

PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT2980944

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
Name		Execution Date
INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE		11/22/2011
RECEIVING PARTY DATA		
Name:	HIGGS OPL. CAPITAL LLC	
Street Address:	160 GREENTREE DRIVE	
Internal Address:	SUITE 101	
City:	DOVER	
State/Country:	DELAWARE	
Postal Code:	19904	
PROPERTY NUMBERS Total: 1		
Property Type	Number	
Application Number:	14062793	
CORRESPONDENCE DATA		
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ATTORNEY DOCKET NUMBER:	4650-0031	
NAME OF SUBMITTER:	STEPHEN S. FORD	
SIGNATURE:	/Stephen S. Ford/	
DATE SIGNED:	08/13/2014	
Total Attachments: 5		
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ASSIGNMENT OF PATENT RIGHTS

THIS ASSIGNMENT OF PATENT RIGHTS ("Assignment") is made by and between Industrial Technology Research Institute, with a principal office located at 195 Sec. 4, Chung Hsing Rd, Chutung, Hsinchu, Taiwan-ROC, ("Assignor") and Higgs Opl. Capital LLC, a Delaware limited liability company having an office at 160 Greentree Drive, Suite 101; Dover, DE 19904 ("Assignee").

WHEREAS, Assignor owns, all right, title and interest in, to and under all patents and patent applications listed in the table below (the "Patents");

WHEREAS, Assignor has agreed to assign all right, title, and interest in, to and under the Patents to Assignee, all inventions therein, including any right to sue for damages already accrued in a claim for infringement of any of the Patents;

NOW, THEREFORE, for other good and valuable consideration, the receipt of which is hereby acknowledged:

Assignor hereby sells, assigns, transfers, and sets over to Assignee, all right, title, and interest in and to any and all of the following:

- (a) the Patents;
- (b) all inventions, invention disclosures, and discoveries described therein any of the Patents;
- (c) rights to apply in any or all countries of the world for patents, certificates of invention, utility models, industrial design protections, design patent protections, or other governmental grants or issuances of any type in any of the Patents and the inventions, invention disclosures, and discoveries therein.
- (d) all rights, if any, of Assignor to collect royalties or other payments under or on account of any of the such Patents. Notwithstanding anything to the contrary under the provision of this section (d) above mentioned, Assignor retains the right to collect certain existing royalties, under/on account of such Patents, prior to the date of the Assignment; and
- (e) all causes of action and enforcement rights, whether currently pending, filed, or otherwise, for the Patents and/or the rights in (c) above, including all rights to pursue damages, injunctive relief and other remedies for past infringement of the Patents.

The terms and conditions of this Assignment will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

IN WITNESS WHEREOF, Assignor has caused this Assignment to be executed by its duly authorized officer as of this 24 day of Nov, 2011.

ASSIGNOR:

Industrial Technology Research Institute

By: Diane Chen
Name: Diane Chen
Title: Director
(Signature MUST be attested)

ATTESTATION OF SIGNATURE PURSUANT TO 28 U.S.C. § 1746

The undersigned witnessed the signature of Diane Chen to the above Assignment of Patent Rights on behalf of Industrial Technology Research Institute and makes the following statements:

1. I am over the age of 18 and competent to testify as to the facts in this Attestation block if called upon to do so.
2. Diane Chen is personally known to me (or proved to me on the basis of satisfactory evidence) and appeared before me on Nov. 22nd, 2011 to execute the above Assignment of Patent Rights on behalf of Industrial Technology Research Institute.
3. Diane Chen subscribed to the above Assignment of Patent Rights on behalf of Industrial Technology Research Institute.

I declare under penalty of perjury under the laws of the United States of America that the statements made in the three (3) numbered paragraphs immediately above are true and correct.

EXECUTED on Nov. 22nd, 2011 (date)

Su-Chen Liao
Print Name: Su-Chen Liao

Patents

Serial No.	Country	Patent or Application No.	Filing Date	Title
1	CN	ZL200610125700.9	20060831	Phase change memory devices and methods for fabricating the same
2	TW	I305042	20060816	Phase change memory devices and methods for fabricating the same
3	US	7,745,811	20061117	Phase change memory devices and methods for fabricating the same
4	JP	2008-006653	20080116	Phase-change memory element
5	TW	I326917	20070201	Phase-change memory element
6	CN	ZL200710091441.7	20070328	Writing method and system for a phase change memory
7	JP	4713599	20080118	Writing method and system for a phase change memory
8	TW	I330846	20070308	Writing method and system for a phase change memory
9	US	7,773,409	20071212	Writing method and system for a phase change memory
10	CN	ZL200710104503.3	20070525	Phase change memory devices and methods for manufacturing the same
11	TW	I343642	20070424	Phase change memory devices and methods for manufacturing the same
12	US	7,964,862	20080326	Phase change memory devices and methods for manufacturing the same
13	CN	ZL200610166764.3	20061214	Phase change memory device and method for fabricating the same
14	TW	I318470	20061124	Phase change memory device and method for fabricating the same
15	US	7,566,895	20070524	Phase change memory device and method for fabricating the same
16	CN	200710086370.1	20070315	Driving method and system for a phase change memory
17	JP	328602/2007	20071220	Driving method and system for a phase change memory
18	TW	I320180	20070112	Driving method and system for a phase change memory
19	US	7,643,373	20071121	Driving method and system for a phase change memory
20	CN	ZL200710147209.0	20070830	Method of fabrication of phase-change memory
21	TW	96124887	20070709	Method of fabrication of phase-change memory
22	US	7,521,372	20061229	Method of fabrication of phase-change memory
23	CN	ZL200710112008.7	20070619	Phase change memory cell structures and methods for manufacturing the same
24	TW	I336925	20070531	Phase change memory cell structures and methods for manufacturing the same
25	US	7,923,714	20080421	Phase change memory cell structures and methods for manufacturing the same
26	CN	ZL200710087797.3	20070319	Semiconductor device and fabrications thereof

Serial No.	Country	Patent or Application No.	Filing Date	Title
27	TW	I324823	20070216	Semiconductor device and fabrications thereof
28	US	7,670,869	20071029	Semiconductor device and fabrications thereof
29	TW	96122878	20070625	Sensing circuit of a phase change memory and sensing method thereof
30	US	7,796,454	20071229	Sensing circuit of a phase change memory and sensing method thereof
31	CN	ZL200710141615.6	20070817	Sensing circuit of a phase change memory and sensing method thereof
32	TW	I334604	20070625	Sensing circuit of a phase change memory and sensing method thereof
33	US	7,933,147	20071231	Sensing circuit of a phase change memory and sensing method thereof
34	CN	ZL200710128067.3	20070627	Writing circuit for a phase change memory
35	TW	I352359	20070613	Writing circuit for a phase change memory
36	US	7,672,176	20071130	Writing circuit for a phase change memory
37	TW	I342022	20070705	Writing circuit for a phase change memory
38	US	7,787,281	20071214	Writing circuit for a phase change memory
39	CN	ZL200710196280.8	20071207	Phase-change memory element
40	JP	315873/2007	20071206	Phase-change memory element
41	TW	96138486	20071015	Phase-change memory element
42	US	7,679,163	20070514	Phase-change memory element
43	TW	96129952	20070814	Phase-change memory element
44	CN	ZL200810099165.3	20080514	Phase change memory device and fabrication method thereof
45	TW	97114210	20080418	Phase change memory device and fabrication method thereof
46	US	7,678,606	20070904	Phase change memory device and fabrication method thereof
47	CN	200710197139.X	20071205	Writing system and method for phase change memory
48	TW	I347607	20071108	Writing system and method for phase change memory
49	US	7,773,410	20080701	Writing system and method for phase change memory
50	CN	ZL200710162589.5	20071019	Device controlling phase change storage element and method thereof
51	TW	96135340	20070921	Device controlling phase change storage element and method thereof
52	US	7,796,455	20080619	Device controlling phase change storage element and method thereof
53	CN	ZL200710159854.4	20071225	Phase change memory and control method thereof
54	TW	I328816	20071206	Phase change memory and control method thereof
55	US	7,773,411	20081111	Phase change memory and control method thereof
56	US	12/324,871	20081127	Phase-change memory
57	CN	200910009855.X	20090124	Phase-change memory
58	TW	98101341	20090115	Phase-change memory
59	CN	ZL200810178629.X	20081121	Phase-change memory element
60	TW	97141346	20081028	Phase-change memory element
61	US	7,919,768	20080711	Phase-change memory element
62	CN	200810004868.3	20080205	Memory and method for dissipation caused by current

Serial No.	Country	Patent or Application No.	Filing Date	Title
				leakage
63	TW	96145894	20071203	Memory and method for dissipation caused by current leakage
64	US	7,885,109	20081118	Memory and method for dissipation caused by current leakage
65	CN	200810108494.X	20080606	Memory and writing method thereof
66	TW	97120428	20080602	Memory and writing method thereof
67	US	7,889,547	20081229	Memory and writing method thereof
68	TW	97120577	20080603	Phase-change memory devices and methods for fabricating the same
69	US	7,858,961	20081128	Phase change memory devices and methods for fabricating the same
70	CN	200910134896.1	20090415	Phase-change memory element
71	TW	98101868	20090119	Phase-change memory element
72	US	12/269,282	20081112	Phase-change memory element
73	CN	200910007575.5	20090223	Verification circuits and methods for phase change memory array
74	TW	97151378	20081230	Verification circuits and methods for phase change memory array
75	US	7,974,122	20090616	Verification circuits and methods for phase change memory array
76	CN	200910006775.9	20090227	Phase Change Memory
77	TW	97151765	20081231	Phase Change Memory
78	US	12/563,971	20090921	Phase Change Memory