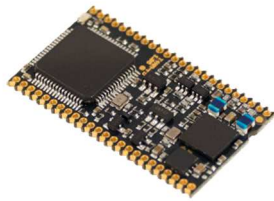
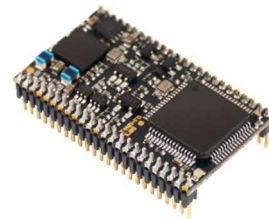


# TWN4 MULTITECH NANO LEGIC 42

## MINIATURE HF RFID/NFC READER/WRITER FOR EXTERNAL 50 OHM ANTENNA



Version C0 (SMT)  
31 x 17.8 x 2.7 mm



Version C1 (THT)  
31 x 17.8 x 8.11 mm

Elatec's TWN4 family of transponder 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, LEGIC, etc. and ISO standards like ISO14443A/B (T=CL), ISO15693, ISO18092 / ECMA-340 (NFC).

The TWN4 MultiTech Nano LEGIC 42 is designed for integration into machines or other devices. It can be connected to an external antenna through a printed circuit board (125 kHz, 13.56 MHz or both).

### Special features:

- + Compact design (31 x 17.8 x 2.7 mm / 1.22 x 0.7 x 0.12 inch)
- + Components mounted only on one side for easy integration on the main application
- + Edge plated pads for surface mounting (C0) allows easy and reliable PCB mounting, connector option (C1) also available for THT mounting
- + 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
- + Supports connection of external ISO7816 compatible SAM cards
- + CCID and PC/SC 2.01
- + 8 GPIOs
- + Supports quick (re)configuration over network and over wireless interface with TWN4 CONFIG Card
- + TWN4 Upgrade Card for P option available on request
- + 3D construction data (STEP) available on request



Elevator



EV Chargers



Access



Shop POS



Fitness  
Equipment



Ticket POS



PC Log-on



Document  
Management



Driver ID



Vending



Parking



Gaming



Locker Locks



Time  
Attendance



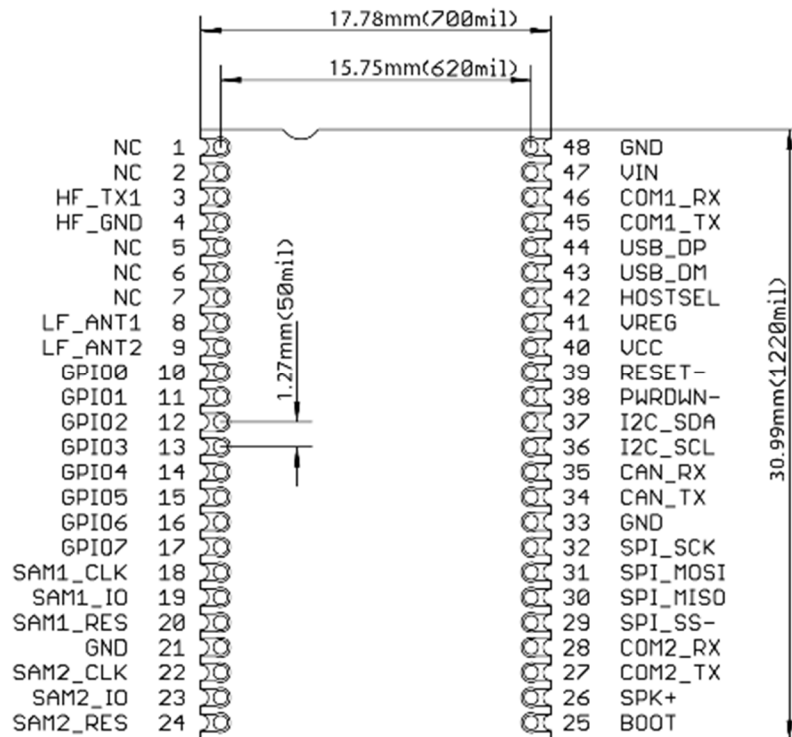
Industrial  
PC

## TECHNICAL DATA

FREQUENCY	125 kHz (LF) / 13.56 MHz (HF)																
ANTENNA	Externally, 50 Ohm for 13.56 MHz – 490 $\mu$ H $\pm$ 5% for 125 kHz																
DIMENSIONS (L X W X H)	31 mm x 17.8 mm x 2.7 mm / 1.22 inch x 0.7 inch x 0.12 inch																
POWER SUPPLY	3.3 V +/- 5% (direct supply) or 4.3 V - 5.5 V (use of on-board voltage regulator)																
CURRENT CONSUMPTION	RF field on: 120 mA typically / Sleep: 500 $\mu$ A 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																
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01																
MTBF	500,000 hours																
WEIGHT	Approx. 7 g																
SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ	<p><b>ISO14443A:</b> LEGIC Advant, MIFARE Classic EV1<sup>1)</sup>, MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2<sup>1)</sup>, MIFARE DESFire Light<sup>2)</sup>, MIFARE Plus S, X, MIFARE Pro X<sup>3)</sup>, MIFARE Smart MX<sup>3)</sup>, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1, NTAG2xx, PayPass<sup>3)</sup>, SLE44R35, SLE66Rxx (my-d move)<sup>3)</sup></p> <p><b>ISO14443B:</b> Calypso<sup>3)</sup>, CEPAS<sup>3)</sup>, HID iCLASS<sup>4)</sup>, Moneo<sup>3)</sup>, Pico Pass<sup>4)</sup></p> <p><b>ISO18092 ECMA-340:</b> NFC Peer-to-Peer, Sony FeliCa<sup>5)</sup>, NFC Active and passive communication mode, Passive peer-to-peer mode - initiator, NFC Tag 2, 3, 4</p> <p><b>ISO15693:</b> EM4x33<sup>3)</sup>, EM4x35<sup>3)</sup>, HID iCLASS<sup>4)</sup>, HID iCLASS SE/SR<sup>4)</sup>, ICODE SLI, LEGIC Advant, M24LR16/64, SRF55Vxx (my-d vicinity)<sup>3)</sup>, Tag-it, PicoPass<sup>4)</sup></p> <p><b>LEGIC Prime:</b> LEGIC Prime</p>																
SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ <sup>6)</sup>	AWID, Cardax, CASI-RUSCO, Deister <sup>7)</sup> , EM4100, 4102, 4200 <sup>8)</sup> , EM4050, 4150, 4450, 4550, EM4305 <sup>9)</sup> , FDX-B <sup>9)</sup> , EM4105, HITAG 1 <sup>10)</sup> , HITAG 2 <sup>10)</sup> , HITAG S <sup>10)</sup> , ICT <sup>9)</sup> , IDTECK, Isonas <sup>9)</sup> , Keri, Miro, Nedap <sup>7)</sup> , PAC <sup>9)</sup> , Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX <sup>9)</sup> , TITAN (EM4050), UNIQUE, ZODIAC																
SUPPORTED TRANSPONDERS (OPTION P)	All Standard Transponders, Cotag, G-Prox <sup>7)</sup> , HID DuoProx II, HID ISO Prox II, HID Micro Prox, HID ProxKey III, HID Prox, HID Prox II, Indala, ioProx, Nexwatch																
OS SUPPORT	Windows XP, Vista, Embedded CE <sup>9)</sup> , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android <sup>9)</sup> , iOS <sup>9)</sup> , MAC OS X <sup>9)</sup>																
PERIPHERAL INTERFACES	USB, 2 x serial (logic level 3.3 V, CMOS 5 V tolerant), I <sup>2</sup> C, SPI, 8 GPIOs, CAN <sup>9)</sup> , Clock/Data, Wiegand																
TRANSMISSION SPEED	Host: USB Full speed (12 Mbit/s), Serial TTL: up to 115.200 baud, Air: up to 848 kbit/s																
CERTIFICATION(S)	REACH and RoHS-III compliant																
ORDER CODE(S)	<table border="0"> <tr> <td>T4NM-B5C0</td> <td>C0 Standard</td> </tr> <tr> <td>T4NM-B5C0-P</td> <td>C0 Option P</td> </tr> <tr> <td>T4NM-B5C1</td> <td>C1 Standard</td> </tr> <tr> <td>T4NM-B5C1-P</td> <td>C1 Option P</td> </tr> <tr> <td>T4NM-B5C0-T20</td> <td>C0 Option, 20 pcs. tray</td> </tr> <tr> <td>T4NM-B5C0-PT20</td> <td>C0 Option P, 20 pcs. tray</td> </tr> <tr> <td>T4NM-B5C0-R100</td> <td>C0 Option, 100 pcs. reel</td> </tr> <tr> <td>T4NM-B5C0-R500</td> <td>C0 Option, 500 pcs. reel</td> </tr> </table>	T4NM-B5C0	C0 Standard	T4NM-B5C0-P	C0 Option P	T4NM-B5C1	C1 Standard	T4NM-B5C1-P	C1 Option P	T4NM-B5C0-T20	C0 Option, 20 pcs. tray	T4NM-B5C0-PT20	C0 Option P, 20 pcs. tray	T4NM-B5C0-R100	C0 Option, 100 pcs. reel	T4NM-B5C0-R500	C0 Option, 500 pcs. reel
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<sup>1)</sup>r/w enhanced security features on request <sup>2)</sup>In preparation <sup>3)</sup>r/w in direct chip command mode <sup>4)</sup>UID only <sup>5)</sup>UID + r/w public area <sup>6)</sup>125 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 <sup>7)</sup>Hash value only <sup>8)</sup>Only emulation of 4100, 4102 <sup>9)</sup>On request <sup>10)</sup>Without encryption

DRAWING



Top view

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