PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SAN YU	04/23/2013
VELUCHAMY PALANIAPPAGOUNDER	04/24/2013
PRATIMA ADDEPALLI	04/23/2013
IMRAN KHAN	04/25/2013

RECEIVING PARTY DATA

Name:	FIRST SOLAR, INC.
Street Address:	P.O. BOX 730
Internal Address:	28101 CEDAR PARK BOULEVARD
City:	PERRYSBURG
State/Country:	OHIO
Postal Code:	43551

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14221245

CORRESPONDENCE DATA

Fax Number: (419)255-9639

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.

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Correspondent Name: MACMILLAN, SOBANSKI & TODD, LLC

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Address Line 2: ONE MARITIME PLAZA FIFTH FLOOR

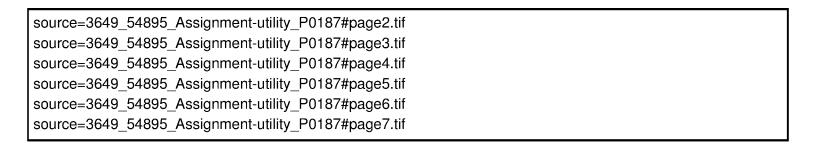
Address Line 4: TOLEDO, OHIO 43604

ATTORNEY DOCKET NUMBER:	1-54895
NAME OF SUBMITTER:	THOMAS D. BRAINARD
SIGNATURE:	/Thomas D. Brainard/
DATE SIGNED:	12/16/2014

Total Attachments: 7

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503102943 PATENT REEL: 034517 FRAME: 0776



PATENT REEL: 034517 FRAME: 0777

ASSIGNMENT BY INVENTORS

THIS ASSIGNMENT, made by San Yu, Veluchamy Palaniappagounder, Pratima Addepalli, Imran Khan (hereinafter referred to as Assignors), residing at 2792 Stonefence Drive, Perrysburg, Ohio 43551; 2827 Spring Water Drive, Toledo, Ohio 43617; 2089 Windmill Way, Saline, Michigan 48176; 26321 Spring Trace Drive, Perrysburg, Ohio 43551, respectively,

WHEREAS, Assignors have invented certain new and useful improvements in PHOTOVOLTAIC DEVICE INCLUDING A BACK CONTACT AND METHOD OF MANUFACTURING, set forth in a Provisional application for Letters Patent of the United States, already filed on March 22, 2013 as U.S. application No. 61/804,469 and as United States Utility Application No. 14/221,245, filed March 20, 2014; and as International Patent Application No. PCT/US2014/031290, filed March 20, 2014; and

WHEREAS, FIRST SOLAR, INC, a Corporation organized under and pursuant to the laws of Delaware having its principal place of business at First Solar, Inc., P.O. Box 730, 28101 Cedar Park Boulevard, Perrysburg, Ohio 43551 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, in accordance with Intellectual Property provisions of the employment agreement previously executed by and between Assignee and Assignors, and for other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and provisional application for Letters Patent, and in and to any and all non-provisional applications for Letters Patent that arise from said above-mentioned inventions and provisional applications, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and in and to all any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property including all rights of priority,

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the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

AND for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent abovementioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Provisional application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignors hereby request the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

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AND Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

MACMILLAN, SOBANSKI & TODD, LLC

All practitioners at Customer Number 109944.

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

	SAN YU
Date: 04/23/201	3
United States of America State of Ohic County of Woo) ss.:
On this 23 day of personally came described in and who executed the of the same.	April , 2013 , before me ANYU , to me known to be the individual foregoing instrument, and acknowledged execution
	Notary Public SARAH KANE NOTARY PUBLIC-OHO MY COMMISSION EXPIRES 02-16-2016

	VELUCHAMY PALANIAPPAGOUNDER
Date: 424 13	
United States of America State of Onio County of Wood)) ss.:)
On this 24 day of April personally came VELUCHAMY PALANIAPPA described in and who executed the foregoing in of the same.	Sarah Kane
	Notary Public SARAH KANE NOTARY PUBLIC - OHO MY COMMISSION EXPIRES 02-16-2016

		DELIKELI
Date: 4-23-2	.013	
United States of America State of County of	a (Ni 0) ss.:	
personally came	day of April PRATIMA ADDEPALLS ecuted the foregoing instrum	

	- Ju ch -
. 1	IMRAN KHAN
Date: $\frac{H/25/2015}{2015}$	
United States of America State of County of Wood) _) ss.: _)
On this 25 day of April personally came IMRAN KHA described in and who executed the foregoing of the same.	, to the known to be the marviatal
	Autilities.