504611751 10/25/2017 PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT					
NATURE OF CONVEYANCE:		ASSIGNMENT					
CONVEYING PARTY	DATA						
		Name		Execution Date			
SHLOMO SELIM RAK	IB			10/25/2017			
RECEIVING PARTY D	ΑΤΑ						
Name:	GAINSPEE	SPEED, INC.					
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State/Country:	CALIFORN	FORNIA					
Postal Code:	94089	9					
	•						
PROPERTY NUMBER	S Total: 7						
Property Type		Number					
Patent Number: 9692		13					
Application Number: 1448		82632					
Patent Number: 9762		2288					
Application Number: 1417		0579					
Patent Number: 978		781453					
Application Number: 14575		9707					
Patent Number:	9693	2612					
CORRESPONDENCE	ΠΑΤΑ						
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-	•	that is unsuccessful, it will be	sent via US M	ail.			
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NAME OF SUBMITTER:		JESSICA W. SMITH					
SIGNATURE:		/Jessica W. Smith/					
DATE SIGNED:		10/25/2017					

Total Attachments: 2 source=Rakib-Gainspeed_ExecutedAssignment#page1.tif source=Rakib-Gainspeed_ExecutedAssignment#page2.tif

PATENT REEL: 043951 FRAME: 0655

ASSIGNMENT AND AGREEMENT

For value received, I hereby sell, assign and transfer GAINSPEED, INC., 160 Gilbraltar Court, Sunnyvale, California USA, 94089, and its successors, assigns and legal representatives, the entire right, title and interest, for the United States of America, in and to the certain Inventions (the "Inventions") listed on Schedule A attached hereto, and all the rights and privileges in said Inventions, and under any and all Letters Patent that may be granted in the United States for said Inventions;

I also concurrently hereby sell, assign and transfer to GAINSPEED, INC., the entire right, title and interest in and to said Inventions for all countries foreign to the United States, including all rights of priority arising from the Inventions, and all the rights and privileges under any and all forms of protection, including Letters Patent, that may be granted in said countries foreign to the United States for said Inventions.

I authorize GAINSPEED, INC., to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said Inventions, without further authorization from me, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

I hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of GAINSPEED, INC., to apply for patent or other form of protection for said Inventions and to claim the aforesaid benefit of the right of priority.

I request that any and all patents for said Inventions be issued to GAINSPEED, INC., in the United States and in all countries foreign to the United States, or to such nominees as GAINSPEED, INC., may designate.

I agree that, when requested, I shall, without charge to GAINSPEED, INC., but at its expense, sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said Inventions, patents, or other forms of protection.

Signature: ____ Shlomo Selim Rakib

Date: 10/25/17

PATENT REEL: 043951 FRAME: 0656

SERIALNO	FILING DATE	PATENTNO	ISSUE DATE	TITLE
15/089,504	04/02/2016	9,692,513	6/27/2017	HFC CABLE SYSTEM WITH SHADOW FIBER AND COAX FIBER TERMINALS
14/482,632	09/10/2014			METHODS OF ADAPTIVE CANCELLING AND SECONDARY COMMUNICATIONS CHANNELS FOR EXTENDED CAPABILITY HFC CABLE SYSTEMS
14/806,591	07/22/2015	9,762,288	9/12/2017	EFFICIENT BANDWIDTH UTILIZATION METHODS FOR CATV DOCSIS CHANNELS AND OTHER APPLICATIONS
14/170,579	02/01/2014			DISTRIBUTED CABLE MODEM TERMINATION SYSTEM WITH SOFTWARE RECONFIGURABLE MAC AND PHY CAPABILITY
14/834,346	08/24/2015	9,781,453	10/3/2017	METHOD OF TRANSFORMING HFC CATV ANALOG FIBER TRANSMISSION TO DIGITAL FIBER TRANSMISSION
14/579,707	12/22/2014			VIRTUAL CONVERGED CABLE ACCESS PLATFORMS FOR HFC CABLE NETWORKS
15/083,215	03/28/2016	9,692,612	6/27/2017	DISTRIBUTED CCAP CABLE MODEM TERMINATION SYSTEM

SCHEDULE A

END SCHEDULE A