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

X-MOBILE TECHNOLOGIES LLC,

Plaintiff,

v.

SONY CORPORATION, SONY MOBILE COMMUNICATIONS AB, SONY ELECTRONICS INC., SONY INTERACTIVE ENTERTAINMENT AMERICA LLC, and SONY INTERACTIVE ENTERTAINMENT INC. CIVIL ACTION NO. 4:17-cv-701

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

JURY TRIAL DEMANDED

Defendants.

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff X-Mobile Technologies LLC ("X-Mobile") files this first amended complaint against Sony Corporation, Sony Mobile Communications AB, Sony Electronics Inc., Sony Interactive Entertainment America LLC, and Sony Interactive Entertainment Inc. ("Defendants" or "Sony"), alleging, based on its own knowledge as to itself and its own actions and based on information and belief as to all other matters, as follows:

PARTIES

1. X-Mobile is a limited liability company formed under the laws of the State of

Texas.

2. Defendant Sony Corporation is a Japanese corporation with its corporate headquarters located at 1-7-1 Konan, Minatoku, Tokyo, 108-0075, Japan.

3. Defendant Sony Mobile Communications AB is a corporation organized under the laws of Sweden with a place of business at Nya Vattentornet SE-221, 88 Lund, Sweden.

4. Defendant Sony Electronics Inc. is a corporation organized under the laws of the State of Delaware, with a regular and established place of business in this district. Sony Electronics Inc. may be served with process through its registered agent in Texas, Corporation Services Company d/b/a CSC-Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620 Austin, TX 78701.

5. Defendant Sony Interactive Entertainment America LLC is a corporation organized under the laws of the State of California, with a regular and established place of business in this district. Sony Interactive Entertainment America, LLC may be served with process through its registered agent in Texas, Corporation Services Company d/b/a CSC-Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620 Austin, TX 78701.

6. Defendant Sony Interactive Entertainment Inc. is a corporation organized under the laws of Japan, with a place of business at 1-7-1 Konan Minato-ku, 108-0075 Japan.

JURISDICTION AND VENUE

7. This is an action for infringement of United States patents arising under 35 U.S.C. §§ 271, 281, and 284–85, among others. This Court has subject matter jurisdiction of the action under 28 U.S.C. §1331 and §1338(a).

8. Venue is proper in this district pursuant to 28 U.S.C. § 1400(b). Defendants Sony Corporation, Sony Mobile Communications AB, and Sony Interactive Entertainment Inc. are foreign corporations and may be sued in this judicial district. Venue is further proper because Sony has committed acts of infringement in this judicial district, and/or has purposely transacted business involving the accused products in this judicial district and has regular and established places of business in this district, at least at 2800 Central Expy., Plano, TX and 1649 W. Frankford Rd., Carrollton, TX.

9. Defendants are subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to Defendants' substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; and/or (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this district.

COUNT I

DIRECT INFRINGEMENT OF U.S. PATENT NO. 7,162,426

10. On January 9, 2007, United States Patent No. 7,162,426 ("the '426 Patent") was duly and legally issued by the United States Patent and Trademark Office for an invention entitled "Computer Motherboard Architecture with Integrated DSP for Continuous and Command and Control Speech Processing."

11. X-Mobile is the owner of the '426 Patent, with all substantive rights in and to that patent, including the sole and exclusive right to prosecute this action and enforce the '426 Patent against infringers, and to collect damages for all relevant times.

12. Defendants made, had made, used, imported, provided, supplied, distributed, sold, and/or offered for sale products and/or systems including, for example, its Xperia XZ1 phone family of products that have a Snapdragon 835 system on a chip with a DSP for Okay Google functionality and its PlayStation 4 products (the "accused products"):



(Source: https://www.sonymobile.com/us/products/phones/xperia-xz1/specifications/)

Go for greatness

Unmatched content, gaming, apps, and exclusives make PlayStation[®]4 system the Best Place to Play. And with the fastest processor and memory on the market, the PS4[™] moves gaming to a new level.



(Source : <u>https://www.sony.com/electronics/playstation</u>)

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13. By doing so, Defendants have directly infringed (literally and/or under the doctrine of equivalents) at least Claims 1 and 20 of the '426 Patent. Defendants' infringement in this regard is ongoing.

14. Sony has infringed the '426 Patent by making, having made, using, importing, providing, supplying, distributing, selling or offering for sale products with a computer motherboard architecture.

15. The accused products include a computer motherboard possessing typical components including a CPU, a data bus, a power interface, and an audio input data pathway connecting the audio input of the motherboard to the CPU.

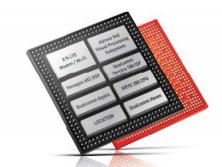
16. The accused products include a DSP chip in the audio input data path, wherein the DSP chip is co-located with the CPU on the motherboard:

Handle all the action

The Xperia XZ1 does all its thinking with the cutting-edge Qualcomm® Snapdragon™ 835 Mobile Platform. It delivers stunning graphics, industry-leading performance, and enhanced battery efficiency.



(Source: https://www.sonymobile.com/us/products/phones/xperia-xz1/performance/)



Snapdragon 835 mobile platform. Supporting a cutting-edge connected, immersive and intelligent all-day experience.

FEATURES & SPECIFICATIONS³

GPU

+ Adreno 540 GPU + OpenGL ES 3.2, OpenCL 2.0 full, Vulkan, DX12

DSP

- + Hexagon 682 DSP with:
- Hexagon Vector eXtensions
- Qualcomm All-Ways Aware
- TensorFlow and Halide support
- Qualcomm[®] Neural Processing
- Engine (NPE) SDK

Display

- + UltraHD Premium-ready
- + 4K Ultra HD, 60 FPS
- + 10-bit color depth
- + DisplayPort, HDMI, and USB Type-C support

- Camera
 - + Qualcomm Spectra 180 ISP
- + Dual 14-bit ISPs
- + Up to 16 MP dual camera
- + Up to 32 MP single camera
- + Qualcomm[®] Clear Sight[™] camera features. Hybrid Autofocus. Optical Zoom, hardware-accelerated Face Detection, HDR Video Recording

Video

- + Up to 4K UltraHD capture @ 30 fps
- + H.264 (AVC), H.265 (HEVC), VP9

Memory

- + LPDDR4x, dual channel
- + UFS2.1 Gear3 2L
- + SD 3.0 (UHS-I)

Security

- + Qualcomm[®] SecureMSM[™] technology
- + Qualcomm Haven™ Security Suite
- + Qualcomm[®] Snapdragon StudioAccess[™] content protection

Modem

- + Snapdragon X16 LTE modem
- + Downlink: LTE Cat 16 up to 1 Gbps, 4x20 MHz carrier aggregation, up to 256-QAM
- + Up to 4K UltraHD playback @ 60 fps + Uplink: LTE Cat 13 up to 150 Mbps, Qualcomm[®] Snapdragon[™] Upload+ (2x20 MHz carrier aggregation, up to 64-QAM, uplink data compression)
 - + Qualcomm® All Mode with support for all seven cellular modes plus

(Source: from Platform Product Brief downloaded at

https://www.qualcomm.com/documents/snapdragon-835-mobile-platform-product-brief)

Gallery [edit]

Note: Some documents online incorrectly list these. It should always start with 4 digit number (year and weeknumber), KM, and end with 3 digit numbers, not a letter)



| Renesas R32C/118 correlation [edit] |
|---------------------------------------|
| This is a selekalad Denser D200/440 S |

This is a relabeled Renesas R32C/118 🗗

Data sheet: http://pdf1.alldatasheet.com/datasheet-pdf/view/391855/RENESAS/118.html @ (rev 1.10 jun 23. 2010)

Chip die images: http://blog.droogie.net @

(Source: http://www.psdevwiki.com/ps4/index.php?title=A01-C0L&redirect=no#1327KM449)

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Datasheet

R32C/118 Group RENESAS MCU

REJ03B0255-0110 Rev.1.10 Jun 23, 2010

1. Overview

1.1 Features

The M16C Family offers a robust platform of 32-/16-bit CISC microcomputers (MCUs) featuring high ROM code efficiency, extensive EMI/EMS noise immunity, ultra-low power consumption, high-speed processing in actual applications, and numerous and varied integrated peripherals. Extensive device scalability from low- to high-end, featuring a single architecture as well as compatible pin assignments and peripheral functions, provides support for a vast range of application fields.

The R32C/100 Series is a high-end microcontroller series in the M16C Family. With a 4-Gbyte memory space, it achieves maximum code efficiency and high-speed processing with 32-bit CISC architecture, multiplier, multiply-accumulate unit, and floating point unit. The selection from the broadest choice of on-chip peripheral devices — UART, CRC, DMAC, A/D and D/A converters, timers, I²C, and WDT enables to minimize external components.

The R32C/100 Series, in particular, provides the R32C/118 Group as a standard product. This product, provided as a 100/144-pin plastic molded LQFP package, configures nine channels of serial interface, one channel of multi-master I²C-bus interface, and two channels of CAN module.

1.1.1 Applications

Car audio, audio, printer, office/industrial equipment etc.

(Source : http://pdf1.alldatasheet.com/datasheet-pdf/view/391855/RENESAS/118.html)

Playstation 4 Audio DSP Based On AMD's PC TrueAudio Technology

(Source: http://www.redgamingtech.com/playstation-4-audio-dsp-based-on-amds-trueaudio-

technology/)

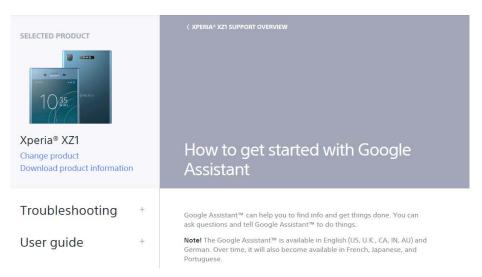
17. The accused products include a bridge interfacing between said DSP chip and the

bus on the computer motherboard.

18. The accused products include a memory in said DSP chip.

19. The accused products include a command and control speech engine (for

example, Okay Google and "PlayStation" voice recognition) residing in said memory of said DSP chip:



(Source:

https://support.sonymobile.com/us/xperiaxz1/kb/801930743686779c015b72352616004ee3/)

Controlling your system with voice recognition

You can use your voice to control your PS4[™] system from the home screen and other areas. To use voice commands, you'll need a headset, or you can use the microphones on your PlayStation®Camera.

1. Say "PlayStation".

The microphone icon and available commands will appear. The microphone icon glow blue during voice recognition.



- 2. Say the name of an available command.
 - When you don't say a command within 10 seconds or when you operate the system with the controller, the voice recognition feature is disabled. An indicator showing the remaining time appears on the left side of the microphone.
 - Depending on the screen, you can use the L2 button on the controller to enable and disable the voice recognition feature

 - To view a list of voice commands, select 🚔 (Settings) > [System] > [Voice Operation Settings] > [Commands for Voice Operation].
 - Depending on the system language, English might be the only language available for voice input.
 - If there is too much ambient noise, your voice might not be recognized.
 - For details on devices that support voice input, visit the customer support website for your country or region.

(Source : http://manuals.playstation.net/document/en/ps4/basic/voice.html)

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20. The accused products include a DSP enabled to operate in either command and control mode or continuous speech mode and that serves as the preprocessor of all speech input prior to execution of instructions by the CPU to process the speech input.

21. The accused products include a speech engine that includes a vocabulary of speech terms enabled to be loaded into said memory which are associated with specific instructions or contextual environments.

22. The accused products include a DSP enabled to be dynamically set by a user in either a continuous speech mode or a command and control mode.

23. Sony has also infringed the '426 Patent by making, having made, using, importing, providing, supplying, distributing, selling or offering for sale products using a method of processing speech.

24. The method practiced by the accused products includes setting a computer in either command and control mode or continuous speech mode.

25. The method practiced by the accused products includes inputting speech into an audio input device wherein said audio input device is electrically connected to said computer.

26. The method practiced by the accused products includes converting speech from an analog format to an audio digital signal.

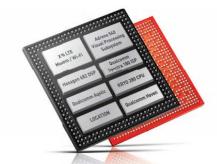
27. The method practiced by the accused products includes transmitting said digital signal to a digital signal processor, wherein said digital signal processor is co-located with a CPU on a motherboard of said computer:

Handle all the action

The Xperia XZ1 does all its thinking with the cutting-edge Qualcomm® Snapdragon™ 835 Mobile Platform. It delivers stunning graphics, industry-leading performance, and enhanced battery efficiency.



(Source: https://www.sonymobile.com/us/products/phones/xperia-xz1/performance/)



Snapdragon 835 mobile platform. Supporting a cutting-edge connected, immersive and intelligent all-day experience.

FEATURES & SPECIFICATIONS³

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+ Adreno 540 GPU + OpenGL ES 3.2, OpenCL 2.0 full, Vulkan, DX12

DSP

- + Hexagon 682 DSP with:
- Hexagon Vector eXtensions
- Qualcomm All-Ways Aware
- TensorFlow and Halide support
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Display

- + UltraHD Premium-ready
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Camera

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- + SD 3.0 (UHS-I)

Security

- + Qualcomm[®] SecureMSM[™] technology
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- StudioAccess[™] content protection

Modem

- + Snapdragon X16 LTE modem
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Gallery [edit]

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| A01-C0L SCEI 1327KM449 as seen on SAA-001 according to Chipworks | A01-C0L SCEI 1328KM432 found on SAA-001 | A01-COL SCEI 1334KM411 found on SAA-001 | A01-C0L SCEI 1334KM417 found on SAA-001 | A01-COL SCEI 1336KM474 found on SAA-001 |
|---------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|-----------------------------------------------|
| Renesas R32C/118 | correlation [edit] | | | |

This is a relabeled Renesas R32C/118 &.

Data sheet: http://pdf1.alldatasheet.com/datasheet-pdf/view/391855/RENESAS/118.html 🖉 (rev 1.10 jun 23. 2010)

Chip die images: http://blog.droogie.net

(Source: http://www.psdevwiki.com/ps4/index.php?title=A01-C0L&redirect=no#1327KM449)

| RENESAS | Datasheet |
|----------------|-----------------|
| R32C/118 Group | REJ03B0255-0110 |
| RENESAS MCU | Rev.1.10 |
| | Jun 23, 2010 |

1. Overview

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Playstation 4 Audio DSP Based On AMD's PC TrueAudio Technology

(Source: <u>http://www.redgamingtech.com/playstation-4-audio-dsp-based-on-amds-trueaudio-</u>technology/)

28. The method practiced by the accused products includes said digital signal processor is enabled to function as a preprocessor of all speech input, analyzing said digital signal with at least said digital signal processor and a speech engine residing in a memory of said digital signal processor on said motherboard and electrically connected to said digital signal processor.

29. The method practiced by the accused products includes loading an appropriate vocabulary into said speech engine in said or of said digital signal processor, depending on the context of the operation being performed by a user.

30. The method practiced by the accused products includes transmitting said analyzed digital signal of a computer command to a processor in electrical connection to said digital signal processor and said computer and transmitting said analyzed digital signal of continuous speech to a processor in electrical connection to said digital signal processor and said computer.

31. The method practiced by the accused products includes performing an operation or command representative of said analyzed digital signal by said processor:

| SELECTED PRODUCT | ⟨ XPERIA® XZ1 SUPPORT OVERVIEW |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ener - Total Helenia | |
| Xperia® XZ1 Change product Download product information | How to get started with Google Assistant |
| Troubleshooting + | Google Assistant™ can help you to find info and get things done. You can ask questions and tell Google Assistant™ to do things. |
| User guide + | Note! The Google Assistant [™] is available in English (US, U.K., CA, IN, AU) and German. Over time, it will also become available in French, Japanese, and Portuguese. |

(Source:

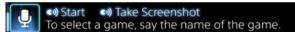
https://support.sonymobile.com/us/xperiaxz1/kb/801930743686779c015b72352616004ee3/)

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 - Depending on the screen, you can use the L2 button on the controller to enable and disable the voice recognition feature.
 - To use the voice recognition feature, select (Settings) > [System] > [Voice Operation Settings], and then select the checkbox for [Operate PS4 with Voice].
 - To view a list of voice commands, select 🚔 (Settings) > [System] > [Voice Operation Settings] > [Commands for Voice Operation].
 - Depending on the system language, English might be the only language available for voice input.
 - If there is too much ambient noise, your voice might not be recognized.
 - For details on devices that support voice input, visit the customer support website for your country or region.

(Source : <u>http://manuals.playstation.net/document/en/ps4/basic/voice.html</u>)

32. Sony has had knowledge of the '426 Patent at least as of the date when it was

notified of the filing of this action.

33. X-Mobile has been damaged as a result of the infringing conduct by Defendants

alleged above. Thus, Defendants are liable to X-Mobile in an amount that adequately

compensates it for such infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

34. X-Mobile and/or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '426 Patent.

COUNT II

DIRECT INFRINGEMENT OF U.S. PATENT NO. 6,690,351

35. On February 10, 2004, United States Patent No. 6,690,351 ("the '351 Patent") was duly and legally issued by the United States Patent and Trademark Office for an invention entitled "Computer Display Optimizer."

36. X-Mobile is the owner of the '351 Patent, with all substantive rights in and to that patent, including the sole and exclusive right to prosecute this action and enforce the '351 Patent against infringers, and to collect damages for all relevant times.

37. Defendants made, had made, used, imported, provided, supplied, distributed, sold, and/or offered for sale products and/or systems including its Xperia smartphone and Xperia Tablet families of products (the "accused products"):



(Source: https://www.sonymobile.com/us/products/phones/xperia-xa1/specifications/)



(Source : <u>https://www.sonymobile.com/us/products/tablets/xperia-z4-tablet/specifications/</u>)

38. By doing so, Defendants have directly infringed (literally and/or under the doctrine of equivalents) at least Claim 1 of the '351 Patent. Defendants' infringement in this regard is ongoing.

39. Sony has infringed the '351 Patent by making, having made, using, importing, providing, supplying, distributing, selling or offering for sale hands free user or operator

supported mobile computer systems having hands free, activating means, a processor and a display means, with the processor in electrical connection to the display means.

40. The accused products include at least one sensor for optimizing internal settings

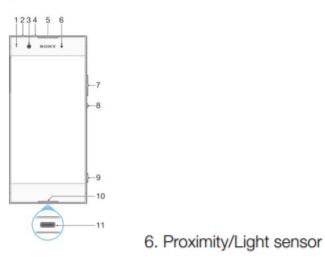
in said display when said sensor and said display are in communication:

| 3 | |
|--------------|-----|
| meter | Yes |
| light sensor | Yes |
| SS | Yes |
| sor | Yes |
| / sensor | Yes |
| | |

(Source: from white paper downloaded at

https://support.sonymobile.com/us/xperiaxa1dual/supportDocumentation/)

Overview



(Source: from user manual downloaded at

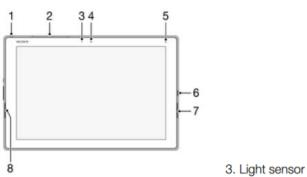
https://support.sonymobile.com/us/xperiaxa1dual/supportDocumentation/)

| Sensors | |
|----------------------|-----|
| Accelerometer | Yes |
| Ambient light sensor | Yes |
| Hall sensor | Yes |
| Magnetometer | Yes |
| Gyroscope | Yes |

(Source : from white paper downloaded at

https://support.sonymobile.com/us/xperiaz4tablet/supportDocumentation/)

Overview



(Source : from user manual downloaded at

https://support.sonymobile.com/us/xperiaz4tablet/supportDocumentation/)

41. The accused products include means in the computer to receive information from

the sensor and to transmit it to a data processing means.

42. The accused products include means to translate the data into computer

commands to effect control and alteration of the computer system to coincide with any changes

resulting from input of the sensor:

Screen settings

To Adjust the Screen Brightness Manually Regardless of Lighting Conditions

- 1 From your Homescreen, tap
 .
- 2 Find and tap **Settings** > **Display** and tap the **Adaptive brightness** slider to disable this function, if it is not already disabled.
- 3 Tap Brightness level.
- 4 Drag the slider to adjust the brightness.
- Lowering the brightness level helps the battery last longer.

(Source: from user manual downloaded at

https://support.sonymobile.com/us/xperiaxa1dual/supportDocumentation/)

Screen settings

To Adjust the Screen Brightness Manually Regardless of Lighting Conditions

- 1 From your Homescreen, tap
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- 2 Find and tap Settings > Display and tap the Adaptive brightness slider to disable this function, if it is not already disabled.
- 3 Tap Brightness level.
- 4 Drag the slider to adjust the brightness.
- Lowering the brightness level helps the battery last longer.

(Source : from user manual downloaded at

https://support.sonymobile.com/us/xperiaz4tablet/supportDocumentation/)

43. The accused products include that the sensor is enabled to at least measure conditions and optimize internal settings based upon environmental conditions and the type of the display means and reflectivity characteristics of a physical glass and coatings of the display means.

44. Sony has had knowledge of the '351 Patent at least as of December 23, 2004, when the '351 Patent was first used by the examiner to reject claims as anticipated during the prosecution of U.S. Patent No. 7,009,659, titled "System and Method for Establishing TV Settings," which is assigned to Sony Corporation. The examiner maintained that rejection over Sony's arguments in an April 27, 2005 Advisory Action and in a May 26, 2005 Non-Final Rejection. Sony employees Aaron Dew, Greg Gudorf, Anthony Lionel Creed, Matthew Chang, and William Hausch, who are listed as inventors on U.S. Patent No. 7,009,659, and others involved in the prosecution of that patent have had knowledge of the '351 Patent at least as of December 23, 2004.

45. X-Mobile has been damaged as a result of the infringing conduct by Defendants alleged above. Thus, Defendants are liable to X-Mobile in an amount that adequately

compensates it for such infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

46. X-Mobile and/or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '351 Patent.

COUNT III

DIRECT INFRINGEMENT OF U.S. PATENT NO. 6,262,889

47. On July 17, 2001, United States Patent No. 6,262,889 ("the '889 Patent") was duly and legally issued by the United States Patent and Trademark Office for an invention entitled "Insulated Mobile Computer."

48. X-Mobile is the owner of the '889 Patent, with all substantive rights in and to that patent, including the sole and exclusive right to prosecute this action and enforce the '889 Patent against infringers, and to collect damages for all relevant times.

49. Defendants made, had made, used, imported, provided, supplied, distributed, sold, and/or offered for sale products and/or systems including its Xperia smartphone and Xperia Tablet families of products (the "accused products"):



(Source: https://www.sonymobile.com/us/products/phones/xperia-xa1/specifications/)



(Source : <u>https://www.sonymobile.com/us/products/tablets/xperia-z4-tablet/specifications/</u>)

50. By doing so, Defendants have directly infringed (literally and/or under the doctrine of equivalents) at least Claim 1 of the '889 Patent. Defendants' infringement in this regard is ongoing.

51. Sony has infringed the '889 Patent by making, having made, using, importing, providing, supplying, distributing, selling or offering for sale user supported, hands-free

activation computer systems having a computer housing and a display means, the computer housing consisting of all of the components of a conventional computer and having located therein a battery to supply power to the system.

52. The accused products include hands-free activation:



(Source : <u>https://www.sonymobile.com/us/products/tablets/xperia-z4-tablet/specifications/</u>)

53. The accused products include the computer housing having a section that will be adjacent the user when in use and supported by the user.

54. The accused products include that the section is constructed of a heat insulating material and forming thereby an internal insulating wall.

55. The accused products include the battery comprising an insulating cover which is located in said housing immediately adjacent the internal insulating wall to provide thereby double insulation for any heat generated by the system within the computer housing at a location closest to the user when in use:



(Source: https://www.youtube.com/watch?v=M9KvNPFQ3bo)



(Source: <u>https://www.youtube.com/watch?v=M9KvNPFQ3bo</u>)



(Source: <u>https://www.youtube.com/watch?v=M9KvNPFQ3bo</u>)



(Source: <u>https://www.youtube.com/watch?v=g7KhxC0ZnMY</u>)



(Source: <u>https://www.youtube.com/watch?v=g7KhxC0ZnMY</u>)

56. Sony has had knowledge of the '889 Patent at least as of the date when it was notified of the filing of this action.

57. X-Mobile has been damaged as a result of the infringing conduct by Defendants alleged above. Thus, Defendants are liable to X-Mobile in an amount that adequately compensates it for such infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

58. X-Mobile and/or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '889 Patent.

COUNT IV

DIRECT INFRINGEMENT OF U.S. PATENT NO. 6,958,905

59. On October 25, 2005, United States Patent No. 6,958,905 ("the '905 Patent") was duly and legally issued by the United States Patent and Trademark Office for an invention entitled "Mobile Body-Supported Computer with Battery."

60. X-Mobile is the owner of the '905 Patent, with all substantive rights in and to that patent, including the sole and exclusive right to prosecute this action and enforce the '905 Patent against infringers, and to collect damages for all relevant times.

61. Defendants made, had made, used, imported, provided, supplied, distributed, sold, and/or offered for sale products and/or systems including its Smart Watch family of products (the "accused products"):



(Source: <u>http://www.sonymobile.com/us/products/smartwear/smartwatch-3-</u> <u>swr50/specifications/#tabs</u>)

62. By doing so, Defendants have directly infringed (literally and/or under the doctrine of equivalents) at least Claim 14 of the '905 Patent. Defendants' infringement in this regard is ongoing.

63. Sony has infringed the '905 Patent by making, having made, using, importing, providing, supplying, distributing, selling or offering for sale mobile body supported computers.

64. The accused products include a computer housing including substantially all components of a conventional computer, with a first surface near a user's body, and a second surface located opposite to the first surface.

65. The accused products include a heat insulating member positioned on at least one of the first surface or the second surface:



(Source: https://www.sonymobile.com/us/products/smart-products/smartwatch-3-

swr50/specifications/)

66. The accused products include an integral battery with casing, the casing being partially constructed of a thermally non-conducting material:



(Source: <u>https://www.youtube.com/watch?v=x_pWhnyhefE</u>)



(Source: <u>https://www.youtube.com/watch?v=x_pWhnyhefE</u>)

67. The accused products include means for activating the computer hands-free:

Controls

- · Voice, touch, and gesture input
- Microphone
- On/off/wake-up key

(Source: <u>http://www.sonymobile.com/us/products/smartwear/smartwatch-3-</u> <u>swr50/specifications/#tabs</u>)

68. The accused products include means for supporting the computer housing by a user.

69. Sony has had knowledge of the '905 Patent at least as of the date when it was notified of the filing of this action.

70. X-Mobile has been damaged as a result of the infringing conduct by Defendants alleged above. Thus, Defendants are liable to X-Mobile in an amount that adequately compensates it for such infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

71. X-Mobile and/or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '905 Patent.

ADDITIONAL ALLEGATIONS REGARDING INDIRECT INFRINGEMENT

72. Defendants have also indirectly infringed the '426, '351, '889, and '905 Patents by inducing others to directly infringe the '426, '351, '889, and '905 Patents. Defendants have induced the end-users, Defendants' customers, to directly infringe (literally and/or under the doctrine of equivalents) the '426, '351, '889, and '905 Patents by using the accused products. Defendants took active steps, directly and/or through contractual relationships with others, with the specific intent to cause them to use the accused products in a manner that infringes one or more claims of the patents-in-suit, including, for example, claim 20 of the '426 Patent, claim 1 of the '351 Patent, claim 1 of the '889 Patent, and claim 14 of the '905 Patent. Such steps by Defendants included, among other things, advising or directing customers and end-users to use

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the accused products in an infringing manner; advertising and promoting the use of the accused products in an infringing manner; and/or distributing instructions that guide users to use the accused products in an infringing manner. Defendants performed these steps, which constitute induced infringement, with the knowledge of the '426, '351, '889, and '905 Patents and with the knowledge that the induced acts would constitute infringement. Defendants were and are aware that the normal and customary use of the accused products by Defendants' customers would infringe the '426, '351, '889, and '905 Patents. Defendants' inducement is ongoing.

73. Defendants have also induced their affiliates, or third-party manufacturers, shippers, distributors, retailers, or other persons acting on its or its affiliates' behalf, to directly infringe (literally and/or under the doctrine of equivalents) the '426, '351, '889, and '905 Patents by importing, selling or offering to sell the accused products. Defendants took active steps, directly and/or through contractual relationships with others, with the specific intent to cause such persons to import, sell, or offer to sell the accused products in a manner that infringes one or more claims of the patents-in-suit, including, for example, claim 1 of the '426 Patent, claim 1 of the '351 Patent, claim 1 of the '889 Patent, and claim 14 of the '905 Patent. Such steps by Defendants included, among other things, making or selling the accused products outside of the United States for importation into or sale in the United States, or knowing that such importation or sale would occur; and directing, facilitating, or influencing its affiliates, or third-party manufacturers, shippers, distributors, retailers, or other persons acting on its or their behalf, to import, sell, or offer to sell the accused products in an infringing manner. Defendants performed these steps, which constitute induced infringement, with the knowledge of the '426, '351, '889, and '905 Patents and with the knowledge that the induced acts would constitute infringement.

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Defendants performed such steps in order to profit from the eventual sale of the accused products in the United States. Defendants' inducement is ongoing.

74. Defendants have also indirectly infringed by contributing to the infringement of the '426, '351, '889, and '905 Patents. Defendants have contributed to the direct infringement of the '426, '351, '889, and '905 Patents by the end-user of the accused products. The accused products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe the '426, '351, '889, and '905 Patents, including, for example, claim 20 of the '426 Patent, claim 1 of the '351 Patent, claim 1 of the '889 Patent, and claim 14 of the '905 Patent. The special features include a DSP with a command and control speech engine used in a manner that infringes the '426 Patent. The special features also include automatic brightness settings to be used in a manner that infringes the '351 Patent and in a manner that infringes the '905 Patent. The special features constitute a material part of the invention of one or more of the claims of the '426, '351, '889, and '905 Patents and are not staple articles of commerce suitable for substantial non-infringing use.

75. Defendants also have had knowledge of the '426, '351, '889, and '905 Patents at least as of the date when it was notified of the filing of this action. Also, as noted above, Defendants have had knowledge of the '351 Patent at least as of December 23, 2004.

76. Defendants' direct and indirect infringement of the '426, '351, '889, and '905 Patents is, has been, and continues to be willful, intentional, deliberate, and/or in conscious disregard of X-Mobile's rights under the patent.

77. X-Mobile has been damaged as a result of the infringing conduct by Defendants alleged above. Thus, Defendants are liable to X-Mobile in an amount that adequately compensates it for such infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

JURY DEMAND

X-Mobile hereby requests a trial by jury on all issues so triable by right.

PRAYER FOR RELIEF

X-Mobile requests that the Court find in its favor and against Defendants, and that the Court grant X-Mobile the following relief:

a. Judgment that one or more claims of the '426, '351, '889, & '905 Patents have been infringed, either literally and/or under the doctrine of equivalents, by Defendants and/or all others acting in concert therewith;

b. A permanent injunction enjoining Defendants and their officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in concert therewith from infringement of the '426, '351, '889, & '905 Patents; or, in the alternative, an award of a reasonable ongoing royalty for future infringement of the '426, '351, '889 & '905 Patents by such entities;

c. Judgment that Defendants account for and pay to X-Mobile all damages to and costs incurred by X-Mobile because of Defendants' infringing activities and other conduct complained of herein;

d. That X-Mobile be granted pre-judgment and post-judgment interest on the damages caused by Defendants' infringing activities and other conduct complained of herein;

e. That this Court declare this an exceptional case and award X-Mobile its

reasonable attorney's fees and costs in accordance with 35 U.S.C. § 285; and

f. That X-Mobile be granted such other and further relief as the Court may deem just and proper under the circumstances.

Dated: October 31, 2017

Respectfully submitted,

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Attorneys for X-Mobile LLC

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CERTIFICATE OF SERVICE

I hereby certify that on the 31st day of October 2017, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system, which will send notification of such filing to all counsel of record.

<u>/s/ Zachariah S. Harrington</u> Zachariah S. Harrington