1-31-92

02-29-2000



101277661

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Please record	the attached original documents or copy thereof.
1. Name of conveying party(ies): 1. Carlos Esteban Munoz 2. Karl Ernesto Thompson 3. Douglas S. Piasecki 4. Wai Laing Lee 3. Eric Swanson	Name and address of receiving party(ies): Name: Cirrus Logic, Inc. Address: 3100 West Warren Avenue
Additional name(s) of conveying party(ies) attached? □ Yes No	Fremont, California 94538
3. Nature of Conveyance:	Additional name(s) & address(es) attached? □ Yes ⋈ No
■ Assignment□ Merger□ Security Agreement□ Change of Name	
□ Other	
Execution Date: 11/2/99, 1/4/00, 1/6/00, 1/5/00 & 10/29/99	
4. Application number(s) or patent number(s): 09/393,046	
If this document is being filed together with a new application, the executio	n date of the application is:
A. Patent Application No.(s)	B. Patent No.(s)
09/393,046	
Additional numbers attached? □ Yes 🔞 No	
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: _1_
Cirrus Logic, Inc.	7. Total fee (37 CFR 3.41):\$ 40.00
3100 West Warren Avenue Fremont, California 94538	≅ Enclosed□ Authorized to be charged to deposit account
	8. Deposit account number:03-2028
DO NOT USE THIS SPACE	
9. Statement and signature.	
To the best of my knowledge and belief, the foregoing information is to of the original document.	
J.P. Violette	
	Total number of pages including cover sheet:
OMB No. 0651-0011 (exp. 4/94)	
Do not detach t	this portion
Mail documents to be recorded with required cover sheet information to:	

02/25/2000 TTON11

1

01 FC:581

00000112 **p**32028 09393046 40.00 CH

Commissioner of Patents and Trademarks Box Assignments Washington, D.C. 20231

Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, D.C. 20231, and to the Office of Management and Budget, Paperwork Reduction Project, (0651-0011), Washington, D.C. 20503.

5469-126

PATENT REEL: 010566 FRAME: 0228

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS, That Whereas We, Carlos Estaban Muñoz, Karl Ernesto Thompson, Douglas S. Piasecki, Wai Laing Lee, and Eric Swanson, have invented certain new and useful improvements in REDUNDANCY METHODS AND SYSTEMS CALIBRATION AND CONVERSION WITH DIGITAL-TO-ANALOG CONVERTER (DAC) ELEMENTS IN AN ANALOG-TO-DIGITAL (A/D) CONVERTER, for which an application for Letters Patent of the United States of America has been executed by us on even data herewith; and

WHEREAS CIRRUS LOGIC, INC., a corporation duly organized and existing under the laws of California, and having an address at 3100 WEST WARREN AVENUE, FREMONT, CALIFORNIA 94538, is desirous of acquiring an interest therein and in the Letters Patent to be obtained therefor from the United States;

NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00) and other good and valuable considerations to us by CIRRUS LOGIC, INC., the receipt whereof is hereby acknowledged, we do hereby sell, assign, transfer and set over unto CIRRUS LOGIC, INC., its successors and assigns, the entire right, title and interest in, to and under the said application for United States Letters Patent, including all priority rights arising therefrom, all inventions therein disclosed, and any and all Letters Patent of the United States and of all other countries which may be granted for the said inventions, or any of them.

TO HAVE, HOLD and ENJOY the said inventions, the said Application, and the said Letters Patent to said CIRRUS LOGIC, INC., its successors and assigns, to its and their own use and behoove to the full end of the term or terms for which the said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by us had this assignment and sale not been made.

And we do hereby authorize and request the Commissioner of Patents of the United States to issue any United States Letters Patent which may be granted on the said application, or any divisional, reissue or continuation applications, or for the said

Page 1 of 6

5469-126

Ι.

inventions of any of them, to said CIRRUS LOGIC, INC., its successors and assigns, as assignees of the entire right, title and interest therein and thereto.

And we do hereby, for ourselves and for our legal representatives, covenant and agree with CIRRUS LOGIC, INC., its successors and assigns, that we have granted to others no license to make, use or sell any of the said inventions, that our rights, title and interest in the said inventions has not been encumbered, that we have good right and title to sell and assign the same, and that we will not execute any instrument in conflict herewith.

And we do hereby, for ourselves and for our legal representatives, further covenant and agree with CIRRUS LOGIC, INC., its successors and assigns, that upon request we will, and they shall, execute divisional, reissue or continuation applications, amended specifications, or rightful oaths; communicate to CIRRUS LOGIC, INC., its successors and assigns, any facts known to us relating to the said inventions or the history thereof; execute preliminary statements and testify in any interference proceedings; execute and deliver any application papers, assignments, or other instruments, and do all other acts which, in the opinion of counsel for CIRRUS LOGIC, INC., may be necessary or convenient to secure the grant of Letters Patent to CIRRUS LOGIC, INC., its successors and assigns, or its nominees, in the United States and in all other countries where CIRRUS LOGIC, INC., may desire to have the said inventions, or any of them, patented, with specifications and claims in such form as shall be approved by counsel for CIRRUS LOGIC. INC., and to vest and confirm in CIRRUS LOGIC, INC., its successors and assigns, or its nominees, the full and complete legal and equitable title to all such Letters Patent, without further consideration than now paid but at the expense of CIRRUS LOGIC, INC., its successors or assigns.

IN WITNESS WHEREOF, we have hereunto set our hand and seal on the dates indicated below:

Date: 11/2/97	Carlos Estaban Muñoz
Date:	Karl Ernesto Thompson
Date:	Douglas S. Piasecki

I

Date:	Commence of the second	
	Wai Laing Lee	
Date:		
	Eric Swanson	

STATE OF NEW HAMPSHIRE	
	ss.
	ſ
COUNTY OF HILLSBOKOUGH	J
On this ALA day of MARTER personally appeared CARLOS	in the year 19 <u>99</u> , before me , a Notary Public in and for said State, ESTEBAN MUNOC
personally known to me proved to me on the basis	
he/she executed the same in his/her au	s subscribed to the within instrument, and acknowledged that thorized capacity(ies), and that by his/her signature(s) on the on behalf of which the person acted, executed the instrument.
	WITNESS my hand and Official Seal.
	Signature of Notary Notary Public of the State of M. H. Residing in MShure My Commission expires 04-07-04
STATE OF	ì
	SS.
COUNTY OF	·
On this day of	in the year 19, before me , a Notary Public in and for said State,
personally appeared	, a Notary Public in and for said State,
personally known to me proved to me on the basis	
ne/she executed the same in his/her au	s subscribed to the within instrument, and acknowledged that thorized capacity(ies), and that by his/her signature(s) on the on behalf of which the person acted, executed the instrument.

WITNESS my hand and Official Seal.

Page 4 of 6

5469-126

	Signature of Notary
	Notary Public of the State of
	Residing in My Commission expires
STATE OF)
	L
	ss.
	ſ
COUNTY OF	
COUNTY OF	,
On this day of	in the year 19, before me
	, a Notary Public in and for said State,
personally appeared	
personally known to me	-OR-
proved to me on the basis	s of satisfactory evidence
to be the person whose name	is subscribed to the within instrument, and acknowledged that
	uthorized capacity(ies), and that by his/her signature(s) on the
instrument the person, or the entity up	oon behalf of which the person acted, executed the instrument.
	WHEN THE CO. I I I I I I I I I I I I I I I I I I I
	WITNESS my hand and Official Seal.
	Signature of Notary
	Notary Public of the State of
	Residing in My Commission expires
	My Commission expires
CTATE OF	\
STATE OF	I
	ss.
	ſ
COUNTRY OF	
COUNTY OF	,
On this day of	in the year 19, before me
	, a Notary Public in and for said State,
personally appeared	

Page 5 of 6

personally known to me	-OR-
proved to me on the basi	s of satisfactory evidence
he/she executed the same in his/her a	is subscribed to the within instrument, and acknowledged that authorized capacity(ies), and that by his/her signature(s) on the pon behalf of which the person acted, executed the instrument
	WITNESS my hand and Official Seal.
	Signature of Notary
	Notary Public of the State of
	Residing in
STATE OF	
STATE OF	'
	(ss.
	•
COUNTY OF)
On this day of	in the year 19, before me
	, a Notary Public in and for said State,
personally appeared	
personally known to me	-OR-
proved to me on the basis	
ne/she executed the same in his/her a	is subscribed to the within instrument, and acknowledged that uthorized capacity(ies), and that by his/her signature(s) on the pon behalf of which the person acted, executed the instrument.
	WITNESS my hand and Official Seal.
	Signature of Notary
	Notary Public of the State of
	Residing in
	My Commission expires

Page 6 of 6

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS, That Whereas We, Carlos Estaban Muñoz, Karl Ernesto Thompson, Douglas S. Piasecki, Wai Laing Lee, and Eric Swanson, have invented certain new and useful improvements in REDUNDANCY METHODS AND SYSTEMS CALIBRATION AND CONVERSION WITH DIGITAL-TO-ANALOG CONVERTER (DAC) ELEMENTS IN AN ANALOG-TO-DIGITAL (A/D) CONVERTER, for which an application for Letters Patent of the United States of America has been executed by us on even data herewith; and

WHEREAS CIRRUS LOGIC, INC., a corporation duly organized and existing under the laws of California, and having an address at 3100 WEST WARREN AVENUE, FREMONT, CALIFORNIA 94538, is desirous of acquiring an interest therein and in the Letters Patent to be obtained therefor from the United States;

NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00) and other good and valuable considerations to us by CIRRUS LOGIC, INC., the receipt whereof is hereby acknowledged, we do hereby sell, assign, transfer and set over unto CIRRUS LOGIC, INC., its successors and assigns, the entire right, title and interest in, to and under the said application for United States Letters Patent, including all priority rights arising therefrom, all inventions therein disclosed, and any and all Letters Patent of the United States and of all other countries which may be granted for the said inventions, or any of them.

TO HAVE, HOLD and ENJOY the said inventions, the said Application, and the said Letters Patent to said CIRRUS LOGIC, INC., its successors and assigns, to its and their own use and behoove to the full end of the term or terms for which the said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by us had this assignment and sale not been made.

And we do hereby authorize and request the Commissioner of Patents of the United States to issue any United States Letters Patent which may be granted on the said application, or any divisional, reissue or continuation applications, or for the said

Page 1 of 6

inventions of any of them, to said CIRRUS LOGIC, INC., its successors and assigns, as assignees of the entire right, title and interest therein and thereto.

And we do hereby, for ourselves and for our legal representatives, covenant and agree with CIRRUS LOGIC, INC., its successors and assigns, that we have granted to others no license to make, use or sell any of the said inventions, that our rights, title and interest in the said inventions has not been encumbered, that we have good right and title to sell and assign the same, and that we will not execute any instrument in conflict herewith.

And we do hereby, for ourselves and for our legal representatives, further covenant and agree with CIRRUS LOGIC, INC., its successors and assigns, that upon request we will, and they shall, execute divisional, reissue or continuation applications, amended specifications, or rightful oaths; communicate to CIRRUS LOGIC, INC., its successors and assigns, any facts known to us relating to the said inventions or the history thereof; execute preliminary statements and testify in any interference proceedings; execute and deliver any application papers, assignments, or other instruments, and do all other acts which, in the opinion of counsel for CIRRUS LOGIC, INC., may be necessary or convenient to secure the grant of Letters Patent to CIRRUS LOGIC, INC., its successors and assigns, or its nominees, in the United States and in all other countries where CIRRUS **LOGIC, INC.**, may desire to have the said inventions, or any of them, patented, with specifications and claims in such form as shall be approved by counsel for CIRRUS LOGIC, INC., and to vest and confirm in CIRRUS LOGIC, INC., its successors and assigns, or its nominees, the full and complete legal and equitable title to all such Letters Patent, without further consideration than now paid but at the expense of CIRRUS LOGIC, INC., its successors or assigns.

IN WITNESS WHEREOF, we have hereunto set our hand and seal on the dates indicated below:

Date:	
	Carlos Estaban Muñoz
Date: 1/4/2000	Jand Thompson
7	Karl Ernesto Thompson
Date: 1/6/2000	() whole
-(-)	Douglas S. Piasecki

Page 2 of 6

1,

Date: 1/5/00	Walegla
	Wai Laing Lee
Date:	Eric Swanson

Page 3 of 6

1

STATE OF Texas	Y
	t ss.
	<i>.</i>
COUNTY OF Travis	J
On this 444 day of Jan Peter T Rutkowski personally appeared Karl Ernes	in the year 19-200, before me , a Notary Public in and for said State, to Thompson
personally known to me proved to me on the basis	
he/she executed the same in his/her au	is subscribed to the within instrument, and acknowledged that athorized capacity(ies), and that by his/her signature(s) on the bon behalf of which the person acted, executed the instrument.
	WITNESS my hand and Official Seal.
PETER T. RUTKOWSKI NOTARY PUBLIC STATE OF TEXAS My Appl. Exp. 06-27-2000	Signature of Notary Notary Public of the State of Texas Residing in Austin, Texas My Commission expires 6/27/2000
STATE OF	ss.
	ſ
COUNTY OF	J
On this day of	in the year 19, before me, a Notary Public in and for said State,
personally appeared	
personally known to me proved to me on the basis	
he/she executed the same in his/her au	s subscribed to the within instrument, and acknowledged that thorized capacity(ies), and that by his/her signature(s) on the on behalf of which the person acted, executed the instrument.
	WITNESS my hand and Official Seal.

Page 4 of 6

5469-126

	Signature of Notary
	Notary Public of the State of
	Residing in
	My Commission expires
	My Commission expires
STATE OF Texas	
1	
	SS.
	1
'	.
COUNTY OF Travis	
	_
On this 5th day of Januar	in the year 19 2000, before me, a Notary Public in and for said State,
Peter T. Rutkowski	, a Notary Public in and for said State,
personally appeared Wai Laing	Lee
, ii	
personally known to me -O	R-
proved to me on the basis of	satisfactory evidence
	1. The fire the contains in the containing of the t
	subscribed to the within instrument, and acknowledged that
he/she executed the same in his/her auth	orized capacity(ies), and that by his/her signature(s) on the
instrument the person, or the entity upon	behalf of which the person acted, executed the instrument.
	WARDINGS I LOUIS OF SILE OF SI
	WITNESS my hand and Official Seal.
PETER T. RUTKOWSKI	Peter / Ruthowski
NOTARY PUBLIC	
STATE OF TEXAS	Signature of Notary
My Appt. Exp. 06-27-2000	Notary Public of the State of Teras
***************************************	Residing in Austin, Texas
	My Commission expires 6/27/2000
TEVAC	
STATE OF TEXAS	
	ss.
	ſ
TOAMS	
COUNTY OF TRAVIS	
	100 C 20 C C C C C C C C C C C C C C C C
On this 614 day of Janua	in the year 19 2000, before me , a Notary Public in and for said State,
reter 1. Kutkowski	, a Notary Public in and for said State,
personally appeared Douglas s.	riasecki
-	
	Page 5 of 6

personally known to me	OR-
proved to me on the basis	of satisfactory evidence
he/she executed the same in his/her au	s subscribed to the within instrument, and acknowledged that thorized capacity(ies), and that by his/her signature(s) on the on behalf of which the person acted, executed the instrument.
	WITNESS my hand and Official Seal.
PETER T. RUTKOWSKI NOTARY PUBLIC STATE OF TEXAS My Appl. Bsp. 06-27-2000	Signature of Notary Notary Public of the State of Texas Residing in Austin, Texas My Commission expires 6/21/2000
STATE OF)
	ss.
COUNTY OF	J
On this day of	in the year 19, before me, a Notary Public in and for said State,
personally appeared	
personally known to me -0 proved to me on the basis of	
he/she executed the same in his/her aut	subscribed to the within instrument, and acknowledged that horized capacity(ies), and that by his/her signature(s) on the on behalf of which the person acted, executed the instrument.
	WITNESS my hand and Official Seal.
	Signature of Notary Notary Public of the State of Residing in
	Residing in My Commission expires

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS, That Whereas We, Carlos Estaban Muñoz, Karl Ernesto Thompson, Douglas S. Piasecki, Wai Laing Lee, and Eric Swanson, have invented certain new and useful improvements in REDUNDANCY METHODS AND SYSTEMS CALIBRATION AND CONVERSION WITH DIGITAL-TO-ANALOG CONVERTER (DAC) ELEMENTS IN AN ANALOG-TO-DIGITAL (A/D) CONVERTER, for which an application for Letters Patent of the United States of America has been executed by us on even data herewith; and

WHEREAS CIRRUS LOGIC, INC., a corporation duly organized and existing under the laws of California, and having an address at 3100 WEST WARREN AVENUE, FREMONT, CALIFORNIA 94538, is desirous of acquiring an interest therein and in the Letters Patent to be obtained therefor from the United States;

NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00) and other good and valuable considerations to us by CIRRUS LOGIC, INC., the receipt whereof is hereby acknowledged, we do hereby sell, assign, transfer and set over unto CIRRUS LOGIC, INC., its successors and assigns, the entire right, title and interest in, to and under the said application for United States Letters Patent, including all priority rights arising therefrom, all inventions therein disclosed, and any and all Letters Patent of the United States and of all other countries which may be granted for the said inventions, or any of them.

TO HAVE, HOLD and ENJOY the said inventions, the said Application, and the said Letters Patent to said CIRRUS LOGIC, INC., its successors and assigns, to its and their own use and behoove to the full end of the term or terms for which the said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by us had this assignment and sale not been made.

And we do hereby authorize and request the Commissioner of Patents of the United States to issue any United States Letters Patent which may be granted on the said application, or any divisional, reissue or continuation applications, or for the said

Page 1 of 6

Ī

inventions of any of them, to said CIRRUS LOGIC, INC., its successors and assigns, as assignees of the entire right, title and interest therein and thereto.

And we do hereby, for ourselves and for our legal representatives, covenant and agree with CIRRUS LOGIC, INC., its successors and assigns, that we have granted to others no license to make, use or sell any of the said inventions, that our rights, title and interest in the said inventions has not been encumbered, that we have good right and title to sell and assign the same, and that we will not execute any instrument in conflict herewith.

And we do hereby, for ourselves and for our legal representatives, further covenant and agree with CIRRUS LOGIC, INC., its successors and assigns, that upon request we will, and they shall, execute divisional, reissue or continuation applications, amended specifications, or rightful oaths; communicate to CIRRUS LOGIC, INC., its successors and assigns, any facts known to us relating to the said inventions or the history thereof; execute preliminary statements and testify in any interference proceedings; execute and deliver any application papers, assignments, or other instruments, and do all other acts which, in the opinion of counsel for CIRRUS LOGIC, INC., may be necessary or convenient to secure the grant of Letters Patent to CIRRUS LOGIC, INC., its successors and assigns, or its nominees, in the United States and in all other countries where CIRRUS LOGIC, INC., may desire to have the said inventions, or any of them, patented, with specifications and claims in such form as shall be approved by counsel for CIRRUS LOGIC, INC., and to vest and confirm in CIRRUS LOGIC, INC., its successors and assigns, or its nominees, the full and complete legal and equitable title to all such Letters Patent, without further consideration than now paid but at the expense of CIRRUS **LOGIC, INC.**, its successors or assigns.

IN WITNESS WHEREOF, we have hereunto set our hand and seal on the dates indicated below:

Date:	
	Carlos Estaban Muñoz
Date:	
	Karl Ernesto Thompson
Date:	
	Douglas S. Piasecki

Page 2 of 6

5469-126

T .	
Date:	
Daic.	

Date: 10/29/99

Wai Laing Lee

Eric Swanson

1

STATE OF	ì
	ss.
	ſ
COUNTY OF	J
On this day of	in the year 19, before me, a Notary Public in and for said State,
personally appeared	, a Notary Public in and for said State,
personally known to me proved to me on the basis	
he/she executed the same in his/her a	is subscribed to the within instrument, and acknowledged that uthorized capacity(ies), and that by his/her signature(s) on the pon behalf of which the person acted, executed the instrument.
	WITNESS my hand and Official Seal.
	Signature of Notary Notary Public of the State of
	Residing inMy Commission expires
STATE OF)
	ss.
	(
COUNTY OF	j.
On this day of	in the year 19, before me, a Notary Public in and for said State,
personally appeared	
personally known to me proved to me on the basis	
he/she executed the same in his/her a	is subscribed to the within instrument, and acknowledged that uthorized capacity(ies), and that by his/her signature(s) on the pon behalf of which the person acted, executed the instrument.

WITNESS my hand and Official Seal.

Page 4 of 6

5469-126

Ι.

PATENT REEL: 010566 FRAME: 0244

	Signature of Notary
	Notary Public of the State of
	Residing in My Commission expires
STATE OF	_)
	l an
	SS.
	ſ
COUNTY OF	,
	- '
On this day of	in the year 19, before me
	, a Notary Public in and for said State,
personally appeared	·
personally known to me	-OR-
proved to me on the bas	
	e is subscribed to the within instrument, and acknowledged that
	authorized capacity(ies), and that by his/her signature(s) on the
instrument the person, or the entity t	upon behalf of which the person acted, executed the instrument.
	WITNESS my hand and Official Seal.
	······································
	Signature of Notary
	Notary Public of the State of
	Residing in
	Residing in My Commission expires
	•
STATE OF	.)
	ss.
	(
COUNTY OF	
On this day of	in the year 19, before me
uu, oi	, a Notary Public in and for said State,
personally appeared	, a Notary Public in and for said State,
	Page 5 of 6

personally known to me	
proved to me on the basi	s of satisfactory evidence
he/she executed the same in his/her a	is subscribed to the within instrument, and acknowledged that authorized capacity(ies), and that by his/her signature(s) on the pon behalf of which the person acted, executed the instrument.
	WITNESS my hand and Official Seal.
	Signature of Notary
	Notary Public of the State of
	Residing in My Commission expires
STATE OF)
	ss.
	ſ
COUNTY OF	Ј
On this day of	in the year 19, before me
personally appeared	, a Notary Public in and for said State,
personally known to me proved to me on the basis	
ne/she executed the same in his/her a	is subscribed to the within instrument, and acknowledged that uthorized capacity(ies), and that by his/her signature(s) on the pon behalf of which the person acted, executed the instrument.
	WITNESS my hand and Official Seal.
	Signature of Notary
	Notary Public of the State of
	Residing in My Commission expires
	My Commission expires

Page 6 of 6

RECORDED: 01/19/2000