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PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Niklas Adam Bilbo SKOLD	08/13/2012
Anthony John BENNETT	08/07/2012
Andrew James SHIELDS	08/07/2012

RECEIVING PARTY DATA

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13561843

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Total Attachments: 3

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> PATENT REEL: 029106 FRAME: 0789

OF \$40.00 13561843

Assignment of Application

WHEREAS, I (WE)	Niklas Adam Bilbo SKOL	<u>D,</u>			
	Anthony John BENNETT,	, and			
	Andrew James SHIELDS	all of Cambridg	e, Cambridgeshire,	United Kingdom.	
VIII TO THE TOTAL THE TOTAL TO THE TOTAL TOT					, respectively,
have invented certa	in new and useful improven	nents in: OUAl	NTUM MEMORY		
(Application No1	13/561,843	, filed	July 30, 2012), and
WHEREAS, I	Kabushiki Kaisha Toshiba				
Chereinafter referre	d to as "ASSIGNEE") hav	ing a place of	business at: 1-1, SI	hibaura 1-chome, Mir	ato-ku, Tokyo,
105-8001, Japan is	desirous of acquiring the e	entire right, title	e and interest in an	d to said invention an	d in and to any
Letters Patent that foreign countries;	may be granted therefore	in the United	States and its territ	oriai possessions and	in any and an

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application(s)) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

07/09

We (I) hereby claim the benefit under Title 3 application(s) listed below.	5, United States Code, §119(e) of any United States provisional
(Application Number)	(Filing Date)
(Application Number)	(Filing Date)
PCT International application designating the Unite the claims of this application is not disclosed in the provided by the first paragraph of 35 U.S.C. §112,	2. §120 of any United States application(s), or under §365(c) of any ed States, listed below and, insofar as the subject matter of each of prior United States or PCT International application in the manner acknowledge the duty to disclose information which is material to came available between the filing date of the prior application and application.
Application Serial No.	iling Date Status (pending, patented, abandoned)
And we (I) hereby appoint the following regis	stered practitioner(s):
The Practitioners As	ssociated With Customer Number 22850
	ion and revocation, to prosecute this application and to transact all and we (I) hereby request that all correspondence regarding this
The Address Asso	ociated With Customer Number 22850
on information and belief are believed to be true; a willful false statements and the like so made are p	of our (my) own knowledge are true and that all statements made and further that these statements were made with the knowledge that unishable by fine or imprisonment, or both, under Section 1001 of allful false statements may jeopardize the validity of the application
Niklas Adam Bilbo SKOLD	Residence: Cambridge, Cambridgeshire, United
NAME OF FIRST OR SOLE INVENTOR	Kingdom
N.~ 1	Citizen of: Sweden
Signature of Inventor	Mailing Address: <u>c/o Toshiba Research Europe</u>
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13/8 2012	Cambridge Science Park, Milton Road, Cambridge,
Date	CB4 0GZ, Cambridgeshire, United Kingdom

Anthony John BENNETT	Residence: Cambridge, Cambridgeshire, United		
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7-8-12	Cambridge Science Park, Milton Road, Cambridge,		
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Andrew James SHIELDS NAME OF THIRD JOINT INVENTOR	Residence: Cambridge, Cambridgeshire, United Kingdom		
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Date	CB4 0GZ, Cambridgeshire, United Kingdom		

(OSMMN 09/2005)