# (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 1 March 2007 (01.03.2007)

PCT

# (10) International Publication Number WO 2007/023457 A3

- (51) International Patent Classification: *G06F 21/00* (2006.01)
- (21) International Application Number:

PCT/IB2006/052905

- (22) International Filing Date: 22 August 2006 (22.08.2006)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:

60/710,648 22 August 2005 (22.08.2005) US

- (71) Applicant (for all designated States except US): KONIN-KLIJKE PHILIPS ELECTRONICS, N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KHANH, Ata [US/US]; 1109 Mckay Drive, MS41-SJ, San Jose, CA 95131 (US). GOODHUE, Greg [US/US]; 1109 Mckay Drive, MS41-SJ, San Jose, CA 95131 (US). SHRIVAS-TAVA, Pankaj [IN/US]; 1109 Mckay Drive, MS41-SJ, San Jose, CA 95131 (US). VAN DER VEER, Bas [NL/US]; 1109 Mckay Drive, MS41-SJ, San Jose, CA 95131 (US). VARNEY, Rick [US/US]; 1109 Mckay Drive, MS41-SJ, San Jose, CA 95131 (US). NAGARAJ, Prithvi [IN/US]; 1109 Mckay Drive, MS41-SJ, San Jose, CA 95131 (US).
- (74) Agent: ZAWILSKI, Peter; NXP Semiconductors, Intellectual Property Department, 1109 McKay Drive, M/S-41SJ, San Jose, CA 95131-1706 (US).

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

#### **Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

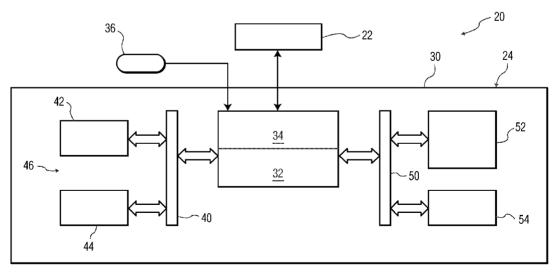
#### Published:

with international search report

(88) Date of publication of the international search report: 7 June 2007

[Continued on next page]

#### (54) Title: EMBEDDED MEMORY PROTECTION



(57) Abstract: One embodiment of the present application includes a microcontroller (30) that has an embedded memory (46), a programmable processor (32), and a test interface (34). The memory (46) is accessible through the test interface (34). In response to resetting this microcontroller (30), a counter is started and the test interface (34) is initially set to a disabled state while an initiation program is executed. The test interface (34) is changed to an enabled state - such that access to the embedded memory (46) is permitted through it - when the counter reaches a predefined value unless the microcontroller (30) executes programming code before the predefined value is reached to provide the disabled state during subsequent microcontroller (30) operation.





#### 

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

International application No PCT/IB2006/052905

A CLASSI	IFICATION OF SUBJECT MATTER									
INV. G06F21/00										
According to International Patent Classification (IPC) or to both national classification and IPC										
B. FIELDS SEARCHED										
	ocumentation searched (classification system followed by classification	on symbols)								
G06F										
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched										
Desamentation scarened unter than minimum decomentation to the extent unat such decompline are included. In the neigh seafched										
Electronic d	lata base consulted during the international search (name of data ba	se and, where practical, search terms used	)							
FPO-In	ternal, WPI Data									
- 1 0 + 11	bei nat, wit bata									
C. DOCUMENTS CONSIDERED TO BE RELEVANT										
Category*	Citation of document, with indication, where appropriate, of the rel	evant naceages	Relevant to claim No.							
Dategory	Challon of document, with indication, where appropriate, of the fer	evant passages	nelevani to dann 140.							
	_	_								
Х	US 2002/166061 A1 (FALIK OHAD [IL	_] ET AL)	1-30							
	7 November 2002 (2002-11-07)									
	paragraph [0076]									
	paragraph [0078] - paragraph [007	•								
	paragraph [0082]									
	paragraph [0084] paragraph [0088]		•							
	paragraph [0099]									
	paragraph [0099]   paragraph [0102]	137								
	figures 1-3									
Α	WO 02/093335 A2 (ADVANCED MICRO D	DEVICES	2,3,8,9,							
	INC [US]) 21 November 2002 (2002-		15,23,28							
	page 7, 1ine 38 - page 8, line 12	,	,,							
			'							
χ	EP 1 276 033 A (MICRONAS GMBH [DE	[])	1							
	15 January 2003 (2003-01-15)									
	paragraph [0024]; figure 3									
		[V]								
Furth	ner documents are listed in the continuation of Box C.	See patent family annex.								
* Special c	ategories of cited documents:	"T" later document published after the inter	notional filing data							
"A" docume	ent defining the general state of the art which is not	or priority date and not in conflict with t	he application but							
consid	lered to be of particular relevance	cited to understand the principle or the invention	ory underlying the							
'E' earlier o	document but published on or after the international late	"X" document of particular relevance; the cl cannot be considered novel or cannot	aimed invention							
"L" docume	ant which may throw doubts on priority claim(s) or	involve an inventive step when the doc	ument is taken alone							
which is cited to establish the publication date of another citation or other special reason (as specified)  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the										
"O" document referring to an oral disclosure, use, exhibition or other means document is combined with one or more other such document, such combination being obvious to a person skilled										
"P" docume	ent published prior to the international filing date but	in the art.	•							
later th	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 sear	ch report							
7 February 2007		14/02/2007								
Name and mailing address of the ISA/		Authorized officer								
European Patent Office, P.B. 5818 Patentlaan 2		Authorized officer								
	NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.	0								
Fax: (+31-70) 340-3016		Gorzewski, Michael								

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/IB2006/052905

Patent document cited in search report		Publication date		atent family nember(s)		Publication date
US 2002166061	A1	07-11-2002	NONE			<u> </u>
WO 02093335	A2	21-11-2002	CN EP	02254625 1524206 1428095 05515517 222285	A A2 T	25-11-2002 25-08-2004 16-06-2004 26-05-2005 11-10-2004
EP 1276033	A	15-01-2003	JP 20	1465002 03007132 03044363 03014653	A1 A	31-12-2003 23-01-2003 14-02-2003 16-01-2003