IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

OCEAN SEMICONDUCTOR LLC, *Plaintiff* v. ANALOG DEVICES, INC. ("ADI"), *Defendant.*	C.A. No.: 1:24-cv-11759-PBS JURY TRIAL DEMANDED PATENT CASE

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Pursuant to Fed. R. Civ. P. 15(a), Plaintiff Ocean Semiconductor LLC ("Ocean Semiconductor" or "Plaintiff") files this First Amended Complaint against Analog Devices, Inc. ("ADI" or "Defendant"), seeking damages and other relief for patent infringement, and alleges with knowledge to its own acts, and on information and belief as to other matters, as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq*.

THE PARTIES

2. Plaintiff Ocean Semiconductor is a limited liability company organized and existing under the laws of the State of Delaware, and its registered agent for service of process in Delaware is Rita Carnevale, 717 N. Union Street, Wilmington, DE 19805.

3. On information and belief, ADI is a Delaware corporation with a principal place of business at One Analog Way Wilmington, MA 01887. On information and belief, Defendant may be served through its registered agent, The Corporation Trust Company, at 1209 N. Orange St., Wilmington, DE 19801.

4. On information and belief, Defendant ADI sells, offers to sell, and/or uses products and services throughout the United States, including in this judicial District, and introduces infringing products and services into the stream of commerce knowing that they would be sold and/or used in this judicial District and elsewhere in the United States.

5. Plaintiff Ocean Semiconductor is the assignee and owner of the patent at issue in this action: U.S. Patent No. 6,836,691 (the "'691 Patent"). Ocean Semiconductor holds all substantial rights, title, and interest in the '691 Patent, including the exclusive right to sue Defendant for infringement and recover damages, including damages for past infringement.

6. Plaintiff Ocean Semiconductor seeks monetary damages and prejudgment interest for Defendant's past and ongoing direct and indirect infringement of the '691 Patent.

7. Defendant is a semiconductor company that designs, develops, sells, offers to sell, and imports into the United States semiconductor products in the communications, internet of things, automotive, computer, and consumer electronics industry.

8. Defendant has regular and established places of business in the United States, including its fabrication facilities ("fabs") in Wilmington, Massachusetts; Camas, Washington; and Beaverton, Oregon. *See, e.g.,* 2022 Form 10k for Analog Devices, Inc., *available at* https://investor.analog.com/static-files/a2285077-9f46-48cc-82fd-ece799c3a22c (last accessed July 1, 2024). Defendant also has a regular and established place of business outside of the United States in Limerick, Ireland. *Id.*

9. Further, Defendant "make[s] extensive use of third-party subcontractors for the assembly and testing of [its] products." *Id.* Defendant contracts with these third-party subcontractors ("ADI Foundry Partners") that own, operate, or control semiconductor fabs within and/or outside of the United States to produce the Accused Products (as defined below),

to manufacture semiconductor products which infringe the '691 Patent. ADI Foundry Partners include Tower Semiconductor Ltd., TowerJazz Texas, Inc., and Tower Semiconductor San Antonio, Inc. (formerly TowerJazz Texas Inc., which was formerly known as TJ Texas, Inc.), which is a wholly-owned subsidiary of Tower US Holdings, DB HiTek Co, Ltd. (https://www.listcorp.com/publisher/pitt-street-research/2nd-commercial-partner-secured-2942989.html ("DB HiTek serves chip companies such as . . . Analog Devices . . .")), Skywater Technologies, Seiko Epson Corporation, and Powerchip Semiconductor Manufacturing Corp., among many others. (*See, e.g.*, https://www.sec.gov/Archives/edgar/data/743316/000074331621000025/mxim-20210626.htm (last accessed July 1, 2024); *see also* https://www.sec.gov/Archives/edgar/data/743316/000074331621000025/mxim-20210626.htm; *see also* https://csimarket.com/stocks/suppliers_glance.php?code=ADI).

10. On information and belief, Defendant (directly or through one or more of its Foundry Partners such as Tower) has a contractual relationship with Applied Materials, Inc. ("Applied Materials") (*see* Ex. B, ADI Suppliers Performance Data, CSI Market, at 5; *see also* Applied Materials' job posting for "F15 E3 project," available at http://www.mse.ntu.edu.tw/attachments/article/154/AMT_Summer%20Student%20Program_Job%20Post_2013.pdf (last accessed), KLA Tencor Corp. ("KLA") (*id.* at 6; *see also* https://nmi.org.uk/wp-content/uploads/2017/09/9_Analog_FY17-Warwick-Profilers.pdf ("The KLA-Tencor HRP is tool is used to check the "profile" of the surface of a wafer.")), Onto Innovation, Inc. ("Onto") (*see* https://investors.ontoinnovation.com/news/news-details/2019/Inspectrology-LLC-Introduces-IVS-220-Optical-Metrology-Solution-for-high-productivity-in-200mm-Environments/default.aspx; *see also* Ex. C, ADI Suppliers for Scientific

and Technical Instruments, at 2), Rockwell Automation, Inc. ("Rockwell") (*id.* at 3; *see also* https://www.analog.com/en/signals/articles/putting-digital-transformation-in-motion.html), Nova Instruments, Ltd. ("Nova") (*id.* at 2), Evatech AG (https://investor.analog.com/news-releases/news-release-details/analog-devices-honors-top-suppliers-inaugural-supplier-day-2019), Inficon AG (*see* Case No. 1:20-cv-12310-PBS (ECF No. 142 at ¶¶ 13-17), and one or more of the ADI Foundry Partners (e.g., Tower) employ such semiconductor fabrication or manufacturing equipment, platforms, and/or framework, E3 and SmartFactory or similar metrology, process control, and fault detection and classification software and/or metrology, process control, and fault detection and classification systems installed with such software, such as Verity SEM Metrology ("Applied systems"), KLA Corp.'s OVALiS or similar metrology, process control, and fault detection and classification software and/or metrology, process control, and fault detection and classification systems installed with such software such as Archer 200 as well as related software installed thereon (collectively, "KLA systems"), Onto Innovation, Inc.'s Discover or similar metrology, process control, and fault detection and classification software and/or metrology, process control, and fault detection and classification systems installed with such software, such as IVS as well as related software installed thereon (e.g., SPR Engine, advance analytics software, and FDC/defect software) (collectively, "Onto systems"), Rockwell Automation's Factory Talk and Plex or similar metrology, process control, and fault detection and classification software and/or metrology, process control, and fault detection and classification systems installed with such software such as Applied Materials, Inc.'s Verity SEM Metrology as well as related software installed thereon (collectively, "Rockwell systems"), Nova Measuring Instruments Ltd.'s ("Nova") FIT or similar metrology, process control, and fault detection and classification software and/or metrology, process control, and fault detection and

classification systems installed with such software such as Nova Prism as well as related software installed thereon (collectively, "Nova systems"), Inficon's FabGuard Explorer (Case 1:20-cv-12310-PBS ECF No. 241 at 12 n.7) or similar metrology, process control, and fault detection and classification software and/or metrology, process control, and fault detection and classification systems installed with such software used in connection with components and modules such as, for example, RGA sensors, RFS 100, Transpector, and/or FabGuard Executive (collectively, "Inficon systems")[1] and/or other in-house or third-party advanced/automation metrology, process control, and/or fault detection and classification systems, hardware and/or software (e.g., with technical and functional features similar to the Applied, KLA, Onto, Rockwell, Nova, and/or Inficon systems) to design, develop, and/or manufacture Defendant ADI's semiconductor devices, including integrated circuits (collectively, the "Accused Instrumentalities"). The Accused Instrumentalities also include Maxim Integrated Products Inc.'s ("Maxim") proprietary metrology solutions (*see, e.g.*, https://chipestimate.tw/Maxim-Integrated-and-RadioPulse-Collaborate-to-Provide-1352304540/Semiconductor-IP-Core/news/18954 ("Customers love Maxim's metrology and security solutions, and we have a superb solution that matches Maxim's innovative culture").) With ADI having acquired Maxim in 2021, the Accused Instrumentalities also include ADI's proprietary metrology solutions used to facilitate, for example, metrology, process control and/or fault detection and classification.

11. On information and belief, Defendant (directly or through its ADI Foundry Partners) employs the Accused Instrumentalities to develop or manufacture one or more systems, products, and/or devices for importation into the United States for use, sale, and/or offer for sale in this

[1] For the avoidance of doubt, Ocean's allegations with respect to Inficon's infringing instrumentalities exclude the FabGuard system, which is currently at issue in the co-pending matter *Ocean Semiconductor LLC v. Analog Devices, Inc.*, No. 1:20-cv-12310-PBS (D. Mass.).

District and throughout the United States, including, but not limited to, semiconductor products and devices, such as amplifiers (e.g., AD81XX, AD83XX, AD84XX, ADA49XX, ADL5205, ADL55XX, LT1XXX, LT55XX, LT6350, LT64XX, LT6600-XX, and LTCXXXX), analog function devices (e.g., ADL5391, ADL5315, ADL5317, AD835, AD633, AD734, AD834, AD538, AD539, AD632, AD534, AD534S, AD532, ADCMPXXX, CMP04, CMP401, CMP402, HMC67XXXXX, PM139S, RH1011, RH1016M, RH111, and RH119), A/D converters (e.g., AD9XXX, LTMXXXX, LTCXXXX, ADAQ4003, ADUM77XX, ADEXXXX, ADTXXXX, ADASXXXX, and ADAUXXXX), audio and video products (e.g., ADV74XX, ADV76XX, ADV78XX, AD77XX, SSMXXXX, ADAVXXX, ADSP-XXXX, ADSP-BFXXX, and ADSP-SCXXX) clock and timing devices (e.g., ADN29XX, ADN28XX, AD800, AD807, AD808, ADCLKXXX, ADFXXXX, and HMCXXX), D/A converters (e.g., AD1XXX, AD5XXX, AD7XXX, AD8XXX, AD9XXX, AD5XXXR-X, and ADFS5XXX), embedded security devices (e.g., DS28EXX, DS2417, MX318XX), high speed logic and data path management devices (e.g., ADN4XXX, ADG3XXX, HMCXXX, LTC6955, LTC6955-1), iButton and Memory (e.g., DS19XX and DSXXXX), industrial ethernet devices (e.g., fido5X00 REM, PROFINET Class C and Class B, EtherNet/IP, Modbus TCP, EtherCAT, and POWERLINK, and ADIN1X00), interface and isolation devices (e.g., A2B, iCoupler, isoPower, uModule, PHY interfaces, 1B22, 1B21, and 1B31), motor ad motion control devices (e.g., TMCM-XXXX), MAX22222, TMCXXXX), power monitor, control, and protection devices (e.g., Boost Regulators with Digital Power System Management, Buck Regulators with Digital Power System Management, Digital Power System Managers, µModule Regulators with Digital Power System Management, Digital Power System Management, Energy Monitors, High Side Switches & MOSFET Drivers, Hot Swap Controllers, Ideal Diode Bridge, Isolated Gate Drivers,

and Power Monitors), optical communications and sensing devices (e.g., Current Mirrors, Thermoelectric Cooler Controller, Translinear Logarithmic Amplifiers, ADALXXXX, ADPDXXX, and ADUX1020), power management devices (e.g., Battery Backup IC, Battery Cell Balancers, Battery Charger IC, Battery Charger Plus DC/DC, Coulomb Counter (Battery Fuel Gauge), Industrial Battery Manufacturing, Multicell Battery Stack Monitor, PMIC (DC/DC, PowerPath & Battery Charger), USB Power Manager (PowerPath, Battery Charger), Wireless Power Transfer, Flash Memory Programming, GaAsFET Bias Generators, High Voltage Charge Pumps, Regulated Buck-Boost Charge Pumps, Regulated Inverting Charge Pumps, Regulated Step-Down Charge Pumps, Regulated Step-Up Charge Pumps, Unregulated Doubling/Inverting Charge Pumps, Discrete Pass Element Linear Regulators (LDO), LDO Plus, Negative Linear Regulators (LDO), and Positive Linear Regulators (LDO)), processors and microcontrollers (e.g., ADSP-21xx Fixed-Point DSPs, Blackfin Embedded Processors, SHARC Audio Processors/SoCs, SigmaDSP Audio Processors, SigmaDSP Processors for TV, TigerSHARC Embedded Processors, 8052 Core Products, ARM7 Core Products, CM4xx Mixed-Signal Control Processors, Precision Microcontrollers, and Ultra Low Power Microcontrollers), RF and microwave devices (e.g., Attenuators, Communications Analog Front Ends, Direct Digital Synthesis, Frequency Dividers, Multipliers, & Detectors, RF Integrated Transmitters, Receivers, & Transceivers, I/Q Modulators & Demodulators, RF Mixers, Phase Locked Loop (PLL) Synthesizers, Beamformers, Phase Shifters & Vector Modulators, Quadrature Digital Up Converters (QDUC), RF Amplifiers, RF Connectorized Modules & Instrumentation, RF Power Detectors, RF Switches, Signal Chain µModule Receivers, Timing IC & Clock IC, Tunable Filters, Variable Gain Amplifiers (VGA), Voltage Controlled Oscillators (VCO) & Phase Locked Oscillators (PLO), and Wireless Sensor Networks), sensors and MEMS (e.g.,

Accelerometers, Accelerometers - Special Purpose, Gyroscopes, Inertial Measurement Units (IMU), Magnetic Field Sensors, Optical Sensing Technology, and Temperature Sensor & Control Devices), switches and multiplexers (e.g., Analog Switches Multiplexers, Buffered Analog Crosspoint Switches, Buffered Analog Multiplexers, Digital Crosspoint Switches, Robust Switches & Multiplexers, Level Translators, MEMS Switches, RF Switches, and Unbuffered Analog Crosspoint Array), isolated controlled area network, Highway Addressable Remote Transducer, Modem ICs, electrocardiogram AFE, potentiometers, audio codec, video products (e.g., HDMI/DVI devices (e.g., DisplayPort analog devices), MIPI video devices) and similar systems, products, devices, and integrated circuits ("Accused Products").

12. On information and belief, Defendant (directly or through its ADI Foundry Partners) uses the Accused Instrumentalities to design, develop, or manufacture the Accused Products for importation into the United States for use, sale, and/or offer for sale in this district and throughout the United States.

JURISDICTION AND VENUE

13. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1, *et seq.*

14. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

15. Defendant is subject to this Court's general personal jurisdiction at least because Defendant is a resident of the Commonwealth of Massachusetts as defined by Massachusetts law. On information and belief, Defendant is headquartered in Wilmington, Massachusetts.

16. Defendant is additionally subject to this Court's general and specific personal jurisdiction because Defendant has sufficient minimum contacts within the Commonwealth of Massachusetts and this District, pursuant to due process and/or the Massachusetts Long Arm

Statute, General Law Chapter 223A, § 3. On information and belief, Defendant committed the tort of patent infringement in the Commonwealth of Massachusetts and this District; Defendant purposefully availed itself of the privileges of conducting business in the Commonwealth of Massachusetts and in this District; Defendant regularly conducts and solicits business within the Commonwealth of Massachusetts and within this District; Defendant recruits residents of the Commonwealth of Massachusetts and this District for employment inside or outside the Commonwealth of Massachusetts; Plaintiff's causes of action arise directly from Defendant's business contacts and other activities in the Commonwealth of Massachusetts and this District; and Defendant designs, develops, manufactures, distributes, makes available, imports, sells and offers to sell products and services throughout the United States, including in this judicial District, and introduces infringing products and services that into the stream of commerce knowing that they would be used and sold in this judicial district and elsewhere in the United States.

17. Venue is proper in this judicial district under 28 U.S.C. § 1391 and 28 U.S.C. § 1400(b).

18. On information and belief, Defendant has a regular and established place of business in this District, including at least at One Analog Way, Wilmington, MA 01887.

19. On information and belief, Defendant's acts of infringement have taken place within this District. On information and belief, Defendant's presence in this District is substantial, including at least at One Analog Way, Wilmington, MA 01887.

20. Additionally, Defendant—directly or through intermediaries (including distributors, retailers, and others), subsidiaries, alter egos, and/or agents—ships, distributes, offers for sale, and/or sells their products in the United States and this District. Defendant has

purposefully and voluntarily placed one or more of its products into the stream of commerce that infringe the Asserted Patents with the awareness and/or intent that they will be purchased by consumers and businesses in this District. Defendant knowingly and purposefully ships infringing products into, and within, this District through an established distribution channel. These infringing products have been, and continue to be, purchased by consumers and businesses in this District.

21. On May 1, 2003, U.S. Patent Application No. 10/427,620, was filed at the USPTO ("the '620 Application"). The '620 Application was duly examined and issued as U.S. Patent No. 6,836,691 ("the '691 patent"), entitled "Method and Apparatus for Filtering Metrology Data Based on Collection Purpose," on Dec. 28, 2004. A true and correct copy of the '691 patent is attached hereto as Exhibit A.

22. Ocean Semiconductor is the owner of the '691 patent and has the full and exclusive right to bring actions and recover past, present, and future damages for ADI's infringement of the '691 patent.

23. The inventions of the '691 patent resolve technical problems related to a process controller collecting metrology data that does not accurately reflect the state of the fabrication process or the device(s) being manufactured. For example, the '691 patent describes a method of generating context data for the metrology data and filtering the metrology data to improve the performance of the process controller by removing outlier data that exhibits variation from a source other than normal process variation.

24. The claims of the '691 patent do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claims of the '691 patent recite one or more inventive concepts that are

rooted in computerized semiconductor manufacturing or fabrication technologies, and overcome problems specifically arising in the realm of computerized semiconductor manufacturing or fabrication technologies.

25. The ’691 patent is directed to an invention that is not merely the routine or conventional use of the Internet or a generic computer. Instead, it is directed to, for example, a process controller that gathers and filters metrology data to remove data originated from non-process sources of variation in order to, for example, accurately identify a fault detection. The ’691 patent claims thus specify how a semiconductor manufacturing process is manipulated to yield a desired result.

26. Accordingly, each claim of the ’691 patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent on an ineligible concept.

COUNT I: INFRINGEMENT OF THE ’691 PATENT

27. Ocean Semiconductor repeats and re-alleges the allegations of the above paragraphs as if fully set forth herein.

28. At least as of November 25, 2020, Ocean Semiconductor placed ADI on actual notice of the ’691 patent and actual notice that its actions constituted and continued to constitute infringement of the ’691 patent. ADI has had actual knowledge of the ’691 patent and its own infringement of the ’691 patent since at least that time.

29. ADI has directly infringed and continues to infringe claims 4 and 5 (which include limitations of claim 1 from which claims 4 and 5 depend) of the ’691 patent literally or under the doctrine of equivalents, by importing into the United States, and/or using, and/or selling, and/or offering for sale in the United States, without authority or license, integrated

circuits designed, developed, fabricated, and/or manufactured using the Accused Instrumentalities, or similar systems (e.g., systems with similar technical and functional features including ADI's own proprietary metrology, process control, and fault detection and classification systems for performing metrology collection and filtering, and using the collected and filtered metrology for fault detection and classification), and systems, products, and/or devices containing these integrated circuits including at least the Accused Products in violation of 35 U.S.C. § 271. The Accused Products are manufactured by a process including all of the limitations of at least claims 4 and 5 of the '691 patent. Each such product includes an integrated circuit fabricated or manufactured using, for example, the Accused Instrumentalities.

30. Discovery is expected to uncover the full extent of ADI's infringement of the '691 patent beyond the Accused Products already identified herein.

31. On information and belief, ADI has directly infringed and continues to infringe at least claims 4 and 5 of the '691 patent literally or under the doctrine of equivalents, by importing into the United States, and/or using, and/or selling, and/or offering for sale in the United States, without authority or license, the Accused Products, in violation of 35 U.S.C. § 271(g). On information and belief, ADI imports the Accused Products into the United States for sales and distribution to customers located in the United States. On information and belief, ADI sells and/or offers for sale the Accused Products in the United States. For example, ADI provides direct sales through its own sales channels and/or its distributors or contract manufacturers and sells the Accused Products to businesses including original equipment manufacturers and electronic manufacturing service providers. On information and belief, these direct sales include sales of the Accused Products in the United States. On information and belief, ADI offers the

Accused Products for sale in the United States. For example, ADI engages in sales, marketing, and contracting activity in the United States and/or with United States offices of its customers.

32. The ’691 Accused Products are manufactured by a process including all of the limitations of at least claims 4 and 5 of the ’691 patent. The Accused Products are made by a claimed method. Each is an integrated circuit fabricated or manufactured using, for example, the Accused Instrumentalities. For example, during the manufacture of the Accused Products (e.g., by the Accused Instrumentalities or similar systems (e.g., with similar technical and functional features)), metrology data related to the processing of workpieces in a plurality of tools is collected. Context data for the metrology data, including collection purpose data, is collected. The metrology data is filtered based on the collection purpose data. A process control activity related to one of the tools is conducted based on the filtered metrology data. On information and belief, ADI, directly or through one of its Foundry Partners, contracted with the manufacturers of the Accused Instrumentalities to use this process to design, develop, or manufacture the Accused Products.

33. Attached hereto as Exhibits D through I, and incorporated by reference herein, are claim charts detailing how each of the Accused Products, manufactured using the Accused Instrumentalities by a ADI Foundry Partner on behalf of ADI (e.g., Tower) or by ADI (to the extent that any of such systems is used at ADI’s own manufacturing facilities including ADI’s own proprietary systems used for metrology, process control, and fault detection and classification), satisfies each element of claims 4 and 5 of the ’691 patent, literally or under the doctrine of equivalents.

34. On information and belief, the Accused Products are neither materially changed by subsequent processes nor become trivial and nonessential components of another product.

35. On information and belief, at least as of November 25, 2020, ADI has induced and continues to induce others, including its suppliers and contract manufacturers, to infringe one or more claims of the '691 patent, including claims 4 and 5, pursuant to 35 U.S.C. § 271(b), by actively encouraging others to import into the United States, and/or make, use, sell, and/or offer to sell in the United States, the Accused Products or products containing the infringing semiconductor components of the Accused Products, by actively inducing others to infringe the '691 patent by making, using, selling, offering for sale, marketing, advertising, and/or importing the Accused Products to their customers for use in downstream products that infringe, or were manufactured using processes that infringe, the '691 patent, and by instructing others to infringe the '691 patent.

36. For example, ADI actively promotes the sale, use, and importation of the Accused Products in marketing materials, technical specifications, data sheets, web pages on its website (e.g., https://www.analog.com/), press releases, training tutorials, development and design tools, user manuals, and developer forums as well as at trade shows (e.g., the Consumer Technology Association's Consumer Electronics Show ("CES")) and through its sales and distribution channels that encourage infringing uses, sales, offers to sell, and importation of the Accused Products. As another example, ADI's representatives travel to customer sites in the United States for sales and support activity that includes working with customers to facilitate these customers' infringing testing, marketing, importation, and sales activity. On information and belief, ADI supplies customers with Accused Products so that they may be used, sold, or offered for sale by those customers. For example, ADI provides direct sales to original equipment manufacturers and electronic manufacturing service providers. On information and belief, these direct sales include sales to customers in the United States. ADI additionally provides a wide

range of technical support to customers, including product-specific technical support (e.g., https://www.analog.com/en/support/searchsupport.html) and discussion forums (e.g., https://ez.analog.com/). ADI also promotes, publicly on its website, uses of the Accused Products by customers in the United States.

37. On information and belief, ADI sells or offers for sale the Accused Products to third parties that incorporate the Accused Products into third party products ("the Third Party Products").

38. On information and belief, ADI assists third parties, directly and/or through intermediaries, in the development and manufacture of the Third Party Products and provides technical support and supports the sales of the Third Party Products.

39. On information and belief, at least as of November 25, 2020, ADI also has induced and continues to induce third parties with specific intent or willful blindness to import, make, use, sell, and/or offer to sell Third Party Products that include at least one ADI Accused Product fabricated or manufactured using the Accused Instrumentalities or similar systems (e.g., with similar technical and functional features) whose make, use, sale, offer for sale, or importation constitutes direct infringement of at least one claim of the '691 patent.

40. On information and belief, the Third Party Products are imported into the United States for use, sale, and/or offer for sale in this District and throughout the United States ("Imported Third Party Products").

41. On information and belief, to the extent any entity other than ADI, including but not limited to any of ADI's Foundry Partners or third-party importers, imports the Accused Products and/or Imported Third-Party Products into the United States for or on behalf of ADI ("Third Party Importer"), ADI is liable for inducement of infringement by the Third Party

Importer. ADI has encouraged the Third Party Importer to infringe the '691 patent and intended that it do so. This encouragement includes at least ordering or instructing the Third Party Importer to import the Accused Products and/or Third-Party Products into the United States, providing directions and other materials to the Third Party Importer to enable such importation, and/or conditioning the receipt of benefits (included but not limited to payment) to the Third Party Importer on such importation. On information and belief, this behavior has continued since Defendant first became aware of the '691 patent and the infringement thereof.

42. On information and belief, to the extent any entity other than ADI, including but not limited to any of ADI's Foundry Partners, uses the patented method to fabricate or manufacture the Accused Products and/or Imported Third-Party Products in the United States for or on behalf of ADI ("Third Party Manufacturer"), ADI is liable for inducement of infringement by the Third Party Manufacturer (e.g., Tower, Powerchip, United Semiconductor Japan Co., and Epson). ADI has encouraged the Third Party Manufacturer to infringe the '691 patent and intended that it do so. This encouragement includes, without limitation, ordering the Accused Products from the Third Party Manufacturer since Defendant first became aware of the '691 patent and its infringement by the Third Party Manufacturer.

43. For example, on information and belief, ADI actively encouraged and continues to encourage Tower to continue to use the Accused Instrumentalities even after ADI's sale of its San Antonino fab where the Accused Instrumentalities were used, installed, implemented, executed, or deployed for the manufacture or fabrication of the Accused Products to continue to manufacture or fabricate such products by Tower so that the Accused Products may continue to be manufactured or fabricated without any manufacturing faults. For example, Maxim Integrated Products, Inc., which ADI acquired in 2021, disclosed in its 2021 SEC filings that "we

entered into a supply agreement with Powerchip Semiconductor Manufacturing Corp. ("Powerchip") to provide 300mm wafer capacity. In fiscal year 2014, we entered into a supply agreement with UMC Corporation ("UMC"). In fiscal year 2016, we entered into a supply agreement with TowerJazz Texas, Inc. (formerly known as TJ Texas, Inc.) ("TowerJazz"), an indirect wholly-owned subsidiary of Tower Semiconductor Ltd. In fiscal year 2018, we ramped production at our most recently added partner foundry, Mie Fujitsu Semiconductor Limited ("MIFS"). MIFS was a joint venture between Fujitsu Semiconductor Ltd. and UMC that was wholly acquired by UMC and renamed United Semiconductor Japan Co., Ltd. ("USJC") in 2019. Epson and USJC in Japan and UMC and Powerchip in Taiwan manufacture products for us under rights and licenses using our proprietary technology. In fiscal years 2021, 2020 and 2019, wafers manufactured by our partner foundries and merchant foundries (e.g., Taiwan Semiconductor Manufacturing Company Limited) represented 69%, 72% and 68% respectively, of our total wafer manufacturing." On information and belief, ADI assisted and continues to assist these third-party manufacturers, directly and/or through intermediaries, in the use, purchase, installation, implementation, execution and deployment of the Accused Instrumentalities.

44. As another example, by providing technical specification and development criteria of the Accused Products to the Third Party Manufacturers for manufacturing such products (and/or third party tool manufacturers responsible for the design and development of the Accused Instrumentalities), including instructing such Third Party Manufacturer to use any of the Accused Instrumentalities in order to accomplish or achieve such criteria (e.g., criteria that include detecting manufacturing faults), ADI has induced, and continues to induce, third parties to infringe using the claimed methods and the Accused Instrumentalities. Specifically, by

providing technical specification and/or design/development criteria of the Accused Products to the Third Party Manufacturer for manufacturing such products using the claimed methods and the Accused Instrumentalities, ADI has induced, and continues to induce, third parties to infringe the '691 patent (e.g., to ensure that the Accused Products are/were manufactured without errors or flaws or that the Accused Products meet ADI's stringent technical/design/development criteria).

45. ADI has benefitted and continues to benefit from the importation into the United States of the Imported Third Party Products.

46. In addition, Ocean is entitled to a presumption of patent infringement under 35 U.S.C. § 295 to the extent that if a substantial likelihood exists that the Accused Products were made by the patented processes, and that Ocean has made a reasonable effort to determine the patented processes actually used in the production of the Accused Products and was unable to so determine (e.g., in one example where the relevant discovery rests with Third Party Manufacturers, including domestic and foreign foundries, who refuse to produce such discovery or who agree to produce such discovery but on a limited or insufficient basis; in another example where ADI refuses to produce such discovery). Under Section 295, the Accused Products shall be presumed to have been so made, and the burden of establishing that the Accused Products were not made by the patented processes shall be on ADI who would likely contend that they were not so made.

47. Ocean Semiconductor has suffered, and continues to suffer, damages as a result of ADI's infringement of the '691 patent.

48. ADI has continued to infringe the '691 patent since at least November 25, 2020, despite being on notice of the '691 patent and its infringement. ADI has therefore infringed the

'691 patent knowingly, willfully, deliberately, and in disregard of Plaintiff's patent rights since at least November 25, 2020, at least by performing acts of infringement with actual knowledge of its direct and indirect infringement or while remaining willfully blind to the fact of its direct and indirect infringement. As a result of at least this conduct, Plaintiff is entitled to enhanced damages under 35 U.S.C. § 284 and to attorneys' fees and costs under 35 U.S.C. § 285.

49. Ocean Semiconductor reserves the right to modify its infringement theories as discovery progresses in this case. Ocean Semiconductor shall not be estopped or otherwise limited or restricted for purposes of its infringement contentions or its claim constructions by the claim charts that it provides with this Complaint. Ocean Semiconductor intends the claim chart (Exhibits D through I) for the '691 patent to satisfy the notice requirements of Rule 8(a)(2) of the Federal Rule of Civil Procedure. The claim chart is not Ocean Semiconductor's preliminary or final infringement contentions or preliminary or final claim construction positions.

RELIEF REQUESTED

WHEREFORE, Ocean Semiconductor demands judgment for itself and against ADI as follows:

A. A judgment that Defendant ADI has infringed, and continues to infringe, one or more claims of each of the '691 Patent;

B. A judgment that Defendant ADI has induced infringement, and continues to induce infringement, of one or more claims of each of the '691 Patent;

C. A judgment that Defendant ADI has contributed to, and continues to contribute to, the infringement of one or more claims of each of the '691 Patent;

D. A judgment awarding Ocean Semiconductor damages to be paid by Defendant ADI in an amount to be proven at trial adequate to compensate Ocean Semiconductor for ADI'

past infringement and any continuing or future infringement through the date such judgment is entered, but in no event less than a reasonable royalty for ADI's infringement;

E. A judgment awarding Ocean Semiconductor treble damages pursuant to 35 U.S.C. § 284 as a result of Defendant ADI's willfulness;

F. A judgment and order finding that this case is exceptional and awarding Ocean Semiconductor its reasonable attorneys' fees to be paid by Defendant ADI as provided by 35 U.S.C. § 285;

G. A judgment awarding expenses, costs, and disbursements in this action against Defendant ADI, including pre-judgment and post-judgment interest; and

H. A judgment awarding Ocean Semiconductor such other relief as the Court may deem just and equitable.

JURY DEMAND

Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiff hereby demands a trial by jury on all issues so triable.

Dated: August 9, 2024

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that this document has been filed through the CM/ECF system and will be sent electronically to the registered participants as identified on the Notice of Electronic Filing.

/s/ Alex Chan
Alex Chan