464 2:47)	3FCCBDATION 501	VER SHEET  U.S. DEPARTMENT OF COMMERCE Patent and Tracemark Office
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To the Honorable Commissione		the attached original documents or copy thereof.
1. Name of conveying party(ies): David Da-Wei Liu Paul H. Carr Steven D. Mittleman	2 12 99	2. Name and address of receiving party(ies)  Name: UNITED STATES AIR FORCE  Internal Address:
Additional name(s) of conveying party(les) a	ttached? 🗆 Yes 🔾 No	ESC/JAZ
3. Nature of conveyance:		40 Wright Street
24 Assignment	☐ Merger	Street Address:
☐ Security Agreement	☐ Change of Name	
☐ Other		City: Ranscom AFB State: MA ZIP: 01731- 2903
Execution Date: 18 AUG 97, 8	AUG 97, 11 AUG 97	Additional name(s) & address(es) attached?   Yes   No
4. Application number(s) or patent	number(s):	
If this document is being filed to	gether with a new application	on, the execution date of the application is:
A. Patent Application No.(s)		B. Patent No.(s)
08/934,013		
	Additional numbers a	atached? ☐ Yes ☐ No
Name and address of party to whom correspondence concerning document should be mailed:		6. Total number of applications and patents involved:
Name: JULIAN L. SIEGEL		7. Total fee (37 CFR 3.41)\$_40
Internal Address:		☐ Enclosed
		Authorized to be charged to deposit account
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Street Address: 40 Wright	Street	8. Deposit account number:
Ciby Hanscom AFB State	e: MA ZIP: 01731-	(Attach duplicate copy of this page if paying by deposit account)
	DO NOT U	JSE THIS SPACE
9. Statement and signature. To the best of my knowledge a the original document.  JULIAN L. SIEGEL  Name of Person Signing		mation is true and correct and any attached copy is a true copy of the copy of
Ma		th required covers to the factor of the required covers to the factor of

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## AF Inv No. AFB00369

Serial No. 08/934,013 filed: 25 August 1997

## ASSIGNMENT (Joint-Executive Order)

WHEREAS, we, DAVID DA-WEI LIU, PAUL H. CARR and STEVEN D. MITTLEMAN, while employed by the Government of the United States, made an invention entitled THREE DIMENSIONAL RECONFIGURABLE

PHOTOCONDUCTIVE ANTENNA ARRAY ELEMENT and described in application for Letters Patent of the United States executed by us on the day of fugust, 1997 on the the day of fugust, 1997 and on the day of fugust, 1997.

WHEREAS, the conditions under which said invention was made are such as to entitle the Government under paragraph l(a) of Executive Order 10096, to the entire right, title and interest therein, including foreign rights; and

WHEREAS, as to foreign rights, it is the policy of the Government to obtain an option to excercise such rights;

NOW, THEREFORE, to all whom it may concern, be it known that for and in consideration of the premises and other valuable considerations, we, the inventors, have sold, assigned and transferred and by these presents do sell, assign and transfer unto the Government of the United States of America as represented by the Secretary of the Air Force, our entire right, title and interest throughout the world, in and to the aforesaid invention described in the aforesaid application for Letters Patent of the United States, and all Letters Patent issuing thereon and any continuations, divisions and reissues or extensions thereof; we hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to the Government of the United States of America, as represented by the Secretary of the Air Force, and his/her successors, as assignee of our entire right, title and interest in and to the same throughout the United States of America, its territories and dependencies, for the sole use for the full term or terms for which said Letters Patent and any continuations, divisions and reissues or extensions thereof are, or may be granted as fully and entirely as the same would have been held by us, the inventors, had this assignment not been made; and we do hereby also grant unto the Government of the United States as represented by the Secretary of the Air Force, our right, title, and interest in said invention or all applications for Letters Patent thereon in all countries foreign to the United States in which the Government of the

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United States may file, or cause to be filed, applications for Letters Patent, without payment to us of any further consideration; provided, however, that this grant to take foreign rights in our invention, or application for Letters Patent thereon, shall have force and effect only as to such applications filed in foreign countries, and that all foreign rights not exercised under this grant are left to us subject to a nonexclusive, irrevocable, royalty-free license to the Government of the United States in any patent which may issue on said invention in any foreign country, including the power to issue sublicenses for use in behalf of the Government of the United States and/or in furtherance of the foreign policies of the Government of the United States; and we, the inventors, hereby agree to execute any and all applications for Letters Patent, and to furnish all data and documents and to execute any papers which may be necessary for the preparation of filing of such applications, or for the Government to exercise its option granted hereunder, except that it shall be understood that we shall not be subject to any out-of-pocket expense relative to such action.

	Inventor David Da-Wei Ju
	DAVID DA-WEI LIU
STATE OF: New Hampsh	ire
COUNTY OF HILLS DO POUL	ss: 7/7
Before me, a Notary Public in and for of New Hampshire personally appeared DAVID DA-WI	the county of HILLS BOYOUGH and state, on this 16 day of August, 1997, EI LIU to me known personally, who being
	he inventors who signed the above instrument
and acknowledges said instrument to	be his free act and deed.
	Duen a Manetta

DOREEN A. MANETTA, Notary Public My Commission Expires November 10, 1999

Notary Public

(Seal)

Inventor Of Cam

STATE OF MASSACHUSETTS\_:

SS:

**COUNTY OF MIDDLESEX** 

Before me, a Notary Public in and for the county of Middlesex and state of Massachusetts, on this 3th day of August, 1997, personally appeared **PAUL H. CARR** to me known personally, who being duly sworn did say that he is one of the inventors who signed the above instrument and acknowledges said instrument to be his free act and deed.

Notary Public

My Commission Expires 7 September 2001

(Seal)

PATENT REEL: 9765 FRAME: 0994 Inventor STEVEN D. MITTLEMAN

(Seal)

**RECORDED: 02/12/1999** 

PATENT REEL: 9765 FRAME: 0995