

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS
AMERICA, INC., SAMSUNG RESEARCH AMERICA, INC.,
Petitioner,

v.

DYNAMICS, INC.,
Patent Owner.

Case IPR2020-00504
Patent 10,223,631 B2

Before TREVOR M. JEFFERSON, GEORGIANNA W. BRADEN, and
JON M. JURGOVAN, *Administrative Patent Judges*.

JEFFERSON, *Administrative Patent Judge*.

DECISION
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

Petitioner, Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Research America, Inc., filed a Petition requesting *inter partes* review of claims 1–7, 9–13, 19, 21, and 22 (“the challenged claims”) of U.S. Patent No. 10,223,631 B2 (Ex. 1001, the “’631 Patent”). Paper 1 (“Petition” or “Pet.”). Patent Owner, Dynamics Inc., filed a Preliminary Response to the Petition. Paper 8 (“Prelim. Resp.”). On August 12, 2020, we instituted *inter partes* review of the challenged claims of the ’631 Patent. Paper 11 (“Dec.”).

Following institution, Patent Owner filed its Response to the Petition. Paper 18 (“PO Resp.”). Petitioner filed a Reply to Patent Owner’s Response, and Patent Owner filed a Sur-Reply. Paper 20 (“Reply”); Paper 21 (“Sur-Reply”). An Oral Hearing took place on May 12, 2021. The Hearing Transcript is included in the record. Paper 29 (“Tr.”).

After considering the parties’ arguments and supporting evidence, we determine that Petitioner has proved by a preponderance of the evidence that claims 1–7, 9–13, 19, 21, and 22 are unpatentable. 35 U.S.C. § 316(e) (2018); 37 C.F.R. § 42.1(d) (2019).

II. BACKGROUND

A. *Related Proceedings*

Petitioner informs us of one pending district court proceedings based on the ’631 Patent that involves Petitioner, *Dynamics Inc. v. Samsung Elecs. Co., Ltd. et al.*, Case No. 1:19-cv-6479 (S.D.N.Y.), filed July 12, 2019, which was stayed on September 4, 2019. Pet. 72–73. Petitioner also informs us of one proceeding pending before the International Trade

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Commission (“ITC”), *In re Certain Mobile Devices With Multifunction Emulators*, Inv. No. 337-TA-1170 (U.S.I.T.C.), filed July 12, 2019. *Id.* According to Petitioner, an initial determination in the ITC case is expected on or around August 14, 2020. *Id.* Petitioner further informs us of concurrently pending *inter partes* review proceedings directed to the three other patents asserted in the above-referenced District Court and ITC cases. *Id.*

Patent Owner informs us of the same pending proceedings listed above. Paper 6 (Patent Owner’s Mandatory Notices), 2–3.

B. The ’631 Patent

The ’631 Patent was filed on August 1, 2016 from a continuation filed July 25, 2012, issued on March 5, 2019, and is titled “Cards and Devices with Multifunction Magnetic Emulators and Methods for Using Same.” Ex. 1001, codes (22), (45), (54). The ’631 Patent relates to

A payment card (e.g., credit and/or debit card) is provided with a magnetic emulator operable of communicating information to a magnetic stripe reader. Information used in validating a financial transaction is encrypted. . . . Such dynamic information may be communicated using such an emulator such that a card may be swiped through a magnetic stripe reader—yet communicate different information based on time. An emulator may receive information as well as communicate information to a variety of receivers (e.g., an RFID receiver).

Ex. 1001, Abstract. The ’631 Patent discloses “a card is provided, such as a credit card or security card, that may transmit information to a magnetic stripe reader via a magnetic emulator.” *Id.* at 1:28–36.

The ’631 Patent states that “[t]he magnetic emulator may be, for example, a circuit that emits electromagnetic fields operable to electrically

couple with a read-head of a magnetic stripe reader such that data may be transmitted from the circuit to the magnetic stripe reader.” *Id.* at 1:30–34. The ’631 Patent also states that the magnetic emulator may also “be operated to electrically couple, and transmit data to, a device using a Radio Frequency Identification (RFID) protocol.” *Id.* at 2:9–16. The ’631 Patent specification further states that the magnetic emulator may be swiped through a magnetic stripe reader to communicate data, “placed outside and within the proximity of (e.g., 0.25 inches) the read-head.” *See id.* at 2:2–6, 4:29–33.

Figure 7 shows the electrical coupling between a card and a reader of the invention.

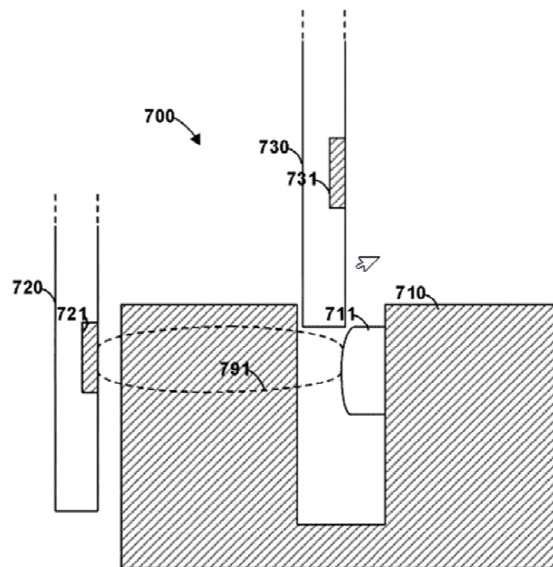


FIG. 7

Figure 7 depicts “cards 720 and 730 as well as magnetic stripe reader 710. Read-head housing 711 may be included on a wall of a trough of magnetic

stripe reader 710.” *Id.* at 8:24–27. Card 720 shows emulator 721 that provides electromagnetic field 791 capable of transmitting through the housing of the magnetic stripe reader 710, thus card 720 may be outside of the reader and operable to communicate through the outer wall of a thickness of a quarter inch or more. *Id.* at 8:29–39.

The ’631 Patent describes that the invention could be implemented in devices other than cards, such as “a portable telephonic device, portable media player, or any type of electronic device.” *Id.* at 2:48–51, 12:32–34. Figure 12 shows a personal electric device in accordance with the invention. *Id.* at 3:35–37.

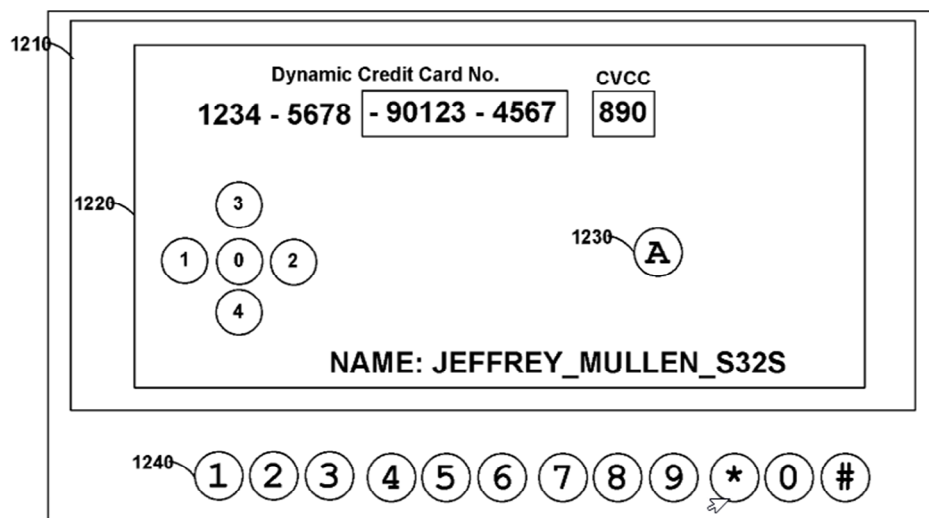


FIG. 12

Figure 12 shows personal electronic device 1200, with user inputs 1240, display 1210, and virtual card 1220. *Id.* at 12:37–40. “Personal electronic device 1200 may communicate to a card reader such as . . . an RFID reader.” *Id.* at 12:45–46.

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