505683553 09/20/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5730361

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| RONALD D. ESMAN | 09/18/2019 |

RECEIVING PARTY DATA

| Name: | ROCKWELL COLLINS, INC. | |
|-----------------|------------------------|--|
| Street Address: | 400 COLLINS ROAD, NE | |
| City: | CEDAR RAPIDS | |
| State/Country: | IOWA | |
| Postal Code: | 52498 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16577721 |

CORRESPONDENCE DATA

Fax Number: (402)496-0333

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 402.496.0300 Email: file@suiter.com

Correspondent Name: ROCKWELL COLLINS, INC./SUITER SWANTZ SUI

Address Line 1: 14301 FNB PARKWAY

Address Line 2: SUITE 220

Address Line 4: OMAHA, NEBRASKA 68154

| ATTORNEY DOCKET NUMBER: | 120302US01 |
|-------------------------|-------------------|
| NAME OF SUBMITTER: | ERIC M. NEWHOUSE |
| SIGNATURE: | /eric m newhouse/ |
| DATE SIGNED: | 09/20/2019 |

Total Attachments: 1

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PATENT REEL: 050446 FRAME: 0792 505683553

ASSIGNMENT OF INVENTION

WHEREAS, Ronald D. Esman, of McLean, County of Fairfax, and State of Virginia, hereinafter sometimes referred to as "said inventor", has invented certain new and useful improvements in

PHOTONIC N-TO-ONE SINGLE-MODE COMBINER

which invention or inventions (hereinafter referred to as "inventions") have been disclosed to and filed, under Docket No. 120302U501, 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 Columbia, County of Howard and State of Maryland, this 18th day of September, 2019.

Ronald D. Esman

Conald D. Esman

State of County of

instrument, and acknowledged to me that he executed the same.

> PATENT REEL: 050446 FRAME: 0793

RECORDED: 09/20/2019