

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

MOBILEPAY LLC,

Plaintiff

v.

INTUIT, INC.,

Defendant

Case No. 2:18-cv-00414

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff MobilePay LLC (“Plaintiff” or “MobilePay”) hereby asserts the following claims for patent infringement against Defendant Intuit, Inc. (“Defendant” or “Intuit”), and alleges, on information and belief, as follows:

THE PARTIES

1. MobilePay is a limited liability company organized and existing under the laws of the Texas with its principal place of business at 17330 Preston Road, Ste 200, Dallas, Texas 75252.
2. Defendant is a Delaware corporation having a principal place of business at 2700 Coast Avenue, Mountain View, CA 94043.

JURISDICTION AND VENUE

3. This action arises under the patent laws of the United States, 35 U.S.C. § 1, *et seq.* This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).
4. Defendant has committed acts of infringement in this judicial district.
5. Defendant has a regular and established place of business in this judicial district at 5601 Headquarters Drive, Plano, Texas 75024.

6. On information and belief, the Court has personal jurisdiction over Defendant because Defendant has committed, and continues to commit, acts of infringement in the state of Texas, has conducted business in the state of Texas, and/or has engaged in continuous and systematic activities in the state of Texas.

7. On information and belief, Defendant's instrumentalities that are alleged herein to infringe were and continue to be used, imported, offered for sale, and/or sold in the Eastern District of Texas.

8. Venue is proper in the Eastern District of Texas pursuant to 28 U.S.C. § 11400(b).

INTUIT

9. Upon information and belief, Defendant Intuit makes, uses, imports, sells, and/or offers for sale the Intuit GoPayment Card Reader. The Intuit GoPayment Card Reader is described by the Intuit website (www.Intuit.com) and is exemplified by the following references:

- “New, Free GoPayment Credit Card Reader Now Available” (“**GoPayment Card Reader**”), *available at* <https://www.businesswire.com/news/home/20120125005354/en/New-Free-GoPayment-Credit-Card-Reader> (last accessed September 18, 2018);
- “QuickBooks GoPayment - Apps on Google Play” (“**QuickBooks**”), *available at* <https://play.google.com/store/apps/details?id=com.intuit.intuitgopayment&hl=en> (last accessed September 18, 2018);
- “MSP430FR235x, MSP430FR215x Mixed-Signal Microcontrollers” (“**MSP430FR235x**”), May 2018 – Revised July 2018, *available at* <http://www.ti.com/lit/ds/symlink/msp430fr2353.pdf> (last accessed September 18, 2018);
- “MSP430FR4xx and MSP430FR2xx Family User's Guide” (“**User's Guide**”), October 2014 – Revised May 2018, *available at* <http://www.ti.com/lit/ug/slau445h/slau445h.pdf> (last accessed September 18, 2018);
- “How can I get my LG G6 to recognize the GoPayment card reader?” (“**Community Answers**”), *available at* <https://community.intuit.com/questions/1682383-how-can-i-get->

[my-lg-g6-to-recognize-the-gopayment-card-reader](#) (cached version last accessed September 18, 2018);

- “Maximize Sales on the Go While Protecting Customer Card Data” (“**Maximize Sales**”), available at <https://investors.intuit.com/press-releases/press-release-details/2012/New-Free-GoPayment-Credit-Card-Reader-Now-Available/default.aspx> (last accessed September 18, 2018); and
- Mobile Point of Scam: Attacking the Square Reader” (“**Blackhat**”), available at <https://www.blackhat.com/docs/us-15/materials/us-15-Mellen-Mobile-Point-Of-Scam-Attacking-The-Square-Reader-wp.pdf> (last accessed September 18, 2018); and
- “What security measures does GoPayment provide to ensure customer... - QuickBooks Learn & Support” (“**Security**”), available at <https://community.intuit.com/articles/1399428-what-security-measures-does-gopayment-provide-to-ensure-customers-credit-card-information-is-safe> (last accessed September 18, 2018).

COUNT I

(Infringement of U.S. Patent No. 9,800,706)

10. Plaintiff incorporates paragraphs 1-9 herein by reference.
11. Plaintiff is the owner, by assignment, of U.S. Patent No. 9,800,706 (the “’706 Patent”), entitled ELECTRONIC DEVICE INPUT/OUTPUT SYSTEM AND METHOD, which issued on October 24, 2017. A copy of the ’706 Patent is attached as **Exhibit A**.
12. The ’706 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.
13. Upon information and belief, Defendant has infringed and continues to infringe one or more claims, including Claim 1, of the ’706 Patent by making, using, importing, selling, and/or, offering for sale the Intuit GoPayment Card Reader. Defendant has infringed and continues to infringe the ’706 Patent either directly or through the acts of contributory infringement or inducement in violation of 35 U.S.C. § 271. Defendant has been on notice of the ’706 Patent at least as early as the date it received service of this complaint.

14. Defendant sells, offers to sell, and/or uses the Intuit Mobile Card Reader, and any similar products, which infringe at least Claim 1 of the '706 Patent. The Intuit GoPayment Card Reader is designed to connect to and work with a mobile device. (collectively “**the GoPayment System**”).

15. Claim 1 of the '706 Patent recites:

1. A system for coupling a credit card reader to a mobile device, the system comprising:

a hardware component that connects to the mobile device and the credit card reader, the hardware component including:

a first mechanism configured to receive data provided by the credit card reader;

a communication controller for buffering the data received from the credit card reader prior to conversion by a first circuit;

the first circuit configured to convert the data to an analog audio signal;

a connector to couple the hardware component to an audio input port of the mobile device, wherein:

the connector bridges a microphone pin of the audio input port such that the mobile device detects a presence of the connector in the audio input port;
and

the connector provides an audio communication between the hardware component and the mobile device and communicates the analog audio signal from the hardware component to the mobile device;

a second mechanism on the mobile device configured to receive the analog audio signal and convert the analog audio signal into binary data; and

a third mechanism on the mobile device configured to upload the binary data to a cloud

service for decoding.

16. The GoPayment System is a system for coupling a credit card reader to a mobile device.

See, e.g., **GoPayment Card Reader**. An example is illustrated below:

QuickBooks GoPayment



Designed for small businesses and anyone who sells products or services on the go, the new GoPayment card reader is a compact, cylinder-shaped device that fits into the audio jack of a mobile phone or tablet. It works with the GoPayment app to help users maximize sales by quickly and accurately swiping a credit or debit card instead of entering data manually.

GoPayment Card Reader.

17. The GoPayment System is a hardware component that connects to a mobile device and a credit card reader. An example is illustrated below:



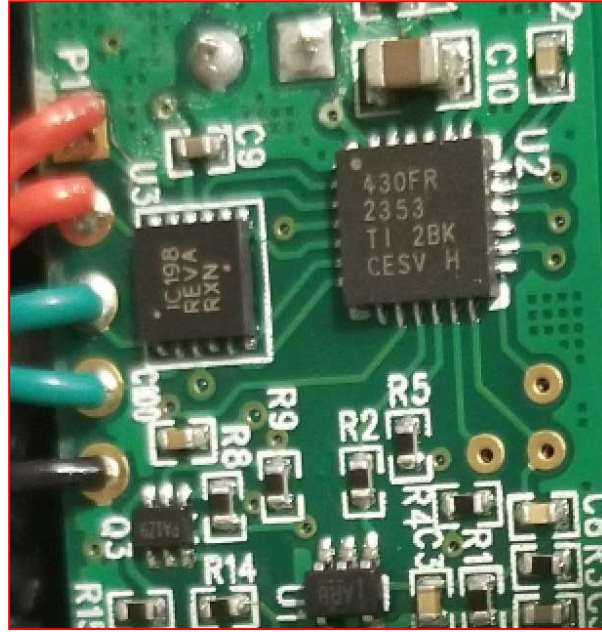
18. The GoPayment System includes a first mechanism configured to receive data provided by the credit card reader. *See, e.g., QuickBooks*. An example is illustrated below:



Receive a free mobile credit card reader. New users get a free mobile card reader with built-in fraud protection. Pick the reader that best fits your business needs. The reader accepts Visa, MasterCard, Discover, and American Express debit and credit cards.

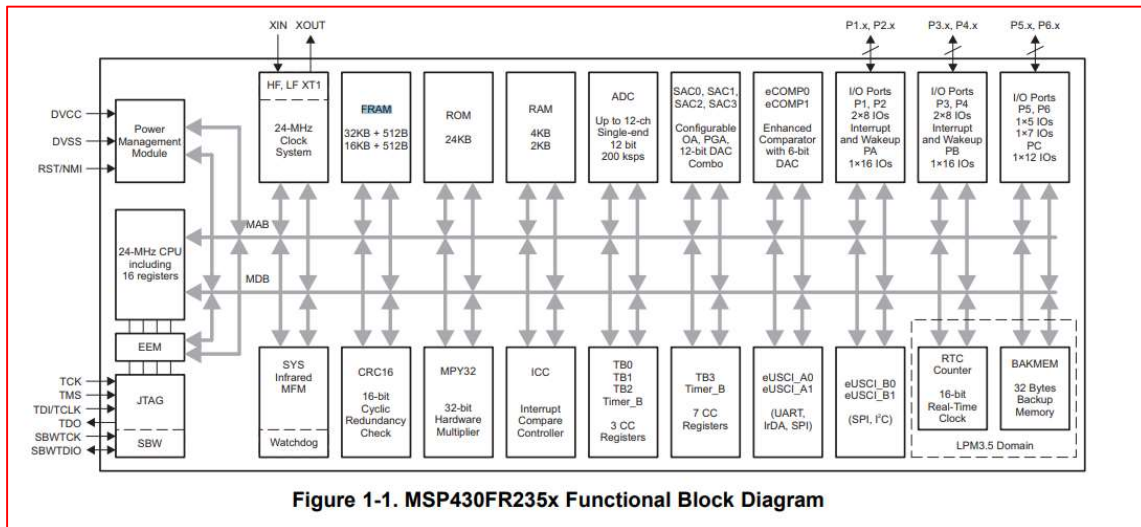
QuickBooks.

19. The GoPayment System includes a communication controller for buffering the data received from the credit card reader prior to conversion by a first circuit. *See, e.g., MSP430FR235x*. An example is illustrated below:



- Low-Power Ferroelectric RAM (FRAM)
 - Up to 32KB of Nonvolatile Memory
 - Built-In Error Correction Code (ECC)
 - Configurable Write Protection
 - Unified Memory of Program, Constants, and Storage
 - 10^{15} Write Cycle Endurance
 - Radiation Resistant and Nonmagnetic

MSP430FR235x at p. 1.



MSP430FR235x at p. 3.

6.8 FRAM

The FRAM can be programmed using the JTAG port, Spy-Bi-Wire (SBW), the BSL, or in-system by the CPU. Features of the FRAM include:

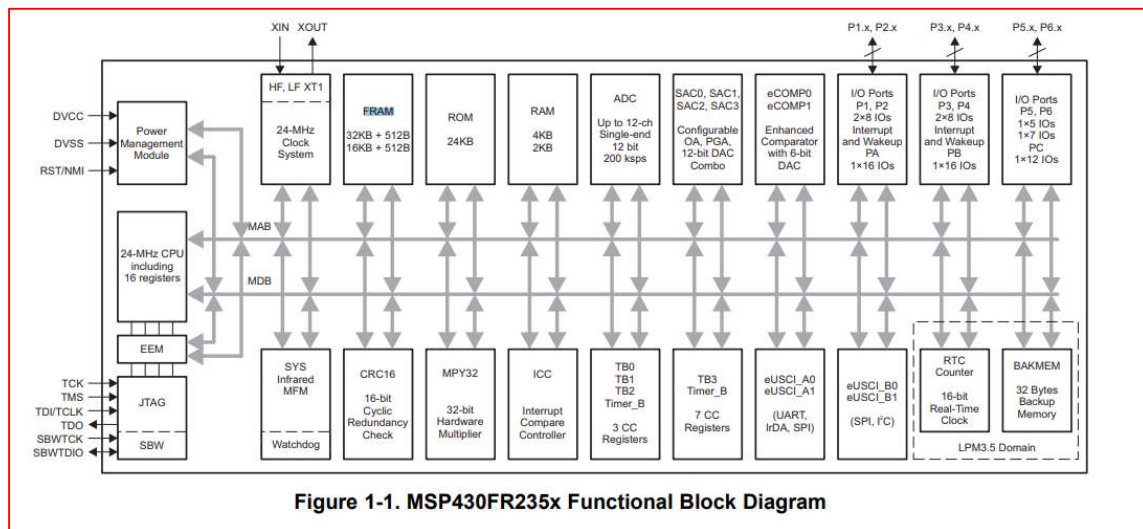
- Byte and word access capability
- Programmable wait state generation
- Error correction coding (ECC)

MSP430FR235x at p. 60.

20. The first circuit in the GoPayment System is configured to convert the data to an analog audio signal. *See, e.g., MSP430FR235x*. An example is illustrated below:

- Two Enhanced Comparators (eCOMP)
 - Integrated 6-Bit Digital-to-Analog Converter (DAC) as Reference Voltage
 - Programmable Hysteresis
 - Configurable High-Power and Low-Power Modes
 - One With Fast 100-ns Response Time
 - One With 1- μ s Response Time With 1.5- μ A Low Power

MSP430FR235x at p. 1.



MSP430FR235x at p. 3.

20.2.3 SAC DAC

SAC DAC module is a 12-bit digital-to-analog converter. The DAC can be configured in 12-bit mode. It can be used as the reference voltage and also can work with the OA and PGA to drive the output pad directly. The setting and operation is discussed in the following sections.

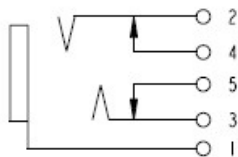
User's Guide at p. 528.

21. The GoPayment System includes a 3.5 mm headphone connector to couple the hardware component to an audio input port of the mobile device. An example is illustrated below:



22. The connector in the GoPayment System bridges a microphone pin of the audio input port such that the mobile device detects a presence of the connector in the audio input port. See, e.g., **3.5 mm jack circuit**. An example is illustrated below:

Headphone jacks have extra contacts inside, which act as switches. The the drawing below, pins 4 and 5 are intended for sensing that the plug was inserted. They are not intended for audio signal. When the plug is not present, the switche, which are formed by 2 & 4 and 3 & 5, are closed. When the plug is inserted, these switches are open. The plug flexes 2 and 3 slightly, and they break contact with 4 and 5. You could insert a 3.5mm plastic rod [a dummy] into the jack, which will open the contacts, and the phone might think that earphones are plugged in.



SCHEMATIC

3.5 mm jack circuit.

23. The connector in the GoPayment System provides an audio communication between the hardware component and the mobile device and communicates the analog audio signal from the hardware component to the mobile device. *See, e.g., Community Answers.* An example is illustrated below:

2. Check your device
 1. Restart your device
 2. Ensure that Bluetooth is turned **OFF**.
 3. The card reader transmits data using audio signal. Make sure the device's volume is set to the maximum.
 4. Plug in your headphones and play music or other audio to make sure the jack is working properly.
 5. Clean out the audio jack with compressed air to remove any lint, dust or dirt that may cause interference.



IntuitRoseMarjorie, Community Support Specialist
☆ Employee SuperUser ⌚ 7 months ago

Community Answers.

24. The GoPayment System includes a second mechanism on the mobile device configured to receive the analog audio signal and convert the analog audio signal into binary data. *See, e.g., Maximize Sales and Blackhat.* An example is illustrated below:

The GoPayment card reader increases the accuracy of each card swipe and offers best-in-class, end-to-end encryption to protect a customer's sensitive card data. Intuit redesigned the card reader based on customer feedback asking for a professional, easy-to-use way to process payments wherever they are.

Maximize Sales.

The initial models of the Square Reader, models S1 and S2, are quite simple and do not contain any integrated circuitry. The devices consist of a magnetic head connected to a headphone jack with a microphone output, which is sufficient to read a magnetic stripe. By sampling a phone's microphone input fast enough, an application is able to read the small voltages produced by the magnetic head and, by examining the zero-crossings in the signal, decode them into unencrypted credit card information.

Later models of the Square Reader, models S3 and S4, contain integrated circuitry that can read and modify the signal before transmitting it to the phone in order to provide encryption and amplification. However, the signal is still transmitted as a varying voltage, recorded by an app, and decoded into binary digits that represent encrypted or unencrypted data. In the case of encrypted data, the encrypted bits can then be sent to external servers for decryption.

Blackhat at p. 2.

We have examined the security of the Square Reader, one of many mobile card-reading devices designed to allow merchants to more easily enter the market of processing transactions. In our analysis, we have demonstrated a number of vulnerabilities in the Square Reader, including unenforced deprecation of old hardware, allowance of out-of-order transactions, and insufficient tamper-proof hardware features. We suggest that similar attacks could possibly be performed on other mobile point-of-sale competing systems such as Intuit GoPayments and PayPal Here, which utilize similar end-to-end encryption [2][26]. We emphasize that mobile card-reading devices face additional challenges beyond traditional point-of-sale hardware, given that they are smaller, cheaper, and compatible with commodity hardware. These challenges are manifest in the vulnerabilities that we have identified and in the responses we received to our disclosure reports outlined in Section VII.

Blackhat at p. 7.

25. The GoPayment System includes a third mechanism on the mobile device configured to upload the binary data to a cloud service for decoding. *See, e.g., Security*. An example is illustrated below:

Your customer's credit card data is best protected when swiped through the GoPayment encrypted card reader, and the GoPayment application adds several additional layers of protection:

- Triple DES (Data Encryption Standard) encryption protects the card data at the instant the card is swiped and it is not stored on the phone.
- The GoPayment application uses online banking industry-standard secure connection over SSL (Secure Socket Layer) with 128-bit encryption.
- Our GoPayment servers and card processing infrastructure are maintained in compliance with PCI DSS (the Payment Card Industry Data Security Standard).

Whether you choose to manually key-enter the customers' credit card number or swipe the card, we will send the information securely using an encrypted SSL connection to our PCI DSS compliant GoPayment servers and card processing infrastructure.

Security.

26. Plaintiff has been damaged by Defendant's infringement of the '706 Patent.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests the Court enter judgment against

Defendant:

1. declaring that the Defendant has infringed the '706 Patent;
2. awarding Plaintiff its damages suffered as a result of Defendant's infringement of the '706 Patent;
3. awarding Plaintiff its costs, attorneys' fees, expenses, and interest; and
4. granting Plaintiff such further relief as the Court finds appropriate.

JURY DEMAND

Plaintiff demands trial by jury, Under Fed. R. Civ. P. 38.

Dated: September 28, 2018

Respectfully Submitted

/s/ Raymond W. Mort, III

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