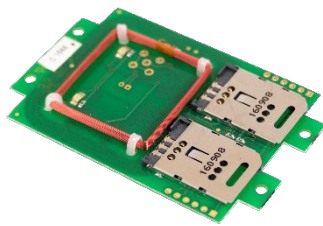


TWN4 MULTITECH

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 $\pm$ 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 μ A 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

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