Form PTO-1595 (Rev. 03/01)	102466089	EET U.S. DEPARTME U.S. Patent	ENT OF COMMERCE and Trademark Office
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To the Honorable Commissioner of	Patents and Trademarks: Plea	se record the attached original documents or	copy thereof.
Name of conveying party(ies): Dieter SCHULZ	5.29.03 2	Name and address of receiving part Name: Zarlink Semiconductor Inc. Internal Address: 400 March Road	y(ies)
Additional name(s) of conveying party(ies) attached? Yes No			2 4 4 4 6 C
3. Nature of conveyance:			10.0
	Merger Change of Name	Street Address: Same	r ==
Other		City: Ottawa, Ontario CANADA State:	
5/27/2002 Execution Date:		Additional name(s) & address(es) attached? Yes V No	
5. Name and address of party to wh concerning document should be n	nailed:	Total number of applications and pate	
Name: David B. Cochran, Esq	j. 7.	Total fee (37 CFR 3.41)\$_	+0.00
Jones Day Internal Address:		Enclosed	
North Point		Authorized to be charged to dep	osit account
901 Lakeside Avenue	\ \ \ \ \ \ \ \	Deposit account number:	
Street Address: Same 003 TDIAZ1 00000141 501432 10447857 021 40.00 CH	-	501432 (Ref. 481340010057)	
City: Cleveland State: OH Zip	44114		
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9. Signature.			
David B. Cochran, Esq. Name of Person Signing	per of pages including cover she	ignature	9, 2003 Date

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments Washington. D.C. 20231

WORLDWIDE ASSIGNMENT

WHEREAS, I, **Dieter SCHULZ**, residing at, 2936 Maple Lane, RR#1 Dunrobin Shores, Ontario, Canada, K0A 1T0 has invented certain new and useful improvements in an invention entitled **DISTRIBUTED ECHO CANCELLING** for which an application for United States Letters Patent will be filed; and

WHEREAS, ZARLINK SEMICONDUCTOR INC., a company organized and existing under the laws of Canada, having a place of business at 400 March Road, City of Ottawa, Ontario, Canada, K2K 3H4, is desirous of acquiring the full and exclusive right, title and interest in and to said application inclusive of any and all priority rights derived therefrom and the inventions therein disclosed, and in and to all Letters Patent, both United States and foreign, to be granted for said inventions;

NOW, THEREFORE, for a valuable consideration, the receipt whereof is hereby acknowledged, I do hereby sell, assign, transfer, and set over unto the said **ZARLINK SEMICONDUCTOR INC.**, its successors and assigns, the full and exclusive right, title and interest in and to the aforesaid application for United States Letters Patent inclusive of any and all priority rights derived therefrom, and the invention therein disclosed, and in and to all Letters Patent and issues thereof which may be granted upon said application and in and to all Letters Patent which may be issued upon any substitutes, divisions, or continuations of said application, and in and to any and all Letters Patent which may be granted for said inventions in any foreign country or countries; the same to be held and enjoyed by the said **ZARLINK**SEMICONDUCTOR INC. for its own use and behoof, and for the use and behoof of its successors and assigns, to the full end of the term or terms for which said Letters Patent and reissues thereof may be granted as fully and entirely as the same would have been held and enjoyed by them had this assignment and sale not been made;

AND I hereby agree to execute, upon request, any and all further papers which may be necessary or desirable to enable the said **ZARLINK SEMICONDUCTOR**INC., its successors and assigns, to file and prosecute said application, and any and all substitutes, divisions, or continuations thereof, and any and all reissues of the Letters Patent granted upon said application, or upon any substitutes, divisions, or continuations thereof, and any and all applications for foreign Letters Patent on said invention; and I, further agree to execute any and all further papers which may be necessary or desirable to vest or perfect the title of said **ZARLINK**

PATENT REEL: 014131 FRAME: 0458 **SEMICONDUCTOR INC.**, its successors and assigns, in and to said application and the inventions therein disclosed, and in and to any and all Letters Patent and reissues thereof, both United States and foreign, which may be granted upon said application, and any substitutes, divisions, or continuations thereof, and upon any foreign applications.

AND I hereby authorize and request The Commissioner of Patents to issue each and every Letters Patent to be granted upon the aforesaid application for United States Letters Patent, and upon any and all substitutes, divisions, and continuations of said application, and each and every reissue of said Letters Patent, to the said **ZARLINK SEMICONDUCTOR INC.**, its successors and assigns, as the assignee of the entire right, title and interest therein, in accordance with this assignment.

WITNESS my hand at $X \sim 7/400A$, $O \sim 17$ this $\times 10$ day of $\times 5 t \sim 7$, 2002

Dieter SCHULZ

Witness:

RECORDED: 05/29/2003

REEL: 014131 FRAME: 0459