

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.

IPR2020-00505
Patent 10,255,545 B2

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

JURGOVAN, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. *Background and Summary*

On January 31, 2020, Petitioner, Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Research America, Inc., filed a Petition requesting *inter partes* review of claims 1–16 of U.S. Patent No. 10,255,545 B2 (Ex. 1001, the “’545 Patent”). Paper 1 (“Petition” or “Pet.”). On May 15, 2020, Patent Owner, Dynamics Inc., filed a Preliminary Response to the Petition. Paper 8 (“Prelim. Resp.”). On June 2, 2020, Petitioner filed a Reply to address the *Apple v. Fintiv*¹ factors under 35 U.S.C. § 314(a). Paper 9. On June 9, 2020, Patent Owner filed a Sur-Reply to respond to Petitioner’s Reply. Paper 10.

On August 12, 2020, applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we instituted an *inter partes* review of claims 1–16 of the ’545 Patent. Paper 11.

On November 4, 2020, Patent Owner filed its Response to the Petition. Paper 18 (“PO Resp.”). On January 27, 2021, Petitioner filed a Reply to Patent Owner’s Response, and on March 26, 2021, Patent Owner filed a Sur-Reply. Paper 21 (“Reply”); Paper 24 (“Sur-Reply”).

An Oral Hearing took place on May 12, 2021. The Hearing Transcript is included in the record. Paper 31 (“Tr.”).

After considering the parties’ arguments and supporting evidence, we determine that Petitioner has proved by a preponderance of the evidence that

¹ IPR2020-00019, Paper 11 (PTAB March 20, 2020) (precedential) (Order).

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claims 1–16 are unpatentable. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d) (2019).

B. Real Parties in Interest

Petitioner identifies Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Research America, Inc. as the real parties in interest. Pet. 76 (Petitioner’s Mandatory Notices).

Patent Owner identifies itself as the real party in interest. Paper 6, 2 (Patent Owner’s Mandatory Notices).

C. Related Matters

Patent Owner has asserted the ’545 Patent in the following cases:

Case Name	Case Number	Court	Case Filed
In re Certain Mobile Devices with Multifunction Emulators (“the ITC litigation”)	337-TA-1170	U.S. International Trade Commission (ITC)	7/12/2019
Dynamics Inc. v. Samsung Elecs. Co., Ltd., et al.	1:19-cv-6479	Southern District of New York	7/12/2019
Samsung Elecs. Co., Ltd., et al. v. Dynamics Inc.	IPR2020-00499	PTAB	1/31/2020
Samsung Elecs. Co., Ltd., et al. v. Dynamics Inc.	IPR2020-00502	PTAB	1/31/2020
Samsung Elecs. Co., Ltd., et al. v. Dynamics Inc.	IPR2020-00504	PTAB	1/31/2020

Paper 6, 2–3 (Patent Owner’s Mandatory Notices).

D. The ’545 Patent

The ’545 Patent is titled “Cards and Devices with Multifunction Magnetic Emulators and Methods for Using the Same.” Ex. 1001,

code (54). A payment device of the '545 patent generally includes (a) circuitry for communicating with a cellular network; (b) radio frequency identification (RFID) circuitry for electrically coupling and communicating with a payment terminal; (c) a coil for electrically coupling and communicating with the payment terminal; and (d) a processor for controlling operation of the coil. *Id.* at 14:46–59 (claim 1).

The coil may be controlled by the processor to emit fields emulating the swiping of a magnetic stripe card through a reader. *Id.* at 5:45–61. The coil may also receive a signal to encode a static magnetic track. *Id.* at 7:23–31. Thus, the magnetic emulator may both transmit data to a magnetic stripe reader, and receive data from the magnetic stripe reader. *Id.* at 7:28–35.

Figure 4 of the '545 Patent is shown below.

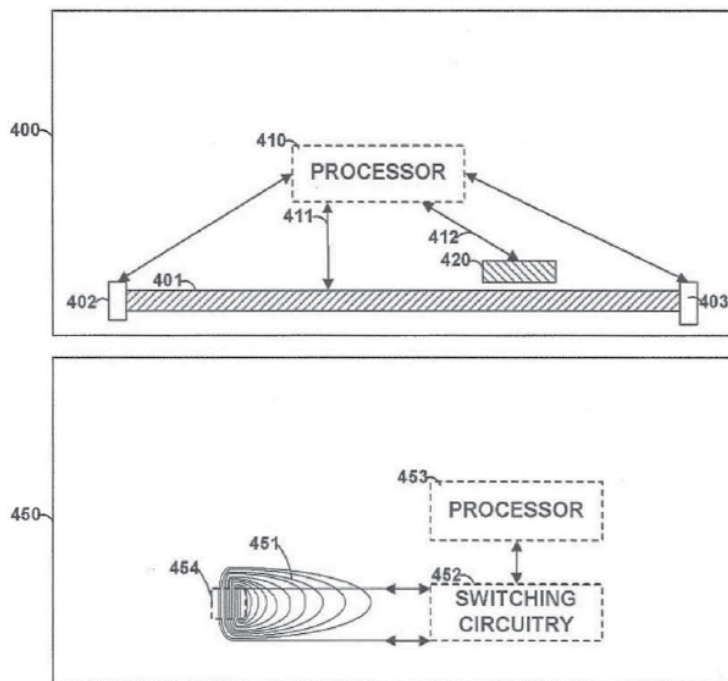


FIG. 4

Figure 4 illustrates cards 400 and 450 of the '545 patent. *Id.* at 3:17–18.

Card 450 includes processor 453, switch circuitry 452 and emulator 451. *Id.*

at 7:36–39. Emulator 451 includes active region 454 to communicate with a magnetic stripe reader or encoder. *Id.* Processor 453 may drive emulator 451 via switching circuitry 452 including one or more transistors, causing the emulator to transmit an electromagnetic signal to the magnetic stripe reader. *Id.* at 7:47–52.

Figure 7 of the '454 Patent is shown below.

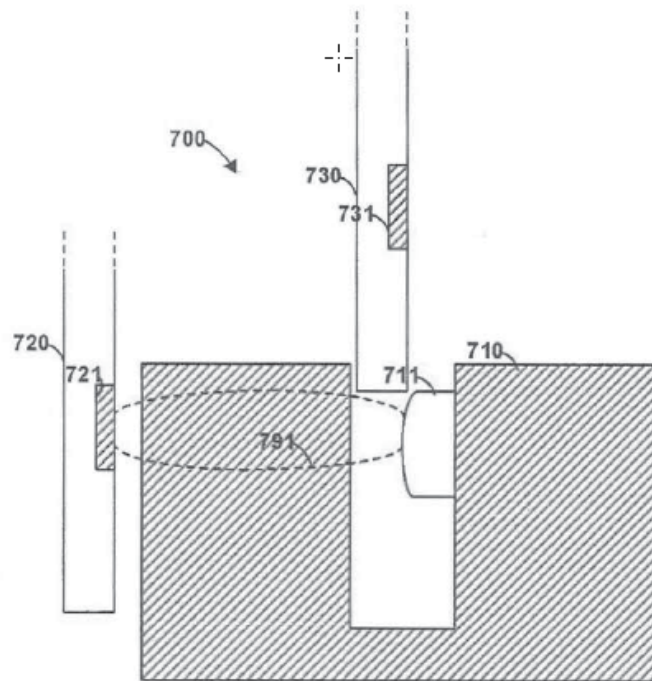


FIG. 7

Figure 7 illustrates electrical coupling between a card and reader. *Id.* at 3:24–26. Card 720 includes emulator 721 that provides electromagnetic field 791 that may transmit through a portion of the housing of magnetic stripe reader 710. *Id.* at 8:29–32. Accordingly, card 720 may be located outside of reader 710 and yet communicate information to reader 710. *Id.*

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