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

TYCHE LICENSING LLC,	§	Case No.
Plaintiff,	§	**JURY TRIAL DEMANDED**
v.	§	
MEDIATEK INC.,	§	
Defendant.	§	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Tyche Licensing LLC ("Tyche" or "Plaintiff") for its Complaint against Defendant MediaTek Inc. ("MediaTek" or "Defendant"), alleges as follows:

THE PARTIES

1. Tyche is a limited liability company organized and existing under the laws of the State of Texas, with its principal place of business located at 100 West 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.

JURISDICTION

3. This Court has personal jurisdiction over Defendant. Defendant conducts business and has committed acts of patent infringement in this Judicial District, the State of Texas, and elsewhere in the United States.

4. 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 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. Upon information and belief, Defendant, directly or indirectly, participates in the stream of commerce that results and resulted in products, including the accused products, being made, used, offered for sale, and/or sold in the State of Texas and/or imported into the United States to the State of Texas.

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).

PATENTS-IN-SUIT

6. On May 31, 2005, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 6,900,087 (the "'087 Patent") entitled "Symmetric Inducting Device for an Integrated Circuit Having a Ground Shield." A true and correct copy of the '087 Patent is available at https://pdfpiw.uspto.gov/.piw?PageNum=0&docid=06900087.

7. On August 1, 2006, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,084,481 (the "'481 Patent") entitled "Symmetric Inducting Device for an Integrated Circuit Having a Ground Shield." A true and correct copy of the '481 Patent is available at https://pdfpiw.uspto.gov/.piw?PageNum=0&docid=7084481.

8. Tyche is the sole and exclusive owner of all right, title, and interest in the'087 Patent and the '481 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. Tyche 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.

9. Tyche has at all times complied with the marking provisions of 35 U.S.C. § 287 with respect to the Patents-in-Suit.

FACTUAL ALLEGATIONS

10. The Patents-in-Suit generally cover systems and methods related to inducting devices in integrated circuits.

11. The technology described in the '087 Patent was developed by Rex Everett Lowther and William R. Young of Globespan Virata Inc. By way of example, this technology is implemented today in integrated circuits used in wireless communication devices.

12. The technology described in the '481 Patent was developed by Rex Everett Lowther and William R. Young of Conexant Systems, Inc. By way of example, this technology is implemented today in integrated circuits used in wireless communication devices.

13. MediaTek has infringed and is continuing to infringe one or more of 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 devices containing integrated circuits with symmetric inductors (the "Accused Products"). Such products include, but are not limited to, MT2502, MT2523D, MT2601, MT2621, MT2625, MT2706, MT2811SP, MT2822SA, MT3303, MT3332, MT3333, MT3337, MT3339, MT3729, MT5931, MT5932, MT6177HW, MT6186MV, MT6190MV, MT6190W, MT6191, MT6280, MT6630, MT6635XP, MT6890, MT7601, MT7603, MT7610, MT7612, MT7615, MT7620, MT7621, MT7622, MT7623, MT7628, MT7630, MT7658CSN, MT7662, MT7668, MT7681, MT7687, MT7688, MT7697, MT81675,

MT7686, MT7682, MT7697, MT7915, MT7975DN, MT8127, MT8163V/A, MT8163V/B, MT8167A, MT8167B, MT8168, MT8173, MT8175, MT8176, MT8321, MT8507, MT8516, MT8735B, MT8735D, MT8735P, MT8735M, MT8766B, MT8783, MT8785, MT8788, RT2070, RT2760, RT2770, RT2790, RT2860, RT2870, RT2890, RT309x, RT3062, RT3070, RT3290, RT3370, RT3562, RT3572, RT3573, RT3593, RT3662, RT3883, RT5370, RT5372, RT539x, RT5572, RT5592, RT8070, MediaTek Dimensity 700, MediaTek Dimensity 720, MediaTek Dimensity 800, MediaTek Dimensity 810, MediaTek Dimensity 820, MediaTek Dimensity 900, MediaTek Dimensity 920, MediaTek Dimensity 1000, MediaTek Dimensity 1100, MediaTek Dimensity 1200, MediaTek Dimensity 1300, MediaTek Dimensity 8000, MediaTek Dimensity 8100, MediaTek Dimensity 9000, MediaTek Filogic 330, MediaTek Filogic 630, MediaTek Filogic 830, MediaTek Genio 130, MediaTek Genio 350, MediaTek Genio 350 EVK, MediaTek Genio 500, MediaTek Helio A20, MediaTek Helio A22, MediaTek Helio A25, MediaTek Helio G25, MediaTek Helio G35, MediaTek Helio G37, MediaTek Helio G70, MediaTek Helio G80, MediaTek Helio G85, MediaTek Helio G88, MediaTek Helio G90, MediaTek Helio G95, MediaTek Helio G96, MediaTek Helio P10, MediaTek Helio P20, MediaTek Helio P22, MediaTek Helio P23, MediaTek Helio P22T, MediaTek Helio P25, MediaTek Helio P30, MediaTek Helio P35, MediaTek Helio P60, MediaTek Helio P65, MediaTek Helio P70, MediaTek Helio P90, MediaTek Helio P95, MediaTek Kompanio 500, MediaTek Kompanio 800T, MediaTek Kompanio 820, MediaTek Kompanio 900T, MediaTek Kompanio 1300T, MediaTek Kompanio 1380, and any variants and other MediaTek processors within the same product families as those named herein.

COUNT I
(Infringement of the ’087 Patent)

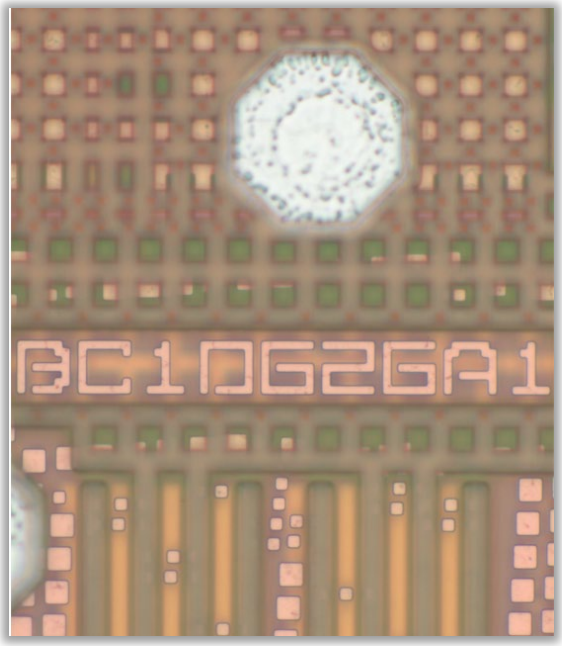
14. Paragraphs 1 through 13 are incorporated by reference as if fully set forth herein.

15. Tyche has not licensed or otherwise authorized Defendant to make, use, offer for sale, sell, or import any products that embody the inventions of the ’087 Patent.

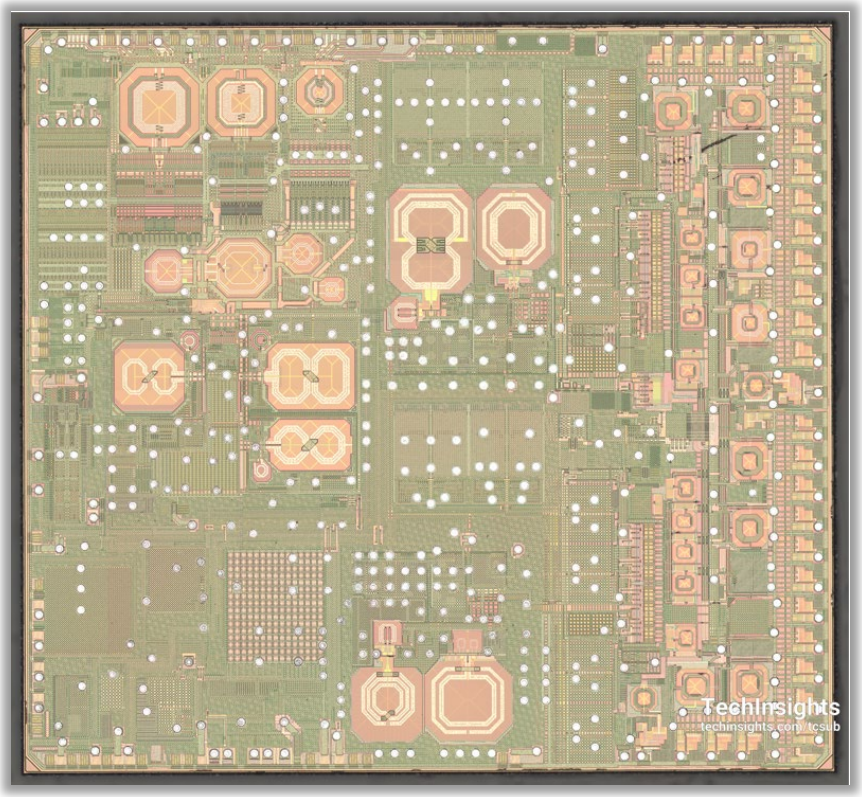
16. Defendant has and continues to directly infringe the ’087 Patent, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, selling, and/or importing into the United States the Accused Products made using the patented methods including, but not limited to, products that satisfy each and every limitation of one or more claims of the ’087 Patent. Upon information and belief, such products include at least MediaTek processors containing a symmetric inductor with current routers in an integrated circuit.

17. For example, Defendant has and continues to directly infringe at least claim 17 of the ’087 Patent by making, using, offering to sell, selling, and/or importing into the United States products that include a symmetric inducting device for an integrated circuit. For example, the Accused Products, including the MT6177 processor, include a symmetric inducting device for an integrated circuit. The symmetric inducting device is produced by performing a method of forming a symmetric inducting device for an integrated circuit. The method includes patterning one or more pairs of current path regions in a main metal layer that overlays a working surface of a substrate of an integrated circuit, wherein each pair of current path regions are patterned to be generally symmetric about a plane of symmetry that is perpendicular to the working surface of the substrate.

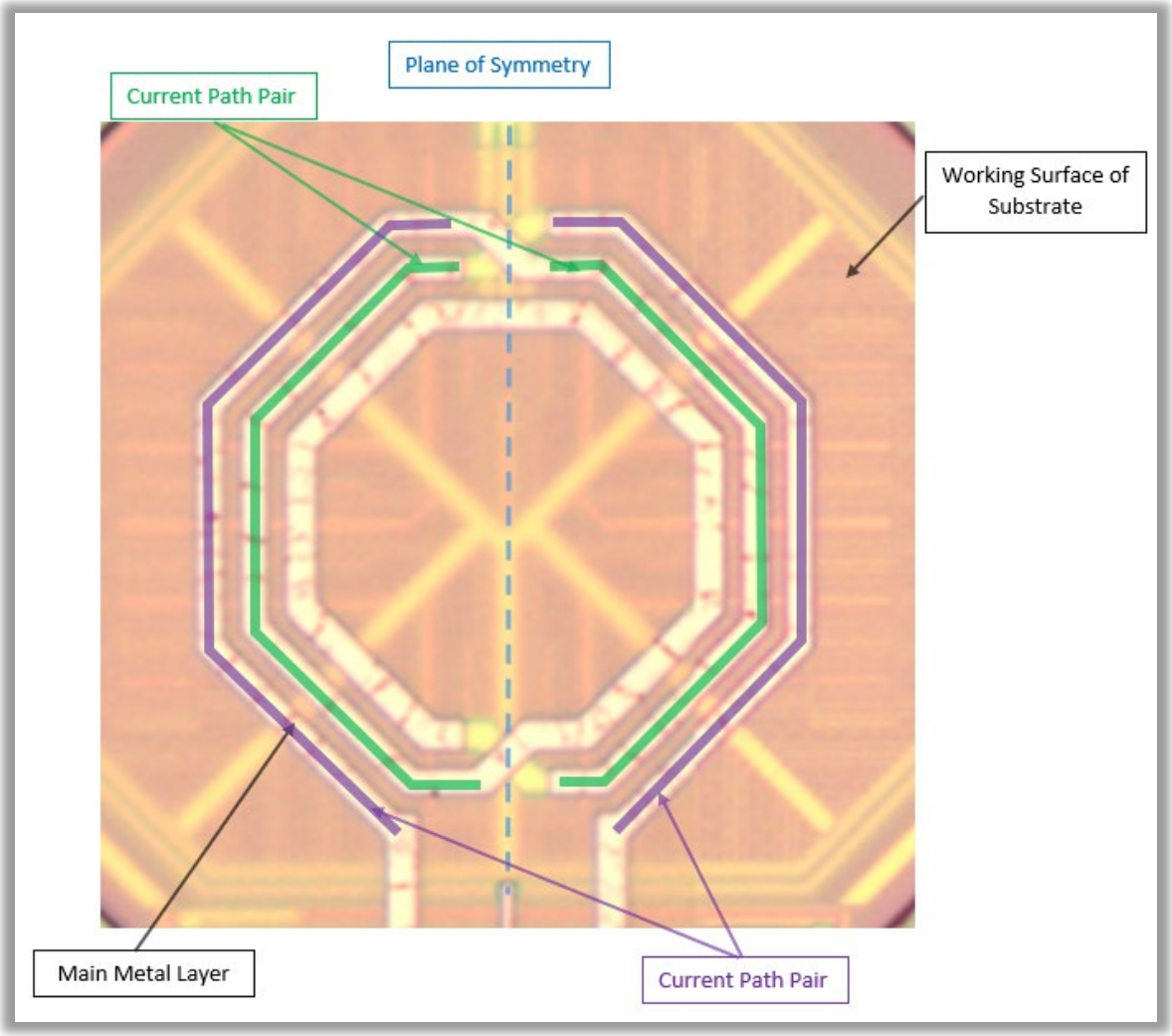
MediaTek MT6177 Processor Package Top.



MediaTek MT6177 Processor Die Marking.



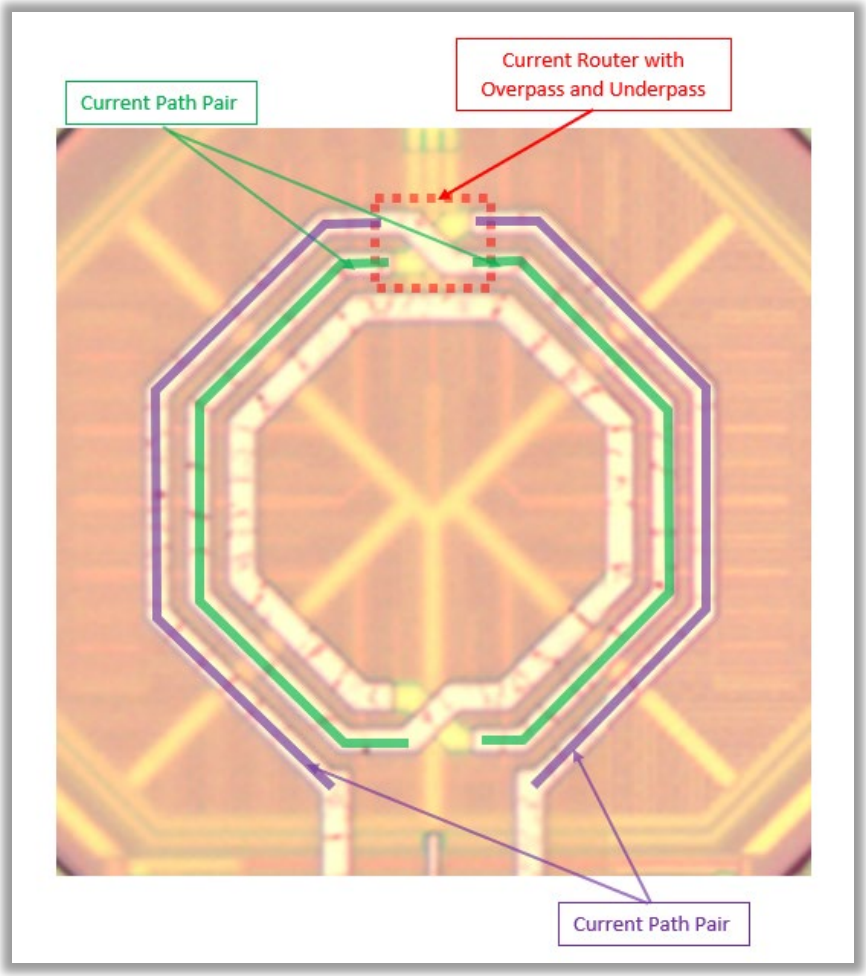
MediaTek MT6177 Processor Die with Integrated Circuits.



MediaTek MT6177 Processor Inductor.

18. In integrated circuits, metal current paths are patterned in a working surface of a substrate. In order to save valuable space, and to design circuits in which components do not interfere with each other, differential circuits can be used. Differential circuits comprise a first circuit that produces desired voltages and currents, and a second identical circuit that produces opposite voltages and currents. This design cancels out undesirable natural parasitic effects in the circuit. Symmetric inducting devices are useful in differential circuits. The pairs of current paths are patterned to be symmetric about the plane of symmetry, which is perpendicular to the working surface.

19. Additionally, the aforementioned method of forming a symmetric inducting device for an integrated circuit includes forming current routers having an overpass and an underpass to selectively couple one current path region in a pair of current path regions to another current path region in another pair of current path regions, wherein a width of the overpass is formed narrower than the width of the underpass to approximate resistances through the overpass and the underpass.



MediaTek MT6177 Processor Inductor.

20. In order to form a differential circuit with opposing voltages and currents, an overpass region and an underpass region are formed to selectively couple one current path region in a pair of current path regions to another current path region in another pair of current path

regions. This has the effect of minimizing undesirable parasitic effects. The overpass metal layer has less sheet resistance than the underpass metal layer. For the inductor to function as desired, and for current to flow through all current path regions, the overpass and underpass have approximately equal resistance. Therefore, in order to approximate resistances through the overpass and underpass, and to compensate for less sheet resistance in the overpass layer, the overpass is formed narrower than the underpass.

21. Defendant has and continues to indirectly infringe one or more claims of the ’087 Patent, including claim 17, by knowingly and intentionally inducing others, including third-party semiconductor foundries, other types of third-party manufacturers, customers, and/or 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 the Accused Products.

22. Defendant, with knowledge that these products, and/or the manufacture thereof, infringe the ’087 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 ’087 Patent by contracting for the third-party manufacture of, and/or providing the Accused Products to direct infringers.

23. Defendant has induced infringement by others, including third-party semiconductor foundries, other types of third-party manufacturers, customers, and/or 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 infringe the ’087 Patent, but while remaining willfully blind to the infringement.

24. Defendant has and continues to infringe one or more claims of the ’087 Patent by importing into the United States or offering to sell, selling, or using within the United States a product which is made by a process patented in the United States.

25. Tyche has suffered damages as a result of Defendant's direct and indirect infringement of the '087 Patent in an amount to be proved at trial.

COUNT II
(Infringement of the '481 Patent)

26. Paragraphs 1 through 13 are incorporated by reference as if fully set forth herein.

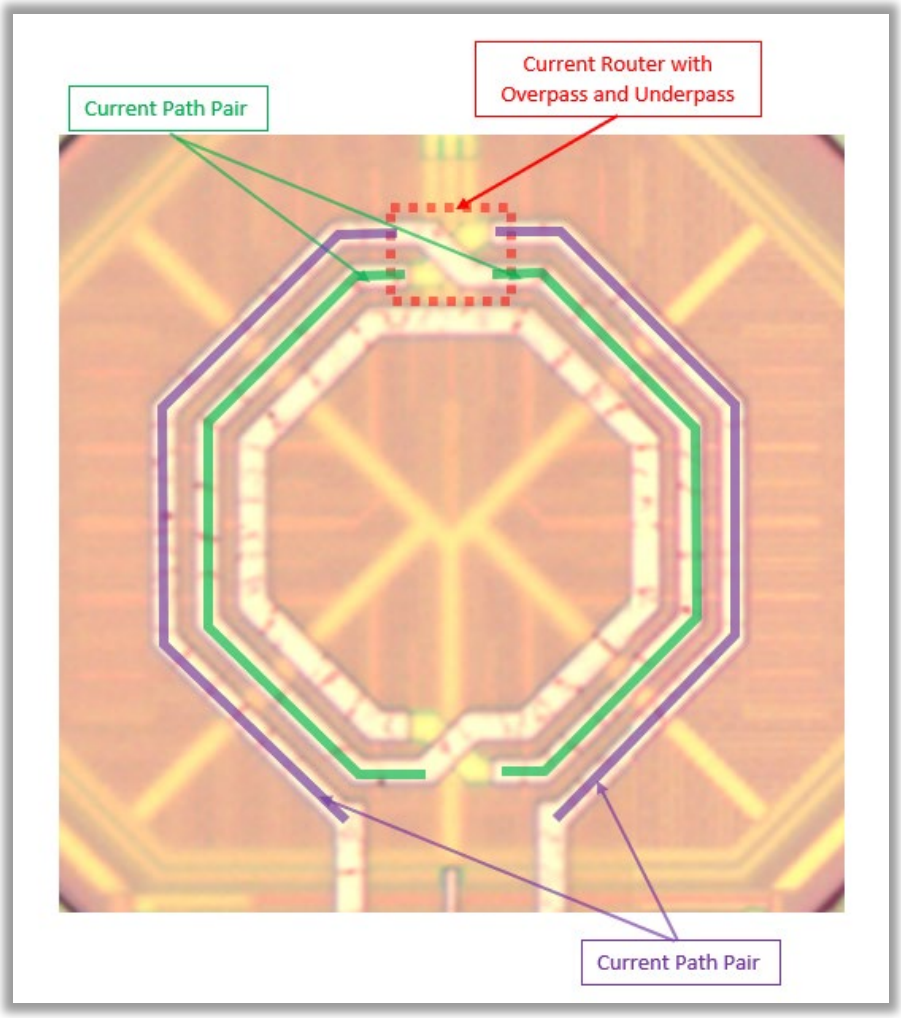
27. Tyche has not licensed or otherwise authorized Defendant to make, use, offer for sale, sell, or import any products that embody the inventions of the '481 Patent.

28. Defendant has and continues to directly infringe the '481 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 the Accused Products including, but not limited to, products that satisfy each and every limitation of one or more claims of the '481 Patent. Upon information and belief, such products include at least MediaTek processors containing a symmetric inductor with current routers in an integrated circuit.

29. For example, Defendant has and continues to directly infringe at least claim 1 of the '481 Patent by making, using, offering to sell, selling, and/or importing into the United States products that include a current router for an inducting device in an integrated circuit. For example, the Accused Products, including the MT6177 processor, include a symmetric inducting device for an integrated circuit, including a current router comprising one or more overpasses to electrically connect select current path regions of the inducting device, the one or more overpasses are made from a conductive layer having a first sheet resistance, each overpass having a first width.

30. Additionally, the Accused Products, including the MT6177 processor, include a symmetric inducting device for an integrated circuit, including a current router comprising one or more underpasses to electrically connect different select current path regions of the inducting device, the one or more underpasses are made from a conducting layer having a second different

sheet resistance, each underpass having a second different width, wherein the first width of each overpass and the second different width of an associated underpass are adjusted to make the resistance through the overpass approximately equal to the resistance through the associated underpass.



MediaTek MT6177 Processor Inductor.

31. In order to form a differential circuit with opposing voltages and currents, an overpass region and an underpass region are formed to selectively couple one current path region in a pair of current path regions to another current path region in another pair of current path regions. This has the effect of minimizing undesirable parasitic effects. The overpass metal layer

has a different sheet resistance than the underpass metal layer. For the inductor to function as desired, and for current to flow through all current path regions, the overpass and underpass have approximately equal resistance. Therefore, in order to approximate resistances through the overpass and underpass, and to compensate for the different sheet resistance in the overpass layer, the overpass is formed to have a different width than the underpass.

32. Defendant has and continues to indirectly infringe one or more claims of the ’481 Patent by knowingly and intentionally inducing others, including third-party semiconductor foundries, other types of third-party manufacturers, customers, and/or 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 the Accused Products.

33. Defendant, with knowledge that these products, or the use or manufacture thereof, infringe the ’481 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 ’481 Patent by contracting for the third-party manufacture of and/or providing these products to others, including third-party semiconductor foundries, other types of third-party manufacturers, customers, and/or end-users for use in an infringing manner.

34. Defendant has induced infringement by others, including third-party semiconductor foundries, other types of third-party manufacturers, customers, and/or 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 would infringe the ’481 Patent, but while remaining willfully blind to the infringement.

35. Tyche has suffered damages as a result of Defendant’s direct and indirect infringement of the ’481 Patent in an amount to be proved at trial.

DEMAND FOR JURY TRIAL

Plaintiff hereby demands a jury for all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Tyche 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 each of the Patents-in-Suit;

b. An order awarding damages sufficient to compensate Tyche for Defendant's infringement of the Patents-in-Suit, but in no event less than a reasonable royalty, together with interest and costs;

c. Entry of judgment declaring that this case is exceptional and awarding Tyche its costs and reasonable attorney fees under 35 U.S.C. § 285; and

d. Such other and further relief as the Court deems just and proper.

Dated: May 16, 2022

Respectfully submitted,

/s/ *Alfred R. Fabricant*

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