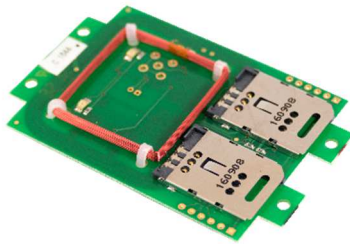


# TWN4 MULTITECH

## PROGRAMMABLE RFID READER/WRITER FOR LF/HF/NFC



TWN4 MultiTech  
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, LEGIC, etc. and ISO standards like ISO14443A/B (T=CL), ISO15693, ISO18092 / 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
- + 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
- + dedicated expansion bus for connection of LCD, mass storage, etc.
- + 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/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 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%
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	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 <sup>1)</sup> , MIFARE Classic EV1 <sup>2)</sup> , MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2 <sup>2)</sup> , MIFARE DESFire Light <sup>3)</sup> , MIFARE Plus S, X, MIFARE Pro X <sup>4)</sup> , MIFARE Smart MX <sup>4)</sup> , MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1, NTAG2xx, PayPass <sup>4)</sup> , SLE44R35, SLE66Rxx (my-d move) <sup>4)</sup> , Topaz <u>ISO14443B:</u> Calypso <sup>4)</sup> , Calypso Innovatron protocol <sup>4)</sup> , CEPAS <sup>4)</sup> , HID iCLASS <sup>1)</sup> , Moneo <sup>4)</sup> , Pico Pass <sup>5)</sup> , SRI4K, SRIX4K, SRI512, SRT512 <u>ISO18092 ECMA-340:</u> NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa <sup>6)</sup> , NFC Active and passive communication mode <u>ISO15693:</u> EM4x33 <sup>4)</sup> , EM4x35 <sup>4)</sup> , HID iCLASS <sup>1)</sup> , HID iCLASS SE/SR <sup>1)</sup> , ICODE SLI, LEGIC Advant <sup>1)</sup> , M24LR16/64, SRF55Vxx (my-d vicinity) <sup>4)</sup> , Tag-it, PicoPass <sup>5)</sup>
SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ <sup>7)</sup> , 134.2 KHZ	AWID, Cardax, CASI-RUSCO, Deister <sup>8)</sup> , EM4100, 4102, 4200 <sup>9)</sup> , EM4050, 4150, 4450, 4550, EM4305 <sup>10)</sup> , FDX-B <sup>10)</sup> , EM4105 <sup>10)</sup> , HITAG 1 <sup>11)</sup> , HITAG 2 <sup>11)</sup> , HITAG S <sup>11)</sup> , ICT <sup>10)</sup> , IDTECK, Isonas <sup>10)</sup> , Keri, Miro, Nedap <sup>8)</sup> , PAC <sup>10)</sup> , Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX <sup>10)</sup> , TITAN (EM4050), UNIQUE, ZODIAC
SUPPORTED TRANSPONDERS (OPTION P)	All Standard Transponders, Cotag, G-Prox <sup>8)</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 TWN4 SIO Card, All Standard Transponders, All Option P Transponders, HID iCLASS, HID iCLASS SE/SR/Elite, HID iCLASS SEOS (CSN & Facility Code/PAC) <sup>12)</sup>
OS SUPPORT	Windows XP, Vista, Embedded CE <sup>10)</sup> , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android <sup>10)</sup> , iOS <sup>10)</sup> , MAC OS X <sup>10)</sup>
PERIPHERAL INTERFACES	USB, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I <sup>2</sup> 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
CERTIFICATION(S)	ACMA, CE/RED, FCC, IC, REACH and RoHS-III compliant and many more

ORDER CODE(S)	T4DO-F	OEM BOARD
	T4DT-FB2BEL	USB BLACK
	T4DT-FB2WEL	USB WHITE
	T4DT-FR2BEL	RS-232 BLACK
	T4DT-FR2WEL	RS-232 WHITE
	T4DO-F-P	OEM BOARD OPTION P
	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
	T4DO-F-PI	OEM BOARD OPTION PI
	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	

<sup>1</sup>UID only <sup>2</sup>r/w enhanced security features on request <sup>3</sup>In preparation <sup>4</sup>r/w in direct chip command mode <sup>5</sup>UID only, read/write on request <sup>6</sup>UID + r/w public area <sup>7</sup>125 kHz are in Russia permanent disabled. The activation is only possible by the acquisition of a license <sup>8</sup>Hash value only <sup>9</sup>Only emulation of 4100, 4102 <sup>10</sup>On request <sup>11</sup>Without encryption <sup>12</sup> 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 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

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