507873366 04/25/2023

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7920496

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
KARTHIK RANGANATHAN	07/18/2022
GREGORY CRUZAN	08/26/2022
SAMER KABBANI	04/20/2022
GILBERTO OSEGUERA	08/15/2022
IRA LEVENTHAL	10/05/2022
HIROKI IKEDA	07/20/2022
TOSHIYUKI KIYOKAWA	07/20/2022

### **RECEIVING PARTY DATA**

Name:	ADVANTEST TEST SOLUTIONS, INC.
Street Address:	3061 ZANKER ROAD
City:	SAN JOSE
State/Country:	CALIFORNIA
Postal Code:	95134

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	17479808

## **CORRESPONDENCE DATA**

**Fax Number:** (408)938-9069

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Phone:** 4089389060

Email:misaac@MHBPATENTS.COMCorrespondent Name:MURABITO, HAO & BARNES LLP

Address Line 1: 111 NORTH MARKET STREET, SUITE 700

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Address Line 4: SAN JOSE, CALIFORNIA 95113

ATTORNEY DOCKET NUMBER: AATS-0103-01U00US	
NAME OF SUBMITTER:	ANTHONY C. MURABITO
SIGNATURE:	/ANTHONY C. MURABITO/
DATE SIGNED:	04/25/2023

507873366 PATENT REEL: 063437 FRAME: 0475

# Total Attachments: 10 source=AATS-0103-01U00US\_ASSIGNMENT#page1.tif source=AATS-0103-01U00US\_ASSIGNMENT#page2.tif source=AATS-0103-01U00US\_ASSIGNMENT#page3.tif source=AATS-0103-01U00US\_ASSIGNMENT#page4.tif source=AATS-0103-01U00US\_ASSIGNMENT#page5.tif source=AATS-0103-01U00US\_ASSIGNMENT#page6.tif source=AATS-0103-01U00US\_ASSIGNMENT#page7.tif source=AATS-0103-01U00US\_ASSIGNMENT#page8.tif source=AATS-0103-01U00US\_ASSIGNMENT#page9.tif source=AATS-0103-01U00US\_ASSIGNMENT#page9.tif

PATENT REEL: 063437 FRAME: 0476

Attorney De	ocket No.:	AATS-0103-01U00US

Inventor's Signature:

Page 1 of 1

In consideration of good and valuable consideration, receipt of which is hereby acknowledged, I/we Karthik Ranganathan, Gregory Cruzan, Samer Kabbani, Gilberto Oseguera, Ira Leventhal, Hiroki Ikeda, Toshiyuki Kiyokawa do hereby sell, assign, and transfer unto Advantest Test Solutions, Inc. (hereinafter called Advantest), a Delaware Corporation having its principal place of business at 3061 Zanker Road, San Jose, CA 95134 and its successors and assigns, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements, including the right of priority in, to, and under, the application for the United States patent entitled: PASSIVE CARRIER-BASED DEVICE DELIVERY FOR SLOT-BASED HIGHVOLUME SEMICONDUCTOR TEST SYSTEM filed herewith and the inventions set forth and described therein, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; or and the inventions set forth X Serial No.: 17/479,808 filed on 09-20-2021 and described therein, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor, And for the above consideration, I/we agree promptly upon request of Advantest, its successors or assigns, to execute and deliver without further compensation any power of attorney, assignment, application, whether original, continuation, divisional or reissue, or other papers which may be necessary or desirable fully to secure to Advantest, its successors and assigns, the inventions described in said application and all patent rights therein, in the United States and in any country foreign thereto, and to cooperate and assist in the prosecution of interference proceedings involving said inventions and in the adjudication or reexamination of said Letters Patent provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by Advantest. I/we further covenant with Advantest, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned; In witness whereof, I/we hereunto set my/our hand(s) and seal: Date: JULY 18 202 Inventor's Signature: Karthik Ranganathan Date: Inventor's Signature: **Gregory Cruzan** Date: Inventor's Signature: Samer Kabbani Date: Inventor's Signature: Gilberto Oseguera Date: Inventor's Signature: tra Leventhal Date:

> **PATENT** REEL: 063437 FRAME: 0477

Inventor's Signature:	HIPOKI IKEGA	Date:			
mayoritor a organical	Toshiyuki Kiyokawa				
-					
		*			

Attorney Docket No.: AATS-0103-01U00US
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Page 1 of 1

In consideration of good and valuable consideration, receipt of which is hereby acknowledged, I/we Karthik Ranganathan, Gregory Cruzan, Samer Kabbani, Gilberto Oseguera, Ira Leventhal, Hiroki Ikeda, Toshiyuki Kiyokawa

do hereby sell, assign, and transfer unto Advantest Test Solutions, Inc. (hereinafter called Advantest), a Delaware Corporation having its principal place of business at 3061 Zanker Road, San Jose, CA 95134 and its successors and assigns, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements, including the right of priority in, to, and under, the application for the United States patent entitled:

# PASSIVE CARRIER-BASED DEVICE DELIVEDY FOR SLOT, BASED LICHVOLLIBRE

SEMICONDUCTOR	R TEST SYSTEM	DEO 1-DASED	HIGHVOLUME
filed herewith and United States an	the inventions set forth and described there d of countries foreign thereto which may be	ein, and any and a granted thereon	all Letters Patent of the or therefor; or
X Serial No.: 17/4 and described the which may be gra	79,808 filed on 09-20-2021 erein, and any and all Letters Patent of the inted thereon or therefor;	United States a	and the inventions set forth nd of countries foreign thereto
execute and deliver wi continuation, divisiona Advantest, its success the United States and proceedings involving	nsideration, I/we agree promptly upon requithout further compensation any power of attention to reissue, or other papers which may ors and assigns, the inventions described in any country foreign thereto, and to coopersaid inventions and in the adjudication or releasing the incurred by me/us in lending such cooperate	orney, assignments be necessary of a said application rate and assist in the application of seconds.	nt, application, whether original or desirable fully to secure to and all patent rights therein, in the prosecution of interference aid Letters Patent provided the
mortgage, license, or o	vith Advantest, its successors, assigns, and other agreement affecting the rights and projed that full right to convey the same as herein	perty herein conv	eved has been made to others
In witness whereof, 1/w	e hereunto set my/our hand(s) and seal:		
Inventor's Signature:	Karthik Ranganathan	Date:	
Inventor's Signature:	Gregory Cruzan	Date:	2022-08-26
Inventor's Signature:	Samer Kabbani		
Inventor's Signature:	Gilberto Oseguera	Date:	,
Inventor's Signature:	Ira Leventhal	Date:	
	Hiroki Ikeda		
Inventor's Signature:	пігокі ікеда	Date:	

**PATENT REEL: 063437 FRAME: 0479** 

# Toshiyuki Kiyokawa

Page 2 of 1 rev. 11/97 epn

For good and valuable consideration received in the course of my employment at Advantest, I, Samer KABBANI, hereby assign to Advantest Test Solutions, Inc. ("Advantest"), 3061 Zanker Road, San Jose, CA 95134, a Delaware corporation, and its successors and assigns, my entire right, title, and interest for the United States and all foreign countries, including the right of priority in, to, and under, the United States Patent Application Nos. 17/479,808 (titled "Passive Carrier-based Device Delivery for Slot-based High-Volume Semiconductor Test System"; filed September 20, 2021), 17/479,998 (titled "Thermal Solution for Massively Parallel Testing"; filed September 20, 2021), and 17/491,145 (titled "Shielded Socket and Carrier for High-Volume Test of Semiconductor Devices"; filed September 30, 2021) ("Existing Patent Applications"), including, any continuation, continuation-in-part, divisional, reissue, and foreign equivalent applications and/or patents of the Existing Patent Applications (collectively, the "Patents"), and any patentable inventions disclosed therein to the extent having priority based on the Existing Patent Applications (the "Inventions"). I assign to Advantest my entire right, title, and interest to any subsequent patent application claiming priority to any of the Patents and/or claiming any of the Inventions, in the United States and in any foreign country thereto. I assign to Advantest, my entire, right, title, and interest to all causes of action for infringement and enforcement of all of the foregoing patents and applications, including all rights to pursue damages, injunctive relief, and other remedies for past and future infringement.

And for the above consideration, I agree promptly upon request of Advantest, its successors or assigns, to execute and deliver without further compensation any power of attorney, oath, application, assignment, or other papers which may be necessary to secure to Advantest, its successors and assigns, ownership of the foregoing Patents and Inventions, in the United States and in any country foreign thereto.

I further covenant with Advantest, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that, to my knowledge, full right to convey the same as herein expressed is possessed by the undersigned. Aside from the foregoing, I make no representations or warranties, implied or otherwise, regarding the patent application or any patent, or any claim of a patent, that may issue therefrom.

Inventor's Signature:	- Cxappanis	Date:	4-20-2022
	Samor KARRANI		

Attorney Doc	ket No.:	AATS-0103-01U00US	

In consideration of good and valuable consideration, receipt of which is hereby acknowledged, I/we Karthik Ranganathan, Gregory Cruzan, Samer Kabbani, Gilberto Oseguera, Ira Leventhal, Hiroki Ikeda, Toshiyuki Kiyokawa

do hereby sell, assign, and transfer unto Advantest Test Solutions, Inc. (hereinafter called Advantest), a Delaware Corporation having its principal place of business at 3061 Zanker Road, San Jose, CA 95134 and its successors and assigns, the entire right, title, and interest for the United States and all foreign countries, in and to any and all

improvements, including the right of priority in, to, and under, the application for the United States patent entitled:				
PASSIVE CARRIE SEMICONDUCTOR	R-BASED DEVICE DELIVERY FOR SLOT- R TEST SYSTEM	BASED HIGHVOLUME		
filed herewith and United States an	d the inventions set forth and described therein, and described therein, and deficient foreign thereto which may be granted	any and all Letters Patent of the thereon or therefor; or		
X Serial No.: 17/479,808 filed on 09-20-2021 and the inventions set forth and described therein, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor;				
execute and deliver w continuation, divisions Advantest, its success the United States and proceedings involving	nsideration, I/we agree promptly upon request of althout further compensation any power of attorney, and or reissue, or other papers which may be nesters and assigns, the inventions described in said at in any country foreign thereto, and to cooperate and said inventions and in the adjudication or reexaminate incurred by me/us in lending such cooperation and	assignment, application, whether original, cessary or desirable fully to secure to pplication and all patent rights therein, in assist in the prosecution of interference ation of said Letters Patent provided the		
mortgage, license, or o	with Advantest, its successors, assigns, and legal re other agreement affecting the rights and property he nd that full right to convey the same as herein expres	erein conveyed has been made to others		
In witness whereof, I/w	ve hereunto set my/our hand(s) and seal:			
Inventor's Signature:	Karthik Ranganathan	Date:		
Inventor's Signature:	•	Date:		
Inventor's Signature:	Samer Kabbani	Date:		
Inventor's Signature:	<b>5.</b> Chaquera Gliberto Oseguera	Date: 8/15/22		
Inventor's Signature:	Ira Leventhal	_ Date:		
Inventor's Signature:	Hiroki Ikeda	Date:		
Inventor's Signature:		Date:		
Page 1 of 1		rev. 11/97 epn		

**PATENT** REEL: 063437 FRAME: 0482

# Toshiyuki Kiyokawa

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PATENT REEL: 063437 FRAME: 0483

Attorney Docket No	.: AATS-0103-01U00US

Page 1 of 1

In consideration of good and valuable consideration, receipt of which is hereby acknowledged, I/we Karthik Ranganathan, Gregory Cruzan, Samer Kabbani, Gilberto Oseguera, Ira Leventhal, Hiroki Ikeda, Toshiyuki Kiyokawa do hereby sell, assign, and transfer unto Advantest Test Solutions, Inc. (hereinafter called Advantest), a Delaware Corporation having its principal place of business at 3061 Zanker Road, San Jose, CA 95134 and its successors and assigns, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements, including the right of priority in, to, and under, the application for the United States patent entitled: SHIELDED SOCKET AND CARRIER FOR HIGH-VOLUME TEST OF SEMICONDUCTOR DEVICES filed herewith and the inventions set forth and described therein, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; or X Serial No.: 17/479,808 filed on 09-20-2021 and described therein, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; And for the above consideration, I/we agree promptly upon request of Advantest, its successors or assigns, to execute and deliver without further compensation any power of attorney, assignment, application, whether original, continuation, divisional or reissue, or other papers which may be necessary or desirable fully to secure to Advantest, its successors and assigns, the inventions described in said application and all patent rights therein, in the United States and in any country foreign thereto, and to cooperate and assist in the prosecution of interference proceedings involving said inventions and in the adjudication or reexamination of said Letters Patent provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by Advantest. I/we further covenant with Advantest, its successors, assigns, and legal representatives that no assignment. grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned: In witness whereof, I/we hereunto set my/our hand(s) and seal: Date: Karthik Ranganathan Inventor's Signature: Inventor's Signature: Date: **Gregory Cruzan** Inventor's Signature: Samer Kabbani Inventor's Signature: Date: Gilberto Oseguera In Il Luste Inventor's Signature: Date: 10/05/2022 Ira Leventhal Inventor's Signature: Date: Hiroki Ikeda

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Inventor's Signature:			Date:	
	Toshiyuki Kiyokawa	•••	***************************************	

Attorney Docket No.: AATS-0103-01U00US
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Page 1 of 1

RECORDED: 04/25/2023

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# PASSIVE CARRIER-BASED DEVICE DELIVERY FOR SLOT-BASED HIGHVOLUME SEMICONDUCTOR TEST SYSTEM

SEMICONDUCTOR	R TEST SYSTEM		
filed herewith and United States and	the inventions set forth and described therein, and d of countries foreign thereto which may be granted	any and thereon	all Letters Patent of the or therefor; or
X Serial No.: 17/4 and described the which may be gra	79,808 filed on 09-20-2021  rein, and any and all Letters Patent of the United and thereon or therefor;	States a	_ and the inventions set forth nd of countries foreign thereto
and deliver without fur divisional or reissue, or assigns, the inventions foreign thereto, and to the adjudication or rees	isideration, I/we agree promptly upon request of A ther compensation any power of attorney, assignment of the papers which may be necessary or desirable described in said application and all patent rights cooperate and assist in the prosecution of interferer kamination of said Letters Patent provided the expenses stance are paid by Advantest.	tent, app fully to : therein, ace proc	olication, whether original, continuation, secure to Advantest, its successors and in the United States and in any country eedings involving sald inventions and in
mortgage, license, or o	with Advantest, its successors, assigns, and legother agreement affecting the rights and property he full right to convey the same as herein expressed is	erein cor	eveyed has been made to others by the
In witness whereof, I/w	e hereunto set my/our hand(s) and seal:		
			<b>'</b> .
Inventor's Signature:	Karthik Ranganathan	_ Date:	
Inventor's Signature:	Gregory Cruzan	Date:	.  Hettivilliki jirjurujujuj ji jir omaljani man kan i San kida i melain ka kalektiva
Inventor's Signature:	Samer Kabbani	Date:	and a party south party party party party party party south a proper party air party and dark \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Inventor's Signature:	Gilberto Oseguera		
Inventor's Signature:	Ira Leventhal		
Inventor's Signature:	三世四 港界方.	Date:	20/07/2022
Inventor's Signature:	Hiroki Ikeda 「海外」 質 Toshiyuki Kiyokawa	Date:	20/07/2022

PATENT REEL: 063437 FRAME: 0486