

TWN4 MULTITECH 2 HF

13.56 MHZ CONTACTLESS READER/WRITER WITH NFC SUPPORT



PCB version



Desktop version

Elatec's TWN4 MultiTech 2 HF reader/writer allows users to read and write to almost any 13.56 MHz tags and/or labels. It supports all major transponder technologies from various suppliers like ATMEL, EM, ST, NXP, TI etc. and ISO standards like ISO14443A/B (T=CL), ISO15693, ISO18092 / ECMA-340 (NFC). The latter is supported by mobile phones with Android version 4.3 or greater.

The reader provides a powerful API which enables system integrators and solution providers to develop complex applications which can be run directly on the reader.

Furthermore these applications as well as custom configurations can be applied wireless to the reader without plugging it out from the current infrastructure. This can be achieved by using a TWN4 Configuration Card and is a time saving feature in large projects.

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
- + One onboard SAM socket (Secure Access Module)
- + Support of wireless reader configuration via TWN4 Configuration Card
- + CCID and PC/SC 2.01
- + 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	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 0.35 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
TEMPERATURE RANGE	Operating Desktop: -25°C up to +70°C / -13°F up to 158°F Storage Desktop: -25°C up to +75°C / -13°F up to 167°F Operating OEM: -25°C up to +80°C / -13°F up to 176°F Storage OEM: -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
TRANSMISSION SPEED	Host: USB Full speed (12 Mbit/s), RS-232 up to 115.200 baud; Air: up to 848 kbit/s
MODES OF OPERATION	USB keyboard emulation – USB virtual COM port – Transparent (support for direct chip commands) CCID / PC/SC 2.01
MTBF	500,000 hours
WEIGHT	PCB approx. 10 g (no cable) Desktop approx. 115 g (with cable)
SUPPORTED TRANSPONDERS (STANDARD)	<u>ISO14443A:</u> LEGIC Advant ¹⁾ , MIFARE Classic EV1 ²⁾ , MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2 ²⁾ , MIFARE Plus S, X, MIFARE Pro X ³⁾ , MIFARE Smart MX ³⁾ , MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1, NTAG2xx, PayPass ³⁾ , SLE44R35, SLE66Rxx (my-d move) ³⁾ , Topaz <u>ISO14443B:</u> Calypso ³⁾ , Calypso Innovatron protocol ³⁾ , CEPAS ³⁾ , HID iCLASS SE/SEOS/SR ¹⁾ , Moneo ³⁾ , Pico Pass ⁴⁾ , SRI4K, SRIX4K, SRI512, SRT512 <u>ISO18092 ECMA-340:</u> NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa ⁵⁾ , NFC Active and passive communication mode <u>ISO15693:</u> EM4x33 ³⁾ , EM4x35 ³⁾ , HID iCLASS SE/SEOS/SR ¹⁾ , ICODE SLI, LEGIC Advant ¹⁾ , M24LR16/64, MB89R118/119, SRF55Vxx (my-d vicinity) ³⁾ , Tag-it, PicoPass ⁴⁾
SUPPORTED TRANSPONDERS (VERSION I)	All Standard Transponder, HID iCLASS SE/SR/SEOS (CSN and Facility Code/PAC) ⁶⁾ , Elite
PERIPHERAL INTERFACES	USB, RS232, TTL serial (logic level 3.3 V, CMOS 5 V tolerant), I ² C ⁷⁾ , 4 GPIOs, Clock/Data ⁸⁾ , Wiegand ⁸⁾ , 1-Wire ⁷⁾
OS SUPPORT	Windows XP, Vista, Embedded CE ⁷⁾ , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android ⁷⁾ , iOS ⁷⁾ , MAC OS X ⁷⁾
CERTIFICATIONS	RoHS-II compliant, CE, FCC, IC, ACA, ACMA
ORDER CODE(S)	T4BO-F2: OEM Board T4BT-FB2BEL2: USB Black T4BT-FB2WEL2: USB White T4BT-FR2BEL2: RS232 Black T4BT-FR2WEL2: RS232 White T4BO-F2-I: OEM Board Version I T4BO-FB2BEL2-I: Version I USB Black

	T4BT-FB2WEL2-I: Version I USB White T4BO-FR2BEL2-I: Version I RS232 Black T4BT-FR2WEL2-I: Version I RS232 White Standard cable length: 2 meters / 78 inch
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¹⁾UID only ²⁾r/w enhanced security features on request ³⁾r/w in direct chip command mode ⁴⁾UID only, read/write on request ⁵⁾UID + r/w public area ⁶⁾UID + PAC (CSN & Facility Code), r/w on request ⁷⁾On request ⁸⁾External interface required

ACCESSORIES

HOLDER	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