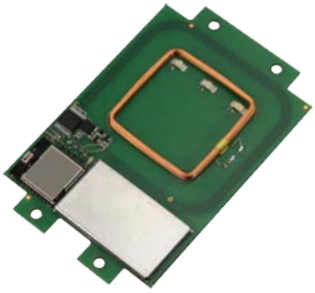
TWN4 MULTITECH 2 BLE

125/134.2kHz, 13.56MHz contactless Reader/Writer with NFC and Bluetooth Low Energy support



TWN4 OEM PCB
Bottom View

TWN4 OEM PCB
Top View

Desktop
Top View

Elatec's family of TWN4 transponder readers/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 etc. and ISO standards like ISO14443A, ISO14443B , ISO15693, ISO18092 / ECMA-340 (NFC).

The new TWN4 MultiTech 2 BLE reader has integrated RFID (LF & HF) and Bluetooth Low Energy (BLE), which is supported by mobile phones Android version 4.3 or greater, iPhone 4S or greater and PCs with Windows (new Bluetooth hardware integrated). The app on the reader communicates with the BLE module with easy commands and has direct enhancement to the GATT structure, which gives you the flexibility to write your custom apps.

Special Features:

- Powerful SDK for writing Apps which are executed directly on the reader
- In-field programmable
- On-board 18kB flash storage, e.g. for storing user accessible non-volatile data
- Direct chip-commands support
- Two on-board SAM sockets (Secure Access Module)
- CCID and PC/SC 2.01
- 4 GPIOs
- Bluetooth V4.1, upgradeable to V4.2, API, flexible GATT structure up to 8 connections simultaneous, AES128 supported
- 3D model (STEP) on request

ELATEC
RFID Systems

Technical Data

Frequency	125/134.2kHz (LF) / 13.56MHz (HF) / 2402MHz – 2480MHz (BT)			
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 9mm / 3.0inch x 1.9inch x 0.4inch			
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 activated antenna: 120mA (RF Field on) + 16mA (BT) typically / Sleep: 500µA typ. / Cyclic Operation: TBD			
Temperature Range	OEM PCB	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)	Desktop	Operating: -25°C up to +70°C (-13°F up to +158°F) Storage: -45°C up to +75°C (-49°F up to +167°F)
Read- / Write Distance	LF and HF: Up to 100mm / 4inch (depending on transponder) / BT: up to several meters/feet (configurable, up to +8dBm power)			
HOST Interface	USB, RS232, TTL serial (logical level 3.3V,CMOS 5V tolerant), I²C, 4 GPIOs			
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	HF Air: up to 848kbit/s	BT Air: up to 100kbit/s	
Modes of Operation	▪ USB keyboard emulation – USB virtual COM port – Transparent (direct chip-commands support) ▪ CCID and PC/SC 2.01			
Relative Humidity	5% to 95% non-condensing			
Supported Transponders (LF & HF)	Standard ▪ 125kHz / 134.2kHz: 4100, 4102, 4200[8], 4050, 4150, 4450, 4550, AWID, CASI-RUSCO, Deister, HITAG 1[9], HITAG 2[9], HITAG S[9], Keri, Miro, Pyramid, TIRIS/HDX, UNIQUE, FDX-B, Q5, TITAN, T55x7, ZODIAC[2], Cardax[10], Nedap[10] ▪ 13.56MHz / ISO14443A: MIFARE Classic, Classic 1k & 4k EV1[5], MIFARE Mini, MIFARE DESFire EV1, MIFARE Plus S&X, MIFARE Pro X[6], SmartMX[6], MIFARE Ultralight, MIFARE Ultralight EV1, MIFARE Ultralight C, SLE44R35, SLE66Rxx (my-d move), PayPass[6], NTAG2XX, LEGIC Advant[3] ▪ 13.56MHz / ISO14443B: Calypso[6] incl. Innovatron radio protocol 14443B'[4], CEPAS[6], HID iCLASS[3], Moneo[6], PicoPass[3], SRI512, SRT512, SRI4K, SRIX4K ▪ 13.56MHz / ISO15693: EM4x33[6], EM4x35[6], HID iCLASS, ICODE SLI, M24LR16/64, Tag-it, SRF55Vxx (my-d vicinity)[6], PicoPass[3] ▪ 13.56MHz / ISO18092 / NFC: NFCIP-1: Active and passive communication mode, Peer-to-Peer, NFC Forum Tag Type 1[2], NFC Forum Tag Type 2-5, Sony FeliCa[7] Version P Standard+Cotag, G-Prox[10], HID (Prox, Prox II, Duo Prox II, ISO Prox II, Micro Prox, ProxKey III), NexWatch (Honeywell), Indala, ioProx Version PI Version P + HID iCLASS SE/SR/SEOS (CSN and Facility Code/PAC)[11]			
Bluetooth Low Energy	Bluetooth V4.1, software upgradable to V4.2; API; standards as GAP, SM, L2CAP, ATT; predefined GATT structure; up to 8 connections; AES128 supported			
Certifications	RoHS-II compliant, CE, FCC Single Modular Approval[1], Australia[1], IC[1]			
MTBF	500,000 hours			
Weight	Approx. 20 g (without housing)			

Order Code	Standard	Version P	Version PI
OEM Board	T4BO-F7	T4BO-F7-P	T4BO-F7-PI
USB black / white	T4BT-FB2BEL7 / T4BT-FB2WEL7	T4BT-FB2BEL7-P / T4BT-FB2WEL7-P	T4BT-FB2BEL7-PI / T4BT-FB2WEL7-PI
RS232 black / white	T4BT-FR2BEL7 / T4BT-FR2WEL7	T4BT-FR2BEL7-P / T4BT-FR2WEL7-P	T4BT-FR2BEL7-PI / T4BT-FR2WEL7-PI

[1]In preparation, expected in February 2017 [2]On request only [3]UID only [4]UID only, read/write on request [5]r/w enhanced security features on request [6]r/w in direct chip command mode [7]UID + r/w public area [8]Only emulation of 4100,4102 [9]Without encryption mode [10]Hash value only [11]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 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
Order Code	PWA-EU - Power Supply (EU) PWA-AUS - Power Supply (AU)	PWA-US - Power Supply (US) PWA-UK - Power Supply (UK)	

Elatec GmbH

Zeppelinstr. 1 • 82178 Puchheim • Germany • Phone: +49 89 5529961 0 • Fax: +49 89 5529961 129
info-rfid@elatec.com • www.elatec-rfid.com