

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

NORTHSTAR SYSTEMS LLC,)	
)	Case No.
Plaintiff,)	
)	<u>JURY TRIAL DEMANDED</u>
v.)	
)	
MEDIATEK INC.,)	
)	
Defendant.)	
)	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff NorthStar Systems LLC (“NorthStar” or “Plaintiff”) for its Complaint against Defendant MediaTek Inc. (“MediaTek” or “Defendant”) alleges as follows:

THE PARTIES

1. NorthStar is a limited liability company organized and existing under the laws of the State of Texas, with its principal place of business located at 104 E. Houston Street, Marshall, Texas 75670.

2. Upon information and belief, MediaTek is a Taiwanese corporation with its principal place of business located at No. 1, Dusing 1st Road, Hsinchu Science Park, Hsinchu City 30078 Taiwan, Republic of China. Upon information and belief, MediaTek does business in Texas and in the Eastern District of Texas, directly or through intermediaries.

JURISDICTION

3. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1, *et seq.* This Court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

4. This Court has personal jurisdiction over Defendant. Defendant regularly conducts business and has committed acts of patent infringement and/or has induced acts of patent infringement by others in this Judicial District and/or has contributed to patent infringement by others in this Judicial District, the State of Texas, and elsewhere in the United States.

5. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1391 because, among other things, Defendant is not a resident in the United States, and thus may be sued in any judicial district pursuant to 28 U.S.C. § 1391(c)(3).

6. Defendant is subject to this Court's jurisdiction pursuant to due process and/or the Texas Long Arm Statute due at least to its substantial business in this State and Judicial District, including (a) at least part of its past infringing activities, (b) regularly doing or soliciting business in Texas, and/or (c) engaging in persistent conduct and/or deriving substantial revenue from goods and services provided to customers in Texas.

PATENTS-IN-SUIT

7. On January 20, 2004, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 6,681,181 (the "'181 Patent") entitled "GPS Receiver with Improved Immunity to Burst Transmissions." A true and correct copy of the '181 Patent is available at: <https://pdfpiw.uspto.gov/.piw?PageNum=0&docid=06681181>.

8. On September 20, 2005, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 6,947,840 (the "'840 Patent") entitled "GPS Receiver with Improved Immunity to Burst Transmissions." A true and correct copy of the '840 Patent is available at: <https://pdfpiw.uspto.gov/.piw?PageNum=0&docid=06947840>.

9. On February 7, 2006, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 6,995,708 (the "'708 Patent") entitled "Local Positioning System."

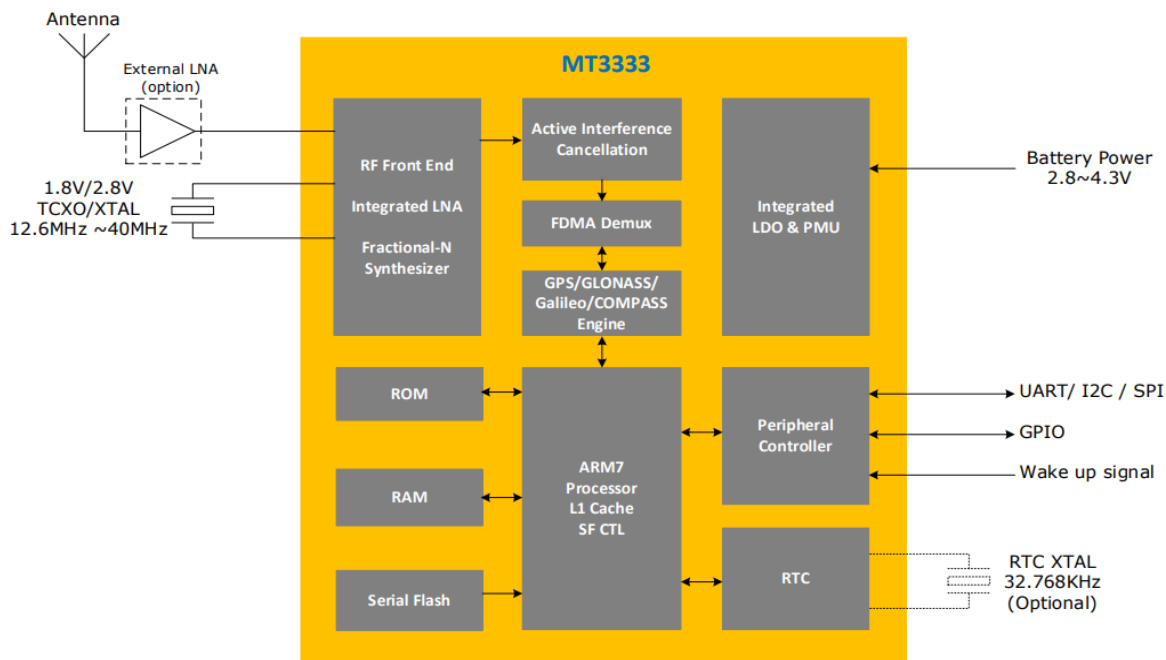
A true and correct copy of the '708 Patent is available at: <https://pdfpiw.uspto.gov/.piw?PageNum=0&docid=6995708>.

10. On August 12, 2014, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,805,416 (the "'416 Patent") entitled "Method and System for Mobile Device Selectively Reporting of GPS Position Information to Others." A true and correct copy of the '416 Patent is available at: <https://pdfpiw.uspto.gov/.piw?PageNum=0&docid=8805416>.

11. NorthStar is the sole and exclusive owner of all right, title, and interest in the '181 Patent, the '708 Patent, the '840 Patent, and the '416 Patent (collectively, the "Patents-in-Suit") and holds the exclusive right to take all actions necessary to enforce its rights to the Patents-in-Suit, including the filing of this patent infringement lawsuit. NorthStar also has the right to recover all damages for past, present, and future infringement of the Patents-in-Suit and to seek injunctive relief as appropriate under the law.

FACTUAL ALLEGATIONS

12. The '181 Patent and the '840 Patent generally relate to technology to improve GPS signals when there is radio wave interference. On information and belief, the technology described in the '181 and '840 Patents was developed by inventor Dennis Artur Fielder at Sige Semiconductor Inc. For example, this technology is implemented in devices that include GPS receivers and/or radio receivers with radio-front and back-ends that operate to reduce interference. Infringing products include, but are not limited to, MediaTek SoCs and GPS modules including, but not limited to, MT3333, MT3337, MT3339, MT6737, and MT6797, among other products. An example of a GPS module is depicted below:



1

13. The '708 Patent generally relates to technology for determining the position of a mobile device using an earth-based position system. On information and belief, the technology described in the '708 Patent was developed by Dominik J. Schmidt at Gallitzin Allegheny LLC. For example, this technology is implemented in devices that include assisted GPS capabilities. Infringing products include, but are not limited to, MediaTek SoCs and GPS modules including, but not limited to, MT3333, MT3337, MT3339, MT6737, and MT6797, among other products.

14. The '416 Patent generally relates to privacy enhancement technology that teaches a device with location tracking capabilities to prevent it from transmitting its position. On information and belief, the technology described in the '416 Patent was developed by inventor Scott Harris. For example, this technology is implemented in devices that include GPS modules.

¹ https://d86o2zu8ugzlg.cloudfront.net/mediatek-craft/documents/mt3333/MT3333_Product_Brief.pdf

Infringing products include, but are not limited to, MediaTek SoCs and GPS modules including, but not limited to, MT3333, MT3337, MT3339, MT6737, and MT6797, among other products.

15. MediaTek has infringed and is continuing to infringe the Patents-in-Suit by making, using, selling, offering to sell, and/or importing, and by actively inducing others to make, use, sell, offer to sell, and/or import SoC chips, and/or products that include SoC chips, which chips include radio capabilities and/or GPS capabilities including, but not limited to, MT3333, MT3337, MT3339, MT6737, and MT6797, among other products.

COUNT I
(Infringement of the '181 Patent)

16. Paragraphs 1 through 15 are incorporated by reference as if fully set forth herein.

17. NorthStar has not licensed or otherwise authorized Defendant to make, use, offer for sale, sell, or import any products that embody the inventions of the '181 Patent.

18. Defendant has and continues to directly infringe the '181 Patent, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, selling, and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '181 Patent. Such products include, but are not limited to, SoC chips that include GPS capabilities, such as the MT3333, MT3337, MT3339, MT6737, and MT6797.

19. Defendant has and continues to directly infringe at least claim 1 of the '181 Patent by making, using, offering to sell, selling, and/or importing into the United States products, such as the MediaTek MT3333, which include a GPS receiver with a radio front-end and a radio back-end. Upon information and belief, the radio front-end performs down-conversion of at least one GPS radio signal received at a Radio Frequency (RF) to an Intermediate Frequency (IF), and the radio back-end deriving a bit stream of digital data from the at least one GPS radio signal after it

has been down converted to the IF and processing the bit-stream of digital data. Upon information and belief, the GPS receiver accomplishes this by first sensing an overload condition in the radio front-end when the received radio signal is above a threshold. Upon information and belief, the GPS receiver then generates an overload signal upon sensing the overload condition of the radio front-end. Upon information and belief, the GPS receiver next couples the overload signal into the radio back-end. Upon information and belief, the GPS receiver substitutes in the radio back-end the bit-stream of digital data with a locally generated bit pattern in response to the presence of the overload signal, and the locally generated bit pattern being selected such that when processed it causes less noise to accumulate in the radio back-end than if the bit-stream of digital data were processed.

20. Defendant has and continues to indirectly infringe one or more claims of the '181 Patent by knowingly and intentionally inducing others, including MediaTek customers and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, selling, and/or importing into the United States products that include infringing technology.

21. Defendant, with knowledge that these products, or the use thereof, infringe the '181 Patent at least as early as February 2, 2014², knowingly and intentionally induced, and continues to knowingly and intentionally induce direct infringement of the '181 Patent by providing these products to end-users for use in an infringing manner.

22. Defendant has and continues to induce infringement by others, including end-users,

² The '181 Patent family was cited against MediaTek's own U.S. Patent Application No. 13/927098, which was published on February 2, 2014. The '181 Patent family was also cited against MediaTek's U.S. Patent Application No. 13/912209, which issued as U.S. Patent No. 8,890,727 on November 18, 2014.

with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end-users, infringe the '181 Patent, but while remaining willfully blind to the infringement.

23. NorthStar has suffered damages as a result of Defendant's direct and indirect infringement of the '181 Patent in an amount to be proved at trial.

24. NorthStar has suffered, and will continue to suffer, irreparable harm as a result of Defendant's infringement of the '181 Patent, for which there is no adequate remedy at law, unless Defendant's infringement is enjoined by this Court.

COUNT II
(Infringement of the '840 Patent)

25. Paragraphs 1 through 15 are incorporated by reference as if fully set forth herein.

26. NorthStar has not licensed or otherwise authorized Defendant to make, use, offer for sale, sell, or import any products that embody the inventions of the '840 Patent.

27. Defendant has and continues to directly infringe the '840 Patent, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, selling, and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '840 Patent. Such products include, but are not limited to, SoC chips that include GPS capabilities, such as the MT3333, MT3337, MT3339, MT6737, and MT6797.

28. Defendant has and continues to directly infringe at least claim 1 of the '840 Patent by making, using, offering to sell, selling, and/or importing into the United States products, such as the MediaTek MT3333, which include a radio receiver with a radio front-end and a radio back-end. Upon information and belief, the radio receiver performs the function of sensing an overload condition in the radio receiver front-end when a received radio signal is above a threshold. Upon

information and belief, the radio receiver then generates an overload signal in response to sensing the overload condition. Upon information and belief, the radio receiver next couples the signal received into a radio back-end. Upon information and belief, the radio receiver lastly couples the locally generated bit pattern in the back-end in response to the overload signal, and the locally generated bit pattern being selected such that when processed it causes less noise to accumulate in the back-end than if a bit-stream derived from the received radio signal were processed.

29. Defendant has and continues to indirectly infringe one or more claims of the '840 Patent by knowingly and intentionally inducing others, including MediaTek customers and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, selling, and/or importing into the United States products that include infringing technology.

30. Defendant, with knowledge that these products, or the use thereof, infringe the '840 Patent at least as of February 2, 2014³, knowingly and intentionally induced, and continues to knowingly and intentionally induce direct infringement of the '840 Patent by providing these products to end-users for use in an infringing manner.

31. Defendant has and continues to induce infringement by others, including end-users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end-users, infringe the '840 Patent, but while remaining willfully blind to the infringement.

32. NorthStar has suffered damages as a result of Defendant's direct and indirect

³ The '181 Patent family was cited against MediaTek's own U.S. Patent Application No. 13/927098, which was published on February 2, 2014. The '181 Patent family was also cited against MediaTek's U.S. Patent Application No. 13/912209, which issued as U.S. Patent No. 8,890,727 on November 18, 2014.

infringement of the '840 Patent in an amount to be proved at trial.

33. NorthStar has suffered, and will continue to suffer, irreparable harm as a result of Defendant's infringement of the '840 Patent, for which there is no adequate remedy at law, unless Defendant's infringement is enjoined by this Court.

COUNT III
(Infringement of the '708 Patent)

34. Paragraphs 1 through 15 are incorporated by reference as if fully set forth herein.

35. NorthStar has not licensed or otherwise authorized Defendant to make, use, offer for sale, sell, or import any products that embody the inventions of the '708 Patent.

36. Defendant has and continues to directly infringe the '708 Patent, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, selling, and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '708 Patent. Such products include, but are not limited to, SoC chips that include GPS capabilities, such as the MT3333, MT3337, MT3339, MT6737, and MT6797.

37. Defendant has and continues to directly infringe at least claim 1 of the '708 Patent by making, using, offering to sell, selling, and/or importing into the United States products, such as the MediaTek MT3333, which include a GPS receiver. Upon information and belief, the GPS receiver determines the position of a user by: sniffing for one or more earth-based media with a mobile device; and if the one or more earth-based media is present, using an earth-based position system (PS) receiver of the mobile device selected from one of a short-range wireless receiver of the mobile device to determine the position, otherwise using a satellite-based PS receiver of the mobile device to determine the position only if the one or more earth-based media are not present, using code of the mobile device to fix the mobile device to favor use of the earth-based PS receiver

over the satellite-based PS receiver.

38. Defendant has and continues to indirectly infringe one or more claims of the '708 Patent by knowingly and intentionally inducing others, including MediaTek customers and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, selling, and/or importing into the United States products that include infringing technology.

39. Defendant, with knowledge that these products, or the use thereof, infringe the '708 Patent at least as of the date of this Complaint, knowingly and intentionally induced, and continues to knowingly and intentionally induce direct infringement of the '708 Patent by providing these products to end-users for use in an infringing manner.

40. Defendant has and continues to induce infringement by others, including end-users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end-users, infringe the '708 Patent, but while remaining willfully blind to the infringement.

41. NorthStar has suffered damages as a result of Defendant's direct and indirect infringement of the '708 Patent in an amount to be proved at trial.

42. NorthStar has suffered, and will continue to suffer, irreparable harm as a result of Defendant's infringement of the '708 Patent, for which there is no adequate remedy at law, unless Defendant's infringement is enjoined by this Court.

COUNT IV
(Infringement of the '416 Patent)

43. Paragraphs 1 through 15 are incorporated by reference as if fully set forth herein.

44. NorthStar has not licensed or otherwise authorized Defendant to make, use, offer for sale, sell, or import any products that embody the inventions of the '416 Patent.

45. Defendant has and continues to directly infringe the '416 Patent, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, selling, and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '416 Patent. Such products include, but are not limited to, SoC chips that include GPS capabilities, such as the MT3333, MT3337, MT3339, MT6737, and MT6797.

46. Defendant has and continues to directly infringe at least claim 1 of the '416 Patent by making, using, offering to sell, selling, and/or importing into the United States products, such as the MediaTek MT6737 SoC, which include Assisted GPS functionality.⁴ Upon information and belief, the MT6797 receives, by a mobile communication device, information about a current location of the mobile communication device, which includes GPS information. Upon information and belief, the MT6797 is utilized by a mobile communication device to perform the functions of: detecting signal interference; generating an indication of the signal interference; communicating with a remote source over a wireless network (e.g. cellular carrier or other servers), wherein the communication includes sending both the indication of the signal interference and the GPS information to the remote source. The MT6797 further receives navigation information from the remote source in response to sending both the indication of the signal interference and the GPS information, wherein the navigation information comprises data for plotting a course on a map, including the current location of the mobile communication device, and displaying, by the mobile communication device, the map based on the navigation information.⁵

⁴ https://www.96boards.org/documentation/consumer/mediatekx20/additional-docs/docs/MT6797_Functional_Specification_V1_0.pdf at p. 18 (listing “Full A-GPS capability”)

⁵ See, e.g., https://www.96boards.org/documentation/consumer/mediatekx20/additional-docs/docs/MT6797_Functional_Specification_V1_0.pdf at p. 11 (describing Navigation features)

47. Defendant has and continues to indirectly infringe one or more claims of the '416 Patent by knowingly and intentionally inducing others, including MediaTek customers and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, selling, and/or importing into the United States products that include infringing technology.

48. Defendant, with knowledge that these products, or the use thereof, infringe the '416 Patent at least as of the date of this Complaint, knowingly and intentionally induced, and continues to knowingly and intentionally induce direct infringement of the '416 Patent by providing these products to end-users for use in an infringing manner.

49. Defendant has and continues to induce infringement by others, including end-users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end-users, infringe the '416 Patent, but while remaining willfully blind to the infringement.

50. NorthStar has suffered damages as a result of Defendant's direct and indirect infringement of the '416 Patent in an amount to be proved at trial.

51. NorthStar has suffered, and will continue to suffer, irreparable harm as a result of Defendant's infringement of the '416 Patent, for which there is no adequate remedy at law, unless Defendant's infringement is enjoined by this Court.

DEMAND FOR JURY TRIAL

Plaintiff hereby demands a jury for all issues so triable.

associated with the MT6797 SoC – “The application processor, a Tri-cluster having Multi-core ARM® Cortex-A72 and ARM® Cortex-A53 MPCore™ equipped with NEON engine offers processing power necessary to support the latest OpenOS along with its demanding applications such as web browsing, email, **GPS navigation** and games.”) (emphasis added).

PRAYER FOR RELIEF

WHEREFORE, EGT prays for relief against Defendant as follows:

- a. Entry of judgment declaring that Defendant has directly and/or indirectly infringed one or more claims of the Patents-in-Suit;
- b. An order pursuant to 35 U.S.C. § 283 permanently enjoining Defendant, its officers, agents, servants, employees, attorneys, and those persons in active concert or participation with it, from further acts of infringement of the Patents-in-Suit;
- c. An order awarding damages sufficient to compensate NorthStar for Defendant's infringement of the Patents-in-Suit, but in no event less than a reasonable royalty, together with interest and costs;
- d. Entry of judgment declaring that this case is exceptional and awarding NorthStar its costs and reasonable attorney fees under 35 U.S.C. § 285; and
- e. Such other and further relief as the Court deems just and proper.

Dated: May 5, 2022

Respectfully submitted,

/s/ Vincent J. Rubino, III

Alfred R. Fabricant
NY Bar No. 2219392
Email: ffabricant@fabricantllp.com
Peter Lambrianakos
NY Bar No. 2894392
Email: plambrianakos@fabricantllp.com
Vincent J. Rubino, III
NY Bar No. 4557435
Email: vrubino@fabricantllp.com
FABRICANT LLP
411 Theodore Fremd Avenue, Suite 206
South
Rye, New York 10580
Telephone: (212) 257-5797
Facsimile: (212) 257-5796

John Andrew Rubino
NY Bar No. 5020797
Email: jarubino@rubinoip.com
Michael Mondelli III
NY Bar No. 5805114
Email: mmondelli@rubinoip.com
RUBINO LAW LLC
830 Morris Turnpike
Short Hills, New Jersey 07078
Telephone: (973) 535-0920
Facsimile: (973) 535-0921

Justin Kurt Truelove
Texas Bar No. 24013653
Email: kurt@truelovelawfirm.com
TRUELOVE LAW FIRM, PLLC
100 West Houston Street
Marshall, Texas 75670
Telephone: (903) 938-8321
Facsimile: (903) 215-8510

**ATTORNEYS FOR PLAINTIFF,
NORTHSTAR SYSTEMS LLC**