

# TWN4 Palon Compact S M LEGIC

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



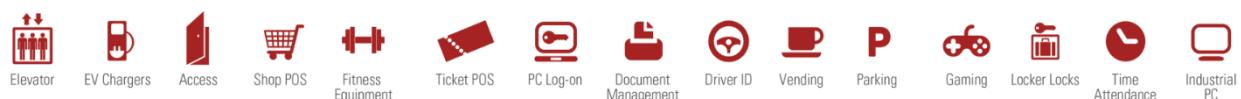
TWN4 Palon Compact S M LEGIC  
(exemplary illustration)

The RFID readers and modules of the TWN4 Palon Compact family support two RFID frequencies (125 kHz / 13.56 MHz), NFC and, optionally, Bluetooth Low Energy (BLE). Most of the devices are available with an NXP or LEGIC frontend and support a wide range of interfaces, for instance USB, RS-485 and, optionally, the OSDP protocol. 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 S M LEGIC reader module include an optimized form factor for easy integration into any host device 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, and supports the BLE technology. 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
- + Two embedded SAM slots (ID-000 card format)
- + Two RFID frequencies (125 kHz/13.56 MHz), NFC and BLE 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



## TECHNICAL DATA

FREQUENCIES	125 kHz (LF) / 13.56 MHz (HF) / 2.4 GHz (BLE)	
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	
POWER	USB: 4.3 V – 5.5 V ES1/PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A	
CURRENT CONSUMPTION	Operating: 160 mA @ 5 V typically / Idle: 50 mA @ 5 V typ. / Peak: 250 mA @ 5 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 BLE: up to several meters/feet	
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01	
BLUETOOTH LOW ENERGY	BLE version 5.0 (upgradable) LEGIC Connect on demand	
MTBF	500,000 hours	
WEIGHT	Approx. 25 g / 0.88 oz	
SIGNALING	1 center RGB LED Acoustic loudspeaker	
OS SUPPORT	Windows 7 (32-/64-bit) and higher versions, Linux, Android <sup>1)</sup> , iOS <sup>1)</sup> , MAC OS X <sup>1)</sup>	
PERIPHERAL INTERFACES	USB, 2 SAM slots for ID-000 card format	
TRANSMISSION SPEED	USB full speed (12 Mbit/s), HF Air: up to 848 kbit/s	
CERTIFICATION NAME	TWN4 Palon Compact S M LEGIC	
CERTIFICATIONS	CE/RED, FCC, IC, TAA compliant, REACH and RoHS-III compliant	
ORDER CODES	T4W2-D07D7	Standard reader module
	T4W2-D07D7-P	Reader module with P option
	T4W2-D07D7-PI	Reader module with PI options

<sup>1)</sup>On request.

## ACCESSORIES

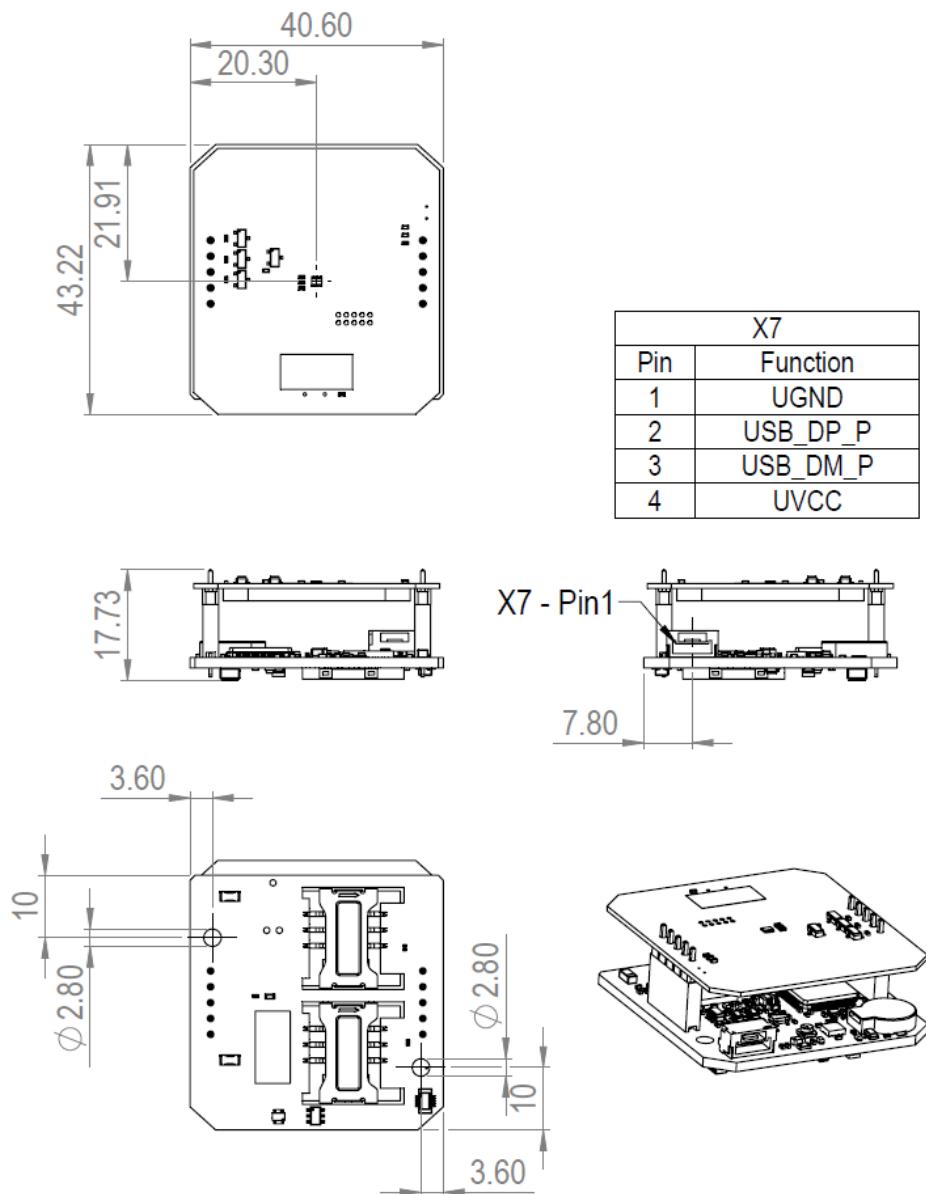
CABLE	CAB-J4MSBAMSB150-PA	USB maintenance and configuration cable
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## SUPPORTED TRANSPONDERS<sup>1)</sup>

SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ	<u>ISO 14443A:</u> LEGIC Advant, NTAG2xx, MIFARE Classic, MIFARE Classic EV1 <sup>2)</sup> , MIFARE DESFire EV1, MIFARE DESFire EV2 <sup>3)</sup> , MIFARE DESFire EV3 <sup>3)</sup> , MIFARE DESFire Light <sup>3)</sup> , MIFARE Mini, MIFARE Plus S/X, MIFARE Smart MX <sup>4)</sup> , MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1 <sup>2)</sup> , SLE44R35 <sup>4)</sup> , SLE66Rxx (my-d move) <sup>4)</sup> <u>ISO 14443B:</u> Calypso <sup>4)</sup> , CEPAS <sup>4)</sup> , Pico Pass <sup>5)</sup> <u>ISO 15693:</u> EM4x33 <sup>4)</sup> , EM4x35 <sup>4)</sup> ,ICODE SLI, LEGIC Advant, M24LR16/64, Pico Pass <sup>5)</sup> , SRF55Vxx (my-d vicinity) <sup>4)</sup> , Tag-it <u>ISO 18092 / ECMA-340:</u> NFC Forum Tag 2-5, Sony FeliCa <sup>6)</sup> <u>LEAF:</u> LEAF <sup>7)</sup>
SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ <sup>8)</sup>	AWID, Cardax <sup>9)</sup> , CASI-RUSCO, Deister <sup>9)</sup> , EM4050, EM4100, EM4102, EM4150, EM4200 <sup>10)</sup> , EM4305, EM4450, EM4550, HITAG 1 <sup>11)</sup> , HITAG 2 <sup>11)</sup> , HITAG S <sup>11)</sup> , ICT, IDTECK, ISONAS, Keri, Miro, Nedap <sup>9)</sup> , Pyramid, Q5, T5557, T5567, T5577, TITAN (EM4050), UltraProx, UNIQUE, ZODIAC
SUPPORTED TRANSPONDERS (P OPTION)	All standard transponders, G-Prox <sup>9)</sup> , HID 1326 Prox II, HID 1336 DuoProx II, HID 1346 ProxKey III, HID 1386 ISO Prox II, HID 1391 Micro Prox, HID Prox, Indala, ioProx, Nexwatch
SUPPORTED TRANSPONDERS (P OPTIONS) <sup>12)</sup>	All standard transponders, all P option transponders, HID MIFARE Classic SE, HID MIFARE DESFire SE, HID SEOS, Topaz, Calypso Innovatron protocol, CTS, SRI4K, SRI512, SRI4XK, SRT512, HID iCLASS Legacy/SR/SE, MB89R118/119, NFC Forum Tag 1

<sup>1)</sup>Unless otherwise agreed with ELATEC, the product is delivered with a standard firmware version that might be older than the latest firmware developed by ELATEC. This firmware version can be changed using the ELATEC AppBlaster tool. Please note that the information given in this document regarding the transponder technologies supported by the product is based on the latest firmware version. <sup>2)</sup>r/w enhanced security features on request <sup>3)</sup>Supported as part of the EV1 downward compatibility <sup>4)</sup>r/w in transparent data exchange mode <sup>5)</sup>UID only <sup>6)</sup>UID + r/w public area <sup>7)</sup>AV2 only, requires one free SAM slot for MIFARE SAM AV2 card <sup>8)</sup>125 kHz technologies require a local test and import license from the Russian Ministry of Trade and Industry (MINPROMTORG). This license has to be in place before ELATEC can accept any order to be shipped to Russia. <sup>9)</sup>Hash value only <sup>10)</sup>Only emulation of 4100, 4102 <sup>11)</sup>Without encryption <sup>12)</sup>Requires one free SAM slot for HID iCLASS SE processor.

TECHNICAL DRAWINGS



All measures in mm

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