

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4457816

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ADAM TANKIELUN	05/15/2017
CORBETT ROWELL	05/16/2017
HENDRIK BARTKO	05/15/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ROHDE & SCHWARZ GMBH & CO. KG
<b>Street Address:</b>	MUEHLDFORSTRASSE 15
<b>City:</b>	MUNICH
<b>State/Country:</b>	GERMANY
<b>Postal Code:</b>	81671
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15581808
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(703)519-9958
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	(703) 519-9951
<b>Email:</b>	docket@dcpatent.com
<b>Correspondent Name:</b>	DITTHAVONG & STEINER, P.C.
<b>Address Line 1:</b>	44 CANAL CENTER PLAZA
<b>Address Line 4:</b>	ALEXANDRIA, VIRGINIA 22314
<b>ATTORNEY DOCKET NUMBER:</b>	P8701US00
<b>NAME OF SUBMITTER:</b>	BRIAN K. SEIDLECK
<b>SIGNATURE:</b>	/Brian K. Seidleck/
<b>DATE SIGNED:</b>	06/13/2017
<b>Total Attachments: 6</b>	
source=P50520US_P8701US00_CombinedDecandAssign_filed#page1.tif	
source=P50520US_P8701US00_CombinedDecandAssign_filed#page2.tif	
source=P50520US_P8701US00_CombinedDecandAssign_filed#page3.tif	
source=P50520US_P8701US00_CombinedDecandAssign_filed#page4.tif	

source=P50520US\_P8701US00\_CombinedDecandAssign\_filed#page5.tif

source=P50520US\_P8701US00\_CombinedDecandAssign\_filed#page6.tif

Application No.: US15581808  
Assignee's Reference: E04680  
Reference Assignee's local lawyer: P50520

## COMBINED DECLARATION AND ASSIGNMENT FOR PATENT APPLICATION

Title of invention:  
Calibration system and method for calibrating an antenna array

### DECLARATION

As the below named inventor, I hereby declare that:

This declaration is directed to the following application for patent (the "Application):

**United States application or PCT international application number US15581808, filed on 2017-04-28.**

The above identified Application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the Application.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment made on (if applicable).

I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, U.S. Code of Federal Regulations, Section 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

### ASSIGNMENT

In return for good and valuable compensation / consideration, the receipt of which is hereby acknowledged, I, the undersigned, hereby:

Application No.: US15581808  
Assignee's Reference: E04680  
Reference Assignee's local lawyer: P50520

sell, assign, and transfer to Rohde & Schwarz GmbH & Co. KG ("Assignee"), a corporation of Germany, having a principal place of business at Muehldorfstrasse 15, Munich, Germany, 81671, and its successors, assigns and legal representatives, the entire right, title, and interest (for the United States and all foreign countries) in and to (i) the Application, including any and all improvements that are disclosed in the Application, and (ii) all divisional, continuing, substitute, renewal, reissue, and all other patent applications, which have been or are subsequently filed in the United States and all foreign countries, based on or claiming priority to the Application, or based on any of said improvements, and (iii) all original and reissued patents that have been or are subsequently issued in the United States and all foreign countries from the Application or based on any of said improvements, and (iv) all rights of priority resulting from the filing of the Application in the United States and all foreign countries; and

agree that the Assignee may apply for and receive a patent or patents based on the Application and for any of said improvements in its own name, and agree, when requested, without charge to, but at the expense of, the Assignee, or its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment: to execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications based on or claiming priority to the Application, or based on any and all of said improvements; to execute all associated assignments and powers of attorney; to communicate to the Assignee, and its successors, assigns and legal representatives, all facts known to me relating to the Application and said improvements, and the history thereof; and to generally assist the Assignee, and its successors, assigns and legal representatives, in securing and maintaining proper patent protection for said improvements, and in vesting title to the Application, and all applications for patent and all patents based on said improvements, in the Assignee, and its successors, assigns and legal representatives; and

covenant with the Assignee, and its successors, assigns and legal representatives, that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by me, and that full right to convey the same as herein expressed is possessed by me.

It is expressly agreed by both Assignor and Assignee that this Assignment fully conveys and transfers from Assignor to Assignee the right to sue for any and all patent infringement occurring prior to and after the date of this Assignment.

Full Name: Adam Tankielun

2017-05-15   
Date Inventor's Signature

Application No.: US15581808  
Assignee's Reference: E04680  
Reference Assignee's local lawyer: P50520

## COMBINED DECLARATION AND ASSIGNMENT FOR PATENT APPLICATION

Title of invention:  
Calibration system and method for calibrating an antenna array

### DECLARATION

As the below named inventor, I hereby declare that:

This declaration is directed to the following application for patent (the "Application):

**United States application or PCT international application number US15581808, filed on 2017-04-28.**

The above identified Application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the Application.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment made on (if applicable).

I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, U.S. Code of Federal Regulations, Section 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

### ASSIGNMENT

In return for good and valuable compensation / consideration, the receipt of which is hereby acknowledged, I, the undersigned, hereby:

Application No.: US15581808  
Assignee's Reference: E04680  
Reference Assignee's local lawyer: P50520

sell, assign, and transfer to Rohde & Schwarz GmbH & Co. KG ("Assignee"), a corporation of Germany, having a principal place of business at Muehldorfstrasse 15, Munich, Germany, 81671, and its successors, assigns and legal representatives, the entire right, title, and interest (for the United States and all foreign countries) in and to (i) the Application, including any and all improvements that are disclosed in the Application, and (ii) all divisional, continuing, substitute, renewal, reissue, and all other patent applications, which have been or are subsequently filed in the United States and all foreign countries, based on or claiming priority to the Application, or based on any of said improvements, and (iii) all original and reissued patents that have been or are subsequently issued in the United States and all foreign countries from the Application or based on any of said improvements, and (iv) all rights of priority resulting from the filing of the Application in the United States and all foreign countries; and

agree that the Assignee may apply for and receive a patent or patents based on the Application and for any of said improvements in its own name, and agree, when requested, without charge to, but at the expense of, the Assignee, or its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment: to execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications based on or claiming priority to the Application, or based on any and all of said improvements; to execute all associated assignments and powers of attorney; to communicate to the Assignee, and its successors, assigns and legal representatives, all facts known to me relating to the Application and said improvements, and the history thereof; and to generally assist the Assignee, and its successors, assigns and legal representatives, in securing and maintaining proper patent protection for said improvements, and in vesting title to the Application, and all applications for patent and all patents based on said improvements, in the Assignee, and its successors, assigns and legal representatives; and

covenant with the Assignee, and its successors, assigns and legal representatives, that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by me, and that full right to convey the same as herein expressed is possessed by me.

It is expressly agreed by both Assignor and Assignee that this Assignment fully conveys and transfers from Assignor to Assignee the right to sue for any and all patent infringement occurring prior to and after the date of this Assignment.

Full Name: Corbett Rowell

Date \_\_\_\_\_  
Inventor's Signature  16 May 2017

Application No.: US15581808  
Assignee's Reference: E04680  
Reference Assignee's local lawyer: P50520

## COMBINED DECLARATION AND ASSIGNMENT FOR PATENT APPLICATION

Title of invention:  
Calibration system and method for calibrating an antenna array

### DECLARATION

As the below named inventor, I hereby declare that:

This declaration is directed to the following application for patent (the "Application):

**United States application or PCT international application number US15581808, filed on 2017-04-28.**

The above identified Application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the Application.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment made on (if applicable).

I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, U.S. Code of Federal Regulations, Section 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

### ASSIGNMENT

In return for good and valuable compensation / consideration, the receipt of which is hereby acknowledged, I, the undersigned, hereby:

Application No.: US15581808  
Assignee's Reference: E04680  
Reference Assignee's local lawyer: P50520

sell, assign, and transfer to Rohde & Schwarz GmbH & Co. KG ("Assignee"), a corporation of Germany, having a principal place of business at Muehldorfstrasse 15, Munich, Germany, 81671, and its successors, assigns and legal representatives, the entire right, title, and interest (for the United States and all foreign countries) in and to (i) the Application, including any and all improvements that are disclosed in the Application, and (ii) all divisional, continuing, substitute, renewal, reissue, and all other patent applications, which have been or are subsequently filed in the United States and all foreign countries, based on or claiming priority to the Application, or based on any of said improvements, and (iii) all original and reissued patents that have been or are subsequently issued in the United States and all foreign countries from the Application or based on any of said improvements, and (iv) all rights of priority resulting from the filing of the Application in the United States and all foreign countries; and

agree that the Assignee may apply for and receive a patent or patents based on the Application and for any of said improvements in its own name, and agree, when requested, without charge to, but at the expense of, the Assignee, or its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment: to execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications based on or claiming priority to the Application, or based on any and all of said improvements; to execute all associated assignments and powers of attorney; to communicate to the Assignee, and its successors, assigns and legal representatives, all facts known to me relating to the Application and said improvements, and the history thereof; and to generally assist the Assignee, and its successors, assigns and legal representatives, in securing and maintaining proper patent protection for said improvements, and in vesting title to the Application, and all applications for patent and all patents based on said improvements, in the Assignee, and its successors, assigns and legal representatives; and

covenant with the Assignee, and its successors, assigns and legal representatives, that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by me, and that full right to convey the same as herein expressed is possessed by me.

It is expressly agreed by both Assignor and Assignee that this Assignment fully conveys and transfers from Assignor to Assignee the right to sue for any and all patent infringement occurring prior to and after the date of this Assignment.

Full Name: Hendrik Bartko

2017-05-15   
Date Inventor's Signature