IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

VIRGINIA INNOVATION SCIENCES, INC.,

CIVIL ACTION NO. 2:12-CV-00548-MSD-DEM

Plaintiff,

V.

SAMSUNG ELECTRONICS CO., LTD; SAMSUNG ELECTRONICS AMERICA, INC.; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC

Defendants.

DEFENDANTS' OPENING CLAIM CONSTRUCTION BRIEF

Pursuant to Paragraph 11(e) of the Court's Rule 16(b) Scheduling Order (D.I. 56),

Defendants Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung

Telecommunications, LLC (collectively "Defendants") submit this brief in support of their

proposed claim constructions for the six patents-in-suit.

I. BACKGROUND OF THE PATENTS-IN-SUIT

Plaintiff Virginia Innovation Sciences, Inc. ("VIS") has asserted over 150 claims from six different patents against the Defendants. For clarity, these related patents can be grouped into two patent "families." The '492 Patent Family includes U.S. Patents Nos. 7,899,492 ("the '492 Patent'), 8,050,711 ("the '711 Patent'), 8,145,268 ("the '268 Patent'), and 8,224,381 ("the '381 Patent'). The '733 Patent Family includes U.S. Patents Nos. 7,957,733 ("the '733 Patent") and 8,135,398 ("the '398 Patent"). Though each of the six patents has multiple claims, VIS's infringement allegations center on the concept of displaying multimedia content originally intended for a mobile device (such as a cellphone) onto a larger screen (such as a television).



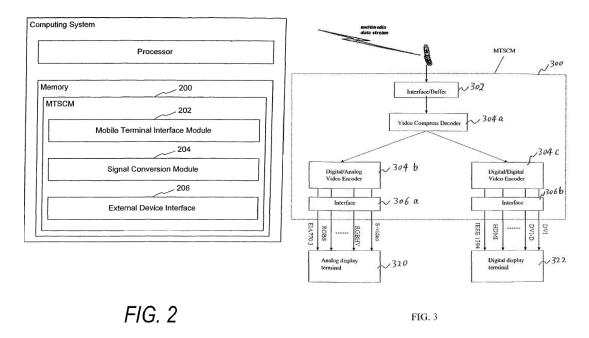
A. The '492 Patent Family: The Mobile Terminal Signal Conversion Module ("MTSCM")

VIS filed the '492 Patent as application No. 11/165,341 on June 24, 2005, claiming priority to provisional application No. 60/588,358 filed on July 16, 2004 ("the '358 provisional application"). The '711, '268, and '381 Patents claim priority as continuations of the '492 Patent, and share a substantively identical specification and figures.

The '492 Patent Family describes a "mobile terminal signal conversion module" ("MTSCM"). '492 Patent at 3:52-54. The MTSCM "processes signals to accommodate reproduction by an external device." *Id.* at 3:58-59. The MTSCM "receives [a] video signal from [a] cellular phone" and "processes the video signal to provide a converted video signal that has a display format and/or signal power level appropriate for an external display terminal 114." *Id.* at 4:4-20. The MTSCM is described in terms of "modules," but the patents state that the MTSCM "may be provided as software, firmware, hardware, or any combination thereof," *id.* at 4:45-46, and "the described functionality may alternatively be provided by an MTSCM having fewer, greater, or differently named modules from those illustrated in the figure." *Id.* at 4:56-60.

The patents provide two "block diagrams" of the MTSCM. First, Figure 2 shows the MTSCM 200 including a "mobile terminal interface module 202, a signal conversion module 204, and an external device interface module 206." *Id.* at 5:9-11. Second, Figure 3 shows an MTSCM 300 including an interface/buffer module 302 "that is analogous to the previously described mobile terminal interface module," *id.* at 5:57-59, as well as a video compress decoder 304a, a digital/analog video encoder 304b, a digital/digital video encoder 304c, and "conventional interfaces 306a-b." *Id.* at 6:40-43.





The '492 Patent's prosecution spanned almost six years at the U.S. Patent and Trademark Office, with two different examiners handling the case, before the '492 Patent issued on March 1, 2011. The '711, '268, and '381 Patents issued on November 1, 2011, March 27, 2012, and July 17, 2012, respectively.

B. The '733 Patent Family: Transporting a Multimedia Content Item that is "Destined for a Destination Device" Via a "Predetermined Channel"

VIS filed the '733 Patent as application No. 11/802,418 on May 22, 2007, claiming priority to three pending U.S. patent applications, which in turn claimed priority to five provisional applications. The '341 non-provisional application and the '358 provisional application that led to the '492, '711, '268, and '381 Patents were included among these eight priority references.¹ '733 Patent at 1:8-42. The '398 Patent, filed on May 6, 2011, as application No. 13/067,079, is a continuation of the '733 Patent and shares a substantively identical specification.

¹ In addition to the '341 non-provisional application and the '358 provisional application, the '733 Patent claimed priority to non-provisional application Nos. 11/501,747 and 11/540,637, and to provisional applications Nos. 60/787,510, 60/707,561, 60/722,444, 60/832,962, 60/899,037.



The shared specification of the '733 and '398 Patents describes several different systems including an Internet content delivery system where the "[p]rovision of Internet content is customized according to location" ('733 Patent at 5:39-9:13), a "systematical solution for mobile payment" (*id.* at 9:14-11:27), a system for "wireless management of tasks and corresponding alerts" for tasks such as "diaper management" or "home security monitoring" (*id.* at 11:28-42), and a system "with mobile terminal signal conversion" (*id.* at 14:43-19:57). For the "mobile terminal signal conversion" embodiments, the shared specification of the '733 and '398 Patents repeats the description and figures of the MTSCM from the '492 Patent Family.

The '733 and '398 Patents describe a "control system for multimedia communications between different user terminals" for these various applications. *Id.* at 20:14-19. The control system "receives, selects, converts, compresses, decompresses, and routs [sic] data" from one user terminal to another. *Id.* This so-called "Management Center (MC) System" is shown in Figure 16 of the patent.

Content received by the MC System is routed to the various user terminals using a "data package that identifies the destination device." *Id.* at 21:15-17. The destination device can be identified by "a unique device identifier" in the data package or "by referencing portions of the received data package according to a predefined protocol." *Id.* at 21:18-27. The specification describes an example: "if the data package contains the identifier DI₁ it is determined that the communication is intended for the main television in the household." *Id.* at 21:41-44.

The patents also describe a process for "directing a television to display content using signals received . . . through a cellular communications network." *Id.* at 25:63-65. Either the MC System, the destination television, or a set-top box connected to the television is "equipped with processing capability for carrying out the signal conversion requirements, as described in



detail above regarding the MTSCM," while the television or the set top box are also "equipped to receive the signals wirelessly from a cellular base station . . . to display the content on a given channel." *Id.* at 25:66-26:9. The television is directed "to display the converted content on a predetermined channel," such as a "tunable channel that is otherwise unused for other forms of content." *Id.* at 26:41-55.

The '733 and '398 Patents were handled by a different examiner than the '492 Patent Family at the PTO. The '733 Patent was pending for four years before it issued on June 7, 2011. The '398 Patent was filed two months after the Notice of Allowance for the '733 Patent, and issued less than eleven months later on March 13, 2012. VIS filed the present lawsuit seven months after that issuance.

II. LEGAL PRINCIPLES OF CLAIM CONSTRUCTION

Claim construction is a matter of law exclusively within the Court's province. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996). As an initial matter, a court should examine the intrinsic evidence of the patent—including the claims, the specification, and the prosecution history—to define the patented invention's scope. *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004). The words of a claim are given their ordinary and customary meaning, which is the meaning the words would have to a person of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (*en banc*). However, a "person of ordinary skill in the art is deemed to [have] read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* at 1313. This standard "provides 'an objective baseline from which to begin claim interpretation' and is based upon 'the well-settled understanding that inventors are typically persons skilled in the field of the invention and that patents are addressed to and intended to be read by others of skill in the pertinent art."



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