

# TWN4 MULTITECH 2 BLE

TWN4 MULTITECH 2

## RFID READER/WRITER FOR LF, HF, NFC, BLE



ELATEC's TWN4 family of RFID readers and writers allows users to read and write to almost any 125 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 ISO 14443A/B (T=CL), ISO 15693, ISO 18092 / ECMA-340 (NFC).

The TWN4 MultiTech 2 BLE reader has integrated RFID (LF & HF) and Bluetooth Low Energy (BLE), which is supported by mobile phones with Android version 4.3 or greater, iOS 8.0 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
- + Firmware update in the field possible
- On-board 18 kB 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
- Supports Apple VAS and ECP 2.08)
- Bluetooth V4.1, upgradeable to V4.2, API, flexible GATT structure up to 8 connections simultaneous, AES128 supported
- + Supports quick (re)configuration over network and over wireless interface with TWN4 CONFIG Card
- + TWN4 Upgrade Card for P and PI options available on request



































### TECHNICAL DATA

ANTENNA(S) Integrated HOUSING Materiai: ABS UL94-V0, color: black or white DIMENSIONS (L X W X H)  88 mm x 35 mm x 18 mm / 35 inch x 22 inch x 0.7 inch  4.3 V - 5.5 V via USB; via generic interface (X1) 3.3 V ± 5%; RS-232 requires 5 V external power supply Limited power source according to the safety norms listed in the respective declaration of conformity, short-circuit current < 8 A  CURRENT CONSUMPTION RF field on: 120 mA typically + 16 mA (BT) / Sieep: 500 µA typ. / Cyclic Operation: TBD  Operating: 25° Cu p to 476° °C (-13° °F up to +158° °F) RELATIVE HUMIDITY Storage: 45° Cu pto +76° °C (-13° °F up to +167° °F)  READ- / WRITE DISTANCE BT: up to several meters/feet (configurable, up to +8 dBm power)  OPERATING MODES (USB) USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01  BluetoOTH LOW ENERGY BULETOOTH LOW ENERGY  MTBF 500,000 hours  WEIGHT Approx. 118 g / 4.17 oz (with cable)  ISO144438: LEGIC Advant¹¹, MIFARE Classic EV¹²), MIFARE Classic, MIFARE Mini, MIFARE DESFire EV², MIFARE DESFire EV², MIFARE Ultralight C, MIFARE Ultralight EV¹², NIFAGEXx, SLE44R35°, SLE66Rxx (my-d move)³, Topaz ISO18092 ECMA-340;  NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa³, NFC Active and passive communication mode  SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ  SUPPORTED TRANSPONDERS (STANDARD) 125 KH2°  SUPPORTED TRANSPONDERS (STANDARD) 125 KH2°  Appic X-85°, ECP 2.09  AVID, Cardax, CASI-RUISCO, Delster¹°, EM4100, 4102, 4200¹°, EM4050, 4150, 4450, 4	TECHNICAL DATA	40-11-4		
HOUSING		125 kHz (LF) / 13.56 MHz (HF) / 2.4 GHz (BLE)		
DIMENSIONS (L X W X H)  88 mm x 18 mm / 3.5 inch x 2.2 inch x 0.7 inch  4.3 V - 5.5 V via USB; via generic interface (X1) 3.3 V ± 5%; RS-232 requires 5 V external power supply Limited power source according to the safety norms listed in the respective declaration of conformity, short-circuit current < 8 A  CURRENT CONSUMPTION  RF field on: 120 mA typically + 16 mA (BT) / Sleep: 500 µA typ. / Cyclic Operation: TBD  Operating: -25 °C up to +70 °C (-13 °F up to +188 °F) Storage: -45 °C up to +70 °C (-13 °F up to +167 °F)  READ- / WRITE DISTANCE  RELATIVE HUMIDITY  S% to 95% non-condensing  LF and HF: Up to 100 mm / 4 inch, depending on environment and transponder  BT: up to several metersfeet (configurable, up to +8 dBm power)  OPERATING MODES (USB)  USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01  Bluetooth V.4.1, software upgradable to V4.2; easy to integrate in reader App with commands, optional BGAP protocol: Standards as GAP, SM, L2CAP, ATT; predefined GATT structure; up to 8 connections; AES128 support  MTBF  500,000 hours  WEIGHT  Approx. 118 g / 4.17 oz (with cable)  ISO14443A: LEGIC Advant <sup>10</sup> , MIFARE Classic EV12 <sup>3</sup> , MIFARE DESFire Light <sup>10</sup> , MIFARE Plus S, X, MIFARE Pro X9, MIFARE DESFire Light <sup>10</sup> , MIFARE Ultralight, C, MIFARE Plus S, X, MIFARE Pro X9, MIFARE DESFire Light <sup>10</sup> , MIFARE Ultralight  EV1, MTAGZxx, SLE44R35 <sup>9</sup> , SLE66Rxx (my-d move) <sup>9</sup> , Topaz  ISO18032 ECMA-340: NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa®, NFC Active and passive communication mode  ISO14443B: Calypso®, Calypso Innovatron protocol <sup>9</sup> , CEPAS®, HID ICLASS <sup>11</sup> , Moneo <sup>6</sup> , Pico Pass <sup>71</sup> , SRIK, SRIST2, SRISK, SRIST2, SRTS12  ISO15693  EMA/339, EMA/339, EMA/359, EMA/559, UltraProx <sup>10</sup> , HITAG 1 <sup>4</sup> , HITAG 2 <sup>4</sup> , HITAG 5 <sup>4</sup> , MA4R-fl664, MB89R118119, SRF55Vxx (my-d vicinity) <sup>8</sup> , Tag-it, PicoPass <sup>71</sup> , MA4R-fl664, MB89R118119, SRF55Vxx (my-d vicinity) <sup>8</sup> , Tag-it, PicoPass <sup>71</sup> , TRISHDX <sup>10</sup> , TITAN (EMM050), UNIOUE, ZODIAC  SUPPORTED TRANSPONDERS  GYANDA Cardax, CASI-RUSCO, Deister <sup>10</sup> , EM4100, 4102, 4200 <sup>11</sup> , EM4050,	. ,			
POWER  4.3 V - 5.5 V via USB; via generic interface (X1) 3.3 V ± 5%; RS-232 requires 5 V external power supply Limited power suprove according to the safety norms listed in the respective declaration of conformity, short-circuit current < 8 A  CURRENT CONSUMPTION  TEMPERATURE RANGE  Operating: -25 °C up to +75 °C (+3 °F up to +155 °F)  Storage: -45 °C up to +75 °C (+3 °F up to +155 °F)  Storage: -45 °C up to +75 °C (+3 °F up to +167 °F)  READ / WRITE DISTANCE  IF and HF: Up to 100 mm / 4 inch, depending on environment and transponder BT: up to several meters/feet (configurable, up to +8 dBm power)  OPERATING MODES (USB)  USB keyboard emulation - USB virtual COM port - CCID / PCVSC 2.01  Bluetooth V4.1, software upgradable to V4.2; easy to integrate in reader App with commands, optional BGAP1 protocol: Standards as GAP. SM, L2CAP, ATT; predefined CATT structure; up to 8 comections; AES128 support  MTBF  500,000 hours  WEIGHT  Approx. 118 g / 4.17 oz (with cable)  ISO14443434  LEGIC Advant¹¹, MIFARE Classic EV1², MIFARE Classic, MIFARE Mini, MIFARE DESFire Light*, MIFARE Plus S, X, MIFARE Pro Xº, MIFARE DESFire Light*, MIFARE Ultralight C, MIFARE Ultralight EV1², NTAG2xx, SLE44R35°, SLE68Rxx (my-d move)³, Topaz S131802 ECMA-3401  SUPPORTED TRANSPONDERS  (STANDARD) 13.56 MHZ  SUPPORTED TRANSPONDERS  (STANDARD) 13.56 MHZ  SUPPORTED TRANSPONDERS  (STANDARD) 13.56 MHZ  SUPPORTED TRANSPONDERS  (STANDARD) 12.5 KHZ²9  S				
POWER    Dower Supply	DIMENSIONS (L X W X H)			
TEMPERATURE RANGE  Operating: -25 °C up to +70 °C (-13 °F up to +158 °F) Slorage: -45 °C up to +75 °C (-49 °F up to +158 °F) Slorage: -45 °C up to +75 °C (-49 °F up to +167 °F)  READ- / WRITE DISTANCE  DFAATING MODES (USB)  USB keyboard emulation — USB virtual COM port — CCID / PC/SC 2.01  Bluetooth V4.1, software upgradable to V4.2; easy to integrate in reader App with commands, opitional BGAPI protocol; Standards as GAP, SM, L2CAP, ATT; predefined GATT structure; up to 8 connections; AES128 support  MTBF  500,000 hours  WEIGHT  Approx. 118 g / 4.17 oz (with cable) ISD144438:  LEGIC Advant¹), MIFARE Classic EV¹², MIFARE Ultralight, MIFARE Plus S, X, MIFARE Pro X², MIFARE Smart MX², MIFARE Ultralight, MIFARE Ultralight, MIFARE Ultralight EV¹², NIFARE Smart MX², MIFARE DISFIRE LIght², MIFARE Ultralight EV¹², NIFARE Smart MX², MIFARE Ultralight, MIFARE Ultralight Cylin Signity, MIFARE Ultralight EV¹², NIFARE Smart MX², MIFARE Pro X², MIFARE Ultralight Cylin Signity, MIFARE Ultralight Cylin Signity, MIFARE Ultralight EV¹², NIFARE Ultralight Cylin Signity, MIFARE Ultralight EV¹², NIFARE VIEX SISSEN EVIEX SI	POWER	power supply Limited power source according to the safety norms listed in the respective declaration of		
RELATIVE HUMIDITY  Storage: -45 °C (up to +75 °C (-49 °F up to +167 °F)  RELATIVE HUMIDITY  Storage: -45 °C up to +75 °C (-49 °F up to +167 °F)  READ- / WRITE DISTANCE  DEFARTING MODES (USB)  USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01  Bluetooth V4.1, software upgradable to V4.2; easy to integrate in reader App with commands, optional BGAPI protocol; Standards as GAP, SM, L2CAP, ATT; predefined GATT structure; up to 8 connections; AES128 support  MTBF  S00,000 hours  WEIGHT  Approx. 118 g / 4.17 oz (with cable)  ISO144438:  LEGIC Advant¹¹, MIFARE Classic EV1², MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1², MIFARE Pro X³, MIFARE Smart MX³, MIFARE MIFARE Ultralight C, MIFARE Ultralight C, MIFARE Ultralight C, MIFARE WITH SIGN C communication mode  SUPPORTED TRANSPONDERS  (STANDARD) 13.56 MHZ  SUPPORTED TRANSPONDERS  (STANDARD) 13.56 MHZ  SUPPORTED TRANSPONDERS  (STANDARD) 125 KHZ³)  SUPPORTED TRANSPONDERS  (OPTION P)  SUPPORTED TRANSPONDERS  All Standard Transponders, Cotag, G-Prox³9, HID DuPProx II, HID ISO Prox II, HID Micro Prox, HiD Prox II, Indala, ioProx, Nexwatch Prox, HID Prox, HID Prox, HID Prox, HID Prox II, Indala, ioProx, Nexwatch Prox, HID Prox, HID Prox, HID Prox, HID Prox, Nexwatch Prox, HID Prox, HID Prox, HID Prox,	CURRENT CONSUMPTION	RF field on: 120 mA typically + 16 mA (BT) / Sleep: 500 µA typ. / Cyclic Operation: TBD		
READ- / WRITE DISTANCE  LF and HF: Up to 100 mm / 4 inch, depending on environment and transponder BT: up to several meters/feet (configurable, up to +8 dBm power)  USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01  Bluetooth V4.1, software upgradable to V4.2; easy to integrate in reader App with commands, optional BGAPI protocol; Standards as GAP, SM, L2CAP, ATT; predefined GATT structure; up to 8 connections; AES128 support  MTBF  500,000 hours  WEIGHT  Approx. 118 g / 4.17 oz (with cable)  ISO144439:  LEGIC Advant¹¹, MIFARE Classic EV¹², MIFARE Classic, MIFARE Mini, MIFARE DESFire EV¹, MIFARE DESFire EV²¹, MIFARE DESFire Light², MIFARE Plus S, X, MIFARE Pox X³, MIFARE Smart MX³, MIFARE MIFARE Ultralight C, MIFARE Ultralight EV¹², NTAG2xx, SLE44R35³, SLE66Rxx (my-d move)³, Topaz  ISO18092 ECMA-340;  NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa®, NFC Active and passive communication mode  ISO14438:  Calypso®, Calypso Innovatron protocol®, CEPAS®, HID ICLASS®, Moneo®, Pico Pass³, SRI4K, SRI512, SRT512  ISO15693:  EMAx339, EM4x359, HID ICLASS®, HID ICLASS SE/SR¹¹, ICODE SLI, LEGIC Advant¹¹, M24LR16/64, MB89R118/119, SRF55Vxx (my-d vicinity)®, Tag-it, PicoPass²¹ Apple VAS®, ECP 2.0®  AWID, Cardax, CASI-RUSCO, Deister¹®, EM4100, 4102, 4200¹¹³, EM4050, 4150, 4450, 4550, EM4305²², FDX-B¹³, EM4105³³, UltraRrox¹³, HITAG 1⁴¹, HITAG 2¹², HITAG 5¹², ICT²³, DTECK, Isonas, Keri, Miro, Nedap¹³, PAc²¹, Pyramid, Q5, T5557, T5567, T577, TIRISHDX°³, TITAN (EM4050), UNIQUE, ZODIAC  SUPPORTED TRANSPONDERS  (OPTION P)  All Standard Transponders, Cotag, G-Prox³ø, HID DuoProx II, HID ISO Prox II, HID Micro Prox, HID Prox II, Indiala, loProx, Newatic Supporters TWAN SIO Card, All Standard Transponders, All Option P Transponders, HID iCLASS SE/SR/Eite, HID ICLASS SEOS (Facility Code/PAC)¹¹³  PERIPHERAL INTERFACES  Windows Embedded CFº, 7 (32:764-bit), 8, 81, 10, Linux, Android³³, iOS³³, MAC OS X⁴¹  Windows Embedded CFº, 7 (32:764-bit), 8, 81, 10, Linux, Android³³, iOS³³, MAC OS X⁴¹  Windows Embedded CFº, 7 (32:764-	TEMPERATURE RANGE			
DPERATING MODES (USB)  BT: up to several meters/feet (configurable, up to +8 dBm power)  DPERATING MODES (USB)  USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01  Bluetooth V4.1, software upgradable to V4.2; easy to integrate in reader App with commands, optional BcAPI protocol; Standards as GAP, SM, L2CAP, ATT; predefined GATT structure; up to 8 connections; AES128 support  WEIGHT  Approx. 118 g / 4.17 oz (with cable)  SO1,000 hours  WEIGHT  Approx. 118 g / 4.17 oz (with cable)  SO14443A:  LEGIC Advant¹¹, MIFARE Classic EV¹², MIFARE Classic, MIFARE Pius S, X, MIFARE Pro X³, MIFARE Smart MX³, MIFARE Ultralight, MIFARE Pius S, X, MIFARE Pro X³, MIFARE Smart MX³, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV¹², NTAG2xx, SLE44R35⁵¹, SLE66Rxx (my-d move)³¹, Topaz  SUPPORTED TRANSPONDERS  (STANDARD) 13.56 MHZ  SUPPORTED TRANSPONDERS  (STANDARD) 13.56 MHZ  SUPPORTED TRANSPONDERS  (STANDARD) 13.56 MHZ  SUPPORTED TRANSPONDERS  (STANDARD) 125 KHZ³¹  SUPPORTED TRANSPONDERS  (STANDARD) 125 KHZ³¹  SUPPORTED TRANSPONDERS  (STANDARD) 125 KHZ³¹  AWID, Cardax, CASì-RUSCO, Deister¹³, EM4100, 4102, 4200¹³, EM4050, 4150, 4450, 4550, EM4305¹³, FDX-B³³, EM405³0, UltraProx¹³, HITAG 1¹³, HITAG 2¹³, TIRIS/HDX¹³, TITIN (EM4050), UNIQUE, ZODIAC  SUPPORTED TRANSPONDERS  (OPTION P)  OS SUPPORT  Windows Embedded CE¹?, 7(32/64-bit), 8, 8, 1, 10, Linux, Android³, iOS³, MAC OS X³  Windows Embedded CE³?, 7(32/64-bit), 8, 8, 1, 10, Linux, Android³, iOS³, MAC OS X³  Windows Embedded CE³?, 7(32/64-bit), 8, 8, 1, 10, Linux, Android³, iOS³, MAC OS X³  Windows Embedded CE³?, 7(32/64-bit), 8, 8, 1, 10, Linux, Android³, iOS³, MAC OS X³  Windows Embedded CE³?, 7(32/64-bit), 8, 8, 1, 10, Linux, Android³, iOS³, MAC OS X³  Windows Embedded CE³?, 7(32/64-bit), 8, 8, 1, 10, Linux, Android³, iOS³, MAC OS X³  Windows Embedd	RELATIVE HUMIDITY	5% to 95% non-condensing		
OPERATING MODES (USB)   USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01	READ- / WRITE DISTANCE			
Bluetooth V4.1, software upgradable to V4.2; easy to integrate in reader App with commands, optional BGAPI protocol; Standards as GAP, SM, L2CAP, ATT; predefined GATT structure; up to 8 connections; AES128 support  MTBF 500,000 hours  WEIGHT Approx. 118 g / 4.17 oz (with cable)  ISO14443A:  LEGIC Advant¹¹, MiFARE Classic EV1²¹, MiFARE Classic, MiFARE Mini, MiFARE DESFire EV1, MiFARE DESFire EV2³, MiFARE DESFire Light¹¹, MiFARE Ultralight C, MiFARE DISSITE EV1², MiFARE DESFIre EV1², MiFARE DESFIRE EV1², MiFARE Ultralight C, MiFARE Ultralight EV1², NTAG2xx, SLE444R35³, SLE66Rxx (my-d move)³, Topaz ISO18092 ECMA-340;  SUPPORTED TRANSPONDERS  (STANDARD) 13.56 MHZ  SUPPORTED TRANSPONDERS  (STANDARD) 13.56 MHZ  SUPPORTED TRANSPONDERS  (STANDARD) 14.56 MHZ  SUPPORTED TRANSPONDERS  (STANDARD) 15.56 MHZ  SUPPORTED TRANSPONDERS  (OPTION P)  SUP	OPERATING MODES (USB)	_		
WEIGHT Approx. 118 g / 4.17 oz (with cable)  ISO14443A: LEGIC Advant¹¹, MIFARE Classic EV1²), MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1², MIFARE DESFire EV2³, MIFARE DESFire Light¹⁰, MIFARE Pius S, X, MIFARE DESFire EV2³, MIFARE DESFire Light¹⁰, MIFARE Pius S, X, MIFARE DESFire EV1², MIFARE DESFire EV2³, MIFARE DItralight, MIFARE Ultralight C, MIFARE Ultralight EV1², NTAG2xx, SLE44R35³, SLE66Rxx (my-d move)⁵, Topaz ISO18932 ECMA-340: NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa⁵, NFC Active and passive communication mode ISO14443B: Calypso³, Calypso Innovatron protocol⁵, CEPAS⁵, HID iCLASS¹¹, Moneo⁵, Pico Pass²¹, SRI4K, SRIX4K, SRI512, SRT512 ISO15693: EM4x33⁵, EM4x35⁵, HID iCLASS¹¹, HID iCLASS SE/SR¹¹, ICODE SLI, LEGIC Advant¹¹, M24LR1664, MB89R118/119, SRF55Vxx (my-d vicinity)⁵, Tag-it, PicoPass²¹ Mobile support: Apple VAS⁵, ECP 2 0.9  AWID, Cardax, CASI-RUSCO, Deister¹⁰, EM4100, 4102, 4200¹¹¹, EM4050, 4150, 4450, 4550, EM4305¹²², FDX-B¹³³, EM4105¹³³, UltraProx¹³¹, HITAG 1¹⁴, HITAG 2¹⁴¹, HITAG S¹⁴¹, ICT³¹, IDTECK, Isonas, Keri, Miro, Nedap¹⁰, PAC⁵¹, Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX¹³, TITAN (EM4050), UNIQUE, ZODIAC  SUPPORTED TRANSPONDERS (OPTION P) SUPPORTED TRANSPONDERS (OPTION P) Windows Embedded CE⁰, 7 (32-/64-bit), 8. 8. 1, 10, Linux, Android⁴¹, iOS⁴³, MAC OS X⁴¹ PERIPHERAL INTERFACES USB Full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s, BT Air: up to 100 kbit/s  CERTIFICATION NAME  TWN4 MultiTech 2 CE/RED, FCC, IC, REACH and ROHS-III compliant, Apple VAS and ECP 2.0 certified		Bluetooth V4.1, software upgradable to V4.2; easy to integrate in reader App with commands, optional BGAPI protocol; Standards as GAP, SM, L2CAP, ATT; predefined		
ISO14443A: LEGIC Advant¹¹, MIFARE Classic EV1², MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2³, MIFARE DESFire Light¹ゥ, MIFARE Plus S, X, MIFARE Pro X⁵, MIFARE Smart MX⁵, MIFARE Ultralight, MIFARE Plus S, X, MIFARE Pro X⁵, MIFARE Smart MX⁵, MIFARE Ultralight, MIFARE Plus S, X, MIFARE Pro X⁵, MIFARE Smart MX⁵, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1², NTAG2xx, SLE44R35⁰, SLE66Rxx (my-d move)⁰, Topaz ISO18032 ECMA-340: NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa⁰, NFC Active and passive communication mode ISO14443B: Calypso⁰, Calypso Innovatron protocol⁰, CEPAS⁰, HID iCLASS¹⁰, Moneo⁵, Pico Pass²⁰, SRI4K, SRIX4K, SRI512, SRT512 ISO15693: EM4x33⁰, EM4x35⁵, HID iCLASS¹⁰, HID iCLASS SE/SR¹⁰, ICODE SLI, LEGIC Advant¹⁰, M24LR16/64, MB89R118/119, SRF55Vxx (my-d vicinity)⁰, Tag-it, PicoPass²⁰ Mobile support: Apple VAS⁰, ECP 2.0⁰ AWID, Cardax, CASI-RUSCO, Deister¹⁰, EM4100, 4102, 4200¹⁰, EM4050, 4150, 4450, 4550, EM4305¹⁰, FDX-B¹³, EM4105¹³, UltraProx¹³, HITAG 1¹⁰, HITAG 2¹⁰, HITAG 5¹⁰, ICT⁴, IDTECK, Isonas, Keri, Miro, Nedap¹⁰, PAC⁴, Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX¹³, TITAN (EM4050), UNIQUE, ZODIAC SUPPORTED TRANSPONDERS (OPTION P) SUPPORTED TRANSPONDERS Requires TWN4 SIO Card, All Standard Transponders, All Option P Transponders, HID iCLASS HID iCLASS SE/SR/Eite, HID iCLASS SE/OS (Facility Code/PAC)¹⁰ OS SUPPORT Vindows Embedded CE⁰, 7 (32-f64-bit), 8, 8.1, 10, Linux, Android⁴, iOS⁰, MAC OS X⁴) USB, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), PC, 4 GPIOS, Clock/Data, Wiegand, Bluetooth Low Energy (BLE)  TRANSMISSION SPEED Host: USB Full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s, BT Air: up to 100 kbit/s CERTIFICATION NAME TWN4 MultTech 2 CERTIFICATION(S)	MTBF	500,000 hours		
LEGIC Advant <sup>1)</sup> , MIFARE Classic EV1 <sup>2)</sup> , MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2 <sup>3</sup> , MIFARE DESFire Light <sup>1)</sup> , MIFARE Plus S, X, MIFARE Pro X <sup>5</sup> , MIFARE DESFire Light <sup>1)</sup> , MIFARE Ultralight C, MIFARE Ultralight Communication move) in Communication move) in Class (Calvant) in Class Selos (Pass), NEC Assisted (MIFARE Ultralight Communication move) in Class Selos (Pass), HID Duchro MI, MID George (Pass), HID Duchro MI, MID Selos (Pass), HID Class Selos (Facility Code/Pac) (Detained Class Selos (Facility Code/Pac)) in Class MID Class Selos (Facility Code/Pac) (Detained Middle Class Selos (Facility Code/Pac)) in Class Micro Middle Class Selos (Facility Code/Pac) (Detained Middle Class Selos (Facility Code/Pac)) in Class Micro Middle Class Selos (Facility Code/Pac) (Detained Middle Class Selos (Facility Code/Pac)) in Class Middle Class Selos (Facility Code/Pac) (Detained Middl	WEIGHT	Approx. 118 g / 4.17 oz (with cable)		
SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ <sup>9)</sup> 4550, EM4305 <sup>12</sup> , FDX-B <sup>13</sup> , EM4105 <sup>13</sup> , UltraProx <sup>13</sup> , HITAG 1 <sup>14</sup> , HITAG 2 <sup>14</sup> , HITAG S <sup>14</sup> , (STANDARD) 125 KHZ <sup>9)</sup> ICT <sup>4</sup> , IDTECK, Isonas, Keri, Miro, Nedap <sup>10</sup> , PAC <sup>4</sup> , Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX <sup>13</sup> , TITAN (EM4050), UNIQUE, ZODIAC  SUPPORTED TRANSPONDERS (OPTION P)  SUPPORTED TRANSPONDERS (OPTION PI)  GULASS, HID Prox, HID Prox, HID Prox, HID Prox, Nexwatch  Requires TWN4 SIO Card, All Standard Transponders, All Option P Transponders, HID (CASS, HID iCLASS SE/SR/Elite, HID iCLASS SEOS (Facility Code/PAC) <sup>15</sup> )  OS SUPPORT  Windows Embedded CE <sup>4</sup> , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android <sup>4</sup> ), iOS <sup>4</sup> , MAC OS X <sup>4</sup> )  PERIPHERAL INTERFACES  USB, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I <sup>2</sup> C, 4 GPIOs, Clock/Data, Wiegand, Bluetooth Low Energy (BLE)  TRANSMISSION SPEED  Host: USB Full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s, BT Air: up to 100 kbit/s  CERTIFICATION NAME  CERTIFICATION NAME  CERTIFICATION(S)  CERTIFICATION(S)		LEGIC Advant <sup>1</sup> ), MIFARE Classic EV1 <sup>2</sup> ), MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2 <sup>3</sup> ), MIFARE DESFire Light <sup>4</sup> ), MIFARE Plus S, X, MIFARE Pro X <sup>5</sup> ), MIFARE Smart MX <sup>5</sup> ), MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1 <sup>2</sup> ), NTAG2xx, SLE44R35 <sup>5</sup> ), SLE66Rxx (my-d move) <sup>5</sup> ), Topaz ISO18092 ECMA-340:  NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa <sup>6</sup> ), NFC Active and passive communication mode ISO14443B:  Calypso <sup>5</sup> ), Calypso Innovatron protocol <sup>5</sup> ), CEPAS <sup>5</sup> ), HID iCLASS <sup>1</sup> ), Moneo <sup>5</sup> ), Pico Pass <sup>7</sup> ), SRI4K, SRIX4K, SRI512, SRT512 ISO15693:  EM4x33 <sup>5</sup> ), EM4x35 <sup>5</sup> ), HID iCLASS <sup>1</sup> ), HID iCLASS SE/SR <sup>1</sup> ), ICODE SLI, LEGIC Advant <sup>1</sup> ), M24LR16/64, MB89R118/119, SRF55Vxx (my-d vicinity) <sup>5</sup> ), Tag-it, PicoPass <sup>7</sup> )  Mobile support: Apple VAS <sup>8</sup> ), ECP 2.0 <sup>8</sup> )		
(OPTION P) Prox, HID ProxKey III, HID Prox, HID Prox II, Indala, ioProx, Nexwatch  Requires TWN4 SIO Card, All Standard Transponders, All Option P Transponders, HID iCLASS, HID iCLASS SE/SR/Elite, HID iCLASS SEOS (Facility Code/PAC) <sup>15</sup> )  OS SUPPORT Windows Embedded CE <sup>4</sup> ), 7 (32-/64-bit), 8, 8.1, 10, Linux, Android <sup>4</sup> ), iOS <sup>4</sup> ), MAC OS X <sup>4</sup> )  PERIPHERAL INTERFACES USB, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I <sup>2</sup> C, 4 GPIOs, Clock/Data, Wiegand, Bluetooth Low Energy (BLE)  Host: USB Full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s, BT Air: up to 100 kbit/s  CERTIFICATION NAME TWN4 MultiTech 2  CERTIFICATION(S)  CERTIFICATION(S)	(STANDARD) 125 KHZ <sup>9)</sup>	4550, EM4305 <sup>12</sup> ), FDX-B <sup>13</sup> ), EM4105 <sup>13</sup> ), UltraProx <sup>13</sup> ), HITAG 1 <sup>14</sup> ), HITAG 2 <sup>14</sup> ), HITAG S <sup>14</sup> ), ICT <sup>4</sup> ), IDTECK, Isonas, Keri, Miro, Nedap <sup>10</sup> ), PAC <sup>4</sup> ), Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX <sup>13</sup> ), TITAN (EM4050), UNIQUE, ZODIAC		
(OPTION PI)  iCLASS, HID iCLASS SE/SR/Elite, HID iCLASS SEOS (Facility Code/PAC) <sup>15</sup> )  OS SUPPORT  Windows Embedded CE <sup>4</sup> ), 7 (32-/64-bit), 8, 8.1, 10, Linux, Android <sup>4</sup> ), iOS <sup>4</sup> ), MAC OS X <sup>4</sup> )  PERIPHERAL INTERFACES  USB, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I <sup>2</sup> C, 4 GPIOs, Clock/Data, Wiegand, Bluetooth Low Energy (BLE)  TRANSMISSION SPEED  Host: USB Full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s, BT Air: up to 100 kbit/s  CERTIFICATION NAME  TWN4 MultiTech 2  CERTIFICATION(S)  CERTIFICATION(S)		· · · · · · · · · · · · · · · · · · ·		
OS SUPPORT  Windows Embedded CE <sup>4</sup> ), 7 (32-/64-bit), 8, 8.1, 10, Linux, Android <sup>4</sup> ), iOS <sup>4</sup> ), MAC OS X <sup>4</sup> )  PERIPHERAL INTERFACES  USB, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I <sup>2</sup> C, 4 GPIOs, Clock/Data, Wiegand, Bluetooth Low Energy (BLE)  Host: USB Full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s, BT Air: up to 100 kbit/s  CERTIFICATION NAME  TWN4 MultiTech 2  CERTIFICATION(S)  CERTIFICATION(S)  CERTIFICATION(S)	SUPPORTED TRANSPONDERS	•		
PERIPHERAL INTERFACES  USB, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I²C, 4 GPIOs, Clock/Data, Wiegand, Bluetooth Low Energy (BLE)  TRANSMISSION SPEED  Host: USB Full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s, BT Air: up to 100 kbit/s  CERTIFICATION NAME  TWN4 MultiTech 2  CE/RED, FCC, IC, REACH and RoHS-III compliant, Apple VAS and ECP 2.0 certified	(OPTION PI)	iCLASS, HID iCLASS SE/SR/Elite, HID iCLASS SEOS (Facility Code/PAC) <sup>15)</sup>		
Wiegand, Bluetooth Low Energy (BLE)  TRANSMISSION SPEED  Host: USB Full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s, BT Air: up to 100 kbit/s  CERTIFICATION NAME  TWN4 MultiTech 2  CERTIFICATION(S)  CERTIFICATION(S)  CERTIFICATION(S)	OS SUPPORT	Windows Embedded CE <sup>4)</sup> , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android <sup>4)</sup> , iOS <sup>4)</sup> , MAC OS X <sup>4)</sup>		
BT Air: up to 100 kbit/s  CERTIFICATION NAME  TWN4 MultiTech 2  CERTIFICATION(S)  CERTIFICATION(S)  BT Air: up to 100 kbit/s  TWN4 MultiTech 2  CE/RED, FCC, IC, REACH and RoHS-III compliant, Apple VAS and ECP 2.0 certified	PERIPHERAL INTERFACES			
CERTIFICATION(S)  CE/RED, FCC, IC, REACH and RoHS-III compliant, Apple VAS and ECP 2.0 certified	TRANSMISSION SPEED			
UERTIEIL ATIONIS)	CERTIFICATION NAME	TWN4 MultiTech 2		
	CERTIFICATION(S)			



	T4BT-FB2BEL7	USB Black
ORDER CODE(S)		
	T4BT-FB2WEL7	USB White
	T4BT-FR2BEL7	RS-232 Black
	T4BT-FR2WEL7	RS-232 White
	T4BT-FB2BEL7-P	USB Option P Black
	T4BT-FB2WEL7-P	USB Option P White
	T4BT-FR2BEL7-P	RS-232 Option P Black
	T4BT-FR2WEL7-P	RS-232 Option P White
	T4BT-FB2BEL7-PI	USB Option PI Black
	T4BT-FB2WEL7-PI	USB Option PI White
	T4BT-FR2BEL7-PI	RS-232 Option PI Black
	T4BT-FR2WEL7-PI	RS-232 Option PI White

¹JUID only ²Jr/w enhanced security features on request ³JEV2/EV3 supported as part of the EV1 downward compatibility ⁴JOn request ⁵Jr/w in direct chip command mode ⑤JUID + r/w public area ⁷JUID only, read/write on request ⑥For Apple licensees only and eligible implementers. Please contact ELATEC for details. ⑨125 kHz technology requires a Russian local test and import license from the ministry of Trade and Industry (MINPROMTORC). This license has to be in place before Elatec can accept any order to be shipped to Russia ¹OHash value only ¹¹JOnly emulation of 4100, 4102 ¹²JFrom FW V4.05 ¹³J134.2 kHz only ¹⁴JWithout encryption ¹⁵JUID + PAC (Facility Code), r/w on request ¹OHAGN request The reques

#### **ACCESSORIES**

HOLDER(S)	HKSI-B	Snap-In Holder black
	HKSI-W	Snap-In Holder white
	HKBR-B	Bracket Holder black
	HKBR-W	Bracket Holder white
POWER SUPPLY	PWA-EU3	Power Supply (EU)
	PWA-US3	Power Supply (US)
	PWA-UK3	Power Supply (UK)
	PWA-JP3	Power Supply (JP)
CABLES	CAB-B2	USB cable type A 200 cm / 78.74 inch
	CAB-B3	USB cable type A 12 cm / 4.72 inch
	CAB-B4	USB cable type A 45 cm / 17.72 inch
	CAB-B7	USB cable type A 120 cm / 47.24 inch
	CAB-M1	USB cable mini 12 cm / 4.72 inch
	CAB-M2	USB cable mini 25 cm / 9.84 inch
	CAB-R2	RS-232 cable 200 cm / 78.74 inch

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