

# PATENT ASSIGNMENT

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Wael William Diab	03/31/2009
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	Broadcom Corporation
<b>Street Address:</b>	5300 California Avenue
<b>City:</b>	Irvine
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	92617
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	12415978
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(312)775-8100
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
<b>Phone:</b>	312.775.8000
<b>Email:</b>	mhmpto@mcandrews-ip.com
<b>Correspondent Name:</b>	Chad M. Gilles
<b>Address Line 1:</b>	McAndrews, 500 W. Madison St., 34th Fl
<b>Address Line 4:</b>	Chicago, ILLINOIS 60661
<b>ATTORNEY DOCKET NUMBER:</b>	19469US02
<b>NAME OF SUBMITTER:</b>	Chad M. Gilles
<b>Total Attachments: 2</b> source=19469US02_BU7316_Assignment_As_Filed#page1.tif source=19469US02_BU7316_Assignment_As_Filed#page2.tif	

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**PATENT**  
**REEL: 023186 FRAME: 0601**

# ASSIGNMENT

File No.: 19469US02

Serial No.: 12/415,978

Inventor: Wael William Diab

Filing Date: March 31, 2009

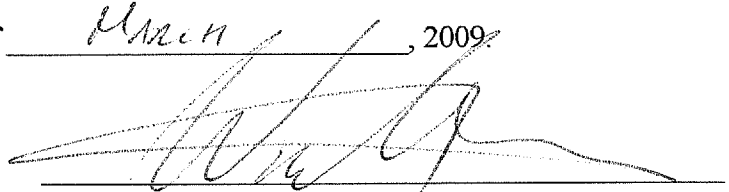
In consideration of One Dollar (\$1.00) and other good and valuable considerations in hand paid, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assigns to Broadcom Corporation, a California corporation, its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled: **Method and System for MAC and PHY Synchronization for Energy Efficient Networking**, and identified as File No. **19469US02**, in the offices of McANDREWS, HELD & MALLOY, LTD., and in a provisional application filed in the United States Patent and Trademark Office as Serial No. **61/045,203 filed on April 15, 2008**, and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any continuation, continuation-in-part, divisional, re-examination, reissue or extension of such applications or patents, and further assigns to said assignee the priority right provided by the International Convention.

The undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee. 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, if applicable. The undersigned warrants himself to be the owner of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrants that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations the undersigned hereby agrees, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all continuation, continuation-in-part, divisional, re-examination, extension and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue, re-examination or extension of any Letters Patent that may be granted upon said application, and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient, and for the said considerations the undersigned authorizes said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agrees, upon the request of said assignee, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain said Letters Patent, both United States and foreign, and to vest all rights hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will

granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

WITNESS my hand this 31<sup>st</sup> day of March, 2009.

A handwritten signature in dark ink, appearing to read 'Wael William Diab', is written over a horizontal line.

Wael William Diab