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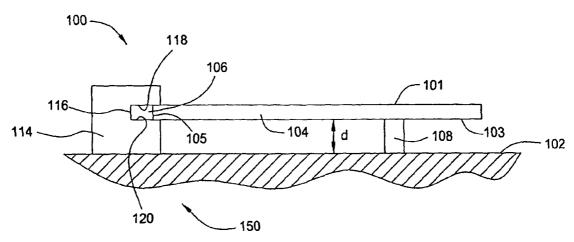
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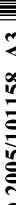
[Continued on next page]

(54) Title: FIELD CHANGEABLE GRAPHICS SYSTEM



(57) Abstract: One embodiment of a field changeable graphics system (100) includes a right angle edge connector (114) having a plurality of contact pins adapted to engage contacts on a graphics card (104). The edge connector is adapted to interface the graphics card with the motherboard (102) of a computing device, without directly mounting the graphics card to the motherboard. One advantage of the disclosed graphics system is that it is compatible with a plurality of graphics cards and systems, thereby enabling a computing device user to upgrade the existing device's graphics system. Thus, the user is not forced to purchase an entirely new computing device in order to take advantage of graphics innovations. A further advantage is that it enables upgrades to low voltage differential signaling (LVDS) features, without the need for additional costly devices capable of operating at LVDS data rates.





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.

INTERNATIONAL SEARCH REPORT

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IPC 7	G06F		
Documentati	ion searched other than minimum documentation to the extent tha	t such documents are includ	ed in the fields searched
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C. DOCUME	ENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the	relevant passages	Relevant to claim No.
X	US 2002/097234 A1 (SAUBER WILLI FREDERICK) 25 July 2002 (2002-0 paragraph '0002! paragraph '0007! paragraph '0016! - paragraph '0 paragraph '0027! - paragraph '0	7-25) 024!	1-42
	figures 3,5,6	·	
X	US 6 141 021 A (BICKFORD ET AL) 31 October 2000 (2000-10-31) column 2, line 44 - column 3, l	ine 55	1-15, 40-42
Α	column 4, line 33 - column 6, l figures 2-6	ine 51;	16,17, 24,26, 28,29, 36,39
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X Furt	ther documents are listed in the continuation of box C.	X Patent family m	nembers are listed in annex.
'A' docum	ategories of cited documents: ent defining the general state of the art which is not dered to be of particular relevance	or priority date and	ished after the international filing date I not in conflict with the application but I the principle or theory underlying the
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C.(Continu	etion) DOCUMENTS CONSIDERED TO BE RELEVANT	FC170320037012090		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X A	US 2003/131172 A1 (LIN JOHNSON) 10 July 2003 (2003-07-10) paragraph '0012! - paragraph '0022! paragraph '0027! - paragraph '0039!; figures 1,2	1-15, 40-42 16,17, 24,26, 28,29, 36,39		

INTERNATIONAL SEARCH REPORT

Interi il Application No PCT/US2005/012096

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 2002097234	A1	25-07-2002	NONE		
US 6141021	Α	31-10-2000	NONE		
US 2003131172	A1	10-07-2003	NONE		