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Patel

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(45) **Date of Patent:** ***Jan. 12, 2021**

(54) **METHOD AND SYSTEM FOR AN
OFFLINE-PAYMENT OPERATED MACHINE
TO ACCEPT ELECTRONIC PAYMENTS**

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 216 days.

This patent is subject to a terminal dis-
claimer.

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Related U.S. Application Data

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Aug. 12, 2014, now Pat. No. 9,875,473, which is a
(Continued)

(51) **Int. Cl.**
G06Q 30/00 (2012.01)

G06Q 20/32 (2012.01)

(52) **U.S. Cl.**
CPC **G06Q 20/327** (2013.01)

(58) **Field of Classification Search**
CPC **G06Q 20/40**

(Continued)

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NPL Search History.*

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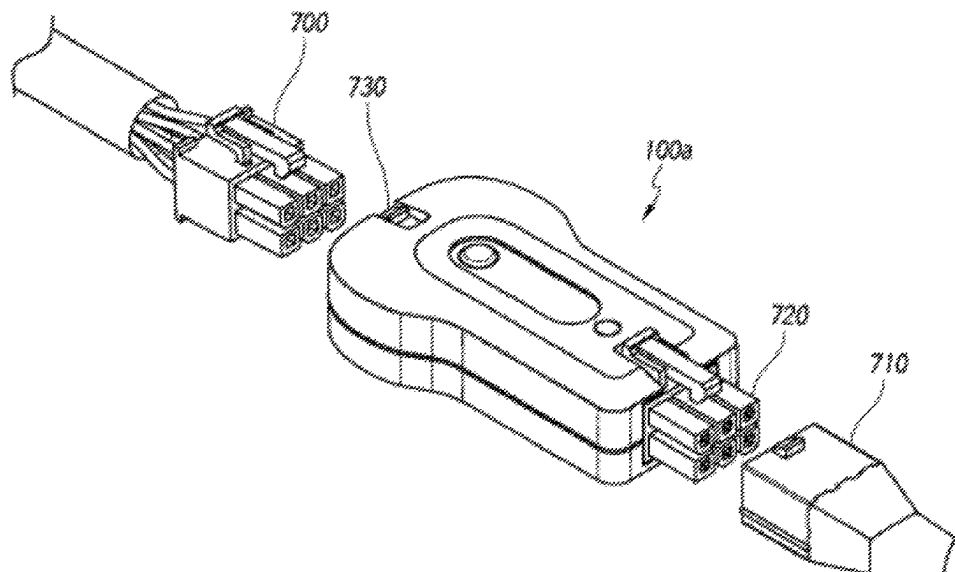
Primary Examiner — John H. Holly

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(57) **ABSTRACT**

This application discloses a payment module with one or more processors, memory, a short-range wireless transceiver configured to communicate with one or more mobile devices, and a first interface module configured to output to a control unit of the offline payment-operated machine one or more electrical pulses. The payment module receives a wireless request via the short-range wireless transceiver from a respective mobile device of the one or more mobile devices to initiate a cashless operation of the offline-payment operated machine. In response, the payment module causes the offline payment-operated machine to initiate the requested cashless operation by issuing a first number of electrical pulses to the control unit via the first interface module. Further, in response to the wireless request, the payment module sends operation information corresponding to the initiated operation of the offline payment-operated machine to the respective mobile device via the short-range wireless transceiver.

20 Claims, 45 Drawing Sheets



Related U.S. Application Data

continuation-in-part of application No. 14/456,683, filed on Aug. 11, 2014, now Pat. No. 9,256,873, which is a continuation of application No. 14/335,762, filed on Jul. 18, 2014, now Pat. No. 9,547,859, which is a continuation of application No. 14/214,644, filed on Mar. 14, 2014, now Pat. No. 8,856,045, and a continuation-in-part of application No. 29/477,025, filed on Dec. 18, 2013, now Pat. No. Des. 755,183.

- (60) Provisional application No. 61/917,936, filed on Dec. 18, 2013.

(58) **Field of Classification Search**

USPC 705/44, 1.1, 30, 39, 41, 70, 75, 34, 26,
705/81; 455/466, 412, 557, 407;
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See application file for complete search history.

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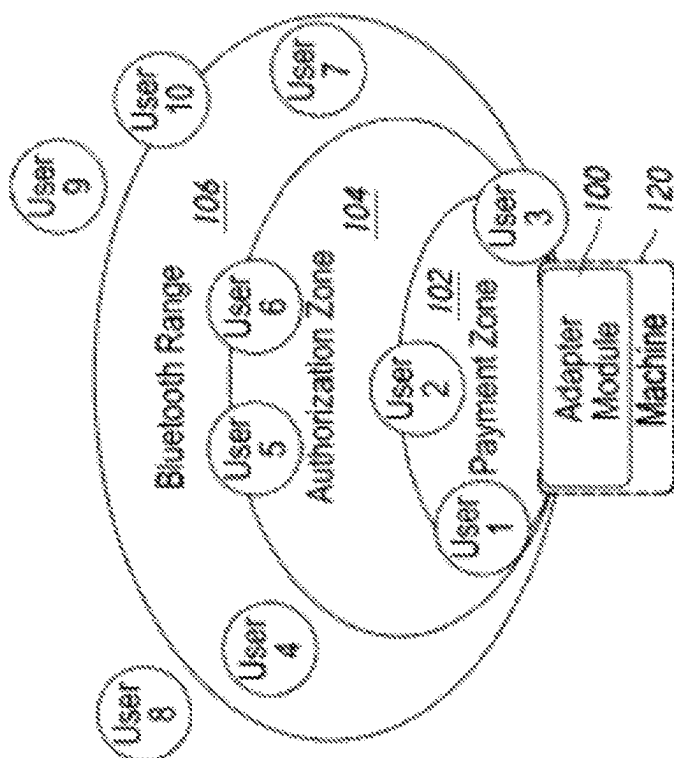


Figure 2

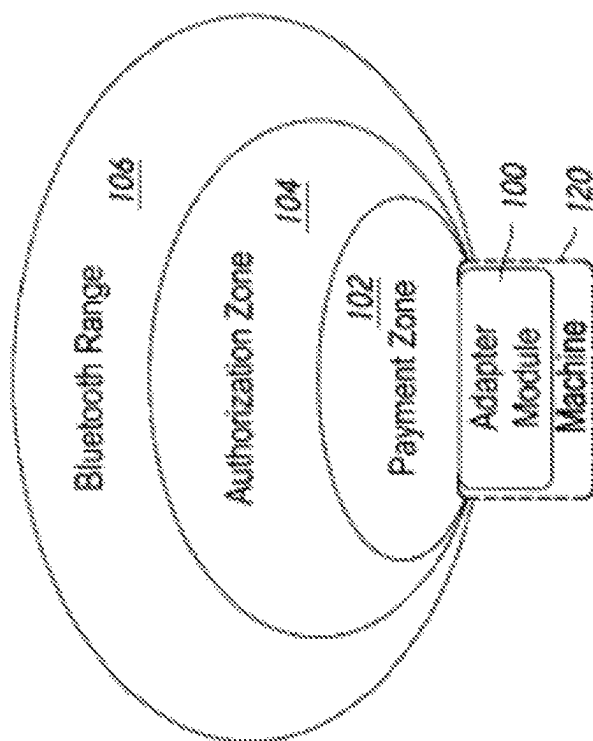


Figure 1

Tab	Favorite?	Alert	View to User
All	Yes	No	User can make Hands-free Credit with the connected vending machine
All	No	Yes	User needs to launch Mobile Device and then swipe to make transaction manually
Favorite	Yes	No	Hands-free transaction will be available to the user via vending machine
Favorite	No	No	User is not alerted for the vending machine which is not a favorite machine. Hands-free mode will not work, manual swipe for transaction required by user.
Either All or Favorite	Yes	Yes	BUT Hands-free Credit is not available (disabled by module, expired AuthGrant, insufficient balance, or other issue), then user will get an alert so that user can swipe credit manually.

Figure 3

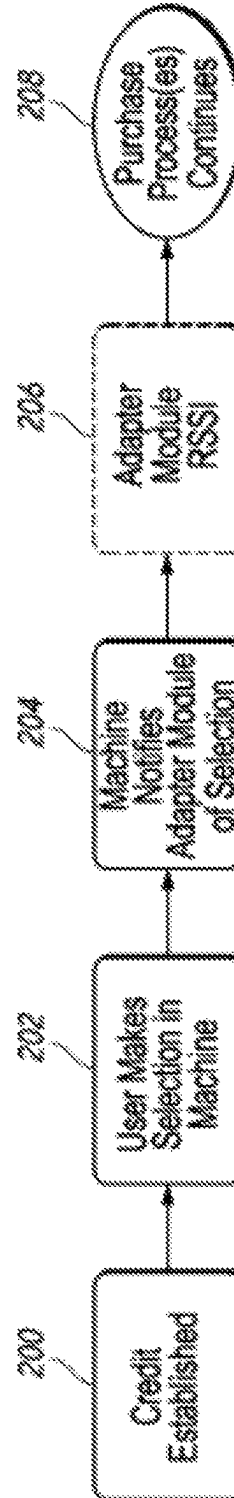


Figure 4

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