1 PTO-1595 (Rev. 03/05) 3 No C651-0027 ; xp 6/30/2005) SPY((05 -	U.S. DEPARTMENT OF COMMERC United States Patent and Trademark Off	
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1-38498 F		
To the Director of the U.S. Patent and Trademark Office:	3012062 ddress(es) below o	
1. Name of conveying party(ies)/Execution Date(s)	2. Name and address of receiving party(ies) (1) Name Texas Instruments Inc.	
1. Charles K. Sestok, IV	(1) Name Texas Instruments Inc.	
2. Anand G. Dabak	Street Addres P.O. Box 655474; MS 3999	
 Jaiganesh Balakrishnan 4. 		
	City: Dallas State: TX	
dditional name(s) of conveying party(ies) attached?	Country: USA Zip: 75265	
3. Nature of conveyance:		
Execution Date(s) 5/23/2005;5/23/2005;5/23/2005	(2) Name	
	(2) Name	
✓ Assignment	Street Addres	
Security Agreement Change of Name	City: State:	
☐ Joint Research Agreement	Country: Zip:	
Government Interest Assignment		
☐ Executive Order 9424 Confirmatory License ☐ Other	Additional name(s) and Addresses attached?	
4 Application or patent number(s):		
4. Application or patent number(s): A. N/A	✓ This document is being filed together with a new application.	
	B. Patent No.(s)	
Additional numbers at	tached? 🗌 Yes 📝 No	
5. Name and address to whom correspondence concerning document should be mailed: Name: Ron Neerings	6. Total number of applications and patents involved:	
	7. Total Fee (37 CFR 1.21(h) & 3.41) \$40.00	
Internal Address:	Authorized to be charged by credit card	
Company: Texas Instruments Inc.	✓ Authorized to be charged to deposit account	
Address: P.O. Box 655474; MS 3999	☐ Enclosed	
	☐ None required (government interest not affecting title)	
	8. Payment Information	
State TX Zip: 75265	a. Credit Card Last 4 Numbers	
Phone Number (972) 917-5299	Expiration Date:	
APA-1000-2000-2000-2000-2000-200-200-200-20		
Fax Number (972) 917-4418	b. Deposit Account Number: 20-0668	
	b. Deposit Account Number: 20-0668 Authorized User Name: Ron Neerings	
Fax Number (972) 917-4418 Email Address r-neerings@ti.com		
Fax Number (972) 917-4418 Email Address r-neerings@ti.com Signature	Authorized User Name: Ron Neerings 5/24/2005	
Fax Number (972) 917-4418 Email Address r-neerings@ti.com	Authorized User Name: Ron Neerings	
Fax Number (972) 917-4418 Email Address r-neerings@ti.com Signature	Authorized User Name: Ron Neerings 5/24/2005 Date	

(40.00 BA

PATENT REEL: 016600 FRAME: 0875

ATTORNEY DOCKET NO.

TI-38498

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, having a place of business at 7839 Churchill Way, MS 3999, Dallas, Texas 75251, P.O. Box 655474, MS 3999, Dallas, Texas 75265, 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.

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 my hand and seal this day and year;

TITLE OF INVENTION	AN ENHANCED CHANNEL ESTIMATOR, METHOD OF ENHANCED CHANNEL ESTIMATING AND AN OFDM RECEIVER EMPLOYING THE SAME		
SIGNATURE OF INVENTOR AND NAME	Charles K. Sestok, IV	Anand G. Dabak	(3) Jaiganesh Balakrishnan
DATE	5/23 (2005	05/23/2005	
RESIDENCE (City, State)	Dallas, Texas U.S.A.	Plano, Texas U.S.A.	Karnataka, India
DATE APPLICATION EXECUTED	05/23/205	05/23/2005	

After recordation, please return Assignment to:

Ron Neerings
Texas Instruments Incorporated
P.O. Box 655474, M/S 3999
Dallas, TX 75265

PATENT REEL: 016600 FRAME: 0876

ATTOR	NEY DOCKE	rno;
	TI-38498	

ASSIGNMENT

invented certain new and useful insprovements 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, having a place of business at 7839 Churchill Way, MS 3999, Dallas, Texas 75251, P.O. Box 655474, MS 3999, Dallas, Texas 75265, is destrous of acquiring my entire right, title and interest in and to the said invention, and to the said explication and any Latters Patent that may issue thereon:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is nevery acknowledged, I hereby and assign to the said TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my entire right, fitle 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 Tradermarks to issue all patents for said invention, or patent resulting thereform insofar as my interest is concerned, to the said TEXAS THEREFORE INCORPORATED as assistance of the 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.

successors, assigns, and legal representatives, any facts known to me respecting shid invention, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, exerute 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 Thereunto set my hand and seal this day and year

	$60.9 \pm 10^{-10.00} \pm 10^{-10.00}$	
OF ESTIMATING AND AN	OFDM RECEIVER EMPLOYING TH	ESAME
SIGNATURE (1) OF INVENTOR AND NAME Charles K. Sestok, IV	(2) Anand G. Datiek	(3) B. Jaiganesh Balakrishnan
DATE		May 23, 2005
Dallas, Texa (City, State): U.S.A.	s Plano, Texas	Bangalore NDM
DATE APPLICATION EXECUTED		

After recordation, please return Assumment to:

Ron Neerings
Texas Instruments Incorporated
P.O. Box 655474, M/S 3999
Dallas, TX 75265

PATENT

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