NANO MODULE MULTI ISO

13.56MHz Contactless Reader/Writer

Elatec's Nano Module Multi ISO is designed for integration into machines, handheld computers or any other device.
The focus has especially been set on size, 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 different sleep modes for lowest power consumption. The simple ASCII or binary protocol enables quick software development cycles. All host communication is done via serial TTL interface. The module is prepared for connection of a Secure Access Module (SAM) to achieve maximum flexibility and security features.

Pin Compatible Upgrade from Nano Module MIFARE (T3NM-M)

Technical Data

Housing	without
Frequency	13.56 MHz
Dimensions (L x W x H)	30.48mm x 25.40mm x 4mm / 1.20inch x 1.00inch x 0.15inch
Power Supply	5.0 V DC+/-10%
Current Consumption	Power down: <300uA
	RF field off: 20mA
	RF field on: typically 120mA, depending on antenna
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
Antenna	To be connected externally
Read- / Write distance	Proximity, depending on antenna and tag
Supported	▪ ISO14443A: MIFARE Classic 1k & 4k, MIFARE Classic 1k & 4k EV1[3], Mini, DESFire EV1, Plus S, X, Pro X, SmartMX, Ultralight, Ultralight C, Ultralight EV1[3], LEGIC Advant[1], PayPass[2], SLE44R35, SLE66Rxx (my-d move), NTAG2xx[3]
	▪ ISO14443B: Calypso[2], CEPAS[2], Moneo[2], PicoPass[2], SRI512, SRT512, SRI4K, SRIX4K
	▪ ISO15693: EM4x33, EM4x35, ICODE SLI, Tag-it, SRF55Vxx (my-d vicinity)[2], M24LR16/64, MB89R118/119, HID iCLASS[1], HID iCLASS SE/SR[1]
	▪ ISO18092 / NFC: NFC Forum Tag Type 1-4
	▪ Sony FeliCa[1]
Certification	RoHS-II compliant
Weight	Approx. 3g
Order Code	T3NM-U

[1] UID only   [2] UID only - read/write on request [3] r/w, enhanced security features planned

Schematically Picture (component side)
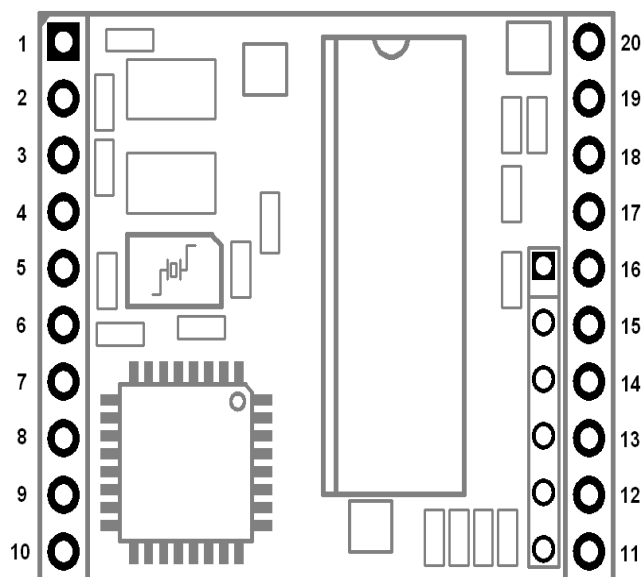
Pin spacing 2,54mm

Pinning

Pin	Name	Description
1	AntRX	Antenna receiver input
2	AntTX1	Antenna transmitter output 1
3, 20	VCC	5V
4, 6, 19	GND	Ground
5	AntTX2	Antenna transmitter output 2
7	SAM_Clk	SAM module clock
8	SAM_IO	SAM module data I/O
9	SAM_Reset	SAM module reset
10	NC	Not connected
11	RXD	RS-232 receiver input
12	TXD	RS-232 transmitter output
13	GPIO0	General purpose input/output 0
14	GPIO1/ Beeper	General purpose input/output 1, connection port for beeper
15	Reset	Asynchronous reset
16	NC	Not connected
17	GPIO2	General purpose input/output 2
18	GPIO3	General purpose input/output 3