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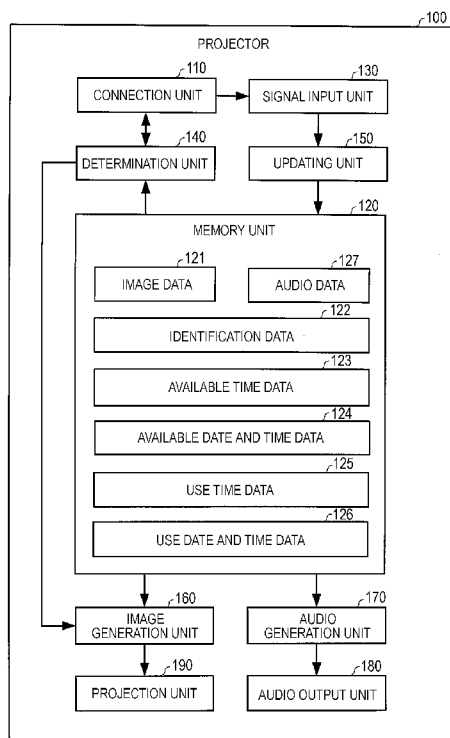
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[Continued on next page]

(54) Title: PROJECTOR AND AUTHENTICATION METHOD

[Fig. 2]



(57) Abstract: A projector includes a connection unit to which a portable terminal device is connected, a memory unit configured to store identification data of the portable terminal device to be permitted or denied, and a determination unit configured to determine whether to permit or deny use of the projector based on identification information of the portable terminal device received from the portable terminal device connected to the connection unit and the identification data.



SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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A. CLASSIFICATION OF SUBJECT MATTER

INV. H04N21/41 H04N21/441 H04N21/8355 H04N5/74
ADD.

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)

H04N

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 practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2009/012344 A2 (MICROSOFT CORP [US]) 22 January 2009 (2009-01-22) abstract paragraph [0005] - paragraph [0006] paragraph [0009] - paragraph [0010] paragraph [0029] paragraph [0031] paragraph [0033] - paragraph [0035] paragraph [0037] paragraph [0039] paragraph [0050] - paragraph [0052] paragraph [0056] - paragraph [0057] paragraph [0066] - paragraph [0067] paragraph [0071] paragraph [0082] column 84 paragraph [0094] - paragraph [0095] figures 1,2,13,14 ----- -/-	1-9



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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.
X	WO 2010/042752 A2 (DIGIBOO LLC [US]; WAGNER BYRON [US]) 15 April 2010 (2010-04-15) abstract page 5, line 12 - line 16 page 5, line 25 - line 30 page 6, line 8 - line 16 page 6, line 24 - page 7, line 8 page 7, line 23 page 10, line 16 - page 11, line 4 page 11, line 32 - page 12, line 2 page 17, line 6 - page 18, line 11 figures 1b,3,4	1-9
A	----- JP 2005 181606 A (SEIKO EPSON CORP) 7 July 2005 (2005-07-07) paragraph [0007] paragraph [0009] - paragraph [0010] paragraph [0021] - paragraph [0022] paragraph [0036] paragraph [0038] paragraph [0043] paragraph [0049] paragraph [0052] - paragraph [0053] paragraph [0096]	1-9
A	----- WO 2008/048825 A2 (NETALOG INC [US]; GRADY JEFF [US]; DE ANGELIS GAREY [US]; GREEN ANDREW) 24 April 2008 (2008-04-24) paragraph [0036] paragraph [0045] paragraph [0078] - paragraph [0079] paragraph [0083] - paragraph [0084] figures 1,8	1-9
A	----- US 2005/240417 A1 (SAVAGE DAVE [GB]) 27 October 2005 (2005-10-27) abstract paragraph [0010] - paragraph [0011] figures 6,7a	1-9
A	----- WO 2011/009138 A2 (IDEAS & INNOVATIONS LLC [US]; CURTIS JAMES [US]) 20 January 2011 (2011-01-20) abstract paragraph [0031] - paragraph [0032] paragraph [0035] - paragraph [0038] figure 1 ----- -/--	1-9

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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.
A	US 2008/162925 A1 (OKAYA KEN P [US]) 3 July 2008 (2008-07-03) abstract paragraph [0024] - paragraph [0026] paragraph [0034] - paragraph [0035] paragraph [0046] paragraph [0050] - paragraph [0051] paragraph [0069] - paragraph [0070] -----	1-9

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/JP2012/000774

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2009012344 A2	22-01-2009	US 2009023475 A1 US 2011136541 A1 WO 2009012344 A2	22-01-2009 09-06-2011 22-01-2009
WO 2010042752 A2	15-04-2010	US 2010205023 A1 WO 2010042752 A2	12-08-2010 15-04-2010
JP 2005181606 A	07-07-2005	NONE	
WO 2008048825 A2	24-04-2008	EP 2074822 A2 JP 2010523008 A TW 200828133 A WO 2008048825 A2	01-07-2009 08-07-2010 01-07-2008 24-04-2008
US 2005240417 A1	27-10-2005	AU 2003273533 A1 CA 2487443 A1 GB 2406640 A US 2005240417 A1 WO 03102831 A1	19-12-2003 11-12-2003 06-04-2005 27-10-2005 11-12-2003
WO 2011009138 A2	20-01-2011	CA 2768363 A1 CN 102576447 A EP 2454718 A2 US 2011015985 A1 WO 2011009138 A2	20-01-2011 11-07-2012 23-05-2012 20-01-2011 20-01-2011
US 2008162925 A1	03-07-2008	NONE	