FORM PTO-1595	11-07-2000	U.S. DEPARTMENT OF COMMERCE
(R⊚v. 6-93) QMB No 0651-0011 (exp. 4/94)		Patent and Trademark Office
Tab settings = 18-00 +		<u> </u>
To the Honorable Commissioner of Paten	101507638	tached original documents or copy thereof.
1. Name of conveying party(ies):	2. Name a	and address of receiving party(ies):
Shimen K. Claxton	Name:	TRW Inc.
Bert K. Oyama		Address: Law Department E2/6051
Eric L. Upton	Internal	Address: <u>Law Department</u> , E2/6051
Additional name(s) of conveying party(ies) attached? 🛛 🗓 yes		
3. Nature of conveyance:		
Assignment	Street A	ddress: One Space Park
Security Agreement Change of	f Name	
Other		edondo Beach State: CA ZIP: 90278
Execution Date: June 27, 2000	Additional na	me(s) & address(es) attached?
If this document is being filed together with a new A. Patent Application No.(s) 09/605,078		Patent No.(s)
Additio	nal numbers attached?	Yes X No
Name and address of party to whom correspondance concerning document should be mailed:		umber of applications and patents involved:
Name: TRW Inc., Patent Counsel		40.00
Internal Address: Law Department, E2/6051	7. Total fe	e (37 CFR 3.41) \$ 40.00
internal Address. Law Department, L2/00/31	Enc	losed
		norized to be charged to deposit account
		ionizon to be changed to deposit decount
Street Address: One Space Park	8. Deposit	account number:
	20-1515	5
City: Redondo Beach State: CA ZII	90278 (Attach	duplicate copy of this page if paying by deposit account)
	DO NOT USE THIS SPA	CE
9. Statement and signature. To the best of my knowledge and belief, the fore the original document Michael S. Yatsko Name of Person Signing	going information is true Muluel S. Ga	and correct and any attached copy is a true copy of /////////// re Date
	ges including cover sheet, attac	14

Mul documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

(Form PTO--1595--Recordation Form Cover Sheet - page 1 of 3)

FORM PTO-1595	RECORDATION FORM CO	VER SHEET U	U.S. DEPARTMENT OF COMMERCE
(Rev. 6-93)	PATENTS (ONLY	Patent and Trademark Office
OMB No. 0651-0011 (exp. 4/94)			
1. Name of conveying party(iec):		
1. Name of conveying party(165).		
Barry R. Allen			Mark (NMI) Kintis
Andrew D. Smi	th		Craig R. Talbott
David J. Brunor	1e		Donald R. Martin
Additional name	(s) of conveying party(ies) attached	ed? Yes	s No 🗆
2. Name and address of receiving	ng party(ies):		
Name:			
Street Address:	State: ZIP:		
23			
Street Address:			
City:	State: ZIP:		
Additional name(s)	& address(es) attached?	Yes 🔲	No X
4. Application number(s) or pa	tent number(s):		
If this document is being filed	together with a new application, t	the execution d	late of the application is:
A. Patent A	Application No.(s)	В	. Patent No.(s)
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		_	
Additio	onal numbers attached?	Yes 🔲	No X

FORM PTO-1595	RECORDATION	FORM COVER SHEET	TU.S. DEPARTMENT OF COMMERCE
(Rev. 6-93)	PAT	ENTS ONLY	Patent and Trademark Office
OMB No. 0651-0011 (Tutent una Trademaix Office
1. Name of conv	reying party(ies):		
Will	iam M. Skones		Ronald P. Smith
Vina			
VIIIC	ent C. Moretti		
Add	itional name(s) of conveying party	v(ies) attached? Y	res No X
2. Name and addre	ess of receiving party(ies):		
Name:			
Internal Address			
Street Address:			
a.	State:		
Name.			
Internal Address	8:		
Street Address:			
City:	State:	ZIP:	
Additio	onal name(s) & address(es) attache	ed? Yes	No X
4. Application nun	nber(s) or patent number(s):		
If this document is	s being filed together with a new a	pplication, the execution	date of the application is:
	A. Patent Application No.(s)	. 1	B. Patent No.(s)
	71. I don't approach in the (5)	•	B. 1 atent 110.(3)
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		_	
		_	
		-	
	Additional numbers attached	? Yes	No X

ASSIGNMENT

For valuable considerati	ion, the adequacy and receipt of which are
hereby acknowledged, we Shimen K.	. Claxton, Bert K. Oyama, Eric L. Upton,
Barry R. Allen, Mark (NMI) Kintis,	, Andrew D. Smith, Craig R. Talbott, David
	liam M. Skones, Ronald P. Smith and
<u>Vincent C. Moretti</u> , respectively,	, of <u>Encino, California; Torrance,</u>
California; Redondo Beach, Califor	rnia; Redondo Beach, California; Manhattar
Beach, California; Redondo Beach,	
California; Rancho Palos Verdes, C	California; Redondo Beach, California;
Manhattan Beach, California; Redor	ndo Beach, California; and Torrance,
	ssign to TRW Inc., One Space Park, Redondo
Beach, California, an Ohio corpor	cation, its successors and assigns, the
entire right, title and interest i	in and to the improvements in WIRELESS
TELECOMMUNICATIONS MULTICARRIER RE	ECEIVER ARCHITECTURE which has been
invented by us, as described in the	ne application for United States Patent
which we executed respectively, or June 27, 2000	l June 28, 2000
	June 27; 2000
June 27, 2000	, July 6, 2000
June 27, 2000	June 27, 2000
	, <u>June 27, 2000</u> ,
June 27, 2000	, <u>June 27, 2000</u> , and
	any and all applications for patent and
	countries, including all divisions,
	nsions thereof, and the right to claim the
priority date of the first filed a	application in the United States, and
	whose duty it is to issue patents, to
	ents or resulting therefrom to said TRW
	s, and agree that on request and without
	expense of TRW Inc., we will communicate
	s or nominees any facts known to us
respecting said improvements and t	estify in any legal proceeding, sign all
lawful papers, execute all division	
applications, make all rightful oa	ths, and generally do everything possible
	assigns and nominees to obtain and enforce
proper patent protection for said	invention in all countries.
7 . 10 2000	Inventor 5/1. 2/1/ -
June 20 , 2000	Inventor: Shimen K Clayton
	DITEMENT IV. CLARCON
Jone 28, 2000 June 27, 2000	Inventor: But K. Oyama Bert K. Oyama
	Part V Oyama
•	O 7 1.
June 27, 2000	Inventor: Cie. 7. 1pton Eric L. Upton
7 2000	Eric L. Upton
June 27, 2000	Inventor: Dany Selfile
, 200	Barry R. Allen

(SEAL)

July 6, 2000	Inventor:	Made Ital
		Mark (NMI) Kintis
June 27, 2000	Inventor:	Andrew D. Smith
June 27, 2000	Inventor:	1. 1 1 1
July 10, 2000	Inventor:	David J. Brunone
June 27, 2000	Inventor:	Donald R. Martin
June 27, 2000	Inventor:	William M. Skones
June 27, 2000 June 27, 2000	Inventor:	Ronald P. Smith
June 27, 2000	Inventor:	Vincent C. Moretti
STATE OF CALIFORNIA COUNTY OF LOS ANGELES On - UNE 28, 2000 before personally appearedShimen F))ss) ore me,	Lorna L. Schott
personally appeared Shimen F	Claxton	d to me on the best of
personally known to me -or- satisfactory evidence to be the personal person	erson whose I to me that That by his	e name is subscribed to the at he same in signature on the
LORNA L. SCHOTT Commission # 1236694 Notary Public - California Los Angeles County My Comm. Expires Oct 27, 2003	WITNESS my	y hand and official seal. Olic

(SEAL)

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)
on <u>Une 27,2000</u> before me, <u>Lorna L. Schott</u>
personally appearedBert K. Oyamapersonally known to me -or- / proved to me on the basis of
satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
LORNA L SCHOTT Commission 1236694 Notary Public - Cofficial Los Angeles County My Comm. Expires Oct 27, 2003 Notary Public
(SEAL)
STATE OF CALIFORNIA) SS COUNTY OF LOS ANGELES) On 1 1000 7.7200 before me Lorna I. Schott
On Jone 7,700 before me, Lorna L. Schott personally appeared Eric L. Upton
personally known to me -orproved to me on the basis of
satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he she executed the same in his her authorized capacity, and that by his her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
LORNA L SCHOTT Commission 1236694 Notory Public - Collication Los Angeles County WITNESS my hand and official seal.
My Corrim Expres Oct 27, 2003

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)
on June 27, 200 before me, Lorna L. Schott
personally appeared <u>Barry R. Allen</u> Description personally known to me -or- proved to me on the basis of
satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
LORNA L SCHOTT Commission # 1236694 Noticny Public - Colifornia Los Angeles County My Comm. Expires Oct 27, 2003
Notary Public (SEAL)
STATE OF CALIFORNIA) ss COUNTY OF LOS ANGELES On John 2000 before me, Lorna L. Schott
personally appearedMark (NMI) Kintis personally known to me -orproved to me on the basis of
satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
LORNA L SCHOTT Commission # 1236894 Notary Public - Cofforda Los Angeles County My Comm. Expres Oct 27, 2003 Notary Public
(SEAL)

COUNTY OF LOS ANGELES On OWE. 7.260 before me, Lorna L. Schott personally appeared Andrew D. Smith Personally known to me -or proved to me on the basis of Satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that the she executed the same in his her authorized capacity, and that by his her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. County OF LOS ANGELES On ONE 7.200 before me, Lorna L. Schott Personally appeared Craig R. Talbott Personally known to me -or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that the same in his her authorized capacity, and that by his her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument LORNAL SCHOIT Commission 123494 Notary Public WITNESS my hand and official seal.	STATE OF CALIFORNIA)
On Well Mown to me - or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that the same in his her authorized capacity, and that by the signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. CORNAL SCHOT) ss
A personally known to me -or- proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that (he) she executed the same in his her authorized capacity, and that by (his her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. CORNAL SCHOTT	5.	
A personally known to me -or- proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that (he) she executed the same in his her authorized capacity, and that by (his her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. CORNAL SCHOTT	on June 27,2000 hef	ore me Lorna I. Schott
A personally known to me -or- proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that (he) she executed the same in his her authorized capacity, and that by (his her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. CORNAL SCHOTT	personally appeared Andrew	D. Smith
STATE OF CALIFORNIA COUNTY OF LOS ANGELES On Merically appeared Craig R. Talbott personally known to me or - proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument the person, or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. WITNESS my hand and official seal. On Mary Public County OF LOS ANGELES On Mary Public On Mary Public On Mary Public Craig R. Talbott personally known to me or - proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that (ne) she executed the same in his her authorized capacity, and that by (ni) her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument Counts of 123694 Notary Public WITNESS my hand and official seal. Notary Public WITNESS my hand and official seal.	personally known to me -or-	proved to me on the basis of
Commission # 1224494 Notary Public - Confinding Los Angeles County My Comm. Expres Oct 27, 2003 STATE OF CALIFORNIA On On One Of Oracles On One Of Oracles On One Of Oracles On Oracle 7, 2003 before me, Lorna L. Schott personally appeared Craig R. Talbott personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that they she executed the same in his her authorized capacity, and that by his her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument LORNA L SCHOIT Commission # 1234894 Notary Public - Colifornia Los Angeles County My Comm. Expres Oct 27, 2003 Notary Public Notary Public	satisfactory evidence to be the powithin instrument and acknowledge his her authorized capacity, and instrument the person, or the entire the contract of the	erson whose name is subscribed to the d to me that he same in that by his her signature on the
STATE OF CALIFORNIA On Or	Commission # 1236694. Notary Public - California E Los Angeles County	Horna & Schott
STATE OF CALIFORNIA) ss COUNTY OF LOS ANGELES On Or Ore 7,200 before me, Lorna L. Schott personally appeared Craig R. Talbott personally known to me -or - proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he she executed the same in his her authorized capacity, and that by his her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument LORNA L SCHOTT Commission # 1236894 Notary Public - Colfornia Elos Angeles County Notary Public Notary Public	(Notary Public
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satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he she executed the same in his her authorized capacity, and that by his her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. **LORNA L SCHOTT** Commission * 1236894* Notary Public - Collionia ** Los Angeles County My Comm. Expires Oct 27, 2003 Notary Public Notary Public	COUNTY OF LOS ANGELES)
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LORNA L SCHOTT Commission # 1236694 Notary Public - California # Los Angeles County My Comm. Expires Oct 27, 2003 Notary Public Notary Public	within instrument and acknowledged his her authorized capacity, and instrument the person, or the enti-	d to me that he/she executed the same in that by his/her signature on the
•	LORNA L. SCHOTT Commission # 1236694 Notary Public - California \$ Los Angeles County	Hornaf Schitt
	(SEAL)	Notary Public

(SEAL)

STATE OF CALIFORNIA	
COUNTY OF LOS ANGELES)	
on 10/410 2000 before me, personally appeared <u>David J. Brunon</u>	Lorna L. Schott
personally appeared David J. Brunon	e
personally known to me -or- X pro	ved to me on the basis of
satisfactory evidence to be the person wh within instrument and acknowledged to me his her authorized capacity, and that by (instrument the person, or the entity upon executed the instrument.	that he she executed the same in his/her signature on the
LORNA L SCHOTT Commission # 1236694 Notary Public - California # Los Angeles County My Comm. Expires Oct 27, 2003 Notary	hand and official seal.
(SEAL)	PUDITC
STATE OF CALIFORNIA))ss COUNTY OF LOS ANGELES)	
On <u>Jove 27,2000</u> before me, personally appeared <u>Donald R. Marti</u>	Lorna L. Schott
personally appeared <u>Donald R. Marti</u>	1
personally known to me or pro- satisfactory evidence to be the person who within instrument and acknowledged to me his her authorized capacity, and that by instrument the person, or the entity upon executed the instrument.	ose name is subscribed to the that he same in his her signature on the
LORNA L. SCHOTT Commission # 1236694 Notary Public - Colifornia Los Angeles County My Comm. Expres Oct 27, 2003 Notary	my hand and official seal. Available Public

STATE OF CALIFORNIA)
) ss COUNTY OF LOS ANGELES)
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On
personally appearedWilliam M. Skones
satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
LORNA L. SCHOTT Commission # 1236694 Notary Public - California Los Angeles County My Comm. Expires Oct 27, 2003 WITNESS my hand and official seal.
(SEAL)
STATE OF CALIFORNIA))ss
COUNTY OF LOS ANGELES)
On <u>line 7,200</u> before me, <u>Lorna L. Schott</u> personally appeared <u>Ronald P. Smith</u>
personally appeared <u>Ronald P. Smith</u> personally known to me - or - personally known to me - or -
satisfactory evidence to be the person whose name is subscribed to the vithin instrument and acknowledged to me that he she executed the same in his her authorized capacity, and that by his her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
LORNA L SCHOTT Commission # 1236694 Notory Public - California Los Angeles County My Comm. Broires Oct 27, 2003 WITNESS my hand and official seal.
Notary Public (SEAL)

Docket No. 12-1187

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)
on June 27, 2000 before me, Lorna L. Schott
personally appeared Vincent C. Moretti
x personally known to me -or- proved to me on the basis of
satisfactory evidence to be the person whose name is subscribed to the
within instrument and acknowledged to me that (he) she executed the same in
fisher authorized capacity, and that by his her signature on the
instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

LORNA L SCHOTT
Commission # 1236694
Notary Public - California
Los Angeles County
My Comm. Expires Oct 27, 2003

RECORDED: 10/18/2000

WITNESS my hand and official seal.

Notaty Public

(SEAL)