

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Donald C. D. Chang	05/07/2012
RECEIVING PARTY DATA	
Name:	Spatial Digital Systems, Inc.
Street Address:	9428 Eton Ave.
Internal Address:	suite G
City:	Chatsworth
State/Country:	CALIFORNIA
Postal Code:	91311
PROPERTY NUMBERS Total: 5	
Property Type	Number
Application Number:	13303781
Application Number:	13291594
Application Number:	13274782
Application Number:	13367031
Application Number:	13281261
CORRESPONDENCE DATA	
Fax Number:	(818)772-2303
Phone:	8187722300
Email:	spatialdigital@gmail.com
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>	
Correspondent Name:	Donald C. D. Chang
Address Line 1:	9428 Eton Ave.
Address Line 2:	Suite G
Address Line 4:	Chatsworth, CALIFORNIA 91311

NAME OF SUBMITTER:

Donald C. D. Chang

Total Attachments: 5

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Assignment of Invention and Patent Application

For value received, **Donald Chang**
of **Thousand Oaks, California**

(hereinafter ASSIGNOR) hereby sells, assigns, transfers and sets over unto _____
Spatial Digital Systems, Inc.
of Chatsworth, CA

and her or his successors or assigns (hereinafter ASSIGNEE) 100 % of the following: (A) ASSIGNOR'S
right, title and interest in and to the invention entitled :

"method and apparatus for channel bonding using multi-beam antennas,"

invented by ASSIGNOR; (B) the application for the United States patent therefor, signed by ASSIGNOR on
10 April 2012, U.S. Patent and Trademark Office Serial Number **13/274,782**, filed **17 October 2011**;
(C) any patent or reissues of any patent that may be granted thereon; and (D) any applications which are
provisional patent applications which said application claims priority of, or nonprovisional applications
which claim priority of said application, or continuations, continuations-in-part, substitutes, or divisions
of said application. ASSIGNOR authorizes ASSIGNEE to enter the date of signature and/or Serial Number
and Filing Date in the spaces above. ASSIGNOR also authorizes and requests the Commissioner of
Patents to issue any resulting patent(s) as follows: 0 % to ASSIGNOR and 100 % to ASSIGNEE.
(The singular shall include the plural and vice versa herein.)

ASSIGNOR hereby further sells, assigns, transfers and sets over unto ASSIGNEE, the above percentage of
ASSIGNOR's entire right, title and interest in and to said invention in each and every country foreign to
the United States; and ASSIGNOR further conveys to ASSIGNEE the above percentage of all priority
rights resulting from the above-identified application for United States Patent. ASSIGNOR agrees to
execute all papers, give any required testimony, and perform other lawful acts, as ASSIGNEE's expense,
as ASSIGNEE may require to enable ASSIGNEE to perfect ASSIGNEE's interest in any resulting patent of
the United States and countries foreign thereto, and to acquire, hold, enforce, convey, and uphold the
validity of said patent and reissues and extensions thereof, and ASSIGNEE's interest therein.

In testimony whereof ASSIGNOR has hereunto set its hand and seal on the date below.

Print Name DONALD CHANG

Signature Donald Chang Date 04/15/2012

PATENT

REEL: 028168 FRAME: 0333

Assignment of Invention and Patent Application

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and her or his successors or assigns (hereinafter ASSIGNEE) 100 % of the following: (A) ASSIGNOR'S
right, title and interest in and to the invention entitled:

"High speed MMF transmissions via orthogonal wavefronts for avionics,"

invented by ASSIGNOR; (B) the application for the United States patent therefor, signed by ASSIGNOR on
10 April 2012, U.S. Patent and Trademark Office Serial Number **13/281,261**, filed **25 October 2011**;
(C) any patent or reissues of any patent that may be granted thereon; and (D) any applications which are
provisional patent applications which said application claims priority of, or nonprovisional applications
which claim priority of said application, or continuations, continuations-in-part, substitutes, or divisions
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Print Name Donald Chang

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and her or his successors or assigns (hereinafter ASSIGNEE) 100 % of the following: (A) ASSIGNOR'S right, title and interest in and to the invention entitled :

"Apparatus and method for remote beamforming for DBS satellites,"

invented by ASSIGNOR; (B) the application for the United States patent therefor, signed by ASSIGNOR on **15 April 2012**, U.S. Patent and Trademark Office Serial Number **13/291,594**, filed **8 November 2011**; (C) any patent or reissues of any patent that may be granted thereon; and (D) any applications which are provisional patent applications which said application claims priority of, or nonprovisional applications which claim priority of said application, or continuations, continuations-in-part, substitutes, or divisions of said application. ASSIGNOR authorizes ASSIGNEE to enter the date of signature and/or Serial Number and Filing Date in the spaces above. ASSIGNOR also authorizes and requests the Commissioner of Patents to issue any resulting patent(s) as follows: 0 % to ASSIGNOR and 100 % to ASSIGNEE. (The singular shall include the plural and vice versa herein.)

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Signature [Handwritten Signature]

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and her or his successors or assigns (hereinafter ASSIGNEE) 100 % of the following: (A) ASSIGNOR'S right, title and interest in and to the invention entitled :

"Coherent power combining for signals through multiple satellite communications channels,"

invented by ASSIGNOR; (B) the application for the United States patent therefor, signed by ASSIGNOR on **10 April 2012**, U.S. Patent and Trademark Office Serial Number **13/303,781**, filed **23 November 2011**; (C) any patent or reissues of any patent that may be granted thereon; and (D) any applications which are provisional patent applications which said application claims priority of, or nonprovisional applications which claim priority of said application, or continuations, continuations-in-part, substitutes, or divisions of said application. ASSIGNOR authorizes ASSIGNEE to enter the date of signature and/or Serial Number and Filing Date in the spaces above. ASSIGNOR also authorizes and requests the Commissioner of Patents to issue any resulting patent(s) as follows: 0 % to ASSIGNOR and 100 % to ASSIGNEE. (The singular shall include the plural and vice versa herein.)

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right, title and interest in and to the invention entitled :

"Coherent power combining via wavefront multiplexing on deep space spacecraft,"

invented by ASSIGNOR; (B) the application for the United States patent therefor, signed by ASSIGNOR on
10 April 2012, U.S. Patent and Trademark Office Serial Number **13/367,031**, filed **6 February 2012**;
(C) any patent or reissues of any patent that may be granted thereon; and (D) any applications which are
provisional patent applications which said application claims priority of, or nonprovisional applications
which claim priority of said application, or continuations, continuations-in-part, substitutes, or divisions
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Signature Donald Chang Date 04/15/2012