IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

ATLAS GLOBAL TECHNOLOGIES LLC	§	**Civil Action No. 6:21-cv-818**
Plaintiff,	§	**Jury Trial Requested**
v.	§	
SERCOMM CORPORATION,	§	
Defendant.	§	

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Atlas Global Technologies LLC ("Atlas") submits its First Amended Complaint against Defendant Sercomm Corporation ("Sercomm") and requests a trial by jury. Atlas 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 First Amended Complaint. Atlas alleges that Sercomm 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); and 9,531,520 ("the '520 Patent") (Ex. G) (collectively, the "Asserted Patents"), copies of which are attached hereto as Exhibits A-G.

2. Atlas alleges that Sercomm both directly and/or indirectly infringes each of the Asserted Patents. Sercomm directly infringes the method claims of the Asserted Patents by using the Accused Products (described below) in the United States without a license. Sercomm directly infringes the apparatus claims of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Accused Products in the United States without a license.

3. Sercomm also indirectly infringes the method claims of the Asserted Patents by inducing third parties—including Sercomm's customers and end-users of Sercomm's products—to use the Sercomm Accused Products in the United States in an infringing manner, as directed and instructed by Sercomm. Sercomm also indirectly infringes the apparatus claims of the Asserted Patents by inducing others to make, use, sell, offer to sell, and/or import the Accused Products in the United States in an infringing manner, as directed and instructed by Sercomm.

4. Atlas seeks damages and other compensatory relief for Sercomm's prior and continued infringement of the Asserted Patents.

THE PARTIES

5. 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.

6. 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 through assignment from the named inventors.

7. On information and belief, Defendant Sercomm is a Taiwanese corporation with its principal place of business at 8F, No. 3-1, YuanQu St. (Nankang Software Park), Taipei 115, Taiwan.

8. According to its website, Sercomm was founded in 1992 and represents that it is "committed to the development of broadband network software and firmware." *See* http://www.sercomm.com (About Sercomm). "With R&D capabilities accumulated over many years, Sercomm has successfully mastered the key technologies and market trends of the telecom broadband industry." *Id.* Moreover, Sercomm has a "global strategy" and its "global operations network now covers the North American [] markets." *Id.* Sercomm describes North America as one of its "main markets." Sercomm Annual Report 2020 at 4 *available at https://www.sercomm.com/images/uploads/files/Financial-Reports-EN/Report_Annual%202020_en.pdf*. In 2020, 56.31% of Sercomm's global revenue came from North America. *Id.* at 71. Sercomm also has a member of its Board of Directors located in the United States. *Id.* at 31.

9. On information and belief, Sercomm 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. Sercomm's Wi-Fi 6 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. Those sales occur in the United States, and throughout Texas, including in this District. Sercomm states that it "has successfully positioned itself as an international supplier" and that it "serves frontline telecom operators in . . . America . . . ." *See* http://www.sercomm.com (About Sercomm).

10. Sercomm affirmatively touts the advantages of Wi-Fi 6 to its prospective customers. For example, Sercomm claims that it "delivers integrated, multi-gigabit capable products that meet

your customer demands for high-speed, low-latency, reliable broadband service, using cutting edge technology such as [] 802.11ax (WiFi 6 and WiFi 6E) . . . ." http://www.sercomm.com (Solutions->Broadband Access). That technology "opens up new possibilities distributing multi-gigabit broadband speeds throughout customer homes while also providing lower latency and unprecedented multi-client support." *Id.* (Solutions->Broadband Access->Broadband Router). Sercomm also offers for sale Wi-Fi 6 in Enterprise Access Points, which Sercomm says "can significantly reduce customers' network maintenance and operation costs, enabling them to provide cost-effective solutions to the enterprises without sacrificing overall performance and security." *Id.* (Solutions->Enterprise->WiFi Access Point). Also, "Sercomm offers a WiFi Mesh extender that uses the most recent WiFi6 and WiFi6E technology to extend your WiFi network to create whole-home coverage and to increase the range of your WiFi network to every corner of your home." *Id.* (Solutions->Home Connectivity & Entertainment->WiFi Mesh).

11. Sercomm also claims that "Wi-Fi 6 technology [has gone] mainstream" and will "become the mainstream specification for internet access." Sercomm Annual Report 2020 at 67. Further, according to Sercomm, Wi-Fi 6 "will account for more than 50% of the total Wi-Fi chip shipment penetration in 2021." *Id.*

JURISDICTION

12. This is an 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 Sercomm. Atlas is informed and believes, and on that basis alleges, that Sercomm 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. Sercomm has purposefully directed infringing activities at residents of the State of Texas, and this litigation results from those infringing activities. For example, on information and belief, Sercomm has displayed the Accused Products at trade shows in the State of Texas. https://www.sercomm.com (News->Events->AT&T Business Summit, November 4 ~ 7, 2019). Sercomm also regularly sells (either directly or indirectly), its products

within this district. For example, Sercomm has placed and continues to place infringing products into the stream of commerce via an established distribution channel, such as its partner internet service providers, 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. Sercomm is subject to this Court's specific and/or general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial and pervasive business in this State and judicial district, including at least part of its infringing activities alleged herein and deriving substantial revenue from goods sold to Texas residents.

14. Sercomm has admitted it is subject to personal jurisdiction in this judicial district in other cases. *See BE Labs, Inc. v. Sercomm Corp.*, 6:21-cv-72-ADA (W.D. Tex.), Dkt. 17 at §6.

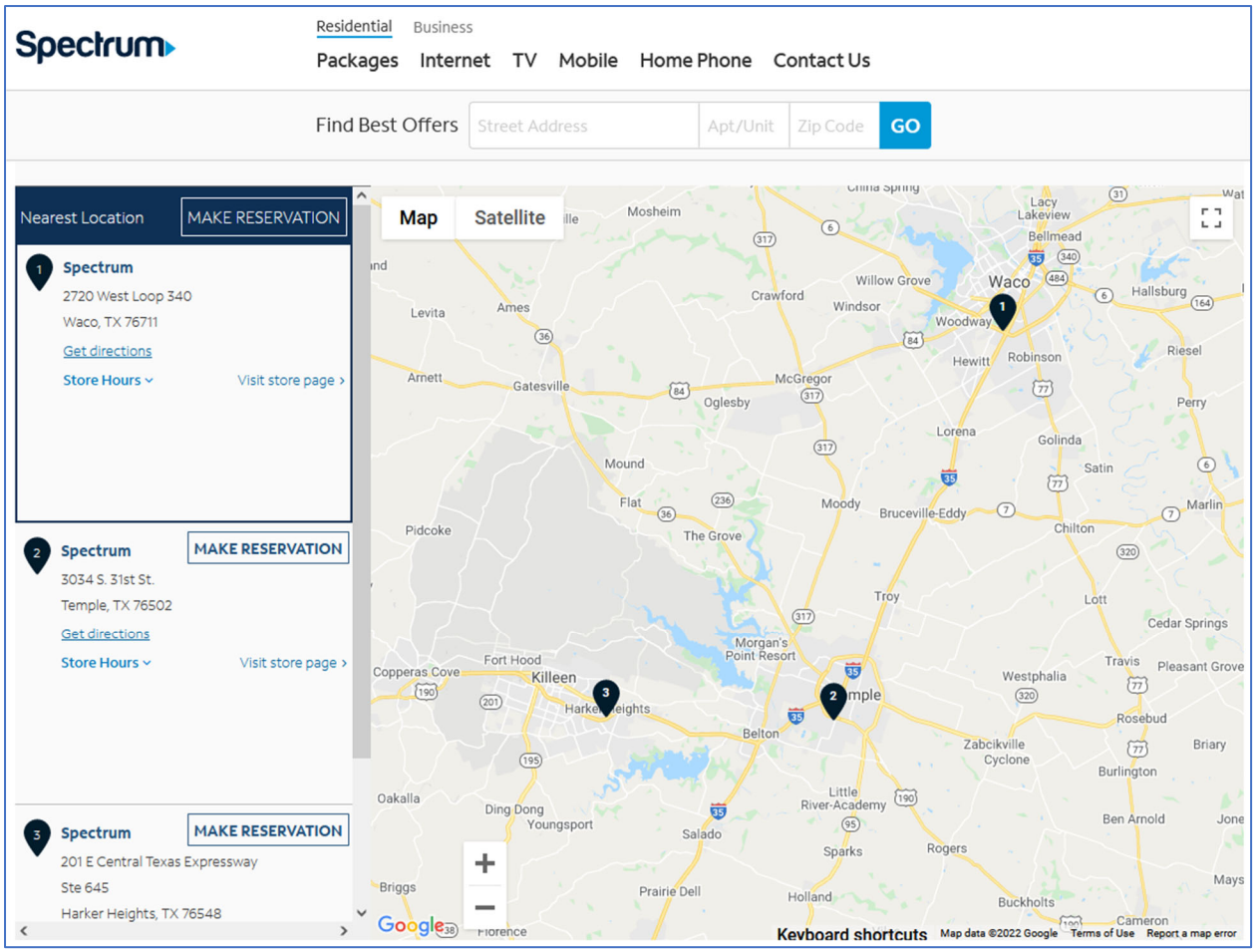
15. Upon information and belief, Sercomm is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, based on its substantial business activities conducted in the State of Texas and this Judicial District, including: (1) its infringing 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. Such a presence furthers the development, design, manufacture, importation, distribution, sale, and use (including by inducement) of infringing Sercomm Products in Texas, including in this District. For example, Sercomm is the applicant for FCC registrations for the sale and use of the Accused Products in the U.S., including being identified on labels as the manufacturing party. *See, e.g.*, SAX1V1R User Manual, FCCID.IO, *available at* https://fccid.io/P27IP5446A/Users-Manual/Users-manual-4824824 (including a copy of the user manual and label for a Sercomm's SAX1V1R router).

16. This Court has personal jurisdiction over Sercomm, directly and/or through the activities of Sercomm intermediaries, agents, related entities, distributors, importers, customers, subsidiaries, and/or consumers. Through direction and control of these various entities, Sercomm 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 Sercomm would not offend traditional notions of fair play and substantial justice.

17. Upon information and belief, Sercomm, 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., has placed and continues to place infringing Accused Products into the U.S. stream of commerce. Sercomm 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)).

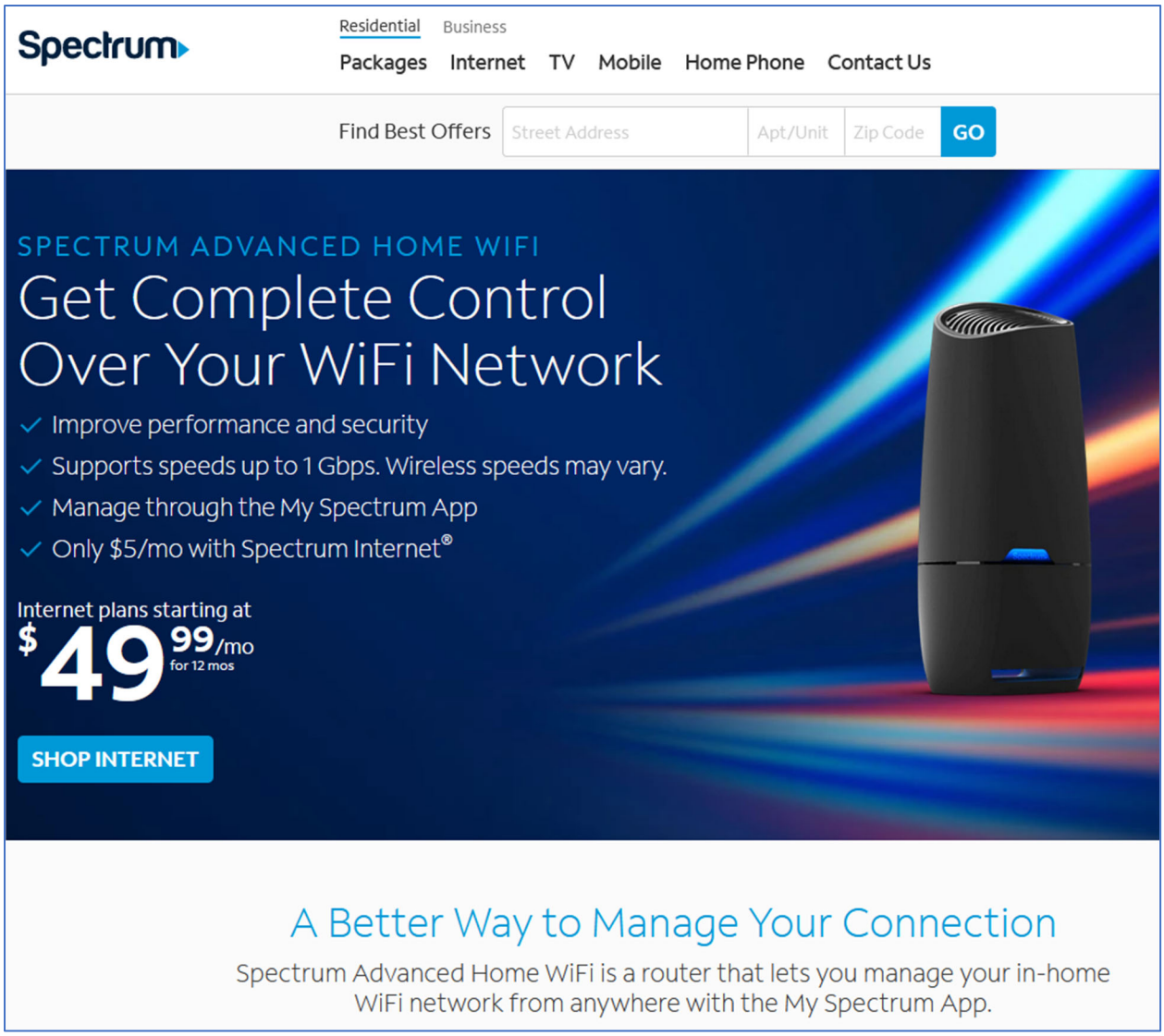
18. Sercomm utilizes established distribution channels to distribute, market, offer for sale, sell, service, and warrant infringing products directly to consumers and other users in the U.S., including by providing links to user manuals and apps on its products. *See* SAX1V1R User Manual, FCCID.IO, *available at* https://fccid.io/P27IP5446A/Users-Manual/Users-manual-4824824 (including Charter Communications' Spectrum labeling on Sercomm's SAX1V1R router and providing a link to download a Charter Communications Spectrum App for setup). On information and belief, such Sercomm Products have been sold by distributors within this Judicial District and in Texas, including by well-known and widely used internet service providers in Texas including Charter Communications and by well-known and widely used retailers and distributors

including Amazon.com, Alarm.com, and Link Labs. For example, on information and belief, Charter Communications, through its Spectrum brand, sells the Sercomm SAX1V1R (which supports Wi-Fi 6 operation) to its customers in this District, including from its retail stores locations in Waco, Temple, and Killeen:



https://www.spectrum.com/stores.

19. Charter Communications sells accused products, including the SAX1V1R:



https://www.spectrum.com/internet/wifi-service/advanced-home-wifi.

20. Based on Sercomm's connections and relationship with these national retailers and distributors, Sercomm knows that Texas is a termination point of its established distribution channels, including the online stores and ISPs offering Sercomm Products to users in Texas. Sercomm, 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").

21. These suppliers and distributors import, advertise, offer for sale, and sell Sercomm Products via their websites to U.S. consumers, including to consumers in Texas. Based on Sercomm's connections and relationships, including supply contracts and other agreements with the U.S. and Texas-based distributors and suppliers, such as at least Charter Communications, Alarm.com and Link Labs, Sercomm knows and has known that Texas is a termination point of the established distribution channels for infringing Sercomm Products. Sercomm 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 Sercomm under Federal Rule of Civil Procedure 4(k)(2), because the claims for patent infringement in this action arise under federal law; Sercomm is not subject to the jurisdiction of the courts of general jurisdiction of any state; and exercising jurisdiction over Sercomm is consistent with the U.S. Constitution.

VENUE

23. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1400(b), 28 U.S.C. § 1391(c), and *Brunette Mach. Works, Ltd. v. Kockum Indus., Inc.*, 406 U.S. 706 (1972). For example, venue is proper in this judicial district pursuant to 28 U.S.C. §1391(c)(3) because, among other things, Sercomm is not a resident of the United States, and thus may be sued in any judicial

district, including this one. *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.).

24. On information and belief, Sercomm also has significant ties to, and presence in, the State of Texas and the Western District of Texas, making venue in this judicial district both proper and convenient for this action. *See* ¶¶ 8-9 and 13-21 above.

25. Sercomm has admitted that venue is proper in this judicial district in other cases. *See BE Labs, Inc. v. Sercomm Corp.*, 6:21-cv-72-ADA (W.D. Tex.), Dkt. 17 at §7.

THE 802.11 STANDARD

26. Wireless Local Area Networks (WLANs) have become ubiquitous with the rise of mobile telecommunication devices. 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."

27. After an original Wi-Fi standard was published in 1999, new standard versions have been published by amendments. 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. These prior versions of the 802.11 standard are called legacy standards.

28. 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, commonly called "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.

29. 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-fi-with-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 Gbps. 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.*

30. Sercomm also touts benefits of Wi-Fi 6, including its "Ultrafast WiFi Speed [that can] handle even the busiest network with ease." *E.g.*, http://www.sercomm.com (Solutions->Broadband Access->Broadband Router->AX11000 WiFi 6E Router). And according to Sercomm, WiFi 6 "support[s] MU-MIMO and OFDMA technology," which Sercomm calls "Key Features." *Id.* Sercomm touts these and other benefits to users looking for a new router and highlights its Wi-Fi 6 products at trade shows throughout the United States. http://www.sercomm.com (News->Events->2022 International CES, January 5 ~ 8, 2020). Sercomm's 2020 Annual Report states that Wi-Fi 6 will become "the mainstream specification for future connectivity and support high-speed and high-performance applications." Sercomm Annual Report 2020 at 68.

NEWRACOM

31. 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.

32. 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 at least 188 United States patents relating to the 802.11ax Standard.

SERCOMM'S KNOWLEDGE OF NEWRACOM'S PATENTS

33. Sercomm 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."

34. Sercomm also knew of the Asserted Patents on June 1, 2021, when Atlas notified Sercomm of them. More specifically, on that date, Atlas sent Sercomm (via its Senior Director of Business Development, Casey Hu) a letter notifying Sercomm that it had "recently acquired Newracom's substantial Wi-Fi 6 SEP [Standard Essential Patent] portfolio." Ex. H at 9. Further, Atlas told Sercomm that the Asserted Patents "cover[] key improvements in Wi-Fi technology developed by Newracom's internal R&D team and adopted in the 802.11ax Wi-Fi standard." *Id.* In that initial June 1, 2021 letter, Atlas specifically invited Sercomm to license the Asserted Patents. *Id.*

35. Over the next two months, Atlas further notified Sercomm of Atlas's portfolio and the Asserted Patents on numerous occasions. For example, Atlas sent Sercomm ten emails on June 8, June 14, June 22, June 29, July 12, July 19, July 26, and August 2. Ex. H at 1-7. Those emails made repeated reference to Atlas's "Wi-Fi 6 Standard Essential Patent Portfolio," and continued to press Sercomm to take a license. Atlas also telephoned Sercomm on at least two occasions during that time concerning the Asserted Patents. Sercomm received each of these letters, emails, and phone calls, and even responded to two of them. Despite learning that Atlas owned a substantial patent portfolio covering its Wi-Fi 6 product offerings, Sercomm continued to offer for sale, sell, import, distribute, and use its infringing Wi-Fi 6 products in the United States.

36. At minimum, Sercomm was aware of the Asserted Patents as of the date of filing of the initial Complaint (August 9, 2021, *see* Dkt. No. 1), and certainly by the date it waived service of the initial Complaint (September 15, 2021, *see* Dkt. No. 23).

SERCOMM'S USE OF THE PATENTED TECHNOLOGY

37. On information and belief, Sercomm makes, uses, sells, and/or offers to sell in the United States, and/or imports into the United States various devices with Wi-Fi capabilities. For example, Sercomm makes, uses, and sells Access Points that support Wi-Fi 6. Sercomm's devices with Wi-Fi 6 capability include software and hardware on the devices that implement the inventions claimed in the Asserted Patents.

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

Accused Products	
RP562B	XiOne-SC
eLife Connect C1AS	XGS5244B
Booster (RP571Q.FW)	SAX1V1R
NEXXT (IAD VD4225R.FW)	VD4224B
KIWI4 Indoor Premium WiFi AP	4KP60 IPTV/OTT STB with WiFi 66
KIWI4 Indoor Premium WiFi AP	2x2 (2.4G) + 2x2 (5G) 11ax Dual Band Access Point
KIWI4 Outdoor Premium WiFi AP	4x4 (2.4G) + 4x4 (5G Low) + 4x4 (5G High) 11ax Tri-radio
RHG3006	4x4 (2.4G) + 8x8 (5G) 11ax Dual Band Access Point
KIWI4 Outdoor Premium WiFi AP	AX6000 WiFi Extender – 2x2 + 4x4 11ax Dual Band WiFi Extender
11ax Dual Band WiFi Voice Gateway	AXE8400 WiFi Extender – 2x2 + 4x4 + 2x2 11ax Tri Band WiFi Extender
11ax Dual Band WiFi Data Gateway	Dual Band Wireless Business Router
Premium Tri-band 10G PON Home Gateway (High End)	8-Port Business Router
Premium 10G PON Home Gateway Unit with 11ax (High End)	2x2 (2.4G) + 2x2 (5G) 11ax Dual Band Access Point

10G PON Home Gateway Unit with 11ax (Middle End)	4x4 (2.4G) + 4x4 (5G Low) + 4x4 (5G High) 11ax Tri-Radio Access Point
Premium GPON Home Gateway Unit with 11ax (High End)	4x4 (2.4G) + 8x8 (5G) 11ax Dual Band Access Point
GPON Home Gateway Unit with 11ax (Middle End)	AX1800 WiFi Router – 2+2 11ax Dual Band Wireless Router
212 G.fast IAD with 4x4 + 4x4 WiFi 6	AX6000 WiFi 6 Router – 4+4 11ax Dual Band Wireless Router
VDSL 35b IAD with 4x4 + 4x4 11ax WiFi6	AX11000 WiFi 6E Router – 4+4+4 11ax Dual Band Wireless Router
VSDL2 35b IAD with 2x2 + 4x4 WiFi 6	

https://www.wi-fi.org/product-finder-results?sort_by=certified&sort_order=desc&capabilities=189&companies=356; https://www.sercomm.com.

39. Examples of Sercomm's Wi-Fi 6 products are shown below:

https://www.sercomm.com.

40. On information and belief, Sercomm uses the Accused Products in an infringing manner in the United States, both alone and jointly with its customers. For example, and on information and belief, Sercomm employees[1] use the Accused Products to perform the infringing methods in

[1] Upon information and belief, Sercomm employees primarily based overseas in Taiwan regularly travel to the United States for business purposes, and perform the infringing methods when in the

the United States at Sercomm's U.S. offices (which use Sercomm's Wi-Fi 6 products to provide a wireless network) when sending and receiving data over Sercomm's wireless networks.

41. On information and belief, Sercomm employees also use the Accused Products to perform the infringing methods in the United States when they demonstrate the infringing Wi-Fi 6 features of the Accused Products to actual and potential U.S. customers, for example at trade shows, product demonstrations, and more generally as part of selling the Accused Products. For example, Sercomm employees, including Sercomm's "Executive Team," use the Accused Products when demonstrating their functionality to customers at trade shows. Sercomm employees regularly attend trade shows in the United States, including shows in Dallas, Los Angeles, and Nevada. https://www.sercomm.com/ (News->Events). At these events, Sercomm employees "showcase a full range of products across its Smart Home and IoT Solution portfolio." *Id.* (News->Events->2020 International CES, January 7 ~ 10, 2020). Sercomm employees also "highlight[] [Sercomm's] wireless and wired Broadband Connectivity product portfolio including . . . WiFi6/6E," *e.g.*, the Accused Products. *Id.* (News->Events->2022 International CES, January 5 ~ 8, 2022).

42. On information and belief, Sercomm employees also use the Accused Products to perform the infringing methods in the United States as part of providing customer support to Sercomm's actual and potential customers, for example when trouble-shooting customer issues and resolving technical problems.

United States. For example, Paul Wang, Sercomm's Chairman and Co-Founder, is also the Chairman and CEO of Sercomm USA, Inc. and he performs the infringing methods when at Sercomm's Fremont, California offices. Similarly, James Wang, Sercomm's CEO and President, is also a Director of Sercomm Technology, Inc. and he performs the infringing methods when at Sercomm's Atlanta, Georgia offices. Likewise, Ben Lin, Sercomm's CTO and Executive VP, is also a company representative of both Sercomm USA, Inc. and Sercomm Technology, Inc. and he performs the infringing methods when at Sercomm's California office and Sercomm's Georgia office. Sercomm also has a member of its Board of Directors located in the United States. Sercomm Annual Report 2020 at 31. On information and belief, that individual performs the infringing methods in the United States.

FIRST COUNT

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

43. Atlas incorporates by reference the allegations set forth in Paragraphs 1-42 of this Complaint as though fully set forth herein.

44. 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.

45. 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 from the plurality of STA devices simultaneously.

46. 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 the AP will receive the feedback frame providing beamforming information regarding the first subchannel by a first non-AP station 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 non-AP device among the plurality of subchannels by the AP.

47. Sercomm directly infringes the method claims of the '259 Patent under 35 U.S.C. § 271(a) by using the Accused Products in the United States as described in paragraphs 40-42 above. The Accused Products infringe at least claim 18 of the '259 Patent by practicing the 802.11ax Standard, as indicated in Sercomm's marketing materials for the Accused Products. The Sercomm Accused Products operate as AP devices that are designed by Sercomm 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 § 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).

48. For example, Figure 26-8 of the Wi-Fi 6 Standard shows an AP (referred to as a "HE beamformer"), such as one of Sercomm's Accused AP Products, transmitting a null data packet announcement frame to a plurality of STA devices (referred to as "HE beamformees"), followed by a null data backet frame (referred to as "HE sounding NDP"). Then, the AP receives simultaneous feedback frames (referred to as "HE Compressed Beamforming/CQIs") from the STAs. The HE Compressed Beamforming/CQI frames contain information about the subchannel, including the average signal-to-noise ratio and beamforming feedback matrices. *See* 802.11ax-2021 § 9.4.1.65 (HE Compressed Beamforming Report Field).

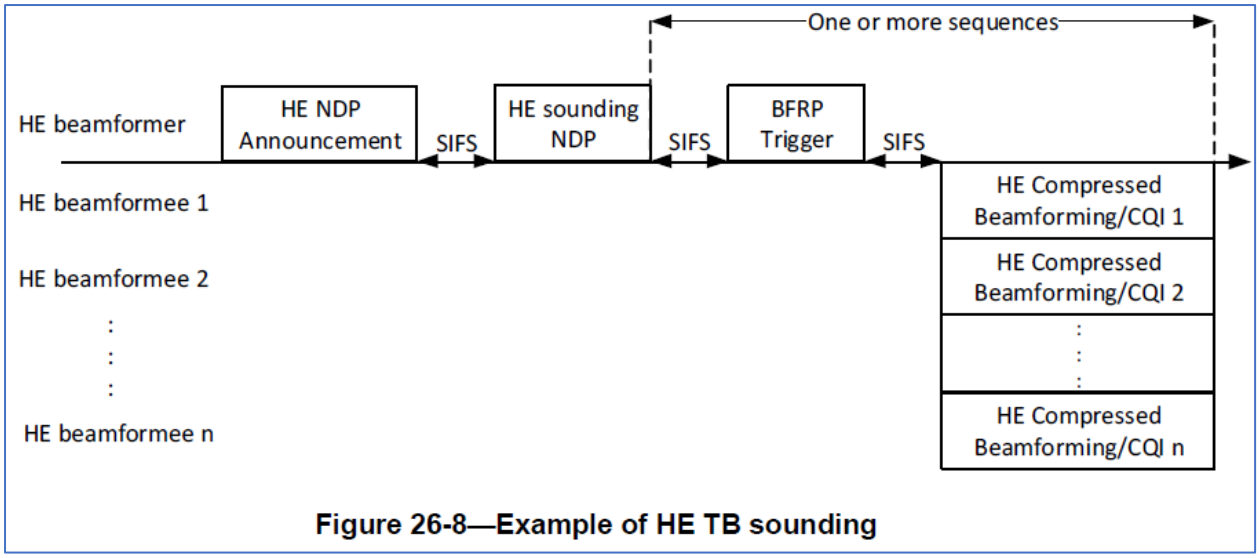


Figure 26-8—Example of HE TB sounding

49. In addition to directly infringing the '259 method claims, Sercomm also indirectly infringes the '259 claims. Where acts constituting direct infringement of the '259 Patent are not performed by Sercomm, such acts constituting direct infringement of the '259 Patent are performed by Sercomm's customers or end-users (the direct infringers) who act at the direction and/or control of Sercomm, with Sercomm's knowledge. Upon information and belief, Sercomm 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.

50. Atlas is informed and believes, and on that basis alleges, that Sercomm 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 and end users of Sercomm's Accused Products with the knowledge and intent that use of those products would constitute direct infringement of the '259 Patent.

51. For example, Sercomm advertises to its customers that it sells products that comply with the 802.11ax Standard. *See* https://www.sercomm.com/contpage.aspx?langid=1&type=prod3&L1id=2&L2id=2&L3id=31&Prodid=1030. Sercomm also instructs its customers on how to connect the Accused Products to Wi-Fi networks so that they may practice the 802.11ax Standard. Once the Accused Products are installed, they will automatically implement the 802.11ax Standard in an infringing manner based upon the hardware and software provided in the Accused Products. Sercomm also provides technical support to its customers and end users and encourages them to use the Accused Products in an infringing manner. Thus, with full knowledge of the '259 Patent as described in paragraphs 33-36 above, Sercomm induced its customers and end users to directly infringe the '259 Patent by using the Accused Products to perform the infringing methods.

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

SECOND COUNT

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

53. Atlas incorporates by reference the allegations set forth in Paragraphs 1-52 of this Complaint as though fully set forth herein.

54. 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.

55. 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 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. The Accused AP Products are configured and designed to transmit the aforementioned DL MU frame, receive the aforementioned UL MU frames, and transmit the aforementioned acknowledgment frame, and they do in fact transmit and receive those frames during normal use as intended by Sercomm.

56. The Accused AP Products are configured to transmit DL MU trigger frames to a plurality of non-AP stations (“STAs”). The DL MU trigger frames include uplink setup information comprising a common information portion that is common to all of the plurality of STAs, and a dedicated user info list portion that is specific to particular STAs. The common information portion is a function of the total number of space time streams that the STAs will use to transmit the UL

MU frames. The Accused AP Products then receive HE TB PPDU uplink frames from the STAs. And the Accused AP Products then transmit a BlockAck acknowledgement frame to the STAs.

57. Sercomm directly infringes the method claims of the '738 Patent under 35 U.S.C. § 271(a) by using the Accused Products in the United States as described in paragraphs 40-42 above. The Accused Products infringe at least claim 1 of the '738 Patent by practicing the 802.11ax Standard, as indicated in Sercomm's marketing materials for the Accused Products. The Sercomm Accused Products operate as AP devices that are designed by Sercomm 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, receive UL MU frames from those STAs, and then transmit an acknowledgement frame to multiple STAs. *See, e.g.*, 802.11ax-2021 § 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.

58. For example, Figure 10-14c of the Wi-Fi 6 Standard shows an AP, such as one of Sercomm's Accused AP Products, transmitting a DL trigger frame to a plurality of STAs, receiving HE TB PPDUs from each STA, and then transmitting a multi-STA BlockAck acknowledgment.

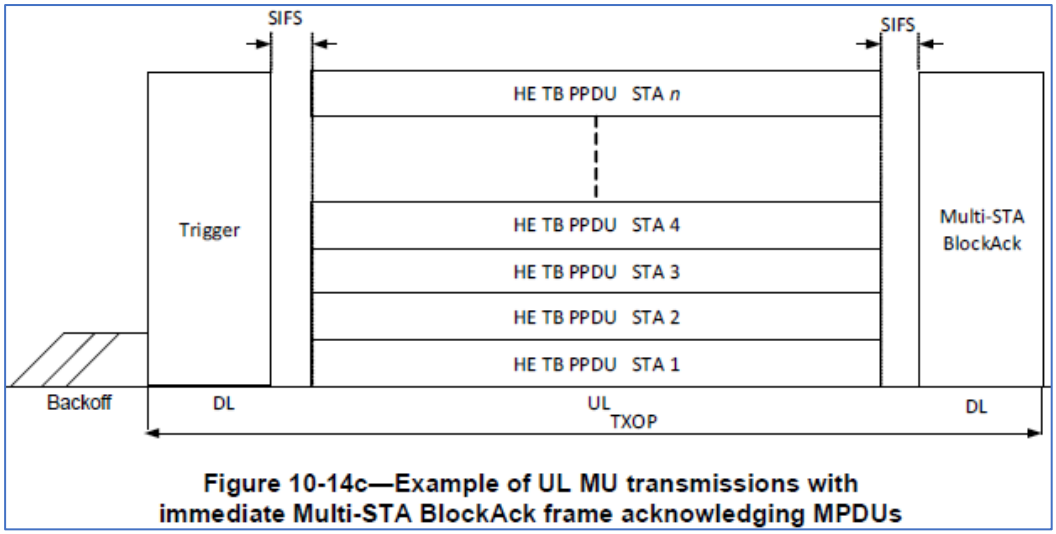


Figure 10-14c—Example of UL MU transmissions with immediate Multi-STA BlockAck frame acknowledging MPDUs

Figure 9-64a of the Wi-Fi 6 Standard shows the format of the trigger frame that the Accused AP Products transmit to a plurality of STAs. Notably, it includes uplink setup information with a common information portion (labeled "Common Info") that is common to all of the plurality of STAs that receive the trigger frame, and a dedicated information portion (labeled "User Info List") that is specific to the particular STAs that receive the trigger frame.

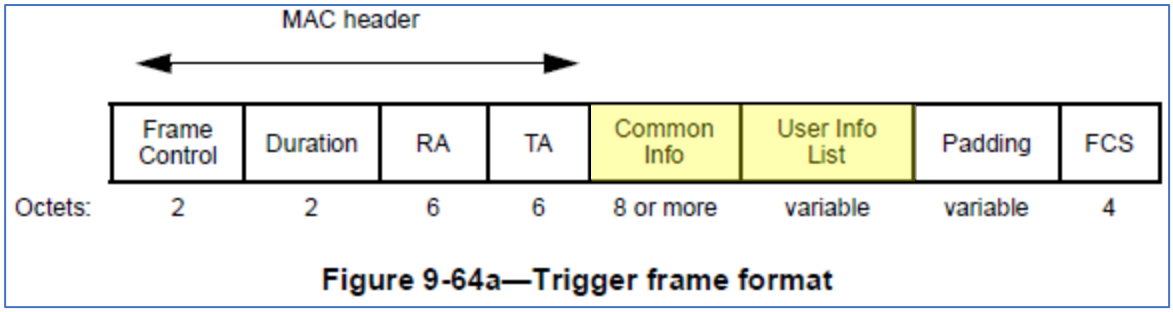


Figure 9-64a—Trigger frame format

Figure 9-64b shows the contents of the Common Info subfield, including the Number of HE-LTF Symbols and Midamble Periodicity subfield.

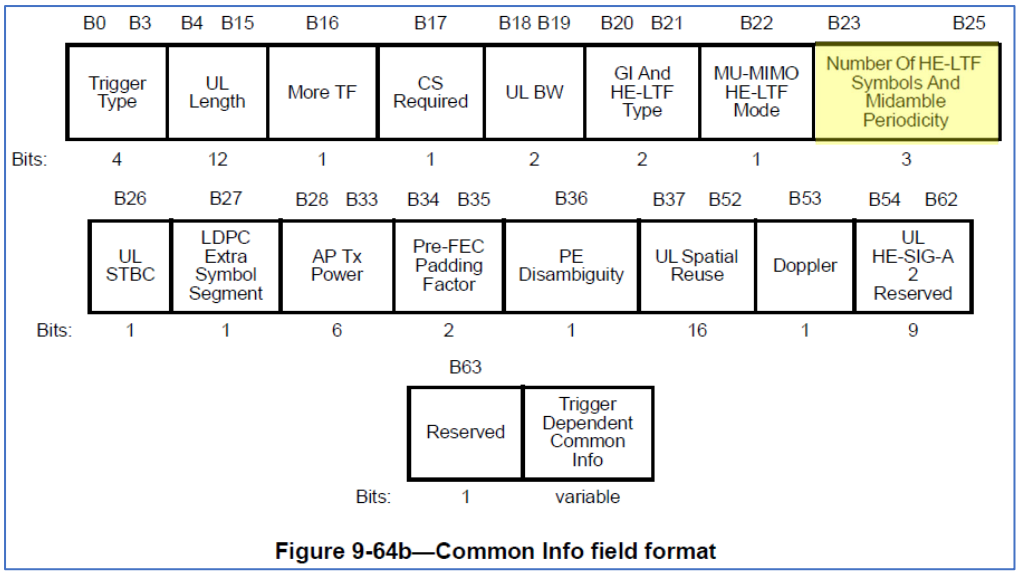


Figure 9-64b—Common Info field format

As its name suggests, that subfield indicates the number of HE-LTF symbols present in the STA's responsive HE TB PPDUs, which is a function of the total number of space-time streams. *See* 802.11ax-2021 § 27.3.11.10 (HE-LTF Field); *id.* § 27.3.4 (HE PPDU Formats); *id.* Table 21-13 (Number of VHT-LTFs Required For Different Numbers of Space-Time Streams).

59. In addition to directly infringing the '738 method claims, Sercomm also indirectly infringes the '738 claims. Where acts constituting direct infringement of the '738 Patent are not performed by Sercomm, such acts constituting direct infringement of the '738 Patent are performed by Sercomm's customers or end-users (the direct infringers) who act at the direction and/or control of Sercomm, with Sercomm's knowledge. Upon information and belief, Sercomm 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.

60. Atlas is informed and believes, and on that basis alleges, that Sercomm 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 and end users of Sercomm's Accused Products with the knowledge and intent that use of those products would constitute direct infringement of the '738 Patent.

61. For example, Sercomm advertises to its customers that it sells products that comply with the 802.11ax Standard. *See* https://www.sercomm.com/contpage.aspx?langid=1&type=prod3&L1id=2&L2id=2&L3id=31&Prodid=1030. Sercomm also instructs its customers on how to connect the Accused Products to Wi-Fi networks so that they may practice the 802.11ax Standard. 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. Sercomm also provides technical support to its customers and end users and encourages them to use the Accused Products in an infringing manner. Thus, with full knowledge of the '738

Patent as described in paragraphs 33-36 above, Sercomm induced its customers and end users to directly infringe the '738 Patent by using the Accused Products to perform the infringing methods.

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

THIRD COUNT

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

63. Atlas incorporates by reference the allegations set forth in Paragraphs 1-62 of this Complaint as though fully set forth herein.

64. 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.

65. 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.

66. The Accused AP Products are configured to create and transmit a trigger frame to a set of STAs that will participate in a subsequent uplink multi-user transmission. That trigger frame has a Common Info field with a GI and HE LTF Type subfield that indicates the common guard interval for the STAs' subsequent uplink multi-user transmission. That trigger frame also has a User Info List field with a RU Allocation subfield that allocates resources for and solicits the STAs' subsequent uplink multi-user transmission. The STAs will then each generate and transmit an uplink transmission (called a HE TB PPDU) using the guard interval and resources from the trigger frame. The Accused AP Products receive and process those HE TB PPDU uplink transmissions.

67. Sercomm directly infringes the method claims of the '513 Patent under 35 U.S.C. § 271(a) by using the Accused Products in the United States as described in paragraphs 40-42 above. 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. The Sercomm Accused Products operate as AP devices that are designed by Sercomm and operate consistent with the requirements of 802.11ax. This includes the ability to generate and send trigger frames that allocate resources and indicate guard intervals for subsequent uplink multi-user transmissions from STAs. *See*, *e.g.*, 802.11ax-2021 § 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).

68. For example, Figures 9-64a, 9-64b and 9-64d (amalgamated below) of the Wi-Fi 6 Standard show certain fields and subfields of a trigger frame that is generated and transmitted by the Accused AP Products.

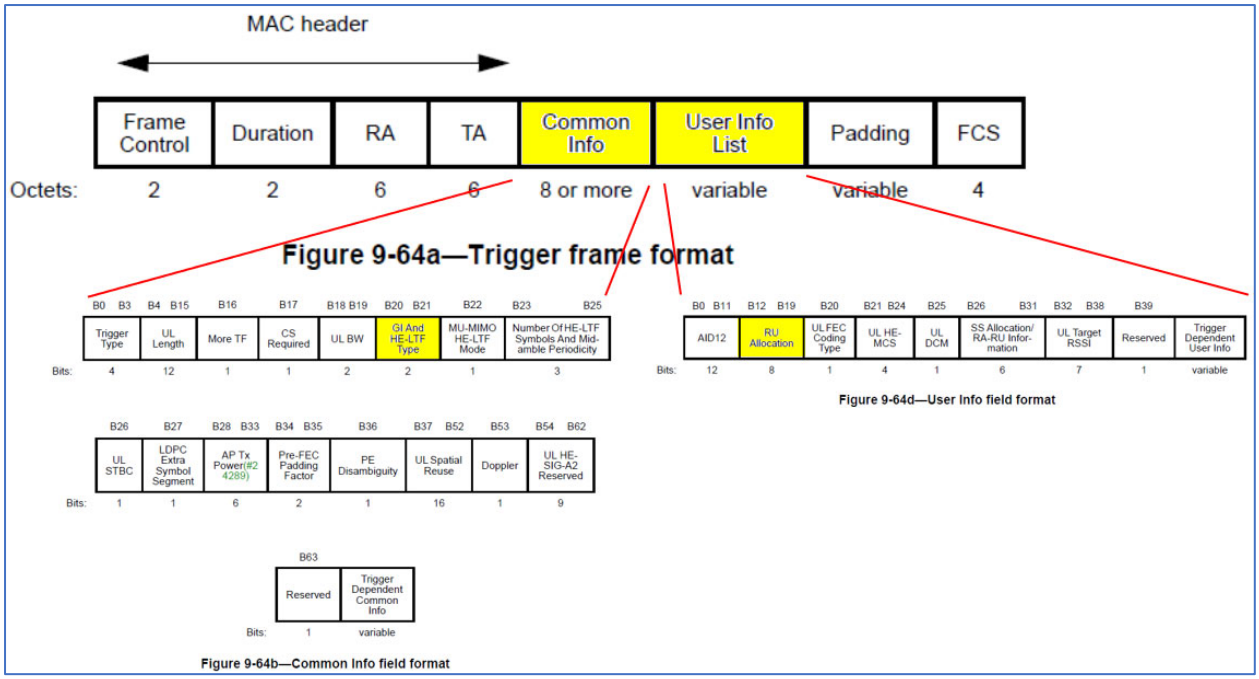


Table 9-31d of the Wi-Fi 6 Standard shows that the GI and HE-LTF subfield of the trigger frame sets the guard interval—either 1.6 µs or 3.2 µs—used for the STAs' responsive HE TB PPDUs.

Table 9-31d—GI And HE-LTF Type subfield encoding

GI And HE-LTF Type subfield value	Description
0	1x HE-LTF + 1.6 µs GI
1	2x HE-LTF + 1.6 µs GI
2	4x HE-LTF + 3.2 µs GI
3	Reserved

Table 9-31h of the Wi-Fi 6 Standard further shows that the RU Allocation subfield of the trigger frame allocates resources for a particular STA's responsive HE TB PPDU.

Table 9-31h—B7–B1 of the RU Allocation subfield

B7-B1 of the RU Allocation subfield	UL BW subfield	RU size	RU Index
0–8	20 MHz, 40 MHz, 80 MHz, 80+80 MHz or 160 MHz	26	RU1 to RU9, respectively
9–17	40 MHz, 80 MHz, 80+80 MHz or 160 MHz		RU10 to RU18, respectively
18–36	80 MHz, 80+80 MHz or 160 MHz		RU19 to RU37, respectively
37–40	20 MHz, 40 MHz, 80 MHz, 80+80 MHz or 160 MHz	52	RU1 to RU4, respectively
41–44	40 MHz, 80 MHz, 80+80 MHz or 160 MHz		RU5 to RU8, respectively
45–52	80 MHz, 80+80 MHz or 160 MHz		RU9 to RU16, respectively

69. In addition to directly infringing the '513 method claims, Sercomm also indirectly infringes the '513 claims. Where acts constituting direct infringement of the '513 Patent are not be performed by Sercomm, such acts constituting direct infringement of the '513 Patent are performed by Sercomm's customers or end-users (the direct infringers) who act at the direction and/or control of Sercomm, with Sercomm's knowledge. Upon information and belief, Sercomm 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.

70. Atlas is informed and believes, and on that basis alleges, that Sercomm 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.

71. For example, Sercomm advertises to its customers that it sells products that comply with the 802.11ax Standard. *See* https://www.sercomm.com/contpage.aspx?langid=1&type=prod3&L1id=2&L2id=2&L3id=31&Prodid=1030. Sercomm also instructs its customers on how to connect the Accused Products to Wi-Fi networks so that they may practice the 802.11ax Standard. 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. Sercomm also provides technical support to its customers and end users and encourages them to use the Accused products in an infringing manner. Thus, with full knowledge of the '513 Patent as described in paragraphs 33-34 above, Sercomm induced its customers and end users to directly infringe the '513 Patent by using the Accused Products to perform the infringing methods.

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

FOURTH COUNT

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

73. Atlas incorporates by reference the allegations set forth in Paragraphs 1-72 of this Complaint as though fully set forth herein.

74. 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.

75. The '679 Patent generally relates to 802.11ax responsive UL transmission. The Accused AP Products transmit a downlink (DL) frame that identifies the type of UL frame for the STA to provide as an acknowledgement. The types may be either a single-user (SU) type or a multiple-user (MU) type frame. The STAs transmit, and the Accused AP Products receive, an uplink frame of the type previously specified by the Accused AP Product in the DL frame. If the UL frame corresponds to a MU type, the Accused AP Product simultaneously receives the UL frames from a plurality of stations.

76. Sercomm directly infringes the method claims of the '679 Patent under 35 U.S.C. § 271(a) by using the Accused Products in the United States as described in paragraphs 40-42 above. The Accused Products infringe at least claim 6 of the '679 Patent by practicing the 802.11ax Standard, as indicated in Sercomm's marketing materials for the Accused Products. The Sercomm Accused Products operate as AP devices that are designed by Sercomm and operate consistent with the requirements of 802.11ax. This includes the ability to generate and send downlink MAC frames that have a QoS Control field that contains an Ack Policy Indicator. The Ack Policy Indicator within the QoS Control Field indicates whether the STA who receives a HE MU PPDU will transmit its acknowledgment as an SU PPDU in single-user format or as a HE TB PPDU in multiple-user format. *See, e.g.*, 802.11ax-2021 § 9.2.4.5.1 (QoS Control field structure); § 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); and Figures 9-2, 9-3, 10-13 and 10-14a.

77. For example, Figure 9-2 of the Wi-Fi 6 Standard shows the format of a downlink MAC frame sent by an Accused AP Product. Notably, it contains a QoS Control Field, and bits 5-6 of that QoS Control Field are the Ack Policy Indicator.

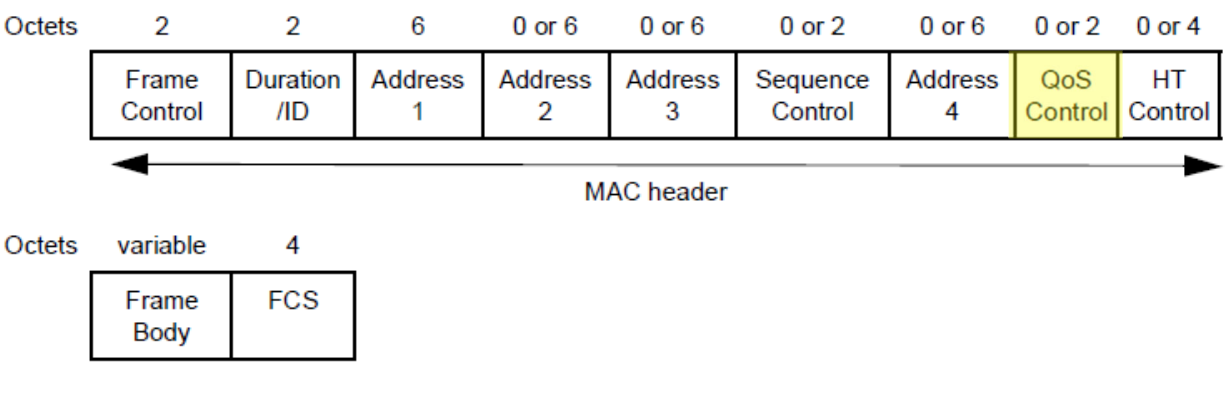


Figure 9-2—MAC frame format

The Ack Policy Indicator within the QoS Control Field indicates whether the STA will transmit its acknowledgment as an SU PPDU in single-user format or as a HE TB PPDU in multiple-user format, as shown by Table 9-13 of the Wi-Fi 6 Standard. For example, if the ACK Policy Indicator is "00" indicating Normal Ack, then the STA will acknowledge reception using a HE SU PPDU in single-user format. But if the ACK Policy Indicator of a MU PPDU is "01" indicating HETP Ack, then the STA will acknowledge reception using a HE TB PPDU in multi-user format.

Table 9-13—Ack policy

Ack policy	Ack Policy Indicator subfield		Other conditions	Meaning
	Bit 0	Bit 1		
Normal Ack	0	0	MPDU is a non-A-MPDU frame	Where the frame contains a fragment and both the originator and the addressed recipient support fragment BA : The addressed recipient returns an NDP BlockAck or BAT frame after a SIFS, according to the procedures defined in 10.3.2.12 and 10.47.2. Otherwise: The addressed recipient returns an Ack, STACK, or QoS +CF-Ack frame after a short interframe space (SIFS) period, according to the procedures defined in 10.3.2.11, 10.47.2, and 10.23.3.5. A non-DMG STA uses this ack policy for individually addressed QoS Null frames.
Implicit BAR	0	0	MPDU is not a non-A-MPDU frame NOTE—This MPDU is sent under a block ack agreement.	The addressed recipient returns a BlockAck, TACK or BAT frame, either individually or as part of an A-MPDU starting a SIFS after the PPDU carrying the frame, according to the procedures defined in 10.3.2.11, 10.25.6.5, 10.29.3, 10.29.4, 10.47.2, and 10.34.3.
No Ack	1	0	None	The addressed recipient takes no action upon receipt of the frame. More details are provided in 10.26. This ack policy is used in all individually addressed frames in which the sender does not require immediate acknowledgment. It is also used in all group addressed frames that use the QoS frame format except QoS Data frames with a TID for which a block ack agreement exists. It is not used for QoS Data frames with a TID for which a block ack agreement exists.

No Explicit Acknowledgment	0	1	Bit 6 of the Frame Control field (see 9.2.4.1.3) is equal to 1 and the frame is not carried in an HE MU PPDU, HE SU PPDU, or HE ER SU PPDU that contains a frame that solicits a response in an HE TB PPDU	There might be a response frame to the frame that is received, but it is neither the Ack frame nor any Data frame of subtype +CF-Ack. This ack policy is used for QoS CF-Poll and QoS CF-Ack +CF-Poll Data frames. NOTE—Bit 6 of the Frame Control field (see 9.2.4.1.3) indicates the absence of a Frame Body field in a QoS Data frame. ~~When~~ If equal to 1, the QoS Data frame contains no Frame Body field, and any response is generated in response to a QoS CF-Poll or QoS CF-Ack +CF-Poll frame, but does not signify an acknowledgment of data.
PSMP Ack	0	1	Bit 6 of the Frame Control field (see 9.2.4.1.3) is equal to 0 and the frame is not carried in an HE MU PPDU, HE SU PPDU, or HE ER SU PPDU that contains a frame that solicits a response in an HE TB PPDU	The acknowledgment for a frame indicating PSMP Ack when it appears in a PSMP downlink transmission time (PSMP-DTT) is to be received in a later PSMP uplink transmission time (PSMP-UTT). The acknowledgment for a frame indicating PSMP Ack when it appears in a PSMP-UTT is to be received in a later PSMP-DTT. See 10.30.2.7.
HETP Ack	0	1	The frame is carried in an HE MU PPDU, HE SU PPDU, or HE ER SU PPDU that contains a frame that solicits a response in an HE TB PPDU	The addressed recipient returns an Ack, Compressed BlockAck, or Multi-STA BlockAck frame carried in an HE TB PPDU a SIFS after the PPDU, subject to reception of a triggering frame in the PPDU, as defined in 10.3.2.13.2 and 26.5.2.
Block Ack	1	1	None	The addressed recipient takes no action upon the receipt of the frame except for recording the state. The recipient can expect a BlockAckReq frame or implicit block ack request in the future to which it responds using the procedure described in 10.25.

78. In addition to directly infringing the '679 method claims, Sercomm also indirectly infringes the '679 claims. Where acts constituting direct infringement of the '679 Patent are not performed by Sercomm, such acts constituting direct infringement of the '679 Patent are performed by Sercomm's customers or end-users (the direct infringers) who act at the direction and/or control of Sercomm, with Sercomm's knowledge. Upon information and belief, Sercomm 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.

79. Atlas is informed and believes, and on that basis alleges, that Sercomm 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.

80. For example, Sercomm advertises to its customers that it sells products that comply with the 802.11ax Standard. *See* https://www.sercomm.com/contpage.aspx?langid=1&type=prod3&L1id=2&L2id=2&L3id=31&Prodid=1030. Sercomm also instructs its customers on how to connect the Accused Products to Wi-Fi networks so that they may practice the 802.11ax Standard. 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. Sercomm also provides technical support to its customers and end users and encourages them to use the Accused Products in an infringing manner. Thus, with full knowledge of the '679 Patent as described in paragraphs 33-36 above, Sercomm induced its customers and end users to directly infringe the '679 Patent by using the Accused Products to perform the infringing methods.

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

FIFTH COUNT

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

82. Atlas incorporates by reference the allegations set forth in Paragraphs 1-81 of this Complaint as though fully set forth herein.

83. 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.

84. 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 consists of 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. The Accused AP Products are configured and designed to implement the above sounding procedure, and they do in fact implement that sounding procedure during normal use as intended by Sercomm.

85. Sercomm directly infringes the method claims of the '919 Patent under 35 U.S.C. § 271(a) by using the Accused Products in the United States as described in paragraphs 40-42 above. 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. This includes the ability to perform a sounding procedure where the Accused AP Products generate and transmit null data packet announcements with one or more station information fields, followed by null data packets. When there is only a single station information field in the null data packet announcement, that receiving station is required to transmit a CSI feedback report. *See e.g.*, 802.11ax-2021 § 26.7 (HE Sounding protocol); § 9.3.1.19 (VHT/HE NDP Announcement Frame Format); Figures 9-61a, 26-7, 26-8.

86. For example, Figure 26-7 of the Wi-Fi 6 standard shows an AP (referred to as a "HE beamformer"), such as one of Sercomm's Accused AP products, transmitting a null data packet announcement frame to a single STA device (referred to as a "HE beamformee").

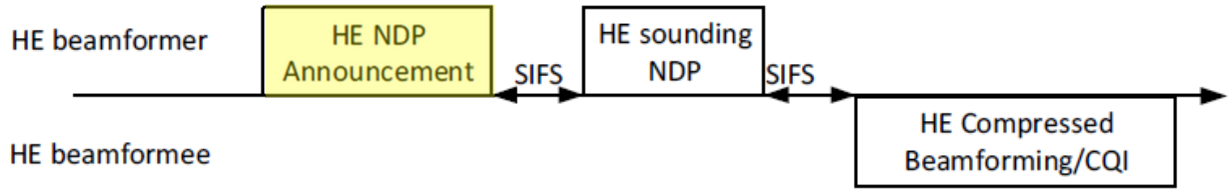


Figure 26-7—Example of HE non-TB sounding

Figure 9-61 shows the format of a null data packet announcement frame.

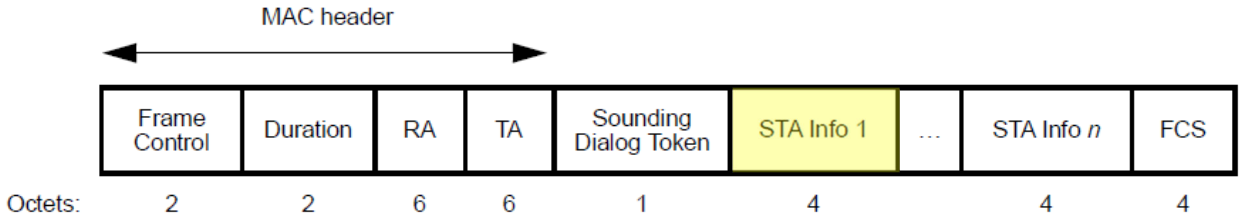


Figure 9-61a—HE NDP Announcement frame format

If the null data packet announcement frame was only intended for a single station as in Figure 26-7, there will only be a single station information field ("STA Info 1") in the NDPA transmitted by the Accused AP Product. Thus, the number of station information fields is the cardinality of the set of STA Info fields in the HE NDPA. Thereafter, the Accused AP Product transmits a null data packet (referred to in Figure 26-7 above as a "HE sounding NDP") to the station. Then, the station will transmit a channel state information feedback report (referred to in Figure 26-7 above as a "HE Compressed Beamforming/CQI"), and the Accused AP Product will receive it.

87. In addition to directly infringing the '919 method claims, Sercomm also indirectly infringes the '919 claims. Where acts constituting direct infringement of the '919 Patent are not performed by Sercomm, such acts constituting direct infringement of the '919 Patent are performed by Sercomm's customers or end-users (the direct infringers) who act at the direction and/or control of Sercomm, with Sercomm's knowledge. Upon information and belief, Sercomm 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.

88. Atlas is informed and believes, and on that basis alleges, that Sercomm 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.

89. For example, Sercomm advertises to its customers that it sells products that comply with the 802.11ax Standard. *See* https://www.sercomm.com/contpage.aspx?langid=1&type=prod3&L1id=2&L2id=2&L3id=31&Prodid=1030. Sercomm also instructs its customers on how to connect the Accused Products to Wi-Fi networks so that they may practice the 802.11ax Standard. 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. Sercomm also provides technical support to its customers and end users and encourages them to use the Accused products in an infringing manner. Thus, with full knowledge of the '919 Patent as described in paragraphs 33-36 above, Sercomm induced its customers and end users to directly infringe the '919 Patent by using the Accused Products to perform the infringing methods.

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

SIXTH COUNT

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

91. Atlas incorporates by reference the allegations set forth in Paragraphs 1-90 of this Complaint as though fully set forth herein.

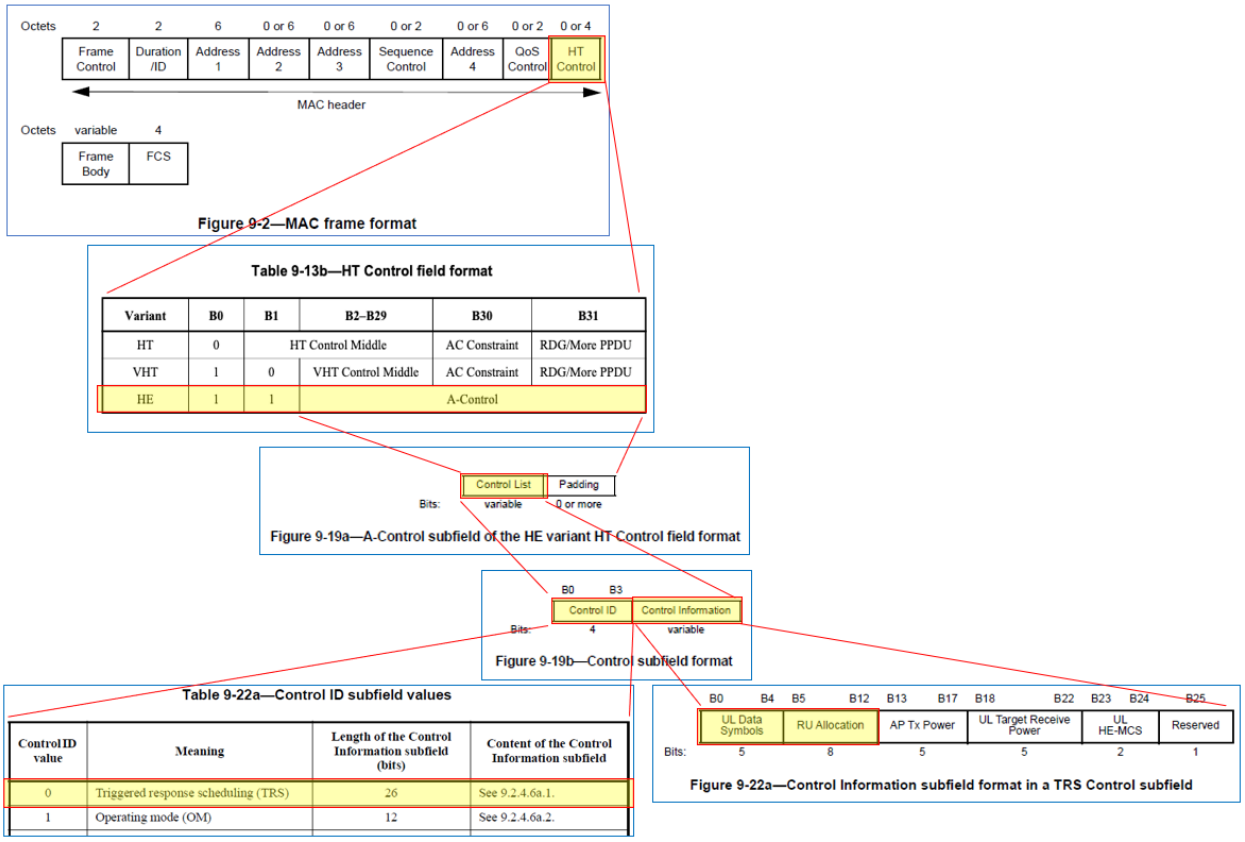
92. The '851 Patent, entitled "Multiplexing Acknowledgment Messages in Response to Downlink Frames," was duly and lawfully issued on August 25, 2020. Atlas is the owner of all right, title, and interest in the '851 Patent. The '851 Patent was filed on November 28, 2018 as Application No. 16/203,501 as 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.

93. 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. The Accused AP Products are configured and designed to implement the above multi-user downlink transmission protocol, and they do in fact implement that multi-user downlink transmission procedure during normal use as intended by Sercomm.

94. The Accused AP Products have storage mediums with instructions that cause internal processors to generate and transmit multi-user downlink frames with control fields including control extension indications that indicate whether the control field includes a scheduling extension. If included, the scheduling extension in the multi-user downlink frame generated and transmitted by the Accused AP Products will have scheduling information for the station(s) to transmit responsive uplink frames.

95. Sercomm directly infringes the apparatus and computer-readable storage medium claims of 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. The Sercomm Accused Products operate as AP devices that are designed by Sercomm and operate consistent with the requirements of 802.11ax. This includes the ability to generate and transmit multi-user downlink frames with the claimed control field, control extension indication, and scheduling extension. *See e.g.*, 802.11ax-2021 § 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; and Figure 9-22a.

96. For example, the following annotated and amalgamated figures from the Wi-Fi 6 Standard show the MAC downlink frame that an AP, such as one of Sercomm's Accused AP Products, generates and transmits during normal and intended operation. As shown in Figure 9-2, the MAC frame contains an HT Control field, the possible contents of which are shown in Table 9-13b. If bits B0 and B1 of the HT Control field are "11," that indicates the HT Control field has been extended to accommodate the 802.11ax standard using the HE variant, and the A-Control subfield will be present. The A-Control subfield has a Control List subfield shown in Figure 9-19a, which in turn has Control ID and Control Information subfields shown in Figure 9-19b. The Control ID subfield may have a value of "0," which (as shown in Table 9-22a) indicates that the Control Information subfield provides Triggered Response Scheduling. And when Triggered Response Scheduling is used, the Control Information subfield has UL Data Symbols and RU Allocation subfields (as shown in Figure 9-22a), which respectively indicate the number of OFDM data symbols and resource unit allocation for the uplink response.



97. In addition to directly infringing the '851 apparatus and computer-readable storage medium claims, Sercomm also indirectly infringes the '851 claims. Where acts constituting direct infringement of the '851 Patent are not performed by Sercomm, such acts constituting direct infringement of the '851 Patent are performed by Sercomm's customers or end-users who act at the direction and/or control of Sercomm, with Sercomm's knowledge. Upon information and belief, Sercomm 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 features 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.

98. Atlas is informed and believes, and on that basis alleges, that Sercomm 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 and end users of Sercomm's Accused Products with the knowledge and intent that making, use, selling, offering to sell, or importing those products would constitute direct infringement of the '851 Patent.

99. For example, Sercomm advertises to its customers that it sells products that comply with the 802.11ax Standard. *See* https://www.sercomm.com/contpage.aspx?langid=1&type=prod3&L1id=2&L2id=2&L3id=31&Prodid=1030. Sercomm also instructs its customers on how to connect the Accused Products to Wi-Fi networks so that they may practice the 802.11ax Standard. 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. Sercomm also provides technical support to its customers and end users and encourages

them to make, use, sell, offer to sell, and/or import the Accused Products to infringe the '851 Patent. Thus, with full knowledge of the '851 Patent as described in paragraphs 33-36 above, Sercomm induced its customers, partners, and end users to directly infringe the '851 Patent by making, using, selling, offering to sell, and/or importing the Accused Products.

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

SEVENTH COUNT

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

101. Atlas incorporates by reference the allegations set forth in Paragraphs 1-100 of this Complaint as though fully set forth herein.

102. 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.

103. 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. The Accused AP Products are configured and designed to transmit the aforementioned trigger frame and receive the aforementioned uplink multi-user acknowledgments, and they do in fact transmit and receive those frames during normal use as intended by Sercomm.

104. Sercomm directly infringes the method claims of the '520 Patent under 35 U.S.C. § 271(a) by using the Accused Products in the United States as described in paragraphs 40-42 above. 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. The Sercomm Accused Products operate as AP devices that are designed by Sercomm and operate consistent with the requirements of 802.11ax. This includes the ability to generate and transmit a trigger frame to multiple STAs and then simultaneously receive multi-user acknowledgment transmission from those STAs. *See e.g.*, 802.11ax-2021 § 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; and Figure 27-11.

105. For example, Figure 10-14a from the Wi-Fi 6 Standard shows the downlink multi-user frame (referred to as an "HE MU PPDU") that an AP, such as one of Sercomm's Accused AP Products, generates and transmits to a plurality of STA devices, as well as the multi-user acknowledgment transmission (referred to as "OFDMA BA") that the AP receives from the STA devices.

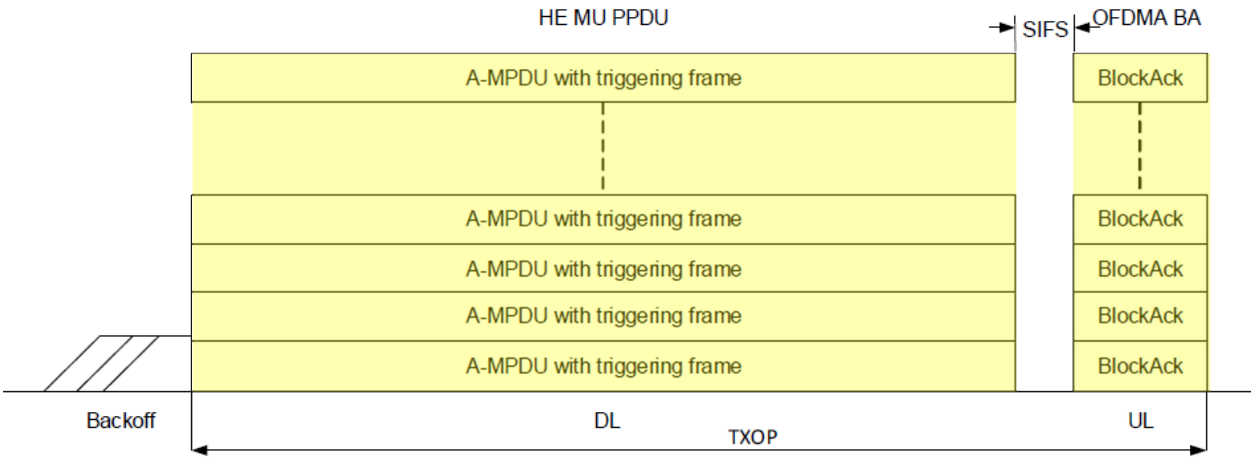
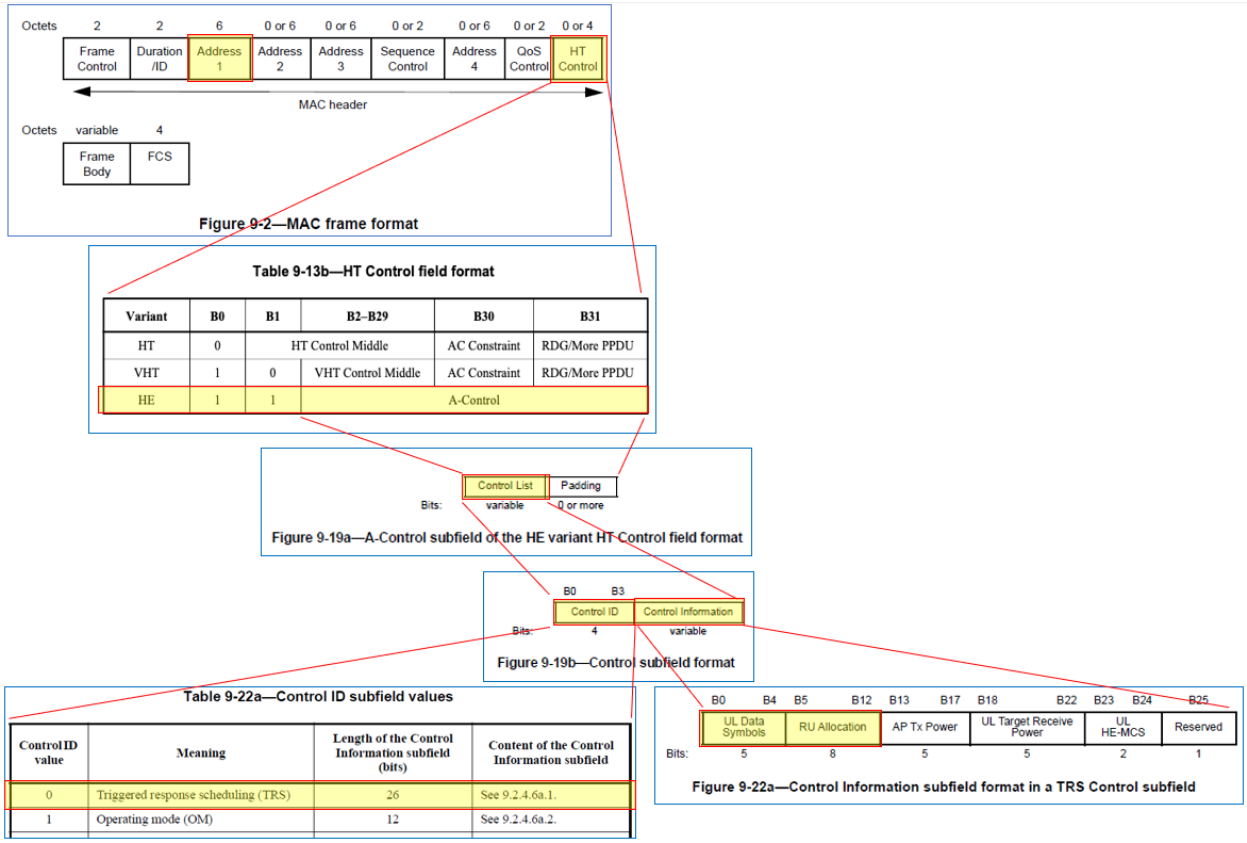


Figure 10-14a—Example of HE MU PPDU transmission with immediate UL OFDMA acknowledgment

Further, the following annotated and amalgamated figures from the Wi-Fi 6 Standard show the MAC contents of the downlink multi-user frame that Sercomm's Accused AP Products generates and transmits during normal and intended operation. As shown in Figure 9-2, the MAC frame contains a destination address (referred to as "Address 1") that identifies the intended receiver(s) of the frame. Further, the MAC frame contains an HT Control field, the possible contents of which are shown in Table 9-13b. If bits B0 and B1 of the HT Control field are "11," that indicates the HT Control field has been extended to accommodate the 802.11ax standard using the HE variant, and the A-Control subfield will be present. The A-Control subfield has a Control List subfield shown in Figure 9-19a, which in turn has Control ID and Control Information subfields shown in Figure 9-19b. The Control ID subfield may have a value of "0," which (as shown in Table 9-22a) indicates that the Control Information subfield provides Triggered Response Scheduling. And when Triggered Response Scheduling is used, the Control Information subfield has UL Data Symbols and RU Allocation subfields (as shown in Figure 9-22a), which are acknowledgment information that indicates properties for the uplink acknowledgment responsive transmission (*e.g.*, the number of OFDM data symbols and resource unit allocation for that uplink acknowledgment responsive transmission).



106. In addition to directly infringing the ’520 method claims, Sercomm also indirectly infringes the ’520 claims. Where acts constituting direct infringement of the ’520 Patent are not performed by Sercomm, such acts constituting direct infringement of the ’520 Patent are performed by Sercomm’s customers or end-users (the direct infringers) who act at the direction and/or control of Sercomm, with Sercomm’s knowledge. Upon information and belief, Sercomm 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.

107. Atlas is informed and believes, and on that basis alleges, that Sercomm 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.

108. For example, Sercomm advertises to its customers that it sells products that comply with the 802.11ax Standard. *See* https://www.sercomm.com/contpage.aspx?langid=1&type=prod3&L1id=2&L2id=2&L3id=31&Prodid=1030. Sercomm also instructs its customers on how to connect the Accused Products to Wi-Fi networks so that they may practice the 802.11ax Standard. 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. Sercomm also provides technical support to its customers and end users and encourages them to use the Accused Products in an infringing manner. Thus, with full knowledge of the '520 Patent as described in paragraphs 33-36 above, Sercomm induced its customers and end users to directly infringe the '520 Patent by using the Accused Products to perform the infringing methods.

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

WILLFULNESS

110. Prior to the filing of this complaint, or at least as of the date the initial complaint was filed, and certainly by the date of this first amended complaint, Sercomm knew or should have known that it infringed the Asserted Patents.

111. As a company in the wireless electronics space, and more particularly a manufacturer of Wi-Fi 6 products, Sercomm is familiar with the Wi-Fi 6 Standard and the process by which it was adopted by the IEEE. For example, Sercomm knows that companies contribute

technical submissions to the IEEE for inclusion in the Wi-Fi 6 Standard, and if IEEE members deem those contributions meritorious, they are incorporated into the Wi-Fi 6 Standard. Sercomm also knows that the companies are permitted to obtain patents on their contributions to the Wi-Fi 6 Standard. Sercomm further knows that Newracom was a major contributor to the Wi-Fi 6 Standard and one of the leaders in both number of technical submissions and number of adopted submissions to the Wi-Fi 6 Standard. Sercomm also knows that Newracom obtained nearly two hundred patents covering its contributions to the Wi-Fi 6 Standard, including the Asserted Patents.

112. Sercomm also knew by at least June 1, 2021 that it needed a license to the Asserted Patents for Sercomm's Wi-Fi 6 products. On that date, Atlas sent Sercomm (via its Senior Director of Business Development, Casey Hu) a letter titled "Opportunity to License the Newracom Wi-Fi 6 Standard Essential Patent Portfolio." Ex. H at 9. That letter notified Sercomm that Atlas had "recently acquired Newracom's substantial Wi-Fi 6 SEP [Standard Essential Patent] portfolio." *Id.* Further, Atlas told Sercomm that the Asserted Patents "cover[] key improvements in Wi-Fi technology developed by Newracom's internal R&D team and adopted in the 802.11ax Wi-Fi standard." *Id.* In that initial June 1 letter, Atlas specifically invited Sercomm to license the Asserted Patents and requested that Sercomm "discuss this opportunity in person or over the phone." *Id.*

113. Over the next two months, Atlas further notified Sercomm that Sercomm needed a license to Atlas's portfolio and the Asserted Patents on numerous occasions. For example, Atlas sent Sercomm ten emails on June 8, June 14, June 22, June 29, July 12, July 19, July 26, and August 2. Ex. H at 1-7. Those emails made repeated offers to license the Asserted Patents. For example, Atlas told Sercomm: "We understand that Sercomm has several WiFi 6 routers on the market, which is why we reached out about a license" and that Atlas "look[ed] forward to talking about a license for Sercomm's WiFi 6 capable products." Sercomm replied that it "never asked for the licenses" and was "not interested." In response, Atlas explicitly identified several of Sercomm's Wi-Fi 6 products that "require a patent license," including the "AX 11000 WiFi 6e Router," the "AX 6000 WiFi 6 Router," the "AX18080 WiFi Router," and the "SAX1V1R

802.11ax router that Sercomm makes for Charter." Atlas was clear that "a patent license is required for Sercomm's WiFi 6 products." Yet despite all the above, Sercomm refused to take a license for the Asserted Patents or even engage in a licensing discussion. Once it became clear that Sercomm would not voluntarily take a license to the Asserted Patents, Atlas was forced to resort to litigation and filed suit shortly thereafter.

114. Sercomm has therefore proceeded to infringe the Asserted Patents with full and complete knowledge of their applicability to Sercomm's Accused Wi-Fi 6 AP Products without taking a license and without a good faith belief that the patents-in-suit are invalid and not infringed. At minimum, Sercomm willfully blinded themselves to their infringement of the Asserted Patents and consciously refused to respond to Atlas's licensing overtures; once Atlas told Sercomm that it needed to take a license to the Asserted Patents for its Wi-Fi 6 Products, Sercomm believed with high probability that its Wi-Fi 6 products infringed but took deliberate action to avoid learning further details of its infringement from Atlas. In fact, after Sercomm was alerted to the Asserted Patents, Sercomm responded "Please stop sending me email, thank you." Ex. H at 4.

115. Sercomm's infringement of the Asserted Patents thus occurs with knowledge of infringement, objective recklessness, and/or willful blindness, and has been and continues to be willful and deliberate. Thus, Sercomm's infringement of the patents-in-suit is willful and deliberate, entitling Atlas to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for judgment and seeks relief against Sercomm as follows:

(a) For judgment that U.S. Patent Nos. '259, '738, '513, '679, '919, '851, and '520 have been and continue to be infringed by Sercomm;

(b) For an accounting of all damages sustained by Plaintiff as the result of Sercomm's acts of infringement;

(c) For finding that Sercomm'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 Sercomm 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: February 11, 2022

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that on February 11, 2022, all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document through the Court's CM/ECF system under Local Rule CV-5(a)(3).

/s/Michael F. Heim
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