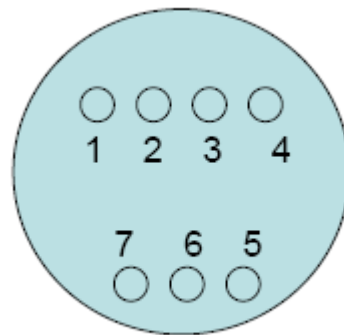


1 Pin arrangement:

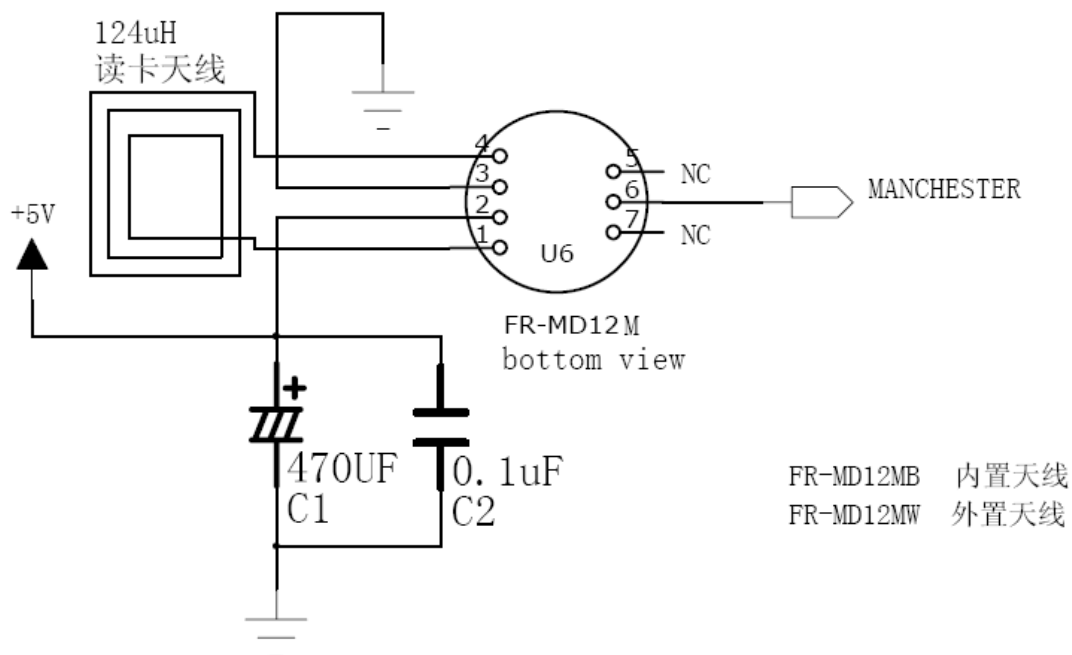


Bottom view

2 Pin description

PIN NUMBER	FUNCTION FR-MD12MB	FUNCTION FR-MD12MW
1	NC	ANT1 124uH
2	Power Vdd	Power Vdd
3	Common Vss	Common Vss
4	NC	ANT2 124uH
5	NC	NC
6	Manchester code out	Manchester code out
7	NC	NC

3 FR-MD12M Type application



4 DC characteristic

Power Supply Type	Linear Type recommended
Operating Voltage Range	3.3–6VDC With polarity protection
Maximum Input Current	<60mA (Average at 5V)
RF Modulation	ASK
Card Read Distance:	Min 40- 60mm FOR FR-MD12MB Min 80- 90mm FOR FR-MD12MW Depending on transponder and antenna.
Operating Temp. Range:	-31 °C to 63 °C (-25 F to 145 F)
Operating Humidity:	0 to 95% (non condensing)
Dimensions:	12mm Radius, 9.0mm Depth

5 Voltage Levels

Voltage Levels	Data Outputs (Data 1 and 0)	
	Minimum	Maximum
Voh	Power Supply - 0.7	VDD
Vol	VSS	0.7 V
Ioh	4.5	5.5 mA
Iol	-1.0	-10 μ A

6 All size of the module:

