504706405 12/28/2017

EPAS ID: PAT4753127

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NATHANAEL RICE	11/28/2017
DAVID JULIAN MOULE	11/10/2017
GEOFFREY HOLLAND	11/09/2017

RECEIVING PARTY DATA

Name:	TRW LIMITED
Street Address:	STRATFORD ROAD
City:	SOLIHULL, WEST MIDLANDS
State/Country:	GREAT BRITAIN
Postal Code:	B90 4AX

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15786747

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.

Phone: 419-255-5900

Email: docketing@mstfirm.com

Correspondent Name: MACMILLAN, SOBANSKI & TODD, LLC

Address Line 1: 720 WATER STREET

Address Line 2: ONE MARITIME PLAZA, 5TH FLOOR

Address Line 4: TOLEDO, OHIO 43604

ATTORNEY DOCKET NUMBER: 59671-US-NP **NAME OF SUBMITTER:** DOUGLAS V. PAVELKO SIGNATURE: /Douglas V. Pavelko/ **DATE SIGNED:** 12/28/2017

Total Attachments: 4

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PATENT REEL: 044968 FRAME: 0979

ASSIGNMENT

FOR VALUE RECEIVED, We, Nathanael Rice, a citizen of Great Britain, residing at 23 Village Street, Edwalton, Nottinghamshire, NG12 4AB Great Britain; David Moule, a citizen of Great Britain, residing at 49 Bryony Road, Selly Oak, Birmingham, B29 4BY Great Britain; and Geoffrey Holland, a citizen of Great Britain, residing at 34 Woodthorpe Drive, Bewdley, Worcestershire, DY12 2RH Great Britain, do hereby sell, assign, transfer and convey unto TRW LIMITED, an English corporation organized under the laws of Great Britain, baving an office at Stratford Road, Solihull West Midlands B90 4AX, Great Britain, its successors, assigns and legal representatives (hereinafter called the "Assignee"), our entire right, title and interest, for the United States and its territorial possessions, in and to certain inventions relating to A MOTOR DRIVE CIRCUIT, as described in U.S. Patent Application 15/786,747 filed October 18, 2017, which claims priority from GB 1617653.9 filed October 18, 2016 having Attorney Docket No. 59671-US-NP, and in and to said application, any patent applications claiming priority to said application, and all divisions, renewals, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues and extensions thereof, and all other lawful forms of protection for said inventions in the United States and its territories.

AND we authorize and empower our attorneys at MacMillan, Sobanski & Todd, One Maritime Plaza, Fifth Floor, 720 Water Street, Toledo, Ohio 43604 USA, to complete the filing information above when it becomes known.

AND we authorize and empower the said Assignee or nominee to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, in the United States and its territories, the benefit of the right of priority provided by any international convention or agreement including, but not limited to, the Paris Convention for the Protection of Industrial Property, as amended, the Patent Cooperation Treaty, as amended, or by any convention which may henceforth be substituted therefor, and to invoke and claim such right of priority without further written or oral authorization from us.

AND we hereby consent that a copy of this assignment shall be deemed a full and legal formal equivalent of any assignment, consent to file or like document which may be required in the United States for any purpose and more particularly in proof of the right of said Assignee or nominee to claim the aforesaid benefit of the right of priority provided by any international convention or agreement.

Page 1 of 2

AND we hereby covenant that we have the full right to convey our entire right, title and interest herein assigned and that we have not executed and will not execute any agreement in conflict herewith.

AND we hereby covenant and agree that we will communicate to said Assignee or nominee all facts known to us pertaining to said inventions, and reasonably assist in all legal proceedings, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid said Assignee or nominee in obtaining, maintaining and enforcing all lawful patent protection and any other lawful form of protection for said inventions in the United States and its territorial possessions.

IN WITNESS WHEREOF, we have hereunto set our hands. Signed In The Presence Of:

MRRU	N.M. PN	- 18/u/c
Witness	Nuthanael Rice	Date
Witness	David Moule	Date
Witness	Geoffrey Halland	Para

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Witness	Nathanael Rice	Date
Eth Weun	1. Ti Hank	w/11/2007
Witness	David Julian Moule	Date
Witness	Geoffrey Holland	Date

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Witness	Nathanacl Rice	Date
Witness	David Moule	Date
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Witness	Geoffrey Holland	Date