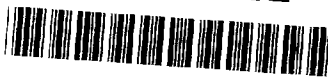


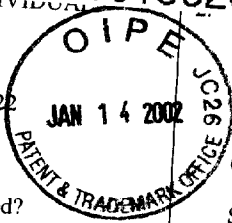
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Sheet 1 of 1

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of receiving Party(ies):

RAYTHEON COMPANY

141 Spring Street

Lexington

Massachusetts Zip: 02421

Name:

Street Address:

City:

State:

Additional name(s) &
Address(es) attached?

☐ Yes ☒ No

To the Honorable Commissioner of Pa

1. Name and Address of Conveying Party(ies) INDIVIDUAL

Raphael Joseph Welsh
327 Magothy Bridge Road
Pasadena, Anne Arundel County, Maryland 21122

Individual Citizenship: United States of America

Additional name(s) of conveying party(ies) attached?

Yes ☒ No ☐

3. Nature of conveyance:

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☐ Other

Execution Date: 01/09/02

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If this document is being filed together with a new application, the execution date of the application is:

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10/001,447 filed October 31, 2001

B. Patent No.(s):

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Internal Address: BAKER BOTTS L.L.P.
Street Address: 2001 Ross Avenue, Suite 600
City: Dallas
State: Texas Zip: 75201-2980

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REEL: 012487 FRAME: 0036

ASSIGNMENT

WHEREAS, I, the undersigned inventor, of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, said application having been filed on the date set forth below; and

WHEREAS, RAYTHEON COMPANY, (hereinafter referred to as "Assignee"), a Delaware Corporation, with an address of 141 Spring Street, Lexington, Massachusetts 02421, desires to acquire my entire right, title and interest in and to the invention, and in and to the said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, for and in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I assign to Assignee, all right, title and interest in and to said invention and in and to said application, all regular utility applications, divisions, reissues, continuations, continuations-in-part and extensions thereof, and all patents which may be granted therefrom; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as my interest is concerned, to Assignee.

I also assign to Assignee, all right, title and interest to the invention disclosed in said application throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world including all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries; and I further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such right, title and interest in Assignee.

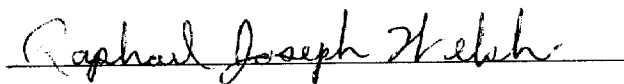
I will communicate to Assignee any facts known to me respecting any improvements; and, at the expense of Assignee, I will testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and substitute applications, make lawful oaths and declarations, and generally do everything possible to vest title in Assignee and to aid Assignee to obtain and enforce proper protection for said invention in all countries.

This Assignment shall be binding on the parties' successors, assigns and legal representatives.

Title of Invention:

MAGNETIC LOOP ANTENNA

Signature of Inventor:



Inventor's Name:

Raphael Joseph Welsh

Residence (City, County, State)

Pasadena, Anne Arundel County, Maryland

Date:

01/09/02 (JAN 9, 2002)

Date Application Executed:

01/09/02 (JAN 9, 2002)