

# TWN4 MultiTech SmartCard LEGIC 42

TWN4 SmartCard LEGIC NFC USB

# Multi-frequency RFID reader (LF/HF/NFC) for ISO/IEC 7816 cards



TWN4 MultiTech SmartCard LEGIC 42 (exemplary illustration)

ELATEC TWN4 MultiTech SmartCard LEGIC 42 is a combination of the TWN4 MultiTech LEGIC 42 (with LEGIC SM-4200) and an integrated contact card reader/writer (ISO 7816). It allows users to read and write to almost any 125 kHz and 13.56 MHz tags and/or labels. It supports all major technologies from various suppliers like ATMEL, EM, ST, NXP, TI, HID, LEGIC, etc. and many ISO standards like ISO 14443A/B (T=CL), ISO 15693 and ISO 18092 / ECMA-340 (NFC). The integrated chip card reader has been designed for easy integration into various applications.

The reader can be programmed with a script language for autonomous execution of even complex commands like login procedures, increment/decrement functions and many more. 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
- + Supports transparent data exchange with RFID media
- + CCID and PC/SC 2.01



































# 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 68.00 x 19.19 mm / 3.46 x 2.68 x 0.76 inch  |  |  |
| DIIVILINSIONS (L X VV X II) | Approx. 88.00 x 68.00 x 19.19 mm / 3.46 x 2.68 x 0.76 Inch  USB: 4.3 V — 5.5 V  |  |  |
| POWER                       | RS-232: requires 5 V external power supply  |  |  |
|                             | ES1/PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A   |  |  |
|                             | Operating: -25 °C up to +70 °C (-13 °F up to +158 °F)   |  |  |
| TEMPERATURE RANGE           |   |  |  |
| RELATIVE HUMIDITY           | Storage: -40 °C up to +75 °C (-40 °F up to +167 °F)   |  |  |
|                             | 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 / Min. 100,000 card insertion cycles  |  |  |
| WEIGHT                      | Approx. 140 g / 4.94 oz (with housing and USB cable)  |  |  |
| SMARTCARD STANDARDS         | ISO/IEC 7816 Part 1-4, Class A/B/C (5V, 3V, 1.8V), T=0, T=1   |  |  |
| SMARTCARD CLOCK FREQUENCY   | 5 MHz up to 15 MHz  |  |  |
| SUPPORTED SMARTCARDS        | 5V, 3V and 1.8V, ISO/IEC 7816 Class A/B/C   |  |  |
| POWER TO SMARTCARD          | 60 mA in Class A; 55 mA in Class B; 35 mA in Class C  |  |  |
| SMARTCARD DETECTION         | Card present switch / Automatic power on/off / Short-circuit protection   |  |  |
| SMARTCARD CARD SIZE         | 2x ID-000 (SAM) ID-1  |  |  |
| SMARTCARD CONTACT TYPE      | 8-pin sliding contact socket, C4/C8 support ID-1  |  |  |
|                             | Depending on the firmware version and installed options, ELATEC readers and modules can   |  |  |
| SUPPORTED OPTIONS AND       | support a wide range of RFID technologies. Please refer to the relevant ELATEC  |  |  |
| TRANSPONDERS                | transponder matrix (available at <a href="https://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 sockets  |  |  |
| 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 SmartCard LEGIC NFC USB  |  |  |
| CERTIFICATIONS              | Non-exhaustive list <sup>2)</sup> :   |  |  |
|                             | CE/RED, REACH and RoHS-III compliant  |  |  |
| ORDER CODES                 | T4SD-BB2BE1 Standard reader, USB cable, black housing   |  |  |
|                             | T4SD-BB2WE1 Standard reader, USB cable, white housing   |  |  |
|                             | T4SD-BB2BE1-P Reader with P option, USB cable, black housing  |  |  |
|                             | T4SD-BB2WE1-P Reader with P option, USB cable, white housing  |  |  |
|                             | The order codes above describe RFID readers equipped with a two-meter-long cable.   |  |  |
|                             | Contact ELATEC for other cable lengths.   |  |  |
| 1lo                         |   |  |  |

<sup>1)</sup>On request

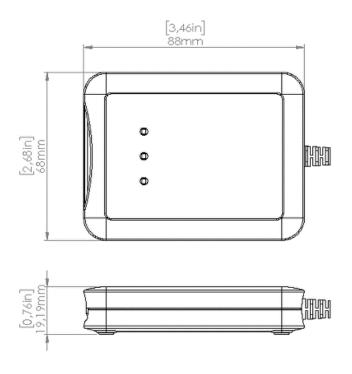
<sup>&</sup>lt;sup>2</sup>The product has been certified for use in many countries and regions. Contact your Sales representative for detailed information about all certifications and approvals granted to the product.



## **ACCESSORIES**

| HOLDERS        | HKSD-B  | SmartCard holder kit, black |  |
|----------------|---|-----------------------------|--|
|                | HKSD-W  | SmartCard holder kit, white |  |
| POWER SUPPLIES | ELATEC RFID readers and modules can be delivered with additional cables or external |                             |  |
|                | power supplies. Refer to the data sheet Cables for ELATEC devices for detailed      |                             |  |
|                | information.  |                             |  |

# **TECHNICAL DRAWINGS**



All measures in mm [inch]

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