

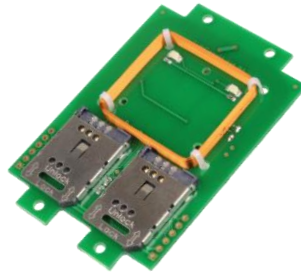
# TWN4 MULTITECH LEGIC 45\*

## 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<sup>1)</sup>
- Additional interfaces for OEM PCB version  
Serial (logical level 3.3V, CMOS 5V tolerant), I<sup>2</sup>C, SPI<sup>2)</sup>, Clock/Data<sup>3)</sup>, Wiegand<sup>3)</sup>, CAN<sup>2)3)</sup>, 1-Wire<sup>2)</sup>
- Dedicated expansion bus for connection of LCD, mass storage, etc.
- 2 GPIOs
- Step Model Data on request

Technical Data <sup>4)</sup>			
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 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) 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), I <sup>2</sup> C, SPI <sup>2)</sup> , Clock/Data <sup>3)</sup> , Wiegand <sup>3)</sup> , CAN <sup>2)3)</sup> , 1-Wire <sup>2)</sup>		
OS Support	Windows XP, Vista, Embedded CE <sup>2)</sup> , 7(32-/64-bit), 8, 8.1, 10, Linux, Android, iOS <sup>2)</sup> , MAC OS X <sup>2)</sup>		
Transmission Speed	Host: USB: Full speed (12Mbit) – RS232: up to 115.200baud	Air: up to 424kbit/s	
Modes of Operation	<ul style="list-style-type: none"> <li>USB keyboard emulation – USB virtual COM port – Transparent (direct chip-commands support)</li> <li>CCID and PC/SC 2.01<sup>1)</sup></li> </ul>		
Relative Humidity	5% to 95% non-condensing		
Supported Transponders	<p><b>Standard</b></p> <ul style="list-style-type: none"> <li>125kHz / 134.2kHz: 4100, 4102, 4200<sup>10)</sup>, 4050, 4150, 4450, 4550, AWID, CASI-RUSCO, HITAG 1<sup>11)</sup>, HITAG 2<sup>11)</sup>, HITAG S<sup>11)</sup>, Keri, Miro, Pyramid, TIRIS/HDX, UNIQUE, FDX-B, Q5, TITAN, T55x7, ZODIAC</li> <li><u>Optionally, in consideration:</u> 4305, Cardax, IDTECK</li> <li>13.56MHz: LEGIC Advant, LEGIC Prime</li> <li>ISO14443 A+B: compatible to part 4, MIFARE DESFire EV1, MIFARE Plus, MIFARE SmartMX, my-d move<sup>7)</sup>, PayPass, MIFARE Classic EV<sup>9)</sup>, MIFARE Ultralight EV<sup>9)</sup>, MIFARE Ultralight C, NTAG2xx<sup>9)</sup>, HID iCLASS<sup>5)</sup></li> <li>ISO15693: EM4035<sup>7)</sup>, Tag-it, my-d vicinity<sup>7)</sup>, ICODE SLI, M24LR16/64, PicoPass<sup>5)</sup>, HID iCLASS<sup>5)</sup></li> <li>ISO18092 / NFC: NFCIP-1: NFC Forum Tag Type 2-4, Sony FeliCa<sup>6)</sup></li> </ul> <p><b>Version P</b></p> Standard+Cotag,G-Prox <sup>8)</sup> , 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	<b>Standard</b>	<b>Version P</b>	
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	

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

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

Drawing/Pin Out
Refer to document DS_TWN4 Pinout & Cables

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