DL-4100/DL-4200 interface protocol

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 / d BC only one c an 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 on e can be displayed or non of them displayed		
A5H	05H	MIN			
A5H	06H	TIME	1:00:00—12:59:59		Display a nd renovating tim e, 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			
		range			
A5H	10H	30 Db-----80 dB			
A5H	20H	50 dB-----100 dB			
A5H	30H	80 dB-----130 dB			
A5H	40H	30 dB-----130dB display AUTO at the same time			

Protocol 2 :
In PC interface protocol, the received data should be managed as following:
1. according to received data and measured range, calculating and display the bargraph segements (bargraph segements are 51)˜
2. Switchable received data at anytime, when to receive the data, displaying the Max/Min noise,

average value and opposite time, with automatic saving functiuon.

3. Input the data to access or excel table
4. change it to graph
5. choosing COM jack, bit, start bit and 8 bit transmitting.
6. Transmitting 5AH 0ACH reading DATA LOGGER receiving 0DDH start data analyzing ˜ with saving or not function˜

The communication protocol from SCM to PC

The command style of PC:
Command and function:

command	function
33H	Power off
55H	Send out rec command˜ cancel rec command˜
11H	display max˜ display min˜ cancel MAX/MIN˜
77H	Display FAST˜ display SLOW˜
88H	Range Switch
99H	Send out dBA command˜ send out dBC command˜
0ACH	DATA LOGGER read function

DATA LOGGER protocol

1. data receiving

BBH	XH	XL	aa/cc	year	month	date	hour	minute	Sec.	Sampling rate	ACH	data

BBH	Start signal
XH/XL	Data volume
AAH/CCH	DBA&DBC
ACH	Start receiving data
DDH	Over symbol