Form **PTO-1595** (Rev. 09/04) OMB No. 0651-0027 (exp. 6/30/2



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CAVOUR YEH	Name: CALIFORNIA INSTITUTE OF TECHNOLOGY
PETER SIEGEL FRED SHIMABUKURO	Internal Address:
SCOTT FRASER	
Execution Date(s) 06/06/06; 03/27/06; 03/28/06; 06/19/06	Street Address: 1200 East California Blvd.
Additional name(s) of conveying party(ies) attached? Yes V	
3. Nature of conveyance:	MC 201-85
Assignment Merger	City: PASADENA
Security Agreement Change of Name	State: CALIFORNIA
Government Interest Assignment	Country: USA Zip: 91125
Executive Order 9424, Confirmatory License	Zip. <u>91125</u>
Other CIT020	Additional name(s) & address(es) attached? Yes V No
4. Application or patent number(s): This  A. Patent Application No.(s)  11/300,639  Additional numbers at	document is being filed together with a new application.  B. Patent No.(s)
5. Name and address to whom correspondence concerning document should be mailed:	involved:  1
Name:TOPE-MCKAY & ASSOCIATES	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
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Name of Person Signing sheet, attachments, and documents:  Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:	

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**PATENT REEL: 018028 FRAME: 0773**  Docket: CIT-4266

**Attorney Docket: CIT020** 

Invention Title: METHOD AND APPARATUS FOR LOW-LOSS SIGNAL TRANSMISSION

## ASSIGNMENT

WHEREAS, I, Cavour Yeh of 2432 Nalin Dr., Los Angeles, California 90077, United States of America (hereinafter "Assignor") have invented certain new and useful improvements in **METHOD AND APPARATUS FOR LOW-LOSS SIGNAL TRANSMISSION** (hereinafter "Invention") for which an application for a United States Patent was filed on December 13, 2005, Application Ser. No. 11/300,639, and/or for which Assignors are making or have made a foreign application for intellectual or industrial property protection under the appropriate body of law corresponding to that foreign jurisdiction.

# AND

WHEREAS, California Institute of Technology, a corporation organized and existing under the laws of the State of California, United States of America and having a place of business at 1200 East California Blvd., MC 201-85, Pasadena, California 91125, United States of America, (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in the Invention within the United States of America and its territorial possessions, and in all foreign countries in which intellectual or industrial property protection may be granted therefor.

NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, I, the Assignor desire to and do hereby assign, sell, and transfer unto Assignee the full and exclusive right to the Invention in the United States of America and its territorial possessions and in all foreign countries, as well as, the entire right, title and interest in and to any and all intellectual or industrial property rights including, but not limited to, Patents, designs, utility models, and inventor certificates which may be granted therefore in the United States of America and its territorial possessions and in all foreign countries, I hereby authorize and request the U.S. Patent Offices and the equivalent offices at foreign countries, to issue to the Assignee, any and all applicable intellectual or industrial property rights in the Invention, for the Assignee's sole use and benefit; and for the use and benefit of his legal representatives, to the full end of the term for which United States and foreign Patents or the like may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

I further covenant and agree with the Assignee that I have a full and unencumbered title to the invention hereby assigned, which title I warrant unto the Assignee, and I further agree that I will, without demanding any further consideration therefore, at the request and at the expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign Patents or the like for the Invention, and for maintaing and perfecting the Assignee's right to the Invention and any and all intellectual or industrial property rights in it, particularly in cases of interference, conflict, opposition and litigation.

IN TESTIMONY WHEREOF, I have hereunto set my hand.

Executed this 6 th day of net (city).

Cavour yh.
(Signature)

Page 1 of 1 6/6/06 CIT020-YEH

> PATENT REEL: 018028 FRAME: 0774

Docket: CIT-4266

**Attorney Docket: CIT020** 

Invention Title: METHOD AND APPARATUS FOR LOW-LOSS SIGNAL TRANSMISSION

# **ASSIGNMENT**

WHEREAS, I, Peter Siegel of 5166 Oakwood Avenue, La Canada, California 91011, United States of America (hereinafter "Assignor") have invented certain new and useful improvements in **METHOD AND APPARATUS FOR LOW-LOSS SIGNAL TRANSMISSION** (hereinafter "Invention") for which an application for a United States Patent was filed on December 13, 2005, Application Ser. No. 11/300,639, and/or for which Assignors are making or have made a foreign application for intellectual or industrial property protection under the appropriate body of law corresponding to that foreign jurisdiction.

#### AND

WHEREAS, California Institute of Technology, a corporation organized and existing under the laws of the State of California, United States of America and having a place of business at 1200 East California Blvd., MC 201-85, Pasadena, California 91125, United States of America, (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in the Invention within the United States of America and its territorial possessions, and in all foreign countries in which intellectual or industrial property protection may be granted therefor.

NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, I, the Assignor desire to and do hereby assign, sell, and transfer unto Assignee the full and exclusive right to the Invention in the United States of America and its territorial possessions and in all foreign countries, as well as, the entire right, title and interest in and to any and all intellectual or industrial property rights including, but not limited to, Patents, designs, utility models, and inventor certificates which may be granted therefore in the United States of America and its territorial possessions and in all foreign countries, I hereby authorize and request the U.S. Patent Offices and the equivalent offices at foreign countries, to issue to the Assignee, any and all applicable intellectual or industrial property rights in the Invention, for the Assignee's sole use and benefit; and for the use and benefit of his legal representatives, to the full end of the term for which United States and foreign Patents or the like may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

I further covenant and agree with the Assignee that I have a full and unencumbered title to the invention hereby assigned, which title I warrant unto the Assignee, and I further agree that I will, without demanding any further consideration therefore, at the request and at the expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign Patents or the like for the Invention, and for maintaing and perfecting the Assignee's right to the Invention and any and all intellectual or industrial property rights in it, particularly in cases of interference, conflict, opposition and litigation.

IN TESTIMONY WHEREOF, I have hereunto set my hand.

Executed this 27 day of March, 2006, at La Canada, CALIFORNIA (city).

Signature)

Page 1 of 1 3/27/06 CIT020-Siegel1.DOC Docket: CIT-4266 Attorney Docket: CIT020

Invention Title: METHOD AND APPARATUS FOR LOW-LOSS SIGNAL TRANSMISSION

### ASSIGNMENT

WHEREAS, I, Fred Shirnabukuro of 26697 Whitehorn Drive, Rancho Palos Verde, California 90275, United States of America (hereinafter "Assignor") have invented certain new and useful improvements in **METHOD AND APPARATUS FOR LOW-LOSS SIGNAL TRANSMISSION** (hereinafter "Invention") for which an application for a United States Patent was filed on December 13, 2005, Application Ser. No. 11/300.639, and/or for which Assignors are making or have made a foreign application for intellectual or industrial property protection under the appropriate body of law corresponding to that foreign jurisdiction.

#### AND

WHEREAS, California Institute of Technology, a corporation organized and existing under the laws of the State of California, United States of America and having a place of business at 1200 East California Blvd., MC 201-85, Pasadena, California 91125, United States of America, (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in the Invention within the United States of America and its territorial possessions, and in all foreign countries in which intellectual or industrial property protection may be granted therefor.

NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged. It the Assignor desire to and do hereby assign, sell, and transfer unto Assignee the full and exclusive right to the Invention in the United States of America and its recritorial possessions and in all foreign countries, as well as, the entire right, title and interest in and to any and all intellectual or industrial property rights including, but not limited to, Patents, designs, utility models, and inventor certificates which may be granted therefore in the United States of America and its territorial possessions and in all foreign countries. I hereby authorize and request the U.S. Patent Offices and the equivalent offices at foreign countries, to issue to the Assignee, any and all applicable intellectual or industrial property rights in the Invention, for the Assignee's sole use and benefit; and for the use and benefit of his legal representatives, to the full end of the term for which United States and foreign Patents or the like may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

I further covenant and agree with the Assignee that I have a full and unencumbered title to the invention hereby assigned, which title I warrant unto the Assignee, and I further agree that I will, without demanding any further consideration therefore, at the request and at the expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign Patents or the like for the Invention, and for maintaing and perfecting the Assignee's right to the Invention and any and all intellectual or industrial property rights in it, particularly in cases of interference, conflict, opposition and litigation.

IN TESTIMONY WHEREOF, I have hereunto set my hand.

Executed this 28th day of Murch . 2006, at Rancho Palos Verdes (city).

Page 1 of 1 3/28/06 CIT020-Shimabukuro Fred Thimabokuro

Docket: CIT-4266

Attorney Docket: CIT020

Invention Title: METHOD AND APPARATUS FOR LOW-LOSS SIGNAL TRANSMISSION

### ASSIGNMENT

WHEREAS, I, Scott Fraser of 503 Dartmouth Place, La Canada-Flintridge, California 91011, United States of America (hereinafter "Assignor") have invented certain new and useful improvements in METHOD AND APPARATUS FOR LOW-LOSS SIGNAL TRANSMISSION (hereinafter "Invention") for which an application for a United States Patent was filed on December 13, 2005, Application Ser. No. 11/300,639, and/or for which Assignors are making or have made a foreign application for intellectual or industrial property protection under the appropriate body of law corresponding to that foreign jurisdiction.

#### AND

WHEREAS, California Institute of Technology, a corporation organized and existing under the laws of the State of California, United States of America and having a place of business at 1200 East California Blvd., MC 201-85, Pasadena, California 91125, United States of America, (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in the Invention within the United States of America and its territorial possessions, and in all foreign countries in which intellectual or industrial property protection may be granted therefor.

NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, I, the Assignor desire to and do hereby assign, sell, and transfer unto Assignee the full and exclusive right to the Invention in the United States of America and its territorial possessions and in all foreign countries, as well as, the entire right, title and interest in and to any and all intellectual or industrial property rights including, but not limited to, Patents, designs, utility models, and inventor certificates which may be granted therefore in the United States of America and its territorial possessions and in all foreign countries, I hereby authorize and request the U.S. Patent Offices and the equivalent offices at foreign countries, to issue to the Assignee, any and all applicable intellectual or industrial property rights in the Invention, for the Assignee's sole use and benefit; and for the use and benefit of his legal representatives, to the full end of the term for which United States and foreign Patents or the like may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

I further covenant and agree with the Assignee that I have a full and unencumbered title to the invention hereby assigned, which title I warrant unto the Assignee, and I further agree that I will, without demanding any further consideration therefore, at the request and at the expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign Patents or the like for the Invention, and for maintaing and perfecting the Assignee's right to the Invention and any and all intellectual or industrial property rights in it, particularly in cases of interference, conflict, opposition and litigation.

IN TESTIMONY WHEREOF, I have hereunto set my hand.

RECORDED: 06/26/2006

Executed this 19 day of June 2006 at Proplement (city).

Page 1 of 1 6/19/06 CIT020-Fraser.DOC

> PATENT REEL: 018028 FRAME: 0777

(Signature)