

## M302 mifare encoder communication protocol

### Data stream format:

Data Stream Length (1BYTE) Command (1BYTE) Data D(1-20 BYTES) CRC(1 BYTE)

### Com port setting :

9600,8,n,1

### Remark : in below description

-> means Host send data to module

<- means module send data to host

### Function description and example

#### 1) enquiry if module exist or not

->03 12 00 15 (Remark: 03 is length, 12 is command , 00 is data , 15 is CRC)

<-02 12 14

#### 2) active buzzer

->02 13 15

<-02 13 15

#### 3) Enquiry card

->03 02 00 05 Enquiry card by Idle mode (data=01, means all cards in RF area, data=00 means find Idle card)

<-03 02 01 06

#### 4) Anticollision

->02 03 05

<-06 03 32 78 13 E8 AE (module return card serial number is: 327813E8)

#### 5) select card

->02 04 06

<-02 04 06

#### 6) Stop card

->02 09 0B

<-02 09 0B

#### 7) download keyA or keyB

->0A 0B 00 0F FF FF FF FF FF FF 1E download sector15 KEY

(Parameter: download mode + sector + key; mode=0, download KeyA; 01 means KeyB)

<-02 0B 0D

#### 8) read data

->03 06 00 09 read block 00 (parameter: block)

<-12 06 32 78 13 E8 B1 08 04 00 62 63 64 65 66 67 68 69 A6

#### 9) write data

->13 07 04 11 11 11 11 11 11 11 11 11 11 11 11 11 2E

write data to block 04(block0 in sector1) (parameter: block+data)

<-02 07 09

#### 10) verify key

->04 05 01 00 0A verify sector 01 password with default KEYA

(parameter: sector+verify mode; verify mode: 00 -means default KEYA, 01 means default KEYB, 02 means directly KEYA, 03 means directly by KEYB)

<-02 05 07

#### 11) block operation

->09 08 01 04 04 00 00 00 01 1B block 04 value add 0x00000001

(parameter: operation mode+source block address+destination block+ value)

<-02 08 0A