FORM PTO-1619A Expires 06/30/99 OMB 0651-0027 , 09 -	09-2005		U.S. Department of Commerce Patent and Trademark Office PATENT
103	3077654 PATENTS ON	₹ SHEET	
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(n) Submission Type	Conveyance Ty	pe	
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Correction of PTO Error Reel # Frame #	Merger	U.S. Government	12887 11/2 083
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Conveying Party(ies)	Mark if additiona	d names of conveying parties a	ttached Execution Date Month Day Year
Name (line 1) Vladislav Vashchenko	3		8 30/05
Name (line 2) Second Party			Execution Date
Name (line 1) Peter J. Hopper			
Name (line 2)			
Receiving Party	N	lark if additional names of rece	iving parties attached
Name (line 1) National Semiconductor Col	Name (line 1) National Semiconductor Corporation If document to be recorded is an assignment and the		
Name (line 2)			receiving party is not domiciled in the United States, an appointment
Address (line 1) 2900 Semiconductor Drive			of a domestic representative is attached. (Designation must be a
Address (line 2) M/S D3-579			separate document from Assignment)
Address (line 3) Santa Clara	CA	95051	
Domestic Representative Name and Ad	State/Country Idress Enter f	Zip Code or the first Receiving Party only	y .
Name			
Address (line 1)			
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FORM PTO-1619B Expires 06/30/99 OMB 0651-0027	Page 2		U.S. Department of Commerce Patent and Trademark Office PATENT
Correspondent Name and	Address Area Code and Tele	ephone Number 408-6	667 1289
Name Jurgen Vollrath			
Address (line 1) 588 Sutter Street	t #531		
Address (line 2) San Francisco,	CA		
Address (line 3) 94102			
Address (line 4)			
Pages Enter the total nu including any at	mber of pages of the attached co achments.	nveyance document	#
Application Number(s) or Pa	- <i>'</i>	L	nal numbers attached
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r atent Application Nu		Patent Num	ber(s)
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If this document is being filed together wit signed by the first named executing inver	h a <u>new</u> Patent Application, enter the date ntor.	the patent application was	Month Day Year
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only if a U.S. Application has not been assigned		PCT	PCT
Number of Properties			
	nter the total number of properties	s involved. #	
	Amount for Properties Listed (3	7 CFR 3.41): \$ 40	
Method of Payment: Deposit Account	Enclosed X Deposit Ac	count	!
(Enter for payment by deposit acco	unt or if additional fees can be charged to t Deposit Account Number:	the account.) # 14	0448
	Authorization to charge add	ditional fees: Yes	× No
Statement and Signature			
To the best of my knowled, attached copy is a true cop indicated herein.	ge and belief, the foregoing inform y of the original document. Char	mation is true and con ges to deposit accoun	rect and any nt are authorized, as
JURGEN Vo	LLRATH I Tank	aut	8/31/05
Name of Person Signing	Signature		Date

PATENT REEL: 016951 FRAME: 0570

ORDATION FORM COVER St. 21 U.S. Department of Commerce FORM PTO-1619C Patent and Trademark Office CONTINUATION PATENT OMB 0651-0027 PATENTS ONLY Conveying Party(ies) Mark if additional names of conveying parties attached **Execution Date** Enter additional Conveying Parties Month Day Year Name (line 1) [Philipp Lindorfer_ Name (line 2) **Execution Date** Month Day Name (line 1) Name (line 2) **Execution Date** Month Day Name (line 1) Name (line 2) Receiving Party(ies) Mark if additional names of receiving parties attached Enter additional Receiving Party(ies) If document to be recorded Name (line 1) is an assignment and the receiving party is not domiciled in the United Name (line 2) States, an appointment of a domestic representative is attached. (Designation Address (line 1) must be a separate document from Assignment.) Address (line 2) Address (line 3) State/Country Zip Code Name (line 1) If document to be recorded is an assignment and the receiving party is not Name (line 2) domiciled in the United States, an appointment of a domestic representative is Address (line 1) attached. (Designation must be a separate document from Assignment.) Address (line 2) Address (fine 3)

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Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Mark if additional numbers attached

City

Application Number(s) or Patent Number(s)

Patent Application Number(s)

Patent Number(s)

Docket Number (Optional)

PTC/SB/15 (08-00)
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U. S. Patent and Tradament Office; U.S. DEPARTMENT OF COMMERCE
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ASSIGNMENT OF APPLICATION	V	P6396
Whereas, I, Vladislav Vashchenko of Na	ional Semiconductor	, hereafter
referred to as applicant, have invented certain new and us		
DUAL DIRECTION ESD CLAMP BASED ON SEMBEDDED SCR	NAPBACK NMOS CE	LL WITH
for which an application for a United States Patent Application Number /	was filed on	
X for which an application for a United States Patent	was executed on	
Whereas, National Semiconductor of 2900 Semiconductor Dr. "assignee" whose mailing address is 95051-8090		herein referred to
		lara, CA is de-
sirous of acquiring the entire right, title and interest in the s	ame;	
Now, therefore, in consideration of the sum of ten	lollars (\$_10.00), the r	receipt whereof is ac-
knowledged, and other good and valuable consideration, I,	the applicant, by these pre	esents do sell, assign
and transfer unto said assignee the full and exclusive right		
entire right, title and interest in and to any and all Patents wh		
I hereby authorize and request the Commissioner of Pater		
Patent to said assignee, of the entire right, title, and interest		
and for the use and behoof of his legal representatives, to the	e full end of the term for w	hich said Patent may
be granted, as fully and entirely as the same would have be-	on held by me had this ass	ignment and sale not
been made.		
Executed this 30 ff day of A	pust	.20 05 .
at		-
	m	
State of Californiuss:	(Signature	e)
County of Santa Clara Before me personally appeared said VAdiSAV	11.11 62	İ
and acknowledged the foregoing instrument to be his free act and deed this 30th		
day of AUSUST 20 05.	Kr	0/40
Seal	flure &	- UTY

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PATENT

REEL: 016951 FRAME: 0572

Docket Number (Optional)

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ASSIGNMENT OF AFFLIC	AHON	P06396
Whereas, I, Peter J. Hopper	of National Semicondo	uctor hereafter
referred to as applicant, have invented certain new	and useful improvements in	n
DUAL DIRECTION ESD CLAMP B	ASED ON SNAPBACK	NMOS CELL WITH
EMBEDDED SCR		
for which an application for a United States	Patent was filed on	
Application Number /		
for which an application for a United States	Patent was executed on	, and
Whereas, National Semiconductor		herein referred to
2900 Semicondo "assignee" whose mailing address is 95051-8090	uctor Dr., Mail Stop D3-579, S	anta Clara, CA is de-
sirous of acquiring the entire right, title and interest	in the same;	
Now, therefore, in consideration of the sum of ten	dollars (\$_10.00	_), the receipt whereof is ac-
knowledged, and other good and valuable consider	ration, I, the applicant, by th	ese presents do sell, assign
and transfer unto said assignee the full and exclusive	ve right to the said invention	in the United States and the
entire right, title and interest in and to any and all Par	tents which may be granted	therefor in the United States,
I hereby authorize and request the Commissioner	of Patents and Trademarks	to issue said United States
Patent to said assignee, of the entire right, title, and	interest in and to the same	, for his sole use and behoof;
and for the use and behoof of his legal representation	ves, to the full end of the ter	m for which said Patent may
be granted, as fully and entirely as the same would	have been held by me had t	this assignment and sale not
been made.		
Executed this 30 1 day of	Asaust	,20_OS_,
at		_
Call Land		Signature)
State of With May SS: County of Santa Clark		→
Before me personally appeared said et evand and acknowledged the foregoing instrument to be his	J. Hopper	ort a
day of Avgust , 2005.	nee act and deed this 30	
Saal	Janes	J My
Seal	(No	otary Public)

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PATENT REEL: 016951 FRAME: 0573

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ASSIGNMENT OF APPLICATION	Docket Number (Optional) P06396		
Whereas, I, Philipp Lindorfer of National Semicond			
referred to as applicant, have invented certain new and useful improvements	in		
DUAL DIRECTION ESD CLAMP BASED ON SNAPBACK NMO EMBEDDED SCR	S CELL WITH		
for which an application for a United States Patent was filed on	,		
X for which an application for a United States Patent was executed on _	and,		
Whereas, National Semiconductor of 2900 Semiconductor Dr., Mail Stop D3-579,	herein referred to		
"assignee" whose mailing address is 95051-8090	is de-		
sirous of acquiring the entire right, title and interest in the same;			
Now, therefore, in consideration of the sum of ten dollars (\$_10.00_	_), the receipt whereof is ac-		
knowledged, and other good and valuable consideration, I, the applicant, by \boldsymbol{t}	hese presents do sell, assign		
and transfer unto said assignee the full and exclusive right to the said invention	n in the United States and the		
entire right, title and interest in and to any and all Patents which may be grante	entire right, title and interest in and to any and all Patents which may be granted therefor in the United States.		
I hereby authorize and request the Commissioner of Patents and Trademark	I hereby authorize and request the Commissioner of Patents and Trademarks to issue said United States		
Patent to said assignee, of the entire right, title, and interest in and to the same	Patent to said assignee, of the entire right, title, and interest in and to the same, for his sole use and behoof;		
and for the use and behoof of his legal representatives, to the full end of the term for which said Patent may			
be granted, as fully and entirely as the same would have been held by me had	be granted, as fully and entirely as the same would have been held by me had this assignment and sale not		
been made.			
Executed this 3111 day of August	, 20_05,		
at			
Ren	W/w		
State of Californicy SS: County of Santa Clara Before me personally appeared said Philipp Lindov for and acknowledged the foregoing instrument to be his tree act and deed this day of August, 2005.	(Signature) 315 F		
Seal (1	Notary Public)		

Burden Hour Statement: This form is estimated to take 0.1 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner of Patents and Trademarks, Washington, DC 20231.

KAREN L. METZ Commission # 1417885 Notary Public - California Santa Clara County My Comm. Expires Jun 11, 2007

> **PATENT** REEL: 016951 FRAME: 0574

RECORDED: 08/31/2005