Elatec’s Nano Module MIFARE is designed for integration into machines, handheld computer 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. Unique 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.
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 0.14inch

Power Supply
3.15 – 5.5 V DC

Current Consumption
Power down: < 300µA
RF field off: 2mA
RF field on: typically 80mA, 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 Transponders
- ISO14443A
- MIFARE: Classic 1k & 4k, Classic 1k & 4k EV1(4), DESFire EV1(1), Mini, Plus S(2), X(2), Pro X(1), SmartMX(1), PayPass(3), Ultralight, Ultralight EV1(5), Ultralight C(3)
- LEGIC Advant(ISO14443A)(1)
- SLE44R35
- SLE66Rxx (my-d move)
- NTAG2xx(4)

Certification
RoHS-II compliant

Weight
Approx. 3g

Order Code
T3NM-M

1) UID Only  2) Support of security level 1  3) Without crypto  4) r/w, enhanced security features planned

Schematically picture (component side)

<table>
<thead>
<tr>
<th>Pin</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AntRX</td>
<td>Antenna receiver input</td>
</tr>
<tr>
<td>2</td>
<td>AntTX1</td>
<td>Antenna transmitter output 1</td>
</tr>
<tr>
<td>3, 20</td>
<td>VCC</td>
<td>3.3 - 5V</td>
</tr>
<tr>
<td>4, 6, 19</td>
<td>GND</td>
<td>Ground</td>
</tr>
<tr>
<td>5</td>
<td>AntTX2</td>
<td>Antenna transmitter output 2</td>
</tr>
<tr>
<td>7, 8, 9, 10</td>
<td>NC</td>
<td>Not connected</td>
</tr>
<tr>
<td>11</td>
<td>RXD</td>
<td>TTL receiver input</td>
</tr>
<tr>
<td>12</td>
<td>TXD</td>
<td>TTL transmitter output</td>
</tr>
<tr>
<td>13</td>
<td>GPIO0</td>
<td>General purpose input/output 0</td>
</tr>
<tr>
<td>14</td>
<td>GPIO1/Beeper</td>
<td>General purpose input/output 1, connection port for beeper</td>
</tr>
<tr>
<td>15</td>
<td>Reset</td>
<td>Asynchronous reset</td>
</tr>
<tr>
<td>16</td>
<td>Enable</td>
<td>Hardware power up/down</td>
</tr>
<tr>
<td>17</td>
<td>GPIO2</td>
<td>General purpose input/output 2</td>
</tr>
<tr>
<td>18</td>
<td>GPIO3</td>
<td>General purpose input/output 3</td>
</tr>
</tbody>
</table>

Pin spacing 2.54mm