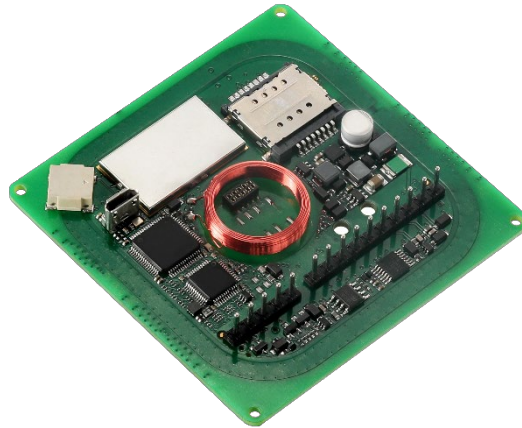


TWN4 Palon Square M LF HF

Multi-frequency RFID module (LF/HF) with NFC support



TWN4 Palon Square M LF HF
(exemplary illustration)

The RFID modules of the TWN4 Palon Square M family are versatile reader/writer modules with a wide range of interfaces, like RS-485 or Wiegand. All modules support NFC and, optionally, further interfaces like the OSDP protocol or I²C. Although the modules are general-purpose devices, they are particularly appropriate for time attendance and access control applications. Thanks to their compact dimensions, they are the ideal solution for integration into third-party products.

Key features of the TWN4 Palon Square M LF HF reader module include an optimized form factor for easy integration into any host device, the possibility to use many different interfaces, a tamper detection input and an on-board MEMS gyro sensor. 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, RS-485, Wiegand and Clock/Data (OSDP protocol and I²C optionally)
- + Two RFID frequencies (125 kHz/13.56 MHz) and NFC support
- + Equipped with a tamper detection input and an on-board MEMS gyro sensor
- + 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)	Approx. 73.00 x 73.00 x 25.40 mm / 2.87 x 2.87 x 1.00 inch	
POWER	Micro USB: 4.3 V – 5.5 V Connector X1: 9.0 V – 30 V ES1/PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A	
CURRENT CONSUMPTION	Operating: 180 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, depending on product derivate	
SABOTAGE DETECTION	Tamper detection input On-board MEMS gyro sensor	
WIRE CONNECTOR	Connector X1	1x10 pin header, RS-485
	Connector X2	1x5 pin header for auxiliary ports/signals
	Connector X4	2x5 for I ² C and extended ports
SIGNALING	1 center RGB LED, on the rear side of the module (optional: up to 5 LEDs for OEM designs) 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⁾ , I ² C ¹⁾ , 2 SAM slots for ID-000 card format, 3 GPIOs, Wiegand D0/D1, Clock/Data, 1 tamper detection input	
TRANSMISSION SPEED	USB full speed (12 Mbit/s), HF Air: up to 848 kbit/s, RS-485: up to 38,400 baud, I ² C: 100 kbit/s	
RS-485 CONFIGURATION	RS-485 address configuration and speed settings by upgrade card or AppBlaster tool or ex-fab preset. If required, RS-485 termination resistors to be provisioned off-board, externally.	
ENVIRONMENT	Special TWN4 Palon Square M LF HF versions for potting or coating on request	
IMMUNITY AGAINST EM FIELDS	10 V/m according to EN 61000-6-2	
CERTIFICATION NAME	TWN4 Palon Square M LF HF	
CERTIFICATIONS	Non-exhaustive list ²⁾ : CE/RED, REACH and RoHS-III compliant	
ORDER CODES	T4WQ-F1F26	Standard reader module
	T4WQ-F1F26-P	Reader module with P option
	T4WQ-F1F26-PI	Reader module with PI options
	Customer-specific TWN4 Palon Square M LF HF derivatives and configurations are available on request.	

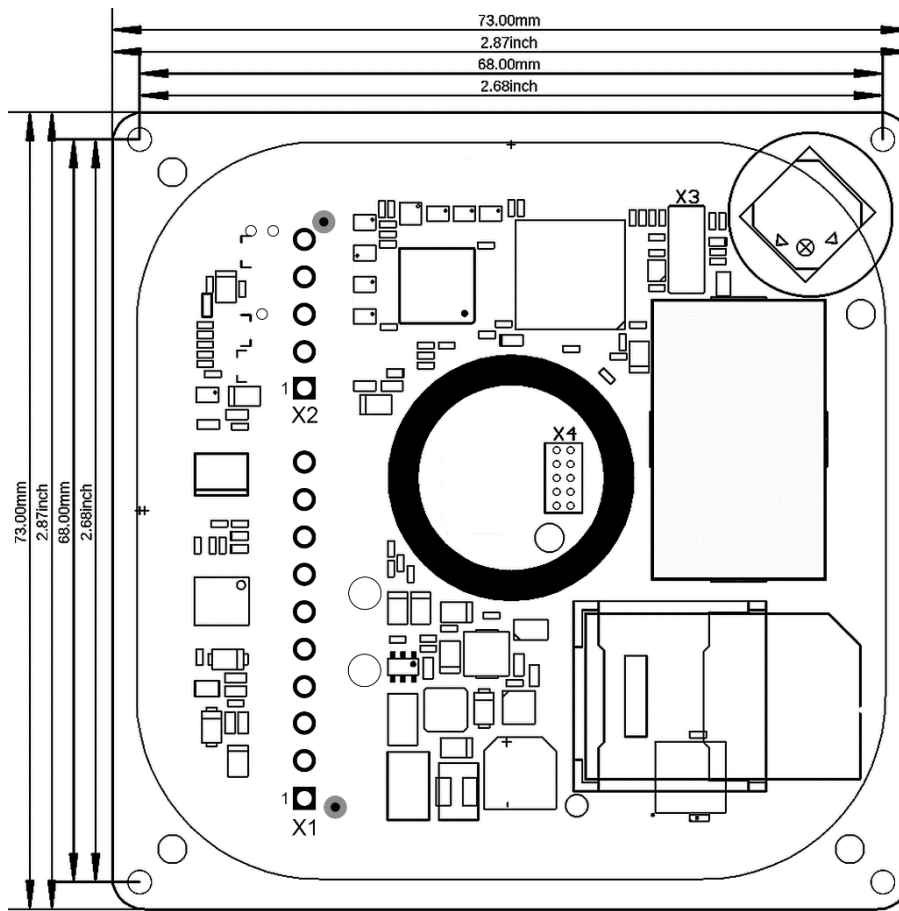
¹⁾On request

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

CONNECTORS	CON-0001	Spring contact with 2 cable guides, 10-pole
	CON-0002	Spring contact with 2 cable guides, 5-pole
	CON-0003	Pluggable connection clamp, 10-pole
	CON-0004	Pluggable connection clamp, 5-pole
CABLES	ELATEC RFID modules can be delivered with additional cables. Refer to the data sheet <i>Cables for ELATEC devices</i> for detailed information.	

TECHNICAL DRAWINGS



ELATEC GmbH

Zeppelinstr. 1
82178 Puchheim
Germany
P +49 89 552 9961 0
F +49 89 552 9961 129
E-Mail: info-rfid@elatec.com
Website: elatec.com

ELATEC Systems GmbH

Schwieberdinger Str. 44
71636 Ludwigsburg
Germany
P +49 7141 309736 0
E-Mail: info-rfid@elatec.com
Website: elatec.com

ELATEC Inc.

1995 SW Martin Hwy
Palm City • FL 34990
USA
P +1 772 210 2263
F +1 772 382 3749
E-Mail: americas-info@elatec.com
Website: elatec.com

ELATEC Technology (Shenzhen) LLC

918, Main Building, Tian An Cyber Times
Tower, No. 6, Tairan Fourth Road, Tian 'an
Community, Shatou Neighborhood
Futian District • Shenzhen • China
P/F +86 755 2394 6014
E-Mail: apac-info@elatec.com
Website: elatec.com

ELATEC reserves the right to change any information or data in this document without prior notice. ELATEC declines all responsibility for the use of this product with any other specification but the one mentioned above. Any additional requirement for a specific customer application has to be validated by the customer themselves at their own responsibility. Where application information is given, it is only advisory and does not form part of the specification. Disclaimer: All names used in this document are registered trademarks of their respective owners.