OMB No. 0651-0027 (exp. 6/30/2008)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Offic	
RECORDATION FO	RM COVER SHEET	
PATENT	S ONLY	
To the Director of the U.S. Patent and Trademark Office: Pleas	se record the attached documents or the new address(es) below.	
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)	
Thomas A, Knecht Robert Jacobson	Name: CTS Corporation	
Glen Reeser	Internal Address:	
Additional name(s) of conveying party(ies) attached? Yes 🗸 No		
3. Nature of conveyance/Execution Date(s):	Street Address: 905 West Boulevard North	
Execution Date(s) 3/13/07		
✓ Assignment Merger		
Security Agreement Change of Name	City: Elkhart	
☐ Joint Research Agreement	State: Indiana	
Government Interest Assignment	Country: U.S.A. Zip; 46514	
Executive Order 9424, Confirmatory License	2.p. 100.17	
	Additional name(s) & address(es) attached? Yes 🗸 No	
4. Application or patent number(s): A. Patent Application No.(s)	document is being filed together with a new application.	
A. Patent Application No.(5)	B. Patent No.(s)	
11/598,491		
	ached?	
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: One (1)	
Name: Joan C. Ramm	The state of the s	
Internal Address:	7. Total fee (37 CFR 1.21(h) & 3.41) \$_40.00	
Internal Address.	Authorized to be charged by credit card	
Chrock Addison	Authorized to be charged to deposit account	
Street Address: CTS Corporation	Enclosed None required (government interest not affecting title)	
171 Covington Drive City: Bloomingdale	8. Payment Information	
1100	a. Credit Card Last 4 Numbers	
State: Illinois Zip: 60108	Expiration Date	
Phone Number: (630) 924-3792	b. Deposit Account Number <u>03-1677</u>	
Fax Number: (630) 295-6601	Authorized User Name Joan C. Ramm	
Email Address:		
9. Signature: 3/16/2007		
Signature	Date	
Joan C. Ramm Name of Person Signing	Total number of pages including cover sheet, attachments, and documents:	
Documents to be recepted (including account)		

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

PATENT REEL: 019033 FRAME: 0268

ASSIGNMENT

WHEREAS, I, Thomas A. Knecht, of the Village of Dundee, Kane County, Illinois, have made a certain new and useful invention entitled "COAXIAL RESONATOR BASED VOLTAGE CONTROLLED OSCILLATOR/PHASED LOCKED LOOP SYNTHESIZER MODULE"; and

WHEREAS, CTS CORPORATION, a corporation duly organized under the laws of the State of Indiana and doing business in the City of Elkhart, the County of Elkhart and the State of Indiana, is desirous of acquiring the full and exclusive right, title and interest which I have or may have in and to the invention and the application, including any continuation and any division of the application, and any Letters Patent of the United States and of foreign countries that may be granted for the invention, and any renewal, any reissue and any extension of any such Letters Patent;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN:

Be it known that for good and valuable consideration, I do hereby assign to CTS CORPORATION all the right, title and interest which I have or may have in and to the invention and the application and any Letters Patent of the United States and of foreign countries that may be granted for the invention and any renewal, any reissue and any extension of any such Letters Patent; the same to be held and enjoyed by CTS CORPORATION, its successors, legal representatives and assigns, as fully and entirely as the same would have been held and enjoyed by me if this assignment had not been made; and I hereby covenant and warrant that I have not executed and will not execute any instrument purporting to convey, mortgage, lease or otherwise transfer all, or any part of the interest, to anyone other than CTS CORPORATION, its successors, legal representatives and assigns.

And, for the above consideration, I hereby covenant and agree that I will, at the request of CTS CORPORATION, its successors, legal representatives and assigns, execute any and all renewal, continuation and divisional applications, both United States and foreign, for Letters Patent for the invention; and any and all applications for the renewal, the reissue and the extension of any Letters Patent, both United States and foreign, that may be granted for the invention and do any and all other and further acts to obtain any such Letters Patent, and any renewal, any reissue and any extension of the same that CTS CORPORATION, its successors, legal representatives and assigns may deem necessary or expedient, without further compensation, but at the expense of CTS CORPORATION, its successors, legal representatives and assigns.

Dated: 3/13/07Thomas A Knocht STATE OF ILLINOIS COUNTY OF DUPAGE

1, Joan C. Ramm, Notary Public in and for said County, in the United States, do hereby certify that Thomas A. Knecht, personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered such instrument as his free and voluntary act for the uses and purposes set forth.

GIVEN under my hand and Notarial Seal this 13th day of warch, 2007.

Som C. Ramm

NOTARY PUBLIC

(NOTARIAL SEAL)



ASSIGNMENT

CTS WIRELESS COMPONENTS

WHEREAS, I, Robert A. Jacobson, of the Village of Orland Park, County of Cook, in the State of Illinois, have made a certain new and useful invention entitled "COAXIAL RESONATOR BASED VOLTAGE CONTROLLED OSCILLATOR/PHASED LOCKED LOOP SYNTHESIZER MODULE"; and

WHEREAS, CTS CORPORATION, a corporation duly organized under the laws of the State of Indiana and doing business in the City of Elkhart, the County of Elkhart and the State of Indiana, is desirous of acquiring the full and exclusive right, title and interest which I have or may have in and to the invention and the application, including any continuation and any division of the application, and any Letters Patent of the United States and of foreign countries that may be granted for the invention, and any renewal, any reissue and any extension of any such Letters Patent;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN:

Be it known that for good and valuable consideration, I do hereby assign to CTS CORPORATION all the right, title and interest which I have or may have in and to the invention and the application and any Letters Patent of the United States and of foreign countries that may be granted for the invention and any renewal, any reissue and any extension of any such Letters Patent; the same to be held and enjoyed by CTS CORPORATION, its successors, legal representatives and assigns, as fully and entirely as the same would have been held and enjoyed by me if this assignment had not been made, and I hereby covenant and warrant that I have not executed and will not execute any instrument purporting to convey, mortgage, lease or otherwise transfer all, or any part of the interest, to anyone other than CTS CORPORATION, its successors, legal representatives and assigns.

And, for the above consideration, I hereby covenant and agree that I will, at the request of CTS CORPORATION, its successors, legal representatives and assigns, execute any and all renewal, continuation and divisional applications, both United States and foreign, for Letters Patent for the invention; and any and all applications for the renewal, the reissue and the extension of any Letters Patent, both United States and foreign, that may be granted for the invention and do any and all other and further acts to obtain any such Letters Patent, and any renewal, any reissue and any extension of the same that CTS CORPORATION, its successors, legal representatives and assigns may deem necessary or expedient, without further compensation, but at the expense of CTS CORPORATION, its successors, legal representatives and assigns.

Dated: 03/13/67		Let Gi	
STATE OF ILLINOIS)	Robert A. Jacobson	
COUNTY OF DUPAGE) SS)		

I, Joan C. Ramm, Notary Public in and for said County, in the State aforesaid, do hereby certify that Robert A. Jacobson, personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered such instrument as his free and voluntary act for the uses and purposes set forth.

GIVEN under my hand and Notarial Seal this 13th day of Warch, 2007.

NOTARY PUBLIC

(NOTARIAL SEAL)



ASSIGNMENT

WHEREAS, I, Glen Reeser, of the Village of Palatine, Cook County, Illinois, have made a certain new and useful invention entitled "COAXIAL RESONATOR BASED VOLTAGE CONTROLLED OSCILLATOR/PHASED LOCKED LOOP SYNTHESIZER MODULE"; and

WHEREAS, CTS CORPORATION, a corporation duly organized under the laws of the State of Indiana and doing business in the City of Elkhart, the County of Elkhart and the State of Indiana, is desirous of acquiring the full and exclusive right, title and interest which I have or may have in and to the invention and the application, including any continuation and any division of the application, and any Letters Patent of the United States and of foreign countries that may be granted for the invention, and any renewal, any reissue and any extension of any such Letters Patent;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN:

Be it known that for good and valuable consideration, I do hereby assign to CTS CORPORATION all the right, title and interest which I have or may have in and to the invention and the application and any Letters Patent of the United States and of foreign countries that may be granted for the invention and any renewal, any reissue and any extension of any such Letters Patent; the same to be held and enjoyed by CTS CORPORATION, its successors, legal representatives and assigns, as fully and entirely as the same would have been held and enjoyed by me if this assignment had not been made; and I hereby covenant and warrant that I have not executed and will not execute any instrument purporting to convey, mortgage, lease or otherwise transfer all, or any part of the interest, to anyone other than CTS CORPORATION, its successors, legal representatives and assigns.

And, for the above consideration, I hereby covenant and agree that I will, at the request of CTS CORPORATION, its successors, legal representatives and assigns, execute any and all renewal, continuation and divisional applications, both United States and foreign, for Letters Patent for the invention; and any and all applications for the renewal, the reissue and the extension of any Letters Patent, both United States and foreign, that may be granted for the invention and do any and all other and further acts to obtain any such Letters Patent, and any renewal, any reissue and any extension of the same that CTS CORPORATION, its successors, legal representatives and assigns may deem necessary or expedient, without further compensation, but at the expense of CTS CORPORATION, its successors, legal representatives and assigns.

Dated: 3/13/07		Glinker	
STATE OF ILLINOIS)	Glen Reeser	
COUNTY OF DUPAGE) SS)		

I, Joan C. Ramm, Notary Public in and for said County, in the United States, do hereby certify that Glen Reeser, personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, scaled and delivered such instrument as his free and voluntary act for the uses and purposes set forth.

GIVEN under my hand and Notarial Seal this 13th day of warch 2007.

NOTARY PUBLIC

(NOTARIAL SEAL)



RECORDED: 03/16/2007

PATENT REEL: 019033 FRAME: 0271