504889797 04/27/2018

EPAS ID: PAT4936538

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
HARVEY J. LUNSMAN	04/25/2018
ERNESTO FERRER MEDINA	04/25/2018
TAHIR CADER	04/25/2018

RECEIVING PARTY DATA

Name:	HEWLETT PACKARD ENTERPRISE DEVELOPMENT LP
Street Address:	11445 COMPAQ CENTER DRIVE WEST
City:	HOUSTON
State/Country:	TEXAS
Postal Code:	77070

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15965069

CORRESPONDENCE DATA

Fax Number:

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: 970-898-7472

Email: hpe.ip.mail@hpe.com

Correspondent Name: HEWLETT PACKARD ENTERPRISE

Address Line 1: 3404 E. HARMONY ROAD

Address Line 2: MAIL STOP 79

Address Line 4: FORT COLLINS, COLORADO 80528

ATTORNEY DOCKET NUMBER: 90545465

NAME OF SUBMITTER: DEBORAH HIGHAM

SIGNATURE: /Deborah Higham/

DATE SIGNED: 04/27/2018

Total Attachments: 6

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Hewlett Packard Enterprise 3404 E. Harmony Road Mail Stop 79 Fort Collins, Color

Rev 06/15

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rado 80528	RECORD ID	90545465

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each), for good and valuable consideration, the receipt of which is hereby acknowledged, and in furtherance of my/our obligations to Hewlett Packard Enterprise Development LP, a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPED), and to its subsidiaries and affiliates, agree to assign and transfer and hereby assign and transfer to HPED, its successors and assigns, the entire right, title and interest, including

the right of priority, in, to and under an application for Patent entitled: COOLING FLUIDS IN OPPOSITE DIRECTIONS ACROSS A DEVICE Application No.: Filing Date: and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (C-I-P's). divisionals, and renewals of and substitutes for said application for said Patent, and any and all other Patent of any countries thereto which may be granted thereon or therefore; and any reissues, or reexaminations, or extensions of said Patent. I/we additionally authorize HPED to file applications in my/our name for Patent in any country, to be held and enjoyed by HPED, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made; AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Patent, to HPED, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to HPED, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, C-I-P's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid HPED, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by HPED; AND I/we hereby authorize and request the official of any country or countries whose duty it is to issue patents on applications as aforesaid, to issue to HPED, as assignee of the entire right, title and interest, any and all Patent for said invention(s) or improvement(s) which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment. I/we further authorize and direct the attorneys of record to insert the filing date and application number of said application for Patent, now identified by the Record ID and title set forth above, as soon as the same shall have been made known to them. IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s): Inventor's Signature Harvey J. Lunsman First/Middle Name/Last Name Date Inventor's Signature Ernesto Ferrer Medina First/Middle Name/Last Name

Page 1 of 2

PATENT REEL: 045658 FRAME: 0220 Hewlett Packard Enterprise 3404 E. Harmony Road Mail Stop 79 Fort Collins, Colorado 80528

PATENT APPLICATION

Fort Collins, Colorado 80528	RECORD ID:	90545465
ASSIGNMI	ENT OF PATENT APPLICATION (co	nt.)
Inventor's Signature	Date	
Tahir Cader		
First/Middle Name/Last Name		
Inventor's Signature	Date	
First/Middle Name/Last Name		
Inventor's Signature	Date	
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Inventor's Signature	Date	
First/Middle Name/Last Name		
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Inventor's Signature		
First/Middle Name/Last Name		

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Hewlett Packard Enterprise
3404 E. Harmony Road
Mail Stop 79
Fort Collins, Colorado 80520

PATENT APPLICATION

RECORD ID:	90545465
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ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each), for good and valuable consideration, the receipt of which is hereby acknowledged, and in furtherance of my/our obligations to Hewlett Packard Enterprise Development LP, a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPED), and to its subsidiaries and affiliates, agree to assign and transfer and hereby assign and transfer to HPED, its successors and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Patent entitled:

the right of priority, in, to and under an application for Patent entitle	ot:
COOLING FLUIDS IN OPPOSITE DIRECTIONS ACROSS A D	DEVICE
Filing Date: Ap	plication No.:
and the invention(s) and improvement(s) set forth therein, and a divisionals, and renewals of and substitutes for said application countries thereto which may be granted thereon or therefore; and Patent.	for said Patent, and any and all other Patent of an
I/we additionally authorize HPED to file applications in my/our by HPED, its successors, assigns, nominees or legal represental Patent respectively may be granted, reissued or extended, as ful enjoyed by me/us had this assignment, and transfer not been made	ives, to the full end of the term or terms for which sak ly and entirely as the same would have been held and
AND I/we hereby covenant that I/we have full right to convey to executed and will not execute any agreement in conflict herewith, time a request is made, and without undue delay, execute and deliperfect the title to said invention(s) or improvement(s), said application nominees or legal representatives, and I/we agree to communicate said invention(s) or improvement(s), said application and said Pat papers, to execute all disclaimers and divisionals, continuations, rightful oaths and declarations, and generally to do everything pound legal representatives to obtain and enforce, for its or their own improvement(s) in any and all countries provided the expense cooperation and assistance are paid by HPED;	and I/we further covenant and agree that I/we will, each iver all such papers as may be necessary or desirable to ation and said Patent, to HPED, its successors, assigns e to HPED, or to its nominee, all known facts respecting ent, to testify in any legal proceedings, to sign all lawfu , C-I-P's, reissue and foreign applications, to make all assible to aid HPED, its successors, assigns, nomineed to benefit, proper patent protection for said invention(s) o
AND liwe hereby authorize and request the official of any compositions as aforesaid, to issue to HPED, as assignee of the elinvention(s) or improvement(s) which may be issued and gran accordance with the terms of this assignment.	intire right, title and interest, any and all Patent for said
I/we further authorize and direct the attorneys of record to application for Patent, now identified by the Record ID and title set known to them.	
IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal	(s):>
Inventor's Signature	Dale
Harvey J. Lunsman	
First/Middle Name/Last Name	
<u> </u>	4/25/2018
Inventor's Signature	Date
Ernesto Ferrer Medina	
First/Middle Name/Last Name	
Rev certs Page 1 of 2	

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Hewlett Packard Enterprise 3404 E. Harmony Road Mail Stop 79 Fort Collins, Colorado 80528

PATENT APPLICATION

Fort Collins, Colorado 80528	RECORD ID:	90545465
ASSIGNMI	ENT OF PATENT APPLICATION (co	nt.)
Inventor's Signature	Date	
Tahir Cader		
First/Middle Name/Last Name		
Inventor's Signature	Date	
First/Middle Name/Last Name		
Inventor's Signature	Date	
First/Middle Name/Last Name		
Inventor's Signature	Date	
First/Middle Name/Last Name		
Inventor's Signature	Date	
First/Middle Name/Last Name		
Inventor's Signature		
First/Middle Name/Last Name		

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Hewlett Packard Enterprise 3404 E. Harmony Road Mail Stop 79 Fort Collins, Colorado 80528

First/Middle Name/Last Name

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RECORD ID:	90545465
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ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each), for good and valuable consideration, the receipt of which is hereby acknowledged, and in furtherance of my/our obligations to Hewlett Packard Enterprise Development LP, a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPED), and to its subsidiaries and affiliates, agree to assign and transfer and hereby assign and transfer to HPED, its successors and assigns, the entire right, title and interest, including the right of priority in to and under an application for Patent entitled:

ransfer and hereby assign and transfer to HPED, its succes he right of priority, in, to and under an application for Patent e	ssors and assigns, the entire right, title and interest, including entitled:
COOLING FLUIDS IN OPPOSITE DIRECTIONS ACROS	S A DEVICE
Filing Date:	Application No.:
divisionals, and renewals of and substitutes for said applic	and any and all continuations, continuations-in-part (C-I-P's), cation for said Patent, and any and all other Patent of any e; and any reissues, or reexaminations, or extensions of said
by HPED, its successors, assigns, nominees or legal repres	ny/our name for Patent in any country, to be held and enjoyed sentatives, to the full end of the term or terms for which said as fully and entirely as the same would have been held and made;
executed and will not execute any agreement in conflict here time a request is made, and without undue delay, execute ar perfect the title to said invention(s) or improvement(s), said a nominees or legal representatives, and I/we agree to commissaid invention(s) or improvement(s), said application and said application and said papers, to execute all disclaimers and divisionals, continuarightful oaths and declarations, and generally to do everyth and legal representatives to obtain and enforce, for its or the	nvey the entire interest herein assigned, and that I/we have not ewith, and I/we further covenant and agree that I/we will, each ad deliver all such papers as may be necessary or desirable to application and said Patent, to HPED, its successors, assigns, unicate to HPED, or to its nominee, all known facts respecting id Patent, to testify in any legal proceedings, to sign all lawful ations, C-I-P's, reissue and foreign applications, to make all ing possible to aid HPED, its successors, assigns, nominees ir own benefit, proper patent protection for said invention(s) or penses which may be incurred by me/us in lending such
applications as aforesaid, to issue to HPED, as assignee of	any country or countries whose duty it is to issue patents on f the entire right, title and interest, any and all Patent for said granted on or as a result of the application aforesaid, in
	ord to insert the filing date and application number of said le set forth above, as soon as the same shall have been made
IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) ar	nd seal(s):
nventor's Signature	Date
Harvey J. Lunsman	
irst/Middle Name/Last Name	
nventor's Signature	Date
Ernesto Ferrer Medina	

PATENT REEL: 045658 FRAME: 0224 Hewlett Packard Enterprise 3464 E. Harmony Road Mail Stop 79 Fort Collins. Colorado 80528

PATENT APPLICATION

Fort Collins, Colorado 80528	RECORD ID:	90545465
ASSIGNMENT OF	PATENT APPLICATION (con	t.)
Takin Cader	Date /	125/18
Tahir Cader		
First/Middle Name/Last Name		
Inventor's Signature	Date	
First/Middle Name/Last Name		
inventor's Signature	Date	
First/Middle Name/Last Name	· · · · · · · · · · · · · · · · · · ·	
Inventor's Signature	Oale	
First/Middle Name/Last Name	*	
Inventor's Signature	Date	
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RECORDED: 04/27/2018