

TWN4 MULTITECH

PROGRAMMABLE RFID READERS/WRITERS FOR LF, HF, NFC

ELATEC's TWN4 family of RFID readers allows users to read 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 new generation is a direct enhancement to the successful TWN3 family as it comes in the same mechanical dimensions. The reader supports host communication via USB.



ORDER NUMBER:
01400-001

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)
- + Supports quick (re)configuration over network and over wireless interface with TWN4 CONFIG Card
- + TWN4 Upgrade Card for P and PI options available on request
- + 3D construction data (STEP) available on request
- + Available as desktop version

TECHNICAL SPECIFICATION

FREQUENCY	125 kHz (LF) / 13.56 MHz (HF)
ANTENNA(S)	Integrated
HOUSING	Material: ABS UL94-V0, color: black or white
DIMENSIONS (L X W X H)	TWN4 MultiTech: 88 mm x 56 mm x 18 mm
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 \pm 5%
	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: 120 mA typically / Sleep: 500 µA typ. / Cyclic Operation: TBD
TEMPERATURE RANGE	TWN4 MultiTech, Operating: -25 °C up to +70 °C, TWN4 MultiTech, Storage: -40 °C up to +75 °C
RELATIVE HUMIDITY	5% to 95% non-condensing
READ- / WRITE DISTANCE	Up to 100 mm, 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	TWN4 MultiTech: approx. 117 g (with cable)
SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ	<p>ISO14443A: LEGIC Advant¹, MIFARE Classic EV1², MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2³, MIFARE DESFire Light⁴, MIFARE Plus S, X, MIFARE Pro X⁵, MIFARE Smart MX⁵, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1², NTAG2xx, SLE44R35⁵, SLE66Rxx (my-d move)⁵, Topaz</p> <p>ISO18092 ECMA-340: NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa⁶, NFC Active and passive communication mode</p> <p>ISO14443B: Calypso⁵, Calypso Innovatron protocol⁵, CEPAS⁵, HID iCLASS¹, Moneo⁵, Pico Pass⁷, SRI4K, SRIX4K, SRI512, SRT512</p> <p>ISO15693: EM4x33⁵, EM4x35⁵, HID iCLASS¹, HID iCLASS SE/SR¹, ICODE SLI, LEGIC Advant¹, M24LR16/64, SRF55Vxx (my-d vicinity)⁵, Tag-it, PicoPass⁷</p> <p>Mobile support: Apple VAS⁸, ECP 2.0⁸</p>
SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ ⁹	AWID, Cardax, CASI-RUSCO, Deister ¹⁰ , EM4100, 4102, 4200 ¹¹ , EM4050, 4150, 4450, 4550, EM43051, FDX-B ¹³ , EM4105 ¹³ , UltraProx ¹³ , HITAG 1 ¹⁴ , HITAG 21 ⁴ , HITAG S ¹⁴ , ICT ⁴ , IDTECK, Isonas, Keri, Miro, Nedap ¹⁰ , PAC ⁴ , Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX ¹³ , TITAN (EM4050), UNIQUE, ZODIAC
SUPPORTED TRANSPONDERS (OPTION PI)	Requires TWN4 SIO Card, All Standard Transponders, All Option P Transponders, HID iCLASS, HID iCLASS SE/SR/Elite, HID iCLASS SEOS (Facility Code/PAC) ¹⁵
OS SUPPORT	Windows Embedded CE ⁴ , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android ⁴ , iOS ⁴ , MAC OS X ⁴
PERIPHERAL INTERFACES	USB
TRANSMISSION SPEED	Host: USB Full speed (12 Mbit/s)
CERTIFICATION NAME	TWN4 MultiTech
CERTIFICATION(S)	TWN4 MultiTech: ACMA, CE/RED, FCC, IC, Apple VAS and ECP 2.0 certified, and many more

1) UID only 2) r/w enhanced security features on request 3) EV2/EV3 supported as part of the EV1 downward compatibility 4) On request 5) r/w in direct chip command mode 6) UID + r/w public area 7) UID only, read/write on request 8) For Apple licensees only and eligible implementers. Please contact ELATEC for details. 9) 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 10) Hash value only 11) Only emulation of 4100, 4102 12) From FW V4.05 13) 134.2 kHz only 14) Without encryption 15) UID + PAC (Facility Code), r/w on request