

EXHIBIT F-4

Neodron Ltd.

Exhibit F-4

U.S. Patent No. 8,946,574 (“’574 Patent”)

U.S. Patent No. 7,030,860 (“Hsu”)

U.S. Patent No. 7,030,860 (“Hsu”) was filed on October 8, 1999, and issued on April 18, 2006. Hsu qualifies as prior art to U.S. Patent No. 8,946,574 (“’574 Patent”) at least under 35 U.S.C. § 102(b) (pre-AIA) and anticipates and, alone or with other references, renders obvious one or more of claims 1–4, 6–11, and 13–15. To the extent Hsu does not disclose one or more of the claims, it would have been obvious to combine the teachings of Hsu with the knowledge of one of ordinary skill in the art and more of the references below to render the claims at issue in the ’574 patent invalid.

- U.S. Patent Publication No. 2012/0127079 (“Trend”) was filed on November 23, 2010 and published on November 23, 2012. Trend qualifies as prior art to the ’574 Patent under 35 U.S.C. § 102(e) (pre-AIA).
- U.S. Patent No. 5,386,219 (“Greanias”) was filed on July 28, 1993 and published on January 31, 1995. Greanias qualifies as prior art to the ’574 Patent under 35 U.S.C. § 102(b) (pre-AIA).
- U.S. Patent No. 6,970,160 (“Mulligan”) was filed on December 19, 2002 and published on November 29, 2005. Mulligan qualifies as prior art to the ’574 Patent under 35 U.S.C. § 102(b) (pre-AIA).
- U.S. Patent No. 7,538,760 (“Hotelling760”) was filed on March 30, 2006 and published on May 26, 2009. Hotelling760 qualifies as prior art to the ’574 Patent under 35 U.S.C. § 102(b) (pre-AIA).
- U.S. Patent No. 7,395,717 (“DeAngelis”) was filed on February 10, 2006 and published on July 8, 2008. DeAngelis qualifies as prior art to the ’574 Patent under 35 U.S.C. § 102(b) (pre-AIA).
- U.S. Patent Publication No. 2011/0007011 (“Mozdzyń”) was filed on June 26, 2010 and published on January 13, 2011. Mozdzyń qualifies as prior art to the ’574 Patent under 35 U.S.C. §§ 102(a) and 102(e) (pre-AIA).
- U.S. Patent Publication No. 2010/0123670 (“Philipp”) was filed on April 10, 2009 and published on May 11, 2010. Philipp qualifies as prior art to the ’574 Patent under 35 U.S.C. § 102(b) (pre-AIA).
- U.S. Patent Publication No. 2009/0002337 (“Chang”) was filed on May 16, 2008 and published on January 15, 2009. Chang qualifies as prior art to the ’574 Patent under 35 U.S.C. § 102(b) (pre-AIA).
- U.S. Patent Publication No. 2009/0219257 (“Frey”) was filed on February 26, 2009 and published on September 17, 2009. Frey qualifies as prior art to the ’574 Patent under 35 U.S.C. § 102(b) (pre-AIA).
- U.S. Patent No. 5,305,017 (“Gerpheide”) was filed on July 13, 1992 and published on April 19, 1994. Gerpheide qualifies as prior art to the ’574 Patent under 35 U.S.C. § 102(b) (pre-AIA).

- U.S. Patent No. 5,880,411 (“Gillespie”) was filed on March 28, 1996 and published on March 9, 1999. Gillespie qualifies as prior art to the ’574 Patent under 35 U.S.C. § 102(b) (pre-AIA).
- U.S. Patent Publication No. 2008/0158167 (“Hotelling167”) was filed on January 3, 2007 and published on January 10, 2008. Hotelling167 qualifies as prior art to the ’574 Patent under 35 U.S.C. § 102(b) (pre-AIA).
- U.S. Patent Publication No. 2010/0045632 (“Yilmaz”) was filed on April 10, 2009 and published on February 19, 2010. Yilmaz qualifies as prior art to the ’574 Patent under 35 U.S.C. § 102(b) (pre-AIA).

The excerpts cited herein are exemplary. For any claim limitation, Defendant may rely on excerpts cited for any and/or additional excerpts not set forth fully herein to the extent necessary to provide a more comprehensive explanation of a reference’s disclosure of a limitation. Where an excerpt refers to or discusses a figure or figure items, that figure’s descriptions of that figure should be understood to be incorporated by reference as if set forth fully herein.

These invalidity contentions are not an admission by Defendants that the accused products or components, including past versions of these products or components, are covered by, or infringe the asserted claims, particularly when the claims are properly construed and applied. These invalidity assertions are also not an admission that Defendants concede or acquiesce to the claim construction(s) implied or suggested by Plaintiff in its Complaint or the associated infringement claim charts. Defendants asserting any claim construction positions through these charts, including whether the preamble is a limitation, also do not concede or acquiesce that any asserted claim satisfies the requirements of 35 U.S.C. §§ 112 or 101 and that the invalidity contentions only to the extent Plaintiff’s assertions may be understood.

<u>Asserted Claims</u>	<u>Prior Art Disclosures</u>
Claim 1	
[1pre] An apparatus comprising:	<p>Hsu, alone or in combination with the references listed above and/or the knowledge of ordinary skill in the art, discloses and/or renders obvious the apparatus recited in claim 1. For example, Hsu anticipates and/or alone or in combination with (1) any of Greanias, Mulligan, Hotelling760, DeAngelis, Mozdzyn, Philipp, and Chang; Greanias, Mulligan, Hotelling760, and DeAngelis in view of any one of Mulligan, Chang; and further in light of the knowledge of a person of ordinary skill in the art, discloses and/or renders obvious the apparatus recited in claim 1.</p> <p>For example, Hsu discloses:</p> <p>Hsu at Abstract:</p> <p>A transparent, capacitive sensing system particularly well suited for use in mobile devices is described. The sensing system can be used to emulate physical slider switches that are either displayed on an active display device or on an underlying surface. The capacitive sensor can further be used as an input device for a graphical user interface, especially if overlaid on top of an active display device. An LCD screen to sense finger position (X/Y position) and contact area is also described. In addition, the sensor can be made with flexible material and used on a three-dimensional surface. Because the sensor is substantially transparent, the underlying surface can be viewed through the sensor. This allows the sensor to be used for alternative applications that may not necessarily be related to a touch sensing system. Examples include advertising, an additional user interface element, such as a camera or a biometric security device.</p> <p>Hsu at 1:8-12:</p> <p>The present invention relates to touch sensing transducers and systems. In particular, particularly, the present invention relates to flexible and transparent</p>

<u>Asserted Claims</u>	<u>Prior Art Disclosures</u>
	<p>recognition devices useful in applications such as cursor movement and other computing devices and other applications.</p> <p>Hsu at 8:1-26:</p> <p>In yet another embodiment, FIG. 7 shows a two-dimensional transparent sensor 36. Transparent substrate 84 is adhered using transparent insulating layer 64. Transparent conductor layer 64 contains transparent conductor patterns 66 as shown in FIG. 5A and is coated onto transparent substrate 86. On top of transparent substrate 86, transparent conductor layer 70 contains transparent conductor patterns 72 as shown in FIG. 5B. Finally, transparent substrate 88 is adhered to transparent substrate 86 using transparent insulator 74. This particular embodiment, with substrate 84 and 88 on opposite sides with transparent conductor layers may allow for less error when aligning diamonds in the X trace array and the Y trace array. Because substrate 84 and 88 are transparent, conductor layers 64 and 70, the alignment of trace arrays can occur during the etching/deposition of the trace arrays with the opaque photoresist process, simplifying pattern alignment of X and Y traces. Proper alignment of trace arrays is critical to the overall transparency of two-dimensional sensor 36. A human eye can easily detect any systematic misalignment between the trace patterns.</p> <p>Examples of transparent, electrically insulating substrates 84,86, and 88 are described in previous embodiments of two-dimensional sensor 36 and sensor 20.</p> <p>Hsu at Figure 7:</p>

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