APPENDIX A

Model Jury Instructions for

Reasonable Royalty Patent Damages

Table of Contents

I. Introduction 89
II. REASONABLE ROYALTIES - GENERALLY 91
III. FACTOR ONE - THE INCREMENTAL VALUE CONTRIBUTED BY THE CLAIMED INVENTION 94
IV. FACTOR TWO - THE VALUE CONTRIBUTED BY FACTORS OTHER THAN THE CLAIMED INVENTION 96
V. THE ENTIRE MARKET VALUE RULE 98
VI. FACTOR THREE - COMPARABLE AGREEMENTS 100
VII. FACTOR FOUR - COMMERCIAL CONSIDERATIONS 103
VIII. [ALTERNATIVE] FACTOR FOUR - THE PATENTEE'S OBLIGATION TO LICENSE THE PATENT-IN-SUIT ON [F]RAND TERMS 104
IX. ROYALTY STACKING 106
X. TYPE[S] OF REASONABLE ROYALTIES 107

I. Introduction

I will now instruct you on damages. If you find that {the accused infringer} has infringed one or more valid claims of the patent-in-suit, you must determine the amount of money damages to which {the patent holder} is entitled. If you find that {the accused infringer} has not infringed any valid claim of the patent-in-suit, then {the patent holder} is not entitled to any damages. By instructing you on damages, I do not suggest that one or the other party should prevail. These instructions are merely provided to guide you on the calculations of damages in the event you find infringement of a valid patent claim and thus must address damages in your deliberation.

{The patent holder} must prove each element of its damages claim, including the amount of damages, by a "preponderance of the evidence." This means that {the patent holder} must persuade you, by the evidence, that something is more likely to be true than not true.

If so proven by {the patent holder}, the amount of damages must be adequate to compensate {the patent holder} for {the accused infringer}'s infringement. In other words, any damages award should put the {the patent holder} in approximately the same financial position it would have been in had the infringement not occurred.

While {the patent holder} is not required to prove the amount of its damages with mathematical precision, it must prove the amount of damages with reasonable certainty. You may not award damages that are speculative, damages that are only possible, or damages that are based on guesswork.

Damages also are not meant to punish an infringer but only to compensate a patent holder. Therefore, you may not add anything to the amount of damages to penalize an accused infringer or to set an example.

[*Add if the patent holder is under a [F]RAND obligation*: Because {the patent holder} committed to license the patent(s)-in-suit on [Fair,] Reasonable and Non-Discriminatory ("[F]RAND") terms, you must ensure that any damages award is consistent with and does not exceed the amount permitted under {the patent holder}'s [F]RAND obligations.]

Authorities

35 U.S.C.A. § 284 (West 2016); NAT'L JURY INSTRUCTION PROJECT, MODEL PATENT JURY INSTRUCTIONS, Final Instruction No. 6.1-6.2 (2009); FED. CIR. BAR ASS'N, MODEL PATENT JURY INSTRUCTIONS, Instruction No. 6.1 (2016); Final Jury Instructions, Ericsson Inc., v. D-Link Corp., No. 6:10-cv-473 (E.D. Tex. June 12, 2013), Dkt. No. 504 at 22; Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1324 (Fed. Cir. 2009) ("The burden of proving damages falls on the patentee."); Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 507 (1964) ("[The] question (is) primarily: had the infringer not infringed, what would Patent Holder-Licensee have made?" (internal quotation marks omitted)); Riles v. Shell

Exploration & Prod. Co., 298 F.3d 1302, 1312 (Fed. Cir. 2002) ("Compensatory damages, by definition, make the patentee whole, as opposed to punishing the infringer."); Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1231 (Fed. Cir. 2014) ("Trial courts should also consider the patentee's actual RAND commitment in crafting the jury instruction.").

II. REASONABLE ROYALTIES - GENERALLY

[*If the patent holder seeks lost profits*: If you find that {the patent holder} has established that {the accused infringer} infringed its patent but has not proved its claim for lost profits, or has proved its claim for lost profits for only a portion of the infringing sales, then you must award {the patent holder} a reasonable royalty for all infringing sales for which it has not been awarded lost profits damages.]

[*If the patent holder seeks only a reasonable royalty*: If you find that {the patent holder} has established that {the accused infringer} infringed its patent, {the patent holder} is entitled to a reasonable royalty to compensate it for that infringement.]

A royalty is a payment made to a patent holder in exchange for the right to use the claimed invention. A reasonable royalty is the amount that {the patent holder} and {the accused infringer} would have agreed to immediately before [*non-SEP cases*: {the accused infringer} invested in using the allegedly infringing technology] [*SEP cases*: the technology allegedly covered by the patent was incorporated into the standard]. As a short-hand, I will refer to this agreement as the result of a [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"]. Although this [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"] never took place, your job is to make a judgment about what the outcome would have been had it taken place.

[*In cases where the court sets the date of the negotiation*: In this case, the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"] would have taken place on ___.] [*In cases where the parties contest the date of the negotiation*: In this case, you must decide the date of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"]. {The patent holder} contends that the negotiation would have taken place on ___, and {the accused infringer} contends that the negotiation would have taken place on___.]

In considering the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"], you should focus on what {the patent holder} and {the accused infringer} would have known and expected immediately before [*non-SEP cases*: {the accused infringer} invested in using the allegedly infringing technology] [*SEP cases*: the technology allegedly covered by the patent was incorporated into the standard].

[*Add in cases in which ex post evidence has been admitted*: Evidence of things that happened after the date of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"] can be considered in evaluating the reasonable royalty only to the extent that such evidence aids in assessing what the parties would have thought or expected on the earlier date of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"] itself, and thus what royalty would have been agreed to by willing parties on that date.]

In determining the reasonably royalty that would have resulted from the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"], you must assume that the parties believed the patent was valid and would be infringed, that the parties were willing to enter into an agreement, and that the parties would have acted reasonably in their negotiations.

In determining the reasonable royalty, you must apply the following three principles:

1. The reasonable royalty may not exceed the incremental value that the claimed invention contributes to [*SEP cases*: {the relevant standard} and to] {the accused product} compared to the best available alternative to the claimed invention.

2. The reasonable royalty may not include the value that factors other than the claimed invention contribute to [non-SEP cases: {the accused product}] [SEP cases {the standard}, including the overall value of the standard itself].

3. Comparable license agreements, such as those covering the use of the claimed invention or similar technology, often indicate the market value of the claimed invention.

In determining the reasonable royalty, you should also consider [*Cases with no RAND obligation*: the commercial relationship between {the patent holder} and {the accused infringer}, including their relative bargaining power; *Cases with a RAND obligation*: {The patent holder}'s obligation to license the patent-in-suit on Reasonable and Non-Discriminatory ("RAND") terms.]

You may also consider any other factors which in your mind would have increased or decreased the royalty that the parties would have negotiated at the time of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"].

Authorities

35 U.S.C.A. § 284 (West 2014); Apple Inc. v. Motorola, Inc., 757 F.3d 1286, 1325-26 (Fed. Cir. 2014), *overruled on other grounds by* Williamson v. Citrix Online, *LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015); Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1226, 1231 (Fed. Cir. 2014); VirnetX, Inc. v. Cisco Sys., Inc., 767 F.3d 1308, 1326 (Fed. Cir. 2014); LaserDynamics, Inc. v. Quanta Comp., Inc., 694 F.3d 51, 79 (Fed. Cir. 2012); Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1324, 1340 (Fed. Cir. 2009); Syntrix Biosys., Inc. v. Illumina, Inc., No. 3:10-cv-05870 (W.D. Wash. Mar. 18, 2013), Dkt. 287 at 41; Apple, Inc. v. Motorola, Inc., 869 F. Supp. 2d 901, 913 (N.D. Ill. 2012) ("The proper method of computing a FRAND royalty starts with what the cost to the licensee would have been of obtaining, just before the patented invention was declared essential to compliance with the industry standard, a license for the function performed by the patent. That cost would be a measure of the value of the patent qua patent. But once a patent becomes essential to a standard, the patentee's bargaining power surges because a prospective licensee has no alternative to licensing the patent; he is at the patentee's

mercy.”), *aff’d in part, rev’d in part and remanded*, 757 F.3d 1286 (Fed. Cir. 2014); Georgia-Pac. Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970); *see also* Commonwealth Sci. & Indus. Research Org. v. Cisco Sys. Inc., 809 F.3d 1295, 1305 (Fed. Cir. 2015) (“[R]easonable royalties for SEPs generally—and not only those subject to a RAND commitment—must not include any value flowing to the patent from the standard’s adoption.”); FED. CIR. BAR ASS’N, MODEL PATENT JURY INSTRUCTIONS, Instruction Nos. 6.6, 6.7 (2016).

III. FACTOR ONE - THE INCREMENTAL VALUE CONTRIBUTED BY THE CLAIMED INVENTION

{The patent holder} is entitled to recover damages in an amount not greater than the cost to the {the accused infringer} of its best alternative to the claimed invention at the time of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"], plus the value of any additional benefit that the claimed invention contributes to [*SEP cases*: {the relevant standard} and to] {the accused product} over {the accused infringer's} best alternative.

Determining the incremental value of the claimed invention requires a baseline for comparison. During a negotiation the potential licensee would consider the availability and cost of alternatives to the claimed invention. You should consider whether {the accused infringer} had available at the time of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"] a commercially acceptable alternative to the claimed invention that did not infringe {the patent holder's} patent(s). [*Add if the accused infringer contends that there was a non-infringing alternative available*: In this case, {the accused infringer} contends that {non-infringing alternative} was a commercially acceptable alternative that was available to {the accused infringer} at the time of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"] and that did not infringe the {asserted patent(s)}, i.e., it was a "non-infringing alternative." If you find that {non-infringing alternative} was a non-infringing alternative to the claimed invention, then {the accused infringer} would not have agreed to pay a royalty larger than the additional value of the claimed invention over this non-infringing alternative, and any royalty you award must be based on this incremental value over the cost of the alternative.

Further, when determining the incremental value contributed by the claimed invention, you may not include "switching costs." "Switching costs" are the costs that {the accused infringer} would incur to switch from practicing the claimed invention to an alternative method or product. These costs may include, for example, the cost of redesigning products, retooling factories, and eliminating inventory. These costs are not relevant to the reasonable royalty that the parties would have negotiated because the negotiation would have taken place at a time just before [*non-SEP cases*: {the accused infringer} elected to use the allegedly infringing technology] [*SEP cases*: the technology allegedly covered by the patent was incorporated into the standard], when the infringer would have had no switching costs.

[*There is a separate instruction for cases involving an allegedly essential patent subject to a [F]RAND commitment below (Instruction IX). For cases involving an allegedly essential patent not subject to a [F]RAND commitment, add the following*: In this case, [*if agreed*: the parties agree that the patent(s)-in-suit is essential to practicing {the relevant standard}; thus] [*if disputed*: {the patent holder} contends that the patent-in-suit is essential to practicing {the relevant standard}, while {the accused infringer} contends that it is not essential. If you find that the patent(s)-in-suit is essential to practicing the standard, then] in determining a reasonable royalty, you should consider whether and how much more {the accused infringer} would have paid for the right to implement the standard using the patented technology rather than the best alternative available at the time of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"].

Authorities

Garretson v. Clark, 111 U.S. 120, 121 (1884) ("The patentee . . . must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented features . . . or he must show . . . that the profits and damages are to be calculated on the whole machine, for the reason that the entire value of the whole machine, as a marketable article, is properly and legally attributable to the patented feature."); *id.* ("[T]he patentee must show in what particulars his improvement has added to the usefulness of the machine or contrivance."); Minco, Inc. v. Combustion Eng'g, Inc., 95 F.3d 1109, 1120 (Fed. Cir. 1996) (upholding the district court's award of a reasonable royalty based, in part, on finding that "the market contained no non-infringing alternatives"); *In re* Innovatio IP Ventures, LLC Patent Litig., No. 11-cv-9308, 2013 WL 5593609, at *9 (N.D. Ill. Oct. 3, 2013) ("The court's RAND rate therefore must, to the extent possible, reflect only the value of the underlying technology and not the hold-up value of standardization."); Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1235 (Fed. Cir. 2014) ("We further hold that district courts must make clear to the jury that any royalty award must be based on the incremental value of the invention, not the value of the standard as a whole or any increased value the patented feature gains from its inclusion in the standard."); Microsoft Corp. v. Motorola, Inc., No. 10-cv-1823, 2013 WL 2111217, at *18 (W.D. Wash. Apr. 25, 2013) ("[A] reasonable royalty would not take into account the value to the licensee created by the existence of the standard itself, but would instead consider the contribution of the patent to the technical capabilities of the standard and also the contribution of those relevant technological capabilities to the implementer and the implementer's products."); Commonwealth Sci. & Indus. Research Org. v. Cisco Sys. Inc., 809 F.3d 1295, 1304-05 (Fed. Cir. 2015) (finding error where district court failed to apportion based on the incremental value of the patent-in-suit separate from the value accruing from the patent's inclusion in a standard); AstraZeneca AB v. Apotex Corp., 782 F.3d 1324, 1338 (Fed. Cir. 2015) ("When a patent covers the infringing product as a whole, and the claims recite both conventional elements and unconventional elements, the court must determine how to account for the relative value of the patentee's invention in comparison to the value of the conventional elements recited in the claim, standing alone."); *id.* at 1334-35 ("When an infringer can easily design around a patent and replace its infringing goods with non-infringing goods, the hypothetical royalty rate for the product is typically low . . . . By the same reasoning, if avoiding the patent would be difficult, expensive and time-consuming, the amount the infringer would be willing to pay for a license is likely to be greater.").

IV. FACTOR TWO - THE VALUE CONTRIBUTED BY FACTORS OTHER THAN THE CLAIMED INVENTION

The reasonable royalty should be based solely on the incremental value of the patented invention when used in the accused product(s), compared to the value of the next best alternative when used in that product. The reasonable royalty therefore should not include value added to {the accused product(s)} by factors other than the claimed invention. For example, you must exclude value added by other factors, such as {the accused infringer}'s [manufacturing process, product marketing, or brand recognition.] You also must exclude value added by the inclusion of components, features, or technologies that are not part of the patented invention, including technologies embodied in other patents that are owned by {the accused infringer} or others.

You must apportion whatever you determine to be the value of the infringing product so that the reasonable royalty award reflects only the incremental value that is contributed by the patent(s)-in-suit to {the accused product(s)} and not the value contributed by other components. To apportion means to divide and allocate.

Where the claimed invention covers just one feature or technology in the accused product(s), damages generally must be based on, at most, the "smallest saleable unit." That is the smallest part or component within {the accused product} that substantially embodies the claimed invention. For example, if there were a patent directed to an improved windshield wiper, the smallest saleable unit would be the windshield wiper, as opposed to the car itself or other parts of the car, like the steering wheel, the tires, or the transmission. [In this case, the smallest saleable unit is {the smallest salable unit}.] The cost of the smallest saleable unit embodying the claimed invention generally sets the upper limit on the damages base in any damages calculation.

Further, you may not award damages for the value of features or technologies added to the smallest saleable unit other than the claimed invention. Thus, you may need to further apportion the smallest saleable unit to isolate the value contributed by the claimed invention.

Authorities

Georgia-Pac. Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970) ("The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer."), *modified sub nom.* Georgia-Pac. Corp. v. U.S. Plywood Champion Papers Inc., 446 F.2d 295 (2d Cir. 1971); *In re* Innovatio IP Ventures, LLC Patent Litig., No. 11-cv-9308, 2013 WL 5593609, at *10 (N.D. Ill. Oct. 3, 2013) ("Nonetheless, the concern of royalty stacking requires that the court, to the extent possible, evaluate a proposed RAND rate in the light of the total royalties an implementer would have to pay to practice the standard."); Riles v. Shell Exploration & Prod. Co., 298 F.3d 1302, 1313 (Fed. Cir. 2002) (setting aside a jury damages award because the expert's "models did not reflect what royalty rate a hypothetical negotiation between Shell and Riles would have yielded at the time the infringement began. Instead, the models reflected [the expert's] assessment of the worth of Shell's oil rig at the time of the trial."); Commonwealth Sci. & Indus. Research Org. v. Cisco Sys. Inc., 809 F.3d 1295, 1304-05 (Fed. Cir. 2015) (finding error where district court failed to apportion based on the incremental value of the patent-in-suit separate from the value accruing from the patent's inclusion in a standard); AstraZeneca AB v. Apotex Corp., 782 F.3d 1324, 1338 (Fed. Cir. 2015) ("When a patent covers the infringing product as a whole, and the claims recite both conventional elements and unconventional elements, the court must determine how to account for the relative value of the patentee's invention in comparison to the value of the conventional elements recited in the claim, standing alone.").

V. THE ENTIRE MARKET VALUE RULE

[*This instruction should be used only in cases in which a patent holder asserts that it is entitled to a royalty based on the entire market value rule.*]

As you have heard, damages must generally be based on the incremental value of the patented technology over the best alternative available to {the accused infringer}, and must be calculated with reference to the "smallest saleable unit" when the claimed invention covers just one feature or technology in the accused product. In this case, however, {the patent holder} contends that the "entire market value rule" applies. In certain cases, this rule allows a patent owner to recover a reasonable royalty based on the value of an entire product containing multiple features and technologies, even though the asserted patent is directed to only one feature or technology within that product.

The entire market value rule applies rarely and only in specific circumstances. Specifically, if {the patent holder} proves that the claimed invention is the sole basis driving customer demand for the entire product, then you may award a reasonable royalty based on the value of the entire product [, which in this case is {the entire product}]. If {the patent holder} does not prove that the claimed invention is the sole basis driving customer demand for the entire product, then you may not award a reasonable royalty based on the value of the entire product but must instead base the royalty on the smallest saleable unit [,which in this case is {the smallest saleable unit}].

[*Note: If it is contended that the assertion that the claimed invention drives demand depends on non-novel elements of the claim (as opposed to the novel elements), consider modifying the above paragraph as follows*: Specifically, if {the patent holder} proves that the novel elements embodied in the asserted claim are the sole basis driving customer demand for the entire product, then you may award a reasonable royalty based on the value of the entire product [, which in this case is {the entire product}]. If {the patent holder} does not prove that the novel elements embodied in the asserted claim are the sole basis driving customer demand for the entire product, then you may not award a reasonable royalty based on the value of the entire product but must instead base the royalty on the smallest saleable unit, which in this case is {the smallest saleable unit}.]

Authorities

VirnetX, Inc. v. Cisco Sys., Inc., 767 F.3d 1308, 1326 (Fed. Cir. 2014) ("[W]hen claims are drawn to an individual component of a multi-component product, it is the exception, not the rule, that damages may be based upon the value of the multi-component product."); Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1318 (Fed. Cir. 2011) ("A patentee may not use all of the revenues that a defendant has made from selling accused products unless the patented feature is 'the basis for customer demand' for the accused products."); Lucent Techs., Inc. v. Microsoft Corp., No. 07-cv-2000, 2011 WL 2728317, at *5 (S.D. Cal. July 13, 2011) ("If the patentee cannot meet this test, then the patentee must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented features and the unpatented features.”).

VI. FACTOR THREE - COMPARABLE AGREEMENTS

You may consider prior agreements by {the patent holder} to license the patent(s)-in-suit. You may also consider prior agreements by the {the patent holder}, {the accused infringer}, or third parties to license or acquire technology similar to the patent-in-suit if those agreements are technologically and economically comparable to a license that the parties would have negotiated in the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"].

In order to use prior agreements as evidence of reasonable royalty damages, the party offering the agreement as evidence has the burden to show that the prior agreements are both technologically and economically comparable to the license that the parties would have agreed to in the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"]. To make this showing, the party offering the agreement as evidence must compare the scope, context, and value of the prior agreement to the scope, context, and value of a license to the patent-in-suit at the time of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"]. The licenses do not need to be identical, only comparable. But, showing only a loose or vague comparability between different technologies or licenses fails to meet this burden.

Actual licenses for the patent(s)-in-suit from around the time that [*non-SEP cases*: {the accused infringer} first elected to use the allegedly infringing technology] [*SEP cases*: the technology allegedly covered by the patent was incorporated into the standard] can be highly probative as to what constitutes a reasonable royalty because such licenses reflect the economic value of the patent(s)-in-suit in the marketplace at the relevant time. However, the use of litigation settlement agreements as evidence in determining a reasonable royalty is disfavored because those agreements often reflect litigation considerations unrelated to the incremental value of the claimed invention compared to alternatives. Non-litigation license agreements are generally more reliable indicators of what willing parties would have agreed to in a [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"].

In deciding whether a license agreement is technologically and economically comparable, you may consider the following factors:

1. Whether the negotiating circumstances were similar—for example, whether the license agreement reflected an arms-length transaction between willing parties without the threat of litigation.
2. Whether the structure of the license was similar to the structure of the license that would have resulted from the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"].
3. Whether the patent(s) covered by the license were similar to the patent(s) involved in the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"].

4. Whether the product(s) covered by the license were similar to the product(s) involved in the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"].
5. Whether other product features or technologies not covered by the patent(s)-in-suit affect the comparability of the two negotiations.
6. Whether other relationships between or consideration exchanged among the parties, even if not covered by the agreement, affected the terms of the agreement.
7. Whether the relationship between the parties to the license was similar to the relationship between {the patent holder} and {the accused infringer} at the time of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"].
8. Whether the agreement was negotiated at a time [*non-SEP cases*: *after* the party licensing the patented technology had first elected to use the allegedly infringing technology] [*SEP cases*: *after* the technology allegedly covered by the patent was incorporated into the standard]. Such a situation will be different from the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"] in this case, where the parties are assumed to have negotiated a royalty immediately *before* [*non-SEP cases*: {the accused infringer} first elected to use the allegedly infringing technology] [*SEP cases*: the technology allegedly covered by the patent was incorporated into the standard]. If the agreement was entered into after that time, you must take account of the extent to which the royalty specified by the agreement might be higher than a royalty that would have been agreed to [*non-SEP cases*: before the technology was chosen] [*SEP cases*: before the technology allegedly covered by the patent was incorporated into the standard] because {the accused infringer} had already invested or committed to the technology or was concerned about the risk of litigation.
9. Whether the relevant market circumstances at the time the license was entered into differs from the relevant market circumstances at the time of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"].

[*To be used if licenses based on the value of an entire product with multiple components are admitted or referenced in expert testimony*: The Court has admitted into evidence [or has allowed experts to reference] license agreements where the royalty is calculated as some percentage of the value of an entire, multi-component product. You should consider these licenses only if you find that they are technologically and economically comparable to the license that the parties would have agreed to in the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"]. You must also keep in mind that the royalty in these license agreements may reflect more than the value of the claimed invention. You must apportion any reasonable royalty award in this case so that it reflects only the value that the claimed invention contributes to {the accused product}. The royalty award should not reflect the value contributed by any other factors, features, components, patents, and technologies.]

Authorities

Apple Inc. v. Motorola, Inc., 757 F.3d 1286, 1325 (Fed. Cir. 2014) ("[U]sing sufficiently comparable licenses is a generally reliable method of estimating the value of a patent."); Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1227-28 (Fed. Cir. 2014); LaserDynamics, Inc. v. Quanta Comp., Inc., 694 F.3d 51, 81 (Fed. Cir. 2012); ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 856, 870 (Fed. Cir. 2010) (expert's reliance on licenses as evidence of a reasonable royalty improper where "none of these licenses even mentioned the patents in suit or showed any other discernible link to the claimed technology."); Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1211-12 (Fed. Cir. 2010) ("We have recently reiterated that use of past patent licenses under factors 1 and 2 must account for differences in the technologies and economic circumstances of the contracting parties . . . . Parr explained that Finjan did not compete with Microsoft but does compete against Secure; that Finjan received significant intangible value from Microsoft's endorsements of Finjan; and that the license involved a lump sum instead of a running royalty. These differences permitted the jury to properly discount the Microsoft license." (internal citations omitted)); Lucent Tech., Inc. v. Gateway, Inc., 580 F.3d 1301, 1329 (Fed. Cir. 2009) ("[A] lump-sum damages award [based on a reasonable royalty] cannot stand solely on evidence which amounts to little more than a recitation of royalty numbers, one of which is arguably in the ballpark of the jury's award, particularly when it is doubtful that the technology of those license agreements is in any way similar to the technology being litigated here."); Wordtech Sys., Inc. v. Integrated Networks Sols., Inc., 609 F.3d 1308, 1319-21 (Fed. Cir. 2010) (discussing running royalty and lump sum license agreements); Hanson v. Alpine Valley Ski Area, Inc., 718 F.2d 1075, 1078-79 (Fed. Cir. 1983) (finding "since the offers were made after infringement had begun and litigation was threatened or probable, their terms 'should not be considered evidence of an "established royalty,"' since '[l]icense fees negotiated in the face of a threat of high litigation costs "may be strongly influenced by a desire to avoid full litigation."'" (internal citations omitted)); Commonwealth Sci. & Indus. Research Org. v. Cisco Sys. Inc., 809 F.3d 1295, 1303 (Fed. Cir. 2015) ("Where the licenses employed are sufficiently comparable, this method is typically reliable because the parties are constrained by the market's actual valuation of the patent."); Summit 6, LLC v. Samsung Elecs. Co., Ltd., 802 F.3d 1283, 1300 (Fed. Cir. 2015).

VII. FACTOR FOUR - COMMERCIAL CONSIDERATIONS

[*This instruction should not be used in cases involving [F]RAND-encumbered patents because these commercial considerations are contrary to [F]RAND principles.*]

In determining what portion of the incremental value of the patented technology compared to the best alternative would have been included in a reasonable royalty agreed to in the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"], you may also consider whether {the patent holder} would have been relatively unwilling or relatively willing to license the patent(s)-in-suit to {the accused infringer}. As a general matter, the less willing the patent holder would have been to license the patents to the infringer, the greater is the portion of the incremental value that should be included in the royalty.

To make the determination of the willingness or unwillingness of the patent holder to license its patents, you should consider commercial considerations such as whether {the patent holder} commercially practices the asserted patent. For example, a [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"] may take into account the following factors:

1. Whether {the patent holder} had an established policy and marketing program to not license others to use the patent or to license only under special conditions designed to preserve its patent exclusivity.
2. The commercial relationship between {the patent holder} and {the accused infringer}, such as whether they were competitors in the same geographic territory, in the same line of business, or whether they are inventor and promoter.

A patent holder should be considered willing to license its patents if it would have been willing to license them at a later date, even if it would not have been willing to license them at the time of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"].

Authorities

Georgia-Pac. Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970); Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1230-31 (Fed. Cir. 2014) (holding that the patent holder's licensing policy and the commercial relationship between the patent holder and the accused infringer are not appropriate considerations for determining RAND royalties).

VIII. [ALTERNATIVE] FACTOR FOUR - THE PATENTEE'S OBLIGATION TO LICENSE THE PATENT-IN-SUIT ON [F]RAND TERMS

[*Replace the above Factor Four with this alternative instruction in cases where the patent holder is under a [F]RAND obligation.*]

In this case, {the patent holder} is under an obligation to license the patent(s)-in-suit on [Fair,] Reasonable And Non Discriminatory ("[F]RAND") terms.

[*If the patent holder undertook [F]RAND obligation*: {The patent holder} agreed to license the patent-in-suit {insert language from letter of assurance and/or SSO policy as appropriate}. Therefore, you must take into account this [F]RAND commitment in determining a reasonable royalty.]

[*If a different entity undertook [F]RAND obligation*: {Entity that encumbered patent with [F]RAND obligation} agreed to license the patent(s)-in-suit {insert language from letter of assurance or SSO policy as appropriate}. By acquiring the patent(s)-in-suit, {the patent holder} also agreed to license the patent(s)-in-suit on these terms. Therefore, you must take into account this [F]RAND commitment in determining a reasonable royalty.]

When a patent is essential to a standard and subject to a [F]RAND commitment, the parties in a pre-standard negotiation would agree to a reasonable royalty based on the contribution of the patented technology to the capabilities in the standard, and the contributions of those capabilities in the standard to the accused infringer's products. You must apportion any reasonable royalty award that you make to ensure that it reflects no more than the incremental value that is contributed by the patent(s)-in-suit to {the relevant standard}, and excludes any value contributed by other patents or technologies incorporated into the standard. In addition, the standard itself has inherent value apart from the individual technologies that make up the standard, and any reasonable royalty that you award must be apportioned so that it excludes the value attributable to the ability to practice the standard itself.

[*Add in cases where the patent holder is under a [F]RAND obligation for a patent declared essential to an IEEE standard on or after March 15, 2015*: Pursuant to the relevant IEEE [F]RAND commitment, the parties in a pre-standard negotiation would agree that a reasonable royalty excludes any value resulting from the inclusion of the patent-in-suit's technology in the IEEE standard.

Further, that IEEE [F]RAND commitment expressly states that to determine the reasonable royalty the parties would consider: (i) the contribution of the functionality of the claimed invention or inventive feature to the value of the relevant functionality of the smallest saleable product (e.g., component, sub-assembly, or end-product) that practices the claimed invention: (ii) the contribution of the claimed invention to the value of the smallest saleable product that practices the claimed invention, in light of the value contributed by all other patents essential to the IEEE standard; and (iii) existing licenses covering use of the patent-in-suit, where such licenses were not obtained under the explicit or implicit threat of a prohibitive order (that is, an order that would prohibit making, using, or selling an allegedly infringing product), and where the circumstances and resulting licenses are otherwise sufficiently comparable to the circumstances of the contemplated license.]

Authorities

Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1231 (Fed. Cir. 2014) ("Trial courts should also consider the patentee's actual RAND commitment in crafting the jury instruction."); *id.* at 1235 ("We further hold that district courts must make clear to the jury that any royalty award must be based on the incremental value of the invention, not the value of the standard as a whole or any increased value the patented feature gains from its inclusion in the standard."); Microsoft Corp. v. Motorola, Inc., 10-cv-1823, 2013 WL 2111217, at *12 (W.D. Wash. Apr. 25, 2013) ("[A] RAND commitment should be interpreted to limit a patent holder to a reasonable royalty on the economic value of its patented technology itself, apart from the value associated with incorporation of the patented technology into the standard."); *id.* at *18 ("With respect to Factors 6 and 8, a reasonable royalty would not take into account the value to the licensee created by the existence of the standard itself, but would instead consider the contribution of the patent to the technical capabilities of the standard and also the contribution of those relevant technological capabilities to the implementer and the implementer's products."); *In re* Innovatio IP Ventures, LLC Patent Litig., No. 11-cv-9308, 2013 WL 5593609, at *10 (N.D. Ill. Oct. 3, 2013) ("Nonetheless, the concern of royalty stacking requires that the court, to the extent possible, evaluate a proposed RAND rate in the light of the total royalties an implementer would have to pay to practice the standard."); IEEE-SA Standards Board Bylaws (*available at* http://standards.ieee.org/develop/policies/bylaws/approved-changes.pdf).

IX. ROYALTY STACKING

[*Add in cases where there is evidence of a preexisting or anticipated royalty stack at the time of the hypothetical negotiation, whether for SEPs or otherwise.*]

[*SEP cases*: In many circumstances, a particular standard may require users to practice hundreds or even thousands of different patents. For example, the {relevant standard} at issue in this case encompasses many patents that patent holders have alleged may be essential to the standard. If companies were forced to pay royalties to all holders of [F]RAND committed patents, the royalties would stack on top of each other and could become excessive in the aggregate.

[*SEP cases*: In a "pre-standard negotiation," both {the patent holder} and {the accused infringer} would take into account the aggregate royalties required to practice {the relevant standard}. To avoid improper royalty stacking, you must consider the overall amount of royalties that {the accused infringer} would have to pay to license additional patents that are essential to practice the standard in determining the amount of royalties that {the accused infringer} would agree to pay to license the patent(s)-in-suit.]

[*non-SEP cases*: In some circumstances, at the time of the pre-investment negotiation the parties are aware of other patents that must be licensed in order to produce a product like {the accused product}. In such cases, the parties would take into account the aggregate royalties required to produce {the accused product} as a factor in determining the amount of royalties that {the accused infringer} would agree to pay to license the patent(s)-in-suit.]

Authorities

Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1209 (Fed. Cir. 2014); *In re* Innovatio IP Ventures, LLC Patent Litig., No. 11-cv-9308, 2013 WL 5593609, at *10 (N.D. Ill. Oct. 3, 2013) ("Nonetheless, the concern of royalty stacking requires that the court, to the extent possible, evaluate a proposed RAND rate in the light of the total royalties an implementer would have to pay to practice the standard."); Microsoft Corp. v. Motorola, Inc., 10-cv-1823, 2013 WL 2111217, at *12 (W.D. Wash. Apr. 25, 2013).

X. TYPE[S] OF REASONABLE ROYALTIES

[*To be used if the parties dispute the appropriate type of royalty. If there is no dispute, the instruction should be modified to state that the parties agree that only a lump-sum royalty or only a running-royalty is appropriate.*]

Because the outcome of a [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"] may take various forms, reasonable royalties can be calculated in several different ways. {The accused infringer} contends that parties would have agreed to what is called a "one-time lump sum payment." {The patent holder} contends that parties would have agreed to what is called a "running royalty." It is for you to determine which way is the most appropriate based on the evidence that you have heard.

A one-time lump sum payment is a single payment that {the accused infringer} and {the patent holder} would have agreed to at the time of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"] for a license covering all sales of the licensed product. {The accused infringer} contends that the parties would have agreed to a lump sum payment and that the appropriate lump sum payment would be an amount of ___. By contrast, {the patent holder} contends that the parties would not have agreed on a lump sum payment. {The patent holder} also disagrees with {the accused infringer's} calculation of the lump sum and contends that, if you find that the parties would have agreed on a lump sum payment, the appropriate lump sum payment is ___.

A running royalty is a type of royalty where {the accused infringer} and {the patent holder} would have agreed at the time of the [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"] for {the accused infringer} to pay {the patent-holder} {a percentage of the sales price / a dollar amount} every time {the accused infringer} sells a product incorporating the patented technology. In this case, {insert party name} contends that the parties would have agreed upon a running royalty. If you find that the parties would have agreed to a running royalty, you must calculate total damages using the appropriate running royalty rate.

To calculate running royalty damages, you must first identify the total sales revenue of the smallest saleable component of the accused product that practices the claimed invention.

Next, you must identify what portion of the total sales revenues for the smallest saleable unit is attributable to the relevant component, sub-component, or portion of the accused product that practices the claimed invention ("the apportioned base"). In this case, {insert party name} contends that the apportioned base is $___. While {insert party name} contends that a lump sum is the appropriate form of royalty, {insert party name} also disagrees with {insert party name's} calculation of the base and contends that, if you reject the lump sum payment, the apportioned base is $___.

Next, you must determine the royalty rate, expressed as {a percentage of the apportioned base}, that the parties would have agreed to in a [*non-SEP cases*: "pre-investment negotiation"; *SEP cases*: "pre-standard negotiation"] for a license to the claimed invention. In this case, {insert party name} contends that the royalty rate is ___%. Again, while {insert party name} contends that a lump sum payment is the appropriate form of royalty, {insert party name} also disagrees with {insert party name's} calculation of the royalty rate and contends that, if you find that the parties would have agreed to a running royalty, the appropriate royalty rate is ___%.

Finally, to calculate the total running royalty damages, you must multiply the value of the apportioned base by the royalty rate: Total Damages = (apportioned base) x (royalty rate).

Authorities

VirnetX, Inc. v. Cisco Sys., Inc., 767 F.3d 1308, 1330 (Fed. Cir. 2014); Lucent Tech., Inc. v. Gateway, Inc., 580 F.3d 1301, 1325-26 (Fed. Cir. 2009); Summit 6 v. Samsung Elecs. Co., Ltd., 802 F.3d 1283, 1300-01 (Fed. Cir. 2015); Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd., 807 F.3d 1283, 1304-05 (Fed. Cir. 2015); Wordtech Sys., Inc. v. Integrated Networks Sols., Inc., 609 F.3d 1308, 1319-21 (Fed. Cir. 2010).

APPENDIX B

The following chart summarizes how the *Georgia-Pacific* factors might be relevant to the *ex ante* analysis:

Georgia-Pacific Factor	**Relevance to Ex Ante Analysis**
Factor #1: The royalties received by the patentee for the licensing of the patent-in-suit, proving or tending to prove an established royalty.	Potentially relevant for *ex ante* facts about royalties.
Factor #2: The rates paid by the licensee for the use of other patents comparable to the patent-in-suit.	Potentially relevant for *ex ante* facts about rates.
Factor #3: The nature and scope of the license, as exclusive or non-exclusive; or as restricted or not restricted in terms of territory or with respect to whom the manufactured product may be sold.	Potentially relevant for *ex ante* facts or expectations about the nature and scope of the license.
Factor #4: The licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.	Potentially relevant for *ex ante* facts about licensor's policy (e.g., determining whether the licensor is entitled to an injunction).
Factor #5: The commercial relationship between the licensor and the licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter.	Potentially relevant for *ex ante* facts about the parties' commercial relationship.
Factor #6: The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of its non-patented items; and the extent of such derivative or convoyed sales.	Potentially relevant for *ex ante* facts or expectations about whether the "patented specialty" would promote sales of other products compared to the best available alternative. Evidence of actual promotion of sales is relevant only insofar as it illuminates *ex ante* expectations.
Factor #7: The duration of the patent and the term of the license.	Relevant.
Factor #8: The established profitability	Potentially relevant only insofar as it

Georgia-Pacific Factor	**Relevance to Ex Ante Analysis**
of the product made under the patent; its commercial success; and its current popularity.	illuminates *ex ante* expectations.
Factor #9: The utility and advantages of the patented property over the old modes or devices, if any, that had been used for working out similar results.	Potentially relevant for *ex ante* facts or expectations about utility and advantages compared to the best available alternative. Evidence of actual utility and advantages is relevant only insofar as it illuminates *ex ante* expectations.
Factor #10: The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.	Potentially relevant for *ex ante* facts about the nature of the patented invention (for example, revolutionary or incremental), the commercial embodiment, and the benefits of using the invention compared to the best available alternative.
Factor #11: The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.	Potentially relevant only insofar as it illuminates *ex ante* expectations.
Factor #12: The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.	Potentially relevant for *ex ante* facts about customary profit or selling price.
Factor #13: The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.	Potentially relevant only insofar as it illuminates *ex ante* expectations.
Factor #14: The opinion testimony of qualified experts.	Relevant for opinions based on *ex ante* facts or expectations. The court in its role as gatekeeper should keep from the jury any methodologies that are not reasonably calculated to assess the royalty the parties would have agreed to in the hypothetical *ex ante* negotiation.
Factor #15: The amount that a licensor (such as the patentee) and a licensee	Relevant for *ex ante* facts or expectations. This is the material issue,

Georgia-Pacific Factor	**Relevance to Ex Ante Analysis**
(such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee – who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention – would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.	which the other factors help to illuminate.