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6 *Attorney(s) for Plaintiff Sonohm Licensing LLC*

7  
8 **IN THE UNITED STATES DISTRICT COURT**  
9 **FOR THE NORTHERN DISTRICT OF CALIFORNIA**  
10 **SAN FRANCISCO DIVISION**

11 SONOHM LICENSING LLC,  
12 *Plaintiff,*

13 v.

14 TANGENT COMPUTER INC.,  
15 *Defendant.*

CASE NO.:

**COMPLAINT FOR PATENT  
INFRINGEMENT**

**JURY TRIAL DEMANDED**

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**ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT**

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2 1. Sonohm Licensing LLC (“Sonohm” or “Plaintiff”), by and through its  
3 counsel, hereby brings this action for patent infringement against Tangent Computer  
4 Inc., (“Tangent” or “Defendant”) alleging infringement of the following validly issued  
5 patents (the “Patents-in-Suit”): U.S. Patent No. 6,651,207, titled “Method and System  
6 for Improving Voice Quality in Cordless Communications” (the ’207 Patent), attached  
7 hereto as Exhibit A; and U.S. Patent No. 7,106,705, titled “Method and  
8 Communications Systems for Transmitting Data for a Combination of Several Services  
9 via Jointly Used Physical Channels” (the ’705 Patent), attached hereto as Exhibit B.

10 **NATURE OF THE ACTION**

11 2. This is an action for patent infringement arising under the United States  
12 Patent Act 35 U.S.C. §§ 1 et seq., including 35 U.S.C. § 271.

13 **PARTIES**

14 3. Plaintiff Texas limited liability company with its principal place of  
15 business at 15922 Eldorado Pkwy, Suite 500-1641, Frisco, TX 75035.

16 4. On information and belief, Defendant Tangent Computer Inc. is a  
17 company incorporated in California and may be served via Douglas J. Monsour at 191  
18 Airport Blvd., Burlingame, CA 94010.

19 **JURISDICTION AND VENUE**

20 5. This lawsuit is a civil action for patent infringement arising under the  
21 patent laws of the United States, 35 U.S.C. § 101 et seq. The Court has subject-matter  
22 jurisdiction pursuant to 28 U.S.C. §§ 1331, 1332, 1338(a), and 1367.

23 6. The Court has personal jurisdiction over Defendant for the following  
24 reasons: (1) Defendant is present within or has minimum contacts within the State of  
25 California and the Northern District of California; (2) Defendant has purposefully  
26 availed itself of the privileges of conducting business in the State of California and in  
27 this district; (3) Defendant has sought protection and benefit from the laws of the State  
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1 of California; (4) Defendant regularly conducts business within the State of California  
2 and within this district, and Plaintiff's cause of action arises directly from Defendant's  
3 business contacts and other activities in the State of California and in this district; and  
4 (5) Defendant has a regular and established business in California and has purposely  
5 availed itself of the privileges and benefits of the laws of the State of California.

6 7. Defendant, directly and/or through intermediaries, ships, distributes, uses,  
7 offers for sale, sells, and/or advertises products and services in the United States, the  
8 State of California, and the Northern District of California including but not limited to  
9 the products which infringing the Patents-in-Suit as detailed below. Upon information  
10 and belief, Defendant has committed patent infringement in the State of California and  
11 in this district; Defendant solicits and has solicited customers in the State of California  
12 and in this district; and Defendant has paying customers who are residents of the State  
13 of California and this district and who each use and have used the Defendant's products  
14 and services in the State of California and in this district.

15 8. Venue is proper in the Northern District of California pursuant to 28  
16 U.S.C. §§ 1400(b). Defendant is incorporated in this district, has a regular and  
17 established place of business in this district, has transacted business in this district, and  
18 has directly and/or indirectly committed acts of patent infringement in this district.

19 **PATENTS-IN-SUIT**

20 **I. U.S. Patent No. 6,651,207**

21 9. Plaintiff incorporates the above paragraphs herein by reference.

22 10. On November 18, 2003, United States Patent No. 6,651,207 ("the '207  
23 Patent") was duly and legally issued by the United States Patent and Trademark Office.  
24 The '207 Patent is titled "Method and System for Improving Voice Quality in Cordless  
25 Communications." A true and correct copy of the '207 Patent is attached hereto as  
26 Exhibit A and incorporated herein by reference.

27 11. Sonohm is the assignee of all right, title and interest in the '207 patent,  
28 including all rights to enforce and prosecute actions for infringement and to collect

1 damages for all relevant times against infringers of the '207 Patent. Accordingly,  
2 Sonohm possesses the exclusive right and standing to prosecute the present action for  
3 infringement of the '207 Patent by Defendant.

4 12. The application leading to the '207 patent was filed August 20, 1999. (Ex.  
5 A at cover).

6 13. The invention in the '207 Patent relates to the field of telecommunications  
7 and more particularly improving voice quality in cordless communications. (*Id.* at col.  
8 1:8-10).

9 14. In conventional cordless voice communication systems, there is typically  
10 a base station which acts as a master supporting a plurality of mobile units, which act  
11 as slaves. (*Id.* at col. 1:13-17). The master base station establishes communication links  
12 with the mobile units and has a function to detect errors over the communications links  
13 with the mobile units. (*Id.* at col. 1:17-20).

14 15. Predictive methods have been used to suppress distorted data packets in  
15 order to improve voice quality over the communication link. (*Id.* at col. 1:21-24). The  
16 particular method chosen generally depends on the speed at which errors over the  
17 communication links can be detected. (*Id.* at col. 1:24-26). In cordless systems in which  
18 the single carrier is used, data packets are correlated from transmission to transmission  
19 such that if the quality of a first transmission is poor then it is highly likely that the next  
20 transmission will also be poor. (*Id.* at col. 1:26-28). As a result, from the data packets  
21 from the first transmission, the quality of the data packets for the next transmission can  
22 be predicted and the base station can suitably and prospectively suppress distorted data  
23 packets. (*Id.* at col. 1:29- 33).

24 16. However, frequency hopping systems, which use various carriers over  
25 each communication link and change the carriers from time to time, a problem arises  
26 when a communication link encounters interference problems affecting the quality of  
27 the communications link. (*Id.* at col. 1:35-40). In a frequency hopping scheme, the base  
28 station and mobile units generally move in sync in time from frequency to frequency.

1 (*Id.* at col. 3:55-57). Mobile units not initially synced with a base unit “listen” to a  
2 specific radio frequency to attempt to lock on to the base station. (*Id.* at col. 3:57-61).  
3 When the base station hops to that specific frequency, the mobile units identify and  
4 receive control data transmitted by the base station, which allows the mobile units to  
5 lock with the base station and sync with the frequency hopping scheme. (*Id.* at col.  
6 3:61-65). The frequency hopping scheme therefore helps the wireless communication  
7 system to avoid bad channels or frequencies due to radio frequency interference and  
8 other problems. (*Id.* at col. 3:65 – col. 4:1).

9 17. The challenging problem of the frequency hopping scheme is that the  
10 system algorithms ensure that, unlike same carrier wireless communications, the  
11 contents of consecutive data packets are not correlated. (*Id.* at col. 4:4-7). There is also  
12 no way to derive from the first transmission the necessary parameters to perform packet  
13 suppression for the second transmission. (*Id.* at col. 1:46-48). In other words, the quality  
14 of a prior data packet cannot be used to predict the quality of successive data packets.  
15 (*Id.* at col. 1:42-46, col. 4:7-10). This problem frustrates users and has been a  
16 longstanding challenge to the developers of cordless communication devices. (*Id.* at  
17 col. 48-51). The inventors therefore sought ways to improve voice quality in cordless  
18 communications that used frequency hopping schemes.

19 18. The following is an exemplary implementation of the claimed invention.  
20 To improve the voice quality over each communication link, the base station can select  
21 a frequency in which to establish a link between the base station and a mobile unit. (*Id.*  
22 at col. 4:11-15). The base station monitors the quality of the frequency used on the link.  
23 (*Id.* at col. 4:15-16). The quality of the frequency can be determined by measuring  
24 parameters that indicate that signal bursts or parts of signal bursts are lost or corrupted  
25 over the communication link, or the strength of the signal over the communication link.  
26 (*Id.* at col. 4:16-20). If the quality of the frequency is unacceptable, the frequency may  
27 be marked as bad such that the next time the marked frequency is used in the frequency  
28 hopping scheme, the base station corrects the error. (*Id.* at col. 4:20-27). For example,

1 the base station may mute the data or communicate to the mobile unit that it should use  
2 the prior data packet. (*Id.* at col. 4:27-29). Because the base station evaluates on a  
3 frequency- by-frequency basis, each mobile unit may actively communication with the  
4 base station on the same or individual frequencies that minimize the loss of voice  
5 information over individual links associated with each unit. (*Id.* at col. 4:36-41). For  
6 example, if a mobile communication system defines twelve different subsets for groups  
7 channels within the frequency band, the system can select the current best ten out of  
8 the twelve available subsets to communicate and block the remaining two subsets  
9 because those subsets represent poor quality for that communication link. (*Id.* at col.  
10 6:17-24).

11 19. The claimed invention has a technical advantage over the prior art through  
12 its ability to automatically monitor the quality of the frequency used on an individual  
13 communications link so that the base station may then perform data correction on the  
14 frequency in response to monitored quality of the frequency. (*Id.* at col. 2:14-19). This  
15 scheme to improve voice quality can be used with any algorithm to prevent interference  
16 with multiple base stations in a system. (*Id.* at col. 4:42-44). Furthermore, this scheme  
17 can also avoid selecting frequencies yielding poor quality for individual  
18 communication links. (*Id.* at col. 4:50-52).

19 20. During the prosecution history of the '207 patent, applicant discussed the  
20 unconventional features of the claimed invention that distinguished the invention from  
21 the prior art. A distinguishing claim limitation discussed was “selecting another  
22 frequency after the first time period to transmit and receive data over the  
23 communication link; after selecting the another frequency, selecting, during a second  
24 time period, the frequency that was monitored during the first time period; and  
25 performing, during the second time period, error correction on the selected frequency  
26 in response to the monitored quality monitored during the first time period,” and similar  
27 limitations. (Ex. B at 8-9). The prior art did not disclose being able to “select and  
28 monitor a first frequency, select a second frequency, then select the first frequency

1 again, and then perform error correction for the first frequency in response to the  
2 monitoring of the first frequency prior to a selection of the second frequency.” (*Id.* at  
3 8). Rather the prior art disclosed using coder and decoder for detection and correction  
4 of errors and carrying out judgement and correction of errors in data as the signal is  
5 received. (*Id.* at 8-9).

6 21. The ’207 patent was cited during the prosecution history of patents and  
7 patent applications owned by companies including Sprint Communications Company  
8 L.P., Cisco Technology, Inc. AT&T Intellectual Property I, L.P., RF Micro Devices,  
9 Inc. Qualcomm Incorporated, and Samsung Electronics Co.

## 10 **II. U.S. Patent No. U.S. Patent No. 7,106,705**

11 22. On September 12, 2006, United States Patent No. 7,106,705 (“the ’705  
12 Patent”) was duly and legally issued by the United States Patent and Trademark Office.  
13 The ’705 Patent is titled “Method and Communication System for Transmitting Data  
14 for a Combination of Several Services via Jointly Used Physical Channels.” A true and  
15 correct copy of the ’705 Patent is attached hereto as Exhibit C and incorporated herein  
16 by reference.

17 23. Sonohm is the assignee of all right, title and interest in the ’705 patent,  
18 including all rights to enforce and prosecute actions for infringement and to collect  
19 damages for all relevant times against infringers of the ’705 Patent. Accordingly,  
20 Sonohm possesses the exclusive right and standing to prosecute the present action for  
21 infringement of the ’705 Patent by Defendant.

22 24. The U.S. application leading to the ’705 patent was filed May 21, 2001  
23 based on a PCT filed date of November 24, 1999. (Ex. C at cover).

24 25. The invention in the ’705 Patent relates to the field of communication for  
25 transmitting data for a combination of a plurality of services via jointly used physical  
26 connections. (*Id.* at col. 1:8-11).

27 26. A communication system provides one or more physical transmission  
28 channels for transmitting data between a data source and a data sink. (*Id.* at col. 1:15-

1 16). Transmission channels may be a wide variety of types including cable- conducted  
2 using electrical or optical signal, or radio transmission via a radio interface using  
3 electromagnetic waves. (*Id.* at col. 1:17-20).

4 27. Radio transmission is used in mobile radio systems in order to set up a  
5 connection to a nonstationary subscriber, such as a mobile station. (*Id.* at col. 1:24-24).  
6 A mobile station, for example, can be a mobile phone, a laptop computer, or a Bluetooth  
7 device. Within coverage of the network, the mobile stations can request a connection  
8 from any desired location, or a connection can be set up to the mobile station. (*Id.* at  
9 col. 1:25-28). The most common mobile radio system at the time of the patent  
10 application was GSM, which was developed for a single service (voice transmission).  
11 (*Id.* at col. 1:28-31).

12 28. In contrast, at the time the application was filed, Europe was standardizing  
13 another mobile radio generation, UMTS, which could provide a plurality of services.  
14 (*Id.* at col. 1:35-40). Such a standardization had documentation that typically provide  
15 an overview of how a transmission protocol can support the transport of data for a  
16 plurality of services. (*Id.* at col. 1:41-48). The use of a physical channel for transmitting  
17 data for a plurality of services presupposes that a unique mapping specification  
18 indicates the allocation of the services to different segments of the physical channel.  
19 (*Id.* at col. 1:49-52). For example, a physical channel could be defined as a frequency  
20 band, a spread code, and a time slot within a frame. (*Id.* at col. 1:52-55). In order to be  
21 able to select the currently used combinations of the transport formats for the various  
22 services in line with requirements, the TFC<sup>1</sup> needs to be able to be changed and  
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26 <sup>1</sup> TCF is the Transport Format Combination which indicates a possible combination of  
27 the transport formats for the various services which are mapped onto a common  
28 physical channel. (*Id.* at col. 2:1-4).



1 therefore the TFCI<sup>2</sup> needs to be signaled regularly. (*Id.* at col. 2:15-18). However, this  
2 signaling ties up transmission capacity. (*Id.* at col. 2:18-19). The greater the number of  
3 possible combination options, the more capacity is required for signaling. (*Id.* at col.  
4 2:19-21).

5 29. Recognizing this problem, the inventors developed a method and  
6 communication system that reduces the required signaling capacity without limiting the  
7 number of combination options and the selection thereof. (*Id.* at col. 2:25-28). The  
8 invention draws a distinction between services with high and low data rate dynamics  
9 and uses a matched type of signaling for the transport format currently being used. (*Id.*  
10 at col. 2:33-35). No joint signaling for all services takes place, but instead signaling can  
11 be individualized. (*Id.* at col. 2:41-45). For services with high data rate dynamics, in-  
12 band signaling of the transport format is carried out, and for services with low data rate  
13 dynamics, the transport format is signaled in a separate channel. (*Id.* at col. 2:45-48).  
14 In-band signaling supports the high dynamics of the data rate change in many services  
15 by signaling newly chosen transport formats at an appropriate speed, whereas  
16 somewhat slower signaling accompanying the connection is chosen for services with  
17 data rates which change only slowly or to a limited extent. (*Id.* at col. 2:48-54).

18 30. On the basis of stipulating a combination of the currently used transport  
19 formats for the services and the signaling thereof, the data for the services are  
20 transmitted via the currently available common physical channels on the basis of the  
21 combination of the transport formats and, at the reception end, are evaluated on the  
22 basis of the signaled combination of the transport formats. (*Id.* at col. 2:55- 61). With  
23 the same number of combination options, less capacity is required for in-band  
24 signaling, since only a portion of the services need to be served constantly. (*Id.* at col.  
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26 <sup>2</sup> TCFO is Transport Format Combination Identifier which indicates the currently  
27 used combination of the transport formats within the TFCs. (*Id.* at col. 2:9-11).  
28

1 2:62-64).

2 31. The prosecution history of the '705 patent further explains the  
3 unconventional features of the claimed invention. The prior art did not disclose  
4 transmitting data for first and second services in a first channel, signaling one or more  
5 first transport formats for the first services in-band in the first channel, and signaling a  
6 second transport format for the second service in a second, separate channel. (Ex. D at  
7 9-10). One reference only disclosed transmitting at different data rates for a single  
8 service without disclosing transmission of first and second services having different  
9 data rate dynamics. (*Id.* at 10). Another prior art reference only disclosed transmitting  
10 data over a channel that is separate from the signaling information. (*Id.*). However, in  
11 the claimed invention, a combination of data for first and second services is transmitted  
12 over one channel, signaling information for the first services (having a high data rate  
13 dynamics) is also transmitted over the first channel, and signaling information for the  
14 second service (having lower data rate dynamics) is transmitted in a second, separate  
15 channel. (*Id.* at 11). The claimed method was therefore not the conventional operation  
16 disclosed in the prior art. The claims were then allowed.

### 17 **ACCUSED PRODUCTS**

18 32. Defendant has made, used, offered for sale and sold in the U.S. products,  
19 systems, and/or services that infringe the Patent-in-Suit, including, but not limited to  
20 its Tangent V19T system (the “Accused Products” or “Accused Instrumentality”).

### 21 **FIRST CLAIM FOR RELIEF**

#### 22 **(35 U.S.C. § 271(a) – Direct Patent Infringement of** 23 **U.S. Patent No. 6,651,207)**

24 33. Plaintiff incorporates the above paragraphs herein by reference.

25 34. Without a license or permission from Plaintiff, Defendant has directly  
26 infringed on one or more claims of the '207 Patent by importing, making, using,  
27 offering for sale, or selling products and devices that embody the patented invention,  
28 including, without limitation, one or more of the patented '207 systems and methods,

1 in violation of 35 U.S.C. § 271.

2 35. Defendant has directly infringed by, among other things, practicing all of  
3 the steps of the '207 Patent, for example, through internal testing, quality assurance,  
4 research and development, and troubleshooting. *See Joy Techs., Inc. v. Flakt, Inc.*, 6  
5 F.3d 770, 775 (Fed. Cir. 1993); *see also* 35 U.S.C. § 271 (2006).

6 36. By way of example, Defendant has infringed and continues to infringe at  
7 least one or more claims of the '207 Patent, including at least Claim 11. Attached hereto  
8 as Exhibit E is an exemplary claim chart detailing representative infringement of Claim  
9 11 of the Patent-in-Suit.

10 **SECOND CLAIM FOR RELIEF**

11 **(35 U.S.C. § 271(a) – Direct Patent Infringement of**  
12 **U.S. Patent No. 7,106,705)**

13 37. Plaintiff incorporates the above paragraphs herein by reference.

14 38. Without a license or permission from Plaintiff, Defendant has directly  
15 infringed on one or more claims of the '705 Patent by importing, making, using,  
16 offering for sale, or selling products and devices that embody the patented invention,  
17 including, without limitation, one or more of the patented '705 systems and methods,  
18 in violation of 35 U.S.C. § 271.

19 39. Defendant has directly infringed by, among other things, practicing all of  
20 the steps of the '705 Patent, for example, through internal testing, quality assurance,  
21 research and development, and troubleshooting. *See Joy Techs., Inc. v. Flakt, Inc.*, 6  
22 F.3d 770, 775 (Fed. Cir. 1993); *see also* 35 U.S.C. § 271 (2006).

23 40. By way of example, Defendant has infringed and continues to infringe at  
24 least one or more claims of the '705 Patent, including at least Claim 1. Attached hereto  
25 as Exhibit F is an exemplary claim chart detailing representative infringement of Claim  
26 1 of the Patent-in-Suit.

1                    **Plaintiff Suffered Damages**

2            41. Defendant’s acts of infringement of the Patents-in-Suit have caused  
3 damage to Plaintiff, and Plaintiff is entitled to recover from Defendant the damages  
4 sustained as a result of Defendant’s wrongful acts in an amount subject to proof at trial  
5 pursuant to 35 U.S.C. § 271.

6    **REQUEST FOR RELIEF**

7            42. Plaintiff incorporates each of the allegations in the paragraphs above and  
8 respectfully asks the Court to:

- 9            (a)    enter a declaration that Defendant has directly infringed one or more  
10            claims of each of the claims of the Patents-in-Suit;
- 11            (b)    enter a judgment awarding Plaintiff all damages adequate to compensate  
12            it for Defendant’s direct infringement, but not less than a reasonable royalty,  
13            including all pre-judgment and post-judgment interest at the maximum rate  
14            permitted by law;
- 15            (c)    award Plaintiff all other relief that the Court may deem just and proper.

16  
17 Dated: February 28, 2020

17                    Respectfully submitted,  
18                    /s/ Kirk J. Anderson  
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26    ***Attorney(s) for Plaintiff Sonohm  
27    Licensing LLC***  
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