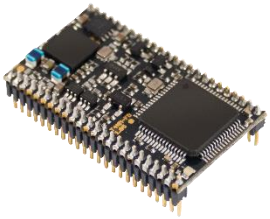
TWN4 MULTITECH NANO HF

MINIATURE HF RFID/NFC READER/WRITER FOR EXTERNAL DIRECT MATCHED ANTENNA

Version A0 (SMT)
31 x 17.8 x 2.7 mm



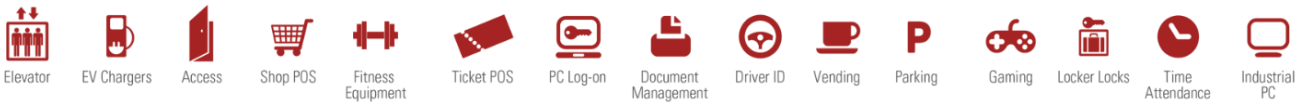
Version A1 (THT)
31 x 17.8 x 8.11 mm

Elatec's TWN4 family of transponder readers and writers allows users to read and write to almost any 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 HF is designed for integration into machines or other devices. It can be connected to an external antenna through a printed circuit board.

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 (A0) allows easy and reliable PCB mounting, connector option (A1) 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
+ compliance to EMV contactless protocol specification V2.3[2)]
+ supports connection of external ISO7816 compatible SAM cards
+ CCID and PC/SC 2.01
+ 8 GPIOs
+ supports quick centralized (re)configuration over network and over wireless interface with TWN4 CONFIG Card
+ 3D construction data (STEP) available on request

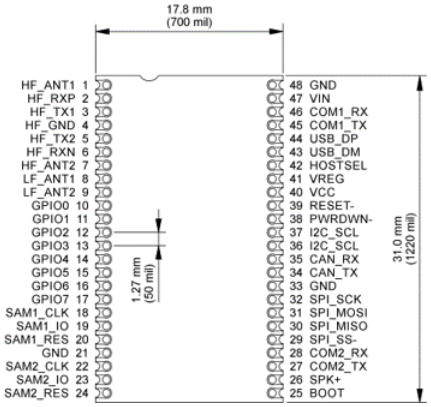


TECHNICAL DATA

FREQUENCY	13.56 MHz (HF)
ANTENNA	Externally, direct matched for 13.56 MHz
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 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	Up to 100 mm / 4 inch, depending on antenna, environment and transponder
TRANSMISSION SPEED	Host: USB Full speed (12 Mbit/s), Serial TTL: up to 115.200 baud; Air: up to 848 kbit/s
MODES OF OPERATION	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
MTBF	500,000 hours
WEIGHT	Approx. 7 g
SUPPORTED TRANSPONDERS (STANDARD)	ISO14443A: LEGIC Advant[1)], MIFARE Classic 1k & 4k EV1[2)], MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2[2)], MIFARE Plus S, X, MIFARE Pro X[3)], MIFARE Smart MX[3)], MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1, NTAG2xx, PayPass[3)], SLE44R35, SLE66Rxx (my-d move)[3)], Topaz ISO14443B: Calypso[3)], Calypso Innovatron protocol[3)], CEPAS[3)], HID iCLASS[1)], Moneo[3)], Pico Pass[4)], SRI4K, SRIX4K, SRI512, SRT512 ISO18092 ECMA-340: NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa[5)], NFC Active and passive communication mode ISO15693: EM4x33[3)], EM4x35[3)], HID iCLASS[1)], HID iCLASS SE/SR[1)], ICODE SLI, LEGIC Advant[1)], M24LR16/64, MB89R118/119, SRF55Vxx (my-d vicinity)[3)], Tag-it, PicoPass[4)]
SUPPORTED TRANSPONDERS (VERSION I)	Requires external TWN4 SIO Card, All Standard Transponder, HID iCLASS, HID iCLASS SE/SR/SEOS (CSN and Facility Code/PAC)[6)], HID iCLASS Elite & SE Elite
PERIPHERAL INTERFACES	USB, 2 x serial (logic level 3.3 V, CMOS 5 V tolerant), I²C, SPI, 8 GPIOs, CAN[7)], Clock/Data, Wiegand, 1-Wire[7)]
OS SUPPORT	Windows XP, Vista, Embedded CE[7)], 7 (32-/64-bit), 8, 8.1, 10, Linux, Android[7)], iOS[7)], MAC OS X[7)]
CERTIFICATIONS	RoHS-II compliant
ORDER CODE(S)	T4NM-FDA0 A0 Standard T4NM-FDA0-I A0 Version I T4NM-FDA1 A1 Standard T4NM-FDA1-I A1 Version I

[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)]UID + PAC (CSN & Facility Code), r/w on request [7)]On request

DRAWING



Top view

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