

PATENT ASSIGNMENT

Electronic Version v1.1

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SUBMISSION TYPE:	NEW ASSIGNMENT						
NATURE OF CONVEYANCE:	ASSIGNMENT						
CONVEYING PARTY DATA							
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Andrew D. Smith</td><td>11/03/2006</td></tr><tr><td>Gerald R. Fischer</td><td>11/10/2006</td></tr></tbody></table>		Name	Execution Date	Andrew D. Smith	11/03/2006	Gerald R. Fischer	11/10/2006
Name	Execution Date						
Andrew D. Smith	11/03/2006						
Gerald R. Fischer	11/10/2006						
RECEIVING PARTY DATA							
Name:	NORTHROP GRUMMAN SPACE & MISSION SYSTEMS CORP.						
Street Address:	1840 Century Park East						
City:	Los Angeles						
State/Country:	CALIFORNIA						
Postal Code:	90067-2199						
PROPERTY NUMBERS Total: 1							
<table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>11559975</td></tr></tbody></table>		Property Type	Number	Application Number:	11559975		
Property Type	Number						
Application Number:	11559975						
CORRESPONDENCE DATA							
Fax Number:	(714)427-7799						
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>							
Phone:	714-427-7020						
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ATTORNEY DOCKET NUMBER:	54261-2400						
NAME OF SUBMITTER:	Albin H. Gess						
Total Attachments: 3 source=11559975 ASSIGN#page1.tif source=11559975 ASSIGN#page2.tif							

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PATENT
REEL: 018521 FRAME: 0563

ASSIGNMENT

WHEREAS, I, Andrew D. Smith, hereinafter referred to as
together with Gerald R. Fischer Assignor
have jointly invented certain new and useful HIGH SPEED DIFFERENTIAL ENCODER AND
improvements in INTERLEAVER
assigned Serial No. 11/559,975 filed November 15, 2006
described in an application for United States Letters Patent, executed by me on the date as stated
below;

WHEREAS, Northrop Grumman Space & Mission Systems Corp., an Ohio corporation, having
its principal place of business at 1840 Century Park East, Los Angeles, California 90067-2199,
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 Space
& Mission Systems Corp., and for other good and valuable consideration, the receipt and sufficiency of
which 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 hereafter be filed 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 Letters Patent which may be granted
for said improvements in any country or countries foreign to the United States and all extensions,
divisions, continuations, 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 Space & Mission Systems Corp., 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 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 Assignee 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 litigation 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.

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 3rd day of November, 2006, and has executed the referenced patent application on the 3rd day of November, 2006.

Andrew D. Smith

Andrew D. Smith

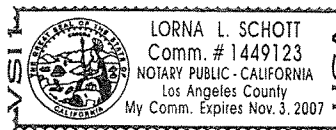
STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

On November 3, 2006 before me, Lorna L. Schott, Notary Public, personally appeared Andrew D. Smith, 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 acknowledged 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

Lorna L. Schott

Notary's Signature



(Seal)

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 10th day of November, 2006, and has executed the referenced patent application on the 10th day of November, 2006.

Gerald R. Fischer

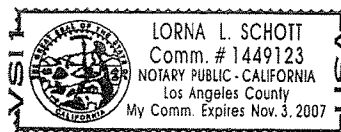
Gerald R. Fischer

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

On November 10, 2006 before me, Lorna L. Schott, Notary Public, personally appeared Gerald R. Fischer, 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 acknowledged 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

Lorna L. Schott
Notary's Signature



(Seal)