

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

CYWEE GROUP LTD.,

Plaintiff

v.

SAMSUNG ELECTRONICS CO. LTD.
AND SAMSUNG ELECTRONICS
AMERICA, INC.,

Defendants.

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NO. 2:17-CV-00140-RWS-RSP

**DEFENDANTS SAMSUNG ELECTRONICS CO., LTD. AND SAMSUNG
ELECTRONICS AMERICA, INC.'S REPLY IN SUPPORT OF THEIR MOTION FOR
SUMMARY JUDGMENT OF INVALIDITY UNDER 35 U.S.C. § 101**

I. INTRODUCTION

CyWee's fact and expert witnesses agree: the patents-in-suit claim standard, conventional components to collect data to be manipulated with an algorithm. That places the asserted claims squarely within controlling case law that holds such inventions unpatentable. CyWee attempts to generate issues of fact by ignoring the patent specifications and the clear admissions made by its fact and expert witnesses. CyWee cannot, however, explain away the critical facts that lead to the inescapable conclusion of invalidity. Thus, Samsung's motion for summary judgment should be granted and the patents-in-suit declared invalid under 35 U.S.C. § 101.¹

II. CYWEE CANNOT DISPUTE THAT THREE-AXIS GYROSCOPES, ACCELEROMETERS, AND MAGNETOMETERS WERE KNOWN IN THE ART

CyWee's fact and expert witnesses, and the patents-in-suit themselves, admit that three-axis gyroscopes, accelerometers, and magnetometers were already known in the prior art, both alone and in combination. There are two key sets of admissions: (1) those claimed sensors were generic, well-known components before CyWee filed its patents;² and (2) combining multiple types of such sensors was known before CyWee filed its patents.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

¹ CyWee claims that the Southern District of California already rejected Samsung's arguments in *CyWee v. LG Electronics*, but that court only ruled that LG's motion, filed at the pleadings stage, was premature.

² CyWee does not dispute that 3D pointing devices and processors too were generic, well-known components as of the time of filing.

[REDACTED]

[REDACTED]

[REDACTED] And CyWee's expert Nicholas Gans admits that accelerometers, magnetometers, and gyroscopes were known and that arranging sensors in three-axis configurations was known generally outside of the patent specifications: "To accurately measure motions along an arbitrary axis, three like sensors are grouped together and aligned at right angles. Such a sensor set is *generally* referred to as a 3-axis sensor." Ex. 7 ¶ 9 (emphasis added). CyWee argues that this was not an admission, but the relevant paragraph describes the disclosed technologies without citing the specifications. *Id.* Thus, in paragraph 9, Dr. Gans described what was known in the prior art outside of the disclosures of the patents-in-suit. In contrast, when he discussed the disclosures of the patents, he cited the specifications. *See, e.g., id.* ¶¶ 8, 10. In fact, the '438 Patent specification describes the prior art as including a five-axis motion sensor consisting of a 3-axis accelerometer and a 2-axis gyroscope. Ex. 1 at Col. 2:38–47. Therefore, CyWee cannot dispute that three-axis gyroscopes, accelerometers, and magnetometers were generally known in the prior art before the patents-in-suit were filed.

Third, combinations of accelerometers, gyroscopes, and magnetometers were standard and well-known before CyWee made its claimed inventions. As discussed above, the patent specifications refer to a prior art combination of accelerometers and gyroscopes. Ex. 1 at Col. 2:38–47; Ex. 11 at Col. 2:42–50. CyWee was not able to obtain allowance of its claims based merely on the hardware components recited. Instead, it had to amend the claims in light of the

³ All exhibits referenced herein were attached to the Declaration of Elizabeth L. Brann in Support of Defendants' Motion for Summary Judgment (Dkt. No. 178).

Nasiri reference (U.S. Pat. Pub. 2009/0262074), which discloses a device that uses three-axis accelerometers, three-axis gyroscopes, and three-axis magnetometers. Ex. 8 at 3–4; Ex. 9 ¶¶ 0017, 0049, 0053; Ex. 12 at 4–5. Given Nasiri’s disclosure of all the claimed sensors, CyWee was forced to modify the claimed algorithms to obtain allowance of its patents. Ex. 10; Ex. 13 at 2–3. Therefore, CyWee cannot credibly dispute that the sensors recited in the patent claims were generic components known in the prior art, whether alone or in combination.

III. THE ASSERTED CLAIMS ARE DIRECTED TO AN ABSTRACT IDEA

The patents-in-suit are directed to a mathematical algorithm, not to sensors. Under any fair reading, the ’438 and ’978 Patents merely claim a mathematical algorithm for computing the direction a “3D pointing device” is pointing by manipulating two (’438 Patent) or three (’978 Patent) sets of sensor data. At most, they require standard, generic structures to collect the data and execute the algorithm. Given that the patents merely claim a mathematical algorithm, they are directed to an abstract idea and fail step one of the *Alice* test. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

CyWee cites another of its patents, U.S. Patent No. 8,373,658 (“the ’658 Patent”), which is unrelated to the patents-in-suit, as an example of a two-axis gyroscope and as evidence that the arrangement of sensors in the patents asserted here is non-conventional. Dkt. No. 192 at 19–20. That ’658 Patent, however, is further evidence that the sensors claimed here are *not* arranged in any particular manner. The figure shown in CyWee’s opposition specifically depicts the spatial relationship between a two-axis gyroscope and a G-sensor, even specifying the angle between them. *Id.* at 20. Thus, CyWee’s other patent is closer to the patent described in *Thales Visionix, Inc. v. United States*, 850 F.3d 1343 (Fed. Cir. 2017).

The differences between the patents-in-suit here and the ’658 Patent demonstrate why the patents-in-suit are not directed to patent-eligible subject matter. The patents-in-suit merely depict

black box sensors and do not depict or describe any special relationship or configuration between them. Ex. 1 at Figs. 3, 6, Col. 7:36–55, Col. 10:9–41; Ex. 11 at Figs. 3, 6, Col. 9:14–45, Col. 13:5–47. The asserted claims further do not specify any relationship or configuration among the recited sensors.

Indeed, asserted Claims 14 and 19 of the '438 Patent and Claim 10 of the '978 Patent are method claims directed to an algorithm, not to the configuration of sensors. CyWee admits in its opposition that Figure 7 of the '438 Patent maps directly onto Claim 14. Dkt. No. 192 at 11–12. Yet Figure 7 merely sets forth aspects of a mathematical algorithm and contains no disclosure of any specific configuration of sensors. Ex. 1 at Fig. 7. CyWee admits that the '978 Patent claims include the same seven-step algorithm as in the '438 Patent. Ex. 2 at 4. The only apparatus claim is Claim 1 of the '438 Patent, but it too does not specify any configuration of sensors. Moreover, that claim was only allowed on the basis of the recited algorithm. Ex. 1 at Col. 18:54–19:26; Ex. 10. CyWee therefore cannot dispute that the asserted claims are directed to the recited algorithm, not any particular relationship or configuration of the sensors.

CyWee cites *Parker v. Flook*, 437 U.S. 584 (1978), and *Digitech Image Technologies, LLC v. Electronics For Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014), but ignores the central holdings of those cases. As described in Samsung's motion, *Flook* is on point here because it addressed the application of a mathematical algorithm to measured values. 437 U.S. at 585–86. Although the claims did not cover every conceivable application of the algorithm, the Court found that the claims were in fact directed to that algorithm. *Id.* at 593. Here, similarly, although the claims do include some structural limitations, the claims are not directed to those limitations. Instead, they are directed to the specific algorithm for combining measurements from the sensors to determine the attitude or orientation of the device.

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