

# TWN4 MULTITECH 2 HF

# TWN4 MULTITECH 2 M HF

## 13.56 MHZ CONTACTLESS READERS/WRITERS WITH NFC SUPPORT



TWN4 MultiTech 2 M HF  
PCB top view



TWN4 MultiTech 2 HF  
(inlay customizable)

The TWN4 MultiTech 2 HF and TWN4 MultiTech 2 M HF readers/writers allow users to read and write to almost any 13.56 MHz tags and/or labels. They support all major transponder technologies from various suppliers like EM, Fujitsu, ST, NXP, TI etc. and ISO standards like ISO 14443A/B (T=CL), ISO 15693, ISO 18092 / ECMA-340 (NFC). The latter is supported by mobile phones with Android version 4.3 or greater.

The readers provide a powerful API that 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 readers without plugging them 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
- + On-board 18 kB flash storage, e.g. for storing user accessible non-volatile data
- + Direct chip-commands support
- + One on-board SAM socket (Secure Access Module)
- + CCID and PC/SC 2.01
- + 4 GPIOs
- + Supports quick (re)configuration over network and over wireless interface with TWN4 CONFIG Card
- + TWN4 Upgrade Card for I option available on request
- + 3D construction data (STEP) available on request
- + Available as desktop version and 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	13.56 MHz (HF)
ANTENNA(S)	Integrated
HOUSING	TWN4 MultiTech 2 HF: material: ABS UL94-V0, color: black or white
DIMENSIONS (L X W X H)	TWN4 MultiTech 2 HF: 88 mm x 56 mm x 18 mm / 3.5 inch x 2.2 inch x 0.7 inch TWN4 MultiTech 2 M HF: 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; via generic interface (X1) 3.3 V ± 5%; RS-232 requires 5 V external power supply. 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: 200 mA typically
TEMPERATURE RANGE	TWN4 MultiTech 2 HF, Operating: -25 °C up to +70 °C (-13 °F up to +158 °F) TWN4 MultiTech 2 HF, Storage: -45 °C up to +75 °C (-49 °F up to +167 °F) TWN4 MultiTech 2 M HF, Operating: -25 °C up to +80 °C (-13 °F up to +176 °F) TWN4 MultiTech 2 M HF, 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	TWN4 MultiTech 2 HF: approx. 115 g / 4.06 oz (with cable) TWN4 MultiTech 2 M HF: approx. 10 g / 0.36 oz (no 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>3)</sup> , MIFARE DESFire Light <sup>4)</sup> , MIFARE Plus S, X, MIFARE Pro X <sup>5)</sup> , MIFARE Smart MX <sup>5)</sup> , MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1 <sup>2)</sup> , NTAG2xx, SLE44R35 <sup>5)</sup> , SLE66Rxx (my-d move) <sup>5)</sup> , Topaz <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>ISO14443B:</u> Calypso <sup>5)</sup> , Calypso Innovatron protocol <sup>5)</sup> , CEPAS <sup>5)</sup> , HID iCLASS <sup>1)</sup> , Moneo <sup>5)</sup> , Pico Pass <sup>7)</sup> , SRI4K, SRIX4K, SRI512, SRT512 <u>ISO15693:</u> EM4x33 <sup>5)</sup> , EM4x35 <sup>5)</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>5)</sup> , Tag-it, PicoPass <sup>7)</sup>
SUPPORTED TRANSPONDERS (OPTION I)	Requires TWN4 SIO Card, All Standard Transponders, HID iCLASS, HID iCLASS SE/SR/Elite, HID iCLASS SEOS (CSN & Facility Code/PAC) <sup>8)</sup>
OS SUPPORT	Windows Embedded CE <sup>4)</sup> , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android <sup>4)</sup> , iOS <sup>4)</sup> , MAC OS X <sup>4)</sup>
PERIPHERAL INTERFACES	USB, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I <sup>2</sup> C, 4 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 2 HF TWN4 MultiTech 2 M HF
CERTIFICATION(S)	TWN4 MultiTech 2 HF: CE/RED, FCC, IC, and many more TWN4 MultiTech 2 M HF: CE/RED, FCC, IC Both readers are REACH and RoHS-III compliant.

<sup>1)</sup>UID only <sup>2)</sup>r/w enhanced security features on request <sup>3)</sup>EV2/EV3 supported as part of the EV1 downward compatibility <sup>4)</sup>On request <sup>5)</sup>r/w in direct chip command mode <sup>6)</sup>UID + r/w public area <sup>7)</sup>UID only, read/write on request <sup>8)</sup>UID + PAC (Facility Code), r/w on request

ORDER CODE(S)	<b>TWN4 MultiTech 2 HF:</b>	
	T4BT-FB2BEL2	USB Black
	T4BT-FB2WEL2	USB White
	T4BT-FR2BEL2	RS-232 Black
	T4BT-FR2WEL2	RS-232 White
	T4BT-FB2BEL2-I	Option I USB Black
	T4BT-FB2WEL2-I	Option I USB White
	T4BT-FR2BEL2-I	Option I RS-232 Black
	T4BT-FR2WEL2-I	Option I RS-232 White
	<b>TWN4 MultiTech 2 M HF:</b>	
T4BO-F2	OEM Board	
T4BO-F2-I	OEM Board Version I	

## 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 Systems GmbH

Schwieberdinger Str. 44  
71636 Ludwigsburg  
Germany  
P +49 7141 309736 0  
E-Mail: info-rfid@elatec.com  
Website: elatec.com

### ELATEC Inc.

1995 SW Martin Hwy  
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

918, Main Building, Tian An Cyber Times  
Tower, No. 6, Tairan Fourth Road, Tian 'an  
Community, Shatou Neighborhood  
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.