

# TWN4 USB FRONT READER LEGIC

## COMPACT LF/HF/NFC RFID READER/WRITER FOR DIRECT CONNECTION TO PRINTER



TWN4 USB Front Reader LEGIC  
Top view (inlay customizable)



TWN4 USB Front Reader LEGIC  
Bottom view (360° mounting possibility)

The TWN4 USB Front Reader LEGIC integrates RFID (125 kHz and 13.56 MHz) and NFC capabilities into a compact but powerful reader. Thanks to its patented turnable USB connector, which offers a 360° mounting opportunity, the reader can be easily connected to an external USB port. Furthermore, it is equipped with a USB hub that can optionally be disabled. Its reduced size combined with excellent read/write performance makes it the perfect reader for various applications, including but not limited to print solutions, healthcare applications and single sign-on.

The TWN4 USB Front Reader LEGIC allows users to read and write almost all common worldwide 125 kHz and 13.56 MHz tags and/or labels. It supports all major transponders from various suppliers like ATMEL, EM, ST, NXP, TI, HID etc. and ISO standards like ISO 14443A/B (T=CL), ISO 15693, ISO 18092 / ECMA-340 (NFC).

### Special features:

- + Multi-frequency RFID reader/writer for 125 kHz, 13.56 MHz, NFC, Bluetooth Low Energy
- + Powerful SDK for writing apps which are executed directly on the reader
- + Encrypted communication (AES128) between card reader and printer available
- + Firmware update in the field possible
- + USB hub “pass through” on the front side can be deactivated via device driver
- + Patented USB connector on the rear side can be rotated, which offers the possibility of a 360° mounting
- + Available with custom inlay and packaging as “ready to sell from stock”
- + On-board 18 kB flash storage, e.g. for storing user accessible non-volatile data
- + Direct chip-commands support
- + One on-board SAM socket (Secure Access Module)
- + CCID and PC/SC 2.01
- + TWN4 Upgrade Card for P option available on request
- + Supports quick (re)configuration over network and over wireless interface with TWN4 CONFIG Card
- + 3D construction data (STEP) available on request



Elevator



EV Chargers



Access



Shop POS



Fitness  
Equipment



Ticket POS



PC Log-on



Document  
Management



Driver ID



Vending



Parking



Gaming



Locker Locks



Time  
Attendance



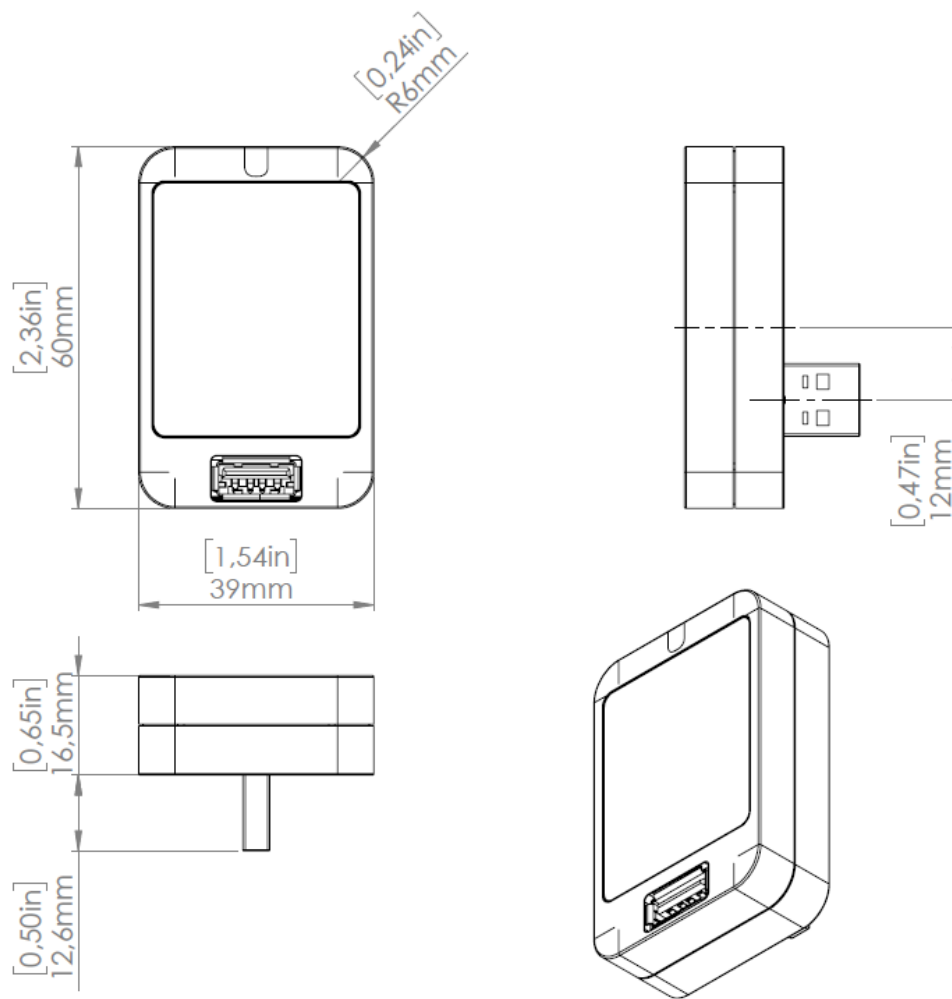
Industrial  
PC

## TECHNICAL DATA

|   |   |
|---|---|
| FREQUENCY   | 125 kHz (LF) / 13.56 MHz (HF) / 2.4 GHz (BLE)   |
| ANTENNA(S)  | Integrated  |
| HOUSING   | Material: ABS UL94-V0, color: black   |
| DIMENSIONS (L X W X H)                                  | 60 mm x 39 mm x 16.5 mm / 2.36 inch x 1.54 inch x 0.65 inch   |
| POWER SUPPLY  | 4.3 V - 5.5 V via USB<br>Limited power source according to the safety norms listed in the respective declaration of conformity, short-circuit current < 8 A   |
| CURRENT CONSUMPTION                                     | RF field on: 260 mA typically + 16 mA (BT)  |
| TEMPERATURE RANGE                                       | Operating: 0 °C up to +65 °C (+32 °F up to +149 °F)<br>Storage: -45 °C up to +70 °C (-49 °F up to +158 °F)  |
| RELATIVE HUMIDITY                                       | 5% to 95% non-condensing  |
| READ- / WRITE DISTANCE                                  | LF and HF: Up to 51 mm / 2 inch, depending on environment and transponder / BT: n/a   |
| OPERATING MODES (USB)                                   | USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01   |
| BLUETOOTH LOW ENERGY                                    | Bluetooth V4.1, software upgradable to V4.2; API; standards as GAP, SM, L2CAP, ATT; predefined GATT structure; up to 8 connections; AES128 supported  |
| MTBF  | 500,000 hours   |
| WEIGHT  | Approx. 22 g / 0.78 oz  |
| SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ             | <u>ISO14443A:</u><br>LEGIC Advant, MIFARE Classic EV1 <sup>1)</sup> , MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2 <sup>2)</sup> , MIFARE DESFire Light <sup>3)</sup> , MIFARE Plus S, X, MIFARE Pro X <sup>4)</sup> , MIFARE Smart MX <sup>4)</sup> , MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1 <sup>1)</sup> , NTAG2xx, PayPass <sup>4)</sup> , SLE44R35 <sup>4)</sup> , SLE66Rxx (my-d move) <sup>4)</sup><br><u>ISO18092 ECMA-340:</u><br>NFC Forum Tag 1-5 <sup>5)</sup> , Sony FeliCa <sup>6)</sup> , NFC Active and passive communication mode<br><u>ISO14443B:</u><br>Calypso <sup>4)</sup> , CEPAS <sup>4)</sup> , HID iCLASS <sup>7)</sup> , Moneo <sup>4)</sup> , Pico Pass <sup>7)</sup><br><u>ISO15693:</u><br>EM4x33 <sup>4)</sup> , EM4x35 <sup>4)</sup> , HID iCLASS <sup>7)</sup> , HID iCLASS SE/SR <sup>7)</sup> , ICODE SLI, LEGIC Advant, M24LR16/64, SRF55Vxx (my-d vicinity) <sup>4)</sup> , Tag-it, PicoPass <sup>7)</sup><br><u>LEGIC Prime:</u><br>LEGIC Prime |
| SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ <sup>8)</sup> | AWID, Cardax, CASI-RUSCO, Deister <sup>9)</sup> , EM4100, 4102, 4200 <sup>10)</sup> , EM4050, 4150, 4450, 4550, EM4305 <sup>11)</sup> , FDX-B <sup>11)</sup> , EM4105 <sup>11)</sup> , HITAG 1 <sup>12)</sup> , HITAG 2 <sup>12)</sup> , HITAG S <sup>12)</sup> , ICT <sup>11)</sup> , IDTECK, Isonas, Keri, Miro, Nedap <sup>9)</sup> , PAC <sup>11)</sup> , Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX <sup>11)</sup> , TITAN (EM4050), UNIQUE, ZODIAC   |
| SUPPORTED TRANSPONDERS (OPTION P)                       | All Standard Transponders, Cotag, G-Prox <sup>9)</sup> , HID DuoProx II, HID ISO Prox II, HID Micro Prox, HID ProxKey III, HID Prox, HID Prox II, Indala, ioProx, Nexwatch  |
| OS SUPPORT  | Windows XP, Vista, Embedded CE <sup>11)</sup> , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android <sup>11)</sup> , iOS <sup>11)</sup> , MAC OS X <sup>11)</sup>  |
| PERIPHERAL INTERFACES                                   | Male USB type A, female USB type A, Bluetooth Low Energy (BLE)  |
| TRANSMISSION SPEED                                      | Host: USB Full speed (12 Mbit/s), USB Hub: USB Hi-Speed up to 40 MB/s, HF Air: up to 848 kbit/s, BT Air: up to 100 kbit/s   |
| CERTIFICATION NAME                                      | TWN4 USB Front Reader LEGIC   |
| CERTIFICATION(S)  | CE/RED, REACH and RoHS-III compliant, and many more   |
| ORDER CODE(S)   | T4FK-BBFRLM7 Front Reader LEGIC Kit<br>T4FK-BBFRLM7-P Front Reader-P LEGIC Kit  |

<sup>1)</sup>r/w enhanced security features on request <sup>2)</sup>EV2/EV3 supported as part of the EV1 downward compatibility <sup>3)</sup>In preparation <sup>4)</sup>r/w in direct chip command mode  
<sup>5)</sup>NFC Forum Tag 1 not supported <sup>6)</sup>UID + r/w public area <sup>7)</sup>UID only <sup>8)</sup>125 kHz technology requires a Russian local test and import license from the ministry of Trade and Industry (MINPROMTORC). This license has to be in place before Elatec can accept any order to be shipped to Russia <sup>9)</sup>Hash value only <sup>10)</sup>Only emulation of 4100, 4102 <sup>11)</sup>On request <sup>12)</sup>Without encryption

## DRAWING



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