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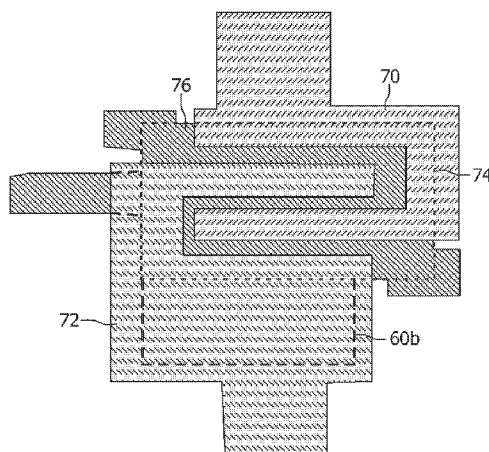
— *with international search report*

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(54) Title: THIN FILM CIRCUITS HAVING TRANSISTORS COMPRISING A LIGHT SHIELD



(57) Abstract: A thin film circuit comprises a plurality of thin film transistors, each having a light shield portion (60) which is electrically isolated from the source (72), drain (70) and gate (76) electrodes. The light shield portion comprises a first, drain overlap portion in which the light shield portion overlaps the drain conductor (70), a second, source overlap portion in which the light shield portion overlaps the source conductor (72), and a third, gate overlap portion in which the light shield portion overlaps the gate conductor (76) only. In one embodiment, at least 2/3 of the light shield portion area comprises the gate overlap portion. In another embodiment, one of the source and drain overlap portions has at least 1.5 times the area of the other of the source and drain overlap portions. The use of an electrically floating light shield simplifies the layer construction and design. The arrangement of overlap areas provides controlled capacitive coupling between the light shield and the transistor terminals, and this can suppress the effect of the light shield voltage floating to levels which impact on circuit performance.



WO 2007/013009 A3

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

Minimum documentation searched (classification system followed by classification symbols)
H01L G02F

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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☒ See patent family annex.

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Date of the actual completion of the international search

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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.
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International application No

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