

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4460369

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	BILL OF SALE
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
BANDGAP ENGINEERING, INC.	12/12/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MARCIE BLACK
<b>Street Address:</b>	173 BEDFORD ROAD
<b>City:</b>	LINCOLN
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01773
<b>Name:</b>	TRACY ADAMS
<b>Street Address:</b>	9415 GULF SHORE DR.601
<b>City:</b>	NAPLES
<b>State/Country:</b>	FLORIDA
<b>Postal Code:</b>	34108
<b>Name:</b>	DANE SHULMAN ASSOCIATES, LLC
<b>Street Address:</b>	1629 BLUE HILL AVENUE
<b>City:</b>	MATTAPAN
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02126
<b>Name:</b>	RICHARD CHLEBOSKI
<b>Street Address:</b>	35 GRANITE STREET
<b>City:</b>	MEDWAY
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02053
<b>Name:</b>	MASSACHUSETTS GREEN ENERGY FUND I LP
<b>Street Address:</b>	1209 ORANGE STREET
<b>City:</b>	WILMINGTON
<b>State/Country:</b>	DELAWARE
<b>Postal Code:</b>	19801
<b>Name:</b>	NEW ENTERPRISE ASSOCIATES 12, LP
<b>Street Address:</b>	2855 SAND HILL ROAD
<b>City:</b>	MENLO PARK

PATENT

<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94025
<b>Name:</b>	ROBERT W. SHAW JR.
<b>Street Address:</b>	P.O. BOX 1299
<b>City:</b>	CENTER HARBOR
<b>State/Country:</b>	NEW HAMPSHIRE
<b>Postal Code:</b>	03226

**PROPERTY NUMBERS Total: 1**

Property Type	Number
<b>Application Number:</b>	15622422

**CORRESPONDENCE DATA**

**Fax Number:** (617)395-7070

*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:** (617) 395-7048

**Email:** GKGPatents@LALaw.com

**Correspondent Name:** LANDO & ANASTASI, LLP

**Address Line 1:** RIVERFRONT OFFICE PARK

**Address Line 2:** ONE MAIN STREET, SUITE 1100

**Address Line 4:** CAMBRIDGE, MASSACHUSETTS 02142

<b>ATTORNEY DOCKET NUMBER:</b>	B2138-700221
<b>NAME OF SUBMITTER:</b>	GREGORY K. GERSTENZANG
<b>SIGNATURE:</b>	/Gregory K. Gerstenzang/
<b>DATE SIGNED:</b>	06/14/2017

**Total Attachments: 15**

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**BILL OF SALE**

Bandgap Engineering, Inc. ("*Seller*"), for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, in accordance with and subject to the terms and conditions of the Asset Purchase Agreement dated December 2, 2014 by and between Noteholders (the "*Buyer*") and Seller (the "*Purchase Agreement*"), hereby sells, assigns and sets over to Buyer all of its right, title and interest in and to the assets, property and rights of Seller as listed on Exhibit A (collectively "*Assets*") but specifically excluding the items listed on the Exhibit B (collectively "*Excluded Assets*").

The Buyer, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, hereby accepts the foregoing sale and transfer to the Buyer of the assets listed on Exhibit A and the assignment of any Purchased Contracts, and agrees to perform, discharge and satisfy when due in accordance with their respective terms, the obligations arising after the date hereof, under or in respect of the Purchased Contracts. It is the mutual intent of the parties that the assumption of liabilities described in the foregoing sentence shall not apply to any other liabilities, contracts, commitments or obligations of Seller.

This Bill of Sale is being delivered to the Buyer by Seller, in accordance with and subject to the terms and conditions of an the Purchase Agreement. Seller makes no warranties, either express or implied, with respect to Assets except as provided in the Purchase Agreement. Capitalized terms that are not defined herein shall have the same meaning as in the Purchase Agreement, and any reference to a Schedule shall mean that Schedule to the Purchase Agreement.

In the event of any conflict between the terms of this Bill of Sale and the terms of the Purchase Agreement, the terms of the Purchase Agreement shall prevail.

IN WITNESS WHEREOF, Seller and the Buyer have caused this Bill of Sale to be executed and take effect on this 11 day of December, 2014.

NEWCO

By: See Buyers Signatures Attached

BANDGAP ENGINEERING, INC.

By: 

Barry K. Alexander / President

APPENDIX B -- BUYER SIGNATURES  
HANDGAP SECURED NOTEHOLDERS

NEW ENTERPRISE ASSOCIATES 12,  
LIMITED PARTNERSHIP

BY: NEA PARTNERS 12, LP,  
ITS GENERAL PARTNER

BY: NEA 12 GP, LLC,  
ITS GENERAL PARTNER

By: *Louis S. Citron*

Name: *Louis S. Citron*

Title: *Chief Legal Officer*

Date: \_\_\_\_\_

RICHARD CHLEBOSKI

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

MARCIE BLACK

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

APPENDIX B - BUYER SIGNATURES  
BANDGAP SECURED NOTEHOLDERS

NEW ENTERPRISE ASSOCIATES 12,  
LIMITED PARTNERSHIP

BY: NEA PARTNERS 12, LP,  
ITS GENERAL PARTNER

BY: NEA 12 GP, LLC,  
ITS GENERAL PARTNER

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

RICHARD CHLEBOSKI

By: Richard Chleboski

Name: Richard G. Chleboski

Title: \_\_\_\_\_

Date: 9 Dec 14

MARCIE BLACK

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

BUYER SIGNATURES  
RANDGAP SECURED NOTEHOLDERS

NEW ENTERPRISE ASSOCIATES 12,  
LIMITED PARTNERSHIP

BY: NEA PARTNERS 12, LP.  
ITS GENERAL PARTNER

BY: NEA 12 GP, L.L.C.,  
ITS GENERAL PARTNER

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

RICHARD CHLEBOSKI

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

MARCIE BLACK

By: *Marcie Black*

Name: *Marcie Black*

Title: \_\_\_\_\_

Date: *12/1/14*

MASSACHUSETTS GREEN ENERGY FUND I, LP

By: [Signature]

Name: WILLIAM OSBORN

Title: Managing Member, GP

Date: 10 December, 2014

ROBERT W. SHAW, JR.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

DALE SHULMAN ASSOCIATES, LLC

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

TRACY ADAMS

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

MASSACHUSETTS GREEN ENERGY FUND 1, LP

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

ROBERT W. SHAW, JR.

By: Robert W. Shaw, Jr.

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

DALE SHULMAN ASSOCIATES, LLC

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

TRACY ADAMS

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



MASSACHUSETTS GREEN ENERGY FUND 1, LP

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

ROBERT W. SHAW, JR.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

DALE SHULMAN ASSOCIATES, LLC

By: \_\_\_\_\_

Name: Daniel E. Shulman

Title: Managing Director

Date: 12/14/11

TRACY ADAMS

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

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MASSACHUSETTS GREEN ENERGY FUND 1, LP

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

ROBERT W. SHAW, JR.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

DALE SHULMAN ASSOCIATES, LLC

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

TRACY ADAMS

By: Tracy Adams

Name: Tracy Adams

Title: \_\_\_\_\_

Date: 12/9/2014

**Exhibit A to Bill of Sale  
List of Purchased Assets**

(a) All designs, documentation, manuals, and other documentation relating to the Purchase Assets (collectively "*Purchased Documentation*");

(b) All patents, trademarks, copyrights and other intellectual property (whether registered or unregistered) associated with the Purchased Assets, including, without limitation, the patents, trademarks, software, and other intellectual property and proprietary information listed on Schedule 1.1(e) (collectively, the "*Intellectual Property*");

**Exhibit B to Bill of Sale  
Excluded Assets**

- Agreement;
- (c) all cash, cash equivalents and receivables;
  - (d) the Purchase Price and Seller's other rights under this Agreement;
  - (e) any employee benefit plans;
  - (f) all of Seller's organizing documents, minutes and other records of the proceedings of Seller, all records pertaining to the ownership interests in Seller, and any other record relating to the organization of Seller;
  - (g) all records pertaining to Seller's bank accounts and related records, general ledger, Tax returns and related supporting documentation; and
  - (h) All equipment assets held by the company.

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EXHIBIT 2

ASSIGNMENT OF PATENT RIGHTS

ASSIGNMENT OF PATENT RIGHTS

For good and valuable consideration, the receipt of which is hereby acknowledged, Bandgap Engineering, Inc., a corporation organized and existing under the laws of the State of Delaware ("Assignor"), does hereby sell, assign, transfer, and convey unto Notcholders, ("Assignee"), or its designees, all right, title, and interest that exist today and may exist in the future in and to any and all of the following (collectively, the "Patent Rights"):

(a) the patent applications and patents listed in the table below (the "Patents");

Granted Patents

PATENT NUMBER	TITLE
8450599	Nanostructured Devices
8416485	Designing the host of nano-structured optoelectronic devices to improve performance
8143143	Process for fabricating nanowire arrays
7973995	Designing the host of nano-structured optoelectronic devices to improve performance
8734659 B2	Process for structuring silicon
8829485	Selective emitter nanowire array and methods of making same
8791449	Nanostructured silicon for battery anodes
8852981	Electrical contacts to nanostructured areas
12-845557	Silicon Nanowire Arrays on an Organic Conductor

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13-373484	Process for Forming Silver Films on Silicon
13-353087	Nanowire Device with Alumina Passivation Layer and Methods of Making Same
13-025959	Screen printing electrical contacts to nanowire areas
SE Cont	Selective emitter nanowire array and methods of making same
Battery Cont	Nanostructured silicon for battery anodes
13-353080	Method of electrically contacting nanowire arrays
13-902332	Nanostructured devices - cont.
61-758474	Necklaces of silicon nanowires
14-286581	MEMs continuation
13-076151	Metal backed nanowire arrays
61-845931	Double-etch nanowire process
61-876133	Metal-assisted Etch combined with Regularizing Etch
61-933960	VLS Growth of Tapered Silicon Nanowires

(b) all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, divisions, registrations of any item in any of the foregoing category (a);

(c) all foreign patents, patent applications, and counterparts relating to any item in any of the foregoing categories (a) and (b), including, without limitation,

certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances;

(d) all items in any of the foregoing in categories (b) and (c), whether or not expressly listed as Patents above and whether or not claims in any of the foregoing have been rejected, withdrawn, cancelled, or the like;

(e) inventions, invention disclosures, and discoveries described in any of the Patents and/or any item in the foregoing categories (b) through (d) that (i) are included in any claim in the Patents and/or any item in the foregoing categories (b) through (d), (ii) are subject matter capable of being reduced to a patent claim in a reissue or reexamination proceedings brought on any of the Patents and/or any item in the foregoing categories (b) through (d), and/or (iii) could have been included as a claim in any of the Patents and/or any item in the foregoing categories (b) through (d); provided, however, that with respect to categories (ii) and (iii), not if such inventions, invention disclosures and / or discoveries are covered in a claim of a patent not included in the Patents;

(f) all 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 related to any item in any of the foregoing categories (a) through (e), including, without limitation, under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding;

(g) all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Patents and/or any item in any of the foregoing categories (b) through (f), including, without limitation, all causes of action and other enforcement rights for

- (1) damages,
- (2) injunctive relief, and
- (3) any other remedies of any kind

for past, current, and future infringement; and

(i) all rights to collect royalties and other payments under or on account of any of the Patents and/or any item in any of the foregoing categories (b) through (g).

Assignor represents, warrants and covenants that:

(1) Assignor has the full power and authority, and has obtained all third party consents, approvals and/or other authorizations required to enter into this Agreement and to carry out its obligations hereunder, including the assignment of the Patent Rights to Assignee; and



(2) Assignor owns, and by this document assigns to Assignee, all right, title, and interest to the Patent Rights, including, without limitation, all right, title, and interest to sue for infringement of the Patent Rights. Assignor has obtained and properly recorded previously executed assignments for the Patent Rights as necessary to fully perfect its rights and title therein in accordance with governing law and regulations in each respective jurisdiction. The Patent Rights are free and clear of all liens, claims, mortgages, security interests or other encumbrances, and restrictions. There are no actions, suits, investigations, claims or proceedings threatened, pending or in progress relating in any way to the Patent Rights. There are no existing contracts, agreements, options, commitments, proposals, bids, offers, or rights with, to, or in any person to acquire any of the Patent Rights.

Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Patent Rights in the name of Assignee, as the assignee to the entire interest therein.

Assignor will, at the reasonable request of Assignee and without demanding any further consideration therefore, do all things necessary, proper, or advisable, including without limitation, the execution, acknowledgment, and recordation of specific assignments, oaths, declarations, and other documents on a country-by-country basis, to assist Assignee in obtaining, perfecting, sustaining, and/or enforcing the Patent Rights.

The terms and conditions of this Assignment of Patent Rights 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 this Assignment of Patent Rights is executed on  
December 12, 2014.

ASSIGNOR:

BANDGAP ENGINEERING, INC.

By: 

Name: Barry Kallander

Title: President