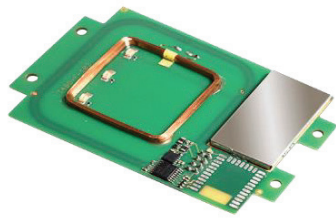


# TWN4 MULTITECH 2

## 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 or RS-232; RS232 requires 5 V external power supply; via connector CNB 3.3 V +/- 5%
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
TRANSMISSION SPEED	Host: USB Full speed (12 Mbit/s), RS-232: up to 115.200 baud; HF Air: up to 848 kbit/s
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
MTBF	500,000 hours
WEIGHT	Approx. 20 g (without housing)
SUPPORTED TRANSPONDERS (STANDARD)	<p><u>ISO14443A:</u> LEGIC Advant<sup>1)</sup>, MIFARE Classic EV1<sup>2)</sup>, MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2<sup>2)</sup>, MIFARE Plus S, X, MIFARE Pro X<sup>3)</sup>, MIFARE Smart MX<sup>3)</sup>, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1</p> <p><u>ISO14443B:</u> Calypso<sup>3)</sup>, Calypso Innovatron protocol<sup>3)</sup>, CEPAS<sup>3)</sup>, HID iCLASS<sup>1)</sup>, Moneo<sup>3)</sup>, Pico Pass<sup>4)</sup>, SRI4K, SRIX4K, SRI512, SRT512</p> <p><u>ISO18092 ECMA-340:</u> NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa<sup>5)</sup>, NFC Active and passive communication mode</p> <p><u>ISO15693:</u> EM4x33<sup>3)</sup>, EM4x35<sup>3)</sup>, HID iCLASS<sup>1)</sup>, HID iCLASS SE/SR<sup>1)</sup>, ICODE SLI, LEGIC Advant<sup>1)</sup>, M24LR16/64, MB89R118/119, SRF55Vxx (my-d vicinity)<sup>3)</sup>, Tag-it, PicoPass<sup>4)</sup></p> <p><u>125 kHz, 134.2 kHz:</u> AWID, Cardax, CASI-RUSCO, Deister<sup>6)</sup>, EM4100, 4102, 4200<sup>7)</sup>, EM4050, 4150, 4450, 4550, EM4305<sup>8)</sup>, FDX-B, EM4105, HITAG 1<sup>9)</sup>, HITAG 2<sup>9)</sup>, HITAG S<sup>9)</sup>, ICT<sup>8)</sup>, IDTECK, Isonas<sup>8)</sup>, Keri, Miro, Nedap<sup>6)</sup>, PAC, Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX, TITAN (EM4050), UNIQUE, ZODIAC</p>
SUPPORTED TRANSPONDERS (OPTION P)	All Standard Transponders, Cotag, G-Prox <sup>6)</sup> , 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 external TWN4 SIO Card, All Standard Transponders, All Version P Transponders, HID iCLASS <sup>10)</sup> , HID iCLASS SE/SR/SEOS(CSN and Facility Code/PAC) <sup>10)</sup> , HID iCLASS Elite & SE Elite
OS SUPPORT	Windows XP, Vista, Embedded CE <sup>8)</sup> , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android <sup>8)</sup> , iOS <sup>8)</sup> , MAC OS X <sup>8)</sup>
PERIPHERAL INTERFACES	USB, RS232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I <sup>2</sup> C, 4 GPIOs, Clock/Data, Wiegand, 1-Wire <sup>8)</sup>
CERTIFICATION NAME	TWN4 MultiTech 2
CERTIFICATION(S)	ACA, ANATEL, CE/RED, FCC Single Modular Approval, IC, Israel, RoHS-II compliant

<sup>1)</sup>UID only <sup>2)</sup>r/w enhanced security features on request <sup>3)</sup>r/w in direct chip command mode <sup>4)</sup>UID only, read/write on request <sup>5)</sup>UID + r/w public area <sup>6)</sup>Hash value only <sup>7)</sup>Only emulation of 4100, 4102 <sup>8)</sup>On request <sup>9)</sup>Without encryption <sup>10)</sup>UID + PAC (CSN & 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
POWER SUPPLY	PWA-EU: Power Supply (EU) PWA-US: Power Supply (US) PWA-UK: Power Supply (UK) PWA-AU: Power Supply (AU) PWA-JP: 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: RS232 cable 200 cm / 78.74 inch