

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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MICROSOFT CORPORATION, MICROSOFT MOBILE INC.,  
HTC CORPORATION, and HTC AMERICA, INC.,  
Petitioner,

v.

KONINKLIJKE PHILIPS N.V.,  
Patent Owner.

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Case IPR2017-00890  
Patent 6,522,695 B1

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Before TREVOR M. JEFFERSON, CHARLES J. BOUDREAU, and  
KAMRAN JIVANI, *Administrative Patent Judges*.

JIVANI, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
Determining Claims 14, 15, and 17 Unpatentable  
*35 U.S.C. § 318(a) and 37 C.F.R. § 42.73*

## I. INTRODUCTION

Microsoft Corporation, Microsoft Mobile Inc., HTC Corporation, and HTC America, Inc. (collectively, “Petitioner”) sought an *inter partes* review of claims 14, 15, and 17 (the “challenged claims”) of U.S. Patent No. 6,522,695 B1 (“the ’695 patent”). Paper 1 (“Petition” or “Pet.”). Patent Owner Koninklijke Philips N.V. filed a Preliminary Response. Paper 6. Upon consideration of the Petition and Preliminary Response, we instituted an *inter partes* review pursuant to 35 U.S.C. § 314 of the challenged claims. Paper 7 (“Decision on Institution” or “Dec. on Inst.”), 29.

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that the challenged claims are unpatentable.

## II. BACKGROUND

### A. *Procedural History and Asserted Grounds of Unpatentability*

Petitioner advanced the following grounds of unpatentability under 35 U.S.C. § 103(a) in the Petition (Pet. 4):

1. Claims 14, 15, and 17 over Green<sup>1</sup> and Blue<sup>2</sup>;
2. Claims 14 and 15 over Clark<sup>3</sup>;

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<sup>1</sup> Consultative Committee for Space Data Systems Report Concerning Space Data System Standards: Lossless Data Compression, Green Book (“Green”) (Ex. 1003).

<sup>2</sup> Consultative Committee for Space Data Systems Report Concerning Space Data System Standards: Lossless Data Compression, Blue Book (“Blue”) (Ex. 1009).

<sup>3</sup> Clark, U.S. Patent No. 5,177,480 (“Clark”) (Ex. 1004).

3. Claim 17 over Clark and Bliss<sup>4</sup>;
4. Claims 14 and 15 over Venbrux<sup>5</sup>; and
5. Claims 17 over Venbrux and Bliss.

In our Decision on Institution, we instituted review of claims 14 and 15 over Green and Blue, claims 14 and 15 over Venbrux, and claim 17 over Venbrux and Bliss. Dec. on Inst. 29. We, thus, instituted review of all challenged claims, albeit on fewer than all asserted grounds. *Id.* On April 24, 2018, the Supreme Court held that a decision to institute under 35 U.S.C. § 314 may not institute review on less than all claims challenged in the petition. *SAS Inst., Inc. v. Iancu*, 2018 WL 1914661, at \*10 (U.S. Apr. 24, 2018). Thereafter, we modified our Decision on Institution to institute all grounds of unpatentability asserted against claims 14, 15, and 17, as presented in the Petition. Paper 40, 2.

After institution, Patent Owner filed a Patent Owner Response (Paper 25, “PO Resp.”) and observations on cross examination (Paper 34). Patent Owner also filed, with our prior authorization, a motion for additional discovery. Paper 15. Petitioner opposed (Paper 19) and we denied Patent Owner’s motion. Paper 47.

Petitioner filed a Reply to the Patent Owner Response (Paper 30, “Reply”) and a response to Patent Owner’s observations on cross examination (Paper 44). Petitioner also filed, with our prior authorization, a motion to submit supplemental information. Paper 14. Patent Owner

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<sup>4</sup> Venbrux et al., A VLSI Chip Set for High-Speed Lossless Data Compression, IEEE Transactions on Circuits and Systems for Video Technology, Vol. 2, No. 4 (Dec. 1992) (“Venbrux”) (Ex. 1005).

<sup>5</sup> Bliss, et al., U.S. Patent No. 6,009,549 (“Bliss”) (Ex. 1006).

opposed this motion. Paper 17. We resolve below Petitioner's motion to submit supplemental information. *See infra* Section IV.

In addition to the foregoing papers, the parties also filed cross motions to exclude certain evidence. Paper 38 (Pet. Motion); Paper 35 (PO Motion). Each party opposed the other party's motion. Paper 43 (Pet. Opposition); Paper 42 (PO Opposition). Each party replied in support of its own motion to exclude. Paper 46 (Pet. Reply); Paper 45 (PO Reply). We resolve below the parties' motions to exclude. *See infra* Sections V, VI.

Both parties requested an oral hearing, and a hearing was held on May 22, 2018. Paper 41. A transcript of the oral hearing has been entered into the record. Paper 48 ("Tr.").

*B. Testimony*

Petitioner supports its challenges with declarations of Dr. Kenneth R. Castleman. Exs. 1002, 1031. Dr. Castleman testified by depositions on November 21, 2017, and on April 12, 2018, and transcripts of his testimony have been entered into evidence. Exs. 2018, 2028.

Patent Owner supports its challenges with a declaration of Dr. Charles Boncelet, Jr. Ex. 2016. Dr. Boncelet testified by deposition on February 16, 2018, and a transcript of his testimony has been entered into evidence. Ex. 1032.

*C. Related Proceedings*

Petitioner identifies several actions for infringement of the '695 patent pending in the United States District Court for the District of Delaware. Pet. 1–2.

*D. Overview of the '695 patent (Ex. 1001)*

The '695 patent relates to compressing a digital information signal and efficiently transmitting it. Ex. 1001, 1:10–12. The '695 patent seeks to transmit the digital information signal using as few bits as possible. *Id.* at 1:39–41 (“It is an object of the invention to provide a transmitter and/or receiver which transmits a digital information signal with a smaller or at the most equal number of bits.”). The '695 patent discloses a transmitter that encodes the digital information signal for compression and provides the signal to a receiver that decodes the signal. *Id.* at 1:10–12, 1:40–44.

The invention of the '695 patent “is based on recognition of the fact that by using an encoder, the number of bits required to transmit a digital information signal is not always reduced.” *Id.* at 2:60–63. In some instances, encoding results in a signal using more bits than the original digital information signal itself. *Id.* at 2:63–65. Because the '695 patent aims to use as few bits as possible, the '695 patent describes transmitting either the encoded or original digital information signal, depending on whichever requires the smaller number of bits. *Id.* at 2:66–3:1. An identification signal is included in the transmission, indicating whether the transmission has been encoded by a given encoding method. *Id.* at 3:2–4. Figure 2 of the '695 patent is reproduced below.

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