PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Michael P. McMullen	06/19/2008
Kevin L. Butler	06/19/2008

RECEIVING PARTY DATA

Name:	Sprint Spectrum L.P.	
Street Address:	6450 Sprint Parkway	
City:	Overland Park	
State/Country:	KANSAS	
Postal Code:	66251	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12143310

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Total Attachments: 3

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PATENT REEL: 021129 FRAME: 0591

FORM PTO-1595 U.S. DEPARTMENT OF COMMERCE RECORDATION FORM COVER SHEET Patent and Trademark Office PATENTS ONLY To The Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): Name and address of receiving party(ies) Michael P. McMullen Name: Sprint Spectrum L.P. Kevin L. Butler Address: 6450 Sprint Parkway Execution Date: June 19, 2008 Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No City: Overland Park State: Kansas Nature of conveyance: Country: U.S.A. Zip: 66251 ■ Assignment □ Merger ☐ Change of Name ☐ Security Agreement Additional name(s) & address(es) attached? □ Yes ☒ No ☐ Other ___ Application number(s) or patent number(s): ☑ This document is being filed together with a new application A. Patent Application No.(s) Filing Date B. Patent No.(s) Additional numbers attached? ☐ Yes ☒ No Name and address of party to whom correspondence concerning document should be mailed: Total number of applications and patents involved: 1 Name: Steven J. Funk Total Fee (37 CFR 3.41).....\$40.00 Registration No.: 35,875 □ Enclosed Company Name: Sprint Spectrum L.P. Street Address: 6391 Sprint Parkway ☐ None required (government interest not affecting title) Mailstop: KSOPHT0101-Z2100 City: Overland Park State: Kansas Deposit account number: 210765 Country: U.S.A. ZIP: 66251 DO NOT USE THIS SPACE 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. Lawrence H. Aaronson /Lawrence H. Aaronson/ Date: June 20, 2008 Printed Name of Person Signing Signature Total number of pages including cover sheet, attachments, and document: 3 Mail documents to be recorded with required cover sheet information to: **Mail Stop Assignment Recordation Services** Director of the United States Patent and Trademark Office

> PO Box 1450 Alexandria, Virginia 22313-1450

> > PATENT REEL: 021129 FRAME: 0592

ASSIGNMENT AND AGREEMENT IN AN APPLICATION FOR LETTERS PATENT OF THE UNITED STATES OF AMERICA

I hereby declare that I am the sole inventor (if only one inventor is named below) or an original, first and joint inventor (if plural inventors are named below) of the invention relating to "Use of Ping-Pong Border Location as Approximated Mobile Station Location" described in an application for Letters Patent of the United States of America filed on , Serial No. , or, if not identified here by filing date and serial number, executed by me on even date with my execution of this Assignment.

For valuable consideration received, I hereby sell, assign and transfer to Sprint Spectrum L.P., a limited partnership duly organized and existing under the laws of the State of Delaware, United States of America, its successors and assigns, my entire right, title and interest, for all countries in and to said inventions and all the rights and privileges under any and all Letters Patent that may be granted therefor, and any divisions, continuations, reissues and extensions thereof.

I agree that, when requested, I will, without charge to said limited partnership but at its expense, sign all papers, take all rightful oaths, make all rightful declarations and do all acts which may be necessary, desirable or convenient for securing and maintaining patents or other forms of protection for said inventions in any and all countries and for vesting title thereto in said limited partnership, its successors, assigns or nominees.

I agree that I will communicate to said limited partnership or its representatives any facts known to me respecting said inventions and when requested by said limited partnership and at its expense will testify in any legal proceedings, and generally do everything possible to aid said limited partnership, its successors, assigns and legal representatives or nominees, to obtain or enforce proper protection for said inventions in any and all countries.

I authorize and empower said limited partnership, its successors, assigns or nominees, to make application for patent or other form of protection for said inventions in its or their own name, or in my/our name, in any and all countries to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

I hereby consent that a copy of this Assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of the said limited partnership or its successors, assigns or nominees to apply for patent or other proper protection for said inventions, and to claim the aforesaid benefits of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

I covenant with Sprint Spectrum L.P., its successors, assigns, legal representatives, and nominees, that to the best of my knowledge the right, title and interest herein conveyed by me are free and clear of any encumbrance, and that I have the full right to convey the same as herein expressed.

This Agreement and Assignment supersedes all other assignments, agreements and addendums related to the above identified application.

The undersigned hereby authorizes and requests the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known, and the date of execution of the application.

PATENT REEL: 021129 FRAME: 0593

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