

TWN4 MULTITECH 3

RFID READER/WRITER FOR LF, HF, NFC



TWN4 MultiTech 3 PCB top view



TWN4 MultiTech 3 PCB bottom view

The new TWN4 MultiTech 3 integrates RFID (125 kHz, 134.2 kHz and 13.56 MHz) and NFC capabilities into a compact but powerful reader. Its reduced size combined with excellent read/write performance makes it the perfect reader for all applications where small size and full performance matters, e.g. print solutions, healthcare applications, driver identification, POS integration and much more. Furthermore, the TWN4 MultiTech 3 provides access to most common host interfaces such as USB, serial (TTL) or I²C which are readily accessible through an on-board connector.

The TWN4 MultiTech 3 allows users to read and write almost all common worldwide 125 kHz, 134.2 kHz and 13.56 MHz 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/B (T=CL), ISO15693, ISO18092 / ECMA-340 (NFC).

Special features:

- + powerful SDK for writing apps which are executed directly on the reader
- + firmware update in the field possible
- + onboard 18 kB flash storage, e.g. for storing user accessible non-volatile data
- + direct chip-commands support
- + one onboard SAM socket (Secure Access Module)
- + CCID and PC/SC 2.01
- + 3 GPIOs
- + 3D construction data (STEP) available on request
- + supports quick centralized (re)configuration over network and over wireless interface with TWN4 CONFIG Card



Elevator



EV Chargers



Access



Shop POS



Fitness
Equipment



Ticket POS



PC Log-on



Document
Management



Driver ID



Vending



Parking



Gaming



Locker Locks



Time
Attendance



Industrial
PC

TECHNICAL DATA

| | | | | | | | |
|-------------------------------------|--|-----------|-----------|-------------|---------------------|--------------|----------------------|
| FREQUENCY | 125 kHz/134.2 kHz (LF) / 13.56 MHz (HF) | | | | | | |
| ANTENNA | Integrated | | | | | | |
| DIMENSIONS (L X W X H) | OEM Board (compact reader): 50 mm x 35 mm x 7 mm, maximum diameter < 55 mm. | | | | | | |
| POWER SUPPLY | 4.3 V - 5.5 V via USB; via connector CNB 3.3 V +/- 5% | | | | | | |
| CURRENT CONSUMPTION | RF field on: 120 mA typically / Sleep: 500 µA 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) | | | | | | |
| RELATIVE HUMIDITY | 5% to 95% non-condensing | | | | | | |
| READ- / WRITE DISTANCE | LF and HF: Up to 100 mm / 4 inch, depending on environment and transponder | | | | | | |
| TRANSMISSION SPEED | Host: USB Full speed (12 Mbit/s), RS-232: up to 115.200 baud; HF Air: up to 848 kbit/s | | | | | | |
| OPERATING MODES (USB) | USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01 | | | | | | |
| MTBF | 500,000 hours | | | | | | |
| WEIGHT | Approx. 9 g | | | | | | |
| COMPATIBLE PIN HEADER | PTT-112-01-L-D or TMM-112-03-F-D by Samtec | | | | | | |
| SUPPORTED TRANSPONDERS (STANDARD) | <p><u>ISO14443A:</u> LEGIC Advant¹⁾, MIFARE Classic EV1²⁾, MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2²⁾, MIFARE Plus S, X, MIFARE Pro X³⁾, MIFARE Smart MX³⁾, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1, NTAG2xx, PayPass³⁾, SLE44R35, SLE66Rxx (my-d move)³⁾, Topaz</p> <p><u>ISO14443B:</u> Calypso³⁾, Calypso Innovatron protocol³⁾, CEPAS³⁾, HID iCLASS¹⁾, Moneo³⁾, Pico Pass⁴⁾, SRI4K, SRIX4K, SRI512, SRT512</p> <p><u>ISO18092 ECMA-340:</u> NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa⁵⁾, NFC Active and passive communication mode</p> <p><u>ISO15693:</u> EM4x33³⁾, EM4x35³⁾, HID iCLASS¹⁾, HID iCLASS SE/SR¹⁾, ICODE SLI, LEGIC Advant¹⁾, M24LR16/64, MB89R118/119, SRF55Vxx (my-d vicinity)³⁾, Tag-it, PicoPass⁴⁾</p> <p><u>125 kHz, 134.2 kHz:</u> AWID, Cardax, CASI-RUSCO, Deister⁶⁾, EM4100, 4102, 4200⁷⁾, EM4050, 4150, 4450, 4550, EM4305⁸⁾, FDX-B, EM4105, HITAG 1⁹⁾, HITAG 2⁹⁾, HITAG S⁹⁾, ICT⁸⁾, IDTECK, Isonas⁸⁾, Keri, Miro, Nedap⁶⁾, PAC, Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX, TITAN (EM4050), UNIQUE, ZODIAC, Cotag, G-Prox⁶⁾</p> | | | | | | |
| SUPPORTED TRANSPONDERS (VERSION P) | All Standard Transponders, Cotag, G-Prox ⁶⁾ , HID DuoProx II, HID ISO Prox II, HID Micro Prox, HID ProxKey III, HID Prox, HID Prox II, Indala, ioProx, Nexwatch | | | | | | |
| SUPPORTED TRANSPONDERS (VERSION PI) | Requires external TWN4 SIO Card, All Standard Transponders, All Version P Transponders, HID iCLASS ¹⁰⁾ , HID iCLASS SE/SR/SEOS(CSN and Facility Code/PAC) ¹⁰⁾ , HID iCLASS Elite & SE Elite | | | | | | |
| OS SUPPORT | Windows XP, Vista, Embedded CE ⁸⁾ , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android ⁸⁾ , iOS ⁸⁾ , MAC OS X ⁸⁾ | | | | | | |
| PERIPHERAL INTERFACES | USB, RS232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I ² C, SPI, 3 GPIOs, CAN ⁸⁾ , Clock/Data, Wiegand, 1-Wire ⁸⁾ | | | | | | |
| CERTIFICATION NAME | TWN4 MultiTech 3 | | | | | | |
| CERTIFICATION(S) | RoHS-II compliant, CE/RED, FCC Single Modular Approval, IC | | | | | | |
| ORDER CODE(S) | <table> <tr> <td>T430-F6C0</td> <td>OEM Board</td> </tr> <tr> <td>T430-F6C0-P</td> <td>OEM Board Version P</td> </tr> <tr> <td>T430-F6C0-PI</td> <td>OEM Board Version PI</td> </tr> </table> | T430-F6C0 | OEM Board | T430-F6C0-P | OEM Board Version P | T430-F6C0-PI | OEM Board Version PI |
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| T430-F6C0-PI | OEM Board Version PI | | | | | | |

¹⁾UID only ²⁾r/w enhanced security features on request ³⁾r/w in direct chip command mode ⁴⁾UID only, read/write on request ⁵⁾UID + r/w public area ⁶⁾Hash value only ⁷⁾Only emulation of 4100, 4102 ⁸⁾On request ⁹⁾Without encryption ¹⁰⁾UID + PAC (CSN & Facility Code), r/w on request

CONNECTOR ASSIGNMENT

