UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner

v.

LBT IP I LLC,
Patent Owner

Inter Partes Review Case No. IPR2020-01189
U.S. Patent No. 8,497,774

PETITIONER APPLE INC.'S OPENING CLAIM CONSTRUCTION BRIEF ADDRESSING "A MULTITUDE OF THRESHOLD VALUES"

Pursuant to the Federal Circuit's remand, the Board requested the Parties to address whether—as a matter of claim construction—the "threshold values" in the recited "multitude of threshold values" are limited to battery power threshold values or whether they may also include GPS signal level threshold values. Paper 43, at 3. As discussed below, any construction of "threshold values" must include *both* battery power *and* GPS signal level threshold values.

The '774 Patent indisputably resolves this issue because it describes an embodiment that includes GPS signal level as part of the multitude of threshold values:

> In one embodiment, the accelerometer 130 activates upon one or more designated antenna(s), e.g., antennas 122a, 122b, **detecting a first signal level, e.g., a low signal level or threshold value**, as specified by, for instance, a user or system administrator.

Ex. 1001, 7:55-59. As the specification and Figures make clear, antennas 122a and 122b are the antennas that are utilized for "acquir[ing] a snapshot of receive communication signal **including location coordinates data**." *Id.*, 10:41-44; *see also* Fig. 1 (connecting antennas 122a/b to the "location tracking circuitry" and the "signal detecting circuitry"). Any suggestion that these antennas are used to detect a "low signal level or threshold value" of the battery would be nonsensical. That is not how antennas operate. The '774 Patent contemplates using GPS signal levels as part of the multitude of threshold values because it recognizes that GPS is one of the biggest draws on battery power. The '774 Patent acknowledges that "GPS satellite communication signals may be obstructed or partially blocked, hindering tracking and monitoring capability." *Id.*, 3:2-3. In those situations, "a GPS transceiver [is] receiving a weak GPS signal" and "the GPS transceiver is depleting battery power in failed attempts to acquire communication signals from one or more … GPS satellites." *Id.*, 2:4-8.

The '774 Patent solves this problem by describing an embodiment where the system will monitor and detect GPS signal levels and, when they reach a certain threshold—e.g., they are too weak—the system will deactivate the GPS to save power while activating the accelerometer to still provide navigation to the user. This is the precise embodiment described by the '774 Patent when it equates a low GPS signal level with a threshold value. In this embodiment, when the system detects "a low signal level **or threshold value**" of the GPS signals, the "electrical circuitry associated with GPS signal acquisition … may be, for instance, placed on standby or in a sleep mode" so that the system "[conserves] a battery level of the battery." *Id.*, 7:55-8:3; *see also* 8:7-16; *see also Id.*, 8:67-9:3. This solves the problem of the '774 patent, which is that "receiving a weak GPS signal … deplet[es]ing battery power." *Id.*, 3:2-7. This is only possible if your "low signal level or threshold value" is reading the strength of GPS signal levels.

The system utilizes the GPS signal threshold to know when to deactivate the GPS circuitry to save power while also knowing when to activate accelerometer circuitry to continue providing the user with navigation.

> As described above, when GPS signal is not practicable, electronic device proximity measurements [e.g., accelerometer 130] provide differential location coordinate information to calculate coordinate information.

Ex. 1001, 9:14-16. Figure 3 illustrates how the invention of the '774 Patent utilizes this GPS signal level threshold to determine whether to activate/deactivate the GPS and the accelerometer circuitry:

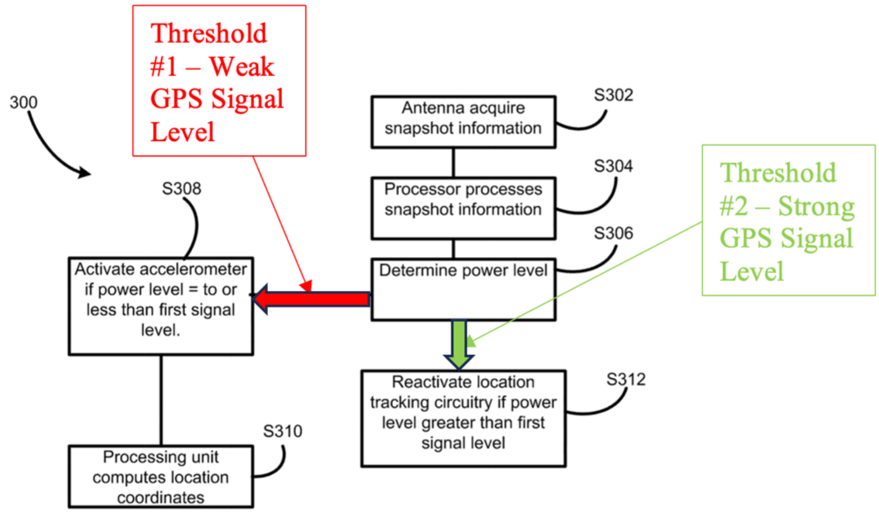

Figure 3

Starting at Step S302, the GPS antennas acquire a snapshot of the receive communication signal. Ex. 1001, Fig. 3, 10:38-52. The processor will then analyze the snapshot information acquired by the GPS antennas in Step S304. *Id.* In Step

S306, "processing unit 104 determines a power level of receive communication signal levels." *Id.* It is at this point that the threshold values using the GPS signal are analyzed and one of two actions are taken. The first possibility is that the GPS signal levels show a threshold value indicating a weak GPS signal that causes the system to activate its accelerometer: "In step 308, ***accelerometer 130 activates if a power level of the receive communication signal is insufficient for processing***." *Id.*, 10:47-49; Fig. 3, Step S308; *compare with* 7:55-59 (describing a "low signal level or threshold value" of the GPS receive communication signal as received by the antenna); *see also id.*, 8:7-16 (generally discussing determining if the GPS receive communication signal is above a first signal level). The second possibility is that the GPS signal levels show a threshold value indicating a strong GPS signal that causes the system to reactive the GPS circuitry: "In another variation of step 312, upon determining receive communication signal of sufficient signal strength, accelerometer 130 is deactivated and location tracking circuitry 114 are activated, and processing unit 104 determines location coordinates from the receive communication signal." *Id.*, 10:62-67; *see also* 10:58-62.

Notably, this embodiment would be inoperable if it solely looked at a multitude of battery level thresholds. Indeed, the embodiment of Figure 3 has nothing to do with examining a battery level because utilizing threshold values for GPS signals is how one embodiment of the '774 Patent accomplishes its goal of

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