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## Federal Circuit Patent Bulletin: *Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd.*

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August 4, 2015

*“Where a physical product is being employed to measure damages for the infringing use of patented methods, we conclude, territoriality is satisfied when and only when any one of those domestic actions for that unit (e.g., sale) is proved to be present, even if others of the listed activities for that unit (e.g., making, using) take place abroad.”*

On August 4, 2015, in *Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd.*, the U.S. Court of Appeals for the Federal Circuit (Wallach, Taranto,\* Chen) affirmed-in-part, reversed-in-part, vacated, and remanded-in-part the district court’s judgment awarding Carnegie Mellon University (CMU) \$1.54 billion for Marvell’s willful infringement of U.S. Patents No. 6,201,839 and No. 6,438,180, which related to improved error detection of recorded data with, for example, due to magnetic data storage media of computer hard drives, as well as a continuing royalty of \$0.50 per Marvell-sold chip. The Federal Circuit stated:

Marvell presents several challenges to the jury’s royalty determinations. It argues that the district court abused its discretion in not excluding the testimony of CMU’s damages expert, criticizing her qualifications and her methodology. It argues that the evidence precluded a royalty measured by 50 cents per unit and required a flat, lump-sum fee not metered by the extent of benefit to Marvell. And it argues that award improperly includes “foreign chips in the royalty base.” We reject all the challenges except the last: on that issue we conclude that a partial new trial is needed, as to those chips which never entered the United States, to determine whether their “sale” can be said to have occurred in the United States. With that exception, which warrants a partial remand, we affirm (a) the judgment of damages to the extent of \$278,406,045.50, consisting of

### Authors

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Lawrence M. Sung  
Partner  
202.719.4181  
lsung@wiley.law

50 cents per chip for the 556,812,091 chips that the jury could find were imported for use in the United States, (b) the judgment bringing the royalty award forward in the supplemental damages, though the amount must for the time being be adjusted by the district judge on remand to chips imported, using a reliable estimate of chips imported (based on the method of estimating imports presented to the jury or another reliable method), and (c) the order of an ongoing royalty of 50 cents per chip, also to be limited on remand, pending a new trial on the remanded issue, to a reliable estimate of chips imported. . . .

The Supreme Court has confirmed that the patent laws, like other laws, are to be understood against a background presumption against extraterritorial reach. The background principle applies not just to identifying the conduct that will be deemed infringing but also to assessing the damages that are to be imposed for domestic liability-creating conduct. Domestic actions often have extraterritorial effects, and foreign actions domestic connections. Two sovereigns often might be able to apply their laws to closely related aspects of what amount to an integrated economic activity—such as making something one place and selling it elsewhere, or selling something one place to be put to essentially its only use elsewhere. What constitutes a territorial connection that brings an action within the reach of a United States statute must ultimately be determined by examining the “‘focus’ of congressional concern” in the particular statute.

For the present context, we think that § 271(a) provides the basis for drawing the needed line. It states a clear definition of what conduct Congress intended to reach—making or using or selling in the United States or importing into the United States, even if one or more of those activities also occur abroad. Where a physical product is being employed to measure damages for the infringing use of patented methods, we conclude, territoriality is satisfied when and only when any one of those domestic actions for that unit (e.g., sale) is proved to be present, even if others of the listed activities for that unit (e.g., making, using) take place abroad. Significantly, once one extends the extraterritoriality principle to confining how damages are calculated, it makes no sense to insist that the action respecting the product being used for measurement itself be an infringing action. Thus, here the claim is a method claim, but the damages-measuring product practices the method in its normal intended use, and the hypothetical negotiation would have employed the number of units sold to measure the value of the method’s domestic use (before production and after) . . . . In these circumstances, the inquiry is whether any of the § 271(a)-listed activities with respect to that product occur domestically. . . .

There are significant conceptual differences between different measures of monetary compensation for infringement—including between what agreement the parties would have reached to value a defendant’s use of the patentee’s technology (reasonable royalty) and what amount of otherwise-made profits, based on sales at certain prices, the patentee lost as a result of the defendant’s use of the patentee’s technology (lost profits). But in the respect that is crucial here, we think that there is a related constraint. In the lost-profits context, . . . where the direct measure of damages was foreign activity (i.e., making, using, selling outside § 271(a)), it was not enough, given the required strength of the presumption against extraterritoriality, that the damages-measuring foreign activity have been factually caused, in the ordinary sense, by domestic activity constituting infringement under § 271(a). We think that the presumption against extraterritoriality, to be given its due, requires something similar in the present royalty setting. Although all of Marvell’s sales are strongly enough

tied to its domestic infringement as a causation matter to have been part of the hypothetical-negotiation agreement, that conclusion is not enough to use the sales as a direct measure of the royalty except as to sales that are domestic (where there is no domestic making or using and no importing). As a practical matter, given the ease of finding cross-border causal connections, anything less would make too little of the presumption against extraterritoriality that must inform our application of the patent laws to damages.

Marvell implicitly recognizes the significance of the line for this case when it effectively limits its challenge to inclusion in the royalty base of chips that were “manufactured, sold, and used abroad without ever entering the United States.” . . . We therefore deny JMOL as to the royalty based on those chips. We also deny a new trial as to royalties based on those chips. Marvell’s claim of error in the jury instructions affects only royalties based on chips whose inclusion depends entirely on the location of sale. We therefore affirm the judgment insofar as the royalty rests on imported chips. The amount is certain (stated above) up to the close of the damages period before the jury. On the other hand, a recalculation by the district judge is needed to confine the supplemental damages to such chips (pending a retrial on the remaining-chip issue), and a similar narrowing is needed for the collection of ongoing royalties (pending retrial).

As to the remaining chips, avoiding extraterritoriality in relying on those chips in the royalty base depends here on whether they were sold in the United States, there being no other applicable basis in § 271(a) to justify including those chips. As to those chips, we draw two conclusions. First, Marvell is not entitled to JMOL on the evidence and legal arguments presented to us. Second, a new trial is needed to determine whether the sales are properly said to have been in the United States.

The standards for determining where a sale may be said to occur do not pinpoint a single, universally applicable fact that determines the answer, and it is not even settled whether a sale can have more than one location. Places of seeming relevance include a place of inking the legal commitment to buy and sell and a place of delivery, and perhaps also a place where other “substantial activities of the sales transactions” occurred. At this point, we do not settle on a legal definition or even to say whether any sale has a unique location. The governing legal standards have not been the subject of meaningful briefing here. . . .

Chip designers like Marvell sell customized chips with designs specifically tailored for incorporating into customers’ products. Because of the customized nature of the chips, designers and potential customers put themselves through a lengthy “sales cycle,” involving extensive joint work over several years, before any sale is made and chips enter mass production. Only at the end of that sales cycle, if the chip designer is successful, does it secure a “design win,” but that win generally results in a customer’s exclusive use of that designer’s customized chip for a certain period, amounting to tens or hundreds of millions of chips over several years. One executive from a now-defunct chipmaker called the industry a “winner takes all business.”

Marvell’s facilities are in northern California, and CMU’s industry expert, Dr. Bajorek, showed that “with the exception of the chip making . . . all the activities related to designing, simulating, testing, evaluating, qualifying the chips by Marvell as well as by its customers occur[ ] in the United States.” . . . On this record, we cannot say that a jury could not find the chips to have been sold in the United States (perhaps not only in the United States). The parties’ chip stipulation, cited above, suggests a substantial level of sales activity by

Marvell within the United States, even for chips manufactured, delivered, and used entirely abroad. That evidence is strengthened by the record details regarding Marvell's contracting process, and Marvell has not pointed us to significant evidence that would block an inference that sales commitments occurred in the United States. On this record, and the current set of legal arguments about "sale" standards, Marvell is not entitled to JMOL that the royalty base must exclude chips not imported into the United States. On the other hand, we do not think that CMU is entitled to affirmance with respect to those chips.