

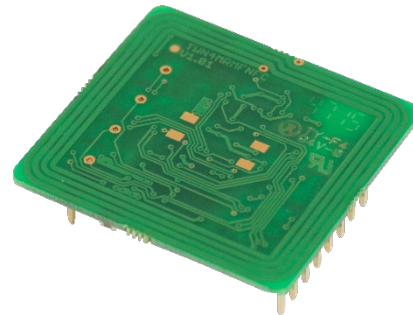
TWN4 MULTITECH HF MINI

TWN4 MINI READER MIFARE NFC

COMPACT PROGRAMMABLE RFID/NFC READER/WRITER



TWN4 MultiTech HF Mini
Top view



TWN4 MultiTech HF Mini
Bottom view

ELATEC TWN4 MultiTech HF Mini reader is designed for integration into machines, handheld computers or any other human interface devices such as displays, panels, etc. The focus has especially been set on size, flexibility and price. Thanks to its compact dimensions, integration directly on a PC board is possible.

The TWN4 Simple Protocol enables quick software development cycles. All host communication is done via USB or asynchronous serial CMOS/TTL interface. The module offers positions for placement of two LEDs that can be controlled by software.

An external Secure Access Module (SAM) is supported for enhanced security and cryptographic performance. This enables the application to perform secure transactions.

Special features:

- + Powerful SDK for writing apps which are executed directly on the reader
- + Firmware update in the field possible
- + Direct chip-commands support
- + Operating voltage: 3.15 V – 5.5 V DC
- + Compact design (33 x 30 x 11 mm)
- + Integrated antenna
- + 4 GPIOs
- + Industrial operating temperature: -25 °C to +80 °C
- + Pin compatible upgrade from Mini Reader T3MR-F
- + Firmware based on versatile TWN4 technology
- + 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



Elevator



EV Chargers



Access



Shop POS



Fitness
Equipment



Ticket POS



PC Log-on



Document
Management



Driver ID



Vending



Parking



Gaming



Locker Locks



Time
Attendance



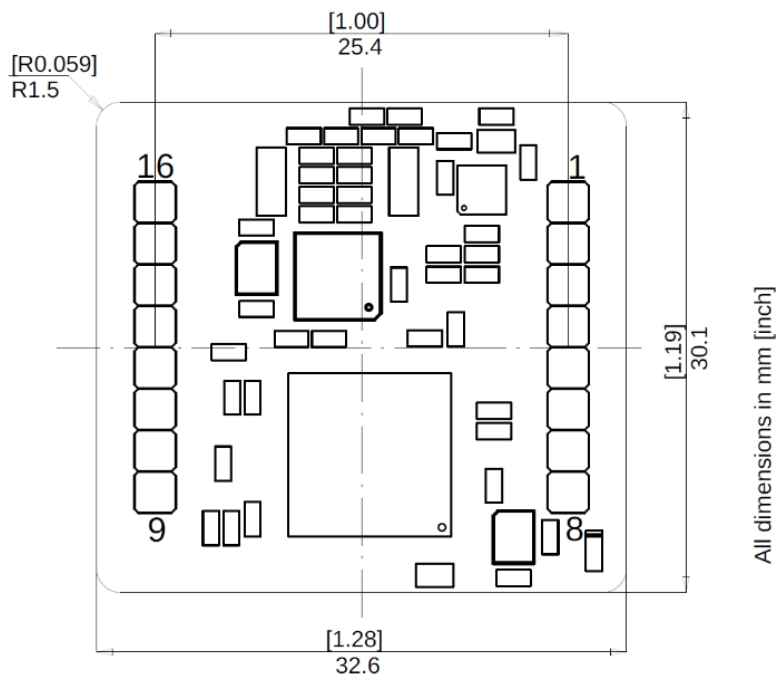
Industrial
PC

TECHNICAL DATA

FREQUENCY	13.56 MHz (HF)										
ANTENNA(S)	Integrated										
DIMENSIONS (L X W X H)	32.6 mm x 30.1 mm x 11.2 mm / 1.28 inch x 1.19 inch x 0.44 inch										
POWER SUPPLY	3.15 V - 5.5 V DC 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: 110 mA typically										
TEMPERATURE RANGE	Operating: -25 °C up to +80 °C (-13 °F up to +176 °F) 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 70 mm / 2.75 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. 4 g / 0.14 oz										
SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ	<p><u>ISO14443A:</u> LEGIC Advant¹⁾, MIFARE Classic EV1²⁾, MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2³⁾, MIFARE DESFire Light⁴⁾, MIFARE Plus S, X, MIFARE Pro X⁵⁾, MIFARE Smart MX⁵⁾, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1²⁾, NTAG2xx, SLE44R35⁵⁾, SLE66Rxx (my-d move)⁵⁾, Topaz</p> <p><u>ISO18092 ECMA-340:</u> NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa⁶⁾, NFC Active and passive communication mode</p> <p><u>ISO14443B:</u> Calypso⁵⁾, Calypso Innovatron protocol⁵⁾, CEPAS⁵⁾, HID iCLASS¹⁾, Moneo⁵⁾, Pico Pass⁷⁾, SRI4K, SRIX4K, SRI512, SRT512</p> <p><u>ISO15693:</u> EM4x33⁵⁾, EM4x35⁵⁾, HID iCLASS¹⁾, HID iCLASS SE/SR¹⁾, ICODE SLI, LEGIC Advant¹⁾, M24LR16/64, SRF55Vxx (my-d vicinity)⁵⁾, Tag-it, PicoPass⁷⁾</p>										
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) ⁸⁾										
OS SUPPORT	Windows 7 (32-/64-bit), 8, 8.1, 10, Linux, MAC OS X ⁴⁾										
PERIPHERAL INTERFACES	USB, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), SPI ⁴⁾ , 4 GPIOs, Clock/Data, Wiegand										
TRANSMISSION SPEED	Host: USB Full speed (12 Mbit/s), Serial TTL: up to 115,200 baud, Air: up to 848 kbit/s										
CERTIFICATION NAME	TWN4 Mini Reader MIFARE NFC										
CERTIFICATION(S)	CE/RED, FCC, IC, REACH and RoHS-III compliant										
ORDER CODE(S)	<table border="0"> <tr> <td>T4MK-F, including T4MR-F</td> <td>Development Board</td> </tr> <tr> <td>T4MR-F</td> <td>OEM Board (TTL serial)</td> </tr> <tr> <td>T4MR-F-U</td> <td>OEM Board (USB)</td> </tr> <tr> <td>T4MR-F-I</td> <td>OEM Board (TTL serial) Option I</td> </tr> <tr> <td>T4MR-F-UCCID</td> <td>OEM Board (USB CCID) Option I</td> </tr> </table>	T4MK-F, including T4MR-F	Development Board	T4MR-F	OEM Board (TTL serial)	T4MR-F-U	OEM Board (USB)	T4MR-F-I	OEM Board (TTL serial) Option I	T4MR-F-UCCID	OEM Board (USB CCID) Option I
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T4MR-F	OEM Board (TTL serial)										
T4MR-F-U	OEM Board (USB)										
T4MR-F-I	OEM Board (TTL serial) Option I										
T4MR-F-UCCID	OEM Board (USB CCID) Option I										

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

DRAWING (COMPONENT SIDE)



Pin spacing 2.54 mm [0.1 inch]

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