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102169912 ERev. 6-93) To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 2. Name and address of receiving parties: Name of conveying party(ies): Name: HRL Laboratories, LLC (1) Ronald R. STEPHENS Internal Address: Additional name(s) of conveying parties attached? [] YES [X] NO Street Address: 3011 Malibu Canyon Road 3. Nature of conveyance: [X] Assignment [] Merger City: Malibu State: [] Security Agreement [] Change of Name Zip: 90265-4799 Country: U.S.A Additional name(s) & address(es) attached? []YES [X]NO [] Other_____ Execution Date: August 8, 2000 4. Application number(s) or patent number(s): ighis document is being filed together with a new application, the execution date of the application is: August 8, 2000 A. Patent Application No(s).: B. Patent No(s).: Additional numbers attached? [] YES [X] NO 5. Name and address of party to whom correspondence 6. Total number of application and patents involved: [1] concerning document should be mailed: Richard P. Berg 7. Total fee 937 CFR 3.41).....\$ 40.00 LADAS & PARRY Name: [X] Enclosed Internal Address:_ Any additional fees which may be required are Street Address: 5670 Wilshire Boulevard, #2100 [X] Authorized to be charged to deposit account City: Los Angeles State: CA Zip:90036-5679 No. 12-0415 Deposit account number: (Attach duplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE 9. Statement and signature. 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. Richard P. Berg July 15, 2002 Signature Date Name of Person Signing Reg. No. 28,145 Total number of pages including cover sheet, attachments, and document: [2] plus \$40 check Mail documents to be recorded with required cover sheet information to: Commissioner of Patents and Trademarks Box Assignments Washington, D.C. 20231 Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the date needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, of Information Systems, PK2-1000C, Washington, D.C. 20231, and to the Office of Management and Budget, aperwork Reduction Project (0651-0011), Washington, D.C., 20503.

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PATENT REEL: 013113 FRAME: 0585 8-3957DIV1 610905-1

USSN 09/593,188

Assignment Fæge 1 B-3757 617349-5

ASSIGNMENT

WHEREAS:

Ronald Regis Stephens

Residing at:

3117 West Sierra Drive

Westlake Village, California 91362

(hereinafter referred to as ASSIGNOR), has invented and owns a certain invention entitled:

"WAVELENGTH DIVISION MULTIPLEXING METHODS AND APPARATUS FOR CONSTRUCTING PHOTONIC BEAMFORMING NETWORKS"

for which application for Letters Patent of the United States was assigned <u>U.S. Application No. 09/593,188</u>, filed on <u>June 14, 2000</u>;

WHEREAS: HRL Laboratories, LLC

A Limited Liability Company formed under the laws of the State of Delaware, United States of America,

having its principal place of business at:

3011 Malibu Canyon Road Malibu, California 90265-4799

(hereinafter referred to as ASSIGNEE), is desirous of acquiring entire interest in, to and under said invention and in, to and under Letters Patent or similar legal protection to be obtained therefor in the United States and in any and all foreign countries.

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that ASSIGNOR, for good and valuable consideration, hereby sells, assigns and transfers to ASSIGNEE the full and exclusive right, title and interest to said invention in the United States and its territorial possessions and in all foreign countries, including the right to claim priority under any applicable provisions of the International Convention and the Patent Cooperation Treaty and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries to be obtained for said invention by said application or any continuation, division, renewal, substitute or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted.

ASSIGNOR hereby covenants that no assignment, sale, agreement or

PATENT REEL: 013113 FRAME: 0586 encumbrance has been or will be made or entered into which would conflict with this assignment and sale;

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention, assignments related to said application or said invention, and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to ASSIGNOR and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof in any foreign country which may be necessary or desirable to carry out the purposes thereof.

Subscribed and executed at Westlake Village, CA

on AUGUST 8 ______ 2000.

Inventor: Ronald Regis Stephens

Please return to: Ladas & Parry 5670 Wilshire Blvd. Ste. 2100 Los Angeles, CA 90036

RECORDED: 07/15/2002

PATENT REEL: 013113 FRAME: 0588