

### Interface protocol (modification)

9600 bit, with start and stop bit, 8 bit transmitting, without parity check.

### The communication protocol from SCM to PC

#### Protocol 1.: data transmitting protocol

Identification code		data		
hex		BCD code		
A5	0D			
A5	06			

The first byte fixed at A5, which is data identification code.

The following is BCD code for 2 byte(data display) or 3 byte(time).

Time style: 0A5H + 06H + 3 byte data

2 kinds of data style: Renovating data style ---0A5H + 0DH + 2 byte data + A5H + 0BH

Renovating bargraph style ---0A5H + 0DH + 2 byte data + A5H + 0CH

The indicated bargraph segments are calculated according to 2 byte data and current range.( the last bit of BCD is decimal fraction).

#### Command and function:

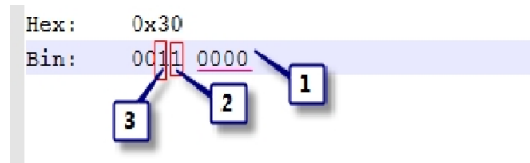
	hex	indicator	Data range	Available reading	
A5H	1BH	dBA	0-130.0 dB	0.1 dB	dBA / dBC only one can be displayed
A5H	1CH	dBC	0-130.0 dB	0.1 dB	
A5H	02H	FAST	FAST/SLOW only one can be displayed		
A5H	03H	SLOW			
A5H	04H	MAX	MAX/MIN only one can be displayed or non of them displayed		
A5H	05H	MIN			
A5H	06H	TIME	1:00:00—12:59:59	Display and renovating time, date, year, month etc.	
A5H	07H	OVER	Display OVER bargraph and current measured readings		
A5H	08H	UNDER			
A5H	0ffH	hold	PC only receive command but not display HOLD symbol		
A5H	0AH	REC	Automatically Saving function ( A5H 1AH cancel REC )		
A5H	0BH	Display renovating data and bargraph			
A5H	0CH	Display renovating bargraph but not data			
A5H	0DH	Display measured readings with decimal all the time.			
A5H	0EH	CANCEL MAX/MIN			
A5	11H	CANCEL OVER& UNDER			



Data format example:

1COUNT TIME: A5 06 30 54 27

0x30 REPRESENT HOUR h = 0x30:



1 ---- single digit hour

2 ---- tens digit hours

3 ---- morning (AM) or afternoon (PM)

Formula calculated as follows:

$hour = h \& 0x0f + ((h > 4) \& 0x01) * 10 + ((h > 5) \& 0x01) * 12$

special:

if (hour == 24)

hour = 12;

That is, when the calculated time of 24, the actual 12

If the time is 24, actually is 12.

0x54 represents 54min minutes

0x27 represents 27sec seconds

Over time so the time is: 22:54:27

2, other fields please check below.

For other details, please refer to the table, such as (example)

A5 1B ---- dBA

A5 4B ---- range (50 --- 100 dB)