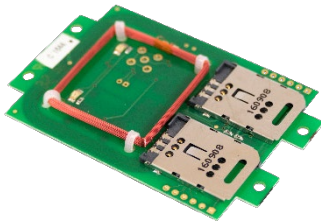


TWN4 MULTITECH

TWN4 MULTITECH M

PROGRAMMABLE RFID READERS/WRITERS FOR LF, HF, NFC



TWN4 MultiTech M
PCB top view



TWN4 MultiTech
(inlay customizable)

ELATEC's TWN4 family of RFID readers and writers allows users to read and write to almost any 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, LEGIC, etc. and ISO standards like ISO 14443A/B (T=CL), ISO 15693, ISO 18092 / ECMA-340 (NFC).

The new generation is a direct enhancement to the successful TWN3 family as it comes in the same mechanical dimensions (OEM PCB and desktop housing). 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
- + Two on-board SAM sockets (Secure Access Module)
- + CCID and PC/SC 2.01
- + Dedicated expansion bus for connection of LCD, mass storage, etc.
- + 2 GPIOs
- + Supports Apple VAS and ECP 2.0®
- + 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
- + Available as desktop version or PCB module (OEM board)



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(S) | Integrated |
| HOUSING | Material: ABS UL94-V0, color: black or white |
| DIMENSIONS (L X W X H) | TWN4 MultiTech: 88 mm x 56 mm x 18 mm / 3.5 inch x 2.2 inch x 0.7 inch TWN4 MultiTech M: 76 mm x 49 mm x 14 mm / 3.0 inch x 1.9 inch x 0.6 inch |
| POWER SUPPLY | 4.3 V - 5.5 V via USB or RS-232; RS-232 requires 5 V external power supply; via connector CNB 3.3 V ± 5% 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: 120 mA typically / Sleep: 500 µA typ. / Cyclic Operation: TBD |
| TEMPERATURE RANGE | TWN4 MultiTech, Operating: -25 °C up to +70 °C (-13 °F up to +158 °F) TWN4 MultiTech, Storage: -40 °C up to +75 °C (-40 °F up to +167 °F) TWN4 MultiTech M, Operating: -25 °C up to +80 °C (-13 °F up to +176 °F) TWN4 MultiTech M, Storage: -40 °C up to +85 °C (-40 °F up to +185 °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 |
| WEIGHT | TWN4 MultiTech: approx. 117 g / 4.13 oz (with cable) TWN4 MultiTech M: approx. 12 g / 0.43 oz (no 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 ³⁾ , MIFARE DESFire Light ⁴⁾ , MIFARE Plus S, X, MIFARE Pro X ⁵⁾ , MIFARE Smart MX ⁵⁾ , MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1 ²⁾ , NTAG2xx, SLE44R35 ⁵⁾ , SLE66Rxx (my-d move) ⁵⁾ , Topaz <u>ISO18092 ECMA-340:</u> NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa ⁶⁾ , NFC Active and passive communication mode <u>ISO14443B:</u> Calypso ⁵⁾ , Calypso Innovatron protocol ⁵⁾ , CEPAS ⁵⁾ , HID iCLASS ¹⁾ , Moneo ⁵⁾ , Pico Pass ⁷⁾ , SRI4K, SRIX4K, SRI512, SRT512 <u>ISO15693:</u> EM4x33 ⁵⁾ , EM4x35 ⁵⁾ , HID iCLASS ¹⁾ , HID iCLASS SE/SR ¹⁾ , ICODE SLI, LEGIC Advant ¹⁾ , M24LR16/64, SRF55Vxx (my-d vicinity) ⁵⁾ , Tag-it, PicoPass ⁷⁾ <u>Mobile support:</u> Apple VAS ⁸⁾ , ECP 2.0 ⁸⁾ |
| SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ ⁹⁾ | AWID, Cardax, CASI-RUSCO, Deister ¹⁰⁾ , EM4100, 4102, 4200 ¹¹⁾ , EM4050, 4150, 4450, 4550, EM4305 ¹²⁾ , FDX-B ¹³⁾ , EM4105 ¹³⁾ , UltraProx ¹³⁾ , HITAG 1 ¹⁴⁾ , HITAG 2 ¹⁴⁾ , HITAG S ¹⁴⁾ , ICT ⁴⁾ , IDTECK, Isonas, Keri, Miro, Nedap ¹⁰⁾ , PAC ⁴⁾ , Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX ¹³⁾ , TITAN (EM4050), UNIQUE, ZODIAC |
| SUPPORTED TRANSPONDERS (OPTION P) | All Standard Transponders, Cotag, G-Prox ¹⁰⁾ , 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 (Facility Code/PAC) ¹⁵⁾ |
| OS SUPPORT | Windows Embedded CE ⁴⁾ , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android ⁴⁾ , iOS ⁴⁾ , MAC OS X ⁴⁾ |
| PERIPHERAL INTERFACES | USB, RS-232, 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 MultiTech TWN4 MultiTech M |
| CERTIFICATION(S) | TWN4 MultiTech: ACMA, CE/RED, FCC, IC, Apple VAS and ECP 2.0 certified, and many more |

| | |
|--|--|
| | TWN4 MultiTech M: CE/RED, FCC, IC, and many more Both readers are REACH and RoHS-III compliant. |
| ORDER CODE(S) | TWN4 MultiTech: |
| | T4DT-FB2BEL USB Black |
| | T4DT-FB2WEL USB White |
| | T4DT-FR2BEL RS-232 Black |
| | T4DT-FR2WEL RS-232 White |
| | T4DT-FB2BEL-P USB Option P Black |
| | T4DT-FB2WEL-P USB Option P White |
| | T4DT-FR2BEL-P RS-232 Option P Black |
| | T4DT-FR2WEL-P RS-232 Option P White |
| | T4DT-FB2BEL-PI USB Option PI Black |
| | T4DT-FB2WEL-PI USB Option PI White |
| | T4DT-FR2BEL-PI RS-232 Option PI Black |
| | T4DT-FR2WEL-PI RS-232 Option PI White |
| | TWN4 MultiTech M: |
| T4DO-F OEM Board | |
| T4DO-F-P OEM Board Option P | |
| T4DO-F-PI OEM Board Option PI | |

¹UID only ²r/w enhanced security features on request ³EV2/EV3 supported as part of the EV1 downward compatibility ⁴On request ⁵r/w in direct chip command mode ⁶UID + r/w public area ⁷UID only, read/write on request ⁸For Apple licensees only and eligible implementers. Please contact ELATEC for details. ⁹125 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 ¹⁰Hash value only ¹¹Only emulation of 4100, 4102 ¹²From FW V4.05 ¹³134.2 kHz only ¹⁴Without encryption ¹⁵UID + PAC (Facility Code), r/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 |
| 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 | |

ELATEC GmbH

Zeppelinstr. 1
82178 Puchheim
Germany
P +49 89 552 9961 0
F +49 89 552 9961 129
E-Mail: info-rfid@elatec.com
Website: elatec.com

ELATEC Systems GmbH

Schwieberdinger Str. 44
71636 Ludwigsburg
Germany
P +49 7141 309736 0
E-Mail: info-rfid@elatec.com
Website: elatec.com

ELATEC Inc.

1995 SW Martin Hwy
Palm City • FL 34990
USA
P +1 772 210 2263
F +1 772 382 3749
E-Mail: americas-info@elatec.com
Website: elatec.com

ELATEC Technology (Shenzhen) LLC

918, Main Building, Tian An Cyber Times
Tower, No. 6, Tairan Fourth Road, Tian 'an
Community, Shatou Neighborhood
Futian District • Shenzhen • China
P/F +86 755 2394 6014
E-Mail: apac-info@elatec.com
Website: elatec.com

ELATEC reserves the right to change any information or data in this document without prior notice. ELATEC declines all responsibility for the use of this product with any other specification but the one mentioned above. Any additional requirement for a specific customer application has to be validated by the customer himself at his own responsibility. Where application information is given, it is only advisory and does not form part of the specification. Disclaimer: All names used in this document are registered trademarks of their respective owners.