

TWN4 MultiTech 2 LEGIC M

(SM-4200/4500 frontend)

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



TWN4 MultiTech 2 LEGIC M (exemplary illustrations)

The contactless RFID readers and modules of the ELATEC TWN4 MultiTech 2 LEGIC family are a direct enhancement of the TWN4 MultiTech LEGIC readers with the same form factors (PCB modules and desktop readers with housing). During the development of the TWN4 MultiTech 2 LEGIC family, special emphasis has been placed on optimizing the HF performance (13.56 MHz). Compared to the predecessor TWN4 MultiTech LEGIC, the read range could be increased by more than 50% for LEGIC transponders and even doubled for some HF transponders.

Key features of the TWN4 MultiTech 2 LEGIC M reader module include a powerful SDK for writing apps that are executed directly on the module, the possibility to upgrade the firmware in the field, transparent data exchange with the RFID media, and a powerful BLE module. Additionally, the module 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 in a compact form factor for easy integration
- Optimized HF and BLE read performance
- 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
- Support of segment initialization function (LEGIC SM-4500 frontend only)





































TECHNICAL DATA

FREQUENCIES	125 kHz (LF) / 13.56 MHz (HF) / 2.4	4 GHz (BLF)
ANTENNAS	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	
	PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A	
CURRENT CONSUMPTION	RF field on: 140 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	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 5.x	
MTBF	500,000 hours	
WEIGHT	Approx. 15 g / 0.53 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), I ² C, 4 GPIOs, Clock/Data,	
	Wiegand D0/D1, 1 free SAM slot ²⁾ 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 LEGIC M	
CERTIFICATIONS	Non-exhaustive list ³ :	
	CE/RED, FCC, IC, REACH and RoHS-III compliant	
ORDER CODES	Modules with LEGIC SM-4200	
	T4BO-B7-XB	Standard reader module
	T4BO-B7-XBP	Reader module with P option
	T4BO-B7-XBPI	Reader module with PI options
0,132,1100320		
	Modules with LEGIC SM-4500	
	T4BO-B7-5XB	Standard reader module
1)On request	T4BO-B7-5XBP	Reader module with P option

¹)On request

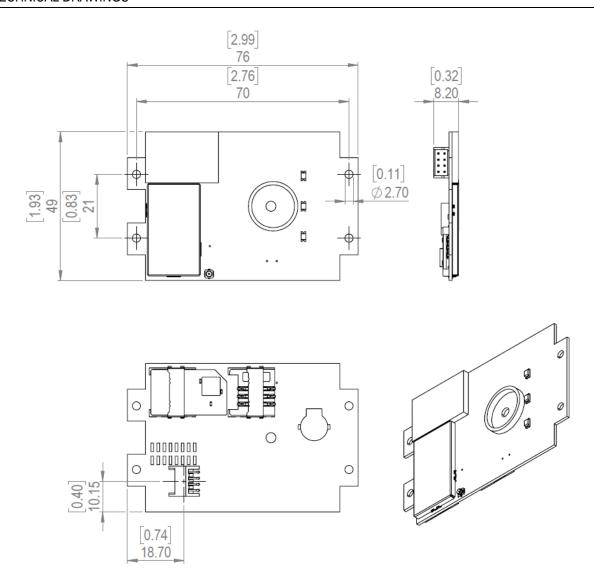
ACCESSORIES

	ELATEC RFID readers and modules can be delivered with additional cables or external
CABLES AND POWER SUPPLIES	power supplies. Refer to the data sheet Cables for ELATEC devices for detailed
	information.

²⁾The reader module has one free SAM slot only, as one SAM slot is equipped ex-works with the BLE SAM card. It is strictly prohibited to take the BLE SAM card out of the SAM slot.

³⁾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.





All measures in mm [inch]

ELATEC GmbH

Zeppelinstr. 1 82178 Puchheim Germany P +49 89 552 9961 0

F +49 89 552 9961 129 E-Mail: info-rfid@elatec.com Website: elatec.com **ELATEC Systems GmbH**

Schwieberdinger Str. 44 71636 Ludwigsburg Germany

P +49 7141 309736 0

E-Mail: info-rfid@elatec.com Website: elatec.com **ELATEC Inc.**

1995 SW Martin Hwy Palm City • FL 34990

USA

P +1 772 210 2263 F +1 772 382 3749

E-Mail: americas-info@elatec.com Website: elatec.com ELATEC Technology (Shenzhen) LLC

918, Main Building, Tian An Cyber Times
Tower, No. 6, Tairan Fourth Road, Tian 'an
Community, Shatou Neighborhood
Futian District • Shenzhen • China
P/F +86 755 2394 6014

E-Mail: apac-info@elatec.com Website: elatec.com

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