VTAP100 PRO NFC reader - compact case, USB, Wi-Fi

The VTAP100 PRO from Dot Origin is a contactless reader for mobile phone passes, as well as popular RFID cards and tags. The VTAP100 PRO retrieves NFC wallet passes from iPhone and Android devices with a simple tap, then decrypts and transfers pass data to other local or remote systems, via USB, Bluetooth and/or Wi-Fi. You can use the VTAP Cloud online service to configure the VTAP100 PRO reader and route tap data to another system in real time, such as a membership, loyalty or ticketing platform. Stand-alone or hybrid connectivity options also possible.

The VTAP100 reader can be used in many environments, including retail loyalty, cashless payment, gym check-in, and sports ticketing. The VTAP100 remains logically separate from any payment mechanism. This simplifies data and security considerations, and the human interaction. It does not support EMV payments, but can be used for stored value and points redemption applications.

VTAP100 has been designed to support a smooth transition from plastic to mobile NFC passes so, alongside mobile passes, the VTAP100 will also read popular contactless RFID or NFC smartcards and tags, to support mixed-use applications. It is fully certified by both Apple and Google to work with their respective VAS and Smart Tap protocols, supporting automatic pass selection on iOS, as well as on-board decryption.

A USB connection from any PC is used to configure the VTAP100, by editing simple text files. Keys can be easily updated but cannot be extracted from the device. The configuration can be locked, so that the device is password protected or read-only in general use.

Any VTAP100 can output pass data over USB in the same way as a mag-stripe, barcode or QR code scanner. This can be via a keyboard emulation or over a serial interface, whichmakes it possible to add the VTAP100 to existing systems without software changes, to update an established card or ticket experience, to one where passes are wholly electronic. What makes the VTAP100 PRO particularly powerful is that this reader additionally connects to local power and a Wi-Fi network. The VTAP100 PRO sends tap data to the VTAP Cloud platform, which routes the data to the chosen third-party system in real time. Responses can also be routed back to the reader, to control LEDs, buzzer and the optional expansion I/O box, for access control applications.

The VTAP100-PRO is supplied in a compact desktop case with a captive USB cable. We can supply customised front labels for a small additional fee, typically for orders of 100 or more units.

This is all you need to get started with mobile NFC pass reading, as it includes access to create demonstration mobile passes, so that you can test your application. For production purposes you will need to use a third-party pass provider, or integrate directly with Apple and Google.

Includes a **free** license for Dot Origin's popular Read-a-Card software on request - ideal for customers wanting to integrate with web or desktop applications without using keyboard emulation.

Other versions of VTAP100 are available, for example the VTAP100-PAC-W has a Wiegand interface for access control and turnstiles, and the VTAP100-OEM is a pre-certified PCB module available to integrators, providing both USB and RS-232 serial connectivity. Please contact us to discuss availability of these options.

Mobile NFC pass reader, USB & Wi-Fi connected, with VTAP Cloud service. Compatible with Apple VAS and Google Pay Smart Tap, neatly presented in a compact case that can be installed horizontally or vertically, indoors or outdoors.

To buy, visit:
https://www.smartcardfocus.com/shop/ilp/id~981/p/index.shtml

This Product Briefing has been produced by Dot Origin Ltd, the smart card experts behind SmartcardFocus.com. If you have a query email sales@smartcardfocus.com or call us on +44 (0)1428 685250.

Technical Specifications

Physical characteristics

Dimensions: 97mm x 49mm x 40mm (3.8in x 1.9in x 1.6in)

Front label: Customisable - 41mm x 57mm (1.61in x 2.24in)

Power Supply: Requires standard 5V USB port or power adapter

Mounting options: Can be securely counter- or wall-mounted; 2 x mounting holes in base plate

Weight: 130g (4.6oz) including cable

Operating Temperature: -25 to +70°C (-13 to 158°F)

Operating Humidity: 0 to 95% RH non-condensing

NFC Interface

Frequency/standards: 13.56MHz, ISO 14443A/B, ISO 15693 and ISO 18092

Antenna(s): Integrated 40mm (1.57in) square antenna

Read range: Typically 25mm (1in) depending on environment and phone/card/tag antenna

Mobile wallet compatibility:

- Apple Wallet NFC passes (VAS for loyalty/membership/ticketing plus ECP2.0 for Apple Access)
- Google Wallet NFC passes (Smart Tap, extensible, including generic private passes)
- Pass auto-selection, including full ECP1, ECP2 and Express Mode compliance
- Mobile device type detection and inclusion
- Multiple simultaneous pass IDs
- ECC key auto-select
- Apple enrolment URL and Google STUID capture, where supported

Card/tag compatibility:

- MIFARE Ultralight, MIFARE Classic, MIFARE DESFire, ICODE, NFC Forum Types 2,4,5;
- UID/CSN reading as standard on all card types;
- Secure data reading on MIFARE Classic and MIFARE DESFire;
- NDEF record reading on Type 2 & 4 (Ultralight/NTAG and DESFire/HCE)

Other NFC modes: Dynamic tag emulation (text, URI, raw data) with smart write-back

Pass IDs: Up to 6 x Apple merchant IDs and 6 x Google collector IDs, if supported

Encryption key slots: 6 x ECC key slots (for Apple & Google merchant IDs); 6 x Application key slots (DES or AES)

USB interface

USB device types (can enable/disable as required):

- USB Mass storage (for easy configuration, key loading & firmware updates);
- Human interface device(standard barcode reader/keyboard emulation);
- USB Virtual COM port (includes active, passive and file transfer modes)

Bluetooth interface

Connectivity: 2.4GHz Bluetooth 4.2 and BLE - cloud/local mode, HID BLE keyboard, HID classic host, dynamic BLE beacon. Supported on Windows, Linux, OSX, Android and iOS

Cloud connectivity and features

Connectivity: IEEE 802.11 Wi-Fi - 2.4GHz, WPA to network/internet; Supports multiple SSIDs and local hot-spot mode for initial configuration

Configuration features: VTAP Cloud service enables secure remote configuration of Apple and Google pass parameters, plus Wi-Fi credentials for individual readers and fleets of readers.

Application features: Every tap transaction is routed to an external target application, which can be selected and configured on a per-reader or per-fleet basis, either from an expanding list of pre-made applications or customised to call your own API endpoint.

Other features

Operator feedback: Buzzer and LED provide both device status information (eg online/offline) and tap transaction feedback from target application (eg customised colour responses)

Input/Output options: Yes, via the optional VTAP100 PRO I/O Expansion Board

Compliance / Certification

Apple VAS, Google Smart Tap, UKCA, CE, FCC (in progress), RoHS

24-month limited hardware warranty

Manufacturer's part number: VTAP100-PRO-BW-CC

Manufacturer: Dot Origin