

**UNITED STATES DISTRICT COURT  
DISTRICT OF CONNECTICUT**

COVIDIEN SALES LLC and	:	
COVIDIEN LP,	:	CIVIL ACTION NO.
Plaintiffs,	:	3:14-cv-917 (JCH)
	:	
v.	:	
	:	
ETHICON ENDO-SURGERY, INC.,	:	
Defendant.	:	OCTOBER 15, 2014
	:	

**RULING [REDACTED] RE: MOTION FOR PRELIMINARY INJUNCTION (Doc. No. 45)**

**I. INTRODUCTION**

Plaintiffs Covidien Sales LLC and Covidien LP (“Covidien,” collectively) brought this patent infringement action against defendant Ethicon Endo-Surgery, Inc. (“Ethicon”), alleging that Ethicon sells products that infringe a number of Covidien’s patents, including U.S. Patent No. 6,468,286, entitled “Ultrasonic Curved Blade” (the “’286 patent”). Covidien filed a Motion for Preliminary Injunction (Doc. No. 45), seeking to enjoin Ethicon’s production, sale, and use of one product in particular, the Harmonic ACE+7 Shears (the “ACE+7”), based on its alleged infringement of the ’286 patent.

For the following reasons, the court grants Covidien’s Motion for Preliminary Injunction.

**II. BACKGROUND**

This Motion for Preliminary Injunction is the latest battle in what appears to be a lengthy patent war between Covidien and Ethicon. For the sake of brevity, the court sets forth only the essential background facts. Covidien and Ethicon are the largest manufacturers of laparoscopic advanced energy surgical devices, and they compete

fiercely. In October 2004, Covidien, who was then known as the Tyco Healthcare Group LP, and Ethicon began litigating infringement and validity issues surrounding a set of patents, of which the '286 patent is a member, related to these advanced energy surgical devices. This court (Judge Janet B. Arterton) previously resolved a number of claim construction, validity, infringement, and damages issues. See Tyco Healthcare Grp. LP v. Ethicon Endo-Surgery, Inc. (Tyco I), 411 F. Supp. 2d 93 (D. Conn. 2006); Tyco Healthcare Grp. LP v. Ethicon Endo-Surgery, Inc. (Tyco II), 440 F. Supp. 2d 120 (D. Conn. 2006); Tyco Healthcare Grp. LP v. Ethicon Endo-Surgery, Inc. (Tyco III), 514 F. Supp. 2d 351 (D. Conn. 2006); Tyco Healthcare Grp. LP v. Ethicon Endo-Surgery, Inc. (Tyco IV), 936 F. Supp. 2d 30 (D. Conn. 2006). The court refers to these opinions and their related proceedings as the “Tyco litigation.” The Tyco litigation continues today in the form of an appeal, which is currently pending. See Notice of Appeal, Tyco Healthcare Grp. LP v. Ethicon Endo-Surgery, Inc., No. 3:10-CV-60, ECF No. 232 (JBA) (D. Conn. Apr. 5 2013).

The only part of the Tyco litigation directly relevant here is Judge Arterton's ruling that claim 15 of Covidien's '286 patent was valid and infringed by Ethicon and the ruling's related claim construction. See Tyco III, 514 F. Supp. 2d at 374–75; Tyco IV, 936 F. Supp. 2d at 71. Ethicon has appealed that validity ruling on claim 15, among other things, to the Federal Circuit. See Pls.' Mem. Supp. 6 (Doc. No. 46). After finding that certain Ethicon products infringed claim 15 of the '286 patent, Judge Arterton awarded Covidien reasonable royalties and prejudgment interest, but she denied Covidien's requests for a permanent injunction and lost profits. Tyco IV, 936 F. Supp. 2d at 71–87.

Covidien's instant Motion for Preliminary Injunction seeks to enjoin Ethicon's production, sale, and use of the ACE+7. The ACE+7 is Ethicon's attempt to design around the teachings of claim 15 of the '286 patent, as construed in the Tyco litigation. Def.'s Mem. Opp'n 7–10 (Doc. No. 53). Specifically, Ethicon claims that the ACE+7 avoids infringement by virtue of its modified clamp ears, its outer tube protrusions, and the fact that a portion of the blade is straight distal to the clamp ears.

### **III. STANDARD OF REVIEW**

Federal Circuit law applies to issues of patent law, and Second Circuit law applies to all other issues. See In re Cambridge Biotech Corp., 186 F.3d 1356, 1368 (Fed. Cir. 1999). “[A] preliminary injunction enjoining patent infringement . . . involves substantive matters unique to patent law and, therefore, is governed by the law of [the Federal Circuit].” Revision Military, Inc. v. Balboa Mfg. Co., 700 F.3d 524, 525 (Fed. Cir. 2012) (internal quotation marks omitted).

A preliminary injunction is an “extraordinary remedy that may only be awarded upon a clear showing that the plaintiff is entitled to such relief.” Winter v. Natural Res. Def. Council, Inc., 555 U.S. 7, 22 (2008). A “plaintiff seeking a preliminary injunction must establish [1] that he is likely to succeed on the merits, [2] that he is likely to suffer irreparable harm in the absence of preliminary relief, [3] that the balance of equities tips in his favor, and [4] that an injunction is in the public interest.” Titan Tire Corp. v. Case New Holland, Inc., 566 F.3d 1372, 1375 (Fed. Cir. 2009) (quoting Winter, 555 U.S. at 20).

### **IV. DISCUSSION**

The parties dispute each of the preliminary injunction factors.

First, Covidien argues that Ethicon is precluded from challenging the validity and infringement conclusions in the Tyco litigation, and that its instant patent infringement suit is likely to succeed on the merits, even if Ethicon is not precluded. Second, Covidien argues that Ethicon's infringement of claim 15 of the '286 patent will cause irreparable harm in the forms of lost market share, business opportunities, reputation, and goodwill. Third, Covidien argues that the balance of the equities tip in its favor because Ethicon is willfully infringing and advertising Covidien's patented features in its marketing campaigns, and because it could have easily avoided infringement. Fourth, Covidien argues that a preliminary injunction is in the public interest because it is necessary to foster respect for the law and the patent system, and because Ethicon's infringement blatantly disregards those values.

Ethicon disputes all of Covidien's arguments. The court addresses each factor in turn.

A. Likelihood of Success on the Merits

For a patentee to establish that it is likely to succeed on the merits, it must show that it is likely to prove infringement of its patent claim and that the infringed-upon claim is valid. See AstraZeneca LP v. Apotex, Inc., 633 F.3d 1042, 1050 (Fed. Cir. 2010). "A preliminary injunction should not issue if an alleged infringer raises a substantial question regarding either infringement or validity . . . ." Id. To determine whether a claim has been infringed, the court engages in a two-step analysis: "First, the claim must be properly construed to determine its scope and meaning. Second, the claim as properly construed must be compared to the accused device or process." Carroll Touch, Inc. v. Electro Mech. Sys., Inc., 15 F.3d 1573, 1576 (Fed. Cir. 1993).

1. Validity of Claim 15 of the '286 Patent

Covidien argues that issue preclusion bars Ethicon from disputing the validity of the '286 patent, based on the results of the Tyco litigation. Pls.' Mem. Supp. 23. Issue preclusion, also known as collateral estoppel, applies only if: "(1) the issue is identical to one decided in the first action; (2) the issue was actually litigated in the first action; (3) resolution of the issue was essential to a final judgment in the first action; and (4) the party against whom estoppel is invoked had a full and fair opportunity to litigate the issue in the first action." Innovad Inc. v. Microsoft Corp., 260 F.3d 1326, 1334 (Fed. Cir. 2001).

The second, third, and fourth elements are satisfied, because the validity of claim 15 of the '286 patent was actually, fully, and fairly litigated by Ethicon in the prior litigation, and resolution of the issue was essential to a final judgment. See Tyco VI, 936 F. Supp. 2d at 65–68. The first element – whether the issues are identical – is also met because “[t]he relevant ‘issue’ which [a party is] precluded from relitigating is the ultimate determination on patent validity itself.” Roche Palo Alto LLC v. Apotex, Inc., 526 F. Supp. 2d 985, 994–95 (N.D. Cal. 2007), aff'd, 531 F.3d 1372 (Fed. Cir. 2008). In other words, once a patent is deemed valid, the party who previously challenged its validity cannot do so again with new arguments. See id. at 995 & n.3.

Given that claim 15 of the '286 patent was ruled valid in the Tyco litigation, see Tyco IV, 936 F. Supp. at 67–68, Ethicon concedes that issue preclusion bars it from re-challenging validity. See Def.'s Mem. Opp'n 24; Oral Argument Tr. 67. Ethicon is precluded from challenging claim 15's validity because a district court's judgment is final for the purpose of issue preclusion. See Conopco, Inc. v. Roll Int'l, 231 F.3d 82, 90 (2d

Cir. 2000) (“It is true that (in stark contrast to the rules in federal court and the vast majority of states) California does indeed require that a judgment be both final *and non-appealable* (i.e., the appellate process has concluded or the time in which to appeal has passed) before it will earn *res judicata* or *collateral estoppel* effect.” (emphasis in original)).

## 2. Construction of Claim 15 of the '286 Patent

Two of the '286 patent's claims are relevant to this Motion: dependent claim 15, and independent claim 7, on which claim 15 depends.

Claim 7 teaches:

An ultrasonic instrument comprising:

- a) a handle assembly;
- b) a vibration coupler supported by and extending distally from the handle assembly;
- c) a cutting jaw having a cutting surface operatively connected to the vibration coupler;
- d) a clamp member supported adjacent to the cutting jaw, the clamp member and the cutting jaw defining a tissue receiving area, the clamp member being moveable between open and closed positions in relation to the cutting jaw and having a tissue engaging stop positioned to engage tissue and prevent positioning of tissue beyond the proximal end of the cutting surface of the cutting jaw.

'286 Patent.

Claim 15 teaches: “An ultrasonic instrument according to claim 7, wherein the cutting surface of the cutting jaw is curved along the longitudinal axis of the instrument.”

'286 Patent.

The parties have no dispute regarding parts (a) through (c) of claim 7; the disagreements involve only claim 15 and part (d) of claim 7.

In addition to the language of the claims, the court has the benefit of Judge Arterton's claim construction from the Tyco litigation. "Claim construction is a question of law that may require determination of underlying facts. To the extent that the underlying facts are based on identical premises, . . . the prior findings and the claim construction based thereon are the law of the case. They are not available for redetermination." Del Mar Avionics, Inc. v. Quinton Instrument Co., 836 F.2d 1320, 1324 (Fed. Cir. 1987) (internal citation omitted).

Neither party seems to dispute Judge Arterton's claim construction;<sup>1</sup> instead, each disputes how her construction bears on the alleged infringement in this case. See Pls.' Reply 2; Def.'s Mem. Opp'n 7; Oral Argument Tr. 29, 55. The court adopts Judge Arterton's claim construction to the extent it is relevant here.

Judge Arterton construed the terms "curved along the longitudinal axis," "clamp member," "tissue engaging stops," and "blade surface." The first of these terms appears in claim 15, while the second, third, and fourth appear in claim 7. Judge Arterton construed:

(1) "curved along the longitudinal axis" to mean "deviating from a straight line along the lengthwise dimension." Tyco I, 411 F. Supp. 2d at 107. She also clarified that this construction "should not be read to limit that curvature to surfaces curving only up or down." Tyco II, 440 F. Supp. 2d at 123;

(2) "clamp member" to mean "[a] part configured to hold, grasp, or apply pressure to tissue that is movable and that works with a component of the instrument

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<sup>1</sup> Ethicon does, however, make one argument that would require the court to construe the term "proximal end of the cutting surface." Oral Argument Tr. 29. The court addresses this argument in its likelihood of success analysis.

(e.g. the cutting jaw).” Id. at 125;

(3) “tissue engaging stops” to mean “the portions of the clamp that engage tissue and prevent tissue from moving past the proximal portion end of the blade surface.” Tyco I, 411 F. Supp. 2d at 97; and

(4) “blade surface” to mean “the face that engages tissue to achieve cutting.” Id. at 97. Judge Arterton construed “blade surface” in the context of a related patent, U.S. Patent No. 6,682,544 (the “ ’544 patent”), which, like the ’286 patent, is entitled “Ultrasonic Curved Blade”. Id. at 96. Courts “presume, unless otherwise compelled, that the same claim term in . . . related patents carries the same construed meaning.” Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1334 (Fed. Cir. 2003). Indeed, Judge Arterton acknowledged that the ’544 and ’286 patents were related and consistently construed another common term between them. See Tyco I, 411 F. Supp. 2d at 109.

After oral argument, Ethicon began to argue that the court should not issue a ruling without a “full claim construction inquiry.” See Def.’s Supp. Mem. 2 n.3 (Doc. No. 82). The court disagrees. The claim construction from the Tyco litigation sufficiently resolves the meaning of claim 15 of the ’286 patent. To the extent that Ethicon suggests additional claim construction, the court addresses it in its likelihood of success analysis.

### 3. Likely Infringement of Claim 15 of the ’286 Patent

The parties fiercely dispute whether Ethicon’s ACE+7 likely infringes claim 15 of the ’286 patent. There is no dispute that the ACE+7 is an ultrasonic instrument with a handle and a vibration coupler connected to a cutting surface, so the limitations of parts

(a), (b), and (c) of claim 7 are met. The parties' disagreement centers on part (d) of claim 7's language that states, "the clamp member and the cutting jaw defining a tissue receiving area . . . and having a tissue engaging stop positioned to engage tissue and prevent positioning of tissue beyond the proximal end of the cutting surface of the cutting jaw," and on claim 15's requirement that the "cutting surface of the cutting jaw [be] curved." '286 Patent.

Covidien offers the opinion of Dr. William Durfee as the basis of its infringement theory. Dr. Durfee conducted tests with chamois, porcine kidney tissue, and paper in which he placed the testing material into the cutting jaw and observed that the materials contacted the clamp ears in such a way that the clamp ears prevented position of the material beyond the proximal end of the cutting surface. Durfee Decl. ¶¶ 50–60; Durfee Reply ¶¶ 7–10. Dr. Durfee acknowledges that Ethicon has included outer tube protrusions in the ACE+7 that, when the clamp member is open, extend distally past the clamp ears by about .23 millimeters. Durfee Decl. ¶ 47. However, he also states that as the clamp closes, the clamp ears eventually "extend distally beyond the outer tube such that the outer tube no longer protrudes past the clamp member." Id. ¶ 47. Further, using paper and an index card as an illustration, Dr. Durfee showed that even when the clamp is open, materials entering the cutting jaw from certain angles can pass the redesigned outer tube protrusions only to then be engaged by clamp ears. See Durfee Reply ¶¶ 7–10 & Figures 1–6. Significantly, he pointed out that the ACE+7 "is used in surgery on malleable and compressible tissue" so the "thin outer tube cannot realistically prevent tissue from engaging with the tissue stops on the clamp member." Durfee Decl. ¶ 50.

Regarding infringement of claim 15's requirement that the "cutting surface of the cutting jaw [be] curved," Dr. Durfee noted that Judge Arterton construed that phrase to mean "deviating from a straight line along the lengthwise dimension," and he showed a picture of how the ACE+7's cutting surface is curved in just that way. Id. ¶¶ 62–63 & Figure 21.

Ethicon disagrees with Dr. Durfee's infringement analysis and makes three non-infringement arguments. First, it claims that the ACE+7's outer tube protrusions define the proximal end of the cutting surface, and that the clamp ears are therefore not tissue stops. Second, it argues that the clamp ears do not prevent tissue from moving proximally along the blade surface. Finally, it argues that the clamp ears do not prevent tissue from moving beyond the proximal end of the curved cutting surface. The court addresses each argument in turn.

Ethicon first argues that the location of the ACE+7's outer tube protrusions defines the proximal end of the cutting surface, so the clamp ears cannot be tissue stops. See Def.'s Mem. Opp'n 17–20. To make this argument, Ethicon points to a sentence of the '286 patent's specification that states, "Clamp body includes a pair of tissue receiving stops that define the proximal end of the exposed blade surface." '286 Patent col.3 l.67–col.4 l.1. Ethicon then argues that the patentee was acting as its own lexicographer in the part of the sentence that states, "a pair of tissue receiving stops that define the proximal end of the exposed blade surface." See Def.'s Mem. Opp'n 17. According to Ethicon, the ACE+7's outer tube protrusions are the "pair of tissue receiving stops that define the proximal end of the exposed blade surface" because the protrusions are more distal than the clamp ears and there can only be one proximal

end. Id. at 19. Thus, Ethicon’s argument goes, the ACE+7 avoids the limitation of claim 7(d) that the clamp member have a “tissue engaging stop” to prevent “positioning of tissue beyond the proximal end of the cutting surface” because the “proximal end of the exposed blade surface,” defined by the outer tube protrusions, is distal to the clamp ears. Id. (In a footnote, Ethicon asserts the terms “proximal end of the exposed blade surface” and “proximal end of the cutting surface” mean the same thing, especially given Judge Arterton’s construction of “blade surface” as “the face that engages tissue to achieve cutting.” Id. at 18 n.5.)

Ethicon’s argument fails. Generally, “[t]he words of a claim are . . . given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification.” Thorner v. Sony Computer Entm’t Am. LLC, 669 F.3d 1362, 1365 (Fed. Cir. 2012). As Ethicon points out, a patentee can change the meaning of a word in the claims by defining that word in the specification. See id. However, in order to do this, the patentee must both “clearly set forth a definition of the disputed term” and “clearly express an intent to redefine the term.” Id. (internal quotation marks omitted). “It is not enough for a patentee to simply disclose a single embodiment or use a word in the same manner in all embodiments . . . .” Id.

Here, it is far from clear that the patentee intends the specification to define “proximal end of the exposed blade surface” as wherever the most distal tissue stops are located. First, the specification’s use of the word “defines” does not appear to be a lexicographic one; instead, it appears the patentee is using the word in the sense of describing a physical boundary. Second, the sentence is describing a preferred embodiment. The sentence in the specification on which Ethicon primarily relies clearly

makes reference to tissue stops on the clamp body. '286 Patent col.3 l.67–col.4 l.1. At oral argument, counsel for Ethicon acknowledged that the sentence's reference to a "clamp body" was a description of the preferred embodiment, but he nonetheless maintained that the part of the sentence stating "a pair of tissue receiving stops that define the proximal end of the exposed blade surface" applies as a defined term throughout the patent. Oral Argument Tr. 78. If the patentee intended to define the "proximal end of the exposed blade surface" as Ethicon argues, it failed to clearly express such intent. See Thorner, 669 F.3d 1362 at 1365 ("[A] patentee must 'clearly express an intent' to redefine the term." (quoting Helmsderfer v. Bobrick Washroom Equip., Inc., 527 F.3d 1379, 1381 (Fed. Cir. 2008))).

Moreover, even accepting that the patentee intended to act as its own lexicographer with this sentence, it is not clear why the most distal tissue stops – the outer tube protrusions – would define the "proximal end of the exposed blade surface," instead of the most proximal tissue stops – the clamp ears. This is especially unclear where, as here, the more distal "tissue stops" do not stop all the tissue. Reading the sentence as a whole, the latter interpretation makes far more sense: the sentence is describing a "clamp body," and it mentions the "exposed blade surface." '286 Patent (emphasis added). The outer tube protrusions are not on the clamp body, and the ACE+7's blade surface is exposed proximal to the outer tube protrusions, so it is difficult to understand how the protrusions are defining the "proximal end of the exposed blade surface." Notably, Ethicon's counsel acknowledged that "some cutting might occur proximal to" the most distal tissue stops, i.e., the outer blade protrusions. Oral Argument Tr. 78. In light of Judge Arterton's construction of "blade surface" as "the face

that engages tissue to achieve cutting,” Ethicon’s theory that the most distal tissue stop defines the blade surface makes little sense. Ethicon points to other statements in the specification in support of its theory, see Cimino Decl. 26–28, but these statements reveal the same flaws: Covidien was not clearly acting as its own lexicographer and, even if it was, Ethicon’s interpretation of that lexicography is unconvincing.

Ethicon next argues that the “ears of the clamp arm do not prevent tissue from moving along the ‘blade surface.’” Def.’s Mem. Opp’n 20. Ethicon points out that “the outer tube protrusions . . . not only extend distally beyond the ears of the clamp arm . . . , they also ride inside the clamp arm relative to the blade surface, while the ears of the clamp arm are located outside the outer tube. As a result, the outer tube protrusions are the structure most adjacent to the blade surface.” Id. 20–21 (internal citation omitted). Therefore, according to Ethicon, even if the clamp ears engage tissue, “they can only prevent it from moving proximally along the *sides* of the blade or the sides of the outer tube.” Id. at 21 (emphasis in original).

It is not entirely clear why claim 7 requires that the tissue stops on the clamp ears prevent tissue from moving along the blade surface. The relevant language of claim 7 of the ’286 patent simply states that the device has “a tissue engaging stop positioned to . . . prevent positioning of tissue beyond the proximal end of the cutting surface.” Judge Arterton’s claim construction of “tissue engaging stops” does not use the word “along.” See Tyco I, 411 F. Supp. 2d at 97. Ethicon argues that the words “beyond” and “along” in the context of a blade surface mean the same thing. See Oral Argument Tr. 72 In. 13–16. The court does not see why this is necessarily the case. The claim’s language refers to the tissue stops preventing tissue from moving beyond a set point,

i.e., the proximal end of the cutting surface. The reasons for having tissue stops that prevent tissue from moving beyond the end of the cutting surface may well be different from those for having stops that prevent tissue from moving along the blade surface.

In any event, it seems likely that the clamp ears of the ACE+7 do prevent tissue from moving along the blade surface. It is true both that the outer tube protrusions extend distally beyond the clamp ears and that they are closer or more adjacent to the blade surface than the clamp ears. See Schulte Decl. ¶¶ 23–24. However, there are still gaps between the outer tube protrusions and the blade surface. Dr. Durfee was able to slide an index card past the outer tube protrusions such that it was touching at least one of the clamp ears and the blade surface. See Durfee Reply ¶¶ 10, 19, Figures 1–6. While an index card is thinner than the tissue that the device will typically engage, and Dr. Durfee may have been sliding the index card into the cutting jaw at specific angles, tissue is malleable, and the court fails to see why tissue would not squeeze through the gaps between the outer tube protrusions, slide along the blade, and ultimately press against the clamp ears. Ethicon's counsel acknowledged that "some cutting might occur proximal to" the outer tube protrusions. Oral Argument Tr. 78. The only part of the device that could prevent tissue from moving along the blade surface proximal to the outer tube protrusions is the clamp ears.

Finally, Ethicon argues that claim 15 of the '286 patent requires "a tissue engaging stop on the clamp arm" to "prevent the movement of tissue beyond the proximal end of the *curved* portion of the cutting jaw." Def.'s Mem. Opp'n 22 (emphasis in original). To make this argument, Ethicon takes the language of claim 15, which states that "the cutting surface of the cutting jaw is curved," and reads it into claim 7,

which requires that the clamp member have a tissue stop to “prevent positioning of tissue beyond the proximal end of the cutting surface of the cutting jaw.” See id. at 22–23.

Claim preclusion bars Ethicon from making this argument. “The doctrine of res judicata, or claim preclusion, holds that a final judgment on the merits of an action precludes the parties or their privies from relitigating issues that were or could have been raised in that action.” Monahan v. N.Y. City Dep’t of Corr., 214 F.3d 275, 284 (2d Cir. 2000). Claim preclusion applies if “(1) the previous action involved an adjudication on the merits; (2) the previous action involved the [same parties] or those in privity with them; [and] (3) the claims asserted in the subsequent action were, or could have been raised in the prior action.” Id. at 285. In patent cases, claim preclusion can only apply where the “accused device in the action before the court is ‘essentially the same’ as the accused device in a prior action between the parties that was resolved by a judgment on the merits.” Acumed LLC v. Stryker Corp., 525 F.3d 1319, 1324 (Fed. Cir. 2008). “Accused devices are ‘essentially the same’ where the differences between them are merely ‘colorable’ or ‘unrelated to the limitations in the claim of the patent.’” Id. (quoting Foster v. Hallco Mfg. Co., Inc., 947 F.2d 469, 480 (Fed. Cir. 1991)). “If . . . the accused device of the second suit remains unchanged with respect to the corresponding claim limitations at issue in the first suit,” then claim preclusion applies. Nystrom v. Trex Co., Inc., 580 F.3d 1281, 1285–86 (Fed. Cir. 2009) (emphasis added).

Ethicon has changed the ACE+7 from those devices previously deemed infringing by adding the outer tube protrusions and by changing the clamp ears. However, Ethicon has not changed the design of the blade itself. See Durfee Reply ¶¶

24–28 & Figures 9–11; Oral Argument Tr. 38 In. 6–7 (“It is the same blade . . . .”). It now argues that the blade design does not infringe the ’286 patent because claim 15 requires the “cutting surface of the cutting jaw to be curved,” and there is a portion of the cutting surface which is straight. However, this was true of Ethicon’s devices deemed to infringe in the prior litigation. See Durfee Reply ¶ 27. It could have made this argument in that litigation, but it did not. Indeed, Ethicon’s counsel candidly admitted that they missed the argument because of the amount of claims in the litigation. Oral Argument Tr. 83 (“With 42 claims at issue in the case, your Honor, you don’t think of everything.”). Thus, claim preclusion bars Ethicon from raising this theory of non-infringement.

Claim preclusion aside, the court is not convinced by Ethicon’s non-infringement argument. Claim 7, on which claim 15 depends, requires that the clamp member have a tissue stop that “prevent[s] positioning of tissue beyond the proximal end of the cutting surface.” ’286 Patent. For the reasons already discussed, on the record before the court the ACE+7’s clamp ears perform such a function. Claim 15 requires that “the cutting surface of the cutting jaw” be “curved along the longitudinal axis of the instrument.” Id. Ethicon concedes, and the court agrees, that the ACE+7’s blade is curved. Oral Argument Tr. 79. Thus, the ACE+7 meets independent claim 7’s requirements and dependent claim 15’s requirements. It is true that some small portion of the blade is straight distal to the most proximal tissue stop; however, the blade as a whole is clearly curved.

Therefore, on the record before the court, Covidien has shown, and Ethicon has failed to refute, a strong likelihood of success on the merits of its infringement claim.

B. Irreparable Harm

1. Issue Preclusion Does Not Apply

At the threshold, Ethicon asserts that issue preclusion bars Covidien from arguing that Ethicon's infringement of claim 15 caused it irreparable harm. As stated above, issue preclusion applies if: "(1) the issue is identical to one decided in the first action; (2) the issue was actually litigated in the first action; (3) resolution of the issue was essential to a final judgment in the first action; and (4) the party against whom estoppel is invoked had a full and fair opportunity to litigate the issue in the first action." Innovad Inc. v. Microsoft Corp., 260 F.3d 1326, 1334 (Fed. Cir. 2001).

In the Tyco litigation, Judge Arterton denied Covidien's request to permanently enjoin Ethicon from selling certain devices that infringed claim 15 of the '286 patent. Tyco IV, 936 F. Supp. 2d at 86. However, the ACE+7 was not at issue in that litigation. The issue before the court is not whether Ethicon's infringement of claim 15 in the abstract causes irreparable harm to Covidien, and that was not issue in the Tyco litigation. Rather, the issue is whether Ethicon's infringement of claim 15 with respect to a certain device – here, the ACE+7 – causes irreparable harm to Covidien. Because the devices at issue before the court in the Tyco litigation were different from the ACE+7, the issues were not identical, so issue preclusion does not apply.

The differences between the ACE+7 and the previous devices are significant too: the ACE+7 allows surgeons to seal vessels up to seven millimeters in size, while Ethicon's previous curved-blade devices could only seal up to five millimeters. See Chindlund Decl. ¶ 48. This change increases the potential harm to Covidien because Ethicon can now market its infringing product to more consumers and compete directly

with Covidien's devices that seal vessels up to seven millimeters.

2. The ACE+7 and Irreparable Harm

a. Irreparable Harm to Covidien

A plaintiff seeking a preliminary injunction must “demonstrate that irreparable injury is likely in the absence of an injunction.” Winter v. Natural Res. Def. Council, Inc., 555 U.S. 7, 22 (2008). To show irreparable harm on a preliminary injunction in a patent infringement case, “a patentee must establish . . . : 1) that absent an injunction, it will suffer irreparable harm, and 2) that a sufficiently strong causal nexus relates the alleged harm to the alleged infringement.” Apple Inc. v. Samsung Electronics Co., 695 F.3d 1370, 1374 (Fed. Cir. 2012). “Price erosion, loss of goodwill, damages to reputation, and loss of business opportunities are all valid grounds for finding irreparable harm.” Celsis In Vitro, Inc. v. CellzDirect, Inc., 664 F.3d 922, 930 (Fed. Cir. 2012). In Celsis In Vitro, the Federal Circuit recognized that the inability to accurately measure all lost sales or growth as a result of an infringing competitor is a factor to consider in the irreparable harm analysis. See id. (upholding the district court’s finding of irreparable harm and noting that the “mere possibility of monetary damages does not defeat a motion for preliminary injunction”). Other factors to consider in the irreparable harm analysis include the size and structure of the market, the likelihood of losing customers and market share, and the degree to which the infringer competes with the plaintiff. See Trebro Mfg., Inc. v. Firefly Equip., LLC, 748 F.3d 1159, 1170–71 (Fed. Cir. 2014). Covidien argues that it has lost, and will continue to lose, market share, goodwill, reputation, and business opportunities as a result of Ethicon’s infringement of claim 15 with sales of its ACE+7.

In order to explain the irreparable harm analysis, it is necessary to briefly discuss the relevant market and the parties' product offerings. "Covidien and Ethicon are the two largest manufacturers of laparoscopic advanced energy surgical devices." Chindlund Decl. ¶ 7. Covidien accounts for approximately REDACTED% of that market, and Ethicon accounts for approximately REDACTED%. Id. "All other companies account[ ] for approximately REDACTED%" of the market, "with Olympus America accounting for a significant portion." Id. Devices within this market use a variety of energy sources for cutting or sealing. See id. ¶ 6. Most relevant here are ultrasonic and advanced bipolar radiofrequency ("RF") energies. These energy sources generally compete, see Lee Decl. ¶ 29, but some physicians may prefer one over the other, see Pickron Decl. ¶ 13. The parties dispute the degree to which these energy sources are interchangeable. Compare Lessek Decl. ¶ 13 ("While some types of surgeons use ultrasonic and RF bipolar modalities interchangeably, ultrasonic and RF instruments are not strictly competitive or interchangeable.") with Lee Decl. ¶ 29 ("The ACE+7 has the same procedural applications as the LigaSure . . .").

Covidien markets the LigaSure line of products, the majority of which uses RF energy. Chindlund Decl. ¶¶ 9–10. All of the LigaSure products are cleared for sealing vessels up to seven millimeters in size. Id. ¶ 11. Among others, Ethicon markets the Harmonic ACE line of products, which uses ultrasonic energy. Id. ¶ 27. Until the ACE+7's release, all of Ethicon's Harmonic ACE products were only indicated for sealing vessels up to five millimeters. Id. ¶ 30. The ACE+7, however, is indicated for sealing vessels up to seven millimeters. Id.

Covidien asserts that "sales of the ACE+7 will negatively impact Covidien's

market share more than ever possible, because the ACE+7 is indicated for sealing vessels up to 7 mm in size and Ethicon has specifically targeted LigaSure in relation to large vessel sealing.” Id. ¶ 57. Covidien has pointed to a variety of Ethicon’s marketing material that directly compares the ACE+7 to LigaSure products, including Ethicon’s public-facing ACE+7 website. See Ethicon, HARMONIC ACE®+7 Shears with Advanced Hemostasis, <http://www.ethicon.com/healthcare-professionals/products/advanced-energy/harmonic/harmonic-ace-plus-seven> (last visited Oct. 10, 2014). Moreover, Covidien argues that “Ethicon will use the ACE+7 to leverage its position in the advanced energy market and to increase sales across products in Ethicon’s advanced energy portfolio.” Id. ¶ 57; see also Lee Decl. ¶ 30 (“It is my understanding that based on these contractual relationships, the selection of one energy-based device may drive the purchase of other types of energy-based devices from the same company.”). Covidien’s expert, John Chindlund, predicts that “Covidien could lose as much as 5 to 10 percentage points of market share of the vessel sealing and dissection market in the next 12 month if Ethicon is effective in targeting the infringing ACE+7 against Covidien’s LigaSure product line.” Chindlund Reply ¶ 8. He also explained how lost market share and sales could have lasting and potentially irreversible impacts on Covidien’s negotiating power based on the way the industry’s long-term contract negotiations work. See id. ¶¶ 9–13. Notably, Mr. Chindlund was able to point to specific examples of hospitals in the process of replacing LigaSure devices with ACE+7 devices within months of the ACE+7’s introduction. Id. ¶ 15. Finally, Covidien points out that Ethicon’s marketing of the ACE+7 and its infringing curved blade falsely gives consumers the impression that Ethicon was the innovator of

that feature, see Chindlund Decl. ¶¶ 59–60, thus damaging or diminishing Covidien’s reputation. Covidien has made a clear showing that it is likely to suffer irreparable harm.

b. Causal Nexus between Infringement and Irreparable Harm

Regarding the causal nexus requirement, the Federal Circuit has explained that the patentee:

must show some connection between the patented feature and demand for [the infringing] products. There might be a variety of ways to make this required showing, for example, with evidence that a patented feature is one of several features that cause consumers to make their purchasing decisions. It might also be shown with evidence that the inclusion of a patented feature makes a product significantly more desirable. Conversely, it might be shown with evidence that the absence of a patented feature would make a product significantly less desirable.

Apple Inc. v. Samsung Electronics Co., 735 F.3d 1352, 1364 (Fed. Cir. 2013).

Covidien has also shown a causal nexus between Ethicon’s infringement of claim 15 of the ’286 patent and its likely irreparable harm. Ethicon acknowledges “that a curved blade is a feature some surgeons may prefer.” Def.’s Mem. Opp’n 29. Indeed, in the Tyco litigation, Judge Arterton found that “consumers valued the curved blades.” Tyco VI, 936 F. Supp. at 72. Also convincing is the fact that Ethicon has promoted the ACE+7’s curved blade. Chindlund Decl. ¶ 32, Ex. A. While Ethicon seldom uses the word “curved” in its marketing material, it often lauds the ACE+7’s blade’s precision, which, according to Ethicon, is a result of the curved blade’s design. Id. (showing Ethicon’s website stating “[j]aw and curved blade are uniquely designed for precise dissection, sealing and transection”). Indeed, the very fact that Ethicon chose to use the curved blade in the ACE+7 suggests how valuable the feature is to consumers. Ethicon must have known the risk of including the curved blade given the result of the

Tyco litigation, and it could have simply used a straight blade, as it already does in one of its other Harmonic products. See Tyco VI, 936 F. Supp. at 75 n.24. Ethicon would have had little reason to take on the risk of infringing if the curved blade was not a desirable feature to consumers.

Covidien has established that there is a causal nexus between Ethicon's infringement of claim 15 of the '286 patent and the irreparable harm it is likely to suffer.

C. Balance of the Equities

Covidien argues that the equities weigh in its favor because Ethicon knowingly undertook the risk of infringement in marketing its ACE+7. Ethicon argues that the equities weigh in its favor because it has invested considerable time and money developing and marketing the ACE+7, and because Covidien does not practice its patent.

"The district court must balance the harm that will occur to the moving party from the denial of the preliminary injunction with the harm that the non-moving party will incur if the injunction is granted." Hybritech Inc. v. Abbott Labs., 849 F.2d 1446, 1457 (Fed. Cir. 1988). The court may issue a preliminary injunction where, after carefully considering the question, "neither party has a clear advantage." Id. at 1457–58. One relevant factor to the equitable balancing is whether the infringer took a calculated risk in selling a product that may infringe a known patent. See Celsis In Vitro v. CellzDirect, Inc., 664 F.3d 922, 931 (Fed. Cir. 2012).

Absent a preliminary injunction, Covidien will suffer those harms identified in the irreparable harm analysis, including loss of market share and goodwill. Balanced against these hardships are those that Ethicon will suffer if it is enjoined from selling the

ACE+7. Ethicon has certainly spent a substantial amount of resources designing and marketing the ACE+7. See Lessek Decl. ¶ 26. If enjoined, Ethicon will be largely unable to reap the rewards of those expenditures. See id. ¶ 27. Thus, both sides present hardships in the face of a contrary ruling.

Here, the balance of hardships weighs in Covidien's favor. Although Ethicon has doubtless spent significant amounts of time and money bringing the ACE+7 to market, it did so knowing of claim 15 of the '286 patent. Indeed, Ethicon's attempt to design around the '286 patent shows that it was aware of and understood the risk of infringement. See Schulte Decl. ¶ 7. Notably, Ethicon already sold ultrasonic devices with straight blades. See Tyco VI, 936 F. Supp. 2d at 75 n.24. It could have simply used a straight blade in the ACE+7, but it chose to take the risk of using the curved blade and relying on the non-infringement arguments addressed above.

The fact that Covidien does not practice the patent does not to shift the equities in favor of Ethicon. Even if a patentee's choice not to practice its patent is a relevant consideration to the balance of the equities,<sup>2</sup> it does not outweigh the equities in favor of Covidien in this case. While Covidien does not use a curved blade on any of its ultrasonic devices – which is the type of device taught by claim 15 of the '286 patent – it does use a curved blade on some of its RF products. See Oral Argument Tr. 5–6 (“[Covidien] has a LigaSure with a curved blade.”) Thus, even though none of

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<sup>2</sup> Ethicon cites Edwards Lifesciences AG v. CoreValve, Inc., 699 F.3d 1305, 1315 (Fed. Cir. 2012), in support of its argument that Covidien's failure to practice its patent shifts the equities in its favor. However, the Federal Circuit in Edwards merely quoted a district court's observation that “[c]ourts awarding permanent injunctions typically do so under circumstances where the plaintiff practices its invention and is a direct market competitor.” Id. (quoting Advanced Cardiovascular Sys., Inc. v. Medtronic Vascular, Inc., 579 F. Supp. 2d 554, 558 (D. Del. 2008), dismissed, 356 F. App'x 389 (Fed. Cir. 2009)). The Federal Circuit did not appear to endorse or criticize this observation: it simply stated it to explain the patentee's argument in the case.

Covidien's devices meet all of claim 15's limitations, Covidien does practice the curved blade, and it is infringement of that feature that Covidien bases its theory of irreparable harm. Even if Covidien did not use a curved blade, however, this factor alone would not be enough to outweigh the equities favoring Covidien on the record before the court.

Covidien and Ethicon are indisputably fierce competitors. Covidien should not be burdened by competition against its own intellectual property.

D. The Public Interest

Covidien emphasizes the importance of enforcing patents according to the scheme contemplated by the Constitution. Ethicon argues that the public interest favors availability of medical devices. Both rely on important, albeit broad, public interest considerations.

“Although the public interest inquiry is not necessarily or always bound to the likelihood of success of the merits, . . . absent any other relevant concerns, . . . the public is best served by enforcing patents that are likely valid and infringed.” Abbott Labs. v. Andrx Pharm., Inc., 452 F.3d 1331, 1348 (Fed. Cir. 2006). Indeed, even where other important concerns are present, the public interest may be best served by granting an injunction. See Abbott Labs. v. Sandoz, Inc., 544 F.3d 1341, 1362–63 (Fed. Cir. 2008). Thus, the Federal Circuit has recognized “the significant public interest in encouraging investment in drug development and protecting the exclusionary rights conveyed in pharmaceutical patents.” Id. (internal quotations marks omitted).

On the other hand, the Federal Circuit has recognized that there is a strong public interest in the availability of medical products. See, e.g., Datascope Corp. v. Kontron Inc., 786 F.2d 398, 401 (Fed. Cir. 1986) (upholding preliminary injunction denial

based, in part, on the finding that “the public will be harmed by an injunction in that some physicians prefer” the defendant’s medical product); Cordis Corp. v. Boston Scientific Corp., 99 F. App’x 928, 935 (Fed. Cir. 2004) (“[A] strong public interest supports a broad choice of drug-eluting stents, even though no published study proves the superiority of either Cordis’s Cypher or BSC’s Taxus stent.”).

Of course, no blanket rule makes medical products immune from preliminary injunctions. See Hybritech Inc. v. Abbott Labs., 849 F.2d 1446, 1458 (Fed. Cir. 1988) (affirming the district court’s decision to enjoin the sale of some medical products but not others). Rather, courts have considered a number of factors in deciding whether enjoining the sale of a particular medical device would harm the public interest, including how new the infringing product is, see Smith & Nephew, Inc. v. Biomet, Inc., 05-611-KI, 2005 WL 3132313, at \*19 (D. Or. Nov. 21, 2005), whether the product involved cutting edge medical treatments, 3M Unitek Corp. v. Ormco Co., 96 F. Supp. 2d 1042, 1052 (C.D. Cal. 2000), and the degree to which alternatives to the product exist, Hybritech Inc v. Abbott Labs., CV 86-7461, 1987 WL 123997 (C.D. Cal. July 14, 1987), aff’d, 849 F.2d 1446 (Fed. Cir. 1988).

Importantly, courts denying a preliminary injunction on the ground that the infringing product is related to medical treatment often rely on some exacerbating circumstance not present here. For example, the district court in Hybritech denied preliminary injunction only as to those that products that dealt with cancer treatment, substitution of which would have set cancer patients back, and those for which the patentee provided no alternative. Id. at n.17 and accompanying text. In another instance, the district court in Cordis appeared to rely on severe concerns about supply

of the allegedly infringing product and the fact that only one prong of the preliminary injunction analysis favored the plaintiff-patentee. See Cordis Corp., 99 F. App'x at 932 (“The trial court noted that the injunction would . . . affect the worldwide supply of [the product at issue]. . . . [T]he district court reasoned that grant of the injunction would harm the public interest because [the plaintiff-patentee] cannot ensure an adequate supply.”).

The court concludes that enforcing Covidien’s patent is in the public interest. It is especially important to enjoin infringement where, as here, it was consciously undertaken by one who knew of the risk. While Ethicon has put forward an important public interest factor of its own, it does not outweigh those offered by Covidien. Any harm to the public as a result of an injunction against Ethicon’s sale of the ACE+7 is limited by the fact that the ACE+7 is a new device and by the availability of alternative devices. The ACE+7 has only been on the market “for a few months.” Def.’s Mem. Opp’n 35; see also Pickron Decl. ¶ 16 (“Ethicon just recently began offering the ACE+7.”). While the record shows that some physicians may prefer the ACE+7 for one reason or another, see, e.g., Pickron Decl. ¶ 18, it also shows that alternatives to the ACE+7 exist, see, e.g., Lee Decl. ¶ 29 (“The ACE+7 has the same procedural applications as the LigaSure and Thunderbeat . . .”). Although physicians’ preferences are relevant to the public interest analysis, see Datascope Corp., 786 F.2d at 401, they are not necessarily dispositive, particularly where, as here, the device is so new that any preference for it is unlikely to be deeply held or widespread. Moreover, to the extent Ethicon denies that RF energy (used by Covidien’s competing LigaSure) is a substitute for ultrasonic energy (used by ACE+7), its argument is belied by the degree

to which it compares its ACE+7 to Covidien's LigaSure products in its marketing. See Lee Decl. ¶ 27 ("In response to my use of the LigaSure device, the [Ethicon] salesperson positioned the ACE+7 as an ultrasonic substitute with similar sealing capability on large vessels.").

Given that the ACE+7 has only recently been released and the fact that physicians have alternatives available, the public interest is better served here by enjoining Ethicon's infringement.

E. Stay Pending Appeal

Finally, Ethicon argues that, instead of issuing a preliminary injunction, the court should stay the proceeding pending the Federal Circuit's disposition of the parties' appeals from the Tyco litigation. "[T]he decision whether to issue a stay is firmly within a district court's discretion." LaSala v. Needham & Co., Inc., 399 F. Supp. 2d 421, 427 (S.D.N.Y. 2005) (internal quotations marks omitted). Courts in the Second Circuit have considered five factors in determining whether a stay is warranted: "(1) the private interests of the plaintiffs in proceeding expeditiously with the civil litigation as balanced against the prejudice to the plaintiffs if delayed; (2) the private interests of and burden on the defendants; (3) the interests of the courts; (4) the interests of persons not parties to the civil litigation; and (5) the public interest." Catskill Mountains Chapter of Trout Unlimited, Inc. v. United States EPA, 630 F. Supp. 2d 295, 304 (S.D.N.Y. 2009); see also Cherokee Nation of Oklahoma v. United States, 124 F.3d 1413, 1416 (Fed. Cir. 1997) ("In deciding to stay proceedings indefinitely, a trial court must first identify a pressing need for the stay. The court must then balance interests favoring a stay against interests frustrated by the action. Overarching this balancing is the court's paramount obligation to exercise jurisdiction timely in cases properly before it.").

For essentially the same reasons that the court grants Covidien's Motion for Preliminary Injunction, the court denies Ethicon's request to stay the proceedings. Covidien applied for a preliminary injunction specifically because it has an interest in expeditiously enforcing the '28 patent. Covidien will suffer more than mere prejudice if the proceedings are delayed: it will likely suffer irreparable harm. For reasons already discussed, the public interest (and, consequently, the interests of persons not parties to the litigation) favors a preliminary injunction, not a stay. The court acknowledges that Ethicon is burdened by the preliminary injunction; presumably, so is any party that is enjoined from doing what it otherwise would. Covidien's success on its Motion for Preliminary Injunction shows why this burden is justified. If Ethicon ultimately succeeds on its appeal on validity, which is its basis for arguing that this court should stay the proceedings, then the injunction will be vacated and the burden to Ethicon limited.

## **V. CONCLUSION**

For the foregoing reasons, the court **GRANTS** Covidien's Motion for Preliminary Injunction (Doc. No. 45). An Order stating the terms of the injunction will follow.

A telephonic conference is scheduled for 5:00 p.m. on Thursday, October 16, 2014, to discuss the bond. Before that conference, the parties should confer to discuss and agree upon an appropriate bond amount. If the parties cannot agree, they should submit their proposed amounts in separate filings. The Preliminary Injunction will not take effect until bond has been posted.

**SO ORDERED.**

Dated at New Haven, Connecticut, this 15th day of October, 2014.

/s/ Janet C. Hall  
Janet C. Hall  
United States District Judge