

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
RAPHAEL J. WELSH	08/11/2023
DOUGLAS A. THORNTON	08/14/2023
MACKENZIE J. HAWKINS	08/15/2023
MICAH MELESKI	08/25/2023
KATHERINE M. ARMITAGE	09/25/2023
DANIEL G. LOESCH	08/14/2023
MATTHEW E. HUNTWORK	08/11/2023
DAVID R. CHASE	08/23/2023
ERIK W. EDWARDS	08/23/2023
JOHN BARTHOLOMEW	08/11/2023
THOMAS L. MOFFITT	09/25/2023
CURT HUDBERG	09/25/2023
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Street Address:	505 KING AVENUE
City:	COLUMBUS
State/Country:	OHIO
Postal Code:	43201
PROPERTY NUMBERS Total: 2	
Property Type	Number
Application Number:	18139620
PCT Number:	US2319985
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PATENT

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NAME OF SUBMITTER: RICHARD M. KLEIN

SIGNATURE: /Richard M. Klein/

DATE SIGNED: 10/10/2023

Total Attachments: 6

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**ASSIGNMENT AND AGREEMENT IN AN APPLICATION FOR
LETTERS PATENT OF THE UNITED STATES OF AMERICA**

I hereby declare that I am the sole inventor (if only one inventor is named below) or an original, first and joint inventor (if plural inventors are named below) of the invention relating to “ MODULAR RADIO FREQUENCY APERTURE” described in an application for Letters Patent of the United States of America filed on April 26, 2023, Serial No 18/139,620 and Serial No. PCT/US23/19985 or, if not identified here by filing date and serial number, executed by me on even date with my execution of this Assignment.

For valuable consideration received, I hereby sell, assign and transfer to Battelle Memorial Institute, a nonprofit corporation duly organized and existing under the laws of the State of Ohio, United States of America, its successors and assigns, my entire right, title and interest, for all countries in and to said inventions and all the rights and privileges under any and all Letters Patent that may be granted therefore, and any divisions, continuations, reissues and extensions thereof.

I agree that, when requested, I will, without charge to said nonprofit corporation but at its expense, sign all papers, take all rightful oaths, make all rightful declarations and do all acts which may be necessary, desirable or convenient for securing and maintaining patents or other forms of protection for said inventions in any and all countries and for vesting title thereto in said limited partnership, its successors, assigns or nominees.

I agree that I will communicate to said nonprofit corporation or its representatives any facts known to me respecting said inventions and when requested by said nonprofit corporation and at its expense will testify in any legal proceedings, and generally do everything possible to aid said limited partnership, its successors, assigns and legal representatives or nominees, to obtain or enforce proper protection for said inventions in any and all countries.

I authorize and empower said nonprofit corporation, its successors, assigns or nominees, to make application for patent or other form of protection for said inventions in its or their own name, or in my/our name, in any and all countries to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

I hereby consent that a copy of this Assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of the said nonprofit corporation or its successors, assigns or nominees to apply for patent or other proper protection for said inventions, and to claim the aforesaid benefits of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

I covenant with Battelle Memorial Institute, its successors, assigns, legal representatives, and nominees, that to the best of my knowledge the right, title and interest herein conveyed by me are free and clear of any encumbrance, and that I have the full right to convey the same as herein expressed.

This Agreement and Assignment supersedes all other assignments, agreements and addendums related to the above-identified application.

After this Assignment has been recorded, please return it to:

Attn: Susanne A. Wilson

wilsonsa@battelle.org
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SOLE OR JOINT
 Inventor (1): Raphael J. Welsh / *Raphael J. Welsh* /
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 (Signature in Full)
 Date: 8/11/2023

Citizenship: US

Post Office Address: 505 King Avenue
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Residence: Columbus, OH

1st Witness: Richard Higgins / *Richard Higgins* /
26BCA8004106459...
 (Type or Print) (Signature)

2nd Witness: Roger Kanke / *Roger Kanke* /
8ECFA3A48598AC1
 (Type or Print) (Signature)

SOLE OR JOINT
 Inventor (2): Douglas A Thornton / *Douglas A. Thornton* /
7E5714C99108...
 (Signature in Full)
 Date: 8/14/2023

Citizenship: US

Post Office Address: 505 King Avenue
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Residence: Columbus, OH

1st Witness: Raymond Sprungle / *Raymond Sprungle* /
52E845389D82438
 (Type or Print) (Signature)

2nd Witness: Cheryl-Lynn May / *Cheryl-Lynn May* /
0CA1F4DF6958103...
 (Type or Print) (Signature)

SOLE OR JOINT
 Inventor (3): Mackenzie J. Hawkins / *Mackenzie J. Hawkins* /
FB6356404...
 (Signature in Full)
 Date: 8/15/2023

Citizenship: US

Post Office Address: 505 King Avenue
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Residence: Westerville, OH

1st Witness: Mollie Engel / *Mollie Engel* /
097DE23E0F094F1...
 (Type or Print) (Signature)

2nd Witness: Shane Lanham / *Shane Lanham* /
1086F7889DFC43A...
 (Type or Print) (Signature)

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SOLE OR JOINT
 Inventor (4): Micah Meleski / Micah Meleski /
FFF56578C325480...
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 Citizenship: US Date: 8/25/2023
 Post Office Address: 505 King Avenue
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 Residence: Columbus, OH
 1st Witness: Raymond Sprungle / Raymond Sprungle /
52E845399D6243E
 (Type or Print) (Signature)
 2nd Witness: Richard Higgins / Richard Higgins /
20BCA8064100459
 (Type or Print) (Signature)

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SOLE OR JOINT
 Inventor (5): Katherine M. Armitage / Katherine M. Armitage /
FE344B419277406...
 (Signature in Full)
 Citizenship: US Date: 9/25/2023
 Post Office Address: 505 King Avenue
 Columbus, OH 43201
 Residence: Columbus, OH
 1st Witness: Suhayl Elkhammas / Suhayl Elkhammas /
8AT2017AD08164F7
 (Type or Print) (Signature)
 2nd Witness: Brandon Kowalski / Brandon Kowalski /
298F2821BC5948B
 (Type or Print) (Signature)

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SOLE OR JOINT
 Inventor (6): Daniel G. Loesch / Daniel G. Loesch /
C1024B56AC8476
 (Signature in Full)
 Citizenship: US Date: 8/14/2023
 Post Office Address: 505 King Avenue
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 1st Witness: Brandon Kowalski / Brandon Kowalski /
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 (Type or Print) (Signature)
 2nd Witness: Raymond Sprungle / Raymond Sprungle /
52E845399D6243E
 (Type or Print) (Signature)

SOLE OR JOINT
 Inventor (7): Matthew E. Huntwork / Matthew E. Huntwork
143C0CD7BA3D400...
 (Signature in Full)
 Date: 8/11/2023

Citizenship: US

Post Office Address: 505 King Avenue
 Columbus, OH 43201

Residence: Columbus, OH
 Grant Hampel

1st Witness: _____ / Grant Hampel
714F0A91A8514FC...
 (Type or Print) (Signature)

2nd Witness: David Bartholomew / David Bartholomew
102CCE23D9034E5...
 (Type or Print) (Signature)

SOLE OR JOINT
 Inventor (8): David R. Chase / David R. Chase
097DF30E0F04F1...
 (Signature in Full)
 Date: 8/23/2023

Citizenship: US

Post Office Address: 505 King Avenue
 Columbus, OH 43201

Residence: Columbus, OH
 Mollie Engel

1st Witness: _____ / Mollie Engel
097DF30E0F04F1...
 (Type or Print) (Signature)

2nd Witness: Cheryl-Lynn May / Cheryl-Lynn May
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 (Type or Print) (Signature)

SOLE OR JOINT
 Inventor (9): Erik W. Edwards / Erik W. Edwards
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 (Signature in Full)
 Date: 8/23/2023

Citizenship: US

Post Office Address: 505 King Avenue
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Residence: Columbus, OH

1st Witness: Melissa Roshon / Melissa Roshon
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2nd Witness: Bryon Moore / Bryon Moore
D75A8D254689450...
 (Type or Print) (Signature)

DocuSigned by:
 John Bartholomew
 (Signature in Full)
 31522A308ED04F3...

SOLE OR JOINT
 Inventor (10): John Bartholomew /
 Date: 8/11/2023

Citizenship: US

Post Office Address: 505 King Avenue
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Residence: Columbus, OH

1st Witness: Susanne Wilson /
 (Type or Print) (Signature)
 EA4AE3802434F9...

2nd Witness: Cheryl-Lynn May /
 (Type or Print) (Signature)
 06A1F4DF6D56489...

DocuSigned by:
 Thomas L. Moffitt
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SOLE OR JOINT
 Inventor (11): Thomas L. Moffitt /
 Date: 9/25/2023

Citizenship: US

Post Office Address: 505 King Avenue
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Residence: Columbus, OH

1st Witness: Raymond Sprungle /
 (Type or Print) (Signature)
 52E413399062133...

2nd Witness: Jacquelyn Clemmer /
 (Type or Print) (Signature)
 604618CDE5784B9...

DocuSigned by:
 Curt HUDBERG
 (Signature in Full)
 73761C0B7C034F8...

SOLE OR JOINT
 Inventor (12): Curt Hudberg /
 Date: 9/25/2023

Citizenship: US

Post Office Address: 505 King Avenue
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Residence: Columbus, OH

1st Witness: Susanne Wilson /
 (Type or Print) (Signature)
 EA4AE3802434F9...

2nd Witness: Mollie Engel /
 (Type or Print) (Signature)
 097DF23E0E194F1...