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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Markku Ylilammi	10/22/2018
Tapani Makkonen	10/22/2018
Tuomas Pensala	10/19/2018

RECEIVING PARTY DATA

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16125637

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ATTORNEY DOCKET NUMBER:	38877-0010001	
NAME OF SUBMITTER:	MELISSA ALEXANDER	
SIGNATURE:	/Melissa Alexander/	
DATE SIGNED:	12/04/2018	

Total Attachments: 2

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> **PATENT** REEL: 047673 FRAME: 0091 505219591

Attorney Docket No.: 38877-0010001

ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, MARKKU YLILAMMI, TAPANI MAKKONEN, and TUOMAS

PENSALA, each individually assign to VTT TECHNICAL RESEARCH CENTRE OF

FINLAND LTD, a limited liability company formed under the laws of Finland and having a Vuorimiehentie 3 Vuorimiehentie 3 PO Box 1000, Espoo, FI-02044 VTT,

FINLAND, and its successors, transferees, and assignees (collectively the "Assignee"), all of our individual and joint right, title, and interest throughout the world in the invention(s) (the "Subject Matter") described in a patent application that names us as inventors, is titled "TWO-STAGE LATERAL BULK ACOUSTIC WAVE FILTER," and was or will be filed in the United States Patent and Trademark Office on September 7, 2018, as application 16/125,637 (the "Application").

This Assignment assigns, in addition to the Subject Matter of the Application, (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region and under every treaty or convention, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignce's name.

We represent and warrant that we have the right and power to make this Assignment and that we have not made and will not make any other assignment that conflicts with this Assignment.

Attorney Docket No.: 38877-0010001

We will communicate to the Assignee (or, at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter; will execute and provide all oaths and declarations, statements, testimony, assignments, powers of attorney, applications, and documents; and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

M. Yalanar	Date:	oct 22 2018
MARKKÚ YLILAMMI	The state of the	
Type Wall	Date:	Oct 22, 2018
TAPANI MAKKONEN		
	Date:	OCT 19, 2018
TUOMAS PENSALA	,,,,,	

The Assignee hereby acknowledges and accepts the foregoing assignment.

Assignee: VTT TECHNICAL RESEARCH CENTRE OF FINLAND LTD

Signature: Date: 22 Oct 2018

Name: Pasi Nikkonen

Title: Patent Counsel, holder of General Power of Attorney

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Assignment Page 2 of 2

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