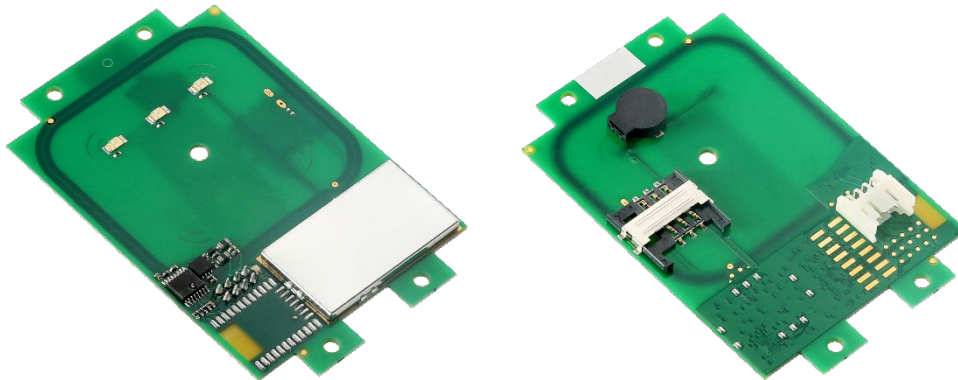# TWN4 MultiTech 2 M HF

Single-frequency HF RFID module with NFC support

TWN4 MultiTech 2 M HF
(exemplary illustrations)

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.

Key features of the TWN4 MultiTech 2 M HF 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. Additionally, the module can read a lot of HF RFID technologies from the 13.56 MHz frequency band, including NFC. This gives the option to select as many of the technologies required instead of being forced to select just a few ones.

Special features:

+ Possibility to read many HF RFID technologies
+ Cost-optimized reader solution
+ 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

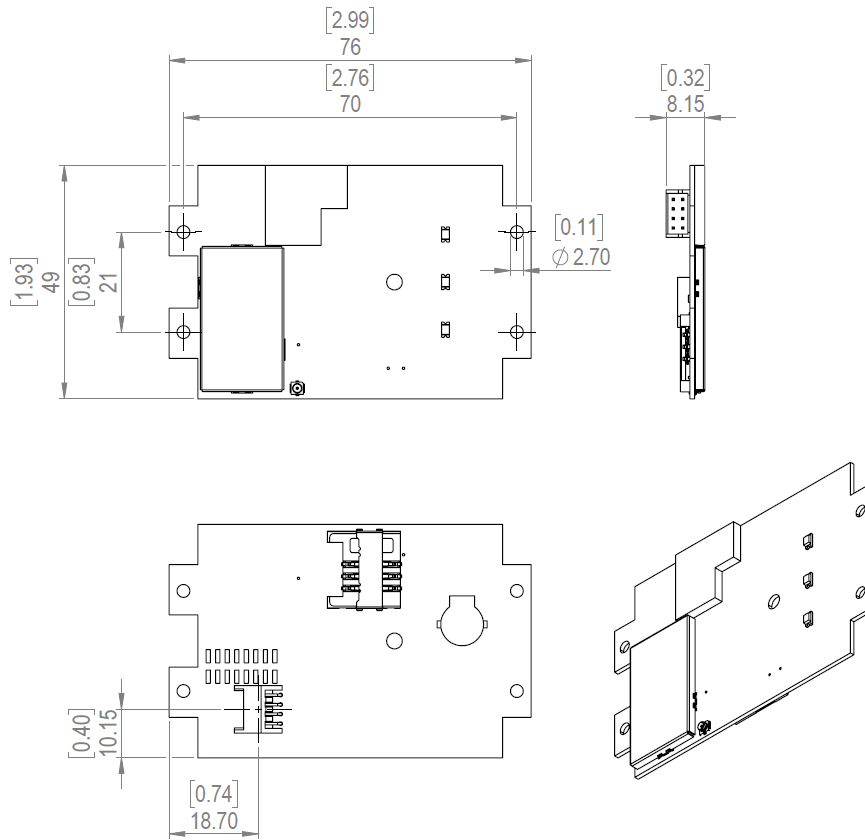|	
FREQUENCY	13.56 MHz (HF)
ANTENNA	Integrated
DIMENSIONS (L X W X H)	Approx. 76.00 x 49.00 x 8.20 mm / 2.99 x 1.93 x 0.32 inch
POWER	USB: 4.3 V - 5.5 V Generic interface (X1): 3.3 V ± 5% RS-232: requires 5 V external power supply ES1/PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A
CURRENT CONSUMPTION	RF field on: 200 mA typically
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
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 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, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I²C, 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, HF Air: up to 848 kbit/s
CERTIFICATION NAME	TWN4 MultiTech 2 M HF
CERTIFICATIONS	Non-exhaustive list[2]: CE/RED, FCC, IC, TAA compliant, REACH and RoHS-III compliant
ORDER CODES	T4BO-F2 Standard reader module T4BO-F2-I Reader module with I option

[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.

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 *Cables for ELATEC devices* for detailed information.

All measures in mm [inch]