11-01-2002

U.S. DEPARTMENT OF COMMERCE **FORM PTO-1595** Patent and Trademark Office 1-31-92 **RECO** Docket No. 705328.14 (L&L 234/263) To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof. Name and address of receiving party: Name of conveying party(ies): MITSUBISHI ELECTRONICS AM Name: MITSUBISHI ELECTRIC & ELECTRONICS USA, INC. Additional name(s) of conveying party(ies) attached? Yes ⊠ No Street Address: 5665 Plaza Drive Nature of conveyance: Zip: 90630-0007 City: Cypress State: CA ☐ Merger ☐ Change of Name Security Agreement Other Execution Date: October 11, 2002 Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: Patent Application No(s). 09/167,510 B. Patent No(s).: Additional numbers attached? Yes No Total number of applications and patents involved: 1 Name and address of party to whom correspondence concerning document should be mailed: Total fee (37 CFR 3.41): \$ 40.00 Name: Kenneth S. Roberts Enclosed Internal Address: Orrick, Herrington & Sutcliffe LLP ☐ Charge this Deposit Account if any additional fee is required 4 Park Plaza, Suite 1600 Irvine, CA 92614-2558 Deposit Account Number: 15-0665 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. Date: October 17, 2002 Kenneth S. Roberts, Reg. No. 38,283 Total number of pages including cover sheet: 3OMB No. 0651-0011 (exp. 4/94) Do not detach this portion 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 data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, D.C. 20231, and to the Office of Management and Budget, Paperwork Reduction Project, (0651-0011), Washington, D.C. 20503

10/31/2002 LMURLLER 00000171 150665 09167510 01 FC:8021 40.00 CH

ASSIGNMENT

WHEREAS, BRUCE B. LUSIGNAN, ARTHUR KARP, TOHRU TAKAJI and KAZOU HOSONO, are inventors of a certain invention entitled IMPROVED ANTENNA FEED HAVING ELECTRICAL CONDUCTORS DIFFERENTIALLY AFFECTING APERTURE ELECTRICAL FIELD which application for Letters Patent of the United States of America was filed on October 6, 1998, and assigned Serial No. 09/167,510, and issued on October 26, 1999, as U.S. Patent No. 5,973,654, and

WHEREAS, said inventors for valuable consideration did assign to MITSUBISHI ELECTRONICS AMERICA, INC., a Delaware corporation (hereinafter referred to as "ASSIGNOR"), having a business address at 5665 Plaza Drive, Cypress, California 90630, and TERRASTAR, INC., a Delaware corporation, and their successors and assigns, the full and exclusive right, title and interest to said invention and to all Letter Patents or application or similar legal protection, not only in the United States and its territorial possessions, but in all countries foreign thereto to be obtained for said invention by said application, and to any continuation, division, renewal, substitute or reissue thereof or any legal equivalent thereof in the United States or a foreign country for the full term or terms for which the same may be granted, including all priority rights under the International Convention; said assignment recorded by the United States Patent and Trademark Office at Reel 9511, Frame 0629.

WHEREAS, MITSUBISHI ELECTRIC AMERICA, INC., a Delaware corporation, having a business address of 1050 E. Arques Avenue, Sunnyvale, California 94084, in a Patent Assignment Agreement dated December 11, 1998, (hereinafter referred to as "Agreement"), assigned to ASSIGNOR, MITSUBISHI ELECTRONICS AMERICA, INC., at its business address of 1050 E. Arques Avenue, Sunnyvale, California 94084, all right, title and interest in and to patents, patent applications, and unfiled invention disclosures described in Exhibit A to the Agreement; said assignment recorded by the United States Patent Office at Reel 009958, Frame 0094.

OC-128434.1

Patent

ORRICK DOCKET NO. 705328.15

(Lyon & Lyon Docket No. 234/264)

WHEREAS, MITSUBISHI ELECTRIC & ELECTRONICS USA, INC., a Delaware corporation,

having a place of business at 5665 Plaza Drive, Cypress, California 90630-0007 (hereinafter referred to as

"ASSIGNEE"), is desirous of acquiring the ASSIGNOR'S entire right, title and interest to said invention and

to all Letters Patent or application or similar legal protection, not only in the United States and its territorial

possessions, but in all countries foreign thereto to be obtained for said invention by said application, and to

any continuation, division, renewal, substitute or reissue thereof or any legal equivalent thereof in the United

States or a foreign country for the full term or terms for which the same may be granted, including all priority

rights under the International Convention; and

NOW, THEREFORE, for a valuable consideration, the receipt of which is hereby

acknowledged, ASSIGNOR does hereby sell, assign, transfer and set over unto the said ASSIGNEE,

its successors and assigns, the full right, title and interest in and to said invention, and in and to any

and all Letters Patents to be granted and issued therefor in the United States of America, its

territories and possessions, in and to all rights to sue for past infringement, and I hereby authorize

and request the Commissioner for Patents and Trademarks to issue said Letters Patents to said

ASSIGNEE, its successors and assigns, in accordance with this Assignment.

Dated: 0 , 2002

Name: Ronald L. Taylor

Assistant General Counsel, Director of Title:

Intellectual Property

Company: Mitsubishi Electric & Electronics USA, Inc.

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ASSIGNMENT

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NOW, THEREFORE, for a valuable consideration, the receipt of which is hereby

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Dated: ______, 2002

Name: Ronald L. Taylor

Assistant General Counsel, Director of Title:

Intellectual Property

Company: Mitsubishi Electric & Electronics USA, Inc.

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PATENT REEL: 013432 FRAME: 0682

RECORDED: 10/28/2002