cVEND box / box+

Terminal for Contactless Payment, Ticketing & Vending

cVEND box

cVEND box+

- Designed for contactless open loop credit cards & closed loop public transport tickets

- Smart integration into metallic kiosk systems and vending machines

- Robust housing for applications in public areas

- Flexible secure Linux platform to develop own applications

- EMVCo and PCI approved

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

It fulfills the latest functional and security related payment card industry standards and supports contactless MasterCard, VISA, American Express and Discover credit cards as well as closed loop application like mifare, ITSO, VDV-KA, calypso and cipurse.

It's innovative security concept supports symmetric and asymmetric encryption, key-derivation and remote key loading mechanisms and makes cVEND capable for P2PE solutions and PSP or regional proprietary security solutions like FirstData TransArmor, EP2 and other common payment protocols.

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

cVEND box is available in two versions:

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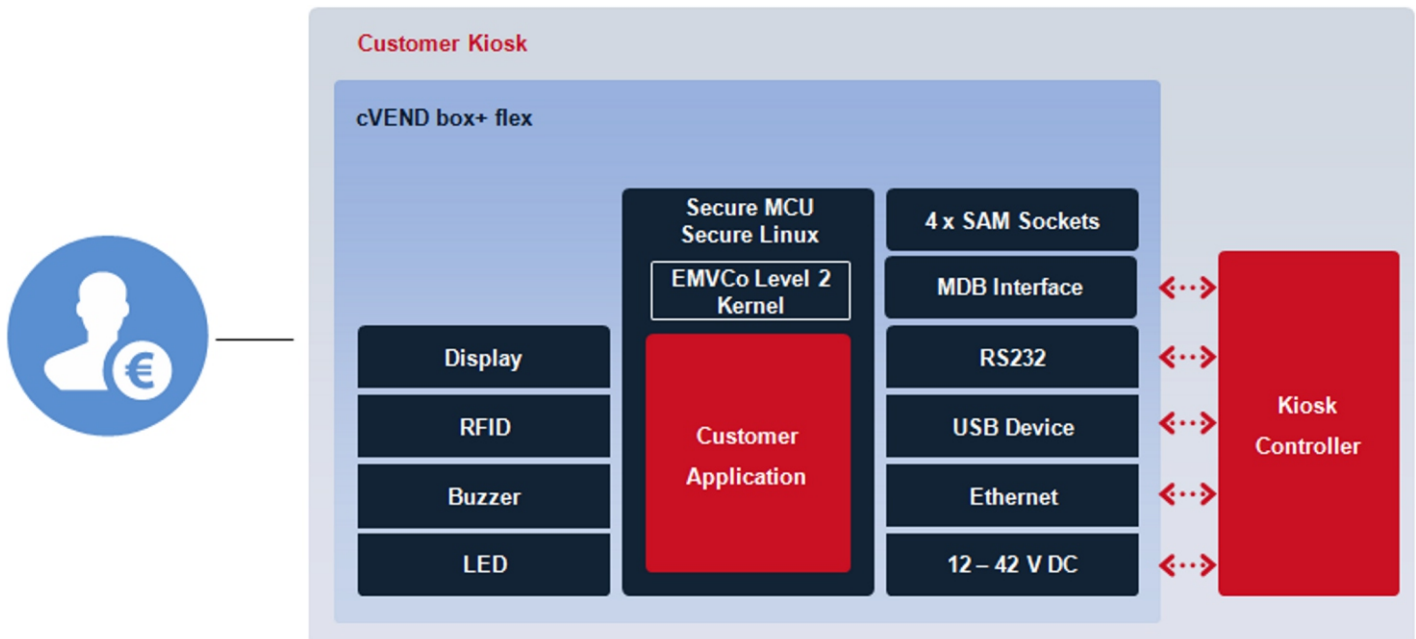- cVEND box+ with high-contrast OLED display

cVEND SDK

The cVEND terminal family is a flexible secure platform to develop own payment and closed loop software solutions. Due to the variety of interfaces and the open trusted SDK cVEND has the potential to become the core element of your terminal solution.

The cVEND SDK offers an easy to use API and gives full access to all hardware features and provides easy and secure application development. With the PCI approved security mechanisms and the Contactless Level 2 support fast payment transactions can be realized.

Functional range of cVEND

Technical Data cVEND box / cVEND 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 UL94 V0)
Protection Class (Front Side)	IP 65
Impact Protection Class	IK 10
Vibration / Shock Proved	IEC 60068-2-6 / IEC 60068-2-27
Ambient temperature range	- Operation: -30 °C up to +70 °C
	- Storage: -30 °C up to +80 °C
Humidity	5% to 95% (non condensing)
Supply voltage	12 - 42 V DC
Power consumption (operation)	max. 8 W
Standby Mode	< 35 mA, full operation after wake-up ≤ 1 sec.
Contactless Interface	ISO/IEC 14443-A/-B, 13.56 MHz, NFC reader/writer mode
	JIS X 6319-4 (Sony Felica)
	Hardware enabled for NFC IP1 (P2P), NFC card emulation
	106 kbit/s to 847 kbit/s supported
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, 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), multiple frequency
	Buzzer, illuminated Payment Logo,
Display (cVEND box+ only)	Graphical OLED Display (yellow) 128 x 32 Pixel
CPU and Security	Secure ARM 9 CPU (384 MHz) Tamper protected and
	side channel attack resistant, true random number
	generator, cryptographic hardware acceleration
	supports SHA, DES, AES
	RAM MByte 128 (256 MByte optional)
	FLASH MByte 256 (512 MByte optional)
	Real time clock - battery backed
Removal memory	µSD socket (SDIO/SD, V 2.0)
Battery	3V Lithium Battery, 540 mAh, Lifetime 10 years at 25 °C
SAM Interface (ISO7816)	4 x SAM socket for ID000 format (SIM-Card)

Compliance

Payment Certifications	
- PCI	PCI PTS 4.x, SRED incl. Open protocol
- EMVCo Level 1	EMVCo Contactless Level 1
- EMVCo Level 2	American Express Expresspay, Discover D-PAS,
	MasterCard contactless, VISA Paywave (MSD&qVSDC)
Radio Approval	- Europe: EN 300 330
	- USA. FCC 47 CFR Part 15
	- Canada: IC RSS-Gen, RSS-210
EMC	EN 301 489
Safety and Health	EN 60950, EN 50364
Hazardous Substances	RoHS - 2011/65/EC