## 506888166 09/24/2021

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6934986

SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
CONVEYING PARTY D	ΑΤΑ			
		Name	Execution Date	
TUNG NGUYEN			09/21/2021	
JAMES ST. LEGER HA	RLEY		09/22/2021	
SHAHAB OVEIS GHAR	AN		09/22/2021	
RECEIVING PARTY DA	ATA			
Name:	CIENA CO	RPORATION		
Street Address:	7035 RIDGE ROAD			
City:	HANOVER			
State/Country:	MARYLAN	MARYLAND		
Postal Code:	21076	21076		
Property Type		Number	-	
PROPERTY NUMBERS	S Total: 2			
Application Number:	174	84532		
Application Number: 6316		60064		
	1911			
Fax Number:	· ·	0)660-3911 e e-mail address first: if that is un	successful it will be sent	
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### ASSIGNMENT

WHEREAS, Tung NGUYEN and James St. Leger HARLEY and Shahab OVEIS GHARAN (hereinafter referred to as "ASSIGNORS") have invented certain new and useful improvements in an invention entitled:

### TECHNIQUES FOR ENHANCED CLOCK RECOVERY

for which an application for a United States patent is being submitted to the United States Patent and Trademark Office herewith, and for which United States Provisional Patent Application No. 63/160,064 was filed on Mar. 12, 2021; and

WHEREAS, Ciena Corporation, 7035 Ridge Road, Hanover, MD 21076 USA (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire right, title, and interest in and to said invention, and in and to said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, in accordance with obligations entered into pursuant to an Employment Agreement or other agreement and/or for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNORS hereby sell, transfer and assign to said ASSIGNEE, and to ASSIGNEE'S successors and assigns, ASSIGNORS' entire right, title, and interest in and to said invention and improvements invented and originated by ASSIGNORS in the United States and its territorial possessions and in any and all foreign countries and to all Letters Patent or similar legal protections in the United States and its territorial possessions and in any and all foreign countries to be obtained for said invention by said application or any application claiming priority to/from the application, or any continuation, division, continuation-in-part, reexamination, renewal, substitute, extension, or reissue thereof or any legal equivalent thereof in a foreign country for the full term(s) for which the same may be granted; and authorize and request the Commissioner for Patents of the United States and any official of any foreign country whose duty it is to issue patents or legal equivalents thereof, to issue same for this invention to ASSIGNEE, its lawful successors and assigns.

ASSIGNORS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention, said application, and said Letters Patent and legal equivalents thereof in foreign countries as may be known and accessible to ASSIGNORS and will testify as to the same in any administrative proceeding 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, issue, and/or enforce said invention, said application, and said Letters Patent and legal equivalents thereof in foreign countries which may be necessary or desirable to carry out the purposes thereof.

IN WITNESS WHEREOF, we have hereunto set hand and signed on the date indicated below:

Date: <u>2021/09/21</u> **Tung NGUYEN** Date: James St. Leger HARLEY

# Shahab OVEIS GHARAN

PATENT REEL: 057592 FRAME: 0570 Annun Data A. Chimi

### ASSIGNMENT

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Shahab (DS) is c. H yaya y

PATENT REEL: 057592 FRAME: 0571

### ASSIGNMENT

WHEREAS, **Tung NGUYEN and James St. Leger HARLEY and Shahab OVEIS GHARAN** (hereinafter referred to as "ASSIGNORS") have invented certain new and useful improvements in an invention entitled:

### **TECHNIQUES FOR ENHANCED CLOCK RECOVERY**

for which an application for a United States patent is being submitted to the United States Patent and Trademark Office herewith, and for which United States Provisional Patent Application No. 63/160,064 was filed on Mar. 12, 2021; and

WHEREAS, **Ciena Corporation**, **7035 Ridge Road**, **Hanover**, **MD 21076 USA** (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire right, title, and interest in and to said invention, and in and to said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, in accordance with obligations entered into pursuant to an Employment Agreement or other agreement and/or for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNORS hereby sell, transfer and assign to said ASSIGNEE, and to ASSIGNEE'S successors and assigns, ASSIGNORS' entire right, title, and interest in and to said invention and improvements invented and originated by ASSIGNORS in the United States and its territorial possessions and in any and all foreign countries and to all Letters Patent or similar legal protections in the United States and its territorial possessions and in any and all foreign countries to be obtained for said invention by said application or any application claiming priority to/from the application, or any continuation, division, continuation-in-part, reexamination, renewal, substitute, extension, or reissue thereof or any legal equivalent thereof in a foreign country for the full term(s) for which the same may be granted; and authorize and request the Commissioner for Patents of the United States and any official of any foreign country whose duty it is to issue patents or legal equivalents thereof, to issue same for this invention to ASSIGNEE, its lawful successors and assigns.

ASSIGNORS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention, said application, and said Letters Patent and legal equivalents thereof in foreign countries as may be known and accessible to ASSIGNORS and will testify as to the same in any administrative proceeding 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, issue, and/or enforce said invention, said application, and said Letters Patent and legal equivalents thereof in foreign countries which may be necessary or desirable to carry out the purposes thereof.

IN WITNESS WHEREOF, we have hereunto set hand and signed on the date indicated below:

	Date:
Tung NGUYEN	
	Date:
James St. Leger HARLEY	
Shokad Overs	Date: Sept. 22, 2021
Shahab OVEIS GHARAN	