502330772 05/01/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Hungse CHA	12/18/2012
Robert HUANG	12/18/2012
Vishal MEHTA	12/18/2012
Feroze KARIM	12/18/2012
Dennis Kd MA	12/18/2012
Michael HOPGOOD	04/26/2013
Srikanth DEVARAPALLI	03/15/2013

RECEIVING PARTY DATA

Name:	NVIDIA Corporation	
Street Address:	2701 San Tomas Expressway	
City:	Santa Clara	
State/Country:	CALIFORNIA	
Postal Code:	95050	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13722346

CORRESPONDENCE DATA

Fax Number: 7136234846

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 713-623-4844

Email: rsmith@pattersonsheridan.com,

psdocketing@pattersonsheridan.com PATTERSON & SHERIDAN, LLP/NVIDIA

Address Line 1: 3040 POST OAK BLVD.

Address Line 2: SUITE 1500

Address Line 4: HOUSTON, TEXAS 77056

PATENT

REEL: 030324 FRAME: 0510

P \$40.00 13722346

502330772

Correspondent Name:

ATTORNEY DOCKET NUMBER:	NVDA/AU-12-0408-US	
NAME OF SUBMITTER:	Rebecca J. Smith	
Signature:	/Rebecca J. Smith/	
Date:	05/01/2013	
Total Attachments: 6 source=NVDA_AU-12-0408-US_ASSIGNMENT#page1.tif source=NVDA_AU-12-0408-US_ASSIGNMENT#page2.tif source=NVDA_AU-12-0408-US_ASSIGNMENT#page3.tif source=NVDA_AU-12-0408-US_ASSIGNMENT#page4.tif source=NVDA_AU-12-0408-US_ASSIGNMENT#page5.tif source=NVDA_AU-12-0408-US_ASSIGNMENT#page6.tif		

PATENT REEL: 030324 FRAME: 0511

Attorney Docket No.: NVDA/AU120408US (1332.058118)

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Hungse CHA, residing at 10707 Winchelsea Drive Austin, Texas 78750

Robert HUANG, residing at 264 Bayberry Common Fremont, California 94539

Vishal MEHTA, residing at 3128 Loma Verde Drive, Apt. 318 San Jose, California 95117

Feroze KARIM, residing at J-306, Purve venezia, Near Mother Diary Yelahanka New Town Bangalore-560064 INDIA

> **Dennis Kd MA**, residing at 10404 Canyon Vista Way Austin, Texas 78726

Michael HOPGOOD, residing at 1948 Moriset Way San Jose, California 95131

Srikanth DEVARAPALLI, residing at 442 Madera Avenue, #10 Sunnyvale, CA 94086

(hereinafter referred to as Assignor), has invented a certain invention entitled:

A MULTIPASS APPROACH FOR PERFORMING CHANNEL EQUALIZATION TRAINING

enclosed herewith or for which application for Letters Patent in the United States under Application No. , filed on Concurrently Herewith, and

WHEREAS, NVIDIA CORPORATION, a Corporation of the State of Delaware having a place of business at 2701 San Tomas Expressway, Santa Clara, California 95050 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignor, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection

Page 1 of 2

of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

- 2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, conventional, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.
- 3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.
- 4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.
- 5. I hereby authorize and request my attorneys, Patterson & Sheridan LLP, of 3040 Post Oak Blvd, Suite 1500, Houston Texas 77056, to insert above in parentheses (Application No. and Filing Date) the filing date and application number of said application when known.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	December 18	_, 2012	Day a
94a		22.4	V VHungse CHA
£)		_, 2012	Robert HUANG
3)	and the second s	, 2012	
15. 4 5.			Vishal MEHTA
4)		_, 2012	
		•••	Feroze KARIM
5)	December 18	2012	D_, Z_
		*****	Dennis MA
63		. 2012	
57	***************************************	" , ", "	Michael HOPGOOD
.73		. 2012	
ij	•••••••••••••••••••••••••••••••••••••••	and the first of the	Srikenth DEVARAPALLI

Attorney Docket No.: NVDA/AU120408US (1332,058118)

of industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

- Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, conventional, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.
- 3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.
- 4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.
- 5. I hereby authorize and request my attorneys, Patterson & Sheridan LLP, of 3040 Post Oak Blvd, Suite 1600, Houston Texas 77056, to insert above in parentheses (Application No. and Filing Date) the filing date and application number of said application when known.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	, 2012	
2)	December 18, 2012	Hungse CHA Robert HUANG
3)	, 2012	Vishal METHA
4)	. 2012	Feroze KARIM
5)	, 2012	Dennis MA
6)	, 2012	Michael HOPGOOD
7)	, 2012	Srikanth DEVARAPALLI

of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

- Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, caths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, conventional, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Paterits; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.
- 3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.
- 4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.
- 5. I hereby authorize and request my attorneys, Patterson & Sheridan LLP, of 3040 Post Oak Blvd, Suite 1500, Houston Texas 77056, to insert above in parentheses (Application No. and Filing Date) the filling date and application number of said application when known.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)		. 2012	
			Hungse CHA
2)		, 2012	
			Robert HUANG
3)	12/18/2012	, 2012	<u> Mehta</u>
			, Vishal METHA
4)	12/18/2012	, 2012	A feery Li
	***************************************	·····	Feroze KARIM
5)		, 2012	
		and the same of th	Dennis MA
6)		, 2012	
. •	:		Michael HOPGOOD
7)		, 2012	
•			Srikanth DEVARAPALLI

Attorney Docket No.: NVDA/AU120408US

patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

- Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filling and prosecuting substitute, conventional, divisional, continuing or additional applications covering said Invention; (d) for filling and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.
- The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.
- 4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.
- 5. I hereby authorize and request my attorneys, Patterson & Sheridan LLP, of 3040 Post Oak Blvd, Suite 1500, Houston Texas 77056, to insert above in parentheses (Application No. and Filing Date) the filing date and application number of said application when known.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)		, 2013	
		···	Hungse CHA
2)	* · · · · · · · · · · · · · · · · · · ·	, 2013	
			Robert HUANG
3)		, 2013	
		*	Vishal MEHTA
4)	···	, 2013	·
		**	Feroze KARIM
5)		, 2013	
	1 1		Denylis Kd/MA
6)	4/26/	, 2013	Michael Hopsort
	, 1		Michael Holesgod
7)		, 2013	
			Srikanth DEVARAPALLI

Page 2 of 2

Attorney Dockel No.: NVDA/AU120408US (1332.056116)

patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

- Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assigners shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filling and prosecuting substitute, conventional, divisional, continuing or additional applications covering said Invention; (d) for filling and prosecuting applications for relesuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.
- 3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.
- Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.
- 5. I hereby authorize and request my attorneys, Patterson & Sheridan LLP, of 3040 Post Oak Blvd, Suits 1500, Houston Texas 77056, to insert above in parentheses (Application No. and Filing Date) the filing date and application number of said application when known.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	, 2013	
•		Hungse CHA
2)	, 2013	
		Robert HUANG
3)	. 2013	<u> </u>
		Vishal MEHTA
4)	, 2013	
		Feroze KARIM
5)	, 2013	
		Dennis Kd MA
6)	, 2013	
		Michael HOPGOOD
7)	MAR 15th , 2013	D.V. Srikanth
		Srikanth DEVARAPALLI

Page 2 of 2