FORM PTO-1595

HEET

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10	00938932
To the Honorable Commissioner of Patents and Trade	emarks. Please record the attached original documents or copy thereof.
1. Name of conveying party(ies):  Khaled M. Sharaf Abdellatif Bellaouar  HRD 12/21/4	2. Name and Address of receiving party(jes):  Name Texas Instruments Incorporated  Address: P. O. Box 655474, M.S 3999  City: Dallas
Additional name(s) & address(es) Attached? YesX No	State: <b>Texas</b> Zip: <b>75265</b> Additional name(s) & address(es) attached? YesX_ No
3. Nature of Conveyance:	
X Assignment Mer Security Agreement Cha	ange of Name
Other	
Execution December 15, 1998	
	application, the execution date of the application is:  December 15, 1998  B. Patent No.(s)  No Additional numbers attached? Yes X No
Name and address of party to whom corresponde document should be mailed:     Name	6. Number of applications and patents involved: 1
City: Dallas State Texas Zip: 75265	7. Amount of fee enclosed or authorized to be charged: \$40.00
	8. Deposit account number : 20-0668
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Statement and signature.	
	roing information is true and correct and any attached copy is a true copy of the original
Signature	Ronald O. Neerings, Reg. No. 34,227  Name of Person Signing  Date
Total number of	pages including cover sheet, attachments and document 2.

## 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 7839 Churchill Way, Mail Station 3999, Dallas. Texas 75251, 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 Assistant Commissioner for Patents 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.

I 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 mominees to obtain and enforce proper patent protection for said invention in all countries.

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

TITLE OF INVENTION	LOW POWER FRACTIONAL PULSE GENERATION IN FREQUENCY TRACKING MULTI-BAND FRACTIONAL-N PHASE LOCK LOOP		
SIGNATURE OF INVENTOR AND NAME	x Scheled Sharf KHALED M. SHARAF	ABDELLATIF BELLAOUR(A.B.)	
DATE	Dec, 15198	y Dec., 15, 98	
RESIDENCE (City, County, State)	Richardson, Dallas, Texas	Dallas, Dallas, Texas	
DATE APPLICATION EXECUTED	Dec, 15/98	Dec. 15, 98	

After recordation, please return Assignment to:

## **RONALD O. NEERINGS**

Texas Instruments Incorporated P. O. Box 655474, MS 3999 Dallas, TX 75265

> PATENT REEL: 9682 FRAME: 0974

**RECORDED: 12/21/1998**