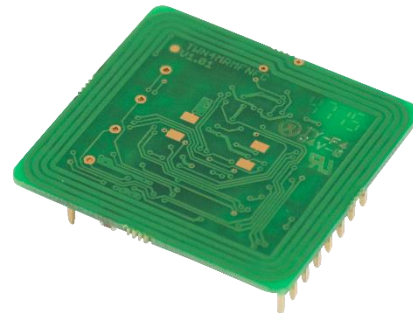# TWN4 MULTITECH HF MINI

COMPACT PROGRAMMABLE RFID/NFC READER/WRITER

TWN4 MultiTech HF Mini
Top view

TWN4 MultiTech HF Mini
Bottom view

Elatec's 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
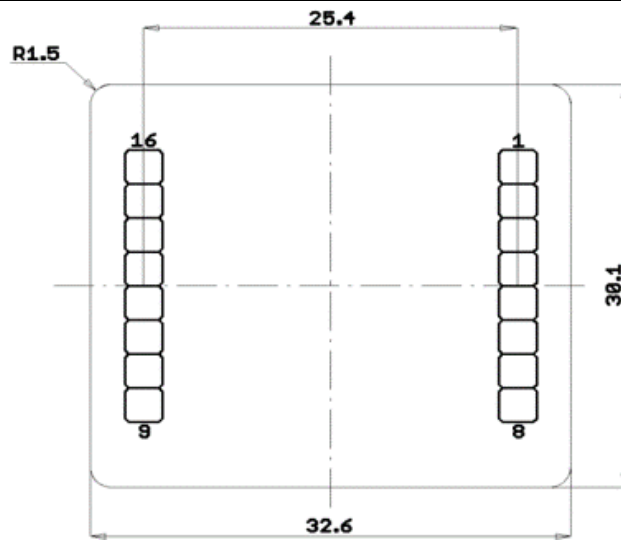
TECHNICAL DATA

FREQUENCY	13.56 MHz (HF)
ANTENNA	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
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
TRANSMISSION SPEED	Host: USB Full speed (12 Mbit/s), Serial TTL: up to 115.200 baud; Air: up to 848 kbit/s
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
MTBF	500,000 hours
WEIGHT	Approx. 4 g
SUPPORTED TRANSPONDERS (STANDARD)	ISO14443A: LEGIC Advant[1], MIFARE Classic EV1[2], MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2[2], MIFARE Plus S, X, MIFARE Pro X[3], MIFARE Smart MX[3], MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1, NTAG2xx, PayPass[3], SLE44R35, SLE66Rxx (my-d move)[3], Topaz ISO14443B: Calypso[3], Calypso Innovatron protocol[3], CEPAS[3], HID iCLASS[1], Moneo[3], Pico Pass[4], SRI4K, SRIX4K, SRI512, SRT512 ISO18092 ECMA-340: NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa[5], NFC Active and passive communication mode ISO15693: EM4x33[3], EM4x35[3], HID iCLASS[1], HID iCLASS SE/SR[1], ICODE SLI, LEGIC Advant[1], M24LR16/64, SRF55Vxx (my-d vicinity)[3], Tag-it, PicoPass[4]
SUPPORTED TRANSPONDERS (VERSION I)	Requires external TWN4 SIO Card, All Standard Transponders, HID iCLASS, HID iCLASS SE/SR/SEOS (CSN and Facility Code/PAC)[6], HID iCLASS Elite & SE Elite
OS SUPPORT	Windows XP, Vista, 7 (32-/64-bit), 8, 8.1, 10, Linux, MAC OS X[7]
PERIPHERAL INTERFACES	USB, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), SPI[7], 4 GPIOs, Clock/Data, Wiegand
CERTIFICATION NAME	TWN4 Mini Reader MIFARE NFC
CERTIFICATION(S)	CE/RED, RoHS-II compliant
ORDER CODE(S)	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) Version I T4MR-F-UCCID OEM Board (USB CCID) Version I

[1]UID only [2]r/w enhanced security features on request [3]r/w in direct chip command mode [4]UID only, read/write on request [5]UID + r/w public area [6]UID + PAC (CSN & Facility Code), r/w on request [7]On request

DRAWING

Top view

Pin spacing 2.54 mm