
No. 2009-1374

IN THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

TiVo Inc.,

Plaintiff-Appellee,

v.

ECHOSTAR CORPORATION, ECHOSTAR DBS CORPORATION,
ECHOSTAR TECHNOLOGIES CORPORATION, ECHOSPHERE LIMITED LIABILITY
COMPANY, ECHOSTAR SATELLITE LLC, and DISH NETWORK CORPORATION,

Defendants-Appellants.

Appeal from the United States District Court
for the Eastern District of Texas in case no. 2:04-CV-01,
Judge David Folsom.

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CERTIFICATE OF INTEREST

Counsel for Defendants-Appellants certify the following:

1. The full name of every party or amicus represented by us is:

EchoStar Corporation
EchoStar DBS Corporation
EchoStar Technologies Corporation
Echosphere Limited Liability Company
EchoStar Satellite L.L.C., and
Dish Network Corporation

2. The foregoing parties are the real parties in interest.
3. The following are parent corporations and publicly held companies that own 10% or more of the stock of any party represented by us:

EchoStar Communications Corporation k/n/a Dish Network Corporation, a publicly traded company is the parent corporation that holds, indirectly and through a series of wholly owned entities, 100% of the stock of Defendants-Appellants EchoStar DBS Corporation k/n/a Dish DBS Corporation, Echosphere L.L.C., and EchoStar Satellite L.L.C. k/n/a Dish Network L.L.C.

EchoStar Corporation, a publicly traded company is the parent corporation that holds, indirectly and through a series of wholly owned entities, 100% of the stock of Defendant-Appellant EchoStar Technologies Corporation k/n/a EchoStar Technologies L.L.C.

4. The names of all law firms and the partners or associates that appeared for the parties now represented by us in the District Court or are expected to appear in this Court are:

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INTRODUCTION¹

“Design-around” is not a four-letter word. The law affirmatively encourages design-arounds, especially as EchoStar did it: Responsibly. Thoroughly. Painstakingly. And with a spark of ingenuity that advances the art for the public good. TiVo does not dispute that EchoStar *eliminated* the features that TiVo previously identified as infringing—or that, to compensate, EchoStar solved two technological problems that TiVo swore were unsolvable. Nor does TiVo dispute that a top patent firm guided, and blessed, EchoStar’s redesign in advance, concluding that it would bypass five claim terms; or that 15 EchoStar engineers expended thousands of man-hours devising and implementing the redesign; or that TiVo’s contempt argument invoked different infringement theories and matched different features to claim elements. If, as TiVo repeatedly asserts, this redesign was “trivial,” then a valid design-around would be a rarity.

But all this is immaterial anyway, TiVo insists. Contempt was warranted even if EchoStar successfully achieved a noninfringing design, TiVo maintains, because it was impermissible to redesign the millions of DVRs in subscribers’ homes when the 2006 injunction issued. Never mind that TiVo did not seek, and the District Court gave no hint that it was granting, such unprecedented relief. It

¹ EchoStar’s opening brief is cited as “OB” and TiVo’s response brief is cited as “Resp.”

was especially inconceivable that the District Court was awarding this relief on the rationale that TiVo now hypothesizes: to punish EchoStar—again—for depriving TiVo of lost profits it had already recovered in damages. That is the very definition of an unlawful injunction.

The contempt order should be reversed.

ARGUMENT

I. THE DISTRICT COURT ERRED IN HOLDING ECHOSTAR IN CONTEMPT OF THE DISABLEMENT PROVISION.

TiVo speaks volumes by leading with its tail. This is a patent case. TiVo seeks to uphold an infringement finding summarily delivered through the extraordinary vehicle of a contempt proceeding. Yet TiVo leads with the District Court’s coda—that EchoStar would be in contempt “[e]ven if EchoStar had achieved a noninfringing design-around.” Ad26.

TiVo cites not one case in which any court has ever issued a patent injunction against noninfringing products (except for those reversed on appeal). Yet it protests that its reading of the injunction is not ““extraordinary,”” ““startling,”” or ““unprecedented,”” because it “prohibits only continued provision of DVR functions through the exact units previously found to infringe” in 2006, as opposed to newly minted boxes. Resp. 21 (quoting OB 22, 60). Those “exact units” numbered in the *millions*. If EchoStar’s design-around succeeded, every one of them became noninfringing—and categorically beyond the reach of the patent

laws. To invoke the patent laws to enjoin these noninfringing products is not only startling and extraordinary, but unlawful.

It is also bizarre, in ways that TiVo only accentuates by emphasizing the injunction's boundaries. According to TiVo, the "unambiguous" import of the Disablement Provision is—and always was—to cast an indelible curse on a hunk of hardware. Resp. 24. Once a specific receiver chassis was tainted by an infringing past, it may never again be used to record, even if everyone stipulates that its recording function is now noninfringing. Resp. 21. Here is how it works:

Scenario 1: EchoStar converts an infringing receiver that is in a subscriber's home into a noninfringing receiver by erasing the infringing software remotely by satellite and then installing noninfringing software.

Scenario 2: EchoStar removes the infringing receiver from the subscriber's home, ships it to the factory, wipes out the infringing software, installs noninfringing software, and delivers the noninfringing receiver back to the subscriber (or maybe to some *other* subscriber).

Scenario 3: EchoStar visits a subscriber's home and swaps his infringing receiver for an identical new one loaded with noninfringing software.

Each scenario leaves the customer with the same noninfringing device consisting of the same software residing on the same hardware. TiVo's position, however, is that Scenarios 1 and 2 are enjoined, but Scenario 3 is not.

Before we explain why this reading cannot be reconciled with the plain language or context of the order—or with the law—we pause to note that TiVo's defense of the District Court's reading rests on the flawed premise that "[t]his

Court reviews” the “ultimate finding of contempt” on this issue “for abuse of discretion.” Resp. 19 (citing *Abbott Labs. v. TorPharm, Inc.*, 503 F.3d 1372, 1380 (Fed. Cir. 2007)); Resp. 20, 22. The case TiVo cites holds the opposite: “Interpretation of the terms of an injunction is a question of law we review de novo.” *Abbott*, 503 F.3d at 1382 (citing *Laitram Corp. v. NEC Corp.*, 115 F.3d 947, 951 (Fed. Cir. 1997)).

A. EchoStar Could Never Have Been Expected to Anticipate the District Court’s Reading, Especially Based on TiVo’s Unlawful, Appeal-Inspired Rationale.

TiVo tries to convey the misimpression that the relief it has now been granted was the topic of heated courtroom discussion. The debate TiVo references proves the opposite. In its request for injunctive relief, TiVo distinguished between two categories of already-manufactured receivers: “Existing Placements,” which were units that were already in subscribers’ homes, and “New Placements,” which included units sitting on the shelves of retailers and distributors. *Compare* A6062 *with* A6063–65.

TiVo was not advocating to disrupt the lives of millions of customers with a recall of products already placed in homes—i.e., “Existing Placements.” A6063–65. As to them, TiVo was satisfied with the Disablement Provision that now appears in the injunction. *Compare* A7550 *with* A162. In contrast, TiVo did seek an order “to recall ... from [EchoStar’s] *distributors and retailers* the Infringing

Products *that have not yet entered the stream of commerce or are still in the possession of Defendants' distributors and retailers.*" A7550 (emphasis added).

The heated debate TiVo features was about this latter proposal. While talking about *those* receivers, EchoStar made the statement TiVo highlights (Resp. 24): that those boxes could be used to "perform DVR functions in a noninfringing manner," so that "the appropriate scope of the injunction ... would enjoin only the provision of infringing DVR software to *those boxes upon activation.*" A7918 (emphasis added). Even in this isolated sentence, the italicized language makes clear that the discussion was not about receivers already in subscribers' homes (which no longer need "activation"), but TiVo's brief to this Court omits that language.

In the end, the District Court agreed with EchoStar. It declined TiVo's request to recall the boxes from retailers and distributors, and fashioned instead the second clause of the Disablement Provision (the Do-Not-Enable Directive). There was not a word of discussion of a "curse-on-the-hardware" approach to any receivers, much less of applying the concept to the Existing Placements.

TiVo now offers an appeal-inspired argument that it *could have* made about Existing Placements, but never did—and for good reason: It would have been unthinkable. TiVo's premise: "[U]nder appropriate circumstances the district court could have taken the more drastic step of ordering the recall or destruction of

the Infringing Products.” Resp. 29. TiVo’s conclusion: The District Court may therefore take the lesser step of permanently eliminating these receivers’ DVR functions to compensate TiVo for a “loss of market share,” and punish EchoStar’s *past* “wrongful placement of infringing products with *customers who ... might instead have come to TiVo.*” Resp. 27–28 (emphasis added).

Both the premise and the conclusion of this recall-lite rationale are flawed. A recall order, like any injunction, is permissible only to “prevent the violation of any right secured by patent.” 35 U.S.C. § 283. This fundamental principle means that a full-on recall would have been improper unless “the whole machine is an infringement of the patent.” *Birdsell v. Shaliol*, 112 U.S. 485, 487 (1884). In this case it obviously was not, which is why the District Court declined to recall the receivers sitting on retail shelves. Ordering a recall in this context would be like ordering Ford to recall all its trucks just because the tires infringe. And imposing the supposedly lesser remedy posited here would be like forcing Ford to send out mechanics to remove all the axles so that the trucks could never again ride on *noninfringing* tires.

More importantly, the statutory limitation on a court’s injunctive power in patent cases also means that the District Court had no authority to use an injunction either to “fashion a meaningful remedy ... for past infringement” or to prevent EchoStar “from unfairly capitalizing upon its infringement.” *Johns Hopkins Univ.*

v. CellPro, Inc., 152 F.3d 1342, 1365, 1367 (Fed. Cir. 1998). That edict is especially apt here, because TiVo has *already* collected damages for the same injury. A2102–05, A5371. In seeking lost profits damages, TiVo had successfully argued that absent EchoStar’s placement of the millions of adjudicated receivers, 192,708 of EchoStar’s customers might instead have bought TiVo boxes—and stayed with TiVo for the life of their DVRs. A1966–69, A1992–94, A1997–99. TiVo was not entitled to a double penalty.

In short, until this contempt proceeding, nothing would have alerted a reasonable party in EchoStar’s shoes that the court would ever apply the Disablement Provision to redesigned, noninfringing products.

B. The Disablement Provision’s Plain Language Does Not Clearly Prohibit Noninfringing Design-Arounds.

Given this context, it would take an especially clear pronouncement to convey that the Disablement Provision nevertheless was directed at banning noninfringing receivers already placed, but not noninfringing receivers that were newly minted. TiVo has not demonstrated that its reading is plausible, much less that it was clear.

TiVo starts with a provision that requires the disablement of “*the* DVR functionality ... in ... the *Infringing Products*,” A162 (emphasis added), and it finds in those words a command calling for “*permanent* disablement of *all* DVR functionality in specified EchoStar units.” Resp. 27 (emphasis added). Thus,

despite its admonition that one “cannot add words to create a limitation that is not in the text,” Resp. 23, TiVo’s reading: (1) insinuates the word “permanent” into the text; (2) alters “*the* DVR functionality” into “*all* DVR functionality”; and (3) interprets the phrase “Infringing Products” to mean something other than “products that infringe.”

TiVo does not even try to explain why the first two alterations are appropriate, and it offers only the most wooden rationale for the third: “‘Infringing Products’ is a defined term in the injunction, referring to the eight product models adjudicated at trial.” Resp. 22. The definition to which TiVo refers is incorporated into a lengthy preamble, which states:

[T]he Court ... enters judgment for Plaintiff against Defendants *for infringement* of U.S. Patent No. 6,233,389 (“389 patent”), claims ... 31 and 61 (“the Infringed Claims”) *by Defendants’ following DVR receivers* (collectively the “Infringing Products”): DP-501; DP-508; DP-510; DP-522; DP-625; DP-721; DP-921; and the DP-942.

A161 (emphasis added). The most natural reading of this sentence is that “Infringing Products” means “products that infringe”: A receiver is an Infringing Product if (i) it was subject to the “judgment ... for infringement of ... [specified] claims”; and (ii) its model number was one of the eight listed. And EchoStar complied with the command to disable the Infringing Products, as that phrase is naturally understood.

TiVo, however, insists that this phrase unambiguously requires the reader to substitute the list of eight models every time the phrase “Infringing Products” appears. Resp. 21–22. But that does not work. For example, the Infringement Provision states: “Each Defendant ... [is] hereby ... enjoined ... from ... selling ... the Infringing Products.” A167. If TiVo were correct, that means “Each Defendant ... [is] hereby ... enjoined ... from ... selling [DP-501; DP-508; DP-510; DP-522; DP-625; DP-721; DP-921; and the DP-942].” So EchoStar would be in contempt simply for making a *brand new* DVR, labeling it “DP-501,” and loading it with noninfringing software. But TiVo emphasizes that the injunction does not sweep so broadly—so “Infringing Products” cannot mean what TiVo now says. Resp. 21.

TiVo’s only other argument is that EchoStar’s reading would make the Disablement Provision redundant of the Infringement Provision. Resp. 25. Not true. The Infringement Provision does not, by itself, specify the steps needed to stop infringement, particularly as to DVRs that are at homes and on retail shelves. Without the Disablement Provision, the parties would undoubtedly have wound up in court over whether disablement was required (and what must be disabled) and whether it was enough.

C. EchoStar Was Not Obligated to Appeal Every Potential Interpretation and Cannot Be Bound By an Illegally Broad Injunction.

TiVo argues that “[h]aving raised no challenge to the injunction on direct appeal, EchoStar cannot attack it now.” Resp. 30. That argument is premised on TiVo’s view that the injunction clearly conveyed what TiVo now claims it means, for the general rule TiVo invokes applies only “so long as” the party was “given a fair chance” to raise the challenge on direct appeal. *Travelers Indem. Co. v. Bailey*, 129 S. Ct. 2195, 2206 (2009); *see also Abbott*, 503 F.3d at 1382–83 (addressing legality of injunction despite earlier appeal). TiVo does not dispute that a defendant has no obligation to anticipate and appeal an unprecedented and illegal interpretation that was neither discussed by the parties nor mentioned by the court.

In any event, the legal rule that TiVo references would not apply here, even if the injunction had more clearly applied to noninfringing products. The correct rule is found in *International Rectifier*, which TiVo ignores: “If a trial court is faced with an overly broad injunction during a contempt proceeding, the court should interpret it according to the rule of law ... from *KSM*”—under which “the only acts the injunction may prohibit are infringement of the patent by the adjudicated devices and infringement by devices not more than colorably different

from the adjudicated devices.” *Int’l Rectifier Corp. v. IXYS Corp.*, 383 F.3d 1312, 1316 (Fed. Cir. 2004) (citation omitted) (quoted at OB 63–64).

II. THE DISTRICT COURT’S FINDING OF CONTEMPT SHOULD BE REVERSED BECAUSE ECHOSTAR’S REDESIGNED RECEIVERS WERE FAR MORE THAN COLORABLY DIFFERENT FROM ITS ORIGINAL DEVICES.

TiVo has little to say against the body of evidence EchoStar amasses about colorable differences or the conclusions EchoStar draws from that evidence. TiVo agrees that a contempt proceeding is impermissible under the colorable differences test if (1) EchoStar’s new receivers are not “essentially the same” as the ones that were adjudicated to infringe; or, relatedly, (2) TiVo’s new infringement allegations raise “substantial open questions of infringement.” OB 26–27, 30–32 (quoting *Acumed LLC v. Stryker Corp.*, 525 F.3d 1319, 1324 (Fed. Cir. 2008), and *Abbott*, 503 F.3d at 1380). EchoStar enumerated nine distinct arguments—all supported by largely undisputed evidence—as to why the redesigned DVRs handily clear both thresholds. OB 28–29. TiVo scarcely responds to any of them, reserving almost all its powder for three sweeping—and incorrect—legal arguments as to why the evidence is irrelevant.

A. TiVo Ignores Virtually All the Evidence of How EchoStar Changed Its DVRs.

Accused features eliminated, new features accused, new theories advanced, validity position contradicted. While repeatedly intoning its mantra

that the changes EchoStar made were “trivial,” Resp. 2, 10, 16, 33, 49, 51 n.17, TiVo never denies (at least not expressly) any of the following critical points: (1) EchoStar wrenched out of the devices the very features that TiVo had previously matched to claim elements (including what TiVo considered “the genius ... of this invention,” A6216); (2) to compensate, TiVo had to assert that *new* features of EchoStar’s products matched up to claim limitations; and (3) the new infringement accusations depend on theories never addressed or adjudicated in the earlier action. OB 30–32.

The most TiVo does on these points is to obfuscate in ways that hide the tacit concessions. For example, to convey the impression that its current theory is the theory it pressed the first time around, TiVo asserts that “TiVo ... did identify PID filtering at trial as meeting the ‘parsing’ limitation.” Resp. 37. That is demonstrably false—as shown more fully below. *See infra* at 19–22.

The point is equally stark with respect to the claim limitations relating to data flow and buffering. TiVo does not deny that it has a completely new theory. At trial, TiVo described automatic flow control as a faucet-pitcher-bucket array, with a system that monitors the pitcher and sends a signal to the valve to shut off the faucet when the pitcher gets full. OB 11. TiVo does not deny that EchoStar’s redesign eliminated the pitcher and removed the valve, in favor of an entirely different flow. *See infra* 23–25. TiVo confirms its shift in position by matching

different features to each of the claim terms, as we describe below. *See infra* at 25–31. The least that can be said about this shift is that the new mapping raises “substantial open issues of infringement” never before adjudicated.

Dueling experts. TiVo does not dispute that the District Court was unable to assess the differences without resolving conflicting expert testimony. OB 31–32. TiVo responds that a need for expert testimony does not *always* mean that a contempt proceeding is inappropriate. Resp. 42. True, but it does here. It was impossible for the court to determine what the new devices did, and how the new theory of infringement mapped the claim terms onto the devices, without resolving disputes between experts. That is the epitome of an “open issue” of infringement, and exactly the sort of dispute that cannot be resolved in a contempt proceeding. *See KSM Fastening Sys., Inc., v. H.A. Jones Co.*, 776 F.2d 1522, 1532 (Fed. Cir. 1985).

Innovation, diminished performance. TiVo has no response to EchoStar’s point that the redesign achieved what TiVo’s experts and inventor thought was impossible, or that this must mean the redesign was different from the original.

TiVo dismisses the diminished performance as irrelevant because it “says nothing of the substance of EchoStar’s changes.” Resp. 42. But TiVo ignores the uncontradicted evidence that performance declined only *because* EchoStar made changes to avoid the claim terms. OB 16, 29; *see* A5266–68.

Magnitude of effort, opinion letters. TiVo does not dispute that it took 15 engineers a year—working 8,000 hours—to complete the redesign. Nor does it dispute that before proceeding, EchoStar obtained advice and guidance from a respected patent firm, and then secured three independent counsel opinions confirming that the contemplated redesign avoids five different claim limitations. A5196–97, A5232–36, A5304–18, A5339–48, A5369–70, A6114–214.

TiVo dismisses all of this as irrelevant evidence of good faith, without even acknowledging that these facts are relevant beyond scier. Resp. 40–41. The conclusion by respected lawyers that the proposed redesign would avoid the patent’s claims in multiple ways is objective evidence that the issues were at least open.² Similarly, the sheer magnitude of the redesign effort is objective evidence that the changes were more than cosmetic. OB 30.

PTO action. Finally, a point that arose after the filing of EchoStar’s brief: The PTO in reexamination concluded that the features EchoStar removed are indeed central to TiVo’s asserted claims. As EchoStar’s pending request for

² TiVo does not deny that the lawyers who wrote those opinions were independent and reputable, that EchoStar asked them to take the most conservative approach, or that the lawyers considered EchoStar’s behavior exemplary. OB 16. Instead, TiVo asserts that “reliance on their opinions [was] unreasonable,” because, for example, they “never examined the ‘actual source code’” (Resp. 41)—but that would have been impossible since they were providing prospective guidance. Rather than respond to the full litany, we refer the Court to the testimony of Messrs. Hillman, Aaronson, and Minnick, in which they defang TiVo’s misplaced attacks. See A5234–42, A5304–39, A5339–66.

judicial notice explains more fully, the PTO’s initial office action took the same positions on the parsing and flow control limitations that EchoStar took in designing around TiVo’s patent. Motion for Judicial Notice, Ex. A, at 7.

TiVo’s response—that “the PTO’s preliminary finding was not based on the district court’s construction of the relevant claim language,” and that the agency action is not yet final, Resp. 41 n.13—misses the point. The point is that yet another independent evaluator has zeroed in on these features as central to the claims. That is objective evidence that removing these features would create a different product vis-à-vis the patent claims and so the original product and the redesigned product are not “essentially the same.”

B. TiVo’s Arguments for Ignoring the Evidence Are Meritless.

TiVo offers three legal bases for sweeping all the evidence away. Each is meritless.

1. The differences all “affect an element of a claim.”

TiVo’s main gambit is to invoke the District Court’s assertion that any differences are irrelevant because they do not “affect an element of a claim.” Resp. 35 (emphasis omitted). TiVo says nothing about EchoStar’s rebuttal of that point. OB 35. EchoStar’s original devices were found to infringe *because* they “involve[d] start-code detection, indexing, and ‘blocking.’” Resp. 36. These features were *how* TiVo proved that the claim elements were met. It is downright

paradoxical to assert that eliminating these features does not “affect an element of a claim,” or that eliminating the original accused features in a design-around does not avoid contempt.

2. By asserting new theories of infringement, TiVo is raising “substantial open issues of infringement.”

TiVo’s new infringement allegations raise “substantial open issues with respect to infringement,” because, as the opening brief explains, it “eliminated the very features that TiVo itself had identified as meeting claim limitations,” forcing TiVo “to match different features of the redesigned [device] to those claim limitations” so that “the infringement analysis ... depend[s] on entirely new theories and facts that had not yet been resolved.” OB 30–31.

TiVo caricatures EchoStar’s position as permitting “an infringer [to] escape contempt by eliminating only specific infringing features identified at trial, *without regard to whether infringement based on other, perhaps directly comparable, features would be so clear as to raise no substantial open issue of infringement.*” Resp. 38–39 (emphasis added). But a *new* “theory of infringement” *must* raise an “open question of infringement.” *Cf.* Resp. 39. If that is not the law, then the colorable differences test provides businesses with no safe harbor; a past infringer who redesigns will always have infringement adjudicated in a contempt proceeding.

TiVo asserts that the rule is “unworkable because it depends on understanding what theory jurors relied on in finding infringement.” Resp. 40. That is not a concern generally—and certainly not here. Ordinarily, a jury relies only on the theories presented to it. Since TiVo did not present the infringement theories on which it now relies, the jury obviously could not have adjudicated them against EchoStar. That is what it means to say that a contempt proceeding is available only for “previously-adjudicated rights.” Resp. 20; *see Int’l Rectifier*, 383 F.3d at 1317.

TiVo also frets that “EchoStar’s proposal would have a pernicious effect on the conduct of trials,” because plaintiffs will now have to “march through every conceivable infringement theory—massively increasing the cost and length of most cases.” Resp. 39. Highly unlikely. Successful plaintiffs do not dilute their winning theories with “every conceivable infringement theory.” But this also is not a concern here. As to “parsing video and audio data,” had TiVo advanced its current theory, it would have jeopardized its position on validity and infringement. And as to data flow, TiVo could not have advanced its current theory, because it applies only to EchoStar’s new device and not to the adjudicated devices.

3. Evidence bearing on EchoStar’s good faith is relevant.

TiVo’s justification of the District Court’s decision to ignore evidence bearing on EchoStar’s good faith is unpersuasive. Resp. 40–41. TiVo relies on

this Court’s statements that good faith is not a “*defense* to a civil contempt order,” Resp. 41 (citing *Additive Controls & Measurement Sys., Inc. v. Flowdata, Inc.*, 154 F.3d 1345, 1353 (Fed. Cir. 1998) (emphasis added) (internal quotation marks omitted)). But that does not mean that all evidence that tends to show good faith is irrelevant. At a minimum, it is relevant to “colorable differences,” because a party designing around a patent in good faith rarely produces a product that is “essentially the same” as the original. That is why this Court repeatedly refers to good faith in contempt cases. *See* OB 36–37; *Additive Controls*, 154 F.3d at 1350 (contempt proceeding appropriate where change nothing but “an *attempt to disguise* the actual operation of the device”) (emphasis added).

III. THE DISTRICT COURT ERRED IN HOLDING ECHOSTAR IN CONTEMPT, BECAUSE TIVO FAILED TO PROVE BY CLEAR AND CONVINCING EVIDENCE THAT THE REDESIGNED DEVICES INFRINGE.

A. TiVo Failed to Show, By Clear and Convincing Evidence, That the Broadcom and 50X Models Infringe Even Though EchoStar Eliminated Start-Code Detection and Indexing.

TiVo’s arguments about the claim limitation “parses video and audio data” jumbles evidence from the contempt proceeding with testimony from the original trial. Resp. 44–49. Properly sorted, the evidence does not support TiVo’s contention.

1. TiVo has not proven that the PID filter “parses video and audio data.”

TiVo’s responsive papers crystallize that, in order to prevail on the “parsing” limitation, TiVo must prove that a PID filter “analyzes video and audio data.” Resp. 45–49; *cf.* OB 54–55. EchoStar proved that the PID filter does not do this. TiVo does not dispute that a PID filter looks only at the 13-digit PID in the header of the packet, and never looks into the payload, where the video and audio data reside. Resp. 48; A8850, A5421–22 (Broadcom witness confirms the point). TiVo’s five arguments on this point are unpersuasive.

First, TiVo argues that “PID codes in the header are just as necessary to view television as the start codes in the payload.” Resp. 48. The fact that the 13-digit PID codes in the header are “necessary” to view television does not make them “video and audio data,” as is evident from the plain meaning and context of the claim terms. Data do not qualify as “video and audio data” if they do not translate into pictures and sound.

Second, TiVo argues that “the fact that some portion of the data may be encrypted is irrelevant because, even if encrypted, an MPEG packet is still video and audio data.” Resp. 48. TiVo misses the point. Yes, the scrambled (or encrypted) contents of the payload are video and audio data, but the PID filter cannot “analyze” a scrambled payload that it cannot read. A5470.

Third, TiVo argues that both sides agreed that “PID filters are part of the ‘physical data source,’ which is the structure that parses video and audio data in claims 31 and 61.” Resp. 46. But the “physical data source” (the chip) in the old receivers parsed audio and video data *because* it contained video frame start-code detection. A1552–53, A1580–82. It is mere happenstance that the same chip *also* houses the PID filters. By TiVo’s logic, silicon parses video and audio data because “both sides agree” that silicon is “part of the ‘physical data source.’” Resp. 46.

Fourth, TiVo argues that “EchoStar concedes that all its receivers still use PID filters, and that their function has not changed since trial.” Resp. 47. But the PID filters did change. A5421–22. More important, their continued use proves nothing: PID filters did not parse video and audio data in the old receivers, and they still do not in the redesigned ones.

Finally, TiVo points out that certain EchoStar documents describe PID filters as “parsers.” Resp. 47. But, as noted in EchoStar’s opening brief, OB 53, that refers to the filtering of the PIDs in the header of the transport stream packets—i.e., filtering one broadcast stream from the next. *See Bates v. Coe*, 98 U.S. 31, 42 (1878). Separating broadcast streams cannot be “parsing of video and audio data” where the video and audio data are not analyzed. A5421–22.

2. TiVo’s testimony from the 2006 trial contradicts its current position.

The rest of the parties’ disputes about PID filtering revolves around who conceded what in the 2006 infringement trial—a topic this Court need not resolve in light of the uncontested evidence recounted above. Resp. 44–49. If the Court were inclined to delve into the issue, it would have to conclude *either* (1) that TiVo is judicially estopped from taking its current position, or (2) that the testimony is irrelevant. Under no scenario could TiVo succeed in defending the District Court’s view that EchoStar is somehow estopped by its *losing* position in a summary judgment motion and subsequent trial (which position EchoStar necessarily revised for the 2009 contempt hearing in light of the adjudicated facts).

At the 2006 trial, TiVo argued—of necessity—that PID filters do not parse video and audio data, because the prior art was replete with PID filters; so it argued that start-code detection was “parsing,” and PID filtering was related to “tuning” and “converting.” A1568–69, A1746–47, A3128–29, A3543. TiVo prevailed on that position and should be estopped from now taking the exact opposite position. *See New Hampshire v. Maine*, 532 U.S. 742, 749–50 (2001).

In denying that it executed an about-face, TiVo quotes the 2006 testimony of its validity expert, Dr. Storer, who acknowledged that PID filtering can be called “a type of parsing.” A3544. But in the very next breath he took pains to point out that does not mean that a PID filter parses *video and audio data*, which is what is

claimed: “[Y]ou shouldn’t confuse that with the claim terms [I]t’s afterwards that comes the part of the claim that talks about the media switch that parses and separates.” *Id.*

TiVo insists that statements like this do not mean what they so clearly say. Its position depends on drawing an imaginary distinction between the “parsing” limitation in the software claims and the exact same “parsing” limitation in the hardware claims. Resp. 49. But as Storer admitted, A5157, these terms had the same construction, A377. And at the 2006 trial, TiVo never once suggested to the jury or the trial court that it had one whole set of features in mind for the hardware claims and a completely different and inconsistent set of features in mind for the software claims.

In short, all three conditions of estoppel exist here. *New Hampshire*, 532 U.S. at 750–51. TiVo’s former position was inconsistent with its current one; it prevailed on that former position; and it would derive an unfair advantage were it not estopped. Indeed, the unfairness is manifest: During a trial on infringement and validity the patentee is kept in check, because taking an overbroad infringement position undermines its validity arguments. Now, there is nothing to keep TiVo in check *but* estoppel.

B. TiVo Failed to Show, By Clear and Convincing Evidence, That the Broadcom Models Still Infringe Despite the Changes to Their Data Flow and Buffering System.

TiVo's argument that the Broadcom models infringe, despite their redesigned data flow and buffering system, fails on several levels: (1) TiVo has admitted that a key feature has been removed; (2) it cannot map most of the claim elements to the new devices; and (3) it cannot place functions in the claimed sequence.

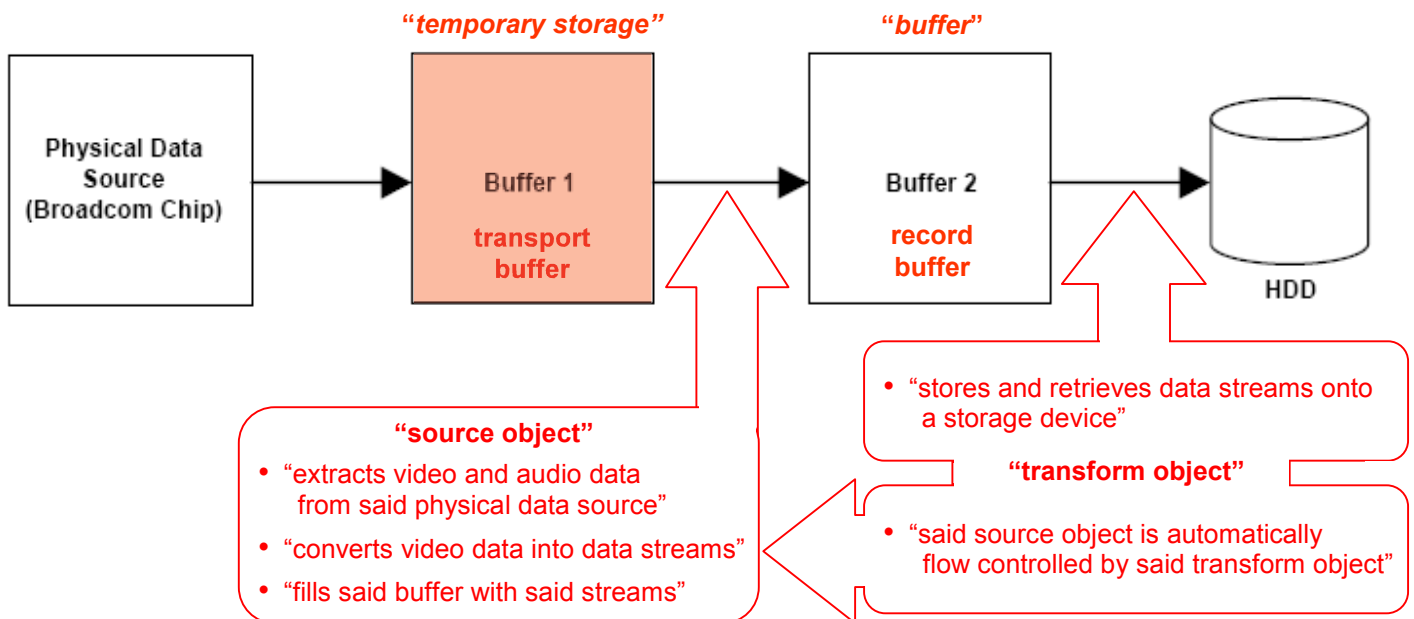
1. TiVo admits that EchoStar eliminated the critical feature—the transform object that provides automatic flow control of the source object.

TiVo's claims require a *transform object* that *automatically flow controls* the *source object* (which is what *fills* the *buffer*). Under the metaphor TiVo advanced at trial, that means that the claims require an automatic shutoff valve (*flow control*) that stops the flow of the faucet once the pitcher (the *buffer*) is filled. There is no dispute that EchoStar eliminated automatic shutoff, or any shutoff, for that matter. EchoStar removed the very feature that TiVo vividly demonstrated at trial to be the sine qua non of flow control. A1391–95, A7104–05. There is no faucet.

TiVo nevertheless argues that other features provide *automatic flow control*: “Using pointers and descriptors, the software ensures that when the source object finishes writing data to one buffer, it moves to the next buffer in the sequence without backtracking to write data into a buffer it has already filled.” Resp. 56.

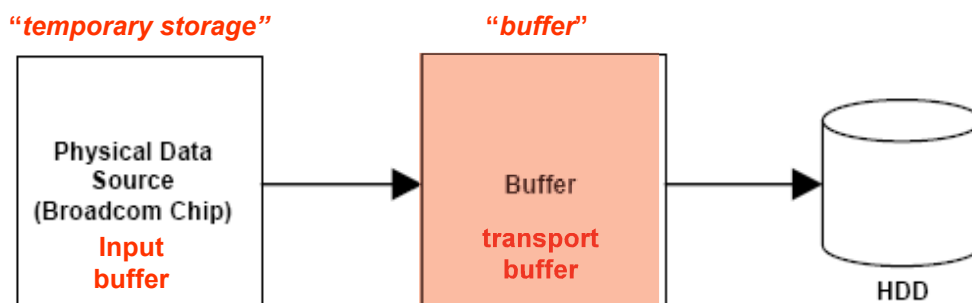
But the perpetual filling of a circular buffer with data is not regulation, let alone *self*-regulation, and TiVo’s expert conceded that the circular buffer alone did not provide automatic flow control. A5542–43.

TiVo elides all this by arguing that EchoStar’s redesign entailed nothing but the removal of one inconsequential buffer, using diagrams that focus on buffers to the exclusion of everything else. Resp. 10–11, 50–51; *cf.* OB 42. As an initial matter, the change in buffering was not inconsequential, A5533–35, but regardless, it still relates to a claim term, which makes it quite material to *infringement*. More importantly, ignoring the various *other* claim elements does not make them go away. We have annotated TiVo’s diagram of the original device, with red indicating the elements this diagram omits:



TiVo’s diagram omits *four* claimed elements that *must* occur between the *temporary storage* and the *buffer*—namely, *extraction*, *conversion*, *fill*, and *automatic flow control*.

The second block diagram TiVo features (which we annotate **in red** merely to indicate the new labels TiVo affixes to each feature) accurately depicts everything from the previous diagram that is left in the redesigned devices:



No further annotation is necessary, because this drawing correctly conveys that the entire *source object*, and all its associated operations and limitations, and a critical part of the *transform object*, are now gone.

2. TiVo cannot map the claimed elements.

Because these major claim elements are all missing, the flow of data through the system is now different in ways that make it impossible to map its features to the claim limitations. OB 47–52. The infringement theory on which TiVo previously prevailed before this Court was predicated on the view that the “transport buffer” in RAM was the *temporary storage* for the *physical data source* and the “record buffer” in RAM was the *buffer* filled by the software *source object*.

OB 44. Now, TiVo has new candidates for both elements: The “Input Buffer” on the Broadcom chip is now the *temporary storage* and the “transport buffer” in RAM is now the *buffer* (and no longer the *temporary storage*). Resp. 52–53.

In making the switch, TiVo radically alters the route that data take from *temporary storage* to the *buffer*. Consequently, it cannot identify any structure that fits the limitations between these two locations. For each element, TiVo offers either (1) no competent evidence identifying a particular structure; or (2) a structure that does not meet the claim limitations. Three examples suffice.

First, TiVo had to identify what structure “*extracts* video and audio data from said physical data source.” As TiVo concedes, Resp. 56, the sum total of Dr. Storer’s testimony on that topic resides in the following four lines:

Q. Do the EchoStar products extract video and audio data from a physical data source?

A. Yes.

Q. And is that a software operation?

A. Yes, it’s hardware controlled by the software.

A5123. As EchoStar objected below, A6952–55, this conclusory statement—that some unidentified “software operation” does the job—is not competent (let alone clear and convincing) expert evidence of infringement. *S3 Inc. v. NVIDIA Corp.*, 259 F.3d 1364, 1374 (Fed. Cir. 2001) (“An expert’s opinion ... must be supported by something more than a conclusory statement.”).

Second, TiVo had to identify what structure “*fills* said buffer with said [data] streams.” Resp. 56 (citing A5110–11, A5124). Dr. Storer testified that “the current products fill the buffer ... the same way now as they did at trial,” A5124, noting that “example” code was shown on “Slide 76”—which is not in evidence. A5110–11. TiVo now contends that the *buffer* is the transport buffer. But that cannot work. In the redesigned receivers, the *buffer* is filled by hardware, the Broadcom chip. A5227–28, A5424, A5475, A8919. The claim, however, requires that the *source object* perform the *fill*, and since “object” was construed as “a collection of data and operations”—i.e., software—the *fill* must be done by software, and *not* by the Broadcom chip hardware.

Third, more generally, for certain other limitations TiVo cites empty catch-all testimony that all “the remaining limitations ... are met for the same reasons given at trial.” Resp. 56 (citing A5125).

Without competent expert testimony to rely on, TiVo grasps for other ways to fill in the evidentiary holes. For example, TiVo claims that it “introduced infringement charts.” Resp. 52 (citing A8016–39). That is not enough. TiVo’s expert did not explain, or even reference, those charts, let alone endorse them. *See AquaTex Indus., Inc. v. Techniche Solutions*, 479 F.3d 1320, 1329 n.7 (Fed. Cir. 2007) (“Even where literal infringement is involved, expert infringement testimony is generally required in cases involving complex technology.”); *Centricut, LLC v.*

Esab Group, Inc., 390 F.3d 1361, 1370 (Fed. Cir. 2004) (same). They were therefore inadmissible for lack of foundation. *See* A5125–27 (EchoStar’s timely objection); *United States v. Bishop*, 264 F.3d 535, 547 (5th Cir. 2001).

TiVo also suggests that all of Dr. Storer’s conclusions must be accepted as gospel, because he was not cross-examined, was the only one who reviewed the code, and his testimony went unrebutted. Resp. 55–56, 59–60. All these assertions are incorrect: EchoStar cross-examined Dr. Storer, A5133–78, proffered conflicting expert testimony of non-infringement on every relevant claim term, A5406–87, had its own expert review the relevant source code, A5413–14, and offered testimony from its own vice-president of software engineering and a Broadcom witness who contradicted Dr. Storer on virtually every disputed claim limitation, A8850, A8868–69, A8918–19.

Finally, TiVo does not deny that, with the exception of *automatic flow control*, the District Court did not make specific findings on any claim limitation. That is reversible error. *See Allen Eng’g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1346 (Fed. Cir. 2002).

3. TiVo does not even try to map claim terms in the prescribed sequence.

EchoStar challenged TiVo to show that the data in the redesigned Broadcom models flow in the particular order required by the claim language. OB 52. It cannot be done. So TiVo responds that this is “not required”—as if the claimed

invention does not require a particular sequence of operations. Resp. 59. Accordingly, TiVo provides no proof of proper sequence.³ This, alone, defeats TiVo’s infringement claim. It is obvious from the claim terms that a specific sequence is required. *See Mantech Envtl. Corp. v. Hudson Envtl. Servs., Inc.*, 152 F.3d 1368, 1375–76 (Fed. Cir. 1998) (“the sequential nature of the claim steps is apparent from the plain meaning of the claim language”).

The claims require the following:

- The *extraction* must follow *temporary storage* because
 - (i) the physical data source “temporarily stores said video and audio data”; and
 - (ii) the source object “extracts video and audio data from said physical data source.”
- The *conversion* must follow *extraction* because
 - (i) the source object “converts [the] video data into data streams”; and
 - (ii) extraction is performed on “video data,” not “data streams”—so extraction must come before the video data has been converted into data streams.

³ Contrary to TiVo’s assertion (Resp. 52), the claim charts do not qualify, because they were inadmissible and inadequate, *see supra* at 27–28, and because they do not address sequence.

- The *fill* of the *buffer* must follow *conversion* because:
 - (i) the source object “fills said buffer with said streams,” but
 - (ii) the “said streams” did not exist until the conversion of “video data into data streams.”
- The *automatic flow control* must occur between the *temporary storage* and the claimed *buffer* because:
 - (i) “said source object is automatically flow controlled”; and
 - (ii) “said source object” *extracts* from temporary storage, then *converts*, then *fills* the *buffer*—which all occur between the *temporary storage* and the claimed *buffer*.

Take, for example, TiVo’s failure to adduce the requisite evidence regarding “‘*converts*’ video data into data streams.” Resp. 56 (emphasis added). Previously, TiVo put *converts* after the transport buffer in RAM, which was the right sequence of events when TiVo called the transport buffer *temporary storage*. OB 44–46. *Converts* comes after *temporary storage*. At the contempt hearing, Dr. Storer was asked “is that done in the same way as it was done at trial?,” and responded, “That’s correct.” A5124. That puts *converts* out of order, now that TiVo re-labels the transport buffer as the *buffer*. *Converts* cannot come after *buffer*.

TiVo claims that EchoStar waived the argument that the limitations must be performed in a specific sequence. Resp. 58. But the record proves otherwise. OB 50 (citing A5427, A5473, A7002–05). Besides, it was TiVo’s burden to prove every element of infringement, *see Mas-Hamilton Group v. LaGard, Inc.*, 156 F.3d

1206, 1211 (Fed. Cir. 1998), and EchoStar never so much as suggested that it was relieving TiVo of this burden.

* * *

In sum, TiVo fails the test of mapping infringement in every which way possible. To plug all this back into the Ikea metaphor: TiVo has presented no competent evidence that anyone picks up the goods from the shipyard—no *extracts*. And if goods are picked up from the shipyard, there is no supervisor to control their movement to the warehouse—no *automatic flow control*. The goods get *converted* after they are removed from the warehouse, which is backwards. And the warehouse gets *filled*, but by the wrong workers.

CONCLUSION

The District Court's contempt order should be vacated, along with any relief arising therefrom.⁴

Dated: September 4, 2009
New York, New York

Respectfully submitted,




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⁴ TiVo does not dispute that *if* the contempt finding is vacated, then all the other relief predicated on contempt must be vacated as well—including any damage award and the pre-clearance requirement. Indeed, the cases TiVo cites purportedly authorizing the pre-clearance requirement do not involve redesigns that were more than colorably different from the original. *See* Resp. 60 n.22.

CERTIFICATE OF SERVICE

The undersigned certifies that on the 4th day of September, 2009, two true and correct copies of the foregoing were served on all counsel of record identified on the service list below via FedEx and electronic mail.



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No. 2009-1374

IN THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

TIVO V. ECHOSTAR

DECLARATION OF AUTHORITY

In accordance with Fed. Cir. R. 47.3(d), and 28 U.S.C. § 1746, I,
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