

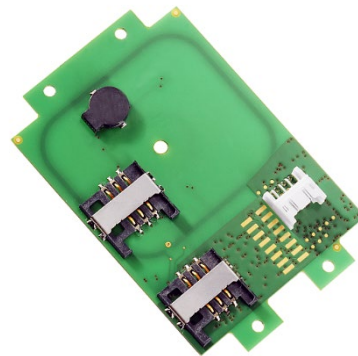
TWN4 MULTITECH 2 LEGIC M LF HF

(SM-4200/4500 FRONTEND)

PROGRAMMABLE RFID READER/WRITER MODULE FOR LF/HF/NFC



TWN4 MultiTech 2 LEGIC M LF HF
PCB top view (exemplary)



TWN4 MultiTech 2 LEGIC M LF HF
PCB bottom view (exemplary)

ELATEC TWN4 family of RFID readers and writers 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, ISO 18092 / ECMA-340 (NFC).

The TWN4 MultiTech 2 LEGIC M LF HF reader module has integrated RFID (LF & HF) and NFC, which is supported by mobile phones with Android version 4.3 or greater. The app on the reader communicates with the NFC module with easy commands.

Special features:

- + 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
- + Two on-board SAM sockets (Secure Access Module)
- + CCID and PC/SC 2.01
- + 4 GPIOs
- + Supports quick (re)configuration over network and over wireless interface with TWN4 CONFIG Card
- + TWN4 Upgrade Card for P option available on request
- + 3D construction data (STEP) available on request



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	125 kHz (LF) / 13.56 MHz (HF)
ANTENNA(S)	Integrated
DIMENSIONS (L X W X H)	76 mm x 49 mm x 9 mm / 3.0 inch x 1.9 inch x 0.4 inch
POWER	4.3 V - 5.5 V via USB 3.3 V ± 5% via generic interface (X1) RS-232 requires 5 V external power supply Limited power source according to the safety norms listed in the respective declaration of conformity, 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
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 TRANSPONDERS (STANDARD) 13.56 MHZ	<u>ISO 14443A:</u> HID iCLASS DESFire ¹⁾ , HID iCLASS MIFARE Classic ¹⁾ , HID iCLASS SEOS ¹⁾ , LEGIC Advant, NTAG2xx, MIFARE Classic, MIFARE Classic EV1 ²⁾ , MIFARE DESFire EV1, MIFARE DESFire EV2/EV3 ³⁾ , MIFARE DESFire Light ⁴⁾ , MIFARE Mini, MIFARE Plus S/X, MIFARE Smart MX ⁵⁾ , MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1 ²⁾ , SLE44R35 ⁵⁾ , SLE66Rxx (my-d move) ⁵⁾ <u>ISO 14443B:</u> Calypso ⁵⁾ , CEPAS ⁵⁾ , HID iCLASS ¹⁾ , Pico Pass ¹⁾ <u>ISO 15693:</u> EM4x33 ⁵⁾ , EM4x35 ⁵⁾ , HID iCLASS ¹⁾ , HID iCLASS SE/SR/Elite ¹⁾ , ICODE SLI, LEGIC Advant, M24LR16/64, PicoPass ¹⁾ , SRF55Vxx (my-d vicinity) ⁵⁾ , Tag-it <u>ISO 18092 / ECMA-340:</u> NFC Forum Tag 1-5 ⁶⁾ , Sony FeliCa ⁷⁾ <u>LEGIC Prime:</u> LEGIC Prime
SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ ⁸⁾	AWID, Cardax ⁹⁾ , CASI-RUSCO, Deister ⁹⁾ , EM4050, EM4100, EM4102, EM4150, EM4200 ¹⁰⁾ , EM4305, EM4450, EM4550, HITAG 1 ¹¹⁾ , HITAG 2 ¹¹⁾ , HITAG S ¹¹⁾ , ICT ⁴⁾ , IDTECK, ISONAS, Keri, Miro, Nedap ⁹⁾ , Pyramid, Q5, T5557, T5567, T5577, TITAN (EM4050), UNIQUE, ZODIAC
SUPPORTED TRANSPONDERS (P OPTION)	All standard transponders, G-Prox ⁹⁾ , HID 1326 Prox II, HID 1336 DuoProx II, HID 1346 ProxKey III, HID 1386 ISO Prox II, HID 1391 Micro Prox, HID Prox, Indala, ioProx, Nexwatch
SUPPORTED TRANSPONDERS (PI OPTION)	Requires TWN4 SIO Card, all standard transponders, all P option transponders, Calypso Innovatron protocol ⁵⁾ , CTS, HID iCLASS, HID iCLASS DESFire/Elite/MIFARE Classic/SE/SEOS/SR, MB89R118/119, NFC Forum Tag 1-5, Pico Pass ¹²⁾ , SRI4K, SRI512, SRIX4K, SRT512, Topaz
OS SUPPORT	Windows 7 (32-/64-bit), 8, 8.1, 10, 11, Linux, Android ⁴⁾ , iOS ⁴⁾ , MAC OS X ⁴⁾
PERIPHERAL INTERFACES	USB, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I ² C, 4 GPIOs
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 LF HF
CERTIFICATION(S)	CE/RED, FCC, IC, REACH and RoHS-III compliant

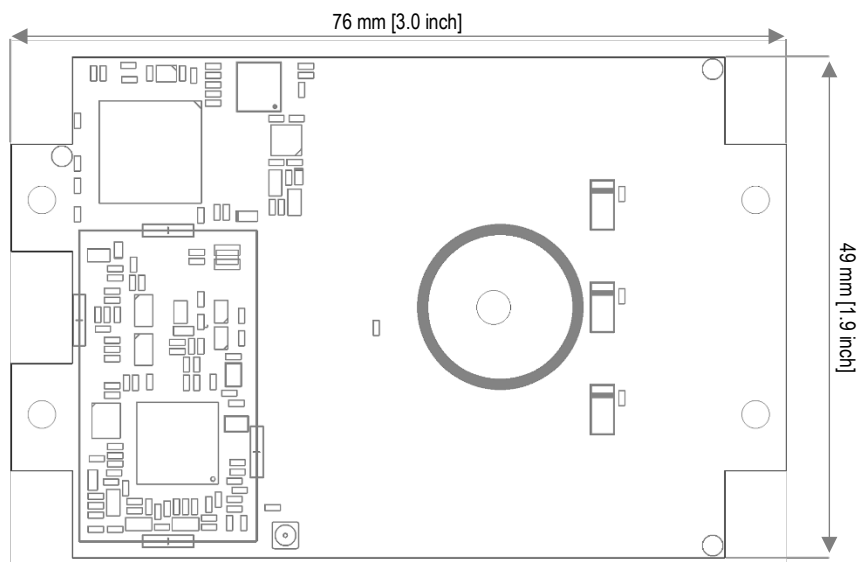
¹⁾UID only ²⁾r/w enhanced security features on request ³⁾supported as part of the EV1 downward compatibility ⁴⁾On request ⁵⁾r/w in direct chip command mode
⁶⁾NFC Forum Tag 1 not supported ⁷⁾UID + r/w public area ⁸⁾125 kHz technology requires a Russian local test and import license from the ministry of Trade and Industry (MINPROMTORC). This license has to be in place before Elatec can accept any order to be shipped to Russia ⁹⁾Hash value only ¹⁰⁾Only emulation of 4100, 4102 ¹¹⁾Without encryption ¹²⁾UID only, read/write on request

ORDER CODE(S)	Reader modules with LEGIC SM-4200	
	T4BO-B6	OEM board
	T4BO-B6-P	OEM board, P option
	T4BO-B6-PI	OEM board, PI option
	Reader modules with LEGIC SM-4500	
	T4BO-B6-5	OEM board
T4BO-B6-5P	OEM board, P option	
T4BO-B6-5PI	OEM board, PI option	

ACCESSORIES

POWER SUPPLY	PWA-EU3	Power Supply (EU)
	PWA-US3	Power Supply (US)
	PWA-UK3	Power Supply (UK)
	PWA-JP3	Power Supply (JP)

DRAWING



All measures in mm [inch]

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