

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT														
NATURE OF CONVEYANCE:	ASSIGNMENT														
CONVEYING PARTY DATA															
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Lei Chang</td> <td>08/27/2013</td> </tr> <tr> <td>Tao Ma</td> <td>08/27/2013</td> </tr> <tr> <td>Lirong Jian</td> <td>08/27/2013</td> </tr> <tr> <td>Kurt Harriman</td> <td>09/13/2013</td> </tr> <tr> <td>Zhanwei Wang</td> <td>08/27/2013</td> </tr> <tr> <td>Lili Ma</td> <td>08/27/2013</td> </tr> </tbody> </table>		Name	Execution Date	Lei Chang	08/27/2013	Tao Ma	08/27/2013	Lirong Jian	08/27/2013	Kurt Harriman	09/13/2013	Zhanwei Wang	08/27/2013	Lili Ma	08/27/2013
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<table border="1"> <tr> <td>Name:</td> <td>EMC Corporation</td> </tr> <tr> <td>Street Address:</td> <td>176 South Street</td> </tr> <tr> <td>City:</td> <td>Hopkinton</td> </tr> <tr> <td>State/Country:</td> <td>MASSACHUSETTS</td> </tr> <tr> <td>Postal Code:</td> <td>01748</td> </tr> </table>		Name:	EMC Corporation	Street Address:	176 South Street	City:	Hopkinton	State/Country:	MASSACHUSETTS	Postal Code:	01748				
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CORRESPONDENCE DATA															
<p>Fax Number: 4089732595 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 4089732585 Email: mgreen@ip-patent.com Correspondent Name: Van Pelt, Yi and James LLP Address Line 1: 10050 N. Foothill Blvd Address Line 2: Ste 200 Address Line 4: Cupertino, CALIFORNIA 95014</p>															
ATTORNEY DOCKET NUMBER:	EMCCP346														

NAME OF SUBMITTER:	William J. James
Signature:	/william j. james/
Date:	09/20/2013
<p>Total Attachments: 8</p> <p>source=EMCCP346 Executed Assignment#page1.tif</p> <p>source=EMCCP346 Executed Assignment#page2.tif</p> <p>source=EMCCP346 Executed Assignment#page3.tif</p> <p>source=EMCCP346 Executed Assignment#page4.tif</p> <p>source=EMCCP346 Executed Assignment#page5.tif</p> <p>source=EMCCP346 Executed Assignment#page6.tif</p> <p>source=EMCCP346 Executed Assignment#page7.tif</p> <p>source=EMCCP346 Executed Assignment#page8.tif</p>	

ASSIGNMENT

WHEREAS, we, Lei Chang, Tao Ma, Lirong Jian, Kurt Harriman, Zhanwei Wang, and Lili Ma have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled, the specification of which:

- ☐ is being executed on even date herewith and is about to be filed in the United States Patent Office;
- ☒ was filed on June 25, 2013 as U.S. Application No. 13/925,985;
- ☐ was patented under U.S. Patent No. _____ on _____.

WHEREAS, EMC Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, 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 us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including

the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

Date: Aug 27, 2013

Lei Chang

Inventor's Signature

Print full name of first inventor:

Lei Chang

Residence:

Beijing, China

Citizenship:

People's Republic of China

Mailing Address:

176 South Street

Hopkinton, MA 01748

I Dayue Gao (name) whose residential address is

No.3 Shang Yuan Cun, Beijing Jiaotong University, Hai Dian District, Beijing, China.

was personally present and did see Lei Chang (name of person signing the assignment) who is personally known to me, execute the above assignment.

Dayue Gao (signature of first witness)

Signed at #1 Zhongguancun RD, Beijing, China (location of witness signature)

on this day Aug 27 of 20 13. (date of signature)

I Jin Wang (name) whose residential address is

RM. 301, Unit 4, 5th Building, No.15 Wangzhuang Road, Haidian District, Beijing, China

was personally present and did see Lei Chang (name of person signing the assignment) who is personally known to me, execute the above assignment.

Jin Wang (signature of second witness)

Signed at #1 Zhongguancun RD, Beijing, China (location of witness signature)

on this day Aug 27 of 20 13. (date of signature)

Date: Aug 27, 2013

Tao Ma

Inventor's Signature

Print full name of second inventor:

Tao Ma

Residence:

Beijing, China

Citizenship:

People's Republic of China

Mailing Address:

176 South Street
Hopkinton, MA 01748

I Dayue Gao (name) whose residential address is

No.3 Shang Yuan Cun, Beijing Jiaotong University, Hai Dian District, Beijing, China.

was personally present and did see Tao Ma (name of person signing the assignment) who is personally known to me, execute the above assignment.

Dayue Gao (signature of first witness)

Signed at #1 Zhongguancun RD, Beijing, China (location of witness signature)

on this day Aug 27 of 20 13. (date of signature)

I Jin Wang (name) whose residential address is

RM. 301, Unit 4, 5th Building, No.15 Wangzhuang Road, Haidian District, Beijing, China

was personally present and did see Tao Ma (name of person signing the assignment) who is personally known to me, execute the above assignment.

Jin Wang (signature of second witness)

Signed at #1 Zhongguancun RD, Beijing, China (location of witness signature)

on this day Aug 27 of 20 13. (date of signature)

Date: Aug 27, 2013

Lirong Jian
Inventor's Signature

Print full name of third inventor:

Lirong Jian

Residence:

Beijing, China

Citizenship:

People's Republic of China

Mailing Address:

176 South Street
Hopkinton, MA 01748

I Dayue Gao (name) whose residential address is
No.3 Shang Yuan Cun, Beijing Jiaotong University, Hai Dian District, Beijing, China.
was personally present and did see Lirong Jian (name of person signing
the assignment) who is personally known to me, execute the above assignment.

Dayue Gao (signature of first witness)

Signed at #1 Zhongguancun RD, Beijing, China (location of witness signature)

on this day Aug 27 of 20 13. (date of signature)

I Jin Wang (name) whose residential address is
RM. 301, Unit 4, 5th Building, No.15 Wangzhuang Road, Haidian District, Beijing, China
was personally present and did see Lirong Jian (name of person signing
the assignment) who is personally known to me, execute the above assignment.

Jin Wang (signature of second witness)

Signed at #1 Zhongguancun RD, Beijing, China (location of witness signature)

on this day Aug 27 of 20 13. (date of signature)

PATENT/Joint Assignment
 Attorney Docket No.: EMCCP346
 EMC Docket No.: EMC-13-0581

Date: 9.13.2013

Kurt Harriman
 Inventor's Signature

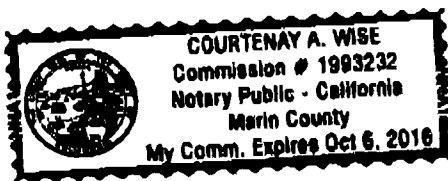
Print full name of fourth inventor: **Kurt Harriman**
 Residence: Novato, CA
 Citizenship: United States
 Mailing Address: 176 South Street
 Hopkinton, MA 01748

STATE OF California
 COUNTY OF Marin

On this 13 day of September, 2013, before me appeared Kurt Harriman who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is are subscribed to the within instrument and acknowledged to me that he she they executed the same in his her their authorized capacity(ies), and that by his her their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Courtenay A. Wise
 Notary Public

Print Name: Courtenay Wise, Notary Public
 My Commission expires 10/6/16

Date: Aug 27, 2013

Zhanwei Wang
Inventor's Signature

Print full name of fifth inventor: **Zhanwei Wang**
Residence: Beijing, China
Citizenship: People's Republic of China
Mailing Address: 176 South Street
Hopkinton, MA 01748

I Dayue Gao (name) whose residential address is
No.3 Shang Yuan Cun, Beijing Jiaotong University, Hai Dian District, Beijing, China.
was personally present and did see Zhanwei Wang (name of person signing
the assignment) who is personally known to me, execute the above assignment.

Dayue Gao (signature of first witness)

Signed at #1 Zhongguancun RD, Beijing, China (location of witness signature)

on this day Aug 27 of 20 13. (date of signature)

I Jin Wang (name) whose residential address is
RM. 301, Unit 4, 5th Building, No.15 Wangzhuang Road, Haidian District, Beijing, China
was personally present and did see Zhanwei Wang (name of person signing
the assignment) who is personally known to me, execute the above assignment.

Jin Wang (signature of second witness)

Signed at #1 Zhongguancun RD, Beijing, China (location of witness signature)

on this day Aug 27 of 20 13. (date of signature)

Date: Aug 27, 2013

Lili Ma
Inventor's Signature

Print full name of sixth inventor:

Lili Ma

Residence:

Beijing, China

Citizenship:

People's Republic of China

Mailing Address:

176 South Street
Hopkinton, MA 01748

I Dayue Gao (name) whose residential address is
No.3 Shang Yuan Cun, Beijing Jiaotong University, Hai Dian District, Beijing, China.
was personally present and did see Lili Ma (name of person signing
the assignment) who is personally known to me, execute the above assignment.

Dayue Gao (signature of first witness)

Signed at #1 Zhongguancun RD, Beijing, China (location of witness signature)

on this day Aug 27 of 2013. (date of signature)

I Jin Wang (name) whose residential address is
RM. 301, Unit 4, 5th Building, No.15 Wangzhuang Road, Haidian District, Beijing, China
was personally present and did see Lili Ma (name of person signing
the assignment) who is personally known to me, execute the above assignment.

Jin Wang (signature of second witness)

Signed at #1 Zhongguancun RD, Beijing, China (location of witness signature)

on this day Aug 27 of 2013. (date of signature)