

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3106094

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	SECURITY INTEREST	
CONVEYING PARTY DATA		
	Name	Execution Date
	HEXATECH, INC.	10/15/2014
RECEIVING PARTY DATA		
Name:	INTERSOUTH PARTNERS VI, L.P.	
Street Address:	102 CITY HALL PLAZA, SUITE 200	
City:	DURHAM	
State/Country:	NORTH CAROLINA	
Postal Code:	27701	
Name:	H.I.G. VENTURE PARTNERS II, L.P.	
Street Address:	1001 BRICKELL BAY DR	
City:	MIAMI	
State/Country:	FLORIDA	
Postal Code:	33131	
Name:	MCNC ENTERPRISE FUND, L.P.	
Street Address:	4505 EMPEROR BLVD., SUITE 130	
City:	DURHAM	
State/Country:	NORTH CAROLINA	
Postal Code:	27703	
Name:	SEVIN ROSEN FUND IX L.P.	
Street Address:	TWO GALLERIA TOWER	
Internal Address:	13455 NOEL ROAD, SUITE 1670	
City:	DALLAS	
State/Country:	TEXAS	
Postal Code:	75240	
Name:	SEVIN ROSEN IX AFFILIATES FUND L.P.	
Street Address:	TWO GALLERIA TOWER	
Internal Address:	13455 NOEL ROAD, SUITE 1670	
City:	DALLAS	
State/Country:	TEXAS	
Postal Code:	75240	
PROPERTY NUMBERS Total: 13		
503059492		PATENT
REEL: 034161		FRAME: 0276

Property Type	Number
Patent Number:	7815970
Application Number:	12895018
Patent Number:	7632454
Application Number:	12556851
Patent Number:	7678195
Patent Number:	7915178
Patent Number:	8148802
Application Number:	12418140
Application Number:	13185544
Application Number:	13324261
PCT Number:	US2012052022
Application Number:	61758053
Application Number:	61781991

CORRESPONDENCE DATA

Fax Number: (919)781-4865

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 9197814000

Email: ip@wyrick.com

Correspondent Name: DEVON E. WHITE

Address Line 1: 4101 LAKE BOONE TRAIL

Address Line 2: SUITE 300

Address Line 4: RALEIGH, NORTH CAROLINA 27607

ATTORNEY DOCKET NUMBER:	16041.018
NAME OF SUBMITTER:	DEVON E. WHITE
SIGNATURE:	/DEW/
DATE SIGNED:	11/13/2014

Total Attachments: 14

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this “**Agreement**”), dated as of October 15, 2014, is hereby entered into by and among HexaTech, Inc., a Delaware corporation (the “**Borrower**”), the purchasers set forth on Exhibit A to that certain Note Purchase Agreement dated as of even date herewith (the “**Purchase Agreement**”) (each, a “**Lender**” and sometimes collectively referred to herein as the “**Lenders**”), and Intersouth Partners VI, L.P., as the representative of the Lenders (the “**Lender Representative**”).

RECITALS:

WHEREAS, the Lenders will make loans to Borrower (collectively, the “**Loan**”), which Loan shall be evidenced by Secured Convertible Promissory Notes (the “**Notes**”) issued on or after the date hereof pursuant to the Purchase Agreement between the Lenders and the Borrower, but only if Borrower grants the Lenders a security interest in its copyrights, trademarks and patents and other collateral described in that certain Security Agreement between Borrower and the Lenders (the “**Collateral**”), executed in connection with the Loan and dated as of the date hereof (the “**Security Agreement**”); and

WHEREAS, Borrower has granted the Lenders a security interest in its presently existing or later acquired Collateral;

NOW, THEREFORE, for good and otherwise valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

AGREEMENT

1. Secured Obligations. This Agreement is given to secure the due and punctual payment of the principal of and interest on the Notes issued pursuant to the Purchase Agreement and the due and punctual performance of all other obligations under the Loan Documents (as defined in the Security Agreement) now existing and hereafter arising, including future advances (and additional Notes issued pursuant to the Purchase Agreement in respect thereof) made pursuant to the Purchase Agreement, together with any extensions and renewals of the foregoing obligations and reasonable attorneys’ fees if collected by or through an attorney-at-law (collectively the “**Secured Obligations**”); provided, however, that “Secured Obligations” shall not include any obligations of Borrower to any Lender in Lender’s capacity, as a holder of any of Borrower’s capital stock.

2. Security Interest. As security for the due and punctual payment and performance by Borrower of the Secured Obligations, Borrower hereby grants the Lenders a security interest (which shall be subject and subordinate to the Permitted Liens, as defined in the Security Agreement) in all right, title and interest in its Intellectual Property (as defined below). As used herein, the term “**Intellectual Property**” shall include:

(a) All copyrights, trademarks, and patents of Borrower, including, without limitation, the copyrights, trademarks, and patents listed on Schedule A attached hereto, all amendments, renewals, extensions relating thereto, and all licenses or other rights to use the foregoing and all license fees and royalties from such use. With respect to trademarks, the term

Intellectual Property includes the entire goodwill of Grantor's business connected with the use of and symbolized by such trademarks;

(b) Any trade secrets and any intellectual property rights in computer software and computer software products now or later existing, created, acquired or held by Borrower;

(c) All design rights which may be available to Borrower now or later created, acquired or held by Borrower;

(d) Any claims for damages (past, present or future) for infringement of any of the rights above, with the right, but not the obligation, to sue and collect damages for use or infringement of the intellectual property rights above; and

(e) All proceeds and products of any of the foregoing, including any and all insurance, indemnity or warranty payments, license royalties, proceeds of infringement suits, the right to sue for past, present and future infringements rights throughout the world, and all re-issues, divisions continuations, renewals, extensions and continuations-in-part with respect to any of the foregoing.

3. Term of Agreement. Borrower acknowledges and agrees that the number and amount of the Secured Obligations may fluctuate from time to time hereafter. Borrower expressly agrees that this Agreement and the security interest in the Intellectual Property conveyed to the Lenders hereunder shall remain valid and in full force and effect, notwithstanding any such fluctuations and future payments. This Agreement shall terminate, and each Lender shall release its security interest in the Intellectual Property and shall execute and deliver to Borrower all termination statements and similar documents which Borrower shall reasonably request to evidence such termination, only upon the earlier to occur of (a) the payment in full by or on behalf of Borrower of all of the then outstanding Notes issued pursuant to the Purchase Agreement and all other obligations of Borrower pursuant to any of the Loan Documents, or (b) the conversion of the full amounts then outstanding under the Notes into shares of the Borrower's capital stock pursuant to the terms of such Notes.

4. Security Agreement. This security interest is granted hereunder in conjunction with the security interest in the Collateral granted under the Security Agreement. The Lenders' rights and remedies in the Intellectual Property granted hereunder are in addition to those in the Purchase Agreement, the Security Agreement and other documents related thereto, and are in addition to those available at law or in equity. The Lenders' rights, powers and remedies herein are cumulative with every right, power or remedy provided in the Security Agreement. The Lenders' exercise of their rights, powers or remedies in this Agreement, the Purchase Agreement, the Security Agreement or any other documents related thereto does not preclude the simultaneous or later exercise of any or all other rights, powers or remedies.

5. Amendment. This Agreement may be amended only in a writing signed by both Borrower and the Lender Representative, and any amendment so effected shall be binding upon each of the Lenders; provided, however, that any such amendment or waiver that disproportionately affects any of the holders of the then-outstanding Notes shall require the written consent of all such disproportionately affected holders. No delay or failure on the part of

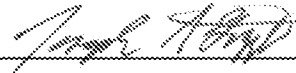
any Lender in the exercise of any right, power or privilege under this Agreement shall impair any such right, power or privilege or be construed as a waiver of any default or any acquiescence therein. No single or partial exercise of such right, power or privilege shall preclude the further exercise of such right, power or privilege or the exercise of any other right, power or privilege. No waiver shall be valid against the Lenders unless made in writing and signed by the Lender Representative, and then only to the extent expressly specified therein. Borrower hereby waives presentment and notice of dishonor and protest of all instruments included or evidencing the liability of Borrower in respect to the Secured Obligations or the Collateral and any and all notices and demands whatsoever, whether or not relating to such instruments, except as otherwise provided in such instruments. Notwithstanding the foregoing, Borrower may amend **Schedule A** from time-to-time as necessary to add any after-acquired Intellectual Property, by filing a Confirmatory Intellectual Property Security Agreement ("Confirmatory Security Agreement"), in a form substantially similar to **Exhibit A** to this Agreement, in the United States Patent and Trademark Office or the United States Copyright Office, as applicable. A copy of any such Confirmatory Security Agreement filed by Borrower shall be provided to Lender Representative.

[Signature pages follow.]

This Intellectual Property Security Agreement is hereby executed as of the year and date first above written.

BORROWER:

HEXATECH, INC.

By: 
Name: _____
Title: _____

LENDER REPRESENTATIVE:

INTERSOUTH PARTNERS VI, L.P.

By: Intersouth Associates VI, L.P.,
Its General Partner

By: _____
Name: _____
Title: _____

LENDERS:

INTERSOUTH PARTNERS VI, L.P.

By: Intersouth Associates VI, L.P.,
Its General Partner

By: _____
Name: _____
Title: _____

H.I.G. VENTURE PARTNERS II, L.P.

By: _____
Name: _____
Title: _____

H.I.G. VENTURES – HEXATECH, LLC

By: _____
Name: _____
Title: _____

This Intellectual Property Security Agreement is hereby executed as of the year and date first above written.

BORROWER:


HEXATECH, INC.

By: _____
Name: _____
Title: _____

LENDER REPRESENTATIVE:

INTERSOUTH PARTNERS VI, L.P.


By: Intersouth Associates VI, L.P.,
Its General Partner

By:  _____
Name: _____
Title: _____

LENDERS:

INTERSOUTH PARTNERS VI, L.P.

By: Intersouth Associates VI, L.P.,
Its General Partner

By:  _____
Name: _____
Title: _____

H.I.G. VENTURE PARTNERS II, L.P.

By: _____
Name: _____
Title: _____

H.I.G. VENTURES – HEXATECH, LLC

By: _____
Name: _____
Title: _____

[Signature Page to Intellectual Property Security Agreement]

This Intellectual Property Security Agreement is hereby executed as of the year and date first above written.

BORROWER:

HEXATECH, INC.

By: _____
Name: _____
Title: _____

LENDER REPRESENTATIVE:

INTERSOUTH PARTNERS VI, L.P.

By: Intersouth Associates VI, L.P.,
Its General Partner

By: _____
Name: _____
Title: _____

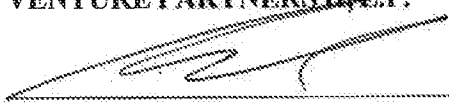
LENDERS:

INTERSOUTH PARTNERS VI, L.P.

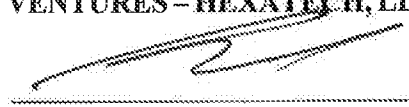
By: Intersouth Associates VI, L.P.,
Its General Partner

By: _____
Name: _____
Title: _____

H.I.G. VENTURE PARTNERS II, L.P.

By: 
Name: Richard Siegel
Title: Authorized Signatory

H.I.G. VENTURES - HEXATECH, LLC

By: 
Name: Richard Siegel
Title: Authorized Signatory

[Signature Page to Intellectual Property Security Agreement]

MCNC ENTERPRISE FUND, L.P.

By: MCNC Ventures, LLC
its General Partner

By: NC Idea,
Sole Member and Manager

By: John W Cambier
Name: John Cambier
Title: CFO and Treasurer

SEVIN ROSEN FUND IX L.P.

By: SRB ASSOCIATES IX L.P.,
Its General Partner

By: SRB ASSOCIATES IX L.L.C.
Its General Partner

By: _____
Member
Jon W. Bayless
Print Name

SEVIN ROSEN IX AFFILIATES FUND L.P.

By: SRB ASSOCIATES IX L.P.,
Its General Partner

By: SRB ASSOCIATES IX L.L.C.
Its General Partner

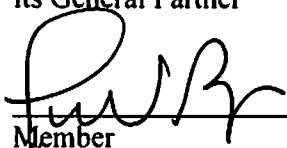
By: _____
Member
Jon W. Bayless
Print Name

MCNC ENTERPRISE FUND, L.P.

By: _____
Name: _____

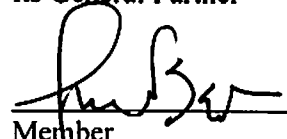
SEVIN ROSEN FUND IX L.P.

By: SRB ASSOCIATES IX L.P.,
Its General Partner
By: SRB ASSOCIATES IX L.L.C.
Its General Partner

By:  _____
Member
Jon W. Bayless
Print Name

SEVIN ROSEN IX AFFILIATES FUND L.P.

By: SRB ASSOCIATES IX L.P.,
Its General Partner
By: SRB ASSOCIATES IX L.L.C.
Its General Partner

By:  _____
Member
Jon W. Bayless
Print Name

SCHEDULE A

INTELLECTUAL PROPERTY

1. Copyrights/Software:

Software Program / Description	Registration/ Application Number	Registration/ Application Date
NONE		

2. Patents and patent applications

Title / Description	Inventor Names(s)	Registration/ Application Number	Registration/ Application Date
Controlled Polarity Group III-Nitride Films and Methods of Preparing Such Films	Raoul Schlessner Vladimir Noveski Ramon R. Collazo	US 11/382,806 Patent No. 7,815,970	Filed 5/11/2006 Issued 10/6/2010
		US 12/895,018	Filed 9/30/2010
		EP 05852374.7	Filed 11/29/2005
		JP 2008-511103	Filed 11/29/2005
Dense Shaped Articles Constructed of a Refractory Material and Methods of Preparing Such ArticlesRaoul Schlessner	Raoul Schlessner Rafael F. Dalmau Vladimir Noveski Zlatko Sitar	US 11/398,270 Patent No. 7,632,454	Filed 4/5/2006 Issued 12/15/2009
		US 12/556,851	Filed 9/10/2009
		EP 06758277.5	Granted 4/5/2006
		JP 2008-505509	Filed 4/5/2006
		EP 11167505.4	Granted 11/21/2012
Seeded Growth Process for Preparing Aluminum Nitride Single Crystals	Raoul Schlessner Vladimir Noveski Zlatko Sitar	US 11/399,713 Patent No. 7,678,195	Filed 4/6/2006 Issued 3/16/2010
		EP 06749479.9	Declaration to grant 02/27/2013
		JP 2008-505555	Filed 4/6/2006

Surface Preparation and Passivation of AlN Wafers for Epitaxial Thin Film Growth	Ramon Collazo Zlatko Sitar Rafael Dalmau	US 12/182,475 Patent No. 7,915,178	Filed 7/30/2008 Issued 3/29/2011
		US 13/028,505 Patent No. 8,148,802	Filed 2/16/2011 Issued 4/3/2012
		EP 09790902.2	Filed 7/29/2009
		JP 2011-521263	Filed 7/29/2009

Liquid Sanitation Device	Raoul Schlessner James M. LeMunyon	US 2009/0250626	Filed 4/3/2009 Pub. Oct. 8, 2009
Polycrystalline AlN Material and Method of Production Thereof	Baxter Moody Rafael Dalmau David Henshall Raoul Schlessner	US 13/185,544	Filed 7/19/2011
Thermal Expansion Engineering for Polycrystalline AlN Sintered Bodies	Spalding Craft Baxter Moody Rafael Dalmau Raoul Schlessner	US 13/324,261	Filed 12/13/2011
Highly Transparent Aluminum Nitride Single Crystalline Layers and Devices Made Therefrom	Joint Patent between: - HexaTech, Inc. - North Carolina State University - Tokuyama Corp. (Japan) - Tokyo University of Agriculture and Technology (TUAT)	PCT/US2012/05 2022	Filed 8/23/2012
Optoelectric Devices Incorporating Single Crystalline Aluminum Nitride Substrate	Jinqiao Xie Baxter Moody Seiji Mita	61/758,053	Provisional filed 01/29/2013
Power Semiconductor Incorporating Single Crystalline Aluminum Nitride Substrates	Baxter Moody Seiji Mita Jinqiao Xie	61/781,991	Provisional filed 03/14/2013

3. Trademarks and trademark applications

Title / Description	Registration/ Application Number	Registration/ Application Date
NONE		

EXHIBIT A

**CONFIRMATORY INTELLECTUAL PROPERTY
SECURITY AGREEMENT**

THIS CONFIRMATORY INTELLECTUAL PROPERTY SECURITY AGREEMENT (this "Confirmatory Security Agreement"), is made _____, 20____, but effective as of the Effective Date (as hereinafter defined), from HexaTech, Inc., a Delaware corporation ("Grantor"), to Intersouth Partners VI, L.P. ("Lender Representative").

W I T N E S S E T H :

WHEREAS, Grantor and Lender Representative entered into that certain Intellectual Property Security Agreement, dated January ____, 2014 (the "IP Security Agreement"), which IP Security Agreement is incorporated by reference into this Confirmatory Security Agreement; and

WHEREAS, pursuant to the IP Security Agreement, Grantor gave Lender Representative a security interest in all of Grantor's right, title and interest in and to the Intellectual Property, as that term is defined in the IP Security Agreement, including any after-acquired Intellectual Property. Further, with respect to any trademarks or service marks, the Intellectual Property includes the entire goodwill of Grantor's business connected with the use of and symbolized by such trademarks or service marks; and

WHEREAS, Grantor now desires to confirm, as a matter of record, Lender Representative's security interest in and to the below listed Intellectual Property by authorizing and requesting that the [Commissioner of Patents and Trademarks/Register of Copyrights] record this Confirmatory Security Agreement.

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor hereby grants to Lender Representative a security interest in and to the below listed Intellectual Property, and in the case of any trademarks or service marks, together with the entire goodwill of Grantor's business connected with the use of and symbolized by the trademarks or service marks, such security interest to be effective as of the respective Registration/Application Date (the "Effective Date").

PATENTS

Title / Description	Inventor Names(s)	Registration/ Application Number	Registration/ Application Date
Controlled Polarity Group III-Nitride Films and Methods of Preparing Such Films	Raoul Schlessner Ramon R. Collazo Zlatko Sitar	US 11/382,806 Patent No. 7,815,970	Filed 5/11/2006 Issued 10/6/2010
		US 12/895,018	Filed 9/30/2010
		EP 05852374.7	Filed 11/29/2005
		JP 2008-511103	Filed 11/29/2005
Dense Shaped Articles Constructed of a Refractory Material and Methods of Preparing Such Articles	Raoul Schlessner Rafael F. Dalmau Vladimir Noveski Zlatko Sitar	US 11/398,270 Patent No. 7,632,454	Filed 4/5/2006 Issued 12/15/2009
		US 12/556,851	Filed 9/10/2009
		EP 06758277.5	Granted 4/5/2006
		JP 2008-505509	Filed 4/5/2006
		EP 11167505.4	Granted 11/21/2012
Seeded Growth Process for Preparing Aluminum Nitride Single Crystals	Raoul Schlessner Vladimir Noveski Zlatko Sitar	US 11/399,713 Patent No. 7,678,195	Filed 4/6/2006 Issued 3/16/2010
		EP 06749479.9	Declaration to grant 02/27/2013
		JP 2008-505555	Filed 4/6/2006
Surface Preparation and Passivation of AlN Wafers for Epitaxial Thin Film Growth	Ramon Collazo Zlatko Sitar Rafael Dalmau	US 12/182,475 Patent No. 7,915,178	Filed 7/30/2008 Issued 3/29/2011
		US 13/028,505 Patent No. 8,148,802	Filed 2/16/2011 Issued 4/3/2012
		EP 09790902.2	Filed 7/29/2009

[EXHIBIT A TO INTELLECTUAL PROPERTY SECURITY AGREEMENT]

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PATENT
REEL: 034161 FRAME: 0290

		JP 2011-521263	Filed 7/29/2009
Liquid Sanitation Device	Raoul Schlessler, James M. LeMunyon	US 2009/0250626	Filed 4/3/2009 Pub. Oct. 8, 2009
Polycrystalline AlN Material and Method of Production Thereof	Baxter Moody Rafael Dalmau David Henshall Raoul Schlessler	US 13/185,544	Filed 7/19/2011
Thermal Expansion Engineering for Polycrystalline AlN Sintered Bodies	Spalding Craft Baxter Moody Rafael Dalmau Raoul Schlessler	US 13/324,261	Filed 12/13/2011
Highly Transparent Aluminum Nitride Single Crystalline Layers and Devices Made Therefrom	Joint Patent between HexaTech, Inc. North Carolina State University Tokuyama Corp. (Japan) Tokyo University of Agriculture and Technology (TUAT)	PCT/US2012/05 2022	Filed 8/23/2012
Optoelectric Devices Incorporating Single Crystalline Aluminum Nitride Substrate	Jinqiao Xie Baxter Moody Seiji Mita	61/758,053	Provisional filed 01/29/2013
Power Semiconductor Incorporating Single Crystalline Aluminum Nitride Substrates	Baxter Moody Seiji Mita Jinqiao Xie	61/781,991	Provisional filed 03/14/2013

TRADEMARKS

Title / Description	Registration/ Application Number	Registration/ Application Date
NONE		

COPYRIGHTS

Description	Registration/ Application Number	Registration/ Application Date
NONE		

IN WITNESS WHEREOF, the Grantor has caused this Confirmatory Security Agreement to be duly executed by its authorized officer intending it to be effective as of the Effective Date.

HEXATECH, INC.

By: _____

Name: _____

Title: _____

[EXHIBIT A TO INTELLECTUAL PROPERTY SECURITY AGREEMENT]