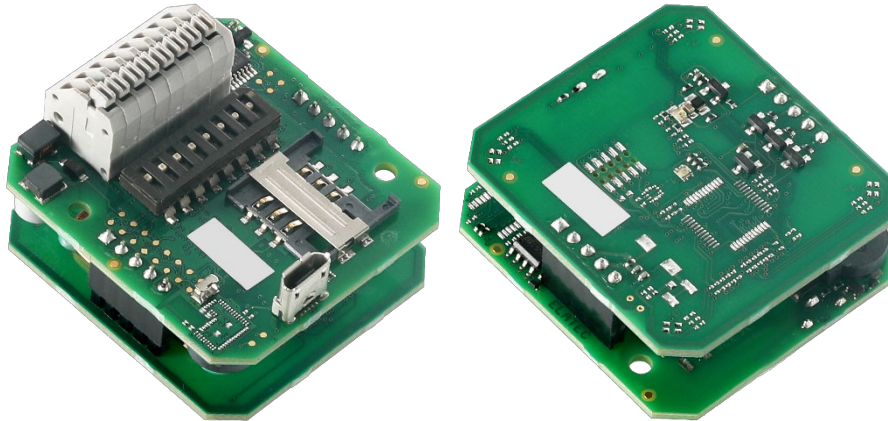# TWN4 Palon Compact M Light
Multi-frequency RFID module (LF/HF) with NFC support

TWN4 Palon Compact M Light
(exemplary illustrations)

The RFID readers and modules of the TWN4 Palon Compact family support two RFID frequencies (125 kHz / 13.56 MHz), NFC and Bluetooth Low Energy (BLE). All devices are available with an NXP or LEGIC SM-4200 frontend and support a wide range of interfaces, for instance USB, RS-485 and, optionally, the OSDP protocol. A cost-optimized "light" variant with fewer interfaces and without BLE is also available. Although the readers are general-purpose devices, they are particularly appropriate for time attendance and access control. Depending on the intended application, the readers are available as modules for integration into a host device, as panel mount readers with IP65 protection or as in-wall readers with an IP54 protected housing.

Key features of the TWN4 Palon Compact M Light reader module include an optimized form factor for easy integration into any host device, the possibility to use many different interfaces and a powerful SDK for writing apps that are executed directly on the module. Additionally, the module can read more than 60 RFID technologies from low (LF) and high frequency (HF) bands, including NFC. This gives the option to select as many of the technologies required instead of being forced to select just a few ones.

Special features:

+ Possibility to read more than 60 RFID technologies
+ Supports many interfaces, like USB and RS-485 (OSDP protocol optionally)
+ Two RFID frequencies (125 kHz/13.56 MHz) and NFC support in a compact form factor for easy integration
+ Powerful SDK for writing apps which are executed directly on the module
+ Firmware update in the field possible
+ On-board 18 kB flash storage, e.g. for storing user accessible non-volatile data
+ Supports transparent data exchange with RFID media
+ CCID and PC/SC 2.01

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

FREQUENCIES	125 kHz (LF) / 13.56 MHz (HF)
ANTENNAS	Integrated
DIMENSIONS (L X W X H)	PCB board, twin stack: approx. 40.65 x 43.85 x 28.20 mm / 1.60 x 1.73 x 1.11 inch Refer to the TWN4 Palon Technical Handbook (DevPack documentation) for tolerances
POWER	Micro USB: 4.3 V – 5.5 V Connector X1: 9.0 V – 30 V PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A
CURRENT CONSUMPTION	Operating: 160 mA @ 12 V typically / Idle: 50 mA @ 12 V typ. / Peak: 250 mA @ 12 V typ.
TEMPERATURE RANGE	Operating: -25 °C up to +80 °C (-13 °F up to +176 °F) Storage: -40 °C up to +85 °C (-40 °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
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
MTBF	500,000 hours
WEIGHT	Approx. 25 g / 0.88 oz
SABOTAGE DETECTION	Infrared tamper detector, front facing
WIRE CONNECTOR	PCB terminal block, 8 positions, push-in spring connection for wires 0.2 to 0.5 mm² / AWG 24 to 20, tool-free cable wiring
DIP SWITCH	8 position DIP switch for RS-485: addressing, speed settings, line termination
SIGNALING	1 center RGB LED Acoustic loudspeaker
SUPPORTED OPTIONS AND TRANSPONDERS	Depending on the firmware version and installed options, ELATEC readers and modules can support a wide range of RFID technologies. Please refer to the relevant ELATEC transponder matrix (available at www.elatec-rfid.com/int/transponder-technology) for more information about the available options and RFID technologies supported by the product.
OS SUPPORT	Windows 7 (32-/64-bit) and higher versions, Linux, Android[1], iOS[1], MAC OS X[1]
PERIPHERAL INTERFACES	Micro USB, RS-485, OSDP[1], 1 SAM slot for ID-000 card format, output 5V: Wiegand D0/D1, Clock/Data
TRANSMISSION SPEED	USB full speed (12 Mbit/s), HF Air: up to 848 kbit/s, RS-485: up to 38,400 baud
CERTIFICATION NAME	TWN4 Palon Compact M Light
CERTIFICATIONS	Non-exhaustive list[2]: CE/RED, FCC, IC, REACH and RoHS-III compliant
ORDER CODES	T4W2-F02B6 Standard reader module T4W2-F02B6-P Reader module with P option T4W2-F02B6-PI Reader module with PI options

[1]On request

[2]The product has been certified for use in many countries and regions. Contact your Sales representative for detailed information about all certifications and approvals granted to the product.

ACCESSORIES

CABLES	ELATEC RFID modules can be delivered with additional cables. Refer to the data sheet *Cables for ELATEC devices* for detailed information.

## CONNECTOR ASSIGNMENT

DIP	ASSIGNMENT
1	RS-485 address 0 LSB
2	RS-485 address 1
3	RS-485 address 2
4	RS-485 address 3 MSB
5	RS-485 BIAS on/off
6	RS-485 speed 0
7	RS-485 speed 1
8	RS-485 termination 120 Ohm on/off

PIN	ASSIGNMENT
1	(unused)
2	(unused)
3	RS-485 A
4	RS-485 B
5	TTL Wiegand D0 or DATA
6	TTL Wiegand D1 or CLOCK
7	VIN 9 – 30 Volt
8	GND

Drawing / rear view PCB
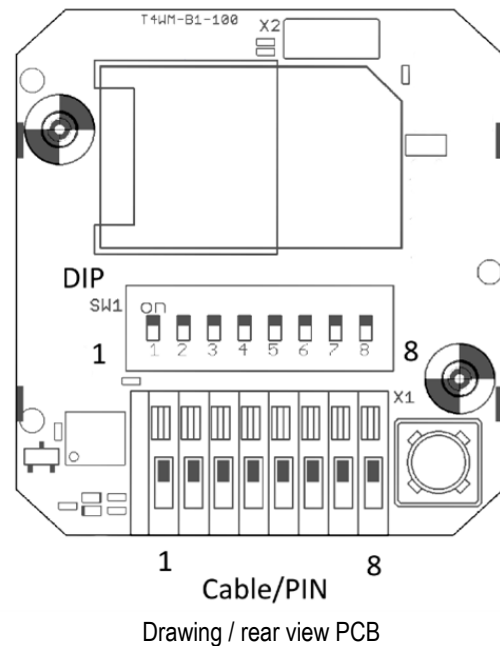
Firmware may change the assignment of the DIP switch. Please refer to the TWN4 Palon manual.
For Wiegand, Clock/Data the DIP switch is not used.
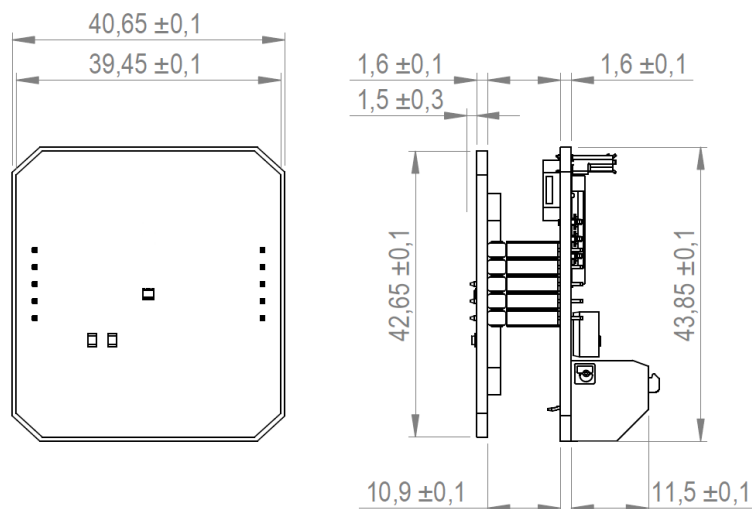
Drawing / front and side view PCB
(All measures in mm)