Long-distance ISO11784/11785 Reader

1. introduction

This is Long-distance ISO11784/11785 reader. This reader supporting animal ear tags using the reading distance is 45cm±10%.

1.1　Pic-1

Feature：

1.　Support read operations on the EM4305,S256,T5577 according to ISO11784/ISO11785;

2.　Support ISO11784/5 Standard;

3.　Size:260mm X 260mm X 35mm;

4.　Operating voltage: 15V-DC ,operating current: <150mA;

5.　UART ,RS232 ,RS485 Multiple interfaces can be options;

6.　Long-distance: Read LF Animal tag more than 45cm;

7.　High stability: can automatically adapt to the environment;

8.　High reliability :ESD protection, anti-surge protection

9.　Application area :pig management, cattle management, sheep management, parking management.

2. Hardware description

Red ■■■■■■■■■■ DC12V ~18V
Black ■■■■■■■■■■ earth wire
Yellow ■■■■■■■■■ RS485 A（R+）
Green ■■■■■■■■ RS485 B（R－）
Brown ■■■■■■■■ reserve
White ■■■■■■■■■ reserve

This is the string the transport format .Default RS485 address is 0x01, baud rate of 19200, 8 data bits, 1 stop bit, no parity bit ;Buzzer opens by default.

1. Read -Read command

PC ->Send data：[R0108]

'[' Data frame header；

'R' Command type code , 'R' is read a data command

"01" is address，scope 0~FF；

"08" BCC (Verification code)，Before the BCC code of the ASCII code of the character value Exclusive-or operation，BCC = 0x5B ^ 0x52 ^ 0x30 ^ 0x31 = 0x08（Results expressed in characters in hexadecimal）；

']' End mark。

-> PC

Reader has read tag data ,return <R010084031ECD07D90861>

Reader does not read tag data, or the data has been read,return:<R01016E>

 '<' Data frame header:

'R' Command type code;

"01" address，scope 00~FF;

"00" Return status，"00" read success,"01" Read failed;

"84031ECD07D908"tag data;

"61" BCC Verification code，Before the BCC code of the ASCII code of the character value Exclusive-or operation;

'>' End mark。

2. Setting -Setting RS485 Address command

PC -> send data：[S010F7F]

'[' Data frame header；

'S' Command type code；

"01" is RS485 slave unit drive address，scope 0~FF；（* Note: add settings command from the slave unit device address will be ignored, so setting the slave unit device address can only be connected to a single device to operate, in the network if you use this command from the slave unit device on the bus as a whole are set to the same address) "0F" is the address you want to modify,，scope 0~FF；

"7F" BCC Verification code，Before the BCC code of the ASCII code of the character value Exclusive-or operation ,BCC = 0x5B ^ 0x53 ^ 0x30 ^ 0x31 ^ 0x30 ^ 0x46 = 0x7F（Results expressed in characters in hexadecimal）；

']' End mark。

LDI-A04 -> PC

Set successfully ,Return：<S01006E>

Set failed , Return：<S01016F>

'<' Data frame header；

'S' Command type code；

"01" is address，scope 00~FF；

"00" return state，"00" Set successfully,"01" Set failed；

"6E" BCC Verification code, Before the BCC code of the ASCII code of the character value Exclusive-or operation；

'>' End mark

3. Beep - Set buzzer command

PC -> LDI-A04

Turn off beep，send data: [B010018]

Turn on beep ， send data: [B010119]

'[' Data frame header;

'B' Command type code；

"01" is address，scope 0~FF；

"00" Set the beep status，"00"Turn off beep，"01"Tunn on beep；

"18" BCC Verification code, Before the BCC code of the ASCII code of the character value Exclusive-or operation；（Results expressed in characters in hexadecimal）

']'End mark

LDI-A04 -> PC

Set successfully,Return:<B010018>

Set failed, Return: <B010119>

'<' Data frame header；

'B' Command type code；

"01" address, scope 00~FF；

"00" return status，"00"read successfully，"01"read failed；

"18" BCC Verification code, Before the BCC code of the ASCII code of the character value Exclusive-or operation；

'>'End Mark.

4. Default -To restore the default setting command

PC -> LDI-A04

Send data：[D011E]

'[' Data frame header;

'D' Command type code；

"01" is address，scope 0~FF；(This command as same "2" address set the command，will ignore addresses,So operation only single device when connecting)

 "1E" BCC Verification code, Before the BCC code of the ASCII code of the character value Exclusive-or operation；

']' End mark。

LDI-A04 -> PC

Set successfully，Return<D010079>

Set failed ，Return <D010178>

'<' Data frame header;

'D' command type code;

"01"address, Scope 00~FF；

"00" Return state，"00"read successfully"01"read failed；

"79" BCC Verification code, Before the BCC code of the ASCII code of the character value Exclusive-or operation;

'>' End mark