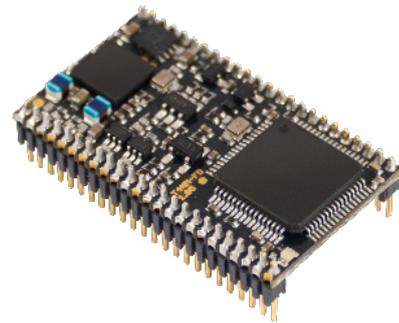


TWN4 MultiTech Nano M

Miniature RFID module (LF/HF/NFC) for external direct matched antenna



C0 version (SMT mounting)



C1 version (THT mounting)

With the TWN4 MultiTech Nano family, ELATEC offers extremely compact RFID modules that are also fully compliant with the TWN4 technology. Their miniature size and low energy consumption give the option to integrate them in smaller battery-powered consumer devices, like tablet PCs, POS terminals or mobile payment systems. Furthermore, their components are mounted on one side only, which facilitates easy placement on the main circuit board. These devices are the ideal solution in case of particular restrictions during the installation (space limitations, metal surrounding the reader antenna, etc.).

Key features of the TWN4 MultiTech Nano M RFID module include compact dimensions and two mounting options (Surface Mounting or Through Hole Technology) for an easy integration into almost all mobile and battery-operated applications, as well as the possibility to read more than 60 RFID technologies from low (LF) and high (HF) frequency bands, including NFC, depending on the external antenna/mother board connected to the module. The ELATEC B option also gives the possibility to connect the reader module with an external BLE module.

Special features:

- + Easy integration thanks to a compact design and components mounted only on one side
- + Available with edge-plated pads for easy and reliable surface mounting (C0 version) or with connectors (C1 version) for THT mounting
- + Supports connection of external ISO 7816 compatible SAM cards
- + 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
- + Development board and I/O Extender for interface testing 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

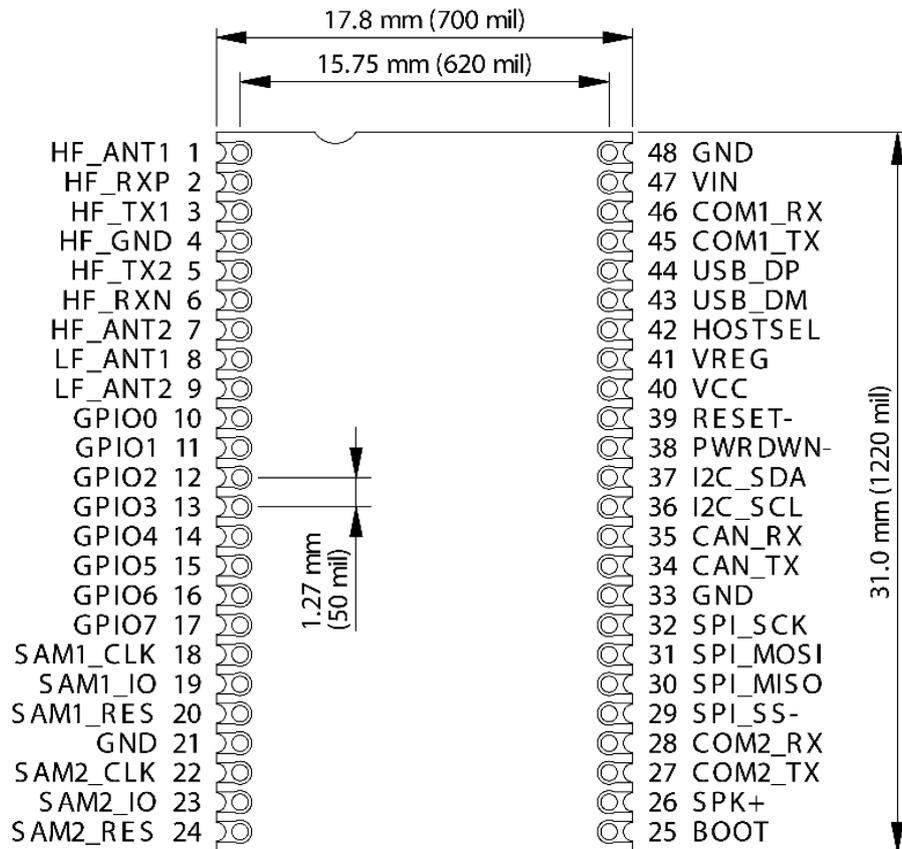
TECHNICAL DATA

FREQUENCIES	125 kHz (LF) / 13.56 MHz (HF)
ANTENNAS	Externally, direct matched for 13.56 MHz – 490 μ H \pm 5% for 125 kHz
DIMENSIONS (L X W X H)	C0 version: approx. 31.00 x 17.80 x 2.70 mm / 1.22 x 0.70 x 0.11 inch C1 version: approx. 31.00 x 17.80 x 8.11 mm / 1.22 x 0.70 x 0.32 inch
POWER	Direct power supply: 3.3 V \pm 5% On-board voltage regulator: 4.3 V – 5.5 V PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A
CURRENT CONSUMPTION	RF field on: 120 mA typically / Sleep: 500 μ A typ.
TEMPERATURE RANGE	Operating: -25 °C up to +80 °C (-13 °F up to +176 °F) Storage: -40 °C up to +85 °C (-40 °F up to +185 °F)
RELATIVE HUMIDITY	5% to 95% non-condensing
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
MTBF	500,000 hours
WEIGHT	Approx. 7 g / 0.25 oz
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 www.elatec-rfid.com/int/transponder-technology) 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 ¹⁾ , iOS ¹⁾ , MAC OS X ¹⁾
PERIPHERAL INTERFACES	USB, 2 x TTL serial (logic level 3.3 V, CMOS 5 V tolerant), I ² C, SPI, 8 GPIOs, Clock/Data, Wiegand D0/D1
TRANSMISSION SPEED	Host: USB Full speed (12 Mbit/s), TTL serial: up to 115,200 baud, HF Air: up to 848 kbit/s
CERTIFICATION NAME	TWN4 MultiTech Nano M
CERTIFICATIONS	Non-exhaustive list ²⁾ : CE/RED, FCC, IC, REACH and RoHS-III compliant
ORDER CODES	<p>C0 version (SMT)</p> <p>T4NM-FDC0 Standard reader module T4NM-FDC0-P Reader module with P option T4NM-FDC0-PI Reader module with PI options</p> <p>C1 version (THT)</p> <p>T4NM-FDC1 Standard reader module T4NM-FDC1-P Reader module with P option T4NM-FDC1-PI Reader module with PI options</p>

¹⁾On request

²⁾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.

TECHNICAL DRAWINGS



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