

TWN4 MULTITECH SMARTCARD

TWN4 SMARTCARD MIFARE NFC USB

PROGRAMMABLE RFID/CONTACT READER & WRITER FOR LF/HF/NFC & ISO/IEC7816 CARDS



TWN4 MultiTech SmartCard, black
(inlay customizable)



TWN4 MultiTech SmartCard, white
(inlay customizable)

Elatec's TWN4 MultiTech SmartCard is a combination of the TWN4 MultiTech (RFID) with an integrated contact card reader/writer (ISO7816). It allows users to read and write almost any 125 kHz and 13.56 MHz transponders supporting all major technologies from various suppliers like ATMEL, EM, ST, NXP, TI, HID, LEGIC, etc. and many ISO standards such as ISO14443A/B (T=CL), ISO15693, and ISO18092 / ECMA-340 (NFC). The integrated chip card reader is designed for easy integration into various applications.

The readers can be programmed with a script language for autonomous execution of even complex commands like login procedures, increment/decrement functions and many more. The reader supports host communication via USB or RS-232.

Special features:

- + Powerful SDK for writing apps which are executed directly on the reader
- + Firmware update in the field possible
- + On-board 18 kB flash storage, e.g. for storing user accessible non-volatile data
- + Direct chip-commands support
- + CCID and PC/SC 2.01
- + Two on-board SAM sockets (Secure Access Module), extendable by 2 SAM sockets
- + 2 GPIOs
- + Supports quick (re)configuration over network and over wireless interface with TWN4 CONFIG Card
- + TWN4 Upgrade Card for P and PI options available on request
- + 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) |
| ANTENNA | Integrated |
| HOUSING | Material: ABS UL94-V0, color: black or white |
| DIMENSIONS (L X W X H) | Desktop Reader: 88 mm x 68 mm x 19 mm / 3.46 inch x 2.68 inch x 0.75 inch |
| POWER SUPPLY | 4.3 V - 5.5 V via USB Limited power source according to IEC60950-1 or PS2 classified IEC62368-1, short-circuit current < 8 A |
| TEMPERATURE RANGE | Operating: -25 °C up to +70 °C (-13 °F up to +158 °F) Storage: -45 °C up to +75 °C (-49 °F up to +167 °F) |
| RELATIVE HUMIDITY | 5% to 95% non-condensing |
| READ- / WRITE DISTANCE | 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 / Min. 100,000 card insertion cycles |
| WEIGHT | Approx. 140 g (with housing and USB Cable) |
| SMARTCARD STANDARDS | ISO/IEC7816 Part 1-4, Class A/B/C (5V, 3V, 1.8V), T=0, T=1 |
| SMARTCARD CLOCK FREQUENCY | 5 MHz up to 15 MHz |
| SUPPORTED SMARTCARDS | 5V, 3V and 1.8V, ISO/IEC7816 Class A/B/C |
| POWER TO SMARTCARD | 60mA in Class A; 55mA in Class B; 35mA in Class C |
| SMARTCARD DETECTION | Card present switch / Automatic power on/off / Short-circuit protection |
| SMARTCARD CARD SIZE | 2xID-000 (SAM) ID-1 |
| SMARTCARD CONTACT TYPE | 8 pin Sliding Contact Socket, C4/C8 support ID-1 |
| 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 ³⁾ , MIFARE DESFire Light ³⁾ , MIFARE Plus S, X, MIFARE Pro X ⁴⁾ , MIFARE Smart MX ⁴⁾ , MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1 ²⁾ , NTAG2xx, PayPass ⁴⁾ , SLE44R35 ⁴⁾ , 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, SRF55Vxx (my-d vicinity) ⁴⁾ , Tag-it, PicoPass ⁵⁾ |
| SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ ⁷⁾ | AWID, Cardax, CASI-RUSCO, Deister ⁸⁾ , EM4100, 4102, 4200 ⁹⁾ , EM4050, 4150, 4450, 4550, EM4305 ¹⁰⁾ , FDX-B ¹⁰⁾ , EM4105 ¹⁰⁾ , HITAG 11 ¹⁾ , HITAG 21 ¹⁾ , HITAG S1 ¹⁾ , ICT ¹⁰⁾ , IDTECK, Isonas, Keri, Miro, Nedap ⁸⁾ , PAC ¹⁰⁾ , Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX ¹⁰⁾ , TITAN (EM4050), UNIQUE, ZODIAC |
| 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 (Facility Code/PAC) ¹²⁾ |
| 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 |
| 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, RS232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I ² C, 2 GPIOs, Clock/Data, Wiegand |
| TRANSMISSION SPEED | Host: USB Full speed (12 Mbit/s), RS-232: up to 115.200 baud, Air: up to 848 kbit/s |
| CERTIFICATION NAME | TWN4 SmartCard MIFARE NFC USB |
| CERTIFICATION(S) | CE/RED, FCC, IC, REACH and RoHS-III compliant |

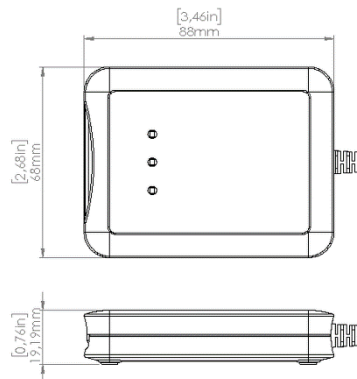
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|---------------|----------------|---------------------|
| ORDER CODE(S) | T4SD-FB2BE1 | USB Black |
| | T4SD-FB2WE1 | USB White |
| | T4SD-FB2BE1-P | USB Option P Black |
| | T4SD-FB2WE1-P | USB Option P White |
| | T4SD-FB2BE1-PI | USB Option PI Black |
| | T4SD-FB2WE1-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 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 ⁸Hash value only ⁹Only emulation of 4100, 4102 ¹⁰On request ¹¹Without encryption ¹²UID + PAC (CSN & Facility Code), r/w on request

ACCESSORIES

| | | |
|--------|---------|--------------------------------------|
| 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 |

HOUSING DRAWING



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