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Conveying Party(ies)	rk if additional names of conveying parties attached Execution Date			
Name Mayank Bulsara	Month Day Year 10/01/02			
Name Matthew T. Currie	10/01/02			
Name Anthony J. Lochtefeld	10/01/02			
Name				
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Natasha C. Us, Reg. No. 44,381 Name of Person Signing	Signature			
Maine of Person Signing	Signature	Date		

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## **ASSIGNMENT**

WHEREAS, We, Mayank Bulsara, Matthew T. Currie, and Anthony J. Lochtefeld have invented one or more inventions described in an application for Letters Patent of the United States entitled:

## DYNAMIC RANDOM ACCESS MEMORY TRENCH CAPACITORS

and identified by

Serial No. 10/218,007 filed in the United States Patent Office on August 13, 2002; and

WHEREAS, AmberWave Systems Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the state of Delaware, and having a usual place of business at 13 Garabedian Drive, Salem, NH 03079-4235, desires to acquire an interest therein, in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, our entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with our entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, continuations-inpart, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such Letters Patent, and any right, title and interest we may have in provisional applications to which said application claims priority; said invention(s), applications and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all of our rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. We hereby acknowledge that this assignment, being of our entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all Letters Patent to ASSIGNEE in its own name as assignee of our entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications;

AND, we hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved;

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AND, we hereby authorize and request the Director of the United States Patent and Trademark Office to issue such Letters Patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals on the date(s) set forth below.

date(s) set forth below.			
		Inventor:	May Mayank Bulsara
State/Commonwealth of MASS	)		•
County of Essex	) ss		
	_		, s+
Subscribed and sworn to before, 2002.	re me, by t	he above-name	d Mayank Bulsara this / day of
			$\alpha$
	ت		a 9 Javor
		Notary Public	Turing 10 of 07
		My Commissio	on Expires: 10-04-07
		Inventor:	Matthew T. Currie
State/Commonwealth of MASS	)		
County of Secar	) 66		
	,		,5 <sup>7</sup>
Oct Subscribed and sworn to before 2002.	e me, by t	he above-name	d Matthew T. Currie this $\frac{1}{2}$ day of
, 2002.		Sano	ha 9 Favor
	_	Notary Public	
		My Commissio	on Expires: 10-04-07

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Joint Assignme	nt
U.S. Serial No.	10/218,007
Page 3	

Inventor:

State/Commonwealth of MASS County of Essex ) ss

**RECORDED: 06/13/2005** 

Subscribed and sworn to before me, by the above-named Anthony J. Lochtefeld this \_\_\_\_\_\_ day of \_\_\_\_\_\_\_, 2002.

My Commission Expires: 10-04-07

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**PATENT** REEL: 016680 FRAME: 0866