

# TWN4 MULTITECH 2 LEGIC LF HF

(SM-4200/4500 FRONTEND)

## PROGRAMMABLE RFID READER/WRITER FOR LF/HF/NFC



TWN4 MultiTech 2 LEGIC LF HF  
(inlay customizable)

ELATEC TWN4 family of RFID 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 ISO 14443A/B (T=CL), ISO 15693, ISO 18092 / ECMA-340 (NFC).

The new generation is a direct enhancement to the successful TWN3 family as it comes in the same mechanical dimensions (OEM PCB and desktop housing). The readers support host communication via USB or RS-232.

### Special features:

- + Powerful SDK for writing apps which are executed directly on the reader
- + Firmware update in the field possible
- + On-board 18 kB flash storage, e.g. for storing user accessible non-volatile data
- + Direct chip-commands support
- + Two on-board SAM sockets (Secure Access Module)
- + CCID and PC/SC 2.01
- + 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(S)	Integrated
HOUSING	Material: ABS UL94-V0, color: black or white
DIMENSIONS (L X W X H)	88 mm x 56 mm x 18 mm / 3.5 inch x 2.2 inch x 0.7 inch
POWER	4.3 V - 5.5 V via USB RS-232 requires 5 V external power supply Limited power source according to the safety norms listed in the respective declaration of conformity, short-circuit current < 8 A
CURRENT CONSUMPTION	RF field on: 140 mA typically
TEMPERATURE RANGE	Operating: -25 °C up to +70 °C (-13 °F up to +158 °F) Storage: -40 °C up to +75 °C (-40 °F up to +167 °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. 117 g / 4.13 oz (with cable)
SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ	<p><u>ISO 14443A:</u> HID iCLASS DESFire<sup>1)</sup>, HID iCLASS MIFARE Classic<sup>1)</sup>, HID iCLASS SEOS<sup>1)</sup>, LEGIC Advant, NTAG2xx, MIFARE Classic, MIFARE Classic EV1<sup>2)</sup>, MIFARE DESFire EV1, MIFARE DESFire EV2/EV3<sup>3)</sup>, MIFARE DESFire Light<sup>4)</sup>, MIFARE Mini, MIFARE Plus S/X, MIFARE Smart MX<sup>5)</sup>, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1<sup>2)</sup>, SLE44R35<sup>5)</sup>, SLE66Rxx (my-d move)<sup>5)</sup></p> <p><u>ISO 14443B:</u> Calypso<sup>5)</sup>, CEPAS<sup>5)</sup>, HID iCLASS<sup>1)</sup>, Pico Pass<sup>1)</sup></p> <p><u>ISO 15693:</u> EM4x33<sup>5)</sup>, EM4x35<sup>5)</sup>, HID iCLASS<sup>1)</sup>, HID iCLASS SE/SR/Elite<sup>1)</sup>, ICODE SLI, LEGIC Advant, M24LR16/64, PicoPass<sup>1)</sup>, SRF55Vxx (my-d vicinity)<sup>5)</sup>, Tag-it</p> <p><u>ISO 18092 / ECMA-340:</u> NFC Forum Tag 1-5<sup>6)</sup>, Sony FeliCa<sup>7)</sup></p> <p><u>LEGIC Prime:</u> LEGIC Prime</p>
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 <sup>4)</sup> , IDTECK, ISONAS, Keri, Miro, Nedap <sup>9)</sup> , Pyramid, Q5, T5557, T5567, T5577, TITAN (EM4050), 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 (PI OPTION)	Requires TWN4 SIO Card, all standard transponders, all P option transponders, Calypso Innovatron protocol <sup>5)</sup> , CTS, HID iCLASS, HID iCLASS DESFire/Elite/MIFARE Classic/SE/SEOS/SR, MB89R118/119, NFC Forum Tag 1-5, Pico Pass <sup>12)</sup> , SRI4K, SRI512, SRIX4K, SRT512, Topaz
OS SUPPORT	Windows 7 (32-/64-bit), 8, 8.1, 10, 11, Linux, Android <sup>4)</sup> , iOS <sup>4)</sup> , MAC OS X <sup>4)</sup>
PERIPHERAL INTERFACES	USB, RS-232
TRANSMISSION SPEED	Host: USB Full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s
CERTIFICATION NAME	TWN4 MultiTech 2 LEGIC LF HF
CERTIFICATION(S)	CE/RED, FCC, IC, REACH and RoHS-III compliant

<sup>1)</sup>UID only <sup>2)</sup>r/w enhanced security features on request <sup>3)</sup>supported as part of the EV1 downward compatibility <sup>4)</sup>On request <sup>5)</sup>r/w in direct chip command mode

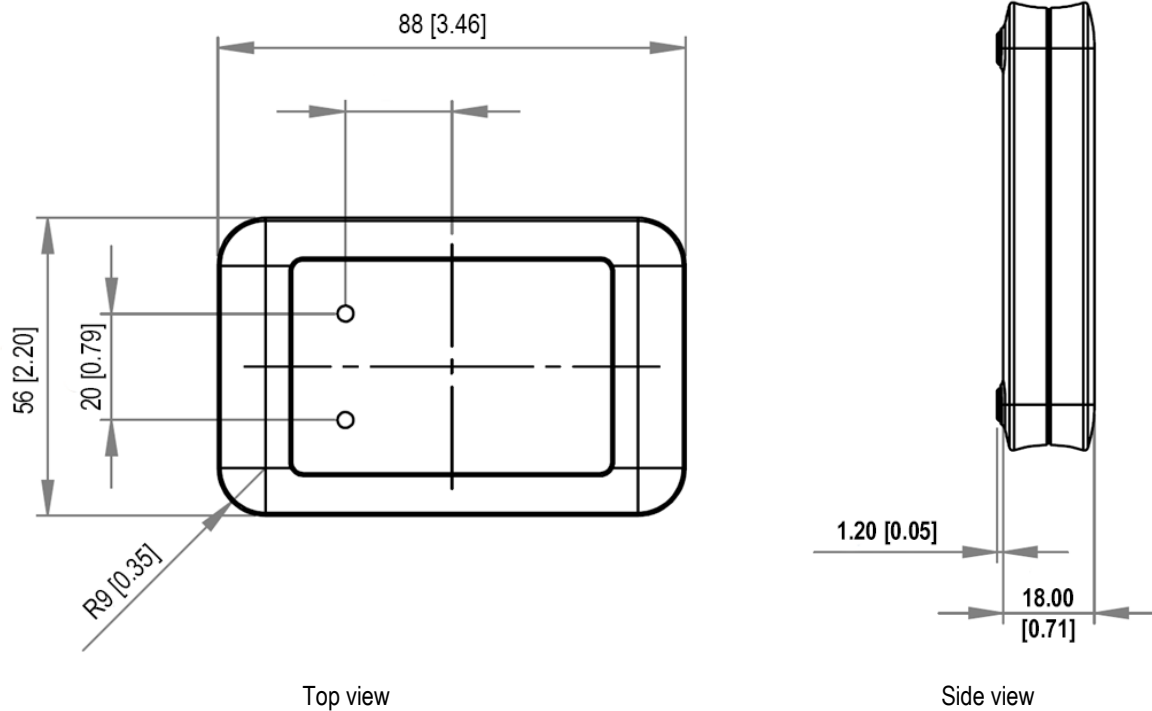
<sup>6)</sup>NFC Forum Tag 1 not supported <sup>7)</sup>UID + r/w public area <sup>8)</sup>125 kHz technology requires a Russian local test and import license from the ministry of Trade and Industry (MINPROMTORC). This license has to be in place before Elatec can accept any order to be shipped to Russia <sup>9)</sup>Hash value only <sup>10)</sup>Only emulation of 4100, 4102 <sup>11)</sup>Without encryption <sup>12)</sup>UID only, read/write on request

ORDER CODE(S)	<b>Readers with LEGIC SM-4200</b>	
	T4BT-BB2BEL6	USB Black
	T4BT-BB2WEL6	USB White
	T4BT-BR2BEL6	RS-232 Black
	T4BT-BR2WEL6	RS-232 White
	T4BT-BB2BEL6-P	USB Black, P option
	T4BT-BB2WEL6-P	USB White, P option
	T4BT-BR2BEL6-P	RS-232 Black, P option
	T4BT-BR2WEL6-P	RS-232 White, P option
	T4BT-BB2BEL6-PI	USB Black, PI option
	T4BT-BB2WEL6-PI	USB White, PI option
	T4BT-BR2BEL6-PI	RS-232 Black, PI option
	T4BT-BR2WEL6-PI	RS-232 White, PI option
	<b>Readers with LEGIC SM-4500</b>	
	T4BT-BB2BEL6-5	USB Black
	T4BT-BB2WEL6-5	USB White
	T4BT-BR2BEL6-5	RS-232 Black
	T4BT-BR2WEL6-5	RS-232 White
	T4BT-BB2BEL6-5P	USB Black, P option
	T4BT-BB2WEL6-5P	USB White, P option
T4BT-BR2BEL6-5P	RS-232 Black, P option	
T4BT-BR2WEL6-5P	RS-232 White, P option	
T4BT-BB2BEL6-5PI	USB Black, PI option	
T4BT-BB2WEL6-5PI	USB White, PI option	
T4BT-BR2BEL6-5PI	RS-232 Black, PI option	
T4BT-BR2WEL6-5PI	RS-232 White, PI option	

## ACCESSORIES

HOLDER(S)	HKSI-B	Snap-In Holder black
	HKSI-W	Snap-In Holder white
	HKBR-B	Bracket Holder black
	HKBR-W	Bracket Holder white
POWER SUPPLY	PWA-EU3	Power Supply (EU)
	PWA-US3	Power Supply (US)
	PWA-UK3	Power Supply (UK)
	PWA-JP3	Power Supply (JP)

DRAWING



Top view

Side view

All measures in mm [inch]

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