

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>Koohyar Minoo</td> <td>08/14/2012</td> </tr> <tr> <td>David M. Baylon</td> <td>08/14/2012</td> </tr> <tr> <td>Jian Lou</td> <td>08/14/2012</td> </tr> <tr> <td>Ajay K. Luthra</td> <td>08/15/2012</td> </tr> <tr> <td>Krit Panusopone</td> <td>08/14/2012</td> </tr> <tr> <td>Limin Wang</td> <td>08/15/2012</td> </tr> </tbody> </table>		Name	Execution Date	Koohyar Minoo	08/14/2012	David M. Baylon	08/14/2012	Jian Lou	08/14/2012	Ajay K. Luthra	08/15/2012	Krit Panusopone	08/14/2012	Limin Wang	08/15/2012
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<table border="1"> <tr> <td>Name:</td> <td>GENERAL INSTRUMENT CORPORATION</td> </tr> <tr> <td>Street Address:</td> <td>101 Tournament Drive</td> </tr> <tr> <td>City:</td> <td>Horsham</td> </tr> <tr> <td>State/Country:</td> <td>PENNSYLVANIA</td> </tr> <tr> <td>Postal Code:</td> <td>19044</td> </tr> </table>		Name:	GENERAL INSTRUMENT CORPORATION	Street Address:	101 Tournament Drive	City:	Horsham	State/Country:	PENNSYLVANIA	Postal Code:	19044				
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<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13532217</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13532217										
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Application Number:	13532217														
CORRESPONDENCE DATA															
Fax Number:	847-523-23														
Phone:	847-523-2345														
Email:	DOCKETING.MOBILITY@MOTOROLA.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:	MOTOROLA MOBILITY LLC														
Address Line 1:	600 NORTH US HIGHWAY 45														
Address Line 2:	W2-55BB														
Address Line 4:	LIBERTYVILLE, ILLINOIS 60048-5343														
ATTORNEY DOCKET NUMBER:	CS38949														

CH \$40.00 13532217

NAME OF SUBMITTER:

Jennifer Dolan

Total Attachments: 8

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PATENT

ASSIGNMENT AND AGREEMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, we, **Koolhyar Minoo of San Diego, CA; David M. Baylon of San Diego, CA; Jian Lou of San Diego, CA; Ajay K. Luthra of San Diego, CA; Krit Panusopone of San Diego, CA; and Limin Wang, of San Diego, CA** have sold, assigned and transferred, and do hereby sell, assign and transfer, unto GENERAL INSTRUMENT CORPORATION, a corporation of the State of Delaware, having its principal office in Horsham, State of Pennsylvania, United States of America, and its successors, assigns, and legal representatives, the entire right, title and interest for the United States of America in and to certain inventions entitled **"SELECTION OF PHASE OFFSETS FOR INTERPOLATION FILTERS FOR MOTION COMPENSATION"** as described, illustrated in Motorola Disclosure ID (63136) CS38949 and as described, illustrated and claimed in the following applications:

- 1.) U.S. Provisional App. No. 61/501,150, filed on June 24, 2011 entitled **"Efficient Sub-pixel Interpolation Filters for Motion Compensation"**; and
- 2.) U.S. Provisional App. No. 61/502,316, filed on June 28, 2011 entitled **"Slice-Type Dependent Interpolation Filters for Motion Compensation"**; and
- 3.) U.S. Provisional App. No. 61/504,159, filed on July 1, 2011 entitled **"Method for Very Low Complexity Fractional Pixel Interpolation Filters"**; and
- 4.) U.S. Provisional App. No. 61/506,611, filed on July 11, 2011 entitled **"Sub-pixel Interpolation Filters with Adaptive Phase Offset and Frequency Selection for Motion Compensation"**; and
- 5.) U.S. Provisional App. No. 61/535,939, filed on September 16, 2011 entitled **"New Fractional Pixel Interpolation Filters"**; and
- 6.) U.S. Provisional App. No. 61/536,494, filed on September 19, 2011 entitled **"New 7-Tap Fractional Pixel Interpolation Filters"**; and

7.) U.S. Provisional App. No. 61/557,420, filed on November 9, 2011 entitled **“Sub-pixel Motion Compensation Interpolation Filters with Adaptive Phase Offset Derived from Statistical Distribution of Motion Vector for a Given Motion Vector Predictor”**

8.) U.S. Application No. filed herewith entitled **“SELECTION OF PHASE OFFSETS FOR INTERPOLATION FILTERS FOR MOTION COMPENSATION.”**

I hereby also sell, assign and transfer unto Assignee, the entire right, title and interest in and to other applications for Letters Patent on the inventions referenced in this Assignment and Agreement, and all rights, title and interest in and to all applications for Letters Patent in respect of the invention filed under any and all international conventions and treaties together with the entire right, title and interest in and to Letters Patent which may be issued upon the application(s) or any application(s) otherwise claiming priority thereto, and upon any divisions, extensions, continuations, reissues and/or re-examinations of such application(s).

I further authorize Assignee to apply for Letters Patent directly in its own name where applicable, and to claim priority of the filing date of the application for Letters Patent filed under the laws of the applicable country and under the provisions of any and all international conventions and treaties.

I hereby authorize Assignee to request the Commissioner of Patents of the United States of America to issue any Letters Patents upon the aforesaid application, divisions, extensions, continuations, reissues or re-examinations, to Assignee, for the sole use and benefit of Assignee, to the full end of the term for which Letters Patent may be granted, the same as they would have been held and enjoyed by me had this assignment not been made, and I hereby authorize Assignee to request the equivalent authorities in foreign countries to issue the patents of their respective countries to Assignee.

I agree that, when requested, I will, without charge to Assignee, but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing, maintaining and enforcing patents for the inventions in any and all countries and for vesting title thereto in Assignee.

I covenant with Assignee that the interest and property hereby conveyed is free from all prior assignment, grant, mortgage, license or other encumbrance.

K Minoo
Koohyar Minoo

DATE: Aug - 14 - 2012

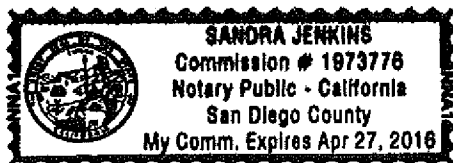
State of California)

County of San Diego)ss

On Aug 14, 2012, before me, Sandra Jenkins, Notary Public
 Date Name of Notary Public

personally appeared Koohyar Minoo
 Name(s) of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) who name(s) is are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Place Notary Seal Above

Signature Sandra Jenkins
 Signature of Notary Public

David M. Baylon
 David M. Baylon

DATE: Aug. 14, 2012

State of California)

County of San Diego)ss

On Aug 14, 2012, before me, *Sandra Jenkins*, Notary Public
 Date Name of Notary Public

personally appeared *David M. Baylon*
 Name(s) of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) who name(s) is are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



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WITNESS my hand and official seal.

Place Notary Seal Above

Signature *Sandra Jenkins*
 Signature of Notary Public

Jian Lou

DATE: 08/14/2012

State of California)

County of San Diego)ss

On Aug 14, 2012, before me, Sandra Jenkins, Notary Public
Date Name of Notary Public

personally appeared Jian Lou
Name(s) of Signer(s)

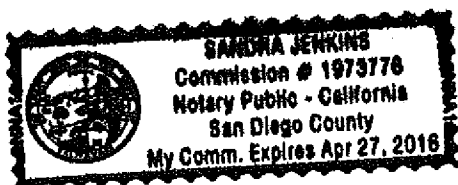
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WITNESS my hand and official seal.

Signature Sandra Jenkins
Signature of Notary Public

Place Notary Seal Above



Ajay K Luthra DATE: 8/15/2012
Ajay K. Luthra

State of California)

County of San Diego)ss

On Aug 15, 2012, before me, Sandra Jenkins, Notary Public
 Date Name of Notary Public

personally appeared Ajay K. Luthra
 Name(s) of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) who name(s) is are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



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WITNESS my hand and official seal.

Signature Sandra Jenkins
 Signature of Notary Public

Place Notary Seal Above

Krit Panusopone
Krit Panusopone

DATE: AUG 14, 2012

State of California)

County of San Diego)ss

On Aug 14, 2012, before me, Sandra Jenkins, Notary Public
 Date Name of Notary Public

personally appeared Krit Panusopone
 Name(s) of Signer(s)

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WITNESS my hand and official seal.



Signature Sandra Jenkins
 Signature of Notary Public

Place Notary Seal Above

Lin Wang
 Lin Wang

DATE: 08/14/2012

State of California)

County of San Diego)ss

On Aug 14, 2012, before me, Sandra Jenkins, Notary Public
 Date Name of Notary Public

personally appeared Lin Wang
 Name(s) of Signer(s)

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