IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ON SEMICONDUCTOR CORPORATION and SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC;	)	
Plaintiffs,	)	C.A. No. 17-247-LPS-CJB
v.	)	**JURY DEMAND**
POWER INTEGRATIONS, INC.,	)	
Defendant.	)	

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Pursuant to Federal Rule of Civil Procedure 15(a)(2), Plaintiff ON Semiconductor Corporation and Plaintiff Semiconductor Components Industries, LLC (collectively, "Plaintiffs" or "ON Semiconductor") hereby amends its complaint. Plaintiffs bring this civil action against Defendant Power Integrations, Inc. ("Power Integrations") and hereby aver and complain as follows:

PARTIES

1. Plaintiff ON Semiconductor Corporation is a Delaware corporation with its principal place of business at 5005 East McDowell Road, Phoenix, Arizona, 85008.

2. Plaintiff Semiconductor Components Industries, LLC is a Delaware limited liability company with its principal place of business at 5005 East McDowell Road, Phoenix, Arizona, 85008. Semiconductor Components Industries, LLC is the principal domestic operating subsidiary of ON Semiconductor Corporation and does business under the name of ON Semiconductor. Plaintiffs design, manufacture, and market a comprehensive portfolio of semiconductor products, including AC-DC controllers and regulators.

3. Defendant Power Integrations, Inc. is incorporated under the laws of the state of Delaware, and has a regular and established place of business at 5245 Hellyer Avenue, San Jose, California, 95138. Power Integrations may be served through its registered agent at 5245 Hellyer Avenue, San Jose, California, 95138.

JURISDICTION AND VENUE

4. This action arises under the patent laws of the United States, 35 U.S.C. § 271, et seq. Jurisdiction in this Court over this cause of action is proper pursuant to 28 U.S.C. § § 1331 and 1338 and 35 U.S.C. § 1, et seq.

5. This Court has personal jurisdiction over the Defendant. Power Integrations has conducted and does conduct business within the State of Delaware. Power Integrations is incorporated in the State of Delaware and has purposely availed itself of the privilege of conducting activities within this State and District.

6. Defendant Power Integrations has also been involved in the distribution of infringing products into this district. As an example, InnoSwitch products of Power Integrations, including InnoSwitch products having part number SC1224K, are distributed with the 18W USB Type-C™ charger included with the Google Pixel phones (including both the Pixel 5” display and the Pixel XL 5.5” display). Google Pixel phones are products of Google Inc., which is incorporated under the laws of the state of Delaware, and has a regular and established place of business at 1600 Amphitheatre Parkway, Mountain View, California, 94043. On information and belief, Google Pixel phones and chargers are distributed throughout the district, including through retailers such as Best Buy and Verizon Wireless. In addition, InnoSwitch products are available for sale from distributors and may be shipped into this judicial district. As another

example, Power Integrations distributes its RDK-531 reference design kit through its distributors, including Mouser Electronics, and is available for purchase in this judicial district.

7. Venue is proper in the District of Delaware under 28 U.S.C. §§ 1400(b) because Defendant Power Integrations is a Delaware corporation and therefore resides in this district.

FACTUAL BACKGROUND

8. After a full and fair examination, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,440,298, entitled "Synchronous Rectification Circuit for Power Converters" (hereinafter, "the '298 patent") on October 21, 2008. A true and correct copy of the '298 patent is attached as **Ex. A**.

9. After a full and fair examination, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,564,705, entitled "Synchronous Rectification Circuit for Power Converters" (hereinafter, "the '705 patent") on June 21, 2009. A true and correct copy of the '705 patent is attached as **Ex. B**.

10. After a full and fair examination, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 9,077,258, entitled "Regulation Circuit Associated with Synchronous Rectifier Providing Cable Compensation for the Power Converter and Method Thereof" (hereinafter, "the '258 patent") on July 7, 2015. A true and correct copy of the '258 patent is attached as **Ex. C**.

11. After a full and fair examination, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,796,407, entitled "Method and Apparatus for Providing Synchronous Regulation for Offline Power Converter" (hereinafter, "the '407 patent") on September 14, 2010. A true and correct copy of the '407 patent is attached as **Ex. D**.

12. After a full and fair examination, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,800,923, entitled "Offline Synchronous Switching Regulator" (hereinafter, "the '923 patent") on September 21, 2010. A true and correct copy of the '923 patent is attached as **Ex. E**.

13. After a full and fair examination, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,102,211, entitled "Semiconductor Device and Hybrid Integrated Device" (hereinafter, "the '211 patent") on September 5, 2006. A true and correct copy of the '211 patent is attached as **Ex. F**.

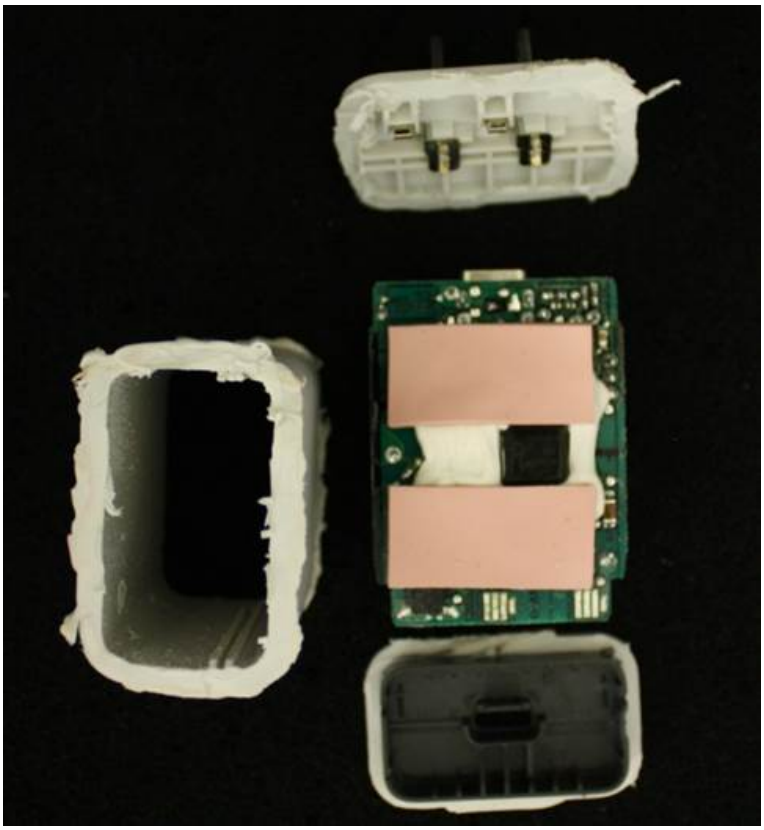
14. Semiconductor Components Industries, LLC owns title and all rights to the '298, '705, '258, '407, '923, and '211 patents ("the Asserted Patents"), including the right to prevent others from making, having made, using, offering for sale, importing, or selling products and services covered by those patents; the right to enforce those patents against the Defendant; and the right to collect damages for all relevant times.

15. Defendant Power Integrations has offered and continues to offer infringing semiconductors, including the InnoSwitch families of products, for sale, directly and through intermediaries (including distributors, retailers, and others), in this district and elsewhere. As used herein, the term "**Infringing InnoSwitch Families of Products**" includes the InnoSwitch-CH family (INN2003K, INN2023K, INN2004K, INN2024K, INN2005K, INN2025K, INN2005K0044), InnoSwitch-EP family (INN2603K, INN2604K, INN2605K, INN2904K), InnoSwitch-CP family (INN2214K, INN2215K), InnoSwitch-CE family (INN2103K, INN2123K, INN2104K, INN2124K, INN2105K, INN2125K), SC1205K, SC1205K1, SC1221K, SC1222K, SC1223K, SC1224K, SC1225K, SC1226K, SC1227K, SC1229K, SC1229K1, SC1251K, SC1252K0184, SC1252K1, SC1253K, SC1255K, SC1259K, SC1262K,

SC1262K0191, and SC1271K. As used herein, the term "**Infringing Reference Design Kits**" includes the RDK-420 reference design kit, the RDK-469 reference design kit, and the RDK-531 reference design kit. As just one example, InnoSwitch products are included in the 18W USB Type-C™ charger that is sold and distributed with the Google Pixel phone, which is shown below:

The 18W USB Type-C™ charger for the Google Pixel phone, which is shown below, includes an InnoSwitch product having part number SC1224K:

In the photograph below, the white charger has been disassembled to show the InnoSwitch SC1224K product mounted on the circuit board:



16. The distribution of infringing InnoSwitch products in the Google Pixel phone charger is part of a shared strategy of Power Integrations and Google of offering products that can support and enable fast charging. Power Integrations explains that "[f]ast charger protocols such as USB-PD/QC3.0 are dramatically reducing the charging time for a cellphone from an overnight charge to less than 30 minutes. This makes charging more convenient for the user allowing almost continual access to mobile devices." (https://ac-dc.power.com/applications/usb-pd-fast-chargers/). The InnoSwitch is specifically designed to accommodate and support fast charging. For example, Power Integrations describes the InnoSwitch as "[t]he most integrated and efficient solution for USB-PD and fast charging." (https://ac-dc.power.com/applications/usb-pd-fast-chargers/). In a recent earnings call, Power Integrations identified the fast charging feature of the InnoSwitch as being a driver of growth: "We expect rapid charging to be a significant growth driver beyond the current year as the penetration rate of fast chargers continue to go up, power levels continue to raise in support of increasingly feature-rich devices and new technologies such as USB PD, direct charging and Type-C™ connectors, drive the need for sophisticated power conversion technologies such as InnoSwitch." (http://www.nasdaq.com/aspx/call-transcript.aspx?StoryId=4016090&Title=power-integrations-powi-q3-2016-results-earnings-call-transcript).

17. Google advertises that the Google Pixel phone is specially adapted to provide "Fast charging: up to 7 hours of use from only 15 minutes of charging." (https://madeby.google.com/phone/specs/). Further, Google specifies that charging of the Google Pixel phone is accomplished using a co-packaged USB Type-C™ 18W adaptor with USB-PD, which charging protocol is specifically enabled by a Power Integrations' InnoSwitch product. (https://madeby.google.com/phone/specs/).

18. Many of the Asserted Patents describe and claim power converters with a feature known as synchronous rectification. Synchronous rectification is a rectification technique for the secondary side of the power converter that offers improved efficiency and reduced power consumption. Power Integrations's InnoSwitch line of products use synchronous rectification, and Power Integrations has claimed that the "design of the InnoSwitch family is ideal for safe and reliable synchronous rectification." (https://ac-dc.power.com/videos/innoswitch-synchronous-rectification/). Power Integrations has also promoted in its marketing literature that the InnoSwitch "optimizes the effectiveness of output synchronous rectification, resulting in extremely high efficiency across the full load range." (http://investors.power.com/investors/press-releases/press-release-details/2016/Power-Integrations-InnoSwitch-CP-ICs-Dramatically-Improve-Charging-Performance-of-Smart-Mobile-Devices/default.aspx). Plaintiffs are innovators in the field of synchronous rectification in power converters, and the InnoSwitch family of products infringes Plaintiffs' patents in this critical technology field. The past and continuing unauthorized use of Plaintiffs' technology by Power Integrations, Google, and others has caused and continues to cause substantial harm to ON Semiconductor.

COUNT ONE

DIRECT INFRINGEMENT OF U.S. PATENT NO. 7,440,298 BY POWER INTEGRATIONS

19. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-18 as though fully set forth herein.

20. The '298 patent is valid and enforceable.

21. Power Integrations has at no time, expressly or impliedly, been licensed under the '298 patent.

22. Power Integrations has been directly infringing and is now directly infringing the '298 patent under 35 U.S.C. § 271, either literally or under the doctrine of equivalents, in this district and elsewhere by making, using, selling, offering for sale, and/or importing into the United States infringing products. Infringing products include, but are not limited to, one or more products in the InnoSwitch family of products, and include any similarly functioning product that includes a power converter with a synchronous rectification circuit that includes a power switch and a switching-control circuit arranged in an infringing manner in accordance with claim 1 of the '298 patent. Infringing products include at least the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits.

23. By way of example only, the InnoSwitch-CH family of products (*e.g.*, the INN2023K) infringes claim 1 of the '298 patent.

a. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) includes a synchronous rectification circuit of a power converter as recited in claim 1 of the '298 patent.** For example, page 1 of the Datasheet for the InnoSwitch-CH family of products[1] provides for an "Off-Line CV/CC Flyback Switcher IC with Integrated 650V MOSFET, Synchronous Rectification and Feedback."

b. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) include a power switch, coupled to a transformer for rectification as recited in claim 1 of the '298 patent**. For example, the Datasheet for the

[1] As used herein, the Datasheet for the InnoSwitch-CH family refers to Revision G of the Datasheet (dated November 2015) (attached hereto as **Ex. L**).

InnoSwitch-CH family provides that the secondary side of the InnoSwitch-CH IC detects an output voltage via the FEEDBACK pin, detects a signal at the FWD pin between the secondary side of the transformer and the SR FET, and provides a drive signal to the SR FET to provide synchronous rectification.

c. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) include a switching-control circuit, generating a control signal in response to a magnetized voltage of the transformer, a demagnetized voltage of the transformer, and a magnetization period of the transformer as recited in claim 1 of the '298 patent**. The InnoSwitch-CH Datasheet (page 6) provides that "InnoSwitch-CH senses the output voltage on the FEEDBACK pin using a resistive voltage divider to determine whether or not to proceed with the next switching cycle." The InnoSwitch-CH Datasheet also provides that detection circuits monitor the FORWARD pin and force SR FET off when the FORWARD pin transitions to a high voltage (i.e., the magnetized voltage of the transformer). The secondary side of the InnoSwitch-CH IC turns on the SR FET in response to the output voltage (i.e., the demagnetized voltage of the transformer) detected via the FEEDBACK pin and the transition of the FORWARD pin from a high voltage to a low voltage, which is also indicative of the demagnetized voltage of the transformer. The high-to-low transition of the FORWARD pin voltage indicates a magnetization period has occurred and is complete.

d. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) also include a control signal that is coupled to control the power switch,**

and the enable period of the control signal is correlated to a demagnetization period of the transformer as recited in claim 1 of the '298 patent. For example, the InnoSwitch-CH Datasheet provides that the FORWARD pin is used to sense when to turn on the synchronous rectifier MOSFET (SR FET) and is used to sense when to turn off the SR FET when the voltage across the FET on resistance drops below a threshold.

The infringing InnoSwitch-CH family of products (e.g., the INN2023K) literally meets all of the elements of claim 1 of the '298 patent. In addition, the InnoSwitch-CH family of products (e.g., the INN2023K) infringes under the doctrine of equivalents because the differences, if any, between the features of the InnoSwitch-CH family of products (e.g., the INN2023K) and the limitations of claim 1 of the '298 patent are insubstantial and because the features of the InnoSwitch-CH family of products (e.g., the INN2023K) have substantially the same function, and operate in substantially the same way to achieve the same result as the limitations of claim 1 of the '298 patent.

24. By way of example only, the RDK-531 reference design kit (including the InnoSwitch-EP) also infringes claim 1 of the '298 patent.

a. **The infringing RDK-531 reference design kit includes a synchronous rectification circuit of a power converter as recited in claim 1 of the '298 patent.** For example, the cover page of the Datasheet for the RDK-531[2] provides "Built in synchronous rectification for higher efficiency." Page 7 of the Datasheet for the RDK-531 provides that "the secondary side of the

[2] All references to the Datasheet for the RDK-531 herein refer to Revision 1.3 of the RDK-531 Datasheet (dated September 7, 2016) (available at http://www.mouser.com/ds/2/328/rdr531-1022807.pdf) .

InnoSwitch-EP provides output voltage, output current sensing, and drive to a MOSFET providing synchronous rectification."

b. **The infringing RDK-531 reference design kit includes a power switch, coupled to a transformer for rectification as recited in claim 1 of the '298 patent**. For example, the Datasheet for the RDK-531 provides that the secondary side of the InnoSwitch-CH IC detects an output voltage via the FEEDBACK pin, detects a signal at the FWD pin between the secondary side of the transformer and the SR FET, and provides a drive signal to the SR FET to provide synchronous rectification.

c. **The infringing RDK-531 reference design kit includes a switching-control circuit, generating a control signal in response to a magnetized voltage of the transformer, a demagnetized voltage of the transformer, and a magnetization period of the transformer as recited in claim 1 of the '298 patent**. The RDK-531 Datasheet also provides that detection circuits monitor the FORWARD pin and force SR FET off when the FORWARD pin transitions to a high voltage (i.e., the magnetized voltage of the transformer). The secondary side of the InnoSwitch-EP IC turns on the SR FET in response to the output voltage (i.e., the demagnetized voltage of the transformer) detected via the FEEDBACK pin and the transition of the FORWARD pin from a high voltage to a low voltage, which is also indicative of the demagnetized voltage of the transformer. The high-to-low transition of the FORWARD pin voltage indicates a magnetization period has occurred and is complete.

d. **The infringing RDK-531 also includes a control signal that is coupled to control the power switch, and the enable period of the control signal is correlated to a demagnetization period of the transformer as recited in claim 1 of the '298 patent**. For example, the RDK-531 Datasheet and InnoSwitch-EP Datasheet[3] provide that the FORWARD pin is used to sense when to turn on the synchronous rectifier MOSFET (SR FET) and is used to sense when to turn off the SR FET when the voltage across the FET on resistance drops below a threshold.

The infringing RDK-531 literally meets all of the elements of claim 1 of the '298 patent. In addition, the RDK-531 infringes under the doctrine of equivalents because the differences, if any, between the features of the RDK-531 and the limitations of claim 1 of the '298 patent are insubstantial and because the features of the RDK-531 have substantially the same function, and operate in substantially the same way to achieve the same result as the limitations of claim 1 of the '298 patent.

25. Plaintiffs have been irreparably harmed by Power Integrations's infringement of the '298 patent and will continue to be harmed unless and until Power Integrations's infringement is enjoined by this Court. Plaintiffs have no adequate remedy at law to redress Power Integrations's continuing infringement. The hardships that would be imposed upon Power Integrations by an injunction are less than those faced by Plaintiffs should an injunction not issue. Furthermore, the public interest would be served by issuance of an injunction.

[3] References to the InnoSwitch-EP Datasheet herein refer to Revision F (dated April 2017) (available at https://ac-dc.power.com/system/files_force/product-docs/innoswitch-ep_family_datasheet.pdf) .

26. Also as a result of Power Integrations's infringement, Plaintiffs have suffered and will continue to suffer damages of at least an amount to be proved at trial.

COUNT TWO

INDUCED INFRINGEMENT OF U.S. PATENT NO. 7,440,298 BY POWER INTEGRATIONS

27. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-26 as though fully set forth herein.

28. Power Integrations induces infringement of one or more of the claims of the '298 patent by others and is therefore liable for its indirect infringement. Power Integrations's intentional actions induce others to directly infringe, and those actions are undertaken with the specific intent that they will, in fact, induce direct infringement and with full knowledge that Power Integrations' products infringe one or more claims of the '298 patent. Alternatively, Power Integrations has been willfully blind to the possibility that its inducing acts cause direct infringement of one or more claims of the '298 patent.

29. Specifically, by way of example only, Power Integrations provides the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits to be incorporated into consumer electronic products such as the charger shipped with the Google Pixel phone. These consumer electronic products are imported, sold, offered for sale, or used within the United States by Google and others (including Google's customers), all of whom are direct infringers of the '298 patent. Power Integrations is aware, for example, that synchronous rectification is a feature of the accused products, and therefore, that Power Integrations' customers will infringe the '298 patent by using the synchronous rectification feature or by incorporating the infringing power converters in other products, and that subsequent sales of such products would also be a direct infringement.

30. Power Integrations has had knowledge of, or was willfully blind to, the '298 patent and has had knowledge of, or was willfully blind to the fact that its actions induce infringement since December 27, 2016, when Plaintiffs filed a complaint asserting infringement of the '298 patent in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.) (Dkt. 1). For example, Count One of that complaint discusses Power Integrations's infringement of the '298 Patent. *Id.* Alternatively, Power Integrations has had knowledge of the '298 patent since January 3, 2017, when Plaintiffs served Power Integrations with the complaint in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.). *Id.* at Dkt. 10. Alternatively, Power Integrations has had knowledge of the '298 patent since the filing of this lawsuit on March 9, 2017.

31. Since learning of the '298 patent, Power Integrations has possessed a specific intent to induce infringement, and continues to induce infringement, by, at a minimum, providing product briefs, data sheets, webinars, and other design instruction materials on how to incorporate the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits into consumer electronic products in a way that would infringe the '298 patent. As one example of Power Integrations's inducing activity, reference designs for the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits are available on the Power Integrations web site, and examples are shown at https://ac-dc.power.com/sites/default/files/PDFFiles/rdr420.pdf and https://ac-dc.power.com/sites/default/files/PDFFiles/der518.pdf. Power Integrations intends for customers to use its design instruction materials to create infringing power converters and incorporate them into products. Power Integrations's customers have used the design instruction materials provided by Power Integrations to create infringing power converters. For example, the charger

shipped with the Google Pixel phone was designed using the design instruction materials provided by Power Integrations. Additionally, Power provides webinars on its website instructing customers and distributors on how to design power supplies using the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits. *See*, *e.g.*, https://ac-dc.power.com/products/innoswitch-family/. Power Integrations's customers have used the webinars provided by Power Integrations to design power supplies using the infringing products, including the Infringing InnoSwitch Families of Products.

32. As another example of Power Integrations's induced infringement of the '298 patent, since learning of the '298 patent, Power Integrations has sold and delivered (and still sells and delivers) the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits to U.S. distributors, including Mouser Electronics, and thereafter induces its U.S. distributors, including Mouser Electronics, to sell and offer for sale the infringing products to customers in the United States, thereby directly infringing the '298 patent. *See* Ex. G (InnoSwitch-CE) , Ex. H (InnoSwitch-EP), Ex. I (InnoSwitch-CP), Ex. J (InnoSwitch-CH), Ex. K (RDK-531). Moreover, Power Integrations advertises on its website that it maintains "close relationships" with its distributors (including Mouser Electronics), maintains an inventory of infringing products available from Mouser Electronics, and directs customers to buy infringing products from Mouser Electronics. *Id.* In its webinars, Power Integrations states that the RDK-531 is available from its distributors. *See*, *e.g.*, https://ac-dc.power.com/products/innoswitch-family/. Thus, since learning of the '298 patent, Power Integrations directs and has directed and encouraged Mouser Electronics to sell and offer for sale infringing InnoSwitch products to customers. Mouser Electronics maintains a website (mouser.com) available to U.S.-based customers that as a result of Power Integrations' inducement stocks, sells, and offers for sale the

infringing InnoSwitch products. *See* Ex. M (InnoSwitch-CE) , Ex. N (InnoSwitch-EP), Ex. O (InnoSwitch-CP), Ex. P (InnoSwitch-CH), Ex. Q (RDK-531). The Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits, including the InnoSwitch-CH and the RDK-531, are in stock in the U.S. and are offered for sale and delivery to U.S. customers from Mouser Electronics, making Mouser Electronics a direct infringer of the '298 patent whose direct infringement is being induced, encouraged, and caused to occur by Power Integrations. And as of August 28, 2017, these infringing products were in stock in the U.S., offered for sale by Mouser Electronics, and available for purchase and delivery to U.S. customers from Mouser Electronics.

33. Since learning of the '298 patent, Power Integrations has known that its conduct encourages third parties, including Mouser Electronics, to infringe the '298 patent in the United States. Power Integrations possesses the technical expertise required to understand the scope of the claims of the '298 patent and reach a conclusion that the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits infringe the '298 patent and that power supplies that incorporate the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits also infringe the '298 patent. Since learning of the '298 patent, Power Integrations has possessed a specific intent to induce infringement by, at a minimum, encouraging and directing its distributors, including Mouser Electronics, to sell and offer for sale infringing products, such as the RDK-531, in the United States. Since learning of the '298 patent, Power Integrations has sold to its distributors, including Mouser Electronics, infringing products, such as the RDK-531, with the specific intent for the distributor to offer for sale or sell the infringing products to customers in the United States, thereby infringing the '298 patent. Since learning of the '298 patent, Power Integrations has encouraged and intended for its

distributors, including Mouser Electronics, to sell or offer for sale the infringing products, including the RDK-531 in the United States. Since learning of the '298 patent, Mouser Electronics has offered for sale and sold the infringing products, including the RDK-531 to customers in the United States, thereby infringing the '298 patent. Further, since learning of the '298 patent, Power Integrations has been aware that its customers have incorporated the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits into power supplies in consumer electronic products that are imported into, sold and used in the United States, including the charger shipped with the Google Pixel phone. Since learning of the '298 patent, Power Integrations has been aware that the foregoing acts were an act of direct infringement and has intended that these acts of direct infringement occur.

COUNT THREE

CONTRIBUTORY INFRINGEMENT OF U.S. PATENT NO. 7,440,298 BY POWER INTEGRATIONS

34. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-33 as though fully set forth herein.

35. Power Integrations has been and is now liable as a contributory infringer of the '298 patent by selling and offering to sell in the United States the Infringing InnoSwitch Families of Products to third parties, including Google, in violation of 35 U.S.C. § 271(c). Power Integrations contributes to the direct infringement of customers who incorporate the Infringing InnoSwitch Families of Products into power supplies. Customers who import into the United States, sell, offer for sale, or use the power supplies that incorporate the Infringing InnoSwitch Families of Products are direct infringers of the '298 patent. The only commercially reasonable use of the Infringing InnoSwitch Families of Products results in an act of direct infringement.

36. The Infringing InnoSwitch Families of Products are material to practicing the invention of at least claim 1 of the ‘298 patent. The Infringing InnoSwitch Families of Products have no substantial non-infringing uses, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are known by Power Integrations to be especially made or especially adapted for use in an infringement of the ‘298 patent. For example, the Infringing InnoSwitch Families of Products, including the InnoSwitch-CH, are especially adapted to be used in a power supply that infringes at least claim 1 of the ‘298 patent. The only way that the Infringing InnoSwitch Families of Products can be used in a power supply is in an infringing manner.

37. Power Integrations sells, offers to sell, and imports the Infringing InnoSwitch Families of Products within the United States. Power Integrations sells Infringing InnoSwitch Families of Products to customers within the United States, including Google, to be incorporated into infringing power supplies. Google and other third parties sell and offer for sale the infringing power supplies in the United States, which constitutes an act of direct infringement.

38. Power Integrations provides product briefs, data sheets, webinars, and other design instruction materials on how to incorporate the infringing products into consumer electronic products in a way that would infringe the ‘298 patent. Power Integrations intends for customers, such as Google, to use its design instruction materials to create infringing power converters and incorporate them into products in a way that, when used in their only commercially reasonable use, results in a direct infringement of the ‘298 patent. Google and other customers of Power Integrations have relied on those materials and continue to rely on those materials to sell and offer for sale infringing products.

39. Power Integrations has known that the power supplies that incorporate a product from the Infringing InnoSwitch Families of Products are infringing combinations since December 27, 2016. Power Integrations has had knowledge of, or was willfully blind to, the '298 patent since December 27, 2016, when Plaintiffs filed a complaint asserting infringement of the '298 patent in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.) (Dkt. 1). For example, Count One of that complaint discusses Power Integrations's infringement of the '298 Patent. *Id.* Alternatively, Power Integrations has had knowledge of the '298 patent since January 3, 2017, when Plaintiffs served Power Integrations with the complaint in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.). *Id.* at Dkt. 10. Alternatively, Power Integrations has had knowledge of the '298 patent since the filing of this lawsuit on March 9, 2017.

40. Since learning of the '298 patent, Power Integrations has known that its conduct contributes to the infringement of the '298 patent. Power Integrations possesses the technical expertise required to understand the scope of the claims of the '298 patent and reach a conclusion that the Infringing InnoSwitch Families of Products sold or offered for sale by Power Integrations in the United States infringe the '298 patent when assembled in a power supply. Since learning of the '298 patent, Power Integrations has known that Infringing InnoSwitch Families of Products sold by Power Integrations in the United States are especially made, designed, and adapted to infringe the '298 when the Infringing InnoSwitch Families of Products are incorporated into a power supply, such as the charger shipped with the Google Pixel phone and other finished consumer products that include a product from the Infringing InnoSwitch Families of Products in the power supply. Since learning of the '298 patent, Power Integrations has known that the Infringing InnoSwitch Families of Products sold in the United States are not a

staple article of commerce suitable for a substantial non-infringing use, and that the only commercially reasonable use of the Infringing InnoSwitch Families of Products results in a product that infringes the '298 patent.

COUNT FOUR

DIRECT INFRINGEMENT OF U.S. PATENT NO. 7,564,705 BY POWER INTEGRATIONS

41. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-40 as though fully set forth herein.

42. The '705 patent is valid and enforceable.

43. Power Integrations has at no time, expressly or impliedly, been licensed under the '705 patent.

44. Upon information and belief, Power Integrations has been directly infringing and is now directly infringing the '705 patent under 35 U.S.C. § 271, either literally or under the doctrine of equivalents, in this district and elsewhere by making, using, selling, offering for sale, and/or importing into the United States infringing products. Infringing products include, but are not limited to, one or more products in the InnoSwitch family of products, and include any similarly functioning product that includes a power converter with a synchronous rectification circuit that includes a power switch and a switching-control circuit arranged in an infringing manner in accordance with claim 1 of the '705 patent. Infringing products include at least the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits.

45. By way of example only, the InnoSwitch-CH family of products (*e.g.*, the INN2023K) infringes claim 1 of the '705 patent.

a. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) includes a synchronous rectification circuit for a power converter as recited in claim 1 of the '705 patent.** For example, page 1 of the Datasheet for the InnoSwitch-CH family of products provides for an "Off-Line CV/CC Flyback Switcher IC with Integrated 650V MOSFET, Synchronous Rectification and Feedback."

b. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) includes a power switch coupled to a magnetic device for rectification as recited in claim 1 of the '705 patent.** For example, the Datasheet for the InnoSwitch-CH family provides that the secondary side of the InnoSwitch-CH IC detects an output voltage via the FEEDBACK pin, detects a signal at the FWD pin between the secondary side of the transformer and the SR FET, and provides a drive signal to the SR FET to provide synchronous rectification.

c. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) includes a switching control circuit, generating a control signal in response to a magnetized voltage of the magnetic device and a demagnetized voltage of the magnetic device as recited in claim 1 of the '705 patent**. The InnoSwitch-CH Datasheet provides at page 6 that "InnoSwitch-CH senses the output voltage on the FEEDBACK pin using a resistive voltage divider to determine whether or not to proceed with the next switching cycle." The InnoSwitch-CH Datasheet also provides that detection circuits monitor the FORWARD pin and force SR FET off when

the FORWARD pin transitions to a high voltage (i.e., the magnetized voltage of the transformer). The secondary side of the InnoSwitch-CH IC turns on the SR FET in response to the output voltage (i.e., the demagnetized voltage of the transformer) detected via the FEEDBACK pin and the transition of the FORWARD pin from a high voltage to a low voltage, which is also indicative of the demagnetized voltage of the transformer. The high-to-low transition of the FORWARD pin voltage indicates a magnetization period has occurred and is complete.

d. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) includes a control signal coupled to control the power switch to determine a demagnetization period of the magnetic device as recited in claim 1 of the '705 patent**. For example, the InnoSwitch-CH Datasheet provides that the FORWARD pin connects to the negative edge detection block used to turn on the synchronous rectifier MOSFET (SR FET). The FORWARD pin is also used to sense when to turn off the SR FET. The SR control signal determines the demagnetization period of the magnetic device.

The infringing InnoSwitch-CH family of products (e.g., the INN2023K) literally meets all of the elements of claim 1 of the '705 patent. In addition, the InnoSwitch-CH family of products (e.g., the INN2023K) infringes under the doctrine of equivalents because the differences, if any, between the features of the InnoSwitch-CH family of products (e.g., the INN2023K) and the limitations of claim 1 of the '705 patent are insubstantial and because the features of the InnoSwitch-CH family of products (e.g., the INN2023K) have substantially the same function,

and operate in substantially the same way to achieve the same result as the limitations of claim 1 of the ‘705 patent.

46. By way of example only, the RDK-531 reference design kit (including the InnoSwitch-EP) also infringes claim 1 of the ‘705 patent.

a. **The infringing RDK-531 reference design kit includes a synchronous rectification circuit for a power converter as recited in claim 1 of the ‘705 patent.** For example, the cover page of the Datasheet for the RDK-531 provides “Built in synchronous rectification for higher efficiency.” Page 7 of the Datasheet for the RDK-531 provides that “the secondary side of the InnoSwitch-EP provides output voltage, output current sensing, and drive to a MOSFET providing synchronous rectification.”

b. **The infringing RDK-531 reference design kit includes a power switch coupled to a magnetic device for rectification as recited in claim 1 of the ’705 patent.** For example, the Datasheet for the RDK-531 provides that the secondary side of the InnoSwitch-EP IC detects an output voltage via the FEEDBACK pin, detects a signal at the FWD pin between the secondary side of the transformer and the SR FET, and provides a drive signal to the SR FET to provide synchronous rectification.

c. **The infringing RDK-531 reference design kit includes a switching control circuit, generating a control signal in response to a magnetized voltage of the magnetic device and a demagnetized voltage of the magnetic device as recited in claim 1 of the ’705 patent**. The RDK-531 Datasheet provides that detection circuits monitor the FORWARD pin and

force SR FET off when the FORWARD pin transitions to a high voltage (i.e., the magnetized voltage of the transformer). The secondary side of the InnoSwitch-EP IC turns on the SR FET in response to the output voltage (i.e., the demagnetized voltage of the transformer) detected via the FEEDBACK pin and the transition of the FORWARD pin from a high voltage to a low voltage, which is also indicative of the demagnetized voltage of the transformer. The high-to-low transition of the FORWARD pin voltage indicates a magnetization period has occurred and is complete.

d. **The infringing RDK-531 reference design kit includes a control signal coupled to control the power switch to determine a demagnetization period of the magnetic device as recited in claim 1 of the '705 patent**. For example, the RDK-531 Datasheet provides that the FORWARD pin connects to the negative edge detection block used to turn on the synchronous rectifier MOSFET (SR FET). The FORWARD pin is also used to sense when to turn off the SR FET. The SR control signal determines the demagnetization period of the magnetic device.

The infringing RDK-531 literally meets all of the elements of claim 1 of the '705 patent. In addition, the RDK-531 infringes under the doctrine of equivalents because the differences, if any, between the features of the RDK-531 and the limitations of claim 1 of the '705 patent are insubstantial and because the features of the RDK-531 have substantially the same function, and operate in substantially the same way to achieve the same result as the limitations of claim 1 of the '705 patent.

47. Plaintiffs have been irreparably harmed by Power Integrations's infringement of the '705 patent and will continue to be harmed unless and until Power Integrations's infringement is enjoined by this Court. Plaintiffs have no adequate remedy at law to redress Power Integrations's continuing infringement. The hardships that would be imposed upon Power Integrations by an injunction are less than those faced by Plaintiffs should an injunction not issue. Furthermore, the public interest would be served by issuance of an injunction.

48. Also as a result of Power Integrations's infringement, Plaintiffs have suffered and will continue to suffer damages of at least an amount to be proved at trial.

COUNT FIVE

INDUCED INFRINGEMENT OF U.S. PATENT NO. 7,564,705 BY POWER INTEGRATIONS

49. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-48 as though fully set forth herein.

50. Further, Power Integrations induces infringement of one or more of the claims of the '705 patent by others and is therefore liable for its indirect infringement. Power Integrations's intentional actions induce others to directly infringe, and those actions are undertaken with the specific intent that they will, in fact, induce direct infringement and with full knowledge that Power Integrations' products infringe one or more claims of the '705 patent. Alternatively, Power Integrations has been willfully blind to the possibility that its inducing acts cause direct infringement of one or more claims of the '705 patent.

51. Specifically, by way of example only, Power Integrations provides the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits to be incorporated into consumer electronic products such as the charger shipped with the Google Pixel phone.

These consumer electronic products are imported, sold, offered for sale, or used within the United States by Google and others (including Google's customers), all of whom are direct infringers of the '705 patent. Power Integrations is aware, for example, that synchronous rectification is a feature of the accused products, and therefore, that Power Integrations' customers will infringe the '705 patent by using the synchronous rectification feature or by incorporating the infringing power converters in other products, and that subsequent sales of such products would also be a direct infringement.

52. Power Integrations has had knowledge of, or was willfully blind to, the '705 patent and has had knowledge of, or was willfully blind to the fact that its actions induce infringement since December 27, 2016, when Plaintiffs filed a complaint asserting infringement of the '705 patent in *ON Semiconductor Corporation et al v. Power Integrations Inc.,* C.A. No. 2:16-cv-01451 (E.D. Tex.) (Dkt. 1). For example, Count Two of that complaint discusses Power Integrations's infringement of the '705 Patent. *Id.* Alternatively, Power Integrations has had knowledge of the '705 patent since January 3, 2017, when Plaintiffs served Power Integrations with the complaint in *ON Semiconductor Corporation et al v. Power Integrations Inc.,* C.A. No. 2:16-cv-01451 (E.D. Tex.). *Id.* at Dkt. 10. Alternatively, Power Integrations has had knowledge of the '705 patent since the filing of this lawsuit on March 9, 2017.

53. Since learning of the '705 patent, Power Integrations has possessed a specific intent to induce infringement, and continues to induce infringement, by, at a minimum, providing product briefs, data sheets, webinars, and other design instruction materials on how to incorporate the accused products into consumer electronic products in a way that would infringe the '705 patent. As one example of Power Integrations's inducing activity, reference designs for the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits are

available on the Power Integrations web site, and examples are shown at https://ac-dc.power.com/sites/default/files/PDFFiles/rdr420.pdf and https://ac-dc.power.com/sites/default/files/PDFFiles/der518.pdf. Power Integrations intends for customers to use its design instruction materials to create infringing power converters and incorporate them into products. Power Integrations's customers have used the design instruction materials provided by Power Integrations to create infringing power converters. For example, the charger shipped with the Google Pixel phone was designed using the design instruction materials provided by Power Integrations. Additionally, Power provides webinars on its website instructing customers and distributors on how to design power supplies using the infringing products, including the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits. *See, e.g.*, https://ac-dc.power.com/products/innoswitch-family/. Power Integrations's customers have used the webinars provided by Power Integrations to design power supplies using the infringing products, including the Infringing InnoSwitch Families of Products.

54. As another example of Power Integrations's induced infringement of the '705 patent, since learning of the '705 patent, Power Integrations has sold and delivered (and still sells and delivers) the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits to U.S. distributors, including Mouser Electronics, and thereafter induces its U.S. distributors, including Mouser Electronics, to sell and offer for sale the infringing products to customers in the United States, thereby directly infringing the '705 patent. *See* Ex. G (InnoSwitch-CE) , Ex. H (InnoSwitch-EP), Ex. I (InnoSwitch-CP), Ex. J (InnoSwitch-CH), Ex. K (RDK-531). Moreover, Power Integrations advertises on its website that it maintains "close relationships" with its distributors (including Mouser Electronics), maintains an inventory of infringing products available from Mouser Electronics, and directs customers to buy infringing

products from Mouser Electronics. *Id.* In its webinars, Power Integrations states that the RDK-531 is available from its distributors. *See, e.g.,* https://ac-dc.power.com/products/innoswitch-family/. Thus, since learning of the '705 patent, Power Integrations directs and has directed and encouraged Mouser Electronics to sell and offer for sale infringing InnoSwitch products to customers. Mouser Electronics maintains a website (mouser.com) available to U.S.-based customers that as a result of Power Integrations' inducement stocks, sells, and offers for sale the infringing InnoSwitch products. *See* Ex. M (InnoSwitch-CE) , Ex. N (InnoSwitch-EP), Ex. O (InnoSwitch-CP), Ex. P (InnoSwitch-CH), Ex. Q (RDK-531). The Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits, including the InnoSwitch-CH and the RDK-531, are in stock in the U.S. and are offered for sale and delivery to U.S. customers from Mouser Electronics, making Mouser Electronics a direct infringer of the '705 patent whose direct infringement is being induced, encouraged, and caused to occur by Power Integrations. And as of August 28, 2017, these infringing products were in stock in the U.S., offered for sale by Mouser Electronics, and available for purchase and delivery to U.S. customers from Mouser Electronics.

55. Since learning of the '705 patent, Power Integrations has known that its conduct encourages third parties, including Mouser Electronics, to infringe the '705 patent in the United States. Power Integrations possesses the technical expertise required to understand the scope of the claims of the '705 patent and reach a conclusion that the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits infringe the '705 patent and that power supplies that incorporate the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits also infringe the '705 patent. Since learning of the '705 patent, Power Integrations has possessed a specific intent to induce infringement by, at a minimum,

encouraging and directing its distributors, including Mouser Electronics, to sell and offer for sale the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits, such as the RDK-531, in the United States. Since learning of the '705 patent, Power Integrations has sold to its distributors, including Mouser Electronics, infringing products, such as the RDK-531, with the specific intent for the distributor to offer for sale or sell the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits to customers in the United States, thereby infringing the '705 patent. Since learning of the '705 patent, Power Integrations has encouraged and intended for its distributors, including Mouser Electronics, to sell or offer for sale the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits in the United States. Since learning of the '705 patent, Mouser Electronics has offered for sale and sold the infringing products, including the RDK-531 to customers in the United States, thereby infringing the '705 patent. Further, since learning of the '705 patent, Power Integrations has been aware that its customers have incorporated the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits into power supplies in consumer electronic products that are imported into, sold and used in the United States, including the charger shipped with the Google Pixel phone. Since learning of the '705 patent, Power Integrations has been aware that the foregoing acts were an act of direct infringement and has intended that these acts of direct infringement occur.

COUNT SIX

CONTRIBUTORY INFRINGEMENT OF U.S. PATENT NO. 7,564,705 BY POWER INTEGRATIONS

56. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-55 as though fully set forth herein.

57. Power Integrations has been and is now liable as a contributory infringer of the ‘705 patent by selling and offering to sell in the United States the Infringing InnoSwitch Families of Products to third parties, including Google, in violation of 35 U.S.C. § 271(c). Power Integrations contributes to the direct infringement of customers who incorporate the Infringing InnoSwitch Families of Products into power supplies. Customers who import into the United States, sell, offer for sale, or use the power supplies that incorporate the Infringing InnoSwitch Families of Products are direct infringers of the ‘705 patent. The only commercially reasonable use of the Infringing InnoSwitch Families of Products results in an act of direct infringement.

58. Infringing InnoSwitch Families of Products are material to practicing the invention of at least claim 1 of the ‘705 patent. The Infringing InnoSwitch Families of Products have no substantial non-infringing uses, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are known by Power Integrations to be especially made or especially adapted for use in an infringement of the ‘705 patent. For example, the Infringing InnoSwitch Families of Products, including the InnoSwitch-CH, are especially adapted to be used in a power supply that infringes at least claim 1 of the ‘705 patent. The only way that the Infringing InnoSwitch Families of Products can be used in a power supply is in an infringing manner.

59. Power Integrations sells, offers to sell, and imports the Infringing InnoSwitch Families of Products within the United States. Power Integrations sells Infringing InnoSwitch Families of Products to customers within the United States, including Google, to be incorporated into infringing power supplies. Google and other third parties sell and offer for sale the infringing power supplies in the United States, which constitutes an act of direct infringement.

60. Power Integrations provides product briefs, data sheets, webinars, and other design instruction materials on how to incorporate the infringing products into consumer electronic products in a way that would infringe the '705 patent. Power Integrations intends for customers, such as Google, to use its design instruction materials to create infringing power converters and incorporate them into products in a way that, when used in their only commercially reasonable use, results in a direct infringement of the '705 patent. Google and other customers of Power Integrations have relied on those materials and continue to rely on those materials to sell and offer for sale infringing products.

61. Power Integrations has known that the power supplies that incorporate a product from the Infringing InnoSwitch Families of Products are infringing combinations since December 27, 2016. Power Integrations has had knowledge of, or was willfully blind to, the '705 patent since December 27, 2016, when Plaintiffs filed a complaint asserting infringement of the '705 patent in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.) (Dkt. 1). For example, Count Two of that complaint discusses Power Integrations's infringement of the '705 Patent. *Id.* Alternatively, Power Integrations has had knowledge of the '705 patent since January 3, 2017, when Plaintiffs served Power Integrations with the complaint in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.). *Id.* at Dkt. 10. Alternatively, Power Integrations has had knowledge of the '705 patent since the filing of this lawsuit on March 9, 2017.

62. Since learning of the '705 patent, Power Integrations has known that its conduct contributes to the infringement of the '705 patent. Power Integrations possesses the technical expertise required to understand the scope of the claims of the '705 patent and reach a conclusion that the Infringing InnoSwitch Families of Products sold or offered for sale by Power

Integrations in the United States infringe the '705 patent when assembled in a power supply. Since learning of the '705 patent, Power Integrations has known that Infringing InnoSwitch Families of Products sold by Power Integrations in the United States are especially made, designed, and adapted to infringe the '705 when the Infringing InnoSwitch Families of Products are incorporated into a power supply, such as the charger shipped with the Google Pixel phone and other finished consumer products that include a product from the Infringing InnoSwitch Families of Products in the power supply. Since learning of the '705 patent, Power Integrations has known that Infringing InnoSwitch Families of Products sold in the United States are not a staple article of commerce suitable for a substantial noninfringing use, and that the only commercially reasonable use of the Infringing InnoSwitch Families of Products results in a product that infringes the '705 patent.

COUNT SEVEN

DIRECT INFRINGEMENT OF U.S. PATENT NO. 9,077,258 BY POWER INTEGRATIONS

63. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-62 as though fully set forth herein.

64. The '258 patent is valid and enforceable.

65. Power Integrations has at no time, expressly or impliedly, been licensed under the '258 patent.

66. Upon information and belief, Power Integrations has been directly infringing and is now directly infringing the '258 patent under 35 U.S.C. § 271, either literally or under the doctrine of equivalents, in this district and elsewhere by making, using, selling, offering for sale, and/or importing into the United States infringing products. Infringing products include, but are

not limited to, one or more products in the InnoSwitch family of products, and include any similarly functioning product that includes a power converter with a regulation circuit that includes a signal generator and an error amplifier arranged in an infringing manner in accordance with claim 1 of the '258 patent. Infringing products in the InnoSwitch family of products include at least the following InnoSwitch model numbers: InnoSwitch-CH family (INN2023K, INN2024K, INN2025K) and the RDK-420 reference design kit (collectively, the "'258 Patent Infringing Products").

67. By way of example only, the '258 Patent Infringing Products (*e.g.*, the INN2023K and the RDK-420) infringe claim 1 of the '258 patent.

a. **Each of the '258 Patent Infringing Products (e.g., the INN2023K and the RDK-420) includes a regulation circuit of a power converter, as recited in claim 1 of the '258 patent**. For example, Figure 1 of the InnoSwitch-CH Datasheet shows a regulation circuit of a power converter.

b. **Each of the '258 Patent Infringing Products (e.g., the INN2023K and the RDK-420) includes a signal generator generating a compensation signal in accordance with a synchronous rectifying signal, as recited in claim 1 of the '258 patent.** For example, Figure 4 of the InnoSwitch-CH Datasheet provides that a synchronous rectifier sends a synchronous rectification signal to the cable compensation block.

c. **Each of the '258 Patent Infringing Products (e.g., the INN2023K and the RDK-420) includes an error amplifier having a reference signal for generating a feedback signal in accordance with an output voltage of the power converter as recited in claim 1 of the '258 patent**. For

example, the InnoSwitch-CH Datasheet provides that the cable compensation block provides a reference voltage to an error amplifier, which generates a feedback signal.

d. **Each of the ’258 Patent Infringing Products (e.g., the INN2023K and the RDK-420) includes a compensation signal coupled to program the reference signal, as recited in claim 1 of the ‘258 patent**. For example, a synchronous rectification signal is sent to the cable compensation block, which provides a reference voltage.

e. **Each of the ’258 Patent Infringing Products (e.g., the INN2023K and the RDK-420) includes a feedback signal coupled to generate a switching signal for regulating an output of the power converter as recited in claim 1 of the ’258 patent**. For example, the feedback signal generated by the error amplifier enables the synchronous rectifier and is coupled to the Feedback Driver to generate a switching signal sent to the primary side for requesting pulses.

The ’258 Patent Infringing Products (e.g., the INN2023K and the RDK-420) literally meet all of the elements of claim 1 of the ‘258 patent. In addition, the ’258 Patent Infringing Products (e.g., the INN2023K and the RDK-420) infringe under the doctrine of equivalents because the differences, if any, between the features of the ’258 Patent Infringing Products (e.g., the INN2023K and the RDK-420) and the limitations of claim 1 of the ‘258 patent are insubstantial and because the features of the ’258 Patent Infringing Products (e.g., the INN2023K and the RDK-420) have substantially the same function, and operate in substantially the same way to achieve the same result as the limitations of claim 1 of the ‘258 patent.

68. Plaintiffs have been irreparably harmed by Power Integrations's infringement of the '258 patent and will continue to be harmed unless and until Power Integrations's infringement is enjoined by this Court. Plaintiffs have no adequate remedy at law to redress Power Integrations's continuing infringement. The hardships that would be imposed upon Power Integrations by an injunction are less than those faced by Plaintiffs should an injunction not issue. Furthermore, the public interest would be served by issuance of an injunction.

69. Also as a result of Power Integrations's infringement, Plaintiffs have suffered and will continue to suffer damages of at least an amount to be proved at trial.

COUNT EIGHT

INDUCED INFRINGEMENT OF U.S. PATENT NO. 9,077,258 BY POWER INTEGRATIONS

70. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-69 as though fully set forth herein.

71. Power Integrations induces infringement of one or more of the claims of the '258 patent by others and is therefore liable for its indirect infringement. Power Integrations's intentional actions induce others to directly infringe, and those actions are undertaken with the specific intent that they will, in fact, induce direct infringement and with full knowledge that Power Integrations' products infringe one or more claims of the '258 patent. Alternatively, Power Integrations has been willfully blind to the possibility that its inducing acts cause direct infringement of one or more claims of the '258 patent.

72. Specifically, by way of example only, Power Integrations provides the '258 Patent Infringing Products to be incorporated into consumer electronic products. These consumer electronic products are imported, sold, offered for sale, or used within the United States by others, who are direct infringers of the '258 patent. Power Integrations is aware, for

example, that synchronous rectification is a feature of the accused products, and therefore, that Power Integrations' customers will infringe the '258 patent by using the synchronous rectification feature or by incorporating the infringing power converters in other products, and that subsequent sales of such products would also be a direct infringement.

73. Power Integrations has had knowledge of, or was willfully blind to, the '258 patent and has had knowledge of, or was willfully blind to the fact that its actions induce infringement since December 27, 2016, when Plaintiffs filed a complaint asserting infringement of the '258 patent in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.) (Dkt. 1). For example, Count Three of that complaint discusses Power Integrations's infringement of the '258 Patent. *Id.* Alternatively, Power Integrations has had knowledge of the '258 patent since January 3, 2017, when Plaintiffs served Power Integrations with the complaint in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.). *Id.* at Dkt. 10. Alternatively, Power Integrations has had knowledge of the '258 patent since the filing of this lawsuit on March 9, 2017.

74. Since learning of the '258 patent, Power Integrations has possessed a specific intent to induce infringement, and continues to induce infringement, by, at a minimum, providing product briefs, data sheets, webinars, and other design instruction materials on how to incorporate the '258 Patent Infringing Products into consumer electronic products in a way that would infringe the '258 patent. As one example of Power Integrations's inducing activity, reference designs for the '258 Patent Infringing Products are available on the Power Integrations web site, and examples are shown at https://ac-dc.power.com/sites/default/files/PDFFiles/rdr420.pdf and https://ac-dc.power.com/sites/default/files/PDFFiles/der518.pdf. Power Integrations intends for customers

to use its design instruction materials to create infringing power converters and incorporate them into products. Power Integrations's customers have used the design instruction materials provided by Power Integrations to create infringing power converters. Additionally, Power provides webinars on its website instructing customers and distributors on how to design power supplies using the '258 Patent Infringing Products. *See, e.g.,* https://ac-dc.power.com/products/innoswitch-family/. Power Integrations's customers have used the webinars provided by Power Integrations to design power supplies using the '258 Patent Infringing Products.

75. As another example of Power Integrations's induced infringement of the '258 patent, since learning of the '258 patent, Power Integrations has sold and delivered (and still sells and delivers) the '258 Patent Infringing Products to U.S. distributors, including Mouser Electronics, and thereafter induces its U.S. distributors, including Mouser Electronics, to sell and offer for sale the infringing products to customers in the United States, thereby directly infringing the '258 patent. *See* Ex. J (InnoSwitch-CH), Ex. K (RDK-420). Moreover, Power Integrations advertises on its website that it maintains "close relationships" with its distributors (including Mouser Electronics), maintains an inventory of infringing products available from Mouser Electronics, and directs customers to buy infringing products from Mouser Electronics. *Id.* In its webinars, Power Integrations states that its reference design kits are available from its distributors. *See, e.g.,* https://ac-dc.power.com/products/innoswitch-family/. Thus, since learning of the '258 patent, Power Integrations directs and has directed and encouraged Mouser Electronics to sell and offer for sale the '258 Patent Infringing Products to customers. Mouser Electronics maintains a website (mouser.com) available to U.S.-based customers that as a result of Power Integrations' inducement stocks, sells, and offers for sale the '258 Patent Infringing

Products. *See* Ex. P (InnoSwitch-CH), Ex. R (RDK-420). The ’258 Patent Infringing Products, including the InnoSwitch-CH and the RDK-420 are in stock in the U.S. and are offered for sale and delivery to U.S. customers from Mouser Electronics, making Mouser Electronics a direct infringer of the ‘258 patent whose direct infringement is being induced, encouraged, and caused to occur by Power Integrations. And as of August 28, 2017, these infringing products were in stock in the U.S., offered for sale by Mouser Electronics, and available for purchase and delivery to U.S. customers from Mouser Electronics.

76. Since learning of the ‘258 patent, Power Integrations has known that its conduct encourages third parties, including Mouser Electronics, to infringe the ‘258 patent in the United States. Power Integrations possesses the technical expertise required to understand the scope of the claims of the ‘258 patent and reach a conclusion that the ’258 Patent Infringing Products infringe the ‘258 patent and that power supplies that incorporate the ’258 Patent Infringing Products also infringe the ‘258 patent. Since learning of the ‘258 patent, Power Integrations has possessed a specific intent to induce infringement by, at a minimum, encouraging and directing its distributors, including Mouser Electronics, to sell and offer for sale the ’258 Patent Infringing Products in the United States. Since learning of the ‘258 patent, Power Integrations has sold to its distributors, including Mouser Electronics, the ’258 Patent Infringing Products, such as the RDK-420, with the specific intent for the distributor to offer for sale or sell the infringing products to customers in the United States, thereby infringing the ‘258 patent. Since learning of the ‘258 patent, Power Integrations has encouraged and intended for its distributors, including Mouser Electronics, to sell or offer for sale the ’258 Patent Infringing Products, including the RDK-420 in the United States. Since learning of the ‘258 patent, Mouser Electronics has offered for sale and sold the infringing products, including the RDK-420 to customers in the United

States, thereby infringing the ‘258 patent. Further, since learning of the ‘258 patent, Power Integrations has been aware that its customers have incorporated the ’258 Patent Infringing Products into power supplies in consumer electronic products that are imported into, sold and used in the United States. Since learning of the ‘258 patent, Power Integrations has been aware that the foregoing acts were an act of direct infringement and has intended that these acts of direct infringement occur.

COUNT NINE

CONTRIBUTORY INFRINGEMENT OF U.S. PATENT NO. 9,077,258 BY POWER INTEGRATIONS

77. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-76 as though fully set forth herein.

78. Power Integrations has been and is now liable as a contributory infringer of the ‘258 patent by selling and offering to sell in the United States infringing products, such as the InnoSwitch-CH products (INN2023K, INN2024K, INN2025K), to third parties, in violation of 35 U.S.C. § 271(c). Power Integrations contributes to the direct infringement of customers who incorporate the infringing InnoSwitch-CH products into power supplies. Customers who import into the United States, sell, offer for sale, or use the power supplies that incorporate the infringing InnoSwitch-CH products are direct infringers of the ‘258 patent. The only commercially reasonable use of the infringing InnoSwitch-CH products results in an act of direct infringement.

79. The infringing InnoSwitch-CH products are material to practicing the invention of at least claim 1 of the ‘258 patent. The infringing InnoSwitch-CH products have no substantial non-infringing uses, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are known by Power Integrations to be especially made or especially

adapted for use in an infringement of the ‘258 patent. For example, the infringing InnoSwitch-CH products are especially adapted to be used in a power supply that infringes at least claim 1 of the ‘258 patent. The only way that the infringing InnoSwitch-CH products can be used in a power supply is in an infringing manner.

80. Power Integrations sells, offers to sell, and imports the Infringing InnoSwitch-CH products within the United States. Power Integrations sells the infringing InnoSwitch-CH products to customers within the United States to be incorporated into infringing power supplies. Those third parties sell and offer for sale the infringing power supplies in the United States, which constitutes an act of direct infringement.

81. Power Integrations provides product briefs, data sheets, webinars, and other design instruction materials on how to incorporate the infringing InnoSwitch-CH products into consumer electronic products in a way that would infringe the ‘258 patent. Power Integrations intends for customers to use its design instruction materials to create infringing power converters and incorporate them into products in a way that, when used in their only commercially reasonable use, results in a direct infringement of the ‘258 patent. Customers of Power Integrations have relied on those materials and continue to rely on those materials to sell and offer for sale infringing products.

82. Power Integrations has known that the power supplies that incorporate a product from the infringing InnoSwitch-CH products are infringing combinations since December 27, 2016. Power Integrations has had knowledge of, or was willfully blind to, the ‘258 patent since December 27, 2016, when Plaintiffs filed a complaint asserting infringement of the ‘258 patent in *ON Semiconductor Corporation et al v. Power Integrations Inc.,* C.A. No. 2:16-cv-01451 (E.D. Tex.) (Dkt. 1). For example, Count Three of that complaint discusses Power Integrations’s

infringement of the ‘258 patent. *Id.* Alternatively, Power Integrations has had knowledge of the ‘258 patent since January 3, 2017, when Plaintiffs served Power Integrations with the complaint in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.). *Id.* at Dkt. 10. Alternatively, Power Integrations has had knowledge of the ‘258 patent since the filing of this lawsuit on March 9, 2017.

83. Since learning of the ‘258 patent, Power Integrations has known that its conduct contributes to the infringement of the ‘258 patent. Power Integrations possesses the technical expertise required to understand the scope of the claims of the ‘258 patent and reach a conclusion that the infringing InnoSwitch-CH products sold or offered for sale by Power Integrations in the United States infringe the ‘258 patent when assembled in a power supply. Since learning of the ‘258 patent, Power Integrations has known that the infringing InnoSwitch-CH products sold by Power Integrations in the United States are especially made, designed, and adapted to infringe the ‘258 when the infringing InnoSwitch-CH products are incorporated into a power supply, such as finished consumer products that include a product from the infringing InnoSwitch-CH products in the power supply. Since learning of the ‘258 patent, Power Integrations has known that the infringing InnoSwitch-CH products sold in the United States are not a staple article of commerce suitable for a substantial non-infringing use, and that the only commercially reasonable use of the infringing InnoSwitch-CH products results in a product that infringes the ‘258 patent.

COUNT TEN

DIRECT INFRINGEMENT OF U.S. PATENT NO. 7,796,407 BY POWER INTEGRATIONS

84. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-83 as though fully set forth herein.

85. The ‘407 patent is valid and enforceable.

86. Power Integrations has at no time, expressly or impliedly, been licensed under the ‘407 patent.

87. Upon information and belief, Power Integrations has been directly infringing and is now directly infringing the ‘407 patent under 35 U.S.C. § 271, either literally or under the doctrine of equivalents, in this district and elsewhere by making, using, selling, offering for sale, and/or importing into the United States infringing products. Infringing products include, but are not limited to, one or more products in the InnoSwitch family of products, and include any similarly functioning product that includes a synchronous regulation power converter that includes a secondary side switching circuit, an isolation device, a primary side switching circuit, and a synchronous switch arranged in an infringing manner in accordance with claim 1 of the ‘407 patent. Infringing products include at least the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits.

88. By way of example only, the InnoSwitch-CH family of products (*e.g.*, the INN2023K) infringes claim 1 of the ‘407 patent.

a. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) include an offline synchronous regulation power converter as recited in claim 1 of the ‘407 patent.** For example, the InnoSwitch-CH Datasheet shows that the products include integrated 650 V MOSFET, synchronous rectification, and feedback.

b. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) include a secondary-side switching circuit coupled to the output of the power converter to generate a pulse signal and a**

synchronous signal in response to a feedback signal as recited in claim 1. For example, Figure 4 of the InnoSwitch-CH Datasheet shows a "Secondary Control IC" coupled to the output of the power converter. The Secondary Control IC generates a pulse signal and a synchronous signal in response to a feedback signal. At the beginning of each clock cycle, the voltage comparator on the FEEDBACK pin decides whether or not to implement a switch cycle.

c. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) includes an isolation device coupled to the secondary-side switching circuit for transferring the synchronous signal from the secondary side of the power converter to the primary side of the power converter as recited in claim 1 of the '407 patent**. For example, the InnoSwitch-CH feedback scheme uses a FluxLink coupling scheme. The feedback driver block is the drive to the FluxLink communication loop transferring switching pulse requests to the primary IC.

d. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) includes a primary-side switching circuit generating a switching signal to switch a primary winding of a transformer in response to the synchronous signal as recited in claim 1 of the '407 patent**. For example, the primary side IC generates a switching signal to switch a primary winding of a transformer in response to the synchronous signal transferred from the FluxLink communication loop.

e. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) includes a synchronous switch having a power switch and a control circuit, the power switch coupled from a secondary winding of the transformer to the output of the power converter, the control circuit receiving the pulse signal for turning on/off the power switch as recited in claim 1 of the '407 patent**. For example, Figure 4 of the InnoSwitch-CH Datasheet shows a synchronous switch having a power switch ("Sync Rect (SR)") and a control circuit, the power switch coupled from a secondary winding of the transformer to the output of the power converter, the control circuit receiving the pulse signal for turning on/off the power switch.

f. **Finally, the infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) includes a feedback signal correlated to the output of the power converter, a pulse signal generated for rectifying and regulating of the power converter, wherein the polarity of the pulse signal determines the on/off of the power switch as recited in claim 1**. For example, Figure 1 of the InnoSwitch-CH Datasheet shows a feedback signal correlated to the output of the power converter. Further, Figure 4 of the InnoSwitch-CH Datasheet shows a pulse signal generated for rectifying and regulating of the power converter, wherein the polarity of the pulse signal determines the on/off of the power switch.

The infringing InnoSwitch-CH family of products (e.g., the INN2023K) literally meets all of the elements of claim 1 of the '407 patent. In addition, the InnoSwitch-CH family of products (e.g.,

the INN2023K) infringes under the doctrine of equivalents because the differences, if any, between the features of the InnoSwitch-CH family of products (e.g., the INN2023K) and the limitations of claim 1 of the '407 patent are insubstantial and because the features of the InnoSwitch-CH family of products (e.g., the INN2023K) have substantially the same function, and operate in substantially the same way to achieve the same result as the limitations of claim 1 of the '407 patent.

89. By way of example only, the RDK-531 reference design kit (including the InnoSwitch-EP) also infringes claim 1 of the '407 patent.

a. **The infringing RDK-531 reference design kit includes an offline synchronous regulation power converter as recited in claim 1 of the '407 patent.** For example, the cover page of the Datasheet for the RDK-531 provides "Built in synchronous rectification for higher efficiency." Page 7 of the Datasheet for the RDK-531 provides that "the secondary side of the InnoSwitch-EP provides output voltage, output current sensing, and drive to a MOSFET providing synchronous rectification." Page 8 of the Datasheet for the RDK-531 provides "[s]econdary side control of the primary side MOSFET ensure[s] that it is never on simultaneously with the synchronous rectification MOSFET."

b. **The infringing RDK-531 reference design kit includes a secondary-side switching circuit coupled to the output of the power converter to generate a pulse signal and a synchronous signal in response to a feedback signal as recited in claim 1.** For example, Page 7 of the RDK-531 Datasheet provides "The secondary side of the InnoSwitch-EP

provides output voltage, output current sensing and drive to a MOSFET providing synchronous rectification." The secondary side of the IC generates a pulse signal and a synchronous signal in response to a feedback signal. At the beginning of each clock cycle, the voltage comparator on the FEEDBACK pin decides whether or not to implement a switch cycle.

c. **The infringing RDK-531 reference design kit includes an isolation device coupled to the secondary-side switching circuit for transferring the synchronous signal from the secondary side of the power converter to the primary side of the power converter as recited in claim 1 of the '407 patent**. For example, the InnoSwitch-EP feedback scheme uses a FluxLink coupling scheme. The feedback driver block is the drive to the FluxLink communication loop transferring switching pulse requests to the primary IC.

d. **The infringing RDK-531 reference design kit includes a primary-side switching circuit generating a switching signal to switch a primary winding of a transformer in response to the synchronous signal as recited in claim 1 of the '407 patent**. For example, the primary side IC generates a switching signal to switch a primary winding of a transformer in response to the synchronous signal transferred from the FluxLink communication loop.

e. **The infringing RDK-531 reference design kit includes a synchronous switch having a power switch and a control circuit, the power switch**

coupled from a secondary winding of the transformer to the output of the power converter, the control circuit receiving the pulse signal for turning on/off the power switch as recited in claim 1 of the '407 patent. For example, the RDK-531 incorporates the InnoSwitch-EP (INN2904K). For example, Figure 4 of the InnoSwitch-EP Datasheet shows a synchronous switch having a power switch ("Sync Rect (SR)") and a control circuit, the power switch coupled from a secondary winding of the transformer to the output of the power converter, the control circuit receiving the pulse signal for turning on/off the power switch.

f. **Finally, the infringing RDK-531 reference design kit includes a feedback signal correlated to the output of the power converter, a pulse signal generated for rectifying and regulating of the power converter, wherein the polarity of the pulse signal determines the on/off of the power switch as recited in claim 1**. For example, the RDK-531 incorporates the InnoSwitch-EP (INN2904K). Figure 1 of the InnoSwitch-EP Datasheet shows a feedback signal correlated to the output of the power converter. Further, Figure 4 of the InnoSwitch-EP Datasheet shows a pulse signal generated for rectifying and regulating of the power converter, wherein the polarity of the pulse signal determines the on/off of the power switch.

The infringing RDK-531 literally meets all of the elements of claim 1 of the '407 patent. In addition, the RDK-531 infringes under the doctrine of equivalents because the differences, if any, between the features of the RDK-531 and the limitations of claim 1 of the '407 patent are

insubstantial and because the features of the RDK-531 have substantially the same function, and operate in substantially the same way to achieve the same result as the limitations of claim 1 of the ‘407 patent.

90. Plaintiffs have been irreparably harmed by Power Integrations’s infringement of the ‘407 patent and will continue to be harmed unless and until Power Integrations’s infringement is enjoined by this Court. Plaintiffs have no adequate remedy at law to redress Power Integrations’s continuing infringement. The hardships that would be imposed upon Power Integrations by an injunction are less than those faced by Plaintiffs should an injunction not issue. Furthermore, the public interest would be served by issuance of an injunction.

91. Also as a result of Power Integrations’s infringement, Plaintiffs have suffered and will continue to suffer damages of at least an amount to be proved at trial.

COUNT ELEVEN

INDUCED INFRINGEMENT OF U.S. PATENT NO. 7,796,407 BY POWER INTEGRATIONS

92. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-91 as though fully set forth herein.

93. Power Integrations induces infringement of one or more of the claims of the ‘407 patent by others and is therefore liable for its indirect infringement. Power Integrations’s intentional actions induce others to directly infringe, and those actions are undertaken with the specific intent that they will, in fact, induce direct infringement and with full knowledge that Power Integrations’ products infringe one or more claims of the ‘407 patent. Alternatively, Power Integrations has been willfully blind to the possibility that its inducing acts cause direct infringement of one or more claims of the ‘407 patent.

94. Specifically, by way of example only, Power Integrations provides the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits to be incorporated into consumer electronic products such as the charger shipped with the Google Pixel phone. These consumer electronic products are imported, sold, offered for sale, or used within the United States by Google and others (including Google's customers), all of whom are direct infringers of the '407 patent. Power Integrations is aware, for example, that synchronous rectification is a feature of the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits, and therefore, that Power Integrations' customers will infringe the '407 patent by using the synchronous rectification feature or by incorporating the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits in other products, and that subsequent sales of such products would also be a direct infringement.

95. Power Integrations has had knowledge of, or was willfully blind to, the '407 patent and has had knowledge of, or was willfully blind to the fact that its actions induce infringement since December 27, 2016, when Plaintiffs filed a complaint asserting infringement of the '407 patent in *ON Semiconductor Corporation et al v. Power Integrations Inc.,* C.A. No. 2:16-cv-01451 (E.D. Tex.) (Dkt. 1). For example, Count Four of that complaint discusses Power Integrations's infringement of the '407 Patent. *Id.* Alternatively, Power Integrations has had knowledge of the '407 patent since January 3, 2017, when Plaintiffs served Power Integrations with the complaint in *ON Semiconductor Corporation et al v. Power Integrations Inc.,* C.A. No. 2:16-cv-01451 (E.D. Tex.). *Id.* at Dkt. 10. Alternatively, Power Integrations has had knowledge of the '407 patent since the filing of this lawsuit on March 9, 2017.

96. Since learning of the '407 patent, Power Integrations has possessed a specific intent to induce infringement, and continues to induce infringement, by, at a minimum, providing

product briefs, data sheets, webinars, and other design instruction materials on how to incorporate the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits into consumer electronic products in a way that would infringe the '407 patent. As one example of Power Integrations's inducing activity, reference designs for the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits are available on the Power Integrations web site, and examples are shown at https://ac-dc.power.com/sites/default/files/PDFFiles/rdr420.pdf and https://ac-dc.power.com/sites/default/files/PDFFiles/der518.pdf. Power Integrations intends for customers to use its design instruction materials to create infringing power converters and incorporate them into products. Power Integrations's customers have used the design instruction materials provided by Power Integrations to create infringing power converters. For example, the charger shipped with the Google Pixel phone was designed using the design instruction materials provided by Power Integrations. Additionally, Power provides webinars on its website instructing customers and distributors on how to design power supplies using the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits. *See*, *e.g.*, https://ac-dc.power.com/products/innoswitch-family/. Power Integrations's customers have used the webinars provided by Power Integrations to design power supplies using the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits.

97. As another example of Power Integrations's induced infringement of the '407 patent, since learning of the '407 patent, Power Integrations has sold and delivered (and still sells and delivers) the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits to U.S. distributors, including Mouser Electronics, and thereafter induces its U.S. distributors, including Mouser Electronics, to sell and offer for sale the infringing products to

customers in the United States, thereby directly infringing the '407 patent. *See* Ex. G (InnoSwitch-CE) , Ex. H (InnoSwitch-EP), Ex. I (InnoSwitch-CP), Ex. J (InnoSwitch-CH), Ex. K (RDK-531). Moreover, Power Integrations advertises on its website that it maintains "close relationships" with its distributors (including Mouser Electronics), maintains an inventory of infringing products available from Mouser Electronics, and directs customers to buy infringing products from Mouser Electronics. *Id.* In its webinars, Power Integrations states that the RDK-531 is available from its distributors. *See, e.g.,* https://ac-dc.power.com/products/innoswitch-family/. Thus, since learning of the '407 patent, Power Integrations directs and has directed and encouraged Mouser Electronics to sell and offer for sale infringing InnoSwitch products to customers. Mouser Electronics maintains a website (mouser.com) available to U.S.-based customers that as a result of Power Integrations' inducement stocks, sells, and offers for sale the infringing InnoSwitch products. *See* Ex. M (InnoSwitch-CE) , Ex. N (InnoSwitch-EP), Ex. O (InnoSwitch-CP), Ex. P (InnoSwitch-CH), Ex. Q (RDK-531). The Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits, including the InnoSwitch-CH and the RDK-531, are in stock in the U.S. and are offered for sale and delivery to U.S. customers from Mouser Electronics, making Mouser Electronics a direct infringer of the '407 patent whose direct infringement is being induced, encouraged, and caused to occur by Power Integrations. And as of August 28, 2017, these infringing products were in stock in the U.S., offered for sale by Mouser Electronics, and available for purchase and delivery to U.S. customers from Mouser Electronics.

98. Since learning of the '407 patent, Power Integrations has known that its conduct encourages third parties, including Mouser Electronics, to infringe the '407 patent in the United States. Power Integrations possesses the technical expertise required to understand the scope of

the claims of the ‘407 patent and reach a conclusion that the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits infringe the ‘407 patent and that power supplies that incorporate the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits also infringe the ‘407 patent. Since learning of the ‘407 patent, Power Integrations has possessed a specific intent to induce infringement by, at a minimum, encouraging and directing its distributors, including Mouser Electronics, to sell and offer for sale infringing products, such as the RDK-531, in the United States. Since learning of the ‘407 patent, Power Integrations has sold to its distributors, including Mouser Electronics, infringing products, such as the RDK-531, with the specific intent for the distributor to offer for sale or sell the infringing products to customers in the United States, thereby infringing the ‘407 patent. Since learning of the ‘407 patent, Power Integrations has encouraged and intended for its distributors, including Mouser Electronics, to sell or offer for sale the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits in the United States. Since learning of the ‘407 patent, Mouser Electronics has offered for sale and sold the infringing products, including the RDK-531 to customers in the United States, thereby infringing the ‘407 patent. Further, since learning of the ‘407 patent, Power Integrations has been aware that its customers have incorporated the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits into power supplies in consumer electronic products that are imported into, sold and used in the United States, including the charger shipped with the Google Pixel phone. Since learning of the ‘407 patent, Power Integrations has been aware that the foregoing acts were an act of direct infringement and has intended that these acts of direct infringement occur.

COUNT TWELVE

CONTRIBUTORY INFRINGEMENT OF U.S. PATENT NO. 7,796,407 BY POWER INTEGRATIONS

99. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-98 as though fully set forth herein.

100. Power Integrations has been and is now liable as a contributory infringer of the '407 patent by selling and offering to sell in the United States the Infringing InnoSwitch Families of Products to third parties, including Google, in violation of 35 U.S.C. § 271(c). Power Integrations contributes to the direct infringement of customers who incorporate the Infringing InnoSwitch Families of Products into power supplies. Customers who import into the United States, sell, offer for sale, or use the power supplies that incorporate the Infringing InnoSwitch Families of Products are direct infringers of the '407 patent. The only commercially reasonable use of the Infringing InnoSwitch Families of Products results in an act of direct infringement.

101. Infringing InnoSwitch Families of Products are material to practicing the invention of at least claim 1 of the '407 patent. The Infringing InnoSwitch Families of Products have no substantial non-infringing uses, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are known by Power Integrations to be especially made or especially adapted for use in an infringement of the '407 patent. For example, the Infringing InnoSwitch Families of Products, including the InnoSwitch-CH, are especially adapted to be used in a power supply that infringes at least claim 1 of the '407 patent. The only way that the Infringing InnoSwitch Families of Products can be used in a power supply is in an infringing manner.

102. Power Integrations sells, offers to sell, and imports the Infringing InnoSwitch Families of Products within the United States. Power Integrations sells Infringing InnoSwitch

Families of Products to customers within the United States, including Google, to be incorporated into infringing power supplies. Google and other third parties sell and offer for sale the infringing power supplies in the United States, which constitutes an act of direct infringement.

103. Power Integrations provides product briefs, data sheets, webinars, and other design instruction materials on how to incorporate the infringing products into consumer electronic products in a way that would infringe the '407 patent. Power Integrations intends for customers, such as Google, to use its design instruction materials to create infringing power converters and incorporate them into products in a way that, when used in their only commercially reasonable use, results in a direct infringement of the '407 patent. Google and other customers of Power Integrations have relied on those materials and continue to rely on those materials to sell and offer for sale infringing products.

104. Power Integrations has known that the power supplies that incorporate a product from the Infringing InnoSwitch Families of Products are infringing combinations since December 27, 2016. Power Integrations has had knowledge of, or was willfully blind to, the '407 patent since December 27, 2016, when Plaintiffs filed a complaint asserting infringement of the '407 patent in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.) (Dkt. 1). For example, Count Four of that complaint discusses Power Integrations's infringement of the '407 Patent. *Id.* Alternatively, Power Integrations has had knowledge of the '407 patent since January 3, 2017, when Plaintiffs served Power Integrations with the complaint in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.). *Id.* at Dkt. 10. Alternatively, Power Integrations has had knowledge of the '407 patent since the filing of this lawsuit on March 9, 2017.

105. Since learning of the ‘407 patent, Power Integrations has known that its conduct contributes to the infringement of the ‘407 patent. Power Integrations possesses the technical expertise required to understand the scope of the claims of the ‘407 patent and reach a conclusion that the Infringing InnoSwitch Families of Products sold or offered for sale by Power Integrations in the United States infringe the ‘407 patent when assembled in a power supply. Since learning of the ‘407 patent, Power Integrations has known that Infringing InnoSwitch Families of Products sold by Power Integrations in the United States are especially made, designed, and adapted to infringe the ‘407 when the Infringing InnoSwitch Families of Products are incorporated into a power supply, such as the charger shipped with the Google Pixel phone and other finished consumer products that include a product from the Infringing InnoSwitch Families of Products in the power supply. Since learning of the ‘407 patent, Power Integrations has known that Infringing InnoSwitch Families of Products sold in the United States are not a staple article of commerce suitable for a substantial noninfringing use, and that the only commercially reasonable use of the Infringing InnoSwitch Families of Products results in a product that infringes the ‘407 patent.

COUNT THIRTEEN

DIRECT INFRINGEMENT OF U.S. PATENT NO. 7,800,923 BY POWER INTEGRATIONS

106. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-105 as though fully set forth herein.

107. The ‘923 patent is valid and enforceable.

108. Power Integrations has at no time, expressly or impliedly, been licensed under the ‘923 patent.

109. Upon information and belief, Power Integrations has been directly infringing and is now directly infringing the '923 patent under 35 U.S.C. § 271, either literally or under the doctrine of equivalents, in this district and elsewhere by making, using, selling, offering for sale, and/or importing into the United States infringing products. Infringing products include, but are not limited to, one or more products in the InnoSwitch family of products, and include any similarly functioning product that practices a synchronous switching regulation method that involves switching a transformer to generate a switching signal, generating pulse signals, transferring the pulse signals to a latch, setting or resetting the latch, and turning on and off a power switch in accordance with claim 12 of the '923 patent. Infringing products include at least the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits.

110. By way of example only, the InnoSwitch-CH family of products (*e.g.*, the INN2023K) infringes claim 1 of the '923 patent.

a. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) provides an offline synchronous regulator as recited in claim 1 of the '923 patent**. For example, the InnoSwitch-CH Datasheet provides on page one an "Off-Line CV/CC Flyback Switcher IC with Integrated 650 V MOSFET, Synchronous Rectification and Feedback."

b. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) provide a plurality of switches, coupled to switch a primary winding of a transformer and generating a switching signal in a secondary winding of said transformer as recited in claim 1 of the '923 patent**. For example, the primary side of the InnoSwitch-CH includes a switch (implemented by a plurality of MOSFET switches)

coupled to switch the primary winding of the transformer. The FORWARD (FWD) pin on the secondary side senses a switching signal at a secondary winding of the transformer. For example, Figure 1 of the InnoSwitch-CH Datasheet shows a Primary FET implemented by a plurality of MOSFET devices, coupled to a primary winding. The same figure shows that the FORWARD (FWD) pin senses a switching signal at a secondary winding.

c. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) provide a switching circuit, coupled to said transformer and an output of said offline synchronous regulator to generate pulse signals in response to said switching signal and a feedback signal as recited in claim 1 of the '923 patent.** For example, Figure 1 of the InnoSwitch-CH Datasheet shows a switching circuit coupled to the transformer and an output of the offline synchronous regulator. InnoSwitch-CH senses the output voltage on the FEEDBACK pin using a resistive voltage divider to determine whether or not to proceed with the next switching cycle. At the beginning of each clock cycle, the voltage comparator on the FEEDBACK pin decides whether or not to implement a switch cycle. The InnoSwitch-CH also monitors the high-to-low and low-to-high transitions of the switching signal sensed at the FORWARD pin, and generates pulse signals based on the output voltage sensed at the FEEDBACK pin and the switching signal sensed at the FORWARD pin.

d. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) provide a synchronous switch, having a power-switch set and a control circuit, said power-switch set being coupled from said transformer to said output of said offline synchronous regulator; said control circuit being operated to receive said pulse signals for turning on or off said power-switch set as recited in claim 1 of the '923 patent**. For example, Figure 4 of the InnoSwitch-CH Datasheet shows a synchronous switch, having a power-switch set and a control circuit. As shown in Figure 1, the power-switch set includes the SR FET and optional Schottky diode coupled between the transformer and the output of the regulator. As shown in Figure 4 of the InnoSwitch-CH Datasheet, the control circuit is operated to receive pulse signals for turning on and off the power-switch set (including the SR FET and the optional Schottky diode).

e. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) provide that the feedback signal is correlated to said output of said offline synchronous regulator, said pulse signals are generated for rectifying and regulating said offline synchronous regulator, and a polarity of said pulse signals determines on or off states of said power-switch set as recited in claim 1 of the '923 patent**. For example, as shown in Figure 1 of the InnoSwitch-CH Datasheet, the feedback signal to the FB pin is derived from the output voltage. Further, the power-switch set ("SR FET") is coupled in between a transformer and

the output of the synchronous switching regulator for rectifying and regulating. Further, the InnoSwitch-CH has an element that generates pulse signals to set and reset a latch. Further, the InnoSwitch-CH has a "Sync Rect (SR)" element that turns on/off a power switch set ("SR FET") in accordance with the state of the latch.

The infringing InnoSwitch-CH family of products (e.g., the INN2023K) literally meets all of the elements of claim 1 of the '923 patent. In addition, the InnoSwitch-CH family of products (e.g., the INN2023K) infringes under the doctrine of equivalents because the differences, if any, between the features of the InnoSwitch-CH family of products (e.g., the INN2023K) and the limitations of claim 1 of the '923 patent are insubstantial and because the features of the InnoSwitch-CH family of products (e.g., the INN2023K) have substantially the same function, and operate in substantially the same way to achieve the same result as the limitations of claim 1 of the '923 patent.

111. By way of example only, the InnoSwitch-CH family of products (*e.g.*, the INN2023K) also infringes claim 12 of the '923 patent.

a. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) provide a synchronous switching regulator as recited in claim 12 of the '923 patent**. For example, the InnoSwitch-CH Datasheet provides on page one an "Off-Line CV/CC Flyback Switcher IC with Integrated 650 V MOSFET, Synchronous Rectification and Feedback."

b. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) switches a transformer to generate a switching signal at a secondary winding of said transformer as recited in claim 12 of the**

‘923 patent. For example, the primary side of the InnoSwitch-CH includes a switch coupled to switch the primary winding of the transformer. The FORWARD (FWD) pin on the secondary side senses a switching signal at a secondary winding of the transformer.

c. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) generates pulse signals in response to a feedback signal and said switching signal as recited in claim 12 of the ‘923 patent**. For example, InnoSwitch-CH senses the output voltage on the FEEDBACK pin using a resistive voltage divider to determine whether or not to proceed with the next switching cycle. At the beginning of each clock cycle, the voltage comparator on the FEEDBACK pin decides whether or not to implement a switch cycle. The InnoSwitch-CH also monitors the high-to-low and low-to-high transitions of the switching signal sensed at the FORWARD pin, and generates pulse signals based on the output voltage sensed at the FEEDBACK pin and the switching signal sensed at the FORWARD pin.

d. **Further, the infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) transfers said pulse signals to a latch; sets or resets said latch in response to the polarity of said pulse signals; and turns on/off a power-switch set in accordance with a state of said latch as recited in claim 12 of the ’923 patent**. For example, the InnoSwitch-CH has an element that generates pulse signals to set and reset a latch. Further, the

InnoSwitch-CH has a "Sync Rect (SR)" element that turns on/off a power switch set ("SR FET") in accordance with the state of the latch.

e. **Finally, the InnoSwitch-CH (*e.g.*, the INN2023K) includes a feedback signal correlated to an output of said synchronous switching regulator and a power-switch set coupled in between said transformer and said output of said synchronous switching regulator for rectifying and regulating thereof as recited in claim 12 of the '923 patent**. For example, the feedback signal to the FB pin is derived from the output voltage. Further, the power-switch set ("SR FET") is coupled in between a transformer and the output of the synchronous switching regulator for rectifying and regulator.

The infringing InnoSwitch-CH family of products (e.g., the INN2023K) literally meets all of the elements of claim 12 of the '923 patent. In addition, the InnoSwitch-CH family of products (e.g., the INN2023K) infringes under the doctrine of equivalents because the differences, if any, between the features of the InnoSwitch-CH family of products (e.g., the INN2023K) and the limitations of claim 12 of the '923 patent are insubstantial and because the features of the InnoSwitch-CH family of products (e.g., the INN2023K) have substantially the same function, and operate in substantially the same way to achieve the same result as the limitations of claim 12 of the '923 patent.

112. By way of example only, the RDK-531 reference design kit (including the InnoSwitch-EP) also infringes claim 1 of the '923 patent.

a. **The RDK-531 reference design kit provides an offline synchronous regulator as recited in claim 1 of the '923 patent**. For example, the

InnoSwitch-EP Datasheet provides on page one an "Off-Line CV/CC Flyback Switcher IC with Integrated 650 V MOSFET, Synchronous Rectification and Feedback."

b. **The RDK-531 reference design kit provides a plurality of switches, coupled to switch a primary winding of a transformer and generating a switching signal in a secondary winding of said transformer as recited in claim 1 of the '923 patent**. For example, the primary side of the InnoSwitch-EP includes a switch (implemented by a plurality of MOSFET switches) coupled to switch the primary winding of the transformer. The FORWARD (FWD) pin on the secondary side senses a switching signal at a secondary winding of the transformer. For example, Figure 1 of the InnoSwitch-EP Datasheet shows a Primary FET implemented by a plurality of MOSFET devices, coupled to a primary winding. The same figure shows that the FORWARD (FWD) pin senses a switching signal at a secondary winding.

c. **The RDK-531 reference design kit provides a switching circuit, coupled to said transformer and an output of said offline synchronous regulator to generate pulse signals in response to said switching signal and a feedback signal as recited in claim 1 of the '923 patent.** For example, Figure 1 of the InnoSwitch-EP Datasheet shows a switching circuit coupled to the transformer and an output of the offline synchronous regulator. InnoSwitch-EP senses the output voltage on the FEEDBACK pin using a resistive voltage divider to determine whether or not to

proceed with the next switching cycle. At the beginning of each clock cycle, the voltage comparator on the FEEDBACK pin decides whether or not to implement a switch cycle. The InnoSwitch-EP also monitors the high-to-low and low-to-high transitions of the switching signal sensed at the FORWARD pin, and generates pulse signals based on the output voltage sensed at the FEEDBACK pin and the switching signal sensed at the FORWARD pin.

d. **The RDK-531 reference design kit provides a synchronous switch, having a power-switch set and a control circuit, said power-switch set being coupled from said transformer to said output of said offline synchronous regulator; said control circuit being operated to receive said pulse signals for turning on or off said power-switch set as recited in claim 1 of the '923 patent**. For example, Figure 4 of the InnoSwitch-EP Datasheet shows a synchronous switch, having a power-switch set and a control circuit. As shown in Figure 1, the power-switch set includes the SR FET and optional Schottky diode coupled between the transformer and the output of the regulator. As shown in Figure 4 of the InnoSwitch-EP Datasheet, the control circuit is operated to receive pulse signals for turning on and off the power-switch set (including the SR FET and the optional Schottky diode).

e. **The RDK-531 reference design kit provides that the feedback signal is correlated to said output of said offline synchronous regulator, said pulse signals are generated for rectifying and regulating said offline**

synchronous regulator, and a polarity of said pulse signals determines on or off states of said power-switch set as recited in claim 1 of the '923 patent. For example, as shown in Figure 1 of the InnoSwitch-EP Datasheet, the feedback signal to the FB pin is derived from the output voltage. Further, the power-switch set ("SR FET") is coupled in between a transformer and the output of the synchronous switching regulator for rectifying and regulating. Further, the InnoSwitch-EP has an element that generates pulse signals to set and reset a latch. Further, the InnoSwitch-EP has a "Sync Rect (SR)" element that turns on/off a power switch set ("SR FET") in accordance with the state of the latch.

The infringing RDK-531 literally meets all of the elements of claim 1 of the '923 patent. In addition, the RDK-531 infringes under the doctrine of equivalents because the differences, if any, between the features of the RDK-531 and the limitations of claim 1 of the '923 patent are insubstantial and because the features of the RDK-531 have substantially the same function, and operate in substantially the same way to achieve the same result as the limitations of claim 1 of the '923 patent.

113. By way of example only, the RDK-531 reference design kit (which includes the InnoSwitch-EP) also infringes claim 12 of the '923 patent.

a. **The RDK-531 reference design kit provides a synchronous switching regulator as recited in claim 12 of the '923 patent**. For example, the InnoSwitch-EP Datasheet provides on page 1 "Incorporates flyback controller, 725 V / 900 V MOSFET, secondary side sensing and synchronous rectification driver."

b. **The RDK-531 reference design kit switches a transformer to generate a switching signal at a secondary winding of said transformer as recited in claim 12 of the '923 patent**. For example, the primary side of the InnoSwitch-EP includes a switch coupled to switch the primary winding of the transformer. The FORWARD (FWD) pin on the secondary side senses a switching signal at a secondary winding of the transformer.

c. **The RDK-531 reference design kit generates pulse signals in response to a feedback signal and said switching signal as recited in claim 12 of the '923 patent**. For example, InnoSwitch-EP senses the output voltage on the FEEDBACK pin using a resistive voltage divider to determine whether or not to proceed with the next switching cycle. At the beginning of each clock cycle, the voltage comparator on the FEEDBACK pin decides whether or not to implement a switch cycle. The InnoSwitch-EP also monitors the high-to-low and low-to-high transitions of the switching signal sensed at the FORWARD pin, and generates pulse signals based on the output voltage sensed at the FEEDBACK pin and the switching signal sensed at the FORWARD pin.

d. **Further, the RDK-531 reference design kit transfers said pulse signals to a latch; sets or resets said latch in response to the polarity of said pulse signals; and turns on/off a power-switch set in accordance with a state of said latch as recited in claim 12 of the '923 patent**. For example, the InnoSwitch-EP has an element that generates pulse signals to set and reset a latch. Further, the InnoSwitch-EP has a "Sync Rect (SR)"

element that turns on/off a power switch set ("SR FET") in accordance with the state of the latch.

e. **Finally, the RDK-531 reference design kit includes a feedback signal correlated to an output of said synchronous switching regulator and a power-switch set coupled in between said transformer and said output of said synchronous switching regulator for rectifying and regulating thereof as recited in claim 12 of the '923 patent**. For example, the feedback signal to the FB pin is derived from the output voltage. Further, the power-switch set ("SR FET") is coupled in between a transformer and the output of the synchronous switching regulator for rectifying and regulator.

The infringing RDK-531 literally meets all of the elements of claim 12 of the '923 patent. In addition, the RDK-531 infringes under the doctrine of equivalents because the differences, if any, between the features of the RDK-531 and the limitations of claim 12 of the '923 patent are insubstantial and because the features of the RDK-531 have substantially the same function, and operate in substantially the same way to achieve the same result as the limitations of claim 12 of the '923 patent.

114. Plaintiffs have been irreparably harmed by Power Integrations's infringement of the '923 patent and will continue to be harmed unless and until Power Integrations's infringement is enjoined by this Court. Plaintiffs have no adequate remedy at law to redress Power Integrations's continuing infringement. The hardships that would be imposed upon Power Integrations by an injunction are less than those faced by Plaintiffs should an injunction not issue. Furthermore, the public interest would be served by issuance of an injunction.

115. Also as a result of Power Integrations's infringement, Plaintiffs have suffered and will continue to suffer damages of at least an amount to be proved at trial.

COUNT FOURTEEN

INDUCED INFRINGEMENT OF U.S. PATENT NO. 7,800,923 BY POWER INTEGRATIONS

116. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-115 as though fully set forth herein.

117. Power Integrations induces infringement of one or more of the claims of the '923 patent by others and is therefore liable for its indirect infringement. Power Integrations's intentional actions induce others to directly infringe, and those actions are undertaken with the specific intent that they will, in fact, induce direct infringement and with full knowledge that Power Integrations' products infringe one or more claims of the '923 patent. Alternatively, Power Integrations has been willfully blind to the possibility that its inducing acts cause direct infringement of one or more claims of the '923 patent.

118. Specifically, by way of example only, Power Integrations provides the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits to be incorporated into consumer electronic products such as the charger shipped with the Google Pixel phone. These consumer electronic products are imported, sold, offered for sale, or used within the United States by Google and others (including Google's customers), all of whom are direct infringers of the '923 patent. Power Integrations is aware, for example, that synchronous rectification is a feature of the accused products, and therefore, that Power Integrations' customers will infringe the '923 patent by using the synchronous rectification feature or by

incorporating the infringing power converters in other products, and that subsequent sales of such products would also be a direct infringement.

119. Power Integrations has had knowledge of, or was willfully blind to, the '923 patent and has had knowledge of, or was willfully blind to the fact that its actions induce infringement since December 27, 2016, when Plaintiffs filed a complaint asserting infringement of the '923 patent in *ON Semiconductor Corporation et al v. Power Integrations Inc.,* C.A. No. 2:16-cv-01451 (E.D. Tex.) (Dkt. 1). For example, Count Five of that complaint discusses Power Integrations's infringement of the '923 Patent. *Id.* Alternatively, Power Integrations has had knowledge of the '923 patent since January 3, 2017, when Plaintiffs served Power Integrations with the complaint in *ON Semiconductor Corporation et al v. Power Integrations Inc.,* C.A. No. 2:16-cv-01451 (E.D. Tex.). *Id.* at Dkt. 10. Alternatively, Power Integrations has had knowledge of the '923 patent since the filing of this lawsuit on March 9, 2017.

120. Since learning of the '923 patent, Power Integrations has possessed a specific intent to induce infringement, and continues to induce infringement, by, at a minimum, providing product briefs, data sheets, webinars, and other design instruction materials on how to incorporate the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits into consumer electronic products in a way that would infringe the '923 patent. As one example of Power Integrations's inducing activity, reference designs for the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits are available on the Power Integrations web site, and examples are shown at https://ac-dc.power.com/sites/default/files/PDFFiles/rdr420.pdf and https://ac-dc.power.com/sites/default/files/PDFFiles/der518.pdf. Power Integrations intends for customers to use its design instruction materials to create infringing power converters and incorporate them

into products. Power Integrations's customers have used the design instruction materials provided by Power Integrations to create infringing power converters. For example, the charger shipped with the Google Pixel phone was designed using the design instruction materials provided by Power Integrations. Additionally, Power provides webinars on its website instructing customers and distributors on how to design power supplies using the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits. *See, e.g.,* https://ac-dc.power.com/products/innoswitch-family/. Power Integrations's customers have used the webinars provided by Power Integrations to design power supplies using the infringing products, including the InnoSwitch Families of Products.

121. As another example of Power Integrations's induced infringement of the '923 patent, since learning of the '923 patent, Power Integrations has sold and delivered (and still sells and delivers) the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits to U.S. distributors, including Mouser Electronics, and thereafter induces its U.S. distributors, including Mouser Electronics, to sell and offer for sale the infringing products to customers in the United States, thereby directly infringing the '923 patent. *See* Ex. G (InnoSwitch-CE) , Ex. H (InnoSwitch-EP), Ex. I (InnoSwitch-CP), Ex. J (InnoSwitch-CH), Ex. K (RDK-531). Moreover, Power Integrations advertises on its website that it maintains "close relationships" with its distributors (including Mouser Electronics), maintains an inventory of infringing products available from Mouser Electronics, and directs customers to buy infringing products from Mouser Electronics. *Id.* In its webinars, Power Integrations states that the RDK-531 is available from its distributors. *See, e.g.,* https://ac-dc.power.com/products/innoswitch-family/. Thus, since learning of the '923 patent, Power Integrations directs and has directed and encouraged Mouser Electronics to sell and offer for sale infringing InnoSwitch products to

customers. Mouser Electronics maintains a website (mouser.com) available to U.S.-based customers that as a result of Power Integrations' inducement stocks, sells, and offers for sale the infringing InnoSwitch products. *See* Ex. M (InnoSwitch-CE) , Ex. N (InnoSwitch-EP), Ex. O (InnoSwitch-CP), Ex. P (InnoSwitch-CH), Ex. Q (RDK-531). The Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits, including the InnoSwitch-CH and the RDK-531, are in stock in the U.S. and are offered for sale and delivery to U.S. customers from Mouser Electronics, making Mouser Electronics a direct infringer of the '923 patent whose direct infringement is being induced, encouraged, and caused to occur by Power Integrations. And as of August 28, 2017, these infringing products were in stock in the U.S., offered for sale by Mouser Electronics, and available for purchase and delivery to U.S. customers from Mouser Electronics.

122. Since learning of the '923 patent, Power Integrations has known that its conduct encourages third parties, including Mouser Electronics, to infringe the '923 patent in the United States. Power Integrations possesses the technical expertise required to understand the scope of the claims of the '923 patent and reach a conclusion that the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits infringe the '923 patent and that power supplies that incorporate the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits also infringe the '923 patent. Since learning of the '923 patent, Power Integrations has possessed a specific intent to induce infringement by, at a minimum, encouraging and directing its distributors, including Mouser Electronics, to sell and offer for sale infringing products, such as the RDK-531, in the United States. Since learning of the '923 patent, Power Integrations has sold to its distributors, including Mouser Electronics, infringing products, such as the RDK-531, with the specific intent for the distributor to offer for sale or sell

the infringing products to customers in the United States, thereby infringing the '923 patent. Since learning of the '923 patent, Power Integrations has encouraged and intended for its distributors, including Mouser Electronics, to sell or offer for sale the infringing products, including the RDK-531 in the United States. Since learning of the '923 patent, Mouser Electronics has offered for sale and sold the infringing products, including the RDK-531 to customers in the United States, thereby infringing the '923 patent. Further, since learning of the '923 patent, Power Integrations has been aware that its customers have incorporated the Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits into power supplies in consumer electronic products that are imported into, sold and used in the United States, including the charger shipped with the Google Pixel phone. Since learning of the '923 patent, Power Integrations has been aware that the foregoing acts were an act of direct infringement and has intended that these acts of direct infringement occur.

COUNT FIFTEEN

CONTRIBUTORY INFRINGEMENT OF U.S. PATENT NO. 7,800,923 BY POWER INTEGRATIONS

123. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-122 as though fully set forth herein.

124. Power Integrations has been and is now liable as a contributory infringer of the '923 patent by selling and offering to sell in the United States the Infringing InnoSwitch Families of Products to third parties, including Google, in violation of 35 U.S.C. § 271(c). Power Integrations contributes to the direct infringement of customers who incorporate the Infringing InnoSwitch Families of Products into power supplies. Customers who import into the United States, sell, offer for sale, or use the power supplies that incorporate the Infringing InnoSwitch

Families of Products are direct infringers of the ‘923 patent. The only commercially reasonable use of the Infringing InnoSwitch Families of Products results in an act of direct infringement.

125. Infringing InnoSwitch Families of Products are material to practicing the invention of at least claim 1 of the ‘923 patent. The Infringing InnoSwitch Families of Products have no substantial non-infringing uses, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are known by Power Integrations to be especially made or especially adapted for use in an infringement of the ‘923 patent. For example, the Infringing InnoSwitch Families of Products, including the InnoSwitch-CH, are especially adapted to be used in a power supply that infringes at least claim 1 of the ‘923 patent. The only way that the Infringing InnoSwitch Families of Products can be used in a power supply is in an infringing manner.

126. Power Integrations sells, offers to sell, and imports the Infringing InnoSwitch Families of Products within the United States. Power Integrations sells Infringing InnoSwitch Families of Products to customers within the United States, including Google, to be incorporated into infringing power supplies. Google and other third parties sell and offer for sale the infringing power supplies in the United States, which constitutes an act of direct infringement.

127. Power Integrations provides product briefs, data sheets, webinars, and other design instruction materials on how to incorporate the infringing products into consumer electronic products in a way that would infringe the ‘923 patent. Power Integrations intends for customers, such as Google, to use its design instruction materials to create infringing power converters and incorporate them into products in a way that, when used in their only commercially reasonable use, results in a direct infringement of the ‘923 patent. Google and

other customers of Power Integrations have relied on those materials and continue to rely on those materials to sell and offer for sale infringing products.

128. Power Integrations has known that the power supplies that incorporate a product from the Infringing InnoSwitch Families of Products are infringing combinations since December 27, 2016. Power Integrations has had knowledge of, or was willfully blind to, the '923 patent since December 27, 2016, when Plaintiffs filed a complaint asserting infringement of the '923 patent in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.) (Dkt. 1). For example, Count Five of that complaint discusses Power Integrations's infringement of the '923 Patent. *Id.* Alternatively, Power Integrations has had knowledge of the '923 patent since January 3, 2017, when Plaintiffs served Power Integrations with the complaint in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.). *Id.* at Dkt. 10. Alternatively, Power Integrations has had knowledge of the '923 patent since the filing of this lawsuit on March 9, 2017.

129. Since learning of the '923 patent, Power Integrations has known that its conduct contributes to the infringement of the '923 patent. Power Integrations possesses the technical expertise required to understand the scope of the claims of the '923 patent and reach a conclusion that the Infringing InnoSwitch Families of Products sold or offered for sale by Power Integrations in the United States infringe the '923 patent when assembled in a power supply. Since learning of the '923 patent, Power Integrations has known that Infringing InnoSwitch Families of Products sold by Power Integrations in the United States are especially made, designed, and adapted to infringe the '923 when the Infringing InnoSwitch Families of Products are incorporated into a power supply, such as the charger shipped with the Google Pixel phone and other finished consumer products that include a product from the Infringing InnoSwitch

Families of Products in the power supply. Since learning of the '923 patent, Power Integrations has known that Infringing InnoSwitch Families of Products sold in the United States are not a staple article of commerce suitable for a substantial non-infringing use, and that the only commercially reasonable use of the Infringing InnoSwitch Families of Products results in a product that infringes the '923 patent.

COUNT SIXTEEN

DIRECT INFRINGEMENT OF U.S. PATENT NO. 7,102,211 BY POWER INTEGRATIONS

130. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-129 as though fully set forth herein.

131. The '211 patent is valid and enforceable.

132. Power Integrations has at no time, expressly or impliedly, been licensed under the '211 patent.

133. Upon information and belief, Power Integrations has been directly infringing and is now directly infringing the '211 patent under 35 U.S.C. § 271, either literally or under the doctrine of equivalents, in this district and elsewhere by making, using, selling, offering for sale, and/or importing into the United States infringing products. Infringing products include, but are not limited to, one or more products in the InnoSwitch family of products, and include any similarly functioning product that includes an integrated circuit that includes a hybrid integrated circuit board, a semiconductor element or passive element mounted on the board, a plurality of leads, and a resin-sealing body arranged in an infringing manner in accordance with at least claims 1 and 5 of the '211 patent. Infringing products include at least the Infringing InnoSwitch Families of Products, the Infringing Reference Design Kits, and Power Integrations's SCALE-

iDriver products, including but not limited to those having part numbers SID1132K, SID1152K, SID1182K, and Power Integrations 1700 V SCALE-iDriver product having part number SID1183K (the foregoing collectively referred to as "the '211 Patent Infringing Products").

134. By way of example only, the InnoSwitch-CH family of products (*e.g.*, the INN2023K) infringes claim 5 of the '211 patent.

a. **The infringing InnoSwitch-CH family of products (*e.g.*, the INN2023K) includes a hybrid integrated circuit device as recited in claim 5 of the '211 patent**. For example, the InnoSwitch-CH incorporates both primary and secondary controllers into a single IC.

b. **The InnoSwitch-CH (*e.g.*, the INN2023K) includes a conductive pattern formed at least on a surface of a hybrid integrated circuit board as recited in claim 5 of the '211 patent**. For example, the InnoSwitch-CH contains a wire-frame that is a hybrid integrated circuit board, and the wire-frame includes a conductive pattern at least on the surface.

c. **The InnoSwitch-CH (*e.g.*, the INN2023K) includes a semiconductor element or a passive element mounted on the conductive pattern as recited in claim 5 of the '211 patent**. For example, the InnoSwitch-CH contains a semiconductor chip mounted to the conductive surface of the hybrid integrated circuit board (i.e., the wire-frame).

d. **The InnoSwitch-CH (*e.g.*, the INN2023K) includes a plurality of leads connected to the conductive pattern and extending outside, the leads acting as an output or an input as recited in claim 5 of the '211 patent**.

For example, the InnoSwitch-CH contains a hybrid integrated circuit board with a conductive surface and contains a plurality of leads connected to the conductive surface that serve as the "source" output.

e. **The InnoSwitch-CH (*e.g.*, the INN2023K) includes a resin-sealing body made of a thermosetting resin, which coats at least the surface of the board by transfer molding as recited in claim 5 of the '211 patent**. For example, the hybrid integrated circuit board is coated by a resin-sealing body. For example, the InnoSwitch-CH Datasheet provides that the hybrid integrated circuit board has a "plastic body".

f. **The InnoSwitch-CH (*e.g.*, the INN2023K) includes leads that have a plurality of common leads projecting out from the resin-sealing body, and the common leads are coupled by a coupling portion as recited in claim 5 of the '211 patent**. For example, Figure 2 of the InnoSwitch-CH Datasheet shows a plurality of common leads projecting out from the resin body, with the common leads coupled by a coupling portion.

The infringing InnoSwitch-CH family of products (e.g., the INN2023K) literally meets all of the elements of claim 5 of the '211 patent. In addition, the InnoSwitch-CH family of products (e.g., the INN2023K) infringes under the doctrine of equivalents because the differences, if any, between the features of the InnoSwitch-CH family of products (e.g., the INN2023K) and the limitations of claim 5 of the '211 patent are insubstantial and because the features of the InnoSwitch-CH family of products (e.g., the INN2023K) have substantially the same function, and operate in substantially the same way to achieve the same result as the limitations of claim 5 of the '211 patent.

135. By way of example only, the RDK-531 reference design kit (including the InnoSwitch-EP) also infringes claim 5 of the ‘211 patent.

a. **The RDK-531 reference design kit includes a hybrid integrated circuit device as recited in claim 5 of the ‘211 patent**. For example, the InnoSwitch-EP incorporates both primary and secondary controllers into a single IC.

b. **The RDK-531 reference design kit includes a conductive pattern formed at least on a surface of a hybrid integrated circuit board as recited in claim 5 of the ‘211 patent**. For example, the InnoSwitch-EP contains a wire-frame that is a hybrid integrated circuit board, and the wire-frame includes a conductive pattern at least on the surface.

c. **The RDK-531 reference design kit includes a semiconductor element or a passive element mounted on the conductive pattern as recited in claim 5 of the ‘211 patent**. For example, the InnoSwitch-EP contains a semiconductor chip mounted to the conductive surface of the hybrid integrated circuit board (i.e., the wire-frame).

d. **The RDK-531 reference design kit includes a plurality of leads connected to the conductive pattern and extending outside, the leads acting as an output or an input as recited in claim 5 of the ‘211 patent**. For example, the InnoSwitch-EP contains a hybrid integrated circuit board with a conductive surface and contains a plurality of leads connected to the conductive surface that serve as the “source” output.

e. **The RDK-531 reference design kit includes a resin-sealing body made of a thermosetting resin, which coats at least the surface of the board by transfer molding as recited in claim 5 of the '211 patent**. For example, the hybrid integrated circuit board is coated by a resin-sealing body. For example, the InnoSwitch-EP Datasheet provides that the hybrid integrated circuit board has a "plastic body".

f. **The RDK-531 reference design kit includes leads that have a plurality of common leads projecting out from the resin-sealing body, and the common leads are coupled by a coupling portion as recited in claim 5 of the '211 patent**. For example, Figure 2 of the InnoSwitch-EP Datasheet shows a plurality of common leads projecting out from the resin body, with the common leads coupled by a coupling portion.

The infringing RDK-531 reference design kit literally meets all of the elements of claim 5 of the '211 patent. In addition, RDK-531 reference design kit infringes under the doctrine of equivalents because the differences, if any, between the features of the RDK-531 reference design kit and the limitations of claim 5 of the '211 patent are insubstantial and because the features of the RDK-531 reference design kit have substantially the same function, and operate in substantially the same way to achieve the same result as the limitations of claim 5 of the '211 patent.

136. Plaintiffs have been irreparably harmed by Power Integrations's infringement of the '211 patent and will continue to be harmed unless and until Power Integrations's infringement is enjoined by this Court. Plaintiffs have no adequate remedy at law to redress Power Integrations's continuing infringement. The hardships that would be imposed upon

Power Integrations by an injunction are less than those faced by Plaintiffs should an injunction not issue. Furthermore, the public interest would be served by issuance of an injunction.

137. Also as a result of Power Integrations's infringement, Plaintiffs have suffered and will continue to suffer damages of at least an amount to be proved at trial.

COUNT SEVENTEEN

INDUCED INFRINGEMENT OF U.S. PATENT NO. 7,102,211 BY POWER INTEGRATIONS

138. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-137 as though fully set forth herein.

139. Power Integrations induces infringement of one or more of the claims of the '211 patent by others and is therefore liable for its indirect infringement. Power Integrations's intentional actions induce others to directly infringe, and those actions are undertaken with the specific intent that they will, in fact, induce direct infringement and with full knowledge that Power Integrations' products infringe one or more claims of the '211 patent. Alternatively, Power Integrations has been willfully blind to the possibility that its inducing acts cause direct infringement of one or more claims of the '211 patent.

140. Specifically, by way of example only, Power Integrations provides the '211 Patent Infringing Products to be incorporated into consumer electronic products such as the charger shipped with the Google Pixel phone. These consumer electronic products are imported, sold, offered for sale, or used within the United States by Google and others (including Google's customers), all of whom are direct infringers of the '211 patent. Power Integrations is aware, for example, that synchronous rectification is a feature of the accused products, and therefore, that Power Integrations' customers will infringe the '211 patent by using the synchronous

rectification feature or by incorporating the infringing power converters in other products, and that subsequent sales of such products would also be a direct infringement.

141. Power Integrations has had knowledge of, or was willfully blind to, the '211 patent and has had knowledge of, or was willfully blind to the fact that its actions induce infringement since December 27, 2016, when Plaintiffs filed a complaint asserting infringement of the '211 patent in *ON Semiconductor Corporation et al v. Power Integrations Inc.,* C.A. No. 2:16-cv-01451 (E.D. Tex.) (Dkt. 1). For example, Count Six of that complaint discusses Power Integrations's infringement of the '211 Patent. *Id.* Alternatively, Power Integrations has had knowledge of the '211 patent since January 3, 2017, when Plaintiffs served Power Integrations with the complaint in C.A. 2:16-cv-01451. *Id.* at Dkt. 10. Alternatively, Power Integrations has had knowledge of the '211 patent since the filing of this lawsuit on March 9, 2017.

142. Since learning of the '211 patent, Power Integrations has possessed a specific intent to induce infringement, and continues to induce infringement, by, at a minimum, providing product briefs, data sheets, webinars, and other design instruction materials on how to incorporate the '211 Patent Infringing Products into consumer electronic products in a way that would infringe the '211 patent. As one example of Power Integrations's inducing activity, reference designs for the '211 Patent Infringing Products are available on the Power Integrations web site, and examples are shown at https://ac-dc.power.com/sites/default/files/PDFFiles/rdr420.pdf and https://ac-dc.power.com/sites/default/files/PDFFiles/der518.pdf. Power Integrations intends for customers to use its design instruction materials to create infringing power converters and incorporate them into products. Power Integrations's customers have used the design instruction materials provided by Power Integrations to create infringing power converters. For example, the charger

shipped with the Google Pixel phone was designed using the design instruction materials provided by Power Integrations. Additionally, Power provides webinars on its website instructing customers and distributors on how to design power supplies using the '211 Patent Infringing Products. *See*, *e.g.*, https://ac-dc.power.com/products/innoswitch-family/. Power Integrations's customers have used the webinars provided by Power Integrations to design power supplies using the infringing products, including the Infringing InnoSwitch Families of Products.

143. As another example of Power Integrations's induced infringement of the '211 patent, since learning of the '211 patent, Power Integrations has sold and delivered (and still sells and delivers) the '211 Patent Infringing Products to U.S. distributors, including Mouser Electronics, and thereafter induces its U.S. distributors, including Mouser Electronics, to sell and offer for sale the infringing products to customers in the United States, thereby directly infringing the '211 patent. *See* Ex. G (InnoSwitch-CE) , Ex. H (InnoSwitch-EP), Ex. I (InnoSwitch-CP), Ex. J (InnoSwitch-CH), Ex. K (RDK-531). Moreover, Power Integrations advertises on its website that it maintains "close relationships" with its distributors (including Mouser Electronics), maintains an inventory of infringing products available from Mouser Electronics, and directs customers to buy infringing products from Mouser Electronics. *Id.* In its webinars, Power Integrations states that the RDK-531 is available from its distributors. *See*, *e.g.*, https://ac-dc.power.com/products/innoswitch-family/. Thus, since learning of the '211 patent, Power Integrations directs and has directed and encouraged Mouser Electronics to sell and offer for sale the '211 Patent Infringing Products to customers. Mouser Electronics maintains a website (mouser.com) available to U.S.-based customers that as a result of Power Integrations' inducement stocks, sells, and offers for sale the '211 Patent Infringing Products. *See* Ex. M (InnoSwitch-CE) , Ex. N (InnoSwitch-EP), Ex. O (InnoSwitch-CP), Ex. P (InnoSwitch-CH), Ex.

Q (RDK-531). The Infringing InnoSwitch Families of Products and the Infringing Reference Design Kits, including the InnoSwitch-CH and the RDK-531, are in stock in the U.S. and are offered for sale and delivery to U.S. customers from Mouser Electronics, making Mouser Electronics a direct infringer of the '211 patent whose direct infringement is being induced, encouraged, and caused to occur by Power Integrations. And as of August 28, 2017, these infringing products were in stock in the U.S., offered for sale by Mouser Electronics, and available for purchase and delivery to U.S. customers from Mouser Electronics.

144. Since learning of the '211 patent, Power Integrations has known that its conduct encourages third parties, including Mouser Electronics, to infringe the '211 patent in the United States. Power Integrations possesses the technical expertise required to understand the scope of the claims of the '211 patent and reach a conclusion that the '211 Patent Infringing Products infringe the '211 patent and that power supplies that incorporate the '211 Patent Infringing Products also infringe the '211 patent. Since learning of the '211 patent, Power Integrations has possessed a specific intent to induce infringement by, at a minimum, encouraging and directing its distributors, including Mouser Electronics, to sell and offer for sale infringing products, such as the RDK-531, in the United States. Since learning of the '211 patent, Power Integrations has sold to its distributors, including Mouser Electronics, infringing products, such as the RDK-531, with the specific intent for the distributor to offer for sale or sell the infringing products to customers in the United States, thereby infringing the '211 patent. Since learning of the '211 patent, Power Integrations has encouraged and intended for its distributors, including Mouser Electronics, to sell or offer for sale the infringing products, including the RDK-531 in the United States. Since learning of the '211 patent, Mouser Electronics has offered for sale and sold the infringing products, including the RDK-531 to customers in the United States, thereby infringing

the ‘211 patent. Further, since learning of the ‘211 patent, Power Integrations has been aware that its customers have incorporated the ‘211 Patent Infringing Products into power supplies in consumer electronic products that are imported into, sold and used in the United States, including the charger shipped with the Google Pixel phone. Since learning of the ‘211 patent, Power Integrations has been aware that the foregoing acts were an act of direct infringement and has intended that these acts of direct infringement occur.

COUNT EIGHTEEN

CONTRIBUTORY INFRINGEMENT OF U.S. PATENT NO. 7,102,211 BY POWER INTEGRATIONS

145. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-144 as though fully set forth herein.

146. Power Integrations has been and is now liable as a contributory infringer of the ‘211 patent by selling and offering to sell in the United States the Infringing InnoSwitch Families of Products and Power Integrations’s SCALE-iDriver products to third parties, including Google, in violation of 35 U.S.C. § 271(c). Power Integrations contributes to the direct infringement of customers who incorporate the Infringing InnoSwitch Families of Products and Power Integrations’s SCALE-iDriver products into power supplies. Customers who import into the United States, sell, offer for sale, or use the power supplies that incorporate the Infringing InnoSwitch Families of Products and Power Integrations’s SCALE-iDriver products are direct infringers of the ‘211 patent. The only commercially reasonable use of the Infringing InnoSwitch Families of Products and Power Integrations’s SCALE-iDriver products results in an act of direct infringement.

147. The Infringing InnoSwitch Families of Products and Power Integrations's SCALE-iDriver products are material to practicing the invention of at least claim 5 of the '211 patent. The Infringing InnoSwitch Families of Products and Power Integrations's SCALE-iDriver products have no substantial non-infringing uses, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are known by Power Integrations to be especially made or especially adapted for use in an infringement of the '211 patent. For example, the Infringing InnoSwitch Families of Products, including the InnoSwitch-CH, and Power Integrations's SCALE-iDriver products are especially adapted to be used in a power supply that infringes at least claim 5 of the '211 patent. The only way that the Infringing InnoSwitch Families of Products and Power Integrations's SCALE-iDriver products can be used in a power supply is in an infringing manner.

148. Power Integrations sells, offers to sell, and imports the Infringing InnoSwitch Families of Products and Power Integrations's SCALE-iDriver products within the United States. Power Integrations sells the Infringing InnoSwitch Families of Products and Power Integrations's SCALE-iDriver products to customers within the United States, including Google, to be incorporated into infringing power supplies. Google and other third parties sell and offer for sale the infringing power supplies in the United States, which constitutes an act of direct infringement.

149. Power Integrations provides product briefs, data sheets, webinars, and other design instruction materials on how to incorporate the infringing products into consumer electronic products in a way that would infringe the '211 patent. Power Integrations intends for customers, such as Google, to use its design instruction materials to create infringing power converters and incorporate them into products in a way that, when used in their only

commercially reasonable use, results in a direct infringement of the '211 patent. Google and other customers of Power Integrations have relied on those materials and continue to rely on those materials to sell and offer for sale infringing products.

150. Power Integrations has known that the power supplies that incorporate a product from the Infringing InnoSwitch Families of Products and Power Integrations's SCALE-iDriver products are infringing combinations since December 27, 2016. Power Integrations has had knowledge of, or was willfully blind to, the '211 patent since December 27, 2016, when Plaintiffs filed a complaint asserting infringement of the '211 patent in *ON Semiconductor Corporation et al v. Power Integrations Inc.*, C.A. No. 2:16-cv-01451 (E.D. Tex.) (Dkt. 1). For example, Count Six of that complaint discusses Power Integrations's infringement of the '211 Patent. *Id.* Alternatively, Power Integrations has had knowledge of the '211 patent since January 3, 2017, when Plaintiffs served Power Integrations with the complaint in C.A. 2:16-cv-01451. *Id.* at Dkt. 10. Alternatively, Power Integrations has had knowledge of the '211 patent since the filing of this lawsuit on March 9, 2017.

151. Since learning of the '211 patent, Power Integrations has known that its conduct contributes to the infringement of the '211 patent. Power Integrations possesses the technical expertise required to understand the scope of the claims of the '211 patent and reach a conclusion that the Infringing InnoSwitch Families of Products and Power Integrations's SCALE-iDriver products sold or offered for sale by Power Integrations in the United States infringe the '211 patent when assembled in a power supply. Since learning of the '211 patent, Power Integrations has known that the Infringing InnoSwitch Families of Products and Power Integrations's SCALE-iDriver products sold by Power Integrations in the United States are especially made, designed, and adapted to infringe the '211 when the Infringing InnoSwitch Families of Products

and Power Integrations's SCALE-iDriver products are incorporated into a power supply, such as the charger shipped with the Google Pixel phone and other finished consumer products that include a product from the Infringing InnoSwitch Families of Products and Power Integrations's SCALE-iDriver products in the power supply. Since learning of the '211 patent, Power Integrations has known that the Infringing InnoSwitch Families of Products and Power Integrations's SCALE-iDriver products sold in the United States are not a staple article of commerce suitable for a substantial non-infringing use, and that the only commercially reasonable use of the Infringing InnoSwitch Families of Products and Power Integrations's SCALE-iDriver products results in a product that infringes the '211 patent.

DEMAND FOR JURY TRIAL

152. Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiffs ON Semiconductor Corporation and Semiconductor Components Industries, LLC hereby demand a trial by jury as to all issues so triable.

PRAYER FOR RELIEF

153. WHEREFORE, Plaintiffs request a judgment:

a. That Plaintiffs are the owner of all right, title, and interest in and to U.S. Patent Nos. 7,440,298; 7,564,705; 9,077,258; 7,796,407; 7,800,923; and 7,102,211, together with all the rights of recovery under such patents for past and future infringements thereof;

b. That Defendant has directly infringed U.S. Patent Nos. 7,440,298; 7,564,705; 9,077,258; 7,796,407; 7,800,923; and 7,102,211;

c. That Defendant has induced others to infringe U.S. Patent Nos. 7,440,298; 7,564,705; 9,077,258; 7,796,407; 7,800,923; and 7,102,211;

d. That Defendant has contributed to others' infringement of U.S. Patent Nos. 7,440,298; 7,564,705; 9,077,258; 7,796,407; 7,800,923; and 7,102,211;

e. That U.S. Patent Nos. 7,440,298; 7,564,705; 9,077,258; 7,796,407; 7,800,923; and 7,102,211 are valid and enforceable in law;

f. Awarding Plaintiffs their damages caused by Defendant's infringement, including an assessment of pre-judgment and post-judgment interest and costs, and an accounting as appropriate for infringing activity not captured within any applicable jury verdict;

g. Entering a permanent injunction against Defendant, their respective officers, agents, servants, employees, attorneys, all parent and subsidiary corporations and affiliates, their assigns and successors in interest, and those persons in active concert or participation with any of them who receive notice of the injunction, enjoining them from continuing acts of direct, induced, and contributory infringement of U.S. Patent Nos. 7,440,298; 7,564,705; 9,077,258; 7,796,407; 7,800,923; and 7,102,211, including, without limitation, from continuing to make, use, sell, offer for sale, or import infringing semiconductors or products including such semiconductors;

h. That this is an exceptional case and awarding to Plaintiffs their costs, expenses, and reasonable attorneys' fees pursuant to 35 U.S.C. § 285;

i. In the event a permanent injunction preventing future acts of infringement is not entered, that Plaintiffs be awarded a compulsory ongoing licensing fee; and

j. Awarding to Plaintiffs such other and further relief as this Court may deem just and proper.

ASHBY & GEDDES

/s/ John G. Day

John G. Day (#2403)
Andrew C. Mayo (#5207)
500 Delaware Avenue, 8th Floor
P.O. Box 1150
Wilmington, DE 19899
(302) 654-1888
jday@ashbygeddes.com
amayo@ashbygeddes.com

Attorneys for Plaintiffs

Of Counsel:

Roger Fulghum
Baker Botts L.L.P.
One Shell Plaza
910 Louisiana Street
Houston, TX 77002-4995
(713) 229-1707

John (Jay) M. Neukom
QUINN EMANUEL URQUHART
& SULLIVAN, LLP
50 California Street, 22nd Floor
San Francisco, CA 94111
(415) 875-6600

Dated: September 8, 2017