11-25-2002

	11-20-2	:002		
FORM PTO-1595 TI-34245				
To the Honorable Commission	102292 oner of Patents and Trademarks, Please	record the attached original documents or copy thereof.		
Name of conveying party(Name and Address of receiving party(ies):	유	
1) Heng-Chih Lin	(10/31/2002)	Name: TEXAS INSTRUMENTS INCORPORATED		
2) Baher S. Haroun 3) Tiang Tun Foo	(11/07/2002) (10/31/2002)	Address: P.O. Box 655474, MS 3999	146 U.S. PTO	
	NEO 11-12:02	City: Dallas		
	11-17:05	State: TX Zip: 75265	j1	
		Additional name(s) & address(es) attached? Yes _X_ No		
3. Nature of Conveyance:				
X Assignment	Merger			
	Change of Name			
Other				
Execution Date: October 3	1, 2002; November 7, 2002; October 31, 2			
4. Application number(s) or patent number(s).		10 212225		
X This document is being fi	led together with a new application.			
	ation: October 31, 2002; November 7, 200 eration Range, General Purpose Digital i			
A. Patent Application No.(s)		B. Patent No.(s)		
Additional numbers attached?	YYesXNo	Additional numbers attached? YesX_ No		
5. Name and address of party to whom correspondence concerning document should be mailed:		6. Number of applications and patents involved:(1)		
Name: Peter P. Hernandez				
Texas Instruments Incorpor	rated	Yoë		
Address: P.O. Box 655474,	MS 3999	·		
City: Dallas				
State: TX Zip: 75265				
		7. Amount of fee enclosed or authorized to be charged: \$40		
	1			
DBYRNE 00000215 200668	10292225	8. Deposit Account No: 20-0668 of Texas Instruments Incorp	orate	
40.00 CH	DO NOT US	E THIS SPACE		
9. Statement and signature. To the best of my knowledge a	and belief, the foregoing information is true a	and correct and any attached copy is a true copy of the original		
document.	, , , , ,	1.10.11.00		
November 11, 2002		Jurish / Holmes	_	
Date		Dwight N. Holimbo, Reg. No. 36,410		

PATENT

REEL: 013504 FRAME: 0481

ATTORNEY DOCKET NO.
TI-34245

ASSIGNMENT

Page 1 of 1

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, MS 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 therefore, 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.

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 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;

	Wide Band, Wide Operation Range, General Purpose				
TITLE OF INVENTION	Digital Phase Locked Loop Architecture				
SIGNATURE OF INVENTOR AND NAME	Heng-Chih Lin	Baher S. Haroun	Tiang Tun Foo		
DATE	10/31/2002	11/7/02	10/31/02		
RESIDENCE (City, County, State)	8412 Halkin Dr. Plano, TX 75024	607 Easton Lane Allen, TX 75002	614 Baltusrol Circle Garland, TX 75044		
DATE APPLICATION EXECUTED	10/31/2002	11/7/02	10/31/02		

PATENT REEL: 013504 FRAME: 0482

RECORDED: 11/12/2002