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Attorney Docket No. **089229.00223**

To the **103558133** of  
Please record the attached documents or the new address(es) below

1. Name of conveying party(ies)

**1) Kari HOOLI 2) Kari PAJUKOSKI  
3) Esa TIROLA**

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

☐ Yes ☒ No

2. Name and address of receiving party(ies):

Name: **NOKIA SIEMENS NETWORKS OY**

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City: **ESPOO** State:

Country: **FINLAND** Zip: **02610**

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

☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s): **1-3) March 18, 2009**

- ☒ **Assignment** ☐ Merger  
☐ Government Interest Assignment ☐ Change of Name  
☐ Joint Research Agreement ☐ Security Agreement  
☐ Executive Order 9424, Confirmatory License  
☐ Other \_\_\_\_\_

4. Application or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

**12/382,662**

Additional numbers attached? ☐ Yes ☒ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: **Squire Sanders & Dempsey L.L.P.**

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6. Total number of applications and patents involved:  
One

7. Total fee (37 CFR 1.21(h) & 3.41)..... \$ **40.00**

- ☐ Authorized to be charged to deposit account  
☒ Enclosed. Check No. **20791**.  
☐ None required (government interest not affecting title)

8. Payment Information

Deposit Account Number: **50-2222**

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9. Signature:

Signature

**April 22, 2009**  
Date

**12/382,662**  
Patent No.

**40.00**  
Fee

**Sheetal S. Patel**

Name of Person Signing

Total number of pages including cover sheet, attachments,  
and documents: **3**

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**PATENT**  
**REEL: 022591 FRAME: 0821**

Docket No. 089229.00223

**WORLDWIDE INVENTION ASSIGNMENT**

For good and valuable consideration paid to the undersigned inventor(s) (hereinafter ASSIGNOR)  
by

(Print  
ASSIGNOR'S  
Name(s)  
Address(es))

NOKIA SIEMENS NETWORKS OY  
KARAPORTTI 3  
ESPOO 02610  
FINLAND

(hereinafter ASSIGNEE), the receipt and sufficiency of which is hereby acknowledged, the undersigned ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE the entire and exclusive right, title and interest to the invention entitled

(Title of  
Invention)

**FREQUENCY HOPPING PATTERN AND ARRANGEMENT FOR SOUNDING REFERENCE  
SIGNAL**

\*If the assignment  
is being filed  
after the filing of the  
application, this  
section must be  
completed.

for which the following applications were filed:

\*Filed on: March 20, 2009 Application Number(s) 12/382,662

(Squire, Sanders & Dempsey L.L.P. is hereby authorized to insert the series code, serial number and/or filing date hereon, when known)

and all Letters Patent of any country in the world to be obtained therefor on said application or any continuation, division, renewal, substitute, reissue or reexamination thereof for the full term or terms for which the same may be granted.

The ASSIGNOR agrees to execute all papers necessary in connection with application and any continuing, divisional, reissue or reexamination applications thereof and also to execute separate assignments in connection with such applications as the ASSIGNEE may deem necessary or expedient.

The ASSIGNOR agrees to execute all papers necessary in connection with any interference, litigation, or other legal proceeding which may be declared concerning this application or any continuation, division, reissue or reexamination thereof or Letters Patent or reissue patent issued thereon and to cooperate with the ASSIGNEE in every way possible in obtaining and producing evidence and proceeding with such interference, litigation, or other legal proceeding.

IN WITNESS WHEREOF, the undersigned inventor(s) has (have) affixed his/her their signature(s).

(Signatures of  
Assignor(s))

  
(SIGNATURE)

**Kari HOOLI**  
(TYPE NAME)

  
(DATE)


  
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**Kari PAIK KOSKI**  
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**Esa TIROLA**  
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(DATE)

PATENT