

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
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EPAS ID: PAT3050241

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JEFFREY CRAIG RAMER	05/19/2014
KARL KNIERIEM	05/19/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TOSHIBA AMERICA ELECTRONIC COMPONENTS, INC.
<b>Street Address:</b>	9740 IRVINE BOULEVARD
<b>Internal Address:</b>	D700
<b>City:</b>	IRVINE
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	92618
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	14505304
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
<b>Phone:</b>	(202) 626-3600
<b>Email:</b>	toshibapatents@whitecase.com
<b>Correspondent Name:</b>	WHITE & CASE LLP
<b>Address Line 1:</b>	701 THIRTEENTH STREET, NW
<b>Address Line 4:</b>	WASHINGTON, D.C. 20005-3807
<b>ATTORNEY DOCKET NUMBER:</b>	1283810-0022
<b>NAME OF SUBMITTER:</b>	DAVID M. TENNANT
<b>SIGNATURE:</b>	/David M. Tennant/
<b>DATE SIGNED:</b>	10/02/2014
<b>Total Attachments: 2</b>	
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source=Assignment TAEC#page2.tif	

**ASSIGNMENT**

WHEREAS, the undersigned inventor(s) (hereinafter referred to as "INVENTOR(S)") desire(s) to transfer to Toshiba America Electronic Components, Inc. (hereinafter referred to as "TAEC"), organized and existing under the laws of the United States, having a place for the transaction of business at 9740 Irvine Boulevard, Suite D700, Irvine, CA 92618, all right, title and interest in and to the inventions disclosed in the following Invention Disclosure Form(s):

- "GaN High Electron Mobility Transistor with Periodically Carbon Doped GaN", submitted by Jeff Ramer and Karl Michael Kniereim, on April 10, 2014;

And such inventions which if now or hereafter are disclosed in the patent application(s):

- (a)  U.S. patent application executed on \_\_\_\_\_
- (b)  U.S. application no. 14/505,304 filed on October 2, 2014
- (c)  International (e.g., PCT, JP) application no. \_\_\_\_\_ filed on \_\_\_\_\_

(collectively, the "INVENTIONS");

WHEREAS, TAEC desires to acquire all of the right, title and interest of INVENTOR(S) in, to and under the INVENTIONS and TAEC further desires to transfer all such right, title and interest to Toshiba Corporation (hereinafter referred to as "TOSHIBA") a corporation duly organized and existing under the laws of Japan, with offices at 1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, INVENTOR(S) hereby sell(s), assign(s) and transfer(s) to TAEC the entire right, title and interest for the United States and its territorial possessions, and in all foreign countries, in and to the INVENTIONS and any and all improvements thereon which are the subject of the INVENTIONS, and in and to any U.S. or foreign patent application for such INVENTIONS and improvements and any legal equivalent thereof in a foreign country, including the right to claim priority, and in and to any division, continuation or continuation-in-part, renewal or substitute thereof, and in and to all resulting Letters Patents or any reissue, reexamination certificate, supplemental examination certificate, post grant review certificate, inter partes review certificate, or otherwise, thereof, to have and to hold the same to the full end of the term or terms for which any and all of said Letters Patent may be granted (collectively, the "ASSIGNED INVENTIONS");

And for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, TAEC hereby sells, assigns and transfers to TOSHIBA the entire right, title and interest to the ASSIGNED INVENTIONS;

INVENTOR(S) and TAEC authorize and request the issuing authority to issue any and all patents on said application or applications to TOSHIBA or its successors and assigns;

INVENTOR(S) and TAEC hereby covenant that INVENTOR(S) and TAEC, respectively, has/have the full power to make this assignment, and that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment; and

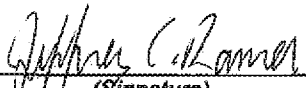

Without further payment or compensation by TAEC, TOSHIBA or their successors and assigns, INVENTOR(S) further covenant(s) and agree(s) to communicate to TAEC, TOSHIBA, their representatives, agents, their successors or their assigns, or to subsequent assignees of the ASSIGNED INVENTIONS, any facts relating to the ASSIGNED INVENTIONS including evidence for purposes of interference or derivation proceedings or other administrative or legal proceedings whenever requested;

**ASSIGNMENT**

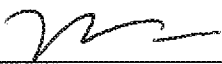
to testify in any interference derivation, legal or administrative proceedings whenever requested; to execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and to do everything possible to aid TAEC, TOSHIBA, their successors, assigns, nominees, or to subsequent assignees of the ASSIGNED INVENTIONS to secure, obtain and enforce proper patent protection for the ASSIGNED INVENTIONS in this or any foreign country.

Any attorney of record for TOSHIBA, and its successors and assigns, at the direction of TOSHIBA is authorized and requested by the execution of this assignment to insert into this assignment any further patent or patent application information in the blanks and check boxes above as necessary for recordation of this document.

IN WITNESS WHEREOF, the INVENTOR(S) has/have hereunto affixed his/her/their signatures on the date below written.

- 1)  Jeffrey C. Ramer 5/19/2014  
(Signature) (Type or Print Name) (Date)  
4618 Stratford Ave., Fremont CA 94538  
(Residence Address)
- 2)  Karl M. Krierem 5/19/2014  
(Signature) (Type or Print Name) (Date)  
577 Staley Ave, Hayward CA 94541  
(Residence Address)

IN WITNESS WHEREOF, a representative of TAEC with authorization to make this assignment has hereunto affixed his/her signature on the date below written.

 Win Hwangbo, Managing Counsel, 5/20/14  
(Signature) (Date)  
Litigation