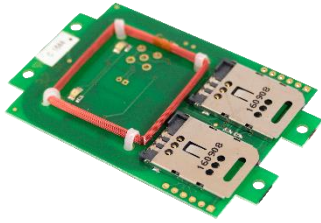


TWN4 MULTITECH LEGIC 45

PROGRAMMABLE RFID READER/WRITER FOR LF/HF



TWN4 MultiTech LEGIC 45
PCB top view



Desktop version
(inlay customizable)

Elatec's TWN4 family of transponder readers and writers allows users to read and write to almost any 125 kHz, 134.2 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 ISO14443A/B (T=CL), ISO15693, ISO18092 / 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 reader supports host communication via USB or RS-232.

Special features:

- + supports initialization of segments
- + high-level command library for cash / value handling, e.g. electronic purse
- + powerful SDK for writing apps which are executed directly on the reader
- + firmware update in the field possible
- + onboard 18 kB flash storage, e.g. for storing user accessible non-volatile data
- + direct chip-commands support
- + two onboard SAM sockets (Secure Access Module)
- + CCID and PC/SC 2.01
- + dedicated expansion bus for connection of LCD, mass storage, etc.
- + 2 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/134.2 kHz (LF) / 13.56 MHz (HF)
ANTENNA	Integrated
HOUSING	Material: ABS UL94-V0, color: black or white
DIMENSIONS (L X W X H)	Desktop Reader: 88 mm x 56 mm x 18 mm / 3.5 inch x 2.2 inch x 0.7 inch OEM Board: 76 mm x 49 mm x 14 mm / 3.0 inch x 1.9 inch x 0.6 inch
POWER SUPPLY	4.3 V - 5.5 V via USB or RS-232; RS-232 requires 5 V external power supply; via connector CNB 3.3 V +/- 5%
CURRENT CONSUMPTION	RF field on: 140 mA typically
TEMPERATURE RANGE	Desktop, Operating: -25 °C up to +70 °C (-13 °F up to +158 °F) Desktop, Storage: -45 °C up to +75 °C (-49 °F up to +167 °F) PCB, Operating: -25 °C up to +80 °C (-13 °F up to +176 °F) PCB, Storage: -45 °C up to +85 °C (-49 °F up to +185 °F)
RELATIVE HUMIDITY	5% to 95% non-condensing
READ- / WRITE DISTANCE	Up to 100 mm / 4 inch, depending on environment and transponder
TRANSMISSION SPEED	Host: USB Full speed (12 Mbit/s), RS-232: up to 115.200 baud; Air: up to 848 kbit/s
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
MTBF	500,000 hours
WEIGHT	Approx. 20 g (without housing)
SUPPORTED TRANSPONDERS (STANDARD)	<p><u>ISO14443A:</u> LEGIC Advant, MIFARE Classic EV1¹⁾, MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2¹⁾, MIFARE Plus S, X, MIFARE Pro X²⁾, MIFARE Smart MX²⁾, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1, NTAG2xx, PayPass²⁾, SLE44R35, SLE66Rxx (my-d move)²⁾</p> <p><u>ISO14443B:</u> Calypso²⁾, CEPAS²⁾, HID iCLASS³⁾, Moneo²⁾, Pico Pass³⁾</p> <p><u>ISO18092 ECMA-340:</u> NFC Peer-to-Peer, Sony FeliCa⁴⁾, NFC Active and passive communication mode, Passive peer-to-peer mode - initiator, NFC Tag 2, 3, 4</p> <p><u>ISO15693:</u> EM4x33²⁾, EM4x35²⁾, HID iCLASS³⁾, HID iCLASS SE/SR³⁾, ICODE SLI, LEGIC Advant, M24LR16/64, SRF55Vxx (my-d vicinity)²⁾, Tag-it, PicoPass³⁾</p> <p><u>LEGIC Prime:</u> LEGIC Prime</p> <p><u>125 kHz, 134.2 kHz:</u> AWID, Cardax, CASI-RUSCO, Deister⁵⁾, EM4100, 4102, 4200⁶⁾, EM4050, 4150, 4450, 4550, EM4305⁷⁾, FDX-B, EM4105, HITAG 1⁸⁾, HITAG 2⁸⁾, HITAG S⁸⁾, ICT⁷⁾, IDTECK, Isonas⁷⁾, Keri, Miro, Nedap⁵⁾, PAC, Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX, TITAN (EM4050), UNIQUE, ZODIAC</p>
SUPPORTED TRANSPONDERS (VERSION P)	All Standard Transponders, Cotag, G-Prox ⁵⁾ , HID DuoProx II, HID ISO Prox II, HID Micro Prox, HID ProxKey III, HID Prox, HID Prox II, Indala, ioProx, Nexwatch
OS SUPPORT	Windows XP, Vista, Embedded CE ⁷⁾ , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android ⁷⁾ , iOS ⁷⁾ , MAC OS X ⁷⁾
PERIPHERAL INTERFACES	USB, RS232, 2 x serial (logic level 3.3 V, CMOS 5 V tolerant), I ² C, 2 GPIOs, Clock/Data, Wiegand, 1-Wire ⁷⁾
CERTIFICATION NAME	TWN4 LEGIC NFC
CERTIFICATION(S)	CE/RED, ENACOM, RoHS-II compliant
ORDER CODE(S)	T4DO-B-5 OEM Board T4DT-BB2BEL-5 USB Black T4DT-BB2WEL-5 USB White

	T4DT-BR2BEL-5	RS232 Black
	T4DT-BR2WEL-5	RS232 White
	T4DO-B-5P	OEM Board Version P
	T4DT-BB2BEL-5P	USB Version P Black
	T4DT-BB2WEL-5P	USB Version P White
	T4DT-BR2BEL-5P	RS232 Version P Black
	T4DT-BR2WEL-5P	RS232 Version P White

¹r/w enhanced security features on request ²r/w in direct chip command mode ³UID only ⁴UID + r/w public area ⁵Hash value only ⁶Only emulation of 4100, 4102

⁷On request ⁸Without encryption

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-EU: Power Supply (EU) PWA-US: Power Supply (US) PWA-UK: Power Supply (UK) PWA-AU: Power Supply (AU) PWA-JP: Power Supply (JP)
CABLES	CAB-B2: USB cable type A 200 cm / 78.74 inch CAB-B3: USB cable type A 12 cm / 4.72 inch CAB-B4: USB cable type A 45 cm / 17.72 inch CAB-B7: USB cable type A 120 cm / 47.24 inch CAB-M1: USB cable mini 12 cm / 4.72 inch CAB-M2: USB cable mini 25 cm / 9.84 inch CAB-R2: RS232 cable 200 cm / 78.74 inch