FORM PTO-1619A Expires 06/30/99 OMB 0651-0027 12-01-2000

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U.S. Department of Commerce Patent and Trademark Office PATENT



10/27/00

RECORDATION FORM COVER SHEET

9/698443

TO: The Commissioner of Patents and Tradema	rks: Please record the attached original document(s) or copy(ies).				
Submission Type	Conveyance Type				
X New	X Assignment Security Agreement				
Resubmission (Non-Recordation) Document ID#	License Change of Name				
Correction of PTO Error Reel # Frame #	Merger Other U.S. Government				
Corrective Document Reel # Frame #	(For Use ONLY by U.S. Government Agencies) Departmental File Secret File				
Conveying Party(ies)	X Mark if additional names of conveying parties attached Execution Date				
Name (line 1) Graba, James Mark	Month Day Year				
Name (line 2)	Execution Date				
Second Party Name (line 1) Feyh, German S. O.	Month Day Year				
Name (line 2)					
Receiving Party	Mark if additional names of receiving parties attached				
Name (line 1) Cirrus Logic, Inc.	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) 4210 S. Industrial Drive	of a domestic representative is attached. (Designation must be a				
Address (line 2)	separate document from Assignment.)				
Address (line 3) Austin	TX 78744 State/Country Zip Code				
Domestic Representative Name and Address Enter for the first Receiving Party only.					
Name Dan A. Shifrin					
Address (line 1) Cirrus Logic, Inc.					
Address (line 2) 4210 S. Industrial Drive					
Address (line 3)					
Address (line 4) Austin, TX 78744					
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7 100 EMMS 21 9000000 00200 0000000					

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PATENT

REEL: 011281 FRAME: 0133

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 Telephone Numb	er (303) 379-1100
Name Michael J. Setter		
Address (line 1) Duft, Graziano & Forest, P. C.		
Address (line 2) P. O. Box 270930		
Address (line 3)		
Address (line 4) Louisville, CO 80027		
Pages Enter the total number of p including any attachments	ages of the attached conveyance do	cument # 3
Application Number(s) or Patent Nu	·	rk if additional numbers attached
Enter either the Patent Application Number or the Patent Application Number(s)		tent Number(s)
If this document is being filed together with a new Pat signed by the first named executing inventor.	tent Application, enter the date the patent appli	ication was Month Day Year 10 17 2000
Patent Cooperation Treaty (PCT)	PCT PCT	PCT
Enter PCT application number		
only if a U.S. Application Number has not been assigned.	PCT PCT	PCT[
Number of Properties Enter the to	otal number of properties involved.	# [1
Fee Amount Fee Amount	t for Properties Listed (37 CFR 3.41)	: \$ 40.00
Method of Payment: Enc Deposit Account	losed Deposit Account X	
(Enter for payment by deposit account or if ad	ditional fees can be charged to the account.) Deposit Account Number:	# 03-2028
	Authorization to charge additional fees:	Yes X No
Statement and Signature		
	pelief, the foregoing information is true original document. Charges to depo	
Dan A. Shifrin	Jan flufin	10/17/0
Name of Person Signing	Signature	Date

FORM PTO-1619C Expires 06/30/99 OMB 0651-0027

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U.S. Department of Commerce Patent and Trademark Office PATENT

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Conveying Pa	rty(ies)	Mark	if additiona	I names of conveyi	ng parties attac	hed	
Enter additional Conveying Parties					Execution Date Month Day Year		
Name (line 1) Su	pino, Louis						10 16 2000
Name (line 2)			·				
							Execution Date Month Day Year
Name (line 1)							
Name (line 2)							Execution Date
							Month Day Year
Name (line 1)							
Name (line 2)							
Receiving Par	rty(ies)		Ма	rk if additional nam	es of receiving	parties	s attached
Enter additional R	eceiving Party(ies)						
Name (line 1)							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)							of a domestic representative is attached. (Designation
()							must be a separate document from
Address (line 2)							Assignment)
Address (line 3)							
•	City		\$	State/Country	Z	ip Code	
Name (line 1)							If document to be recorded is an assignment and the
Name (line 2)							receiving party is not domiciled in the United
·							States, an appointment of a domestic representative is
Address (line 1)							attached. (Designation must be a separate document from
Address (line 2)							Assignment.)
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(DGF: 6172/016)

JOINT TO CORPORATE ASSIGNMENT

	WHEREAS, the undersigned,		Cormon C. O. Foul
1.	James Mark Graba	2.	German S. O. Feyh
3.	Louis Supino	4.	
(here	einafter termed "Inventors"), residen	ts of	Advisor
1.	2823 Humboldt Circle, Longmont	2.	1272 Bear Mountain Ct., Boulder
3.	3119 Bell Drive, Boulder	4.	
Res	pectively, Counties of		
1.	Boulder	2.	Boulder
3.	Boulder	4.	
resp	ectively, States of		
1.	Colorado	2.	Colorado
3.	Colorado	4.	
and	CONCURREN	ING A CORRE	cation for a United States patent disclosing and
	On the		
1.	day of	, 2000	
2.	16 day of October	, 2000	
3.	day of	, 2000	
4.	day of	, 2000	
resp	pectively; or		
	Said application having Applicati	on Number/	, and filed on the day of

(DGF: 6172/016)

WHEREAS <u>CIRRUS LOGIC</u>, INC. (hereinafter termed "Assignee"), a corporation of <u>Delaware</u>, having a place of business at <u>4210 S</u>. <u>Industrial Drive</u>, <u>Austin</u>, <u>Texas</u> <u>78744</u>, wishes to acquire the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, certificates of invention and other forms of protection thereon (hereinafter termed "patents" applied for or granted in the United States and/or other countries.

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

- 1. Said Inventors do hereby sell, assign, transfer and convey to said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply in any or all countries of the world for patents, certificates of inventions or other governmental grants on said invention, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of inventions or other governmental grants granted on said invention in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.
- 2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing 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 complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.
- 3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.
- 4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

(DGF: 6172/016)

IN WITNESS WHEREOF, the said Inventors have executed and delivered this instrument to said Assignee on the date of acknowledgment before the Notary Public as given below.

		(1)	
		James Mark Graba	
(1)	State of	_}	
		<i></i> /	
sub and	scribed to the within instrument a	re me,e (or proved to me on the basis of satisfactory evidence) to be the pand acknowledged to me that he/she/they executed the same in his/he on the instrument the person(s), or the entity upon behalf of which the	r/their authorized capacity(ies),
WIT	NESS my hand and official seal		
		(2) Signature tel	
	/ \	German S. O. Feyh	
(2)	State of Calorado	·))	
	are and a second a	- i i i i	
	cribed to the within instrument a	re me, not the basis of satisfactory evidence) to be the pend acknowledged to me that he/she/they executed the same in his/he on the instrument the person(s), or the entity upon behalf of which the	, personally appeared <u>German</u> erson(s) whose name(s) is/are r/their authorized capacity(ies), e person(s) acted, executed the
O ZWA	NEGG My band and official seal	Anuth Sommus	
(E)	OF COL	Signature	
	MISSION EXPIRES	(3) Louis Supino	
JU:	LY 30, 2003	Louis Supilio	
(3)	State of	_)	
	County of		
with	in instrument and acknowledge	e me,	zed capacity(ies), and that by
WIT	NESS my hand and official seal.		
		Signature	

(DGF: 6172/016)

JOINT TO CORPORATE ASSIGNMENT

	WHEREAS, t	he undersigned,		
1.	James Mark G	raba	2.	German S. O. Feyh
3.	Louis Supino		4.	
(here	einafter termed "	Inventors"), residents	of	
1.	2823 Humbold	t Circle, Longmont	2.	1272 Bear Mountain Ct., Boulder
3.	3119 Bell Drive	e, Boulder	4.	
Res	pectively, Counti	es of		- AND
1.	Boulder		2.	Boulder
3.	Boulder		4.	
resp	ectively, States	of		
1.	Colorado		2.	Colorado
3.	Colorado		4.	
and	SERV	CONCURRENT a declaration or oath	IG A CORREL PROCESSING	ATION DATA STRUCTURE FOR G OF QUAD SIGNALS ation for a United States patent disclosing and
	On the			
1.	day of	October	, 2000	
2.	day of		- , 2000	
3.	day of	October	- , 2000 -	
4.	day of		, 2000	
resp	ectively; or			
	Said applicat		n Number/_	_, and filed on the day of
	. 4	▼		

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(DGF: 6172/016)

WHEREAS <u>CIRRUS LOGIC</u>, <u>INC</u>, (hereinafter termed "Assignee"), a corporation of <u>Delaware</u>, having a place of business at <u>4210 S. Industrial Drive</u>, <u>Austin</u>, <u>Texas 78744</u>, wishes to acquire the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, certificates of invention and other forms of protection thereon (hereinafter termed "patents" applied for or granted in the United States and/or other countries.

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

- 1. Said Inventors do hereby sell, assign, transfer and convey to said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply in any or all countries of the world for patents, certificates of inventions or other governmental grants on said invention, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of inventions or other governmental grants granted on said invention in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.
- 2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing 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 complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.
- 3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.
- 4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

(DGF: 6172/016)

IN WITNESS WHEREOF, the said Inventors have executed and delivered this instrument to said Assignee on the date of acknowledgment before the Notary Public as given below.

(1) <u>Some Mark Lesla</u> James Mark Graba	
James Mark Graba	
(1) State of Colora (a)	
County of Boulder	
On 10/17 OO before me, LINDA BUNTAIN, personally appeared Jan Mark Graba, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(is and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed instrument.	are es),
WITNESS my hand and official seal. Signature	
(2)	
(2) German S. O. Feyh	
(2) State of Colorado) County of Boulder	
On 10/17/00 before me, LINDA SUNTAIN , personally appeared Germ S. O. Feyh, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(is and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed instrument.	are s),
WITNESS my hand and official seal. Signature	
(3) Louis Supino	_
(3) State of)	
County of)	
On, personally appeared <u>Louis Supi</u> personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument	by
WITNESS my hand and official seal.	
Signature	

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