

DESCRIPTION

vBox2 is microprocessor driven telemetry device for data collection from vending machine (VM) components using various standardized protocols. vBox2 transmits collected data over GPRS network to Vendon server gateway. Device firmware is preloaded and managed centrally using Over-TheAir technology. vBox2 supports user (operator) interaction via multi-purpose configurable function button. User operations are confirmed with sound signals. Device status indication LEDs are located on front panel. vBox2 device is designed for installation inside VM.

vBox2 components:

- 1x device programmed with latest stable firmware version (part number: VP-B2/0)
- 1x GSM antenna for use outside VM (part number: VP-AN1/0) or GSM antenna for use inside VM (part number: VP-AN2/0)
- 1x Cable type C1
- 1x Cable type C2

vBox2 FUNCTIONALITY

VM communication protocols supported by vBox2:

- EXE (Protocol-A) for interconnecting with Vending Machine Controller (VMC), Audit Storage Unit, Cashless Payment Peripheral
- MDB (MultiDrop Bus) for interconnecting with VMC, Coin Changer and other VM modules

Audit data is requested from remote server. vBox2 collects audit data from VMC or Coin Changer and responds to server request with collected data. Vending machine controller initiated event reports are pushed to server. vBox2 supports communication protocols for EVA-DTS:

- DDCMP (data transfer protocol over hardware link)
- DEX (hardwired direct data transfer protocol)
- MDB FTL (high level data exchange protocol between VMC and other modules)

MDB Sniffer mode – vBox2 supports non intrusive MDB connection where vBox2 only listens to VMC to detect if it has enabled coin acceptance and if cashless is enabled (VM is able to sell products), this mode also supports real-time Cashless purchases.

MDB Communications Gateway – (verbose mode) on FTL for real-time transaction and event transmit to server

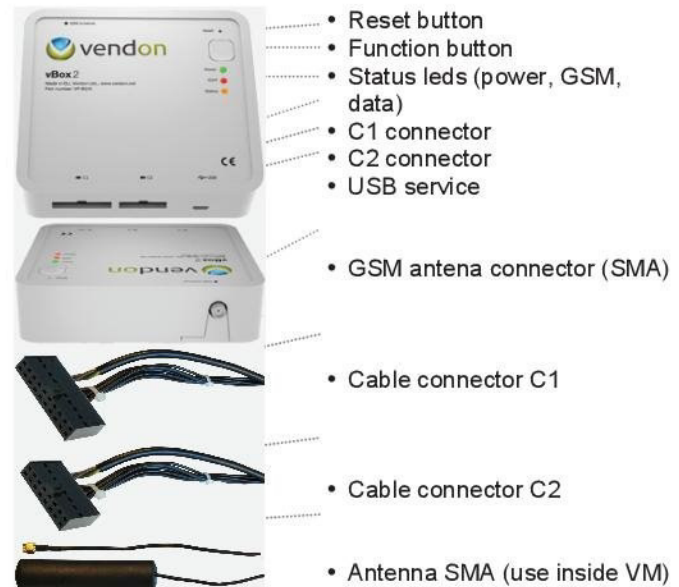
MDB Cashless mode – vBox2 provides cashless device mode to take over control of VM transactions remotely

Offline data – implementation for offline data storage, including accumulation data

COMPATIBILITY

The majority of vending machine models are supported by vBox2. Provided functionality depends on vending machine component compatibility with EVA-DTS data standard and provided GPRS network availability.

COMPONENTS



CABELS AND PROTOCOLS

Equipment of vBox2 contains one pair of C1 and C2 cables:

Data protocol	vBox2 connector	Cable type
DEX / DDCMP	C2	DB9 (female)
		DB9 (male)
		TRS (male 6.35 mm)
MDB	C1	MDB slave
EXE	C1	EXE slave, EXE master, EXE Power

TECHNICAL DATA

Device inputs and outputs:

- 5x analog, digital I/O
- 1x 5V digital output
- 2x Exec / MDB master
- 2x Exec / MDB slave
- 2x RS232 (DEX/DDCMP)
- 1x USB service port
- 1x GSM antenna (SMA)

System components:

- built-in rechargeable lithium-ion battery
- power supply 12V - 34V DC 100mA, 9V - 24V AC 100mA

vBox2 size and weight

- height: 98mm
- width: 108mm
- depth: 26mm
- weight: 142g

System environmental requirements:

- operating temperature: -30° to +80° C
- relative humidity: 5% to 95% non-condensing

GSM module

- tri-band GSM/GPRS engine (900/1800/1900 MHz)
- GPRS multi-slot class 10
- SIM card (Mini-SIM) slot
- external GSM antenna (SMA)