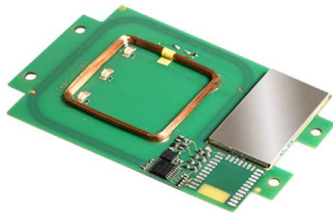


TWN4 MULTITECH 2

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

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 USA Inc.
 4203 SW High Meadows Ave
 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
 No. 716 Industrial Bank Tower
 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.