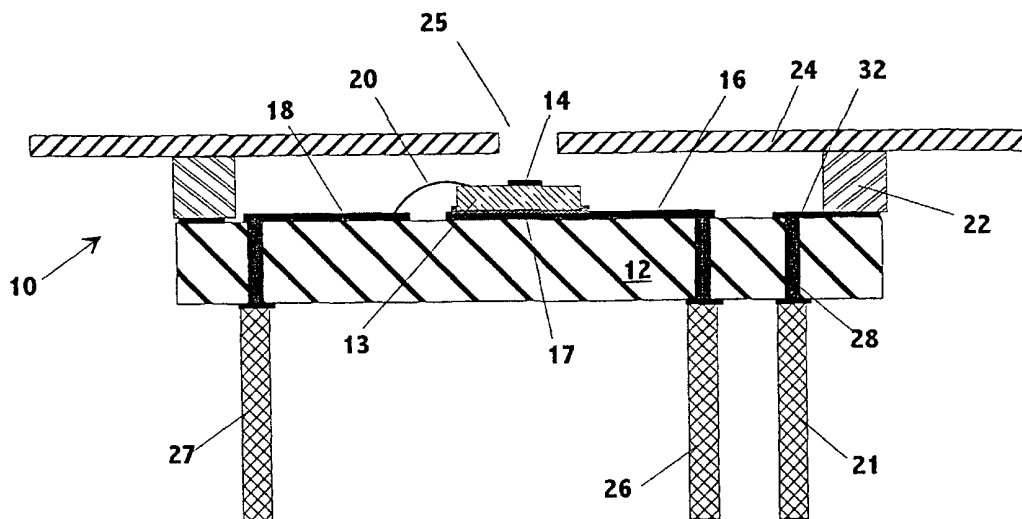
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ELECTRON GUN CATHODE ASSEMBLY



(57) Abstract: Apparatus and method are provided for a package structure that enables mounting of a field-emitting cathode into an electron gun. A non-conducting substrate has the cathode attached and the cathode is electrically connected to a pin through the substrate. Other pins are electrically connected to electrodes integral with the cathode. Three cathodes may be mounted on a die flag region to form an electron gun suitable for color CRTs. Accurate alignment of an emitter array to the apertures in the electron gun and other electrodes such as a focusing lens is achieved. The single package design may be used for many gun sizes. Assembly and attachment of the emitter array to the electron gun during construction of the gun can lower cost of construction.



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INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 01/02519

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H01J3/02 H01J29/48

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01J

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)

WPI Data, PAJ, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 10 154470 A (NEC CORP) 9 June 1998 (1998-06-09)	1,2,4, 13,14, 25,26
L	& US 6 137 215 A 24 October 2000 (2000-10-24) column 5, line 66 -column 6, line 55; figures 2A,2B,7A,7B column 1, line 10-15 column 4, line 47-62	
Y	--- PATENT ABSTRACTS OF JAPAN vol. 1995, no. 09, 31 October 1995 (1995-10-31) & JP 07 147134 A (SONY CORP), 6 June 1995 (1995-06-06) abstract ---	1,13
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "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.
- "&" document member of the same patent family

Date of the actual completion of the international search

7 May 2001

Date of mailing of the international search report

17. 08. 01

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/02519

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 869 924 A (KIM SANG-KYUN) 9 February 1999 (1999-02-09) cited in the application abstract figures 2,4-10	1,13
A	---	25
Y	US 5 898 262 A (JEONG BONG-UK ET AL) 27 April 1999 (1999-04-27) cited in the application abstract figures 2-7	1,13
A	-----	25

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 01/02519

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-25

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-25

ELECTRON GUN CATHODE ASSEMBLY AND METHOD FOR MAKING IT

2. Claim : 26

METHOD FOR ASSEMBLING AN ELECTRON GUN

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/02519

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