

# SECURITIES AND EXCHANGE COMMISSION

## FORM 8-K

Current report filing

Filing Date: **2019-02-01** | Period of Report: **2019-02-01**  
SEC Accession No. [0001140361-19-002246](#)

([HTML Version](#) on [secdatabase.com](#))

### FILER

#### **ELECTRO SCIENTIFIC INDUSTRIES INC**

CIK: [726514](#) | IRS No.: [930370304](#) | State of Incorp.: **OR** | Fiscal Year End: **0330**  
Type: **8-K** | Act: **34** | File No.: [000-12853](#) | Film No.: [19560134](#)  
SIC: **3690** Miscellaneous electrical machinery, equipment & supplies

#### Mailing Address

*13900 NW SCIENCE PARK  
DRIVE  
PORTLAND OR 97229-5497*

#### Business Address

*13900 NW SCIENCE PARK  
DR  
PORTLAND OR 97229  
5036414141*

---

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549**

---

**FORM 8-K**

**CURRENT REPORT  
Pursuant to Section 13 or 15(d) of  
the Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported)

**February 1, 2019**

---

**ELECTRO SCIENTIFIC INDUSTRIES, INC.**

(Exact name of registrant as specified in its charter)

**OREGON**  
(State or other jurisdiction of  
incorporation)

**0-12853**  
(Commission File Number)

**93-0370304**  
(IRS Employer  
Identification No.)

**13900 NW Science Park Drive, Portland, Oregon**  
(Address of principal executive offices)

**97229**  
(Zip Code)

**(503) 641-4141**  
(Registrant's telephone number, including area code)

**No Change**  
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)  
 Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)  
 Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))  
 Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

---

---

### **Item 2.01. Completion of Acquisition or Disposition of Assets.**

On February 1, 2019, MKS Instruments, Inc., a Massachusetts corporation (“MKS”), completed its previously announced acquisition of Electro Scientific Industries, Inc., an Oregon corporation (“ESI” or the “Company”). Pursuant to the terms of the Agreement and Plan of Merger, dated October 29, 2018 (the “Merger Agreement”), among ESI, MKS and EAS Equipment, Inc., a Delaware corporation and a wholly-owned subsidiary of MKS (“Merger Sub”), Merger Sub merged with and into ESI (the “Merger”) with ESI surviving the Merger as a wholly-owned subsidiary of MKS, subject to the terms and conditions set forth therein. Capitalized terms not otherwise defined have the meaning set forth in the Merger Agreement.

At the effective time of the Merger (the “Effective Time”) and pursuant to the terms and conditions of the Merger Agreement, each share of ESI’s common stock, without par value (each, a “Share”) issued and outstanding as of immediately prior to the Effective Time (other than Shares held in the treasury of ESI or owned, directly or indirectly, by MKS, Merger Sub or any wholly owned subsidiary of ESI, MKS or Merger Sub immediately prior to the Effective Time (all of which were cancelled)) was converted into the right to receive \$30.00 in cash, without interest and subject to deduction for any required withholding tax. ESI’s common stock has been delisted from the Nasdaq Global Select Market (“NASDAQ”) effective as of the close of trading on February 1, 2019.

The foregoing description of the effects of the Merger and the Merger Agreement, and the transactions contemplated thereby, does not purport to be complete and is subject to, and qualified in its entirety by reference to, the full text of the Merger Agreement. A copy of the Merger Agreement is attached as Exhibit 2.1 to this Current Report on Form 8-K and is incorporated herein by reference.

### **Item 3.01. Notice of Delisting or Failure to Satisfy a Continued Listing Rule or Standard; Transfer of Listing.**

The information set forth in Item 2.01 of this Current Report on Form 8-K is incorporated into this Item 3.01 by reference.

On February 1, 2019, ESI notified NASDAQ of the effectiveness of the Merger. In connection therewith, ESI informed NASDAQ of the Merger Consideration being paid by MKS and requested that NASDAQ file a notification of removal from listing on Form 25 with the SEC with respect to the common stock of ESI. Trading of ESI common stock on NASDAQ, which traded under the symbol “ESIO,” was suspended as of the close of business on February 1, 2019.

### **Item 3.03. Material Modification to Rights of Security Holders.**

The information set forth in Items 2.01, 3.01 and 5.01 of this Current Report on Form 8-K is incorporated into this Item 3.03 by reference.

As a result of the Merger, each Share issued and outstanding immediately prior to the Effective Time (other than Shares held in the treasury of ESI or owned, directly or indirectly, by MKS, Merger Sub or any wholly owned subsidiary of ESI, MKS or Merger Sub immediately prior to the Effective Time (all of which were cancelled)), was cancelled and retired and automatically converted into the Merger Consideration.

### **Item 5.01. Changes in Control of Registrant.**

The information set forth in Items 2.01 and 5.02 of this Current Report on Form 8-K is incorporated into this Item 5.01 by reference.

On February 1, 2019, as a result of the Merger, a change in control of ESI occurred, and ESI became a wholly-owned subsidiary of MKS. MKS paid approximately \$1 billion in cash to ESI’s shareholders pursuant to the Merger Agreement to acquire ESI. ESI intends to file with the SEC, on Form 15, a certification and notice of termination of the registration of such shares of common stock under Section 12(g) of the Securities and Exchange Act of 1934, as amended (the “Exchange Act”), and suspension of its obligations to file reports under Sections 13 and 15(d) of the Exchange Act. MKS funded the payment of the aggregate consideration with a combination of MKS’s available cash on hand and the proceeds from a term loan facility MKS entered into in connection with the Merger.

**Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.**

Pursuant to the terms of the Merger Agreement, immediately after the Effective Time, until successors are duly elected or appointed and qualified in accordance with applicable law, (i) each of the members of the Board of Directors of ESI, Richard H. Wills, Michael D. Burger, Frederick A. Ball, Lynne J. Camp, Laurence E. Cramer and Raymond A. Link, resigned from the Board of Directors of ESI and Kathleen Burke and Seth Bagshaw, the directors of Merger Sub at the Effective Time, became the directors of the surviving corporation and (ii) each of the executive officers of ESI, Michael D. Burger, Allen Muhich, Steve Harris and John Williams, ceased serving in such positions as a result of the Merger, and Mr. Bagshaw became the President and Treasurer and Ms. Burke became the Secretary of the surviving corporation. The directors of the Company did not resign because of a disagreement with the Company on any matter relating to the Company's operations, policies or practices.

As previously disclosed, MKS negotiated certain arrangements with ESI's named executive officers, which were subsequently entered into effective as of and contingent upon the completion of the Merger. Upon the consummation of the Merger, MKS and ESI entered into Consulting Agreements with Messrs. Burger and Muhich, and Employment Agreements with Messrs. Harris and Williams. These agreements are summarized in the Supplement to Proxy Statement on Schedule 14A filed by ESI with the Securities and Exchange Commission on January 2, 2019. Such summaries are qualified in their entirety by reference to the agreements, which are attached hereto as Exhibits 10.1, 10.2, 10.3 and 10.4, respectively, and are incorporated herein by reference.

**Item 5.03. Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year.**

As described in the Merger Agreement, at the Effective Time, the articles of incorporation and bylaws of ESI were amended and restated.

Copies of the amended and restated articles of incorporation and bylaws are attached hereto as Exhibit 3.1 and Exhibit 3.2, respectively, and are incorporated herein by reference.

---

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits

<b>Exhibit No.</b>	<b>Description</b>
<a href="#">2.1*</a>	Agreement and Plan of Merger, dated as of October 29, 2018, among Electro Scientific Industries, Inc., MKS Instruments, Inc., and EAS Equipment, Inc., is incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed with the SEC by ESI on October 30, 2018.
<a href="#">3.1</a>	Amended and Restated Articles of Incorporation of Electro Scientific Industries, Inc.
<a href="#">3.2</a>	Amended and Restated Bylaws of Electro Scientific Industries, Inc.
<a href="#">10.1</a>	Consulting Agreement, dated as of February 1, 2019, among Electro Scientific Industries, Inc., MKS Instruments, Inc. and Michael D. Burger.
<a href="#">10.2</a>	Consulting Agreement, dated as of February 1, 2019, among Electro Scientific Industries, Inc., MKS Instruments, Inc. and Allen Muhich.
<a href="#">10.3</a>	Employment Agreement, dated as of February 1, 2019, among Electro Scientific Industries, Inc., MKS Instruments, Inc. and Steve Harris.
<a href="#">10.4</a>	Employment Agreement, dated as of February 1, 2019, among Electro Scientific Industries, Inc., MKS Instruments, Inc and John Williams.

\* Schedules and annexes have been omitted pursuant to Item 601(b)(2) of Regulation S-K. A copy of any omitted schedule and/or annex will be furnished supplementally to the Securities and Exchange Commission upon request.

## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: February 1, 2019

**Electro Scientific Industries, Inc.**

By:           /s/ Seth H. Bagshaw          

Name: Seth H. Bagshaw

Title: President

---

STATE OF OREGON  
CORPORATION DIVISION  
255 Capitol St. NE, Suite 151  
Salem, Oregon 97310-1327

Registry No. 047954-15

**FOURTH AMENDED AND RESTATED  
ARTICLES OF INCORPORATION**  
Business Corporation

ELECTRO SCIENTIFIC INDUSTRIES, INC.

These Fourth Amended and Restated Articles of Incorporation supersede the existing Articles of Incorporation of Electro Scientific Industries, Inc. and all amendments thereto.

**ARTICLE 1**

The name of the corporation is Electro Scientific Industries, Inc. (the “Corporation”).

**ARTICLE 2**

The number of shares the Corporation will have authority to issue is one hundred million (100,000,000) shares of common stock, no par value per share. The shares of common stock have unlimited voting rights and are entitled to receive the net assets of the Corporation.

**ARTICLE 3**

The address of the principal place of business of the Corporation is: 13900 NW Science Park Drive, Portland, Oregon 97229.

**ARTICLE 4**

The Corporation is authorized to purchase shares of common stock from present and former employees, consultants, and directors pursuant to arrangements approved by the Board of Directors when applying the provisions of the Oregon Business Corporation Act to determine the lawfulness of any such purchase.

**ARTICLE 5**

Exculpation. No director of the Corporation shall be personally liable to the Corporation or its shareholders for monetary damages for conduct as a director; provided that this Paragraph A shall not eliminate the liability of a director for any act or omission for which such elimination of liability is not permitted under the Oregon Business Corporation Act. No amendment to the Oregon Business Corporation Act that further limits the acts or omissions for which elimination of liability is permitted shall affect the liability of a director for any act or omission which occurs prior to the effective date of such amendment.

Indemnification. The Corporation shall indemnify to the fullest extent then permitted by law any person who is made, or threatened to be made, a party to an action, suit or proceeding, whether civil, criminal, administrative, investigative, or otherwise (including an action, suit or proceeding by or in the right of the Corporation) by reason of the fact that the person is or was a director or officer of the Corporation or a fiduciary within the meaning of the Employee Retirement Income Security Act of 1974 with respect to any employee benefit plan of the Corporation, or serves or served at the request of the Corporation as a director or officer, or as a fiduciary of an employee benefit plan, of another Corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees), amounts paid in settlement, judgments, penalties and fines reasonably and actually incurred in connection therewith. The indemnification specifically provided hereby shall not be deemed exclusive of any other rights to which such director or officer may be entitled under any bylaw, agreement, vote of shareholders or disinterested directors or otherwise, both as to action in the official capacity of the person indemnified and as to the action in another capacity while holding such office.

## ARTICLE 6

In addition to any other method provided for in the Bylaws, the shareholders may act by written consent without a meeting if (a) the action is taken by shareholders having not less than the minimum number of votes that would be necessary to take such action at a meeting at which all shareholders entitled to vote on the action were present and voted and (b) the written consent is delivered to the Corporation for inclusion in the minutes or filing with the corporate records. The Corporation must give written notice of any action taken pursuant to this Article 6 to all shareholders who did not sign the written consent. The notice provided to such shareholders must contain or be accompanied by any information required by ORS 60.211 or any other applicable provision of the Oregon Business Corporation Act.

---



**AMENDED AND RESTATED BYLAWS**

**OF**

**ELECTRO SCIENTIFIC INDUSTRIES, INC.**

**ARTICLE I  
PRINCIPAL OFFICE**

The principal office of Electro Scientific Industries, Inc., an Oregon corporation (the “Corporation”), will be located at the Corporation’s principal place of business or such other place as the Board of Directors may designate. The Corporation may have such other offices, either in or out of the State of Oregon, as the Board of Directors may designate or as the business of the Corporation may require from time to time.

**ARTICLE II  
SHAREHOLDERS: MEETINGS AND VOTING**

**Section 2.1. Place of Meetings**

Meetings of the shareholders of the Corporation will be held at the Corporation’s principal office, or at any other place, either within or without the State of Oregon, as the Board of Directors may determine.

**Section 2.2. Annual Meetings**

The annual meeting of the shareholders will be held on such date and at such time as is determined by the Board of Directors and specified in the notice of the meeting. At the annual meeting, the shareholders will elect by vote a Board of Directors, consider reports of the affairs of the Corporation, and transact such other business as may properly be brought before the meeting.

**Section 2.3. Special Meetings**

The Corporation will hold a special meeting of shareholders upon the call of the President or the Board of Directors, or upon the Secretary’s receipt of one or more written demands for a special meeting of shareholders, provided that such demand or demands (a) are signed by shareholders holding, collectively, at least twenty-five percent (25%) of all votes entitled to be cast on any issue proposed to be considered at the proposed special meeting, and (b) describe the purpose or purposes for which the special meeting is to be held.

**Section 2.4. Notice of Meetings**

**2.4.1** The Corporation will notify shareholders in writing of the date, time and place of each annual and special shareholders meeting not earlier than sixty (60) days nor fewer than ten (10) days before the meeting date. Except as otherwise required by applicable law or the Articles of Incorporation, the Corporation is required to give notice only to shareholders entitled to vote at the meeting. Notice shall be sent by electronic mail or by mail, postage prepaid, and shall be effective upon dispatch when correctly addressed to the shareholder’s contact information shown in the Corporation’s current record of shareholders. Except as otherwise required by applicable law or by the Articles of Incorporation, notice of an annual meeting need not include a description of the purpose or purposes for which the meeting is called. Notice of a special meeting will include a description of the purpose or purposes for which the meeting is called.

**2.4.2** A shareholder's attendance at a meeting waives objection to (a) lack of notice or defective notice of the meeting, unless the shareholder at the beginning of the meeting objects to holding the meeting or transacting business at the meeting, and (b) consideration of a particular matter at the meeting that is not within the purpose or purposes described in the meeting notice, unless the shareholder objects to considering the matter when it is presented.

## **Section 2.5. Quorum and Adjournment**

**2.5.1** Shares entitled to vote as a separate voting group may take action on a matter at a meeting only if a quorum of those shares exists with respect to that matter. Except as otherwise provided in the Articles of Incorporation or by applicable law, the presence in person or by proxy of the holders of a majority of the votes entitled to be cast on a matter will constitute a quorum for action on that matter.

**2.5.2** A majority of shares represented at a meeting, although less than a quorum, may adjourn the meeting, without further notice except as required by the Articles of Incorporation or applicable law, until a quorum attends. Any business that might have been transacted at the original meeting may be transacted at the adjourned meeting if a quorum exists.

**2.5.3** Once a share is represented for any purpose at a meeting, it will be deemed present for quorum purposes for the remainder of the meeting and for any adjournment of that meeting unless a new record date is or must be set for that adjourned meeting.

## **Section 2.6. Voting Rights**

**2.6.1** The persons entitled to receive notice of and to vote at any shareholders meeting will be determined from the records of the Corporation on the close of business on the day before the electronic mail or mailing of the notice, or on such other date not more than 70 days before such meeting as may be fixed in advance by the Board of Directors.

**2.6.2** Except as otherwise provided in the Articles of Incorporation, these Bylaws, or by applicable law, each outstanding share, regardless of class, is entitled to one vote on each matter voted on at a shareholders meeting. Only shares are entitled to vote.

**2.6.3** Except as otherwise provided in the Articles of Incorporation or by applicable law, if a quorum exists, action on a matter, other than the election of directors, will be approved if the votes cast favoring the action exceed the votes cast opposing the action. If a quorum is present, directors will be elected by a plurality of the votes cast by the holders of shares entitled to vote in the election.

## **Section 2.7. Action Without a Meeting**

**2.7.1** Action required or permitted by law to be taken at a shareholders meeting may be taken without a meeting if the action is taken by shareholders having not less than the minimum number of votes that would be necessary to take such action at a meeting at which all shareholders entitled to vote on the action were present and voted. The action will be evidenced by one or more written consents describing the action taken, signed by those shareholders taking action under this Section 2.7, and delivered to the Corporation for inclusion in the minutes or filing with the corporate records. Action taken under this Section 2.7 is effective when the consent or consents bearing sufficient signatures are delivered to the Corporation, unless the consent or consents specify an earlier or later effective date. If not otherwise determined by law, the record date for determining shareholders entitled to take action without a meeting under this Section 2.7 is the date the first shareholder signs the consent. A consent signed under this Section 2.7 has the effect of a meeting vote and may be described as such in any document.

**2.7.2** If action is taken in accordance with this Section 2.7, the Corporation must give written notice of the action promptly after the action is taken to: (a) shareholders not entitled to vote, if the Oregon Business Corporation Act would require that notice of the proposed action be given to such nonvoting shareholders if this action had been submitted to a vote of shareholders at a meeting, and (b) shareholders entitled to vote who did not consent in writing under this Section 2.7. The notice must contain or be accompanied by the same material that would have been required under the Oregon Business Corporation Act to be sent to such shareholders in a notice of meeting at which the proposed action would have been submitted to a vote of shareholders. The notice is effective when mailed if it is mailed postage prepaid and is correctly addressed to the shareholder's address shown in the Corporation's current record of shareholders.

## **ARTICLE III DIRECTORS**

### **Section 3.1. Powers**

The Corporation will have a Board of Directors. All corporate powers will be exercised by or under the authority of, and the business and affairs of the Corporation will be managed under the direction of, the Board of Directors, subject to any limitation contained in the Articles of Incorporation.

### **Section 3.2. Number and Qualifications**

The Board of Directors will consist of at least one and not more than ten members. Until the number is changed by resolution of the Board of Directors, the Board of Directors shall initially be composed of three members. No decrease in the number of directors designated by the Board of Directors will shorten an incumbent director's term. Directors need not be residents of the State of Oregon or shareholders of the Corporation.

### **Section 3.3. Election and Tenure of Office**

The directors will be elected at the annual meeting of the shareholders. The terms of the directors expire at the next annual shareholders meeting following their election. The term of a director elected to fill a vacancy expires at the next shareholders meeting at which directors are elected. Despite the expiration of a director's term, the director will continue to serve until the director's successor is elected and qualified or until there is a decrease in the number of directors. Subject to Section 3.4.3 of these Bylaws, a director's term of office will begin immediately after election.

### **Section 3.4. Vacancies**

**3.4.1** A vacancy in the Board of Directors will exist upon the death, resignation, or removal of any director or upon an increase in the number of directors.

**3.4.2** If a vacancy occurs on the Board of Directors:

- (a) The shareholders may fill the vacancy, provided that the Board of Directors has not already done so; or
- (b) The Board of Directors may fill the vacancy, provided the shareholders have not already done so. If the director(s) remaining in office constitute less than a quorum of the Board of Directors, they may fill the vacancy by the affirmative vote of a majority of all the directors remaining in office.

**3.4.3** A vacancy that will occur at a specific later date, by reason of a resignation effective at the later date or otherwise, may be filled before the vacancy occurs, but the new director may not take office until the vacancy occurs.

### **Section 3.5. Resignation of Directors**

A director may resign at any time by delivering written notice to the President or to the Corporation. Such resignation will be effective upon receipt, unless the notice specifies a later effective date. Once delivered, a notice of resignation is irrevocable unless revocation is permitted by the Board of Directors.

### **Section 3.6. Removal of Directors**

The shareholders may remove one or more directors with or without cause. A director may be removed by the shareholders only at a meeting called for the purpose of removing the director and the meeting notice must state that the purpose or one of the purposes of the meeting is removal of the director.

### **Section 3.7. Meetings**

**3.7.1** The Board of Directors will meet at least once each year immediately following, and in the same location as, the annual or special meeting of the shareholders at which directors are elected. No notice of the annual meeting of the Board of Directors will be required.

**3.7.2** The Board of Directors may hold other regular or special meetings in or out of the State of Oregon.

**3.7.3** The Board of Directors may, by resolution, fix the date, time, and place for the holding of regular meetings. Regular meetings of the Board of Directors may be held without notice of the date, time, place, or purpose of the meeting other than such resolution.

**3.7.4** Special meetings of the Board of Directors for any purpose or purposes may be called at any time by the President or any director. The person or persons who call a special meeting of the Board of Directors may fix the time and place of the special meeting.

### **Section 3.8. Notice of Special Meetings**

**3.8.1** Special meetings of the Board of Directors will be preceded by at least twenty-four hours' notice of the date, time and place of the meeting. The notice need not describe the purpose of the special meeting. The notice may be given orally, either in person or by telephone, or may be delivered in writing, by mail, private carrier, personal delivery, facsimile, or by electronic mail or other form of electronic transmission. Notice given by mail is effective when mailed if it is mailed postage prepaid and is correctly addressed to the director's address shown in the Corporation's current records. Notice given by private carrier or personal delivery is effective when received. Notice delivered by electronic transmission shall be effective as provided in the Oregon Business Corporation Act.

**3.8.2** A director's attendance at or participation in a meeting waives any required notice to the director of the meeting unless the director at the beginning of the meeting, or promptly upon the director's arrival, objects to holding the meeting or transacting business at the meeting and does not subsequently vote for or assent to action taken at the meeting.

**3.8.3** A director may at any time waive any notice required by law, the Articles of Incorporation, or these Bylaws. Except as otherwise provided in Section 3.8.2 of these Bylaws, the waiver will be in writing, will be signed by the director entitled to the notice, will specify the meeting for which notice is waived, and will be filed with the minutes or appropriate records of the Corporation.

**3.8.4** Notice of the time and place of holding an adjourned meeting need not be given if such time and place are fixed at the meeting adjourned.

### **Section 3.9. Quorum and Vote**

**3.9.1** A majority of the directors in office immediately before a meeting begins will constitute a quorum for the transaction of business. A majority of the directors present, in the absence of a quorum, may adjourn from time to time but may not transact any business.

**3.9.2** If a quorum is present when a vote is taken, the affirmative vote of a majority of directors present is the act of the Board of Directors. If, at any meeting in which a quorum is present, the number of votes cast by directors in favor of any action are equal to the number of votes cast by directors opposed to such action, then the Chair of Board will have the power to decide if the action is approved and taken by the Board of Directors.

**3.9.3** A director of the Corporation who is present at a meeting of the Board of Directors, or is present at a meeting of a committee of the Board of Directors, when corporate action is taken, is deemed to have assented to the action taken unless (a) the director objects at the beginning of the meeting, or promptly upon the director's arrival, to holding the meeting or transacting business at the meeting; (b) the director's dissent or abstention from the action taken is entered in the minutes of the meeting; or (c) the director delivers written notice of dissent or abstention to the presiding officer of the meeting before its adjournment or to the Corporation immediately after adjournment of the meeting. The right of dissent or abstention is not available to a director who votes in favor of the action taken.

### **Section 3.10. Telephonic Meetings**

The Board of Directors may permit any or all directors to participate in a regular or special meeting by, or conduct the meeting through, use of any means of communication by which all directors participating may simultaneously hear each other during the meeting. A director participating in a meeting by this means will be deemed to be present in person at the meeting.

### **Section 3.11. Action Taken Without a Meeting**

Except as otherwise provided by these Bylaws, action required or permitted by law to be taken at a meeting of the Board of Directors, or at a meeting of a committee of the Board of Directors, may be taken without a meeting if the action is taken by all members of the Board of Directors. The action will be evidenced by one or more written consents describing the action taken, signed by each director and included in the minutes or filed with the corporate records reflecting the action taken. Action taken under this Section 3.11 is effective when the last director signs the consent, unless the consent specifies an earlier or later effective date. A consent signed under this Section 3.11 has the effect of a meeting vote and may be described as such in any document.

## **ARTICLE IV COMMITTEES**

### **Section 4.1. Appointment**

Subject to applicable law, the provisions of the Articles of Incorporation, and these Bylaws, the Board of Directors may appoint such committees as may be necessary or appropriate from time to time, consisting of such number of its members and having such powers as the Board of Directors may designate. Each such committee will have two or more members, each of whom will serve at the pleasure of the Board of Directors.

### **Section 4.2. Actions of Committees; Governing Procedures**

All actions of a committee will be reflected in minutes to be kept of such meetings and reported to the Board of Directors at its next meeting. The provisions of Article III of these Bylaws governing meetings, notice and waiver of notice, and quorum and voting requirements of the Board of Directors apply to committees and their members as well.

## **ARTICLE V OFFICERS**

### **Section 5.1. Appointment**

The Board of Directors at its first meeting following its election each year shall appoint a Chairman of the Board and a President and Secretary. The Board of Directors may appoint other officers, assistant officers, and agents. Any two or more offices may be held by the same person.

### **Section 5.2. Compensation**

The Corporation may pay its officers reasonable compensation for their services as fixed from time to time by the Board of Directors.

### **Section 5.3. Term**

The term of office of all officers commences upon their appointment and continues until their successors are appointed or until their resignation or removal.

### **Section 5.4. Removal and Resignation**

Any officer or agent appointed by the Board of Directors of the Corporation may be removed by the Board of Directors at any time with or without cause. Such removal will be without prejudice to the contract rights, if any, of the person so removed. Appointment of an officer or agent will not of itself create contract rights.

Any officer may resign at any time by delivering written notice to the Board of Directors. Any such resignation will take effect at the time specified in the notice or, if no time is specified, upon delivery. Unless otherwise specified therein, the acceptance of such resignation will not be necessary to make it effective. Once delivered, a notice of resignation is irrevocable unless revocation is permitted by the Board of Directors.

### **Section 5.5. Chairman of the Board**

The Chairman of the Board of Directors shall preside at all meetings of the Board of Directors and shall perform such other duties as may be prescribed from time to time by the Board of Directors.

### **Section 5.6. President**

The President shall be the chief executive officer of the Corporation and, subject to the control of the Board of Directors, shall be responsible for the general operation of the Corporation. The President shall have any other duties and responsibilities prescribed by the Board of Directors.

### **Section 5.7. Secretary**

The Secretary shall record and keep the minutes of all meetings of the directors and shareholders in one or more books provided for that purpose and perform any duties prescribed by the Board of Directors or the officer serving as chief executive officer of the Corporation.

### **Section 5.8 Voting of Shares**

The President of the Corporation shall have authority to vote any shares of stock or other equity interests owned by the Corporation and to delegate this authority to any other officer.

### **Section 5.9. Vacancies**

A vacancy in any office because of death, resignation, removal, disqualification, creation of a new office or any other cause may be filled by the Board of Directors for the remaining portion of the term or for a new term established by the Board of Directors. If a resignation is made effective at a later date and the Corporation accepts such future effective date, the Board of Directors may fill the pending vacancy before the effective date, if the Board of Directors provides that the successor does not take office until the effective date.

## **ARTICLE VI CERTIFICATES AND TRANSFER OF SHARES**

### **Section 6.1. Certificates for Shares**

**6.1.1** The Corporation's shares shall be certificated. Certificates for shares will be in such form as the Board of Directors may designate, will designate the name of the Corporation and the state law under which the Corporation is organized, will state the name of the person to whom the shares represented by the certificate are issued, and will state the number and class of shares and the designation of the series, if any, that the certificate represents.

**6.1.2** Each certificate for shares will be signed, either manually or in facsimile, by the President or a Vice President and the Secretary or an Assistant Secretary of the Corporation.

### **Section 6.2. Transfer on the Books**

Upon surrender to the Corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignment or authority to transfer, and subject to any limitations on transfer appearing on the certificate or in the Corporation's stock transfer records, the Corporation will issue a new certificate to the appropriate person, cancel the old certificate and record the transaction upon its books.

### **Section 6.3. Lost, Stolen or Destroyed Certificates**

In the event a certificate is represented to be lost, stolen or destroyed, a new certificate will be issued in its place upon such proof of loss, theft or destruction and upon the giving of such bond or other indemnity as may be required by the Board of Directors. A new certificate may be issued without requiring any bond when in the judgment of the Board of Directors it is proper to do so.

## **ARTICLE VII INDEMNIFICATION**

The Corporation shall indemnify to the fullest extent not prohibited by law, any person who is made, or threatened to be made, a party to an action, suit or proceeding, whether civil, criminal, administrative, investigative or other (including an action, suit or proceeding by or in the right of the Corporation) by reason of the fact that such person is or was a director, officer or employee of the Corporation or a fiduciary within the meaning of the Employee Retirement Income Security Act of 1974 with respect to any employee benefit plan of the Corporation or serves or served at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise. The Corporation shall pay for or reimburse the reasonable expenses incurred by any such current or former director, officer or employee in any such proceeding in advance of the final disposition of the proceeding if the person sets forth in writing (i) the person's good faith belief that the person is entitled to indemnification under this Article and (ii) the person's agreement to repay all advances if it is ultimately determined that the person is not entitled to indemnification under this Article. No amendment to these Bylaws that limits the Corporation's obligation to indemnify any person shall have any effect on such obligation for any act or omission that occurs prior to the later to occur of the effective date of the amendment or the date notice of the amendment is given to the person. This Article shall not be deemed exclusive of any other provisions for indemnification or advancement of expenses of directors, officers, employees, agents and fiduciaries that may be included in the Articles of Incorporation or any statute, bylaw, agreement, general or specific action of the Board of Directors, vote of shareholders or other document or arrangement.

## **ARTICLE VIII GENERAL PROVISIONS**

### **Section 8.1. Amendment of Bylaws**

**8.1.1** Except as otherwise provided by applicable law, the Board of Directors may amend or repeal these Bylaws unless:

- (a) Applicable law reserves this power exclusively to the shareholders in whole or in part; or
- (b) The shareholders in amending or repealing a particular Bylaw provide expressly that the Board of Directors may not amend or repeal that Bylaw.

**8.1.2** The Corporation's shareholders may amend or repeal these Bylaws even though these Bylaws may also be amended or repealed by the Board of Directors.

**8.1.3** Whenever an amendment or new Bylaw is adopted, it will be copied in the minute book with the original Bylaws in the appropriate place. If any Bylaw is repealed, the fact of repeal and the date on which the repeal occurred will be stated in such book and place.



**Section 8.2. Waiver of Notice**

**8.2.1** A shareholder may at any time waive any notice required by law, the Articles of Incorporation or these Bylaws. Except as otherwise provided in Section 2.4.3 of these Bylaws, the waiver will be in writing, will be signed by the shareholder entitled to the notice, and will be delivered to the Corporation for inclusion in the minutes or filing with the corporate records.

**8.2.2** A director may at any time waive any notice required by law, the Articles of Incorporation or these Bylaws. Except as otherwise provided in Section 3.8.2 of these Bylaws, the waiver will be in writing, will be signed by the director entitled to the notice, will specify the meeting for which notice is waived and will be delivered to the Corporation for inclusion in the minutes or filing with the corporate records.

**Adopted effective:** February 1, 2019 .

February 1, 2019

/s/ Kathleen F. Burke

Kathleen F. Burke, Secretary

9

---

**CONSULTING AGREEMENT**

This is a Consulting Agreement dated January 11, 2019 (“Consulting Agreement”), by and among MKS Instruments, Inc., a Massachusetts company (“MKS”), Electro Scientific Industries, Inc., an Oregon corporation (the “Company”), and Michael D. Burger of Lake Oswego, Oregon (“Burger”). The “Effective Date” of this Consulting Agreement is defined in Section 15 below.

WHEREAS, MKS and the Company are parties to an Agreement and Plan of Merger dated as of October 29, 2018 pursuant to which MKS is acquiring the Company (the “Acquisition”);

WHEREAS, Burger is currently the President and Chief Executive Officer of the Company;

WHEREAS, Burger and the Company are parties to an Employment Agreement effective August 19, 2016 (the “Employment Agreement”), an Indemnification Agreement effective October 3, 2016, time-based Restricted Stock Units Award Agreements dated October 3, 2016, October 3, 2016 (there are two such Agreements with the same date), May 11, 2017 and May 9, 2018 (collectively, the “ESI Time-Based RSU Agreements”), Performance-Based Restricted Stock Units Award Agreements dated October 3, 2016, May 11, 2017 and May 9, 2018 (collectively, the “ESI Performance-Based RSU Agreements”), and an Employee Confidentiality, Restrictive Covenant and Assignment Agreement dated August 17, 2016 (the “Restrictive Covenant Agreement”);

WHEREAS, if MKS completes the Acquisition, MKS wishes to receive and Burger wishes to provide consulting services after the Acquisition to assist with the integration of the two companies;

NOW, THEREFORE, in consideration of the premises and the mutual promises contained in this Consulting Agreement, the Company and Burger agree as follows:

**1. Immediate Vesting of RSUs.** On the Effective Date, all of the MKS restricted stock units that Burger receives as a result of the Acquisition, through MKS’ assumption of his outstanding ESI restricted stock units awarded pursuant to the terms of the ESI Time-Based RSU Agreements and the ESI Performance-Based RSU Agreements (to the extent any applicable performance criteria have been deemed met including in accordance with the provisions thereunder relating to a “Sale” of the Company, and subject to any applicable maximum caps under the ESI Performance-Based RSU Agreements), shall automatically and fully vest, to the extent not then already vested.

**2. Payout of ESI Cash Severance.** Subject to Section 9, if Burger executes, provides to the Company within 45 days of the Effective Date and does not thereafter revoke, a general release of claims in a form satisfactory to the Company the Company will pay Burger within 14 days of the Company’s receipt of the general release of claims attached hereto as Exhibit A (“General Release”), a lump sum payment in the gross amount of \$1,725,000, which is the amount of severance pay to which Burger would have been entitled under his Employment Agreement if his employment with the Company had ended under certain specified circumstances within 12 months of the effective date of a Change in Control (as defined in the Employment Agreement) of the Company (which the Acquisition will constitute upon its closing).

**3. COBRA Benefits.** Subject to Section 9, if Burger executes, provides to the Company within 45 days of the Effective Date and does not thereafter revoke or attempt to revoke, the General Release, and Burger elects continuation coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended (“COBRA”) within the time period prescribed under COBRA for Burger and any of his eligible dependents, the Company will reimburse Burger for the COBRA premiums for such coverage (at the coverage levels in effect immediately before termination of Burger’s employment) until the earlier of (a) the one-year anniversary of the date of termination of his employment, (b) the date Burger (or his eligible dependents, as applicable) no longer are eligible to receive COBRA continuation coverage, or (c) the date upon which Burger and/or Burger’s eligible dependents become eligible to receive substantially similar coverage from another employer or other source. The reimbursements will be made by the Company to Burger consistent with the Company’s normal expense reimbursement policy.

**4. Resignation as Employee.** Burger will be deemed to have resigned on the Effective Date from his employment as President and CEO of the Company, from his role as a member of the Company’s board of directors (and any committee thereof) and from any and all other positions with the Company or any parent, subsidiary or affiliate of the Company (other than pursuant to this Consulting Agreement). As of the Effective Date, Burger will cease to be an agent, officer, director or representative of the Company and will not be authorized to bind the Company to any liability or obligation or to represent that he has any such authority. The Effective Date will be considered Burger’s employment termination date for purposes of the Company’s employee benefit programs, including but not limited to, any bonus, pension, profit sharing, stock option, 401(k), health, sickness, dental, accident, life, disability, retirement, severance, vacation and other paid time off, tuition benefits, deferred compensation or insurance which the Company may maintain for the benefit of any of its employees.

**5. Role as Consultant and Consulting Term.** During the Consulting Term (as defined below), Burger will provide the Company (and if requested MKS) with consulting services (the “Services”) related to the integration of the Company and MKS. The “Consulting Term” will begin on the Effective Date and will continue until the three-month anniversary of the Effective Date. The Consulting Term will automatically end on the three-month anniversary of the Effective Date unless the Company notifies Burger in writing at least 10 days before that three-month anniversary that the Company wishes to extend the Consulting Term. If the Company so notifies Burger, the Consulting Term will automatically end on the earlier of: (a) the date the Company specifies in the notice as the end of the extension of the Consulting Term; or (b) the six-month anniversary of the Effective Date.

**6. Compensation.** During the Consulting Term the Company will pay Burger \$212,500 per month, payable on the 10<sup>th</sup> of each month, in arrears.

**7. Withholding and Taxes.** The Company will deduct from the amounts payable to Burger pursuant to this Consulting Agreement all required withholding amounts, including but not limited to federal, state, local or foreign tax withholding amounts in accordance with all applicable laws and regulations. The Company may rely on an opinion of its counsel if any questions as to the amount or requirement of withholding arises. Burger will be solely responsible for and will satisfy all of his tax obligations associated with all compensation paid or provided to him under this Consulting Agreement. Burger acknowledges and agrees that he is not relying on any advice from the Company with respect to any tax issue relating to this Consulting Agreement.

**8. Restrictive Covenants.** As a material term of this Consulting Agreement, Burger hereby (a) acknowledges and agrees that his Restrictive Covenant Agreement will remain in full force and effect; (b) reaffirms and agrees to comply fully with each and every obligation he undertook in Sections 8.1 through 8.4 of the Employment Agreement; (c) agrees that the term of his post-employment obligations will be measured beginning at the end of the Consulting Term; (d) acknowledges that during the Consulting Term he may have access to confidential and proprietary information belonging to or regarding MKS (including all of its subsidiaries) and may obtain competitively valuable information about or develop relationships with customers, employees, contractors and suppliers of MKS (including all of its subsidiaries) and therefore agrees that his obligations under the Restrictive Covenant Agreement and under Sections 8.1 through 8.4 of the Employment Agreement are expanded as if the term “ESI” were replaced with the phrase “ESI and/or MKS Instruments, Inc.” in every provision of the Restrictive Covenant Agreement or Sections 8.1 through 8.4 of the Employment Agreement that defines such obligations.

**9. Code Section 409A Compliance.**

(a) Where this Consulting Agreement refers to the termination of Burger’s employment for purposes of receiving any payment, whether a separation from service has occurred in connection with termination of employment will be determined in accordance with Section 409A of the Code and Treasury Regulations Section 1.409A-1(h) (or any successor provisions) to the extent required by law, provided that the parties acknowledge and agree that the termination of Burger’s employment is intended to constitute a separation from service within the meaning of Section 409A of the Code.

(b) Subject to subsection (c) below, to the extent that any payments or benefits under this Consulting Agreement are contingent upon Burger signing, returning and not revoking a General Release, and the time designated for signing and returning the General Release and any revocation period (not to exceed 7 days) crosses calendar years, payments contingent upon the General Release will be made in the later calendar year. Any payments contingent upon the General Release that would otherwise be made during the period for review and revocation of the General Release will be made, provided that the General Release is timely executed and returned to the Company and not revoked, on the first scheduled payment date after such period ends.

(c) If Burger is designated as a “specified employee” within the meaning of Code Section 409A (while the Company or a parent or affiliate of the Company is publicly traded on any securities market), any deferred compensation payment subject to Section 409A to be made during the six-month period following the date of his separation from service will be withheld and the amount of the payments withheld will be paid in a lump sum, without interest, during the seventh month after Burger’s separation from service; provided, however, that if Burger dies prior to the expiration of such six-month period, payment to his beneficiary will be made as soon as reasonably practicable following his death. The Company will identify in writing delivered to Burger any payments it reasonably determines are subject to delay under this Section 9(c). In no event will the Company have any liability or obligation with respect to taxes for which Burger may become liable as a result of the application of Code Section 409A.

(d) Any payments or benefits under this Consulting Agreement that are subject to the terms and conditions of the Company’s Deferred Compensation Plan will be payable in accordance with the terms thereunder.

**10. Limitation on Payments.** In the event that any compensation provided for in this Consulting Agreement or otherwise payable to Burger (i) constitutes “parachute payments” within the meaning of Section 280G of the Code, and (ii) but for this Section, would be subject to the excise tax imposed by Section 4999 of the Code, such compensation will be either:

(a) Delivered in full; or

(b) Delivered to such lesser extent that would result in no portion of such benefits being subject to excise tax under Section 4999 of the Code

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999 of the Code, results in the receipt by Burger on an after-tax basis, of the greatest amount of benefits, notwithstanding that all of some portion of such benefits may be taxable under Section 4999 of the Code. If a reduction in severance and other benefits constituting “parachute payments” is made in order to deliver compensation to a lesser extent in accordance with this Section, reduction will occur in the following order: (i) reduction in cash payments; (ii) cancellation of awards granted “contingent on a change in ownership or control” (within the meaning of Code Section 280G); (iii) cancellation of accelerated vesting of equity awards; and (iv) reduction of benefits. In the event that acceleration of vesting of equity award compensation is to be reduced, such acceleration of vesting will be cancelled in the reverse order of the date of grant of Burger’s equity awards.

Unless the Company and Burger otherwise agree in writing, any determination required under this Section will be made in writing by the Company's independent public accountants or such other person or entity to which the parties mutually agree (the "Firm"), whose determination will be conclusive and binding upon Burger and the Company. For purposes of making the calculations, the Firm may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Burger will furnish to the Firm such information and documents as the Firm may reasonably request in order to make a determination under this Section. The Company will bear all costs the Firm may incur in connection with any calculations required by this Section.

**11. Assignment.** The rights and obligations of the Company and MKS under this Consulting Agreement will inure to the benefit of, and will be binding upon, the successors and assigns of the Company and MKS, respectively. The rights and obligations of Burger under this Consulting Agreement will inure to the benefit of, and will be binding upon, Burger's heirs, executors and legal representatives. Burger may not delegate or assign any obligations under this Consulting Agreement.

**12. Entire Agreement.** This Consulting Agreement supersedes any and all other agreements, either oral or in writing, between Burger and the Company, except that the following will survive and remain in full force and effect: (a) the Restrictive Covenant Agreement, as modified by Section (8)(d) above; (b) the Indemnification Agreement dated October 3, 2016; (c) the ESI Time-Based RSU Agreements and the ESI Performance-Based RSU Agreements, as modified by Section 1 above, and (d) Sections 8.1 through 8.4 of the Employment Agreement, as modified by Section (8)(d) above. Neither party is entering into this Consulting Agreement on the basis of any representation, inducement, promise or agreement, oral or otherwise, by any person or entity, or by any one acting on behalf of any person or entity, that is not stated herein. Any modification of this Consulting Agreement will be effective only if it is in writing and signed by both parties to this Consulting Agreement.

**13. Severability.** If any provision in this Consulting Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will nevertheless continue in full force and effect without being impaired or invalidated in any way.

**14. Miscellaneous.** This Consulting Agreement and the rights and obligations of the parties hereunder will be governed by, and construed in accordance with, the laws of the State of Oregon, excluding (but only to the extent permitted by law) its conflict of laws and choice of law rules. The parties agree that service of any process, summons, notice or document by U.S. certified mail or overnight delivery by a generally recognized commercial courier service to Burger's last known address (or any mode of service recognized to be effective by applicable law) will be effective service of process for any action, suit or proceeding brought against Burger in any such court. The failure of either party hereto to enforce any right under this Consulting Agreement will not be considered a waiver of that right, or of damages caused thereby, or of any other rights under this Consulting Agreement.

**15. Effective Date.** The effective date of this Consulting Agreement (the "Effective Date") will be the effective date of the closing of the Acquisition. Notwithstanding any other provision of this Consulting Agreement or any other agreement, if the Acquisition does not occur, no provision of this Consulting Agreement will at any time have any force or effect whatsoever.

IN WITNESS WHEREOF, the parties hereto have executed this Consulting Agreement as a sealed instrument, all as of the day, month and year first written above.

**MKS INSTRUMENTS, INC.**

By: /s/ Catherine M. Langtry

Dated: 1/31/2019

**Electro Scientific Industries, Inc.**

By: /s/ Steve Harris

Steve Harris  
Vice President/ General Manager

/s/ Michael D. Burger

Name: Michael D. Burger  
Address:

Dated: January 11, 2019

**CONSULTING AGREEMENT**

This is a Consulting Agreement dated January 10, 2019 (“Consulting Agreement”), by and among MKS Instruments, Inc., a Massachusetts company (“MKS”), Electro Scientific Industries, Inc., an Oregon corporation (the “Company”), and Allen Muhich of Portland, Oregon (“Muhich”). The “Effective Date” of this Consulting Agreement is defined in Section 15 below.

WHEREAS, MKS and the Company are parties to an Agreement and Plan of Merger dated as of October 29, 2018, pursuant to which MKS is acquiring the Company (the “Acquisition”);

WHEREAS, Muhich is currently the Chief Financial Officer (“CFO”) of the Company;

WHEREAS, Muhich and the Company are parties to an offer letter dated November 10, 2017 (the “Employment Agreement”), a Change in Control Agreement effective as of December 5, 2017 (the “Change in Control Agreement”), an Indemnification Agreement effective December 13, 2017 (the “Indemnification Agreement”), time-based Restricted Stock Units Award Agreements dated December 5, 2017, and May 9, 2018 (collectively, the “ESI Time-Based RSU Agreements”), Performance-Based Restricted Stock Units Award Agreements dated December 5, 2017, and May 9, 2018 (collectively, the “ESI Performance-Based RSU Agreements”), and an Employee Confidentiality, Restrictive Covenant and Assignment Agreement dated December 13, 2017 (the “Restrictive Covenant Agreement”);

WHEREAS, if MKS completes the Acquisition, MKS wishes to receive and Muhich wishes to provide consulting services after the Acquisition to assist with the integration of the two companies;

NOW, THEREFORE, in consideration of the premises and the mutual promises contained in this Consulting Agreement, the Company and Muhich agree as follows:

**1. Immediate Vesting of RSUs.** On the Effective Date, all of the MKS restricted stock units that Muhich receives as a result of the Acquisition, through MKS’ assumption of his outstanding ESI restricted stock units awarded pursuant to the terms of the ESI Time-Based RSU Agreements and the ESI Performance-Based RSU Agreements (to the extent any applicable performance criteria have been deemed met including in accordance with the provisions thereunder relating to a “Sale” of the Company, and subject to any applicable maximum caps under the ESI Performance-Based RSU Agreements), shall automatically and fully vest, to the extent not then already vested.

**2. Payout of ESI Cash Severance.** Subject to Section 9, if Muhich executes, provides to the Company within 45 days of the Effective Date and does not thereafter revoke or attempt to revoke, a general release of claims attached hereto as Exhibit A (“General Release”), the Company will pay (a) Muhich continuing payments of his base salary (equal to \$30,000 per month) in accordance with the Company normal payroll practices for a period of six months following the termination of Muhich’s employment (with any continuing payments of salary that were scheduled to be paid to Muhich according to normal payroll practices before the General Release became effective and irrevocable, but that were not paid and instead were withheld due to waiting for the General Release to become effective and irrevocable, to be paid in lump sum no later than 14 days following the Company’s receipt of the General Release), (b) a lump sum payment in the gross amount of \$216,000 no later than 14 days following the Company’s receipt of the General Release, and (c) a lump sum payment in the gross amount of \$180,000 on the date six months following the termination of Muhich’s employment, which is the amount of severance pay to which Muhich would have been entitled under his Change in Control Agreement if his employment with the Company had ended under certain specified circumstances within 24 months of the effective date of a Change in Control (as defined in the Change in Control Agreement) of the Company (which the Acquisition will constitute upon its closing).



**3. COBRA Benefits.** Subject to Section 99, if Muhich executes, provides to the Company within 45 days of the Effective Date and does not thereafter revoke or attempt to revoke, the General Release, and Muhich elects continuation coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended (“COBRA”) within the time period prescribed under COBRA for Muhich and any of his eligible dependents, the Company will reimburse Muhich for the COBRA premiums for such coverage (at the coverage levels in effect immediately before termination of Muhich’s employment) until the earlier of (a) a period of 12 months after the date of termination of his employment, or (b) the date upon which Muhich and/or Muhich’s eligible dependents become covered under similar plans. The reimbursements will be made by the Company to Muhich consistent with the Company’s normal expense reimbursement policy.

**4. Resignation as Employee.** Muhich will be deemed to have resigned on the Effective Date from his employment as CFO of the Company and from any and all other positions with the Company or any parent, subsidiary or affiliate of the Company (other than pursuant to this Consulting Agreement). As of the Effective Date, Muhich will cease to be an agent, officer, director or representative of the Company and will not be authorized to bind the Company to any liability or obligation or to represent that he has any such authority. The Effective Date will be considered Muhich’s employment termination date for purposes of the Company’s employee benefit programs, including but not limited to, any bonus, pension, profit sharing, stock option, 401(k), health, sickness, dental, accident, life, disability, retirement, severance, vacation and other paid time off, tuition benefits, deferred compensation or insurance which the Company may maintain for the benefit of any of its employees.

**5. Role as Consultant and Consulting Term.** During the Consulting Term (as defined below), Muhich will provide the Company (and if requested MKS) with consulting services (the “Services”) related to the integration of the Company and MKS. The “Consulting Term” will begin on the Effective Date and will continue until the three-month anniversary of the Effective Date. The Consulting Term will automatically end on the three-month anniversary of the Effective Date unless the Company notifies Muhich in writing at least 10 days before that three-month anniversary that the Company wishes to extend the Consulting Term. If the Company so notifies Muhich, the Consulting Term will automatically end on the earlier of: (a) the date the Company specifies in the notice as the end of the extension of the Consulting Term; or (b) the six-month anniversary of the Effective Date.

---

**6. Compensation.** During the Consulting Term the Company will pay Muhich \$98,000 per month, payable on the tenth day of each month, in arrears.

**7. Withholding and Taxes.** The Company will deduct from the amounts payable to Muhich pursuant to this Consulting Agreement all required withholding amounts, including but not limited to federal, state, local or foreign tax withholding amounts in accordance with all applicable laws and regulations. The Company may rely on an opinion of its counsel if any questions as to the amount or requirement of withholding arises. Muhich will be solely responsible for and will satisfy all of his tax obligations associated with all compensation paid or provided to him under this Consulting Agreement. Muhich acknowledges and agrees that he is not relying on any advice from the Company with respect to any tax issue relating to this Consulting Agreement.

**8. Restrictive Covenants.** As a material term of this Consulting Agreement, Muhich hereby (a) acknowledges and agrees that his Restrictive Covenant Agreement will remain in full force and effect; (b) agrees that the term of his post-employment obligations will be measured beginning at the end of the Consulting Term; and (c) acknowledges that during the Consulting Term he may have access to confidential and proprietary information belonging to or regarding MKS (including all of its subsidiaries) and may obtain competitively valuable information about or develop relationships with customers, employees, contractors and suppliers of MKS (including all of its subsidiaries) and therefore agrees that his obligations under the Restrictive Covenant Agreement are expanded as if the term "ESI" were replaced with the phrase "ESI and/or MKS Instruments, Inc." in every provision of the Restrictive Covenant Agreement that defines such obligations.

**9. Code Section 409A Compliance.**

(a) Where this Consulting Agreement refers to the termination of Muhich's employment for purposes of receiving any payment, whether a separation from service has occurred in connection with termination of employment will be determined in accordance with Section 409A of the Code and Treasury Regulations Section 1.409A-1(h) (or any successor provisions) to the extent required by law.

(b) Subject to subsection (c) below, to the extent that any payments or benefits under this Consulting Agreement are contingent upon Muhich signing, returning and not revoking a General Release, and the time designated for signing and returning the General Release and any revocation period (not to exceed 7 days) crosses calendar years, payments contingent upon the General Release will be made in the later calendar year. Any payments contingent upon the General Release that would otherwise be made during the period for review and revocation of the General Release will be made, provided that the General Release is timely executed and returned to the Company and not revoked, on the first scheduled payment date after such period ends.

(c) If Muhich is designated as a “specified employee” within the meaning of Code Section 409A (while the Company or a parent or affiliate of the Company is publicly traded on any securities market), any deferred compensation payment subject to Section 409A to be made during the six-month period following the date of his separation from service will be withheld and the amount of the payments withheld will be paid in a lump sum, without interest, during the seventh month after Muhich’s separation from service; provided, however, that if Muhich dies prior to the expiration of such six-month period, payment to his beneficiary will be made as soon as reasonably practicable following his death. The Company will identify in writing delivered to Muhich any payments it reasonably determines are subject to delay under this Section 99(c). In no event will the Company have any liability or obligation with respect to taxes for which Muhich may become liable as a result of the application of Code Section 409A.

**10. Limitation on Payments.** In the event that any compensation provided for in this Consulting Agreement or otherwise payable to Muhich (i) constitutes “parachute payments” within the meaning of Section 280G of the Code, and (ii) but for this Section, would be subject to the excise tax imposed by Section 4999 of the Code, such compensation will be either:

(a) Delivered in full; or

(b) Delivered to such lesser extent that would result in no portion of such benefits being subject to excise tax under Section 4999 of the Code

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999 of the Code, results in the receipt by Muhich on an after-tax basis, of the greatest amount of benefits, notwithstanding that all of some portion of such benefits may be taxable under Section 4999 of the Code. If a reduction in severance and other benefits constituting “parachute payments” is made in order to deliver compensation to a lesser extent in accordance with this Section, reduction will occur in the following order: (i) reduction in cash payments; (ii) cancellation of awards granted “contingent on a change in ownership or control” (within the meaning of Code Section 280G); (iii) cancellation of accelerated vesting of equity awards; and (iv) reduction of benefits. In the event that acceleration of vesting of equity award compensation is to be reduced, such acceleration of vesting will be cancelled in the reverse order of the date of grant of Muhich’s equity awards.

Unless the Company and Muhich otherwise agree in writing, any determination required under this Section will be made in writing by the Company's independent public accountants or such other person or entity to which the parties mutually agree (the "Firm"), whose determination will be conclusive and binding upon Muhich and the Company. For purposes of making the calculations, the Firm may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Muhich will furnish to the Firm such information and documents as the Firm may reasonably request in order to make a determination under this Section. The Company will bear all costs the Firm may incur in connection with any calculations required by this Section.

**11. Assignment.** The rights and obligations of the Company and MKS under this Consulting Agreement will inure to the benefit of, and will be binding upon, the successors and assigns of the Company and MKS, respectively. The rights and obligations of Muhich under this Consulting Agreement will inure to the benefit of, and will be binding upon, Muhich's heirs, executors and legal representatives. Muhich may not delegate or assign any obligations under this Consulting Agreement.

**12. Entire Agreement.** This Consulting Agreement supersedes any and all other agreements, either oral or in writing, between Muhich and the Company, except that the following will survive and remain in full force and effect: (a) the Restrictive Covenant Agreement, as modified by Section 8(c) above; and (b) the Indemnification Agreement, and (c) the ESI Time-Based RSU Agreements and the ESI Performance-Based RSU Agreements, as modified by Section 1 above. Neither party is entering into this Consulting Agreement on the basis of any representation, inducement, promise or agreement, oral or otherwise, by any person or entity, or by any one acting on behalf of any person or entity, that is not stated herein. Any modification of this Consulting Agreement will be effective only if it is in writing and signed by both parties to this Consulting Agreement.

**13. Severability.** If any provision in this Consulting Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will nevertheless continue in full force and effect without being impaired or invalidated in any way.

**14. Miscellaneous.** This Consulting Agreement and the rights and obligations of the parties hereunder will be governed by, and construed in accordance with, the laws of the State of Oregon, excluding (but only to the extent permitted by law) its conflict of laws and choice of law rules. The parties agree that service of any process, summons, notice or document by U.S. certified mail or overnight delivery by a generally recognized commercial courier service to Muhich's last known address (or any mode of service recognized to be effective by applicable law) will be effective service of process for any action, suit or proceeding brought against Muhich in any such court. The failure of either party hereto to enforce any right under this Consulting Agreement will not be considered a waiver of that right, or of damages caused thereby, or of any other rights under this Consulting Agreement.

**15. Effective Date.** The effective date of this Consulting Agreement (the “Effective Date”) will be the effective date of the closing of the Acquisition. Notwithstanding any other provision of this Consulting Agreement or any other agreement, if the Acquisition does not occur, no provision of this Consulting Agreement will at any time have any force or effect whatsoever.

IN WITNESS WHEREOF, the parties hereto have executed this Consulting Agreement as a sealed instrument, all as of the day, month and year first written above.

**MKS INSTRUMENTS, INC.**

By: /s/ Catherine M. Langtry

Dated: 1/31/2019

**Electro Scientific Industries, Inc.**

By: /s/ Steve Harris

Steve Harris  
Vice President/ General Manager

/s/ Allen Muhich

Name: Allen Muhich

Address:

Dated: January 10, 2019

**EMPLOYMENT AGREEMENT**

This is an EMPLOYMENT AGREEMENT dated [DATE] (“Employment Agreement”), by and between, on the one hand, Electro Scientific Industries, Inc., an Oregon corporation (the “Company”) and MKS Instruments, Inc., a Massachusetts company (“MKS”), and on the other hand, Steven L. Harris of Sisters, Oregon (“Employee”). The effective date of this Employment Agreement (the “Effective Date”) is defined in Section 12 below.

WHEREAS, MKS is acquiring the Company (the “Acquisition”) pursuant to the terms of that certain Agreement and Plan of Merger, dated October 29, 2018, by and among MKS, the Company, and a certain other party;

WHEREAS, Employee is currently an employee of the Company;

WHEREAS, Employee and the Company are parties to an offer letter dated January 24, 2017, a Change in Control Agreement effective February 10, 2017 (the “Change in Control Agreement”), an Indemnification Agreement effective December 13, 2017, time-based Restricted Stock Units Award Agreements dated as of February 2, 2017, May 11, 2017, and May 9, 2018 (collectively the “Time-Based RSU Agreements”), Performance-Based Restricted Stock Units Award Agreements dated as of February 27, 2017, May 11, 2017 and May 9, 2018 (the “PRSU Agreements”), and an Employee Confidentiality, Restrictive Covenant and Assignment Agreement dated January 24, 2017 (the “Restrictive Covenant Agreement”);

WHEREAS, the Change in Control Agreement provides for payment of certain severance compensation if Employee’s employment with the Company ends under certain specified circumstances within 24 months of the effective date of a Change in Control (as defined in the Change in Control Agreement) of the Company (which the Acquisition will constitute upon its closing), and the Time-Based RSU Agreements and the PRSU Agreements provide for certain acceleration of vesting of certain equity compensation if Employee’s employment with the Company ends under certain specified circumstances within 12 months of the effective date of a Change in Control (as defined in the applicable Time-Based RSU Agreement or PRSU Agreement) of the Company (which the Acquisition will constitute upon its closing);

WHEREAS, if MKS completes the Acquisition, this Employment Agreement is intended to provide for the continued employment of Employee by the Company following the Acquisition, and for the parties’ rights and obligations under this Employment Agreement to supersede and take the place of their rights and obligations under the Change in Control Agreement;

NOW, THEREFORE, in consideration of the premises and the mutual promises contained herein, the Company and Employee hereby agree as follows:

**1. Employment.** The Company is employing Employee on an at-will basis in the position of Vice President & General Manager.

**2. Compensation.** In consideration of the services Employee will provide and the other terms and conditions of this Employment Agreement, the Company agrees to provide the following compensation.

(a) **Special Retention Equity Award.** On the Effective Date, Employee will be granted a one-time award of MKS restricted stock units with a total grant date value of \$400,000 (the “Special Retention Equity Award”). The total number of shares of MKS common stock that will be subject to the Special Retention Equity Award will be determined by dividing the total grant date value by the [closing sales price] of a share of MKS common stock on the grant date of the Special Retention Equity Award. The Special Retention Equity Award will be subject to the terms, conditions and restrictions set forth in the MKS Instruments, Inc. 2014 Stock Incentive Plan and the standard form of Restricted Stock Unit Agreement under such plan, revised to reflect the vesting schedule set forth below in this Section 2(a). One-third of the shares of MKS common stock underlying the Special Retention Equity Award will be scheduled to vest on the first anniversary of the Effective Date if Employee’s employment with MKS or any of its subsidiaries continues through that first anniversary. The remaining two-thirds of the shares of MKS common stock underlying the Special Retention Equity Award will be scheduled to vest on the second anniversary of the Effective Date if Employee’s employment with MKS or any of its subsidiaries continues through that second anniversary.

(b) **Special Retention Payment.** On the third anniversary of the Effective Date, if Employee’s employment with MKS or any of its subsidiaries continues through that third anniversary, Employee will receive a one-time cash payment of \$160,000 (the “Special Retention Payment”).

(c) **Immediate Vesting of Certain Time-Based RSUs.** <sup>1</sup>On the Effective Date immediately following the effective time of the Acquisition, all of the “ESI Time-Based RSUs” (defined in the next sentence) that were assumed by MKS in connection with the Acquisition and were adjusted to be restricted stock units covering shares of MKS common stock, shall automatically and fully vest to the extent not then already vested. The “ESI Time-Based RSUs” means the restricted stock units covering shares of the Company’s common stock that were awarded to Employee pursuant to a Time-Based RSU Agreement that were outstanding and unvested as to a total of 25,900 shares of the Company’s common stock as of the Effective Date.

(d) **Accelerated Vesting of Certain PRSUs.** On the first anniversary of the Effective Date, if Employee’s employment with MKS or any of its subsidiaries continues through that first anniversary, all of the restricted stock units that were awarded to Employee pursuant to the terms of the Performance-Based Restricted Stock Units Award Agreement dated February 27, 2017, assumed by MKS in connection with the Acquisition and adjusted to be restricted stock units covering shares of MKS common stock (to the extent any applicable performance criteria have been deemed met including in accordance with the provisions thereunder relating to a “Sale” of the Company, through the Effective Date, and subject to any applicable maximum caps under the applicable PRSU Agreement), shall automatically and fully vest.

---

<sup>1</sup> [MKS will ensure any necessary board approvals.]

(e) **Payments in Lieu of Remaining PRSUs.** As of immediately following the effective time of the Acquisition, in exchange for any and all restricted stock units covering shares of the Company's common stock that were assumed by MKS in connection with the Acquisition and adjusted to be restricted stock units covering shares of MKS common stock, including those that are subject to the Performance-Based Restricted Stock Units Award Agreement dated May 11, 2017, and the Performance-Based Restricted Stock Units Award Agreements dated May 9, 2018, Employee shall have the right to receive cash incentive payments (the "PRSU Incentive Compensation") with a target amount of \$600,000 (the "Target Incentive"), and with a maximum payment equal to 200% of the Target Incentive and a minimum payment of zero, based upon the achievement of performance metrics to be determined in good faith by the Company and set forth in writing within 30 days after the Effective Date, over a one year performance period commencing on or following the Effective Date (such performance period, the "Performance Period"), and payable as follows:

(i) On the second anniversary of the Effective Date, if Employee's employment with MKS or any of its subsidiaries continues through that second anniversary, Employee shall be entitled to 50% of the PRSU Incentive Compensation, which payment shall be made within 30 days following that second anniversary; and

(ii) On the third anniversary of the Effective Date, if Employee's employment with MKS or any of its subsidiaries continues through that third anniversary Employee shall be entitled to 50% of the PRSU Incentive Compensation, which payment shall be made within 30 days following that third anniversary.

Notwithstanding the foregoing, the portion of each installment of the PRSU Incentive Compensation that would otherwise be payable pursuant to subsection (i) or (ii) that is attributable to the Performance-Based Restricted Stock Units Award Agreement dated May 9, 2018, to the extent vested, shall be deferred and paid in accordance with Employee's deferral election for such award pursuant to the Electro Scientific Industries, Inc. Deferred Compensation Plan.

(f) **Base Salary.** During the term of employment under this Employment Agreement, Employee will be paid base salary at the rate of \$400,000 per year (the "Base Salary"), in accordance with the Company's normal payroll practices. The Base Salary will be subject to review and adjustment in accordance with the Company's compensation review procedures from time to time applicable to Employee's position with the Company. As an exempt employee, Employee will not be entitled to receive any overtime pay from the Company.



(g) **Annual Incentive Compensation.** Employee will be entitled to participate in the ESI FY19 Variable Compensation Plan in accordance with the terms and conditions of the program/plan and Employee's target annual incentive compensation shall be 65% of Employee's Base Salary. Nothing in this Employment Agreement shall (i) require the Company, MKS or any of their subsidiaries or affiliates to establish, maintain or continue any incentive compensation plan, (ii) restrict the right of the Company, MKS or any of their subsidiaries or affiliates to amend, modify or terminate any such plan, or (iii) entitle Employee to participation in any such plan at any specified level (or at all) in any year.

(h) **2019 MKS Restricted Stock Unit Award.** On April 1, 2019, Employee will receive a one-time award of MKS restricted stock units with a total grant date value of \$500,000 (the "2019 RSU Award"). The total number of shares of MKS common stock that will be subject to the 2019 RSU Award will be determined by dividing the total grant date value by the [closing sales price] of a share of MKS common stock on the grant date of the 2019 RSU Award. The 2019 RSU Award will be scheduled to vest over a three-year period, to the extent Employee's employment with MKS or any of its subsidiaries continues during that period, in three equal annual installments, with an installment vesting on each of the first three anniversaries of the grant date. The 2019 RSU Award will be subject to the terms, conditions and restrictions set forth in the MKS Instruments, Inc. 2014 Stock Incentive Plan and the standard form of Restricted Stock Unit Agreement under such plan.

(i) **Long-Term Incentive Equity Awards.** Employee will be eligible for additional equity awards in accordance with the terms of the MKS Instruments, Inc. 2014 Stock Incentive Plan. Nothing in this Employment Agreement shall (i) require the Company, MKS or any of their subsidiaries or affiliates to establish, maintain or continue any incentive compensation plan, (ii) restrict the right of the Company, MKS or any of their subsidiaries or affiliates to amend, modify or terminate any such plan, or (iii) entitle Employee to participation in any such plan at any specified level (or at all) in any year. Employee acknowledges and agrees that the Special Retention Equity Award described in Section 2(a), above, and the 2019 RSU Award described in Section 2(h), above, will be Employee's only equity awards for 2019 and that his next eligibility for an equity award in accordance with the terms of the MKS Instruments, Inc. 2014 Stock Incentive Plan will be in 2020.

(j) **Benefits.** During the term of employment under this Employment Agreement, Employee will be eligible to continue to participate in the employee benefit programs made generally available by the Company from time to time, including medical, dental, vision, life, accidental death and dismemberment, short-term disability and long-term disability insurance and a 401(k) savings plan, subject to the conditions set forth in the respective plans and in accordance with the terms thereof. Nothing in this Employment Agreement will (i) require the Company, MKS or any of their subsidiaries or affiliates to establish, maintain or continue any benefit plans, policies or arrangements or (ii) restrict the right of the Company, MKS or any subsidiaries or affiliates to amend, modify or terminate any such benefit plan, policy or arrangement.

(k) **Paid Time Off.** Employee will be eligible for paid time off in accordance with and subject to all of the terms and conditions of the Company's vacation policy, as such policy may be amended from time to time in the Company's sole discretion. Employee will also be eligible for paid sick time and paid holidays, in accordance with and subject to all of the terms and conditions of the Company's policies, as such policies may be amended from time to time or terminated in the Company's sole discretion.

(l) **Expenses.** The Company will reimburse Employee for all reasonable and necessary expenses incurred by Employee in connection with the performance of Employee's duties as an employee of the Company. Such reimbursement is subject to the timely submission to the Company by Employee of appropriate documentation and/or vouchers in accordance with the customary procedures of the Company for expense reimbursement, as such procedures may be revised by the Company from time to time, and to such caps on reimbursements as the Company may from time to time impose. The amount of expenses eligible for reimbursement or in-kind benefits provided by the Company in any taxable year of Employee will not affect the amount of expenses or in-kind benefits to be reimbursed or provided in any other year (except in the case of maximum benefits to be provided under a medical reimbursement arrangement, if applicable).

(m) **Withholding and Taxes.** The Company will deduct from the amounts payable to Employee pursuant to this Employment Agreement all required withholding amounts and deductions, including but not limited to federal, state, local or foreign withholding amounts in accordance with all applicable laws and regulations and deductions authorized by Employee. The Company may rely on an opinion of its counsel if any questions as to the amount or requirement of withholding arises. Employee will be solely responsible for and will satisfy all of Employee's tax obligations associated with all compensation paid or provided to Employee under this Employment Agreement. Employee acknowledges and agrees that Employee is not relying on any advice from the Company, MKS or any affiliate, officer, director, employee, agent or attorney of or for either of them with respect to any tax issue relating to this Employment Agreement.

**3. Duty to the Company.** While employed by the Company, Employee: (a) will devote his full working time and best efforts to the business of the Company; (b) comply with the Company's and MKS' policies; and (c) will not (without the prior, express, written consent of MKS' CEO) engage in any business activity (whether or not for gain) that interferes with Employee's work for the Company. Notwithstanding the previous sentence, this Employment Agreement does not prohibit Employee from managing his personal investments or engaging in charitable and unpaid professional activities (including serving on charitable and professional boards), so long as doing so does not materially interfere with Employee's work for the Company. As a condition of employment and a material term of this Employment Agreement, Employee (x) acknowledges and agrees that the Restrictive Covenant Agreement will continue in full force and effect; (y) acknowledges that he may have access to MKS confidential and proprietary information and may obtain competitively valuable information about or develop relationships with MKS customers, employees, contractors and suppliers; and (z) agrees that his obligations under the Restrictive Covenant Agreement are expanded as if the term "ESI" were replaced with the phrase "ESI and/or MKS Instruments, Inc." in every provision of the Restrictive Covenant Agreement that defines such obligations.

**4. End of Employment.** The employment relationship between Employee and the Company will end upon the first to occur of: (a) Employee's death; (b) Employee's entitlement to long-term disability benefits under the Company's long-term disability program; (c) written notice by Employee to the Company of Employee's resignation from employment; and (d) written notice by the Company to Employee of the Company's termination of Employee's employment. The date on which Employee's employment ends, regardless of how it ends, is referred to in this Employment Agreement as the "Employment End Date." If Employee resigns and proposes a future Employment End Date, the Company will have the right at any time, for any reason, in its sole discretion, to accelerate the Employment End Date and in no event will the Company's acceleration of the Employment End Date following Employee's resignation be considered termination by the Company of Employee's employment. If the Company terminates Employee's employment, the Company may choose the Employment End Date. Employee agrees that immediately upon the Employment End Date (or sooner if the Company requests), Employee will deliver to the Company any and all property of the Company, MKS or any subsidiary or affiliate of either of them that is in his possession, custody or control, including but limited to the originals and all copies of any and all electronic or hard-copy files, data, software, documents or other written materials and any and all equipment, computers, phones, keys, access cards, credit cards or other property.

**5. Compensation Upon End of Employment.** Employee's compensation upon the end of Employee's employment relationship with the Company will be as described in Sections 5(a) through 5(h) below.

(a) **Minimum Obligations.** When the employment relationship ends, no matter how it ends: (i) the Company will pay Employee any unpaid Base Salary through the Employment End Date; (ii) Employee will be entitled to any accrued, vested benefits under the Company benefit plans described in Section 2(j) above; (iii) the Company will pay Employee for any accrued but unused vacation; and (iv) the Company will reimburse Employee for any unreimbursed expenses incurred through the Employment End Date to the extent provided in Section 2(l), above.

(b) **Resignation by Employee.** If Employee provides the Company written notice of resignation, proposes an Employment End Date that is at least 30 days after the notice of resignation and is in active employment in good standing at the time of that notice, the Company will either (at its sole election): (i) continue to employ Employee through the Employment End Date that Employee proposes; or (ii) accelerate the Employment End Date to any date the Company may choose and pay Employee an amount equal to his or her then Base Salary for the period (not to exceed 30 days) beginning on the date the Company chooses as the Employment End Date and ending on the Employment End Date that Employee proposed. Notwithstanding the foregoing, the Company will have no obligations under this Section 5(b) if: (y) Employee, after providing notice of resignation, at any time ceases to perform Employee's duties diligently or otherwise ceases to be an Employee in good standing, as determined by the Company in good faith; or (z) Employee is eligible for severance compensation under Section 5(d), below.

(c) **Termination by the Company.** If the Company elects to terminate Employee's employment, the Company will provide Employee with written notice of termination and will either (at its sole election): (i) provide Employee with at least 30 days' advance written notice of termination; or (ii) provide Employee with less than 30 days' advance written notice of termination, and pay Employee a lump sum amount equal to his Base Salary for the period (not to exceed 30 days) from the Employment End Date through the date 30 days after the Company provided Employee with written notice of termination. Notwithstanding the foregoing, the Company will have no obligations under this Section 5(c) if: (x) Employee's employment ends because of Employee's death or disability entitling Employee to long-term disability benefits under the terms of the Company's long-term disability program ("Disability"); (y) the Company terminates Employee for Cause (as defined in Section 5(f) below); or (z) Employee is eligible for severance compensation under Section 5(d), below.

(d) **Eligibility for Severance Compensation.** Employee will become eligible for the "Severance Compensation" defined below if and only if all of the following conditions are satisfied:

(i) the Company terminates Employee's employment without "Cause" as defined in Section 5(f) below (excluding death or Disability) within twenty-four months of the Effective Date or Employee resigns for "Good Reason" as defined in Section 5(g) below within twenty-four months of the Effective Date; and

(ii) Employee has complied with and continues to comply with all of Employee's obligations under the Restrictive Covenant Agreement (as modified by Section 3 above); and

(iii) Employee executes, provides to the Company within 45 days of termination and does not thereafter revoke or attempt to revoke, a general release of claims attached hereto as Exhibit A (the "General Release").<sup>2</sup>

(e) **Meaning of "Severance Compensation."** If Employee becomes eligible for the Severance Compensation in accordance with Section 5(d), above:

(i) **Accelerated Vesting.** All then-unvested MKS restricted stock units held by Employee, including but not limited to those granted under Section 2 of this Employment Agreement, and any PRSU Incentive Compensation not yet paid to Employee, shall automatically vest as of the Employment End Date. In the case of any such restricted stock units having performance-based vesting conditions, such automatic vesting shall be calculated based on one hundred percent (100%) satisfaction of all performance goals. In the case of any PRSU Incentive Compensation not yet paid to Employee, such automatic vesting shall be calculated based on target performance, unless Employee becomes eligible for the Severance Compensation upon or after the end of the Performance Period, in which case it shall be calculated based on actual performance.

---

<sup>2</sup> [Note: Please attach.]

(ii) **Continuation of Benefits.** If Employee elects continuation coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended (“COBRA”) within the time period prescribed under COBRA for Employee and any of his eligible dependents, the Company will reimburse Employee for the COBRA premiums for such coverage (at the coverage levels in effect immediately before termination of Employee’s employment) until the earlier of (a) a period of 12 months after the date of termination of his employment, or (b) the date upon which Employee and/or Employee’s eligible dependents become covered under similar plans. Notwithstanding the foregoing, if the Company determines in its sole discretion that it cannot provide the COBRA benefits under this Section without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then in lieu of such COBRA premium reimbursement and for the same number of months as such COBRA premium reimbursement would have been due, the Company will provide to Employee a taxable monthly payment in an amount equal to the monthly COBRA premium that Employee would be required to pay to continue group health coverage for Employee and Employee’s eligible dependents (if any) in effect on the date of termination of his employment (which amount will be based on the premium for the first month of COBRA coverage), and which payments will be made regardless of whether Employee elects COBRA continuation coverage.

(iii) **No Obligation to Mitigate Damages; Effect on Other Contractual Rights.** Employee will not be required to mitigate damages or the amount of any payment provided for under this Employment Agreement by seeking other employment or otherwise, nor, except as set forth in Section 5(e)(ii), will any payment provided for under this Employment Agreement be reduced by any compensation earned by Employee as the result of employment by an employer other than the Company or a direct or indirect parent, subsidiary or affiliate of the Company after the Employment End Date, or otherwise.

(f) **Meaning of “Cause.”** “Cause” to terminate Employee’s employment will exist if Employee engages in the following conduct:

(i) the willful and continued failure to perform substantially Employee’s reasonably assigned duties with the Company (or its successor) (other than any such failure resulting from incapacity due to physical or mental illness) after a demand for substantial performance is delivered to Employee by the Company (or its successor) which specifically identifies the manner in which the Company (or its successor) believes that Employee has not substantially performed Employee’s duties;

(ii) the willful engagement in illegal conduct which is materially and demonstrably injurious to the Company (or its successor); or

(iii) the commission of an act by Employee, or the failure of Employee to act, which constitutes gross negligence or gross misconduct.

No act, or failure to act, shall be considered “willful” if the Employee reasonably believed that the act or omission was in, or not opposed to, the best interests of the Company (or its successors).

(g) **Meaning of “Good Reason.”** For purposes of this Employment Agreement, the term “Good Reason” will mean Employee’s voluntary termination, within 30 days following the expiration of any Company cure period (discussed below) following the occurrence of one or more of the following (without Employee’s express written consent):

(i) the assignment of a different title, job or responsibilities that results in a substantial reduction in the duties of Employee on or after the Effective Date as compared to the duties assigned to Employee pursuant to this Employment Agreement;

- (ii) a reduction in Employee's Base Salary or target bonus;
- (iii) the Company's requiring Employee to be based more than 50 miles from the principal office at which Employee is based on the Effective Date immediately before the effective time of the Acquisition, except for reasonably required travel on the Company's business; or
- (iv) the failure by any successor to the Company to expressly assume this Employment Agreement or any obligation under this Employment Agreement.

Employee may not resign for Good Reason without first providing the Company with written notice within 90 days of the initial existence of the condition that Employee believes constitutes Good Reason specifically identifying the acts or omissions constituting the grounds for Good Reason and a reasonable cure period of not less than 30 days following the date of such notice. For purposes of the "Good Reason" definition, the term "Company" will be interpreted to include any subsidiary, parent, affiliate or successor thereto, if applicable.

(h) **Termination for Cause/Resignation Without Good Reason.** If the Company terminates Employee for Cause or Employee resigns without Good Reason: (i) Employee shall have no right to any Severance Compensation, to any further vesting of any restricted stock units or other equity compensation or to any other compensation or benefit of any kind, except as provided under Section 5(a) above or required by law; and (ii) any and all restricted stock units not vested as of the earlier of (y) the date when the Company notifies Employee of Employee's termination or (z) the date when Employee notifies Company of his or her resignation, shall be immediately and automatically forfeited and cancelled.

**6. Code Section 409A Compliance.**

(a) Where this Employment Agreement refers to the termination of Employee's employment for purposes of receiving any payment, whether a separation from service has occurred in connection with termination of employment will be determined in accordance with Section 409A of the Internal Revenue Code of 1986, as amended (the "Code") and Treasury Regulations Section 1.409A-1(h) (or any successor provisions) to the extent required by law.

(b) To the extent that any payments or benefits under this Employment Agreement are contingent upon Employee signing, returning and not revoking a General Release, and the time designated for signing and returning the General Release and any revocation period (not to exceed 7 days) crosses calendar years, payments contingent upon the General Release will be made in the later calendar year. Any payments contingent upon the General Release that would otherwise be made during the period for review and revocation of the General Release will be made, provided that the General Release is timely executed and returned to the Company and not revoked, on the first scheduled payment date after such period ends. Each payment in respect of the termination of Employee's employment under Section 5(e) of this Employment Agreement is designated as a separate payment for Section 409A purposes.

(c) If Employee is designated as a "specified employee" within the meaning of Code Section 409A (while the Company or a parent or affiliate of the Company is publicly traded on any securities market), any deferred compensation payment subject to Section 409A to be made during the six-month period following the date of Employee's separation from service will be withheld and the amount of the payments withheld will be paid in a lump sum, without interest, during the seventh month after Employee's separation from service; provided, however, that if Employee dies prior to the expiration of such six-month period, payment to Employee's beneficiary will be made as soon as reasonably practicable following Employee's death. The Company will identify in writing delivered to Employee any payments it reasonably determines are subject to delay under this Section 6(c). In no event will the Company have any liability or obligation with respect to taxes for which Employee may become liable as a result of the application of Code Section 409A.

**7. Limitation on Payments.** In the event that any compensation provided for in this Employment Agreement or otherwise payable to Employee (i) constitutes "parachute payments" within the meaning of Section 280G of the Code, and (ii) but for this Section 7, would be subject to the excise tax imposed by Section 4999 of the Code, such compensation will be either:

(a) Delivered in full; or

(b) Delivered to such lesser extent that would result in no portion of such benefits being subject to excise tax under Section 4999 of the Code

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999 of the Code, results in the receipt by Employee on an after-tax basis, of the greatest amount of benefits, notwithstanding that all of some portion of such benefits may be taxable under Section 4999 of the Code. If a reduction in severance and other benefits constituting "parachute payments" is made in order to deliver compensation to a lesser extent in accordance with this Section 7, reduction will occur in the following order: (i) reduction in cash payments; (ii) cancellation of awards granted "contingent on a change in ownership or control" (within the meaning of Code Section 280G); (iii) cancellation of accelerated vesting of equity awards; and (iv) reduction of employee benefits. In the event that acceleration of vesting of equity award compensation is to be reduced, such acceleration of vesting will be cancelled in the reverse order of the date of grant of Employee's equity awards.

Unless the Company and Employee otherwise agree in writing, any determination required under this Section 7 will be made in writing by the Company's independent public accountants or such other person or entity to which the parties mutually agree (the "Firm"), whose determination will be conclusive and binding upon Employee and the Company. For purposes of making the calculations, the Firm may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Employee will furnish to the Firm such information and documents as the Firm may reasonably request in order to make a determination under this Section. The Company will bear all costs the Firm may incur in connection with any calculations required by this Section 7.

**8. Assignment.** The rights and obligations of the Company under this Employment Agreement will inure to the benefit of, and will be binding upon, the Company's successors and assigns. The rights and obligations of Employee under this Employment Agreement will inure to the benefit of, and will be binding upon, Employee's heirs, executors and legal representatives. Employee may not delegate or assign any obligations under this Employment Agreement.

**9. Entire Agreement and Severability.** This Employment Agreement and the Restrictive Covenant Agreement, Time-Based RSU Agreements and PRSU Agreements (each as modified by this Employment Agreement) supersede any and all other agreements, either oral or in writing, between the parties hereto that relate in any way to the employment of Employee by the Company, including but not limited to the Change in Control Agreement, and contain all of the covenants and agreements between the parties with respect to such employment. Neither party is entering into this Employment Agreement on the basis of any representation, inducement, promise or agreement, oral or otherwise, by any person or entity, or by any one acting on behalf of any person or entity, which is not stated herein. Any modification of this Employment Agreement will be effective only if it is in writing and signed by both parties to this Employment Agreement. If any provision in this Employment Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will nevertheless continue in full force and effect without being impaired or invalidated in any way.



**10. Miscellaneous.** This Employment Agreement and the rights and obligations of the parties hereunder will be governed by, and construed in accordance with, the laws of the State of Oregon, excluding (but only to the extent permitted by law) its conflict of laws and choice of law rules. The parties agree that service of any process, summons, notice or document by U.S. certified mail or overnight delivery by a generally recognized commercial courier service to Employee's last known address (or any mode of service recognized to be effective by applicable law) will be effective service of process for any action, suit or proceeding brought against Employee in any such court. The failure of either party hereto to enforce any right under this Employment Agreement will not be considered a waiver of that right, or of damages caused thereby, or of any other rights under this Employment Agreement.

**11. Arbitration and Waiver of Jury Trial.**

(a) Any "Legal Dispute" (as defined below) between Employee and any "ESI Entity" (as defined below) (or between Employee and any employee or agent of any ESI Entity), to the extent directly or indirectly arising from or relating in any way to Employee's employment with or separation from the Company will be resolved by final and binding arbitration. Notwithstanding the foregoing sentence, the Company may, in its sole discretion, obtain preliminary injunctive relief enforcing the provisions of the Restrictive Covenant Agreement from any court of competent jurisdiction. Any issues about whether a dispute is subject to arbitration will be determined by a court of competent jurisdiction and not by an arbitrator.

(b) "Legal Dispute" means a dispute about legal rights or legal obligations, including but not limited to any rights or obligations arising under; this Employment Agreement; the Restrictive Covenant Agreement; any other agreement; any applicable legal or equitable doctrine; any applicable common law theory; or any applicable federal, state or local, statute, regulation or other legal requirement.

(c) "ESI Entity" means (i) the Company; (ii) any current or future parent, subsidiary or affiliate of the Company; or (iii) any successor or assign of (i) or (ii).

(d) The arbitration will be held in the State of Oregon. It will be conducted in accordance with the then-prevailing Employment Arbitration Rules of the American Arbitration Association.

(e) Notwithstanding any other provision of this Employment Agreement or any other agreement or of any arbitration rules, no Legal Dispute involving Employee and any ESI Entity may be included in any class or collective arbitration or any other class or collective proceeding. The exclusive method for resolving any such Legal Dispute will be arbitration on an individual basis.

(f) The Company, Employee and the arbitrator will treat all aspects of the arbitration proceedings, including without limitation, discovery, testimony and other evidence, briefs and the award, as strictly confidential, except that the arbitration award may be disclosed to the extent necessary to enforce the award, the provisions of the Restrictive Covenant Agreement or the provisions of this Employment Agreement.

(g) Employee and the Company understand and acknowledge that by agreeing to arbitrate the disputes covered by this Section 11, they are waiving the right to resolve those disputes in court and waiving any right to a jury trial with respect to those disputes.

**12. Effective Date.** The effective date of this Employment Agreement (the "Effective Date") will be the effective date of the closing of the Acquisition. If the closing of the Acquisition does not occur, no provision of this Employment Agreement will at any time have any force or effect whatsoever.

IN WITNESS WHEREOF, the parties hereto have executed this Employment Agreement as a sealed instrument, all as of the day, month and year first written above.

Electro Scientific Industries, Inc.

By: /s/ Michael Burger  
Michael Burger  
President and Chief Executive Officer

Dated: 1/17/2019

EMPLOYEE  
/s/ Steven L. Harris  
Steven L. Harris  
Address:

Dated: 1/16/2019

MKS INSTRUMENTS, INC.

By: /s/ Catherine M. Langtry  
Dated: 1/31/2019

**EMPLOYMENT AGREEMENT**

This is an EMPLOYMENT AGREEMENT dated January 29, 2019 (“Employment Agreement”), by and between, on the one hand, Electro Scientific Industries, Inc., an Oregon corporation (the “Company”) and MKS Instruments, Inc., a Massachusetts company (“MKS”), and on the other hand, John Williams of Lake Oswego, Oregon (“Employee”). The effective date of this Employment Agreement (the “Effective Date”) is defined in Section 12 below.

WHEREAS, MKS is acquiring the Company (the “Acquisition”) pursuant to the terms of that certain Agreement and Plan of Merger, dated October 29, 2018, by and among MKS, the Company, and a certain other party;

WHEREAS, Employee is currently an employee of the Company;

WHEREAS, Employee and the Company are parties to a Change in Control Agreement effective February 10, 2017 (the “Change in Control Agreement”), time-based Restricted Stock Units Award Agreements dated as of February 27, 2017, May 11, 2017, and May 9, 2018 (collectively the “Time-Based RSU Agreements”), Performance-Based Restricted Stock Units Award Agreements dated as of February 27, 2017, May 11, 2017 and May 9, 2018 (the “PRSU Agreements”), and an Employee Confidentiality, Restrictive Covenant and Assignment Agreement dated February 27, 2017 (the “Restrictive Covenant Agreement”);

WHEREAS, the Change in Control Agreement provides for payment of certain severance compensation if Employee’s employment with the Company ends under certain specified circumstances within 24 months of the effective date of a Change in Control (as defined in the Change in Control Agreement) of the Company (which the Acquisition will constitute upon its closing), and the Time-Based RSU Agreements and the PRSU Agreements provide for certain acceleration of vesting of certain equity compensation if Employee’s employment with the Company ends under certain specified circumstances within 12 months of the effective date of a Change in Control (as defined in the applicable Time-Based RSU Agreement or PRSU Agreement) of the Company (which the Acquisition will constitute upon its closing);

WHEREAS, if MKS completes the Acquisition, this Employment Agreement is intended to provide for the continued employment of Employee by the Company following the Acquisition, and for the parties’ rights and obligations under this Employment Agreement to supersede and take the place of their rights and obligations under the Change in Control Agreement;

NOW, THEREFORE, in consideration of the premises and the mutual promises contained herein, the Company and Employee hereby agree as follows:

**1. Employment.** The Company is employing Employee on an at-will basis in the position of Vice President of Marketing.

**2. Compensation.** In consideration of the services Employee will provide and the other terms and conditions of this Employment Agreement, the Company agrees to provide the following compensation.

(a) **Special Retention Equity Award.** On the Effective Date, Employee will be granted a one-time award of MKS restricted stock units with a total grant date value of \$350,000 (the “Special Retention Equity Award”). The total number of shares of MKS common stock that will be subject to the Special Retention Equity Award will be determined by dividing the total grant date value by the closing sales price of a share of MKS common stock on the grant date of the Special Retention Equity Award. The Special Retention Equity Award will be subject to the terms, conditions and restrictions set forth in the MKS Instruments, Inc. 2014 Stock Incentive Plan and the standard form of Restricted Stock Unit Agreement under such plan, revised to reflect the vesting schedule set forth below in this Section 2(a). One-third of the shares of MKS common stock underlying the Special Retention Equity Award will be scheduled to vest on the first anniversary of the Effective Date if Employee’s employment with MKS or any of its subsidiaries continues through that first anniversary. The remaining two-thirds of the shares of MKS common stock underlying the Special Retention Equity Award will be scheduled to vest on the second anniversary of the Effective Date if Employee’s employment with MKS or any of its subsidiaries continues through that second anniversary.

(b) **Special Retention Payment.** On the third anniversary of the Effective Date, if Employee’s employment with MKS or any of its subsidiaries continues through that third anniversary, Employee will receive a one-time cash payment of \$100,000 (the “Special Retention Payment”).

(c) **Immediate Vesting of Certain Time-Based RSUs.** On the Effective Date immediately following the effective time of the Acquisition, all of the “ESI Time-Based RSUs” (defined in the next sentence) that were assumed by MKS in connection with the Acquisition and were adjusted to be restricted stock units covering shares of MKS common stock, shall automatically and fully vest to the extent not then already vested. The “ESI Time-Based RSUs” means the restricted stock units covering shares of the Company’s common stock that were awarded to Employee pursuant to a Time-Based RSU Agreement that were outstanding and unvested as to a total of 45,900 shares of the Company’s common stock as of the Effective Date.

(d) **Accelerated Vesting of Certain PRSUs.** On the first anniversary of the Effective Date, if Employee’s employment with MKS or any of its subsidiaries continues through that first anniversary, all of the restricted stock units that were awarded to Employee pursuant to the terms of the Performance-Based Restricted Stock Units Award Agreement dated February 27, 2017, assumed by MKS in connection with the Acquisition and adjusted to be restricted stock units covering shares of MKS common stock (to the extent any applicable performance criteria have been deemed met including in accordance with the provisions thereunder relating to a “Sale” of the Company, through the Effective Date, and subject to any applicable maximum caps under the applicable PRSU Agreement), shall automatically and fully vest.

(e) **Payments in Lieu of Remaining PRSUs.** As of immediately following the effective time of the Acquisition, in exchange for any and all restricted stock units covering shares of the Company's common stock that were assumed by MKS in connection with the Acquisition and adjusted to be restricted stock units covering shares of MKS common stock, including those that are subject to the Performance-Based Restricted Stock Units Award Agreement dated May 11, 2017, and the Performance-Based Restricted Stock Units Award Agreements dated May 9, 2018, Employee shall have the right to receive cash incentive payments (the "PRSU Incentive Compensation") with a target amount of \$600,000 (the "Target Incentive"), and with a maximum payment equal to 200% of the Target Incentive and a minimum payment of zero, based upon the achievement of performance metrics to be determined in good faith by the Company and set forth in writing within 30 days after the Effective Date, over a one year performance period commencing on or following the Effective Date (such performance period, the "Performance Period"), and payable as follows:

(i) On the second anniversary of the Effective Date, if Employee's employment with MKS or any of its subsidiaries continues through that second anniversary, Employee shall be entitled to 50% of the PRSU Incentive Compensation, which payment shall be made within 30 days following that second anniversary; and

(ii) On the third anniversary of the Effective Date, if Employee's employment with MKS or any of its subsidiaries continues through that third anniversary Employee shall be entitled to 50% of the PRSU Incentive Compensation, which payment shall be made within 30 days following that third anniversary.

(f) **Base Salary.** During the term of employment under this Employment Agreement, Employee will be paid base salary at the rate of \$320,000 per year (the "Base Salary"), in accordance with the Company's normal payroll practices. The Base Salary will be subject to review and adjustment in accordance with the Company's compensation review procedures from time to time applicable to Employee's position with the Company. As an exempt employee, Employee will not be entitled to receive any overtime pay from the Company.

(g) **Annual Incentive Compensation.** Employee will be entitled to participate in the ESI FY19 Variable Compensation Plan in accordance with the terms and conditions of the program/plan and Employee's target annual incentive compensation shall be 60% of Employee's Base Salary. Nothing in this Employment Agreement shall (i) require the Company, MKS or any of their subsidiaries or affiliates to establish, maintain or continue any incentive compensation plan, (ii) restrict the right of the Company, MKS or any of their subsidiaries or affiliates to amend, modify or terminate any such plan, or (iii) entitle Employee to participation in any such plan at any specified level (or at all) in any year.

(h) **2019 MKS Restricted Stock Unit Award.** On April 1, 2019, Employee will receive a one-time award of MKS restricted stock units with a total grant date value of \$225,000 (the “2019 RSU Award”). The total number of shares of MKS common stock that will be subject to the 2019 RSU Award will be determined by dividing the total grant date value by the closing sales price of a share of MKS common stock on the grant date of the 2019 RSU Award. The 2019 RSU Award will be scheduled to vest over a three-year period, to the extent Employee’s employment with MKS or any of its subsidiaries continues during that period, in three equal annual installments, with an installment vesting on each of the first three anniversaries of the grant date. The 2019 RSU Award will be subject to the terms, conditions and restrictions set forth in the MKS Instruments, Inc. 2014 Stock Incentive Plan and the standard form of Restricted Stock Unit Agreement under such plan.

(i) **Long-Term Incentive Equity Awards.** Employee will be eligible for additional equity awards in accordance with the terms of the MKS Instruments, Inc. 2014 Stock Incentive Plan. Nothing in this Employment Agreement shall (i) require the Company, MKS or any of their subsidiaries or affiliates to establish, maintain or continue any incentive compensation plan, (ii) restrict the right of the Company, MKS or any of their subsidiaries or affiliates to amend, modify or terminate any such plan, or (iii) entitle Employee to participation in any such plan at any specified level (or at all) in any year. Employee acknowledges and agrees that the Special Retention Equity Award described in Section 2(a), above, and the 2019 RSU Award described in Section 2(h), above, will be Employee’s only equity awards for 2019 and that his next eligibility for an equity award in accordance with the terms of the MKS Instruments, Inc. 2014 Stock Incentive Plan will be in 2020.

(j) **Benefits.** During the term of employment under this Employment Agreement, Employee will be eligible to continue to participate in the employee benefit programs made generally available by the Company from time to time, including medical, dental, vision, life, accidental death and dismemberment, short-term disability and long-term disability insurance and a 401(k) savings plan, subject to the conditions set forth in the respective plans and in accordance with the terms thereof. Nothing in this Employment Agreement will (i) require the Company, MKS or any of their subsidiaries or affiliates to establish, maintain or continue any benefit plans, policies or arrangements or (ii) restrict the right of the Company, MKS or any subsidiaries or affiliates to amend, modify or terminate any such benefit plan, policy or arrangement.

(k) **Paid Time Off.** Employee will be eligible for paid time off in accordance with and subject to all of the terms and conditions of the Company’s vacation policy, as such policy may be amended from time to time in the Company’s sole discretion. Employee will also be eligible for paid sick time and paid holidays, in accordance with and subject to all of the terms and conditions of the Company’s policies, as such policies may be amended from time to time or terminated in the Company’s sole discretion.

(l) **Expenses.** The Company will reimburse Employee for all reasonable and necessary expenses incurred by Employee in connection with the performance of Employee’s duties as an employee of the Company. Such reimbursement is subject to the timely submission to the Company by Employee of appropriate documentation and/or vouchers in accordance with the customary procedures of the Company for expense reimbursement, as such procedures may be revised by the Company from time to time, and to such caps on reimbursements as the Company may from time to time impose. The amount of expenses eligible for reimbursement or in-kind benefits provided by the Company in any taxable year of Employee will not affect the amount of expenses or in-kind benefits to be reimbursed or provided in any other year (except in the case of maximum benefits to be provided under a medical reimbursement arrangement, if applicable).

(m) **Withholding and Taxes.** The Company will deduct from the amounts payable to Employee pursuant to this Employment Agreement all required withholding amounts and deductions, including but not limited to federal, state, local or foreign withholding amounts in accordance with all applicable laws and regulations and deductions authorized by Employee. The Company may rely on an opinion of its counsel if any questions as to the amount or requirement of withholding arises. Employee will be solely responsible for and will satisfy all of Employee's tax obligations associated with all compensation paid or provided to Employee under this Employment Agreement. Employee acknowledges and agrees that Employee is not relying on any advice from the Company, MKS or any affiliate, officer, director, employee, agent or attorney of or for either of them with respect to any tax issue relating to this Employment Agreement.

**3. Duty to the Company.** While employed by the Company, Employee: (a) will devote his full working time and best efforts to the business of the Company; (b) comply with the Company's and MKS' policies; and (c) will not (without the prior, express, written consent of MKS' CEO) engage in any business activity (whether or not for gain) that interferes with Employee's work for the Company. Notwithstanding the previous sentence, this Employment Agreement does not prohibit Employee from managing his personal investments or engaging in charitable and unpaid professional activities (including serving on charitable and professional boards), so long as doing so does not materially interfere with Employee's work for the Company. As a condition of employment and a material term of this Employment Agreement, Employee (x) acknowledges and agrees that the Restrictive Covenant Agreement will continue in full force and effect; (y) acknowledges that he may have access to MKS confidential and proprietary information and may obtain competitively valuable information about or develop relationships with MKS customers, employees, contractors and suppliers; and (z) agrees that his obligations under the Restrictive Covenant Agreement are expanded as if the term "ESI" were replaced with the phrase "ESI and/or MKS Instruments, Inc." in every provision of the Restrictive Covenant Agreement that defines such obligations.

**4. End of Employment.** The employment relationship between Employee and the Company will end upon the first to occur of: (a) Employee's death; (b) Employee's entitlement to long-term disability benefits under the Company's long-term disability program; (c) written notice by Employee to the Company of Employee's resignation from employment; and (d) written notice by the Company to Employee of the Company's termination of Employee's employment. The date on which Employee's employment ends, regardless of how it ends, is referred to in this Employment Agreement as the "Employment End Date." If Employee resigns and proposes a future Employment End Date, the Company will have the right at any time, for any reason, in its sole discretion, to accelerate the Employment End Date and in no event will the Company's acceleration of the Employment End Date following Employee's resignation be considered termination by the Company of Employee's employment. If the Company terminates Employee's employment, the Company may choose the Employment End Date. Employee agrees that immediately upon the Employment End Date (or sooner if the Company requests), Employee will deliver to the Company any and all property of the Company, MKS or any subsidiary or affiliate of either of them that is in his possession, custody or control, including but not limited to the originals and all copies of any and all electronic or hard-copy files, data, software, documents or other written materials and any and all equipment, computers, phones, keys, access cards, credit cards or other property.

**5. Compensation Upon End of Employment.** Employee's compensation upon the end of Employee's employment relationship with the Company will be as described in Sections 5(a) through 5(h) below.

(a) **Minimum Obligations.** When the employment relationship ends, no matter how it ends: (i) the Company will pay Employee any unpaid Base Salary through the Employment End Date; (ii) Employee will be entitled to any accrued, vested benefits under the Company benefit plans described in Section 2(j) above; (iii) the Company will pay Employee for any accrued but unused vacation; and (iv) the Company will reimburse Employee for any unreimbursed expenses incurred through the Employment End Date to the extent provided in Section 2(l), above.

(b) **Resignation by Employee.** If Employee provides the Company written notice of resignation, proposes an Employment End Date that is at least 30 days after the notice of resignation and is in active employment in good standing at the time of that notice, the Company will either (at its sole election): (i) continue to employ Employee through the Employment End Date that Employee proposes; or (ii) accelerate the Employment End Date to any date the Company may choose and pay Employee an amount equal to his or her then Base Salary for the period (not to exceed 30 days) beginning on the date the Company chooses as the Employment End Date and ending on the Employment End Date that Employee proposed. Notwithstanding the foregoing, the Company will have no obligations under this Section 5(b) if: (y) Employee, after providing notice of resignation, at any time ceases to perform Employee's duties diligently or otherwise ceases to be an Employee in good standing, as determined by the Company in good faith; or (z) Employee is eligible for severance compensation under Section 5(d), below.

(c) **Termination by the Company.** If the Company elects to terminate Employee's employment, the Company will provide Employee with written notice of termination and will either (at its sole election): (i) provide Employee with at least 30 days' advance written notice of termination; or (ii) provide Employee with less than 30 days' advance written notice of termination, and pay Employee a lump sum amount equal to his Base Salary for the period (not to exceed 30 days) from the Employment End Date through the date 30 days after the Company provided Employee with written notice of termination. Notwithstanding the foregoing, the Company will have no obligations under this Section 5(c) if: (x) Employee's employment ends because of Employee's death or disability entitling Employee to long-term disability benefits under the terms of the Company's long-term disability program ("Disability"); (y) the Company terminates Employee for Cause (as defined in Section 5(f) below); or (z) Employee is eligible for severance compensation under Section 5(d), below.



(d) **Eligibility for Severance Compensation.** Employee will become eligible for the “Severance Compensation” defined below if and only if all of the following conditions are satisfied:

(i) the Company terminates Employee’s employment without “Cause” as defined in Section 5(f) below (excluding death or Disability) within twenty-four months of the Effective Date or Employee resigns for “Good Reason” as defined in Section 5(g) below within twenty-four months of the Effective Date; and

(ii) Employee has complied with and continues to comply with all of Employee’s obligations under the Restrictive Covenant Agreement (as modified by Section 3 above); and

(iii) Employee executes, provides to the Company within 45 days of termination and does not thereafter revoke or attempt to revoke, a general release of claims attached hereto as Exhibit A (the “General Release”).

(e) **Meaning of “Severance Compensation.”** If Employee becomes eligible for the Severance Compensation in accordance with Section 5(d), above:

(i) **Accelerated Vesting.** All then-unvested MKS restricted stock units held by Employee, including but not limited to those granted under Section 2 of this Employment Agreement, and any PRSU Incentive Compensation not yet paid to Employee, shall automatically vest as of the Employment End Date. In the case of any such restricted stock units having performance-based vesting conditions, such automatic vesting shall be calculated based on one hundred percent (100%) satisfaction of all performance goals. In the case of any PRSU Incentive Compensation not yet paid to Employee, such automatic vesting shall be calculated based on target performance, unless Employee becomes eligible for the Severance Compensation upon or after the end of the Performance Period, in which case it shall be calculated based on actual performance.

(ii) **Continuation of Benefits.** If Employee elects continuation coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended (“COBRA”) within the time period prescribed under COBRA for Employee and any of his eligible dependents, the Company will reimburse Employee for the COBRA premiums for such coverage (at the coverage levels in effect immediately before termination of Employee’s employment) until the earlier of (a) a period of 12 months after the date of termination of his employment, or (b) the date upon which Employee and/or Employee’s eligible dependents become covered under similar plans. Notwithstanding the foregoing, if the Company determines in its sole discretion that it cannot provide the COBRA benefits under this Section without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then in lieu of such COBRA premium reimbursement and for the same number of months as such COBRA premium reimbursement would have been due, the Company will provide to Employee a taxable monthly payment in an amount equal to the monthly COBRA premium that Employee would be required to pay to continue group health coverage for Employee and Employee’s eligible dependents (if any) in effect on the date of termination of his employment (which amount will be based on the premium for the first month of COBRA coverage), and which payments will be made regardless of whether Employee elects COBRA continuation coverage.

(iii) **No Obligation to Mitigate Damages; Effect on Other Contractual Rights.** Employee will not be required to mitigate damages or the amount of any payment provided for under this Employment Agreement by seeking other employment or otherwise, nor, except as set forth in Section 5(e)(ii), will any payment provided for under this Employment Agreement be reduced by any compensation earned by Employee as the result of employment by an employer other than the Company or a direct or indirect parent, subsidiary or affiliate of the Company after the Employment End Date, or otherwise.

(f) **Meaning of “Cause.”** “Cause” to terminate Employee’s employment will exist if Employee engages in the following conduct:

(i) the willful and continued failure to perform substantially Employee’s reasonably assigned duties with the Company (or its successor) (other than any such failure resulting from incapacity due to physical or mental illness) after a demand for substantial performance is delivered to Employee by the Company (or its successor) which specifically identifies the manner in which the Company (or its successor) believes that Employee has not substantially performed Employee’s duties;

(ii) the willful engagement in illegal conduct which is materially and demonstrably injurious to the Company (or its successor); or

(iii) the commission of an act by Employee, or the failure of Employee to act, which constitutes gross negligence or gross misconduct.

No act, or failure to act, shall be considered “willful” if the Employee reasonably believed that the act or omission was in, or not opposed to, the best interests of the Company (or its successors).

(g) **Meaning of “Good Reason.”** For purposes of this Employment Agreement, the term “Good Reason” will mean Employee’s voluntary termination, within 30 days following the expiration of any Company cure period (discussed below) following the occurrence of one or more of the following (without Employee’s express written consent):

(i) the assignment of a different title, job or responsibilities that results in a substantial reduction in the duties of Employee on or after the Effective Date as compared to the duties assigned to Employee pursuant to this Employment Agreement;

(ii) a reduction in Employee’s Base Salary or target bonus;

(iii) the Company’s requiring Employee to be based more than 50 miles from the principal office at which Employee is based on the Effective Date immediately before the effective time of the Acquisition, except for reasonably required travel on the Company’s business; or

(iv) the failure by any successor to the Company to expressly assume this Employment Agreement or any obligation under this Employment Agreement.

Employee may not resign for Good Reason without first providing the Company with written notice within 90 days of the initial existence of the condition that Employee believes constitutes Good Reason specifically identifying the acts or omissions constituting the grounds for Good Reason and a reasonable cure period of not less than 30 days following the date of such notice. For purposes of the “Good Reason” definition, the term “Company” will be interpreted to include any subsidiary, parent, affiliate or successor thereto, if applicable.

(h) **Termination for Cause/Resignation Without Good Reason.** If the Company terminates Employee for Cause or Employee resigns without Good Reason: (i) Employee shall have no right to any Severance Compensation, to any further vesting of any restricted stock units or other equity compensation or to any other compensation or benefit of any kind, except as provided under Section 5(a) above or required by law; and (ii) any and all restricted stock units not vested as of the earlier of (y) the date when the Company notifies Employee of Employee’s termination or (z) the date when Employee notifies Company of his or her resignation, shall be immediately and automatically forfeited and cancelled.

## 6. Code Section 409A Compliance.

(a) Where this Employment Agreement refers to the termination of Employee’s employment for purposes of receiving any payment, whether a separation from service has occurred in connection with termination of employment will be determined in accordance with Section 409A of the Internal Revenue Code of 1986, as amended (the “Code”) and Treasury Regulations Section 1.409A-1(h) (or any successor provisions) to the extent required by law.

(b) To the extent that any payments or benefits under this Employment Agreement are contingent upon Employee signing, returning and not revoking a General Release, and the time designated for signing and returning the General Release and any revocation period (not to exceed 7 days) crosses calendar years, payments contingent upon the General Release will be made in the later calendar year. Any payments contingent upon the General Release that would otherwise be made during the period for review and revocation of the General Release will be made, provided that the General Release is timely executed and returned to the Company and not revoked, on the first scheduled payment date after such period ends. Each payment in respect of the termination of Employee's employment under Section 5(e) of this Employment Agreement is designated as a separate payment for Section 409A purposes.

(c) If Employee is designated as a "specified employee" within the meaning of Code Section 409A (while the Company or a parent or affiliate of the Company is publicly traded on any securities market), any deferred compensation payment subject to Section 409A to be made during the six-month period following the date of Employee's separation from service will be withheld and the amount of the payments withheld will be paid in a lump sum, without interest, during the seventh month after Employee's separation from service; provided, however, that if Employee dies prior to the expiration of such six-month period, payment to Employee's beneficiary will be made as soon as reasonably practicable following Employee's death. The Company will identify in writing delivered to Employee any payments it reasonably determines are subject to delay under this Section 6(c). In no event will the Company have any liability or obligation with respect to taxes for which Employee may become liable as a result of the application of Code Section 409A.

**7. Limitation on Payments.** In the event that any compensation provided for in this Employment Agreement or otherwise payable to Employee (i) constitutes "parachute payments" within the meaning of Section 280G of the Code, and (ii) but for this Section 7, would be subject to the excise tax imposed by Section 4999 of the Code, such compensation will be either:

(a) Delivered in full; or

(b) Delivered to such lesser extent that would result in no portion of such benefits being subject to excise tax under Section 4999 of the Code

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999 of the Code, results in the receipt by Employee on an after-tax basis, of the greatest amount of benefits, notwithstanding that all of some portion of such benefits may be taxable under Section 4999 of the Code. If a reduction in severance and other benefits constituting "parachute payments" is made in order to deliver compensation to a lesser extent in accordance with this Section 7, reduction will occur in the following order: (i) reduction in cash payments; (ii) cancellation of awards granted "contingent on a change in ownership or control" (within the meaning of Code Section 280G); (iii) cancellation of accelerated vesting of equity awards; and (iv) reduction of employee benefits. In the event that acceleration of vesting of equity award compensation is to be reduced, such acceleration of vesting will be cancelled in the reverse order of the date of grant of Employee's equity awards.

Unless the Company and Employee otherwise agree in writing, any determination required under this Section 7 will be made in writing by the Company's independent public accountants or such other person or entity to which the parties mutually agree (the "Firm"), whose determination will be conclusive and binding upon Employee and the Company. For purposes of making the calculations, the Firm may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Employee will furnish to the Firm such information and documents as the Firm may reasonably request in order to make a determination under this Section. The Company will bear all costs the Firm may incur in connection with any calculations required by this Section 7.

**8. Assignment.** The rights and obligations of the Company under this Employment Agreement will inure to the benefit of, and will be binding upon, the Company's successors and assigns. The rights and obligations of Employee under this Employment Agreement will inure to the benefit of, and will be binding upon, Employee's heirs, executors and legal representatives. Employee may not delegate or assign any obligations under this Employment Agreement.

**9. Entire Agreement and Severability.** This Employment Agreement and the Restrictive Covenant Agreement, Time-Based RSU Agreements and PRSU Agreements (each as modified by this Employment Agreement) supersede any and all other agreements, either oral or in writing, between the parties hereto that relate in any way to the employment of Employee by the Company, including but not limited to the Change in Control Agreement, and contain all of the covenants and agreements between the parties with respect to such employment. Neither party is entering into this Employment Agreement on the basis of any representation, inducement, promise or agreement, oral or otherwise, by any person or entity, or by any one acting on behalf of any person or entity, which is not stated herein. Any modification of this Employment Agreement will be effective only if it is in writing and signed by both parties to this Employment Agreement. If any provision in this Employment Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will nevertheless continue in full force and effect without being impaired or invalidated in any way.

**10. Miscellaneous.** This Employment Agreement and the rights and obligations of the parties hereunder will be governed by, and construed in accordance with, the laws of the State of Oregon, excluding (but only to the extent permitted by law) its conflict of laws and choice of law rules. The parties agree that service of any process, summons, notice or document by U.S. certified mail or overnight delivery by a generally recognized commercial courier service to Employee's last known address (or any mode of service recognized to be effective by applicable law) will be effective service of process for any action, suit or proceeding brought against Employee in any such court. The failure of either party hereto to enforce any right under this Employment Agreement will not be considered a waiver of that right, or of damages caused thereby, or of any other rights under this Employment Agreement.

## 11. Arbitration and Waiver of Jury Trial.

(a) Any “Legal Dispute” (as defined below) between Employee and any “ESI Entity” (as defined below) (or between Employee and any employee or agent of any ESI Entity), to the extent directly or indirectly arising from or relating in any way to Employee’s employment with or separation from the Company will be resolved by final and binding arbitration. Notwithstanding the foregoing sentence, the Company may, in its sole discretion, obtain preliminary injunctive relief enforcing the provisions of the Restrictive Covenant Agreement from any court of competent jurisdiction. Any issues about whether a dispute is subject to arbitration will be determined by a court of competent jurisdiction and not by an arbitrator.

(b) “Legal Dispute” means a dispute about legal rights or legal obligations, including but not limited to any rights or obligations arising under; this Employment Agreement; the Restrictive Covenant Agreement; any other agreement; any applicable legal or equitable doctrine; any applicable common law theory; or any applicable federal, state or local, statute, regulation or other legal requirement.

(c) “ESI Entity” means (i) the Company; (ii) any current or future parent, subsidiary or affiliate of the Company; or (iii) any successor or assign of (i) or (ii).

(d) The arbitration will be held in the State of Oregon. It will be conducted in accordance with the then-prevailing Employment Arbitration Rules of the American Arbitration Association.

(e) Notwithstanding any other provision of this Employment Agreement or any other agreement or of any arbitration rules, no Legal Dispute involving Employee and any ESI Entity may be included in any class or collective arbitration or any other class or collective proceeding. The exclusive method for resolving any such Legal Dispute will be arbitration on an individual basis.

(f) The Company, Employee and the arbitrator will treat all aspects of the arbitration proceedings, including without limitation, discovery, testimony and other evidence, briefs and the award, as strictly confidential, except that the arbitration award may be disclosed to the extent necessary to enforce the award, the provisions of the Restrictive Covenant Agreement or the provisions of this Employment Agreement.

(g) Employee and the Company understand and acknowledge that by agreeing to arbitrate the disputes covered by this Section 11, they are waiving the right to resolve those disputes in court and waiving any right to a jury trial with respect to those disputes.

**12. Effective Date.** The effective date of this Employment Agreement (the “Effective Date”) will be the effective date of the closing of the Acquisition. If the closing of the Acquisition does not occur, no provision of this Employment Agreement will at any time have any force or effect whatsoever.

IN WITNESS WHEREOF, the parties hereto have executed this Employment Agreement as a sealed instrument, all as of the day, month and year first written above.

Electro Scientific Industries, Inc.

By: /s/ Michael Burger  
Michael Burger  
President and Chief Executive Officer

Dated: 1/29/2019

EMPLOYEE  
/s/ John Williams  
John Williams  
Address:

Dated: 1/29/2019

MKS INSTRUMENTS, INC.

By: /s/ Catherine M. Langtry  
Dated: 1/31/2019