

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
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EPAS ID: PAT4643024

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
THOMAS JACKSON	07/19/2017
PETER HOU	06/22/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	HUGHES NETWORK SYSTEMS, LLC
<b>Street Address:</b>	11717 EXPLORATION LANE
<b>City:</b>	GERMANTOWN
<b>State/Country:</b>	MARYLAND
<b>Postal Code:</b>	20876
<b>PROPERTY NUMBERS Total: 2</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15610447
<b>Application Number:</b>	15185515
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<b>ATTORNEY DOCKET NUMBER:</b>	37BT-249114- 37BT- 206117
<b>NAME OF SUBMITTER:</b>	DANIEL N. YANNUZZI
<b>SIGNATURE:</b>	/Daniel N. Yannuzzi/
<b>DATE SIGNED:</b>	10/16/2017
<b>Total Attachments: 4</b>	
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ASSIGNMENT

WHEREAS, Thomas Jackson and Peter Hou, Assignors, have invented a new and useful SATELLITE GROUND TERMINAL UTILIZING FREQUENCY-SELECTIVE SURFACE SUBREFLECTOR, for which an United States Utility patent application was filed on May 31, 2017, under Serial No. 15/610,447; and also SATELLITE GROUND TERMINAL UTILIZING FREQUENCY-SELECTIVE SURFACE DIPLEXER, United States Utility patent application was filed on June 17, 2016, under Serial No. 15/185,515; and

WHEREAS, Assignors believe themselves to be the original, first, and joint inventors of the inventions disclosed and claimed in the application for Letters Patent; and

WHEREAS, Hughes Network Systems, LLC, having a place of business at 11717 Exploration Lane, Germantown, Maryland 20876, Assignee, desires to acquire by formal, recordable assignment the entire right, title and interest in and to the inventions, the application, and any Letters Patent that might be granted for the inventions in the United States and throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, said Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto said Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions, application for Letters Patent, and any and all Letters Patent or Patents in the United States of America and all foreign countries which may be granted therefor and thereon, and in and to any and all divisions, continuations and continuations-in-part of said application, or reissues or extensions of said Letters Patent or Patents, and all rights under the International

Convention for the Protection of Industrial Property, the same to be held and enjoyed by said Assignee, for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted, as fully and entirely as the same would have been held and enjoyed by the Assignors, had this sale and assignment not been made.

AND for the same consideration, said Assignors hereby covenant and agree to and with said Assignee its successors, legal representatives and assigns, that said Assignors will, whenever counsel of said Assignee, or the counsel of its successors, legal representatives and assigns, shall advise that any proceeding in connection with said inventions, or said application for Letters Patent, or any proceeding in connection with Letters Patent for said inventions in any country, including interference proceedings, is lawful and desirable, or that any division, continuation or continuation-in-part of any application for Letters Patent or any reissue or extension of any Letters Patent, to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of Letters Patent for said inventions, without charge to said Assignee, its successors, legal representatives and assigns, but at the cost and expense of said Assignee, its successors, legal representatives and assigns.

AND for the same consideration, said Assignors hereby covenant and agree to and with said Assignee its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, said Assignors are the sole and lawful owners of the entire right, title and interest in and to said inventions and the application for Letters Patent

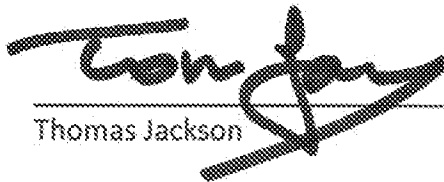
above-mentioned, and that the same are unencumbered and that said Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

Assignors authorize and request the Commissioner of Patents and Trademarks of the United States and of all foreign countries to issue any Letters Patent granted for the inventions, whether on the application or on any subsequently filed division, continuation, continuation-in-part or reissue application, to Assignee, its successors and assigns, as the assignee of the entire interest in the inventions.

ASSIGNORS:

Date:

7/19/17

  
\_\_\_\_\_  
Thomas Jackson

Date:

\_\_\_\_\_

\_\_\_\_\_  
Peter Hou

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Assignors authorize and request the Commissioner of Patents and Trademarks of the United States and of all foreign countries to issue any Letters Patent granted for the inventions, whether on the application or on any subsequently filed division, continuation, continuation-in-part or reissue application, to Assignee, its successors and assigns, as the assignee of the entire interest in the inventions.

ASSIGNORS:

Date: \_\_\_\_\_

\_\_\_\_\_  
Thomas Jackson

Date: 6/22/2017

  
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Peter Hou