

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT | | | | | | | | | | | | | | |
|---|------------------------------|---------------|----------------------------|---------------------|------------------------------|------------------|-------------|----------------|----------------|-----------------|------------|----------|------------|----------------|------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT | | | | | | | | | | | | | | |
| CONVEYING PARTY DATA | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Jaroslav Hynecek</td> <td>06/01/2011</td> </tr> <tr> <td>Gennadiy Agranov</td> <td>05/31/2011</td> </tr> <tr> <td>Xiangli Li</td> <td>05/31/2011</td> </tr> <tr> <td>Hirofumi Komori</td> <td>05/31/2011</td> </tr> <tr> <td>Xia Zhao</td> <td>06/03/2011</td> </tr> <tr> <td>Chung Chun Wan</td> <td>05/31/2011</td> </tr> </tbody> </table> | | Name | Execution Date | Jaroslav Hynecek | 06/01/2011 | Gennadiy Agranov | 05/31/2011 | Xiangli Li | 05/31/2011 | Hirofumi Komori | 05/31/2011 | Xia Zhao | 06/03/2011 | Chung Chun Wan | 05/31/2011 |
| Name | Execution Date | | | | | | | | | | | | | | |
| Jaroslav Hynecek | 06/01/2011 | | | | | | | | | | | | | | |
| Gennadiy Agranov | 05/31/2011 | | | | | | | | | | | | | | |
| Xiangli Li | 05/31/2011 | | | | | | | | | | | | | | |
| Hirofumi Komori | 05/31/2011 | | | | | | | | | | | | | | |
| Xia Zhao | 06/03/2011 | | | | | | | | | | | | | | |
| Chung Chun Wan | 05/31/2011 | | | | | | | | | | | | | | |
| RECEIVING PARTY DATA | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Name:</td> <td>Aptina Imaging Corporation</td> </tr> <tr> <td>Street Address:</td> <td>Walker House, 87 Mary Street</td> </tr> <tr> <td>City:</td> <td>George Town</td> </tr> <tr> <td>State/Country:</td> <td>CAYMAN ISLANDS</td> </tr> <tr> <td>Postal Code:</td> <td>KY1-9002</td> </tr> </table> | | Name: | Aptina Imaging Corporation | Street Address: | Walker House, 87 Mary Street | City: | George Town | State/Country: | CAYMAN ISLANDS | Postal Code: | KY1-9002 | | | | |
| Name: | Aptina Imaging Corporation | | | | | | | | | | | | | | |
| Street Address: | Walker House, 87 Mary Street | | | | | | | | | | | | | | |
| City: | George Town | | | | | | | | | | | | | | |
| State/Country: | CAYMAN ISLANDS | | | | | | | | | | | | | | |
| Postal Code: | KY1-9002 | | | | | | | | | | | | | | |
| PROPERTY NUMBERS Total: 1 | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13153369</td> </tr> </tbody> </table> | | Property Type | Number | Application Number: | 13153369 | | | | | | | | | | |
| Property Type | Number | | | | | | | | | | | | | | |
| Application Number: | 13153369 | | | | | | | | | | | | | | |
| CORRESPONDENCE DATA | | | | | | | | | | | | | | | |
| Fax Number: | (302)378-8087 | | | | | | | | | | | | | | |
| Phone: | 214-289-0120 | | | | | | | | | | | | | | |
| Email: | Peterdall@aol.com | | | | | | | | | | | | | | |
| <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i> | | | | | | | | | | | | | | | |
| Correspondent Name: | Peter T. Rutkowski | | | | | | | | | | | | | | |
| Address Line 1: | P.O. Box 311 | | | | | | | | | | | | | | |
| Address Line 4: | Middletown, DELAWARE 19709 | | | | | | | | | | | | | | |
| ATTORNEY DOCKET NUMBER: | 2010-0030.00/US | | | | | | | | | | | | | | |

501806625

PATENT
 REEL: 027637 FRAME: 0936

OP \$40.00 13153369

NAME OF SUBMITTER:

Peter T. Rutkowski

Total Attachments: 6

source=2010-0030Assign#page1.tif

source=2010-0030Assign#page2.tif

source=2010-0030Assign#page3.tif

source=2010-0030Assign#page4.tif

source=2010-0030Assign#page5.tif

source=2010-0030Assign#page6.tif

| | |
|--|-----------------------------|
| Application of: Jaroslav Hyneccek | Docket No.: 2010-0030.00/US |
| Serial Number | Art Unit: |
| Filing Date: | Examiner: |
| Title: CMOS Image Sensor With Global Shutter, Rolling Shutter, and a Variable Conversion Gain, Having Pixels Employing Several BCMD Transistors Coupled to a Single Photodiode and Dual Gate BCMD Transistors for Charge Storage and Sensing | |

WHEREAS, Jaroslav Hyneccek, Gennadiy Agranov, Xiangli Li, Hirofumi Komori, Xia Zhao, Chung Chun Wan, whose address(es) appear below (hereinafter referred to as ASSIGNOR), have invented certain new and useful improvements in **CMOS Image Sensor With Global Shutter, Rolling Shutter, and a Variable Conversion Gain, Having Pixels Employing Several BCMD Transistors Coupled to a Single Photodiode and Dual Gate BCMD Transistors for Charge Storage and Sensing**, (hereinafter referred to as THE INVENTION) for which the above-captioned Application for United States Letters Patent was filed;

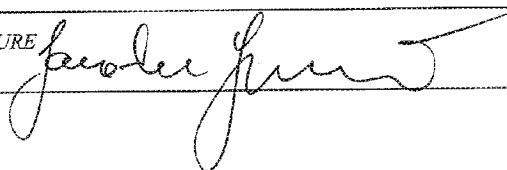
WHEREAS, **APTINA IMAGING CORPORATION**, whose address is **Walker House, 87 Mary Street; George Town, Grand Cayman, KY1-9002**, (hereinafter referred to as ASSIGNEE), is desirous of acquiring the entire right, title and interest in and to the same in the United States and throughout the world;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, we, ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title and interest in and to said invention and Patent Application throughout the United States of America, including any and all United States Letters Patent granted on any U.S. Patent Application, and any division, continuation, continuation-in-part and reissue of said U.S. Patent Application; and the entire right, title and interest in and to said invention throughout the world, including the right to apply for patents and inventor certificates in respect thereof and to claim priority pursuant to rights accorded ASSIGNOR under the terms of the Paris International Convention and all other available international conventions and treaties; and the entire right, title and interest in and to any and all patents, patents of addition, utility models, patents of importation, revalidation patents and inventor certificates which may be granted throughout the world in respect of said invention.

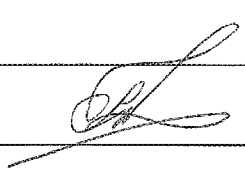
ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) or inventor certificate(s) in the United States and in foreign countries for said invention, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said invention, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE'S expense, to identify and communicate to ASSIGNEE at ASSIGNEE'S request documents and information concerning the invention that are within ASSIGNOR'S possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR'S obligations under this instrument shall extend to ASSIGNOR'S heirs, executors, administrators and other legal representatives.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent referred to above to ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE'S sole use; and for the use of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

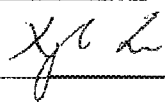
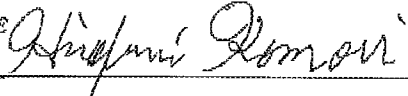
| | |
|--|-----------------------------|
| Application of: Jaroslav Hyncek | Docket No.: 2010-0030.00/US |
| Serial Number | Art Unit: |
| Filing Date: | Examiner: |
| Title: CMOS Image Sensor With Global Shutter, Rolling Shutter, and a Variable Conversion Gain, Having Pixels Employing Several BCMD Transistors Coupled to a Single Photodiode and Dual Gate BCMD Transistors for Charge Storage and Sensing | |

| | | |
|--|---------------------|---|
| <i>Full Name of First or Sole Inventor</i> Jaroslav Hyncek | | <i>Citizenship</i> US |
| <i>Residence Address - Street</i> 905 Pampa Dr. | | |
| <i>City</i> Allen | | |
| <i>State or Country</i> TX | <i>Zip</i> 75013 | |
| <i>DATE</i> 6/1/2011 | | <i>SIGNATURE</i>  |
| | | |
| <i>Full Name of Second Inventor</i> Gennadiy Agranov | | <i>Citizenship</i> US |
| <i>Residence Address - Street</i> 1464 Padres Dr. | | |
| <i>City</i> San Jose | | |
| <i>State or Country</i> CA | <i>Zip</i> 95125 | |
| <i>DATE</i> | | <i>SIGNATURE</i> |
| | | |


| | |
|--|-----------------------------|
| Application of: Jaroslav Hyncek | Docket No.: 2010-0030.00/US |
| Serial Number | Art Unit: |
| Filing Date: | Examiner: |
| Title: CMOS Image Sensor With Global Shutter, Rolling Shutter, and a Variable Conversion Gain, Having Pixels Employing Several BCMD Transistors Coupled to a Single Photodiode and Dual Gate BCMD Transistors for Charge Storage and Sensing | |

| | | |
|--|---------------------|--|
| <i>Full Name of First or Sole Inventor</i> Jaroslav Hyncek | | <i>Citizenship</i> US |
| <i>Residence Address - Street</i> 905 Pampa Dr. | | |
| <i>City</i> Allen | | |
| <i>State or Country</i> TX | <i>Zip</i> 75013 | |
| <i>DATE</i> | | <i>SIGNATURE</i> |
| | | |
| <i>Full Name of Second Inventor</i> Gennadiy Agranov | | <i>Citizenship</i> US |
| <i>Residence Address - Street</i> 1464 Padres Dr. | | |
| <i>City</i> San Jose | | |
| <i>State or Country</i> CA | <i>Zip</i> 95125 | |
| <i>DATE</i> 05-31-2011 | | <i>SIGNATURE</i>  |
| | | |

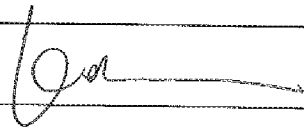
| | |
|--|-----------------------------|
| Application of: Jaroslav Hyneccek | Docket No.: 2010-0030.00/US |
| Serial Number | Art Unit: |
| Filing Date: | Examiner: |
| Title: CMOS Image Sensor With Global Shutter, Rolling Shutter, and a Variable Conversion Gain, Having Pixels Employing Several BCMD Transistors Coupled to a Single Photodiode and Dual Gate BCMD Transistors for Charge Storage and Sensing | |

| | | | |
|--|--------------|--|--|
| Full Name of Third Inventor Xiangli Li | | Citizenship P.R. China | |
| Residence Address - Street 1483 Chavez Way | | | |
| City San Jose | | | |
| State or Country CA | Zip 95131 | | |
| DATE 04/31/2011 | | SIGNATURE  | |
| | | | |
| Full Name of Fourth Inventor Hirofumi Komori | | Citizenship Japan | |
| Residence Address - Street 3150 Rubino Dr., Apt. #209 | | | |
| City San Jose | | | |
| State or Country CA | Zip 95125 | | |
| DATE 5/31/2011 | | SIGNATURE  | |
| | | | |

| | |
|--|-----------------------------|
| Application of: Jaroslav Hyncek, et al. | Docket No.: 2010-0030.00/US |
| Serial Number | Art Unit: |
| Filing Date: | Examiner: |
| Title: CMOS Image Sensor With Global Shutter, Rolling Shutter, and a Variable Conversion Gain, Having Pixels Employing Several BCMD Transistors Coupled to a Single Photodiode and Dual Gate BCMD Transistors for Charge Storage and Sensing | |

| | | |
|---|--|---------------------------------|
| <i>Full Name of Fifth Inventor</i> Xia Zhao | | <i>Citizenship</i> P.R China |
| <i>Residence Address - Street</i> 101 Shereen Place | | |
| <i>City</i> Campbell | | |
| <i>State or Country</i> CA | <i>Zip</i> 95008 | |
| <i>DATE</i> 06/03/2011 | <i>SIGNATURE</i>  | |
| | | |
| <i>Full Name of Sixth Inventor</i> Chung Chun Wan | | <i>Citizenship</i> Hong Kong |
| <i>Residence Address - Street</i> 5664 Impatiens Common | | |
| <i>City</i> Fremont | | |
| <i>State or Country</i> CA | <i>Zip</i> 94538 | |
| <i>DATE</i> | <i>SIGNATURE</i> | |
| | | |

| | |
|--|-----------------------------|
| Application of: Jaroslav Hyncek | Docket No.: 2010-0030.00/US |
| Serial Number | Art Unit: |
| Filing Date: | Examiner: |
| Title: CMOS Image Sensor With Global Shutter, Rolling Shutter, and a Variable Conversion Gain, Having Pixels Employing Several BCMD Transistors Coupled to a Single Photodiode and Dual Gate BCMD Transistors for Charge Storage and Sensing | |

| | | |
|---|---------------------|--|
| <i>Full Name of Fifth Inventor</i> Xia Zhao | | <i>Citizenship</i> P.R China |
| <i>Residence Address - Street</i> 101 Shereen Place | | |
| <i>City</i> Campbell | | |
| <i>State or Country</i> CA | <i>Zip</i> 95008 | |
| <i>DATE</i> | | <i>SIGNATURE</i> |
| | | |
| <i>Full Name of Sixth Inventor</i> Chung Chun Wan | | <i>Citizenship</i> Hong Kong |
| <i>Residence Address - Street</i> 5664 Impatiens Common | | |
| <i>City</i> Fremont | | |
| <i>State or Country</i> CA | <i>Zip</i> 94538 | |
| <i>DATE</i> MAY 31st, 2011 | | <i>SIGNATURE</i>  |
| | | |