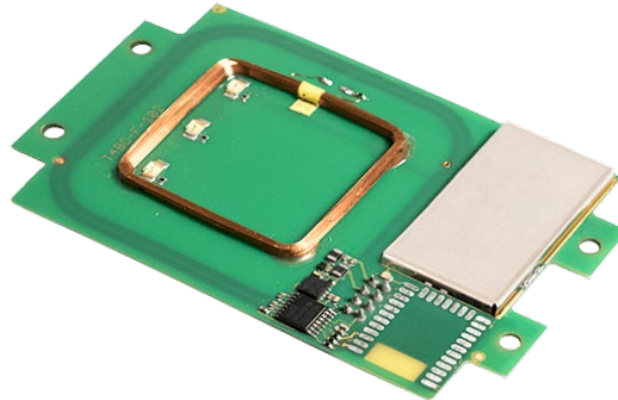


# TWN4 MultiTech 2 M LF

## Single-frequency LF RFID module



TWN4 MultiTech 2 M LF  
(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.

TWN4 MultiTech 2 M LF is a single-frequency product model of the TWN4 MultiTech 2 family that allows users to read and write almost all common worldwide 125 kHz tags and/or labels. Further key features of the RFID module include a powerful SDK for writing apps that are executed directly on the module, the possibility to upgrade the firmware in the field and transparent data exchange with the RFID media.

### Special features:

- + Possibility to read many LF RFID technologies
- + Cost-optimized single-frequency RFID solution (125 kHz) with integrated LF antenna
- + Powerful SDK for writing apps which are executed directly on the module
- + 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
- + Compact form factor for easy integration



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)  |
| ANTENNA                            | Integrated  |
| DIMENSIONS (L X W X H)             | Approx. 76.00 x 49.00 x 9.00 mm / 2.99 x 1.93 x 0.35 inch   |
| POWER                              | USB: 4.3 V - 5.5 V<br>Generic interface (X1): 3.3 V ± 5%<br>RS-232: requires 5 V external power supply<br>PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A   |
| CURRENT CONSUMPTION                | RF field on: 90 mA typically  |
| TEMPERATURE RANGE                  | Operating: -25 °C up to +80 °C (-13 °F up to +176 °F)<br>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                             | Approx. 10 g / 0.35 oz (without 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, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I <sup>2</sup> C, 4 GPIOs, Clock/Data, Wiegand D0/D1, 1 SAM slot for ID-000 card format  |
| TRANSMISSION SPEED                 | Host: USB full speed (12 Mbit/s), RS-232: up to 115,200 baud  |
| CERTIFICATION NAME                 | TWN4 MultiTech 2 M LF   |
| CERTIFICATIONS                     | Non-exhaustive list <sup>2)</sup> :<br>CE/RED, FCC, IC, REACH and RoHS-III compliant  |
| ORDER CODES                        | T4BO-F4                      Standard reader module<br>T4BO-F4-P                    Reader module with P option   |

<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

|                           |  |
|---------------------------|--|
| CABLES AND 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. |
|---------------------------|--|

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