IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

TIVO INC.,	§	
	§	
Plaintiff,	§	
	§	
vs.	§	**CIVIL ACTION NO. 2:04-CV-01 (DF)**
	§	
DISH NETWORK CORPORATION,	§	
et al.,	§	
	§	
Defendants.	§	

MEMORANDUM OPINION

Before the Court are TiVo's Motion to Hold EchoStar In Contempt For Violation Of This Court's Permanent Injunction and the parties' Post-Hearing Proposed Findings of Fact and Conclusions of Law. Dkt. Nos. 832, 919, and 920. Also before the Court are the transcripts and evidence from hearings regarding EchoStar's alleged contempt; those hearings were held on September 4, 2008 (Dkt. Nos. 859-860) and on February 17-19, 2009 (Dkt. Nos. 907-915). Having considered the papers in light of the testimony, evidence, and relevant case law, the Court now addresses all issues raised by TiVo's motion to hold EchoStar in contempt.

This opinion will begin by discussing the background and procedural history of this case, which is both lengthy and complex. What follows is a brief discussion of the basic legal principles for contempt proceedings in patent cases. Specifically, this Court will outline the Federal Circuit's seminal case, *KSM Fastening Systems, Inc. v. H.A. Jones Company, Inc.*, 776 F.2d 1522 (Fed. Cir. 1985), and also address the relevance of particular evidence and the movant's burden of proof. Next, the opinion will analyze the modifications made to EchoStar's DVRs, that is whether the modified

DVR software is more than colorably different from the adjudged software and whether the modified software continues to infringe TiVo's patent. Finally, the opinion will analyze EchoStar's alleged facial violation of this Court's injunction, that is whether EchoStar failed to comply with the specific directives of this Court's orders.

I.

In this patent infringement action, tried to a jury in March of 2006, Plaintiff TiVo, Inc. (hereafter "TiVo") accused Defendants EchoStar Communications Corporation,[1] EchoStar DBS Corporation, EchoStar Technologies Corporation, EchoStar Satellite LLC, and EchoSphere LLC of infringing certain claims of U.S. Patent No. 6,233,389 ("the '389 Patent"). Dkt. No. 3 (Amended Complaint). Defendants (collectively referred to as "EchoStar") are a group of inter-related companies who together operate or support the satellite television service marketed as "Dish Network." EchoStar designs digital video recorders ("DVRs"), which are provided to customers as part of its satellite service. Such DVR technology is central to the '389 Patent, which is entitled "Multimedia Time Warping System" and generally describes a DVR system that allows for simultaneous storage and playback of television signals from sources such as cable and satellite providers.

At trial, TiVo accused EchoStar DVR receivers of infringing nine claims of the '389 Patent. Specifically, TiVo asserted claims 1, 5, 21, 23, 32, 36, and 52 (the "Hardware Claims"), as well as claims 31 and 61 (the "Software Claims"). The accused receivers fell into two categories depending on what processing chip controlled the DVR. The first category—containing model numbers

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[1] DISH Network Corporation has been substituted for EchoStar Communications Corporation and EchoStar Corporation has been joined as a defendant in this action. Dkt. No. 863.

DP-501, DP-508, and DP-510—operate using a chip from ST Microelectronics and are referred to as the "50X Products." The second category—containing model numbers DP-522, DP-625, DP-721, DP-921, and DP-942—operate using a Broadcom chip and are appropriately referred to as the "Broadcom Products."

In its verdict, the jury found that all asserted claims of the '389 Patent were valid and that EchoStar's accused DVRs infringed each of those claims. *See* Dkt. No. 690 (verdict form). Specifically, the jury found that the 50X Products literally infringed all claims, while the Broadcom Products literally infringed the Hardware Claims and infringed the Software Claims under the doctrine of equivalents. Finally, the jury awarded TiVo $73,991,964 in damages and found by clear and convincing evidence that EchoStar's infringement was willful.

Following the jury's verdict, EchoStar immediately assigned some of its best engineers the task of designing around the '389 Patent. Dkt. No. 919 at 71-74. Although this Court, as more fully explained below, enjoined EchoStar from further infringement and ordered it to disable the DVR capability in the infringing products, that order was stayed pending an appeal to the Federal Circuit. By the time that stay was lifted and this Court's injunction was once again in effect, EchoStar had long since downloaded its design-around effort—modified DVR software—into its DVR products. It is TiVo's position, however, that EchoStar never complied with this Court's order and to this date provides infringing DVR service to its customers on the very products that the jury found to infringe. As a result, TiVo requests that EchoStar be found in contempt. Dkt. No. 832. In response, EchoStar contends that it has successfully designed around the '389 Patent. Dkt. No. 839. As a result, EchoStar believes that this Court's injunction, meant to enjoin only infringing activities, cannot cover EchoStar's modified products. *Id.*

A.

Following the jury verdict in its favor, TiVo asked this Court to issue an injunction prohibiting EchoStar from further infringement of the '389 Patent and requiring EchoStar to disable the DVR functionality in its infringing products. Dkt. No. 733. EchoStar opposed TiVo's request and asked the Court to stay any injunction that might issue pending appeal. Dkt. Nos. 737 and 754. After considering both parties' positions, this Court entered its Final Judgment and Permanent Injunction on August 17, 2006. Dkt. No. 776. This Court also denied EchoStar's request to stay the injunction pending appeal. Dkt. No. 773. The Court's injunction, as later amended by joint motion (Dkt. No. 800), reads:

> Each Defendant, its officers, agents, servants, employees and attorneys, and those persons in active concert or participation with them who receive actual notice hereof, are hereby restrained and enjoined, pursuant to 35 U.S.C. § 283 and Fed. R. Civ. P. 65(d), from making, using, offering to sell, selling or importing in the United States, the Infringing Products, either alone or in combination with any other product and all other products that are only colorably different therefrom in the context of the Infringed Claims, whether individually or in combination with other products or as part of another product, and from otherwise infringing or inducing others to infringe the Infringed Claims of the '389 patent.
>
> Defendants are hereby further ordered to, within thirty (30) days of the issuance of this order, disable the DVR functionality (i.e. disable all storage to and playback from a hard disk drive of television data) in all but 192,708 units of the Infringing Products that have been placed with an end user or subscriber. The DVR functionality, (i.e. disable all storage to and playback from a hard disk drive of television data) shall not be enabled in any new placement of the Infringing Products.

Dkt. No. 806 at 2.

As can be seen, the injunction contained two major provisions. First, it contained an "Infringement Provision," which prohibited further infringement of the '389 Patent by the infringing DVRs. Second, it contained a "Disablement Provision," which required EchoStar to disable the DVR functionality, as specifically defined by the Court, in the infringing DVRs. The Disablement Provision did provide an exception for 192,708 DVR units, the number of units for which TiVo received lost profit damages and against which TiVo did not pursue an injunction. *See* Dkt. No. 747 at 16.

EchoStar took issue with the exact language of the Disablement Provision. Specifically, EchoStar argued that the provision was overbroad and EchoStar contended that the "appropriate scope of the injunction, if one were to issue, would enjoin *only the provision of infringing DVR software* to those boxes upon activation." *Id.* (emphasis added). TiVo opposed EchoStar's proposal and warned that it would be "an invitation for EchoStar to engage in mischief . . . [and] would only result in EchoStar providing what it deemed as 'non-infringing' DVR software to its already-found-to-be-infringing DVRs, creating the opportunity for interminable disputes to determine what exactly is 'infringing DVR software.'" Dkt. No. 747 at 15. Such a dispute is presently before this Court.

While the parties were disputing the form that the injunction should take, EchoStar was already well on its way to implementing its design-around effort. Before this Court entered its Amended Final Judgment and Permanent Injunction on September 8, 2006, EchoStar's development efforts were so far advanced that it had obtained three written opinions of counsel. *Id.*; *see also* PX3028, PX3029, and PX3030. At that time, however, EchoStar had not informed this Court of any design-around efforts.

After this Court entered its permanent injunction, EchoStar asked the Federal Circuit to stay

the injunction during EchoStar's pending appeal. In that request, EchoStar represented that without

the stay it would be unable to provide DVR service and would risk losing a significant portion of its

existing or potential customers, which could cost the company $90 million per month. *See* Dkt. No.

920 at 20 (citing EchoStar's Reply Brief In Support of Its Emergency Motion to Stay the District

Court's Injunction, at 9). EchoStar never mentioned its design-around efforts to the Federal Circuit.

As a result of EchoStar's representations, however, the Federal Circuit granted EchoStar's request

for a stay of the injunction on October 3, 2006. Dkt. No. 812. Later that month, EchoStar began

downloading modified software into its customers' DVRs (Dkt. No. 839 at 8); this fact did not

become known to any court until May 2008, after the appellate process had concluded.

TiVo contests whether EchoStar actually downloaded the modified software into all of its

infringing products. Indeed, EchoStar has admitted that it "do[es] not have a way to check if every

unit actually received the new software." Dkt. No. 912 at 30:11-15. For the purposes of this

opinion, however, the Court will assume that the new software was downloaded to all infringing

DVRs.

B.

On appeal, EchoStar challenged this Court's claim construction on a number of grounds. *See*

TiVo, Inc. v. EchoStar Commc'ns Corp., 516 F.3d 1290, 1295-1307 (Fed. Cir.), *cert. denied*, 129 S.

Ct. 306 (2008). While most of those challenges concerned the Hardware Claims, EchoStar did

challenge this Court's interpretation of one term—"object"—within the Software Claims. *Id.* at

1306-07. Although the Federal Circuit reversed this Court's construction of certain terms within the

Hardware claims (*id.* at 1304-05), it affirmed this Court's construction of "object" in the Software

claims. *Id.* at 1306-07. EchoStar did not challenge the construction of any other term within the

Software Claims. *Id.* In addition, the Circuit found that there was sufficient evidence to support the

jury's finding of infringement regarding the Software Claims. *Id.*

At no point during the appellate process did EchoStar challenge the language or scope of this

Court's injunction. As a result, the Federal Circuit's stay dissolved once EchoStar's appeal become

final. *See id*. at 1312. Thus, when the mandate in this case issued on April 18, 2008, this Court's

injunction was reinstated without alteration.

Shortly after the mandate issued, this Court requested letter briefs from the parties on how

best to proceed in light of the Circuit's decision. Dkt. No. 822. Those letters were provided to the

Court in May 2008. Dkt. Nos. 825 and 826. The substance of those letters raised, for the first time,

the issue of EchoStar's design-around efforts and TiVo's belief that EchoStar was in contempt of

this Court's injunction. *Id.* At that time, it became apparent that TiVo believes there are at least two

theories under which EchoStar could be found in contempt. *See* Dkt. No. 825. First, TiVo believes

that EchoStar violated the "face of the injunction," particularly the Disablement Provision, by never

disabling DVR functionality in the infringing products. *Id.* Second, TiVo believes that EchoStar's

modifications are not a sufficient design-around—that is, the new software downloaded into

EchoStar's DVRs still infringes the '389 Patent. *Id.* EchoStar responds by arguing that its software

modifications no longer infringe the '389 Patent and that EchoStar has fully complied with both the

letter and the spirit of the injunction. Dkt. No. 825.

On May 30, 2008, this Court held a brief status conference related to these issues. Dkt. No.

830 (transcript). At that conference, this Court gave the parties a timeline under which TiVo could

bring a motion requesting that EchoStar be found in contempt. *Id.* The Court, however, denied

TiVo's request for limited discovery on EchoStar's design-around. Dkt. No. 829. This Court deemed it necessary to determine first whether EchoStar should be held in contempt for violating the Disablement Provision on its face. *Id.* Presented with the prospect of contempt proceedings in this Court, Echostar filed, less than an hour after the status conference had concluded, a declaratory judgment action in Delaware seeking a declaration that its modified software no longer infringes the '389 Patent.[2] *See* Dkt. No. 832 at 9.

This Court held a hearing on September 4, 2008 to determine whether EchoStar had facially violated the Disablement Provision. Dkt. No. 860 (transcript). After that hearing, however, this Court concluded that an additional hearing was necessary to determine whether EchoStar's modified DVRs are more than colorably different from the adjudged devices and whether the modified DVRs continue to infringe the '389 Patent.[3] Dkt. No. 864. The Court set the additional hearing for February 2009 and ordered the parties to engage in related discovery. *Id.* Believing this to be an improper course of action under Federal Circuit precedent, EchoStar immediately filed a petition for writ of mandamus with the Circuit and requested that this Court stay the additional proceedings

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[2] The Delaware Court recently denied TiVo's motion to dismiss the declaratory judgment action. *Dish Network Corp. v. TiVo, Inc.*, Civil Action No. 08-327-JJF (March 31, 2009). The Delaware court found that it had jurisdiction to decide the action under *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118 (2007) and that EchoStar was not engaged in improper forum shopping because TiVo is a Delaware corporation. The Delaware court, however, found that it was "unable to make a concrete determination as to whether the redesigned products present more than a 'colorable difference' over the infringing products." That determination, in the opinion of the Delaware court, is one best made by this Court given its experience with the case. Accordingly, the parties have been ordered by the Delaware Court to brief whether transfer of the declaratory judgment action to this Court would be appropriate.

[3] In its original formulation, the February hearing would have considered the continued infringement of both the Software Claims and the Hardware Claims. Dkt. No. 864. Although the jury's finding of literal infringement of the Hardware Claims had been overturned, the Federal Circuit did not render an opinion regarding EchoStar's infirngement of those claims under the doctrine of equivalents. *TiVo*, 516 F.3d at 1304-05. The Circuit remanded that issue for further proceedings should TiVo wish to pursue such. *Id.* TiVo, however, indicated that it did not wish to do so in these contempt proceedings, so the Hardware Claims have been dropped from consideration at this time.

pending the appellate court's decision. Dkt. No. 865. This Court denied EchoStar's request for stay;

due to the agreement of the parties, however, the Court limited the scope of the February hearing.

Dkt. No. 869 and 870. The Court limited the hearing to two discrete issues:

> (1) whether the software downloaded to EchoStar's DP-501, DP-508,
> DP-510, DP-522, DP-625, DP-721, DP-921, and DP-942 is no more
> than colorably different from the adjudged software; and (2) whether
> those receivers continue to infringe claims 31 and 61 of U.S. Patent
> No. 6,233,389, either literally or under the doctrine of equivalents.

Dkt. No. 870. With these changes in hand, EchoStar voluntarily moved to dismiss its mandamus

petition. Dkt. No. 873.

After the parties had conducted discovery, the Court held a hearing to address these issues

on February 17-19, 2009. Dkt. Nos. 910-914 (transcripts). Now that the parties have submitted

proposed findings of fact and conclusions of law for this Court's consideration (Dkt. Nos. 919 and

920), this Court addresses all issues raised by TiVo's motion to hold EchoStar in contempt.

II.

A contempt proceeding for violation of an injunction issued in a patent case, "while primarily

for the benefit of the patent owner, nevertheless, involves also the concept of an affront to the court

for failure to obey its order." *KSM Fastening Sys., Inc. v. H.A. Jones Co.*, 776 F.2d 1522, 1524 (Fed.

Cir. 1985). The process of contempt, however, is a "severe remedy, and should not be resorted to

where there is *fair ground of doubt* as to the wrongfulness of the defendant's conduct." *Id.* at 1525

(quoting *Cal. Artificial Stone Paving Co. v. Molitor*, 113 U.S. 609, 618 (1885)). Such restraint is

even more warranted when an enjoined party has taken steps to reform its conduct. *See id.*

("[W]here the patent owner seeks to enforce an injunction against an enjoined infringer by reason

of a manufacture which was not the subject of the original litigation, the courts have been uniform in exercising restraint . . . .").

In determining whether such restraint should be set aside and contempt found in a patent case, a court must address two separate questions. First, the court must decide whether contempt proceedings are the appropriate forum to determine whether the modified device infringes. *Id.* at 1530-32; *see also Additive Controls & Measurement Sys., Inc. v. Flowdata, Inc.*, 154 F.3d 1345, 1349 (Fed. Cir. 1998). In making this threshold determination, the court must compare the adjudged and modified products; if the products are "more than colorably different" such that "substantial open issues" of infringement exist, then contempt proceedings are inappropriate. *KSM*, 776 F.2d at 1528-32; *Additive Controls*, 154 F.3d at 1349. In the event that contempt proceedings are inappropriate, the patent owner must enforce its rights in a separate infringement action. *KSM*, 776 F.2d at 1530-32; *Additive Controls*, 154 F.3d at 1349.

If the court, however, finds that contempt proceedings are appropriate, then it must resolve a second question—whether the modified products continue to infringe the claims of the patent at issue. *KSM*, 776 F.2d at 1532; *Additive Controls*, 154 F.3d at 1349. In addressing this second question, "the court cannot avoid looking at the claims of the patent." *KSM*, 776 F.2d at 1528. The scope of those claims must be interpreted using the court's previous rulings and may not be broadened so as to catch the modified product. *Id.* at 1529. In some cases, however, it may "only be necessary to determine that the modified device has not been changed from the adjudged device in a way which affects an element of a claim." *Id.* at 1528-29. In such a case, the modified and adjudged devices may be treated as the same. *Id.* at 1529.

Within the general constraints of this two-step test, "the district court has broad discretion to determine how best to enforce its injunctive decrees." *Additive Controls*, 154 F.3d at 1349. To this end, a court may request the benefit of expert testimony to determine whether more than colorable differences and continued infringement exist. *See id.* ("Although [Federal Circuit] case law suggests that the need for expert testimony counsels against the use of contempt proceedings . . . the district court satisfied the procedural requirements of *KSM* by separately analyzing the questions whether contempt proceedings were appropriate and whether the redesigned device infringed the patent."); *Abbot Labs. v. Torpharm, Inc.*, 503 F.3d 1372, 1379 (Fed. Cir. 2007) (court did not abuse discretion in electing to try issues in contempt proceedings even though expert testimony was needed).[4]

A.

As mentioned above, the Federal Circuit has cautioned that contempt is a "severe remedy," which should not be resorted to lightly. *KSM*, 776 F.2d at 1525; *see also Arbek Mfg., Inc. v. Moazzam*, 55 F.3d 1567, 1569 (Fed. Cir. 1995). As a result, the Federal Circuit has stated that "the movant bears the heavy burden of proving violation by clear and convincing evidence." *KSM*, 776 F.2d at 1524 (citing 11 CHARLES ALAN WRIGHT & ARTHUR R. MILLER, FEDERAL PRACTICE AND PROCEDURE: CIVIL § 2960 at 591).

There is some question, however, as to whether a clear and convincing burden applies to both steps of the *KSM* test. EchoStar argues that it does (Dkt. No. 919 at 17-19), while TiVo argues that

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[4] Given the complex technology in this suit, this Court believes that expert testimony was helpful in resolving both steps of the *KSM* test, as both steps required this Court to analyze the source code in EchoStar's modified software. Although expert testimony may not be necessary with regard to more tangible technology, the Court found it helpful under the circumstances of this case.

the heightened burden applies only to step two, infringement by the modified device (Dkt. No. 920 at 27-29). After reviewing both *KSM* and its progeny, this Court agrees with TiVo.

The Federal Circuit's only mention of the "clear and convincing" burden in the *KSM* decision comes at the very beginning of the opinion. *KSM*, 776 F.2d at 1525. At that point in the opinion, Judge Nies is discussing contempt proceedings in their broadest sense. *See id.* ("Contempt proceedings are generally summary in nature and may be decided by the court . . . without the formalities of trial, although the movant bears the heavy burden of proving violation by clear and convincing evidence."). Once the opinion turns to its two-step test, however, the Circuit is silent regarding this heightened burden.

In later iterations, however, the Circuit has suggested that the clear and convincing burden only applies to the second step of the *KSM* test. Specifically, the Circuit has stated that to "show contempt, the patent owner must prove by clear and convincing evidence that 'the modified device falls within the admitted or adjudicated scope of the claims and is, therefore, an infringement." *Arbek*, 55 F.3d at 1569 (quoting *KSM*, 776 F.2d at 1530). This comparison of modified device to the claims and the connected conclusion that the modified device is or is not an infringement is what the second *KSM* step is designed to accomplish. *Compare Arbek*, 55 F.3d at 1569, *with KSM*, 776 F.2d at 1529-30, *and Additive Controls*, 154 F.3d at 1349 (discussing second step).

While a heightened burden clearly applies to step two of the *KSM* test, it is less clear what, if any, burden applies to the first step. Recall that under the *KSM* two-step test, the first and threshold question determines whether contempt proceedings are even appropriate given the facts of a case. *KSM*, 776 F.2d at 1530-32; *Additive Controls*, 154 F.3d at 1349. Although some district courts have applied a heightened burden to this threshold determination (*see e.g. Brine, Inc. v. STX,*

L.L.C., 367 F. Supp. 2d 61, 67 (D. Mass. 2005)), this Court does not believe that such is proper.

Instead, this Court finds that no burden attaches to the first *KSM* step as it is a purely "procedural

standard" entrusted to the discretion of the trial court. *See KSM*, 776 F.2d at 1532.

To clarify this Court's finding, it is helpful to quote *KSM* at length. After determining that

the "colorable differences" test should be used over a competing doctrine-of-equivalents-based test,

the Circuit concluded as follows:

> With respect to the issue of when contempt proceedings will be
> allowed, we conclude that the *procedural analysis* used by the
> majority of courts should be adopted as the general rule. A *standard
> based on procedural considerations* is more likely to meet due
> process requirements, considering the usual summary nature of
> contempt proceedings. Under *a procedural standard*, the district
> court is able to utilize principles of claim and issue preclusion (*res
> judicata*) to determine what issues were settled by the original suit
> and what issues would have to be tried. Such a determination may
> vary depending upon whether the original suit was settled by consent
> or fully litigated. If there are substantial open issues with respect to
> infringement to be tried, contempt proceedings are inappropriate.
> The presence of such disputed issues creates a fair ground for doubt
> that the decree has been violated. *So long as the district court
> exercises its discretion to proceed or not to proceed by way of
> contempt proceedings within these general constraints*, this court
> must defer to its judgment on this issue.
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> In sum, the initial question to be answered in ruling on a motion for
> contempt is whether contempt proceedings are appropriate. That
> question is *answered by the trial court's judging* whether substantial
> disputed issues must be litigated. The second question, whether an
> injunction against infringement has been violated, requires, at a
> minimum, a finding that the accused device is an infringement.

Id. (emphasis added, internal citations omitted).

Thus, the threshold question of whether contempt proceedings are appropriate is left entirely

to the discretion of the trial court. It is not for one party to *prove* that such proceedings are or are not

appropriate. If, and only if, the trial court determines that contempt proceedings are appropriate does

the movant bear a burden of proving the second question—infringement by the modified device—by

clear and convincing evidence.

B.

Answering the steps of the *KSM* test requires comparisons between the original product, the

modified product, and the claims. The first step determines whether there are more than merely

colorable differences between the products. *KSM*, 776 F.2d at 1530-32. As such, the first step

"turns on a comparison between the original infringing product and the redesigned device." *Additive*

Controls, 154 F.3d at 1549. The actual claims of the patent are not truly at issue in *KSM*'s first step,

though to be certain, any difference between the products must relate to some claim element. *See*

id. at 1350 (finding no more than colorable differences or substantial questions of infringement

because the differences related to "no elements of the pertinent patent claim").

If no more than colorable differences are found such that there are no substantial open issues

of infringement, then the second step of the *KSM* test compares the redesigned product to the patent

claims as previously adjudged. *KSM*, 776 F.2d at 1529-30. In making this comparison, the Court

is bound by its previous rulings on the scope of the claims and may not broaden the scope of the

claims to catch the modified device. *Id.* at 1530. This Court also finds, however, that the scope of

the patent claims is not, as EchoStar contends (Dkt. No. 919 at 19-45), limited by a jury's verdict

or a patentee's theories at trial. As the second step of the *KSM* analysis is nothing more than a

normal patent infringement analysis involving the modified product, the proper scope of the patent

claims is governed by the trial court's prior decisions on claim construction as upheld by the Federal

Circuit. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995), *aff'd*, 517

U.S. 370 (1996) ("An infringement analysis entails two steps. The first step is determining the

meaning and scope of the patent claims asserted to be infringed. The second step is comparing the

properly construed claims to the device accused of infringing." (citation omitted)).

Finally, the comparisons in either step of the *KSM* test do not, as EchoStar also contends (*see*

Dkt. No. 919 at 70-77), involve the infringer's intent or good faith. The general rule in civil

contempt proceedings is that "a party need not intend to violate an injunction to be found in

contempt." *Additive Controls*, 154 F.3d at 1353 (citing *McComb v. Jacksonville Paper Co.*, 336

U.S. 187, 191 (1947)). Moreover, "good faith is irrelevant as a defense to a civil contempt order."

Id. (quoting *Waffenschmidt v. MacKay*, 763 F.2d 711, 723-26 (5th Cir. 1985)).

As a result, this Court will focus its analysis on EchoStar's DVR software (both old and new)

and the Software Claims of TiVo's '389 Patent as construed by this Court and upheld by the Federal

Circuit.

III.

EchoStar concedes that its DVRs—both its 50X Products and Broadcom Products—continue

to satisfy most of the limitations in claims 31 and 61 as they did at trial. EchoStar believes, however,

that it has changed its 50X Products in one significant way and has changed its Broadcom Products

in two significant ways. Dkt. No. 920 at 10-15.

With respect to EchoStar's 50X Products, EchoStar contends that it has modified its DVR

software to implement a "indexless" system. Dkt. No. 839 at 4-5; Dkt. No. 919 at 53-55. EchoStar's

receivers at trial detected start codes in the incoming broadcast data and created an index of those

start codes for use in "trick play" operations. *Id.* After trial, EchoStar modified the software in its

50X Products to remove this start-code detection capability. Dkt. No. 910 at 164:22-165:3; DX5160.

At present, EchoStar's receivers perform trick play operations by transferring incoming data directly

to a hard drive and using average frame rate statistics collected during playback to estimate the location of stored video data. Dkt. No. 910 at 201:19-205:15. This method of playback requires greater processing power by the DVR hardware and EchoStar refers to the method as a "brute-force" search. *Id.*; PX3277, PX3278.

EchoStar contends that the move to an "indexless" or "brute-force" system means that its DVR software no longer satisfies the "parses" limitation of the '389 Patent's Software Claims. Dkt. No. 910 at 197:25-198:15; Dkt. No. 912 at 168:6-169.18; Dkt. No. 919 at 53-55, 92-119. Claim 31 of the '389 Patent claims a "process for the simultaneous storage and play back of multimedia data," which is further comprised of numerous steps.[5] '389 Patent at 14:52-53. The first such step requires "providing *a physical data source*, wherein said physical data source accepts broadcast data from an input device, *parses video and audio data from said broadcast data*, and temporarily stores said video and audio data[.]" *Id.* at 14:54-57 (emphasis added).

TiVo argues that this limitation is still satisfied by EchoStar's modified 50X Products because those products still analyze the broadcast signal. During claim construction, this Court construed the term "parses" in all claims to mean "analyzes," and therefore defined "parses video and audio data from said broadcast data" in claims 31 and 61 as "analyzes video and audio data from the broadcast data." Dkt. No. 185 at 22. On appeal, EchoStar did not challenge this Court's construction of the term "parses." *See TiVo*, 516 F.3d at 1295-1307. Since parsing is defined as analyzing rather than indexing, TiVo contends that EchoStar's modified receivers still satisfy the limitation even though they may no longer index the incoming signal. Dkt. No. 920 at 36-41; Dkt.

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[5] Claim 61 is similar to claim 31, except that it recites an apparatus rather than a process. '389 Patent at 18:3-30. For all intents and purposes, however, the parties have treated the two claims alike for these proceedings.

No. 910 at 66:9-67:19. Specifically, TiVo contends that the limitation is still met by PID filtering, which involves analyzing the incoming data stream and selecting the appropriate packets of data associated with a program or channel selected by the viewer. *Id.* In support of this position, TiVo cites to testimony at the 2006 trial in which experts, including EchoStar's own experts, testified that PID filtering satisfied the parsing limitation in the Software Claims. Dkt. No. 716 at 110:10-111:14; Dkt. No. 722 at 99:17-100:23.

In response, EchoStar argues that judicial estoppel bars TiVo from arguing that PID filtering satisfies the parsing limitation. Dkt. No. 919 at 21-38, 92-98. EchoStar contends that TiVo argued at trial that the parsing limitation was satisfied by start-code detection and indexing. *Id.* Because the jury agreed with this position, in that it returned a verdict favorable to TiVo, EchoStar believes that TiVo cannot now assert that parsing is met by something other than start-code detection and indexing. *Id.* In addition, EchoStar argues that PID filtering does not involve the analyzing of data; instead, it involves merely looking at the header of an incoming packet of data rather than its payload. Dkt. No. 912 at 171:14-172:2; Dkt. No. 919 at 99-103. Moreover, EchoStar contends that the '389 Patent's specification makes it clear that PID filtering is not parsing and that PID filtering, common to digital receivers without DVR capability, is not central to the invention embodied in the '389 Patent. Dkt. No. 919 at 29-33, 103-107

With respect to EchoStar's Broadcom Products, EchoStar contends that it made two changes. First, EchoStar implemented the same "indexless" system found in the 50X Products. Dkt. No. 919 at 53-55. Thus, EchoStar argues that its Broadcom Products also do not satisfy the "parses" limitation of the Software Claims. Dkt. No. 919 at 92-119. Second, EchoStar modified the

buffering structure used to record data to the Broadcom Product's hard drive. *See* Dkt. No. 919 at

38-42, 55-58.

At the time of trial, EchoStar's infringing Broadcom receivers utilized a pool of ten buffers

(collectively the "transport buffer") and an intermediate "record buffer." Dkt. No. 910 at 219:24-

223:20. When one of the ten buffers in the transport buffer was full, EchoStar's software would

copy the data from that single buffer into the record buffer. That data would then be written to the

hard drive from the record buffer. Additional data would not be transferred from any of the nine

remaining buffers to the record buffer until the record buffer's data had been transferred to the hard

drive. In other words, EchoStar's infringing product would never extract data from the transport

buffer until the record buffer was empty and available. This "blocking of access to the record buffer"

prevented data already in the record buffer from being overwritten. *Id.*; Dkt. No. 919 at 55-58.

EchoStar modified its software by removing the record buffer such that data is now

transferred directly from the transport buffer to the hard drive. Dkt. No. 910 at 110:7-112:8, 217:6-

218:19. Thus, EchoStar contends that the "blocking" function performed by the record buffer is no

longer present in its modified receivers. Because it removed this blocking function, EchoStar

believes that its DVR software no longer satisfies the "automatic flow control" limitation of the

Software Claims. Dkt. No. 910 at 226:1-231:14; Dkt. No. 912 at 222:15-235:19; Dkt. No. 919 at

119-139. The fifth step of claim 31's storage and playback process requires a "source object [that]

is *automatically flow controlled* by said transform object." '389 Patent at 15:1-2 (emphasis added).

TiVo argues that this limitation is still satisfied by EchoStar's modified Broadcom Products

because data transfer is still self-regulated in those products. During claim construction, this Court

construed the term "automatically flow controlled" in claims 31 and 61 to mean "self-regulated."

Dkt. No. 185 at 24. On appeal, EchoStar did not challenge this Court's construction of that term.

See TiVo, 516 F.3d at 1295-1307. TiVo argues that self-regulation is not limited to the "blocking"

of data flow. Dkt. No. 910 at 87:9-25; Dkt. No. 920 at 41-44, 53-56. As EchoStar's modified

products still operate using ten buffers in a "circular" formation, in which data is written into one

buffer at a time, TiVo argues that self-regulation is still present. Dkt. No. 910 at 86:9-117:19.

In response, EchoStar once again argues that judicial estoppel bars TiVo's arguments. Dkt.

No. 919 at 38-42, 119-25. Echostar contends that TiVo argued at trial that the record buffer provided

automatic flow control. *Id.* Because the jury agreed with this position, in that it returned a verdict

favorable to TiVo, EchoStar believes that TiVo cannot now argue that the redesigned Broadcom

receivers infringe notwithstanding the removal of the record buffer. *Id.* In addition, EchoStar argues

that a circular buffer cannot by itself provide for flow control because overflow is still a possibility

in such a system. Dkt. No. 910 at 221:15-222:9; Dkt. No. 912 at 227:24-228:5; Dkt. No. 919 at 130-

32. Finally, EchoStar contends that the redesigned circular buffer system lacks the required source

object and transform object. Dkt. No. 919 at 129-130.

To summarize, EchoStar contends that it made one change to its 50X Products—it removed

start-code detection and implemented a indexless system. Under this system, EchoStar believes that

its products no longer parse incoming data as required by the '389 Patent. EchoStar also

implemented this indexless system in its Broadcom Products. Moreover, EchoStar changed the

buffering structure in its Broadcom Products—it removed an intermediate buffer dubbed the "record

buffer." EchoStar believes that its Broadcom Products, in the absence of this record buffer, are no

longer automatically flow controlled as required by the '389 Patent.

Having now outlined the parties' basic positions with respect to the actual changes made to the infringing products, the Court will address EchoStar's judicial estoppel arguments before analyzing EchoStar's modifications under the two-step *KSM* test.

A.

The doctrine of judicial estoppel "prohibits a party from taking inconsistent positions in the same or related litigation." *Transclean Corp. v. Jiffy Lube Intl'l, Inc.*, 474 F.3d 1298, 1307 (Fed. Cir. 2007) (citation omitted). The doctrine is designed to protect the integrity of the judicial process and may be invoked by the court at its discretion. *New Hampshire v. Maine*, 532 U.S. 742, 749-50 (2001). In determining whether to invoke judicial estoppel courts typically look to several factors: (1) whether a party's later position is "clearly inconsistent" with its earlier position; (2) whether the party has succeeded in persuading the court to accept that party's earlier position, so that acceptance of the later position would create "the perception that either the first or second court was misled"; and (3) whether the party seeking to assert an inconsistent position would cause unfair prejudice if not estopped. *Id.*

Here, EchoStar argues that TiVo should be estopped from taking positions that EchoStar believes are inconsistent with positions taken at trial. Dkt. No. 919 at 19-45. Specifically, EchoStar argues that TiVo should be prevented from arguing that start-code detection is not necessary to claims 31 and 61 when it argued at trial that start-code detection satisfied the parsing limitation. In addition, TiVo should be prevented from arguing that those claims do not require the blocking of access to buffers to prevent the overflow of data when it argued at trial that automatic flow control was satisfied by such blocking.

This Court is unpersuaded by EchoStar's arguments. The Court finds that the positions taken by TiVo during these contempt proceedings and previously at trial are not "clearly inconsistent" with one another. There is nothing inconsistent with TiVo's position that EchoStar's past and present products fall within the scope of the '389 Patent as construed by this Court. If this action involved real property, past and present trespasses to TiVo's land may occur in dissimilar ways (i.e. entry from the west versus entry from the south). As long as the trespasser is crossing the metes and bounds of TiVo's property, TiVo may argue that both are trespasses. There is nothing inconsistent in those positions.

Here, the metes and bounds of TiVo's property are the patent claims as construed by this Court and affirmed by the Federal Circuit. TiVo's position that those boundaries have been crossed and continue to be crossed by EchoStar's products is not inconsistent. Thus, TiVo may argue that automatic flow control is satisfied by EchoStar's modified products even though the exact manner of infringement may be slightly different. Likewise, TiVo may argue that EchoStar's modified products continue to parse incoming data though the manner in which that is accomplished might have changed slightly. If this Court disallowed such arguments, then future infringers could easily side-step this and other courts' orders by making insignificant changes to their products. It would be tantamount to allowing an enjoined trespasser re-entry onto the land in dispute because he is now using a different road and compounding the injustice by silencing the property owner when he asked the court to enforce its decree.

This Court is also cognizant of the fact that TiVo made certain arguments at trial due to the fact that both Hardware and Software Claims were being asserted at that time. This Court finds that arguments made by TiVo regarding Hardware Claims should not limit the Software Claims. It is

undisputed that the Hardware Claims—no longer an issue in the present proceedings—contain limitations not found in the Software Claims. In particular, the Hardware Claims require a "Media Switch" that both parses *and* separates the incoming data stream. '389 Patent at 12:48-50 (claim 1). TiVo argued at trial that EchoStar's products contained such a Media Switch, which satisfied the parsing and separating requirement of the Hardware Claims through start-code detection and indexing. Moreover, TiVo argued that the Media Switch could also be the "physical data source" that "parses video and audio data" as required by the Software Claims.

The fact that TiVo argued that a Media Switch satisfied the "physical data source" requirement of the Software Claims, however, does not limit those claims. This Court has never held that the "physical data source" in the Software Claims is limited to a Media Switch. The Media Switch must parse *and* separate the incoming data, whereas the physical data source of the Software Claims need only parse. As a result, the physical data source of the Software Claims is less specific—in that it performs less functions—than the Media Switch of the Hardware Claims. Although the Media Switch could satisfy the Software Claims, there are potentially other, more generic physical data sources that could be sufficient.

By arguing that parsing in the Software Claims must be limited to start-code detection and/or indexing, this Court believes that EchoStar is trying to import the Media Switch or an equivalent into the Software Claims. This Court declines to do so. TiVo's positions at trial regarding a Media Switch must not be read onto the physical data source limitation of the Software Claims. Because the Software Claims require less of the physical data source than the Hardware Claims require of the Media Switch, it is possible for the physical data source to operate differently than the Media Switch and still meet the required limitation. Thus, whereas the Media Switch considered at trial carried

out start-code detection and indexing, it is possible for the physical data source to do less. In other words, the physical data source could carry out a much simpler task than start-code detection and indexing while still satisfying the parsing limitation of the Software Claims. TiVo may take this position without being inconsistent, without creating the perception that the Court was misled, and without the danger of unfair prejudice to EchoStar.

Finally, EchoStar's argument that this Court must accept "the scope of the claims as adjudicated by the jury" (Dkt. No. 910 at 33:5-6) is unpersuasive. EchoStar would have this Court introduce start-code detection, indexing, or blocking requirements into claims 31 and 61. EchoStar believes such is proper because the jury seemingly accepted TiVo's arguments at trial. Dkt No. 910 at 32:15-25. As a result, EchoStar argues that the adjudicated scope of the claims was determined by jury deliberations rather than this Court's claim construction. Dkt. No. 910 at 23:23-24:2 (modifications attempted to "design-around the scope of the claims as adjudicated by the jury"), 33:5-6 ("We have to be looking at contempt in the scope of the claims as adjudicated by the jury.").

EchoStar's position is erroneous in a number of ways. First, this Court instructed the jury as to the meaning of the claims. The jury was told that it had to apply this Court's interpretations of the claims. Dkt. No. 691 at 6. The Court must assume that the jury complied with its instruction and did not apply its own interpretation to the claims. Second, even if this Court accepted EchoStar's position, there is no way to determine the thought process of the jury. Some or even all members of the jury may have believed from the testimony that parsing was satisfied by PID filtering rather than start-code detection. Finally, EchoStar's position would allow experts to once again argue about the scope of claim terms. Indeed, at the February hearing EchoStar's expert, Dr. Rhyne, testified that he considered "what had been successful in the eyes of the jury" to determine his

opinion of claim scope. Dkt. No. 912 at 168:6-169:9. Such postulation by experts as to the scope

of patent claims has been repeatedly deemed improper by the Federal Circuit. *Markman*, 52 F.3d

at 970-721 ("the interpretation and construction of patent claims, which define the scope of the

patentee's rights under the patent, is a matter of law exclusively for the court"); *O2 Micro Int'l Ltd.*

v. Beyond Innovation Tech. Co., 521 F.3d 1351, 1362 (Fed. Cir. 2008).

In the end, this Court finds EchoStar's judicial estoppel argument to be a thinly veiled

attempt to reargue claim construction and limit the scope of the '389 Patent. Such is not proper.

This Court's constructions, which were affirmed by the Federal Circuit, are the settled law of the

case and must be applied without further broadening or limitation. *W.L. Gore & Assocs. v. Garlock,*

Inc., 842 F.2d 1275, 1279 (Fed. Cir. 1988). As such, "parses," in the context of the Software Claims,

means "analyzes" and is not limited to start-code detection or indexing. Likewise, "automatic flow

control" means "self-regulated" and is not limited to the blocking of access to buffers to prevent

overflow.

B.

The Court now turns to the first step of the *KSM* test. Recall that this first step—the

threshold question of whether contempt proceedings are appropriate—requires a comparison

between the infringing and modified products. This comparison must be made in light of the claims;

any difference will be deemed more than colorable if, and only if, it touches on some claim

limitation.   EchoStar argues that the changes made to its DVR software were significant. To that

end, EchoStar points to the amount of source code that it changed—5,000 of the 10,000 lines of

DVR code. Dkt. No. 912 at 26:8-14. TiVo argues that this change is insignificant when compared

to the millions of lines of code found in the EchoStar boxes, of which hundreds of thousands could be characterized as DVR code. Dkt. No. 920 at 32; Dkt. No. 708 at 44:1-22.

In addition, EchoStar contends that it invested 8,000 man-hours of work and over $700,000 in its redesign efforts. Dkt. No. 912 at 19:1-16. TiVo points out, however, that these amounts are minimal when compared to the more than $120 million that EchoStar spent on advertising during the same time period, including $50 million on a campaign utilizing the slogan "Better than TiVo." Dkt. No. 291 at 140-12-141-13; PX3101, PX3102. The price-tag of EchoStar's alleged design-around effort is also well below its CEO's previous estimates that such a design-around could cost tens of millions of dollars. Dkt. No. 793 at 43:8-44:2 (noting that litigation would have cost less than pursuing a viable design-around). Although the Court notes the amount of money spent by EchoStar in its design-around effort and the amount of source code that was modified, this evidence has no effect on the *KSM* analysis. In the end, such evidence is just as insignificant as the amount of money EchoStar spent on advertising.

EchoStar also points to opinion of counsel letters received during the development of its new software and relies on the testimony of the letters' authors. Dkt. No. 912 at 59:17-61:10, 67:2-13, 97:18-98:2; DX5073, DX5074, DX5076. The Court, however, chooses to give this evidence little weight. For the most part, the letters and testimony are evidence of EchoStar's alleged good faith, which is irrelevant in these proceedings. *See Additive Controls*, 154 F.3d at 1353. To the extent that the letters and testimony analyze EchoStar's modifications, their conclusions are cumulative of the testimony provided by EchoStar's expert, Dr. Rhyne. Furthermore, as the letters were drafted early in the modification process, their authors did not have benefit of the actual source code that implemented the modifications. Dkt. No. 912 at 61:11-19, 97:2-7.

Instead of considering evidence of the amount of money the EchoStar spent on advertising, the amount of man-hours spent designing the modifications, or the fact that EchoStar obtained opinions of counsel, the Court limits itself to a comparison between the infringing and modified products in light of the claim language and the Court's construction thereof.

The only limitations at issue are those noted above. EchoStar has presented no evidence that its modifications affect any limitation other than the "parses video and audio data from said broadcast data" and the "wherein said source object is automatically flow controlled by said transform object" limitations found in claims 31 and 61. On their face, EchoStar's modifications do not read onto the language of the claims as construed. EchoStar's own characterizations of its modifications ("start-code detection," "indexing," and "blocking") appear nowhere in the claim language as written or construed. Because these modifications do not relate to elements of the pertinent patent claims, this Court finds that any differences between the infringing and modified products are no more than colorable. *See Additive Controls*, 154 F.3d at 1350 (affirming district court's decision to hold contempt proceedings where modifications did not affect "elements of the pertinent patent claim"). Although this Court could end the threshold analysis here and find that contempt proceedings are appropriate, further analysis is prudent.

With regard to EchoStar's "indexless" or "brute-force" modification, which allegedly affects the parsing limitation, this Court notes that EchoStar's own experts at trial testified that PID filtering satisfied that limitation. Dkt. No. 716 at 110:10-20. Moreover, Echostar's own engineers refer to PID filtering as "parsing." Dkt. No. 912 at 41:19-42:1. Because both the adjudicated and modified products utilize PID filtering and thus may infringe the Software Claims in the same manner, this Court finds that the two products are not more than colorably different. This conclusion is bolstered

by EchoStar's own internal documents, which originally referred to its modified software by the moniker "Indexless DVR and *TS Parsing*." PX3277 (emphasis added). Only in a later drafts did EchoStar remove the word "parsing" from its product characterization and begin referring to its modified DVR as an "Indexless / Brute Force DVR." PX3278; Dkt. No. 910 at 81:3-82:3. Although EchoStar now refers to its product as operating with brute-force, its own internal correspondence suggests that "pure brute force won't work." PX3170; Dkt. No. 910 at 83:8-24.

With regard to Echostar's buffering change, which allegedly affects the automatic flow control limitation, this Court notes that when EchoStar's modified DVRs were tested, 99% of them never exhibited any data loss. Dkt. No. 910 at 117:20-118:14. In the small percent that did exhibit data loss, that loss was extremely small, in the range of 0.0002%. Dkt. No. 910 at 120:12-21. This amount data loss is minimal. Moreover, EchoStar admits that such data loss would occur in both the infringing products and the modified products; the only difference is the manner in which the software deals with that data loss. Dkt. No. 912 at 244:20-245:1. Thus, the modified software is not more than colorably different from the infringing software. In addition, there is substantial evidence suggesting that both the modified and original products operate using the same circular buffer structure—each of the ten buffers (or "descriptors") within the structure having a 140,000 byte capacity. Dkt. No. 910 at 91:14-98:16, 122:3-25. EchoStar's efforts to re-brand its modified buffer as a linear buffer are misplaced. *Compare* PX3298, *and* Dkt. No. 912 at 32:13-16, *with* PX3161, *and* Dkt. No. 910 at 89:3-17, *and* Dkt. No. 43:24-44:2. The actual change, the removal of the "record buffer," which in essence is a change from eleven buffers to ten, is not more than colorably different from the original product.

For these reasons, this Court finds that any differences between the infringing and modified products are no more than colorable and that no substantial open issues of infringement exist. As a result, contempt proceedings in this case are appropriate.[6]

C.

The Court now turns to second step of the *KSM* test. Recall that this step requires a comparison between the modified products and the patent claims as construed by the court to determine if those products continue to infringe. The movant must demonstrate continued infringement by clear and convincing evidence.

The Federal Circuit has allowed, however, that in some cases it may "only be necessary to determine that the modified device has not been changed from the adjudged device in a way which affects an element of a claim." *KSM*, 776 F.2d at 1528-29. In such a case, the modified and adjudged devices may be treated as the same. *Id.* at 1529. As discussed above, EchoStar's modifications do not affect express elements of the disputed claims. The disputed claims do not require "start-code detection," "indexing," and/or "blocking." The disputed claims also do not require a specific buffering structure, much less a specific number of buffers. Instead, the claims require that the incoming data be "parsed," which this Court has construed to mean "analyzed," and also require "automatic flow control," which this Court has construed to mean "self-regulated."

If this Court was to adopt EchoStar's view of the claim requirements, then it would effectively be re-construing the claims. The time for this has long passed. Even if this Court believed that its constructions were overly broad, it is bound by its earlier constructions as affirmed

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[6] This Court finds that no burden of proof is attached to step one of the *KSM* test (as it is ultimately a "procedural" determination). If, however, EchoStar is correct and TiVo must prove no colorable differences by clear and convincing evidence, then this Court finds that TiVo has also met this heightened burden.

by the Federal Circuit. *See Del Mar Avionics, Inc. v. Quinton Instrument Co.*, 836 F.2d 1320, 1324 (Fed. Cir. 1987) ("The prior determination of certain issues, including the issues of claim construction . . ., bars judicial redetermination of those issues . . . . [T]he relitigation of issues previously decided is barred on principles of finality and repose."). This Court's constructions as affirmed are the law of the case. *See W.L. Gore & Assocs.*, 824 F.2d at 1279. If EchoStar wished to argue for a more limited interpretation of "parsing" or "automatic flow control," then it should have done so on appeal. Because EchoStar did not, it has waived any argument that this Court's constructions are incorrect.

Because Echostar's modifications do not affect elements of the disputed claims as construed, this Court finds that the infringing and modified devices may be treated as the same. As such, this Court finds that EchoStar's modified software continues to infringe the Software Claims of the '389 Patent.

Furthermore, even if this Court were to assume that EchoStar's modifications affected elements of the Software Claims, this Court still finds that the modifications continue to infringe the '389 Patent and that TiVo has proven such by clear and convincing evidence.

With regard to EchoStar's "indexless" or "brute-force" modification, this Court finds by clear and convincing evidence that the modified products—both the 50X and Broadcom Products—still "parse[] video and audio data from said broadcast data." It is undisputed that EchoStar's products filter incoming data using a PID filter. Internally, EchoStar engineers refer to PID filtering as parsing. Dkt. No. 912 at 41:19-42:1. Furthermore, an EchoStar technical document on the modification uses the term "TS Parsing" to describe the design-around. PX3277. Numerous experts, some of them EchoStar's own, have testified that PID filtering is a form of parsing. Dkt. No. 716

at 110:10-20; Dkt. No. 719 at 38:2-8; Dkt. No. 910 at 66:9-67:19. A PID filter can be classified as

a "physical data source" as required by the claims. A PID filter is transport demultiplexor, which

is a type of physical data source envisioned by the '389 Patent. Dkt. No. 900 at 103; '389 Patent at

6:30-32. Finally, the claims do not require that parsing be completed on the payloads of the

incoming data rather than their headers. EchoStar's arguments to this effect are thus inapposite.

Therefore, this Court finds that PID filtering satisfies the parsing limitation of the Software Claims,

the PID filter is a physical data source that parses incoming data.

    With regard to Echostar's buffering change, this Court finds by clear and convincing

evidence that the Broadcom Products still operate using a "source object [that] is automatically flow

controlled by said transform object." The patent does not require the blocking of data flow, nor does

it require that there never be data loss within the DVR. The patent only requires that data flow be

self-regulated. Dkt. No. 185 at 24 (citing '389 Patent at 8:48-49). As explained above, EchoStar's

system utilizes ten buffers in a circular arrangement. EchoStar's software manages the flow of data

into and out of those buffers. Dkt. No. 910 at 91:14-98:16. Read and write "pointers" and

"descriptors" manage the process by which data is deposited into and extracted from the circular

buffer. *Id.* Furthermore, there is evidence that certain data structures, including a "no sync"

structure, provide communication between the read and write processes within the modified

receivers. Dkt. No. 910 at 128:18-130:11, 225:10-25; Dkt. No. 914 at 46:5-14. In addition,

EchoStar's software contains a timed "semaphore," which paces the extraction process. Dkt. No.

912 at 5:1-4. Also, in the event that the read process falls behind in its extraction of data from the

circular buffer, EchoStar's modified software catches up by extracting data from multiple buffers

at once and writing that data to the hard drive. Dkt. No. 912 at 184:11-195:6. Thus, this Court finds

that EchoStar's software retains a collection of data and operations—a transform object—that is self-regulating with respect to the source object. Lastly, in the rare instance of overflow (0.0002% of the time in 1% of receivers), EchoStar's software handles the situation by flushing all ten buffers and correcting the error condition. Dkt. No. 910 at 114:23-115:8. Based on all this evidence, the Court finds that the flow of data in EchoStar's Broadcom products is self-regulated. Therefore, this Court finds that EchoStar's buffering system satisfies the automatic flow control limitation of the Software Claims.

Finally, EchoStar's modifications do not affect any other limitations in the Software Claims. Dkt. No. 910 at 57:5-58:5; Dkt. No. 912 at 158:10-22. Thus, all remaining limitations are met by the modified products in the exact same manner as they were met in the infringing products. Because all limitations in claims 31 and 61 of the '389 Patent are practiced by EchoStar's modified 50X and Broadcom Products, those products continue to infringe TiVo's patent. TiVo has proven such by clear and convincing evidence.

Accordingly, this Court finds EchoStar in contempt of this Court's permanent injunction. Specifically, EchoStar is in contempt of the Infringement Provision of this Court's order, which enjoined EchoStar from "making, using, offering to sell, selling or importing in the United States, the Infringing Products, either alone or in combination with any other product and all other products that are only colorably different therefrom in the context of the Infringed Claims."

IV.

Even if EchoStar had achieved a non-infringing design-around, this Court would still find that EchoStar is in contempt of this Court's permanent injunction. EchoStar never complied with the Disablement Provision of this Court's order, which ordered EchoStar to "disable the DVR

functionality (i.e. disable all storage to and playback from a hard disk drive of television data) in all but 192,708 units of the Infringing Products that have been placed with an end user or subscriber."

Whether EchoStar did or did not comply with the Disablement Provision of this Court's order does not raise any issue unique to patent law. As a result, the regional circuit law of the Fifth Circuit applies to this issue. *See Eagle Comtronics, Inc. v. Arrow Commc'n Labs., Inc.*, 305 F.3d 1303, 1313 (Fed. Cir. 2002) (applying regional circuit law to civil contempt proceedings). In civil contempt proceedings, "the party seeking an order of contempt need only establish (1) that a court order was in effect, and (2) that the order required certain conduct by the respondent, and (3) that the respondent failed to comply with the court's order." *FDIC v. LeGrand*, 43 F.3d 163, 170 (5th Cir. 1995) (citation omitted). The movant must prove such by clear and convincing evidence. *Id.*; *Martin v. Trinity Indus., Inc.*, 959 F.2d 45, 47 (5th Cir. 1992).

This Court's permanent injunction, which was issued on September 8, 2006, was stayed by the Federal Circuit pending EchoStar's appeal. On appeal, EchoStar did not challenge the language or validity of this Court's injunction. Thus, the Federal Circuit upheld the injunction and dissolved its stay once EchoStar's appeal became final, which occurred on April 18, 2008. *TiVo*, 516 F.3d at 1312.

This Court, aware of the Federal Circuit's general disdain for broad or vague prohibitions of future infringement, drafted its permanent injunction in narrow terms that captured particular infringing devices and required EchoStar to take certain action regarding those devices. *See KSM*, 776 F.2d at 1526 ("those against whom an injunction is issued should receive fair and precisely drawn notice of what the injunction actually prohibits"). In particular, EchoStar was ordered to disable DVR functionality in the infringing products that had been placed with an end-user. For the

sake of clarity, this Court provided EchoStar with a definition of DVR functionality: "storage to and playback from a hard disk drive of television data."

Although EchoStar did not challenge the scope of this Court's order on appeal, EchoStar now argues that the injunction only covers "Infringing Products," which in terms of the Software Claims would be infringing software. *See* Dkt. No. 839 at 10-12. EchoStar argues that it complied with this Court's order when it downloaded new software into the infringing receivers, thus disabling their infringing DVR functionality. This Court's order, however, was not limited to infringing software; rather the infringing receivers in their entirety were subject to the order. Indeed, although claims 31 and 61 have been referred to as the "Software Claims" they actually cover a process and apparatus that may also contain hardware elements. *See TiVo*, 516 F.3d at 1309 ("[T]he hardware/software distinction made by EchoStar is unhelpful. What matters is whether the operations performed by the interaction of software and hardware in the accused DVRs, taken as a whole, are covered by the claim term."). By not disabling DVR functionality in adjudged receivers that had been placed with end-users, EchoStar failed to comply with the plain language of this Court's order.

If EchoStar believed that this Court's order was overly broad or that it improperly covered non-infringing practices, then EchoStar should have requested that this Court modify its order or should have challenged the scope of this Court's order on appeal. Because EchoStar failed to do either, it has waived any argument that this Court's order is overbroad. *See W. Water Mgmt., Inc. v. Brown*, 40 F.3d 105, 108 (5th Cir. 1994) ("[C]ollateral attack on an injunction during contempt proceedings is prohibited if earlier review of the injunction was available."). Instead of requesting review of this Court's order by itself or another court, EchoStar merely ignored this Court's order because it subjectively believed it to be improper or overly broad. This cannot be allowed. *See GTE*

Sylvania, Inc. v. Consumers Union, 445 U.S. 375, 386-87 (1980) ("[P]ersons subject to an injunctive order issued by a court with jurisdiction are expected to obey that decree until it is modified or reversed, even if they have proper grounds to object to the order."); *Carborundum Co. v. Molten Metal Equip. Innovations, Inc.*, 72 F.3d 872, 883 (Fed. Cir. 1995). A party may not unilaterally decide whether it will or will not comply with a court order.

Accordingly, this Court finds by clear and convincing evidence that a court order, which required certain conduct by EchoStar, was in effect as of April 18, 2008, and that EchoStar failed to comply with that order. Therefore, this Court finds EchoStar in contempt of this Court's permanent injunction. Specifically, EchoStar is in contempt of the Disablement Provision, which ordered EchoStar to "disable the DVR functionality (i.e. disable all storage to and playback from a hard disk drive of television data) in all but 192,708 units of the Infringing Products that have been placed with an end user or subscriber."

V.

For the reasons set forth above, this Court finds EchoStar in contempt of its permanent injunction. EchoStar's modified software is not more than colorably different from the products adjudged to infringe; furthermore, EchoStar's products continue to infringe TiVo's patent. Finally, EchoStar failed to comply this Court's order that it disable the DVR functionality in the infringing products.

The harm caused to TiVo by EchoStar's contempt is substantial. EchoStar has gained millions of customers since this Court's injunction issued, customers that are now potentially unreachable by TiVo. *See* Dkt. No. 773 at 10. As this Court has noted in the past, "loss of market share and of customer base as a result of infringement cause severe injury," and "every day of

Defendant's infringement affects Plaintiff's business." *Id.* at 10-11. Although EchoStar requests that this Court stay its injunction further, this Court declines to do so. EchoStar has escaped this Court's injunction for over two years and further delay will be manifestly unjust to TiVo and cause TiVo substantial harm.

Although EchoStar is required to bring itself into compliance with this Court's permanent injunction, the Court will defer any ruling on the issue of monetary sanctions at this time. Additionally, EchoStar is required to inform this Court of any future attempts to design-around the '389 Patent and obtain Court approval before any such design-around is implemented.

An Order and an Amended Final Judgment and Permanent Injunction will soon be entered in accordance with this opinion.

SIGNED this 2nd day of June, 2009.

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DAVID FOLSOM
UNITED STATES DISTRICT JUDGE