

**UNITED STATES INTERNATIONAL TRADE COMMISSION  
WASHINGTON, D.C.**

**Before the Honorable MaryJoan McNamara  
Administrative Law Judge**

**In the Matter of**

**CERTAIN DIGITAL VIDEO RECEIVERS AND  
RELATED HARDWARE AND SOFTWARE  
COMPONENTS**

**Investigation No. 337-TA-1103**

**ROVI'S POST HEARING REPLY BRIEF**

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**TABLE OF ABBREVIATIONS**

<b>Abbreviation</b>	<b>Full Name</b>
'011 Patent	US Patent No. 7,779,011
'585 Patent	US Patent No. 7,827,585
'741 Patent	US Patent No. 9,369,741
1001 Investigation	Investigation No. 337-TA-1001
Agmt.	Agreement
AIA	America Invents Act
ALDA	2010 Amended License and Distribution Agreement
ALJ	Administrative Law Judge
API	Application program interface
Appx.	Appendix
Args.	Arguments
AS&R	Advanced Search & Recommendation
Asgmt.	Assignment
Asserted Patents	'011, '585, '741 Patents, collectively
Asserted Products or Accused Products	Certain digital video receivers and related hardware and software components of Comcast's X1 System
CapEx	Capital Expenditure
CBP	U.S. Customs and Border Protection
CBr.	Complainants' Corrected Post Hearing Brief
CDO	Cease and desist order
COGS	Cost of Goods Sold
Comcast	Comcast Corporation; Comcast Cable Communications, LLC; Comcast Cable Communications Management, LLC; Comcast Business Communications, LLC; Comcast Holdings

<b>Abbreviation</b>	<b>Full Name</b>
	Corporation; Comcast Shared Services, LLC, collectively
Commission or Comm'n	United States International Trade Commission
Compl.	Complaint
Complainant or Complainants	Rovi Corporation; Rovi Guides, Inc.; and Veveo, Inc., collectively
CPHB	Complainants' Pre-Hearing Brief
CX	Complainants' exhibit
CDX	Complainants' demonstrative exhibit
Dep.	Deposition transcript
DI	Domestic Industry
DI Products	i-Guide, Passport, AS&R, Next-Gen Platform, and TiVo Bolt with Experience 4.0, collectively
DOE	Doctrine of Equivalents
DVR	Digital Video Recorder
Ex.	Exhibit
FCC	Federal Communications Commission
Fig[s].	Figure[s]
FP&A	Financial Planning and Analysis
Hearing or Hrg.	The Evidentiary Hearing that took place in October 2018 in this Investigation (Inv. No. 337-TA-1103)
HD	High definition
HDD	Hard disks
HW	Hardware
ID	Initial Determination
IP	Internet Protocol

## PUBLIC VERSION

Abbreviation	Full Name
IPG[s]	Interactive Program Guide[s]
IPR	Inter Partes Review
iVOD	Instant Video-On Demand
JX	Joint exhibit
LEO	Limited exclusion order
Ltr.	Letter
Markman Order	Order No. 41 (Oct. 15, 2018)
Memo.	Memorandum
MIL	Motion in Limine
Mot.	Motion
MSD	Motion for Summary Determination
MTC	Motion to Compel
NDA	Non-Disclosure Agreement
Opp.	Opposition
P&E	Plant and Equipment
P&L	Profit and Loss
POSITA	Person of Ordinary Skill In The Art
PTAB	Patent Trial and Appeal Board
PTO	U.S. Patent and Trademark Office
R&D	Research and Development
RAM	Random-Access Memory
RBr.	Respondents' Post Hearing Brief
Reb.	Rebuttal

<b>Abbreviation</b>	<b>Full Name</b>
Resp.	Response
Respondent or Respondents	Comcast Corporation; Comcast Cable Communications, LLC; Comcast Cable Communications Management, LLC; Comcast Business Communications, LLC; Comcast Holdings Corporation; Comcast Shared Services, LLC, collectively
	
Rog[s]	Interrogatory / Interrogatories
Rovi	Rovi Corporation; Rovi Guides, Inc; Rovi Technologies Corporation; and Veveo, Inc., collectively
RPHB	Respondents' Pre-Hearing Brief
Rpt.	Report
RWS	Rebuttal Witness Statement
RX	Respondents' exhibit
RDX	Respondents' demonstrative exhibit
RPX	Respondents' physical exhibit
S&M	Sales and Marketing
Sched.	Schedule
SD	Standard definition
STB[s]	Set-top box[es]
Stip.	Stipulation
Supp.	Supplemental
T9	Text on 9 keys
Tr.	Transcript
TSI	Tivo Solutions, Inc.
TV	Television

Abbreviation	Full Name
U.S.	United States
VCR	Videocassette recorder
Veveo	Veveo, Inc.
██████	████████████████████
WS	Witness Statement
██████	████████████████████



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## I. INTRODUCTION

Only a handful of Comcast’s invalidity arguments remain. For the ’585 Patent, Comcast alleges only anticipation and obviousness. For the ’011 Patent, Comcast asserts only a single obviousness combination. And for the ’741 Patent, Comcast asserts only anticipation and written description. All of Comcast’s other invalidity arguments have been dropped and are therefore waived. Each claim asserted in this Investigation is presumed valid under the law. Because Comcast failed to present “clear and convincing” evidence supporting any of its remaining invalidity arguments, the validity of the Asserted Patents should be upheld.

Finally, Comcast’s invitation that the ALJ issue an affirmative finding on license and exhaustion should be rejected, as these defenses relate to products that the parties agree are outside the scope of this Investigation.

## II. LEGAL STANDARDS

Each patent claim is presumed valid under 25 U.S.C. § 282. To invalidate a patent claim, a respondent must prove by clear and convincing evidence that the claim is invalid. *See Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1364 (Fed. Cir. 2018).

“To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either expressly or inherently.” *Eli Lilly & Co. v. Los Angeles Biomedical Research Institute at Harbor-UCLA Med. Center*, 849 F.3d 1073, 1074 (Fed. Cir. 2017). “In the context of anticipation, the question is not whether a prior art reference ‘suggests’ the claimed subject matter[;] . . . [r]ather, the dispositive question regarding anticipation is whether one skilled in the art would reasonably understand or infer from a prior art reference that every claim element is disclosed in that reference.” *Id.* at 1074-75. A claim is invalid for anticipation only if “each and every limitation” is included in a single reference. *Schering Corp. v. Geneva Pharm.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003).

Whether a patent is invalid for obviousness must be determined as of the date of the invention. 35 U.S.C. § 103. A patent is invalid for obviousness “if the differences between it and the prior art ‘are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.’” *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124 (Fed. Cir. 2000) (quoting 35 U.S.C. § 103). A party seeking to invalidate a patent on obviousness grounds must prove—by clear and convincing evidence—that a person of ordinary skill in the art would have (1) had some reason or motivation to combine the teachings of prior art references; and (2) had a reasonable likelihood of success in doing so. *Id.* “[O]ne must have a motivation to combine *accompanied by* a reasonable expectation of achieving what is claimed in the patent-at-issue.” *Intelligent Bio-Systems, Inc. v. Illumina Cambridge, Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016) (emphasis added). It is not enough to show only that each element of a patent claim was independently known in the prior art. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). “This statutory test requires factual inquiries: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness.” *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1375 (Fed. Cir. 2012).

35 U.S.C. § 112 requires a written description of the invention that “clearly allow[s] persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed,” or, said another way, that the inventor “had possession of the claimed subject matter as of the filing date.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). This factual inquiry requires a review of “the four corners of the specification from the perspective of a person of ordinary skill in the art.” *Id.* To prevail, “the accused must show that the claims lack

written description by clear and convincing evidence.” *Hynix Semiconductor Inc. v. Rambus Inc.*, 645 F.3d 1336, 1351 (Fed. Cir. 2011).

### **III. '011 PATENT (VEVEO)**

#### **A. Comcast Has Not Met Its Burden to Prove that Claims 1 and 9 of the '011 Patent Would Have Been Obvious**

Comcast has not asserted anticipation under 35 U.S.C. § 102 as to any claim of the '011 Patent. Comcast's only remaining contention is that claims 1 and 9 of the '011 Patent are invalid as obvious under 35 U.S.C. § 103 over the combination of Gross, U.S. Patent No. 7,370,035 (Gross (RX-0180)) and Smith, U.S. Patent No. 6,529,903 (Smith (RX-0174)).<sup>1</sup> Comcast has failed to show by clear and convincing evidence that claims 1 and 9 are obvious over this combination of references, and has thus failed to meet its burden.

Comcast's obviousness argument fails for multiple reasons. *First*, the combination of Gross and Smith does not disclose the key concept of “directly mapped” under the ALJ's construction of that term, which is recited in multiple limitations in claims 1 and 9. *Second*, even if Comcast had shown, which it did not, that either reference discloses “directly mapped,” Comcast has not presented clear and convincing evidence that a person of ordinary skill in the art at the time of the invention in 2005 would have been motivated to, or had a reason to, combine Gross and Smith. *Finally*, secondary considerations of non-obviousness demonstrate that the claims of the '011 Patent would not have been obvious.

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<sup>1</sup> Comcast has withdrawn its assertion that the combination of Gross (RX-0180) and King (RX-0113) render the Asserted Claims of the '011 Patent obvious. RBr. at 7 n.3. Accordingly, Rovi does not address the Gross and King combination, or Dr. Kelly's testimony regarding the combination, in this Post-Hearing Reply Brief.

**1. The Combination of Gross (RX-0180) and Smith (RX-0174) Does Not Disclose “Directly Mapped” as Recited in Different Limitations in Claims 1 and 9 of the ’011 Patent**

The first step in an obviousness analysis—before reaching motivation to combine and reasonable expectation of success—is to determine whether “all claimed limitations are disclosed” in the proposed prior art combination. *Par Pharm., Inc. v. TWi Pharms., Inc.*, 773 F.3d 1186, 1194 (Fed. Cir. 2014). As Comcast’s expert, Dr. Kelly, conceded, if the combination of references lacks even just one limitation, the claim-at-issue cannot be obvious over that combination. Kelly Tr. 1791:2–1791:9 (“Q: So something is missing from both -- if we have a combination of two references and something is missing from both references, then there can’t be obviousness? A: Unless that missing piece would be obvious in its own – on its own. Q: Okay. But you haven’t said that some missing piece of claims 1 or 9 are obvious on their own; right? A: I don’t believe so, correct.”). Here, the combination of Gross and Smith lacks the “directly mapped” requirement of claims 1 and 9, as construed by the ALJ, and thus cannot—as a matter of law—be found to render either claim obvious.

**a. Comcast Has Not Demonstrated that “Directly Mapped” as Recited in the “Indexing” Step is Met by the Prior Art**

Claim 1 of the ’011 Patent requires, in its “indexing” step, that subsets of items are “directly mapped” to corresponding strings of unresolved keystrokes:

indexing said items by associating subsets of said items with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are *directly mapped* to the corresponding strings of unresolved keystrokes for various search query prefix substrings;

JX-0001 (’011 Patent) at 8:47-52 (emphasis added); *see also id.* at 10:48-53 (claim 9).

The ALJ construed the term “directly mapped” to mean “each alphanumeric character in a prefix substring associated with an item is matched with its corresponding numeric key equivalent on an overloaded keypad.” Order No. 41 (Oct. 15, 2018), App’x A at 10-14. “Directly

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mapped,” then, has three requirements: (1) unresolved keystrokes on an overloaded keypad; (2) prefix substrings; and (3) a direct correspondence between the two of them. The ALJ further adopted the parties’ agreed construction for the term “prefix substring” as “a variable length string of characters that contains fewer than all the characters making up the word.” *Id.* at 1.

Comcast asserts that “Dr. Kelly testified unambiguously, consistent with his expert report and deposition testimony, that the ‘directly mapped’ limitation is disclosed by the *combination* of references [Gross and Smith].” RBr. at 14 (citing Kelly Tr. 1805:4-17). According to Comcast, Dr. Kelly opined that the prefix substring part of “directly mapped” comes from Gross and that the overloaded keys part of “directly mapped” comes from Smith. *Id.* at 14-15. Comcast is incorrect on both points.

During Rovi’s cross-examination at the hearing, Dr. Kelly unambiguously testified that he does *not* rely on Gross (the primary reference) to satisfy the “directly mapped” claim requirement. Indeed, on re-cross, Dr. Kelly admitted that he testified at his August 3, 2018 deposition that he “make[s] no claim that Gross provides the direct mapping of the unresolved keystrokes and to the various search query prefix substrings” and that the directly mapped limitation is found “entirely in the secondary references” and not in Gross. Kelly Tr. 1806:8-23; *see also* Kelly Tr. 1792:18-1793:9. Dr. Kelly further could not point to anywhere in his expert report where he relied on Gross for direct mapping. Kelly Tr. 1806:24-1807:3. Consistent with his deposition testimony and expert report, Dr. Kelly never offered any contrary testimony at the hearing suggesting that Gross provided the “directly mapped” limitation (if he had, Rovi would have objected as outside the scope of his report and deposition). The record is thus devoid of *any* evidence—much less clear and convincing evidence—that Gross discloses the “directly mapped” limitation of claims 1 and 9 of the ’011 Patent.



On cross, after confirming that Gross (Dr. Kelly’s primary reference) does not disclose “directly mapped” as construed by the ALJ and that he does not rely on Gross for “directly mapped,” Dr. Kelly testified that he relies solely on the Smith reference—the only “secondary reference” still asserted by Comcast—for “directly mapped.” Kelly Tr. 1730:2-22, 1790:3-8, 1806:8-23. Dr. Kelly then admitted that Smith does not disclose prefix substrings under the parties’ agreed construction of “prefix substring.” Kelly Tr. 1793:24–1794:3 (“Q: My question is that Smith by itself does not meet the two words we see there, ‘directly mapped,’ under the Court’s construction? A: It does not meet that literally with the prefix substring.”). Because, as Comcast’s expert admits, Smith does not disclose prefix substrings, and therefore the combination of Gross and Smith cannot meet the ALJ’s construction of “directly mapped” in the indexing step because the construction requires “each alphanumeric character *in a prefix substring* associated with an item is matched with its corresponding numeric key equivalent on an overloaded keypad.” Order No. 41 (Oct. 15, 2018), App’x A at 10-14 (emphasis added). Lacking prefix substrings, as Dr. Kelly conceded, Smith (like Gross) also does not disclose the “directly mapped” element of the limitation.

As the foregoing makes clear, Comcast’s only remaining obviousness combination (and only invalidity assertion) for claims 1 and 9 of the ’011 Patent is the combination of Gross and Smith. And, because Dr. Kelly admitted that neither Gross nor Smith discloses “directly mapped” as construed by the ALJ, Comcast fails to show (by any evidence much less clear and convincing evidence) that any single reference (Gross or Smith) or combination of those references (Gross and Smith) discloses this limitation. Comcast may not rewrite Dr. Kelly’s testimony in its Post Hearing Brief by omitting the damaging portions of Dr. Kelly’s testimony. Dr. Kelly’s express admissions at the hearing (and in his deposition and report) that Gross

provides no part of his opinion on “directly mapped” and that Smith does not disclose prefix substrings (and thus also does not meet the “directly mapped” limitation) are legally binding on Comcast. *Certain Polyimide Films, Products Containing Same, & Related Methods*, Inv. No. 337-TA-772, ID, 2013 ITC LEXIS 2004, at \*493-496, 499-500 (Oct. 5, 2012) (holding party to expert admissions even where redirect attempted to clarify position). Comcast therefore cannot meet its burden to prove that either claim 1 or 9 of the ’011 Patent is obvious. *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1376 (Fed. Cir. 2016) (“[T]he ultimate burden of persuasion of obviousness must remain on the patent challenger and a fact finder must consider all evidence of obviousness and nonobviousness before reaching a determination.”).

**b. Comcast Has Not Demonstrated that “Directly Mapped” in the “Determining,” “Identifying and Displaying,” and “Highlighting” Steps Is Met by the Prior Art**

Because Comcast has not (and cannot) established that the combination of Gross and Smith discloses the “directly mapped” requirement in the “identifying” step of claims 1 and 9, Comcast similarly cannot demonstrate that the combination of Gross and Smith meets the “directly mapped” requirements of the “determining” step (RBr. at 15-16), the “identifying and displaying” step (*id.* at 17), and the “highlighting” step (*id.* at 17-18) of claims 1 and 9 of the ’011 Patent.

Each of these steps, like the “indexing” step, has a “directly mapped” requirement:

- “. . . determining which letters and numbers . . . caused said items to be associated with strings of one or more unresolved keystrokes that are ***directly mapped*** to said subset.” JX-0001 (’011 Patent) at 8:53-58 (emphasis added); *see also id.* at 10:54-59 (claim 9).
- “identifying and displaying the subsets of items . . . based on the ***direct mapping*** of strings of unresolved keystrokes to subsets of items.” JX-0001 (’011 Patent) at 8:64–9:2 (emphasis added); *see also id.* at 10:65–11:3 (claim 9).
- “highlighting the letters and numbers . . . that were determined to have caused the displayed items to be associated with the strings of unresolved keystrokes that are

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*directly mapped* to said items . . .” JX-0001 (’011 Patent) at 9:3-11 (emphasis added); *see also id.* at 11:4-12 (claim 9).

Thus, for the same reasons that Comcast failed to meet its burden of proving that “directly mapped” is met in the “indexing” step, Comcast failed to meet its burden of proving that “directly mapped” is met in the “determining” step, the “identifying and displaying” step, and the “highlighting” step of claims 1 and 9 of the ’011 Patent.

**2. Comcast Has Not Met Its Burden to Prove by Clear and Convincing Evidence That a Person Of Ordinary Skill in the Art Would Have Been Motivated to, or Had a Reason to, Combine References**

Even if Comcast had shown that all of the ALJ’s requirements for “directly mapped” were found in the combination of Gross and Smith (and it has not), Comcast has not demonstrated by clear and convincing evidence that a person of ordinary skill in the art would have been motivated to, or had a reason to, combine these references. RBr. at 11-13.

Comcast contends that a motivation to combine Gross with Smith is evidenced by Dr. Kelly’s testimony that Gross and Smith “are in the same field of art, they are related to searching, indexing, presenting information.” Kelly Tr. 1732:7-9; *see also* RBr. at 12. The mere fact that two references are in the same “field of art” is not a legally relevant reason that a person of ordinary skill in the art would have been motivated to combine the two references to prove obviousness. *In re Dance*, 160 F.3d 1339, 1343 (Fed. Cir. 1998) (“When the references are in the same field as that of the applicant’s invention, knowledge thereof is presumed. However, the test of whether it would have been obvious to select specific teachings and combine them as did the applicant must still be met by identification of some suggestion, teaching, or motivation in the prior art, arising from what the prior art would have taught a person of ordinary skill in the field of the invention.”); *Intelligent Bio-Systems, Inc.*, 821 F.3d at 1368 (“When an obviousness determination relies on the combination of two or more references, there must be some

suggestion or motivation to combine the references.”) (quoting *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1355 (Fed. Cir. 1999)).

Besides its “same field of art” argument, Comcast makes an additional obviousness assertion. It points to Gross’s reference to a “computer networkable wireless phone” as one of the possible input “terminals” (RX-0180 (Gross) at 9:14-21) and contends that “a person of ordinary skill in the art would have recognized that wireless phones frequently feature overloaded keypads.” RBr. at 12. But Comcast carefully avoids using the term “unresolved” in its Post Hearing Brief when describing the overloaded keys in Gross’s disclosure of “wireless phones.” Gross’s mere reference to “wireless phones” does not establish that Gross contemplated that the “wireless phones” would have been adapted to accept *unresolved* overloaded keystrokes using the overloaded keypad, which is the relevant inquiry for the claims of the ’011 Patent. Nowhere does Gross describe either indexing *unresolved* overloaded keystrokes that correspond to characters in a prefix substring or receiving *unresolved* overloaded keystrokes as input search queries, and Comcast points to none. Nor did Dr. Kelly provide any opinion that Gross discloses, or even suggests, the use of unresolved overloaded keystrokes. Kelly Tr. at 1792:13-17 (“Q: Now when you looked at Gross, you would agree that Gross does not disclose direct mapping under this limitation; right? A: Well, it discloses – it doesn’t have overloaded keys.”).

Indeed, in 2003 when Gross filed his patent application, persons of ordinary skill in the art understood that “multi-tap” could be used to input resolved overloaded keystrokes using overloaded keypads, such as those on “wireless phones.” Bovik Tr. 549:10-550:1 (describing pre-existing methods of using overloaded keypads, like those on a “wireless phone” that *do not* include unresolved overloaded keys as claimed); JX-0001 (’011 Patent) at 1:46-50 (same). Without any express disclosure of unresolved overloaded keystrokes in Gross—and the

availability in 2003 of, for example, multi-tap to use overloaded keypads to input resolved keystrokes—logic dictates that a person of ordinary skill in the art would not have understood Gross’s bare reference to “wireless phones” to disclose the use of unresolved overloaded keystrokes. *See generally* Bovik Tr. 549:10-550:1; JX-0001 (’011 Patent) at 1:46-50. Comcast’s assertion to the contrary, based on Dr. Kelly’s unsupported testimony (Kelly Tr. 1732:16-19), does not rise to the level of clear and convincing evidence that Gross’s reference to “wireless phones” was, without more, a disclosure of the use of unresolved keystrokes. Gross’s disclosure of a “computer networkable wireless phone” as a possible input terminal is therefore not clear and convincing evidence that a person of ordinary skill in the art would have been motivated to combine Gross with Smith to arrive at the invention claimed in the ’011 Patent.

Comcast further states in a footnote that the PTAB cited this reason—Gross’s disclosure of “computer networkable wireless phones”—to combine Gross with Smith in *inter partes* review on another, unrelated Veveo patent from a different patent family. RBr. 12 n.4 (citing Kelly Tr. 1731:25-1732:22). But Comcast knows its reliance on this IPR is inadmissible: During the hearing the ALJ expressly ruled that Dr. Kelly could not rely on unrelated IPRs involving different Veveo patents, from different patent families, as evidencing a motivation to combine, and excluded the PTAB decisions from the record. Kelly Tr. 1734:1-1736:12.<sup>2</sup>

### **3. The Secondary Considerations of Non-Obviousness Demonstrate that the Claims of the ’011 Patent Would Not Have Been Obvious**

Even if the ALJ finds that Comcast met its clear and convincing burden of proving that the combination of Gross and Smith discloses the “directly mapped” requirement of claims 1 and

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<sup>2</sup> In any event, on September 24, 2018, Veveo filed a notice of appeal with the Federal Circuit regarding the Patent Office’s Final Written Decision on this unrelated Veveo patent. *Veveo, Inc. v. Comcast Cable Communications*, No. 18-2422, ECF No. 1 (Fed. Cir. Sep. 24 2018). This appeal is currently pending. *See id.*

9 of the '011 Patent (which it has not), and of proving that a person of ordinary skill in the art would have been motivated to combine the Gross and Smith references (which it also has not), the secondary considerations of non-obviousness demonstrate that claims 1 and 9 of the '011 Patent would not have been obvious.

Substantial evidence demonstrates the non-obviousness of claims 1 and 9 of the '011 Patent. As established below, the '011 Patent fulfilled a long-felt need for searches for television content using an overloaded keypad requiring fewer steps than prior searches that also used an overloaded keypad, [REDACTED]

[REDACTED]

[REDACTED].

*WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1336 (Fed. Cir. 2016) (“The fact that a competitor copied technology suggests it would not have been obvious.”). [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[illegible]

CX-1082 (Brain Roberts Video); CX-1083 (X1 Reveal Video); *see also* *Power-One v. Artesyn Techs., Inc.*, 599 F.3d 1343, 1352 (Fed. Cir. 2010) (“[P]raise from a competitor tends to indicate that the invention was not obvious.”).

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

RBr. at 23. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] *In*

*re Magnum Oil Tools*, 829 F.3d at 1380 (“To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.”)

Finally, Comcast argues extensively that it did not copy Veveo’s source code in developing its own unresolved, overloaded keystroke search feature in [REDACTED] RBr. at 19-22. But Comcast’s copying argument is irrelevant. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

For all these reasons, Comcast has failed to prove by clear and convincing evidence that the ’011 Patent is invalid as obvious under 35 U.S.C. § 103.



#### IV. '585 PATENT

##### A. The State of Home Video Recording on the Priority Date of the '585 Patent (September 17, 1998)

The '585 Patent claims priority to an application filed twenty years ago on September 17, 1998.<sup>3</sup> JX-0004 ('585 Patent). At that time, Rovi's expert, Dr. Balakrishnan—who is now the chair of the Computer Science Department at the University of Toronto—was completing his PhD while working in the industry. Balakrishnan Tr. 2077:10-15. There is no dispute: in September 1998, DVRs did not yet exist—in fact, the first DVR would not be released until the following year in 1999, after the priority date of the '585 Patent. *Id.* 2077:23-2078:5. As of September 1998, people (including those of ordinary skill in the art, like Dr. Balakrishnan) were using tape-based video cassette recorders (“VCR”) to record television programming. *Id.* 2078:9-13. To control recordings on their tape-based VCRs, Dr. Balakrishnan testified that he—and others of ordinary skill in the art in September 1998—would have used buttons on the “front of the panel of that VCR.” *Id.* at 2078:14-18. As Dr. Balakrishnan explained, “this I think touches a little bit on Mr. Cawley’s opening, where he talked about the infamous flashing 12 where many, many people could not really program these things because it was just too complicated.” *Id.* at 2078:14-22.

As set forth below, failing to confront the state of the art in 1998, Comcast has presented *no evidence* that in September 1998 a person of ordinary skill in the art had, or would have, considered it obvious (or conventional or routine) to select “how” storage options for recording shows from the IPG. None of Comcast’s cited prior art discloses user selection of “how” storage options from an IPG on or before the priority date of the '585 Patent. Accordingly, none of

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<sup>3</sup> It is undisputed that the '585 Patent is entitled to a priority date of September 17, 1998.

Comcast's cited prior art anticipates (no express disclosure) or renders obvious (no proof that doing so was conventional/routine in September 1998) any Asserted Claim of the '585 Patent.

**B. The '585 Patent's User-Selectable *How* Storage Options**

Before delving into Comcast's specific invalidity arguments, and the reasons they are misplaced, it is helpful to remember two things: *First*, the '585 Patent makes an explicit distinction between *what* is being recorded (e.g., the program or programs to be recorded) and user-selectable storage options related to *how* those program(s) are digitally stored on a hard drive. CBr. at 37, 42-45, 62 (discussing the difference between *what* is recorded and *how* it is recorded as defined in the specification of the '585 Patent); Balakrishnan Tr. 765:12-766:6, 800:21-808:3, 809:12-812:17. These user-selectable *how* storage options include adding time before or after a recording (padding), HD/SD format, and/or the ability to "keep [a recording] until." *See, id.*; JX-0004.39 ('585 Patent) at 16:29-43 & Fig. 16. *Second*, the user's selection of the *how* storage options is done through an IPG. And, the ALJ construed the IPG term to mean "an application that generates a display of television program listings on user television equipment and that allows users to navigate through and interact with television program listings based on user commands." Order No. 41 (Oct. 15, 2018), Appx. A at 20. Accordingly, to anticipate or render obvious any Asserted Claim of the '585 Patent, at a minimum, the prior art must be shown to clearly and convincingly disclose user selection of a *how* storage option from an IPG that "display[s] [] television program listings on user television equipment and that allows users to navigate through and interact with television program listings based on user commands." *Id.*

### C. Validity

Comcast alleges that two sets of references anticipate and render obvious the Asserted Claims of the '585 Patent: (a) ReplayTV and (b) United States Patent No. 6,016,348 ("Blatter"). Comcast does not raise the issues of lack of written description or indefiniteness in its Post Hearing Brief, so those arguments are waived.

A patent is presumed valid. 35 U.S.C. § 282. Comcast must, therefore, prove anticipation or obviousness of the Asserted Claims by clear and convincing evidence. *In re Certain Printing & Imaging Devices & Components Thereof*, Inv. No. 337-TA-690, ID, at 104-107 (Sept. 23, 2010). Comcast cannot meet its burden to show that either ReplayTV or Blatter anticipate or render obvious any Asserted Claim of the '585 Patent.

#### 1. ReplayTV Does Not Anticipate the Asserted Claims

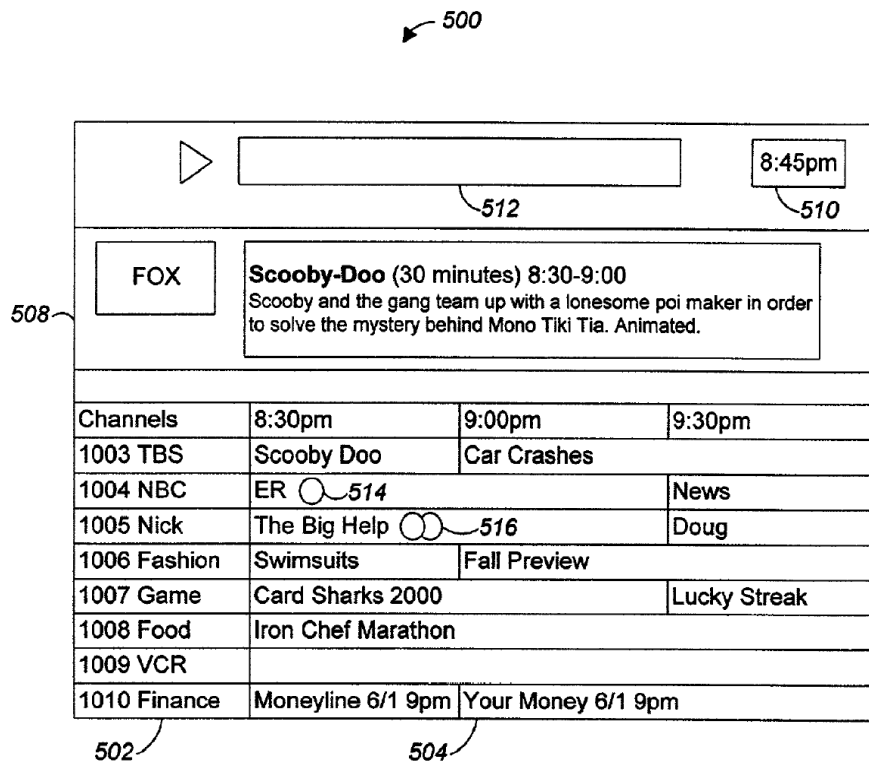
The ReplayTV references consist of United States Patent Application Publication No. 2002/0057893 ("ReplayTV 893") (RX-0008) and United States Patent No. 6,324,338 ("ReplayTV 338") (RX-0006) (collectively, "ReplayTV References").<sup>4</sup> ReplayTV 338, along with other ReplayTV-related prior art, is cited on the face of the '585 Patent and was considered by the Patent Office in allowing the '585 Patent. JX-0004.3-.4 ('585 Patent) at 2-3 (listing references considered by the examiner); JX-0010.5125-26 ('585 Patent Prosecution History); Albonesi Tr. 1945:9-1946:9 (admitting ReplayTV 338, along with other ReplayTV-related prior art, are cited on the face of the '585 Patent as references considered by the USPTO during prosecution).

The ReplayTV References have two distinct disclosures within the specification: (a) an IPG that displays listings of television shows and channels, including the user's ability to select a

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<sup>4</sup> Comcast treated these references together in its Pre-Hearing Brief (RPHB at 46) and the parties agree that these references each "generally refer to the same systems being developed."

show or a series for recording (but nothing else) from the IPG (*see, e.g.*, RX-0008.20-.22 (ReplayTV 893) ¶¶ 87-94) and (b) personal channels (*see, e.g.*, RX-0008.22-.24 (ReplayTV 893) ¶¶ 95-111), which *do not* relate to the displayed IPG. The ReplayTV References first discuss an IPG that presents the user with a visual representation of information in the channel guide database. *See* RX-0008.6, .20-.22 (ReplayTV 893) at Fig. 5 & ¶¶ 87-94. The functionality of the IPG in the ReplayTV references is limited to navigating the content of the displayed IPG and user selection of a program or series to record (the *what*) from the displayed IPG. *Id.* Figure 5 of ReplayTV 893 (excerpted below) shows the ReplayTV guide. Balakrishnan Tr. 2085:6-10; RX-0008.6 (ReplayTV 893).



RX-0008.6 (ReplayTV 893) (Figure 5).

Paragraphs 87 through 94 of ReplayTV 893 describe in detail the limited functionality of the IPG in Replay TV including: (a) “how to navigate or scroll through the listings” (RX-0008.21 (ReplayTV 893) at ¶¶ 88, 91-94); (b) sorting shows by category, groups, or favorites (*id.* ROVI’S POST HEARING REPLY BRIEF [INV. NO. 337-TA-1103])

at ¶ 90); (c) the functionality of the “Select” button on the remote control (*id.* at ¶ 93); and (d) the functionality of multiple presses of the “Record” button on the remote control (*id.* at ¶ 94). Entirely missing from this disclosure, and as discussed further below, is any discussion (or suggestion) of any user selection of any *how* storage options from the displayed IPG.

After discussing the IPG, and the limited functionality it offers a user, the ReplayTV references then switch gears and separately describe the creation and programming of “personal channels.” These “personal channels” *are not* related to the IPG; they allow a user to “create a personal channel on which to record content received from the attached video sources satisfying specified record criteria.” RX-0008.22 (ReplayTV 893) at ¶ 95. Personal channels are described at length in paragraphs 95 through 111 of ReplayTV 893, including setting and evaluating recording criteria, naming and numbering personal channels, managing personal channel storage, and viewing personal channels. RX-0008.22-.24 at ¶¶ 95-111. Importantly, the personal channels are managed by the system (not the user) following the user’s input of criteria for the types of programs to be recorded (where this user-inputted criteria is not disclosed as being input through the IPG). RX-0008.22 at ¶ 95 (“For example, a user might create a ‘Finance’ personal channel whose record criteria specify all episodes of the shows ‘Moneyline’ and ‘Your Money.’”). No interaction with the displayed IPG is required as part of the user’s creation of personal channels. *See* RX-0008.22-.24 at ¶¶ 95-111.

**a.      ReplayTV Does Not Teach the “Global” Storage Settings of Claims 1 and 15**

The ReplayTV References do not teach the global storage settings of claims 1 and 15 of the ’585 Patent. CBr. at 36-37 (discussing the difference between the global storage options of claims 1 and 15 compared to the program-specific storage options of claims 8 and 22). Rovi’s expert, Dr. Balakrishnan, testified that the Asserted Claims of the ’585 Patent cover two different

ways of providing user selectable storage options for controlling *how* a program or programs are to be recorded. Balakrishnan Tr. 732:2-20, 733:9-743:15, 734:16-735:22, 793:17-794:20, 799:22-800:5 (describing the difference between the “global” storage option of claims 1 and 15 and the “program specific” storage option of claims 8, 11, and 22). As he explained, in reference to demonstrative exhibits CDX-0006C.8-.10, claims 1 and 15 provide for user selection and setting of a storage option that is then applied globally to all programs (plural) selected for recording thereafter through an IPG. *Id.*

Comcast waived any argument that the ReplayTV References disclose global storage settings as taught in claims 1 and 15 of the ’585 Patent. Rovi moved to strike certain Hearing testimony and demonstrative slides of Comcast’s expert, Dr. David Albonesi, concerning invalidity arguments involving the difference in scope between claims 1 and 15 (global storage options) and claims 8 and 22 (program specific options). *See* Rovi’s Mot. to Strike Undisclosed Invalidity Args. in Dr. Albonesi’s Hrg. Testimony, Mot. No. 1103-049 (Oct. 25, 2018). As discussed in that pending motion, the “Orders of Steps” arguments presented during Dr. Albonesi’s hearing testimony (Albonesi Tr. 1837:5-1838:19; 1876:3-1879:13) and accompanied by demonstrative slides RDX-001C.43-.45, .61, .85-.87, and .129-.130 are nowhere in Dr. Albonesi’s expert report and should therefore be stricken. *See* Rovi’s Mot. to Strike, Ex. 3C (Excerpts from Dr. Albonesi’s Expert Report) (not containing any “orders of steps” opinions or differentiating claim scopes).<sup>5</sup> If the ALJ grants Rovi’s motion to strike, then Comcast has

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<sup>5</sup> Before the Hearing, Dr. Albonesi viewed each Asserted Claim of the ’585 Patent as having materially the same scope. *Id.* (Ex. 3C, Excerpts from Albonesi’s Expert Report) at ¶¶ 86-87 (“Claim 1 does not differ materially from the other asserted independent claims . . . . Despite the different claim formatting, the claims generally recite the same elements for performing the same functions.”); *id.* ¶ 95 (“Rovi did not advance any claim construction position that draws a distinction between ‘global’ and ‘local’ configuration of storage settings in any of the claims, nor did it draw a distinction in its infringement charts.”).

presented no evidence that either ReplayTV Reference anticipates or renders obvious the “global” storage settings claimed by claims 1 and 15 of the ’585 Patent.

In any event, and even if the ALJ denies Rovi’s motion to strike, there remains no evidence (and certainly no clear and convincing evidence) that the ReplayTV References teach user specification of global storage settings from the IPG as claimed by claims 1 and 15 of the ’585 Patent. The *only* ReplayTV Reference citation Comcast relies on for alleged global storage settings is paragraph 117 of ReplayTV 893. RBr. at 36 (citing RX-0008 (ReplayTV 893) at ¶ 117); Albonesi Tr. 1837:15-25 (discussing same); *id.* at 1878:21-1879:4 (arguing that global storage settings would have been obvious). Paragraph 117 of ReplayTV 893 states in its entirety:

As described in more detail below, the digital VCR 10 always spools the current show to a *rewind buffer* that is stored on the hard disk 142. The user can configure the length of the *rewind buffer*, which can be, for example, 15 minutes long by default. The user can specify default recording qualities with which shows are to be recorded into the rewind buffer and into personal channels.

RX-0008.24 (ReplayTV 893) at ¶ 117 (emphasis added). The “current show” is thus being “spooled” to a “rewind buffer,” and the user is able to “specify default recording qualities” for this program in the rewind buffer. *Id.*

Nowhere in paragraph 117 of ReplayTV 893 is there a disclosure related to user selection of global storage settings from the IPG that are then applied to all future recordings that control how those programs are to be digitally stored as required by claims 1 and 15 of the ’585 Patent. Rather, paragraph 117 is discussing how recording qualities may be applied to the rewind buffer or into a personal channel. More importantly, there is no disclosure of how the recording quality is specified—even if “recording qualities” is presumed (as Comcast asserts) to be a user-specified “how” storage option, this paragraph is *entirely silent* on how the user specifies the

recording quality. And certainly, there is no disclosure that any such selection is done through the IPG as required by claims 1 and 15 of the '585 Patent.<sup>6</sup>

**b. ReplayTV Does Not Teach Using an IPG to Select as Required by Limitations 1.a, 8.c, 15.c, and 22.d of the Asserted Claims**

Each Asserted Claim of the '585 Patent requires that an IPG “provide the user with an opportunity to select at least one storage option for storing a program to be recorded, wherein said at least one storage option relates to at least one storage setting configured to control how programs are to be digitally stored[.]” JX-0004.41 ('585 Patent) at claim 15.c; *see also* JX-0004.40-.41 at claims 1.a, 8.c, and 22.d (similar limitation).<sup>7</sup> The ALJ construed the term IPG to mean “an application that generates a display of television program listings on user television equipment and that allows users to navigate through and interact with television program listings based on user commands.” Order No. 41, Appx. A at 20 (Oct. 15, 2018). Applying the IPG construction, there has been no showing that the ReplayTV References teach (or otherwise suggest or disclose) using an IPG to select *how* storage options; rather, the ReplayTV References only discuss selecting a program (or programs) for recording (the *what*) from the IPG and nothing more. Balakrishnan Tr. 2085:1-2091:8 (discussing how paragraphs 87 through 94 do not meet this limitation); *id.* at 2141:21-2143:5 (same); *id.* at 2143:6-2144:8 (discussing how paragraphs 102, 105, and 108—identified by Comcast’s expert Dr. Albonesi—do not meet this limitation); *id.* at 2080:3-2083:25 (same).

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<sup>6</sup> Moreover, while Comcast assumes—without evidence—that such a selection of quality would be done via the IPG, without any description of how such user selection of quality through the IPG would be implemented there’s been no showing any such selection from the IPG is enabled. *See In re Antor Media Corp.*, 689 F.3d 1282, 1287 (Fed. Cir. 2012) (citing *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1354 (Fed. Cir. 2003)).

<sup>7</sup> The parties also agreed that the preamble of claim 1 of the '585 Patent is limiting. Order No. 41, Appx. A at 14 (Oct. 15, 2018).



Importantly, there is no disclosure anywhere in the ReplayTV References of using an IPG (as that term was construed by the ALJ) for selecting storage options controlling *how* a program is to be digitally stored (e.g., adding time before or after a recording, selecting HD/SD, selecting when a program will be deleted) as required by the Asserted Claims of the '585 Patent. Balakrishnan Tr. 2085:1-2092:3. While ReplayTV 893 describes an IPG in paragraphs 87 through 94, and discloses that the user is able to select a show or a series for recording from that IPG, neither ReplayTV Reference discloses any user selection *from the IPG* of any storage options controlling *how* the program selected for recording is to be digitally stored. *Compare* Balakrishnan Tr. 2085:1-24 (discussing how Figure 5 and paragraphs 87 through 94 of RX-0008 (ReplayTV 893) do not disclose selection of how storage options from the IPG), *with Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1341-42 (Fed. Cir. 2016) (finding that a skilled artisan would envisage the combination of two tools where the reference disclosed “a limited number of tools” and discussed “combining features disclosed therein”).

Figure 5 and paragraphs 87 to 94 of ReplayTV 893, for example, do not disclose user selection of any storage options controlling *how* a program is to be digitally stored from an IPG. RX-0008.20-.22 (ReplayTV 893). Taking each paragraph in turn, Dr. Balakrishnan explained that none of these paragraphs disclose using the IPG to select *how* storage options:

- Paragraph 87 of ReplayTV 893 is limited to disclosing “a channel guide display 500 presents the user with a visual representation of information contained in the channel guide database and of content recorded in personal channels.” RX-0008.20-.21 (ReplayTV 893) at ¶ 87; Balakrishnan Tr. 2085:25-2086:12.
- Paragraph 88 of ReplayTV 893 is limited to describing the channel guide display and “how to navigate or scroll through the listings.” Balakrishnan Tr. 2086:13-2087:5; RX-0008.21 (ReplayTV 893) at ¶ 88.
- Paragraph 89 of ReplayTV 893 is limited to disclosing additional information regarding the channel guide and filtering information. Balakrishnan Tr. 2087:6-20; RX-0008.21 (ReplayTV 893) at ¶ 89.

- Paragraph 90 is limited to disclosing sorting shows by category, groups, or favorites. Balakrishnan Tr. 2087:21-2088:8; RX-0008.21 (ReplayTV 893) at ¶ 90.
- Paragraph 91 is limited to disclosing navigation of the program guide and selection of programs for recording (as discussed further in paragraphs 92 through 94)—but provides no disclosure whatsoever of selecting storage options. Balakrishnan Tr. 2088:9-2089:1; RX-0008.21 (ReplayTV 893) at ¶ 91.
- Paragraph 92 is limited to disclosing specific buttons the user can use on the remote control for navigation purposes: “Channel Up,” “Channel Down,” “Cursor Up,” “Cursor Down,” “Cursor Left,” “Cursor Right,” and “direct tuning.” Balakrishnan Tr. 2089:2-21; RX-0008.21 (ReplayTV 893) at ¶ 92.
- Paragraph 93 is limited to disclosing the functionality of the “Select” button on the remote control, including tuning to a highlighted show, providing “a list of options is displayed (e.g., tune to the highlighted show’s channel, record one episode of the highlighted show, record all episodes of the highlighted show),” and bringing up the channel options display. Balakrishnan Tr. 2089:22-2090:11; RX-0008.21-.22 (ReplayTV 893) at ¶ 93.
- Paragraph 94 is limited to disclosing the functionality of multiple presses of the “Record” button on the remote control: paragraph 94 says that “you can press the record button once to record a single episode or press it twice to record all upcoming episodes. Balakrishnan Tr. 2090:12-2091:8; RX-0008.22 (ReplayTV 893) at ¶ 94. And pressing it a third time cancels the scheduled recording.” RX-0008.22 (ReplayTV 893) at ¶ 94.

While Comcast principally relies on ReplayTV 893 (*see e.g.*, R.Br. at 25-40), then, nothing in ReplayTV 338 has been shown to provide any additional disclosure. Accordingly, nothing in either ReplayTV Reference has been proven by Comcast to disclose anything more than user selection of a show or a series for recording from the IPG.

As Dr. Balakrishnan testified, the authors of ReplayTV 893 “have given multiple disclosures in successive paragraphs as to what to do while the [IPG] channel guide display [is] on the screen [in paragraphs 87 to 94]. And none of those involve *how* record options or *how* storage options.” Balakrishnan Tr. 2094:13-25. Dr. Balakrishnan also testified that there is no reference to user selection of a *how* storage option using the remote control while the IPG is displayed:

Q. And do any of paragraphs 87 through 94, which come below paragraph 82, refer to user selection of a *how* storage option using the remote control while the grid guide is displayed?

A. No.

Balakrishnan Tr. 2143:1-5. On *cross-examination*, Dr. Balakrishnan testified that “there is no evidence in the [ReplayTV] patent or by [] Dr. Albonesi that a selection of those how-to storage options were done through the guide [i.e., the IPG].” Balakrishnan Tr. 2115:1-16.

Additionally, the ReplayTV References do not enable a person of ordinary skill in the art to implement an IPG for selecting storage options controlling how a program is to be digitally stored. There is *no* disclosure of how a person of ordinary skill in the art—over twenty years ago—would engineer the software and hardware required to implement such advanced guide functionality. “A prior art reference cannot anticipate a claimed invention ‘if the allegedly anticipatory disclosures cited as prior art are not enabled.’” *In re Antor*, 689 F.3d at 1287 (citing *Amgen*, 314 F.3d at 1354). “[T]he question is not whether a prior art reference ‘suggests’ the claimed subject matter[;] . . . [r]ather, the dispositive question regarding anticipation is whether one skilled in the art would reasonably understand or infer from a prior art reference that every claim element is disclosed in that reference.” *Eli Lilly & Co.*, 849 F.3d at 1074-75.

The ReplayTV References contain limited discussion of a nascent grid guide—which only allows the user to “select” program functionality by pressing the “Select” button numerous times. Balakrishnan Tr. 2090:12-2091:8; RX-0008.22 (ReplayTV 893) at ¶ 94. There is no discussion in the ReplayTV References of how the user interface would need to be modified to implement any additional functionality—including user selection of *how* storage options from the IPG. Balakrishnan Tr. 2085:1-2092:3; RX-0008.22-.24 (ReplayTV 893) at ¶¶ 94-111. There is no discussion in the ReplayTV References of how the buttons on a remote would be mapped to implement such functionality. Balakrishnan Tr. 2085:1-2092:3; *see also* RX-0008.5

(ReplayTV 893) at Fig. 4 (showing the buttons on the ReplayTV remote control and discussing their functionality). Further, there is no discussion in the ReplayTV References of how the source code of the guide application, source code of the set top box code, or source code of a remote server would need to be modified to implement such functionality. Balakrishnan Tr. 2085:1-2092:3.

**i. *How storage options in ReplayTV are not selected by a user through an IPG.***

Comcast makes several arguments asserting that ReplayTV 893 does disclose selection of storage options controlling how a program is to be digitally stored. Tellingly, Comcast only cites to its own expert Dr. Albonesi's testimony a *single* time in support of its argument—in the very last sentence of that section of its brief. RBr. at 29-34 (citing Albonesi Tr. 1828:19-1834:2, 1837:5-1839:2). However, the cited sections of Dr. Albonesi's testimony are limited to the personal channels of ReplayTV, which, as discussed in this section, do not disclose using an IPG to select *how* storage options. *See generally id.*

The ReplayTV References do not disclose a *user* using an *interactive television program guide* to select *how* storage options. First, Comcast argues that ReplayTV 893 paragraphs 96, 102, and 108 disclose using an IPG for selecting storage options controlling how a program is to be digitally stored. RBr. at 29-34; Albonesi Tr. 1828:19-1834:2, 1837:5-1839:2. But ReplayTV 893 paragraphs 95 through 111 (including the specifically cited paragraphs 96, 102, and 108) do not discuss using an IPG; they discuss “personal channels,” in which a “user can create a personal channel on which to record content received from the attached video sources satisfying specified record criteria.” RX-0008.22 (ReplayTV 893) at ¶ 95. ReplayTV 893 describes personal channels at length in paragraphs 95 through 111, including setting and evaluating recording criteria, naming and numbering personal channels, managing personal channel storage,

and viewing personal channels—but none of these paragraphs mentions or otherwise discloses accomplishing any of this functionality from the IPG. JX-0008.22-.24 (ReplayTV 893) at ¶¶ 95-111; *compare id.* at ¶¶ 87-94 (each paragraph expressly describing the “channel guide display” of Figure 5 and the various things a user can do from the displayed IPG *not* including any specification of any “how” storage option); *with id.* at ¶¶ 95-111 (generally describing “personal channels,” and never once specifying that any selection or interaction with the “personal channel” is via the IPG). Comcast offers no evidence, and Dr. Albonesi never testified, that a “personal channel” (or any user interaction with any “personal channel” functionality) in the ReplayTV art involves user selection of a “how” storage option from the “IPG” (as that term was construed). *See* Albonesi Tr. 1828:19-1834:2, 1837:5-1839:2 (testimony limited to the personal channels of ReplayTV, which do not disclose using an IPG to select *how* storage options); RBr. at 29-34 (citing Albonesi Tr. 1828:19-1834:2, 1837:5-1839:2 as the only support for the alleged presence of this limitation).

ReplayTV 893 notes that “[t]he digital VCR can be manufactured or otherwise-pre-configured with one or more personal channels.” JX-0008.23 (ReplayTV 893) at ¶ 107. These personal channels are managed by the system (not the user) following the user’s input of criteria to create that personal channel. RX-0008.22 (ReplayTV 893) at ¶ 95 (“For example, a user might create a ‘Finance’ personal channel whose record criteria specify all episodes of the shows ‘Moneyline’ and ‘Your Money.’”). For those personal channels, ReplayTV indicates that a user can specify “default recording qualities.” JX-0008.24 (ReplayTV 893) at ¶ 117. But these personal channels—and any user selection of a “finance” channel or a “default recording quality” have not been shown by Comcast (or Dr. Albonesi) to be selected by the user from the IPG as required by the Asserted Claims of the ’585 Patent—particularly not as the term “IPG”

was construed by the ALJ. Balakrishnan Tr. 2092:6-2094:12. ReplayTV does not suggest or require any interaction with the IPG for the user's creation of personal channels and corresponding specification of the "default recording qualities" that Comcast points to for these personal channels. *See* RX-0008.22-.24 (ReplayTV 893) at ¶¶ 95-111.

Comcast is wrong to assert that the "personal channel" embodiment of ReplayTV discloses *how* storage options selected by a user from the IPG because it ignores the actual disclosures of paragraphs 96, 102, and 108 of ReplayTV 893: these "personal channel disclosures" do not disclose how the user would specify any recording options for any personal channel—much less that the user does so by using the IPG (as that term was construed). Balakrishnan Tr. 2082:2-2084:22; *id.* at 2082:19-22 ("Q. Does paragraph 108 of the ReplayTV 893 disclose that the user specifies the recording quality storage option as identified by Dr. Albonesi from the IPG? A. No, it does not."); *id.* at 2084:19-22 ("Q. And do either of paragraphs 102 or 96 of Replay 893 disclose how the user specifies either of those recording options? A. No, it does not."). And, importantly, paragraph 96 of ReplayTV 893 *only* discusses how the digital VCR 10—not a user—can record a show at a selected time before or after it is scheduled to be broadcast: "Optionally, the digital VCR 10 can begin recording a show at a selected time (e.g., three minutes) before the show is scheduled to be broadcast and stop recording the show at a selected time after the show is scheduled to finish broadcasting." RX-0008.22 (ReplayTV 893) at ¶ 96; Balakrishnan Tr. 2084:9-21 (testifying that paragraph 96 does not disclose how a user specifies recording options in the personal channels). There is no disclosure of: (a) a user's ability to change or select this option; (b) how a user would change or select this option through an IPG; or (c) how such advanced user interactivity would be implemented in the limited

ReplayTV digital VCR's software or hardware. *See* RX-0008.22 (ReplayTV 893) at ¶ 96; Balakrishnan Tr. 2084:9-21; *see Eli Lilly*, 849 F.3d at 1074-75.

Comcast also argues that an IPG must be used for selecting storage options controlling how a program is to be digitally stored in the ReplayTV References because “[i]n general, the user issues all commands using the remote control 22.” RBr. at 30 (citing RX-0008 at ¶ 18). Comcast’s argument fails because issuing a command with the remote control does not require the use of an “IPG”—particularly as that term was construed. For example, the remote control of Figure 4 shows “Ch Up,” “Ch Down,” and “Pause” buttons—which surely do not require use of the IPG for a channel change or to pause live television. *See* RX-0008.5 at Fig. 4 (showing many different commands that do not require IPG for the functionality to work); RX-0008.20 at ¶ 82. And while a user of ReplayTV can navigate the IPG, there still has been no disclosure of user selection of a “how” storage option (using the remote control or otherwise) from the IPG. As Dr. Balakrishnan testified, while paragraphs 87 through 94 of ReplayTV 893 discuss the remote control and the actions the user can take from the IPG (Balakrishnan Tr. 2141:1-2143:5), subsequent paragraphs, including paragraphs 96, 102, 105, and 108, describe the “personal channels” and contain *no* disclosure or reference to the remote control, the IPG, or user selection of any “how” storage option using the remote control from the IPG. Balakrishnan Tr. 2143:6-10; RX-0008.22-.23 (ReplayTV 893).

Next, Comcast argues that “it is the ‘digital VCR application 330’ that receives and processes all user commands ‘regardless of the input device[.]’” RBr. at 30 (citing RX-0008 (ReplayTV 893) at ¶ 68). However, this is not evidence that ReplayTV discloses the use of the *interactive television program guide* to select *how* storage options. And Comcast misrepresents

the disclosure of paragraph 68, which describes how commands are received in the ReplayTV system—not the functionality of the IPG:

Possible sources of user input include the IR detector 134 (for receiving remote control keypresses), the modem 148 (for, e.g., receiving commands to record a television show), a pager (for, e.g., receiving commands to record a television show), a universal serial bus (for receiving input from a keyboard or mouse), or a microphone (for receiving voice commands). All user commands are routed through the command input/output interpreter 324. In this way, the digital VCR application 330 receives a single command input stream regardless of the input devices from which the inputs originate.

RX-0008.18-.19 (ReplayTV 893) at ¶ 68. As discussed above, there is no disclosure in the ReplayTV References—in paragraphs 96, 102, and 108 or otherwise—of using an *interactive television program guide* to select storage options controlling *how* a program is to be digitally stored. Balakrishnan Tr. 2143:6-10.

**ii. ReplayTV’s disclosure of selection of *what* is to be recorded is not a disclosure of selection of *how* storage options with the IPG.**

Comcast next argues that the selection of a program (or programs) to be recorded controls *how* a program is to be digitally stored (e.g., that selection of *what* to record in and of itself is a *how* storage option).<sup>8</sup> RBr. at 32 (discussing ReplayTV 893), 41-42 (discussing ReplayTV 338). Comcast is wrong because it ignores the explicit disclosures of the ’585 Patent specification, which differentiate between *what* is being recorded and storage options controlling *how* the selected program (or programs) is to be digitally stored. Balakrishnan Tr. 765:12-766:6, 800:21-

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<sup>8</sup> Comcast does not argue or provide any evidence that ReplayTV 338 teaches any *how* storage options—much less a *how* storage option being selected from an interactive television program guide. RBr. at 41 (only discussing *what* storage options regarding “whether reruns are to be recorded,” “the number of shows in a series to record,” and “the option of recording only a single program or all programs in a series”). Further, Comcast does not argue or provide any evidence that ReplayTV 338 anticipates claim 11 of the ’585 Patent.



808:3, 809:12-812:17 (describing the “how” storage options as different from the selection of the program or programs to be recorded).

As Dr. Balakrishnan explained, the storage options selected by the user must relate to *how* the program or programs selected by the user are stored on the “random access digital storage device.” *Id.* Figure 14 of the ’585 Patent shows user-selectable “storage options,” including “language,” “video format,” “parental controls,” and “auto-erase.” *Id.* at 2101:18-2103:3; JX-0004.23 (’585 Patent) at Fig. 14. Then, as Dr. Balakrishnan further explained, Figure 16 of the ’585 Patent, “illustrates [the] steps involved [in] providing the user with the ability to define selectable options.” Balakrishnan Tr. 2098:14-2101:17; JX-0004.25, .39 (’585 Patent) at 16:29-43 & Fig. 16. As shown in ’585 Patent Attachment 7 to Rovi’s Post Hearing Brief, Figure 16 of the ’585 Patent (together with the corresponding portion of the specification) makes clear that “language, video format, enforcement of a parental control, and auto-erase” are user-selectable “storage options” that control how “the program guide stores the programs and associated program data on digital storage device 49 *according to how* the storage options are defined as set forth in steps 426, 428, 430, and 432 respectively.” JX-0004.39 (’585 Patent) at 16:29-43 (emphasis added). For example, block 426 of Figure 16 describes “digital[] stor[age of] programs and associated data *according to* language storage option.” JX-0004.25 at Fig. 16 (emphasis added). And, block 428 of Figure 16 describes “digital[] stor[age of] programs and associated data *according to* video format option.” *Id.* These “how” storage options include start time, stop time, HD/SD format, and/or keep until—but they *do not* include the selection of the program or programs to be recorded. Balakrishnan Tr. 765:12-766:6, 800:21-808:3, 809:12-812:17. As Dr. Balakrishnan testified:

Q. Is recording a single episode or all episodes a storage option controlling how programs are to be digitally stored in your opinion?

A. No, it is not.

Q. Why not?

A. Because it is determining what it is that I want to store, which is the single episode or all episodes, not how one is to store those episodes.

Balakrishnan Tr. 2083:17-24. Thus, selection of the program or programs to be recorded (the *what*) is not the selection of a *how* storage option, and paragraph 129 of ReplayTV 893 does not disclose using an *interactive television program guide* for selecting storage options controlling *how* a program is to be digitally stored. Balakrishnan Tr. 2085:1-2092:3; *see also* CBr. at 37, 42-45, 62 (discussing the difference between *what* is recorded and *how* it is recorded as defined in the specification of the '585 Patent).

Notwithstanding this discussion, Comcast takes an error in Dr. Balakrishnan's opening expert report and leverages it to create a mountain out of a molehill (going so far as to assert somehow Dr. Balakrishnan disclaimed sworn testimony). RBr. at 28-29. But as Dr. Balakrishnan explained repeatedly at the Hearing (and in his deposition), his inclusion of the selection of a program in the list of "how" storage options in one paragraph of his report was a mistake made solely in a single part of his opening expert report. Balakrishnan Tr. 810:7-812:17; 878:22-879:1; 2138:14-25; *see also* Rovi's Resp. to Comcast's MIL 1, Doc. ID 656102, Ex. A (Sept. 18, 2018) (Balakrishnan Dep. 238:17-239:16, 241:2-8). Comcast's position is undermined by the evidence in Rovi's infringement contentions, the rest of Dr. Balakrishnan's opening report (Rovi's Resp. to Comcast's MIL 1, Doc. ID 656102, Ex. B at ¶¶ 156-58), Dr. Balakrishnan's rebuttal report (*id.* at Ex. C (Balakrishnan Rebutl. Rpt. ¶¶ 76, 77, 83)); CPHB at 27, 29, 32, 37-41), his deposition (*id.* at Ex. A (Balakrishnan Dep. 238:17-239:16, 241:2-8)), and the testimony at the Hearing (Balakrishnan Tr. 810:7-812:17; 878:22-879:1; 2138:14-25)—all of which treat the selection of a

program to record as a “what” storage option and not a “how” storage option. *See* Rovi’s Resp. to Comcast’s MIL 1, at 11-14.

## 2. The Asserted Claims Are Not Obvious

### a. Comcast’s Obviousness Combinations Fail as a Matter of Law for Failure of Proof of Motivation to Combine and Expectation of Success

Comcast concludes that the missing limitations from the ReplayTV References are obvious.<sup>9</sup> “Whether a rejection is based on combining disclosures from multiple references, combining multiple embodiments from a single reference, or selecting from large lists of elements in a single reference, there must be a motivation to make the combination and a reasonable expectation that such a combination would be successful, otherwise a skilled artisan would not arrive at the claimed combination.” *In re Stepan Co.*, 868 F.3d 1342, 1346 n.1 (Fed. Cir. 2017). Comcast, however, provided no evidence *whatsoever* of a motivation to combine any part of: (a) ReplayTV 893 with another part of ReplayTV 893 or (b) ReplayTV 338 with another part of ReplayTV 338. RBr. at 49-50. Comcast also did not provide a specific motivation to combine any specific part of ReplayTV 893 with any specific part of ReplayTV 338. *Id.* at 51-52. Finally, Comcast provides no evidence *whatsoever* regarding any expectation that any such combination would be successful (or even how it could be implemented in terms of software or hardware). *Id.* at 49-52.

“[The] case law makes clear that the best defense against hindsight-based obviousness analysis is the rigorous application of the requirement for a showing of a teaching or motivation to combine the prior art references.” *Ecolochem, Inc. v. S. California Edison Co.*, 227 F.3d 1361,

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<sup>9</sup> The arguments in this section apply to Comcast’s single reference combination of ReplayTV 893, single reference combination of ReplayTV 338, and two reference combination of ReplayTV 338 and ReplayTV 893.

1371 (Fed. Cir. 2000); *see also Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1334 (Fed. Cir. 2002) (“The showing of a motivation to combine must be clear and particular, and it must be supported by actual evidence.”); *In re NuVase*, 842 F.3d 1376, 1383 (Fed. Cir. 2016). Without any evidence of a motivation to combine or an expectation of success in the combination, Comcast’s obviousness arguments must be rejected, at a minimum, for a failure of proof.

**b. Comcast Has a Failure of Proof as to its Obviousness Arguments Regarding ReplayTV and Global Storage Options of Asserted Claims 1 and 15**

Comcast does not address the global storage settings missing from the ReplayTV References, or how those global storage settings would have been obvious to one of ordinary skill in the art in September 1998. RBr. at 49-50. Comcast has therefore failed to show that global storage options, and Asserted Claims 1 and 15 of the ’585 Patent, are obvious in light of the ReplayTV References.

**c. Comcast Waived its Obviousness Arguments Regarding Using an IPG to Select *How* Storage Options with ReplayTV**

In recognition of the fact that neither ReplayTV Reference contains any express disclosure of any user selection of any *how* storage option from the IPG, Comcast next argues that it would have been obvious to one of skill in the art to use the IPG to select *how* storage options based on single reference obviousness of either ReplayTV Reference. RBr. at 49-50. Because Dr. Albonesi failed to include any such opinion in his expert report, Comcast has waived any argument regarding “the use of a grid guide to record programs into a personal channel” or otherwise asserting that it would be obvious to select a *how* storage option from the IPG in either ReplayTV Reference. *See* Rovi’s Mot. to Strike Undisclosed Invalidity Args. in Dr. Albonesi’s Hrg. Testimony, Mot. No. 1103-049 (Oct. 25, 2018). As discussed in that pending motion, Dr. Albonesi’s argument at the Hearing that “one of skill in the art would understand”

that “you could use the grid guide to select programs for recording to personal channels” (Albonesi Tr. 1823:5-1824:5; 1826:18-1827:4; 1879:20-1880:25) and accompanying demonstrative slides RDX-001C.31, .131, and .132 are nowhere in Dr. Albonesi’s expert report. *See* Rovi’s Mot. to Strike Undisclosed Invalidity Args. in Dr. Albonesi’s Hrg. Testimony, Mot. Dkt. No. 1103-049, Ex. 3C. For this reason, any argument that it would have been obvious to select *how* storage options from the IPG in the ReplayTV References is waived.

**d. Comcast’s Proposed Combination of the IPG of ReplayTV with User Selection of *How* Storage Options Does Not Invalidate the Asserted Claims**

Comcast argues that it would have been obvious to combine the IPG of the ReplayTV References with user selection of *how* storage options to render the Asserted Claims of the ’585 Patent obvious. Even if waiver is not found, Comcast’s arguments fail because it has not met its burden to prove that it would have been obvious to one of skill in the art to combine the IPG guide of ReplayTV with user selection of *how* storage options in September 1998 to come up with the inventions claimed in the Asserted Claims of the ’585 Patent. This is particularly true due to the rudimentary and limited nature of software program IPGs in September 1998 and the corresponding lack of proof from Comcast that user selection of storage options from the IPG was conventional, routine, or otherwise expected (i.e., obvious) to one of ordinary skill in the art at that time. JX-0004.32 (’585 Patent) at 1:54-59 (“This and other objects of the invention are accomplished in accordance with the principles of the present invention by providing an interactive program guide system with digital storage that allows the program guide to be used to provide more advanced features than previously offered by interactive program guide systems.”).

As discussed above, the personal channels of the ReplayTV References do not disclose using an IPG to select *how* storage options.<sup>10</sup> ReplayTV’s disclosure primarily relates to the population of a criteria database (e.g., a list of program names) to be used with “personal channels.” RX-0008.22-.24 (ReplayTV 893) at ¶¶ 95-111. ReplayTV’s personal channels are managed by the system (not the user) following the user’s input of criteria. RX-0008.22 (ReplayTV 893) at ¶ 95 (“For example, a user might create a ‘Finance’ personal channel whose record criteria specify all episodes of the shows ‘Moneyline’ and ‘Your Money.’”). No interaction with the IPG is suggested or required for the use of personal channels or the user’s input of the criteria to specify the creation of a given personal channel such as “Moneyline.” *See* RX-0008.22-.24 at ¶¶ 95-111. This is opposed to the other manner of recording taught by ReplayTV through the IPG as expressly discussed in paragraphs 87 through 94. *See id.* at ¶ 94. That way involves pushing the “Record” button of the remote once, twice, or three times (but, does not disclose that the user is permitted to modify *how* that program selected from the IPG for recording is ultimately recorded). *Id.* Based on the limited functionality of the ReplayTV References’ IPG (selection for recording only, and nothing more), Comcast has not shown that it would have been obvious as of September 1998 to make the necessary software and hardware modifications to the entire guide and recording systems in order to implement more advanced user functionality (e.g., control as to *how* the selected program will be recorded).

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<sup>10</sup> Comcast’s Post Hearing Brief characterizes its arguments regarding invalidity as fact, but Comcast’s arguments ignore Rovi’s positions regarding validity—and the fact that the burden to prove invalidity by clear and convincing evidence is on Comcast. *See* RBr. at 49 (stating wrongly that “it is undisputed that ReplayTV 893 discloses each of the limitations of the asserted claims individually”); *id.* at 50 (stating wrongly that “Rovi does not contest that ReplayTV 338 discloses every limitation of the asserted independent claims”).

Directly refuting Comcast's single reference obviousness assertions, Dr. Balakrishnan testified that a person of skill in the art as of September 1998 would not have found the selection of *how* storage options from an IPG to be obvious:

Q. What can we conclude about the fact that the [ReplayTV] reference is silent on user selection of any *how* storage option while the guide screen is being displayed, Doctor?

A. As one of skill in the art reading this and reading that the reference has explicitly said what could be done while the channel guide display is on screen, the fact that it's silent on selecting *how* storage options from the IPG indicates that the authors or writers of this document had not contemplated using the IPG to do those *how* storage option selections.

Balakrishnan Tr. 2095:1-10. Dr. Balakrishnan went on to testify that it would not have been obvious to select the *how* storage options from the IPG because the state of the art in 1998 was still using "blinking 12" VCRs to set recordings:

Q. Doctor, in September 1998, would selecting *how* storage options, those options configured to control how programs are to be digitally stored from the IPG, the interactive program guide, or while the channel guide of figure 5 is displayed, as opposed to the other user interactions the reference describes, have been obvious to a person of ordinary skill in the art?

A. Not at all, because the other interactions that were well familiar using the front panel of the VCR, for example, those are well known. But doing it through an IPG would not have been well known, because that did not exist prior to that time frame.

Q. Have you seen any evidence that the authors of the Replay '893 contemplated the selection of any storage options from the guide screen in figure 5 or the interactive television program guide, any *how* storage options?

A. None at all.

Q And remind us again, what was the state of the DVR IPG interactive program guide art in September 1998, Doctor?

A. Well, the state of affairs then was there was none available for purchase. They only became available in the next year, in 1999. So at that time, the '585 patent and ReplayTV were very new. And people were relying still—the state of the art was still the old school VCRs using tape and programming it through the front panel and the remote control. As opposed to programming it through the IPG.

Balakrishnan Tr. 2095:18-2096:14.

The Federal Circuit’s decision in *Arendi S.A.R.L. v. Apple Inc.* is instructive. 832 F.3d 1355 (Fed. Cir. 2016), *cert. denied sub nom. Google Inc. v. Arendi S.A.R.L.*, 137 S. Ct. 1329 (2017). In that case, the U.S.P.T.O. improperly combined “common sense” with a prior art reference to render the claims obvious. *Id.* at 1366. The Court found the Board’s determination to be lacking “a reasoned explanation that avoids conclusory generalizations,” *id.*, and explained:

[C]onclusory statements and unspecific expert testimony regarding searches in general are precisely what the Board relied upon in drawing its conclusion that it would have been ‘common sense’ to search a database for a telephone number to be added. . . . And these errors were particularly problematic considering the fact that a key limitation of the ’843 patent was missing from the prior art reference in dispute.

*Id.* at 1366. The Court went further and emphasized that the missing claim limitation was “not a ‘peripheral’ one,” and there was “nothing in the record to support the Board’s conclusion that supplying the missing limitation would be obvious to one of skill in the art.” *Id.* Just like *Arendi*, Comcast attempts to fill the holes of the ReplayTV References with nothing more than conclusory statements and unspecific expert testimony. *See id.* Comcast has not provided any specific disclosure of either ReplayTV Reference that would combine with another specific disclosure of either ReplayTV Reference to disclose using an IPG to select *how* storage options because there is no such disclosure in the ReplayTV References.

### **3. Blatter Does Not Anticipate the Asserted Claims**

Comcast argues that Blatter anticipates and renders obvious the Asserted Claims of the ’585 Patent. RBr. at 51. But United States Patent No. 6,016,348 (RX-0004), entitled “Decoding System and Data Format for Processing and Storing Encrypted Broadcast, Cable or Satellite Video Data” (“Blatter”), is addressed to a different problem than that addressed by the ’585 Patent. RX-0004.6 (Blatter) at 1:49-63 (describing the problem it was intended to solve as “the



need to maintain encryption code security when a program is stored by a consumer in either encrypted or non-encrypted form for viewing at a later time. Further problems are involved in providing a system that permits billing on the storage or playback of a program and that permits copy protected processing of encrypted and non-encrypted program data”). Blatter does not anticipate the Asserted Claims because it is missing critical limitations including: (a) no disclosure of an IPG (and thus no disclosure of using the IPG to select any “how” storage option); (b) no disclosure of global storage options; and (c) no disclosure of High-Definition, Normal Television, or another digital format storage option from dependent claim 11.

**a. Blatter Does Not Disclose an IPG Implemented on User Television Equipment**

Blatter does not disclose an “IPG” implemented on “user television equipment” as those terms were construed by the ALJ. These are limitations required for each Asserted Claim of the ’585 Patent. Comcast’s expert, Dr. Albonesi, provided conclusory testimony regarding two parts of Blatter in an attempt to create a non-existent IPG: RX-0004.7, .12 (Blatter) at 3:13-31 and 14:47-52. Albonesi Tr. 1863:16-1866:4. However, nothing in this disclosure or testimony teaches, much less clearly and convincingly teaches, an application that generates a display of program listings on user television equipment that allows users to navigate through and interact with television program listings based on user commands.

Instead, Blatter is directed to a decoding system—intended to provide consumers access to encrypted or otherwise protected data streams. RX-0004.6 (Blatter) at 1:6-11 (describing “Field of the Invention” as “digital signal processing” and “conditional access processing, decoding, and formatting of encrypted packet data”). Blatter’s decoding system, including the primarily discussed “transport system,” is shown in Figure 1.



tables. The invention principles are not restricted to program guides or PSI conveyed in MPEG compatible PSI tables.”). But there was no discussion by Dr. Albonesi and no evidence cited from Blatter about the alleged IPG’s interactivity, features, or functionality. While Blatter refers to an “MPEG or non-MPEG compatible electronic program guide,” (RX-004.12 at 14:47-52), it provides no discussion or explanation of whether such a guide is the claimed “interactive electronic program guide” and how it would fit in the discussed system. Instead, the specification only describes the “MPEG or non-MPEG compatible electronic program guide” as being used to convey “information described herein as being conveyed in MPEG PSI tables.” RX-0004.12 (Blatter) at 14:41-52. These disclosures—relied upon by Dr Albonesi—do not disclose a software application, much less one that allows users to navigate through and interact with television program listings based on user commands.

There is likewise no disclosure of such a guide “implemented on user television equipment.” There is no discussion by Dr. Albonesi and no evidence cited from Blatter about the specifics of the alleged IPG’s implementation on a particular set of “user television equipment.” Dr. Albonesi’s only testimony at the Hearing regarding “implemented on user equipment” was conclusory: he pointed only to Blatter (RX-0004.6 at 2:52-55) in support of his opinion. Albonesi Tr. 1865:9-25. But again, Blatter (RX-0004.6 at 2:52-55) does not contain a disclosure of how an alleged IPG is implemented (or what it is alleged to be implemented on). Instead, Blatter states: “Fig. 1 shows a video receiver system, according to the invention, for adaptively generating a program representative datastream in user selectable, encrypted or non-encrypted form.” RX-0004.6 (Blatter) at 2:52-55.

**b. Blatter Does Not Disclose Global Storage Options of Asserted Claims 1 and 15**

Blatter does not teach the global storage settings from claims 1 and 15 of the '585 Patent and thus do not anticipate or render these claims obvious. *See* § IV(C)(1)(a), *supra* (discussing global storage options). For claims 1 and 15, which cover global storage options that apply to all programs selected for recording after the options are selected, Comcast failed to show that Blatter discloses that (1) users are provided with an opportunity to select at least one storage option for storing a program to be recorded, wherein the at least one storage option relates to at least one storage setting configured to control how programs are to be digitally stored on a random access digital storage device, (2) program listings are displayed and the user is given an opportunity to select a program listing, and (3) recording of the selected program (from the display) occurs based on modification of the storage setting of (1).

Comcast's expert, Dr. Albonesi, cites to Blatter at Figure 2 and 3:14-32 as allegedly teaching the above-described functionality. Albonesi Tr. 1866:5-1867:3; RX-0004.3, .7 (Blatter). But these portions of Blatter only talk about program-specific actions: "A video receiver user selects the program he wishes to view, the programs he wishes to store . . . and whether the programs are to be stored in encrypted or non-encrypted form." RX-0004.7 (Blatter) at 3:25-28. Choosing whether to store the program in encrypted or non-encrypted form is only done following selection of the program. *See, e.g.*, RX-0004.2-.3, .6-.7 at Figs. 1-2 & 2:66-3:12; 3:14-32. Claims 1 and 15 of the '585 Patent first require selecting storage options (i.e., (1)); choosing a program to record from displayed program listings (i.e., (2)); and then recording the selected program in accordance with the selected storage options (i.e., (3)). Comcast and Dr. Albonesi failed to make any showing that Blatter teaches a system that operates in the manner required by claims 1 and 15. *See, e.g.*, Albonesi Tr. 1866:5-1867:3.

**c. Blatter Does Not Disclose One of a “High-Definition Television, Normal Television [or] a Digital Format” Storage Options of Asserted Claim 11**

Blatter does not teach the *how* storage options of the Asserted Claim 11 of the '585 Patent. Each Asserted Claim of the '585 Patent requires that an IPG guide is used to “provide the user with an opportunity to select at least one storage option for storing a program to be recorded, wherein said at least one storage option relates to at least one storage setting configured to control how programs are to be digitally stored[.]” JX-0004.41 ('585 Patent) at claim 15; *see also* JX-0004.40-42 at claims 1, 8, and 22 (similar limitation). Claim 11 has an additional limitation on the type of storage option: “The method of claim 10 wherein the at least one video format comprises at least one of high definition television, normal television and a digital format.” *Id.* at claim 11. Dr. Albonesi admits that the only storage options taught by Blatter are “whether to encrypt the program or not [and] the storage medium in which the program is to be stored.” Albonesi Tr. 1862:22-25; *see also id.* at 1866:9-14 (same). Encryption and selection of a storage medium have not been shown to be one of high-definition, normal television, or a digital format as required by claim 11. Portions of Blatter discuss HD television formats, but there is no disclosure or suggestion of the selection of a storage option for storing a program in HD or any other video format. *See* RX-0004.33 (Blatter) at 3:33-51.

**4. Blatter Does Not Render the Asserted Claims Obvious**

**a. Comcast’s Obviousness Combinations Fail as a Matter of Law for Failure of Proof of Motivation to Combine and Expectation of Success**

Comcast argues that the missing limitations from the Blatter reference are obvious. “Whether a rejection is based on combining disclosures from multiple references, combining multiple embodiments from a single reference, or selecting from large lists of elements in a single reference, there must be a motivation to make the combination and a reasonable

expectation that such a combination would be successful, otherwise a skilled artisan would not arrive at the claimed combination.” *In re Stepan Co.*, 868 F.3d at 1346 n.1. Comcast, however, provided no evidence *whatsoever* of a motivation to combine any part of Blatter with any other part of Blatter. RBr. at 51. And Comcast provides no evidence *whatsoever* regarding any expectation that any such combination would be successful (or even how it could be implemented in terms of software or hardware). *Id.* Therefore, Comcast’s single reference obviousness arguments must be rejected for a failure of proof.

**b. The Global Storage Options of Asserted Claims 1 and 15 Are Not Obvious in View of Blatter Because Blatter Does Not Even Contain an Interactive Television Program Guide**

Comcast argues that “storage options for multiple programs would have been immediately apparent or obvious in view of the disclosures in Blatter because there are only a limited number of possible arrangements for providing the opportunity to select storage options, there are no technical barriers to selecting an option for multiple programs before selecting a program, and such an arrangement would have known benefits including that the option could be applied to multiple programs in advance.” RBr. at 51. Comcast’s argument puts the cart before the horse. As discussed above, Blatter does not disclose an IPG. *See* § IV(C)(3)(a), *supra*. Without an IPG in Blatter, *no* storage options can be selected from the IPG—much less global storage options. Comcast has not provided any argument or evidence that Blatter could be combined with any reference to disclose an IPG. RBr. at 51. Therefore, Comcast has failed to provide evidence that Blatter renders any of the Asserted Claims obvious.

## V. '741 PATENT

For the Asserted Claims of the '741 Patent, Comcast asserts two theories of invalidity: (1) anticipation under 35 U.S.C. § 102 based on each of Sie and McElhatten; and (2) lack of written description under 35 U.S.C. § 112. RBr. at 54. Comcast *does not* assert obviousness under 35 U.S.C. § 103 for the '741 Patent. *Id.* For at least the reasons explained herein, Comcast did not prove by clear and convincing evidence that any Asserted Claim of the '741 Patent is anticipated or lacks written description.

### A. Anticipation Under 35 U.S.C. § 102

Comcast argues that the Asserted Claims of the '741 Patent are anticipated by (1) United States Patent Publication No. 2002/0095510 (“Sie”); and (2) United States Patent No. 7,073,189 (“McElhatten”). *Id.* at 54. While Rovi does not dispute that Sie and McElhatten are prior art, Comcast has failed to show by clear and convincing evidence that either of these references anticipate any of the Asserted Claims of the '741 Patent.

#### 1. Sie Does Not Anticipate the Asserted Claims

Before comparing the elements of the Sie patent to the '741 Patent, it is crucial to first understand the design, purpose, and operation of the system described in Sie, which materially differs from the '741 Patent system.

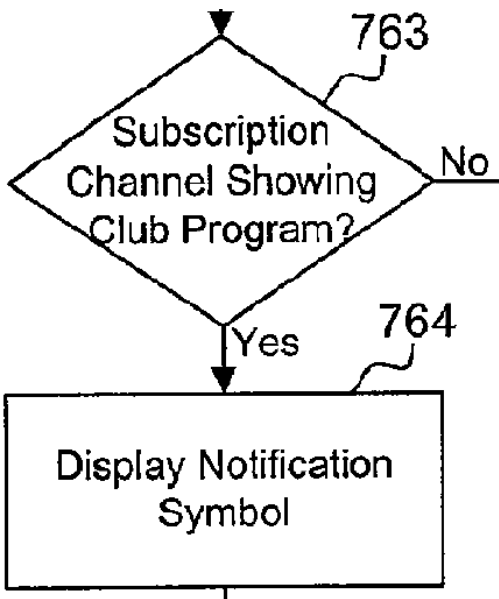
The Sie patent generally describes a system directed towards marketing and implementing a tiered subscription service including “club” membership. RX-0069 (Sie) at .45-.46. “Regular” users can watch linear programming (i.e., traditional broadcast television channels that the user has access to), while “club” members get the linear programming *and* extra benefits that are not available to non-club members. *Id.* at .46. The Sie system is designed to encourage and promote club membership. *See, e.g., id.* at .80 (describing promotional features of the Sie system). As Comcast’s expert, Dr. Karger, agreed, Sie is directed to a system for managing and

promoting access to “club” programs. Karger Tr. 1540:18-21 (“Sie is talking about club programs”); RBr. at 54 (“Sie discusses systems and methods for providing what it calls ‘club programs’”); RX-0069 (Sie) at .76 (“Club membership is generally an added service beyond that available simply from belonging to the subscription service”).

Sie’s focus on promoting club membership is reflected by the operation of the system described in the Sie patent. Of most importance to the invalidity inquiry, Sie teaches the following order of events: (1) determine whether a video is a club program (and therefore *generally* available to the universe of club members); (2) if so, then display a club notification symbol (the little star in, for example, the grid guide) to *all* users indicating that the program is a club program; (3) receive a PLAY command from a user; and (4) then (and only *after* displaying the indication and receiving the PLAY command) determine whether the user is a club member entitled to access the club video. *See, e.g.*, RX-0069 (Sie) at Fig. 7A (Steps 763 & 764), Fig. 7B (Steps 782-786), 89. The Asserted Claims of the ’741 Patent, however, require that the relevant determinations—including determining whether a specific user has access to an archived copy (allegedly the club program in Sie)—occur *before* (and as a condition of) the display of the indication. Claim 1 of the ’741 Patent includes the following limitation: “based on determining that an archived copy is available *to the user* after the start time, cause an indication . . . to be displayed.” JX-0006 (’741 Patent) at 38:4-5; *see also id.* at 38:1-3, 43-45, 46-47. A primary distinction between Sie and the Asserted Claims of the ’741 Patent is that Sie displays its indication to all users (even those to whom the video is *unavailable* after the start time), while the Asserted Claims of the ’741 Patent require that the indication be displayed to users who are first determined to have access to that content.



Comcast failed to prove clearly and convincingly that Sie anticipates any Asserted Claim of the '741 Patent.<sup>11</sup> In particular, for claims 1 and 8 of the '741 Patent, Comcast failed to prove that Sie teaches “control circuitry” configured to (1) “access a database to determine whether an archived copy corresponding to the video is available to a user;” (2) where the determination occurs “after the start time;” and (3) “based on determining that the archived copy is available to the user after the start time, cause an indication corresponding to the archived copy to be displayed simultaneously with the video.” JX-0006 ('741 Patent) at 37:64, 38:1-3, 38:4-7. Dr. Karger testified that Sie disclosed these three limitations based on Sie’s description of the functionality underlying the part of Figure 7A excerpted below.



RX-0069 (Sie) at Fig. 7A; Karger Tr. 1549:12-23. Dr. Karger identified the Sie control circuitry configured to perform step 763 (“Subscription Channel Showing Club Program?”) as the claimed control circuitry configured to access a database (e.g., Karger Tr. 1551:8-11), and the Sie control

<sup>11</sup> In hearing testimony, Dr. Karger based his anticipation analysis for claim 8 on his analysis of claim 1—meaning, if Dr. Karger failed to prove that Sie anticipates claim 1, then he also failed to prove anticipation of claim 8 for the very same reasons. Karger Tr. 1564:19-1565:4 (basing analysis of claim 8 on analysis of claim 1).

circuitry configured to perform step 764 (“Display Notification Symbol”) as the claimed control circuitry configured to cause an indication to be displayed (e.g., Karger Tr. 1551:12-14). Comcast makes these same assertions, based on Dr. Karger’s testimony, in its Post Hearing Brief. RBr. at 57-58 (discussing determination step), 58 (discussing display of notification symbol).

Missing from Comcast’s Post Hearing Brief (and Dr. Karger’s testimony), however, is any evidence that Sie: (1) makes a determination of whether the club program (i.e., the alleged archived copy) is available to a specific user; (2) makes that determination after the start time; and (3) causes the display of the indication *following* the determination that the club program is available to the user after the start time. Instead, Comcast and Dr. Karger merely assert that Sie accesses a database to determine whether the currently watched video is a club program—with no evidence or testimony as to any of these three claim requirements. *See* Karger Tr. 1549:7-11 (testifying that Sie determines “whether the program is a club program or not”), 1549:18-19 (testifying that Sie determines “whether there is a stored club program”); RX-0069 (Sie) at Fig. 7A (describing the decision at step 763 as “Subscription Channel Showing Club Program?”). At best, the only determination Comcast and Dr. Karger have identified in Sie is whether the program is a club program or not. Karger Tr. 1549:7-11, 1549:18-19; RX-0069 (Sie) at Fig. 7A.

As to the first two limitations, Sie does not clearly and convincingly disclose a determination of whether the club program (i.e., the alleged archived copy) is available *to a user* where that determination is made *after the start time*. In Sie, club programs are not available to be viewed by all users—but club notification symbols are nonetheless displayed to all users. Sie makes this clear: *after* the display of the club notification symbol in the grid guide (i.e., the little star that Comcast points to as the alleged indication) the relevant flow charts relied upon by

Comcast and Dr. Karger include a separate, later, decision on whether the user is a club member. RX-0069 (Sie) at Fig. 7B (describing the decision at step 786—after the indication is displayed—as “Is User a Club Member?”), Fig. 7C (describing the decision at step 776—again, after the indication is displayed—as “Is User a Club Member?”), Fig. 7D (describing the decision at step 792—once again, after the indication is displayed—as “Is User a Club Member?”). This distinction is important because Sie explicitly teaches that the determination of whether a club program is available to a user or not occurs only *after* the user indicates a desire to play the video and no notification is ever displayed based on that determination, which is required by the Asserted Claims. RX-0069 (Sie) at .89 (“Processing of that request proceeds at steps 784 and 786 to determine . . . whether the user is a member of the club and therefore entitled to access to the previously stored club version”). Sie’s club program thus operates in a different manner than the Asserted Claims of the ’741 Patent because Sie delays the determination of whether a user will be able to view available content until *after* the user has first attempted to access the content. *Id.* Sie does this to encourage users to enroll in the club program in order to view programming that the user otherwise would not have access to. The delayed determination makes Sie different than the Asserted Claims of the ’741 Patent, which require that the determination of the content’s availability to a user occur *before* any indication is displayed. *See, e.g.*, JX-0006 (’741 Patent) at 38:4-5 (“based on determining that an archived copy is available to the user after the start time, cause an indication . . . to be displayed”).

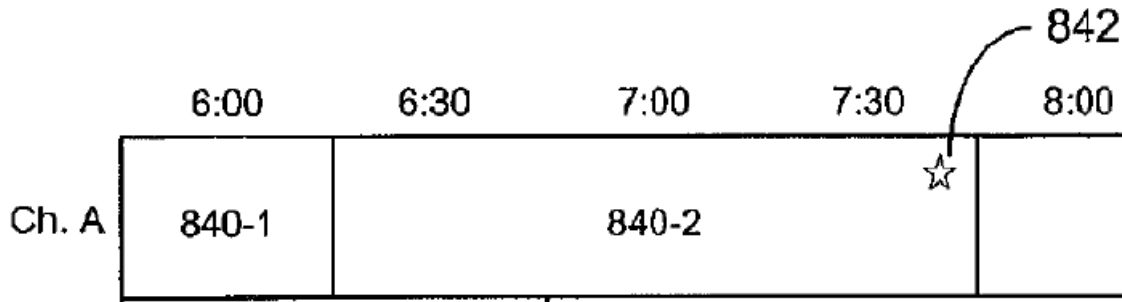
As to the third limitation, because Sie does not disclose a determination of whether the club program (i.e., the alleged archived copy) is available to a user where that determination is made after the start time, Sie also does not clearly and convincingly disclose display of an indication, *based on* determining that the archived copy (i.e., club program) is available to the

user after the start time. In Sie, display of the alleged “indication” (i.e., the “little star” club notification symbol) does not mean the program is available to the user. Rather, and again, Sie explicitly teaches that the determination of whether a club program is available to a user occurs only *after* the user indicates a desire to play the video. RX-0069 (Sie) at .89. This means that all users—regardless of whether they are club members or not (and before any determination is made)—are shown the club notification symbol (the little star). *Id.* In the ’741 Patent, the access to the database occurs first and determines, as an initial step, whether the archived copy is available to a user. JX-0006 (’741 Patent) at 37:64, 38:1-3, 38:4-7. Then, and only if the archived copy is available to a user, will there be a display of an indication indicating its availability for playback. *See id.* The display of the “indication,” based on the “determination” that Comcast points to in Sie, is thus fundamentally different (occurring *after* the little star indication is displayed and *before* any determination is made if a user can play that programming) than the “determination” required by the Asserted Claims of the ’741 Patent (occurring *before* any indication is displayed to the user, and only *after* the determination is made that the user can play that programming). Neither Comcast nor Dr. Karger presented any evidence of Sie disclosing access to a database to determine if the archived copy is available to a user and then conditioning display to the user on that determination. For this reason, claims 1 and 8 are not anticipated.

This means that in Sie, and even accepting Comcast’s representations, no evidence supports the conclusion that Sie discloses (1) any determination of whether the club program (i.e., the alleged archived copy) is available to a specific user (because *all* users will see the little star in the grid guide even if they are not club members); (2) any determination of whether the club program is available to a user *after the start time* (because, and again, all users will see the little star in the grid guide); or (3) any display of any indication *following* a determination that a

club program is available to the user after the start time (again, because *all* users will see the little star in the grid guide even if they are not club members and do not have access to view the club program). Comcast's Post Hearing Brief ignores these three elements required by the claims. RBr. at 57 (characterizing the limitation as "Determining Whether An Archived Copy of the Video Is Available" and only stating that Sie "discloses the 'determining whether an archived copy of the video is available' limitations"). Comcast has not, therefore, met its burden to clearly and convincingly prove that Sie anticipates any of these three limitations.

Further, claims 1 and 8 require a specific relationship between the indication displayed and the response received. *See* JX-0006 ('741 Patent) at 38:10-13 (claim 1), 38:51-54 (claim 8). The '741 Patent requires "control circuitry" configured to "receive a user response *to the indication that is displayed*; and *based on the received user response*, retrieve, from the storage circuitry, the archived copy." JX-0006 ('741 Patent) at 38:10-13 (claim 1) (emphasis added); *see also id.* at 38:51-54 (claim 8). This relationship is missing in Sie, where Comcast failed to show that the club notification symbol in Sie is used to prompt specific action by the user. As noted above, the purpose of Sie's club notification symbol is to indicate whether the program currently being viewed is a "club program"—it *does not* indicate whether or not that club program is or is not available for playback to a given user since it is displayed to all users regardless of their club membership. RX-0069 (Sie) at .85. The excerpt below shows a club notification icon as a "star" (842) on a grid guide.



RX-0069 (Sie) at Fig. 8B. Sie does not allow (much less teach) any specific reception of a user response to the club notification symbol.

In Sie, the display of the club notification symbol does not mean that the program is necessarily available to the user (as explained above) or that retrieval functionality is available. The club notification symbol is simply an advertisement of “special club features” that may or may not include restart from the beginning functionality for programming that may or may not be available to the user. RX-0069 (Sie) at .85. Comcast confused the purpose of the club notification symbol at the hearing. *Compare* Karger Tr. 1630:21-1631:14 (Comcast attorney describing 842 as indication of program being selected for recording) *with* Karger Tr. 1630:9-11 (Comcast expert identifying 842 as a club notification symbol).

More importantly, Comcast presented no evidence that Sie’s control circuitry is configured to receive a response to the club notification symbol. Dr. Karger identified the system’s receipt of a user’s press of a “PLAY” button as the received response (e.g., Karger Tr. 1560:4-25), but Sie teaches (and Dr. Karger admitted) that the PLAY key is not pressed in response to seeing the club membership symbol: “Such a feature allows a user to *respond to seeing a program that is in progress* by issuing a demand for immediate access to the entire program.” RX-0069 (Sie) at .88; Karger Tr. 1631:25-1632:24. Sie explicitly teaches that the receipt of a response is based on seeing the program in progress. RX-0069 (Sie) at .88; Karger Tr. 1631:25-1632:24. Dr. Karger testified that a user would be motivated to restart by the

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presence of the club notification symbol even after it disappears (Karger Tr. 1561:1-8, 1562:8-12), but this is speculation on his part and contradicted by Sie. RX-0069 (Sie) at .88 (stating that restart is prompted by seeing the program in process). Comcast admits in its Post Hearing Brief (as it must) that pressing the PLAY key is responding “in part” to the program being in progress, but maintains (without citation to any evidence) that pressing the PLAY key “is directly in response to the indication.” RBr. at 62. Sie’s disclosure does not support Comcast’s position: according to Sie, pressing the PLAY key is solely in response to seeing the program in progress. RX-0069 (Sie) at .88. Comcast failed to present evidence that Sie teaches the receipt of a response based on display of the club membership symbol.

## **2. McElhatten Does Not Anticipate the Asserted Claims**

The McElhatten reference generally describes a system for reserving already recorded and stored programs for later viewing. *See, e.g.*, RX-0071 (McElhatten) at Abstract (describing McElhatten’s program reservation system). McElhatten is directed to addressing perceived disadvantages of personal video recorders (“PVRs”). *See, e.g., id.* at 2:33-53 (describing disadvantages associated with PVRs including the requirement that PVRs require identification of programs to record in advance of the broadcast time). McElhatten’s solution to the disadvantages of the PVR all involved recording *all* content at the headend. *Id.* at 2:56-58 (“[B]roadcast programs are recorded at a headend of a cable network before they are delivered to a user at a set-top terminal”).

Comcast failed to show that McElhatten anticipates any Asserted Claim of the ’741 Patent. Dr. Karger—Comcast’s own expert—admits that McElhatten does not anticipate any Asserted Claim of the ’741 Patent under the ALJ’s claim constructions. Karger Tr. 1579:18-19 (“Q. How about under the Court’s interpretation? A. No, I don’t think so”). Instead of applying the ALJ’s claim construction, Dr. Karger purported to compare McElhatten to the Accused

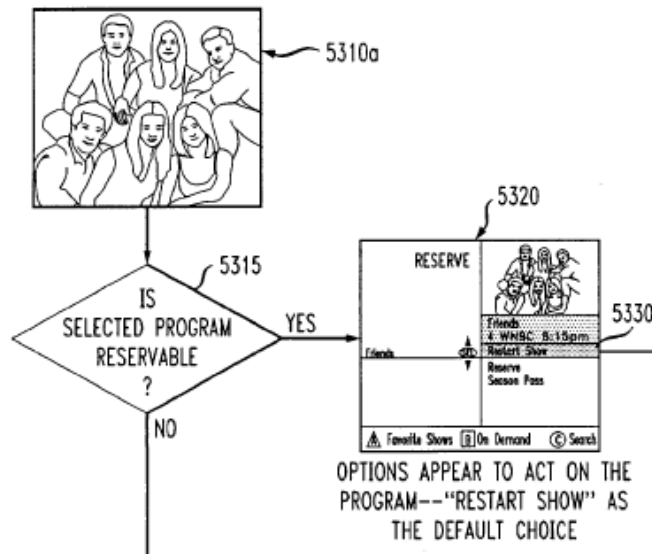
ROVI’S POST HEARING REPLY BRIEF [INV. NO. 337-TA-1103]

Products. Karger Tr. 1578:12-15. Dr. Karger's admission and improper analysis should result in a finding that McElhatten does not anticipate.

To the extent McElhatten is further considered, McElhatten describes a "program reservation" service utilizing the concept of "reservable programs." RX-0071 (McElhatten) at 13:43-52; Karger Tr. 1567:20-24. McElhatten is different from the Asserted Claims of the '741 Patent in that the McElhatten program reservation service is predicated on the recording of *all* of the available programming: "As mentioned before, all broadcast programs in this instance are recorded at headend 105 and all on-demand and other content is stored at headend 105 as well." RX-0071 (McElhatten) at 13:52-55. Because McElhatten records all programming, pressing a record key "does not actually record the program." *Id.* at 13:55-59. Instead, the McElhatten system, in response to the key press, "marks the program or event that has been [previously] recorded and/or stored at headend 105." *Id.* at 13:59-63.

Because McElhatten requires the recording of *all* available programming, there is no need to determine whether the video is available to a user—everything is recorded and available by default. McElhatten therefore does not disclose "control circuitry" configured to "access a database to determine whether an archived copy corresponding to the video is available to a user after the start time" as required by claims 1.b and 8.b. To satisfy this claim limitation, Comcast and Dr. Karger point to the circuitry implementing the functionality in the excerpt from the Figure 12 flowchart shown below.





RX-0071 (McElhatten) at Fig. 12. Dr. Karger testified that Step 5315 in this figure (the “Is Selected Program Reservable?” step) evidences the claimed access to the database. Karger Tr. 1573:19-1574:2, 1574:9-15. But the “Is Selected Program Reservable?” determination is not whether the program is available to the user after the start time. Instead, McElhatten explains that the determination is whether the program has been “predesignated for reservation.” RX-0071 (McElhatten) at 16:3-5. McElhatten explains that regardless of whether the program is determined to be “non-reservable,” it is available to the user after the start time. *Id.* at 16:6-9 (describing ability of the user to record *the program*).

Further, Comcast and Dr. Karger’s claim that McElhatten’s reservation functionality is analogous to the operation of the Accused Products is incorrect. In McElhatten, Step 5315 (the “Is Selected Program Reservable?” step) is prompted by the user’s press of a record key, i.e., the issuance of a “reserve command.” RBr. at 64; RX-0071 (McElhatten) at 15:59-62. The equivalent in the Accused Products would be the selection of the record key on the Comcast remote. Rovi directed part of its infringement proof to use of a different function in the Accused

Products—the “Info” button. RBr. at 64 (discussing the accused “Info” button functionality). None of Rovi’s infringement proof for the ’741 Patent involved selection of a record key.

Comcast and Dr. Karger also failed to show that McElhatten teaches “control circuitry” configured to “based on the received user response, retrieve, from the storage circuitry, the archived copy.” JX-0006 (’741 Patent) at 38:10-13 (claim 1). Dr. Karger pointed to the user’s response to a “Restart Show” menu selection as the claimed received user response. Karger Tr. 1579:23-1580:14. Neither Comcast nor Dr. Karger cited any evidence that pressing “Restart Show” caused a retrieval of a program from the alleged storage circuitry. McElhatten simply states that the “restart option *enables* the display of a selected program from its beginning, although the selected program is not reserved.” RX-0071 (McElhatten) at 16:13-15. There is no evidence that activating the “restart option” causes the retrieval of the program. McElhatten only teaches that restart “enables” the display of the program necessarily contemplating additional potential steps, authorizations, or the like.

Comcast and Dr. Karger also failed to show that McElhatten teaches claim 14’s “control circuitry” configured to remove the archived copy from the storage device at an end of a retention period. McElhatten only teaches that a program, after a period of time has lapsed, will “no longer [be] available to users”—there is no disclosure of a program’s removal. RX-0071 (McElhatten) at 18:1-9; Karger Tr. 1584:10-1585:11. Dr. Karger’s opinions to the contrary are unsupported speculation.

**B. Written Description Requirement**

Comcast contends that the Asserted Claims of the '741 Patent lack written description. At the hearing, Dr. Karger testified that “the written description is *entirely* directed towards the idea that you are watching one program and you then get an indicator that tells you to change to watching a different program or a different video.” Karger Tr. 1587:19-22. Comcast and Dr. Karger are wrong. Balakrishnan Tr. 2070:2-10. Dr. Balakrishnan identified embodiments in the '741 Patent's written description where the inventor described the usage of an indicator (including a restart indicator) for a currently displayed program or video. *Id.* at 2071:6-2072:3 (discussing Figure 18 and its disclosure of a restart indicator for the program being displayed), 2072:4-2073:9, 2075:7-17 (discussing specification's description of Figure 18 including the display of the tool bar with the restart indicator), 2075:18-2076:3 (discussing the similar disclosure in Figure 21). Figure 18, Figure 21, and the underlying descriptions in the specification teach the display of an indication (including a restart indication) relevant to the program being watched simultaneously with the program. *Id.*; Karger Tr. 1605:13-17.

In its Post Hearing Brief, Comcast makes several arguments as to why the Asserted Claims do not have sufficient written description. Each of these arguments fail. *First*, Comcast characterizes the toolbar displayed in Figures 18 and 21 as a “conventional” toolbar. RBr. at 71. Whether the toolbar is “conventional” or not is irrelevant to whether there is written description in the specification that supports the Asserted Claims. The toolbar is an indication and includes indications including a restart indication. Balakrishnan Tr. 2071:18-19; Karger Tr. 1604:1-1605:12. *Second*, Comcast claims Figures 18 and 21 are not relevant because neither concerns broadcast television. RBr. at 71. No Asserted Claim, however, is limited to broadcast television. JX-0006 ('741 Patent) at 38:10-13 (claim 1), 38:51-54 (claim 8). *Finally*, Comcast argues about the timing of the toolbar's display. RBr. at 71. The timing of the toolbar's display is not relevant

to Comcast's written description argument in its Pre-Hearing Brief or at the hearing. Figure 18, Figure 21, and the underlying descriptions in the specification teach the display of an indication (including a restart indication) relevant to the program being watched simultaneously with the program. Balakrishnan Tr. 2071:6-2072:3, 2072:4-2073:3, 2075:7-17, 2075:18-2076:3; Karger Tr. 1605:13-17.

**VI. ALL PRODUCTS INITIALLY IMPORTED BEFORE APRIL 1, 2016 ARE OUTSIDE THE SCOPE OF THIS INVESTIGATION AND COMCAST'S EXHAUSTION AND LICENSE DEFENSES ARE MOOT**

Comcast asks that any remedy in this Investigation expressly exclude articles initially imported prior to April 1, 2016. Rovi does not oppose that request because the parties *agree* that those products are not accused and are outside the scope of the Investigation. But as Rovi argued in its Opposition to Comcast's Motion for Summary Determination of No Violation as to Any Comcast Products Initially Imported Prior to April 1, 2016, it would be error to reach the merits of Comcast's affirmative defenses of license and exhaustion as to products not at issue in this Investigation. Mot. No. 1103-022, Doc. ID 652469 (Aug. 8, 2018). And even if the ALJ were to reach the merits, Comcast has not met its burden to prove these defenses.

**A. The Remedial Orders Will Be Limited to Products Within the Scope of This Investigation—Products Initially Imported *After* April 1, 2016**

The claims in this proceeding are, and have always been, limited to products that were initially imported into the United States after the expiration of the license agreement between Rovi and Comcast (Patent License) on March 31, 2016. The Complaint plainly states that Rovi “does not seek any remedy in this action as to Comcast's digital video receivers that were initially imported into the United States prior to April 1, 2016.” Compl. at 5 n.2, 67 n.13. *See also* Complainants' Notice of Withdrawal of Certain Accused Products, Doc. ID 651870 (Aug. 1, 2018); Rovi Opp. to Comcast MSD of No Violation, Mot. No. 1103-022, Doc. ID 652469

(Aug. 8, 2018). There is no dispute that those articles are not accused and are entirely outside the scope of the Investigation. *See* CBr. at 3, 3 n.4; RBr. at 72. Rovi agrees with Comcast that the remedial orders should be limited to products within the scope of the Investigation, i.e., products initially imported after April 1, 2016.

**B. Comcast’s Patent License and Exhaustion Defenses Are Moot**

It appears, however, that Comcast continues to seek an *affirmative* finding from the ALJ on its defenses of license or exhaustion, RBr. at 72—a finding that Comcast may attempt to use against Rovi in other matters. But precisely because these products are not accused in this Investigation, Comcast’s license and exhaustion defenses are moot.

Where there is no “controversy between the parties” regarding an issue, that issue is moot and should be dismissed from the case, “however convenient it might be to have decided the question for future cases.” *Yingbin-Nature (Guangdong) Wood Indus. Co. v. ITC*, 535 F.3d 1322, 1329 (Fed. Cir. 2008) (quoting *United States v. Alaska S.S. Co.*, 253 U.S. 113, 116 (1920)) (internal quotations omitted). Indeed, the Commission is authorized to investigate only “alleged violation[s] of Section 337.” *Certain Ceramic Capacitors & Prod. Containing Same*, Inv. No. 337-TA-692, Order No. 45, at 3 (July 19, 2010) (citing 19 U.S.C. § 1337(b)(1) and 19 C.F.R. § 210.3). Here, there is no controversy. The parties *agree* that products initially imported prior to April 1, 2016 are outside the scope of the Investigation, and Rovi accuses no alleged violation of Section 337 as to those products.

It would be error to reach affirmative defenses as to products not at issue. *Certain NOR & NAND Flash Memory Devices & Prods. Containing Same*, Inv. No. 337-TA-560, Order No. 38, at 7 (Nov. 17 2006) (“*Flash Memory Devices*”) (noting that it would be “inappropriate” to make determinations regarding products that are not accused of infringement).

Comcast’s defenses should be dismissed, then, because they raise no issue that is “to be determined in the investigation.” 19 C.F.R. § 210.18(a). Any other result would improperly “strip the complainant of its control over what products it ultimately accuses of infringement.” *Certain RF Capable Integrated Circuits & Prods. Containing the Same*, Inv. No. 337-TA-982, Order No. 14, at 12 (Aug. 4, 2016) (“*RF Capable Integrated Circuits*”); *see also Certain Lithium Metal Oxide Cathode Materials, Lithium-Ion Batteries for Power Tool Prods. Containing Same, & Power Tool Prods. with Lithium-Ion Batteries Containing Same*, Inv. No. 337-TA-951, Order No. 19, at 11-12 (Sept. 14, 2015) (denying MSD “because Complainants no longer accuse the products-at-issue”); *cf. Certain Wireless Commc’ns Equip. & Articles Therein*, Inv. No. 337-TA-866, Order No. 44 at 3, n.1 (Sept. 19, 2013) (referencing “a situation where Respondents are requesting a declaratory judgment or advisory opinion outside the scope of this investigation”).

### **C. Comcast’s License and Exhaustion Defenses Fail on the Merits**

While it would be improper to reach defenses as to products not accused, these defenses also fail on the merits. License and patent exhaustion are “affirmative defense[s] for which the alleged infringer has the burden of proof.” *SanDisk Corp. v. Mobile Media Ideas LLC*, No. C 11-00597 CW, 2011 WL 1990662, at \*3 (N.D. Cal. May 23, 2011) (citations omitted). As a threshold matter, the Patent License has expired and offers no protection for Comcast’s ongoing importation or leasing of products to which remedial orders would be directed. JX-0026C (ALDA) at § 17(a).

To prove exhaustion, Comcast would need to demonstrate that there was an authorized sale of an article that substantially embodies the patent to a downstream purchaser. *Impression Prods., Inc. v. Lexmark Int’l Inc.*, 137 S. Ct. 1523, 1530, 1535 (2017). Patent exhaustion, also referred to as the “first sale” doctrine, “establishes that the unrestricted first sale by a patentee of his patented article exhausts his patent rights in the article.” *Monsanto Co. v. Scruggs*, 459 F.3d

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1328, 1335-36 (Fed. Cir. 2006). The “doctrine of patent exhaustion limits a patentee’s right to control what others can do with an article embodying or containing an invention,” so that, “[u]nder the doctrine, ‘the initial authorized sale of a patented item terminates all patent rights to that item.’” *Bowman v. Monsanto Co.*, 569 U.S. 278, 283 (2013) (quoting *Quanta Comp., Inc. v. LG Elecs., Inc.*, 553 U.S. 617, 625 (2008)). Exhaustion requires the transfer of title to the downstream purchaser. *Lexmark*, 137 S. Ct. at 1538. Patent rights are exhausted, for example, where a licensee sells patented articles to consumers during the term of a license such that the patent holder may not later accuse those consumers of patent infringement.

Here, there can be no exhaustion because Comcast generally *leases* products to its subscribers, and these leases are not authorized “sales” transferring title that would give rise to exhaustion.<sup>12</sup> Comcast nevertheless claims that *upstream* sales—from its *unlicensed* suppliers ARRIS and Technicolor to Comcast—exhaust patent rights as to all STBs purchased by Comcast during the term of the license. That argument is legally wrong. Exhaustion protects only sales to “downstream purchasers.” *Lexmark*, 137 S. Ct. at 1530. And *Lexmark* explains why exhaustion operates downstream: “exhaustion reflects the principle that, when an item passes into commerce, it should not be shaded by a legal cloud on title as it moves through the marketplace.” *Id.* at 1534. Allowing a patentee—or its licensee—to exercise control over items possessed by downstream purchasers “would clog the channels of commerce,” cause “inconvenience and annoyance to the public,” and conflict with “the common law principle against restraints on alienation.” *Id.* at 1529, 1531-32. A licensee’s arrangements with its upstream suppliers trigger

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<sup>12</sup> Comcast’s argument is not directed to STBs that Comcast sells after importation to consumers who do not return them after their lease ends. The parties do not dispute whether there would be exhaustion as to those relatively few unreturned boxes if the sale after importation occurred before the license expired on March 31, 2016. Comcast’s argument is rather directed to its leases of set top boxes to its subscribers in the ordinary course of its business.

none of these concerns. Indeed, placing artificial limitations on a licensee’s ability to outsource upstream manufacture of licensed goods, as Comcast proposes, would cause the “inconvenience and annoyance to the public” that the downstream exhaustion doctrine is designed to prevent. *Id.* at 1532. *Lexmark* itself, then, plainly forecloses Comcast’s upstream-exhaustion argument. And, in fact, other than the footnote in dicta in the 1001 Investigation, exhaustion has not been applied to sales from unlicensed upstream suppliers to a licensee. *Asetek Holdings, Inc. v. CoolIT Sys.*, No. C-12-4498, 2013 U.S. Dist. LEXIS 147829, at \*5-6 (N.D. Cal. Oct. 11, 2013); *Crossroad Sys. v. Dot Hill Sys. Corp.*, 48 F. Supp. 3d 984, 990-91 (W.D. Tex. 2014).

Indeed, Comcast’s reliance on the footnote in the 1001 Investigation is misplaced. RBr. at 72. In the 1001 Investigation, the first time that Comcast argued patent exhaustion based on unlicensed supplier sales to Comcast was in its response to Rovi’s supplemental brief to the Commission. That briefing was intended to address the narrow question of whether infringing legacy products (not at issue in this Investigation) had been imported or reimported by Comcast. Rovi never had a chance to reply to Comcast’s last-minute argument on exhaustion. And because (i) Rovi won on the issue of infringement as to the X1 STBs, (ii) Comcast [REDACTED] [REDACTED] regardless of their date of importation, and (iii) the exhaustion discussion merely provided an alternative ground to affirm the Final ID, Rovi had no standing to pursue an appeal with respect to the Commission’s discussion of exhaustion in the footnote of the 1001 Investigation.

Had Rovi been afforded a full and fair opportunity to address Comcast’s exhaustion argument or appeal in the 1001 Investigation, it would have shown, among other things, that:

- Comcast’s argument incorrectly assumed that Comcast’s *upstream* activity—its decision to outsource to its suppliers the manufacture of licensed products under its [REDACTED] licensing rights—exhausts the patents found to infringe in that Investigation.



- Contrary to Comcast’s assumption, exhaustion protects “downstream purchasers.” *Lexmark*, 137 S. Ct. at 1530. It has not been applied to unlicensed upstream suppliers. *Asetek*, 2013 U.S. Dist. LEXIS 147829, at \*5-6; *Crossroad Sys.*, 48 F. Supp. 3d at 990-91.
- Because Comcast asserts that it generally leases its products to its customers,<sup>13</sup> and such leases do not transfer title to customers, these leases cannot be “authorized sales” that could trigger exhaustion as to downstream customers. *Lexmark*, 137 S. Ct. at 1538 (“[E]xhaustion occurs because, in a sale, the patentee elects to give up title to an item in exchange for payment.”).
- The sale of products *to* Comcast during the term of Comcast’s Patent License, *from* its *unlicensed* suppliers, could not have triggered patent exhaustion. *Asetek*, 2013 U.S. Dist. LEXIS 147829, at \*5-6; *Crossroad Sys.*, 48 F. Supp. 3d at 990-91.
- Finding exhaustion would be contrary to the terms of the Patent License and the parties’ intentions. Unlike in *Lexmark*, Comcast is not a consumer and it received exactly what it bargained for: a patent license for a defined term with a set expiration date.
- Finding exhaustion in these circumstances would unwind decades of case law on “[REDACTED]” rights. *See, e.g., Carey v. United States*, 326 F.2d 975, 979 (Ct. Cl. 1964).
- Finding exhaustion here would create bad policy and, if adopted elsewhere, could effectively discourage the execution of term licenses and the outsourcing of manufacture, which would cut against the purposes animating the Supreme Court’s *Lexmark* decision.

In any event, as set forth above, there is no need to address these issues here—and in fact it would be error to do so—because any articles that would be subject to Comcast’s exhaustion argument are already outside the scope of this Investigation and thereby the scope of any remedy. *See Flash Memory Devices*, Order No. 38 at 7; *RF Capable Integrated Circuits*, Order No. 14 at 12.

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<sup>13</sup> *See e.g.,* Comcast’s Memo. of Points & Authorities in Support of Respondents’ MSD of No Sale After Importation, Doc. ID 651405, at 2 (July 27, 2018). Again, Comcast’s exhaustion defense is directed to *all* boxes initially imported prior to April 1, 2016—not to the unreturned boxes that the ALJ has determined have been sold to customers who did not return them.

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Respectfully submitted,

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**CERTIFICATE OF SERVICE**

The undersigned certifies that, on December 14, 2018, she caused the foregoing Public Version of Rovi's Post Hearing Reply Brief to be served upon the following parties as indicated below:

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CERTAIN DIGITAL VIDEO RECEIVERS  
AND RELATED HARDWARE AND  
SOFTWARE COMPONENTS

Inv. No. 337-TA-1103

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