

TWN4 MULTITECH SMARTCARD LEGIC 42

PROGRAMMABLE RFID/CONTACT READER & WRITER FOR LF/HF/NFC & ISO/IEC7816 CARDS



TWN4 MultiTech SmartCard LEGIC 42
(inlay customizable)

Elatec's TWN4 MultiTech SmartCard LEGIC 42 is a combination of the TWN4 MultiTech LEGIC 42 (RFID) with an integrated contact card reader/writer (ISO7816). It allows users to read and write almost any 125 kHz, 134.2 kHz and 13.56 MHz transponder supporting all major technologies from various suppliers like ATMEL, EM, ST, NXP, TI, HID, LEGIC, etc. and many ISO standards such as ISO14443A/B (T=CL), ISO15693, and ISO18092 / ECMA-340 (NFC). The integrated chip card reader is designed for easy integration into various applications.

The readers can be programmed with a script language for autonomous execution of even complex commands like login procedures, increment/decrement functions and many more. The reader supports host communication via USB.

Special features:

- + 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
- + CCID and PC/SC 2.01
- + two onboard SAM sockets (Secure Access Module)
- + supports quick centralized (re)configuration over network and over wireless interface with TWN4 CONFIG Card
- + 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 68 mm x 19 mm / 3.46 inch x 2.68 inch x 0.75 inch OEM Board: 76 mm x 62 mm x 11 mm / 3 inch x 2.44 inch x 0.43 inch
POWER SUPPLY	4.3 V - 5.5 V via USB
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), Air: up to 848 kbit/s
MODES OF OPERATION	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
MTBF	500,000 hours / Min. 100,000 card insertion cycles
WEIGHT	Approx. 35 g (without housing) / Approx. 140g (with housing and USB Cable)
SMARTCARD STANDARDS	ISO/IEC7816 Part 1-4, Class A/B/C (5V, 3V, 1.8V), T=0, T=1
SMARTCARD CLOCK FREQUENCY	5 MHz up to 15 MHz
SUPPORTED SMARTCARDS	5V, 3V and 1.8V, ISO/IEC7816 Class A/B/C
POWER TO SMARTCARD	60mA in Class A; 55mA in Class B; 35mA in Class C
SMARTCARD DETECTION	Card present switch / Automatic power on/off / Short-circuit protection
SMARTCARD CARD SIZE	2xID-000 (SAM) ID-1
SMARTCARD CONTACT TYPE	8 pin Sliding Contact Socket, C4/C8 support ID-1
SUPPORTED TRANSPONDERS (STANDARD)	<p><u>ISO14443A:</u> LEGIC Advant¹⁾, MIFARE Classic 1k & 4k EV1²⁾, MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2²⁾, MIFARE Plus S, X, MIFARE Pro X³⁾, MIFARE Smart MX³⁾, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1, NTAG2xx, PayPass³⁾, SLE44R35, SLE66Rxx (my-d move)³⁾</p> <p><u>ISO14443B:</u> Calypso³⁾, Calypso Innovatron protocol³⁾, CEPAS³⁾, HID iCLASS¹⁾, Moneo³⁾, Pico Pass¹⁾</p> <p><u>ISO18092 ECMA-340:</u> Sony FeliCa⁵⁾, passive Peer-to-Peer mode - initiator, NFC Tag 2, 3, 4</p> <p><u>ISO15693:</u> EM4x33³⁾, EM4x35³⁾, HID iCLASS¹⁾, HID iCLASS SE/SR¹⁾, ICODE SLI, LEGIC Advant, M24LR16/64, SRF55Vxx (my-d vicinity)³⁾, Tag-it, PicoPass¹⁾</p> <p><u>LEGIC Prime:</u> LEGIC Prime</p> <p><u>125 kHz, 134.2 kHz:</u> AWID, Cardax, CASI-RUSCO, Deister⁶⁾, EM4100, 4102, 4200⁷⁾, EM4050, 4150, 4450, 4550, EM4305⁸⁾, FDX-B, EM4105, HITAG 1⁹⁾, HITAG 2⁹⁾, HITAG S⁹⁾, ICT⁸⁾, IDTECK, Isonas⁸⁾, Keri, Miro, Nedap⁶⁾, PAC, Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX, TITAN (EM4050), UNIQUE, ZODIAC</p>
SUPPORTED TRANSPONDERS (VERSION P)	All Standard Transponder, G-Prox ⁶⁾ , HID DuoProx II, HID ISO Prox II, HID Micro Prox, HID ProxKey III, HID Prox, HID Prox II, Indala, ioProx, Nexwatch
PERIPHERAL INTERFACES	USB
OS SUPPORT	Windows XP, Vista, Embedded CE ⁸⁾ , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android ⁸⁾ , iOS ⁸⁾ , MAC OS X ⁸⁾

CERTIFICATION NAME	TWN4 Smartcard LEGIC NFC	
CERTIFICATIONS	ROHS-II compliant, CE, FCC, RED	
ORDER CODE(S)	T4SO-B	OEM Board
	T4SD-FB2BE1	USB Black
	T4SD-BB2WE1	USB White
	T4SO-B-P	OEM Board Version P
	T4SD-BB2BE1-P	USB Version P Black
	T4SD-BB2WE1-P	USB Version P White

¹UID only ²r/w enhanced security features on request ³r/w in direct chip command mode ⁴NFC Forum Tag 1 not supported ⁵UID + r/w public area ⁶Hash value only ⁷Only emulation of 4100, 4102 ⁸On request ⁹Without encryption

ACCESSORIES

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