

**cVEND box / box+****Terminal for Contactless Payment & Ticketing**

- Designed for contactless open loop credit cards & closed loop public transport tickets
- Smart integration into various kiosk systems and vending machines
- Robust housing for applications in public areas
- Flexible secure Linux platform to develop own applications
- Low power standby mode for solar powered solutions
- PCI 5.1 and EMVCo approved



cVEND box is a member of the cVEND terminal family and brings contactless card reading, financial transaction processing and secure communications technologies together in a single, flexible product platform.

The cVEND box is designed for flat integration into various kiosk systems and vending machines. It's robust housing and the vending machine standard (EVA CVS) compliant dimension makes installation easy and makes cVEND box suitable for applications in public areas.

cVEND is PCI PTS and EMVCo approved and supports contactless payment cards from MasterCard, VISA, American Express, Discover and RuPay as well as closed loop cards like mifare, ITSO, VDV-KA, calypso and cipurse. Of course, mobile NFC wallets are supported for payment and ticketing.

The low power standby mode makes it also suited for solar and battery powered applications.

The cVEND specific secure Linux operating system together with an easy to use SDK and the cVEND Multi-Application architecture makes application development easy and fast.

Its innovative security concept with Crypto Plug-Ins supports symmetric and asymmetric encryption, key-derivation and remote key loading mechanisms and makes cVEND capable for E2EE solutions and all common secure payment protocols.

cVEND box is available in two versions:

- cVEND box
- cVEND box+ with high-contrast OLED display



## Smart Integration into Terminals and Parking-/Vending Machines

The robust payment terminal for integration in metallic environments.  
Intelligent Low Power Mode makes the cVEND the optimal solution for  
On-Street Parking applications, even for battery- or solar-powered machines.

Product Detail	cVEND box / box+
Dimensions (W x H x D)	110 mm x 142.5 mm x 40 mm (EVA CVS compliant)
Dimensions visible	86 mm x 108 mm x 15 mm
Housing	Plastic (Flammability UI94 V0)
Protection Class (Front Side)	IP 65
Impact Protection Class	IK 10
Vibration / Shock Proved	IEC 60068-2-6 / IEC 60068-2-27 class 5M3
Temperature Range	
Operation	-30 °C up to +70 °C ambient temperature
Storage	-30 °C up to +80 °C storage
Humidity	5% to 95% (non condensing)
Supply Voltage	12 - 42 V DC
Power Consumption (operation)	max. 8 W
Standby Mode	< 10 mW, full operation ≤ 2 sec after wake-up
Contactless Interface	<ul style="list-style-type: none"><li>- ISO/IEC 14443-A/-B, 13.56 MHz, NFC reader/writer mode</li><li>- JIS X 6319-4 (Sony Felica)</li><li>- Hardware enabled for NFC IP1 (P2P), NFC card emulation</li><li>- 106 kBit/s to 847 kBit/s supported</li></ul>
Supported Transponders	ISO/IEC 14443-4 compliant smart cards, NFC devices in card emulation mode (Tag Type 1, 2, 3, 4), mifare classic, mifare ultralight, mifare ultralight C, mifare DESFire family
Peripheral Interface	Ethernet, RS232 (V.24), USB 2.0 Host, USB 2.0 Device, MDB-slave
User Interface	6 LEDs (4 green, 1 yellow, 1 red); illuminated contactless payment logo; multiple frequency buzzer
Display (cVEND box+ only)	Graphical OLED display (yellow), 128 x 32 Pixel
CPU and Security	<p>Secure ARM 9 CPU with true random number generator and cryptographic hardware acceleration supports SHA, DES, AES</p> <ul style="list-style-type: none"><li>- RAM 128 MByte (256 Mbyte optional)</li><li>- FLASH 256 MByte (512 Mbyte optional)</li><li>- Real time clock - battery backed</li></ul>
Removal memory	µSD socket (SDIO/SD, V 2.0)
SAM Interface (ISO7816)	4 x SAM socket for Id000 format (SIM-card)
Operating System	<ul style="list-style-type: none"><li>- Secure LINUX with cVEND Multi-Application architecture</li><li>- Fail-safe update for OP-System and Application</li><li>- Crypto Plug-Ins to protect sensitive data</li><li>- Remote key loading</li></ul>
Payment Certifications	PCI PTS 5.1, SRED incl. Open protocol EMVCo Contactless Level 1, Version 2.6b
Certified Level 2 Kernels	American Express, Discover, MasterCard, VISA, RuPay qSPARC 2.0
Radio Approval	EN 300 330; FCC 47 CFR Part 15; IC RSS-Gen, RSS-210
EMC; Safety and Health	EN 301 489; EN 60950; EN 50364
Hazardous Substances	RoHS - 2011/65/EC



cVEND box  
Front view



cVEND box  
Rear view

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