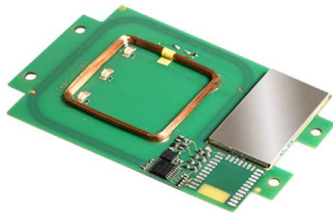


TWN4 MULTITECH 2

PROGRAMMABLE RFID READER/WRITER FOR LF/HF/NFC



TWN4 MultiTech 2
PCB top view



Desktop version
(inlay customizable)

Elatec's TWN4 family of transponder readers and writers allows users to read and write to almost any 125 kHz, 134.2 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 ISO14443A/B (T=CL), ISO15693, ISO18092 / ECMA-340 (NFC).

The TWN4 MultiTech 2 reader has integrated RFID (LF & HF) and NFC, which is supported by mobile phones with Android version 4.3 or greater. The app on the reader communicates with the NFC module with easy commands.

Special features:

- + powerful SDK for writing apps which are executed directly on the reader
- + firmware update in the field possible
- + onboard 18 kB flash storage, e.g. for storing user accessible non-volatile data
- + direct chip-commands support
- + two onboard SAM sockets (Secure Access Module)
- + CCID and PC/SC 2.01
- + 4 GPIOs
- + supports quick centralized (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/134.2 kHz (LF) / 13.56 MHz (HF) |
| ANTENNA | Integrated |
| HOUSING | Material: ABS UL94-V0, color: black or white |
| DIMENSIONS (L X W X H) | Desktop Reader: 88 mm x 56 mm x 18 mm / 3.5 inch x 2.2 inch x 0.7 inch OEM Board: 76 mm x 49 mm x 9 mm / 3.0 inch x 1.9 inch x 0.4 inch |
| POWER SUPPLY | 4.3 V - 5.5 V via USB; via generic interface (X2) 3.3 V +/- 5%; RS232 requires 5 V external power supply |
| CURRENT CONSUMPTION | RF field on: 120 mA typically / Sleep: 500 µA typ. / Cyclic Operation: TBD |
| TEMPERATURE RANGE | Desktop, Operating: -25 °C up to +70 °C (-13 °F up to +158 °F) Desktop, Storage: -45 °C up to +75 °C (-49 °F up to +167 °F) PCB, Operating: -25 °C up to +80 °C (-13 °F up to +176 °F) PCB, Storage: -45 °C up to +85 °C (-49 °F up to +185 °F) |
| RELATIVE HUMIDITY | 5% to 95% non-condensing |
| READ- / WRITE DISTANCE | LF and HF: Up to 100 mm / 4 inch, depending on environment and transponder |
| OPERATING MODES (USB) | USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01 |
| MTBF | 500,000 hours |
| WEIGHT | PCB approx. 12 g / 0.43 oz (no cable) Desktop approx. 117 g / 4.13 oz (with cable) |
| SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ | <u>ISO14443A:</u> LEGIC Advant ¹⁾ , MIFARE Classic EV1 ²⁾ , MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2 ²⁾ , MIFARE DESFire Light ³⁾ , MIFARE Plus S, X, MIFARE Pro X ⁴⁾ , MIFARE Smart MX ⁴⁾ , MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1, NTAG2xx, PayPass ⁴⁾ , SLE44R35, SLE66Rxx (my-d move) ⁴⁾ , Topaz <u>ISO14443B:</u> Calypso ⁴⁾ , Calypso Innovatron protocol ⁴⁾ , CEPAS ⁴⁾ , HID iCLASS ¹⁾ , Moneo ⁴⁾ , Pico Pass ⁵⁾ , SRI4K, SRIX4K, SRI512, SRT512 <u>ISO18092 ECMA-340:</u> NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa ⁶⁾ , NFC Active and passive communication mode <u>ISO15693:</u> EM4x33 ⁴⁾ , EM4x35 ⁴⁾ , HID iCLASS ¹⁾ , HID iCLASS SE/SR ¹⁾ , ICODE SLI, LEGIC Advant ¹⁾ , M24LR16/64, MB89R118/119, SRF55Vxx (my-d vicinity) ⁴⁾ , Tag-it, PicoPass ⁵⁾ |
| SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ ⁷⁾ , 134.2 KHZ | AWID, Cardax, CASI-RUSCO, Deister ⁸⁾ , EM4100, 4102, 4200 ⁹⁾ , EM4050, 4150, 4450, 4550, EM4305 ¹⁰⁾ , FDX-B ¹⁰⁾ , EM4105 ¹⁰⁾ , HITAG 1 ¹¹⁾ , HITAG 2 ¹¹⁾ , HITAG S ¹¹⁾ , ICT ¹⁰⁾ , IDTECK, Isonas ¹⁰⁾ , Keri, Miro, Nedap ⁸⁾ , PAC ¹⁰⁾ , Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX ¹⁰⁾ , TITAN (EM4050), UNIQUE, ZODIAC |
| SUPPORTED TRANSPONDERS (OPTION P) | All Standard Transponders, Cotag, G-Prox ⁸⁾ , HID DuoProx II, HID ISO Prox II, HID Micro Prox, HID ProxKey III, HID Prox, HID Prox II, Indala, ioProx, Nexwatch |
| SUPPORTED TRANSPONDERS (OPTION PI) | Requires TWN4 SIO Card, All Standard Transponders, All Option P Transponders, HID iCLASS, HID iCLASS SE/SR/Elite, HID iCLASS SEOS (CSN & Facility Code/PAC) ¹²⁾ |
| OS SUPPORT | Windows XP, Vista, Embedded CE ¹⁰⁾ , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android ¹⁰⁾ , iOS ¹⁰⁾ , MAC OS X ¹⁰⁾ |
| PERIPHERAL INTERFACES | USB, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I ² C, 4 GPIOs, Clock/Data, Wiegand |
| TRANSMISSION SPEED | Host: USB Full speed (12 Mbit/s), RS-232: up to 115.200 baud, HF Air: up to 848 kbit/s |
| CERTIFICATION NAME | TWN4 MultiTech 2 |
| CERTIFICATION(S) | ACMA, CE/RED, FCC Single Modular Approval, IC, REACH and RoHS-III compliant and many more |

| | | |
|-----------------|---------------------|---------------------|
| ORDER CODE(S) | T4BO-F6 | OEM BOARD |
| | T4BT-FB2BEL6 | USB BLACK |
| | T4BT-FB2WEL6 | USB WHITE |
| | T4BT-FR2BEL6 | RS-232 BLACK |
| | T4BT-FR2WEL6 | RS-232 WHITE |
| | T4BO-F6-P | OEM BOARD OPTION P |
| | T4BT-FB2BEL6-P | USB OPTION P BLACK |
| | T4BT-FB2WEL6-P | USB OPTION P WHITE |
| | T4BO-F6-PI | OEM BOARD OPTION PI |
| | T4BT-FB2BEL6-PI | USB OPTION PI BLACK |
| T4BT-FB2WEL6-PI | USB OPTION PI WHITE | |

¹UID only ²r/w enhanced security features on request ³In preparation ⁴r/w in direct chip command mode ⁵UID only, read/write on request ⁶UID + r/w public area ⁷125 kHz are in Russia permanent disabled. The activation is only possible by the acquisition of a license ⁸Hash value only ⁹Only emulation of 4100, 4102 ¹⁰On request ¹¹Without encryption ¹²r/w on request

ACCESSORIES

| | | |
|--------------|----------|--------------------------------------|
| HOLDER(S) | HKSI-B: | Snap-In Holder black |
| | HKSI-W: | Snap-In Holder white |
| | HKBR-B: | Bracket Holder black |
| | HKBR-W: | Bracket Holder white |
| POWER SUPPLY | PWA-EU3: | Power Supply (EU) |
| | PWA-US3: | Power Supply (US) |
| | PWA-UK3: | Power Supply (UK) |
| | PWA-AU3: | Power Supply (AU) |
| | PWA-JP3: | Power Supply (JP) |
| CABLES | CAB-B2: | USB cable type A 200 cm / 78.74 inch |
| | CAB-B3: | USB cable type A 12 cm / 4.72 inch |
| | CAB-B4: | USB cable type A 45 cm / 17.72 inch |
| | CAB-B7: | USB cable type A 120 cm / 47.24 inch |
| | CAB-M1: | USB cable mini 12 cm / 4.72 inch |
| | CAB-M2: | USB cable mini 25 cm / 9.84 inch |
| | CAB-R2: | RS-232 cable 200 cm / 78.74 inch |

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