

RFID Readers -TWN3 Family

125kHz or 13.56MHz Contactless Readers/Writers



Seven TWN3 members

Two new TWN3 Members: Mifare NFC

Legic NFC

The family of TWN3 RFID transponder readers is designed for easy integration into various applications. It supports all major transponders from various suppliers like ATMEL, EM, ST, NXP, TI, HID, LEGIC, INSIDE etc. and ISO standards like ISO14443A including ISO14443A-4 (T=CL), ISO14443B including ISO14443B-4 (T=CL), ISO15693 and ISO18092 / ECMA-340 (NFC).

In order to achieve a maximum of flexibility, it is based on a modular design and combines a state-of-the-art reading performance. The device supports either USB or RS232 communication just in dependence on the connection cable. The family of TWN3 transponder readers is available in nine different versions: Each version as ready-to-connect desktop reader in a slim line black or white housing or as a OEM board (PCB) without housing for direct integration into embedded applications.

Secure Access Module (SAM) is supported to enhance the security and cryptography performance in some readers to perform secure transactions, e.g. for paying terminals etc.

Readers can be programmed with a script language for autonomous execution of even complex commands like login procedures, credit/debit functions and many more.

Worldwide certifications for worldwide sales:

WEEE, RoHS-II compliant, R&TTE, CE (Europe),

FCC (USA), IC (Canada), ACA (Australia / New Zealand), VCCI (Japan), SRRC (China)

Technical Data									
	TWN3 HID Prox	TWN3 Multi125	TWN3 Inditag	TWN3 Mifare	TWN3 Mifare NFC	TWN3 Multi ISO	TWN3 HID iClass	TWN3 Legic	TWN3 Legic NFC
Frequency	125 kHz			13.56 MHz					
Antenna	Aircoil			PCB Aircoil					
Housing	Material ABS UL94-V0, colour black or white								
Dimensions (L x W x H)	Desktop Reader: 88mm x 56mm x 18mm / 3.5inch x 2.2inch x 0.7inch OEM Board: 76mm x 49mm x 14mm / 3.0inch x 1.9inch x 0.6inch								
Power Supply	5V ± 10% via communication cable (USB); serial version requires external power supply								
Supply Current	50mA typ 140mA max	130mA typ 220mA max	160mA typ 220mA max	55mA typ 120mA max	65mA typ 120mA max	110mA typ 180mA max	220mA typ 250mA max	75mA typ 280mA max	140mA typ 200mA max
Temperature Range	Storage: -45°C up to +85°C (-49°F up to 185°F) Operating: -25°C up to +80°C (-13°F up to 176°F) ¹⁾								
R/W Distance	up to 100mm / 4inch (depending on transponder)								
Host Interface	USB or RS232, the OEM board supports both interfaces								
OS Support	Windows Vista, XP, 7 (32-/64-bit) and Linux								
Communication Parameters	USB: Full speed (12 MBit) RS232: 9.600 Baud, 8N1 (Default) – up to 57.600 Baud for Mifare NFC and Legic NFC								
Modes of Operation	USB keyboard emulation USB virtual COM port (bi-directional communication) Direct access to built-in RFID module (transparent mode)								
Special Features	The TWN3 family of transponder readers supports standalone operation, which can be widely influenced by Elatec's versatile scripting language. Multi ISO and Mifare NFC include socket for SAM Module.								
Supported Transponders	HID Prox EM4100 EM4102 EM4105 EM4200 EM4150 EM4350 EM4450 FDX-B HITAG 1, 2 HITAG S MIRO,Q5 T5557 T5567 T5577 TITAN UNIQUE ZOODIAC	EM4100 EM4102 EM4105 EM4200 EM4150 EM4350 EM4450 FDX-B HITAG 1, 2 HITAG S MIRO,Q5 T5557 T5567 T5577 TITAN UNIQUE ZOODIAC	Indala Flexpass	ISO14443A Mifare -Classic 1k, 4k - DESFire EV1 ³⁾ - Mini - Plus S ²⁾ ,X ²⁾ - Pro X ³⁾ - SmartMX ³⁾ - Ultralight - Ultralight C ⁴⁾ Legic Advant ⁵⁾ SLE44R35 SLE66Rxx	ISO14443A Mifare - Classic 1k, 4k, Mini - DESFire EV1 - Mini - Plus S, X - Pro X - SmartMX - Ultralight - Ultralight C SLE44R35, my-d move (SLE66Rxx), Legic Advant ³⁾ PayPass ³⁾ ISO14443B Calypso ⁶⁾ ,CEPAS ⁶⁾ ,Moneo ⁶⁾ Sony FeliCa ²⁾ , PicoPass ³⁾ , HID iCLASS ³⁾ SRI512, SRT512 SRI4K, SRIX4K ISO18092/NFC NFCIP-1: active+passive, NFC Forum Tag Type 1-4)	ISO14443A Mifare - Mini, Classic 1k, 4k - DESFire EV1 - Mini - Plus S, X - Pro X - SmartMX - Ultralight - Ultralight C SLE44R35, my-d move (SLE66Rxx), Legic Advant ³⁾ PayPass ³⁾ ISO14443B Calypso ⁶⁾ ,CEPAS ⁶⁾ ,Moneo ⁶⁾ SRI512, SRT512 SRI4K, SRIX4K ISO15693 EM4x33, EM4135, Tag-it, my-d vicinity (SRF55Vxx), ICODE SLI, M24LR16/64 ⁴⁾ , MB89R118/119 ⁵⁾ , HID iCLASS ³⁾ ,Legic Advant ⁵⁾	HID iClass ISO14443A ³⁾ ISO14443B ³⁾ ISO15693 ³⁾	Legic Advant Legic Prime ISO14443A ³⁾ ISO15693 ³⁾	Legic Advant Legic Prime ISO14443 A+B compatible to part 4 Mifare DESFire EV1 Mifare Plus Mifare SmartMX my-d move (SLE66Rxx) PayPass ³⁾ Mifare Classic ³⁾ Mifare Ultralight ISO15693 EM4035, Tag-it,my-d vicinity(SRF55Vxx) ICODE SLI Sony FeliCa ²⁾ NFC Forum Tag 2-4 PicoPass ³⁾ HID iCLASS ³⁾
Weight	Approx. 20g (without housing)								
Order Code									
OEM Board	ART11048	ART11046	ART12154	ART11050	ART13791	ART12441	ART11047	ART11049	ART13790
Desktop reader									
USB black	ART11229	ART11241	ART12469	ART11223	ART13529	ART12442	ART11235	ART11247	ART13857
USB white	ART11230	ART11242	ART12161	ART11224	ART13607	ART12443	ART11236	ART11248	ART13858
RS232 black	ART12457	ART12455	ART12459	ART12461	ART13861	ART12463	ART12465	ART12467	ART13859
RS232 white	ART12458	ART12456	ART12460	ART12462	ART13862	ART12464	ART12466	ART12468	ART13860

¹⁾ Operating temperature TWN3 HID Prox and TWN3 HID iClass: -25°C up to +65°C (-13°F up to 150°F) ²⁾ Support of security level 1 ³⁾ UID only ⁴⁾ without crypto ⁵⁾ V1.19
⁶⁾ UID only read/write on request

Accessories			
Order Code	ART13512	ART11493	ART12240
	Snap-in holder for TWN3/TWN4 desktop 	2.0m USB Type A cable for TWN3/TWN4 OEM PCB	2.0m RS232 DSUB 9 DC cable for TWN3/TWN4 OEM PCB
Order Code	ART14712	ART14713	ART14714
AC Wall Adapter	Europe	USA	AUSTRALIA
			UK

Drawing/Pin Out
Refer to document DS_TWN3 Reader Family Pinouts

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