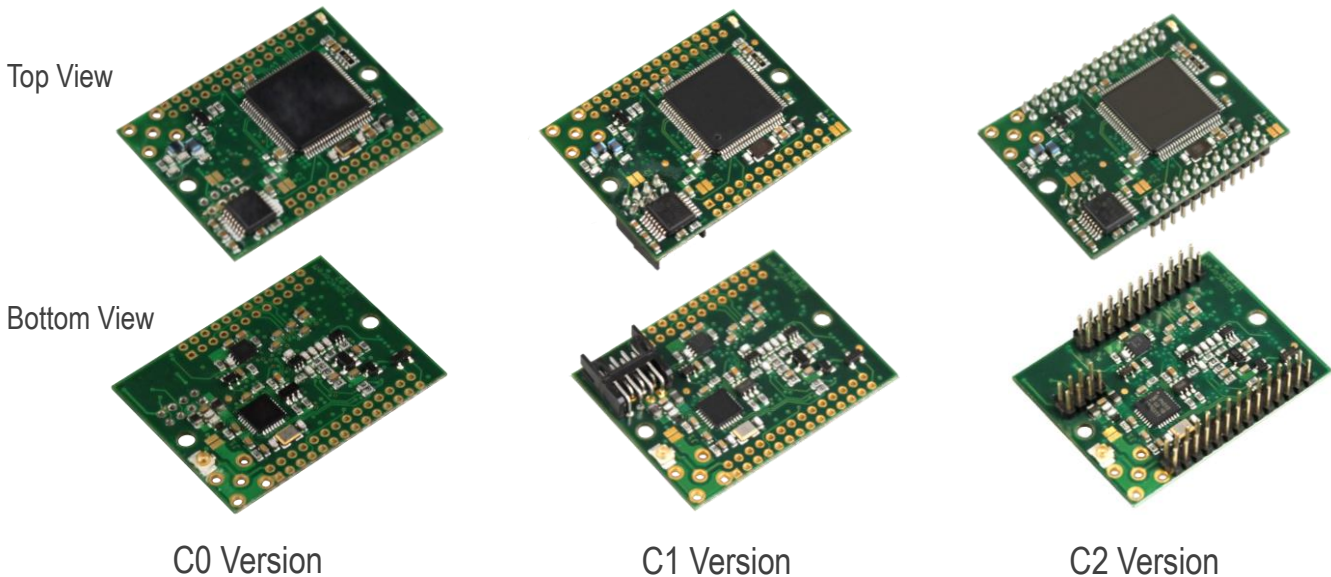


TWN4 MULTITECH CORE*

125kHz/134.2kHz & 13.56MHz Contactless Reader/Writer

*previously known as TWN4 CORE MIFARE NFC



Elatec's TWN4 family of transponder readers and writers allows users to read and write to almost any 125kHz / 134.2kHz and 13.56MHz 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 (T=CL), ISO14443B (T=CL), ISO15693, ISO18092 / ECMA-340 (NFC).

The TWN4 MultiTech Core is designed for integration into machines or any other device to be used with an external antenna (125/134.2kHz, 13.56MHz or both). This core module mounted on an antenna carrier board is available in the standard TWN Elatec desktop housing, too.

The powerful hardware allows the extension of supported transponders to meet your individual request.

Special Features:

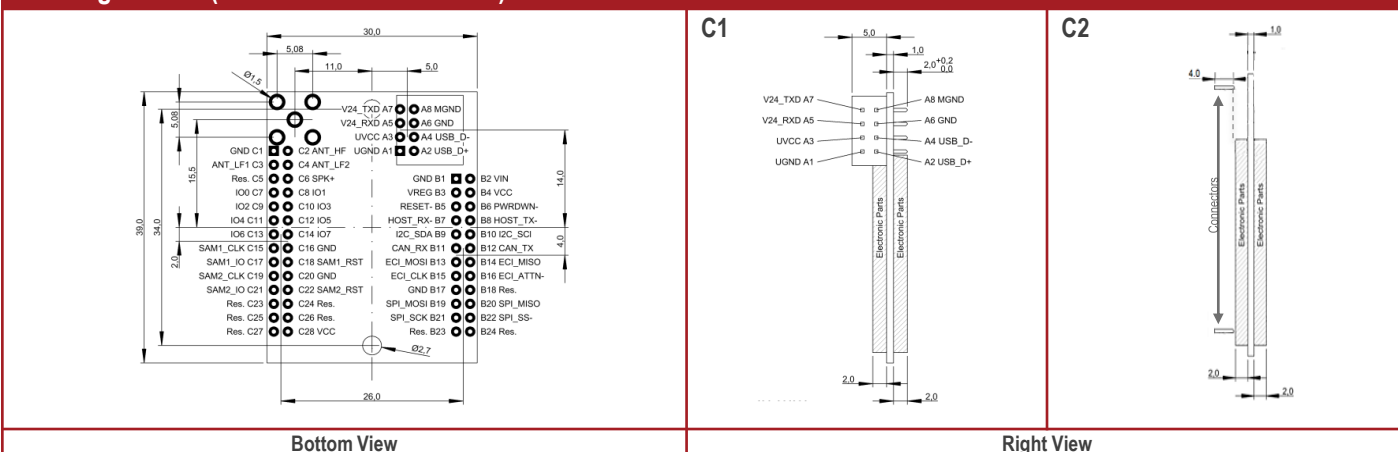
- Powerful SDK for writing Apps which are executed directly on the reader
- Infield Upgradeable
- Direct chip-commands support
- Onboard 18kB flash storage
- Supports multiple SAMs (Secure Access Modules)
- Supports 50 Ohm external antennas via SMA, SMB, SMC, MCX, UMCC/U.FL connectors
- CCID and PC/SC 2.01¹⁾
- Interfaces:
 - USB, RS232, Serial (logical level 3.3V, CMOS 5V tolerant), I²C, SPI²⁾, Clock/Data³⁾, Wiegand³⁾, 1-Wire²⁾
- Dedicated expansion bus for connection of LCD, mass storage, etc.
- 8 GPIOs
- 3D Model (STEP) on request

Technical Data⁴⁾

| | | | | |
|-----------------------------------|--|----------------------|-------------|--------------------------------|
| Frequency | 125kHz, 134.2kHz (LF) / 13.56MHz (HF) | | | |
| Antenna | Externally, 50 Ohm for 13.56MHz – 490µH ±5% for 125kHz/134.2kHz | | | |
| Dimensions (L x W x H) | C1 Version: 39mm x 30mm x 8mm / 1.54inch x 1.18inch x 0.31inch C2 Version: 39mm x 30mm x 9mm / 1.54inch x 1.18inch x 0.35inch | | | |
| Power Supply | 3.3V+/-5% or (by using on-board voltage regulator) 4.3-5.5V | | | |
| Current Consumption | Depending on antenna: RF field on: 120mA typically / Sleep: 500µA 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) | | | |
| Read- / Write Distance | Up to 100mm / 4inch, depending on antenna and tag | | | |
| HOST Interface | USB, RS232, serial (logical level 3.3V, CMOS 5V tolerant), I ² C, SPI ²⁾ , Clock/Data ³⁾ , Wiegand ³⁾ , 1-Wire ²⁾ CAN, RS422/485 require adapter board | | | |
| OS Support | Windows XP, Vista, Embedded CE ²⁾ , 7(32-/64-bit), 8, 8.1, 10, Linux, Android, iOS ²⁾ , MAC OS X ²⁾ | | | |
| Transmission Speed | HOST: USB: Full speed (12Mbit) – RS232: up to 115.200baud | AIR: up to 848Kbit/s | | |
| Modes of Operation | USB key board emulation – USB virtual COM port – Transparent – CCID mode / PC/SC 2.01 ¹⁾ | | | |
| Relative Humidity | 5% to 95% non-condensing | | | |
| Supported Transponders | <p>Standard</p> <ul style="list-style-type: none"> 125kHz / 134.2kHz: 4100, 4102, 4200¹⁰⁾, 4050, 4150, 4450, 4550, AWID, CASI-RUSCO, HITAG 1¹¹⁾, HITAG 2¹¹⁾, HITAG S¹¹⁾, Keri, Miro, Pyramid, TIRIS/HDX, UNIQUE, FDX-B, Q5, TITAN, T55x7, ZODIAC Optionally, in consideration: 4305, Cardax, IDTECK <p>13.56MHz / ISO14443A: MIFARE Classic 1k & 4k EV1⁷⁾, Mini, DESFire EV1, Plus S&X, Pro X⁸⁾, SmartMX⁸⁾, Ultralight, Ultralight EV1⁷⁾, Ultralight C, SLE44R35, SLE66Rxx (my-d move), LEGIC Advant⁵⁾, PayPass⁸⁾, NTAG2XX⁷⁾</p> <p>13.56MHz / ISO14443B: Calypso⁸⁾ incl. Innovatron radio protocol 14443-B⁶⁾, CEPAS⁸⁾, HID iCLASS⁵⁾, Moneo⁸⁾, PicoPass⁸⁾, SRI512, SRT512, SRI4K, SRX4K</p> <p>13.56MHz / ISO15693: EM4x33⁸⁾, EM4x35⁸⁾, HID iCLASS⁵⁾, ICODE SLI, LEGIC Advant⁵⁾, M24LR16/64, Tag-it, SRF55Vxx (my-d vicinity)⁸⁾, PicoPass⁸⁾</p> <p>13.56MHz / ISO18092 / NFC: NFCIP-1: Active and passive communication mode, Peer-to-Peer, NFC Forum Tag Type 1-4, Sony FeliCa⁹⁾</p> <p>Version P Standard+ Cotag, G-Prox¹²⁾, HID (Prox, Prox II, Duo Prox II, ISO Prox II, Micro Prox, ProxKey), Honeywell NexWatch, Indala, ioProx</p> <p>Version PI (with external TWN4 SIO Card) Version P + HID iCLASS, HID iCLASS SE/SR/SEOS (CSN and Facility Code/PAC)⁶⁾</p> | | | |
| Certifications | RoHS-II compliant | | | |
| MTBF | 500.000 hours | | | |
| Weight | Approx. 7g | | | |
| Order Codes | | C0 | C1 | C2 |
| | Standard: | T4CM-FC0 | T4CM-FC1 | T4CM-FC2 (incl. TWN4 SIO card) |
| | Version P: | T4CM-FC0-P | T4CM-FC1-P | T4CM-FC2-BP |
| | Version PI: | T4CM-FC0-PI | T4CM-FC1-PI | T4CM-FC2-PI |

¹⁾In Preparation ²⁾On Request Only ³⁾External Interface Required ⁴⁾Target Specification ⁵⁾UID Only ⁶⁾UID Only, read/write On Request ⁷⁾r/w enhanced security features on request ⁸⁾r/w in direct chip command mode ⁹⁾UID + r/w public area ¹⁰⁾Only emulation of 4100,4102 ¹¹⁾Without encryption mode ¹²⁾Hash Value Only

Drawing/Pin Out (all measurements in mm)



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