

## **ID-engine® XM BRICK**

### RFID NFC Desktop Read/Write Devices



#### **Universal RFID Reader Family**

BALTECH ID-engine XM BRICK readers are compact and powerful desktop devices, available with USB- or RS232/-COM-interface. For special applications, the RS232/COM-interface can be ordered with 5 V or 3,3 V level for direct connection to microcontrollers or hosts without standard drivers. Choosing the 5 V level option allows configuration to output magstripe (clock&data) or wiegand (d0&d1) format.

BALTECH's unique VHL instruction set allows handling of sophisticated encrypted Smart Card technologies with easy to use unified read/write instructions. The benefits are a significant increase of transaction speed, one application software implementation independent of the transponder type and a significant increase of security. Project- and transponder type-specific configuration settings are made using BALTECH's ToolSuite software. The configuration data output is transferred to the readers through the host interface or BALTECH ConfigCards via the RF-interface.

Configurations can include script programs for autonomous/standalone operation including selection of the host interface type and control of communication parameters as well as LED and buzzer operation.

Standard low-level access is provided with direct access to the instruction set of supported transponders. The built-in transparent mode allows full control of the RF-interface to support non-standard transponder types.

Customization is offered both for firmware and hardware, ranging from implementation of a proprietary host communication protocol to customized front sticker design, housing color and packaging. In-house engineering, design and manufacturing enables BALTECH to offer competitive and high quality products with reasonable R&D efforts for every customization requirement.

#### **RF-STANDARDS**

ISO14443 A/B, 106 to 848kbit/s ISO15693 NFC (initiator) JIS X 6319-4 (FeliCa) LF 125 kHz Multi-Frequency

#### **RF-ENCRYPTION**

Mifare Classic, Plus Mifare DESFire EV-1 (DES, 3-DES, AES) Legic Prime, Advant HID iClass/SIO; SAM (ISO7816) optional

#### **HOST INTERFACES**

USB 2.0 full speed RS232 - 12V, 5V, 3,3V options Mag/Clk-Data, Wiegand

#### **APPLICATION INTERFACE**

USB-HID, USB-Keyboard-Emulation CCID (PC/SC) CDC (Virtual COM port) DLL for MS Windows SDK

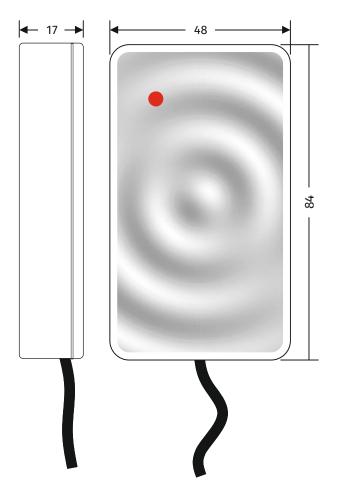
#### **SPECIAL FEATURES**

BALTECH VHL instruction set ConfigCard technology AES encrypted host communication Firmware upgradeable

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# **ID-engine® XM**

IDE-XM-BRICK Scale 1:1 +/- 0,5 mm



#### **Technical Data**

Supply Voltage: USB 4,5 ... 5,5 VDC Supply Current:

300 mA max. operating

150 mA typ. 20 ... 50 mA idle sleep on request

Operating Temperature: -20° ... +60°C

Operating Humidity: 5% ... 90% rel., non cond.

500.000 h MTBF:

#### **Read / Write Distance**

ISO15693: 50 ... 100 mm typ. ISO14443: 20 ... 80 mm typ. 125 kHz: 20 ... 80 mm typ.

#### Miscellaneous

Certifications: CE, RoHS2, UL, model spec.

int. certifications on req.

Cable USB: 1,8 m, Type A connector Cable RS232/COM: 1,8 m, DSUB 9-Pole female

with coaxial DC socket

#### **Transponder types**

See "ID-engine X Supported Transponders" for details on supported transponder type functionality

