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To the Director of the U.S. Patent and	10349	6307	nents or the ne	w address(es) below.	
1. Name of conveying party(ies)/Execution			ress of receiving pa	rty(ies)	4
	•		orthrop Grumman		
Edward F. Stephens	•				-
		Internal Address:			-
Execution Date(s): August 31, 2006		Street Address:			
Additional name(s) of conveying party(les) attached?	Yes X No	1840 Century I	Park East		
J. Nature of Conveyance:					
Assignment Merge	ជ				
Security Agreement Chang	se of Name	City:	Los Angele	5	
Government Interest Assignment		State:	California	3	
Executive Order 9424, Confirmatory Licen		Country: United	States of America	Zip: 90067-2199	-
		! <u> </u>			-
Other		Additional name(i attached:	s) & address(65)	Yas X No	
			····		-
4. Application or patent number(s):	×		ing filed together with		
A. Patent Application No.(3)		B. Patent No	.(3)	09/07	
		· ·	114	1707	
Additional	numbers attached?	Yes	X No		
5. Name and address to whom corresponden		6. Total number	of applications and	·····	
concerning document should be mailed:		patents involv			
Name: Daniel J. Burnha	3 M	7 7-101 600 (77.0	FR 1.21(h) & 3.41)	\$ 40.00	
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ASSIGNMENT

WHEREAS, I, Edward F. Stephens , hereinafter referred to as Assignor

together with Northrop Grumman Corporation have jointly invented certain new and useful improvements in

LASER DIODE PACKAGE WITH AN INTERNAL FLUID COOLING CHANNEL

described in an application for United States Letters Patent as Serial No. 11/077,488 filed on March 10, 2005;

WHEREAS, Northrop Grumman Corporation, a Delaware corporation, having its principal place of business at 1840 Century Park East, Los Angeles, California 90067, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said application:

NOW, THEREFORE, in consideration of Assignor's obligations to Northrop Grumman Corporation, and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, Assignor's entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters patent which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be granted for said improvements in any country or countries foreign to the United States, including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all extensions, divisions, continuations-in-part, renewals and reissues thereof; and Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said Improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

Assignor hereby acknowledges that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor's entire right, title and interest in, to and under said improvements;

Assignor hereby covenants that Assignor has full right to convey the interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Grumman Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same right or could have been held and enjoyed by Assignor had this Assignment not been made.

Assignor hereby further covenants and agrees to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignor with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignor, to testify as to the same in any interference or illigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveyed for said improvements in all countries without further compensation, but at the expense of Assignee, its successors, legal representatives and assigns.

CHIK:AGO 336180v1 47080-00050USPT

PATENT REEL: 020800 FRAME: 0532



_, personally

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this <u>3121</u> day of (U: gust _____, 2006;

Edward F. Stephens

STATE OF MUXA) \$5 COUNTY OF

On 8.31.06 before me, 13. appeared Educard F. ST. Phen B ARA A. WEES ARA

appeared <u>Fdurwy</u> F.ST<u>Phene</u>, personally known to me - or - proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to this instrument and acknowledge to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

a. Zowo blerg Notary's Signature

(Seal)

BARBARA & LOWES Notary Public-Notary Se te of Mesouri, & Lou is County Commission # 05458335 Commission Excises Site F 30.

CHICAGO 336180v1 47080-00050USPT

TOTAL P.08

PATENT REEL: 020800 FRAME: 0533

	RECORDATION FOR PATENTS	
		record the attached documents or the new address(es) below. [2, Name and address of receiving party(ies)
	eying party(ies)/Execution Date(s):	1
Edward F. Step	hens	
		Internal Address:
Execution Date(s):	August 31, 2006	Street Address:
Additional name(s) of o	onveying party(les) stlached? Yes XNo	1840 Century Park East
3. Nature of Conv	eyance:	
X Assignment	Merger	
Security Agree	ment Change of Name	City: Los Angeles
Government In	nterest Assignment	State: California
		Country: United States of America Zip: 90067-2199
Executive Order 9424, Confirmatory License		
Other		Additional name(s) & address(es)
4. Application or	patent number(s):	This document is being filed together with a new application.
A. Patent Applicat		B. Patent No.(s)
	Additional numbers attached	? Yes XNo
	ess to whom correspondence ument should be mailed:	6. Total number of applications and 1 patents involved:
Name:	Daniel J. Burnham	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
	NIXON PEABODY LLP.	
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nternal Address:		Authorized to be charged by credit card
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	61 North Clark Street., 48 th Floor	Authorized to be charged to deposit account
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Street Address: 1(City: State: Phone Number: Fax Number: Email Address: Signature:	Chicago Illinois Zip: 60601-3213 (312) 425-3900 (312) 425-3909 dburnham@nixonpeabody.com Daniel J. Burnham – Reg. No. 39,618 Name of Person Signing	Authorized to be charged to deposit account Enclosed (part of filing fee) None required (government interest not affecting title) 8. Payment Information a. Credit Card Last 4 Numbers Expiration Date b. Deposit Account Number 50-4181 Authorized User Name November 9, 2007 Date Total number of pages including cover 3
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RECORDED: 11/09/2007

PATENT REEL: 020800 FRAME: 0534