

PUBLIC VERSION

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

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

In the Matter of

**CERTAIN DIGITAL VIDEO RECEIVERS,
BROADBAND GATEWAYS, AND
RELATED HARDWARE AND SOFTWARE
COMPONENTS**

Investigation No. 337-TA-1158

COMCAST RESPONDENTS' PREHEARING BRIEF

Rovi EX2008
Comcast v. Rovi
IPR2020-00787

[REDACTED]

2. The Cox Platform

Rovi asserts Cox’s Contour 2 Platform as a currently implemented domestic industry product because the Platform is a syndication of Comcast’s X1 Platform. The Cox Contour 2 Platform does not practice the Asserted ’855 Claims for each of the reasons that the Accused Products do not infringe any Asserted ’855 Claim.

E. Invalidity

The concepts and features recited in the limitations of the asserted claims of the '855 Patent were already well known and widely used in the prior art prior to May 24, 2001, Rovi's asserted priority date for the '855 Patent. Many systems for multiplexing multimedia content to a plurality of clients on a home network, including time-based techniques such as time-division multiplexing, were known and widely used in the field of art, including in the transmission of video content. *See, e.g.*, RX-0061 (Computer Networks by Andrew S. Tanenbaum, Prentice Hall (3d ed. 1996) ("Tanenbaum")) at -1632-1633, -1707, -1931. As the examiner of the '855 Patent application noted during prosecution, the use of data compression, encryption, and decryption were also well known in the art long before the filing of the '855 Patent. *See* JX-0004 ('855 File History) at -3808, -3810-3812, -3814.

1. The '855 Patent is Invalid Under 35 U.S.C. §§ 102 and 103

Dr. Chatterjee will testify that U.S. Patent No. 8,601,519 ("Hicks"), alone or in combination with HomeRF: Wireless Networking for the Connected Home, by Kevin J. Negus, Adrian P. Stephens & Jim Lansford ("HomeRF"), invalidates the asserted claims of the '855 patent under either party's proposed claim constructions.

a. The Asserted Claims are Anticipated and Rendered Obvious by Hicks

Hicks qualifies as prior art for the '855 patent because it was filed on December 28, 2000. RX-0034 (Hicks) at Cover. Neither Rovi nor its expert challenges the status of Hicks as prior art. Dr. Chatterjee will testify that Hicks discloses every limitation of, and therefore anticipates, the asserted claims of the '855 patent under 35 U.S.C. § 102. Dr. Chatterjee will also testify that Hicks anticipates claims 1, 28, and 53, and claim 59, upon which the asserted dependent claims rely. He will also testify that Hicks in combination with the knowledge of a POSITA at the time the '855 patent was filed renders the asserted claims obvious under 35 U.S.C. § 103.

[1.pre] – [the “preamble”]: Dr. Chatterjee will testify that Hicks discloses these limitations under either party’s construction. *See, e.g.*, RX-0034 (Hicks) at Abstract, 1:47-62, 2:16-37, 3:14-67, 4:13-20, 6:1-42, 7:56-63, 8:22-67, Figs. 1, 2, 4. In particular, Hicks discloses a home entertainment system in which a multimedia server, the Broadband Multimedia Gateway (“BMG”), multiplexes channels and transmits them to clients within a user’s home. *See id.* at 2:16-27, 3:14-67, Fig. 1.

[1.A] – [the “receiving channels” limitation]: Dr. Chatterjee will testify that Hicks discloses this limitation. *See, e.g., id.* at 3:14-67, 3:43-53, 6:1-42, 6:66-7:23, Fig. 2. In particular, Hicks discloses a BMG within a user’s home that can receive multiple channels from any of a number of multimedia sources, such as a cable network and a satellite network, and multiplexes those channels on a local network. *See id.* at 3:14-67, 6:1-42, Fig. 2. The BMG can receive channels containing audio (e.g., radio), video (e.g., video), or other data. *Id.*

[1.B.1] – [the “receiving channel selection commands” limitation]: Dr. Chatterjee will testify that Hicks discloses the Receiving Limitation under either party’s construction. *See, e.g., id.* at 3:54-67, 4:38-44, 4:21-5:3, 12:38-51, Figs. 4, 6. In particular, the Hicks BMG serves a plurality of clients and receives channel selection requests that users at those client devices enter using a remote control. *See, e.g., id.* at 4:21-5:3, 3:54-67, 12:38-51, Figs. 2, 4. For example, those requests can be received over the HomeRF network. *Id.*; *see also* RX-0040 (HomeRF) at 21, 23-24, 26, Figs. 4, 8. Rovi’s expert asserts that Hicks does not discuss channel selection commands or requests between the devices or identification of a particular channel. However, Dr. Chatterjee will explain that a POSITA would understand the disclosed messages as identifying particular channels, in light of disclosure and the understanding of a POSITA at the time of the ’855 patent filing. *See id.* at 4:42-44.

[1.B.2] – [the “processing” limitation]: Dr. Chatterjee will testify that if the Processing Limitation is not indefinite, it is disclosed by Hicks under either party’s construction. *See, e.g., id.* at 4:21-5:3, 11:48-12:50, 13:29-56, Fig. 6. In particular, Hicks teaches that the BMG processes channel selection requests for specific channels made via remote control at the client. *See id.*, at 4:21-5:3. The BMG processes channel selection requests to produce channel selection commands, including channel selection commands from a user defined list, such as a list produced by using a search function or the user’s selection of a preferred genre. *Id.* In addition, other channel selection commands, such as next channel, previous channel, and favorite channel, were well-known to persons of skill at the time of the invention, and would be understood by a person of skill in the art to be encompassed by Hicks.

[1.B.3] – [the “monitoring a shared bus” limitation]: Dr. Chatterjee will testify that if this limitation is not indefinite, it is disclosed by Hicks under either party’s construction. *See, e.g., id.* at 3:14-53, 9:22-32, 11:48-12:51, Fig. 6. In particular, Hicks teaches that the BMG can receive communications from clients via HomeRF, and those communications will include channel selection requests that are processed at the BMG. *Id.* In addition, Hicks teaches a bus within the BMG, which will be monitored at specific time intervals. *Id.* at 3:14-53, 11:48-12:51, Fig. 6. A POSITA at the time of the alleged invention would have understood that Hicks encompassed heavily deployed bus technologies of the time period, such as PCI bus, that were monitored at specific time intervals. The tuner/demodulator in Hicks monitors the shared bus in order to receive channel selection commands from the processor that instruct the tuner/demodulator as to the channel it should select. *Id.* at 3:14-53, Fig. 2.

[1.B.4] – [the “identifying” limitation]: Dr. Chatterjee will testify that if this limitation is not indefinite, it is disclosed by Hicks under both parties’ construction. The BMG contains a

shared bus that connects all of the components of the BMG, and this shared bus will be monitored at specific time intervals for channel selection commands. The shared bus will be monitored at specific time intervals based on the operation of bus technology, such as PCI, that were well-known to a POSITA at the time of the invention, and which a POSITA would understand Hicks to encompass. The tuner/demodulator would identify the channel selection command based on the use of a control signal on the bus, as would be well-known to a POSITA at the time of the invention.

[1.B.5] – [the “decoding” limitation]: Dr. Chatterjee will testify that this limitation is disclosed by Hicks under both parties’ constructions. He will explain that a POSITA would understand that the BMG in Hicks will decode frames using the data conveyance protocol of the multimedia system to recapture the at least a portion of a channel selection command. For example the tuner/demodulator would decode the channel selection command from the processor using a bus protocol, such as the PCI bus protocol, which was well-known to POSITAs at the time of the alleged invention.

[1.C] – [the “selecting a channel” limitation]: Dr. Chatterjee will testify that Hicks discloses this limitation under either party’s construction. *See, e.g., id.* at Abstract; 2:16-27; 3:14-67, Fig. 6. Rovi’s expert argues that Hicks does not disclose limitation 1.C. because the antecedent basis for ‘the plurality of channel selection commands’ is allegedly not satisfied. However, Dr. Chatterjee will testify that, for the same reasons described for each step in limitation 1.B, this antecedent basis is disclosed.

[1.D] – [the “encoding” limitation]: Dr. Chatterjee will testify that Hicks discloses this limitation under either party’s construction. *See, e.g., id.* at Abstract; 2:16-27; 3:14-67, 7:24-8:14, 8:38-67, Fig. 2. The BMG will encode channels using the data conveyance protocol of the

multimedia system, such as the bus protocol used in the BMG. Bus protocols, such as PCI bus, which were well-known to POSITAs at the time of the alleged invention. Rovi's expert argues that Hicks similarly lacks disclosure to provide an antecedent basis for "the selected channels." Dr. Chatterjee will testify that Hicks discloses this antecedent basis consistent with the prior use of "the selected channels" in the claim.

[14] – [the "encrypting" limitation]: Dr. Chatterjee will testify that Hicks discloses this limitation. *See, e.g., id.* at 3:14-67, 9:1-22, 11:48-12:3, Fig. 6. In particular, Hicks describes that the selected channels will be encrypted by the BMG, *see id.* at 4:1-11, 9:1-22, 11:3-12:3, Fig. 6, and a POSITA would understand that the channels would then need to be encoded in order to be transmitted to clients over any of the transmission technologies discussed in Hicks. *Id.* at 3:14-67. Rovi's expert asserts that Hicks does not explicitly disclose encryption "by the multimedia server" prior to encoding. However, as Dr. Chatterjee will explain, Rovi's expert incorrectly reads the relevant disclosure in Hicks and, in any event, encrypting, encoding, and compressing data were all well known in the art at the time, and would have been obvious for a POSITA to try. *See* JX-0004 ('855 File History) at -3808, -3810-3812, -3814.

[28.pre] – [claim 28 preamble]: Dr. Chatterjee will testify that Hicks discloses this limitation under either party's construction. *See, e.g.,* RX-0034 (Hicks) at 1:51-54, 4:12-14, 6:17-42. In particular, Hicks discloses the use of a tuner/demodulator on the BMG. *Id.*

[28.A] – [the "plurality of selectors" limitation]: Dr. Chatterjee will testify that Hicks discloses this limitation under either party's construction. *See, e.g., id.* at 1:51-54, 4:12-14, 6:17-42, 8:22-67, Figs. 2, 6. In particular, Hicks discloses that the BMG contains a plurality of selectors in the form of multiple tuners for use in receiving and selecting channels, based on a respective one of a plurality of channel selection commands received over the bus, from the

processor, to produce selected channels. *See id.* at 8:38-67, Fig. 2. In addition, under Rovi's construction of "channel selection command," the channel selection commands can be received from the HomeRF network or other in home network. *Id.*; *see also* RX-0040 (HomeRF) at 21, 23-24, 26, Figs. 4, 8. And under Comcast's construction, the "channel selection request" used to generate the "channel selection command" will come from clients over the HomeRF or other in home network. *Id.*

[28.B] – [the "encoding module" limitation]: Dr. Chatterjee will testify that Hicks discloses this limitation. *See, e.g., id.* at 3:14-67, 8:38-67, 7:24-8:14, Fig. 2.

[28.C.1] – [the "transmitting encoded data" limitation]: Dr. Chatterjee will testify that if this limitation is not indefinite, it is disclosed by Hicks. *See, e.g., id.* at 11:48-12:3, Figs. 1, 2, 6.

[28.C.2] – [the "receiving . . . to monitor packets from a shared bus" limitation]: Dr. Chatterjee will testify that if this limitation is not indefinite, it is disclosed by Hicks under both parties' construction for the same reasons set forth above with respect to limitations 1.B.3 and 28.C.1. Dr. Chatterjee will also explain that a POSITA would understand that both packets and frames could be used to transmit the information described in the multimedia entertainment system of Hicks.

[28.C.3] – [the "identifying" limitation]: Dr. Chatterjee will testify that if this limitation is not indefinite, it is disclosed by Hicks under both parties' construction for the same reasons set forth above with respect to limitations 1.B.4. Dr. Chatterjee will also explain that a POSITA would understand that both packets and frames could be used to transmit the information described in the multimedia entertainment system of Hicks, and that the system of Hicks would identify a packet containing a channel selection command. *Id.* The

tuner/demodulator of Hicks will identify channel selection commands sent by the processor to instruct the tuner/demodulator regarding the channels it should select. The tuner/demodulator will identify the channel selection commands using control signals on the shared bus as would be well understood by a POSITA at the time of the alleged invention. *See* 1.B.4.

[28.C.4] – [the “decoding” limitation]: Dr. Chatterjee will testify that Hicks discloses this limitation under both parties’ construction for the same reasons set forth above with respect to limitation 1.B.3. Dr. Chatterjee will also explain that a POSITA would understand that both packets and frames could be used to transmit the information described in the multimedia entertainment system of Hicks, and that the BMG of Hicks would decode a packet containing a channel selection command. *Id.*

[29] – [the “decrypting module” claim]: Dr. Chatterjee will testify that Hicks discloses this limitation under both parties’ construction. *See, e.g., id.* at 3:14-67, 11:11-19, 16:59-17:5. In addition, under Rovi’s construction of “channel selection command,” the alleged “channel selection command” will be decrypted when received from the HomeRF network. RX-0040 (HomeRF) at 21, 23-24, 26, Figs. 4, 8.

[53.pre] – [claim 53 preamble]: Dr. Chatterjee will testify that Hicks discloses this limitation under both parties’ constructions for the same reasons explained as to limitations 1.pre, 1.B.3, 1.C and 1.D, above. *See also, e.g., id.* at 9:22-35, 16:59-67, Fig. 2.

[53.A] – [the “processing module” limitation]: Dr. Chatterjee will testify that Hicks discloses this limitation. *See, e.g., id.* at 8:20-26, 9:22-35, Fig. 2

[53.B] – [the “instructions in memory” limitation]: Dr. Chatterjee will testify that if this limitation is not indefinite, it is disclosed by Hicks. *See, e.g., id.* at 9:22-35, 16:59-67, Fig. 2

[53.B.1] – [the “receiving channels” limitation]: Dr. Chatterjee will testify that if this limitation is not indefinite, it is disclosed by Hicks for the same reasons explained as to limitation 1.A, above. *See also, e.g., id.* at 6:1-23.

[53.B.2] – [the “monitoring a shared bus” limitation]: Dr. Chatterjee will testify that if this limitation is not indefinite, it is disclosed by Hicks under both parties’ constructions. *See, e.g.,* RX-0034 (Hicks) at 3:14-53, 9:22-32, 11:48-12:51, Figs. 2, 6. Hicks teaches that the BMG can receive communications from clients via HomeRF, which a person of skill would understand would include monitoring the shared bus for channel selection requests at specific time intervals, such as contention free periods of transmission. *Id.* In addition, Hicks teaches a bus within the BMG, which will be used to connect all of the components of the shared bus, including the components used to receive and decode the HomeRF signal. *Id.* at 11:48-12:3, Fig. 6.

[53.B.3] – [the “identifying” limitation]: Dr. Chatterjee will testify that Hicks discloses this limitation under both parties’ constructions. The channel selection request would be identified based on CFP timeslots in the HomeRF protocol, which were known to a person of skill in the art at the time of the alleged invention, and which are dedicated to channel change operations for guaranteed quality of service and low-latency performance. *See, e.g.,* RX-0034 (Hicks) at Fig. 2; RX-0040 (HomeRF) at 21, 23-24, 26, Figs. 4, 8. In addition, the shared bus will be monitored at specific time intervals based on the operation of bus technology, such as PCI, that was well-known to a POSITA at the time of the invention, and which a POSITA would be understood to be encompassed by Hicks. The channel selection request would be identified by a control signal on the bus, as would be well-known to a POSITA.

[53.B.4] – [the “decoding” limitation]: Dr. Chatterjee will testify that Hicks discloses this limitation under both parties’ constructions. The BMG contains a shared bus that connects

all of the components of the BMG, and this shared bus will be monitored at specific time intervals for channel selection requests, as it does for channel selection commands as explained for limitation 1.B.3, above. The channel selection requests will be decoded based on the data conveyance protocol of the multimedia system, such as FSK used by HomeRF, to recapture the channel selection request. *See, e.g.*, RX-0034 (Hicks) at Fig. 2; RX-0040 (HomeRF) at 21, 24, 26, Fig. 8. In addition, all of the components of the BMG are connected by the shared bus, and accordingly, the channel selection request would be decoded using a bus protocol, such as the PCI bus protocol, which were well-known to POSITAs at the time of the alleged invention.

[53.B.5] – [the “processing channel selection requests” limitation]: Dr. Chatterjee will testify that if this limitation is not indefinite, it is disclosed by Hicks under both parties’ constructions as discussed for limitation 1.B.2 above. *See, e.g., id.* at 1:47-62, 4:1-20, 6:1-42, 10:18-53, 11:21-31. The processor will process the channel selection request to generate a channel selection command used to instruct the tuner/demodulator regarding the channel it should select. In addition, this processing will include a determination of whether the request can be supported, such as whether the user has the correct subscription and is entitled to receive the requested content. *Id.*

[53.B.6] – [the “selecting a channel” limitation]: Dr. Chatterjee will testify that Hicks discloses this limitation under both parties’ constructions for the same reasons explained as to limitation 1.C, above.

[53.B.7] – [the “encoding” limitation]: Dr. Chatterjee will testify that if this limitation is not indefinite, it is disclosed by Hicks for the same reasons explained as to limitation 1.D, above. In addition to encoding using the bus protocol, the BMG will encode the channel using FSK so it

can be transmitted over the HomeRF link to the appropriate client device. *See, e.g.*, RX-0034 (Hicks) at Fig. 2, 6; RX-0040 (HomeRF) at 21, 24, 26, Fig. 8.

[59] – [the “encode and framing” limitation]: Dr. Chatterjee will testify that if this limitation is not indefinite, it is disclosed by Hicks. *See, e.g., id.* at 4:1-11, 8:38-9:22. In particular, Hicks discloses encoding audio channels and video channels. *Id.* For example, the process of encoding audio and video channels will involve the use of MPEG. Dr. Chatterjee will explain that a POSITA would understand that MPEG video consists of frames with a header and payload and that a standard MPEG header would contain information detailing the selected channel, as well as the type of compression used. *See, e.g.*, RX-0063 (Watkinson) at -9721-9725; RX-0064 (Haskell) at -0147-0149. Similarly, encoding the channels in the HomeRF protocol will provide encryption, which a POSITA would be understood would be indicated in the header of the HomeRF frames to facilitate decryption. *See, e.g.*, RX-0034 (Hicks) at Fig. 2; RX-0040 (HomeRF) at 21, 24, 26, Fig. 8.

[60] – [the “time division multiplexing” limitation]: Dr. Chatterjee will testify that Hicks discloses this limitation. *See, e.g.*, RX-0034 (Hicks) at 6:32-42.

[63] – [the “encrypt prior to encoding” limitation]: Dr. Chatterjee will testify that if this limitation is not indefinite, it is disclosed by Hicks for the same reasons explained above with regards to claim 14.

b. The Asserted Claims are Rendered Obvious by Hicks in View of HomeRF

Hicks qualifies as prior art for the '855 patent because it was filed on December 28, 2000. *Id.* at Cover. HomeRF is prior art as it was published and available publicly in February 2000. RX-0040 (HomeRF) at 20. Neither Rovi, nor its expert challenges the status of either reference as prior art. The preceding section includes citations that reflect the knowledge that a POSITA

would have had at the time of the alleged invention, including as to the HomeRF standard, which is directly referenced in Hicks. Dr. Chatterjee will testify that, to the extent a POSITA would not understand Hicks to render obvious every limitation of each asserted claim for the reasons stated above, Hicks in combination with HomeRF discloses every limitation of, and therefore renders the asserted claims obvious under 35 U.S.C. § 103, based on the same evidence cited above for each limitation.

Dr. Chatterjee will testify that a POSITA reading the Hicks reference and its teachings regarding the use of HomeRF would understand the features of the HomeRF protocol, as discussed in the HomeRF reference. The HomeRF standard was well-known to POSITAs at the time of the alleged invention. RX-0034 (Hicks) at 3:1-35, 7:24-55, Fig. 2. Rovi intends to argue that a POSITA would not have known the features of the HomeRF standard discussed in HomeRF. Even if that were true, a POSITA would have had a reason to combine Hicks with HomeRF. Hicks explicitly teaches using HomeRF for home transmissions to/from the BMG. *Id.* Hicks and HomeRF are in the same field of art and address the same technical issues, such as the distribution of multimedia through the home. *See, e.g.*, RX-0034 (Hicks) at 3:14-26. HomeRF, which was a well-known standard, relies on and employs well-known techniques that could be implemented in Hicks' system to yield predictable results. This would include advantages such as interoperability with other equipment in the home, the ability to handle a mix of different types of data—which HomeRF was designed to support—and features such as encryption and compression that provide security and bandwidth savings. HomeRF was also one of a finite set of well-defined home networking technologies at the time of invention and relied upon well-known techniques, the combination of which would have been obvious for a POSITA to try.

2. Secondary Considerations of Non-Obviousness

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Rovi's alternative royalty rate approach to bond fares no better. As in Invs. 1103 and 1001, Rovi has failed in this matter to calculate an appropriate bond to overcome injury to it, as it improperly uses portfolio licenses as its basis. Inv. 1103, ID at 322; Inv. 1001, Comm'n Op. at 47. Such an approach cannot work for the '855 Patent because, according to its cover, Rovi did not own that patent until December 2018. Thus, the '855 Patent could not have been included as part of the portfolio license agreements on which Dr. Sullivan relies, given that those licenses were executed years earlier. [REDACTED]

Even for the other two Asserted Patents, using Rovi portfolio rates as a basis for bond is improper. Royalty rate-based bonds must be calculated using only the patents found to violate Section 337. As in Inv. 1103, Rovi has failed to show the role, if any, the Asserted Patents played in setting the portfolio rate used in Dr. Sullivan's approach. Inv. 1103, ID at 322; Inv. 1001, Comm'n Op. at 47; JX-0011C at 108-109 (Armaly Dep.). Further, the Verizon license used by Dr. Sullivan to calculate his bond rate was the same one that served as the basis for Rovi's failed royalty rate bond theory in Inv. 1103. Inv. 1103, ID at 322. Further still, the Charter license used by Dr. Sullivan to calculate his bond rate [REDACTED]

See RX-1695 (Rovi/Charter License). Finally, as with Rovi's price differential approach, there are unaddressed concerns that it would be unfeasible for the ITC/CBP to implement a royalty rate bond based on a changing per subscriber, per month calculation.

IX. CONCLUSION

For the reasons set forth above, and as will be shown during the evidentiary hearing, Respondents respectfully request that no violation of Section 337 be found and no remedies issued.

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Respectfully submitted,
COUNSEL FOR COMCAST RESPONDENTS

/s/ David J. Lisson

Bert C. Reiser
Jamie D. Underwood
LATHAM & WATKINS LLP
555 Eleventh Street, NW Suite 1000
Washington, DC 20004
(202) 637-2200 / (202) 637-2201 (fax)

Michael A. David
LATHAM & WATKINS LLP
885 Third Avenue
New York, NY 10022
(212) 906-2968 / (212) 751-4864 (fax)

Ashok Ramani
David Lisson
Micah G. Block
DAVIS POLK & WARDWELL LLP
1600 El Camino Real
Menlo Park, CA 94025
(650) 752-2000 / (650) 752-2111 (fax)

Krishnan Padmanabhan
WINSTON & STRAWN LLP
200 Park Avenue
New York, NY 10166-4193
(212) 294-6700 / (212) 294-4700 (fax)