FORM PTO-1595 (REV 6-93) SHEET

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

TIP184USA

OMB No. 0651-011 (exp.4/94) 102309282

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. Name and address of receiving party(ies): Name of conveying party(ies): Texas Instruments Incorporated Scott R. Summerfelt Sanjeev Aggarwal Luigi Colombo Internal Address: _____ Theodore S. Moise IV J. Scott Martin Additional name(s) of conveying party(ies) attached? [] Yes [X] No Street Address: P.O. Box 655474, M/S 3999 3. Nature of conveyance: [X] Assignment [] Merger Dallas] Security Agreement [] Change of Name City: ____ ____ ZIP: 75265 Texas State/Country: Other _____ Execution Date: Dec. 2, Dec. 4, Dec. 2, Dec. 2, Dec. 6, 2002 Additional name(s) & address(es) attached? [] Yes [X] No Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: <u>Dec. 2</u>, <u>Dec. 4</u>, <u>Dec. 2</u>, Dec. 2 & Dec. 6, 2002 B. Patent No.(s) A. Patent Application No.(s) Additional Numbers attached? [] Yes [X] No 6. Total number of applications and patents involved: [1] 5. Name and address of party to whom correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41)\$____ Jacqueline J. Garner, Esq. Name: __ Internal Address: ___ [] Enclosed [X] Authorized to be charged to deposit account Texas Instruments Incorporated Street Address: P.O. Box 655474, M/S 3999 8. Deposit account number: 20-0668 Dallas City: __ ZIP: 75251 Texas (Attach duplicate copy of this page if paying by deposit account) State: DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. December 6, 2002 Thomas G. Eschweiler Date Name of Person Signing Total number of pages including cover sheet attachments, and document: [6] Reg. No.

2/11/2002 DBYRNE 00000157 20065 pil degratorits to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

Attorney Docket No. TI-33647

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 its principal office at 7839 Churchill Way, M.S. 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;

NEW, 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 hand and seal this day and year;

TITLE OF INVENTION	A METHOD OF FORMING AN FERAM HAVING A MULTI-LAYER HARD MASK AND PATTERNING THEREOF	
SIGNATURE OF INVENTOR AND NAME	Scott R. Summerfelt	Sanjeev Aggarwal
DATE	12/2/02	12/4/02
RESIDENCE (CITY AND STATE)	3202 Bridle Path Court Garland, Texas 75044	8421 High Meadows Drive Plano, Texas 75025
DATE APPLICATION EXECUTED	12/2402	12/4/02

TITLE OF INVENTION	A METHOD OF FORMING AN FERAM HAVING A MULTI-LAYER HARD MASK AND PATTERNING THEREOF	
SIGNATURE OF INVENTOR AND NAME	Ma Colombo	Theodore S. Moise IV
DATE	12/3/02	12/2/02
RESIDENCE (CITY AND STATE)	6144 Yellow Rock Trail Dallas, Texas 75248	9737 Shoreview Road Dallas, Texas 75238
DATE APPLICATION EXECUTED	12/2/02	12/2/02

TITLE OF INVENTION	A METHOD OF FORMING AN FERAM HAVING A MULTI-LAYER HARD MASK AND PATTERNING THEREOF	
SIGNATURE OF INVENTOR AND NAME	J. Scott Martin	
DATE	12-6-02	
RESIDENCE (CITY AND STATE)	2013 W. Campbell Road #222 Garland, Texas 75044	
DATE APPLICATION EXECUTED	J	

After recording, return Assignment to:

RECORDED: 12/06/2002

Jacqueline J. Garner, Esq.

Texas Instruments Incorporated P.O. Box 655474, M/S 3999

Dallas, TX 75265