VP3300 OEM User Manual

80149509-002 Rev. C

Copyright

Warranty Disclaimer

FCC Regulatory Compliance

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.

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:

- 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 OEM not expressly approved by ID TECH could void the user's authority to operate the device.

Cautions and Warnings

	Warning: Avoid close proximity to radio transmitters, which may reduce the capabilities of the reader.

Introduction

VP3300 OEM is ID TECH's ultra-compact, EMV L1/L2-certified 3-way (MSR, contact EMV, and contactless) card reader, based on the VP3300-series design, but with card-reader componentry externalized to allow custom placement of card slots within a customer-designed chassis.

The VP3300 OEM is built for low cost, high reliability, and maximum compatibility with existing contactless payment technologies (including Apple Pay, Android Pay, and Samsung Pay).

The VP3300 OEM incorporates the proven EMV L2 kernel of ID TECH's popular UniPay III card reader. Developers can integrate VP4880 OEM into terminal systems with minimal effort using ID TECH's Universal SDK, available for Windows, Android, or iOS.

Major Features of VP3300 OEM

- Micro-USB port for communications and power.
- Magnetic stripe support: ISO 7810/ISO 7811, Hi-Co+Lo-Co Magnetic, JIS1/JIS2.
- MSR is bidirectional, reading up to 3 tracks of data at once.
- ICC support: EMV Level 1 and EMV L2 approvals. All L1 & L2 on the device.
- Contactless transaction support via Near Field Communication (NFC).
- LED status indicator.
- Audio feedback.
- Field upgradable firmware.
- Standby mode for low power consumption.
- Compact and ergonomic design to integrate with a variety of devices.
- Available with a sturdy stand, for tabletop use.
- TDES and AES 128 encryption support.
- DUKPT key management.
- Software Development Kits for Windows, Android, iOS.
- One-year manufacturer's warranty.

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 compliant

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
- Apple VAS Loyalty
- Samsung Pay NFC and MST
- Android Pay
- Google SmartTap Loyalty

Before You Start Using VP3300 OEM

The VP3300 OEM is designed to operate in conjunction with certified third party payment software and compatible hosts, such as USB-equipped tablets, PCs, and smartphones. Before you connect VP3300 to a host, install and activate the host software application according to the instructions provided by your payment application service or software provider, then connect the VP3300 OEM (or device containing the VP3300 OEM) to the host through a micro-USB cable (not included).

LED Status and Audible Beeper During Transactions and Operation

Device Status	4 LED's	Audible Beeper
Run Mode	Left LED Flash 300ms on/5s off	
Contactless Read Successful	All 4 LEDs flash Once	1 longer beep
Contactless Read Failed		2 short beeps
ICC is being Processed	Left LED flashes: 500ms on/off, DO NOT remove card	
Magnetic Stripe Read Successful	All 4 LEDs flash Once	1 longer beep
Magnetic Stripe Read Failed		2 short beeps

Physical Specifications

No.	Item	Specification
1	Physical Dimensions (antenna enclosure)	64mm x 49mm x 14.5mm(LxWxH)
2	Structure Material	Plastic, PC UL 94V-0
4	Texture	MT11010
5	Weight	50g

Operation and Storage Environment

Item	Specification	Note
Operating Temperature	0 °C to 55 °C	Non-condensing
Storage Temperature	-20 °C to 60 °C	Non-condensing

Operating Humidity	5% to 95%	Non-condensing
Storage Humidity	5% to 95%	Non-condensing

Other Agency Approvals and Compliances
- CE (EN55022/EN55024, Class- B)
- FCC (Part 15, Class-B)
- RoHS (DIRECTIVE 2011/65/EU)
- REACH
- EMV Contact L1&L2
- EMV Contactless L1
- TQM

For Software Developers: Software Development Support
VP3300 devices, including the VP3300 OEM, are 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 with any model of 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 communication with VP3300 OEM comparatively easy while greatly facilitating debugging.

Normally, development of applications that take advantage of VP3300 OEM capabilities can be done in a high-level language like Java or C# (using convenience objects and data structures), obviating the need to send hex-code commands directly via USB-HID.
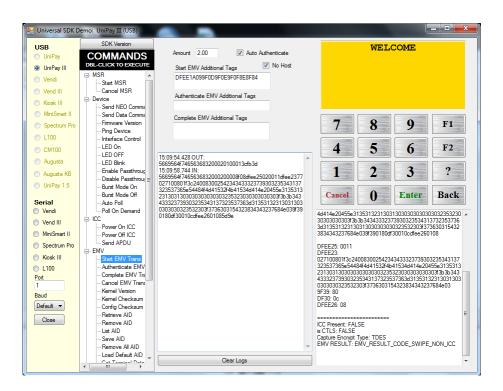
Nevertheless, if you need to communicate with the device via audio jack or via USB-HID, it is possible to do so. For a command reference for VP3300-series products, consult the *NEO Interface Developers Guide* (IDG), P/N 80139403-001.

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 your VP3300 OEM 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 further below).

The Demo App displays 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.)

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Revision History

Revision	Date	Description of Changes	By
A	11/8/2016	Initial release	KT
B	12/12/2016	-Removed all mentions of a battery -Some layout edits	G. Wu
C	8/16/2017	Update product naming	KT