

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>Akifumi YAMAGUCHI</td> <td>11/29/2010</td> </tr> <tr> <td>Hideo WADA</td> <td>11/29/2010</td> </tr> <tr> <td>Masaru KUBO</td> <td>11/30/2010</td> </tr> <tr> <td>Jason/Chih-Hung LU</td> <td>11/29/2010</td> </tr> </tbody> </table>		Name	Execution Date	Akifumi YAMAGUCHI	11/29/2010	Hideo WADA	11/29/2010	Masaru KUBO	11/30/2010	Jason/Chih-Hung LU	11/29/2010
Name	Execution Date										
Akifumi YAMAGUCHI	11/29/2010										
Hideo WADA	11/29/2010										
Masaru KUBO	11/30/2010										
Jason/Chih-Hung LU	11/29/2010										
RECEIVING PARTY DATA											
Name:	SHARP KABUSHIKI KAISHA										
Street Address:	22-22, Nagaike-cho Abeno-ku,										
City:	Osaka-shi, Osaka										
State/Country:	JAPAN										
Postal Code:	545-8522										
Name:	PixArt Imaging Inc.										
Street Address:	5F, No. 5, Innovation Road I, Science-Based Industrial Park										
City:	Hsin-Chu										
State/Country:	TAIWAN										
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>12978700</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12978700						
Property Type	Number										
Application Number:	12978700										
CORRESPONDENCE DATA											
Fax Number:	(703)205-8050										
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
Phone:	703-205-8000										
Email:	lsteinbe@bskb.com										
Correspondent Name:	Birch, Stewart, Kolasch & Birch, LLP										
Address Line 1:	PO Box 747										
Address Line 4:	Falls Church, VIRGINIA 22040										

CH \$40.00 12978700

ATTORNEY DOCKET NUMBER:	0020-5879PUS1
NAME OF SUBMITTER:	Michael R. Cammarata
Total Attachments: 4 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif source=Assignment#page4.tif	

BIRCH, STEWART, KOLASCH & BIRCH, LLP

UNITED STATES PATENT RIGHTS, OR
UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

ASSIGNMENT

Application No. 12/978,700

Filed December 27, 2010

Insert Name(s)
of Inventor(s)

*** (Given Name FAMILY NAME (ALL CAPS)) ***

WHEREAS, Akifumi YAMAGUCHI, Hideo WADA, Masaru KUBO and

Jason LU/Chih-Hung LU

Insert Title
of Invention

(hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in

Optical Ranging Sensor and Electronic Equipment

Insert Date
of Signing of
Application

for which an application for Letters Patent of the United States of America has been executed by the undersigned (except in the case of a provisional application).

on November 29, 2010, November 29, 2010 and November 30, 2010 ; and

Insert Name
of Assignee

WHEREAS, 1) SHARP KABUSHIKI KAISHA and

2) PixArt Imaging Inc.

Insert Address
of Assignee

of 1) 22-22, Nagaïke-cho, Abeno-ku, Osaka-shi, Osaka 545-8522 Japan and

2) 5F, No. 5, Innovation Road I, Science-Based Industrial Park Hsin-Chu, Taiwan, R. O. C.

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

CHECK BOX
IF APPROPRIATE

in any foreign countries.

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries;

and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree (s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date	<u>Nov. 29, 2010</u>	Name of Inventor	<u>Akifumi Yamaguchi</u> (signature)
Date	<u>Nov. 29, 2010</u>	Name of Inventor	<u>Naoto Wada</u> (signature)
Date	<u>Nov 30, 2010</u>	Name of Inventor	<u>Masaru Kubo</u> (signature)
Date	_____	Name of Inventor	_____ (signature)
Date	_____	Name of Inventor	_____ (signature)
Date	_____	Name of Inventor	_____ (signature)

BIRCH, STEWART, KOLASCH & BIRCH, LLP

UNITED STATES PATENT RIGHTS, OR
UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

ASSIGNMENT

Application No. 12/978,700

Filed December 27, 2010

Insert Name(s)
of Inventor(s)

*** (Given Name FAMILY NAME (ALL CAPS)) ***

WHEREAS, Akifumi YAMAGUCHI, Hideo WADA, Masaru KUBO and

Jason LU/Chih-Hung LU

Insert Title
of Invention

(hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in

Optical Ranging Sensor and Electronic Equipment

Insert Date
of Signing of
Application

for which an application for Letters Patent of the United States of America has been executed by the undersigned (except in the case of a provisional application).

on November 29, 2010 ; and

Insert Name
of Assignee

WHEREAS, 1) SHARP KABUSHIKI KAISHA and
2) PixArt Imaging Inc.

Insert Address
of Assignee

of 1) 22-22, Nagaik-cho, Abeno-ku, Osaka-shi, Osaka 545-8522 Japan and
2) 5F, No. 5, Innovation Road I, Science-Based Industrial Park Hsin-Chu, Taiwan, R. O. C.

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

CHECK BOX
IF APPROPRIATE

in any foreign countries.

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries;

and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree (s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date	<u>Nov. 28 / 2010</u>	Name of Inventor	<u>Chih-Hung Lu</u> (signature) Jason LU/Chih-Hung LU
Date	_____	Name of Inventor	_____ (signature)
Date	_____	Name of Inventor	_____ (signature)
Date	_____	Name of Inventor	_____ (signature)
Date	_____	Name of Inventor	_____ (signature)
Date	_____	Name of Inventor	_____ (signature)