Form **PTO-1595** (Rev. 03-11) OMB No. 0651-0027 (exp. 03/31/2012) U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office

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1. Name of conveying party(ies) Mohamed Farouk MANSOUR; June 12, 2013	2. Name and address of receiving party(ies)  Name: TEXAS INSTRUMENTS INCORPORATED  Internal Address:
Additional name(s) of conveying party(ies) attached? Yes No  3. Nature of conveyance/Execution Date(s):  Execution Date(s)	Street Address: P. O. Box 655474
	City: Dallas State: Texas
Government Interest Assignment Executive Order 9424, Confirmatory License	Country: US Zip: 75265
Other A. Application or patent number(s):  A. Patent Application No.(s)  13/917,235	Additional name(s) & address(es) attached? Yes No document is being filed together with a new application.  B. Patent No.(s)
Additional numbers att	ached? Yes XNo
5. Name and address to whom correspondence concerning document should be mailed:  Name: TEXAS INSTRUMENTS INCORPORATED	6. Total number of applications and patents involved: One
Internal Address:	7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00  X Authorized to be charged to deposit account
Street Address: 12500 TI Boulevard - M/S 3999	Enclosed  None required (government interest not affecting title)
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PATENT REEL: 030659 FRAME: 0405

Attorney Docket No. TI-72492

Serial No. 13/917,235

## **ASSIGNMENT**

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and

WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with a place of business at 12500 TI Boulevard, M/S 3999, Dallas, Texas 75243, is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TEXAS INSTRUMENTS INCORPORATED, as assignee of my entire right, title and interest.

l also hereby sell and assign to TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said TEXAS INSTRUMENTS INCORPORATED, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said TEXAS INSTRUMENTS INCORPORATED, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set hand and seal this day and year;

TITLE OF INVENTION	KALMAN FILTERING FOR INDOOR POSITIONING
SIGNATURE OF	Mohamed Manson
INVENTOR AND NAME	Mohamed Farouk MANSOUR
RESIDENCE (CITY AND STATE)	1107 Morningstar Tri, Richardson, TX 75081
DATE SIGNED	6/12/2013

After recording, return Assignment to:

Texas Instruments Incorporated 12500 TI Boulevard - M/S 3999 Dallas, Texas 75243

> PATENT REEL: 030659 FRAME: 0406

**RECORDED: 06/13/2013**