

# TWN4 MultiTech 2 LF HF

## Multi-frequency RFID reader (LF/HF) with NFC support



TWN4 MultiTech 2 LF HF  
(exemplary illustration)

The TWN4 MultiTech 2 family of contactless RFID readers and modules allows users to read and write to almost any LF and HF tags and labels. All products support NFC and, optionally, Bluetooth Low Energy (BLE). In addition, they are also compatible with the two most commonly used smartphone operating systems, Android and iOS, which gives the option to integrate them in mobile identification applications. The desktop readers are available as Plug & Play devices that can be easily customized (i.e. inlay design), whereas the PCB modules offer a large amount of interfaces and a perfect form factor for an easy and quick integration in any host device. This broad range of product features makes the TWN4 MultiTech 2 family an excellent solution for almost every project.

Key features of the TWN4 MultiTech 2 LF HF desktop reader include a powerful SDK for writing apps that are executed directly on the reader, the possibility to upgrade the firmware in the field, and transparent data exchange with the RFID media. Additionally, the reader can read more than 60 RFID technologies from low (LF) and high frequency (HF) bands, including NFC. This gives the option to select as many of the technologies required instead of being forced to select just a few ones.

### Special features:

- + Possibility to read more than 60 RFID technologies
- + Two RFID frequencies (125 kHz/13.56 MHz) and NFC support
- + 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
- + Supports transparent data exchange with RFID media
- + CCID and PC/SC 2.01
- + Customizable inlay design



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

FREQUENCIES	125 kHz (LF) / 13.56 MHz (HF)																								
ANTENNAS	Integrated																								
HOUSING	Material: ABS UL94-V0 Color: black or white																								
DIMENSIONS (L X W X H)	Approx. 88.00 x 56.00 x 18.50 mm / 3.46 x 2.20 x 0.73 inch																								
POWER	USB: 4.3 V - 5.5 V RS-232: requires 5 V external power supply PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A																								
POWER OUTPUT	125 kHz: -10.01 db $\mu$ A/m at 10 meters 13.56 MHz: -2.25 db $\mu$ A/m at 10 meters																								
MODULATION	ASK / ASK																								
CURRENT CONSUMPTION	RF field on: 120 mA typically / Sleep: 500 $\mu$ A typ.																								
TEMPERATURE RANGE	Operating: -25 °C up to +70 °C (-13 °F up to +158 °F) Storage: -40 °C up to +75 °C (-40 °F up to +167 °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																								
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01																								
MTBF	500,000 hours																								
WEIGHT	Approx. 115 g / 4.06 oz (with cable)																								
SUPPORTED OPTIONS AND TRANSPONDERS	Depending on the firmware version and installed options, ELATEC readers and modules can support a wide range of RFID technologies. Please refer to the relevant ELATEC transponder matrix (available at <a href="http://www.elatec-rfid.com/int/transponder-technology">www.elatec-rfid.com/int/transponder-technology</a> ) for more information about the available options and RFID technologies supported by the product.																								
OS SUPPORT	Windows 7 (32-/64-bit) and higher versions, Linux, Android <sup>1)</sup> , iOS <sup>1)</sup> , MAC OS X <sup>1)</sup>																								
PERIPHERAL INTERFACES	USB, RS-232, 2 SAM slots for ID-000 card format																								
TRANSMISSION SPEED	Host: USB full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s																								
CERTIFICATION NAME	TWN4 MultiTech 2 LF HF																								
CERTIFICATIONS	Non-exhaustive list <sup>2)</sup> : CE/RED, FCC, IC, UL listed, REACH and RoHS-III compliant																								
ORDER CODES	<table border="0"> <tr> <td>T4BT-FB2BEL6</td> <td>Standard reader, USB cable, black housing</td> </tr> <tr> <td>T4BT-FB2WEL6</td> <td>Standard reader, USB cable, white housing</td> </tr> <tr> <td>T4BT-FR2BEL6</td> <td>Standard reader, RS-232 cable, black housing</td> </tr> <tr> <td>T4BT-FR2WEL6</td> <td>Standard reader, RS-232 cable, white housing</td> </tr> <tr> <td>T4BT-FB2BEL6-P</td> <td>Reader with P option, USB cable, black housing</td> </tr> <tr> <td>T4BT-FB2WEL6-P</td> <td>Reader with P option, USB cable, white housing</td> </tr> <tr> <td>T4BT-FR2BEL6-P</td> <td>Reader with P option, RS-232 cable, black housing</td> </tr> <tr> <td>T4BT-FR2WEL6-P</td> <td>Reader with P option, RS-232 cable, white housing</td> </tr> <tr> <td>T4BT-FB2BEL6-PI</td> <td>Reader with PI options, USB cable, black housing</td> </tr> <tr> <td>T4BT-FB2WEL6-PI</td> <td>Reader with PI options, USB cable, white housing</td> </tr> <tr> <td>T4BT-FR2BEL6-PI</td> <td>Reader with PI options, RS-232 cable, black housing</td> </tr> <tr> <td>T4BT-FR2WEL6-PI</td> <td>Reader with PI options, RS-232 cable, white housing</td> </tr> </table> <p>The order codes above describe RFID readers equipped with a two-meter-long cable. Contact ELATEC for other cable lengths.</p>	T4BT-FB2BEL6	Standard reader, USB cable, black housing	T4BT-FB2WEL6	Standard reader, USB cable, white housing	T4BT-FR2BEL6	Standard reader, RS-232 cable, black housing	T4BT-FR2WEL6	Standard reader, RS-232 cable, white housing	T4BT-FB2BEL6-P	Reader with P option, USB cable, black housing	T4BT-FB2WEL6-P	Reader with P option, USB cable, white housing	T4BT-FR2BEL6-P	Reader with P option, RS-232 cable, black housing	T4BT-FR2WEL6-P	Reader with P option, RS-232 cable, white housing	T4BT-FB2BEL6-PI	Reader with PI options, USB cable, black housing	T4BT-FB2WEL6-PI	Reader with PI options, USB cable, white housing	T4BT-FR2BEL6-PI	Reader with PI options, RS-232 cable, black housing	T4BT-FR2WEL6-PI	Reader with PI options, RS-232 cable, white housing
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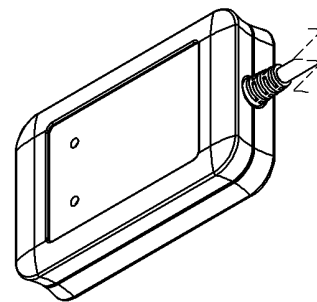
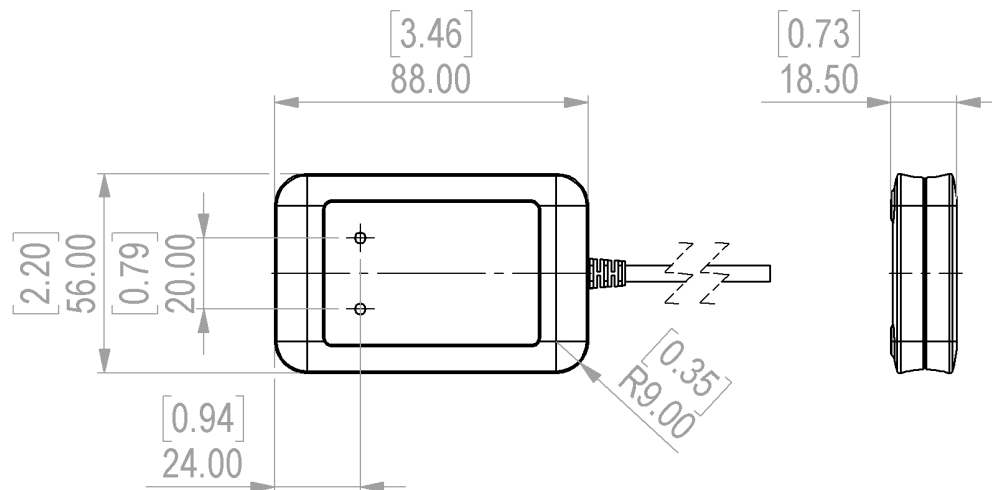
<sup>1)</sup>On request

<sup>2)</sup>The product has been certified for use in many countries and regions. Contact your Sales representative for detailed information about all certifications and approvals granted to the product.

## ACCESSORIES

HOLDERS	HKSI-B	Snap-in holder, black
	HKSI-W	Snap-in holder, white
	HKBR-B	Bracket holder, black
	HKBR-W	Bracket holder, white
POWER SUPPLIES	ELATEC RFID readers and modules can be delivered with additional cables or external power supplies. Refer to the data sheet <i>Cables for ELATEC devices</i> for detailed information.	

## TECHNICAL DRAWINGS



All measures in mm [inch]

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