

UniPay 1.5 User Manual

IDMR-AB83133 (Bottom-Mounted USB)

IDMR-AB83133S (Side-Mounted USB)



80131509-001

ID TECH 10721 Walker Street Cypress, CA 90630 (714) 761-6368

www.idtechproducts.com support@idtechproducts.com

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This device complies with Part 15 of the FCC Rules:

- 1. This device may not cause harmful interference, and
- 2. This device must accept any interference received, including interference that may cause undesired operation of the device.

Cautions and Warnings

	Caution: Danger of Explosion if battery is incorrectly charged. Use only standard USB 5V power source. Device contains a lithium battery. Approved temperature range for storage: -20°C to +60°C. Disposal: Contact your local recycling center.	
4	Warning: Avoid close proximity to radio transmitters, which may reduce the capabilities of the reader.	

Introduction

UniPay 1.5 is a compact mobile-device card reader designed to allow magnetic stripe (MSR) card transactions and ICC (Chip) card transactions. The device's small form factor and audio jack interface make it ideal for mobile applications where magnetic stripe and/or smart card reading are required. As a mobile reader, UniPay 1.5 has the ability to work with Android as well as iOS (and Windows) phones and tablets. UniPay 1.5 is designed to be compatible with a wide range of third party payment applications, and the available ID TECH Universal SDK can be used for developing applications with UniPay 1.5.

Major Features of UniPay 1.5

- 3.5mm Extended Audio Headphone Jack communication (Please note: a version of UniPay 1.5 without audio jack is available; contact your vendor for details.)
- Rechargeable battery: the unit can operate without external power.
- iOS, Android and Windows platform support.
- MagStripe: ISO 7810/ISO 7811, Hi-Co+Lo-Co Magnetic, JIS1/JIS2.
- ICC: EMV Level 1 and EMV L2 approval. All L1 & L2 on the device.
- LED status indicator.
- Micro USB (for charging purposes and communication) with choice of bottom mounted location or side mounted location.
- Bi-directional MSR that reads up to 3 tracks of data.
- Low power consumption when reader is in standby mode.
- Compact and ergonomic design to integrate with a variety of mobile devices.
- TDES and AES 128 encrypted MSR and ICC contact reader with DUKPT key management.
- Visa Ready

Magnetic Stripe Features

- ISO 7810 / ISO 7811
- AAMVA format
- JIS I / II
- Single / Dual / Triple Track Support
- Bi-directional reading
- Samsung Pay MST

ICC Contact Card Features

• EMVCo Contact Level 1 & 2

Encryption Settings

UniPay 1.5 supports TDES and AES 128 encryption with DUKPT key management. The default security encryption setting for UniPay 1.5 is:

- MSR encryption: "ON"
- EMV encryption: "OFF"

For instructions on modifying security encryption settings, please contact ID TECH customer support.

Before You Start Using UniPay 1.5

UniPay 1.5 is a mobile device for reading magnetic-stripe cards and ICC ("chip") cards. In each shipment, you will receive a reader with a stability clip attached. The stability clip can be removed by sliding it horizontally away from the audio jack.

UniPay 1.5 is designed to operate in conjunction with certified third party payment software and compatible host devices such as audio-jack and or USB equipped tablets and smartphones (host device). Before you connect the UniPay 1.5 to the host device, install and activate the software application according to the instructions provided by your payment application service and software provider, then connect the UniPay 1.5 to the mobile device through the audio jack or through a micro-USB cable (not included) and be ready to enjoy the convenience of mobile payment processing offered by the UniPay 1.5.

For optimal performance, set the headphone volume to its maximum.

Battery Charging Instructions

UniPay 1.5 is powered by a Lithium Ion Polymer Battery and is delivered in a partially charged state. You should fully charge it before using it for the first time. Allow 2.5 hours for the initial charge.

To charge the unit: Use a USB to micro-USB cable (not included) to charge the unit from any standard USB-equipped device. Note: The charging port is located on the side or bottom of the unit. If you have the version with the bottom communication/charging port, the stability clip needs to be removed before charging.

LED Status When Charging the Battery

When the LED begins to flash green and amber, the unit is in a "low battery state" state and needs to be charged. LED status while charging:

- Flashing green and amber: Battery low (charge the battery).
- Solid amber: Battery is charging.
- Solid green: Battery is full (stop charging). □

LED Status for Transactions and Operation

- ICC processing: Flashes amber during transaction, do not remove card.
- ICC processing successful: Solid green (2 seconds); remove card.
- Magnetic stripe read successful: Solid green (2 seconds).
- Magnetic stripe read failed: Solid red (2 seconds).
- Sleep Mode: All LEDs are off.

Operation and Storage Environment

Item	Specification	Note
Operating	0 °C to 55 °C	1. Non-condensing.
Temperature		2. Product operation temperature is limited to this range due to constraints of

		Li-Battery specification.
Storage Temperature	-20 °C to 60 °C	1. Non-condensing.
		2. Product storage temperature is limited to this range due to constraints of Li-Battery specification.
Operating Humidity	5% to 95%	Non-condensing.
Storage Humidity	5% to 95%	Non-condensing.

FCC Regulatory Compliance

Notices: Class B Equipment

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 provide reasonable protection against harmful interference in a residential 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. This device complies with part 15 of the FCC rules. Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

If this equipment does cause harmful interference to radio or 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:

- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV/phone technician for help.
- Changes or modifications to the UniPay 1.5 not expressly approved by ID TECH could void the user's authority to operate the UniPay 1.5.

Other Agency Approvals and Compliances

- CE (EN55022/EN55024, Class- B)
- FCC (Part 15, Class-B)
- RoHS (DIRECTIVE 2011/65/EU)
- UL
- REACH
- EMV Contact L1&L2
- TQM

For Software Developers: Software Development Support

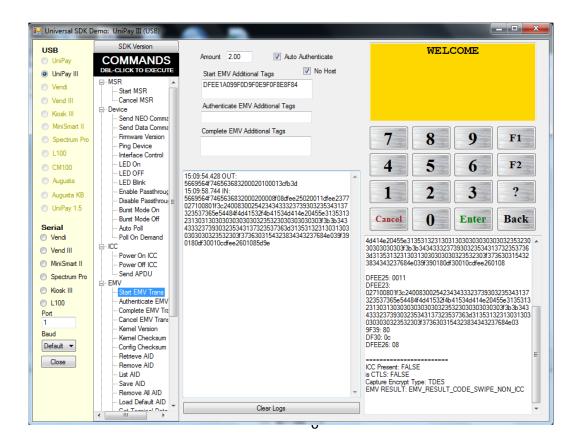
UniPay 1.5 is designed to be compatible with a wide range of third party payment applications. ID TECH offers a Universal SDK (available for iOS, Android, or Windows) to enable rapid application development using UniPay 1.5 as the target device. The languages supported include Objective C (on iOS), Java (on Android), and C# (on Windows). The Universal SDK includes rich, powerful libraries that make communication with UniPay 1.5 comparatively easy while greatly facilitating debugging.

Normally, development of applications that take advantage of UniPay 1.5's capabilities can be done in a high-level language like Java or C# (using the SDK's many convenience objects and data structures), obviating the need to send hex-code commands directly via USB-HID. Nevertheless, if you need to communicate with the device directly via audio jack or via USB-HID, it is possible to do so. For a command reference for UniPay 1.5, consult the *NEO Interface Developers Guide* (IDG), P/N 80139403-001. UniPay-specific commands that aren't documented in the NEO IDG can be found in a separate document, the *UniPay III & UniPay 1.5 Low Level Command API*. The latter document includes not only low level commands but error codes, response codes, and information on various default settings.

Demo App

The Universal SDK comes with a rich, fully featured demo app. Complete source code for the demo app is included with the SDK.

To use the demo app: On Windows, plug the UniPay 1.5 into the host using a USB-to-micro-USB cable (not included), then double-click the *UniversalSDKDemo.exe* file and allow a few seconds for the main window to appear (see illustration below).



The Demo App displays UniPay 1.5's available commands in a command tree, as shown above. Single-click on a command to populate the center panel of the window with optional settings relevant to the command (e.g., "Amount" and "Start EMV Additional Tags," above). In some cases, text fields will appear, allowing you to enter custom values. When you are ready to execute the command in question, double-click it in the command tree. The command executes in real time and a data trace appears automatically in the center and/or right-hand panels. (Use the Clear Logs button to clear both panels.)