Federal Court of Appeal | Cour d'appel fédérale

Date: 20240313

Dockets: A-207-22 (lead file)
A-208-22

Citation: 2024 FCA 44

CORAM: **DE MONTIGNY C.J.**
LOCKE J.A.
HECKMAN J.A.

BETWEEN:

GOOGLE LLC

Appellant

and

SONOS INC.

Respondent

Heard at Ottawa, Ontario, on March 6, 2024.

Judgment delivered at Ottawa, Ontario, on March 13, 2024.

REASONS FOR JUDGMENT OF THE COURT BY: LOCKE J.A.

CONCURRED IN BY: DE MONTIGNY C.J.
HECKMAN J.A.

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REASONS FOR JUDGMENT

LOCKE J.A.

[1] The appellant, Google LLC (Google), appeals a decision of the Federal Court (2022 FC 1116, *per* Justice Russel W. Zinn, the Infringement Decision) which found that the respondent, Sonos Inc. (Sonos), did not infringe claim 7 of Google's Canadian Patent No. 2,545,150 (the 150 Patent). Google also appeals a subsequent Order of Justice Zinn dated September 1, 2022, which ordered Google to pay Sonos' costs (the Costs Decision).

[2] Google argues that the Federal Court erred in three respects in the Infringement Decision, two concerning the interpretation of terms used in claim 7 and the third concerning the application of another term used in claim 7 in assessing infringement. Specifically, Google takes issue with the Federal Court's interpretation of (i) "echo cancellation", and (ii) "an order". Though Google does not take issue with the Federal Court's interpretation of "adaptively determine", it argues that the Federal Court erred in its application of this term in its infringement analysis. Google acknowledges that, in order to be successful in its appeal of the Infringement Decision, it must convince this Court that the Federal Court erred in respect of both (i) application of the term "adaptively determine", and (ii) construction of at least one of the terms "echo cancellation" and "an order".

[3] I would dismiss the appeal of the Infringement Decision.

[4] The 150 Patent concerns a system for adaptive echo and noise control in electronic equipment such as smart speakers of the type marketed by Sonos. The system cancels echo and suppresses noise that might interfere with communication, such as voice commands. Echo cancellation minimizes echo caused by the sound coming from the speaker or other electronic equipment. Noise suppression improves communication in an environment with unwanted sounds. Claim 7 of the 150 Patent defines an electronic device having both an echo canceller and a noise suppressor, wherein "an order of echo cancellation and noise suppression" is "adaptively determine[d]" based on "an amount of noise".

[5] Before addressing the claim construction issues raised by Google, a comment on the standard of review would be helpful. The parties agree that the applicable standard of review in the present appeals is as indicated in *Housen v. Nikolaisen*, 2002 SCC 33, [2002] 2 S.C.R. 235: questions of law are reviewed on a standard of correctness, and questions of fact or of mixed fact and law from which no question of law is extricable are reviewed on a standard of palpable and overriding error.

[6] The parties disagree on whether the claim construction issues are questions of law or questions of mixed fact and law. In theory, the interpretation of a patent claim, like the interpretation of a statute or a regulation, is a question of law, subject to the correctness standard: *Whirlpool Corp. v. Camco Inc.*, 2000 SCC 67, [2000] 2 S.C.R. 1067 at paras. 61, 76 (*Whirlpool*). However, patent claims are interpreted from the point of view of a person skilled in the art: *Whirlpool* at para. 48. Expert evidence is often considered in determining how such a person would have understood certain terms in a claim at the relevant date. The weighing of this evidence is a question of mixed fact and law. Therefore, where the interpretation of a patent claim turns on the weight given to expert evidence, this Court will intervene only where there is a palpable and overriding error: *Biogen Canada Inc. v. Pharmascience Inc.*, 2022 FCA 143, 196 C.P.R. (4th) 120 at para. 38; *ABB Technology AG v. Hyundai Heavy Industries Co., Ltd.*, 2015 FCA 181, 132 C.P.R. (4th) 405 at paras. 22–23.

[7] In this case, the Federal Court found that, in the context of the 150 Patent, the term "echo" is distinct from, and not simply a type of, "noise". Therefore, echo cancellation and noise

suppression are distinct processes. In reaching this conclusion, the Federal Court relied on expert evidence (see paragraphs 47 to 52 of the Federal Court's reasons).

[8] Google argues that the Federal Court erred by failing to address its argument that "echo cancellation" encompasses any mechanism to minimize echo, and is not limited to a mechanism that uses a reference signal and a cancellation point. In simpler terms, Google argues that "echo cancellation" is not limited to the method described in the 150 Patent: using a saved version of an outgoing signal (e.g. what the speakers are playing) to cancel its echo. Google argues that "echo cancellation" extends to the minimization of echo by other means. These other means treat echo as a type of noise and are essentially a type of noise suppression. Google argues that the Federal Court did not explicitly address this point; nor implicitly address the point in concluding that echo cancellation and noise suppression are distinct processes.

[9] In my view, the Federal Court found that echo cancellation and noise suppression are distinct processes based on a conclusion that, in the context of the 150 Patent, echo is distinct from noise (see paragraphs 51 and 52 of the Federal Court's reasons), and echo cancellation is distinct from echo suppression (see paragraphs 77 and 78 of the Federal Court's reasons). It follows from this that the Federal Court rejected Google's argument that "echo cancellation" encompasses activities that are essentially noise suppression. I disagree with Google's submission that the Federal Court failed to consider this construction issue.

[10] I find no merit in Google's argument that such a conclusion was not available to the Federal Court because it would violate a fundamental principle of claim construction—

i.e., giving claim 7 of the 150 Patent exactly the same scope as claim 8, which is dependent from, and should be narrower than, claim 7. Claim 8 is limited to an echo canceller with certain features. The Federal Court's interpretation of claim 7 does not limit the scope of the echo canceller defined therein to those features defined in claim 8.

[11] With regard to the term "an order" in the phrase "an order of echo cancellation and noise suppression" Google argues that the Federal Court erred in failing to recognize that this term could encompass an order in which either the echo cancellation or the noise suppression was available but not performed.

[12] The Federal Court considered this issue and weighed the conflicting expert evidence (see paragraphs 59 to 64 of the Federal Court's reasons). It concluded that there is no "order of echo cancellation and noise suppression" where only one of those functions is performed. Google argues that nothing in the 150 Patent supports the statement at paragraph 64 of the Federal Court's reasons that "the device of Claim 7 must have at least two operating states that include both noise suppression and echo cancellation". In my view, this statement is not an erroneous interpretation of claim 7. Rather, it simply recognizes that the claimed device must permit the operations of echo cancellation and noise suppression to be performed in at least two different orders. In my view, it was open to the Federal Court to favour one expert over the other and to reach the conclusion it did concerning the meaning of "an order".

[13] Based on Google's acknowledgement that it must convince this Court that the Federal Court erred on at least one of the claim construction issues, the foregoing is sufficient to dismiss

the appeal of the Infringement Decision. It is not necessary to consider the Federal Court's application of the term "adaptively determine". It is also not necessary to consider Sonos' argument that, even if Google were successful in its arguments, there would be no infringement by Sonos.

[14] Google's appeal of the Costs Decision depends on success in its appeal of the Infringement Decision. Accordingly, no more need be said on the appeal of the Costs Decision.

[15] For these reasons, I would dismiss both appeals with costs. Based on the parties' agreement, I would set the amount of costs at $15,000, all-inclusive.

"George R. Locke"
J.A.

"I agree.
Yves de Montigny C.J."

"I agree.
Gerald Heckman J.A."

FEDERAL COURT OF APPEAL

NAMES OF COUNSEL AND SOLICITORS OF RECORD

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