TWN4 MULTITECH*

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

*previously known as TWN4 MIFARE NFC

TWN4 OEM PCB
Bottom View

TWN4 OEM PCB
Top View

Desktop Top View

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 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:

- Powerful SDK for writing Apps which are executed directly on the reader
- Infield Upgradeable
- Direct chip-commands support
- Onboard 18kB flash storage
- 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

Worldwide certifications:
WEEE, RoHS, R&TTE, CE (Europe), FCC (USA), IC (Canada), ACA (Australia / New Zealand), MIC (Japan), KCC (Korea), ANATEL (Brasil), CFT (Mexico), ICASA (South Africa), EAC (Russia), India, Israel, Thailand, Venezuela

ELATEC
RFID Systems

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	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 transponder)	
HOST Interface	USB, RS232, serial (logical level 3.3V,CMOS 5V tolerant), I²C, 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 keyboard emulation – USB virtual COM port – Transparent (direct chip-commands support) • CCID and PC/SC 2.01[1]	
Relative Humidity	5% to 95% non-condensing	
Supported Transponders	**Standard** • 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[2] <u>Optionally, in consideration:</u> 4305, Cardax, IDTECK • 13.56MHz / ISO14443A: MIFARE Classic, Classic 1k & 4k EV1[7], MIFARE Mini, MIFARE DESFire EV1, MIFARE Plus S&X, MIFARE Pro X[8], SmartMX[8], MIFARE Ultralight, MIFARE Ultralight EV1[7], MIFARE Ultralight C, SLE44R35, SLE66Rxx (my-d move), LEGIC Advant[5], PayPass[8], NTAG2XX[7] • 13.56MHz / ISO14443B: Calypso[8] incl. Innovatron radio protocol 14443-B'[6], CEPAS[8], HID iCLASS[5], Moneo[8], PicoPass[8], SRI512, SRT512, SRI4K, SRIX4K • 13.56MHz / ISO15693: EM4x33[8], EM4x35[8], HID iCLASS[5], ICODE SLI, LEGIC Advant[5], M24LR16/64, Tag-it, SRF55Vxx (my-d vicinity)[8], PicoPass[8] • 13.56MHz / ISO18092 / NFC: NFCIP-1: Active and passive communication mode, Peer-to-Peer, NFC Forum Tag Type 1-4, Sony FeliCa[9] **Version P** Standard+Cotag, G-Prox[12], HID (Prox, Prox II, Duo Prox II, ISO Prox II, Micro Prox, ProxKey III), NexWatch, Indala, ioProx **Version PI** Version P + HID iCLASS (CSN and Facility Code/PAC)[13], HID iCLASS SE/SR/SEOS (CSN and Facility Code/PAC)[13]	
Certifications	CE, R&TTE, RoHS-II compliant, FCC, IC, ACA, MIC, KCC, ANATEL, CFT, ICASA, EAC), India, Israel, Thailand, Venezuela	
MTBF	500,000 hours	
Weight	Approx. 20 g (without housing)	

Order Code	Standard	Version P	Version PI
OEM Board	T4DO-F	T4DO-F-P	T4DO-F-PI
USB black / white	T4DT-FB2BEL / T4DT-FB2WEL	T4DT-FB2BEL-P / T4DT-FB2WEL-P	T4DT-FB2BEL-PI / T4DT-FB2WEL-PI
RS232 black / white	T4DT-FR2BEL / T4DT-FR2WEL	T4DT-FR2BEL-P / T4DT-FR2WEL-P	T4DT-FR2BEL-PI / T4DT-FR2WEL-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 [13]UID + PAC (CSN & Facility Code), read/write on request

Accessories

Order Code	Snap-in holder HKSI-B - black HKSI-W - white	Bracket Holder HKBR-B - black HKBR-W - white	CAB-B2 - USB cable 200cm/78.74inch CAB-B3 - USB cable 12cm/4.72inch CAB-B4 - USB cable 45cm/17.72inch
Order Code	PWA-EU - Power Supply (EU) PWA-AUS -Power Supply (AU)	PWA-US - Power Supply (US) PWA-UK - Power Supply (UK)	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