PATENT APPLICA'

100901229
PATENTS ONLY

Docket No.: CTS-1842
FORM COVER SHEET

09/189592

To the Honorable Commissioner of Patents and Trademarks:

	ease record the attached original documents or copy thereto:	7. 18
1.	Name of conveying party(ies):	40
	Name: Terry R. Bloom, Richard O. Cooper and Robert L. Reinhard	j∈ 5 42 09/;
	Additional name(s) of conveying party(ies) attached? Yes X No	
2.	Name and address of receiving party(ies):	
	Name: CTS Corporation	
	Attn: Cheri L. Howe	
	905 West Boulevard North	
	Elkhart, IN 46514	
	Additional name(s) & address(es) attached? Yes _X_ No	
3.	Nature of conveyance:	
	<pre>X Assignment Merger Security Agreement Change of Name</pre>	
	Other	
	Execution Date: November 3 and 9, 1998	
4.	•• • • • • • • • • • • • • • • • • • • •	
tog	ether with a new application, the execution date of the application is: 11/	10/98
	A. Patent Application No(s). N/A	
	B. Patent No(s). N/A	
	Additional numbers attached? Yes _x No	
5.	Name and address of party to whom correspondence concerning document show	ld be
	led:	.Iu be
	Name: CTS Corporation	
	Attn: Cheri L. Howe	
	905 West Boulevard North	
	Elkhart, IN 46514	
6.	Total number of applications and patents involved: 1	
7.	Total fee (37 CFR 3.41) \$40.00	
	Enclosed	
	\overline{X} Authorized to be charged to deposit account	
8.	Deposit account number: 03-1677 (Attached duplicate copy of this page	ie)
9.	Statement and signature.	
	To the best of my knowledge and belief, the foregoing information is tru	e and
	correct and any attached copy is a true copy of the original document.	

Mark P. Bourgeois
Name of Person Signing

Signature

11/10/98 Date

Reg. No. 37,782

Total number of pages comprising cover sheet:[1]

11/17/1998 DMGUYEN 00000114 031677 09189592

FORM PTO-1594

01 FC:581

86-01-11 5MM

40.00 CH

PATENT REEL: 9581 FRAME: 0583

Docket No.: CTS-1842

ASSIGNMENT

WHEREAS, we, Terry R. Bloom of the City of Middlebury, County of Elkhart; Richard O. Cooper of the City of Bluffton, County of Wells; and Robert L. Reinhard of the City of Berne, County of Adams; and all from the State of Indiana, have made a certain new and useful invention entitled "Ball Grid Array Capacitor" for which we are making application for Letters Patent of the United States, which application is being duly executed by us on the 10th day of November, 1998.

WHEREAS, we, the said inventors, are the owner of the entire right, title and interest in and to said invention and said application; and

WHEREAS, CTS CORPORATION, a corporation duly organized under the laws of the State of Indiana and doing business at the City of Elkhart, in the County of Elkhart and State of Indiana, is desirous of acquiring the full and exclusive right, title and interest which we have or may have in and to said invention and said application, including any continuation and any division of said application, and any Letters Patent of the United States and of foreign countries that may be granted for said 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, we do hereby sell, assign, transfer and set over unto the said CTS CORPORATION all the right, title and interest which we have or may have in and to said invention and said application and any Letters Patent of the United States and of foreign countries that may be granted for said invention and any renewal, any reissue and any extension of any such Letters Patent; the same to be held and enjoyed by said CTS CORPORATION, its successors, legal representatives and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment had not been made; and we hereby covenant and warrant that we have the full right to convey the entire interest herein assigned and that we have not executed and will not execute any instrument purporting to convey, mortgage, lease or otherwise transfer all, or any part of said interest, to anyone other than said CTS CORPORATION, its successors, legal representatives and assigns.

We authorize and request the Commissioner of Patents of the United States to issue any Letters Patent which may be granted upon the aforesaid application or applications to CTS CORPORATION.

And, for the above consideration, we hereby covenant and agree that we will, at the request of said 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 said 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 said 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 said CTS CORPORATION, its successors, legal representatives and assigns may deem necessary or expedient, without further compensation, but at the expense of said CTS CORPORATION, its successors, legal representatives and assigns.

PATENT REEL: 9581 FRAME: 0584

Docket No.: CTS-1842

IN WITNESS WHEREOF, we hof, 1998.	have hereunto set our hand and seal this3rd &9th day
Terry R. Bloom	Richard O. Cooper
Robert I Reinkur	
Robert L. Reinhard	
STATE OF INDIANA))SS)
aforesaid, do hereby certify that Richa to me to be the same persons who appeared before me this day in p	, Notary Public in and for said County, in the State ard O. Cooper and Robert L. Reinhard, personally known see names are subscribed to in the foregoing instrument, terson and acknowledged that they signed, sealed and see and voluntary act for the uses and purposes set forth.
GIVEN under my hand and Nor	tarial Seal this 3rd day of November, 1998.
(NOTARIAL SEAL)	Notary Public MYRTLE 1. STEINER, NOTARY PUBLIC My commission expires November 1.
STATE OF INDIANA))SS
COUNTY OF ELKSTART)
person whose name is subscribed to	Notary Public in and for said County, in the State erry R. Bloom, personally known to me to be the same in the foregoing instrument, appeared before me this day signed, sealed and delivered such instrument as his free purposes set forth.
GIVEN under my hand and No	tarial Seal this 9th day of Loven sere, 1998.
	Notary Public
(NOTARIAL SEAL)	Notary Public KATHRYN J DILLER NOTARY PUBLIC STATE OF INDIANA ELKHART COUNTY MY COMMISSION EXP. JULY 29,1999

RECORDED: 11/10/1998 PATENT

RECORDED: 11/10/1998 REEL: 9581 FRAME: 0585