

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4873146

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
RAY BITTNER	08/23/2012
ERIK S. RUF	08/23/2012
<b>RECEIVING PARTY DATA</b>	
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<b>Postal Code:</b>	98052
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15889068
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<b>ATTORNEY DOCKET NUMBER:</b>	337214-US-CNT[2]
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<b>SIGNATURE:</b>	/alex lea/
<b>DATE SIGNED:</b>	03/19/2018
<b>Total Attachments: 2</b>	
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I/WE, Ray Bittner and Erik S. Ruf ("ASSIGNOR"), have invented subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "Direct Communication Between GPU and FPGA Components" ("APPLICATION"), which:

- ☒ will be filed without this executed PATENT ASSIGNMENT. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representatives, of the Law and Corporate Affairs Department, Microsoft Corporation, One Microsoft Way, Redmond, Washington 98052, who are associated with customer number 69316, to insert here in parenthesis (Application No. 13/593,129, filed August 23, 2012) this APPLICATION's Application No. and filing date, when known;
- ☐ was filed on \_\_\_\_\_ and was given Application No. \_\_\_\_\_;
- ☐ is filed concurrently herewith;

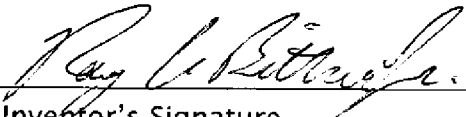
Microsoft Corporation, a Washington Corporation, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

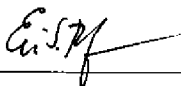
For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, the entire and exclusive rights, title and interest in the INVENTION and the APPLICATION (and APPLICATION DERIVATIVES);

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

PATENT ASSIGNMENT

MS Docket No.: 337214.01

 _____ Inventor's Signature	<u>8/23/2012</u> _____ Date
<u>Ray Bittner</u> _____ Printed Name in English	_____ Printed Name in Native Language (if other than English)

 _____ Inventor's Signature	<u>8/23/2012</u> _____ Date
<u>Erik S. Ruf</u> _____ Printed Name in English	_____ Printed Name in Native Language (if other than English)