6VH9KDC500

SLED-mPOS User Manual
Rev 1.0
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TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO ANY TYPE OF MOISTURE. DO NOT LOOK DIRECTLY INTO LASER OR POINT THE LASER INTO ANOTHER PERSON'S EYES. EXPOSURE TO THE BEAM MAY CAUSE EYE DAMAGE.

CAUTION:

Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

Product Disposal

This device should not be placed in municipal waste. Please check local regulations for disposal of electronic products.

1. Introduction

EMV/Chip&PIN/MSR/NFC Mobile POS Companion

The PCI compliant EMV/MSR/NFC SmartSled® design provides a secure and convenient user payment transaction. Chip-and-PIN payment solutions are becoming the global industry standard and as a result, KOAMTAC has developed the most advanced mobile payment companion. Being that it has a traditional magnetic stripe reader, as well as the newly implemented EMV functionality, the Mobile POS Companion allows businesses to take payments with existing swipe cards, as well as support those implementing the newly adopted EMV systems without changing of solutions.

To find out more about KOAMTAC, Inc. and our family of products, visit us at www.KOAMTAC.com.

1.1 Specification

Main Processor	120MHz ARM Cortex-M4
Memory	1M program flash, 128KB RAM, 32-byte secure key storage, 8MB user data flash
Display	128x64 monochrome
Keypad	Secure Touch Pinpad(15 buttons). '0 to '9', Up/Fn, Down/Menu, Cancel, Clear and Enter
Mag-Stripe Reader	Track 1/2/3, Bi-directional, ISO 7810, 7811, 7813
Smart Card Reader	EMV L1 and L2, SAM

Contactless and NFC (NXP PN5180)	Antenna : FPCB Type 2-Turn Loop Antenna with Ferrite Sheet
	Frequency : 13.56MHz
	PN5180 -> Card (Tx) : 100% ASK (Amplitude Shift Keying)
	       Bit Encoding : Modified Miller Encoding
	Card -> PN5180 (Rx) : Subcarrier Load Modulation
	       Bit Encoding :
	       106kBaud ->Manchester Encoding
	       212kBaud ->BPSK (Binary Phase Shift Keying)
	       424KBaud->BPSK (Binary Phase Shift Keying)
	ISO 14443, MIFARE, Felica, MasterCard PayPass, Visa PayWave

Security	PCI PTS V5.x
Encryption	For PIN : T-DES(128-bit) For Card data : T-DES(128-bit), AES(128-bit)
Key Management	DUKPT
Key Injection	Key Loader
OS compatibility	All major OS
Interfaces	USB to Serial (Micro USB port)
Dimensions	65.1cm x 105.0cm x 10.1cm 25.63″ x 41.34″ x 3.98″
Weight	74.5g(2.63 oz)
Drop Spec	5 feet (1.5M)
Operating Temperature	32˚F (0˚C) ~ 122˚F (50˚C)
Humidity	5% ~ 95% (noncondensing)

1.2 Package

The standard SLED-mPOS package contains:

1. One SLED-mPOS

2. USB Cable

   ● 5pin Micro USB cable

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1.3 Characteristics

Before starting to use the SLED-mPOS, the user should become familiar with its physical characteristics. Refer to the follow figure that indicate the placement of Secure Touch Pinpad, OLED display, LED, NFC Reader, Magnetic-Stripe Card Reader, IC Card Reader and ports on the KDC.

NFC Reader

OLED Display

IC Card Reader

Secure Touch Pinpad

Magnetic-Stripe Card Reader

Figure 1 – SLED-mPOS Overview

1.4 Secure Touch Pinpad

(Menu/Down button)	While in the SLED-mPOS menu, press this button to scroll down the selection bar. While on the main screen, press this button for 5 seconds then the SLED-mPOS will enter the SLED-mPOS menu mode.
(FN/Up button)	While in the SLED-mPOS menu, press this button to scroll up the selection bar. While the SLED-mPOS waits for Alpha-Numeric key entry, this button allows the user to switch between ABC and number input mode.
(Number button)	Input numbers or characters
(Enter button)	Press to finish data input.
(Delete button)	Press to delete the last character or number input.
(Cancel button)	Press to cancel data input.

2. Operating your SLED-mPOS

2.1 Basics

Read NFC Tag (MIFARE)

1. The host application sends a command to enable the NFC Reader.

2. Touch NFC tag to the NFC antenna symbol on the front case, and make sure the tag and case are within 4cm of each other.

3. The SLED-mPOS will send the NFC tag UID to the host application and the user will hear a short beep if it has been read successfully.

Read Magnetic-Stripe Card

1. The host application sends a command to enable the MS Card Reader.

2. Swipe MS Card either top to bottom or bottom to top. Make sure the magnetic stripe of the card face to the SLED-mPOS.

3. The SLED-mPOS will send the MS card data to the host application and the user will hear a short beep if it has been read successfully.

Read IC Card

1. The host application sends a command to enable the IC Card Reader.

2. Insert IC Card to the IC Card Reader located in the left side of SLED-mPOS. Make sure the IC of the card face to up.

3. The SLED-mPOS will send the IC card data to the host application.

3. Warranty

LIMITED WARRANTY AND DISCLAIMERS

BY OPENING THE PACKAGE OF THIS PRODUCT YOU AGREE TO BECOME BOUND BY THE LIABILITY AND WARRANTY CONDITIONS AS DESCRIBED BELOW.

UNDER ALL CIRCUMSTANCES, THIS MANUAL SHOULD BE READ ATTENTIVELY, BEFORE INSTALLING AND OR USING THE PRODUCT.

Serial Number

A serial number appears on the SLED-mPOS label. This official registration number is strictly related to the device purchased. Make sure that the serial number appearing on your SLED-mPOS is not removed. Removing the serial number will affect the warranty conditions and liability disadvantageously, so please maintain the label with serial number on the SLED-mPOS. Units with the serial number label removed should not be operated.

Warranty/Warranty Period/Liability

KOAMTAC, Inc. ("KOAMTAC") manufactures its hardware products in accordance with industry-standard practices. Unless otherwise agreed in a contract, SLED-mPOS is warranted for a period of one year after purchase, covering defects in material and workmanship except rechargeable battery. KOAMTAC will repair or, at its opinion, replace products that prove to be defective in material or workmanship under proper use during the warranty period. KOAMTAC will not be liable in cases (i) in which the unit has been repaired or altered unless done or approved by KOAMTAC, (ii) in which the unit has not been maintained in accordance with any operating or handling instructions supplied by KOAMTAC, (iii) in which the unit has been subjected to unusual physical or electrical stress, misuse, abuse, power shortage, negligence or accident or (iv) in which the unit has been used other than in accordance with the product operating and handling instructions. Preventive maintenance is the responsibility of the customer and is not covered under this warranty. Under no circumstance will KOAMTAC be liable for any direct, indirect, consequential or incidental damages arising out of use or inability to use either the hardware or software, even if KOAMTAC has been informed about the possibility of such damages.

Warranty Coverage and Procedure

During the warranty period, KOAMTAC will repair or replace defective products returned to KOAMTAC warehouse. International customers should contact the local KOAMTAC office or support center. If warranty service is required, KOAMTAC will issue a Return Material Authorization Number. Products must be shipped in the original or comparable package, shipping and insurance charges prepaid. KOAMTAC will ship the repaired or replacement product freight and insurance prepaid. Customer accepts full responsibility for its software and data including the appropriate backup thereof. Repair or replacement of a product during warranty will not extend the original warranty term.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

4. FCC Statement

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user`s authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

5. Contact Information

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