U.S. Patent No. 8,749,251 ("'251 Patent") for Sony Products

Exemplary Accused Products

Sony products, including at least each of the laptop products listed in Sony's Response to Neodron's Interrogatory No. 1, infringe at least Claims 1, 2, 3, 5, 7, 8, 9, 16, 17, 18, and 20 of the '251 Patent.
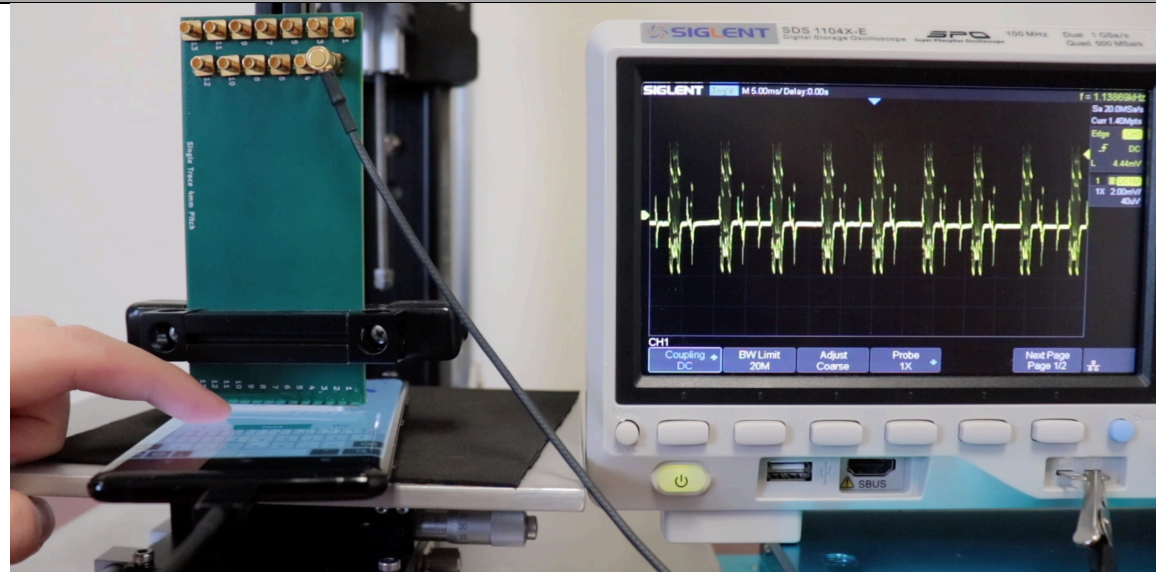
Claim 1

Claim 1	Sony products
[pre] An apparatus comprising:	The preamble is not a limitation.
[a] a sensing element of a touch screen; and	Each Sony product comprises a sensing element of a touch screen. For example, the Xperia XZ3 includes a capacitive touch screen. *See, e.g.*:

Claim 1	Sony products
	Photograph of Xperia XZ3 illustrating touch screen. *See also, e.g.*, analysis and evidence of elements 1[c] and 1[d] below.
[b] one or more computer-readable non-transitory storage media coupled to the sensing element and embodying logic that is operable	Each Sony product includes one or more computer-readable non-transitory storage media coupled to the sensing element and embodying logic that is operable when executed to perform the claimed method. For example, the Xperia XZ3 includes one or more touch controllers or system processors with non-transitory storage (e.g. Flash, EEPROM, HDD, SDD, etc.) embodying logic executable to perform the

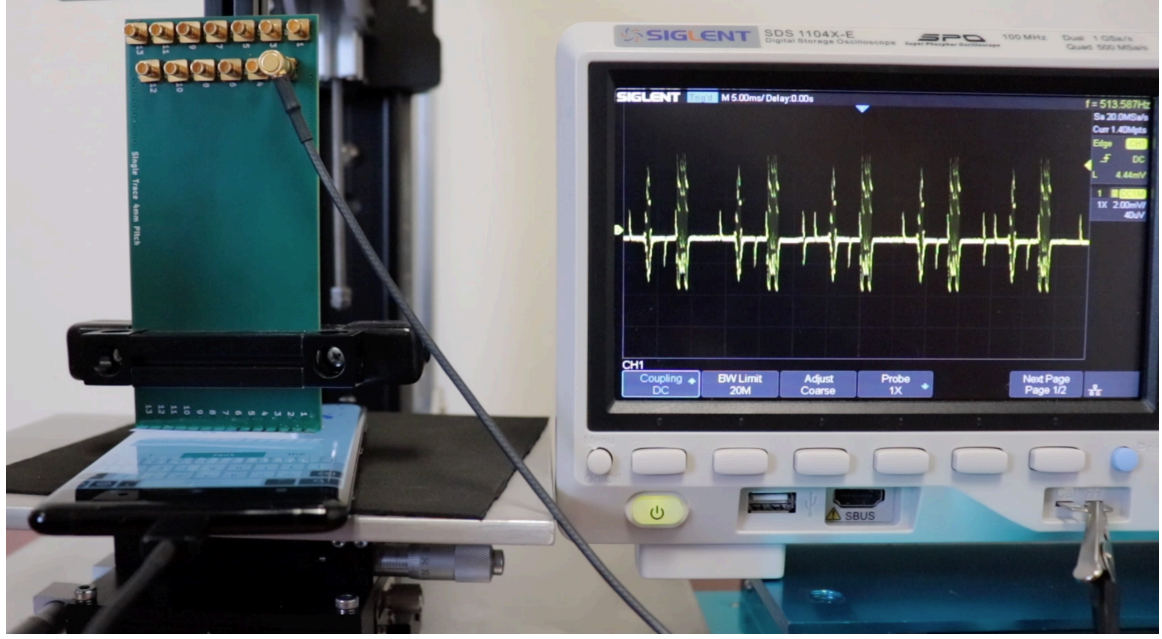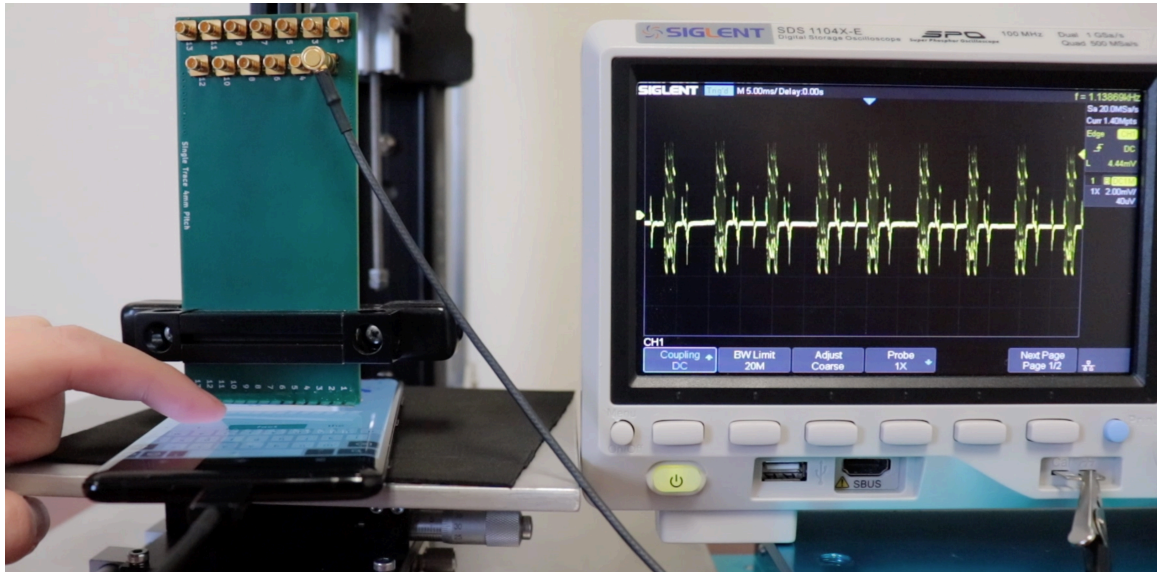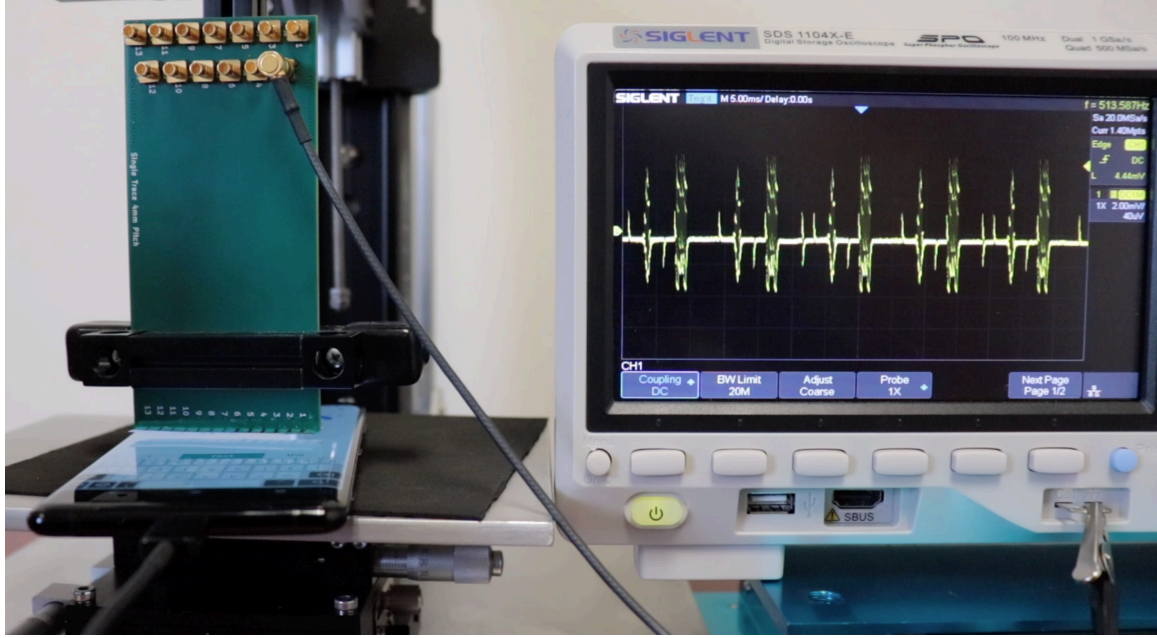| Claim 1	Sony products
when executed to:	steps described below.
[c] determine an amount of time that has elapsed since the sensing element last detected a change of capacitance indicative of a key touch on the touch screen; and	Each Sony product contains executable logic to determine an amount of time that has elapsed since the sensing element last detected a change of capacitance indicative of a key touch on the touch screen. For example, touching the Xperia XZ3's touch screen and then removing the touch, thereby causing a change of capacitance, can cause the Xperia XZ3 to respond in various ways after a delay, indicating that the Xperia XZ3 determines the amount of time elapsed since the touch sensor detected a touch. *See, e.g.*, analysis and evidence of element 1[d] below.
[d] if the amount of time that has elapsed exceeds a predetermined time duration, then initiate a particular function of the apparatus.	Each Sony product contains executable logic to, if the amount of time that has elapsed exceeds a predetermined time duration, then initiate a particular function of the apparatus. For example, the capacitive touch sensor in the Xperia XZ3 enters a different sensing mode a predetermined amount of time after a user's finger is removed from the touch screen. This change is readily observable using a standard oscilloscope measuring the capacitive drive signals a short distance above the Xperia XZ3's touch screen. There is a distinct difference between the drive signal observed while a finger touch is in contact with the drive signal observed after removing that touch. This difference likely reflects a power-saving mode initiated after the touch is removed. The change occurs after a consistent time offset. *See, e.g.*:

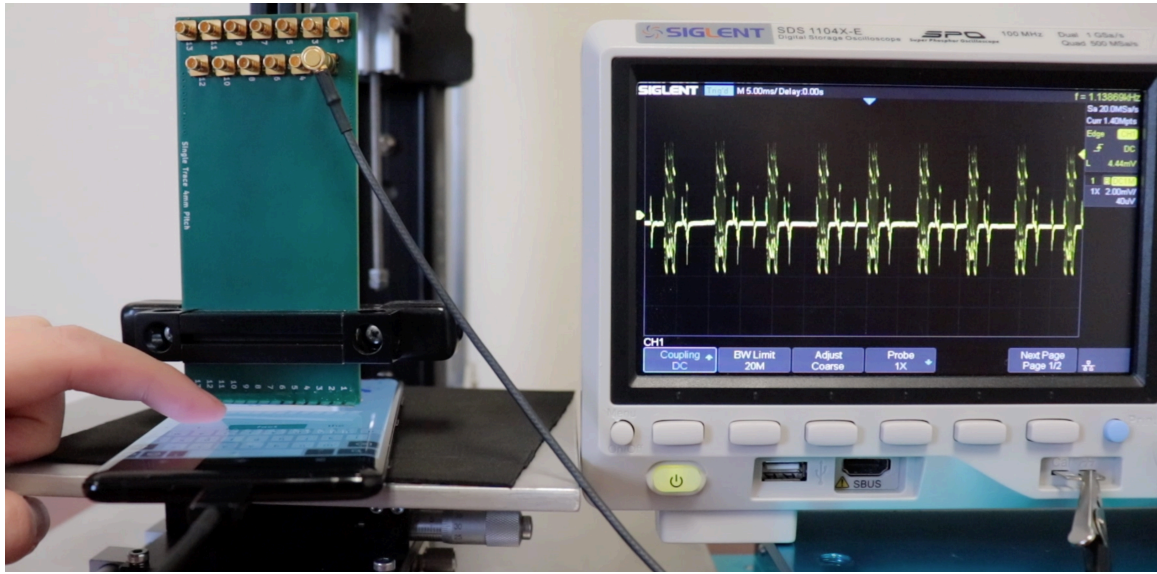| Claim 1	Sony products
	Photograph of Xperia XZ3 with touch present, showing the capacitive sensing drive signal while a touch is detected.

Claim 1	Sony products
	Photograph of Xperia XZ3 after touch is removed, showing the different capacitive sensing drive signal present following a predetermined time duration after the touch is removed.

Claim 2

Claim 2	Sony products
The apparatus of claim 1, wherein the particular function comprises deactivation of measurement of changes in capacitance	Each Sony product comprises an apparatus of claim 1. *See, e.g.*, analysis and evidence of claim 1 above. For example, in the Xperia XZ3, the particular function comprises deactivation of measurement of changes in capacitance by the sensing element. For example, the capacitive touch sensor in the Xperia XZ3 ceases measuring capacitance changes for a period of time. For another example, the capacitive touch sensor in the Xperia XZ3 has a particular function wherein it measures changes in capacitance only during certain times

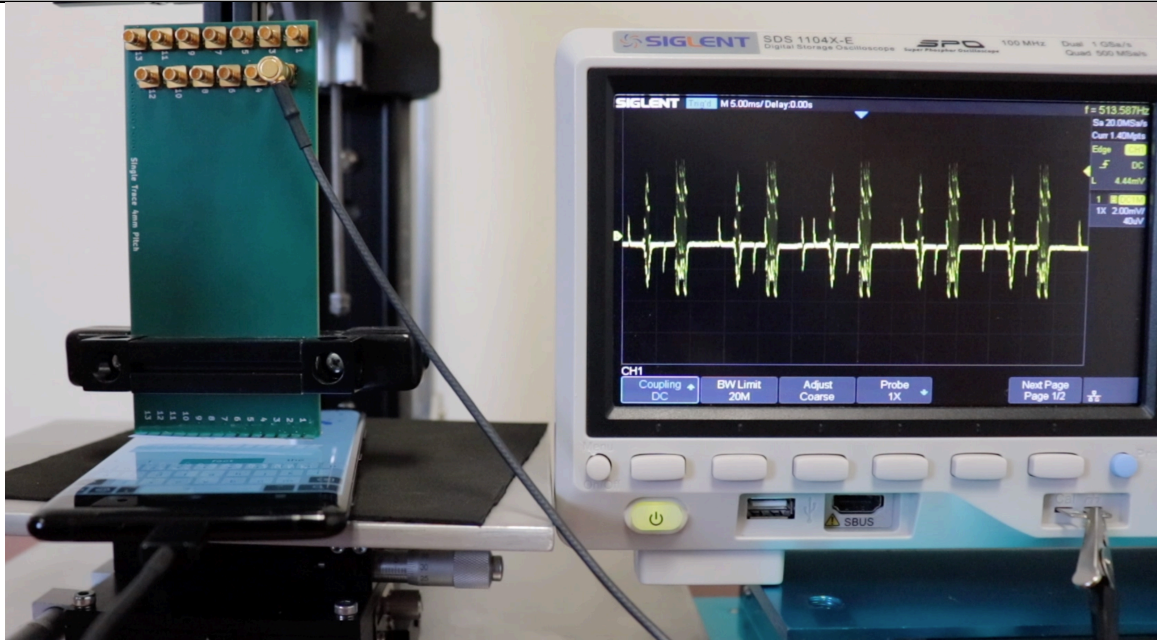| Claim 2	Sony products
by the sensing element.	and deactivates the measurement of capacitance during other times. *See, e.g.*: Photograph of Xperia XZ3 with touch present, showing the normal capacitive sensing drive signal indicative of measurement of changes in capacitance.

Claim 2	Sony products
Photograph of Xperia XZ3 after touch is removed, showing the deactivation of measurement of changes in capacitance. |

Claim 3

Claim 3	Sony products
The apparatus of claim 1, wherein the particular function comprises recalibration of measurement of changes in capacitance	Each Sony product comprises an apparatus of claim 1. *See, e.g.*, analysis and evidence of claim 1 above.

For example, in the Xperia XZ3, the particular function comprises recalibration of measurement of changes in capacitance by the sensing element. For example, the capacitive touch sensor in the Xperia XZ3 uses a different drive signal when the particular function is initiated, which requires recalibrating the measurement of changes in capacitance. |

Claim 3	Sony products
by the sensing element.	*See, e.g.*: Photograph of Xperia XZ3 with touch present, showing the normal capacitive sensing drive signal indicative of measurement of changes in capacitance.

Claim 3	Sony products
	Photograph of Xperia XZ3 after touch is removed, showing the different drive signal when the particular function is initiated, requiring recalibration of the measurement.

Claim 5

Claim 5	Sony products
The apparatus of claim 1, wherein the logic is further operable to calculate the predetermined time duration based on one of a plurality of delay multipliers determined by a polarity of a voltage pulse.	Each Sony product comprises an apparatus of claim 1. *See, e.g.,* analysis and evidence of claim 1 above. For example, in the Xperia XZ3, the logic is further operable to calculate the predetermined time duration based on one of a plurality of delay multipliers determined by a polarity of a

Page 9

Claim 5	Sony products
	voltage pulse.

Claim 7

Claim 7	Sony products
The apparatus of claim 1, wherein sensing element comprises a control circuit.	Each Sony product comprises an apparatus of claim 1. *See, e.g.*, analysis and evidence of claim 1 above. For example, in the Xperia XZ3, the sensing element comprises a control circuit. For example, the sensing element comprises a touch integrated circuit ("touch IC" or "touch controller").

Claim 8

Claim 8	Sony products
The apparatus of claim 7, wherein the sensing element further comprises a pattern of electrodes within the touch screen, the electrodes being coupled to the control circuit.	Each Sony product comprises an apparatus of claim 7. *See, e.g.*, analysis and evidence of claim 7 above. For example, in the Xperia XZ3, the sensing element further comprises a pattern of electrodes within the touch screen, the electrodes being coupled to the control circuit. For example, the Xperia XZ3 comprises touch electrodes coupled to the touch IC.

Claim 9

Claim 8	Sony products
The apparatus of claim 8, wherein the electrodes comprise indium tin oxide (ITO).	Each Sony product comprises an apparatus of claim 8. *See, e.g.*, analysis and evidence of claim 8 above. For example, in the Xperia XZ3, the electrodes comprise indium tin

Claim 8	Sony products
	oxide (ITO).

Claim 16

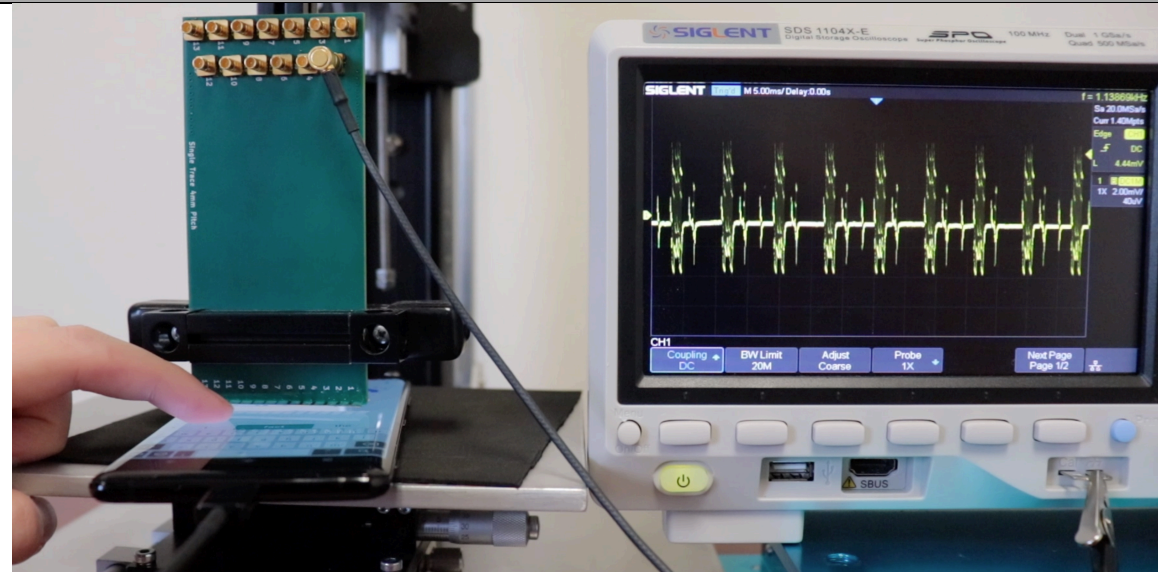| Claim 16	Sony products
[pre] A computer-readable non-transitory storage media embodying logic that is operable when executed to:	Each Sony product comprises a computer-readable non-transitory storage media embodying logic that is operable when executed to perform the claimed operations. For example, the Xperia XZ3 includes one or more touch controllers or system processors with non-transitory storage (e.g. Flash, EEPROM, HDD, SDD, etc.) embodying logic executable to perform the steps described below. *See also, e.g.*, analysis and evidence of elements 16[a]-16[c] below.
[a] monitor detection by a sensing element of a key touch on a touch screen, the sensing element being of a touch screen;	Each Sony product includes logic to monitor detection by a sensing element of a key touch on a touch screen, the sensing element being of a touch screen. For example, the Xperia XZ3 monitors touches from its capacitive touch screen. *See, e.g.*:

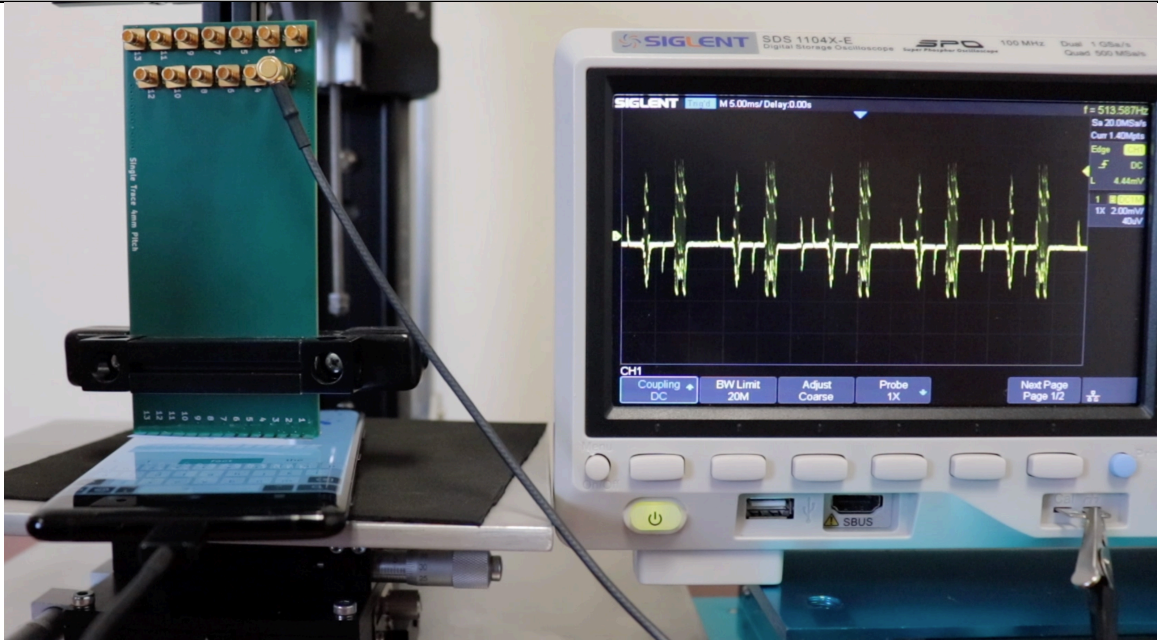| Claim 16	Sony products
	Photograph of Xperia XZ3 illustrating touch screen. *See also, e.g.*, analysis and evidence of elements 16[b] and 16[c] below.
[b] determine an amount of time that has elapsed since the sensing element last detected a change of capacitance indicative of a key touch	Each Sony product includes logic to determine an amount of time that has elapsed since the sensing element last detected a change of capacitance indicative of a key touch on the touch screen. For example, touching the Xperia XZ3's touch screen and then removing the touch, thereby causing a change of capacitance, can cause the Xperia XZ3 to respond in various ways after a delay, indicating that

Page 12

Claim 16	Sony products
on the touch screen; and	the Xperia XZ3 determines the amount of time elapsed since the touch sensor detected a touch. *See, e.g.*, analysis and evidence of element 16[c] below.
[c] if the amount of time that has elapsed exceeds a predetermined time duration, then initiate a particular function of an apparatus.	Each Sony product includes logic to, if the amount of time that has elapsed exceeds a predetermined time duration, then initiate a particular function of an apparatus. For example, the capacitive touch sensor in the Xperia XZ3 enters a different sensing mode a predetermined amount of time after a user's finger is removed from the touch screen. This change is readily observable using a standard oscilloscope measuring the capacitive drive signals a short distance above the Xperia XZ3's touch screen. There is a distinct difference between the drive signal observed while a finger touch is in contact with the drive signal observed after removing that touch. This difference likely reflects a power-saving mode initiated after the touch is removed. The change occurs after a consistent time offset. *See, e.g.*:

Claim 16	Sony products
	Photograph of Xperia XZ3 with touch present, showing the capacitive sensing drive signal while a touch is detected.

Claim 16	Sony products
	 Photograph of Xperia XZ3 after touch is removed, showing the different capacitive sensing drive signal present following a predetermined time duration after the touch is removed.

Claim 17

Claim 17	Sony products
The media of claim 16, wherein the particular function comprises deactivation of measurement of changes in capacitance by the sensing element.	Each Sony product comprises a media of claim 16. *See, e.g.*, analysis and evidence of claim 16 above. For example, in the Xperia XZ3, the particular function comprises deactivation of measurement of changes in capacitance by the sensing element. *See, e.g.*, analysis and evidence of claim 2 above.

Claim 18

Claim 18	Sony products
The media of claim 16, wherein the particular function comprises recalibration of measurement of changes in capacitance by the sensing element.	Each Sony product comprises a media of claim 16. *See, e.g.*, analysis and evidence of claim 16 above. For example, in the Xperia XZ3, the particular function comprises recalibration of measurement of changes in capacitance by the sensing element. *See, e.g.*, analysis and evidence of claim 3 above.

Claim 20

Claim 20	Sony products
The media of claim 16, wherein the logic is further operable to calculate the predetermined time duration based on one of a plurality of delay multipliers determined by a polarity of a voltage pulse.	Each Sony product comprises a media of claim 16. *See, e.g.*, analysis and evidence of claim 16 above. For example, in the Xperia XZ3, the logic is further operable to calculate the predetermined time duration based on one of a plurality of delay multipliers determined by a polarity of a voltage pulse. *See, e.g.*, analysis and evidence of claim 5 above.