

TWN4 MULTITECH CORE LEGIC 42

PROGRAMMABLE RFID READER/WRITER MODULE FOR LF/HF WITHOUT ANTENNA



Version C0



Version C1



Version C2

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 TWN4 MultiTech Core LEGIC is designed for integration into machines or any other device to be used with an external antenna (125 kHz/134.2 kHz, 13.56 MHz or both). The reader provides a powerful API which enables system integrators and solution providers to develop complex applications which can be run directly on the reader.

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
- + supports connection of external ISO7816 compatible SAM cards
- + supports 50 Ohm external antennas via SMA, SMB, SMC, MCX, UMCC/U.FL connectors
- + CCID and PC/SC 2.01
- + dedicated expansion bus for connection of LCD, mass storage, etc.
- + 8 GPIOs
- + 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	Externally, 50 Ohm for 13.56 MHz – 490 μ H \pm 5% for 125 kHz/134.2 kHz			
DIMENSIONS (L X W X H)	C0 Version: 39 mm x 30 mm x 4.6 mm / 1.54 inch x 1.18 inch x 0.18 inch C1 Version: 39 mm x 30 mm x 8 mm / 1.54 inch x 1.18 inch x 0.31 inch C2 Version: 39 mm x 30 mm x 9 mm / 1.54 inch x 1.18inch x 0.35 inch			
POWER SUPPLY	3.3 V +/- 5% or (by using onboard voltage regulator) 4.3 V - 5.5 V			
CURRENT CONSUMPTION	RF field on: 140 mA typically			
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	Up to 100 mm / 4 inch, depending on antenna, 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. 7 g			
SUPPORTED TRANSPONDERS (STANDARD)	<p><u>ISO14443A:</u> LEGIC Advant, MIFARE Classic EV¹⁾, 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, G-Prox⁵⁾</p>			
SUPPORTED TRANSPONDERS (VERSION P)	All Standard Transponders, 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, SPI, 8 GPIOs, CAN ⁷⁾ , Clock/Data, Wiegand, 1-Wire ⁷⁾			
CERTIFICATION(S)	RoHS-II compliant			
ORDER CODE(S)	T4CM-BC0	C0 Standard	T4CM-BC0-P	C0 Version P
	T4CM-BC1	C1 Standard	T4CM-BC1-P	C1 Version P
	T4CM-BC2	C2 Standard	T4CM-BC2-P	C2 Version P

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

⁷⁾On request ⁸⁾Without encryption

DRAWING/PIN OUT (ALL MEASUREMENTS IN MM)

