## K Series Read Write Module Communication Protocol

### 一、Summary：

Applicable card type：S50,S70 卡。

Adopt TTL communication mode，Baud rate is 9600，1-bit starting bit，8-bit data bit，1-bit end bit。

### 二、The program uses serial communication, command format is as follows：

### Read only mode 1

Send：AA BB 06 00 00 00 01 06 02 05

Return：AA BB 06 00 00 00 01 06 00 07

note：02 Enter the read-only module, and the output format is 10 decimal physical UID（Forward card number）；

### Read only mode 2

Send：AA BB 06 00 00 00 01 06 03 04

Return：AA BB 06 00 00 00 01 06 00 07

note：03 Enter the read-only module, and the output format is 4-byte physical UID reverse（Hexadecimal card number）；

### Read only mode 3

Send：AA BB 06 00 00 00 01 06 04 03

Return：AA BB 06 00 00 00 01 06 00 07

note：04 Enter the read-only module, and the output format is 10 decimal physical UID（Reverse card number）；

### Read only mode 4

Send：AA BB 06 00 00 00 01 06 05 02

Return：AA BB 06 00 00 00 01 06 00 07

note：05 Enter the read-only module, and the output format is 4-byte physical UID forward（Hexadecimal card number）；

### Read-write mode：

### 1、Read sector content switching.

Send：AA18 00 01 55’ Read the content mode in the sector

Return：AA BB 06 00 00 00 01 06 00 07

Send：AA18 00 00 55’ Return to normal mode

Return：AA BB 06 00 00 00 01 06 00 07

### 2、Issue the sector number and sector key.

Send： AA 19 01 02 FF FF FF FF FF FF 55

Return：AA BB 06 00 00 00 01 06 00 07

“02”is the sector number（0~16，Hexadecimal number）10=0A 11=0B 15=0F

“FF FF FF FF FF FF”is the sector key，If the software does not issue this command，The default sector number is "2”，Key defaults to“FF FF FF FF FF FF”。

### 3、Read and write data Format - Swipe card upload.

Read and write data format 52 bytes：

4-digit card number（Output format 4-byte physical UID reverse（Hexadecimal card number））+16X3 sector contents

### 4、Read and write data Format - Write back card.

Send： AA 20 52 bytes 55

Write data format 52 bytes：

4-digit card number（Output format 4-byte physical UID reverse（Hexadecimal card number））+16X3 sector contents

例如：12 34 56 78 ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff

ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff

### Switch the read/write mode process：

First send 1, then 2. After swiping the card, the card number is uploaded in the format of 3.Write back the card according to the command of 4.

Respond：

Return with success：01

**Failure Return：02-FF**

**02：No card found.**

**03：The write back card number is inconsistent with the physical card number.**

**04：Write back failed.**