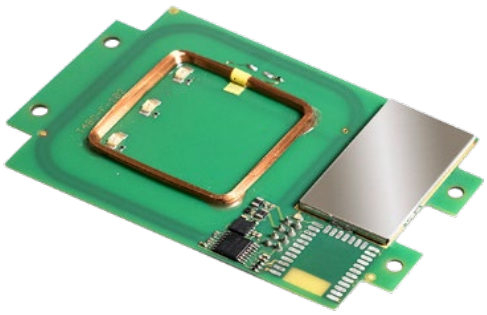
TWN4 MULTITECH 2 M LF HF

PROGRAMMABLE RFID READER/WRITER FOR LF/HF/NFC



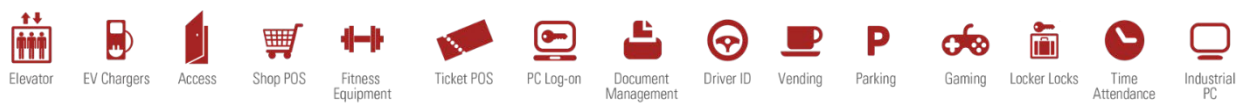
TWN4 MultiTech 2 M LF HF
PCB top view

ELATEC's 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 etc. and ISO standards like ISO 14443A/B (T=CL), ISO 15693, ISO 18092 / ECMA-340 (NFC).

The TWN4 MultiTech 2 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 and PI options available on request
+ 3D construction data (STEP) available on request



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; via generic interface (X1) 3.3 V ± 5%; 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
POWER OUTPUT	125 kHz: -9.95 dbµA/m @ 10 m 13.56 MHz: -2.25 dbµA/m @ 10 m
MODULATION	ASK / ASK
CURRENT CONSUMPTION	RF field on: 120 mA typically / Sleep: 500 µA typ. / Cyclic Operation: TBD
TEMPERATURE RANGE	Operating: -25 °C up to +80 °C (-13 °F up to +176 °F) Storage: -45 °C up to +85 °C (-49 °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	ISO14443A: LEGIC Advant[1], MIFARE Classic EV1[2], MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2[3], MIFARE DESFire Light[4], MIFARE Plus S, X, MIFARE Pro X[5], MIFARE Smart MX[5], MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1[2], NTAG2xx, SLE44R35[5], SLE66Rxx (my-d move)[5], Topaz ISO18092 ECMA-340: NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa[6], NFC Active and passive communication mode ISO14443B: Calypso[5], Calypso Innovatron protocol[5], CEPAS[5], HID iCLASS[1], Moneo[5], Pico Pass[7], SRI4K, SRIX4K, SRI512, SRT512 ISO15693: EM4x33[5], EM4x35[5], HID iCLASS[1], HID iCLASS SE/SR[1], ICODE SLI, LEGIC Advant[1], M24LR16/64, MB89R118/119, SRF55Vxx (my-d vicinity)[5], Tag-it, PicoPass[7]
SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ[8]	AWID, Cardax[9], CASI-RUSCO, Deister[9], EM4100, 4102, 4200[10], EM4050, 4150, 4450, 4550, EM4305[11], FDX-B[12], EM4105[12], UltraProx[12], HITAG 1[13], HITAG 2[13], HITAG S[13], ICT[4], IDTECK, Isonas, Keri, Miro, Nedap[9], PAC[4], Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX[12], TITAN (EM4050), UNIQUE, ZODIAC
SUPPORTED TRANSPONDERS (OPTION P)	All Standard Transponders, Cotag, G-Prox[9], HID DuoProx II, HID ISO Prox II, HID Micro Prox, HID ProxKey III, HID Prox, HID Prox II, Indala, ioProx, Nexwatch
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)[14]
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, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I²C, 4 GPIOs, Clock/Data, Wiegand
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 M LF HF
CERTIFICATION(S)	CE/RED, FCC, IC, REACH and RoHS-III compliant, and many more[15]
ORDER CODE(S)	T4BO-F6 OEM Board T4BO-F6-P OEM Board Option P T4BO-F6-PI OEM Board Option PI

[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]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]From FW V4.05 [12]134.2 kHz only [13]Without encryption [14]UID + PAC (Facility Code), r/w on request [15]More information on request

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