

**UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

Ocean Semiconductor LLC,

Plaintiff

v.

Renesas Electronics Corporation and Renesas  
Electronics America, Inc. (“Renesas”)

Defendant.

Civil Action No.: 6:20-cv-1213

JURY TRIAL DEMANDED

PATENT CASE

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Ocean Semiconductor LLC (“Ocean Semiconductor” or “Plaintiff”) files this Complaint against Renesas Electronics Corporation (“Renesas Electronics”) and Renesas Electronics America, Inc. (“Renesas America”) (collectively “Renesas” or “Defendants”), 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, Renesas Electronics is a corporation organized under the laws of Japan, with its principal place of business at Toyosu Foresia, 3-2-24 Toyosu, Koto-ku, Tokyo 135-0061, Japan, and at 900 S. Capital of Texas Hwy, Las Cimas IV, Austin, TX 78746.

4. On information and belief, Renesas America is a Delaware corporation with a principal place of business at 1001 Murphy Ranch Road, Milpitas, CA 95035. On information and belief, Renesas America may be served through its registered agent, Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808.

5. On information and belief, Renesas 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.

6. Plaintiff Ocean Semiconductor is the assignee and owner of the patents at issue in this action: U.S. Patents Nos. 6,660,651, 6,907,305, 6,725,402, 6,968,248, 7,080,330, 6,836,691, and 8,676,538 (collectively, the “Asserted Patents”). Ocean Semiconductor holds all substantial rights, title, and interest in the Asserted Patents, including the exclusive right to sue Renesas for infringement and recover damages, including damages for past infringement.

7. Plaintiff Ocean Semiconductor seeks monetary damages and prejudgment interest for Defendant’s past and ongoing direct and indirect infringement of the Asserted Patents.

8. Defendants are semiconductor companies that design, develop, sell, offer to sell, and import into the United States semiconductor products in the communications, internet of things, automotive, computer, and consumer electronics industry (“Accused Products”).

9. Renesas, which has its own regular and established place of business in the United States (including a facility in Austin, Texas), produces or contracts with third-party semiconductor fabricators or foundries (“Renesas Foundry Partners”) that own, operate, or control semiconductor fabrication plants (“fabs”) within and/or outside of the United States (“International Facilities”) to produce the Accused Products. One such Renesas Foundry Partner is Taiwan Semiconductor Manufacturing Company Ltd. (“TSMC”). TSMC has a contractual partnership with Renesas to design, develop, or manufacture semiconductor products including integrated circuits for Renesas. *See, e.g.*, “Renesas Electronics and TSMC Announce 28nm MCU Collaboration for Next-Generation Green and Autonomous Vehicles,” *available at* <https://www.renesas.com/cn/en/about/press-center/news/2016/news20160901.html> (last accessed October 27, 2020); *see also* “TSMC to make automotive chips for Renesas,” *available at* <https://asia.nikkei.com/Asia300/TSMC-to-make-automotive-chips-for-Renesas> (last accessed October 27, 2020).

10. On information and belief, Renesas (directly or through one or more of its Foundry Partners such as TSMC) also has a contractual relationship with Applied Materials, Inc. (“Applied Materials”) (*see e.g.*, Applied Materials’ job posting for “TSMC F15 E3 project,” *available at* [http://www.mse.ntu.edu.tw/attachments/article/154/AMT\\_Summer%20Student%20Program\\_Job%20Post\\_2013.pdf](http://www.mse.ntu.edu.tw/attachments/article/154/AMT_Summer%20Student%20Program_Job%20Post_2013.pdf) (last accessed October 12, 2020)) and PDF Solutions Inc. (“PDF Solutions”) (*e.g.*, “Taiwan Semiconductor Manufacturing Company adopts PDF Solutions yield

improvement technology,” *available at* <https://www.edn.com/taiwan-semiconductor-manufacturing-company-adopts-pdf-solutions-yield-improvement-technology/> (last accessed Oct. 12, 2020); *see also* “Exensio: Big Data in the Fab,” *available at* <https://semiwiki.com/eda/4351-exensio-big-data-in-the-fab/> (last accessed Oct. 12, 2020); *see also* Renesas’ job posting hiring “Product Engineer-Intern” with “Exensio” knowledge, *available at* <https://jobs.renesas.com/job/San-Jose-Product-Engineer-Intern-CA-95101/613809601/> (Oct. 12, 2020)), and one or more of the Renesas Foundry Partners (e.g., TSMC) employ Applied Materials’ semiconductor fabrication or manufacturing equipment, platforms, and/or framework, including Applied Materials’ E3 system, including the E3 factory advanced/automation process control (“APC”) hardware and/or software (collectively, “E3 system”), PDF Solutions’ Exensio hardware and/or software (collectively, “Exensio system”), and/or other in-house or third-party advanced/automation process control system and platform hardware and/or software (e.g., with similar technical and functional features) to design, develop, and/or manufacture Defendant Renesas’s semiconductor devices, including integrated circuits.

11. Upon information and belief, TSMC employs Applied Materials’ and/or PDF Solutions’ semiconductor fabrication or manufacturing equipment, platforms, and/or framework (e.g., Applied Materials’ E3 system and/or PDF Solutions’ Exensio system) at its manufacturing facilities. Applied Materials has received supplier awards and recognition from TSMC. *See, e.g.*, “TSMC Recognizes Outstanding Suppliers at Supply Chain Management Forum,” *available at* <https://pr.tsmc.com/english/news/1873> (last accessed October 12, 2020). On information and belief, TSMC also employs PDF Solutions’ Exensio system at TSMC’s manufacturing facilities.

12. On information and belief, Renesas (directly or through its Renesas Foundry Partners such as TSMC) employs Applied Materials’ E3 system and/or PDF Solutions’ Exensio

system 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 District and throughout the United States, including, but not limited to, microcontrollers and microprocessors (e.g., RL78 Family of 8/16-bit Ultra-Low Energy MCUs, RX Family of 32-bit High Power Efficiency MCUs, RH850 Family, RZ Family of 64-Bit & 32-Bit Arm-Based High-End MPUs, V850 Family, 78K Family, R8C Family, M16C Family (R32C / M32C / M16C), M32R Family, H8/S/SX Family, 720 Family, 740 Family, SuperH RISC engine Family, H8 Super Low Power, PLC MCU, Renesas RA Family of 32-bit MCUs with Arm Cortex-M Core, RE Family, QzROM (740/720 Family), M16C (M32C/M16C) Family, R8C Family, 7700 Family, and SuperH RISC engine Family and MCUs with Arm Cortex-M Core Implemented on Silicon on Thin Buried Oxide (SOTB)), amplifiers and buffers (e.g., CA3XXX, CA5XXX, EL2XXX, EL4XXX, EL5XXX, EL8XXX, HA-2XXX, HA-5XXX, HFA11XX, ICL7XXX, ISL28XXX, ISL55XXX, ISL59XXX, READ23XXXSP, and UPCXXXXXXXX), analog products (e.g., switches and multiplexers), clocks and timing products (e.g., application-specific clocks, clock distribution, clock generation, and crystal oscillators), interface & connectivity products (e.g., wireless modules, switches and hubs, and wireless modules), audio and video products (e.g., ISL54XXX), automotive products (e.g., Automotive System-on-Chip (SOC), Ambient Light Sensors, Analog ICs, Car Audio ICs, Battery Management Systems, CAN Transceivers, Discrete/Power MOFETs for Automotive, Display ICs, Intelligent Power Devices, Interface ICs, LSI for Automotive, Microcontrollers (RH850), Microcontrollers (RL78/F1x), Power Management (e.g., Power Management ICs for RH850, Power Supply ICs for R-Car, Switches & Multiplexers, Video ICs, Discrete Power Devices, regulators, MOSFETs and Motor Drivers, PMICs, and wireless power devices), ICs for Communications and Mobile Devices (e.g., SH-MobileR, SH-MobileR2, EMMA Mobile, SH-

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