

In the United States Court of Federal Claims

No. 15-175C
(Filed: April 27, 2020)
(Re-filed: May 14, 2020)¹

IRIS CORPORATION BERHAD,

Plaintiff,

v.

THE UNITED STATES,

Defendant.

Patents; motion for
summary judgment;
infringement; doctrine
of equivalents;
tangential exception.

Stephen Norman Weiss, New York, NY, for plaintiff.

Philip Charles Sternhell, United States Department of Justice, Civil
Division, Commercial Litigation Branch, Washington, DC, with whom were
Joseph H. Hunt, Assistant Attorney General, and Gary L. Hausken, Director,
for defendant. Conrad J. DeWitte, Jr., United States Department of Justice,
of counsel.

OPINION

BRUGGINK, Judge.

This is a patent infringement case brought under 28 U.S.C. § 1498
(2018). Plaintiff IRIS Corporation Berhad (“IRIS”) alleges that the United
States Department of State has infringed U.S. Patent No. 6,111,506 (“the
‘506 Patent”) by its manufacture and importation of certain electronic
passports. Before the court is the government’s motion for summary

¹Due to the protective order in this case, this opinion was issued under seal.
The parties reported that they do not have any proposed redactions. The
opinion is therefore released publicly without redaction.

judgment on the issue of infringement. For the reasons discussed below, we grant the government's motion.

BACKGROUND

The '506 Patent concerns a method of making an improved security identification document containing a contactless communication insert. The '506 Patent is comprised of one independent claim and six dependent claims. Claim 1, the independent claim, describes:

1. A method of making an identification document comprising the steps of:

forming a contactless communication insert unit by electrically connecting an integrated circuit including a microprocessor, a controller, a memory unit, a radio frequency input/output device and an antenna, and disposing a metal ring to surround the integrated circuit;

disposing the contactless communication insert unit on a substrate and laminating it to form a laminated substrate;

supplying a first sheet of base material;

supplying a second sheet of base material;

disposing the second sheet of base material on top of the first sheet of base material and inserting the laminated substrate including the contactless communication insert unit between the first and second sheets of base material; and

joining a third sheet of base material to the first and second sheets of base material having the laminated substrate disposed therebetween, the third sheet of base material containing printed text data located so as to be readable by humans.

'506 Patent, col. 20, ll. 10–34.

When presented in prosecution, Application Claim 1 did not include the step of “disposing a metal ring to surround the integrated circuit.” Def.’s

Ex. B at 45. Instead, Application Claim 4, a dependent claim, recited a “method of making an identification document according to claim 1, wherein the step of forming a contactless communication insert unit includes the step of disposing a metal ring to surround the integrated circuit.” *Id.* at 46. The Examiner’s Office rejected Application Claims 1-3 and 5-8 as obvious. *Id.* at 78-87. The claims were obvious in light of two preceding patents, which both taught a method to construct and insert or otherwise use a communication unit to control, process, and coordinate data in an identification device. Two other preceding patents taught methods of adhesion and certain uses of a memory unit that made the IRIS patent claims obvious. The IRIS method would add a microprocessor and controller, a different way of placing the insert unit between sheets of material, and cover page, but the Examiner’s Office found that these steps would have been obvious to one of ordinary skill in the art at the time of the claimed invention. Under “Allowable Subject Matter,” the Examiner’s Office wrote, “Claim 4 is objected to as being dependent on the rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.” *Id.* at 85.

In response, IRIS requested to

amend claim 1 as follows: 1. (Amended) A method of making an identification document comprising the steps of: forming a contactless communication insert unit by electrically connecting an integrated circuit included a microprocessor, a controller, a memory unit, a radio frequency input/output device and an antenna, and disposing a metal ring to surround the integrated circuit

Id. at 91 (emphasis in original). IRIS concluded, “Please cancel claim 4 without prejudice or disclaimer of the subject matter recited therein.” *Id.* at 92. In its remarks, IRIS stated, “Applicant amends claim 1 to include claim 4 and cancels claim 4.” *Id.* Its explanation for the amendment was concise: IRIS thanked the Examiner for indicating that Claim 4, if rewritten as part of the independent claim, was allowable over prior art and stated that it accepted the Examiner’s recommendation. IRIS submitted that the prior art did not teach the method of making an identification document with the added limitation of “disposing a metal ring to surround the integrated circuit.” *Id.* at 93. IRIS provided no further explanation. The Examiner’s Office later issued IRIS a patent for the claims as amended, the ‘506 Patent.

IRIS brought its claim in this court on February 24, 2015, alleging that “all electronic passport inlays that have been in use since the issuance of the ‘506 patent have been manufactured according to the method, or to an equivalent of the method, disclosed and claimed by said ‘506 patent.” ECF No. 1 at ¶ 10. It alleged infringement under 35 U.S.C. § 271(g), relating to importation, use, or sale of a product made by a process patented in the United States.

During discovery, IRIS responded to a request for admission by “qualifiedly admit[ing] that the structure [i.e., the accused electronic passport] appears not to literally include a metal ring.” Def.’s Ex. D at 1-7. IRIS later responded to interrogatories by stating that the samples the government had produced showed “a cutout” or “equivalent structure for ‘a metal ring to surround the integrated circuit’.” *Id.* at Ex. E.

In April 2018, IRIS filed an Amended Complaint, which added a theory of infringement under 35 U.S.C. § 271(a), direct infringement by use of a process. The government moved to dismiss the Amended Complaint for failure to state a claim on which relief can be granted, because the complaint did not allege literal infringement regarding “disposing a metal ring to surround an integrated circuit” and infringement under the doctrine of equivalents was unavailable to IRIS as a matter of law due to patent prosecution estoppel. At the hearing on the government’s motion, IRIS represented that succeeding on its literal infringement claim would require the court to construe “metal” as “made of metal and other material.” *Id.* at Ex. F (Transcript 30:16-25). The court denied the government’s motion, because the complaint alleged infringement generally and, therefore, “survive[d] a 12(b)(6) motion because no method of proof is claimed nor waived by such an allegation, even if the one example provided by the complaint happens to be by way of the doctrine of equivalents.” *IRIS Corp. Berhad v. United States*, No. 1:15-cv-00175, 2018 WL 5305324 at *2 (Fed. Cl. Oct. 26, 2018). Moving forward, the court ordered IRIS to disclose, in addition to its infringement contentions and other disclosures, any invocation of a recognized exception to the doctrine of equivalents as set out in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 733 (2002) (*Festo I*), including all supporting evidence.

IRIS served infringement contentions on the government in January 2019, followed by amended infringement contentions in May 2019 to comply with the court’s order to particularly identify which products and where on those products the infringing use could be seen. Additionally, regarding exceptions to *Festo I*, IRIS limited itself to arguing the “tangentiality”

exception. *Id.* at Ex. G at 12. In correspondence with the government to clarify its contentions, IRIS further stated, “IRIS is identifying the same Teslin or Durasoft for . . . ‘disposing a metal ring to surround the integrated circuit;’ and, ‘disposing the contactless communication insert unit on a substrate and laminating it to form a laminated substrate’.” *Id.* at Ex. I.

Following claim construction briefing and the *Markman* hearing, the court concluded that the following constructions of terms in the ‘506 Patent were appropriate:

Term	The Court’s Construction
encrypted	information that has been transformed from plain text to coded text or ciphertext
Order of steps in which the method must be performed	The limitations in Claim 1 must be performed in the sequence claimed.
integrated circuit	a microprocessor, a controller, a memory unit, a radio frequency input/output device, an antenna, and the connections thereto
ring	a structure that surrounds the integrated circuit
metal	metal
disposing a metal ring to surround the integrated circuit	The metal ring must surround the integrated circuit. The metal ring and the substrate are separate components.
laminating it to form a laminated substrate	bonding the contactless communication insert unit and the substrate with one or more layers of a coating material
base material	material separate from the claimed cover
tamper-proof stitching	stitching that cannot readily be altered or tampered with

IRIS Corp. Berhad v. United States, 147 Fed. Cl. 160, 171 (2020).

The government filed this motion for summary judgment on infringement on March 6, 2020. The motion is fully briefed. Oral argument is deemed unnecessary.

DISCUSSION

Summary judgment is proper when “there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Rules of the United States Court of Federal Claims (“RCFC”) 56(a). Entry of summary judgment is proper when a party “fails to make a showing sufficient to establish the existence of an element essential to that party’s case, and on which that party will bear the burden of proof at trial.” *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). The party moving for summary judgment bears the initial burden of showing that no genuine dispute of material fact exists, which it may do by showing an absence of proof regarding an essential element of the non-moving party’s case. *Id.* at 323-25.

Once the moving party has supported its motion, the burden shifts to the non-moving party to identify specific facts on which a genuine dispute exists for trial. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250 (1986). The non-moving party “must do more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986). “Where the record taken as a whole could not lead a rational trier of fact to find for the non-moving party, there is no ‘genuine issue for trial.’” *Id.* (quoting *First Nat’l Bank of Arizona v. Cities Serv. Co.*, 391 U.S. 253, 289 (1968)).

I. The United States Electronic Passports do not Literally Infringe the ‘506 Patent.

After claim construction, “[s]ummary judgment on the issue of infringement is proper when no reasonable jury could find that every limitation recited in a properly construed claim either is or is not found in the accused device either literally or under the doctrine of equivalents.” *PC Connector Sols. LLC v. SmartDisk Corp.*, 406 F.3d 1359, 1364 (Fed. Cir. 2005). “To prove literal infringement, the patentee must show that the accused device contains every limitation in the asserted claims. If even one limitation is missing or not met as claimed, there is no literal infringement.” *Mas–Hamilton Grp. v. LaGard, Inc.*, 156 F.3d 1206, 1211 (Fed. Cir. 1998) (internal citations omitted).

A. Creating an Integrated Circuit

Claim 1 states the step of “forming a contactless communication insert unit by electrically connecting an integrated circuit including a microprocessor, a controller, a memory unit, a radio frequency input/output device and an antenna.” ‘506 Patent, col. 20, ll. 13–18. In the claim construction order, the court held that this step requires the antenna to be a part of the integrated circuit, not a separate component that is simply connected to the integrated circuit.

The government argues that there is no evidence in the record that accused electronic passports feature an integrated circuit that includes an antenna as part of the integrated circuit, meaning that there is no “integrated circuit” as stated in the ‘506 Patent. Moreover, the government points out that plaintiff’s infringement contentions did not allege that the integrated circuit in accused devices includes an antenna. Rather IRIS alleged that Gemalto, Infineon, Toppan, ASK, or Smartrac inlays or contactless communication inserts “connect[] an antenna via the [input/output] area of the [integrated circuit] . . .” Def.’s Ex. H at 2-3. IRIS further stated in its contentions that “the antenna has been electrically connected to the [integrated circuit], and the [integrated circuit] includes a controller, a microprocessor and a memory unit along with the [input/output].” *Id.*

In its response to the motion for summary judgment, however, IRIS argues that a disputed fact exists regarding whether Gemalto and ASK inlays “come with chips that have an antenna as part of the integrated circuit.” Pl.’s Resp. 7-8, Ex. C. Plaintiff supports its argument with a March 31, 2020 declaration from an electrical engineer, David Ferguson, who examined United States electronic passports for IRIS on June 12, 2018. Mr. Ferguson concluded that the Gemalto and ASK inlays have an integrated circuit that includes an antenna. His conclusion is based on an article from the website EDN which states that a predecessor company to Gemalto supplied such samples to the United States. He also cites x-rays of United States electronic passports that he has labeled to show an antenna connecting to the frame of the integrated circuit.

We agree with the government that there is no genuine dispute of fact regarding the step of forming an integrated circuit that includes an antenna. First, IRIS only argues that a triable question exists as it relates to Gemalto or ASK inlays. IRIS did not point to any facts that suggest that an antenna can be found in the integrated circuit of the Infineon, Toppan, or Smartrac inlays or contactless communication inserts. Thus, as it relates to those

accused devices, there is an absence of evidence that a claim limitation of the ‘506 Patent is present.

As to the Gemalto or ASK inlays, IRIS has pivoted from its infringement contentions that it disclosed prior to claim construction. Despite Mr. Ferguson analyzing the samples provided by the United States in June 2018, IRIS made no mention of its theory that certain inlays included an antenna in the integrated circuit in its original January 2019 infringement contentions or in its revised May 2019 infringement contentions. This approach is at odds with the purpose of the disclosure requirement, particularly when IRIS effectively seeks to amend its contentions without a showing of good cause, as required by this court’s Patent Rule 24. The court will not consider a novel, undisclosed infringement contention that should have been disclosed to the government during the time set for serving infringement contentions.

In any event, as the government points out, the declaration does not raise a genuine dispute of material fact. First, the article Mr. Ferguson cites refers to a predecessor of Gemalto providing “manufactured initial production samples for the US government to evaluate.” Pl.’s Ex. D. The article does not support an inference that those samples were used to manufacture United States electronic passports. The x-rays Mr. Ferguson labeled show a piece of an antenna connected to a frame or some outer part of an inlay. At best, these x-rays support plaintiff’s disclosed contention that the antenna is *connected to* the integrated circuit. Finally, IRIS does not argue, as we discuss below, that the Gemalto or ASK inlays include an antenna that is surrounded by a metal enclosure. Thus, even if the antenna on the Gemalto or ASK inlays were a part of the integrated circuit, there is a lack of evidence that the integrated circuit is surrounded by a metal ring. For each of the foregoing reasons, the court grants the government’s motion on the issue of literal infringement of the integrated circuit step of Claim 1.

B. Surrounding an Integrated Circuit with a Metal Ring

Claim 1 also includes the step of “forming a contactless communication insert unit by electrically connecting an integrated circuit . . . and disposing a metal ring to surround the integrated circuit.” ‘506 Patent, col. 20, ll. 13–19. In the claim construction order, the court held that a “ring” is a structure that surrounds the integrated circuit; “metal” means metal, as typically understood; and that the metal ring and the substrate that appears in the next step of Claim 1 are separate components.

The government argues that there is an absence of proof that the United States electronic passports use the method of surrounding an integrated circuit with a metal ring. Defendant dissects the infringement contentions from several angles. First, it argues, that metal appears, at most, on two sides of the circuit in the accused devices, which shows there is no ring. In other words, there is no evidence that metal surrounds the integrated circuit. Second, the other two sides of the integrated circuit are set on top of Teslin or Durasoft materials which are not metal, showing that there is no evidence of a metal ring. And, third, the Teslin or Durasoft is in fact the substrate upon which a contactless communication unit is disposed—the next step of Claim 1—which means that the material cannot form the ring.

IRIS qualifiedly admitted in 2016 that the United States electronic passports do not use the method of surrounding, or enclosing, an integrated circuit with a metal structure, suggesting instead that there was an equivalent used in the passports. Def.’s Exs. D, E. As this case continued, IRIS conceded in 2018 that if the court determined that a metal ring means that metal must surround the integrated circuit, the United States electronic passport does not literally infringe the ‘506 Patent. Def.’s Ex. F. In its revised infringement contentions, IRIS stated that Gemalto, Infineon, Toppan, ASK, or Smartrac, suppliers of inlays for electronic passports, surround the integrated circuit “by a perimetric enclosure, at least a portion of which includes metal, said enclosure comprising both metal and Teslin or Durasoft.” Def.’s Ex. H.

In its response to the motion for summary judgment, however, IRIS argues that the step of “disposing a metal ring to surround the integrated circuit,” ‘506 Patent, col. 20, ll. 17–18, is literally infringed when Infineon attaches “a metal carrier . . . to the chip.” Pl.’s Resp. 4. IRIS supports this argument with a few lines from Infineon’s deposition representative in which the deponent agreed that a “chip is glued onto a metal part that forms part of the module.” *Id.* IRIS argues that this citation, and only this citation, “creat[es] an issue of fact which cannot be resolved by summary judgment.” *Id.* IRIS does not reference any other inlay manufacturers in this section of its response.

Plaintiff’s lone citation does not create a genuine dispute on the issue of whether a metal ring surrounds the integrated circuit on the accused devices. First, IRIS only argues that a triable question exists as it relates to Infineon inlays regarding the step of “disposing a metal ring to surround the integrated circuit.” ‘506 Patent, col. 20, ll. 17–18. IRIS did not point to any facts that suggest that such a metal ring is disposed to surround the integrated circuits supplied by Gemalto, Toppan, ASK, or Smartrac. Thus, as it relates

to those accused devices, there is no evidence that a claim limitation is present.

Second, as to the Infineon inlays, IRIS argues that there is a dispute as to whether “a metal carrier is attached to the chip” surrounds the integrated circuit. Pl.’s Resp. 4. IRIS did not disclose in its infringement contentions that it alleges that a carrier glued to a chip on the Infineon inlays constitutes a metal ring. IRIS took the Rule 30(b)(6) deposition of Infineon’s representative in 2016, giving IRIS ample time to disclose this theory in its infringement contentions. Here again, IRIS attempts to change its contentions. IRIS only disclosed its theory that a mix of metal and Teslin or Durasoft constitutes the ring. In other words, IRIS contended that metal on less than all sides of the integrated circuit combined with a sheet of Teslin or Durasoft creates a “metal ring.” Plaintiff now argues, without prior disclosure, that a carrier or frame or other metal piece associated with the Infineon inlay surrounds the integrated circuit. The court will not consider this undisclosed infringement contention.

Even if plaintiff had timely disclosed this theory, the testimony that IRIS cites of Infineon’s Rule 30(b)(6) witness, Joerg Borchert, when read in context, does not support the existence of a triable question on whether this “carrier” is a piece of metal that surrounds the integrated circuit. When asked in several different ways, the deponent consistently describes Infineon’s inlay as a package of a chip and a carrier and a mold, never suggesting that the carrier surrounds the chip. Def.’s Ex. L. IRIS represents that the deponent could not say whether the metal piece surrounds the chip, but the deponent simply did agree with counsel and explained “[t]he chip is attached to this metal with a glue” along with the rest of the inlay manufacture process. *Id.* at 8 (Borchert Deposition 24:8-9). The identified section of the deposition does not even suggest what functions the “carrier” or the “chip” serve in relation to forming the inlay. Gluing a piece of metal to a chip, which is all the deposition suggests, does not constitute surrounding an integrated circuit with a metal ring. We agree with the government that IRIS cannot manufacture a dispute of fact from a selection of ambiguous quotes from a single deposition.

Finally, IRIS argues that “[t]he court’s construction did not mandate that the metal ring could not include other material in addition to metal,” returning to its theory that Teslin or Durasoft coupled with the metal constitutes a metal ring. Pl.’s Resp. 3. Plaintiff argues that, even if the Infineon carrier does not surround the integrated circuit, a Teslin or Durasoft sheet can complete the ring. IRIS draws a distinction without meaning,

because what the court did hold was that metal must surround the integrated circuit, as stated in Claim 1. That metal might be mixed with some other substance, certainly, but metal must nevertheless enclose the circuit. Teslin or Durasoft are not metal. IRIS has not identified any evidence in the record that Infineon manufactures an integrated circuit and then surrounds it with a metal enclosure prior to adhering it to a sheet of substrate material.

In sum, the government demonstrated that there is an absence of evidence that any accused device “dispos[es] a metal ring to surround the integrated circuit.” Plaintiff conceded as much during discovery, and its response to the motion for summary judgment does nothing to dispel that concession. The court grants the government’s motion on the issue of literal infringement of this step of Claim 1.

C. Performing the Claim 1 Steps in the Order Recited

Claim 1 further states the steps of “forming a contactless communication insert unit by electrically connecting an integrated circuit . . . and disposing a metal ring to surround the integrated circuit; disposing the contactless communication insert unit on a substrate and laminating it to form a laminated substrate” ‘506 Patent, col. 20, ll. 13–20. In the claim construction order, the court held that the limitations in Claim 1 must be performed in the sequence claimed.

The government argues that there is no evidence in the record that the accused electronic passports are manufactured by (1) forming an integrated circuit, (2) surrounding the integrated circuit with a metal ring, and (3) disposing the newly-formed contactless communication insert on a substrate—in that order. Defendant points out that a metal piece that attaches the antenna to other components of the circuit cannot perform both the step of connecting the integrated circuit and surrounding it with a metal ring. Likewise, defendant contends that the Teslin or Durasoft piece that constitutes the substrate cannot also be a part of the metal ring. We agree.

In its response, IRIS again isolates only the Infineon inlay. IRIS argues that, based on the same lines of Mr. Borchert’s deposition discussed above, a disputed material fact exists. IRIS also cites a picture, which it represents is an Infineon inlay, that shows what IRIS labels as an “equivalent” of a metal ring on one side of the picture and the “substrate upon which the contactless communication insert has been disposed” on the other side of the picture. Pl.’s Ex. B.

We conclude that there is no genuine dispute on the issue of whether United States electronic passports use the steps of Claim 1 in the order recited in the '506 Patent. First, IRIS only argues that a triable question exists as it relates to Infineon method. Therefore, as it relates to the Gemalto, Toppan, ASK, or Smartrac method, there is an absence of evidence that the inlays are manufactured using the steps as set out in Claim 1. We grant the government's motion as to those accused products.

Despite years of discovery and stripping down samples, plaintiff's only response is that there is a triable question as to how Infineon puts its inlays together. We find that IRIS has not identified any facts that would allow a reasonable factfinder to conclude that a metallic carrier attached to a chip fulfills the step of disposing a metal ring to surround the integrated circuit; so that step is missing from the sequence. Plaintiff's alternative theory is that the Teslin or Durasoft material is used as both a part of the "ring" and the "substrate" on which the contactless communication insert is placed. Def.'s Exs. H, I. To the extent IRIS argues that the substrate performs both steps, there is no dispute of material fact that the accused devices do not follow the patented method because the Teslin or Durasoft cannot be both the ring and the substrate. The court thus grants the government's motion for summary judgment as to the issue of literal infringement overall for each of the reasons discussed in Section I.

II. The Doctrine of Equivalents is Unavailable to Plaintiff, and, even if it were Available, the United States Electronic Passports do not Infringe the '506 Patent under the Doctrine of Equivalents.

When a patentee cannot show literal infringement, it may resort to the doctrine of equivalents "to claim those insubstantial alterations that were not captured in drafting the original patent claim but which could be created through trivial changes." *Festo I*, 535 U.S. at 733. Here, IRIS is "relying upon an equivalent for the 'metal' element of 'metal ring.'" Pl.'s Resp. 6. IRIS argues that the difference between a "metal" ring and a "metal along with some other substance" ring is insubstantial. The government argues that prosecution history estoppel bars plaintiff's reliance on the doctrine of equivalents; that the doctrine of equivalents cannot save plaintiff's claim; and that application of the doctrine would vitiate limitations of the '506 Patent.

A. IRIS cannot rely on the doctrine of equivalents to support its infringement claim.

When an applicant during patent prosecution narrows a claim to avoid prior art, “[e]stoppel then bars the applicant from later invoking the doctrine of equivalents to recapture the surrendered ground.” *EMD Millipore Corp. v. AllPure Techs., Inc.*, 768 F.3d 1196, 1203 (Fed. Cir. 2014). The Federal Circuit explained the effect of rewriting an independent claim to include material from a dependent claim in *Honeywell International, Inc. v. Hamilton Sundstrand Corp.*:

When a claim is rewritten from dependent into independent form and the original independent claim is cancelled . . . the surrendered subject matter is defined by the cancellation of independent claims that do not include a particular limitation and the rewriting into independent form of dependent claims that do include that limitation. Equivalents are presumptively not available with respect to that added limitation.

370 F.3d 1131, 1144 (Fed. Cir. 2004). In *Festo I*, the Federal Circuit noted, “Were it otherwise, the inventor might avoid the PTO’s gatekeeping role and seek to recapture in an infringement action the very subject matter surrendered as a condition of receiving the patent.” 535 U.S. at 734.

In this case, the Examiner’s Office rejected the application as originally written. IRIS then rewrote its Application Claim 1, the independent claim, to include its dependent Application Claim 4, “disposing a metal ring to surround the integrated circuit,” and cancelled the original dependent claim. Def.’s Ex. B at 91-92. The government contends that the metal ring step constitutes the surrendered subject matter. In other words, IRIS cannot recapture other methods of forming a contactless communication insert. IRIS responds that “nothing was surrendered so there is nothing to recapture.” Pl.’s Resp. 5.

We agree with the government. The surrendered subject matter is a method of forming a contactless communication insert unit that does not include the step of “disposing a metal ring to surround the integrated circuit.” IRIS is therefore presumptively precluded from arguing that equivalents to metal used to form a ring in the United States electronic passports constitute infringement of the ‘506 Patent.

A patentee may rebut the presumption of prosecution history estoppel, however. To rebut the presumption, the patentee must demonstrate one of three possibilities: (1) “the alleged equivalent would have been unforeseeable at the time of the narrowing amendment”; (2) “the rationale underlying the

narrowing amendment bore no more than a tangential relation to the equivalent in question”; or (3) “there was ‘some other reason’ suggesting that the patentee could not reasonably have been expected to have described the alleged equivalent.” *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359, 1368 (Fed. Cir. 2003) (en banc) (*Festo II*) (quoting *Festo I*, 535 U.S. at 741). The Supreme Court has “made clear that the patentee bears the burden of showing that a narrowing amendment did not surrender a particular equivalent.” *Id.* In its disclosures, IRIS limited itself to arguing only the second option: the tangentiality exception. Def.’s Ex. G at 12.

To decide whether “the rationale underlying the narrowing amendment bore no more than a tangential relation to the equivalent,” the court asks whether there is an “objectively apparent reason for the narrowing amendment[, which must be] discernible from the prosecution history record.” *Felix v. American Honda Motor Co.*, 562 F.3d 1167, 1184 (Fed. Cir. 2009) (quoting *Festo II*, 344 F.3d at 1369) (brackets in original). “The tangential relation criterion for overcoming the *Festo* presumption is very narrow.” *Honeywell*, 523 F.3d at 1315. “When the patentee is unable to explain the reason for amendment, estoppel not only applies but also ‘bar[s] the application of the doctrine of equivalents as to that element.’” *Festo I*, 535 U.S. at 740 (quoting *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 33 (1997)). “Where no explanation is established . . . the court should presume that the patent applicant had a substantial reason related to patentability for including the limiting element added by amendment.” *Warner-Jenkinson Co.*, 520 U.S. at 33.

The government correctly observes that the objectively apparent reason for the narrowing amendment is the Examiner’s indication that Claim 1 with the added step of “disposing a metal ring to surround the integrated circuit” would be allowable. Def.’s Ex. G. IRIS then amended its independent claim, exactly as directed, to include the entire limitation: “disposing a metal ring to surround the integrated circuit.” *Id.*

IRIS responds, “The type of material used for the ring was never at issue and was never a factor during prosecution of the application that matured into the ‘506 Patent. The type of material used for the ring is tangential to the accused equivalent.” Pl.’s Resp. 6. IRIS cites the Examiner’s Office Action for the proposition that the prior art did not include a “ring,” regardless of material, and thus the choice of “metal” is tangential to amendment of adding a ring. In other words, metal is an irrelevant descriptor.

We disagree. The explanation IRIS provides is not in the prosecution history. There is, however, an objectively apparent explanation in the prosecution history: The Examiner's Office stated that the entire dependent claim 4 would be allowable if rewritten in independent form, and IRIS did just that. IRIS did not attempt to exclude "metal" from its amendment or provide any explanation in its amendment as to why "ring" was a sufficient amendment without "metal." Its argument now is, in essence, too late. Not having drawn the distinction before the examiner, the court cannot come behind and red line the claim in plaintiff's favor.

Because IRIS has not offered an explanation from the prosecution history as to why "metal" was included in Claim 1 but should be considered superfluous now, it has not met its burden of proof in rebutting the presumption that prosecution history estoppel applies. It is therefore barred from reliance on the doctrine of equivalents for the term "metal."

- B. Even if IRIS relied on the doctrine of equivalents, IRIS cannot point to a triable question. Furthermore, applying the doctrine of equivalents would vitiate elements of Claim 1.

Even if IRIS were not barred from relying on the doctrine of equivalents, it only preserved the argument as it relates to the term "metal" in independent Claim 1. As discussed in Section I, the United States electronic passports do not include a "ring" that surrounds an integrated circuit. Nor does the integrated circuit in the United States electronic passport include an antenna. As the government argues, IRIS would need to rely on the doctrine of equivalents for those steps in Claim 1 as well, which it does not attempt to do. Therefore, even if the use of materials such as Teslin or Durasoft can take the place of metal under the doctrine of equivalents, the steps of forming an "integrated circuit," surrounding it with a "ring," and "disposing" it on a separate substrate are not infringed by accused electronic passports.

Relatedly, "if a court determines that a finding of infringement under the doctrine of equivalents 'would entirely vitiate a particular claim[ed] element,' then the court should rule that there is no infringement under the doctrine of equivalents." *Lockheed Martin Corp. v. Space Sys./Loral, Inc.*, 324 F.3d 1308, 1321 (Fed. Cir. 2003) (quoting *Bell Atlantic Network Servs., Inc. v. Covad Commc'ns Grp.*, 262 F.3d 1258, 1279-80 (Fed. Cir. 2001)). Part of the patented method is using a "metal" ring, preferably one made of SUS 303 stainless steel, to surround an integrated circuit to form a contactless communication insert. Claim 1 includes the term "metal," and the patent

repeatedly shows in figures and describes a method by which a metal structure is used to enclose the integrated circuit. Finding infringement of the '506 Patent by a structure of any combination of metal and other materials, in any proportion, would effectively read the term "metal" out of Claim 1. Furthermore, reading Claim 1 to mean that the step of "disposing a metal ring to surround the integrated circuit" is interchangeable with or the same step as "disposing the contactless communication insert on a substrate" collapses separate steps into one, again vitiating the purpose of particular elements of Claim 1. Therefore, even if IRIS were not barred from relying on the doctrine of equivalents, the court would grant the government's motion for summary judgment on the issue of infringement under the doctrine of equivalents.

III. The United States does not Infringe the '506 Patent through Devices or Activities Not Identified in Plaintiff's Infringement Contentions.

When plaintiff fails to identify an accused product, there is no infringement as a matter of law. *See Celotex*, 477 U.S. at 323. Regarding broad infringement claims relating to electronic passports or other activities not identified in plaintiff's infringement contentions, IRIS cannot demonstrate infringement as a matter of law. The court grants the government's motion for summary judgment on any theories of infringement beyond those identified in plaintiffs' infringement contentions.

CONCLUSION

For the foregoing reasons, the court grants defendant's motion for summary judgment. The Clerk is directed to enter judgment accordingly. No costs.

s/Eric G. Bruggink
ERIC G. BRUGGINK
Senior Judge