02-04-2004



U.S. DEPARTMENT OF COMMERCE

10/765443

0.846 U.S. Patent and Trademark Office
▼
s: Please record the attached original documents or copy thereof.
Name and address of receiving party(ies) Name: Cirrus Logic, Inc. Internal Address:
Street Address: 2901 Via Fortuna
City: Austin State: TX Zip: 78746 Additional name(s) & address(es) attached? Yes No
765443 blication, the execution date of the application is: 01/15/04 B. Patent No.(s)
attached? Yes No
6. Total number of applications and patents involved:
7. Total fee (37 CFR 3.41)\$40.00
Enclosed
Authorized to be charged to deposit account
8. Deposit account number:
23-2426
E THIS SPACE
January 26, 2004
Signature Date
ver sheet, attachments, and documents: 4

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

CLIENT/MATTER NO: 2836-P279P1
DOCUMENT NO: 3920491

Form PTO-1595

Express Mail Label No. EL 859 421 380 US

PATENT REEL: 014948 FRAME: 0054

JOINT CORPORATE ASSIGNMENT

WHEREAS, the undersigned,

- 1. TROTTER, Brian David, resident of 5708 Apache Creek Cove, Austin, Travis County, Texas 78735;
- 2. DUEWER, Bruce, resident of 2511 Broken Oak Drive, Austin, Travis County, Texas 78145: and
- 3. MELANSON, John Laurence, resident of 901 West 9th, No. 201, Austin, Travis County, Texas, 78703;

have invented certain new and useful improvements in:

METHODS FOR EDGE-BALANCING IN PULSE WIDTH MODULATION SYSTEMS AND DATA CONVERTERS USING THE SAME

and have executed a declaration or oath for an application for a United States patent disclosing and identifying the invention:

- On the $\frac{12}{3}$ day of January, 2004; On the $\frac{13}{15}$ day of January, 2004; and On the $\frac{15}{3}$ day of January, 2004. 1.
- 2.
- 3.

	Said application having App	lication Number/	and filed
on the	day of		

WHEREAS CIRRUS LOGIC, INC. (hereinafter termed "Assignee"), a corporation of DELAWARE, having a place of business at 2901 Via Fortuna, Austin Texas 78746, 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.

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PATENT REEL: 014948 FRAME: 0055 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 to any and all countries of the world for patents, 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 expenses 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.
- 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.

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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.

Dated: January \2 , 2004

Brian David Trotter

Dated: January 13, 2004

Bruce Duewer

Dated: January 15, 2004

John Laurence Melanson

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RECORDED: 01/27/2004

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