

TWN4 MULTITECH 2 HF

SINGLE-FREQUENCY RFID READER FOR HF WITH NFC SUPPORT



TWN4 MultiTech 2 HF
(exemplary illustration)

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 and housing color), 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 HF desktop reader include a powerful SDK for writing apps that are executed directly on the reader, the possibility to upgrade the firmware in the field and a direct chip-commands support. Additionally, the reader can read simultaneously 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
- + Supports Apple VAS and ECP 2.0¹⁾
- + Powerful SDK for writing apps which are executed directly on the reader
- + Firmware update in the field possible
- + On-board 18 kB flash storage, e.g. for storing user accessible non-volatile data
- + Direct chip-commands support
- + CCID and PC/SC 2.01



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
HOUSING	Material: ABS UL94-V0 Color: black or white
DIMENSIONS (L X W X H)	Approx. 88.00 x 56.00 x 18.50 mm / 3.46 x 2.20 x 0.73 inch
POWER	USB: 4.3 V - 5.5 V 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: 200 mA typically
TEMPERATURE RANGE	Operating: -25 °C up to +70 °C (-13 °F up to +158 °F) Storage: -40 °C up to +75 °C (-40 °F up to +167 °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. 115 g / 4.06 oz (with cable)
OS SUPPORT	Windows 7 (32-/64-bit) and higher versions, Linux, Android ²⁾ , iOS ²⁾ , MAC OS X ²⁾
PERIPHERAL INTERFACES	USB, RS-232, 1 SAM slot
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 HF
CERTIFICATION(S)	CE/RED, FCC, IC, REACH and RoHS-III compliant, Apple VAS and ECP 2.0 certified ¹⁾ and many more ³⁾
ORDER CODE(S)	T4BT-FB2BEL2 standard reader, USB cable, black housing T4BT-FB2WEL2 standard reader, USB cable, white housing T4BT-FR2BEL2 standard reader, RS-232 cable, black housing T4BT-FR2WEL2 standard reader, RS-232 cable, white housing T4BT-FB2BEL2-I reader with I option, USB cable, black housing T4BT-FB2WEL2-I reader with I option, USB cable, white housing T4BT-FR2BEL2-I reader with I option, RS-232 cable, black housing T4BT-FR2WEL2-I reader with I option, RS-232 cable, white housing

SUPPORTED TRANSPONDERS⁴⁾

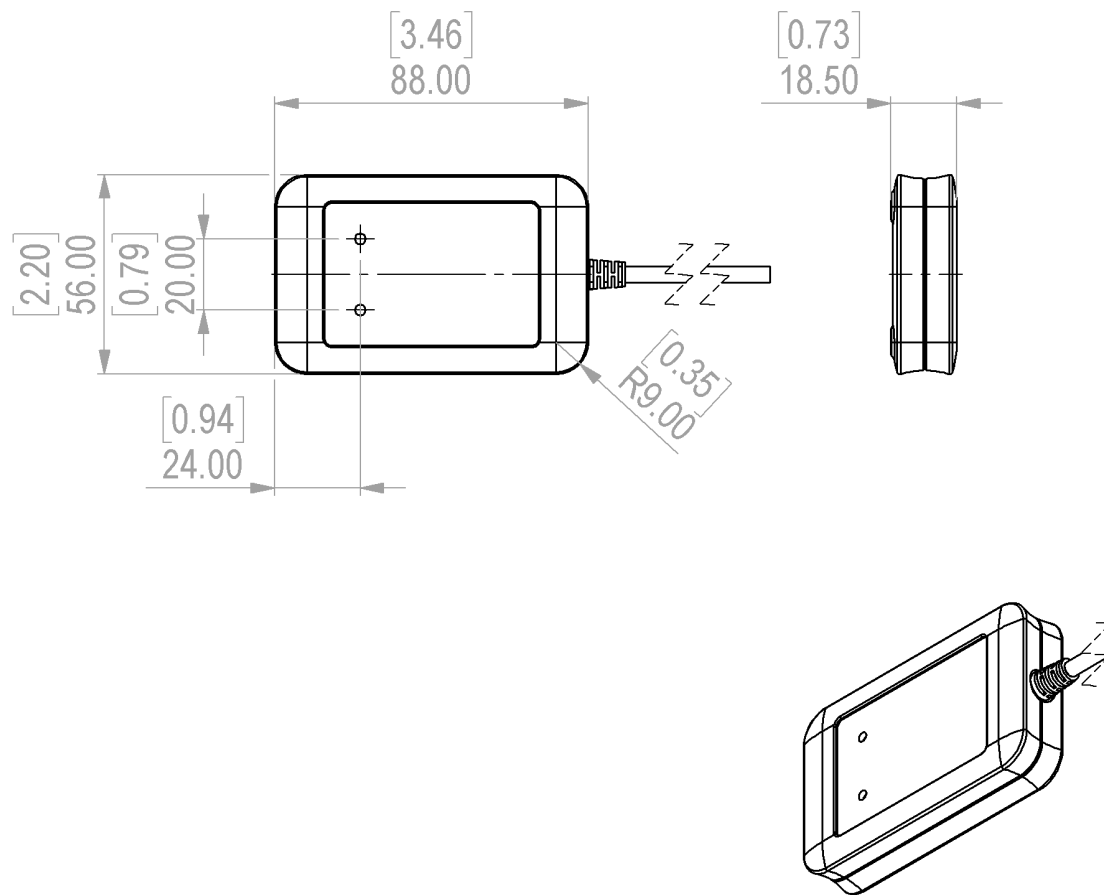
SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ	<p><u>ISO 14443A:</u> LEGIC Advant⁵⁾, NTAG2xx, MIFARE Classic, MIFARE Classic EV1⁶⁾, MIFARE DESFire EV1, MIFARE DESFire EV2⁷⁾, MIFARE DESFire EV3⁷⁾, MIFARE DESFire Light²⁾, MIFARE Mini, MIFARE Plus S, MIFARE Plus X, MIFARE Smart MX⁸⁾, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1⁶⁾, SLE44R35⁸⁾, SLE66Rxx (my-d move)⁸⁾, Topaz</p> <p><u>ISO 14443B:</u> Calypso⁸⁾, Calypso Innovatron protocol⁸⁾, CEPAS⁸⁾, CTS, Pico Pass⁹⁾, SRI4K, SRI512, SRIX4K, SRT512</p> <p><u>ISO 15693:</u> EM4x33⁸⁾, EM4x35⁸⁾, ICODE SLI, LEGIC Advant⁵⁾, M24LR16/64, MB89R118/119, PicoPass⁹⁾, SRF55Vxx (my-d vicinity)⁸⁾, Tag-it</p> <p><u>ISO 18092 / ECMA-340:</u> NFC Forum Tag 1-5, Sony FeliCa¹⁰⁾</p> <p><u>LEAF Identity:</u> LEAF¹¹⁾</p>
SUPPORTED TRANSPONDERS (I OPTION) ¹²⁾	All standard transponders ¹³⁾ , HID MIFARE DESFire SE, HID MIFARE Classic SE, HID SEOS, HID iCLASS Legacy/SR/SE
SUPPORTED TRANSPONDERS (A OPTION)	Apple ECP 2.0 ¹⁾
SUPPORTED TRANSPONDERS (AV OPTION)	Apple VAS ¹⁾

¹⁾For Apple licensees only and eligible implementers. Please contact ELATEC for details. ²⁾On request ³⁾More information on request ⁴⁾Unless otherwise agreed with ELATEC, the product is delivered with a standard firmware version that might be older than the latest firmware developed by ELATEC. This firmware version can be changed using the ELATEC AppBlaster tool. Please note that the information given in this document regarding the transponder technologies supported by the product is based on the latest firmware version. ⁵⁾UID only ⁶⁾r/w enhanced security features on request ⁷⁾Supported as part of the EV1 downward compatibility ⁸⁾r/w in direct chip command mode ⁹⁾UID only, r/w on request ¹⁰⁾UID + r/w public area ¹¹⁾AV2 only, requires one free SAM slot for MIFARE SAM AV2 card ¹²⁾Requires one free SAM slot for HID iCLASS SE processor ¹³⁾The reader has one free SAM slot only and cannot support LEAF and the I option at the same time.

ACCESSORIES

HOLDER(S)	HKSI-B	Snap-in holder, black
	HKSI-W	Snap-in holder, white
	HKBR-B	Bracket holder, black
	HKBR-W	Bracket holder, white
POWER SUPPLY	PWA-AUS4	Power supply (AUS)
	PWA-EU4	Power supply (EU)
	PWA-UK4	Power supply (UK)
	PWA-US4	Power supply (US)

TECHNICAL DRAWINGS



All measures in mm [inch]

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