(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 11 July 2002 (11.07.2002)

PCT

(10) International Publication Number WO 02/054335 A3

(51) International Patent Classification⁷: G06K 7/00

(21) International Application Number: PCT/US01/50246

(22) International Filing Date:

20 December 2001 (20.12.2001)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

09/753,832

3 January 2001 (03.01.2001) US

- (71) Applicant (for all designated States except US): THOM-SON LICENSING S.A. [FR/FR]; 46, Quai A. Le Gallo, F-92648 Boulogne Cedex (FR).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): COLMAN, Gerald, Adolph [US/US]; 8460 Harrison Parkway, Fishers, IN 46038 (US).
- (74) Agents: TRIPOLI, Joseph, S. et al.; Thomson Multimedia Licensing Incorporated, P.O. Box 5312, Princeton, NJ 08540 (US).

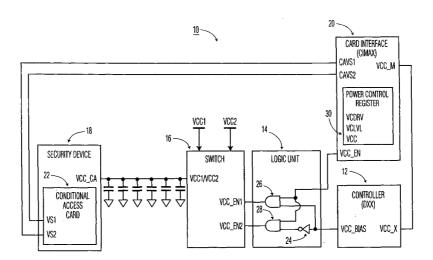
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 17 October 2002

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR SWITCHING VOLTAGE



(57) Abstract: A device and method for providing varying bias voltages to a security device (18) in a cable set-top terminal, comprising a receiving unit in the security device for receiving replaceable conditional access cards (22), a card interface (20) for sensing the insertion of conditional access cards in the receiving unit and outputting an enable signal to a logic unit, and the card interface for identifying a bias voltage of the conditional access card and outputting a request of the bias voltage to a controller, a controller (12) for receiving the request of bias voltage from the card interface and outputting a selection signal of the bias voltage to a logic unit (14), the logic unit for receiving the enable signal from the card interface and selection signal of the bias voltage from the controller to output a control signal to a switch (16), and a switch for receiving a control signal from the logic unit and providing a switched voltage to the security device based on the selection signal from the controller.



WO 02/054335 A3

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

It ional Application No

	FICATION OF SUBJECT MATTER								
IPC 7 G06K7/00									
According to International Patent Classification (IPC) or to both national classification and IPC									
B. FIELDS SEARCHED									
Minimum do	cumentation searched (classification system followed by classification HO4N G06K	on symbols)							
	no m dock								
Degumentel	tion searched other than minimum documentation to the extent that s	uch decuments are included in the fields of	perahad						
Documentat	non searched other than minimum documentation to the extent that s	uch documents are included in the neids se	earcheu						
Electronic d	ata base consulted during the international search (name of data bas	se and, where practical, search terms used)						
EPO-In	ternal, PAJ, WPI Data								
C. DOCUMENTS CONSIDERED TO BE RELEVANT									
Category °	Citation of document, with indication, where appropriate, of the rele	evant passages	Relevant to claim No.						
, , , , , , , , , , , , , , , , , , ,									
χ	US 4 767 920 A (KITTA KENICHI ET	· Al.)	1-5						
,	30 August 1988 (1988-08-30)	,,_,							
	column 2, line 55 -column 4, line	9 38;							
	figures 3,4	,							
Α	EP 1 037 159 A (NOKIA MOBILE PHON	IFS I TD)	1,2						
,,	20 September 2000 (2000-09-20)	± 9 fm							
	page 7, line 42 - line 56								
	page 8, line 34 - line 45								
	figure 7C1	•							
Α	US 6 137 710 A (YAJIMA TOSHIO ET	· Al)	3,5						
, ''	24 October 2000 (2000-10-24)	4 ,0							
	column 11, line 24 - line 43; figure 2								
 		•							
<u> </u>									
; 									
Ì									
Further documents are listed in the continuation of box C. X Patent family members are listed in annex.									
° Special categories of cited documents:									
i	-	"T" later document published after the inte or priority date and not in conflict with	the application but						
consid	ent defining the general state of the art which is not lered to be of particular relevance	cited to understand the principle or the invention	eory underlying the						
"E" earlier of filing d	document but published on or after the international late	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to							
"L" document which may throw doubts on priority claim(s) or involve an inventive step when the document is taken alone									
citation or other special reason (as specified) cannot be considered to involve an inventive step when the									
*O' document referring to an oral disclosure, use, exhibition or other means of the									
	ent published prior to the international filing date but nan the priority date claimed	& document member of the same patent family							
Date of the	actual completion of the international search	Date of mailing of the international search report							
29 July 2002		06/08/2002							
Name and mailing address of the ISA		Authorized officer							
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk									
Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016		Bhalodia, A							

INTERNATIONAL SEARCH REPORT

nformation on patent family members

Ir ional Application No

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4767920	A	30-08-1988	JP DE EP KR	61264485 A 3681819 D1 0202622 A2 9309743 B1	22-11-1986 14-11-1991 26-11-1986 09-10-1993
EP 1037159	Α	20-09-2000	FI EP JP	990543 A 1037159 A2 2000354093 A	12-09-2000 20-09-2000 19-12-2000
US 6137710	A	24-10-2000	JP US	10302030 A 6002605 A	13-11-1998 14-12-1999