

# TWN4 USB FRONT READER LEGIC

## MULTI-FREQUENCY RFID READER FOR LF, HF, NFC AND BLE



TWN4 USB Front Reader LEGIC  
(exemplary illustrations)

The devices of the TWN4 USB Front Reader family are an excellent solution for any RFID-based applications that require a direct and simple connection per USB. All readers are available with an NXP or LEGIC frontend and support RFID, NFC and Bluetooth Low Energy (BLE) technologies. In addition, the patented USB connector on the rear side can be turned to 90°, which enables a quick and easy installation into any host system equipped with a USB port. Thanks to their compact form and enhanced read/write performance, the readers are particularly appropriate as a secure printing solution, but also for Single-Sign on and healthcare applications.

Key features of the TWN4 USB Front Reader LEGIC include a USB hub on the front side that can be deactivated via device driver, a powerful SDK for writing apps that are executed directly on the reader and an integrated BLE module. Additionally, the reader can read more than 60 RFID technologies from low (LF) and high frequency (HF) bands, including NFC. This gives the option to select as many of the technologies required instead of being forced to select just a few ones.

### Special features:

- + Possibility to read more than 60 RFID technologies
- + Two RFID frequencies (125 kHz/13.56 MHz) with NFC and BLE support
- + Patented USB connector on the rear side can be rotated to 90°
- + USB hub “pass through” on the front side can be deactivated via device driver
- + Powerful SDK for writing apps which are executed directly on the reader
- + Firmware update in the field possible
- + Available with custom inlay and packaging as “ready to sell from stock”
- + Supports transparent data exchange between reader and RFID media
- + CCID and PC/SC 2.01



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

FREQUENCIES	125 kHz (LF) / 13.56 MHz (HF) / 2.4 GHz (BLE)
ANTENNAS	Integrated
HOUSING	Material: ABS UL94-V0 Color: black
DIMENSIONS (L X W X H)	Approx. 60 x 39 x 16.50 mm / 2.36 x 1.54 x 0.65 inch
POWER	USB: 4.3 V – 5.5 V PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A
CURRENT CONSUMPTION	RF field on: 260 mA typically + 16 mA (BLE)
TEMPERATURE RANGE	Operating: 0 °C up to +65 °C (+32 °F up to +149 °F) Storage: -40 °C up to +70 °C (-40 °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
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
BLUETOOTH LOW ENERGY	BLE version 4.1 (upgradable to 4.2)
MTBF	500,000 hours
WEIGHT	Approx. 22 g / 0.78 oz
OS SUPPORT	Windows 7 (32-/64-bit) and higher versions, Linux, Android <sup>1)</sup> , iOS <sup>1)</sup> , MAC OS X <sup>1)</sup>
PERIPHERAL INTERFACES	USB (male), type A USB (female), type A 1 SAM slot
TRANSMISSION SPEED	Host: USB full speed (12 Mbit/s), USB hub: USB Hi-Speed up to 40 Mbit/s, HF Air: up to 848 kbit/s, BLE Air: up to 100 kbit/s
CERTIFICATION NAME	TWN4 USB Front Reader LEGIC
CERTIFICATIONS	Non-exhaustive list <sup>2)</sup> : CE/RED, REACH and RoHS-III compliant
ORDER CODES	T4FK-BBFRLM7      Kit including reader with standard configuration T4FK-BBFRLM7-P      Kit including reader with P option

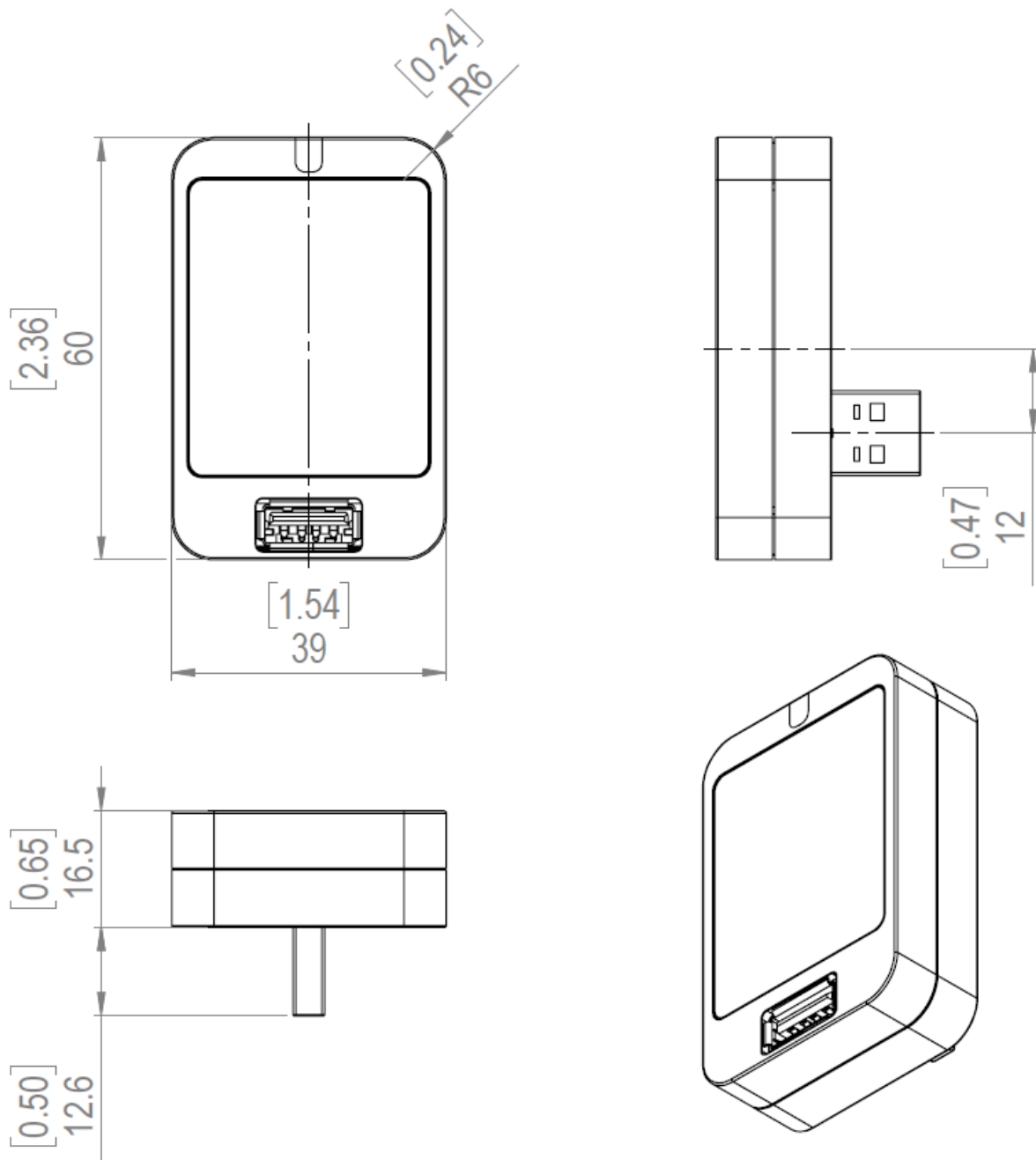
<sup>1)</sup>On request <sup>2)</sup>The product has been certified for a use in many countries and regions. Contact your Sales representative for detailed information about all certifications and approvals granted to the product.

## SUPPORTED TRANSPONDERS<sup>1)</sup>

<p>SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ</p>	<p><u>ISO 14443A:</u> LEGIC Advant, NTAG2xx, MIFARE Classic, MIFARE Classic EV1<sup>2)</sup>, MIFARE DESFire EV1, MIFARE DESFire EV2<sup>3)</sup>, MIFARE DESFire EV3<sup>3)</sup>, MIFARE DESFire Light<sup>3)</sup>, MIFARE Mini, MIFARE Plus S, MIFARE Plus X, MIFARE Smart MX<sup>4)</sup>, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1<sup>2)</sup>, SLE44R35<sup>4)</sup>, SLE66Rxx (my-d move)<sup>4)</sup></p> <p><u>ISO 14443B:</u> Calypso<sup>4)</sup>, CEPAS<sup>4)</sup>, Pico Pass<sup>5)</sup></p> <p><u>ISO 15693:</u> EM4x33<sup>4)</sup>, EM4x35<sup>4)</sup>, ICODE SLI, LEGIC Advant, M24LR16/64, Pico Pass<sup>5)</sup>, SRF55Vxx (my-d vicinity)<sup>4)</sup>, Tag-it</p> <p><u>ISO 18092 / ECMA-340:</u> NFC Forum Tag 2-5, Sony FeliCa<sup>6)</sup></p> <p><u>LEAF Identity:</u> LEAF<sup>7)</sup></p> <p><u>LEGIC:</u> LEGIC Prime</p>
<p>SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ<sup>8)</sup></p>	<p>AWID, Cardax<sup>9)</sup>, CASI-RUSCO, Deister<sup>9)</sup>, EM4050, EM4100, EM4102, EM4150, EM4200<sup>10)</sup>, EM4305, EM4450, EM4550, HITAG 1<sup>11)</sup>, HITAG 2<sup>11)</sup>, HITAG S<sup>11)</sup>, ICT, IDTECK, ISONAS, Keri, Miro, Nedap<sup>9)</sup>, Pyramid, Q5, T5557, T5567, T5577, TITAN (EM4050), UltraProx, UNIQUE, ZODIAC</p>
<p>SUPPORTED TRANSPONDERS (P OPTION)</p>	<p>All standard transponders, G-Prox<sup>9)</sup>, HID 1326 Prox II, HID 1336 DuoProx II, HID 1346 ProxKey III, HID 1386 ISO Prox II, HID 1391 Micro Prox, HID Prox, Indala, ioProx, Nexwatch</p>

<sup>1)</sup>Unless otherwise agreed with ELATEC, the product is delivered with a standard firmware version that might be older than the latest firmware developed by ELATEC. This firmware version can be changed using the ELATEC AppBlaster tool. Please note that the information given in this document regarding the transponder technologies supported by the product is based on the latest firmware version. <sup>2)</sup>r/w enhanced security features on request <sup>3)</sup>Supported as part of the EV1 downward compatibility <sup>4)</sup>r/w in transparent data exchange mode <sup>5)</sup>UID only <sup>6)</sup>UID + r/w public area <sup>7)</sup>AV2 only, requires one free SAM slot for MIFARE SAM AV2 card <sup>8)</sup>125 kHz technologies require 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>Without encryption

## TECHNICAL DRAWINGS



All measures in mm [inch]

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