

## PATENT ASSIGNMENT COVER SHEET

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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>
GRAEME MACKAY	09/23/2015
ANDREW BOTHWELL	09/22/2015
<b>RECEIVING PARTY DATA</b>	
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<b>Internal Address:</b>	QUARTERMILE
<b>City:</b>	EDINBURGH
<b>State/Country:</b>	UNITED KINGDOM
<b>Postal Code:</b>	EH3 9EG
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15900257
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<b>ATTORNEY DOCKET NUMBER:</b>	141841.00870-P1294USPC02
<b>NAME OF SUBMITTER:</b>	MINDY MAYER
<b>SIGNATURE:</b>	/mindy mayer/
<b>DATE SIGNED:</b>	02/20/2018
<b>Total Attachments: 3</b>	
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***INVENTOR ASSIGNMENT***

WHEREAS, GRAEME MACKAY, residing at 95 Townhill Road, Dunfermline, KY12 0BS United Kingdom, and ANDREW BOTHWELL, residing at 14 Ledcameroch Gardens, Dunblane, FK15 0GZ United Kingdom, collectively called the "Assignors," have made the invention described in the United States patent application entitled *Detection Circuit*, Attorney Docket No. 141841.00229 (P1294USPC), filed on June 18, 2015 and assigned Application U.S. Serial No. 14/653,661; and

For good and valuable consideration, the receipt and sufficiency of which is acknowledged, I hereby sell, assign, and transfer unto Cirrus Logic International Semiconductor Ltd., a wholly-owned subsidiary of Cirrus Logic, Inc. organized under and pursuant to the laws of Scotland and having its principal place of business at Westfield House, 26 Westfield Road, Edinburgh EH11 2QB, United Kingdom, the entire right, title, and interest in and to the invention and all related intellectual property rights (the "Invention") and in and to all applications related to the Invention for Letters Patent in the United States of America, including but not limited to any and all direct and indirect divisions, continuations, continuations-in-part, and reexaminations of said applications and reissues of any resulting patents, and I further authorize and assign all rights to Cirrus Logic International Semiconductor Ltd. to apply for Letters Patent in the United States of America directly in its own name, and to claim priority of the filing date of an application for the earliest-filed patent application(s) for the Invention. Furthermore, for good and valuable consideration, the receipt of which is acknowledged, I hereby also sell, assign, and transfer unto Cirrus Logic International Semiconductor Ltd. the entire right, title, and interest in and to the invention and in and to all applications related to the invention for all countries foreign to the United States of America, including but not limited to all rights under any and all international conventions and treaties in respect of the invention and the applications for Letters Patent, utility models, utility patents, design patents, supplementary protection certificates, patent certificates, and all similar protections in all countries foreign to the United States of America, and I further authorize and assign all rights to Cirrus Logic International Semiconductor Ltd. to apply for Letters Patent, utility models, utility patents, and patent certificates in all countries foreign to the United States directly in its own name, and to claim priority of the filing date of an application for the earliest-filed patent application(s) for the invention under the provisions of any and all laws, international conventions, treaties, or otherwise.

I hereby authorize and request the Commissioner of Patents of the United States of America to issue Letters Patent in the United States of America upon the aforesaid application, and any application related to the aforesaid application in the United States of America, to Cirrus Logic International Semiconductor Ltd., for the sole use and benefit of Cirrus Logic International Semiconductor Ltd., its successors, assigns, and legal representatives, to the full end of the term for which the Letters Patent in the United States of America may be granted, the same as they would have been held and enjoyed by me had this assignment not been made. I hereby authorize and request the equivalent authorities in foreign countries to issue the patents of their respective countries to Cirrus Logic International Semiconductor Ltd.

I agree that, when requested, I will, without charge to Cirrus Logic, Inc. or its subsidiaries, but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable, or convenient for securing and maintaining any and all patent protection (as described above) for the Invention in any and all countries and for respectively vesting title thereto in Cirrus Logic International Semiconductor Ltd., its successors, assigns, and legal representatives or nominees. To the maximum extent allowed by law, I hereby irrevocably designate and appoint Cirrus Logic International Semiconductor Ltd. and its duly authorized officers and agents, or Cirrus Logic International Semiconductor Ltd.'s applicable designee, as my agents and attorneys-in-fact to act for and on my behalf and instead of me to sign all papers, take all rightful oaths, and do all acts described in the foregoing sentence should I refuse or become otherwise unavailable to do so.

Name of First Inventor	GRAEME MACKAY
Signature of First Inventor	
Date	SEP 23 2015

Name of Second Inventor	ANDREW BOTHWELL
Signature of Second Inventor	
Date	

I hereby authorize and request the Commissioner of Patents of the United States of America to issue Letters Patent in the United States of America upon the aforesaid application, and any application related to the aforesaid application in the United States of America, to Cirrus Logic International Semiconductor Ltd., for the sole use and benefit of Cirrus Logic International Semiconductor Ltd., its successors, assigns, and legal representatives, to the full end of the term for which the Letters Patent in the United States of America may be granted, the same as they would have been held and enjoyed by me had this assignment not been made. I hereby authorize and request the equivalent authorities in foreign countries to issue the patents of their respective countries to Cirrus Logic International Semiconductor Ltd.

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Name of First Inventor	GRAEME MACKAY
Signature of First Inventor	
Date	

Name of Second Inventor	ANDREW BOTHWELL
Signature of Second Inventor	Andrew Bothwell
Date	22/9/2015