

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

MONOLITHIC POWER SYSTEMS, INC., a Delaware corporation, Plaintiff, v. REED SEMICONDUCTOR CORP., a Delaware corporation, NENGDA MICROELECTRONICS (SHENZHEN) CO., LTD., a Chinese corporation; NENGDA SEMICONDUCTOR TECHNOLOGY (SHENZHEN) CO., LTD., a Chinese corporation; NUVISION TECHNOLOGY, INC., a Taiwanese corporation; and WT MICROELECTRONICS CO., LTD., a Taiwanese corporation, Defendants.	C.A. No.: _____ JURY TRIAL DEMANDED
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COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Monolithic Power Systems, Inc. (“MPS” or “Plaintiff”) files this Complaint against Defendants Reed Semiconductor Corp. (“Reed”), Nengda Microelectronics (Shenzhen) Co., Ltd. (“Nengda Microelectronics”), Nengda Semiconductor Technology (Shenzhen) Co., Ltd. (“Nengda Semiconductor”) (collectively, “Nengda”), NuVision Technology, Inc. (“NuVision”), and WT Microelectronics Co., Ltd. (collectively with NuVision, “WT Microelectronics”) (all parties identified as defendants are collectively “Defendants”) and hereby alleges as follows:

THE NATURE OF THE ACTION

1. This is a civil action for patent infringement.
2. MPS is a world leader in the design, development, manufacture, and sale of semiconductor products, including power management solutions such as power converters, that

are needed to power many everyday electronic devices like smart phones and laptop computers. Founded in 1997, MPS has achieved significant growth year over year and great financial success due to its unmatched technical innovation and ability to offer high-performance products that are used in consumer electronics, automotive, communications, and storage products. MPS's mission is to reduce total energy consumption in its customers' systems with practical, energy-efficient solutions. To continue to innovate, MPS has invested significant resources to develop a large patent portfolio covering its semiconductor products, including its power conversion products.

3. Defendants compete directly against MPS for customers of power conversion products, including products that are designed for the same applications as MPS's products.

4. Defendants have infringed and continue to infringe MPS's U.S. Patent No. 10,075,078 ("the '078 Patent" or "the MPS Patent") related to power conversion, a copy of which is attached hereto as Exhibit 1. Defendants have infringed and continue to infringe the MPS Patent by: making, using, selling, offering for sale, and/or importing into the United States infringing components and components specially made for use in an infringing device; and inducing others to do the same.

THE PARTIES

5. Monolithic Power Systems, Inc. is a corporation organized and existing under the laws of Delaware, having its principal place of business at 5808 Lake Washington Boulevard NE, Kirkland, WA 98033.

6. Upon information and belief, Reed is a corporation organized and existing under the laws of Delaware with its principal place of business at 875 Centerville Road, Warwick, RI 02886.

7. Upon information and belief, Nengda Microelectronics is organized under the

laws of the People's Republic of China with its principal place of business at Room 2409, Block 3, Building 2, Dachong Business Center (Phase I), No. 9676 Shennan Avenue, Dachong Community, Yuehai Street, Nanshan District, Shenzhen, China. Upon information and belief, Nengda Microelectronics also does business under the trade name "IPG Semi."

8. Upon information and belief, Nengda Semiconductor is organized under the laws of the People's Republic of China with its principal place of business at Room 1201, Block 3, Building 2, Dachong Business Center (Phase I), No. 9676 Shennan Avenue, Dachong Community, Yuehai Street, Nanshan District, Shenzhen, China.

9. Upon information and belief, NuVision is organized under the laws of the Republic of China, Taiwan with its principal place of business at 4F, No. 738, Zhongzheng Rd., New Taipei City, New Taipei, 235603 Taiwan.

10. Upon information and belief, WT Microelectronics is organized under the laws of Republic of China, Taiwan with its principal place of business at 14F, No. 738, Zhongzheng Rd., New Taipei City, New Taipei, 235603 Taiwan.

SUBJECT MATTER JURISDICTION

11. This Court has subject matter jurisdiction over the patent infringement claims asserted in this case under 28 U.S.C. §§ 1331 and 1338(a).

PERSONAL JURISDICTION AND VENUE

12. This Court has personal jurisdiction over Reed as a citizen/resident of Delaware. On information and belief, the Court further has personal jurisdiction over Reed because Reed has regularly conducted and continues to conduct business in the United States, in the State of Delaware, and in this judicial district. On information and belief, Reed has committed infringing activities in Delaware and in this judicial district by making, using, offering for sale, and/or selling

in the United States and/or importing into the United States, products and systems that infringe upon the MPS Patent, or by placing such infringing products and systems into the stream of commerce with the awareness, knowledge, and intent that they would be used, offered for sale, or sold by others in this judicial district and/or purchased by consumers in this district.

13. This Court has personal jurisdiction over Nengda and WT Microelectronics because they regularly conducted and continue to conduct business in the United States, in the State of Delaware, and in this judicial district. On information and belief, Nengda and WT Microelectronics have committed infringing activities in Delaware and in this judicial district by making, using, offering for sale, and/or selling in the United States and/or importing into the United States, products and systems that infringe upon the MPS Patents, or by placing such infringing products and systems into the stream of commerce with the awareness, knowledge, and intent that they would be used, offered for sale, or sold by others in this judicial district and/or purchased by consumers in this district. As discussed further below, Nengda and WT Microelectronics are involved in the supply chain in Asia, including marketing and selling to contract manufacturers in Asia, who manufactures products for U.S.-based end companies (with whom Nengda and WT Microelectronics work on the “design in” process), which products Nengda and WT Microelectronics know (or are willfully blind to the fact that they) are then sold throughout the U.S. As a result, Nengda and WT Microelectronics’ interactions with contract manufacturers and designing-in products for U.S.-based brand companies leads to the reasonably foreseeable result that Reed and Nengda Accused Products are incorporated into end products sold in the U.S. including this District. Both Nengda and WT Microelectronics directly interact with and benefit from Delaware through their coordination with Nengda’s affiliate Delaware corporation Reed Semiconductor.

14. Venue is proper as to Reed pursuant to 28 U.S.C. §§ 1391(b) and 1400(b) because it is a citizen/resident of Delaware and has committed, and continues to commit, acts of infringement in this District.

15. Venue is proper as to Nengda and WT Microelectronics pursuant to 28 U.S.C. §§ 1391(b)-(c) and 1400(b) because they are foreign corporations subject to venue in any judicial district, including the District of Delaware, and have committed, and continue to commit, acts of infringement in this District.

THE MPS PATENTS

16. On September 11, 2018, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 10,075,078 (“the ’078 Patent”), entitled “Control Circuit for Maintaining a Switching Frequency for Constant On time Converter,” listing Yike Li as the inventor, from a patent application filed January 29, 2016. The ’078 Patent claims priority from China Patent Application, No. 201510053080.1, filed on February 2, 2015. A true and correct copy of the ’078 Patent is attached hereto as Exhibit 1 and incorporated herein by reference.

17. The ’078 Patent is also referred herein to as the “MPS Patent.”

18. MPS exclusively owns all rights, title, and interest in the MPS Patent necessary to bring this action, including the right to recover past and future damages.

19. Defendants are not currently licensed to practice the MPS Patent.

20. The MPS Patent is valid and enforceable.

FACTUAL BACKGROUND

21. Monolithic Power Systems, Inc. (“MPS”) was founded in 1997 by Michael Hsing in Los Gatos, California, USA.

22. Since its founding, MPS has become an industry-leading fabless semiconductor company that designs, develops, markets, and sells semiconductor products, including power conversion products.

23. MPS has achieved significant growth year over year and great financial success due to its unmatched technical innovation. MPS has a large patent portfolio covering its semiconductor products including its power conversion products. MPS marks the products practicing its patents by, among other things, noting such products are “patent protected” on the datasheets that MPS provides to its customers and potential customers.

24. MPS’s power conversion products are used and incorporated into a wide range of electronic devices that require varying levels of power. MPS offers a large portfolio of Power Management buck/stepdown converters, boost/step-up converters, buck/boost converters, and flyback converters. By combining a power-optimized IC process, packaging technology, monolithic design and system expertise, MPS provides high-efficiency, small-sized power management products. These products are easy to use with either built-in trim options for adjustability or software (digital) programmability for many key features.

25. MPS’s buck converter family offers input ranges from 2V to 100V and output current up to 30A. With a wide input voltage range, MPS products are used in all kinds of applications and support a variety of bus voltages. MPS’ boost and buck/boost converter family offers input ranges from 0.6V to 36V, output ranges from 1.8V to 55V, and switch current limit up to 22A.

26. MPS has been awarded numerous U.S. patents for the electronic components it has developed, recognizing MPS’s groundbreaking research and innovation.

27. The MPS Patent is just one example of MPS’s work on the cutting-edge of

electronic component design.

28. The MPS Patent describes a control circuit for a switching power converter, comprising of an off-control signal generation module configured to generate an off-control signal after achieving an inactive logic state and an active logic state. A control circuit turns off the main switch of the switching power converter in response to the active logic state. Further, the off-control signal can regulate an on-time of the main switch through the regulation of a change from the inactive logic state to the active logic state.

DEFENDANTS' INFRINGEMENT

29. Defendants have directly and indirectly infringed, and continue to infringe, one or more claims of the MPS Patent through making, using, offering for sale, and/or selling in the United States and/or importing into the United States, products and systems that infringe upon the MPS Patent (i.e., the Reed and Nengda Accused Products), and inducing others to do the same, including Defendants' downstream customers.

30. "Reed and Nengda Accused Products" are switching regulator products accused of meeting the claim limitations of the MPS Patent. Reed designs and manufactures switching regulators that infringe the MPS Patent in the United States. The infringing products have applications in many types of devices designed and manufactured by Reed's customers, including various electronic devices. The "Reed and Nengda Accused Products" also include evaluation boards that have Reed and Nengda switching regulator products implemented by Defendants on a systems-level board in combination with other necessary electronic components, that Defendants make, uses, offer for sale, sell and/or import to their customers in the United States, for customer evaluation of Reed and Nengda switching regulator products, as part of the design-in process.

31. Exhibit 2, demonstrating how exemplary Reed and Nengda Accused Products meet the claim limitations of the MPS Patent, is incorporated herein by reference.

32. Defendants sell Reed and Nengda Accused Products directly through their own sales force and website. Reed and Nengda also sell Accused Products indirectly through distributors such as DigiKey, Edom, NuVision, and WT Microelectronics.

33. The Reed and Nengda Accused Products are available for direct purchase directly from the Defendants. Defendants directly assist their customers with purchasing the Reed and Nengda Accused Products once interested customers contact Defendants through their websites either by chat or inquiry form.

34. Further, in concert with distributors and customers, Defendants cause or induce infringing accused products to be made, used, offered to be sold, sold within the United States, or imported into the United States. Defendants' downstream customers for infringing products include United States companies Microsoft, Meta, Amazon Web Services, Hewlett Packard Enterprises ("HPE") and Aruba Networking. Defendants are aware these companies are located in the United States, and sell products within the United States, including products that incorporate Defendants' Accused Products.

35. Upon information and belief, in concert with contract manufacturers, suppliers, and/or assembly facilities, Defendants sell all or a substantial portion of the components of products that practice the claimed inventions, or components of the claimed inventions especially made or especially adapted for the use in the claimed invention, in the form of a finished electronic device.

36. Upon information and belief, Defendants actively induce the combination of such components into a product that practices the claimed inventions, and/or knowingly sell one or

more components of MPS's patented inventions intending those components to be combined in a manner that infringe the MPS Patent.

37. Specifically, Reed and Nengda have designed and continue to design and manufacture power regulators that practice the MPS Patent, whether alone, or in combination with other components in a finished electronic device. The Reed and Nengda Accused Products include, as non-limiting examples, products identified in Exhibit 2.

38. Further, upon information and belief, Defendants sell at least one component, specifically designed for use in a patented invention to contract manufacturers. Those contract manufacturers then assemble the components received from Defendants into infringing products. Specifically, some contract manufacturers with whom Defendants coordinate to make infringing products include Taiwan-based manufacturers Accton, Foxconn, Quanta, and Wiyynn.

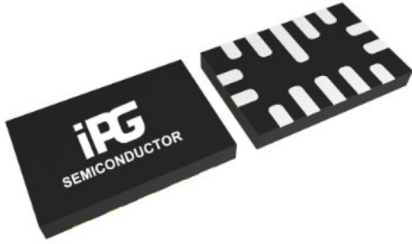
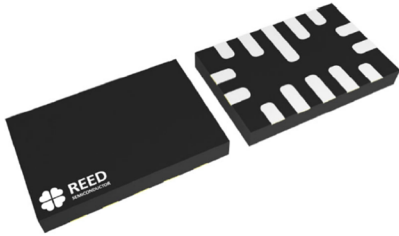
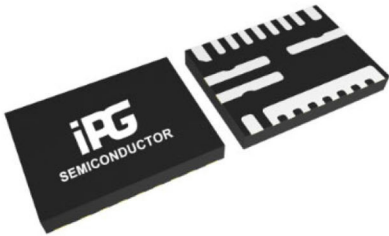
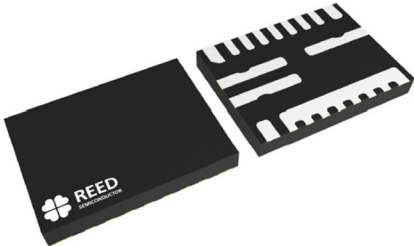
39. Upon information and belief, these infringing products are then sold to Defendants' branded customers, who incorporate the Reed and Nengda Accused Products into their products, which are finished electronic devices. Defendants actively induce such infringement by providing datasheets and other technical and marketing materials that actively encourage Defendants' customers to incorporate and implement the Reed and Nengda Accused Products in an infringing manner. Defendants' customers' products are then imported into and sold in the United States. For example, Defendants work with contract manufacturer Accton to knowingly provide infringing products to HPE Aruba Networking for its branded networking products, which are sold in the United States, including in Delaware. Defendants either know or are willfully blind to the fact that U.S.-based HPE Aruba Networking sells products in the U.S. For example, the "Contact Sales" web page for HPE Aruba Networking defaults to a "Country/Region" of "United States."

40. Upon information and belief, Defendants Reed and Nengda are affiliated based on their selling of the same products.

41. Upon information and belief, Reed and Nengda are affiliated based on the involvement of the same individual in both sets of companies. For example, the Chief Executive Officer of Reed, Wenkai Wu, claims to be the majority shareholder of Nengda Microelectronics and was until recently listed as the President and Board Member of Nengda Microelectronics. Meanwhile, the President of Nengda Microelectronics, who is also the majority shareholder of Nengda Semiconductor, has been disclosed in Reed's initial disclosures in C.A. Nos. 23-1155 and 24-165 as the Vice President of Research & Development at Reed with knowledge of the accused Reed products, at the same time that he is a principal of both Nengda entities. As a result, upon information and belief, Defendants have had knowledge of MPS Patents and their infringement since at least the filing of the Reed '608 Patent Case, (Monolithic Power Systems, Inc. v. Reed Semiconductor Corp., No. 23-1155, D.I. 1 (Oct 13, 2023)), because that filing would have prompted Defendants to investigate MPS's patent portfolio, including the MPS Patents.

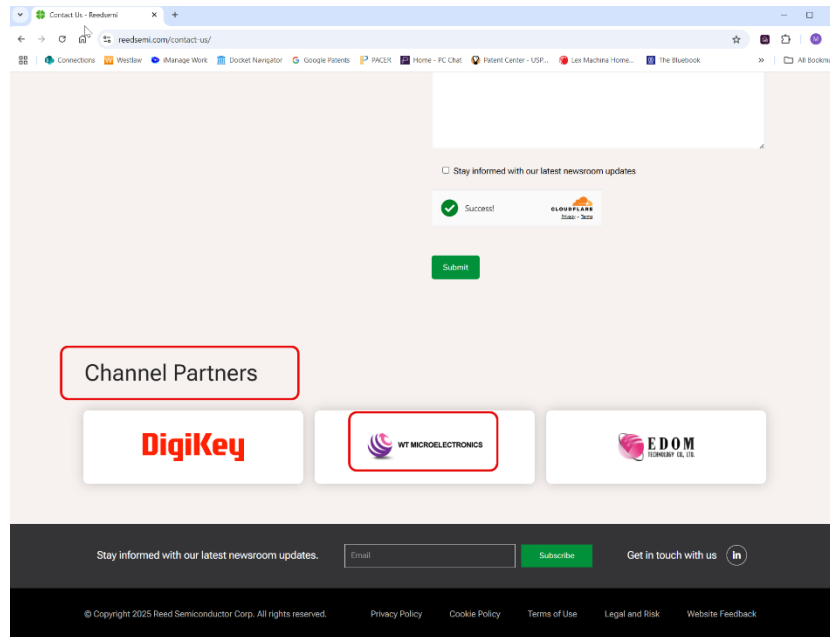
42. Reed and, for the above-reasons, Nengda, both had pre-suit knowledge of the '078 Patent since at least a January 29, 2024 e-mail to Reed's counsel identifying the '078 Patent and providing a draft complaint asserting infringement of the MPS Patent.

43. Examples of the same products between Reed and Nengda (under Defendant Nengda Microelectronics' brand "iPG Semi") and Reed include the RS53319 and the RS53317. Defendants' and Reed's website product-pages for each of those products (as of March 14, 2024) include substantively identical schematics, features lists, descriptions, and applications. Even the chip images and layout appear identical apart from the branding changes:

 RS53317 https://www.ipgsemi.com/productinfo/1977840.html	 https://www.reedsemi.com/product_detail.php?id=36
 RS53319 https://www.ipgsemi.com/productinfo/1980605.html	 https://www.reedsemi.com/product_detail.php?id=37

44. Reed is incorporated in Delaware, and upon information and belief, Nengda and WT Microelectronics coordinate with Reed and otherwise leverage their relationship with Reed to benefit from Reed's activities in the United States and Delaware.

45. Upon information and belief, Reed identifies WT Microelectronics as a channel partner:



46. Upon information and belief, Reed and Nengda have had knowledge of the MPS Patent since its issuance, because, as an active competitor to MPS, Reed and Nengda would have periodically investigated MPS's patent portfolio.

47. Defendants have had knowledge of the MPS Patent since at least as of the filing of this complaint.

48. Defendants' infringement has been and continues to be willful.

49. As shown in Exhibit 2, the exemplary Reed RS53319 sync step-down converter infringes at least one claim of the MPS Patent.

50. Upon information and belief, Reed and Nengda design and manufacture many different power regulator devices using similar designs, many or all of which utilize MPS's protected intellectual property. On information and belief, WT Microelectronics sells all such

similar Reed and Nengda power regulator devices.

51. Upon information and belief, the Reed and Nengda power regulator devices are in relevant part substantially similar to the exemplary Reed RS53319 sync step-down converter shown in Exhibit 2. Exhibit 2 is thus illustrative of the manner in which the Reed and Nengda Accused Products meet the claim limitations of the MPS Patent.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 10,075,078

52. MPS incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint and exhibits attached hereto as if fully set forth herein.

53. The following allegations are based on publicly available information and a reasonable investigation of the structure and operation of the Reed and Nengda Accused Products. MPS reserves the right to modify this description, including, for example, on the basis of information about the Reed and Nengda Accused Products that it obtains during discovery.

54. Defendants' infringement has damaged and continues to damage MPS in an amount yet to be determined, of at least a reasonable royalty.

55. Defendants have directly infringed the '078 Patent under 35 U.S.C. § 271(a). As alleged above and in Exhibit 2, the Reed and Nengda Accused Products including the exemplary product analyzed in Exhibit 2 meet each and every one of the claim limitations of at least one claim of the '078 Patent.

56. As alleged above, the products analyzed in Exhibit 2 are exemplary of the Reed and Nengda Accused Products.

57. As alleged above, Defendants have infringed and continue to infringe at least one claim of the '078 Patent by making, using, offering to sell, selling within the United States, and

importing into the United States, Reed and Nengda Accused Products. Defendants' infringement is and continues to be willful.

58. As alleged above, Defendants have actively induced infringement under 35 U.S.C. § 271(b) of at least one claim of the '078 Patent. Specifically, Defendants understand, intend, and encourage their products to be incorporated into infringing downstream electronic products developed by Defendants' customers. Defendants sell the Reed and Nengda Accused Products to customers, either directly or indirectly, knowing and intending that the Reed and Nengda Accused Products will be implemented in an infringing manner as described in Reed and Nengda datasheets. In fact, Defendants actively encourage such infringement by using Reed and Nengda datasheets and other technical and marketing materials to inform downstream customers how to incorporate the Reed and Nengda Accused Products in infringing manner. Defendants work directly with their customers to help them develop products that infringe with full knowledge of such infringement. Defendants' customers' products are manufactured by contract manufacturers, and then imported into the U.S. and/or sold throughout the U.S. by Defendants' downstream customers and their retailers.

59. As alleged above, Defendants have actively contributed to infringement under 35 U.S.C. § 271(c) of at least one claim of the '078 Patent, because the Reed and Nengda Accused Products constitute a material part of the infringing functionality of the '078 Patent, and are knowingly made and/or sold by Defendants for use in an infringing downstream product. The Reed and Nengda Accused Products are not a staple article or commodity of commerce suitable for substantial noninfringing use because the datasheets and other technical and marketing materials created and/or distributed by Defendants for those products confirm that they must be implemented in a downstream device in an infringing manner. Defendants' customer's products

are manufactured by contract manufacturers, and then imported into the U.S. and/or sold throughout the U.S. by Defendants' downstream customers and their retailers.

60. Defendants' infringement has damaged and continues to damage MPS in an amount yet to be determined, of at least a reasonable royalty.

61. While Defendants sell the same products, Defendants must be involved in the supply chain in Asia, including marketing and selling to contract manufacturers in Asia like Taiwan-based Accton, which manufactures products for U.S.-based HPE Aruba (with whom Defendants must work on the "design in" process), which products Defendants know (or are willfully blind to the fact that they) are then sold throughout the U.S. As a result, Defendants' interaction with contract manufacturers and designing-in products for U.S.-based brand companies leads to the reasonably foreseeable result that Defendants' Accused Products are incorporated into end products sold in the U.S. including this District.

62. As a consequence of Defendants' infringement of the '078 Patent, MPS has suffered and will continue to suffer irreparable harm and injury, for example, in the form of lost sales, lost profits and loss of market share. Unless enjoined, Defendants and/or others acting on behalf of Defendants will continue their infringing acts, thereby causing additional irreparable injury to MPS for which there is no adequate remedy at law. Specifically, Defendants' actions will irreparably harm MPS's position in the power converter market by causing MPS to lose customers.

DAMAGES

63. As a result of Defendants' acts of infringement, MPS has suffered and continues to suffer actual and consequential damages. However, MPS does not yet know the full extent of the infringement and the amount of damages cannot be ascertained except through discovery and

special accounting. To the fullest extent permitted by law, MPS seeks recovery of damages at least for reasonable royalties, lost profits, unjust enrichment, and benefits received by Defendants as a result of using the patented technology. MPS further seeks any other damages to which MPS is entitled under law or in equity, including enhanced damages for Defendants' willful infringement.

DEMAND FOR JURY TRIAL

64. MPS hereby demands a jury trial for all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, MPS respectfully requests that this Court enter judgment in its favor as follows:

A. That Judgment be entered that Defendants have infringed one or more claims of the MPS Patent, literally and under the doctrine of equivalents;

B. That, in accordance with 35 U.S.C. § 283, Defendants and all their affiliates, employees, agents, officers, directors, attorneys, successors, and assigns and all those acting on behalf of or in active concert or participation with any of them, be preliminarily and permanently enjoined from (1) infringing the MPS Patent and (2) making, using, selling, and offering for sale, or importing into the United States, and (3) exporting from the United States one or more components of, the Reed and Nengda Accused Products;

C. That MPS be awarded damages sufficient to compensate MPS for Defendants' infringement and enhanced damages under 35 U.S.C. § 284; including an accounting of lost sales not presented at trial and an award of additional damages for any such lost sales;

D. That the case be found exceptional under 35 U.S.C. § 285 and that MPS be awarded its reasonable attorneys' fees;

E. That MPS be awarded its costs and expenses in this action;

- F. That MPS be awarded damages for pre-issuance infringement under 35 U.S.C. §154(d);
- G. That MPS be awarded prejudgment and post-judgment interest; and
- H. Such other and further relief as the Court may deem just and proper.

ASHBY & GEDDES

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