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-09	1-31-92 RECORDATIO	N FORM COVER SHEET	Patent and Trademark Office	
	Docket No. 09CR056 PATENTS ONLY			
. 17	1. Name of conveying party(ies):	2. Name and a	Iddress of receiving party(ies):	
2	Peter J. Morgan Raymond Zanoni Daniel E. Mazuk Alistair J. Price	Rockwell Collins 400 Collins Road M/S 124-323 Cedar Rapids, I	d NE	
	Additional name(s) of conveying party(ies) attached?	Additional name(s)	and Address(es) attached:?	
	3. Nature of conveyance: ☑ Assignment ☐ Merger □ Change of Name □ Other		Security Agreement	
	Execution Date: February 11, 2009; February 11, 2009; February 10, 2009; February 11, 2009			
	4. Application number(s) or patent number(s):			
	Serial Nº Filed: February 12, 20		il Label №: EM 260723196 US	
	If this document is being filed together with a new application	•		
	A. Patent Application No.(s)		B. Patent No.(s)	
	Additional numbers attached: 🖸 YES 🔯 NO			
	5. Name and address of party to whom	6. Total numbe	r of applications and patents	
	correspondence concerning document should be mailed:	involved: ONE		
	Customer No. 26383	7. Total fee (37	CFR 3.41) \$40.00	
	Rockwell Collins, Inc.			
	Nathan O. Jensen 400 Collins Road, NE M/S 124-323 Cedar Rapids, IA 52498	the recordation	sioner is hereby authorized to charge fee to deposit account 19-4882. This page If paying by deposit account).	
	DO NOT USE THIS SPACE			
			2/2009 DUVINE CONTINUE 194442 1973044	
	9. Statement and signature.		** 2009 DOYANE 00000006 194882 12378218 2:8021 40.00 DA	
	To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.			
	Jeffrey M. Andersen Reg. No. 52558	Total num	DATE: February 12, 2009 (her of page PATENT ver sheet: ONE (1)	

REEL: 022307 FRAME: 0028

ASSIGNMENT OF INVENTION

WHEREAS, Peter J. Morgan, of Glenelg, County of <u>Hou/AR</u>, and State of Maryland, hereinafter sometimes referred to as "said inventor", has invented certain new and useful improvements in SYSTEM AND METHOD FOR PROVIDING CASCADED OPTICAL LINE TERMINALS (OLTs) IN PASSIVE OPTICAL NETWORKS (PONs)

which invention or inventions (hereinafter referred to as "inventions") have been disclosed to and filed, under Docket No. 09CR056, in the patent files of the inventor's employer, ROCKWELL COLLINS, INC., and which invention is covered by a patent application, executed and filed concurrently herewith.

It is now agreed that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the said inventor has sold, assigned and transferred and by these presents does sell, assign and transfer unto ROCKWELL COLLINS, INC., the entire right, title and interest in and to said invention in and to said application, for the territory of the United States of America and for all foreign countries; said invention and application to be held and enjoyed by the said ROCKWELL COLLINS, INC., for its own use and for the use of its successors and assigns, to the full end of the term for which Letters Patent on same will be granted, as fully and entirely as the same would have been held by said inventor had this Assignment and sale not been made.

FURTHER, said inventor hereby agrees to sign all lawful papers necessary or helpful in obtaining patents, whether U.S. or foreign, on said invention or filing any divisional, continuation, substitution, or reissue application on said invention.

Executed at <u>COLUMBIA</u>, County of <u>HOWAR</u> and State of AND, this 11th day of FEBRUARY, 2009. PETER J. MORG

State of County of

On this <u>final</u> day of <u>Filmulw</u>, 20<u>0</u>, before me personally appeared PETER J. MORGAN to me known to be the person vibose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

(Seal)

Notary Public: My Commission Expires:

Commission Number: ALISHIA A. TAYLOR NOTARY PUBLIC BALTIMORE CITY

REEL: 022307 FRAME: 0029

WHEREAS, Raymond Zanoni, of Columbia, County of $\frac{1}{26\sqrt{6}, c}$, and State of Maryland, hereinafter sometimes referred to as "said inventor", has invented certain new and useful improvements in SYSTEM AND METHOD FOR PROVIDING CASCADED OPTICAL LINE TERMINALS (OLTs) IN PASSIVE OPTICAL NETWORKS (PONs)

which invention or inventions (hereinafter referred to as "inventions") have been disclosed to and filed, under Docket No. 09CR056 in the patent files of the inventor's employer, ROCKWELL COLLINS, INC., and which invention is covered by a patent application, executed and filed concurrently herewith.

It is now agreed that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the said inventor has sold, assigned and transferred and by these presents does sell, assign and transfer unto ROCKWELL COLLINS, INC., the entire right, title and interest in and to said invention in and to said application, for the territory of the United States of America and for all foreign countries; said invention and application to be held and enjoyed by the said ROCKWELL COLLINS, INC., for its own use and for the use of its successors and assigns, to the full end of the term for which Letters Patent on same will be granted, as fully and entirely as the same would have been held by said inventor had this Assignment and sale not been made.

FURTHER, said inventor hereby agrees to sign all lawful papers necessary or helpful in obtaining patents, whether U.S. or foreign, on said invention or filing any divisional, continuation, substitution, or reissue application on said invention.

Executed at $\frac{1}{2}$, $\frac{1}{2}$, County of $\frac{1}{2}$, $\frac{1}{2}$, $\frac{1}{2}$, and State of $\frac{1}{2}$, $\frac{1}{2}$

MOND ZANONI

State of County of

1) a. ylon a Henre A

On this <u>day</u> of <u>Human</u>, 20<u>19</u>, before me personally appeared RAYMOND ZANONI to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

(Seal)

Notary Public	isher A. HO
My Commission Expire	
Commission Number:	
W	ALISHIA A. TAYLOH NOTARY PUBLIC BALTIMORE CITY MARYLAND COMMISSION EXPIRES OCT. 01. 2010
	PATENT

REEL: 022307 FRAME: 0030

Best Available Copy

ASSIGNMENT OF INVENTION

WHEREAS, Daniel E. Mazuk, of Marion, County of Marion, and State of Iowa, hereinafter sometimes referred to as "said inventor", has invented certain new and useful improvements in SYSTEM AND METHOD FOR PROVIDING CASCADED OPTICAL LINE TERMINALS (OLTS) IN PASSIVE OPTICAL NETWORKS (PONS)

which invention or inventions (hereinafter referred to as "inventions") have been disclosed to and filed, under Docket No. 09CR056, in the patent files of the inventor's employer, ROCKWELL COLLINS, INC., and which invention is covered by a patent application, executed and filed concurrently herewith.

It is now agreed that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the said inventor has sold, assigned and transferred and by these presents does sell, assign and transfer unto ROCKWELL COLLINS, INC., the entire right, title and interest in and to said invention in and to said application, for the territory of the United States of America and for all foreign countries; said invention and application to be held and enjoyed by the said ROCKWELL COLLINS, INC., for its own use and for the use of its successors and assigns, to the full end of the term for which Letters Patent on same will be granted, as fully and entirely as the same would have been held by said inventor had this Assignment and sale not been made.

FURTHER, said inventor hereby agrees to sign all lawful papers necessary or helpful in obtaining patents, whether U.S. or foreign, on said invention or filing any divisional, continuation, substitution, or reissue application on said invention.

Executed at Celar Rapels, County of <u>Lenn</u> and State of un, this <u>10</u> day of <u>February</u>, 2009

DANIEL E. MAZIK

State of County of

On this <u>10</u> day of <u>February</u> 2009, before me personally appeared DANIEL E. MAZUK to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

Notarial Seal - lowa
LINDA SOHNER
LINUA SURINER
Commission Number 223706/
Commission Expires 2/26/11
My commission expires The
Contraction of the local data

Notary Public: My Commission Expires: Commission Number:

PATENT REEL: 022307 FRAME: 0031

ASSIGNMENT OF INVENTION

WHEREAS, Alistair J. Price of Ellicott City, County of Howard, and State of Maryland, hereinafter sometimes referred to as "said inventor", has invented certain new and useful improvements in SYSTEM AND METHOD FOR PROVIDING CASCADED OPTICAL LINE TERMINALS (OLTs) IN PASSIVE OPTICAL NETWORKS (PONs)

which invention or inventions (hereinafter referred to as "inventions") have been disclosed to and filed, under Docket No. 09CR056, in the patent files of the inventor's employer, ROCKWELL COLLINS, INC., and which invention is covered by a patent application, executed and filed concurrently herewith.

It is now agreed that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the said inventor has sold, assigned and transferred and by these presents does sell, assign and transfer unto ROCKWELL COLLINS, INC., the entire right, title and interest in and to said invention in and to said application, for the territory of the United States of America and for all foreign countries; said invention and application to be held and enjoyed by the said ROCKWELL COLLINS, INC., for its own use and for the use of its successors and assigns, to the full end of the term for which Letters Patent on same will be granted, as fully and entirely as the same would have been held by said inventor had this Assignment and sale not been made.

FURTHER, said inventor hereby agrees to sign all lawful papers necessary or helpful in obtaining patents, whether U.S. or foreign, on said invention or filing any divisional, continuation, substitution, or reissue application on said invention.

Executed at <u>Columbia</u>, County of <u>Howsard</u> <u>lary/and</u>, this <u>11</u> day of <u>February</u>, 2001. and State of

Alistair T. Rie

ALISTAIR J. PRICE

State of **ACounty of**

On this <u>I</u> day of <u>Full way</u>, 20<u>09</u>, before me personally appeared ALISTAIR J. PRICE to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

(Seal)

Notary Public: My Commission Expires: Commission Number: MY COMME ES OCT. 01, 2010

PATENT REEL: 022307 FRAME: 0032

RECORDED: 02/12/2009