

**Communication protocol (RS232 serial port):**

- ◆ **Communication setting: baud rate: 9600 (fixed), data bit: 8 bits, stop bit: 1 bit**
- ◆ **Communication data package format**

One frame data contains 18 bytes in total		
Start bit	1Byte (0xAA)	
Life and position	1Byte	
Data bits	14Byte	
Check bit	2Byte	
Details of frame data bytes		
Data bytes	Data description	value
Data byte 1	Start bit	0xAA
Data byte 2	Command bit	0x01: control command 0x02:read back command
Data byte 3	Set voltage high byte	Set voltage value *100/256
Data byte 4	Set voltage low byte	Set voltage value *100%256
Data byte 5	Set current high byte	Set current value *1000/256
Data byte 6	Set current low byte	Set current value *1000%256
Data byte 7	Set OVP high byte	Set OVP value *100/256
Data byte 8	Set OVP low byte	Set OVP value *100%256
Data byte 9	Set OCP high byte	Set OCP value *1000/256
Data byte 10	Set OCP low byte	Set OCP value *1000%256
Data byte 11	Read back voltage high byte	Read back voltage value * 100 / 256
Data byte 12	Read back voltage low byte	Read back voltage value * 100% 256
Data byte 13	Read back current high byte	Read back current value * 1000 / 256
Data byte 14	Read back current low byte	Read back current value * 1000% 256
Data byte 15	Output control byte	Bit7: output control Bit6: independent output Bit5: series output Bit4: parallel output Bit3: reserved Bit2: reserved Bit1: disarm alarm Bit0: lock control

Data byte 16	Working status byte	Bit7: CV status Bit6: CC status Bit5: OVP status Bit4: OCP status Bit3: OHP status Bit2: reserved Bit1: reserved Bit0: reserved
Data byte 17	Checksum high byte	First 16byte cumulative sum / 256
Data byte 18	Checksum status byte	Top 16byte total% 256

◆ **Communication process**

The PC sends 1 frame of data to the power supply, totaling 18 bytes. The data is filled with corresponding start bit, command bit, set voltage value, set current value, OVP set value, OCP set value, output control byte and check byte.

After the power supply receives the data, it will verify the data. After the verification is qualified, it will set the current power parameters and backfill the corresponding parameters to return 18 bytes of data to the PC. the PC can check the current status of the power supply through each byte of data in the data package.