504662836 11/29/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GIDEON VAN ZYL	11/17/2017

RECEIVING PARTY DATA

Name:	ADVANCED ENERGY INDUSTRIES, INC.		
Street Address:	1625 SHARP POINT DRIVE		
City:	FORT COLLINS		
State/Country:	COLORADO		
Postal Code:	80525		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	15814810	

CORRESPONDENCE DATA

Fax Number: (720)536-4910

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: NEUGEBOREN O'DOWD PC Address Line 1: 1227 SPRUCE STREET

Address Line 2: SUITE 200

Address Line 4: BOULDER, COLORADO 80302

ATTORNEY DOCKET NUMBER:	AE2013-013DIV3
NAME OF SUBMITTER:	SEAN R. O'DOWD
SIGNATURE:	/Sean R. O'Dowd/
DATE SIGNED:	11/29/2017

Total Attachments: 1

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PATENT 504662836 REEL: 044252 FRAME: 0787

ASSIGNMENT OF PATENT APPLICATION

FOR GOOD AND VALUABLE CONSIDERATION,

I, the undersigned hereby agree to assign for good and valuable consideration, receipt of which is hereby expressly acknowledged, and do hereby sell, assign and transfer unto

Advanced Energy Industries, Inc.

8.0

a corporation organized under the laws of the state of Delaware as Assignee, and its successors, assigns and legal representatives, the entire right, title and interest, for all countries in and to certain inventions relating to

NOISE BASED FREQUENCY TUNING AND IDENTIFICATION OF PLASMA CHARACTERISTICS

described in an application for Letters Patent of the United States, identified as Artomey Docket No. <u>AE2013-013DIV3</u>, at Neugeboren O'Dowd PC, 1227 Sprace Street, Suite 200, Boulder, CO 80302, and filed on <u>November 16, 2017</u>, as Application Serial No. <u>15/814.810</u>, and the invention(s) and improvement(s) set forth therein, and any and all provisionals, non-provisionals, continuations, continuations-in-part, divisionals, and renewals of and substitutes for said application for said Letters Patent, and all the rights and privileges under any and all Letters Patent that may be granted therefor in any country, and any reissues, or reexaminations, or extensions of said Letters Patent. I request that any and all Letters Patent for said inventions be issued to said Assignee, its successors, assigns and legal representatives, or to such nominees as it may designate.

I agree that, when requested, I will, without charge to said Assignee but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in said Assignee, its successors, assigns and legal representatives or nominees.

I authorize and empower the said Assignee, its successors, assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

I hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of the said Assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International convention which may henceforth be substituted for it.

I hereby authorize Sean R. O'Dowd, attorney for Assignee, to insert the filing date and Serial number into the first paragraph of this assignment, after the application for Letters Patent has been filed, and the U.S. Patent Office has assigned such application a Serial Number.

I covenant with said Assignce, its successors, assigns and legal representatives, that the rights and property herein conveyed are free and clear of any encumbrance, and that I have full right to convey the same as herein expressed.

IN WITNESS WHEREOF, I have hereunto signed my name on the day and year set forth below.

Inventor Senature		0017/11/17 DATE	
Gideon Van Zyt Inventor's Printed Name	,		
STATE OF) (ee		
COUNTY OF)) 33		
On this day of me or proved to me on the basis of he/she executed the same of his/he	of satisfactory evidence to be	, before me personally came the above name the same individual who executed the foregoing and purposes therein set forth.	d <u>Gideon Van Zyl</u> who is personally known by assignment, and who acknowledged to me that
		NOTARY PUBLIC _	
		My Commission Expir	zes:

PATENT REEL: 044252 FRAME: 0788

RECORDED: 11/29/2017