

**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, DC**

**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

**EXPERT REPORT OF SANDEEP CHATTERJEE, PH.D.
REGARDING THE INVALIDITY OF U.S. PATENT NO. 7,200,855**

Rovi EX2006
Comcast v. Rovi
IPR2020-00787

be an Application Specific Integrated Circuit (ASIC). Memory 131 may be a random access memory (RAM), a dynamic RAM (DRAM), a static RAM (SRAM), a volatile memory, a non-volatile memory, a flash RAM, a cache memory, a hard disk drive, a magnetic storage device, an optical storage device, a magneto-optical storage device, or a combination thereof.

[Hicks at 9:22-32; *see also id.* at 11:48-12:51.]

230. A POSITA would understand that because the processor and the tuner/demodulator are directly connected by the bus (Hicks Fig. 6, showing “system data bus”), the tuner/demodulator could identify the “channel selection commands” sent by the processor without decoding. For example, the tuner/demodulator could use the control signals on the bus, as taught in the Write command of the PCI-Bus specification, to “determin[e] without decoding, that the [frame/packet] at one of the specific time intervals contains at least a portion of a channel selection [command/request].” [Exhibit H, PCI Bus 2.2 Standard, at § 3.3.2, Fig. 3-6 (1999) (“PCI Bus 2.2 Standard”).] A POSITA would understand that the system bus within the BMG taught in Hicks would encompass a bus that supports functionality such as the Write taught in the PCI-Bus specification, because PCI-Bus was very well-known to POSITAs, and was widely-deployed at the time the ’855 Patent was filed. [See Exhibit I, “Extending PCI Performance Beyond the Desktop,” by Shlomo Weiss and Ehud Finkelstein, Computer (June 1999) (“Weiss”), at 80.] In addition, to the extent that Rovi contends that Hicks does not teach “monitoring a shared bus at specific time intervals,” or “identify[ing] a data [frame / packet] at one of the specific time intervals that contains at least a portion of one of the plurality of channel selection [commands/requests],” such as taught in Fig. 3-6 of the PCI-Bus specification below, the system of Hicks could be modified to operate in this manner. A POSITA would be motivated to modify Hicks to implement bus functionality as discussed in the PCI specification, since that specification was widely deployed, including in off-the-shelf equipment, and yielded predictable

results (e.g., a bus that operates effectively). For example, a POSITA would be motivated to implement PCI Bus, because it would allow interoperability with the many off-the shelf components (e.g., processors, tuners/demodulators) available at the time for use in the BMG device. [See Weiss at *passim*.]

3.3.2. Write Transaction

Figure 3-6 illustrates a write transaction. The transaction starts when **FRAME#** is asserted for the first time which occurs on clock 2. A write transaction is similar to a read transaction except no turnaround cycle is required following the address phase because the master provides both address and data. Data phases work the same for both read and write transactions.

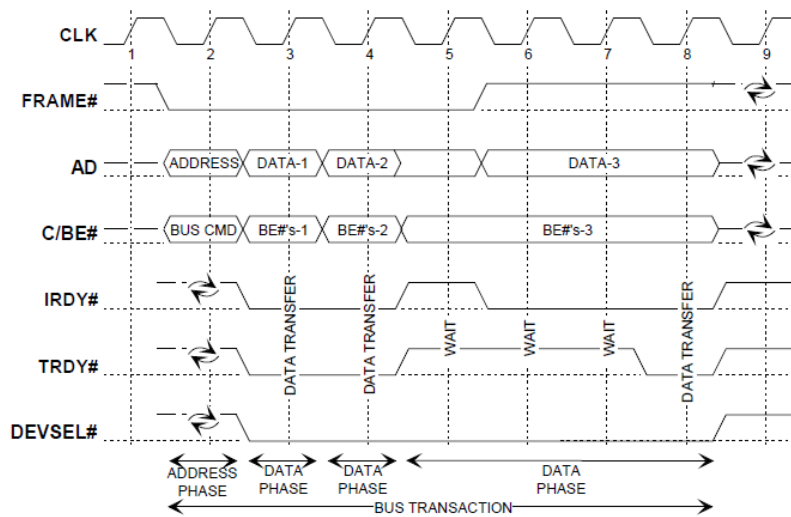
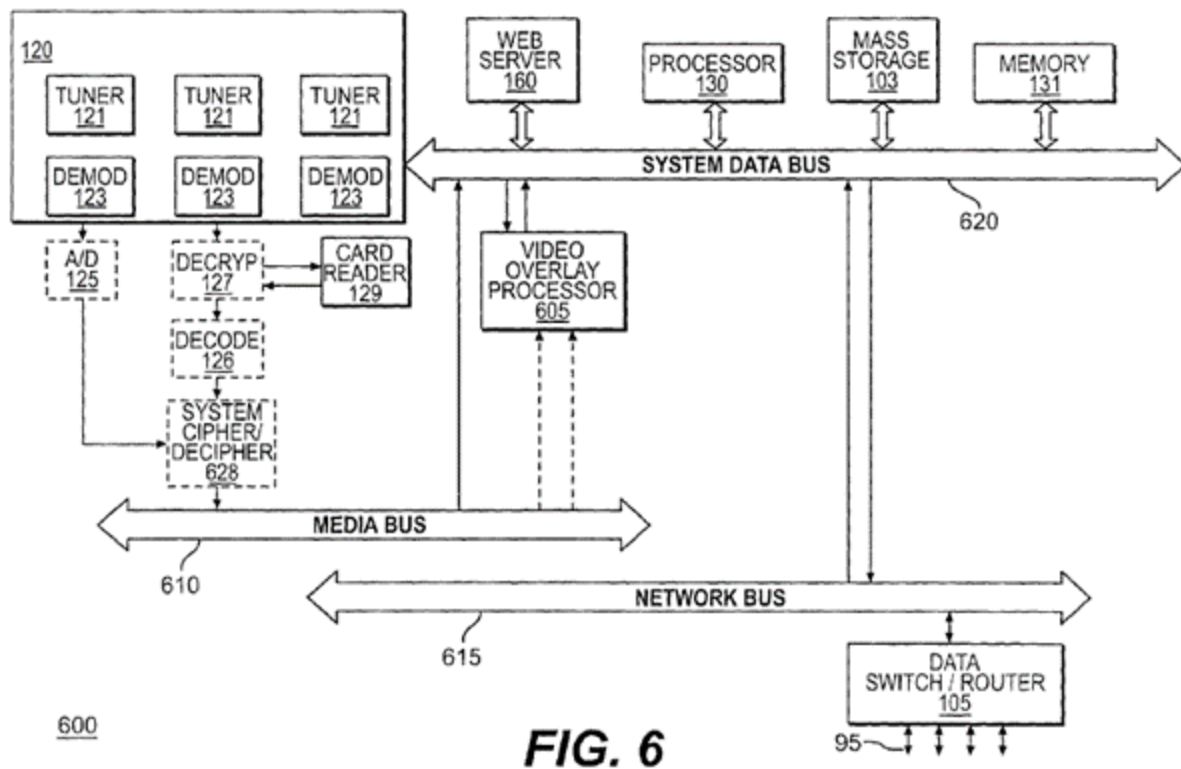


Figure 3-6: Basic Write Operation

[PCI BUS 2.2 Standard at Fig. 3-6.]



[Hicks at Fig. 6.]

7. Limitation 1.C: “selecting a channel of the plurality of channels per channel selection command of the plurality of channel selection commands to produce selected channels; and”

231. Comcast proposes “channel selection command” should be construed as

“command that is derived from a channel selection request and that identifies a particular channel of a plurality of channels.”

232. Rovi proposes that “channel selection command” should be construed as

“command related to selection of a channel.”

233. Hicks teaches that the channels selected by the user at the client set top boxes (thin client STBs) will be selected by the multimedia server (Broadband Multimedia Gateway) to produce the selected channels for delivery to the client set top boxes (thin client STBs).

The present invention is a comprehensive digital residential entertainment system. A system includes a data switch, a mass

H. Unexpected Results

481. Rovi identifies no evidence of unexpected results. Indeed, numerous others, including the named inventors on the Hicks, Negus, Hylton, the other references discussed in this report, and other pieces of prior art identified by Comcast devised the same inventions, and earlier in time, that Rovi now attempts to attribute to the '855 Patent.]

I. Simultaneous Invention

482. The number of contemporaneous and independent technological developments (many of them prior art, as described in this report) directed to the same goal, and using the same technique as the '855 Patent, demonstrates that there is nothing novel in the '855 Patent. For example, Hicks, Negus, Hylton, the other references discussed in this report, and other pieces of prior art identified by Comcast all show that others addressed the issue of multiplexing a plurality of channels within a multimedia system in the same manner as the '855 Patent.

XII. CONCLUSION

483. For at least the preceding reasons, I believe that each asserted claim of the '855 Patent is invalid pursuant to 35 U.S.C. §§ 102 and 103.

484. I may testify about any of the preceding topics at trial. I may also provide a general tutorial on the relevant subject matters. I may use demonstrative exhibits, including software and systems that I have used, architected, or implemented, or refer to publicly-available information to aid my testimony at trial.

485. I understand that expert discovery is ongoing. I reserve the right to respond to any reports that are submitted by Rovi's expert witnesses or to any testimony by Rovi's fact or expert witnesses, whether at deposition or at trial.



Sandeep Chatterjee, Ph.D.

Peter M. Hillegas

From: Voronov, Serge A. <serge.voronov@davispolk.com>
Sent: Thursday, September 26, 2019 7:06 PM
To: Holly E. Engelmann; Stephen.ODonohue@lw.com; Rovi_Comcast_ITC_III; matthew.rizzolo@ropesgray.com
Cc: COMCASTROVI3.LWTEAM@lw.com; comcast.rovi4; ITC1158WinstonCourtesy@winston.com; cortney.hoecherl@usitc.gov
Subject: RE: Redacted Expert Reports
Attachments: 2019.09.17-COM_Invalidity Report of Andrew B. Lippman re 445 - CBI_REDACTED.pdf

Holly,

Our redactions to the Lippman invalidity report are attached. There is no Comcast or third-party CBI in the other two invalidity reports.

Best regards,
Serge

Serge A. Voronov

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From: Holly E. Engelmann <hengelmann@McKoolSmith.com>
Sent: Thursday, September 26, 2019 3:32 PM
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Subject: RE: Redacted Expert Reports

Hi Stephen,

Our redactions are on the ftp site - 2019 09 26 Expert Rpts_Rovi Redacted.zip

<https://McKoolFTP.McKoolSmith.com>

Username: Rovi_Comcast ITC III_OppCo

Password: jlk1DWJjUj

Thanks,
Holly

Holly E. Engelmann | McKool Smith, P.C.
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From: Stephen.ODonohue@lw.com [mailto:Stephen.ODonohue@lw.com]
Sent: Wednesday, September 25, 2019 9:03 AM
To: Rovi_Comcast_ITC_III; matthew.rizzolo@ropesgray.com
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Subject: Redacted Expert Reports

Holly,

We would like to exchange redacted versions of the expert reports. Can the parties agree to serve copies of their own expert reports with its own (and third party) CBI redacted this coming Thursday at 7 pm ET? In other words, Comcast would prepare redacted versions of the reports submitted by Bederson, Chatterjee, and Lippman to remove Comcast (and third party) CBI, and Rovi would prepare redacted versions of the reports submitted by Almeroth, Jones, Russ, and Williams reports to remove Rovi (and third party) CBI.

Please let us know if this is acceptable to Rovi. Given the abundance of Rovi CBI in the Sullivan report, we are fine excluding it from this exercise. We also understand that Comcast may share the Iyer report with Comcast personnel as served and we are not aware of Rovi CBI in the invalidity reports. Will you please confirm?

Regards,

Stephen D. O'Donohue

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