# VP3300

# (Bluetooth)

# User Manual



## IDMR-BT93133W

Rev. A

**Warranty Disclaimer**

**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℃ to +60℃. Disposal: Contact your local recycling center. |
|  | **Warning:** Avoid close proximity to radio transmitters, which may reduce the capabilities of the reader. |

# Introduction

VP3300 is a compact, Bluetooth-based 3-in-1 EMV card reader designed to allow magnetic stripe reads (MSR), ICC (chip card) reads, and contactless transactions (via NFC technology).

The device's small form factor and Bluetooth interface make it ideal for mobile applications where magnetic stripe and/or smart card reading are required. As a mobile reader, VP3300 has the ability to work in conjunction with Android as well as iOS (and Windows) phones and tablets. VP3300 is designed to be compatible with a wide range of third party payment applications, and the available ID TECH Universal SDK (described further below in the section called For Software Developers) can be used for developing applications that communicate with VP3300.

Contact your acquirer, gateway, or POS partner for instructions on set-up and pairing of the VP3300 to a compatible payment application and associated host device.

# Major Features of VP3300
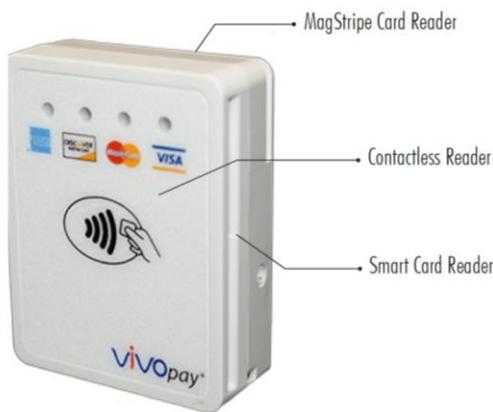


- Communicates via Bluetooth BLE (Bluetooth Low Energy).
- Supports Apple iOS, Android, and Windows platforms.
- Rechargeable battery, no external power necessary.
- MagStripe: ISO 7810/ISO 7811, Hi-Co+Lo-Co Magnetic, JIS1/JIS2.
- ICC: EMV Level 1 and EMV L2 approval.
- Front-facing contactless transaction support via Near Field Communication (NFC).
- LED status indicator.
- Audio feedback.
- Micro USB (for battery charging and communication).
- Field upgradable firmware.
- Bi-directional 3 track magnetic stripe reader.
- Low power consumption when reader is in standby mode.
- Compact and ergonomic design to integrate with a variety of mobile devices.
- Supports Triple DES and AES encryption, 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 compatible

## ICC Contact Card Features

- EMVCo Contact Level 1 & 2 certified

## Contactless NFC Features

- ISO 14443 Type A&B
- ISO 18092 (P2P)
- MasterCard® MCL (Formerly PayPass)
- Visa payWave/VCPS
- Visa IRWIN
- Discover® DPAS
- American Express® ExpressPay
- MIFARE
- Apple Pay
- Samsung Pay NFC
- Android Pay
- Google Wallet / Smart Tap

## Before You Start Using VP3300

VP3300 is a mobile device for reading magnetic-stripe cards and ICC ("chip") cards. VP3300 is designed to operate in conjunction with certified third party payment software and compatible host devices such as Bluetooth and or USB equipped tablets and smartphones (host device). Before you connect the VP3300 to the host device, install and activate the software application service according to the instructions provided by your payment application service and software provider, then connect the VP3300 to the mobile device through the Bluetooth or through a micro-USB cable (not included) and be ready to enjoy the convenience of mobile payment processing offered by the VP3300.

## Battery Charging Instructions

VP3300 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 4-6 hours for the initial charge.

To charge the unit: Use a USB to micro-USB cable (not included) to charge the unit. A LED battery indicator displays current battery charging status.

## LED Display for Power Management (Bottom LED)

- The bottom LED (closest to bottom edge of unit; furthest from the ID TECH logo) displays solid red: Battery is charging.

## Battery Low indication (Center LED)

- The LED flashes amber and green: Battery power is low. Charge the battery or connect the VP3300 to a power source. (The VP3300 remains fully functional when connected to a power source.)
- The LED stops flashing when connected to a power source: Battery is full.

## Bluetooth Pairing/Connection (Top LED)

- Enable the Bluetooth device search function on your mobile host device (smart phone or tablet).
- Make sure the VP3300 is charged or connected to a power source via USB.
- If connected to a power source, VP3300 will automatically activate Bluetooth. When not connected to a power source, press down on the VP3300's Bluetooth function button to activate Bluetooth. The button is located on the side of the case, near the ICC slot.



- When using ID TECH USDK / Demo software, select **VP3300 Bluetooth** to initiate communication. If using a 3$^{rd}$ party software, please follow the instruction provided by the software developer.
- For connection to an iOS device, please follow the software provider's instructions after you have installed compatible payment software.
- Follow the instructions for your compatible payment software to perform a payment transaction.
- VP3300 will stay connected to the host indefinitely (via Bluetooth) if powered via the USB cable. If the unit is operating on battery power, it will go to sleep after 20 seconds of idling, to extend battery life. To perform a transaction again, simply press down on the Bluetooth function button to re-establish the Bluetooth connection.

## LED Display for Bluetooth Status (Top LED)

- The Bluetooth LED is off: Bluetooth is in sleep mode.
- The LED flashes at normal duration speed: Bluetooth is on stand-by.
- The LED flashes at short duration speed: The Bluetooth is paired and connected.

## LED Display During Transactions and Operation (Center LED)

- ICC processing: The payment host displays status during transaction; do not remove card until the display shows the transaction has been completed (Flashes Amber).
- ICC process successful: Host display shows the transaction successful; please remove card (Solids Green for two seconds.).
- Magnetic stripe read successful: Host display shows the transaction successful(Solids Green for two seconds.).
- Magnetic stripe read failed: Host display shows the transaction failed; please swipe card again(Solids Red for two seconds.)..
- Contactless read successful: Host display shows the transactions successful. All 4 LEDs on top of the front of the unit flash green simultaneously.

## Operation and Storage: Environmental Limits

| Item | Specification | Note |
|---|---|---|
| Operating Temperature | 0 °C to 55 °C<br><br>or<br><br>32°F to 131°F | 1. Non-condensing.<br><br>2. Product operation temperature is limited to this range due to constraints of the Li-Battery specification. |
| Storage Temperature | -20 °C to 60 °C<br><br>or<br><br>-4°F to 140°F | 1. Non-condensing.<br><br>2. Product storage temperature is limited to this range due to constraints of the Li-Battery specification. |
| Operating Humidity | Up to 95% | Non-condensing. |
| Storage Humidity | Up 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 manufacturer's 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:

- Reorient or relocate the receiving antenna.
- 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 technician for help.
- Changes or modifications to the VP3300 not expressly approved by ID TECH could void the user's authority to operate the VP3300.

## 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
- EMV Contactless L1
- TQM

## For Software Developers: Software Development Support

By virtue of its EMV L2 kernel, VP3300 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 VP3300 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 sending commands to VP3300 comparatively easy while greatly facilitating debugging and event handling.

To obtain the Universal SDK free of charge, visit ID TECH's Knowledge Base at https://atlassian.idtechproducts.com/confluence/display/KB/Unipay+III+-+downloads and download the UniPay III SDK. (UniPay III and VP3300 share the same NEO firmware and use the same SDK commands.)

Normally, development of applications that take advantage of VP3300's capabilities can be done in a high-level language like C# (using convenience objects and data structures defined in the Universal SDK), obviating the need to send byte commands directly via USB-HID. Nevertheless, if you need to communicate with the device at a low level via USB-HID, it is possible to do so. For a command reference for VP3300, request the *NEO Interface Developers Guide* (IDG), P/N 80139403-001. This document includes not only low level (firmware) 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 that allows you to use the VP3300 in USB mode. (You can use the link shown above to download the USDK Demo App as a standalone executable, separate from the SDK. The full SDK need not be installed in order for you to use the demo app.)

To use the demo app: On Windows, plug the VP3300 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.

The Demo App displays VP3300's available interfaces (VP3300 USB and Bluetooth, choose USB when using a USB cable to connect to the host, or VP3300 Bluetooth if using Bluetooth as communication interface with the host) and 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 (or use the Execute Command button at the bottom). 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.)

**For More Information**

To learn more about VP3300 and other ID TECH products, be sure to visit the Knowledge Base at:
https://atlassian.idtechproducts.com/confluence/display/KB/Knowledge+Base+-+Home.

To learn more about EMV app development with the Universal SDK, read EMV Transactions with Universal SDK.pdf.

Also be sure to check out the Universal Demo QuickStart Guide RevA.pdf.

Visit us online at http://idtechproducts.com.

Find more Tech Support resources at http://www.idtechproducts.com/contact/tech-support.