506126038 06/25/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MINGHAI QIN	03/22/2018

RECEIVING PARTY DATA

Name: WESTERN DIGITAL TECHNOLOGIES, INC.		
Street Address:	5601 GREAT OAKS PARKWAY	
City:	SAN JOSE	
State/Country:	CALIFORNIA	
Postal Code:	95119	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16909815

CORRESPONDENCE DATA

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Correspondent Name: TYLER THORP

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ATTORNEY DOCKET NUMBER:	SAND-02231US2
NAME OF SUBMITTER:	TYLER THORP
SIGNATURE:	/Tyler Thorp/
DATE SIGNED:	06/25/2020

Total Attachments: 2

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PATENT 506126038 REEL: 053043 FRAME: 0670

SOLE TO CORPORATE ASSIGNMENT

WHEREAS, the undersigned, Minghai Qin, a resident of San Jose, California (hereinafter termed "Inventor"), has invented certain new improvements in:

ENCODING AND DECODING OF HAMMING DISTANCE-BASED BINARY REPRESENTATIONS OF NUMBERS

and has	executed	a dec	claration	for	an	application	for	a	United	States	patent	disclosing	and
identifying the invention, the declaration being executed on 3/22/2018								•					

WHEREAS Western Digital Technologies, Inc. (hereinafter termed "Assignee"), a corporation of the State of Delaware, having a place of business at 5601 Great Oaks Parkway, San Jose, CA 95119, wishes to acquire the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered by said Inventor (all collectively hereinafter termed "said invention"), and in and to any and all patents, certificates of invention and other forms of protection thereon (hereinafter termed "patents") applied for or granted in the United States and/or other countries.

NOW THEREFORE, for good and valuable consideration acknowledged by said Inventor to have been received in full from said Assignee:

- 1. Said Inventor does hereby sell, assign, transfer and convey unto said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply in any and all countries of the world for patents, certificates of inventions or other governmental grants on said invention, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of inventions or other governmental grants granted on said invention in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.
- 2. Said Inventor hereby covenants and agrees to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventor shall include prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary

Page 1 of 2

Attorney Docket No.: SAND-02231US1 sand/2231us1/2231us1-assignment

or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventor in providing such cooperation shall be paid for by said Assignee.

- 3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventor, said Inventor's heirs, legal representatives and assigns.
- 4. Said Inventor hereby warrants and represents that said Inventor has not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

		De War	
Dated:	3/22/2018	Jan 12 (12)	
	•	MINGHAI QIN	
		141111 (0134 (4114	

Page 2 of 2