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

ATLAS GLOBAL TECHNOLOGIES LLC	\$ \$ \$	Civil Action No. 2:21-cv-430
Plaintiff,	§	Jury Trial Requested
,	§	
v.	§	
	§	
TP-LINK TECHNOLOGIES CO., LTD.	§	
TP-LINK CORPORATION LTD, and	§	
TP-LINK INTERNATIONAL LTD.;	§	
	§	
	§	
Defendants.	Š	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff, Atlas Global Technologies LLC ("Atlas"), for its Complaint against Defendants TP-Link Technologies Co., Ltd., TP-Link Corporation. Ltd., and TP-Link International Ltd. (collectively "TP-Link"), requests a trial by jury, and alleges as follows upon actual knowledge with respect to itself and its own acts and upon information and belief as to all other matters:

NATURE OF THE ACTION

- 1. This is an action for patent infringement brought by Atlas as the owner of the patents asserted in this Complaint. Atlas alleges that TP-Link infringes U.S. Patent Nos. 9,763,259 ("the '259 Patent") (Ex. A); 9,825,738 ("the '738 Patent") (Ex. B); 9,912,513 ("the '513 Patent") (Ex. C); 9,917,679 ("the '679 Patent") (Ex. D); 10,020,919 ("the '919 Patent") (Ex. E); 10,756,851 ("the '851 Patent") (Ex. F); 9,531,520 ("the '520 Patent") (Ex. G); and 9,532,187 ("the '187 Patent") (Ex. H) (collectively, the "Asserted Patents"), copies of which are attached hereto as Exhibits A-H.
- 2. Atlas alleges that TP-Link both directly and indirectly infringes each of the Asserted Patents by making, using, offering for sale, selling and/or importing the Accused Products described below, in the United States without a license to do so. Atlas further alleges that TP-Link induces infringement by other third parties through their use of the TP-Link Accused Products as directed and instructed by TP-Link. Atlas seeks damages and other compensatory relief for TP-Link's prior and continued infringement of the Asserted Patents.

THE PARTIES

- 3. Atlas is a limited liability company organized under the laws of Texas with its principal place of business at 4413 Spicewood Springs Rd., Suite 101, Austin, TX 78759.
- 4. Atlas is the assignee and owner of the Asserted Patents through assignment on February 19, 2021, from Newracom, Inc., ("Newracom") to Atlas. Newracom was the original owner of the Asserted Patents though assignment from the named inventors.
- 5. On information and belief, Defendant TP-Link Technologies Co., Ltd. ("TP-Link Technologies") is a multi-national private limited company organized under the laws of the People's Republic of China ("PRC" or "China") with its principal place of business at South

Building 5 Keyuan Road, Central Zone Science & Technology Park, Nanshan, Shenzhen, PRC, 518057.

- 6. On information and belief, Defendant TP-Link Corporation. Ltd ("TP-Link Corporation") is a private limited company organized under the laws of Hong Kong with its principal place of business at Suite 901, New East Ocean Centre, Tsim Sha Tsui, Hong Kong, China. On information and belief, TP-Link Corporation is a related entity of TP-Link Technology.
- 7. On information and belief, defendant TP-Link International Ltd. ("TP-Link International") is a private limited company organized under the laws of Hong Kong with its principal place of business located at Room 901-902,9/F, New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kwun Tong, KL, Hong Kong, China, 518057. TP-Link International and TP-Link Corporation are believed to share the same corporate office in Hong Kong. On information and belief, TP-Link International is a related entity of TP-Link Technologies and TP-Link Corporation.
- 8. TP-Link Technologies, TP-Link Corporation, and TP-Link International are referred to collectively as "TP-Link" or "Defendants," and on information and belief, have acted in concert with respect to the facts alleged herein such that any act of one is attributable to any and all of the others and vice versa.
- 9. TP-Link was founded in 1996 and on its website represents that it is "a global provider of reliable networking devices and accessories, involved in all aspects of everyday life." *See* https://www.tp-link.com/us/about-us/corporate-profile/ ("About TP-Link") (last visited Nov. 16, 2021). On its U.S. website page, TP-Link claims that "TP-Link rates as World's No. 1 WiFi Products Provider for 10 Years." https://www.tp-link.com/us/ (last visited Nov. 16, 2021).
- 10. On information and belief, TP-Link is engaged in research and development, manufacturing, importation, distribution, sales and related technical services for home and business networks, including particularly Wi-Fi 6 networks. TP-Link identifies its Wi-Fi 6 products as including the DecoX60, Deco X20, Archer AX11000, Archer AX6000, Archer AX3000, and Archer AX1500. https://www.tp-link.com/us/wifi6/ (last visited Nov. 16, 2021). These TP-Link products are made outside the United States of America and then are imported into

the United States, distributed, and sold to end-users via the Internet and via distribution partners, retailers, reseller partners, and solution partners. *See https://www.tp-link.com/us/where-to-buy/* (last visited Nov. 16, 2021). Those sales occur in the United States, and throughout Texas, including in this District.

11. TP-Link affirmatively touts the advantages of Wi-Fi 6 to its prospective customers. https://www.tp-link.com/us/wifi6/best-wifi6-router/ (last visited Nov. 16, 2021). According to TP-Link, its Wi-Fi 6 routers are "compatible will all your current Wi-Fi-enabled devices and are the perfect routers to future-proof your home by supporting new Wi-Fi 6 phones, laptops and other devices," supporting "3X faster speeds," "4X higher capacity," and "greater efficiency." *Id*.

JURISDICTION AND VENUE

- 12. This is a civil action arising under the patent laws of the United States, 35 U.S.C. §§ 1, et seq. Accordingly, this Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 13. This Court has personal jurisdiction over TP-Link. Atlas is informed and believes, and on that basis alleges, that TP-Link conducts business and has committed acts of patent infringement and/or has induced acts of patent infringement by others in this Judicial District, the State of Texas, and elsewhere in the United States. TP-Link has purposefully directed infringing activities at residents of the State of Texas, and this litigation results from those infringing activities. TP-Link regularly sells (either directly or indirectly), its products within this District. For example, TP-Link has placed and continues to place infringing products into the stream of commerce via an established distribution channel with the knowledge or understanding that such products are being and will continue to be sold in this Judicial District and the State of Texas. TP-Link is subject to this Court's specific and/or general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due to its substantial and pervasive business in this State and Judicial District, including its infringing activities alleged herein, from which TP-Link derives substantial revenue from goods sold to Texas residents and consumers.

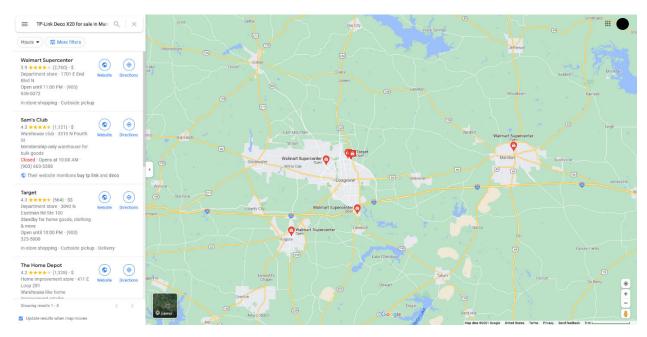
A. Personal Jurisdiction of TP-Link Technologies

14. Upon information and belief, TP-Link Technologies is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, based on its substantial business activities conducted in the State of Texas and this Judicial District, including: (1) its infringing activities, as alleged herein, by which Defendant purposefully avails itself of the privilege of conducting its business activities in this State and this Judicial District and, thus, submits itself to the jurisdiction of this Court; and (2) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this Judicial District, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported to and targeting Texas residents and residents of this Judicial District vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. See https://www.tp-link.com/us/where-to-buy/ (last visited Nov. 16, 2021). Such a presence furthers the development, design, manufacture, importation, distribution, sale, and use (including by inducement) of infringing TP-Link Products in Texas, including in this District. For example, TP-Link Technologies is also the applicant for FCC registrations for the sale and use of TP-Link Products in the U.S., including being identified on labels as the manufacturing party. See, e.g., Label and Location, FCCID.IO, available at https://fccid.io/TE7AX20V2/Label/4-Label-and-location-5053340 (providing a copy of the label for TP-Link Technologies AX1800 Dual-Band Wi-Fi 6 Router).

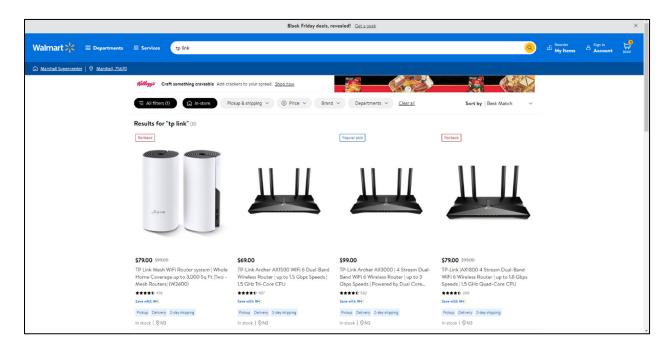
15. This Court has personal jurisdiction over TP-Link Technologies, directly and/or through the activities of TP-Link Technologies intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including through the activities of Defendants TP-Link Corporation and TP-Link International. Through direction and control of these various entities, TP-Link Technologies has committed acts of direct and/or indirect patent infringement within Texas, and elsewhere within the United States, giving rise to this action and/or has established minimum contacts with Texas such that personal jurisdiction over TP-Link Technologies would not offend traditional notions of fair play and substantial justice.

16. Upon information and belief, TP-Link Technologies controls or otherwise directs and authorizes the activities of its related entities, including Defendant TP-Link Corporation and TP-Link International, directly via its agents and distribution partners, retailers (including national retailers), reseller partners, solution partners, brand ambassadors, and other service providers in the U.S., TP-Link Technologies has placed and continues to place infringing TP-Link Wi-Fi Products into the U.S. stream of commerce. TP-Link Technologies has placed such products into the stream of commerce with the knowledge and understanding that such products are, will be, and continue to be sold, offered for sale, and/or imported into this Judicial District and the State of Texas. See Litecubes, LLC v. Northern Light Products, Inc., 523 F.3d 1353, 1369-70 (Fed. Cir. 2008) ("[T]he sale [for purposes of § 271] occurred at the location of the buyer."); see also Semcon IP Inc. v. Kyocera Corporation, No. 2:18-cv-00197-JRG, 2019 WL 1979930, at *3 (E.D. Tex. May 3, 2019) (purchases of infringing products outside of the United States for importation into and sales to end users in the U.S. may constitute an offer to sell under § 271(a)).

17. TP-Link Technologies utilizes established distribution channels to distribute, market, offer for sale, sell, service, and warrant infringing products directly to consumers and other users in the U.S., including providing links via its website to online stores, retailers, resellers, distributors, and solution partners offering such products and related services for sale. *See* https://www.tp-link.com/us/where-to-buy/ (last visited Nov. 16, 2021). Such TP-Link Products have been sold in retail stores, both brick-and-mortar and online, within this Judicial District and in Texas, including well-known and widely used retailers including Amazon.com, HSN, Dell, Target, Office Depot, Office Max, Walmart, Sam's Club, BestBuy, Sears, QVC, Micro Center, Costco, and Lowe's. For example, the TP-Link Deco X20 (which supports Wi-Fi 6 operation) is available for purchase at various retail stores in this District, including the Walmart Supercenter store locations in Marshall, Longview and Kilgore:



18. Walmart sells many Accused Products, including the AX1500, AX1800, AX3000, AX4400, Deco W7200, and Deco W6000 at its store in Marshall:



https://www.walmart.com/search?q=tp+link&facet=fulfillment method%3AIn-store.

19. Based on TP-Link Technologies connections and relationship with these national retailers and digital distribution platforms, TP-Link Technologies knows that Texas is a termination point of its established distribution channels, including the online and brick and mortar stores offering

TP-Link Products to users in Texas. TP-Link Technologies, therefore, has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis. *See Icon Health & Fitness, Inc. v. Horizon Fitness, Inc.*, 2009 WL 1025467, at (E.D. Tex. 2009) ("[a]s a result of contracting to manufacture products for sale in" national retailers' stores, the defendant "could have expected that it could be brought into court in the states where [the national retailers] are located").

20. Upon information and belief, TP-Link Technologies, alone and in concert with related entities Defendant TP-Link Corporation and Defendant TP-Link International, manufactures and purposefully places infringing TP-Link Products in established distribution channels in the stream of commerce, including in Texas, via distributors and reseller partners, such at least those listed on TP-Link's website. For example, TP-Link Technologies imports to Texas or through a related entity and directly sells and offers for sale infringing TP-Link Products in Texas to distributor CDW Corporation ("CDW"), which has a distribution location at 5908 Headquarters Dr., Suite 200, Plano, TX75024, which is in this Judicial District. See https://www.cdw.com/content/cdw/en/locations.html (last visited Nov. 16, 2021). CDW offers infringing TP-Link Products for sale on its website, including for example the TP-Link Deco X20 See e.g., https://www.cdw.com/product/tp-link-ax1800-home-mesh-wifi-sys/6262828 (last visited Nov. 16, 2021). Via this website, TP-Link Products are offered for sale to consumers in the State of Texas.

21. These suppliers and distributors import, advertise, offer for sale and sell TP-Link Products via their own websites to U.S. consumers, including to consumers in Texas. Based on TP-Link Technologies' connections and relationships, including supply contracts and other agreements with the U.S. and Texas-based distributors and suppliers, such as at least CDW, TP-Link Technologies knows and has known that Texas is a termination point of the established distribution channels for infringing TP-Link Products. TP-Link Technologies, alone and in concert with related entities Defendant TP-Link Corporation and Defendant TP-Link International has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at

least on this basis. See Ultravision Technologies, LLC v. Holophane Europe Limited, 2020 WL 3493626, at *5 (E.D. Tex. 2020) (finding sufficient to make a prima facie showing of personal jurisdiction allegations that "Defendants either import the products to Texas themselves or through a related entity"); see also Bench Walk Lighting LLC v. LG Innotek Co., Ltd et al., Civil Action No. 20-51-RGA, 2021 WL 65071, at *7-8 (D. Del., Jan. 7, 2021) (denying motion to dismiss for lack of personal jurisdiction based on the foreign defendant entering into supply contract with U.S. distributor and the distributor sold and shipped defendant's products from the U.S. to a customer in the forum state).

- 22. In the alternative, this Court has personal jurisdiction over TP-Link Technologies under Federal Rule of Civil Procedure 4(k)(2), because the claims for patent infringement in this action arise under federal law; TP-Link Technologies is not subject to the jurisdiction of the courts of general jurisdiction of any state; and exercising jurisdiction over TP-Link Technologies is consistent with the U.S. Constitution.
- 23. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1391 because, among other things, TP-Link Technologies is not a resident of the United States, and thus may be sued in any judicial district, including this one, pursuant to 28 U.S.C. § 1391(c)(3). *See also In re HTC Corporation*, 889 F.3d 1349, 1357 (Fed. Cir. 2018) ("The Court's recent decision in TC Heartland does not alter" the alien-venue rule.).

B. Personal Jurisdiction of TP-Link Corporation

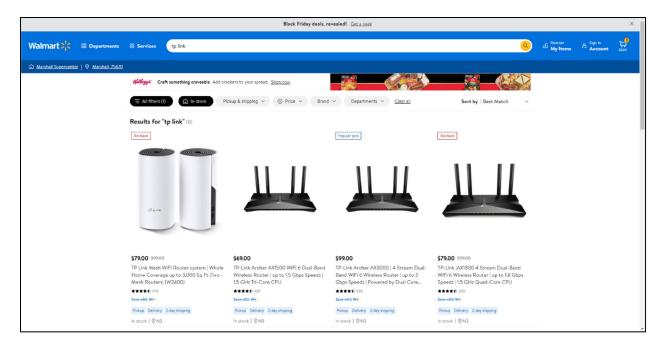
24. Upon information and belief, Defendant TP-Link Corporation is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due to its substantial business in this State and this Judicial District, including: (1) its infringing activities alleged herein, which purposefully avail the Defendant of the privilege of conducting those activities in this State and this Judicial District and, thus, Defendant submits itself to the jurisdiction of this Court; and (2) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this Judicial District, and/or deriving substantial revenue from infringing Wi-Fi 6 products offered for sale, sold, and imported to and targeting

Texas residents and residents of this Judicial District vicariously through and/or in concert with its partners, alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, TP-Link Corporation and related entities Defendant TP-Link Technologies and Defendant TP-Link International manufacture, import, distribute, offer for sale, sell, and induce infringing use of TP-Link Wi-Fi 6 Products to distribution partners, retailers (including national retailers), reseller partners, solution partners, brand ambassadors, service providers, consumers, and other users.

25. This Court has personal jurisdiction over TP-Link Corporation, directly and/or indirectly via the activities of TP-Link Corporation's intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including related entities Defendant TP-Link Technologies, and Defendant TP-Link International. Alone and in concert with or via direction and control of at least these entities, TP-Link Corporation has committed acts of direct and/or indirect patent infringement within Texas, and elsewhere within the United States, giving rise to this action and/or has established minimum contacts with Texas. For example, TP-Link Corporation is at least a related entity with TP-Link Technologies and TP-Link International in a global network of sales and distribution of TP-Link Products that includes retail stores and distributors operating in Texas, including this Judicial District. See Choose Your Location, https://www.tp-link.com/us/choose-your-location/ (last visited Nov. 16, 2021). TP-Link Corporation directly and via direction and control of or by its related entities participates in the manufacture, shipping, importing and distribution of TP-Link Products to the U.S. For example, TP-Link Corporation is the applicant for FCC registrations for the sale and use of TP-Link Products in the U.S., including being identified on labels as the manufacturing party. See, e.g., Label Location, FCCID.IO, available at https://fccid.io/TE7AX20V2/Label/4-Label-and-location- 5053340 (providing a copy of the label for TP-Link Technologies AX1800 Dual-Band Wi-Fi 6 Router). As a part of TP-Link's global manufacturing and distribution network, TP-Link Corporation also purposefully places infringing TP-Link Products in established distribution channels in the stream of commerce, including in Texas, via distribution partners, retailers (including national retailers), reseller partners, solution partners, brand ambassadors, service providers, consumers, and other users. For example, TP-Link Corporation provides tp-link.com, which directs users to purchase in the infringing products. https://www.tp-link.com/us/about-us/privacy/ (indicating TP-Link Corporation provides TP-Link branded hardware, firmware, and software and the TP-Link website); *see also* https://www.tp-link.com/us/home-networking/wifi-router/archer-ax11000/ (directing users to "Buy Now"). Therefore, TP-Link Corporation, alone and in concert with related entities Defendant TP-Link Technologies, and Defendant TP-Link International has purposefully directed its activities at Texas, and should reasonably anticipate being named as a defendant in this Court on this basis.

26. TP-Link Corporation also recruits "TP-Link Brand Ambassadors" via a "Power User" program; these Brand Ambassadors are consumers and users of TP-Link Products that are recruited in the U.S. based on their social media presence and amount of use of TP-Link Products. *See* TP-Link Brand Ambassador Program, TP-Link, https://www.tp-link.com/us/brandambassador/. These brand ambassadors (also known as "influencers") are compensated for promoting TP-Link Products on social media and participating in marketing campaigns to raise awareness of TP-Link Products and their respective brands, which, ultimately, increases sales.

27. Walmart sells many Accused Products, including the AX1500, AX1800, AX3000, AX4400, Deco W7200, and Deco W6000 at its store in Marshall:



https://www.walmart.com/search?q=tp+link&facet=fulfillment method%3AIn-store.

28. TP-Link Corporation also provides application software ("apps"), such as the "TP-Link Deco," "TP-Link Omada," "TP-Link Tether," "tpPLC," "tpMiFi," and "Wi-Fi Toolkit" apps for download and use in conjunction with and as a part of the wireless communication network that connects TP-Link Products and other network devices. These apps are available via digital distribution platforms operated by Apple Inc. and Google for download by users and execution on smartphone devices. *See*, *e.g.*, TP-Link Corporation Limited, https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en_US&gl=US (last visited Nov. 18, 2021) (offering the TP-Link apps for download and indicating that the applications are offered by "TP-Link Corporation Limited").

29. This Court has personal jurisdiction over TP-Link Corporation, directly and/or through the activities of TP-Link Corporation's intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including through the activities of Defendant TP-Link Technologies, and TP-Link International. Through its own conduct and through direction and control of these entities or operating under the control of these other Defendants, TP-Link Corporation has committed acts of direct and/or indirect patent infringement within Texas, and elsewhere within the United States, giving rise to this action and/or has established minimum

contacts with Texas such that personal jurisdiction over TP-Link Corporation would not offend traditional notions of fair play and substantial justice.

30. In the alternative, the Court has personal jurisdiction over TP-Link Corporation under Federal Rule of Civil Procedure 4(k)(2), because the claims for patent infringement in this action arise under federal law; TP-Link Corporation is not subject to the jurisdiction of the courts of general jurisdiction of any state; and exercising jurisdiction over TP-Link Corporation is consistent with the U.S. Constitution.

31. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1391 because, among other things, TP-Link Corporation is not a resident of the United States, and thus may be sued in any judicial district, including this one, pursuant to 28 U.S.C. § 1391(c)(3). *See also In re HTC Corporation*, 889 F.3d 1349, 1357 (Fed. Cir. 2018) ("The Court's recent decision in TC Heartland does not alter" the alien-venue rule.).

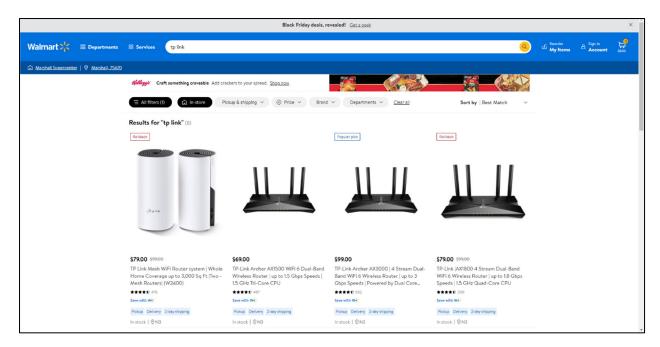
C. Person Jurisdiction of TP-Link International

32. Upon information and belief, Defendant TP-Link International is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due to its substantial business in this State and this Judicial District, including: (1) its infringing activities alleged herein, which purposefully avail the Defendant of the privilege of conducting those activities in this State and this Judicial District and, thus, submits itself to the jurisdiction of this Court; and (2) regularly doing or soliciting business, engaging in other persistent conduct targeting residents of Texas and this Judicial District, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to and targeting Texas residents and residents of this Judicial District vicariously through and/or in concert with its partners, alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For example, TP-Link International and related entities Defendant TP-Link Technologies and Defendant TP-Link Corporation manufacture, import, distribute, offer for sale, sell, and induce infringing use of TP-Link Products to distribution partners, retailers

(including national retailers), reseller partners, solution partners, brand ambassadors, service providers, consumers, and other users.

33. This Court has personal jurisdiction over TP-Link International, directly and/or indirectly, via the activities of TP-Link International's intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including related entities Defendant TP-Link Technologies and Defendant TP-Link Corporation. Alone and in concert with, or via direction and control of, at least these entities, TP-Link International has committed acts of direct and/or indirect patent infringement within Texas, and elsewhere within the United States, giving rise to this action and/or has established minimum contacts with Texas. TP-Link International also directly and via direction and control of or by its related entities participates in the manufacture, shipping, importing and distribution of TP-Link Products to the U.S. As a part of TP-Link's global manufacturing and distribution network, TP-Link International also purposefully places infringing TP-Link Products in established distribution channels in the stream of commerce, including in Texas, via distribution partners, retailers (including national retailers), reseller partners, solution partners, brand ambassadors, service providers, consumers, and other users. For example, TP-Link International owns the TP-Link trademarks found on the accused products. See https://tmsearch.uspto.gov/bin/showfield?f=doc&state=4805:e2wy6n.2.5. Therefore, TP-Link International, alone and in concert with related entities Defendant TP-Link Technologies and Defendant TP-Link Corporation, has purposefully directed its activities at Texas, and should reasonably anticipate being brought in this Court, at least on this basis.

34. Walmart sells many Accused Products, including the AX1500, AX1800, AX3000, AX4400, Deco W7200, and Deco W6000 at its store in Marshall:



https://www.walmart.com/search?q=tp+link&facet=fulfillment method%3AIn-store.

35. This Court has personal jurisdiction over TP-Link International, directly and/or through the activities of TP-Link International's intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers, including through the activities of Defendant TP-Link Technologies and TP-Link Corporation. Through its own conduct and through direction and control of these entities or control by other Defendants, TP-Link International has committed acts of direct and/or indirect patent infringement within Texas, and elsewhere within the United States, giving rise to this action and/or has established minimum contacts with Texas such that personal jurisdiction over TP-Link International would not offend traditional notions of fair play and substantial justice.

36. In the alternative, the Court has personal jurisdiction over TP-Link International under Federal Rule of Civil Procedure 4(k)(2), because the claims for patent infringement in this action arise under federal law; TP-Link International is not subject to the jurisdiction of the courts of general jurisdiction of any state; and exercising jurisdiction over TP-Link International is consistent with the U.S. Constitution.

37. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1391 because, among other things, TP-Link International is not a resident of the United States, and thus may be sued in any

judicial district, including this one, pursuant to 28 U.S.C. § 1391(c)(3). *See also In re HTC Corporation*, 889 F.3d 1349, 1357 (Fed. Cir. 2018) ("The Court's recent decision in TC Heartland does not alter" the alien-venue rule.).

38. On information and belief, Defendants TP-Link Technologies, TP-Link Corporation, and TP-Link International each have significant ties to, and presence in, the State of Texas and the Eastern District of Texas, making venue in this Judicial District both proper and convenient for this action.

THE 802.11 STANDARD

- 39. Wireless Local Area Networks (WLANs) have become ubiquitous with the rise of mobile telecommunication devices and the growth of other consumer products that require a connection to the Internet. These wireless networks operate using an unlicensed band of 2.4 GHz, 5 GHz, and/or 6 GHz. The operation of WLANs is standardized by the Institute of Electrical and Electronics Engineers ("IEEE") Part 11 under the name of "Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications," also known as "Wi-Fi."
- 40. After an original Wi-Fi Standard was published in 1999, new standard versions have been agreed to and published by amendments to the original Standard. For example, the IEEE Standard 802.11a (IEEE Std 802.11a-1999) was published in 1999, the IEEE Standard 802.11b (IEEE Std 802.11b-1999) was published in 1999, and the IEEE Standard 802.11g (IEEE Std 802.11g-2003) was published in 2003. Subsequently, the IEEE Standard 802.11n (IEEE Std 802.11n-2009) for enhancements for higher throughput (HT) was published in 2009, and the IEEE Standard 802.11 ac (IEEE 802.11 ac-2013) for enhancements for very high throughput (VHT) was published in 2013. Relative to the current 802.11ax Standard, these prior versions of the 802.11 Standard are referred to as legacy standards.
- 41. As wireless devices proliferated, the need arose to improve the performance of Wi-Fi in high-density scenarios. To address this issue, an IEEE task group began working on a new standard high efficiency (HE) WLAN to enhance the throughput-per-area of Wi-Fi. This standard became known as 802.11ax, which often is referred to as "Wi-Fi 6." The first draft of the 802.11ax

Standard was published in March 2016. The IEEE approved the final version of the 802.11ax-2021 Standard on February 9, 2021.

42. Wi-Fi 6 provides numerous benefits over previous Wi-Fi standards, which the industry has recognized and actively promoted. For example, Qualcomm has stated that Wi-Fi 6 provides "up to 4x increase in capacity," "higher efficiency," and "improved coverage & performance" over previous Wi-Fi standards. https://www.qualcomm.com/media/documents/files/802-11ax-wi-fiwith-unprecedented-capacity.pdf. Intel has stated that Wi-Fi 6 offers 9.6 Gbps of maximum throughput, whereas Wi-Fi 5 offered a maximum throughput of 3.5 https://www.intel.com/content/www/us/en/gaming/resources/wifi-6.html. Intel has also stated that Wi-Fi 6 can result in up to 75% less latency. Id. Cisco has stated that Wi-Fi 6 "lets access points support more clients in dense environments and provide[s] a better experience for typical wireless LAN networks." https://www.cisco.com/c/en/us/products/collateral/wireless/white-paper-c11- 740788.html. Similarly, Broadcom has stated that Wi-Fi 6 will allow devices to "work 6X faster," "deliver up to 7X better battery life," and "expand the Wi-Fi range up to 4X." https://docs.broadcom.com/doc/80211ax-WP. Broadcom touts the advantages of 802.11ax relative to prior versions of the Standard, noting "While previous Wi-Fi standards were designed to maximize peak speeds for a limited number of devices and users, this standard improves user experience in dense environments by maximizing average speeds for a large number of devices while preserving the benefits of legacy Wi-Fi technologies, such as backwards compatibility and low cost." Id. According to Broadcom, IEEE 802.11ax achieves these advancements through various primary features, including Orthogonal Frequency Division Multiplexing Multiple Access (OFDMA), which increases spectrum capacity by slicing channels into smaller chunks, which together host multiple devices simultaneously; Multi-User MIMO (MU-MIMO) technology to increase channel capacity when simultaneously servicing multiple devices using the same frequency chunks; Smarter access points capable of providing improved outdoor connectivity through longer guard intervals. Id. Among the various improvements obtained from 802.11ax,

outdoor devices that implement 802.11ax can obtain increased throughput of 50% relative to prior versions of the Standard. *Id.*

43. Defendant TP-Link has also promoted the advantages of Wi-Fi 6. According to TP-Link, "Wi-Fi 6 is the next generation standard in WiFi technology" and it "builds and improves on the current 802.11ac WiFi Standard." https://www.tp-link.com/us/wifi6/. According to TP-Link "Wi-Fi 6 is designed to improve speed, increase efficiency and reduce congestion in heavy bandwidth usage scenarios." Id. TP-Link has stated: "If you own a VR device, multiple smart home devices, or simply have a large number of devices in your household, then a Wi-Fi 6 router might just be the best WiFi router for you." Id. Key benefits of Wi-Fi 6 include "a virtually flawless smart home experience," "improv[ed] raw speeds by 25% compared to 802.11ac 256-QAM," "increased efficiency," and "vast improvement in efficiency works for both uploads and downloads." Id. TP-Link also indicated that Wi-Fi 6 is "[t]he future of home WiFi." https://www.tplink.com/us/wifi6/best-wifi6-router/. TP-Link indicates that Wi-Fi 6 produces "3X faster speeds," "4x higher capacity" and "greater efficiency" than the legacy versions of Wi-Fi, and provides "the foundation of your smart home." Id. According to TP-Link, Wi-Fi 6 provides "increased efficiency with OFDMA," will "connect to more devices simultaneously," and operates to "minimize WiFi conflicts with your neighbor." https://www.tp-link.com/us/wifi6/. TP-Link touts these and other benefits to users looking for a new router.

NEWRACOM

- 44. The Asserted Patents were all invented and developed by engineers at Newracom, a leader and pioneer in wireless communication technology. Newracom was founded in 2014 by a group of 28 former employees of the Electronics & Telecommunications Research Institute ("ETRI"), a research institution funded by the government of Korea.
- 45. Newracom was a major contributor to the 802.11ax-2021 Standard, providing numerous technical contributions to that Standard which have proven to be highly beneficial in improving the bandwidth of wireless transmissions, while minimizing latency among the devices connected to the wireless local area network. Notably, Newracom has been acknowledged as one of the

leaders in both number of technical submissions and the number of submissions ultimately adopted by the 802.11ax Task Group. According to an IAM Industry Report dated April 25, 2018, Newracom was recognized as the world's fourth most active technical contributor to the 802.11ax Standard, behind only Qualcomm, Intel, and Huawei. *See https://www.iam-media.com/ieees-empirical-record-success-and-innovation-following-patent-policy-updates. The contributions provided by Newracom have led to over 188 United States patents relating to the 802.11ax Standard.*

TP-LINK'S KNOWLEDGE OF NEWRACOM'S PATENTS

46. TP-Link has known that Newracom possessed patents relating to the 802.11ax Standard since at least March 11, 2015. On that date, Newracom submitted a Letter of Assurance for Essential Patent Claims ("LOA") to the IEEE. In the LOA, Newracom stated that it "may own, control, or have the ability to license Patent Claims that might be or become Essential Patent Claims." At a minimum, TP-Link was aware of the Asserted Patents as of the date of filing this Complaint.

TP-LINK'S USE OF THE PATENTED TECHNOLOGY

47. On information and belief, TP-Link makes, uses, sells, and/or offers to sell in the United States, and/or imports into the United States various devices with WiFi capabilities. For example, TP-Link makes, uses, and sells access points that support WiFi 6. See, e.g., https://www.tp-link.com/us/wifi6/. TP-Link's devices with WiFi 6 capability include software and hardware on the devices that implement the inventions claimed in the Asserted Patents.

48. Upon information and belief, a significant portion of the operating revenue of TP-Link is derived from the manufacture, distribute, sale, and use of home and business networking products and components, which are imported into the United States, distributed, and ultimately sold to and used by U.S. consumers. For example, TP-Link's global website touts that it is "consistently ranked by analyst firm IDC as the No. 1 provider of Wi-Fi devices[], supplying distribution to more than 170 countries and serving billions of people worldwide . . . [a]ccording to latest published IDC Worldwide Quarterly WLAN Tracker Report, Q2 2018 Final Release." See

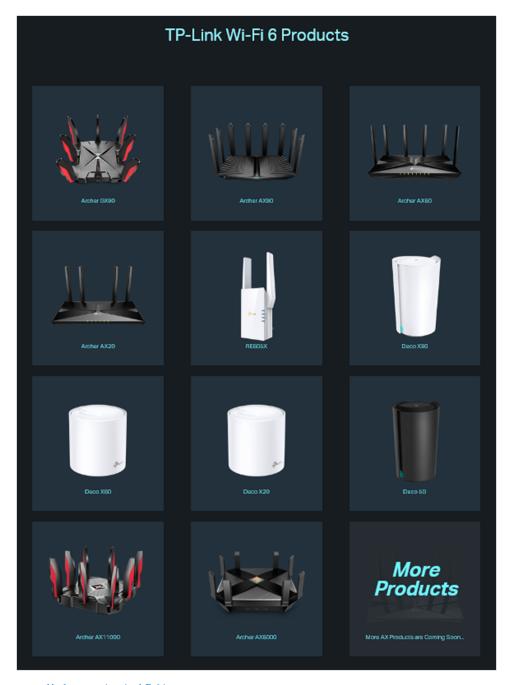
https://www.tp-link.com/en/aboutus/corporate-profile/ (last visited Nov. 18, 2021) (About TP-Link").

49. The Accused Products include all TP-Link products that comply with the 802.11ax-2021 Standard, including but not limited to the following TP-Link products:

Products		
Archer AX11000	Archer AX6000	
Archer AX5400	Archer AX3200	
Archer AX3000	Archer AX1800	
Archer AX1500	Omada Access Points	
Archer AX90	Archer AX73	
Archer AX55	Archer AX50	
Archer AX21	Archer AX20	
Archer AX10	Archer GX90	
Deco X90	Deco X60	
Deco X20	Deco W3600	
EAP660	EAP620	
Archer AX4400	Archer AX3600	
EAP610	EAP615	
Archer AX72	Archer AX23	
HX220	HX2220	
HX223	HX440	
EX221	EX220	
NX223	MX223	
NX440	EX440	

EX2220	EX223
EX420	

See https://www.tp-link.com/us/home-networking/wifi-router/; https://www.tp-link.com/en/business-networking/all-omada/?filterby=5730; https://service-provider.tp-link.com/home-wifi-system/#product. Examples of TP-Link's Wi-Fi 6 products are shown below:



https://www.tp-link.com/en/wifi6/.

50. On information and belief, TP-Link also uses the accused products, both alone and jointly with its customers, by providing and using the TP-Link Apps in conjunction with and as a part of the wireless communication network that connects TP-Link Products and other network devices. These apps are available via digital distribution platforms operated by Apple Inc. and Google for download by users and execution on smartphone devices. *See, e.g.*,

https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en_US&gl=US (last visited Nov. 18, 2021) (offering the TP-Link apps for download).

FIRST COUNT

(Infringement of U.S. Patent No. 9,763,259)

- 51. Atlas incorporates by reference the allegations set forth in Paragraphs 1-50 of this Complaint as though fully set forth herein.
- 52. The '259 Patent, entitled "Sounding Method," was duly and lawfully issued on September 12, 2017. Atlas is the owner of all right, title, and interest in the '259 Patent. The '259 Patent was filed on September 22, 2015 as Application No. 14/862,078 and claims the benefit of Korean Patent Application No. 10-2015-0116576, filed on August 19, 2015, and U.S. Provisional Application No. 62/054,270, filed on September 23, 2014. A true and correct copy of the '259 Patent is attached hereto as Exhibit A.
- 53. The '259 Patent relates to multi-user ("MU") sounding and feedback in a wireless network. MU transmission requires channel information for the devices to access their subchannels that have been assigned by an Access Point ("AP"). The Accused AP Products support and implement a sounding method in which subchannel allocation information is transmitted to a plurality of non-AP station ("STA") devices on the wireless network, after which a compressed beamforming report frame is received form the plurality of STA devices simultaneously.
- 54. The Accused AP Products are configured to transmit a null data packet announcement ("NDPA") frame to a plurality of receiving STA devices. The NDPA frame includes allocation information for the plurality of receiving STA devices, informing those STA devices of the subchannels that have been allocated to those devices. The Accused AP Products are designed to then transmit a null data packet ("NDP") frame from the AP after transmitting the NDPA frame, which operates as a beamforming poll frame to the plurality of STA devices, triggering their response. After transmitting the NDP frame, the Accused AP Products are designed to receive a feedback frame from the plurality of STA devices that includes a beamforming report providing subchannel information measured on the subchannel that is allocated to each receiving device from

among a plurality of subchannels into which a band is divided. Thus, a first subchannel is a subchannel that has been allocated to the first receiving device by an AP from among a plurality of subchannels through which signal transmissions may occur. The Accused AP Products are designed such that, when receiving the feedback frame, the AP will receive the feedback frame providing beamforming information regarding the first subchannel while simultaneously receiving a second feedback frame including subchannel information measured on a second subchannel by a second non-AP station device, the second subchannel being a subchannel that has been allocated to the second receiving device among the plurality of subchannels by the AP.

55. TP-Link directly infringes the '259 Patent under 35 U.S.C. § 271(a) by making, using, selling, and/or offering to sell in the United States, and/or importing into the United States products that directly infringe the '259 Patent, including the above identified Accused Products. The Accused AP Products infringe at least claim 18 of the '259 Patent by practicing the 802.11ax Standard, as indicated in TP-Link's marketing materials for the Accused Products. The TP-Link Accused Products operate as AP devices that are designed by TP-Link and operate consistent with the requirements of 802.11ax. This includes the ability to generate and send multi-user ("MU") downlink ("DL") transmissions to a plurality of STA devices on the wireless network and the ability to receive MU uplink (UL) feedback frames from a plurality of STA devices. *See e.g.*, 802.11ax-2021 at § 26.7.3(HE Sounding Protocol) and Figures 9-61a (HE NDP Announcement frame format), 9-61b (STA info field in an HE NDP Announcement frame) and 26-8 (Example of HE TB sounding).

56. In addition to directly infringing the '259 method claims by making, using, selling, offering to sell and importing infringing products in the United States, TP-Link also indirectly infringes the '259 claims. Where acts constituting direct infringement of the '259 Patent may not be performed by TP-Link, such acts constituting direct infringement of the '259 Patent are performed by TP-Link's customers or end-users who act at the direction and/or control of TP-Link, with TP-Link's knowledge. Upon information and belief, TP-Link intends to cause, and has taken affirmative steps to induce, infringement by importers, online stores, distribution partners, retailers, reseller

partners, solution partners, consumers, and other related service providers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless networking features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to purchasers in the United States. *See*, *e.g.*, Download Center, https://www.tp-link.com/us/support/download/ (last visited Nov. 18, 2021) (providing consumers access to "firmware, drivers, user guide, utility or any other download resources" for TP-Link Products); *see also* TP-Link Corporation Limited, https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en_US&gl=US (last visited Nov. 18, 2021) (offering the TP-Link apps for download that help users set up and manage the accused devices).

57. Atlas is informed and believes, and on that basis alleges, that TP-Link indirectly infringes at least claim 18 of the '259 Patent by active inducement in violation of 35 U.S.C. § 271(b), by at least manufacturing, supplying, distributing, selling, and/or offering for sale the Accused Products to their customers with the knowledge and intent that use of those products would constitute direct infringement of the '259 Patent.

58. For example, TP-Link advertises to its customers that it sells products that implement the 802.11ax Standard and extensively promotes the benefits of Wi-Fi 6 to its customers. See https://www.tp-link.com/us/wifi6/. As an example, the "Quick Installation Guide" of the AX11000 assists users in establishing a wireless network as part of the process for setting up the device. See Latitude 7520 Service Manual at 95 available at https://static.tplink.com/2020/202006/20200603/7106508704 Archer%20AX11000 QIG V1.pdf. Similarly, TP-Link provides the TP-Link Apps that are designed to assist a customer in installing and managing the Accused Deco Products for use in a wireless local area network. https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en US.

Once the Accused Products are installed, they will automatically implement the 802.11ax Standard based upon the hardware and software provided in the Accused Products.

59. TP-Link's acts of infringement have caused and will cause damage to Atlas, and Atlas is entitled to recover from TP-Link (or any successor entity to TP-Link) the damages sustained by Atlas as a result of TP-Link's wrongful acts in an amount subject to proof at trial.

SECOND COUNT

(Infringement of U.S. Patent No. 9,825,738)

- 60. Atlas incorporates by reference the allegations set forth in Paragraphs 1-59 of this Complaint as though fully set forth herein.
- 61. The '738 Patent, entitled "Acknowledgement Method and Multi User Transmission Method," was duly and lawfully issued on November 21, 2017. Atlas is the owner of all right, title, and interest in the '738 Patent. The '738 Patent was filed on April 3, 2015 as Application No. 14/678,724 and claims the benefit of U.S. Provisional Application No. 61/981,427, filed on April 18, 2014, and U.S. Provisional Application No. 61/975,622, filed on April 4, 2014. A true and correct copy of the '738 Patent is attached hereto as Exhibit B.
- 62. The '738 Patent is directed to improvements related to triggering frames, which are used to solicit and schedule simultaneous transmissions from multiple user devices on a wireless local area network. The concept of transmitting trigger frames to solicit and synchronize multi-user uplink frames was first introduced into the wireless standard as part of 802.11ax, and Newracom was a key contributor to those concepts. The '738 Patent covers a method of operating an access point and a station device in a wireless network that supports both multi-user downlink transmissions and multi-user uplink transmissions. Included in the downlink multi-user ("DL MU") frame transmitted by the access point ("AP") is uplink setup information that is to be used by the stations ("STAs") when responding to the downlink multi-user frame. The setup information transmitted by the AP includes information that is common to the multiple stations joining in the uplink multi-user transmission. The setup information also includes dedicated information that is specific to each responding station. The common information includes

information that is a function of a total number of space time streams to be used to perform the simultaneous transmission of the uplink frames by each of the stations participating in the uplink multi-user transmission. The station transmits an uplink frame to the access point in response to receiving the uplink setup information simultaneously with uplink frames from one or more other stations in the wireless network (referred to as an uplink multi-user or "UL MU" frame). After receiving the uplink multi-user frame from the multiple STAs, the access point transmits an acknowledgement frame to the multiple STAs acknowledging receipt of the uplink multi-user frame.

63. TP-Link directly infringes the '738 Patent under 35 U.S.C. § 271(a) by making, using, selling, and/or offering to sell in the United States, and/or importing into the United States products that directly infringe the '738 Patent, including the above identified Accused Products. The Accused Products infringe at least claim 1 of the '738 Patent by practicing the 802.11ax Standard, as indicated in TP-Link's marketing materials for the Accused Products. The TP-Link Accused Products operate as AP devices that are designed by TP-Link and operate consistent with the requirements of 802.11ax. This includes the ability to generate and transmit a trigger frame to multiple STAs that includes both a common information field and a dedicated information field, and the ability to transmit an acknowledgement frame to multiple STA's acknowledging receipt of a multi-user uplink frame from multiple STAs. See, e.g., 802.11ax-2021 at § 4.3.15a (High efficiency (HE) STA; §9.3.1.22.1 (Trigger Frame format); § 10.3.2.13.3 (Acknowledgement procedure for an UL MU transmission); § 27.3.11.10 (HE-LTF); Figure 9-64a (Trigger frame format); Figure 9-64b (Common info field format); Figure 9-64d (User Info field format); Figure 10-14b; and Figure 10-14c.

64. TP-Link also indirectly infringes at least claim 1 of the '738 Patent. Where acts constituting direct infringement of the '738 Patent may not be performed by TP-Link, such acts constituting direct infringement of the '738 Patent are performed by TP-Link's customers or endusers who act at the direction and/or control of TP-Link, with TP-Link's knowledge.

65. Atlas is informed and believes, and on that basis alleges, that TP-Link indirectly infringes at least claim 1 of the '738 Patent by active inducement in violation of 35 U.S.C. § 271(b), by at least manufacturing, supplying, distributing, selling, and/or offering for sale the Accused Products to their customers with the knowledge and intent that use of those products would constitute direct infringement of the '738 Patent. Upon information and belief, TP-Link intends to cause, and has taken affirmative steps to induce, infringement by importers, online stores, distribution partners, retailers, reseller partners, solution partners, consumers, and other related service providers by at least, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless networking features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to purchasers in the United States. See, e.g., Download Center, https://www.tp-link.com/us/support/download/ (last visited Nov. 18, 2021) (providing consumers access to "firmware, drivers, user guide, utility or any other download resources" for TP-Link Products); see also TP-Link Corporation Limited, https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en_US&gl =US (last visited Nov. 18, 2021) (offering the TP-Link apps for download that help users set up and manage the accused devices).

66. For example, TP-Link advertises to its customers that it sells products that implement the 802.11ax Standard and extensively promotes the benefits of Wi-Fi 6 to its customers. See https://www.tp-link.com/us/wifi6/. As an example, the "Quick Installation Guide" of the AX11000 assists users in establishing a wireless network as part of the process for setting up the device. See Latitude available 7520 Service Manual 95 https://static.tpat at link.com/2020/202006/20200603/7106508704 Archer%20AX11000 QIG V1.pdf. Similarly, TP-Link provides the TP-Link Apps that are designed to assist a customer in installing and **Products** managing the Accused for use in a wireless local area network. https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en US.

Once the Accused Products are installed, they will automatically implement the 802.11ax Standard based upon the hardware and software provided in the Accused Products.

67. TP-Link's acts of infringement have cause damage to Atlas, and Atlas is entitled to recover from TP-Link (or any successor entity to TP-Link) the damages sustained by Atlas as a result of TP-Link's wrongful acts in an amount subject to proof at trial.

THIRD COUNT

(Infringement of U.S. Patent No. 9,912,513)

- 68. Atlas incorporates by reference the allegations set forth in Paragraphs 1-67 of this Complaint as though fully set forth herein.
- 69. The '513 Patent, entitled "System and Method for Synchronization for OFDMA Transmission," was duly and lawfully issued on March 6, 2018. Atlas is the owner of all right, title, and interest in the '513 Patent. The '513 Patent was filed on July 6, 2016 as Application No. 15/203,717 as a continuation of Application No. 14/868,303, filed on September 28, 2015 (which resulted in U.S. Patent No. 9,413,581), and further claims the benefit of U.S. Provisional Application No. 62/061,503, filed on October 8, 2014. A true and correct copy of the '513 Patent is attached hereto as Exhibit C.

70. The '513 Patent generally relates to 802.11ax downlink ("DL") trigger frames sent by access points and received by stations that indicate the guard interval duration of the expected uplink ("UL") responsive frames sent by the stations. In MU OFDMA, stations may simultaneously transmit uplink frames where each field within an uplink frame includes: (1) a guard interval (sometimes referred to as a "cyclic prefix") and then (2) one or more symbols. But if the guard interval durations are not uniform amongst all the stations, the symbols will not be synchronized, and the access point may have greater difficulty correctly decoding the frames received from the stations. To ensure all the stations use the same guard interval duration, the access point may transmit a trigger frame with information for a guard interval ("GI") duration to be used for at least some symbols of a subsequent UL frame.

71. TP-Link directly infringes the '513 Patent under 35 U.S.C. § 271(a) by making, using, selling, and/or offering to sell in the United States, and/or importing into the United States products that directly infringe the '513 Patent, including the above identified Accused Products. The Accused Products infringe at least claim 15 of the '513 Patent by practicing the 802.11ax Standard, as indicated in TP-Link's marketing materials for the Accused Products. *See e.g.*, 802.11ax-2021 at § 9.3.1.22 (Trigger frame format); Figure 9-64a (Trigger frame format); Figure 9-64b (Common info field format); 9-64d (User info field format).

72. In addition to directly infringing the '513 apparatus claims by making, selling and using infringing products in the United States, TP-Link also indirectly infringes the '513 Patent claims. Where acts constituting direct infringement of the '513 Patent may not be performed by TP-Link, such acts constituting direct infringement of the '513 Patent are performed by TP-Link's customers or end-users, who act at the direction and/or control of TP-Link with TP-Link's knowledge. Upon information and belief, TP-Link intends to cause, and has taken affirmative steps to induce, infringement by importers, online stores, distribution partners, retailers, reseller partners, solution partners, consumers, and other related service providers by at least, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless networking features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to purchasers in the United States. See, e.g., Download Center, https://www.tp-link.com/us/support/download/ (last visited Nov. 18, 2021) (providing consumers access to "firmware, drivers, user guide, utility or any other download resources" for TP-Link Products); see also TP-Link Corporation Limited, https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en US&gl <u>=US</u> (last visited Nov. 18, 2021) (offering the TP-Link apps for download that help users set up and manage the accused devices).

73. Atlas is informed and believes, and on that basis alleges, that TP-Link indirectly infringes at least claim 15 of the '513 Patent by active inducement in violation of 35 U.S.C. § 271(b), by at least manufacturing, supplying, distributing, selling, and/or offering for sale the Accused Products to their customers with the knowledge and intent that use of those products would constitute direct infringement of the '513 Patent.

74. For example, TP-Link advertises to its customers that it sells products that implement the

802.11ax Standard and extensively promotes the benefits of Wi-Fi 6 to its customers. See https://www.tp-link.com/us/wifi6/. As an example, the "Quick Installation Guide" of the AX11000 assists users in establishing a wireless network as part of the process for setting up the device. See Latitude 7520 Service 95 available https://static.tp-Manual at at link.com/2020/202006/20200603/7106508704 Archer%20AX11000 QIG V1.pdf. Similarly, TP-Link provides the TP-Link Apps that are designed to assist a customer in installing and managing the Accused Products for use in a wireless local https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en US. Once the Accused Products are installed, they will automatically implement the 802.11ax Standard

75. TP-Link's acts of infringement have cause damage to Atlas, and Atlas is entitled to recover from TP-Link (or any successor entity to TP-Link) the damages sustained by Atlas as a result of

based upon the hardware and software provided in the Accused Products.

TP-Link's wrongful acts in an amount subject to proof at trial.

FOURTH COUNT

(Infringement of U.S. Patent No. 9,917,679)

76. Atlas incorporates by reference the allegations set forth in Paragraphs 1-75 of this Complaint as though fully set forth herein.

77. The '679 Patent, entitled "Method and Apparatus for Transmitting Response Frame Based on Type in a High Efficiency Wireless LAN," was duly and lawfully issued on March 13, 2018. Atlas is the owner of all right, title, and interest in the '679 Patent. The '679 Patent was filed on November 3, 2015 as Application No. 14/931,753 and claims the benefit of U.S. Provisional

Application No. 62/080,026, filed on November 14, 2014, and U.S. Provisional Application No. 62/074,514, filed on November 3, 2014. A true and correct copy of the '679 Patent is attached hereto as Exhibit D.

78. The '679 Patent generally relates to 802.11ax responsive UL transmission. The 802.11ax Access Point transmits a downlink (DL) frame to a Station that identifies the type of UL frame for the Station to provide as an Acknowledgement. The types may be either a single-user (SU) type or a multiple-user (MU) type frame. The AP then receives from the Station an uplink frame of the type specified by the AP in the DL frame. If the UL frame corresponds to a MU type, a plurality of Stations transmit the UL frame simultaneously.

79. TP-Link directly infringes the '679 Patent under 35 U.S.C. § 271(a) by making, using, selling, and/or offering to sell in the United States, and/or importing into the United States products that directly infringe the '679 Patent, including the above identified Accused Products. The Accused Products infringe at least claim 6 of the '679 Patent by practicing the 802.11ax Standard, as indicated in TP-Link's marketing materials for the Accused Products. *See e.g.*, 802.11ax-2021 at § 9.2.4.5.1 (QoS Control field structure); at § 9.2.4.5.4 (Ack Policy Indicator Subfield); § 10.3.2.11 (Acknowledgement Procedure); § 10.3.2.13 (MU Acknowledgement Procedure); § 26.4.4 (Acknowledgement Selection Rules); Figures 9-2, 9-3, 10-13 and 10-14a.

80. TP-Link also indirectly infringes the '679 Patent claims. Where acts constituting direct infringement of the '679 Patent may not be performed by TP-Link, such acts constituting direct infringement of the '679 Patent are performed by TP-Link's customers or end-users, who act at the direction and/or control of TP-Link with TP-Link's knowledge.

81. Atlas is informed and believes, and on that basis alleges, that TP-Link indirectly infringes at least claim 6 of the '679 Patent by active inducement in violation of 35 U.S.C. § 271(b), by at least manufacturing, supplying, distributing, selling, and/or offering for sale the Accused Products to their customers with the knowledge and intent that use of those products would constitute direct infringement of the '679 Patent. Upon information and belief, TP-Link intends to cause, and has taken affirmative steps to induce, infringement by importers, online stores, distribution partners,

retailers, reseller partners, solution partners, consumers, and other related service providers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless networking features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to purchasers in the United States. *See, e.g.*, Download Center, https://www.tp-link.com/us/support/download/ (last visited Nov. 18, 2021) (providing consumers access to "firmware, drivers, user guide, utility or any other download resources" for TP-Link Products); *see also* TP-Link Corporation Limited, https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en_US&gl=US (last visited Nov. 18, 2021) (offering the TP-Link apps for download that help users set up and manage the accused devices).

82. For example, TP-Link advertises to its customers that it sells products that implement the 802.11ax Standard and extensively promotes the benefits of Wi-Fi 6 to its customers. See https://www.tp-link.com/us/wifi6/. As an example, the "Quick Installation Guide" of the AX11000 assists users in establishing a wireless network as part of the process for setting up the device. See Latitude 7520 Service Manual 95 available https://static.tpat at link.com/2020/202006/20200603/7106508704 Archer%20AX11000 QIG V1.pdf. Similarly, TP-Link provides the TP-Link Apps that are designed to assist a customer in installing and managing the Accused **Products** for use in wireless local a https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en US. Once the Accused Products are installed, they will automatically implement the 802.11ax Standard based upon the hardware and software provided in the Accused Products.

83. TP-Link's acts of infringement have cause damage to Atlas, and Atlas is entitled to recover from TP-Link (or any successor entity to TP-Link) the damages sustained by Atlas as a result of TP-Link's wrongful acts in an amount subject to proof at trial.

FIFTH COUNT

(Infringement of U.S. Patent No. 10,020,919)

84. Atlas incorporates by reference the allegations set forth in Paragraphs 1-83 of this Complaint as though fully set forth herein.

85. The '919 Patent, entitled "Protection Methods for Wireless Transmissions," was duly and lawfully issued on July 10, 2018. Atlas is the owner of all right, title, and interest in the '919 Patent. The '919 Patent was filed on April 25, 2017 as Application No. 15/497,094 as a continuation of Application No. 15/291,947, filed on October 12, 2016 (which resulted in U.S. Patent No. 9,667,394), and further claims the benefit of U.S. Provisional Application No. 62/333,192, filed on May 7, 2016, U.S. Provisional Application No. 62/333,077, filed on May 6, 2016, U.S. Provisional Application No. 62/331,380, filed on May 3, 2016, and U.S. Provisional Application No. 62/240,419, filed on October 12, 2015. A true and correct copy of the '919 Patent is attached hereto as Exhibit E.

86. The '919 Patent generally relates to an access point soliciting Channel State Information ("CSI") from one or more stations using a Null Data Packet Announcement (indicating which stations should send CSI) followed by a Null Data Packet, after which either a single station responds, or multiple stations wait for an indication they should respond (in response to a polling or trigger frame). The '919 Patent discloses a CSI feedback procedure, also known as sounding procedure, that involves a transmission, by the beamformer (such as an AP), of a non-data packet announcement (NDPA) transmission followed by non-data packet (NDP). In response to the NDPA transmission and the NDP, a beamformee (such as a station) transmits CSI feedback to the beamformer. The '919 Patent teaches multiple procedures for providing CS feedback, including: (1) a single user provides CSI feedback using a UL Single-User (SU) MIMO transmission, or (2) a plurality of users provide CSI feedback simultaneously using an UL MU transmission. The procedure that is used is indicated by a number of per-station information fields in the NDPA frame. The NDPA frame contains parameters for CSI feedback as well as list of STAs that are directed to participate in the CSI feedback process. Thus, the '919 Patent teaches a technique which

supports UL MU transmission while avoiding the overhead of a trigger frame when only soliciting CSI information from a single station.

87. TP-Link directly infringes the '919 Patent under 35 U.S.C. § 271(a) by making, using, selling, and/or offering to sell in the United States, and/or importing into the United States products that directly infringe the '919 Patent, including the above identified Accused Products. The Accused Products infringe at least claim 11 of the '919 Patent by practicing the 802.11ax Standard, as indicated in TP-Link's marketing materials for the Accused Products. *See e.g.*, 802.11ax-2021 at § 26.7 (HE Sounding protocol); § 9.3.1.19 (VHT/HE NDP Announcement Frame Format); Figures 9-61a, 26-7, 26-8.

88. TP-Link also indirectly infringes the '919 Patent claims. Where acts constituting direct infringement of the '919 Patent may not be performed by TP-Link, such acts constituting direct infringement of the '919 Patent are performed by TP-Link's customers or end-users, who act at the direction and/or control of TP-Link with TP-Link's knowledge. Upon information and belief, TP-Link intends to cause, and has taken affirmative steps to induce, infringement by importers, online stores, distribution partners, retailers, reseller partners, solution partners, consumers, and other related service providers by at least, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless networking features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to purchasers in the United States. See, e.g., Download Center, https://www.tp-link.com/us/support/download/ (last visited Nov. 18, 2021) (providing consumers access to "firmware, drivers, user guide, utility or any other download resources" for TP-Link Products); also TP-Link Corporation Limited, see https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en US&gl

- <u>=US</u> (last visited Nov. 18, 2021) (offering the TP-Link apps for download that help users set up and manage the accused devices).
- 89. Atlas is informed and believes, and on that basis alleges, that TP-Link indirectly infringes at least claim 11 of the '919 Patent by active inducement in violation of 35 U.S.C. § 271(b), by at least manufacturing, supplying, distributing, selling, and/or offering for sale the Accused Products to their customers with the knowledge and intent that use of those products would constitute direct infringement of the '919 Patent.
- 90. For example, TP-Link advertises to its customers that it sells products that implement the 802.11ax Standard and extensively promotes the benefits of Wi-Fi 6 to its customers. See https://www.tp-link.com/us/wifi6/. As an example, the "Quick Installation Guide" of the AX11000 assists users in establishing a wireless network as part of the process for setting up the device. See Latitude 7520 Service Manual at 95 available at https://static.tplink.com/2020/202006/20200603/7106508704 Archer%20AX11000 QIG V1.pdf. Similarly, TP-Link provides TP-Link Apps that are designed to assist a customer in installing and managing the Accused **Products** for in wireless local use a area network. https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en US. Once the Accused Products are installed, they will automatically implement the 802.11ax Standard based upon the hardware and software provided in the Accused Products.

91. TP-Link's acts of infringement have cause damage to Atlas, and Atlas is entitled to recover from TP-Link (or any successor entity to TP-Link) the damages sustained by Atlas as a result of TP-Link's wrongful acts in an amount subject to proof at trial.

SIXTH COUNT

(Infringement of U.S. Patent No. 10,756,851)

- 92. Atlas incorporates by reference the allegations set forth in Paragraphs 1-91 of this Complaint as though fully set forth herein.
- 93. The '851 Patent, entitled "Multiplexing Acknowledgment Messages in Response to Downlink Frames," was duly and lawfully issued on August 25, 2020. Atlas is the owner of all

right, title, and interest in the '851 Patent. The '851 Patent was filed on November 28, 2018 as Application No. 16/203,501 as a continuation of Application No. 15/151,433, filed on May 10, 2016 (which resulted in U.S. Patent No. 10,181,930), and further claims the benefit of U.S. Provisional Application No. 62/193,305, filed on July 16, 2015, U.S. Provisional Application No. 62/191,623, filed on July 13, 2015, U.S. Provisional Application No. 62/160,527, filed on May 12, 2015, and U.S. Provisional Application No. 62/159,346, filed on May 10, 2015. A true and correct copy of the '851 Patent is attached hereto as Exhibit F.

94. The '851 Patent generally relates to a wireless communication system in which a plurality of acknowledgement messages from multiple station devices are multiplexed and transmitted simultaneously in response to multi-user downlink frames. The multi-user downlink transmission includes a control extension in a control field that includes scheduling information used by a plurality of station devices for the multi-user uplink acknowledgement. More specifically, the control extension includes scheduling information for a trigger-based response.

95. TP-Link directly infringes the '851 Patent under 35 U.S.C. § 271(a) by making, using, selling, and/or offering to sell in the United States, and/or importing into the United States products that directly infringe the '851 Patent, including the above identified Accused Products. The Accused Products infringe at least claim 16 of the '851 Patent by practicing the 802.11ax Standard, as indicated in TP-Link's marketing materials for the Accused Products. *See e.g.*, 802.11ax-2021 at § 4.3.15a (High efficiency (HE) STA); § 9.2.3 (General Frame Format); § 9.2.4.6.1 (HT Control Field); §9.2.4.6.3a (HE Variant); § 26.5.2 (UL MU Operation); § 26.5.2.2 (Rules for Soliciting UL MU Frames); Figure 9-2 (MAC frame format); Figure 9-19a and 9-19b; Figure 9-22a.

96. TP-Link also indirectly infringes the '851 Patent claims. Where acts constituting direct infringement of the '851 Patent may not be performed by TP-Link, such acts constituting direct infringement of the '851 Patent are performed by TP-Link's customers or end-users, who act at the direction and/or control of TP-Link with TP-Link's knowledge. Upon information and belief, TP-Link intends to cause, and has taken affirmative steps to induce, infringement by importers, online stores, distribution partners, retailers, reseller partners, solution partners, consumers, and

other related service providers by at least, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless networking features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to purchasers in the United States. See, e.g., Download Center, https://www.tp-link.com/us/support/download/ (last visited Nov. 18, 2021) (providing consumers access to "firmware, drivers, user guide, utility or any other download resources" for TP-Link Products); see also TP-Link Corporation Limited, https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en US&gl <u>=US</u> (last visited Nov. 18, 2021) (offering the TP-Link apps for download that help users set up and manage the accused devices).

97. Atlas is informed and believes, and on that basis alleges, that TP-Link indirectly infringes at least claim 16 of the '851 Patent by active inducement in violation of 35 U.S.C. § 271(b), by at least manufacturing, supplying, distributing, selling, and/or offering for sale the Accused Products to their customers with the knowledge and intent that use of those products would constitute direct infringement of the '851 Patent.

98. For example, TP-Link advertises to its customers that it sells products that implement the 802.11ax Standard and extensively promotes the benefits of Wi-Fi 6 to its customers. See https://www.tp-link.com/us/wifi6/. As an example, the "Quick Installation Guide" of the AX11000 assists users in establishing a wireless network as part of the process for setting up the device. See Latitude 7520 Service Manual at 95 available at https://static.tplink.com/2020/202006/20200603/7106508704 Archer%20AX11000 QIG V1.pdf. Similarly, TP-Link provides the TP-Link Apps that are designed to assist a customer in installing and Accused Products for use in a wireless local managing the area https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en US.

Once the Accused Products are installed, they will automatically implement the 802.11ax Standard based upon the hardware and software provided in the Accused Products.

99. TP-Link's acts of infringement have caused damage to Atlas, and Atlas is entitled to recover from TP-Link (or any successor entity to TP-Link) the damages sustained by Atlas as a result of TP-Link's wrongful acts in an amount subject to proof at trial.

SEVENTH COUNT

(Infringement of U.S. Patent No. 9,531,520)

- 100. Atlas incorporates by reference the allegation set forth in Paragraphs 1-99 of this Complaint as though fully set forth herein.
- 101. The '520 Patent, entitled "Apparatus and Method for Downlink and Uplink Multi-User Transmissions," was duly and lawfully issued on December 27, 2016. Atlas is the owner of all right, title, and interest in the '520 Patent. The '520 Patent was filed on March 23, 2016 as Application No. 15/078,920 and claims the benefit of U.S. Provisional Application No. 62/140,349, filed on March 30, 2015, and U.S. Provisional Application No. 62/137,138, filed on March 23, 2015. A true and correct copy of the '520 Patent is attached hereto as Exhibit G.
- 102. The '520 Patent is directed to important improvements related to triggering frames for scheduling multi-user uplink acknowledgements that were first introduced in 802.11ax. Newracom was a key contributor to the concepts and implementation details of triggering frames and uplink multi-user acknowledgements. Certain claims recite a method directed to a transmitting AP device, in which the AP transmits a downlink multi-user frame to multiple STA devices that identifies scheduling information in the MAC Protocol Data Unit (MPDU) of the downlink frame which solicits an uplink acknowledgement from the STA as part of a multi-user acknowledgement frame.
- 103. TP-Link directly infringes the '520 Patent under 35 U.S.C. § 271(a) by making, using, selling, and/or offering to sell in the United States, and/or importing into the United States products that directly infringe the '520 Patent, including the above identified Accused Products. The Accused Products infringe at least claim 1 of the '520 Patent by practicing the 802.11ax

Standard, as indicated in TP-Link's marketing materials for the Accused Products. *See e.g.*, 802.11ax-2021 at § 4.3.15a (High efficiency (HE) STA); § 9.2.3 (General Frame Format); § 9.2.4.6.1 (HT Control Field); § 9.2.4.6.3a (HE variant); § 9.2.4.6a.1 (TRS Control); § 26.5.2.3.4 (TXVECTOR parameters for HE TB PPDU response to TRS Control subfield); Figure 9-2 (MAC frame format); Figures 9-19a and 9-19b; Figure 9-22a; Figure 10-14a; Figure 27-11.

104. In addition to direct infringement by making, using, and selling the Accused Products, TP-Link also indirectly infringes the '520 Patent claims. Where acts constituting direct infringement of the '520 Patent may not be performed by TP-Link, such acts constituting direct infringement of the '520 Patent are performed by TP-Link's customers or end-users who act at the direction and/or control of TP-Link, with TP-Link's knowledge. Upon information and belief, TP-Link intends to cause, and has taken affirmative steps to induce, infringement by importers, online stores, distribution partners, retailers, reseller partners, solution partners, consumers, and other related service providers by at least, inter alia, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless networking features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to purchasers in the United States. See, e.g., Download Center, https://www.tp-link.com/us/support/download/ (last visited Nov. 18, 2021) (providing consumers access to "firmware, drivers, user guide, utility or any other download resources" for TP-Link Products); also TP-Link Corporation Limited, see https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en US&gl =US (last visited Nov. 18, 2021) (offering the TP-Link apps for download that help users set up and manage the accused devices).

105. Atlas is informed and believes, and on that basis alleges, that TP-Link indirectly infringes at least claim 1 of the '520 Patent by active inducement in violation of 35 U.S.C. § 271(b),

by at least manufacturing, supplying, distributing, selling, and/or offering for sale the Accused Products to their customers with the knowledge and intent that use of those products would constitute direct infringement of the '520 Patent.

- 106. For example, TP-Link advertises to its customers that it sells products that implement the 802.11ax Standard and extensively promotes the benefits of Wi-Fi 6 to its customers. See https://www.tp-link.com/us/wifi6/. As an example, the "Quick Installation Guide" of the AX11000 assists users in establishing a wireless network as part of the process for setting up the device. See Latitude 7520 Service Manual at 95 available at https://static.tplink.com/2020/202006/20200603/7106508704 Archer%20AX11000 QIG V1.pdf. Similarly, TP-Link provides TP-Link Apps that are designed to assist a customer in installing and managing local the Accused **Products** for in wireless use a area network. https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en US. Once the Accused Products are installed, they will automatically implement the 802.11ax Standard based upon the hardware and software provided in the Accused Products.
- 107. TP-Link's acts of infringement have cause damage to Atlas, and Atlas is entitled to recover from TP-Link (or any successor entity to TP-Link) the damages sustained by Atlas as a result of TP-Link's wrongful acts in an amount subject to proof at trial.

EIGHTH COUNT

(Infringement of U.S. Patent No. 9,532,187)

- 108. Atlas incorporates by reference the allegation set forth in Paragraphs 1-107 of this Complaint as though fully set forth herein.
- 109. The '187 Patent, entitled "Interleaver for Physical Layer Protocol Data Unit in a High Efficiency Wireless LAN," was duly and lawfully issued on December 27, 2016. Atlas is the Owner of all right, title, and interest in the '187 Patent, the '187 Patent was filed on August 11, 2015 as Application No. 14/823,524 and claims the benefit of U.S. Provisional Application No. 62/135,094, filed on March 18, 2015. A true and correct copy of the '187 Patent is attached hereto as Exhibit H.

- Network ("WLAN") from an access point ("AP") to a plurality of station ("STA") devices. The AP divides the transmission channel into a plurality of resource units that are allocated to the plurality of STA devices that are the transmission recipients. The size of the resource unit allocated to each STA may be of different sizes. The AP interleaves at least some of the data that it transmits to the STAs, using interleaving parameters that may vary depending on the size of the resource unit allocated to the particular STA. Thus, a first data unit meant for a first STA in a multi-user ("MU") downlink transmission may use a first set of interleaver parameter values, while a second data unit addressed to the first station uses a second set of interleaving parameters.
- TP-Link directly infringes the '187 Patent under 35 U.S.C. § 271(a) by making, using, selling, and/or offering to sell in the United States, and/or importing into the United States products that directly infringe the '187 Patent, including the above identified Accused Products. The Accused Products infringe at least claim 1 of the '187 Patent by practicing the 802.11ax Standard, as indicated in TP-Link's marketing materials for the Accused Products. *See e.g.*, 802.11-2020 at § 21.3.10.8 (BCC interleaver); § 27.3.2.2 (Resource unit, guard, and DC subcarriers); § 27.3.12.8 (BCC interleavers); Table 21-17; Table 27-6; Table 27-35.
- Products, TP-Link also indirectly infringes the '187 Patent claims. Where acts constituting direct infringement of the '187 Patent may not be performed by TP-Link, such acts constituting direct infringement of the '187 Patent are performed by TP-Link's customers or end-users who act at the direction and/or control of TP-Link, with TP-Link's knowledge. Upon information and belief, TP-Link intends to cause, and has taken affirmative steps to induce, infringement by importers, online stores, distribution partners, retailers, reseller partners, solution partners, consumers, and other related service providers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or

manuals for these products to purchasers and prospective buyers, testing wireless networking features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to purchasers in the United States. *See, e.g.*, Download Center, https://www.tp-link.com/us/support/download/ (last visited Nov. 18, 2021) (providing consumers access to "firmware, drivers, user guide, utility or any other download resources" for TP-Link Products); *see also* TP-Link Corporation Limited, https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en_US&gl=US (last visited Nov. 18, 2021) (offering the TP-Link apps for download that help users set up and manage the accused devices).

- 113. Atlas is informed and believes, and on that basis alleges, that TP-Link indirectly infringes at least claim 1 of the '187 Patent by active inducement in violation of 35 U.S.C. § 271(b), by at least manufacturing, supplying, distributing, selling, and/or offering for sale the Accused Products to their customers with the knowledge and intent that use of those products would constitute direct infringement of the '187 Patent.
- 114. For example, TP-Link advertises to its customers that it sells products that implement the 802.11ax Standard and extensively promotes the benefits of Wi-Fi 6 to its customers. See https://www.tp-link.com/us/wifi6/. As an example, the "Quick Installation Guide" of the AX11000 assists users in establishing a wireless network as part of the process for setting up the device. See Latitude 7520 Service Manual at 95 available at https://static.tplink.com/2020/202006/20200603/7106508704 Archer%20AX11000 QIG V1.pdf. Similarly, TP-Link provides TP-Link Apps that are designed to assist a customer in installing and managing the Accused **Products** for in wireless local use area network. https://play.google.com/store/apps/developer?id=TP-Link+Corporation+Limited&hl=en US.

Once the Accused Products are installed, they will automatically implement the 802.11ax Standard based upon the hardware and software provided in the Accused Products.

115. TP-Link's acts of infringement have cause damage to Atlas, and Atlas is entitled to recover from TP-Link (or any successor entity to TP-Link) the damages sustained by Atlas as a result of TP-Link's wrongful acts in an amount subject to proof at trial.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for judgment and seeks relief against TP-Link as follows:

- (a) For judgment that U.S. Patent Nos. '259, '738, '513, '679, '919, '851,'520, and '187 have been and continue to be infringed by TP-Link;
- (b) For an accounting of all damages sustained by Plaintiff as the result of TP-Link's acts of infringement;
- (c) For finding that TP-Link's infringement is willful and enhancing damages pursuant to 35 U.S.C. § 284;
- (d) For a mandatory future royalty payable on each and every future sale by TP-Link of a product that is found to infringe one or more of the Asserted Patents and on all future products that are not colorably different from products found to infringe;
 - (e) For an award of attorneys' fees pursuant to 35 U.S.C. § 285 or otherwise permitted by law;
 - (f) For all costs of suit; and
 - (g) For such other and further compensatory relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure and Local Rule CV-38, Plaintiff demands a trial by jury of this action.

Dated: November 22, 2021 Respectfully submitted,

/s/ Michael F. Heim

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