1. Communication protocol(V5.1)

1.1 Communication settings(for Comm port)：

Data format：

1 Start bit + 8 data bits + 1 stop bit， odd；

Baudrate ：

19200 baud

1.2 Real time data sent to PC from Pulse Oximeter：

DATA：5 bytes in 1 package，60 packages/second，bit 7 stand for synchronization。

byte	bit	content
1	0～3	Signal strength for pulsate(0～8)
	4	1＝searching too long，0=OK
	5	1＝dropping of SpO2，0=OK
	6	1＝beep flag
	7	Synchronization,always be 1
2	0～6	pulse waveform data
	7	synchronization，always be 0
3	0～3	bar gragh (stand for pulsate case)
	4	1＝probe error，0=OK
	5	1＝searching，0=OK
	6	bit 7 for Pulse Rate
	7	synchronization，always be 0
4	0～6	bit 0~bit 6 for Pulse Rate
	7	synchronization，always be 0
5	0～6	bit 0~bit 6 for SpO2
	7	synchronization，always be 0

1.3 Storage data sent to PC from Pulse Oximeter：

Data format： 3 bytes/package， the first 3 packages stand for the beginning time of

storage ,the following is the total bytes of Pulse Rate and Spo2 data and the left are Pulse Rate and SpO2 value.

1.3.1 the format of beginning time

byte	bit	content
1	0～7	always be 0xF2
2	0～6	hour
	7	synchronization，always be 1
3	0～6	minute
	7	synchronization，always be 0

1.3.2 the total bytes of PR and Spo2 data:

byte	bit	content
1	0～3	bit14~17 for the bytes
	4~6	always be 0
	7	synchronization，always be 1
2	0～6	bit7~13 for the bytes
	7	synchronization，always be 1
3	0～6	bit0~6 for the bytes
	7	synchronization，always be 0

1.3.3 the format of Pulse Rate and SpO2 data:

byte	bit	content
1	0	bit 7 for Pulse Rate
	1～3	synchronization， always be 0
	4～7	synchronization，always be 1
2	0～6	bit0~bit6 for Pulse Rate
	7	synchronization，always be 1
3	0～6	bit0~bit6 for SpO2
	7	synchronization，always be 0