

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Bandspeed, Inc.	05/14/2008
RECEIVING PARTY DATA	
Name:	Muramoto Scientific, LLC
Street Address:	108 West 13th Street
City:	Wilmington
State/Country:	DELAWARE
Postal Code:	19801
PROPERTY NUMBERS Total: 5	
Property Type	Number
Patent Number:	6295326
Patent Number:	6983030
Patent Number:	6804313
Patent Number:	6996199
Patent Number:	7272199
CORRESPONDENCE DATA	
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NAME OF SUBMITTER:	Hannah Tran

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Total Attachments: 6

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ASSIGNMENT OF PATENT RIGHTS

For good and valuable consideration, the receipt of which is hereby acknowledged, **Bandspeed, Inc.**, a Delaware corporation having an address at 4301 Westbank Drive, Building B Suite 100, Austin, TX 78746 ("**Assignor**"), does hereby sell, assign, transfer, and convey unto **Muramoto Scientific, LLC**, a Delaware limited liability company, with an office at 108 West 13th Street, Wilmington, DE 19801 ("**Assignee**"), or its designees all right, title, and interest that exist today and may exist in the future in and to all of the following (collectively, the "**Patent Rights**"):

(a) the provisional patent applications, patent applications and patents listed in the table below (the "**Patents**");

(b) all patents and patent applications to which any of the Patents directly or indirectly claim priority, and all future patents and patent applications which directly or indirectly claim priority to any of the Patents;

(c) all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, divisions, registrations of any item in any of the foregoing categories (a) and (b);

(d) all foreign patents, patent applications, and counterparts directly relating to any item in any of the foregoing categories (a) through (c), including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances;

(e) inventions, invention disclosures, and discoveries described in any of the Patents and/or any item in the foregoing categories (b) through (d) that (i) are included in any claim in the Patents and/or any item in the foregoing categories (b) through (d), (ii) are subject matter capable of being reduced to a patent claim in a reissue or reexamination proceedings brought on any of the Patents and/or any item in the foregoing categories (b) through (d), and/or (iii) could have been included as a claim in any of the Patents and/or any item in the foregoing categories (b) through (d);

(f) all rights to apply in any or all countries of the world for patents, certificates of invention, utility models, industrial design protections, design patent protections, or other governmental grants or issuances of any type related to any item in any of the foregoing categories (a) through (e), including, without limitation, under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding;

(g) all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Patents and/or any item in any of the foregoing categories (b) through (f), including, without limitation, all causes of action and other enforcement rights for

- (i) damages,
- (ii) injunctive relief, and
- (iii) any other remedies of any kind

for past, current, and future infringement; and

(h) all rights to collect royalties and other payments under or on account of any of the Patents and/or any item in any of the foregoing categories (b) through (g).

<u>Patent or Application No.</u>	<u>Country</u>	<u>Filing Date</u>	<u>Title of Patent and First Named Inventor(s)</u>
60/123,348	US	03/08/1999	Kalman filter based equalization for high speed digital communication channels, Shane Tonissen
60/173,778	US	12/30/1999	Method and apparatus for equalization in a communication receiver using finite precision arithmetic, Andrew Storm
60/173,785	US	12/30/1995	Method and apparatus for equalization and crosstalk mitigation in a communication system, Efstratios Skafidas
60/264,506	US	1/25/2001	Method and apparatus for equalization and noise minimization in a communication receiver using discrete multitone modulation, Andrew Storm
60/264,369	US	1/25/2001	Method for the adaptive adjustment of time and frequency domain equalizers in an ADSL/VDSL receiver, Andrew Storm
US 6295326	US	03/01/2000	Kalman filter based equalization for digital multicarrier communications systems, Shane Tonissen
US 6983030	US	01/02/2001	Approach for processing data received from a communications channel in finite precision arithmetic applications, Andrew Storm
US 6804313	US	01/02/2001	Approach for processing data received from a communications channel, Efstratios Skafidas
US 6996199	US	01/22/2002	Approach for processing data received from a communications channel to reduce noise power and optimize impulse response length to reduce

<u>Patent or Application No.</u>	<u>Country</u>	<u>Filing Date</u>	<u>Title of Patent and First Named Inventor(s)</u>
			inter-symbol interference and inter-channel interference, Andrew Storm
US 7272199	US	01/24/2002	Adaptive adjustment of time and frequency domain equalizers in communications systems, Andrew Storm
PCT/US00/06045	WO	03/08/2000	Kalman equalization in multicarrier receivers, Shane Tonissen
PCT/US01/00084	WO	01/02/2001	Method for equalizing data received, Shane Tonissen
PCT/US01/00169	WO	01/02/2001	Approach for processing data received from a communications channel in finite precision arithmetic applications, Andrew Storm
PCT/US02/02484	WO	1/25/2002	Joint reduction of noise power and of the length of the channel impulse response, Andrew Storm
PCT/US02/02483	WO	1/25/2002	Adaptive adjustment of time domain and frequency domain equalizers in multicarrier receivers, Andrew Storm
JP 2005501430	JP	03/08/2000	Kalman equalization in multicarrier receivers, Shane Tonissen
JP 3751203	JP	03/08/2000	Kalman equalization in multicarrier receivers, Shane Tonissen
EP 1157514	EP	03/08/2000	Kalman equalisation in multicarrier receivers, Shane Tonissen
DE 60028012	DE	03/08/2000	Kalman-entzerrung in mehrträgerempfängern, Shane Tonissen
AT0326810E	AT	03/08/2000	Kalman-Entzerrung In Mehrträgerempfängern, Shane Tonissen
JP 2003519962	JP	01/02/2001	Approach for processing data received from a communications channel in

<u>Patent or Application No.</u>	<u>Country</u>	<u>Filing Date</u>	<u>Title of Patent and First Named Inventor(s)</u>
			finite precision arithmetic applications, Andrew Storm
IL 145090	IL	01/02/2001	Approach for processing data received from a communication channel in finite precision arithmetic applications, Andrew Storm
EP 1157512	EP	01/02/2001	Approach for processing data received from a communications channel in finite precision arithmetic applications, Andrew Storm
CA 2381314	CA	01/02/2001	Approach for processing data received from a communications channel in finite precision arithmetic applications, Andrew Storm
JP 2001-550954	JP		
SK 2001-7011069	SK		
EP 0272086.4	EP		
EP 02720863.6	EP		
AU 0127577	AU	01/02/2001	Approach for processing data received from a communications channel in finite precision arithmetic applications, Andrew Storm
AU 2251835	AU	01/25/2002	Joint reduction of noise power and of the length of the channel impulse response, Andrew Storm
AU 2251834	AU	01/25/2002	Adaptive adjustment of time domain and frequency domain equalizers in multicarrier receivers, Andrew Storm

Assignor represents, warrants and covenants that:

(1) Assignor has the full power and authority, and has obtained all third party consents, approvals and/or other authorizations required to enter into this Agreement and to carry out its obligations hereunder, including the assignment of the Patent Rights to Assignee; and

(2) Assignor owns, and by this document assigns to Assignee, all right, title, and interest to the Patent Rights, including, without limitation, all right, title, and interest to sue for infringement of the Patent Rights. Assignor has obtained and properly recorded previously executed assignments for the Patent Rights as necessary to fully perfect its rights and title therein in accordance with governing law and regulations in each respective jurisdiction. The Patent Rights are free and clear of all liens, claims, mortgages, security interests or other encumbrances, and restrictions. There are no actions, suits, investigations, claims or proceedings threatened, pending or in progress relating in any way to the Patent Rights. There are no existing contracts, agreements, options, commitments, proposals, bids, offers, or rights with, to, or in any person to acquire any of the Patent Rights.

Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Patent Rights in the name of Assignee, as the assignee to the entire interest therein.

Assignor will, at the reasonable request of Assignee and without demanding any further consideration therefor, do all things necessary, proper, or advisable, including without limitation, the execution, acknowledgment, and recordation of specific assignments, oaths, declarations, and other documents on a country-by-country basis, to assist Assignee in obtaining, perfecting, sustaining, and/or enforcing the Patent Rights. Such assistance will include providing, and obtaining from the respective inventors, prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, powers of attorney, specifications, declarations or other papers, and other assistance reasonably necessary for filing patent applications, complying with any duty of disclosure, and conducting prosecution, reexamination, reissue, interference or other priority proceedings, opposition proceedings, cancellation proceedings, public use proceedings, infringement or other court actions and the like with respect to the Patent Rights. With prior written approval by Assignee, Assignee will pay Assignor's reasonable costs and expenses for the foregoing assistance.

The terms and conditions of this Assignment of Patent Rights will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

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IN WITNESS WHEREOF this Assignment of Patent Rights is executed at Bank of America on May 14, 2008.

ASSIGNOR

BANDSPEED, INC.

By: William L. Eversole

Name: William L. Eversole

Title: President & CEO

(Signature MUST be notarized)

STATE OF Texas)
) ss.
COUNTY OF Travis)

On May 14, 2008 before me, Sheridan Hilts, Notary Public in and for said State, personally appeared William L. Eversole, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of Texas that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Sheridan Hilts

(Seal)

