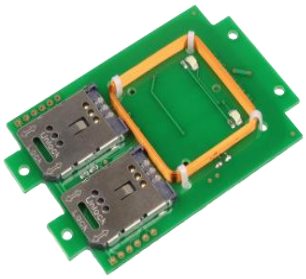
# TWN4 MULTITECH LEGIC 45*

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

*previously known as TWN4 LEGIC NFC 4500M



TWN4 OEM PCB
Bottom View



TWN4 OEM PCB
Top View



Desktop Top View

Elatec's TWN4 Family 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, MIFARE NXP, TI, HID, LEGIC, etc. and ISO standards like ISO14443A/B including layer 4 (T=CL), ISO15693, ISO18092 / ECMA-340 (NFC).

The new generation is a direct enhancement to the successful TWN3 family as it comes in the same mechanical dimensions (OEM PCB and Desktop Housing). Desktop supports host communication via USB or RS232.

Special Features:

- Segment initialization function
- High-level command library for cash / value handling, e.g. electronic purse
- Powerful SDK for writing Apps which are executed directly on the reader
- Infield Upgradeable
- Direct chip-commands support
- Two onboard SAM sockets (Secure Access Module)
- CCID and PC/SC 2.01[1)]
- Additional interfaces for OEM PCB version
  Serial (logical level 3.3V, CMOS 5V tolerant), I²C, SPI[2)], Clock/Data[3)], Wiegand[3)], CAN[2)3)],1-Wire[2)]
- Dedicated expansion bus for connection of LCD, mass storage, etc.
- 8 GPIOs
- Step Model Data on request

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## Technical Data[4)]

| | | |
|---|---|---|
| **Frequency** | 125kHz, 134.2kHz (LF) / 13.56MHz (HF) | |
| **Housing** | Material ABS UL94-V0, colour black or white | |
| **Dimensions (L x W x H)** | Desktop Reader: 88mm x 56mm x 18mm / 3.5inch x 2.2inch x 0.7inch<br>OEM Board: 76mm x 49mm x 14mm / 3.0inch x 1.9inch x 0.6inch | |
| **Power Supply** | 4.3V..5.5V via USB or RS232; RS232 requires 5V external power supply; via connector CNB 3.3V +/- 5% | |
| **Current Consumption** | RF field on: 140mA typically | |
| **Temperature Range** | Operating: -25°C up to +80°C (-13°F up to +176°F)<br>Storage: -45°C up to +85°C (-49°F up to +185°F) | |
| **Read- / Write Distance** | Up to 100mm / 4inch (depending on transponder) | |
| **HOST Interface** | USB, RS232, serial (logical level 3.3V,CMOS 5V tolerant), I²C, SPI[2)], Clock/Data[3)], Wiegand[3)], CAN[2)3)], 1-Wire[2)] | |
| **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 424kbit/s |
| **Modes of Operation** | ▪ USB keyboard emulation – USB virtual COM port – Transparent (direct chip-commands support)<br>▪ CCID and PC/SC 2.01[1)] | |
| **Relative Humidity** | 5% to 95% non-condensing | |
| **Supported Transponders** | **Standard**<br>▪ 125kHz / 134.2kHz: 4100, 4102, 4200[10)], 4050, 4150, 4450, 4550, AWID, CASI-RUSCO, HITAG 1[11)], HITAG 2[11)], HITAG S[11)], Keri, Miro, Pyramid, TIRIS/HDX, UNIQUE, FDX-B, Q5, TITAN, T55x7, ZODIAC<br>Optionally, in consideration: 4305, Cardax, IDTECK<br>▪ 13.56MHz: LEGIC Advant, LEGIC Prime<br>▪ ISO14443 A+B: compatible to part 4, MIFARE DESFire EV1, MIFARE Plus, MIFARE SmartMX, my-d move[7)], PayPass, MIFARE Classic EV1[9)], MIFARE Ultralight EV1[9)], MIFARE Ultralight C, NTAG2xx[9)], HID iCLASS[5)]<br>▪ ISO15693: EM4035[7)], Tag-it, my-d vicinity[7)], ICODE SLI, M24LR16/64, PicoPass[5)], HID iCLASS[5)]<br>▪ ISO18092 / NFC: NFCIP-1: NFC Forum Tag Type 2-4, Sony FeliCa[6)]<br>**Version P**<br>Standard+Cotag,G-Prox[8)], HID (Prox,Prox II,Duo Prox II,ISO Prox II,Micro Prox,ProxKey),Honeywell NexWatch,Indala,ioProx | |
| **Certifications** | CE, R&TTE, RoHS-II compliant | |
| **MTBF** | 500.000 hours | |
| **Weight** | Approx. 20 g (without housing) | |

| **Order Code** | **Standard** | **Version P** |
|---|---|---|
| **OEM Board** | T4DO-B-5 | T4DO-B-5P |
| **USB black / white** | T4DT-BB2BEL-5 / T4DT-BB2WEL-5 | T4DT-BB2BEL-5P / T4DT-BB2WEL-5P |
| **RS232 black / white** | T4DT-BR2BEL-5 / T4DT-BR2WEL-5 | T4DT-BR2BEL-5P / T4DT-BR2WEL-5P |

[1)]In Preparation [2)]On Request Only [3)]External Interface Required [4)]Target Specification [5)]UID Only [6)]Encryption Not Supported [7)]UID/PUPI Only, Read/Write On Request [8)]Hash Value Only
[9)]r/w enhanced security features on request

## Accessories

| | | | |
|---|---|---|---|
| **Order Code** | Snap-in holder<br>HKSI-B - black<br>HKSI-W - white  | Bracket Holder<br>HKBR-B - black<br>HKBR-W - white  | CAB-B2 - USB cable 200cm/78.74inch<br>CAB-B3 - USB cable 12cm/4.72inch<br>CAB-B4 - USB cable 45cm/17.72inch<br>CAB-B7 - USB cable 120cm/47.24inch<br>CAB-M1 - USB cable mini 12cm/4.72inch<br>CAB-M2 - USB cable mini 25cm/9.84inch<br>CAB-R2 - RS232 cable 200cm/78.74inch |
| **Order Code** | PWA-EU - Power Supply (EU)<br>PWA-AUS - Power Supply (AU) | PWA-US - Power Supply (US)<br>PWA-UK - Power Supply (UK) | |

## Drawing/Pin Out

Refer to document DS_TWN4 Pinout & Cables

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