

TWN4 MultiTech 2

Multi-frequency RFID reader (LF/HF) with NFC and BLE support



TWN4 MultiTech 2
(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 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 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 transparent data exchange with the RFID media. Additionally, the reader can read more than 60 RFID technologies from low (LF) and high frequency (HF) bands, 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 more than 60 RFID technologies
- + Two RFID frequencies (125 kHz/13.56 MHz), NFC and BLE
- + 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
- + Supports transparent data exchange with RFID media
- + CCID and PC/SC 2.01
- + Customizable inlay design



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) / 2.4 GHz (BLE)
ANTENNAS	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 ES1/PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A
CURRENT CONSUMPTION	RF field on: 120 mA typically + 16 mA (BLE) / Sleep: 500 µA typ.
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	LF and HF: up to 100 mm / 4 inch, depending on environment and transponder BLE: up to several meters/feet
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
BLUETOOTH LOW ENERGY	BLE version 4.1 (upgradable to 4.2) or 5.x, depending on BLE module generation ¹⁾
MTBF	500,000 hours
WEIGHT	Approx. 120 g / 4.23 oz (with 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 ²⁾ , iOS ²⁾ , MAC OS X ²⁾
PERIPHERAL INTERFACES	USB, RS-232, SAM slot(s) ³⁾ 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
CERTIFICATIONS	Non-exhaustive list ⁴⁾ : CE/RED, FCC, IC, UL listed, TAA compliant, REACH and RoHS-III compliant

¹⁾Depending on product variant

²⁾On request

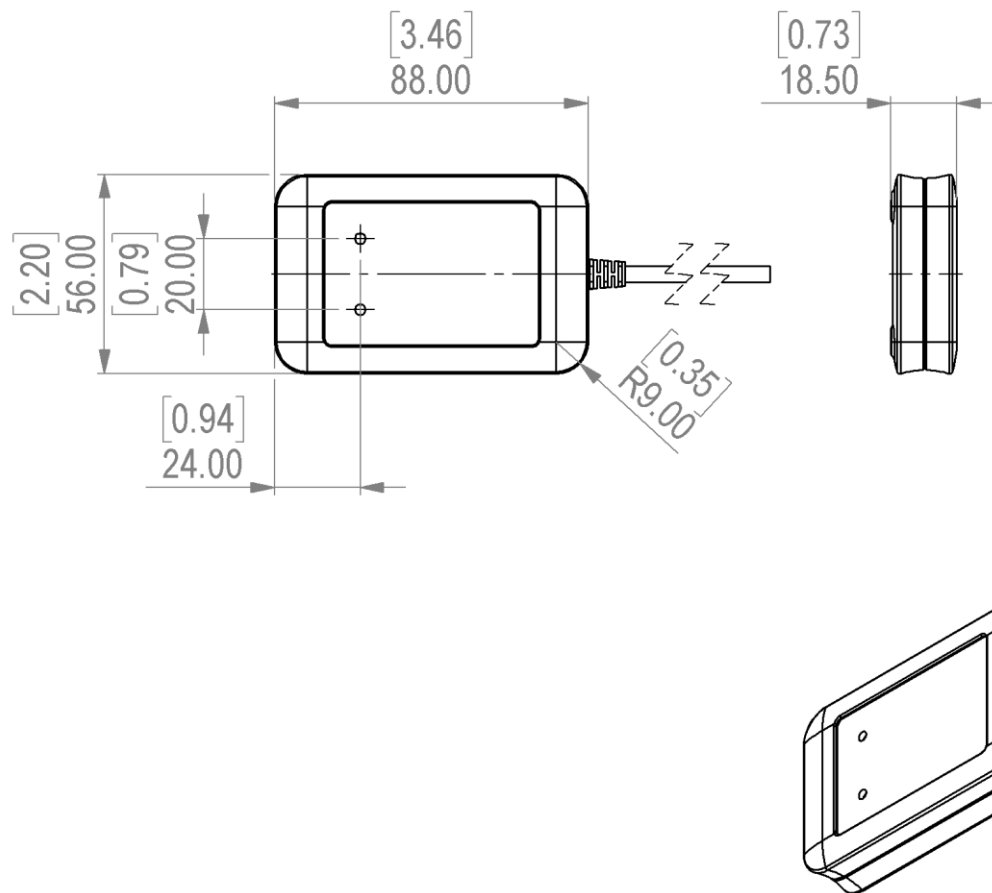
³⁾Readers equipped with a BLE module of 1st generation contain two free SAM slots, whereas readers equipped with a BLE module of 2nd generation only have one free SAM slot.

⁴⁾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.

ORDER CODES	Readers with BLE module 1st Gen	
	T4BT-FB2BEL7	Standard reader, USB cable, black housing
	T4BT-FB2WEL7	Standard reader, USB cable, white housing
	T4BT-FR2BEL7	Standard reader, RS-232 cable, black housing
	T4BT-FR2WEL7	Standard reader, RS-232 cable, white housing
	T4BT-FB2BEL7-P	Reader with P option, USB cable, black housing
	T4BT-FB2WEL7-P	Reader with P option, USB cable, white housing
	T4BT-FR2BEL7-P	Reader with P option, RS-232 cable, black housing
	T4BT-FR2WEL7-P	Reader with P option, RS-232 cable, white housing
	T4BT-FB2BEL7-PI	Reader with PI options, USB cable, black housing
	T4BT-FB2WEL7-PI	Reader with PI options, USB cable, white housing
	T4BT-FR2BEL7-PI	Reader with PI options, RS-232 cable, black housing
	T4BT-FR2WEL7-PI	Reader with PI options, RS-232 cable, white housing
	Readers with BLE module 2nd Gen	
	T4BT-FB2BEL7-XB	Standard reader, USB cable, black housing
	T4BT-FB2WEL7-XB	Standard reader, USB cable, white housing
	T4BT-FR2BEL7-XB	Standard reader, RS-232 cable, black housing
	T4BT-FR2WEL7-XB	Standard reader, RS-232 cable, white housing
	T4BT-FB2BEL7-XBP	Reader with P option, USB cable, black housing
	T4BT-FB2WEL7-XBP	Reader with P option, USB cable, white housing
	T4BT-FR2BEL7-XBP	Reader with P option, RS-232 cable, black housing
	T4BT-FR2WEL7-XBP	Reader with P option, RS-232 cable, white housing
	T4BT-FB2BEL7-XBPI	Reader with PI options, USB cable, black housing
	T4BT-FB2WEL7-XBPI	Reader with PI options, USB cable, white housing
	T4BT-FR2BEL7-XBPI	Reader with PI options, RS-232 cable, black housing
	T4BT-FR2WEL7-XBPI	Reader with PI options, RS-232 cable, white housing
	Readers supporting additionally Apple Access DESFire and HID Mobile Access	
	T4BT-FB2BEL7-XBIMAV	Reader with I, AV and M options, USB cable, black housing
	T4BT-FB2BEL7-XBPIMAV	Reader with PI, AV and M options, USB cable, black housing
	The order codes above describe RFID readers equipped with a two-meter-long cable. Contact ELATEC for other cable lengths.	

ACCESSORIES		
HOLDERS	HKSI-B	Snap-in holder, black
	HKSI-W	Snap-in holder, white
	HKBR-B	Bracket holder, black
	HKBR-W	Bracket holder, white
POWER SUPPLIES	ELATEC RFID readers and modules can be delivered with additional cables or external power supplies. Refer to the data sheet <i>Cables for ELATEC devices</i> for detailed information.	

TECHNICAL DRAWINGS



All measures in mm [inch]

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