

Filed on behalf of VIZIO, Inc.

By:

Cono A. Carrano (Reg. No. 39,623)

(ccarrano@akingump.com)

C. Brandon Rash (Reg. No. 59,121)

(brandon.rash@akingump.com)

Ryan S. Stronczer (Reg. No. 79,921)

(rstronczer@akingump.com)

Akin Gump Strauss Hauer & Feld LLP

2001 K Street N.W.

Washington, DC 20006

Telephone: (202) 887-4000

Brock F. Wilson (Reg. No. 59,463)

(bfwilson@akingump.com)

Clark T. Gordon (Reg. No. 74,706)

(cgordon@akingump.com)

Akin Gump Strauss Hauer & Feld LLP

4 Park Plaza, Suite 1900

Irvine, CA 92614

Telephone: (949) 885-4100

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VIZIO, INC.

Petitioner

v.

MAXELL, LTD

Patent Owner

IPR2023-00316

**PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT NO. 8,170,394 B2
CHALLENGING CLAIMS 2–9**

LIST OF EXHIBITS

Exhibit	Description
1001	U.S. Patent No. 8,170,394 (the “394 Patent”)
1002	Declaration of Dr. Benjamin Bederson
1003	Curriculum Vitae of Dr. Benjamin Bederson
1004	Excerpts from File History of U.S. Patent No. 8,170,394
1005	U.S. Patent No. 7,293,276 to Phillips
1006	U.S. Patent Publication No. 2005/0188408 to Wallis
1007	U.S. Patent No. 8,112,711 to Ackley
1008	U.S. Patent No. 8,181,205 to Russ
1009	U.S. Patent No. 7,073,189 to McElhatten
1010	U.S. Patent No. 8,773,360 to Uchida
1011	U.S. Patent No. 7,667,123 to Phillips
1012	U.S. Patent No. 7,365,782 to Tanaka
1013	Excerpts from Sony’s <i>Digital Dreams</i> Publication
1014	Excerpts from Apple’s <i>Macintosh Human Interface Guidelines</i>
1015	<i>A taxonomy of window manager user interfaces</i> , IEEE Computer Graphics and Applications, Volume 8 Issue 5, Sept. 1988
1016	<i>Personal Computing: Compuvision or Teleputer</i> , Communications of the ACM, Volume 33 Issue 9, Sept. 1990
1017	ARIB Technical Report TR-B14 Version 2.8 (Fascicle 1) (2/2)
1018	Overview and Amendment History of ARIB Technical Report TRB14
1019	Preliminary Infringement Contentions of Complainant Maxell Regarding U.S. Patent No. 8,170,394, <i>Certain Mobile Electronic Devices</i> , Inv. No. 337-TA-1312 (USITC)
1020	<i>Blackberry Corp. v. Maxell, Ltd.</i> , IPR2019-00089, Paper No. 10 (PTAB Mar. 29, 2019)
1021	<i>Motorola Mobility, LLC v. Maxell, Ltd.</i> , IPR2022-01348, Paper No. 2 (PTAB August 18, 2022)
1022	<i>Motorola Mobility, LLC v. Maxell, Ltd.</i> , IPR2022-01348, Paper No. 7 (PTAB February 23, 2023)
1023	<i>Certain Smart Televisions</i> , 337-TA-1338 (USITC) Public Complaint of Maxell, LTD (Sept. 15, 2022)
1024	VIZIO’s Opening <i>Markman</i> Brief in <i>Certain Smart Televisions</i> , 337-TA-1338 (Jan. 26, 2023)

Exhibit	Description
1025	VIZIO's Responsive <i>Markman</i> Brief in <i>Certain Smart Televisions</i> , 337-TA-1338 (Feb. 14, 2023)
1026	Maxell's Opening <i>Markman</i> Brief in <i>Certain Smart Televisions</i> , 337-TA-1338 (Jan. 26, 2023)
1027	Maxell's Responsive <i>Markman</i> Brief in <i>Certain Smart Televisions</i> , 337-TA-1338 (Feb. 14, 2023)
1028	Joint Claim Construction Chart, <i>Certain Smart Televisions</i> , 337-TA-1338 (Mar. 2, 2023)

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	MANDATORY NOTICES, Standing, and Fees.....	1
A.	Real Parties-In-Interest (37 C.F.R. §42.8(b)(1)).....	1
B.	Related Matters (37 C.F.R. §42.8(b)(2)).....	1
C.	Lead and Back-Up Counsel (37 C.F.R. §42.8(b)(3))	2
D.	Service Information (37 C.F.R. §42.8(b)(4)).....	3
E.	Certification of Grounds for Standing (37 C.F.R. §42.104(a))	3
III.	FEES	4
IV.	CLAIM LISTING.....	4
V.	IDENTIFICATION OF PRIOR ART AND GROUNDS	7
A.	Citation of Prior Art	7
B.	Claims and Statutory Grounds (37 C.F.R. §§ 42.104(b)(1) & (b)(2))	8
VI.	DISCRETIONARY FACTORS FAVOR INSTITUTION.....	9
A.	The <i>Fintiv</i> Factors Favor Institution.....	9
1.	The parallel ITC proceedings do not implicate <i>Fintiv</i>.....	9
2.	Whether the district court granted a stay.	10
3.	Proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision.....	10
4.	Investment in the parallel proceeding by the court and the parties.	11
5.	Lack of overlap between this petition and the parallel proceedings.	11
6.	Whether the petitioner and the defendant in the parallel proceeding are the same party.....	11
7.	Other circumstances that impact the Board’s exercise of discretion, including the merits.....	11

B.	The <i>General Plastic</i> Factors Favor Institution.....	12
1.	Factor 1—Whether the same petitioner previously filed a petition directed to the same claims of the same patent.....	12
2.	Factors 2-5—Bear little relevance here	12
3.	Factors 6 and 7—The finite resources of the Board and timing of a final written decision.....	13
C.	The <i>Becton</i> Factors Favor Institution	14
VII.	PERSON OF ORDINARY SKILL IN THE ART.....	15
VIII.	OVERVIEW OF THE '394 PATENT	15
A.	Priority Date of the '394 Patent	15
B.	Summary of the '394 Patent.....	15
IX.	CLAIM CONSTRUCTION.....	17
A.	Claim Constructions in the Blackberry IPR	17
B.	“distinct panels” (claim 2), “mutually different” (claim 4), “buttons...mutually differing” (claim 7).....	17
1.	The Specification Supports Petitioner’s Construction.....	18
2.	Applicant Disclaimed Panels In Which Buttons and Functions Are Not All Mutually Different	20
C.	“input unit” / “output unit”.....	25
X.	APPLICATION OF THE PRIOR ART TO THE CHALLENGED CLAIMS	26
A.	Ground 1: Claims 2, 4, 5, 7, and 8 are Anticipated by Phillips.	27
1.	Phillips Overview	27
2.	Claim 2	29
3.	Claim 4	44
4.	Claim 5	45
5.	Claim 7	46
6.	Claim 8	47

B.	Ground 2: Claims 2, 4, 5, 7, and 8 are Obvious over Phillips and Ackley.....	47
C.	Ground 3: Claims 2, 4, 5, 7, and 8 are Obvious Over Phillips and Wallis.....	51
	1. Grounds Relying on Wallis Do Not Invoke 35 U.S.C. § 325(d).....	55
D.	Ground 4: Claims 3, 6, and 9 are Obvious Over Phillips and Uchida.....	57
E.	Ground 5: Claims 3, 6, and 9 are Obvious Over Phillips, Ackley, and Uchida.	61
F.	Ground 6: Claims 3, 6, and 9 are Obvious Over Phillips, Wallis, and Uchida.	61
G.	Ground 7: Claims 2, 4, 5, 7, and 8 are Obvious over Russ and McElhatten.	62
	1. Russ Overview	62
	2. Claim 2	64
	3. Claim 4	81
	4. Claim 5	82
	5. Claim 7	83
	6. Claim 8	84
H.	Ground 8: Claims 3, 6, and 9 are Obvious Over Russ, McElhatten, and Uchida.....	84
XI.	CONCLUSION	85

I. INTRODUCTION

This Petition raises grounds of unpatentability identical to those IPR2022-01348 (the “Motorola IPR”), which the Board instituted on February 24, 2023.¹ *See* EX1023. This Petition neither adds to nor alters any arguments the Board has already considered, will not expand the instituted grounds, and is accompanied by a timely motion for joinder under 35 U.S.C. §315(c).

II. MANDATORY NOTICES AND STANDING

A. Real Parties-In-Interest (37 C.F.R. §42.8(b)(1))

The real party-in-interest for this Petition is VIZIO, Inc. (“VIZIO”).

B. Related Matters (37 C.F.R. §42.8(b)(2))

Petitioner is aware of the following proceedings involving the ’394 Patent:

Pending:

- *Certain Smart Televisions*, Inv. No. 337-TA-1338 (U.S.I.T.C.) (“VIZIO ITC Action”);
- *Certain Mobile Electronic Devices*, Inv. No. 337-TA-1324 (U.S.I.T.C.) (“Lenovo ITC Action”);

¹ The grounds presented here and in the Motorola IPR are the same grounds raised in the previously-instituted IPR2019-00089. *See* EX1020 at 2.

- *Maxell, Ltd. v. Lenovo Group Limited*, C.A. No. 6:22-cv-00334-ADA (W.D.T.X.) (“Lenovo WDTX Action”); and
- *Motorola Mobility LLC v. Maxell, Ltd.*, IPR2022-01348 (PTAB).

Terminated:

- *Certain Mobile Electronic Devices*, Inv. No. 337-TA-1312 (U.S.I.T.C.);
- *BlackBerry Corporation et al v. Maxell, Ltd. f/k/a Hitachi Maxell, Ltd.*, IPR2019-00089 (PTAB) (“Blackberry IPR”);
- *Maxell, Ltd. v. BlackBerry Corporation et al*, C.A. 1:17-cv-01446 (D.D.E.).

C. Lead and Back-Up Counsel (37 C.F.R. §42.8(b)(3))

Lead Counsel	Backup Counsel
Cono A. Carrano (Reg. No. 39,623) Akin Gump Strauss Hauer & Feld LLP 2001 K. Street N.W. Washington, DC 20006 Telephone: (202) 887-4000 Facsimile: (202) 887-4288 Email: ccarrano@akingump.com	C. Brandon Rash (Reg. No. 59,121) Ryan S. Stronczer (Reg. No. 79,921) Akin Gump Strauss Hauer & Feld LLP 2001 K Street N.W. Washington, DC 20006 Telephone: (202) 887-4000 Email: rstronczer@akingump.com brandon.rash@akingump.com Brock F. Wilson (Reg. No. 59,463) Clark Gordon (Reg. No. 74,706) Akin Gump Strauss Hauer & Feld LLP 4 Park Plaza #1900 Irvine, CA 92614 Telephone: (949) 885-4100 Email: bfwilson@akingump.com cgordon@akingump.com

D. Service Information (37 C.F.R. §42.8(b)(4)).

Please address all correspondence and service to:

Cono A. Carrano
Akin Gump Strauss Hauer & Feld LLP
2001 K. Street N.W.
Washington, DC 20006

VIZIO consents to electronic service by email at:

- AG-VIZIO-MAXELL-ITC-1338@akingump.com
- ccarrano@akingump.com
- brandon.rash@akingump.com
- cgordon@akingump.com
- bfwilson@akingump.com
- rstronczer@akingump.com

E. Certification of Grounds for Standing (37 C.F.R. §42.104(a))

Petitioner certifies that the '394 Patent is available for IPR and that Petitioner is not barred or estopped from requesting this review.²

² VIZIO was served with only the Complaint (EX1023) in the VIZIO ITC Action on October 18, 2022. There is no corresponding district court action in which the '394 Patent (or any other patent in the VIZIO ITC Action) is asserted against VIZIO. With respect to 35 U.S.C. § 315, Petitioner notes that International Trade Commission proceedings are not “civil actions” within the purview of § 315(b). *See Robert Bosch Tool Corp. v. SD3, LLC*, IPR2016-01753, Paper 15 at 9-12

III. FEES

Pursuant to 37 C.F.R. §42.103(a), Petitioner authorizes the Office to charge the fee set forth in 37 C.F.R. §42.15(a) to Deposit Account No. 50-2310, as well as any additional fees that might be due in connection with this Petition.

IV. CLAIM LISTING

Claim 2	
2[preamble]	A digital content reproducing apparatus, comprising:
2[a]	an input unit which inputs digital content;
2[b]	a reproducer which reproduces the inputted digital content;
2[c]	an output unit which outputs the reproduced digital content;
2[d]	a display which displays the outputted digital content together with an alternative display of either of a linear content operation panel allowing user-instruction regarding linear reproduction functions of the reproduced digital content or an interactive content operation panel allowing user-instruction of interactive functions to an outside of the digital content reproducing apparatus,
2[e]	wherein the linear content operation panel and the interactive content operation panel are distinct panels from each other, which are not generated by a disabling of buttons; and
2[f]	a controller which controls the alternative display of either of the linear content operation panel or the interactive content operation panel, wherein only one of the linear content operation panel or the interactive content operation panel is displayed exclusively at any given time, together with the outputted digital content:
2[g]	wherein the outputted digital content together with either the linear content operation panel or the interactive content operation panel, are displayed concurrently in one screen.

(PTAB Mar. 22, 2017); *The Brinkmann Corp. v. A&J Mfg., LLC*, IPR2015-00056, Paper 10 at 7-8 (PTAB Mar. 23, 2015).

Claim 3	
3	The digital content reproducing apparatus according to claim 2, wherein the linear content operation panel and the interactive content operation panel are common in size, and are alternatively switched between each other in a same panel rendering area of the screen as alternative operation panels.

Claim 4	
4[preamble]	A digital content reproducing apparatus, comprising:
4[a]	an input unit which inputs digital content;
4[b]	a reproducer which reproduces the inputted digital content;
4[c]	an output unit which outputs the reproduced digital content;
4[d]	a display which displays the outputted digital content together with an alternative display of either of a linear content operation panel allowing user-instruction regarding linear reproduction functions of the reproduced digital content or an interactive content operation panel allowing user-instruction of interactive functions to an outside of the digital content reproducing apparatus,
4[e]	wherein buttons of the linear content operation panel are mutually different from buttons of the interactive content operation panel; and
4[f]	a controller which controls the alternative display of either of the linear content operation panel or the interactive content operation panel, wherein only one of the linear content operation panel or the interactive content operation panel is displayed exclusively at any given time, together with the outputted digital content:
4[g]	wherein the outputted digital content together with either the linear content operation panel or the interactive content operation panel, are displayed concurrently in one screen.

Claim 5	
5	The digital content reproducing apparatus according to claim 4, wherein all the buttons are mutually different from each other.

Claim 6	
6	The digital content reproducing apparatus according to claim 4, wherein the linear content operation panel and the interactive content operation panel are common in size, and are alternatively switched between each other in a same panel rendering area of the screen as alternative operation panels.

Claim 7	
7[preamble]	A digital content reproducing apparatus, comprising:
7[a]	an input unit which inputs digital content;
7[b]	a reproducer which reproduces the inputted digital content;
7[c]	an output unit which outputs the reproduced digital content;
7[d]	a display which displays the outputted digital content together with an alternative display of either of a linear content operation panel allowing user-instruction regarding linear reproduction functions of the reproduced digital content or an interactive content operation panel allowing user-instruction of interactive functions to an outside of the digital content reproducing apparatus,
7[e]	wherein buttons of the linear content operation panel producing mutually differing functions from functions of buttons of the interactive content operation panel; and
7[f]	a controller which controls the alternative display of either of the linear content operation panel or the interactive content operation panel, wherein only one of the linear content operation panel or the interactive content operation panel is displayed exclusively at any given time, together with the outputted digital content:
7[g]	wherein the outputted digital content together with either the linear content operation panel or the interactive content operation panel, are displayed concurrently in one screen.

Claim 8	
8	The digital content reproducing apparatus according to claim 7, wherein all the buttons of the linear content operation panel and the interactive content operation panel, provide mutually differing functions from each other.

Claim 9	
9	The digital content reproducing apparatus according to claim 7, wherein the linear content operation panel and the interactive content operation panel are common in size, and are alternatively switched between each other in a same panel rendering area of the screen as alternative operation panels.

V. IDENTIFICATION OF PRIOR ART AND GROUNDS

A. Citation of Prior Art

The earliest claimed priority date of the '394 Patent is August 30, 2005. (*See* EX1001, Cover [30]). The references relied upon in this Petition qualify as prior art under 35 U.S.C. §§ 102(a) or (e) (pre-AIA).

Review is requested in view of the following:

EX1005 – U.S. Patent No. 7,293,276 to Phillips (“Phillips”) issued November 6, 2007, based on a November 25, 2002, filing date, and thus is prior art at least under § 102(e).

EX1006 – U.S. Patent Publication No. 2005/0188408 to Wallis (“Wallis”) published August 25, 2005, based on an October 22, 2004 filing date, and thus is prior art under at least §§ 102(a) and 102(e).

EX1007 – U.S. Patent No. 8,112,711 to Ackley (“Ackley”) issued February 7, 2012, based on an October 6, 2004, filing date, and thus is prior art at least under § 102(e).

EX1008 – U.S. Patent No. 8,181,205 to Russ (“Russ”) issued May 15, 2012, based on a September 24, 2002, filing date, and thus is prior art at least under § 102(e).

EX1009 – U.S. Patent No. 7,073,189 to McElhatten (“McElhatten”) issued July 4, 2006, based on a November 22, 2002, filing date, and thus is prior art at least under § 102(e).

EX1010 – U.S. Patent No. 8,773,360 to Uchida (“Uchida”) issued July 8, 2014, based on a November 17, 2004, filing date, and thus is prior art at least under § 102(e).

B. Claims and Statutory Grounds (37 C.F.R. §§ 42.104(b)(1) & (b)(2))

Petitioner requests institution on claims 2 through 9 (“Challenged Claims”) of the ’394 Patent based on the following grounds:

Ground	Claims	Basis	Reference or Combination
1	2, 4, 5, 7, 8	Anticipation	Phillips
2	2, 4, 5, 7, 8	Obviousness	Phillips in view of Ackley
3	2, 4, 5, 7, 8	Obviousness	Phillips in view of Wallis
4	3, 6, 9	Obviousness	Phillips in view of Uchida
5	3, 6, 9	Obviousness	Phillips in view of Ackley and Uchida

Ground	Claims	Basis	Reference or Combination
6	3, 6, 9	Obviousness	Phillips in view of Wallis and Uchida
7	2, 4, 5, 7, 8	Obviousness	Russ in view of McElhatten
8	3, 6, 9	Obviousness	Russ in view of McElhatten and Uchida

Section IX addresses claim construction. 37 C.F.R. §42.104(b)(3). Section X demonstrates that there is a reasonable likelihood that Petitioner will prevail with respect to at least one challenged claim. 35 U.S.C. § 314(a); 37 C.F.R. §42.104(b)(4),(5). Petitioner’s arguments are supported by a Declaration from Dr. Benjamin B. Bederson (EX1002). The ’394 Patent is subject to pre-AIA 35 U.S.C. §§ 102/103.

VI. DISCRETIONARY FACTORS FAVOR INSTITUTION

A. The *Fintiv* Factors Favor Institution

1. The parallel ITC proceedings do not implicate *Fintiv*

The USPTO recently issued guidance stating that “[t]he PTAB will not discretionarily deny petitions based on applying *Fintiv* to a parallel ITC proceeding.” USPTO, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (June 21, 2022) at 6-7 (“Guidance Memo”) (discussing *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential)). Thus, the parallel Lenovo and VIZIO ITC Actions (Inv. Nos. 337-TA-1324 and -1338, respectively) do not implicate *Fintiv*.

2. Whether the district court granted a stay.

The '394 Patent is not asserted against VIZIO in any district court action.

On May 27, 2022, the Lenovo WDTX Action was stayed pending the outcome of the Lenovo ITC Action, including appeals, pursuant to 28 U.S.C. § 1659. The Target Completion Date for the Lenovo ITC Action is in October 2023, and taking into account any appeals, the stay of the WDTX Action will likely still be in place when a final written decision issues in this proceeding, in approximately February 2024. This factor favors institution.

3. Proximity of the court's trial date to the Board's projected statutory deadline for a final written decision.

No trial date was set in the Lenovo WDTX Action prior to the stay, and the Board's final written decision will almost certainly issue long before any trial in the district court. Even if the stay of the WDTX Action were lifted today, the median time to trial in the Western District of Texas is 28.3 months, which far exceeds the statutory timeline for issuance of a FWD here.³ This factor favors institution.

³ https://www.uscourts.gov/sites/default/files/fcms_na_distprofile0630.2022.pdf

4. Investment in the parallel proceeding by the court and the parties.

The Lenovo WDTX Action was stayed prior to any substantive proceedings, and it is stayed through resolution of the Lenovo ITC Investigation. This factor favors institution.

5. Lack of overlap between this petition and the parallel proceedings.

This IPR petition challenges claims not asserted by Maxell in the VIZIO ITC Action, specifically claims 3, 6, and 9. Because resolution of the VIZIO ITC Action would not resolve pending issues presented in this IPR, this factor favors institution.

6. Whether the petitioner and the defendant in the parallel proceeding are the same party.

As noted above, the '394 Patent is not asserted against VIZIO in any district court action. Because the VIZIO ITC Action does not implicate *Fintiv*, this factor favors institution.

7. Other circumstances that impact the Board's exercise of discretion, including the merits.

The strength of the proposed grounds weighs in favor of institution, as evidenced by the fact that the Board previously instituted on these grounds in the Blackberry IPR.⁴ Petitioner respectfully submits that the prior institution on

⁴ As explained below, the Blackberry IPR does not favor discretionary denial under *General Plastic*.

anticipation and obviousness grounds, and the evidence presented herein, demonstrates a compelling challenge that merits institution regardless of the application of the other *Fintiv* factors. *See* Guidance Memo at 3-5 (“the PTAB will not deny institution based on *Fintiv* if there is compelling evidence of unpatentability”).

The *Fintiv* factors and the “efficiency and integrity of the system” favor institution because denial would result in years of increased litigation and the Board has already once determined that the asserted prior art has merit. *Fintiv*, IPR2020-00019, Paper 11 at 6.

B. The *General Plastic* Factors Favor Institution

1. Factor 1—Whether the same petitioner previously filed a petition directed to the same claims of the same patent

This factor heavily favors institution because VIZIO has not previously filed an IPR petition against the '394 Patent. Petitioner was not a party to the Lenovo or Blackberry IPRs and does not have a significant relationship with Blackberry. *Unified Patents, Inc. v. Certified Measurement, LLC*, IPR2018-00548, Paper No. 7 at 7-8 (Sep. 5, 2018).

2. Factors 2-5—Bear little relevance here

The second to fifth factors “bear little relevance” here because Petitioner has never before challenged the '394 Patent. *Id.* at 7-8 (“Once resolution of factor 1 indicates that Petitioner had not previously filed a petition against the same patent,

factors 2-5 bear little relevance unless there is evidence in the record of extenuating circumstances....” (internal citation omitted)). No such extenuating circumstances are present here.

3. Factors 6 and 7—The finite resources of the Board and timing of a final written decision

As to factor 6, instituting an IPR will not unduly strain the Board’s resources because there are only three challenged independent claims and five challenged dependent claims, and those claims have considerable overlap. *Compare*, e.g., EX1001 (’394 Patent) at cl. 2, with *id.* at cl. 4. Moreover, the Board can draw from the record developed in the Blackberry IPR to increase efficiency here.

As to factor 7, there is no apparent roadblock to issuing a final determination within the statutory one-year limit, nor is there undue burden in requiring PO to respond to an IPR because PO has already reviewed and analyzed the same asserted art and combinations. Moreover, PO chose to settle the Blackberry IPR after the Board found a reasonable likelihood that the ’394 Patent is invalid and then filed new litigation asserting the same patent claims against Motorola and VIZIO. PO’s decision to settle an instituted IPR should not weigh against the Board resolving patentability with respect to a Petition filed by a party not involved in (and not a real party in interest to) the Blackberry IPR.

C. The *Becton* Factors Favor Institution

The Board should also not deny review under 35 U.S.C. §325(d). *Advanced Bionics, LLC v. Med-El Elektromedizinische Gerate GmbH*, IPR2019-01469, Paper No. 6 at 8 (PTAB. Feb. 13, 2020) (precedential) (“*Advanced Bionics*”); *Becton, Dickinson & Co v. B. Braun Melsungen AG*, IPR2017-01586, Paper No. 8 at 17-18 (PTAB Dec. 15, 2017) (“*Becton*”).

Under the *Advanced Bionics* framework for applying the *Becton* factors, the Board first considers whether the same or substantially the same prior art or arguments were previously presented to the Office. *Advanced Bionics* at 8. This first condition of the *Advanced Bionics* framework is not satisfied and discretionary denial under §325(d) is not appropriate.

The grounds presented herein rely on primary references (Phillips and Russ) that were neither cited nor considered by the Examiner during prosecution of the ’394 Patent. Further, none of the obviousness combinations or rationales presented herein were considered by the Examiner. Indeed, none of the Ackley, Uchida or McElhatten references relied upon herein in combination with Phillips and/or Russ were cited or considered by the Examiner.

While Willis was applied by the Examiner during prosecution, its application herein is materially different, as discussed in detail below in §IX.C.1.

VII. PERSON OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the field of the '394 Patent would have had a Bachelor's degree in computer science, electrical engineering, or a similar discipline, and one to two years of work experience in user interface design, or a related area. (EX1002, ¶72). Additional education in the field may serve as a substitute for experience in the field. A person with less education but more relevant practical experience may also meet this standard.

VIII. OVERVIEW OF THE '394 PATENT

A. Priority Date of the '394 Patent

The '394 Patent (EX1001), entitled "Multimedia Player Displaying Operation Panel Depending on Contents" issued on May 1, 2012 from U.S. Application 11/508,209, filed on August 23, 2006 and claiming priority to application JP 2005-248576, filed on August 30, 2005. (EX1001). (EX1002, ¶32).

B. Summary of the '394 Patent

The '394 Patent describes a set-top-box ("STB") characterized as a "digital content reproducing apparatus...with a plurality of user operation interfaces, e.g., a linear content operation panel and an interactive content operation panel." (EX1001, Abstract). The apparatus "monitors information on digital contents, and upon occurrence of a change, the plurality of user operation panels are automatically and exclusively displayed in an operation panel display area." (*Id.*). (EX1002, ¶32).

For example, “FIGS. 2 to 4 show image display states during digital broadcast reproduction. A monitor A1 has a content display area A2 and an operation panel display area A3. During reproduction of linear contents such as moving image contents, a linear content operation panel A4 is displayed in the operation panel display area A3.” (EX1001, 3:43-48). (EX1002, ¶35).

FIG. 2

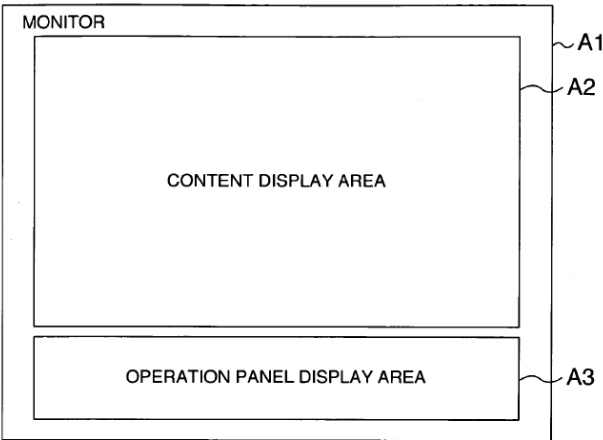
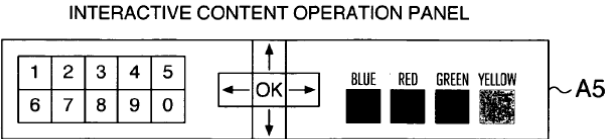


FIG. 3



In contrast, “[d]uring reproduction of interactive contents such as data broadcast contents, an interactive content operation panel A5 is displayed in the operation panel display area A3.” (EX1001, 3:52-54). (EX1002, ¶36).

FIG. 4



IX. CLAIM CONSTRUCTION⁵

In an IPR, patent claims are construed in accordance with the ordinary and customary meaning of such claim as understood by a person of ordinary skill in the art (“POSITA”) and the prosecution history. 37 C.F.R. § 42.100(b).

A. Claim Constructions in the Blackberry IPR

In the Blackberry IPR, Blackberry and PO proposed a number of claim constructions, none of which were adopted by the Board. (EX1020 at 8-12). Petitioner agrees that those terms should be given their plain and ordinary meaning in this IPR.⁶

B. “distinct panels” (claim 2), “mutually different” (claim 4), “buttons...mutually differing” (claim 7)

Each of these terms should be limited to panels in which *all* buttons and functions are mutually different, in view of the intrinsic evidence and Applicant’s

⁵ VIZIO notes that the Board’s institution decision in the Motorola IPR did not construe any terms of the Challenged Claims. EX1022 at 8-9. Consistent with VIZIO’s Motion for Joinder with the Motorola IPR, VIZIO adopts the same claim construction positions proffered by Motorola in IPR2022-01348.

⁶ The *Markman* hearing in the VIZIO ITC Action was held on February 27, 2023. The parties’ claim construction briefing and Joint Claim Construction Chart is attached hereto as Exhibits 1024-28.

disclaimer during prosecution. These terms were not presented for construction in the Blackberry IPR.

Claim Term	Construction
<i>“distinct panels”</i> (claim 2)	“panels in which the buttons are all mutually different”
<i>“mutually different”</i> (claim 4)	“all mutually different”
<i>“buttons...mutually differing”</i> (claim 7)	“all buttons...mutually differing”

Petitioner’s proposed constructions do not have any impact on the grounds set forth herein. The Board has already analyzed whether these grounds disclose panels in which all buttons and functions are mutually different, with regard to dependent claims 5 and 8. (EX1020 at 33, 35). And if the Board declines to construe these terms, the arguments below are equally applicable under the plain meaning of these terms. (EX1020 at 28 (“distinct panels”), 31-33 (“mutually different”), 33-34 (“mutually differing”), 35 (reasonable likelihood of establishing anticipation by Phillips)).

1. The Specification Supports Petitioner’s Construction

The claimed linear content operation panel is described as including “functions of reproduce, stop, temporary stop, fast forward, fast backward, previous skip, next skip and the like.” (EX1001, 3:49-51). (EX1002, ¶35). The claimed

interactive content operation panel is described as including “functions of numerical keys from 0 to 9, up/down/right/left keys, a decide key, blue/red/green/yellow keys and other keys.” (EX1001, 3:55-57). (EX1002, ¶36). The panels are depicted at Figures 3 and 4:



During prosecution, Applicant stated that Figures 3 and 4 have “mutually different” buttons and “buttons effecting mutually differing functions.” (EX1004, 101, 103). The ’394 Patent does not disclose panels with shared buttons or functions. Indeed, one of the alleged problems in the prior art was the large display area required for control panels resulting from display of interactive buttons during linear content, and vice versa. (EX1001, 1:51-55 (prior art “apparatus using GUI is also required to display all keys so that a wide operation panel rendering area is used.”); *id.* at 1:33-44, 1:60-65 (in “present invention,” “the panel rendering area is made small”)). (EX1002, ¶¶33-34). Thus, a POSITA would have understood that the buttons and functions of the alternative operation panels are all mutually different from each other. (EX1002, ¶87).

2. Applicant Disclaimed Panels In Which Buttons and Functions Are Not All Mutually Different

In addition, Applicant clearly and unequivocally disclaimed embodiments like the one disclosed by Kawakami in which buttons and functions are not all mutually different. (EX1004, 97-104).

During prosecution, the Examiner rejected claim 13 (issued claim 2) over U.S. Patent Nos. 7,293,276 (“Wallis”) and 7,126,587 (“Kawakami”). (EX1004, 84-87). At the time, claim 13 required that the digital content reproducing apparatus display “the outputted digital content and either a liner [*sic*] content operation panel or an interactive content operation panel.” (EX1004, 68-69). (EX1002, ¶¶50-51).

With regard to the alternative panels, the Examiner found (based on Kawakami) that it was “notoriously well known in the GUI display art to have displayed non-active and/or non-enabled buttons/options of a displayed GUI in a ‘gray-out’ state and, more desirably, to have simply removed the non-active and/or non-enabled buttons/options from the displayed GUI[.]” (EX1004, 82, 86). (EX1002, ¶52).

During a subsequent interview, the Examiner conveyed to Applicant that the prior art “switches between separate/different linear and non-linear control panels by selectively enabling and/or disabling keys - such that the separate/different panels

that are produced comprise different sets/subsets of keys.” (EX1004, 91). (EX1002, ¶53).

Thereafter, in its December 8, 2011 response to the pending rejection, Applicant amended claim 13 to require, *inter alia*, that “the linear content operation panel and the interactive content operation panel are **distinct panels** from each other, which are not generated by a disabling of buttons.” (EX1004, 114-115 (emphasis added)). (EX1002, ¶54).

Applicant also introduced new claims 15 and 18. (EX1004, 115-117). New claim 15 (issued claim 4) required that “buttons of the linear content operation panel are **mutually different** from buttons of the interactive content operation panel.” (EX1004, 115-116 (emphasis added)). (EX1002, ¶55). New claim 18 (issued claim 7) required that “buttons of the linear content operation panel producing **mutually differing** functions from functions of buttons of the interactive content operation panel.” (EX1004, 116-117 (emphasis added)). (EX1002, ¶55).

In its remarks regarding the rejection of claim 13,” Applicant addressed the Examiner’s “interpretation” that “Kawakami may be viewed as providing two differing operation panels.” (EX1004, 98-99). Applicant included the below figures from Kawakami in its remarks:

FIG. 1 (b)

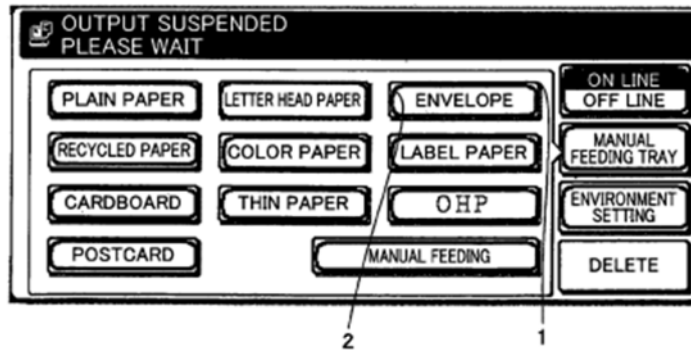
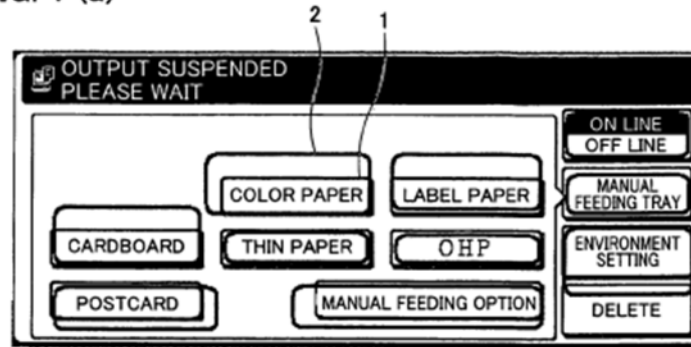


FIG. 1 (a)



(EX1004, 99). (EX1002, ¶ 57).

Applicant explained “Kawakami’s FIG. 1(b)...illustrates a master operation panel having ALL...buttons selectable,” while “Kawakami’s FIG. 1(a)...illustrates a variation operation panel where several of the buttons have...been ghosted out so as to not be selectable.” (*Id.*). Applicant distinguished its newly claimed “distinct panels” from what the examiner had characterized as Kawakami’s “differing...panels,” in which certain buttons were removed from the variation panel while others remained operable in both panels. (EX1004, 99-100). Applicant also asserted that “Kawakami’s disclosure teaches the disabling of buttons to achieve

alternative panels,” while the newly amended claim required that the panels “are not generated by a disabling of buttons.” (EX1004, 100). (EX1002, ¶¶57-58).

With regard to claim 15, Applicant stated that the claimed panels, as illustrated by Figures 3 and 4 “have buttons being mutually differing from one another,” while “Kawakami’s FIG. 1(b) master operation panel and Kawakami’s FIG. 1(a) variation operation panel...do NOT have buttons of one panel mutually different from buttons of the other panel, e.g., whereas Kawakami’s FIG. 1(a) panel has a COLOR PAPER button, as one example, so does Kawakami’s FIG. 1(b) master panel.” (EX1004, 101-102). Thus, Applicant concluded, “Kawakami’s panels can never have mutually differing buttons.” (*Id.*). (EX1002, ¶59).

Applicant made the same argument with reference to claim 18, stating that unlike the claimed panels, as illustrated by Figures 3 and 4, “Kawakami’s FIG. 1(a) panel has a COLOR PAPER button, as one example, so does Kawakami’s FIG. 1(b) master panel.” (EX1004, 103). Thus, Applicant asserted, “Kawakami’s panels can never have buttons with mutually differing functions.” (EX1004, 103-104). (EX1002, ¶60).

The Examiner expressly relied upon Applicant’s statements, stating that the prior art of record did not “produc[e] the alternative display of linear and interactive content operation panels,” of claims 13, 15, and 18 (issued claims 2, 4, and 7) “in

the manners argued by applicant in the response filed 12/8/2011.” (EX1004, 126). (EX1002, ¶61).

A POSITA reviewing the prosecution history would understand that Applicant disclaimed control panels like Kawakami’s, where the buttons and functions are not all mutually different “by making a clear and unmistakable disavowal of scope during prosecution.” *Comput. Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374 (Fed. Cir. 2008); *see also Saffran v. Johnson & Johnson*, 712 F.3d 549, 559 (Fed. Cir. 2013) (finding disclaimer based on statements distinguishing prior art during prosecution). (EX1002, ¶¶83-87).

Facing a prior art rejection, Applicant “clearly characteriz[ed] the invention in a way to try to overcome rejections based on prior art.” *Comput. Docking Station*, 519 F.3d at 1374. The Examiner relied on those statements in issuing the patent, further supporting a finding of disclaimer. *See Saffran*, 712 F.3d at 559.

Applicant’s statements still constitute disclaimer even if Applicant was distinguishing Kawakami on more than one basis (*e.g.*, that Kawakami does not disclose “distinct panels” nor does it disclose panels that are “not generated by a disabling of buttons” as required by claim 13 (issued claim 2)). *Id.* (“[A]n applicant’s argument that a prior art reference is distinguishable on a particular ground can serve as a disclaimer of claim scope even if the applicant distinguishes the reference on other grounds as well.”).

Although claims 5 and 8 of the '394 Patent require that “all” of the buttons and functions of the claimed operation panels are mutually different/differing, the presumption of claim differentiation cannot survive Applicant’s clear disclaimer of a broader scope than the dependent claims. *See Biogen Idec, Inc. v. GlaxoSmithKline LLC*, 713 F.3d 1090, 1097 (Fed. Cir. 2013) (“[W]here found, prosecution history disclaimer can overcome the presumption of claim differentiation.”); *Fantasy Sports Prop v. Sportsline.com*, 287 F.3d 1108, 1116 (Fed. Cir. 2002) (“Although claims 2 and 3 attempt to further define the term ‘bonus points,’ that presumption [of claim differentiation] is overcome by Fantasy’s disclaimer of subject matter in the prosecution history.”).

Thus, Petitioner’s proposed constructions should be adopted.

C. “input unit” / “output unit”

Claims 2-9 include an “input unit which inputs digital content” and an “output unit which outputs the reproduced digital content.” The Examiner found that these terms should not be construed under § 112 ¶6 (EX1004, 78-79), and the Board previously declined to adopt a means-plus-function construction for these terms. (EX1020 at 10). Petitioner does not believe that these terms need be construed, but should the Board disagree, provides this analysis:

If “input unit” is not a structural recitation, the relevant function is “input[ting] digital content.” The relevant structure, as shown in Figures 1, 5, and 7, is a

tuner/broadcast receiving unit 1, a network adapter, network connection unit B2, or a device controller 2, all well-known prior art structures that receive digital content. (EX1001, 3:19-42; 4:37-41; 4:62-66; EX1002, ¶¶90-91).

If “output unit” is not a structural recitation, the relevant function is “output[ting] the re-produced digital content.” The relevant structure is circuitry that can generate graphics, as shown for example image rendering unit 7 labeled with “GRAPHICS” in Fig. 1, a well-known prior art structure. (EX1001, 3:23-33; EX1002, ¶¶92-93).

Even if these terms are construed under § 112 ¶6, the well-known input/output structure described in the ’394 patent is found in the prior art references and combinations discussed in detail below.

X. APPLICATION OF THE PRIOR ART TO THE CHALLENGED CLAIMS

Pursuant to Rule 42.104(b), this section demonstrates that the Challenged Claims are unpatentable. (EX1002, ¶¶114-248).

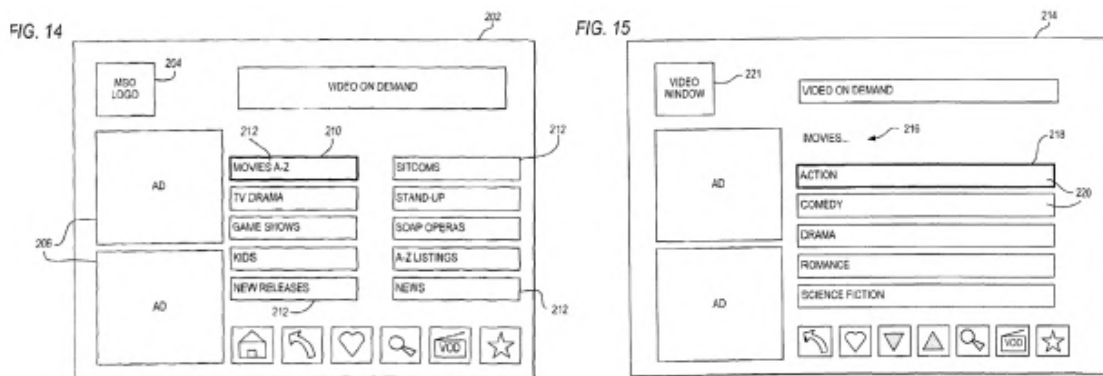
The references described below in Grounds 1-8 anticipate or render obvious claims 2 through 9 of the ’394 Patent under 35 U.S.C. §§102 and 103 and provide a reasonable likelihood that the Petitioner will prevail on at least one claim. *See* 35 U.S.C. § 314(a).

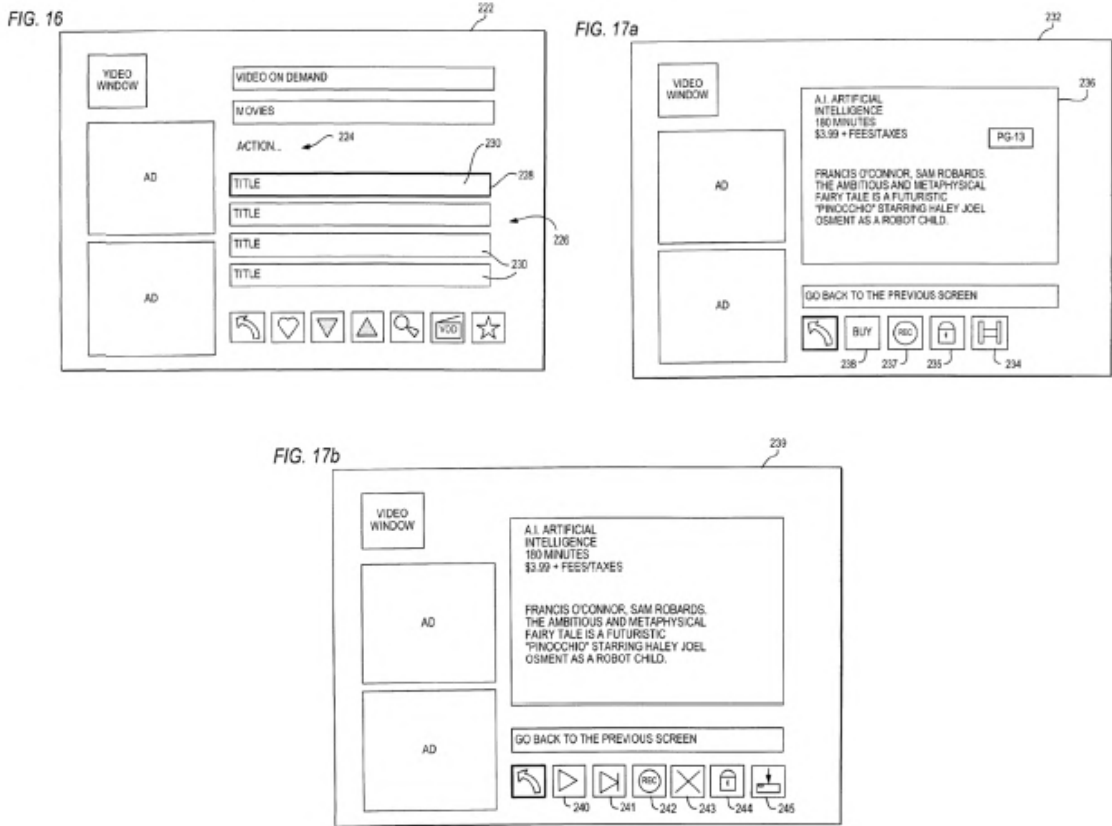
A. Ground 1: Claims 2, 4, 5, 7, and 8 are Anticipated by Phillips.

1. Phillips Overview

Phillips describes an “Interactive Television Program Guide for Recording Enhanced Video Content” that provides both linear and interactive content to the user. (EX1005). For example, “[c]ontent such as television programming and digital music may be provided from programming sources 12 to television distribution facilities” to user equipment such as a TV or personal computer. (EX1005, 6:31-55; *see generally id.* at 6:31-63). (EX1002, ¶95).

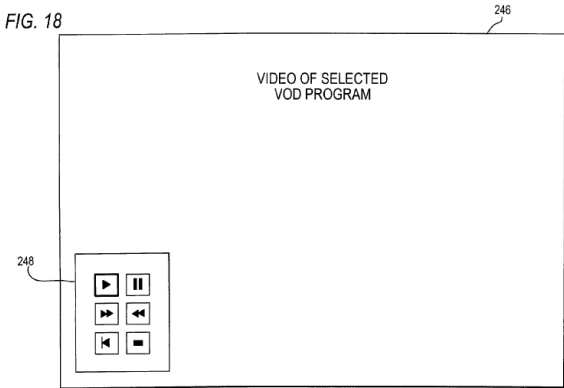
Phillips also provides users with a variety of “interactive television services” such as an “interactive television program guide application, a home shopping application, a home banking application, a video-on-demand application, game applications, and other applications....” (EX1005, 8:45-48; *see also id.* at 7:27-9:22). A series of exemplary interactive VoD menu screens are shown in Figures 14-17.





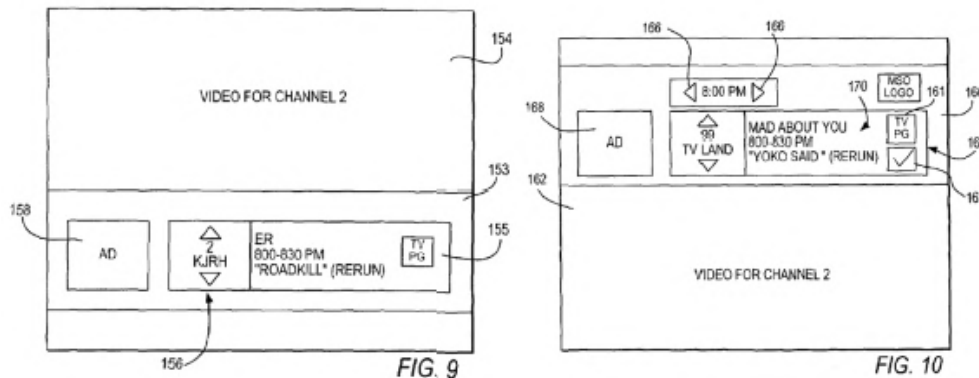
(EX1002, ¶96).

Once a desired video is selected, an exemplary linear display/linear content operation panel is shown Figure 18, which allows the user to rewind to the beginning, rewind, play, fast-forward, pause, and stop. (EX1005, 20:18-27).



As shown in the “interactive content” screens of Figures 14-17 and the “linear content” screen of Figure 18, the outputted digital content—*e.g.*, video-on-demand menus or the selected video—is displayed concurrently in the same screens as the displayed operation panels, which are themselves distinct depending on the displayed content. (EX1002, ¶97).

Additionally, Phillips’s Figures 9 and 10 depict operation panels for “flip” tuning through TV channels (Figure 9), or for browsing through the TV guide (Figure 10). (EX1005, 16:22-17:32). Both operation panels are “overla[id] on top of the current channel.” (EX1005, 16:41-64). (EX1002, ¶98).



2. Claim 2

Claim 2 [Preamble]: A digital content reproducing apparatus, comprising:

Phillips discloses an end-user, digital content reproducing apparatus 18 that receives television, music, and other information from a television distribution facility 14 over various communication paths. (§X.A.1; EX1005, 6:51-63; *id.* at Fig. 1). In particular, Phillips discloses that “[c]ontent such as television programming

and digital music may be provided from programming sources 12 to television distribution facilities such as television distribution facility 14 using communication path 16” (EX1005, 6:32-36) and that “[t]he user equipment may receive television and music programming and other information from television distribution facility 14 over communication paths 26, 27, and 28.” (*id.* at 6:56–59). (EX1002, ¶116).

Phillips’s digital content reproducing apparatus is generally depicted in Figures 1-30, which provide different features of Phillips’s digital content reproducing apparatus, all operating within a single embodiment of Phillips’s STB.

Thus, if the preamble is limiting, Phillips discloses this limitation of claim 2. (EX1002, ¶¶116-117).

Claim 2[a]: an input unit which inputs digital content;

Phillips discloses an input unit that inputs digital content in the form of digital video circuitry including digital tuners and decoders. Phillips’s STB 66 (as shown in Figure 3) receives digital content via input/output 70. (EX1005, 10:49-51). (EX1002, ¶ 119).

20

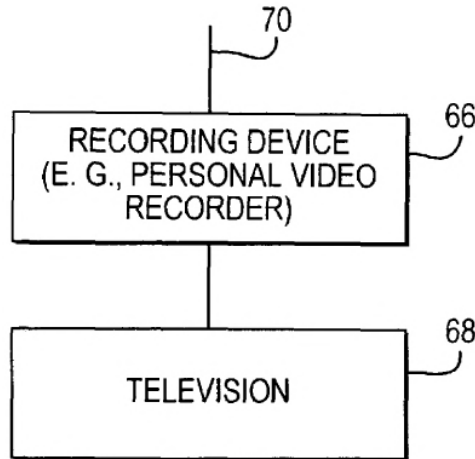


FIG. 3

STB 66 contains analog and/or digital tuners and decoding circuitry for receiving digital television and music channels, which may be multiplexed. (EX1005, 10:54-60; *see also id.* at 11:12-20 (disclosing additional digital communications circuitry)). STB 66 also contains a processor and random access memory for use when executing applications (EX1005, 10:60-64). STB 66 also includes a hard disk or other storage that “may also be used to record video such as television programs or video-on-demand content or other content provided to recording device 66 over input/output 70.” (EX1005, 11:1-5). (EX1002, ¶120).

Figure 6 (“a generalized diagram of illustrative user equipment” of Figure 3 (EX1005, 5:3-4, 13:48-49)), depicts “control circuitry 106 [] connected to input/output 108.” (EX1005, 13:50-51, *see also id.* at 13:52-14:28).

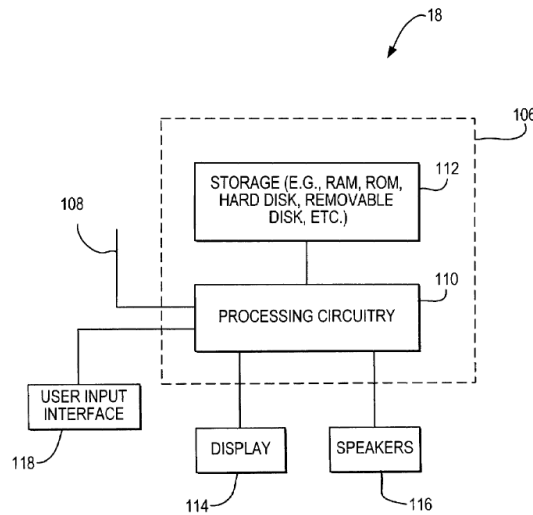


FIG. 6

“Input/output 108 may be connected to one or more communications paths such as paths 26, 27, 28, 42, 46, and 48 of FIG. 1. Television and music programming may be received via input/output 108....” (EX1005, 13:51-54; *see generally id.* at 13:51-64).

Control circuitry 106 may be based on any suitable processing circuitry 110 such as processing circuitry based on one or more microprocessors, microcontrollers, digital signal processors, programmable logic devices, etc. Memory (e.g., random-access memory and read-only memory), hard drives, DVD drives, CD drives, or any other suitable memory or storage devices may be provided as storage 112 that is part of control circuitry 106. Tuning circuitry such as one or more analog tuners, one or more MPEG-2 decoders or other digital video circuitry, or any other suitable tuning or video circuits or combinations of such circuits may also be included as part of circuitry 106. Encoding circuitry (e.g., for converting

over-the-air or cable analog signals to MPEG signals for storage) may also be provided.

(EX1005, 13:65-14:11; *see generally id.* at 13:65-14:23). (EX1002, ¶¶121-122).

Phillips thus discloses an input unit which inputs digital content in the form of digital video circuitry including digital tuners and decoders.⁷ For the same reasons, if this term is construed pursuant to § 112 ¶6, Phillips discloses the claimed structure (digital video circuitry including digital tuners and decoders) and function (inputting digital content) (§IX.C.). (EX1002, ¶123).

Claim 2[b]: a reproducer which reproduces the inputted digital content;

Phillips's digital content reproducing apparatus includes a reproducer to reproduce inputted digital content in the form of storage and associated control circuitry for video playback.

STB 66 of Figure 3 includes a hard disk or other storage that may be used to record video "such as television programs or video-on-demand content or other content provided to recording device 66..." (EX1005, 11:1-5; *see also id.* at 10:40-47). STB 66 thus permits a user "to watch a previously-recorded program" stored on the hard disk. (EX1005, 11:29-32). (EX1002, ¶125).

⁷ Petitioner notes that PO has taken a very broad view of what constitutes an "input unit," and in particular has alleged in ITC contentions that "network interfaces," "built-in/internal storage and/or memory," and processor components such as image signal processors ("ISPs") and display processors are or contain "input units." (EX1019, p.12).

Control circuitry 106 for the Phillips STB (as shown in generalized diagram Figure 6) includes storage 112 as well as tuners and other digital video circuitry. (EX1005, 13:65-14:11). (EX1002, ¶126).

Phillips thus provides a reproducer which reproduces the inputted digital content.⁸ (EX1002, ¶127).

Claim 2[c]: an output unit which outputs the reproduced digital content;

Phillips discloses an output unit that outputs the reproduced digital content. STB 66 contains a processor and random access memory for use when executing applications (EX1005, 10:60-64), and outputs digital content to a television (EX1005, 10:47-48, 11:27-28 (“When the user presses play, the recorded video may be played back.”)). (EX1002, ¶128).

Phillips’s processing circuitry controls the output of the reproduced digital content to display 114:

The tuning and encoding circuitry may be used by the user equipment to receive and display or play or record a particular television or music channel or other desired audio and video content....Television programming and other video and on-screen options and information may be displayed on display 114.

(EX1005, 14:11-18). (EX1005, 10:29-39 (output of STB “may be provided to television 64 for display to the user.”). (EX1002, ¶129).

⁸ PO has broadly interpreted “reproducer” in ITC contentions to include “a chipset including, for example, a CPU/DSP/ISP/decoder/GPU.” (EX1019, pp. 8, 25).

Phillips thus discloses an output unit that outputs reproduced digital content including tuning and encoding circuitry that can generate graphics.⁹ For the same reasons, if this term is construed pursuant to § 112 ¶6, Phillips discloses the claimed structure (circuitry that can generate graphics) and function (outputting digital content) (§IX.C.). (EX1002, ¶130).

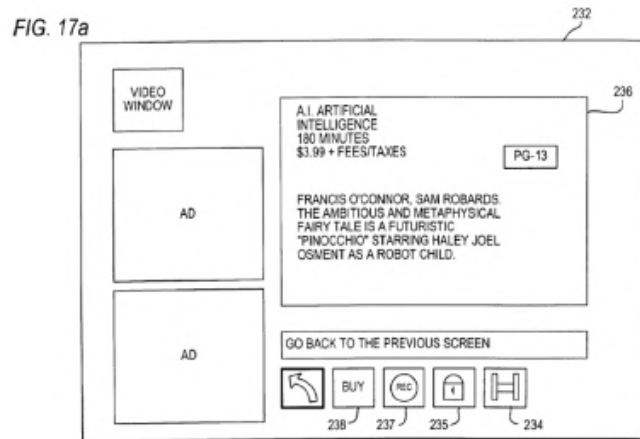
Claim 2[d]: a display which displays the outputted digital content together with an alternative display of either of a linear content operation panel allowing user-instruction regarding linear reproduction functions of the reproduced digital content or an interactive content operation panel allowing user-instruction of interactive functions to an outside of the digital content reproducing apparatus,

Phillips discloses a display 114 that displays the outputted digital content. (§X.A.1; EX1005, 14:16-18 (“Television programming and other video and on-screen options and information may be displayed on display 114.”)). That display is depicted in Phillips’s Figures 7-18. With specific reference to Figures 14-18, Phillips displays both interactive content, as shown in the VoD screens of Figures 14-17, and linear content, as shown in the video display of Figure 18. (EX1002, ¶131).

Depending on the screen displayed, Phillips shows a linear content operation panel allowing user-instruction regarding the linear reproduction functions, or an

⁹ PO has broadly interpreted “output unit” in ITC contentions to include various processor components such as “an ISP and/or decoder and/or GPU,” or even more broadly, a “point within the data processing pipeline that outputs digital content to another point in the pipeline.” (EX1019, p. 31).

interactive content operation panel allowing user-instruction of interactive functions to an outside of the digital content reproducing apparatus. For example, as shown in Figure 17a's interactive content screen displaying interactive VoD content, an interactive content operation panel is shown at the bottom of the screen that includes a back arrow to return to the previous screen (EX1005, 17:50-52 (describing element 174 of Figure 11)), a buy button 238, a record button 237, a parental control button 235, and a preview button 234. (EX1005, 19:30-48).¹⁰ (EX1002, ¶¶132-134).



The interactive content operation panel allows user-instruction of interactive functions to an outside of the digital content reproducing apparatus by, for example,

¹⁰ A POSITA would have understood that an operation panel is an organized presentation of user control buttons. And that the buttons need not be contained within a specific border (although this is indeed taught by Phillips). (EX1005, 16:45-50) (EX1002, ¶¶124). Up/down scroll indicators 148/149 (shown in Figures 15 and 16, for example) allow the user to navigate through program listings. (EX1005, 16:14-16).

informing server 36 or 56 that the user wishes to buy the video (button 238) or wishes to view a clip of the video (button 234). As explained in Phillips:

If the user selects option 234, the interactive television application may display a video clip containing information on the video-on-demand content of interest (e.g., a promotional video such as a preview, a trailer, a review, etc.). The video clip may be delivered to the user equipment 18 from a server such as server 36 or server 56 of FIG. 1 or from equipment at a service provider such a service provider 50.

(EX1005, 19:44-51).

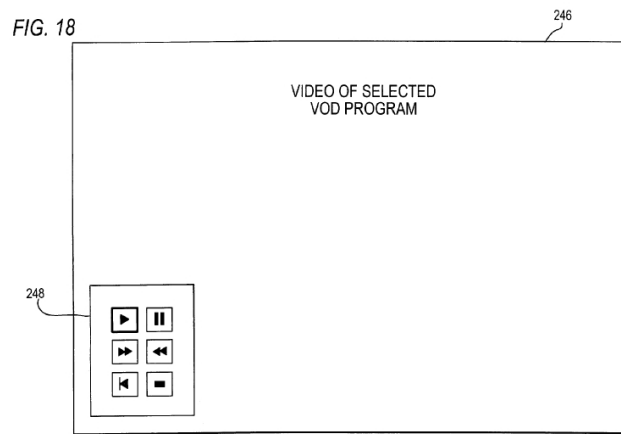
In response to a user ordering selected content (e.g., by selecting an on-screen order options such as option 238 of Fig. 17a...), the interactive television application may deliver the ordered video-on-demand content to the user equipment from a server such as server 36 or server 56 or from a service provider such as 15 service provider 50.

(EX1005, 20:8-15). (EX1002, ¶135).

Phillips describes a variety of other interactive content screens including interactive content operation panels. *See* Figures 19-20, 22-26, 28. In these screens, the digital content provided may include video or other media. (*See* EX1005 at 27:15-19 (referring to Fig. 28) (“summary caption 2804...may include, for example, text, images, video, audio, any other suitable media format, or a combination thereof”)).

Once the user makes a selection, the selected VoD content is displayed to the user, as shown in Figure 18, with a linear content operation panel allowing user-instruction regarding linear reproduction functions, e.g., “to rewind the video-on-demand content to the beginning, rewind, play, fast-forward, pause, stop delivery of

the video-on-demand content, or perform other video playback options.” (EX1005, 20:22-27; *see also* Figure 21 (22:59-23:9), Figure 27 (26:45-63)). (EX1002, ¶136).



Phillips thus discloses claim element 2[d]. (EX1002, ¶137).

Claim 2[e]: wherein the linear content operation panel and the interactive content operation panel are distinct panels from each other, which are not generated by a disabling of buttons; and

As shown by comparing Phillips Figures 17a and 18, for example, both the linear content operation panel and the interactive content operation panel are distinct operation panels, with distinct buttons and functionality, which are not generated by the disabling of buttons. In Figure 17a’s interactive content operation panel, button 234 enables the interactive television application to display a video clip containing information on the VoD content of interest (EX1005, 19:45-48); button 235 accesses options for setting parental controls (EX1005, 19:43-44); button 237 accesses options for recording the selected content (EX1005, 19:41-43); button 238 accesses options for ordering the selected VoD content (EX1005, 19:40-41); and a previous

screen button is also provided. In contrast, the buttons of Figure 18's linear content operation panel 248 perform play, rewind, fast-forward, pause, and stop. (EX1005, 20:20-30) (EX1002, ¶¶138-139).

For the same reasons, Phillips also discloses panels with buttons that are all mutually different, including for example the linear content operation panel and the interactive content operation panel depicted in Figures 17a and 18. (§IX.B.). (EX1002, ¶¶138-139). Phillips thus discloses element 2[e].

Claim 2[f]: a controller which controls the alternative display of either of the linear content operation panel or the interactive content operation panel, wherein only one of the linear content operation panel or the interactive content operation panel is displayed exclusively at any given time, together with the outputted digital content:

As discussed above with respect to elements 2[a]-2[c], Phillips includes control circuitry 106 with tuning and encoding circuitry to receive and display the requested interactive content or the requested linear content. (EX1005, 13:65-14:11). In addition, control circuitry of Figure 6 and the circuitry of STB 66 contain a processor and random access memory for use when executing applications. (EX1005, 13:65-14:5, 10:60-64). "Interactive television applications" run by the controller include the interactive program guide application and the video-on-demand application, among others. (EX1005, 8:45-54; *see id* at 9:4-6 (disclosing local implementation of applications)). (EX1002, ¶141).

The control circuitry is controlled by the user with “user 25 input interface 118. The user input interface 118 may be any suitable user interface, such as a mouse, trackball, keypad, keyboard, touch screen, touch pad, voice recognition interface, remote control, etc.” (EX1005, 14:24-28). (EX1002, ¶141).

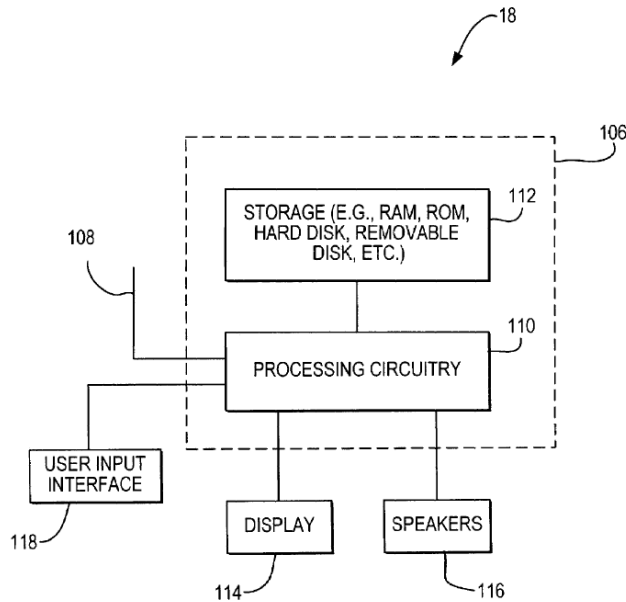
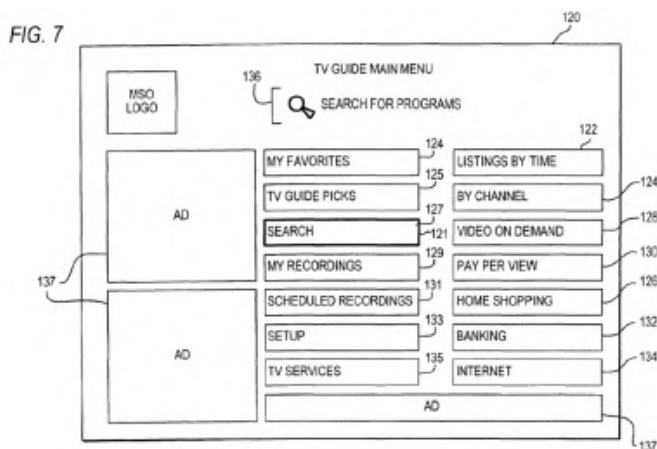
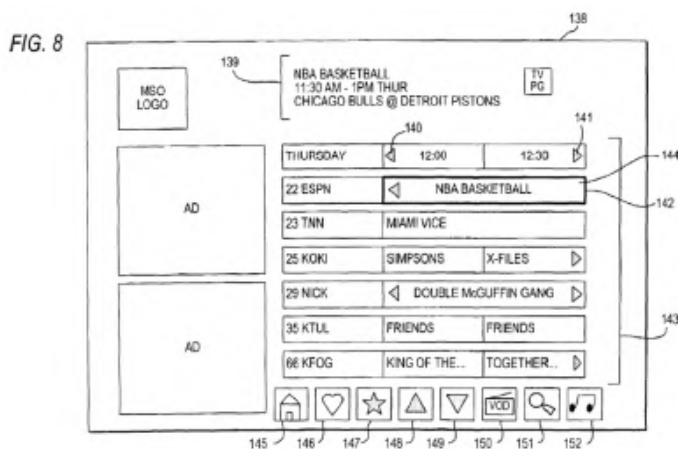


FIG. 6

The user’s interaction with Phillips’s device causes the control circuitry 106 to control the alternative display of either the linear content operation panel or the interactive content operation panel. For example, menu 120, shown below in Figure 7, “provide[s] the user with a number of selectable options.” (EX1005, 14:30-32). (EX1002, ¶142).



Option 122 may be selected and instructs Phillips's control circuitry to display the interactive content "Listings by Time" menu, which includes an interactive content operation panel with buttons 145-152. (EX1005, 15:14-23, 16:5-9). (EX1002, ¶143).



Selecting the Video on Demand button 128 in Figure 7 or the VoD button 150 in Figure 8 instructs the control circuitry to use the interactive television application to display the interactive content VoD screens shown in Figures 14-17, each having an interactive content operation panel. (EX1005, 16:16-17, 18:65-67; *see generally* 18:61-20:17). Once the user buys a selected VoD program, the control circuitry

displays the selected video together with the linear content operation panel shown in Figure 18. (EX1005, 20:8-30). Thus, Phillips's control circuitry running the interactive television application controls the alternative display of either of the linear content operation panel or the interactive content operation panel depending upon the presently displayed screen. As shown by the figures above, only one of the linear content operation panel or the interactive content operation panel is displayed exclusively at any given time, together with the outputted digital content. (EX1002, ¶¶144-145).

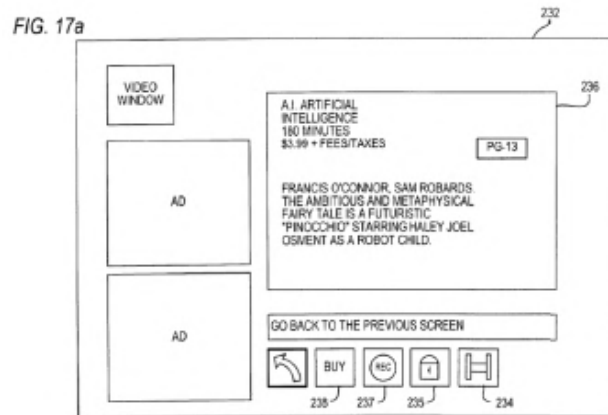
Phillips thus discloses element 2[f]. (EX1002, ¶¶146).

Claim 2[g]: wherein the outputted digital content together with either the linear content operation panel or the interactive content operation panel, are displayed concurrently in one screen.

Phillips discloses a display 114 that displays the outputted digital content. Display 114 is depicted in Phillips's Figures 7-18. With specific reference to Figures 14-18, Phillips displays both interactive content, as shown in the VoD guide screens of Figures 14-17, or linear content, as shown in the video display of Figure 18. And depending on the screen displayed, Phillips shows either a linear content operation

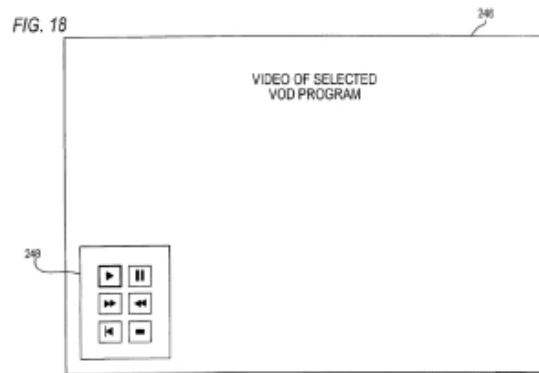
panel along with the outputted digital content, or an interactive content operation panel along with the outputted digital content, all on one screen.¹¹

For example, Figure 17a illustrates an interactive content screen displaying interactive VoD content (*i.e.*, outputted digital content), concurrently with an interactive content operation panel displayed along the bottom of the screen. (EX1002, ¶147).



As another example, Figure 18 illustrates a linear content screen displaying a selected VoD program—*i.e.*, the outputted digital content—currently with a linear content operation panel in the bottom left corner of the screen. (EX1002, ¶148).

¹¹ The Board correctly concluded in the Blackberry IPR that the '394 Patent does not require that the digital content displayed with the linear content operation panel must be the same as the digital content displayed with the interactive content operation panel. Blackberry IPR at 30-31. (EX1001, 3:52-4:21) (EX1002, ¶¶35-36).



Phillips thus discloses each and every limitation of claim 2 and anticipates the same. (EX1002, ¶149).

3. Claim 4

Claim 4[Preamble]:

See claim 2[preamble].

Claim 4[a]:

See claim 2[a].

Claim 4[b]:

See claim 2[b].

Claim 4[c]:

See claim 2[c].

Claim 4[d]:

See claim 2[d].

Claim 4[e]: wherein buttons of the linear content operation panel are mutually different from buttons of the interactive content operation panel; and

As explained above with respect to claim element 2[e], the buttons of the linear content operation panel depicted in Figure 18, for example, are all mutually different from buttons of the interactive content operation panel in Figure 17a, for example. (§IX.B.) Phillips thus discloses claim element 4[e]. (EX1002, ¶¶150-155).

Claim 4[f]:

See claim 2[f].

Claim 4[g]:

See claim 2[g].

Phillips thus discloses each and every limitation of claim 4 and anticipates the same.

4. Claim 5

Claim 5: The digital content reproducing apparatus according to claim 4, wherein all the buttons are mutually different from each other.

As explained above with respect to claim element 2[e], in the linear content operation panel and the interactive content operation panel depicted in Figures 18 and 17a, for example, all buttons are mutually different from each other. Phillips thus discloses each and every limitation of claim 5 and anticipates the same. (EX1002, ¶¶150-155).

5. Claim 7

Claim 7[Preamble]:

See claim 2[preamble].

Claim 7[a]:

See claim 2[a].

Claim 7[b]:

See claim 2[b].

Claim 7[c]:

See claim 2[c].

Claim 7[d]:

See claim 2[d].

Claim 7[e]: wherein buttons of the linear content operation panel producing mutually differing functions from functions of buttons of the interactive content operation panel; and

As explained above with respect to claim element 2[e], the buttons of the linear content operation panel depicted in Figure 18, for example, produce mutually differing functions from functions of buttons of the interactive content operation panel in Figure 17a, for example. (§IX.B.). Phillips thus discloses claim element 7[e]. (EX1002, ¶¶150-155).

Claim 7[f]:

See claim 2[f].

Claim 7[g]:

See claim 2[g].

Phillips thus discloses each and every limitation of claim 7 and anticipates the same.

6. Claim 8

Claim 8: The digital content reproducing apparatus according to claim 7, wherein all the buttons of the linear content operation panel and the interactive content operation panel, provide mutually differing functions from each other.

As explained above with respect to claim element 2[e], in the linear content operation panel and the interactive content operation panel depicted in Figures 18 and 17a, for example, all the buttons of the panels provide mutually differing functions from each other. Phillips thus discloses each and every limitation of claim 8 and anticipates the same. (EX1002, ¶¶150-155).

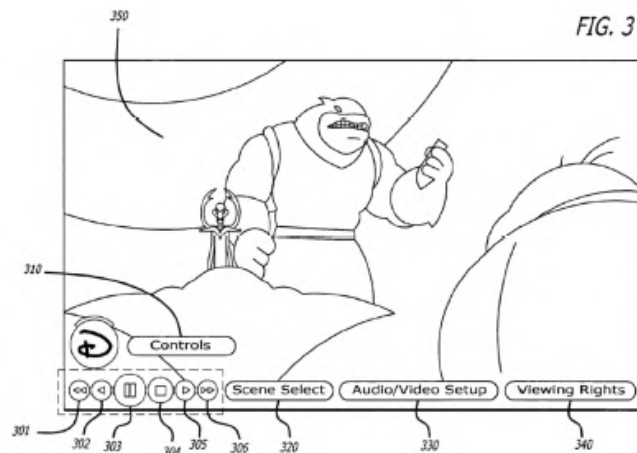
B. Ground 2: Claims 2, 4, 5, 7, and 8 are Obvious over Phillips and Ackley.

All limitations of claims 2, 4, 5, 7, and 8 are disclosed by Phillips. If the Board finds that the “controller” limitations (2[f], 4[f], 7[f]) require assessment of the content’s metadata to determine if it is linear or interactive content and then, based on that determination, display of the appropriate operation panel, the combination of Phillips and Ackley renders this limitation obvious.

As explained above, Phillips’s control circuitry controls the alternative display of either a linear content operation panel or an interactive content operation

panel depending upon the presently displayed/selected screen. Specifically, Phillips's control paradigm is based upon a programmed relationship between Phillips's interactive content screens and their appropriate interactive content operation panels, as well as the linear content screens and their appropriate linear content operation panels, which renders unpatentable the "controller" limitations of claims 2, 4, and 7. (EX1002, ¶¶141-145, 159).

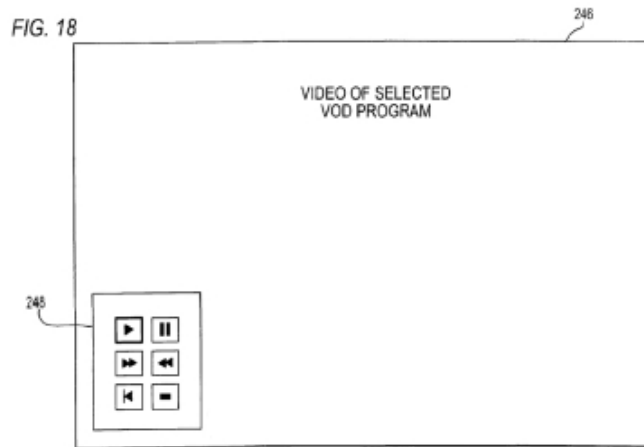
Ackley discloses "a menu system that overlays the video on a DVD, and can be viewed and selections made during playback/viewing of a video stream." (EX1007, 3:25-28) (EX1002, ¶100). An exemplary display according to Ackley's invention is depicted in Figure 3 below, where an operation panel is overlaid on the bottom of the video stream without interrupting the video's display. (EX1007, 5:39-50).



Ackley explains that a menu screen may automatically appear if, for example, the displayed video is streaming a section of the movie that may take an alternate

ending, or if a depicted item in the movie is for sale. (EX1007, 4:52-5:3). This allows the user to interactively select the alternate ending or purchase the item for sale. (*Id.*) (EX1002, ¶¶101, 160).

A POSITA would have been motivated to incorporate Ackley's data monitoring technique and resulting interactive content operation panel with Phillips. For example, the linear content display with linear content operation panel of Phillips's Figure 18 is shown below.



The linear content operation panel 248 would be displayed until Phillips's control circuitry receives an input indicating that, for example, the movie may take an alternate ending or an item displayed in the movie is for sale. Based on this sensed input, Phillips's controller would alternate from the displayed linear content operation panel to an interactive content operation panel so that the user may select an alternate ending or navigate the various purchase options that may be associated with the item for sale. (EX1002, ¶164).

A POSITA would have been motivated to program Phillips in this way to (1) provide a more customized user experience, (2) generate revenue for the content provider by allowing the user to interact with and purchase items depicted in the streaming content, (3) enhance Phillips's home shopping application (EX1005, 8:45-50), and (4) enable the software architecture to more naturally accommodate other, future, data types by associating the user interface with data (Ackley) rather than coding to a specific screen (Phillips). (EX1002, ¶¶161-162).

Ackley's data monitoring technique could easily, and with a reasonable expectation of success, be integrated into Phillips. Deciding which user interface panel to display is a simple and predictable outcome of a condition in an "if" programming statement. Changing Phillips's existing decision-making process (based on a user-interface screen) to a condition (based on Ackley's data monitoring) would be a straightforward application of well-known programming techniques. Given the simple nature of this change and the fact that these references are in the same field of endeavor (user interface design), a POSITA would find the outcome predictable and obvious to try. (EX1002, ¶¶165-169).

Moreover, the combination of Phillips and Ackley simply expands Phillips's functionality, as proposed above, and does not alter the fact that Phillips's control circuitry controls the alternative display of either of a linear content operation panel or an interactive content operation panel depending upon the presently

displayed/selected screen. Accordingly, claims 2, 4, 5, 7, and 8 are obvious in view of the Phillips/Ackley combination. (EX1002, ¶170).

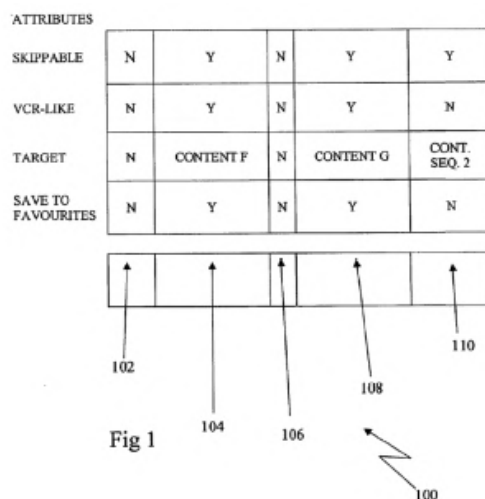
C. Ground 3: Claims 2, 4, 5, 7, and 8 are Obvious Over Phillips and Wallis.

All limitations of claims 2, 4, 5, 7, and 8 are disclosed by Phillips. To the extent the Board finds that the “controller” limitations (2[f], 4[f], 7[f]) require assessment of the content’s metadata to determine if it is linear or interactive content and then, based on that determination, display of the appropriate operation panel, the combination of Phillips and Wallis renders this limitation obvious.

The Examiner found during prosecution that Wallis discloses that it was known in the art to use:

metadata to associate sets of attribute data with respective segments of an A/V content stream, wherein the associated set of attribute data allows the receiver/reproduction circuitry to judge/identify/determine which of a plurality of different types of navigation controls, *i.e.*, linear and non-linear controls, are active/enabled ..., and wherein the active/enabled navigation controls are incorporated into a GUI for presentation to, and selection by, the user....”

(EX1004, 80-81). Specifically, Wallis discloses an attribute mapping for digital VoD content (EX1006, ¶0002), which is shown in the table of Wallis’s Figure 1. (EX1002, ¶175).



The “Yes”/“No” attributes shown above indicate whether the digital content is, for example, “skippable, VCR-Like, can be saved to favorites or has a target, [i.e., “links to other content”].” (EX1006, ¶¶0030-0035). By way of further example, Wallis discloses that such attribute metadata is stored in a service database and may indicate whether the fast forward, rewind, and pause keys should be active; whether a skip button should be active; whether a save to favorites button should be active; and whether a button allowing the user to jump to a linked/targeted video should be active. (EX1006, ¶¶0057-0065). Wallis notes that attribute metadata can be saved for “a specific item of content,” “a series of content,” “a TV channel,” “a category of content,” “a credit,” “another VoD screen or service,” “a product,” or “quizzes, competitions and questionnaires.” (EX1006, ¶¶0068-0076; *see also id.* at ¶¶0077-0083) (EX1002, ¶175).

Wallis provides an exemplary embodiment where “a customer viewing a VoD entertainment channel is presented with a promotion for a top-rated series (say, the Sopranos). A single button press during the run-time of this promotion will link the viewer directly to a list of episodes for the featured series. Another example might be a VoD music video service where the content sequence is a sequence of music video content item clips with targets attributes that are directed to the ‘full length’ music video content item.” (EX1006, ¶0085). (EX1002, ¶176).

A POSITA would have been specifically motivated to incorporate Wallis’s metadata attribute table and service database into Phillips’s systems to control whether an interactive content operation panel or a linear content operation panel is displayed to the user and, within each type of operation panel, what buttons to include. For example, rather than having a set operation panel that populates when a given VoD screen is displayed, or a set operation panel that populates when video or music is playing, Phillips’s system as modified by Wallis would allow for Phillips’s operation panel display to dynamically populate a set of interactive content control buttons or linear content control buttons based on the attribute data associated with the digital content. (EX1002, ¶177).

And while Wallis discloses the enabling/disabling of buttons based on attribute data (*see, e.g.*, EX1006, ¶0030), Petitioner’s combination does not rely on a disabling of buttons to disclose the claimed operation panels. Rather, Petitioner’s

combination relies on Phillips's disclosure of separate linear content and interactive content operation panels, but these operation panels and their associated buttons will be dynamically populated based on the attributes of the incoming interactive or linear content, as taught by Wallis. And indeed, Phillips does not rely on the disabling of buttons to populate its disclosed operation panels. More importantly, a POSITA would have understood that Wallis is not limited to a dynamic alteration of operation panels based on the disabling of buttons, but more broadly describes and applies the well-known control method that a given operation panel and its buttons can be dynamically displayed and tailored to the underlying content. (EX1002, ¶181).

Programming Phillips's systems in this way would provide a more customized experience for the user, tailored to the particular content being displayed. Further, by associating the user interface with data (Wallis) rather than coding to a specific screen (Phillips), the software architecture would more naturally accommodate other, future, data types. That is, future programming would not rely on a programmer having to create a new/discrete operation panel for each new content screen. Instead, the appropriate operation panel would be selected/populated simply by looking at the attribute values within Wallis's Figure 1. Each of these benefits would have motivated a POSITA to modify Phillips in view of Wallis. (EX1002, ¶¶177-179).

As with Ackley, and for essentially the same reasons, Wallis's attribute table could easily, and with a reasonable expectation of success, be integrated into Phillips by changing Phillips's existing decision-making process (based on a user-interface screen) to a condition (based on Wallis's attribute table) via a straightforward application of well-known programming techniques, with a predictable and obvious outcome. (EX1002, ¶180).

Moreover, the combination of Phillips and Wallis simply expands Phillips's functionality, as proposed above, and does not alter the fact that Phillips's control circuitry controls the alternative operation panels depending upon the presently displayed/selected screen. Accordingly, claims 2, 4, 5, 7, and 8 should be canceled in view of the Phillips/Wallis combination. (EX1002, ¶ 182).

1. Grounds Relying on Wallis Do Not Invoke 35 U.S.C. § 325(d).

When evaluating a petition applying art that was before the examiner during prosecution under 35 U.S.C. § 325(d), the Board may consider: (1) the similarity of the now asserted art and the art before the examiner, (2) the cumulative nature of the asserted art and the art considered during examination, (3) the extent the art was considered during examination, including whether it was the basis for a rejection, (4) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes

the prior art, (5) whether the petitioner explained how the Examiner erred, and (6) the extent that additional evidence and facts in the petition warrant reconsideration of the prior art. *Becton, Dickinson & Company v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017).

Here, the Board should grant review even though the Examiner considered and applied Wallis, as the application of Wallis during prosecution and herein are materially different. During prosecution, the Examiner relied on Wallis as a primary reference teaching the display of a GUI including “VCR-Like” controls for linear content and “skip and or jump controls” for non-linear content and the disabling of buttons in the GUI depending on content. (EX1004, 86).

Here, Petitioner relies on Phillips—which was not cited or applied against the ’394 Patent—as a primary reference teaching the alternative display of linear or interactive content operation panels not generated by a disabling of buttons. Wallis is relied on for its teaching of monitoring content metadata and, based on the nature of the content, populating the appropriate operation panel with buttons tailored to the content. Petitioner’s unpatentability theory in view of Phillips and Wallis is thus materially different than the arguments considered during prosecution. Moreover, the other prior art in the Petition was not before the Examiner, and six out of the eight grounds in the Petition do not rely on Wallis (including grounds 1 and 4, which the Board found in the Blackberry IPR demonstrate a reasonable likelihood of

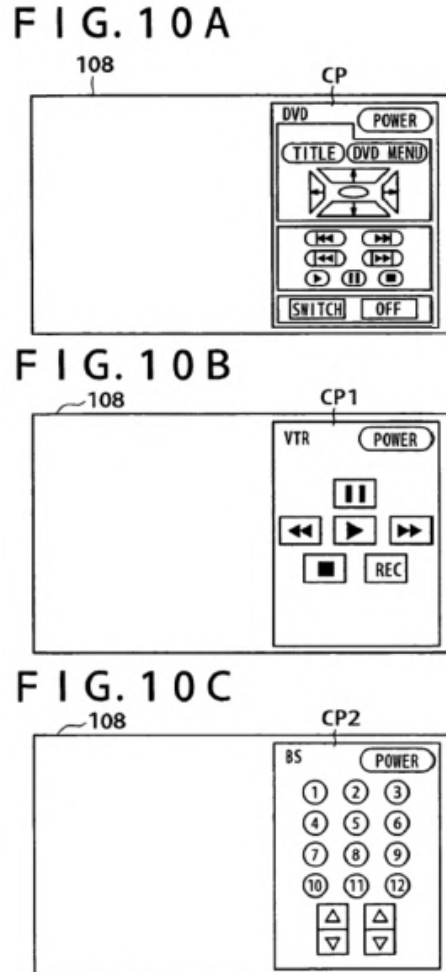
unpatentability). EX1020 at 35, 47. Thus, Petitioner's arguments do not implicate 35 U.S.C. § 325(d).

D. Ground 4: Claims 3, 6, and 9 are Obvious Over Phillips and Uchida.

All limitations of claims 2, 4, and 7 are disclosed by Phillips. Claims 3, 6, and 9 each limit their respective independent claims (2, 4, and 7) by requiring “the linear content operation panel and the interactive content operation panel [to be] common in size, and [] alternatively switched between each other in a same panel rendering area of the screen as alternative operation panels.” In other words, as shown in the '394 Patent's Figure 2 (element A3), these claims require the linear and interactive operation panels, when displayed, to populate in the same rendering area of the screen. As shown by Uchida, this recitation is nothing more than a basic way to split a screen's usable space between a content display area and an operation panel display area. (EX1002, ¶¶183-184).

Specifically, Uchida explains that when a single display is used for both content and the content's operation panel, “an image displayed on the entire display screen of the display device may hide behind the operation display information to make it difficult to see important information...” (EX1010, 1:47-51). To solve this problem (as shown in Figures 10A-10C), Uchida's display 108 is divided into a

dedicated content display area and a dedicated control panel display area, just like the '394 Patent. (EX1010, 21:36-22:7). (EX1002, ¶185).



Moreover, Uchida teaches that the control panel display area may alternate between different control panels depending upon what is output to the display. For example, Figure 10A shows a unique control panel for DVD controls, whereas Figures 10B and 10C show different control panels for video tape recorder controls and TV tuner controls, respectively. (EX1010, 21:54-67) (EX1002, ¶¶186-188).

This type of display methodology where a screen's usable space is split between a content display area and an operation panel display area is not unique to Uchida. For example, U.S. Patent No. 7,667,123 to Phillips ("Phillips123") discloses a handheld device in which a "predetermined portion of the touch-sensitive display" contains an operation panel and "programmable control buttons," which may be "reprogrammed" to show different buttons depending on the content displayed. (EX1011, 6:14-32, 7:4-26, Figures 4 and 5; *id.* at Figures 1A-1D). (EX1002, ¶¶188-189).

A POSITA would have been motivated to incorporate Uchida's split display with Phillips to achieve the specific benefits described by Uchida—namely, ensuring that the displayed content (which may be linear or interactive content as taught by Phillips) is not obstructed by an operation panel displayed on the screen. In fact, Phillips explains that rather than overlaying its operation panels on the displayed content, "the video for the current channel may be reduced in size and the flip information...may be displayed at a location on the periphery of the reduced-sized video (e.g., at the bottom, side, or top of the reduced-sized video)." (EX1005, 16:45-50). Thus, not only is a split screen display (and the benefits thereof) expressly disclosed by Uchida, but Phillips contemplates and discloses the exact implementation proposed by Petitioner's Uchida combination. (EX1002, ¶190).

Second, a POSITA would have understood that utilizing Uchida's split screen display would, as a matter of graphical user interface design, provide for many of the same benefits as achieved by using what is known as "tiled window mergers." A split screen display avoids any potential need for the user to have to reposition an overlapping panel and, thus, user time is saved, as well as user acceptance/compliance. (EX1002, ¶¶191-192).

Uchida's split screen display would have easily, and with a reasonable expectation of success, been integrated into the Phillips system, especially because these references are in the same field of endeavor (user interface design). A POSITA would have had to simply set the position and size of Phillips's content display area and the operation panel display area based on the non-overlapping position and size taught by Uchida. This methodology was also suggested by the TR-B14 Technical Report cited by the '394 Patent. (EX1001, 4:3-6) Accordingly, a POSITA would find the combination of Uchida with Phillips to be predictable and obvious. (EX1002, ¶¶ 191, 193).

Moreover, the proposed Uchida combination trivially modifies the location of Phillips's content display area and operation panel display area, and does not change any of the other operating principals of Phillips. Because Phillips discloses each and every limitation of claims 2, 4, and 7 (Ground 1), Uchida in combination with Phillips also discloses each and every limitation of claims 2, 4, and 7. Accordingly,

claims 3, 6, and 9 are rendered obvious in view of Uchida in combination with Phillips.

E. Ground 5: Claims 3, 6, and 9 are Obvious Over Phillips, Ackley, and Uchida.

For the same reasons above with regard to Ground 4, the combination of Phillips, Ackley, and Uchida renders claims 3, 6, and 9 obvious. Petitioner's arguments in view of Phillips/Ackley do not rely on the references' operation panels being displayed in any particular location on the screen, and nothing in Phillips demands that they be so displayed. Uchida's split screen display may thus be incorporated into Phillips alone or Phillips in view of Ackley. (EX1002, ¶¶190-193).

F. Ground 6: Claims 3, 6, and 9 are Obvious Over Phillips, Wallis, and Uchida.

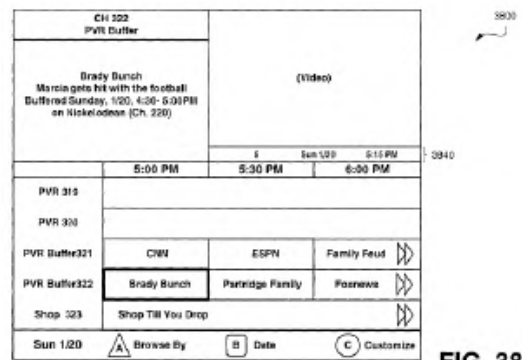
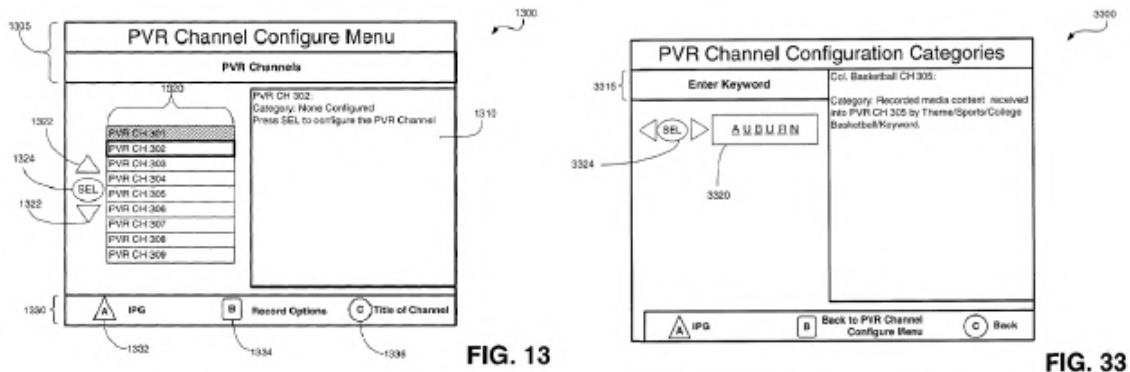
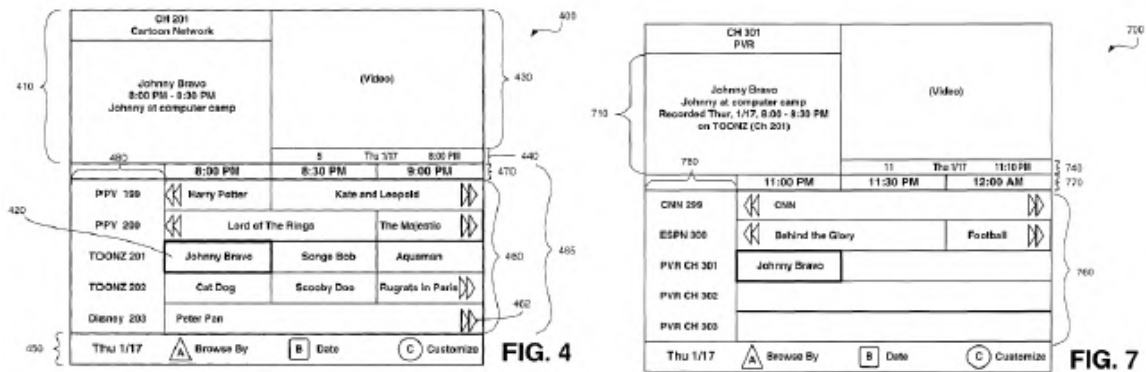
For the same reasons above with regard to Ground 4, the combination of Phillips, Wallis, and Uchida renders claims 3, 6, and 9 obvious. Petitioner's arguments in view of Phillips/Wallis do not rely on the references' operation panels being displayed in any particular location on the screen, and nothing in Phillips demands that they be so displayed. Uchida's split screen display may thus be incorporated into Phillips alone or Phillips in view of Wallis. (EX1002, ¶¶190-193).

G. Ground 7: Claims 2, 4, 5, 7, and 8 are Obvious over Russ and McElhatten.

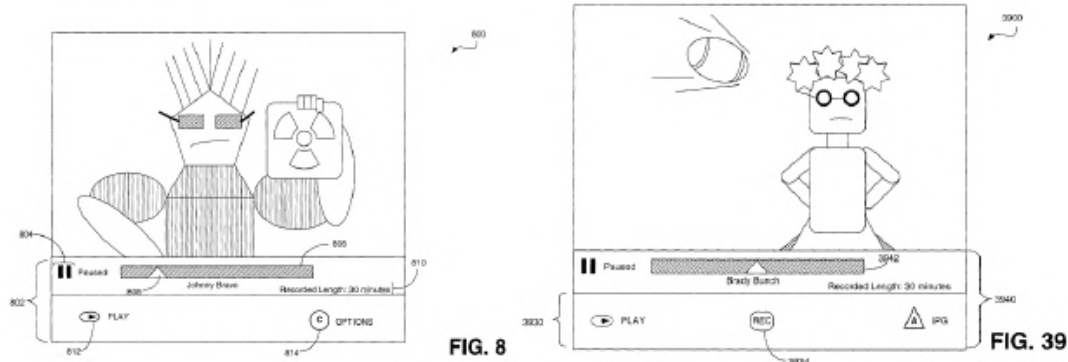
1. Russ Overview

Russ describes television systems, personal video recording, and interactive program guides that provide both linear and interactive content to users. For example, “[t]he DHCT 16 [digital home commination terminal, *i.e.*, a set-top box,] receives signals (video, audio and/or other data) from the headend 11 through the network 18” and provides that media/content to client devices such as the DHCT. (EX1008, 6:28-31, 6:38-47). “The headend 11 and the DHCT 16 cooperate to provide a user with television services via the television.... The television services may include for example, broadcast television services, cable television services, premium televisions services, video-on-demand (VoD) services, and/or pay-per-view (PPV) services, among others.” (EX1008, 6:41-47) (EX1002, ¶105).

Beyond Russ’s interactive broadcast television services and VoD services, Russ also provides users with a variety of additional interactive television services such as a “media-on-demand (MoD) application 363, an e-mail application 365, a PVR application 377, and a web browser application 366.” (EX1008, 9:29-31). A series of exemplary interactive content display screens are shown below in Figures 4, 7, 13, 33 and 38. (EX1002, ¶105-106).



When a desired video is selected, an exemplary linear content display/operation panel is shown in Figures 8 and 39, which allows the user to, among other options, return to IPG, play, and record the media. (EX1008, 17:30-18:23, 25:41-50) (EX1002, ¶107).



Figures 8 and 39 disclose a presentation of linear content with a pause banner 802/3940. (EX1008, 17:35-39, 25:40-45). Pause banner 802/3940 also includes playback bar 806 or progress bar 3942, header 3930, and various icon buttons 812, 814, 3934. (EX1008, 17:45-52, 18:3-4, 25:41-47). (EX1002, ¶107).

As shown in the figures above, the outputted digital content—*e.g.*, personal-video-recording (PVR) menu or the selected video—is displayed in the same screen as the displayed operation panels, which vary depending on the character of the content being displayed.

2. Claim 2

Claim 2 [Preamble]: A digital content reproducing apparatus, comprising:

Russ discloses an end-user, digital content reproducing apparatus that provides both linear and interactive content to users. For example, “[t]he DHCT 16 [digital home commination terminal, *i.e.*, a set-top box,] receives signals (video, audio and/or other data) from the headend 11 through the network 18” and provides that media/content to client devices such as the DHCT. (EX1008, 6:28-31, 6:38-47).

“The headend 11 and the DHCT 16 cooperate to provide a user with television services via the television.... The television services may include for example, broadcast television services, cable television services, premium televisions services, video-on-demand (VoD) services, and/or pay-per-view (PPV) services, among others.” (EX1008, 6:41-47) (EX1002, ¶197).

If the preamble is limiting, Russ discloses this limitation of claim 2. (EX1002, ¶98).

Claim 2[a]: an input unit which inputs digital content;

Russ discloses a DHCT (*i.e.*, a set-top box) as an exemplary user-side input unit that interfaces with network 18 via a network interface connected to tuners and signal processors: “In this example, the STS 10 includes a headend 11 and a digital home communication terminal (DHCT) 16 that are coupled via a communications network 18.” (EX1008, 6:7-10; *see generally id.* at 6:6-22). Russ’s “DHCT 16 preferably includes a communications interface 342 for receiving signals (video, audio and/or other data) from the headend 11 through the network 18 and for providing any reverse information to the headend 11 through the network 18.” (EX1008, 7:37-41). (EX1002, ¶¶199-200).

Figure 3A, below, also depicts communication interface 342 connected to headend 11 via network 18. Within the DHCT 16, communication interface 342 is connected to tuner system 345 and signal processor 314. Russ’s tuner 345 “enables

the DHCT 16 to tune to downstream media and data transmissions, thereby allowing a user to receive digital and/or analog media content...” (EX1008, 7:50-54). Signal processor 314 is capable of demultiplexing MPEG-2 streams and other digital content. (EX1008, 7:61-8:1). (EX1002, ¶201).

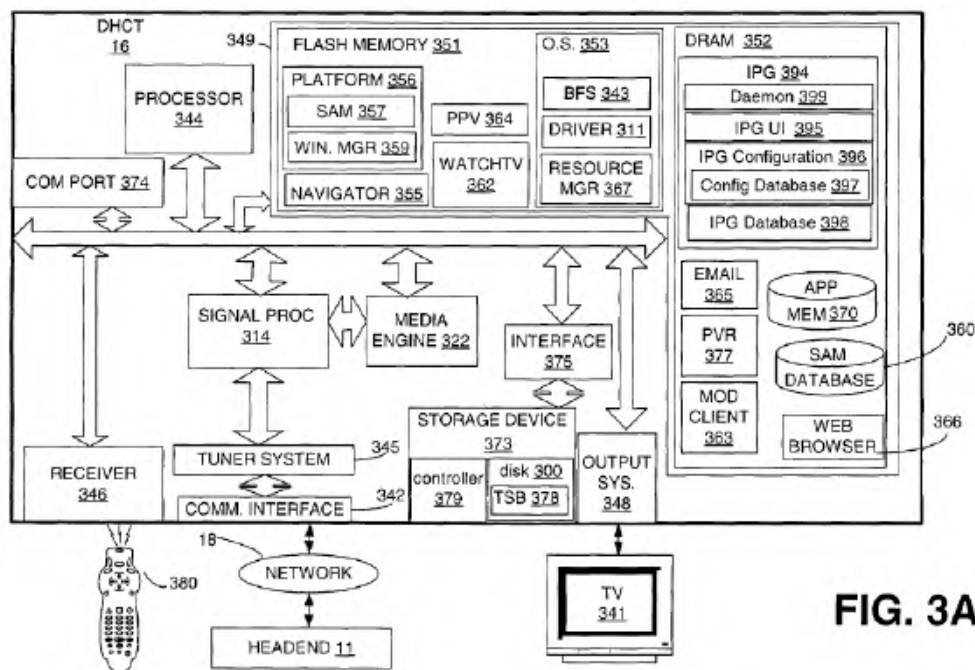


FIG. 3A

The DHCT 16 also includes processor 344 that, in concert with device driver 311, storage device controller 379, and the signal processing system 314, “effect[s] retrieval of compressed video streams, compressed audio streams, and data streams corresponding to one or more media content instances from the storage device 373.” (EX1008, 10:51-65) (EX1002, ¶202).

Russ thus discloses an input unit which inputs digital content in the form of digital video circuitry including network interfaces, tuners and decoders. For the

same reasons, if this term is construed pursuant to § 112 ¶6, Russ discloses the claimed structure (digital video circuitry including network interfaces, digital tuners and decoders) and function (inputting digital content) (§IX.C.). (EX1002, ¶ 203).

Claim 2[b]: a reproducer which reproduces the inputted digital content;

Russ's digital content reproducing apparatus includes at least one storage device 373 to provide storage for downloaded media content in conjunction with the processor. (EX1008, 10:11-12). Russ explains that "[t]he storage device 373 comprises storage for media content and/or data that can be written to for storage and later read from for retrieval for presentation." (EX1008, 10:15-17). The personal video recording (PVR) application 377 enables recording functionality for Russ's digital content reproducing apparatus. For example, "[t]he PVR application 377 provides for media content recording functionality by enabling the temporary writing to, and if requested, more permanent recording (*i.e.*, relatively permanent) to the storage device 373." (EX1008, 10:66-11:2). (EX1002, ¶204).

Similarly, Russ explains that:

[T]he processor 344, in communication generally with the device driver 311 and the storage device controller 379 and the signal processing system 314, effect retrieval of compressed video streams...from the storage device 373. Retrieved streams are deposited in an output cache in the storage device 373 and transferred to DRAM 352, and then processed for playback according to mechanisms well known to those having ordinary skill in the art. In some embodiments, one or more media content instances are retrieved and routed from the hard disk 300 to the

media engine 322 for video and audio decoding simultaneously, and then further processed for eventual presentation on a display device or other device.

(EX1008, 10:51-65 (emphasis added)). (EX1002, ¶205).

Russ thus provides a reproducer in the form of storage and associated control circuitry for video playback, which reproduces the inputted digital content. (EX1002, ¶ 206).

Claim 2[c]: an output unit which outputs the reproduced digital content;

Russ's digital content reproducing apparatus includes an output system 348 for driving the television display 341. (EX1008, 7:42-48). For example, media content that is received via the communication interface 342 from the headend 11, which may be reproduced in Russ's storage device 373 (as explained above), is output to a user's television via output system 348. (EX1008, 10:51-65). (EX1002, ¶191).

Russ includes one or more processors 344 for controlling operations of the DHCT, which preferably includes a signal processing system 314 and a media engine 322, circuitry that can generate graphics. (EX1008, 7:42-43, 7:63-64; *see generally id.* at 7:61-8:10). The signal processing system 314 outputs packetized streams for storage in the storage device 373, and may also input into the media engine 322 for display through output systems 348, which drives the television 341. (EX1008, 7:42-45, 8:11-16, Figure 3A). Russ's content may also be

stored/reproduced in storage device 373 before being output through output system 348. (EX1008, 10:11-17, 10:37-65). (EX1002, ¶207).

Russ thus discloses an output unit that outputs reproduced digital content including circuitry that can generate graphics and an output system from driving the display. For the same reasons, if this term is construed pursuant to § 112 ¶6, Russ discloses the claimed structure (circuitry that can generate graphics) and function (outputting digital content) (§IX.C.). (EX1002, ¶208).

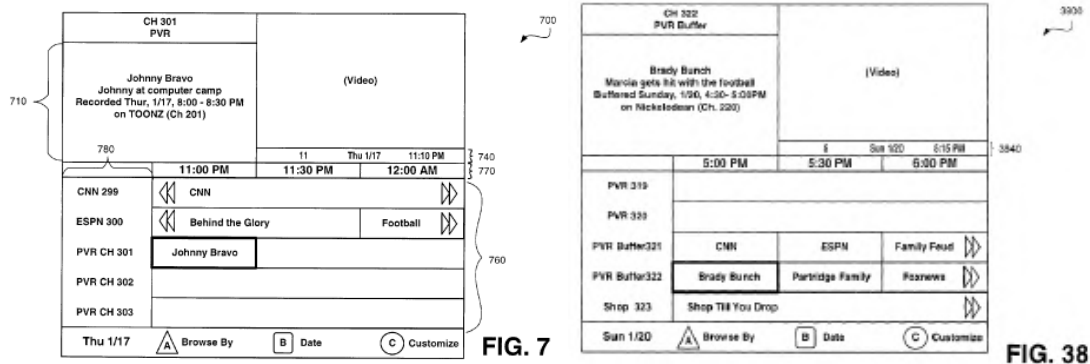
Claim 2[d]: a display which displays the outputted digital content together with an alternative display of either of a linear content operation panel allowing user-instruction regarding linear reproduction functions of the reproduced digital content or an interactive content operation panel allowing user-instruction of interactive functions to an outside of the digital content reproducing apparatus,

Russ discloses TV 341, which displays the outputted digital content from output system 348, as shown in Russ's Figures 3A (TV 341), 4, 7, 8, 13, 38, and 39. Russ displays both interactive content, as shown in the interactive program guide (IPG) screens of Figures 4, 7, 13, and 38, and linear content, as shown in the video display of Figures 8 and 39. (EX1008, 13:6-14:40, 16:4-18:23, 19:4-60, and 25:1-50). And depending on the screen displayed, Russ either shows a linear content operation panel or an interactive content operation panel. (EX1002, ¶¶210-214).

As shown in Figures 6, 9, 11-12, 14-16, 18-33, and 35-37, Russ describes a variety of other interactive content screens including interactive content operation

panels. (EX1008, 15:31-16:3, 18:24-19:8, 20:8-21:26, 21:33-24:67). (EX1002, ¶215).

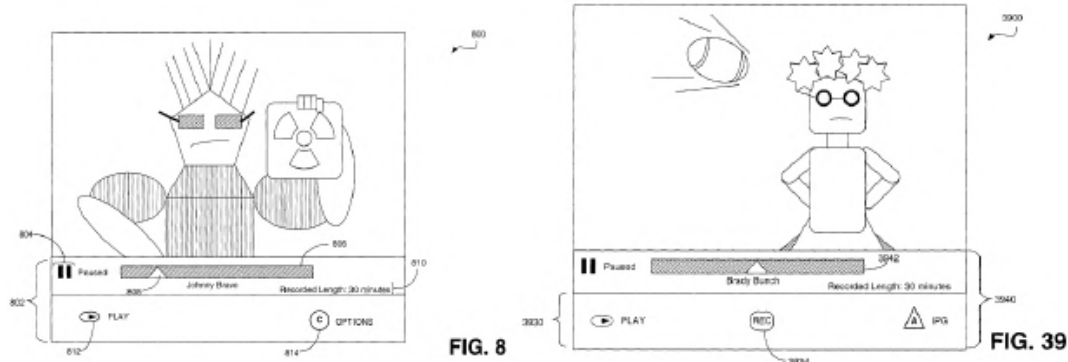
By way of further example, Figures 7 and 38 depict exemplary interactive IPG screens for stored PVR media content. (EX1008, 16:4-6, 25:1-4). In both cases, the IPG screen includes an interactive content operational panel at the bottom of the screen, which includes the following buttons: A “Browse By,” B “Date,” and C “Customize.” (EX1002, ¶216).



Russ also discloses allowing user-instruction of interactive functions to an outside of the digital content reproducing apparatus. “DHCT 16 preferably includes a communications interface 342 for receiving signals (video, audio and/or other data) from the headend 11 through the network 18 and for providing any reverse information to the headend 11 through the network 18.” (EX1008, 7:37-41). For example, Russ discloses that applications (including the PVR application 377 and IPG application 394 (*see* EX1008, Fig. 3A, 9:27-31; 12:34-36)) typically include a client part and a server counterpart “that cooperate to provide the complete

functionality of the application.” (EX1008, 8:27-31). As another example, Russ discloses that when a user selects the IPG button shown, for example, in Fig. 13, the IPG user interface uses the windows manager and other graphics utilities to render an IPG on the screen, and that the electronic program guide application contains a daemon that collects IPG data from the headend, outside the device. (EX1008, 12:34-13:3, 20:62-63). A POSITA would understand based on these disclosures that Russ would allow user instructions to the PVR or IPG applications or IPG requests to be directed outside of the digital content reproducing apparatus, including to headend servers. (EX1008, 6:38-41). (EX1002, ¶217).

If linear content, such as PVR CH 301 Johnny Bravo in Fig. 7 or PVR Buffer322 Brady Bunch in Fig. 38 is selected for viewing, a new screen is displayed, as depicted in Figures 8 and 39. These figures depict the presentation of linear content with a pause banner 802/3940. (EX1008, 17:35-39, 25:40-45). Pause banner 802/3940 also includes playback bar 806 or progress bar 3942, header 3930, and various icon buttons 812, 814, 3934. (EX1008, 17:45-52, 18:3-4, 25:41-47). (EX1002, ¶218).



Russ thus discloses claim element 2[d]. (EX1002, ¶219).

Claim 2[e]: wherein the linear content operation panel and the interactive content operation panel are distinct panels from each other, which are not generated by a disabling of buttons; and

As shown by comparing Russ’s Figures 7 and 8, for example, both the linear content operation panel and the interactive content operation panel are distinct operation panels, with distinct buttons and functionality, which are not generated by the disabling of buttons. Figure 7 depicts an interactive content operation panel with buttons A “Browse By,” B “Date,” and C “Customize.” Navigation arrows are also included in Russ’s interactive content operation panels (as shown in Figures 13 and 33). Figure 8, in contrast, depicts content operation panel 802, including a playback bar 806 and play and options buttons. Thus, Russ includes distinct interactive and linear operation panels, which are not generated by the disabling of buttons. The same is true if up/down and left/right navigation arrows are included in Russ’s interactive content operation panels as these controls are not included in Russ’s

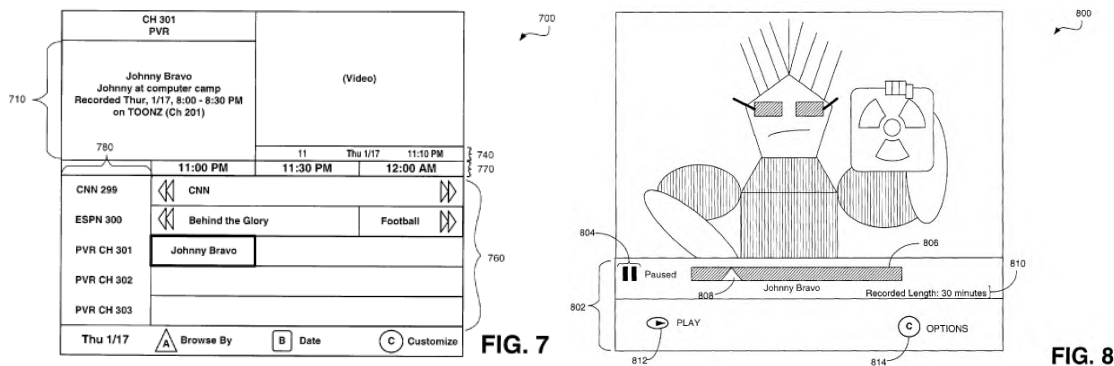
linear content operation panels. For the same reasons, Russ discloses panels with buttons that are all mutually different. (§IX.B). (EX1002, ¶¶220-221).

Therefore, Russ discloses element 2[e]. (EX1002, ¶222).

Claim 2[f]: a controller which controls the alternative display of either of the linear content operation panel or the interactive content operation panel, wherein only one of the linear content operation panel or the interactive content operation panel is displayed exclusively at any given time, together with the outputted digital content:

As discussed above with respect to elements 2[a]-2[c], Russ includes control circuitry and components, *e.g.*, processor 344, receiver 346, tuner system 345, signal processor 314, media engine 322, flash memory 351, and DRAM 352, which enable the DHCT 16 to receive and display the requested interactive content or the requested linear content, including through the use of various applications including a PVR application and an IPG application. *See* claim 2[a]-2[c]. Applications stored in flash memory “are executed by the processor 344 (*e.g.*, a central processing unit or digital signal processor) under the auspices of the operating system 353.” (EX1008, 8:33-36). (EX1002, ¶223).

Russ discloses that the IPG application 394 generates a window to display on a device. (EX1008, 12:34-67). Russ further discloses that the IPG user interface module 395 registers with the window manager 359 for particular user input commands that may be required for selecting options provided by the newly created window. (*Id.*). This is illustrated in Figures 7 and 8. (EX1002, ¶224).



Similarly, Figure 7 is an exemplary IPG screen displaying stored PVR media content. (EX1008, 25:1-4). As seen in Figure 7, IPG screen 700 includes an interactive content operational panel at the bottom of the screen, with buttons A “Browse By,” B “Date,” and C “Customize.” If linear content, such as the PVR CH 301 Johnny Bravo is selected, a new screen is displayed, *i.e.*, Figure 8, which depicts a separate operation panel including playback bar 806, along with play and options buttons. (EX1008, 17:30-18:23). PVR application 377 generates the pause banner/operation panel and manages execution of functions in the pause banner. (EX1008, 17:39-45). (EX1002, ¶225).

Russ thus discloses a controller that controls the alternative display operation panels, wherein only one of the linear content operation panel or the interactive content operation panel is displayed exclusively at any given time, together with the outputted digital content. (EX1002, ¶226).

Russ's control method is based upon a programmed correlation between interactive content screens and their appropriate interactive content operation panels,

as well as linear content screens and their appropriate linear content operation panels. (EX1002, ¶226). However, if the Board finds that this limitation requires assessment of the content's metadata to determine if it is linear or interactive content and then, based on that determination, display of the appropriate operation panel, this is disclosed by McElhatten. (EX1002, ¶227).

McElhatten discloses a dynamic alteration of displayed content based on an assessment of the displayed data. Specifically, McElhatten discloses a processor that determines the type of digital content and provides different operation panels based on the type of content. McElhatten states:

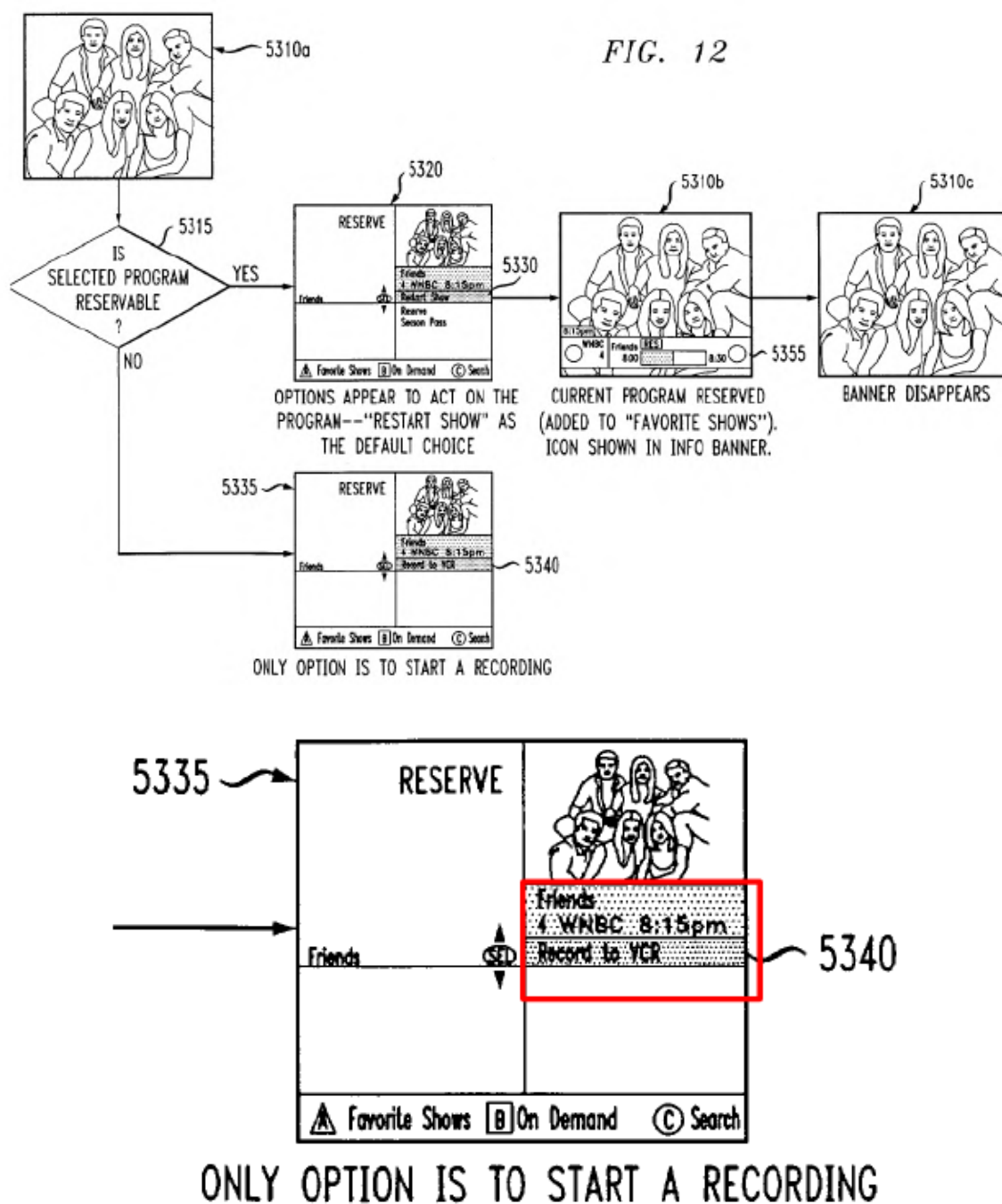
When a media processor 119 receives a command to reserve a selected program, processor 119 determines whether the selected program is reservable (5315).

(EX1009, 15:62-65).

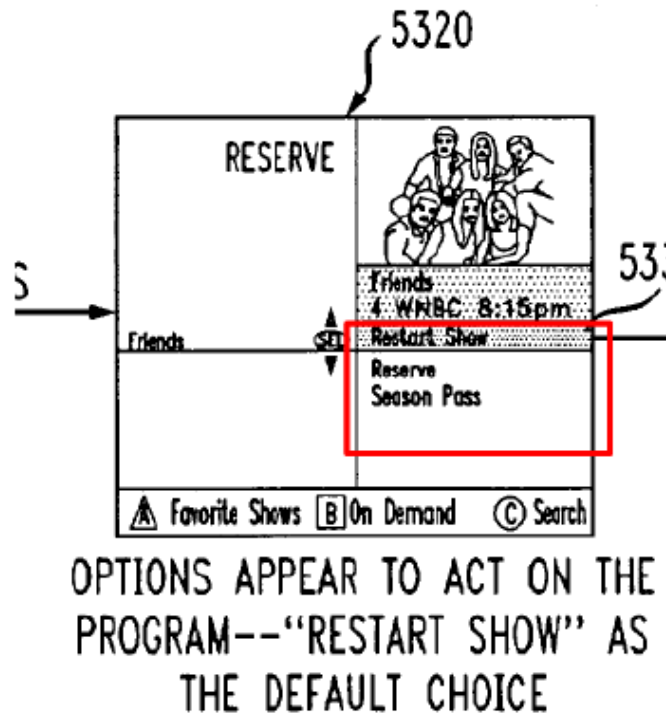
If the selected program is non-reservable, then Reserve GUI 5335 is displayed indicating that the user has the option to record the selected program to a VCR (alternatively PVR, DVD player or other local recording device) (5340). If however, the program is deemed reservable, Reserve GUI 5320 is displayed providing the user with three Reserve options (5330): (1) restart the program, (2) reserve the program, or (3) select a season pass.

(*Id.* at 16:6-13). (EX1002, ¶227).

An exemplary display of this teaching is depicted in Figure 12, with Reserve GUI 5335 depicting a screen with a content operation panel (*i.e.*, “record to VCR”) based on digital content that is deemed non-reservable.



And Reserve GUI 5320, below, depicts a screen with a different content operation panel (*i.e.*, “restart show,” “reserve,” “season pass”) based on digital content that is reservable. (EX1002, ¶228).



McElhatten's system thus makes a determination whether the digital content is reservable based on the digital content's metadata. (EX1009, 15:62-16:21). Based on this analysis, the system determines the type of digital content that is being displayed to the user (*i.e.*, reservable or non-reservable) and populates the appropriate operation panel (GUI 5320 or GUI 5335). (EX1009, 15:62-16:21) (EX1002, ¶¶227-229).

When McElhatten's data monitoring feature is combined with Russ's system, the proposed combination of Russ and McElhatten provides for a dynamic alteration of the displayed operation panels based on an assessment of the displayed data. A POSITA would have been specifically motivated to incorporate McElhatten's data monitoring technique into Russ's systems to further control the particular interactive

content operation panel or linear content operation panel displayed to the user. Rather than relying on a programmed relationship between a particular content screen and operation panel, Russ's systems as modified by McElhatten allows for the displayed operation panel (and its associated buttons) to be selected based on the metadata associated with the digital content. (EX1002, ¶229).

For example, Russ's system would provide the digital content to a user, the linear content operation panels, and the interactive content operation panels. McElhatten's data monitoring techniques would be incorporated with Russ's system to determine the attributes of the content being displayed to a user by looking at the content's metadata, the same way that McElhatten's system at 5315 determines if the digital content is reservable or non-reservable. The attributes monitored may be whether the incoming data is interactive (PVR menu screen) or linear (TV/video), such that an appropriate operation panel is displayed. But the monitored attributes may also include, for example, data indicating that one of Russ's PVR screens includes scrollable content (*e.g.*, Figures 5, 6, 10-15, 17-22, 24-32, 34-38) or text input (*e.g.*, Figure 33), such that corresponding up/down and left/right navigation arrows are provided. Based on this determination, Russ's system would display a linear content operation panel or an interactive content operation panel with buttons corresponding to the displayed content. (EX1002, ¶230).

Programming Russ's systems in this way would provide a more customized experience for the user, tailored to the particular digital content being displayed. That is, when linear content is displayed, only linear content operation buttons would be displayed and only for actions that may be invoked for that particular linear content. The same would hold true for Russ's interactive content operation panel. By eliminating extraneous buttons from the displayed operation panel, the user can more quickly and easily interact with the content. Lastly, as with the combination set forth in Ground 2, by associating the user interface with metadata from the media content (McElhatten) rather than coding to a specific screen (Russ), the software architecture would more naturally accommodate other, future, data types. Each of these benefits would have motivated a POSITA to modify Russ in view of McElhatten. (EX1002, ¶¶231-232).

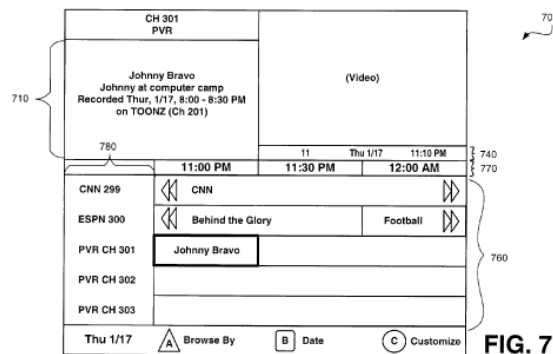
A POSITA would have understood that McElhatten's data monitoring technique could easily be integrated into Russ by, for example, implementing conditional programming logic, such as a "switch/case" statement or an "if" programming statement. Given the simple nature of this change, a POSITA would have arrived at the Russ/McElhatten combination with a reasonable expectation of success. (EX1002, ¶233).

The combination of Russ and McElhatten thus renders claim 2[f] obvious. (EX1002, ¶234).

Claim 2[g]: wherein the outputted digital content together with either the linear content operation panel or the interactive content operation panel, are displayed concurrently in one screen.

Russ discloses TV 341, which displays the outputted digital content from output system 348. That display is depicted in Russ's Figures 4, 7, 8, 13, 38, and 39. With specific reference to these figures, Russ displays both interactive content, as shown in the interactive program guide (IPG) screens of Figures 4, 7, 13, and 38, and linear content, as shown in the video display of Figures 8 and 39. And depending on the screen displayed, Russ either shows a linear content operation panel or an interactive content operation panel. (EX1002, ¶235).

For example, as shown in Figure 7's interactive content screen, the interactive content operation panel is included at the bottom of the same screen and provides buttons A "Browse By," B "Date," and C "Customize." (EX1002, ¶236).



As shown in Figure 8, Russ's linear content, *i.e.*, the selected video content, is displayed concurrently in one screen with a linear content operation panel. (EX1002, ¶237).

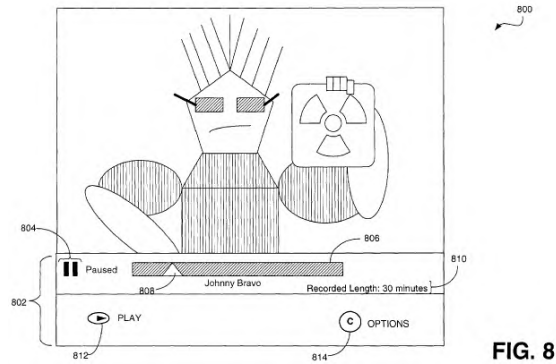


FIG. 8

Russ in combination with McElhatten discloses each and every limitation of claim 2 and renders claim 2 obvious. (EX1002, ¶238).

3. Claim 4

Claim 4[Preamble]:

See claim 2[preamble].

Claim 4[a]:

See claim 2[a].

Claim 4[b]:

See claim 2[b].

Claim 4[c]:

See claim 2[c].

Claim 4[d]:

See claim 2[d].

Claim 4[e]: wherein buttons of the linear content operation panel are mutually different from buttons of the interactive content operation panel; and

As explained above with respect to claim element 2[e], the buttons of the linear content operation panel depicted in Figure 8, for example, are all mutually different from buttons of the interactive content operation panel in Figure 7, for example (§IX.B). (EX1002, ¶¶239-243).

Claim 4[f]:

See claim 2[f].

Claim 4[g]:

See claim 2[g].

Russ and McElhatten thus disclose each and every limitation of claim 4 and render claim 4 obvious.

4. Claim 5

Claim 5:

As explained above with respect to claim element 2[e], in the linear content operation panel and the interactive content operation panel depicted in Figures 8 and 7, for example, all buttons are mutually different from each other. (EX1002, ¶¶239-243). Russ and McElhatten thus disclose and render obvious every limitation of claim 5.

5. Claim 7

Claim 7[Preamble]:

See claim 2[preamble].

Claim 7[a]:

See claim 2[a].

Claim 7[b]:

See claim 2[b].

Claim 7[c]:

See claim 2[c].

Claim 7[d]:

See claim 2[d].

Claim 7[e]: wherein buttons of the linear content operation panel producing mutually differing functions from functions of buttons of the interactive content operation panel; and

As explained above with respect to claim element 2[e], the buttons of the linear content operation panel depicted in Figure 8, for example, produce mutually differing functions from functions of buttons of the interactive content operation panel in Figure 7, for example. (§IX.B.) (EX1002, ¶¶239-243).

Claim 7[f]:

See claim 2[f].

Claim 7[g]:

See claim 2[g].

Russ and McElhatten thus disclose each and every limitation of claim 7, rendering claim 7 obvious.

6. Claim 8

Claim 8:

As explained above with respect to claim element 2[e], in the linear content operation panel and the interactive content operation panel depicted in Figures 8 and 7, for example, all the buttons of the panels provide mutually differing functions from each other. (EX1002, ¶¶239-243). Russ and McElhattten thus disclose and render obvious every limitation of claim 8.

H. Ground 8: Claims 3, 6, and 9 are Obvious Over Russ, McElhatten, and Uchida.

As explained above in Ground 3, the type of split screen display recited in claims 3, 6, and 9 is taught by Uchida. Similarly, for the same reasons explained above in Ground 3, a POSITA would have been motivated to incorporate Uchida's split display with the Russ/McElhatten combination to (1) ensure that the displayed content (which may be linear or interactive as taught by Russ and McElhatten) is not obstructed by an operation panel on the screen; and (2) avoid any potential need for the user to have to reposition an operation panel that overlaps with the displayed content. (EX1002, ¶¶244-245).

Moreover, as shown in Russ's Figures 4-11, 13-16, 18-33, and 35-39, Russ already locates its operation panels at the bottom of the displayed screen. A POSITA

would have understood that it would be a trivial modification to Russ to implement Uchida's split screen display for Russ's interactive content screens and its linear content screens. (EX1002, ¶246).

Finally, the proposed Uchida combination only modifies the location of the content display area and operation panel display area in the Russ/McElhatten combination, and does not change any of the other operating principals of the references. Because Russ/McElhatten discloses each and every limitation of claims 2, 4, and 7, Uchida in combination with Russ/McElhatten also discloses each and every limitation of claims 2, 4, and 7. Accordingly, claims 3, 6, and 9 are rendered obvious in view of Russ, McElhatten, and Uchida. (EX1002, ¶¶247).

XI. CONCLUSION

For the above reasons, Petitioner respectfully requests institution.

Date: March 3, 2023

Respectfully submitted,

/Cono A. Carrano/

Cono A. Carrano (Reg. No. 39,623)
C. Brandon Rash (Reg. No. 59,121)
Ryan S. Stronczer (Reg. No. 79,921)
Akin Gump Strauss Hauer & Feld LLP
2001 K Street N.W.
Washington, DC 20006
Telephone: (202) 887-4000
Facsimile: (202) 887-4288
Email: ccarrano@akingump.com
rstronczer@akingump.com
brandon.rash@akingump.com

Brock F. Wilson (Reg. No. 59,463)
Clark Gordon (Reg. No. 74,706)
Akin Gump Strauss Hauer & Feld LLP
4 Park Place, Suite 1900
Irvine, CA 92614
Telephone: (949) 885-4100
Facsimile: (949) 885-4101
Email: bfwilson@akingump.com
cgordon@akingump.com

Counsel for Petitioner VIZIO, Inc.

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§42.6(e), 42.8(b)(4), and 42.105, the undersigned certifies that that a copy of the foregoing Petition for *Inter Partes* Review and all supporting exhibits was served by filing this document through the P-TACTS System on March 3, 2023, as well as delivering a copy via overnight mail on the correspondence address of record for the subject patent:

Paul Skwierawski
ANTONELLI, TERRY, STOUT & KRAUS, LLP
PO Box 472
Upper Marlboro, MD 20773
UNITED STATES

Courtesy copies were also served electronically and via overnight mail on Maxell, Ltd. through its Litigation counsel identified below:

Jamie B. Beaber
Kfir B. Levy
MAYER BROWN LLP
1999 K Street, NW
Washington, DC 20006
Telephone: (202) 263-3000
Facsimile: (202) 263-3300
jbeaber@mayerbrown.com
klevy@mayerbrown.com

Date: March 3, 2023

/Melanie Langford/
Melanie Langford
Akin Gump Strauss Hauer & Feld LLP
112 East Pecan Street, Suite 1010
San Antonio, Texas 78205
Telephone: (210) 281-7000
Facsimile: (210) 224-2035

CERTIFICATE OF COMPLIANCE

The undersigned certifies this document complies with the type-volume limitation of 37 C.F.R. § 42.24. The petition contains 13,837 words, as calculated by the Microsoft Word program excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a).

Dated: March 3, 2023

/Cono A. Carrano/
Cono A. Carrano (Reg. No. 39,623)
ccarrano@akingump.com
Akin Gump Strauss Hauer & Feld LLP
2001 K. Street N.W.
Washington, DC 20006
(202) 887-4000
Facsimile: (202) 887-4288