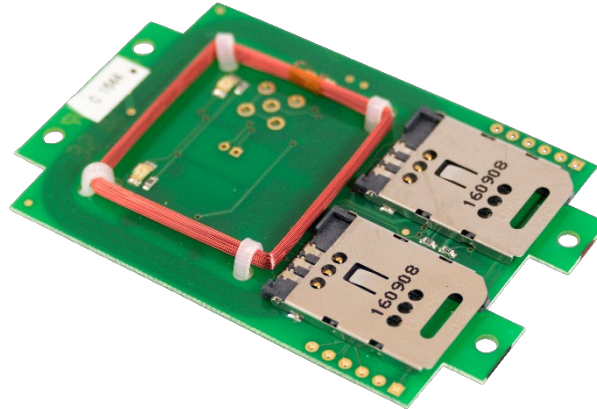# TWN4 MultiTech M

Multi-frequency RFID module (LF/HF) with NFC support

TWN4 MultiTech M
(exemplary illustration)

ELATEC TWN4 family of RFID readers and modules allows users to read and write to almost any 125 kHz and 13.56 MHz tags and/or labels. It supports all major transponders from various suppliers like ATMEL, EM, ST, NXP, TI, HID, LEGIC, etc. and ISO standards like ISO 14443A/B (T=CL), ISO 15693 and ISO 18092 / ECMA-340 (NFC). The new generation is a direct enhancement to the successful TWN3 family as it comes in the same mechanical dimensions (OEM PCB and desktop housing). The readers support host communication via USB or RS-232.

Special features:

+ Possibility to read more than 60 RFID technologies
+ 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
+ Dedicated expansion bus for connection of LCD, mass storage, etc.

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

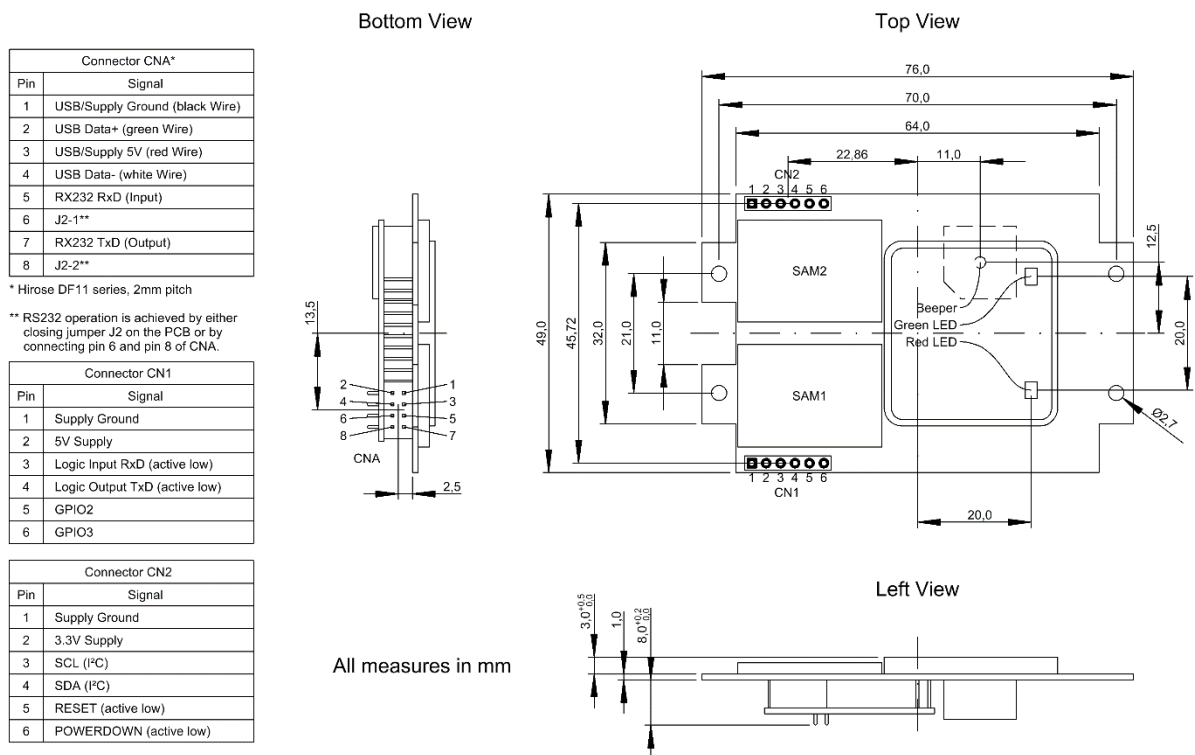|	
FREQUENCIES	125 kHz (LF) / 13.56 MHz (HF)
ANTENNAS	Integrated
DIMENSIONS (L X W X H)	Approx. 76.00 x 49.00 x 11.00 mm / 2.99 x 1.93 x 0.43 inch
POWER	USB: 4.3 V – 5.5 V Connector CNA: 3.3 V ± 5% RS-232: requires 5 V external power supply PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A
CURRENT CONSUMPTION	RF field on: 120 mA typically / Sleep: 500 µA 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
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
WEIGHT	Approx. 12 g / 0.43 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, 2 GPIOs, Clock/Data, Wiegand D0/D1, 2 SAM slots for ID-000 card format
TRANSMISSION SPEED	USB full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s
CERTIFICATION NAME	TWN4 MultiTech M
CERTIFICATIONS	Non-exhaustive list[2]: CE/RED, FCC, IC, REACH and RoHS-III compliant
ORDER CODES	T4DO-F — Standard reader module T4DO-F-P — Reader module with P option T4DO-F-PI — Reader module with PI options

[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.

Bottom View

Top View

Left View

All measures in mm

Connector CNA*	
Pin	Signal
1	USB/Supply Ground (black Wire)
2	USB Data+ (green Wire)
3	USB/Supply 5V (red Wire)
4	USB Data- (white Wire)
5	RX232 RxD (Input)
6	J2-1**
7	RX232 TxD (Output)
8	J2-2**

* Hirose DF11 series, 2mm pitch

** RS232 operation is achieved by either closing jumper J2 on the PCB or by connecting pin 6 and pin 8 of CNA.

Connector CN1	
Pin	Signal
1	Supply Ground
2	5V Supply
3	Logic Input RxD (active low)
4	Logic Output TxD (active low)
5	GPIO2
6	GPIO3

Connector CN2	
Pin	Signal
1	Supply Ground
2	3.3V Supply
3	SCL (I²C)
4	SDA (I²C)
5	RESET (active low)
6	POWERDOWN (active low)