

Singapore Patent Protection - Rejecting the Doctrine of Equivalents
Lee Tat Cheng v Maka GPS Technologies Pte Ltd [2018] SGCA 18

I. Executive summary

In the recent case of *Lee Tat Cheng v Maka GPS Technologies Pte Ltd* [2018] SGCA 18, the Court of Appeal (“CA”) addressed an issue concerning patent construction: whether Singapore should adopt the approach taken by the UK Supreme Court in *Actavis UK Limited v Eli Lilly and Company* [2017] UKSC 48 (“*Actavis*”), which reformulated the UK approach to patent construction and infringement.

The case concerned the patent for an in-vehicle camera which records and preserves visual data leading up to the event of a dangerous situation, such as an accident or other event requiring sharp braking (“the Patent”). The proprietor of the Patent, one Lee Tat Cheng (“Lee”), alleged at trial in the High Court (“HC”) that Maka GPS Technologies Pte Ltd (“Maka GPS Technologies”) had infringed, among other things, Claim 1 in the Patent by offering for sale in-vehicle cameras which purportedly included certain features of the Patent (the “Devices”). In response, Maka GPS Technologies argued that the Patent was invalid, and that in any event there was no infringement, as the three essential features of Claim 1 were not found in the Devices. Maka GPS Technologies also sought an injunction and damages for what it alleged were Lee’s groundless threats of infringement proceedings.

The HC found that the Patent was valid. However, it agreed with Maka GPS Technologies that the Devices did not infringe Claim 1 in the Patent because the three essential features of Claim 1 were not present in the Devices. The HC also found that Lee had made groundless threats of infringement proceedings. While the HC declined to award damages as Maka GPS Technologies had not proven financial loss as a result of Lee’s threats, the HC nonetheless granted Maka GPS Technologies an injunction as it considered that it had no discretion to refuse to award relief.

Lee appealed to the CA against the HC’s decision with regard to the non-infringement of the Patent as well as the injunction. The CA agreed with the HC’s decision in relation to the former issue but disagreed in relation to the latter.

Regarding the issue of patent infringement, the CA embarked on a two-step analysis: (a) ascertaining the extent of protection afforded by the Patent; and (b) based on such protection, determining whether the Devices had usurped the three essential features of Claim 1.

The CA first explained the current scope of patent protection under the Patents Act (Cap 221, 2005 Rev Ed) (“Patents Act”). While patent claims are to be construed based on their purpose (known as the “purposive approach”), the protection conferred by such claims cannot go beyond that which a person skilled in the relevant area, reading the patent claims in context, would think the patentee was intending to claim. In other words: what would such a skilled person have understood the patentee to mean, using the language of the claims? If, using this approach, an allegedly infringing item falls within the words of the patent claim, the patent has been infringed.

The CA then had to decide whether to adopt the UK approach in *Actavis* in Singapore. *Actavis* sets out two alternative tests for patent infringement: (a) a test based on a normal interpretation

of the claim, i.e. similar to the abovementioned purposive approach; and (b) a test based on whether the infringing variant, meaning the alleged infringing item, varies from the patented invention in immaterial ways. The second test is similar to the “doctrine of equivalents” adopted by the American courts. Thus under *Actavis*, there may be infringement even if the variant does not fall within the words of the patent claim, so long as it differs from the patented invention in ways which are immaterial.

The CA declined to adopt *Actavis* in Singapore, as doing so would extend the protections conferred by a patent beyond the scope of its claims, purposively construed. This would be inconsistent with the Patents Act. It would also tilt the balance too far in favour of the patentee, as against third parties. Finally, adopting *Actavis* might give rise to undue certainty. Applying the current purposive approach, the CA agreed with the HC that the Devices did not usurp the three essential features of Claim 1.

In relation to Maka GPS Technologies’ claim in respect of Lee’s groundless threats of infringement, the CA held that under section 77(1) of the Patents Act, the granting of such relief was discretionary. Since there was nothing to suggest that Lee would make further threats of infringement proceedings against Maka GPS Technologies, an injunction was inappropriate.

II. Material facts

The patented invention is an in-vehicle camera which is powered automatically, and begins recording images when the vehicle ignition system is switched on. It switches off when the ignition is switched off, or when there is an impact to or sudden deceleration of the vehicle (such as in the event of an accident). In the case of such impact or deceleration, the main power supply to the camera is cut, to protect the images from being overwritten in event of an accident or other dangerous situation. The Patent was granted in 2002, and has been renewed on a yearly basis.

III. Issues on appeal

A. Patent infringement

To determine if the Patent was infringed, the CA had to first determine the extent of protection afforded by the Patent, including whether it should adopt the *Actavis* approach to patent construction in Singapore. Based on that extent of protection, it then had to determine whether the Devices usurped the three essential features of Claim 1 of the Patent such that infringement would be established.

(i) Extent of protection

In Singapore, the scope of protection conferred by a patent is governed under section 113 of the Patents Act. Based on the purposive approach, the key principles to patent construction in Singapore were identified as follows:

- (1) The patent claims are the principal determinants in patent construction. Anything that is not claimed is considered disclaimed.
- (2) The description and other parts of the patent specification form the context for the construction of the claim.

- (3) The claim is to be construed purposively, and not literally. In other words: What would the notional skilled person have understood the patentee to mean, by the use of the language of the claims?
- (4) The notional skilled person is a workman or technician who is aware of everything encompassed in the state of the art* and who has the skill to make routine workshop developments, but not to exercise inventive ingenuity or think laterally.
- (5) The language of the claim is of utmost importance. The court cannot disregard the clear and unambiguous words in a patent claim, nor can the court rewrite or amend the claim.
- (6) Finally, the patent is infringed if the allegedly infringing item falls within the words of one of the claims of a patent, as construed above. The item must also usurp all the essential elements of the claim.

The CA then considered whether the principles of *Actavis* should be adopted in Singapore. In *Actavis*, the UK Supreme Court held that the issue of infringement must be considered through the eyes of a person skilled in the relevant art, using two alternative tests: (a) whether the variant infringes any of the patent claims as a matter of normal interpretation; and, (b) if not, whether the variant infringes any of the claims because it varies from the patented invention in immaterial ways. The first test is likely referring to the purposive approach, while the second test adopts a functional approach, based on the doctrine of equivalents. Under the doctrine of equivalents, a patent is infringed if the alleged infringing item performs substantially the same function in substantially the same way as the patented invention, so as to achieve the same results; such an approach allows a patentee to extend his monopoly beyond the patent claim.

Thus, under *Actavis*, there may be patent infringement even if the variant does not fall within the words of the patent claim, so long as the variant differs from the patented invention in ways which are immaterial.

The CA rejected the approach in *Actavis* on three grounds. First, the approach in *Actavis* was inconsistent with section 113 of the Patents Act. Section 113 states that the extent of the protection conferred by a patent is to be determined by what is specified in the claims, interpreted in the light of the description and any drawings contained in the patent specification. Thus, it does not permit the scope of patent protection to be otherwise determined or to extend beyond what is specified in the claims. *Actavis*, on the other hand, allowed patent protection to go beyond the scope of the patent claims, purposively construed. Moreover, *Actavis* was based on section 125(1) of the UK Patents Act 1977 (c37), which was in turn subject to the Protocol on the Interpretation of Article 69 of the European Patent Convention (which incorporates the concept of equivalents). In contrast, patent law in Singapore operated in a materially different context from that in the EU in this regard.

Second, it was fair for a patentee to be bound by the language in which he chose to frame the claims of his patent. The purposive approach struck the right balance between the need to afford fair protection to the patentee so that he is not left without protection against third parties who make immaterial variants to the patented invention, and the need to provide a reasonable degree of certainty to third parties who rely on patent claims as delimiting the scope of patent protection. *Actavis* tilted the balance too far in favour of the patentee, and in a manner that was not compatible with the Patents Act.

* “State of the art” refers, generally, to publicly available evidence that an invention is not new.

Thirdly, adopting the approach in *Actavis*, which imported the doctrine of equivalents, would give rise to undue uncertainty. The doctrine of equivalents allowed a patentee to extend his monopoly beyond the terms contained in the patent claims, and once that occurs, it would not be easy to know where the limits should be drawn. Furthermore, under the doctrine of equivalents, a claim is analysed in light of developing scientific knowledge at the date of the alleged infringement. This was in contrast to the purposive approach, which is limited to what the patentee would have objectively meant to include at the time of application.

(ii) The three essential elements

The CA agreed with the HC that the three essential elements of Claim 1 of the Patent were:

- (1) the existence of an ignition monitor;
- (2) a means to send a signal from the ignition monitor to the system controller (to switch on the device) on detection of an ignition voltage; and
- (3) a means to switch off at least one optical recorder after a fixed interval following the receipt of a sensor signal.

In order to succeed in his claim, Lee had to establish that the Devices contained all three elements.

For element (1), the CA held that the notional skilled person would have understood the Patent to consist of an “ignition monitor” which directly connected to the vehicle’s ignition system to monitor the “ignition voltage” (voltage produced by the ignition system). The notional skilled person would not consider the vehicle’s ignition system to include the vehicle’s battery. However, the Devices did not feature any “ignition monitor” as described in Claim 1; instead, the Devices were connected to the vehicle’s battery through an external charger connected to the cigarette lighter socket. Indeed, the Devices would power up even if the vehicle’s threshold or typical ignition voltage was not detected.

For element (2), the CA held that the notional skilled person would have understood the term “signal” to mean the conveyance of information or data from the “ignition monitor” to switch on the device, rather than the mere supply or transmission of voltage or electrical power. However, the sensors in the Devices did not actively send information or data, but merely allowed the passive supply or transmission of electrical power or voltage.

For element (3), the CA held that the notional skilled person would have understood this to mean that upon receiving a signal of a sudden deceleration of or impact to the vehicle, the “optical recorder” which is a camera or camcorder (which did not necessarily include the storage medium) would switch off to preserve the images recorded up to that point. However, the Devices on receiving the same signal would not switch off, but would continue functioning. It did not suffice for a claim of patent infringement that, on receipt of the signal, the Devices would segregate a portion of the storage medium which contained the images recorded immediately prior to the receipt of the said signal, in order to prevent those recorded images from being overridden.

As such, there was no infringement in relation to any essential element of Claim 1 of the Patent, and Lee’s claim of patent infringement failed.

B. Injunction for groundless threats of infringement proceedings

Under section 77 of the Patents Act, a party can bring a claim for relief for groundless threats of infringement proceedings. The burden is on the party bringing such a claim to prove that (a) threats of infringement proceedings were made; and (b) he is a person aggrieved by those threats. Relief will be granted unless the threats are shown to be justified.

The CA held that a grant of relief under section 77 was discretionary and not mandatory. It did not follow that whenever an allegation of patent infringement was dismissed, relief would be granted under such section. Indeed, the language of section 77 maintained the position that the claimant would have to satisfy the court of the appropriateness of granting the relief requested. Any grant of relief was fact-sensitive, and the courts would seek to strike a fair balance between protecting the existing intellectual property rights of the patentee, and preventing “bullying” tactics by such patentee via groundless threats of infringement proceedings. In the circumstances, given that there was nothing to suggest that Lee would make further threats of infringement proceedings, the CA held it was inappropriate to order an injunction against Lee to restrain him from continuing to make such threats.

IV. Legal implications

This case has a number of important implications for future patent cases in Singapore.

First, the approach adopted by the UK Supreme Court in *Actavis*, which is closely related to the American doctrine of equivalents, is not applicable in Singapore. The scope of protection conferred by a patent is determined by a purposive approach to patent construction, which is in turn closely tied to the language of the patent claims. Patent holders should choose the wording of their patent claims carefully, so as to accurately reflect the scope of protection that they seek to achieve.

Second, relief for groundless threats of infringement under section 77 of the Patents Act is discretionary, and therefore dependent on the facts of the case. For instance, claims for relief may be granted if the aggrieved parties can show that their businesses or reputation are affected by “bullying” tactics from patentees who use the threat of legal proceedings to deter competition.

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