Advanced Card Systems Ltd.
Card & Reader Technologies

APG8205
OTP Generator

User Manual V1.00

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Table of Contents

1.0. Introduction

APG8205 is a highly portable standalone OTP (One-Time Password) generator that contains a keypad and a display. Certified with stringent international standards such as Mastercard® Chip Authentication Program (CAP), VISA Dynamic Passcode Authentication (DPA) and EMV Level 1, you can use the device in a variety of payment and banking applications.

Using two-factor authentication, the cardholder inserts the CAP or DPA card (something you have) in the APG8205 and enters the PIN (something you know) using the device keypad. A dynamic one-time password is generated and shown on the APG8205 display. Cardholder can then use this password to perform secure online transactions, telephone orders or e-banking logons.

This document shows how to use APG8205 to perform secure bank account login, to view bank statement, to transfer money and to make payment.

For more details of APG8205, please refer to the Technical Specifications document.

1.1. Supported Card Type

- CAP certified EMV contact card, including:
  - o M/Chip Lite 2.1 with CAP personalization profile
  - o M/Chip 4 with CAP personalization profile
  - o M/Chip Select 2.05 with CAP personalization profile

1.2. Supported Language

- English
- French

2.0. APG8205 Illustration

2.1. Parts Description

The main components of APG8205 are displayed below:

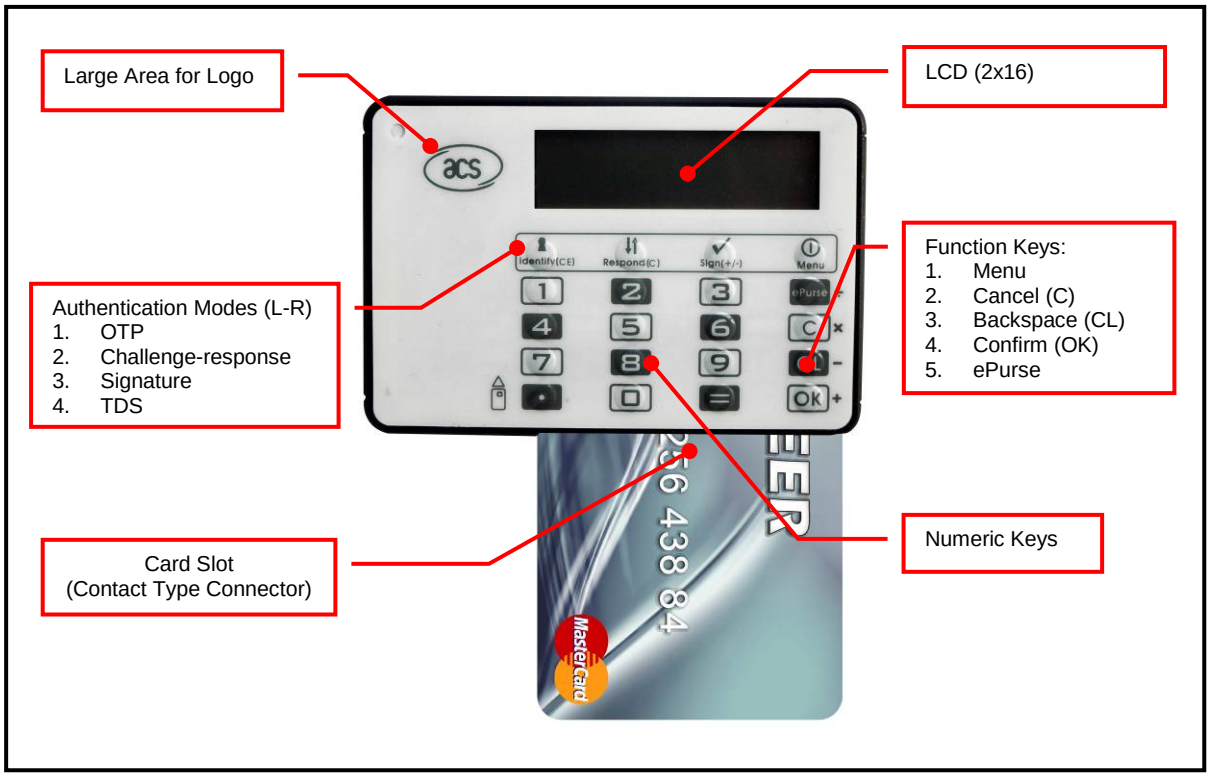

Figure 1: APG8205 Features

2.2. Using the function keys

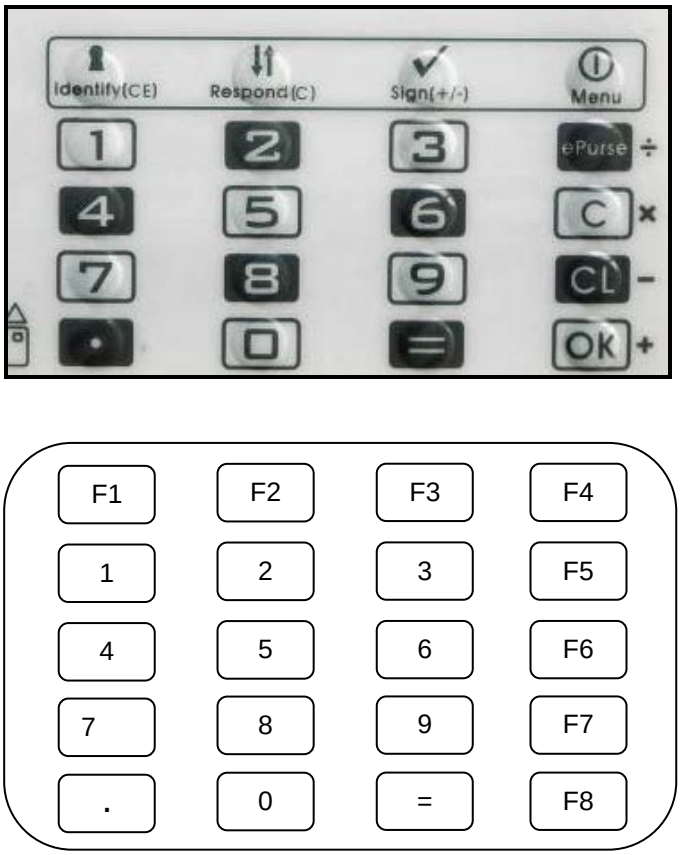

Figure 2: APG8205 Function Keys

Key	Normal Mode	Calculator Mode
F1	Hot Key for Identify	Clear
F2	Hot Key for Respond	Cancel
F3	Hot Key for Sign	+/-
F4	Press: Function Select Hold: Power: On/Off	Exit Calculator function
F5	Cancel	Add (+)
F6	Clear	Subtract (-)
F7	Enter	Multiply (x)
F8	e-Purse	Divide (/)

Table 1: Function Keys Description

2.3. Inserting the battery

1. Unscrew and open the battery cover at the back of the device.

2. Insert the two CR2016 batteries into the compartment.

   Note: *Make sure the batteries are facing in the right direction.*

3.0. Four Authentication Modes of APG8205

APG8205 has four authentication modes, respectively the **Identify, Respond, Sign** and **Advanced Sign** modes. During real transaction, cardholder selects the mode to be executed, which is usually instructed by the authentication form on the Internet. (e.g., '*Insert your payment card and select the Identify mode on your personal card reader to log on your bank account'*).

- **Identify mode** - This mode can be used where one-time passwords are required. No challenge, amount, or currency data is needed when using the APG8205. It may be used to generate the one-time password for e-banking login.
- **Sign mode** - This mode provides a cardholder authentication function. It requires the cardholder to input a challenge value (a set of decimal number of up to eight digits, usually provided by the Online authentication form), and, depending on the configuration of the card in use, the transaction amount and/or currency. It allows issuers to have the option to sign a challenge value for services that involve amount and currency, like in an e-commerce application.
- **Respond mode** - This mode can be used to implement challenge-response authentication. This mode functions in exactly the same way as Sign mode, but it doesn't require the input of currency and amount values. It allows issuers to have the option to sign a challenge value for services that do not involve amount and currency. For example, logging in an online banking account.
- **Advanced Sign mode** - This mode connects the CAP token more closely with a specific transaction and can be used for signing a particular payment. It requires the cardholder to input the transaction data (e.g., the account number of person you are paying) into the card reader, which may be supplied to the cardholder on the Internet authentication form, or by the cardholder on the submitted form. The purpose of this mode is to obtain explicit cardholder approval of the transaction data.

4.0. Problem Reporting Instructions

If you have problems concerning this manual or product, please send your query to: info@acs.com.hk.