#### 504103410 11/18/2016

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4150079

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SOLARBRIDGE TECHNOLOGIES, INC.	12/18/2014

#### **RECEIVING PARTY DATA**

Name:	SUNPOWER CORPORATION	
Street Address:	77 RIO ROBLES	
City:	SAN JOSE	
State/Country:	CALIFORNIA	
Postal Code:	95134	

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15355843

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ATTORNEY DOCKET NUMBER:	B1005_US2
NAME OF SUBMITTER:	FRED GRASSO
SIGNATURE:	/Fred Grasso/
DATE SIGNED:	11/18/2016

### **Total Attachments: 12**

source=2014\_SBT\_to\_SPWR\_Assignment#page1.tif source=2014\_SBT\_to\_SPWR\_Assignment#page2.tif source=2014 SBT to SPWR Assignment#page3.tif source=2014 SBT to SPWR Assignment#page4.tif source=2014 SBT to SPWR Assignment#page5.tif

**PATENT** 504103410

**REEL: 040370 FRAME: 0850** 



PATENT REEL: 040370 FRAME: 0851

### ASSIGNMENT OF PATENTS

WHEREAS, SolarBridge Technologies, Inc., ("Assignor"), a corporation, having its main office and place of business at Waterford Centre Blvd., Suite 110, Austin, TX 78758, U.S.A. is the owner of the entire right, title and interest in and to the patents and patent applications identified in the attached Appendix A, including a right to sue for past damages ("the SolarBridge Patent Portfolio"); and

AND WHEREAS, SunPower Corporation, ("Assignee"), a Delaware corporation having its principal place of business at 77 Rio Robles, San Jose, CA 95134, USA, desires to become the owner of the SolarBridge Patent Portfolio.

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged:

Assignor hereby assigns, sets over, and conveys to Assignee its entire right, title, and interest in the SolarBridge Patent Portfolio, including all priority rights for other countries arising therefrom, all inventions therein disclosed, including any continuation, division, or reissue applications, and any and all Letters Patent of the United States and of all other countries, which may be granted for such inventions, or any of them, all such inventions and all rights in such Application and Letters Patent to be held and enjoyed by Assignee for its own use and enjoyment to the full end of the term or terms for which such Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by them had this assignment and sale not been made.

The Assignor hereby authorizes and requests the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from the SolarBridge Patent Portfolio or any division or divisions or continuing or reissue applications thereof, and any reexamination of any of such applications, to the said Assignee, as Assignee of the entire interest, and hereby covenants that the Assignor has full right to convey the interest herein assigned, and that the Assignor has not executed, and will not execute, any agreement in conflict herewith.

IN WITNESS WHEREOF, I have executed this assignment:

For SolarBridge Technologies, I	nc.
QQQ Name: John Penrach	
Title: President	
-2014 Leath A Will	d Notarial Seal
Heather A Wilder, Notary Public	
Printed Name	
Resident of	
	for said County and State. Witness my hand an 2014  Notary Public Heather A Wilder, Notary Public Printed Name  Contra Costa

# APPENDIX A



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Appendix A to Assignment of Patents from SolarBridge Technologies, Inc. to SunPower Corporation

PATENT REEL: 040370 FRAME: 0853

Number	Country	Title	A., lication Date
7,994,657	US	Modular System for Unattended Energy Generation and Storage	12/22/2006
8,350,411	US	Modular System for Unattended Energy Generation and Storage	4/23/2011
7,681,090	US	Ripple correlation control based on limited sampling	1/25/2007
6,331,794	US	Phase leg with depletion mode device	3/9/2000
6,538,279	US	High-side switch with depletion mode device	3/9/2000
7,663,342	US	Apparatus and method for controlling a power supply	1/26/2007
7,945,413	US	Voltage-sensed method for anti- islanding protection of grid- connected inverters	9/4/2007
7,755,916 8,450,985	US US	Method for minimizing double- frequency ripple power in single- phase power conditioners	10/11/2007
		Energy Recovery Circuit Apparatus for converting direct	9/16/2009
8,279,6429	US	current to alternating current Apparatus for converting direct	9/21/2009
13/633,518	US	current to alternating current	10/2/2012
8,482,947	US	Apparatus and method for controlling DC-AC power conversion	9/21/2009
13/936,744	US	Apparatus and method for controlling DC-AC power conversion	7/8/2013
8,462,518	US	Power inverter docking system for photovoltaic modules	10/30/2009
13/915,165	US	Power inverter docking system for photovoltaic modules	6/11/2013
10771599.7	EU	Power inverter docking system for photovoltaic modules	10/8/2010
7,982,434	US	Apparatus and method for controlling a power supply	2/3/2010
8,004,865	US	Method for minimizing double- frequency ripple power in single- phase power conditioners	6/4/2010

Number	Country	Title	Application D
8,325,499	US	Method for minimizing double- frequency ripple power in single- phase power conditioners	8/23/2011
61/392,026	US	Method for minimizing double- frequency ripple power in single- phase power conditioners	10/11/2010
8,120,933	US	Power converter with reverse recovery avoidance	3/1/2010
8,451,638	US	Power converter with reverse recovery avoidance	1/23/2012
8,634,216	US	Method for communicating across an isolation barrier in power converters	7/7/2010
8,503,200	us	Quadrature-corrected feedforward control apparatus and method for dc-ac power conversion	10/11/2010
13/959,187	US	Quadrature-corrected feedforward control apparatus and method for dc-ac power conversion	8/5/2013
8,279,649	US	Apparatus and method for controlling a power inverter	10/11/2010
8,817,510	US	Apparatus and method for controlling a power inverter	10/2/2012
8837893	EPO	Method for minimizing double- frequency ripple power in single- phase power conditioners	10/9/2008
2,702,250	CAN	Method for minimizing double- frequency ripple power in single- phase power conditioners	10/9/2008
2010-529052	JAP	Method for minimizing double- frequency ripple power in single- phase power conditioners	10/9/2008
200880118731.90	CHIN	Method for minimizing double- frequency ripple power in single- phase power conditioners	10/9/2008
D644610	US	Male connector	
D644609	US US	Female connector Y-junction interconnect module	···

Number	Country	Title	Application Date
12/902,046	US	System and method for establishing communication with an inverter	10/11/2010
8,508,964	US	Variable duty cycle switching with imposed delay	12/3/2010
PCT/US11/50974	US	Variable duty cycle switching with imposed delay	9/9/2011
13/948,216	US	Variable duty cycle switching with imposed delay	7/23/2013
1309868.6	GB	Variable duty cycle switching with imposed delay	9/9/2011
2011337144	AU	Variable duty cycle switching with imposed delay	9/9/2011
8,423,312 8,922,356	US	Voltage-sensed method for anti- islanding protection of grid- connected inverters	3/17/2011
8,823,356 13/095,190	US	Supply voltage auto-sensing	3/21/2011
PCT/US2012/035392	US WIPO	Multi-stage power inverter  Method and system for controlling a multi-stage power inverter	4/28/2011 4/27/2012
2011336974	AU	Method and system for controlling a multi-stage power inverter	4/27/2012
8,767,421	US	Power converter bus control method, system, and article of manufacture	6/16/2011
8,611,107	US	Method and system for controlling a multi-stage power inverter	4/28/2011
8,599,587	US	Modular photovoltaic power supply assembly	7/11/2011
8,174,856	US	Configurable power supply assembly	7/11/2011
8,456,876	US	Configurable power supply assembly	12/2/2011
PCT/US2012/035544	US	Configurable power supply assembly	4/27/2012
8,193,788	US	Method and device for controlling a configurable power supply	7/11/2011
8,461,813	US	Method and device for controlling a configurable power supply	2/28/2012
8,922,185	US	Device and method for global maximum power point tracking	12/13/2011

Number	Country	Title	Application Date
PCT/US2010/041149	WIPO	Apparatus for converting direct current to alternating current	7/7/2010
10804872.9	EPO	Apparatus and method for controlling DC-AC power conversion	7/7/2010
10804871.1	EPO	Apparatus for converting direct current to alternating current	2/16/2012
PCT/US2010/041161	WIPO	Apparatus and method for controlling DC-AC power conversion	7/7/2010
PCT/US2010/048342	WIPO	System and apparatus for connecting an array of power generating assemblies	9/10/2010
8,842,454	US	Inverter array with localized inverter control	2/17/2011
PCT/US2011/061364	WIPO	Inverter array with localized inverter control	11/18/2011
1309459.4	GB	Inverter array with localized inverter control	11/18/2011
2011336974	AU	Inverter array with localized inverter control	11/18/2011
12/955,894	US	Inverter array control	11/19/2010
8,634,216	US	Communication within a power inverter using transformer voltage frequency  Communication within a power	7/8/2010
14/159,084	US	inverter using transformer voltage frequency	1/20/2014
PCT/US2011/42190	WIPO	Communication within a power inverter using transformer voltage frequency	6/28/2011
PCT/US2011/055685	WIPO	System and method for establishing communication with an array of inverters	10/11/2011
PCT/US2011/055687	WIPO	Apparatus and method for controlling a power inverter	10/11/2011
2011316727	AU	Apparatus and method for controlling a power inverter	10/11/2011
1306463.9	GB	Apparatus and method for controlling a power inverter	10/11/2011

Number	Country	Title	Application Date
8,284,574	US	Method and apparatus for controlling an inverter using pulse mode control	12/13/2011
8,737,100	US	Method and apparatus for controlling an inverter using pulse mode control	10/9/2012
PCT/US2012/059984	WIPO	Method and apparatus for controlling an inverter using pulse mode control	10/12/2012
13/292,251	US	Electrical insulator casing	11/9/2011
PCT/US2012/059672	WIPO	Electrical insulator casing	10/11/2012
1405831.7	GB	Electrical insulator casing	4/1/2014
2012322789	AU	Electrical insulator casing	1/4/2014
13/538,723	US	Device, system, and method for communicating with a power inverter using power line communications	6/29/2012
PCT/US2013/048233	WiPO	Device, system, and method for communicating with a power inverter using power line communications	6/27/2013
12/340,715	US	Distributed energy conversion systems	12/20/2008
PCT/US2008/087882	WIPO	Distributed energy conversion systems	12/21/2008
12/368,987	US	Energy conversion systems with power control	2/10/2009
8,796,884	US	Energy conversion systems with power control	2/10/2009
14/451,189	US	Energy conversion systems with power control	8/6/2014
PCT/US2009/068871	WIPO	Energy conversion systems with power control	12/18/2009
12/724,376	US	Digital signal processing systems	3/15/2010
12/724,384	US	Function generator	3/15/2010
PCT/US2010/047360	WIPO	Digital signal processing systems	8/31/2010
12/972,398	US	Power point tracking	12/31/2009
PCT/US2010/062263	WIPO	Power point tracking	12/28/2010
8,624,561	US	Power conversion having energy storage with dynamic reference	11/5/2010
12/868,581	US	Switching power converter control	8/25/2010

Number	Country	Title	Application Date
		Power system islanding detection	
12/907,741	US	with waveform fitting	10/19/2010
8,824,178	US	Parallel power converter topology	12/30/2010
12/983,237	US	Power converter with series energy storage	12/31/2010
8,860,242	US	Power-line communication coupling	10/19/2010
12/983,270	US	Systemic optimization of photovoltaic apparatus	12/31/2010
13/005,482	US	Systemic optimization of photovoltaic apparatus	1/12/2011
8,754,627	US	Multi-mode power point tracking	4/20/2011
13/100,243	US	Junction box thermal management	5/3/2011
8,737,093	US	Power converter with quasi- resonate voltage multiplier having shared switch mode	8/2/2011
13/196,765	US	Converter with quasi-resonant voltage multiplier	8/2/2011
13/251,890	US	Islanded operation of distributed power sources	10/10/2011
13/300,362	US	Flash testing of photovoltaic modules with integrated electronics	11/18/2011
13/346,572	US	Flash testing of module integrated electronics using power reversal	1/9/2012
13/645,062	US	Predictive service requirement estimation for photovoltaic arrays	10/4/2012
13/674,786	US	Hierarchical fault prediction, detection and localization in PV systems with distributed electronics	11/12/2012
13/372,469	us	Multi-path converters for PV sub- strings	2/13/2012
98,143,647	TW	Energy conversion with power control	12/18/2009
99,129,656	TW	Digital signal processing systems	9/2/2010
99,145,852	TW	Power point tracking	12/24/2010
2011-7016567	KR	Energy conversion systems with power control	12/18/2009
10-1235990	KR	Distributed Energy Conversion Systems	12/20/2008

Number	Country	Tiste	Application age
10-2012-7004459	KR	Distributed Energy Conversion Systems	2/21/2012
2405/KOLNP/2010	IN	Distributed energy conversion systems	12/21/2008
2857/KOLNP/2011	IN	Energy conversion systems with power control	12/18/2009
8864982.7	EPO	Distributed energy conversion systems	12/20/2008
200880127151.6	CN	Distributed energy conversion systems	12/20/2008
200980155811.6	CN	Energy conversion systems with power control	12/18/2009
13/751,376	US	Micro-inverter solar panel mounting	1/28/2013
13/871,169	US	Inverter communications using output signal	4/26/2013
PCT/US2014/023376	WIPO	Inverter communications using output signal	3/11/2014
61/794,480	US	Converter topologies	3/15/2013
14/214,896	US	Converter topologies	3/15/2014
61/909,706	US	Integration of microinverter with photovoltaic module	11/27/2013
14/089,425	US	Modular photovoltaic power supply assembly	11/25/2013
61/922,552	US	AC cable assembly interconnection technologies for microinverter array	12/31/2013
61/922,146	US	Alternating current photovoltaic module	12/31/2013
62/002,885	US	Inverter array characterization	5/25/2014
62/021,054	US	Grid-interactive functions for arrays of photovoltaic power generators	7/7/2014
62/020,996	US	System and method of establishing communication with an inverter	7/3/2014
61/230,546	US	Apparatus for converting Direct Current to Alternating Current	7/31/2009
61/479,844	US	MODULAR PHOTOVOLTAIC POWER SUPPLY ASSEMBLY	4/29/2011

Number	Country	Title	Application Date
61/506,602	US	DEVICE AND METHOD FOR GLOBAL MAXIMUM POWER POINT TRACKING	7/11/2011
61/548,018	US	Method and Apparatus for Controlling an Inverter Using Pulse Mode Control	10/17/2011
61/801,835	US	Inverter Communications Using Output Signal	3/15/2013
61/370,085	US	Converter with Quasi-Resonant Voltage Multiplier	8/20/2010
61/449,695	US	Flash testing of photovoltaic modules with integrated electronics	3/6/2011
61/450,553	US	Testing of module integrated electronics using power reversal	3/8/2011
61/450,610	US	Inverter with Leveraged DC Transformer Converter	3/8/2011
61/559,065	US	Hierarchical Fault Prediction, Detection and Localization to PV Systems and Distributed Electronics	11/12/2011
61/586,720	US	Solar Panel Substitute for Testing DC Power Converters in String Arrays	1/13/2012
61/547,516	US	Electrical insulator casing	10/14/2011
61/239,756	US	Configurable controller	9/3/2009
61/290,837	US	Switching power converter control	12/29/2009
61/291,613	US	Power point tracking	12/31/2009
61/316,750	US	Inverter interaction	3/23/2010
61/294,464	US	Systemic optimization of photovoltaic apparatus	1/12/2010
61/553,125	US	System and method for optimizing solar power conversion	10/28/2011
61/326,201	US	Inverter input stage control	4/20/2010
61/330,840	US	Electrical box thermal management	5/3/2010
61/345,984	US	Serviceable electrical box thermal management	5/18/2010
61/530,326	US	Power point tracking with bypass optimization	

Namber	Country	Title	. pp (cation Date
61/543,291	US	Predictive service requirement estimation for photovoltaic arrays	10/4/2011
61/737,365	US	Micro-inverter solar panel mounting	12/14/2012
62/033,389	US	Automated provisioning of arrays of alternating current photovoltaic modules	8/5/2014
14/513,859	US	Power-line communication coupling	10/14/14
8,207,637	US	System and apparatus for interconnecting an array of power generating assemblies	10/9/2009
10822402.3	EP	System and apparatus for interconnecting an array of power generating assemblies	9/10/2010
2777364	CA	Power inverter docking system for photovoltaic modules	10/8/2010
10-2010-7015800	KR	Distributed energy conversion systems	12/21/2008
98143647	TW	Energy conversion systems with power control	12/18/2009
2012249559	AU	Method and system for controlling a multi-stage power	4/27/2012
14/554,825	US	Integration of microinverter with photovoltaic module	11/26/2014
2014262251	AU	Apparatus and method for controlling a power inverter	10/11/2011
14/552,131	US	Device and method for global maximum power point tracking	11/24/2014
PCT/US2014/067630	WIPO	Integration of microinverter with photovoltaic module	11/26/2014

Number	Country	Title	Application Date
PCT/US2008/075178	WIPO	Voltage-sensed system and method for anti-islanding protection of grid-connected inverters	9/4/2008
PCT/US2008/079396	WIPO	Methods for minimizing double- frequency ripple power in single- phase power conditioners	10/9/2008
PCT/US2008/052001	WIPO	Ripple correlation control based on limited sampling	7/31/2008
PCT/US2010/052057	WIPO	Power inverter docking system for photovoltaic modules	10/8/2010

**RECORDED: 11/18/2016**