MINI READER MIFARE NFC

13.56MHz Contactless Reader/Writer



Elatec's Mini Reader MIFARE NFC is designed for integration into machines, handheld computer or any other device. The focus has especially been set on size, low power, price and flexibility. Thanks to its compact dimensions, integration directly on a PC board is possible.

Outstanding features are: 4 user-configurable ports (to be configured as input or output), beeper support and an integrated high-performance antenna. The simple ASCII or Binary protocol enables quick software development cycles. All host communication is done via SPI or asynchronous serial TTL interface. The module offers positions for placement for two LEDs that can be controlled by software. An external Secure Access Module (SAM) is supported for enhanced security and cryptographic performance. This enables the application to perform secure transactions, e.g. payment terminals etc.

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RFID Systems

Key Features:

- 3.15 5.5 V DC
- Compact design (33x30x11mm) integrated antenna
- Serial TTL or SPI interface
- ASCII or Binary protocol
- 4 GPIOs
- Supports connection of ISO7816 compatible SAM cards
- Low Power (< 2µA)
- Industrial operating temperature: -25°C to +80°C
- Pin Compatible Downgrade from TWN4 MultiTech HF Mini Reader T4MR-F
- Step Model Data on request

Technical Data								
Housing	without							
Frequency	13.56 MHz							
Dimensions (L x W x H)	32.6mm x 30.1mm x 11.2mm / 1.28inch x 1.19inch x 0.44inch							
Power Supply	3.15 – 5.5 V DC							
Current Consumption	RF field off: 10mA							
	RF field on: typically 80mA							
	Power Down: < 2µA							
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)							
Communication	9600 Baud, 8N1 (Default) – up to 115200 Baud							
Parameters								
Relative Humidity	5% to 95% non-condensing							
Antenna	Integrated							
Read- / Write Distance	Proximity, depending on tag and environment							
Supported	ISO14443A: MIFARE Classic 1k & 4k, MIFARE Classic 1k & 4k EV1 ⁴), Mini, DESFire EV1 ³), Plus S&X, Pro X,							
Transponders	SmartMX, Ultralight, Ultralight EV1 ⁴⁾ , Ultralight C, NTAG2xx ⁴⁾							
	 SLE44R35, SLE66Rxx (my-d move), LEGIC Advant¹, PayPass² 							
	 ISO14443B: Calypso²⁾, CEPAS²⁾, Moneo²⁾, PicoPass²⁾, SRI512, SRT512, SRI4K, SRIX4K 							
	 ISO18092 / NFC: NFC Forum Tag Type 1-4 							
	Sony FeliCa ¹⁾							
Certifications	CE, RoHS-II compliant							
Weight	Approx. 4g							
Order Code	T3MR-FC1	CAB-U9	ТЗМК-F					
Description	Mini Reader	Cable	Development Board Mini Reader MIFARE NFC with					
	MIFARE NFC	Micro USB-USB A	reader T3MR-FC1 and					
			USB Cable CAB-U9					

1) UID Only 2) UID Only – read/write on request 3) AES only 4) r/w, enhanced security features planned

wing (Compon	ent Side)				Pinning
			Pin	Name	Description
~	25 . 4		1	RESET	Asynchronous reset
L.5			2	PWRDWN	Hard power down
			3	GND	Ground
16		4	4	VCC	3.3 – 5V
			5	RXD/MOSI	UART/SPI receiver input
			6	TXD/MISO	UART/SPI transmitter output
		38.1	7	SCK	SPI serial clock input
	· · · · ·		8	SS	SPI slave select input
			9	VSAM	3.0V regulated supply for SAM
		\square	10	SAM_IO	Bidirectional SAM I/O line
e			11	GPIO3	General purpose input/output 3
		8	12	GPIO2	General purpose input/output 2
			13	GPIO1	General purpose input/output 1
	32.6		14	GPIO0	General purpose input/output 0
witi Etw.			15	SAM_CLK	SAM clock output
Pin spacing 2,54mm			16	SAM_RST	SAM reset output

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