502800353 05/08/2014 PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
CONVEYING PARTY	ΔΤΑ			
		Name	Execution Date	
AYHAM AL-BANNA			05/07/2014	
RECEIVING PARTY D	ΑΤΑ			
Name:	ARRIS E	ARRIS Enterprises, Inc.		
Street Address:	3871 La	3871 Lakefield Drive		
Internal Address:				
City:	Suwann	Suwannee		
State/Country:	GEORG	GEORGIA		
Postal Code:	30024	30024		
Property Type) (Number		
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ASSIGNMENT

WHEREAS I, Ayham Al-Banna (hereinafter collectively referred to as ASSIGNOR), have invented certain inventions and improvements entitled "Identifying Wideband Impulse Noise using a Group of Small Channels" disclosed in Patent Application Number 14/200254 filed in the United States Patent and Trademark Office on March 7, 2014; and,

WHEREAS, ARRIS Enterprises, Inc., a corporation formed under the laws of Delaware, having a principal place of business at 3871 Lakefield Drive, Suwanee, Georgia 30024 (hereinafter referred to as ASSIGNEE), is desirous of acquiring the entire interest in, to, and under said invention and the United States Letters Patent to be obtained therefore:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and for other good and valuable consideration, ASSIGNORS hereby sell, assign, and transfer to ASSIGNEE the full and exclusive right, title and interest to said invention and all Letters Patent of the United States to be obtained therefore on said patent application, design patent application, or any continuation, continuation-in-part, divisional, reexamination, renewal, substitute, or reissue thereof and in and to all Letters Patent and all Convention and Treaty rights of all kinds, in all countries throughout the world for said invention for the full term or terms for which the same may be granted.

ASSIGNOR hereby covenants that no assignment, sale, agreement, or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

ASSIGNOR further covenants that ASSIGNOR will promptly provide ASSIGNEE, upon its request, with all pertinent facts and documents relating to said application, said invention, and said Letters

Patent as may be known and accessible to ASSIGNORS and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments, or affidavits required to apply for, obtain, maintain, and

PATENT REEL: 032847 FRAME: 0497

Patent Application 14/164627

enforce said application, said invention and said Letters Patent which may be necessary or desirable to carry out the purposes hereof.

Ayl____AI- B-____ Ayham Al-Banna <u>05.07.2014</u> Date United States of America) SS State of JULINOIS County of Cook The undersigned Notary Public in and for the County and State aforesaid, do hereby certify that Ayham Al-Banna, whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the instrument as their free and voluntary act and deed for

the uses and purposes therein set forth.

Given under my hand and notarial seal this $\frac{7}{2}$ day of $\frac{May}{2}$, 2014.

My continuission expires: September 24, 2017 OFFICIAL SEAL LISA NOLAN Notary Public - State of Illinois Notary Public Signature My Commission Expires Sep 24, 2017 LISA NOLAN

Printed Name of Notary Public