

**PATENT**

Applicant: CHEUNG AUYEUNG  
 Serial No.: 12/103,454  
 Filed: APRIL 15, 2008  
 Title: ESTIMATION OF P FRAME AVERAGE RATE QUANTIZATION PARAMETER (QP) IN A GROUP OF PICTURES (GOP)

Group:  
 Examiner:  
 Docket No. SONY.122A (50W8832.01)

**Commissioner for Patents**  
**P.O. Box 1450**  
**Alexandria, VA 22313-1450**

**ASSIGNMENT (DOCUMENT) COVER LETTER**  
**PATENT OR PATENT APPLICATION**

**1. NAMES OF PARTY(IES) MAKING TRANSFER**

Name 1: CHEUNG AUYEUNG

**2. IDENTITY OF PARTY(IES) TO WHOM TRANSFER IS MADE**

This transfer is being made to:

Name: SONY CORPORATION  
 1-7-1 KONAN, MINATO-KU  
 TOKYO, 108-0075  
 JAPAN

Name: SONY ELECTRONICS INC.  
 Address: 1 SONY DRIVE  
 PARK RIDGE, NJ 07656

**3. INTENTION OF DOCUMENT**

A brief description of what the accompanying document intends to accomplish is that it is an:

- Assignment
- License
- Security Interest

CH \$40.00 071137 12103454

**4. IDENTIFICATION OF PATENT OR APPLICATION**

Particulars of the patent or application to which the accompanying document applies are:

Inventor(s):

CHEUNG AUYEUNG

For (title):

ESTIMATION OF P FRAME AVERAGE RATE QUANTIZATION PARAMETER (QP) IN A GROUP OF PICTURES (GOP)

- (a)  U.S. patent application filed herewith.
- (b)  U.S. patent application serial no. 12/103,454 filed on APRIL 15, 2008.
- (c)  U.S. patent no. \_\_\_\_\_ issued \_\_\_\_\_.

**5. NAME AND ADDRESS TO WHICH CORRESPONDENCE SHOULD BE MAILED**

Please address all correspondence and return the recorded document to:

John P. O'Banion  
O'BANION & RITCHEY LLP  
400 Capitol Mall, Suite 1550  
Sacramento, CA 95814

**6. NUMBER OF APPLICATIONS OR PATENTS IDENTIFIED AND TOTAL FEE DUE**

The number of applications or patents identified herein is: 1

Total Fee Due \$ 40.00

**7. DATE DOCUMENT WAS EXECUTED**

The accompanying document was executed on April 2, 2008.

**8. FEE PAYMENT**

Fee payment is provided for as follows:

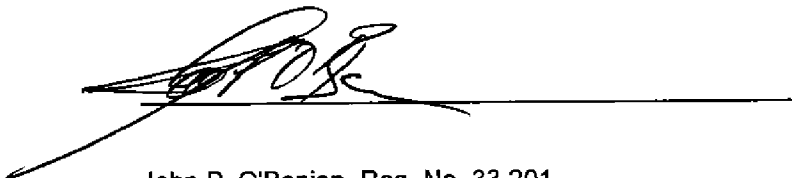
Charge Account No. 07-1137 in the sum of \$40

9. **STATEMENT OF AUTHENTICITY**

The undersigned certifies that, to the best of his or her knowledge and belief, the information contained in this cover sheet is true and correct, and any copy of the document submitted for recording is a true copy of the original document.

10. **SIGNATURE**

Dated: 4/28/08



John P. O'Banion, Reg. No. 33,201  
O'BANION & RITCHEY LLP  
400 Capitol Mall, Suite 1550  
Sacramento, CA 95814  
(916) 498-1010

## PATENT

Attorney Docket No.: SONY.122A (50W8832.01)

**ASSIGNMENT**

WHEREAS, I, as a below named inventor, residing at the address stated next to my name, am a sole inventor (if only one name is listed below) or a joint inventor (if plural names are listed below) of certain new and useful improvements in **ESTIMATION OF P FRAME AVERAGE RATE QUANTIZATION PARAMETER (QP) IN A GROUP OF PICTURES (GOP)** for which application for Letters Patent of the United States of America for which application for Letters Patent of the United States of America has been filed on the date and has the serial number indicated below.

AND WHEREAS, **Sony Corporation, a Japanese corporation with offices at 1-7-1 Konan, Minato-ku, Tokyo, 108-0075, Japan and Sony Electronics Inc, a Delaware corporation with offices at 1 Sony Drive, Park Ridge, New Jersey, 07656** (hereinafter referenced as ASSIGNEES) are desirous of acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;

NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, as a sole or joint inventor as indicated below, by these presents do hereby assign, sell and transfer unto said ASSIGNEES, its successors, assigns, and legal representatives, the entire right, title and interest in the said invention, said application, including any divisions and continuations thereof, and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue the said United States Letters Patent to said ASSIGNEES, as the assignees of the whole right, title and interest thereto;

And I further agree to execute all necessary or desirable and lawful future documents, including assignments in favor of ASSIGNEES or its designee, as ASSIGNEES or its successors, assigns and legal representatives may from time-to-time present to me and without further remuneration, in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of the United States and countries foreign thereto;

And I further agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid invention, as the ASSIGNEES thereof shall hereafter require and prepare at its own expense;

And I further agree that ASSIGNEES will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will testify as to the same in any interference or litigation related thereto;

And I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale;

And I hereby authorize and request my attorney(s) of record in this application to insert the execution date, serial number and filing date of this application in the spaces that follow:

Serial Number: 12103,454, Filing Date: April 15, 2008

This assignment is being executed on the date indicated below.

Inventor: *Cheung Ayeung* Date: 4/2/2008  
CHEUNG AYEUNG

STATE OF \_\_\_\_\_ )

SS.

COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year of \_\_\_\_\_, before me, the undersigned notary public, personally appeared the above-named assignors, known to me, (or proved to me on the basis of satisfactory evidence), to be the person whose name is subscribed to the within instrument, and acknowledged execution of this instrument.

\_\_\_\_\_  
Notary Public