UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF TEXAS FORT WORTH DIVISION

PINN, INC.,

Plaintiff

Case No. 4:24-cv-704

v.

JURY TRIAL DEMANDED

EDIFIERUSA, LLC,

Defendant

COMPLAINT FOR PATENT INFRINGEMENT

Edifier imports, markets, sells, and distributes wireless earbud systems that practice one or more claims of U.S. Patent Nos. 10,455,066, 11,849,061, and 11,102,340. Pinn files this complaint to seek redress under the Patent Laws and to recover damages.

THE PARTIES

- 1. Pinn, Inc. is a California Corporation with its headquarters and principal place of business at 2522 Chambers Rd., Suite 100, Tustin, California 92780.
- 2. Edifier USA, is a Texas limited liability company registered as "EdifierUSA, LLC" and organized and existing under the laws of the State of Texas with its principal place of business located at 438 Hemphill Street, Fort Worth, TX

- 76104. Edifier can be served by and through its Registered Agent, John O'Brien Culver, at 428 Hemphill St, Fort Worth, TX 76104.
- 3. EdifierUSA, LLC receives and distributes imported accused products for sale to customers and potential customers in the United States of America, including in this judicial district.

JURISDICTION AND VENUE

- 4. This patent infringement suit is brought under the United States Patent Act, namely, 35 U.S.C. §§ 271, 281, and 284-285, among other laws. This Court has subject-matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 5. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1400(b) because Edifier resides this judicial district, has committed acts of infringement in this district, and maintains its headquarters here in Fort Worth.

THE PINN PATENTS

- 6. Sean (Seung Jin) Kim invented the subject matter claimed in the Asserted Patents, and his company, Pinn, Inc., is the assignee of all rights, title, and interest in and to the Asserted Patents. Pinn, Inc. has the exclusive right to assert all causes of action arising under, or that may arise under, the Asserted Patents, including the right to pursue and recover any and all monetary and equitable remedies for all infringement, including past infringement.
- 7. On October 22, 2019, the United States Patent and Trademark Office ("USPTO") issued U.S. Patent No. 10,455,066 after full examination of App. Ser. No.

15/563,937 filed October 2, 2017. The '066 Patent is available at: https://image-ppubs.uspto.gov/dirsearch-public/print/downloadPdf/10455066.

- 8. On August 24, 2021, the USPTO issued U.S. Patent No. 11,102,340 after full examination of App. Ser. No. 16/912,823 filed June 26, 2020. The '340 patent is available at: https://image-ppubs.uspto.gov/dirsearch-public/print/downloadPdf/11102340.
- 9. On December 19, 2023, the USPTO issued U.S. Patent No. 11,849,061 after full examination of App. Ser. No. 18/164,937 filed February 6, 2023. The '061 Patent is available at: https://image-ppubs.uspto.gov/dirsearch-public/print/downloadPdf/11849061.
- 10. The Asserted Patents disclose and claim, among other things, a personal wireless media station that includes a mobile base station and a wireless earbud. The personal wireless media station may detect that the wireless earbud is docked to the base station, detect that the wireless earbud is undocked from the base station, and plays sound through the wireless earbud while the wireless earbud is undocked from the base station.
- 11. Generally speaking, the Asserted Patents claim methods, apparatuses, and systems relating to a personal wireless media station having a wireless earbud and main body, wherein the wireless media station may detect when the wireless earbud is connected to the base station, detect when the wireless earbud is undocked from the

base station, and cause sound to begin playing through the wireless earbud when the earbud is undocked from the base station.

12. Edifier has infringed and continues to infringe one or more claims of the Asserted Patents.

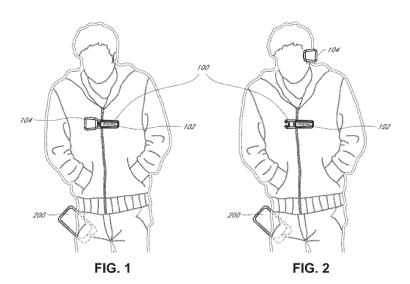
CLAIMED SUBJECT MATTER OF PINN'S PATENTS

- 13. By way of example only, claim 1 of the '066 Patent recites:
 - 1. An apparatus comprising:
 - a base station comprising a connection hole, a user input button, at least one processor, at least one memory, and circuitry; and a wireless earbud configured for plugging into the connection hole of the base station to form an integrated body with the base station,
 - wherein the system is capable of wirelessly pairing with a smartphone for the wireless earbud to receive audio data originated from the smartphone,
 - wherein, in response to pressing of the user input button, the at least one processor is configured to execute computer program instructions stored in the at least one memory to initiate processing for the wireless pairing with the smartphone such that the wireless earbud receives audio data originated from the

smartphone and plays audio using the audio data from the smartphone,

wherein, in response to plugging the wireless earbud into the connection hole, the at least one processor is configured to execute computer program instructions stored in the at least one memory to initiate charging of a battery of the wireless earbud, wherein, when the wireless earbud is plugged into the connection hole of the base station, the wireless earbud is configured to electrically connect with the circuitry of the base station and further configured to performing wired data communication with the base station.

14. Figures 1 and 2 illustrate certain exemplary uses of an embodiment of the '066 patent.



- 15. The technologies and innovations recited in the claims of the '066 Patent provide inventive concepts and do not claim an abstract idea. The individual elements of the claims of the '066 Patent are not well-understood, routine, or conventional. Instead, the claims of the '066 Patent are directed to unconventional, inventive concepts that implement technical solutions to solve various problems, including problems unique to wireless earbud pairing, enhance the operation and functionality of wireless earbuds, and increase convenience for users.
- 16. The technological solutions taught by the '066 Patent provide advantages over, and improvements to, the state of the art at the time. For example, the teachings of the '066 Patent describe a wireless base station and earbud that work seamlessly together to provide the consumer with functional wireless earbud capabilities.
- 17. The inventions and the limitations recited in the claims of the '066 Patent, whether alone or in combination with other limitations, embody several inventive concepts. For example, claim 1 of the '066 Patent describes a consumer product or system that features distributed intelligence, including an earbud that communicates wirelessly with a smartphone and communicates via wired two-way communication with the main body. The main body is configured to determine a docked-to-undocked change in which, when the earbud is undocked, sound begins playing in the earbud. *See, e.g.,* '066 Patent at 1:46-57.

THE STORY OF PINN

- 18. Sean Kim founded Pinn in 2015 with a vision toward designing and developing wearable technology that enhances the smartphone experience and eliminates frustrating phone problems like trying to locate and retrieve one's phone quickly to answer an incoming call.
- 19. Mr. Kim earned a degree in Music Composition and Orchestral Conduction from Seoul National University in 2003. In addition to being an accomplished composer, Mr. Kim is an entrepreneur and inventor.
- 20. Recognizing the need for a personal media system with simplified operation and structure, Mr. Kim conceived of the Pinn device in 2014 and founded Pinn, Inc. the following year to develop a first-generation wearable product that would provide consumers with an easier way to use their smartphones, by simplifying and enhancing the wireless capabilities and operation of the device. Mr. Kim recognized that a system having distributed intelligence and processing, along with an integrated modular design, would improve ease of use and functionality.
- 21. The Patent Office recognized Mr. Kim's innovations by granting the first of his wireless earbud system patents in 2017.
- 22. Pinn proved Mr. Kim's concept in October 2015 and launched the Pinn product thereafter. Pinn became available to the public in 2017.



23. Pinn includes a wireless earbud that is docked and integrated into the Pinn main body and wirelessly connects to a user's smartphone via Bluetooth.



THE EDIFIER INFRINGING PRODUCTS

24. Edifier wireless earbuds are comprised of a base station, earbuds, a connection hole, a user input button, and electrical circuitry designed to connect the

earbuds to the base station, all of which form an integrated body capable of wirelessly pairing with a smartphone such that the wireless earbud can receive audio data originating from the smartphone.

- 25. Edifier makes, has made, sells, and offers for sale in the United States and imports into the United States various versions of a wireless earbud system that practices multiple claims of the Patents-in-Suit.
- 26. Infringing Edifier products include: Edifier NeoBuds Pro, NeoBuds S, TWS6, Hecate GX07, TWS NB2 Pro, TWS1 Pro 2, X2s, X6, and W240TN (the "Accused Products").

Edifier NeoBuds Pro, Neobuds S, and X6 Earbuds

27. The Accused Products include a base station case for the earbuds.

NeoBuds Pro, NeoBuds S Base, and X6 Base Station





X6



28. Edifier wireless earbuds plug into respective connection hole to form an integrated body, magnetically secured.

NeoBuds Pro, NeoBuds S, and X6 Integrated Body

Neobuds Pro



Neobuds S



X6



NeoBuds Pro, NeoBuds S, and X6 Base Station with Connection Holes

Neobuds Pro Neobuds S

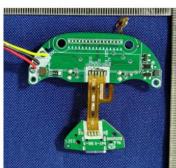


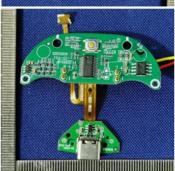


- 29. In normal operation, the wireless earbuds communicate with a smartphone via Bluetooth, receive audio data from the smartphone, and play audio using the audio data from the smartphone when paired wirelessly.
- 30. The Accused Products feature an earbud connector for connecting with an electrical circuit of the main body for wired data communication.
- 31. The main body of each Accused Product features at least one processor and at least one memory.

NeoBuds Pro, NeoBuds S, and X6 Base Station Circuitry and Memory

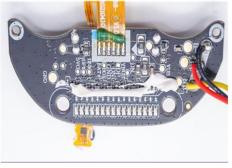
NeoBuds Pro





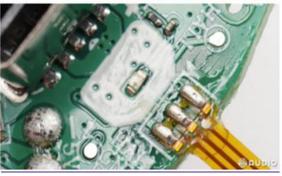
NeoBuds S





X6





32. The Accused Products feature a User Input Button on the case, sometimes referred to as the "case button," that when pressed is configured to execute instructions to initiate processing for the wireless pairing with a smartphone.

NeoBuds Pro, NeoBuds S, and X6 Base Station User Input Button

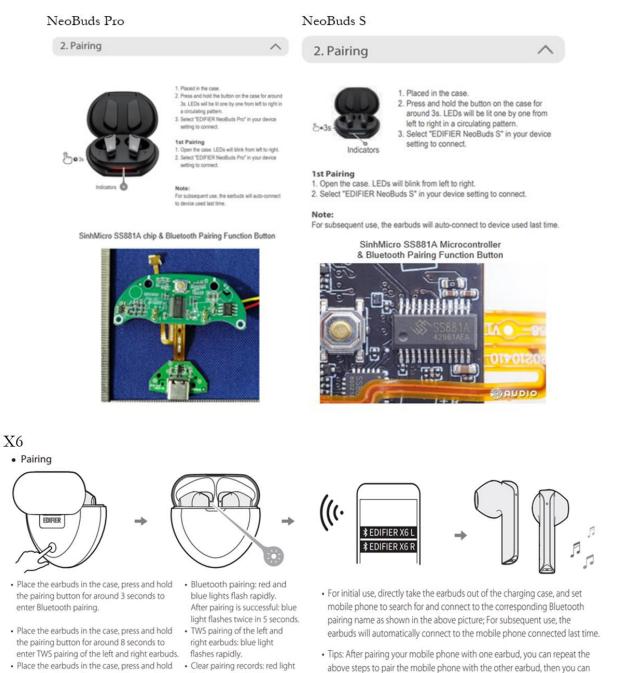




33. The User Input Button is used to initiate Bluetooth pairing and factory

resets. Pressing the earbuds/button/sensor initiates processing for pairing.

NeoBuds Pro, NeoBuds S, and X6 Wireless Earbud Bluetooth Pairing



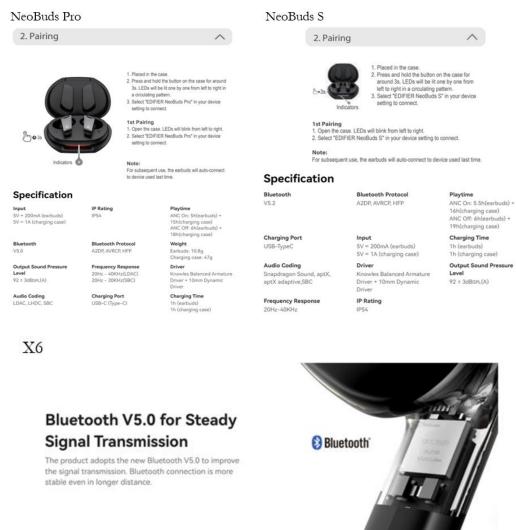
choose to use either of earbuds.

flashes rapidly for 6 times.

the pairing button for around 12 seconds to

clear pairing records.

NeoBuds Pro, NeoBuds S, and X6 Bluetooth



Specification

Bluetooth	Playtime	Charging Port
V5.0	About 5 hours (earbuds) + 19 hours	USB-C (Type-C)
	(charging case)	
Audio Codecs	Driver	Frequency Response
Qualcomm [®] aptX [™] , SBC	13 mm Dynamic Driver	20Hz - 20KHz
Sound Pressure Level	IP Rating	Net Weight
94 ± 3 dB(A)	IP54	40g

- 34. Audio from a smartphone is played through the earbuds.
- 35. Configured to recognize when the earbuds are placed in the connection

hole, the processor is configured to execute instructions stored in memory to initiate charging of the wireless earbud battery.

NeoBuds Pro, NeoBuds S, and X6 Wireless Earbud Charging

NeoBuds S

Fast Charging

25-hour Playtime with

10-minute Charge for 1.5-hour Playback

When fully charged, the earbuds can play music for 6 hours long. You'll get 25 hours of total playback time when combined with the

charging case. Both the earbuds and the

charging case support fast charging : 10 minutes of quick charge to get 1.5-hour

NeoBuds Pro

NeoBuds Pro

True Wireless Stereo Earbuds with **Active Noise Cancellation**

- Hi-Res Audio TWS headphones with LDAC and LHDC deliver high-resolution sound
- electronic crossover technology for natural and balanced
- Hybrid ANC technology reduces noise by up to 42dB
- . Three-microphone noise cancellation ensures clear phone
- 6+18 hours of continuous playback
- Quick charge of ten minutes for one hour listening
- 80ms low-latency game mode supported

IP Rating

IPS4

- IPS4-rated dust and water resistance for outdoor scenarios.
- Various sizes of antibiotic ear tips for your comfort and health
- Personalize your experience with the EDIFIER CONNECT APP

playback time. Specification

Bluetooth V52

Charging Port

Audio Coding

20Hz-40KHz

aptX adaptive,SBC

Frequency Response

Snapdragon Sound, aptX,

USB-TypeC

Bluetooth Protocol A2DP, AVRCP, HFP

Input

19h(charging case) Charging Time

5V = 1A (charging case)

5V = 200mA (earbuds)

Knowles Balanced Armature Driver + 10mm Dynamic

IP Rating

Playtime

55+16h # 6+17h

ANC On: 5.5h(earbuds) + 16h(charging case) ANC Off: 6h(earbuds) +

1h (earbuds) 1h (charging case)

Output Sound Pressure Level 92 ± 3dBsPL(A)

Specification

Input 5V = 200mA (earbuds) 5V = 1A (charging case) V5.0

Output Sound Pressure

92 ± 3dBsPL(A)

LDAC LHDC SBC

Bluetooth Protocol A2DP AVRCP, HEP

Frequency Response 20Hz - 40KHz(LDAC) 20Hz - 20KHz(SBC)

Charging Port

Driver Knowles Balanced Armature Driver + 10mm Dynamic Driver Charging Time

1h (earbuds) 1h (charging case)

ANC On: 5h(earbuds) +

15h(charging case) ANC Off: 6h(earbuds) +

18h(charging case)

Charging case: 47g

Earbuds: 10.8a

X6



Extended Playback Hours Reliable Partner

The product of about 5hrs of a single playtime time and another 19hrs with the charging case can meet the use around the clock. You can charge it wherever you are and4 whenever you want.

Specification

Bluetooth

Audio Codecs Qualcomm® aptX™, SBC

Sound Pressure Level

Playtime

About 5 hours (earbuds) + 19 hours (charging case)

13 mm Dynamic Driver

IP Rating

Charging Port

Net Weight

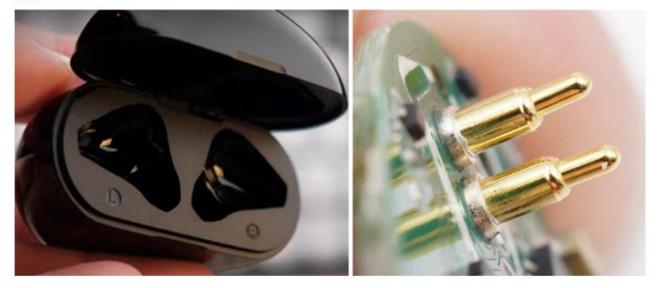
36. Charging occurs via charging contacts and electrical circuitry located in the base station along with wired two-way data communication.

NeoBuds Pro, NeoBuds S, and X6 Charging Contacts

NeoBuds Pro NeoBuds S



X6



37. NeoBuds Pro and NeoBuds S earbuds are configured to perform wired two-way data communication with the charging case, as seen through factory resets and Bluetooth pairing.

NeoBuds Pro, NeoBuds S, and X6 Wireless Earbud Reset

3. Reset/Left & Right connection





- 1. Placed in the case.
- Press 3 times the button on the case to enter left & right connection and to clear pairing records.
- LEDs will be lit one by one from sides to center in a circulating pattern.

X6

How To Reset These Earbuds?

Step 1: With the lid open and the earbuds inside of the charging case, press and hold the button on the case for about 12 seconds.

Step 2: After that, the resetting will be done.

- 38. Edifier earbuds are *not* capable of wirelessly communicating with the mobile base station.
- 39. Edifier sells the Accused Products with a mobile base station that includes a connection hole, a user input button, at least one processor, at least one memory, and circuitry. The Edifier earbud systems are designed and intended to be used by plugging the earbuds into connection holes of the base station for charging and for two-way wired data communication.

- 40. Edifier has no authority or license to practice any Pinn patent.
- 41. For each count, Plaintiff realleges and incorporates the above paragraphs by reference.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 10,455,066

- 42. The '066 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.
- 43. Edifier has infringed and continues to infringe one or more claims, including Claim 1 of the '066 Patent, by making, using, selling, and/or, offering for sale and/or importing infringing Edifier earbud systems.
- 44. Pinn has been damaged by Edifier's infringement of the '066 Patent. Edifier is liable to Pinn in an amount that adequately compensates it for Edifier's infringement, which, by law, can be no less than a reasonable royalty, together with interest and costs as fixed by the Court under 35 U.S.C. § 284.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 11,849,061

- 45. The '061 Patent is valid, enforceable, and complies with Title 35 of the United States Code.
- 46. Edifier has infringed and continues to infringe one or more claims, including at least Claim 1 of the '061 Patent, by making, using, selling, offering for sale, and/or importing infringing Edifier earbud systems.
- 47. Pinn has been damaged by Edifier's infringement of the '061 Patent.

 Edifier is liable to Pinn in an amount no less than a reasonable royalty to compensate

Pinn for infringement, together with interest and costs as fixed by the Court under 35 U.S.C. § 284.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 11,102,340

- 48. The '340 Patent is valid, enforceable, and complies with Title 35 of the United States Code.
- 49. Edifier has infringed and continues to infringe one or more claims, including at least Claim 1 of the '340 Patent by making, using, selling, offering for sale, and/or importing infringing Edifier earbud systems.
- 50. Pinn has been damaged by Edifier's infringement of the '340 Patent. Edifier is liable to Pinn in an amount no less than a reasonable royalty to compensate Pinn for infringement together with interest and costs as fixed by the Court under 35 U.S.C. § 284.

NOTICE OF REQUIREMENT OF LITIGATION HOLD

51. Edifier is hereby notified that it is legally obligated to locate, preserve, and maintain all records, notes, drawings, documents, data, communications, materials, electronic recordings, audio/video/photographic recordings, and digital files, including edited and unedited or "raw" source material, and other information and tangible things that Edifier knows, or reasonably should know, may be relevant to actual or potential claims, counterclaims, defenses, and/or damages by any party or potential party in this lawsuit, whether created or residing in hard copy form or in the

form of electronically stored information (hereafter, "Potential Evidence"). As used above, the phrase "electronically stored information" includes, without limitation: computer files (and file fragments), e-mail (both sent and received, whether internally or externally), information concerning e-mail (including but not limited to logs of email history and usage, header information, and deleted but recoverable e-mails), text files (including drafts, revisions, and active or deleted word processing documents), instant messages, audio recordings and files, video footage and files, audio files, photographic footage and files, spreadsheets, databases, calendars, telephone logs, contact manager information, internet usage files, and all other information created, received, or maintained on any and all electronic and/or digital forms, sources and media, including, without limitation, any and all hard disks, removable media, peripheral computer or electronic storage devices, laptop computers, mobile phones, personal data assistant devices, Blackberry devices, iPhones, video cameras and still cameras, and any and all other locations where electronic data is stored. These sources may also include any personal electronic, digital, and storage devices of any and all of Defendant's agents, resellers, or employees, if Defendant's electronically stored information resides there.

52. Edifier is hereby further notified and forewarned that any alteration, destruction, negligent loss, or unavailability, by act or omission, of any Potential Evidence may result in damages or a legal presumption by the Court and/or jury that

the Potential Evidence is not favorable to Defendant's claims and/or defenses. To avoid such a result, Defendant's preservation duties include, but are not limited to, the requirement that Defendant immediately notify its agents and employees to halt and/or supervise the auto-delete functions of Defendant's electronic systems and refrain from deleting Potential Evidence, either manually or through a policy of periodic deletion.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for the following relief:

- 1. Judgment that Edifier has infringed one or more valid claims of the '066, '061, and '340 Patents;
- 2. An award of damages adequate to compensate Pinn for Edifier's infringement up to and including the date such judgment is entered, to the full extent damages are available under 35 U.S.C. §§ 154(d), 284, or otherwise, along with prejudgment and post-judgment interest at the highest allowable rates;
- 3. An award of enhanced and/or treble damages, pursuant to 35 U.S.C. § 284;
- 4. Judgment that this case is exceptional, along with a corresponding award of reasonable attorney's fees, pursuant to 35 U.S.C. § 285;
- 5. Costs and disbursements, pursuant to Fed. R. Civ. P. 54(d), 28 U.S.C. § 1920, 35 U.S.C. § 284, or as otherwise available;
- 6. Such other and further relief, whether at law or in equity, as the Court deems just and proper.

JURY DEMAND

Plaintiff hereby demands a trial by jury of all issues so triable pursuant to Fed.

R. Civ. P. 38.

Dated: July 26, 2024 Respectfully Submitted,

By: <u>/s/ David A. Skeels</u>

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